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Post-basic Education and Skill Development in India

Participation, Skill Training and Financing

Geetha Rani Prakasam

National Institute of Educational Planning and Administration

17-B, Sri Aurobindo Marg, New Delhi-110016, INDIA

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17-B, Sri Aurobindo Marg, New Delhi - 110016
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Post-basic Education and Skill Development in India
Participation, Skill Training and Financing

Geetha Rani Prakasam*

"Give me just one generation of youth, and I'll transform the whole world"

Vladimir Ilyich Lenin

Abstract

This paper makes an effort to compare the structure of the education system delineated in the National Education Policy (2020) with that of the previous NEP (1986) while simultaneously locating the issue of the education of youth in the relevant context. Subsequently, keeping in mind the equitable access of youth in education, we examine the participation of youth in education. It is quite evident that not every youth of India gets equitable access to good quality education in the upward movement from elementary schooling to secondary, and further from secondary to post-secondary levels of education. These processes capture the extent of out-of-school youth by analysing the transition rates, drop-out rates and performance of the youth in education along with the results of secondary and senior secondary school-leaving examinations across gender and caste groups. In this backdrop, we describe in this paper, the vision and challenges of Technical and Vocational Education and Training (TVET) under the following two broad areas: (i) TVET, and (ii) Skill India Initiatives. Further, the paper examines the crucial aspects of financing of education and categorically notes the declining level of 'State' funding, thereby paving for the expanding private sector involvement in educational spaces for youth. With increasing digitalisation of the world in the fourth revolution, digital knowledge and literacy play a vital role in the education and training of the youth. We find an alarming gap across states and gender in the acquisition of digital literacy skills among youth in India. With a broader understanding of these issues, challenges, and opportunities in the sphere of education of the youth, this paper suggests certain crucial policy measures for promoting better education among youth.

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I. Introduction

Education opens up numerous opportunities and improves life chances. The role of education, as emanating from the Capability Approach[1] is multiple and complex. Education is referred to as a foundation for other capabilities because of its role in promoting a concrete set of basic learning outcomes (Unterhalter, 2002). Education also helps to expand the substantive freedom of people, enabling them to live the life they value and to enhance their real choices. Education is a means and an end in itself for realising these life choices, which are shaped by the life chances. The inter-connectedness of teaching, learning, and human development pave the way for both soft and hard skills that are inculcated in the development or the capability enabling process. In other words, education enables the recipients to develop abilities or skills that help them think critically and creatively, solve problems, make informed decisions, cope with and manage new situations, and communicate effectively. Thereby, the contents, processes, and contexts of education must be of such a high quality that it could help convert specific learning outcomes into capabilities (Hoffman and Adams, 2005).

UNESCO affirms that the post-2015 development agenda of education should have clear goals and should articulate them publicly. This is because education plays an important role in achieving the main Sustainable Development Goals (SDGs) aimed at eradicating poverty, and building peace and democracy as a means of global citizenship. Without such an investment, the SDGs of ensuring quality education (Goal 4) and decent work (Goal 8) would remain out of reach for the youth in India. Adequate public provisioning for education is a major factor contributing towards equity and efficiency of education systems for achieving the SDGs.

[1] Capabilities are the real freedoms that people have for achieving their potential for doings and beings. In this sense, real freedom means that one has access to all the needed means needed for achieving that doing or being if one wishes to. This entails not merely the formal freedom to do or be something, but the substantial opportunity to achieve it. In this way, the capability approach changes the focus from the means or the resources that people have and the public goods they can access to the ends or what they are able to do and be with those resources and goods (Robeyns and Byskov, 2021).

In this backdrop, the rest of the paper is organised under four broad themes as follows:

A. **Post-basic Education in India: Access, Enrolment and Transition:** This part of the paper covers Sections II to V. It analyses the structure of the education system in the National Education Policy (NEP) (2020), providing a comparative perspective with the previous NEP, 1986, in Section II. Keeping the issue of equitable access to education in view, Section III examines the participation of youth in education, reflected through the Gross Enrolment Ratio (GER) among youth and their literacy levels across the various states in India. Not every youth benefits from equitable access to good quality education in the upward movement from elementary schooling to secondary and further to post-secondary levels of education. These processes of education are examined in Section IV, which captures the extent of out-of-school youth by analysing the transition rates and drop-out rates among them. The final outcome of education or the performance of youth in education is captured in Section V, which includes an analysis of the results of secondary and senior secondary school-leaving examinations across gender and caste groups.

B. **Technical and Vocational Education and Skill Creation:** This section discusses ways of integrating technical and vocational education with mainstream higher education, as also delineated in the NEP. Section VI examines the vision and challenges of Technical and Vocational Education and Training (TVET) under two broad areas: (i) TVET, and (ii) Skill India Initiatives. This further discusses ways of integrating it vertically with mainstream higher education, as envisaged in the NEP, 2020.

C. **Allocation of Public Funds and Private Financing of Education:** This part examines the crucial aspects of education financing by assessing the inter- and intra-sectoral allocation and per student expenditures in Section VII. The decline in 'State' funding, which is paving the way for the expanding private sector in educational spaces for youth is analysed in Section VIII.

D. Digital Literacy among Youth: Status, Constraints and Opportunities: In view of the increasingly digitalised world in the fourth revolution, digital knowledge and literacy play a vital role in the education and training of the youth. This aspect is examined in Section IX under the sub-head 'youth digital literacy'.

With the earlier sections fostering a broader understanding of the issues, challenges, and opportunities for education among the youth, the last section presents the way forward with policy implications.

PART A

Post-Basic Education in India: Access, Enrolment, Transition, and Performance

II. The Structure of Education in India

The secondary education cycle now combines the two sub-levels, secondary and senior secondary. The national or state boards of examinations conduct examinations at each sub-level of secondary education. The official age group of these children is 14 to 17 years. Vocational education is provided in two ways, as part of the stream of senior secondary education and in vocational education through the Indian Institutes of Industrial Training and Polytechnics. Students who pass the senior secondary examinations become eligible to apply for higher education. However, only a good academic record, reflected in the marks obtained helps students secure a place in higher educational institutions.

The education system in India comprises sequential schooling, covering broadly three levels of education, viz., elementary, secondary, and higher education (see Figure 1). Post the advent of NEP, 2020, elementary education now consists of the Middle, Preparatory and Foundational levels, which cover the age groups of 11-14, 8-11, and 3-8 years, respectively. Prior to that, elementary education comprises two sub-levels, viz., primary and upper primary education, covering the age groups of 6-10

and 11-13 years, respectively. A 'no detention policy' was followed up to the elementary level of education[2] (see Figure 1).

Figure 1

Structure of Education in India and in the New Education Policy

Levels	Existing Age (years)
Higher Education	18-23
Senior Secondary	17-18
Secondary	15-16
Upper primary	11-14
Primary	6-10
Pre-Primary	5

New Structure NEP Age (years)	Levels
Flexible	Higher Education
14-18	Secondary
11-14	Middle
8-11	Preparatory
3-8	Foundational

Source: Developed on the basis of NEP, 1986 and NEP, 2020.

[2] The Constitution of India enacted in 1950 and the Right to Free and Compulsory Education of the Children Act, 2009, mandates the provision of free and compulsory elementary education for children in the age group of 6-14 years.

Higher education in India is quite diversified (see Figure A1 in the Annexure). The structure of higher education in India consists of universities, research institutions, and deemed-to-be universities at the highest level. The next level below this is that of colleges by disciplines such as general arts and science, and professional institutions, including engineering, management, medical, agriculture, and law colleges. These can be broadly grouped as undergraduate courses (UG) in arts, science, and commerce colleges, commonly known as non-professional courses. These courses are of three years duration leading to the acquisition of a Bachelor's degree, while the duration of professional/technical UG courses in medicine, engineering, law, and education varies from two to six years, depending upon the discipline and course. The NEP 2020 has envisaged a flexible pathway of learning in the higher education system, with multiple entry and exit, including credit transfers across higher educational institutions by recognising the credits obtained both within India and outside the country. Besides this regular system of higher education, students can enrol in open universities. The official age group of higher education ranges from 18 to 23 years.[3]

Data Sources

This paper uses secondary data published by the Ministry of Education (MoE). These publications include Selected Educational Statistics, UDISE, Secondary Education Management Information System (SEMIS), UDISE Plus, Selected Statistics on Higher and Technical Education, All India Survey of Higher Education, Results of High School and Higher Secondary Examinations, and Selected Educational Statistics and Analysis of Budgeted Expenditure on Education. Other data sources such as Economic Surveys of India published by Ministry of Finance, RBI, and Central Statistical Organisation have also been used. Further, the paper uses the NSO data of the 71st and 75th Rounds on Social Consumption on Education, and the Periodic Labour Force Surveys (PLFS).

[3] However, the NSSO on Participation in Education in its 64th and 71st Rounds considered the age group up to 29 years.

III. Youth Participation in Education

Youth education, covering the secondary and tertiary levels, has a significant effect on the redistribution of income, growth, and poverty reduction than basic education. In the techno-savvy and knowledge-driven globalised economy, the demand for youth having acquired a minimum level of secondary education would be quite high as the young graduates are amenable to training as a labour force in consonance with the requirements of the globalised local markets. It is because effective secondary schooling introduces them to formal reasoning, abstract problem-solving skills and critical thinking as well as its occupationally relevant content, secondary education, promotes the development of skilled and knowledgeable youth with a crucial role to play access not only to the national but also to the global economy (Lewin and Caillods, 2001). The National Youth Policy (2014) aims to build system capacity and quality, and promote skill development and lifelong learning. In order to attain these two priorities, the education of youth plays a critical role.

The expansion of secondary schools cannot be seen in isolation as it has both forward and backward linkages with other sub-sectors of education, especially the lower levels of school education. More importantly, a high degree of achievement in elementary education is a pre-requisite for the growth of secondary education. The Gross Enrolment Ratio[4] (GER) reflects the level of educational development and denotes the increasing variations across levels of education. At the secondary level, the GER increased from 19.3 to 78.7 per cent during 1990-91 to 2019-20 (see Table 1). On the other hand, at the higher secondary level, the corresponding increase was relatively less, that is, from 28 to 51 per cent from 2004-05 to 2019-20. A welcome change can be noted over the last three decades with the narrowing down of gender disparities in GERs across various levels of education. However, the NEP, 2020, aims at universalising participation in school education by 2030. It translates into a target of 100 per cent GER to be achieved in school education by 2030 (NEP 2020, Section 3,

[4] The Gross Enrolment Ratio is defined as the enrolment at a particular level of education as a ratio of the eligible age group among the child population for the corresponding level of education.

Para 3.1). It may be noted that as of 2019-20, only 50 per cent of the school-going children covered.

There are a number of key challenges in achieving this target. The successful completion of schooling and the actual learning are influenced by numerous factors. Such factors often affect the social demand for education (that is, the demand side factors) as well as the quality of educational provisions and outcomes (that is, the supply-side factors), and consequently, influence the levels of participation in school education. These factors include: (i) poverty,[5] income inequality, and other structural inequality; (ii) higher private cost of pursuing schooling; (iii) information asymmetry;[6] (iv) uneven physical and social access to schooling opportunities; (v) low quality of learning outcomes in school education; (vi) the growing size and share of the private sector; (vii) relatively low growth in public expenditure on education; (vii) system-related factors, including teacher accountability related issues; and (viii) the likely lower rate of growth of the economy in the immediate future due to the COVID-19 pandemic, which has a significant impact on the level of social sector expenditure besides the huge learning loss that children have to grapple with.

[5] In 2011-12, around 22 per cent of the total population were living below the national poverty line (Gaur and Rao, 2020).

[6] Generally, households with low Socio-Economic Status are poorly informed about the benefits of education, or are not on the same page as that of the policy planners about the benefits of education.

Table 1

GER in Secondary and Higher Education

	Secondary			Higher Secondary			Secondary Combined			Higher Education		
	Boys	**Girls**	**Total**	**Boys**	**Girls**	**Total**	**Boys**	**Girls**	**Total**	**Boys**	**Girls**	**Total**
1990-91*	--			--			33.9	10.3	19.3	--		5.1
2001-02*							38.2	27.7	33.3	9.3	6.7	8.1
2004-05	57.4	45.3	51.7	30.8	24.5	27.8	44.3	35.1	39.9	11.6	8.2	10.0
2005-06	57.6	46.2	52.2	31.4	25.2	28.5	44.6	35.8	40.4	13.5	9.4	11.6
2010-11	69.2	60.9	65.2	42.3	36.2	39.4	55.7	48.5	52.2	20.8	17.9	19.4
2011-12$	69.0	63.9	66.6	47.6	43.9	45.9	58.8	54.5	56.8	22.1	19.4	20.8
2012-13	67.9	67.4	67.7	43.9	43.2	43.6	55.9	55.3	55.7	22.3	19.8	21.1
2014-15^	76.4	77.5	76.9	52.5	52.6	52.5	64.5	65.0	64.7	24.5	22.7	23.6
2015-16	78.6	80.1	79.3	55.4	56.1	55.7	67.0	68.1	67.5	25.4	23.5	24.5
2016-17	78.5	80.3	79.3	51.1	51.7	51.4	64.8	66.0	65.4	26.0	24.5	25.2
2019-20	78.9	78.4	78.7	50.5	52.4	51.4	50.5	64.7	65.0	26.9	27.3	27.1

Note: -- not available; * information on enrolment ratios by secondary and senior secondary is available only from 2004-05 onwards. ^SEMIS for secondary education and $ AIHS for higher education.

Source: Education in India; Selected Educational Statistics, Selected School Statistics; *DISE data for school education from 2012-13 onwards: ^ UDISE+ for 2019-20.

The GER at higher education increased dramatically from a mere 5 per cent in 1990-91 to almost 27 per cent 2019-20 (Table 1). Although the GER across levels of secondary and higher education has been progressing, yet less than one-fourth of the children in the eligible age group children are enrolled in higher education. The trend pattern further indicates that at each level, around 25 to 30 per cent of the youth leave the education system at every stage of education. Yet another important recommendation of the NEP 2020 is to considerably expand higher education by raising the GER to 50 per cent by 2035, including TVET by (NEP 2020, Section 10, Para 10.8). This shift in momentum is important for the growing globalised economy, which has resulted in a higher demand for the skilled labour force, and hence paved the way for the impetus of higher education. These change processes warrant a quantum shift in the skills and competency sets of the youth. The impact of these challenges is further

discussed in Sections VI and VII on the financing of education and expansion of private self-financing institutions.

India is a vast country, where the aggregate picture would hide many of the diversities and disparities across the board. An analysis of the trends in inter-state disparities in youth participation rates indicates the levels of regional, economic, and social disparities across various states in India. We examine the inter-state disparities by looking at the literacy rates and GER in secondary and higher education. The literacy rates of the youth population across states increased from 74 per cent in the 2001 Census to 84 per cent in the 2011 census, and further increased to 93 per cent by 2019-20. Although there has been an overall improvement, the divide between the educationally advanced and backward states continues to prevail. Kerala reports 100 per cent literacy rates among the youth (68 per cent as per the 2001 census only) while Bihar has the lowest literacy rates of 86 per cent (77.6 per cent with the sixth position in the 2001 Census) as per the Periodic Labour Force Survey (PLFS) III for the year 2019-20 (see Table 2).

Table 2

Literacy Rates among the Youth Population in the Age Group 15-29 Years in 2001, 2011 and 2019-20

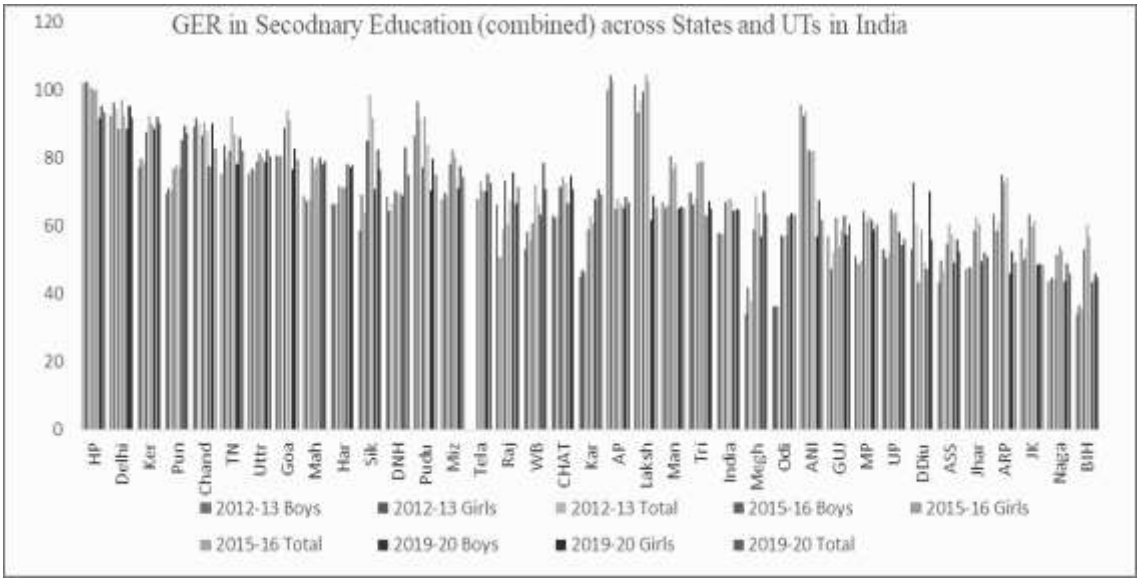
	2001			2011			2019-20		
	Persons	**Males**	**Females**	**Persons**	**Males**	**Females**	**Persons**	**Male**	**Female**
Andhra Pradesh	76.5	81.1	71.2	85.2	91.2	79.2	93.7	95.2	92.3
Assam	68.9	69.2	68.3	84.6	88.6	80.9	95.8	96.1	95.6
Bihar	77.6	80.2	71.0	70.1	77.2	58.0	86.1	90.5	81.3
Chhattisgarh	68.0	68.9	65.8	82.0	89.6	74.0	97.2	98.2	96.2
Gujarat	75.1	82.0	68.0	87.1	92.2	81.0	96.1	97.8	94.2
Haryana	78.3	80.6	74.2	89.3	91.8	85.8	94.2	96.2	91.9
Himachal Pradesh	74.5	74.6	74.4	96.2	97.4	95.1	98.0	98.6	97.4
Jammu & Kashmir	77.0	77.4	76.5	81.7	87.7	75.4	95.4	98.8	91.6
Jharkhand	71.8	72.3	70.6	73.3	82.9	59.9	89.0	94.0	84.3
Karnataka	79.0	82.4	75.1	91.4	94.5	88.2	95.1	95.9	94.2
Kerala	68.4	73.1	65.2	99.3	99.3	99.3	99.4	99.1	99.6
Madhya Pradesh	75.8	79.5	69.7	78.6	86.9	68.3	94.3	96.2	92.1
Maharashtra	74.9	76.9	71.7	94.0	95.6	91.7	97.0	97.9	96.0
Odisha	78.2	80.4	74.9	82.9	90.4	74.4	92.3	94.1	90.5
Punjab	77.6	84.2	71.8	89.2	91.2	87.0	94.1	95.1	92.7
Rajasthan	67.3	67.4	66.9	76.3	89.6	61.0	87.8	92.4	83.0
Tamil Nadu	76.5	83.5	70.9	96.0	97.5	94.6	99.0	99.3	98.7
Telangana	--	--	--	--	--	--	96.9	97.4	96.3
Uttar Pradesh	74.7	77.0	68.6	80.7	85.3	72.4	88.6	91.2	85.8
Uttarakhand	77.0	77.1	76.6	93.2	94.6	91.3	95.7	98.1	93.0
West Bengal	67.2	73.9	61.7	87.0	90.6	84.2	94.9	96.1	93.7
Arunachal Pradesh	74.6	76.8	72.1	84.0	88.2	80.1	95.4	96.2	94.4
Delhi	73.0	74.3	69.5	93.1	93.5	92.4	95.3	95.8	94.7
Goa	74.8	77.7	72.4	96.6	97.0	96.3	99.1	99.8	98.4
Manipur	76.0	78.1	73.8	91.7	94.0	89.5	97.5	98.6	96.4
Meghalaya	69.0	68.6	69.7	86.4	85.8	86.8	97.6	96.7	98.5
Mizoram	67.4	67.6	67.0	96.6	97.6	95.8	99.8	99.8	99.8
Nagaland	71.1	71.9	70.1	93.5	94.2	92.8	99.7	99.4	99.9
Sikkim	79.2	79.6	78.7	95.1	96.3	94.2	98.1	97.6	98.7
Tripura	70.2	78.4	64.6	93.7	96.3	92.0	99.2	99.8	98.6
India	75.4	81.6	68.8	84.3	88.8	79.2	93.1	95.0	91.0

Source: Census, 2001 and 2011, PLFS, III (2019-20).

Even though literacy rates constitute a widely used indicator, it has the limitations of restricted awareness as it is based merely on a person's ability to read and write one's name. In an increasingly knowledge-techno-intensive world, this measure of literacy fails to indicate the numerical and literacy skills of students. Indeed, effective secondary schooling introduces them to formal reasoning, abstract problem-solving skills and critical thinking, as well as its occupationally relevant content. It promotes the development of a skilled and knowledgeable citizenry with access not only to the national but also to the global economy (Lewin and Caillods, 2001). Hence, we need to examine the youth participation rates. Figure 2 presents the GER in combined secondary education across the states and UTs in India.

Figure 2

GER in Secondary Education (combined) across states and UTs in India



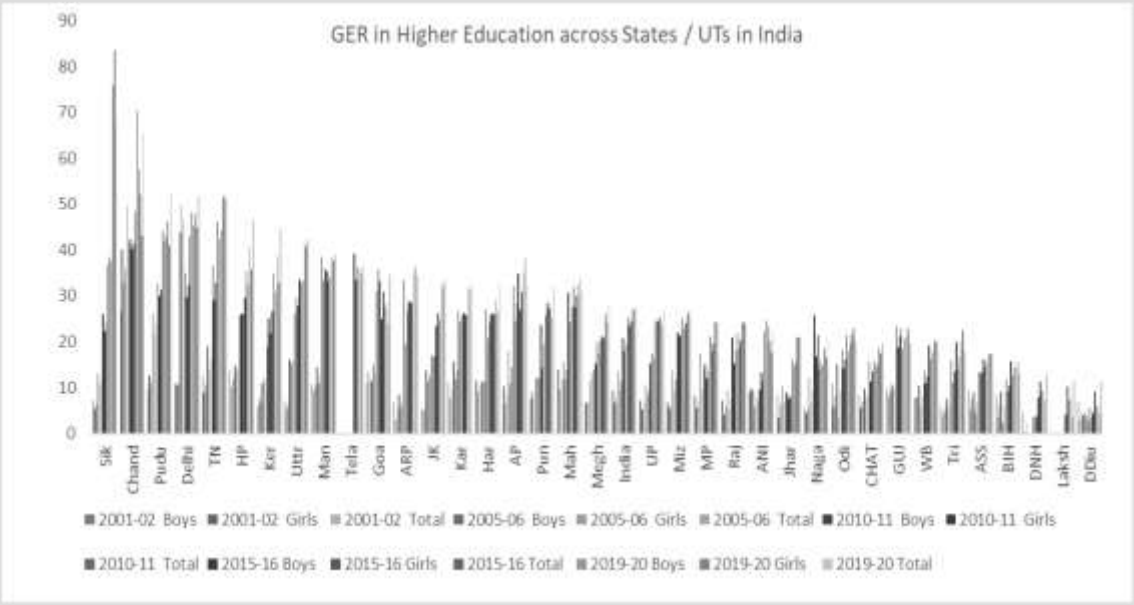
Source: SES, SMISE, UDISE Plus.

As reported in Figure 2, the GER in secondary education covering children in the age group of 14-17 years, is the highest in Himachal Pradesh, followed by Delhi and Kerala reporting more than 90 per cent GER. At the other end, Bihar reported the lowest GER at 44.7 per cent in 2019-20. As already noted above, at the national level, in the GERs across various levels of education, gender disparities have narrowed down not only over time but also across states to a larger extent. The persistence of these

inter-State disparities has been observed in higher education across states (see Figure 3). Barring the smaller states and UTs like Sikkim, Chandigarh, and Puducherry, among the major states, Tamil Nadu, followed by Himachal Pradesh and Kerala, reported the highest GER in higher education, at above 44 per cent, in 2019-20. As per expectations, the fourth place was held by Uttarakhand, which recorded a GER of around 42 per cent in higher education. At the other end of the spectrum, leaving the UTs, Bihar achieved the lowest GER of 13 per cent (see Figure 3).

Figure 3

GER in Higher Education across states and UTs in India during Selected Years



Source: SES, Selected Statistics on Higher and Technical Education, AISHE, various issues.

Educational attainment (stock) and the participation of the youth population (flow), which is currently attending any educational institution, as per the PLFS and the household surveys respectively, have been analysed further below. Table 3A reports the share of the youth who have completed a minimum of 10 years of schooling (secondary and above levels), which ranges from the lowest of 43.4 per cent among rural females to 66.8 per cent among the urban males, during the years 2017-18 and 2018-19.

Table 3A

Distribution of Persons of Aged 15 -29 years during 2017-18 (PLFS I) and 2018-19 (PLFS II) by Highest Level of Successfully Completed Education (in %)

Category	PLFS	Not Literate	Literate and up to Primary	Middle	Secondary and above	All
Rural Male	I	5.9	12.8	28.7	52.6	100
	II	4.7	12.7	27.8	54.8	100
Rural Female	I	13.4	16.0	27.2	43.4	100
	II	11.5	15.5	26.4	46.6	100
Urban Male	I	3.5	8.9	20.9	66.8	100
	II	3.7	10.0	20.5	65.8	100
Urban Female	I	5.6	9.1	19.9	65.4	100
	II	5.4	8.6	19.0	66.9	100

Source: PLFS II, 2018-19.

A comparison of the youth participation rates points to substantial growth in the currently attending children from 50 per cent in 2007-08 to 75 per cent in 2014 in the rural areas in the age group of 16-17 years (see Table 3B). However, the rate or extent of growth in urban areas is relatively lower lesser than rural areas that is, it increased from 65 to 83 per cent during the same period. The same trend can be observed for the age group of 18-24 years as well. Yet another noteworthy point is that the GER in secondary education in 2014, as reported in Table 1, was 75 per cent, which is higher than the data reported here (75 per cent in urban India and 50 per cent in rural India).

Table 3B

Percentage of Young Students Currently Attending Education by Location and Age Groups in 2014 and 2017-18

States/Age Group	Rural				Urban			
	2014		2017-18		2014		2017-18	
	16-17	18-24	16-17	18-24	16-17	18-24	16-17	18-24
Andhra Pradesh	82.1	45.3	82.3	60.6	85.0	56.3	91.6	70.9
Arunachal Pradesh	90.4	59.0	73.5	39.0	86.0	69.4	86.1	65.8
Assam	70.7	36.7	69.8	28.4	86.6	56.8	84.9	58.3
Bihar	74.0	44.4	75.2	40.1	79.9	54.5	87.9	57.9
Chhattisgarh	71.7	42.0	78.0	33.0	82.1	58.1	82.8	58.4
Delhi	87.5	41.5	84.2	46.4	83.3	59.3	86.6	64.6
Goa	92.0	45	100.0	61.4	90.0	55.1	100.0	71.2
Gujarat	67.6	34.7	67.5	40.4	82.4	49.7	87.7	60.7
Haryana	81.5	44.5	79.3	49.0	84.4	50.3	91.5	64.8
Himachal Pradesh	90.7	63.2	90.9	64.5	96.3	72.3	98.1	80.2
Jammu & Kashmir	83.7	54.0	85.4	55.4	89.9	61.9	89.2	72.9
Jharkhand	66.3	31.9	68.1	27.7	79.7	54.9	87.0	51.2
Karnataka	74.9	42.8	86.6	53.4	86.1	51.1	88.8	69.6
Kerala	94.4	62.5	97.0	70.7	96.7	63.7	96.7	72.2
Madhya Pradesh	67.0	38.2	61.6	34.5	80.9	51.1	80.7	59.7
Maharashtra	77.5	49.1	87.2	57.6	88.3	56.9	89.6	69.4
Manipur	88.6	61.1	83.7	45.8	95.9	67.7	89.6	67.0
Meghalaya	82.9	40.6	66.0	20.5	89.5	71.3	88.0	67.5
Mizoram	75.4	48.7	72.3	13.4	95.0	54.1	87.2	54.5
Nagaland	88.6	63.1	74.5	40.3	91.7	65.5	91.8	69.3
Orissa	61.1	33.8	65.1	36.5	77.3	50.6	81.3	55.3
Punjab	81.8	49.8	86.5	57.5	89.0	54.1	91.4	67.7
Rajasthan	66.8	42.1	70.7	46.0	77.4	50.6	83.8	6.1
Sikkim	91.0	57.3	93.5	43.9	94.4	66.9	83.9	60.0
Tamil Nadu	82.7	54.8	91.3	64.8	89.5	59.7	92.3	72.4
Telangana	--		89.2	55.0	--		95.0	71.4
Tripura	89.3	44.4	79.6	33.3	85.9	62.6	84.5	64.0
Uttaranchal	67.6	38.7	65.9	40.4	70.3	48.1	75.0	53.4
Uttar Pradesh	85.1	44.6	88.9	51.3	92.6	69.7	90.8	7.2
West Bengal	71.4	39.5	77.2	42.9	80.3	56.1	81.5	63.0
All-India	74.9	44.1	77.3	46.6	83.4	55.2	86.9	60.3

Source: Based on Unit data from the 71st and 75th rounds of Social Consumption on Education.

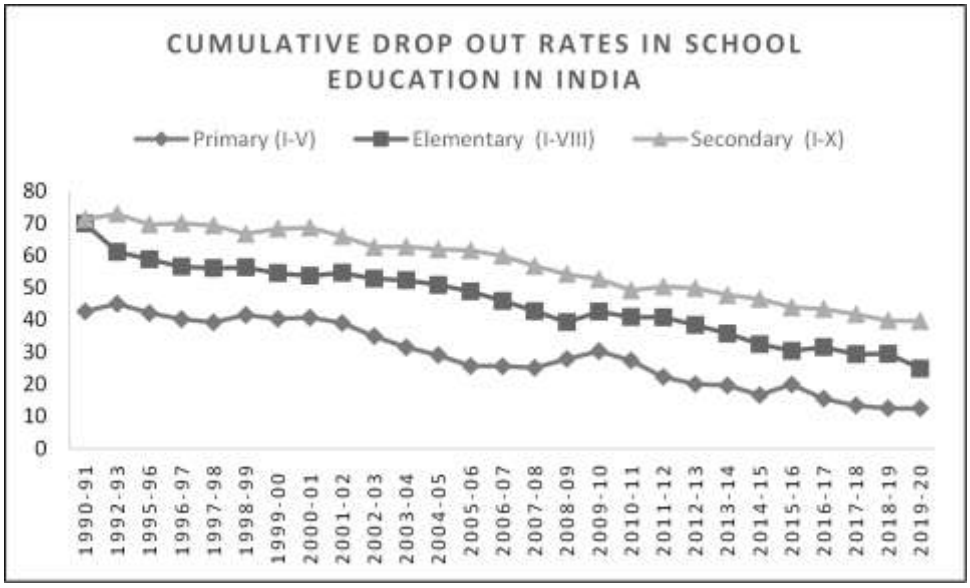
After examining the inter-State disparities, comparing Figures 2 and 3, and corroborating them with the NSSO survey data in Table 3B, we can say that the growth of participation is higher in the same set of states. However, the important issue observed here is that ***the rate at which the participation grows is much faster in rural areas and backward states compared to urban areas and developed states.*** It is equally important to note that mere participation rates will not ensure that the attending youth complete their respective school cycles. The leakage between participation and completion is a major hurdle that needs to be examined and addressed.

IV. Drop-outs or the Out-of-School Youth

The education system in India is facing several challenges. The biggest challenge is to prevent school drop-outs during the critical learning phases for the youth. This raises the following critical questions: Are the youth able to complete the education cycle successfully? Also has the system equipped itself well to deliver the first-generation learners? In this context, it is important to examine the pattern of transition, drop-outs, and pass-out rates. These issues have been examined in this and the subsequent section. The incidence of drop-out compels millions of youths to face life without the foundation skills that they need to earn a decent living. The ability of an educational system to minimise the number of drop-outs is a strong indication of its contribution to the development and growth of its constituents, that is, the students. This also speaks volumes about the deficiency of the capability building among the youth. The cumulative drop-out rates, starting with around 75 per cent in 1990-91, improved to 40 per cent by 2011-12. There has been a ***learning crisis*** at all levels of education in India. Millions of children who go to school do not learn the basics (ASER Reports, various issues). In the sphere of secondary education, however, the drop-out rate, which was 71 per cent at 1990-91, improved to 39.6 per cent by 2019-20 (see Figure 4).

Figure 4

Cumulative Drop-out Rates in School Education in India



Source: Selected Educational Statistics up to 2011-12, from 2012-13 estimated using DISE, UDISE and SEMIS, various issues.

A smaller gap in the drop-out rates between upper primary and high school suggests that if children are able to complete elementary education, the youth have a better chance of entering the secondary education phase. These high drop-out rates relegate young people to poorly paid, insecure, and often risky work. And the country is deprived of the kind of skills that drive economic growth. It is vital to ensure all young people achieve high-quality school education while also acquiring skills training beyond the formal system. Developing skills among them is thus a good pathway to a better future in order to reap the demographic dividend (see Figure 4).

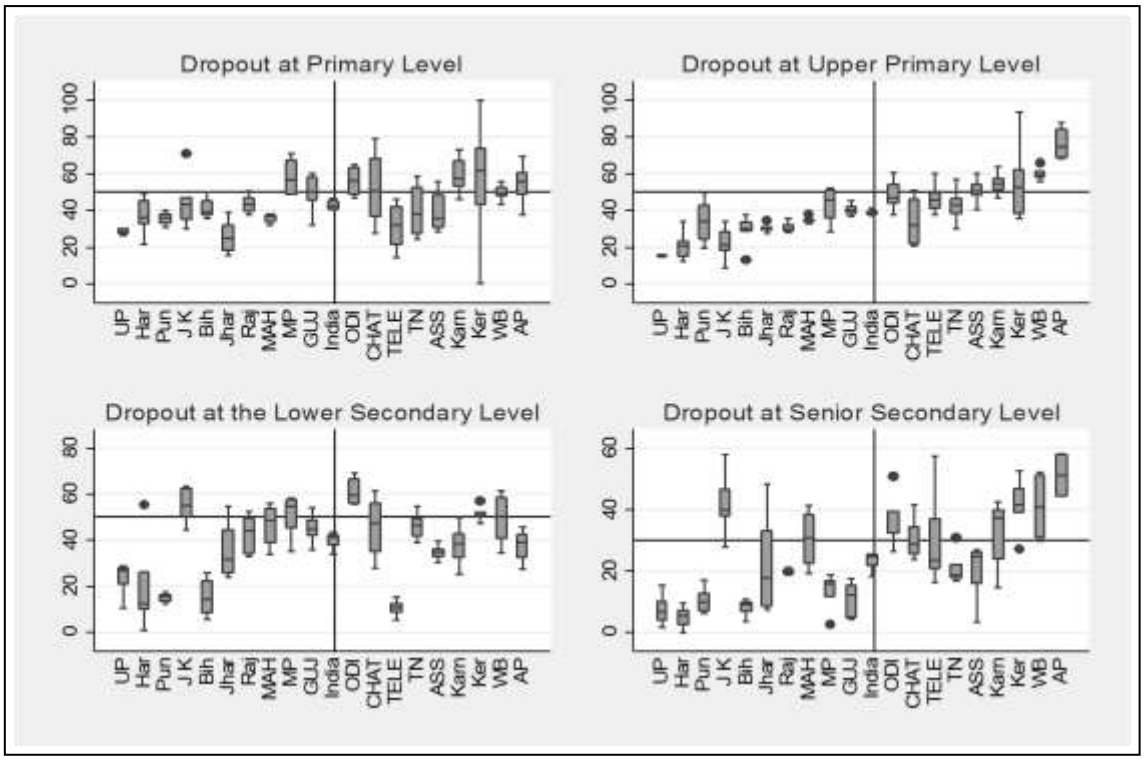
State-Wise Analysis of the Drop-out Estimates

The inter-state and intra-state dropout rates across rural and urban locations, gender, and level of education reveal interesting facts (Figure 5). It is important to note that they are the culmination of multiple disadvantages emanating from region, caste, gender, and economic class, among other things. The drop-out rate in Andhra Pradesh, Bihar, Gujarat, Maharashtra, Odisha, Rajasthan, and West Bengal is found to be very high, and higher than the national average. On the other hand, the drop-out rate is lower

in the states of Haryana, Punjab, and Uttar Pradesh. Another important finding is that the drop-out rates are declining as the level of education increases, irrespective of the geographical location, in almost all the states. The gender-wise drop-out rates do not reveal any pattern, as in some of the states, the female drop-out rate is lower than the male drop-out rate, and the reverse has been observed in the rest of the states. However, a gender-wise variation has also been noticed within the states for different levels of school education. It is important to list out the states where the gender gap in the drop-out rate is very high at different levels of school education (see Figure 5).

Figure 5

Box Plot of Drop-out by Levels of School Education, Location, Gender and across states among Age Group 5-29 Years (in per cent)



Source: Based on unit data of 71st Round NSSO.

At the primary level, the gender gap is the highest in the rural parts of Andhra Pradesh, Assam, Gujarat, Chhattisgarh, Jharkhand, Jammu & Kashmir, Tamil Nadu, and Haryana. But among the states with high drop-out rates, it is observed that the drop-out of girls is on the higher side as compared to the drop-out of boys in the states of

Assam, Jammu & Kashmir, Tamil Nadu, and Haryana. The gender gap in the drop-out in the rural areas is very high in Andhra Pradesh and very low in the adjoining state of Telangana. Another interesting observation in the rural areas at the primary level of education is that the less developed states like Rajasthan, Uttar Pradesh, Bihar, and West Bengal have shown much lower gender gaps. Similarly, in the urban areas, the highest gap has been observed in Andhra Pradesh, Gujarat, Chhattisgarh, Jharkhand, Jammu & Kashmir, Karnataka, and Haryana. Further, among the states with high drop-out rates, it is observed that the drop-out of girls is on the higher side as compared to the drop-out of boys in Andhra Pradesh, Jammu & Kashmir, Jharkhand, and Haryana. It is interesting to note that the drop-out of male students is higher than that of the female students at the primary level and in the rural areas but the reverse trend has been found in the urban areas in Andhra Pradesh. The same situation has been reported in Jharkhand. The states with lower drop-out rate of girls could be reflective of the importance of policy initiatives of State governments to retain the girl children in schools (Figure 4).

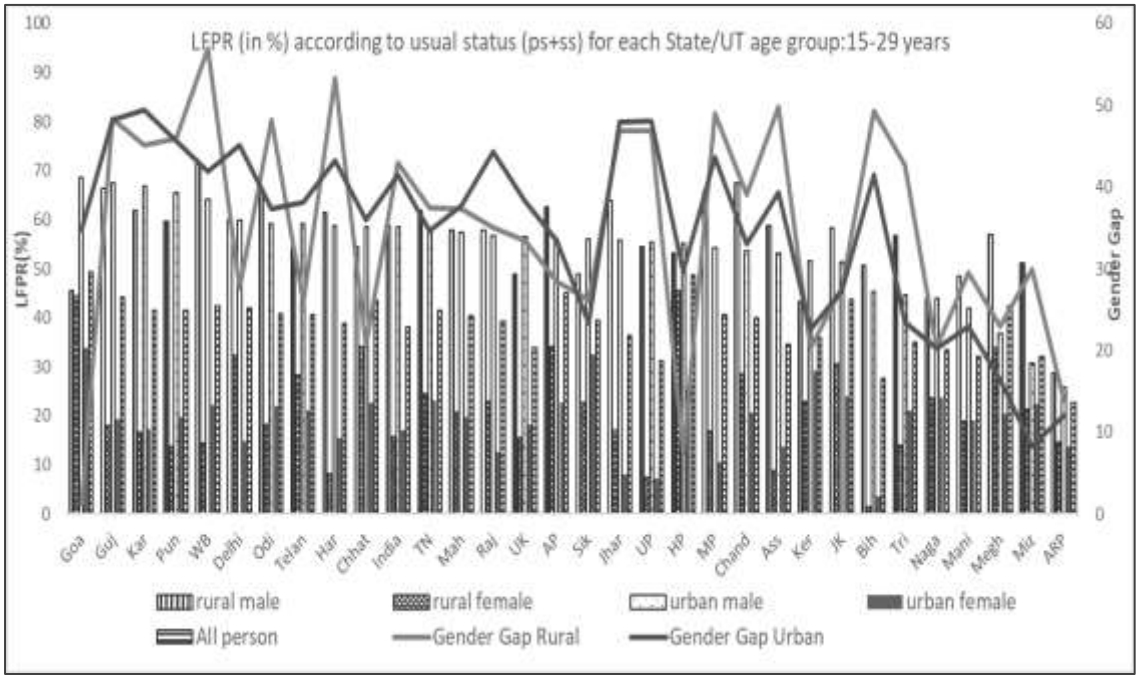
The drop-out rate in Uttar Pradesh is the lowest among the states at the upper primary level. In fact, the gender gap in the drop-out rate is negligible, irrespective of the geographical location, in Uttar Pradesh. At the upper primary level, the drop-out rate of male students is higher than that of the female students in the rural areas of Andhra Pradesh, Assam, Bihar, Haryana, Jammu & Kashmir, Maharashtra, Punjab, Rajasthan, Tamil Nadu, and West Bengal. Similarly, in urban areas, the drop-out rate is found to be the highest in Andhra Pradesh, Assam, Bihar, Jammu & Kashmir, Maharashtra, Odisha, Telangana, Tamil Nadu, and West Bengal. It is important to highlight that at the upper primary level, the drop-out rate of male students is around three times higher than that of the female students in the rural areas across Haryana and Jammu & Kashmir. However, in the urban areas of Haryana, the drop-out rate is higher among female students. Similarly, in the adjoining state of Punjab, the drop-out rate of male students is higher in the rural areas but the reverse has been observed in the urban areas.

At the secondary level, the highest drop-out rate in rural areas has been observed in West Bengal, Odisha, Madhya Pradesh, Jammu & Kashmir, Gujarat, and Maharashtra, irrespective of the gender. Similarly, in urban areas, the highest drop-out rate has been observed in Chhattisgarh, Delhi (male), Haryana (male), Jammu & Kashmir (female), Madhya Pradesh (female), Rajasthan (male), and Odisha. The dropout rate of male students is higher than that of the female students in the rural areas of Andhra Pradesh, Bihar, Gujarat, Karnataka, Odisha, Maharashtra, Telangana, Rajasthan, Uttar Pradesh, and West Bengal. In the urban areas, the drop-out rate of male students is higher than that of the female students in all states except West Bengal, Uttar Pradesh, Jharkhand, Punjab, and Jammu and Kashmir. The drop-out rates at the higher secondary level have shown a marginal improvement. However, they are still high in the rural parts of Andhra Pradesh, Odisha, Jammu and Kashmir, and West Bengal. Further, in the urban areas, the drop-out rate has shown an improvement at the higher secondary level. It is important to highlight that the drop-out rate of females is very high as compared to the corresponding rate for males in the urban areas of Assam. In order to understand the causes of drop-out, many surveys and/or in-depth interviews have bene carried out among students or school staff in the developed countries. But such surveys are rarely available in India.

As a counter, we examine the labour force participation rate and worker population ratio among the youth to understand the magnitude and spread across rural and urban India. We consider the definition delineated in the National Youth Policy (NYP), 2014, that ‘youth is often indicated as a person between the age where he/she leaves compulsory education, and the age at which he/she finds his/her first employment’. It is indeed a transition from school to work. Using the PLFS II, we report and analyse the labour force participation rate (LFPR), which is defined as the percentage of persons in the labour force in the population, (GoI, 2020 – PLFS II). We report the LFPR across urban males to rural females, and the gender gap in these two sectors in Figure 5.

Figure 6

Labour Force Participation Rate for the Age Group of 15-29 Years according to Usual Status (PS+SS) across states (in %)



Source: Detailed Table 16, PLFS 2018-19.

A number of interesting insights from Figure 6 are observed below:

(i) The LFPR is the highest among urban males, followed by rural males, and then urban females, and the lowest LFPR is observed among the rural females. Yet, the gender gap at the national level is around 43 percentage points and in urban areas, it is 41.5 percentage points, with both being at very high levels.

(ii) states like Goa, Gujarat, Karnataka, Punjab, West Bengal, and Delhi report an LFPR of 60 per cent or more among urban males. LFPR. While three of the North-eastern states, viz., Meghalaya, Mizoram, and Arunachal Pradesh, report an LFPR of less than 40 per cent. As regards the rural male LFPR, many states such as Punjab, Haryana, Karnataka, Tamil Nadu, Andhra Pradesh, Jharkhand, Madhya Pradesh, Gujarat, Odisha, Chandigarh and West Bengal more than the national average of 58 per cent LFPR. As regards the urban and rural male

LFPR, it is interesting to note that it is the rural regions that are at the edge as compared to the urban regions.

(iii) In the case of urban females, an LFPR of more than 25 per cent is reported in the states of Goa, Sikkim, Kerala and Himachal Pradesh. An LFPR of less than 10 per cent is observed among the educationally and economically backward states of Jharkhand, Uttar Pradesh, and Bihar. The counterpart rural areas in Himachal Pradesh and Goa report a female LFPR of more than 40 per cent whereas the lowest share of 8 per cent and less is found in Assam, Haryana, Uttar Pradesh, and Bihar.

(iv) As noted above, the gender gap in both urban and rural India is very high, at more than 45 percentage points across Karnataka, Gujarat, Uttar Pradesh, Jharkhand, Punjab, and Delhi. The same trend has been observed in the rural areas of West Bengal, Haryana, Assam, Bihar, Madhya Pradesh, Gujarat, Odisha, Uttar Pradesh, Jharkhand, Punjab, and Karnataka.

The capability framework indicates that the drop-outs or never- enrolled youth get a second chance through open schools. The National Institute of Open Schooling (NIOS), formerly known as National Open School (NOS), provides a number of vocational, life-enrichment and community-oriented courses besides general and academic courses at the secondary and senior secondary levels. It also offers elementary level courses through its Open Basic Education Programmes. NIOS initiated Open Educational Resources specifically for vocational programmes that are offered at the secondary and senior secondary levels, including stand-alone programmes. These courses are offered in partnership with State level institutions and organisations (www.nios.ac.in).

The vocational, skill-oriented and/or diploma courses, and industrial training institutions are part of the higher education system. For academic courses beyond the basic level, that lie between the higher education and above basic schooling, there are close to 4,000 study centres run by accredited institutions and just under 2,000

accredited vocational institutions. The enrolment figures and the number of certified learners have risen steadily over the years. NIOS is often called the world's largest open school. Besides, technical and vocational skills or the occupational skills are acquired through various informal ways. Informal labour markets in India comprise a large segment of poorly educated and or unskilled labour force and it has been growing in the recent decades. However, there is limited information about such informal training taking place outside the formal systems before the establishment of the National Skill Qualification Framework (NSQF) under the aegis of the Ministry of Skill Development and Entrepreneurship (MSDE). Although such skills quite often become obsolete in the changing global, national, and local markets, the Skill India initiatives of the Government of India have been discussed later in this paper.

Transition Rates

Besides the drop-out rates, yet another capability-enhancing process indicator is the transition rates. It refers to the percentage of students joining from one level to the next level of education. Here, in the present study, the transition rates indicate how many students are enrolled at the secondary level out of the total enrolment at the elementary level. The extent of the transition rate to the secondary level reflects the demand for secondary education besides the quality and performance at the elementary levels of education. Formal secondary schooling is the most effective way of developing the skills needed for work and life. The expansion of elementary schooling over the past decade is now being reflected in higher enrolments at the next level of education. The transition rates from Grade VIII to Grade IX have risen from 81.4 to 95.6 per cent during the last two decades, signifying a substantial improvement, especially so among girls. Though a similar encouraging and improving trend of transition has been observed from Grade X to Grade XI over the years, yet there is scope to improve it further so as to attain the goal of NEP 2020 of universalising school education (Table 4). Yet another indicator that has been examined here is the effective

transition rates from senior secondary to higher education [7] This showed an improvement from 64.7 per cent in 2004-05 to 85.7 per cent in 2019-20.

Table 4

Transition Rates across Levels of Education in India

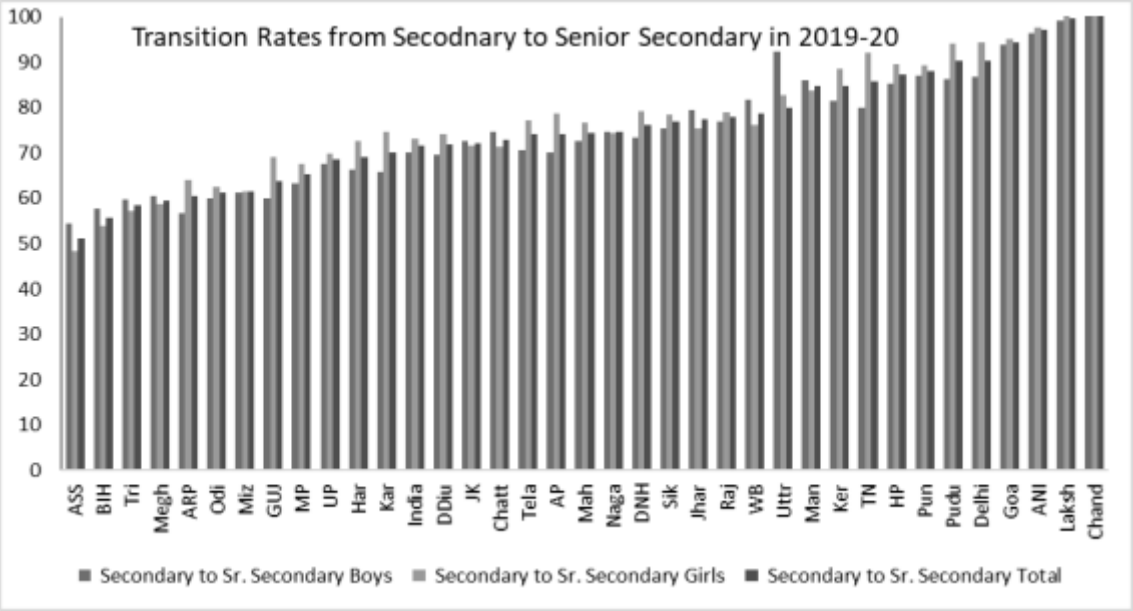
	Elementary to Secondary			Secondary to Senior Secondary			Effective TR from Senior Secondary to Higher Education		
	Boys	**Girls**	**Total**	**Boys**	**Girls**	**Total**	**Boys**	**Girls**	**Total**
2000-01	81.7	81.0	81.4	45.7	46.8	46.1	--		
2005-06	88.3	83.9	86.4	61.2	63.1	61.9	66.5	61.9	64.7
2010-11	92.0	88.1	90.2	71.1	69.4	70.4	86.9	87.9	87.4
2011-12	94.7	89.8	92.4	73.8	72.3	73.1	78.5	83.7	80.8
2013-14	97.4	92.7	95.1	69.7	70.3	70.0	76.6	78.2	77.3
2015-16	95.7	91.6	93.7	69.5	70.2	69.8	70.6	69.1	69.9
2017-18	94.6	90.9	92.8	67.6	68.4	68.0	85.4	84.5	85.0
2018-19	96.7	94.5	95.6	68.3	71.2	69.6	85.5	85.9	85.7

Note: SES, -- Results at the Senior Secondary level not available.
Source: Calculated using and Selected Educational Statistics; *SEMIS; AISHE.

[7] This has been calculated by using the passed-out rates of senior secondary school leaving examination from the first-year undergraduate enrolment in higher education. The pass-out rates at the secondary and senior secondary level have been examined in detail in the subsequent section.

Figure 7

Transition Rate by Level of Education and Gender across states and UTs in 2019-20



Source: UDISE plus.

The inter-State disparities in the transition rates show the following interesting insights (Figure 7):

(i) The transition rates from elementary to secondary education in 2019-2020 ranged from 75.2 per cent in Bihar and 80 per cent in Jharkhand to 100 per cent in many major states, such as Tamil Nadu and Punjab.

(ii) In the case of transition from the secondary to the senior secondary level, many states such as Kerala, Tamil Nadu, Himachal Pradesh, and Punjab reported a rate of above 80 per cent.

(iii) Even though the gender disparities have been narrowing down in terms of the GER, as seen in Table 1 and Figures 2 and 3, we observe a varying pattern here in both the transition rates that are reported here in Figure 6.

(iv) However, the gender gap is relatively smaller in magnitude and found in fewer states in the elementary to secondary transitions rates as compared to the transition rates observed from the secondary to the senior secondary levels.

This is similar to the rates observed in terms of the household financing of education across various levels.

In a similar vein, it was found that the female bias among the youth was quite substantial and had widened during the 52nd to 71st NSSO Rounds, corresponding to the period 1995-96 to that of 2014. This clearly points to the persistence of a gender bias during these two decades (Geetha Rani, 2021).

It is critical to understand that the drop-out or transition rates constitute a cumulative process of disengagement or withdrawal that occurs over time. The causes of drop-out and or being out-of-school are multi-dimensional. They could be poverty, and lack of accessibility, affordability, and availability of good quality education. Besides, there could also be many supply-side factors, which are likely reflected in the unsatisfactory quality of education. These conditions lead to a low-development trap, with very poor quality of education, combined with household poverty and its various coordinates. India with its highest share of young population, to reap the benefits of this demographic dividend, needs to impart skills to a majority of, if not its entire young population. Hence, it is important to prioritise basic education for every child, which cannot happen without addressing the issue of school drop-outs on a war footing.

A private Corporate Social Responsibility (CSR) initiative in one of the educationally and economically backward states, Rajasthan is discussed in Box 1. With the COVID-19 pandemic heavily impacted the education sector, many young girls have nearly lost the opportunity to be educated. The pre-existing gender gap was said to have widened due to an increased number of drop-outs among female students during this period. India was said to have experienced an estimated loss of close to 10 million girls during this time. It is important to design timely retention improvement programmes in a student-friendly manner based on a detailed study of various factors affecting the incidence of drop-outs and improvement in the transition rates from secondary to senior secondary levels, and further to higher levels of education or TVET.

Box 1: 'I'll Go to School Again': How Girls Beat Patriarchy to Reclaim Their Future

Udaan aims to keep girls in school through their enrolment (school-going and dropout girls) at the secondary school level while ensuring that the eligible girls receive their scholarship through collective efforts. School and community-level interventions have been designed to increase girls' enrolment at the secondary school level by generating wide public awareness on the existing scholarship schemes and mobilising communities to support girls' education and facilitate their return to school. Udaan works towards strengthening scholarship delivery systems (IT-enabled) and builds the capacities of government functionaries for effective State-wide scale-up to ensure sustainability and stability. Since 2017, Udaan has been working in Rajasthan to tackle the problem of teenage pregnancies and child marriage. During this period, it facilitated around 6.9 lakh girls, to receive this scholarship. It also enabled the girls to continue their studies digitally during the COVID-19 pandemic. Udaan is planning to conduct special remedial bridge courses once the schools reopen. Udaan plans to take every necessary step so that the aspirations and dreams that these girls have of becoming nurses, have carefully crafted eventually lead to fruition.

Source: https://www.thebetterindia.com/264100/girl-child-education-rural-rajasthan-teenage-pregnancy-udaan-ipe-global-ciff/

V. Performance of Youth in School Education

The public examination system and its results owe their prominent position in moving up in the educational ladder of higher education. Examinations are held to assess the capability and competency of a student. India is not part of the learning assessment surveys that take place at the global level like the OECD's Program for International Student Assessment (PISA). Students in the school system appear in public examinations, both at the completion of Grade X and Grade XII. All schools, in principle, are affiliated to either national or state boards for the conduct of school leaving board examinations. National and state level bodies are entrusted with the task of conducting these examinations. The Central Board of Secondary Education (CBSE), under the purview of the Department of Education (DoE) and the Council of Indian School Certificate Examinations (CISCE), a private non-governmental education board, conduct examinations in schools affiliated to their corresponding boards. Besides, each State has its own State Boards of Education to conduct public examinations for their affiliated schools as per their prescribed curriculum at the secondary and senior

secondary levels of education. The National Institute of Open Schooling is yet another board of education for distance education, under the DoE.

Besides these major national or state boards of examinations, there exist international boards of affiliation. Although these different boards provide choice and diversity, they also create layers of hierarchy in certifying learning levels or branding. The results of board examinations are detrimental for the choice of courses and institutions for entry into higher learning. The internal efficiency of the secondary schooling of the youth is examined by assessing the proportion of students who appeared for the Board Examinations among the students enrolled in high schools. The proportion of students who appeared for examinations among the enrolled improved from 34 per cent during 1990-91 to 50 per cent during 2018-19 (Table 5).

Table 5

Percentage of Students Who Appeared in Examinations among the Enrolled at Secondary Levels by Gender

	Secondary			Senior Secondary		
	Boys	**Girls**	**Total***	**Boys**	**Girls**	**Total***
1990-91	38.35	24.47	33.62	27.53	24.78	26.64
1995-96	37.04	26.85	34.53	25.32	22.43	29.50
2000-01	36.03	27.66	34.78	23.79	19.75	22.62
2005-06	55.89	51.41	54.01	56.59	55.47	56.12
2010-11	55.30	52.76	54.16	55.69	54.23	55.04
2011-12	52.82	50.44	51.75	54.19	53.22	53.80
2012-13	54.26	49.55	52.04	64.57	58.26	61.64
2013-14	53.45	48.85	51.28	63.63	57.05	60.55
2014-15	50.84	47.44	49.23	63.76	58.26	61.17
2015-16	49.05	46.82	47.99	61.16	56.15	58.78
2016-17	51.26	48.52	49.96	69.09	62.82	66.12
2017-18	51.31	49.05	50.23	60.76	57.54	59.22
2018-19	51.57	49.12	50.40	57.56	53.49	56.99

Note: * Boys and girls' percentage is not additive;

Source: Based on Selected Educational Statistics, Results of High School and Higher Secondary Examinations, Ministry of Education, New Delhi, various issues.

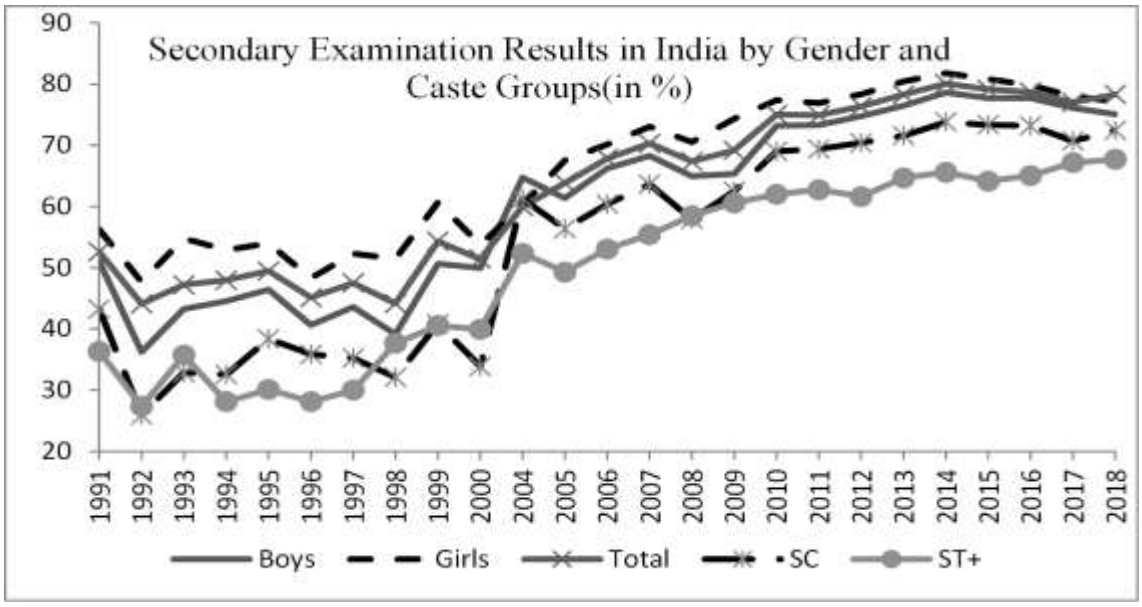
The trend pattern is almost similar at the senior secondary level. However, the trend of better performance of girls found in board examinations is reversed in this case. This is because many girl students enrolled drop out from the system due to various socio-cultural reasons such as early marriage; the practice of not sending girls to co-educational schools; lack of female teachers; and reasons of distance, safety, and modesty, among others. The common causes of the disadvantage faced by girls in secondary education are different from boys. The lower enrolment or performance among boys may partly result from poverty, nature of the labour market, direct and indirect cost of schooling, the classroom environment such as disengagement, disaffection with school, and a sense of not belonging to the school community; and lack of involvement leading to lack of purpose in education.

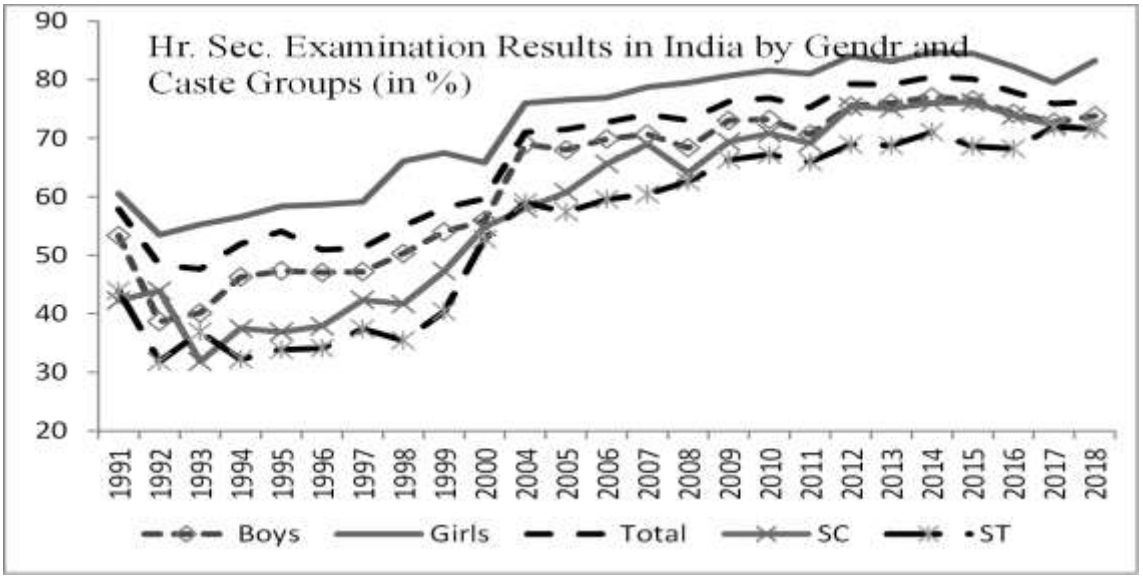
Yet another aspect examined here is the pass-out or graduate completion rates at the secondary and senior secondary levels. At the all-India level, the pass percentage of students [8] in secondary examination had improved from 53 per cent in 1991 to 78 per cent during 2018, while at the higher secondary level, it improved from 58 to 76 per cent during the same time (see Figures 8A and 8B).

[8] As measured as a percentage of successful students among students who appeared in Board Examinations.

Figures 8A and 8B

Examination Results in Secondary and Higher Secondary Education in India by Gender and Caste Groups (in %)





Source: Results of High School and Higher Secondary Examinations,[9] Ministry of Education, New Delhi, various issues.

[9] It provides information on the results by gender and by regular and private candidates. But it does not classify 'appeared' and 'passed out' students by the type of management. Students enrolled in government, government aided, and private unaided recognised schools appear through regular category via their affiliated boards, while private unrecognised schools and few private students through tuition or coaching centres or study from home appear as private students.

Another interesting trend is that over the years, girls have been performing better than boys at the secondary and higher secondary levels. The successful completion of education by girls, if they are allowed to continue their education, is noteworthy. Although the percentage of Scheduled Caste (SC) and Scheduled Tribe (ST) students passing out is lesser than the total number of students, the pass percentage has been improving over the years, going up from 43 per cent to 72.5 per cent for SCs and from 36 to 67.7 per cent, for STs, in secondary education during the same period. Similar improvements and patterns can be noted among the shares of SC and ST students in senior secondary education as well. However, the rate of growth of SC students is faster than that of ST students.

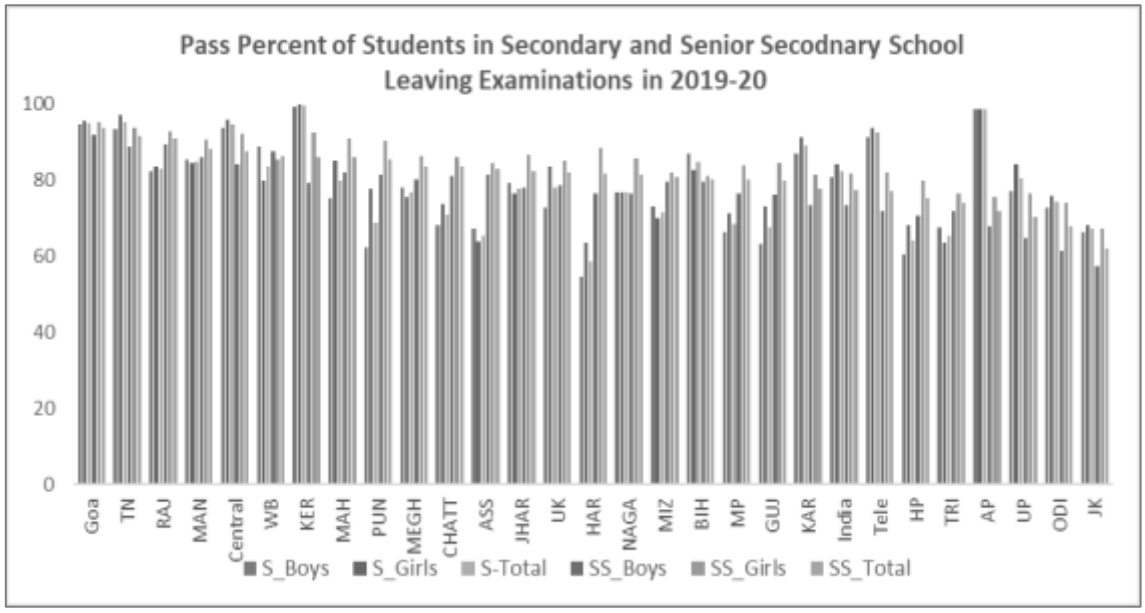
The percentage of passed out students at the senior secondary level is higher than that at the high school level. This may be due to the fact that the system of board examinations at the high school level has already filtered out the students with low levels of competencies. Hence, only the academically better off students enter into the higher secondary schools. Yet the pass out percentage in higher secondary system needs to improve to reach much better levels, that is, more than 80 per cent. Further, it needs to be noted that it is not merely the passed out students who would be able to compete either in the higher education system or the ease with which they obtain the adaptability for any training skills. However, the analysis based on examination results does not necessarily imply that examination is the sole criterion for assessing the capabilities of students. A growing body of literature discusses the defects of the examination system[10] and calls for alternatives of evaluation and assessment. The period of the COVID-19 pandemic entailing exploration and examination of different ways of assessing students including the continuous and comprehensive evaluation (CCE) methods.

The inter-state disparities in the performance of students in public examinations at the secondary and senior secondary levels is represented in Figure 9.

[10] Secondary education boards are often the subject of controversy due to the leakage of papers, mass copying, tampering with results, and other unethical practices.

Figure 9

Examination Results in Secondary and Higher Secondary Education by Gender across Central and State Boards of Examinations in 2019-2020 (in %)



Source: Same as the figures above 8A and 8B.

The following interesting insights can be inferred from Figure 9:

(i) The above 90 per cent results are observed in states like Goa, Tamil Nadu, Andhra Pradesh, and Kerala at the secondary level of examinations. On the other side, the below 70 per cent results are found in Haryana, Himachal Pradesh, Tripura, Assam, Jammu and Kashmir, Gujarat, Madhya Pradesh, and Punjab.

(ii) Girls have been facing a gender disadvantage across many states like West Bengal, Bihar, Tripura, Assam, Jharkhand, and Mizoram in the secondary examination pass-outs. Yet, there have been states with a gender edge like Punjab (15.3 percentage points over and above boys), Uttarakhand (10.8 percentage points), Gujarat and Maharashtra (9.9 percentage points each), Himachal Pradesh (7.8 percentage points) and surprisingly Haryana (8.7 percentage points) besides few more states with less than 8 percentage points.

(iii) The states that are reporting the highest pass percentages at the level of the senior secondary examinations, that is, 90 per cent and above, are Goa, Tamil Nadu, and surprisingly Rajasthan. On the other hand, states reporting pass percentages of 70 per cent and less than 70 per cent are Uttar Pradesh, Odisha, and Jammu & Kashmir.

(iv) There has been a gender edge for girls in the senior secondary examination pass-outs across all states except West Bengal, despite its total pass-out rates being 86 per cent. The states which enjoy a double-digit advantage are Kerala (13.3 percentage points over and above boys), surprisingly Odisha (12.6 percentage points), Haryana (12.1 percentage points), Uttar Pradesh (11.9 percentage points), and Telangana (10.2 percentage points).

Career Guidance and Counselling Services

Career counselling entails a systematic process of analysing the strengths, interests, skills and abilities of students and professionals, and mapping them with the right career and education options. A professionally trained career counsellor is an enabler and facilitator for students, especially from the under-privileged sections, enabling them to find the most suitable career path. Indeed, career counselling is a lifelong process. Career counselling and guidance not only help the students make decisions in the present but also endows them with the confidence and knowledge to make the right career decisions in the future. Recognizing the value of counselling, the Central Board of Secondary Education (CBSE), UNICEF India, and its technical partner iDream Career Private Limited have launched an online portal[11] on career guidance and counselling under the web-link https://cbsecareerguidance.com/. Youth, especially from the disadvantaged families, have limited exposure, knowledge, and skills for self-development and for transitioning smoothly from school to higher education or work. In order to support adolescents (students enrolled in grades 9 to 12)

[11] All CBSE School students will be able to sign up on the portal with their details and access a personalised career dashboard that will also be accessible to teachers and administrators.

and help them manage their career pathways and acquire lifelong learning, this portal has customised career portals in regional languages, reaching 21 million adolescents and helping them access educational and work-related resources and opportunities. The career portal offers information on careers, college directories, courses from several countries, scholarships, and competitive entrance examinations as well as examinations for secondary and higher secondary students.[12]

However, out-of-school youth consisting of the dropped out and failed students join the army of unskilled labour force. Such students who drop out at the senior secondary level are not eligible to enter into the higher education system. Education is a powerful explanatory factor influencing a number of economic phenomena, most notably both participation and success in the labour market (for example, Card, 1999; Jenkins and Siedler, 2007). These young people need to be provided a second chance to acquire skills for work. Left unassisted, unskilled youth either add to the increasing number of unemployed or are trapped in work where they get very low pay. The National Skill Development Council attempts to circumvent this problem to some extent. Yet the exodus of the unskilled workforce, especially from Bihar and Uttar Pradesh, accounts for 59 per cent of migrant workers in the age group of 15-32 years (Chandrasekhar and Sharma, 2014).

There has been phenomenal growth of enrolment in school education in India over the last two decades. Yet, the delivery of the processes of educational services is not satisfactory, as indicated by the transition and drop-out rates. Although the results of public examination have improved over time, almost half the students enrolled did not appear for examination. In order to combat the crisis and loss in learning caused by the current pandemic, the system needs to gear up and find innovative solutions to meet these huge challenges. These out-of-school youth join the labour market with very low or no skills, as the system lacks the capacity to promote capabilities and competencies among the youth and better prospects for their human and capital development.

[12] https://www.unicef.org/india/stories/experience-personalized-unique-career-journey

In this context, Skill development and vocational education play a vital role in reducing the skill gap between education and employment.

PART B

Technical and Vocational Education and Skill Creation

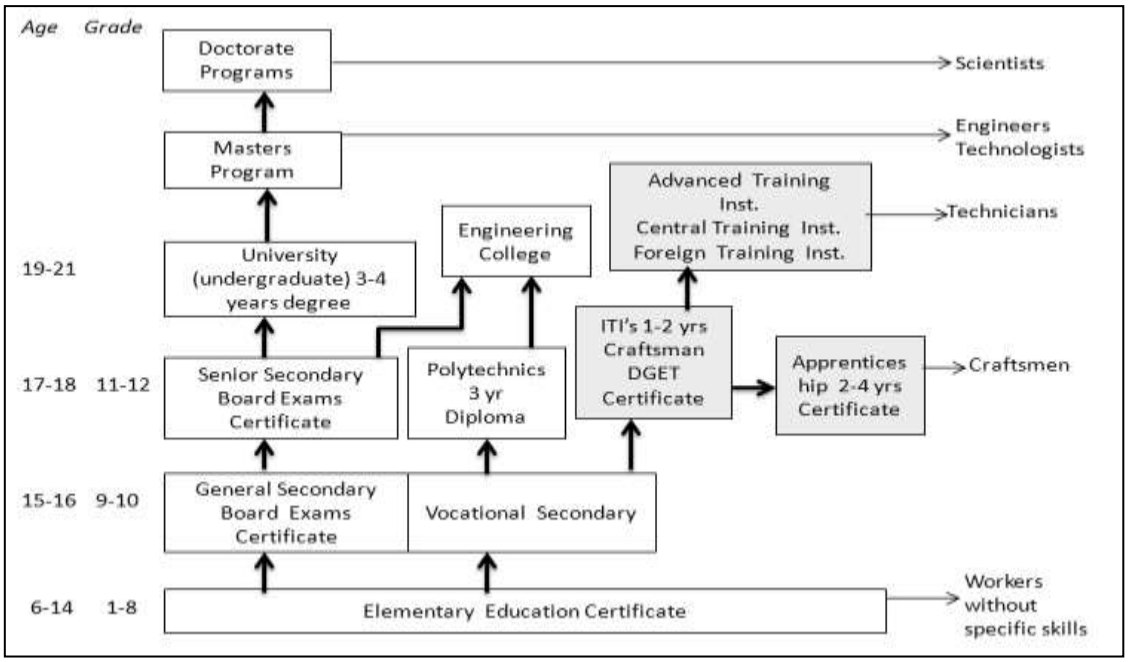
VI. Technical and Vocational Education[13]

The National Policy on Education, 2020, proposes to expand the accessibility and exposure of vocational education to 50 per cent of the learners in school and higher educational institutions by 2025 (NEP 2020, p. 44). The NEP envisages integration of vocational education in all institutions throughout school and higher educational institutions. It thus requires all educational institutions to integrate vocational education emphasising the objectives of TVET into the regular school and college curricula. The policy has provisions to bring youth and adults who are not in education, employment, or training (NEET), especially women, back into the fold of TVET through an adult education programme that focuses on literacy as well as livelihoods, and aims to provide certification through the National Institute of Open Schooling (NIOS).

[13] Note that technical education, in the case of school education (up to the secondary level) is a part of vocational education.

Figure 10

Academic, Technical and Vocational Parallel Training Structure/System in India



Source: World Bank (2008).

This is a welcome change as the structure of the existing system (see Figure 10) does not allow for a flexible entry and/or exit into TVET. The highlighted portion of the flow chart in the Figure depicts a stand-alone structure, which the NEP, 2020, addresses on a massive scale.

However, the current system of skilling offered via the formal system of education caters to a small, indeed a minuscule, segment of the youth, as reported in Table 6. The components other than formal skilling, such as hereditary, self-learning, learning-on-the-job, and others cater to another mere 8 per cent of the youth segment. Unfortunately, more than 85 per cent of the youth across sectors and gender do not receive any vocational training. The same finding was reported as a majority of the skilled population acquire skills through non-formal training, which includes hereditary passing of skills, self-learning, or on-the-job acquisition of skills (YDR, 2017).

Table 6

Distribution of Persons by Vocational/Technical Training Received for Age Group 15-29 Years in 2018-19 (in %)

	Vocational/Technical Training Received							Did Not Receive Vocational/ Technical Training	Total
	Formal	Other than Formal					(Formal and Other Than Formal)		
		Hereditary	Self-Learning	Learning on the Job	Others	All			
Rur_Male	2.4	2.2	2.1	3.2	0.7	8.3	10.7	89.3	100
Rur_Female	1.5	0.9	1	0.8	0.7	3.5	5	95.0	100
Rur_Persons	2	1.6	1.6	2	0.7	5.9	7.9	92.1	100
Urban Male	4.8	0.9	2.6	5.6	1.1	10.1	15	85.0	100
Urb_ Female	4.6	0.4	1.3	1.3	1.2	4.2	8.8	91.2	100
Urb_Persons	4.7	0.6	1.9	3.6	1.2	7.3	12	88.0	100
All Male	3.2	1.8	2.3	4	0.8	8.9	12	88.0	100
All Female	2.5	0.7	1.1	1	0.9	3.7	6.2	93.8	100
All Persons	2.8	1.3	1.7	2.5	0.8	6.4	9.2	90.8	100

Source: PLFS 2018-19, detailed Table 12.

Moreover, the current system of skilling in the form of vocational training is facing several challenges, in terms of its access, relevance to the fast-changing global labour markets, and quality and employability of skill training, among other things. Furthermore, the private enterprises are not keen to offer apprenticeships because of the lack of any incentive and the fact that they have to bear the costs for it. On a positive note, as a follow up of NEP, 2020, the National Council for Applied Economic Research (NCAER) has been roped in to help expand vocational education in schools. It is expected to provide appropriate advice to CBSE on research findings for implementing NEP 2020 on skilling in schools. The agreement between NCAER and CBSE envisages the preparation of a report on the status and problems with the existing project of skilling in CBSE schools in the first phase, and identification of various steps and measures to overcome the constraints, and strengthen the positive factors identified in the first phase to enable the skilling programmes in CBSE schools to effectively meet their goals.[14] Besides the goal of promoting skill development needs to be part of a lifelong learning exercise, as envisaged in the NYP, 2014. A critical mechanism here is

[14] https://www.livemint.com/2021

to build inter-linkages between varied systems such as formal education, vocational training, skilling programmes, literacy, and basic education programmes. This will enable individuals to transition between learning systems, while building skills and acquiring qualifications that are most suitable for their own development and employer needs. The MOOC and online education were also leveraged during the COVID-19 pandemic to enhance the capabilities of the youth.

In the higher education domain, vocationalisation is being encouraged through the Bachelor of Vocation degree programme, and setting up of community colleges and *Kaushal Kendra*s (skilling centres) for skill development. Yet another noteworthy initiative is the launch of the Atal Incubation Centre (AIC) by NITI Aayog. The UGC urges universities and colleges to apply for the innovation funding scheme under the AIC.[15] This scheme provides for a grant-in-aid of up to Rs. 10 crore for a maximum period of five years. It is an innovative way of connecting the university, industry, and community with each other.

VI.A. Skill India Initiatives

Skill development is now an absolute priority due to its critical role in promoting employment to be able to reap the demographic dividend, sustain economic growth, and enhance inclusiveness for poverty alleviation, especially during the COVID-19 pandemic, which has led to an economic and job crisis. Even as the world is progressing into the fourth revolution, the skill requirements of the schooling and higher education system need to be met in consonance with the changing requirements and the need to maintain a robust education system. Increasing mismatches between programmes, market demand, and worker preferences warrant for an increase in the

[15] The AlCs would nurture innovative start-up businesses in their pursuit to become scalable and support suitable enterprises in the nationally relevant sectors such as manufacturing, transport, energy, health, education, agriculture, and water and sanitation, The objective of the AIC is to promote and establish incubation centres which would support these sectors and would provide them with necessary infrastructure facilities and other value-added services. It would also focus on the establishment of AICs in the under-served and unserved areas to support inclusive growth.

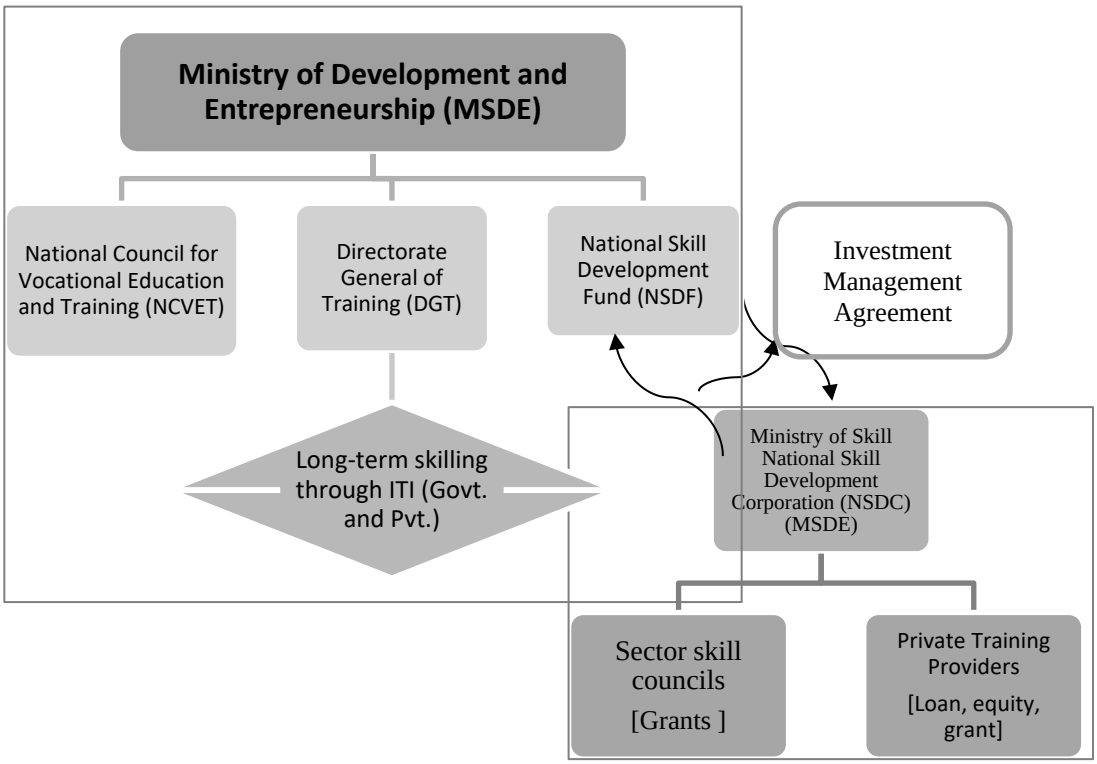
volume and quality of skills training. In order to develop market-relevant skills, it is important to strengthen public sector institutions and equip them with the wherewithal for skill development on a large scale. Since 2009, many initiatives have been launched to improve the situation. The National Democratic Alliance (NDA) Government has set up a new Ministry of Skill Development and Entrepreneurship (MSDE). In the same year, the Government launched the National Skill Development Policy (NSDP) with the target of skilling 500 million people by 2020. Although we are yet to attain this target, the MSDE intends to establish visible and aspirational Model Training Centres (MTCs) in every district of the country. The implementation agency for the project is the National Skill Development Corporation (NSDC).

In 2014, the Government of India upgraded the training and apprentice division of the Ministry of Labour and Employment to a new Ministry of Skill Development and Entrepreneurship (MSDE), which was mandated to coordinate skilling efforts. The prominent skill initiatives and schemes being overseen by NSDC include Pradhan Mantri Kaushal Vikas Yojana (PMKVY) PMKVY I and II; Pradhan Mantri Kaushal Kendra (PMKK), National Skill Development Fund (NSDF), National Skill Development Corporation (NSDC), National Skill Development Agency (NSDA), and SANKALP, among others. One of the flagship programmes implemented by the MSDE for strengthening skill development and entrepreneurship is the Pradhan Mantri Kaushal Vikas Yojana (PMKVY), which was launched in 2015. As a pilot, it was a reward-based scheme providing the entire cost of training as a reward to the candidates who had been successfully trained.[16] The institutional mechanism for TVET through MSDE is reported in Figure 11.

[16] The additional features and details have been described in the Annexure on Box A1: Recent Skilling Initiatives.

Figure 11

Institutional Mechanism for TVET through MSDE



Source: National Skill Development Corporation.

The various schemes of MSDE include Pradhan Mantri Kaushal Vikas Yojana (PMKVY)-Central Component; Pradhan Mantri Kaushal Vikas Yojana (PMKVY)–State Component; PMKK; National Skill Development Fund/Corporation; Development of Skill (Umbrella Scheme); National Board for Skill Certification; National Skill Development Agency; Model I.T.I.s/Multi-Skill Training Institute (MSTI), and the Apprenticeship and Training Umbrella Scheme, among others. All these schemes have been instrumental in strengthening the skill base of the youth in India. The National Council for Vocational Education and Training (NCVET) was launched in 2018 and operationalised in 2019.[17] The ten recommendations of the rent

[17] NCVET subsumes the existing skill regulatory bodies, viz., the National Skill Development Agency (NSDA) and the National Council for Vocational Training (NCVT), and will act as an overarching skills regulator. The NCVET regulates the functioning of entities engaged in vocational education and training, both long- and short-term, and establishes minimum standards for the functioning of such entities. The major functions of NCVET include recognition and regulation of awarding bodies,

UNESCO (2020) Report on TVET are also noteworthy and reported in Annexure Box A2.

The Skill India Initiative seeks to strengthen institutional training, training of trainers, and infrastructure, and to leverage public infrastructure for enhancing employment, both nationally and internationally, to facilitate the attainment of sustainable livelihoods for a majority of the workforce. However, a huge gap persists between the current levels and the desired goals in terms of creating a skilled workforce of a higher or at least the threshold level, so as to help make India a developed nation. Yet it is a mammoth challenge to skill the youth in order to enable them to find decent jobs even as 92 per cent of the workforce in the country is engaged in the informal labour market. Thus, the youth in the country are being forced to live in a low development trap, with few and insufficient skills at their command to be able to compete in the labour market. This results in an extremely low proportion of formally skilled workers in India, who constitute only 4.69 per cent of the total workforce. In contrast, the proportion of formally skilled workers in the total workforce is 24 per cent in China, 52 per cent in the US, 68 per cent in the UK, 75 per cent in Germany, 80 per cent in Japan, and 96 per cent in South Korea.

The foremost challenge is the prevalence of a huge proportion of unskilled or poorly trained workers in the informal sector, which accounts for the largest employment generation occurs in the country. Another major challenge emanates from the out-of-school youth, who have dropped out from school and entered the workforce without acquiring basic numeracy and literacy skills. A large share of skill training is being carried out through self-taught practices, such as observation or the transfer of skills from a master craftsperson to an apprentice. Although the National Skill Qualification Framework makes efforts to promote the skilling of a largely unskilled workforce, it still needs to go a long way in this direction.

assessment agencies, and skill-related information providers; approval of qualifications; monitoring and supervision of the recognised entities; and grievance redressal. It enables integration of the fragmented regulatory system and fosters quality assurance across the entire vocational training value chain, leading to overall better outcomes.

Such low levels of skills or the poor quality of the labour force adversely affect the economic prospects of the nation. As is well known, this is because the growth rate of an economy depends on its investment rate and the productivity of capital or, more precisely, on an inverse incremental capital-output ratio. This ratio, which is the key to economic growth, depends on a variety of factors, with the most significant among them being the quality of labour. Given that a large proportion of the workforce is self-employed, entrepreneurship must be encouraged amongst the youth and they must be supported through the process of idea generation, incubation, and financing, (NYP, 2014).

PART C

Financing of Post-Basic Education: Allocation of Public Funds and Private Financing of Education

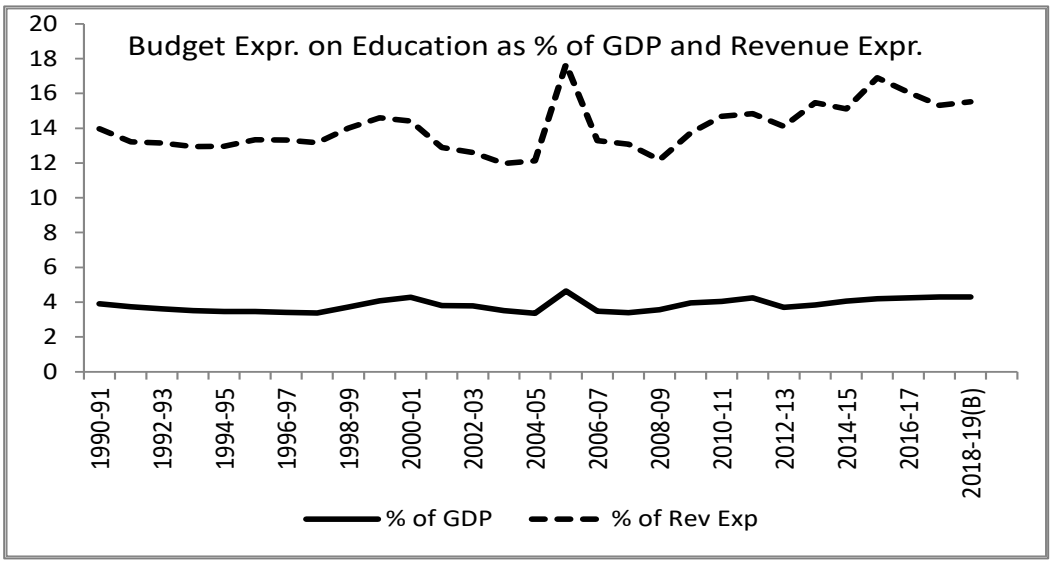
VII. Allocation of Resources for Education

The access to, expansion, and qualitative improvement of education cannot be realised without adequate budgetary allocations for education. Government resources play an integral role in the growth and development of the education system in India. This is all the more important as India is currently enjoying the demographic dividend or the window of opportunity. It has been found that many first-generation learners now seek secondary and higher education. Paradoxically, the last three decades of economic reforms reveal a number of detrimental measures in the financing of education in India. This situation is of particular concern at a time when India urgently needs to prepare her expanding youth population for the fourth revolution, and to optimally exploit its comparative advantage in the services sector and knowledge-based work. At the macro level, there has been a paradigm shift in the approach towards the financing of education from public or (state) funding to household (private) funding from family resources (Tilak 2004). Such moves can be seen in various developments such as the increase in fees, privatisation of state institutions, and the increasing role of the private sector in education, thereby paving the way for greater cost sharing and cost recovery from households. Some of these aspects are explained in this section.

We report the trends in the allocation of resources with a couple of standard indicators: the allocation of resources to education vis-à-vis other sectors, referred to as the inter-sectoral allocation of resources and the intra-sectoral allocation of resources or allocation to different levels of education. Under inter-sectoral allocation, we report two widely used and standard indicators, which are: (i) the share of total government education expenditure in GDP, and (ii) the share of total government expenditure on education in the total governmental revenue expenditure. Figure 12 delineates both these indicators.

Figure 12

Inter-Sectoral Allocation of Resources on Education in India from 1990-91 to 2018-19 (in %)



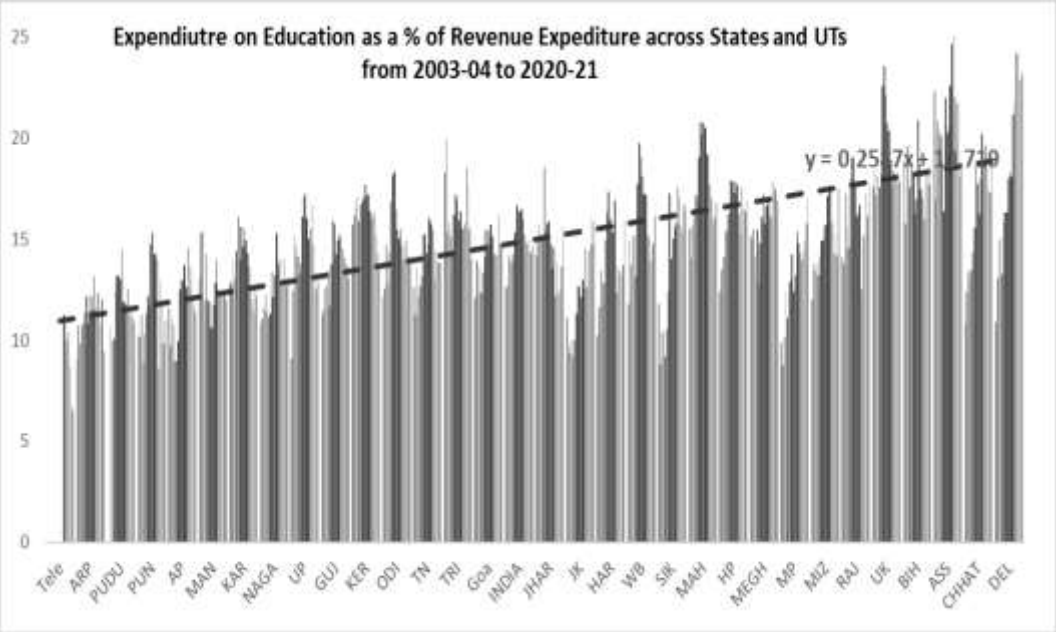
Note: B - Budget Estimates:
Source: Analysis of Budgeted Expenditure on Education, Ministry of Education, various issues; Central Statistics Office, New Delhi.

The share of education expenditure in GDP reflects the relative priority given to education in the economy. The expenditure on education, as a percentage of the Gross Domestic Product (GDP), denoted by the thick line in Figure 12, increased from 3.59 per cent in 1990-91 to 4.64 per cent in 2005-06, the highest ever share allocated by India. This share has though fluctuated started improving to 4.2 per cent since 2015-16 onwards. The country is yet to reach the goal of achieving 6 six per cent of GDP as recommended by the Kothari Commission (1966) five and a half decades ago.

Education expenditure as a percentage of the revenue expenditure points to the relative priority given to education in the state government budget. This budget share indicator, denoted by the dotted lines shows a steep hike in 2005-06, almost touching about 18 per cent of the revenue expenditures. Despite this steep hike, it hovered around a minimum of 12 per cent in 2003-04 to that of second highest share of 17 per cent of the revenue budget in 2015-16. The same indicator has also been examined across states over a period and illustrated in Figure 13. The highest share of revenue budget is committed by Delhi, Chhattisgarh, Assam, Bihar and Uttarakhand. At the other end, the least share of revenue budget is committed by states like Arunachal Pradesh, Punjab, Andhra Pradesh, and Karnataka. The linear trend line depicted through a dotted line indicates a growth of 10.7 per cent during the last two decades.

Figure 13

Share of Expenditure on Education in the Revenue Expenditure across states and UTs from 2003-04 to 2020 -2021



Source: RBI data on State Finances

Intra-sectoral allocation indicates the stages of educational development and portrays the degree of state commitment across various levels of education. Within the education sector, the relative priority assigned to secondary and higher education has almost been stagnant (Table 7).

Table 7

Intra -Sectoral Allocation of Resources in Education in India (in %)

	Elementary	Secondary	Higher	Technical	Total Expenditure on Edn*
1990-91	45.0	29.9	10.7	2.6	20491
1995-96	48.3	32.8	12.3	4.1	38178
Avg. 1990s	***47.1***	***32.8***	***12.4***	***4.0***	--
2000-01	47.6	31.6	14.7	4.0	82486
2005-06	53.1	29.4	11.7	3.9	157320
Avg. (2001-10)	***51.2***	***30.6***	***12.3***	***4.1***	
2010-11	51.2	30.2	12.5	4.6	293478
2012-13	51.0	29.5	12.6	5.1	368133
2014-15	50.3	30.5	12.4	5.1	506849
2016-17	48.1	31.9	13.1	5.3	653099
2017-18(RE)	47.5	31.9	13.0	5.9	733681
2018-19(BE)	46.7	33.4	13.1	5.4	815437
Avg. (2011-19)	***49.4***	***31.1***	***12.8***	***5.2***	--
GR	13.9	14.4	14.4	16.9	14.2

Note: * total Rs. In 10 million; RE - Revised Estimates; BE - Budget Estimates
Source: Analysis of Budgeted Expenditure on Education, Ministry of Education, various issues.

The share of expenditure on secondary education registered a substantial improvement during the period 2000-01 to 2009-10. However, it started declining since 2015-16 onwards leading to an overall decline in averages during the period 2010-11 to 2018-19.

The share from the 1990s and to 2000s improved during 2010s in technical education, but the same does not hold good for higher education. It is being increasingly realised that public budgets cannot adequately fund post-basic levels of education for expansion, particularly when sectors of basic education are starved of even the bare requirements. On the other side, the needs of the secondary and higher education system have been growing rapidly. More than three decades of adjustment policies indicate a clear compression in both the higher and secondary education budgets. Hence, there is a need for experimentation with several alternatives such as student fees, student loans, and privatisation, at the secondary and higher levels of education.

Yet another widely used indicator is the per student expenditure on education. The unit cost on government subsidy on education is an important efficiency indicator as it relates the input with an output. The per student budgeted expenditures show an increasing trend in current prices over the last two decades across levels of education (see Table 7). However, as expected, the average annual growth rates have been highest among the elementary and lowest among the higher education per student public expenditures. The same, when estimated at 2011-12 prices, indicates that growth rates in elementary education have been halved; the growth rate declined from 9.28 to 2.65 per cent in secondary education, and from 5.21 per cent to a negative growth rate of 1.18 per cent in higher education.

Table 8

Per Student Government Expenditure on Education by Levels of Education in India (in Rs.)

	Elementary	Secondary	Higher	Elementary	Secondary	Higher
	Current Prices			At 2011-12 Prices		
2000-01	1900	7472	13590	3841	15109	27477
2005-06	2648	5462	10242	4312	8894	16678
2010-11	6081	13727	14488	6613	14926	15754
2012-13	7636	14911	17535	7075	13814	16246
2014-15	9198	17832	18412	7766	15056	15546
2016-17	10839	21597	22106	8665	17266	17672
2017-18(RE)	12164	24564	25109	9370	18923	19343
2018-19(BE)	13259	28487	26614	9769	20990	19610
GR*	12.85	9.28	5.21	6.01	2.65	-1.18

Note: RE - Revised Estimates; BE - Budget Estimates; * GR indicate growth rates estimated using the trend line from 2000-01 to 2018-19.
Source: Based on Selected Educational Statistics; Selected Statistics on Higher and Technical Education; Analysis of Budgeted Expenditure on Education, Ministry of Education, various issues.

Expenditure compression, seen as a resource constraint of the government on account of the economic reforms, led to financial privatisation of post-secondary education in various forms such as reduced allocation to education as a percentage of the Gross Domestic Product, and the introduction of cost-recovery measures within public institutions and direct and indirect policy measures toward the privatisation of

post-secondary education. Neo-liberal policies have been adopted since the late 1980s both globally and in India. As part of these economic policy reforms, growth in public provisioning of social services including education, healthcare, and other essential services has been on the decline. Government allocation towards the social sector has also been on the decline, indicating the State's withdrawal and ensuring greater private sector participation and privatisation of social services (Panchamukhi, 2000; Mooji and Dev, 2004; Pal and Ghosh, 2007).

Although such structural changes are beyond the control of households, they do entail changes in their expenditure patterns related to household spending on education, health, and other essential services. Parallel to this, the share of the middle-income population is found to be rising. One of the estimates shows that the Indian middle class is expected to expand by more than 10 times from its current size of 50 million to 583 million people by 2025[18] (Beinhocker et al, 2007). Several forces are driving this shift— income growth; increasing urbanization; favourable demographics; technology and innovation; and evolving consumer attitudes besides changing family structure, among other things. Over the recent decades, there have been two noteworthy changes in consumer spending patterns. The first is a rise in the total amount spent on education, leisure, and telecommunications, driven by both greater demands, as well a change on the supply side. The second is the shift towards better, higher-priced sub-segments in the same historical categories ranging from food to consumer durables. Advances in digital technology and greater access to the Internet enable Indians to gain access to global education, healthcare, and other products and services.

A favourable demographic edge and increasing income trends, combined with the aspirations of the growing middle class for upward economic mobility, are being seen as a catalyst for boosting the social demand for education. The share of education expenditures in the household budget has been increasing in recent decades. Moreover,

[18] A study by the McKinsey Global Institute forecasts that if India can achieve 7.3 per cent annual growth—a reasonable assumption if economic reforms continue—consumer spending will quadruple, from about 17 trillion Indian rupees ($372 billion) in 2005 to 70 trillion rupees in 2025.

the emerging demand for higher education predominantly comes from the growing middle class, which is increasingly diverse (Kohli and Mukherjee, 2011). In rural areas, households emerging from poverty would prefer educating their children as a priority, while higher-income urban residents would be spending more on better-quality education, university degrees, and study-abroad programmes. In this context, an attempt has been made here to examine the increasing private sector participation in education in the following section.

VIII. Expanding Private Sector in Youth Education Providers

Following the introduction of macroeconomic policies that included stabilisation and structural adjustment policies, a fiscal squeeze was experienced in all social sector investments in many developing countries, including India in the beginning of 1990s. As a follow-up of the economic reform packages, expenditure compression trickled down to public expenditure on education. As a result, many State governments not only refrained from opening new schools but also discouraged the practice of grant-in-aid. The new economic policy, consisting of a Structural Adjustment Programme (SAP), liberalisation, globalisation of the economy and the opening of markets affected not only the economy but also the society, in general, and education, in particular. These new policies brought with them improved access and choices for consumers, and a higher level of income that resulted in a burgeoning middle class with enhanced purchasing power. Expanding consumer choices and enhanced income levels, coupled with State polices on 'no-grant-in-aid' and decline in investment on secondary education, led to the growth of the private unaided sector in education and enrolment therein.

India is still a predominantly rural country, as over two-thirds of her population lives in villages. Rural-urban disparities have been at the core of policy debates on education. Scholars argue that the roots of inequalities in access to good quality education lie within academic achievement and attainment at the early stages of education. Apparent rural disadvantages exist, as more urbanised areas have better quality education systems. It may be noted that the government-funded education

system has been dominant in rural areas over the decades across secondary and senior secondary levels. At the same time, the enrolment shares in private unaided (PUA) education has been steadily increasing in rural and pervasively in urban areas (Table 9). In 2002-03, the demand for PUA schools was 15.1 per cent at the secondary level, which remained almost at the same level in 2017-18,[19] in rural areas. It is important to note the influence of the Centrally sponsored schemes in ensuring the 'state' provision of youth's education, especially the Rashtriya Madhyamik schemes, ensuring universal access to secondary education.

Table 9

Distribution of Enrolment by Management Type in Secondary and Higher Secondary Schools by Rural and Urban Regions in India

	2002-03		2007-08^		2014^		2017-18^	
	Govt.*	**PUA**	**Govt.***	**PUA**	**Govt.***	**PUA**	**Govt.***	**PUA**
Secondary								
Rural	84.9	15.1	86	13.5	81.8	18.1	84.6	15.2
Urban	59	41	70.1	29	62.7	36.9	63.1	36.8
Total	75.4	24.6	81.5	17.9	76.5	23.4	76.4	23.4
Senior Secondary								
Rural	86.6	13.4	82.6	16.4	74.4	25.3	77.7	22.2
Urban	72.2	27.8	74.9	24.1	63.7	35.9	62.8	37.0
Total	78.5	21.5	79.8	19.3	71	28.6	71.3	28.5

Note: *Govt. includes local bodies and private aided schools.
Source: 6th and 7th AIES; ^Based on Unit data from NSSO 64th, 71st and 75th Rounds on Education.

However, the same does not hold good at the senior secondary levels. The share of PUA was 13.4 per cent in 2002-03, but increased to 25.3 per cent in rural India during 2014, and thereafter declined to 22.2 per cent in 2017-28. On the other side, it rose from 27.8 per cent to 37 per cent in urban India, indicating a faster growth in urban than in rural areas. There has been a huge demand for private unaided schools in both rural and urban areas.

[19] Table 9 uses data from two different sources—data from the All-India Education Surveys (AIES) by NCERT and from the NSSO surveys. Strictly speaking, they cannot be compared, as AIES is a census, while NSSO is a sample survey.

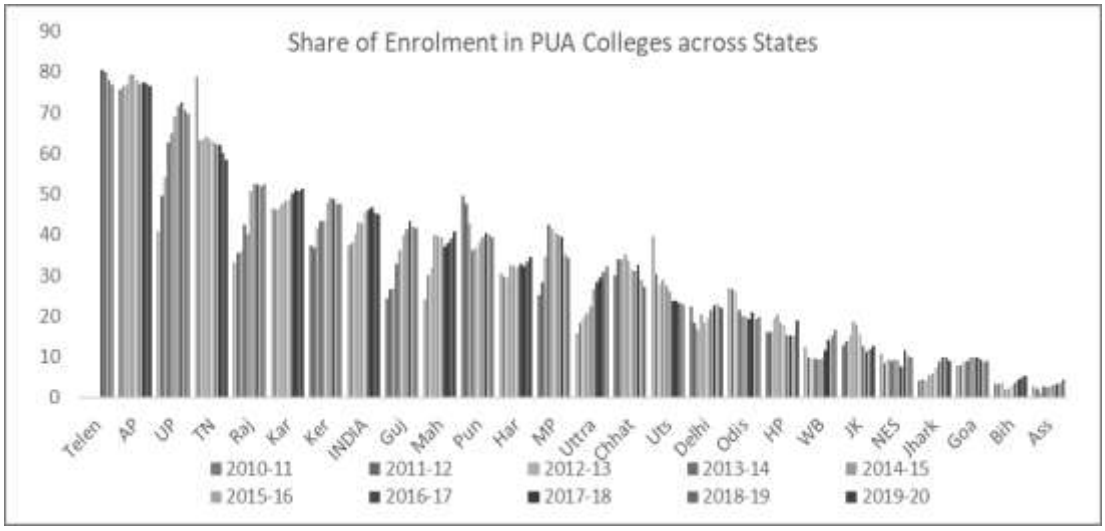
On similar lines, De *et al*., (2000) note that a deterioration of the "public" school system (including a decline in the quality of private aided schools, which tend to be very similar in most respects to government schools) has caused private unaided schools to emerge even in areas that already had government or private aided schools. They note that this rapid increase in private unaided schools is a phenomenon in the urban India. But the recent trend suggests that it has been spreading in rural areas as well. The gap created by the declining enrolment share of the government system has been effectively bridged by the increase in the proportion of enrolment in private unaided institutions in both rural and urban areas. This clearly indicates that though there has been an overall increase in the demand for youth education, the demand has been more conspicuous in the case of the private unaided sector. Another dimension implicit in the structure of the management type is towards creating inequality in educational opportunity. The participation of students in these three types of management of institutions is determined by access, availability, and affordability.

Private higher education is one of the most dynamic and the fastest-growing segments of post-secondary education at the turn of the 21st century. A combination of unprecedented demand for access to higher education and the inability or lack of willingness of governments to provide the necessary support has brought private higher education to the forefront. Private institutions, with a long history in many countries, are expanding in scope and number, and are becoming increasingly important in parts of the world that have relied on the public sector (Altbach, 1999). This transition process in higher education is primarily on account of the new goals, policies, and practices of neo-liberal market principles. There has been a paradigm shift in the attitude towards the role and efficiency of the State *per se* and financing of any public services (including higher education), in particular. India is no exception to this global transformation. Based on the enrolment of students by different types of management across colleges in India over the last 10 years (Figure 14), some interesting insights can be drawn, as discussed below.

(i) Either Andhra Pradesh combined or independent of Telangana tops with the highest share of almost three-fourths of the college enrolment in the private unaided sector. Even though UP started with a relatively lower base of 41 per cent share in 2001-02, it steadily increased to reach the third place in providing the largest share of students attending through private unaided colleges.

Figure 14

Share of Enrolment in PUA Colleges during 2010-11 to 2019-2020



Source: All India Higher Education Surveys.

(ii) Interestingly Tamil Nadu started with the highest PUA share of 78.83 per cent in 2001-02, which came down considerably to 58 per cent.

(iii) Rajasthan and Kerala have been improving their shares considerably, while Karnataka has experienced a modest raise in its shares. These three states, along with the states in sub-points (i) and (ii) lie above the national average share of 46 per cent. Gujarat and Maharashtra follow the pattern of Rajasthan and Kerala, though they portray just below the national average PUA share of enrolment. All these states occupy more than a 40 per cent share of PUA enrolment in colleges.

(iv) The State of Uttarakhand has doubled its share of PUA during the last ten years.

(v) The lowest share of PUA enrolment has been reported in Assam and Bihar with a share of 5 or less than 5 per cent.

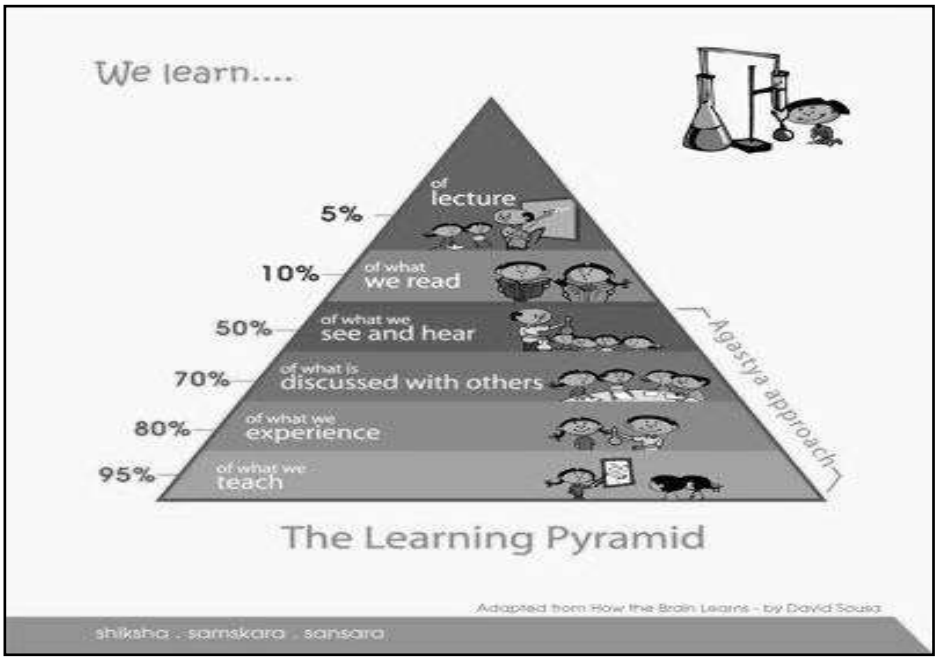
The major factors for this shift can be attributed to the state policy on restrictions on recognition of private aided schools that indirectly promote the private unaided sector. Further the neo-liberal market principles do not support the public provisioning of many social goods including education. Two arguments are put forward to justify this move. First, the rules for recognition were ineffective since they could be bypassed through corruption or the fictitious enrolment of pupils in unrecognised schools or in government schools. Second, privatisation is considered to be reducing the burden falling on the public sector, which could thus 'focus' on children whose parents cannot afford private schooling. On the other hand, the private school teachers, characterised by the insecurity of tenure, low salaries, and tight controls by the employers, seem to have ensured accountability. Further, the mechanism underlying the accountability of private school teachers to parents is the payment of fees essential for the survival of the school and the dominant social status of parents.

Private Initiatives

Despite a huge growth of commercially oriented PUA, a few private sector organisations (Azim Premji Foundation) and NGOs (RIVER Satellite Schools, Eklavya, among others) are noteworthy in this regard in improving the quality of basic education through motivation and training of teachers focusing more on the child centred pedagogic approaches. One such example is the Agastya International Foundation, one of the largest experiments on Science Education. Started in 2000, its mobile laboratories travel to village schools making children conduct experiments with their own hands. Children who show exceptional ability to learn are trained by the Foundation and then made to teach science to other children. The basic principles are transforming the attitudes of teachers and students to learning, viz., 'Yes' to 'Why'; 'Looking' to 'Observing'; 'Passiveness' to 'Exploring'; 'Textbook-bound' to 'Hands-on' and 'Fear' to 'Confidence' (see Box 2).

Box 2

Quality Interventions in Science



Step 1: Using simple, counterintuitive experiments, models, stories and discussion to create surprise, delight, enthusiasm and joy in learning.

Step 2: Promoting enquiry, experimentation, exploration, participation and hands-on interaction through kinaesthetic, activity- and project-based learning to generate inspiration, recognition, comprehension and creative insight.

Step 3: Relieving fear and anxiety, ingraining information, improving retention, boosting performance and increasing motivation through fun and humour.

Source: Based on http://www.agastya.org/what and Economic times, 10.01.2016.

Such experiments and educational innovations are pursued in many nooks and corners of India. Also, the Corporate Social Responsibility (CSR) sections of many business enterprises pursue such initiatives. However, there is no comprehensive documentation on such initiatives. In a vast country like India, with about hundreds of millions of youths in the age group of 14-29 years, these programmes, though well intended, are merely drops in the ocean. Yet, they need to be recognised and appropriately build the linkages with the education systems and skill development frameworks.

PART D

Digital Literacy Among Youth: Status, Constraints and Opportunities

IX. Youth Digital Literacy

In the recent times, the term 'Digital India' has become a buzz word. This campaign was launched by the Indian Government to ensure that all government services are available to citizens electronically via improved online infrastructure and increased Internet connectivity. However, digital technologies have boosted growth, expanded opportunities, and improved service delivery. Along with the larger shift to a knowledge economy in recent decades, the ICT's role in development could be seen as an enabler that facilitates existing channels of economically and socially significant information flows. As economies continue to move towards "knowledge-based societies", the role of ICT usage becomes crucial. But the question arises as to how important is the need to master information and communication technologies (ICT) among the youth in modern labour markets? Inevitably, the relationships between Internet usage and returns to occupation and/or education have evolved as a major area of research in the field of development studies. There is clear positive association between Internet access/usage and well-being where individuals with Internet access at home hold stronger ties with economic well-being. In simple terms, this highlights better employment status as well as higher income than that of non-Internet users.

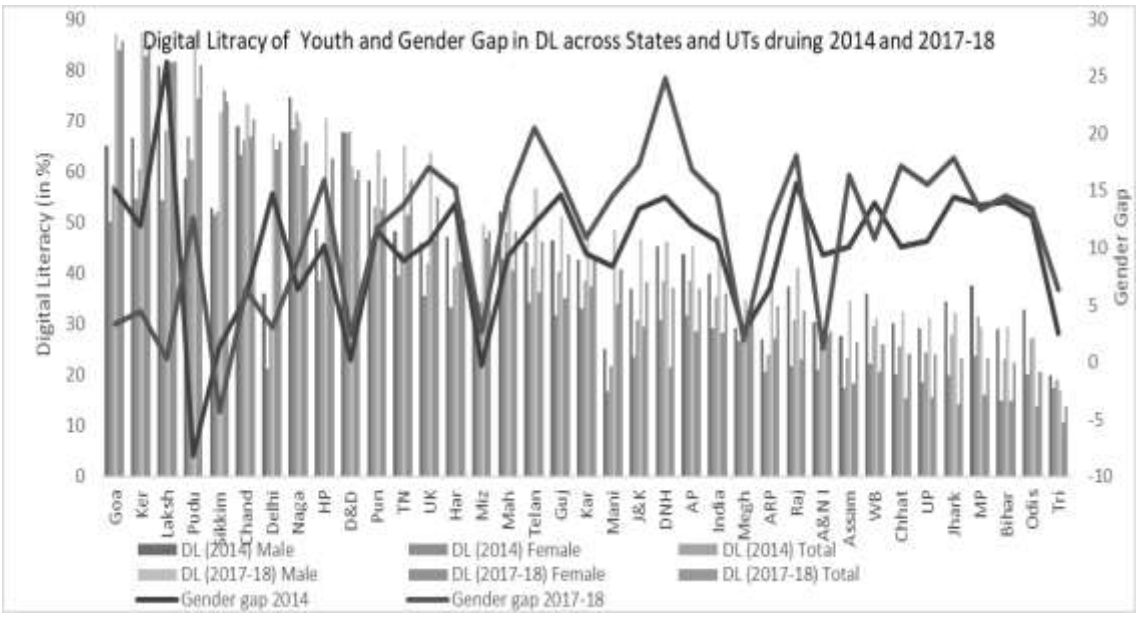
Digital literacy implies having the skills that one needs to live, learn, and work in a society where communication and access to information are increasingly achieved through digital technologies like Internet platforms, social media, and mobile devices. We define digital literacy, using the NSS 75th Round data on social consumption (education). This survey askes three questions pertaining to digital literacy for all the individuals: - (i) whether they are able to operate computers, (ii) whether they are able to use the Internet and (iii) whether they used the Internet during the last 30 days. Using

this information, an effort is made to estimate digital literacy.[20] For a comparative purpose, a similar attempt was undertaken with the NSS 71st round data. Even though this 71st Round NSSO asks the same first two questions, the third question is slightly different: 'whether they were able to use the Internet for sending emails?'. We estimate the digital literacy in the same manner as in 75th NSSO Round data.[21]

Digital literacy during these two rounds is reported in Figure 11. A number of interesting insights can be observed from Figure 15, as delineated below.

Figure 15

Digital Literacy and Gender Gap among the Youth during 71st and 75th NSSO Rounds across states and UTs



Source: Based on Unit data from 71st and 75th rounds of Social Consumption on Education

[20] Digital literacy (75th round) is calculated with the following weights: 0.25*(youth who are able to operate computers) +0.25*(youth who are able to use the Internet) +0.5*(youth who have used the Internet during the last 30 days).

[21] Digital literacy (71st round) is calculated with following weights: 0.25*(youth who are able to operate computers) +0.25*(youth who are able to use the Internet) +0.5*(youth who have used the Internet for emailing).

(i) The states and UTs having 80 per cent or more youth having digital literacy were Goa, Kerala, Lakshadweep, and Puducherry in 2017-18. There has been a drastic increase in the digital literate youth in these states/UTs as compared to 2014. On the other hand, the states with less than 25 per cent digital literacy are Uttar Pradesh, Jharkhand, Madhya Pradesh, Bihar, Odisha, and Tripura.

(ii) The gender gap in digital literacy in 2017-18 was quite high as compared to that in 2014. The states reporting more than 15 percentage points are Haryana, Uttar Pradesh, Himachal Pradesh, Gujarat, Assam, Andhra Pradesh, Uttarakhand, Chhattisgarh, Jammu & Kashmir, Jharkhand, Rajasthan, Telangana and the UT of Dadra & Nagar Haveli. Interestingly, the states which are performing well in many of the participation, process and outcome indicators do well here as well, like Kerala, Goa, and Delhi, which also report less than 5 percentage points in terms of a gender gap.

It is important to note that it is not mere digital literacy but the advanced operation of digital skills that would be warranted for a better and cyber safe life in terms of e-commerce, e-finance, etc. It is equally important to recognise the close and multi-woven links between skill development, education, and technology. For skill development, good education is an important criterion; the life-long learning of skill capability, especially in the post-pandemic world, besides the techno-digital savvy world, implies not only learning but also effective market operations through e-learning, e-commerce, and e-finance. The constraints to achieve these need to be addressed. For e-learning, the infrastructural facilities like broadband connectivity, and free Wi-Fi facilities, particularly in rural areas are now the need of the hour. At present, the overall average net penetration in the country is only 32.86 percent, out of which, urban net penetration is 70.83 per cent and rural net penetration is only 15.49 per cent. Hence, the state-of–the art technology and its effective low cost, easy access, and spread across rural and interior parts of India will take the country a long way ahead.

X. The Way Forward

Within the capability framework, the skill capability of the youth from the under-privileged sections have been at stake due to the large number of youths who are pushed out of the education system without acquiring the required basic skills needed to escape poverty and unemployment. This more often occurs in the educationally and economically backward states like Bihar and Jharkhand. The vision of the NEP, 2020 in this regard on enabling and equipping the youth with the skills for the world of work is expected to provide technical and vocational education and training, combining classroom education with workplace training, and technical training with communication, problem-solving and entrepreneurship awareness. These efforts will go a long way towards making the transition from school to work in acquiring the skill for the world of work smoother.

However, our education systems and the skill initiatives need to be dynamic so as to cope with the rapidly changing labour market signals and requirements. The task of building the skill capability of the youth necessitates immediate, medium, and long-term perspectives. This enables the youth to continue to upgrade their skills, which is a lifelong learning process and enables them to earn decent livelihoods. This needs to be linked with the rural development of the country so as to avoid overcrowding in cities and the associated problems of urbanisation. Further, this will facilitate the sustainability of the ecosystems in the years to come. While sustainable development depends to a larger extent on the "state" provision and financing of it, yet given its volume, other stakeholders, viz., charitable, non-profit organisations, besides the private sector, need to join together in providing the enabling ecosystem.

More importantly, it is crucial to address gender disparities in the access to education and skill development. Even though the GER figures in both secondary and higher education are favourable to girls, the reality is that many youths drop out of school before entering class 10. The share of girls who drop out early is much higher than that of boys (Azam and Kingdon, 2011; Geetha Rani, 2021). These young girls who drop out of school early are vulnerable to early marriage, pregnancy, and low

skills, all of which lead into a poverty trap. Effective policies and strategies thus need to be put in place to reduce these both in the education system as well as the TVET.

Yet another vital area is the need to build linkages across systems and stakeholders. This has been highlighted by the NYP, 2014, which presages that given the integration of skill development with the education system as well as the job market, it is essential to build linkages across systems and stakeholders.

Linkages between training institutions and employers: Employers must provide inputs into the training curriculum in order to ensure relevance of youth skills to labour market needs. Similarly, training institutions must tie up with employers to create post-programme placement opportunities for students.

Linkages between the education system and skills institutes: These are needed to enable the out-of-school youth to develop job-ready skills, and return to formal education at a later date. The flexibility of entry and exit into formal schooling has been one of the key recommendations of the NEP, 2020. This will be possible by implementing the NSQF and creating a system of equivalence to university degrees and diplomas.

Linkages between Sectoral Skill Councils, employers and training institutes: This will enable the creation of a dynamic and forward-looking process for defining occupational standards, setting up institutes in areas of employers' needs and the placement of trained youth into jobs (NYP, 2014).

In the rapidly changing times now and ahead, the value-based education, besides the education and skill development for basic and decent livelihoods, needs to be imparted at the level of basic schooling and later during the adolescent stages. The NEP, 2020 will make a huge impact on all aspects of life if the holistic education is appropriately and adequately brought into the education system, besides ensuring basic good quality schooling and development of the skill capabilities of the youth.

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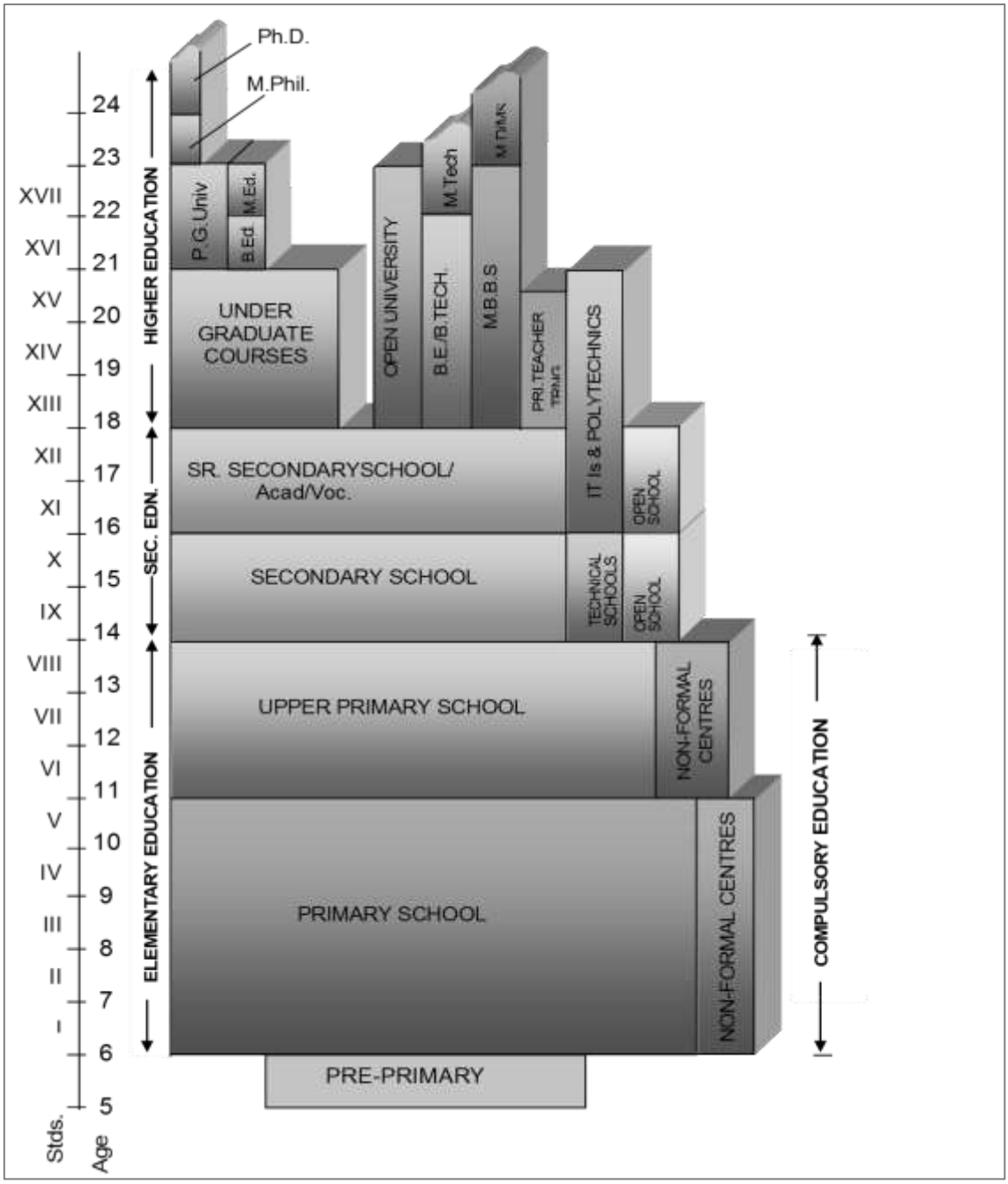
Annexure

Figure A1

Educational Structure in India



Source: GoI (2007).

Box A1: Recent Skilling Initiatives

The Pradhan Mantri Kaushal Vikas Yojana (PMKVY-I) was designed as a skill certification and reward-based scheme with the aim of enabling and mobilising a large number of youths to take up skill training and become employable for sustainable livelihood. The scheme, which was launched in 2015, is being implemented by the Ministry of Skill Development and Entrepreneurship (MSDE) through the National Skill Development Corporation (NSDC), Sector Skill Councils, and Training Providers. It is being implemented by the Centre along with the states.

As a follow-up, PMKVY-II, a grant-based scheme, providing free of cost skill development training and skill certification in over 221 job roles, aimed to increase the employability of the youth. It was launched in 2016 with the following objectives:

- Providing fresh skill development training to school drop-outs, college drop-outs and unemployed youth through short courses of 200-300 hours.
- Recognising the skills available through skill certification; and
- Encouraging standardisation in the certification process and initiating a process of creating a registry of skills.

PMKVY-II incorporated the learnings from PMKVY-I and its salient features are:

- Accreditation and affiliation of training centres;
- A dedicated online portal SMART (smartnsdc.org) developed to support this process—in the SMART portal, all the Training Providers (TPs) upload their respective Centre details and obtain the Centre's accreditation and affiliation after following the due processes;
- Short Term Training—Provision of 200-500 hour long skill-oriented training, both core and soft, at the PMKVY-affiliated and accredited training centres to school/college drop-outs or the unemployed;
- Recognition of Prior Learning—Recognition of the existing skills after a 12-80 hours' orientation-cum-bridge course through the provision of PMKVY certificate to candidates;
- Special Projects—Provision of skill-oriented training in special areas, jobs where employment is ensured, or job roles with undefined Qualification Packs such as training in jail and juvenile centres, or training with employment guarantee with textile associations and mortgage firms.

Jan Shikshan Sansthan Scheme:

- This scheme, envisaged for polytechnics, was transferred to the MSDE from the Ministry of Education in 2017-18, without any infrastructure, budget, and staff, and the Ministry has also accepted the transfer of the scheme as the spirit of the scheme is vocational education.

Source: Based on https://www.msde.gov.in

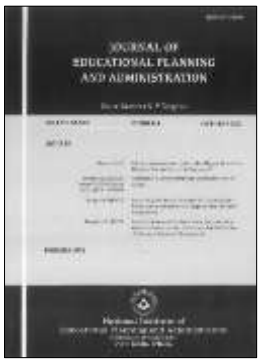
Box A2: Ten Recommendations of the UNESCO Report on VET

1. Place learners and their aspirations at the centre of vocational education and training programmes.
2. Create an appropriate ecosystem for teachers, trainers and assessors.
3. Focus on upskilling, reskilling, and lifelong learning.
4. Ensure inclusive access to TVET for women, persons with disabilities, and other disadvantaged learners.
5. Massively expand the digitalization of vocational education and training.
6. Support local communities in generating livelihoods by capitalizing on India's cultural heritage.
7. Align better with the 2030 Agenda for Sustainable Development.
8. Deploy innovative models of financing TVET.
9. Expand evidence-based research for better planning and monitoring.
10. Establish a robust coordinating mechanism for inter-ministerial cooperation.

Source: UNESCO (2020).

NIEPA Journals

Journal of Educational Planning and Administration



The *Journal of Educational Planning and Administration* is a specialized multidisciplinary journal in the area of educational planning, administration and development, published by the NIEPA since 1987, after long years of its existence in the name of EPA bulletin. The Journal, published quarterly-January, April, July and October, since 1990. The Journal is a peer reviewed journal, and is a professional forum to which both social scientists, including sociologists, economists, political scientists, public administrators, anthropologists, educationists, psychologists, etc., and practitioners in educational policy and planning around the world are invited to share their research in the area of educational policy, planning, administration and development. The subject areas covered include a variety of socio-economic, political, and managerial dimensions of educational planning and development in developing as well as developed countries. It covers international, national and subnational issues relating to educational policy, planning and development analysed from disciplinary as well as interdisciplinary perspectives.

Pariprekshya

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