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## Status of Higher Education in India with a Focus on Gujarat State in Context of New Education Policy

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Snehalata D. Ghatol\*

### Abstract

Though India ranks third in the world in terms of higher education system, its education system is falling behind in world ranking. Gujarat is one of the progressive states in India, which is echoed in its move towards reforms in the education system. Though Gujarat is moving forward speedily to internationalise its education, it falls behind on many important parameters compared to the national averages such as the GER, pupil-teacher ratio, net attendance ratio, gender parity, dropouts, etc. The Gujarat government has been making various efforts to make its education system global and industry orientated but there is urgent need to work in the areas where it is lagging.

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## Introduction

Higher education is more than the next stage in the learning path and crucial element of human development. It provides essential training for all teachers, doctors, researchers and scientists, public servants, engineers, entrepreneurs, social scientists, and many other personnel. It also provides updated skills necessary for each and every labour market. Those who have acquired and developed the proficiency and systematic skills handle the local economies, support and maintain civil society, educate the children, perform effective administration in governments, and make necessary decisions and resolutions which shape entire civilisation. The education and development go hand in hand. Higher education acts as a growth engine by providing skilled and trained labour force required by all productive sectors (Shah and Shah, 2018).

It is an undisputed fact that lack of education leads towards poverty and slow economic development of a country and therefore the role of education in developing countries like India is very important. Though the history of the Indian education system has some positive examples (e.g. Takshashila or Taxila, Nalanda, Vallabhi, etc.), the fact cannot be denied that our present education is falling behind in World ranking. According to the World University Rankings 2020,<sup>1</sup> among the Indian institutions, only three institutions were ranked in the top 500 Global list, viz. the Indian Institute of Science (IISc), Bangalore; Indian Institute of Technology (IIT), Ropar, and Indian Institute of Technology (IIT), Indore. However, these institutions' rankings are close to 300 universities in the world list. India is the second populous country in the world and as per Worldometer <sup>2</sup>, population in India was estimated to be 138.57 crore on November 29, 2020, which accounts for about 17.7 per cent of the world population, with a median age of 28.4 years. India had about half of the population below the age of 25 years and more than 65 per cent below the age of 35 with dependency ratio of 5.713 in 2011. It is expected that, in 2020, the average age of an Indian will be 29 years, compared to 37 for China and 48 for Japan; and, by 2030, India's dependency ratio<sup>3</sup> should be just over 0.4 (Basu, 2007). Having the largest young populations in the world, India has demographic dividend opportunity for next five decades (2005-06 to 2055-56). India's economy is considered as giant economy and with rapid industrialisation and globalisation; workforce requirement is estimated to be around 250 million by 2030. India will undoubtedly come out as a supplier of skilled manpower to the world. However, this manpower should possess the require skills as per the market demands and should be employable, about which our poor higher education system is currently playing a detrimental role. Therefore, India needs a world class higher education system (Venkaiah Naidu, 2019<sup>4</sup>). In order to provide a response to these challenges as well as to frame the pathway to meet the targets of New Education Policy 2020, an understanding of the status of higher education system is necessary.

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<sup>1</sup> [https://www.timeshighereducation.com/world-university-rankings/2021/world-ranking#!/page/10/length/25/sort\\_by/rank/sort\\_order/asc/cols/stats](https://www.timeshighereducation.com/world-university-rankings/2021/world-ranking#!/page/10/length/25/sort_by/rank/sort_order/asc/cols/stats)

<sup>2</sup> <https://www.worldometers.info/world-population/india-population/>

<sup>3</sup> "The dependency ratio is an age-population ratio of those typically not in the labour force (the dependent part ages 0 to 14 and 65+) and those typically in the labour force (the productive part ages 15 to 64). It is used to measure the pressure on the productive population".

<sup>4</sup> <https://pib.gov.in/newsite/PrintRelease.aspx?relid=189828>

## Data and Methodology

The main aim of the study was to assess the status of higher education in India with a focus on Gujarat state in context of New Education Policy 2020. The study is based on the secondary data culled out from various published sources, viz. National Sample Survey Organisation (NSSO), Ministry of Statistics and Programme Implementation, GOI; All-India Survey on Higher Education (AISHE), Department of Higher Education, Ministry of Human Resource Development, GOI; National Institution for Transforming India (NITI Ayog), GOI; Commissioner of Higher Education, Government of Gujarat, Gandhinagar, and the related websites. Besides, research reports, papers, articles and books were also used. The data were tabulated and presented in a meaningful manner for discussion and policy formulation.

## Results and Discussion

### Status of Higher Education in India

India ranks third in terms of the number of higher education institutions in the world, after the United States and China. India is placed on the world higher education map in terms of significant number of student and faculty mobility while very few features in global rankings (FICCI, 2014). In India, about 37.4 million students (51.4 per cent male and 48.6 per cent female) were enrolled across 993 universities, 39,931 colleges and 10,723 stand-alone institutions in 2019 (AISHE, 2019). The gross enrolment ratio (for 18-23 years of age group) in higher education has registered a marginal increase of 1.2 per cent points (i.e. from 25.2 per cent in 2016-17 to 26.3 per cent in 2018-19) which has missed the target<sup>5</sup> of reaching 30 per cent by 2020 (GOI, 2011). Though Union of India had provided more budgetary resources during 2019-20 financial year (Rs. 94,854 crore, which was higher than 11 per cent compared to budget allocation made in 2018-19) (ASHE, 2019), public expenditure (Centre and State) on education in India was just 2.7 per cent of gross domestic product (GDP) in 2017-18 as compared to the world average of 4.7 per cent of GDP (according to World Bank) (GOI, 2019, 2020, NEP). India also falls behind in terms of expenditure per student as well as per teacher. These low figures are reported despite of privatisation of education or so called 'commoditisation of education'<sup>6</sup> in the recent past. While the National Education Policy 2020 proposes to increase spending on education to 6 per cent of GDP.

Higher education is a very essential and important development indicator of the social and economic growth of a nation (Rangiya and Panchal, 2016) as it is instrumental in growth promotion, reducing level of poverty and boosting prosperity. The higher education system in India has successfully addressed many challenges and difficulties, but it still faces many more (Stolarick, 2014). The current education system is the result of a multifaceted

<sup>5</sup> <https://pib.gov.in/Pressreleaseshare.aspx?PRID=1541358>

<sup>6</sup> Economist Prabhat Patnaik termed the process as 'commoditisation of education'. According to him, "the privatisation of education..... means the handover of the education sector to profit making entities. It is a desire to attract direct foreign investment. Likewise in India, policy makers in education sector often talk about 'the striving for excellence' which is nothing other than making 'education' as a commodity."

relationship of national and state aims, strategies, and execution mixed together with desires for development of every individual along with collective economic and social development (Sharma, 2013). In India, a combination of various bottlenecks prevailing in society such as caste and gender discrimination, low income and high incidence of poverty, lack of political commitment and action for development of education, and poor quality of teachers/instructors as well as required resources leave children excluded from education. It is very much essential that societies must adopt the required education systems so that children can get educated for a better future. Higher education benefits are not just for persons, but also for the whole society as well as for the nation. Over the years, planners and policymakers have adopted and implemented various steps and measures to increase the access to education but the results are somehow mixed. To overcome the problems in the existing system and to raise the standard of education, the National Education Policy (NEP) 2020 was adopted and released on July 30, 2020 which has replaced the National Policy on Education, 1986. The NEP 2020 has its major focus on “(a) redesigning the structure of school curriculum to incorporate early childhood care and education, (b) curtailing dropouts for ensuring universal access to education, (c) increasing gross enrolment in higher education to 50 per cent by 2035, and (d) improving research in higher education institutes by setting up a Research Foundation (NEP, 2020).”

India has usually been seen as a country that sends its students abroad rather than receive international students in Indian education system, even though a large number of international students are now studying in India,<sup>7</sup> and more than 30 thousand international students are admitted here every year. Higher education, also known as tertiary education in some countries,<sup>8</sup> refers to all post-secondary education, including both public and private universities, colleges, technical training institutes, and vocational schools. There are three main types of tertiary institutions in India, viz. universities and university-level institutions, colleges diploma-awarding institutions. Also, there are three types of institutions categorised by source of funding, viz. central government, state government and private. As per the AISHE (2019) report, there were 993 universities, 39,931 colleges and 10725 stand-alone institutions in India. There was a consistent increase in the number of universities during the last six years, while the number of colleges in India increased during 2012-13 to 2016-17, then it declined in 2017-18 and then marginally increased in 2018-19 (Fig. 1). Out of the total number of universities in India, 385 universities are privately managed (Fig. 2), 394 universities are located in rural areas and 16 universities are exclusively for women. Further, out of the total number of colleges, 60.53 per cent colleges are located in rural areas and 11.04 per cent colleges are exclusively for women. The total number of foreign students enrolled in higher education was reported to be 47,427 which came from 164 different countries from across the globe. Almost 31 per cent of the universities in India are privately managed. One has to make a distinction here between two kinds of private educational institutions: those that are set up for philanthropic/humanitarian reasons and those that are set up as profit/business.<sup>9</sup> Moreover, privatisation is being promoted everywhere with the argument that competition would be good to the public universities and that would result in

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<sup>7</sup> <https://www.topuniversities.com/where-to-study/asia/india/guide>

<sup>8</sup> <https://www.worldbank.org/en/topic/tertiaryeducation>

<sup>9</sup> <https://www.thehindu.com/features/education/college-and-university/economist-prabhat-patnaik-on-setting-up-private-universities-in-kerala/article7952478.ece>



an overall rise in the quality of higher education in India. Whether this argument stands true or the picture is opposite, needs a separate investigation.

FIGURE 1

Growth in Number of Universities and Colleges in India (2012-13 to 2018-19)

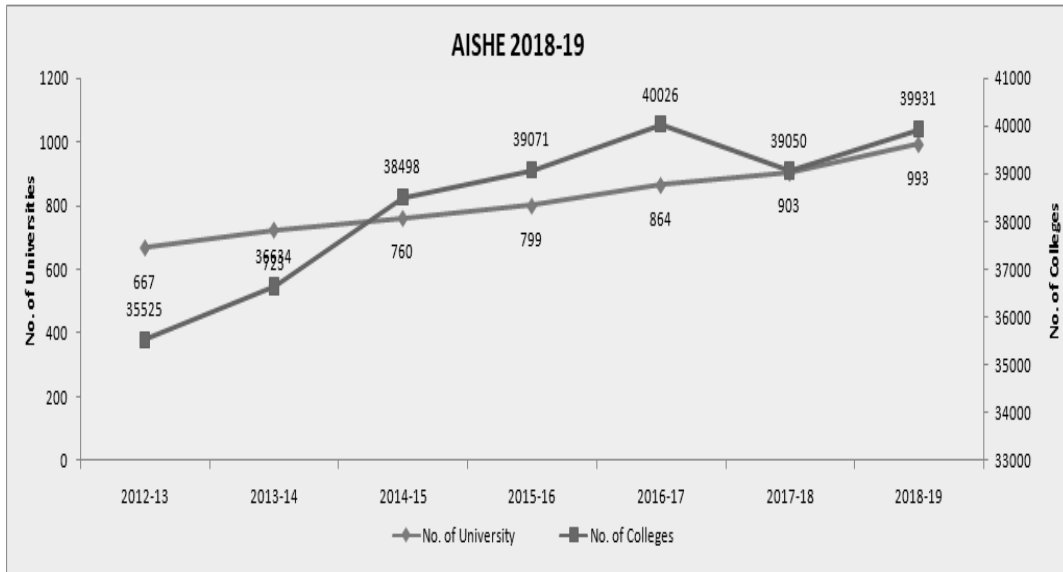
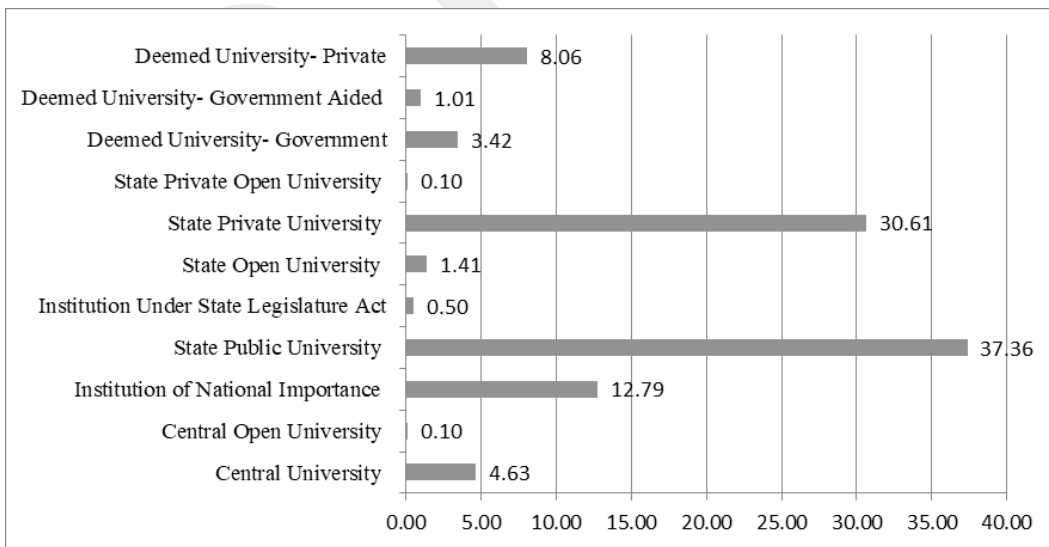


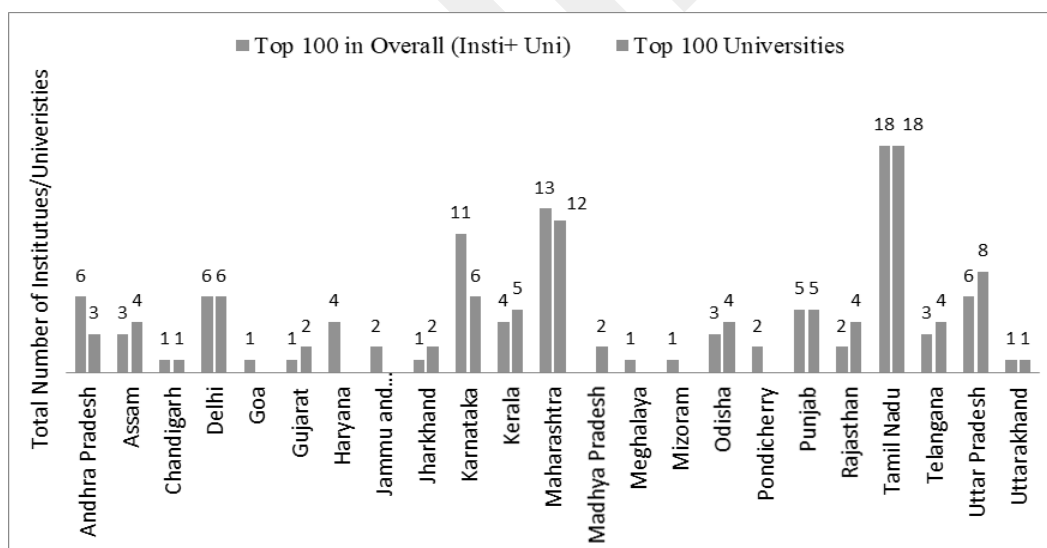
FIGURE 2

Types of Universities in India (2018-19) % to total



In order to enhance the quality and standard of education in the educational institutions, the Ministry of Human Resource Development, GOI approved and launched the National Institutional Ranking Framework (NIRF) on 29 September 2015 in order to assess and rank the institutions across the country. The parameters considered to rank the institutions broadly covered “teaching, learning and resources,” “research and professional practices,” “graduation outcomes,” “outreach and inclusivity,” and “perception.” India Rankings 2016 were then released on 4 April 2016. Over the period, though main ranking parameters have remained the same, a few significant changes were made in a few of the sub-parameters. The statewide number of institutes and universities in total 100 overall institutes and 100 universities list in India in 2020<sup>10</sup> is presented in Fig. 3. It can be seen from the figure that the state of Tamil Nadu ranks top in both the categories (overall<sup>11</sup> and universities) having 18 overall institutions and 18 universities in the national list of top 100. Maharashtra ranked second having 13 overall and 12 universities, followed by Karnataka having 11 overall and 6 universities. Gujarat ranked 14<sup>th</sup> place and 17<sup>th</sup> place respectively in ranking at overall and universities level in 2019 (GOI, 2019, AISHE). Despite the innovative and continuous efforts made by the Gujarat Government, the performance of higher education in the State could be get place in high rank in the all-India list. Therefore, it is important to review the status of higher education in India with a focus on Gujarat keeping in view the NEP 2020.

FIGURE 3  
Statewise Number of Institutes & Univeristies in Total Top 100 Overall  
Institutes & 100 Univeristies in India (2020)



<sup>10</sup> Ranking of institutions under “Agriculture” subject domain was not undertaken in 2019 as desired by the Indian Council of Agricultural Research (NEP 2020). In total, 3,771 unique institutions had responded in 2019 and offered themselves for ranking under “Overall” category-specific or domain-specific rankings.

<sup>11</sup> Includes Institutions and Universities.

## Status of Higher Education in Gujarat

Gujarat has historically been known for business wisdom of its people. The economy of Gujarat grew at a rapid pace with the double-digit rate of growth during the first decade, which was a result of a well-thought out strategy, carefully planned and coordinated scheme of action, hard work and proper implementation of the programme, supportive role of the political leadership to take bold decisions and commitments to economic policy reforms by the state government. Gujarat is one of the progressive states in India, which is echoed in its move towards the reforms in its education system. Gujarat is moving ahead speedily to internationalise its education and trade, and has not waited for the central government legislation and moved ahead with major reforms within their system (AISHE 2019). The state of Gujarat has a population of 640 lakh, of which 78 per cent was literate (Census, 2011). The share of population in the age group of 18-23 years to the total state population is estimated to be 11.77 per cent; this accounts for 5 per cent share in the total population of India in age group of 18-23 years (Table 1).

TABLE 1  
Indicators of Education in Gujarat

<i>Sr No</i>	<i>Indicator</i>	<i>Male</i>	<i>Female</i>	<i>Total</i>
1	State Population 2011 (in million)	28.95	31.49	60.44
2	State Literacy rate 2011 (%)	85.75	69.68	78.03
3	State Population in age group of 18-23 years (million)	3.78	3.33	7.12
4	Share of Population in age group of 18-23 years to Total State Population (%)	13.06	10.58	11.77
5	Share of State population (in age group of 18-23 years) to All-India population (18-23 years)	5.16	4.98	5.07

The State has 72 universities, 2232 colleges and 330 stand-alone institutions. The State accounted for 7.25 per cent share in total universities in India in 2019. Out of all the universities in Gujarat, 47.2 per cent are state private and 39 per cent are state public universities (Table 2). Thus almost half of the universities in Gujarat were privately run, as compared to 31 per cent at the all-India level in 2018-19. During the last eight years, private universities in Gujarat have increased by 278 per cent (2018-19 over 2010-11) while the corresponding increase at the all-India level is estimated to be 249 per cent. There is an increase of 25 private universities in the state of Gujarat in the span of eight years which is self-explanatory insofar as the policy of State Government towards higher education is concerned.

TABLE 2  
**Growth in Number of Institutions & Universities in India and Gujarat  
 (2010-11 & 2018-19)**

<i>Particulars</i>	<i>India</i>			<i>Gujarat</i>			<i>Share of Gujarat</i>	
	<i>2010-11</i>	<i>2018-19</i>	<i>% (+/-)</i>	<i>2010-11</i>	<i>2018-19</i>	<i>% (+/-)</i>	<i>% to State Total 2018-19</i>	<i>% to All-India 2018-19</i>
Central University	41	46	12.2	1	1	0.0	1.4	2.2
Central Open University	1	1	0.0	0	0		0.0	0.0
Institutes of National Importance	59	127	115.3	2	5	150.0	6.9	3.9
State Public University	281	371	32.0	21	28	33.3	38.9	7.5
Institution under SLA	5	5	0.0	0	0		0.0	0.0
State Open University	13	14	7.7	1	1	0.0	1.4	7.1
State Private University	87	304	249.4	9	34	277.8	47.2	11.2
State Private Open Uni.	0	1		0	0		0.0	0.0
Deemed University-G&A	40	44	10.0	0	2		2.8	4.5
Deemed University-Private	91	80	-12.1	2	1	-50.0	1.4	1.3
Others	3	0	-100.0	0	0		0.0	#DIV/0!
Grand Total	621	993	59.9	36	72	100.0	100.0	7.3

*Abbr:* SLA- State Legislature Act; G&A-Government & Aided

In the case of colleges, same pattern can be seen from Table 3. Almost 82 per cent colleges in Gujarat are privately managed as compared to about 67 per cent at the all-India level. Besides, student enrolment per college was reported the highest in private aided college as like at national level and the lowest was in private unaided colleges. Out of the total 11.35 lakh students enrolled in Gujarat, almost 42 per cent students are in private unaided colleges (Table 3). The main reasons cited for admission in private colleges were supportive and better environment of learning, not get admission in government colleges as well as non-availability of government colleges nearby (Table 4). In terms of coverage of the colleges, the state of Gujarat stands a little ahead of the national average of 28 colleges per lakh of population; the state reported 31 colleges per lakh population in Gujarat. However, average enrolment per college in the state of Gujarat is reported to be 513 which was lower than the national average of 693 (Table 4) indicating lower admission intakes of colleges in Gujarat. Gujarat accounts for hardly 3.5 per cent of students at the PhD level and 3.05 per cent at the overall level in the country (Table 5). There is not much difference when one compares share of each level in the state and at the all-India level. Gujarat accounts for

around 4 per cent to the national total of students enrolled for various levels, of which certificate level courses account for 10 per cent of total at the national level. The share of post-graduate students in the total number of students is very poor in Gujarat as compared to the national average.

TABLE 3  
Types of Colleges and Students Enrolment in Gujarat and India (2019)

Sr. No.	Particulars	Gujarat (responded)			India (responded)		
		Numbers	Student share in total	Enrolment per college	Numbers	Student share in total	Enrolment per college
1	Private						
	Private unaided	1403	41.8	337.96	24541	45.20	487.4
	Private Aided	498	40.0	913.25	5148	21.21	1090.6
	Total Private	1901	81.8	488.67	29689	66.41	592.0
2	Government	313	18.2	660.34	8490	33.59	1047.0
	Total	2214	100.0	512.94	38179	100.00	693.2

TABLE 4  
Reason for Preferring Private Institutions for Studying in Gujarat and All-India

Sr. No.	Per 1000 distribution of students studying in private institution	Graduation and above	Diploma/certificate course
1	Non-availability of govt. institution nearby	198	132
2	Learning environment is better	438	359
3	Medium of instruction was English	36	40
4	Poor quality of education in govt. institutions	116	75
5	Could not get admission in Govt Institution	202	390
6	No/Can't say	10	3

Source: NSSO (2014)

TABLE 5

**Students Enrolment at Various Levels in Gujarat and Its Share in India**

Sr. No	Level	Students enrolment at various levels								
		Gujarat share in India (%)			Gujarat-% to State total			India-% to total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
1	Ph.D.	3.78	3.14	3.50	0.43	0.36	0.40	0.49	0.41	0.45
2	M.Phil.	4.04	2.17	2.88	0.06	0.06	0.06	0.06	0.10	0.08
3	Post Graduate	3.63	3.66	3.65	7.67	12.95	9.97	9.17	12.54	10.81
4	Under Graduate	4.28	3.40	3.85	78.06	77.10	77.64	79.14	80.41	79.76
5	PG Diploma	2.98	3.27	3.12	0.43	0.52	0.47	0.63	0.57	0.60
6	Diploma	5.41	4.56	5.13	11.72	6.34	9.37	9.39	4.93	7.22
7	Certificate	7.75	11.12	9.57	0.70	1.51	1.05	0.39	0.48	0.44
8	Integrated	5.57	7.21	6.27	0.93	1.15	1.02	0.72	0.56	0.64
	Grand Total	4.34	3.55	3.95	100.0	100.0	100.0	100.0	100.0	100.0

Source: AISHE (2010-11 TO 2018-19)

**Gross Enrolment Ratio (GER<sup>12</sup>) in Higher Education**

The National Education Policy 2020 aims to increase the GER in higher education to 50 per cent by 2035. As per AISHE 2018-19 report, the GER in higher education in the country is estimated to be 26.3 per cent as compared to 70 per cent in Germany, 66 per cent in France and 60 per cent in US.<sup>13</sup> India's GER has increased from 19.4 per cent in 2010-11, at the rate of 3.7 per cent per annum (Fig. 4 and Table 6). This indicates that 26.3 per cent of the total population in the age group of 18-23 in India attends a college or university. GER for females was found higher than their male counterparts. Tamil Nadu state ranked top, having 49 per cent GER, followed by Andhra Pradesh (34.4 per cent) and Maharashtra state (32.0 per cent). But the gross enrolment ratio in this age group in Gujarat is reported to be 20.4 per cent in 2018-19, which was lower than the all-India average. The growth in GER

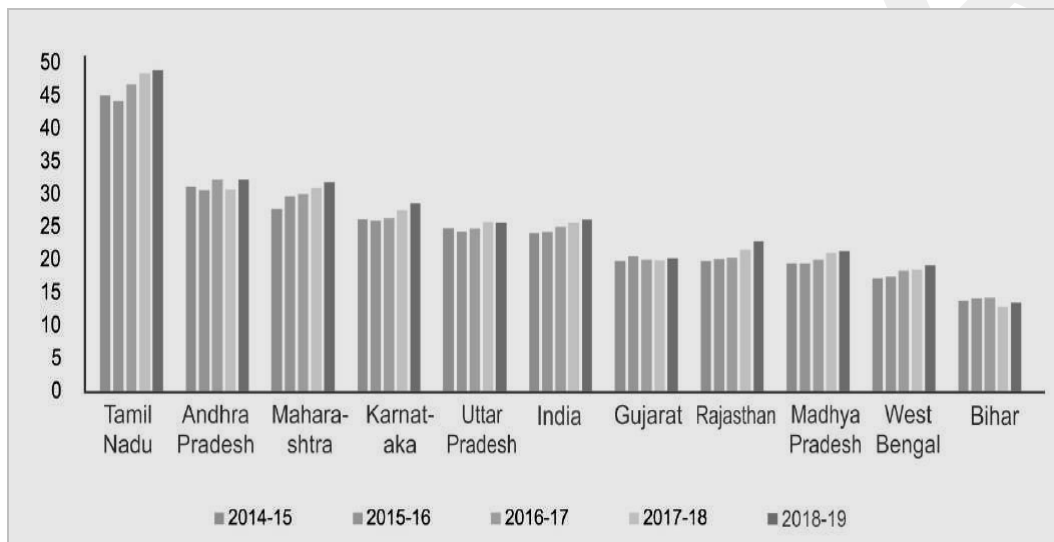
<sup>12</sup> "GER is the ratio of population in the 18-23 age group to the number of people enrolled in higher education. GER includes students who are repeating a grade, those who enrolled late and are older than their classmates, or those who have advanced quickly and are younger than their classmates. This allows the total enrolment to exceed the population that corresponds to that level of education."

<sup>13</sup> <https://www.prsindia.org/theprsblog/national-education-policy-recommendations-and-current-scenario>.

level is found unstable in Gujarat. The lower GER in Gujarat indicated that there is a need of improvement in its overall higher education scenario. In this rate of growth in GER, the NEP 2020 target would be achieved in the year 2036-37 at all-India level (two years later than the target year) while it can be achieved in Gujarat by the year 2043-44 (almost one decade later than the target year). In this context, however, some of the researchers<sup>14</sup> have argued that instead of GER, Eligibility Enrolment Ratio (EER<sup>15</sup>) should be used.

FIGURE 4

#### Statewise Gross Enrolment Ratio (GER) in India (2014-15 to 2018-19)



The NEP 2020 recommends that for increasing the GER, improvement in the capacity of existing higher education institutes is a must and this is to be done by restructuring and expanding the existing institutes. Besides, there is the need to have large multi-disciplinary institutes (with enrolments in thousands), and one such institution in or near every district by 2030. Further, institutions should have the option to run open distance learning and online programmes to improve the access to higher education.

<sup>14</sup> <https://theprint.in/india/education/study-shows-how-indias-higher-education-enrollment-can-jump-to-65-from-27/441582/>

<sup>15</sup> "EER is the ratio of eligible population — those who have at least passed Class 12 in the 18-23 age group — to the number of people attending college"

TABLE 6  
Gross Enrolment Ratio in Gujarat and India

Sr. No.	Year	Gross Enrolment Ratio in Gujarat and India					
		Gujarat			All-India		
		Male	Female	Total	Male	Female	Total
1	2010-11	23.5	18.8	21.3	20.8	17.9	19.4
2	2011-12	18.1	14.7	16.5	22.1	19.4	20.8
3	2012-13	20.2	16.2	18.3	22.7	20.1	21.5
4	2013-14	21.5	17.2	19.5	23.9	22.0	23.0
5	2014-15	22.2	17.5	20.0	25.3	23.2	24.3
6	2015-16	22.9	18.3	20.7	25.4	23.5	24.5
7	2016-17	22.9	17.3	20.2	26.0	24.5	25.2
8	2017-18	21.9	18.2	20.1	26.3	25.4	25.8
9	2018-19	22.0	18.7	20.4	26.3	26.4	26.3
	CGR (per cent)	1.0	1.4	1.1	3.0*	4.7*	3.7*

Abbr: CGR- Compound growth rate; \* significant at 1 per cent level significance

### Pupil Teacher Ratio & Student Enrolment in Higher Education

Another important factor that heavily influences the quality of teaching in an educational institute or university is the number of students per teacher, referred to as the pupil/student to teacher ratio. As per AISHE (2018-19), the student enrolment in higher education institutes have increased from 32.3 million in 2013-14 to 36.6 million in 2017-18, while total numbers of teachers have declined from 13,67,535 to 12,84,755. The pupil teacher ratio at national level is estimated of 24:1 (regular enrolment is considered) which has increased from 21:1 in 2010-11 (Table 7). The 24:1 ratio of India is lower than 19:1 in Brazil and China. It means that corresponding increase in teachers is lower than increase in number of students. The faculty shortage has worsened over the time due to increasing enrolment rate of the students and low faculty recruitment in the higher education institutes. It is estimated that India has a shortfall of 5 lakh teachers, which is a matter of great concern. In the state of Gujarat, same ratio is estimated (24:1). A low pupil-teacher ratio not only results in overburdening a small group of teachers but also badly affects the quality of educational research taken up by them. Besides, it also indicates the burden on a single teacher of teaching multiple students as well as the lack of time that is to be given to each student. Apart from this, a smaller number of overburdened teachers are not in a position to pursue any research or give confidence to their students to do so. As a result, the tradition of questioning and innovative way of thinking cannot be inculcated as a part of higher education in most institutions. Shah and Shah (2018) noted that the challenges faced



by higher education in Gujarat were a severe deficiency of teachers in grant-in-aid colleges; poor guidance; ineffective certification (accreditation) structures for schools, colleges; very meagre research oriented higher education institutions; and education given by higher education institutions does not cater the demand of job market. The effect of low pupil teacher ratio can be seen in the number of students for higher degrees and diploma in the state of Gujarat (see Table 7).

TABLE 7  
Pupil Teacher Ratio in Higher Education in Gujarat and India

State/ Year	<i>Pupil Teacher Ratio in Higher Education in Gujarat and India</i>					
	<i>All Institutions</i>		<i>University &amp; Colleges</i>		<i>University &amp; its Constituent Units</i>	
	<i>Regular &amp; Distance Mode</i>	<i>Regular Mode</i>	<i>Regular &amp; Distance Mode</i>	<i>Regular Mode</i>	<i>Regular &amp; Distance Mode</i>	<i>Regular Mode</i>
<b>Gujarat</b>						
2011-12	27	26	28	27	27	22
2012-13	27	26	28	26	32	22
2013-14	27	26	28	26	30	20
2014-15	28	26	29	27	31	19
2015-16	27	25	28	26	32	23
2016-17	28	27	30	24	10	27
2017-18	27	26	32	30	30	23
2018-19	26	24	33	32	27	21
<b>India</b>						
2011-12	23	21	24	21	42	16
2012-13	23	20	24	21	41	16
2013-14	24	21	25	21	41	16
2014-15	23	21	24	22	37	15
2015-16	23	20	24	21	37	16
2016-17	26	23	28	22	26	19
2017-18	29	25	34	30	46	20
2018-19	26	24	33	29	39	18

Source: AISHE (2010-11 to 2018-19)

## Gender Parity Index (GPI) In Higher Education

The gender parity index (GPI<sup>16</sup>) in higher education (18-23 years) in the state of Gujarat was estimated to be 0.85 in 2018-19, which was found lower than the all-India average of 1 (Table 8). Gujarat ranks a dismal 32nd among the 36 states and union territories in India which indicate a poor enrolment of the females: for every 100 boys enrolled in higher education, the number of girls enrolled is 85 only.

TABLE 8  
Gender Parity Index in Higher Education in Gujarat and India

Sr. No.	Year	Gender Parity Index in Higher Education (18-23 Years)					
		Gujarat			All-India		
		ALL	SC	ST	ALL	SC	ST
1	2010-11	0.80	0.79	0.82	0.86	0.84	0.74
2	2011-12	0.81	0.83	0.92	0.88	0.88	0.78
3	2012-13	0.80	0.79	0.92	0.89	0.89	0.79
4	2013-14	0.80	0.85	0.95	0.92	0.92	0.81
5	2014-15	0.79	0.83	0.98	0.92	0.91	0.81
6	2015-16	0.80	0.83	0.98	0.92	0.91	0.83
7	2016-17	0.75	0.69	0.84	0.94	0.93	0.85
8	2017-18	0.83	0.83	0.99	0.97	0.96	0.87
9	2018-19	0.85	0.86	0.99	1.00	1.02	0.92

Source: AISHE (2010-11 TO 2018-19)

## Net Attendance Ratio and Gross Attendance Ratio in Higher Education

As per the NSSO (2019) survey data, net and gross attendance ratio at post higher secondary level of education in Gujarat was reported to be 13.7 and 15.3 respectively which was much lower than the corresponding average figures estimated at all-India level of 19.4 and 22.8 (Table 9). Across the gender, the NAR<sup>17</sup> and GAR<sup>18</sup> found to be lower in case of female than male at State as well as national level. The poor rate of attendance is a matter of concern which needs to be noted by the concerned authorities.

<sup>16</sup> "The Gender Parity Index (GPI) is a socioeconomic index usually designed to measure the relative access to education of males and females."

<sup>17</sup> The "ratio of the number of persons in the official age-group attending a particular level of education to the total number persons in the age-group"

<sup>18</sup> The "ratio of the number of persons attending in the level of education to the number persons in the corresponding official age-group"

TABLE 9

**Net and Gross Attendance Ratio at Post Higher Secondary Level of Education in Gujarat and All-India**

<i>Net and Gross Attendance Ratio at Post Higher Secondary Level of education</i>	<i>Gujarat</i>			<i>All-India</i>		
	<i>Male</i>	<i>Female</i>	<i>Person</i>	<i>Male</i>	<i>Female</i>	<i>Person</i>
Net Attendance Ratio						
Rural	11.5	6.8	9.2	17.7	13.2	15.6
Urban	20.3	21.9	21.0	29.1	27.6	28.3
Rural+Urban	15.0	12.3	13.7	21.1	17.6	19.4
Gross Attendance Ratio						
Rural	12.7	7.6	10.2	20.7	15.6	18.3
Urban	22.2	25.2	23.6	34.1	32.5	33.4
Rural+Urban	16.5	14.0	15.3	24.7	20.7	22.8

Source: NSSO (2019), 75<sup>th</sup> round, Household Social Consumption: Education

### Dropouts in Higher Education

The National Education Policy (NEP) 2020 also aimed at curtailing the dropouts<sup>19</sup> for ensuring universal access to education. The NSSO (2019) data on the percentages of dropouts among ever enrolled persons of age 3 to 35 years, by the level of last enrolment, is presented in Table 10. The table indicates that along with the poor attendance ratio of students in Gujarat, dropouts are also reported higher in the state than the national average by 5.2 per cent points. The dropout was estimated to be 17.8 per cent in Gujarat as compared to 12.6 per cent at the all-India level, in which dropouts were higher in rural areas than urban areas. Across the genders, at the overall level, female dropouts are reported higher than male dropouts at the all-India level while the opposite picture was reported in Gujarat state.

TABLE 10

**Percentage of Persons Dropped out among Ever Enrolled Persons of Age 3 to 35 years in Gujarat and India**

<i>Particulars</i>	<i>Gujarat</i>			<i>All-India</i>		
	<i>Male</i>	<i>Female</i>	<i>Person</i>	<i>Male</i>	<i>Female</i>	<i>Person</i>
Rural	21.3	19.5	20.5	13.2	14.7	13.8
Urban	13.7	13.9	13.8	9.5	9.7	9.6
Rural+Urban	18.2	17.3	17.8	12.1	13.2	12.6

Source: NSSO (2019), 75<sup>th</sup> round, Household Social Consumption: Education

<sup>19</sup> An ever-enrolled person was considered as dropped out if he/ she did not complete the last level of education for which he/she enrolled and currently not attending any educational institution for reasons other than 'completion of the desired level of education' (NSSO, 2019).

### Expenditure on Education for the Basic Course

Average expenditure on education per student pursuing any course in Gujarat as well as the all-India average is presented in Table 11. It can be seen from table that course fee for technical/professional courses in Gujarat is found to be lower than the all-India average, while the opposite picture was noticed in case of the course fee for general and any course. As compared to the fees in rural areas at the all-India average, the course fee is lower in Gujarat at all the three levels of education. This is an important point to be noted here.

TABLE 11  
Average Expenditure (Rs.) per Student in Basic Courses

Area	Levels Of Education	All-India			Gujarat		
		Male	Female	Person	Male	Female	Person
Rural	General Course	5579	4812	5240	4984	3702	4392
	Technical/Professional Course	32376	31622	32137	22925	27161	23897
	Any Course*	6362	5277	5887	5753	4061	4984
Urban	General Course	17123	15282	16308	16906	14778	16030
	Technical/Professional Course	68700	58120	64763	49315	70094	55861
	Any Course*	21381	17978	19893	19754	18072	19074
All	General Course	8797	7742	8331	9730	7588	8782
	Technical/Professional Course	51844	47421	50307	38427	56673	43575
	Any Course*	10721	8955	9948	11489	9125	10461

Source: NSSO, 2019

As per the NEP 2020, alternative modes of quality education need to be developed when in-person education is not possible, as was observed during the recent COVID-19 pandemic. In view of the same, the availability of computer and internet across households is an important factor. As per the NSSO (2019) data, access to internet and computer was very poor in rural areas. Only 4.4 per cent of the rural households in Gujarat and at all-India level have access to a computer (excludes smart phones), while nearly 15 per cent have access to internet facility at the all-India level and 21.1 per cent at the state level. Among the urban households, 42 per cent have access to internet at the all-India level while corresponding figure for Gujarat is 49.1 per cent (Table 12). Thus, Gujarat's performance is better than the all-India average on both these parameters.

TABLE 12

**Percentage of Households with Computer and Internet Facility**

<i>State</i>	<i>Gujarat</i>		<i>All-India</i>	
	<i>Computer</i>	<i>Internet Facility</i>	<i>Computer</i>	<i>Internet Facility</i>
Rural	4.4	21.1	4.4	14.9
Urban	20.1	49.1	23.4	42.0
Rural+Urban	11.2	33.2	10.7	23.8

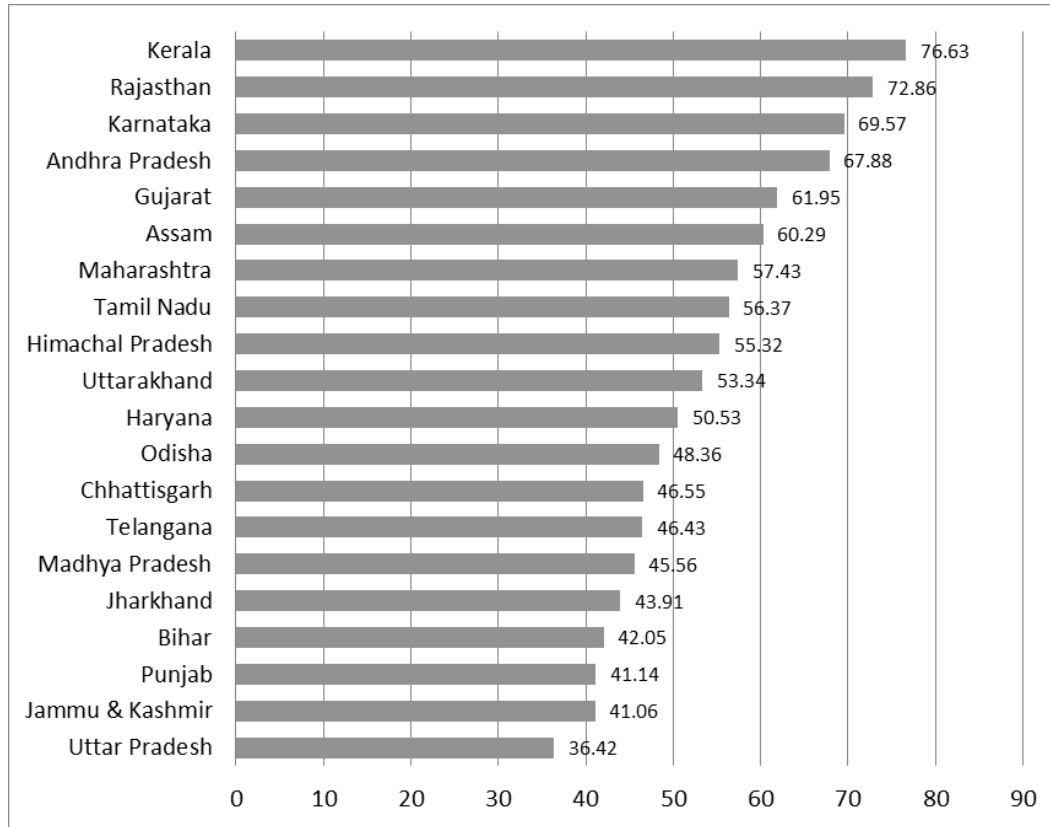
*Source:* NSSO, 2019

**Ranking of State and Educational Institutes****School Education Quality Index (SEQI)<sup>20</sup>**

The NITI Aayog has developed a School Education Quality Index (SEQI) to evaluate the performance of States and Union Territories (UTs) in the school education sector. The index recognises that while school education is a subject on the Concurrent List, State-level leadership is crucial for improving the outcomes in a cost-effective manner. The index aims to add an outcome-focus to the education policy by providing the States and UTs with a platform to identify their strengths and weaknesses and undertake necessary course corrections or policy interventions. In line with the NITI Aayog's aim to promote the spirit of competitive and cooperative federalism, the index strives to facilitate the sharing of knowledge and best practices across the States and UTs. SEQI is based on a set of indicators that measure the overall effectiveness, quality and efficiency of the Indian school education system. The index encourages the States/UTs to improve their scores by showing progress across these aspects. As per the SEQI 2016-17, Kerala state ranks top by scoring 76.63 points, followed by Rajasthan (72.86) and Karnataka (69.57). Gujarat state ranks fifth with a score of 61.95 (Fig. 5).

<sup>20</sup> <http://social.niti.gov.in/edu-new-ranking>

FIGURE 5  
SEI-Education Index 2016-17



### National Institutional Ranking Framework (NIRF) 2020

As discussed earlier, Gujarat state ranked 14<sup>th</sup> and 17<sup>th</sup> respectively in the National Institutional Ranking Framework (NIRF) 2020 at the overall and the universities level in 2019. Only Gujarat University (GU), Ahmedabad, could get a place overall in the university category and ranked 60<sup>th</sup> with a score of 47.10 (Table 13). In fact, in total, four universities were listed in the NIRF 2016 report, two each in the 2017 and 2018 reports and now only one in the 2019 report, which is a matter of great concern. At the overall level, only one institute, viz. the Indian Institute of Technology, Gandhinagar, was ranked 35<sup>th</sup> in the all-India list (Table 15). Among the top 200 engineering institutions, only seven institutions from Gujarat were included. The only happy news for Gujarat is that among the best 75 management institutions in India, Indian Institute of Management, Ahmedabad (IIMA) ranked number one under the management category with a score of 82.75, along with other three management institutions. Clinching the top position from the second place in 2019, IIMA ranked first, pushing the Indian Institute of Management, Bangalore, behind.

Among the top 75 pharmacy institutions in India, four are in Gujarat. Only two colleges in Gujarat could score a presence in the top 100 colleges of the country. One college of law and an architecture institute of Gujarat ranked among the top 20 best institutions. None of the medical and dental institutions from Gujarat could figure in the top 40 medical and 30 dental institutions of India. Gujarat state has a huge capacity in terms of infrastructure and talent which need to be placed properly in order that institutions and universities in the state could regain the top rank at the national level.

TABLE 13

**List of Universities in Gujarat with a Rank at All-India Level (2016-2020)**

<i>Year of Report</i>	<i>University code</i>	<i>Gujarat</i>	<i>Place</i>	<i>Score</i>	<i>All-India Rank</i>	<i>Number of Universities</i>
2016	NIRF-UNIV-534	Pandit Deendayal Petroleum University	Gandhinagar	58.67	55	1
2016	NIRF-UNIV-101	Central University Of Gujarat	Gandhinagar	57.14	60	2
2016	NIRF-UNIV-210	Gujarat University	Ahmedabad	54.01	73	3
2016	NIRF-UNIV-405	Maharaja Sayajirao University of Baroda Vadodara	Vadodara	53.14	76	4
2017	IR17-I-2-18276	Anand Agricultural University	Anand	42.26	40	1
2017	IR17-I-2-18406	Nirma University	Ahmedabad	36.21	75	2
2018	IR-1-O-O-U-0123	Anand Agricultural University	Anand	39.21	83	1
2018	IR-1-O-O-U-0146	Nirma University	Ahmedabad	38.15	94	2
2019	R-O-U-0123	Anand Agricultural University	Anand	41.20	67	1
2020	IR-O-U-0136	Gujarat University	Ahmedabad	48.21	44	1

TABLE 14

**List of Universities in Gujarat with a Rank at All-India Level, 2020**

<i>Sr. No.</i>	<i>Total Institutions/ Universities Ranked in India</i>	<i>Name of Institutions/Universities Ranked in All-India list</i>	<i>Rank</i>
1	Top 100 in Overall	Indian Institute of Technology Gandhinagar	35
2	Top 100 Universities	Gujarat University	44
3	Top 200 in Engineering	Indian Institute of Technology Gandhinagar	24
		Sardar Vallabhbhai National Institute of Technology	54
		Dhirubhai Ambani Institute of Information and Communication Technology	111
		Maharaja Sayajirao University of Baroda	116
		Nirma University	131
		Pandit Deendayal Petroleum University	177
		Dharmsinh Desai University	193
4	Top 75 in Management	Indian Institute of Management Ahmedabad	1
		Nirma University	44
		Institute of Rural Management Anand	72
		Pandit Deendayal Petroleum University	74
5	Top 75 in Pharmacy	National Institute of Pharmaceutical Education and Research Ahmedabad	8
		Maharaja Sayajirao University of Baroda	14
		Nirma University	17
		L. M. College of Pharmacy	45
6	Top 100 Colleges	P. D. Patel Institute of Applied Sciences	24
		St. Xavier's College	59
7	Top 40 in Medical	Nil	0
8	Top 20 in Law	Gujarat National Law University	7
9	Top 20 in Architecture	Centre for Environmental Planning and Technology University	4
10	Top 30 in Dental	Nil	0



### Knowledge Consortium of Gujarat

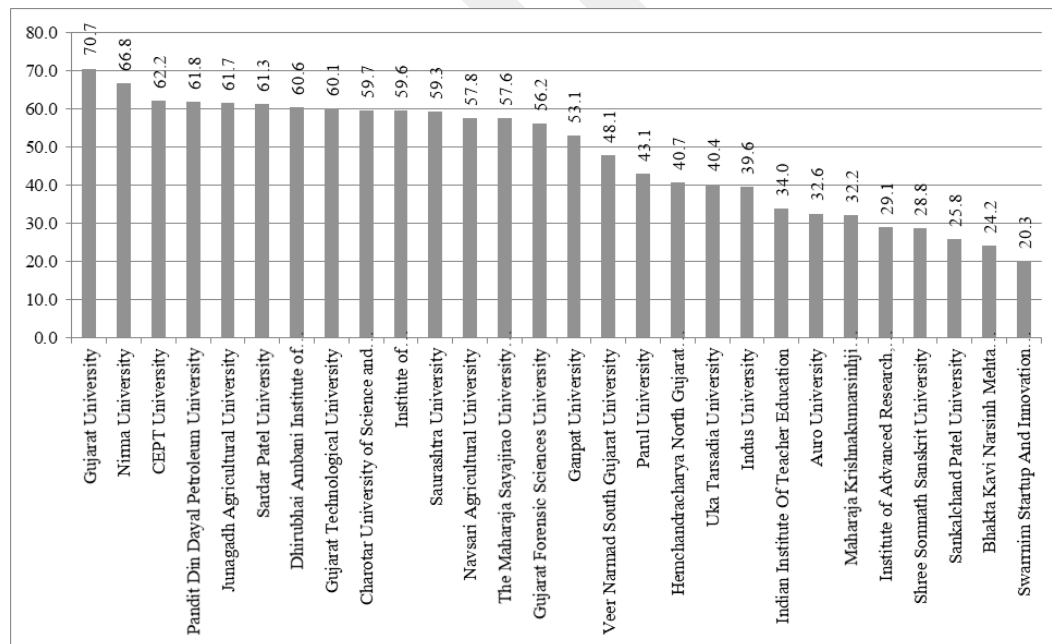
The state government of Gujarat has been making various efforts to make its education system global and industry orientated towards a vibrant Gujarat. The Knowledge Consortium of Gujarat (KCG) was established by the Department of Education of the State Government to create a network of relationships in the field of knowledge generation and dissemination. The KCG is focussed on the links between trade and education, and its skills and higher education sector reforms are driven primarily by the needs of business and industry. KCG aims for partnerships with the United Kingdom institutions in teaching, research and links with industry. (British Council, 2014).

### Gujarat State Institutional Rating Framework (GSIRF<sup>21</sup>)

In line with NIRF, the Gujarat State Institutional Rating Framework (GSIRF) was created to forge world class institutions in Gujarat. For this purpose, the KCG works in partnership with the Indian Centre for Academic Rankings and Excellence which is India's most trusted institution of ranking and a rating authority. A total of 138 institutions are ranked in GSIRF 2020 wherein 20 universities and 8 colleges are listed. As per the report, out of the 28 assessed universities, Gujarat University ranked first, followed by the Nirma University and CEPT University. These all are Ahmedabad based universities.

FIGURE 6

Gujarat State Institutional Rating Framework 2020- Universities Score



<sup>21</sup> <https://kcg.gujarat.gov.in/gsirfgujarat-state-institutional-rating-framework>

## Conclusion

It can be concluded from the above discussion that though India ranks third in the world in terms of number of institutions, its education system is falling far behind in the world ranking. India falls behind not only in terms of expenditure per student and per teacher, but also in its share of total public expenditure on education. There was consistent increase in number of universities in India during the last six years. Out of total universities in India, almost 31 per cent of total universities in India are privately managed. Despite the innovative and continuous efforts made by the Gujarat Government, performance of higher education in the State could not get it a high place in the all-India list. Out of total universities in Gujarat, 47.2 per cent are state private and 39 per cent are state public universities. Almost 82 per cent colleges in Gujarat are privately managed. In terms of the coverage of these colleges, the state of Gujarat stands only a little ahead of the national average. The GER in higher education in the country is estimated to be 26.3 per cent and GER for females is found higher than their male counterparts. Tamil Nadu ranks top in the list, having 49 per cent GER while it was reported to be only 20.4 per cent in Gujarat. The pupil teacher ratio at national level as well as at Gujarat is estimated to be 24:1. A low pupil-teacher ratio not only results in the overburdening of a small group of teachers but also badly affects the quality of educational research taken up by them. The gender parity index (GPI) in higher education (18-23 years) in the state of Gujarat was estimated to be 0.85 in 2018-19 which was found lower than the all-India average of 1. Gujarat ranks a dismal 32<sup>nd</sup> among the 36 states and union territories in India which indicates poor enrolment of females: for every 100 boys enrolled in higher education, the number of girls enrolled is 85 only. The net and gross attendance ratio at the post higher secondary level of education in Gujarat was reported to be 13.7 and 15.3 respectively which was much lower than the corresponding average figures estimated at the all-India level of 19.4 and 22.8. Along with the poor attendance ratio of students in Gujarat, dropouts are also reported higher in the state than the national average by 5.2 per cent points. Besides, only 4.4 per cent of rural households in Gujarat and at the all-India level have an access to a computer (excludes smart phones), and nearly 15 per cent have access to the internet facility at the all-India level and 21.1 per cent at the state level. Gujarat state ranks 14<sup>th</sup> and 17<sup>th</sup> respectively in NIRF 2020 ranking at the overall and universities level in 2019. Only Gujarat University (GU), Ahmedabad, could get a place in the overall university category which has ranked 60<sup>th</sup> with a score of 47.10. The state government of Gujarat has been making various efforts to make its education system global and industry orientated towards a vibrant Gujarat. However, Gujarat state needs to work hard in the above mentioned areas. The review of literature also supported these findings. There is urgent need for institutional collaborations in teaching and learning; research collaboration in humanities, arts and social sciences; enterprise education, entrepreneurship, links with industry; and system-wide support for higher education reform. There is also a need to strike a balance between autonomy and accountability in case of the private institutions and universities as well as to take necessary steps to control the mushrooming of low quality and money-making institutes. There should be only one ranking for quality assessment at the national level as a multitude of ranking leads to many avoidable problems.

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## Neo-Liberal Policies and Higher Education in India: Some Reflections from Punjab

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### Abstract

Higher education constitutes the knowledge pool of a country. Access to higher education is critical to access the opportunities that accompany the economic growth, socio-cultural development and the quality of life. By examining the higher education in the context of the neo-liberal agenda of development at the national level in general and the state of Punjab in particular, this article attempts to discuss the implications of the paradigm shift in the state policy from a welfare one to neo-liberal one. It also tries to delineate how the new economic reform policies have left a deep impact on the higher education system in the context to expansion, equity and access. On the one hand the public expenditure on higher education has gone down in the last few decades, and on the other hand the mushrooming of private institutions has raised the pertinent issues of access and quality of higher education. An effort has also been made to examine the educational migration of the students amid neo-liberal expansion of higher education within the state. It is concluded that lack of affordability, poor quality of education as well as absence of employment opportunities have played a significant role to push the youth out of higher education and opt to migrate to the developed countries.

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## Introduction

This century is the age of knowledge-based economy and higher education plays an important role in promoting the growth of the knowledge sectors of the economy. Higher education constitutes the knowledge pool of a country. After the human capital revolution, the contribution of education to economic growth was acknowledged, but its contribution to other facets of development like poverty reduction, inequalities and human development was recognised mainly after 1985 when the World Bank set poverty reduction as an important agenda. For this endeavour, the role of primary education was recognised while the secondary and higher education were considered having no relationship with poverty and even causing an increase in economic inequalities in the society (Tilak, 2018). The changed socio-economic and political scenario of the world, in the last decade of the twentieth century, had set the notion of preferring only primary education invalid. With the increasing advancement in technology in every sphere of life, higher education has become a very important tool of development. The UNESCO's World Conference on Higher Education, in Paris in 1999, recognised higher education as a 'public good' and called on countries not to disinvest in the sector during the global economic crisis. To define the term 'public and private goods' in an economic sense, Paul Samuelson (1954) had distinguished between the non-market and market activities, and had defined public goods as 'non-rivalrous' and 'non-excludable.' Goods are non-rivalrous when they can be consumed by any number of people without being depleted and are non-excludable when the benefits cannot be confined to individual buyers. As Stiglitz (1999) argued, knowledge, and thereby higher education, does satisfy all the conditions of public good. The state must play a role in the provision of such goods; otherwise, they will be undersupplied. To define the terms politically, John Dewey (1927) had distinguished between the state and non-state owned or controlled activities. The role of the state is not confined to state-owned activities but extends to state controlled activities as well. The politically 'public' element in higher education is not confined only to institutions or activities that are directly government provided or financed; it also refers to any matter taken by the state as a deliberative actor with policy goals. 'Public' involves a kind of state's intervention to regulate the economic markets and private firms, and it goes beyond simply providing a stable legal framework (Marginson, 2017).

## Neo-Liberalism and Higher Education in India

The public good nature of higher education demands an increased role of the state and greater public investment in the sector. After independence, the Indian state adopted the welfare approach for the social and economic development of the country, which covered the education sector also. The state had launched many policies and programmes for the development of the education sector. With the adoption of the neo-liberal economic reform programmes in the 1990s, which accompanied the globalisation of the Indian economy, however, the Indian state has redefined its role. The new economic reform policies, which include stabilisation and structural adjustment through drastic cuts in public expenditure, have led the government to retreat from financially supporting education in general and higher education in particular. 'Government Subsidies in India: Discussion Paper,' put forward in 1997 by the Ministry of Finance, Government of India (GOI), stated that secondary and higher education is 'non-merit good' for which government subsidies needed

to be drastically reduced. Still further, in 2004, it declared all types of education except elementary education in India as 'Merit II good' (Patel, 2009).

Thus, in the name of curtailing the unwanted subsidies to reduce the fiscal deficits, the government has progressively reduced its expenditure on education (Patnaik, 2007). The deteriorating fiscal capacity of the state and the changing ideological orientation, especially since the mid-1980s, did not support an expansion of public universities to accommodate the increasing demand for higher education, and this has led to two phenomena: the privatisation of public institutions and the promotion of private institutions (Varghese, 2006). Consequently, in the last few decades, most of the expansion in terms of number of institutions took place in the private sector. Rao (2017) discussed the two phases of privatisation between the period 1995 to 2007-08 and after 2008-09. The period of 1995 to 2007-08 marked the process of withdrawal of the state from provisioning of public higher education, and the period after 2008-09 marked a clear engagement of the state in pushing privatisation hard by even pumping the name of vouchers and fee reimbursement schemes. In the post-2000 period, the expansion of higher education has been mostly in the private sector and in professional education according to the demand of the globalised employment market. The period of 1990-91 to 2012-13 experienced a very high growth rate in terms of enrolment, proliferation of capitation fee colleges, deemed to be universities in the private sector and the emergence of private universities through state legislation.

Thus the overall growth increased from 4.0 percent during 1970-90 to 9.1 percent during 1990-2013. The growth rate was still higher at 11.7 percent during the more recent period from 2001-02 to 2012-13. The GER increased from 5.9 to 21.1 percent during the period of 1990-2012 (Varghese, 2015). Though, in the recent decades, the higher education system in our country has witnessed a tremendous growth in many aspects such as the growth of institutions, in terms of enrolment of the students, teacher-student ratio, etc, but this rapid expansion of higher education system as a whole has brought to the fore several pertinent issues related to access, equity, efficiency and excellence.

The present paper attempts to discuss the visible and invisible implications of this paradigm shift in the state policy from a welfare one to a neo-liberal one in higher education. By making a case study of the state of Punjab, it also tries to unfold how the new economic reform policies have impacted the higher education system in the state, particularly in the context to its expansion, access and quality. An effort has been made to examine how the state's failure to address higher education has led to a systematic exclusion of youth from higher education and the consequent migration of students from the state.

## The Case of Punjab

The state of Punjab is generally viewed as one of the economically prosperous states of India, with significant economic and human development. Out of total population of Punjab, 37.48 percent people live in urban areas and 62.52 percent people live in villages. Average literacy rate in Punjab for rural areas is 71.42 percent and for urban areas it is 83.18 percent, reflecting how the rural population lags behind the urban area population in terms of literacy.<sup>1</sup> In spite of the fact that Punjab is a small and prosperous state and has relatively better physical infrastructure, there exists a large rural-urban gap in terms of education and

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<sup>1</sup> Census of 2011 Report

health delivery system. Being an agricultural state, most of the people depend upon the agriculture sector. The Green Revolution exercised a great positive impact on the productivity and the income of the people at a very early stage, but with the passage of time this very development has led to a crisis. The unhappy downward turn of Punjab economy can be traced back to 1984-85 when it became a 'revenue deficit state' from the status of 'revenue surplus one.' The crisis-ridden agrarian economy and decelerating industrial sector in Punjab offers only a small number of employment opportunities.

As per the Census 2011 (GoI, 2011), thus, in Punjab 61.79 lakh workers, which are 62.43 per cent of the total workforce, are rural workers. The share of agricultural workers in the total number of workers in Punjab has decreased from 62 per cent in 1971 to 36 per cent in 2011. This sharp decline is not due to their absorption entirely in non-farm sectors; rather the fact is that the pushed workforce from agriculture sector is going to be unemployed as the non agricultural sector has not been developed enough to absorb them (Ghuman, 2016). The unemployed rural educated youth constitute approximately 54 per cent of the aggregate rural unemployed in the state. They are normally reluctant to take up employment opportunities that involve physical labour instead of this they prefer to sell their small holdings and explore employment options in urban areas (Chadha, 2015). The new capitalistic relations developed in rural Punjab have created a crisis of indebtedness that has brought far reaching socio-economic and cultural changes in the society. The education sector in the state has not left behind.

## Higher Education in the State

At the national level, a vast expansion of institutions in private sector for gaining more profits through high fee and funds is witnessed due to the invasion of private players in the field of higher education. The period of the last two decades has been the period of a huge expansion in higher education both in terms of institutions and enrolment. There were just 185 universities in 1990-91, but this number increased to 903 by the year 2017-18. Similarly, there were 6,627 colleges recognised by the University Grants Commission (UGC) in 1990-91 with the enrolment of 5.9 percent, and this number increased to 38,061 by the year 2017-18 with the enrolment of 25.8 percent.<sup>2</sup>

However, the economic paradigm shift of the Indian state from a welfare economy to a market driven economy in the early 1990s, has exercised a deep impact upon education in general and upon higher education in particular. Being a part of the Indian Union, the state of Punjab has not been left untouched by the impact of this policy shift. As a result, the development of higher education sector has shaped up in a different manner in the post-economic reform period. The state witnessed a significant increase in the number of universities and colleges in the last two decades. Till 1996, there were only four universities in the state, but with the entry of private players in the field of education, this number increased from 4 to 26 within a time span of ten years, i.e. from 2006 to 2017. Among these new universities, however, only three universities were in public sector while other 15 universities were established in the private sector. In order to encourage private participation in higher education, the Government of Punjab notified The Punjab Private Universities Policy, in June 2010, which has led to a rapid growth of private universities in

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<sup>2</sup> UGC Report 2018



the state. Same is the case of expansion in the number of degree colleges: there are 417 degree colleges in Punjab which are imparting higher education in the fields of science, commerce and arts. But, tellingly, among these colleges, a mere 44 are the government colleges and 35 are constituent colleges of three state universities, but 120 are the private aided colleges and 218 are the privately managed self-financing colleges.<sup>3</sup>

As far as the growth of professional colleges in Punjab is concerned, the number of Engineering/Technology and Architecture colleges increased from 2 in 1970-71 to 3 in the period of 1990-91, adding only one college. But this number increased to 16 in 2000-01 to 84 in the period of 2010-11 and then to 103 during the year of 2015-16. A phenomenal growth in the number of teacher training colleges was also observed. The number of these colleges increased from 18 in 1990-91 to 122 in the year of 2005-06. In the year 2015-16, this number has reached up to 186 and at present more than 215 teacher training colleges are working in the state. However, the quality of such colleges in terms of teaching and pedagogical skills in the teacher training has also been under question.

The unprecedented growth of professional colleges, mainly in the private sector, has without a doubt increased the opportunities for getting professional education but at the same time it has also led to crass commercialisation of professional education. Instead of an increase in access to higher education to the masses, this move of commodifying educational institutions has opted the policy of educational exclusion by keeping the low-income groups of students out of these institutions due to their inability to afford the self-financed courses. The intake of students from the low-income groups has remained on the public sector educational institutions which have already been facing multiple challenges. Consequently, the growth of higher educational institutions in the private sector and the neglect of the public institutions both have led to the birth of an iniquitous system of higher education.

The quality of education at higher education has also been remained as a serious concern. The accreditation status of the institution and its ranking among other institutions are generally used as assessment of the quality status of a higher education institution. Out of 48 government colleges in Punjab, 32 government colleges have gone through the accreditation process by NAAC in the first round and out of them only one college got 'A+' grade and four colleges got grade 'A'. Also, out of these 32, only 22 colleges have undergone the accreditation process in the second phase. Out of these colleges, only 8 colleges have been accredited with 'A' grade. However, none of the government colleges in the state has applied for its ranking accreditation under National Institutional Ranking Framework (NIRF) till date (Singh & Kaur, 2018).

Apart from financial and administrative constraints, the other main challenges before these institutions are the unavailability of qualified teachers, lack of infrastructure like laboratories, equipment and other physical facilities, etc. In fact, as a result of the dwindling government grants and the state's apathy towards its own institutions, most of the government colleges in Punjab are having multiple constraints to function. Since 1996, the state government has not recruited regular teachers in the government colleges. A majority of the teaching staff works on adhoc basis or as guest faculty. Due to lack of good infrastructure and teachers, many of the rural government colleges are on the verge of closure.<sup>4</sup>

<sup>3</sup> Department of Higher Education, Government of Punjab

<sup>4</sup> Punjabi Tribune, 14 May, 2021

## Policy Shift and Financing of Higher Education

The mode of financing higher education is crucial for understanding how higher education is being provided to society and at what price. State policies play a significant role in the distribution of higher education opportunities in the state. In the absence of public intervention, higher education will not only be in short supply but also the facilities to pursue higher education may be distributed unequally. Further, the global public good nature of knowledge and its production provide a strong rationale for international collective action (Stiglitz, 1999) in the higher education sector. The public good nature of higher education may be one of the reasons for continued state support to massify, and even universalise, higher education in the developed market economies. It is interesting to note that universalisation of higher education in the matured market economies was facilitated not through markets or private institutions but largely through public higher education institutions (Varghese *et al*, 2018). For financing higher education in India, some of the committees appointed by the government have strongly recommended cost recovery measures.

However, cost recovery through fees was recommended by the Punnayya Committee and the Swaminathan Committee in the early 1990s. These committees concluded that the fee levels in higher education in India were low and that there existed good scope for mobilising resources from this source. The reform measures suggested in the reports of both the committees, appointed by the UGC and MHRD respectively, had two distinct aspects, namely, improving efficiency in the functioning of institutions of higher education in order to reduce the waste, and saving resources and mobilising them from sources other than the government. Both the reports strongly advocated the possibility of “rationalising” teaching workload so as to reduce the salary bill. The UGC report also advocated reducing the share of regular faculty to 60 percent and appointing the remaining 40 percent of the staff on a part-time and contract basis. It further suggests reducing the staff-student ratio from 1:10 to 1:15 in degree courses and from 1:11 to 1:20 in diploma courses. These steps were supposed to be helpful in saving the resources and make more funds available to the sector without additional public investment. The commonly suggested cost recovery method in higher education is to increase fee rates. The share of fees in total expenditure on higher education has declined over time. This happened because the amount of fee levied remained almost unchanged over a long time, while the cost of education increased. This has resulted in an increasing cost-fee disparity in education. Therefore, there is a justifiable case for increasing the fee to be levied from students of higher education (Patel, 2009).

Public expenditure on higher education in India began to decline since the beginning of the 1990s. The state of Punjab has followed the same path and the public expenditure on higher education in the state dropped significantly during the neo-liberal period in terms of relative priorities, i.e. (a) as proportion of the net state domestic product (NSDP), (b) as proportion of total budgetary expenditure of the state, (c) proportion allocated to higher education out of total education budget (Gill, 2018).

The share allocation to higher education in the Net State Domestic Product (NSDP) in the general budget as well as in the education budget of the state reflects the priority accorded to higher education. The percentage of NSDP allocated to higher education indicates the government’s priority to this sector. But an analysis of the patterns of the expenditure on higher education in the state of Punjab reveals that there has been a

continuous decline in the share of higher education in the NSDP. It has declined from 0.47 per cent in 1991-92 to 0.38 per cent in 2014-15 (Table 1).

TABLE 1  
Public Expenditure on Higher Education in Punjab

<i>Year</i>	<i>Net state domestic product</i>	<i>General budget of the state</i>	<i>Education budget of the state</i>
1980-81	0.28	2.5	25.0
1990-91	0.38	2.86	14.33
2000-01	0.29	1.85	12.10
2004-05	0.31	1.34	10.96
2014-15	0.38	1.3	8.65

*Source:* Analysis of Budgeted Expenditure on Education, MHRD, New Delhi (Various Years)

The percentage share of higher education sector in the total budget of the state shows a generally downward trend in the post-economic reforms period. In the year 1991-92, the state was spending 1.89 percent of its general budget on higher education. This proportion declined to 1.34 percent in the year 2004-05 and further to 1.3 percent in 2014-15. The percentage share of higher education sector in the total education budget has declined from 14.33 percent in 1990-91 to 10.96 percent in 2004-05 and further to 8.65 percent in 2014-15 (Table1).

As a result of reduction in governmental grants, the universities and other government supported higher education institutions are facing a severe financial crunch. For instance, Punjabi university, Patiala has recently passed its deficit budget of Rs.229 crore for the year 2018-19. Besides the university is also reeling under debt from banks to the tune of Rs. 91 crore (Singh, 2018).The situation of financial crunch is the same also for the government colleges in the state. The government colleges in Punjab have started a Parent Teacher Association Fund to collect money from the parents to meet the financial needs of the institution. Earlier, this fund was made voluntary but later this has become a burden upon the shoulders of the parents. The guest faculty of teachers has been paid through this PTA fund.<sup>5</sup> The financial crunch in the government institutions has been leading to the closure of the institutions. Here we can see how higher education is getting transformed from a 'public good' into a 'private good' with the cutting down of public expenditure on higher education. This public apathy for higher education has strengthened the forces of privatisation of higher education on a large scale. The method of financing higher education through non-state sources has put the equity and efficiency ideals of higher education on a stake. This has clearly become antithetical to the idea of equal distribution, because market always works well only with the restrictive assumptions.

<sup>5</sup> Punjabi Tribune, 14 May, 2021

## Issues of Access and Inclusion

Access to higher education is critical to access the opportunities that accompany economic growth, socio-cultural development and the best life opportunities. In the absence of equal opportunities, higher education plays a crucial role in the widening of inequalities. Hence, it is important to equalise opportunities for the provisions of higher education to promote economic growth and to bring social equity. Fairness and inclusion in access have been suggested to improve equity in higher education (OECD 2007) where fairness implies that personal and social circumstance, such as gender, socioeconomic status, ethnicity and region of residence, should not be an obstacle to educational access and inclusion implies a minimum standard of education provided for all.

But with the rising cost of higher education and shift from public to private entities in higher education, the issues of access and inclusiveness predominantly came into force. The withdrawal of the state from financing higher education would reduce the participation of socioeconomically weaker sections of society in higher education and further widened the inequalities in higher education (Tilak, 1997). The Maximally Maintained Inequality (MMI) hypothesis of Rafter and Michael (1993) posits that educational inequalities persist despite expansion. This is because those from more advantaged socioeconomic backgrounds use new educational opportunities created by expansion and access by availing qualitatively better kind of education at that level. Empirical studies (Arum *et al*, 2007) have shown that expansion does not reduce class inequalities until the advantaged groups reach a saturation point. Expansion may contribute to a reduction in inequalities only beyond the point of saturation since privileged groups cannot then increase attendance rates any further (beyond 100 percent). However, expansion with targeted state interventions in favour of deprived groups can improve equity even before the privileged groups reach a point of saturation in terms of their enrolment.

TABLE 2

### Gross Enrolment Ratio in India and Punjab

Year	India			Punjab					
	All			All			Scheduled Caste		
	Total	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls
2011-12	20.8	22.1	19.4	23.0	22.4	23.6	8.4	8.0	8.4
2015-16	24.5	25.4	23.5	27.0	25.8	28.5	18.0	17.7	18.4
2018-19	26.3	26.3	26.4	29.5	25.5	34.3	21.1	17.8	25.2

Source: AISHE 2018-19, MHRD, New Delhi

Accessibility to higher education is measured in terms of the gross enrolment ratio (GER) which is the ratio of persons enrolled in higher education institutions to total population of the persons in the age group of 18-23 years. The gross enrolment ratio (GER) in higher education in India was 26.3 percent for the year of 2018-19. Then the GER for male population was 26.3 percent and for females it was 26.4 percent. For the Scheduled Castes,

it was 23.0 percent and for Scheduled Tribes, it was 17.2 percent as compared to the national average GER of 26.3 percent (AISHE 2018-19). In Punjab, the gross enrolment ratio in higher education during the year of 2018-19 was 29.5 percent, with the male students' enrolment being 25.5 percent; for female students it was 34.3 percent (AISHE 2018-19). The accessibility to higher education by various groups in terms of caste and gender also shows a big gap. The GER for Scheduled Castes is 21.1 per cent; in it the male students accounted for 17.8 percent and female students for 25.2 percent.

A number of studies have highlighted the patterns of exclusion of rural students, students belonging to the marginalised sections and those coming from poor economic backgrounds, from professional education. Ghuman *et al* (2006) found through their study in Punjab that the rural students, passed-out from the typically rurally located schools, constituted only 4.07 percent of the total students in all the universities of the state. The share of rural boys and rural girls was 4.96 percent and 3.06 percent respectively. They further they pointed out that the educational attainments and performance of rural students had had a great deal of sensitivity to their socio-economic backgrounds, as proportion of rural scheduled caste students in the total identified rural students was 14.60 percent only. They concluded that the very high fees and funds charged by the private institutions have certainly accelerated the 'exclusion process' of students belonging to the weaker sections of the society. Despite the huge expansion, the sector has been facing the issues of access and equity. The irony of the state policies in higher education is that when the system was publicly funded, the higher education sector was small with limited access and the privileged took advantage of the system. When the system expanded and the less privileged starting getting access to higher education, many governments started reducing subsidies in higher education and introduced cost recovery measures resulting in widening of inequalities (Varghese, *et al*, 2018).

## **Educational Migration from the State: The Repercussions of Policy Failure**

Educational migration is the movement of students to study abroad. The internationalisation of higher education has increased dramatically during the period of globalisation and it has become a market driven activity. The number of students seeking higher education in foreign countries has been growing consistently over the years. It increased by nine times between 1963 and 2006, with this increase being particularly significant in the last decade (Varghese, 2008). India, in particular, has grown into a leading player in the international students market and is the second most important sending country after China. Indian student flows to the world have grown considerably as their share doubled from 3 percent in 2000 to over 6 percent in 2009 (UNESCO, 2009).

Educational migration from Punjab has emerged as a significant phenomenon in recent years. As per the record of Bureau of Immigration, 2.62 lakh students from Punjab went abroad from January 2016 to February 2021. On an average, 140 students flew from the state daily and in the year of 2019, the daily average of students who left the country was 201 while the state became the number one in sending the students abroad. The young child of every twentieth household, on an average, has been leaving the country since 2016 and it has drained a large chunk of wealth from the state. (This is estimated at 3,930 crore rupees

with an average Rs. 15 lakh per student).<sup>6</sup> The lack of employment opportunities and agricultural crisis in the state, on the one hand, and the poor quality of higher education, on the other, are pressing the young minds to move toward the developed countries for better employment opportunities.

This desire of moving towards other countries has not only brought about several socio-economic changes in the society, but also revealed the weaknesses of the education sector in the state, particularly the higher education. The data related to the expansion of higher education show only the number of students which are enrolled in higher education. But one of the major issues before us concerns the employability of those who have graduated and post-graduated within the state, as the neo-liberal policies of privatisation have largely led to the jobless growth, due to which the young minds are leaving the state in the name of getting higher education abroad. The quality of education and its exclusionary nature has also been studied by Singh and Brar (2006) in which they found that only 4 percent rural students were enrolled in the institutions of higher education in Punjab. The exclusionary nature of the expansion and the affordability issue in the private institutions has been a strong factor behind the migration choice of the youth. In another study, Singh and Kaur (2018) found that the phenomenon of migration of the youth is mainly due to two reasons; first, the agricultural crisis in the state (coupled with the lack of suitable employment opportunities); and the second reason is the rising aspiration for better socioeconomic opportunities.

Thus, along with the socio-economic reason, the state policies have been a major factor of this brain drain. The changed nature of state from a welfare state to a neo-liberal one has put the state back and pushed the private players to the foreground in higher education which has led to the crass privatisation of higher education. Due to poor quality and commoditisation, higher education in the state has lost its credibility. The market for educational migration has been flourished in the state with the opening of numerous IELTS centres at every corner in the cities. Nowadays, more and more students, after passing their secondary education, are joining these English training institutions, rather than higher education courses in Punjab. This policy shift has not only changed the internal system of higher education, but in the context of the provisions of GATS, the state has legitimised the way of emigration through educational migration for the students.

This phenomenon of internationalisation of education has, on the one hand, helped the foreign developed countries to deal with the challenge of demographic deficit by promoting the inflow of foreign students. It has, on the other hand, posed a serious threat to the social fabric of the Indian society and the higher education sector of the state. Almost all universities including private ones have been getting affected, with many of them claiming the fall in admission up to 20 percent. Even colleges which have been most sought, till a few years ago, are now witnessing a drop in admissions (Kaur, 2018).

Further, this educational migration has generally affected the admissions in professional courses such as engineering, management, etc, and not the general higher education courses because a large number of aspirants of educational migration are coming from the middle class of the society which was earlier a stakeholder in the professional education, and now has a new set of aspirations. Hence, the neo-liberal policies of development are seen to have been miserably failed in the state, as the state could not retain its youth manpower within the state. Such a model of development, which is exclusionary in its nature, has mostly and

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<sup>6</sup> Punjabi Tribune, 25 July, 2021

highly impacted the students from the poor and the disadvantaged sections of the society, those who can neither afford to go abroad nor are getting the opportunities of quality higher education within the state. As a result, a large section of the desperate youth from the humble backgrounds is systematically going out of the sector of higher education now.

## Conclusion

The gradual withdrawal of the state from financing of the higher education has paved the way for commercialisation of the sector and given a free hand to private players. This privatisation has impacted the higher education sector in terms of access for the low-income groups, promoted its commercialisation and led to a lowering of the quality of higher education. Despite the fast expansion of the system, the poor are deprived of entry into institutions of higher education. The lack of affordability, poor quality of education as well as absence of employment opportunities has played a significant role in pushing the weaker section youths out of the system of higher education and pushing the richer section youth to opt for migration to the developed countries.

The policy shift of the state has thus impacted the higher education by making it a commodity, on the one hand, and by giving the emigration opportunities to the students, on the other hand, which in turn do hamper the higher education in the state. Still more specifically, it has to be noted that the increasing reliance on the currently used methods of funding higher education, that are rooted in the market economy, may produce regressive effects in the system. The political will of the state to shoulder a major responsibility in financing higher education through progressive taxation policies, and funding the system out of the general tax revenues in order to strengthen the sector, has become an imperative condition for progress towards a more inclusive higher education. Only by making the higher education sector more accessible, inclusive and equitable can the state of Punjab grab the opportunities and benefits of the demographic dividend.

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## Mothers' Education, Employment and Access to Childcare Facilities in Kerala<sup>#</sup>

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### Abstract

Mothers of children aged 0–5 years suffer an employment penalty, compared to fathers. One of the significant factors for the decline in the female labour force participation is the maternity and associated responsibility of child bearing and rearing. In Indian context there is great importance attached to this responsibility which often act as a barrier for women to enter labour market. In this light, the present paper makes an effort to understand the maternal employment and the access to childcare facilities with special reference to Kerala. Besides, Kerala is an educationally advanced state with a paradox of chronic educated unemployment. Using the primary survey data from mothers, the paper examines three related aspects: (i) the probability of mothers' decision to participate in the labour market; (ii) probable factors that determine the choice of childcare arrangements; this aspect is equally important as one of the barriers that women face at the time of working is to find good quality and affordable childcare for their children; and (iii) opportunity cost which mothers forego.

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## Introduction

Given the costs of childbearing and of caring for young children with deep-rooted gender roles, women face hurdles in realising their labour market potential that men do not (Cascio *et al*, 2015). Mothers with children in the age group 0 to 5 years are burdened with an *employment penalty* in comparison to their fathers. Universally, the amount of time devoted by women to unpaid care work rises noticeably with the presence of young children in the family. This leads to "motherhood employment penalty." This is found to hold good globally for women having young children. In 2018, mothers of children aged between 0 to 5 years account for the lowest employment rates (47.6 per cent) compared with fathers (87.9 per cent), non-fathers (78.2 per cent), and non-mothers (54.4 per cent). This pattern contrasts with a "fatherhood employment premium," of the same comparable groups of fathers, non-fathers and non-mothers, (ILO, 2018).

For married women with young children, to enter and stay in the labour market is challenging. This is strongly related with three different types of policies that have the potential to affect the labour supply of mothers with young children: leave policies, subsidised childcare, and formal preschool. Besides, it is also influenced by the nature, size, distribution and penetration of the childcare market and the presence of the joint family system. The various aspects related to maternity impose a substantial burden on women's time. And this is of course a biological burden uniquely borne by women. This is particularly the case when there are no accessible, affordable and quality childcare options offered by the State, the market or the non-profit sector. One of the potential factors for the decline in the female labour force participation is the maternity and associated responsibility of child bearing and rearing. In the Indian society and families, greater importance is attached to these family responsibilities which often act as a barrier for women to enter labour market. In this light, the present paper makes an effort to understand the *maternal employment and the access to childcare facilities with special reference to Kerala*.

## Review of Earlier Studies

Childcare availability and favourable public policies influence female workforce rates in developed countries. Many studies assess the impact of actual childcare subsidies on mothers' employment in the US context. For instance, Berger and Black (1992) estimated the effect of employment on two childcare subsidy programmes in Kentucky. They find that average weekly subsidy of \$46 encouraged an increase in maternal employment in the range of 8 to 25 percentage points. Meyers *et al* (2002) predicted that the probability of receiving a subsidy had a positive coefficient. Blau and Tekin (2007) explored the determinants of childcare subsidy and the impact of the receipt of the subsidy on employment, unemployment, school attendance and welfare participation. Using the National Survey of America's Families, on single mothers, they estimated that receiving a childcare subsidy increases employment by 13 percentage points, increases school enrolment by three percentage points, has no impact on unemployment, and increases welfare receipt by one percentage point using OLS. By applying two-stage least-squares estimates, using county dummies as identifying instruments for subsidy receipt, shows larger positive effects to the extent of 23 percentage points on employment.

Leibowitz *et al* (1992) examined a woman's decisions about when to return to market work in the two years following childbirth and the choice of childcare. Using the National Longitudinal Survey of Youth, they found that almost one-third of the sampled first time mothers were back to work three months after their first child was born. More than 40 per cent of them were working when their child was two years old. Among those returning to work before their infant was three months old, more than half the women used a relative to care for their child. For women who were at work two years after giving birth, slightly less than half (48.1 per cent) relied on a relative for childcare. The paper besides giving insight to the cultural, economic incentives and their effect on work behaviour of mothers helps to understand the income and substitution effects of female labour force participation.

Very few studies in India examine this specific issue of mother's employment and access to childcare facilities. The amount and intensity of unpaid care provision varies significantly according to cultural settings, carers' characteristics and socio-economic conditions. The specific cultural factor prohibiting women participating in the labour force is found to be family status in the Indian context. Most women in India tend to forsake job opportunities in favour of their domestic duties. India being a patriarchal society, women attending to domestic duties are deemed to be a marker of higher familial status. The peculiar nature of Indian society is its importance given to status of women being derived from home-based activity and not driven by market activities. These have serious implications for women desiring to participate in the labour market (Eswaran *et al*, 2013).

Family formation and structure are a significant factor, in particular the number and type of family members who have care or support needs and the extent to which these are mitigated by effective care policies. For instance, using the IHDS I and II surveys, Dhanaraj and Mahambare (2017) explore whether married women residing in a joint family reduces their labour force participation in rural India. They suggest that living in a joint family lowers a married women's non-farm employment by more than 10 percentage points. Similar to Eswaran *et al*, they do find that women from families with higher social status are constrained to participate in the labour force, more so in Northern India. However, women with higher education levels are not constrained from cultural and traditional norms that increased education level is likely to raise women's earning capacity as well as the quality of jobs which may help in lowering family pressure against work (Dhanaraj and Mahambare, 2017).

This Indian phenomenon is contrary to the one observed by the developed countries. For instance, Blau and Robins (1988) emphasised the potential some families have for lower cost of (like informal) care, most often provided in a joint family system or by a relative, increase the probability of labour force participation of young mothers. Similarly, it was found that mothers with high educational qualifications are more likely to work (Kreyenfeld and Hank, 2000). They find that women with higher educational degrees are by and large expected to be more likely to work. The partner's wage only weakly influence a mother's propensity to be employed part-time, but has a strong impact on full-time employment. The government's role in the provision of childcare subsidies increases the likelihood of female labour force participation rate.

Using the panel aspect of the IHDS data, Sahoo and Sarkar (2021) find that the effects of the baseline characteristics are changing over time. Having a new-born child between the two rounds is associated with a three-percentage point increase in the probability of exit. The exit rate also increases if an elderly member (above 65 years of age) moves into

the household. This suggests that women may leave their jobs to meet childcare and elderly care requirements in the household. If the mother-in-law or father-in-law cohabitates, then women are less likely to leave their jobs. The in-laws may share the household responsibilities and thus enable women to continue working. However, none of the above factors are found to play any role in the entry decision of women. They find that a household's financial affluence strongly affects women's entry and exit decisions. If assets or income of other members in the household increase, then women are less likely to enter and more likely to exit employment. This suggests that women are considered as secondary earners in the household – they participate in the labour market only when there is a need to augment the household income. On similar lines, we find higher entry and lower exit rates among women from households belonging to disadvantaged castes and where male members have low levels of education. Local economic development also encourages entry and reduces exit, possibly by enhancing labour demand, especially in the southern states.

This brief review of select earlier studies highlight besides education, cost of childcare and enabling childcare policies, cultural, religious and socio-economic factors do play an important role in the decision-making process of returning to employment by mothers. Preferences and social norms along with the notion of traditional role of women also play a role in deciding when women would return to the labour market. Mother's labour market participation depends upon factors like the position in the social structure, workload of the family and lifestyle preferences of the family. The social and cultural norms associated with maternity prevent many women to enter the labour market. However, the qualitative studies bring in the new and emerging phenomena of cultural shifts among the Indian middle-class women. Ganguly-Scrase (2003) argues that such attitudinal changes have facilitated middle-class women to access resources and to reap the emerging economic opportunities. The ideologies of 'individualism' and 'consumerism' have made Indian middle-class women more aspiring.

In this light, the present paper focusses on the effect of childcare and its choice on mothers' labour market participation in Kerala. Kerala is an educationally developed state with least gender inequality in terms of many socio-economic indicators and tops on the ladder when compared across many states in India. Added to this, Kerala faces the chronic educated unemployment, unlike many other states. There are rarely studies that examine the relationship between supply of childcare and its impact on the decision of educated mothers to engage in labour market. The study of this relationship would give an insight on the role childcare institutions in improving and or retaining young mothers in the labour force.

The purpose of this paper is to understand maternal employment, its determinants and the access to and preference for different childcare arrangements. We focus on childcare for children aged 0-6, because this is a critical period for working mothers and their offspring. The sample consists of currently married women with children of age between 0-6 in two districts of Kerala, with a mixed rural and urban blend with educated women of at least ten years of schooling. It explores the need for childcare facilities and to find out the preferred mode of childcare. The rest of the paper is planned as follows: Section 3 presents the sampling methodology. In the subsequent Section 4, we present the descriptive statistics of the primary survey data. In Section 5, we discuss the results. The last section concludes.

## Educated Unemployment in Kerala

Educated unemployment is regarded as the most serious problem in the state. The education and employment linkages are highly vulnerable in Kerala. Employment opportunities were far and few for the educated. An effort is made in this section to understand the nature and size of the problem from the secondary sources of data. It does not look into the causes of it which is outside the scope of this paper. As reported in Table 1, the percentage of educated unemployed shows an increasing trend for each levels of general education. Educated unemployment peaks at graduate level in 2004-05, and the same trend persists in 2007-08 and 2017-18 as well. With regard to the post graduates, the unemployed percentage remains around 21 per cent and increases to 25 per cent in 2017-18 (Table 1). According to the Periodic Labour Force Survey (PLFS) of India for the period 2017-18 among major states Kerala has the highest unemployment rate of 30.6 per cent as against the all-India level of 17 per cent.

TABLE 1

### Unemployment Rate as per Usual Status (ps+ss<sup>^</sup>) by Education Levels<sup>\$</sup> in Kerala (in %)

Reference Period	Primary*	Middle	Secondary	Hr. Secondary	Diploma	Graduate	Post Graduate
2004-05	1.13	4.53	11.46	15.23	19.89	26.32	20.9
2007-08	0.66	2.1	6.31	13.19	26.71	30.04	20.95
2017-18	1.2	2.6	7.8	22.6	21.6	30.6	24.5

*Note:* <sup>^</sup> The Usual Status (ps+ss) approach to measuring unemployment uses a reference period of 365 days i.e. one year preceding the date of the survey of the National Sample Survey Organisation (NSSO) for measuring unemployment; \* literate up to primary; \$ for persons of age 15 years and above  
Source: NSSO 61st round, NSSO 64<sup>th</sup> round and Annual Report, PLFS, 2017-18

The number and share of job seekers as well indicates the chronic educated unemployment in the state (Table 2). Among the job seekers, the share of graduates is the highest share in a year range from 42 per cent to 54 per cent. Though, the number of job seekers has been increasing over the years, the share of educated job seekers with qualifications of graduate and PG and above degrees, is fluctuating. Even though it has been fluctuating, the share remains the highest, that is more than 70 per cent of job seekers are highly educated.

TABLE 2

**Job seekers by levels of Education in Kerala from 2015-16 to 2018-19 (in %)**

<i>Period</i>	<i>Up to secondary</i>	<i>Up to Hr. Secondary</i>	<i>Graduate</i>	<i>PG &amp; above</i>	<i>Total \$</i>
2015-16	5.34	16.44	51.27	21.91	7859
2016-17	5.11	14.51	54.12	25.03	6500
2017-18	6.49	11.02	42.26	19.16	15896
2018-19	3.05	25.82	47.28	15.55	16021
2019-20*	4.87	20.18	36.08	13.13	22484

*Note:* \$ in numbers; \* covers the period from April to November, 2019; up to secondary includes grade 8, 9 and 10; up to higher secondary includes grade 11, 12 and diploma after grade 10; Graduate includes Diploma After 12<sup>th</sup>, Graduate and ITI; PG & above includes Post Graduate, PG Diploma, and Ph.d

*Source:* based on [https://www.ncs.gov.in/\\_layouts/15/ncsp/ViewStaticReport.aspx](https://www.ncs.gov.in/_layouts/15/ncsp/ViewStaticReport.aspx), downloaded as on 24.12.2019

The chronic educated unemployment problem in Kerala is age old. However, the recent *phenomenon is the educated unemployment among females*; which has been on the rise on which the present paper is concerned about. Table 3 reports the unemployment rates of male and females by regions. The educated graduate female unemployment rates are the highest among females with 48.4 per cent among rural females, followed by 45.4 per cent among urban females in 2017-18. The female unemployment rate (UR) is higher than males UR across all levels of education in both rural and urban areas except the rural female diploma holders. The ratio of female to male unemployment rate ranges from 0.3 among primary levels to 5.3 among the higher secondary levels in rural Kerala. But in urban areas, the female unemployment rates are higher than male UR across levels of education. The ratio of female to male UR is the lowest among middle levels of education (1.9) to the highest ratio (7.2) among secondary levels of education (Table 3).

TABLE 3

**Unemployment Rate as per Usual Status (ps+ss<sup>^</sup>) by Education Levels<sup>§</sup>, Location and Gender in Kerala in 2017-18 (in %)**

<i>Area/Gender</i>	<i>Primary*</i>	<i>Middle</i>	<i>Secondary</i>	<i>Hr. Second.</i>	<i>Diploma</i>	<i>Graduate</i>	<i>Post Graduate</i>
Rur_male	1.4	1.2	4.3	8.6	21.1	18.3	26.3
Rur_female	<b>0.4</b>	<b>5.0</b>	<b>10.2</b>	<b>45.7</b>	<b>16.2</b>	<b>48.4</b>	<b>38.8</b>
Ratio of F/M	0.3	4.2	2.4	5.3	0.8	2.6	1.5
Urb_male	0.7	2.8	4.4	12.9	16.1	13.3	12.7
Urb_female	<b>2.6</b>	<b>5.4</b>	<b>31.8</b>	<b>47.8</b>	<b>42.0</b>	<b>45.4</b>	<b>21.4</b>
Ratio of F/M	3.7	1.9	7.2	3.7	2.6	3.4	1.7
All_male	1.1	1.8	4.3	10.5	18.6	15.6	18.4
All_female	<b>1.3</b>	<b>5.2</b>	<b>19.7</b>	<b>46.6</b>	<b>27.1</b>	<b>46.7</b>	<b>29.0</b>
Ratio of F/M	1.2	2.9	4.6	4.4	1.5	3.0	1.6

*Note:* <sup>^</sup> The Usual Status (ps+ss) approach to measuring unemployment uses a reference period of 365 days i.e. one year preceding the date of the survey of the National Sample Survey Organisation (NSSO) for measuring unemployment; \* literate up to primary; <sup>§</sup> for persons of age 15 years and above.

Source: Annual Report, Periodic Labour force survey, July 2017-June 2018. NSO (2019), MOSPI, GoI.

As shown in this section, the problem of educated unemployment is the highest and an age old problem in Kerala and the recent phenomenon being the increasing unemployment among females. It is in this direction; the present paper makes an effort to understand the factors that influence the young mothers' decision to participate in the labor force.

## Sampling and Methodology

Kerala has been chosen as the study area for not only scoring the highest rank on human wellbeing, but also being comparable with that of many developed countries. The required data were collected through a primary survey. The major survey data sources like National Sample Survey Organization, National Family Health Survey do not collect data on childcare access and its use. In the NFHS 4 on the women questionnaire, there is just one question on childcare, that 'In the last 12 months, how often did they (mother) go to the *anganwadi*/ICDS centre for early childhood care or for preschool: regularly, occasionally, or not at all?' There is no information whether the corresponding mother of that child participates in the labour market or not.

The Young Lives Study (YLS) pertaining to childhood poverty, the question asked was not directly linked to childcare access. Yet it helps to obtain an idea about the time spent by relatives, neighbours, friends and others in taking care of the child. But the same is not asked directly from mothers. The Indian Human Development Survey (IHDS) data collected by National Council of Applied Economic Research (NCAER), the question asked was: 'Had you employed an outside person for cooking/cleaning and childcare?' This question could not

specifically give information on whether the person is employed for cooking, cleaning or childcare. Hence, the primary focus of this study relates to time spent by respondents (Primary caregiver) in taking care of child as this data is not available from any other available data sources. Hence, to study how mothers choose to work, purposive sampling of 200 married women having at least one young child in the age group from 0 to 6 was selected. Our sample consists of currently married women who acquired at least ten years of schooling. Such women are expected (rather assumed) to be freer in making choices for entering the labour market as compared to unmarried women.

A detailed questionnaire with a direct interview method was canvassed. The questionnaire attempted to collect the information on age, educational qualification, type of family, number of members in the family, number of children in the age group 0-6, total monthly income of the family, employment status, nature of employment, hours of work, whether the decision to stay home affected finance position, monthly income of the respondent, monthly expenditure incurred on child, monthly expenditure incurred on other goods, childcare arrangements chosen, and monthly expenditure incurred on childcare.

The questionnaire was canvassed during December 2017 and January 2018, in two sample districts Thrissur and Idukki. Idukki and Thrissur were selected for the purpose of obtaining sample as Idukki has the highest female labour participation rate and Thrissur has almost the same female labour force participation in Kerala as per the Census 2001 and 2011. Hence, we have selected these two districts as the sample districts. Further, we have looked at the female labour force participation rates in these two districts by talukas. The talukas that reported the highest numbers of female workers were selected. Accordingly, Thodupuzha and Thrissur talukas in Idukki and Thrissur were selected.

## Descriptive Statistics

Table 4 reports the descriptive statistics. Mean age of females is 28.4 for Thrissur and 27.9 for Idukki. The mean years of schooling indicates Thrissur is a little ahead of Idukki by 0.68. Idukki has the highest number of employed respondents summing up to 69 (52.7 per cent) whereas in Thrissur it is 62 (42.3 per cent). It is surprising to note that 26 respondents in Thrissur are willing to work in future while in Idukki it is only 18. The willingness to work is important, considering the demand for female labour force in the coming years. The household details help to understand the conditions that can determine the choice of particular source of childcare arrangements. The mean annual income of the household in Thrissur is far more than that of Idukki, estimated at Rs. 1,17,820 and Rs. 44,675 respectively.



TABLE 4  
Descriptive Statistics of the Sample

<i>Details of</i>	<i>Characteristics</i>	<i>Thrissur</i>	<i>Idukki</i>	<i>Total</i>
Respondents	Mean age	28.94	27.9	28.42
	Mean years of education	15.16	14.48	14.82
	Employed (%)	62	69	66
	Not employed (%)	38	31	34
	Willing to work (%)	26	18	22
Household details	Annual Mean family income (in Rs.)	117820	44675	121121
	Average household size	4.93	5.13	5.03
	Average number of children	1.26	1.29	1.26
Access to Childcare Facilities	Joint family (%)	59	67	126
	Nuclear family (%)	41	33	74
	Anganwadi (%)	27	44	71
	Private childcare facility (%)	39	24	63

*Source:* Authors' computation

The average size of the household in Thrissur is 4.93 and in Idukki it is 5.13. As far as childcare arrangements are concerned, the type of family plays an important role. Average number of children is 1.26 and 1.29 in Thrissur and Idukki respectively. Age of the children plays an important role in the demand for childcare services. Childcare details of the households suggest that there are large numbers of joint families in both the districts. An interesting contrast is that in Thrissur a majority of the households prefer private childcare facility (39) against public provided *anganwadis* (27), while in Idukki the reverse was the case and a majority of the households prefer public *anganwadis* (44) than private childcare arrangements (24).

An attempt is made here to compare the work participation rates of women of the same age group by levels of education at the all-India level, using three comparable surveys, IHDS I, II and ICE (Table 5). The IHDS I and II and the ICE 360° surveys seem to suggest that it is mostly the poor, rural, and illiterate among Indian women who choose to (or are allowed to) join the labour force, confirming the trends observed in the NSSO data. It can be seen that the decline in the female labour force participation over the years. There are a number of arguments put forth for decline in female labour force participation such as higher share of women are enrolled in higher levels of education, rising income allow more women to stay at home, the sociocultural reasons, the poor quality of schooling and trade-off between women's market and non-market activities, etc.

TABLE 5

**Work Participation Rates of Women by Levels of Education in Age Group 21-36 in India**

<i>Levels of Education</i>	<i>IHDS (2005)</i>	<i>IHDS (2011)</i>	<i>ICE (2016)</i>	<i>Kerala*</i>
Illiterate	63.55	50.40	30.32	--
Primary	52.62	46.01	25.17	--
Middle	41.68	32.78	18.88	--
Secondary	31.13	24.95	16.19	28.57
Higher Secondary	28.19	22.51	13.32	54.55
Graduate	23.04	21.65	13.07	65.45
Post-graduate	--	31.26	16.96	78.26
Total	46.58	36.03	16.93	65.50
N	27,581	26,408	37,594	200

*Source:* Based on unit records of IHDS I, II, ICE and \* Primary Survey

However, a few qualitative studies note that the aspirations of Indian middle-class women are emerging through a cultural shift. Even though it is not a sizeable share as of now, this attitudinal change among the youth is expected to grow further. This is happening more in smaller towns, urban areas and is still steeper in larger metro cities. To explore this issue further, we tabulated the reasons for not being employed, as told by unemployed mothers. Among those unemployed at the time of the survey, 64 per cent of them are not in the labour force and would like to return to work (Table 6).

TABLE 6

**Reasons for Not Employed by Unemployed Mothers**

<i>Why you are not employed</i>	<i>Freq.</i>	<i>Percent</i>
Less opportunities available	4	5.8
care of child and will return to work	44	63.8
care child and will not return to work	14	20.3
Religious reasons	4	5.8
take care of old age dependents	3	4.3
Total	69	100

*Source:* Author's computation from primary survey

Participation of women in the labour market decreases significantly for women with children, unlike other women, because during this time when mothers are at work, their children must be left with an entrusted care. These childcare arrangements can be formal or informal or a combination of both. The use of childcare by mothers depends upon a number of factors such as its access, cost, quality, affordability, etc. The decision for a mother to work is a complex issue that involves social norms, educational attainment, fertility rate, religion,

household care, access to other services, and availability of opportunity and other demographic characteristics.

## Discussion of Results

The paper examines three related aspects: (i) the probability of mothers' decision to participate in the labour market, (ii) probable factors that determine the choice of childcare arrangements; this aspect is equally important as one of the barriers that women face at the time of working is to find good quality and affordable childcare, and (iii) opportunity cost.

### Mothers' Decision to Participate in the Labour Market

Based on the earlier studies and the available data, we propose to estimate the probability of mothers' decision to participate in the labour market. The binary logistic model is of the form given in equation (1):

$$Li = \ln(P/1-p) = \beta_0 + \beta_1 \text{Age} + \beta_2 \text{D\_Ed} + \beta_3 \text{Clsstot} + \beta_4 \text{D\_NCHILD} + \beta_5 \text{D\_TypFmly} + \beta_6 \text{CC\_D} + e_i \quad (1)$$

Where,  $Li = \ln(1/0)$  if the respondent chooses to work and  $= 0$ , otherwise. The predictor variables are mothers' age (Age); dummy variable representing education of mother  $D_1 = 1$ , if mother is educated above 12 years of schooling, 0 otherwise; categorical variable on total family income (Clsstot); dummy variable on the number of children in the family  $= 1$  if at least one child in the age group 0-6, zero otherwise; dummy variable on the type of family  $= 1$  if joint family, zero otherwise; and choice of childcare  $= 1$  if public, zero otherwise. It is customary to include a variable or a set of variables indicating the presence of a young child in the household while estimating the female labour force participation models. The presence of young children is expected to increase the reservation wage, lowering the probability of participation. As well known, it is because of incurring childcare costs when mother is participating in the labour market, provided no family support is available. Or else, it is because of the mother's increased productivity in home production (Connelly, 1992). The marginal effects of the estimated results are reported in Table 7.

TABLE 7

#### Marginal Effects of the Binary Logistic Regression: Dependent Variable: Working or Not

<i>Expl. variable</i>	<i>dy/dx</i>	<i>Std. Err.</i>	<i>z</i>	<i>P&gt;z</i>	<i>At Mean of (X)</i>
Age	0.0193*	0.01047	1.84	0.065	0.065
D_Ed^	0.1023	0.10031	1.02	0.308	0.308
Clsstot	0.1818**	0.06156	2.95	0.003	0.003
D_NCHILD^	-0.0791	0.08308	-0.95	0.341	0.341
D_Typfmy^	0.1470*	0.07956	1.85	0.065	0.065
CC_D^	-0.0307	0.08077	-0.38	0.703	0.703

(^)  $dy/dx$  is for discrete change of dummy variable from 0 to 1; \*statistically significant at 10 per cent level; \*\*statistically significant at 1 per cent level.

The likelihood of mothers to participate in the labour market improves by age and is statistically significant. Surprisingly education of mothers is not statistically significant. But the family income and the type of family rather family structure whether mother lives in a joint family system or not has the higher likelihood of mothers being participating in the labour market and statistically significant. The overall fit of the model as per Chi<sup>2</sup> statistic is statistically significant. Three factors show higher likelihood of mothers being employed, age, total income of the family and the joint family system. In view of declining female labour market participation, the role played by childcare institutions in enabling mothers to be employed in labour market is important. In the event of increasing nuclear family structure, we make an attempt to understand in the choice of childcare by mothers in the following section.

### **Choice of Childcare Arrangements**

Globally, women spend considerably more time in unpaid care work than men. The intensity of unpaid care work increases when a woman becomes a mother. This on the other hand reduces her time devoted to working and other leisure activities. However, the availability and access to formal and informal childcare services influence the work participation of mothers of young children. The types of childcare can be relatives and grandparents care, in-home care, and daycare centres. When young mothers choose to work, they need to make a vital decision of choosing between childcare arrangements. They encounter the problem of who is going to take care of their infants and young children. They search for alternative childcare arrangements to take care of their infants and young children. If they opt for formal childcare arrangements, it is important to note that it can take a sizeable share of her own income and or the family income.

Whether women want to go for work or not, or engage in leisure activities, or want to continue their studies would necessitate them to look for alternatives. They seek for help from trusted people to take care of their child. It is not a simple demand to take care of their child. This demand is more for specialized services from trained people. Hence, it will vary across parents depending upon their income, education, employment, socioeconomic status, etc. This would imply that demand for childcare services is a derived demand, i.e., the demand occurs because mothers are choosing to participate in the workforce, away from home (Irene and Vaillancourt, 1988). Thus, the supply or the availability of good quality childcare arrangements encourages mothers to enter the labour market and pursue other activities.

In the context of supply of childcare arrangements and demand for female labour force participation, the socioeconomic conditions play a vital role in determining the type of childhood care options chosen. These conditions often become a prerequisite in the decision-making process. Such conditions are influenced by certain factors that need to be addressed to know how families in general and mothers in particular opt for a specific choice. Thus, choice is constrained by certain implicit as well as explicit factors. In this section, we examine the factors like family structure, educational attainment of mothers, and income of the family and employment status of mothers towards the chosen childcare arrangements.

Table 8 exhibits the relation between type of family and childcare arrangements chosen in the two study areas. It can be seen that in joint family set up, own arrangements are

chosen to take care of the child and the frequency is more in Idukki than in Thrissur. Keeping aside own arrangement option in a joint family, one interesting aspect is that in Thrissur, private option (Daycare centre and hiring a nanny) is chosen to take care of the child while in the underdeveloped district Idukki the preference is towards public provided *Anganwadi/Balwadi*. The role of joint family decreases the demand for childcare but encourages the women to participate in the labour market, unlike the macro picture found by Dhanaraj and Mahambare (2017). In a nuclear family type, the scenario of early childhood care arrangements chosen changes. In Thrissur and Idukki, mothers belonging to nuclear family structure choose private option more than considering the option of public to take care of their child(ren). The reasons for this preference could be many which will be analysed subsequently.

TABLE 8  
Type of Family Structure and Childcare Arrangements Chosen  
(in percentage)

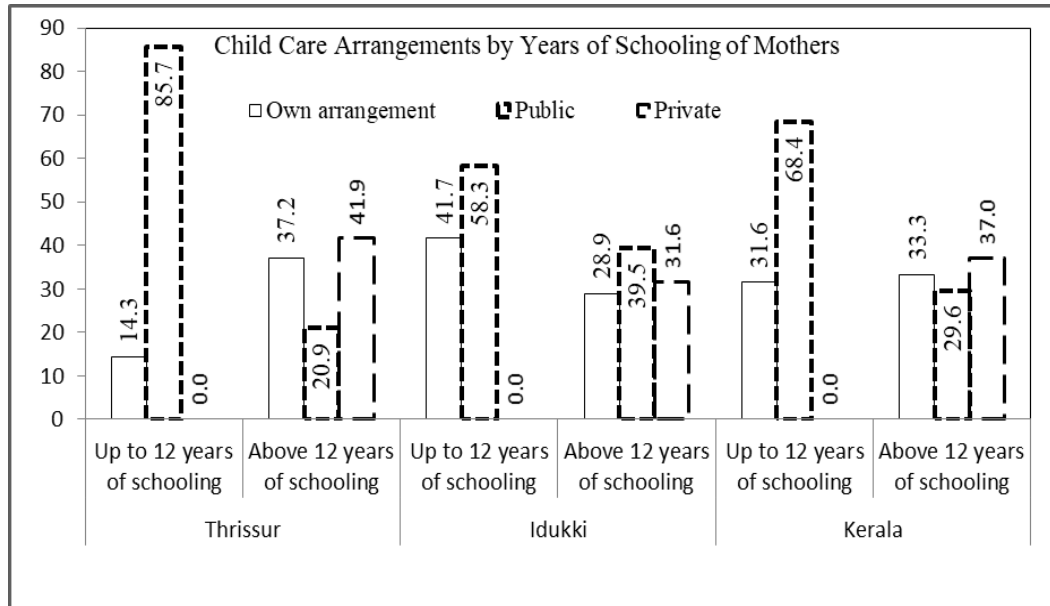
District	Family Structure	Childcare Arrangements			Total
		Own arrangement	Public	Private	
Thrissur	Joint	52.5	22.0	25.4	59
	Nuclear	7.3	41.5	51.2	41
	Total	34	30	36	100
Idukki	Joint	47.8	46.3	6.0	67
	Nuclear	0.0	39.4	60.6	33
	Total	32	44	24	100
Kerala	Joint	50.0	34.9	15.1	126
	Nuclear	4.1	40.5	55.4	74
	Total	33.0	37.0	30.0	200

Source: Authors' computation from primary survey

As the educational qualification of mothers improves, the choice of opting a particular type of early childhood care differs (Chart 1).

CHART 1

**Mothers' Education and Childcare Arrangement Chosen (in percentage)**



Source: based on primary survey

In Thrissur as well as in Idukki, mothers who have completed up to twelve years of schooling prefer *Anganwadi* for early childhood care. The interesting change can be noted in case of mothers who have completed above twelve years of schooling. In Thrissur, mothers who have completed either under graduation or post-graduation taken together chose private options like day care centre and hiring a nanny than considering sending their kids to Government provided *Anganwadi*. The contradictory situation can be seen in Idukki where mothers who have completed above twelve years of schooling preferred an *Anganwadi* over the private options available (Chart 1).

Family income is a crucial factor in determining the type of childcare arrangements chosen by a family. In Table 9, total family income is classified into poor, middle and rich classes. In Thrissur, the poor household prefers *Anganwadis* as it is free and no additional expenditure is incurred by the family.

TABLE 9  
Income Group and Childcare Arrangements Chosen

<i>District</i>	<i>Income Group</i>	<i>Own arrangement</i>	<i>Public</i>	<i>Private</i>	<i>Total</i>
Thrissur	Rs 1000- 33000 (Poor)	44.8	51.7	3.4	14
	Rs 33001- 88800 (Middle)	38.5	30.8	30.8	39
	Rs 88001 and above (Rich)	18.8	9.4	71.9	32
	Total	34.0	30.0	36.0	100
Idukki	Rs 1000- 33000 (Poor)	31.8	68.2	0.0	22
	Rs 33001- 88800 (Middle)	36.4	43.9	19.7	66
	Rs 88001 and above (Rich)	8.3	0.0	91.7	12
	Total	32.0	44.0	24.0	100
Kerala	Rs 1000- 33000 (Poor)	39.2	58.8	2.0	36
	Rs 33001- 88800 (Middle)	37.1	39.0	23.8	105
	Rs 88001 and above (Rich)	15.9	6.8	77.3	44
	Total	33.0	37.0	30.0	200

*Source:* based on primary survey

The middle-class families prefer to send their children to *Anganwadis* as well as daycare centres, depending upon which end the family is in the class category. The families towards the lower limit choose *Anganwadis* while the families coming closer to the upper limit choose private options. Families in the rich class category show a clear preference towards private childcare arrangements. In case of Idukki, both the poor and middle-class income households prefer *Anganwadis*, while the rich class families choose day care centres or hire a nanny rather than going for the option of government provided *Anganwadis*.

Out of 131 respondents who are employed, 76 of them choose childcare arrangements to look after their child while working. Among them majority of the respondents (39) opted for public provided *Anganwadis* followed by day care centres (26). The remaining chooses to hire a nanny to look after their child (see annexure Table A-1). The number of women currently employed indicates the demand for women workforce. With some forms of supply of childcare arrangements, mothers are able to work. Reversal of this may also holds true, i.e. because there is demand for women in the labour market the supply of childcare arrangements prevail. This suggests, there needs to be good quality supply of childcare facilities which enables women to participate in labour force.

For mothers of preschool-age children, the decision to engage in paid employment typically implies the concurrent choice of a childcare arrangement. The cost of childcare can

be an important factor influencing not only the decision about the type of childcare arrangement to use, but also the decision to enter the labour market itself. Similarly, the wage that a mother can expect to earn in labour market activity can determine not only the decision to take paid work, but also the mode of childcare, whether public or private. Here, an attempt looks at the demand for the choice of childcare arrangements. The binary logistic regression is used which is of the form as in Equation (2):

$$Li = \ln(P/1-p) = \beta_0 + \beta_1 \ln X_1 + \beta_2 X_2 + \beta_3 D_1 + \beta_4 X_4 + e_i \quad (2)$$

Where,  $Li = \ln(1/0)$  if the respondent chooses public childcare arrangements and  $= 0$ , otherwise. The independent variables considered here are log of total family income of the household ( $\ln X_1$ ), number of children in the family ( $X_2$ ), dummy variable representing the education of mother  $D_1 = 1$ , if mother is educated above 12 years of schooling, 0 otherwise, and the mothers' hours of work ( $X_4$ ) in the labour market. The estimated results reported in Table 10.

TABLE 10

**Marginal Effects of the Binary Logistic Regression: Dep Var: Choice of Childcare**

<i>Expl. Variable</i>	<i>dy/dx</i>	<i>Std. Err.</i>	<i>Z</i>	<i>P&gt;z</i>	<i>At Mean of (X)</i>
LFam_in	-0.2097*	0.05943	-3.53	0	10.6144
Chldrn	-0.1023	0.08046	-1.27	0.203	1.275
D_Ed^	-0.2638*	0.10409	-2.53	0.011	0.81
Lngwrk	-0.01858**	0.00997	-1.86	0.062	4.84

Note: (^) dy/dx is for discrete change of dummy variable from 0 to 1; \*statistically significant at 1 per cent level; \*\* statistically significant at 10 per cent level.

Income of the family is found to be a significant factor influencing negatively the public childcare facilities. The result from cross tabulation also shows similar behavioural pattern among the families, i.e. as the income increases there is a definite shift or change in preferences. Families tend to choose private mode of childcare rather than public provisioned childcare facilities. Thus, family income is one of the deciding factors for demand for childcare arrangements. Education plays an important role that mothers with more than 12 years of schooling prefer the private childcare arrangements. In other words, the years of schooling and the choice of public childcare arrangements are negatively related and statistically significant. Hours of work by mothers spent in the labour market is negatively influenced by the choice of public childcare. Number of children surprisingly found to have no relationship in demanding a particular mode of childcare. The overall fit of the model as per Chi is statistically significant.

**Opportunity Cost**

Learning takes time. Some learning can be done on the job but many skills need to be acquired before a person is worth employing while some others can only be learned by devoting exclusive time to the task. Something has to be given up to do this, either paid work



and thus earnings or leisure which individuals' value. Carers must pay for substitute care. All three kinds of opportunity cost may be incurred by a woman returning to education *as well as work* after the birth of a child (Barr and Crawford, 2004). Hence, it entails a "labour force participation penalty" for women with maternal care responsibilities. Opportunity cost of mothers who are educated and choosing not to work would endure the foregone income. The proxy for opportunity cost or *the motherhood penalty* can be the mean earnings of working women with similar levels of education. Average earnings of women by levels of education from IHDS I, II and ICE data and the primary survey is reported in Table 11.

TABLE 11

**Average Earnings\* by Levels of Education of Women in the Age Group 21-36\*\***

<i>Educational Level</i>	<i>IHDS (2005)</i>	<i>IHDS (2011-12)</i>	<i>ICE (2016)</i>	<i>Kerala</i>
High School	1346	2349	13985	5375
Higher Secondary	2805	4422	18158	9167
Under Graduate	4986	8338	29512	24397
Post Graduate	NA	10706	44678	44139
All	990	2324	26583	27667

*Note:* \*per month; NA represents information not available because of absence of respondents in those categories;

\*\* Primary survey covers only women with at least ten years of schooling and the age of mothers range from 21 to 36.

*Source:* Based on unit records of IHDS I, II, ICE and Primary Survey

Average earnings of women in the age group 21-36 across these surveys are in current prices. It presents some interesting insights that as levels of education increase from high school to post-graduate levels, the average earnings increase at an increasing rate depicting the human capital theory. Yet another comparable pattern that emerges between ICE (2016) and Kerala (2018) is the similarity between mothers' earnings and the mean earnings of women with UG and PG levels of education.

Given this general trend in the average earnings or the opportunity cost or motherhood penalty that mothers endure, an attempt is made here to look at the age earning profile of mothers using the primary survey data. Table 12 displays a positive relationship between age and wage and negative relationship between age and hours of work. As age increases, the wages earned increases and at the same time the hours of working reduce. This leads to backward bending supply curve for an individual. In the table, up to certain age both average working hours and wages increase after that average wages increase and average working hours as well increase.

TABLE 12

**Age Earning Profile of Mothers by Levels of Education**

<i>Age</i>	<i>School Education</i>	<i>Graduation</i>	<i>Post-graduation &amp; Above</i>	<i>Average Hours of Working in a Day</i>	<i>Average Wage</i>
21 – 24	5000	21500	NA	7.0	17667
25 – 28	6532	22875	32000	7.5	24900
29 – 32	10000	23267	35800	7.3	25862
33 – 36	12063	26225	47334	7.2	29065

*Note:* \*NA refers to information not available.

*Source:* Authors computation

The wages earned increases as the age increases with respect to levels of education. Thus, it displays a positive relationship between age and earnings. The income earned by a post-graduate degree holder and above receives more income than for mothers with Undergraduate degree. The income earned by mothers with an undergraduate is more than mothers with mere school education (see Table 9). This suggests that opportunity cost or the motherhood penalty in terms of not working is high as the educational qualification increases. It can be drawn that there is a high opportunity cost in deciding not to enter the labour market by the mothers who are educationally well qualified. This also points out to the graduates who are invisible in the labour market for which one reason could be taking care of child.

Leisure is clearly an important economic activity; it provides satisfaction and requires scarce resources in its production. All non-market time can be aggregated into a single composite 'leisure' (Heckman, 1988). Using this, leisure of mothers is equal to childcare, as childcare for mothers is 24 by 7 activities. Mothers tend to provide the needed care for their children regardless of their market work. As the wages increase, expenditure on childcare also increases. The expenditure on childcare as well as the leisure foregone constitutes the opportunity cost of working women. On the other hand, mothers who are willing to work in future lose out some income that could have been earned by them had they been employed. At the same time, she is spending more time with her child otherwise not possible (Table 13). Thus, the realised opportunity cost of working women is leisure foregone (assumed to be childcare) and cost on childcare while for mothers who are willing to work is the wages earned by working women. As the working hour increase consequently the time allotted to leisure reduces and at the same time wages increase. Increased education also buys leisure time and the resources to enjoy it. How people spend leisure time partly defines their quality of life, but more often not so for educated young mothers where the family incomes are relatively less.

TABLE 13

**Realised Opportunity Cost for Working Women (Employed)**

<i>Levels of Education</i>	<i>Average working hours</i>	<i>Average Childcare cost</i>	<i>Average leisure</i>	<i>Average wage</i>
High school	6	*NA	18	5375
Hr. secondary	7	*NA	17	8625
Under graduate	7	930	16	24398
Post Graduate	8	3290	16	44139

*Source:* Authors' computation

First, the work requirement forces a shift in mothers' time allocation from non-market activities — including leisure and time spent with children — to formal work. As a result, employment-based childcare cost increases the opportunity costs associated with leisure. Yet another dimension is well-being activities of mothers such as their fewer recreational activities, spend less time in exercising and maintaining a healthy diet, and decrease the utilisation of formal medical and mental health care services.

## Concluding Remarks and Policy Implications

A woman with no children or a woman with older children is more likely to join the labour market since many conditions allow her to be employed and be out of home. The situation is not same for woman with younger children as taking care of the child takes away most of the time available to her. This leads to a trade-off between taking care of child and being employed, where taking care of the child will reduce the time available for her to work and while being employed reduces her time to take care of children. Exploring on the relationship between childcare institutions and maternal employment is attempted here in this paper using the primary survey from Kerala.

The major findings of the study are as follows: Some types of family, especially the joint family systems, encourage mothers in Kerala to participate in the workforce. The nuclear family plays an important role in the selection of mode of childcare. As the educational qualification of mothers increase there is a tendency of preferring private provisioned childcare arrangements than public childcare arrangements. It is seen that there is a preference towards private provided childcare arrangements as the income of the family increases. Together higher income and higher educational levels reinforce the preference towards private childcare arrangements. The families in low-income category prefer *Anganwadis* while families in the middle- and high-income categories prefer private day care centres or even hiring a nanny to look after their child. The analysis of opportunity cost shows that the opportunity cost of not entering labour market increases as the level of education increases. The age earning profile by levels of education reveals that there is a positive relationship between age and earnings given the levels of education. Mean income earned and hours of working analysis displays positive relationship between age and wage and negative relationship between age and hours of work. The opportunity cost (of working women) is the leisure foregone (assumed to be childcare) and the cost on childcare.

The opportunity cost of mothers who are willing to work (currently unemployed) is the wages earned by working women.

**Policy Implications:** The supply of childcare has an important role to play in a mother's decision of entering and staying in labour market. This role of availability of childcare arrangements on maternal employment is not discussed widely by Indian studies. Each child has only first three years. The quality-of-care environment they experience over this short time has life-long consequences. In the first few years of children's lives, parents struggle under the dual burden of care and earning with relatively less support from the community than they will get as their children age. The policy and the economic environment shape the choices available. About the demand for a particular mode of childcare, whether private or public provisioned, the income of the family is the determining factor. It is found in the analysis that with the increase in income of the family there is a shift in the preference towards private provided childcare facilities.

Another important aspect of mothers who are working as well as not working is the opportunity cost incurred by them. As far as childcare is concerned, in the Indian scenario the role played by joint family is indispensable. The traditional and cultural notion prevents a child to be taken care by other sources when the presence of grandparents is there in the house. Most of the joint family households do not look for alternative sources to take care of their child. One important aspect to explore further is the behaviour of middle-income families. They neither prefer to send their child to public provided *Anganwadis* because of quality related concerns nor to private provided childcare centres due to the cost concerns. This recommends the need to provide low cost but quality childcare services.

Women's participation in India remains a concern, especially in the recent decades. The young educated mothers need to face numerous challenges to come back and continue to remain in the work force. The analysis and evidence in this paper though limited to small sample located in Kerala, yet comes out with a powerful message that the state provision good quality childcare is one of the ways to improve the female labour participation in Kerala and in other states of India as well.

### Notes

- 1) Thrissur district came into existence on the 1 July 1949 and known as the cultural capital of Kerala. It has five taluks Talapilly, Chavakad, Thrissur, Kodungallur and Mukundapuram. It is among the top five districts of Kerala on the basis of GDP (Census of India). In terms of population per sq km, the district recorded 1031 while the state density is 860. The female labour force participation rate is 18.7 per cent. The literacy rate is 95.08 and the child sex ratio recorded is 950 (Census of India).
- 2) Idukki district was formed on 26 January 1972. Unlike Trissur, it is the least dense district (255 per sq km). It has four talukas Devikulam, Udumbanchola, Thodupuzha and Peeramedu. It occupies the lowest position in sex ratio (1006). The child sex ratio recorded is 964. The female work participation rate is 33.20 per cent (Census of India). Idukki occupies lower than the average growth in per capita income (4.57).
- 3) These details can be obtained from the author on request.
- 4) The collected data were anonymised for the analysis.
- 5) There is a valid reason to think of leisure as a component of national income and subject to economic analysis, which require leisure's valuation.

- 6) The assumption of leisure as childcare by primary caregivers, i.e. mothers, that the care given is assumed to be twenty four hours. This assumption does not hold true in case of joint families. Apart from mothers, fathers, grandparents, and other relatives are involved in taking care of the child.

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TABLE A1  
**Employment Status and Childcare Arrangements chosen (in %)**

<i>Employment status</i>	<i>Anganwadi/ Balwadi</i>	<i>Daycare centre</i>	<i>Hired a private person</i>	<i>Total (in no.)</i>
Employed	51.3	34.2	14.5	76
Unemployed *	55.2	44.8	0.0	58
Total	53.0	38.8	8.2	134

*Note:* \*Unemployed here refers to mothers who are willing to work in labour market but are currently unemployed

*Source:* Based on primary survey

# Determinants of Cross-Border Student Mobility to India

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Kriti Dagar\*

## Abstract

Cross-border exchange in the form of mobility structured around students, scholars and academics has been a result of the forces of both globalisation and internationalisation. Globalisation processes have, on the one hand, increased interdependency among nations due to the development of information and communication technologies (ICTs) while internationalisation has, on the other hand, acted as a coping mechanism to the realities of the former. The modes of exchange conceptualised in the General Agreement of Trade in Services (GATS) framework bring forward the gradual shift in higher education from a development cooperation framework, to a partnership model, and now to a commercial and competitiveness model. The transition has greater directions for India due to the rising popularity of the country in the South-Asian region. Student mobility, which is the most visible and prominent form of exchange globally, has been explored here in depth for India. The inbound mobility for India and the determining factors responsible for pulling the students from across the globe are analysed with the help of econometric modelling. The adjoining policy responses in light of the considerations of New Education Policy 2020, initiatives such as Study in India (SII), Global Initiative of Academic Networks (GIAN) and internationalisation collaborations have also been discussed. The paper utilises simple pooled regression to analyse the inbound student flows from seven neighbouring South Asian countries and three developed countries (where Indian students are outflowing) on the basis of five quantifiable push-pull factors and two dummy variables to represent sub-groups of border sharing and free-trade agreements between countries.

The results highlight regionalism and economic-trade linkages as the key frontiers in determining cross-border student-mobility to India fostering and enhance knowledge exchanges.

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## Introduction

Knowledge is a universal good whose benefits are shared with the global community. With increased urge to share information via open access networks, knowledge production is growing and its dissemination is being revamped across borders. Higher Education Institutions (HEIs) play a key role in creating knowledge, establishing pathways for student learning and developing critical thought either by producing new knowledge via investments in research and development (R&D) or equivalently by training individuals in those R&D activities. Thereby, given the interconnected and permeable nature of knowledge production and dissemination, cross-border exchange serves to be a necessary tool of development.

Cross-border exchange forms the basis for knowledge production within a country as well as outside its borders. Internationalisation by means of cross-border exchange of higher education services has been taking place traditionally in various forms such as cooperative projects, exchange programmes, fellowships offered by developed countries such as the USAID, full bright scholarship programme, British council, commonwealth scholarship programme and German Academic Exchange Service programme (DAAD) etc (Altbach and Knight, 2007). However, the means and methods of exchange have changed overtime. The framework of the modes of exchange as defined under General Agreement of Trade in Services (GATS) in context of globalisation has been adopted in the paper (WTO, 1998; Knight, 2002), although the focus largely remains on the mobility of students. The modes of exchange are as below.

**Programme Mobility:** This refers to the use of technology to deliver education programmes. Consumers are not required to move to use the services. Distance learning, virtual universities, and e-learning via MOOCs and Coursera, are examples. In present practices, this has a modest market, but a lot of potential owing to technological advancements.

**Student Mobility:** It refers to the supply of a service that requires the consumer to go to the supplier country. This could be a study-abroad programme or a student exchange programme. It currently holds the highest share of the worldwide education services market.

**Institutional Mobility:** It denotes the service provider's establishment or presence of business facilities in another country to supply its services. Collaborations between domestic educational institutes and overseas institutes, local branch or satellite campuses, twinning partnerships, and so on are some of the options. There has been an increase in interest and a significant potential for future expansion, but it is the most contentious kind because it appears to be set in international foreign investment laws.

**Teacher Mobility:** This refers to someone temporarily relocating to another country to provide educational skills or services. Because of the emphasis on professional mobility around the world, there is a possibility for a strong market for this type of product.

India's higher education system has experienced the wave of cross-border exchanges. International orientations and practices have been present in the Indian higher education system from ancient times, but they have not been recognised and brought to the forefront. The institutions of high accord such as Nalanda, Taxila and Vikramshila were power magnets that attracted students and scholars in its social and cultural system (Ahmed & Garg, 2015).



These imparted a blend of eastern and western ideals of education. In the current framework, worldwide flows of students, scholars and teachers to and from India, technological innovations and blended learning networks have given an impetus to internationalization of higher education in India. It reflects that knowledge remains to be a central focus of developing the country's higher education in an international framework but it has taken a multidimensional role. The internationalisation phenomenon has changed its focus from government mediated mobility supported by scholarships to a self-sponsored need-based mobility of students, faculty, programmes as a latest development and institutions more recently.

## Developments of Cross-Border Mobility in India

Student mobility has been the most prominent form of exchange across the world. Globally the number of students crossing borders has increased from 4.3 million in 2015 to 5.5 million now (UIS, 2020). The regions that host the largest number of mobile students are, North America and Western Europe (49 per cent of total mobile students), East Asia and Pacific (16 per cent) and Central and Eastern Europe (12 per cent) (UNESCO, 2020). The Arab region is interestingly emerging as an attractive destination for students (5 per cent of globally mobile students) in 2020.

India stands to be the second largest sender of students abroad (3,75,055 outbound students) (UIS, 2020). The mobility has changed overtime from a state-funded or public supported means to a self-financing basis which has in turn increased the number of students privately consuming higher education at the market determined prices. The inbound students India receives however is merely three-fourth of the total global students (47,424 inbound students) (UIS, 2020). To augment student inflows Study in India (SII) is a major project (now renamed as Performance Rating of Applicants through Global Aptitude Test for Indian Institutes-PRAGATI) launched by the Indian government's Ministry of Education in 2018.

The Study in India programme aims to promote India as a top education destination for international students by inviting them to pursue higher education in the country and sample the finest of Indian education. The initiative encourages them to take advantage of the excellent educational opportunities offered by India's premier colleges. The program's added benefit is quality assurance, since it collaborates with institutes that have a National Assessment and Certification Council (NAAC) accreditation of 3.26 or above, or are listed among the top 100 by the National Institutional Ranking Framework (NIRF).<sup>1</sup> Approximately 2,00,000 places are now available, with over 90,000 tuition fee waivers (varying from 25 per cent to 100 per cent) and scholarships, each worth USD 3,500. Indian institutes offer technological knowledge in a wide range of subjects, from STEM to non-STEM, and include programmes in subjects like Yoga and Buddhist Studies.<sup>2</sup> According to latest statistics, the year 2021 witnessed an enormous increase in the number of aptitude test takers by 146 per cent. The applications received were from a canvas of countries such as Nepal (6975),

<sup>1</sup> <https://www.studyinindia.gov.in/home>

<sup>2</sup> [https://www.education.gov.in/sites/upload\\_files/mhrd/files/lu691.pdf](https://www.education.gov.in/sites/upload_files/mhrd/files/lu691.pdf)  
[https://www.education.gov.in/sites/upload\\_files/mhrd/files/ru2138.pdf](https://www.education.gov.in/sites/upload_files/mhrd/files/ru2138.pdf)

Afghanistan (5892), Bangladesh (4030), Ethiopia (4011), Bhutan (3736), Sri Lanka (1653), Indonesia (315), Swaziland (121), Egypt (111) and USA (96) among others.<sup>3</sup>

The country also stands a forerunner in Asia in the online learning platform MOOC provider, Coursera accounting for 9.8 million of the 65 million registered users (second biggest revenue earner) with a growth in paying users over the past year<sup>4</sup> (MOOC-Report, 2020). Alongside these developments, Indian educators are highly demanded across borders due to their expertise and skills. The country has a wealth of prominent academicians from prestigious universities such as the Indian Institute of Technology, Indian Institute of Sciences, Indian Institute of Management, and Central Universities, among others, who are in high demand around the world. To meet this demand and seize the opportunity, government of India launched the Global Initiative of Academic Networks (GIAN) in 2015, with the goal of tapping the global talent pool of scientists and entrepreneurs and encouraging their involvement with Indian higher education institutions. GIAN currently has 1000 academics from diverse nations who have taught 1585 courses on specialised areas to over 80,000 students and related teachers.<sup>5</sup> 203 institutions including University of Delhi, Jawaharlal Nehru University, Indian Institutes of Technologies, National Institutes of Technologies, Indian Institutes of Management, State and Central universities and other institutions of high accord are a part of the initiative.<sup>6</sup>

The objectives of the initiative are to incorporate the best international experience into our educational institutions, develop academic interaction among students and teachers with industry experts from across the world and exchange global experiences and expertise in order to push people to work on Indian challenges. However, the country is still restrictive towards internationalising practices in respect of provider mobility. Until 2020, the country did not legally permit international branch campuses (IBCs) to establish or offer study programmes and award degrees. It only allowed collaborations and partnerships, international centres or joint ventures with offshore higher education institutions. However, the National Education Policy (NEP), India's 20-year higher education blueprint, announced in July 2020, recommended that select universities from the world's top 100 university rankings would be allowed to operate in India. Thereby the Indian higher education system is at cross-roads wherein knowledge flows are required but knowledge networks are hazy and weak. The need of the hour is a policy shift from insularity to openness. The higher education system is opening pathways to facilitate cross-border exchanges but a legislative framework to bring in foreign branch campuses is required. India will need new primary legislation, which has yet to be submitted in parliament, in accordance with the NEP's recommendations. Previously, attempts at legislation in the last 15 years have either failed

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<sup>3</sup> Rise in applications for study in India programme, The Times of India, retrieved from <https://timesofindia.indiatimes.com/india/146-rise-in-applications-for-study-in-india-programme/articleshow/84874105.cms>

<sup>4</sup> India is coursera's second biggest revenue earner, retrieved from <http://economictimes.indiatimes.com/industry/services/education/india-is-courseras-2nd-biggest-revenue-earner/articleshow/54559438;https://www.classcentral.com/report/mooc-stats-pandemic/>

<sup>5</sup> <https://gian.iitkgp.ac.in/>

<sup>6</sup> <https://gian.iitkgp.ac.in/ccourses/approvecourses2>  
[https://gian.iitkgp.ac.in/images/Eligibility\\_and\\_Procedure\\_for\\_Joining\\_GIAN\\_Scheme.pdf](https://gian.iitkgp.ac.in/images/Eligibility_and_Procedure_for_Joining_GIAN_Scheme.pdf)

or had to be retracted. The present paper would focus upon the factors directing student mobility. The research is woven into the context of cross-border mobility to India, which occurs via four modes: student mobility, provider mobility, teacher mobility, and programme mobility. It would try to objectively examine the extent to which student flows from a group of ten source nations to India are influenced by quantifiable push-pull factors. The results bring out the significance of regionalism and internationalization in the radar of higher education.

## Trends in Student Mobility

Cross-border student mobility in context of higher education in India can be viewed under two dimensions, i.e., Inbound mobility and Outbound mobility. Inbound mobility represents the number of tertiary students from abroad studying in a given country while Outbound mobility represents the number of tertiary students from a given country studying abroad. The outbound students from India to the rest of the world (RoW) stands to be 375,055 students which ranks it as the second largest sender of students after China (9,93,367). While the number of inbound students it received were only 47,424 (UIS, 2020). Most students coming to India for their tertiary education represent South Asian countries such as Nepal, Afghanistan, Bhutan, Nigeria, Sudan, Malaysia and others. Table 1 represents the Outbound and Inbound Mobility from and to India for top 10 countries of the world in 2020-21 (UNESCO, 2020-21).

The limited empirical evidence available indicates that most of these students do not seek employment after completion of their tertiary degree in India. They often seek avenues such as returning to their home countries or moving to some other country for a further degree. Their motivations to choose India as a study destination are however a mix of push and pull factors such as lack of academic opportunities and higher education infrastructure in their respective countries, political instability in home country, high value of a degree from across the border both at home and globally, cultural affinity, English language curriculum and comparatively low fee levels in India among other global destinations.

On the other hand, the motivations of Indian students crossing borders (or outbound students) are quite different from those coming to India from other countries for higher education purposes. Indian students largely migrate to United States, United Kingdom, Australia and Canada for higher education purposes however, UAE, New Zealand, France, Germany, Korea, Russia are some of the emerging destinations. While most of them are self-funded students, the ideally seek employment opportunities in the countries they migrate to (Varghese, 2008, 2017). Since the study abroad expenditure is marginally high as compared to India, employment prospects and means for citizenship (or residency) in the destination country becomes an attractive factor in the search for destination country for higher education for Indian students.

TABLE 1

**Inbound-Outbound Student Mobility (2020-21)**

<i>Outbound Mobility from India to Rest of the World (Top 10 Countries)</i>			<i>Inbound Mobility to India from Rest of the World (Top 10 Countries)</i>		
<i>Country of Destination</i>	<i>Percentage of Total</i>	<i>Number of Students</i>	<i>Country of Origin</i>	<i>Percentage of Total</i>	<i>Number of Students</i>
United States	36.24	135939	Nepal	26.87	12747
Australia	19.54	73316	Afghanistan	9.81	4657
Canada	9.27	34805	Bhutan	3.81	1809
United Kingdom	5.22	19599	Nigeria	3.40	1614
United Arab Emirates	4.63	17376	Sudan	4.01	1905
New Zealand	3.09	11604	Malaysia	2.29	1087
Ukraine	2.85	10698	Bangladesh	4.37	2075
Russian Federation	2.09	7864	Islamic Republic of Iran	2.37	1127
Kyrgyzstan	2.31	8662	Yemen	3.15	1498
Kazakhstan	1.18	4453	Sri Lanka	2.64	1252
France	0.86	3252	United Arab Emirates	2.21	1050
Others	12.66	47487	Others	35.00	16603
Total Outbound	100	375055	Total Inbound	100	47424

Source: UIS, UNESCO, 2020-21

Parallel to this mobility of students across borders, a new trend that is being witnessed in the recent past is that cross-border student mobility is taking place to countries where branch campuses or dedicated education spaces (also known as Education Hubs) are in operation. Education Hubs are a part of the larger umbrella of international branch campuses (IBCs) representing special education zones which seek to develop a dedicated environment of international standards and create an optimum combination of international and domestic academic programs to ensure sustainability and competitiveness. They are viewed as a collection of campuses from multiple institutions in a common space, creating education 'hubs', 'cities,' or 'parks' (Owens, 2014). Currently, there are six countries that have positioned themselves as EHs of which two are located in the Gulf region (United Arab Emirates and Qatar), three in Asia (Hong Kong, Malaysia and Singapore) and one in Africa (Botswana) (Knight, 2012). These hub spaces provide opportunities for local students to

have access to an international flavour of education. Most countries however, establish these hubs as a means of retaining their domestic students. The advantages of choosing an education hub are easy access and admission procedures, low fee of branch campus as compared to host country campus, relatively low living expenses and the prestige of attaining a degree from the parent university with the same qualification standards. However, given the nascent sketch of cross-border developments in India, the factors guiding student mobility towards India need to be analysed.

## Factors Influencing Student Mobility towards India

Students' cross borders for a variety of reasons, which vary by gender, nationality, and academic levels or fields of study. Economic stimulus, such as the availability of scholarships; easy entry requirements; knowledge of host country; personal recommendations; safety; cost issues; social factors; reputation; quality of institutions is the most commonly identified (and most important among students) factors among prospective students' choices. Students also consider the likelihood of getting a job after graduation, social and academic support, programme availability, onsite housing, nearby relatives/friends, and an English-speaking environment. Other factors include the convenience of study patterns (funded by the employer, part-time options available, and ease of language); HEI quality assurance mechanisms; and Host Country Attractions (safe and pleasant living conditions; local career opportunities; multicultural learning experiences; and peer recommendations).

The determinants of student mobility thereby are influenced by a variety of circumstances, including economic or financial stability of an individual, political stability of the country students choose to migrate to, employment prospects, fees and finances, educational development of a country and support services offered by the higher education institution (Mazzarol and Soutar, 2001). Push factors include a lack of educational opportunities in the home country or the quality of the home country's tertiary education system; low employment avenues; relative affluence of the home country population; the home nation's GNP growth rate; and political instability, while pull factors include better employment opportunities across borders, safe environments, and political stability. India is therefore a top-tier global education destination with reasonable tuition fees as well as affordable living expenses. With the establishment of low-cost world-class education, the country draws students from neighbouring nations such as Bangladesh, the Maldives, Afghanistan, Nepal, and Sri Lanka, for whom India is the top choice for studying abroad (Lavakare, 2018).

The Indian higher education system emerges to be an attractive study destination especially in the South Asian region moving towards gaining soft-power by sketching education cities with cluster institutes or international centres and a host of shared facilities to allow dynamic connect and collaboration among the local institutes. Some examples of this set up are, "Mohali Knowledge-City" which brings together the Indian Institute of Science Education and Research (IISER), National Agri-food Biotechnology Institute, and a Technology Park for start-ups called Nanotechnology Institute; Lavasa near Pune wherein Symbiosis International University plans to establish a new liberal arts campus at the township and the "Rajiv Gandhi Education City" in Sonapat, Haryana that is a ground for 13 educational institutions including universities, medical colleges and engineering colleges. Apart from these, metropolitan cities such as the internationalised education city, Pune;

the information technology hubs, Bangalore and Hyderabad are canvassing themselves as regions of international stature by establishing dedicated education cities and research hubs (Dagar, 2017). The table below summarises the internationalised higher education scenario in these cities.

TABLE 2

**International Education Centres in Universities in India**

<i>Cities</i>	<i>International Centres</i>
Pune	Symbiosis International University; University of Pune
Bangalore	Indian Institute of Science (IISc); Jawaharlal Nehru Centre for Advanced Scientific Research; National Law School of India (NLS); Indian Institute of Management (IIM); Azim Premji University; Indian Institute for Human Settlements; Manipal Academy of Higher Education (with an International Centre)
Hyderabad	Indian Institute of Management (IIM); Xavier Labour Relations Institute; Institute of Management Technology (IMT); Tata Institute of Social Sciences (TISS); Narsee Monjee Institute of Management Sciences

*Source:* Summarised by author from Yeravdekar & Tiwari (2014)

These developments indicate the attempts towards fuelling the Study in India (SII) which aims to strengthen international student base and professional portfolios by providing them the elements of Indian culture and ethos. A handful of organisations dedicatedly work towards promoting SII for Indian institutions such as IIE, New York, United States-India Education Foundation, New Delhi; American Institute of Indian Studies, Chicago; Council of International Educational Exchange, Hyderabad; Nordic Centre in India; MHRD; Symbiosis International University, Pune; Jawaharlal Nehru University, New Delhi; Ministry of Overseas Indian Affairs; University of Hyderabad, Hyderabad; University of Goa, Goa and Lovely Professional University, Jalandhar. Another form of SII in India has been by way of foreign university collaborations with Indian institutions. The collaborative arrangements usually operate out of rented premises hiring part-time staff and utilising home-stay arrangements for visiting international students. However, inbound international student flows are largely centred around South Asian regions possibly owing to lack of higher education infrastructure in these regions as compared to India, a young demographic bulge, lack of adequate higher education facilities (for example, inadequate sanitation measures, lack of skill-oriented courses or professional training courses, etc), large scale youth unemployment due to job-skill mismatch, affordability of Indian Higher Education and geographic proximity (Dagar, 2017a).

## Policy Initiatives to Attract Students

India has taken concerted efforts to make higher education porous to the international dimension; however, previously, the Foreign Educational Institutions Bill of 2010 limited foreign educational institutions' collaboration with Indian universities limited to partnerships or projects. However, the NEP 2020 in its current scheme has obligated establishment, regulation, governance, and content criteria of international universities to be given special treatment on par with other autonomous education institutions in India. The 6Cs, which include increasing emphasis on co-curricular activities, critical thinking, communication, continuous evaluation, creativity, and culture, are highlighted in NEP 2020. All of these factors must be guided by the 5Vs, which include a focus on values, Vedas, virtue, vocational training, and versatility. Further on the policy stresses the four Energisers and has placed a strong emphasis on students' basic learning as well as experience learning. It has placed a strong emphasis on curriculum development in order to boost student engagement and make them more employable. It also emphasises the importance of equal and inclusive education. Its main goal is to ensure that every child has the chance to study and succeed. In this worldwide world, NEP also obtains the correct set of 3Qs, such as questions to contemplate, the search for knowledge, and increasing the demand for a great education employing a holistic and honest approach. Some of the positive steps include a focus on teacher education and money for the education of girls (NEP, 2020). These objectives, however, cannot be achieved in isolation. It requires a blend of foreign HEIs with the Indian HEIs, an exposure and access to the foreign HEIs within India's geographical borders and an ever-dynamic knowledge exchange.

The rationale for encouraging foreign HEIs is inherent in the policy gaps that exist in the Indian higher education system. For instance, when a foreign student arrives, she or he must first register with the FRR (Foreigners Regional Registration Officer), then travel to a hospital for medical certificates, and then hunt for housing. Most other countries, on the other hand, have a designated international students office where everything is handled. As a result, international student offices are slated to open in 164 universities in 2020-21 to ease out the entry mechanism for international students. Additionally, in an attempt to increase synergy between Indian and foreign academic institutions, to offer students additional choices and to improve curriculum and the delivery of knowledge and educational content AICTE and UGC approved seven twinning/foreign collaborative arrangements (Table 3).

TABLE 3

**Foreign Collaborations with Indian Institutions**

<i>Indian Institution</i>	<i>Foreign University</i>
Gandhinagar Institute of Technology, Ahmedabad	DE Montfort University, Leicester, UK
Daly College Business School, Madhya Pradesh	DE Montfort University, Leicester, UK
Universal Business School, Maharashtra	Cardiff Metropolitan University
Institute of Hotel Management, Maharashtra	University of Huddersfield, UK
GMR School of Business, Telangana	Schulich School of Business, York University, Toronto, Canada
S R International Institute of Technology, Telangana	University of Massachusetts
Ansal Technical Campus, Uttar Pradesh	Valiparaiso University, USA

*Source:* Press Information Bureau, Government of India<sup>7</sup>

Internationalisation has always been a priority area for India, especially under the regime of the current ruling party and as put forward by the New Education Policy 2020. Alongside these developments research collaborations and scholarship schemes such as UKIERI (UK-India Education and Research Initiative), USIEF (US-India Educational Foundation), Commonwealth scholarship, Presidential scholarship and invites international students within its borders under the SII (Study in India Programme) to pursue education in desired fields from top ranked institutions in India as per the National Assessment and Accreditation Council (NAAC) which is an organisation that assesses and accredits higher education Institutions in India and the National Institutional Ranking Framework (NIRF) both under the aegis of the Ministry of Human Resource Development (MHRD, Government of India). With the SII, the government aims to bring together various scholarship schemes on offer such as General Cultural Scholarship scheme (GCSS) targeted towards international students belonging to certain Asian, African and Latin American countries for pursuing undergraduate, postgraduate degrees and research at Indian universities; Cultural exchange programme administered by ICSSR country for studying, training and research in various fields; Commonwealth fellowship plan mainly for postgraduate studies, though a few awards may be made available for undergraduate studies in those disciplines for which adequate facilities may not exist in the applicants' country; Reciprocal scholarship scheme for undergraduate and postgraduate study or research in any subject, for whom facilities exist in India, especially in subjects such as Indian Classical Music, Indian Classical Dance, Painting, Sculpture, Drama and Indian Languages; Technical Cooperation Scheme of the Colombo Plan administered on behalf of the Department of Economic Affairs, Ministry of Finance and Ministry of External Affairs meant for students who are nationals of Asian countries; SAARC Fellowship Scheme which offers six fellowships and twelve scholarships annually to the

<sup>7</sup> [https://mhrd.gov.in/sites/upload\\_files/mhrd/files/ru1823.pdf](https://mhrd.gov.in/sites/upload_files/mhrd/files/ru1823.pdf)



nationals of member countries, viz. Bangladesh, Bhutan, Maldives, Nepal, Pakistan and Sri Lanka; Apasaheb Pant Scholarship Scheme one scholarship is offered to a Kenyan national to pursue studies at the postgraduate level, preferably in the field of Economics or International Relations at Jawaharlal Nehru University; ICCR Scholarship scheme is administered by the Ministry of External Affairs, Government of India covering 60 scholarships for undergraduate and post graduate programmes in Performing and Visual Arts; Craft Instructors Scheme offers 10 bursaries annually to nationals of Commonwealth countries for training as craft instructors and lastly the scholarship scheme for Sri Lanka and Mauritius wherein 77 scholarships are offered annually, 47 for Sri Lanka and 30 for Mauritius for pursuing studies towards undergraduate, postgraduate degrees and research towards fulfilment of a PhD degree. Alongside these scholarships there are bank-assisted self-financing programmes to attract students from partner countries in South-Asia, South-East Asia, Middle-East and Africa.

Thus, India is making serious efforts to open its canvas of higher education internationalisation in the global world. It further needs to grab on to the fallouts of the developed world such as high fees in west world universities, difficult visa procedures and competitive admission criterions by promoting its internationalisation strategies and working on the constraints such as limited post-study employment provisions. This would not only help to promote cultural interaction and exchange but aid in building knowledge blocks of excellence.

## **Empirical Measurement of Student Mobility to India**

The Indian higher education system is robust in its capacity and pull factors especially for the neighbouring South-Asian countries. The country has the largest higher education system in the world in terms of institutions and the second largest in terms of students. It has 1043 universities, 42,343 colleges and 11,779 stand-alone institutions (AISHE, 2020). However, despite the huge capacity, active support towards internationalisation and key policy initiatives taken by the government for integrating the global world, India has not been able to attract the required foreign student base into its system. Currently, it is a host to just 49,348 foreign students out of the total higher education enrolment of 38.5 million (AISHE, 2020), which represents a share of just 0.12 per cent. This reflects that, India has not been able to attract the desired foreign student population over time despite having the higher education provisions for them. It reflects that the student inflow may be witnessing a fluctuant evolution in respect of higher education demand as India continues to attract students from South-Asian and many other countries with which it has trade alliances into its borders. With the International domain being adopted in the Indian higher education system with initiatives such as SII, GIAN and synergy associations with foreign institutions, India has witnessed a miniscule growth in foreign students. It may be a result of internationalisation of higher education at large and some other factors in particular which would be explored in this section.

To develop the argument, the following econometric model is being constructed to analyse the inbound student flows from 7 neighbouring South-Asian countries and 3 developed countries (where Indian students are outflowing) on the basis of five quantifiable push-pull factors and two dummy variables representing sub-groups of border-sharing and trade agreements between countries. The model is based on the simple pooled

regression (normalised by taking the logarithms (Logs) of variables) where student flows into India is taken as the dependent variable, four independent variables and two dummy variables as proxy of are associated. The model is represented as follows:

$$\text{Log SF}^{ij}_{2014-2020} = \alpha + \alpha_1 \text{LogGDPpc} + \alpha_2 \text{Log Yun} + \alpha_3 \text{LogREER} + \alpha_4 \text{Db} + \alpha_5 \text{Dfta} + \alpha_6 \text{LogGER} + \alpha_7 \text{LogPSTE} + e$$

Where the variables are understood as,

SF represents student flows from various countries of origin *i* to destination country *j* (India) for the time period 2014-15 to 2018-19. Log SF is the dependent variable.

$\alpha$ =Intercept term

$\alpha_k$ =Coefficients associated with the independent variables ( $k=1$  to 5). These can be interpreted as elasticities of the independent variables

LogGDPpc represents the Per capita GDP of the origin countries. It has been taken as an independent variable because students coming to India are largely from low income south Asian countries. This variable would help to account for the wage differential and the economic incentive faced by the students for employment prospects. Thus, countries with low per capita GDP would indicate a lower standard of living, poor infrastructure and insufficient capacity to adjust its population into an adequate university infrastructure which could possibly increase student outflows. The variable is expected to have a negative influence unless there are bilateral or other external factors that would lead it to have a positive influence.

LogYUn represents youth unemployment among individuals aged 18-24 years in the source countries. It is expected to have a positive effect on student flows as greater youth unemployment in source countries would imply higher student outflows for polishing their skills and seeking better opportunities across borders.

LogREER represents the rate of effective exchange rate between countries of origin and destination country India. It is an independent variable expected to have a positive influence because, higher the exchange rate, more favourable will be origin country's currency and hence positively affect student outflows.

LogGER represents gross enrolment ratio at tertiary level of education. It is expected to have a negative influence on student outflows as a higher enrolment ratio would indicate a well-developed national education system which would be attractive to both domestic and foreign students, hence outward mobility to destination country would be less if the source country has a well-developed higher education infrastructure leading to higher national enrolments.

LogPSTE represents per student tertiary expenditure by government (or public). It is also expected to be negative because the higher the public expenditure per student implies better facilities for students which would defeat the push and pull factors in source and destination country.

Db represents the Dummy variable as a proxy for border sharing among countries which takes the value 1 if source and destination countries share a border and 0 in rest of the cases.

Dfta represents the Dummy variable for existence of a bilateral or multilateral trading agreement between countries which takes the value 1 if trading agreements exist and 0 in rest of the cases.

The hypothesis undertaken for the study are:

H<sub>1</sub>= The student flows towards India from the source countries are dependent on push and pull factors (positively affected by factors such as Youth Unemployment, Effective Exchange Rate and negatively affected by gross enrolment rate and per student tertiary expenditure. GDP could affect student flows either positively or negatively)

H<sub>2</sub>= The students flow from source countries to India are positively affected by push and pull factors (mentioned above) if countries share borders with each other.

H<sub>3</sub>= The student flows from source countries to India are positively affected by push and pull factors (mentioned above) if there are bilateral or multilateral trading agreements between countries

Table 4 below summarises the variables, hypothesis and enlist the data sources.

TABLE 4  
Summary of Variables: Hypothesis and Data Sources

		<i>Variables</i>	
<i>Dependent</i>	<i>Independent</i>	<i>Hypothesis</i>	<i>Data Sources</i>
Student Flows	GDP per capita	Positive/Negative	UIS and AIU
	Youth Unemployment	Positive	World Bank Development Indicators
	Effective Rate of Exchange (REER)	Positive	IMF, World Economic Outlook
	Dummy border*	Positive	<a href="https://mha.gov.in/sites/default/files/BMIntro-1011.pdf">https://mha.gov.in/sites/default/files/BMIntro-1011.pdf</a>
	Dummy FTA**	Positive	<a href="https://dgft.gov.in/sites/default/files/2A.pdf">https://dgft.gov.in/sites/default/files/2A.pdf</a>
	Gross Enrolment Rate at tertiary level of education	Negative	UNESCO Institute of Statistics (UIS)
	Per student government (public) expenditure on Tertiary Education	Negative	UNESCO Institute of Statistics (UIS)
*Takes a value 1 if source and destination country share a common border, 0 otherwise.			
**Takes a value 1 if source and destination country have a bilateral or multilateral trading agreement, 0 otherwise.			

Source: Compiled by Author

For determination of the coefficients, EViews and panel data were utilized with 8 cross-sections already mentioned above and 5 periods respectively between 2014-2018. For regression, panel least squares and EGLS (Estimated Generalised Least Squares) was used with the option period SUR to control for heteroskedasticity and autocorrelation. Three models were run, first included gauging effect of independent variables such as GDPpc, PSTE, Youth Unemployment, GER and REER on the student flows followed by two interaction effect model to understand the inter-relation or reciprocity of each of the dummy variables with

the independent variables and then gauge their effect on student flows. The results are presented in the following table.

TABLE 5  
Econometric Modelling Results

<i>Independent Variable</i>	<i>Panel Least Square Model</i>	<i>Panel EGLS: Cross Section Random Models with Interaction Effects</i>	
	<i>Model 1</i>	<i>Model 2</i>	<i>Model 3</i>
c	5.09945*** (0.6512)	3.62713*** (1.2189)	4.1600*** (0.9665)
Log GDPpc	-0.60911***	0.24327	0.7748**
Log GER	-0.2238	-0.397	-0.3059
Log PSTE	-0.11563	-1.13203*** (0.4223)	-4.09219*** (0.4643)
Log YUn	-0.2608	-0.31979**	-0.93364***
Log REER	-0.27212*	-0.1577	-0.2035
Db* Log GDPpc	-0.00461	0.00563	0.29932
Db* Log GER	-0.202	-0.2399	-0.3377
Db* Log PSTE	0.61144*** (0.1654)	0.36682	1.90669*** (0.2433)
Db* Log Yun	-	-0.3235	-
Db* Log REER	-	-0.2754	-
Dfta* Log GDPpc	-	-0.3235	-
Dfta * Log GER	-	1.39760*** (0.4244)	-
Dfta * Log PSTE	-	-0.31371	-
Dfta * Log Yun	-	-0.2286	-
Dfta * Log REER	-	-0.48834	-
R Squared	0.6916	0.7662	0.8825
R Squared Adjusted	0.6452	0.6807	0.8523
F-Statistic	12.75	7.787	29.2948
Durbin-Watson	[0.0000]	[0.0000]	[0.0000]
	1.7621	1.886	1.977

Source: Author's summarisation on EViews outputs

Note: \*\*\* significant at 1 per cent, \*\* significant at 5 per cent, \* Significant at 10 per cent, between the parenthesis ( ) the standard error, between the square brackets [ ] the probabilities for F statistics and results of Durbin-Watson Test to determine extent of autocorrelation among residuals

## Some Analytical Considerations

The results of the empirical testing of factors determining student flows to India from a basket of 10 countries bring out some significant results:

- Model 1 supports the analytical hypothesis that student flows towards India are supported by the coefficients for LogGDPpc, LogREER at large and LogPSTE at some extent as these are statistically significant at level 1 per cent and 5 per cent respectively. It can thus be inferred from the statistical analysis that, a low-income economy that does not have sufficient resources to invest on its human capital (students) would suffer a brain-drain or student outflows towards a culturally similar embedded economy such as India.
- Model 2 tested the analytical hypothesis (undertaking interaction effect of dummy variable for border sharing with independent variables) that countries which share geographic boundaries or borders with each other have a larger share of student flows such as Nepal, Afghanistan, Bhutan and Bangladesh. However, the only push-factor which was significant in this respect was gross enrolment ratio indicating that increase in GER among the border sharing countries would lead to a decreased student inflow. If we trace the GER in these border countries we find that the GER at tertiary level has either remained at the same level or reduced over-time and has been way below Indian average.<sup>8</sup> Thus, student flows have increased over the years from these countries.

It can thus be inferred those countries that share geographical borders have greater extent of academic exchanges which confirms the proposition that higher education is moving towards forces of regionalisation (countries having similar characteristics) or internationalisation rather than globalisation.

- Model 3 tested the hypothesis that source countries that have bilateral or multilateral trade agreements with destination country have increased flows of students towards India. The interaction effect of dummy variable resulted that bilateral or multilateral trade agreements between countries are a very significant factor that guides student flows as it positively interacts with GDP per capita, GER, PSTE, REER at 1 per cent level of significance and Yun at 5 per cent level of significance. The results supported the hypothesis that student flows among bilateral trading agreement countries are positively impacted by GDP per capita, REER and Yun and negatively impacted by GER and PSTE.

It can thus be inferred that increased globalisation measured by increased trading relations affect the demand and supply of education and training among countries and vice versa. The quality and quantity of education and training further affect trade flows, countries participation in globalisation processes (global value chains,<sup>9</sup> fragmentation, 10 human

<sup>8</sup> GER at Tertiary Level for Nepal is 15.83 per cent, Afghanistan 8.66 per cent, Bhutan 10.09 per cent and Bangladesh 13.44 per cent compared to Indian average 27.1 per cent (for year 2020)(UIS, 2020).

<sup>9</sup> Global value chains involve trade through networks of firms across borders. A value chain includes the full range of activities required to bring a product or service --- from conception, through the intermediary phases of production (transformation and producer services inputs), to delivery to final consumers and ultimate disposal after use (Kaplinsky & Morris, 2001; Gereffi, 2019).

capital migration, etc). The results confirm the proposition that, trade relations (unilateral and bilateral) among countries largely enhance academic exchanges from the lower developed country (LDC) to higher developed country (HDC) for comparatively advantageous reciprocity due to functional requirements in the economic system, technical requirements of a skilled workforce or institutional needs of trained academicians and other factors such as cultural development, social awareness and political motives of the governments.

- The three models are overall a good fit as in all of the models as Model 1 explains 69 per cent of variation in student flows due to the independent variables while student flows in Model 2 and 3 largely explained by the interaction effect of dummy variables for border and trade relations, with 76 per cent and 88 per cent variability respectively due to independent interaction variables. It implies, student flows to India from the bracket of low-income South Asian countries and three other developed countries are associated with the economic, social and political factors at large and are affected to a great extent by globalisation processes (trading relations) as well as geographic proximity between countries.

Thus, empirical testing supports the view that higher education system in India has created attractive pathways especially for students from South and South East Asia to choose India as their tertiary education destination due to an array of independent push-pull factors.

## Concluding Remarks

Given the caveat of the discussions of the study, one finds that the determinants of cross-border mobility to India vary with respect to economic, social, political and academic factors. India is an attractive destination for students from South and South-East Asia, given the advancement of NEP 2020, new pathways of cross-border exchange are in pipeline. The governments have taken on policy measures, scholarship schemes and mechanisms to incorporate foreign institutions to augment student mobility, attract higher education providers, programs and boost knowledge production. With the interventions of the NEP 2020, the constructive objectives of bridging policy, communication, and procedural gaps has finally been met, and these efforts are to be commended. The policy seeks to pay attention to ethics and human values, creativity, and critical thinking as well as respect for diversity and local context, and its integration will certainly result in beneficial improvements.

Thus, it can be concluded that higher education is moving towards regionalisation and economic cum trade relations between countries promote and augment knowledge exchanges or cross-border mobility among countries.

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<sup>10</sup> The fragmentation of production processes is also called 'vertical specialisation' and is commonly referred to as the relocation of parts of the production process from one country to another (Feenstra, 1998). Most of the attention used to focus on fragmentation in the goods chain, but more recently attention has also focused on fragmentation of services processes.

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## Book Reviews

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JAIN, Manish; MEHENDALE, Archana; MUKHOPADHYAY, Rahul; SARANGAPANI, Padma M and WINCH, Christopher (Eds.) (2018): *School Education in India: Market, State and Quality*, London: Routledge, pp. xviii+302, Price: ₹ 995.

With the significant changes in the Indian political landscape and the economic reforms during the 1990s, the education sector witnessed a considerable change including a shift in the preferences of the Indian middle class in admissions from the government and government-aided schools to a burgeoning range of private schools. There cannot be one specific reason to it; various factors intermingled to paint this picture. Hence, a critical examination of the connections between market, school and the state is important to untie several knots and to find the answers to many mainstream pre-assumed notions regarding school education in India.

The book under review has come about through a five-year-long research project in which ten authors collaborated. They have discussed here the dimensions of school education by considering various contexts. The strength of the book lies in its approach, that is to re-engage with the key concepts in education to develop a strong conceptual framework and then to design an analytical framework that guides the empirical studies. The book is systematically organised into two parts: the first part is devoted to conceptual, descriptive and historical studies of 'quality', 'market' and 'the state' in the context of education, while the second part presents empirical studies carried out in the cities of Hyderabad and Delhi.

The important questions raised while discussing school education in the entire book are regarding the need to re-visit and re-examine the core concepts in school education analytically and historically. In doing so, the book has attempted to engage the readers in constant thinking about how to understand the concept of quality, and how the dominant discourse around the various key features of new managerialism like efficiency and accountability are related to the quality of education. Also, why is it important to think beyond the popular discourse of understanding quality as something measurable and outcome-based?

In the introductory chapter, the editors have set the context by providing an overview of the changing dynamics of and interconnections between state, market and quality in the context of school education in India. Limitations of the outdated framework of educational governance that regulates the relationship between the state and market in education have been convincingly highlighted. One of the prominent features of this chapter is the rich descriptive review of literature that draws the reader's attention towards important insights and helps build a connection with the present scenario.

The first chapter by Manish Jain critically unfolds the concepts of 'private' and 'public' in the Indian context through a historical lens, drawing on the political and feminist theories. The meanings of these terms are neither singular nor static but 'political'. The major

argument constructed is the need to avoid looking at the strong exclusive public-private, state-non-state binaries; this is important for an understanding of the contemporary issues of school education. One needs to understand the ever-changing, multidimensional Indian education system which today has a significant private sector that operates in the educational market.

The second chapter addresses the question of how market forces play a significant role in the allocation of educational resources by labelling education as a 'good' which is to be 'bought' at variable pricing based on the sociocultural and economic capital of the purchasers who belong to different groups; this then directly relates with the quality of education one receives.

Chapter 3 analyses the global, national and state level variations in conceptualisation of education. Given the importance of the educational policy documents and their relationship with the quality of education, it becomes essential to understand and analyse the stated aims of education. It is rightly said that the public school system is currently in a flux because of the changing role of the Indian state and the increasing expansion of private schools in contemporary times. Therefore, it is crucial to explore the public aims of education. This chapter opens up the space for further discussions on this matter.

Chapter 4 on the institutional system in school education is situated effectively around the latest academic debates related to the role of the state as a primary guarantor of education. The discussion and analysis here are focussed more on changes in the role of the state and private non-state actors regarding provisioning, financing, and regulating differentiated and stratified school systems. These changes had been both in terms of the redefined boundaries of the state and non-state actors and also by the new modalities of the government. It is rightly argued that the complex and layered nature of the state's regulatory framework contributes to *de facto* deregulation, enabling the state to enjoy different kinds of relationships with different providers and consumers. School vouchers are one such way by which the government is playing the role of a financier and a regulator for an open play of market forces to determine the school choices and educational quality. Here, one can witness how the state is giving choices (in limited terms) to its citizens (parents and learners) and encourages private forces to intervene in the educational system, i.e., it is sharing the burden of education with markets.

In the chapter ahead, Sarangapani attempts to understand the concept of quality in education. Her belief in 'education worthwhileness' plays an utmost important role in framing the quality discourse. She draws upon the works of many renowned researchers like J P Naik, Christopher Winch, etc., and then moves ahead by raising critical questions like this: To what extent and in what form do 'quality' considerations enter into school selection? Such questions require a comprehensive and wholesome understanding of the master concept, viz 'quality in education,' and the plea is that future research should focus on unpacking this dimension.

As argued in the chapters above, the educational market draws a considerable part of this thinking from managerial theory. The New Managerialism has stepped into the schooling system in varied forms and it brings with itself new parameters to conceptualise and enforce educational practices. It views public service in marketing terms, focusses on cost efficiency, looks at the citizen as a client, and believes in the delivery of service. The focus is on output and constant improvement of the product in order to satisfy the needs of

its customers and, also, to be in tight competition with other agencies. The timelines are rigid and the members (here teachers) are under continuous surveillance. This is supported by Chapter 12 wherein, by their empirical study, the authors offer important insights into teaching and teachers. The findings suggest that the views on teachers as 'executive technicians' are bound to be deeply influenced by the nature of managerial thinking about accountability and efficiency, which speaks for control and management of teacher's work. The systemic issues like poor teacher education system, inadequate support systems for in-service training, etc., aren't considered a matter of concern in popular discourse. The focus is always on the lowest level, i.e., on the teacher and on 'managing' them for the desired outcome. The authors take recourse to a qualitative analysis by documenting the work of six government school teachers, and challenge the popular perception of these teachers as apathetic and disinterested. It also suggests that accountability is important and that we need to take the wider view of multiple axes of accountability rather than the narrow managerial view. Parallel to it, in Chapter 5, it is rightly said that it is essential to critically examine the re-conceptualisation of the teacher as they are not only the most visible part but also play an influential role in the school system.

The second part of the book is a well-presented compilation of several empirical researches which can succour readers to critically examine, and to build connections between, several concepts, ideologies and actors in education. There have been studies that treated students' academic learning scores as indicators of quality, which align more with the economist's predilection for efficiency and accountability. The ASER Report is one such example, in which, by focussing on immediate institutional aspects of education delivery, the quality of low-fee private schools is showcased better than that of the government schools. The idea of outcomes as indicators of quality, and the concepts of efficiency and accountability, have intensified significantly in the policy discourses which had favoured the efficacy of the market over the state. This has also led to an increased role of the NGOs, public-private partnerships, and new philanthropy which promotes rapid market-based solutions to educational problems and indicates how these fit within and foster neo-liberal imagery. (Chapters 7 and 8 focus on this aspect.) The whole cadre of para-teachers is based on the argument to make systems more efficient and accountable. Educationalists, on the other hand, have argued that quality is best understood as a multidimensional, systemic concept having the dimensions of educational aims, provisioning, curriculum, and standards.

The empirical study conducted by Sakshi Kapoor in Hyderabad (Chapter 9) has tried to enrich the present debate around the concept of quality by discussing an important argument --- that the production and management of 'quality' is not a function of the type of school management, but a function of the type of school ethos and the practices emanating from it. The study provides evidence that questions the mere assumption of associating the market with high-quality education and the state with low-quality education. It also contrasts with James Tooley's bland interventions in favour of low-fee private schools in Hyderabad for quality education and labelling the state as producing inefficiencies. We think that the argument of low achievement is based on efficiency, and the focus is on output, not by putting in new resources but by better utilisation or cutting down of existing resources which again is in managerial terms.

Based on ethnographic fieldwork conducted in Delhi, Poonam Sharma (Chapter 10) explicates how the relationship between parents (as consumers) and the school (as

provider) are entertained by the school management. With the help of evidence from the grassroots, the author emphasises the complex ways in which cultural models and market principles interact to shape the relationship of schools with the families.

Chapter 11 discusses case studies conducted in South Delhi; these focus on school choice and the factors influencing it. This chapter connects with almost all the conceptual papers given in the first section of the book. It takes into account parental perceptions regarding the quality of education which relates to their understanding of the aims and purposes of education, and the increase in demand for English medium private schools. The findings point towards the dissatisfaction among parents whose children are in government schools, resulting in a change of preferences from the government to a burgeoning range of private schools.

The book is undoubtedly a significant contribution to the field of school education; the collections are unique and have been done meticulously. It has critically and thoughtfully recognised and analysed several factors and aspects related to schooling in India. It compels us to rethink the concepts that have led to the framing of contemporary educational policies and agendas, and to develop a broader outlook about the nature of diversity of schools available to children in India, the changing nature of the state, an image of teachers and teaching, aims of education, etc. Moreover, it has brought to the limelight the perspective of new managerialism that has so far remained neglected in Indian research.

The book falls short in exploring the dimension of the coaching industry, how the loss of public confidence in government schools has not only led to diversified private school systems but also in a mushrooming of coaching centres. Furthermore, as we know, the educational market is a nationwide phenomenon. Yet, much of the empirical work has been undertaken in just two cities: Delhi and Hyderabad. This can be viewed as the two sides of a coin: first, the limiting of the insights to the national level, and, second, the presentation of a focussed and enriched analysis of only two Indian states. However, this may well open up the scope for future research in different Indian states, taking lessons from the present work.

The ideas emerging from this book are relevant for the stakeholders in education such as parents, teachers, social workers, administrators, educational planners, academic researchers, policymakers and government officials who are involved in decision making concerning school education.

## OBITUARIES

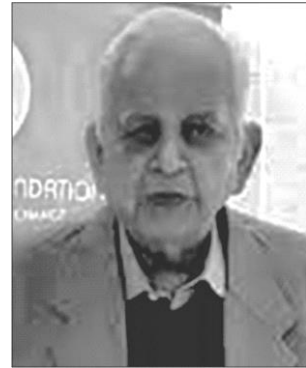


**Dr. Naresh Kumar**  
(Passed away on 2 May, 2021)

Dr. Naresh Kumar breathed his last on Sunday morning, May 2, 2021 while being in Delhi undergoing treatment for Covid-19 infection. The NIEPA deeply mourn his sad and untimely demise. Dr. Naresh Kumar has been working as Assistant Professor in the Department of Educational Policy of the Institute. In addition to his academic responsibilities, he tirelessly worked as an Acting Administrative Officer of NIEPA for more than two years. He was a bright young scholar with a strong pro-research bent of mind. He has been a committed researcher and teacher and has been respected by all his colleagues and students.

The demise of Shri J Veeraraghavan due to Covid makes all of us very sad. He has been one of the most prominent decision makers in Indian education for several decades. He was the first and only Secretary of the Ministry of Human Resource Development when it was established in 1986. He also served as the Secretary of Department of Culture, Adviser, Planning Commission, Director, Bhartiya Vidhya Bhavan, Delhi Kendra, Executive Director (ED), NIEPA, Chairperson and member of several Committees and Governing Boards of Institutes and institutions of higher education.

Shri Veeraraghavan has been an influential force in shaping the destiny of NIEPA and effecting its directions of change from a training Institute to a research organisation; launching of long-term training programmes for national (DEPA) and international (IDEPA) educational administrators. He has published several books and authoritative articles on educational planning and financing in India. His continued guidance, advice and committed engagement with NIEPA and its faculty members have always been a source of strength for NIEPA. His contribution to NIEPA in particular and educational administration in general will be remembered for a long time to come.



**Shri J. Veeraraghavan**  
(Passed away on 4 June, 2021)



**Prof. B. P. Khandelwal**  
(Passed away on 14 May, 2021)

Professor B. P. Khandelwal, an able administrator who headed several organisations and directed their activities, breathed his last on 14 May, 2021. He was the Chairman of CBSE and President of the Council of School Boards of India. He served as Director of NIEPA and he continued his association with the academic and research activities of NIEPA even after his retirement. His leadership as Director of NIEPA during the turn of this century has been of immense value for its academic growth and for an expansion of its capacity development efforts to support the state level initiatives in India.

His vast experience and engagement with decision makers helped enhance visibility of the NIEPA among the policy makers. His contribution as an efficient and effective educational administrator will be remembered by many for a long time to come.



**Prof. M Anandkrishnan**  
(Passed away on 29 May, 2021)

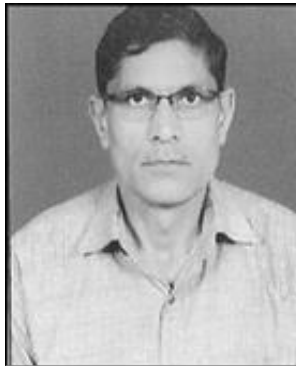
Prof. M Anandkrishnan breathed his last on 29 May, 2021 due to Covid. He was an internationally renowned academic leader and institution builder. He had taught in the IITs and was the Vice Chancellor of Anna University, Chairman of the Board of Governors of IIT Kanpur, chairperson and member of several important national committees.

Professor Anandkrishnan had been deeply engaged with the NIEPA and guided its activities. His advice and guidance contributed substantially to the shaping of research programmes and activities of NIEPA. He remained a member of its Governing Board, Research Advisory Committees, Executive Member of the Centre for Policy Research in Higher Education (CPRHE/NIEPA), and an active member of its several other committees. It was always a pleasure for NIEPA faculty to interact with him and seek his advice. His towering personality and influence were a source of strength and added to the credibility of NIEPA.

#### **Administrative Staff Who Passed Away Due to Covid-19**



**Shri Satbir Singh Bhardwaj**  
*Assistant (Retd.)*  
(20.04.1987 to 30.04.2018)  
Passed away on 05.05.2021



**Shri Padam Singh Bisht**  
*Data Entry Operator (Retd.)*  
(31.07.1984 to 30.04.2017)  
Passed away on 07.05.2021



**Shri Chandra Ballabh**  
*Consultant*  
(08.01.2018 to 08.05.2021)  
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