



POLICY BRIEF

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Demographic Dividend or Demographic Burden? India's Education Challenge

"India's demographic dividend began in the early 1980s and is expected to come to an end towards latter part of 2030s. India is, therefore, just beyond the midpoint of its dividend and this once in a life time opportunity for our nation is unlikely to last beyond another quarter of a century from now. We therefore, need to increase and sustain our GDP growth, reduce poverty, and enhance human capabilities of our people. Every year lost will never return in the life of a child or youth and in the next 25 years, India will be an ageing society »¹.

"With a large pool of skilled people, India has an opportunity to become a skill provider for the world, particularly the ageing developed world".²

India's population of under 19-year-olds has reached its peak and the country is therefore in a position to maximize its demographic dividend³. But for that it needs to educate its youth properly. This is a huge challenge both quantitatively and qualitatively. In terms of numbers, proper training has to be provided to the 8 million new job seekers who enter the job market every year - according to a conservative estimate⁴. In 2017, only 5.5 million had been created and India is facing today a massive employment problem, the unemployment rate being the highest in 45 years⁵. According to an independent statistical institution, the Centre for Monitoring Indian Economy Pvt. Ltd., the Indian

¹Ministry of Skill Development and Entrepreneurship, *Report of the Committee for Rationalization and Optimization of the Functioning of the Sector Skill Councils, vol. I, Appendices*, p. 8, New Delhi, 2016 ().

² Pradhan Mantri Kaushal Vikas Yojana, "Scheme Document of Pradhan Mantri Kaushal Vikas Yojana", New Delhi, National Skill Development Corporation, 28 April 2015 (https://pmkvyofficial.org/App_Documents/News/PMKVY_Scheme-Document_v1.1.pdf).

³ Nicholas Newton-Cheh, "India must invest in its human capital, or risk a "Demographic Disaster"", South Asia Program at Hudson Institute, 30 July 2019 (<http://www.southasiaathudson.org/blog/2019/7/30/indias-must-invest-in-its-human-capital-or-risk-a-demographic-disaster>). 44% of the Indians are below 24.

⁴ These are conservative estimates. According to the National Policy on Skill Development and Entrepreneurship 2015 by Government of India (GOI), the number of young people who potentially enter the work force every year is estimated at 26 million. Assuming an average labor participation rate of 90% for male and 30% for female, at least 16 million persons will enter workforce and they all, except those opting for higher education (about 12%) need to acquire skills. This will amount to a staggering 105 million fresh entrants into the workforce by 2022. In addition, 298 millions of existing farm-non-farm sector workers will need to be skilled, reskilled and upskilled. (Nayana Tara, 2016)

⁵ Santosh Mehrotra, "India Does Have a Real Employment Crisis – And it's Worsening", *The Wire*, 6 February 2019 (<https://thewire.in/economy/india-worsening-employment-crisis>). Manufacturing jobs fell from a little bit less than 59 million in 2012 to a little bit more than 44 millions in 2017

youth is the first casualty of this state of things, as the unemployment rate reached 34% among the 20-24 years old in the first quarter of 2019 – and even 37.9% among the urban lot⁶. Official sources emanating from the government of India do not give very different data: according to the last 2018 Periodic Labour Force Survey (PLFS), the unemployment rate among the urban 15-29 years old (a very large bracket) was 23.7%⁷. One may hypothesize that this pervasive joblessness was due to the poor training of the youth as only 7% of the people surveyed in the framework of the PLFS declared any formal or informal training⁸.

But there is a paradox there because at the same time, according to a recent survey, “48% of India employers report difficulties filling job vacancies due to talent shortages”⁹, so much so that 36% of them have decided to train their own people. The sector that is the most badly affected is one of the strong points of India’s economy, the Information Technology (IT), where 140,000 skilled techies could not be recruited in 2018 in spite of the employers’ efforts (a high proportion of the 500,000 jobs offers that had been made that year)¹⁰.

A similar mismatch between supply and demand is also evident from the enormous number of graduates and post-graduates who apply to unskilled jobs. When the Indian Railways announced that it would create 63,000 jobs – all situated in the lowest level of its employment ladder –, 20 million candidates applied, including 419,137 BTech degrees holders and 40,751 people with master degrees in engineering¹¹. At an aggregate level, the CMIE reports are showing that the more educated Indians are, the more likely they are of remaining unemployed too, the joblessness rate of graduates reaching 14.7% (for the urban graduates), against 11.1% for those who have left school in class 10th-12th, 3.6% for those who stopped in class 6th-9th and 1.1% for those who studied till class 5th only¹².

The government of India’s figures are even more disturbing, as the Periodic Labour Force Survey covering the last quarter of 2018 revealed that 33% of the formally trained 15-29 years old who had been formally trained were jobless. As a result, many stopped looking for a job: 42% of the formally trained young people belonging to this age class are not part of the labor force at all. Many of them moved out “after a fruitless job search”¹³ to join the huge category known as NEET that is composed of those who belong to the 15-29 years-old age class and are “Not in Education, Employment or Training”. This group was 70 million large in 2005; it is now above 115 million according to credible estimates¹⁴. The situation is much worse for women than for men, as evident from the graph below.

⁶ *Unemployment in India A Statistical Profile. January-April 2019*, New Delhi, Centre for Monitoring Indian Economy Pvt. Ltd., 2019, p. 8 and p. 16. (<https://unemploymentinindia.cmie.com>).

⁷ National Statistical Office, Quarterly Bulletin - Periodic Labour Force Survey (PLFS). Oct.-Dec. 2018, New Delhi, Government of India, May 2019, p. 8. (http://mospi.nic.in/sites/default/files/publication_reports/Quarterly%20Bulletin%20Oct-%20Dec%202018.pdf). For a simplified account, see A. R. Mishra, “Unemployment on the rise among urban youth, finds survey”, *Mint*, 3 June 2019 (<https://www.livemint.com/politics/policy/unemployment-on-the-rise-among-urban-youth-finds-survey-1559500104301.html>).

⁸ I. Anand and A. Thampi, “33% of India’s skilled youth jobless: official survey”, *Mint*, 7 August 2019 (<https://www.livemint.com/politics/policy/a-third-of-skilled-youth-in-india-jobless-official-survey-1565161972818.html>).

⁹ “48% of Indian employers up against talent shortage”, *The Economic Times*, 18 October 2016 (http://economictimes.indiatimes.com/articleshow/54913657.cms?utm_source=contentofinterest&utm_medium=text&utm_campaign=cppst).

¹⁰ “Shortage of skilled IT workforce looms over India: Nasscom”, *The Economic Times*, 15 February 2019 (http://economictimes.indiatimes.com/articleshow/68005627.cms?from=mdr&utm_source=contentofinterest&utm_medium=text&utm_campaign=cppst).

¹¹ Arun Kumar Das, “Graduates, Post-Graduates Among Candidates in Race to Become Helpers in Railways”, *The Wire*, 19 March 2019 (<https://thewire.in/labour/indian-railways-jobs>).

¹² *Unemployment in India A Statistical Profile*, op. cit., p. 12.

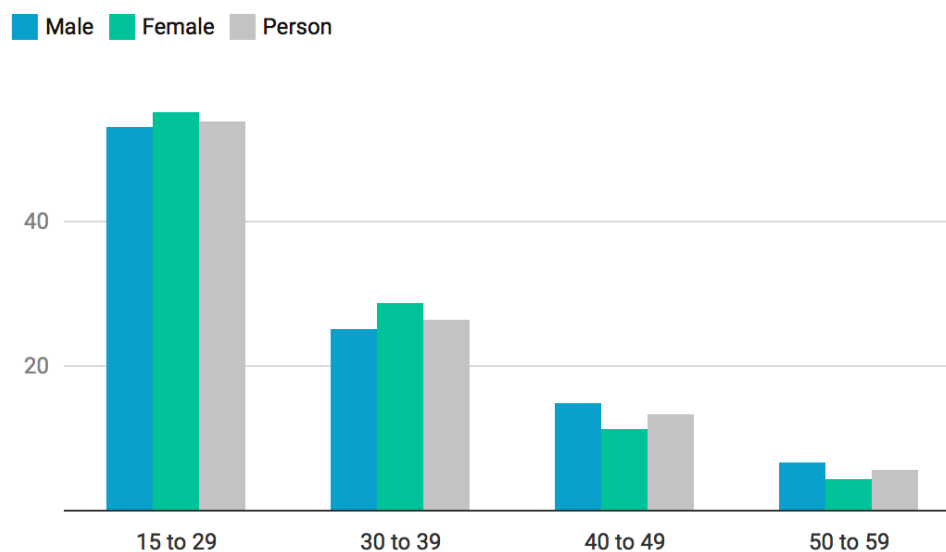
¹³ I. Anand and A. Thampi, “33% of India’s skilled youth jobless: official survey”, op. cit.

¹⁴ Santosh Mehrotra, “India Does Have a Real Employment Crisis”, op. cit.



Younger cohorts more likely to have been skilled

% population that received formal vocational/technical training across age groups

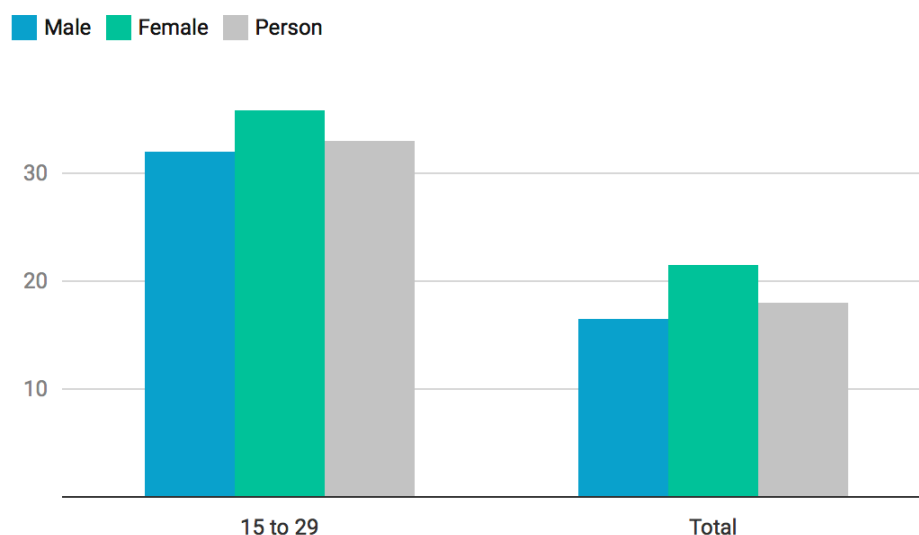


Source: PLFS 2017-18 • [Get the data](#) • Created with Datawrapper

Source: I. Anand and A. Thampi, "33% of India's skilled youth jobless: official survey", op. cit.

Unemployment rate high among skilled youth

Unemployment rate among formally trained population (%)



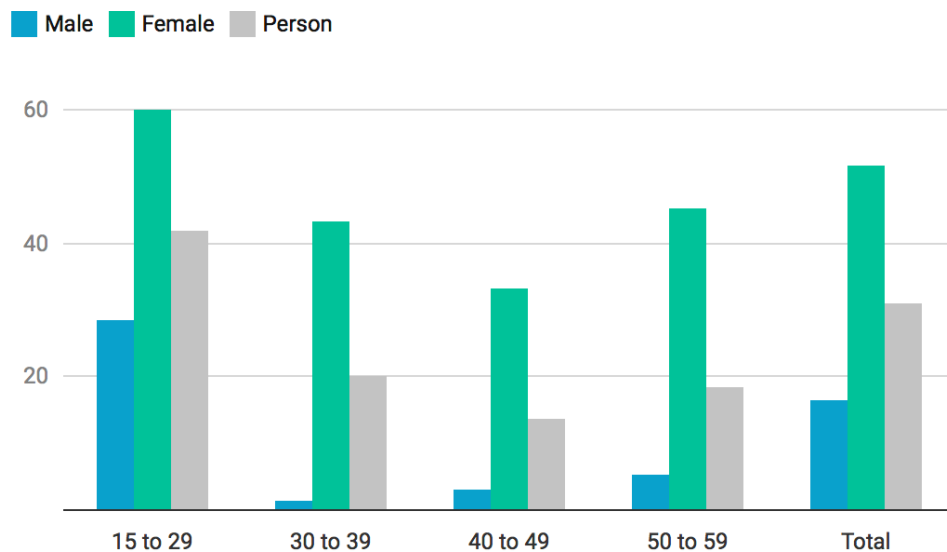
Source: PLFS 2017-18 • [Get the data](#) • Created with Datawrapper

Source: I. Anand and A. Thampi, "33% of India's skilled youth jobless: official survey", op. cit.



Three-fifth young skilled women out of labour force

Formally trained population who were out of the labour force (%)



Source: PLFS 2017-18 • [Get the data](#) • Created with Datawrapper

Source: I. Anand and A. Thampi, "33% of India's skilled youth jobless: official survey", *op. cit.*

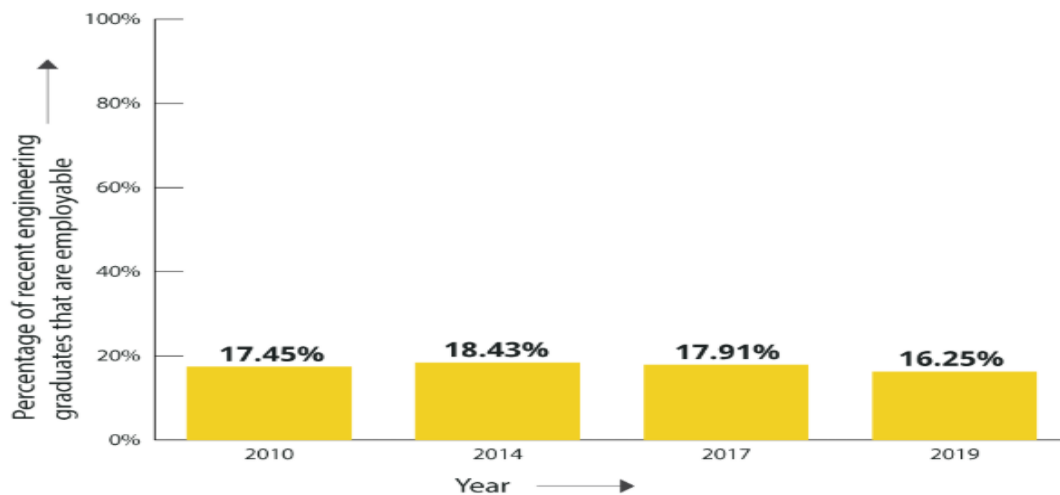
In order to understand this situation, in the first part of this article, we will analyze the education system of India, from primary school to higher education. In the second part, we will focus on the policies initiated by the Modi government in this domain.



BOX 1: The IT sector lacks qualified engineers

The sector wise Periodic Labour Force Survey data show that the bulk of the jobless trained youth are in the fields of electronics, IT and mechanical engineering. But according to the National Employability Report by Aspiring minds, eight out of ten Indian engineers are not employable in any position in the knowledge economy. About the IT engineers, the report makes an appalling revelation that mere 3.84% of the engineers have the technical, cognitive and language skills required for software related jobs in start-ups.

Employability of recent graduates (in the IT sector) has remained stubbornly low



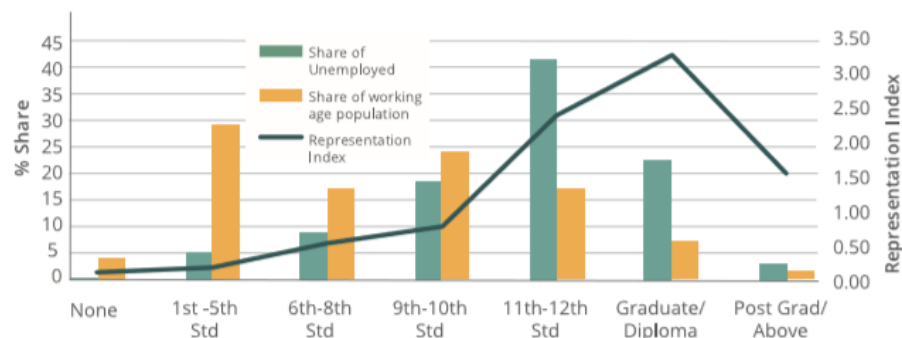
Note: Employability was defined as a measure of theoretical understanding, cognitive skills and domain expertise required in the IT sector.
Source: Aspiring Minds National Employability Report

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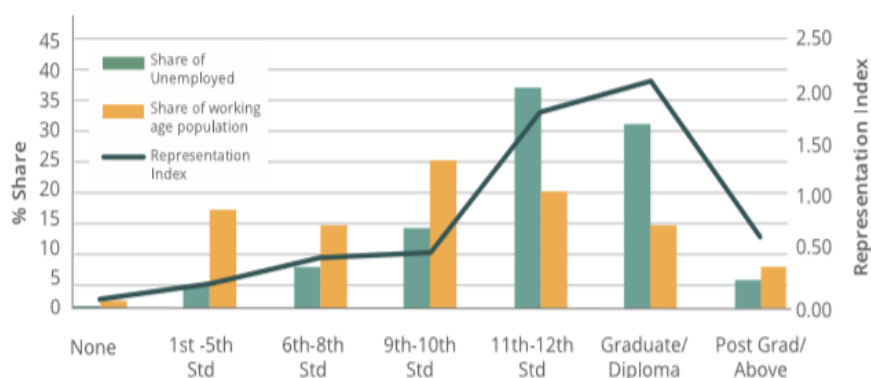


Figure 4: Share of various education groups in the unemployed vis-a-vis their share in the working age population, 2018

4a / Rural Men



4b / Urban Men



Source: Higher education: https://www.business-standard.com/article/interim-budget-2019/budget-2019-what-govt-needs-to-do-to-boost-higher-education-institutions-119013000149_1.html

Primary and secondary education: <https://www.indiaspend.com/what-budget-2019-can-do-to-raise-indias-plummeting-quality-of-school-education/>

The Indian education system

In this section, we will first assess the performances of India's public education system and compare it with what the private system has achieved before looking for explanations.

*Assessing achievements*¹⁵

A proper assessment of India's public system of education needs to combine official data and independent surveys from NGOs, not only for the sake of objectivity, but also because of official data's paucity.

- Primary and secondary schools:

One of the key indicators that the government of India is not updating any more is the dropout rate. The last official report providing information on that front uses figures released for the year 2015-2016. It showed that the Right to Education Act, passed in 2009, had resulted in a massive reduction of the dropout rate (to a meagre 4%) for the Elementary classes (from classes 1 to 8) because the RTE Act made education compulsory till class 8¹⁶. The rate, afterwards, jumped to 17% in classes 9 and 10¹⁷. In 2018, in response to a question asked in the upper house of the Indian parliament, the Rajya Sabha, the Minister of State for Human Resources Development, Upendra Kushwaha, informed the assembly that this rate, still for 2015-2016, was 16.88% for girls and 17.21% for boys¹⁸.

These figures are consistent with the Gross Enrollment Ratio (GER), which is the number of individuals who are actually enrolled in a particular level of education per the number of children corresponding to this enrolment age. In 2015-16, this ratio had reached 97% for the Elementary classes, but had dropped to 80% for the Secondary classes (9 and 10) and was only of 56.2% for the Senior Secondary classes (11 and 12)¹⁹. These national averages need to be disaggregated state-wise. For the classes forming the "Upper Secondary" level the figures are much lower in some states of the Indian Union: 46% in Madhya Pradesh, 43% in Gujarat, 40% in Karnataka, 36% in Bihar etc.²⁰

While the GER has significantly increased so far as the elementary schools are concerned, the quality of the education that is offered there remains debatable. It is not easy to measure comparatively since India dropped out of the Program for International Student Assessment (PISA) in 2009 after being placed 72nd out of 74 nations (including Brazil, China, Thailand, Indonesia, Viet Nam etc.). India then claimed that the program was not sufficiently adapted to the Indian context²¹.

¹⁵ We are grateful to Kiran Bhatta for her comments on this section

¹⁶ On the RTE and the trajectory of the Indian education system that took place before, see S.C. Ghosh, *History of Education in Modern India*, Hyderabad, Orient Black Swan, 2013.

¹⁷ "Trends in school enrolment and dropout levels", *The Mint*, 2 Oct. 2017 (<https://www.livemint.com/Education/k1ANVHwheaCFWCupY3jkFP/Trends-in-school-enrolment-and-dropout-levels.html>).

¹⁸ "Annual average dropout rate of girls is lesser than dropout rate of boys at secondary level", Rajya Sabha, 23 March 2018 (<http://pib.gov.in/Pressreleaseshare.aspx?PRID=1526144>). See also the web site of the Ministry of Human Resources Development where, in 2019, no more recent information is available (https://mhrd.gov.in/sites/upload_files/mhrd/files/drop%20out%20rate%20release.pdf).

¹⁹ Children in India, 2018 – A statistical appraisal, Social Statistics Division Central Statistics Office Ministry of Statistics and Programme Implementation, Government of India, New Delhi, 2018, p. 42 (http://www.mospi.gov.in/sites/default/files/publication_reports/Children%20in%20India%202018%20-%20A%20Statistical%20Appraisal_26oct18.pdf). For more details, see *School Education in India: U-DISE 2015-16*, National University of Educational Planning and Administration, September 2015, (<http://www.dise.in/Downloads/Publications/Documents/U-DISE-SchoolEducationInIndia-2015-16.pdf>)

²⁰ H. Kaushik, "57% of girl students drop out of schools by class XI: Report", *The Times of India*, 1st Dec. 2018 (http://timesofindia.indiatimes.com/articleshow/66900622.cms?utm_source=contentofinterest&utm_medium=txt&utm_campaign=cppst). See also "What is the dropout rate among schoolchildren in India?", *The Hindu*, 4 January 2019. (<https://www.thehindu.com/education/percentage-of-school-dropouts/article25909306.ece>).

²¹ A. Vishnoi, "Poor PISA score: Govt blames 'disconnect' with India", *The Indian Express*, 3 Sept. 2012 (<http://archive.indianexpress.com/news/poor-pisa-score-govt-blames--disconnect--with-india/996890/1>).



In order to assess the students' skills, the Government of India created its own National Achievement Survey in 2012 which analyzed first the learning capacity of Class 8 students. It showed that 29% of the students "struggled in questions that required reasoning", and that 33% of them "struggled with questions that required application and reasoning"²². After taking over in 2014, the Modi government organized a similar exercise that covered about 2.5 million children of Classes 3, 5 and 10 in the framework of the National Achievement Survey²³. Over a quarter of all the Class 5 students scored between zero and 35 out of 100 in reading, mathematics and environmental science.

Primary and secondary education being state subjects, some state governments have initiated policies that have resulted in significant improvement, as evident from the uneven literacy rate that one finds across the country (see Appendix 1). Delhi is a case in point (see Box 2), but there are other, older and more convincing success stories, including those of Kerala and Himachal Pradesh.

BOX 2: The case of Delhi

In this state, the government of Arvind Kejriwal, whose party – the Aam Aadmi Party (the Party of the Common Man) – took over power in 2015 has given a priority to education, and a new kind of education. The education budget increased by 106% from 2015-16 to 2016-2017²⁴, so much that in 2017-18, it represented 26% of the state's budget.²⁵ This money was used to build 25 new schools and 8,000 classrooms in three years.²⁶ But improvement was not only quantitative. Under the influence of educationists, including Atishi Marlena²⁷, who worked as adviser to Education Minister Manish Sisodia, the Delhi government has focused on the foundation of students from grades 6th to 8th who could not even read a simple passage or solve a math problem. A basic learning material/reading assessment tool for the campaign was developed by the Pratham and helped to close the gaps of those who lagged behind.²⁸ The Delhi government also promoted "arts in education by nurturing and showcasing the artistic talent of school students at the secondary stage in the country through music, theatre, dance, visual arts and crafts".²⁹ In the same spirit, students between Class nursery and Class 8 have a 45-minutes 'happiness period' which includes "meditation, storytelling, question and answer sessions, value education and mental exercises".³⁰

The Delhi government has invested a lot in the training of teachers, who have been sent abroad in order to learn from international experiences and who have benefited from an Online Capacity Building Programme (OCBP)³¹. In order to explain these innovations to the parents and to improve the communication with the teachers and the parents, the Delhi government "instituted

²² *What Students of Class VIII know and can do. A Summary of India's National Achievement Survey, Class VIII, 2012*, New Delhi, National Council of Educational Research and Training, 2012 (https://mhrd.gov.in/sites/upload_files/mhrd/files/upload_document/11-March-National-Summary-Report-NAS-Class-VIII.pdf).

²³ For more details, see https://mhrd.gov.in/sites/upload_files/mhrd/files/upload_document/Summary-NAS-Class-3-Final.pdf

²⁴ A. Bhakto, "The Delhi difference", *Frontline*, 12 April 2019 (<https://frontline.thehindu.com/cover-story/article26650791.ece>).

²⁵ Vikas, "5 things AAP did to make Delhi govt schools better than they ever were", *One India*, 5 May 2019 (<https://www.oneindia.com/india/5-things-aap-did-to-make-delhi-govt-schools-a-better-place-to-study-2745202.html>).

²⁶ "5 things AAP did to make Delhi govt schools better than they ever were"

²⁷ A reliable source points out that "the appointment of Atishi Marlena, who worked as adviser to Education Minister Sisodia at a salary of Rs.1 a month and was at the forefront of conceptualizing and implementing key schemes, was cancelled along with that of eight other advisers on the grounds that the Delhi government had not taken the Centre's assent for the same". A. Bhakto, "The Delhi difference", op. cit.

²⁸ M. Koshy, "9 Programmes That Are Changing How Students Learn In Delhi's Government Schools", *Youth ki Awaaz*, no date (<https://www.youthkiawaaz.com/2019/01/9-programmes-that-are-changing-how-students-learn-in-delhis-government-schools/>).

²⁹ "9 Programmes That Are Changing How Students Learn In Delhi's Government Schools"

³⁰ "5 things AAP did to make Delhi govt schools better than they ever were"

³¹ "9 Programmes That Are Changing How Students Learn In Delhi's Government Schools"



a Mega Parent-Teacher Meeting Scheme, and strengthened and regularized the School Management Committees" where parents were represented.³²

Last but not least, the government has established 11 incubation Centres giving them a grant of Rs. 15 million for each: "College/university students with creative minds are given an opportunity to explore their ideas through a platform and financial assistance"³³.

These innovations bore fruits, as evident from the results of the Central Board of Secondary Education (CBSE) examination for Class 12. The pass percentage of Delhi government schools increased from 88.36 per cent in 2017 to 90.68 per cent in 2018, even as private schools of the city lagged behind at 88.35.³⁴ The overall performance of Delhi government schools was the second best in the country, after Thiruvananthapuram (Kerala)³⁵.

However, these results are contested by other reports, including the one that the Praja Foundation, an NGO specializing in education submitted in 2019³⁶. First huge vacancies remain (25% as of the latest U-DISE figures). Second the Delhi government continues hiring contract teachers (20% of the total, even though RTE expressly bans the practice). Third, it has installed cc-TV cameras in classrooms to monitor teachers to increase "accountability", but this move has been counterproductive. Fourth, the teacher trainings held in foreign locales have not translated to much use in local classrooms for obvious reasons.

³² N. Anweer, "Teachers and Parents on the Delhi Govt's Big Bang Education Reforms", *The Citizen*, 7 June 2019 (<https://www.thecitizen.in/index.php/en/NewsDetail/index/9/17067/Teachers-and-Parents-on-the-Delhi-Govts-Big-Bang-Education-Reforms>).

³³ "9 Programmes That Are Changing How Students Learn In Delhi's Government Schools"

³⁴ "5 things AAP did to make Delhi govt schools better than they ever were"

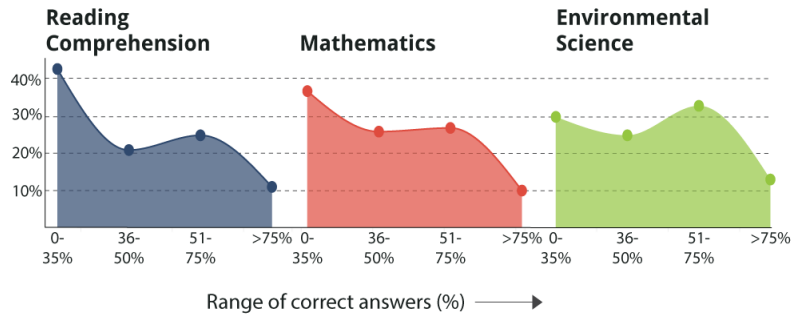
³⁵ A. Bhakto, "The Delhi difference", *Frontline*, 12 April 2019 (<https://frontline.thehindu.com/cover-story/article26650791.ece>).

³⁶ K. Sharma, "Under Arvind Kejriwal govt, enrolment & pass percentage have fallen in Delhi govt schools", *The Print*, 26 March 2019 (<https://theprint.in/india/education/under-arvind-kejriwal-govt-enrolment-pass-percentage-have-fallen-in-delhi-govt-schools/210904/>).



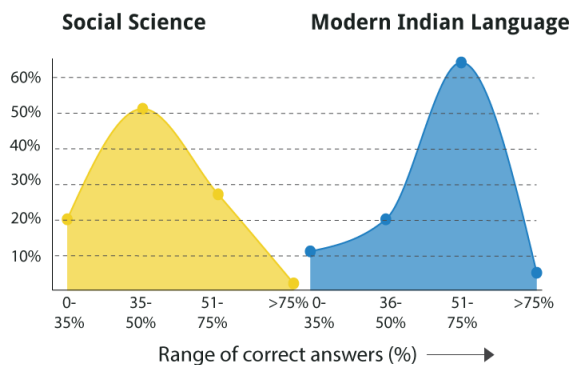
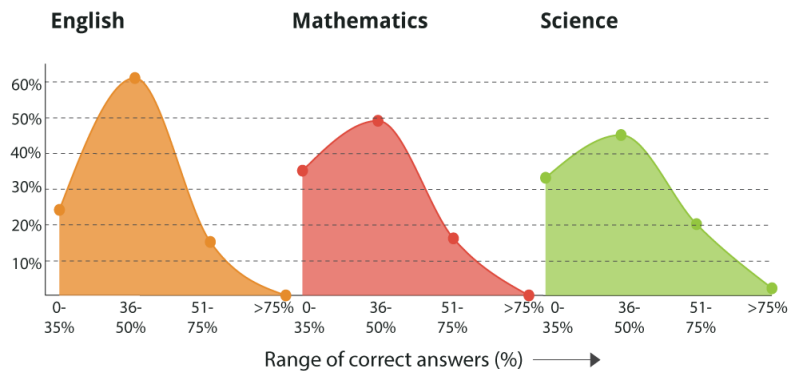
Learning outcomes remain poor

A lot of Class V students got < 35% answers correct, to questions at their learning level



Note: the y-axis denotes the percentage of students who answered in that range. For instance: 37% of Class V students answered between 0-35% of Mathematics questions correctly

While more Class X students got between 36% and 50% correct, very few got > 75%



These findings have been reconfirmed by other surveys, including the Annual Status of Education Report (ASER), which has been published in 2018 by the NGO Pratham. This remarkably comprehensive exercise - 546,527 children have been surveyed in 2018 - which is repeated every year in rural India since 2008³⁷, shows that their skills remain lower than what it was at the elementary level in 2008 from two points of view. First the proportion of the children in government schools in Standard 5 who can read Standard 2 level text has declined from 53.1% to 44.2%³⁸ and those who can do a simple division has diminished from 34.4% to 21.1%³⁹.

These figures are not easy to interpret. The decline may be due to the Right to Education Act (2009) that has suddenly resulted in the enrollment of children from the poor families that till then did not send their children to school and had a very low intellectual capital⁴⁰. Indeed, the percentages mentioned above dropped by nine percentage points between 2010 and 2012 while the GER increased; but they are going up again, as if schooling started to compensate the low intellectual capital of the new comers.

Registration is one thing, but attendance is another. The Annual Status of Education Reports show that there is hardly any improvement on that front. Since 2010, the proportion of children attending schools in classes 1 to 8 oscillates between 71 and 72%⁴¹. One of the reasons for this stagnating, rather low level of attendance pertains to the available facilities. In spite of the strict conditions under which a government school can be registered since the passing of the RTE Act (2009), all the schools don't have usable toilets - 74.2% of the rural schools visited by Pratham had one - or separate toilets for girls (66.4% had some), electricity connection (75% had one) or did not give mid-day meals (91% did)⁴².

The situation of higher education is better, but is naturally affected by that of the secondary education.

- Higher education⁴³:

India has emerged as the largest higher education system in the world in terms of the number of institutions and the second largest in terms of the number of students. It has benefited from a massive investment under the UPA government (2004-2014). The XIth five-year plan (2007-2012) approved a budget of Rs. 850 bn (compared to Rs. 96 bn in the previous one), which resulted in the doubling of the number of students in less than five years, from 11.6 million in 2006-07 to 24 million in 2011-12⁴⁴. Despite this it fails at inclusivity, as the Gross Enrolment Ratio (GER) in tertiary education in India is significantly low at 28%, ten percentage points below the global average of 37.88%, according to World Bank estimates. The official Indian figures are even less encouraging, as evident from the All India Survey on Higher Education (AISHE). In its 2018 report - based on data collected in 2017 -, the AISHE pointed out that the GER in Higher education, calculated for the 18-23 years age group was 25.8% (26.3% for males and 25.4% for females) - that is 36.6 million, including 19.2 million boys and 17.4 million girls⁴⁵. Besides, most of the students - 79.2% - were

³⁷ For a summary of the report, see *Main Findings All India (Rural) Report*, Pratham, 2018

(<http://img.asercentre.org/docs/ASER%202018/Release%20Material/asr2018nationalfindingsppt.pdf>).

³⁸ Madhav Chavan, "Something is changing...", in *Annual Status of Education Report (Rural)*, New Delhi, ASER Centre, 2019, p. 9.

³⁹ Ibid., p. 11.

⁴⁰ Wilima Wadhwa, "Equity in learning?", *ibid.*, p. 17.

⁴¹ *Annual Status of Education Report*, *op. cit.*, p. 56.

⁴² Ibid.

⁴³ On Indian Universities, the best study is Pankaj Chandra, *Building Universities that Matter: Where are Indian Universities Going Wrong?*, Hyderabad, Orient Black Swan, 2017.

⁴⁴ K. Kamar Jahan and D. Christy Selvarani, "Higher Education in India: Issues and Challenges", International Conference on Humanities, Literature and Management (ICHLM'15) Jan. 9-10, 2015 Dubai (UAE) (<https://icehm.org/upload/2797ED0115098.pdf>).

⁴⁵ For international comparability, AISHE has also calculated the Indian GER taking 18-22 years Population and it comes out to be 30%. (*All India Survey on Higher Education*, New Delhi, Government of India. Ministry of Human Resource Development. Department of Higher Education, 2018, p. 19 (<https://epsiindia.org/wp-content/uploads/2019/02/AISHE-2017-18.pdf>).



enrolled in Undergraduate level programs, whereas very few reached the PhD level: a meager 0.5% of students, that is 161,412, did it. Only 34,400 were awarded PhD level degree in 2017⁴⁶.

This reflects the little interest Indian universities put into research. This big weakness explains that in 2014-15, the share of Indian institutions of higher education in R&D was a mere 4% in India, when in other countries it varied from 7% China to 40 % in Canada⁴⁷. More generally speaking, India is experiencing a big innovation gap that is partly due to the weakness of its higher education system.

Paradoxically, many Indians have contributed to the innovative quality of the US – especially in the IT sector – and the other countries where they had migrated –, not to India. And this brain drain is largely due to the fact that hundreds of thousands of young, bright Indians have to study abroad because of the poor facilities that the higher education system of their country offers. In 2018, 752,725 Indian students were studying abroad, including 211 703 in the US, 124 000 in Canada, 87 115 in Australia, 50 000 in the UAE, 27 200 in Bahrain, 18,171 in China, 16,550 in UK, 11,000 in Ukraine, 8,500 in Kyrgyzstan and 6,000 in France⁴⁸. This brain drain, not only inflicts forex expenses to India – which have jumped from \$ 1,663 mn in 2013 to 2,776 between 2013 and 2018, but it also affects India's innovative capacity⁴⁹. Correlatively, India has been ranked at lowly 104th and 114th positions so far as its capacity to retain and attract talents was concerned in the global index of talent competitiveness – below all the other BRICS countries again⁵⁰.

⁴⁶ Ibid., pp. II and III.

⁴⁷ S. Padmanabhan, "India's R&D expenditure trebles in a decade", *The Hindu Business Lines*, 15 January 2018 (<https://www.thehindubusinessline.com/news/science/indias-rd-expenditure-trebles-in-a-decade/article10033448.ece>). This is one of the reasons why India spent only 0.69% of its GDP on R&D in 2014-15, while Brazil, Russia, China and South Africa spent 1.24%, 1.19%, 2.05% and South Africa 0.73% respectively (Ibid.).

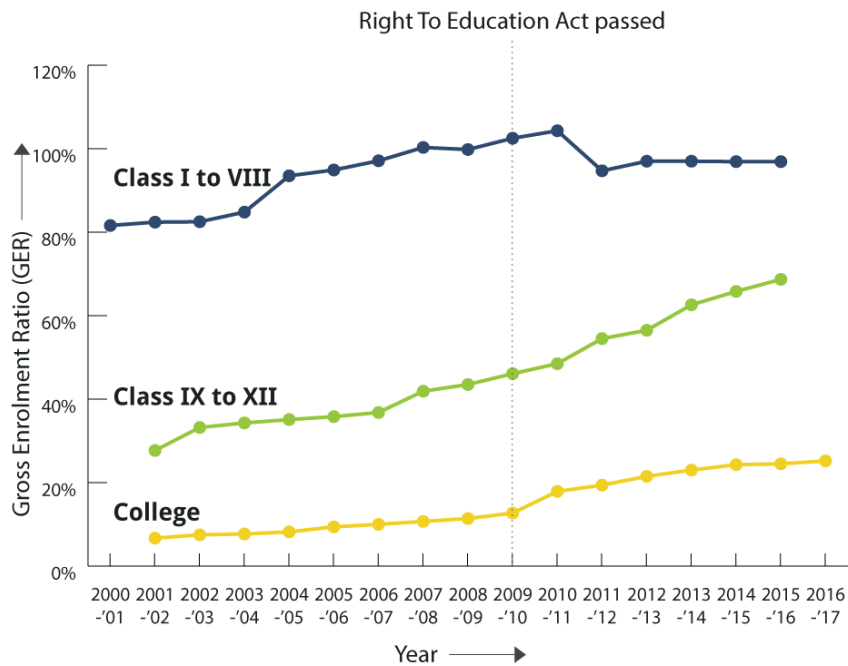
⁴⁸ K. Deepalakshmi, "US continues to be preferred destination for Indian students; UAE sees a surge", *The Hindu*, 27 July 2018 (<https://www.thehindu.com/education/us-continues-to-be-preferred-destination-for-indian-studentsuae-sees-a-surge/article24533290.ece>).

⁴⁹ This increase is due to the growing number of outgoing students, the rise of fees and the decline of the rupees. In contrast, the number of foreign students studying in India is declining, from 37, 947 in 2016 to 36,887 in 2017 (P. K. Nanda and A.R. Mishra, "More Indians going abroad for studies, but foreign students aren't coming in", *Mint*, 17 August 2018. <https://www.livemint.com/Education/qVtIW01E9D923fiDD2o69I/More-Indians-going-abroad-for-studies-but-foreign-students.html>)

⁵⁰ "India slips to 92nd rank on global talent competitiveness", *The Indian Express*, 16 January 2017 (<https://indianexpress.com/article/education/india-slips-to-92nd-rank-on-global-talent-competitiveness-4477103/>).



The rate of participation of students in higher education has remained low



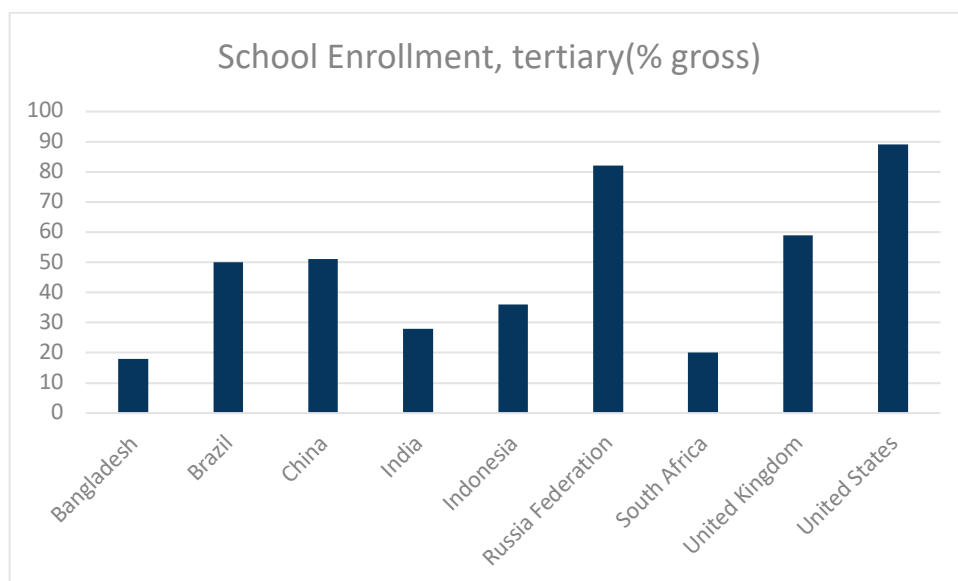
Note: GER is the number of students enrolled in a given level of education, as a percentage of the total population of that age. It can be greater than 100% if students from outside the official age group are also enrolled.

Source: Education Statistics at a Glance, AISHE

Scroll.in

Source: S. Roy Chowdhury and N. Subramanian, "The Election Fix: Have BJP's attempts to solve India's education problems done more harm than good?", *Scroll.in*, 12 May 2019 (<https://scroll.in/article/923137/the-election-fix-have-bjps-attempts-to-solve-indias-education-problems-done-more-harm-than-good>).

Graph 1 : Gross Enrollment Ratio Higher Education in India and other countries in 2016



Source: World Bank, 2016 (<https://data.worldbank.org/indicator/se.ter.enrr>)



Since the 1950s, India's has been striving to develop centers of excellence for higher education through Indian Institutes of Technology (IITs), Indian Institutes of Management (IIMs), Indian Institutes of Information Technology (IIITs) and National Institute of Technology (NITs) which receive more than half of the money the Union government spends on higher education. Yet, none of the premier institutions manage to make it into decent ranks of the global indexes. India has managed to increase its representation in the Times Higher Education (THE) World University Rankings with 49 places compared to last year's 42 -- but has not made into the top 250 institutions. Among the ones which featured in the ranking, The Indian Institute of Science -- in the 251-300 band -- continues to retain the lead, while IIT Indore becomes India's second highest-ranked university in the 351-400 rankings bracket.⁵¹

Most students attend local and regional universities that are provided small budgets.

- Vocational training:

Vocational training in India is primarily imparted through Industrial Training Institutes along with the National Institute for open schooling. There are more than 15,044 it is with capacity of approximately 26 lakh seats⁵². Directorate General of Training also governs Regional Vocational Training Institutions and National Skills training Institutes focusing on specialized and high-end skill sets and trainers courses. These institutions often face the problem of poor infrastructure and lack of trainers. It also faces a social stigma of being an option for the less-academically able students.⁵³ And hence, most of the students would rather pursue formal courses over vocational education courses.

A recent study by Teamlease Services Ltd., highlights that the current vocational education ecosystem has not been very successful in creating adequate employable job seekers. It has found that more than 60% of the candidates and employers find vocational education (voc-edu) courses to be ineffective. Further, only 18% of the students undergoing voc-edu courses get jobs, of which merely 7% are formal jobs.⁵⁴

As per the study, some of the key reasons for this misalignment between vocational education and the industry are the absence of rich academic content, inadequate funding and negative perception about these courses. Another major issue being the lack of awareness for these courses and scope for continued learning. Moreover, vocational education courses today do not have a structure for defined outcomes and therefore tend to be ineffective. In fact, around 70% of the employers feel the quality of training provided by the vocational institutes is not up to the mark. Rather it is poor.

Around 72% of the corporates interviewed felt the employability was also considerably lower with candidates from the vocational education stream. This discontent over the training process is not only felt by the employers, the students (42%) themselves agree that the training quality is below par.

A majority of corporate, as well as students, believe the current vocational education is unable to cater to their business requirements and aspirations. Moreover, the study found that the current system is also plagued with a lack of awareness from the public. While the industry (58%) had some knowledge, the candidates (76%) were unaware of most of the initiatives and courses offered by the vocational institutes.

⁵¹ S.D. Basu, "No Indian institution in top 250 in THE World University Rankings", *The Economic Times*, 27 September 2018 (https://economictimes.indiatimes.com/industry/services/education/no-indian-institute-in-top-250-in-the-world-university-rankings/articleshow/65967796.cms?utm_source=contentofinterest&utm_medium=text&utm_campaign=cppst or https://economictimes.indiatimes.com/articleshow/65967796.cms?utm_source=contentofinterest&utm_medium=text&utm_campaign=cppst).

⁵² Government of India, Ministry of Skill Development and Entrepreneurship, Lok Sabha unstarred question n°160, to be answered on 04.02.2019 (<http://loksabhaph.nic.in/Members/QResult16.aspx?qref=78359>).

⁵³ <https://www.thehindu.com/education/the-vocational-way/article21378657.ece>

⁵⁴ TeamLease Services Limited, "Signaling Value of Skill Education and Hands on job Report" 12th February 2018, (https://www.teamleasegroup.com/sites/default/files/resources/TL-IIJT_SignalingValue_verFinal.pdf)



Material and immaterial issues

- Financial limitations:

Critical assessments of India's public education system have identified two types of issues that can be defined as material and immaterial.

In the first category, financial considerations prevail. Historically, India has not recognized education as a priority – as evident from the fact that education was not compulsory in some states for years⁵⁵ and from the low level of investment. The overall education expenditure by the Centre and by the state governments has always been very low. It represented 3.1% of the GDP between 2000 and 2003 and 2 to 2.5% of the total central budgetary expenditure⁵⁶. According to the UNESCO, the Indian expenditure on education as a proportion of the total government expenditure declined from 17% in 1999 to 11% in 2009, before rising again and reaching 14% in 2013⁵⁷. In percentage of GDP it declined from 4.5% in 1999 to almost constantly, though moderately, from 3.9% in 1999 to 3.1% in 2006, before rising again to reach 3.8% in 2013⁵⁸.

These figures are below those displayed not only by developed countries, but also by emerging countries, including the BRICS.

Table 1: BRIC public expenditure on education (share of GDP/2000-2012) 2000

	2005	2006	2010	2012	
Brazil	4.8	4.1	4.3	5.1	5.3
Russia	2.9	3.7	3.8	4.6	4.1
India	3.2	2.6	2.7	3.1	3.7
China	2.9	2.9	3.0	3.1	4.3

Source: J. Werle Rodrigues and P. Ramburuth, "Investment in Education and Impact on Economic Growth within BRIC Countries", Proceedings of Sydney International Business Research Conference 2015, University of Western Sydney Campbelltown, Australia, 17-19 April, 2015; ISBN 978-0-9942714-0-2. (https://www.researchgate.net/publication/296673785_Investment_in_Education_and_Impact_on_Economic_Growth_within_BRIC_Countries/stats).

Certainly, the situation is different in different states as primary and secondary educations are state subjects, but these variations are of degree rather than nature. Some states have invested more funds than others in education and unsurprisingly, those who have been the most generous have the best results, in terms of literacy for instance (see Appendices 1 to 3) - a clear indication that public money is not necessarily spent in vain.

⁵⁵ M. Weiner, *The Child and the State in India*. Child Labor and Education Policy in Comparative Perspective, Princeton, NJ., Princeton University Press, 1990.

⁵⁶ Subhanil Chowdhury and Prasenjit Bose, "Expenditure on Education in India: A Short Note", *Social Scientist*, Vol. 32, No. 7/8 (Jul. - Aug., 2004), pp. 85-89. https://www.jstor.org/stable/3518263?read-now=1&seq=5#metadata_info_tab_contents

⁵⁷ <http://data.uis.unesco.org/Index.aspx?queryid=183#>

⁵⁸ <https://data.worldbank.org/indicator/SE.XPD.TOTL.GD.ZS?locations=IN>



Table 2 : Allocation to education as a percentage of seven total state expenditure in five states in 2019-20

States	Allocation to education as a percentage of seven total state expenditure in five states in 2019-20 (The National Average is 15.9% calculated for the year 2018-19)
Andhra Pradesh	15.7
Bihar	17.9
Kerala	15
Tamil Nadu	14.7
Uttar Pradesh	14.3
Delhi	27.8
Maharashtra	18.9

- Teachers and curricula as problems

The uneven quality of the teachers partly explains the uneven achievements of the children. First, teachers' attendance remains low in government schools. According to Pratham, it has declined from 87 to 85% in rural schools between 2010 and 2018⁵⁹.

Secondly, the teachers' training leaves a lot to desire. There has been a significant reduction in the budget allocated to teacher training. Funds for the teacher training component declined by 87% over six years, from Rs 1,158 crore in 2014-15 to Rs 150 crore in 2019-20, indicating that it is of low priority to the current government. Because of poor allocation for teacher education, states have failed to build adequate teacher training institutes and institutional capacity to train teachers. The District Institutes of Education and Training (DIETS), conceived as teacher training and curriculum development institutions, have failed to live up to their role⁶⁰.

Thirdly, remuneration of teachers is problematic. Contrary to popular belief, very few teachers are paid Pay Commission salaries. Some are even being paid less than minimum wage (ex: Gujarat). In spite of these low wages, some states prefer to recruit contract teachers or to leave the posts vacant. In 2017, nine lakh posts of teachers were vacant in elementary schools and more than one lakh teacher posts was vacant in secondary schools.

Excessive non-teaching duties amounts to a de-professionalization of teachers and the evaluation mechanisms are rather limited.

The curriculum is over-ambitious whereas "teaching at the right level" experimented by Pratham has shown that the teachers could keep all the children on board by following it⁶¹. Last but not least, the standard pedagogical methods are not sufficiently interactive, as the children are supposed to absorb the information communicated by a school-master – often called "guruji" –, unsurprisingly.

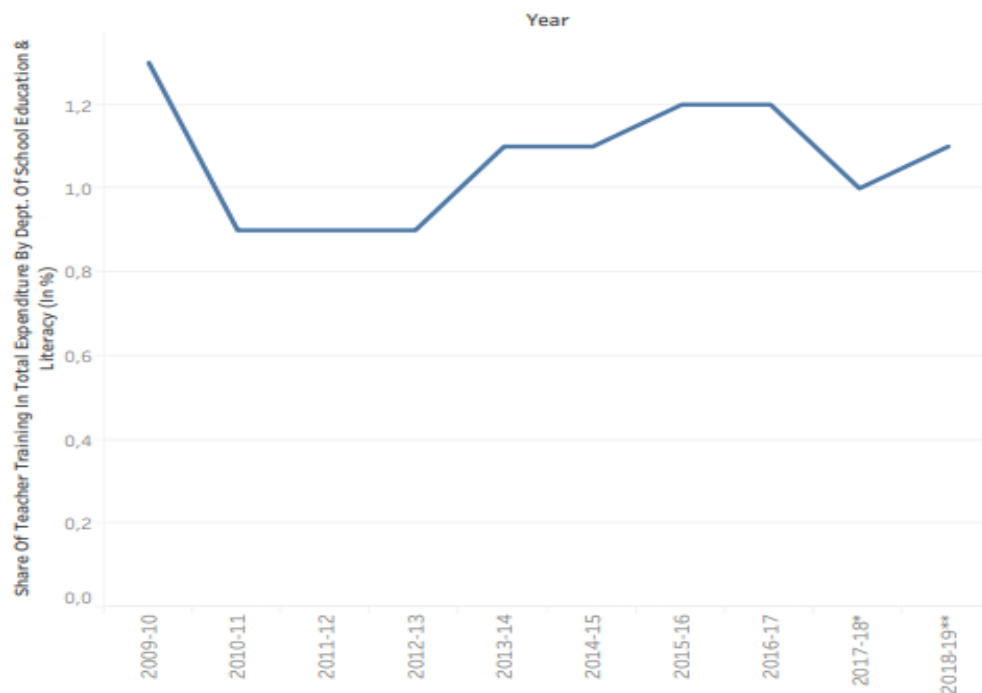
⁵⁹ *Annual Status of Education Report*, op. cit., p. 56.

⁶⁰ Centre for Budget and Governance Accountability (CBGA), 2018

⁶¹ Rukmini Nanerji, "Behind the headlines », in *ibid.*, p. 13.



Government Expenditure On Teacher Training & Share of Teacher Training In Total Expenditure Of School Education, 2009-10 To 2018-19



In higher education, the University Grant Commission, the regulator, has been incompetent in tackling challenges of the sector. It overregulates in areas where it needs to back off, such as admissions and funding, but under-regulates where its interventions are most needed such as ensuring quality standards.⁶² Pankaj Chandra points out: "We provided no flexibility and created water tight rules which are applicable to everybody". Chandra also highlights the lack of interdisciplinary programs and emphasis on research in Indian Higher Education⁶³, two things he tries to promote as head of Ahmedabad University.

Is privatization of education the solution?

The low quality of government school has persuaded many parents to send their children to private schools. This shift has also been precipitated by the craze for English-medium education, something every family is longing for today. The rolls of private schools have increased from 44 million in 2010-11 to 61 million in 2016-17, while those in government schools fell from 126 million to 108 million in 21 of India's 29 states for which there is any data⁶⁴. As a result, in some states, the number of government schools has diminished: in Rajasthan, it has shrunk from 82,000 to 63,000 between 2013 and 2018⁶⁵.

The proportion of children attending private schools in rural India has gone up, from 22% to 30% between 2008 and 2018. But this percentage has been stable for a couple of years. First, many families could not to pay for private education, especially because they also had to finance tuition

⁶² Harsh V Pant, "The Challenges of Higher Education", *The Business Standard*, 20th July 2018, https://www.business-standard.com/article/opinion/the-challenges-of-higher-education-118073000007_1.html

⁶³ Goutam Das, "What went wrong with Indian higher education", *Business Today*, 18 March 2019 (<https://www.businesstoday.in/top-story/what-went-wrong-with-indian-higher-education/story/328786.html>).

⁶⁴ "Indian states are struggling to lift public-school attendance", *The Economist*, 11 Oct. 2018. (<https://www.economist.com/asia/2018/10/11/indian-states-are-struggling-to-lift-public-school-attendance>).

⁶⁵ Ibid.

fees for coaching classes, a very common practice in India. Second, the training the children received in private school was better, but not much better – as evident from the last ASER data regarding rural India. In spite of the fact that these children belong to more affluent and educated social milieu, only 65% of the Standard 5 children can read Standard 2 texts in private schools and only 40% can make a simple division⁶⁶. The uneven quality of private schools is largely due to the fact that, in many cases, these institutions are money-making machines set up by businessmen or politicians (who have therefore even less interest in promoting government schools) whose pedagogical skills are often limited.

The rise of private education is dramatic in higher education since the era of the UPA government which believed in Private Public Partnership in this domain – like in others – for ideological as well as financial reasons⁶⁷. The success of private universities and colleges is a consequence of the paucity of funds affecting the public higher education (including the shortage of faculty members) and the extension of quotas for lower castes in the name of positive discrimination⁶⁸. The latter policy is resented by some people in the middle class and upper caste families that attributed the decline of public universities to this affirmative action-oriented policy too.

Out of 903 Universities, 343 were private in 2017 and out of 39,050 colleges, 78% were run by the private sector⁶⁹. These private colleges – which represented 67.3% of the total enrollment – ran only one single program more often than the public ones: among the 33.75% colleges – public and private – which do, 83% are private and more than half (55.1%) of these monolithic private colleges run B.ED. courses only⁷⁰.

It seems, however, that the number of private institutions has peaked and is going down, especially in the Business schools' sector where the quality of the students was as bad as the quality of the course according to a report of the ASSOCHAM which criticizes these "b-schools" for focusing only "on filling up seats and do not consider the quality of students at the time of intake"⁷¹. As a result, only 20% of their students are offered a job according to the report – and people stop applying to this kind of institutions whose number is now declining.

Another problem with private institutions in Higher education has to do with the fees. First, they are hardly accessible to the poor who have to fall back on public universities, even if some private institutions offer scholarships and if the Central Scheme for Interest Subsidy has made education loans interest-free for the duration of the course and for an extra year for applicants whose annual family income is under Rs 4.5 lakhs.

Second, fees are so high, that students have to take loans – but they cannot reimburse them when they do not get the jobs (and the salaries) they expected. The problem is particularly acute in the domain of technical education⁷². Between 2013 and 2016, Indian banks have seen a 142% rise in default by students who have taken education loans⁷³.

⁶⁶ Madhav Chavan, "Something is changing...", op. cit., p. 9 and p. 11.

⁶⁷ The then HRD minister, Kapil Sibal declared once: "We will need 800 new universities and 40,000 new colleges to meet the aim of 30 per cent GER by 2020. Government alone cannot meet this aim".

⁶⁸ In 2006 Other Backward Classes were granted a 27% quota in the public universities where 15% of the places were already reserved to Dalits – ex-Untouchables – and 7% to Tribals. For more detail, see C. Jaffrelot, "La discrimination positive, nouvelle pomme de discorde entre les partis politiques, le secteur privé et le pouvoir judiciaire en Inde", *Droit et cultures*, n° 53, 1, 2007, pp. 45-62.

⁶⁹ *All India Survey on Higher Education*, p. 1.

⁷⁰ Ibid.

⁷¹ "Only 20% students from business schools land job offers", *ASSOCHAM*, 11 Dec. 2017 (<http://www.assocham.org/newsdetail.php?id=6637>).

⁷² S. Roy Chowdhury, "India's engineering graduates have loans to pay but no jobs – so who is clearing their debt?", *Scroll.in*, 11 January 2018 (<https://scroll.in/article/862623/indias-engineering-graduates-have-loans-to-pay-but-no-jobs-so-who-is-clearing-their-debt>).

⁷³ G. Mathew, "142 per cent rise in bad education loans in 3 years", *The Indian Express*, 17 July 2017 (<https://indianexpress.com/article/business/banking-and-finance/bad-education-loans-in-3-years-have-seen-142-per-cent-rise-indian-banks-4753878/>).

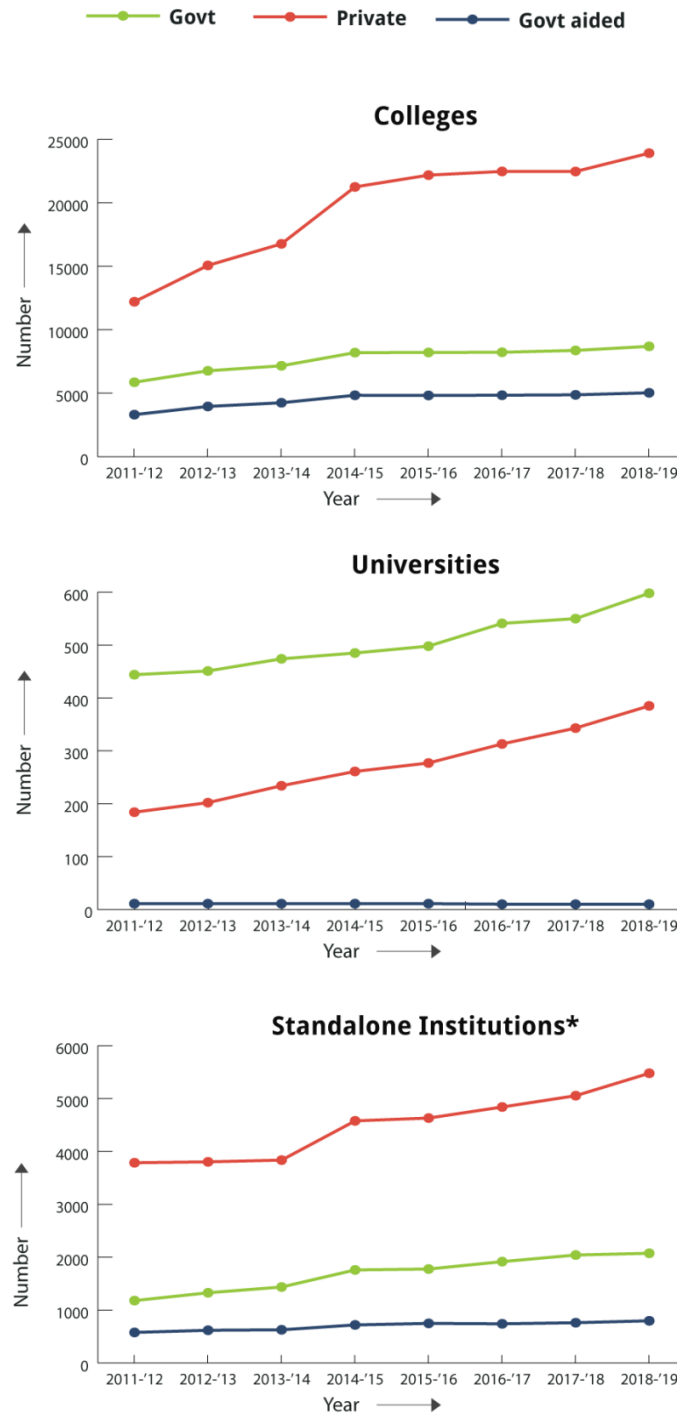


To sum up: Although education is mentioned only by passing in the electoral programs of political parties, there is a consensus in India about the crisis affecting the country in this domain⁷⁴. In 2014, the rise to power of Narendra Modi, the new Prime Minister, brought forward a lot of expectations in this field like in many others. As he focused on vocational training, we will review his policy in this sector of education in particular.

⁷⁴ G. N. Devy, *The Crisis Within: On Knowledge and Education in India*, New Delhi, Aleph, 2017.



The number of private institutions in higher education has been steadily rising



*Standalone Institutions include Polytechnics, Teacher Training Institutes, etc.
 Note: Graphs are not in scale with one another
 Source: AISHE

scroll.in

Source: S. Roy Chowdhury and N. Subramanian, "The Election Fix: Have BJP's attempts to solve India's education problems done more harm than good?", *op. cit.*



Post-2014 developments⁷⁵

Education has not been a priority of Narendra Modi during his first term. Yogendra Yadav, an academic turned-activist who enjoys a considerable prestige, recently summarized the situation in these terms:

"Education was a low-priority for the government and received scant attention and meager budget. The regime went out of its way to destroy whatever remained of the autonomy of the educational institutions. Liberal spaces were curbed and even mild dissent was punished. Instead of promoting a spirit of inquiry, political leaders put their ignorance and obscurantism on display."⁷⁶

Indeed, the Union government has not spent as much money as its predecessor on education. More importantly, many measures have been counterproductive as Yadav points out. But two policies have been initiated – "Skill India" and the creation of Institutes of Eminence – on which we will concentrate in this second part.

Budget allocations

The public money spent on education has marginally increased since 2015, from 3.11 percentage points of GDP to 3.25 in 2017. But this is still very low and, in any case, this increase is not due to the Union government, but to the states: the former *reduced* its budget allocation to education from 0.55 percentage point in 2015 to 0.48 in 2017, whereas the states increased their share from 2.56 to 2.77⁷⁷.

⁷⁵ For a comprehensive assessment of the policy of the Modi government in the domain of school education and higher education, see, respectively, Kiran Bhatta, "School Education: Denials and Delusions" in R. Azad, S. Chakraborty, S. Ramani and D. Sinha (eds), *A Quantum Leap Backwards? An Appraisal of the Modi Government*, Hyderabad, Orient Black Swan, 2019, pp. 114-130 and Ayesha Kidwai, "The Price of Freedom: The Modi Government's Report Card on Higher Education", in *ibid.*, pp. 131-156.

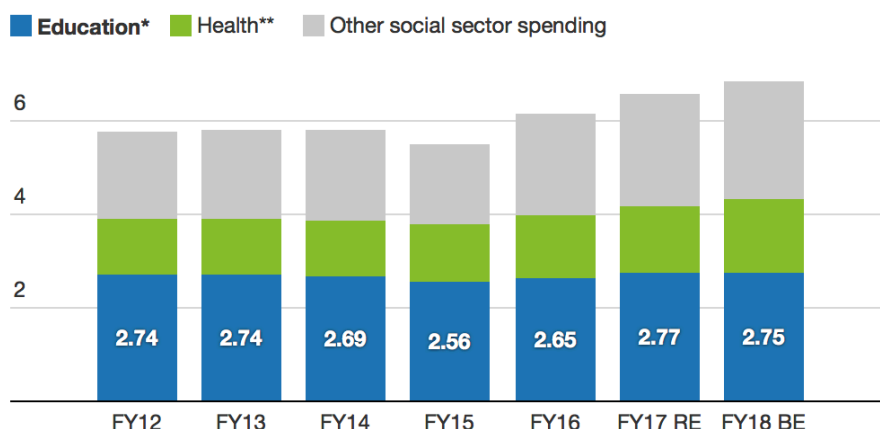
⁷⁶ Yogendra Yadav, "India's draft education policy isn't a conservative conspiracy. But it may never take off", *The Print*, 26 June 2019 (<https://theprint.in/opinion/indias-draft-education-policy-isnt-a-conservative-conspiracy-but-it-may-never-take-off/254648/>).

⁷⁷ P. Bhattacharya and T. Kundu, "How are state governments spending on education, health, and irrigation?", *Mint*, 26 April 2017 (<https://www.livemint.com/Politics/PGqjz0bMYX3uF2rZclFd7H/How-are-state-governments-spending-on-education-health-and.html>).



States undertaking more social sector spending...

Total social sector spending by states (% of GDP)

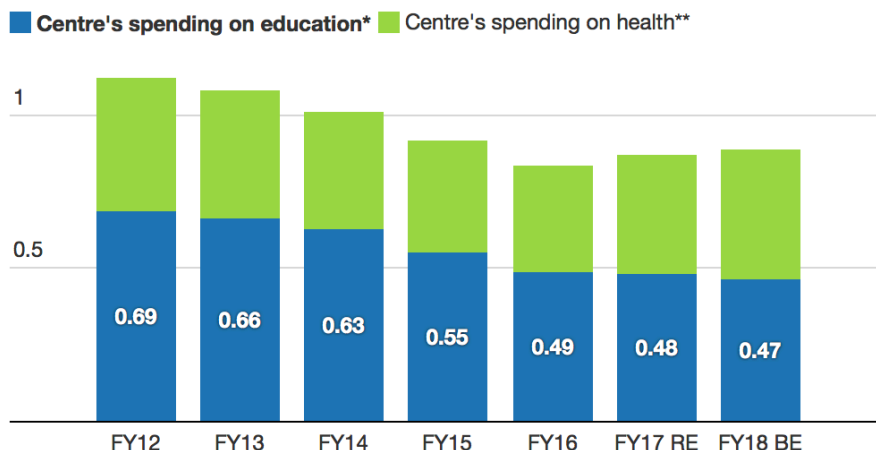


* includes sports, art and culture; ** includes family welfare, nutrition, water supply and sanitation; other social sector spending include housing, urban development, labour welfare, etc.

Source: CMIE States of India and Mint calculations [Get the data](#)

...as the Centre reduces its spending on such areas

Centre's spending as % of GDP



* Education refers to Ministry of Human Resources Development; ** Health refers to spending on Ministry of Health, Ministry of Drinking Water and Sanitation and AYUSH

Source: Centre for Monitoring Indian Economy (CMIE) and Mint calculations [Get the data](#)

Source: P. Bhattacharya and T. Kundu, "How are state governments spending on education, health, and irrigation?", *Mint*, 26 April 2017 (<https://www.livemint.com/Politics/PGqjz0bMYX3uF2rZcIFd7H/How-are-state-governments-spending-on-education-health-and-irrigation.html>).

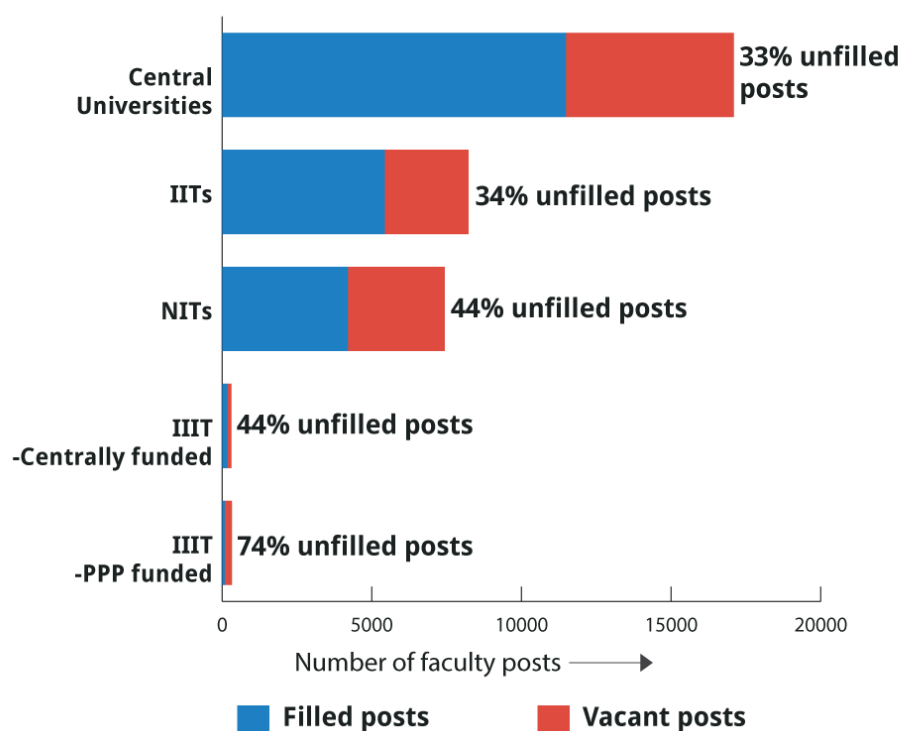
IITs, NITs, IIMs and IIITs continue to receive a disproportionate part of the money the Union government devotes to higher education. In 2015-2018, only 3% of the country's students end up at these "premier" institutions, which enjoy the allocation of more than 50% of the central



government's funds⁷⁸, whereas the 865 other public institutions of higher education – where 97% of the students are registered – get less money. This ratio, which offers a good illustration of Indian higher education's elitist character, is especially favorable to the IITs. They get 27% of the Centre's higher education budget though they represent 1.18% of the students. Yet, the figures regarding the NITs are equally disproportionate (18% of the budget for 1.37% of the students), whereas figures regarding the IIMs (3.35% of the budget for 0.12% of the students) and the IIITs (2.3% for 0.05%) reflect their fund-raising activism.

Because funding's paucity, many issues have remained, including the problem of vacancies in schools and higher education institutions (see graph). Thousands of posts remain unfilled in Central Universities (and in IITs, in spite of the imbalance mentioned above).

Faculty shortages plague even well-funded institutes like the IITs



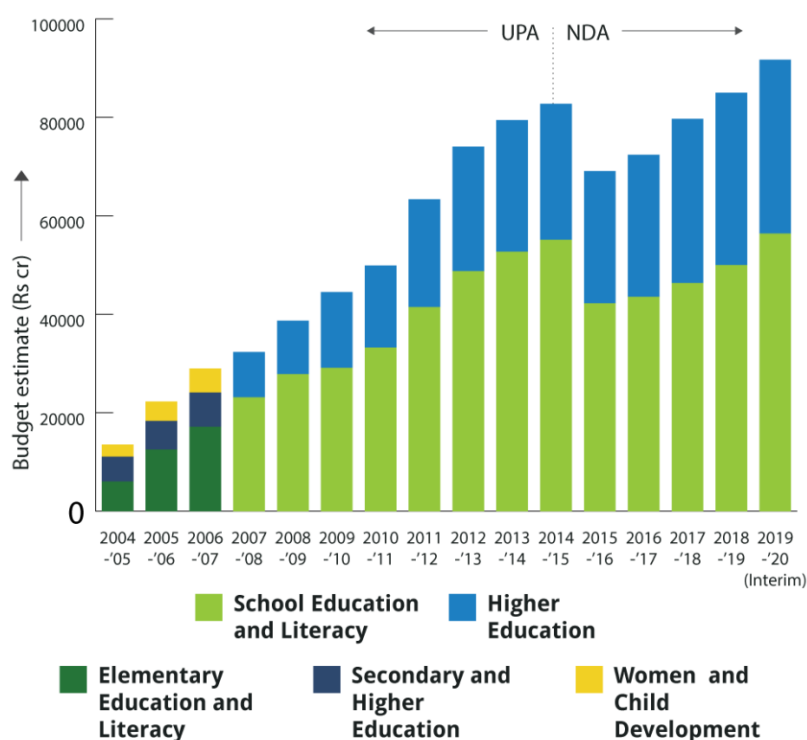
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Source: Answer to Lok Sabha question, July 2018

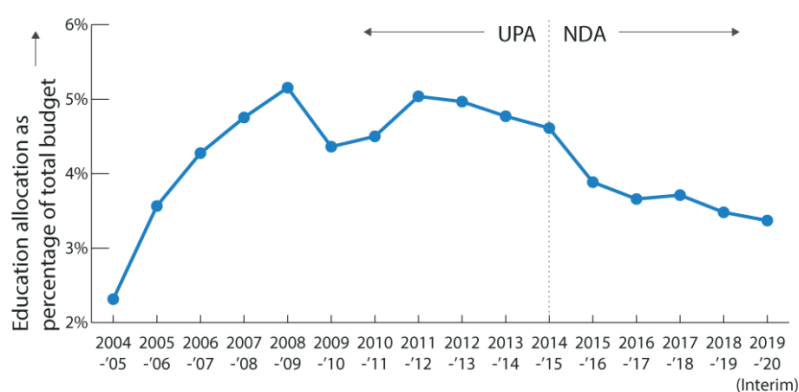
⁷⁸ K. Sharma, "IITs, IIMs, NITs have just 3% of total students but get 50% of government funds", *The Print*, 3 July 2018 (<https://theprint.in/india/governance/iits-iims-nits-have-just-3-of-total-students-but-get-50-of-government-funds/89976/>).



Recent budgets have been allocating more money for higher education...



...but allocation for education as a percentage of the total budget has declined



Note: These are allocations as per budget estimates each year. Actual spending differed from the estimate.
Source: Budget Documents

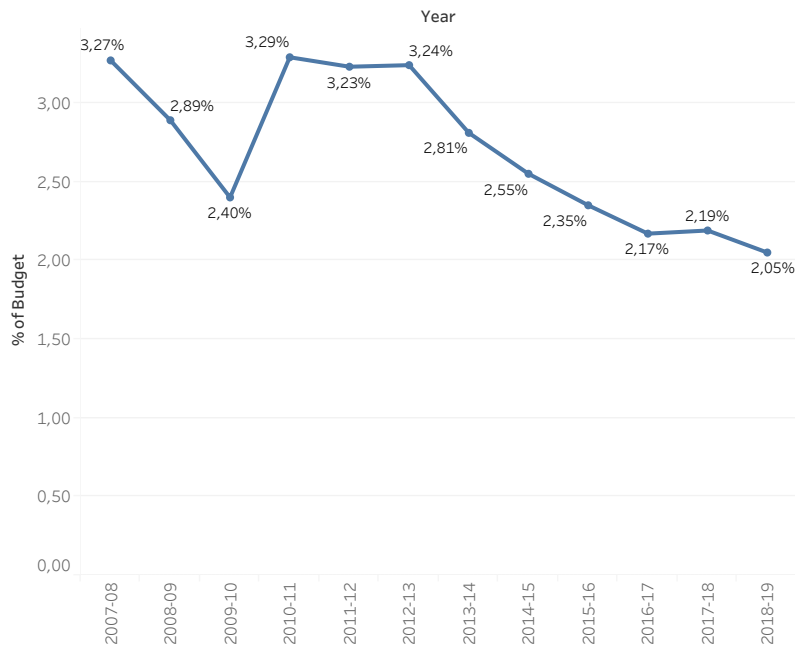
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Source: S. Roy Chowdhury and N. Subramanian, "The Election Fix: Have BJP's attempts to solve India's education problems done more harm than good?", Scroll.in, 12 May 2019 (<https://scroll.in/article/923137/the-election-fix-have-bjps-attempts-to-solve-indias-education-problems-done-more-harm-than-good>).



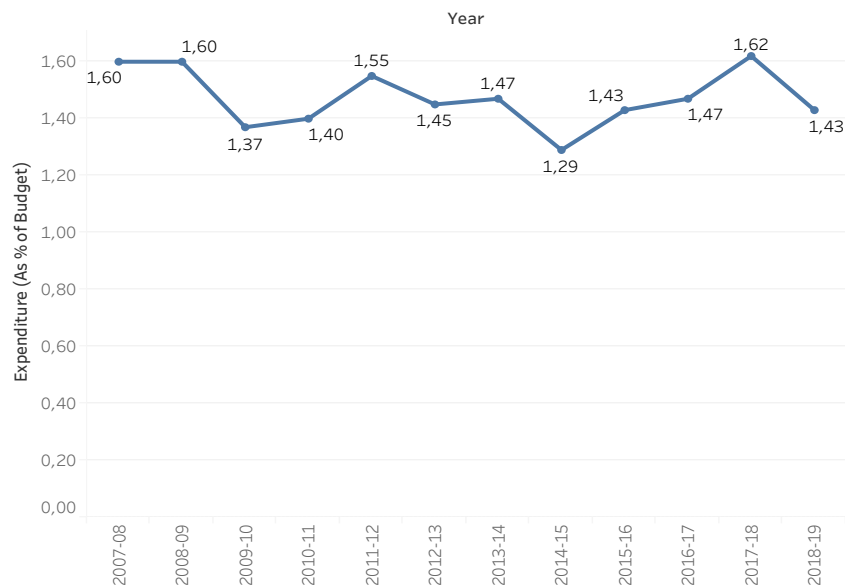
Allocation for primary and secondary education as % of total budget on the Indian Union

Allocation For School Education And Literacy As % Of Total Budget, 2007-08 To 2017-18



Source: S. Raman, "What Budget 2019 Can Do To Raise India's Plummeting Quality Of School Education", *IndiaSpend*, 25 January 2019 (<https://www.indiaspend.com/what-budget-2019-can-do-to-raise-indias-plummeting-quality-of-school-education/>).

Allocation For Higher Education As Percentage Of Total Budget, 2007-08 To 2017-18



Source: S. Raman, "Interim Budget 2019: What govt needs to do to boost higher education bodies", *Business Standard*, 30 January 2019 (https://www.business-standard.com/article/interim-budget-2019/budget-2019-what-govt-needs-to-do-to-boost-higher-education-institutions-119013000149_1.html).



The Higher Education Financing Agency (HEFA) is tasked with the creation of high-quality infrastructure in premier educational institutions by raising funds from the market. All the centrally funded higher educational institutions are eligible for joining as members of the HEFA. The idea is to replace government grants with infrastructure loans for established public institutions looking to expand. The Higher Education Financing Agency (HEFA) has been allocated Rs 21,000 million for 2019-20, a 24% decrease over the revised estimates of 2018-19. HEFA is jointly promoted by Canara Bank and the Ministry of Human Resource Development with an authorized capital of Rs 100,000 million. The HEFA has been tasked to mobilize Rs 1,000 billion to meet the infrastructure needs of higher educational institutions by 2022. So far, the HEFA has approved projects of higher and medical educational institutions amounting to Rs 244,300 million.⁷⁹

Measures

Instead of pursuing an explicit global policy, the Modi government, over the last five years, has multiplied ad hoc measures.

In 2015, it introduced the Credit Guarantee Fund Scheme for Education Loans, allowing applicants to borrow up to Rs 7.5 lakhs without collateral.

In 2017, the Ministry of Human Resource Development decided that the 110,000 teachers who appeared to have no qualification had to be trained. Under the RTE Act, they should have completed a diploma in elementary education by 2015 – but they had not. A special course was designed for them⁸⁰.

In January 2019, the Modi government amended the RTE Act (2009) in order to allow states to hold examinations in Classes 5 and 8 and make children repeat those classes if they failed⁸¹. The assumption is that fear of failing exams will encourage children to work harder, but the educationists who were responsible for the 2009 Act claim that fear of the exams will push them out of the class room and make the dropout rate increase again.

Two series of measures have been revealing of a more sustained and continuous efforts, those regarding the rewriting of history textbooks and those targeting the Jawaharlal Nehru University.

Ideology in the *textbooks* and on the campus

The education system has always been a priority target of the Hindu nationalist movement that aims to reshape society's mindset according to its ideology. While it relies primarily on its political party, the BJP, the movement also used its student union to influence the university system.

- The rewriting of textbooks – and history:

The textbooks put out by the National Council of Educational Research and Training (NCERT), which can be used in schools affiliated with the Central Board of Secondary Education (CBSE), have been extensively rewritten after the BJP took over power in 2014. According to the *Indian Express*, 1,334

⁷⁹ http://www.prsindia.org/sites/default/files/budget_files/DfG%202019-20%20Education%20for%20upload_0.pdf

⁸⁰ M.P. Gohain, "11 lakh teachers to be trained by March 2019", *The Times of India*, 28 August 2017 (http://timesofindia.indiatimes.com/articleshow/60251054.cms?utm_source=contentofinterest&utm_medium=te xt&utm_campaign=cppst)

⁸¹ S. Roy Chowdhury, "Right to education: Elementary school kids will have to take more public exams – but not just yet", *Scroll.in*, 9 March 2019 (<https://scroll.in/article/915882/right-to-education-elementary-school-children-will-have-to-take-more-exams-but-not-just-yet>).



changes were made to 182 textbooks put out by the NCERT between,⁸² short-circuiting procedures due to repeated intervention from the minister of Human Resource Development, Prakash Javadekar.⁸³ But the scale on which Hindu nationalists are rewriting history can be most clearly gauged at the state government level, as primary and secondary education come under the states of the Union's responsibility.

However, the state the most spotlighted in the media, was Rajasthan, where considerable changes to textbooks were made: in the Class 10 social science textbook, the Rajput king, Maharana Pratap, was thus presented as victorious in the battle of Haldighati against Emperor Akbar (contrary to researchers' conclusions).⁸⁴ Contrary to the textbook used when the Congress was in government in Rajasthan (2008-2013), the new social science textbook also purely and simply failed to mention Jawaharlal Nehru – the *bête noire* of Hindu nationalists because of his secular and socialist credentials – and the assassination of Mahatma Gandhi, whose murderer had been part of the Hindu nationalist movement. The BJP Education minister Vasudev Devnani explained these changes by his desire to teach children about Rajasthani heroes, to make them proud of Indian culture and create patriots as much as citizens.⁸⁵

Other states also reoriented their telling of regional and national history. In Maharashtra, in the rewriting of history textbooks, a drastic cut was made in the book for Class 7: the chapter on the Mughal Empire under Akbar was cut down to three lines⁸⁶, as this period of the Indian past is perceived by Hindu nationalists as an era of Hindus' oppression. Uttar Pradesh simply deleted the Mughal Empire from its history textbooks,⁸⁷ and the University of Delhi also drastically reduced the study of this period in its history curriculum.⁸⁸

- *Bringing a public university to heel – the case of Jawaharlal Nehru University (JNU):*

Universities with a "progressive" reputation have long been a target of Hindu nationalists but tensions further intensified after 2014. They have been subjected to two types of interferences. To head them, the government appointed men from the Hindu nationalist movement, tasked with reforming them. Secondly, the student union of the movement, the ABVP, could call the shots on university campuses with the government's blessing.

This dual strategy is most clearly apparent in the treatment inflicted on Jawaharlal Nehru

⁸² R. Chopra, "From Swachh Bharat, noteban to Ganga and Digital India: Govt schemes enter NCERT textbooks," *The Indian Express*, 1 June 2018, <https://indianexpress.com/article/education/from-modis-swachh-bharat-noteban-to-ganga-and-digital-india-govt-schemes-enter-ncert-textbooks-5199426/>. See the rest of the series of articles that Ritika Chopra wrote in 2018 in *The Indian Express*: R. Chopra, "NCERT nuances negative comments in textbooks on politicians, bureaucracy", *The Indian Express*, 31 May 2018 (<https://indianexpress.com/article/education/ncert-nuances-negative-comments-in-textbooks-on-politicians-bureaucracy-5197948/>), R. Chopra, "New icons in NCERT books: Bajirao to Maharana Pratap", *The Indian Express*, 30 May, 2018 (<https://indianexpress.com/article/education/new-icons-in-ncert-books-bajirao-to-maharana-pratap-5196491/>) and R. Chopra, "More space in school textbooks for ancient Indian knowledge systems and tradition", *The Indian Express*, 29 May 2018 (<https://indianexpress.com/article/education/ncert-school-books-class-six-to-ten-indian-knowledge-system-tradition-5195025/>).

⁸³ H. Vasudevan, "Not by the book," *The Indian Express*, 15 June 2018 (<https://indianexpress.com/article/opinion/columns/ncert-cbse-text-book-development-committee-5217818/>).

⁸⁴ S. Kumar, "Rajasthan rewrites history: Maharana Pratap, not Akbar, won Battle of Haldighati," *India Today*, 25 July 2015 (<https://www.indiatoday.in/india/story/maharana-pratap-not-akbar-won-battle-of-haldighati-rajasthan-history-book-1026240-2017-07-25>).

⁸⁵ M.P. Singh, "Jawaharlal Nehru erased from Rajasthan school textbook," *The Indian Express*, 8 May 2016 (<http://indianexpress.com/article/india/india-news-india/jawaharlal-nehru-erased-from-rajasthan-school-textbook-2789754/99/print/>). Accessed on 19 February 2018.

⁸⁶ S. Anandan, "Rewriting History; more about politics and less about education?" *National Herald*, 16 August 2017 (<https://www.nationalheraldindia.com/education/rewriting-history-more-about-politics-and-less-about-education>).

⁸⁷ S. Chowdhury, "After Maharashtra, UP Government Proposes to Remove the Mughals from History Textbooks", 18 September 2017 (<https://www.newsclick.in/after-maharashtra-government-proposes-remove-mughals-history-textbooks>).

⁸⁸ M. Sharma, "Silent burial for Sher Shah Suri, Mughal empire in DU New syllabus," *News laundry*, 16 May 2018 (<https://www.newslaundry.com/2018/05/16/delhi-university-history-syllabus-she-shah-suri-mughal-empire>).



University, better known in India by the initials JNU. This institution, known for the excellence of its teachers – especially in social sciences – had drawn bitter Hindu nationalist criticism as soon as it was founded in the 1960s due to the Marxist leanings of many teachers and some of its main student organizations.⁸⁹

In 2016, the Modi government appointed Mamidala Jagadesh Kumar vice-chancellor of JNU. Until then, this electrical engineering professor had been teaching at the nearby Indian Institute of Technology, but he had played an active role in Vijana Bharati, an organization whose aim was to de-westernize Indian science and to promote indigenous traditions of learning.⁹⁰ He brought about drastic budget cuts and a decline in student recruitment, while systematically hampering the activities of student unions and faculty opposed to the ABVP. The political disciplining of the campus took various routes, such as harassment of professors who were openly hostile to Hindu nationalism.⁹¹ A research university that primarily awards Master's degrees and PhDs, JNU saw the number of seats offered to students wishing to enroll in a Master's or a doctoral program plummet by 84%, from 1,234 to 194 in one year.⁹²

Furthermore, admissions committees were made up solely of experts appointed by the JNU vice-chancellor, flouting university statutes and guidelines followed by the University Grants Commission (UGC), which stipulate that academics should be involved. This made it possible to hire teachers from Hindu nationalist circles,⁹³ with few qualifications,⁹⁴ and some teachers facing charges of plagiarism.⁹⁵ The vice-chancellor replaced deans in the School of Social Sciences without following appointment procedures, cutting the number of researchers by 80% and ceasing to apply rules JNU had set to ensure diversity through a mechanism taking into account the social background and geographic origin of its students.⁹⁶ The new recruitment procedure strongly disadvantages ex-Untouchables (Dalits), Tribals and low caste applicants, who made up nearly 50% of the student intake but who now account for a mere 7%.

In reaction, after a number of demonstrations that came naught, the Jawaharlal Nehru University Teachers' Association (JNUTA) held a referendum demanding the vice-chancellor's resignation – 279 of the 300 voters called for him to step down.⁹⁷ To no avail.

⁸⁹ Jean-Thomas Martelli, "From One Participant Cohort to Another: Surveying Inter-generational Political Incubation in an Indian University," *India Review*, 17 (3), 2018, pp. 263-300.

⁹⁰ A. Swain "JNU VC Jagadesh Kumar does not seem fit for his job," *Daily O*, 26 July 2017 (<https://www.dailyo.in/voices/jnu-vc-rss-tanks-patriotism-hypernationalism/story/1/18597.html>). fihis jo

⁹¹ "Fines Mar the Start of New Semester at JNU," *The Indian Express*, July 23, 2018, <https://indianexpress.com/article/cities/delhi/fines-mar-the-start-of-new-semester-at-jnu-5270467/>

⁹² "2017 JNU Admissions – Over 80% Seat Cut for Researchers," *Sabrang*, 25 March 2017 (<https://sabrangindia.in/article/2017-jnu-admissions-over-80-seat-cut-researchers>) and Aranya Shankar, "UGC tightens purse strings, JNU V-C says research will suffer," *The Indian Express*, 3 May 2017 (<http://indianexpress.com/article/education/ugc-tightens-purse-strings-jnu-v-c-says-research-will-suffer-4638104/>)

⁹³ Ananya Shakar, "Faculty Selection in JNU: Cracks on Campus," *The Indian Express*, June 25, 2018, <https://indianexpress.com/article/education/faculty-selection-in-jnu-cracks-on-campus-5042818/>

⁹⁴ Ajoy Ashirwad Mahaprashasta, "Allegations of Political Bias in Faculty Hiring the Latest Battleground in JNU," *The Wire*, January 18, 2018, <https://thewire.in/education/allegations-political-bias-faculty-hiring-latest-battleground-jnu>

⁹⁵ Ajoy Ashirwad Mahaprashasta, "New JNU Appointees Caught in Plagiarism Charges," *The Wire*, April 3, 2018, <https://thewire.in/education/jnu-scholars-plagiarism-vc>

⁹⁶ U. Vishnu, "New faultlines in JNU after deep cuts in research seats," *The Indian Express*, 11 April 2017, (<https://indianexpress.com/article/india/new-faultlines-in-jnu-after-deep-cuts-in-research-seats-4608207/>), JNUSU seeks Lok Sabha help over 'reservation violation' *The Indian Express*, 5 April 2018 (<https://indianexpress.com/article/cities/delhi/jnusu-seeks-lok-sabha-help-over-reservation-violation-5123729/>).

⁹⁷ A. Rai, "JNUTA Referendum: 279 of 300 Profs Who Voted Feel VC Should Resign," *The Quint*, 8 August 2018 (<https://www.thequint.com/news/education/jawaharlal-nehru-university-teachers-referendum-against-vc-mamidala-jagadesh-kumar>).



Policies

- Institutes of excellence:

In 2017, the Modi government decided to offer 10 government and 10 private institutions the status of Institutes of Eminence (IoEs) to enable them to break into the world's top 500 in a decade and into the top 100 after that. This status was attractive primarily for financial reasons, as the happy few would receive \$140 million over five years from the government. But the candidates appreciated other provisions of the coveted status too in terms of autonomy. IoEs have full flexibility in evolving curricula and syllabi. They are free from the AICTE and the UGC's regulations. For instance, IoEs were to be permitted to admit 30% foreign students with no restrictions on fees charged from them, hire foreign faculty to the tune of 25% of the total faculty and enter into academic collaborations with the top 500 global universities without UGC approval.

In February 2018, an Empowered Expert Committee (EEC) was appointed for recommending to the UGC the names of the institutions it would like to transform into IoEs⁹⁸. The 5-personalities large panel was also supposed to review the institutes every three years for adherence to their implementation plan until they achieve the top 100 global ranking slot for two consecutive years. The institutes will have to inform the EEC every year about their progress and may be asked to address deficiencies or face penal action if they fail to deliver.

In 2018, the Indian Institute of Science of Bangalore and the Indian Institutes of Technology of Mumbai and Delhi were the three public institutions awarded with the status of IoEs. This decision was consistent with the assessment of the Ministry of HRD National Institutional Ranking Framework (NIRF): while IISc was ranked first in the NIRF rankings, IIT Bombay and Delhi were ranked third and fourth in the rankings, respectively. IIT Madras, ranked second, was the only anomaly.

What was more surprising was the selection of private institutions that either had not even seen the light of the day like the Jio Institute in Maharashtra - the Reliance Foundation-supported institution which had been chosen in the greenfield category - or whose ranking was rather low like the Manipal Academy of Higher Education and BITS, Pilani. Manipal was ranked 18th by the NIRF and BITS Pilani 26th.

In 2019, the EEC recommended 19 more institutions. But there were only 14 slots left. The UGC then chose to use the criterion of the QS-2020 world rankings, with the QS-2019 India rankings and NIRF rankings as tie-breakers. As a result, IIT Madras, IIT Kharagpur, Delhi University, University of Hyderabad, Benares Hindu University, Anna University and Jadavpur University⁹⁹ were selected among the public institutions and Amritha Vishwa Vidyapeetham, Jamia Hamdard, O.P. Jindal University, VIT Vellore, Shiv Nadar University and Satya Bharti Foundation were selected among the private institutions. The Satya Bharti Foundation – founded by telecom company Airtel – became the second greenfield institution to be given IoE status.

The status of IoE was therefore denied to five private universities which were recognized internationally – Azim Premji University, Ashoka University, KREA University, Indian Institute for Human Settlements and the Indian Institute of Public Health – and to prestigious public institutions, in spite of their high ranking according to the NIRF: JNU was ranked sixth and IIT Kanpur, seventh, but none of them made the cut.

The impressionistic character of the selection process did not only come from the replacement of criteria by others (or the addition of new criteria); it also had something to do with governmental interferences. The head of the EEC, N. Gopalaswami, said after the process was over: "We

⁹⁸ N. Pandey, "N Gopalaswami appointed EEC chief, committee to select 20 'institutes of eminence'," *The Hindustan Times*, 20 Feb. 2018 (<https://www.hindustantimes.com/india-news/n-gopalaswami-appointed-eec-chief-committee-to-select-20-institutes-of-eminence/story-hcKZ5pCK7e4LAtAwg0WTP.html>).

⁹⁹ Anna University and Jadavpur University have been given the IoE tag on a conditional basis as they are state universities. Their upgrading will be finalised only after the Tamil Nadu and West Bengal governments will issue an official communication allocating their share of funds (up to 50%).



considered two types [of institutions], those who are already ranked well and those which are potential institutions. We might have felt something has potential, but government may feel something else, they may have felt that if an institution is not ranked at all, it cannot be considered. It is entirely justified"¹⁰⁰. The problem was that two institutions which were not part of any ranking because they were yet to open were selected in a category that had been created for them, something N. Gopalaswami was rather uncomfortable with. He said: "Greenfield institutions should not have been included in the category of private institutions at all. It should have been a separate category. But having been included, it was fair to consider them differently, without looking at rankings"¹⁰¹.

Unsurprisingly, in 2019, the promotion of excellence via IoEs has not yet bore fruits, even though the number of Indian institutions ranked among the top 200 world universities by the QS World Universities Rankings has jumped from 2 to 3.

Rankings of Asian Universities									
	QS World University Rankings (Top 200)			Times Higher Education World University Rankings (Top 200)			Academic Ranking of World Universities (ARWU)/ Shanghai Jiao Tong University (Top 200)		
Country	2019	2018	2017	2019	2018	2017	2019	2018	2017
China	7	7	7	7	7	4		12	9
Hong Kong	5	5	5	5	5	5		2	2
India	3	3	2	0	0	0		0	0
Japan	8	9	8	2	2	2		7	7
Malaysia	2	1	1	0	0	0		0	0
Singapore	2	2	2	2	2	2		2	2
South Korea	7	7	7	5	4	4		2	1
Taiwan	2	2	3	1	1	1		1	2

- "Skill India" - Vocational Training revisited:

The first education-related, full-fledged policy initiated by the Modi government pertained to vocational training. Vocational training was one of the facets of India's education system that needed to be reformed but that the UPA government had already tried to modernize by establishing the National Skills Development Corporation in 2009, a PPP initiative. Narendra Modi focused on it because he had promised to reduce joblessness and his scheme, "Skill India", was supposed to help. The terms of reference of its "mission" reflected a very lucid assessment of the situation:

"India currently faces a severe shortage of well-trained, skilled workers. It is estimated that only 2.3 % of the workforce in India has undergone formal skill training as compared to 68% in the UK, 75% in Germany, 52% in USA, 80% in Japan and 96% in South Korea. (...) India is one of the youngest nations in the world, with more than 54% of the total population below 25 years of age and over 62% of the population in the working age group (15-59 years). The country's population pyramid is

¹⁰⁰ P. Jebaraj, "UGC recommends 20 institutions for Institutes of Eminence," *The Hindu*, 2 August 2019 (<https://www.thehindu.com/education/ugc-recommends-20-institutions-for-institutes-of-eminence/article28801256.ece>).

¹⁰¹ Ibid. Greenfield institutions have three years to get established and the "EEC will consider giving IoE status to such institutions", an HRD official told journalists ("UGC Suggests Eminence Tag to DU; AMU, Ashoka Fail to Make the Cut," *The Quint*, 2 August 2019, <https://www.thequint.com/news/education/ugc-suggests-eminence-tag-to-du-hyderabad-university-bhu>).



expected to bulge across the 15-59 age group over the next decade. This demographic advantage is predicted to last only until 2040. India therefore has a very narrow time frame to harness its demographic dividend and to overcome its skill shortages.”¹⁰²

The objective was “to train a minimum of 300 million skilled people by the year 2022”. In July 2014, Modi created a Department of Skill Development and Entrepreneurship, which was later transformed into a Ministry of Skill Development and Entrepreneurship. A very comprehensive institution mechanism based on previous structures was established at the Centre with the objective to harmonize training costs, processes, assessments, certification and outcomes. The Directorate General of Employment, which governs Industrial Training Institutions (ITIs, the building blocks of this pyramid), was aligned with the Ministry of Skill Development and Entrepreneurship. The Executive Committee monitoring the Mission gathered together representatives of 9 ministries as vocational training was seen at the intersection of different domains, including agriculture, information technology, human resources development etc.

Narendra Modi, who chaired the Governing Council and announced the setting up of 1,500 new ITIs and 50,000 Skill Development Centres¹⁰³, committed himself to “Skill India” in eloquent terms:

“Today, the world and India need a skilled workforce¹⁰⁴. (...) I also want to create a pool of young people who are able of creating jobs... (...) My brothers and sisters, having taken a resolve to enhance the skill development at a highly rapid pace, I want to accomplish this”¹⁰⁵.

Clearly, Modi saw “Skill India” as a plan complementary to another flagship schemes he launched in 2014, “Make in India”, a policy inviting foreign investors¹⁰⁶ to create factories in India to train entrepreneurs (as evident from the name of the Ministry in charge of “Skill India”). The 2015 report of the Ministry of Skill Development and Entrepreneurship pointed out:

“The Indian capacity for harnessing entrepreneurship has not been fully realized - the MSME (micro, small and medium enterprises) sector contributes to only 17% of GDP as compared to 85% in Taiwan, 60% in China and 50% in Singapore. Given the realities of rapidly changing economic landscape in the country, entrepreneurship opportunities have emerged as an important source of meeting the aspirations of the youth. An all inclusive approach to strengthen the entrepreneurship development scenario in the country which is competent, quality conscious, market savvy,

¹⁰² Ministry of Skill Development and Entrepreneurship, *National Skill Development Mission. A Framework for Implementation*, New Delhi, Government of India, no date, p. 2.
(<https://www.msde.gov.in/assets/images/Mission%20booklet.pdf>).

¹⁰³ Ministry of Skill Development and Entrepreneurship, *Report of the Committee for Rationalization and Optimization of the Functioning of the Sector Skill Councils, vol. I, Appendices*, p. v, New Delhi, 2016
(<https://www.msde.gov.in/assets/images/ssc-reports/SSC%20Vol%20I.pdf>)).

¹⁰⁴ This global vision was referred to repeatedly by the bureaucrats in charge of Skill India. One of them wrote: “According to an analysis done by the US Department of Labour and Boston Consulting Group, there will be skilled man- power shortage of 56.5 million by 2020 while India will have a surplus of about 47 million. India will therefore, have to put its act together, create a sound and quality driven national vocational education and training system which can not only meet its own domestic requirement fully but also can become the supplier of skilled man-power to the rest of the ageing and aged world. Otherwise, 25 years down the line, we will also lament that “we became old without having become rich.” The country, therefore, needs to design its strategy accordingly, immediately without any further loss of time”. (Ministry of Skill Development and Entrepreneurship, *Report of the Committee for Rationalization and Optimization of the Functioning of the Sector Skill Councils, vol. I, Appendices*, p. 8, New Delhi, 2016 (<https://www.msde.gov.in/assets/images/ssc-reports/SSC%20Vol%20I.pdf>)).

¹⁰⁵ Ministry of Skill Development and Entrepreneurship, “National Policy for Skill Development and Entrepreneurship”, New Delhi, 2015, p. 1.
<https://www.msde.gov.in/assets/images/Skill%20India/National%20Policy%20on%20Skill%20Development%20and%20Entrepreneurship%20Final.pdf>

¹⁰⁶ The Ministry of Skill Development and Entrepreneurship made it clear: “Make in India and Skill India are complementary to each other. The key objective of Make in India is to promote manufacturing in 25 sectors of the economy, which will lead to job creation and consequently need for skilled manpower. Some of these sectors include automobiles, chemicals, IT, pharmaceuticals, textiles, ports, aviation, leather, tourism and hospitality, wellness, railways, auto components, design manufacturing, renewable energy, mining, bio-technology, and electronics. Correspondingly, Skill India aims at preparing a highly skilled workforce which is completely aligned to the requirements of industry so as to promote growth through improved productivity” (Ibid., p. 25).



innovative and has globally competitive entrepreneurs, needs to be carefully mentored and encouraged"¹⁰⁷.

Besides the creation of more courses and institutes of vocational training, the main innovation of "Skill India" consisted in integrating "vocational training classes linked to the local economy" with formal education from class 9 onwards in at least 25% of the schools in nine years. Similarly, 25% of all the existing institutions of higher education were supposed, over the coming 5 years, to offer courses with specialized skills, in addition to the polytechnics, engineering colleges etc.¹⁰⁸ This professionalization of general education was explicit: "Special focus will be laid on youth who do not wish to continue with school or higher education so that they are provided skills for other sustainable livelihood options"¹⁰⁹.

A very important aspect of "Skill India" was its PPP character: the entrepreneurs were requested to " earmark 2% of their payroll bill (including for contract labor) for skill development initiatives"; these funds were to be channelized to the government's coffer in order to finance "Skill India". In parallel, the ITIs were supposed to "tie up with industry in the relevant trades to improve placement opportunities for candidates"¹¹⁰. The states were all invited to create "Skill Development Missions".

This division of labor between New Delhi, the states and the private sector was intended to share the financial burden of "Skill India". One of the most costly dimensions of this program was the Pradhan Mantri Kaushal Vikas Yojana that was presented on the ministry's website as "the flagship scheme of the Ministry of Skill Development & Entrepreneurship (MSDE). The objective of this Skill Certification Scheme is to enable a large number of Indian youth to take up industry-relevant skill training that will help them in securing a better livelihood. Individuals with prior learning experience or skills will also be assessed and certified under Recognition of Prior Learning (RPL). Under this Scheme, Training and Assessment fees are completely paid by the Government"¹¹¹.

The PMKVY's budget was about Rs. 1.2 billion for four years (2016-2020)¹¹². Its main tool was the "Short Term Training" which could last between 150 and 300 hours and which included some placement assistance by Training Partners upon successful completion of their assessment by the candidates.

Today, there are more than 15,044 ITIs with capacity of approximately 2.6 seats¹¹³, which means that since the inception of the MSDE in 2014, there has been a 32% increase in ITI count and 54% increase in seating capacity¹¹⁴. The Directorate General of Training also governs Regional Vocational Training Institutions and National Skills training Institutes focusing on specialized and high-end skill sets and trainers courses. New types training centers have seen the light of the day with the rise of new programs. For instance, 450 Pradhan Mantri Kaushal Kendras (PMKK) have been "operationalized" in 2017-18¹¹⁵. While these achievements are commendable, they fall short of the initial objectives. The target of this government scheme was to reach out to 300 million young people by 2022 but only a mere 25 million had been trained under this scheme by the end of 2018¹¹⁶.

¹⁰⁷ Ibid., p. 3.

¹⁰⁸ Ibid., p. 16.

¹⁰⁹ Ibid., p. 19.

¹¹⁰ Ibid., p. 26.

¹¹¹ "Pradhan Mantri Kaushal Vikas Yojana (PMKVY)", (<https://www.msde.gov.in/pmkvy.html>)

¹¹² Ministry of Skill Development and Entrepreneurship, "3.16 lakh candidates placed under Pradhan Mantri Kaushal Vikas Yojana (2016-20) in less than two years of its launch," New Delhi, Government of India, 2018 (<https://www.nsdindia.org/sites/default/files/PMKVY%20records%203.16%20lakh%20placement%20milestone.pdf>).

¹¹³ Government of India, Ministry of Skill Development and Entrepreneurship, Lok Sabha unstarred question n°160, to be answered on 04.02.2019 (<http://loksabhaph.nic.in/Members/QResult16.aspx?qref=78359>).

¹¹⁴ "2.5 Crore people trained under Skill India in 3 years," *Business Standard*, 6 June 2018 (https://www.business-standard.com/article/news-ani/2-5-crore-people-trained-under-skill-india-in-3-years-118060601475_1.html).

¹¹⁵ Ibid.

¹¹⁶ "25.25 Lakh Candidates Trained Under PMKVY Short Term Training", Ministry of Skill Development and Entrepreneurship, 11 Feb. 2019 (<http://pib.nic.in/newsite/PrintRelease.aspx?relid=188333>).



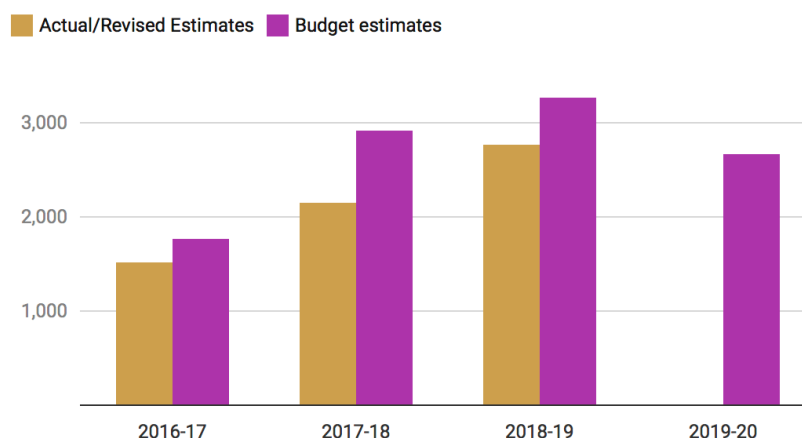
This is partly due to mismanagement¹¹⁷ and partly to the fact that funds available for “Skill India”, either were not spent quickly enough because of a lack of candidates. Indeed vocational training faces a social stigma of being an option for the less-academically able students¹¹⁸ or because of a paucity of funds, as evident from a letter that the Director of the MSDE sent to the officers in charge of this program in the States and Union Territories of India:

“As already mentioned in the circular of even number dated 26th March 2019, progress of CSSM component has been found to be slow and has not achieved the expected/ desired target. Also, it is observed that total releases to States till date has been only Rs. 760 crore (approx..) as against projected financial progress of Rs. 2023 crore (approx..) expected till March 2019 (...) Hence, it has been decided that 50% of the total lag in expenditure (approx. Rs. 631.58 crore) till March 2019 shall be reduced from the total sanction of the States/UTs (Annexure I). States/UTs are requested to revise their physical targets downwards keeping in view the reduced allocation and average per unit cost of trainings being achieved in the State/UT (...) During the review meetings, most of the States has raised the issue of lack of awareness about CSSM component of PMKVY 2016-20 in the States due to various reasons including limited funds. It is felt that scheme (CSSM component) needs impetus through provisioning of funds for creating awareness”¹¹⁹.

The money problem is evident from the graph below and from the Periodic Labour Force Survey mentioned above which showed that, in 2018, only 16% of the youth who had received “formal training were funded by the government”¹²⁰.

Funds for PMKVY have stagnated and often lie unused

Budgetary allocations for PMKVY (in Rs crore)



*The figures for 2016-17 and 2017-18 are actuals and those for 2018-19 are revised estimates

Source: PLFS 2017-18 • [Get the data](#) • Created with Datawrapper

Source: I. Anand and A. Thampi, “33% of India’s skilled youth jobless: official survey”, op. cit.

¹¹⁷ It seems that the management training centres had been sub contracted to private entities which did not work effectively – and that the minister in charge initially, Rajiv Pratap Rudy was not very effective either – he was replaced soon after (Subodh, Verma, “Modi’s Failures: The Skill Development Disaster”, Newsclick, 7 May 2008, <https://www.newsclick.in/modis-failures-skill-development-disaster>)

¹¹⁸ M. Aggarwal, “The vocational way”, *The Hindu*, 9 Decembre 2017 (<https://www.thehindu.com/education/the-vocational-way/article21378657.ece>).

¹¹⁹ “Revised action plan for FY 2019-20 under the CSSM component of PMKVY 2016’20-reg.”, No.B-I 2012I07/2016-SNP Government of India Ministry of Skill Development and Entrepreneurship (Division I-SD&VWing), 19 June 2019 (<https://www.msde.gov.in/assets/images/pmkvy/OM-Action%20plan%20for%20FY%202019-20-CSSM-PMKVY%202016-20.pdf>).

¹²⁰ I. Anand and A. Thampi, “33% of India’s skilled youth jobless: official survey”, op. cit.



But the real problem lays elsewhere: those who have been trained don't find jobs. The number of those who have benefited from the "Skill India" scheme has increased, from 350,000 in 2016-17 to 1.6 million in 2017-18, but the percentage of those who could find a job upon completion of their training has dropped from more than 50% to 30%¹²¹. If one focus only on the PMKVY, the results are even more disappointing. Responding to a question in the Rajya Sabha in March 2018, the then minister for skill development, Dharmendra Pradhan, told the assembly that in the framework of this program 4.13 million people had been trained, but only 615,000 (15%) of them got a job¹²². These figures are the only ones that we can analyze here because they pertain, most of them, to short term training programs that can be assessed – the others will bear fruits after few more years. These limitations of the PMKVY may be explained from two points of view.

First, the policy makers were probably disappointed because they expected that a larger number of those who were trained through the PMKVY would create their company, and, in this case, would benefit from MUDRA loans and tie up, not only with the Make in India scheme, but also with another flagship program of Modi, "Start up India". In fact, only 24% of the 615,000 who got a job started their business and out of them, only 10,000 applied for MUDRA loans – a drop in the ocean¹²³.

Second, the investments made in India are more capital intensive than labor intensive. For example, the share of manufacturing in India's GDP is low relative to the average in low and middle-income countries and has not seen any increase since economic liberalization in 1991. Even within manufacturing, growth has often been highest and restricted to sectors that are relatively capital intensive, such as automobiles, machinery, chemicals or areas requiring special skills such as software, telecom, and pharmaceuticals. This majorly stemmed not only from India's insufficiently skilled labor, but also its complex land and labor laws. In order to boost investment in the manufacturing sector, the two major reforms that are to be immediately addressed are employment laws that make it nearly impossible to fire full time workers and real estate laws that impede the accrual of land to build large-scale factories. India needs to channelize its advantage of labor supply surplus to attract labor intensive manufacturing.

Third, and more importantly, India's joblessness issue is not only due to skill problems, but also to the lack of appetite of industrialists and SMEs for recruiting. The decline of the investment rate is a clear indication that the demand is weak – hence huge idle capacities – and investing is not an easy thing to do anyway because of the limited access to credit that the accumulation of Non-Performing Assets (bad loans) has generated.

¹²¹ "Only three out of ten skilled under Skill India Mission found jobs in FY18", *CNBC-TV18*, 25 May 2018 (<https://www.cnbctv18.com/economy/only-three-out-of-ten-skilled-under-skill-india-mission-found-jobs-in-fy18-70319.htm>).

¹²² Subodh, Verma, "Modi's Failures: The Skill Development Disaster", *Newsclick*, 7 May 2008, <https://www.newsclick.in/modis-failures-skill-development-disaster>

¹²³ *Ibid.*



Conclusion

For optimizing its demographic dividend, India is facing an overwhelming education challenge that pertains to elementary schools, higher education and vocational training. The problems of each component of this pyramid need to be addressed. The Modi government has focused more on the vocational training part, but the "Skill India" program will only bear fruits when the investment rate will rise again and the whole system needs to be taken care of, from the primary school to the universities.

More money needs to be invested in education¹²⁴, jointly with the states. But in addition to material factors, immaterial ones remain important: education can only prosper if it is depoliticized, if institutions (of higher education in particular) are endowed with some autonomy and if some innovative methods are implemented.

In this regard, the draft education policy (known as the DNEP) that has been submitted to the Ministry of Human Resource Development in late 2018 is very promising. Prepared by professional educationists, this document builds on previous reports, it insists on the need to: properly recruit trained teachers in larger numbers, focus on early childhood in order to endow every child with "foundational literacy and numeracy" and get rid of over ambitious curricula relying to a large extent memorization at the expense of personal development and critical thinking¹²⁵. This style of teaching is not only a reflection of wide spread elitism and conservatism, but also a product of the examination system, as well as the "coaching culture" resulting from this system¹²⁶. One important recommendation in the draft New Education Policy pertains precisely to the board examination pattern. Instead of continuing with tests that over-determine the way children relate to school education, the draft recommends assessment of learning.

For such a draft to translate into reality, the Indian society will have to experience a paradigmatic shift. Experiments initiated by innovative schools such as the Mahatma Gandhi International School in Ahmedabad show that such a shift is not risky because students are most successful when they join internationally recognized universities; not to innovate would be the more dangerous risk.

In fact, without any rapid and substantial progress on the front of education, India's demographic dividend may well translate into a demographic disaster. Interestingly, Narendra Modi, in his August 15th Independence Day speech this year, referred to the rise of India's population as a problem: "We need to worry about population explosion"¹²⁷, he said whereas the demographic transition has started, probably because mass joblessness remains the country's number one issue. The challenge does not come only from the number of unemployed, but also to the need to absorb out-migration of labor from agriculture (see graph below). This would require a significant overhaul of the professional education that includes both the higher education and vocational training, but none of them will improve if elementary education remains sub-standard: hence its priority character.

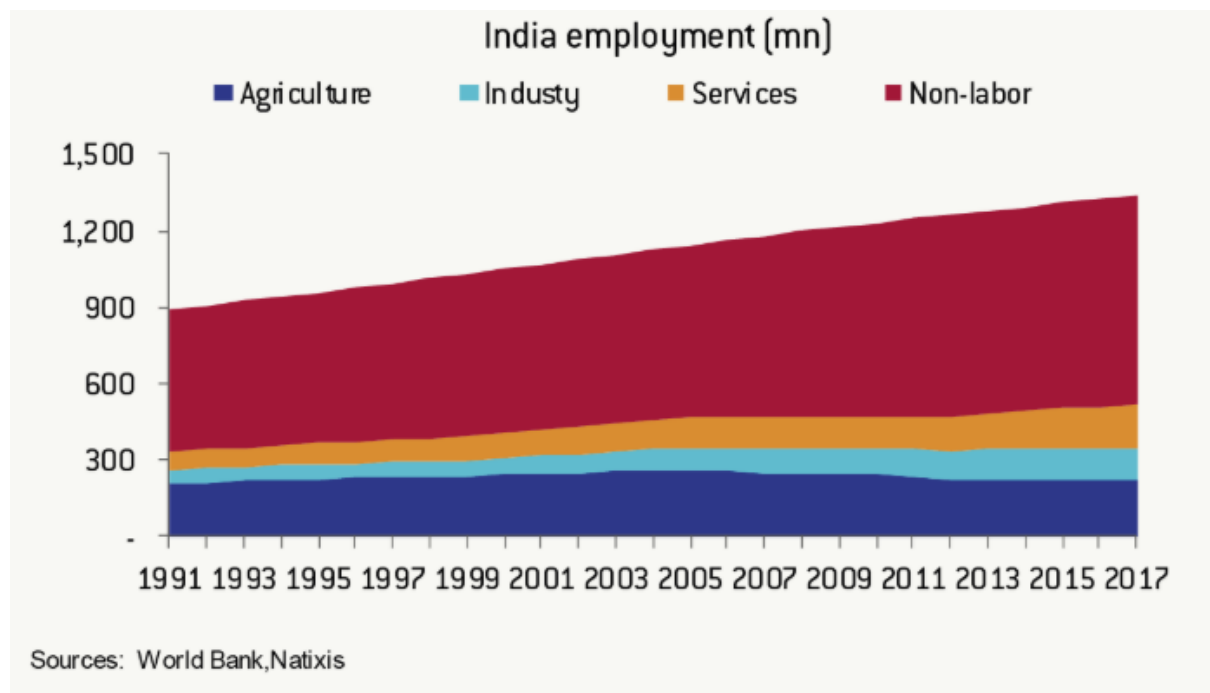
¹²⁴ The budget of the Sarva Shiksha Abhiyan that was supposed to finance the implementation of the Right to Education Act has only slightly increased from Rs. 23,873 crore in 2012-13 to Rs. 26,129 crore in 2018-19

¹²⁵ Rukmini Banerji, "Building Foundations Well: The challenge for primary education", *The India Forum*, 4 July 2019 (<https://www.theindiaforum.in/article/building-foundations-well-challenge-primary-education>).

¹²⁶ Arvind Sardana, "On the New Education Policy and School Board Exams", *The India Forum*, 2 August 2019 (<https://www.theindiaforum.in/letters/board-exams-and-coaching-centres>).

¹²⁷ S. Rai and M. Sivakami, "PM Modi is Worried About Population Explosion, a Problem Set to Go Away in 2021", *The Wire*, 20 August 2019 (<https://thewire.in/health/independence-day-speech-population-explosion-family-planning-female-sterilisation-gender>).





Appendices

State-wise literacy rates in 2011

1 Andaman & Nicobar	86.27	90.11	81.84
2 Andhra Pradesh	67.4	75.56	59.74
3 Arunachal Pradesh	66.95	73.69	59.57
4 Assam	73.18	78.81	67.27
5 Bihar	63.82	73.39	53.33
6 Chandigarh	86.43	90.54	81.38
7 Chhattisgarh	71.04	81.45	60.59
8 Dadra & Nagar Haveli	77.65	86.46	65.93
9 Daman & Diu	87.07	91.48	79.59
10 Delhi	86.34	91.03	80.93
11 Goa	87.40	92.81	81.84
12 Gujarat	79.31	87.23	70.73
13 Haryana	76.64	85.38	66.77
14 Himachal Pradesh	83.78	90.83	76.60
15 Jammu & Kashmir	68.74	78.26	58.01
16 Jharkhand	67.63	78.45	56.21
17 Karnataka	75.60	82.85	68.13
18 Kerala	93.91	96.02	91.98
19 Lakshadweep	92.28	96.11	88.25
20 Madhya Pradesh	70.63	80.53	60.02
21 Maharashtra	82.91	89.82	75.48
22 Manipur	79.85	86.49	73.17
23 Meghalaya	75.48	77.17	73.78
24 Mizoram	91.58	93.72	89.40
25 Nagaland	80.11	83.29	76.89
26 Odisha	73.45	82.40	64.36
27 Puducherry	86.55	92.12	81.22
28 Punjab	76.68	81.48	71.34
29 Rajasthan	67.06	80.51	52.66
30 Sikkim	82.20	87.29	76.43
31 Tamil Nadu	80.33	86.81	73.86
32 Telangana	66.50	--	
33 Tripura	87.75	92.18	83.15
34 Uttar Pradesh	69.72	79.24	59.26
35 Uttarakhand	79.63	88.33	70.70
36 West Bengal	77.08	82.67	71.16

Table 2: Expenditure on education as ratio to aggregate expenditure*

Year	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	Average
Andhra	13.3	12.5	11.7	11.6	9.8	11.1	10.8	9.0	9.0	10.0	12.5	14.0	13.6	11.45
Assam	25.5	21.9	22.4	22.3	17.0	20.8	20.4	20.1	18.8	16.4	22.0	18.7	21.1	20.56
Bihar	23.7	20.7	18.4	18.9	15.8	19.6	19.7	17.6	18.5	18.1	16.3	16.6	19.5	17.22
Chhattisgarh	13.1	12.4	11.0	10.8	12.3	13.4	12.9	13.5	14.4	15.6	18.6	19.0	17.8	14.21
Goa	11.9	10.5	12.0	12.1	13.9	12.3	13.7	12.3	13.3	14.1	15.4	16.6	15.4	13.34
Gujarat	13.6	12.7	13.5	11.2	11.5	12.6	12.7	13.4	11.7	13.8	15.9	16.1	13.4	13.22
Haryana	14.6	13.8	13.7	10.2	11.6	13.4	11.9	12.9	15.0	16.3	17.3	16.6	18.3	14.27
HP	17.0	16.2	14.5	12.4	13.5	14.1	14.1	15.4	16.2	16.3	17.9	18.8	17.5	14.69
J&K	11.1	11.6	10.9	11.1	9.7	9.3	10.0	9.2	10.0	11.3	12.6	13.4	13.0	11.01
Jharkhand	-	16.2	19	14.2	14.9	15.8	15.2	15.1	18.6	15.4	15.8	17.0	17.0	16.18
Karnataka	17.7	16.0	14.8	12.9	12.7	14.0	13.1	14.4	16.1	14.0	15.6	15.5	14.8	14.73
Kerala	20.0	19.0	17.6	15.7	16.2	16.6	17.1	15.9	16.7	16.8	17.0	17.6	17.0	17.16
MP	16.3	12.5	12.2	9.9	8.8	10.2	12.4	11.1	12.8	13.0	14.2	13.3	14.8	12.42
Maharashtra	22.3	22.1	18.9	15.5	14.0	15.7	16.4	17.2	17.0	19.1	20.8	19.9	19.8	18.36
Orissa	15.9	14.6	14.3	12.2	12.6	14.7	12.8	14.3	16.9	18.2	18.3	16.9	15.7	15.18
Punjab	13.2	11.7	12.1	10.2	10.1	11.3	8.9	10.3	11.3	12.2	11.7	15.6	14.2	11.75
Rajasthan	18.8	18.2	15.5	14.1	13.8	17.2	15.6	14.6	17.9	19.0	19.1	18.0	18.5	16.94
Tamil Nadu	18.0	17.3	13.8	12.6	11.2	13.6	12.2	12.7	13.1	15.2	15.2	14.5	15.0	14.18
UP	16.8	16.0	14.6	9.1	12.5	15.2	14.7	14.1	13.2	13.8	16.1	17.4	17.6	14.73
Uttarakhand	21.5	21.1	20.0	17.6	18.4	17.2	18.1	17.6	18.2	22.6	23.5	18.2	20.8	19.6
West Bengal	17.1	16.2	15.9	11.8	14.9	13.7	15.2	15.2	13.1	17.7	19.7	19.4	17.8	15.97
India**	17.4	16.2	15.1	12.6	12.7	14.2	14.0	13.8	14.3	15.3	16.6	16.6	16.5	15.02

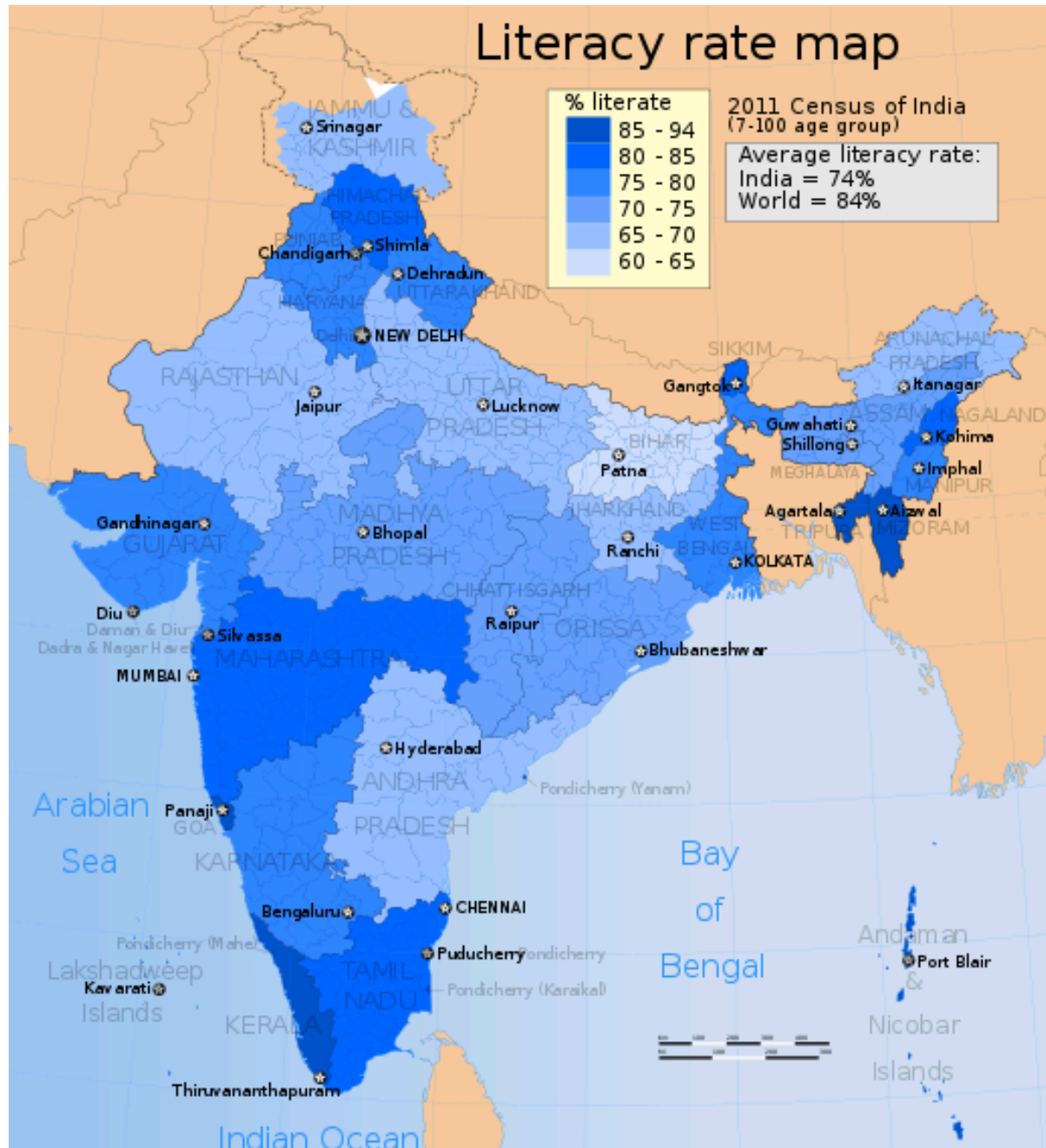
* Includes expenditure on sports, art and culture under revenue expenditure and capital outlay.

* * Including seven other states and Union Territories.

Source: Budget Documents of the State Governments, State Finance Accounts.



Literacy rate map



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