Demand for Grants 2024-25 Analysis
Education

Introduction

In India, both the central and state governments have responsibility for education.[1] Both central and state governments operate schools and higher education institutions (HEIs). In 2021-22, 53% of school students were enrolled in state government schools, and 0.7% in central government schools.[2] Of the total university enrolment, 50% was in state government institutions and 24% in central government institutions.[3]

Between 2013-14 and 2020-21 (latest year for which data is available), combined spending on education by states and centre has ranged between 3.9%-4.6% of GDP.[4] The National Education Policy (2020), and its previous iterations, have recommended government spending on education to be at least 6% of GDP.[5]

The Union Ministry of Education has two departments: (i) the Department of School Education and Literacy, and (ii) the Department of Higher Education. The Department of School Education funds certain schemes implemented by states such as Samagra Shiksha Abhiyan and PM-POSHAN. It is also responsible for schools such as Kendriya Vidyalayas, and Navodaya Vidyalayas. The Department of Higher Education funds central universities, IITs, NITs, IISERs, IIMs, and Schools of Planning and Architecture, among others. It also funds the higher education regulators, UGC, and AICTE. It also supports research and provides scholarships for higher education.

This note examines the allocation to the Ministry in 2024-25, and overall financing issues in education.

Overview of Finances

In 2024-25, the Ministry has been allocated Rs 1,20,628 crore.[6] This is a decrease of 7% from the revised estimate for 2023-24. The Department of School Education and Literacy has been allocated Rs 73,008 crore (61% of the Ministry's expenditure). This is a marginal increase over the revised estimate for 2023-24 (0.7%). The Department of Higher Education has been allocated Rs 47,620 crore (39% of the Ministry's budget). This is a decrease of 17% from the revised estimate for 2023-24.

In 2023-24, as per revised estimates, total expenditure by the Ministry is estimated to be 15% higher than the budget estimate. A key reason is additional transfer to the Madhyamik and Uchchatar Shiksha Kosh (MUSK) worth Rs 23,500 crore. This comprises: (i) Rs 11,000 crore under the demand for School Education, and

Announcements in Budget Speech 2024-25

- **Assistance for education loans:** Interest subvention of 3% annually will be given for education loans up to Rs 10 lakh. One lakh students will be supported every year.

- **Digital public infrastructure:** Digital public infrastructure will be created for the education sector to improve productivity and encourage innovation.

(ii) Rs 12,500 crore under the demand for Higher Education. This amount has not been apportioned to any scheme for education in 2023-24. MUSK is a non-lapsable fund in which proceeds of secondary and higher education cess are credited.[7] MUSK is to be utilised for schemes in secondary and higher education.[7]

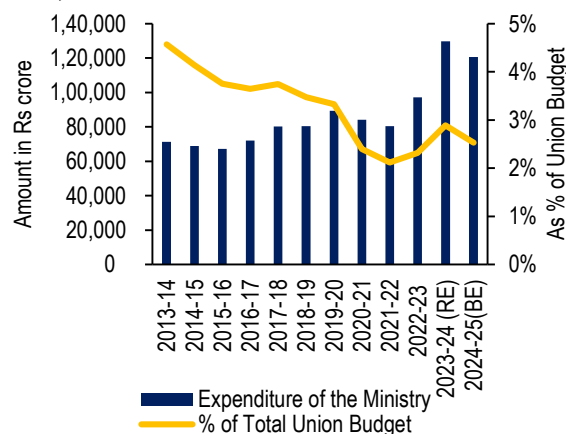**Table 1: Expenditure of the Ministry of Education**
(in Rs crore)

Head	2022-23 Actual	2023-24 BE	2023-24 RE	2024-25 BE	% Change from 23-24 RE to 24-25 BE
School Education	58,640	68,805	72,474	73,008	0.7%
Higher Education	38,557	44,095	57,244	47,620	-17%
Total	**97,196**	**1,12,899**	**1,29,718**	**1,20,628**	**-7%**

Note: BE – Budget Estimate; RE – Revised Estimates.
Sources: Demand No. 25 and 26, Expenditure Budget 2024-25; PRS.

Between 2013-14 and 2022-23, expenditure by the Ministry has increased at an annualised rate of 4%. Expenditure towards the Ministry as a share of overall Union Budget has also come down during this period.

Figure 1: Expenditure of Ministry of Education (Rs crore)

Note: BE – Budgeted Estimate and RE – Revised Estimate
Source: Union budget documents of various years; PRS.

Rutvik Upadhyaya
rutvik@prsindia.org

July 31, 2024

Table 2: Main heads of expenditure under Ministry of Education (in Rs crore)

Head	2022-23 Actuals	2023-24 RE	2024-25 BE	% Change from 23-24 RE to 24-25 BE	Share of Ministry's Expenditure	Share of Department's Expenditure
School Education (A)	**58,640**	**72,474**	**73,008**	**0.7%**	**61%**	**-**
of which						
Samagra Shiksha	32,515	33,000	37,010	14%	31%	51%
Autonomous Bodies	12,800	14,470	15,639	8%	13%	21%
PM POSHAN	12,681	10,000	12,467	25%	10%	17%
PM SHRI	-	2,800	6,050	116%	5%	8%
Higher Education (B)	**38,577**	**57,244**	**47,620**	**-17%**	**39%**	**-**
of which						
Central Universities	10,867	12,394	15,928	29%	13%	33%
IITs	8,990	10,384	10,325	-0.6%	9%	22%
NITs and IIEST*	4,176	4,821	5,040	5%	4%	11%
UGC & AICTE	5,512	6,809	2,900	-57%	2%	6%
Student Aid	1,603	1,384	1,908	38%	2%	4%
STARS	473	700	1,250	79%	1%	2%
Others	7,580	32,957	12,111	-63%	16%	-
Total (A+B)	**97,196**	**1,29,718**	**1,20,628**	**-7%**	**100%**	**-**

Note: BE: Budget Estimates; RE: Revised Estimates. *IIEST: Indian Institute of Engineering Science and Technology, Shibpur.
Source: Demands No. 25 and 26, Expenditure Budget 2024-25, Union Budget; PRS.

School Education: In 2024-25, the Department of School Education and Literacy has been allocated Rs 73,008 crore.[6] Majority of the Department's allocation (51%) is towards the Samagra Shiksha Abhiyaan at Rs 37,010 crore. This is followed by expenditure on PM-POSHAN (17% of the department's expenditure) at Rs 12,467 crore.

The allocation towards school education for 2024-25 is a marginal increase over the revised estimate for 2023-24 (0.7%).[6] In 2020-21 and 2021-22, expenditure on school education was 1% and 10% lower than the previous year, respectively. In 2022-23, expenditure on school education increased by 25% on the low base of 2021-22.

Higher Education: In 2024-25, Rs 47,620 crore have been allocated to the Department of Higher Education.[6] Transfers to Central Universities constitute the largest portion of the Department's budget (33%). This is followed by allocation for Indian Institutes of Technology (22%), and National Institutes of Technology (NITs) and Indian Institute of Engineering Science and Technology (11%).

The allocation towards Higher Education in 2024-25 is estimated to be decrease by 17% from than the revised estimate for 2023-24.[6] Allocation towards the University Grants Commission (UGC) is estimated to reduce by 61%. The allocation towards Central Universities and NITs & IIEST have been increased by 29% and 5% respectively.

Key schemes in education

Samagra Shiksha Abhiyaan

The Samagra Shiksha Abhiyaan is a flagship scheme of the Department of School Education and Literacy. Its objectives include: (i) supporting states to implement the NEP and the Right to Education Act, 2009, (ii) bridging social and gender gaps in education and (iii) strengthening teacher training.[8] Launched in 2018, the scheme subsumes: (i) the Sarva Shiksha Abhiyaan, (ii) Rashtriya

Madhyamika Shiksha Abhiyaan, and (iii) several teacher education initiatives.[8] Upgrading school infrastructure is a major component of the scheme. This involves providing drinking water, toilets, science labs and computer classrooms.[8] The scheme also sets standards of learning, measures learning outcomes and focuses on teacher training to improve the quality of education.[8] Under the scheme the, NIPUN Bharat Mission was launched to set targets and provide support for achieving universal foundational literacy and numeracy by 2026-27.[9] This includes basic skills in reading, writing and performing arithmetic.

Pradhan Mantri Poshan Shakti Nirman (PM-POSHAN)

PM POSHAN (subsuming the Mid-day Meal Scheme) constitutes 10% of the Ministry's expenditure. The Mid-day Meal scheme guaranteed nutritious meals to students in elementary classes (I-VIII) in government and government aided schools.[10] Launched in 2021-22, the PM POSHAN scheme extends this to pre-school children as well. Programme guidelines stipulate calorie and nutritional norms for mid-day meals. The scheme covers 11.8 crore students studying in 11.2 lakh schools. In 2024-25, Rs. 12,467 crore has been allocated to the scheme.[6]

PM Schools for Rising India (PM-SHRI)

Under this scheme, 14,500 schools will be identified and upgraded along several parameters. They will: (i) implement principles of the NEP, (ii) be linked to the local entrepreneurial system, and (iii) provide students access to counselling and cutting edge technology.[11] This scheme will be implemented between 2022-23 and 2027-28 with a central share of Rs 18,128 crore. As of December 2023, Rs 630 crore have been released under the scheme to all States/UTs.[12] In 2024-25, Rs 6,050 crore have been allocated to this scheme. This is an increase of 116% over the revised estimate for 2023-24.

Key Issues in School Education

Significant drop in enrolment after primary level

The NEP aims to achieve 100% enrolment in all levels of school education.[5] It also envisions 14 years of school education for all students.[5] As shown in Figure 2, enrolment in primary education has reached 100%.[2] However, enrolment drops at higher levels of education. For instance, the enrolment rate in higher secondary education is close to 58%, almost half the enrolment at primary education.[2] Scheduled Tribes (STs) have a lower enrolment rate than the overall average at secondary and higher secondary education.[2]

**Figure 2: Gross Enrolment rate at different levels of schooling (in 2021-22)**
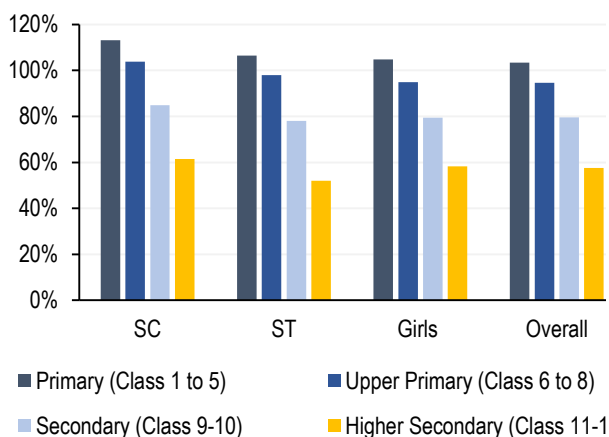
Note: GER above 100% reflects enrolment of individuals beyond relevant age group for each level of education.
Sources: Unified District Information System for Education Plus 2021-22; PRS.

The trend in enrolment also reflects in dropout rates. Dropout rates increase with higher levels of school education (Figure 3). Dropout rates measure the proportion of students at each level choosing to discontinue education. Drop-out rates of student belonging to Scheduled Tribes (ST) are considerably higher than national average at each level of education.[2]

Figure 3: Dropout rates across social groups in 2021-22 (in %)
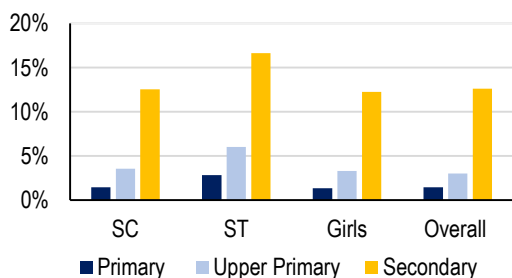
Source: Unified District Information System for Education Plus 2021-22; PRS.

According to the UN Human Development Index report 2023-24, mean years of schooling in India was 6.6 years.[13] This was lower than that countries such as: (i) United States (13.6), (ii) United Kingdom (13.4), (iii) South Africa (11.6), (iv) Brazil (8.3), (v) China (8.1) and (v) Bangladesh (7.4).[13]

Rising enrolment in private schools, which tend to be more expensive

As of 2021-22, government schools constituted 69% of all schools and 54% of all school enrolment in the country (see Figure 4). However, their share in both areas has declined since 2012-13. Share of private unaided schools in both the total number of schools and overall school enrolment has increased.

Figure 4: Distribution of schools and student enrolment across school management
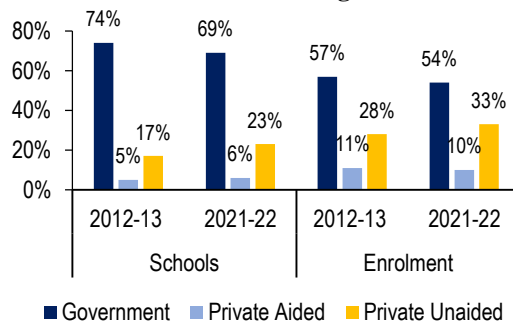
Sources: Unified District Information System for Education Plus 2012-13 and 2021-22; PRS.

Cost of attending a private unaided school is relatively higher. As of 2021-22, one-third of school-going students are enrolled in private unaided schools.[2]

Figure 5: Cost of School Education across management (in Rs)
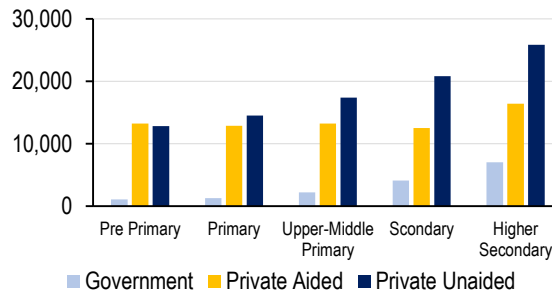
Sources: Household Social Consumption on Education in India, NSSO 2017-18; PRS.

According to NSSO (2017-18), reasons for students preferring private aided or unaided educational institutions include: (i) usage of English as a medium of instruction (17%), (ii) poor quality of education in government institutions (34%), (ii) proximate location of private institution (27%), and (iv) better facilities such as teaching aid, transport, hostel facilities, and extra-curricular activities.[14]

The Samagra Shiksha Abhiyan (SSA) seeks to address several issues highlighted above. It focuses on improving access to education, learning quality and outcomes and teacher training. Interventions under the programme include: (i) providing transport facility, free textbooks and uniforms to

students, (ii) strengthening teacher training initiatives, institutions and (iii) upgrading and creating equitable infrastructure (drinking facility and toilets.).[15]

Under the scheme, the Centre shares funds with most states in a 60:40 ratio, and with north-eastern and Himalayan states in a 90:10 ratio. Actual funds released by the centre have been shrinking in relation to proposed expenditure (see Figure 6). Note that allocations in 2020-21 and 2021-22 may have been affected by the COVID-19 pandemic.

Figure 6: Funds proposed and released by the Centre under SSA (in Rs crore)
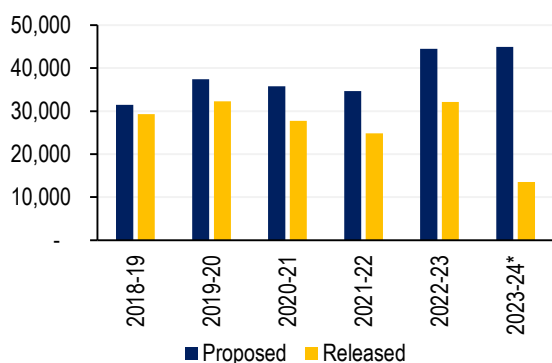
Note: *Figures for 2023-24 are up to December 31, 2023.
Source: Unstarred Question 268, Ministry of Education, Lok Sabha, February 2, 2024; PRS.

The Standing Committee on Education, Women, Children, Youth and Sports (2023) has linked the delay in releasing funds to delay in states utilising previously released funds.[26] The Committee recommended reviewing mechanisms for faster utilisation of funds under the scheme.

Availability and quality of teachers varies vastly across states

The NEP 2020 recommended a pupil teacher ratio (PTR) of 30:1 (one teacher for 30 students).[5] According to UDISE+ (2021-22), at an aggregate level, this has been achieved at all levels of school education. Average PTR at various levels of education is: (i) 26:1 (primary), (ii) 19:1 (upper primary), (iii) 18:1 (secondary) and (iv) 27:1 (higher secondary). However, some states have fallen short on this target (see Table 6 in the Annexure).[2]

India is faced with a high share of smaller schools and schools with a single teacher. As per NITI Aayog (2021), 36% of government schools in India had fewer than 50 students and just one or two teachers.[16] According to the NEP (2020), this leads to teachers teaching multiple grades and subjects, including those subjects they may not be adequately qualified in.[5] The NEP adds that smaller and isolated schools are difficult to manage and govern. They also lack infrastructure such as labs, equipment, libraries.

In 2022-23, vacancy for teachers for grades 1-8 was at 16%.[17] This is lower than vacancies recorded in

2021-22 (21%) and 2020-21 (17%).[17] However, some states have higher vacancies as of 2022-23. These include: (i) Jharkhand (40%), (ii) Bihar (32%), (iii) Mizoram (30%), and (iv) Tripura (26%).[17] The Standing Committee on Education, Women, Children, Youth and Sports (2023) highlighted the need to expedite teacher recruitment by states.[18] It also recommended forming an Autonomous-Teacher Recruitment Board at the state-level to ensure transparency in recruitment.

The National Council for Teacher Education (NCTE) delineates minimum qualifications required for teaching at various levels of education. These range from passing senior secondary (for teaching at pre-primary level) to attaining post-graduation along with a B.A.Ed. or B.Sc. Ed. (for senior secondary level).[19] According to UDISE+ (2021-22), 10% of all teachers in government schools do not possess professional qualifications.[20] This figure is higher states such as: (i) Tripura (49%), (ii) Nagaland (45%), (iii) Jharkhand (44%), and (iv) Assam (38%).[20] As of 2021-22, only 68% at the pre-primary level were trained teachers.[2]

Teacher training is one of the vital components under Samagra Shiksha Abhiyaan. Expenditure under the SSA on teacher training has seen a downward trend since 2018-19 (see Figure 7).

Figure 7: Expenditure on Teacher Training under Samagra Shiksha Abhiyaan (in Rs crore)
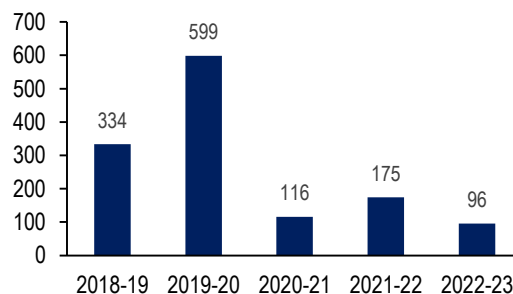

Sources: Unstarred Question No. 1995, Ministry of Education, Rajya Sabha, December 20, 2023; PRS.

The National Initiative for School Heads and Teachers' Holistic Advancement (NISHTHA) was launched under the SSA in 2019.[21] It guides teacher training and seeks to enhance capacity of teachers, school heads and other resource persons in education. It trains these entities through digital learning modules. As of June 2024, 49% of the targeted school heads and 43% of the targeted teachers have been trained under the programme.[22]

Learning outcomes continue to be poor

The National Achievement Survey (NAS) measures proficiency of students in grades 3, 5, 8 and 10.[23,24] Their proficiency is measured in languages, maths and sciences. Students are scored out of 500 in each subject. According to NAS, learning proficiency across most subjects and classes has reduced between 2017 and 2021 (see Figure 8).

Figure 8: Change in All India-scores in NAS between 2017 and 2021 (in %)

■ Change from 2017 to 2021
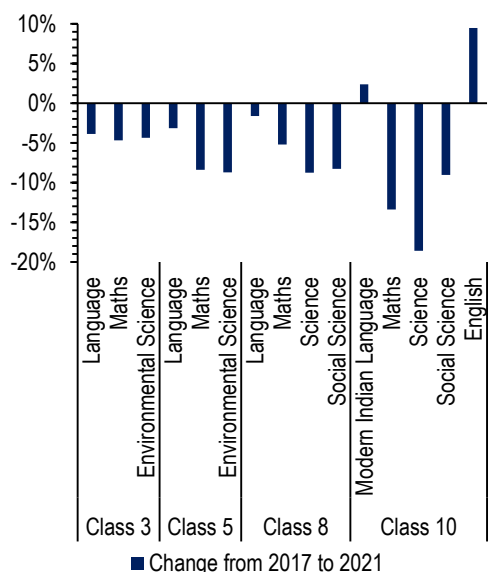
Sources: National Achievement Survey 2017 and 2021; PRS.

Between 2017 and 2021, average proficiency across classes and subjects dropped from 58% to 54%.[23,24] Proficiency in Math across grades reduced from 46% to 43%. Proficiency in languages dropped from 64% to 62%. Learning outcomes reduce at higher levels of education.[23,24] In 2021, proficiency across subjects dropped from 62% in Class 3 to 48% in Class 10.

The Performance Grade Index – State (PGI - State) ranks the performance of all States and UTs on NAS results.[25] States/UTs were graded out of 240 and were ranked into different grading bands. As per this Index, 29 States/UTs scored lower than 30% on learning outcomes and fell within second and the third lowest grading bands within the index (see Table 9 in Annexure).[25] States/UTs that scored the lowest (out of 240) on learning outcomes include: (i) Telangana (37), (ii) Chhattisgarh (39), (iii) Meghalaya (32) and (iv) Tamil Nadu (41).[25]

In 2021, the NIPUN Bharat Mission was launched to achieve foundational literacy and numeracy by Grade 3. The programme will be implemented between 2021-22 to 2026-27. The scheme sets learning targets, designs curricula and provides funding and guidance to states. Under the Mission, learning material for grade 1 and 2 was developed by the NCERT.[18] Guidelines delineating learning outcomes for pre-school students were also issued.

The Strengthening Teaching and Learning Results for States (STARS) programme was launched in 2020.[26] It aims to improve learning outcomes in Himachal Pradesh, Maharashtra, Odisha, Rajasthan, Madhya Pradesh and Kerala. The programme is partly funded by World Bank which releases funds based on improvement in: (i) proficiency in language, (ii) assessment systems, and (iii) secondary school competition rate.[26] In 2024-25,

Rs 1,250 crore have been allocated to STARS.[6] This is 79% higher than the expenditure in 2023-24.

Schools lack digital infrastructure

As of 2021-22, 97% of the total schools in the country have separate toilet facilities, 96% have access to drinking water and 87% to functional electricity.[6] However, access to digital infrastructure is relatively limited. The NEP emphasises on leveraging technology for learning.[5] It also highlights the need to bridge digital divide. It recommended setting up a dedicated unit to build digital infrastructure in educational institutions.

As of 2021-22, only 26% of all schools have desktop facilities and 34% have access to the internet (Figure 9).[6] Availability of digital infrastructure also varies with school management. Private unaided schools have a greater coverage of all forms of digital infrastructure compared to government schools. This divide affects equitable access to technology for learning.

Figure 9: Availability of digital infrastructure in schools across management (in %)

■ Government   ■ Private Aided
■ Private Unaided   ■ All Management
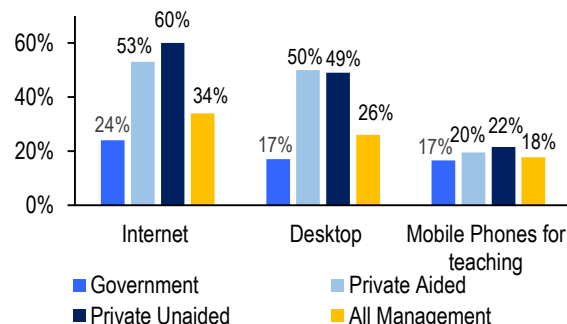
Source: Unified District Information System for Education Plus 2021-22; PRS.

The PGI – District measures digital learning based on access to adequate computers, adoption of digital learning methods and devices and teacher proficiency in using computers.[27] In 2021-22, 66% of the surveyed districts scored 30% or lower on these parameters. This was lower than 2018-19, when 70% districts scored 30% or lower.[27]

Key issues in Higher Education

Socio-economic disparity in enrolment in higher education

Gross Enrolment Ratio (GER) in higher education has increased over time (Figure 10). The NEP (2020) envisions increasing GER in higher education to 50% by 2035.[5] Even as the enrolment of students from SC and ST communities has increased over time, it remains relatively lower. India's Gross Enrolment Ratio (GER) was recorded at 28.5% in 2021-22 (see Table 8 in Annexure for state-wise details). States with relatively lower GER in higher education include: (i) Bihar (17%), (ii) Assam (17%), (iii) Jharkhand (19%), (iv) Chhattisgarh (20%), and (v) Tripura (21%).[3]

Figure 10: GER in higher education across social groups (in %)
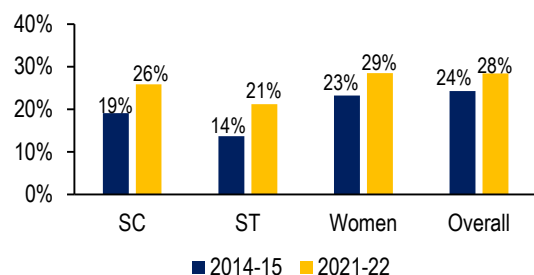
Source: All India Survey of Higher Education 2021-22; PRS.

Participation of women is lower in certain education streams. According to the AISHE (2021-22), in engineering, women constitute only 29% of UG students, 32% of PG students and 34% of PhD students.[3] However, in overall STEM fields, women constitute: (i) 51% of UG, (ii) 61% of PG and (ii) 50% of Ph.D. enrolment.[5]

Student aid: To promote higher education, the Department provides financial aid to students. This consists of interest subsidy on student loans, scholarships and research fellowships. Scholarships include financial aid of: (i) Rs 30,000 – two lakh for students of Jammu and Kashmir, and (ii) Rs 12,000 – 20,000 for students from other parts of India.[28,29]

In 2024-25, Rs 1,908 crore has been allocated towards student financial aid. In 2017-18, Rs 2,218 crore were spent on this. Between 2017-18 and 2022-23, expenditure on student financial aid has reduced. This is primarily due to reduced expenditure on interest subsidy (see Table 10 in Annexure). Expenditure on interest subsidy has reduced from Rs 1,950 crore in 2017-18 to Rs 873 crore in 2022-23.

Since 2023-24, expenditure on interest subsidy and scholarships has been merged into the PM-Uchchatar Shiksha Protsahan Yojana (PM-USP). For 2024-25, PM-USP has been allocated Rs 1,558 crore. In 2023-24, as per the revised estimates, the expenditure on the scheme is expected to be 32% lower than the budget estimate.[6]

The Standing Committee on Education, Women, Children, Youth and Sports (2022) had observed that existing scholarships are not sufficient in covering the complete cost of higher education.[30] It recommended the Ministry to revise the amount and coverage of schemes and increase scholarships.

Greater enrolment in private institutions, which are more expensive

As of 2021-22, 70% of all enrolment in higher education is in colleges.[3] In 2021-22, 78% of all colleges are privately run and 66% of college enrolment is in privately-run colleges.[3] According to the NSS (2017-18), cost of studying in a private unaided HEI is the highest amongst all (Figure 12).[14] The NEP (2020) recommended treating

Figure 11: Distribution of colleges and student enrolment in colleges by management in 2021-22
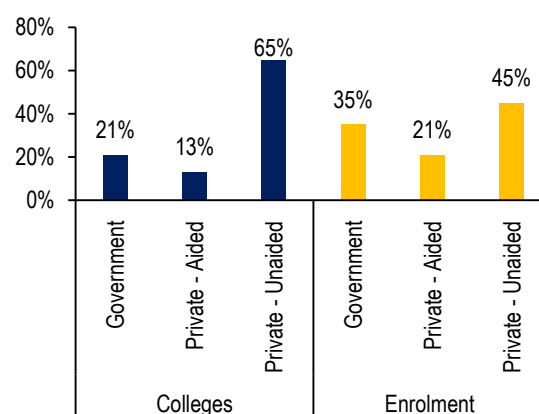
Sources: All India Survey of Higher Education 2021-22; PRS.

educational institutions at the standards of a non-profit organisation.[5] This involves public disclosure of fees or any charges by HEIs, prohibition of arbitrary increase in the same, transparent means of setting fees and placing an upper limit on the same.[5]

Figure 12: Cost of higher education across level of education and management
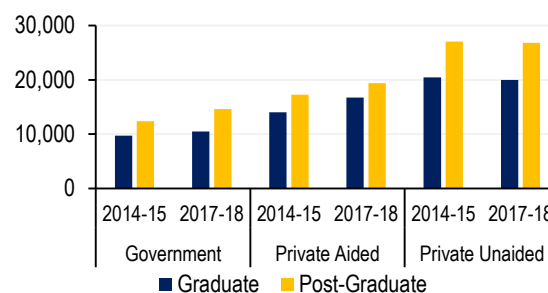
Source: Household Social Consumption on Education in India, NSS 75th Round (2017-18); PRS.

Quality of higher education institutions

The National Assessment and Accreditation Council (NAAC) evaluates the quality of Higher Educational Institutions. Its grading is based on criteria such as curriculum, teaching quality, infrastructure and research and innovation.[31] The highest grade accredited institutions can receive is A++ while the lowest is C. As of November 2023, 430 universities (37% of total) and 9,257 colleges (20%) have been accredited by NAAC.[32] Out of the accredited institutions, 239 universities (56%) and 1,916 colleges (21%) have received an A grade.

Table 3: Distribution of NAAC grades across accredited colleges and universities as of 2023 (in %)

| Category	A	B	C
Universities	56%	40%	4%
Colleges	21%	67%	12%

Sources: NAAC; PRS.

To improve infrastructure facilities at HEIs, the Higher Education Financing Agency (HEFA) was set up in 2017-18.[33] It finances setting up of campuses, laboratories and other facilities in HEIs.

As of March 2024, loans worth Rs 39,720 crore were sanctioned for 103 institutions.[34] Out of this, 64% were sanctioned for 22 IITs and 12 AIIMS and other institutions run by the Health Ministry.[34] This indicates that 34 of institutions were sanctioned 64% of all loans by HEFA. So far, Rs 19,968 crore (49% of the sanctioned loans) have been disbursed.

In 2013-14, the Rashtriya Uchchatar Shiksha Abhiyaan (RUSA) was launched to fund upgradation of infrastructure, education and overall quality of HEIs. It was to be implemented under two phases between 2012-2017 (RUSA 1.0) to 2017-2022 (RUSA 2.0).[35] Targets are set for each phase of the scheme for areas such as: (i) creation and upgradation of universities and colleges, (ii) improvement in research and innovation and (iii) provision of infrastructure grants.[36] In 2024-25, Rs 1,815 crore has been allocated to the scheme.

The utilisation of funds under RUSA has been consistently low since 2017-18 (Figure 13). The Standing Committee on Education, Women, Children, Youth and Sports (2023) noted that targets under RUSA 2.0 have been lower than those set under RUSA 1.0.[36] For instance, RUSA 1.0 targeted creating 45 universities by upgrading autonomous colleges. However, RUSA 2.0 targets creating only three universities in this manner. The Committee recommended increasing targets across all components of the scheme.[36]

Figure 13: Under-allocation of funds under RUSA (in Rs crore)
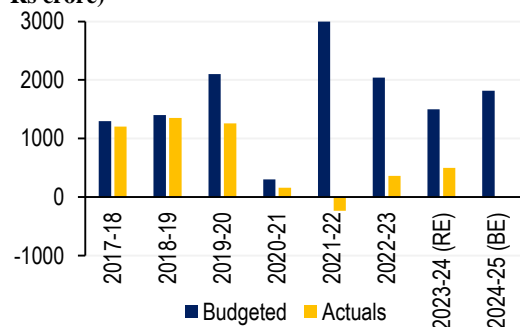
Note: Figures in 2021-22 are in negative due to net recoveries. BE - Budgeted Estimates and RE - Revised Estimates. Sources: Union Budget documents of various years; PRS.

High vacancies in higher education institutions

According to the Standing Committee on Education, Women Children, Youth and Sports (2023), the ideal PTR in higher education is 15:1 (one teacher for 15 students).[36] As per AISHE 2021-22, the prevailing PTR in higher education in regular mode is 23:1.[3] In regular mode, teaching and learning is carried out in a classroom, in direct contact with teachers.[3] PTR has improved from 2017-18 when PTR was 25:1.[3] However, there are significant variances across states on this front (see Table 8 in Annexure). States such as Tamil Nadu, Kerala, and Karnataka have a PTR of 14:1, 15:1 and 15:1, respectively.[3] They meet or are quite close to

meeting the recommended PTR in higher education. However, states such as Bihar (64:1), Jharkhand (54:1), and Uttar Pradesh (35:1) fall significantly below the target.[3] About one-third posts in the centrally-funded universities are vacant.[36] Faculty from SC and ST communities constitute 9% and 3% of filled posts, respectively.[36]

Table 4: Vacancies in faculty positions across centrally-funded institutions (as of March 2023)

Institution	Sanctioned	Filled	Vacant	Vacancy (in %)
Central Universities	18,956	12,776	6,180	33%
IITs	11,292	6,712	4,415	39%
IIITs	1,315	599	705	54%
NIT	7,483	5,277	2,206	29%
IIMs	1,570	1,086	484	31%
IISER	735	683	52	7%
Total	**41,351**	**27,133**	**14,042**	**34%**

Source: 348th Report, Standing Committee on Education, Women, Children, Youth and Sports; PRS.

Entrance exams for admissions

Admissions to many courses in India require clearing common entrance exams. These include: (i) National-Eligibility-cum-Entrance Test (NEET) for all medical and dental courses, (ii) Joint-Entrance-Examination (JEE) for most UG engineering programmes and (iii) Common University Entrance Test (CUET) for any central university and many private or deemed universities.[37,38,39,40] In 2024, the National Entrance Test (NET) was also extended for Ph.D. admissions.[41]

The NEP 2020 recommended common entrance exams for admissions across universities, as opposed to them conducting entrance tests individually.[5] This aims to reduce burden on students and universities. In line with recommendations of the NEP, the National Testing Agency (NTA) was established to conduct entrances such as NEET, JEE and CUET.[42]

The NEP also recommended that common entrance exams should test conceptual understanding and application of knowledge, and must aim to eliminate the need for coaching.[5] It also recommended giving universities the discretion to accept common entrance exams.[5] Currently, NEET is mandatory for all medical and dental admissions.

In June 2021, the Tamil Nadu government had set up a Committee (Chair: Retd. Justice A.K. Rajan) to examine the impact of NEET on medical admissions in the state.[43] The Committee observed that 99% of candidates in Tamil Nadu who cleared NEET in 2019-20 had undergone coaching.[43]

In 2013, the Supreme Court had observed that a uniform entrance examination would not ensure a level playing field between social groups with varying degrees of access to education.[44]

Graduates faced with higher unemployment

Working Population Ratio (WPR) indicates the percentage of employed persons in a population. Amongst graduates and post-graduates aged 25-64 in India, WPR is 64%.[45] This is lower than WPR in certain countries such as USA and South Korea.[45]

Figure 14: WPR of graduates and post-graduates in certain countries in 2022 (in %)
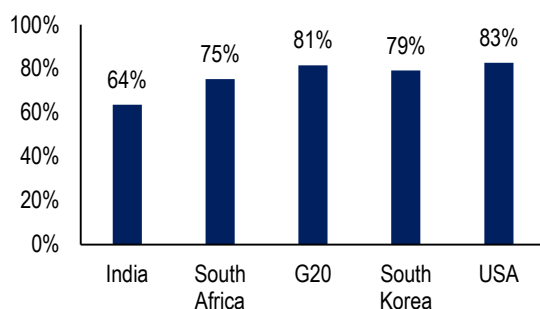
Note: G20 is a country grouping.
Sources: "Education at a Glance- 2023", OECD, PRS.

According to a report by the International Labour Organisation (ILO), unemployment amongst youth at all levels of education in Ind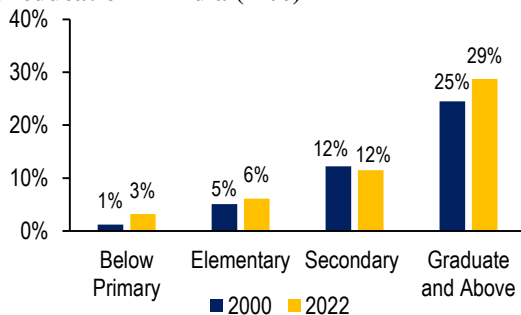ia increased between 2005 and 2022 (Figure 15).[46] Amongst social groups, SC students with a graduate degree or above had the highest unemployment rate at 35%, followed by those from ST communities at 33%.[46]

Figure 15: Unemployment rate and various levels of education in India (in%)

Source: International Labour Organisation; PRS.

As per ILO, unemployment rate increases with the level of education completed (Figure 15). The ILO report highlights a similar trend in various levels of technical education as well.[46] Unemployment rate amongst those with a technical degree increased from 18% to 29% between 2005 to 2022.[46] Amongst those without a technical degree, it increased from 5% to 11%.

The ILO (2024) also highlighted that over half of all employed graduates in India were engaged in low-skilled jobs whereas less than one-third of them were engaged in high-skilled ones.[46] Proportion of graduate degree-holders engaged in high-skilled occupations increased from 11% to 28% between 2005 to 2022. However, share of those in low-skilled jobs increased from 45% to 53%.[46]

The Department of Economic Affairs (2024) cited a private study according to which the employability of pre-final and final year students increased from 34% in 2014 to 51% in 2024.[47] According to the survey, as of 2023, degrees with most employable talent included: (i) B. Com (61%), (ii) MBA (60%), and (iii) B.E./B.Tech (58%).[47]

The Ministry implements the National Apprenticeship Training Scheme. It is a one-year programme that aims to equip technically qualified youth with knowledge and skills required at work. Such training is provided by organisations at the place of work.[26] The scheme has been allocated Rs 600 crore in 2024-25, an increase of 30% over the revised estimate for 2023-24. In 2023, the UGC released guidelines on internships and university-industry linkage systems in HEIs. These aim to improve research capacities of students.[48,49]

In the 2024-25 budget speech, a scheme to provide internship opportunities for one crore youth in 500 top companies has been announced.[50] Under this, a monthly allowance of Rs 5,000 and a one-time assistance of Rs 6,000 will be provided to the beneficiaries. This scheme will entail an outlay of Rs 63,000 crore over seven years.[50]

Higher educational institutions play a limited role in research

In 2020-21, India spent 0.64% of its GDP on research and development (R&D).[51] This was lower than expenditure by: (i) South Korea (4.8% of GDP), (ii) USA (3.5%), (iii) Japan (3.3%), (iv) Germany (3.1%), (v) France (2.3%), (vi) China (2.4%), and (vii) Italy (1.5%). Expenditure on R&D has consistently reduced since 2009-10 (0.82%).[52]

The largest portion of India's research expenditure is borne by the central government. In 2020-21, the central government bore about 44% of India's R&D expenditure, while states and centre cumulatively bore about 50% of it.[51] Universities shared only 9% of India's research expenditure.[51] Universities in certain countries had a higher share in overall research expenditure. These include: (i) Canada (39%), (ii) Australia (36%), (iii) Italy (23%), France (20%), and (iv) Germany (19%).[51]

The Economic Survey of India (2017-18) observed that research expenditure in India is concentrated in specialised government departments.[53] In many countries, universities are critical in generating high quality research output, while in India they are primarily restricted to teaching.[53] The Survey recommended linking universities with national labs to bridge the gap between teaching and research.[53]

The NEP recommended developing a discovery-based style of learning in school education, with an emphasis on scientific and critical thinking.[5] It also recommended multi-disciplinary learning in higher education and building greater linkages with HEIs and industry to promote research.

In line with recommendations of the NEP, the National Research Foundation was instituted in 2023 to provide strategic direction to scientific research in the country.[54] It has been set up with an estimated cost of Rs 50,000 crore. Out of this, Rs 36,000 crore is expected to be raised from private sources.[55] One of its responsibilities is to seed and facilitate research in HEIs where research is at a nascent stage.

The Department of Higher Education also implements the Multidisciplinary Education and Research Improvement in Technical Education (MERITE).[36] In 2024-25, the programme has been allocated Rs 200 crore. It aims to improve standards of technical education and research skills, and make technical education more accessible to socio-economically backward students.[36]

Annexure

Table 5: Gross Enrolment Ratio in school education across states (2021-22) (in %)

State/UT	Primary (1 to 5)	Upper Primary (6 to 8)	Secondary (9 to 10)	Higher Secondary (11 to 12)
Andaman and Nicobar Islands	68	72	69	66
Andhra Pradesh	102	98	85	57
Arunachal Pradesh	129	85	67	54
Assam	120	95	75	40
Bihar	103	86	65	36
Chandigarh	85	94	90	82
Chhattisgarh	97	95	78	68
Dadra and Nagar Haveli Daman and Diu	89	91	75	55
Delhi	116	130	111	95
Goa	93	88	83	74
Gujarat	93	91	75	48
Haryana	104	102	95	76
Himachal Pradesh	108	103	94	94
Jammu and Kashmir	112	66	61	53
Jharkhand	102	89	68	46
Karnataka	108	106	95	57
Kerala	102	99	98	85
Ladakh	80	66	59	49
Lakshadweep	80	64	63	62
Madhya Pradesh	87	92	70	51
Maharashtra	107	100	94	72
Manipur	143	86	76	70
Meghalaya	188	114	85	46
Mizoram	159	110	93	61
Nagaland	102	69	62	36
Odisha	98	91	80	44
Puducherry	77	78	76	69
Punjab	111	107	95	82
Rajasthan	105	96	79	70
Sikkim	106	78	89	64
Tamil Nadu	99	98	96	82
Telangana	113	107	94	65
Tripura	126	88	81	56
Uttar Pradesh	102	91	69	51
Uttarakhand	121	102	90	79
West Bengal	115	98	88	62
India	**103**	**95**	**80**	**58**

Sources: Unified District Information System for Education Plus, 2021-22; PRS.

Table 6: Pupil Teacher Ratio in school education across states (2021-22)

State/UT	Primary (1 to 5)	Upper Primary (6 to 8)	Secondary (9 to 10)	Higher Secondary (11 to 12)
Andaman and Nicobar Islands	12	10	7	13
Andhra Pradesh	25	16	11	32
Arunachal Pradesh	12	9	11	20
Assam	21	14	11	21
Bihar	54	23	55	63
Chandigarh	28	16	12	27
Chhattisgarh	21	18	15	17
Dadra and Nagar Haveli and Daman and Diu	30	28	20	26
Delhi	34	33	28	22
Goa	26	16	9	19
Gujarat	30	25	29	28
Haryana	26	19	12	15
Himachal Pradesh	16	9	6	10
Jammu and Kashmir	15	10	13	28
Jharkhand	29	26	35	57
Karnataka	23	18	18	28
Kerala	27	21	15	22
Ladakh	8	4	6	13
Lakshadweep	16	14	7	12
Madhya Pradesh	25	18	23	30
Maharashtra	25	27	21	38
Manipur	13	11	9	16
Meghalaya	20	14	12	20
Mizoram	16	8	9	15
Nagaland	11	8	10	17
Odisha	17	15	18	36
Puducherry	18	14	10	16
Punjab	26	19	11	18
Rajasthan	26	13	11	18
Sikkim	7	8	9	11
Tamil Nadu	20	15	13	21
Telangana	21	13	10	29
Tripura	18	20	14	15
Uttar Pradesh	28	25	27	39
Uttarakhand	19	16	11	17
West Bengal	27	28	17	28
India	**26**	**19**	**18**	**27**

Sources: Unified District Information System for Education Plus; PRS.

Table 7: Gross Enrolment Ratio in higher education across States/UTs (2021-22) (in %)

State/UT	All Categories			Scheduled Castes	Scheduled Tribes
	Male	Female	Total		
Andaman and Nicobar Islands	20	26	22	-	13
Andhra Pradesh	38	35	37	35	34
Arunachal Pradesh	38	35	37	-	40
Assam	16	18	17	19	26
Bihar	18	16	17	16	35
Chandigarh	57	75	65	53	-
Chhattisgarh	18	22	20	20	13
Dadra and Nagar Haveli and Daman and Diu	9	17	11	28	8
Delhi	48	50	49	36	-
Goa	36	36	36	40	28
Gujarat	25	23	24	32	20
Haryana	30	37	33	27	-
Himachal Pradesh	37	50	43	34	45
Jammu and Kashmir	23	27	25	20	19
Jharkhand	19	19	19	15	14
Karnataka	36	36	36	28	26
Kerala	34	49	41	28	29
Ladakh	8	16	12	42	14
Lakshadweep	0	2	1	-	1
Madhya Pradesh	30	28	29	27	18
Maharashtra	37	33	35	36	17
Manipur	35	36	35	61	23
Meghalaya	23	28	25	110	23
Mizoram	31	33	32	241	33
Nagaland	17	21	19	-	19
Odisha	24	21	22	23	16
Puducherry	61	62	62	43	-
Punjab	25	30	27	19	-
Rajasthan	29	28	29	27	28
Sikkim	35	43	39	43	36
Tamil Nadu	47	47	47	39	44
Telangana	39	42	40	39	38
Tripura	22	20	21	20	16
Uttar Pradesh	24	24	24	22	39
Uttarakhand	40	44	42	32	42
West Bengal	26	27	26	23	15
India	**28**	**29**	**28**	**26**	**21**

Sources: All India Survey of Higher Education 2021-22; PRS.

Table 8: Pupil Teacher Ratio in higher education across states (2021-22)

State/UT	All Institutions	
	Regular and Distance Mode	Regular Mode
Andaman and Nicobar Islands	25	16
Andhra Pradesh	18	16
Arunachal Pradesh	28	23
Assam	28	25
Bihar	69	64
Chandigarh	30	20
Chhattisgarh	27	26
Dadra and Nagar Haveli and Daman and Diu	20	20
Delhi	49	21
Goa	17	15
Gujarat	28	27
Haryana	26	22
Himachal Pradesh	29	24
Jammu and Kashmir	35	24
Jharkhand	58	54
Karnataka	16	15
Kerala	19	15
Ladakh	16	16
Lakshadweep	9	9
Madhya Pradesh	31	30
Maharashtra	27	23
Manipur	20	19
Meghalaya	24	22
Mizoram	21	17
Nagaland	20	18
Odisha	25	23
Puducherry	13	11
Punjab	17	15
Rajasthan	29	26
Sikkim	22	17
Tamil Nadu	16	14
Telangana	16	14
Tripura	40	36
Uttar Pradesh	36	35
Uttarakhand	27	22
West Bengal	37	29
India	**26**	**23**

Sources: All India Survey of Higher Education 2021-22; PRS.

Table 9: Score of States/UTs on learning outcomes (out of 240)

State/UT	Score
Andaman and Nicobar Islands	60.8
Andhra Pradesh	47.8
Arunachal Pradesh	45
Assam	62.6
Bihar	64.4
Chandigarh	103.6
Dadra and Nagar Haveli and Daman and Diu	43.4
Delhi	63.8
Goa	61.4
Gujarat	60.2
Haryana	78.4
Himachal Pradesh	54.2
Jammu and Kashmir	76.8
Jharkhand	57.4
Karnataka	59.4
Kerala	60.2
Ladakh	55.2

State/UT	Score
Lakshadweep	43.6
Madhya Pradesh	72.8
Maharashtra	65.8
Meghalaya	31.6
Mizoram	44.8
Nagaland	46.4
Odisha	65.2
Puducherry	69.2
Punjab	113.4
Rajasthan	98.8
Sikkim	48.2
Tamil Nadu	41.2
Telangana	36.6
Tripura	53
Uttar Pradesh	49.4
Uttarakhand	56.4
West Bengal	72.8

Sources: Performance Grading Index – States 2020-21; PRS.

Table 10: Expenditure on Student Financial Aid (in Rs crore)

	Interest Subsidy	Scholarships	PM Research Fellowship	PM-USP	Total
2017-18	1,950	268	-	-	2,218
2018-19	1,575	306	16	-	1,897
2019-20	1,675	369	26	-	2,070
2020-21	1,477	294	63	-	1,834
2021-22	1,385	376	111	-	1,872
2022-23	873	429	300	-	1,603
2023-24 (RE)	-	-	330	1,054	1,354
2024-25 (BE)	-	-	350	1,558	1,908

Source: Union Budget documents of various years; PRS.

[1] Entry No. 25, Seventh Schedule, the Constitution of India, https://www.mea.gov.in/Images/pdf1/S7.pdf.

[2] Unified District Information System for School Education 2021-22, Ministry of Education, https://www.education.gov.in/sites/upload_files/mhrd/files/statistics-new/udise_21_22.pdf.

[3] All India Survey of Higher Education 2021-22, Ministry of Education, https://aishe.gov.in/aishe/viewDocument.action;jsessionid=E4C7F4ECBC1FAFD795DC097403DF746F.n9?documentId=353.

[4] Analysis of Budgeted Expenditure on Education 2018-19 and 2020-21, Ministry of Education, 2022, https://www.education.gov.in/sites/upload_files/mhrd/files/statistics-new/budget_exp.pdf.

[5] "National Education Policy 2020", Ministry of Education, as accessed on May 27, 2024, https://www.education.gov.in/sites/upload_files/mhrd/files/NEP_Final_English_0.pdf

[6] Demand No. 25 and 26, Expenditure Budget 2024-25, Ministry of Education, https://www.indiabudget.gov.in/doc/eb/allsbe.pdf.

[7] Report No. 31 of 2022, Comptroller Auditor General of India, December 21, 2022, https://cag.gov.in/uploads/download_audit_report/2022/DSC-Report-No.-31-of-2022_UGFA-English-PDF-A-063a2f3ee1c14a7.01369268.pdf.

[8] "Samagra Shiksha: An integrated scheme for school education", Ministry of Education, October 12, 2022, https://samagra.education.gov.in/docs/ss_implementation.pdf.

[9] "National Initiative for Proficiency in Reading with and Understanding Numeracy: A National Mission on Foundational Literacy and Numeracy", Ministry of Education, accessed on May 27, 2024 https://www.education.gov.in/sites/upload_files/mhrd/files/nipun_bharat_eng1.pdf.

[10] Pradhan Mantri Poshan Shakti Nirman (PM POSHAN) Guidelines, Department of School Education and Literacy, December 21, 2022, https://pmposhan.education.gov.in/Files/Guidelines/2023/Guidelines%20on%20PM%20POSHAN%20SCHEME.pdf.

[11] "PM SHRI schools: Framework on School Transformation – Part 1", Ministry of Education, accessed on May 27, 2024, https://pmshri.education.gov.in/assets/pdf/part1_pmshri.pdf.

[12] Unstarred Question No 1135, Ministry of Education, Rajya Sabha, December 13, 2023, https://sansad.in/6bdca1d3-9f1a-4d8e-b622-0daa9ab8aff6.

[13] "Human Development Report 2023-24", United Nations Development Programme, accessed on June 18, 2024, https://hdr.undp.org/system/files/documents/global-report-document/hdr2023-24reporten.pdf.

[14] "Household Social Consumption on Education in India, NSS 75th Round (2017-18)", Ministry of Statistics and Programme implementation, https://mospi.gov.in/sites/default/files/publication_reports/Report_585_75th_round_Education_final_1507_0.pdf.

[15] "Cabinet Approves Continuation of Samagra Shiksha Scheme for School Education from 1st April 2021 to 31st March, 2026, Press Information Bureau, August 4, 2021, https://pib.gov.in/PressReleasePage.aspx?PRID=1742287.

[16] Systematic Transformation of School Education: The SATH-E Experience, NITI Aayog, February 20, 2023, https://www.niti.gov.in/sites/default/files/2023-02/BCG_SATHE_DIGITAL_13112021_0.pdf.

[17] Unstarred Question 1460, Ministry of Education, Rajya Sabha, August 2, 2023, https://sansad.in/getFile/annex/260/AU1460.pdf?source=pqars.

[18] Unstarred Question No. 17, Ministry of Education, Rajya Sabha, December 7, 2022, https://sansad.in/getFile/annex/258/AU17.pdf?source=pqars.

[19] NCTE (Determination of minimum qualifications for recruitment of teachers in schools) Regulations, 2001, https://ncte.gov.in/Website/NCTEACT12.aspx#:~:text=Four%20years'%20integrated%20B.Sc,Ed.%20or%20an%20equivalent%20course.&text=Master's%20Degree%20in%20the%20relevant,Ed.)%20or%20its%20equivalent.

[20] Unstarred No. 471, Ministry of Education, Lok Sabha, July 24, 2024, https://sansad.in/getFile/loksabhaquestions/annex/1712/AU471.pdf?source=pqals.

[21] Unstarred Question No. 523, Ministry of Education, Rajya Sabha, February 7, 2024, https://sansad.in/cc108102-7f42-44e0-9dcf-ff4520e4154b.

[22] NISHTA Report, National Council for Education Research and Training, accessed on June 18, 2024, https://itpd.ncert.gov.in/mss/nishthadashboard/dashboardprint.php.

[23] "Learning Achievement of Students, Class X (Cycle 2), NAS 2018", Ministry of Human Resources Development, https://nas.gov.in/assets/front/National-Report-Card-2017.zip.

[24] "National Achievement Survey National Report Card NAS 2021, Class III, V, VIII, &X", Ministry of Education, https://nas.gov.in/download-national-report.

[25] "Performance Grading Index (PGI) 2.0 – 2021-22: States and Union Territories", Ministry of Education, accessed on May 28, 2024, https://www.education.gov.in/sites/upload_files/mhrd/files/statistics-new/pgi-s.pdf.

[26] Report No. 349, Standing Committee on Education, Women, Children, Youth and Sports, March 23, 2023, https://sansad.in/getFile/rsnew/Committee_site/Committee_File/ReportFile/16/167/349_2023_3_16.pdf?source=rajyasabha.

[27] "Performance Grading Index for Districts of India – Combined report for 2020-21 and 2021-22", Ministry of Education, https://www.education.gov.in/sites/upload_files/mhrd/files/statistics-new/pgi-d.pdf.

[28] "Pradhan Mantri Ucchatar Shiksha Protsahan (Pm-USP) Yojana ", Ministry of Education, https://www.education.gov.in/sites/upload_files/mhrd/files/upload_document/pmusp_stu.pdf.

[29] "Prime Minister's Special Scholarship Scheme", Ministry of Education, https://www.indiascienceandtechnology.gov.in/nurturing-minds/scholarships/graduation/prime-ministers-special-scholarship-scheme-pmsss-jk#:~:text=Eligibility%3A%20Students%20having%20domicile%20of,5000%20fellowships%20are%20given%20yearwise.

[30] Report no. 337, Standing Committee on Education, Women, Children and Youth and Sports, Ministry of Education, Rajya Sabha, March 16, 2022, https://sansad.in/getFile/rsnew/Committee_site/Committee_File/ReportFile/16/162/337_2022_3_15.pdf?source=rajyasabha.

[31] "Criteria and Weightages", National Assessment and Accreditation Council, as accessed on May 31, 2024, NAAC - Assessment & Accreditation.

[32] "Statistics", National Assessment and Accreditation Council, accessed on June 3, 2024, http://naac.gov.in/index.php/en/menu/graphs.

[33] "What we Finance", Higher Education Financing Agency (HEFA), accessed on May 31, 2024, https://hefa.co.in/apply-for-loan/#Whom-we-finance.

[34] "About us", Higher Education Financing Agency (HEFA), accessed on May 31, 2024, https://hefa.co.in/about-us/#Our-Objectives.

[35] Report No. 1 (Compliance Audit Report for the year Ended March 2021), Comptroller Auditor General, https://cag.gov.in/uploads/download_audit_report/2022/CHAPTER%20II-0623db7f11f7050.77577112.pdf.

[36] Report No. 348, Standing Committee on Education, Women, Children, Youth and Sports, March 28, 2023, https://sansad.in/getFile/rsnew/Committee_site/Committee_File/ReportFile/16/167/348_2023_3_16.pdf?source=rajyasabha.

[37] Graduate Medical Education Regulations, 1997, https://www.nmc.org.in/wp-content/uploads/2017/10/GME_REGULATIONS-1.pdf.

[38] Post Graduate Medical Education Regulations, 2000, https://www.nmc.org.in/wp-content/uploads/2019/12/Postgraduate-Medical-Education-Regulations-2000.pdf.

[39] BDS Course Regulations, 2007, https://dciindia.gov.in/Rule_Regulation/Revised_BDS_Course_Regulation_2007.pdf.

[40] Unstarred Question No.1467, Rajya Sabha, Ministry of Education, August 2, 2023, https://sansad.in/23fe7e29-f5c1-430e-97d8-55bfb004db3d.

[41] "National Eligibility 'Test (NIIT) as an Entrance Test for Admission to Ph.D.", University Grants Commission, March 28, 2024, https://www.ugc.gov.in/pdfnews/6669193_Letter-NET-for-Admission-to-PhD.pdf.

[42] "About NTA", National Testing Agency, accessed on July 28, 2024, https://www.nta.ac.in/about.

[43] "Report of the High Level Committee to study the impact of NEET on Medical Admissions in Tamil Nadu", Ministry of Health and Family Welfare, Government of Tamil Nadu 2021, accessed on July 29, 2024, https://tnhealth.tn.gov.in/online_notification/notification/N21092966.pdf.

[44] Transferred Case (civil) 98. of 2012, Christian Medical College Vellore and ors vs. Union of India and ors, Supreme Court, July 18, 2013, https://www.sci.gov.in/free-text-judgements/.

[45] "Employment by Education Level", Organisation of Economic Cooperation and Development, as accessed on May 31, 2024, https://www.oecd-ilibrary.org/docserver/e13bef63-en.pdf?expires=1722345311&id=id&accname=guest&checksum=BD42D41FBD35325DB25E88DFC2358832.

[46] "India Employment Report 2024: Youth employment, education and skills", International Labour Organisation, https://www.ilo.org/sites/default/files/wcmsp5/groups/public/@asia/@ro-bangkok/@sro-new_delhi/documents/publication/wcms_921154.pdf.

[47] "Indian Economy: A Review", Department of Economic Affairs, January 29, 2024, https://dea.gov.in/sites/default/files/The%20Indian%20Economy%20-%20A%20Review_Jan%202024.pdf.

[48] " Guidelines on Sustainable and Vibrant University-Industry Linkage System", University Grants Commission, January 10, 2024, https://www.ugc.gov.in/pdfnews/4915310_Sustainable-and-Vibrant-University-Industry-Linkage-System.pdf.

[49] "Guidelines for Internship/Research Internship for Under Graduate Students", University Grants Commission, February 2, 2024, https://www.ugc.gov.in/pdfnews/2051511_Internship-Research-Internship-Guidelines.pdf.

[50] Budget Speech 2024-25, Ministry of Finance, July 23, 2024, https://www.indiabudget.gov.in/doc/Budget_Speech.pdf.

[51] Research and Development Statistic at a glance 2022-23, Ministry of Science and Technology, https://dst.gov.in/sites/default/files/R%26D%20Statistics%20at%20a%20Glance%2C%202022-23.pdf.

[52] "Main Science and Technology Indicators Database", Organisation of Economic Co-operation and Development, accessed on July 31, 2024, https://data-explorer.oecd.org/vis?df[ds]=dsDisseminateFinalDMZ&df[id]=DSD_MSTI%40DF_MSTI&df[ag]=OECD.STI.STP&vw=tb&dq=.A.G%2BT_RS...&lom=LASTNPERIODS&lo=5&to[TIME_PERIOD]=false.

[53] Chapter 8: Transforming Science and Technology in India, Economic Survey of India 2017-18, Ministry of Finance, https://www.indiabudget.gov.in/budget2018-2019/economicsurvey2017-2018/pdf/119-130_Chapter_08_ENGLISH_Vol_01_2017-18.pdf.

[54] The Anusandhan National Research Foundation Act, 2023, https://prsindia.org/files/bills_acts/bills_parliament/2023/Anusandhan%20National%20Research%20Foundation%20Act,%202023.pdf.

[55] Parliament passes the Anusandhan National Research Foundation (NRF) Bill, 2023 with the Rajya Sabha adopting the Bill by a voice vote, Department of Science and Technology, Ministry of Science and Technology, as last accessed on July 26, 2024, https://dst.gov.in/parliament-passes-anusandhan-national-research-foundation-nrf-bill-2023-rajya-sabha-adopting-bill.