Public Provisioning for Secondary Education in India: A Situation Assessment

Praveen Jha and Satadru Sikdar

1 Introduction

It is often well-acknowledged that public policies and provisioning for secondary education in India have been inadequate. As the Millennium Development Goals (MDGs) aimed to achieve Universalisation of Elementary Education (UEE), and India also focussed on it, there was indeed an improvement in the enrolment at elementary level. As is well known, the so-called Sustainable Development Goals (SDGs), adopted in 2015, targets '*that all girls and boys complete free, equitable and quality primary and secondary education*' by 2030. In 2011 census, India had almost 10 crores (9.96 crores) population between 15 and 18 years' age group. According to National Sample Survey (NSS) 71st round (2014), almost 26% of children in this age group were not enrolled in secondary education and 21.52% of enrolled children dropped out for various reasons. These numbers are powerful reminders of deficits, at present, and underline the urgency for improvising public policies and provisioning towards secondary education. However, given that secondary education is largely a State subject, there are significant differences in policies and performance across States. As such, it is imperative that both the Union and State governments focus on this jointly to facilitate universalisation of secondary education of good quality. This paper seeks to investigate and analyse some of the major issues relating to financing for secondary education in contemporary India, along with a brief overview of the relevant policy challenges.

After the introductory section, we briefly discus our adopted methodology and the relevant data sources, in Sect. 2. Section 3 presents an overview of the sources of

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financing and the expenditure patterns and trends by States and the Union government for secondary education, including under the Rashtriya Madhyamik Shiksha Abhiyan (RMSA), and a brief snapshot of 'out-of-pocket expenditure'. Section 4 provides a glimpse of recent initiatives to increase support for public provisioning and to contextualise the contemporary situation. Section 5 summarises and concludes the paper.

2 Methodology and Data Considerations

This paper is largely based on the available relevant literature and databases related to secondary education in India. Government expenditure data are largely drawn from the States' Finance Accounts databases, published by Comptroller and Auditor General of India (CAG) and Centre's Finance Account databases, published by Controller General of Accounts (CGA). We have also drawn on other sources such as Budget documents, Educational Statistics at a Glance (ESG), Economic Survey of India etc. However, as it happens, information on expenditure culled from different sources often show significant variations, mainly on account of their differences in coverage of departments and heads.

Information on public expenditures on education is available in many different documents published by GoI. However, there are important differences in their methodologies. For instance, MHRD's 'Analysis of Budgeted Expenditure on Education' sometimes double count grants by Union government to State government, while reporting total expenditure on education. Besides, Indian Public Finance Statistics, published by Ministry of Finance, sometimes does not add expenditure on education by departments other than education. These issues have been analysed in some detail by Jha et al. (2008); as suggested there, it may be better to use Finance Accounts data by CAG to analyse expenditure patterns on education by States and Union Governments.

As we know, information available from Finance Accounts is based on functional classification by the selected expenditure heads. For expenditure analysis, we have considered both secondary and higher secondary as secondary education expenditure, as the budget heads provide the combined information for expenditure from Classes 9 to 12. We have collected expenditure on secondary education as revenue expenditure (budget head 2202–02) and capital expenditure (budget head 4402–102) from 1991–92 to 2015–16 from State Finance Accounts. However, as mentioned earlier, this does not give us the complete story as some of the relevant expenditure happens through other major heads; for instance, a substantial portion of administrative expenditure is incurred under the head 2251 (Secretariat of Social Services), and partly the construction of school buildings is covered under the major head 2059 (Public Works). We may also note that some scholarships and incentive programmes for children from SC/ST and minorities groups are captured under the major head 2225 (Welfare of SCs/STs/OBCs). However, on the whole, the share of expenditure

outside the revenue and capital budget heads tend to be relatively small and, hence, in our analysis we have focussed on these heads (i.e. 2202–02 and 4202–202).

Further, given that the finance accounts and budgets provide information in terms of current (nominal) prices, for inter-temporal comparison, these need to be adjusted through appropriate deflator to arrive at the relevant expenditure at constant (real) prices (Tilak 2008). The information for Net State Domestic Product (NSDP) for different years has been collected from Central Statistical Organisation (CSO), GoI and 2011–12 prices have been used as the base year to construct the deflator, which has been applied for inter-temporal comparison of revenue and capital expenditure on secondary education. For some States, there were gaps in data availability in NSDP figures for particular years; in all such cases, proximate values were arrived at by using the information available for growth rates for the adjacent years.[1] Obviously, there are some limitations in any such statistical exercise and, one may argue that the sectoral deflators are likely to be different from overall NSDP deflators. However, it may be suggested that such differences may not influence the overall expenditure trends in any significant manner, for the period under consideration.

As mentioned at the outset, apart from the trends in public provisioning, this paper also examines the recent situation regarding out-of-pocket expenditure, based on the National Sample Survey (NSS) data (Social Consumption: Education) 71st round, which was conducted between January and June, 2014. This data set provides information on enrolment, current level of education, distance of schools, along with out-of-pocket expenditure on different heads, such as course fee, purchase of books, stationery, uniform, transport, private coaching and others. It may be noted that there are some challenges in using this source without due qualification. For instance, some of the observations for current attendance at secondary or higher secondary level report age as less than 14 years or above 19 years; to be precise, 9.82 and 3.07% of total children reported to be currently attending secondary level are below 14 or above 19 years respectively. Although the standard age group for enrolment at secondary level should be 15–18 years', in view of the above-noted figures, we have decided to consider 14–19 age band, thus accommodating one-year grace on both sides, as appropriate for secondary education to arrive at our out-of-pocket expenditure estimates. In case of students currently enrolled for diploma and certificate course also, for out-of-pocket expenditure, we have used the age-band 14 years or more in our calculation.

At the most basic level, it is absolutely critical to have adequate and reliable data to assess the progress, identify gaps, etc., to provide support to education institutions, devise appropriate policies and so on. The recent technological improvements in data availability have improved access to many variables related to the overall education system in the country, but significant limitations and problems continue to plague our large-scale data systems. For instance, information on enrolment is

[1] For instance, NSDP at constant prices (2011–12 base) for Tripura in 2015–16 has been calculated by applying the 2014–15 growth rate. Similarly, for Uttar Pradesh for 1999–2000, and Sikkim for 1992–93 and 1993–94. Also, in West Bengal, NSDP at 2011–12 prices are not available. Thus, we have applied the average ratio of NSDP 2011–12 at 2004–05 and 2011–12 base among all other States and two UTs to get the deflator at 2011–12 prices.

available from different data sources, but we do not know enough regarding child attendance, students' ability and performances, teacher's teaching skills, education quality, concept realisation by students, knowledge and ability of teachers, language skills, etc. As is well known, information on even most basic indicators, like the GER, NER, school infrastructure etc., from different sources, such as the ESG of the MHRD (GoI), NSSO, District Information System for Education (DISE), ASER etc., show significant variations. We may also note that for the same variable, information emerging from school-based surveys and household-based surveys tend to vary quite a lot. Some of these discrepancies are understandable and one has to be careful as regards the use of relevant statistics. It should be evident from the above-noted brief remarks, that we are not in a comfort zone with regard to our data on education and quite a lot needs to be done.

3 Financing for Secondary Education: Issues and Challenges

As is well-known, post-elementary school education in most States of India is often separated between two segments, viz. secondary and higher secondary, the former consisting of IX and X and the latter of XI and XII respectively. As mentioned earlier, given India's federal system, education is largely a responsibility of State governments and, hence, there are significant inter-State differences at all levels (elementary, secondary, tertiary, etc.) with respect to structure and administration of education.

We may note that the importance of adequate financing for education, including at the secondary level, has been emphasised frequently in policy documents for a very long time. In fact, one may go back to the famous 'Wood's Despatch' of 1854, when the then Secretary of State, Sir Charles Wood recommended some changes in the structure of secondary education, along with additional financial support. Subsequently, important recommendations were made through a number of commissions, both before and after Independence, which often stressed the importance of public provisioning. In relatively recent times, it may be recalled that the National Policy on Education (NPE), 1986, strongly recommended access of secondary education to all children across various socio-economic sections of the country. Some important recommendations of the NPE 1986 were improvement of computer literacy and other required skills through vocational education, setting up residential schools like Navodaya Vidyalayas to encourage talented children from different parts of the country attain quality education and fulfil the reach of secondary education with the objective of equity and social justice, etc.

In 2005, with the aim of 'Universalisation of Secondary Education', a committee was set up under the chairmanship of Ghanshyam Tiwari by the Central Advisory Board of Education (CABE). Its major recommendations included a significant enhancement in expenditure towards elementary and secondary education, along

with adoption of 'norm of schooling', with common national parameters for each State, and decentralised planning. That apart, in the mid-term review of 10th Five Year Plan as well as in 11th Five year Plan, the need for substantial investment on secondary and higher secondary education was again highlighted.[2]

Unfortunately, however, the public provisioning of secondary education, by any meaningful yardstick, has continued to suffer serious neglect. As is well known, important sources of financing for education at different levels of education in India happen through both 'external' and 'internal' sources (Varghese and Tilak 1991). The 'domestic' or the 'internal' includes public (mostly government) and private sources, includes 'out-of-pocket' or households' funding. During the last 25 years, there have been some significant changes in the overall financial architecture on education.[3] Some of the relevant issues relating to secondary sector in India have been discussed in the following. It may be noted that in this paper, we have considered both 'secondary' and 'higher secondary' together as constituting secondary education, in line with the accounting practice of the Finance Accounts, CAG, GoI.

3.1 Patterns and Trends Relating to Government Financing

Before we come to the details regarding the trends and structure of allocations on secondary education, it may be useful to recall the current comparative picture of public expenditure at different levels, which is captured in Table 1. As is evident from the Table, the share of public provisioning on secondary education has been roughly constant in recent years, covering below one per cent and approximately half of the expenditure on elementary education. Although the enrolments in elementary education are substantially higher than at the secondary education level, it is important to keep in mind that the technical and physical infrastructure requirements are relatively more cost-intensive.

Table 2 provides State-wise comparison of expenditure on secondary education during 2011–12 to 2015–16. As may be seen, north-eastern and hilly States are spending relatively more, as a proportion of their GSDP, compared to other States (which may be partly on account of relatively larger contribution from the Union government for the States). For instance, Tripura and Nagaland have a higher share of expenditure on secondary education, in spite of their lower levels of GSDP. On the whole, the picture across States is quite uneven, and a major concern, along

[2]"The norm will be to provide a secondary school within 5 km and a higher secondary school within 7–8 km of every habitation.", Eleventh Five Year Plan (2007–12), vol. 2, page. 17. However, report of the 'Working Group on Secondary and Vocational Education for 11th Five Year Plan', also pointed to a requirement of 2.39 lakh new classrooms and 3.58 lakh new teachers, with the projected enrolment in Class IX–X till 2012.

[3]For instance, as a relatively recent addition, the corporate business houses, which have net worth of Rs. 500 crore, or have turnover more than Rs. 1000 crores or net profit of Rs. 5 crore or more in a financial year, are required to create a Corporate Social Responsibility (CSR) Committee and spend on different social development sectors like education etc.

Table 1 Share of expenditure as % of GDP (Union and State Government combined) at different levels

		Elementary education	Secondary education	University and higher education	Adult education	Technical education	Total (education)
2011–12	State/UTs	1.30	0.86	0.40	0.00	0.27	2.84
	Centre	0.41	0.12	0.22	0.01	0.23	0.99
	Total	1.71	0.98	0.62	0.01	0.51	3.82
2012–13	State/UTs	1.22	0.81	0.44	0.00	0.33	2.8
	Centre	0.39	0.10	0.19	0.010	0.22	0.90
	Total	1.61	0.91	0.62	0.01	0.51	3.70
2013–14 (RE)	State/UTs	1.25	0.86	0.49	0.01	0.36	2.97
	Centre	0.38	0.10	0.20	0.00	0.22	0.90
	Total	1.63	0.96	0.69	0.01	0.58	3.87
2014–15 (BE)	State/UTs	1.42	0.87	0.44	0.01	0.32	3.06
	Centre	0.40	0.11	0.22	0.00	0.25	0.98
	Total	1.82	0.98	0.66	0.01	0.57	4.04

Source Education Statistics Glance, 2016, Table 17(D) and 2018, Table 24(A), 24(B) and 24(C), MHRD, GoI

with low levels of spending, in general, is the fact of a decline in the recent years in several States, including those whose levels of spending was on the lower side (e.g. in Karnataka, Bihar, Haryana, Gujarat and Punjab) and near stagnation in many other States.

Table 3 provides the average annual growth rate of total expenditure by States on secondary education since the early 1990s (during1991–92 to 2015–16), for the period as a whole, and for five-year sub-periods within this. As should be evident from Table 3, some of the backward States like Chhattisgarh, Uttarakhand, Jharkhand reported much higher increment rate on secondary education expenditure. Among the major States, Andhra Pradesh, Rajasthan, Maharashtra, Madhya Pradesh and Himachal Pradesh have reported considerable increment during the last 25 years. However, major States like Uttar Pradesh, West Bengal, Punjab, Gujarat and Bihar have reported substantial low increment during 1991–92 to 2015–16. However, the long 25 years' period has also witnessed some fluctuations in terms of expenditure growth.

Columns 2–6 in Table 3 are representing the five years' average growth of State-wise expenditure on secondary education at constant prices. As may be seen, between 1991–92 and 1995–96 and between 2001–02 and 2005–06, the AAGR of expenditure on secondary education was very low and even negative for many States, and between 2006–07 and 2010–11 showed a better performance in this regard. For the latest quinquennium in our Table, i.e. from 2010–11 to 2015–16, again the story tends to worsen compared to the preceding quinquennium. For most States in the country, the picture appears to be worrisome on the whole.

Table 2 Recent State-wise public expenditure on secondary education (revenue+capital) as compared to GSDP (at 2011–12 current prices)

	2011–12	2012–13	2013–14	2014–15	2015–16
Andhra Pradesh (Including Telangana)	0.73	0.79	0.78	0.61	0.89
Arunachal Pradesh	1.22	1.18	1.22	0.97	1.31
Assam	1.25	1.41	1.58	1.53	1.34
Bihar	0.90	0.69	0.88	0.73	0.82
Chhattisgarh	0.79	0.74	1.11	1.40	1.44
Goa	1.01	1.34	1.60	1.26	1.20
Gujarat	0.53	0.49	0.47	0.44	0.44
Haryana	0.63	0.40	0.40	0.49	0.54
Himachal Pradesh	1.33	1.36	1.30	1.35	1.32
Jammu and Kashmir	1.59	1.52	1.56	1.49	1.73
Jharkhand	0.32	0.28	0.32	0.30	0.45
Karnataka	0.61	0.62	0.56	0.61	0.53
Kerala	0.98	1.00	0.94	0.96	0.98
Madhya Pradesh	0.73	0.71	0.76	0.85	0.85
Maharashtra	0.90	0.87	0.87	0.84	0.80
Manipur	1.66	1.67	1.40	1.68	1.42
Meghalaya	1.04	0.96	1.03	0.98	1.00
Mizoram	2.18	2.23	2.12	1.81	1.72
Nagaland	2.04	2.16	2.10	2.00	2.42
Odisha	0.72	0.71	0.70	0.82	0.83
Punjab	1.31	1.32	1.30	1.28	1.22
Rajasthan	0.86	0.83	0.96	1.02	1.28
Sikkim	2.13	2.01	2.01	1.98	1.88
Tamil Nadu	0.84	0.81	0.86	0.88	0.91
Tripura	2.60	2.34	2.43	2.37	2.36
Uttarakhand	1.40	1.37	1.27	1.31	1.23
Uttar Pradesh	0.93	0.92	0.95	0.63	0.61
West Bengal[a]	NA	NA	NA	NA	NA

Source Calculated by authors from finance accounts and MOSPI data
Note [a]In case of West Bengal, the expenditure data is available, but GSDP at 2011–12 series are not available

However, the comparison for public provisioning across the State may be captured in a better fashion by 'per child' and 'per student' expenditure. By 'per child' expenditure, we mean here the overall expenditure for secondary education divided by total population between 15 and 18 years' age groups, whereas in estimating 'per student' expenditure, we have considered only children enrolled in government schools. Further, for government schools, we have considered schools managed by State

Table 3 Annual average growth rate (AAGR) of expenditure on secondary education (constant 2011–12 prices)

	AAGR 1991–92 to 2015–16	AAGR 1991–92 to 1995–96	AAGR 1996–97 to 2000–01	AAGR 2001–02 to 2005–06	AAGR 2006–07 to 2010–11	AAGR 2010–11 to 2015–16
(0)	(1)	(2)	(3)	(4)	(5)	(6)
Andhra Pradesh (including Telangana)	8.64	1.76	9.17	3.30	14.51	14.44
Arunachal Pradesh	8.32	4.28	11.62	2.55	11.39	11.75
Assam	6.82	5.91	7.48	0.87	14.03	5.80
Bihar	5.85	−0.81	7.56	−0.84	9.95	13.42
Chhattisgarh	19.53	–	–	11.90	21.00	24.18
Goa	4.66	−2.42	5.15	1.78	15.88	2.93
Gujarat	5.78	6.08	7.54	−0.98	12.71	3.55
Haryana	6.90	3.11	10.98	4.85	11.39	4.18
Himachal Pradesh	7.44	5.31	10.67	6.85	7.37	7.01
Jammu and Kashmir	7.21	4.74	7.97	1.88	13.92	7.54
Jharkhand	9.01	–	–	−0.66	12.59	13.17
Karnataka	6.83	7.22	8.65	1.24	11.09	5.95
Kerala	6.81	2.21	8.71	4.58	9.27	9.25
Madhya Pradesh	7.63	3.06	2.21	−3.92	25.03	11.78
Maharashtra	8.21	5.21	16.97	1.84	13.01	4.02
Manipur	5.15	4.33	6.95	−0.23	11.41	3.28
Meghalaya	5.55	0.53	6.22	2.08	17.79	1.15
Mizoram	8.05	–	10.70	4.77	14.76	4.10
Nagaland	13.44	14.75	−0.66	14.18	29.73	9.22
Odisha	6.82	2.54	9.36	4.18	10.48	7.53
Punjab	5.76	0.75	12.14	2.99	5.37	7.51
Rajasthan	8.23	5.62	8.08	4.21	9.11	14.13
Sikkim	7.70	−6.04	14.23	15.33	14.33	0.64
Tamil Nadu	6.69	1.01	9.20	1.27	13.23	8.75
Tripura	6.69	0.22	6.69	3.46	16.74	6.33
Uttarakhand	9.49	–	–	10.16	13.21	5.22
Uttar Pradesh	4.29	3.32	6.51	3.26	9.78	−1.42
West Bengal	5.47	1.25	12.49	−0.23	13.52	0.34

Source Calculated by authors

government, local bodies and government-aided schools. The population figures between 15 and 18 years by States are available in Census for 1991, 2001 and 2011. Using the figures for these years, we have applied the exponential growth rate to project population for other years.

As one may expect, figures for per child expenditure are quite low, but we need to factor in the fact that more than half of the population in the relevant age group is either not enrolled or may be enrolled in private schools. However, it is our considered view that education at every level must be responsibility of the government. It is also because of poor public provisioning that sections of children either stay away from the school or opt for the private sector. Hence, it is important to check the trends of per child secondary education expenditure during the last 25 years by each State.

Table 4 reports the trends relating to per child expenditure on secondary education, by different States, at the 2011–12 constant prices for selected years. As may be seen, Goa, Kerala and Himachal Pradesh are consistently performing better than all the other States. On the other hand, Bihar, Jharkhand, Uttar Pradesh and Madhya Pradesh are among the poorest performing States in this respect. It may also be noted that many of the poor-performing States are relatively populous with relatively lower enrolment at the secondary level. If we compare Bihar with Goa, per child expenditure on secondary education in the latter case is 35 times more than the former in 2015–16. It is also worth noting that the gap, in this respect, between economically better and backwards States has been, by and large, growing, although the overall picture is complex.

The figures for per student expenditure may be compiled from two different sources: (i) different rounds NSS surveys on participation of education, i.e. 52nd (1995–96), 64th (2007–08) and 71st (2014) rounds, which also provide the types of schools reported by the household members, and (ii) 'Secondary Education in India: Flash Statistics', based on U-DISE data. U-DISE data provide information for secondary level from 2010–11 onwards. However, we have used the latter source for our compilation as it provides more recent and continuous data; number of children enrolled in State governments' schools under different departments, as well as run by local bodies, and government-aided schools are taken into account while arriving at the above-noted estimate. However, in this exercise, we have not included Kendriya Vidyalaya, Navodaya Vidyalayas, etc. (i.e. schools under the management of Union Government) as we are interested in inter-State comparison.

Figure 1 represents a comparative picture of per student and per child State governments' total (revenue and capital) expenditure on secondary education at 2011–12 constant prices. Huge differences between these two clearly indicate the poor enrolment of children in government schools at the secondary education level. However, per student expenditure on secondary education of States, with regard to per student indicator, also happens to be very uneven; for instance, for 2015–16, Goa spends 12 times more than what Bihar does.

Average growth rates of per child and per student expenditures on secondary education by States are presented in Table 5. As mentioned earlier, we are able to calculate per child expenditure for a longer period, whereas per student expenditures are calculated for the most recent years for which the information is available

Table 4 Per child secondary revenue and capital expenditure by States (in rupees) (constant at 2011–12 prices)

	1991–92	1995–96	2000–2001	2005–2006	2010–2011	2015–16
Andhra Pradesh (including Telangana)	909.25	922.17	1353.25	1643.76	3369.13	6261.61
Arunachal Pradesh	2058.86	2239.16	2972.24	2962.13	3884.60	5919.04
Assam	1195.68	1237.42	1616.05	1620.76	2979.08	3843.03
Bihar	441.10	478.33	591.09	489.65	570.83	821.40
Chhattisgarh			193.57	818.65	1946.23	5060.65
Goa	8679.26	8864.11	11,429.73	12,568.37	24,667.22	28,766.79
Gujarat	1232.93	1485.72	1930.66	1764.61	3043.49	3500.33
Haryana	1422.80	1481.91	2002.96	2454.99	4225.32	4649.15
Himachal Pradesh	2245.52	2593.06	4115.05	5806.09	8398.82	12,205.14
Jammu and Kashmir	1675.72	1660.96	2376.22	2531.81	4623.74	6329.45
Jharkhand			150.13	394.54	599.33	1016.86
Karnataka	993.32	1255.32	1792.36	1937.52	3367.95	4641.23
Kerala	1589.58	2013.68	3051.69	3780.31	5939.55	9243.39
Madhya Pradesh	545.63	616.51	601.87	464.77	1314.36	2212.67
Maharashtra	1555.55	1766.49	2951.06	3214.86	5899.86	7332.73
Manipur	2570.79	2481.38	2864.72	2589.13	4222.22	4575.13
Meghalaya	1584.92	1382.58	1514.11	1509.21	3014.56	2910.94
Mizoram			3812.91	4415.88	8249.16	9515.77
Nagaland	1556.96	2272.09	1358.07	2172.66	5133.35	8389.62
Odisha	751.18	866.70	1235.94	1430.06	2177.00	3117.01
Punjab	2556.07	2478.96	3944.67	4676.69	6361.25	9517.19
Rajasthan	1080.31	1272.92	1597.14	1826.28	2616.94	4698.91
Sikkim	4632.97	3945.10	6041.27	12,205.96	24,238.50	25,682.07
Tamil Nadu	1575.04	1762.45	2746.65	2905.59	5359.76	8065.19
Tripura	1925.82	2057.94	2669.76	3274.23	7278.16	10,402.50
Uttarakhand				4175.99	7442.13	9462.53
Uttar Pradesh	796.88	766.89	893.56	951.62	1390.21	1156.29
West Bengal	1356.58	1459.62	2260.51	2279.48	4211.29	4459.97

Source Calculated by authors

from U-DISE (2012–13 to 2015–16). As is evident from our calculation, among the major States, Andhra Pradesh, Kerala, Maharashtra, Himachal Pradesh and Madhya Pradesh seem to be doing better, with AAGR above seven per cent, between 1992–93 and 2015–16. Over the same period, Uttar Pradesh, Gujarat, Bihar and Assam tend to do much worse, with lowest AAGR, compared to other States. Column 6 in Table 5 provides information for the AAGR pertaining to per student expenditure

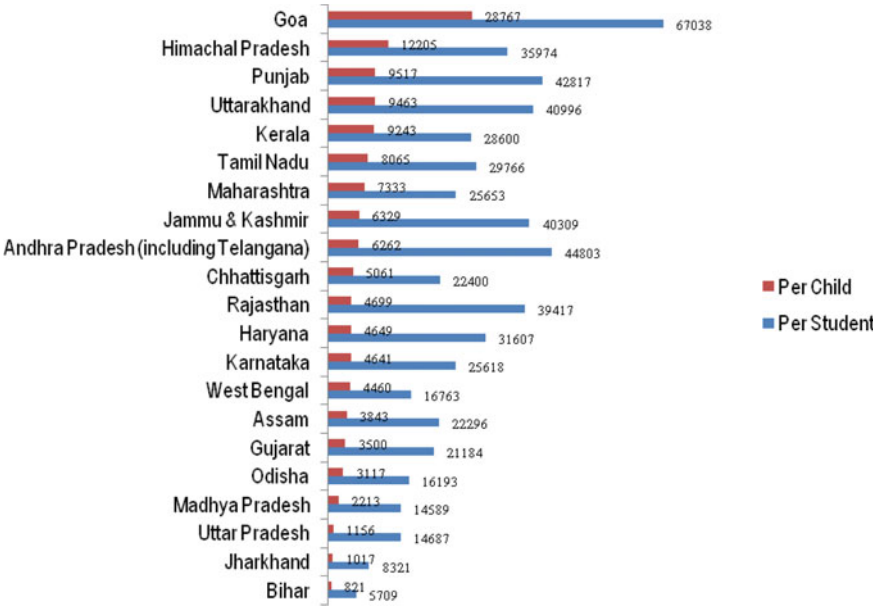

Fig. 1 Per student and per child State Government expenditures in 2015–16 (at 2011–12 prices) (in Rs.) (Figures for enrolled children in government schools in most of the North Eastern States (except Assam), appeared to be huge outliers, and, hence, we have not included estimates for these in the above figure). *Source* Calculated by authors

between 2012–13 and 2015–16; and the variation across States is dramatically huge. It may be reiterated that the quantum of government expenditure as well as number of enrolments in State government-funded schools determine the above-noted figure and the factors impacting on both these variables need to be analysed carefully.

As we have already seen in Table 1, the share of Union government expenditure on secondary education tends to be much lower than the share of the State governments. However, it may be useful to have a brief discussion here of the various programmes on secondary education, on which Union government is spending. The following are among the important programmes on secondary education by the Union government: 'National Means-cum-Merit Scholarship Scheme', 'National Scheme for Incentive to Girl Child for Secondary Education', 'Kendriya Vidyalaya Sangathan (KVS)', 'Navodaya Vidyalaya Samiti (NVS)', 'National Council of Educational Research and Training (NCERT)', 'Central Tibetan School Administration (CTSA)' and RMSA'. However, KVS, NVS, NCERT and CTSA cover both elementary and secondary education, and as these four are autonomous bodies, they have been spending according to their own vision and planning. Among all other schemes, RMSA is a flagship programme, launched in March 2009, with an aim of improving the access to good quality secondary education. Later in 2013–14, some of the ongoing centrally

Table 5 Annual average growth rate (AAGR) of per child and per student expenditur eon secondary education (constant 2011–12 prices)

In %	Per child expenditure					Per student expenditure
	AAGR 1992–93 to 2015–16	AAGR 1996–97 to 2000–01	AAGR 2001–02 to 2005–06	AAGR 2006–07 to 2010–11	AAGR 2011–12 to 2015–16	AAGR between 2012–13 to 2015–16
(0)	(1)	(2)	(3)	(4)	(5)	(6)
Andhra Pradesh (including Telangana)	9.29	8.14	4.19	15.98	15.92	36.1
Arunachal Pradesh	6.17	7.43	0.55	9.72	10.08	23.8
Assam	5.48	5.63	0.40	13.87	5.64	6.3
Bihar	5.11	6.69	−2.67	7.71	11.11	−3.7
Chhattisgarh	–	–	46.10	20.01	23.17	36.2
Goa	5.97	5.83	2.32	16.46	3.45	−20.8
Gujarat	4.87	6.22	−1.71	12.01	2.90	−3.8
Haryana	6.22	8.23	4.51	11.67	4.44	46.5
Himachal Pradesh	7.56	9.80	7.36	8.19	7.82	33.7
Jammu and Kashmir	6.15	7.51	1.43	13.43	7.08	18.5
Jharkhand	–	–	37.18	11.39	11.97	7.7
Karnataka	6.90	7.54	1.70	12.03	6.85	−8.1
Kerala	8.07	9.51	4.93	9.54	9.52	−8.9
Madhya Pradesh	7.42	2.27	−4.44	24.20	11.04	2.7
Maharashtra	7.82	15.10	1.88	13.49	4.45	0.8
Manipur	3.48	5.17	−1.09	10.62	2.55	15.7
Meghalaya	3.33	2.12	−0.01	15.93	−0.44	−20.0
Mizoram	–	–	3.50	13.68	3.12	21.3
Nagaland	13.32	−6.54	13.82	31.38	10.61	47.7
Odisha	6.93	7.96	4.07	10.61	7.65	−0.7
Punjab	5.90	10.23	3.49	6.46	8.62	14.2
Rajasthan	6.87	4.96	2.95	8.27	13.24	52.4
Sikkim	8.53	11.28	15.62	15.35	1.54	−25.6
Tamil Nadu	7.28	9.72	1.25	13.07	8.60	27.0
Tripura	7.82	5.49	4.29	18.23	7.69	19.8
Uttarakhand	–	–	–	12.97	4.99	17.3
Uttar Pradesh	2.86	3.41	1.99	8.79	−2.31	−8.4
West Bengal	5.96	11.11	0.19	14.48	1.19	−4.5

Source Calculated by authors

Table 6 RMSA expenditure by Union Government

	Rs. in billion	% Share of RMSA expenditure out of total expenditure on secondary education by Union Government (including NCERT, KV and NV)
2009–10	5.49	9.6
2010–11	14.82	22.1
2011–12	25.00	28.5
2012–13	31.72	34.3
2013–14	26.79	26.6
2014–15	33.98	34.5
2015–16	35.63	36.8
2016–17	36.98	34.6
2017–18 (RE)	39.15	31.4
2018–19 (BE)	42.13	34.2

Source Compiled from Demand for Grants for Department of School Education and Literacy, Union Government Budgets

sponsored schemes were merged with RMSA, such as 'Information and Communication Technology (ICT) in schools', 'Girls' Hostel, Inclusive Education for Disabled at Secondary Stage' (IEDSS) and 'Vocational Education'.

In recent years, RMSA has become the largest expenditure head of Union government for secondary education compared to the other relevant programme heads. Also, RMSA expenditures are transferred to the State governments on the basis of 75:25 ratio, where the States have to incur 25% of the designated expenditure; for the north-eastern region (NER), the sharing between Union and State governments is 90:10.[4] As may be seen from Table 6, in the recent years, the share of RMSA, in total government funding for secondary education, has been more than 30%. However, it is worth emphasising that the distribution of support from Union government under RMSA, across States and UTs, has been uneven, as may be seen from Table 7. In 2015–16, more than 60% ofRMSA grants were distributed among only eight States, viz. Rajasthan, Tamil Nadu, Andhra Pradesh, Karnataka, Telangana, Odisha, Madhya Pradesh and Maharashtra. Further, the variation in the amount received by particular States seems inexplicable; for instance, Bihar received Rs. 144 crore in 2014–15, whereas it got only Rs. 36 crores in 2015–16. Sure enough, allocation under RMSA, depends on many factors, such as, population size, expenditure capacities, submission of bills, etc. Yet, allocation patterns and trends across States, as hinted above, appear to be areas of concern. This, in fact, emerges in an even starker fashion if we look at per student allocation under the RMSA, figures for which are reported in Table 8. As may be seen, for Bihar, Meghalaya and West Bengal, per student grants

[4] *Press Information Bureau, 2nd May, 2013, 20:40; 'Rashtriya Madhyamik Shiksha Abhiyan (RMSA) - revision of certain norms and subsuming of other centrally sponsored schemes of secondary education under RMSA'.*

Table 7 Central share released to the States/UTs under RMSA programmes from 2012–13 to 2015–16 (Rs. in million)

State/UT	2012–13	2013–14	2014–15	2015–16	2016–17 (As on 06.12.2016)
Andaman and Nicobar Islands	6.70	0.00	6.50	15.81	32.89
Andhra Pradesh	3546.50	1986.90	867.10	2718.28	489.53
Arunachal Pradesh	243.70	0.00	13.76	212.64	16.90
Assam	1283.20	706.20	1598.11	1187.70	1450.67
Bihar	1376.50	688.49	1448.45	360.10	1849.64
Chandigarh	7.00	2.20	18.12	29.10	26.78
Chhattisgarh	3089.80	1869.34	1901.87	1803.96	1877.71
Dadra and Nagar Haveli	4.50	3.60	4.98	15.27	6.73
Daman and Diu	5.50	18.01	5.14	4.56	9.83
Delhi	0.00	44.34	211.41	195.30	134.51
Goa	0.00	10.43	32.32	13.55	33.50
Gujarat	820.50	0.00	960.08	1223.83	1359.84
Haryana	1011.20	720.43	1501.88	751.97	1369.81
Himachal Pradesh	203.60	1124.41	360.94	950.85	1820.50
Jammu and Kashmir	1093.60	1357.80	1154.42	961.44	
Jharkhand	0.00	1188.30	1112.03	620.38	1271.31
Karnataka	564.20	1288.30	3035.13	2096.88	514.92
Kerala	152.70	171.90	399.13	1019.34	95.85
Lakshadweep	0.00	0.00	0.21	0.98	0.42
Madhya Pradesh	4612.30	5245.54	2101.08	1880.33	2417.56
Maharashtra	98.50	76.81	2345.19	1816.75	898.49
Manipur	430.10	392.90	624.24	173.30	171.02
Meghalaya	16.00	34.09	5.86	4.01	
Mizoram	639.20	394.50	280.27	136.81	191.59
Nagaland	166.20	50.65	36.39	532.64	250.96
Odisha	2154.30	2655.36	2010.03	1987.10	1005.85
Pondicherry	7.20	71.66	7.54	15.26	21.76
Punjab	2584.40	926.04	993.86	390.72	685.21
Rajasthan	870.40	2671.40	3442.13	3712.99	2876.30
Sikkim	2.50	86.22	111.88	115.83	73.66
Tamil Nadu	2761.40	3593.64	3336.45	3147.18	1445.81
Telangana	NA	NA	828.91	2000.81	235.95

(continued)

Table 7 (continued)

State/UT	2012–13	2013–14	2014–15	2015–16	2016–17 (As on 06.12.2016)
Tripura	701.80	236.56	59.90	68.33	138.39
Uttar Pradesh	2208.70	968.00	1422.81	1254.38	1728.74
Uttarakhand	966.40	757.16	582.58	351.39	1086.76
West Bengal	0.00	7.65	1074.37	290.94	102.95
Total	31,628.60	29,348.84	33,895.03	32,060.71	25,692.33

Source In response to Rajya Sabha session - 237 unstarred question NO.556 and 2015–16 data from Rajya Sabha session - 238 unstarred question NO. 206; 2016–17 data from https://community.data.gov.in/stateut-wise-central-share-of-fund-released-under-rashtriya-madhyamik-shiksha-abhiyan-from-2014–15-to-2016–17/
NA Not Available

are in the range of approximately Rs. 100 or less, whereas the same was more than Rs. 2500 for Telangana and Himachal Pradesh in 2015–16.

As noted above, State governments tend to take greater expenditure responsibilities for school education. Given that there are huge differences across States with regard to per child and per student expenditure, value of intervention by the Union government may lie, at least in part, in facilitating bridging the gaps and help in the access to good quality education. Unfortunately, as noted above, the RMSA does not seem to address these issues as some of the poorest spenders are receiving much lower grant through RMSA for different reasons.

3.2 Households' Out-of-Pocket Expenditure

Private, or 'out-of-pocket', expenditure on education, particularly at the level of elementary and secondary education, must be viewed as a matter of serious concern. Unfortunately, in India, the problem has tended to aggravate, particularly in the so-called economic reform era, at all levels of education. Data clearly indicates a substantial participation in private institutions in the recent years, as may be seen from Fig. 2. It is prominently clear that larger sections of children are enrolled in government institutes for general education, more than 50% for school education and more than 40% for higher education. However, it is important to note that, for several reasons, the distribution of students between public and private institutions across different social groups, as also rural and urban areas differ a great deal.

As reported in Table 23 of Educational Statistics at a Glance (ESAG) 2018, MHRD, GoI, the average private expenditure per student at primary, upper primary, secondary and upper secondary levels in 2014 wa Rs. 4610, Rs. 5386, Rs. 7459 and Rs. 12,619, respectively. We have calculated the weighted average out-of-pocket expenditure per student at different levels of education, and by types of institutions,

Table 8 Per student central share released to the States/UTs under RMSA (in Rs.)

State/UT	2012–13	2013–14	2014–15	2015–16
Andaman and Nicobar Islands	289.0	0.0	282.3	703.4
Andhra Pradesh	1457.8	1143.7	477.7	2515.7
Arunachal Pradesh	4003.0	0.0	185.4	2825.6
Assam	947.5	696.6	1485.2	1093.2
Bihar	674.5	266.2	501.8	102.8
Chandigarh	180.1	45.2	351.1	560.0
Chhattisgarh	3540.8	1769.9	1605.3	1503.8
Dadra and Nagar Haveli	457.4	253.9	356.2	1050.0
Daman and Diu	976.7	2183.8	635.5	751.9
Delhi	0.0	51.3	243.2	236.4
Goa	0.0	159.3	432.3	269.6
Gujarat	2852.9	0.0	510.6	701.9
Haryana	1483.9	998.2	2029.9	1031.5
Himachal Pradesh	559.8	2761.5	917.9	2544.2
Jammu and Kashmir	2695.5	3863.9	2888.5	2345.9
Jharkhand	0.0	1563.6	1019.2	614.9
Karnataka	543.9	909.8	2115.9	1269.8
Kerala	195.9	140.2	259.9	665.2
Lakshadweep	0.0	0.0	43.5	203.7
Madhya Pradesh	2740.4	2894.7	873.0	785.6
Maharashtra	264.0	16.6	491.0	359.9
Manipur	8909.7	9537.2	15,487.6	4632.9
Meghalaya	2035.4	435.4	67.3	38.5
Mizoram	16,938.3	9806.9	6825.7	3277.1
Nagaland	7160.7	2074.6	1528.9	22,680.5
Odisha	2198.5	2562.0	1931.9	1849.8
Pondicherry	127.2	1436.5	156.7	328.6
Punjab	4093.5	958.3	983.6	406.8
Rajasthan	487.2	1679.1	2013.8	2255.7
Sikkim	106.2	3035.6	3382.2	3166.0
Tamil Nadu	1436.2	1223.9	1154.7	1088.7
Telangana	–	–	–	2653.8
Tripura	4462.3	1343.7	314.6	356.7
Uttar Pradesh	10,122.4	239.2	362.8	318.6
Uttarakhand	2420.0	1607.7	1222.3	744.1
West Bengal	0.0	2.1	280.8	73.8
Total	1329.1	827.1	890.2	822.7

Source Calculated by authors

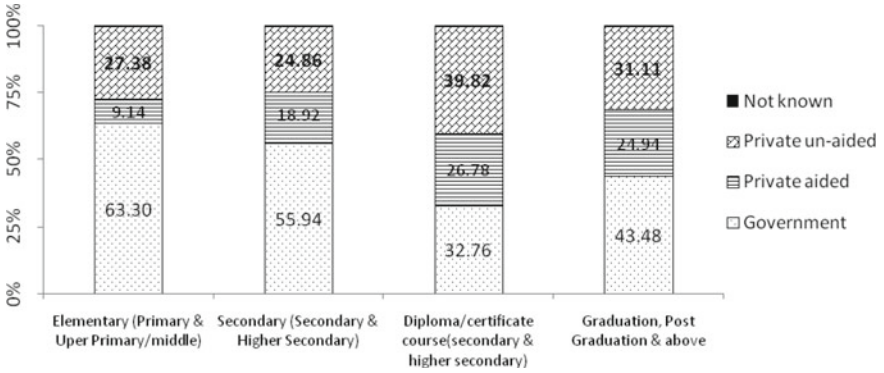

Fig. 2 Estimated share of students among different types of institutions by different levels of education, 2014. *Source* Estimated by authors from NSS 71st round

in Table 9; as may be seen, there are huge differences across both these axes of classification.

In general, students enrolled in government institutions have to incur relatively less as 'out-of-pocket' expenditure compared to the students falling in other categories, although there are significant increases as one moves from elementary to higher stages across all categories. The incidence of 'out-of-pocket' expenditures for the secondary education is almost two to three times higher in private institutions compared to government schools. Figure 3 presents the range of out-of-pocket expenditure on different levels of education. As may be seen, the value reported as lowest 'out-of-pocket' expenditure across all types of institutes for general education are approximately within a narrow band and quite low; however, there are large variation at the upper end.

To get a better sense of the dispersion of 'out-of-pocket' expenditure, we have plotted the percentile distribution of average per student expenditure, at secondary

Table 9 Weighted average of households' out-of-pocket expenditure in 2014 (in Rs.)

Level of education	Type of institutions	Government	Private-aided	Private-unaided	Not known
Elementary (primary and upper primary/middle)		1375.29	9243.31	11,631.01	7602.05
Secondary (secondary and higher secondary)		4872.80	11,871.34	18,413.98	14,689.16
Diploma/certificate course (secondary and higher secondary)		20,927.09	42,420.62	50,404.28	93,090.76
Graduation, post-graduation and above		13,777.15	26,807.09	49,643.58	52,522.91

Source Estimated by authors from NSS 71st round

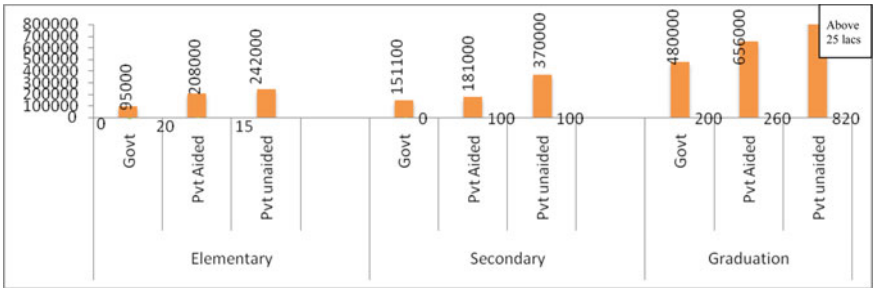

Fig. 3 Range of per student out-of-pocket expenditure (in Rs.) at different levels of education, by institute. *Source* Calculated by authors from NSS 71st round (2014), unit level data

level of education and different types of institutions in Fig. 4. It clearly emerges that at the secondary level, the 'out-of-pocket' expenditures, borne by the students in private-unaided schools, are much higher than students enrolled in government- or private-aided schools. However, the expenditure range and averages across the 25th, 50th, 75th and 90th percentile of government school students at secondary level are almost similar to the 10th, 25th, 50th and 75th percentile, respectively, of students in private-aided schools. Almost similar comparison holds for students enrolled in private-aided and unaided schools. However, the expenditure range and mean for the 50th, 75th and 90th percentile of students in government schools at secondary

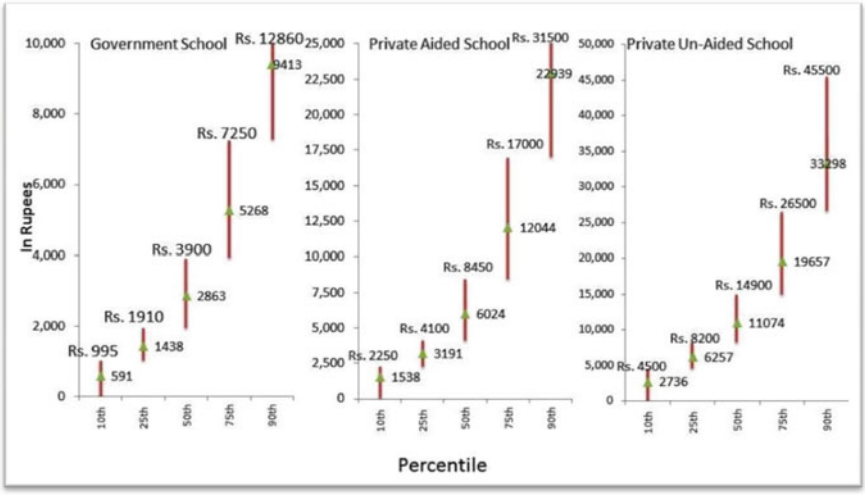

Fig. 4 Percentile distribution per student total out-of-pocket expenditure (in Rs.) at different types of institutes at secondary level of education. *Source* Calculated by authors from NSS 71st round (2014), unit level data

level are slightly lower than the 10th, 25th and 50th percentile of students in private-unaided schools. Of course, at the lower ends of the range, the values of 'out-of-pocket' expenditure for students in government schools are obviously considerably less than private-aided and unaided schools as may be seen from Fig. 4. Nonetheless, the point worth stressing is that due to substantial increase in private tuition expenses, etc., the out-of-pocket expenditure for a substantial section of students enrolled in government schools has tended to increase sharply.

To highlight some of the important numbers: for students at secondary level and enrolled in government schools, the average expenditure for the lowest 10th percentile was Rs. 591 in 2014, compared to Rs. 9413 in the 90th percentile groups; in private-aided schools, the average expenditure were Rs. 1538 and Rs. 22,939 for the 10th and 90th percentile groups, respectively; in case of private-unaided schools, the average out-of-pocket expenditure was Rs. 2736 to Rs. 33,298 for 10th and 90th percentiles. These figures clearly reflect substantial differences across private-aided and unaided institutes, in terms of fees and other expenditures need to be borne by the students.

Table 10 provides information relating to 'out-of-pocket' expenditure for students for rural and urban areas and by gender. Again, we may note that there are substantial variations across different types of schools by regions. In rural areas, average 'out-of-pocket' expenditure on secondary education in government schools is Rs. 4229 and Rs. 7488 in rural and urban areas, respectively, and the comparable figures

Table 10 Secondary education: average out-of-pocket expenditure and participation share among differently managed institutions

	Rural	Urban	All	Boys	Girls
Weighted average expenditure (in Rs.)					
Government	4229	7488	4873	5007	4719
Private aided	8327	17,031	11,871	12,610	10,908
Private unaided	12,783	26,389	18,414	18,923	17,657
Not known	13,037	16,668	14,689	15,380	14,170
Distributions of estimated students					
Government	80.25	19.75	100.00	53.38	46.62
Private aided	59.28	40.72	100.00	56.58	43.42
Private unaided	58.61	41.39	100.00	59.77	40.23
Not known	54.50	45.50	100.00	42.89	57.11
Share of estimated students					
Government	63.4	37.9	55.9	53.8	58.7
Private aided	15.8	26.4	18.9	19.3	18.5
Private unaided	20.6	35.3	24.9	26.7	22.5
Not known	0.2	0.5	0.3	0.2	0.4
Total	100.0	100.0	100.0	100.0	100.0

Source Estimated by authors from NSS 71st round (2014)

for private-unaided schools are three to four times higher. However, there are no significant differences in the reported out-of-pocket expenditure at the secondary level for boys and girls enrolled in the same type of institutions.

It is worth noting, as shown in Table 10, 63.4% of all children enrolled in secondary education, in rural areas, are in government schools, whereas the story in the urban areas is almost the mirror opposite of it, with 37.9% in government schools and the remaining 62.1% in private schools. As regards the total enrolment at the secondary level for the country as a whole, the government schools account for 55.9% and the balance by the private sector. The trend towards growing privatisation and increasing out-of-pocket expenditure, across the entire school system, has extremely serious implications for issues of equity, universal access to quality etc., which we are not dwelling on in this paper.

4 Recent Policy Initiatives to Increase the Budget and Other Possible Solutions

In the preceding section, some of the important aspects relating to trends and patterns of expenditure, with respect to secondary education, were presented. One of the major concerns we have highlighted relates to the inadequate public provisioning, a point often acknowledged even by various official committees of the Union and State governments. As is well known since the days of the famous Kothari Commission, expenditure target of six per cent of GDP on education has been frequently flagged both in official discourses and outside; however, for the last several decades, there has been a significant shortfall with respect to the above-noted benchmark target. Simultaneously, there has been a sharp and rising trend in 'out-of-pocket' expenditure associated with several heads such as transportation, books, private coaching, etc. As we know from the NSS 71st round data, of the total 'out-of-pocket' expenditure, the average incidence of coaching fees for students enrolled in government schools amounts to 35.70% per the student in secondary level. Clearly, it reflects very poorly on the state of public provisioning. We may also note, using the same data source, that the weighted sum of 'out-of-pocket' expenditure for all levels of education, taken together, works out to 1.94% to GDP!

As is well known, economically developed / industrialised countries (e.g. OECD countries) have continued to prioritise their expenditure on social sectors, including education and health, in spite of the fact that the basic requirements with respect to these had been met long ago. However, to maintain and ensure good quality provisioning in these areas, almost all these countries have continued with reasonably high levels of spending, whether as a proportion of GDP or in per capita terms. In fact, it is worth noting that even in their early stages of economic development, there was considerable fiscal attention to the social sector expenditures in these countries. As reported in the UNESCO Institute for Statistics (UIS) database, figures for government expenditure on education as a proportion of GDP, in 2013, were 5.62,

5.22 and 3.84%, respectively, for UK, USA and India. Comparable figures in most BRICS and many other developing countries happened to be better than India (see Jha et al. 2016). In terms of taking US$ in PPP terms, per student expenditure in India in 2010 happened to be 422, 225 and 224, respectively, at the secondary, lower secondary and primary levels. For the same year, USA and UK spent approximately 25 times more than India.

Unfortunately, India has shied away from adequate public provisioning for education, hiding behind the excuse of not having enough resources.[5] Furthermore, it is also quite clear that the era of so-called economic reforms has certainly not helped matters and it is amply clear that we have been seriously floundering. In fact, even in regimes of market-driven macro-economic reforms, which essentially amounts to an overall compression of the role of the State, a few countries have tended to keep at least some focus on public provisioning for education, by finding and creating appropriate fiscal space. For instance, one may recall Chile's attempt to finance free education at all levels, through corporation tax in 2014. Likewise, a series of measures pushed for by President Luiz Inácio Lula da Silva in Brazil resulted in significant expansion in some aspects of public provisioning for education.

There is no reason why India cannot make significant headway with provisioning for the needs of its social sector through some changes in overall fiscal and financial architecture. For instance, an issue which has been flagged frequently in recent discussions, including by Finance Ministers of India's Union Governments in the last decade or so, relates to that of exemptions to the better-off sections of the society. Information given in Table 11 is quite instructive in this regard.

During the last decade or so, the revenue foregone has been in the range 2.5–7.4% to GDP, which is a huge amount by any reckoning! Of course, there are several arguments and justifications put forward with regard to such exemptions made in the Union government tax system; for instance, it is claimed that exemptions can be powerful incentive for investment which would enhance the capacity of the economy and promote higher growth rates, etc. Although many of these claims are on slippery grounds, we are not making a blanket argument for and against exemptions and revenues foregone. The point we are stressing here is that when it comes to needs of the social sector, one needs to take a call on the provisioning for the same *vis-a-vis* a whole range of exemptions granted to the corporate sector as also the other economic actors. Tax exemptions need to be minimised, carefully designed and justified with sound social and economic reasons.

[5]In fact one may even argue that India has been a major failure in addressing its public policy challenges *vis-a-vis* education and health. As Prof. Amartya Sen voiced his concern in a recent interview: 'India is the only country in the world which is trying to become a global economic power with an uneducated and unhealthy labour force. It's never been done before, and never will be done in the future either. There is a reason why Europe went for universal education, and so did America. Japan, after the Meiji restoration in 1868, wanted to get fully literate in 40 years and they did. So did South Korea after the war, and Taiwan, Hong Kong, Singapore and China', LSE Blog, Nov 19, 2015; http://blogs.lse.ac.uk/southasia/2015/11/19/india-is-the-only-country-in-the-world-trying-to-become-a-global-economic-power-with-an-uneducated-and-unhealthy-labour-force-amartya-sen/.

Table 11 Amount of revenue foregone/revenue impact of tax incentives in Central Government budgets (In Rs. billion)

S. No.	Items	2007–08	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14	2014–15	2015–16
1	Corporate income tax	621.99	669.01	728.81	882.63	617.65	687.20	577.93	650.67	768.58
2	Personal income tax	380.57	375.70	451.42	506.58	393.75	335.36	352.54	535.26	618.00
3	Excise duty	874.68	1282.93	1691.21	1982.91	1955.90	2099.40	1962.23	1967.89	791.83
4	Customs duty	1535.93	2257.52	1952.88[a]	1744.18[a]	2368.52	2540.39	2607.14	2389.67	692.59
5	Gross total (1 + 2 + 3 + 4)	3413.17	4585.16	4824.32	5116.30	5335.83	5662.35	5499.84	5543.49	2871.00
Revenue forgone as % to GDP[b]		6.84	8.14	7.45	6.57	6.11	5.69	4.90	4.45	2.09

Source Compiled from the Union Budget, Statement of Revenue Foregone, Various Years

Note [a]Custom duty foregone less export credit

[b]For 2007–08 to 2010–11, we have considered GDP at current prices with 2004–05 base, and for 2011–12 to 2015–16, we have considered GDP at current prices with 2011–12 base

We may also note here that one of the major problems of India's public finance has been relatively low tax-GDP ratio, not only in comparison to advanced countries (which may be understandable), but also several comparable ones like the so-called emerging and developing countries, such as the BRICS cohort or several East Asian countries. It is also worth noting that the era of neo-liberal economic reforms, which has witnessed some acceleration in the average GDP growth rate, has not created any significant additional fiscal space. For more than a decade and a half, since the late 1980s, there was, in fact, a downward pressure on the tax-GDP ratio, when it fell from 15.42 (three-year average for 1987–90) to 13.99 (three-year average for 2001–04). However, since 2004–05, there has been a small uptick in it, and the three-year average between 2004–05 and 2006–07 was 16.10, which improved marginally to 17.25 between 2014–17.[6] It is worth emphasising here that India's current tax-GDP ratio is approximately half of the comparable figures for Brazil or South Africa. In other words, fiscal space continues to be a huge challenge for India's policy-makers, which needs to be addressed. Without stepping up the country's tax-GDP ratio, it would not be possible for the government to provide adequate support for budgetary spending on crucial entitlements for people. There have been several suggestions from academic and policy experts in this regard, and we may flag a couple of these.[7]

For instance:

- Property and wealth tax
  - India's total property tax revenue is 0.08% to GDP only, which is lowest among the G20 countries.
  - Other BRICS nations perform much better in terms of contribution of property tax in total tax revenue: relevant figures for Brazil, Russia, China and South Africa are 4.4, 4.1, 10.3 and 4.7%, respectively, whereas for India this is only 0.4%.
  - 'Wealth tax' used to be levied upon the wealth of the taxpayer according to Wealth Tax Act, 1957. During 2015–16, the amount of wealth tax was Rs. 10.79 billion. Instead of making use of this important resource base, the government abolished it with effect from 1 April 2016.
  - Inheritance tax and estate duty does not exist in India; it was abolished in 1985.
- Gift tax and securities transaction tax can be explored as important options for resource mobilisation. Currently, securities transaction tax is barely 0.1%.
- The potential for taxing financial and capital transactions remains under-utilised.
- Plugging loopholes in international taxation, e.g. GAAR, it could raise resources through taxation on financial transactions, (whether national or international); it could consider expansion of tax net to cover luxury services, in particular.

The above-noted options for resource mobilisation have often been emphasised by several researchers; in addition to these, there are other possibilities as well. However, we do not wish to get into a detailed discussion on this issue here. Our

[6] Indian Public Finance Statistics, 2016–17, Ministry of Finance, GoI.

[7] See, Jha and Acharya (2013) and Jha et al. (2013).

basic motivation in highlighting some of these resource mobilisation options is to question those who keep repeating that India has no or few options to expand its fiscal space. Finally, we would also like to emphasise that the entire administration of tax compliance has been a huge area of challenge.

Coming back, specifically, to government's measures to find additional resources for education, essentially it has relied on the 'cess route' in the recent year.[8] The Union Government of India introduced education cess on corporation tax, income other than corporation tax, import duties and service tax at a rate of 2% for funding elementary education in the fiscal year 2004–05, and in the fiscal year 2007–08 additional one per cent education cess was imposed to finance secondary and higher education. In the 2018–19 budget, the Union government decided to merge cess for education at different levels, while also introducing cess to support a provisioning for health; all these have been clubbed together as 'health and education cess' at the rate of four per cent chargeable on personal income and corporation taxes.

Tables 12 and 13 provide the extent of support through the above-noted cess provisions for the recent years. As is evident from Table 12, in 2018–19 (BE), more than 60% of Union government's proposed expenditure (including transfer to States and UTs) for SSA and MDM are through education cess. In Table 13, we have presented the actual and estimated expenditure figures on SSA and MDM and their funding from PSK for 2016–17 (actual), 2017–18 (revised estimates) and 2018–19 (BE), which shows that well above 60% of funding for the above-noted schemes are coming through cess. In case of secondary and higher education, more than 80% of allocated amounts for six programmes were proposed to be funded from MUSK in 2018–19 (BE). It seems to us, as has often been flagged, such high level of dependence on the cess route raises serious questions, which also impinge on the Centre–State relations, as the collections through cess do not get into 'divisible pool' for sharing between Centre and States.

With the launch of Samgra Shiksha Abhiyan (SMSA) in April, 2018 (which was promised in the Union Budget 2018–19), and the merging of SSA and RMSA, there is lack of clarity as regards distribution of allocation for different heads, and at different levels, which is, clearly, a matter of concern. As we know, allocations at the elementary level were supposed to be in a 'rights' perspective (through RTE); merging of different levels may well mean the dilution of such a perspective even at the elementary level and may not provide any substantial resource enhancement at the secondary level.

On the whole, it may be noted in passing that the recently launched SMSA raises more questions than provides answers to several vexed issues relating to our overall school education. For instance, to flag a couple of issues: through the promise of creating 'composite/integrated school system from pre-school to higher secondary level', the distance norms may get modified; as we know, as per the RTE, it is a right

[8] Although, there has been some talk of supplementary resources through CSR, it may be noted that fund flow through this route has been quite limited. As reported in newspapers, in Fiscal Year 2016, "920 National Stock Exchange-listed companies together spent Rs. 2042 crore on education, up from Rs. 1570 crore in Fiscal Year 2015" (Manku, Mint 21 January, 2017). However, most of the amount was spent on construction of toilets for promotion of education.

Table 12 Amount allocated from education cess under different programmes

	2018-19 BE (Rs. in billion)	Share of cess in total budgetary allocation (%)
Support from Prarambhik Shiksha Kosh (PSK)		
Sarva Shiksha Abhiyan	166.00	63.53
National Programme of Mid-Day Meal in Schools	70.63	67.27
Total amount met from Prarambhik Shiksha Kosh	236.63	
Support from Madhyamik and Uchhatar Shiksha Kosh (MUSK)		
Rashtriya Madhyamik Shiksha Abhiyan	36.48	86.6
Interest Subsidy and contribution for Guarantee Funds	21.20	98.6
Scholarship for College and University students	3.00	88.2
Pandit Madan Mohan Malviya National Mission on Teachers and Teaching	1.00	83.3
All India Council for Technical Education (AICTE)	4.20	86.6
Grants to Central Universities (CUs)	9.00	14.0
Support to Indian Institutes of Technology	8.50	15.1
Support to National Institutes of Technology	1.00	3.3
Support to University Grants Commission (UGC)	17.01	36.0
Support to Rashtriya Uchhatar Shiksha Abhiyan (RUSA)	12.00	85.7
Total amount met from Madhyamik and Uchhatar Shiksha Kosh	113.39	

Source Union Budget, 2018–19

of a child to have a school within one kilometre and three kilometre radius of each habitation for primary and upper primary schools, respectively. Further, through the proposed merging, there may be undesirable modification in teacher–pupil ratios and closure of substantial number of schools (which, in any case, started happening even before the announcement of SMSA in several States).

Table 13 Amount allocated from PSK under SSA and MDM

		Total	Amount met from PSK	Share of PSK out of total expenditure (%)
		Rs. in billion		
Sarva Shiksha Abhiyan	2016-17	216.85	133.45	61.54
	2017–18 (RE)	235.00	131.75	56.06
	2018–19 (BE)	261.29	166.00	63.53
National programme of mid-day meal in schools	2016–17	94.75	54.73	57.76
	2017–18 (RE)	100.00	59.65	59.65
	2018–19 (BE)	105.00	70.63	67.27

Source Compiled from demand No. 57, Union Budget, 2018–19

5 Conclusion

As should be evident from our foregoing discussion, there is a strong case for scaling up the allocation of public expenditure on education, including secondary education, which has suffered from disproportionate neglect. In the recent official discourses, there is greater attention to this segment and the Government of India has professed universalisation of secondary education, in line with SDGs.

We may also note that there has been significant increase in access and participation with respect to secondary education during the last 25 years. However, the average growth of expenditure, at constant prices, both as a proportion of GSDP and with respect to the population within the 15–18 years age group, has been, on the whole, low and fluctuating, as discussed in Sect. 3 of this paper. A particularly worrisome finding has been absolute decline in real terms in expenditure on secondary education for some States, during particular years, for the period under review. Further, as discussed, the trends and patterns relating to 'per-child' and 'per-student' expenditure for the period under review are also major areas of concern.

Given that RMSA is the major flagship programme for secondary education, initiated by the Union government in 2011, this paper has examined some of its financial dimensions and highlighted a number of major challenges, including the fact that the distribution of resources across States is very uneven, if not arbitrary, and only eight States count for 60% of the grants under this programme. It almost defies any reasoning that 'per-student' grants under RMSA, in 2015–16, happened to be as little as Rs. 100 in Meghalaya, West Bengal and Bihar compared to approximately Rs. 2500 for Telangana and Himachal Pradesh.

This paper has also explored some issues relating to out-of-pocket expenditure, using the latest available data from the NSSO (71st round, 2014). The quantum and growth of out-of-pocket expenditure (even in government schools) as well as growing dependence on private institutions at the secondary level are indeed critical areas of concern as they connect with several important issues such as access, equity and quality. There is substantial research to support the claim that public expenditure on

education has strong positive impacts on equity, school access, infrastructure, and basic indictors of quality, for well-known reasons. In fact, in our earlier research on elementary education for different States in India, we have repeatedly found significant positive relationship between learning indicators and per child expenditure. The common sense judgement often links public expenditure on education to economic betterment through higher prospects of earning, which is a kind of limited 'instrumental' yardstick; however, it is worth emphasising that there is lot more to it, both in 'instrumental' and 'intrinsic' ways, connecting adequate public provisioning with the lives of individuals and society at large (see Jha et al. 2016).

Obviously, for assessing issues regarding 'adequate' expenditure, we need to engage seriously with concept of 'Unit Cost'. Different committees and research studies have implicitly or explicitly relied on a range of unit costs, and we would only like to note, given the heterogeneity across States, due to structural and other factors, that any pan-Indian notion of unit cost has obvious flaws. Nonetheless, as a thumb-rule marker, our preference is to consider per student allocation in Kendriya Vidyalayas (KVs) as the benchmark for non-residential schools. In 2015–16, per student government expenditure in KVs was approximately Rs. 32,000. Finally, as discussed in the paper, the Union government has relied substantially on the cess route for its spending on school education, which is a controversial, if not undesirable, option. We are strongly of the view that the government needs to expand its overall fiscal space for spending on social sectors, including education, through more robust strategies and mechanisms.

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