Public Expenditure Review of School Education in select states

DRAFT FINAL REPORT

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Contents

1. Background

School education in India can be viewed as a step by step approach starting from National Policy on Education in 1986 which projected the goal of Universalisation of Elementary Education and the schemes such as Operation Black Board (OBB), District Primary Education Programme (DPEP) and Sarva Shiksha Abhiyaan (SSA) were later introduced to realise that goal. The introduction of Right to Education (RTE) in 2009 provided the legal mandate for the provision of elementary education for the age group of 6-14 years. Again in 2009, the introduction of Rashtriya Madhyamik Shiksha Abhiyan (RMSA) gave an impetus to secondary education recognising its role in the growth and development of the country. This was furthered by introduction of ICT in schools and vocationalisation of secondary education in 2013-14. States across the country which followed different approaches[1] for provision of school education have adopted these national level efforts. A perusal of functioning of these schemes shows that while contributing to a few reforms, these schemes also led to some systemic inefficiencies. *The multiple schemes have created multiple parallel institutional arrangements, may also have led to duplication of efforts and personnel towards implementing similar interventions and achieving similar objectives*[2]. The Government of India has initiated an integrated approach in School Education in India through Samagra Shiksha Abhiyan and this is expected to transform school education in a significant manner across the country by replacing multiple Centrally Sponsored Schemes into one comprehensive scheme.

1.1 Samagra Shiksha Programme (Samagra)

Samagra Shiksha (Samagra) is the overarching programme launched by the Government of India through the budget 2018-19 which proposed to treat ***School Education*** as a continuum from pre-school, primary, upper primary, secondary to senior secondary levels to improve opportunities of schooling and learning outcomes. The programme envisages universal access, equity and quality, promoting vocationalisation of Education and strengthening of Teacher Education Institutions (TEIs). This is also in accordance with the Sustainable Development Goal (SDG) for education. This subsumes the earlier three schemes of Sarva Shiksha Abhiyan (SSA), Rashtriya Madhyamik Shiksha Abhiyan (RMSA) and Teacher Education (TE). This is expected to synchronize the implementation mechanisms and transaction costs especially at the level of district and below leading to comprehensive planning for school education in a district.

The Samagra Shiksha focuses on two main themes of improving systems level performance and schooling outcomes and the states would be incentivized for improving quality of education.

[1] *Some states have primary, upper primary, high school and pre university college while some have primary, secondary and senior secondary/higher secondary schools.*

[2] http://samagra.mhrd.gov.in/docs/Framework_IISE%20_F.pdf

The Samagra Shiksha programme[3] is being implemented as a Centrally Sponsored Scheme (CSS) by Department of School Education and Literacy under the Ministry of Human Resource Development and routed through a single State Implementation Society (SIS) at the state level. The fund sharing pattern for the scheme between Centre and States is in the ratio of 90:10 for North-Eastern States and Jammu and Kashmir while it is 60:40 for all other states. States are expected to come up with one plan for the entire S*chool Education.* The scheme proposes to give flexibility to the States and UTs to plan and prioritize their interventions within the scheme norms and the overall resource envelope available to them. Funds are proposed to be allocated based on an objective criterion based on enrolment of students, committed liabilities, learning outcomes and various performance indicators. One of the new priorities for MHRD is to provide funds to states that are linked to the results of the Performance Grading Index.

1.2 Strengthening Teaching-learning and Results in States (STARS)

The World Bank, in partnership with the MHRD, Government of India is in the process of envisaging a project aimed at Strengthening Teaching-Learning and Results in States (STARS) to improve the quality of school education and its systemic effectiveness in select states. This project distinct from Samagra Shiksha will ***complement the efforts of the Samagra Shiksha*** in improving the governance of school education apart from enhancing the quality of education. The project 'STARS' has the following components.

- Strengthening Early Childhood Education
- Improving Learning Assessment Systems
- Strengthening classroom instruction through teacher development and school leadership
- Strengthening state institutional capacity in project states to appraise and supervise the implementation of district-level programs designed to improve the quality and efficiency of school education
- Partnering with Non-State Actors for education delivery reform
- School to work transition strategies

1.3 Scope and Objectives of the study

The study focuses on the review of public expenditure on education. The review aims at understanding the patterns and priorities at various stages of *School Education*: pre-school, primary/upper primary and secondary/senior secondary. The study, before carrying out the fiscal analysis of expenditure on education, maps the structure of school education and analyses the policies in the form of ongoing schemes in respective states so as to understand the context

[3] *Scheme covers all children from the age of 4 to 18 years and has a scope across all levels of school education from Pre-school to Senior Secondary of the country.* http://samagra.mhrd.gov.in/docs/Framework_IISE%20_F.pdf

better. The analysis includes six states[4]- Himachal Pradesh, Kerala, Madhya Pradesh, Maharashtra, Odisha, and Rajasthan covering the period 2012-13 to 2019-20.

Institutional and Policy Analysis

The institutional and policy analysis focuses on review of the existing policies and governance systems in the respective states for school education in each of the six states. The review of structure of education departments (including the pre-school component), existing programmes by state government and initiatives towards teachers' trainings, learning assessment and vocational education has informed the analysis. This analysis attempts to address the following questions:

a) What are some of the structural challenges that can arise due to the existing governance systems of school education in respective states?
b) How different are the states in terms of the current status in school education? What will be the implication of such differences on implementation of Samagra Shiksha in the respective states?

Budget Analysis

The financial analysis attempts to answer the following questions through an analysis of budget and expenditure, specific programme documents and existing literature:

a) What is the total public expenditure on school education at different stages? What are the departments and schemes, and their budget share to the respective stages? What is the trend in nominal and real terms? What is the per-child expenditure for respective stages and what are the patterns that emerge from inter-stage comparisons?
b) What are the components that cover the supply side (school and school related) and what components cover demand side (transfers and mobilizations) of education?
c) Where does the money come from and where does it go? What are the shifts experienced in the last five years? Has there been any major change in the trends pre and post 14thFinance Commission?
d) What is the role of centrally sponsored schemes (such as ICDS, SSA and RMSA, and now Samagra Shiksha) in education financing: in terms of size, priorities, governance processes and mechanisms?
e) What are the patterns across these: capital-revenue; wage-non-wage; various departments' contributing to education?
f) Mapping of state budget allocations/spending of STARS components

The Budget and Policy analysis together addresses the following questions:

i. What are the implications of the budget analysis of school education for financing and governance of *School Education*?

[4] States which the STARS project is likely to be implemented

ii. What is the spending efficiency/effectiveness in terms of "how well'' money is being spent and how can it be linked to outputs/outcomes?

iii. Delineating concrete and actionable conclusions and recommendations for Samagra and STARS based on the findings from the budget review

1.4 Methodology of the Study

Institutional and Policy Analysis: This analysis focused on understanding *School Education* structure and policies of the states in the context of Samagra Shiksha programme is based on desk review of documents, Acts, reports and literature.

Budget Analysis: This involved collection, data entry and analysis of budget data for the period 2012-13 to 2019-20 for expenditures on school education across different department using the Annual Financial Statements, commonly known as state budget documents. In addition, programme budgets and expenditure reports for specific schemes such as SSA and RMSA have also been analysed.

2. School Education Structure and Policy environment of States

Since Samagra is aimed at looking at school education in its totality starting from pre-school education to higher secondary schooling, it is pertinent to understand the present structures and the challenges it could pose for its implementation. This section provides a comparative picture of these six states in terms of school education administration and the policy environment, largely analysed through the review of structures, status of enrolment and presence of schemes.

2.1 School Education Administration

The administration of school education (including the pre-school education) is spread across different departments in the six states (Table 2.1). The Pre-School is in the domain of the Department of Women and Child Development (WCD) in all the six states while the Department of Education (DOE) administers the elementary, secondary and higher secondary education across all the states except for Odisha wherein the Department of Higher Education is in-charge of the higher secondary education as well as vocational education. The Department of School and Mass Education administers the school education from class 1 to 10 in Odisha. The Samagra Shiksha has been formed by integrating the Sarva Shiksha Abhiyaan and Rashtriya Madhyamika Shiksha Abhiyaan in all the states.

Table 2.1: School Education Administration across the study states

	Pre-school	Elementary	Secondary	Higher secondary
Himachal Pradesh	WCD	DOE		
Kerala	WCD	DOE		
Madhya Pradesh	WCD	DOE		
Maharashtra	WCD	Dept of School Education and Sports		
Odisha	WCD	Dept of School and Mass Education		Dept of Higher Education
Rajasthan	WCD	DOE		

A part of school education is also administered by the Department of Social Welfare/Tribal Welfare in significant portion in the states of Madhya Pradesh and Rajasthan (nearly 30%), and in the states of Maharashtra and Odisha, where the presence is less in number (less than 5%). The DOE alone controls all schools in Himachal Pradesh and Kerala (Table 2.2). However, in Kerala, the proportion of aided schools is about 42 % while the government schools constitute only about 29 % of all schools, indicating a higher presence of private players in provisioning the school education. In Maharashtra, most of the schools are functioning under the local body's administration.

Table 2.2: Government and Aided schools across the study states

	Total schools	Govt schools	DOE	Aided	DOE %	Govt %	Govt+aided %
Himachal Pradesh	18196	15489	15429	0	85	85	85
Kerala	16466	4851	4743	6863	29	29	71
Madhya Pradesh	143584	114326	83746	885	58	80	80

Maharashtra	104971	66946	22	21642	0	64	84
Odisha	68977	57760	55947	5063	81	84	91
Rajasthan	105436	67930	37134	0	35	64	64
All India	1467680	1072836	796364	69898	54	73	78

Source: UDISE Flash Statistics 2016-17

Although Samagra does not envisage all schools to impart education from pre-school to class 12, it is interesting to gauge the provisioning or existence of such schools in the light of Samagra's implementation. A look into the data on the schools having class 1 to 12 revealed that currently only a small proportion of schools provide the education from class 1 to 12 in a single school. The share of schools that providing education from class 1 to 12 ranged from 0.25 % in Odisha to 15.35% in Rajasthan (Table 2.3). The share of enrolment in schools providing education from class 1 to 12 ranged from 2.64% in Odisha to 41.37 % in Rajasthan. Given this low proportion of provisioning of school education from class 1 to 12 in one complex, increasing it to a higher proportion pose huge administrative and logistical challenges though the process could help in improving the governance and also help in better provisioning.

Table 2.3: Share of schools providing education from class 1-12 and enrolment, low enrolment and single teachers.

	Schools (%)	**Enrolment (%)**	**%Schools with enrolment less than or equal to**			**Single teacher (Schools%)**	
	I-XII	**I-XII**	**25**	**50**	**75**	**total**	**primary (I-V)**
Himachal Pradesh	3.36	19.99	41.8	25.93	9.04	6.73	9.07
Kerala	8.41	25.52	10.21	13.42	11.78	2.14	4.12
Madhya Pradesh	2.63	17.46	14.89	27.17	18.48	12.64	14.29
Maharashtra	1.89	22.96	19.11	18.27	8.55	3.05	5.72
Odisha	0.25	2.64	13.5	25.56	14.81	2.41	3.54
Rajasthan	15.35	41.37	12.04	20.29	12.6	12.32	30.92
All India	**3.16**	**13.86**	**14.09**	**19.27**	**13.67**	**7.03**	**10.2**

Source: UDISE Flash Statistics 2016-17

The other governance challenge that the states are facing is regarding the schools with low number of students. The proportion of schools with enrollment less than 25, 50 and 75 are provided in the Table 2.3. The proportion of schools with less than 25 students ranged from 10.21 % in Kerala to 41.8 percent in Himachal Pradesh. Although this is explained by the fact that Kerala has a very high density of population whereas Himachal has low density and difficult terrain making it difficult for children to commute to schools located outside habitations, this also poses a challenge of maintaining quality in small schools in places like Himachal. The proportion of single teacher schools ranged from 2.14 % in Kerala to 12.32% in Rajasthan, with this proportion being highest in Rajasthan. This needs further probe as the national policy of having a minimum of two teachers has been in operation for decades now.

Another governance challenge that Samagra poses relates to the Early Childhood Education (ECE). In almost all the states of India, pre-school education traditionally is delivered through Anganwadis under the ICDS Programme of the WCD. The integration of pre-school education envisaged under the Samagra Shiksha programme is thus being perceived as a threat by Anganwadi workers across many states. States such as Karnataka which have already started kindergarten classes in the primary schools are witnessing mass protests by Anganwadi workers[5] as they feel that their role is continuously being reduced by the state and it could pose a threat to their livelihood in future. The states of Himachal Pradesh and Rajasthan have attempted to integrate the Anganwadis to the school premises wherever possible but have not been very successful. While most evaluations of anganwadis in different parts of the country suggest that pre-school education takes a back seat in Anganwadis due to primacy for nutrition and health, and therefore integrating it into the school environment may result in improving attention to education, there is also a risk of downward shift of greater focus on reading and writing, and therefore depriving children of the age appropriate learning (CBPS, 2017)[6]. Some states like Karnataka and Kerala have attempted to develop age-appropriate curriculum for the pre-school and primary schools focusing on learning through playing concepts but that is not necessarily true for all states.

In this context, it is also important to add that there is wide variation among states in terms of anganwadi functioning due to a number of factors. Some states spend much larger public money and therefore significant inter-state differences exist in the number of hours, workers' salaries and availability of resources (CBPS, 2018). It is not clear how Samagra Shiksha Abhiyan is going to address this uneven public expenditure and delivery of ECCE in different states. While Samagra Shiksha advocates the integration of school education continuum, the data on the schools indicate a bigger challenge indicating the need for a stronger political will to steer clear of the departmental turf issues and pave way for better provisioning of school education services through improved governance structures and mechanisms. Uniform prescriptions of any kind in a large and diverse country like India can be a source of grievances. It can be seen that there is wide variation among the states in terms of their achievement and requirements from the system. The policy has to be flexible enough to accommodate these different requirements. Uniform salary prescriptions for teachers under SSA had caused protests by teachers in states such as Nagaland[7]. This kind of disgruntlement could cause further problems in a scenario where inadequate availability of trained teachers is already a concern area. Hence the policy has to allow enough flexibility for the states within its broad ambit.

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[5] *https://timesofindia.indiatimes.com/city/bengaluru/karnataka-anganwadi-workers-protest-introduction-of-kindergarten-classes-in-govt-schools/articleshow/69584614.cms*

[6] https://www.savethechildren.in/sci-in/files/b8/b8831b19-837a-46de-8cd7-fc592f7edda4.pdf

[7] https://www.telegraphindia.com/states/north-east/teachers-to-intensify-protest/cid/1665456

2.2 Teachers training, improving education and challenges of Samagra Shiksha

Teacher education and training has been a major challenge in India for several reasons. Teacher education traditionally refers to the pre-service training or the professional qualification that individuals need to become a teacher while teacher training usually refers to in-service training that teachers undergo on a regular basis. Fast expansion of mass education called for recruitment of a large number of teachers and there has been a shortage of professionally trained teachers, especially since the 1990s when expansion of primary education became a major priority in the country. The problem got accentuated when the Right to Education Act 2009 (RTE) made the pre-service training compulsory. These led to two different kinds of developments: (i) states that were better provided for in terms of educational governance and expenditure moved towards private institutions for certification and degree courses in education leading to unprecedented privatization and emergence of stand-alone teacher-training institutions in some states (NCTE), (ii) recruitment of 'para teachers' on lower salaries as stop-gap arrangements that carried on for long and also became part of regular policies in many states (Nuepa 2017). These para teachers also needed certification to comply with the RTE norms, and that also lead to further privatization and emergence of other means such as ODL based teacher education, often at the cost of the quality of training (NCTE).

Teacher education in India is regulated by the National Council of Teacher Education (NCTE) that gained a statutory status in 1993. Its main objective is to achieve planned and coordinated development of teacher education through the development and implementation of Regulations (Norms and Standards) for teacher education institutions seeking recognition for starting teacher preparation programmes. NCTE brought three successive regulations in 2005, 2007, and 2009, each varying in its details from the previous one. The reasons for developing new regulations have not been stated publicly by the NCTE. However, the fourth set of regulations came in 2014 and these have been discussed in public domain, as this regulatory change was a result of two other development: adoption of the National Curriculum Framework for Teacher Education (NCFTE), 2009 (NCTE 2009), and the report of the Supreme Court's high-powered Justice Verma Commission (JVC) on teacher education in 2012 (Ministry of Human Resource Development 2012). The JVC report was followed by the constitution of four committees to suggest pathways for reforms which led to the 2014 regulations.

A perusal of these frameworks and reports present the following major concerns for quality in teacher education:

1. Heavy presence of private sector in teacher education with lack of suitable accountability mechanisms
2. Need for revision of the curricula for teacher education with more emphasis on apprentice / internship
3. Increased duration of teacher education programmes
4. Reformulation of the regulatory mechanism – amendments in the NCTE Act

5. Locating teacher education programmes within the larger higher education institutions and universities

However, teacher education continues to be one of the more neglected areas in education finance. Kundu (2018) undertook a study of what changed in budgeting for school education post the 14th finance committee recommendations and suggested that teacher education remains to be one of the unrecognized areas in most of the states. Hence, the lack of emphasis towards recruitment of quality teachers and training them for quality delivery of education continues to be well-recognised but goes unaddressed. The project STARS can thus be expected to play an important role in the educational space in India.

In-service teacher training became a priority only with specific externally funded programmes that were introduced in the wake of Education for All (EFA) movement in the early 1990s. This initially included state specific pprogrammes such as Andhra Pradesh Primary Education Project (APPEP), Bihar Education Project (BEP), Shikshak Samkhya in Madhya Pradesh Lok Jumbish in Rajasthan and Uttar Pradesh Basic Shiksha Pariyojna, followed by a multi-state programme called District Primary Education Programme (DPEP). These established the need for regular in-service teacher training, and the SSA adopted this in the form of annual training of all teachers, which was extended to secondary sector by the RMSA. However, these programme also became routinised, as reported by successive Joint Review Commissions for both SSA and RMSA, and slowly the quality and effectiveness of these training programmes have become suspect.

Some states have started new approaches of teacher training but it needs strengthening and Samagra can play a role there. Secondary education has received much less attention as compared to primary; a review of the SSA by Accountability Initiative (2019) pointed out that in 2018-19, across 29 states, 77 per cent of the approved budget was for activities under elementary education, 21 per cent for secondary education and 2 per cent for teacher education. The largest share of the additional expenditure on education from 2010-2016 was on government teacher salaries followed by infrastructure (Accountability Initiative 2013; Kapur, Bordoloi, and Aiyar 2017 cited in CSS, 2019) with training being a low priority. STAR with its focus on the quality of education can use this space to strengthen the quality of teacher training and strengthen new and more effective approaches.

3. Public Expenditure Analysis using the state budgets

This section presents the analysis of public expenditure using the information from state budget documents. Here we undertake the analysis of public expenditure of school education (pre-school to class 12) by different departments in the study states of Himachal Pradesh, Kerala, Madhya Pradesh, Maharashtra, Odisha and Rajasthan. In addition to the DOE, which is principally considered to be in-charge of the provisioning of school education, we have included departments like WCD which caters to pre-school children, Social Welfare and Tribal Welfare departments which run residential schools and hostels apart from providing scholarship and other incentives to targeted children, Department of Transport that provides free or concessional bus passes and the like which are engaged in either school provisioning or creating enabling conditions for school participation have been considered for compiling public expenditure on school education.

The Budget documents of the state were the source documents for the analysis. The entire set of budget documents across departments were scanned for identifying the school education expenditures and were collated. The school education expenditure was collected from the budget data for the years 2012-13 to 2019-20. The last two years 2018-19 being revised estimates and 2019-20 being budget estimates while the data for the rest of the years being actual expenditure. The funds from Government of India (GoI) under Sarva Shiksha Abhiyaan (SSA), Rashtriya Madhyamik Shiksha Abhiyaan (RMSA) which were routed directly to the state level societies for the year 2012-13 and 2013-14 were not considered analysis. However, from the year 2014-15, since, the GoI funds were also routed from state budgets, the entire expenses of SSA and RMSA (which includes both state and GoI share) were considered for analysis. But, as we would later explain, the details of these expenditure are not available from the Budget documents, as these programme appear as single line items there. Therefore, we have undertaken a separate analysis of the finances related to these programmes in the next section.

3.1 Public expenditure and its reach in school education

One of the important components of the public expenditure analysis is to understand the reach of public expenditure in terms of its coverage of population. This becomes more important when private players also exist in the provisioning the school education. A clear understanding of this reach will help in estimating the impact that public expenditure can potentially have on the spectrum of school education.

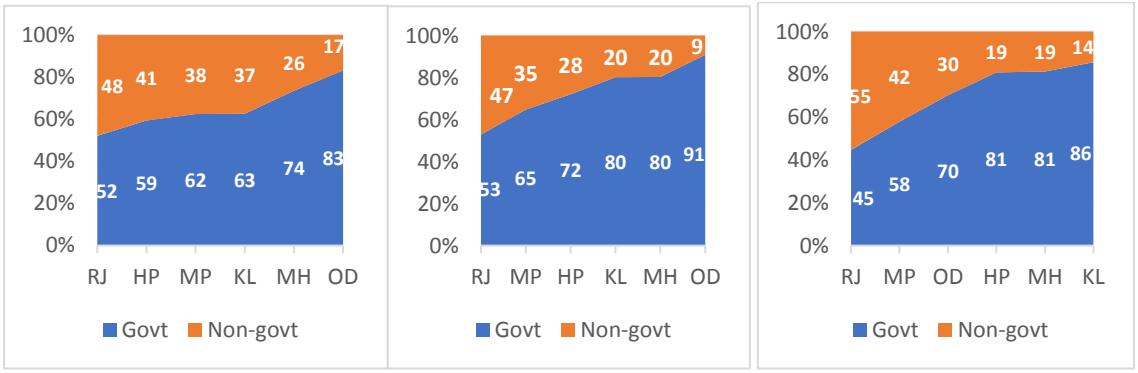
The latest UDISE data for the year 2016 was used to understand the reach of public expenditure in the study states. The enrollments under government and aided schools together were considered to be the reach of public expenditure, as almost entire recurrent expenditure in aided schools which usually constitutes more than 90 percent of total expenditure, is borne by the government. An analysis of the ratio of enrolment under government and aided together with

the total enrolment indicated a wide spectrum of reach of public expenditure across the study states under elementary, secondary and higher secondary schooling (Table 3.1 and Figure 3.1)

Table 3.1: Ratio of enrolment in government and aided schools to total enrollment in the schools

STATES	UDISE 2016		
	classes 1-8	Classes 9-10	Classes 11-12
Himachal Pradesh	59.38	72.15	81.01
Kerala	62.65	80.22	85.69
Madhya Pradesh	62.49	64.72	57.90
Maharashtra	73.57	80.30	81.39
Odisha	83.24	90.87	70.27
Rajasthan	52.19	52.88	44.80

Figure 3.1: Share of enrollment pattern among Govt and aided institutions across elementary, secondary and higher secondary schools respectively.



Legend: RJ-Rajasthan, HP- Himachal Pradesh, MP- Madhya Pradesh, KL-Kerala, MH- Maharashtra, OD- Odisha
Source: UDISE-2016

The share of students under government and aided schools among the total students was highest in Odisha for both elementary and secondary schooling at 83 and 91 percent respectively. Rajasthan has the lowest share of students under government and aided streams together in both elementary and secondary schools at 52 and 53 percent respectively. When the higher secondary is concerned, the states of HP, Maharashtra and Kerala record a higher share than the other three states indicating higher presence and access of government and aided institutions. There is a need to deep-dive and understand these patterns across different levels (elementary, secondary and higher secondary) as to what it would mean in terms of its reach and implications for participation of the poorest. It is especially important to note that the better performing states in education have a higher share of government and aided school enrollment under higher secondary education.

3.2 Spread of School Education Expenditure (SEE) across Departments

The SEE was spread across different departments and different major heads of account in the study states. The SEE was spread across 9 departments in Maharashtra while it was only 5

departments in Himachal Pradesh and Odisha (Table 3.2). Even in terms of number of major heads of account indicating the SEE, the state of Maharashtra was highest followed by Rajasthan. The details of the departments and major heads of account across states is provided in the Annexure 1 and 2.

Table 3.2: Spread of SEE across Departments and Major Heads of Account

	Himachal Pradesh	Kerala	Madhya Pradesh	Maharashtra	Odisha	Rajasthan
Departments	5	6	6	9	5	6
Major Heads	5	12	6	13	7	8

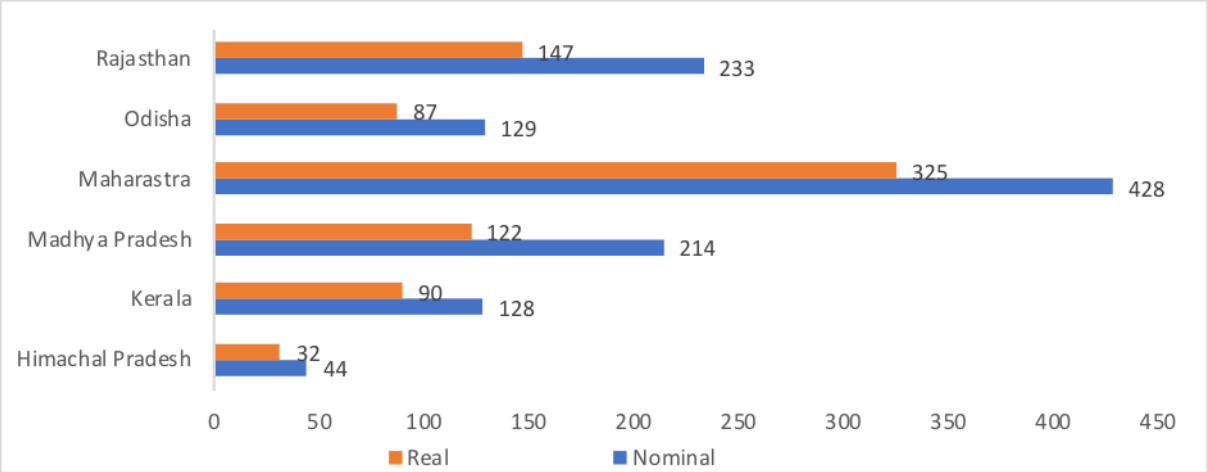
3.3 Trends in School Education Expenditure

3.3.1 Size of School Education expenditure

The size of annual SEE varied across different states. We undertook the entire expenditure during the reference period and averaged it for eight years and found that this was highest in Maharashtra followed by Rajasthan and Madhya Pradesh while it was lowest in Himachal Pradesh (Figure 3.2). This is of course also linked with the size of population and the smaller states would definitely have lower expenditure. However, it is also linked with the relative size of public education, and the how much the state has prioritized school education, which can be best represented through per child expenditure.

Figure 3.2: Average Annual Total School Education Expenditure across states (2012-13 to 2019-20)

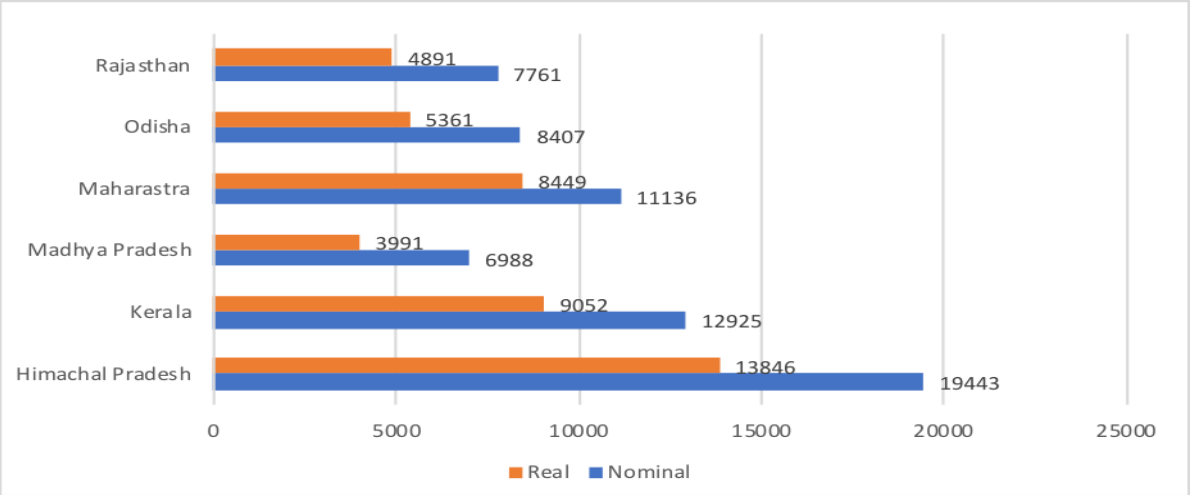
Rs. in billion



**Real expenditure is computed for the years 2012-13 to 2016-17(2011-12 prices)*
Source: Budget documents of respective states and years

We used the estimated population of 0-18 age group as the basis to arrive at the per-child SEE to have a better understanding of the comparative position across the states (Figure 3.3).[8] The per-child expenditure is highest in both nominal and real terms in Himachal Pradesh followed by Kerala and Maharashtra. Madhya Pradesh spends about one-third of what the state of Himachal Pradesh spends per child.

Figure 3.3: Average Per-child SEE across states (in Rupees) (2012-13 to 2019-20)

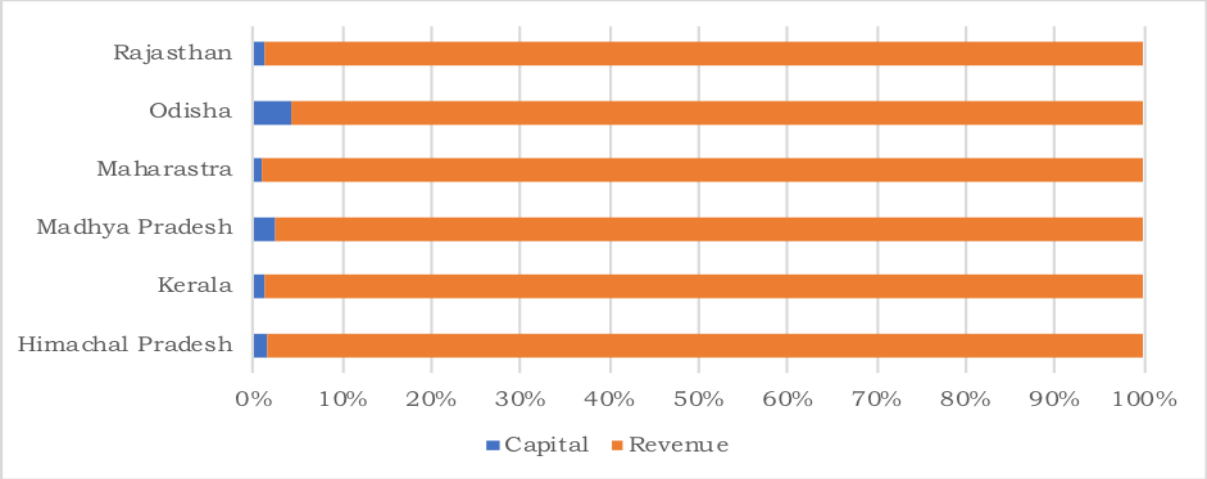


**Real expenditure is computed for the years 2012-13 to 2016-17(2011-12 prices)*
Source: Budget documents of respective states and years

The SEE comprised mainly of revenue expenditure (Figure 3.4). The capital expenditure was highest in Odisha at 4.09 percent followed by Madhya Pradesh at 2.43 percent while in Maharashtra it was less than one percent. This is perhaps reflective of the fact that states with better infrastructure are spending a greater proportion on recurrent while those that still need to expand are incurring some capital expenditure as well. This analysis, however, does not help in establishing whether this extent of capital expenditure is sufficient or not.

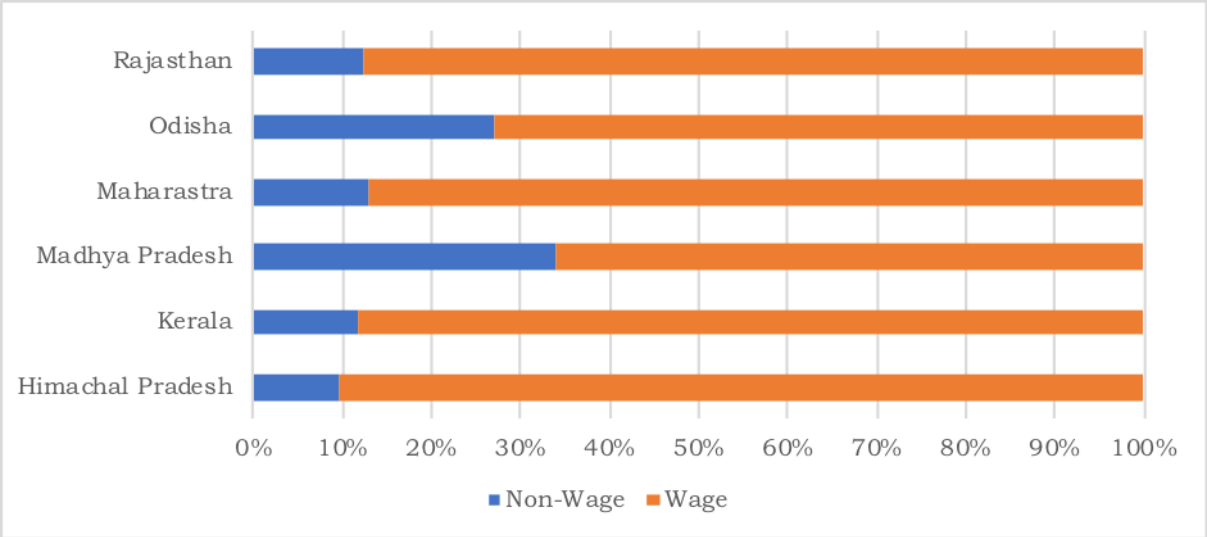
Figure 3.4: Share of Revenue and Capital expenditure in total SEE

[8]While the use of enrollment figures by pre-school, elementary and secondary schools would have been the best way to compare, the expenditures were not available is the same categories.



Majority of SEE was wage expenditure which included salaries (of permanent staff), wages of contractual staff and hired professional services. Non-wage formed a less proportion of the expenditure except for the states of Madhya Pradesh and Odisha where it was 34% and 27% respectively (Figure 3.5).

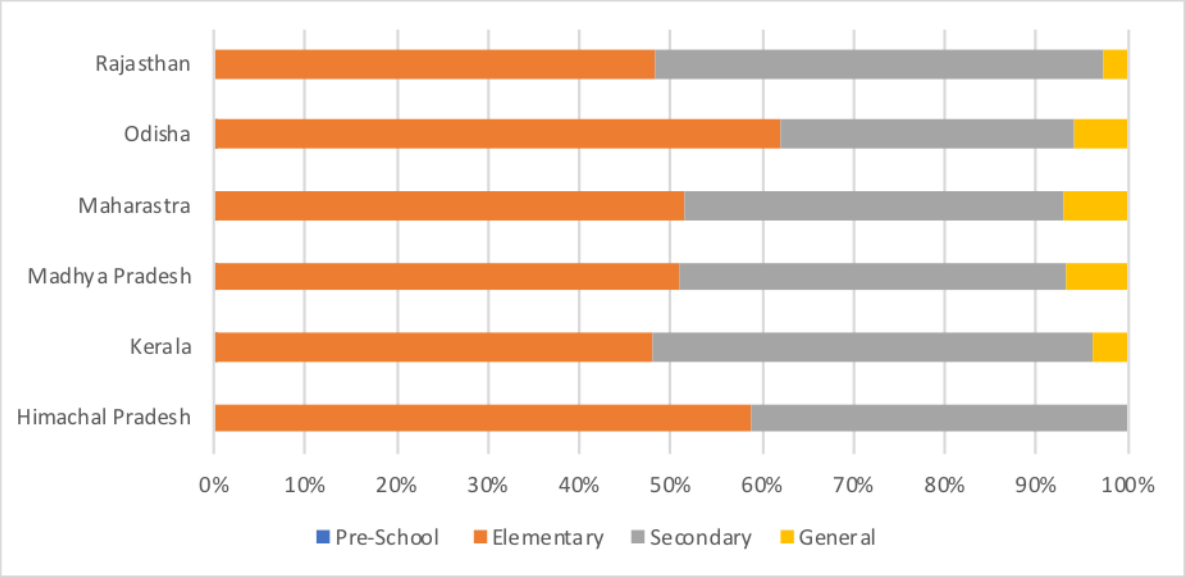
Figure 3.5: Share of Wage and Non-wage expenditure in total SEE



The elementary education expenditure accounted for highest share in almost all six states. The share of elementary education was lowest in Kerala at 48 percent and was highest in Odisha at 62 percent (Figure 3.6). The share of secondary education in total SEE was highest in Kerala at 48 percent and was lowest in Odisha at 33 percent.

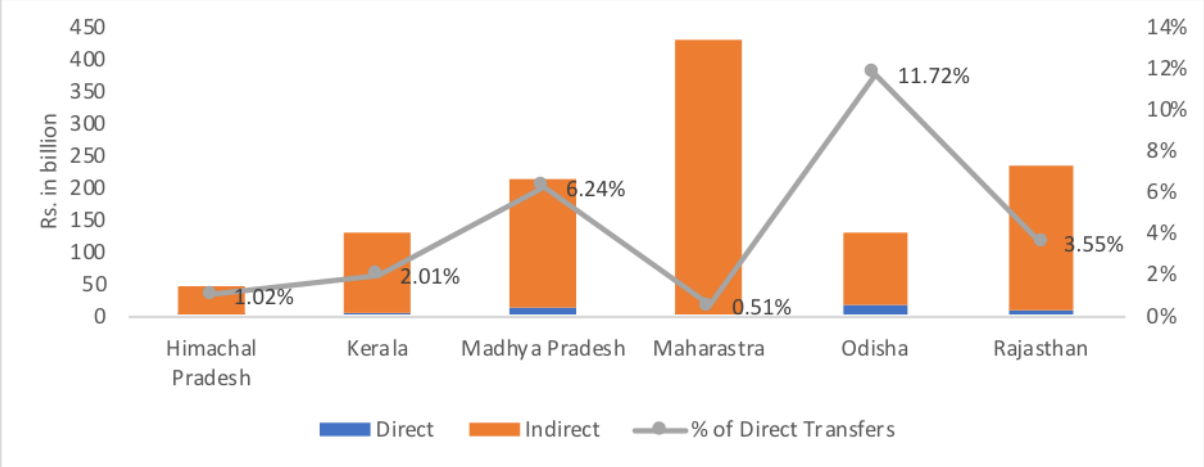
Figure 3.6: Share of pre-school, elementary, secondary and general[9] expenditure in total SEE

[9] Those cannot be categorised into elementary or secondary



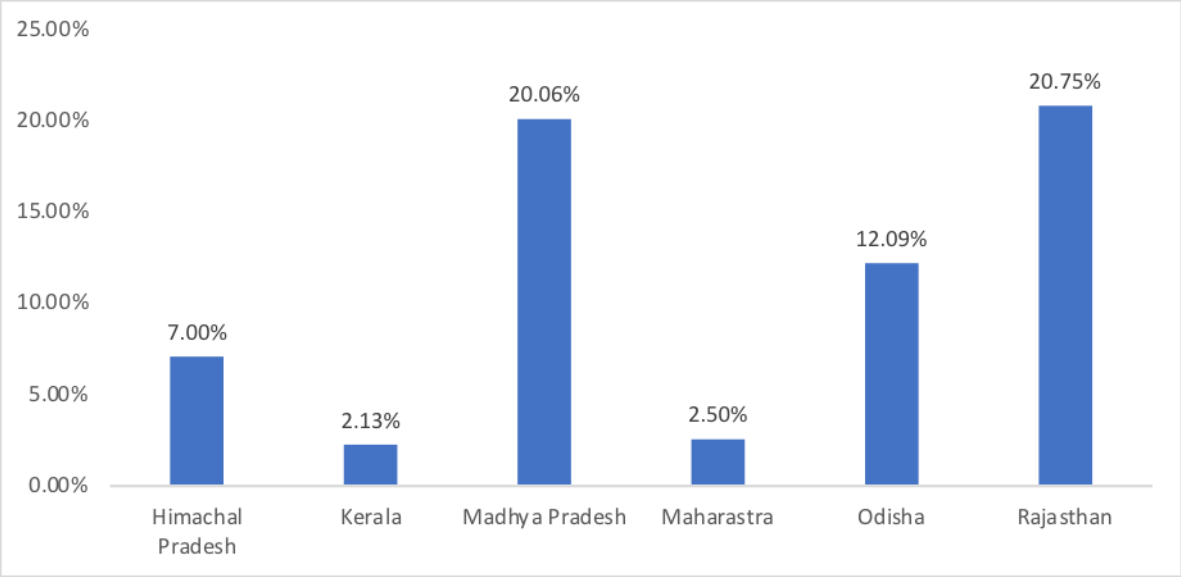
The indirect expenditure of school education which included wage component, maintenance of schools and buildings formed the bulk of the SEE. The direct expenditure on school children which included scholarships, incentives, mid-day meals (which were directly available for students) formed a smaller component of the SEE (Figure 3.7). The share of direct expenditure on school education was highest in Odisha followed by Madhya Pradesh.

Figure 3.7: Share of Direct (demand side) and indirect expenditure (supply side) in total SEE



The schemes of SSA, RMSA and Samagra together constitute very low proportion of the total SEE in Kerala and Maharashtra while it forms significant proportion in the states of Odisha, Madhya Pradesh and Rajasthan (Figure 3.8)

Figure 3.8: Share of important schemes (SSA, RMSA and SS) in total SEE for the years 2012-13 to 2019-20



The education expenditure budget was perused for expenditures on STARS component focusing on enhancing/ contributing to the quality of education. It was found that some of the quality interventions that the policy documents mention does not necessarily figure in the same names/budget heads of expenditure. However, the initial compilation of the expenditures influencing the quality of school education or Star components (training, awards, incentives, workshops, assessments, use of ICT etc.)[10] does not account to even one percent of the SEE across the study states. But it does include expenses made on STAR components though SSA and RMSA, and hence is an underestimate.

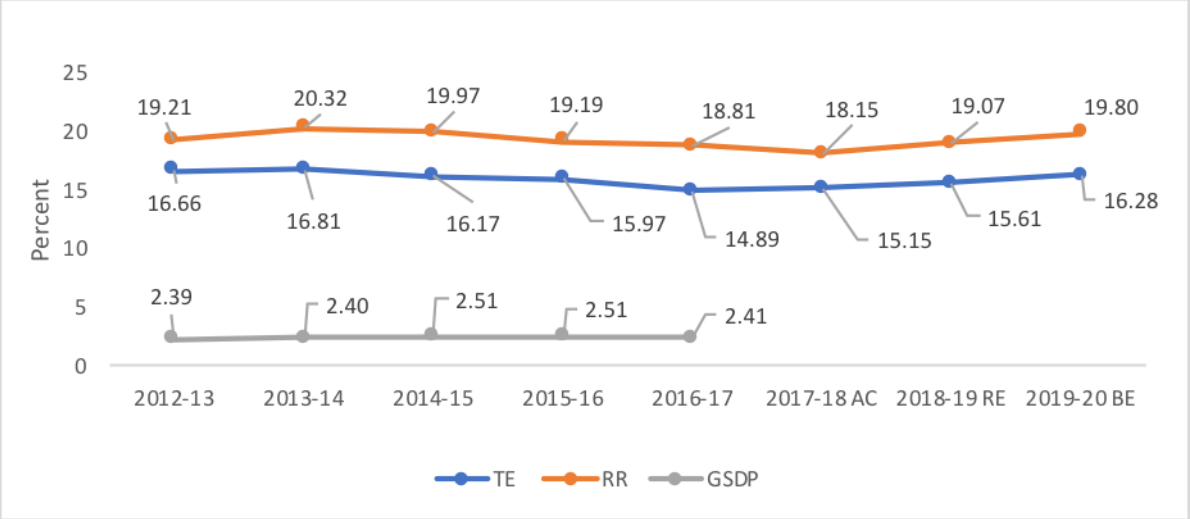
3.3.2 School Education Expenditure trends in pre and post 14th Finance Commission's award

The share of SEE in the total expenditure, revenue receipts and GSDP was analysed to understand the trends during the period prior and after the 14th Finance Commission (FC) award[11]. This assumes criticality as the 14th FC recommended reduction in the allocation of tied funds through Centrally Sponsored Schemes (such as SSA and RMSA) and increased the state's share of untied funds from 32 percent to 42 percent of the total revenue collected. The present analysis is based on the aggregate data (total expenditure, revenue receipts and GSDP) of all the six states taken together for the years in nominal terms. The analysis indicated a clear though not very steep trend of decline of school education expenditure both as a percent of total expenditure as well as the revenue receipts. The SEE as a percent of total expenditure (TE) has come down steadily from 16.81 percent in 2013-14 to 14.89 percent in 2016-17 and has reached 16.28 percent in 2019-20 which is still below the proportionate level that existed in 2013-14 (Figure 3.9).

[10] Please refer to section 1.2

[11] The 14th FC award period is 2015-16 to 2019-20. FC is the constitutional institution that determines the mechanism for sharing of revenue between union and state governments every five year. Its recommendations are perceived as mandatory.

Figure 3.9: Share of SEE in Revenue Receipts, Total expenditure and GSDP



TE- Total Expenditure RR- Revenue Receipts GSDP- Gross State Domestic Product

The share of SEE as a proportion of revenue receipts has also come down indicating that the increases in the school education expenses has not increased in line with the increase in the revenue receipts of the state. The SEE as a share of GSDP also indicate the similar trend. It is importsant to mention that during these years, states have gone in for the pay revision as well which has enhanced the expenditure (Kerala in 2016-17, MP, Rajasthan and Odisha in 2017-18, and Maharashtra in 2018-19). If the effect of pay revision is taken off, the decline would be more pronounced.

3.3.3 Education and Empowerment (E&E) index and School education expenditure

The school education expenditure of the states was correlated with the Education and Empowerment Index to understand the expenditures in relation with the education indicators (Table 3.10). The index was constructed using the indicators from NSSO latest round data (4) and NFHS 4 data (2).[12]

Table 3.10: Education and Empowerment Index and Per-child expenditure of States

States	Per-Child Expenditure (Rs)	E&E Index*
Himachal Pradesh	19443	0.82
Kerala	12925	0.98
Madhya Pradesh	6988	0.32
Maharashtra	11136	0.55
Odisha	8407	0.48
Rajasthan	7761	0.17
All India		0.47

[12] This index was developed by CBPS and has been explained in the recently published report on Public Expenditure on Children in India in collaboration with UNICEF. http://cbps.in/wp-content/uploads/Public-Finance-for-Children-PF4C-across-16-Indian-States.pdf.

Average of six states	**11110**	**0.55**

**Source: CBPS – UNICEF, 2019*

A high degree of correlation existed between per-child expenditure and the E&E index (r= 0.77). While the state of Kerala stood first with an index value of 0.98, the states of Rajasthan Madhya Pradesh and Odisha with index values of 0.17, 0.32 and 0.48 stood lower than the average of the 6 states.

3.3.4 Fiscal and Revenue Deficits of study states and implications for SEE

The revenue and fiscal deficits of the study states for the year 2012-13 to 2016-17[13] were analysed. The two better performing states in terms of educational indicators present a contrast when it comes to their fiscal positions. Himachal Pradesh has posted revenue surplus for the years 2015-16 and 2016-17. However, the fiscal deficit has breached the limit of 3.5 percent of GSDP to reach 4.69 percent in the same period. Given the revenue surplus and fairly better status of education indicators, the state has potential to maintain and augment the required SEE. Kerala has been reeling in fairly prolonged period of revenue and fiscal deficits, and this could affect the school education expenditure in coming years. Though the state is performing very well in terms of education indicators, deficits can be a cause of concern in terms of their ability to sustain the SEE in the long run.

Madhya Pradesh while consistently posting revenue surplus has high fiscal deficit. The low revenue surplus coupled with high fiscal deficit, which has reached 4.27 percent of GSDP, can potentially affect the need for augmenting the SEE in view of poor educational indicators. Maharashtra is one of the best fiscally managed state and has very low fiscal deficit at below 2 percent of GSDP. The state has the potential as well as the resources to augment and sustain the SEE to improve the education indicators. Odisha is another state which has consistently posted sizable revenue surplus indicating capability for expanding the SEE to improve the education indicators. This state also has fiscal deficit within the usual FRBM ceiling limit of 3.5 percent of GSDP. Rajasthan has ever increasing revenue and fiscal deficits since 2013-14 and fiscal deficit reached the 6 percent of GSDP in 2016-17. This poses severe threat to the sustained increase in its SEE, as this is also a state with poor education indicators, especially at the secondary education stage, and therefore high and consistent investment.

[13] CAG audit reports, which are used as the source here, are available up to the year 2016-17 only

4. Analysis of SSA, RMSA and Samagra Finances

The budgets of SSA, RMSA and Samagra Shiksha were analysed to understand the extent of STARS (Strengthening Teaching-Learning and Results in States) components that were included under them by using the Annual Work Plan and Budget (AWPB) documents and Project Approval Board (PAB) minutes for the years 2014-15 to 2019-20[14] for all the 6 states. This analysis was also important to examine whether there was a change in pattern of allocation to STARS components before and after the introduction of Samagra. However, unlike state budget documents that are tabled in respective Assemblies and placed in public domain compulsorily, there is no such compulsion for these documents. Therefore, the analysis was restricted to the extent of availability of the AWPB/PAB minutes through web search (Table 4.1). While the AWPB/PAB minutes were available only for few years, we also encountered asymmetry in terms of the use of terminology. Four different sets of numbers termed as estimates (EST), proposals (PPL), recommended (REC) and approved (APP) were being used and it was difficult to determine the rationale for the same. The figures for 'estimates' and 'proposals' matched in some states while it did not in two states. The figures for 'recommended' and 'approved' categories also varied in all states.

Table 4.1: Availability of AWPB/PAB minutes under SSA, RMSA and Samagra Shiksha

Sarva Shiksha Abhiyaan-SSA																
States	2014-15				2015-16				2016-17				2017-18			
	EST	PPL	REC	APP	EST	PPL	REC	APP	EST	PPL	REC	APP	EST	PPL	REC	APP
HP	No	No	No	Yes	No	Yes	Yes	Yes	No	No	No	Yes	Yes	No	No	Yes
Kerala	No	No	No	Yes	No	No	No	No	No	No	No	Yes	Yes	Yes	Yes	No
Maharashtra	No	Yes	No	Yes	No	Yes	Yes	Yes	No	No	No	Yes	Yes	Yes	Yes	No
MP	No	No	No	No	No	No	No	No	No	No	No	Yes	Yes	No	No	Yes
Odisha	No	No	No	No	No	No	No	No	No	No	No	Yes	Yes	No	No	No
Rajasthan	No	No	No	No	No	No	No	No	No	No	No	Yes	Yes	Yes	Yes	No
Rashtriya Madhyamika Shiksha Abhiyaan- RMSA																
States	2014-15				2015-16				2016-17				2017-18			
	EST	PPL	REC	APP	EST	PPL	REC	APP	EST	PPL	REC	APP	EST	PPL	REC	APP
HP	No	Yes	Yes	Yes	No	Yes	No	Yes	No	No	No	Yes	No	Yes	No	Yes
Kerala	No	Yes	Yes	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes
Maharashtra	No	No	No	No	No	No	No	Yes	No	No	No	Yes	No	Yes	Yes	Yes
MP	No	Yes	Yes	Yes	No	Yes	Yes	Yes	No	No	No	Yes	No	Yes	Yes	Yes
Odisha	No	Yes	Yes	Yes	No	Yes	Yes	Yes	No	Yes	Yes	Yes	No	Yes	Yes	Yes
Rajasthan	No	Yes	Yes	Yes	No	No	No	Yes	No	No	No	Yes	No	Yes	No	Yes
Samagra Siksha																
States	2018-19				2019-20											
	EST	PPL	REC	APP	EST	PPL	REC	APP								
HP	No	Yes	No	Yes	Yes	Yes	No	Yes								
Kerala	Yes	Yes	No	Yes	Yes	No	No	Yes								
Maharashtra	Yes	Yes	No	Yes	Yes	Yes	No	Yes								
MP	No	Yes	No	Yes	Yes	Yes	No	Yes								
Odisha	No	Yes	No	Yes	No	No	No	Yes								

[14] *The analysis was restricted to 2014-15 to 2019-20 BE as the routing of funds for the SSA and RMSA through the state budget began from 2014-15.*

Rajasthan	Yes	No	No	No	No	No	No	Yes

EST= Estimates, PPL= Proposal, REC= Recommended, APP= Approved

4.1 STARS components

The interventions that were categorized as STARS components are those that focus on enhancing the quality aspects of school education.[15] The following matrix in Table 4.1 presents what it includes and what it does not:

Table 4.1: Star Components in SSA, RMSA and Samagra

INCLUDED in STAR Components	EXCLUDED in STAR components
trainings and orientations (of teachers, HMs, educational officers), teaching learning material (TLM), teacher education, vocational education, adolescent and skills training, libraries, assessments and innovations and program/project management and monitoring. Non-recurring grants such as Travel Allowance (TA), meeting grants and TLM grants, TLM*, in-service training and skill trainings across all major components.	Salaries, recurring grants (for example- maintenance grant, contingencies grants, school grant under quality intervention) and civil works, some components** such as – science lab, lab equipment, ICT, computer room, art/craft room, Kala Utsav

* *TLM, in-service training which have been considered as STARS under one of the major components have been excluded under some other major components as per 2018-19 Samagra classification*

** *which could contribute to enhance quality and improves learning outcomes were not considered as STARS component as per 2018-19 Samagra classification*

The share of STARS components in SSA and RMSA or Samagra Shiksha is presented in the Table 4.2. There was a big increase in the share of STARS components during 2018-19 and 2019-20 compared to earlier years. The share of STARS components was significantly higher in the states of Maharashtra (25%), followed by Kerala and Himachal Pradesh. However, during the years 2018-19 and 2019-20, the share of STARS had a significant increase in Himachal Pradesh followed by Maharashtra and Rajasthan. However, it is important to mention that these two years depict the revised estimates (RE) and budget estimates (BE) and not actual expenditures.

[15] This has been arrived at in consultation with the colleagues from the World Bank office, New Delhi.

Table 4.2: Share of STARS components for the years 2014-15 to 2019-20 under SSA/RMSA and Samagra Shiksha

STATES	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	Average share till 2017-18	Average share for 2018-19 and 2019-20
Himachal Pradesh	15.96	11.86	20.82	17.46	47.89	48.46	16.52	48.17
Kerala	15.28	NA	16.85	17.85	23.33	17.39	16.66	20.36
Madhya Pradesh	NA	NA	9.30	10.42	14.62	23.66	9.86	19.14
Maharashtra	NA	35.89	18.90	21.83	33.32	32.01	25.54	32.66
Odisha	NA	NA	5.81	8.67	14.70	16.56	7.24	15.63
Rajasthan	NA	NA	NA	6.21	24.09	29.91	6.21	27.00

The average share of the STARS component so obtained was used to arrive at the extent of STARS components in the total school education expenditure. The STARS components identified outside of the SSA/RMSA/Samagra were also added to the STARS components within SSA/RMSA/Samagra to arrive at the total STARS components in Table 4.3.

Table 4.3: STARS components in the School Education Expenditure (SEE) Rs. in billion

States	2014-15	2015-16	2016-17	2017-18	2018-19 RE	2019-20 BE	Ave till 2017-18	Ave for 2018-19 and 2019-20
Himachal Pradesh	0.66	0.34	1.29	0.99	3.24	4.05	0.82	3.65
Kerala	1.77	1.66	1.39	1.71	2.83	3.21	1.63	3.02
Madhya Pradesh	3.14	2.77	3.67	2.78	8.73	10.90	3.09	9.82
Maharashtra	5.07	6.04	7.39	7.51	11.80	13.84	6.50	12.82
Odisha	1.70	2.25	1.14	2.93	8.03	9.00	2.01	8.51
Rajasthan	3.24	4.82	5.38	6.44	17.24	15.21	4.97	16.22

The average share of STARS component in the SEE hovered between 1.3 percent to 2.25 percent for the years 2014-18 (Table 4.4). The share witnessed significant increase during the years 2018-19 and 2019-20 when it ranged between 1.85 percent to 6.07 percent of SEE.

Table 4.4: Share of STAR components in the School Education Expenditure (SEE) (in Percent)

States	2014-15	2015-16	2016-17	2017-18	2018-19 RE	2019-20 BE	Ave till 2017-18	Ave for 2018-19 and 2019-20
Himachal Pradesh	1.75	0.90	2.88	1.94	6.23	5.90	1.87	6.07
Kerala	1.69	1.45	0.98	1.09	1.79	1.91	1.30	1.85
Madhya Pradesh	2.07	1.62	1.82	1.19	2.66	2.84	1.67	2.75

Maharashtra	1.33	1.48	1.72	1.78	2.41	2.21	1.58	2.31
Odisha	1.74	1.74	1.09	1.95	4.36	4.47	1.63	4.41
Rajasthan	1.78	2.42	2.31	2.49	4.95	3.94	2.25	4.45

The analysis indicates that the introduction of Samagra has helped in enhancing the focus on the STAR component or the quality aspects of the school education. This also indicates the need for not only to identify the efforts to improve the quality of teaching, learning and education outcomes but also the scale at which it has to be executed to have its impact. In some areas, efforts to improve quality may be enough to have an impact on the educational outcomes while in some areas, efforts to address both access and quality issues together may be required to achieve the desired impact on educational outcomes.

Here, it is pertinent to add that the Compliance audit of RTE ACT 2009, by the CAG in 2017[16] highlighted several issues with the AWP&B as well as the PAB Minutes. The audit found that the state proposals were consistently higher which were reduced by PAB for not confirming to the norms of Sarva Shiksha Abhiyaan. The audit also noted that GOI budget provisions for the SSA was not based on the norms of SSA and outlays approved by PAB (despite the activity being done in advance for the ensuing year) but based on annual plans of the department. The audit also highlighted the under utilization of funds under REMS (Research Evaluation Monitoring and Supervision) component ranging from 9 to 65 percent (Maharashtra and Rajasthan-32 and 54%). Similarly, in the Learning Enhancing Programme (LEP), which is to initiate and institute curricular reform, including development of syllabi, textbooks and supplementary reading material keeping with the child centric assumptions the utilization was short by 15 to 88 percent (Maharashtra and Rajasthan-19 and 65%). The audit also spoke at length about delayed releases, releases in march, mismatch between opening and closing balances as evidenced by utilization certificates which are true for other centrally sponsored schemes as well.

4.2 School Education Quality Index (SEQI) and STAR Expenditure

The School Education Quality Index (SEQI)[17] is an index developed by NITI Aayog together with experts from education sector, World Bank and MHRD. The index has two broad categories namely, Outcomes and Governance Processes aiding outcomes. Outcomes category comprises of learning outcomes, access outcomes, infrastructure and facilities outcomes and equity outcomes. The Governance processes aiding outcomes looks into school leadership, financial discipline, teacher availability and availability of transparent systems for teacher recruitment.

[16] https://cag.gov.in/sites/default/files/audit_report_files/Report_No.23_of_2017_%E2%80%93_Compliance_audit_Union_Government_Implementation_of_Right_of_Children_to_Free_and_Compulsory_Education_Act%2C_2009.pdf

[17] http://social.niti.gov.in/education-index - released on September 30, 2019.

An attempt to understand the relationship between the SEQI and the STARS expenditure was made by examining the correlation between STARS expenditure and Overall SEQI as well as SEQI of Governance processes. The Per-capita school expenditure was also correlated with Overall SEQI as well as SEQI of Governance processes (Table 4.5).

Table 4.5: School Education Quality Index and STARS expenditure

STATES	SEQI		STARS expenditure share (%)	School Education Per capita (Rs)
	Overall	Governance process		
Himachal Pradesh	62.8	54.6	3.27	19443
Kerala	82.2	79.0	1.49	12925
Madhya Pradesh	47.2	44.5	2.03	6988
Maharashtra	62.5	46.9	1.82	11136
Odisha	60.2	61.9	2.56	8407
Rajasthan	59.4	56.4	2.98	7761
Correlation with overall SEQI			**-0.37**	**0.45**
Correlation with SEQI governance process			**-0.26**	**0.21**

The overall SEQI with STARS expenditure showed a negative correlation while it showed a positive though weak correlation with per-capita school education expenditure. Similar trend was observed for SEQI governance processes as well. This indicates that perhaps the expenditures on quality improvement is highly dependent on other expenditures complementing it.

5. Emerging Challenges in School Education, Samagra and STARS

The school education sector is facing multiple challenges ranging from the issue of finances to defining the quality, and strengthening the accountability of the public system. In that context, STAR can play a role but given that the country is also witnessing several fast-paced shifts, there is also perhaps need for caution. Here, we outline the challenges, possible actions and the risks that need to be taken cognizance of. In this process, one of the most important points to remember is that of inter-state diversity that exist in terms of economic capacity, educational status, role and status of public education, and therefore the need for state specific plans and solutions. However, at the same time, one also needs a commonly applicable framework that acts as the boundary and enables contextual planning. We start here by providing pointers for a common framework.

5.1 Pointers for common framework / guidelines

a. **Defining the quality, its parameters and indicators** is very important especially in the light of varied interpretation and understanding that exists in the context of school education. While it is important to pay attention to the aspect of learning achievement, it is also important not to let the understanding of quality be reduced only to minimalist learning outcomes. In this context, a broad vision of quality and its implications for school education at different levels starting from early years to senior secondary would help in identification of state specific gaps and developing state specific plans. It would be important to include the issue of aspirations, equality and diversity within the issue of quality so that a more comprehensive definition of quality emerges.

This framework also needs to identify the links between inputs and quality parameters, as often well-meaning inputs implemented in an isolated manner fail to generate any impact because of the lack of any clarity in the role that it could have or the linkages that need to be strengthened. For instance, a recently completed study on skills in secondary education through RMSA in Karnataka shows that the choice of skills, the curriculum design as well as its delivery is in complete divergence not only with students' and parental expectations and aspirations but also with market trends and demands (our study reference from the website). Similarly, the introduction of art and craft can enrich subject teaching and be directly linked with learning, rather than being implemented in isolation as a co-curricular activity. The use of technology is another example where an appropriate and good use can enable learning while an ill-conceived introduction of technology can be an end in itself without contributing much to leaning. Also important is to ensure the presence of minimum thresholds that allows the meaningful use of technology is and the barriers that it may create or the gaps that it may exacerbate due to unequal access are paid attention to in this process.

b. **A combination of comprehensive long-term public expenditure plan for STAR expenditure alongside a fiscally sustainable approach to be encouraged.** It is important that fiscal prudence alone is not the determining factor and the expenditure plan and the multiplier

potential for promoting the quality and greater equality in education as well as the employment / redistribution of resources are also made important criteria for determining the expenditure priorities and size.

The Goods and Service Tax regime which deprived the states the power to tax has altered the revenue raising potential in a big way. The restructuring of centrally sponsored schemes (CSS) to limit the GOI share to 60% for larger states has already affected the states' capacity to spend on social sectors. States like Odisha which has demonstrated fiscal prudence while also choosing bold social policies such as multilingual education and enhanced expenditure on nutrition, provide the base for developing this aspect of the framework.

States which are undergoing fiscal stress (high deficits), are also poor in planning, execution and submission of utilization certificates which lead to cycle of low utilization followed by less provisioning of scheme funds from GOI. As the NITI Aayog study[18] indicated the general-purpose transfers have been able to partly offset the revenue and cost disabilities while the specific purpose transfers examined in the study (Sarva Shiksha Abhiyan) indicated that states with lower incomes have been experiencing higher shortfall in the receipt of specific purpose transfers (scheme funds). Since the specific purpose transfers in education, health rural employment are big and if the better performing states able to garner larger proportion of funds, it would result in the higher disparity in level of services between resource rich and resource poor states. Unless this is comprehensively addressed, there is little scope for the states to augment the expenditure on social services including education.

c. **Developing a menu of possibilities to choose from and a No-list may be a better idea** than developing a list of acceptable expenditures. Traditionally, the guidelines usually include a list of acceptable activities but given the diversity of situations and needs, it may be a better idea to have a menu of choices alongside a no-list to prevent undesirable expenditure while promoting flexibility and contextual planning. Existing literature and consultations can help in developing these lists.

d. **Development of state specific plans and action points with support of adequate technical support and rigorous as well as collaborative appraisal** would help. Technical support in planning and collaborative yet rigorous appraisal would ensure that state specific plans and budgets for STAR are not just an arithmetic exercise.

e. **Development of an institutional plan for implementation** could be made a compulsory element of planning given that STAR is linked with Samagra and the success of Samagra is associated with the institutional reforms and inter-departmental coordination. This plan could clearly outline the roles of respective departments and new proposals for mergers or sharing of responsibilities as well as the mechanisms for joint monitoring to avoid turf war.

18 https://niti.gov.in/writereaddata/files/document_publication/Report%20on%20CENTRAL%20TRANSFERS%20TO%20STATES%20IN%20INDIA.pdf

f. **Comprehensive and interactive data systems be developed for bringing in greater efficiency and for enabling better planning.** STAR identifies strengthening of data systems in education as one of its priorities. The current data systems are parallel to each other and therefore they rarely match. With growing urbanization and improved transport facilities, people surrounding urban areas (block head quarter) are availing the services at the block head quarter and not the one in their village. Same holds true for schools in peri urban areas (metros and district headquarters). Any new data systems to be developed should be able to address these issues and STAR should be able to support such initiatives.

At this stage, it is pertinent to highlight that several recent announcements and developments on the policy front need to be taken note of while developing the framework for Star funding and implementation. We discuss those here next.

5.2 Recent and impending policy announcements and their implications for STAR

The School education is states is facing diverse challenges such as reduction of enrolments in government schools, need for regulation of private schools and enhancing the quality of education. In addition, some of the new developments may affect the education sector policy as well as financial choices significantly. The Government of India has placed the draft National Education Policy in public domain which advocates for all states spending 20 percent of their total public expenditure on education. But the states are at different levels in terms of ability for financing the school education and a number of poorer states with smaller economies are already spending close to 20% of the total expenditure on school education. Few states like Bihar, Madhya Pradesh, Rajasthan where in the Samagra forms substantive proportion (more than 20%) of the school education expenditure are spending little less than this. Forcing states which are highly dependent on the transfers from GOI wherein even the timing of the transfers matter to spend more is unlikely to yield results. States with no taxing power are left with no choice but to allow the private players to operate in such circumstances.

The government intends to make Centrally Sponsored Schemes to be co-terminus with the Finance Commission term[19]. It is also proposed that all centrally sponsored schemes have to go through an outcome review followed by appraisal to be able to continue beyond March 2020. It is likely that many of the centrally sponsored schemes including that of school education would be revamped. This again will perhaps affect those states adversely which are lagging behind in planning, execution and submission of utilization certificates. While weak governance needs to be identified and addressed, it is also important to look for measures that strengthen these processes rather than penalize the population by hurting their entitlements and rights. Therefore, STAR would need to have an approach where the states in greater needs are able to access funds and be made accountable for prudent spending.

[19] https://pib.gov.in/newsite/PrintRelease.aspx?relid=168837

Another cause of worry, as emanated from certain consultations, is that Samagra is currently considered as a scheme replacing the SSA & RMSA, and not as a mechanism to integrate the school education. STAR, which is linked to Samagra, could also fall in this trap and be seen as another scheme, rather than an approach that allows to create evidence and fill the gaps in the existing situation. Only the presence of clear framework and message to the contrary coupled with comprehensive technical support would be able to help change this situation.

6. STATE REPORTS

6.1 HIMACHAL PRADESH

A. Policy Analysis

6.1.1. Policy-Legal -Administrative- Hierarchical structures

The state had a clear legal framework for supporting the cause; as early as in 1953 the state envisioned and had 'The Himachal Pradesh Compulsory Primary Education Act, which after attaining the complete statehood in 1971 became "Compulsory Primary Education Act; 1997" with penalties prescribed against parents who failed to enroll students in primary schools. With the Right of Children to Free and Compulsory Education Act, 2009 coming into place, Himachal Pradesh framed Right of Children to Free and Compulsory Education, Himachal Pradesh Rules in 2011 for the effective implementation of the act.

The school education in the state of Himachal Pradesh comprises of the following stages:

(i) Primary Classes I to V (Age group 6-11)

(ii) Middle (Upper Primary) Classes VI to VIII (Age group 11-14)

(iii) High School (Secondary) Classes IX to X (Age group 14-16)

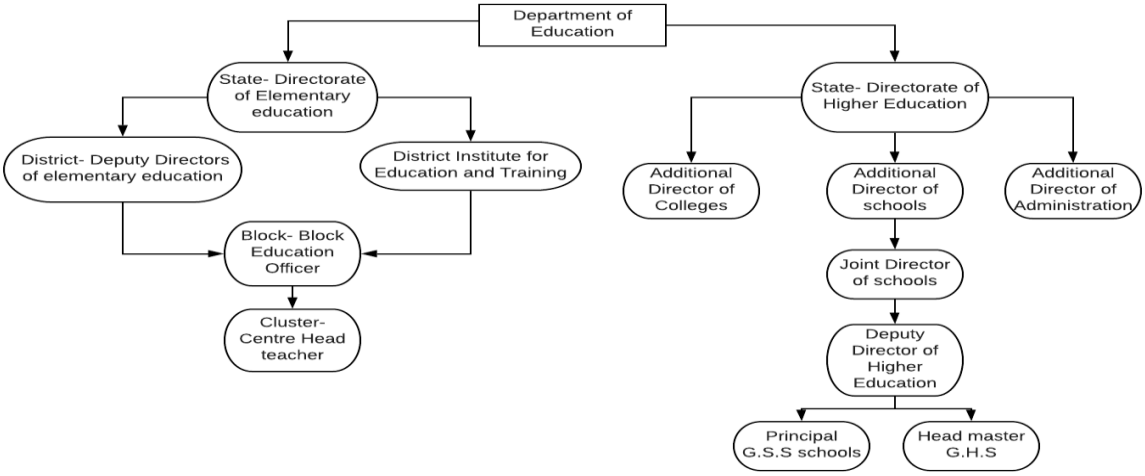
(iv) Senior Secondary Classes XI to XII (Age group 16-18)

At the state level, the Department of Education is divided under four sections; A, B, C, D. While section A purviews the college education, secondary and higher secondary education covering classes from 9 to 12 is kept under section B. The elementary education comes under section C that covers the classes from 1-8. Section D caters to all legal issues and court cases pertaining to Elementary Education, Senior Secondary Education. Section B and C are key to the present study and these systems are understood further.

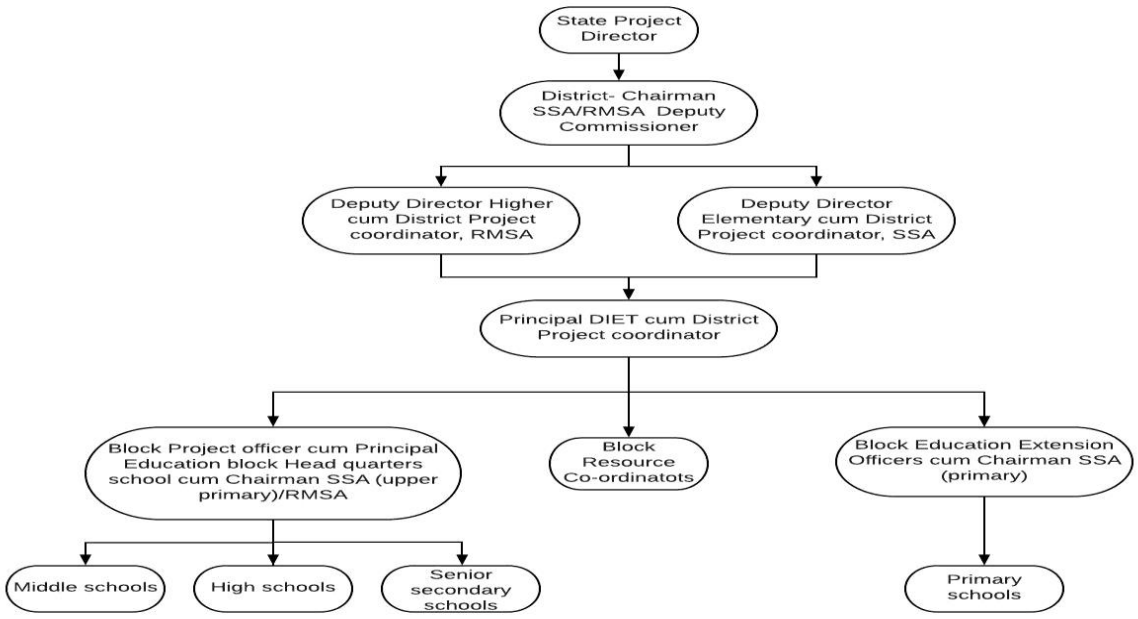
However, it is not clear as to where would the legal issues pertaining to secondary education would fall. Also, this structure of education department does not consider any pre-primary education or early childhood component. The Education Department is under the charge of Education Minister who is Political Head of the Department. All policy matters and administrative decisions are generally taken by Education Minister who is assisted by an Education Secretary who enjoys administrative and financial powers regarding department such as sanctioning of various schemes projects and budgeting. Under the purview of Education department directorates of Elementary education and Higher education function for elementary and secondary education systems.

Primary education in the state was revamped in 2005 renaming the Directorate of Primary education, 1984 to Directorate of Elementary education. All the policies and schemes (centrally sponsored, centrally assisted and state) are implemented through deputy directors of elementary education at district, DIET at the district level, Block Education officers at the block level and centre head teacher at the cluster level.

The directorate of Higher education has three wings catering to schools, colleges and administration with each headed by an Additional Director. All the secondary and senior secondary schools administration comes Additional director of schools wing. Under whom the chain of command goes to Joint Director of schools and then the Deputy Director of Higher Education.



For the effective implementation of the flagship centrally sponsored schemes; Sarva Siksha Abhiyaan with the primary objective of universalization of elementary education and Rashtriya Madhyamik Siksha Abhiyaan to make secondary education of good quality, accessible, affordable the state of Himachal Pradesh has created a converged administrative structure by forming a singly State project office. The state project office coordinates the initiatives both the schemes headed by a state project director. Under the command of chairman and deputy chairman, both schemes are governed through each Deputy Directors at the district level. While BEEOs chair and govern the implementation of all the primary schools in all the clusters, BPO cum Block level school Head quarters' principal is incharge of the upper primary schools under SSA, high schools and secondary schools under RMSA.



The governing council headed the Chief Minister and the executive committee headed by the secretary of Education overseas and support the working of the schemes in the state. Sanjeev Kumar (2015) The curriculum is framed as per NCF, 2005 by the SCERT and H. P. Board of School Education, Dharamshala. Presently these agencies have framed the new text books of classes 3rd to 5th and curriculum framed by NCERT is implemented in all Govt. and Aided schools from classes 6th onwards

Given heavy focus on elementary education, relatively large number of activities, polices, schemes are run for elementary education especially at the primary level under SSA and that could be the reason for multiple roles assigned to the authorities of RMSA governing secondary education. This could pose a problem for the RMSA authorities to scale up the activities and hence rationalisation of responsibilities and authorities must be necessary for Samagra Siksha to focus on secondary education along with elementary education.

6.1.2. Early childhood education: The Women and Child Development Department is responsible for Early childhood care and education in the state. The funds are provided to the department under SSA. However, the funds are confined to training Anganwadi workers and providing education kits in anganwadi centres. Moreover, we have not seen the representation of the WCD department in the educational administrative structure not any signs of convergence between the departments. The existing fund transfer mechanism and formal representation and convergence with the staff and implementing bodies of ECCE should be too brought together to maintain the education continuum from pre-school period to attain the formal school education till 10th grade.

The state in 2018 enacted HIMACHAL PRADESH EARLY CHILDHOOD CARE AND EDUCATION CENTRES (ESTABLISHMENT AND REGULATION) ACT in line with National Early Childhood Care and Education (ECCE) Policy, 2013 to ensure delivery of

quality pre- school education to children below 6 years of age. The Act proposed that ECCE Centres to obtain approval from State Government and also provides for intervention of the State Government in certain circumstances while at the same time giving considerable freedom to the private institutions/organizations and regulate them in their functioning. A larger onus of the centres functioning and their direction is on Women and Child department and all the centres must abide by the department's/ or State Government's rules.

In an attempt to interlink Anganwadis with primary schools, the state government could merge only 1926 of the 18925 Anganwadis due to unavailability of space and distance, as of 2013. Though it is necessary to merge the pre-primary education to primary level and bring coordination, for a state like Himachal Pradesh it would be difficult given its terrain and the availability space at every school. Hence the innovative initiatives like home based, settlement near education, mobile school systems etc that state has already undertook for primary education could be promoted and for pre-primary education too.

6.1.3. Evaluation of learning standards: The state has continuously kept the focus on the student assessments and introduced Continuous Comprehensive Evaluation as a pilot project in 2007-08. Later it was implemented in line with Section 29 of RTE Act 2009. The state has felt the need for evaluation against a set standard as it was observed that learning outcomes were poor in state and a notification was issued in 2014 to frame the learning standard subject wise and class wise. In 2017, the Right of children to free and compulsory education Himachal Pradesh rule 2011 has been amended to prepare class wise and subject wise learning outcomes and to frame guidelines on continuous and comprehensive evaluation to achieve learning outcomes. In exercise of the powers conferred by section-32 of The Right of Children to Free and Compulsory Education Act. 2009, the state has notified in 2016 to remodel the process of Continuous and Comprehensive Evaluation (CCE) for all the Elementary schools run by the State.

ASER 2018, while the reading abilities of STD 3 between government and private were disparate during 2012-14, the gap has been reduced during the period of 2016-18. This could be because of the initiatives taken by the state realizing that quality of education in government schools is deteriorating. However, the reading abilities of std 5 and 8 are much higher in the private schools than in government schools. Arithmetic skills are poor in government schools.

National Achievement Survey 2017 reported that 81 percent of children do not understanding what teachers says in the classroom. Significant repairs are required for 29percent of schools. The achievement levels have been deteriorating from class 3 to class 8. The class 3 performance in Environmental science, mathematics and language is relatively higher in rural schools than in urban schools. The class 5 performance between boys and girls have been equal and in language subject girls outperform boys. The overall performance across rural, urban, gender, only higher performance is witnessed in language, mathematics, science and social science performance have been low. For 46% students in Class 3, 40% in Class 5 and 31% in Class 8, the language used at home and by the teachers is the same. Around 70 percent teachers said

that medium to high level of parental involvement is visible in students achievement and in school activities.

6.1.4. Teacher recruitment and development:

At the state level the two institutions; SCERT Solan and GCTE Dharamshala are responsible for imparting training/re-orientation/ refresher courses/seminars to the teaching and non-teaching staff working in the Department. The pre-service as well as in-service training of teachers is organised by DIETs that conduct variety of training programmes for in-service elementary and secondary teachers, school heads, SMCs, community members and members of Panchayati Raj Institutions (PRIs), instructors of special education. Institutions like HIPA Fair Lawn Shimla, NCERT New Delhi and Regional Institute of English Chandigarh, CCRT Hyderabad are among other training institutes that conduct trainings programmes.

To boost morale of teachers and to encourage innovation and independent initiatives, Khaas Siksha system is brought into the place for recognizing and awarding the best performing teachers in addition to the existing systemn of annual awards for the state and district level. Initiatives have been taken for computer literacy programme, smart classrooms, establishing computer labs at each DIET, SIEMAT for the purpose of teacher training. Especially, to improve the quality of teaching in difficult subjects like Mathematics, EVS and English, Multimedia content CDs have been mapped to the Himachal Pradesh syllabi and been distributed by Azim Premji Foundation.

6.1.5. Partnering with non-state actors for delivery: Many NGos like Learning Links Foundation, Save the Children, Pratham, Room to Read have been supporting the state's capacity in the administration, implementation and monitoring of SSA and RMSA. Given its positive experience working in partnership with several NGOs on many of the components of schemes the state has perceived it as a step that gives a boost to quality intervention in the state. (SSA Project office evaluation report 2013). The fact that historically governments have been functioning in partnership mainly with NGOs and few corporations for delivering educational services, the state would be welcoming the non-state actors in in the future to enhance the quality of education.

The Directorate of Elementary Education (DEE) and Sarva Shiksha Abhiyan (SSA) have partnered with a social development consulting organization and introduced a state wide systematic quality transformation programme in nearly 1400 elementary government schools to improve the quality of education called 'Samarth' aiming to be in the top 3 states in National Achievement Survey.

6.1.6. School to work transition strategies: Vocational Education has been initiated in 2013-14 in 100 Government schools from grade class 9 to college level. MOU has been signed between the Department of Higher Education National Skill Development Corporation and Wadhwani Foundation for implementation of Vocational Education under NVEQF in Himachal Pradesh. 196 Vocational Teachers/Trainers have been deployed by the different

Vocational Training Partners (PTPs) and about 9055 students have been enrolled in this programme in five subjects as of 2013. However by 2015, in a letter to the Principal of GSSSS (Vocational) in Himachal Pradesh from the office of Director of Higher Education, it has been mentioned that enrolment in class 9 for vocational subjects is not sufficient and stated that there should be 25-35 students enrolled in each school in each vocational subject in class 9. The vocational subjects must be designed keeping in view of the need of the state like agriculture, tourism etc. would be the subjects that would benefit the Himachal's economy.

6.1.7 Challenges: Himachal Pradesh SSA project office's report in 2013 explained Himachal Pradesh is in a crisis situation as the learning levels of children are poor in both primary and upper primary. ASER statistics too show a decline in the learning abilities of children the students at elementary level have abysmally low understanding of mathematics, science, social sciences and languages. This was explained due to the wrong focus of the state government. With SSA coming into force the main focus on accessibility and enrolment and less on quality. The report points that the focus has gone on to the marginal issues like school rooms, toilets, water, boundary walls, electricity, out of school students (which were actually not huge problems in state unlike in other states) at the cost of quality forgetting the outcomes. Chauhan (2013) reported that big spending to provide education for all children has no effect on retaining children in Government schools of Himachal Pradesh. Enrolment in Himachal Government schools is dropping at a fast rate and is rising in private schools, given the preference public school education is getting. Sanjeev Kumar (2015) The quality of education is the matter of concern of the government schools as the enrolment of students in private schools in increasing due to the unsatisfactory level of quality in government schools.

Many evaluation reports, project office published reports too detailed out that there is clear decline of in the enrolment especially at the first grade and the private school enrolments are spurring. These happened for a wide variety of reasons like parents perceiving private schools could offer better quality education, curriculum is flexible, smart uniforms, co-curricular activities, high age restrictions at government schools, low sense competitiveness among students in government schools, improved level of economic condition etc has contributed to such crisis situation as explained.

One of the important reasons that reports have pointed is that there is no linkage between anganwadi centres and primary schooling in the state, and the standards at anganwadis are low which are causing for low enrolment at government schooling. The reports strongly recommended for an umbrella body in place to coordinate the activities of anganwadis under ICDS, primary and secondary education up till senior secondary schools converging the respective departments to work towards a common goal. There is already a growing demand to converge the different levels of education in the state and hence it can easily receive and adapt the new policy of Samagra Siksha positively. These structural issues in the system needs to be validated and further and fixed with necessary changes for the effective functioning of

Samagra Siksha which would integrate SSA, RMSA, Teacher education and not to increase any confusions of command in the system while integration.

B. Budget Analysis

6.1.8 Total and Per-child School Education Expenditure (SEE) has increased over years

The expenditure on school education showed a gradual increase both in nominal and real terms. The nominal expenditure on school education rose from Rs 31 billion in 2012-13 to 69 billion in 2019-20. The real expenditure rose from Rs 29 billion in 2012-13 to Rs 37 billion in 2016-17. The CAGR of the total school education expenditure was 11 percent and 5 percent in nominal and real terms respectively (Figure 1).

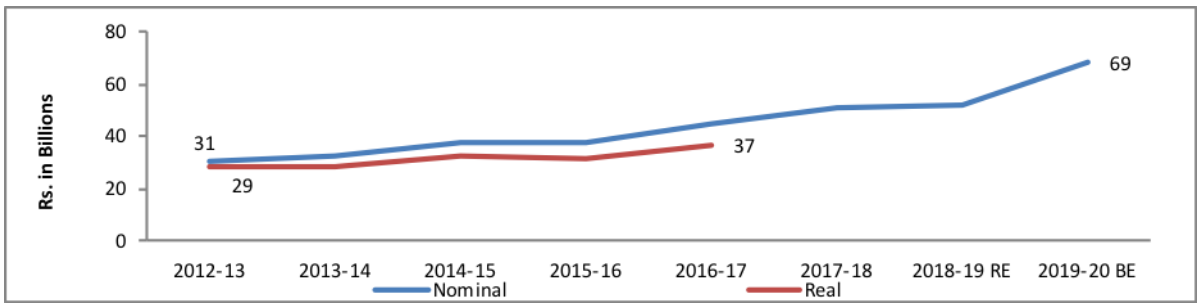


Figure 1: Nominal and real School education expenditure

The per-child expenses increased from 13434 rupees in 2012-13 to 30069 rupees in 2019-20. But while considering the real rates, the rise is only of 3651 rupees.

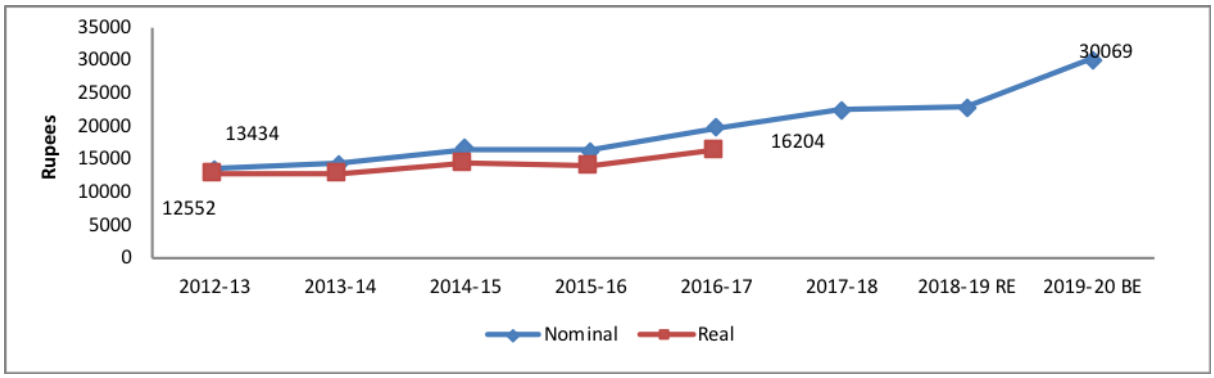


Figure 2: Per Child nominal and real child expenditure

6.1.9. Share of school education expenditure as a percentage of GSDP, social service expenditure, total expenditure and total revenue receipts

The SEE as a percent of Gross State Domestic product (GSDP) has been alternating between 3 and 4 percent respectively for the years 2012-13 to 2016-17 (Figure 3).

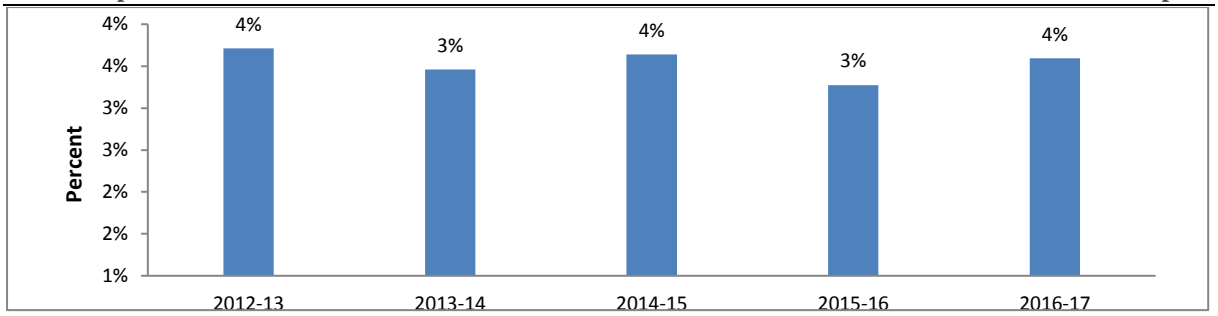


Figure 3: School education expenditure as a percentage of GSDP

The share of School Education Expenditure as a percentage of Total Expenditure fluctuated between 15 percent in 2012-13 to 12 percent in 2014-15 and to 15 percent in 2019-20. The share of SEE as a percentage of Total Revenue Receipts decreased from 20 percent to 16 percent in the year 2015-16 before improving to 20 percent in 2019-20. The share of SEE as a percent of Social Service Expenditure was 47 percent in the year 2012-13 and fell to 42 percent in the year 2016-17 and 40 percent in 2018-19.

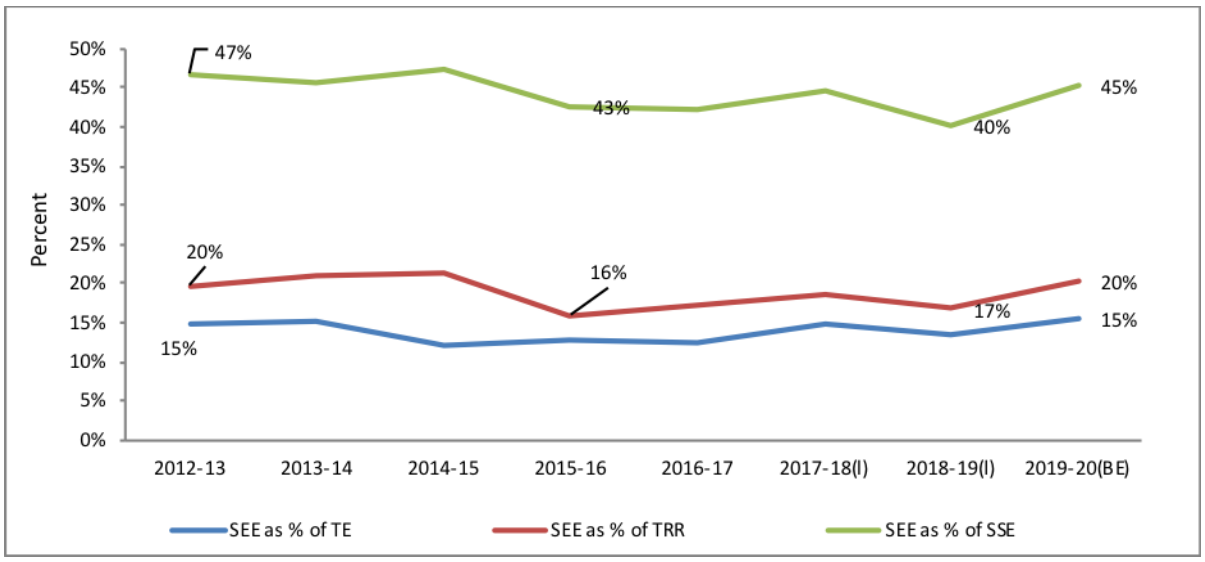


Figure 4: Share of SEE as a percent of social service expenditure, total expenditure and total revenue receipts

7.1.9. Social service expenditure as a percent of total revenue receipts

The Social Service Expenditure remained at about 43 percent of total revenue receipts except for a dip in 2015-16 (Figure 5).

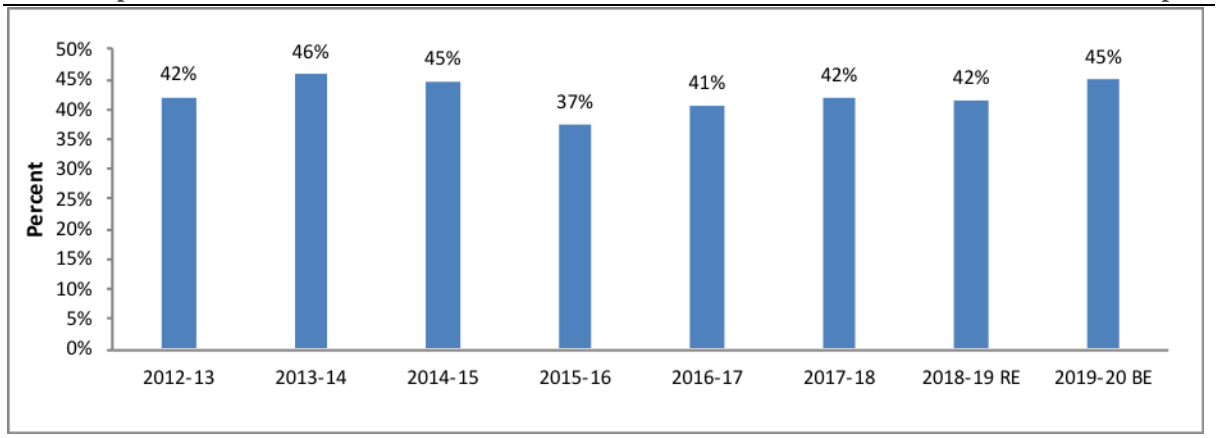


Figure 5: Share of social service expenditure as percent of total revenue receipts

6.1.10. Share of SEE in different departments and major heads

Majority of the expenditure pertained to education department followed by tribal and social justice departments (Figure 6). Major expenditure was accounted under major head 2202 at about 90 percent (Figure 7).

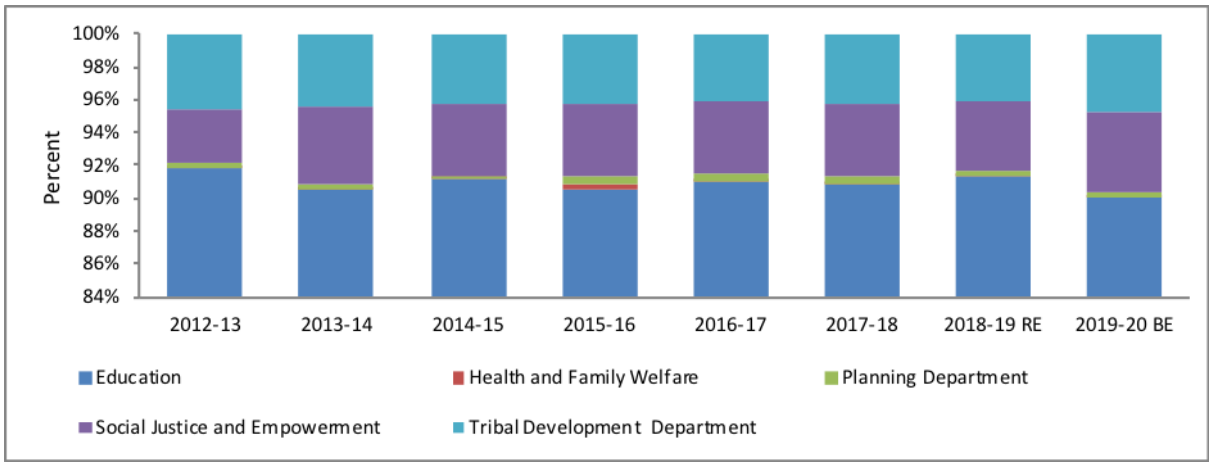


Figure 6: Share of school education expenditure by different departments

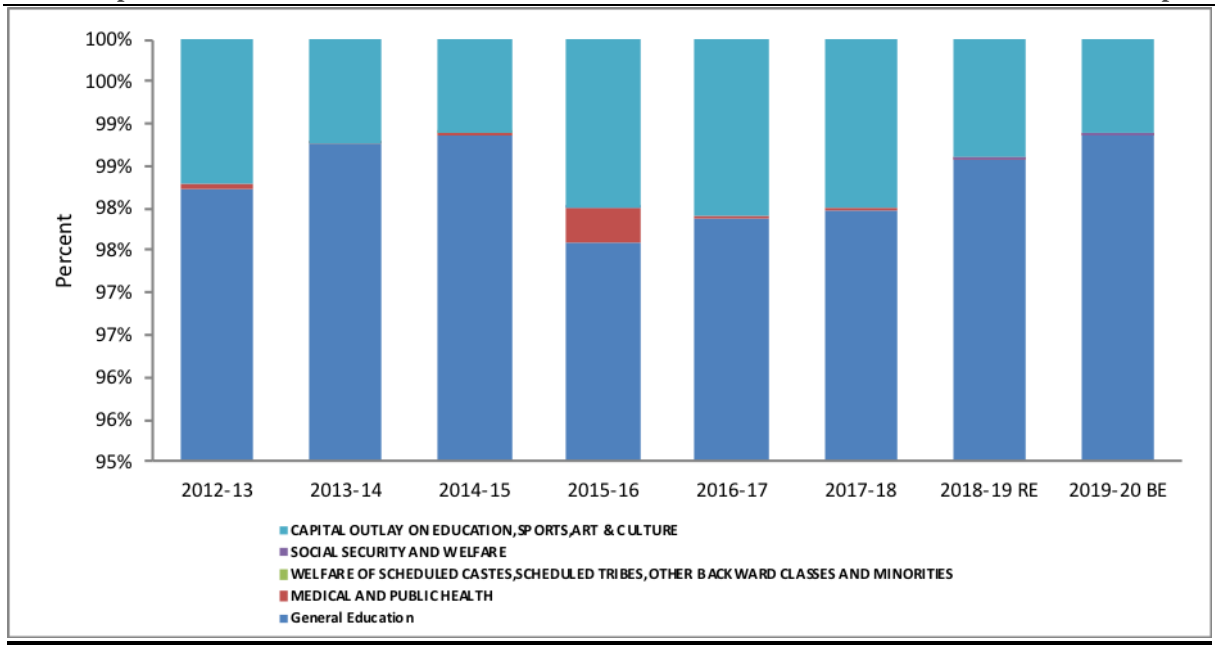


Figure 7: Share of school education expenditure under different major heads

6.1.11. School Education Expenditure by Stages of Education

The share of expenditures for elementary education have gradually decreased while it has slightly increased for secondary education from 2012-13 to 2018-19 (Figure 8).

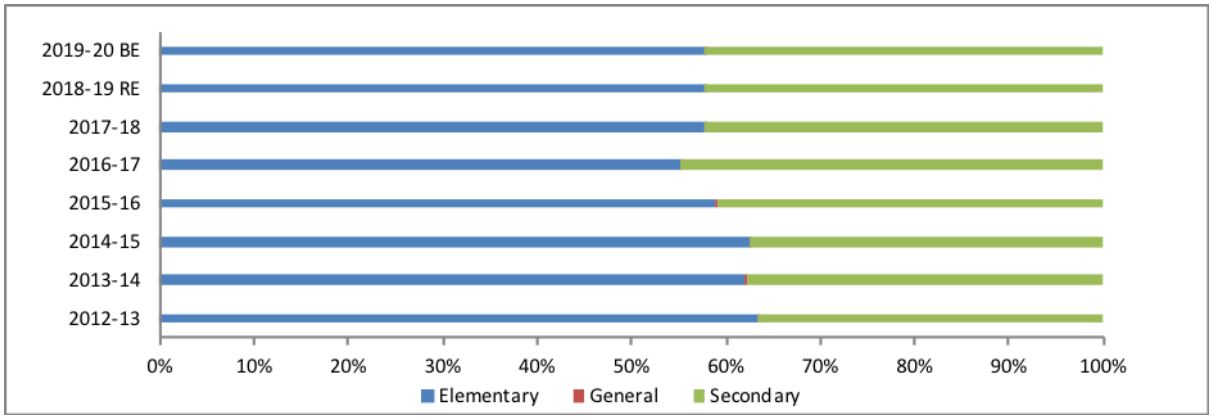


Figure 8: Share of school education expenditure at different stages

6.1.12. Revenue-Capital expenditure in School Education Expenditure

The revenue expenditures have remained between 98 percent to 99 percent while the capital expenditures were very low at one percent (Figure 9).

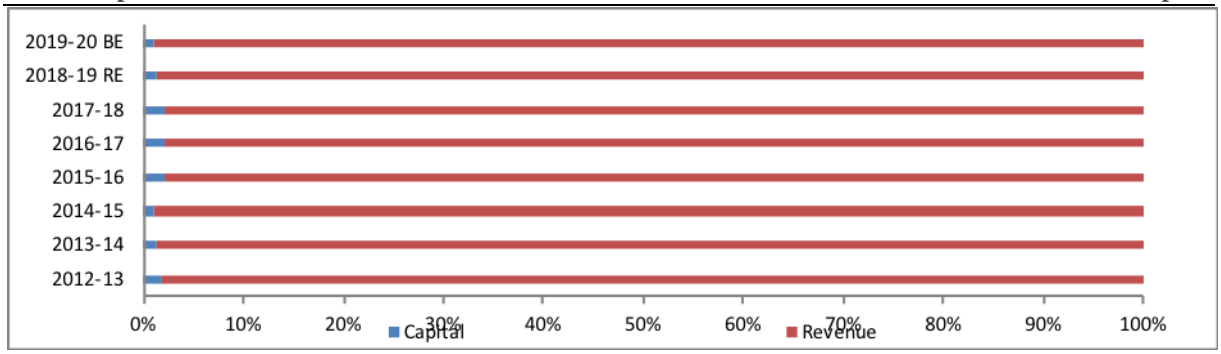


Figure 9: Capital and revenue school education expenditure

6.1.13 Wage and Non-wage expenditure in School Education Expenditure

The wage component accounts for almost 80 percent of the expenditure but we also can trace a gradual increase of non-wage component in the budget expenditure (Figure 10).

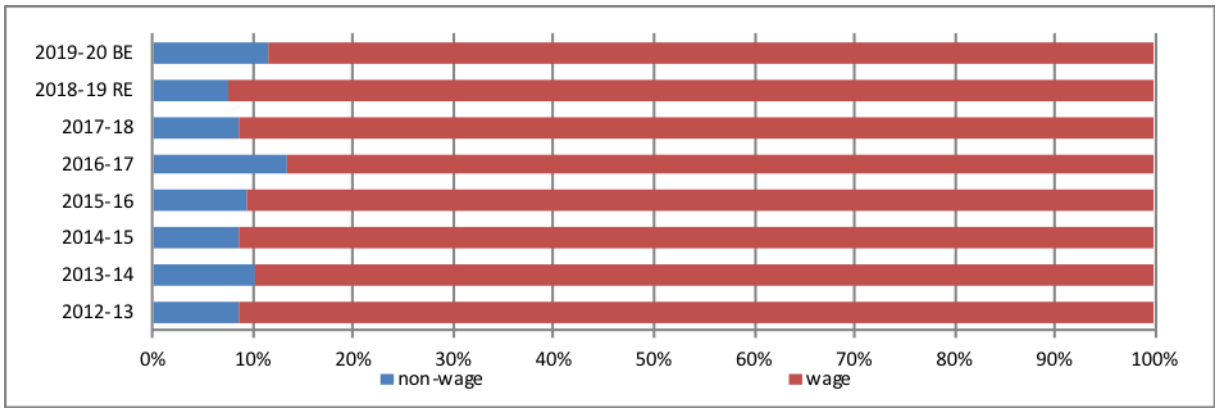


Figure 10: Wage and non-wage school education expenditure

6.1.14. Share of Direct and indirect expenditure in School Education Expenditure

Direct expenditures include incentives, bags, uniforms, shoes, books, scholarships etc., and accounts for less than 2 percent which is gradually decreasing over years. The remaining expenditures are indirect in nature (Figure 11).

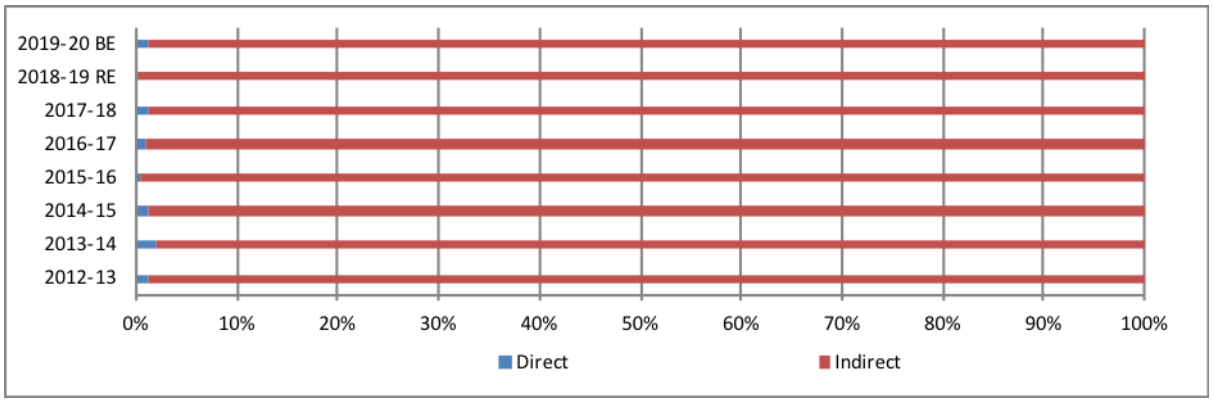


Figure 11: Direct and indirect school education expenditure

6.1.15. Share of SSA, RMSA and Samagra Siksha in School education expenditure

The share of different education programmes like SSA and RMSA together in school education expenditure have been increasing since 2012-13. In 2012-13, the share of SSA, RMSA and SS was 2 percent which rose to 9 percent in2018-19 and 11 percent for 2019-20.

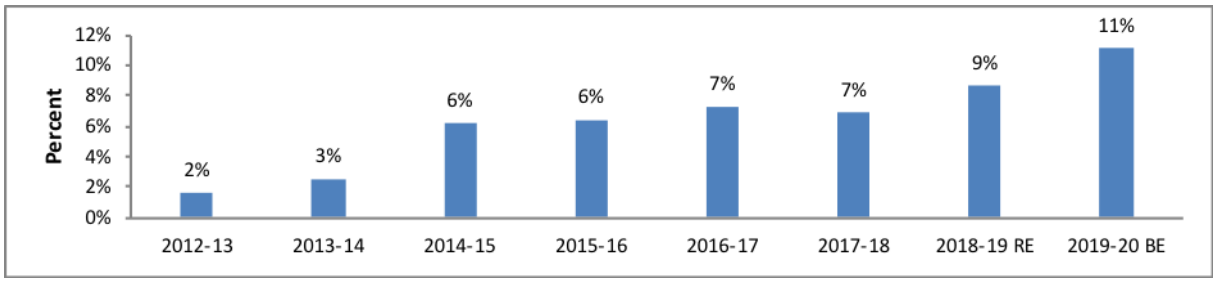


Figure 12: Percentage of SSA, RMSA and Samagra Shiksha in school education expenditure

6.1.16. Share of STARS components in School Education Expenditure

These components include use of ICT in teaching, digital technology for more and effective reach, teacher training programmes aimed at improving the quality of education. The STARS components as a percent of School Education Expenditure has been around one percent over the period of 2012-13 to 2019-20.

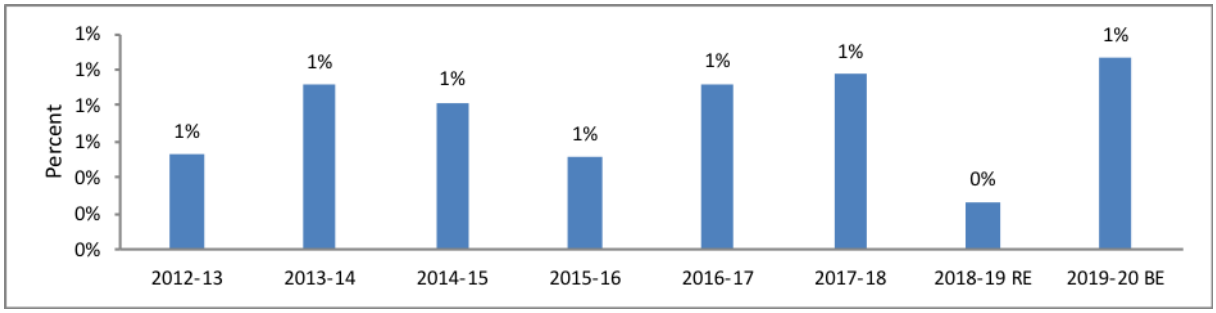


Figure 13: STARS component shares out of school education expenditure

6.2. KERALA

A. Policy Analysis

6.2.1. Introduction:

Kerala has always performed well nationally when it comes to Human development. Right since the late 1950s, the state has adopted welfare-oriented policies and continues to invest substantially on Education and health. The state with its strong social infrastructure already in place, the main focus would be to improve the quality of services. Though with a Kerala Education Act, 1958, Kerala as a state never made education compulsory. However, the state has managed to achieve the status of high literacy state in India.

The state expressed a welcoming posture towards Samagra Siksha by merging Sarva Shiksha Abhiyan and Rashtriya Madhyamik Shiksha Abhiyan (RMSA). They are in the process of transformation towards a more synchronized education system. The major evidence for this is that state has appointed an expert committee i.e., M. A. Khader committee in 2017 itself with

a main objective of integrating both primary and secondary, having a supreme authority to regulate. The committee's recommendations are yet to be adopted, though. The major recommendations of the committee include structural adjustment by merging Directorate of Public Instruction (DPI) , Directorate – Higher Secondary Education (DHSE) and Directorate-Vocational Higher Secondary Education (DVHSE) into one entity called Directorate of school education; for revenue districts, Block panchayat/Municipality/corporation and Panchayats there will be Joint Director of school education (JDSE), School education officer (SEO) and Panchayat education Officer (PEO), respectively, will be in charge; all DVHSE should be changed into Secondary schools as per the National Skill quality framework; Board of School examinations, Kerala should be formed by integrating Pareeksha bhavan under each Directorate etc. In this report we analyze the current organizational structure, issues, arrangements made by the state to implement SSA, Analysis of STARS components and finally mapping out the possible challenges and benefits in/of implementing SSA. Presently, School education in Kerala comes under the purview of Department of General Education. The Secretary heads the department and is assisted by Director of Public Instruction, Director – Higher Secondary Education and Director- Vocational Higher Secondary Education. The Directorate of Public instruction is headed by Director of Public education. District offices are functioning in the 14 revenue districts of the state headed by Deputy Directors of Education (DDE). Each revenue district is divided into 41 Educational Districts and 162 Educational sub-districts in the State. Each District Educational Office is headed by District Educational Officer (DEO) and each Educational Sub-District Office is headed by Assistant Educational Officer (AEO). Administration of High schools, Training Schools and other special types of schools in the Educational District are in the hands of DEO. The AEO is primarily responsible for the administration of all primary schools within the Sub-District. Higher secondary education falls under the ambit of Directorate of Higher secondary education and vocational education for 10+2stage comes under the Directorate of Vocational Higher Secondary Education.

At the state level, SSA has State Office Officials headed by State Project Director. Followed by Programme Officers, Project Engineers. Further, each district also has District Project Officers. Though the state has formed state level and district level officials for SSA, integration of different levels of education directorate means eradications of several director posts which currently exists. However, Samagra Shiksha was formed by merging SSA and RMSA. As a result, the state's education department is in the process of integrating schemes undertook by various directorates or department.

The state has also implemented Hi-'tech School programme, a comprehensive resource portal viz SAMAGRA is developed with the academic support of SCERT which is a repository of digital resources of all subjects from Class I to 12., Bio-diversity gardens, Programmes named 'Hello English', Malayalathilakkam (Luster of Malayalam) and Ganitha Vijayam have been implemented for enhancing Quality in learning of English, Malayalam and Mathematics

respectively. The role of ICT in the education process of Kerala is remarkable and will be detailed later.

The below table shows the number of schools under different types of Management

Type of school	Number of schools	Percentage
Government	4,695	36.17
Govt -Aided	7,216	55.63
Unaided	1,060	8.17
Total	12,971	100

Source: Economic Review 2018, Kerala State Planning Board, Kerala

From the above table it is evident that more than half of the schools are Government aided. It will be an incomplete picture if we do not talk about the enrollment at Elementary and Secondary level of education across different types of management. According to U-DISE data, as of 2016-17, almost 77 percent of total elementary students in recognized intuitions, are from Government -aided and Unaided schools. In that about 43 percent are from Government aided schools. Similarly, about 51 percent of students are enrolled in Government aided schools. Hence, we can deduce that the Government aided schools with their high number of schools and enrollment continues to be big player in the education sector of Kerala hence influencing state level education related decision making. Here is one instance which supports this statement. According to RTE Act, 2009, Pupil- Teacher ratio of 1:30 and 1:35 for lower primary and upper primary schools, respectively. There has been a conflict when the Kerala Education Rules (KER) laid down the Pupil- teacher ratio of 1:45 and the high Court judgment struck down the ratio on the back drop of implementation of teacher's package (which limited future teacher recruitment by only sanctioning appointment owing to retirement, death, resignation, promotion and transfer). Given the fact that the Government is liable to pay salaries and pensions for all the teaching and nonteaching staff in government aided schools, the mounting salary and pension expenditure has been a burden for the ailing state exchequer. The Government with its new package (Teacher Package) tried to limit its future burden on salary and pension by restraining future appointments.

Interestingly, the enrollment pattern in 2016-17 when it comes to higher secondary level, about 42 percent of the students are enrolled in Government schools. We can notice a sudden surge in the enrollment of students in higher secondary government schools. This trend poses several questions about the quality of public education and the attitude of people towards public education system in Kerala especially till 10^{th} class. In the year 2011, when the United Democratic Front (UDF) government gave permission to over 200 new Central Board of Secondary Education (CBSE) schools in the unaided sector. This created rows from the side of Opposition Left Democratic Front (LDF) and many students' and teachers' organizations.

The state government through 'Pothu Vidyabhyasa Samrakshana Yajnam'(Mission to protect public education) is re- investing on Public education. As a result of this fresh impetus that the LDF Government in Kerala is giving to public education, parents have once again started reposing their faith in public schools.

6.2.2. Early Childhood education: Pre- primary education comes under the purview of Department of General Education and ICDS comes under the Women and Child Development Department. Kerala is a state where pre-primary education thrives through either government/ aided schools or, Kindergarten, creches, playschools etc. Meanwhile, only 12 percent of the children aged 3-6 years receive Pre- school education (PSE) through ICDS as of 2017, according to Accountability Initiative of 2019-20. It can be deduced from the above oddity that the low intake in Anganwadi institutions might be an upshot of the wide spread presence of Pre- primary education in Kerala. However, there have been issues plaguing the pre- school education also which ranges from standardization of method of teaching to fee structure in private institutions. It is reported that with the inception of Samagra Shiksha Abhiyan, SSA, one of the primary objectives in the state is to improve the infrastructure in the preschool sector and provide training to teachers. SCERT has taken the task of preparing a curriculum for preschool education.

The M.A khader committee has proposed an innovative mode of learning in preschool like play-by method (Activity- based learning). Eligibility for pre-school teachers, should be directed by the National Council for Teacher Education. The Committee also recommended the framing of a pre-schooling policy. It recommended closing down unrecognized pre-school teacher training institutes. A regulatory system comprising government agencies should be formed to monitor the sector.

6.2.3. Evaluation of Learning Standards: The assessment method followed by schools in Kerala is Continuous and Comprehensive Evaluation (CCE). Though Kerala adopted CCE for primary classes in the year 1990, only by 2005 extended to secondary classes. In tune with the National Curriculum Framework (NCF, 2005), the state has prepared the Kerala Curriculum Framework (KCF, 2007). It was an inclusive move where discussions were held with academicians, Teachers Organizations and students, NGOs and the public. One key attribute of KCF (2007) is that it envisaged practice of Continuous and Comprehensive Evaluation (CCE) along with the new curriculum, right from primary to secondary level. Hence, the assessment practice includes both Formative assessment and summative assessment. In other words, Continuous Evaluation (CE) and Term End Evaluation (TE). Eighty percentage of marks is allotted for TE and 20% mark is allotted for CE in secondary school level examinations in Kerala. The main objective of CCE is to reduce the over emphasis given on examinations and to facilitate students and teachers with a learning friendly environment. SCERT published Kerala School Curriculum 2013, Policy Guidelines and the project undertaken by NCERT (2014) entitled "CCE Programme / Scheme of State and UTs" suggested the need for making teachers aware about the actual purpose of CE and pinpointed

that CCE should be in accordance with the need of learners. With the RTE Act, 2009, quality education should be provided to all including Children with Special Needs (CWSN).

Implementing an ideal Evaluation method, multiple teaching practices and high enrollment does not mean that the students are able to absorb and perform well. External evaluations conducted by National Achievement Survey (NAS) does not give a satisfactory result given the fact that states like Andhra Pradesh which is below Kerala in several Education indicators perform well. The following is a snapshot of the Kerala's performance in NAS, 2017-18:

CLASS	SUBJECTS				
	Mathematics	EVS	Language	Science	Social Science
3	72	76	72	-	-
5	63	65	69	-	-
8	50	-	63	42	36

Performance of students of Kerala is significantly above the national average in all subjects in all classes except science and social science in class 8. But a state like Kerala which has overcome the first-generation problems that the other states are facing the results are unsatisfactory. It also questions the credibility of the ICT infused teaching methods which are meant to make the classroom instruction more student – friendly. Additionally, the ASER, 2018 shows the basic reading and arithmetic capability of students from the age 8 to 16. One striking result is that female students perform better in both basic reading and arithmetic than male students throughout the age groups.

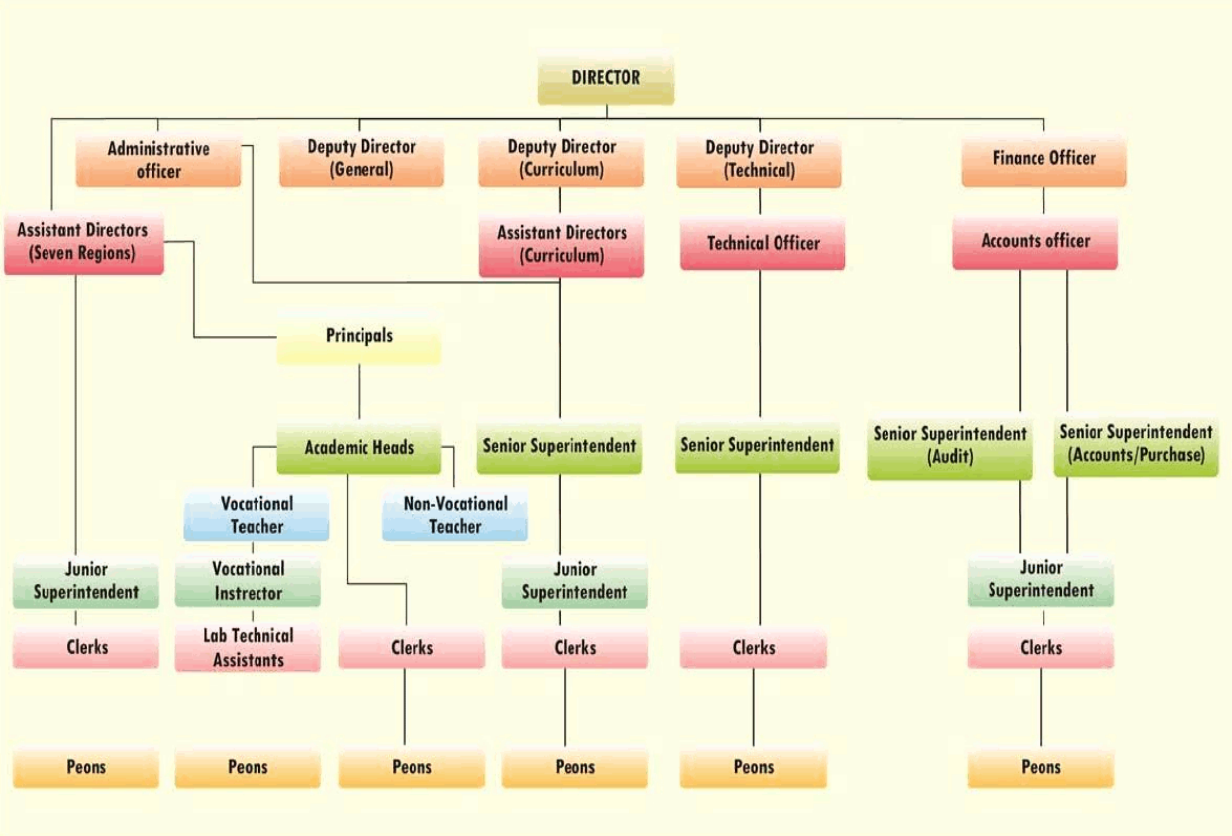
6.2.4. **Teacher recruitment and development:** In the present system of professional teacher development in accordance with the MHRD scheme, the Kerala government has constituted a steering committee under which SCERT is endowed with the major role and in collaboration with representatives from DIETs, Block Resource Centers (BRCs), Secondary school teachers and selected experts. It plans the purpose for teacher development program and designs teacher support materials and duration of training. The SCERT has opening training sessions which is given to 800 state level master trainers who are elicited from DIETs, BRCs, and Secondary and Senior Secondary teachers. They further bestow training at district level. Finally, The BRCs and Cluster Resource Centers (CRSs) further extends training for teachers at block and cluster level. If we scrutinize this arrangement it illustrates a 'Cascade Model', where instructions received from training is transferred from one level to another. Joint Review Mission (JRM) evaluates that the cascade model results in huge transmission loss. Hence there is a possibility of what the block or cluster level received would be of high variation as what the higher levels have envisioned.

Parallel to the above-mentioned Teacher education system, there is another Pre- service teacher education system that operates in Kerala. Those are in the form of Aided and unaided Teacher education Institutions (TEI), Language Teacher education institutions, Physical education teacher development institution etc. Apparently, there is no coordination between these two

systems. However, there is a commonality in these two systems where the teacher has the least power in planning and curriculum designing. In the case of evaluation, to some extend Continuous and comprehensive evaluation (CCE) has endowed the teachers with power in using various methods other than conventional way of teaching and analyze the student over a period of time. But if the in- service teachers could contribute in the process of curriculum building that can help the quality of study materials and can make the system more bottom-up. By doing this the disadvantages of the Cascade model could be overcome to some extent. However, it should not overburden the teachers. Teachers are appointed either through transfer or by direct appointment. There will be a selection committee at the school level to provide recommendations on the basis appointments are made. All appointments are to be approved by the Director of respective department (for example, Director DHSE approves for higher secondary teacher appointments.

Presently, the qualifications to become a primary class teacher is 12^{th} pass and Teacher training Course (TTC)/ Bachelor of Education (B.Ed.). For Secondary class teacher, it requires Under graduation degree and B.ED. State Eligibility Test (SET) for the Post of Higher Secondary School Teacher is conducted. However, in the absence of B. Ed. degree holder's having Master's Degree with not less than 50% marks and who have passed State Eligibility Test will be considered. Preference will be given to Ph. D/M Phil Degree holders or those qualified at Junior Research Fellowship/ National Eligibility Test (NET). The Teachers appointed under this provision will have to acquire B. Ed. Degree at their own expense within 5 years from the date of entry in service. K-TET (Kerala Teacher Eligibility Test) is an examination to assess the quality of teacher candidates for Lower Primary, Upper Primary and High School Classes in Kerala conducted Pareeksha bhavan.

6.2.5. School to work transition strategies: Vocational courses offered by schools in the state prepared many students with skills and hence employability. Here is the Organizational structure of Vocational Higher Secondary in Kerala:



At present, there are 389 schools with 1100 batches in the state imparting Vocational Higher Secondary Education in 35 restructured courses. Of the 389 schools, 128 schools are in the private aided sector and 261 are in the government sector. Govt. VHSS & THS for Deaf, Jagathy, CSI VHSS for Deaf, Thiruvalla, Kunnamkulam Govt. Deaf VHSS, Kunnamkulam and Govt. VHSS for Deaf, Ottapalam are the special VHS Schools in the State. Surprisingly, even the special schools follow the same curriculum.

In 2019, Of the 28,571 students appeared for the VHSE exam, 22,828 became eligible for higher studies. If we look at the percentage of students pass VHSE examination, over the years from 2011 to 2019, it is above 70 percent. This percentage could be improved given the fact that the Vocational Higher Secondary Education (VHSE) sector in the State is shifting to the National Skills Qualification Framework (NSQF), which enables the students to acquire skill training along with academics. ICT enabled education was one of the great leaps taken by the state of Kerala, hence addressing not just first-generation problems. IT@School Project in high school, was formed in 2001-02 under General Education Department and later transformed into **Kerala Infrastructure and Technology for Education (KITE). It is an Special Purpose Vehicle (SPV) company which is funded by** Kerala Infrastructure And Investment Fund Board (KIIFB). In the year 2005, IT was made a compulsory subject in Std 10. There is a channel called VICTERS channel operated by IT@School was the first Complete Educational Channel in the Country. In 2016, IT@School re-initiated the ICT intervention in Lower Primary and Upper Primary sections, by launching exclusive ICT Textbooks viz; Kalipetti and e@Vidya. All academic materials are available in the form of e- resource in the Samagra

Content Portal. Similarly, Sampoorna School Management software and SchoolWiki which connects 15,000 schools for collaborative content development process. 'Hi School Kuttikootam' programme under which over 1 lakh students are being provided specialized trainings in 5 different areas such as Animation, Cyber Safety, Hardware, Electronics and Malayalam computing.

6.2.6. Challenges

The state had submitted Annual Work Plan & Budget (AWP&B) proposal and which have been approved by the project Approval Board (PAB) but only 62 percent of the total proposed was approved. Of the total amount approved, 70 percent, 27 percent and 4 percent have been allocated for Elementary, Secondary and Teacher Education. The inadequate allocation of fund is reflected in the low per student allocation. However, the state is spending a large chunk on 'Quality Interventions' as oppose to other states i.e., 40 percent of the total approved. The quality interventions include Learning enhancement programmes, conducting assessments, Library grants, Biodiversity Gardens, Ideal Lab for Science Buddies, Labs on Wheels, Little Mathematician Little Scientist, Science Park, Science Exhibition / Book Fair, Exposure Visits within and outside State, Twinning with Premier Institutes/ Schools, financial support for pre-school education etc. There has been criticism from many parts that the criteria for finalizing the Central allocation were unscientific, mainly because they heavily focused on first generation challenges, such as the gender parity index at the elementary and secondary levels and separate cadre of headmasters.

Also, the Centrally Sponsored scheme, in this case SSA is structured in a way that it only provides for implementing projects in Government schools and not Government aided or private schools where a large chunk of students are enrolled. It means that only 23 percent of the students who are enrolled in Government schools will be getting the benefits of the scheme.

Another challenge the state is facing from the side of the higher secondary school teachers. They feel that they would be brought on par with the high school teachers. Under the banner of the Federation of Higher Secondary Teachers' Association they boycotted the valuation of Plus-Two answer papers on April 11, 2018 in protest against the government's move to unify and bring all sections of schools under one administration by merging the Higher Secondary Directorate with the Department of Public Instruction. Mr S. Manoj, general secretary, Aided Higher Secondary Teachers' Association, said, "Efficiency cannot be increased by bringing classes VIII, IX, X, XI and XII under a single umbrella. The teaching methodologies in these classes are different. He alleged political motives behind the move.

B. Budget Analysis

6.2.7 School Education Expenditure (SEE) has increased over years

Total School Education Expenditure (SEE) has grown gradually in the state, with the growth being steeper in 2016-17 and 2017-18. As of the budgeted estimates for 2019-20, the expenditure stands at Rs. 168 million approx. The Compounded Annual Growth Rate (CAGR)

of total school education expenditure in nominal (2012-13 to 2019-20) and real terms (2012-13-2016-17) were 10 percent and 8 percent respectively.

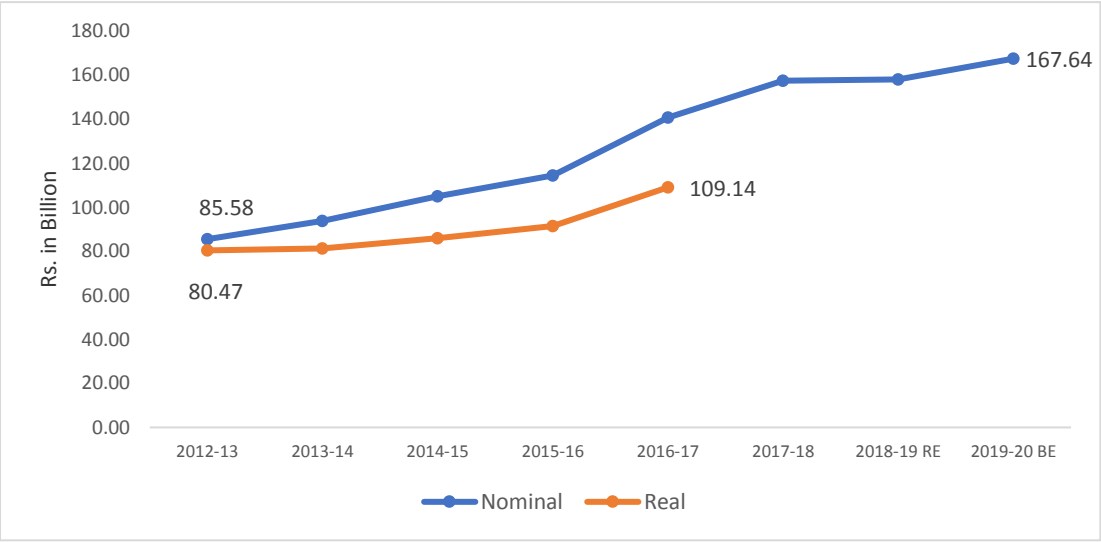


Figure 1. Total School Education expenditure incurred by Kerala state

The per-child expenditure (PCE) also has increased over this period. The PCE has increased from Rs.8622 in 2012-13 to Rs. 16976 in 2018-19 in nominal terms. In real terms, the PCE increased from Rs. 8108 in 2012-13 to Rs. 11028 in 2016-17 at 2011-12 prices (Figure 2).

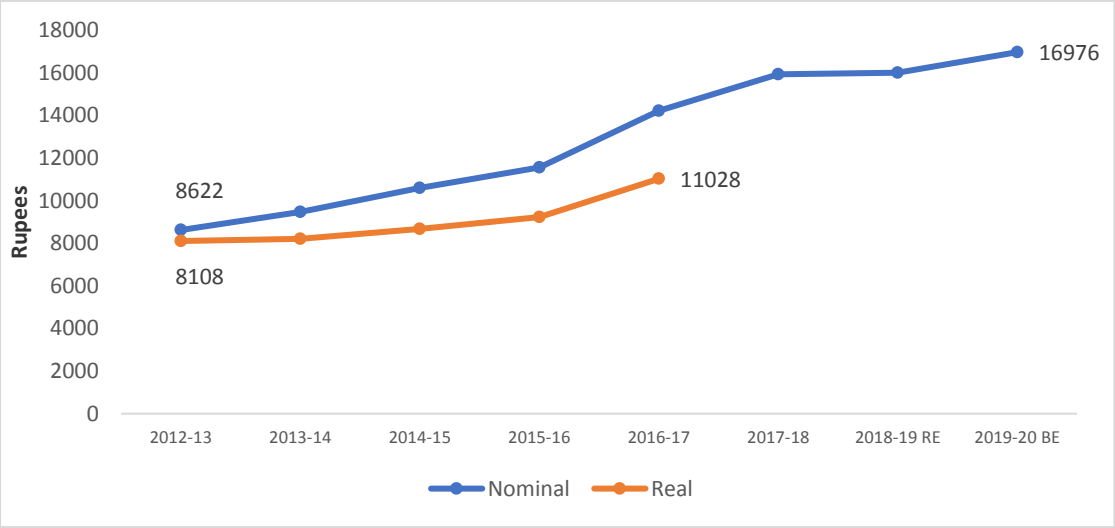


Figure 1: Per-capita Total Expenditure on Children

6.2.8 Share of School education expenditure in GSDP, Social Service expenditure (SSE), Total Expenditure (TE) and Total Revenue Receipts (TRR)

The total school education expenditure as a share of GSDP has witnessed a decrease from 2.08 percent in 2012-13 to 2.04 percent in 2015-16. However, for the year 2016-17, it increased to a peak of 2.27 percent (Figure 3).

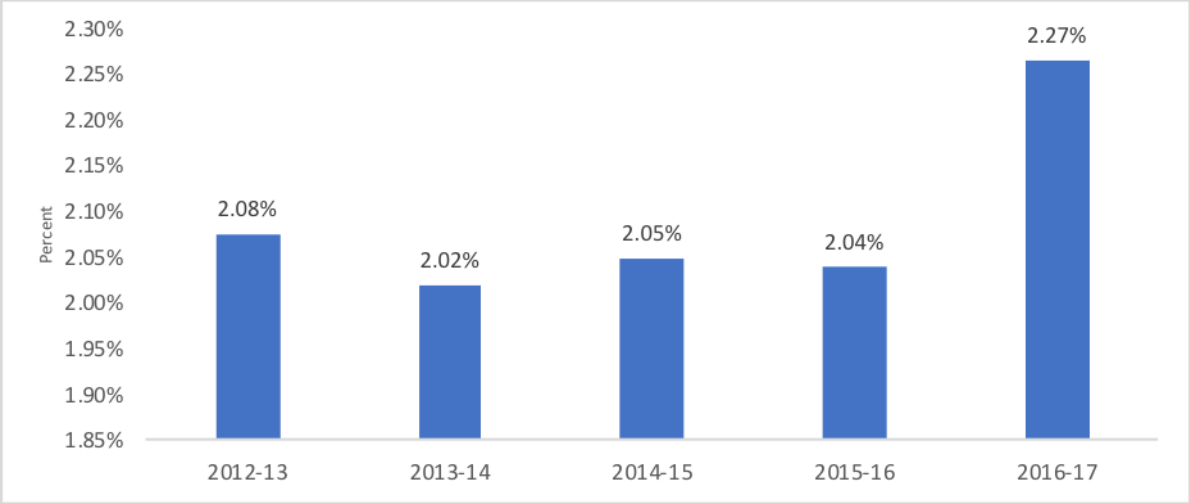


Figure 3. Total school education expenditure as a percentage of GSDP

The share of SEE as percent of total Revenue Receipts has taken a hit since 2015-16 indicating that the higher tax share has not resulted in flow of funds to education sector. Though there is a mild increase in the years 2016-17 and 2017-18 which may largely because of pay commission rewards. The SEE as a percent of Total expenditure also has reduced consistently from 14 percent to 13 percent although it reached 14 percent during 2017-18. The share of SEE as a proportion of social sector expenditure (SSE) has reduced from 44 percent to 40 percent (Figure 4).

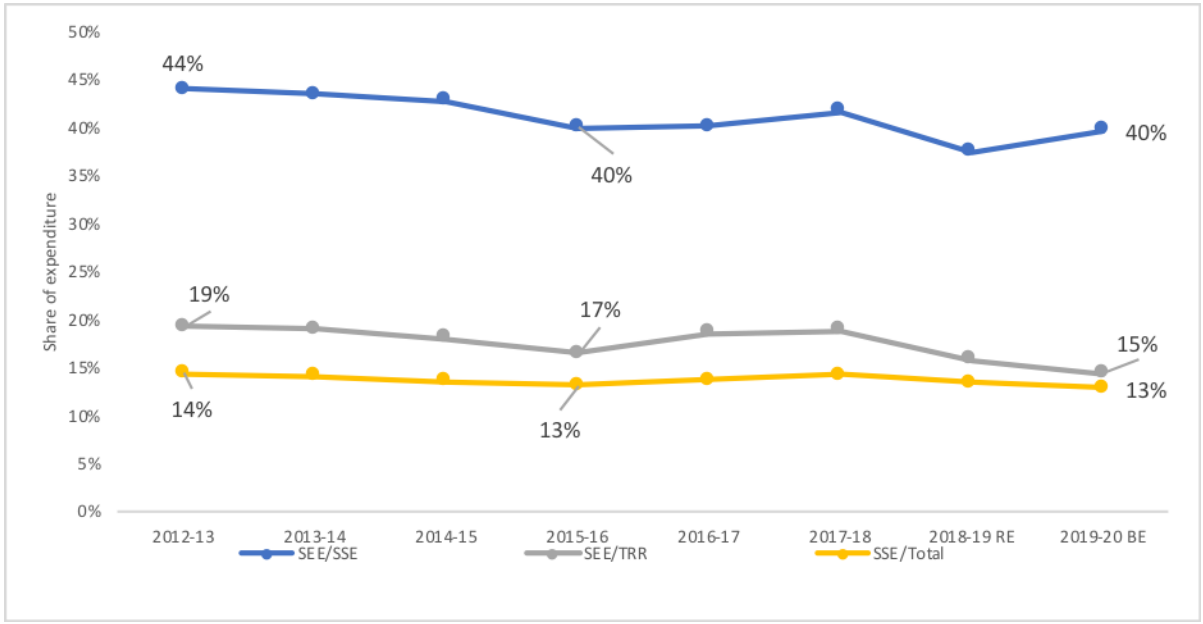


Figure 4. Share of school education expenditure as a percentage of SSE, TE, TRR.

6.2.9. Social service expenditure as a percent of total revenue receipts

An analysis of the Social Services Expenditure (SSE) as a percent of Total Revenue Receipts (TRR) over years indicated that the social services as a whole have not got the required funds. Though it appears that the SSE as a percent of TRR has increased in 2016-17 (pay commission rewards- which also had retrospective effect), it has reached a new low in 2019-20 at 36 percent

(Figure 5). Though Kerala is good in human development indicators, investments are needed for maintaining that level as well.

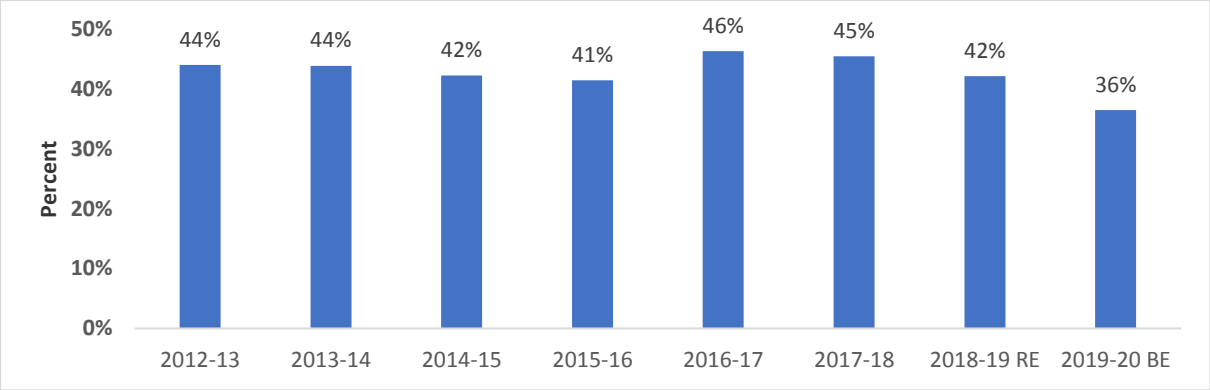


Figure 5: Share of social service expenditure as percent of total revenue receipts

Even though the share of social service expenditure out of total revenue receipts is 43 percent on an average, the share of school education expenditure out of total revenue receipts is only 18 percent. (figure 4).

6.2.10 School education expenditure by Departments and Major Head of Accounts

General Education department spends almost entire expenditure while the finance department and ST/SC development department spend about 3 percent and 2 percent respectively. Interest payment on Provident funds of the school staff contribute to the hike in expenditure by Finance department (Figure 6).

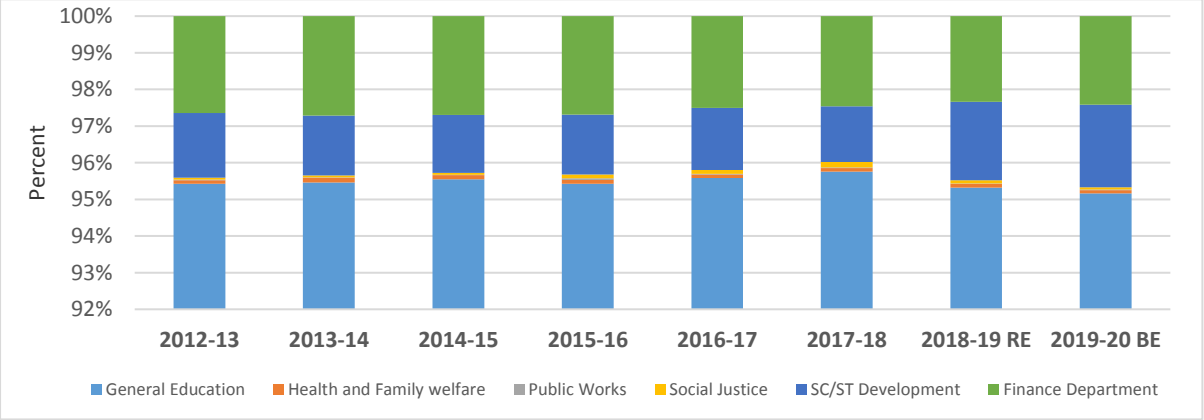


Figure 6. Department wise share of school education expenditure

SEE by major heads of account indicated that major head 2202(Education, Art and Culture) covered over 90 percent in all the years. There was less than one percent share from other major heads other than 2049, 2225 and 4202 (Figure 7).

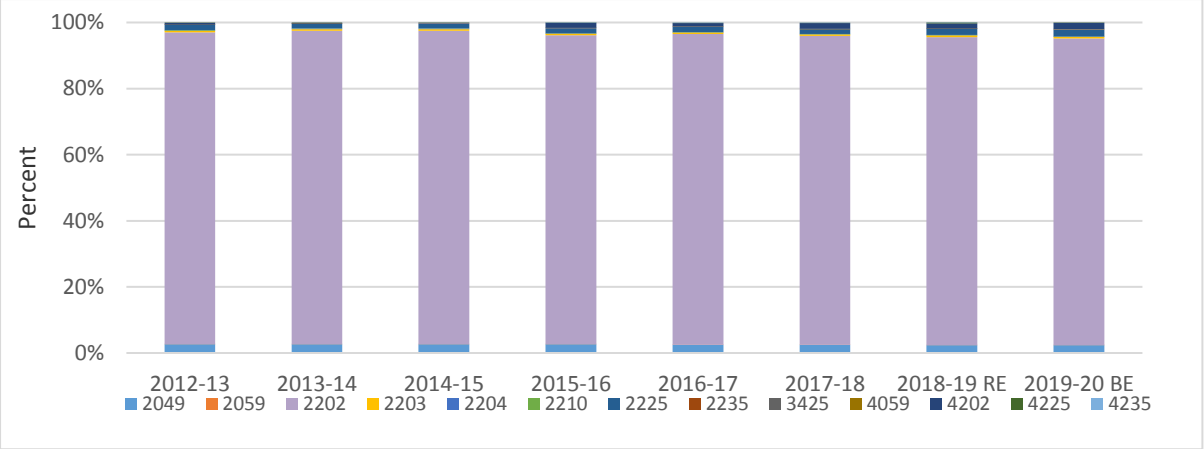


Figure 7. Major head wise distribution of school education expenditure

6.2.11 School Education Expenditure (SEE) by Stages of Education

School education expenditures were grouped into Pre-primary, Elementary, Secondary and General. While pre-primary includes all pre- primary classes run by the government. Vocational education has been taken under Secondary stage. General includes all those expenditure line items which have been identified as cutting across multiple stages of education. Of the total SEE, Elementary and Secondary education takes up more than 95 percent over all the years. Expenditure on Pre- primary education is negligible (Figure 8).

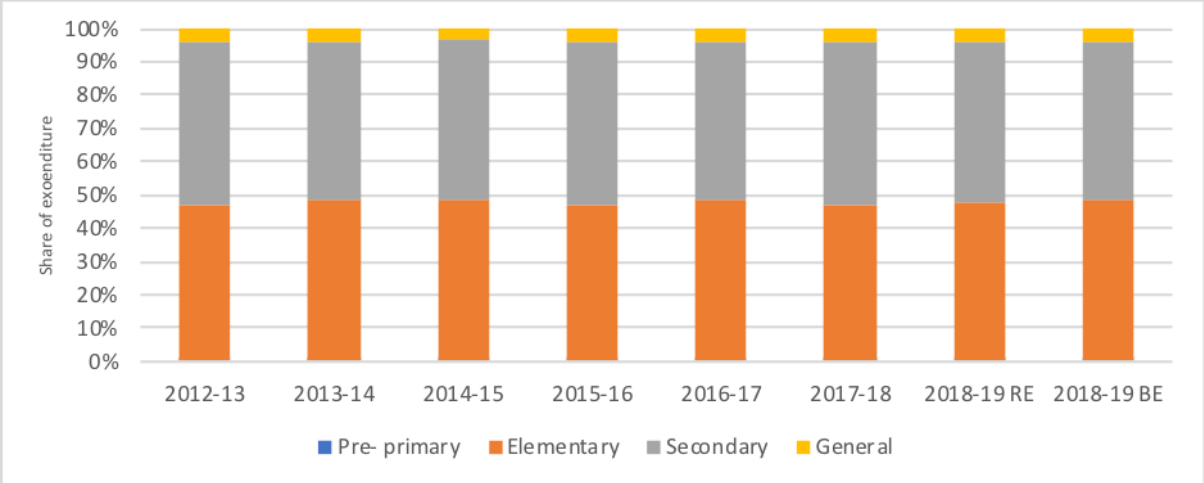


Figure 8. Stages of education and its respective share

6.2.12 Analysis of total school education expenditure by Revenue-Capital, Wage-Non-Wage group: *Revenue expenditure and the wage component constitute the bulk*

Wage expenses consisting salaries, wage payments, payments for professional services, account for more than 80 percent of total school education expenditure, over all the years. The non-wage expenses, which include the social transfers such as books, uniforms, shoes, scholarships and food expenses, accounted for an average of just 12 percent. However, it increased from 10 percent in 2012-13 to 16 percent in 2019-20 BE (Figure 9).

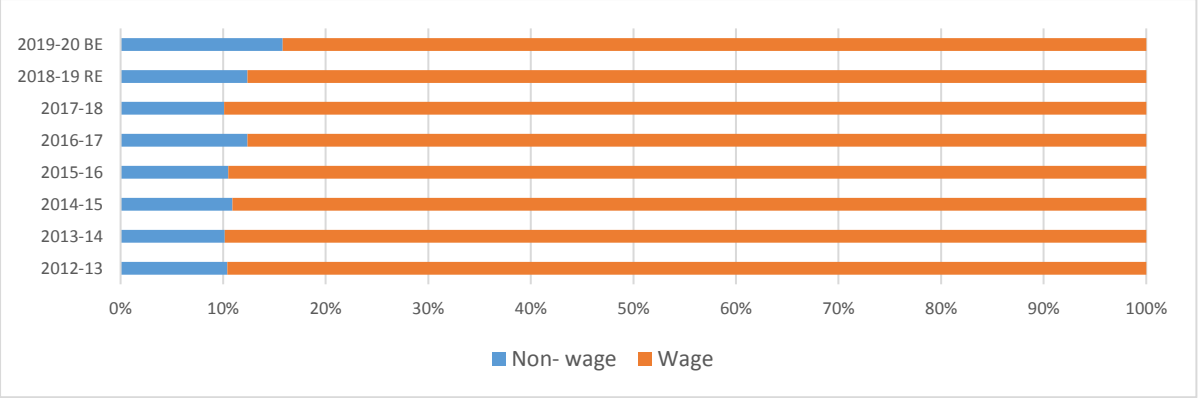


Figure 9. Wage- Non wage expenditure as a percent of school education expenditure

About 99 percent of the Total school education expenditure was revenue expenditure while the rest one percent accounted for capital expenditure (Figure 10).

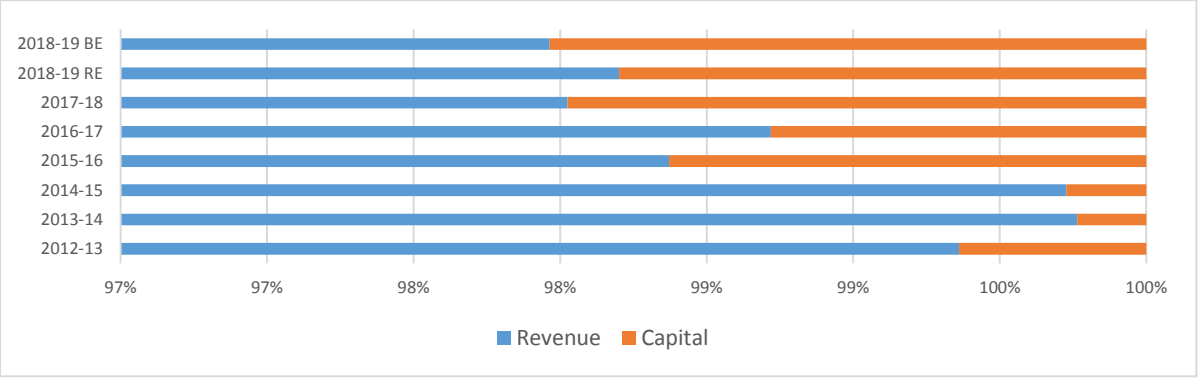


Figure 10. Revenue-Capital expenditure as a percent of school education expenditure

6.2.13 Expenditure by type of transfer: *Direct transfers are meagre*

Direct transfers comprise of all those expenditures that reach directly to an individual child (beneficiary- centred) and this includes books, bags, shoes, uniforms, bicycles, meal expenses and scholarships. Indirect includes expenditure which are spend mostly on recurring expenses like salary, construction of schools, hostels etc. On an average, direct expenses accounted for 2.1 percent of the school education expenditure (Figure 11). In the year, 2017-18, direct transfers hit a low of 1.2 percent but in 2018-19 RE, it increased to 2.2 percent.

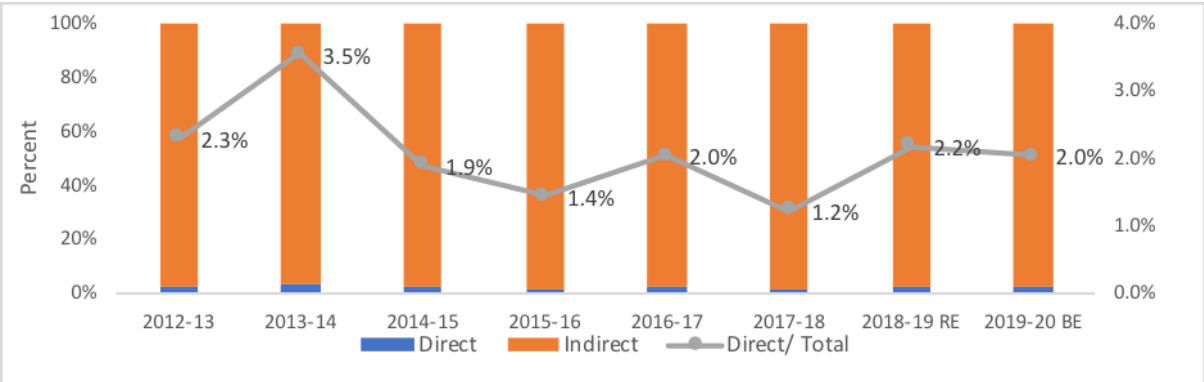


Figure 11. Direct and Indirect transfers to the child

6.2.14 Share of expenditure: SSA, RMSA and SS:

The combined expenditure of SSA, RMSA and SS records was around 2 percent of total school education expenditure. In the years, 2013-14, it recorded the lowest share at 0.04 percent. From 20-13-14 onwards it is fluctuating between 1.1 to 2.3 percent with an exception during 2019-20 when it has risen to 5.53 percent (Figure 12).

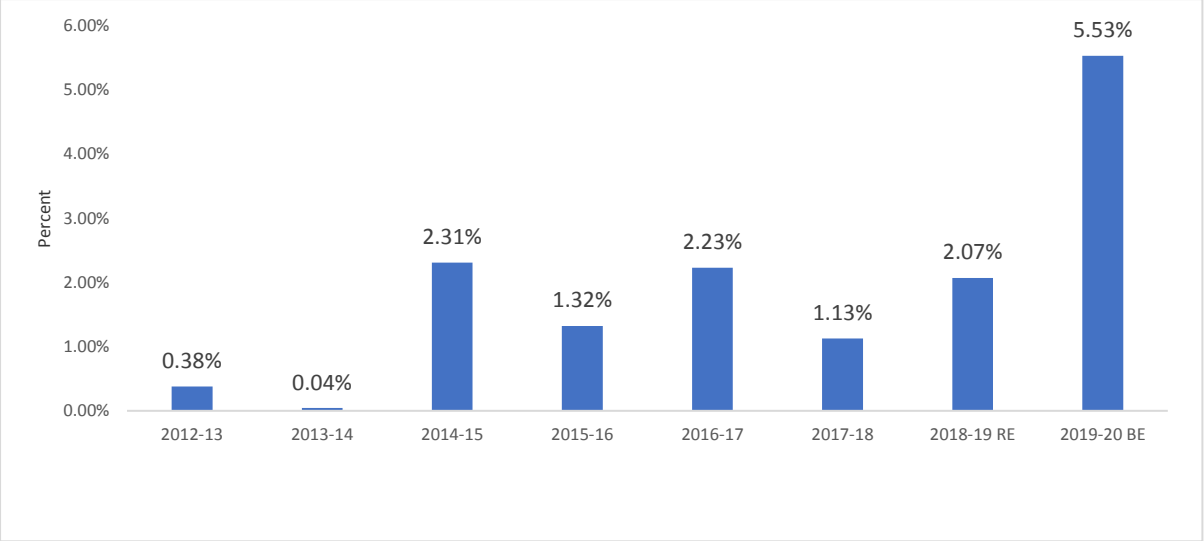


Figure 12: Percentage of SSA, RMSA and Samagra in school education expenditure

6.2.15 Strengthening Teacher- learning and Results in States (STARS) components:

The expenditure under STARS (especially Quality interventions taken by the government) components accounted for only one percent of the total school education expenditure (Figure 13). The percentage fluctuated over the years. It decreased from 1.2 percent in 2012-13 to one percent in 2019-20.

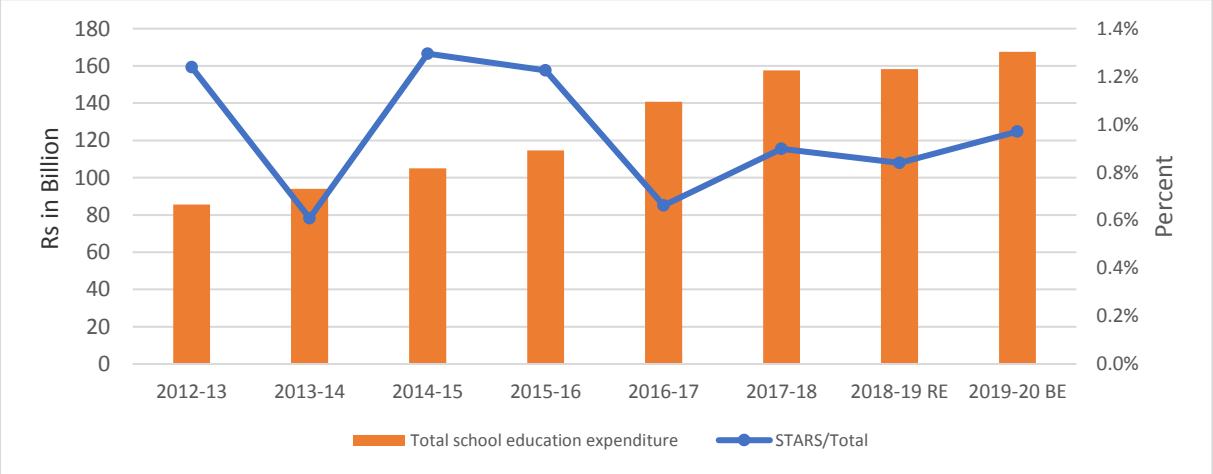


Figure 13. Percentage of expenditure under STARS components

6.3 MADHYA PRADESH

A. Policy Analysis

Madhya Pradesh has seen much progress in the field of education, especially in improving enrollment rates, in recent years. In the year 2011, Net Enrolment Ratio was 98.88% for the primary level (Class I to V) and 99.27% for the upper primary level. Dropout rate has also

come down and was 8.2% at primary level and 7.4% at upper primary level in 2011. The literacy rate in the state increased from 64.11% in 2001 to 70.63% in 2011. However, the literacy rate in the state still remains a little below the all India literacy rate of 74.04%.

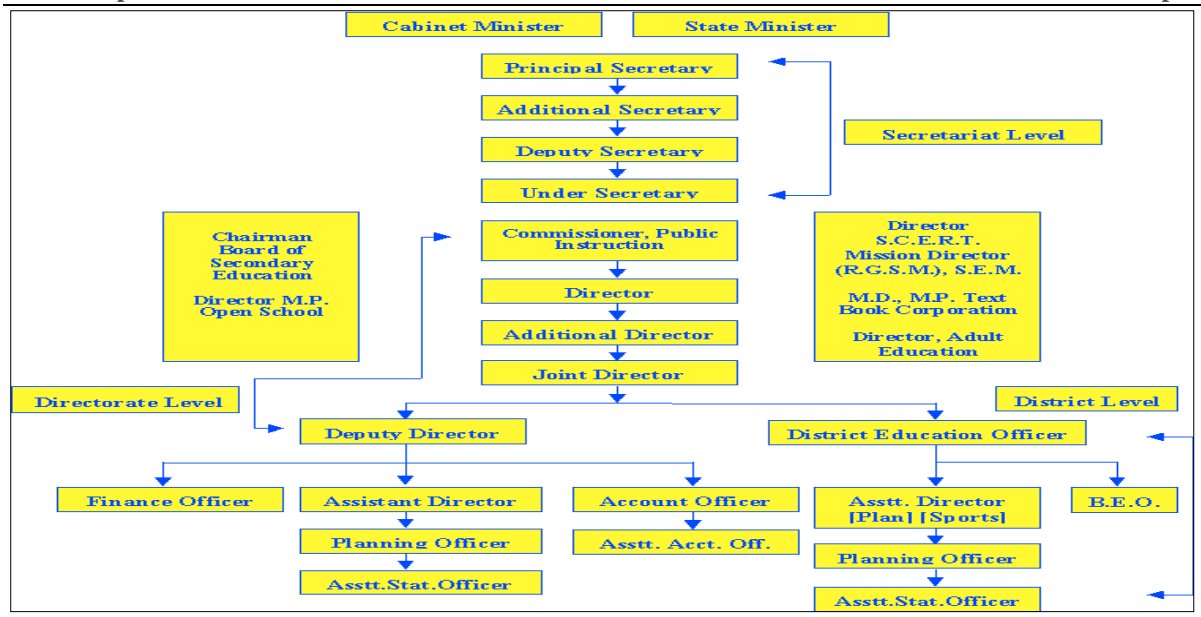
Madhya Pradesh was also among the few States of the country which notified the Right to Education Rules within one year of the commencement of the RTE Act. A RTE Cell has been constituted at the state level to monitor the implementation of the provisions of the Act. As part of the Right of Children to Free and Compulsory Education Act, 2009, emphasis was on providing access for education to each and every child in the age group of 6-14 years and accordingly the focus was on increasing the enrollment rates by ensuring provision of schools, teachers and other facilities as per the norms and standards laid down. Information Technology tools are being used for monitoring and to bring transparency in the system.The below Table shows the number of different types of schools at the primary, upper primary and high school levels in the state.

Schools in Madhya Pradesh	
Government Primary Schools	83412
Aided Primary Schools (Private)	852
Unaided Primary Schools (Private)	12533
Government Upper Primary Schools	28479
Aided Upper Primary Schools (Private)	410
Unaided Upper Primary Schools (Private)	14773
Total High Schools (Including Private)	6636
Total Higher Secondary Schools (Including Private)	5211

As can be seen, primary education in the state is heavily reliant on public provision of education as the ratio of government and aided private schools to unaided private schools is almost 7:1. The difference is not so stark in case of upper primary schools, however.

6.3.1 Organisation Structure - School Education Department:

Both Primary and secondary education largely come under the ambit of the School Education Department of Madhya Pradesh. The department also oversees teacher training through its colleges of education and pre-primary training institutes. The chart below shows the organization structure.



Source: http://www.sednmp.nic.in/organ.htm

The structure of education in the state is based on the national pattern with 12 years of schooling, consisting of eight years of elementary education, that is five years of primary and three years of middle school education for the age groups 6-11 and 11-14 years respectively, followed by high and higher secondary school education of two years each besides three years of pre-primary education. Schooling education is administratively managed by Directorate of Public Instruction, Madhya Pradesh, Bhopal. At district level, office of District Education Officer and at block level, office of Block Education Officer manage and coordinate schooling. State Council of Educational Research and Training (SCERT) does academic work at state level. The Council manages 4 state level Institutes, 10 Education colleges, 45 DIETs, 5 BTIs and 1 Institute of Pre-Primary Training. The Council also inspects and decides curriculum. It works for innovation and research in the field of education. Publication and distribution of text books is done by Madhya Pradesh Text Book Corporation. Examinations are conducted by Madhya Pradesh Board of Secondary Education.

As most of the divisions are managed under the single department of School Education, integration under the Samagra Shiksha Abhiyan is likely to not pose major challenges due to conflict between different managing agencies. Pre-primary education, in the present regime, is however managed at Anganwadis which come under the ambit of the ministry of Women and Child Development. This might be a source of conflict and this is already being observed in other states such as Karnataka where introduction of pre-primary education in government schools has led to large scale protests by Anganwadi workers who feel threatened by the reduction of responsibilities in Anganwadis.

6.3.2 Existing Schemes of State Government:

In an effort to achieve the target of universalization of access to primary and upper primary schools as per the provisions of the Right to Education Act, 2009, the state government has

initiated various schemes. Brief about the various schemes of the state government are provided below.

- Establishment of high schools to make them accessible at a distance of 5 km
- Pratibha Vikas Programme: This programme is a modification of an eearlier initiative named Dakshata Samwardhan Programme which was a Learning Enhancement Programme (LEP). One of the important components of the programme is Continuous and Comprehensive Evaluation (CCE) and this includes both scholastic and co-scholastic areas. Pratibha Vikas Programme ensures that every child attains minimum level of competencies of their standard within prescribed time limit. Under the programme, different proportions of basic competencies and textbook based learning have been decided depending upon the grade and students are expected to meet these standards by the end of the academic year.
- Activity based learning in primary schools: Activity Based Learning (ABL) approach is expected to not only improve the quality of classroom transaction but also address the issue of multilevel classrooms. Under the ABL approach competencies have been divided in small units further coming together as milestones. These milestones are placed in Learning Ladders. Learning Ladders have been developed for each subject for classes 1, 2, 3 and 4 BL has been implemented initially in 4000 primary schools in 50 districts of the state. Now one block in each district has been covered under the progamme. ABL approach initially taken up for classes 1 and 2 for all subjects viz. Hindi, English and Mathematics and now extended to class 4.
- Active Learning Methodology in Upper Primary Schools: Active Learning Methodology is primarily based on concept/thematic teaching maps and the content area reading approaches such as SQ4R (Survey, Question, Read, Recite, Review and Reflect). ALM is expected to have widespread impact on all the subject areas taught in the Upper Primary Schools (Language/Mathematics/Science and Social Studies).ALM has been developed based on the state context.
- The method is aimed at improving the education quality in Standards 6 to 8. This approach enables children to make conceptual/thematic link ages and is expected to enhance their understanding of concepts. The difference between the ALM in the state and other places is basically that thematic/concept maps are used for lesson plans for teachers and these also serve as 'Advance Organizers' for children to enhance their conceptual understanding.
- Sampoorn Shikshit Gram Yojana: Monetary Incentives to villages and SMCs depending upon performance of school children
- National Programme for Education of Girls at Elementary Level (NPEGL): Including Kasturba Gandhi Balika Vidyalayas for girls belonging to SC / ST / OBC and minority groups
- Computer Aided Learning Program and ICT labs

6.3.3 External Evaluations of Learning Status: Madhya Pradesh has seen considerable decline in the learning status in external evaluations by ASER. In 2010, while seven out of 10 class 4 students could read class 1 lessons, in 2014 this number declined to only three. The ASER-2014 data further shows that in 2014, only 64.9% Class 2 students could identify numbers 1 to 10 as against 91.8% students in year 2010. Moreover only 10% Class 5 students were able to do arithmetic divisions in 2014 compared to 38% in 2010. This continues to be a major concern area in Madhya Pradesh and the state government partly ascribes the reason to be the No Retention policy instituted by the central government.

6.3.4. Challenges: Inadequate availability of professionally trained and regular teachers is one of the key concern areas. In 2011-12, the pupil teacher ratio was 31 students per teacher at the primary level and 29 students per teacher at the upper primary level. However, The number of schools that do not comply with the RTE norms of pupil teacher ratio is fairly high. As per a school-wise analysis based on DISE Conducted in 2011-12 there are 14.9 per cent single teacher schools in the state. Inadequate infrastructure in schools is another key challenge that the government is struggling with. In spite of the institution of Mukhya Mantri Shala Jyoti Yojana in the state, nearly 97000 primary and middle schools remain without electricity in 2018 and a fund of Rs. 271 crore is needed to address this issue.

B. Budget Analysis

6.3.5. School education expenditure (SEE) has been increasing over years

The School Education Expenditure (SEE) has grown gradually in the state from Rs.108 billion in 2012-13 to Rs. 385 billion in 2019-20 BE (Figure 1). The real expenditure reached Rs. 147 billion in 2016-17. The CAGR of total school education expenditure in nominal and real terms was 17 percent and 8 percent respectively.

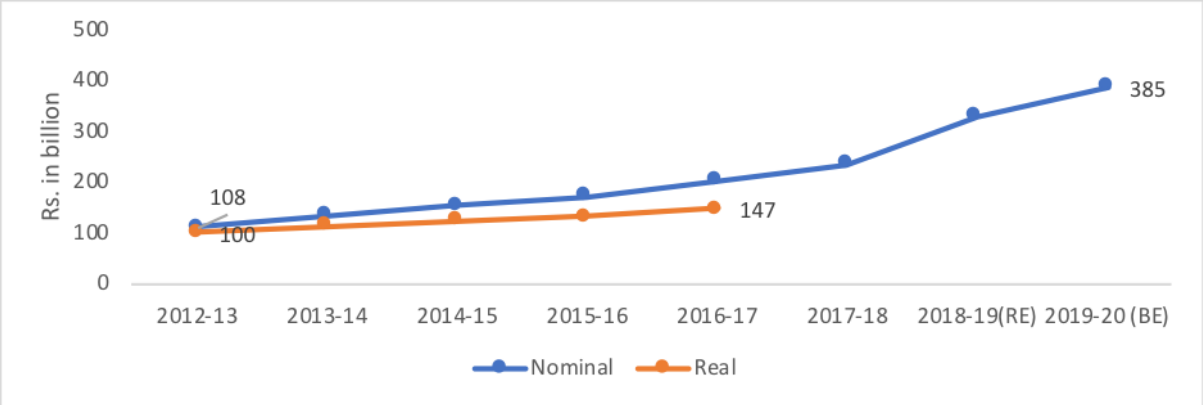


Figure 1. Total School education expenditure over years

The per-child expenditure (PCE) on school education also has increased over this period. The PCE has increased from Rs. 3549 in 2012-13 to Rs. 12527 in 2019-20 in nominal terms. In real terms, the PCE increased from Rs. 3277 in 2012-13 to Rs. 4787 in 2016-17 at 2011-12 prices (Figure 2)

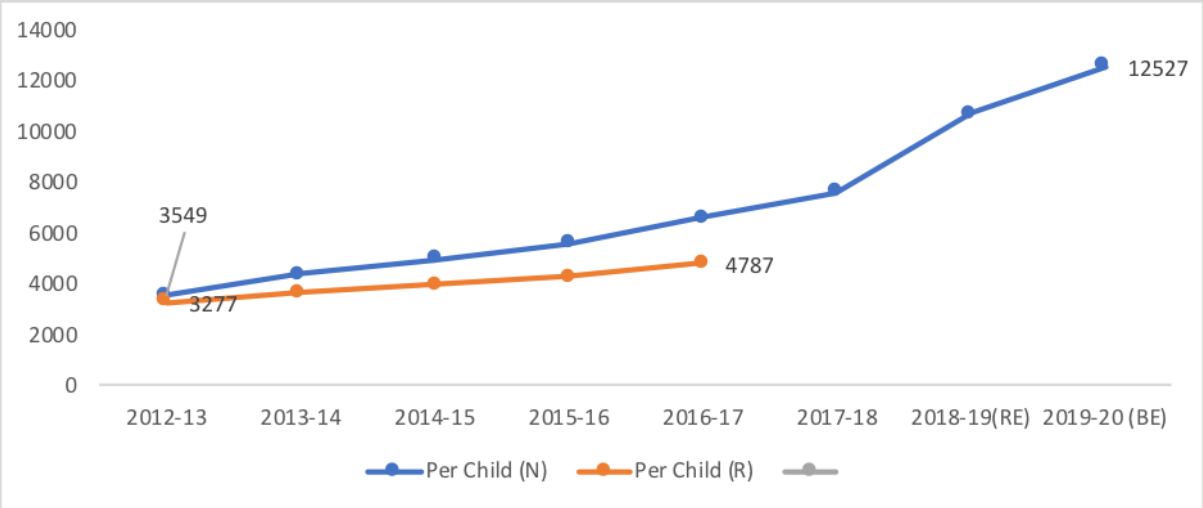


Figure 2: Per-child school education expenditure

6.3.6. Share of School education expenditure in GSDP, Social Service expenditure (SSE), Total Expenditure (TE) and Total Revenue Receipts (TRR)

The total school education expenditure as a share of nominal GSDP witnessed an increase from 2.84 percent in 2012-13 to 3.12 percent in 2016-17. However, post 2014-15, there seems to be a declining trend.

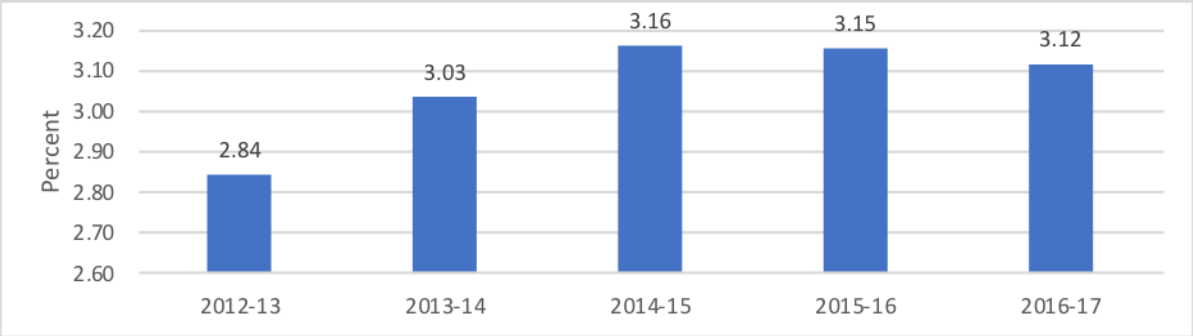


Figure 3. Total school education expenditure as a percentage of GSDP

School education expenditure as a percentage of total expenditure and Revenue Receipts followed a similar trend both recording a gradual decrease post 2013-14 except for the last two years of the study, i.e. 2018-19 and 2019-20 wherein it has recorded an increase (Figure 4). The SEE as percent of Social service expenditure also has declined significantly since 2013-14 and has only increased in the last two years. Given that the last two years are revised estimates and budget estimates, the increase is still tentative.

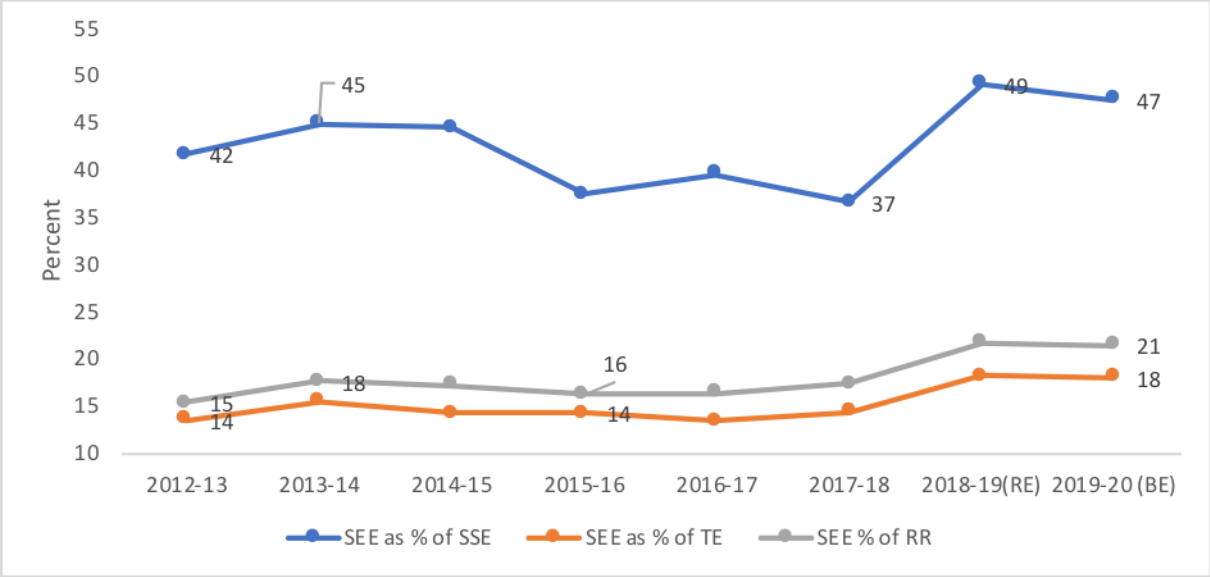


Figure 4. Share of school education expenditure as a percentage of SSE, TE, TRR.

7.3.7. Social service expenditure as a percent of total revenue receipts

Even though the share of SEE as proportion of total expenditure has reduced, the social service expenditure as a proportion of total revenue receipts has recorded an increase which is a very positive sign. The share of social service expenditure has increased to 47 percent during 2017-18 and has again decreased to 45 percent in 2019-20 (figure 5).

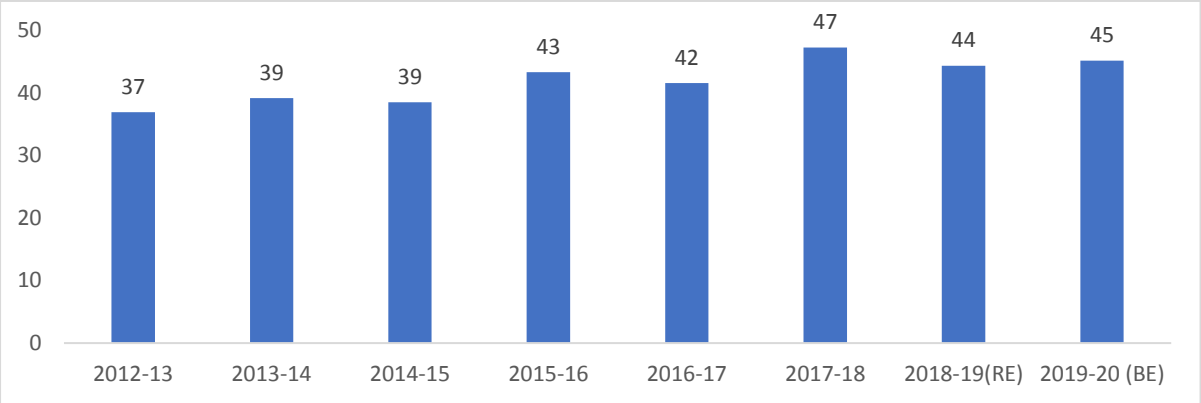


Figure 5: Share of social service expenditure as percent of total revenue receipts

6.3.8. School education expenditure across Departments and Major heads

Most of the School Education expenditure (over 50 percent) was incurred by Department of School Education followed by Departments of Rural Development and Tribal Welfare at 17 percent and 12 percent respectively (Figure 6). School education expenditure by major heads indicated that the share of 2202(Education, Art and Culture) was at 88 percent on an average. Other major heads under which expenditure is recorded were 2235, 2225 and others (Figure 7).

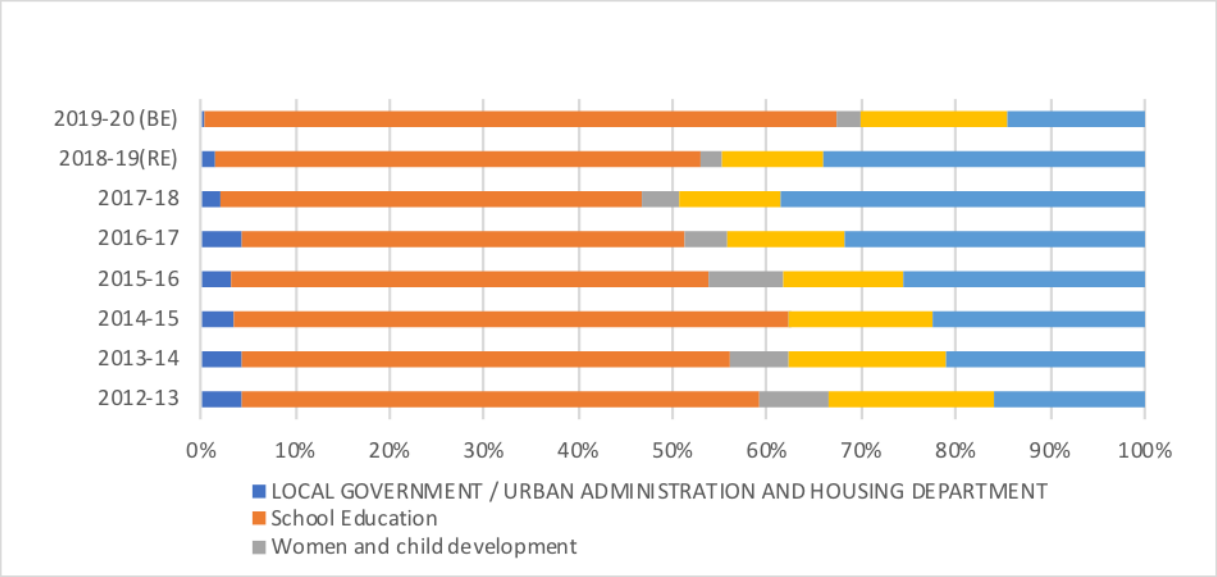


Figure 6. Department wise share of school education expenditure

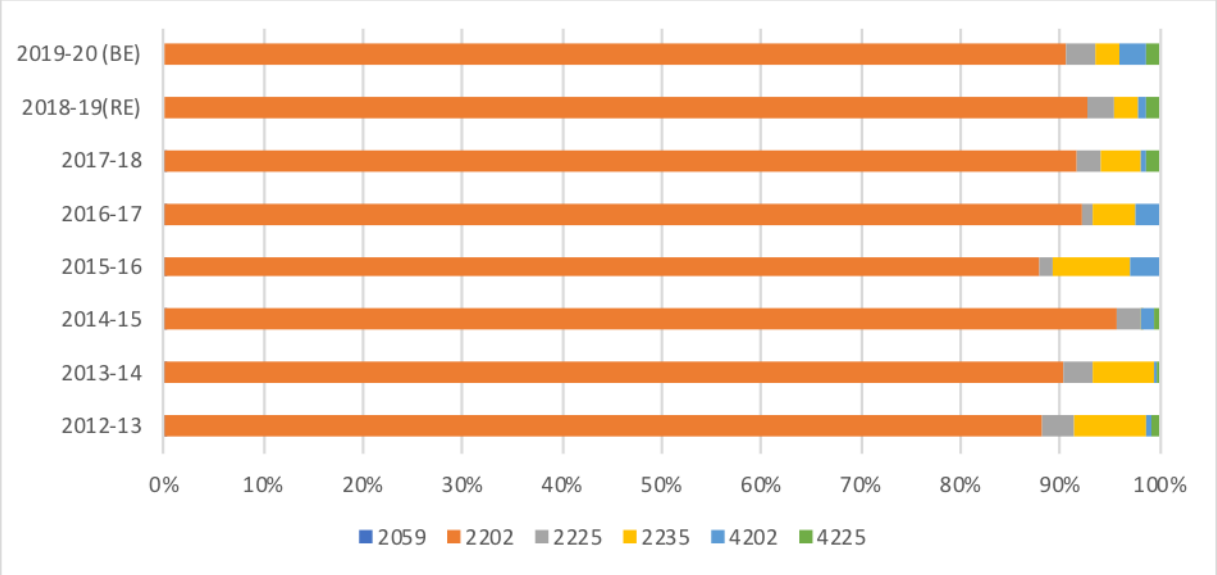


Figure 7. Major head wise distribution of school education expenditure

6.3.9. School Education Expenditure by Stages of Education

Of the total school education expenditure, elementary and secondary education account for more than 85 percent over the years (Figure 8). Interestingly, till the year 2016-17, Elementary was prioritized as compared to secondary. But in 2017-18 onwards, more than 50 percent of the total school education expenditure is taken up by Secondary education. Expenditure on Pre-primary education is negligible.

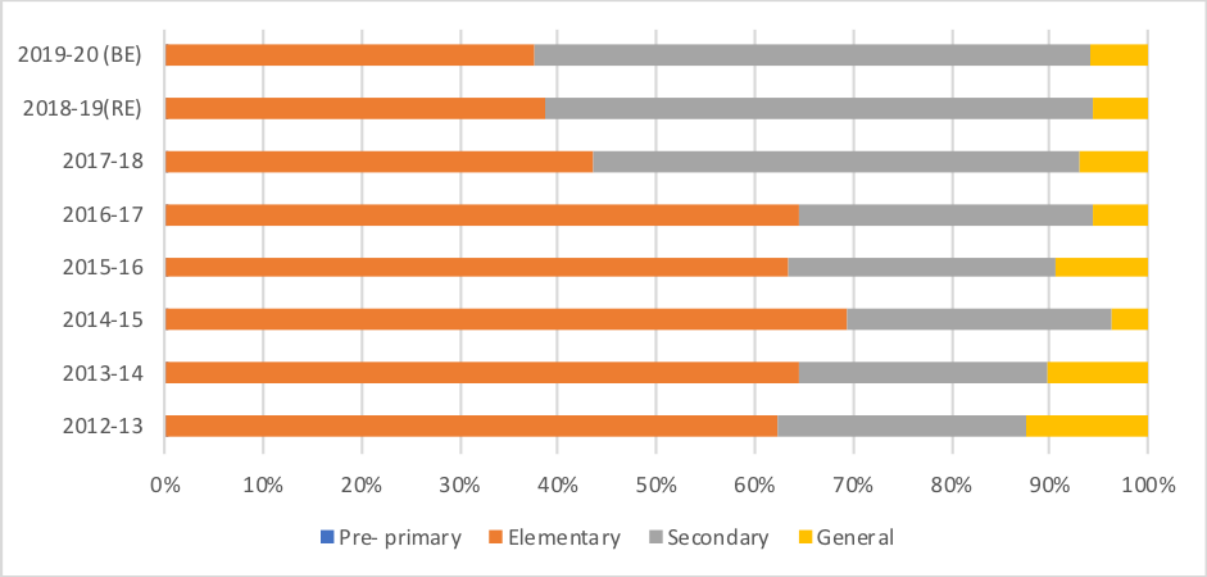


Figure 8. Share of School education expenditure by stages of education

6.3.10. School education expenditure by Revenue-Capital, Wage-Non-Wage group: *Revenue expenditure and the wage component constitute the majority*

The wage expenses consisting salaries, wage payments, payments for professional services, accounted for more than 80 percent of total school education expenditure (Figure 9). The non-wage expenses, which included the social transfers such as books, uniforms, shoes, scholarships and food expenses, accounted for an average of just 8 percent. However, it increased from 6 percent in 2012-13 to 15 percent in 2018-19 BE.

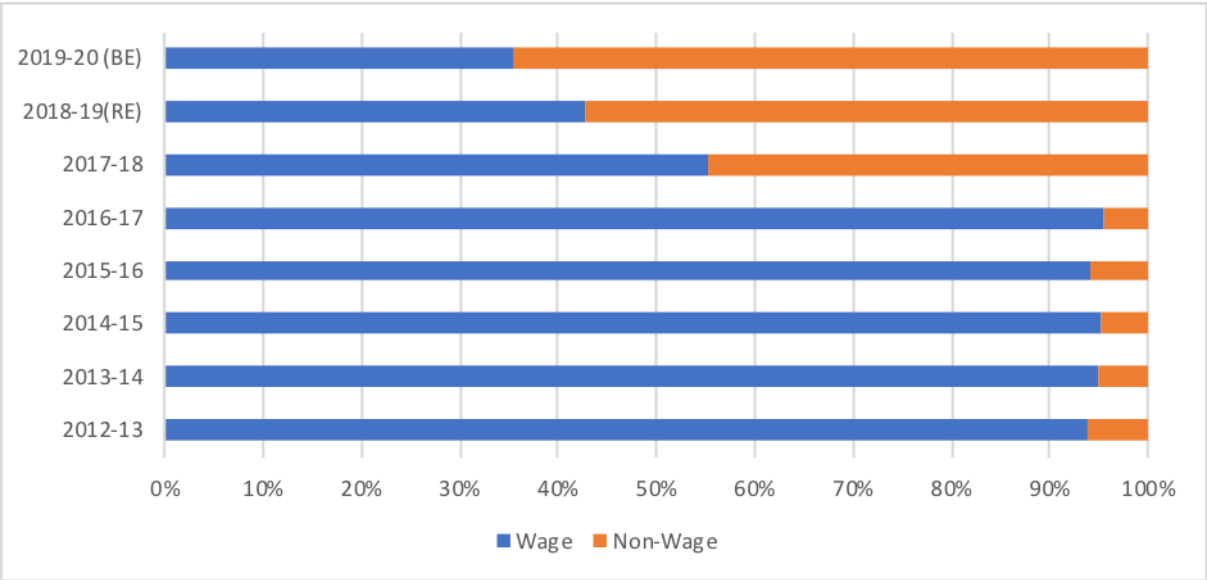


Figure 9. Share of wage- Non wage expenditure in school education expenditure

About 97 percent of the total school education expenditure was revenue expenditure or recurring expenses while the rest 3 percent accounted for capital expenditure (Figure 10).

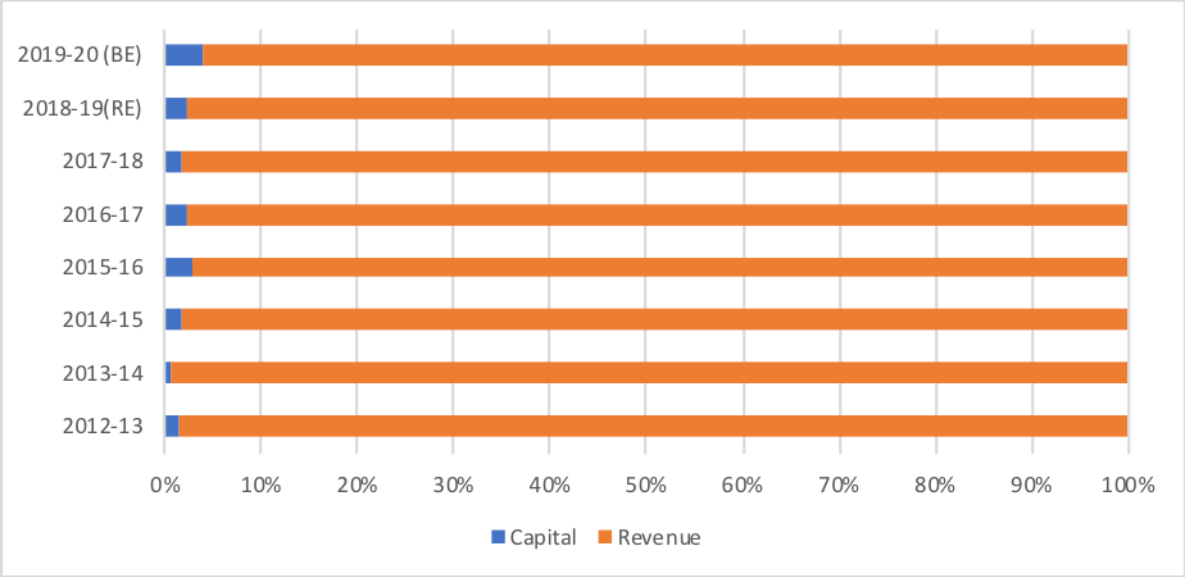


Figure 10. Share of Revenue and Capital expenditure in school education expenditure

6.3.11. Expenditure by type of transfer: *Direct transfers hit a low of 3 percent in 2014-15*

Direct transfers comprised of all those expenditures that reach directly to an individual child (beneficiary- centred) and this includes books, bags, shoes, uniforms, bicycles, meal expenses and scholarships. Indirect includes expenditure which are spend mostly on recurring expenses like salary, construction of schools, hostels etc. The direct expenses accounted for 6 percent of the total school education expenditure over the years. In the year, 2014-15 direct transfers were at a low of 3 percent but in 2015-16, it had increased to 11 percent and reduced to 4 percent in 2019-20 (Figure 11).

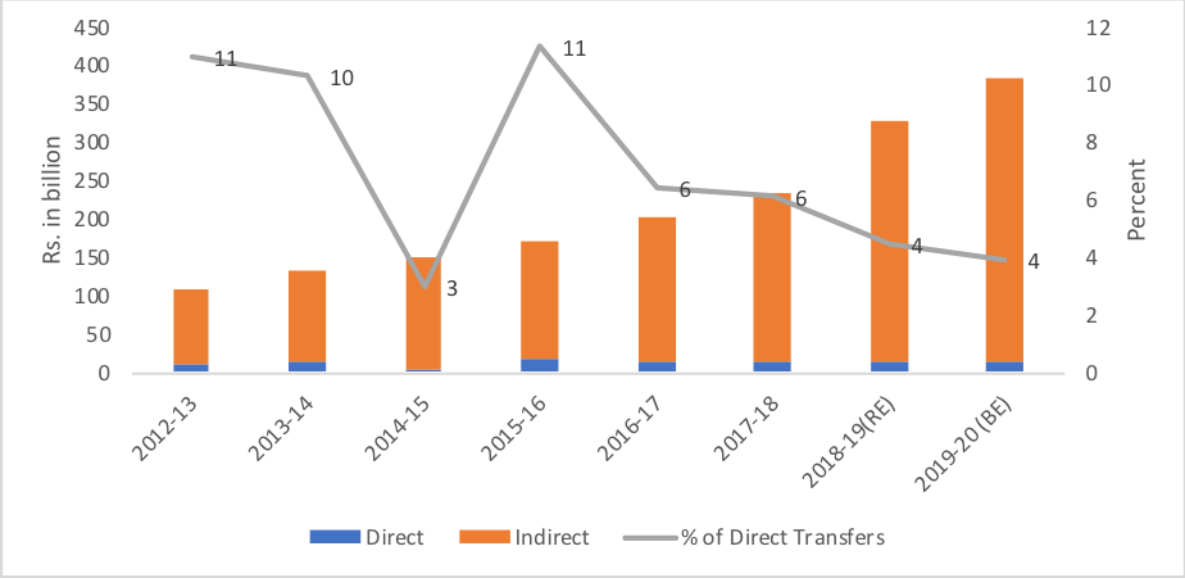


Figure 11. Direct and Indirect transfers

6.3.12. Share of expenditure: SSA, RMSA and SS: The expenditure under SSA and RMSA together accounted for about 18 percent of the total SEE over the years (Figure 12) and it rose to 27 percent in 2018-19 and reduced to 25 percent in 2019-20.

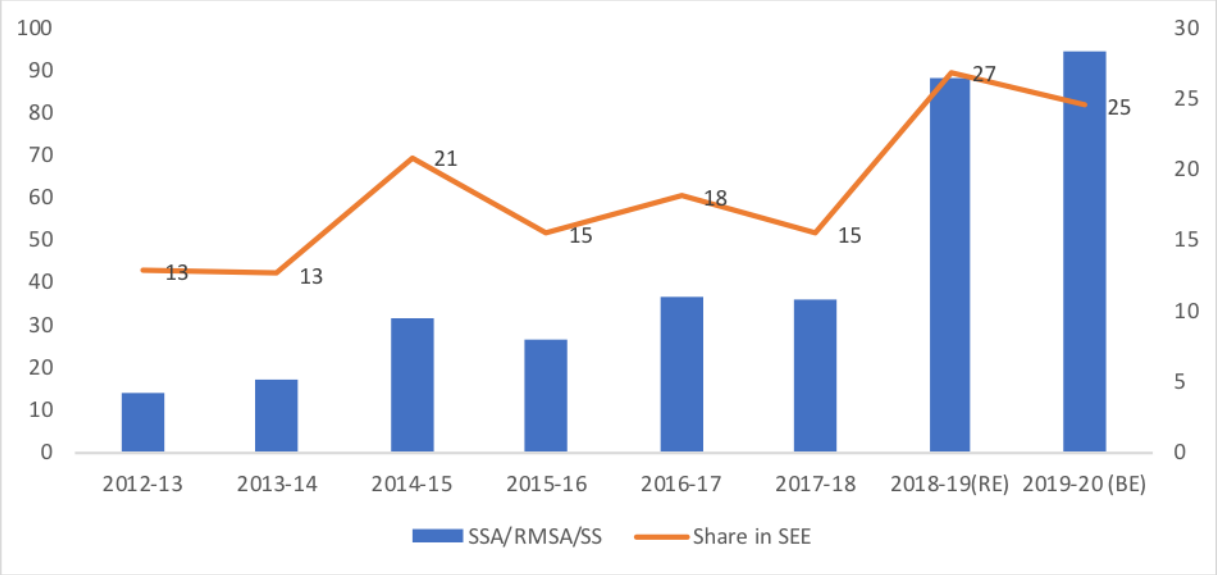


Figure 12. Share of expenditure of SSA, RMSA and SS

6.3.13. Strengthening Teacher- learning and Results in States (STARS) components

The expenditure under STARS (Quality augmenting interventions taken by the government) was found to be negligible. The percentage seemed to fluctuate over from 0.05 percent in 2012-13 to 0.01 percent in 2017-18. The STARS component of the state included mainly teachers training, quality improvement, awards and incentives for teachers and students (Figure 13).

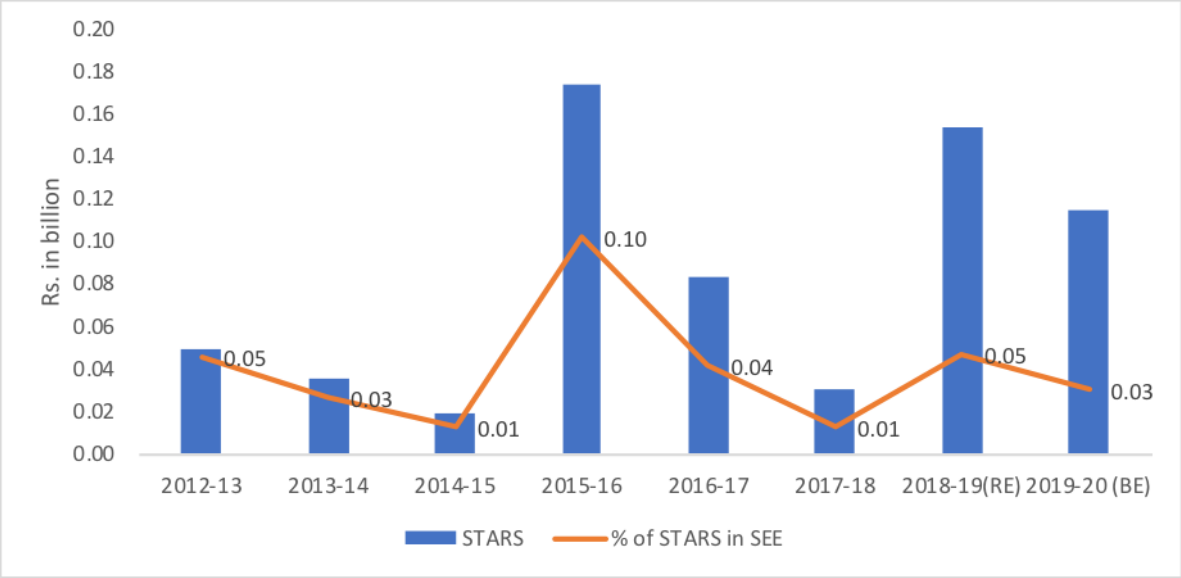
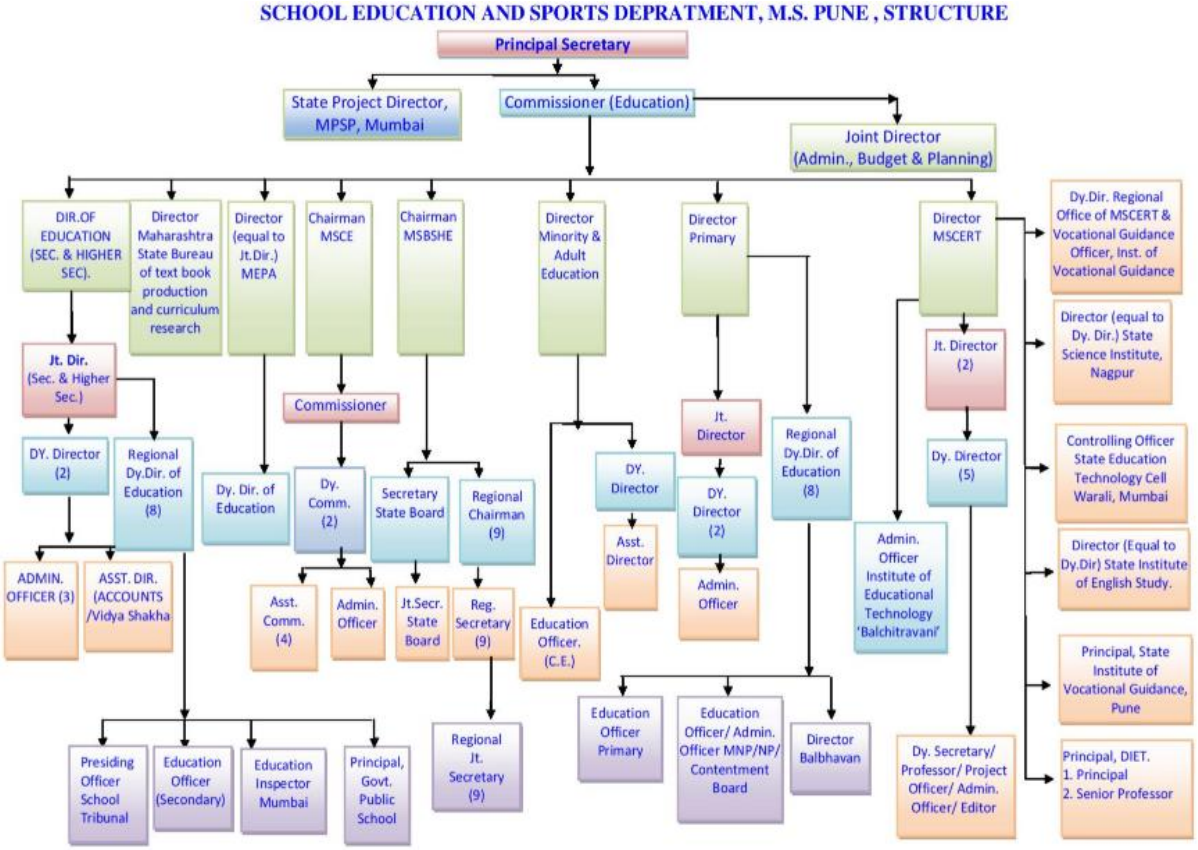


Figure 13. Percentage of expenditure coming under STARS

6.4 MAHARASHTRA

A Policy Analysis

6.4.1. Framework of the school education system in Maharashtra:



In Maharashtra, both primary education and secondary education come under school education and sports department. There is no separate department for the primary education and secondary education for the state. The department has been basically divided in three categories: State project director, commissioner (education) and joint Director (Admin., Budget and planning).

Along with that, there is Board for secondary and higher secondary school education department. In addition, the District Institute for Education and training (DIET) comes under the supervision of same department. Moreover, the women and child Development department is responsible for the development of 0-6 age group in the state. For implementation of vocational education under the CSS, RMSA (Maharashtra) has collaborated with Directorate of Vocational Education and Training (DVET) under the Skill Development Department. An NSQF cell is proposed to be established at State board. The state board will be responsible to conduct the assessment jointly with respective sector skill councils.

The below table shows the number of schools of different categories and at different levels in the state.

Schools	Number of Government Schools	Number of Government Aided Schools	Number of unaided Private Schools	Number of unrecognized Schools	Total number of schools
Number of Elementary Schools	66946 (63.78%)	21707 (20.68%)	15718 (14.97%)	600 (0.57%)	104971
Number of Secondary Schools	1779 (6.91%)	15550 (60.42%)	8307 (32.28%)	101 (0.39%)	25737

Source:http://udise.schooleduinfo.in/dashboard/secondary#/ & http://udise.schooleduinfo.in/dashboard/elementary#/)

Both number of elementary as well as secondary schools increased over last four years. There is significant increase in unaided private school over last four years. Most of the elementary schools are government schools in the state whereas, there is large number of government aided schools for secondary education. Only 6.91% schools are government schools for secondary education.

6.4.2. Early childhood education: Pre Schools for children till six years of age are being regulated by the state government under the Early Childhood Care and Education (ECCE Policy). The policy was formulated by the State Education and women and Child Development departments. The government notified about the implementation of the Maharashtra ECCE policy 2018, which is drafted on the lines of the national ECCE Policy 2013. Regulation of pre-schools is one of the primary concerns in the urban areas of the state and a state ECCE council has been established for this purpose as the apex body to guide and oversee the implementation of the policy.

To supplement the presence of numerous pre-schools (both government and private) and to encourage early childhood education in rural areas as well, the government has set up balwadis in the premises of Zilla Parishad schools and vikaswadis in tribal areas.

6.4.3. External evaluation of learning standards: The results of external evaluations of learning standards as per the ASER and NAS reports were examined. As per these evaluations, performance of both boys and girls in the state is higher than the national average in both language and mathematics. The largest proportion of students in the state scored 51-75% correct answers in language. The largest proportion of students in the state scored above 75% correct answers in mathematics. Performance of both rural and urban students is higher than the national average in language. Performance of rural students is higher than the national average, while that of urban students is lower. All social groups scored higher than the national average in both language and mathematics. Thus, it appears that the state is performing fairly well as compared to the national performance when it comes to learning assessment.

6.4.4. Teacher recruitment and development: The expansion of the facilities for Primary education resulted in the urgent need for an increased number of trained primary teachers. From June 1966, only trained primary teachers with S.S.C., D.Ed. were recruited in Maharashtra,

exception being made in the case of women teachers and teachers belonging to Backward Classes.

For teachers training, a State Board of Teacher Education (SBTE) was constituted under the control of Director, M.S.C.E.R.T. has been set up in the state since 1967. The board is responsible

a) To frame curriculum for Pre-service and In-service Training of Primary Teachers.
b) To verify the equivalency of D.Ed. with that of other states.
c) To improve the quality of education at primary-level with the help of various innovative projects.
d) To plan the Training programme for Pre-Primary Teachers.
e) To plan the curriculum for pre-primary teachers training.
f) To plan the training programme and examinations for pre-primary teachers.

In order to provide incentives to teachers for their performance, The Government has also initiated State Awards to primary school teachers for excellent service similar to the Government of India Awards. Also, they are provided with financial security in form of family pension scheme for primary school teachers and establishment of a National Teachers Welfare Fund.

6.4.5. Partnering with non-state actors for delivery: We did not find any significant instances of collaboration with non-state actors for delivery of educational services in the state (except for the presence of private educational institutions) in our preliminary analysis. One notable instance was the presence of around 1600 pre-schools being run by Pratham, one of the notable NGOs in the sector, in Mumbai.

6.4.6. School to work transition strategies: For implementation of vocational education, the state of Maharashtra published a GR dated August 22nd2014 laying out the institutional arrangement and roles and responsibilities of the various stakeholders. RMSA (Maharashtra) has collaborated with Directorate of Vocational Education and Training (DVET) under the Skill Development Department. An NSQF cell is proposed to be established at State board. The state board will be responsible to conduct the assessment jointly with respective sector skill councils. The state has implemented the scheme in 506 schools in the State MoU with NSDC, which will further help with the implantation of the project in terms of implementing partners and quality control.

Apart from the academic subjects, technical subjects are taught from class eight and students also get SSC. The following are two types of technical secondary schools:

a. Full-fledged technical secondary schools, where educational and technical subjects are also taught.
b. Technical secondary school / centre where technical subjects are taught.
c. With the introduction of new strategies for education, introduction of pre-professional courses such as mechanical engineering components, electrical and

electrical and electronic technology components and basic technology under pre-professional education has been introduced since 1996-97. The other groups of these technical groups, commerce, agriculture, fishery, para medical, home science courses are in process.

d. Some of the key features that emerged from our analysis in the state are

e. In terms of administration, Department for elementary education, secondary education and teacher education come under a single department that is school education and sports department so, there is only need to integrate the School Education and sports department with Women and Child Development Department.

f. The state heavily focuses on the elementary education so, most of the elementary schools are either government schools or government aided schools. Only 6.93% of schools are government schools for secondary education.

g. In view of the existing challenges in ICT and need for expertise in subject areas such as Evaluation and Assessment, considering that learning outcomes are now to be formally evaluated, the following Academic Structure is a challenge.

h. To ensure that schools meet RTE requirements, the SSA infrastructure budget increased by 36% between 2010-11 and 2012-13 but the outcome is not consistent with the allocation. There is shortfall in separate toilets for girls in schools, decline in the percentage of reporting classrooms in schools.

B. Budget Analysis

6.4.7. Total and per child School Education Expenditure has increased over years

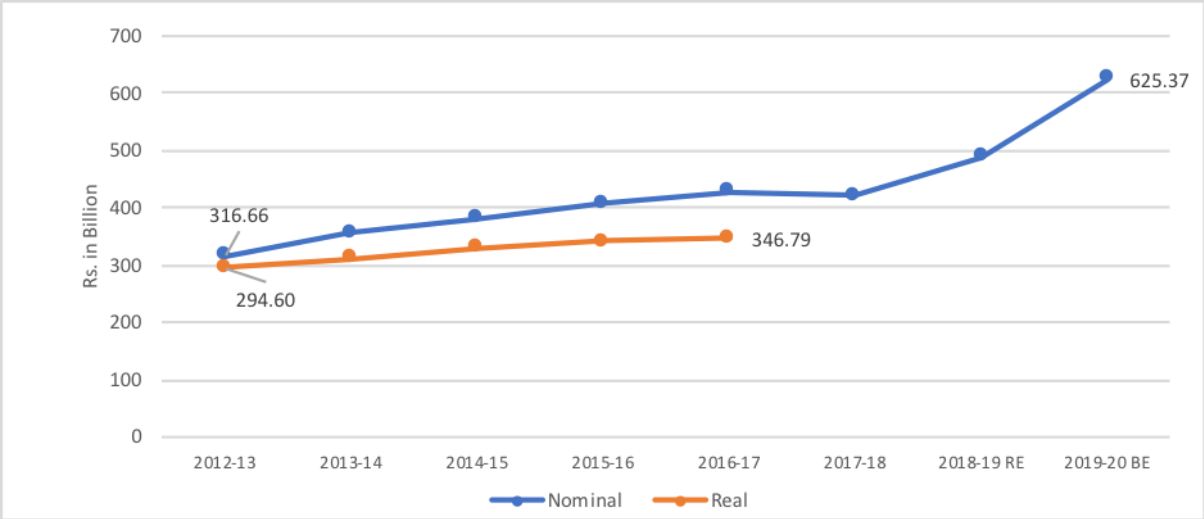


Figure 1: Nominal and real School education expenditure

The School education expenditure in nominal terms has increased gradually for the period 2012-13 to 2016-17 and increased at a greater pace in the last two years after a marginal dip in the year 2017-18. Similarly, school education expenditure in real terms has also increased

gradually for the period 2012-13 to 2016-17. The CAGR of total school education expenditure in nominal and real terms are 8.88 percent and 3.32 percent respectively.

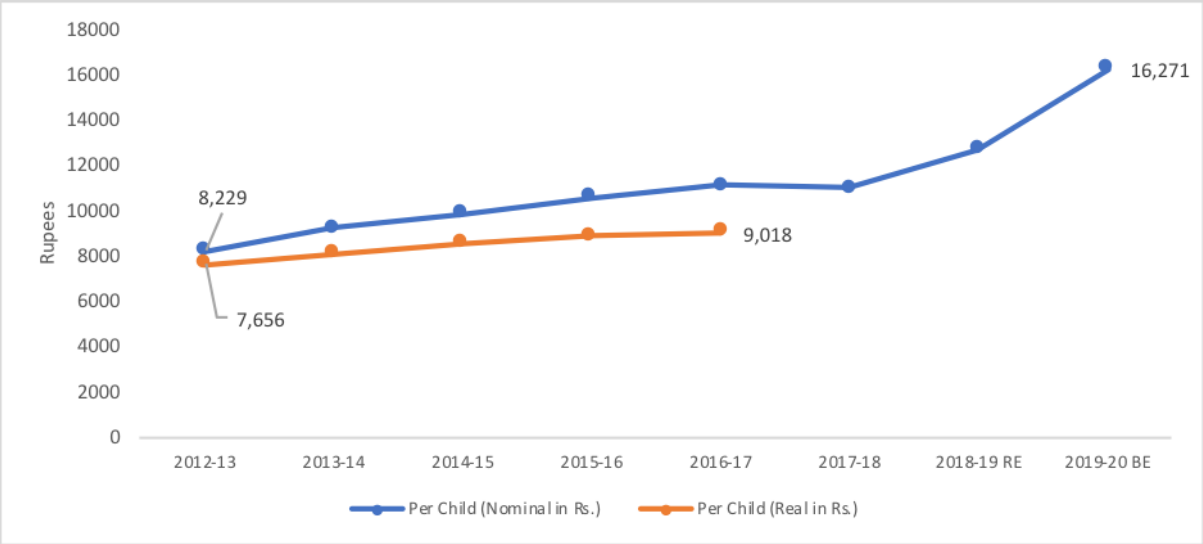


Figure 2: Per Child School Education Expenditure in nominal and real terms

Like total school education expenditure, both nominal as well as real per child school education expenditure has also increased over the years. The nominal per child expenditure has increased significantly in the last three years. The nominal per child expenditure for school education is Rs. 16271 as of the budget estimated for the year 2019-20. The CAGR of per child expenditure in nominal and real terms are 8.90 percent and 3.33 percent respectively.

6.4.8. Share of school education expenditure as a percentage of GSDP, social service expenditure, total expenditure and total revenue receipts

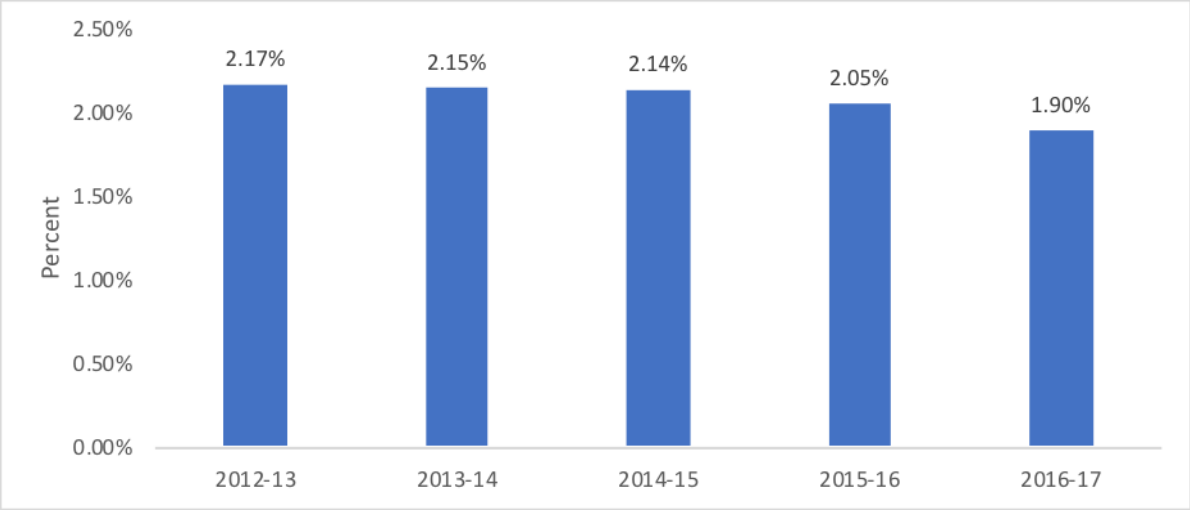


Figure 3: School education expenditure as a percentage of GSDP

The school education expenditure as a percentage of GSDP has declined gradually over the years. The expenditure has decreased from 2.17 percent in the year 2012-13 to a low of 1.90 percent in the year 2016-17.

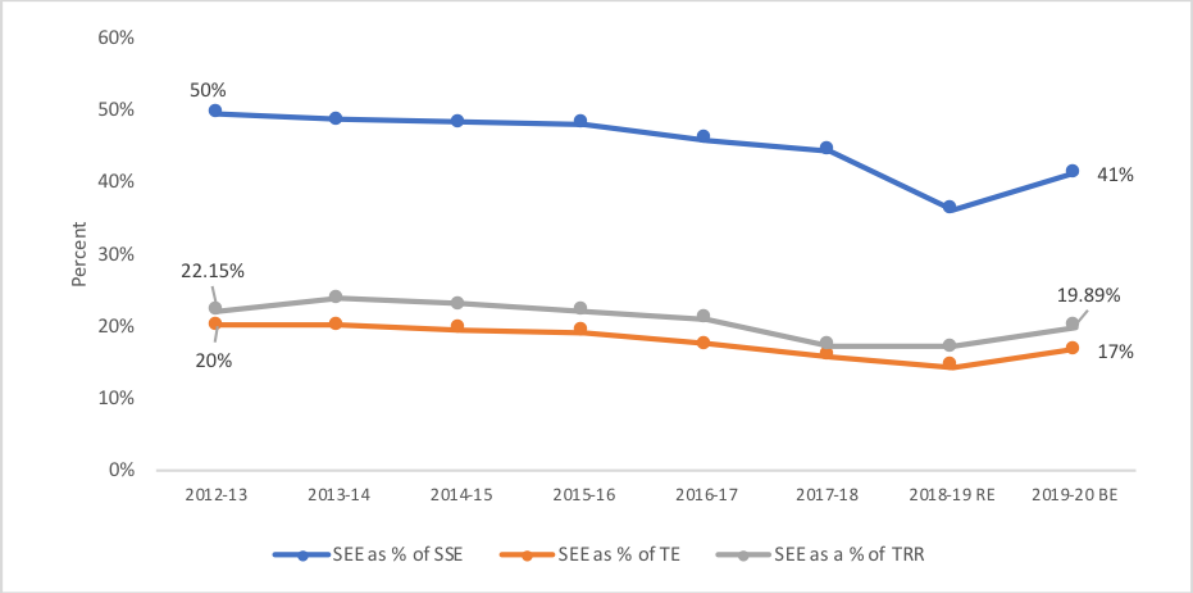


Figure 4: Share of school education expenditure as a percentage of SSE, TE and RR

The share of school education expenditure as a percentage of both social service expenditure and total expenditure have decreased over the years with a rise in the budgeted year 2019-20. Maharashtra's change in budgeting priorities is visible with the commencement of 14th Finance Commission. The social service expenditure as a percentage of total expenditure has remained around 40 percent, school education budgeting priorities declined. The school education expenditure as a percent of total revenue receipt has declined from 22 percent in 2012-13 to 17 percent in 2018-19RE before rising to 20 percent in 2019-20BE.

6.4.9. Social service expenditure as a percent of total revenue receipts

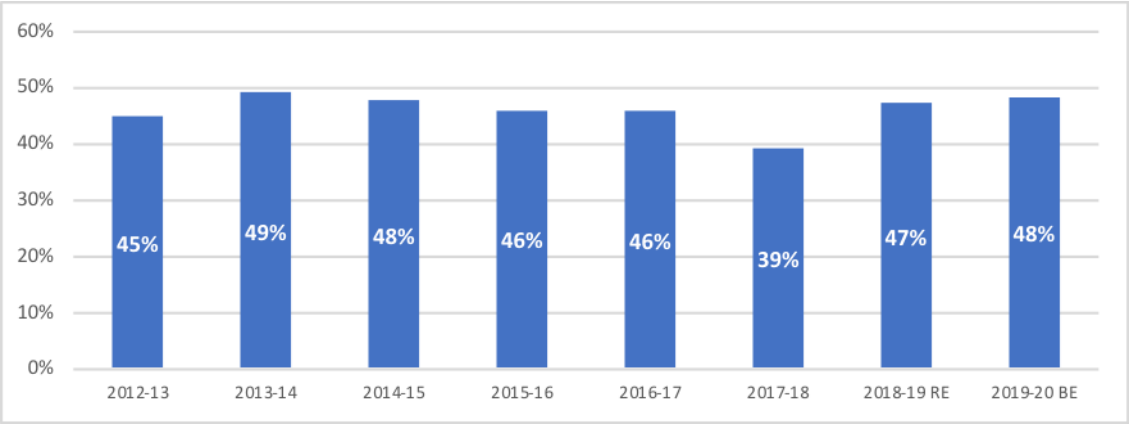


Figure 5: Share of social service expenditure as percent of total revenue receipts

Even the expenditure on social services as a proportion of total revenue receipts has shown reduction since 2015-16 indicating that increase in the revenue receipts have not resulted in proportionate increases of funds towards social sector as a whole (Figure 5).

6.4.10. Share of school education expenditure in different departments and major heads

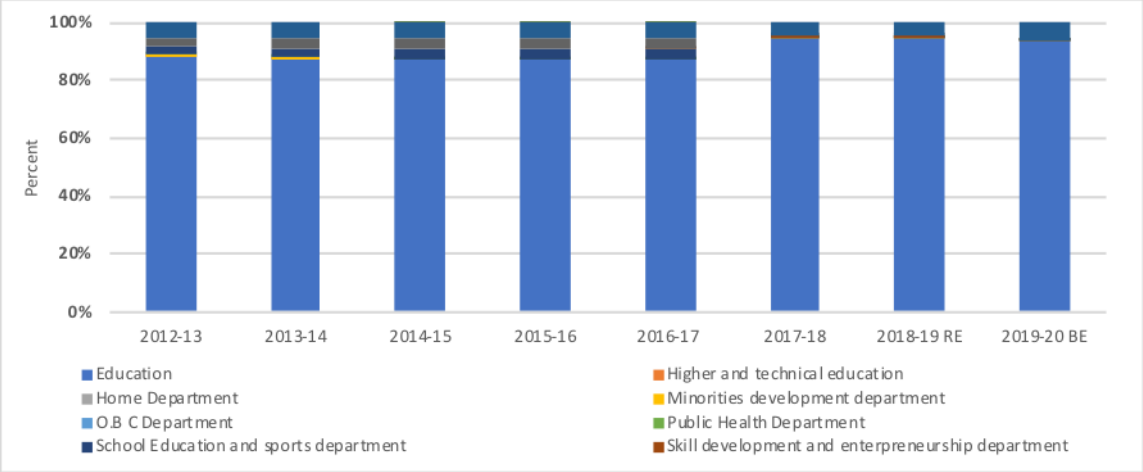


Figure 6: Share of school education expenditure under different departments

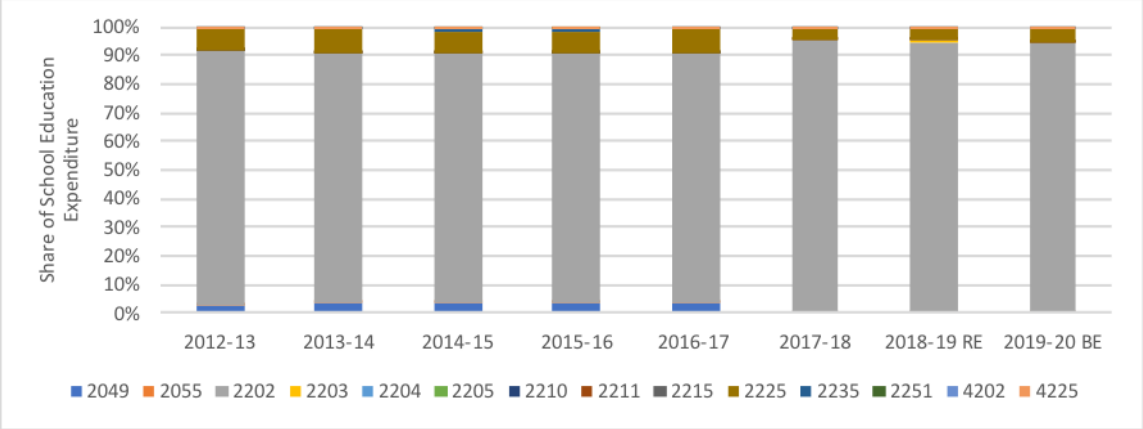


Figure 7: Share of school education expenditure under different major heads

Among the departments, more than 86 percent of SEE was spent by the Education department. The Tribal Development Department has the second highest share towards school education expenditure, at around 6 percent. Based on the trend of expenditure under Major Heads, it was clearly evident that the share of 2202(Education, Art and Culture) was around 90 percent (Figure 6&7).

6.4.11. Expenditure by Stages of Education

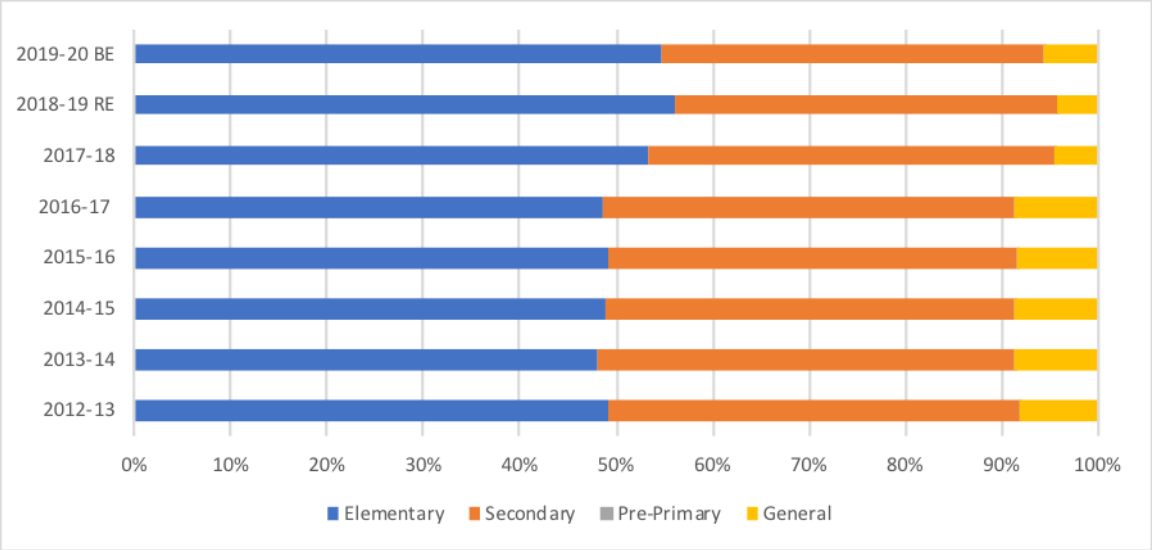


Figure 8: Share of school education expenditure at different stages

The share elementary education in SEE was around 50 percent and has increased marginally in the last three years. The school education expenditure towards secondary education was around 42 percent for almost all the years with marginal dip in the last two years. The expenditure towards pre-primary schools was nearly zero for all the years. The general category fluctuated between 4-8 percent and this includes expenses pertaining to multiple stages of education (Figure 8).

6.4.12. Revenue-Capital expenditure

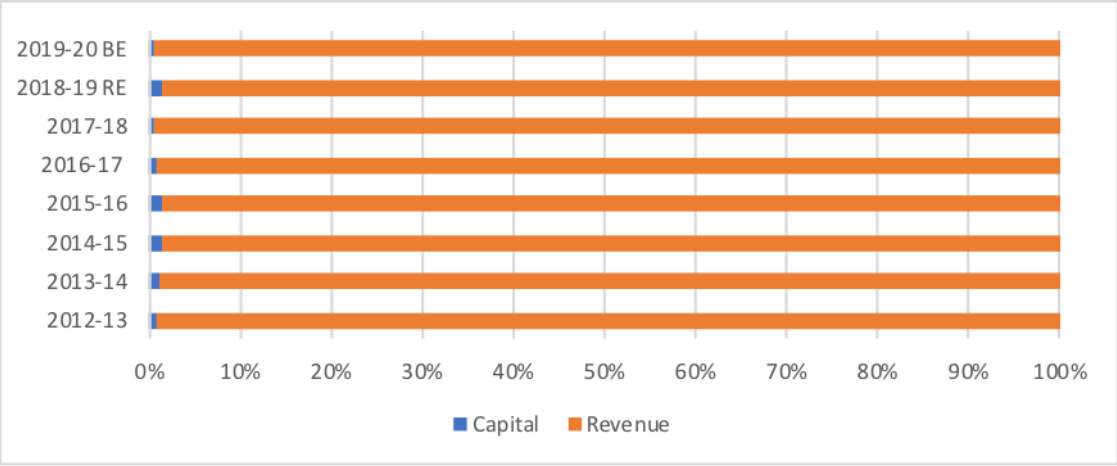


Figure 9: Capital and revenue school education expenditure

Nearly 99 percent of the SEE spent was on the revenue front whereas the share of capital spending was minuscule, less than 1 percent on an average (Figure 9).

6.4.13 Wage and Non-wage expenditure

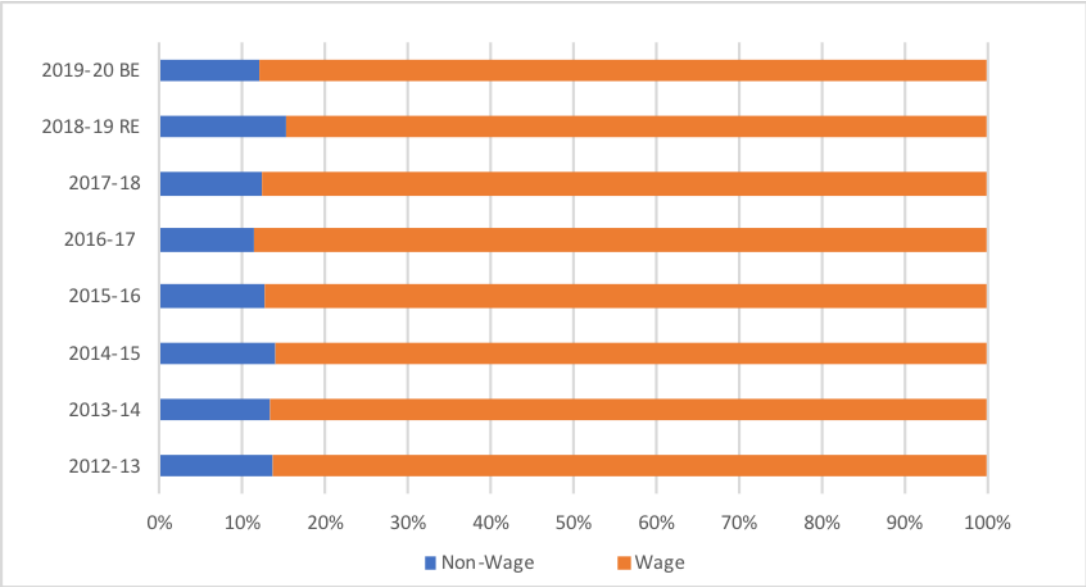


Figure 10: Wage and non-wage school education expenditure

Wage component forms the major share with 86 percent of the SEE. Remaining around 13 percent of the school education expenditure was of non-wage nature (Figure 10).

6.4.14. Direct and indirect School Education expenditure

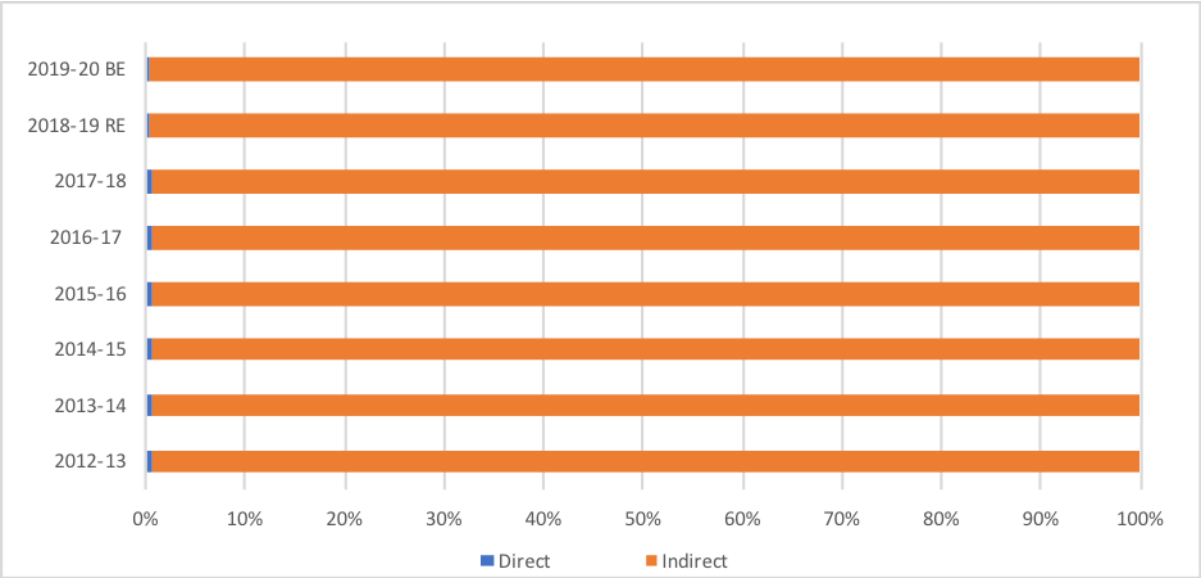


Figure 11: Direct and indirect school education expenditure

Direct transfers/incentives/mobilizations that are of the nature of cash/kind contributed for less than 1 percent of the school education expenditure and the remaining share of expenditure (around 99 percent) was spent in indirect nature.

6.4.15. Share of SSA, RMSA and Samagra in School education expenditure:

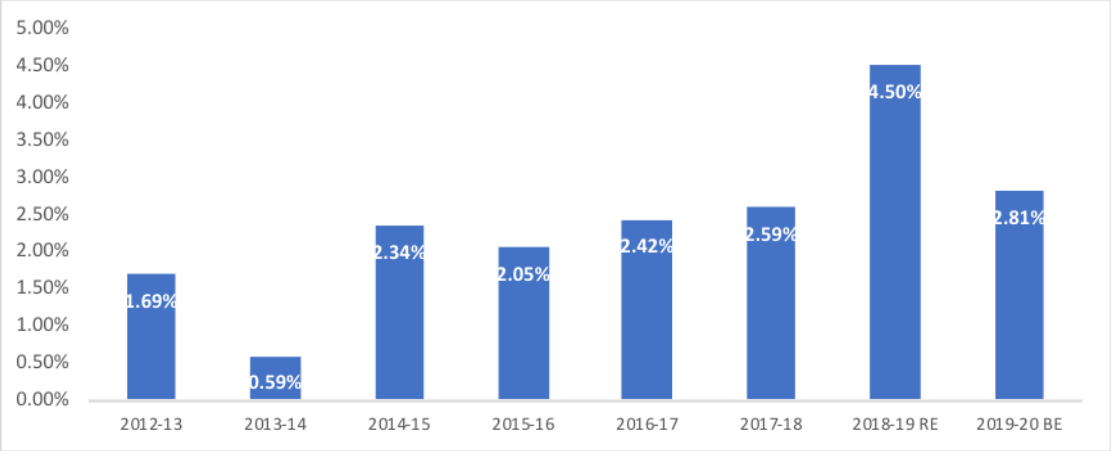


Figure 12: Percentage of SSA, RMSA and Samagra in school education expenditure

The share of three critical schemes, SSA, RMSA and Samagra out of school education expenditure has been around 2 percent for all the years except 2013-14 and2018-19RE. The share of these schemes raised to the highest of 5 percent in the year 2018-19RE. The share was lowest in the year 2013-14.

6.4.16. STARS components expenditure

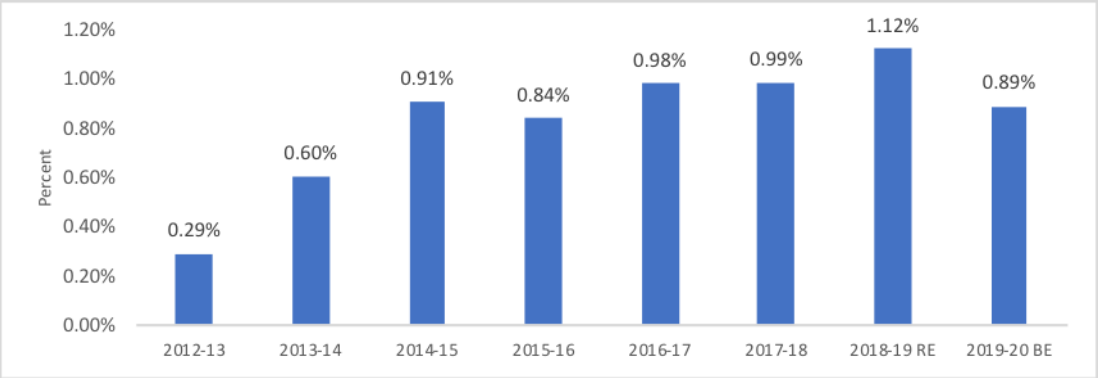


Figure 13: STARS component shares out of school education expenditure

The share of STARS component out of school education expenditure is around less than one percent. The expenditure is highest for the year 2018-19RE. The STARS component of the state includes mainly teachers training, quality improvement, awards and incentives, scholarships for merit students, digitalization of education. The state has Maharashtra International Education Board that aims to run schools across the state providing high quality education equivalent to international standard. The state has also collaborated with non-governmental actor for example: the state provides free coaching to 50 girls students for competitive exams like IITians PAC Academy.

6.5 ODISHA

A. Policy Analysis

6.5.1 School Education in Odisha:

Although 10 years of primary education is mandatory in Odisha, the literacy rate is only 73.5%, which is marginally behind of the national average which is 74.04%. According to the MHRD report, Odisha has 46005 government primary or junior basic school which constitutes about 92.44% of the total. Among the rest, there are 356 (0.72%) private aided schools and 3404 (6.84%) privately unaided schools. In case of Middle (Senior Basic) schools, 16774 (83.82%) are government schools while there are 1131 (5.65%) privately aided schools and 2108 (10.53%) privately unaided schools. The percentage of Government institutes fall gradually to 49% in case of high school and 51% in case of junior or pre-degree colleges. A total of 1126017 students of age 3-8 years attend school education under the ICDS programme with 559042 girls and 566975 boys. There are 52587 children with special needs for classes I – V and 18803 for classes VI – VIII. Children with Special Needs (CWSN) include children impaired visually, orthopedically, hearing and mentally challenged.

The student teacher ratio in case of primary and pre-primary schools is 42 with 88% of the teachers with proper training. In case of middle school, the ratio reduces to 35 and the percentage of trained teacher is 91. High schools have a student teacher ratio of 22 and 92% of the teachers are trained. In High schools the student teacher ratio falls to 17 with an impressive 100% trained teachers.

One of the major innovation in recent years in the state has been plans of setting up one Odisha Adarsha Vidyalaya(OAV) at each of 314 block headquarters. These Adarsha Vidyalayas would be CBSE affiliated fully residential schools, providing free education.

The state has also undertaken some initiatives to increase the access to education. To improve access to Elementary Education and to achieve 100% enrolment, Government have relaxed the norm for opening of new primary schools. In KBK districts and Tribal Sub Plan areas new primary schools will be opened in habitations having at least 25 children in the 6 - 14 years age group provided there is no primary school within one KM of such habitations. In all the districts the distance norm for opening of new primary and new upper primary schools is relaxed in case of natural barrier like river, hilly terrain, dense forest etc. There are 218 Minority and Mission Managed Primary Schools, wherein 599 teachers are receiving grant-in-aid from the Government. Oriya Medium Schools functioning in the neighbouring States are also being provided with financial assistance from Government of Orissa.

There are 691 numbers of privately managed, aided; Upper Primary Schools in the State with 1568 teaching and non-teaching staff are receiving grant-in-aid. Free Text Books have been supplied to all the block points to be distributed to all students in the elementary level (Govt. & Aided) including Class-VIII in the year 2010-11. Free text books have also been supplied to the Odia students residing in outside States such as Andhra Pradesh, Gujarat, Jharkhand, West

Bengal and Maharashtra. Free Urdu Text Books have been supplied to students reading in Govt. and Govt. Aided Madrasas.

6.5.2. Early childhood education: In case of children aged 3-8 years, most enrolment are in Anganwadis and government schools and with a very little number of children admitted to private LKGs and schools. At age 3, 57.4% of students are enrolled in Anganwadis, 31.6% in government schools and 2.2% in private LKGs and UKGs and 2.4% in private schools. The highest enrolment in private institutes is for the age 4 (7.1%) and also age 5 (7.8%). But it gradually decreases to 0.4% for age 8. The enrolment in Anganwadi also falls from 57.4% for age 3 to 0.2% for age 8, while the admission In government schools increase from 31.6% for age 3 to 84.7% for age 8.

In case of children aged 3-8 years who are not admitted in any pre-school or school has the highest percentage for children aged 3 years with a percentage of 6.4%. But that steeply decreases to 1.1% for age 4 and then gradually decreases to 0.6% in case of children aged 8 years. This is an impressive finding in case education in Odisha.

6.5.3. External evaluation of learning standards: The Annual Status of Educational Report (ASER) 2018 facilitated by Pratham made an analysis based on household data for all the 30 districts of Odisha. The school enrolment ratios show the highest for the age group 11-14 years (91%). The enrolment ratio for girls is also high for this age group with 91.9% compared to 88.3% for 7-10 years and 81.5% for 15-16 years of age, in case of government schools. The enrolments in private schools are comparatively low ranging to a maximum of 15.2% and a minimum of 5.8-6%. The age group of 7-16 years also has the highest percentage of children not enrolled in any schools (3.2%). The percentage is higher for boys (13.3%) compared to girls (12.3%) of the age group 15-16 years.

The National Achievement Survey (NAS) by NCERT shows that the performance of students of Odisha is significantly below the national average in both language and mathematics. The survey covers 12 districts with 248 schools and 3471 students. The percentage of students who were able to listen, recognize words and read the comprehension is lower than the national average. Students performed lower than the national average in almost all mathematical abilities, except place value. Performance of both boys and girls is lower than the national average in both language and mathematics. And the performance is low in both rural and urban areas and same when social groups like SC, ST and OBC is considered.

6.5.4. Teacher recruitment and development: District Institute of Education and Training (DIET) provides pre-service and in-service course for elementary school teachers and personnel working in non-formal and adult education. College for Teacher Education (CTE) are training colleges upgraded and few selected among them are Institute of Advance Studies in Education (IASE). The act passes in 1989 abolished all private training colleges and schools in the state of Odisha for doing away with the commercialisation of teacher education. The National Council for Teacher Education (NCTE) was established in 1993 and became a

statutory body for achieving planned and coordinated development of teacher education regulation and proper maintenance of norms and standards in teacher education.

About 47 government secondary training schools and 13 DIETs provide training in basic teaching education [CT]. 2620 students have been admitted in these institutions in 2001-02. 13 institutes provide Bachelor in Education [B. Ed.] courses, and 1002 students are enrolled in these institutes during 2001-02. A strategy for training all untrained teachers in primary schools through distance mode has been worked out and will be followed from 2002-03. The duration of the training will be two years. The English Language Teaching Institute [ELTI], Bhubaneswar, provides training in English language to the teachers. The MHRD report shows 63 schools for teacher training with an enrolment of 3640 boys and 2535 girls, a total of 6175.

The problems faced are that of curriculum being the basic instrument for bringing about improvement in teacher education still has not been properly streamlined and is not up-to-date. Without adequate planning, the selection procedure and eligibility criteria for teacher trainees are changed. Thus, not candidates are facing difficulty but also the staffs are not prepared for doing justice to the curriculum transition. The minimum working days of 180 days for the training institutions are not yet available for the curricular and co-curricular activities as selection and admission are delayed by two months or more in most of the years. The research activities and publications are still of low quality being an essential part of the professional growth of the teachers. Action research and problem-solving studies are neither encouraged by the government nor accepted or undertaken by the teacher educators. Problem also remains with the dichotomy between the MA Education and M.Ed courses but both are same and eligible in recruitment.

B. Budget Analysis

6.5.5. Public expenditure on School Education has increased gradually

The School Education expenditure (SEE) has grown gradually from Rs.77 billion in 2012-13 to Rs.201 billion in 2019-20 BE (Figure 1). The CAGR of SEE for the above period in nominal and real terms (2011-12 prices) stood at 13 percent and 4 percent respectively.

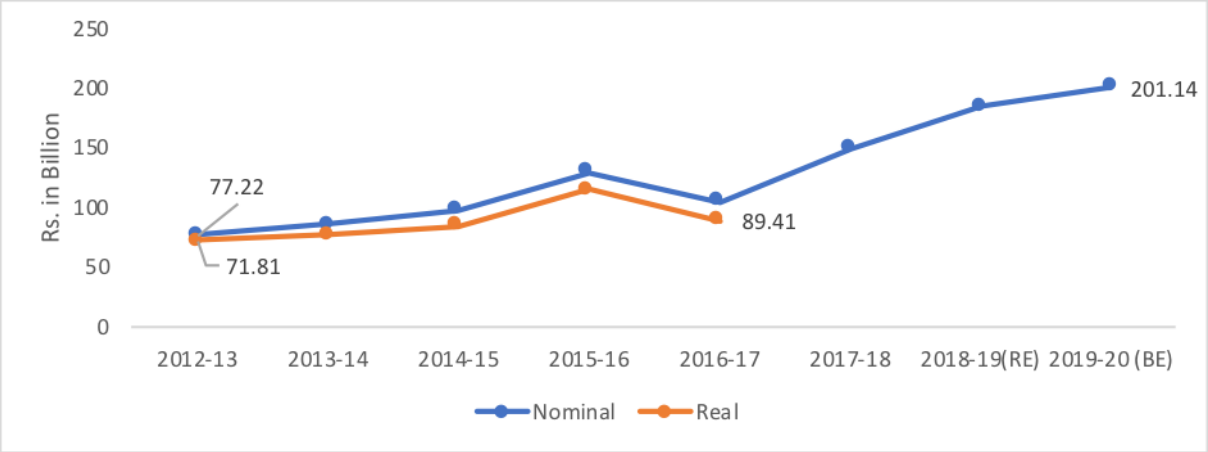


Figure1: School Education Expenditure over years

Along with the School education expenditure, the Per-Child Expenditure also has increased over this period. The Per-Child Expenditure has increased from Rs. 5040 in 2012-13 to Rs. 13126 in 2019-20 BE registering an increase of about 13 percent (Figure 2) in nominal terms. In real terms also has grown from Rs 4330 in 2012-13 to Rs 6374 in 2016-17 registering a 8 percent increase during this period.

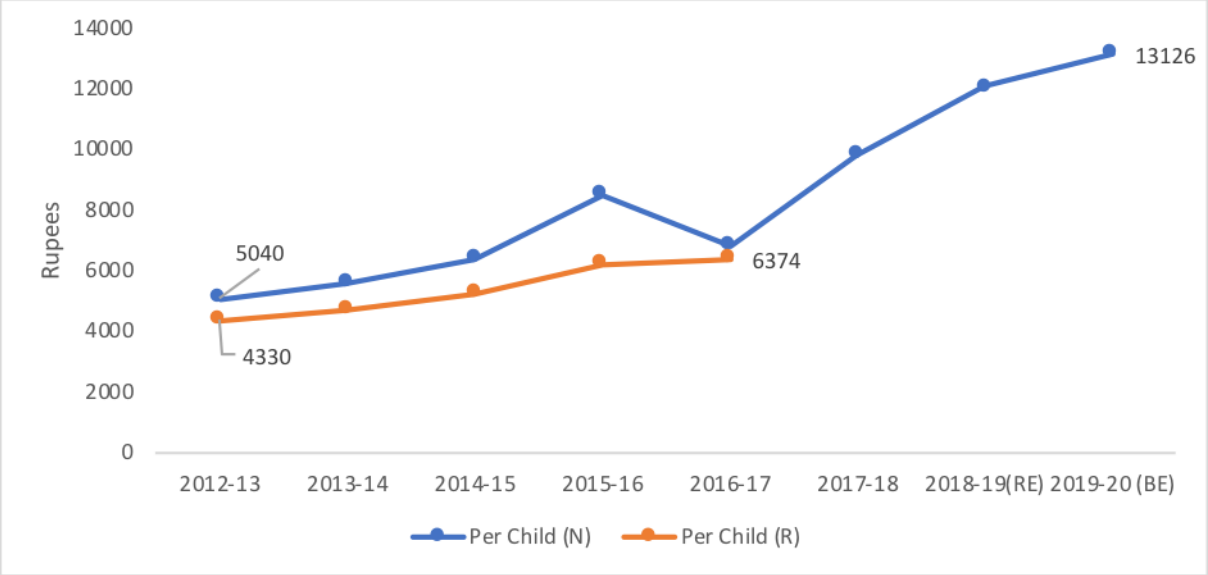


Figure2: Per-child school education expenditure

6.5.6. Share of School Education Expenditure in GSDP, Total Expenditure (TE) Social Service Expenditure (SSE) and Revenue Receipts (RR)

The School Education expenditure as a (SEE) share of GSDP (nominal) has gradually increased from 2.73 percent to 3.02 percent between the years 2012-13 and 2016-17 (Figure 3).

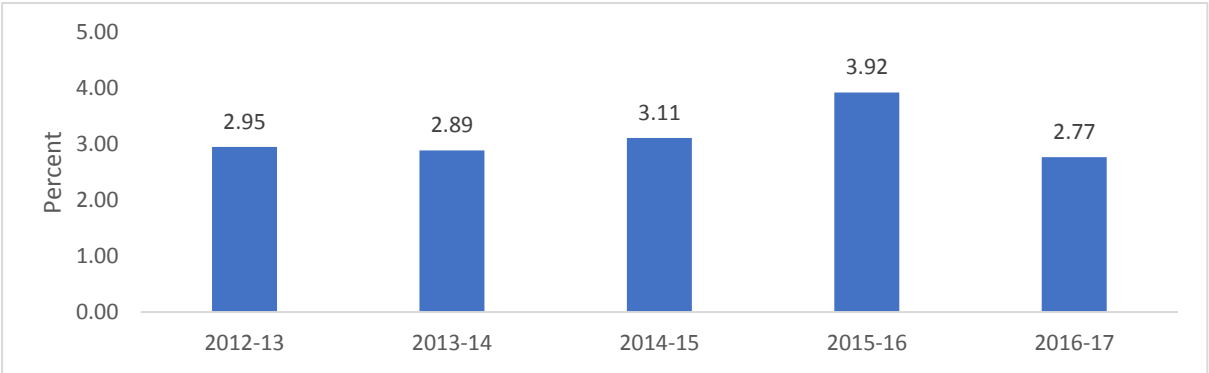


Figure 3: School Expenditure as a proportion of GSDP

The SEE as a percent of revenue receipts (RR) total expenditure (TE) and social services expenditure (SSE) were analysed. The SEE as a percent of SSE decreased from 48 percent in 2012-13 to 34 percent in 2016-17 (Figure 4). The SEE as a percent of TE decreased from 18 percent in 2012-13 to 12 percent in 2016-17 and to 15 percent in 2019-20. The SEE as a percent of RR decreased from 18 percent in 2012-13 to 14 percent in 2016-17 and again increased to 18 percent in 2017-18 followed by a decrease in the years 2018-19 and 2019-20.

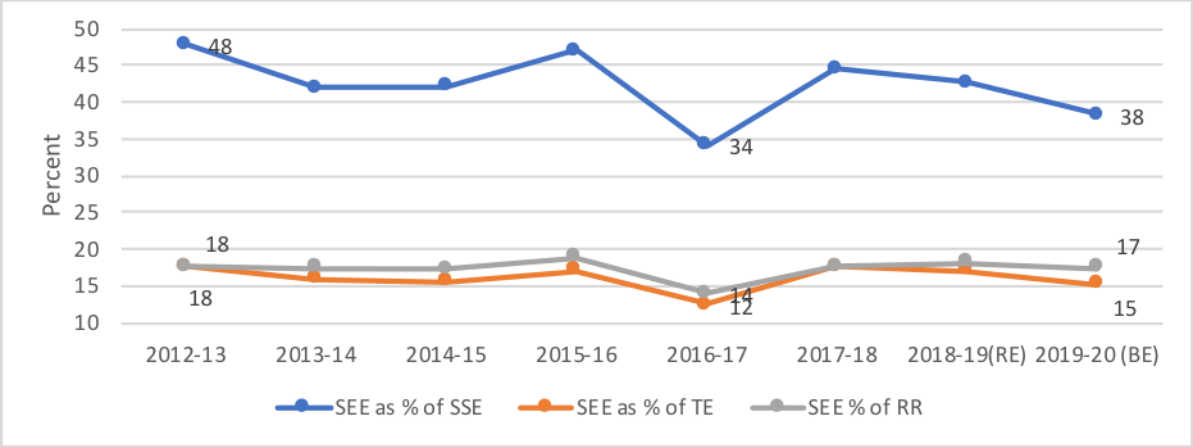


Figure 4: SEE as a percentage of Revenue Receipts, Total Expenditure and Social Services Expenditure

The Social Service expenditure as a (SSE) share of Revenue Receipts (RR) has gradually decreased from 42 percent in 2013-14 to 40 percent in 2017-18 and has increased in the last two years 2018-19 and 2019-20 (Figure 5).

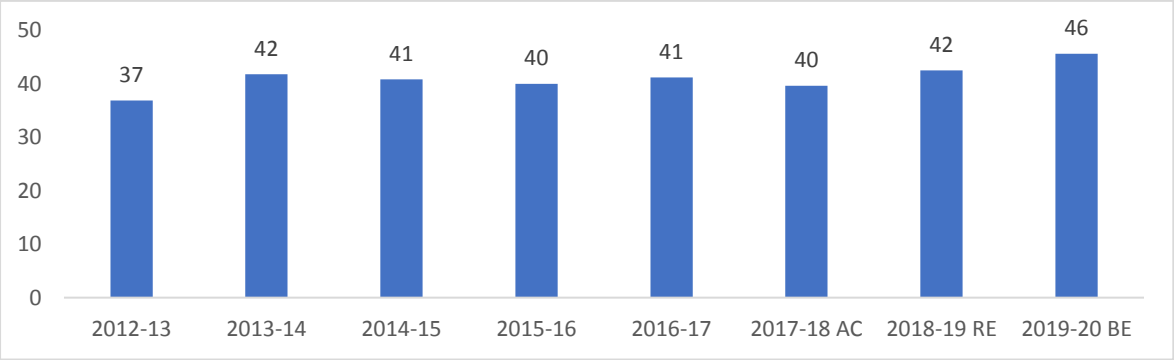


Figure 5: SSE as a percentage of Revenue Receipts

6.5.7. Department and Major Head wise School Education Expenditure

Of the departments, more than 86 percent of SEE was spent from the School & Mass Education department. ST & SC Development, Minorities & BC Welfare Department and Finance Department occupied the second and third largest share at 9 percent and 5 percent respectively (Figure 6). The trend of expenditure by the major heads indicated that share of 2202(General Education) has increased from 82 percent to 89 percent (Figure 7).

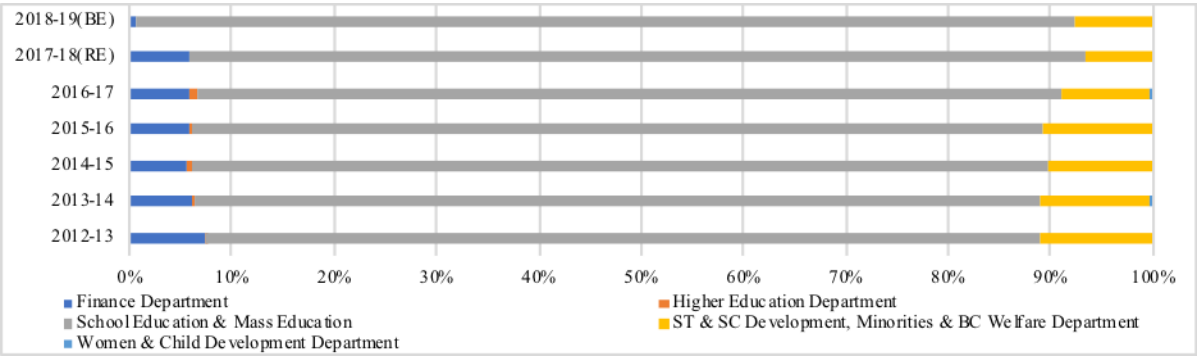


Figure 6: Department wise School Education Expenditure

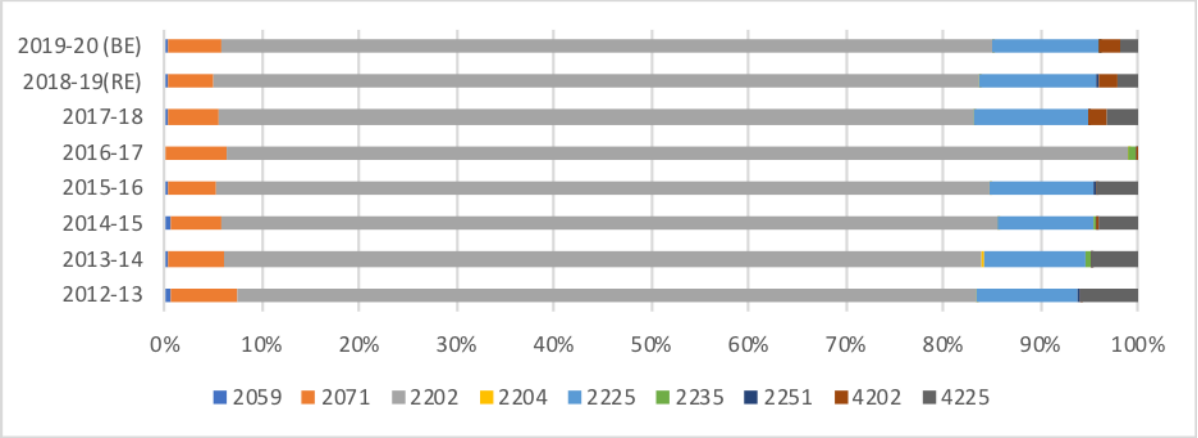


Figure 7: Major Head wise School Education Expenditure

6.5.7. Stage wise share of school education spending – *Elementary Education receives the biggest share*

The elementary education expenditure accounted more than 62 percent of the SEE in the State over the years 2012-13 to 2019-20 (Figure 8). Secondary Education expenditure was the second largest accounting for about 32 percent of SEE. The general education (It includes all those line items which has been identified as spreading across multiple stages of education) and pre-school education expenditure constituted 6 and 0.1 Percent of total school expenditure respectively.

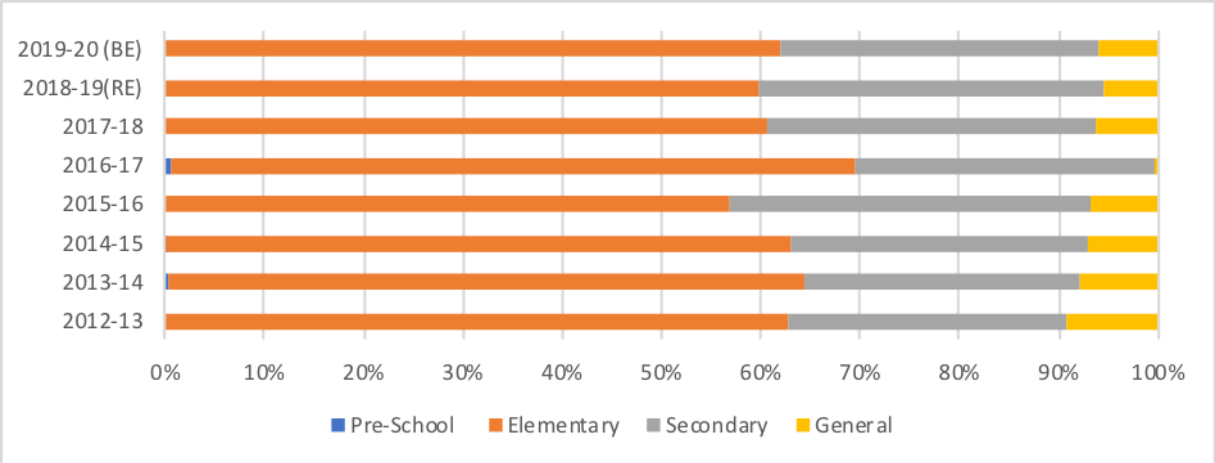


Figure 8: Stages of School education Expenditure

6.5.8. School Education Expenditure by Revenue-Capital, Wage and Non-Wage share

Revenue expenditure for school education accounted for nearly 96 percent of all school-related expenses in the State. The share of capital spending has been miniscule at 4 percent (Figure 9).

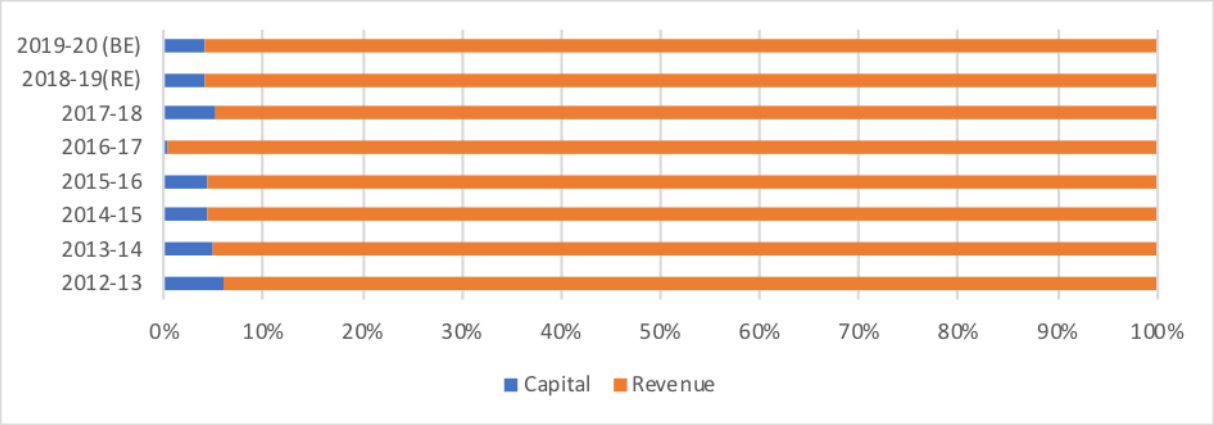


Figure 9: Revenue and Capital expenditures as a percentage of School Education Expenditure

The wage component which comprises of salaries, contractual wages, fees for professional services etc., formed the bulk of SEE at about 73 percent on an average for the seven years while non-wage expenditure accounted for 27 percent of the SEE (Figure 10).

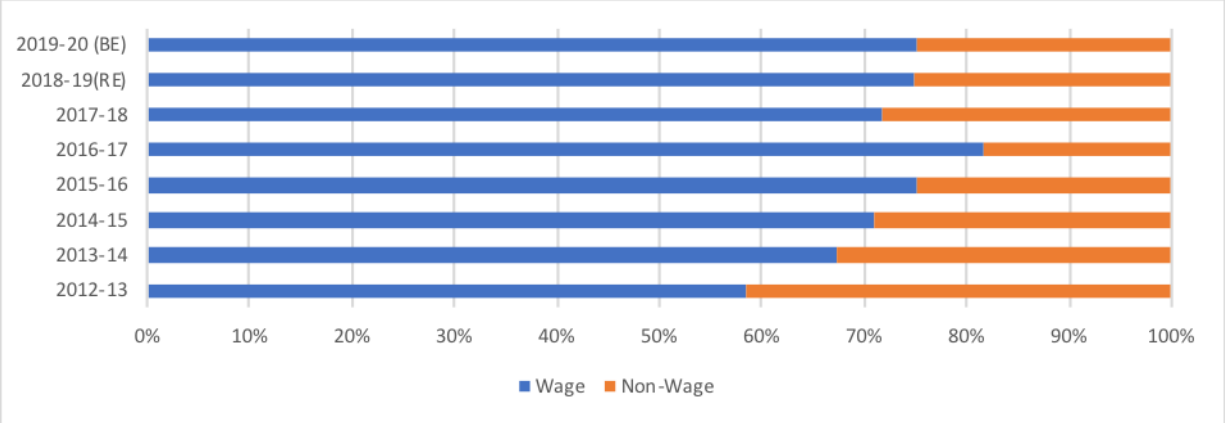


Figure 10: Wage and Non-wage expenditures as a percentage of School Education Expenditure

6.5.9. Expenditure by type of transfer

Direct transfers comprised of all those expenditures that reached directly to an individual child and this included books, bags, shoes, uniforms, bicycles, meal expenses and scholarships. While most of the direct transfers cater to specific religious groups, social classes and tribal communities, some transfers were universal in nature. The share of direct transfers decreased from 20 to 10 percent during the period 2013-14 to 2019-20BE (Figure 11).

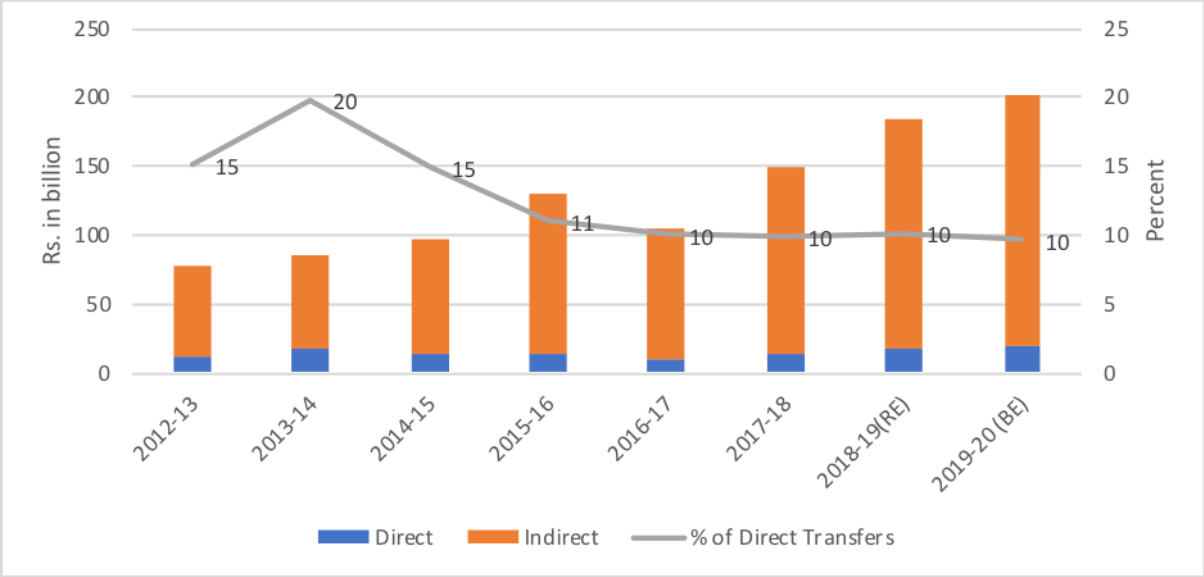


Figure 11: Direct and Indirect transfers to children

6.5.10. Share of Sarva Shiksha Abhiyaan (SSA) and Rashtriya Madhyamika Shiksha Abhiyaan (RMSA) in School Education Expenditure

The share of Sarva Shiksha Abhiyaan (SSA) and Rashtriya Madhyamika Shiksha Abhiyaan (RMSA)and Samagra within SEE has seen an increase from 2014-15 till 2016-17 to reach to 15 percent and has decreased to 13 percent in 2019-20 .

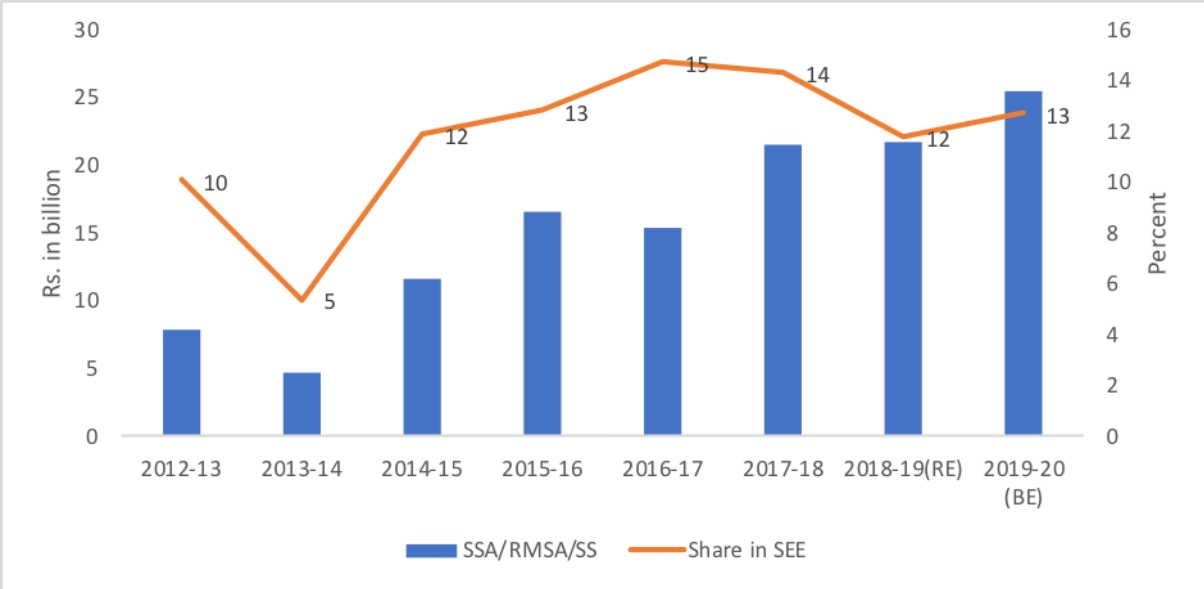


Figure 12: Share of SSA and RMSA in School Education Expenditure

6.5.11. Share of STARS Components Expenditure in School Education Expenditure

Expenditure on STARS components refers to the set of expenditure incurred on teacher training, use of ICTs, rewards to teachers, digitization and upgradation of teaching methodology etc. The share of expenditure on STARS components has shown a decrease over

the period though it is less than one percent of the SEE (0.69 percent to 1.37 percent, Figure 13).

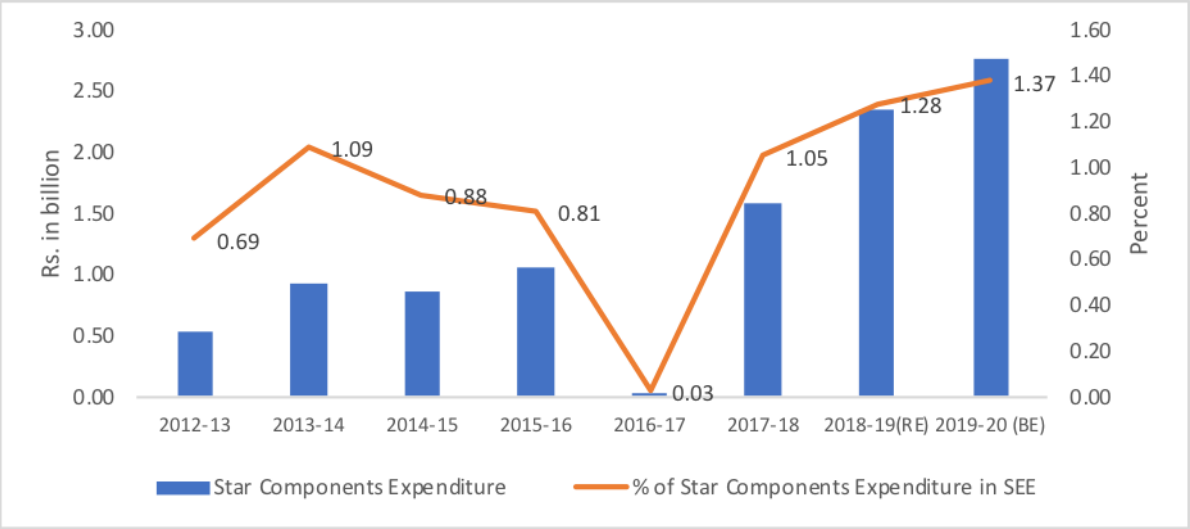


Figure 13: Share of Star Components Expenditure in School Education Expenditure

6.6 RAJASTHAN

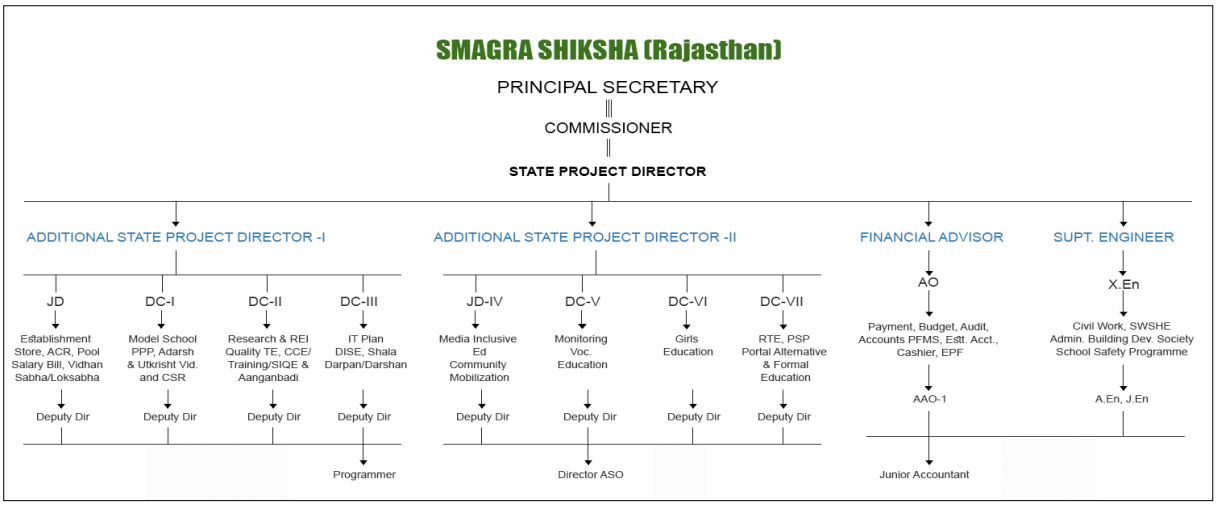
6.6.1. Background: Rajasthan has the 33rd worst literacy rate across India according to the census 2011 reports. Across all categories Rajasthan stands below the national averages. Overall the literacy rate for India is 74.04 per cent while for Rajasthan it is 66 per cent. Moreover, the literacy rate for women in Rajasthan is much lower than the national average of 65.46 per cent at a very low 47.76 per cent.

According to the Elementary Education in India State Report Card of 2011-2012, across the state of Rajasthan there are a total of 109,189 schools. Of these 77,833 are government schools and 29,766 are private schools. There are only 1,590 unrecognized schools. Of the government schools, a majority of 72,954 are in rural locations and 19,961 of the private schools are in rural areas as well.

Availability of school infrastructure as well as teachers remains a big challenge for Rajasthan. Recognizing the scarcity of well- trained teachers, Rajasthan government has undertaken merger of existing schools in recent years as a sort of resource rationalization exercise. However, this has led to problems of children dropping out or absenteeism from schools due to underlying problems of distances, caste and gender challenges.

6.6.2 Organization structure – Samagra Shiksha Abhiyan Rajasthan used to have two separate councils for elementary education (Rajasthan Council for Elementary Education) and secondary education (Rajasthan Council for Secondary Education) under Sarva Shiksha Abhiyan and Rashtriya Madhyamik Shiksha Abhiyan. Both of these have now been merged to form Rajasthan Council for School Education under the Samagra Shiksha Abhiyan. This council is now the sole entity to monitor, supervise and implement for education from pre-

primary to higher secondary. Rajasthan State Institute of Educational Research and Training situated in Udaipur is responsible for curriculum setting and training of teachers.



6.6.3. Existing Schemes of State Government The state government has some schemes with the objective of promoting secondary education among girl children (Gargi Award) and chief ministers' scholarship for higher education. Apart from these schemes meant to benefit students, the state government has schemes to establish Adarsh (Model) schools in each gram panchayat. The state government has also launched a State Initiative for Quality Education (SIQE) with emphasis on preparation of teaching plans, recruitment and training of teachers, continuous and comprehensive evaluation of students and activity-based learning in schools. Recently in 2019, the state government has also announced establishment of an English medium government school in each district. The state governments efforts in recent years has been in recruitment of school teachers to minimize vacancies, training of teachers and mergers of schools to rationalize the utilization of resources.

6.6.4 Samagra Shiksha Abhiyan- Arrangement made at the state level

Samagra Shiksha Abhiyan stands to be a Centrally sponsored scheme which is implemented in different states via the Single State Implementation Society (SIS) named as the Rajasthan Council of School Education (RCSCE). The programme extends from pre-school to class 12th with a wider goal of improving the effectiveness of schools which is measured in terms of equal schooling opportunities and learning outcomes. The scheme is a combination of three schemes namely Sarva Shiksha Abhiyan (SSA), Rashtriya Madhyamik Shiksha Abhiyan (RMSA) and Teacher Education (TE).

The fund sharing pattern for the scheme between the Centre and Rajasthan is at present in the ratio of 60:40. The scheme aims to improve the transition rates across the various levels of school education and in promoting universal access to children to complete their school education.

In Rajasthan, a designated secondary / senior secondary school has been declared as the **'Adarsh Vidyalaya'** in every Gram Panchayat of the state which is launched by the

Department of Education of Rajasthan. The aim of Adarsh Vidyalaya is to create **'Centres of Excellence'** in rural areas so as to expand the scope of education amongst everyone. Under this scheme, there has been a development of 5458 schools in the year 2017-18 with an addition of 281 urban schools and a total of 10,176 schools were selected to be developed as Adarsh Schools. These schools are being equipped with basic facilities such as classrooms, playgrounds, boundary walls, clean drinking water, hygienic environment, electricity connection and separate working toilets for boys and girls as well as internet equipped computer labs. Due to the construction and development of Adarsh Schools, the overall participation and enrolment of students' learning outcomes has increased in the state in the last few years.

In addition to Adarsh Vidyalaya, the department of education has expanded the **'Centre of Excellence'** from secondary to elementary schools by focusing on developing **'Utkrisht schools'** which are primary and upper primary which works under the mentorship of Adarsh Schools which aims to cover an additional 15 lakh students in these schools in 2016-17. By the year, 2017-18, 4976 schools were designated as Utkrisht Schools and the learning outcome amongst students has increased tremendously in the past two years.

In addition to the above, the Rajasthan education department has also implemented programs like **'Joyful Saturdays'** that are educative , innovative programs which cater to the overall socio-moral development of the students wherein the students are taught life skills in addition to the regular classroom teaching which helps in preparing them for the future to withstand any societal pressure which advances them as humans by inculcating values of respect and truthfulness.

The below table shows the number of schools under different types of Management for Elementary Schools.

Type of school	Number of schools	Percentage
Government	67930	64.42
Gov -Aided	2575	2.43
Unaided	34846	33.07
Unrecognized	85	0.08
Total	105436	100

Source: UDISE

From the above table, it is evident that more than half of the schools are Government based. It will be an incomplete picture if we do not speak about the enrolment at the Elementary and Secondary level of education across different types of management. According to U-DISE data, almost 90 per cent of total elementary students are from Government and private unaided schools. In that about, 64% of students are enrolled in government schools and 33% are enrolled with private unaided schools.

The below table shows the number of schools under different types of Management for Secondary Schools

Type of school	Number of schools	Percentage
Government	14161	50
Gov -Aided	38	0.00
Unaided	14335	50
Unrecognized	0	0.00
Total	28534	100

Source: UDISE

From the above table, it is evident that more than half of the schools are Government and Private unaided. According to U-DISE data, almost 100 per cent of total elementary students are from Government and private unaided schools. In that about, 50% of students are enrolled in government schools and 50% are enrolled with private unaided schools.

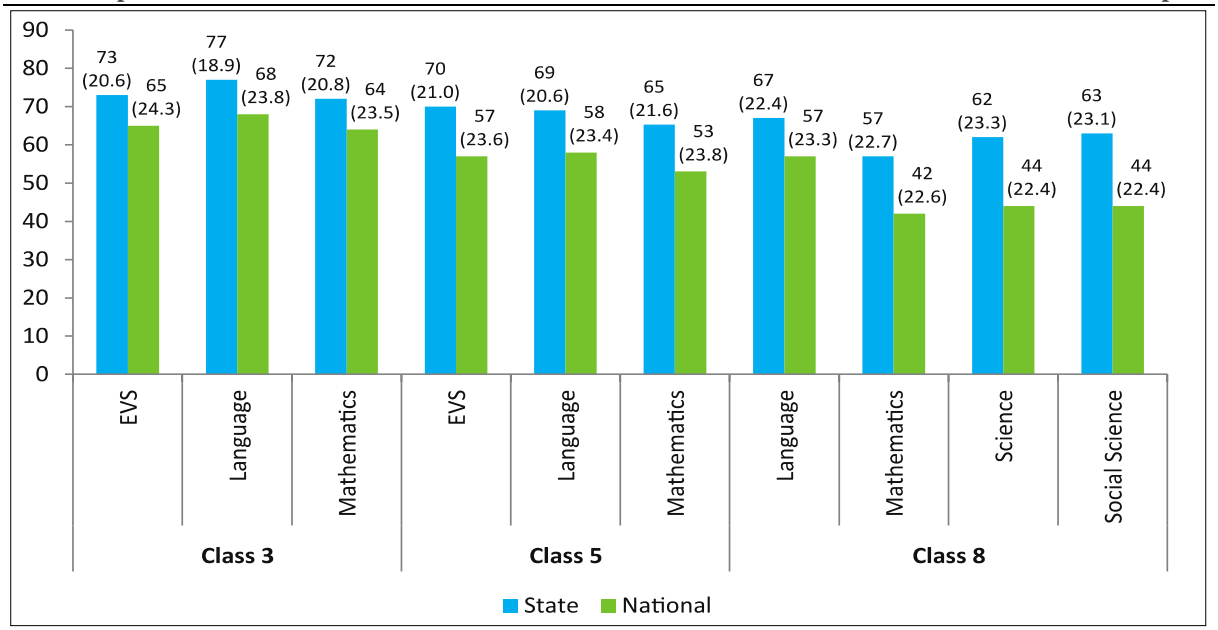
From the above two tables, we can deduce that Government schools and Private un-aided schools with their high number of enrolments is the biggest player in the education sector of Rajasthan thus influencing state level education related decision making. It is noticeable that the number of enrolments in government aided schools is nearly negligible.

The Pupil to teacher ratio for Rajasthan in the year 2016-17 is 18 which has gradually declined in the past few years

6.6.5. Early childhood education: Pre- primary education comes under the purview of Department of School Education and Early childhood education through Anganwadi Sewai (ICDS) comes under the Women and Child Development Department. Rajasthan drafted a Child education policy for pre- schools in order to reduce burden of Anganwadi centers and training Anganwadi workers. It has empowered the preschool system in the state and lately, Rajasthan has taken proactive steps to address the problems faced by Anganwadis by integrating or co-locating anganwadis with local government schools. Through this initiative, government schools across the state will integrate a nearby anganwadi as part of the school itself.

Average enrolment in integrated anganwadis exceeds that of unintegrated anganwadis by 62.5%. Integrated anganwadis also have greater access to clean drinking water, toilets, and other infrastructure.

6.6.6. External Evaluation of learning status: The National Achievement Survey conducted across 33 districts of Rajasthan in 2017 found that the learning standards progressively declined with the increase in grade level. While in grade 3, the correct responses in different subjects ranged between 72 – 77%, for grade 5 it decreased to between 65 – 70%. For grade 5 it further declined to between 57 – 67%. In all the grades, the lowest score was attained for mathematics. However, the performance was consistently better than the national average across all grades and subjects as can be seen from the below figure.



Source: Rajasthan state learning report, National Achievement Survey, 2017

According to the ASER evaluations for basic reading and mathematics, only 35.3% of children aged between 8-10 can read std II level text, only 31.2% can do subtractions and only 13.4% can do divisions. For children aged 14 – 16, these percentages increase to 81.8%, 66.5% and 47.8% respectively. However, this implies a poor performance as this basically means that almost 20% of children aged 14-16 cannot read even std II text. However, the ASER evaluations show that the learning standards in the state increased marginally overtime.

6.6.7. Teacher Education and training: The elementary teacher education programme offers a two-year teacher education course called BSTC (Basic School Teaching Certificate) DIETs and STC schools (approved by NCTE) conduct this training under the Department of Elementary School Education. The 100% admissions are made through a pre - test to be conducted by a state university. The Secondary teacher education programme offers a one-year teacher education course called B.Ed. / M. Ed. Secondary Teacher education colleges in Rajasthan are approved by NCTE and affiliated to respective universities of Rajasthan. All 100% Admissions to the B.Ed. programme are made on the basis of a state level admission test called Pre-Teacher Education Test (PTET) conducted by a state university. The fee prescribed for the course is Rs.22, 400/- as per the Rajasthan state Government Norms. There is no payment seat for the course. There are 779 secondary teacher education colleges in Rajasthan till date. As part of qualitative improvement in teacher education programme under NPE 1986, MHRD upgraded 4 colleges of Rajasthan to IASEs and 8 colleges to CTEs.

The teacher recruitment in Rajasthan is either by direct recruitment or by promotion. Appointments to posts in the Service by direct recruitment or by promotion, as the case may be, shall be made by the Appointing Authority on occurrence of substantive vacancies.

The State Institute of Educational Research and Training, Rajasthan (S.I.E.R.T.) was established in Udaipur on 11th November 1978 for qualitative upliftment in the area of school

education as recommended by Malhotra Committee set by the Government of Rajasthan. SIERT is an apex academic organization for educational planning, implementation and evaluation for school and teacher education. It works as a platform for the material development for teacher trainers (DIETs, CTEs & IASEs) and resource persons. The DIET comes under SIERT and further DIET has been divided into two sections: (a) Pre service teacher education which is a two years course and (b) In service teacher education department which produces work experienced teachers.

In the State of Rajasthan, there are about 100,000 teachers working in remote places. Training this large number of teachers in population education is always tedious, time consuming and expensive. To be able to reach and train these teachers working in primary schools without extra effort, time and money, the State Institute of Educational Research and Training (SIERT) adopted a new approach for this purpose. The approach makes use of the block level administrative approach in Rajasthan, where the monthly pay is distributed at various pay centres in the block. Every month, about 50-60 teachers gather at each pay centre to collect their salaries. These teachers also take this opportunity to spend some time to learn new academic information and solve their problems. The SIERT took this opportunity of group meetings by presenting lectures or talks on population education to these teachers. Experts were invited from the District Institute of Education and Training to give lectures on various topics such as concepts and needs for population education; teaching, strategies.

Initiatives such as SWAYAM for improving quality of school education by addressing the issues of teacher quality through technology. This is done through a platform that facilitates hosting of all the courses, taught in classrooms from Class 9 till post-graduation to be accessed by anyone, anywhere at any time. All the courses are interactive, prepared by the best teachers in the country and are available, free of cost to any learner. More than 1,000 specially chosen faculty and teachers from across the country have participated in preparing these courses.

6.6.8. Challenges: Availability of teachers and school infrastructure remains a big challenge for Rajasthan, especially at the remote locations. In order to tackle this challenge, the state government undertook mergers of schools from 2014 onwards to rationalize the allocation of resources. As part of this initiative, primary schools with a student count less than 15 and upper primary schools with a student count of less than 30 were shut down. However, this has given rise to new challenges from the perspective of inclusion as there were reports of Dalit and female students dropping out when their schools were merged with schools in upper caste localities and co-ed schools respectively.

B. Budget Analysis

6.6.9. Total School education expenditure is increasing over the years

The total and per child school education expenditure witnessed about three-fold increase from 2012-13 to 2019-20 (Figure 1). The CAGR of total school education expenditure stands at 16 percent and 11 percent in nominal and real terms respectively. The Per-child expenditure on school education increased from Rs. 3978 to Rs. 12814 during 2019-20 (Figure 2)

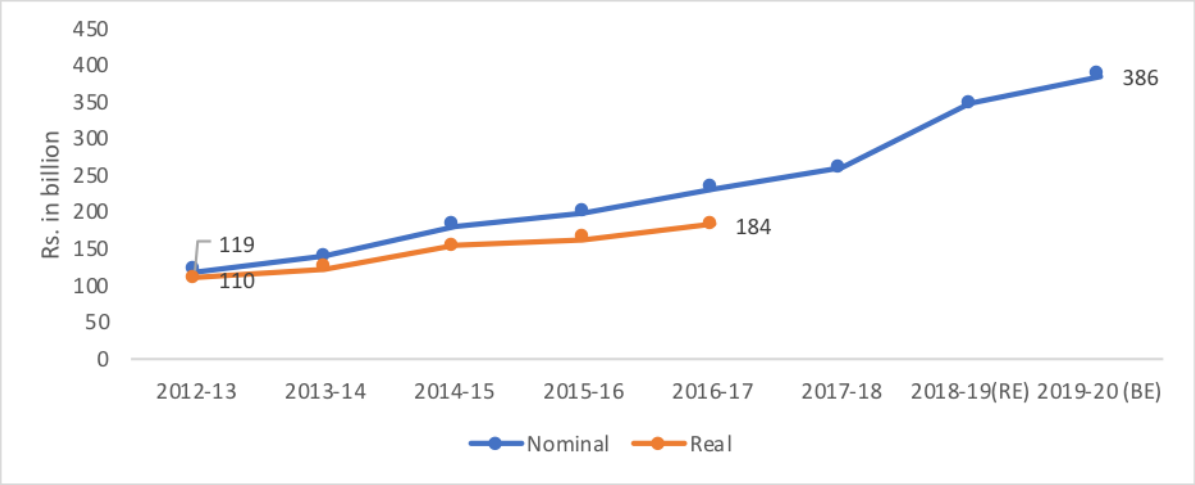


Figure 3: Total school education expenditure

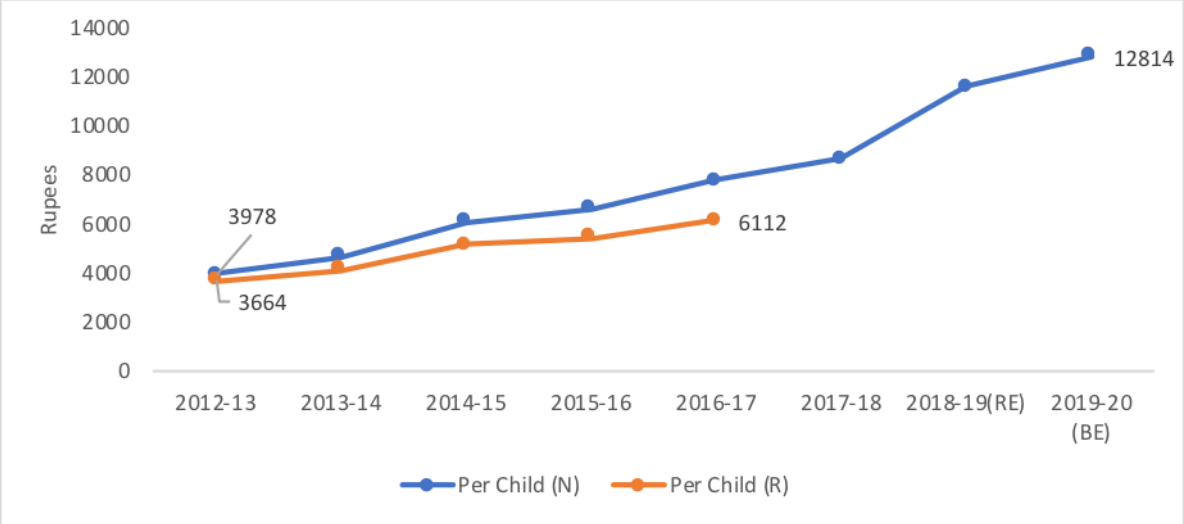


Figure 4: Per child school education expenditure

6.6.10. School education expenditure as a share of GSDP, Total Expenditure, Social Services Expenditure and Revenue Receipts

The share of school education expenditure as a percentage of GSDP has increased from 2.40 percent to 3.06 percent (Figure 3). The school education expenditure as a share of Social Services Expenditure averaged at about 40 percent across years with highest being 46 percent in 2018-19 RE. The school education expenditure as a percent of the total expenditure has shown a steady improvement from 14 percent to 17 percent (Figure 4). Similar trend was observed with school education expenditure for its share of revenue receipts which also showed increase from 18 percent in 2012-13 to 23 percent in 2019-20. This trend is very positive indicating that the state has prioritized school education very well. The share of social sector

expenditure in relation to the revenue receipts increased till 2016-17 and has decreased in 2017-18 to 47 percent before reaching 50 percent in 2019-20 (Figure 5).

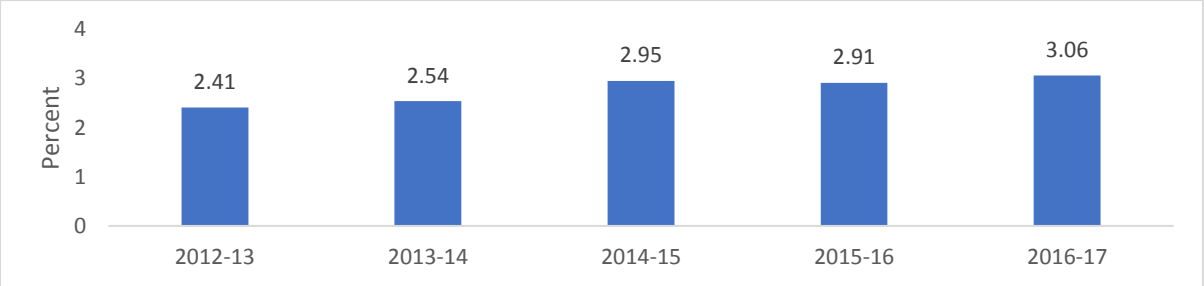


Figure 5: Share of school education expenditure as a percentage of GSDP (current)

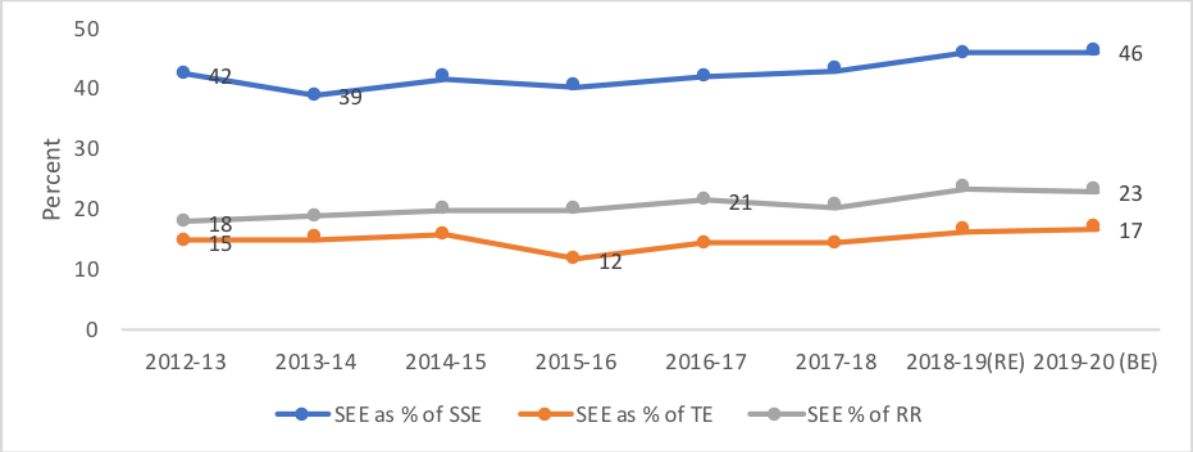


Figure 6: School education expenditure as a percentage of Social service expenditure, Total expenditure and Revenue Receipts

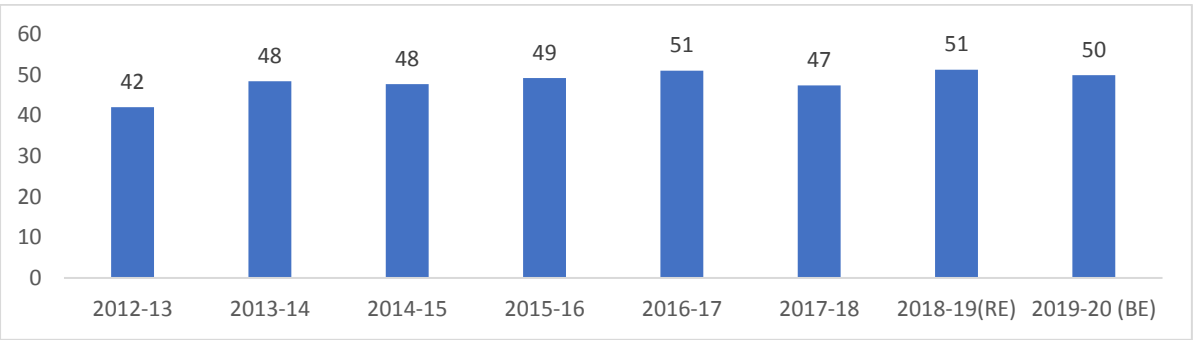


Figure 7: Share of Social services expenditure as a percentage of Revenue Receipts

6.6.11. School education expenditure by Departments and Major Head of Accounts

Among the departments, more than 80 percent of school education expenditure is spent by the Education department. Social justice and Empowerment and Tribal Area departments occupy the second and third slots in expenditure with 8 percent and 7 percent of total school education expenditure respectively (Figure 6). The school education expenditure across the major heads revealed that major head 2202 and 4202(Education, Art and Culture) had covered more than 97 percent across years (Figure 7).

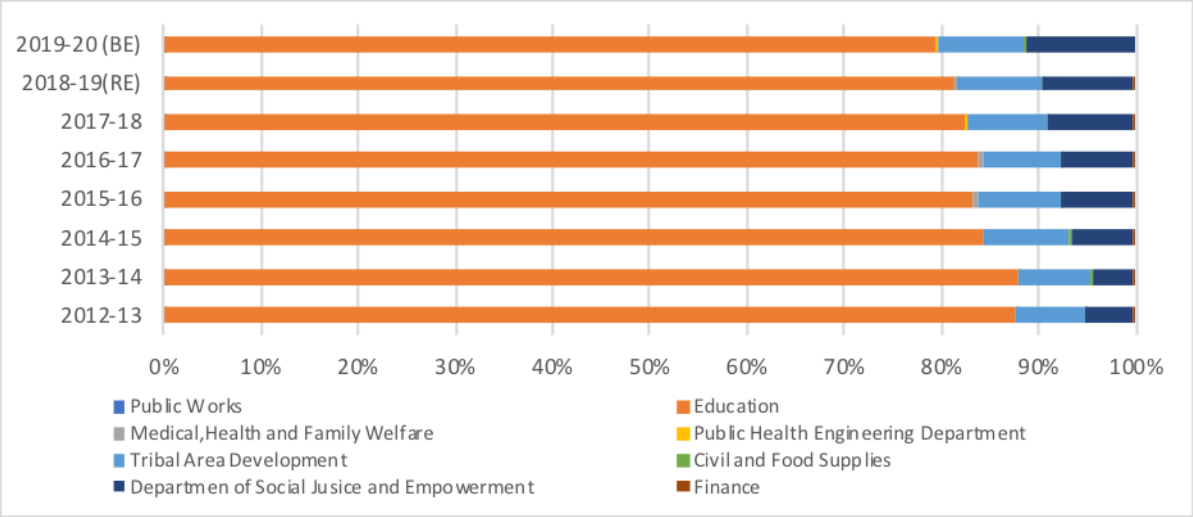


Figure 6: School education expenditure across departments

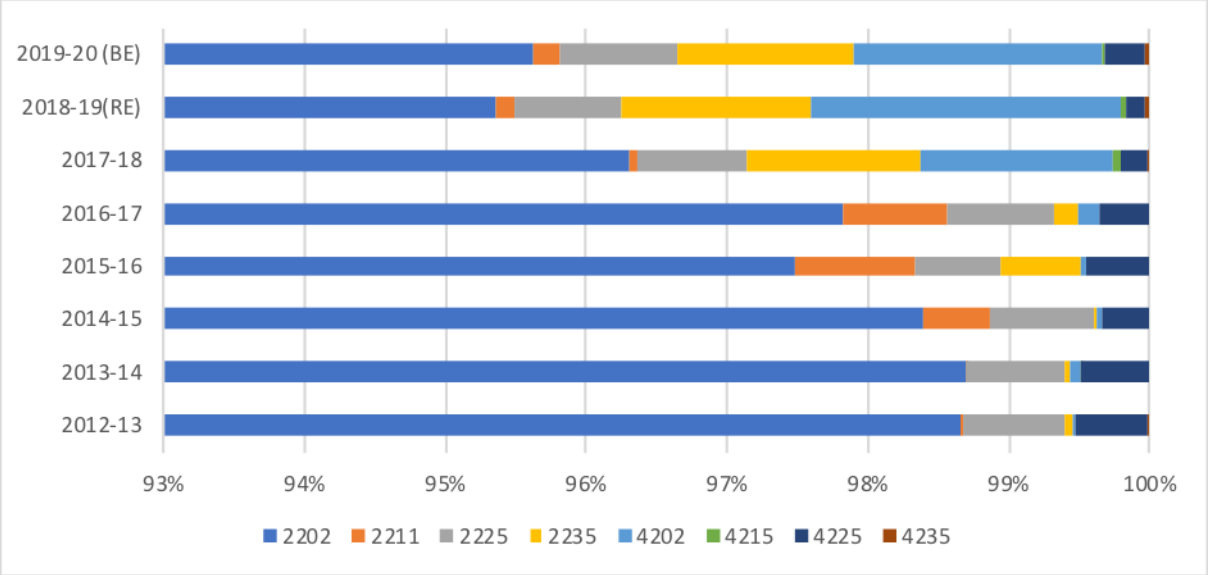


Figure 7: School education expenditure across major heads

6.6.12. School education expenditure by stage of education

The share of expenditure at the elementary stage was 60 percent till 2014-15 and declining thereafter with secondary stage education expenditure increasing up to 50-60 percent in the later years. The general category that included expenses pertaining to multiple stages of education was on average at one percent.

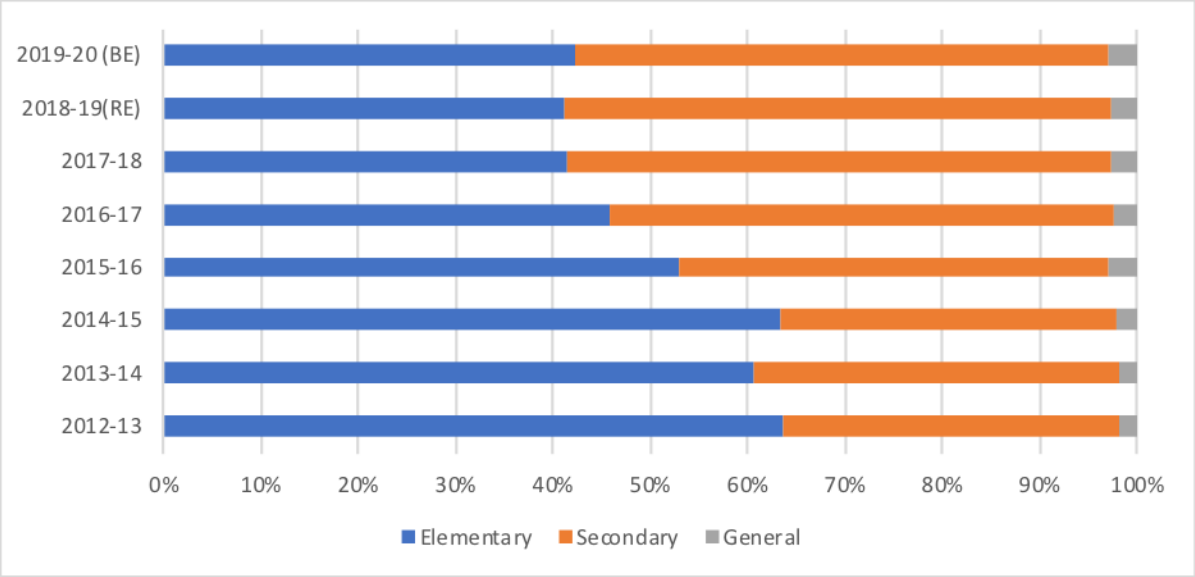


Figure 8: School education expenditure across stages of schooling

6.6.13. School education expenditure by Revenue-Capital, Wage-Non-Wage group:

Revenue expenditure and the wage component constitute the majority

Over 99 percent of the school education expenditure was spent on the revenue front and a minuscule share of capital spending was observed (Figure 9). more than 80 percent expenditure is incurred under wage component. However, the share of non-wage component has been gradually increasing over the years (Figure 10).

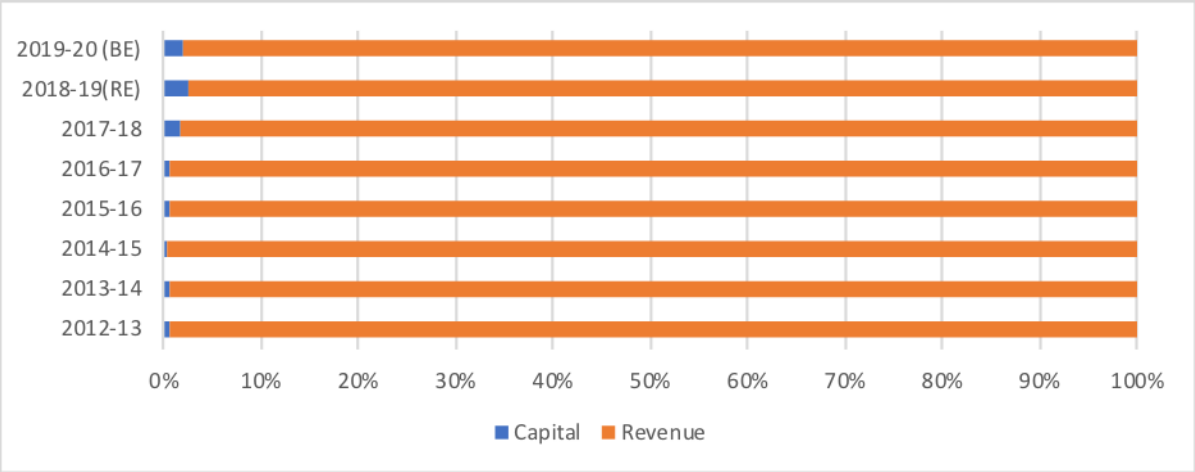


Figure 9: Share of Capital and Revenue expenditure in school education expenditure

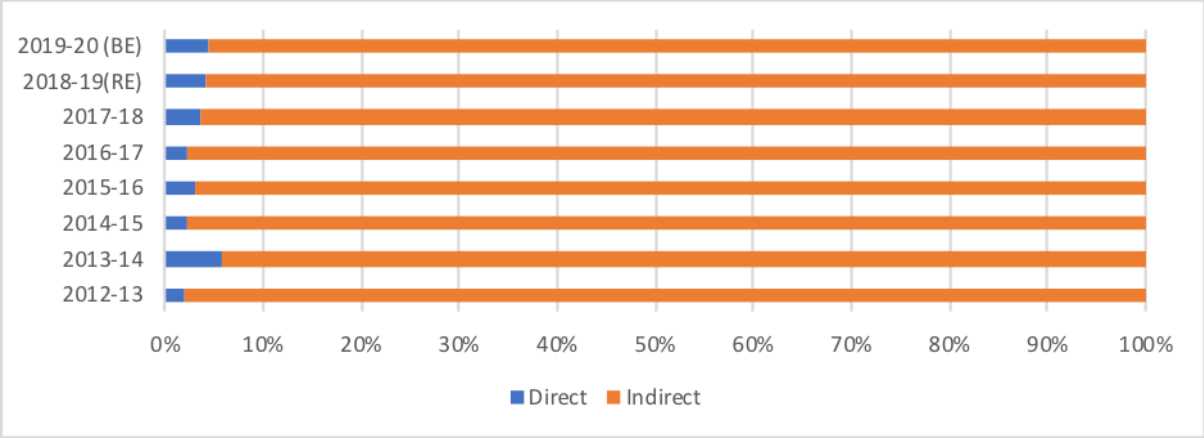


Figure 10: Share of wage and non-wage component in school education expenditure

6.6.14. Direct transfers have been minimal over the years.

Direct transfers/incentives/mobilizations that are of the nature of cash/kind contributed to an average of 4 percent and while the remaining share of expenditure was indirect expenditure. The highest share of direct transfers was in 2013-14 at 5.8 percent.

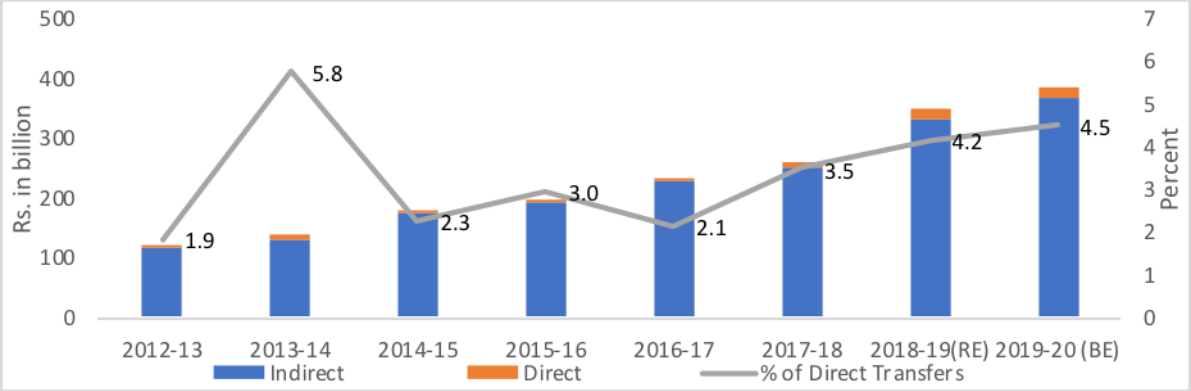


Figure 11: Direct and indirect expenses under School education

6.6.15. Share of SSA, RMSA and Samagra in total school education expenditure

The share of SSA and RMSA had declined in 2013-14, reached the peak in 2014-15 at 23 percent and declined thereafter till 2017-18. In the years 2018-19 and 2019-20 it has increased back to 23 percent (Figure 12).

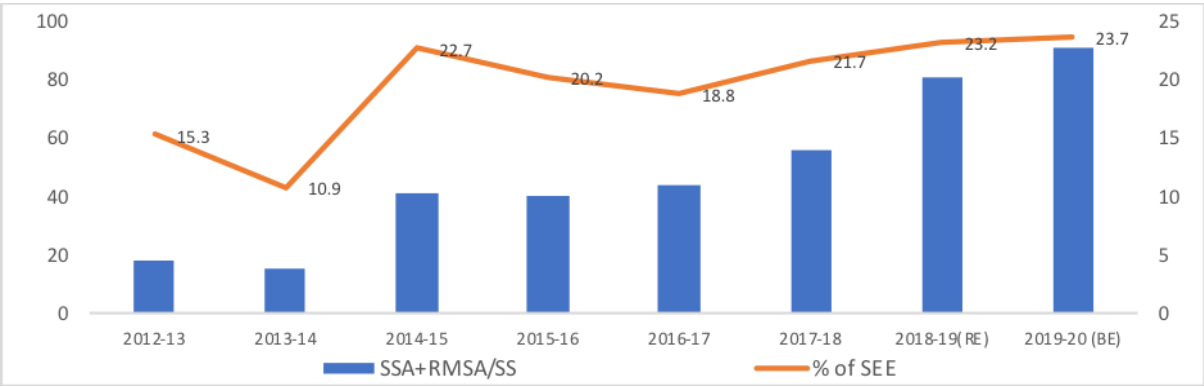


Figure 12: Share of Sarva Siksha Abhiyan and Rashtriya Madhyamik Siksha Abhiyan in school education expenditure

The share of STARS components ranged between 0.2 to 1 percent of total school education expenditure over the years except in 2013-14 that witnessed the highest share at 3.5 percent which was mainly due to the large expenses incurred under the Information Communication, Technology education in schools

6.6.16. Share of STARS component in school education expenditure

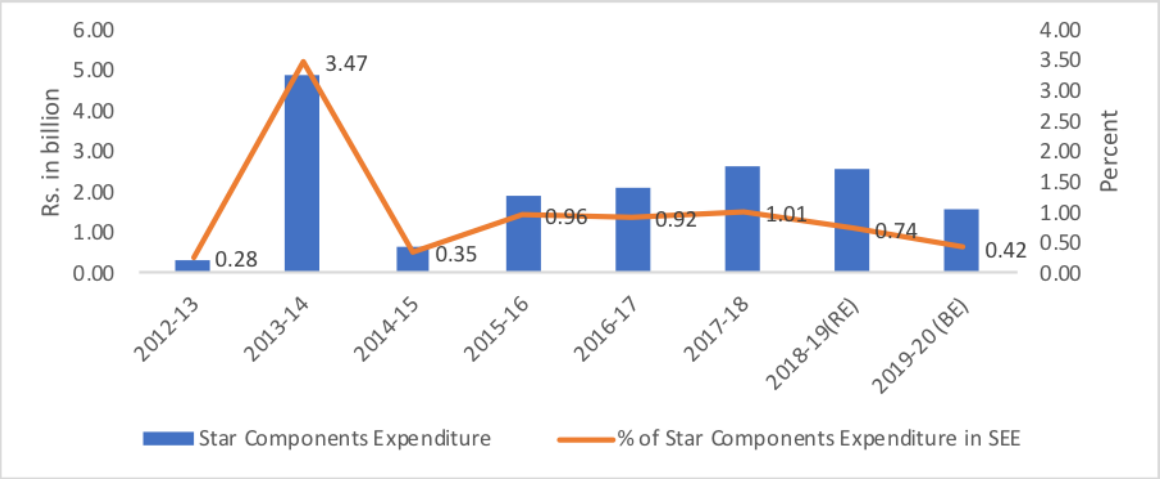


Figure 13: Share of STARS components in school education expenditure

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8.ANNEXURE

Annexure 1: School Education Expenditure by Major Head of Account

Major Head	Description	Himachal Pradesh	Kerala	Madhya Pradesh	Maha-rashtra	Odisha	Rajasthan
2049	Interest Payments		3.24		8.18		0.48
2055	Police				0.00		
2059	Public Works		0.01	0.04		0.47	
2071	Pensions and Other Retirement benefits					5.42	
2202	General Education	43.70	119.90	136.86	388.47	93.29	204.16
2203	Technical Education		0.62		0.55		
2204	Sports and Youth Services		0.02		0.03		
2210	Medical and Public Health	0.02	0.13		0.01		
2211	Family Welfare				0.00		0.47
2215	Water Supply and Sanitation				0.03		
2225	Welfare of Scheduled Castes, Scheduled Tribes, Other Backward Classes and Minorities	0.00	2.16	4.35	26.49	6.42	0.97
2235	Social Security and Welfare	0.00	0.08	8.17	0.36	0.14	0.07
2251	Secretariat - Social Services				0.11		
4059	Capital Outlay on Public Works		0.01				
4202	Capital Outlay on Education, Sports, Art and Culture	0.70	1.56	3.58	0.57	1.41	1.46
4225	Capital Outlay on Welfare of Scheduled Castes, Scheduled Tribes, Other Backward Classes and Minorities		0.16	1.91	3.43	2.86	0.60
4235	Capital Outlay on Social Security and Welfare		0.03				0.01
Total		**44.42**	**127.92**	**154.92**	**428.24**	**110.01**	**208.21**

Annexure 2: School Education Expenditure by Departments

Department	Himachal Pradesh	Kerala	Madhya Pradesh	Maharashtra	Odisha	Rajasthan
Education	40.35	122.10	90.03	394.62	94.41	176.37
Health and Family Welfare	0.02	0.13		0.01		0.33
Planning Department	0.16					
Social justice and Empowerment	1.94	0.11				14.14
Tribal Development Department	1.95		24.36	23.39		16.60
Public Works		0.02				0.29
SC/ST Development &OBC welfare		2.31			9.75	
Higher and technical education				0.77	0.29	
Home Department						
Finance Department		3.24			5.42	0.48
Minorities development department				0.28		
O.B C Department				0.07		
Skill development and entrepreneurship department				0.54		
Social justice and special assistance department				8.57		
Women and child development department			8.17	0.00	0.14	
Bhopal Gas Tragedy Relief and Rehabilitation			0.00			
Local Government/Urban Administration and Housing Department			5.57			
Rural Department			26.78			
Total	**44.42**	**127.92**	**154.92**	**428.24**	**110.01**	**208.21**

Annexure 3: Construction of Education and Empowerment Index

The first four indicators in the 'Education and Empowerment' category consider participation in education for 6-18 age group using attendance data. Education indicators, taken from NSSO Social Consumption survey (71st round), measure the percentage of students attending a school / educational institution, of the total population of children of the age-appropriate group in the sample. In that sense, it indicates the proportion of those who are enrolled and attending, rather than just enrolled, and therefore a better indicator than enrolment ratios. The next indicator relates to early marriage, reflecting the powerlessness of young women and a lack of control over their own lives when they were children. Marriage at a very young age has severe impact on overall development of the girl child including a lost childhood and curtailment of educational and job opportunities as well as adverse health implications. Child sex ratio, the next indicator, measures the sex ratio at birth (live female birth per 1000 male birth) and reflects the attitude towards the girl child.

Indicators with source of the data for construction of Education and Empowerment Index

Sl. No	Indicators*	Sub-Indices	Source
1	Net Attendance Ratio – Primary	Education and Empower-ment	NSSO 71st Round – Education in India (2014)
2	Net Attendance Ratio – Upper Primary		
3	Net Attendance Ratio – Secondary		
4	Net Attendance Ratio – Senior/Higher Secondary		
5	Women aged 20-24 years who are married before 18 years of their age ^		National Family Health Survey (2015-16)
6	Sex ratio at birth for children born in the last five years		

*All indicators carry equal weights