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Performance Evaluation of Sarva Shiksha Abhiyan (SSA): A Comparative Study of Two States in India

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Abstract

This paper examines the interstate differences in the performance of Sarva Shiksha Abhiyan (SSA) in promoting elementary education by choosing one each of the best and the worst performing states of India i.e. Kerala and Uttar Pradesh. Performance is measured in terms of ensuring access, equity, and quality during 2006-16. The analysis shows that Kerala outperforms Uttar Pradesh in two out of three dimensions, except in ensuring equity.

The better performance of Kerala is attributed to historical factors and also the presence of higher literacy levels among both male and females, political activism, gender equality and availability of basic facilities for education

Keywords: Education and inequality, Regional Development Planning and Policy, Analysis of Education, Government Expenditure and Education.

JEL classification: I24 · R58 · I21 · H52

1 Introduction

The beginning of the current millennium saw significant changes and efforts towards universalization of elementary education. Sarva Shiksha Abhiyan (SSA) was introduced in India as a flagship programme to attain the objective of universal elementary education. It was implemented in the entire country with financial support from MHRD, Government of India. SSA was the single most holistic programme which was designed based on the leanings of earlier education programmes like the District Primary Education Programme (DPEP), Teacher's education, Operation Blackboard, Mid-day Meal Scheme, Kasturba Gandhi Balika Vidalaya and Janshala (KGBV). It covered one million elementary schools in the country and focused on all key aspects of elementary education, viz physical access to schools with a minimum standard, student flow, internal efficiency, school improvement, professional development of teachers and head teachers, governance, spatial, gender and social equity and quality of learning outcomes.

The period of 2001-2011 witnessed two significant changes to the constitution of India. The access to elementary education was made a civil and a political right for every child in 6-14 years age group.
In 2002, the central government of India inserted Article 21-A in the constitution to ensure free and compulsory elementary education becomes a fundamental right for this age group. The Right to Education (RTE) Act introduced in 2009-guaranteed free and compulsory education to kids aged between 6-14 years with provision of free uniforms and textbooks. With the introduction of RTE 2009, the framework of SSA broadened, which led to the integration of SSA management structure and state education structure.

The revised framework of SSA focused on provision of good infrastructure in the form of all-weather school buildings, one teacher per one classroom, availability of toilet and drinking water facilities, playground facilities, and improving the quality of teaching through maintaining reasonable Pupil Teacher ratio (PTR), provision of library, and teachers training in all elementary schools. To facilitate the

participation of different stakeholders in the school management, provisions were made for the formation of School Development and Monitoring Committees (SDMCs) with different local stakeholders. These SDMCs are expected to facilitate participatory process at grassroots level to reflect local needs in the planning and having an effective monitoring process. Even though the policy of SSA has been implemented nationwide, the outcomes of education at elementary levels are not uniform across the states.

This paper analyses SSA performance in the best and worst performing states in India i.e. Kerala and Uttar Pradesh in three dimensions. Ensuring access, equity, and quality are the three dimensions identified for the study. It is to be noted that a historical perspective of the two states in operationalizing right to education has been discussed only to set the context, but not to prove that a region's history alone influences effective implementation. The study also discusses the role of governance, political willingness, and autonomy of local government in explaining differences between the states.

The objective of this paper is to analyze the performance of Kerala and Uttar Pradesh in term of attainment of access, quality, and equity in elementary education and explain the probable reasons for the differential performance. The paper is presented in eight sections. Section two reviews the literature on regional inequality in educational outcomes among various states of India. Section three discusses the details of data and methodology. Sections four, five and six compare the performance in providing access, equity and quality respectively. Section seven discusses various reasons for differential performance of both the states. Section eight concludes.

2 Literature Review

Many studies have explored the idea of inequality in educational outcomes based on caste, gender, rural-urban access, and availability of infrastructure. (Asadullah & Yalonetzky, 2012) examined the prevalence of education inequality among Indian states in post-liberalization era. In this study, Kerala performed better than all other states. Furthermore, Rajasthan and Gujarat, Bihar and Uttar Pradesh noted major fall in ranking of inequality of educational opportunities. The study observed that states with better accountability, governance, more outreach to finance, and substantial inclusion of women succeeded in attaining better educational opportunities.

(Deshpande, 2007) focused on educational outcomes for women-that continued to be lower. The study highlighted intercaste disparity where upper-caste women benefitted. It also highlighted the disparities based on gender and caste. Recent studies using the national representative data have highlighted the persistence of gaps in school participation based on gender, caste, and religion. (Asadullah et al., 2014) highlighted a lack in closure of social gaps even after the liberalization in 1991. The study compares the data between 1980 to 2000 and concluded that Uttar Pradesh, Bihar, Madhya Pradesh, and Rajasthan lagged in equitable schooling. They confirm the family background and gender of child as one of the key determinants of child's participation in schooling in India. Gender explains a large part of variation in educational outcomes (Aslam, 2009), (Azam & Kingdon, 2013), (Srivastava, 2006).

(Agrawal, 2014) have found out rural-urban divide as one of the most crucial reasons for increasing disparities in educational outcomes. The study concluded the role of children in household activities and agricultural activities further reduces school attendance. It stressed upon availability of better quality of education and infrastructure in reducing disparity.

Poverty remains one of the key reasons for differential educational performance (Rolleston & James, 2015) (Teixeira & Loureiro, 2019)**.** Poverty differences in rural-urban areas (Chtioui & Ayadi, 2018) further affect the capacity of children to attend schools. The trends from Sub-saharan african (Spaull & Kotze, 2015) are found in India as well. The study by (Borooah, 2012) emphasized the inability of poorer children to learn foundational literacy and numeracy skills.

Parental education is considered a major factor in explaining differential in educational outcomes (Woodhead et al., 2013).Various studies have provided evidence regarding lower mother's education as compared to men (Baptista et al., 2006). Research by (Chaudhuri & Roy, 2009) emphasizes parental education as a key determinant and a way to address gender wise inequalities in India. However, (Pal, 2004) argues that mothers education can alone reduce disparities to a great extent (Varga, 2014).

From the above reviews, it can be observed that the differential performance across states can be attributed to the differences in population structure, geographical location, development status of the state etc. In this context, an attempt is made in this paper to examine the differences in two states, which rank highest and lowest in the performance of educational attainment and identify the factors responsible for this large disparity. The states of Kerala and UP are purposively selected to represent best performing and least performing states respectively.

3 Data and Methodology

The performance evaluation of SSA is divided into Pre and Post-RTE period. The period from 2007-11 has been categorized as Pre-RTE period and 2012-16 as Post-RTE period. The data has been collected from various publications of National Council of Education Research and Training (NCERT), Annual Status of Education Report (ASER) published by PRATHAM, Selected Educational Statistics (SES) published by Ministry of Human Resource and Development (MHRD), District Information System for Education (DISE) published by National University for Educational Planning and Administration (NUEPA), Sarva Shiksh Abhiyan (SSA) Shagun Database and reports of Comptroller & Auditor General of India (CAG).

The following framework is developed for the analysis taking into consideration three dimensions (Table 1).

Table 1: Framework of Analysis

Dimension	Indicators
1.Access	A. Access to Physical Resources 1. Availability of schools. 2. Availability of class rooms B. Access to Human Resources 1. Availability of teachers. 2. Availability of trained professional.
2. Equity	A. Equity in Enrolment 1. Equal opportunities for boys and girls. 2. Equal opportunity to SC,ST,OBC and Muslims.
3. Quality	A. Quality of Education 1. Learning Achievement in various subjects.

Source: The Authors.

The access dimension has considered not only access to physical resources of schools, classroom, textbooks and uniforms but also access to human resource. Availability of teachers, adequate Pupil Teacher Ratio (PTR) and trained teachers are considered as indicators for the access dimension. Equity dimension looks into the equal opportunities for all the social groups and gender. The share of different social groups and gender parity are identified as indicators for this dimension. The quality focuses on educational outcomes at school level and performance of students in math, language, science, social science at grades III, V and VIII.

4 Access to Resources

The availability of basic school facilities is very important to improve the educational outcomes. The very first requirement is the availability of school within a reasonable distance from home to reduce absenteeism and school dropout. Earlier studies have shown the positive relationship between school attendance and the availability of a good quality school in the neighbourhood(Kremer et al., 2005).

Providing greater access to schools and improving the facilities is the strategy adopted for the attainment of universal elementary education under the SSA-RTE.

4.1 Access to Physical Resources

Access to physical resources is measured with two sets of indicators i.e. availability of schools and class rooms. Availability of schools within the reach of the students influences the enrolment. In order to standardize the geographical differences to arrive at the number of schools, schools per 10 square kilometre was calculated and the data shows that Kerala has lesser number of schools per 10 sq km (3.5) as compared to Uttar Pradesh (6.9) (Table 2).

Number of schools per 10 sq km in Uttar Pradesh exceeds the national average of 3.5 schools. Uttar Pradesh, which is six times larger than Kerala in geographical area, has managed to have more schools in the state. The presence of more schools in UP is justified as it houses one in every five children under 18 years of age . Similarly, primary and upper primary schools per 1000 population are more in Uttar Pradesh as compared to Kerala.

The presence of more schools does not mean more classrooms. The average number of classrooms in primary and upper primary level is more in Kerala. During the post-RTE period, the average number of classrooms at elementary level was 8.6 in Kerala, as compared to four classrooms in Uttar Pradesh (Table 2). Though the average number of classrooms in Uttar Pradesh is equivalent to the national average, it is not justified as UP has the largest school going population. Smaller schools with poor infrastructure make schools less attractive to children. Despite an increase in the average number of classrooms at elementary level from pre to post-RTE period in Uttar Pradesh, there is scope for improvement. A decline in the average number of classrooms per school is observed in Kerala during post-RTE period.

Table 2: Availability of Schools and Class Rooms in Kerala and UP (2006-16)

	Kerala		UP		India	
Access Indicators	2006-11	2011-16	2006-11	2011-16	2006-11	2011-16
Density						
Density of schools per 10 sq km (Primary)	2.6	3.5	5.8	6.9	3.3	3.5
Density of schools per 10 sq km (Upper Primary)	1.7	2	2.5	3.5	1.4	1.7
Primary School per 1000 population						
Primary School per 1000 population	4	5.6	6	6.4	9.4	9.4
Upper Primary schools per 1000 population	3.8	5.2	4.2	6	6.8	8
Average Number of Classrooms						
Average Number of Classrooms (Primary)	6.1	5.9	3.7	4.5	2.8	3.4
Average Number of Classrooms (Upper Primary)	11	10.3	4.1	4.6	4.1	4.6
Average number of classrooms (Primary + Upper Primary)	10.1	8.6	3.9	4.2	3.6	3.9

Source: The Authors.

4.2 Access to Human Resource

One of the prerequisites for improving the quality of education is availability of adequate and trained teachers. Therefore, availability of teachers, prevalence of single teacher schools, shortage of teachers, share of contract teachers and training status of teachers are considered as indicators to assess the access to human resources**(Rivkin et al., 2005)(Rivkin et al., 2005)**(Singh & Sarkar, 2015)**.**

4.2.1 Availability of Teachers

Sarva Shiksha Abhiyan recognises availability of trained teachers as a pre-requisite for congenial teaching environment. A satisfactory teaching environment implies adequate number of teachers, comfortable student-teacher ratio, basic teaching material, trained teachers, grant to facilitate teacher learning material to aid classroom instruction, supply of textbooks and uniforms. Teachers play a crucial role in planning and implementation of SSA. They are the key drivers of effective teaching that facilitates equity and quality in schools.

In terms of availability of teachers, Kerala outperformed Uttar Pradesh. Kerala achieved the stipulated PTR at primary and upper-primary level even before the RTE Act, 2009*. Uttar Pradesh achieved its stipulated pupil-teacher ratio of 35:1 at upper-primary level during post-RTE period (Figure 1). However, the state remained far away from its target of 30:1 at primary level. During 2012-16, there were 41 students per one teacher in primary schools of Uttar Pradesh (Fig. 1). An improvement in overall PTR could be observed in both the states during post-RTE period.

* The Kerala Education Rules (1959) required PTR to be 1:45 for class 1-7 instead of 1:30 for primary and 1:35 for upper primary as per RTE rules. The rules of KER were harmonised in accordance with the RTE rules in 2009.

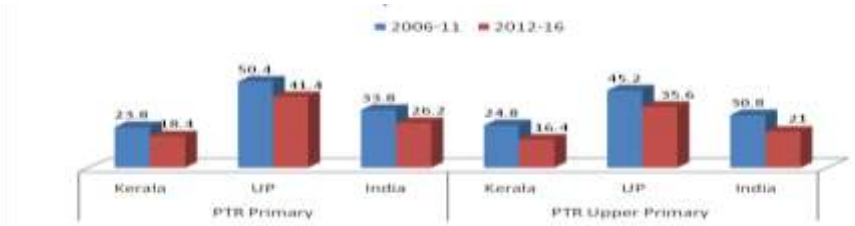

Fig. 1 Pupil Teacher Ratio in Kerala and Uttar Pradesh (2006-16)

Source: Flash Statistics, DISE.

4.2.2 The prevalence of Single Teacher Schools

The RTE-SSA norm stipulates at least two teachers in a school with additional teachers based on enrolment. The percentage of single teacher schools with 15 or more students declined at the all India level from 8.9 per cent in 2007-11 to 7.3 percent in 2012-16. In contrast to the national performance, the percentage of single teacher schools increased in both Kerala and Uttar Pradesh. The rise in single teacher schools was more in Uttar Pradesh. These schools increased from 6.1 per cent pre to 9.4 per cent in post-RTE period in Uttar Pradesh. The share increased from 0.19 per cent to 1.05 per cent in Kerala during the same period. Growth of single teacher schools is concerning in Uttar Pradesh as it accounts for almost 10 per cent of the total schools in the state (Fig. 2).

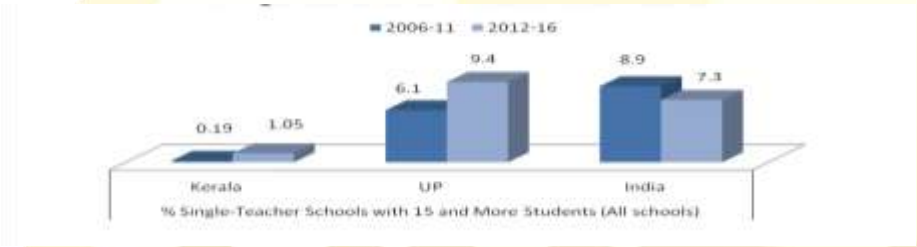

Fig. 2 Proportion of Single Teacher Schools in Kerala and Uttar Pradesh

Source: Flash Statistics, DISE.

Along with the growth in number of single teacher schools, there is an increase in enrolment in these schools in these two states. While there is a decline at the national level between pre and post-RTE period, both Kerala and Uttar Pradesh saw an increase in enrolments in single teacher schools. Though the difference is marginal in Kerala (increase by 0.03 percentage points), it is significant in UP (enrolments doubled from 3.8 per cent in 2007-11 to 6.4 per cent in 2012-16). The multi-grade teaching by a single teacher has been a norm in India. Moreover, relatively more government schools have been found to be single teacher schools indicating a severe shortage of staff and hiring in the country. The multi-grade teaching in single teacher schools is concerning as it has an impact on the learning abilities of the students (Glick & Sahn, 2006)

4.2.3 Shortage of Teachers

It is observed that educational attainment is severely affected by the shortage of teachers, their under qualification, indifferent teaching and absenteeism (Kremer et al., 2005)**,**The RTE-SSA framework stipulates that no school should have more than 10 percent vacant teaching positions. The RTE Act further promises to support schools in hiring staff, in case of shortage of teachers.

The data obtained from the latest Educational Statistics at Glance of 2018 by MHRD points to a significant gap in availability of teachers in schools (Table 3). While the sanctioned posts by the government was 32,33,073 and under SSA was 19,48,718 in 2015-16, only 83 percent of state government posts and 80 per cent of SSA posts were filled leaving a deficiency of 18 per cent in teacher appointments.

The analysis revealed that the shortage of teachers is more severe in Uttar Pradesh compared to Kerala. While 36 per cent of non-SSA and 12.3 per cent of SSA positions were vacant creating a total deficit of 23 per cent in UP, in 2015-16. Kerala on the other hand had no vacant positions by state but had a whopping 43 per cent shortage under SSA teaching vacancies thereby leading to a total deficit of 1 per cent in 2015-16.

Table 3: Teaching Vacancies and Deficit – Kerala and Uttar Pradesh 2015-16

States	Sanctioned Posts			Teachers Working			Deficit (%)		
	State Govt.	SSA	Total	State Govt.	SSA	Total	State Govt.	SSA	Total Deficit
Kerala	123457	2925	126382	123457	1542	124999	0.0	47.3	1.1
Uttar Pradesh	336543	423355	759898	213931	371301	585232	36.4	12.3	23.0
All states	3233073	1948718	5181791	2699522	1574684	4274206	16.5	19.2	17.5

Source: Statistics at a Glance, Educational MHRD, 2018

4.2.4 Role of Contract Teachers

The larger deficits in teacher appointments have been fulfilled by hiring contract teachers in India. Even though it has its advantages, the policy of hiring contractual teachers has had many issues with its implementation. Some of the advantages of hiring contractual teachers includes cost effective in a fiscally strained environment and increased access of teachers in remote rural areas. However, on the contrary some scholars claim that it increases inequality and lowers education quality (Chandra, 2015).Furthermore, from the perspective of contractual teachers the policy has failed to provide a decent pay and job security.

The data obtained from DISE highlights the trend of contract teacher hiring in Kerala and Uttar Pradesh (Table 4). Even though the hiring of contract teachers has shrunk marginally from 13.4 per cent to 13 per cent at the national level between pre and post-RTE period, a larger share of contract teachers in Uttar Pradesh is a concern. During 2012-16, Uttar Pradesh employed 27 per cent teachers on contract as against to 3 per cent in Kerala. The larger requirement of contract teachers in Uttar Pradesh is due to its larger geographical area and proportion of government schools[†].

Table 4: Share of Contractual Teachers in government schools in Kerala and UP (In percentage to total teachers)

Year	Kerala	UP	India
2006-11	3.1	36.2	13.4
2012-16	3.0	27.2	13.0

Source: Flash Statistics, DISE.

Though the intention of appointing contract teachers is to fill the gap of availability of regular teachers, this policy has failed due to the difficulties in managing contract teachers, strikes and other protests. It is observed that it has wasted administrative time as well as resources in many cases. Due to this, the two earliest adopters of the contractual teacher policy – Rajasthan and Madhya Pradesh have either reversed or reshaped the policy.

4.2.5 Teachers Training

The RTE-SSA mandate emphasises teachers training to prepare them for teaching, evaluation and mentoring. As per the mandate, SSA should provide 20 days of regular in-service training every year. It should also provide 30-day induction training to newly recruited teachers and 60-day training without any pre-service training. The training covers several pedagogical issues including content and methodology to improve teacher-learning practises in classroom.

The data presented in table 5 reveals the scenario of teachers training in Kerala, Uttar Pradesh and at the national level. It is observed that the overall in-service training in India declined from 43 per cent in 2007-11 to 32 per cent in 2012-16. Same trend is observed in both the states. While it declined from 67 per cent in 2007-11 to 27 per cent in 2012-16 in Kerala, the decline is from 19 per cent to 14 per cent in Uttar Pradesh. The share of trained teachers in both the states was much lower than the national average of 32 per cent during 2012-16. Since, poorly trained teachers influence quality of education, a declining trend of in-service training is a serious concern in both the states.

Table 5: Training Status of Contractual and Permanent Teachers in Kerala and UP

	Professionally Trained Contractual-Teachers (% to total teachers)			In-Service Training (% to total teachers)		
Year/State	Kerala	UP	India	Kerala	UP	India
2006-11	97.7	34.00	43.00	67.00	19.00	43.00
2012-16	98.7	42.00	57.00	27.00	14.00	32.00

Source: Flash Statistics, DISE.

[†] Kerala has 25 per cent government managed schools as compared to 65 per cent in Uttar Pradesh.

It is imperative to analyze preparedness of contractual teachers. The data presented in table 5 highlights preparedness of contractual teachers in Kerala, Uttar Pradesh and India. Among the total contract teachers in India during 2007-11, around 43 per cent were professionally trained. This share increased to 57 per cent post-RTE. Between the two states, Kerala surpassed Uttar Pradesh in employing professionally trained contractual teachers. In Kerala, the share of professionally trained among the contractual teachers, which is close to 100 per cent increased marginally from 97.7 per cent in pre-RTE to 98.7 per cent post-RTE. In Uttar Pradesh also, the share increased from 34 per cent to 42 per cent from pre to post-RTE. But even with this increase, only less than half of contract teachers were found to be adequately trained for the job in Uttar Pradesh. Given the fact that 28 per cent teachers in Uttar Pradesh are on contractual basis, lack of trained teachers is another factor, which needs attention as it influences the quality of education imparted in the state. Apart from the lack of trained teachers, even the quality and relevance of teacher training was found to be low. There exists a huge gap between the teacher's training programs and the real-time problems faced by the teachers in the classrooms (Chandra, 2015)**.**

5 Equity in Access to Education

Equity in access to education ensures equal access to educational opportunities to all the categories of students. This includes access to all disadvantageous groups in the society. The SSA-RTE framework focuses on improving equal access of elementary education to various social categories. To improve gender equity two additional schemes namely; National Programme for Education of Girls at Elementary Level (NPEGEL) and Kasturba Gandhi Balika Vidyalaya (KGBV) were introduced by the Government of India as part of Sarva Shiksha Abhiyan.

5.1 Enrolment by Social Category

Caste system is a very strong social order in India, which has greater influence on the lives of people in the society. Even though the caste-based discrimination is considered a criminal offence, both covert and overt discriminations are widespread in India (Deshpande, 2007). Hence, it is relevant to measure the performance of SSA from the perspective of ensuring equity. Equity in access is analyzed with trends in enrolment of different social groups in both the states during pre and post-RTE period.

At the national level, the relative share of SC and ST enrolments in elementary education exceeded their relative share in population (Table 6). Similar trend is observed in Kerala and Uttar Pradesh. Kerala state, which accounts for 9.1 per cent of SC population in 2011 has shown an equal percentage of SC enrolment during post-RTE. In the case of Uttar Pradesh, while SC population constitutes 21 per cent, enrolment of this category student at elementary level was 28 per cent during 2012-16. The enrolment of Scheduled Caste students is significantly higher in Uttar Pradesh compared to Kerala and also national average. During the Pre and Post RTE period, the enrolment of SC decreased in Kerala, whereas they remained the same in Uttar Pradesh.

Table 6: Enrolment of Students from SC and ST Category

State	Kerala		UP		India	
Category/Year	**2006-11**	**2012-16**	**2006-11**	**2012-16**	**2006-11**	**2012-16**
% of SC Population in the state	9.8	9.1	21.1	20.7	16.2	16.6
% of SC Enrolment at Primary Level	11.3	8.8	27.6	28.2	19.7	20.0
% of SC Enrolment at Upper Primary Level	10.9	9.2	26.6	26.8	18.8	19.4
% of SC Enrolment at Elementary Level	11.2	9.1	27.2	27.5	19.6	19.8
% of ST Population in the State	1.1	1.5	0.1	0.6	8.2	8.6
% of ST Enrolment at Primary Level	2.4	1.9	0.7	0.8	11.5	10.0
% of ST	2.0	1.8	0.6	0.7	9.3	9.7

Enrolment Upper Primary Level						
% of ST Enrolment at Elementary Level	2.2	1.9	0.6	0.8	10.8	10.6

Source: Flash Statistics, DISE.

Same status is observed in the enrolments of students from Scheduled Tribe. During 2012-16, the relative share of ST enrolment at the national level was 10.6 per cent as compared to 8.6 per cent of ST population (Table 6). Between the two states, Kerala had higher proportion of population belonging to Scheduled Tribe (1.9 per cent) compared to Uttar Pradesh (0.8 per cent). Despite higher share of population, the enrolment of STs in Kerala noted a decline from 2.2 per cent in Pre to 1.9 per cent in post-RTE. Nevertheless, an increase in enrolment of ST students from 0.6 per cent to 0.8 per cent is observed in Uttar Pradesh.

The other two marginalized groups are OBC and Muslims. As per the latest estimates, 44 per cent population is under Other Backward Classes (OBC) in India. The relative share OBC enrolment at elementary level increased from 42 per cent in 2007-11 to 44 per cent in 2012-16 in India.

As far as OBC and monitories are concerned, Kerala has a larger population belonging to OBC (65 per cent) compared to Uttar Pradesh (55 per cent). It is observed that the enrolment of students from these categories in both states is lower than their respective shares in population (Table 7). However, a marginal increase in enrolments was noted from pre to post-RTE. The enrolment of OBC students increased from 62 per cent to 64 per cent in Kerala and from 50 per cent to 51 per cent in Uttar Pradesh. Though it is a positive situation indicating greater inclusivity, still better enrolment is desired. The share of Muslim population is high in Kerala compared to Uttar Pradesh. But the enrolment of students from this category is lower in both states. However, it is observed that there is an improvement in the enrolment of students from these categories during the post-RTE period compared to pre-RTE. At the national level, also an increase in the share of Muslim students in the total enrolment could be observed. This indicates the positive impact of RTE on improving the inclusivity.

Table 7: Enrolment of Students from OBC and Muslim Category

State	**Kerala**		**UP**		**India**	
Category/Year	**2006-11**	**2012-16**	**2006-11**	**2012-16**	**2006-11**	**2012-16**
% of OBC Population in the state	60.0	65.3	51.0	54.5	41.0	44.0
% of OBC Enrolment at Primary Level	62.5	64.1	50.3	50.9	41.8	43.8
% of OBC Enrolment at Upper Primary Level	60.5	63.4	48.8	50.6	41.4	44.2
% of OBC Enrolment at Elementary Level	62.2	63.8	50.0	50.9	41.7	43.9
% of Muslim Population in the State	24.7	25.8	18.5	19.1	13.4	13.9
% of Muslim Enrolment at Primary Level	24.5	33.2	9.8	13.2	11.5	14.1
% of Muslim Enrolment Upper Primary Level	21.8	31.4	7.7	10.4	9.7	12.3
% of Muslim Enrolment at Elementary Level	26.8	32.4	9.4	12.4	11.5	13.5

Source: Flash Statistics, DISE.

5.2 Gender Parity in School Enrolment

The improvement in teacher-learning environment is one the pre-requisites for ensuring enrolments, retention, transition to higher classes and quality of educational outcomes. It is also very crucial for improving participation of girls in elementary education and promoting gender equity in schools. The enrolment of SC and ST girls in elementary education in India remained at 48 per cent during the pre and post-RTE period. Between the two states, Uttar Pradesh witnessed a rise in SC and ST girl's enrolment at elementary level, whereas Kerala witnessed a marginal decline. The SC/ST girl's enrolment at elementary

level increased from 48.4 per cent in 2006-11 to 49.1 per cent in 2012-16 in Uttar Pradesh. However, in Kerala it declined from 49.5 per cent to 48.3 per cent during the same period.

Among OBC and Muslims, the overall situation improved in India. During pre to post-RTE period enrolment of girls from OBC and Muslim community increased marginally by 0.2 and 0.5 percentage points respectively. The enrolment rates remained around 48-49 per cent in India.

Between the two states, Kerala witnessed a marginal decline in the enrolment of girls from OBC and Muslim category. In both cases, enrolment fell from 49 to 48 per cent from pre to post-RTE. In Uttar Pradesh, the performance was mixed. During pre to post-RTE, the enrolments for OBC girls declined from 50 per cent in 49 per cent whereas Muslim girls enrolment increased from 48.4 per cent to 48.8 per cent.

The girl's enrolment at elementary level for SC, ST, OBC, and Muslims in Kerala witnessed a decline during Pre to Post RTE period. In Uttar Pradesh the minorities of SC, ST and Muslims girls benefited, though the welfare of OBC girls deteriorated. One of the probable reasons for dropout from marginalized societies could be the difference in teacher and other pupil's attitude towards these children (Jha & Parvati, 2008).

Attaining gender parity is one of the important pre-requisites in realizing universal elementary education. In order to reduce gender gap in enrolment, SSA has introduced several measures in the form of appointing female teachers, availability of school in the vicinity and provision separate toilet for girls etc. Data relating to the gender parity in both the states during pre and post RTE is presented in the table 8.

Table 8: Gender Parity Index and Girl's Enrolment

	Gender Parity Index			**Girls enrolment (%)**		
	Primary			**Primary**		
	Kerala	**UP**	**India**	**Kerala**	**U.P**	**India**
2006-11	0.98	0.97	0.94	49.5	49.2	48.3
2012-16	0.95	0.95	0.93	48.2	48.5	48.1
	Upper Primary			**Upper Primary**		
	Kerala	**UP**	**India**	**Kerala**	**U.P**	**India**
2006-11	0.95	0.97	0.91	48.8	49.1	47.5
2012-16	0.95	1.00	0.95	48.2	50	48.5

Source: Flash Statistics, DISE.

The data reveals that gender parity has declined marginally in both the states in post RTE period at primary level and it increased or remained stable at the upper primary level in both the states. At the national level also, there is a marginal decline at primary level, but increase in upper primary level. Same tendency is observed in the enrolment of girls. There is a marginal decline in the enrolment at primary level, but marginal increase at the upper primary level.

Apart from the policy, several factors influence girls' enrolment. Among the factors, mother's education was found to be an important factor influencing the enrolment of girl child. Girls from the households with educated mothers were found to be having greater chances of enrolment (Emerson & Souza, 2007), (Shu, 2004), (Kambhampati & Pal, 2001), (Smits & Hoşgör, 2006). Girls' enrolment was found to be influenced by infrastructure availability like separate girl's toilet and presence of female teachers. The data indicates that despite the efforts the gender parity has not reached to the expected level.

6 Quality of Education

Improvement in quality of education is one of the dimensions identified to measure the performance of SSA in Kerala and Uttar Pradesh. Difference in the provision of quality education is discussed below.

Enhancement in the quality of education is one of the focal points of SSA. During 2008, Technical Cooperation Fund was set up with the assistance from DFID to enhance the capacity of NCERT and the State Council of Education, Research and Training (SCERT) to monitor learning achievements and to further evaluate quality interventions (Evaluation of Sarva Shiksha Abhiyan, 2018). The policy on quality of education was renewed by NCERT under the National Curriculum Framework. Most of the states adopted the new framework. Kerala adopted a state-specific curriculum whereas Uttar Pradesh started a new initiative of Nai-Disha to promote activity-based

learning. Under this new initiative, states were encouraged to make a three-year quality plan as part of their Annual Work Plan and Budgets (AWP&B). Out of the total district outlay under SSA, 2 percent was allocated to the Learning Enhancement Programme (LEP). The LEP aims at enhancing learning levels in Mathematics, Language and Science.

Given consistent efforts to improve the quality, the performance of educational outcomes has been mixed (Indira & Pahwa,2020). Though repetition rates has declined at both primary and upper primary level, learning achievement scores at grades III,V and VIII did not improve.

Fig. 3 Repetition Rates at Primary and Upper Primary Level - Kerala, Uttar Pradesh

Source: Flash Statistics, DISE

Repetition rates at upper primary level declined from 4.6 per cent in 2006-11 to 0.8 per cent in 2012-16 at the national level (Fig. 3). Larger decline could be observed at primary level from 5.4 per cent to 1.1 per cent during the same period. Same is observed in Kerala and Uttar Pradesh also. The repetition rates fell below 1 percent during post-RTE period in both the states. The decline in repetition rates was more in Kerala as compare to Uttar Pradesh at upper primary level. But it is important to understand this phenomenon in the context of policy shift to the no detention policy introduced under the RTE Act, 2009(Rai & Majumder, 2019).

Student learning achievement is a better indicator to reflect on the quality of education. This is analysed with the data collected by the National Achievement Survey (NAS), 2017 on learning achievement and performance of students in grade III, V and VIII. The NAS survey assesses the learning outcomes in Mathematics, EVS and Languages in grades III & V, and Languages, Mathematics, Science and Social Science in grade VIII.

The disaggregated analysis at primary and upper primary level points out that the average achievement of grade III students was 65 per cent in EVS, 68 per cent in Language and 65 per cent in Mathematics in government aided schools in India (Table 9). Moreover, the average achievement of grade V and VIII students ranged between 40-60 per cent for the subjects surveyed.

Table 9: Achievement levels of Students from Class III, V and VIII during 2017

State/ Subjects	% of questions responded correctly by Class III children			% of questions responded correctly by Class V children			% of questions responded correctly by Class VIII children			
	Math (M)	EVS(E)	Lang. (L)	(M)	(E)	(L)	(L)	(M)	Science	So.Sci.
Kerala	72	76	72	63	65	69	63	50	44	44
Uttar Pradesh	59	56	58	49	53	50	53	40	42	42
India	64	65	68	53	57	58	57	42	44	44

Source: State Learning Reports of NAS 2017. NCERT, New Delhi.

The data shows that though Kerala outperformed Uttar Pradesh in learning achievement score of grade III, V and VIII, the overall competency in the state is much to be desired. The average marks in grades III and V in Kerala for maths, EVS and Language ranged between 60-76 per cent. In Uttar Pradesh, the range of achievement varied between 50-55 per cent for the same subjects. The performance at grade VIII was concerning in both Kerala and Uttar Pradesh. Another important observation is that the average achievement of students in grade VIII declined in both Kerala and Uttar Pradesh.

Another indicator considered to measure the performance is percentage of students who secured less than 30 per cent and those secured more than 70 per cent marks (Table 10). Improvement in the quality of education results in reduction in the share of the former and increase in the latter. The data reveals that the proportion of students who achieved less than 30 per cent in core subjects at grade III, V and VIII were relatively lower in Kerala as compared to Uttar Pradesh. Most of the student achieved 75 per cent and above in Language, Maths, EVS Science and Social science in Kerala in grade III and V. However, at grade level VIII the students who achieved less than 30 per cent were around 8 per cent in language, 19 per cent in Maths, 29 per cent in Science and 40 per cent in Social Science. In Uttar Pradesh, 15-30 per cent students in

grade III and V scored less than 30 per cent. In grade 8, the proportion of students who attained less than 30 per cent marks were 24 per cent in language, 42 per cent in Maths, 39 per cent in science and 40 per cent in social science. Lower performance at grade VIII is more in both the states.

Table 10: Subject-wise Achievement at Grades III, V and VIII in NAS -during 2017

Subject-wise Achievement Levels of Students							
		% Grade III stu- dents achieving		% Grade V stu- dents achieving		% Grade V stu- dents achieving	
		<30%	>75%	<30%	>75%	<30 %	>75%
Kerala	**(L)**	3.9	46.3	5.9	42.3	7.8	29.8
	(M)	3.8	46.5	9.2	32.4	18.7	14.9
	(E)	3	56.8	7.5	35.7	NA	Na
	Sci.	NA	NA	NA	NA	28.5	5.2
	Soc.	NA	NA	NA	NA	40	2.1
Uttar Pradesh	**(L)**	24.6	31.6	26.5	19.3	24.2	21
	(M)	17.9	28	26.2	17.3	41.1	7.9
	(E)	25.5	28.2	24.9	21.4	NA	NA
	Sci.	NA	NA	NA	NA	38.6	8.8
	Soc.	NA	NA	NA	NA	40.1	9.5

Source: State Learning Reports of NAS 2017. NCERT, New Delhi. NA = Not Available

A poor performance in school affects student motivation to attend school. As per the NAS survey 2017, the proportion of student who found it de-motivating to come to school was 12 percent at grade III and 11 percent in grade in Uttar Pradesh. It is marginally less in Kerala only 3 per cent of the students at grade III and, V percent of grade VIII students in Kerala.

7 Discussion

Out of three performance dimensions, Kerala outperformed Uttar Pradesh in two dimensions of access and quality. However, the implementation of RTE Act explains the success of Kerala only partly. It is the initial conditions at the time of introduction of RTE, which have helped in the success of Kerala in better educational performance. One of the conditions is higher level of literacy levels. Kerala has been showing higher level of literacy among both men and women. The other factors are good governance, political activism and informed civil society. Historically Kerala has been a proactive state with vibrant civil society (Asadullah & Yalonetzky, 2012)**.** Kerala could prove that even at low income levels, it is possible to achieve social transformation

Kerala's success story is an outcome of public action, which led to the promotion of various social opportunities. These opportunities allowed equitable access and provision of schools and health services. Furthermore, the promotion of primary education and female literacy in early days played a crucial role for the success of the state in subsequent years (Ray & Saini, 2015)**.**

On the other hand, in case of Uttar Pradesh, they argue, the same opportunities witnessed public neglect.

Another important social factor is gender equity. Being matriarchal society, gender roles never prevented girl child in getting educated. But in case of Uttar Pradesh, being a very conservative patriarchal society, girl child education is not encouraged, which is reflected in greater gender disparities in literacy in Uttar Pradesh. In the case of Uttar Pradesh, the past five decades have seen the domination of caste and power division in the electoral politics. These divisions have formed the core of political discourse in the state, especially in rural areas (Ray & Saini, 2015).

In Uttar Pradesh caste based, class based politics with lack of political alternatives has led to poor political incentives in the state. Political competition has not focused on provision of universal basic services. In recent times, the political parties have focused less on program or policy and have only highlighted the ethnic profile of its political candidates. It is to show the commitment towards representation of all ethnic groups in various bureaucratic institutions of the state (Ray & Saini, 2015)**.**

Hence, one can say that not only historical factors but also better informed, educated voters, political activism, gender equity and availability of basic universal facilities of education, health, and food security with political willingness and good governance has contributed to Kerala's success. These factors have been absent in the case of Uttar Pradesh.

8 Conclusion

The main aim of this paper is to analyze the differential educational performance of Kerala and Uttar Pradesh under SSA in three dimensions .i.e. access, equity and quality. The results indicate that in terms of physical access, though Uttar Pradesh has more schools per sq km, the average number of classrooms in schools is less compared to Kerala. Kerala state has improved access to human resource indicated by better pupil teacher ratio, low enrolments in single teacher schools, fewer vacant teaching positions, and trained teachers. In terms of quality of education as measured by repetition rates and student learning achievements at grade III, V and VIII, Kerala performed better than Uttar Pradesh. However, Uttar Pradesh has shown better performance in providing equal opportunities for SC, ST, OBC, and Muslims. There is an improvement in enrolment of students from these communities and girls in Uttar Pradesh post RTE. This difference may be due to already existing higher enrolment rates in Kerala at the start of RTE.

The differences between both the states could be due to greater autonomy in local governance, civic activism, higher literacy rates and gender equality in Kerala compared to Uttar Pradesh.

Such disparities have continued in spite of the provision of constitutional right to free and compulsory education and will continue to do so if states do not take responsibility for implementing the norms.

References

Agrawal T (2014) Educational inequality in rural and urban India. International Journal of Educational Development 34(1):11–19 https://doi.org/10.1016/j.ijedudev.2013.05.002

Aslam M (2009) The relative effectiveness of government and private schools in Pakistan: Are girls worse off? Education Economics 17(3): 329–354 https://doi.org/10.1080/09645290903142635

Asadullah MN, Yalonetzky G (2012) Inequality of Educational Opportunity in India: Changes Over Time and Across States. World Development, 40(6):1151–1163 https://doi.org/10.1016/j.worlddev.2011.11.008

Asadullah MN, Kambhampati U, Boo FL (2014) Social divisions in school participation and attainment in India: 1983-2004. Cambridge Journal of Economics 38(4): 869–893 https://doi.org/10.1093/cje/bet006

Azam M, Kingdon G G (2013) Are Girls the Fairer Sex in India? Revisiting Intra-Household Allocation of Education Expenditure. World Development 42(1): 143–164 https://doi.org/10.1016/j.worlddev.2012.09.003

Borooah VK (2012) Social Identity and Educational Attainment: The Role of Caste and Religion in Explaining Differences between Children in India. Journal of Development Studies 48(7): 887–903 https://doi.org/10.1080/00220388.2011.621945

Chandra M (2015) The implications of contract teaching in India: A review. Policy Futures in Education 13(2): 247–259 https://doi.org/10.1177/1478210314567288

Chaudhuri K, Roy S (2009) Gender gap in educational attainment: Evidence from rural India. Education Economics 17(2): 215–238 https://doi.org/10.1080/09645290802472380

Deshpande A (2007) Overlapping identities under liberalization: Gender and caste in India. Economic Development and Cultural Change 55(4): 735–760 https://doi.org/10.1086/516763

Emerson P M, Souza A P (2007) Child labor, school attendance, and intrahousehold gender bias in Brazil. World Bank Economic Review 21(2): 301–316 https://doi.org/10.1093/wber/lhm001

Glick P, Sahn D E (2006) The demand for primary schooling in Madagascar: Price, quality, and the choice between public and private providers. Journal of Development Economics 79(1): 118–145 https://doi.org/10.1016/j.jdeveco.2005.01.001

Indira, M., & Pahwa, N. (2020). Analyzing the Linkages between Public Expenditure on Elementary Education , Educational Infrastructure and Outcomes in India. 7(2), 403–416. http://doi.one/10.1729/Journal.23930

Jha P, Parvati P (2008) The Twisted Tryst: Some Reflections on Inclusion and Quality in the Public Provisioning of Elementary Education in India. Indian Journal of Human Development 2(2): 339–370 https://doi.org/10.1177/0973703020080205

Kambhampati U S, Pal S (2001) Role of parental literacy in explaining gender difference: Evidence from child schooling in India. European Journal of Development Research 13(2): 97–119 https://doi.org/10.1080/09578810108426796
Kingdon GG (2002) The gender gap in educational attainment in India: How much can be explained? Journal of Development Studies 39(2): 25–53 https://doi.org/10.1080/00220380412331322741
Kremer M, Chaudhury N, Rogers F H, Muralidharan K, Hammer J (2005) Teacher absence in India: A snapshot. Journal of the European Economic Association 3(2–3): 658–667 https://doi.org/10.1162/jeea.2005.3.2-3.65
Pal S (2004) How much of the gender difference in child school enrolment can be explained? Evidence from rural India. Bulletin of Economic Research 56(2): 133–158 https://doi.org/10.1111/j.1467-8586.2004.00193.x
Rai A, Majumder S (2019) Withdrawing the No-detention Policy: Punishing Children for the System's Failure. Social Change 49(2): 353–360 https://doi.org/10.1177/0049085719844671
Ray S, Saini S (2015) Efficacy of rights-based approach to education: A comparative study of two states of India. Policy Futures in Education 14(2): 274–285 https://doi.org/10.1177/1478210315618543
Rolleston C, James Z (2015) After access: Divergent learning profiles in Vietnam and India. Prospects 45(3): 285–303 https://doi.org/10.1007/s11125-015-9361-2
Shu X (2004) Education and gender egalitarianism: The case of China. Sociology of Education 77(4): 311–336 https://doi.org/10.1177/003804070407700403
Singh R, Sarkar S (2015) Does teaching quality matter? Students learning outcome related to teaching quality in public and private primary schools in India. International Journal of Educational Development https://doi.org/10.1016/j.ijedudev.2015.02.009
Smits J, Hoşgör A G (2006) Effects of family background characteristics on educational participation in Turkey. International Journal of Educational Development 26(5): 545–560 https://doi.org/10.1016/j.ijedudev.2006.02.002
Spaull N, Kotze J (2015) International Journal of Educational Development Starting behind and staying behind in South Africa The case of insurmountable learning deficits in mathematics §. International Journal of Educational Development.
Srivastava P (2006) Private schooling and mental models about girls' schooling in India. Compare 36(4): 497–514 https://doi.org/10.1080/03057920601024958
Woodhead M, Frost M, James Z (2013) Does growth in private schooling contribute to Education for All? Evidence from a longitudinal, two cohort study in Andhra Pradesh, India. International Journal of Educational Development https://doi.org/10.1016/j.ijedudev.2012.02.005