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An Analysis of Private Sector Participation in School Education in India

Indira M.[1] and Jayalakshmi N.[2*]

[1]ICSSR Senior Fellow, Department of Studies in Economics and Cooperation, Manasgangotri University of Mysore, Mysore, India. E-mail: mahindira@gmail.com
[2]Research Scholar, Department of Studies in Economics and Cooperation, Manasgangotri University of Mysore, Mysore, India. E-mail: lakshminj1995@gmail.com*

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Abstract: Privatization of education is a global phenomenon. The roots of privatization are located in liberal thinking. According to liberal thinking, privatization provides choices to parents. In the Indian context, there is a continuous increase in private participation in the education sector since the introduction of neoliberal policies in the early nineties. When the country adopted the liberalization, privatization and globalization policies, private participation was encouraged in the education sector also. In this context, the present paper analyses trends in private sector participation in school education and the interstate differences in India. This paper is based on secondary data collected from different sources. The analysis shows a decline in the percentage of primary government schools from 90.60% in 2003-04 to 82.56% in 2019-20 and the percentage of private aided schools also declined, though marginally. But the percentage of private unaided schools increased from 6.50% to 11.49% during the same period. In the case of secondary education, the share of government schools registered a positive growth rate of 1.2. But the share of private aided and unaided schools registered a negative growth rate of- 2.7 and -0.5 respectively. Pearson Correlation Coefficient is calculated to understand the linkages between the state's economic status and the private sector's participation in education. Interestingly an association between the economic status of the state indicated by Per Capita Net State Domestic Product (PCNSDP) and the participation of the private sector is observed at the primary and secondary levels. The richer states also have a greater share of private schools.

Keywords: Privatization, school education, Per Capita Net State Domestic Product

INTRODUCTION

Education is one of the critical inputs in human resource development. It helps in acquiring knowledge and skills that add value to human resources. Also, it enhances an individual's personality to become a socially responsible person. Therefore, education is made a fundamental right in India for every child till 14 years of age. Article 45 ensures free and compulsory education up to the age of 14 years. Investment in education plays an important role in sustained economic growth and to build a knowledge-based society. The share of combined expenditure by the center and states on education in GDP in India increased from 2.8% in 2015-16 to 3.5% in 2020-21(BE).

Privatization of education is a global phenomenon. It is termed as globalization of Education Privatization (Verger *et al*, 2016). The roots of privatization are located in liberal thinking. According to liberal thinking, privatization provides choices to parents and leads to improved quality due to competition among the suppliers of services (Friedman, 1962). However, privatization is likely to increase inequalities in access to quality education due to market failure (Levin, 2001).

Private participation in school education could be in the form of

1. Private schools without any assistance from the government
2. Private schools aided by government
3. Schools managed in Public-Private-Partnership Model

In the Indian context, there is a continuous increase in private participation in the education sector since the introduction of neoliberal policies in the early nineties. When the country adopted the liberalization, privatization and globalization policies, private participation was encouraged in the education sector also. In this context, the present paper analyses trends in private sector participation in school education and the interstate differences in India.

OBJECTIVES

The objectives of this paper are

1. To analyze trends in private participation in school education in India.
2. To examine inter-state differences in private participation.

HYPOTHESES

1. Private participation in school education in India increased significantly.
2. There is a correlation between private participation in education and the economic status of the state.

METHODOLOGY

The study is based on the secondary data collected from the publications of the Ministry of Human Resource Development, Govt. of India from 2003-2004 to 2019-2020 followed by School Report Card-NIEPA (National Institute of Educational Planning and Administration), National Statistical Office, Ministry of Statistics and Programme Implementation, Government of India from the period of 2014-2015 to 2016-2017and Combined Accounts, Various Years, Comptroller and Auditor General of India (CAG) for education spending and GSDP data from NITI Aayog. Compound annual growth rate is calculated to analyze the trends and the Pearson Correlation Coefficient is calculated to understand the linkages between the state's economic status and the private sector's participation in education.

The study adopted the school education definition used by NSSO in the Household Expenditure on Education, 75th Final report. According to this, the pre-primary level consists of nursery/Kindergartens/preparatory levels, Primary level refers to Classes I-V, Upper primary/middle refers to Classes VI-VIII and Secondary refers to Classes IX-X.

LITERATURE REVIEW

Recent literature relating to the status of private schools in India and different countries had discussed several issues relating to the enrolment in private schools, factors influencing the parental decision about enrolment in private schools, the performance of private schools etc.

A recent study in the case of Pakistan shows that parents prefer private schools as they provide better quality education than public schools in Pakistan (Talance, 2020). Gender differences in preferences were also observed. The study found that parents prefer to send their boys to private rather than girls. Similarly, in the case of Bangladesh, it was found that the major factor which influenced the decision was school popularity (Suppramaniam *et al.*, 2019). While parents' educational level has no such influence on the decision, school quality, future options and parents' economic condition were found to have a positive influence. Regarding the cost of running schools Kingdom (2017) found that private schools in India run on a very low per-student-cost compared to Government schools. This is because the salaries of Government school teachers are very much higher than that of private schools. It was found that the main reason for the alarming growth of private schools is their affordability.

Thanerajah *et al.* (2017) also analysed the factors that influence parents in choosing international private schools ahead of Government schools in Malaysia. The study found that gender orientation, age, training level, compensation and employment level

of parents do not influence parents' choices. However, in another study in Malaysia, Yaacob *et al* (2015) observed that economic condition, social status/background, location of the school/ distance from the residence, quality of teachers, school reputation and the school environment/ facilities were found to be influencing the parents' decision in selecting private schools. But in the case of Saudi Arabia class size, quality of instruction and student-teacher relationship was identified as the major factors which influenced the selection of school (Alsauidi, 2016).

The impact of Public-Private Partnership Programmes on students' learning outcomes was studied by Hafeez *et al* (2016). They identified that most public schools do not have basic facilities like clean drinking water, electricity, toilets, etc. when compared to private schools. The private school students showed more confidence when compared to public school students when they were tested with certain questions. In a study on Public Education expenditures and private school enrollment in Brazil, Estevan (2015) found that an increase in public education expenditure resulted in a reduction in private school enrolment for grade 1. However, the effect is smaller for grades 2 to 4 which is consistent with the existence of costs associated with switching schools. The increase in public education expenditure through FUNDEF also improved attendance rates in public schools. Based on the data from NSS 2014 and NSSO 71st round Majumdar and Mukherjee (2015) found that 7.75% of children in the age group 6-14 were out of school and one of the main reasons is their financial constraints.

Similarly using the data from the Survey of Living conditions by the World Bank in 1997-98 in Uttar Pradesh and Bihar, Sancheti and Sudhir (2014) found that even among poor families, student enrollment can increase if schools provide transportation even at a higher cost. The study showed that private school enrolment is lower for girls as compared to boys in these two states.

Among other factors, immigration was found to increase private school enrollment across the countries and this has led to a decrease in the share of public expenditure spending (Mavisakalyan, 2011). The endogeneity of immigrant share was estimated with the gravity model. In the context of Ghana, Tooley *et al* (2007) found that the low-cost private education sector is serving low-income families in developing countries like Ghana. The private sector has emerged because of low-quality government schools. The study compared inputs to the public and private schools, fees charged, teacher salaries, class size and availability of basic facilities like furniture, toilets, etc.

Regarding the determinants of expenditure on education, Chakrabarti and Joglekar (2006) found that economic reforms have affected the education sector. They have also observed that education expenditure at all levels after liberalization has been significantly lower. Rana *et al* (2005) found that gender bias was more evident in the

enrolment pattern in the private schools in West Bengal. The ratio of boys and girls in the Government Primary Schools (GPS) was 54:46 while that in the private schools was 59:41. The study shows that Government Primary Schools are the main fallback option for the children of underprivileged communities. Bayar and Ilhan (2016) in Turkey have found that the household educational expenditure depends on their income level, that is, the higher the income level, the more will be the expenditure on education. Dongre *et al.* (2014) have found India spends 2.5% of its GDP on elementary education. But this expenditure varies across the states. Interestingly, the higher the per capita income lower will be the expenditure on elementary education and vice-versa. The data used for analysis includes budget allocation in different states. Mphanza (2021) observed that households that have children under the age of 5 years tend to spend less on education and households which have children under the age of 15 tend to spend more on education.

ANALYSIS

Data relating to private participation in education is analyzed both at the national level and the regional level. The analysis is presented in the following section.

Trends in Participation of Private Sector in Primary Education in India

Private participation is analyzed by calculating the share of government and private schools in the total number of schools over a period of time. Data relating to the share of private schools at the primary level since 2003-04 is presented in Table 1.

The data reveals that there is a continuous increase in the share of private unaided schools in total schools. Their share increased from 6.50 percent in 2003-04 to 11.49% in 2019-20 which is an increase of 5 percentage points. Correspondingly the share of Government schools decreased from 90.60 percent to 82.56 percent during the same period. But the share of private aided schools decreased marginally from 2.90 percent in 2003-04 to 2.35 percent by 2019-20. However, the decline is observed only from 2012 - 13. Between 2008-09 and 2011-12, there is an increase in the share of aided schools. During 2010-11 and 2011-12, it reached 8.60 percent, which was the highest. But soon after that, a decline in private unaided schools is observed. During 2003-04 the share was 6.50 and it constantly increased up to 2012-13. But after 2012-13 it declined.

Trends in Participation of the Private Sector in Secondary Education in India

In the Indian education system, secondary education constitutes the 9th to 12th class. The share of private schools at the secondary level is presented in Table 2. Private sector participation at the secondary level also has shown an increasing trend.

Table 1: Share of private schools in total schools in India (At primary level)

Year	*Government*	*Private Aided*	*Private Un-aided*	*Others*	*Total*
2003-04	90.60	2.90	6.50	-	100.00
2004-05	90.20	2.60	7.20	-	100.00
2005-06	89.10	3.10	7.80	-	100.00
2006-07	89.10	3.10	7.80	-	100.00
2007-08	86.70	5.80	7.50	-	100.00
2008-09	86.60	6.10	7.30	-	100.00
2009-10	85.20	6.20	8.60	-	100.00
2010-11	84.30	8.60	7.10	-	100.00
2011-12	84.30	8.60	7.10	-	100.00
2012-13	83.84	2.60	10.87	2.69	100.00
2013-14	84.13	2.57	10.93	2.37	100.00
2014-15	83.59	2.45	11.32	2.64	100.00
2015-16	83.80	2.36	11.28	2.56	100.00
2016-17	83.10	2.32	11.39	3.19	100.00
2017-18	83.02	2.29	11.03	3.66	100.00
2018-19	82.38	2.29	11.66	3.67	100.00
2019-20	82.56	2.35	11.49	3.60	100.00
Growth rate	-0.6	-3.6	3.9	6.7	

Source: Ministry of Human Resource Development, Govt. of India.
* Primary education includes classes from 1 to 8th.

Table 2: Share of private schools in total schools in India (At secondary level)

Year	*Government*	*Private Aided*	*Private Unaided*	*Other*	*Total*
2003-04	40.80	27.50	31.70	-	100.00
2004-05	43.00	28.50	28.50	-	100.00
2005-06	40.90	27.90	31.20	-	100.00
2006-07	39.40	27.20	33.40	-	100.00
2007-08	39.30	26.10	34.60	-	100.00
2008-09	39.80	24.50	35.70	-	100.00
2009-10	42.50	21.40	36.10	-	100.00
2010-11	41.40	23.30	35.30	-	100.00
2011-12	40.60	21.80	37.60	-	100.00
2012-13	50.35	18.08	28.20	3.37	100.00
2013-14	42.08	20.94	32.92	4.06	100.00
2014-15	49.41	16.26	30.85	3.48	100.00
2015-16	48.64	16.28	32.01	3.07	100.00
2016-17	49.59	14.89	32.25	3.27	100.00
2017-18	46.61	22.74	28.34	2.31	100.00
2018-19	47.46	18.44	30.88	3.22	100.00
2019-20	42.78	25.91	28.79	2.52	100.00
Growth rate	1.2	-2.7	-0.5	-5.1	

Source: Ministry of Human Resource Development, Govt. of India.
*Secondary school consists of 9th to 12th class

From the data, it can be observed that the share of private schools without any aid from the government is always around 30 percent, though there are some inter-year differences. It showed a marginal decrease after 2013-14. Due to this, there is a negative growth rate of -0.5 during 2003-2004 and 2019-2020. The same is the case with private aided schools also. The share of aided schools among secondary schools has shown a declining growth rate of -2.7. On the other hand, the share of Government schools registered a positive growth and it is around 40 percent throughout the reference period. This shows that at the secondary education level around 40 percent of the schools are completely supported by the government and 30 percent are partially supported by the government. In the absence of disaggregated data, there is no information on how much is contributed by the government to these schools.

Interstate Differences in Participation of the Private Sector in Primary Education

Trends in the share of private schools at primary and secondary levels show that there is an increase in the share of private schools at the primary level, whereas it declined at the secondary level. But there are interstate differences in the share of private schools.

Interstate differences in private participation are analyzed by calculating three year average share of government and private schools in the total number of schools between 2014-2015, 2015-16 and 2016-2017 (Table 3).

Table 3: State-wise share of private schools at primary level* in India.

(In percentage to total schools between 2014-2015 and 2016-2017)

States/UTs	*Government*	*Private Aided*	*Private Unaided*	*Others*	*Total*
A & N Islands	62.16	0.37	37.48	0.00	100.00
Andhra Pradesh	51.26	2.60	45.39	0.74	100.00
Arunachal Pradesh	69.76	1.20	28.40	0.65	100.00
Assam	68.38	5.38	15.39	10.85	100.00
Bihar	82.47	0.21	11.22	6.10	100.00
Chandigarh	33.17	2.03	63.36	1.45	100.00
Chhattisgarh	71.70	0.62	27.33	0.35	100.00
Dadra & Nagar Haveli	71.24	2.94	25.13	0.69	100.00
Daman & Diu	57.32	2.44	40.24	0.00	100.00
Delhi	25.45	2.31	72.21	0.03	100.00
Goa	50.57	24.63	24.61	0.19	100.00
Gujarat	53.46	1.20	45.21	0.13	100.00

contd. table 3

States/UTs	*Government*	*Private Aided*	*Private Unaided*	*Others*	*Total*
Haryana	40.71	0.64	56.44	2.21	100.00
Himachal Pradesh	65.99	0.00	34.01	0.01	100.00
Jammu & Kashmir	59.68	0.00	40.32	0.00	100.00
Jharkhand	80.78	2.29	7.69	9.24	100.00
Karnataka	51.42	3.51	45.02	0.06	100.00
Kerala	20.50	30.17	41.56	7.78	100.00
Lakshadweep	100.00	0.00	0.00	0.00	100.00
Madhya Pradesh	58.76	0.48	39.87	0.90	100.00
Maharashtra	53.22	15.20	31.11	0.47	100.00
Manipur	49.95	8.72	39.06	2.28	100.00
Meghalaya	46.19	21.15	31.89	0.78	100.00
Mizoram	39.69	1.82	47.07	11.42	100.00
Nagaland	50.17	0.00	49.78	0.05	100.00
Odisha	76.68	6.41	14.12	2.79	100.00
Puducherry	33.47	2.62	63.91	0.00	100.00
Punjab	45.75	1.09	48.81	4.34	100.00
Rajasthan	39.58	0.00	59.00	1.42	100.00
Sikkim	40.51	0.16	58.81	0.52	100.00
Tamil Nadu	47.96	10.61	40.91	0.53	100.00
Telangana	43.67	1.13	54.28	0.91	100.00
Tripura	80.03	0.87	15.50	3.60	100.00
Uttar Pradesh	41.18	2.12	55.10	1.60	100.00
Uttarakhand	51.23	1.60	46.06	1.11	100.00
West Bengal	71.78	0.25	25.17	2.79	100.00
All India	55.16	4.35	38.37	2.11	100

Source: School Report Card-NIEPA (National Institute of Educational Planning and Administration)

* Primary education includes classes from 1 to 8th.

The data shows that in some states, there is a domination of government schools. For example, in Lakshadweep there are no private schools at the primary level and in states like Bihar, Jharkhand and Tripura nearly 80 percent of primary schools are government schools. Whereas in Kerala, Delhi and Chandigarh the share of government primary schools was 20.50, 25.45 and 33.17 percent respectively. In states like Himachal Pradesh, Jammu and Kashmir, Lakshadweep, Nagaland and Rajasthan there were no aided private primary schools. In Kerala, Goa and Meghalaya highest percentage of private aided primary schools were found. In Kerala which is one of the states with higher literacy rates, the share of aided schools at the primary level is 30.17 percent.

Private aided schools are very low in Sikkim (0.16%), Bihar (0.21 %) and West Bengal (0.25%). When it comes to private unaided primary schools highest percentage was observed in Delhi (72.21%), Puducherry (63.91%) and Chandigarh, (63.36%). Private unaided schools are low in Jharkhand (7.69%), Bihar (11.22%) and Odisha (14.12%).

Interstate Differences in Participation of the Private Sector in Secondary Education

Data relating to interstate differences in secondary education is presented in Table 4. The data shows considerable variation in the share of government schools and private schools. The share of government schools varies between 4.67 percent in Meghalaya to 100 percent in Lakshadweep.

Table. 4. Participation of the private sector in secondary school education in India.

(In percentage to total schools between 2014-2015 and 2016-2017)

States/UTs	*Government*	*Private Aided*	*Private Unaided*	*Other*	*Total*
A & N Islands	86.83	1.80	11.38	0.00	100.00
Andhra Pradesh	53.04	4.08	41.86	1.03	100.00
Arunachal Pradesh	70.47	7.18	22.19	0.16	100.00
Assam	54.28	11.46	24.56	9.69	100.00
Bihar	76.61	2.28	14.61	6.51	100.00
Chandigarh	59.87	4.41	35.71	0.00	100.00
Chhattisgarh	68.37	1.60	29.94	0.08	100.00
Dadra &Nagar Haveli	65.04	9.76	25.20	0.00	100.00
Daman & Diu	60.33	9.92	25.62	4.13	100.00
Delhi	51.87	9.01	38.98	0.15	100.00
Goa	21.24	74.26	4.49	0.00	100.00
Gujarat	12.19	48.79	38.42	0.61	100.00
Haryana	43.04	2.63	53.60	0.73	100.00
Himachal Pradesh	67.28	0.00	32.72	0.00	100.00
Jammu & Kashmir	59.55	0.00	40.45	0.00	100.00
Jharkhand	59.99	3.97	23.32	12.73	100.00
Karnataka	34.63	24.84	40.44	0.08	100.00
Kerala	27.75	31.10	37.67	3.49	100.00
Lakshadweep	100.00	0.00	0.00	0.00	100.00
Madhya Pradesh	52.41	1.94	45.56	0.09	100.00
Maharashtra	7.51	63.73	28.32	0.44	100.00
Manipur	35.60	9.72	52.37	2.30	100.00

contd. table 4

States/UTs	*Government*	*Private Aided*	*Private Unaided*	*Other*	*Total*
Meghalaya	4.67	48.55	41.54	5.23	100.00
Mizoram	46.77	21.04	30.91	1.28	100.00
Nagaland	44.50	0.00	55.22	0.28	100.00
Odisha	54.80	31.71	11.41	2.08	100.00
Puducherry	38.65	8.16	53.20	0.00	100.00
Punjab	39.76	4.08	45.66	10.51	100.00
Rajasthan	49.68	0.00	50.07	0.25	100.00
Sikkim	82.97	1.32	13.95	1.76	100.00
Tamil Nadu	51.22	14.43	33.79	0.56	100.00
Telangana	48.69	2.46	48.53	0.33	100.00
Tripura	88.69	3.35	7.30	0.66	100.00
Uttar Pradesh	8.63	18.96	70.51	1.90	100.00
Uttarakhand	66.18	10.90	22.46	0.46	100.00
West Bengal	86.04	0.66	7.05	6.24	100.00
All India	52.19861	13.55833	32.19472	2.048889	100

Source: School Report Card-NIEPA (National Institute of Educational Planning and Administration)

· Secondary school consists of 9th to 12th class

In the Union territory of Lakshadweep there are no private secondary schools. Similarly, in some states like Himachal Pradesh, Nagaland and Rajasthan there are no private aided secondary schools. Other states/UTs where there is a higher percentage of government secondary schools are Tripura (88.69%), Andaman & Nicobar Islands (86.83%) and West Bengal (86.04%). The states with a higher percentage of private aided secondary schools are Goa, Maharashtra and Gujarat 48.79. Similarly, the states/UTs having more number of private unaided secondary schools are Uttar Pradesh (70.51%), Nagaland (55.22 %) and Haryana (53.60%). Meghalaya, Maharashtra and Uttar Pradesh have the lowest share of Government secondary schools.

Relation between the Economic Status of the State and Private Sector Participation in Education

Based on the above observations, an attempt is made to understand if private schools are concentrated in richer states compared to poorer states. The economic status of the state is characterized by Per Capita Net State Domestic Product (PCNSDP). The share of private schools in total schools is considered to represent private sector participation in school education. Private schools without any government aid only are considered for this analysis.

States are ranked according to the share of private schools at both primary and secondary levels. Similarly, states are also ranked based on PCNSDP (Table 5). All variables are ranked from highest to lowest.

Table 5: Ranking of states based on PCNSDP, the share of private schools at the primary and secondary level

(Average for three years from 2014-2015to 2016-2017)

State	*Per Capita Net State Domestic Product*	*Rank in PNSDP*	*Rank in the share of private schools (Primary)*	*Rank in the share of private schools (Secondary)*	*Rank in Government Expenditure (2020-21)*
A & N Islands	139104	14	24	31	-
Andhra Pradesh	107527	19	17	19	10
Arunachal Pradesh	118634.33	17	26	27	-
Assam	60014	29	29	23	11
Bihar	31040	33	32	29	4
Chandigarh	231613	4	4	22	-
Chhattisgarh	76404	23	27	26	13
Delhi	271009.33	2	1	17	17
Goa	334238	1	14	5	-
Gujarat	140855.33	13	20	4	9
Haryana	165775.67	6	8	10	15
Himachal Pradesh	136367	15	25	25	21
Jammu & Kashmir	70353.33	25	23	21	-
Jharkhand	56691	30	33	28	19
Karnataka	149343.33	8	16	7	8
Kerala	149972	7	2	6	14
Madhya Pradesh	64027.33	28	22	18	7
Maharashtra	147792.33	10	21	1	1
Manipur	55836.33	31	18	8	-
Meghalaya	69075.67	27	10	2	-
Mizoram	114737	18	15	12	-
Nagaland	84060	20	13	11	-
Odisha	69802.33	26	30	20	12
Puducherry	169001.67	5	3	9	-
Punjab	118869.33	16	12	15	16
Rajasthan	83926.33	21	5	14	5

contd. table 5

State	*Per Capita Net State Domestic Product*	*Rank in PNSDP*	*Rank in the share of private schools (Primary)*	*Rank in the share of private schools (Secondary)*	*Rank in Government Expenditure (2020-21)*
Sikkim	246954.67	3	6	30	-
Tamil Nadu	142705.67	11	11	16	3
Telangana	141446.33	12	9	13	18
Tripura	81906.67	22	31	32	-
Uttar Pradesh	47352	32	7	3	2
Uttarakhand	148595.67	9	19	24	20
West Bengal	75719.67	24	28	33	6

Source: National Statistical Office, Ministry of Statistics and Programme Implementation, Government of India and Combined Accounts, Various Years, Comptroller and Auditor General of India (CAG) for education spending and GSDP data from NITI Aayog.

The data shows different combinations of per capita net state domestic product and the share of private primary schools. Two states which have both high per capita net state domestic product and high private primary schools are Delhi and Chandigarh. Delhi ranks 2nd in PCNSDP and 1st in private primary schools. Similarly, Chandigarh ranks 4th in both. On the other side, poorer states with low PCNSDP and fewer private primary schools are Bihar and Jharkhand. While Bihar ranks 33 in PCNSDP and ranked 32 in private primary schools. In the case of Jharkhand, PCNSDP rank is 33 and rank in the presence of private primary school is 30.

There is another category of states in which there is a higher percentage of private schools, though the state is having lower PCNSDP. For example, Uttar Pradesh ranks 32 in PCNSDP and 7th rank in private primary schools and Meghalaya ranks 27 in PCNSDP and10th in private primary schools. The last category is richer states with a lower presence of private schools. Karnataka ranks 8th place in PCNSDP, and 16thin private primary schools. Even though Maharashtra ranks 10 in PCNSDP, it ranks 21st in private primary schools. A distributional matrix based on PCNSDP and private primary schools is given above.

The first category comprises states with high Per Capita Net Domestic Product and high private schools (primary). Out of 33 states, 8 are in this category. In the second category, there are states with high Per Capita Net State Domestic Product and a smaller number of private schools (primary).Among the 33 states, 8 are in this category. The third category shows states with low Per Capita Net State Domestic Product and high private primary schools. In these states, though Per Capita Net State Domestic

Table 6: Matrix of Per Capita Net State Domestic Product (PCNSDP) and share of primary private schools in India

Category I High Per Capita Net State Domestic Product and High private school (Primary):	No. States	Category II High Per Capita Net State Domestic Product and Low Private school (Primary):	No. States
Goa, Delhi, Sikkim, Chandigarh, Puducherry, Haryana, Kerala, Tamil Nadu.	8	Karnataka, Uttarakhand, Maharashtra, Gujarat, A & N Islands, Himachal Pradesh, Arunachal Pradesh, Tripura.	8
Category III Low Per Capita Net State Domestic Product and High private school (Primary):	No. States	Category IV Low Per Capita Net State Domestic Product andLow private school (Primary):	No. States
Telangana, Punjab, Mizoram, Andhra Pradesh, Nagaland, Rajasthan, Meghalaya, Uttar Pradesh,	8	Bihar, Manipur, Jharkhand, Assam, Madhya Pradesh, Jammu and Kashmir, West Bengal, Chhattisgarh.	9

Source: Calculated by the authors.

Product is low, there are more private schools and 8 states belong to this category. In the last category of states, both Per Capita Net State Domestic Product and private primary schools are low. Bihar, Manipur, Jharkhand, Assam, etc. are in this category. Nine states are in this category.

Same is the case with secondary schools also. Some states with higher PCNSDP are also ranking high in private secondary schools. For example, Goa ranked 1st in PCNSDP and 5th rank in private secondary schools. Similarly, Kerala ranked 7th in PCNSDP and 6th rank in private secondary schools. The states which are ranking low in PCNSDP and also in private secondary schools are Bihar, West Bengal and Jharkhand. The states with lower PCNSDP, and higher private secondary schools are Uttar Pradesh and Manipur. States with higher PCNSDP and lower private secondary schools are Sikkim and Chandigarh. A distributional matrix based on per capita net state domestic product and private secondary school values is given below.

Correlation between Per Capita Net State Domestic Product and percentage of primary and secondary private schools

It is hypothesized that in states with high per capita income there is a possibility of support for private schools because of the higher affordability of the population. In this case, the higher the PCNSDP, the higher the share of private schools. A positive correlation between the percentage of private schools and PCNSDP is expected. The other argument for understanding the association between the PCNSDP and private

Table 7: Matrix of Per Capita Net State Domestic Product (PCNSDP) and share of secondary private schools in India

Category I High Per Capita Net State Domestic Product and High private school (Secondary):	No. States	Category II High Per Capita Net State Domestic Product and Low Private school (Secondary):	No. States
Goa, Delhi, Puducherry, Haryana, Kerala, Karnataka, Maharashtra, Gujarat.	8	Sikkim, Chandigarh, Uttarakhand, Tamil Nadu, A & N Islands, Himachal Pradesh, Arunachal Pradesh, Andhra Pradesh.	8
Category III Low Per Capita Net State Domestic Product and High private school (Secondary):	No. States	Category IV Low Per Capita Net State Domestic Product and Low private school (Secondary):	No. States
Uttar Pradesh, Manipur, Meghalaya, Rajasthan, Nagaland, Mizoram, Punjab, Telangana.	8	Bihar, Jharkhand, Assam, Madhya Pradesh, Odisha, Jammu and Kashmir, West Bengal, Chhattisgarh, Tripura.	9

Source: Calculated by the authors.

schools is that in richer states government can spend more on education and therefore the share of government schools will be more. In this case, the higher the PCNSDP, the lower the share of private schools. A negative correlation between PCNSDP and the percentage of private schools is expected. The correlation between PCNSDP and the percentage of primary and secondary schools across all the states for the period 2014-15 to 2016-17 is presented in table 8.

Table 8: Correlation between Per Capita Net State Domestic Product (PCNSDP) and percentage of primary and secondary private schools in India

Correlation	*Correlation Coefficient*	*Significance*
Correlation between Per Capita Net State Domestic Product and percentage of private schools (Primary)	0.574	.000**
Correlation between Per Capita Net State Domestic Product and percentage of private schools (Secondary)	0.148	0.206

Source: Source: Calculated by the authors.

The results support the first hypothesis of a positive correlation between the PCNSDP and the percentage of private schools at the primary level. A highly significant

correlation coefficient indicates that there is higher participation private sector in richer states compared to poorer states. But it is not true in the case of secondary schools. The correlation coefficient is neither strong nor significant, though it is positive. In the case of secondary schools also a weak association is observed.

FINDINGS AND SUGGESTIONS

There is a considerable increase in private participation in the health and education sectors in India after the introduction of SAPs. An attempt is made in this paper to understand the extent of private participation in school education across different states in India.

The data revealed that between 2003-04 and 2019-20 the percentage of primary government schools declined considerably from 90.60% in 2003-04 to 82.56% in 2019-20 and the percentage of private aided schools also declined, though marginally. But the percentage of private unaided schools increased from 6.50% to 11.49% during the same period.

It is observed that in some states like Himachal Pradesh, Jammu & Kashmir, Nagaland and Rajasthan there were no private aided primary schools. In these states, the highest numbers of government primary schools are observed. But in states like Kerala, Delhi and Chandigarh lower share of government primary schools is observed. At the secondary level, a higher share of private unaided schools was found in Uttar Pradesh, Nagaland and Haryana. Accordingly, the share of government schools is low in these states. An association between the economic status of the state indicated by PCNSDP and the participation of the private sector is observed at the primary level. The richer states also have a greater share of private schools.

It is documented in the literature that the economic status of the parents influences the choice of the school (Yaacob *et al*, 2015). This supports our findings that at the macro level states with higher PCNSDP have greater participation of the private sector in school education. At the secondary level also, a positive association is indicated. Lower expenditure on education by the richer states was also observed by Dongre*et al* (2014). However, these are preliminary findings. Further research is needed to understand why the private sector is encouraged in education at the primary level when the state can invest in the provision of primary education. The other factors that are to be taken into consideration are state-specific policies. In an earlier study (Indira & Pahwa, 2020) it was found that state-specific policies play an important role in educational outcomes. The provision of primary education by the government is important to ensure equal access to quality education by all social and economic groups in the country.

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