

Analysis of Public Expenditure on Education in India

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ABSTRACT

There is increasing empirical evidence that education matters, not only for the personal development, health status, social inclusion and labour market prospects of individual learners, but also for the broader economic performance of countries. As the world has entered the age of the knowledge economy, education and human capital generally play a critical role in driving economic growth in both the world's most advanced economies and the emerging economies that are currently experiencing profound transformations and periods of rapid growth and development. The aim of this paper is to explore the pattern of expenditure during the plan periods and the share of such expenditure in total expenditure of budget.

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INTRODUCTION

Education is the most important lever for social, economic and political transformation. A well-educated population, equipped with the relevant knowledge, attitudes and skills is essential for economic and social development in the twenty-first century. Education is the most potent tool for socio-economic mobility and a key instrument for building an equitable and just society. Education provides skills and competencies for economic well-being. Education strengthens democracy by imparting to citizens the tools needed to fully participate in the governance process. Education also acts as an integrative force in society, imparting values that foster social cohesion and national identity.

Before 1976, education was the exclusive responsibility of the States. The Constitutional Amendment of 1976, which included education in the concurrent List, was a far-reaching step. The substantive, financial and administrative implication required a new sharing of responsibility between the Union Government and the States. While the role and responsibility of the States in education remained largely unchanged, the Union Government accepted a larger responsibility of reinforcing the national and integrated character of education, maintaining quality and standard including those of the teaching profession at all levels, and the study and monitoring of the educational requirements of the country.

The pattern of Union and State Government expenditure on a particular sector reflects the priority for the sector in public policies. In this regard, the recommendations of the Kothari Education Commission (1966) on the issue of government financing of education are important benchmarks. The commission estimated the financial requirements of the educational system in India up to 1985-86, and recommended that "if education is to develop adequately, the proportion of Gross National Product (GNP) allocated to education will rise ... to 6.0 per cent in 1985-86". Of the several recommendations made by the Kothari Commission, this 6 per cent of GNP is one that was accepted and resolved by the Government of India in the National Policy on Education (NPE) in 1968. The Centre's budgetary spending on education accounts for a smaller share and that from the States accounts for a much larger share in the country's total budgetary spending on education. Hence, the Government needs to take a larger responsibility towards provisioning of financial resources for education. The primary education acts as a resource for secondary education, which in turn acts as a resource for higher education. Thus, all the three sectors create the final demand for and output of education for the country as a whole.

REVIEW OF LITERATURE

Chandra (2010) in his study has tested for a causal relationship between education investments and economic growth for India for the time period 1951-2009 using linear and non-linear Granger causality methods. He found that there is bi-directional causality between education spending and GDP for India. Thus, it can be seen that overall, the empirical evidence regarding this relationship for India too is quite mixed.

Pravesh Tamang (2011) in his research paper tried to redefine the relationship between expenditure in education and economic growth in the Indian economy. Earlier empirical results reveal mixed results about the relationship in the Indian context. An econometric model is applied to the analysis with time series from 1980-2008, and the results obtained indicate that there exist a long-run relationship between education expenditure and economic growth. The error-correction estimates show that education expenditure per labour have a lesser impact on economic growth as compared to physical capital per labour. It can be observed that a 1% increase in physical capital per labour will lead to 0.28% increase in GDP per labour, and a 1% increase in government expenditure on education per labour will lead to 0.11% increase in GDP per labour.

Mohd Yahya Mohd Hussin and Azila Abdul Razak (2012) in their paper focuses on the long-run relationship and causality between government expenditure in education and economic growth in Malaysian economy. Time series data is used for the period 1970 to 2010 obtained from authorized sources. In order to achieve the objective, an estimation of Vector Auto Regression (VAR) method is applied. Findings from the study show that economic growth (GDP) positively cointegrated with selected variables namely fixed capital formation (CAP), labor force participation (LAB) and government expenditure on education (EDU). With regard to the Granger causality relationship, it is found that the economic growth is a short term Granger cause for education variable and vice versa. Furthermore, the study has proves that human capital such as education variable plays an important role in influencing economic growth in Malaysia.

Manoj Dolli (2012) considers that there has been huge increase in public expenditure both in absolute terms and also as a percentage to as percentage to Indian GDP. This shows that the importance of public expenditure is increasing due to the increase in the welfare programmes of the government. Wagner's Law rightly says that public expenditure increases because of escalation in the existing activities and extension of new activities. It is always worth to discuss not only rate of growth public expenditure but also direction of the public expenditure. It is because the direction of public expenditure will affect the pattern and degree of production, consumption, income, investment, price level, employment etc. From 2001 to 2012 in India, as percentage to the GDP at current market prices, plan expenditure increasing more than the non-plan expenditure. At the same time as percentage to Indian GDP at current market price, during 2011-12, revenue expenditure was 12.22 percent and capital expenditure was just 1.79 percent. The good thing is the interest payment was decreased by 4.70 percent to 2.98 percent during 2001-12.

Tchantchane Abdellatif et.al. (2013) in their study undertakes an econometric analysis of the contribution of remittance, education expenditure and investment to economic growth rates in the Philippines. Remittance is the most important source of finance for the Philippines. Hence, the paper is an attempt to provide insights into understanding the implications and verifying the hypothesis that remittance is the engine that drives growth and economic development in the Philippines. The Auto Regressive Distributed Lag modeling (ARDL) model used enables the researchers to examine long-run as well as short-run relationship between the dependant variable and independent variables. The results show a positive relationship between the rate of economic growth and remittance as well as education expenditure. However, the findings show that there is no evidence of a long-run relationship between investment in the Philippines and the rate of economic growth. A deeper understanding of the OFWs and the economic activities in the Philippines enabled the researchers to draw the conclusions that direct as well as indirect effects of remittance including expenditure on education and consumption expenditure drives economic growth in the Philippines. The Philippines thus has 'a consumption led growth'.

Harpaljit Kaur, A.H.Baharom and Muzafar Shah Habibullah (2014) examines the relationship between education expenditure and economic growth in China and India by employing annual data from 1970 to 2005. This study utilizes multi econometric tools such as the Johansen- Juselius (1990) co-integration test, Ordinary Least Square (OLS) method, Dynamic Ordinary Least Square (DOLS), Vector Error Correction Model (VECM) as well as variance decomposition to obtain a robust and consistent result. The findings indicate that there exists a long run trending relationship between income level (Gross Domestic Product per capita (GDPpc) and education expenditure in both China and India. In the long run, a unidirectional causal relationship could be detected for both countries, running from income level to education expenditure for the case of China, while for the case of India education expenditure Granger causes income level. The results are robust and consistent across all methods.

Kinjal V Ahir, (2015) analyses the interstate comparison of budgeted expenditure on education between states to identify the states that incur maximum expenditure on education and its various sectors. Comparisons are made across plan and non-plan expenditure and on capital and revenue account. Interstate comparisons of expenditure on education across various sectors of education like elementary, secondary, technical and higher education had been done. The expenditure incurred on capital account and loans and advances were meager compared to those on revenue account. It was largely found that states like Maharashtra Uttar Pradesh, and Andhra Pradesh largely incurred more expenditure on education on revenue account across plan and non-plan expenditures and non-plan expenditure in particular with variations in the sequence. Also across various sectors these states largely incurred higher expenditure on education than other states.

Budgetary Allocation to Education Sector Under Five Year Plans

Five Year Plan-wise allocations also reflect a similar picture as portrayed in year to year budgetary allocations (Table 1). From the very First Plan, priorities have been given to elementary education as the larger share of Plan allocation was targeted towards this sector. However, the pattern of inter-sectoral allocation in education also indicates a declining share in other sectors. Only from the Tenth Plan onwards an increase in the allocation share is observed for technical and higher education.

Table 1: Composition of Total Allocation for Education in Different Five Year Plans

(Figures in percent)

Plan	Elementary	Secondary	Adult	University	Technical	Others	Total
First Plan	57.6	5.5	0.0	7.5	14.2	15.0	100
Second Plan	34.5	15.7	0.0	17.6	17.9	11.0	100
Third Plan	34.1	17.5	0.0	14.3	21.2	12.4	100
Fourth Plan	50.1	0.0	17	25.2	10.5	12.5	100
Fifth Plan	51.7	0.0	2.1	27.9	9.4	5.9	100
Sixth Plan	32.1	20.4	5.9	21.4	10.4	9.8	100
Seventh Plan	37.3	24.0	6.2	15.7	14.2	2.6	100
Eighth Plan	47.7	24.0	5.2	9.6	10.1	3.4	100
Ninth Plan	57.1	21.3	1.7	5.7	8.1	3.0	100
Tenth Plan	65.6	9.9	2.5	9.5	10.7	1.5	100
Eleventh Plan	46.5	19.8	2.2	15.5	11.1	4.9	100

Source: CBGA 2011, Planning Commission 2008 and Planning Commission 2002

Outlays towards Education in the 12th Plan

The 12th Plan document provides a Ministry-wise comparison of previous Plan realisation with the 12th Plan projections. For education, the overall 11th Plan education expenditures was Rs. 1,37,734 crore, which is being projected to be about Rs. 3,43,028 crore in the 12th Plan period, i.e. more than twice the 11th Plan expenditures.

Union Budget allocations for schemes such as Sarva Shiksha Abhiyan (SSA), Mid Day Meal Scheme (MDM), Rashtriya Madhyamik Shiksha Abhiyan (RMSA), and the newly-introduced Rashtriya Uchcha Shiksha Abhiyan (RUSA) are not in keeping with the 12th Plan recommendations as with two years' Budgets gone by, the allocations must be somewhere near 60 percent of the total recommendation outlays for the Plan period. This is also true for the Department of School Education and Literacy. University Grants Commission (UGC) is the only component that shows more than 200 percent allocations when compared to the 12th Plan suggested outlays for the total Plan period.

Table 2: Budgetary Allocation for Some Major Schemes on Education (in Rs. Crore)

Major Schemes	2012-13 (Actual)	2013-14 (RE)	2014-15 (IB)	2014-15 (BE)
Sarva Shiksha Abhiyan (SSA)	23873	26605	27758	28258
Mid- Day Meal (MDM)	10849	12189	13125	13215
Rashtriya Madhyamik Shiksha Abhiyan (RMSA)	3172	3123	5000	5000
Schemes for setting up of 6000 model schools at block level	717	995	1200	1200
The Scheme for Providing Education to ^Madras as / Minorities	183	200	0	275
Pre-Matric Scholarship for Minorities	786	980	1100	1100
Pre Matric Scholarship for SCs	931	617	685	685
Pre Matric Scholarship for ST Students		212		
Rashtriva Uchcha Shiksha Abhiyati (RUSA)		240	2200	2200
Union Govt. Expenditure 011 Education	66055	74621	81441	82771

Source: Union Budget, expenditure Budget, Volume-H, various years

Expenditure on Education as Percentage of Gross Domestic Product (GDP)/ Gross State Domestic Product (GSDP)

Table 3 indicates the year-wise expenditure on education as percentage of National GDP for States, Centre and Total. It may be seen here that total expenditure on education as percentage of GDP highest (4.14%) in 2000-01 but this level could not be sustained the following year and comes down to 3.26% the year 2004-05. After that it again started increasing but very slow rate.

Table- 3: Public Expenditure on Education as percentage of GDP

S. No	Year	GDP at current prices (at factor cost) (Rs. in crore)	Total Expenditure on Education by Education Department (Rs. in crore)						Total Expenditure on Education by Education & Other Department (Rs. in crore)					
			States	Centre	States + Centre	State as % of GDP	Centre as % of GDP	(States + Centre) as % of GDP	States	Centre	States + Centre	State as % of GDP	Centre as % of GDP	(States + Centre) as % of GDP
1	1999-2000	1847273	53948.84	7332.62	61281.46	2.92	0.40	3.32	63909.23	10906.86	74816.09	3.46	0.59	4.05
2	2000-01	1991982	54572.84	7925.25	62498.09	2.74	0.40	3.14	72290.53	10195.95	82486.48	3.63	0.51	4.14
3	2001-02	2167745	56810.73	8036.98	64847.71	2.62	0.37	2.99	65746.19	14119.52	79865.71	3.03	0.65	3.68
4	2002-03	2338200	59472.29	9089.25	68561.54	2.54	0.39	2.93	69350.73	16156.63	85507.33	2.97	0.69	3.66
5	2003-04	2622216	62867.46	10177.47	73044.93	2.40	0.39	2.79	71978.28	17100.97	89079.25	2.74	0.65	3.40
6	2004-05	2971464	68169.62	13111.23	81280.85	2.29	0.44	2.73	78668.14	18025.96	96694.11	2.65	0.61	3.26
7	2005-06	3390503	76660.54	17823.16	94483.7	2.26	0.53	2.79	90018.94	23209.77	113228.71	2.66	0.68	3.34
8	2006-07	3953276	86466.89	23873.47	110340.36	2.19	0.60	2.79	103147.47	34236.52	137383.99	2.61	0.87	3.48
9	2007-08	4582086	98609.88	26769.75	125379.63	2.15	0.58	2.74	115877.9	39919.37	155797.27	2.53	0.87	3.40
10	2008-09	5303567	118386.73	34435.67	152822.4	2.23	0.65	2.88	141091.25	47977.59	189068.84	2.66	0.90	3.56
11	2009-10	6108903	150194.39	39941.69	190136.08	2.46	0.65	3.11	177232.79	64023.23	241256.02	2.90	1.05	3.95
12	2010-11	7248860(3RE)	181604.73	51905.38	233510.11	2.51	0.72	3.22	212817.5	80660.73	293478.23	2.94	1.11	4.05
13	2011-12(RE)	8391691(2RE)	221503.07	61349.02	282852.09	2.64	0.73	3.37	261492.8	89652.98	351145.78	3.12	1.07	4.18
14	2012-13(RE)	9388876(1RE)	249810.14	74039.84	323849.98	2.66	0.79	3.45	294013.2	109223.31	403236.51	3.13	1.16	4.29

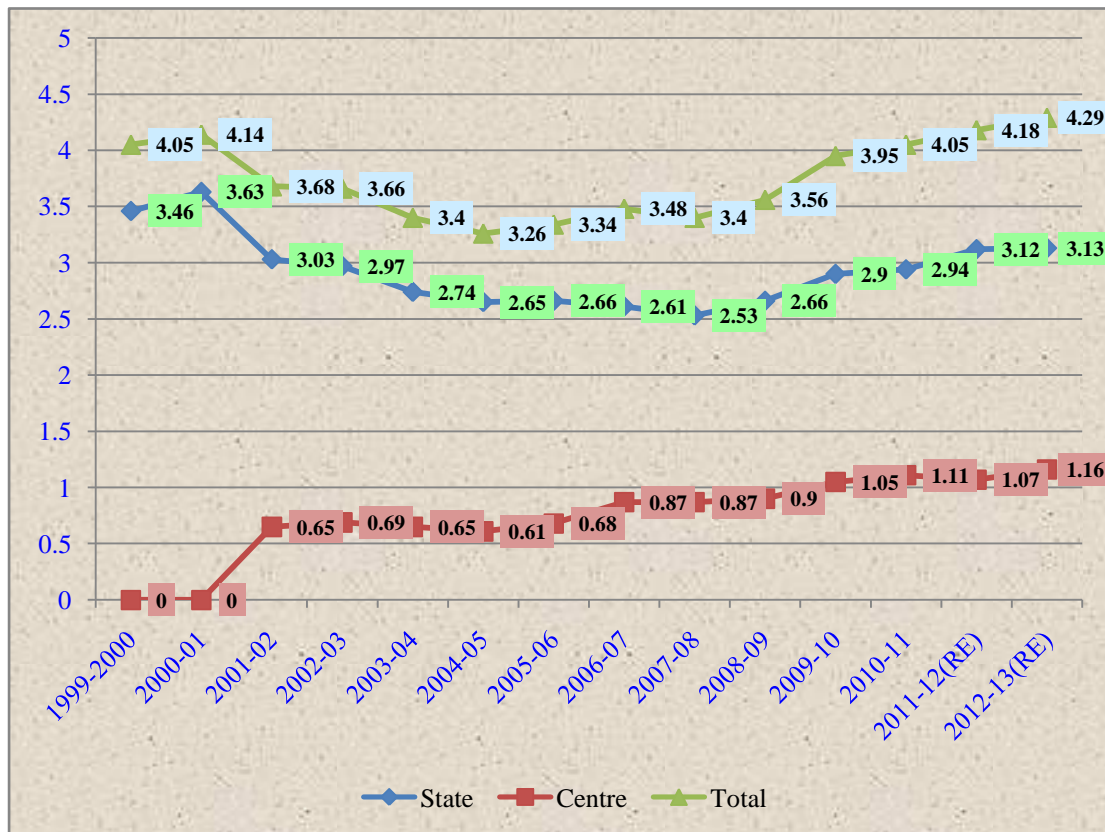
1RE 1st Revised edition, 2nd RE 2nd revised edition 3RE, 3rd revised edition

Note: - GDP figures are on the base year 1999-00 series. From 2004-05 onwards GDP figures are on the base year 2004-05 Series

Source: - **Source:** Analysis of Budgeted Expenditure on Education 2010-11 to 2012-13, Ministry Of Human Resource Development (Department Of Higher Education) , Government Of India, 2014

If we look at the percentage for Centre States separately, we found that centre's share showing an increasing trend over the years and gone up from 0.51% in 2000-01 to 1.16% in 2012-13, while state's share has declined from 3.63% in the year 2000-01 to 3.13% in 2012-13. It is diagrammatically presented in chart 1.

Chart 1: Expenditure on Education as Percentage of GDP



The total expenditure on the Revenue Account at the all India level during 2012-13 formed 27.80% of the total Gross Domestic Product (GDP) and only 3.45% of the GDP was provided in the budgets of the education departments. When the provision for education for all departments including education departments is taken into account this percentage works out to be 4.29%.

The percentage of total budgeted expenditure of States/UTs to their Gross State Domestic Product is worked out in Table 4.

Table -4: Relationship between Budgeted Expenditure on Education and Gross State Domestic Product (GSDP) of States and UTs during 2012-13

(Rs. in crore)

Sl. No.	States/UTs	Gross State Domestic Product at Current Prices	Total State Revenue Budget	Total Expenditure on Education & Training by Education & Other Department	Total Expenditure on Education by Education Department	% of Total Revenue Budget to GSDP	% of Education & Training Budget to Total Revenue Budget	% of Education Budget of Education Department to Total Revenue Budget	% of Education & Training Budget of Education & Other Department to Total GSDP	% of Education Budget of Education Department to GSDP
1	Andhra Pradesh	754409	112342.39	24879.73	18040.61	14.89	22.15	16.06	3.30	2.39
2	Arunachal Pradesh	12091	4203.51	554.85	493.76	34.77	13.20	11.75	4.59	4.08
3	Assam	141621	36298.86	10148.77	8557.2	25.63	27.96	23.57	7.17	6.04
4	Bihar	313995	60959.27	14172.62	12415.49	19.41	23.25	20.37	4.51	3.95
5	Chhattisgarh	153621	28419.38	5768.22	5157.51	18.50	20.30	18.15	3.75	3.36

Sl. No.	States/UTs	Gross State Domestic Product at Current Prices	Total State Revenue Budget	Total Expenditure on Education & Training by Education & Other Department	Total Expenditure on Education by Education Department	% of Total Revenue Budget to GSDP	% of Education & Training Budget to Total Revenue Budget	% of Education Budget of Department to Total Revenue Budget	% of Education & Training Budget of Education & Other Department to Total GSDP	% of Education Budget of Department to GSDP
6	Goa	34965	7116.64	1448.31	1033.76	20.35	20.35	14.53	4.14	2.96
7	Gujarat	670016	72288.05	15013.84	11994.8	10.79	20.77	16.59	2.24	1.79
8	Haryana	345238	39783.52	9852.1	8428.34	11.52	24.76	21.19	2.85	2.44
9	Himachal Pradesh	73710	15969.19	3721.91	3354.20	21.66	23.31	21.00	5.05	4.55
10	Jammu & Kashmir	75574	24590.9	4255.91	3457.7	32.54	17.31	14.06	5.63	4.58
11	Jharkhand	164876	27800.55	6618.89	5623.56	16.86	23.81	20.23	4.01	3.41
12	Karnataka	524502	80529.97	17457.58	14490.37	15.35	21.68	17.99	3.33	2.76
13	Kerala	349338	51605.35	11977.88	10012.67	14.77	23.21	19.40	3.43	2.87
14	Madhya Pradesh	372171	63543.5	11804.88	10209.73	17.07	18.58	16.07	3.17	2.74
15	Maharashtra	1372644	136559.22	36983.92	31211.72	9.95	27.08	22.86	2.69	2.27
16	Manipur	11983	6139.57	831.69	667.29	51.24	13.55	10.87	6.94	5.57
17	Meghalaya	18135	5964.43	917.05	747.94	32.89	15.38	12.54	5.06	4.12
18	Mizoram	8053	4168.72	742.01	671.27	51.77	17.80	16.10	9.21	8.34
19	Nagaland	14832	5230.59	845.81	700.25	35.27	16.17	13.39	5.70	4.72
20	Orissa	255459	41431.97	8740.77	7715.51	16.22	21.10	18.62	3.42	3.02
21	Punjab	286809	41166.67	7065.63	6158.8	14.35	17.16	14.96	2.46	2.15
22	Rajasthan	459215	62219.22	14468.86	13687.18	13.55	23.25	22.00	3.15	2.98
23	Sikkim	9957	3570.02	345.63	273.98	35.85	9.68	7.67	3.47	2.75
24	Tamil Nadu	744474	98213.85	19979.24	16890.66	13.19	20.34	17.20	2.68	2.27
25	Tripura	23855	5895.19	1149.22	999.73	24.71	19.49	16.96	4.82	4.19
26	Uttarakhand	113958	15717.12	4678.52	4048.7	13.79	29.77	25.76	4.11	3.55
27	Uttar Pradesh	768930	152963.61	33053.75	29053.08	19.89	21.61	18.99	4.30	3.78
28	West Bengal	620160	83719.39	18752.81	16967.26	13.50	22.40	20.27	3.02	2.74
29	A&N Islands	5067	2352.92	403.93	375.1	46.44	17.17	15.94	7.97	7.40
30	Chandigarh	26162	2505.42	580.44	426.72	9.58	23.17	17.03	2.22	1.63
31	Delhi	348221	21833.37	5669.4	5110.13	6.27	25.97	23.41	1.63	1.47
32	Puducherry	17192	4835.55	841.11	585.32	28.13	17.39	12.10	4.89	3.40
	All India (2012-13)	9388876	2609878.92	403236.51	323849.98	27.80	15.45	12.41	4.29	3.45

Source: Analysis of Budgeted Expenditure on Education 2010-11 to 2012-13, Ministry Of Human Resource Development (Department Of Higher Education) , Government Of India ,2014.

Note: (i) GSDP figures pertains to the year 2010-11 and have been taken from Statement uploaded on the website of National Accounts Division, CSO, MOSPI (as on 01.03.2014)

(ii) GDP figures are taken from National Accounts Statistics 2010 published by C S O. ii) GDP figures are taken from National Accounts Statistics 2010 published by C S O.

Table 4 indicates the State-wise relationship between budgeted expenditure on education for all departments on Revenue Account in terms of the Gross State Domestic Product for the available years of various States and Union Territories for the purpose of comparative study. It is observed from the graph that the percentage of expenditure on education is below the National GDP in respect of the major states such as Delhi, Haryana, Gujarat, Punjab, West Bengal, Goa, Maharashtra, Andhra Pradesh, Odisha, Karnataka, Kerala, Tamil Nadu, Jharkhand, Rajasthan, Madhya Pradesh, Chandigarh, Uttarakhand, Chattisgarh, Sikkim and Puducherry.

CONCLUSION

Education financing in India is at crossroads. As has been observed in the discussion in this chapter, the quantum of public expenditure on education by the union government has gone up significantly in the last decade. We have also analyzed that the bulk of this expenditure is earmarked for a few key flagship programmes such as the SSA (the vehicle for implementation of the RTE), the MDM Scheme and the RMSA geared towards expansion of secondary education. Moreover, our study also points to the fact that a significant contribution to this increase in expenditure is through higher collection of the education cess, which now covers not only elementary education and MDM schemes, but also secondary and higher education. India is unique among other developing countries in its use of earmarked taxes for financing public expenditure on education. It is extremely important, therefore, to see whether this increase in expenditure by the union government is 'crowding in' or 'crowding out' expenditure by the states or the private sector. Initial evidence seems to indicate that the state governments have not increased their education expenditure commensurately. They are becoming increasingly more reliant on the union government to augment their resource base for education. Consequently, education policy is increasingly being determined at the national, rather than the state level, as was originally envisaged in the Constitution. The implementation framework of the RTE and the proliferation of centrally-sponsored schemes would essentially guarantee the pre-eminence of the union government in the financing of education in the near future.

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