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TRENDS OF PUBLIC EXPENDITURE ON EDUCATION IN INDIA

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1. Introduction

Education is an important socioeconomic measure of a country's development. Education promotes economic growth by influencing consumption, saving, investment, and distribution. It improves the people's quality of life in the country by increasing lifetime incomes. Public education spending correlates positively with economic growth. Many empirical studies have demonstrated that investment in education at all levels, i.e., primary, secondary, and higher education, is positively related to economic growth. As a result, more government spending on education assures faster and more inclusive growth in the country. Without a doubt, public investment in education in India is increasing, but whatever percentage of expenditure on education is currently required is insufficient. According to the Kothari Commission, education should account for 6% of national income, however, we spend extremely less in contrast to other countries.

Public education spending as a proportion of GDP climbed from 3.1% in 2014-15 to 4.6% in 2020-21. The central government's portion of total education expenditure rose from 12% in 2000-01 to 26% in 2013-14. In the same time frame, state governments' share decreased from 88% to 74%. 2020–21 saw a 13.5% increase in funding for primary education and an 8.1% drop in funding for secondary education.

In 2020–21, spending on higher education increased by 18.8%, with an emphasis on innovation and research. India's public education spending is below both the global average of 4.8% and the Kothari Commission's proposed 6% of GDP.

In India, public expenditure on education has been increasing in absolute terms, but fluctuating as a percentage of GDP and total government expenditure. According to the latest data from the Ministry of Education, the union budget for education in 2020-21 was Rs. 93,223 crores, which was reduced by 6% as compared to the previous year. The revised estimate was Rs. 88,002 crores. However, the education budget for 2022-23 has been increased by 11.86% to Rs. 1,04,278 crores. This covers the cost of higher education as well as literacy instruction in schools. The government has also introduced several programs and initiatives to raise the standard and accessibility of education. These include the National Digital Education Architecture, the Samagra Shiksha Abhiyan, the RashtriyaUchchatar Shiksha Abhiyan, and the National Education Policy 2020.

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2. Review of Literature

Arusha Cooray (2009) investigated the impact of overall government spending on economic growth and discovered that, in a nation with a low per capita income, public spending on education may be negligible. In this scenario, government spending would have a negligible impact on economic expansion. If government spending rose, there might be a positive correlation between economic growth and educational quality. Education policies in emerging nations like India must prioritize the infrastructure of schools to foster the nation's economic development. Using time series econometric analysis, Sayantan Ghosh Dastidar and Monojit Chatterji (2015) investigated the empirical relationship between economic growth in India and education spending at all levels and discovered that GDP growth was favorably impacted by education spending at all levels. Consequently, increased productivity, efficiency, and rapid economic growth in the economy are the results of public spending on education. Since government spending on education is the only way to guarantee the nation's general growth and development, all of this literature is more focused on this topic.Saumen Chattopadhyay (2007) emphasised in his study on financing higher education that only theraising of public expenditure on higher education to 1 percent of GDP is not sufficient to maintain equityand social justice. The alternative source of financing higher education is required like graduation taxes,philanthropic contribution etc. only then we can achieve inclusive growth in real sense.

Tanuka Endow (2008) discovered that public spending on education rose in real terms in the 1990s before stagnating after that. The new economic reforms that were implemented in 1991 included a reduction in public education spending as part of a short-term macroeconomic stabilization policy and a long-term structural adjustment policy. Therefore, economic reforms have a detrimental effect on public education spending in India. Their analysis indicates that public spending on education has been less than 4% of GDP. Given that education is on the concurrent list, funding for education must come from both the federal and state governments. The federal government spends less on education than the state governments do, yet the federal government has been essential, especially in federally funded programs like the SSA and Midday Program, among others.

3. Data and Methodology

The present study is based on secondary data. The study's required data particularly GDP data was collectedfromtheWorld Bank'sWorldDevelopmentIndicators.The study uses yearly data on public expenditure on primary education percentage to theGDP, expenditure on secondary education percentage to the GDP, and expenditure on highereducation percentage to the GDP collected from 'Analysis of Budget expenditure onEducation, MHRD, Government ofIndia', during the period from2000to2020.

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4. Analysis

Table 1: State-by-Education Department Total Education Expenditure

Year	States	Growth rate	% to the GDP
2000	54572.84	--	2.74
2001	56810.73	4.10	2.62
2002	59472.29	4.68	2.54
2003	62867.46	5.71	2.4
2004	68169.62	8.43	2.29
2005	76660.54	12.46	2.26
2006	86466.89	12.79	2.19
2007	98609.88	14.04	2.15
2008	118386.73	20.06	2.23
2009	150194.39	26.87	2.46
2010	181604.73	20.91	2.51
2011	209830.99	15.54	2.4
2012	233124.92	11.10	2.34
2013	261737.14	12.27	2.33
2014	292386	11.71	2.35
2015	319808.7	9.38	2.32
2016	356080.31	11.34	2.31
2017	378542.46	6.31	2.21
2018	416045.14	9.91	2.2
2019	479239.47	15.19	2.39
2020	528299.93	10.24	2.67
CAGR 0.86			

Source: Source: MHRD, Government of India, (Growth rates computed)

Table 1 presents data on the aggregate spending on education, broken down by state education departments, during a period of time. The table includes data on the total expenditure in each year, the growth rate, and the percentage of the economic growth. The total expenditure on education increases steadily over the years, indicating a commitment to investing in education. According to the table, states expenditure on education grew from 2000 to 2009. Later on, during the study time, marginally fluctuated. In 2001, the growth rate of state education expenditure was 4.10 percent; however, the pattern of growth decreased from 2010 to 2015. In 2009, the highest growth rate was 26.87 percent. It was later dropped during the research period. The table clearly shows that between 2000 and 2010, overall education expenditure and education as a percentage of GDP both increased significantly, indicating a strong focus on education. The CAGR was 0.86 during the study period.

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Table:.2: Education Department-by-Department Total Spending (Centre)

Year	Centre	Growth rate	% to the GDP
2000	7925.25	--	0.4
2001	8036.98	1.41	0.37
2002	9089.25	13.09	0.39
2003	10177.47	11.97	0.39
2004	13111.23	28.83	0.44
2005	17823.16	35.94	0.53
2006	23873.47	33.95	0.6
2007	26769.75	12.13	0.58
2008	34435.67	28.64	0.65
2009	39941.69	15.99	0.65
2010	51905.38	29.95	0.72
2011	60260.79	16.10	0.69
2012	66087.62	9.67	0.66
2013	71494.77	8.18	0.64
2014	68925.78	-3.59	0.55
2015	67346.62	-2.29	0.49
2016	71930.65	6.81	0.47
2017	79992.63	11.21	0.47
2018	77715.41	-2.85	0.41
2019	92664.72	19.24	0.46
2020	97074.02	4.76	0.49
CAGR 0.72			

(Growth rates computed)

Table2 shows the total education expenditure by the Education Department at the Centre for 21 years (2000–2020). The entire expenditure on education by the Education Department at the Centre has been increasing over time. In the initial year 7,925.25 crores in the year 2000 and increased to 97,074.02 crores in the year 2020.The growth rate indicates the percentage increase or decrease in expenditure compared to the previous year. The highest growth rate was 35.94 in 2005. The expenditure generally shows an increasing trend, with significant spikes in 2004, 2005, and 2010.There are a few years with negative growth rates, such as 2014 and 2015, indicating a decrease in expenditure compared to the previous years.The years 2004 and 2005 witnessed substantial growth rates of 28.83% and 35.94%, respectively.The year 2010 marked a notable increase with a growth rate of 29.95% and the highest percentage of GDP allocated to education (0.72%). The compound annual growth rate (CAGR) for the whole time was 0.72%.

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Table3 shows the total expenditure on education by the Education Department (both at the centre and in various states) in crore rupees from 2000 to 2020. The table illustrates the percentage increase in total education expenditures over the previous year. The biggest growth rate, 24.42 percent, was recorded in 2009. The growth rate varies from year to year, indicating fluctuations in the rate of increase in education spending. The contribution of education expenditure to the GDP shows variations, with a peak at 3.22% in 2010 and a low at 2.61% in 2018.The Compound yearly Growth Rate (CAGR), which shows the average yearly growth rate over the whole time, was 0.88 percent between 2000 and 2020. This is the average annual growth in the total amount spent on education.

Table:3 Total Education Expenditure by Department (States and Centre) in Crores

Year	Centre & States	Growth rate	C&S % to the GDP
2000	62498.09	--	3.14
2001	64847.71	3.76	2.99
2002	68561.54	5.73	2.93
2003	73044.93	6.54	2.79
2004	81280.85	11.28	2.73
2005	94483.7	16.24	2.79
2006	110340.36	16.78	2.79
2007	125379.63	13.63	2.74
2008	152822.4	21.89	2.88
2009	190136.08	24.42	3.11
2010	233510.11	22.81	3.22
2011	270091.78	15.67	3.09
2012	299212.54	10.78	3.01
2013	333231.91	11.37	2.97
2014	361311.78	8.43	2.9
2015	387155.32	7.15	2.81
2016	428010.96	10.55	2.78
2017	458535.09	7.13	2.68
2018	493760.55	7.68	2.61
2019	571904.19	15.83	2.85
2020	625373.95	9.35	3.16
		CAGR 0.88	

(Growth rates computed)

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Table:4: Education & Other Departments' Total Education Expenditure (Rs. in Crore)

Year	States	Growth Rate	States as % of GDP
2000	72290.53	--	3.63
2001	65746.19	-9.05	3.03
2002	69350.7	5.48	2.97
2003	71978.28	3.79	2.74
2004	78668.14	9.29	2.65
2005	90018.94	14.43	2.66
2006	103147.5	14.58	2.61
2007	115877.9	12.34	2.53
2008	141091.3	21.76	2.66
2009	177232.8	25.62	2.9
2010	212817.5	20.08	2.94
2011	247855.9	16.46	2.84
2012	278375.3	12.31	2.8
2013	318249.8	14.32	2.83
2014	373457.3	17.35	3
2015	435229.6	16.54	3.16
2016	484777.1	11.38	3.15
2017	495593.8	2.23	2.9
2018	554442.1	11.87	2.93
2019	661362.8	19.28	3.29
2020	696090.9	5.25	3.52
	CAGR	0.89	

(Growth rates computed)

Table 4 shows the overall education expenditure by state departments (in crore rupees) from 2000 to 2020. The expenditure has shown a consistent upward trend over the years, starting from 72,290.53 crores in 2000 to 6,96,090.9 crores in 2020. The years 2001 and 2009 have negative growth rates, indicating a decrease in expenditure compared to the previous year. The highest growth rate occurred in 2009, with a significant increase of 25.62%. The percentage has fluctuated over the years, from 2.53% in 2007 to 3.52% in 2020. The compound annual growth rate (CAGR) for the full time is determined as 0.89%. The CAGR of 0.89% indicates a somewhat sluggish rate of growth. Policymakers may investigate measures to increase education spending in response to changing needs.

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5. Conclusion

2010 was a significant year, with a growth rate of 29.95% and the highest GDP percentage (0.72%) allotted to education. Over the entire period, the compound annual growth rate (CAGR) was 0.72%. With a notable increase of 25.62%, 2009 saw the highest growth rate. Over time, the proportion has changed, going from 2.53% in 2007 to 3.52% in 2020. For the entire period, the calculated compound annual growth rate (CAGR) is 0.89%. The 0.89% CAGR suggests a rather slow pace of growth. As needs change, policymakers may look into ways to boost funding for education.

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