

Growth of Public Expenditure on Education in Himachal Pradesh

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Abstract

This paper analyses the growth of public expenditure on education in Himachal Pradesh over the period of 2004-05 to 2020-21. The attempt has been to analyse plan and non-plan expenditure on education, revenue and capital account expenditure, and level wise allocation of expenditure on education in Himachal Pradesh. Findings show that during the study period expenditure on education has registered an over seven-fold increase with an average growth rate of 13.29. Expenditure on education as a percentage of GSDP is around 4 per cent, and the share of expenditure on education in total budget expenditure has fluctuated between 12-17 per cent. Level wise allocation shows that elementary education received the highest share of around 50 to 60 per cent. Analysis also highlights that the expenditure on education in revenue account is above 95 per cent during most of the study period. Findings lead to the conclusion that augmenting allocations and expenditures on education are needed. Equally, aspects of efficiency also require attention.

Keywords: Budget, Education, GSDP, Public Expenditure, Plan, Non-Plan, Revenue, Capital.

Introduction

A country's competitive position is in large measure associated with the performance of its human capital produced mainly by investment in education by its public sector. Also, for example, Eugene (2008) has pointed out that though understanding all government expenditure is pertinent yet some additional elements specifically concerning education, such as the possible fillip to future growth, make a study of public expenditure on education particularly interesting.

Attention to public expenditure is not new, infact Wagner's 1883 "law of increasing state activity" was among the earliest economic expressions of the relationship between increase of public expenditure and economic growth (Afonso, A., Alves, J., 2016). In reference to the responsibilities of the government in a welfare state, Peacock and Wiseman's (1961) elaboration of this Law confirmed that increases in public expenditure stem from increases in government revenue as the state responds more and more welfare activities. Musgrave (1969) and Rostow (1971) further brought in the level and pattern of economic growth and argued that growth of public expenditure may well be related to

both. In modern times, importance of public expenditure has increased because of its contribution in accelerating economic growth and ensuring economic stability. In other words, as economies grow, 'extensive' and an 'intensive' increase in the functions of the state result, causing a long-run tendency for public expenditure to grow regularly. A large part of this long run tendency is the increase in government expenditure on education because providing universal access to quality education is the key to economic growth as also expressed in the National Education Policy(2020). It is therefore it is not surprising that the bulk of the expenditure on education is being incurred by the state.

Education creates productive human resource and providing education is the primary role or responsibility of the state governments. This role is viewed as "establishing infrastructure in the economy where educational, environmental and social sector with other forms of physical infrastructure are important" (Stiglitz, 1996). Education develops human personality, thought, and social skills contributing to an individual's self-confidence and status in society (Al-shuaibi, A., 2014) consequently, poverty eradication is greatly facilitated by provisioning of higher and more meaningful education (Bano, A., 2015).

Expenditure on education is considered an investment because it is an input for creating and improving human capital and financial resources are key to the expansion and qualitative improvement of the educational sector. For example, Bhandari and Bordoli (2006) investigated the drivers of individual earnings, including the returns to education, along with gender, caste, language etc. The study found that higher levels of education enhance both the chance of employment and the income obtained from labour. Also, the allocation of educational expenditures by different categories of education, (elementary, secondary, and higher education) is the primary predictor of equality in education spending. The importance of education having been established, the next logical aspect is its financing. There are various avenues of financing education and public sector, i.e., expenditure incurred by the central government, state governments, UTs, and local governments is of utmost importance. However, it is widely accepted that there is an acute shortage of public expenditure in the education sector (Ansari, T.H., and Khan, M.A., 2018) and inadequate allocations to this sector have been a major problem in India. The decline in the education budget is a cause for concern as financial constraints greatly impede the working of the education system. Hence, there is a need for effective and efficient use of financial resources (Kaur, H., and Bhalla, G.S., 2015). The present paper has resulted from an attempt to analyse the growth of public expenditure on education in Himachal Pradesh over the period of 2004-05 to 2020-21. Also, expenditure on education at various levels of education has been analyzed and various components of public expenditure on education such as, plan and non-plan, revenue, and capital expenditure are also explored for the state of Himachal Pradesh.

Literature Review

While several studies focus on public expenditure on education, some have provided valuable insights for this paper.

Though **Mehrotra (2004)** stressed the importance of altering the framework of government educational expenditure, in so doing, this study drew attention to the importance of the distribution of regular expenditures between teacher salaries and non-teaching inputs in determining efficiency in recurrent spending. Equilibrium between the two was said to prevent shortages of teachers or learning and teaching materials. The

allocation of recurring spending across several heads was reported to be the main determinant of education spending efficiency, accounting for, broadly speaking, 85-95 per cent of basic education spending in developing countries. **Mukherjee (2007)** demonstrated that the budget raised provisions for basic education and launched new efforts to address the dropout rate particularly in elementary education. The eleventh plan was designed to boost the state government's portion of SSA to 50 percent of overall expenditure. Even at 25 percent, several states had been unable to match the central government's SSA expenditure casting doubt on state governments' desire and capacity to increase their support for elementary education. Secondary education spending was reported to have remained relatively stable not only in the union budget but also in state budgets as well. In their study, **De and Endow (2008)** examined the level and composition of public expenditure on education, as well as the systems of resource sharing, allocation, and utilization in aggregate and distinctly for the centre and the states. It was revealed that, whereas real expenditure climbed during the 1990s, it had stalled since. Public expenditure on education has been less than 4 percent of GDP. However, there have been significant changes in the mix and modes of expenditure. Provisioning education is the duty of the state as well as the central government and the centre has become increasingly influential in the state education budget. Centrally sponsored initiatives, which are partially funded by foreign aid, have played an important role in centre-to-state transfers. Expenditure patterns across seven states were investigated and results showed that though increases in education spending had enhanced access to education in less developed countries, yet retention and learning outcomes remained quite poor. **Chatterji (2015)** investigated trends in determinants of education spending in 16 Indian states from 2001 to 2010. According to the econometric findings, wealthy states were spending more than poorer states. However, there were some outliers. Assam, although a low-income state (ranking 13 out of 16), scored relatively high in terms of education investment. Himachal Pradesh was first in terms of spending per head and yet was not even among the top 5 richest states at the time of the study. In a study examining international data on expenditure on education **Vegas and Coffin (2015)** admitted the possibility of inter country variations in allocations needed to provision adequate funds to ensure that every student has a chance to succeed. The study claimed that a minimum quantity of resources, which include teachers, educational institutions, and learning materials, might be necessary to achieve learning results. **Tasleem, A.C., (2016)** analysed the level, trends, growth, and intra-sectoral allocation of public expenditure on education in India. Findings confirmed that despite considerable increase in spending on education since 2001, the real amount of money spent on education had been insufficient. According to the analysis, the percentage share of state governments decreased while that of the federal government climbed. Besides, patterns in education spending, both planned and unplanned, were also identified and here the former's portion has increased, while the latter's share decreased. No significant changes in revenue or capital spending were documented with capital spending accounting only for a small portion of total expenditure. **Kushwaha, M., and Tiwari, R. (2019)** used the ARDL model to examine the relationship between public expenditure on education and gross state domestic product (GSDP) in Gujarat from 1998 to 2017. The study found that spending on education increased at a steady rate with public investment in education accounting for 67% of changes in GSDP. Furthermore, data demonstrated a positive short-run association between public education spending and GSDP, which was said to bode well for the long term. **Devanshi, M.D., et al., (2020)**

evaluated the trend, pattern, and composition of public expenditure in India, as well as the impact on main macroeconomic indicators and found that the mean percentage share of revenue spending from 2009-10 to 2018-19 was 87%, with only 13% allocated for capital investment. As a result, the study advised that the size of capital be increased to the highest level possible to boost India's growth process. Lowering defence spending and interest load were recommended. According to findings, the majority of macroeconomic variables are closely associated with government spending and revenue. **Kumar, S., (2020)**, examined the trends and increase in public spending on education in India in order to assure quality education and confirmed that public spending on education is expanding at an increasing rate. Several states were found to have spent ever greater amounts on education in terms of GSDP than the central government's gross domestic product (GDP). Manipur was reported to spend the most and Gujarat the least on education and overall, the federal government spent less than 4% of GDP. Overall plan and non-plan expenditure is rising, although non-plan expenditure is rising relatively faster. Consequently, an urgent need was expressed to enhance educational spending including investments from the private sector, especially in higher education, while government expenditure could focus on both primary and secondary schools could be increased. The literature review confirms that most studies are based on a country or group of countries for analysing the trends and growth of public expenditure on education. Therefore, the present study has focused on a small progressive state namely, Himachal Pradesh, which has thus far tended to somehow escape the researcher's attention. The attempt here is to try to fill this gap in literature and the objective is to examine some growth of public expenditure on education. This has been achieved through an examination of expenditure on education at various levels of education and various components of public expenditure on education such as, plan and non-plan, revenue, and capital expenditure are explored for the state of Himachal Pradesh. It was proposed that i) expenditure on education has grown continually and ii) spending efficiency obtains in expenditure on education in Himachal Pradesh.

Data Sources and Methodology

The present study is based entirely on secondary data sourced from the Handbook of Statistics on the Indian States by the Reserve Bank of India, Finance Department, Government of Himachal Pradesh, Statistical Abstract of Himachal Pradesh by the Economic and Statistical Department of the Government of Himachal Pradesh. Statistical tools used to process the data are average, growth rate, and compound annual growth rate (CAGR) and correlation.

Results

Public Expenditure on Education in Himachal Pradesh

In this section changes in public expenditure on education in Himachal Pradesh during the period of 2004-05 to 2020-21 are computed. Alongside this, the share of education expenditure to GSDP, social sector expenditure, and budget expenditure was computed. Also, share of plan and non-plan, and revenue and capital expenditure are computed. The distribution of education expenditure in different levels of education or intra-sectoral allocation is also analysed in this section.

Growth of Public Expenditure on Education in Himachal Pradesh

Much fluctuation in the growth of public expenditure on education for the period under study is evident (Table 1 and Graph 1). The growth rate for the year 2004-05 is calculated based on the previous year's expenditure on education.

Findings confirm that initially expenditure on education shows an increase, but it nevertheless fluctuates over time. During 2007-08, the growth rate of expenditure on education was 7.79 per cent and it increased to 30.29 per cent in 2008-09. The main reasons for this increase (in 2008-09) are: i) the extension of the mid-day meal scheme to the upper primary level, ii) the recruitment of 4,568 primary assistant teachers against the vacant post of J.B.Ts., and iii) *Yog Shiksha* introduced in 376 schools in 2008. The growth rate of public expenditure on education fell to 4.59 in the following year i.e., 2009-10. Thereafter expenditure fluctuates and in 2015-16 its growth rate fell below one to 0.48 which is the lowest during the study period of 2004-05 to 2020-21.

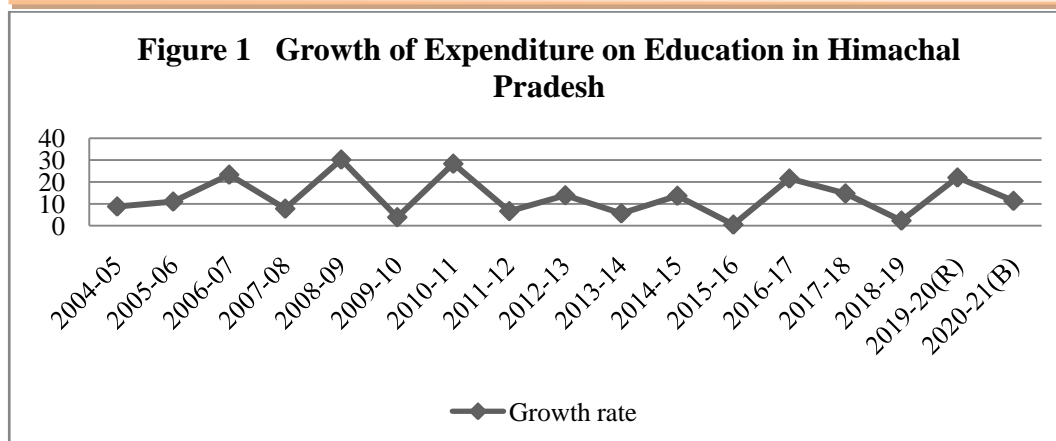
Table1 Growth of Public Expenditure on Education in Himachal Pradesh

Year	Expenditure on Education (crore rupees*)			Growth Rate of total expenditure on Education
	Plan Expenditure	Non-Plan Expenditure	Total Expenditure	
2004-05	131.2212	867.0225	998.2437	8.78
2005-06	164.3935	944.0689	1108.4624	11.04
2006-07	292.8943	1074.5245	1367.4188	23.36
2007-08	180.2578	1293.7955	1474.0533	7.79
2008-09	155.0396	1765.6112	1920.6508	30.29
2009-10	192.6950	1802.4736	1995.1686	3.87
2010-11	337.8763	2223.9140	2561.7903	28.39
2011-12	298.4432	2433.9045	2732.3477	6.65
2012-13	357.8621	2754.5410	3112.4031	13.9
2013-14	434.7689	2853.2564	3288.0253	5.64
2014-15	476.0568	3262.3212	3738.3780	13.69
2015-16	597.4219	3158.9965	3756.4184	0.48
2016-17	722.7945	3775.5268	4498.3213	21.58
2017-18	525.9112	4387.4374	5162.3180	14.76
2018-19	712.8236	4568.9873	5281.8109	2.31
2019-20(R)	969.7760	5477.2251	6447.0011	22.06
2020-21(B)	1029.5600	6150.0784	7179.6384	11.36
Average	445.8703	2870.217	3330.732	13.29118

Note: R: Revised Estimates. B: Budget Estimates.*1 crore = 10 million.

Source: Calculations based on data sourced from the Finance Department, Government of Himachal Pradesh (2004-05- 2020-21).

This decrease was mainly due to efforts to improve fiscal imbalances, experienced from 2013-14 to 2014-15. Therefore, in 2015-16, the increase in the share of social sector expenditure and education expenditure is very small, pointing to low priority to social sector! Another major reason for this low growth is that out of total budget provision around 23 per cent of expenditure out of total expenditure remained unspent and was surrendered. Therefore, in the case of actual expenditure this unspent amount or savings of funds that were subsequently surrendered are not included in the actual estimates. In other words, this amount, shown in budget estimate, is deducted when actual expenditure was estimated. Since data of actual expenditure were considered while calculating the growth rate for the year 2015-16, therefore calculations returned the lowest growth rate of 0.48. Figure 1 shows the growth of educational expenditure in Himachal Pradesh for the period of 2004-05 to 2020-21. The figure is a pictorial depiction of the growth rate of educational expenditure. Findings point to management inefficiency in public expenditure allocation to education sector.



Source: Based on Table 4.1

The CAGR (compound annual growth rate) of total expenditure on education from 2004-05 to 2018-19 is 0.81725 and when this period is broken down into 5-year sub-periods then the corresponding CAGR is as follows: for 2004-05 till 2008-09 it is 4.511; for 2009-10 till 2013-14 it is 4.996362 and for 2014-15 to 2018-19 it is 5.267895.

Public Expenditure on Education and Social Sector as a Percentage of GSDP for Himachal Pradesh

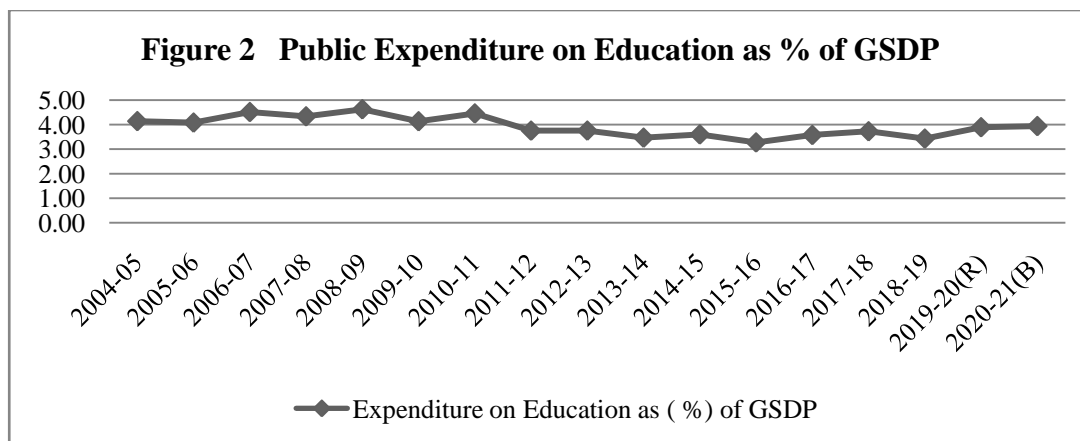
Table 2 expresses expenditure on education and social sector as a percentage of GSDP for Himachal Pradesh for 2004-05 to 2020-21. Social sector expenditure as a percentage of GSDP fluctuated between 8 to 11 per cent for most years of the given period. It peaked at 11.02 per cent in 2008-09. Thereafter, it declined and the subsequent high did not touch this mark again for the given period. Similarly, expenditure on education, a component of the social sector, as a percentage of GSDP of Himachal Pradesh was around 4 per cent for most of the years given in the period of study. The study found that during 2008-09, expenditure on education as a percentage of GSDP reached its highest 4.63 per cent mark (Table 2 and Figure 2). In 2010-11, the expenditure on education as a percentage of GSDP was almost stationary at 4.46 per cent. Thereafter it fell and remained below 4 per cent between 2011-2021. It is pertinent to point out that the achievements in education, particularly primary education by the state of Himachal Pradesh has been documented as a success story by the UNDP. It is therefore expected that with higher expenditure in education even better achievements can be achieved here.

Table 2 Percentage Public Expenditure on Social Sector and Education of GSDP

Year	GSDP (in crore*)	Expenditure as Percentage of GSDP of Himachal Pradesh	
		Social Sector	Education
2004-05	24076.58	9.67	4.15
2005-06	27127.35	10.34	4.09
2006-07	30274.27	11.01	4.52
2007-08	33962.54	11.00	4.34
2008-09	41483.1	11.02	4.63
2009-10	48188.59	10.20	4.14
2010-11	57452.26	10.48	4.46
2011-12	72719.83	8.25	3.76
2012-13	82819.79	8.57	3.76
2013-14	94764.16	8.33	3.47
2014-15	103772.33	8.74	3.60
2015-16	114239.41	8.72	3.28
2016-17	125633.65	9.57	3.58
2017-18	138351.06	9.13	3.73
2018-19	153844.8	10.49	3.43
2019-20(R)	165472.39	10.36	3.90
2020-21(B)	182020.00(P)	8.36	3.94
Average	88011.89	9.661176	3.928235

Note: R: Revised Estimates. B: Budget Estimates. *1crore = 10 million.

Source: Calculations based on data sourced from Finance Department, Government of Himachal Pradesh (2004-05- 2020-21), Handbook of Statistics on Indian State, Reserve Bank of India.



Source: Based on Table 2

It needs stating here that the Radhakrishnan Committee as early as 1949 recommended educational expenditure as 6 per cent of GDP, which was reiterated time and again by many committees but has never been reached. The New Educational Policy 2020 recommends again that educational expenditure should be 6 per cent of GDP. There is an urgent need for stepping up government expenditure on education. This will help provision better education facility to the student and better outcomes will follow naturally. Figure 2 shows the share of public expenditure on the education sector as a percentage of the GSDP of Himachal Pradesh.

Expenditure on Education Relative to Total Budget Expenditure of Himachal Pradesh

Table 3 shows expenditure on education as a percentage of total budget expenditure in Himachal Pradesh. The proportion of expenditure on education of total budget expenditure is computed for the period of 2004-05 to 2020-21. Table 3 shows that the lowest share of education expenditure out of total budget expenditure was in 2004-05 i.e., 9.98 per cent. Apart from this, there is fluctuation in the share of education expenditure from total budget expenditure between 12 to 17 per cent.

Table 3 Education Expenditure as a Percentage of Total Budget Expenditure

Year	Total Budget Expenditure (In crore*)	Total Expenditure on Education (In crore*)	Percentage Share of Expenditure on Education out of Total Budget Expenditure
2004-05	10004.47	998.24	9.98
2005-06	8827.7	1108.46	12.56
2006-07	10065.08	1367.42	13.59
2007-08	10641.84	1474.05	13.85
2008-09	12402.74	1920.65	15.49
2009-10	13961.25	1995.17	14.29
2010-11	15904.72	2561.79	16.11
2011-12	16835.52	2732.35	16.23
2012-13	20246.01	3112.40	15.37
2013-14	20912.62	3288.03	15.72
2014-15	30519.75	3738.38	12.25
2015-16	29115.03	3756.42	12.86
2016-17	32786.09	4498.32	13.72
2017-18	34270.53	5162.32	15.06
2018-19	39104.69	5281.81	13.51
2019-20(R)	43930.67	6447.00	14.68
2020-21(B)	41606.60	7179.64	17.26
Average	23007.96	3330.732	14.26647

Note: R: Revised Estimates. B: Budget Estimates. *1crore = 10 million.


Source: Calculations based on data sourced from Finance Department, Government of Himachal Pradesh (2004-05- 2020-21).

Table 3 also examines that initially there has been an increasing trend in the proportion of expenditure on education of total budget expenditure till 2011-12 and it reaches 16.23 per cent. Its proportion decreased to 12.25 per cent in 2014-15. The study analyzed that the share of education expenditure as a percentage of total budget expenditure increased in 2017-18 and reached 15.06 per cent. It decreases to 13.51 per cent during 2018-19 (Table 3).

Spearman's correlation coefficient between total budget expenditure and total expenditure on education was as per *a priori* expectation high (+.99) and the corresponding t value of 27.12 was greater than the corresponding table value at 15 degrees of freedom and 5 percent significance. This led to the rejection of the null hypothesis¹ and a confirmation of the positive relationship between the two types of expenditure. The implication is that

¹ Null Hypothesis H_0 : that total expenditure on education is independent of total budget expenditure.

Alternate Hypothesis H_1 : that expenditure on education is dependent on total budget expenditure.

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whenever budget is expended elsewhere a corresponding adverse effect on expenditure on education will be felt.

Expenditure on Education as a Percentage of Expenditure on Social Sector

The social sector plays a crucial role in shaping economic forces which in turn have a tremendous impact on the economic development of a country (Bauer, 1957). Also, this sector is very vast and includes everything relating to human resources. As it is well known, social sector development leads to human resource development apart from achieving egalitarian objectives (Gupta and Sarkar, 1994).

Table 4 Expenditure on Education as a Percentage of Expenditure on Social Sector

Year	Total Social Sector Expenditure (In crore*)	Total Education Expenditure (In crore*)	Education Expenditure as percentage of total expenditure on social sector
2004-05	2328	998.24	42.88
2005-06	2804	1108.46	39.53
2006-07	3334	1367.42	41.01
2007-08	3736	1474.05	39.46
2008-09	4570	1920.65	42.03
2009-10	4913	1995.17	40.61
2010-11	6022	2561.79	42.54
2011-12	5998	2732.35	45.55
2012-13	7099	3112.40	43.84
2013-14	7891	3288.03	41.67
2014-15	9072	3738.38	41.21
2015-16	9966	3756.42	37.56
2016-17	12024	4498.32	37.41
2017-18	12635	5162.32	40.86
2018-19	16133	5281.81	32.74
2019-20(R)	17143	6447.00	37.61
2020-21(B)	15220	7179.64	47.17
Average	8287.529	3330.732	40.80471

Note: - R: Revised Estimates. B: Budget Estimates. *1crore = 10 million.

Source: Calculations based on data sourced from Finance Department, Government of Himachal Pradesh (2004-05- 2020-21).

Table 4 shows the share of education expenditure as a percentage of social sector expenditure in Himachal Pradesh. The proportion of expenditure on education in the social sector is computed for the period of 2004-05 to 2020-21. There has been a fluctuating trend in the share of the education sector which was 42.88 per cent in 2004-05. It remains low from the years 2005-06 to 2010-11. In 2011-12 it reached 45.55 per cent second-highest percentage in the study period. The study shows that the share of education expenditure from social sector expenditure was the lowest i.e., 32.74 per cent in 2018-19 (Table 4). It increased to 47.17 per cent in 2020-21 which is the highest percentage in the given period.

Evidently, there is one-on-one correspondence between the two types of expenditure. The implication is that education is an integral part of the social sector and an enhancement (or cut) in expenditure in one is reflected in the other.

Plan and Non-Plan Expenditure on Education as Percentage of Total Expenditure on Education

Plan expenditure is that part of budgetary expenditure which is meant to finance the schemes and programmes framed under the five years plan or expenditure on the unfinished task of the previous plan. Plan expenditure is mainly on the creation of assets. Non-plan expenditure is the expenditure on operating and maintaining existing educational infrastructure.

Table 5 Plan and Non-Plan Expenditure on Education as Percentage of Total Expenditure on Education

Year	Education				
	Plan Expenditure (In crore*)	Non-Plan Expenditure (In crore*)	Total Expenditure (In crore*)	Plan Expenditure as Percentage of Total Expenditure	Non-Plan Expenditure as Percentage of Total Expenditure
2004-05	131.2212	867.0225	998.2437	13.15	86.85
2005-06	164.3935	944.0689	1108.4624	14.83	85.17
2006-07	292.8943	1074.5245	1367.4188	21.42	78.58
2007-08	180.2578	1293.7955	1474.0533	12.23	87.77
2008-09	155.0396	1765.6112	1920.6508	8.07	91.93
2009-10	192.6950	1802.4736	1995.1686	9.66	90.34
2010-11	337.8763	2223.9140	2561.7903	13.19	86.81
2011-12	298.4432	2433.9045	2732.3477	10.92	89.08
2012-13	357.8621	2754.5410	3112.4031	11.50	88.50
2013-14	434.7689	2853.2564	3288.0253	13.22	86.78
2014-15	476.0568	3262.3212	3738.3780	12.73	87.27
2015-16	587.0103	3158.9965	3756.4184	15.68	84.32
2016-17	722.7945	3775.5268	4498.3213	16.07	83.93
2017-18	774.8806	4387.4374	5162.3180	15.01	84.99
2018-19	712.8236	4568.9873	5281.8109	13.50	86.50
2019-20(R)	969.7760	5477.2251	6447.0011	15.04	84.96
2020-21(B)	1029.5600	6150.0784	7179.6384	14.34	85.66
Average	459.9032	2870.217	3330.732	13.56235	86.43765

Note: R: Revised Estimates. B: Budget Estimates. *1crore = 10 million.

Source: Calculations based on data sourced from Finance Department, Government of Himachal Pradesh (2004-05- 2020-21).

Table 5 shows the share of plan and non-plan expenditure in total educational expenditure in Himachal Pradesh for the given period from 2004-05 to 2020-21. Table 5 shows that the share of plan expenditure in total educational expenditure has fluctuated between 8 to 16 per cent during most of the years in the study period except 2006-07 because the share of plan expenditure was highest i.e., 21.42 per cent in 2006-07. In 2008-09 the share of plan expenditure declined to its lowest level i.e., 8.07 per cent. The study finds that the non-plan expenditure has been fluctuated between 84 to 90 per cent in the study period for most of the years except 2008-09 and 2009-10. Non-plan expenditure was highest (91.93%) in 2008-09 (Table 5). As described in the earlier section may be the main reasons behind this increase are recruitment of 4,568 primary assistant teachers, the extension of the mid-day meal scheme to upper primary schools also the share of state government in SSA increased to 50 per cent from 11th five-year plan. Table 5 also shows that the share of non-plan expenditure in total educational expenditure is 90.34 per cent in 2009-10 which was the

second highest in the given period 2004-05 to 2020-21. The main reason behind this may be the implementation of *Rastriya Madhyamik Shiksha Abhiyan* (RMSA) in 2009.

The findings reported above are as per expectation as Education (and Health) are the biggest employers in the state. The implication is that plan expenditure needs to be attended to as qualitative improvements in education stem in large measure from investments in assets and infrastructure.

Revenue and Capital Expenditure on Education in Total Expenditure on Education

Government budget expenditure is mainly distributed into two accounts, expenditure on revenue account and expenditure on capital account. Expenditure on revenue account constitutes the bulk of the budget expenditure on education and very little is spent on the capital account. One of the main reasons for low expenditure on capital account is that the entire grant-in-aid, including grants for capital works, is booked under the revenue account and not under the capital account and secondly expenditure on construction activities is often shown under budget heads of different departments.

Table 6 Share of Revenue and Capital Expenditure in Total Education Expenditure in Himachal Pradesh

Year	Total Expenditure on Education	Revenue Expenditure on Education (in Crore*)	Capital Expenditure on Education (in Crore*)	Percentage Revenue Expenditure in Total Education Expenditure	Percentage Capital Expenditure in Total Education Expenditure
2004-05	998.24	965.35	32.89	96.71	3.29
2005-06	1108.46	1087.61	20.86	98.12	1.88
2006-07	1367.42	1307.81	59.61	95.64	4.36
2007-08	1474.05	1363.99	110.07	92.53	7.47
2008-09	1920.65	1703.31	217.35	88.68	11.32
2009-10	1995.17	1892.73	102.44	94.87	5.13
2010-11	2561.79	2457.31	104.48	95.92	4.08
2011-12	2732.35	2710.64	21.70	99.21	0.79
2012-13	3112.40	3060.57	51.83	98.33	1.67
2013-14	3288.03	3192.09	95.94	97.08	2.92
2014-15	3738.38	3691.64	46.74	98.75	1.25
2015-16	3756.42	3634.01	122.41	96.73	3.27
2016-17	4498.32	4383.02	115.35	97.44	2.56
2017-18	5162.32	5006.46	154.86	96.98	3.00
2018-19	5281.81	5168.93	110.88	97.86	2.10
2019-20(R)	6447.00	6339.75	106.25	98.34	1.65
2020-21(B)	7179.64	7068.14	111.50	98.45	1.55
Average	3330.732	3237.256	93.24471	96.56706	3.428824

Note: R: Revised Estimates. B: Budget Estimates. *1crore = 10 million.

Source: Calculations based on data sourced from Finance Department, Government of Himachal Pradesh (2004-05- 2020-21).

Table 6 shows the share of revenue and capital expenditure as a percentage of total expenditure on education in Himachal Pradesh for the period 2004-05-2020-21. Table 6 also shows that the share of revenue expenditure in total educational expenditure is above 95 per cent for most of the years taken for the study. The study confirms that it was highest i.e., 99.21% in 2011-12. It was lowest (88.68%) in 2008-09. Calculations reveal that Capital expenditure fluctuated between 1 to 4 per cent for the most of years. Capital expenditure touched its highest level in 2008-09 i.e., 11.32 per cent of the total education expenditure. It declines and touched its lowest level of 0.79 per cent in 2011-12. However, despite the

high of 2008 – 09, the average percentage capital expenditure in total education expenditure has been 3.42.

Allocation of Expenditure Among Different Levels of Education

Among the different levels of education, elementary education is receiving the largest share of public expenditure i.e., 50-60 per cent of the total educational expenditure. Secondary education occupies second place, accounting for 30 to 40 per cent share. Thus, of the three levels of education, viz. primary, secondary, and higher, higher education receives the least percentage of total expenditure on education in the state. The level wise distribution/allocation of expenditure on education in Himachal Pradesh is shown in Table 7. In this Table, the education sector has been divided into different levels i.e., elementary, secondary, higher education, and other sectors. Elementary education consumes the largest chunk of the education budget as it should because as well as producing benefits directly, it also increases the effectiveness of investments in other services like health and nutrition. The largest share which has been achieved by elementary education is around 61 per cent in 2009-10. after that, the share of elementary education has declined and in 2020-21 it was 53.69 per cent which is below the share of elementary education 54.18 per cent in the year 2004-05. The share of secondary education in total educational expenditure in Himachal Pradesh has fluctuated between 30 to 40 per cent in the given period 2004-05 to 2020-21. Table 7 also shows that the share of higher education in total educational expenditure has fluctuated between 7 to 10 per cent. In 2009-10 it touched the highest level of 9.74 per cent. Other levels of education (e.g. art, technical etc.) apart from these three sectors received a very small share out of expenditure on education and for most of the years it has been under 1 per cent. For the years when this was in excess of one per cent, infrastructure and manpower were added.

Table 7 Level wise Allocation of Expenditure on Education in Himachal Pradesh

Year	Percentage expenditure on:				Total Expenditure on Education (in crore*)
	Elementary Education	Secondary Education	Higher Education	Other Levels#	
2004-05	54.18	37.30	7.83	0.69	998.24
2005-06	54.09	37.99	7.18	0.74	1108.46
2006-07	55.90	29.08	8.69	6.33	1367.42
2007-08	59.91	29.73	9.74	0.63	1474.05
2008-09	57.15	33.11	8.77	0.97	1920.65
2009-10	61.68	30.17	7.63	0.51	1995.17
2010-11	59.31	32.29	7.99	0.40	2561.79
2011-12	59.30	32.05	7.82	0.82	2732.35
2012-13	57.98	32.94	8.59	0.50	3112.40
2013-14	56.88	33.36	8.74	1.01	3288.03
2014-15	57.91	34.16	7.34	0.59	3738.38
2015-16	54.06	36.29	9.00	0.65	3756.42
2016-17	50.97	39.99	8.53	0.51	4498.32
2017-18	51.85	38.09	8.94	1.12	5162.32
2018-19	51.80	38.30	7.57	2.33	5281.81
2019-20(R)	51.50	39.42	8.12	0.96	6447.00
2020-21(B)	53.69	37.45	8.06	0.80	7179.64
Average	55.77412	34.80706	8.267059	1.150588	3330.732

Note: R: Revised Estimates. B: Budget Estimates. # = Other levels include: art, technical, vocational education etc., and *1crore = 10 million.

Source: Calculations based on data sourced from Finance Department, Government of Himachal Pradesh (2004-05- 2020-21).

Revenue Expenditure on Education in Himachal Pradesh

The expenditure on education is classified under two heads revenue expenditure and capital expenditure. In Himachal Pradesh, most of the educational expenditure is revenue expenditure. The revenue expenditure on education in Himachal Pradesh between 2004-05 to 2020-21 is presented in Table 4.8. In the state's total revenue expenditure, the share of education has fluctuated between 16 to 20 per cent in the study period.

In the year 2011-12, the share of revenue expenditure on education in total revenue expenditure was highest i.e., 19.50 per cent. The study examined that the share of revenue expenditure on education in total revenue expenditure was lowest at 16.23 per cent in 2015-16 (Table 8). It is highlighted that in terms of amount the share of revenue expenditure in education out of total revenue expenditure of the budget shows increasing trends for the period of 2004-05 to 2020-21. Yet, Table 8 indicates that in terms of percentage the share of revenue expenditure on education out of total revenue expenditure of the budget shows no systematic trends and fluctuated between 16 to 20 per cent during 2004-05 to 2020-21.

The CAGR (compound annual growth rate) of total revenue expenditure on education from 2004-05 to 2018-19 is 0.12733 and when this time period is broken down into 5-year sub-periods then the corresponding CAGR is as follows: for 2004-05 till 2008-09 it is 0.15253; for 2009-10 till 2013-14 it is 0.139585 and for 2014-15 to 2018-19 it is 0.087791. The worldwide recession in 2008-09 may be the reason behind the decline in CAGR from 2009-10 to 2013-14. The demonetisation announced on 8 November 2016 and the recession which followed in India's economy were the main factor responsible for the lowest CAGR in the given study period.

Table 8 Share of Revenue Expenditure on Education out of Total Revenue Expenditure of Budget

Year	Total Revenue Expenditure (in crore*)	Revenue Expenditure on Education (in crore*)	Percentage Share of Revenue Expenditure on Education out of Total Budget Revenue Expenditure
2004-05	5792.93	965.35	16.66
2005-06	6466.15	1087.61	16.82
2006-07	7644.1	1307.81	17.11
2007-08	8291.75	1363.99	16.45
2008-09	9438.13	1703.31	18.05
2009-10	11151.01	1892.73	16.97
2010-11	13246.09	2457.31	18.55
2011-12	13897.97	2710.64	19.50
2012-13	16174.25	3060.57	18.92
2013-14	17352.49	3192.09	18.40
2014-15	19787.05	3691.64	18.66
2015-16	22302.81	3634.01	16.23
2016-17	25344.22	4383.02	17.29
2017-18	27053.16	5006.46	18.51
2018-19	29428.62	5168.93	17.56
2019-20(R)	36336.63	6339.75	17.45
2020-21(B)	39122.85	7068.14	18.07
Average	18166.48	3237.256	17.71765

Note: R: Revised Estimates. B: Budget Estimates. *1crore = 10 million.

Source: Calculations based on data sourced from Finance Department, Government of Himachal Pradesh (2004-05- 2020-21).

Capital Expenditure on Education in Himachal Pradesh

Table 9 shows capital expenditure on education as a share of the total capital expenditure of the state increased from ₹32.89 crores in 2004-05 to ₹111.50 crores in 2020-21. Capital expenditure on education as a percentage of total state budget capital expenditure was 10.45 per cent (i.e., ₹217.35 crore) in 2008-09 highest ever in the study period (Table9). After this year, it records a decline and falls to 1.20 per cent in 2011-12 which is the lowest percentage over the period of 2004-05 to 2020-21.

Table 9 Share of Capital Expenditure on Education Out of Total Capital Expenditure of Budget

Year	Total Capital Expenditure (in crores*)	Capital Expenditure on Education (in crores*)	Percentage Share of Capital Expenditure on Education in total Capital Expenditure of Budget	Percentage Share of Capital Expenditure on Education in Total Education Expenditure
2004-05	653.98	32.89	5.03	3.29
2005-06	820.75	20.86	2.54	1.88
2006-07	1109.8	59.61	5.37	4.36
2007-08	1413.49	110.07	7.79	7.47
2008-09	2079.07	217.35	10.45	11.32
2009-10	1943.44	102.44	5.27	5.13
2010-11	1788.99	104.48	5.84	4.08
2011-12	1809.83	21.70	1.20	0.79
2012-13	1954.8	51.83	2.65	1.67
2013-14	1855.86	95.94	5.17	2.92
2014-15	2472.89	46.74	1.89	1.25
2015-16	2864.49	122.41	4.27	3.27
2016-17	3499.03	115.35	3.30	2.56
2017-18	3755.67	154.86	4.12	3.00
2018-19	4584.32	110.88	2.42	2.10
2019-20 (R)	5943.41	106.25	1.79	1.65
2020-21(B)	6255.03	111.50	1.78	1.55
Average	2635.579	93.24471	4.169412	3.428824

Note: - R: Revised Estimates. B: Budget Estimates. *1crore = 10 million.

Source: Calculations based on data sourced from Finance Department, Government of Himachal Pradesh (2004-05- 2020-21).

Table 9 also shows the capital expenditure on education as a percentage of total expenditure on education. Capital expenditure on education is a very small percentage of the total budgetary expenditure on education. The amount was so small that it less than 2 per cent of the total educational expenditure in most of the years. During 2011-12, it is 0.79 per cent of the total education expenditure (Table 9). Which is lowest in the given period of study, but this does not imply that there is little or no asset creation in education. One of the main reasons for low expenditure on Capital accounts is that the entire grants-in-aid, including grants for capital works, is booked under the revenue account and not under the capital account. Secondly, expenditure on construction activity is often shown under the budget heads of other departments.

The CAGR (compound annual growth rate) of total capital expenditure on education from 2004-05 to 2018-19 is 0.090685 and when this time period is broken down into 5-years sub-periods then the corresponding CAGR is as follows: for 2004-05 till 2008-09 it is 0.60334; for 2009-10 till 2013-14 it is -0.01626 and for 2014-15 to 2018-19 it is 0.241055. In 2009-10 to 2013-14 CAGR is negative the main reason which may be responsible for this negative CAGR is the recession of 2008-09 due to which government is not able to increase capital spending on education, because in this period priority to other sectors of the economy had given.

Revenue Expenditure on Different Levels of Education in Himachal Pradesh

Table 10 shows the level wise percentage share in total revenue expenditure on education in Himachal Pradesh from 2004-05 to 2020-21. The data given in Table 10 show that the highest expenditure is on elementary education for most of the years. In 2007-08, the share of elementary education in total revenue expenditure on education exceeded 60 per cent and in 2008-09, it touched 64.86 per cent which is the highest percentage obtained to date (Table 10), the reason behind this increase may be the extension of mid-day meals scheme to upper primary stage from 1 July 2008. Table 10 also shows that the share of elementary education remains above 60 per cent from the period 2007-08 to 2011-12. Thereafter it declines and never touched the 60 percent mark again.

Table 10 Percentage Revenue Expenditure on Different Levels of Education

Total Revenue Expenditure on Education = 100				
Year	Components of Total Revenue Expenditure			
	Elementary	Secondary	Higher Education	Other
2004-05	55.8	37.15	6.34	0.71
2005-06	55.12	37.71	6.42	0.75
2006-07	58.37	29.31	5.7	6.62
2007-08	63.16	29.46	6.71	0.67
2008-09	64.86	27.39	7.15	0.6
2009-10	61.76	30.52	7.19	0.53
2010-11	60.81	32.03	6.74	0.42
2011-12	59.52	32.19	7.47	0.82
2012-13	58.74	32.47	8.28	0.51
2013-14	58.53	33.62	6.81	1.04
2014-15	58.6	33.92	6.88	0.6
2015-16	55.82	36.08	7.43	0.67
2016-17	52.26	39.4	7.82	0.52
2017-18	53.29	37.87	7.7	1.14
2018-19	52.66	38.42	7.74	1.18
2019-20(R)	52.24	39.30	7.51	0.95
2020-21(B)	54.36	37.34	7.49	0.81
Average	57.40588	34.36353	7.14	1.090588

Note: R: Revised Estimates. B: Budget Estimates.

Source: Calculations based on data sourced from Finance Department, Government of Himachal Pradesh (2004-05- 2020-21).

Capital Expenditure on Different Levels of Education in Himachal Pradesh

The study examined the percentage share of different levels of education in total capital expenditure on education in Himachal Pradesh between 2004-05 to 2020-21 (Table 11). Table 11 shows that the highest expenditure is on higher and secondary education for most of the years. The share of elementary education in total capital

expenditure on education is very less in comparison to secondary and higher education. The share of elementary education only once i.e., 2009-10 touched the 60 per cent mark which is the highest in the study period. The reason for this is the substantial increase of ₹99.10 crore that the government has made for provisioning adequate infrastructure facilities in elementary schools like construction of elementary school buildings/rooms and district/block offices during the financial year 2009-10. During 2005-06 the share remained at 0.58 per cent which is the lowest in the study period (Table11). Higher education gets a higher share of capital expenditure for the most of years during the period of the present study in comparison to the different levels of education i.e., elementary education and secondary education because of the increase in institutions of higher education during this period.

Table 11 Percentage of Capital Expenditure on Different Levelsof Education

Total Capital Expenditure on Education = 100			
Year	Components of Total Capital Expenditure (%)		
	Elementary	Secondary	Higher Education
2004-05	6.68	41.85	51.47
2005-06	0.58	52.88	46.54
2006-07	1.68	24.01	74.31
2007-08	19.62	33.06	47.32
2008-09	37.6	31.07	31.33
2009-10	60.38	23.71	15.91
2010-11	24.03	38.35	37.62
2011-12	32.81	15.36	51.83
2012-13	12.62	60.47	26.91
2013-14	2.15	24.86	72.99
2014-15	3.53	53.25	43.22
2015-16	1.94	42.49	55.57
2016-17	1.95	62.2	35.85
2017-18	5.54	45.22	49.24
2018-19	12.59	33.28	54.13
2019-20(R)	7.75	47.29	44.96
2020-21(B)	11.2	44.79	44.01
Average	14.27353	39.65529	46.07118

Note: R: Revised Estimates. B: Budget Estimates.

Source: Calculations based on data sourced from Finance Department, Government of Himachal Pradesh (2004-05- 2020-21).

Conclusion

Public expenditure on education in Himachal Pradesh has increased from ₹998 crores in 2004-05 to around ₹7179 crores in 2020-21 registering an approximate seven-fold increase confirms the proposition that expenditure on education has continually increased. Elementary education gets the major portion of this expenditure, which is an average of 55.77 per cent of total expenditure on education. The share of secondary education in total expenditure on education is on average 34.80 per cent, and 8.26 per cent share in total expenditure on education of higher education. Apart from this, the growth rate of public expenditure on education has fluctuated between a high of 30.29 per cent and a low of 0.48 per cent the average being 13.29. The cause of this low growth rate is that around 23 per cent of budgetary provision remained unspent and was surrendered, which is indicative of inefficiency in spending. Hence the proposition that there is spending

efficiency stands refuted. The CAGR of total expenditure on education is 0.81725. The share of public expenditure on education of GSDP is around 4 percent which is less than the 6 percent recommended by specialist committees including the New Education Policy Committee.

Share of expenditure on education out of total budget expenditure has fluctuated between 12-17 per cent (average being 14.26%). Plan and non-plan expenditure on education show that plan expenditure for most of the years under study has been between 8 to 16 per cent except for 2006-07 (21.42%) with the average being 13.56%. Non-plan expenditure has remained between 84 to 90 per cent except for the year 2008-09 (91.93%) and 2009-10 (90.34%), the average being 86.43%. The revenue and capital expenditures show that the share of revenue expenditure in total expenditure on education is above 95 per cent for most of the years (average being 96.56%). Level wise allocation of expenditure on education pinpoints that elementary education received the highest (average 55.77%) share out of total expenditure on education in Himachal Pradesh during the period of study. Similarly, in case of revenue expenditure on different levels of education, elementary education gets the highest share (average 57.40%) followed by secondary and higher education levels respectively. On the other hand, capital expenditure on different levels of education shows that higher education gets the largest share and secondary and elementary education receive the 2nd and 3rd largest shares in capital expenditure respectively. This academic exercise has led to the conclusion that there is an imminent need to focus on two aspects: first to increase overall expenditure on education to convert unproductive population into human capital and thereby achieve higher growth and second, spending efficiency of financial allocations must be a priority.

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