

Public Financing of Secondary Education in West Bengal

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Abstract

Public financing is critical in providing adequate resources for equitable expansion of secondary education. This paper discusses the trends in public financing of secondary education in West Bengal during 1980-81 to 2008-09. During this period the growth rate of public expenditure on secondary education in West Bengal is quite low at constant prices (1993-94). Hence it can't keep pace with the secondary (classes V-XII) enrolment growth. Moreover, this expenditure is made mainly on non-plan head. However, the relative importance of secondary education in West Bengal has increased within the education sector during 1980-81 to 2004-05.

Key words: Secondary education, Public Financing, Enrolment

1. Introduction

Education is one of the crucial factors of human resource development as it contributes to the improvement of knowledge, skill and quality of life. Every stage of education (i.e. Primary, Upper Primary, Secondary, and Higher) plays a significant role in the development of an individual and a nation. The secondary education occupies a key position between primary education and higher education. As the returns to education are large and positive, the educational investment is an important issue. Moreover, financing of education must be adequate and equitable. The public financing of education is justified by the public good nature of education. . The secondary education is increasingly becoming a minimum threshold level without which the benefits from investment in education cannot be capitalised (Reddy, 2007). The principle of equitable expansion of secondary education justifies the public financing of secondary education. The social sector in general and education sector in particular are now facing fiscal crunch in the post-liberalised era. In order to know the present position of secondary education it is necessary to know the actual resource flow to this sector and expenditure pattern. Such an analysis will help policy makers to take decision on the quantum of investment.

The issues relating to financing and costs of education in India have been examined by Misra (1967), Panchamukhi (1989), Tilak (1987, 1993, 1995). These studies consider the national and state share of budgetary allocations to various levels of education. The Ministry of Human Resource Development, Government of India initiated studies on State Finances on Education. The reports focus on trends in state education expenditure with emphasis on elementary education (Duraismy and Duraismy 2008) . Regarding the financing issues of secondary education in India there are some empirical studies at both national level and state level. For example, the study by A.N.Reddy (2007) examines the challenges, financing and resource requirements for expansion of

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secondary education in India. Another study by Gill-Singh and Brar (2005) examines the school education sector of Punjab from the three dimensions of educational progress, public financing on it and financing pattern. Muzzammil (1989) has analysed the financing of education in Uttar Pradesh. The study of Duraisamy and Duraisamy (2008) focuses on grant-in-aid to secondary education in Tamil Nadu. Another study by Duraisamy and Subramanian (2000) examines financing, cost and student achievement in secondary education in Chennai using primary data collected from secondary schools. There are other studies on secondary education financing as well.

As far as West Bengal is concerned, the empirical studies relating to the public financing of secondary education are limited. Hence, it is worthwhile to assess the public financing of secondary education in West Bengal. In the above backdrop the present study has made an attempt to look into the following issues for the state of West Bengal.

- (1) Trends and patterns of secondary education in respect of different parameters like enrolment, institutions and teachers.
- (2) Trends in public expenditure on secondary education in West Bengal, with the help of a few selected indicators like share of secondary education in expenditure on education, SDP etc

The study is based on secondary data which are collected from: (i) Annual Report of Education, 2007-08 West Bengal, (ii) 'Budgetary Resources for Education' (1951-52 to 1993-94) MHRD GOI, (iii) Central Statistical Organisation (CSO) data on State Income etc., (iv) Education Budget (Various Years) West Bengal, (v) Statistical Abstract, (Various Issues) West Bengal, (vi) Selected Educational Statistics (2004, 2005, 2006) MHRD, GOI.

The paper is organised as follows: Section 2 deals with the growth of secondary education in West Bengal and examines the variation in participation in secondary education across social groups, gender and districts. Section 3 explores the trends in public financing of secondary education in West Bengal with help of a few selected indicators since 1980s. The paper ends on the concluding note of Section 4.

2. Structure and Growth of Secondary Education in West Bengal

The school education in West Bengal is based on the national pattern of 12 years (10+2) of schooling. There are three stages of school education in West Bengal: Primary (classes I-IV), Secondary (classes V-X) and Higher Secondary (classes XI-XII). Secondary stage is divided in two stages, viz., Junior High or Upper Primary, which ends at the completion of Class VIII followed by 2 years of schooling which leads to first public examination called Madhyamik Pariksha. This is followed by 2 years of Higher Secondary Education. There are different types of schools, viz., Junior High Schools, Junior Madrasahs, High Schools, High Madrasahs, Senior Madrasahs and Higher Secondary Schools.

The progress of secondary education in West Bengal is assessed by using indicators such as, number of secondary and higher secondary schools, number of students enrolled and number of teachers in these schools. Number of schools indicates the availability of education facilities in state, students' enrolment in these schools can provide some indication of the extent to which school education facilities are used. Teachers are important input in educational development process and the growth of number of teachers has a significant bearing on the financing of education.

Table 1 gives the growth of secondary education in West Bengal in terms of numbers of secondary (high and higher secondary) schools, enrolment in them, number of teachers at secondary

education level and the pupil-teacher ratio (PTR) in the state for the period 1980-81 to 2007-08. The table 1 also reports the simple average growth rates over the period from 1990-91 to 2005-06. Table 1 shows during 1980-2006 the secondary (including higher secondary) education in West Bengal has witnessed a notable expansion judged in terms of growth of institutions and enrolment in them. The number of secondary schools (high and higher secondary), students enrolment in them and number of teachers in them have increased 1.71, 2.12, 1.62 times respectively during 1980-81 to 2006-07. Table 1 also shows simple average growth rate of enrolment in secondary and higher secondary stages (classes V to XII) is higher than that of number of secondary schools and number of teachers at these stages in West Bengal during the period 1990-91 to 2005-06. Moreover, during 1980-81 to 2006-07 the pupil-teacher ratio has increased from 45 to 59. This leads to overcrowded class rooms and thus the schools in the state have become overcrowded.

Table 1: Number of Schools, Students, Teachers and Pupil-Teacher Ratio (PTR) in Secondary Education, West Bengal (1980-2007)

Year	Schools*	Students **	Teachers***	PTR
1980-81	5184	3856812	86073	45
1990-91	6491	4695373	116442	40
2000-01	9398	5547258	133921	41
2001-02	9463	6222900	128219	49
2002-03	7676	6682345	128653	52
2003-04	7816	7192387	124385	58
2004-05	7971	7544450	120503	63
2005-06	8640	7942070	130418	61
2006-07	8841	8191656	138840	59
2007-08	8892		130712	
	Growth Rates (%) [‡]			
1990-91 to 2005-06	1.39	4.53	1.06	

Source: GOI, Selected Educational Statistics (various years), MHRD, New Delhi
Govt. of West Bengal, Annual Report (2007-08) Dept. of School Education

Note: * schools indicates High and Higher Secondary schools (Govt., Local, Private Aided and Private Unaided)

** Students enrolled in High and Higher Secondary schools (excluding Private Unaided)

*** Teachers in High and Higher Secondary schools (excluding Private Unaided)

[‡] The simple average growth rates are calculated over the period from 1990-91 to 2005-06 by using the formula $[1/n\{(y_{m2} - y_{m1})/y_{m1}\}] \times 100$, where y_{m2} : average for the 2004-05 to 2006-07 period and y_{m1} : average for the 1980-81 to 2000-01 period, n is the no. of intervening years.

Interestingly, the share of Govt. schools in the total number of schools in the state has declined from 1.15 per cent in 1988-89 to 0.45 per cent in 2006-07, whereas the share of private unaided schools has increased from 1.72 per cent to 4.72 per cent during the same period. Management

some-wise number of secondary schools of West Bengal along with their respective percentages for selected years is given in Table 2.

Table 2: Number of Secondary Schools (High & Higher) by management in West Bengal

Year	Govt.		Local Bodies		Private Aided		Private Unaided		Total
	No.	% to Total	No	% to Total	No	% to Total	No	% to Total	
1988-89	65	1.15	4	0.07	5479	97.06	97	1.72	5645
2004-05	41	0.51	0	0.00	7581	95.11	349	4.38	7971
2006-07	40	0.45	0	0.00	8414	95.17	387	4.38	8841

Source: Heggade(1992), and GOI ,Selected Educational Statistics (2004 & 2006), MHRD

Participation Rate in School Education

The Gross Enrolment Ratio (GER) & Net Enrolment Ratio (NER) are two widely used indicators to assess participation rates. GER is the total enrolment at a given level of education, regardless of the age, divided by the estimated child population in the relevant age group. Net Enrolment Ratio (NER) gives the age specific participation for each education level. Table 3 presents the GER and NER in West Bengal for the year 2006-07. It shows that the NER is 98.03 per cent for children in the age group of 6-11, 78.74 per cent for 11-14, 67.02 per cent for 14-16 and 45.08 per cent for the age group 16-18. So, it is clear that both the GER and NER have fallen with the level of education.

Table 3: Gross Enrolment Ratio (GER) and Net Enrolment Ratio(NER) in Secondary Education in West Bengal(2006-07)

Class	GER	NER
I-IV	105.96	98.03
V-VIII	83	78.74
IX-X	67.48	67.02
XI-XII	45.67	45.08

Source: Govt. of West Bengal, Annual Report (2007-08) Dept. of School Education

Table 4: Gross Enrolment Ratios in West Bengal Compared to India, 2006

			WB	India	Proportion of West Bengal to India
All	Classes IX-XII (14-18years)	Boys	39.9	44.6	89.46
		Girls	30.7	35.8	85.75
		Total	35.5	40.4	87.87
SC	Classes IX-XII (14-18years)	Boys	32.7	41.6	78.61
		Girls	24.5	30.9	79.29
		Total	28.9	36.7	78.75
ST	Classes IX-XII (14-18years)	Boys	31.3	33.7	92.88
		Girls	19.3	23.4	82.48
		Total	25.6	28.7	89.20

Source: GOI (2006), Selected Educational Statistics, MHRD, New Delhi.

Caste-wise Gross Enrolment Ratio: Caste-wise enrolments for the classes IX-XII are shown in Table 4. The last column of Table 4 shows that in 2006 GERs in West Bengal are less than All India and the boys are in favourable position compared to the girls.

Secondary Education and Gender

The access to secondary education in West Bengal across gender is examined with the help of an indicator “Number of Girls per 100 Boys enrolled”. The figures of this indicator for WB are presented in Table 5. The girls’ enrolment per hundred boys has increased during the period (2001-2006) from 93 to 99 for the children in the classes I-V, 74 to 98 for the children in the classes VI-VIII and 65 to 73 for the children in the classes IX-XII. It shows that the number of girls’ enrolment per hundred boys for the classes IX-XII (age 14-18) is lower than the number of girls’ enrolment per hundred boys for the classes VI-VIII, and the number of girls’ enrolment per hundred boys enrolled for the classes VI-VIII is lower than that for the class I-V. It is further observed that number of girl students per 100 boys enrolled has steadily fallen with the higher stages of education, in all the years during 2001-02 and 2006-07. The fall in the number of girls enrolled from classes I-V to classes VI-VIII, on an average has been less than the average fall from classes VI-VIII to classes IX-XII, average fall being measured in terms of percentage points.

Table 5: No. of Girls per 100 Boys Enrolled (All Categories of Students) In West Bengal (2001-06)

Years	I-V (6-11 years)	VI-VIII (11-14 years)	Decrease from classes(I-V) to classes(VI-VIII)	IX-XII (14-18 years)	Decrease from classes(VI-VIII) to classes(IX-XII)
2001-02	93	74	19	65	9
2002-03	96	88	8	73	15
2003-04	96	90	6	70	20
2004-05	95	86	9	72	14
2005-06	94	83	11	72	11
2006-07	99	98	1	73	25
Average(percentage point)			09		15.67

Source: GOI, Selected Educational Statistics (State Profile) 2005 and Selected Educational Statistics 2006; MHRD, New Delhi

Drop-out rates

Drop-out rates reveal the extent of discontinuation in studies by the student at various levels of education. The picture of drop-out rates in West Bengal by different age groups is given in Table 6. The table shows that the drop-out rates at the middle and high school level in the state are quite high; however, dropout rates have shown a declining trend. At the high school level, the dropout rate has decreased from 78.52 per cent in 2001-02 to 72.15 per cent in 2006-07, though the rate centred round 78.9 during 2001-02 and 2004-05. The fall was however significant during the last two years of our study period. The drop-out rates for girls as compared to boys has remained higher for the high school level in the state. For example, the drop-out rates for boys and girls in 2006-07 are 70.98 per cent and 73.55 per cent respectively. However, both the rates are quite high

with respect to the all India average. The drop-out rates in India for the classes I-V, VI-VIII and I-X, in 2006 are 25.60, 45.90 and 59.88 respectively.

Table 6: Drop-out Rates for All Categories of Students In West Bengal (2001-06)

Years	I-V(6-11 years)	I-VIII(6-14 years)	I-X(6-16 years)
2001-02	39.86	70.87	78.52
2002-03	36.41	68.23	78.74
2003-04	33.46	63.77	80.24
2004-05	43.65	63.63	78.03
2005-06	38.67	62.45	75.12
2006-07	30.15	61.37	72.15

Source: Selected Educational Statistics (State Profile) 2005 and Selected Educational Statistics 2006; MHRD, GOI

Scenario of Secondary Education across Districts

A district wise account of secondary education in West Bengal for the year 2005-06 is given in the table 7. The data corresponding to the year 2005-06 shows that the number of students per school and student-teacher ratio is the maximum in Darjeeling whereas the number of students per school is the minimum in Birbhum and the student-teacher ratio is the minimum in Howrah (see Table 7 below). The per school number of teachers is the maximum in Howrah and the minimum in South 24 Pgs.

Table 7: District-wise Disparity in Different Parameters in Secondary Education (2005-06)

	Students/Schools	Teachers/Schools	Students/Teachers
Bankura	471.3	19.5	47.6
Birbhum	313.5	16.3	54.7
Burdwan	324.6	15.9	50.4
Calcutta	361.5	21.9	45.4
Coochbehar	669.3	17.1	76.6
Darjeeling	1089.0	19.8	115.8
Hooghly	373.7	17.9	44.0
Howrah	422.2	23.1	35.9
Jalpaiguri	591.4	18.7	70.7
Malda	375.0	17.5	54.8
Midnapore(East)	417.0	18.7	47.9
Midnapore(West)	368.5	18.3	47.3
Murshidabad	527.7	15.6	74.7
Nadia	779.9	18.5	68.9
North 24 Pgs.	499.7	23.0	39.7
North Dinajpur	635.5	20.9	66.3
Purulia	440.6	17.7	45.9
South 24 Pgs.	422.2	15.5	61.6
South Dinajpur	626.6	16.6	74.6
W.B	471.4	19.1	52.7

Source: Government of West Bengal, District Statistical Hand Books, Various Districts

District-wise disparity in the number of secondary schools can also be analysed in respect of area, population, literates, number of colleges per secondary school. Table 8 shows different aspects of district-wise distribution of schools in West Bengal in 2006. It is seen from the table 8 that in 2006 Kolkata enjoys an advantageous position in terms of almost every indicator. The population served per school is 5,570 in Kolkata against the state average of 8,665. Population per school is the highest in the district of North 24 Pgs, literate population per school is the highest in North Dinajpur and the lowest in Purulia. Schools per college are maximum in Midnapore East (44) and minimum in Kolkata (12).

Table 8: District wise Disparity in Number of Schools in West Bengal, 2006

	% area	% schools	Sq..Km./ School	Population /School	Literates /School	Schools/ College
Bankura	7.8	4.4	14.9	7357	4664	33
Birbhum	7.9	4.2	8.2	8640	6065	32
Burdwan	5.1	5.0	11.0	7931	4877	34
Calcutta	0.2	9.7	0.2	5570	4506	12
Coochbehar	3.8	2.8	12.1	9461	6273	28
Darjeeling	3.5	2.7	10.7	6111	4387	20
Hooghly	3.5	7.8	4.7	8097	6081	28
Howrah	1.7	6.4	2.7	8286	6380	35
Jalpaiguri	7.0	3.6	17.8	10740	6755	29
Malda	4.2	3.5	10.9	10779	5422	43
Midnapore(East)	4.8	6.9	6.5	7420	5951	44
Midnapore(West)	11.0	8.0	12.8	7310	5146	42
Murshidabad	6.0	5.9	10.3	12599	6841	29
Nadia	4.4	5.1	8.3	10667	7051	30
North 24 Pgs.	3.5	12.1	15.2	13130	6289	34
North Dinajpur	4.6	1.7	4.0	9526	7440	29
Purulia	7.1	3.4	18.2	7897	4391	31
South 24 Pgs.	2.5	4.9	12.9	9659	6143	43
South Dinajpur	11.2	1.9	12.1	9237	6410	29
Total	100.0	100	8.8	8665	5925	28

Source: Government of West Bengal, District Statistical Hand Books, Various Districts

3. Financing of Secondary Education In West Bengal

The state expenditure on education comprises elementary education, secondary education, university and higher education, adult education, language development and a general category. The secondary education expenditure consists of spending on secondary and higher secondary schools. State Government directly controls a few schools, and most of the schools are non-Government aided schools. There are no tuition fees levied by the aided or Government schools in the State up to Class XII (Govt. of West Bengal, Annual Report of Education, 2007-08, Pg. no. 69). The salary components of teachers of all these schools include post retirement benefits like pension, gratuity etc.

Trends in Public Expenditure on Secondary Education in West Bengal

Public expenditure on education refers to various types of expenditure routed through education department of the State for the development of the education sector. Table 9 provides the details of public expenditure on secondary education in West Bengal along with its growth rates during 1980-2008. The public expenditure (Revenue account) on secondary education has increased from Rs. 93.76 crores in 1980-81 to Rs. 3376.21 crores in 2008-09, a 36 times increase in nearly three decades. The growth rate of public expenditure on secondary education during 1980-2008 is impressive at 12.69 per cent. However, it's to be noted that these figures are in current prices and thus required to be adjusted for inflation in order to have a realistic picture. But in absence of education related deflator, West Bengal GSDP deflator can be used for this purpose. However to get more realistic picture we have used service sector deflators to calculate education expenditure at constant prices. At constant prices (1993-94), the public expenditure on secondary education has grown by merely 2.34 times from Rs. 368.16 crores to Rs 862.35 crores during the period 1980-81 to 2008-09. The rate of growth turned out to be just 2.39 per cent during this period.

Table 9: Public Expenditure on Secondary Education in West Bengal 1980-2008

Year	Secondary Education Expenditure (Rs. In Crores)		Secondary Education Expenditure
	Current Prices	Constant(1993-94) Prices	% of SDP
1980-81	93.76	368.16	0.98
1981-82	130.67	469.11	1.23
1982-83	174.73	606.00	1.46
1983-84	160.24	559.22	1.13
1984-85	177.93	524.00	1.09
1985-86	208.91	556.14	1.20
1986-87	272.21	679.36	1.44
1987-88	280.12	644.12	1.22
1988-89	372.17	754.28	1.51
1989-90	422.93	796.08	1.52
1990-91	624.85	866.73	1.98
1991-92	622.79	869.04	1.71
1992-93	628.70	859.13	1.62
1993-94	774.01	774.01	1.60
1994-95	850.87	788.11	1.58
1995-96	939.78	778.83	1.40
1996-97	1136.02	846.27	1.53
1997-98	1246.94	859.03	1.40

Year	Secondary Education Expenditure (Rs. In Crores)		Secondary Education Expenditure
	Current Prices	Constant(1993-94) Prices	% of SDP
1998-99	1484.84	880.00	1.40
1999-00	2322.03	1158.72	1.99
2000-01	2080.38	999.59	1.61
2001-02	2143.13	998.99	1.52
2002-03	2155.91	996.27	1.42
2003-04	2215.93	1012.53	1.30
2004-05	2352.15	1019.69	1.24
2005-06	2439.26	776.09	1.15
2006-07	2751.26	824.40	1.12
2007-08	3009.67	835.87	1.08
2008-09	3376.21	862.35	1.06
	Growth Rates (%) *		
1980-2008	12.69	2.39	

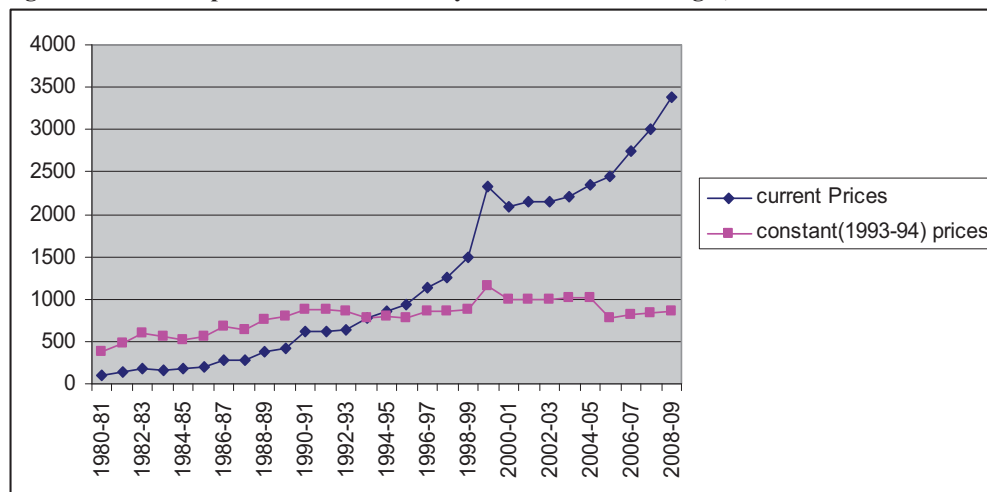
Source: Govt. of West Bengal Statistical Abstract (Various Issues)

GSDP Deflator are calculated from CSO statistics

Note: * Growth rate is calculated by fitting the semi-log function; $\ln Y a+bt$, where 'b' is the rate of growth.

The public expenditure on secondary education at 1993-94 prices in West Bengal is presented in figure 1.

Figure 1: Public Expenditure on Secondary Education West Bengal, 1980-2008

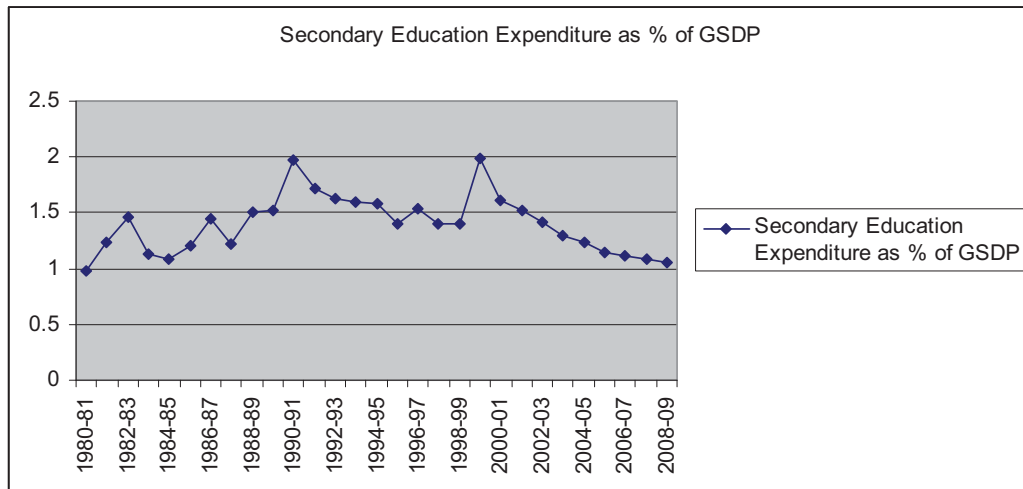


Secondary Education Expenditure and GSDP:

It is important to see how the public expenditure on secondary education is related to SDP. The share of secondary education expenditure in SDP is usually taken as an indicator of the State's priority to secondary education. Table 9 provides the details of the percentage share of secondary education expenditure in GSDP. An analysis of the table 9 shows the average annual percentage share of secondary education expenditure in West Bengal GSDP during 1980-81 to 2008-09 is 1.4% (approx.). The average annual percentage share of secondary education expenditure in GSDP has increased from 1.28% (approx.) during 1980s to 1.62% (approx.) during 1990s but declined to 1.27% (approx.) during 2000-01 to 2008-09

Moreover, since 2000 the percentage share of secondary education in GSDP is steadily declining. This means that in the State the secondary education is losing its importance since 2000. The percentage share of secondary education in GSDP is shown in Figure 2.

Figure 2: Public Expenditure on Secondary Education as percentage of GSDP (1980-81 to 2008-09) in West Bengal



To see how the expenditure on secondary education is related to Gross State Domestic Product (GSDP) we have estimated the effect of the state's gross SDP on the secondary education expenditure for the period 1984-2007. The OLS regression results are reported below.

$$\ln(\text{ESE}) = -3.8 + 0.9 \ln(\text{SDP})$$

$$t = (-8.8) \quad (24.6)$$

R square = 0.9650 Adjusted R square = 0.9634 F = 606.5042 N=24

As the results show the coefficient of GSDP (its natural logarithmic value) has a positive and significant effect (at 0 per cent level) on public expenditure on secondary education. This coefficient can be termed as SDP elasticity of secondary education expenditure, which measures the responsiveness of the public expenditure on secondary education to change in the SDP of West Bengal. The coefficient is less than unity and thus may be interpreted inelastic (moderately

inelastic). In other words, this means that a one percent increase in GSDP leads to 0.9 per cent increase in public expenditure on secondary education.

Inter- Sectoral Resource Allocations to Education in West Bengal:

Table 10: Share of Different Categories of Education in Total Public Expenditure on Education (Percentage)

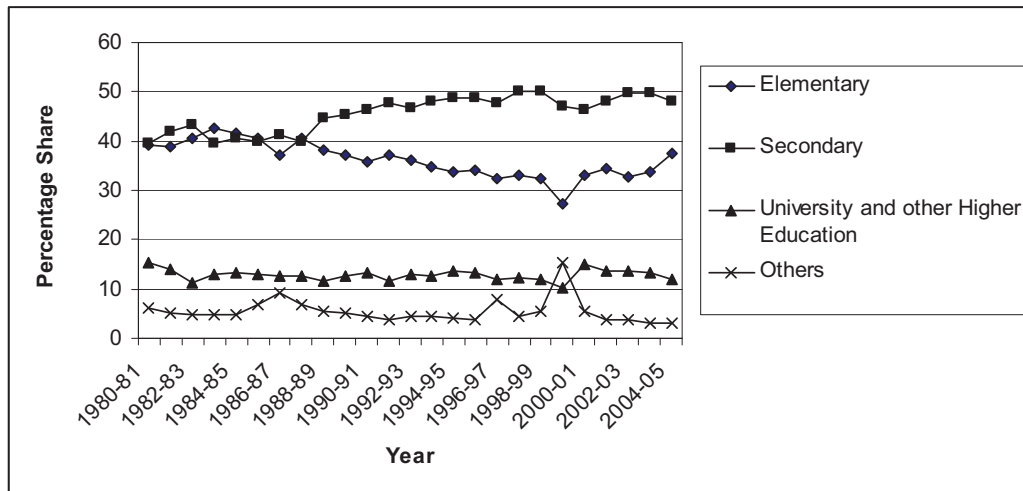
Year	Elementary	Secondary	University and other Higher Education	Others	Total
1980-81	39.2	39.4	15.3	6.1	100
1981-82	39	41.8	14	5.2	100
1982-83	40.6	43.4	11.3	4.7	100
1983-84	42.7	39.4	13.1	4.8	100
1984-85	41.6	40.5	13.2	4.7	100
1985-86	40.5	39.8	12.8	6.9	100
1986-87	37	41.1	12.7	9.2	100
1987-88	40.5	40	12.6	6.9	100
1988-89	38.2	44.6	11.6	5.6	100
1989-90	37.1	45.3	12.6	5	100
1990-91	35.9	46.2	13.4	4.5	100
1991-92	37	47.8	11.6	3.6	100
1992-93	36.3	46.6	12.8	4.3	100
1993-94	34.8	48.1	12.6	4.5	100
1994-95	33.8	48.6	13.6	4	100
1995-96	34.2	48.8	13.3	3.7	100
1996-97	32.5	47.7	12.1	7.7	100
1997-98	33.2	50	12.4	4.4	100
1998-99	32.4	50	12.1	5.5	100
1999-00	27.4	47.1	10.2	15.3	100
2000-01	33	46.4	15.1	5.5	100
2001-02	34.6	48	13.7	3.7	100
2002-03	32.8	49.7	13.8	3.7	100
2003-04	33.6	49.8	13.4	3.2	100
2004-05	37.4	47.9	11.8	2.9	100
Average (in %)					
(1980-81 to 2004-05)	36.212	45.52	12.844	5.424	

Source: Govt. of West Bengal, Statistical Abstracts (Various Issues), (Authors' calculation)

Table 10 lays out the distribution of public expenditure on education among different categories of education in West Bengal during 1980-81 to 2004-05. The head “others” includes adult education, language development, technical education & general item of expenditure. It is evident from the table that the secondary education has got the maximum priority compared to other categories of education. The average annual percentage share of secondary education during 1980-81 and 2004-05 is 45.52%. The share of secondary education in total education expenditure has increased from 41.53% during 1980s to 48.09% in 1990s, which means the relative importance of secondary education has increased within the education sector in West Bengal, during 1980 to 2004.

The share of public expenditure on secondary education as percentage of total public expenditure on education in West Bengal is presented in figure 3.

Figure 3: Percentage Share of Different Categories of Education in Public Expenditure on Education (Revenue account)



Non-Plan and Plan Expenditures on Secondary Education in West Bengal

The plan and non-plan classification of public expenditure on education provides further insights into how resources are used. The non-plan component is largely meant for salary, maintaining the infrastructure etc and plan expenditures are important for qualitative improvement of the sector. Table 11 provides the percentage share of non-plan and plan expenditure in total public expenditure on secondary education (revenue account) in West Bengal during 1983-84 to 2007-08. The percentage share of non-plan expenditure in total secondary expenditure (revenue account) during this period does not show much fluctuation, whereas, the percentage shares of plan expenditure in total secondary expenditure (revenue account) during this period, shows wider fluctuation. Table 11 reveals that the percentage share of non-plan expenditure has witnessed a marginal fall from 96.67 per cent in 1983-84 to 96.46 per cent in 2007-08 and the percentage share of plan expenditure has witnessed a significant fall from 3.33 per cent in 1983-84 to 0.54 per cent in 2007-08.

Table 11: Share of Non-Plan and Plan Revenue Expenditure on Secondary Education In West Bengal (Percentage)

year	Non-Plan as % to Total Secondary Expenditure	Plan as % to Total Secondary Expenditure
1983-84	96.67	3.33
1993-94	94.45	5.55
2003-04	99.84	0.16
2004-05	99.52	0.48
2005-06	99.9	0.1
2006-07	99.27	0.73
2007-08	99.46	0.54

Source: GOI Budgetary Resources for Education (1951-52 to 1993-94), MHRD, and Govt. of West Bengal Education Budget (various years).

Per student Public Expenditure on Secondary Education in West Bengal

Per student educational expenditure, on secondary education, both at current and constant (1993-94) prices is given in Table 12. The table also reports the annual average compound rate of growth per-student public expenditure on secondary education in West Bengal.

Table 12: Per Student Public Expenditure on Secondary Education in West Bengal

Year	Current Prices	Constant (1993-94) prices
1980-81	243.11	954.6102
1990-91	1330.77	1845.903
1998-99	3120.92	1849.627
2000-01	3750.28	1801.957
2001-02	3443.94	1605.338
2002-03	3226.28	1490.907
2003-04	3080.94	1407.775
2004-05	3117.72	1351.569
2005-06	3071.32	977.1916
2006-07	3358.61	1006.39
	Growth Rate (%)	
1980-90	18.53	6.82
1990-2000	10.92	-0.24
2000-06	-1.82	-9.25
1980-2006	10.63	0.2

Source: Selected Education Statistics (Various Issues), MHRD, Govt of India and Statistical Abstract (Various Issues), Govt. of West Bengal

At current prices, per-student secondary education expenditure has increased from Rs 243.11 in 1980 to Rs 3358.61 in 2006 i.e. a 14 times (around) increase during 1980-81 to 2006-07 (Table 12). The rate of growth is 10.63 percent. However, at constant (1993-94) prices this growth rate has turned out to be only 0.2 per cent. Moreover, the per-student public expenditure in real terms is experiencing a negative growth since the 1990s. The growth rate, during 2000-06 is negative even at the current prices.

Intra-Sectoral Allocation to Secondary Education

It is necessary to analyse the pattern of allocation of resources by different activities and objectives. This will give an idea of what is going on in schools and will also provide a view of the steps taken to extend the secondary education facilities to rural areas, girls, poor, and other weaker section of the population. At the outset, it needs to be mentioned that allocation of resources (to secondary education in West Bengal) by activities is presented for the state's revenue expenditure only. The state's expenditure on secondary education by activities is presented in Table 13.

Table 13: Intra sectoral Allocation of Public Expenditure on Secondary Education in West Bengal, 2003-2008

	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	Average
Direction and Administration	0.904	1.174	1.126	1.064	0.794	0.794	0.976
Inspection	0.886	0.977	0.703	1.107	0.709	0.709	0.849
Teachers' Training	0.017	0.198	0.170	0.146	0.128	0.128	0.131
Text Books	0.001	0.001	0.001	0.001	0.001	0.001	0.001
Scholarships	0.022	0.031	0.004	0.006	0.001	0.001	0.011
Assistance to Government Secondary Schools	1.110	1.122	1.122	1.253	1.272	1.272	1.192
Assistance to Non-Government Secondary Schools	96.280	95.336	96.096	95.263	96.130	96.130	95.872
Special Component Plan for SC	0.036	0.111	0.015	0.035	0.103	0.103	0.067
Tribal Areas Sub-Plan	0.127	0.142	0.005	0.054	0.060	0.060	0.075
Other Expenditure	0.619	0.909	0.758	1.070	0.802	0.802	0.827
TOTAL	100.000	100.000	100.000	100.000	100.000	100.000	

Source: Education Budget (Different Years), West Bengal, available at State's finance website

The table 13 shows that assistance to Non-Government Secondary Schools constitutes on an average around 96 per cent of the total expenditure on secondary education during 2003-04 to 2008-09 and the assistance to the Government Secondary Schools accounts for 1.19 per cent (around) of the total expenditure on secondary education in West Bengal, on an average during

this period. The table reveals that items other than the assistance to Non-Government Secondary Schools are hardly getting any funds (in a relative sense) during 2003-04 to 2008-09

4. Conclusion:

In this paper we have examined the status and financing of secondary education in West Bengal in terms of enrolment, number of schools and teachers. But the expenditure required to maintain the standard student-teacher ratio and provide necessary infrastructural facilities has not kept pace with the other parameters noted above. Thus the asymmetry in the growth of enrolment and the number of institutions and teachers (across districts, social groups, gender etc) may have affected the quality of education. The per-student public expenditure on secondary education in West Bengal has experienced a negative growth, both in current and constant prices, during 2000-2006, which suggests that growth of public expenditure on secondary education in West Bengal has not kept pace with enrolment growth during this period. The question remains whether the state can sustain the growing demands for education on the state budget. There should be more emphasis on the efficient utilisation of resources. A performance-based grant might be thought of. The plan expenditure component is abysmally small in the state which must be significantly enhanced to maintain the quality of education in the state. Attention must be given to the matters like vocational education, linking the secondary education with primary education and higher education

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