

CHAPTER - XPRIVATE COSTS OF EDUCATION*Introduction :

The Education Commission, in its Report, has made two important observations regarding the financial burden of the two important private costs of education (i) tuition cost and (ii) the cost of books and stationery.

First, the Commission observes that tuition fees "are the most regressive form of taxation, fall more heavily on the poorer classes of society, and act as an anti-egalitarian force". Second, "the private costs of education required for textbooks, supplies, co-curriculum activities, etc., have increased very substantially in recent years, and amount, not infrequently, to several times the tuition fees. In fact, the greater financial burden that creates the non-egalitarian trends to-day is not so much tuition fees as these other costs".¹

The Commission suggests (i) that the education in India should be gradually made tuition free and (ii) that the books should be provided free of cost or at reduced rates or grants

* This Chapter is concerned with the unrecorded private expenditure on education.

¹ Report of the Education Commission - 1964-66 Chapter VI, "Towards equalization of Educational opportunity, pp.111-113, Ministry of Education, Govt. of India.

for the purchase of books should be given to the university students to start with.

The above observations and recommendations of the Commission will, no doubt, have an important bearing on the system of educational finance in India. As the Commission itself has pointed out, "taking an overall view of the situation, therefore, it appears that the funds of the central and the state governments would have to bear about 90 per cent (or even more) of the total educational expenditure".²

Since long low tuition or no tuition is used by the states as their main weapon of insuring educational opportunities. In recent years, attention has been given to the costs other than tuition charges, and policy issues regarding financing education have linked tuition charges and scholarships.

The relevant question to which answers are sought here, in this chapter are: (i) what is the composition of the private costs of education? (ii) whether the burden of the private costs of education varies for families in different income groups, if so, to what extent? (iii) What proportion of the private costs of education, especially tuition cost, is covered by aid to students?

2 Ibid: p.472, Chapt. XIX - 'Educational Finance'.

On the answers to this question can one say whether or not the education Commission was justified in making the aforesaid recommendations.

Our main attempt will be to measure the private costs of education, at various stages of education, for families at various levels of income.

Private costs of education are known as private because they are borne by students themselves or by their families, i.e. burden of such costs falls on them as they finance them.

Expenditure on education by public bodies and that on tuition fees by private persons can be readily obtained from Government publications. But little information is available on private costs other than tuition cost incurred by private persons on education.

Where it comes to finding out the burden of the cost of education on private persons according to their economic status, the existing state of knowledge on the subject is even worse.

In these circumstances, we decided to conduct a small survey locally to get some idea of the magnitude involved.

This chapter is based on information collected in a survey

of ten percent of the students of the Faculty of Commerce of the University of Baroda, conducted during the period from October 1966 to December 1966. The procedures used in the study from which these data are drawn are outlined in Appendix 2.

Out of a total number of 129 students to be interviewed, as many as 125 were contacted. Where necessary, the students' parents were contacted to fill in the gaps in information required by our survey.

Students were asked to provide information principally under the following major heads :

- (A) Expenditure on education incurred by the family to which the student respondent belonged on all stages of education during the academic year 1965-66 not only on the student-respondent but also on other members of the family still in school or college.
- (B) Economic, social, and educational backgrounds of students' families.
- (C) The source and the amount of aid, if any, received towards the expenditure on education,

The concept of 'Annual family income' used in our study

covers not only the annual earned or unearned income (i.e. income from property) of the persons who finance their education but also the annual earned incomes of other members in a family living jointly; incomes of those who live independently or away, but who help their parents, have also been taken into account. Even the students who finance their own education, have to depend on their families for other expenses. In the case of such students there is no familiar financial support, but familial real income support. In our study, we have come across students who are earning and still their educational expenses are borne by their parents.

In the case of students' families where there are more than one earning members, education is mostly financed by the head of a family - in most cases the head is the father. As such, the annual income, from all sources, of a head, in fact, is to be taken into account. Earnings of other members are included mainly because students have the additional facility of drawing funds when required.

The limitations of our inquiry are many. We list here its principal limitations. Ours was purely a case study rather than a nationwide representative sample. Secondly, our field of inquiry was one faculty of one university of one state in the country. Thirdly, most of the students for whom data were

collected belong to general education schools and colleges rather than to professional education schools or colleges. For instance, out of 157 students studying at the third level of education, only 13 are in professional higher education colleges. Cost-structure of general school and higher education students is bound to be different than that of professional secondary and higher education students. Fourthly, composition of studentbody in our study is more in favour of students coming from comparatively better economic position. This is so as our respondents are the university students. Proportionate representation of students belonging to families at various levels of income would have been different if all students (or a representative sample of them) at the school stage had been interviewed.

However, our study has, as is shown below, some semblance of a representative sample.

(i) In 1960-61, of the total number of student, at the first stage in India, 77 per cent and 23 per cent went to government schools and private schools respectively. Of the students at the elementary stage in our sample of families, 78 per cent of students whose annual family income is upto Rs.3600, go to tuition free municipal schools and 22 per cent to private schools. However, the proportion going to government

schools is 11 per cent only when students of the income group, above Rs.3600, are considered.

(ii) Both at the secondary school stage and at the higher education stage, the proportion of students in general schools and higher education colleges and universities is very high as compared to that in professional schools and colleges for the country as a whole. In 1960-61, nearly 4/5th of the students in the higher education stage were in universities and colleges for general education. Nearly 90 per cent of the enrolled students at the second level of education were in non-professional schools in 1960-61.

(iii) For the country as a whole, in 1960-61, out of 9.1 lakh students in institutions of higher education only 3.6 lakhs or 37 per cent came from rural areas. In our study also students from ^{rural} areas at the third stage account for 40 per cent of the total.

(iv) The proportion of students at the third stage staying in hostels is 23 per cent in our study whereas it is 18.4 per cent in 1960-61 for India as a whole.

(v) According to our sample, nearly 70 per cent of the students at the higher level of education come from families with income above Rs.3600. This again might be said to represent

the pattern which prevails in the country as a whole.³

All the above points go to show that though ours is a case study limited in scope and coverage, its conclusions might be of significance in the wider context of the country as a whole.

In order to have an idea of the burden of the costs of education on families of different economic status, students' families in our sample had to be classified into various income-groups. On the basis of the information collected regarding 'annual family income', we classify below the students' families into five income groups.

3 (i) See J.P.Naik "Objectives of educational development", in "Manpower journal", Vol.I, No.2, 1965 published by the Institute of Applied Manpower Research', New Delhi. He writes: "...but from the few studies that have been conducted in some parts of the country, there is reason to conclude that the facilities for secondary and higher education are very largely utilised at present by boys, by the urban people, by the middle and the upper class, by the services and by the people in the upper ten per cent of the population".

(ii) See V.K.R.W. Rao "University Education And Employment - A case study of Delhi graduates." Occasional Papers No.3, 1961. Asia Publishing House, Bombay.

Income group (Rs. per year)	Number of students' families*	Number of students in / families according to level of education**		
		Elementary ^a	Secondary ^b	Higher ^c
1	2	3	4	5
1. 1-1800	20)	23(21)	14(13)	22(21)
2. 1801-3600	20) } 32%	21(20)	14(14)	22(22)
3. 3601-6500	27)	32(27)	22(18)	36(35)
4. 6501-15,000	27) } 68%	24(15)	22(13)	44(38)
5. Above 15,001	31)	35(20)	19(9)	48(41)
6. Total (1 to 5)	125	135(103)	91(67)	172(157)

Note: * Refers to families of student's interviewed, i.e. university students only.

** Figures in brackets in sub-columns a, b and c of column 3 refer to such students who have supplied information about their costs of education.

From the above table it can be seen that only 40 families or 32% belong to income-group Rs.3600 and below, whereas 85 families or 68% belong to incomegroup Rs.3600 and above. This indicates that, students from high incomegroup families dominate in our sample.⁴ 74.4 per cent of students at the third stage belong to higher income group (i.e. of families with annual income Rs.3600 and above), whereas only 25.6 per cent belong to lower incomegroup. We get a more

- 4 In this connection it is highly significant that the economic picture for the entire student population of the university of Baroda in the year 1957-58, as revealed in a sample survey then conducted was, as can be seen from the table below, very close to the picture revealed by our 'partial' survey of the students of this University in 1965-66.

Incomegroup (Rs. per year)	1957-58		1965-66	
	Economic status	Percentage of student's families	Percentage of student's families	Percentage of student's families
Rs.3000 and below	Low	30.5	28.8	
Rs.3001 to Rs.7812	Middle	44.5	32.8	
Rs.7813 and above	High	25.0	38.4	

Source: 1 See B.V.Shah, "Social Background of students of the M.S.University of Baroda"(Unpublished, Ph.D. thesis).

Note: We have reclassified students' families in our sample as shown above in order to make it comparable to the classification made by B.V.Shah.

If the more recent survey can be taken as any guide, it appears that the representation of lower income groups in the university students population has, contrary to general impression, instead of increasing gone down.

The third level of education is, even to-day, largely dominated by students of middle and high incomegroups. No less interesting is the increase, over the period, in the proportionate representation of families of high-group and fall in that of middle incomegroup. That this has remained so despite the tremendous increase in the scholarship and freeship expenditure over the last decade and a half in the country, must raise questions which could be fruitfully taken up for research.

or less similar picture of a relatively high proportion of students belonging to high incomegroup both at the elementary and secondary level of education. 67 per cent and 69 per cent students at the elementary and secondary stage come from high incomegroup respectively.

While the distribution of students in our sample appears to be reasonably representative with respect to the third stage, that fact itself has introduced bias in favour of the higher incomegroup when it comes to students from our sample of families going to the first and second stages.

There can be no question that students from lower incomegroup comprises the majority at the elementary stage and that even at the secondary stage of education, their relative strength should be higher than at the third level of education. Our inquiry's results with respect to the first and second stages will therefore be inapplicable in the general setting of the country as a whole unless we make the necessary corrections on the basis of whatever relevant all-India information about the economic distribution of students at these two stages is available.

This chapter is divided into three parts representing the three stages of education.

I

Elementary Education

As has been stated earlier, our inquiry results above are not strictly applicable to the all-India situation in view of the bias in our sample in favour of high incomegroup at the elementary stage.

The distribution of students at the elementary stage in our sample of families was as under :

Incomegroup (Rs. per year)	Students in		Total
	Tuition free municipal schools	Tuition payable private schools	
1. Rs. 1-3600 and below	32	9	41
2. Rs. 3600 and above	7	55	62
3. Total (1+2)	39	64	103

Now, we know that the distribution of students between Municipal and Private elementary schools is in the ratio of 77 to 23. If one ventured to use our results along with the All-India distributions of elementary stage students between private and municipal schools one could hazard an estimate of the distribution of students at this stage between high income and low income families.

Our inquiry tells us ^what the distribution of students according to family income is within each category of schools, i.e. in government as well as private schools. As we reject the distribution of students at the first stage according to family income as revealed in our sample, we might use the information with respect to distribution within each category and combined it with the All-India distribution of students between the two categories of schools. In this manner we are able to get the results given in the following table :

<u>Income group</u> <u>(Rs. per year)</u>	Students in		
	<u>Government</u> <u>schools</u>	<u>Private</u> <u>schools</u>	<u>Total</u>
1. Rs.3600 and below	63	3	66
2. Rs.3600 and above	14	20	34
3. Total (1+2)	77	23	100

Thus, the distribution of students between government and private schools at the elementary stage according to income-group for the country as a whole is almost reverse of that obtained in our survey.

On the basis of the distribution of students for the country, our distribution, then should have been as under:

Incomegroup (Rs. per year)	Students in		
	<u>Government schools</u>	<u>Private schools</u>	<u>Total</u>
1. Rs.3600 and below	65(95)	3(5)	68(100)
2. Rs.3600 and above	14(37)	21(63)	35(100)
3. Total (1+2)	79(77)	24(23)	103(100)

Note: Figures in brackets are percentages of the distribution of students between government and private schools according to incomegroups.

Thus, there should have been 68 students instead of 41 in the lower incomegroup and only 35 students instead of 62 in the higher incomegroup. As a result, the proportion going to government schools and that going to private schools has also changed. It was 38 per cent and 62 per cent in our sample; now it is 77 per cent and 25 per cent respectively. 95 per cent of the students of low income group go to municipal schools as against 37 per cent of high incomegroup.

(A) Tuition Cost :

From Table I it can be seen that there is a wide difference in the net total cost incurred per pupil among the incomegroup Rs.1-3600, and that above Rs.3600. To the former it is only Rs.25.4, whereas to the latter it is Rs.156.0 - six times the former.

Table - I

Net Tuition, Non-Tuition, and Net/Total Cost per Pupil According to Income-group: (In Rupees)

Sr. No.	Incomegroup (Rs. per year)	Net tuition cost per pupil	Non-tuition cost per pupil	private
				Net/Total cost per pupil
	1	2	3	4
1.	1-3600	11.9 (47.0)	13.5 (53.0)	25.4 (100.0)
2.	3600 and above	54.3 (34.8)	101.7 (65.2)	156.0 (100.0)
3.	Total (1+2)	26.3 (37.7)	43.5 (62.3)	69.8 (100.0)

Note: (1) Tuition cost is net of scholarship amount received by the students. 22 per cent and 11 per cent (i.e. 2 and 6 students) of the students of low and high incomegroup received aid respectively. Of six aid students belonging to high income group, four have got full freeship - two students are teacher's children and the parents of the remaining two students are government employees.

(2) Expenditure on lodging and boarding is not included in Col.3 as only one student out of the one hundred and three, has spent Rs.600 on it.

(3) Figures in brackets denote the proportions of net tuition cost and non-tuition cost per pupil to net total cost per pupil.

In the case of students whose annual family income is Rs.3600 and below, both costs, tuition and non-tuition, are more or less of equal significance as they account for 47 per cent and 53 per cent of the total cost respectively. As against this, for students who come from families earning annually more

than Rs.3600, non-tuition cost accounts for nearly $\frac{2}{3}$ rd (65 per cent) of the total cost, whereas tuition cost accounts for slightly more than $\frac{1}{3}$ rd (35 per cent) of the total cost. As a result, we notice a larger difference in the non-tuition cost per pupil rather than in the tuition cost between the students of the low and high incomegroup. Non-tuition cost per pupil of the incomegroup, Rs.1-3600, is Rs.13.5 and of the incomegroup, above Rs.3600, it is Rs.101.7 - the latter as more than seven times the former. Similarly, the net tuition cost per pupil is Rs.11.9 and Rs.54.3 respectively - the latter is approximately five times the former.

Net tuition cost and non-tuition cost per pupil are Rs.26.3 and Rs.43.5 respectively when students of low and high incomegroups are taken together. Net total cost per pupil, then, works out to Rs.69.8. These two costs account for 38 per cent and 62 per cent of the net total cost respectively.

The composition of the private costs of education for families at various level of income given above in Table I refers to all students whether going to municipal or private schools. Below, in Table II, we give the net tuition cost per pupil of private and municipal schools separately.

Table - II
Net Tuition Cost Per Pupil of Municipal and
Private Schools
(In Rs.)

Incomegroup (Rs. per year)	Net Tuition Cost Per Pupil Municipal schools	Private Schools
1-3600	-	54.2
Above 3600	-	60.1
Total	-	59.2

From Table II it can be seen that the difference in the net tuition cost per pupil between incomegroups narrows down considerably once we allow for the fact that of the students of low incomegroup, 95 per cent do not pay fees as they go to municipal schools. As against this, only 37 per cent of the students of the incomegroup above Rs.3600, go to municipal schools and enjoy free education. If we take into account the fees paid by 5 per cent of the students of the former incomegroup, net tuition cost per pupil works out to Rs.54.2 which is very close to Rs.60.1 obtained for 63 per cent of the students of the incomegroup, above Rs.3600, going to private schools.

For 95 per cent and 37 per cent (77 per cent of the total number of students at this stage in our sample) of the students

of low and high incomegroup respectively going to tuition-free municipal schools, the problem of financing tuition fees does not arise. This means, then, that the problem arises only for 5 per cent of low income-group students and 63 per cent of high incomegroup students.

Thus broadly, only those who can afford to pay tuition fees, send their children to private schools.

Moreover, apart from the snob value associated with private schools, they are also supposed to be better equipped and better staffed as compared to municipal schools. Students pay fees for better schooling facilities. In this sense, fees cannot be considered as the form of taxation but as price paid voluntarily for the returns, real or imaginary which private schools offer.

Thus tuition cost does not seem to be burdensome at this stage.

(B) Non-Tuition Costs :

From the Table III it can be seen that students belonging to low incomegroup largely spend on books and stationery. Expenditure on books and stationery is Rs.6.0 and Rs.5.5 respectively. They together account for 85 per cent of the total non-tuition cost. As such, other items of non-tuition cost are of little significance to them.

Table - III

Non-Tuition Costs - Total and per Pupil(According to Incomegroups)

(In rupees)

Sr. No.	Incomegroup (Rs. per year)	Books	Stationery	Private tuition	Transport and refreshment	Total
1	2	3	4	5		
1. 1-3600	T	408.0	374.0	61.2	74.6	918.0
	A	6.0	5.5	0.9	1.1	13.5
	P	44.4	40.8	7.0	7.8	100.0
2. 3600 and above	T	609.0	308.0	2177.0	465.5	3559.5
	A	17.4	8.8	62.2	13.3	101.7
	P	17.1	8.7	61.1	13.1	100.0
3. Total(1+2)	T	1017.0	682.0	2238.2	540.3	4477.5
	A	10.0	6.6	21.7	5.2	43.5
	P	22.8	15.2	50.0	12.0	100.0

Note: T refers to Total, A refers to Average and P refers to percentage.

As against this, we get quite a different picture of the importance of non-tuition costs with regard to the students of high incomegroup, i.e. above Rs.3600.

The most important item of non-tuition cost is 'Private tuition'.¹

¹ See Chapter III, 'Teacher Status', of the Report of the Education Commission, 1964-66, Govt. of India. "At the School stage the chief source of additional earnings to teachers is private tuitions. This practice prevails largely in urban areas and in many places, complaints are made that it has become almost a scandal".

It is Rs.62.2 per pupil - 62 times the private tuition cost per pupil of low incomegroup. It accounts for 61 per cent of the total non-tuition cost per pupil. In absolute amount as well as in terms of percentage private tuition cost is more than the net tuition cost. The former is Rs.62.2, whereas, the latter is Rs.54.3. These costs account for 39.8 per cent and 34.8 per cent of the total private cost per pupil of high incomegroups respectively.

The difference in the non-tuition cost per pupil of low incomegroup and that of high incomegroup reduces to nearly one-half (i.e. to 3.5 times from six times) once we allow for such a high expenditure on private tuition.

Next, in order of importance, comes the expenditure on books. It is Rs.17.4 per pupil - three times the expenditure on books incurred by the students of low incomegroup. It is followed by the expenditure on refreshment and transport, and on stationery. Per pupil expenditure on the above two items of non-tuition costs - refreshment and transport, and stationery is Rs.13.3 and Rs.8.8 respectively.

Even when students of two incomegroups are taken together, the private tuition cost is the most outstanding of all. It is Rs.21.7 per pupil. It forms 50 per cent of the non-tuition cost and 31 per cent of the net total cost (tuition + non-tuition).

Other non-tuition costs, in order of importance, are books, stationery, and refreshment and transport. Per pupil expenditure on these non-tuition items is Rs.9.5, Rs.6.5, and Rs.4.9 respectively.

From the above analysis of the non-tuition costs, it can be easily observed that the students of high income-group relatively spend more on each of the above mentioned items of non-tuition expenditure.

No less interesting is the non-tuition cost per pupil going to municipal as well as private schools. This is given below in Table IV.

Table - IV
Non-Tuition Cost per Pupil of Municipal Schools
and Private Schools (In Rupees)

Sr. No.	Income group (Rs. per year)	Municipal schools				Total	Private Schools				Total
		Books	Sta- tion- ery	Pri- vate tui- tuion	Tran- sport & re- shment		Books	Sta- tion- ery	Pri- vate tui- tion	Tran- sport & re- sh- ment	
1.	1-3600	5.3	4.6	-	0.7	10.6	8.8	8.7	4.0	2.6	24.1
2.	Above 3600	8.0	5.2	-	-	13.2	18.2	9.4	67.6	14.5	109.4
3.	Total (1+2)	5.7	4.6	-	0.6	10.9	16.7	9.9	57.8	12.7	96.3

From the table it can be seen that students going to private elementary schools, whether belonging to low or high incomegroup, spend more on non-tuition items as compared to the expenditure incurred on these items by the students going to municipal schools. To the former, it is Rs.24.1 and Rs.109.4 per pupil of low and high incomegroup respectively, whereas to the latter, it is Rs.10.6 and Rs.13.2 per pupil of low and high incomegroup respectively. This shows that there is a large difference in the non-tuition cost per pupil of municipal schools and that of private schools. But the difference in the non-tuition cost per pupil of low and high incomegroup going to municipal schools is not as large as it is observed in the case of students of private schools.

Students going to municipal schools mostly spend on books and stationery; similarly, the expenditure on books and stationery accounts for quite a large proportion of the non-tuition cost to students of low incomegroup going to private schools. Even then, the expenditure on books and stationery (only in the case of municipal school going children) is far below that incurred by the private school going children of high incomegroup. Only private school students spend on private tuition.

What can be observed from this analysis of the non-tuition

cost structure of students of two types of schools and also of different incomegroup?

Unlike tuition fees (where education is not free) non-tuition education expenses are voluntary in nature in the sense that students or their parents can spend as much as they can afford. If so, the non-tuition costs to students of high incomegroup cannot be considered as burdensome. On the contrary this gives one an idea of their ability to pay for education. The high amount of expenditure incurred on private tuition indicates that rich students pay for extra teaching outside schools. This means that they make larger use of one of the important inputs entering education industry, namely, teachers (if they go to private coaching classes, not run by teachers, they make use of the scarce factor, namely, educated people). Not only that the quality of teaching imparted to them is somewhat better than that imparted to poor students of municipal schools, but also they further improve upon the quality by paying for extra teaching.

What does this imply? Can this difference in the non-tuition cost per pupil of two types of schools be taken as indicating the difference in the educational standards in two categories of elementary schools? Is it going to have a bearing on the educational attainments of students of different

income groups later on at higher levels of education? Is it going to widen the educational distance, and consequently, economic distance, between them?

The answer seems to be in positive if the observed difference in the non-tuition cost be taken as reflecting on educational standards of students.

Now, we come to the second important observation made by the educational commission regarding the cost of books and stationery !

We make a comparison of the costs of books and stationery given by the Commission² with that of our inquiry. This is given in Table V.

From the table it can be seen that the Commission has given two types of estimates - the highest and the lowest - of the cost of books and stationery for each grade or year of elementary education.

Instead of taking these expenditures on books and stationery ^{separately} respectively for each grade of elementary education, we have calculated the average annual expenditure on books and stationery first by summing up these costs and then dividing the total by the number of grades (I-VIII) which is equivalent to the duration of eight years of elementary education.

² See Op.Cit., Report of the Education Commission, Table 6.3 'Private Costs of Education (Annual) 1965-66', p.113, Chapt.VI.

Table - V

Cost of Books and Stationery (In Rupees)

Class	EDUCATION COMMISSION'S ESTIMATE											
	OUR ESTIMATES						ESTIMATES					
	Rs. 1-3600						Above Rs. 3600					
	1	2	3	4	5	6	7	8	9	10	11	12
	Lowest Books Stationery	Highest Books Stationery	Lowest Books Stationery	Highest Books Stationery	Lowest Books Stationery	Highest Books Stationery	Lowest Books Stationery	Highest Books Stationery	Lowest Books Stationery	Highest Books Stationery	Lowest Books Stationery	Highest Books Stationery
I	0.50	0.60	17.80	12.80	0.75	0.50	5.00	3.00	4.00	2.00	50.00	15.00
II	0.54	0.60	16.60	12.80	2.50	1.00	5.00	5.00	2.50	2.50	5.00	5.00
III	0.69	2.11	28.51	8.33	2.00	2.00	20.00	25.00	5.00	3.00	30.00	15.00
IV	2.10	3.26	38.85	14.50	2.00	2.00	10.00	5.00	12.00	8.00	30.00	20.00
V	3.91	2.40	36.10	14.50	6.00	3.00	10.00	10.00	5.00	5.00	40.00	20.00
VI	5.85	4.63	43.24	60.00	2.00	2.00	20.00	25.00	7.00	3.00	50.00	25.00
VII	7.29	4.88	47.09	75.00	2.00	2.00	10.00	10.00	15.00	5.00	30.00	15.00
VIII	9.30	6.95	169.68	21.40	10.00	5.00	15.00	10.00	20.00	8.00	50.00	20.00
Total	29.88	25.43	397.87	219.33	27.25	17.50	95.00	93.00	70.50	36.50	285.00	135.00
Average	3.74	3.18	49.73	27.42	3.40	2.19	11.88	11.63	8.81	4.56	35.62	16.88

On the basis of this exercise, the lowest estimates of expenditure on books and stationery work out to Rs.3.74 and Rs.3.18 respectively. These are fairly close to our lowest expenditure with respect to the students of the incomegroup, 1-3600. It is Rs.3.40 and Rs.2.19 respectively. Expenditure on books and stationery, then, amounts to Rs.6 to Rs.7. The lowest expenditure, from the point of view of students of the incomegroup, above Rs.3600, is Rs.8.81 and Rs.4.56 on books and stationery respectively.

The highest estimates of the expenditure on books and stationery of the Commission are Rs.49.73 and Rs.27.42 respectively. The total of these two is Rs.77.15.

In our case, the highest expenditure with regard to the students of the high incomegroup, is Rs.35.12 and Rs.16.88 on books and stationery respectively. The total comes to Rs.52.50. We notice a difference of nearly Rs.25 between the two highest estimates given above. The highest expenditure in our study, with respect to the students of the low incomegroup, is Rs.11.88 on books and Rs.11.63 on stationery. Combined expenditure comes to Rs.22.51 - which is far below the similar cost obtained earlier.

The comparison shows that the difference in the two estimates given by the commission is quite large as compared

to that in our study. The highest combined expenditure on books and stationery is eleven times - the lowest. As against this, in our case, it is only four times the lowest, both from the point of view of students of low as well as high incomegroup.

However, the disparity noticed above in the Commission's estimates and our estimates narrows down considerably once we work out the difference in the combined lowest and highest expenditure by taking into account the lowest expenditure on books and stationery by the students of low incomegroup and the highest by the students of high incomegroup in our inquiry. The highest expenditure on books and stationery, then, is nine times the lowest. In this way, we can say that the lowest estimates in the case of the Education Commission refer to the expenditure incurred on books and stationery by poor students and the highest estimates refer to rich students.

On the basis of these estimates, the Commission concludes that, "parents are required to incur very heavy expenditure for this purpose, and consequently only a small proportion of children have all the books at the beginning of the school year; a much larger proportion have them, not at the beginning of the school year, but towards the middle or even the end. Not infrequently a proportion of students have no books at all. This has a very adverse effects on standards".³

3 See Op.Cit., Report of the Education Commission, p.113, Chapt.VI.

It can be argued that for the purpose of arriving at the above conclusion the Commission would have worked out the reasonable amount to be incurred on these two non-tuition items sufficient enough to maintain standards as the high amount of expenditure on these two by rich students, by no means, can be considered as the best index.

Here we take into account the average annual expenditure on books and stationery (See Table III). It is Rs. 11.5 per pupil of low incomegroup, and Rs. 26.2 per pupil of high incomegroup. It comes to Rs. 16.6 per pupil of both low and high incomegroup taken together.

On the basis of these averages, we can say that elementary school students are required to spend somewhere between Rs. 12 to Rs. 17 annually on books and stationery.⁴

All twenty-four students of private schools, whether belonging to low or high incomegroups, have been spending more than Rs. 17.

Of the remaining 79 students going to tuition free municipal schools, 28 (or 35 per cent) have been spending

4 See V.N.Kothari - "Factor Cost of Education in India", published in the April-June 1966 issue of the quarterly "The Indian Economic Journal". He has assumed that at the elementary stage a pupil is required to spend Rs. 12 per year on books, stationery, and equipment.

Rs.12 and above, whereas 51 students (or 65 per cent) have been spending less than this amount. Most of them have been spending less than Rs.10 annually on books and stationery.⁵

This amounts to saying that poor students going to municipal schools do not spend sufficiently on books and stationery at this stage.

This, the Commission's observation stands and is justified in its recommendation that, "a programme should immediately be developed for providing at least textbooks, if not stationery also, free of charge (or at concessional rates) to all students (or at least to all the needy and deserving students)".⁶

When viewed in this way, it appears that the private schools are certainly better than the municipal schools, and unless poor students of municipal schools are adequately covered by aid programmes, the composition of students at the higher levels of education is likely to be adversely affected.

As poor students have to economise on certain essential educational expenses, and as they go to sub-standard municipal

5 While calculating these proportions, we have taken into consideration the book aid received by the students. The proportion of students of two types of schools covered by book aid is 13.5 per cent and 7.6 per cent respectively. It has covered 19.5 per cent and 3.2 per cent of students of low and high incomegroup respectively.

6 See Op.Cit. The Education Commission Report, Chapt.VI.

schools, the rate of repetition or failure is bound to be higher than that in the case of rich students.

The following table demonstrates this. From Table VI it can be seen that 59.1 per cent of the poor students of the age-group, 6-14, are not found in the corresponding grade or class of elementary education. This rate is nearly twice the rate obtained for rich students studying at this stage. As a result, most of the poor students fail to complete the eight years of compulsory elementary education in time and ultimately premature withdrawal from schools takes place.

Table - VI
Stagnation at the Elementary Stage of
Education (According to Incomegroups)

Incomegroup (Rs. per year)	Rate of stagnation (In percentage)
1-3600	59.1
Above 3600	31.9
Total	40.7

Frustration arises from the high rate of failure can also be considered as the contributory factor to the premature withdrawal of students from schools.

(c) Concluding Observations :

(1) As most of the students of limited means take advantage of the provision of free elementary education, the problem of financing tuition fees does not arise at this stage.

(2) Rich students mostly go to private schools and pay tuition fees as well as spend lavishly on items other than tuition fees. They pay more for the better educational facilities.

(3) Insignificant expenditure on lodging and boarding as well as on transport by students at this stage indicates that students are studying staying with their parents and so these costs do not restrict access to elementary education.

(4) The cost of books and stationery is of very great importance to poor students. Annual expenditure on books and stationery incurred by the students of low income group is not only far below that incurred by the students of high income group, but also it is less than the average annual amount of Rs.12 or Rs.17. This will, certainly, have an adverse effect on standards.

(5) Disparity in educational standards exists not only between students of low and high economic status but also between two types of schools - tuition free municipal schools and private schools.

This disparity, together with poor financial position of students' parents, appears to be responsible for the early withdrawal of students. As a result, the educational distance between two gets widened.

Thus, to reduce the extent of disparity and consequently the distance between two, on the one hand, the burden of the non-tuition costs should be reduced and on the other hand, the quality of teaching in municipal schools should be improved.

TABLE - I
Private Costs of Elementary Education (1965-66)

Sr. No.	Income group (Rs. per annum)	No. of students (Elementary education)	Tuition cost (In Rs.)	Non-tuition cost (In Rs.)	Total private cost of elementary education (3+4) (In Rs.)	Tuition cost per pupil (In Rs.) and %	Non-tuition cost per pupil (In Rs.) & %	Total private cost per pupil (6+7) (In Rs.)	Total aid (In Rs.)	Aid per Pupil (InRs.)	Net tuition cost per pupil (InRs.)	Net private cost per pupil (InRs.)
			3	4	5	6	7	8	9	10	11	12
1.	1-1800	21	216	179	395	10.3 (54.8)	8.5 (45.2)	18.8 (100.0)	34	1.6	8.7	17.2
2.	1801-3600	20	336	398	734	16.8 (45.8)	19.9 (54.2)	36.7 (100.0)	30	1.5	15.3	35.2
3.	1-3600	41	552	577	1129	13.5 (49.9)	14.4 (51.1)	27.9 (100.0)	64	1.6	11.9	26.0
4.	3601-6500	27	1305	1634	2939	48.3 (44.4)	60.5 (55.6)	108.8 (100.0)	102	3.8	44.5	105.0
5.	6501-15000	15	862	1391	2253	57.5 (38.3)	92.7 (61.7)	150.2 (100.0)	-	-	57.5	150.2
6.	15001 and above	20	1301	3890	5191	65.1 (25.1)	194.5 (74.9)	259.6 (100.0)	-	-	65.1	259.6
7.	3601 and above	62	3468	6915	10383	55.9 (33.5)	111.5 (66.5)	167.4 (100.0)	102	1.6	54.3	165.8
8.	Total	103	4020	7492	11512	39.0 (35.2)	71.8 (64.8)	110.8 (100.0)	166	1.6	37.4	109.2

Note: (1) This table is prepared on the basis of the distribution of students as between low and high income groups originally obtained from our inquiry. Tables prepared after making necessary adjustments in the distribution of students are given in the text.

(2) Figures in brackets in Columns 6 and 7 refer to the proportion of tuition cost and non-tuition cost to total private cost (Col.8).

TABLE - II
Non-Tuition Costs of Elementary Education (1965-66)

Income group	Expenditure on books		Expenditure on stationery		Expenditure on private tuition		Expenditure on others (Transport, refreshment, etc.)		Total Non-tuition cost (2+3+4+5)
	1	2	3	4	5	6			
1-1800	T	85.8	84.5	-	9.0	179.3			
	A	4.1	4.0			0.4	8.5		
	P	(48.2%)	(48.0%)			(3.8%)	(100.0%)		
1801-3600	T	162.0	139.0	36.0	38.0	375.0			
	A	8.1	8.1	1.8	1.9	19.9			
	P	(40.7%)	(40.7%)	(9.0%)	(9.6%)	(100.0%)			
1-3600	T	247.8	223.5	36.0	47.0	554.3			
	A	6.0	5.5	0.9	1.1	13.5			
	P	(42.6%)	(43.0%)	(6.4%)	(8.0%)	(100.0%)			
3601-6500	T	375.0	187.0	980.0	92.0	1634.0			
	A	13.9	7.0	36.2	3.4	60.5			
	P	(23.0%)	(11.6%)	(59.9%)	(5.6%)	(100.0%)			
6501-15000	T	237.0	123.0	995.0	36.0	1391.0			
	A	15.1	8.2	66.4	2.4	92.1			
	P	(16.23%)	(8.87%)	(71.6%)	(3.3%)	(100.0%)			
15001 & above	T	470.0	243.0	1880.0	697.0	3290.0			
	A	23.5	12.3	94.0	34.7	164.5			
	P	(14.3%)	(7.5%)	(57.1%)	(21.1%)	(100.0%)			
3600 & above	T	1082.0	553.0	3855.0	825.0	6315.0			
	A	17.4	8.8	62.2	13.3	101.7			
	P	(17.1%)	(8.7%)	(61.1%)	(13.1%)	(100.0%)			
Total	T	1330.0	776.5	3891.0	872.0	6869.3			
	A	13.0	7.5	37.8	8.5	66.8			
	P	(19.2%)	(11.2%)	(56.6%)	(13.0%)	(100.0%)			

Note: (1) This table is prepared on the basis of the distribution of students as between low and high income groups originally obtained from our inquiry. Tables prepared after making necessary adjustments in the distribution of student, are given in the text.

(2) T stands for Total, A stands for Average Expenditure per Pupil and P stands for Percentage.

TABLE - III

Average Size of a Family, Total Annual Family Income and Per Capita Family Income

Income group (Rs. per year)	Number of families (students)	Total number of persons in families	Average size of a family	Total annual income (Rs.)	Per capita family income (Rs.) (3 ÷ 5)
1-1800	20	135	6.8	24,774	183.5
1801-3600	20	122	6.1	54,204	444.3
1-3600	40	257	6.5	78,978	307.3
3601-6500	27	202	7.5	1,28,160	634.4
6501-15000	27	181	6.7	2,58,900	1430.4
Above 15000	31	221	7.1	8,27,200	3743.00
Above 3600	85	604	7.1	12,14,260	2010.4
Total	125	861	6.9	12,93,238	1500.8

II

Secondary Education

Like the elementary stage, at this stage also we have to make necessary corrections in the distribution of students between low and high incomegroups by giving proper weightage, as our sample was biased in favour of high income-group college students.

The original distribution of students between income-groups, as shown in the previous section, was like this : twenty-seven students, or 40 per cent, belonged to the income-group, Rs.3600 and below, whereas forty one students, or 60 per cent, belonged to the incomegroup, Rs.3600 and above.

These ratios cannot be taken as representing the country as a whole.

In the absence of sufficient information for working out these proportions for the country as a whole, on the lines we could work out for the elementary stage, we had to take recourse to guesswork.

At the elementary stage of education, the proportion of students belonging to the income-group, Rs.3600 and below, was 66 per cent whereas that belonging to the incomegroup, Rs.3600 and above, was 34 per cent.

We are assuming that at the secondary school stage the proportion of students coming from low incomegroup families, i.e. Rs.3600 and below, will be lower than that obtained for this incomegroup at the first stage. The important reasons for making this assumption are : (1) unlike at the elementary stage, where education is provided free of tuition to as many as 77 per cent of the students, at the secondary stage, the freestudentships in the country (i.e. exemption from tuition fee) covered only 35.2 per cent of the students in 1960-61. Scholarships, - stipends covered another 5.3 per cent of the total enrolment in 1960-61 at the secondary stage. (2) At the same time it cannot be overlooked that the tuition cost per student paying tuition fees works out to be Rs.87 per annum at the secondary stage as against Rs.59.2 per annum at the elementary stage. (3) Alongside, we have also to take into account the higher non-tuition cost of Rs.82 per student at the secondary stage than that of Rs.44 at the elementary stage. (4) Also, economic pressures, on at least some of the families in the low incomegroup, might force them to divert their children in the age-group of 14 and above from education to in search of gainful employment or even to household work.

Taking all these factors into consideration, there is every likelihood of the proportion of students coming from

low incomegroups at the secondary stage declining. It is assumed to be around 50 per cent as against 66 per cent at the elementary stage. As a corollary, the students coming from higher incomegroups will be around 50 per cent at the secondary stage.

The distribution of students according to incomegroups, on the basis of the above assumed ratios, then, should have been as under:

	Incomegroup (Rs. per year)	Number of students
1.	1-1800	17
2.	1801-3600	17
3.	1-3600 (1+2)	34
4.	3601-6500	12
5.	6501-15000	12
6.	Above 15000	10
7.	Above 3600	34
8.	Total (3+7)	68

(A) Tuition Cost :

Secondary education is bound to be costlier than elementary education. At this stage, students have to pay tuition fees. In addition to that, they have to incur heavy expenses on non-tuition items of education.

Table - I

Tuition Cost, Examination Fees, Non-Tuition
Cost and Total/^{private}Cost per Pupil
(In Rs.)

Income group	Tuition cost	Exam. fees	Non-tuition cost	Total/ ^{private} cost (2+3+4)
1	2	3	4	5
1. 1-1800	85.0 (72.5)	2.7 (2.3)	29.6 (25.2)	117.3 (100.0)
2. 1801-3600	86.5 (59.6)	7.1 (4.9)	51.6 (35.5)	145.2 (100.0)
3. 1-3600 (1+2)	85.8 (65.3)	5.0 (3.8)	40.6 (39.9)	131.4 (100.0)
4. 3601-6500	84.0 (60.2)	6.3 (4.5)	49.3 (35.3)	139.6 (100.0)
5. 6501-15000	93.0 (43.9)	-	106.1 (56.1)	189.1 (100.0)
6. Above 15000	100.3 (29.6)	4.4 (1.3)	234.4 (69.1)	339.1 (100.0)
7. Above 3600 (4+5+6)	88.4 (41.1)	3.5 (1.2)	123.8 (57.7)	214.7 (100.0)
Total (3+7)	87.1 (50.1)	4.5 (2.6)	82.0 (47.3)	173.6 (100.0)

Note: (1) Figures in brackets denote the proportions of tuition, examination and non-tuition cost to total cost.

(2) Above is the tuition cost per pupil paying fees (unaided). Similar tuition cost is assumed for the aided students, i.e. they would have paid the same amount as paid by the unaided students, had they not received aid.

It can be observed from Table I that of the two costs, tuition cost is of greater importance to poor students, i.e.

of the incomegroup Rs.3600 and below. It accounts for 65 per cent of the total cost. It forms 73 per cent and 60 per cent of the total cost to the students of the first and second low incomegroup respectively. The tuition cost per pupil of low incomegroup is Rs.85.8. As against this, non-tuition cost per pupil of Rs.40.6 accounts for 31 per cent of the total cost.

In contrast to this, tuition costforms 41 per cent of the total cost per pupil of high incomegroup, i.e. above Rs.3600. Tuition cost per pupil is 88.4. On the other hand, non-tuition cost per pupil of Rs.124 accounts for 58 per cent of the total cost. However, to the students of the incomegroup, Rs.3601 to 6500, it is as significant as to the students of low incomegroup. Tuition cost per pupil of Rs.84.0 accounts for 60 per cent of the total. We notice hardly any difference in the tuition cost per pupil of low and high economic status. Whereas the non-tuition cost per pupil of high incomegroup is three times higher than that of low incomegroup.

When students of all five incomegroups are taken together, tuition cost per pupil works out to Rs.87.1. It forms 50 per cent of the total cost. Non-Tuition cost per pupil of Rs.82 forms 47 per cent of the total cost.

In order to know how much burdensome tuition cost is to the students' families at different levels of income, one has to find out the proportion of tuition cost to family income. This is shown in Table II below :

Table - II

Tuition Cost in Relation to Family Income

Incomegroup (Rs. per year)	Proportion of tuition cost to family income %
1	2
1. 1-1800	6.9
2. 1801-3600	3.3
3. 1-3600 (1+2)	4.4
4. 3601-6500	1.8
5. 6501-15000	0.9
6. Above 15000	0.3
7. Above 3600 (4+5+6)	0.7
8. Total (3+7)	1.2

From Table II it can be seen that the proportion of tuition cost to family income is 4.4 per cent with regard to the students of low incomegroup and 0.7 per cent with respect to the students of high incomegroup. The former is approximately six times the latter.

Though the tuition cost is as significant to the students' families of the first high incomegroup, Rs.3600-6500, as to the students of low incomegroup, its burden on such families is fairly low when measured in terms of family income. It is only 1.9 per cent.

Taking students of all five incomegroups together, the proportion comes to 1.2 per cent.¹

Thus, the burden of tuition cost falls more heavily on students coming from poor families.

Really speaking, to have a more realistic picture of the burden of this cost on families at different levels of income, what we should do is to find out the proportion of students of different economic status covered by aid as well as the proportion of tuition cost covered by aid. We get the above information from Table III.

1 While calculating these proportions we have added the 'Notional' amount of tuition fees that would have been paid by the aided students had they not received aid, to the amount of tuition fees paid by the unaided students (or fee paying students).

Table - III

Proportion of Students and Tuition Cost Covered by Aid
(In percentages)

Incomegroup (Rs. per year)	Students covered by aid %	Tuition cost covered by aid %	Source of aid
1	2	3	4
1-1800	(12) 69.2	100.0	E.B.C.* enjoying tuition fee education.
1801-3600	(3) 21.4	50.0	$\frac{1}{2}$ - School freeship.
1-3600	(15) 44.1	90.0	--
3601-6500	(2) 22.2	86.0	Full - Govt. Employees $\frac{1}{2}$ - Caste organisation.
6501-15000	(5) 46.4	100.0	Full - 4 - Govt. Employees Full - 1 - $\frac{1}{2}$ School freeship $\frac{1}{2}$ Charity trust
Above 15000	(1) 11.1	100.0	1 - Full-Teacher's son
Above 3600	(8) 27.0	96.0	--
Total	(23) 34.0	92.0	--

Note: (1) Figures in brackets in column 2 denote the number of students who received aid.

*2) Students whose annual family income is Rs.1200 and below enjoy free education. For this purpose, they are considered as belonging to Economically Backward Class.

From the table it can be seen that the proportion of 44 per cent of students of low incomegroup, i.e. Rs.3600 and below,

covered by aid is higher than that of 27.0 per cent with respect to high incomegroup students. Aid has covered 96 per cent of the tuition cost in the case of the students of high incomegroup as against 90 per cent in the case of low incomegroup students. Aid has completely wiped out the burden of this cost on nearly 70 per cent of the students of the first low incomegroup.

The proportion of 21 per cent of students covered by aid with regard to the incomegroup, Rs.3601-6500, is more or less similar to that of 21.4 per cent of the students of the incomegroup, Rs.1801-3600. But the proportion of tuition cost of 86 per cent covered by aid is very much higher than that of 50 per cent in the case of the students of the latter incomegroup. This goes to show that financial aid seems to have helped much the comparatively well-off students.

Most surprising is the proportion of 46.4 per cent of the students covered by aid of the incomegroup, Rs.6501-15000. This proportion is twice the proportion obtained earlier for relatively poor students. The proportion of tuition cost of 100 per cent covered by aid is also twice that of 50 per cent with regard to the students of the incomegroup, Rs.1801-3600. This also goes to prove that rich students have been benefitted more by aid. How could we explain such a large

proportion of students and tuition cost of high income-group students covered by aid?

Tuition cost of all five students has been fully covered by aid. Four students whose parents are serving in Government establishments enjoy free education. The remaining one student has got one-half school free-ship and one-half aid from private charity trust, covering his full tuition cost.

Tuition cost of one student belonging to the incomegroup, Rs.15000 and above, is fully covered by aid as he happens to be the teacher's son.

Aid has covered 34 per cent of the total number of students studying at this stage and 92 per cent of the tuition cost. Thus the burden of tuition cost on students' families considerably reduced by the financial aid of different types received from various sources.

(B) Non-Tuition Cost :

From Table IV it can be seen that the non-tuition cost of Rs.123.8 per pupil of high incomegroup is three times the non-tuition cost of Rs.40.6 per pupil of low incomegroup. This difference can largely be explained by the difference in the expenditure incurred on private tuition by the students of low

and high incomegroup. It is Rs.12.1 and Rs.77.3 per pupil of low and high income group respectively. The latter is more than six times the former.

Table - IV

Non-Tuition Cost per Pupil

(In Rupees)

Incomegroup (Rs. per year)	Books	Stationery	Private tuition	Transport and ref- reshment	Total (2+3+4+5)
1	2	3	4	5	6
1-1800	8.5 (29.8)	9.2 (31.1)	7.3 (24.6)	4.6 (15.5)	29.6 (100.0)
1801-3600	13.5 (26.1)	14.5 (28.1)	17.5 (34.0)	6.1 (11.8)	51.6 (100.0)
1-3600	11.0 (22.9)	12.0 (29.8)	12.1 (29.8)	5.6 (13.5)	40.6 (100.0)
3601-6500	19.1 (38.8)	11.4 (23.1)	14.6 (29.6)	4.2 (8.5)	49.3 (100.0)
6501-15000	27.0 (25.5)	12.4 (11.7)	52.0 (49.0)	14.7 (13.8)	106.1 (100.0)
Above 15000	27.2 (11.6)	16.0 (6.8)	182.9 (78.0)	8.3 (3.4)	234.4 (100.0)
Above 3600	24.2 (19.5)	13.2 (10.6)	77.3 (62.6)	9.1 (7.3)	123.8 (100.0)
Total	17.4 (21.2)	12.6 (15.4)	744.7 (54.4)	7.3 (9.0)	82.0 (100.0)

Note: Figures in brackets denote the proportions of expenditure on books, stationery, private tuition and transport and refreshment to total non-tuition cost.

The combined expenditure on books and stationery per pupil of the incomegroup, Rs.3600 and below, is Rs.23.0. It accounts for 58 per cent of the total non-tuition cost. It forms 61 per cent and 54 per cent of the total non-tuition cost to the students of the incomegroup, Rs.1-1800, and Rs.1801-3600, respectively. In this way, these costs, as they were at the elementary stage, are highly significant to the poor students.

At the same time, non-tuition educational expenses on private tuition and transport and refreshment are no less significant.

Expenditure on private tuition is Rs.12.1 per pupil and that on transport and refreshment is Rs.5.5 per pupil. At the elementary stage, similar non-tuition costs were Rs.0.9 and Rs.1.1 per pupil respectively. Expenditure on private tuition is more than that on books and is equal to that on stationery. It accounts for 30 per cent of the total non-tuition cost.

What should we infer from this observation? Students' families belonging to low incomegroup had to economise on essential expenses like books and stationery and hardly incurred expenditure on private tuition at the elementary

stage. How is it that the same families spent so much on private tuition at the secondary stage?

Ten students (30 per cent of the total number (34) of students belonging to the incomegroup, Rs.3600 and below), incurred expenditure on private tuition. Expenditure per pupil on private tuition works out to Rs.42.²/₃, nearly 50 per cent of the tuition cost. Of these ten students, eight students, or 80 per cent, were unaided. Also six students, or 60 per cent of ten students, belong to the second low incomegroup, i.e. Rs.1801-3600. Clearly unaided students of the second low incomegroup mostly incur expenditure on private tuition.

Eight out of ten students, who spent on private tuition, were in class XI or Matric - final year of the secondary stage. They attach great importance to the last year of the school stage. As such, they might have spent on private tuition by economising on other essential expenses or by even incurring debts.

At the secondary stage of education also, expenditure on private tuition is of great significance to the students of three high incomegroups. It is Rs.77.3 per pupil, or 63 per cent of the total non-tuition cost. At the elementary stage, it was

2 This is worked out by ~~the~~ dividing the amount spent on private tuition by the number of students who, in fact, incurred expenditure on it.

50 per cent of the total non-tuition cost. 32 per cent of the students of the incomegroup (i.e. 11 out of 34 students), Rs.3600 and above, spent on private tuition. 93 per cent of the students who incurred expenditure on private tuition, were unaided. Per pupil expenditure on private tuition works out to Rs.199.8. Nearly 80 per cent of the students of the incomegroup, Rs.3601- 6500, who spent on private tuition, were in class XI. As against this, only 25 per cent of the students of other two high incomegroups (Rs.6501-15000 and Rs.15000 and above) who spent on private tuition were in class XI. As well, per pupil expenditure on private tuition in the case of latter group of students is considerably higher than that of the former group of students. Expenditure on private tuition works out to Rs.55.4 per pupil of the incomegroup, Rs.3601-6500, whereas it works out to Rs.225.3 and Rs.329.0 per pupil of the incomegroup, Rs.6501-15000, and above Rs.15000 respectively.

This shows that the students of the last two high incomegroups (Rs.6500 and above) spend on private tuition throughout the secondary stage whereas the students of the first high incomegroup spend only when they are in the final year of the school stage.

Expenditure on books and stationery is Rs.24.0 and Rs.13.0

per pupil respectively. Combined expenditure of Rs.37.0 per pupil of high incomegroup is more by 60 per cent than the expenditure incurred on these two items by poor students. They together account for 30 per cent of the total non-tuition cost.

Expenditure on transport and refreshment of Rs.9.0 per pupil accounts for 7 per cent of the total non-tuition cost.

Thus non-tuition cost structure of the students of the incomegroup, Rs.3600 and above, at this stage closely resembles to that obtained for highincome-group students at the elementary stage.

The non-tuition cost composition of the secondary stage students as a whole (i.e. of all five incomegroups together) in our inquiry, is very similar to that obtained at the elementary stage. The proportion of the total non-tuition expenditure devoted to private tuition is as high as 54 per cent. It accounts for 26 per cent of the total cost (tuition + non-tuition) of education whereas 51 per cent of the tuition cost.

Next in importance comes the expenditure on books and stationery. It is Rs.30.0 per pupil, accounting for 37 per cent of the non-tuition cost. Expenditure on transport and refreshment of Rs.7.3 per pupil accounts for 9 per cent of the total.

TABLE - V

Cost of Books and Stationery

Class	OUR ESTIMATES															
	EDUCATION COMMISSION'S ESTIMATES						Rs. 1-3600							Rs. 3601-Above		
	Lowest Books station- ery	2	3	4	5	6	Lowest Books station- ery	7	8	Highest Books station ery	9	10	Lowest Books station- ery	11	Highest Books station- ery	12
IX	11.15	7.51	192.55	70.00	5.00	7.00	20.00	30.00	5.00	7.00	5.00	7.00	50.00	25.00		
X	4.50	14.00	216.35	70.00	12.00	5.00	25.00	20.00	5.00	10.00	50.00	50.00	50.00			
XI	13.75	11.25	189.65	70.00	5.00	5.00	30.00	20.00	17.00	7.00	50.00	15.00				
Total	29.40	32.76	598.55	210.00	22.00	17.00	75.00	70.00	27.00	24.00	150.00	90.00				
Average	9.80	10.92	199.85	70.00	7.33	5.67	25.00	23.33	9.00	8.00	50.00	30.00				

Below we make a comparison of the cost of books and stationery given by the Education Commission with that of our inquiry. This is given in Table V. From the table it can be observed that the highest estimates of the cost of books and stationery of Rs.269.85 are 13 times the lowest estimates of Rs.20.72 given by the Commission. As against this, in our case the highest combined expenditure on books and stationery of Rs.48.33 is approximately four times the lowest combined expenditure of Rs.13.00 with respect to low incomegroup students. From the point of view of students of the incomegroup, Rs.3600 and above, the highest expenditure on books and stationery of Rs.80.00 is nearly five times the lowest combined expenditure of Rs.17.00.

Thus, the comparison shows that the difference in the two estimates given by the Commission is quite large as compared to that in our inquiry.

Even if we work out the difference in the lowest and highest expenditure on books and stationery in our case by taking into account the lowest expenditure incurred by the low incomegroup students and highest expenditure by the high/incomegroup students, the disparity between our estimates and the Commission's estimates remains quite high. In our case, now the highest expenditure on books and stationery is six times the lowest.

We treat the average annual expenditure on books and stationery obtained in our study as a representative of the amount a student is required to spend on books and stationery in order to maintain educational efficiency. Average annual expenditure on books and stationery is Rs.30.0 per pupil.

At the prevailing rates of textbooks, students at this stage of three year's duration, have to spend Rs.15, Rs.20 and Rs.25 annually on books, i.e. Rs.20 on average per annum. Add to this the average annual expenditure on stationery and equipment of Rs.12.6 obtained in our study. Then a student is required to spend Rs.32.6 per year.

A student spending Rs.30 or Rs.33 annually on books and stationery, can be taken as incurring expenditure sufficient enough to maintain educational standards.

74 per cent (25 out of 34 students) of the students of high incomegroup are found spending Rs.30 and more (upto Rs.100). As against this, only 22.2 per cent (7 out of 34 students) of the students of low incomegroup are found spending Rs.30 and more (upto Rs.50). All seven students belong to the incomegroup Rs.1801-3600. This means that all seventeen students of the first low incomegroup, Rs.1800 and below, are spending less than Rs.30.

So, nearly 80 per cent of the students of low income-group and 26 per cent of the students of high incomegroup do not spend sufficiently on books and stationery.

At this juncture we have to make an allowance for the help of books received by the students of low and high incomegroups.

Book aid has covered 46.2 per cent and 43 per cent (44.4 per cent of the students of low incomegroup) of the students of the incomegroup, Rs.1-1800 and Rs.1801-3600 respectively. It has covered 17.5 per cent of the students of high incomegroup. 33 per cent of the students of the first high incomegroup (i.e. Rs.3601-6500) have been covered by book-aid. This proportion comes to 28.4 per cent when students of all five incomegroups are taken together.

Assuming that the book aid is sufficient enough to maintain educational standards, the proportion of low incomegroup students spending adequately on books and stationery goes up from 22 per cent to 50 per cent.

Similarly, from the point of view of students of high incomegroup, the proportion of students spending between Rs.30 to 33 annually goes up to 88 per cent from 76 per cent.

The proportion of 66 per cent of the students spending adequately on books and stationery at the secondary stage is more than that of 52 per cent at the elementary stage.

Viewed in this way, the Education Commission's observation that books should be provided free of cost or at concessional rates holds to the extent that 50 per cent of the students of low incomegroup and 12 per cent of the students of high income-group (or 34 per cent of the students at this stage) spend less than Rs.30 or Rs.33 per year on books and stationery.

Non-Tuition Cost in Relation to Family Income :

Table - VI

Non-Tuition cost in Relation to Family Income

(In percentages)

Incomegroup (Rs. per year)	Non-tuition cost (Rs.)		Proportion of non-tuition cost to family income (%)
	Total	per pupil	
1	2		3
1-1800	503	29.6	2.42
1801-3600	877	51.6	1.84
1-3600	1380	40.6	2.00
3601-6500	592	49.3	1.10
6501-15000	1273	106.1	1.10
Above 15000	2344	234.4	0.88
Above 3600	4209	123.8	0.96
Total	5589	82.0	1.13

It can be seen from Table VI that the non-tuition cost per pupil of low incomegroups and first high incomegroup is far less than that of last two high incomegroups. Even the average non-tuition cost per pupil of all five incomegroups taken together is two times higher than the non-tuition cost per pupil of the incomegroup, Rs.3600 and below. However, the proportion of non-tuition cost to family income of 2.0 % with regard to low income-group students is two times the high incomegroup. Non-tuition cost is more burdensome to students' families coming from the incomegroup, Rs.3600 and below. This is worked out on the basis of the actual expenditure incurred on non-tuition items of education by the relatively poor students in our sample.

In order to gauge the real magnitude of the burden of these costs on poor families what is appropriate to take into account is not the actual expenditure but the 'necessary' amount to be incurred on non-tuition items of education, i.e. the amount adequate enough to maintain certain educational standards. Had they spent the 'necessary' amount, the proportion of non-tuition cost to family income would have been much higher than that obtained in the table.

In view of the above, the burden of non-tuition cost is likely to exceed that of tuition cost on students belonging to low incomegroup.

In this sense, the Education Commission's observation regarding the relative burden of two costs- tuition and non-tuition costs stands and is justified in its suggestion that the burden of non-tuition costs falling on low income families, should be reduced.

(C) Conclusions :

(1) Private cost per pupil of a secondary school is 2.5 times his counterpart in an elementary school. This lends support to our assumption that the proportion of students at the secondary stage coming from low incomegroup is lower than that at the elementary stage.

(2) Of the two costs - tuition and non-tuition - tuition cost figures importantly in the total private cost - structure of students' families belonging to first three incomegroups out of five in our sample. It accounts for nearly 2/3rds of the total cost. As against this, with regard to the students of last two incomegroups, the significance of these two costs is almost reverse of the first three incomegroup students. Non-tuition cost accounts for 68 per cent of the total cost, whereas tuition cost accounts for 32 per cent of the total cost.

(3) The burden of tuition cost falls more on students of low incomegroup.

(4) They are relieved of this burden to a very great extent by the financial aid of different types received from various sources.

(5) The proportion of tuition cost and of students covered by aid is higher for the income group Rs.6501-15000 than for the income group, Rs.1801-3600. This is because of a number of reasons operating in favour of the former income-group. Firstly, most of the parents of the aided students of that incomegroup are government employees who are entitled to freeships. Secondly, they are in a position to get aid from their castes and also from private charity trusts. This goes to suggest that while estimating the burden of tuition cost on families at different levels of income, we should not merely take note of scholarships, stipends, school free-ships or free studentships, but also the aid students get from private charities etc. as well as free education enjoyed by the children of the government employees or school teachers.

(6) Students of low incomegroup, i.e. Rs.3600 and below, spend less on non-tuition items of education as compared to those of high incomegroup, i.e. above Rs.3600. Non-tuition cost per pupil of high incomegroup is three times that of the low incomegroup. A large portion of this difference can be

accounted for by the fact that the high incomegroup students spent six times more on private tuition than low incomegroup students.

(7) Nearly 50 per cent of the low incomegroup students do not spend sufficiently on books and stationery. As such, we observed a wide difference in the non-tuition per pupil of low and high incomegroup.

(8) This difference in the non-tuition cost can be taken as an index of the difference in the educational efficiency of the two income categories of students.

(9) Though the non-tuition expenditure incurred by the students of the incomegroup, Rs.3600 and below, is three times less than that incurred on it by the students of the incomegroup, Rs.3600 and above, the burden of this cost on poor families is almost two times more than that on rich families. The burden is likely to go up once account is taken of the necessary amount to be incurred on these items as against the actual non-tuition expenditure.

(10) Since low incomegroup families have to economise on essential items of non-tuition expenditure, it is bound to affect adversely the educational attainments of the students from low incomegroups. It is in this sense that the Education

Commission's observation regarding non-egalitarian character of the burden of non-tuition costs is to be understood.

Viewed in this manner, the recommendation of the Education Commission that books and stationery be provided free of cost or at concessional rates would have greater force if such facility were offered only to low-income students.

Table - 1

Private Cost of Secondary Education - 1965-66

Sr. No.	Income group (Rs. per year)	No. of students (secondary education)	Tuition fees (Rs.)	Examination fees (Rs.)	Non-tuition cost (Rs.)	Total private cost (Rs.)	Tuition cost per pupil (Rs.)	Examination fee per pupil (Rs.)	Non-tuition cost per pupil (Rs.)	Total private cost per pupil (Rs.)	Total Amount of aid (Rs.)	Aid per pupil (Rs.)	Net private cost per pupil (10-12) (Rs.)
1	2	3	4	5	6	7	8	9	10	11	12	13	
1.	1-1800	13	1105	35	385	1525	85.0 (72.5)	2.7 (2.3)	29.6 (25.2)	117.3 (100.0)	765	58.8	58.5
2.	1801-3600	14	1211	100	723	2934	86.5 (59.6)	7.1 (4.9)	51.6 (35.5)	145.2 (100.0)	120	8.6	136.6
3.	3601-6500 (1+2)	37	2316	135	1108	4459	85.8 (65.3)	5.0 (3.8)	41.0 (30.9)	131.8 (100.0)	885	32.8	99.0
4.	3601-6500	19	1593	119	937	2649	84.0 (60.2)	6.3 (4.5)	49.3 (35.3)	136.6 (100.0)	282	14.8	124.8
5.	6501-15000	13	1079	-	1380	2459	83.0 (43.9)	-	106.1 (56.1)	189.1 (100.0)	415	32.0	157.1
6.	15000 and Above	9	902	40	2109	3051	100.3 (29.6)	4.4 (1.3)	234.4 (69.1)	339.1 (100.0)	100	11.1	328.0
7.	3600 and Above	41	3574	159	4426	8159	87.2 (43.9)	3.9 (1.9)	107.7 (54.2)	198.8 (100.0)	797	19.4	179.4
8.	Total (3+7)	68	5890	219	5534	12618	86.6 (50.2)	4.3 (2.6)	81.4 (47.2)	172.3	1682	27.7	144.6

Note: (1) Figures in brackets in Cols. 7, 8, 9 and 10 refer to the proportion of tuition cost, examination fee and non-tuition cost to total private cost.

(2) This table is prepared on the basis of the distribution of students as between different income groups obtained from our inquiry. Tables prepared after making necessary adjustments in the distribution of students are given in the text.

Table - 2

Non-Tuition Costs of Secondary Education 1965-66

(In Rs.)

Sr. No.	Incomegroup & number of students in it (Rs. per annum)	Expenditure on					Total non-tuition costs (2+3+4+5)
		books (Rs.)	on stationery	Expenditure on private tuition	on others' (Transport, refreshment, etc.)		
		2	3	4	5	6	
1.	1-1800 (13)	T	110	120	95	60	385
		A	8.5 (28.7%)	9.2 (31.4%)	7.3 (24.6%)	4.6 (15.6%)	29.6 (100.0%)
		P					
2.	1801-3600 (14)	T	190	203	245	85	723
		A	13.5 (26.1%)	14.5 (28.1%)	17.5 (34.0%)	6.1 (11.8%)	51.6 (100.0%)
		P					
3.	1-3600 (1+2) (27)	T	300	323	340	145	1108
		A	11.1 (27.0%)	12.0 (29.2%)	12.65 (30.5%)	5.4 (13.3%)	41.0 (100.0%)
		P					
4.	3601-6500 (19)	T	363	217	277	80	937
		A	19.1 (38.7%)	11.4 (23.2%)	14.6 (29.6%)	4.2 (8.5%)	49.3 (100.0%)
		P					
5.	6501-15000 (13)	T	350	163	676	191	1380
		A	27.0 (25.5%)	12.4 (11.7%)	52.0 (49.0%)	14.7 (13.8%)	106.1 (100.0%)
		P					
6.	15000 and above (9)	T	245	144	1645	75	2109
		A	27.2 (11.6%)	16.0 (6.8%)	182.9 (78.0%)	8.3 (3.6%)	234.4 (100.0%)
		P					
7.	3600 and above (4+5+6) (41)	T	958	524	2598	346	4426
		A	23.2 (21.7%)	12.8 (11.8%)	63.3 (58.8%)	8.4 (7.7%)	107.7 (100.0%)
		P					
8.	Total (68)	T	1258	848	2938	490	5534
		A	18.5 (22.7%)	12.5 (15.4%)	43.2 (53.0%)	7.2 (8.9%)	81.4 (100.0%)
		P					

Note: (1) T refers to Total, A refers to Average non-tuition cost per pupil and P refers to percentage.

(2) This table is prepared on the basis of the distribution of students as between different incomegroups obtained from our inquiry. Tables prepared after making necessary adjustments in the distribution of students are given in the text.

III

Higher Education

I

How much costly higher education is in relation to elementary and secondary education? The following table is suggestive in this respect.

Table - 1

Private Cost Per Pupil of Elementary,
Secondary and Higher Education. (In Rs.)

Incomegroup (Rs. per year) 1	Elementary education 2	Secondary education 3	Higher education 4
1-3600	27.4	131.4	477.0
Above 3600	157.6	216.1	660.6
Total	71.4	173.6	611.0

From Table 1 it can be seen that the higher education is approximately 8.5 times and 3.5 times costlier than the elementary and secondary education respectively, when both, low income-group and high incomegroup students, are taken together.

The higher education to the students' families coming from the incomegroup, below Rs.3600, is 17.5 times and 3.6 times costlier than the elementary and secondary education respectively. As against this, to the students of the

incomegroup, Rs.3600 and above, the higher education is 4.2 times costlier than the elementary education and 3.0 times costlier than the secondary education.

This indicates that the expenditure incurred on higher education is bound to form a higher proportion of family income than that on elementary and secondary education.

Table below explains this.

Table - 2

Private Cost of Education in Relation to Family Income
(In percentages)

Incomegroup (Rs. per year)	<u>Private Cost of Education as a Proportion of Family Income</u>		
	Elementary education a	Secondary education b	Higher education c
1		2	
1-3600	1.4	6.4	24.4 (20.2)
Above 3600	1.1	1.7	6.4 (3.5)
Total	1.2	2.3	7.1 (5.2)

Note: Figures in brackets in sub-column 'c' of Column 2 denote the proportion of the cost of higher education to family income less expenditure on lodging and boarding.

The cost of higher education as a proportion of family income accounts for 24.4 per cent for the low income-group students, i.e. Rs.3600 and below, whereas that of elementary and secondary education forms 1.4 per cent and 6.4 per cent of family income respectively.

As against this, with regard to high income-group students, the cost of higher education forms 6.4 per cent of family income, whereas that of elementary and secondary education forms 1.1 per cent and 1.7 per cent of family income respectively.

Thus the expenditure on higher education accounts for a larger proportion of family income than that for the other two levels of education.

Students' families belonging to the income group, Rs.3600 and below, have to devote a higher proportion of their income to higher education as compared to that devoted by the high incomegroup (i.e. Rs.3600 and above) students' families.

This shows that in relation to family income, the cost of higher education is high to the low incomegroup students. As such, the problems of financing education are more likely to arise in the case of poor students.¹

1 See S.E. Harris - 'Student Financing and Enrolment in Higher Education', in O.E. C.D. - "Financing of Education for Economic Growth", Paris, 1966. He writes, "in the United States, when the costs to the student of higher education are high in relation to family income or per capita income, serious problems of financing arise for the student".

Tuition Cost :Table - 3Tuition Cost, Examination Fees, Non-Tuition
Cost and Total Private Cost Per Pupil (In Rs.)

Incomegroup (Rs. per year)	Tuition cost per pupil	Examination fees per pupil	Non-Tuition cost per pupil	Total Private cost per pupil (2+3+4)
1	2	3	4	5
1. 1-1800	260.3 (67.7)	31.9 (8.3)	92.2 (24.0)	384.4 (100.0)
2. 1801-3600	260.1 (46.0)	31.8 (5.6)	273.3 (48.4)	565.2 (100.0)
3. 1-3600 (1+2)	260.2 (54.6)	31.9 (6.7)	184.9 (38.7)	477.0 (100.0)
4. 3601-6500	272.1 (47.1)	32.5 (5.9)	271.9 (47.0)	576.6 (100.0)
5. 6501-15000	260.0 (43.4)	35.5 (5.9)	308.2 (50.7)	603.7 (100.0)
6. Above 15000	286.6 (36.5)	34.3 (4.3)	466.3 (59.2)	787.2 (100.0)
7. Above 3600 (4+5+6)	272.9 (41.3)	34.1 (5.2)	353.6 (53.5)	660.6 (100.0)
8. Total (3+7)	270.3 (44.2)	33.3 (5.5)	307.4 (50.3)	611.0 (100.0)

Note: Figures in parantheses denote percentages of tuition cost, examination fees, and non-tuition cost to total private cost.

From Table 3 it can be seen that there is a sizeable difference in the total cost incurred per pupil among the incomegroup, Rs.1-3600 and that above Rs.3600. To the former,

it is Rs.477.0, whereas to the latter, it is Rs.660.6. The difference in the total cost per pupil can be accounted for by the fact that the non-tuition cost of Rs.353.6 per pupil of high incomegroup (i.e. Above Rs.3600) is nearly twice the non-tuition cost of Rs.184.9 per pupil of low incomegroup (i.e. Rs.3600 and below).

There is a negligible difference, both in the tuition cost per pupil and the examination fee per pupil of different incomegroups, as the tuition and examination fees charged are uniform for students at different levels of income. The tuition cost per pupil of low incomegroup is Rs.260.2 whereas that of high incomegroup is Rs.272.9. Similarly, the examination fee works out to Rs.31.9 and Rs.34.1 per pupil of low incomegroup and high incomegroup respectively.

However, the importance of the tuition cost to the students' families at different levels of income, differs.

Tuition cost accounts for 68 per cent of the total private cost to the students of the incomegroup, Rs.1800 and below. For the students of other three incomegroups (Rs.1801-3600, Rs.3601-6500, and Rs.6501-15000), tuition cost as a proportion of total private cost ranges from 43 per cent to 47 per cent, indicating more or less equal significance of this cost to them. Only in the case of the students of the

incomegroup, Rs.15000 and above, it is 36.5 per cent of the total cost.

Tuition cost as a proportion of total private cost comes to 54.6 per cent for the low incomegroup students, whereas it works out to 41.3 per cent for the high incomegroup students.

It accounts for 44 per cent of the total cost when students of all the five incomegroups are taken together.

But the more interesting and significant is the proportion of tuition cost to family income. This proportion reveals the burden of tuition cost on students' families.

Table - 4
Tuition cost in Relation to Family Income
(In percentages)

Incomegroup (Rs. per year) 1	Tuition cost as a proportion of family income 2
1. 1-1800	22.1
2. 1801-3600	10.6
3. 1-3600 (1+2)	14.2
4. 3601-6500	7.4
5. 6501-15000	3.8
6. Above 15000	1.4
7. Above 3600 (4+5+6)	2.6
8. Total (3+7)	3.3

Table 4 shows that the proportion of tuition cost to family income of 14.2 per cent with respect to low income-group students is roughly six times that of 2.6 per cent with respect to high income-group students.

The proportion works out to 3.3 per cent for the students of all the five incomegroups together.

Among the low incomegroups, the proportion of the tuition cost to family income of 22.1 per cent for the students' families belonging to the incomegroup, Rs.1800 and below, is two times higher than the proportion of 10.6 per cent for the incomegroup, Rs.1801-3600.

As observed earlier, tuition cost as a proportion of the total private cost of higher education is of equal significance to the students of the incomegroups, Rs.1801-3600, Rs.3601-6500, and Rs.6501-15000. But the importance differs greatly once the proportion of tuition cost to family income is taken note of. It is 10.6 per cent, 7.4 per cent and 3.8 per cent respectively.

The high proportion of the tuition cost to family income for the low incomegroup students and low proportion for the high incomegroup students indicate the regressive character of the burden of tuition cost ^{on} students' families.

Financial aid, towards meeting educational expenses, covers tuition cost. So, it would be of great interest to assess the burden of tuition cost on families by taking into account the proportion of the students covered by aid on the one hand and the proportion of the tuition cost covered by aid on the other hand.

Table - 5

Proportion of Students and Tuition Cost covered by Aid
(In percentages)

Incomegroup (Rs. per year)	Students covered by aid	Tuition cost co- vered by aid(all students aided + unaided)	Tuition cost co- vered by aid(aid- ed stu- dents only)	Source of aid
1	2	3	4	5
1-1800	(20)	95.2	75.4	12 - E.B.C. - Free education
1801-3600	(12)	54.5	35.4	2 - Govt.open merit
1-3600	(32)	74.4	55.0	18 - College freeship
				<u>32</u>
3601-6500	(16)	45.7	36.7	1 - E.B.C. free education
6501-15000	(11)	29.0	18.0	2 - Govt.open merit
Above 15000	(3)	7.3	3.1	1 - National scholarship
Above 3600	(30)	26.3	18.0	1 - Univ.merit scholarship
				1- Govt.employee
				1 - Pvt.Charity trust
				<u>23</u> - College freeship
Total	(62)	39.3	38.2	<u>30</u>

Note: Figures in brackets in Column 2 denote the number of students who received aid.

From Table 5 it can be seen that the proportion of 74.4 per cent of the low income-group students covered by aid is roughly 3 times the proportion of 26.3 per cent for the high income-group students. Similarly, the proportion of the tuition cost covered by aid with regard to the low income-group students is three times that of the high income-group students. It is 55.0 per cent and 18.0 per cent respectively.

The proportion of the students covered by aid works out to 95 per cent for the income-group Rs.1-1800. It is 55 per cent for the income-group, Rs.1801-3600. It comes to 46 per cent and 29 per cent with regard to the students of the income-groups, Rs.3601-6500 and Rs.6501-15000 respectively.

Similarly, the proportion of the tuition cost covered by aid of 75 per cent in the highest for the students of the income-group, Rs.1800 and below. The proportion of the tuition cost covered by aid works out to 35 per cent with respect to the students of the incomegroup, Rs.1801-3600. For the students of the incomegroups, Rs.3601-6500 and Rs.6501-15000, it works out to 37 per cent and 18 per cent respectively.

The proportion of the tuition cost covered by aid goes un considerably once it is worked out for the aided students only. It has gone up from 55.0 per cent to 74.0 per cent with

regard to the students of the income-group, Rs.3600 and below. As against this, with respect to the students of the income-group, Rs.3600 and above, it has moved up from 18.0 per cent to 65.0 per cent. And for all the aided students together, this proportion has moved up to 70.3 per cent from only 38.2 per cent (See Col.4, Table 5).

To what extent aid has reduced the burden of tuition cost on students' families at different levels of income can be seen from the table given below regarding the proportion of the net tuition cost (i.e. tuition cost less the amount of aid) to family income.

Table - 6

Net Tuition Cost in Relation to Family Income

(In percentages)

Incomegroup (Rs. per year)	<u>Net Tuition Cost as a Proportion of Family Income</u>	
	All students (Aided + unaided)	Aided students
1-1800	5.4	4.7
1801-3600	6.8	3.5
1-3600	6.4	4.0
3601-6500	4.7	1.3
6501-15000	3.1	1.1
15000 and above	1.4	0.9
3600 and above	2.1	1.3
Total	2.4	2.1

Table 6 shows that the tuition cost as a proportion of family income reduces considerably once allowance is made for the cost covered by aid. For the low income-group students, this proportion reduces to 6.4 per cent from 14.2 per cent. For the students of the income-group Rs.3601-6500 this proportion reduces from 7.4 per cent to 4.7 per cent. For the students of the incomegroup Rs.3600 and above, this proportion reduces to 2.1 per cent from 2.6 per cent.

The proportion of the net tuition cost to family income, with regard to the aided students of the low as well as high incomegroup, works out to 4.0 per cent and 1.3 per cent respectively.

Thus aid reduces considerably the burden of the tuition cost on particularly most low-income families and also on reasonably a good proportion of the students' families belonging to high incomegroup.

III

Non-Tuition Costs :

The composition of the non-tuition cost at the third stage of education differs from that of the elementary and secondary stage of education in that the expenditure on lodging and boarding as well as on transport and refreshment account for nearly 3/4th (73.2 per cent) of the total non-tuition cost. (See Table 7). Both at the elementary and secondary stage,

in our sample, students had not incurred expenditure on lodging and boarding. And that on transport and refreshment accounted for 12 per cent and 9 per cent of the total non-tuition cost respectively.

As such, it would be meaningful to work out separately the total private cost per pupil staying at home and that of staying in hostel.

Incomegroup (Rs. per year)	No. of stude- nts staying in hostel	Total Private Cost per Pupil (Tuition + Non-tuition)		Non-tuition cost per pupil	
		Staying with family	Staying in hostel	Staying at home	Staying in hostel
1	2	3	4	5	6
1-3600	6 (14)	396	1002	104.0	706.0
3600 and Above	30 (26)	468	1187	161.0	893.0
Total	36 (23)	447	1158	142.6	862.0

Notes: (1) Non-tuition cost per pupil staying in hostel includes not only the cost of lodging and boarding, transport and refreshment, but also the cost of books, stationery and private tuition. But, the cost of lodging, boarding and transport and refreshment accounts for 87 per cent of the total non-tuition cost.

(2) Figures in brackets in Col.2 denote the proportion of students staying in hostel to total number of students.

Table - 7

Non-Tuition Cost Per Pupil

(In Rupees)

Income group (Rs. per year)	Books	Stationery	Private tuition	Lodging and boarding	Transport & refreshment	Total
1. 1-1800	T	271	235	-	1060	1936
	A	17.6 (19.1)	12.9 (14.0)	11.2 (12.1)	50.5 (54.8)	92.2 (100.0)
	P					
2. 1801-3600	T	746	295	3274	1084	6043
	A	33.9 (12.3)	29.3 (10.8)	148.7 (54.0)	49.3 (18.0)	274.6 (100.0)
	P					
3. 1-3600 (1+2)	T	1116	915	3274	2144	7979
	A	26.0 (14.0)	21.3 (11.5)	76.1 (41.0)	50.0 (26.9)	185.7 (100.0)
	P					
4. 3601-6500	T	1216	522	5009	2295	9487
	A	34.7 (14.0)	14.9 (4.3)	143.1 (52.8)	65.6 (24.2)	271.0 (100.0)
	P					
5. 6501-15000	T	1777	1025	5380	3265	11712
	A	46.8 (15.2)	26.9 (8.7)	141.6 (45.9)	86.0 (27.9)	308.2 (100.0)
	P					
6. Above 15000	T	1831	1065	10045	3925	19120
	A	44.6 (9.6)	26.0 (5.5)	245.0 (52.5)	96.5 (20.7)	466.3 (100.0)
	P					
7. Above 3600 (4+5+6)	T	4824	2612	20434	9485	40319
	A	42.3 (12.0)	22.9 (6.4)	179.2 (50.7)	83.2 (23.5)	353.6 (100.0)
	P					
8. Total (3+7)	T	5940	3527	23708	11629	48298
	A	37.8 (12.3)	22.5 (7.3)	151.0 (49.1)	74.0 (24.1)	307.6 (100.0)
	P					

Note : T refers to Total, A refers to Average non-tuition cost per pupil and P refers to percentage.

From the table it can be seen that the non-tuition cost of Rs.706.0 per pupil of low incomegroup staying away from home is seven times higher than the non-tuition cost of Rs.104.0 per pupil staying with family.

The non-tuition cost of Rs.893.0 per pupil of high incomegroup staying in hostel is nearly six times the non-tuition cost of Rs.161.0 per pupil staying at home. When students of low as well as high incomegroups are taken together, the non-tuition cost of Rs.862. per pupil staying in hostel is roughly three times the non-tuition cost of Rs.142.6 per pupil staying at home.

Similarly, the total private cost per student staying away from home is nearly three times higher than the cost of education per student staying with his own family.

Thus, staying away from home is very expensive. That is why only 14 per cent of the students of the incomegroup, Rs.3600 and below, stayed in hostels as against 26.3 per cent of the students of the incomegroup, Rs.3600 and above.

At this juncture, it is worth raising one fundamental question: which of the two costs - the tuition cost or the cost of staying away from home while studying - restricts the access to higher education?

The cost of staying away from home works out to be nearly three times the tuition cost.² Moreover, as has been observed, aid has considerably reduced the burden of tuition cost on particularly most low-income families.

In this sense, the inability to incur the cost of staying away from home should be the more important factor restricting the access to higher education.³

Next comes the expenditure on books and stationery. Expenditure on books and stationery accounts for 19.6 per cent of the total non-tuition cost at the third stage of education. As against this, it accounts for 38 per cent and 36.6 per cent of the total non-tuition cost both at the elementary and secondary level of education respectively.

2 The tuition cost per pupil of higher education is Rs.270.3. The cost of staying away from home works out to Rs.746.0 (includes lodging and boarding and transport and refreshment). The latter is three times higher than the former.

3 See V.N. Kothari, "Disguised Dimensions of Problems of Higher Education in India", published in CONSPECTUS', No.2,1967 - He writes, "the inability to incur extra expenditure of staying away from home is a very important factor in restricting the access to higher education. It is much more important than the inability to pay fees".

But in absolute amount, the cost of books and stationery of Rs.60.0⁴ per pupil of higher education is nearly four times higher than that of Rs.16.0 per pupil of an elementary school and two times higher than that of Rs.30.0 per pupil of a secondary school.

4 Our sample was mainly comprised the commerce students (i.e. those belonging to the Commerce Faculty of the University of Baroda). They accounted for 85 per cent of the total number of university students in our sample.

The distribution of the students of higher education according to the branch of study in 1960-61, for the country as a whole, shows that the commerce students formed only 3.4 per cent of the total.

The average annual cost of books and stationery of Rs.60.0 in our sample, certainly represents the cost of books and stationery of the commerce students in other universities of India or of the general higher education students (See table given below), but it cannot be taken as representing the country as a whole.

In order to get a representative cost of books and stationery, we redistributed the students according to the branch of study in our sample, on the basis of the All-India distribution of students in 1960-61.

The average annual cost of books and stationery, then, works out to be Rs.80.

Cost of Books and Stationery of Different Faculties of the University of Baroda and Sardar Vallabhbhai Vidyapith. (In Rupees)

Name of the Faculty	Average annual cost of books and stationery	
	Baroda University	S.V. * Vidyapith
1. Faculty of Arts.	69.0	74.0
2. Faculty of Commerce.	60.0	60.0
3. Faculty of Science.	102.0	142.0
4. Faculty of Technology and Engineering.	154.1	325.0

*Source: See Prof. R.K.Amin and Dr. Mahesh Pathak - "Cost of Education in Certain Faculties of Sardar Vallabhbhai Vidyapith".

Expenditure on books and stationery of Rs.46.2 per pupil of low incomegroup forms 25 per cent of the non-tuition cost. As against this, with respect to high incomegroup students, the expenditure of Rs.65.2 per pupil accounts for 18.4 per cent of the non-tuition cost.

Assuming that the average annual combined expenditure on books and stationery of Rs.60.0 is the standard amount a university student is required to spend in order to maintain educational standards or efficiency, only 30 per cent of the low incomegroup students and 46 per cent of the high incomegroup students were found spending Rs.60.0 and more on books and stationery, - or only 41.4 per cent of the students of both low and high incomegroups together.

Books-aid⁵ covered 30.2 per cent and 13.2 per cent of the low and high income-group students respectively. It works out to 18 per cent when all students are taken together.

When account is taken of the proportion of students covered by book-aid, the proportion of students spending

5 Proportion of Students Covered by Book-aid (In percentages)

<u>Incomegroup</u>	<u>Proportion of the students covered by books aid (%)</u>
1-1800	33.3
1801-2600	27.3
1-3600	30.2
3601-6500	17.1
6501-15000	10.5
Above 15000	12.2
Above 3600	13.2
Total	18.0

Rs.60.0 and more on books and stationery goes up to 46.5 per cent with regard to low incomegroup students and to 51.0 per cent with regard to high income-group students. For the students of both the incomegroups together, the proportion works out to 50 per cent. Thus 50 per cent of the students do not spend sufficiently on books and stationery.

Moreover, the average cost of books and stationery at this stage is nearly four times and two times that at the elementary and secondary level\$ of education.

It is in this sense that the recommendations of the Education Commission that "the programme of book-banks should be developed in institutions of higher education and grants for purchase of books to the more talented of the students", should be extremely useful.

Contrary to the elementary and secondary education, the expenditure incurred on private tuition by the college students comes last in importance. At the University stage it accounts for only 7.2 per cent of the total non-tuition cost, as against 50 per cent and 54 per cent for the elementary and secondary education respectively.

However, 27 per cent of the college students (or 43 students out of 157) incurred expenditure on private tuition

as against 18 per cent and 32 per cent of the elementary and secondary school students respectively.

30 per cent of the low-incomegroup college students and 26 per cent of the highincome-group college students incurred expenditure on private tuition.

But the average cost of private tuition incurred by low-incomegroup students works out to Rs.40.8 as against the average cost of Rs.99.0 incurred by high incomegroup students.

Non-Tuition Cost in Relation to Family Income :

Table - 8

Non-Tuition Cost in Relation to Family Income

Incomegroup (Rs. per year)	Non-tuition cost per pupil (Rs.)	Non-tuition cost per pupil expen- diture on lodging and boarding(Rs.)	Non-tuition cost as a proportion of family income. (%)	
1	2	3	4	
1-1800	92.2 (1936)	92.2 (1936)	7.7	7.7
1801-3600	273.3 (6013)	125.9 (2769)	11.1	5.1
1-3600	184.9 (7949)	109.5 (4705)	10.2	6.0
3601-6500	271.0 (9487)	127.9 (4478)	7.8	3.5
6501-15000	308.2 (11712)	166.6 (6332)	4.5	2.4
Above 15000	466.3 (19120)	221.3 (9075)	2.3	1.1
Above 3600	353.6 (40319)	174.4 (19885)	3.3	1.6
Total	307.4 (48268)	156.6 (14590)	3.8	1.9

Notes: (1). Figures in brackets in Col.2 refer to the total

(continued)

amount spent on non-tuition items of education by the students at various levels of income whereas those in column 3 refer to the total amount spent on non-tuition items of education less the expenditure incurred on lodging and boarding.

(2) Non-tuition cost as a proportion of family income in Col.4 is inclusive of expenditure on lodging and boarding whereas that in column 5 is exclusive of the amount incurred on lodging and boarding.

Table 8 shows that the burden of non-tuition cost falls more heavily on poor families (i.e. students coming from the incomegroup Rs.3600 and below) than that on rich families (i.e. above Rs.3600). The proportion of non-tuition cost to family income is 10.2 per cent for the low income-group students whereas it is 3.3 per cent for the high income-group students - the former is three times higher than that of the latter. But the non-tuition cost per pupil belonging to the incomegroup, Rs.3600 and below, is two times lower than that of the income-group, Rs.3600 and above.

The proportion of non-tuition cost to family income (Less expenditure on lodging and boarding) of 6.0 per cent for the low incomegroup students is roughly four times that of 1.6 per cent for the high incomegroup students. Even then, the non-tuition cost per pupil of low-incomegroup is lower by 59 per cent than that of high income-group students.

The burden of non-tuition cost on low-income families is bound to be much higher than that obtained on the basis of our

inquiry, when we take into account the amount ought to be incurred on non-tuition items of education.

Viewed in this manner, the observation of the Education Commission that "the greater financial burden that creates the non-egalitarian trends to-day is not so much tuition fees as these other costs", looks more sound.

Concluding Observations :

(1) Total private cost per pupil of a college or a university is 8.5 times and 3.5 times the corresponding cost of an elementary school and secondary school respectively.

(2) Tuition cost of higher education accounts for 2/3rds of the total cost in the case of the students coming from the lowest incomegroup. It accounts for 40 per cent to 45 per cent of the total cost in the case of the students belonging to the remaining four incomegroups.

(3) The burden of tuition cost on the families of students paying tuition fees varies regressively with respect to family income.

(4) Aid of different kinds, and from various sources, reduces considerably the burden of tuition cost on particularly low-income families. At the same time, however, a good

proportion of the students' families belonging to high incomegroup are able to reduce their burden of tuition cost with the help of such aid.

(5) Non-tuition cost per pupil of high incomegroup is almost two times higher than that of the low incomegroup. A large part of this difference can be explained by the expenditure incurred on lodging and boarding by the students staying away from home. It accounts for 50 per cent of the non-tuition cost. The cost of loding and boarding is roughly three times higher than the tuition cost.

Total private cost of education per student staying away from home is approximately three times higher than the cost of education per student staying with his own family. This explains the relatively lower proportion of low incomegroup students staying in hostel than that of high incomegroup.

(6) Of the two major costs, tuition cost and the cost of staying away from home, the latter should be the more important factor restricting the access to higher education. For low-income families, the cost of staying away from home works out to be almost three times the tuition cost.

(7) Expenditure on books and stationery of Rs.65.2 per student is higher by 40 per cent for those of high incomegroup

than for those belonging to low incomegroup. But 30.2 per cent of the low incomegroup students were covered by book-aid as against only 13.2 per cent of the high incomegroup students.

To the extent that the low income-group college students have to economise on such an essential item of educational expenditure, and because the average annual expenditure on books and stationery is much higher(nearly four times and two times that at the elementary and secondary levels of education respectively), the Education Commission's recommendations that (a) book-banks should be developed, (b) library facilities should be expanded and (c) grants for the purchase of books should be given to the top ten per cent of the talented students should be extremely helpful.

(8) 27 per cent of the university students incurred expenditure on private tuition as against 18 per cent and 32 per cent of the elementary and secondary school students respectively. While 30 per cent of low incomegroup students had to go in for private tuition, the proportion was only 26 per cent for high income college students. However, the average cost of private tuition incurred by high-income group students is 2.5 times the cost incurred by low income-group students.

(9) Non-tuition cost per pupil of low incomegroup is two times lower than that of high incomegroup, whereas the proportion of the non-tuition cost to family income is three times higher than that of high incomegroup, i.e. the burden of non-tuition cost falls more heavily on poor families than on rich families. The burden is likely to be even higher than that worked out on the basis of the actual expenditure incurred, when the concept of "necessary expenditure" to be incurred on non-tuition items of education, is applied to the university students.

(10) The cost of staying away from home is the most important non-tuition cost to be incurred by a college student who cannot stay with his family while studying. For low income families, the cost of staying away from home works out to almost 10 times the cost incurred on books and stationery. The fact that at the university stage, the proportion of students from low-income families is significantly lower than at the secondary stage may be due very largely to this factor.

If, therefore, one is concerned with providing low-income families greater access to college education it is this cost which ought to be brought down considerably.

IV

Outlay on Education in Relation to
National Income

In this section we try to estimate the proportion of national income devoted to education in India in 1965-66, taking into account both the public and private expenditure incurred on education.

On the basis of the available statistics of the expenditure incurred on education in 1965-66, the total recorded expenditure incurred on education works out to be 2.9 per cent of national income (Table below explains this).

Table - 1
Expenditure on Education in Relation to National Income
(In Rs. Million)

1	2	3	4	5	6	7
4568.7 (77.5)	1326.4 (22.5)	5895.10 (100.0)	210,000	2.2	0.7	2.9

Source: Report of the Education Commission in 1964-65, Ministry of Education, Govt. of India.

Note: Figures in brackets in Cols. 1 and 2 denote the proportions of public and private expenditure to total recorded expenditure on education.

But the limitation of the above estimate is that it takes account of only private tuition cost and ignores the non-tuition private costs incurred on education. We have attempted to fill in this gap with the help of our sample survey of students.

The position according to our enquiry (whose detailed results are explained in the sections on elementary, secondary and higher education of this chapter) is that non-tuition cost per student works out as under:

Table - 2
Private Cost per Pupil According to
Levels of Education

(In Rs.)

Level of Education	Non-Tuition cost	Examination Fee	Total Private cost (2+3)
1	2	3	4
Elementary	44.3	-	44.3
Secondary	82.2	4.3	86.5
Higher	307.4	33.3	340.7
Total	433.7	37.6	471.3

These estimates have been worked out after making necessary adjustments for various biases in our enquiry so as to make them as representative as possible of the country as a whole.

We get the total private costs of education for the country as a whole by multiplying these costs by the number of students enrolled at different levels of education in India in the year 1965-66. This is shown in the table given below :

Table - 3

Total Private Costs of Education - 1965-66

Level of Education	Enrolment of students (million)	Private cost per pupil (In Rs.)	Total Private cost (2x3) (In Rs. Million)
1	2	3	4
Elementary	62.5	44.3	2768.8
Secondary	5.2	86.3	448.8
Higher	1.1	340.7	374.8
Total	68.8	471.3	3592.4

Source: Col.1 - Enrolment figures are based on A Draft outline of the Fourth Five Year Plan , Planning Commission, Govt. of India.

Now we are in a position to give an overall picture of the resources entering education in India as well as the costs borne by public bodies and private persons.

Table - 4

Outlay on Education in Current Prices:1965-66

(In Rs. Million)

Public expenditure	Private Tuition fees	Expenditure Non-tuition cost	Private endowment and other sources	Total Private expenditure (2+3+4)	Outlay on education (1+5)
1	2	3	4	5	6
4568.7	845.3	3592.4	432.0	4890.7	9438.7
(48.4)	(9.0)	(38.0)	(4.6)	(51.6)	(100.0)

Note: Figures in brackets denote the proportions of public and private expenditure to outlay on education.

From the table it can be seen that the outlay on education of Rs.9438.7 million is higher by 62.4 per cent than the total recorded educational expenditure of Rs.5895.1 million reported in the government publications.

The proportion of the outlay on education borne by the public bodies is slightly lower than that borne jointly by private persons and private endowments. The respective proportions are 48.4 per cent and 51.6 per cent.¹ Even if we exclude the proportion of 4.6 per cent of private expenditure on education met out of private endowments and other sources, the cost of education borne by private persons comes to 47.0 per cent, which is very close to that borne by the government.

1 See John Vaizey, "The Economics of Education", Faber and Faber, London, 1962. Vaizey writes, "strikingly little information is available about how much people spend privately on education"..... "It seems that in India perhaps half the cost of education is borne by private individuals".

Table - 5
Outlay on Education in Relation to National
Income - 1965-66
(In Percentages)

Public expen- diture	Private Expenditure			Total Private expendi- ture (2+3+4)	Outlay on education
	Tuition cost	Non-Tuition cost	Private endowment and other sources		
1	2	3	4	5	6
2.2	0.4	1.7	0.2	2.3	4.5
	(2.1)				(4.3)

As can be seen from the above table the proportion of national income devoted to education of 4.5 per cent is considerably higher than that of 2.9 per cent obtained earlier.

For the United States, the proportion of the national income devoted to education would work out to be 4.3 per cent in 1956.² Thus, we are spending on education as much as that was being spent by the U.S. at a far more advanced stage of economic growth.

2 Worked out on the basis of the total costs of Education given in T.W. Schultz's article, 'Capital Formation by Education'. In order to make the proportion of national income devoted to education in India comparable to that of the United States, we have taken out the amount of earnings forgone as well as the factor costs of depreciation and interest from the total costs of education in the United States. Schultz has excluded both the scholarships expenditure as well as the expenditure on lodging and boarding incurred by the students staying away from home while studying. The proportion of the national income devoted to education in India would work out to be 4.3 per cent when scholarships expenditure and the cost of lodging and boarding are excluded from the total outlay on education.

Cost per Pupil :Table - 6Total Cost Per Pupil in Current Prices: 1965-66.

(In Rs.)			
Level of Education	Total cost per pupil	Cost ratios relative to the cost of elementary education	Cost ratios relative to per capita National Income
1	2	3	4
Elementary	67.5	1.0	0.16
Secondary	372.5	5.5	0.88
Higher	1284.2	19.0	3.00

The cost ratios, whether expressed in terms of the cost of elementary education or in terms of per capita national income, show that the higher levels of education are relatively very costly. The secondary education is 5.5 times costlier than the elementary education, whereas higher education is 19 times costlier than the latter.

Below we give a comparative picture of the total cost per pupil at various stages of education in India and in the United States.

Table - 7

Level of education	India	U.S.A.	Cost-ratios relative to cost of elementary education		Cost ratios relative to per capita national income	
	Total cost per pupil 1965-66 (In Rs.)	Total cost per pupil 1956 \$	India	U.S.A.	India	U.S.A.
1	2	3	4		5	
Elementary	67.5	241	1	1	0.18	0.13
Secondary	372.7	471	5.5	2.0	0.88	0.23
Higher ¹	1257.8	1123	18.7	4.8	2.9	0.54

Note: Per capita national income of India in 1965-66 was Rs.424 and of U.S.A. in 1956 was \$2086. The U.S. figures are based on T.W. Schultz's article "Capital Formation by Education". Necessary adjustments have been made in the cost figures for the U.S. in order to make them comparable to those for India.

- 1 Total cost per pupil of higher education in India is recalculated after excluding the expenditure incurred by students on lodging and boarding.

The comparison shows that the higher levels of education are costlier in India than in the United States. In the U.S.A. in 1956, the secondary education was two times costlier than the elementary education. Whereas in India, the former was 5.5 times costlier than the latter in 1965-66. Similarly, the

university education in the United States was only 4.8 times costlier than the elementary education. As against this in India, it was 19 times costlier than the elementary education. The cost ratios relative to per capita national income suggest that the expansion of all levels of education relatively requires more resources in India than in the U.S.A.

Conclusion :

(1) The proportion of national income devoted to education in India is more than that usually supposed to be. This reflects on the educational effort made by the country.

(2) Cost of education borne by government works out to be lower than that borne by private persons and endowments put together. The cost borne separately by private persons is almost as high as that borne by government. As such, the utilization of educational facilities (created by the government) by the students coming from different income-groups depends on their families' ability to pay for education.

(3) The higher levels of education in India are relatively very costly both in terms of the cost per elementary school going pupil and in terms of the per capita national income when compared to other countries. Thus education makes a higher demand on resources in India than in the United States.