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Comparative analysis of the extent of free education and average private expenditure on education in India

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Abstract

The paper is an attempt to analyse up to what extent free education can reduce households’ burden of private expenditure on education. Such an analysis is important in current government policy drive of reducing subsidies from social sectors and providing targeted free education to poor. Logically the social need of students availing free education is fulfilled by government so they are relieved from the risk of impoverishment due to high private expenditure. But analysis on NSSO data on Participation and Expenditure on Education, 2007-08 reveals that free educations is availed only at elementary level and at that level also free education is not universal. In the first part the distribution of free education has been discussed at each level of education, MPCE class and state. Next the average cost of education for students receiving free education and students’ not receiving free education has been calculated to compare up to what extent free education exempts students from private expenditure. Lastly the comparative share of each item of education to total expenditure has been analysed for each state to understand the particular item that is responsible for most of the expenditure on households. It has been observed that although the cost of education of those receiving free education is lower than those receiving paid education but in absolute terms there is significant expenditure on education by the households. Above school level free education is almost inexistent and expenditure on education is incurred on all consumption expenditure quartiles. Therefore even the poor households have a proportion of expenditure going to education as students either do not receive free education or do not get it absolutely free. Item wise break up of expenditure showed that free education relieves a household only from paying tuition fees. There are other important items of consumption like books, stationery, uniform and most importantly private tuition consumed by students in all MPCE quartiles and paid for by households. Quality of educational institutions have to be improved so that private tuition does not remain a necessity and overall education from primary to highest level have to be provided by the government to relieve households from expenditure burden.

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1. Introduction

While calculating impoverishment of households a big question has been whether or not to include household private expenditure on education since ideally education is free at government institutions and most of the students especially at lower expenditure quartiles are supposed to avail free education. Since it is assumed that free education receivers are not paying for education and their need is fulfilled by state any estimation of impoverishment be it construction of poverty line or any other measure should not consider the expenditure of household on this item. On the other hand it has been argued in literature that expenditure on education has become a burden on the household putting them at a risk of impoverishment. Over the past two decades government subsidies on social sectors have been reduced (Tilak 2004; Tilak 2009) and policies targeted towards particular section of population has been taken. Studies on public spending on education have been many in India but private expenditure on education has not much been studied. Tilak (2002) using data from various sources showed that household burden of expenditure on education exists and even at lower expenditure quartiles proportion of spending on education is higher than those at higher expenditure quartiles. Using expenditure functions he concluded quality of educational institutions (proxy by pupil teacher ratio) as most influencing factor other than public expenditure on education and social characteristics. He observed government spending on education as most important in increasing households’ participation in education. With the passing of Right to Education Act (2009) a new debate has started. Many scholars have pointed out the loopholes in the act and have shown how targeted provision of free education is problematic (Jha and Parvati 2010). The criteria taken for targeting is exclusive in nature and quality of free education provided have not been controlled for thus putting the whole policy in risk. This paper is based on data prior to the Act but it shows how free education affects household expenditure and thus makes an important comment on the same. This study differs from previous studies in this field in that it takes the expenditure of households and individuals receiving free education separately and compares them with those not receiving free education and thus analyses the expenditure burden within the free education receiving households. Although provision of free education claims to relieve households of educational expenditure but it remains a question that up to what extent does free education reduce households’ burden of private expenditure. It also tries to find out the exact component or item of education that causes free education receivers to spend on education significantly. In the first part the extent of free education has been discussed comparing the average cost of education at each level of education, at each MPCE class and at each state.

Table 1. Distribution of Free Education

| MPCE Quartile | General | Technical | Vocational | Total |
|---------------|---------|-----------|------------|-------|
| 0-25          | 99.79   | 0.16      | 0.04       | 100.00|
| 25-50         | 99.47   | 0.37      | 0.15       | 100.00|
| 50-75         | 98.60   | 1.06      | 0.35       | 100.00|
| 75-100        | 91.52   | 7.89      | 0.60       | 100.00|
| Total         | 97.84   | 1.91      | 0.25       | 100.00|

Information for this section has been obtained from the published report of NSSO on Participation and Expenditure on Education. Next the average cost of education has been calculated separately for students receiving free education and students not receiving free education to find out up to what extent free education receivers are exempted from private expenditure on education compared to those who pay for education. In the last part the comparative share of each item of education to total expenditure has been analysed for each state to understand the item that incurs most of the expenditure on households.
It can be observed that free education is mainly a feature of general education – more so of school education. At higher and technical or vocational education free education is almost inexistent. MPCE quartile wise distribution of students in different types of education shows that 99% of students in all the classes are in general education. Only at the highest MPCE class 8% students attend technical education and there also vocational education is taken by only 0.6% of the students. Therefore, for any analysis of cost of education technical and vocational education plays a very insignificant role. Although free education is not there in technical and vocational education and cost of education is very high but the number of students availing it is very low therefore household expenditure on education in relation to availability of free education will be analysed only for General education above primary level.

Table 2. MPCE wise % Students in Types of Education

| Type of Education | Free Education | Paid Education | Total |
|-------------------|----------------|----------------|-------|
| General           | 62.57          | 37.43          | 100   |
| Technical         | 2.44           | 97.56          | 100   |
| Vocational        | 6.13           | 93.87          | 100   |
| Total             | 61.28          | 38.72          | 100   |

2. Distribution of free education and private expenditure on education

The analysis has been done for different levels of education, different MPCE quartiles and at state level. Data has been taken from NSSO. Some of the tables have been calculated from unit level data of 64th Round Schedule 25.2 and rest have been taken from Report No 532 on Participation and Expenditure in Education, 2007-08.

2.1 Level of education wise distribution & expenditure

Distribution of education and expenditure incurred has been analysed for each level of education. The table shows that although a very high proportion of students are receiving free education in Primary levels, this proportion decreases at higher level of education and above secondary education only 47-48% students get free education all over India. The proportions of students receiving free education is higher in rural areas than urban areas – 80% in rural as compared to 40% in urban areas in Primary and secondary education and 53% in rural as compared to 35% in urban areas in secondary and higher secondary education. Although free education is availed by almost 70% students it can be observed that the private expenditure on education still exists ranging from 1413 in Primary education to as high as 4351 Rs in secondary and higher secondary education.

Table 3. Extent of Free Education, Fee Exemption & Avg. Pvt. Expenditure on General Education 2007-08

| All-India | Type of Waiver | Rural   | Urban  | Total  | Avg. Private Expenditure | Rural | Urban | Total |
|-----------|----------------|---------|--------|--------|---------------------------|-------|-------|-------|
| Primary   | Free           | 79.6    | 39.7   | 71.2   | 826                       | 3626  | 1413  |
|           | fully          | 0.8     | 0.9    | 0.8    | 0.4                       |       |       |       |
|           | partly         | 0.3     | 0.7    | 0.4    |                           |       |       |       |
| Middle    | Free           | 75.2    | 45.3   | 67.8   | 1370                      | 4264  | 2088  |
|           | fully          | 1.2     | 0.8    | 1.1    | 0.6                       |       |       |       |
|           | partly         | 0.5     | 0.8    | 0.6    |                           |       |       |       |
| Secondary & | Free         | 53.9    | 35.1   | 47.9   | 3019                      | 7212  | 4351  |
| HS        | fully          | 2.4     | 1.8    | 2.2    |                           |       |       |       |
|           | partly         | 1.3     | 1.4    | 1.3    |                           |       |       |       |

Source: Table No. 24 & 29, NSSO Report No. 532
2.2. MPCE Class wise distribution & expenditure

To analyse the importance of educational expenditure in estimating poverty line expenditure MPCE class wise availability of free education and private expenditure on education has to be known. A look at the distribution of free education among MPCE groups show that in none of the MPCE class all 100% students are getting free education. Although the proportion is very high in the lowest decile (88%) in Primary level it becomes very low in higher level. This means that even the poorest groups do not have access to free education universally. Moreover the high proportion of students getting free education is only in Primary education. In high education only 65% get a free education.

Table 4. MPCE wise Free Education

| MPCE  | Primary | Secondary | High Edu. |
|-------|---------|-----------|-----------|
| 0-10  | 88.5    | 84.8      | 64.7      |
| 10-20 | 85.9    | 80.8      | 63.3      |
| 20-30 | 83.1    | 78.4      | 60.4      |
| 30-40 | 79.1    | 77.8      | 55.1      |
| 40-50 | 76.6    | 76.1      | 53.5      |
| 50-60 | 73.5    | 71.2      | 53.5      |
| 60-70 | 62.8    | 68.5      | 52.6      |
| 70-80 | 54.4    | 59.1      | 47.1      |
| 80-90 | 38.6    | 46.9      | 40.3      |
| 90-100| 16      | 23.9      | 23        |
| all-India | 71.2 | 67.8      | 47.9      |
| estd.studt.recv.(00) | 843542 | 3562 | 226399 |
| sample | 31167 | 15382 | 9380 |

Source: Table No. 24 & 29, NSSO Report No. 532
It can be observed that even in the lowest MPCE class 20-40% students are paying for education. This proportion availing free education decreases at higher MPCE classes.

It is clear that private expenditure on education fees exists in households of lowest MPCE decile. The proportion of students receiving fee waiver is negligible at all MPCE level. It can be observed that the lowest decile of MPCE has a huge private expenditure on education despite the fact that the extent of free education is highest among the students in this class. The expenditure ranges from 389 in primary level to above 3000 at higher level of education. As the level of education increases the burden of household expenditure is increasing almost 10 times from Primary level to higher education level. At high education students of lowest decile class of MPCE have to pay huge amount – more than 3000 – to avail the education. This again can be because of less students availing free education at these levels. If this huge cost of education is borne only by the students who are not receiving free education then participation in higher education can be increased by just extending free education facilities. It is clear that up to MPCE decile class 60-70 the private expenditure is either equal to or near the national average. But above that the cost of education is very high – much higher than national average.

Table 5. MPCE Class wise Private Expenditure Per Capita in General Education

| MPCE Class | primary | middle | sec./hr.sec. | Above hr.sec. | all     |
|------------|---------|--------|--------------|---------------|---------|
| 0-10       | 389     | 775    | 1765         | 3373          | 638     |
| 10-20      | 463     | 902    | 1916         | 4139          | 795     |
| 20-30      | 538     | 1003   | 2078         | 4394          | 948     |
| 30-40      | 665     | 1031   | 2292         | 4634          | 1113    |
| 40-50      | 796     | 1268   | 2528         | 5377          | 1350    |
| 50-60      | 1012    | 1438   | 2783         | 4937          | 1625    |
| 60-70      | 1473    | 1725   | 3168         | 5542          | 2111    |
| 70-80      | 2001    | 2290   | 4045         | 6620          | 2962    |
| 80-90      | 3527    | 3588   | 5164         | 6843          | 4370    |

| MPCE Class | primary | middle | sec./hr.sec. | Above hr.sec. | all     |
|------------|---------|--------|--------------|---------------|---------|
| 90-100     | 8144    | 8247   | 11113        | 11198         | 9613    |
| all-India  | 1413    | 2088   | 4351         | 7360          | 2461    |
| TotExp (Millions) | 167388 | 123434 | 205485       | 84962         | 581704  |
| Estd. Students (00) | 1184370 | 591200 | 472291       | 115443        | 236397  |
| Sample | 45351 | 23204 | 19253 | 4664 | 92513 |

Source: Table No. 24 & 29, NSSO Report No. 532
2.3 State wise distribution & expenditure

State wise information on proportion of students having access to free education shows that there are wide inter-state variations in provision of free education. In states like Punjab, Haryana, Manipur etc merely 25-30% students get free education whereas in West Bengal, Assam, Chhattisgarh etc 90% of the students in Primary and about 60% in higher level access free education. Above school level free education is almost inexistent. This pattern is clearly evident in the amount of private expenditure also. The states where free education is less the expenditure is much higher than the states with more access to free education. But still the cost of education is there in all states. In high education the cost of education is very high going well above 5000 in Orissa, Mizoram and even 10000 in Andaman & Nicobar.

Huge difference is there within each level also. In primary education North Eastern States, Kerala, Haryana etc are paying nearly 2000-3000 whereas Madhya Pradesh, Orissa etc pay below 1000. Question is whether the cost of education is borne only by those who are not availing educations for free or by both free and paid education receivers.

Table 6. State wise Access to Free Education 2007-08

| State        | Primary | Secondary | High  |
|--------------|---------|-----------|-------|
| Andhra       | 64.1    | 67.1      | 50.3  |
| Arunachal    | 64.9    | 61.8      | 62.2  |
| Assam        | 90.1    | 77.7      | 44.1  |
| Bihar        | 87      | 82.8      | 54.8  |
| Chhattisgarh | 91.3    | 85.2      | 76.7  |
| Delhi        | 49.5    | 39.8      | 30.9  |
| Goa          | 70.5    | 82.1      | 60.7  |
| Gujarat      | 76.6    | 67.9      | 40.9  |
| Haryana      | 34.9    | 25.2      | 13.5  |
| Himachal     | 61.6    | 57.9      | 37.4  |
| Jammu Kashmir| 61      | 59.5      | 66.9  |
| Jharkhand    | 88.1    | 77        | 37.2  |
| Karnataka    | 73.7    | 74.3      | 42.1  |
| Kerala       | 61.6    | 76.4      | 61.6  |
| Madhya Pradesh| 85     | 81.3      | 62.2  |
| Maharashtra  | 77.6    | 73.9      | 59.3  |
| State          | Primary | Middle | Sec/HS | >HS  | All  |
|---------------|---------|--------|--------|------|------|
| Manipur       | 25      | 24.4   | 22.6   |      |      |
| Meghalaya     | 69.5    | 54.9   | 45.4   |      |      |
| Mizoram       | 69.5    | 73.8   | 84.1   |      |      |
| Nagaland      | 28.8    | 19.8   | 5.1    |      |      |
| Orissa        | 91.6    | 86     | 62.5   |      |      |
| Punjab        | 25.3    | 29.4   | 10.7   |      |      |
| Rajasthan     | 51.4    | 47.1   | 26.4   |      |      |
| Sikkim        | 85.3    | 89.1   | 91.5   |      |      |
| Tamil Nadu    | 71.4    | 78.1   | 72     |      |      |
| Tripura       | 93.5    | 93.8   | 94.2   |      |      |
| Uttarakhand   | 61      | 48.5   | 19.9   |      |      |
| Uttar Pradesh | 60.5    | 47.3   | 30.6   |      |      |
| West Bengal   | 90.2    | 89.6   | 80.1   |      |      |
| Andaman Nicobar | 70.6  | 88     | 89.5   |      |      |
| Chandigarh    | 49      | 58.7   | 13     |      |      |
| Dadra & N Haveli | 90.1  | 88.5   | 65.9   |      |      |
| Daman & Diu   | 67.7    | 85.3   | 48.4   |      |      |
| Lakshadweep   | 100     | 98.5   | 96.5   |      |      |
| Puducherry    | 48.9    | 58.3   | 65.8   |      |      |

*Source: Table No. 24 & 29, NSSO Report No. 532*

Table 7. State wise Private Expenditure per Student in General Education at all Levels, 2007-08
Table 8. Correlation between Distributions of Free Education & Extent of Private Expenditure

| State                  | Primary | Middle | Sec/HS | >HS | All |
|------------------------|---------|--------|--------|-----|-----|
| Nagaland               | 4315    | 1506   | 3561   | 6176| 1652|
| Orissa                 | 794     | 4337   | 7233   | 13008| 5389|
| Punjab                 | 4185    | 2243   | 4596   | 8002| 2572|
| Rajasthan              | 1594    | 2619   | 4238   | 9108| 2524|
| Sikkim                 | 1547    | 1915   | 3615   | 9617| 2907|
| Tamil                  | 2297    | 2373   | 5915   | 6918| 2893|
| Tripura                | 1435    | 2781   | 4745   | 4242| 2950|
| Uttar Pradesh          | 1053    | 1694   | 3453   | 5567| 1846|
| Uttarakhand            | 1922    | 2626   | 6283   | 9348| 2840|
| West Bengal            | 1166    | 2737   | 5510   | 5856| 3865|
| Andaman and Nicobar    | 3026    | 4221   | 19010  | 17343| 12937|
| Chandigarh             | 8727    | 1474   | 3628   | 10918| 1757|
| Dadra                  | 827     | 2274   | 5617   | 5537| 3486|
| Daman                  | 3264    | 711    | 1066   | 0   | 754 |
| Puducherry             | 3346    | 2406   | 3936   | 6315| 3505|
| all-India              | 1413    | 2088   | 4351   | 7360| 2461|

Table 9. Access to Free Education in Each Type of Institution

| Type of Inst. | Free Education | Paid Education | Total |
|---------------|----------------|----------------|-------|
| Govt.         | 82.88          | 17.12          | 100   |
| Local Body    | 86.31          | 13.69          | 100   |
| Pvt Aided     | 36.83          | 63.17          | 100   |
| Pvt unaided   | 5.73           | 94.27          | 100   |
| Unknown       | 13.15          | 86.85          | 100   |
| Total         | 62.55          | 37.45          | 100   |

Source: Calculated from Table 6 & Table 7

Correlation between private expenditure at each level and access to free education shows that at primary level it is negatively significant at 0.01 level (-0.7), therefore, in 99% cases free education reduces the private expenditure burden. But in middle and higher education such relations do not exist i.e. correlations are insignificant which means private expenditure is unaffected by free education.

An analysis on unit level data shows that it is mostly in the government institutes or the local bodies the students are getting free education. Moreover, maximum proportions of students receive free education only at elementary level. At higher level of school education the proportion of students getting free education is low and above school education such provisions do not exist. MPCE class wise tabulation of type of institution shows that in lowest quartile of MPCE almost 80% students go to government institutes. At higher MPCE classes proportion in private institutes decrease.
Table 10. Type of Institute in Each MPCE Class

| MPCE Quartile | Govt. | Local Body | Pvt Aided | Pvt Unaided | Not Known | Total |
|---------------|-------|------------|-----------|-------------|-----------|-------|
| 0-25          | 79.62 | 5.44       | 5.60      | 9.01        | 0.34      | 100.00|
| 25-50         | 69.83 | 5.67       | 9.74      | 14.29       | 0.47      | 100.00|
| 50-75         | 57.65 | 4.70       | 14.93     | 22.19       | 0.54      | 100.00|
| 75-100        | 35.38 | 2.48       | 22.71     | 38.24       | 1.18      | 100.00|
| Total         | 63.73 | 4.80       | 12.04     | 18.86       | 0.57      | 100.00|

Source: Table No. 24 & 29, NSSO Report No. 532

Analysis done at each level of education shows, that in primary education the proportions of student in government schools are very high in lowest quintile class of household MPCE — reaching almost 82%. But a significant proportion also studies in private institutes — almost 12%. At higher MPCE classes students attending govt institutes are even lower. At the highest MPCE class it is only 30% and almost 48% students study in private unaided institute.

Proportions of students studying at government institutions are low in middle school education for all MPCE classes. At secondary and higher education level a very high proportion (45%) studies in private aided and private unaided institutions. It has been earlier observed that at private institutes students do not get free education. In short even in lowest MPCE classes students do not get free education universally and attend private institutions for schooling. The cost of education that is there in lowest MPCE class is either borne only by them studying in paid education or those in free education might have to pay some cost. Therefore the question is whether the free education receivers pay anything for education and if they do what is the difference of cost between students receiving free education and those receiving paid education.

Table 10a: Type of Institute in Primary & Middle

| MPCE Quartile | Govt. | Local Body | Pvt Aided | Pvt Unaided | Not Known | Total |
|---------------|-------|------------|-----------|-------------|-----------|-------|
| 0-25          | 81.43 | 5.69       | 3.73      | 8.87        | 0.27      | 100.00|
| 25-50         | 72.15 | 6.19       | 6.73      | 14.55       | 0.38      | 100.00|
| 50-75         | 57.25 | 5.43       | 11.71     | 25.16       | 0.44      | 100.00|
| 75-100        | 29.23 | 2.94       | 18.94     | 47.60       | 1.29      | 100.00|
| Total         | 66.39 | 5.41       | 8.41      | 19.31       | 0.47      | 100.00|

Table 10b: Type of Institute in Sec & Higher Sec

| MPCE Quartile | Govt. | Local Body | Pvt Aided | Pvt Unaided | Not Known | Total |
|---------------|-------|------------|-----------|-------------|-----------|-------|
| 0-25          | 69.17 | 4.08       | 16.15     | 9.90        | 0.69      | 100.00|
| 25-50         | 62.17 | 3.98       | 20.15     | 12.98       | 0.72      | 100.00|
| 50-75         | 58.74 | 3.42       | 21.23     | 16.11       | 0.50      | 100.00|
| 75-100        | 39.52 | 2.12       | 26.22     | 31.09       | 1.05      | 100.00|
| Total         | 56.11 | 3.31       | 21.42     | 18.41       | 0.74      | 100.00|

3. Comparison of cost of education between students receiving free and paid education

If free education means no burden on households then the students receiving them should incur no expenditure on education. But an analysis on unit level data shows that this is not the reality. Even for those who receive education for free there are huge expenditures on other items on education.
Table 10c: Type of Institute in Higher Education

| MPCE Quartile | Govt. | Local Body | Pvt Aided | Pvt Unaided | Not Known | Total |
|---------------|-------|------------|-----------|-------------|-----------|-------|
| 0-25          | 56.20 | 1.07       | 31.39     | 9.45        | 1.89      | 100.00|
| 25-50         | 52.02 | 1.74       | 29.25     | 15.45       | 1.54      | 100.00|
| 50-75         | 57.81 | 1.20       | 27.46     | 11.70       | 1.82      | 100.00|
| 75-100        | 51.67 | 1.39       | 30.52     | 15.37       | 1.05      | 100.00|
| Total         | 53.90 | 1.36       | 29.49     | 13.82       | 1.42      | 100.00|

Source: Table No. 24 & 29, NSSO Report No. 532

3.1 State wise Difference of Expenditure

Table 11. Average Private Expenditure

| State                  | Average Private Expenditure of Students Attending | % Difference of Free Education and Paid Education |
|------------------------|--------------------------------------------------|--------------------------------------------------|
|                        | Free Education | Education Not Free |                                                    |
| Jammu & Kashmir        | 2531.78        | 6515.00            | 61.14                                             |
| Himachal Pradesh       | 1734.72        | 6013.48            | 71.15                                             |
| Punjab                 | 1377.11        | 6507.25            | 78.84                                             |
| Chandigarh             | 1254.01        | 17447.51           | 92.81                                             |
| Uttarakhand            | 862.91         | 4670.07            | 81.52                                             |
| Haryana               | 1293.81        | 6097.13            | 78.78                                             |
| Delhi                 | 1275.51        | 9509.73            | 86.59                                             |
| Rajasthan              | 809.45         | 3949.39            | 79.50                                             |
| Uttar Pradesh          | 654.20         | 3016.69            | 78.31                                             |
| Bihar                  | 580.27         | 3746.95            | 84.51                                             |
| Sikkim                 | 1522.03        | 8828.86            | 82.76                                             |
| Arunachal Pradesh      | 1636.84        | 2862.67            | 42.82                                             |
| Nagaland               | 1530.34        | 7104.30            | 78.46                                             |
| Manipur                | 2332.32        | 4892.48            | 52.33                                             |
| Mizoram                | 2054.21        | 5498.89            | 62.64                                             |
| Tripura                | 2503.40        | 8184.69            | 69.41                                             |
| Meghalaya              | 1194.38        | 4081.23            | 70.73                                             |
| Assam                  | 971.48         | 4701.17            | 79.34                                             |
| West Bengal            | 1863.66        | 8178.84            | 77.21                                             |
| Jharkhand              | 527.86         | 4646.67            | 88.64                                             |
| Orissa                 | 836.25         | 5427.87            | 84.59                                             |

State Average Private Expenditure of Students Attending % Difference of Free Education and Paid Education

| State                  | Average Private Expenditure of Students Attending | % Difference of Free Education and Paid Education |
|------------------------|--------------------------------------------------|--------------------------------------------------|
|                        | Free Education | Education Not Free |                                                    |
| Madhya Pradesh         | 729.11         | 4749.61            | 83.67                                             |
| Gujarat                | 756.47         | 6074.76            | 84.65                                             |
| Daman & Diu            | 1276.38        | 7709.76            | 87.55                                             |
| Dadra & Nagar Haveli   | 618.67         | 7294.16            | 83.44                                             |
| Maharashtra            | 1238.71        | 6320.40            | 91.52                                             |
| Andhra Pradesh         | 556.74         | 5810.14            | 80.40                                             |
Fig. 5

The difference of private educational expenditure between students receiving free education and students not receiving free education in general education is evident. The students receiving free education pay 80% less than students in paid education. But on absolute terms the receivers of free education pay a significant amount in education. In the North Eastern states, West Bengal, Punjab, Haryana, Jammu and Kashmir, Himachal and Kerala difference of students receiving free education and paid education is below 50%. Therefore in these states expenditure on education exists on absolute terms. An MPCE wise analysis has been undertaken to ascertain whether the difference is only for upper MPCE classes and not for poor students.

3.2. MPCE wise Difference of Expenditure

Table 12. Average Private Expenditure in Free & Paid Education (Source: Computed from NSS 64th Round Unit Level Data)

| MPCE Quartile | Free  | Paid  | % Difference |
|---------------|-------|-------|--------------|
| 0-25          | 543.23| 1864.23| 70.86        |
| 25-50         | 784.06| 2620.18| 70.08        |
| 50-75         | 1247.79| 4027.87| 69.02        |
| 75-100        | 2621.59| 8754.51| 70.05        |
| Total         | 934.10| 5018.24| 81.38        |
MPCE class wise average private expenditure shows that there is nearly 70% difference between students receiving free education and those not receiving free education. In the lowest quartile difference is 71% for all India and students paying for education are paying more than double of those receiving free education. Therefore, education is not free even in the lowest 25% of population.

Table 13. Average Private Expenditure of MPCE Quartile Class 0-25%

| States                | Average Private Expenditure of Students Attending Education Not Free | Average Private Expenditure of Students Attending Free Education | % Difference Between Paid & Free Education |
|-----------------------|---------------------------------------------------------------------|-----------------------------------------------------------------|--------------------------------------------|
| Jammu & Kashmir       | 3367.12                                                             | 1166.63                                                         | 65.35                                      |
| Himachal Pradesh      | 2082.09                                                             | 1050.49                                                         | 49.55                                      |
| Punjab                | 1954.08                                                             | 783.96                                                          | 59.88                                      |
| Chandigarh            | 1501.87                                                             | 555.97                                                          | 62.98                                      |
| Uttarakhand           | 1802.05                                                             | 589.71                                                          | 67.28                                      |
| Haryana              | 2475.69                                                             | 806.11                                                          | 67.44                                      |
| Delhi                 | 989.30                                                              | 364.58                                                          | 63.15                                      |
| Rajasthan             | 1456.46                                                             | 504.15                                                          | 65.39                                      |
| Uttar Pradesh         | 1623.71                                                             | 463.16                                                          | 71.48                                      |
| Bihar                 | 1301.04                                                             | 381.64                                                          | 70.67                                      |
| Sikkim                | 8234.07                                                             | 911.16                                                          | 88.93                                      |
| Arunachal Pradesh     | 1537.90                                                             | 1368.54                                                         | 11.01                                      |
| Nagaland              | 9090.63                                                             | 631.69                                                          | 93.05                                      |
| Manipur               | 3923.91                                                             | 1128.09                                                         | 71.25                                      |
| Mizoram               | 3207.83                                                             | 1615.46                                                         | 49.64                                      |
| Tripura               | 1602.16                                                             | 1333.29                                                         | 16.78                                      |
| Meghalaya             | 3464.72                                                             | 731.47                                                          | 78.89                                      |
| Assam                 | 1886.26                                                             | 472.10                                                          | 74.97                                      |
| West Bengal           | 2592.24                                                             | 996.33                                                          | 61.57                                      |
| Jharkhand             | 2517.97                                                             | 352.98                                                          | 85.98                                      |
| Orissa                | 2721.07                                                             | 664.53                                                          | 75.58                                      |
| Chhattisgarh          | 1479.34                                                             | 503.58                                                          | 65.96                                      |
| Madhya Pradesh        | 2070.56                                                             | 492.53                                                          | 76.21                                      |
| Gujarat               | 2857.04                                                             | 423.51                                                          | 85.18                                      |
| Daman & Diu           | 1438.69                                                             |                                                                |                                            |
| Dadra & Nagar Haveli  | 2820.00                                                             | 472.37                                                          | 83.25                                      |
| Maharashtra           | 2344.68                                                             | 633.35                                                          | 72.99                                      |
| Andhra Pradesh        | 2891.30                                                             | 424.77                                                          | 85.31                                      |
| Karnataka             | 1962.01                                                             | 331.66                                                          | 83.10                                      |
| Goa                   | 1713.37                                                             | 598.64                                                          | 65.06                                      |
| Lakshadweep           |                                                                    | 704.07                                                          |                                            |
| Kerala                | 2446.87                                                             | 864.37                                                          | 64.67                                      |
| Tamil Nadu            | 2680.39                                                             | 594.90                                                          | 77.81                                      |
| Pondicherry           | 446.37                                                              |                                                                |                                            |
| Andaman & Nicobar     | 1505.51                                                             |                                                                |                                            |
When the difference of cost of free and paid education is observed state wise only for the students belonging to the lowest quartile of MPCE it can be seen that it is lower than the difference of expenditure in overall population. In states like Himachal Pradesh, Arunachal, Tripura difference in the cost of free and paid education ranges between only 12-40%. Even in the lowest quartile of MPCE students getting free education actually pay for education. In Jammu and Kashmir and North Eastern States of India the annual expenditure for free education is well above 1000. In Punjab, Haryana, West Bengal, Kerala the fees ranges from Rs. 700-900.

3.3 Level of education wise difference of expenditure

Table 14. Level of Education & Expenditure

| Level of Education     | Free  | Paid  | % Difference |
|------------------------|-------|-------|--------------|
| Primary                | 454.39| 3791.98| 88.02        |
| Upper Primary/Middle   | 1036.93| 4303.67| 75.91        |
| Secondary/HS           | 2425.57| 6130.18| 60.43        |
| Total                  | 934.10| 5018.24| 81.39        |

It can be seen that at national level free education is paid for at all levels of education. However the difference is much higher in primary level (88%). At higher level of school education difference of cost is less (60%) between free education and paid education. For state wise analysis of level of education and difference of cost between free education and paid education the levels of education have been clubbed into school education and education above school.

Difference of expenditure in each level of education shows that the difference is much higher in school education i.e. cost of getting free education is lower than paid education in school. But above school level there is less difference between free and paid – about 50% less as compared to 80% in school education. In Tripura, Arunachal Pradesh, Jharkhand and Andaman and Nicobar Island the cost of obtaining free education above school level is actually higher than in paid education. In absolute terms cost of education is very high in both the free and paid education. Most of the states show expenditure above 2000 in free school and above 4000-5000 in free higher education. In higher education proportion of students who receive free education is much lower than in school education. It is therefore clearly evident that students irrespective of their access to free education cause households to pay for education and increase household expenditure burden.

4. Comparison of the shares of items of education to total expenditure

Having known that education is paid for by both free and paid education receivers it becomes interesting question to know what are the items of expenditure which students are paying for and how they differ between free education and paid education.

4.1 Consumption of Items of Education

Before analysing the items that account for most part of household expenditure on education, proportion of students using the items have to be known. If certain item is consumed by a very small proportion then it will be insignificant even if it shows a big percentage to total educational expenditure.
Table 15. Level of Education & Expenditure

| State               | Average Private Expenditure of Students Attending | % Difference between Free and Paid Education |
|---------------------|--------------------------------------------------|---------------------------------------------|
|                     | Free School | Not Free School | Free Above School | Not Free Above School | School | Above School |
| Jammu & Kashmir     | 2447.80     | 5934.23         | 7848.12           | 9769.18               | 58.75  | 19.66        |
| Himachal Pradesh    | 1731.51     | 5874.00         | 7285.35           | 70.52                 | 9.54   |
| Punjab              | 1363.68     | 6073.13         | 13202.81          | 77.55                 | 68.50  |
| Chandigarh          | 1254.01     | 17516.38        | 17343.40          | 92.84                 |
| Uttarakhand         | 849.24      | 4698.42         | 4391.49           | 81.92                 | 41.41  |
| Haryana             | 1292.36     | 5868.16         | 8603.86           | 77.98                 | 62.81  |
| Delhi               | 1282.54     | 9326.24         | 11012.13          | 86.25                 | 98.55  |
| Rajasthan           | 795.16      | 3628.46         | 8268.94           | 76.06                 | 57.61  |
| Uttar Pradesh       | 640.90      | 2718.47         | 5649.46           | 76.42                 | 35.09  |
| Bihar               | 573.32      | 3645.90         | 4678.64           | 84.28                 | 5.36   |
| Sikkim              | 1430.05     | 8258.73         | 13454.29          | 82.68                 | 58.09  |
| Arunachal Pradesh   | 1560.06     | 2730.61         | 6204.71           | -32.51                |
| Nagaland            | 1462.35     | 6895.68         | 9764.15           | 50.20                 |
| Manipur             | 2150.76     | 4824.88         | 8182.30           | 32.86                 |
| Mizoram             | 1868.82     | 5494.84         | 6149.88           | 11.53                 |
| Tripura             | 2385.89     | 8372.37         | 6802.37           | -3.28                 |
| Meghalaya           | 1166.48     | 3773.24         | 7911.25           | 24.92                 |
| Assam               | 971.48      | 4213.36         | 7617.42           | 76.94                 |
| West Bengal         | 1849.74     | 7727.76         | 9378.63           | 8.35                  |
| Jharkhand           | 517.58      | 4441.20         | 5631.47           | -22.04                |
| Orissa              | 827.68      | 5275.15         | 6226.91           | 48.36                 |
| Chhattisgarh        | 610.76      | 3823.62         | 5322.38           | 31.80                 |
| Madhya Pradesh      | 686.87      | 4245.55         | 7904.50           | 45.64                 |
| Gujarat             | 755.60      | 5872.99         | 7398.46           | 87.13                 |
| Daman & Diu         | 1276.38     | 8127.42         | 5536.88           | 84.30                 |
| Dadra & Nagar       | 618.67      | 6185.22         | 10917.57          | 90.00                 |
| Haveli              | 1207.81     | 6064.37         | 7450.48           | 80.08                 |
| Maharashtra         | 544.98      | 5359.70         | 8407.16           | 75.38                 |
| Andhra Pradesh      | 2906.12     | 5152.26         | 9604.42           | 90.58                 |
| Goa                 | 2121.74     | 4579.80         | 4915.68           | 33.38                 |
| Lakshadweep         | 742.88      | 1454.39         | 48.92             |
| Kerala              | 1810.90     | 6377.24         | 6927.38           | 64.80                 |
| Tamil Nadu          | 837.32      | 7262.00         | 9764.30           | 50.85                 |
| Pondicherry         | 1080.66     | 6054.06         | 6842.47           | 37.04                 |
| Andaman & Nicobar Island | 2890.72 | 7910.18         | 5246.09           | -70.06                |
| Total               | 917.10      | 4656.98         | 7630.31           | 49.23                 |

Source: Computed from NSS 64th Round Unit Level Data
Figure 3
(Negative results may be due to very small samples)

Table 16. Percent Distribution of Students Reporting Expenditure on Items

| Item of Exp | MPCE Quartile | % Reporting Expenditure |
|-------------|---------------|-------------------------|
|             |               | Free Education | Paid Education |
| Tuition Fee | 0-25          | 0.00            | 81.58          |
|             | 25-50         | 0.00            | 85.62          |
|             | 50-75         | 0.00            | 88.98          |
|             | 75-100        | 0.00            | 93.09          |
|             | Total         | 0.00            | 88.52          |
| Exam        | 0-25          | 61.56           | 78.88          |
|             | 25-50         | 61.80           | 79.04          |
|             | 50-75         | 65.62           | 78.52          |
|             | 75-100        | 72.28           | 77.35          |
|             | Total         | 64.52           | 78.28          |
| Other       | 0-25          | 56.53           | 65.04          |
|             | 25-50         | 60.37           | 66.30          |
|             | 50-75         | 64.01           | 67.61          |
|             | 75-100        | 70.26           | 71.30          |
|             | Total         | 61.84           | 68.20          |
| Book        | 0-25          | 46.17           | 86.31          |
|             | 25-50         | 55.63           | 89.12          |
|             | 50-75         | 68.39           | 92.98          |
|             | 75-100        | 87.65           | 96.64          |
|             | Total         | 61.53           | 92.38          |
| Stationery  | 0-25          | 97.76           | 98.94          |
At lower quartiles of MPCE 12-15% students report expenditure on private tuition. The proportion is higher in higher expenditure classes. 50%-90% students at lower quartile of MPCE report private expenditure on books, stationery, uniform etc items. In the first quartile of MPCE for the students who do not avail free education 31 out of 35 states and UTs report expenditure on tuition fee and books, stationery, exam and other fees. 24 out of 35 states and UTs report expenditure on private coaching even in the lowest quartile of MPCE. Tuition fees range from 56% (Sikkim) of private household expenditure on education to 2% (Tripura). Books, Stationery, exam and other fees combined account for 82% of total educational expenditure (Himachal Pradesh) to 45% (Mizoram). Private Coaching accounts for 67% (Tripura) to 7% (Chattisgarh). Students who avail free education all states reported expenditure on items other than tuition fee. 26 out of 35 states reported expenditure on private coaching in the first quartile of MPCE. Other fees range from 99% of total expenditure (Daman and Diu) to 59% (West Bengal). Private tuition ranges from 73% of total (Chandigarh) to 8% (Haryana). Free education only meant absence of tuition fee. All the items of education other than private coaching are consumed by huge proportion of students. But still private coaching cannot be avoided as even in the lowermost quartile of MPCE 12% students report private coaching. The items can be clubbed into three broad groups – tuition fee which is reported only by paid education receivers, other fee combining all the important items other than private tuition since they are reported by more than 50% students in all MPCE classes.
4.2. Proportion of items of expenditure to total

Average proportion of expenditure on tuition fee, other items and private coaching has been worked out state wise to compare the importance of each item in educational expenditure.

Table 17. Level of Education & Proportion of Expenditure on Each Item to Total

| Level of Education | Tuition | Other Items | Private Coach |
|--------------------|---------|-------------|---------------|
|                    | Free Edu | Paid Edu    | Free Edu      | Paid Edu    |
| Primary            | 0        | 37.81       | 84.38         | 58.33       | 56.20        | 23.69         |
| Upper Primary/Middle | 0        | 33.80       | 82.76         | 59.77       | 46.84        | 29.76         |
| Secondary/HS       | 0        | 30.74       | 79.83         | 58.42       | 45.80        | 34.25         |
| Total              | 0        | 34.61       | 83.25         | 58.80       | 50.05        | 30.33         |

Source: Computed from NSS 64th Round Unit Level Data

Students receiving free education pay 84% on books, stationery, other fees, uniform combined and 50% on private tuition fees. Those not receiving free education pay 34% on tuition fee, 58% on books, stationery etc combined and 30% on private coaching.

Table 18. MPCE Quartile & Proportion of Expenditure on Each Item to Total

| MPCE Quartile | Tuition | Other Items | Private Coach |
|---------------|---------|-------------|---------------|
|               | Free Edu | Paid Edu    | Free Edu      | Paid Edu    |
| 0-25          | 0        | 29.91       | 85.00         | 67.34       | 52.53        | 31.65         |
| 25-50         | 0        | 31.55       | 84.00         | 64.76       | 49.66        | 29.49         |
| 50-75         | 0        | 33.94       | 81.55         | 59.14       | 47.85        | 30.47         |
| 75-100        | 0        | 38.75       | 76.25         | 50.97       | 49.89        | 30.27         |
| Total         | 0        | 34.61       | 83.25         | 58.80       | 50.05        | 30.33         |

Source: Computed from NSS 64th Round Unit Level Data

Analysing the proportion of each educational item to total educational expenditure it can be observed that those who attend free education have 0% expenditure on tuition fee, 67% expenditure on books, stationery other fee etc and 52% on private tuition on an average. The students who attend paid education have 30% expenditure on tuition fee, 85% expenditure on books, stationery, uniform, other fees combined and 32% expenditure on private coaching. In Punjab, Haryana, Himachal Pradesh, Uttaranchal etc states books, stationery etc. other items of expenditure share about 77% of total expenditure. Whereas in Andhra Pradesh, Kerala, Meghalaya, Mizoram etc. they share only about 50%. Private coaching take a major share in West Bengal, Orissa, Maharashtra and South Indian States ranging from 24-25% to 45% of total educational expenditure. It is clear from above analysis that free education relieves a household only of the Tuition fee. There are many other parts of expenditure on education which is covered only by the household. Thus students getting free education have to be counted while analysing an average household expenditure of education since they pay as much as those not getting free education.

5. Summary

The analyses were done with an objective of finding out whether free education has any importance in relieving household expenditure on education. Such analysis was necessary in present policy context when Right to Education Bill has been passed and is claimed to be reducing household expenditure burden. The results would also decide whether or not to include expenditure on education while impoverishment. If free education was significantly reducing household educational expenditure burden
and it was universal it would have been irrelevant to consider cost of education in any poverty line or other measure of poverty. Moreover from a policy perspective it would have provided a straight forward solution of extending free education to reduce household educational expenditure burden rendering Right to Free and Compulsory Education as a sufficient and effective policy. The findings of this paper are summarised below. From the analysis of distribution of free education and extent of private household expenditure on education it has been observed that education is paid for by all households irrespective of their receiving free education or not. The cost of education of those receiving free education is lower than those receiving paid education but in absolute terms there is significant expenditure on education by the households. Above school level free education is almost inexistemt and even households of lowest quartile go for higher education which is paid by households. Expenditure on education is incurred on all consumption expenditure quartiles. Therefore the households which are at low level of consumption do have a proportion of expenditure going to education. Even at this level some students do not receive free education and those who receive free education do not get it absolutely free. Therefore, education is an important item of consumption even while calculating a minimum expenditure level or poverty line. Free education relieves a household only from paying tuition fees. There are other important items of consumption like books, stationery, uniform and private tuition etc. which are consumed by students in all MPCE quartiles and are paid for by households. This analysis also shows how state wise expenditure on education both for free and paid education at different MPCE classes or different levels varies. Free education is not universal and even to those who have access to free education significant expenditure on educational items exists. Therefore mere passing of free education act would not remove educational expenditure burden rather quality of educational institutions have to be improved so that private tuition does not remain a necessity and overall education from primary to highest level have to be provided by the government. The study however is not complete since questions of choice always remains a matter of debate in expenditure analysis and to examine whether a high educational expenditure by free education receivers is by choice or is something to be taken as a negative indicator one has to closely examine the outcome indicators of education. The demand for private tuition does throw some light into the aspect but nevertheless more scope of analysis remains open in this study.

Table 19. State wise Proportion of Expenditure on Each Item to Total

| State                | Tuition Fee Paid Education | Free education | Other Items Paid Education | Free education | Private Coach Paid Education | Free education |
|----------------------|---------------------------|----------------|---------------------------|----------------|-----------------------------|----------------|
| Jammu & Kashmir      | 35.87                     | 0             | 64.1                      | 81.26         | 9.85                        | 20.95          |
| Himachal Pradesh     | 23.06                     | 0             | 82.23                     | 97.44         | 14.24                       | 38.46          |
| Punjab               | 20.21                     | 0             | 77.81                     | 94.54         | 15.17                       | 72.94          |
| Chandigarh           | 40.69                     | 0             | 57.98                     | 69.97         | 15.17                       | 10.86          |
| Uttaranchal          | 22.22                     | 0             | 75.23                     | 91.33         | 20.71                       | 8.63           |
| Haryana              | 25.62                     | 0             | 79.36                     | 92.88         | 20.53                       | 8.63           |
| Delhi                | 20.68                     | 0             | 79.64                     | 78.25         |                             |                |
| Rajasthan            | 34.45                     | 0             | 66.92                     | 92.89         | 13.58                       | 52.01          |
| Uttar Pradesh        | 29.95                     | 0             | 68.29                     | 90.36         | 27.83                       | 39.62          |
| Bihar                | 26.63                     | 0             | 64.74                     | 81.04         | 33.46                       | 58.42          |
| Sikkim               | 56.52                     | 0             | 76.26                     | 82.49         |                             |                |
| Arunachal Pradesh    | 20.04                     | 0             | 70.98                     | 77.46         | 50.21                       | 41.56          |
| Nagaland             | 37.14                     | 0             | 71.78                     | 89.6          |                             |                |
| Manipur              | 38.37                     | 0             | 60.15                     | 90.88         | 19.92                       | 23.89          |
| Mizoram              | 53.66                     | 0             | 45.38                     | 95.07         |                             |                |
| Tripura              | 2.29                      | 0             | 53.13                     | 67.03         | 66.72                       | 49.25          |
| Meghalaya            | 33.57                     | 0             | 57.09                     | 93.2          | 21.96                       | 28.97          |
| Assam                | 14.08                     | 0             | 77.01                     | 87.14         | 25.07                       | 45.58          |
| West Bengal          | 23.72                     | 0             | 46                        | 59.13         | 43.02                       | 59.73          |
| State             | Percentage | Population | Home | School | Transport | Other |
|------------------|------------|------------|------|--------|-----------|-------|
| Jharkhand        | 25.54      | 66.1       | 91.91| 28.92  | 26.65     |
| Orissa           | 17.94      | 66.65      | 77.46| 45.13  | 57.87     |
| Chhattisgarh     | 32.67      | 62.28      | 90.2 | 6.81   | 19.05     |
| Madhya Pradesh   | 37.77      | 61.32      | 85.18| 24.74  | 19.16     |
| Gujarat          | 23.69      | 71.45      | 92.78| 25.98  | 55.39     |
| Daman & Diu      | 0          | 99.27      |      |        |           |
| Dadra & Nagar    | 25.53      | 74.47      | 98.18|        |           |

Haveli

| State             | Percentage | Population | Home | School | Transport | Other |
|------------------|------------|------------|------|--------|-----------|-------|
| Maharashtra      | 21.81      | 74.31      | 92.77| 39.26  | 39.57     |
| Andhra Pradesh   | 42.26      | 58.55      | 94.22| 26.49  | 38.96     |
| Karnataka        | 32.18      | 66.75      | 84.75| 24.91  | 23.06     |
| Goa              | 36.51      | 63.49      | 92.56|        |           |
| Lakshadweep      | 39.26      | 57.33      | 89.36| 21.13  | 42.54     |
| Kerala           | 40.27      | 61.72      | 90.61| 32.25  | 34.11     |
| Tamil Nadu       | 0          | 86.6       |      |        | 57.93     |
| Pondicherry      | 0          | 80.76      |      |        |           |
| Andaman &尼colaer Island | 29.91 | 67.34 | 85 | 31.65 | 52.53 |

Source: Computed from NSS 64th Round Unit Level Data

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References

Jha Praveen & Parvati Pooja. (2010) Right to Education Act 2009: Critical Gaps and Challenges. Economic and Political Weekly. 45(13):20-23.

Tilak Jandhyala B G. (2002) Education and Poverty. Journal of Human Development. 3(2): 191-207.

Tilak Jandhyala B G. (2004a) Public Subsidies in Education in India. Economic and Political Weekly. 39(4): 343-359.

Tilak Jandhyala B G. (2004b) Free and Compulsory Education: Legislative Intervention. Economic and Political Weekly. 39(7): 618-620.

Tilak Jandhyala B G. (2008) Education in 2008-09 Union Budgets. Economic and Political Weekly. 43(20): 49-56.

Tilak Jandhyala B G. (2009) Household Expenditure on Education and Implications for Redefining the Poverty Line in India. [Background Paper prepared for the Expert Group on the Review of the Methodology for Estimation of Poverty].

Tilak Jandhyala B G. (2002) Determinants of Household Expenditure on Education in Rural India. Working Paper Series No. 88. NCAER. New Delhi.