

Affordability of education in the eight North Eastern States of India as per the National Sample Survey

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ABSTRACT

Education and skill development are vital tools for ensuring productive manpower in the process of economic development in a society. This becomes more crucial in a Region known for its economic backwardness even after 68 years of Independence of the country. The Region referred here are the eight States of Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim and Tripura. Lack of educational infrastructure (buildings, hostels, teacher quarters, transportation, etc), equipments, trained faculties, coaching facilities has hampered the education sector in this Region. On top of it, the cost of education and its affordability to a large section of the society (especially in the rural areas) has been a cause of concerned. The fact that more than 76% of the rural households have the highest earning members less than Rs. 5000/- per month has contributed to the high dropouts and discontinuance of education at 30-35%. On average, more than 16% of per capita income is spent for pursuing general education, more than 52% for vocational education and at 128% for pursuing technical/ professional education. Even the technical/ professional educational in government institutions in the Region is more costlier than for the country as a whole. This resulted in a very low percentage of technical/ professional course students to general course students at 1:48 while the ratio at the national level is 1:19. Over the years, a number of institutions have been set up but mere availability of institutions is not sufficient without affordability of the students to access them. Various scholarship schemes and other financial support would required a more targeted approach to ensure affordable education especially students from poor economic background.

Key words: North Eastern States/ Region, National Sample Survey, general education, technical/ professional education, vocational education, expenditure, affordability, income, rural, urban.

1. Introduction:

The 12th Five Year Plan of the Planning Commission (now Niti Aayog), Government of India had noted it its Plan documents that “*Education is the most potent tool for socioeconomic mobility and a key instrument for building an equitable and just society. Education provides skills and competencies for economic well-being. Education strengthens democracy by imparting to citizens the tools needed to fully participate in the governance process. Education also acts as an integrative force in society, imparting values that foster social cohesion and national identity*”. It also pointed out that the four main priorities for an education policy like access, equity, quality and governance would continue to be prioritized but will place the greatest emphasis on improving learning outcomes at all levels.

The North Eastern Vision 2020¹ has aptly identified that “*in any people-centric vision of NER, education and the building of skills and knowledge will be the cornerstone. This is the only capital that*

¹ Released by the North Eastern Council Secretariat, Ministry of Development of the North Eastern Region, Government of India in May, 2008

people without land and financial capital can acquire to enhance their income streams and improve their living conditions. In the development process, education is vital to growth across all sectors". It also mentioned that despite the expansion of educational infrastructure and impressive literacy rates and pupil teacher ratios in the region, the standard of education in NER is generally low, and the skills and knowledge base of school and college graduates has not equipped them to compete at the national level for further studies or employment, or engage effectively in entrepreneurial activity.

Both the government and private sector spends substantial amounts on the creation as well as the functioning of the educational infrastructure. But to avail themselves of such facilities, individuals (students), too, have to incur expenditure in the form of tuition fees, examination fees, cost of books and stationery, uniforms and other expenses. This paper would restrict itself only to the analysis of expenditure (one of the determinants of affordability leading to accessibility and equity) on education for pursuing various courses. Cost is one of the important factors in determining whether the student would opt for a particular course.

A study by Chug, S (2011) titled "*Dropout in Secondary Education: A Study of Children Living in Slums of Delhi*" it, *inter alia*, concluded that "family background such as low socio-economic and educational status of the parents is significantly correlated with the phenomenon of dropping out with about one fifth of the sample children dropping out due to financial constraints. At secondary level, taking private tuition is a common practice to obtain higher marks, but it was observed that as many as 26 percent households reported that they could not bear this expenditure because of which their children dropped out of school".

A study by Basumatary, R (2012) titled "*School Dropout across Indian States and UTs: An Econometric Study*", found that "Among others, poverty is one of the main determinants of school dropout. Family economic circumstances are important to meet the hidden and upfront costs of schooling, failure of which leads to many temporary as well as permanent dropouts of children. Hidden costs of schooling include opportunity cost, travel cost, uniform, daily expenditures, while upfront costs include admission fee, examination fee, tuition fees etc".

A study by Gouda M. Sateesh and Dr.Sekher. T.V (2014) titled "Factors Leading to School Dropouts in India: An Analysis of National Family Health Survey-3 Data", it was found that out of 13,566 students, 19% of the children cited "Cost was too much" as a reason for school dropout. Interestingly, the percentage for both boys and girls are the same.

Not much work has been done on the area of affordability (that is the cost aspect) for pursuing education in the North Eastern Region. Hence, this paper is an attempt to analyse the various items of expenditure involved in pursuing education in the Region vis-à-vis the all-India level and to see whether education is affordable to a large section of the society especially for the rural households which constituted majority of the households in the NE Region. The analysis rely heavily on the data published by the National Sample Survey Organisation (NSSO), Ministry of Statistics & Programme Implementation, Government of India in its 67th Round and 71st Round reports and the results of the Socio Economic & Caste Census-2011.

2. Source of data – National Sample Surveys:

The NSS 64th Round was designed to collect information on (a) participation of persons aged 5-29 years in the education system of the country (b) private expenditure incurred by households on education and (c) the extent of educational wastage in terms of dropout and discontinuance, and its causes. The purpose was to study (i) the extent of use of educational

infrastructure, or facilities and incentives provided by the government and private sector as reflected in current attendance status of population in educational institutions (ii) the magnitude and nature of private expenditure on education; (iii) the incidence and causes of dropping out, non-enrolment etc.

The purpose of the 71st NSS round on Social Consumption - Education was to collect information on participation of persons aged 5-29 years in pursuit of education in the country; the extent of use of educational infrastructure, facilities and incentives provided by the government and private sectors and its impact on current attendance status of population in the educational institutions; private expenditure incurred by households on education and the extent of educational wastage in terms of dropping-out and discontinuance, and its causes.

3. Reference period:

The period of the 64th Round is of one year duration starting on 01.07.2007 and ending on 30.06.2008. The survey period of this round are divided into four sub-rounds of three months' duration each. The estimates for the 71st Round are based on data collected during 01.01.2014 to 30.06.2014, a period of six months. Therefore, these estimates may be taken as on 31.03.2014, the mid-point of the six-month period. Expenditure on education is related to current academic session of study of a student for the basic course only. If the current academic session spanned over 12 months, then it was restricted to 12 months period.

4. Expenditure on education:

All the private expenditures (item-wise) incurred and/or to be incurred during the current academic session on the education of the student on the basic course were considered. Components of expenditure include course fee, transport, books, stationery, private coaching and other expenditure. If duration of the course was more than one year, then current academic session was taken as of one-year even if the course followed three to six months semester system and accordingly the expenditure was recorded. For the expenditure, which was incurred for the remaining part of the current academic session, imputation was done on an objective basis. All the expenditures incurred and/or to be incurred during the current academic session on the education of household members were considered irrespective of the source of expenditure, i.e. whether the expenditure had been incurred and/or to be incurred by the sample household or not. In case, academic session had not started for a student as on date of survey and it was not possible to obtain information for the coming academic session, expenditure information was collected with reference to the last academic session.

5. Sample size:

A total of 13,423 households were covered as samples in the eight NE States during the 64th Round which constituted about 13.3% of all States taken together. During the 71st Round, a total of 8385 households were covered as samples which constituted about 12.71% of all households taken together.

A stratified multi-stage design has been adopted for the 64th and 71st round surveys. The first stage units (FSU) are the 2001 census villages in the rural sector and Urban Frame Survey (UFS) blocks in the urban sector. A stratified multi-stage design was adopted for the 71st round survey. The first stage units (FSU) were the census villages in the rural sector and Urban Frame Survey (UFS) blocks in the urban sector. The ultimate stage units (USU) were households in both

the sectors. In case of large FSUs, one intermediate stage of sampling was the selection of two hamlet-groups (hgs)/ sub-blocks (sbs) from each rural/ urban FSU².

Table - 1
Number of households surveyed

State	No. of surveyed Households (64 th Round)			No. of surveyed Households (71 st Round)		
	Rural	Urban	All	Rural	Urban	All
Arunachal Pradesh	687	448	1135	379	247	626
Assam	1600	832	2432	1696	560	2256
Manipur	1536	768	2304	768	640	1408
Meghalaya	1024	384	1408	544	288	832
Mizoram	512	768	1280	384	383	767
Nagaland	1024	384	1408	352	224	576
Sikkim	960	192	1152	320	192	512
Tripura	1728	576	2304	832	576	1408
NE States (Total)	9071	4352	13423	5275	3110	8385
All India	63318	37265	100583	36479	29447	65926

Source: 67th NSS Round and 71st NSS Round reports of the National Sample Survey Organisation (NSSO), Ministry of Statistics & Programme Implementation, Government of India.

6. Overview of education scenario in the North Eastern Region (NER):

The NER comprised of the eight North Eastern States of India of Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim and Tripura constituted about 8% of the landmass of India and 3% of population is a land lock region with 98% of its land boundary with international borders and only 2% of its landmass with mainland India. The education sector in the NER is characterized by high school drop-out rates, sector dominated by government run colleges with high enrolment of students in such colleges, less private sector participation, very few specialised government colleges (72% are general colleges) and universities (68% are general), low percentage of trained teachers, low percentage of students pursuing technical/professional students, etc. Migration of students to other parts of the country is seen on a wide scale not only for higher studies but also for school education. With greater mobility, the migration of students has increased over the years. In this context, it would be of interest to analyse whether the cost for accessing education has been a factor in creating a barrier for the large majority of the students especially from the rural households in accessing affordable education.

7. Expenditure per student by type of education:

As is generally understood, expenditure / cost incurred for pursuing technical/ professional education is much higher as compared to general or vocation education. On an average, expenditure on technical/professional (except vocational) is more than eight times the expenditure on general education and 2½ times the expenditure on vocational education. However, as can be seen from Table 2 below, the ratio varies from state to state and there is a wide range of variation.

From Table 2, it is observed that the expenditure for pursuing general education in Assam (at Rs. 4,152/- per student per academic session) is the lowest among the eight NE States while it is

² For more information, refer to the "Note on Sample Design and Estimation Procedure" of the 64th and 71st NSS rounds.

the highest in State of Nagaland (at Rs. 11,501/- per student per academic session) – i.e., more than 2½ times the expenditure for general education in Assam. Even the expenditure for pursuing technical/ professional education is cheaper in Assam (at Rs. 41,632/- per student per academic session) as compared to Sikkim (Rs. 1,04,922/- per student per academic session) – i.e., more than 2½ times the expenditure for technical/ professional education in Assam. Assam does have the largest number of institutes in the Region and hence due to competition, the cost is lower. Infact, the average expenditure for pursuing general and technical/ professional education in Assam is one of the lowest in the country.

In case of vocational education, expenditure in Tripura (at Rs. 15,861/- per student per academic session) is low as compared to expenditure in Arunachal Pradesh (Rs. 46,810/- per student per academic session) – almost three the expenditure for vocational education in Tripura.

Thus, among the NE States, expenditure on general and technical/ professional education is the lowest in Assam while for vocational education it is the lowest in Tripura. Also, from Table 2, it is observed that the average expenditure on education in the NE States is comparable to the expenditure at the all-India level. However, this information does not reveal the quality of education – it only shows the cost and affordability of the course. Thus, if we taken into account the perceived notion that the quality of education in other parts of the country is much higher as compared to the standard in the NE States, hence it would be worthwhile for the students to migrate to other parts of the country.

Table - 2
Average expenditure (Rs) per student in current academic session by type of education – 71st Round
(Rural + Urban)

State	Type of education			Expenditure ratio	
	General	Technical/ professional (except vocational)	Vocational	Technical/ professional (except vocational) over General Courses	Technical/ professional (except vocational) over Vocational Courses
Arunachal Pradesh	5917	43632	46810	7.4	0.9
Assam	4152	41632	16736	10.0	2.5
Manipur	10012	81152	24195	8.1	3.4
Meghalaya	7037	49363	13135	7.0	3.8
Mizoram	10041	59649	32665	5.9	1.8
Nagaland	11501	60751	20518	5.3	3.0
Sikkim	5853	104922	29691	17.9	3.5
Tripura	6174	51610	15861	8.4	3.3
NE States (Average)	7586	61589	24951	8.1	2.5
All India	6788	62841	27676	9.3	2.3

Source: 71st NSS report of the National Sample Survey Organisation (NSSO), Ministry of Statistics & Programme Implementation, Government of India.

8. Average expenditure for various levels of general education by students from rural areas:

General education includes general school education from the primary to the higher secondary level, normal university education for a degree. On an average, the expenditure on education by students from rural areas at all levels of education is marginally higher in the NE Region as compared to the all India level (Table 3). State-wise, average expenditure on primary, upper primary, secondary, higher secondary and diploma level of education is the least in Assam as compared to other NE States (Table 3). In fact, the expenditure on school education in Assam is more than 2½ times lesser than in the other NE States which have the highest expenditure on school education for rural students. At the graduate and post gradual level, the expenditure is the lowest in Arunachal Pradesh and Sikkim respectively.

9. Average expenditure for various levels of general education by students from urban areas:

On an average, the expenditure on school education by students from the urban areas at all levels of education in the NE Region is comparable to the all India level (Table 3). State-wise, expenditure for primary and upper primary level of education by students from urban areas is the least in Tripura as compared to students from urban areas in other NE States. In fact, the expenditure on school education in Tripura is more than 1½ times lesser than in the other States with the highest expenditure on school education. The expenditure by students at the secondary and higher secondary level is the least in Arunachal Pradesh while it is the highest in Sikkim (more than twice) and Tripura (more than twice) respectively. At the graduate level, the expenditure by students is the lowest in Manipur while it is the highest in Mizoram (more than 1½ times). At the post graduate level, the expenditure by students is the lowest in Sikkim while it is the highest in Mizoram (almost two times).

Table - 3
Average expenditure (Rs) per student pursuing general education during current academic session
for levels of education – 71st Round

	Area	Level of general education							Estimated (00) students
		Primary	Upper Primary	Secondary	Higher Secondary	Graduate	Post Graduate and above	Diploma	
Arunachal Pradesh	R	2907	3787	5219	7889	7476	0	22798	2697
	U	7471	8458	9688	10714	21397	18524	14099	462
Assam	R	1640	2259	3860	7005	9354	23319	7855	60516
	U	8695	9943	12830	21230	17998	23233	14323	7719
Manipur	R	4503	5741	11037	14190	15657	18161	7932	4250
	U	9790	11324	16795	20281	13627	23294	14399	2254
Meghalaya	R	2754	3892	6535	14358	19116	33137	27200	6473
	U	11009	11670	15385	19064	20277	19674	32587	1553
Mizoram	R	3285	5435	9787	17129	16049	41597	42871	1402
	U	8858	12355	12582	18536	24843	42967	58600	1220
Nagaland	R	4835	5765	9550	18809	25992	16885	13239	4071
	U	9154	10341	15165	21635	21768	24040	18000	1177
Sikkim	R	3424	2503	4735	7328	15311	14626	11924	1267
	U	10899	9915	21967	19604	22967	15786	7926	220
Tripura	R	3499	3909	7151	7179	13647	24346	10361	6201
	U	6347	7429	12933	22986	19440	16530	17981	1543
NE States (Average)	R	3356	4161	7234	11736	15325	21509	18023	86877
	U	9028	10179	14668	19256	20290	23006	22239	16148
All States	R	2811	3242	5100	9031	11527	14604	13422	1893318
	U	10083	11446	13547	20179	16771	17744	21947	712361

Source: 71st Round reports of the National Sample Survey Organisation (NSSO), Ministry of Statistics & Programme Implementation, Government of India.

Note: The rural and urban figures are related to persons/students from rural and from urban areas respectively; and not relating to the places where the students studied.

10. Average expenditure on various items for pursuing general education:

Since the 71st NSSO Round does not contained detail information on the various items of expenditure for pursuing general education, we refer to the 64th NSSO Round (Education in India: 2007-08-Participation and Expenditure) conducted for the period July 2007 – June 2008 for analyzing the various items of expenditure. We observed that on average, the expenditure in the NER is 20% of the expenditure for payment of tuition fee, 14% for exam fee, other fees and payments (however it is very small at in Tripura at 3.1% and 3.7% respectively), 26% is for purchasing books & stationery, 18% for purchasing uniforms, 5% on transportation, 12% for private coaching (in Tripura, it is as high as 55% and as low as 0.5% in Mizoram) and 5% for other expense (as high as 15% in Arunachal Pradesh). The overall pattern of expenditure for pursuing general education in the NER does not vary much with the all-India pattern as could be seen from the graphical representation below.

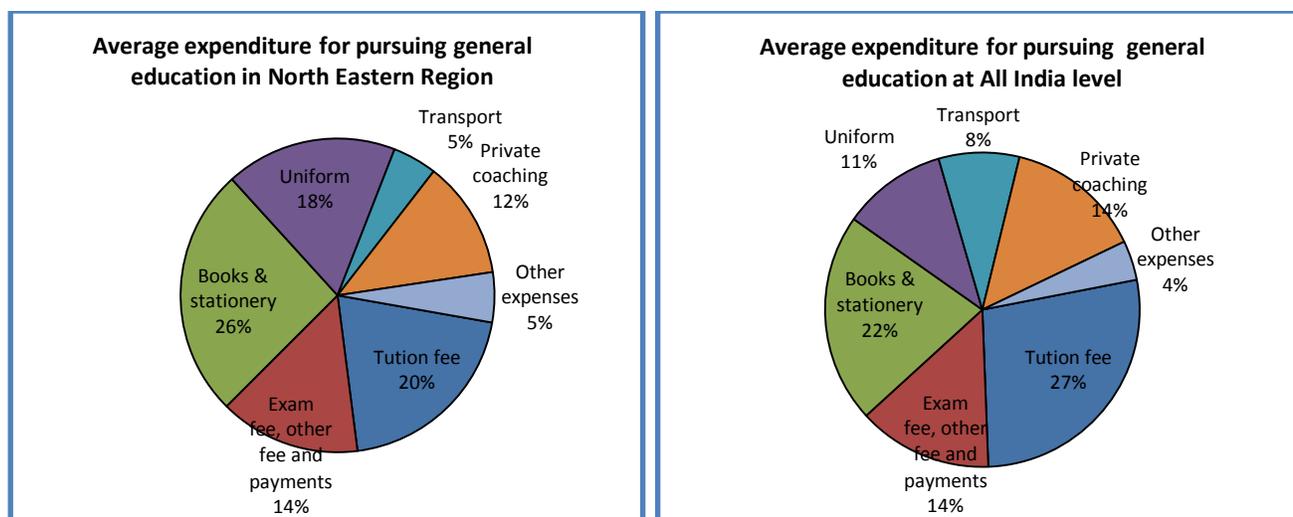


Table - 4

Average annual expenditure (Rs) per student of age 5-29 years pursuing general education on

State	Items of expenditure							Total	Estd students (000)	Sample no. of students
	Tuition fee	Exam fee, other fee and payments	Books & stationery	Uniform	Transport	Private coaching	Other expenses			
Arunachal Pradesh	261 (12.7)	244 (11.9)	538 (26.1)	555 (27.0)	34 (1.7)	116 (5.6)	311 (15.1)	2059	2644	1172
Assam	205 (10.7)	337 (17.6)	579 (30.2)	316 (16.5)	102 (5.3)	252 (13.1)	129 (6.7)	1920	5570	2226
Manipur	877 (20.7)	727 (17.1)	1025 (24.2)	652 (15.4)	227 (5.4)	504 (11.9)	230 (5.4)	4242	4814	2003
Meghalaya	578 (24.6)	254 (10.8)	850 (36.1)	349 (14.8)	166 (7.1)	73 (3.1)	84 (3.6)	2354	6292	1495
Mizoram	548 (18.9)	345 (11.9)	917 (31.6)	745 (25.7)	80 (2.8)	15 (0.5)	254 (8.7)	2903	2383	1297
Nagaland	1993 (33.0)	1202 (19.9)	1207 (20.0)	1033 (17.1)	172 (2.8)	336 (5.6)	96 (1.6)	6040	2035	1276
Sikkim	481 (19.1)	408 (16.2)	621 (24.6)	515 (20.4)	231 (9.2)	141 (5.6)	127 (5.0)	2524	1484	1120
Tripura	91 (3.1)	106 (3.7)	688 (23.8)	238 (8.2)	127 (4.4)	1589 (54.9)	54 (1.9)	2893	7874	1895
NE States (Average)	629 (20.2)	453 (14.5)	803 (25.8)	550 (17.7)	142 (4.6)	378 (12.1)	161 (5.2)	3117	4137	12484
All India	675 (27.4)	340 (13.8)	530 (21.5)	264 (10.7)	204 (8.3)	346 (14.1)	100 (4.1)	2460	2363936	92511

various items of expenditure – 64th Round

Note: Figures in bracket are percentages to total.

Source: 64th NSSO Round (Education in India: 2007-08-Participation and Expenditure) conducted for the period July 2007 – June 2008.

11. Average expenditure for pursuing technical/professional education:

Technical/professional courses involve the hands on training in addition to theoretical classes. One noteworthy fact about technical/ professional education is that the students in the NE Region constitutes only 1.62% of the total students in the country while it constitutes about 3.95% of the total students pursuing general education. Thus, the ratio of professional/ technical course students to general course students in the NE Region is 1:48 while the ratio at the national level is 1:19.

Average expenditure for courses like medicine and engineering in government institutions in the NE States is 1½ to 2 times cheaper than those in private aided or private unaided institutions (Table 5). However, for courses like law and IT courses, there is not much of difference between government run institutions and private aided and private unaided institutions. In case of management courses, the expenditure in private un-aided institutions is much than in government and private aided institutions.

In fact there are some states in the NE which do not have institutions for courses like law and management. For courses from ITI/ recognised vocational institutes and others (includes agriculture, education, chartered accountancy & similar courses and any other courses), the average expenditure in government run institutions is less by almost two times than in private aided or private unaided institutions.

If we compare the average expenditure for pursuing education for various courses, we observed that the average expenditure per student studying engineering (1.7 times), law (1.22 times), management (1.24 times), IT / computer (1.81 times) and ITI courses & vocational courses (1.06 times) in government institutions in the NER (average of States) as compared to the national average. For other courses like medicine, agriculture, education, chartered accountancy, etc the average expenditure per student in NER (average of States) is more or less comparable to the national average. Even for courses in private aided and private unaided institutions, the average expenditure per students for various technical courses (except medicine and engineering) in the NER (average of States) it is more or less comparable with the national average.

Hence, we observed that on the whole, expenditure per student pursuing technical/professional courses in the NER are either higher (in case of government institutions) or more or less comparable (in case of private aided and private unaided institutions) with the average expenditure incurred at the average national level. Thus, in view of this, we find large number of students from the Region migrating to other parts of the country for pursuing higher technical/professional education in view of the perceived notion that education and other relating facilities in other parts of the country is much better than in the NE Region. However, the extra expenditure incurred on transportation, accommodation, food, etc needs to be taken into account as well.

Table - 5

Average expenditure (Rs) per student pursuing technical/professional education during current academic session for various courses and types of institutions - 71st Round

Course	Type of institution	(Rural + Urban)										Ratio # (average expenditure in NE States vis-à-vis All States)
		Arunachal Pradesh	Assam	Manipur	Meghalaya	Mizoram	Nagaland	Sikkim	Tripura	NE States	All States	
Medicine	G	59950	50498	44466	65781	72283	55765	87006	72363	63514	64968	0.98
	PA	69000	86442	86187	65252	275234	0	77948	29909	86247	90205	0.96
	PUA	0	358252	117538	108788	71434	106226	129693	283023	146869	118657	1.24
Engineering	G	45359	64114	139906	48150	67008	58143	93485	56331	71562	42401	1.69
	PA	83865	86403	75884	39199	43848	90574	113824	111826	80678	69696	1.16
	PUA	102705	132036	64575	154985	0	118789	135498	100390	101122	78227	1.29
Law	G	0	62589	17200	0	42265	24073	10609	224474	47651	39193	1.22
	PA	51200	43000	0	0	0	55253	0	0	18682	31984	0.58
	PUA	0	65669	225649	107000	0	0	14980	0	51662	67392	0.77
Management	G	30607	61769	60681	60000	53200	98000	17287	59613	55145	44519	1.24
	PA	46500	45228	48000	27415	0	77688	167405	0	51530	62124	0.83
	PUA	0	260976	52345	208512	0	103255	75160	54830	94385	105188	0.90
IT/Computer Courses	G	8794	15863	45826	24543	31910	46239	220886	21579	51955	28686	1.81

	PA	32530	22844	25878	26952	19660	35019	9500 0	80100	4224 8	4885 8	0.86
	PUA	10437	30384	50786	34657	44646	77437	7394 8	62198	4806 2	5105 1	0.94
Courses From ITI/ Recognized Vocational Institutes	G	15340	18732	17695	7729	17675	13869	1721 0	10271	1481 5	1394 2	1.06
	PA	6200	8367	56427	50159	23641	13600	4833 0	0	2584 1	3185 2	0.81
	PUA	60000	18830	45319	0	35653	34118	1640 0	31779	3026 2	3377 3	0.90
Others*	G	19002	8814	26483	10342	28868	18179	7118	20979	1747 3	1833 0	0.95
	PA	4700	39777	23582	45048	110937	26458	0	85724	4202 8	3646 6	1.15
	PUA	76240	17702	32436	77814	25309	172782	8880	21400	5407 0	4319 9	1.25
Estd. (00) No. of Students		238	1042	279	102	94	128	31	217	2131 (1.62 %)	1314 41	

Source: 71st Round reports of the National Sample Survey (NSS), Ministry of Statistics & Programme Implementation, Government of India.

*includes agriculture, education, chartered accountancy & similar courses and any other courses not mentioned elsewhere

G = Government; PA = Private Aided; PUA = Private Un-Aided

Ratio of more than 1 indicates that it is more expensive in NE Region as compared to the all-states' average for respective courses.

12. Average expenditure on various items for pursuing technical/ professional education:

We refer to the 64th NSSO Round (Education in India: 2007-08-Participation and Expenditure) conducted for the period July 2007 – June 2008 for analyzing the various items of expenditure for pursuing technical/ professional education. We observed from Table 6 that in the NER on average about 39% of the expenditure is for payment of tuition fee, 30% for exam fee, other fees and payments generally termed as 'upfront cost' while 12% goes for purchasing books and 3% for uniforms, 6% for transport, 3% for private coaching generally termed as 'hidden cost' or 'indirect cost' (in Tripura, it is as high as 24.3% while it is negligible in other States) and 7% is for other expenses (its more than 14% in Arunachal Pradesh and Mizoram). The overall pattern of expenditure for pursuing general education in the NER does not vary much with the all-India pattern as could be seen from the graphical representation below except for the fact that tuition fees alone account for 58% of the expenditure while it is only 39% in the NER.

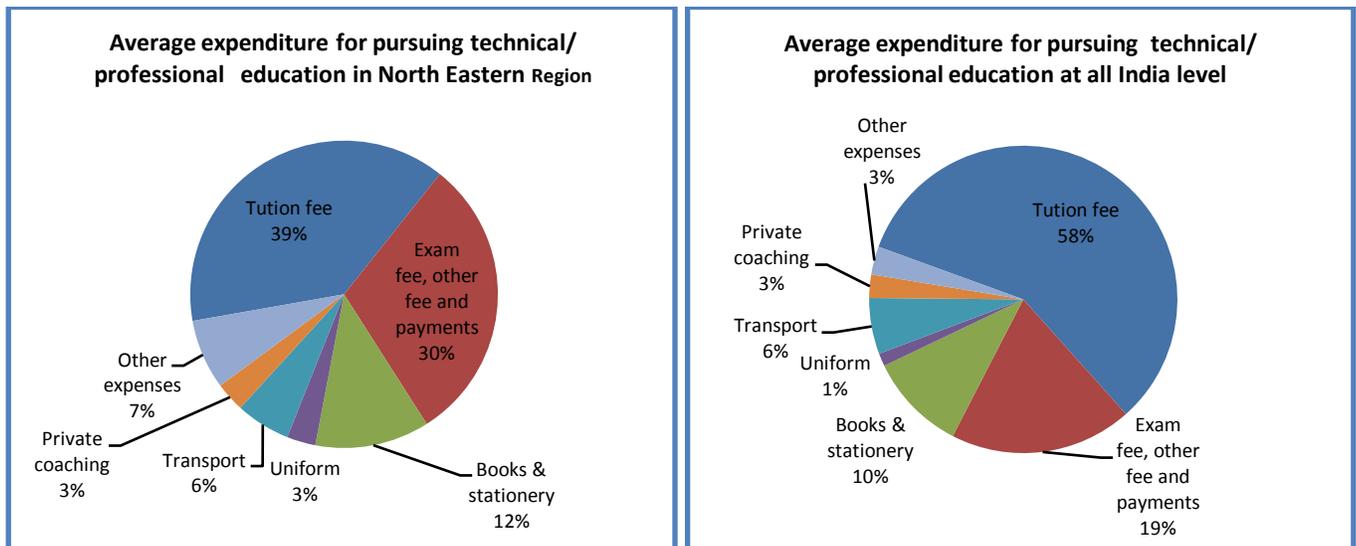


Table – 6
Average annual expenditure (Rs) per student of age 5-29 years pursuing technical/ professional education on various items of expenditure

State	Items of expenditure								Estimated students (000)	S
	Tution fee	Exam fee, other fee and payments	Books & stationery	Uniform	Transport	Private coaching	Other expenses	Total		
Arunachal Pradesh	1078 (17.1)	1265 (20.1)	2332 (37.1)	0 (0.0)	692 (11.0)	0 (0.0)	924 (14.7)	6292	2	
Assam	1922 (17.0)	4880 (43.2)	2045 (18.1)	698 (6.2)	1011 (9.0)	0 (0.0)	731 (6.5)	11286	282	
Manipur	7318 (25.0)	13596 (46.4)	3689 (12.6)	921 (3.1)	355 (1.2)	0 (0.0)	3407 (11.6)	29287	25	
Meghalaya	4778 (43.4)	467 (4.2)	3655 (33.2)	0 (0.0)	1766 (16.0)	239 (2.2)	108 (1.0)	11013	16	
Mizoram	2231 (22.0)	2593 (25.5)	1775 (17.5)	17 (0.2)	2024 (19.9)	0 (0.0)	1511 (14.9)	10151	12	
Nagaland	9289 (45.0)	8340 (40.4)	1202 (5.8)	1157 (5.6)	646 (3.1)	0 (0.0)	0 (0.0)	20634	4	
Sikkim	30523 (54.9)	15042 (27.1)	2315 (4.2)	1796 (3.2)	1119 (2.0)	0 (0.0)	4753 (8.6)	55549	4	
Tripura	6079 (30.3)	3520 (17.6)	2759 (13.8)	366 (1.8)	1830 (9.1)	4878 (24.3)	620 (3.1)	20053	45	
NE States (Average)	7902 (38.5)	6213 (30.3)	2472 (12.0)	619 (3.0)	1180 (5.7)	640 (3.1)	1507 (7.3)	20533	390	
All India	18568 (57.8)	6165 (19.2)	3318 (10.3)	434 (1.4)	1890 (5.9)	790 (2.5)	947 (2.9)	32112	46127	

Source: 64th NSS Round (Education in India: 2007-08-Participation and Expenditure) conducted for the period July 2007 – June 2008.

Note: Figures in bracket are percentages to total.

Thus, tuition fees, exam fees and other fee and payments constituted the major share of expenditure both for pursuing general and technical / professional education in the both in the NER and at the national level. Purchase on books & stationery is another major item of expenditure. For pursuing general education, expenditure for purchasing uniforms and for attending private tuitions also form a major expenditure. Since pursuing technical/ professional education would cost more than eight times the cost for pursuing general education, direct comparison of the items of expenditure among them would not be proper.

Table – 7
Share of average annual expenditure on various items of expenditure – Summary

Particulars	General education		Technical/ Professional education	
	NE Region	All India	NE Region	All India
Tuition fee	20.2	27.4	38.5	57.8
Exam fee, other fee and payments	14.5	13.8	30.3	19.2
Sub-total (direct cost)	34.7	41.2	68.8	77.0
Books & stationery	25.8	21.5	12.0	10.3
Uniform	17.7	10.7	3.0	1.4
Transport	4.6	8.3	5.7	5.9
Private coaching	12.1	14.1	3.1	2.5
Other expenses	5.2	4.1	7.3	2.9
Sub-total (indirect or hidden cost)	65.4	58.7	31.1	23.0

Source: Table 4 and Table 6 above.

13. Affordability of education in the NE States:

As noted above, the ratio of students pursuing technical / professional education in the NE Region is very low as compared to the national average. There could be several factors responsible for it, like the lack of adequate number of technical institutes, inadequate infrastructure and equipments, shortage of trained faculties, low industrial base for employment opportunities, etc. However, high cost of education could also be another crucial factor for the low proportion of students pursuing vocational/technical/ professional education. The opportunity cost of education is the income forgone by the household of the next best activity available for their children who are in education. This opportunity cost is very high for the poor rural households.

Thus, affordability of education should be defined with respect to income of individual/ household to indicate the capacity to spend for pursuing education. It should also be remembered that spending on education by an individual/ household is a long term investment and commitment with no immediate returns or assured returns keeping in mind the low employment opportunities in the NE Region. Add to this is the factor of inflation that enhance the costs from year to year. Thus, a number of factors will influence the decision of an individual/ household with regard to expenditure on education.

If we take into account the per capita income of the NE States, we find that on average the per capita income is Rs. 0.36 lakh (Table 8). Based on this, more than 16% of per capita income is spent for pursuing general education which can be considered quite high. For pursuing vocational education, it is even higher at more than 52% of the per capita income and for pursuing technical/ professional education, the income of a particular individual is not sufficient to cover the cost – it is 128% of per capita income. This is on average for the Region as a whole. State-wise variations do exist as shown in Table 9.

It would be of interest to analyse the situation in the rural areas which constituted more than 85% of the total households in the Region out of which 76% households earned less than Rs. 5,000/- per month (Rs. 161.29 per day). This information is as per the results of the

Government of India's Socio Economic & Caste Census 2011³. We observed from Table 9 that 13% of the annual household income would be spent for general education, 42% would on vocational education and 103% for pursuing professional/ technical education per student per academic session. What we are assuming here is that the household has a single earning member. Considering that the average size of the households in the NE States to be around 4 to 5 members and assuming that on average 2 to 3 of the members are children, the expenditure on education for the children is prohibitive.

As we have seen, the cost for pursuing technical education is more than eight times that of general education and 2½ times the expenditure on vocational education. That is why the ratio of professional/ technical course students to general course students in the NE Region is 1:48, much below the national average. One of the important reasons that can be attributed to this phenomenon is the relative high cost of vocation and technical/ professional education to a large section of society in the NER in comparison to the income earned. Interestingly, the share of indirect or hidden cost is higher in the NE Region (Table 7) as compared to the all-India average.

Table 8
State Gross Domestic Product, population and per capita income

State	Reference Period	State GDP (at 2004-05 prices) (Rs lakh)	Population (as per 2011 Census)	Per capita income (in Rs lakh)
Arunachal Pradesh	2014-15	632124	1382611	0.46
Assam	2014-15	9243163	31169272	0.30
Manipur	2014-15	833042	2721756	0.31
Meghalaya	2014-15	1456112	2964007	0.49
Mizoram	2013-14	560779	1091014	0.51
Nagaland	2014-15	1213965	1980602	0.61
Sikkim	2013-14	615231	607688	1.01
Tripura	2013-14	1873246	3671032	0.51
NE States (Average)		16427662	45587982 (Total)	0.36

Note: Per capita income is calculated.

Source: (i) Registrar Census of India for population figures; (ii) Ministry of Statistics & Programme Implementation, Government of India for State Gross Domestic Product (GDP).

³ Even though the reference period of the NSS Round under consideration pertains to 2007-08 and 2014 while the SECC pertains to 2011, however, it can safely be assumed that the household' income in the rural areas of the NER has not changed much.

Table 9

Ratio of per capita income / household income to expenditure on education per academic session

State	Ratio of education expenditure per annum to per capita income#			Ratio of education expenditure per annum to rural household earning income @Rs. 5000/- p.m.		
	General	Technical/ professional (except vocational)	Vocational	General	Technical / professional (except vocational)	Vocational
Arunachal Pradesh	12.9	95.4	102.4	9.86	72.72	78.02
Assam	14.0	140.4	56.4	6.92	69.39	27.89
Manipur	32.7	265.1	79.1	16.69	135.25	40.33
Meghalaya	14.3	100.5	26.7	11.73	82.27	21.89
Mizoram	19.5	116.0	63.6	16.74	99.42	54.44
Nagaland	18.8	99.1	33.5	19.17	101.25	34.20
Sikkim	5.8	103.6	29.3	9.76	174.87	49.49
Tripura	12.1	101.1	31.1	10.29	86.02	26.44
NE States (Average)	16.3	127.7	52.8	12.6	102.6	41.6

Note:# Per capita income of 2013-14/ 2014-15 for a State as a whole (reference Table 8).

The ratio calculated is with reference to the expenditure on three types of courses as mentioned at Table 2.

14. Summary and conclusion:

From the above analysis, it is noteworthy to point out the following:

- (i) Average, expenditure on technical/professional (except vocational) in the NER is more than eight times the expenditure on general education and 2½ times the expenditure on vocational education. This pattern is not only true for the NER but also for the country as a whole. Of course, state-to-state variations can be observed.
- (ii) Average expenditure on general and technical/ professional education is the lowest in Assam while for vocational education it is the lowest in Tripura. Overall average expenditure on education in the NE States is comparable to the expenditure at the all-India level.
- (iii) Average expenditure on education by **students from rural areas** at all levels of education is marginally higher in the NE Region as compared to the all India level. State-wise, average expenditure on primary, upper primary, secondary, higher secondary and diploma level of education is the lowest in Assam while at the graduate and post gradual level, the expenditure is the lowest in Arunachal Pradesh and Sikkim respectively.
- (iv) Average expenditure on education by **students from urban areas** at all levels of education in the NE Region is comparable to the all India level. State-wise, expenditure for primary and upper primary level of education by students from urban areas is the least in Tripura while at the secondary and higher secondary level

- it is the least in Arunachal Pradesh. At the graduate level, the expenditure is the least in Manipur and at the post graduate level, it is the lowest in Sikkim.
- (v) For pursuing **general education**, more than a quarter of the expenditure is for purchasing books & stationery, 18% for purchasing uniforms, and 12% for private coaching (in Tripura, it is as high as 55%). This pattern of expenditure does not vary much with the all-India pattern.
 - (vi) Average expenditure for pursuing **technical/ professional education** for various courses in government institutions for courses like engineering, law, management, IT / computer and ITI courses & vocational courses in government institutions in the NE is higher as compared to the national average.
 - (vii) Tuition fees, exam fees and other fee and payments constituted the major share of expenditure both for pursuing general and technical / professional education in the both in the NE and at the national level. Purchase on books & stationery is another major item of expenditure. For pursuing general education, expenditure for purchasing uniforms and for attending private tuitions also form a major expenditure. The overall pattern of expenditure for pursuing general education in the NE does not vary much with the all-India pattern.
 - (viii) However, affordability should be defined in terms of the capacity / spending power of the individual/ household. We find that for pursuing technical/ professional education, it would cost 128% of the per capita income and 103% of the rural household's yearly income. Hence, the ratio of students opting professional/ technical course to general course students in the NE Region is very low at 1:48 while the ratio at the national level is 1:19.

The fact that in the rural areas only 8.32% of the rural population have passed secondary level of education, only 4.79% have passed higher secondary level and a marginal 2.52%⁴ are graduates or higher level points to the fact that affordability has been one of the issues in providing accessibility to a large section of the students in the NE.

Even though we agree that there is a need for a more in-depth study on the causal effect of high cost of education on accessibility to education in the NE through the use of an econometric model, the fact that cost played a crucial role cannot be denied if the cost of education account for a large share of per capita income/ household income. Here, we are not discounting the fact that there are other factors responsible for the low ratio of students pursuing vocation or technical/ professional education like lack of infrastructure (buildings, hostels, teacher quarters, transportation, etc), equipments, trained faculties, coaching facilities, low industrial base & small service sector hampering employment opportunities, etc. But at the same time, we also find that a large number of quota seats reserved for the NE students are not being filled up in many institutions. Is cost not the factor? Mere availability of institutions is not sufficient without the affordability to access these institutions especially by the poorer section of students from the rural households.

The Government (both Central and States) has been implementing various scholarship schemes and well as providing free or subsidized books, stationery, uniforms, etc. However a more targeted support / subsidy would be required to cover not only the direct cost but also perhaps to reduce the high indirect/ hidden cost as well. Thus fine tuning of the programmes

⁴ Data is as per the Socio Economic & Caste Census-2011 released by the Ministry of Rural Development, Government of India.

becomes necessary to cater to the 85% of the rural households in the NE Region. The 12th Five Plan of the country has mentioned the need for putting in place a student financial programme and student loan programme. These programmes should have the sole purpose of helping the poor/needful students. If this is done in a more comprehensive manner, the Region would achieve an equitable and just society necessary for a balanced economic development.

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