

STUDENT MOBILITY IN INDIA – A CROSS SECTION ANALYSIS

Anil K. Yadav*

People had been migrating from one place to another for the purpose of education, employment, marriage and other social reasons. The other type of migration could be the in-migration and out-migration. Migration Rural to Urban has been the major one which has been taking place since the beginning. People also move from one urban area to another. They basically migrate to enhance their mental capacity. Present paper analyses student mobility in India.

INTRODUCTION

Migration has been a world wide phenomenon. People had been migrating from one place to another for the purpose of education, employment, marriage and other social reasons. The other type of migration could be the in-migration and out-migration. Migration Rural to Urban has been the major one which has been taking place since the beginning. People also move from one urban area to another. Now let us see who migrates, it has been observed that migration is a process and the rural out-migrants show certain distinctive socio-economic and demographic characteristics as compared to the non-migrants. These characteristics include sex, age, education, landholding and sometimes the size of family. So far as the age and sex are concerned pattern of younger males in the age group of 15-30 years are more prone to migration. They basically migrate to enhance their mental capacity. If we look at migration from education point of view there seems to be an association between.

The level of education and the propensity to migrate, although a large number of migrants are illiterate for the reason that illiterates form the majority in the population. So far as landholding is concerned, the earlier migrants were mainly from the poor, landless unskilled individuals, in recent periods the proportion of migrants from relatively better-off families has increased. It is because they are interested in acquiring formal education. Banerjee (1986) concludes that the highest migration propensity was recorded for non-landowning households, while at the same time the propensity was higher than that of agricultural and rural labour and farm labour households not operating any land. It is a firm belief that the landless, the poorest or the people from the lower strata migrate.So the fact is that the young males, who have a modicum degree of education and also urban contacts, have the highest propensity to migrate (Connell et.al. 1976). Similarly, Dasgupta and Laishley (1978) found that high migration rates are associated with extremes in income distribution and consequently, those who migrate are, by and large, the younger sons of prosperous farmers. He also states that from the aspect of social angle family members, need not be the entire families, from the broad category of the rural poor also migrate. A study in Varanasi district of Uttar Pradesh observed that the quantum of movement is higher from both the bottom and the top strata of the rural society, than from those in the middle level (Yadava, 1989). Studies have also highlighted that members from larger families are comparatively more prone to migrate as compared to small ones. This type of relation seems quite popular both because of economic factors or sociological ones like conflicts within larger families (Connell et.al.1976).

It has been widely observed that in Southeast Asia, Latin America and Africa, there is a growing trend for women to migrate to cities on their own in search of jobs (Connell et.al). Al.,1976. Although

* The author is a Chief in the Institute of Applied Manpower Research, Delhi

not of same magnitude of South America or parts of South-east Asia, individual female migration in India also is becoming increasingly significant (Karlekar, 1995). In West Africa, women migrate to escape the oppression of patriarchal familial forms; for a job gives some independence and help in developing a sense of self-worth (ibid). In several countries girls (particularly in Europe and USA) become economically independent, living on their own in the cities and sending part of their savings to home. They also support younger siblings at school. This type of movement has been named by Thandani and Todaro as autonomous female migration and has become the basis of the resulted in the Thandani-Todaro model of migration (Thandani and Todaro, 1984).

It may be agreed that the migrants are a select group of people with distinctive characteristics and comparatively more productive than those left behind. As Hance states, “there can be little doubt that migration does have the effect of draining away from the rural areas, either temporarily or permanently, some of the strongest most able, most energetic young men and there seems to be a tendency for those with a better education to leave their indigenous communities or to eschew assignment in government, education and other services in rural areas” (Hance, 1970). Kuznets and Thomas state that : “There are marked differentials by sex, race, family status, education, health and many other social and demographic characteristics, and migrants are probably preselected, also, for their capacity to detach themselves from their traditional surroundings. For these reasons, (migrants) may be among the most productive from the standpoint of economic growth” (Kuznets and Thomas, 1957). Sharma (1997) has pointed out that push factor is important in decision to migrate and at the same time the migration has been beneficial to at least to the individual who migrates. Similarly, Khadria (2009) also mention the push-pull factors which influence the international migration. The major factor according to him is demographic, population structure economic, displacement and political disturbances etc.

In lieu of the above review of literature, we do not have the exact data like rural to urban and /or urban to urban. In the absence of such a data our work is limited to the migration due to education and employment.

In light of the discussion, the present paper seeks to highlight the following points:

- 1) Number of students moves in order to seek education
- 2) The number of Male/Female who migrates for education and /or employment
- 3) The quantum of in and out migration in a state for education

DATABASE AND METHODOLOGY

The data has been collected by the Nodal Centers of National Technical Manpower Information System (MTMIS) through the tracer study (follow up survey). The data was collected from the pass out of 2007 batch. This data has been collected through a postal communication and also by personal contact. Sooner, the data was collected; it was tallied and tabulated by the Nodal Centres. The data immediately was sent to the lead Centre of NTMIS which is situated in the Institute of Applied Manpower Research (IAMR). The movement, this data reached IAMR, analysis started.

A percentage analysis was made of the data and some graphs were drawn out of the data. The data which was received from the Nodal Centers was further processed in table one (1) where two more columns were generated i.e., of total migration and the total out turn.

TECHNICAL EDUCATION

Migration of technical personnel from one state to other states in the country for educational and employment purpose has an important role on the overall planning of technical education in the country. Information on these aspects has particularly been important for working out demand and supply relation

in the context of individual state. The Student follow-up survey accumulates information from the personal home address of the students admitted to the engineering institutions in a particular state. This information was utilized for ascertaining the number of students who were not permanent resident of the state. Similar information on student who had gone to other states for engineering education was collected from different Nodal Centers spread all over the country. These two pieces of information enabled us to have the extent of inter-state migration of engineering personnel and work out the total outturn of individual state.

Information on migration associated with employment is restricted to only those who migrated to other states for employment after obtaining Degree from a particular state.

MIGRATION FOR EDUCATION

The student follow-up survey of 2007 batch enabled us to identify the place of work for those who got a paid job. The employed persons from the point of view of place of work have been broadly classified as those working within the state and those working outside the state and abroad. It may be indicated that the information given here relates to the total outturn of students who passed out from Engineering Education Institutions located inside a particular state. The place of employment for those students of a particular state who graduated from institutions located in other states would not be ascertained for the moment.

Table 1. Gives the data of state wise distribution of migrants and other engineering degree holders of 2007 batch in India and who have migrated for the purpose of education. In case of the Chandigarh there seems to be 50:50 students i.e. from within the state and migrants from other states. Except Chandigarh, none of the state have similar trend. Although, most of the states have the students from outside the state but ratio-wise it is very low. Karnataka, Maharashtra and Haryana attract the highest number of student from outside the state in that order. J&k is the only state which failed to attract any student from outside the state. It may be due to the security reasons that J&K does not have students from outside the state. Secondly, it is also possible that since no renowned institution is available, students are not coming.

Overall, scenario shows that only 5.70 percent students are coming from outside to study in the state. Whereas around 0.80 percent are going outside the state for the degrees. Around 86.96 percent of the students are from within the state.

Migrant Engineering Degree Holders of 2007 in India

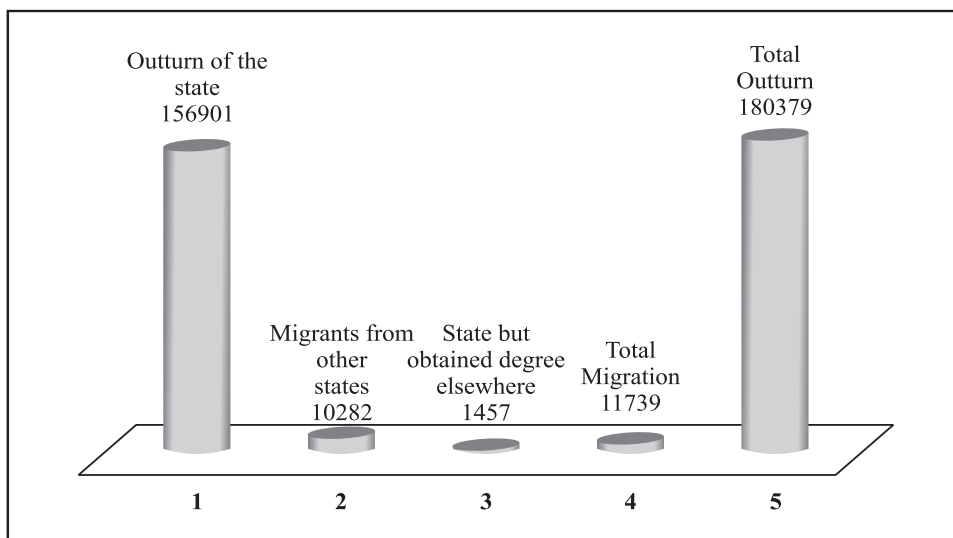


Table 1 : State Wise Distribution of Migrants and Other Engineering Degree Holders of 2007 Batch in India who have Migrated for Education

S. No.	States	Total Outturn of students within the state	Migrants		Total Migration	Total Outturn
			Migrants from other states	Residents of the state but obtained degree elsewhere		
1	Chandigarh	513	511	2	513	1024
2	Delhi	3361	286	497	783	3647
3	Haryana	8157	1306	0	1306	9463
4	Himachal Pradesh	331	124	30	154	455
5	Jammu & Kashmir	385	0	12	+12	385
6	Punjab	4238	596	26	622	4834
7	Rajasthan	9441	737	0	737	10178
8	Uttar Pradesh	19267	386	88	474	19653
9	Andhra Pradesh	NA	NA	NA	NA	NA
10	Karnataka	33601	2594	12	2606	36195
11	Kerala	9377	338	312	650	9715
12	Tamil Nadu	NA	NA	NA	NA	NA
13	Arunachal Pradesh	108	86	0	86	194
14	Assam	790	297	0	297	1087
15	Manipur	31	2	0	2	33
16	Meghalaya	14	11	0	11	25
17	Mizoram	-	-	-	-	-
18	Nagaland	-	-	-	-	-
19	Orissa	NA	NA	NA	NA	NA
20	Tripura	167	10	0	10	177
21	West Bengal	12161	731	375	1106	12892
22	Gujarat	NA	NA	NA	NA	NA
23	Madhya Pradesh	10418	667	98	765	11085
24	Chhattisgarh	2004	46	5	51	2056
25	Maharashtra	42537	1554	0	1554	44091
	All India	156901	10282	1457	11739	180379

Source : NTMIS Nodal Centres of India, IAMR, 2008

Table 2 : Discipline Wise Distribution of Migrant Engineering Degree Holders of 2007 Batch in India who have Migrated for Education

S. No.	States	Total Outturn of students within the state	Migrants		Net in Migration	Total Outturn
			Migrants from other states	Residents of the state but obtained degree elsewhere		
1	Aeronautical Engineering	29 (0.018)	21 (0.20)	0 (0.00)	21 (0.18)	50 (0.03)
2	Agricultural Engineering	431 (0.27)	48 (0.47)	8 (0.55)	56 (0.48)	479 (0.27)
3	Architectural Engineering	2185(1.39)	184(1.79)	31 (2.13)	215(1.83)	2369(1.31)
4	Bio Technology	1742(1.11)	177(1.72)	7(0.48)	184(1.57)	1919(1.06)
5	Chemical Engineering	3003(1.91)	279(2.71)	50(3.43)	329(2.80)	3282(1.82)
6	Civil Engineering	7411(4.72)	527(5.13)	90(6.18)	617(5.26)	7938(4.40)
7	Computer Engineering	53777(34.27)	2714(26.40)	356(24.43)	3070(26.15)	56491(31.32)
8	Electrical Engineering	13973(8.91)	1137(11.06)	108(7.41)	1245(10.61)	15110(8.38)
9	Electronics & Communication Engineering	42684(27.20)	2551(24.81)	322(22.10)	2873(24.47)	45235(25.08)
10	Mechanical Engineering	22899(14.59)	1685(16.39)	239(16.40)	1924(16.39)	24584(13.63)
11	Metallurgy Engineering	296(0.19)	85(0.83)	19(1.30)	104(0.89)	381(0.21)
12	Mining Engineering	199(0.12)	38(0.37)	3(0.21)	41(0.35)	237(0.13)
13	Industrial / Production Engineering	2146(1.37)	170(1.65)	14(0.96)	184(1.57)	2316(1.28)
14	Textile Engineering	761(0.49)	56(0.54)	4(0.27)	60(0.51)	817(0.45)
15	Others	5365(3.42)	610(5.93)	206(14.14)	816(6.95)	5975(3.31)
	All India	156901(100.00)	10282(100.00)	1457(100.00)	11739(100.00)	180379(100.00)

Source : NTMIS Nodal Centres of India, IAMR, 2008

The table 2. shows the discipline wise distribution of migrant Engineering Degree Holders of 2007 batch in India who have been migrated for the cause of education. The data shows that discipline wise the number of migrant student from outside the state. So far as the Aeronautical Engineering is concerned the ratio of student is 55 to 45 i.e. student from within the state and migrant students. Except this discipline, the rest of the disciplines have very low migrant students as compared to the students from within the state.

Secondly, we may also observed that a large number of students fall under the category of 'others'. It is unknown as to which disciplines are covered under the category of others. The columnwise percentage for the students with the state is 3.45 percent where as the migrant percentage is 5.93 percent. We may also have a look at the Residents of the state but obtained degree elsewhere constitute 14.14 percent of the total which make one to understand that either the data is not collected fully or the student move very little. But in case we compare this data with the data produced in previous column, this appears to be a false data. It is because that the migrant students are large in number.

It may also be noted that among all the branches of computer engineering seems to be more popular. Around 34.27 per cent of the student of the same state opt for it. Even the migrant and also those obtain degree from outside the state take computer engineering. The electronics & communication engineering falls on the second number with 27.20 percent and mechanical engineering on third place since the outturn percentage is 14.59 percent. The scenario for in migrants and out-migration is also similar. Taking these three branches together takes almost two third of the students. This shows the demand for these since the employment opportunities are higher in these areas.

MIGRATION FOR EMPLOYMENT

Table 3 Shows the statewide employed degree holders of 2007 batch by the place of work. It appears from the data in table that in Chandigarh around 4.14 percent of the total male engineers work in Chandigarh. As against this around 16.22 percent of the female engineers get employment with in Chandigarh. On the other hand, 95.89 percent of male engineers and 83.78 percent of the female engineers get employed outside the state. It makes one to understand that there are fewer opportunities with in Chandigarh for the engineers to get absorbed. Secondly, it also may be inferred that the wage rates may also be lower as compared to other big cities and/or industrial areas. It is interesting to note that none has gone abroad to seek the employment. The scenario in Delhi is a bit different than Chandigarh. In Delhi 29.96 percent of Male engineers get absorbed with in the state whereas 15.37 percent of the female engineers are getting employment in Delhi. So far as the employment outside the state is concerned, 65.38 percent of the male engineers and 84.63 percent of the female engineers get employed outside the state. It is interesting to note that a large number of female engineers get employed outside the Delhi. There could be two reasons for this, first a large of number of female who do engineering course from Delhi would be from outside. Secondly, the female engineers may have got married and left Delhi and got settled else where and then join the job market.

Among all the states, it may be observed that maximum male engineers gets employment with in the state are in Maharashtra i.e., 93.17 percent followed by Karnataka 80.53 percent, Haryana falls on the third place with 46.16 percent followed by Chhattisgarh with 45.19 percent. Female wise position is also more or less the same where Maharashtra is having highest level of employment i.e., 97.97 percent, followed by Karnataka 83.96 percent, Haryana again falling on the third place with 44.25 percent and than rest of the states. This suggests that the state of Maharashtra, Karnataka and Haryana are industrially well developed state. Unfortunately, we do not have the data on Gujarat; otherwise, it would have given a different scenario. May be the positions would have got changed since Gujarat is also one the industrially developed state.

Table 3 : Employed Degree Holders of 2007 Batch in India by Place of Work and State

S. No.	States	Place of Work						Total		Total
		Within the State		Outside the State		Abroad		Male	Female	
		Male	Female	Male	Female	Male	Female			
1	Chandigarh	12	12	280	62	0	0	292	74	366
		4.11	16.22	95.89	83.78	0.00	0.00	100.00	100.00	100.00
2	Delhi	630	69	1375	380	98	0	2103	449	2552
		29.96	15.37	65.38	84.63	4.66	0.00	100.00	100.00	100.00
3	Haryana	1973	573	2301	722	0	0	4274	1295	5569
		46.16	44.25	53.84	55.75	0.00	0.00	100.00	100.00	100.00
4	H. Pradesh	64	7	119	32	0	5	183	44	227
		34.97	15.91	65.03	72.73	0.00	11.36	100.00	100.00	100.00
5	J & K	63	26	173	79	2	0	238	105	343
		26.47	24.76	72.69	75.24	0.84	0.00	100.00	100.00	100.00
6	Punjab	362	127	928	196	58	0	1348	323	1671
		26.85	39.32	68.84	60.68	4.30	0.00	100.00	100.00	100.00
7	Rajasthan	1733	538	3084	1118	105	36	4922	1692	6614
		35.21	31.80	62.66	66.08	2.13	2.13	100.00	100.00	100.00
8	Uttar Pradesh	1731	577	8562	2854	0	0	10293	3431	13724
		16.82	16.82	83.18	83.18	0.00	0.00	100.00	100.00	100.00
9	A. Pradesh	NA	NA	NA	NA	NA	NA	NA	NA	NA
10	Karnataka	7163	3061	1732	576	0	9	8895	3646	12541
		80.53	83.96	19.47	15.80	0.00	0.25	100.00	100.00	100.00
11	Kerala	866	1174	1909	709	357	37	3132	1920	5052
		27.65	61.15	60.95	36.93	11.40	1.93	100.00	100.00	100.00
12	Tamil Nadu	NA	NA	NA	NA	NA	NA	NA	NA	NA
13	Arunachal	20	8	65	3	0	0	85	11	96
		23.53	72.73	76.47	27.27	0.00	0.00	100.00	100.00	100.00
14	Assam	45	17	581	96	0	0	626	113	739
		7.19	15.04	92.81	84.96	0.00	0.00	100.00	100.00	100.00
15	Manipur	4	2	6	0	0	0	10	2	12
		40.00	100.00	60.00	0.00	0.00	0.00	100.00	100.00	100.00
16	Meghalaya	3	1	3	2	0	0	6	3	9
		50.00	33.33	50.00	66.67	0.00	0.00	100.00	100.00	100.00
17	Orissa	NA	NA	NA	NA	NA	NA	NA	NA	NA
18	Tripura	15	7	60	10	0	0	75	17	92
		20.00	41.18	80.00	58.82	0.00	0.00	100.00	100.00	100.00
19	West Bengal	3330	783	5183	987	132	20	8645	1790	10435
		38.52	43.74	59.95	55.14	1.53	1.12	100.00	100.00	100.00
20	Gujarat	NA	NA	NA	NA	NA	NA	NA	NA	NA
21	M. Pradesh	563	158	6346	2146	58	9	6967	2313	9280
		8.08	6.83	91.09	92.78	0.83	0.39	100.00	100.00	100.00
22	Chhattisgarh	366	85	444	187	0	0	810	272	1082
		45.19	31.25	54.81	68.75	0.00	0.00	100.00	100.00	100.00
23	Maharashtra	17520	6409	1284	133	0	0	18804	6542	25346
		93.17	97.97	6.83	2.03	0.00	0.00	100.00	100.00	100.00
	All India	36463	13634	34435	10292	810	116	71708	24042	95750
		50.85	56.71	48.02	42.81	1.13	0.48	100.00	100.00	100.00

NA - Not Available

Note : Figures in decimal shows percentage of row total

Table-4 : Employed Degree Holder by Place of Work

Place of Work											
With in the State			Outside the State			Abroad			Total		
Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
36463	13634	50097	34435	10292	44722	810	116	926	71708	24042	95750
72.78	27.22	100.00	76.99	23.01	100.00	87.46	12.53	100.00	74.89	25.11	100.00

Source: Derived from Table 3

Table 4 gives the data of gender-wise employed degree holders by place of work. It is evident that within the state percentage of female degree holder is 27.22 which are highest among all the three categories. The other two categories are outside the state and abroad. In outside the state female percentage is 23.01 percent whereas in the abroad category it is 12.33 percent. It means that female employment outside the state is still not welcomed.

Table 5 below depicts the Employed Engineering degree holders of 2007 batch in India by place of work and discipline. The place of work includes with in the state, outside the state and abroad. The data in this table suggests that the most preferred branch in the engineering is computer engineering followed by electronics & communication engineering and mechanical falls at number three. While putting it into a comparative framework, in aeronautical engineering branch most of the students are from outside the state and a few do get employed abroad. This is interesting to note that none of them get absorbed within the state. In case of the overall, we do find that maximum number get absorbed with in the state followed by outside the state and at number three abroad. In percentage terms 52.32 percent work with in the state, 46.73 percent are in out of the state category and only 0.97 percent gets the work abroad.

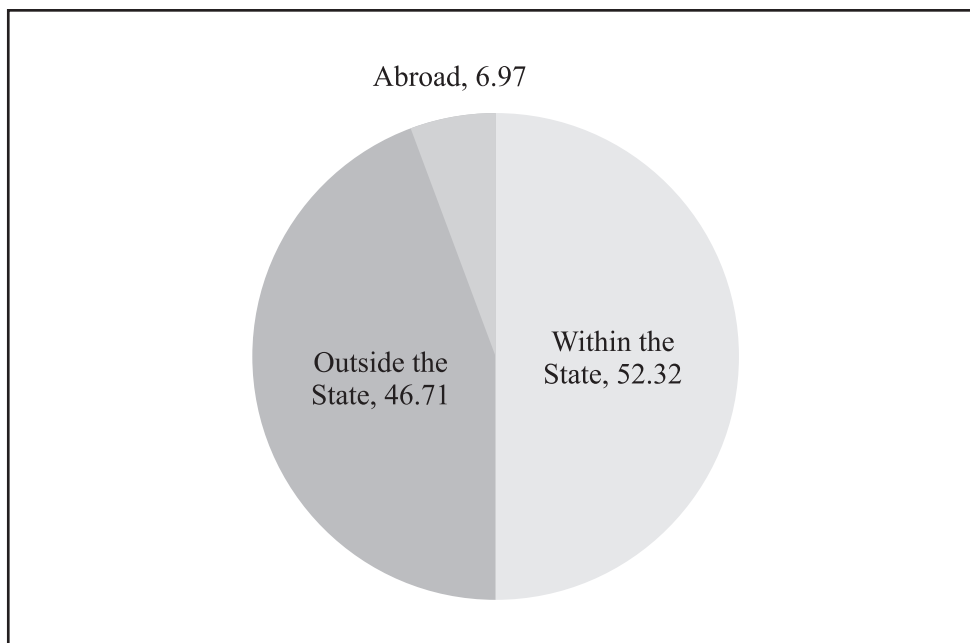
Distribution of Employed Degree Holders of 2007 in India by Place of Work

Table 5 : Employed Degree Holders of 2007 Batch in India by Place of Work and Discipline

S. No.	Disciplines	Place of Work						Total		
		Within the State		Outside the State		Abroad		Male	Female	Total
		Male	Female	Male	Female	Male	Female			
1	Aeronautical Engineering	0	0	19	4	3	0	22	4	26
		0.00	0.00	86.36	100.00	13.64	0.00	100.00	100.00	100.00
2	Agricultural Engineering	95	40	83	8	1	0	179	48	227
		53.07	83.33	46.37	16.67	0.56	0.00	100.00	100.00	100.00
3	Architectural Engineering	662	736	203	144	4	9	869	889	1758
		76.18	82.79	23.36	16.20	0.46	1.01	100.00	100.00	100.00
4	Bio Technology	229	157	250	137	5	0	484	294	778
		47.31	53.40	51.65	46.60	1.03	0.00	100.00	100.00	100.00
5	Chemical Engineering	815	204	538	151	13	3	1366	358	1724
		59.66	56.98	39.39	42.18	0.95	0.84	100.00	100.00	100.00
6	Civil Engineering	2378	551	1195	242	106	12	3679	805	4484
		64.64	68.45	32.48	30.06	2.88	1.49	100.00	100.00	100.00
7	Computer Engineering	11706	5915	11568	4953	186	35	23460	10903	34363
		49.90	54.25	49.31	45.43	0.79	0.32	100.00	100.00	100.00
8	Electrical Engineering	2811	842	3543	1030	44	20	6398	1892	8290
		43.94	44.50	55.38	54.44	0.69	1.06	100.00	100.00	100.00
9	Electronics & Communication Engineering	10061	3898	9457	2654	169	27	19687	6579	26266
		51.10	59.25	48.04	40.34	0.86	0.41	100.00	100.00	100.00
10	Mechanical Engineering	6138	697	5360	679	191	6	11689	1382	13071
		52.51	50.43	45.86	49.13	1.63	0.43	100.00	100.00	100.00
11	Metallurgy Engineering	59	7	97	19	10	0	166	26	192
		35.54	26.92	58.43	73.08	6.02	0.00	100.00	100.00	100.00
12	Mining Engineering	42	0	89	16	0	0	131	16	147
		32.06	0.00	67.94	100.00	0.00	0.00	100.00	100.00	100.00
13	Industrial / Production Engineering	691	118	204	27	6	0	901	145	1046
		76.69	81.38	22.64	18.62	0.67	0.00	100.00	100.00	100.00
14	Textile Engineering	208	52	108	15	1	0	317	67	384
		65.62	77.61	34.07	22.39	0.32	0.00	100.00	100.00	100.00
15	Others	568	417	1721	213	71	4	2360	634	2994
		24.07	65.77	72.92	33.60	3.01	0.63	100.00	100.00	100.00
	All India	36463	13634	34435	10292	810	116	71708	24042	95750
		50.85	56.71	48.02	42.81	1.13	0.48	100.00	100.00	100.00

Note : Figures in decimal shows percentage of row total

Source : NTMIS Nodal Centres of India, 2008

CONCLUSION

The paper has highlighted the salient feature of the migration / mobility of technical graduates for education and employment in India and abroad. It has been observed that except Chandigarh where it is 50:50 ratios all the other states were having very less student from outside. Only Karnataka, Maharashtra and Haryana have higher students and in that order. The discipline wise scenario suggests that Aeronautical Engineering has fewer students as compared to other branches. The most important branch seems to be Computer Engineering followed by Electronics & Communication Engineering. So far as the student mobility is concerned, the Aeronautical Engineering attracts the most, the ratio is around 58:42 for within the state and outside the state. The state wise seen is very clear, it suggests that the male as well as the female are joining the jobs outside the state. In case of the females, this should be a welcome step given India's traditional background. The discipline wise presentation also gives an encouraging result. The female show a more forward trend than earlier since they are joining more and engineering trade and the jobs market.

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