IMPACT OF MALE OUT-MIGRATION ON LIVES OF LEFT BEHIND WIVES' IN RURAL INDIA: EVIDENCE FROM NFHS-3

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Abstract: Two divergent views confront each other from the perspective of the management of family affairs by left behind women due to male out-migration. Some opine that left behind women takes an active role in the management of family affairs whereas others believe that many are confronted for the first time with major responsibilities and are ill-prepared to handle those responsibilities on their own. Hence, an attempt has been made in this paper to do a comparative study of women from rural India whose husbands have out-migrated (left behind women) and who stay with their husbands (stay-put) especially focusing on decision making power with the help of NFHS-3 (2005-2006) data. It has been found that decision making power is higher among left behind women compared to women who are staying with their husbands. However, this finding is subjected to certain contextual factors.

Introduction

Most aspects of human behaviour, including migratory behaviour, are both response to feelings and an exercise of independent wills (Stark and Bloom, 1985). People migrate to other places in search of employment or to enhance their economic position further. This entails them sometimes to leave behind their families due to problems of acquiring accommodation adequate for their families or due to other intervening obstacles. 'Leaving behind' often entails emotional and psychological struggles as well as complex rearrangements of material aspects of daily life of a magnitude as significant as 'moving to' and 'settling in place of destination' (Toyota *et al.*, 2007). Not enough is known, both theoretically and empirically, as to whether or not the left behind are particularly vulnerable and how, when and under what circumstances they benefit and/or suffer from migration of their household members (Nguyen *et al.*, 2006). However, the seriousness of their problems and policies which might possibly assuage them can be discussed only if reliable information on adequate scale is available (Nair, 1983).

It cannot be disputed that absence of the migrant from the household, especially if he is a family head, can have serious implication for the left behind women, both socially and economically (Sekher, 1997). There is, however, diverse view regarding the change of women's position in the family due to male out-migration. On one hand it is believed that women get more authority and power in decision-making (Gulati, 1987; Findley and Williams, 1991) whereas on the other hand, it is accepted that male migration do not substantially change women's decision–making power in the place of origin (Shaheed, 1981).

Varying access to resources is one factor that can determine how well left behind women cope in the absence of their husbands (Findley and Williams, 1991). Women are generally left behind in charge of their families. They have to take care of their children and the elderly people in the family. Specifically it can be said that they are the axis around whom the well–being of the family is centred. This may lead to a more permanent change such that women become more autonomous and are more involved than before in decision-making within the family (Hugo, 2002). The sociological implications of this growing matri-weighted phenomenon are many: women have more authority, influence and responsibility than their

husbands in local, domestic and village affairs. Women not only have to enter spheres of activities which used to be the male prerogative but also extend and change the nature of the social network of which they are part (Rahat, 1990). Hence, male out-migration leads to greater responsibilities and increased workload for left behind women (Hadi 1999, 2001; Ghosh and Sharma, 1995). Male migration breaks down women's isolation, increases mobility and brings them into contact with a wider network of institutions than were in their purview before. This results in their gaining greater confidence and taking on more responsibilities. Some of them even take on income generating activities (Gulati, 1993).

The change of women's position may result in greater mobility, reduced dependence on traditional patrons and increased self-confidence (Hugo, 1997). Furthermore, researchers have suggested that male out-migration presents opportunities for women to take on new tasks and learn new skills, which can transform gender relations and improve women's status and empowerment (Connell 1984; Mahler and Pessar 2006). On the other hand, it is quite possible that the presumed change of women's role is only temporary and a reflection of the changed conditions in which they are forced to live (Toyota *et al.*, 2007).

Improvement in the standard of living due to remittances and increase in women's position in the household or family or community is, however, one side of the coin. Families of migrants are placed in a vulnerable situation, as those 'left behind', particularly dependent members, confront social and emotional consequences (UNESC, 2004). The impact of family separation due to migration is felt severely by the wife and children on the one hand and the migrant on the other. The wife and children are deprived of those forms of emotional security that a husband and father normally provide.

The 'left behind' is not only a relatively new subject for investigation, but more importantly, by bringing the left behind closer to centre stage in migration research, new insights on migration and broader social change can be addressed (Toyota *et al.*, 2007). Hence, more focus is needed in this section of left behind population as they are the most disempowered groups in less developed countries, yet gain little attention (Hugo, 2000). Indeed, given the focus on migrants and the narrow ways in which migration processes have been defined, the migration literature can be said to have thus far 'left behind' the 'left behind'(Toyota *et al.*, 2007).

Objectives of the study

1) To study determining factors for wives been left behind in rural India.
2) To examine the extent of association between wives of migrant and non-migrant male member with their decision-making power in rural India.

Data source

National Family Health Survey-3 (NFHS-3) conducted in the year 2005-2006 has been used for the analysis. The NFHS-3 interviewed men of the age group 15-54 and women (never married as well as ever married women) of the age group 15-49. It included questions on several emerging issues such as perinatal mortality, male involvement in maternal health care, adolescent reproductive health, high risk sexual behaviour, family life education, safe injections and knowledge about tuberculosis. In addition, NFHS-3 carried out blood testing for HIV to provide for the first time in India, population-based data on HIV prevalence.

NFHS-3 collected information from a nationally representative sample of 109041 households, 124385 women of the age group 15-49 and 74369 men of the age group 15-54. The NFHS-3 sample covers 99 percent of India's population living in 29 states (IIPS and MI, 2007a).

Methodology

The data do not give details about left behind women due to male out-migration directly. In order to identify these women certain control variables have been used namely, currently married women in rural areas who have married once and husbands have no other wives. Further, question has been asked: "Are you living with your husband now or he is staying elsewhere?" (IIPS and MI, 2007b). Here, there are two categories of women, one staying with husband (stay-put) and other not staying with husband. The latter category has been taken as the left behind women (with the help of above mentioned control variables). Women not staying with their husband for less than one year have been excluded. This has been done to remove the effect of seasonal or any other short term migration from the analysis. The question asked in this regard is "For how long have you and your husband not been living together?" (IIPS and MI, 2007b). The interviewer's manual of NFHS-3 clearly states for this question that it is not related to know when her husband last visited her but for how long they have not been living together. For example, if the respondent says that her husband visited her 6 months ago but has been living in the Gulf for three and a half years, this means that they have not been living together since three and half years (IIPS, 2006). Duration women not staying with their husband have been categorised into 5 and less than 5 years & above 5 years. The unit of analysis is women and for that purpose individual file (women file) has been used. All the cases in the analysis are weighted. Total sample size is 58785. Throughout the paper women and wives have been used interchangeably.

The classification of states into north, south, east, west, central and north east have been according to the classification done in NFHS-3.

Regions	**States**
North	Delhi, Haryana, Himachal Pradesh, Jammu and Kashmir, Punjab, Rajasthan and Uttaranchal
Central	Chhattisgarh, Madhya Pradesh and Uttar Pradesh
East	Bihar, Jharkhand, Orissa and West Bengal
North east	Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim and Tripura
West	Goa, Gujarat and Maharashtra
South	Andhra Pradesh, Karnataka, Kerala and Tamil Nadu

Number of explanatory variables have been included namely age of women and husband, age at first marriage, marital duration, age at first birth, total children ever born, religion, caste, educational attainment of women and husband, household structure, standard of living, working status of women and occupation of women and husband.

In order to find the factors determining women been left behind, binary logistic regression has been applied. The response variable has been made dichotomous into 0=wives of non-migrants; 1=wives of migrants (including wives not living with their husbands for 5

and less than 5 years as well as those not living with their husbands for more than 5 years). This has been done to have adequate sample size to apply multivariate technique.

The decision making power has been studied with the help of variables like getting final say on health care, large household purchases, household purchases for daily needs, visit to family or relatives, decision to spend money and especially money earned by husband. The specific questions asked in NFHS (2005-2006) questionnaire are as follows: "Who usually makes the following decisions: mainly you, mainly your husband, you and your husband jointly or someone else?

a. Decisions about health care for yourself?
b. Decisions about making major household purchases?
c. Decisions about making purchases for daily household needs?
d. Decisions about visits to your family or relatives?"

"Who decides how the money you earn will be used: mainly you, mainly your husband, or you and your husband jointly?"; "Who decides how your husband's earnings will be used: mainly you, mainly your husband, or you and your husband jointly?" (IIPS and MI, 2007b).

Decision-making index has been formed by giving following weights:

If decision is taken by respondent alone, weight=3.
If decision is taken by respondent and husband jointly, weight=2.
If decision is taken by respondent and other person in the family/household jointly, weight=2.
If decision is taken by husband alone, weight=1.
If decision is taken by someone else, weight=1.

Such weights are given for each and every variable on decision-making. Finally all the 6 variables are added and one composite index has been derived with values ranging from 0 to 18 which indicate higher the value, higher is the decision making power of women. The alpha value of the variables with which index has been formed is 0.77. Multiple regression analysis has been used to study the extent of association between wives of migrant and non-migrant male member with their decision-making power in rural India.

Need to apply multiple regression technique

Multiple regression is a statistical technique that allows to predict someone's score on one variable on the basis of their scores on several other variables. For example, suppose we were interested in predicting decision making power among left behind women, variables such as age of women and husband, age at first marriage, marital duration, age at first birth, total children ever born, religion, caste, educational attainment of women and husband, household structure, standard of living, working status of women, region might all contribute towards decision making power. We might find that decision making power is most accurately predicted by religion, caste, educational attainment of women, with the other variables not helping us to predict decision making power. The criterion variable (decision making power) seeking to predict should be measured on a continuous scale (such as interval or ratio scale). The predictor variables should be measured on a ratio, interval or ordinal scale. A nominal predictor variable is legitimate but only if it is dummy, i.e. there are no more than two categories. For example, household structure is acceptable (where nuclear is coded as 0 and non nuclear as 1) but caste (scheduled caste, scheduled tribe, other backward caste, general) could not be coded as a single variable. Instead, would create three different variables each

with two categories (scheduled caste/non scheduled caste; scheduled tribe/non scheduled tribe; other backward caste /non other backward caste). Certain variables like age at first marriage, age at first birth, marital duration, husband's age and type of occupation of women and husband have been dropped to avoid multicollinearity.

Rationale behind selecting rural India

In India, most of the male out-migration for work/employment or business is from rural areas. Appendix I clearly reveals that around 38 per thousand males from rural areas out-migrate out of which around 30 per 1000 males out-migrate to urban areas. Urban out-migration rate is 34 per thousand urban males and most of them out-migrate to other urban areas. Keeping this as the background, rural India has been the focus for the study. In addition to this, women in rural India are at disadvantageous position. For example, women with no education are around 22 percent in urban areas and 50 percent in rural areas; around 45 percent women are not regularly exposed to mass media (newspaper, television, radio and cinema) as against 13 percent in urban area. Around 72 percent women are engaged in agricultural work in rural areas and most of them are not paid. Moreover, around 44, 41 and 34 percent women in rural areas can decide alone to go to the market, health facility and outside village/community whereas 40, 53 and 56 percent decisions are taken with someone else. In urban areas women have higher mobility than women in rural areas (IIPS and MI, 2007a).

Results and discussions

National scenario

Central and eastern regions accounts for around 10 and 13 percent of women who are not staying with their husbands. These are the regions where male out-migration is high. In south, around 3 percent women are not staying with their husbands. In the western region, percent of women not staying with their husbands is quite negligible. In north and north east, around 4 percent women are not staying with their husbands. At national level, around 7 percent women are not staying with their husbands (Table 1).

Table 1: Regionwise percentage distribution of women who are wives of out-migrated males and those who are stay-put, India, NFHS (2005-2006)

		Wives of migrants		
Regions	**Wives of non-migrants**	**Not staying with husband for 5 years**	**Not staying with husband for above 5 years**	**Number**
North	96.09	2.28	1.63	7466
Central	90.01	4.38	5.61	15242
East	87.49	5.58	6.94	15282
North East	95.86	2.42	1.72	2437
West	98.72	0.77	0.52	6783
South	96.94	2.78	0.28	11575
India	**92.74**	**3.61**	**3.65**	**58785**

Left behind women and their relation with household head

An important factor in the family's adaptation to migration is whether an extended family and kinship structure exists to allow other male family members to fill roles normally assigned to the absent male (Hugo, 2002; Gordon, 1981). This depends on the living arrangements of wives left behind. One aspect that surely helps mitigate many problems including loneliness is the integrated system of support from other members of the community. Due to the kinship classification system, males one generation older than a child are often viewed as "fathers" making father substitutes but the life for women is not easy in the absence of their husbands (cited in Findley and Williams, 1991).

A wife is dependent on close relatives in the absence of her husband for a sort of male physical umbrella but her dependence on, or the need for help from, close relatives goes much beyond that, even when one is talking only of the care of the migrant's family and not other financial responsibilities. The need for help and guidance is greatest in the period immediately after the migrant's first departure (Gulati, 1993). Accordingly it has been found that 54 percent left behind women whose husband have out-migrated for more than 5 years are head of the household themselves and 29 percent live with their in-laws whereas among those left behind women whose husband have out-migrated for 5 and less than 5 years, 37, 34 and 21 percent are head, or live with in-laws or they live with parents respectively. Those women who stay with their husband are either wife (70 percent) or daughter-in-law (20 percent) of the head of the household (Table 2).

Table 2: Percentage distribution of women who are wives of out-migrated males and those who are stay-put according to relation to the head of the household, India, NFHS (2005-2006)

		Wives of migrants	
Relation to the head of the household	**Wives of non-migrants**	**Not staying with husband for 5 years**	**Not staying with husband for above 5 years**
Head	0.75	36.85	53.19
Wife	69.95	0.00	0.00
Daughter	4.88	20.61	9.70
Daughter-in-law	20.31	33.84	28.90
Sister	0.65	1.13	0.75
Sister-in-law	1.96	3.72	4.62
Other	1.49	2.92	1.91

Background characteristics

Demographic characteristics

Women not staying with their husband for 5 and less than 5 years are mostly less than 30 years (5 percent) and have short marital duration i.e. 8 percent women with marital duration of less than 4 years and 5 percent with marital duration between 5-9 years. Women who are not staying with their husband for more than 5 years have higher marital duration. Age at first marriage and age at first birth do not show considerable difference. Total children ever born to women in the former category have less than 2 children whereas it is more than two among

women in the latter category. Husband's age is in correspondence with women's age (Table 3).

Social characteristics

Women belonging to Muslim household are more prone to be left behind whereas women belonging to scheduled tribe are least prone to be left behind. Women in the former category (women not staying with their husband for 5 and less than 5 years) have higher level of educational attainment compared with women in the latter category (women not staying with their husband for more than 5 years). Husband's level of educational attainment follows the same suit. Left behind women in general have shown inclination to stay in non-nuclear household (Table 3).

Economic characteristics

Women not staying with their husband's for 5 and less than 5 years have better standard of living compared to their counterparts. Left behind women are not currently working. Women having husband in service sector are likely to be left behind (Table 3).

Factors determining women been left behind

The Table 3 reveals the percentage distribution of women who are left behind according to demographic, social and economic characteristics. However, these are unadjusted values and each value may have impact of another value. For this purpose, multivariate binary logistic regression analysis has been done to get adjusted results in Table 4. These adjustments are made in terms of every background characteristics. Four models have been derived to see the additive effect of predictor variables on the models.

Model 1 includes demographic variables and wald statistics show that age at first marriage, marital duration, age at first birth and total children ever born are significant variables determining women been left behind. If the age at first marriage is more than 18 years then women are 38 percent less likely to be left behind than those whose age at first marriage is 18 and less than 18 years whereas if the age at first birth is more than 20 years then they are 50 percent more likely to be left behind as compared to those whose age at first birth is less than 20 years.

Model 2 includes demographic and social characteristics and wald statistics reveal that age at first marriage, marital duration, age at first birth and total children ever born, religion, caste, women's and husband's education, household structure are significant. Age at first marriage and age at first birth shows the similiar relationship as in model 1. Muslim women compared to Hindus, women with husbands having secondary and higher education than those with no education and women in non-nuclear household than in nuclear household are more likely to be left behind. Contrary to this, women belonging to other religion (comprising of Jew, Buddhist, Sikh, Jain, Parsi etc.) compared to Hindus, women belonging to scheduled tribe compared to scheduled caste, women who are educated compared with those who have no education are less likely to be left behind.

Model 3 includes demographic, social and economic factors. One interesting point to be noted is that with addition of economic factors, impact of demographic factors becomes

negligible. Wald statistics reveal that religion, caste, women's and husband's education, household structure, standard of living, women's and husband's occupation are significant factors determining women been left behind. For social characteristics, the values are similiar to model 2. Economic characteristics show that women in medium and high standard of living are 25 and 52 percent less likely to be left behind as compared to women in low standard of living. Women who are working in sales, service, production are less likely to be left behind whereas women whose husbands are working especially in service sector are more likely to be left behind.

Model 4 apart from above mentioned demographic, social and economic factors, comprises regions. Wald statistics show that religion, caste, women's and husband's education, household structure, women's and husband's occupation and regions are determining factors. This is the final model which includes all the predictor variables. Finally it can be concluded that factors determining women been left behind are more socially, economically and spatially oriented as compared to demographically. Social and economic variables have similiar patterns as that in previous models. Regionwise observation reveals that as compared to north; central and east regions are 2.72 and 4.25 times more likely to have left behind women and north east, west and south are 16, 51 and 7 percent respectively less likely to have left behind women as compared to north.

The -2loglikelihood decrease with each successive models which implies that the model also improves with addition of predictors. The wald statistics reveal that women's and husband's education, region, caste are some of the important determining factors.

Extent of women's decision-making power

Two divergent views confront each other from the perspective of the management of family affairs. Some opine that women takes an active role in the management of the family affairs and depends less on other male relatives (Parasuraman, 1986; Findley and Williams, 1991; Gordon, 1981) whereas others believe that many wives are confronted for the first time with major responsibilities for decisions about their children upon the departure of their husbands and are ill-prepared to handle those responsibilities on their own (Shah and Arnold, 1985). The adjustment process depends upon several factors such as their relationship with migrants, the length of stay of migrants abroad and the socio-cultural context in which they live (Hugo, 1997). Whether or not the departure of the husband can be constructed as an emancipating experience for the wife, however, depends largely upon the societal context in which the action occurs. In patrilineal societies where women must continue to rely on males for decisions about banking or property concerns, she is probably not going to have much autonomy. Moreover, male dominance of decision-making also limits the potential for autonomy among left behind women (Findley and Williams, 1991).

Decision making power of women has been evaluated based on variables like getting final say on health care, large household purchases, household purchases for daily needs, visit to family or relatives, decision to spend money and especially money earned by husband. Accordingly, Table 5 reveals that when it comes to final say on health care, 23 percent wives of non-migrants can decide by themselves whereas 36 percent decide jointly with someone (husband or other member) and around 41 percent of women do not take decision by themselves i.e. decision on health care is taken by someone else. It is 40, 17 and 43 percent among wives not living with their husbands for 5 years respectively and 56, 14 and 30 percent

respectively among those who have not been living with their husbands for more than 5 years. Decision on large household purchases, visit to friends or relatives and decision on spending money which husband earns are mainly taken jointly or by other members in the family irrespective of whether the women are left behind or not.

Table 5: Percentage distribution of decision making power of women according to migratory status of husband, India, NFHS (2005-2006)

		Wives of migrants	
Decision-making	**Wives of non-migrants**	**Not staying with husband for 5 years**	**Not staying with husband for above 5 years**
Final Say On Health Care			
Alone	23.35	39.88	56.04
With Someone	35.66	17.23	13.99
Someone Else	40.99	42.89	29.98
Large Household Purchases			
Alone	5.97	17.37	21.82
With Someone	42.96	24.72	31.79
Someone Else	51.07	57.91	46.39
Household Purchases For Daily Needs			
Alone	27.14	36.77	53.10
With Someone	29.01	11.58	9.93
Someone Else	43.85	51.65	36.97
Visit To Family Or Relatives			
Alone	8.30	19.30	27.89
With Someone	48.79	25.14	29.20
Someone Else	42.91	55.56	42.91
Spending Husbands Money			
Alone	4.89	13.92	20.69
With Someone	61.81	40.36	45.77
Someone Else	33.30	45.73	33.54
Spending own Money			
Alone	18.08	61.62	60.51
With Someone	60.35	22.43	27.94
Someone Else	21.58	15.95	11.55

It can also be seen from Table 5 that 27, 37 and 53 percent wives of non-migrant, those not staying with husbands for 5 and less than 5 years and those not staying with husbands for more than 5 years respectively can decide alone on household purchases for daily needs. It is also found that decision on spending money is mostly taken by jointly with husbands among those who are wives of non-migrants and by self who are left behind.

Multivariate analysis of impact of selected background characteristics on decision making power among wives of non-migrants, those not staying with husbands for 5 and less than 5 years and those not staying with husbands for more than 5 years has been depicted in Table 6. Among wives of non-migrants it can be observed that age of women has direct relation with decision making power i.e. as age increases the decision making power of women also increases. Hindu women have inverse relation with decision making power. Scheduled caste and scheduled tribe women, women with educational attainment have positive relation whereas women in non-nuclear household and those in eastern and southern regions have negative relation with decision making power of women. Among those women

who have not been living with their husbands for 5 and less than 5 years, it can be observed that age of women has direct relation whereas total children ever born, those belonging to other caste (excluding scheduled caste and scheduled tribe) and those belonging to non-nuclear household have indirect relation with decision making power. Among those women who have not been living with their husbands for more than 5 years, age of women and those belonging to scheduled caste have direct relation whereas educational attainment of women have indirect relation with decision making power of women.

Conclusions

In India, left behind wives due to male out-migration is around seven percent. It is highest in the eastern region which comprises the states of Bihar, Jharkhand, Orissa and West Bengal followed by central region comprising of Chhattisgarh, Madhya Pradesh and Uttar Pradesh. However, whether women are staying with their husband or they are left behind women are more socially, economically and spatially oriented as compared to demographically. They are more likely to be Muslims compared to Hindu; less likely to be scheduled tribe and more likely to be other backward caste compared to scheduled caste; less likely to be educated than women with no education; more likely to be in non-nuclear household than nuclear household. Left behind women are more likely to work in some sector than not working. Women whose husbands are working in service sector are more likely to be left behind than those who are not working.

In every aspect of decision making, it can be concluded that women not living with their husband for more than 5 years have more authority as compared to wives of non-migrant and those not staying with their husband for 5 and less than 5 years. For women staying with husbands, most of the decisions are either taken jointly (husband or other member) or are taken by someone else (husband or other member). They have quite less authority to decide alone about large household purchases, visit to friends or relatives or spending money earned by husband. Since, this is only quantitative study, in order to get these queries answered; one has to undertake qualitative survey. This may be one of the limitations of the paper that one can get the answer of "what" but not of "why".

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Table 3: Percentage distribution of women who are wives of out-migrated males and those who are stay-put according to demographic, social and economic characteristics, India, NFHS (2005-2006)

Background Characteristics	Wives of non-migrants	Wives of migrants		Number
		Not staying with husband for 5 years	Not staying with husband for above 5 years	
Demographic Characteristics				
Age				
Less Than 30 Years	91.02	5.46	3.52	27618
More Than 30 Years	94.26	1.98	3.76	31166
Age At First Marriage				
Less Than 18 Years	92.48	3.60	3.92	45726
More Than 18 Years	93.64	3.67	2.70	13059
Marital Duration				
0-4	91.66	7.93	0.41	10517
5-9	90.42	4.68	4.90	11559
10-14	92.41	2.43	5.16	10217
15-19	93.50	2.42	4.08	9384
20-24	94.15	2.12	3.73	7745
25-29	94.69	1.44	3.87	6180
30+	96.20	0.72	3.08	3184
Age At First Birth				
Less Than 20 Years	93.09	3.13	3.78	39850
More Than 20 Years	92.24	3.31	4.45	13216
Total Children Ever Born				
Less Than 2 Children	91.99	5.43	2.58	26737
2-4 Children	93.54	2.36	4.10	19748
More Than 4 Children	93.08	1.68	5.24	12299
Husband's Age				
Less Than 35 Years	91.10	5.13	3.77	30272
More Than 35 Years	94.47	2.01	3.52	28311
Social Characteristics				
Religion				
Hindu	93.21	3.28	3.50	49136
Muslim	87.29	6.71	6.00	6800
Christian	97.51	1.85	0.65	1083
Others	98.11	1.65	0.24	1697
Caste				
Scheduled Caste	94.09	2.82	3.09	11643
Scheduled Tribe	97.88	1.36	0.77	6262
Other Backward Caste	90.60	4.51	4.89	24054
General	92.54	3.90	3.56	14907

Note: *includes Jew, Buddhist, Sikh, Jain, Parsi etc.

Table 3: Percentage distribution of women who are wives of out-migrated males and those who are stay-put according to demographic, social and economic characteristics, India, NFHS (2005-2006) (Conti...)

Background Characteristics	Wives of non-migrants	Wives of migrants		Number
		Not staying with husband for 5 years	Not staying with husband for above 5 years	
Education				
No Education	92.12	3.24	4.64	32914
Primary	93.71	3.67	2.63	9598
Secondary	93.58	4.18	2.24	15045
Higher	91.44	6.11	2.44	1227
Husband's Education				
No Education	93.78	2.75	3.47	18683
Primary	94.04	2.76	3.20	10543
Secondary	91.80	4.31	3.88	24998
Higher	90.96	5.05	3.99	4039
Household Structure				
Nuclear	94.73	2.29	2.98	27564
Non-Nuclear	91.82	4.08	4.10	27690
Economic Characteristics				
Standard Of Living Index				
Low	92.52	3.24	4.24	17649
Medium	93.51	2.93	3.56	20770
High	93.90	3.32	2.78	15945
Currently Working				
No	91.34	4.66	4.00	34543
Yes	94.75	2.12	3.13	24160
Occupation				
Professional	92.59	4.19	3.22	931
Sales	95.73	1.00	3.28	702
Service	96.86	1.51	1.63	796
Production	95.76	2.35	1.89	4646
Agricultural Worker	93.62	2.38	4.00	22160
Husband's Occupation				
Not Working	97.23	2.08	0.69	1011
Professional	91.18	4.32	4.51	4125
Sales	89.82	4.56	5.63	5332
Service	79.96	10.00	10.04	2240
Production	86.81	6.41	6.78	19461
Agricultural Worker	98.91	0.72	0.36	26497

Table 4: Logit estimates of the probability of women been left behind according to selected background characteristic, India, NFHS (2005-2006)

	Model 1		Model 2		Model 3		Model 4	
Background characteristics	**Exp (β)**	**Wald**	**Exp (β)**	**Wald**	**Exp (β)**	**Wald**	**Exp (β)**	**Wald**
Demographic Characteristics								
Age		**3.54**		**2.77**		**0.66**		**0.12**
Less Than 30 Years®								
More Than 30 Years	0.81		0.83		0.91		0.96	
Age At First Marriage		**21.63*** **		**10.30*** **		**3.19**		**0.42**
Less Than 18 Years®								
More Than 18 Years	0.62***		0.72***		0.82		0.93	
Marital Duration		**17.98****		**26.51*** **		**9.44**		**10.06**
0-4®								
5-9	1.28		1.29		1.25		1.21	
10-14	1.13		1.16		1.23		1.26	
15-19	1.10		1.10		1.20		1.19	
20-24	1.08		1.01		1.18		1.13	
25-29	0.85		0.76		1.02		0.98	
30+	0.73		0.65		0.85		0.83	
Age At First Birth		**23.60*** **		**12.65*** **		**3.86**		**2.34**
Less Than 20 Years®								
More Than 20 Years	1.50***		1.35***		1.19		1.15	
Total Children Ever Born		**41.27*** **		**18.61*** **		**3.07**		**1.03**
Less Than 2 Children®								
2-4 Children	1.15		1.06		1.00		0.92	
More Than 4 Children	1.67***		1.40***		1.14		0.91	
Husband's Age		**2.22**		**0.38**		**0.02**		**0.35**
Less Than 35 Years®								
More Than 35 Years	0.88		0.94		0.99		1.06	

Note: Dependent variable: 0=wives of non-migrant males, 1=left behind women; ®=reference category; significance level ***p<0.01, **p<0.05

Table 4: Logit estimates of the probability of women been left behind according to selected background characteristic, India, NFHS (2005-2006) (Conti...)

	Model 1		Model 2		Model 3		Model 4	
Background characteristics	**Exp (β)**	**Wald**	**Exp (β)**	**Wald**	**Exp (β)**	**Wald**	**Exp (β)**	**Wald**
Social Characteristics								
Religion				**82.39*** **		**28.35*** **		**13.88*** **
Hindu®								
Muslim			2.20***		1.52***		1.32**	
Christian			0.96		0.89		1.31	
Others			0.21***		0.23***		0.33	
Caste				**129.11*** **		**87.32*** **		**68.87*** **
Scheduled Caste®								
Scheduled Tribe			0.28***		0.40***		0.48***	
Other Backward Caste			1.12		1.33***		1.38***	
General			0.76***		1.09		1.30	
Education				**105.92*** **		**61.94*** **		**35.95*** **
No Education®								
Primary			0.54***		0.62***		0.70***	
Secondary			0.38***		0.44***		0.51***	
Higher			0.64		0.54		0.66	
Husband's Education				**81.36*** **		**47.71*** **		**41.80*** **
No Education®								
Primary			0.91		0.81		0.85	
Secondary			1.45***		1.28***		1.35***	
Higher			2.71***		2.27***		2.16***	
Household Structure				**30.81*** **		**43.85*** **		**26.25*** **
Nuclear®								
Non-Nuclear			1.38***		1.51***		1.39***	

Note: Dependent variable: 0=wives of non-migrant males, 1=left behind women; ®=reference category; significance level ***p<0.01, **p<0.05

Table 4: Logit estimates of the probability of women been left behind according to selected background characteristic, India, NFHS (2005-2006) (Conti...)

Background characteristics	Model 1		Model 2		Model 3		Model 4	
	Exp (β)	Wald	Exp (β)	Wald	Exp (β)	Wald	Exp (β)	Wald
Economic Characteristics								
Standard Of Living Index						**50.54*** **		**5.94**
Low®								
Medium					0.75***		0.93	
High					0.48***		0.77	
Currently Working						**2.30**		**3.63**
No®								
Yes					0.90		1.15	
Occupation						**183.43*** **		**170.47*** **
Professional®								
Sales					0.54		0.64	
Service					0.32***		0.36***	
Production					0.32***		0.40***	
Agricultural Worker					1.05		1.30	
Husband's Occupation						**920.81*** **		**891.96*** **
Not Working®								
Professional					5.20***		4.95***	
Sales					7.31***		6.27***	
Service					11.12***		11.93***	
Production					6.90***		6.78***	
Agricultural Worker					0.37**		0.38***	
Regions								**373.32*** **
North®								
Central							2.72***	
East							4.25***	
North East							0.84	
West							0.49***	
South							0.93	
-2 Loglikelihood	**10686.27**		**10185.45**		**8440.93**		**8009.56**	
Nagelkerke R Square	**0.01**		**0.07**		**0.26**		**0.30**	

Note: Dependent variable: 0=wives of non-migrant males, 1=left behind women; ®=reference category; significance level ***p<0.01, **p<0.05

Table 6: Multivariate analysis of decision making power of women based on selected background characteristics, India, NFHS (2005-2006)

Wives of non-migrants			Wives of migrants					
			Not staying with husband for 5 years			Not staying with husband for above 5 years		
Background characteristics	**Unstandardized Coefficients**	**Sig. level**	**Background characteristics**	**Unstandardized Coefficients**	**Sig. level**	**Background characteristics**	**Unstandardized Coefficients**	**Sig. level**
Age	0.09	0.00	Age	0.19	0.00	Age	0.26	0.00
Total Children Ever Born	-0.01	0.75	Total Children Ever Born	-0.74	0.02	Total Children Ever Born	-0.15	0.54
Hindu	-0.54	0.00	Hindu	-0.62	0.61	Hindu	-3.77	0.04
Muslim	-0.05	0.81	Muslim	-0.27	0.85	Muslim	-3.94	0.10
Scheduled Caste	0.21	0.05	Scheduled Caste	2.67	0.00	Scheduled Caste	2.98	0.01
Scheduled Tribe	0.26	0.06	Scheduled Tribe	1.22	0.38	Scheduled Tribe	1.36	0.36
Other Backward Caste	-0.02	0.83	Other Backward Caste	1.71	0.01	Other Backward Caste	1.23	0.08
Highest Year Of Education	0.10	0.00	Highest Year Of Education	-0.11	0.62	Highest Year Of Education	-0.56	0.00
Husband's Education	-0.01	0.17	Husband's Education	0.05	0.09	Husband's Education	-0.11	0.13
Household Structure	-0.76	0.00	Household Structure	-3.99	0.00	Household Structure	-1.27	0.17
Low SLI	0.14	0.17	Low SLI	0.69	0.49	Low SLI	-0.72	0.46
Medium SLI	0.07	0.43	Medium SLI	0.34	0.67	Medium SLI	-0.15	0.85
Women's Working Status	0.03	0.82	Women's Working Status	0.69	0.43	Women's Working Status	1.18	0.21
Central	0.10	0.56	Central	3.42	0.09	Central	-0.32	0.78
East	-0.05	0.79	East	1.03	0.52	East	-0.86	0.45
North East	0.52	0.01	North East	1.11	0.59	North East	-2.48	0.20
West	0.26	0.11	West	0.87	0.67	West	-0.88	0.54
South	0.04	0.78	South	1.52	0.28	South	0.39	0.78

Appendix I: Male out-migration rate due to work/employment/business in India, Census 2001

	Streams of out-migration								
States	**R-T**	**R-R**	**R-U**	**U-T**	**U-R**	**U-U**	**T-T**	**T-R**	**T-U**
Jammu & Kashmir	10.43	3.88	6.55	25.04	4.03	21.01	15.00	4.01	10.99
Himachal Pradesh	47.25	9.05	38.21	141.02	11.68	129.34	59.55	9.53	50.02
Punjab	32.91	13.54	19.37	51.69	5.82	45.86	40.24	11.03	29.21
Chandigarh	265.73	67.28	198.45	70.73	8.66	62.08	93.88	15.50	78.38
Uttaranchal	105.05	14.55	90.50	84.85	7.34	77.50	101.02	12.65	88.37
Haryana	38.60	7.67	30.94	53.49	4.53	48.96	44.02	6.82	37.20
Delhi	50.34	10.93	39.40	25.57	3.98	21.59	27.54	4.47	23.07
Rajasthan	38.43	7.35	31.09	48.51	4.19	44.32	41.73	6.66	35.07
Uttar Pradesh	**75.01**	**10.27**	**64.74**	**67.98**	**5.50**	**62.48**	**74.68**	**9.38**	**65.29**
Bihar	88.72	17.48	71.23	118.68	13.68	105.01	93.83	17.39	76.44
Sikkim	9.31	3.63	5.69	50.31	10.45	39.86	14.76	4.58	10.18
Arunachal Pradesh	7.34	2.93	4.41	19.72	5.12	14.60	10.39	3.49	6.90
Nagaland	20.03	4.07	15.96	34.35	5.51	28.84	23.28	4.43	18.85
Manipur	13.64	4.68	8.95	16.82	4.52	12.30	14.84	4.72	10.12
Mizoram	9.87	3.58	6.29	5.03	1.22	3.82	7.58	2.43	5.14
Tripura	10.27	3.92	6.35	31.68	4.16	27.52	14.73	4.04	10.69
Meghalaya	7.39	2.26	5.13	42.18	6.00	36.18	15.29	3.14	12.15
Assam	11.53	5.35	6.18	37.81	8.26	29.55	16.01	5.94	10.06
West Bengal	14.48	3.79	10.69	27.69	3.47	24.22	19.12	3.76	15.36
Jharkhand	48.43	17.92	30.51	34.26	5.62	28.64	45.64	15.11	30.54
Orissa	28.39	6.53	21.86	33.18	4.79	28.39	29.62	6.34	23.28
Chhattisgarh	30.83	15.88	14.95	25.32	4.08	21.24	30.06	13.49	16.57
Madhya Pradesh	20.15	7.44	12.71	22.48	3.00	19.48	21.12	6.26	14.86
Gujarat	16.62	1.79	14.83	19.32	1.97	17.35	17.95	1.89	16.06
Daman & Diu	42.68	13.63	29.04	54.66	11.24	43.42	47.08	13.13	33.95
Dadra & Nagar Haveli	9.53	4.79	4.74	29.28	11.35	17.93	15.20	6.70	8.50
Maharashtra	12.81	3.40	9.41	12.77	1.93	10.83	12.97	2.76	10.21
Andhra Pradesh	13.10	3.58	9.52	20.63	2.48	18.15	15.46	3.31	12.14
Karnataka	25.37	6.54	18.83	23.87	2.95	20.92	25.21	5.32	19.89
Goa	28.85	3.00	25.85	40.57	4.30	36.27	35.29	3.70	31.59
Lakshadweep	27.87	4.95	22.92	18.57	2.27	16.30	24.35	3.72	20.63
Kerala	22.80	3.69	19.11	55.31	4.81	50.50	32.08	4.06	28.02
Tamil Nadu	23.46	7.65	15.81	21.90	3.04	18.86	23.17	5.68	17.49
Pondicherry	33.80	6.61	27.19	27.88	3.55	24.34	30.63	4.63	26.01
A & N Islands	0.01	0.00	0.01	30.96	4.65	26.31	0.02	0.00	0.02
India	37.81	7.99	29.82	34.15	3.88	30.28	37.32	6.86	30.46

Note: R=Rural; U=Urban; T=Total

Out-migration rate= $MO_{ki}/MP_{kij}*1000$

Where,

MO_{ki}=Male out-migrants of kth state from ith area (i.e. rural, urban or total area) due to work/employment/business

MP_{kij} =Male population of kth state from ith area and jth age group (above 19 years)