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AN ANALYSIS OF RURAL-TO-RURAL MIGRATION IN INDIA

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Abstract: This paper examines some of the determinants of rural-to-rural migration in India. For female migration for marriage, which accounted for nearly a half of the total rural-to-rural migration flow during the 1970s, the results of the paper are not in discordance with the view of patrilocal exogamy as an insurance mechanism. However, we also find indirect support for the view that where women's economic contributions are seen to be valuable in the context of the family and the village economy, the outmigration of women for the purpose of marriage would ceteris paribus be lower. For migration for purposes other than marriage, the scheduled caste status is seen to have an effect independent of its indirect effect on poverty. However, with the exception of migration for the purpose of marriage, we do not find the influences of our explanatory variables to differ greatly across gender. Copyright © 2000 John Wiley & Sons, Ltd.

1 INTRODUCTION

Most of the discussions on population movement in the development literature has centred on rural-to-urban migration;[1] rural-to-rural migration has received very little attention. Yet in at least one major developing country, India, the volume of rural-to-rural migration has consistently been larger than the volume of rural-to-urban migration. Thus, during the 1970s, while 15.78 million people moved from rural to urban areas in the country, nearly three times that number—46.26 million people—moved from one rural area to another.[2] The purpose of this paper is to examine some

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[1] For a review of this literature, see Bhattacharya (1993).
[2] For a discussion of the magnitude and direction of intercensal migration in India, see Bhattacharya (1998).

of the determinants of rural-to-rural migration in India, using the migration data from the 1981 Indian Population census.

An important aim of the paper will be to examine the role of the social factors in migration decisions. Social factors, of course, often interact with economic variables and for a fuller understanding of the migration behaviour these factors may clearly need to be considered. In India, caste has been an important part of the society for centuries. Caste divided the labour market and ensured that there were always people to do unpleasant jobs at low pay. It would therefore be instructive to examine the impact of the scheduled caste status on rural-to-rural migration. Formerly known as the 'untouchables', a term applied to a wide range of low caste Hindu groups, scheduled castes (SCs) comprise about 16 per cent of India's population and they continue to suffer from persecution despite discrimination on caste grounds being declared illegal in the Indian constitution. Their economic position continues to be unenviable and at the lowest end of the scale. If migration is one of the avenues through which individuals and families can improve their standard of living, then it is clearly important to know whether the least advantaged groups socially also derive equally the benefit from such migration. Another population subgroup in India which has faced discrimination for centuries is the scheduled tribes (STs), the so-called tribal or indigenous communities across India. They are considered to be outside the Hindu caste system and comprise about 8 per cent of India's population. We also therefore examine the impact of the ST status on rural–rural migration. It may also be of some interest in this context to consider the impact of being Muslim on rural–rural migration. Muslims are also a minority group of some strength in the country, comprising about 12 per cent of the population.

In India, migration can be examined at three levels of spatial aggregation: (i) movement away from birthplace (or place of previous residence) but within the same district; (ii) movement from one district to another district within the same state; and (iii) movement from one state to another. Our focus of analysis will be the flow of migrants from any of the villages to any other village within the same state. Most migrants in India tend to move to towns and villages within their respective states.[3] This is mainly due to the language and sometimes cultural differences between different states. The study encompasses 20 states and for the regression analysis presented below observations were gathered on a state-by-state basis.[4] References to all data sources are given in Appendix 1.

In the 1981 census, a person is classified as a migrant if either (i) his/her place of birth was different from the place of enumeration, or (ii) his/her place of last continuous residence was different from the place of enumeration. Hence lifetime (birthplace) and last-move migration estimates can be made. There are widespread reservations about the validity of migration data based on the birthplace criterion

[3] On an average 87 per cent of all migration in India is within the same state.

[4] India has a federal constitution and in 1981 the country comprised 22 states and 9 union territories. (Union territories are relatively small territories which do not have legislative assemblies of their own and are administered by the President of India through his representatives.) However, it was not possible to carry out the 1981 census in the state of Assam due to disturbed conditions prevailing there at the time of the census. Assam is therefore omitted from the study as is Sikkim for which, because of its small population (1981 population: 318,386), data for many of the independent variables were unavailable. A next step in the analysis would clearly be to try to collect district-level data to increase sample size.

and our analysis is based on the census estimates of migration on the place of residence criterion.[5]

For the first time in 1981, the Indian census included a question on reasons for migration. The possible responses were 'employment', 'education', 'marriage', 'family moved' and 'other reasons'. Of the total rural–rural migrants of 46.26 million during the decade 1971–81, intra-state rural–rural migrants in the 20 states being studied amounted to about 42.95 million, of whom a total of 21.54 million (or 50.1 per cent) gave marriage as the reason for migration, 8.88 million (20.7 per cent) gave family movement as the reason, 7.88 million (18.3 per cent) fell into 'other reasons' category, while 3.38 million (7.9 per cent) gave employment and 1.27 million (3 per cent) education as the reason.[6]

Marriage is thus the dominant reason given for migration, followed by family movement and 'other reasons'. Of those who gave marriage as the reason for migration, an overwhelming 20.92 million (or 97.14 per cent) were females. During the same period, females accounted for 53.04, 52.06, 20.20, and 25.55 per cent of all intra-state rural–rural migrants who gave family movement, 'other reasons', employment, and education, respectively, as reasons for migration in these 20 states. In the discussion below, with the exception of migration for employment, we shall look at male and female migration flows separately as it may be thought that the influences of our explanatory variables may not be identical across gender in these cases, particularly in the case of those who gave marriage as the reason for migration.

The plan of the paper is as follows. In Section II we examine the determinants of marriage migration. Section III examines how far the variables used in the context of explaining marriage migration help explain the migration behaviour of those who gave various reasons other than marriage for migration. Section IV concludes.

2 MIGRATION FOR THE PURPOSE OF MARRIAGE

Given the dominance of females in the rural–rural migration flow for marriage, our main focus in this section is the inter-state variations in the rate of female migration for marriage, though we shall also briefly consider the case of male migration for marriage. The dependent variable for female migration is the natural logarithm of the odds ratio of the flow of female rural–rural migrants for marriage from any of the villages in a state into any other village of the same state over the 1971–81 decade divided by the 1971 rural female population of the state under reference.[7] This variable

[5] The estimates of migration on the place of residence criterion relate primarily to those who have moved residence on a more or less permanent basis. However, the possibility of seasonal or temporary migrants being counted in among the migrants who have spent less than one year in the place of enumeration cannot be ruled out. The rural-to-rural migrants who had spent less than one year in the place of enumeration accounted for 12.61 per cent of the total volume of rural-to-rural migrants during the decade 1971–81. For a discussion of the seasonal migration for work in the rural areas, see Breman (1985; 1996). It is, however, to be noted that the rural-to-rural migration for work constitutes only a very small proportion of the total volume of rural-to-rural migration in India. See discussion in the text.

[6] Source: Census of India, 1981, Series 1, Migration Tables, Part V-A and B(ii), Table D-3.

[7] i.e., we compute the dependent variable as follows: $\ln(P_i/1-P_i)$ where P_i is the flow of female rural–rural migrants for marriage from any of the villages in a state into any other village of the same state over the 1971–81 decade divided by the 1971 rural female population of the state under reference. It will be noted that the coefficients of the estimated equation will therefore give the change in the log of the odds ratio per unit change in the explanatory variables.

is labelled $FMIGRATE_m$. The dependent variable for male migration is the natural logarithm of the odds ratio of the flow of male rural–rural migrants for marriage from any of the villages in a state into any other village of the same state over the 1971–81 decade divided by the 1971 rural male population of the state under reference. This variable is labelled $MMIGRATE_m$.

In line with the discussions in the introduction, we shall include the following among our explanatory variables: the percentage of a state's rural population belonging to scheduled castes, the percentage of a state's rural population belonging to scheduled tribes, and the percentage of a state's rural population that is Muslim, to see what impact, if any, these variables have on rural–rural migration. The variables are labelled PSC, PST and PM, respectively. The data relate to the year 1971 and are from the 1971 Population census. Apart from these variables, however, what other explanatory variables should be included in the model? Rosenzweig (1988; 1993) and Rosenzweig and Stark (1989) have argued that patrilocal exogamy in rural India can be usefully interpreted as an insurance mechanism, which facilitates risk-sharing between households living in diverse agro-climatic zones. Evidence exists that non-resident in-laws in India are the main source of income transfers for households experiencing income shortfalls associated with the variability and vagaries of weather.[8] Rosenzweig and Stark hypothesize that the marriage of daughters to 'locationally distant, dispersed yet kinship-related households is a manifestation of implicit inter-household contractual arrangements aimed at mitigating income risks and facilitating consumption smoothing in an environment characterized by information costs and spatially covariant risks'. They find support for their hypothesis from an analysis of longitudinal data from 440 households in 10 south Indian villages, located in three distinct agro-climatic regions. The risk-theoretic approach to marriage migration implies, *inter alia*, that households with more wealth, and thus better able to self-insure, will invest less in marriage migration. Conversely, the poor would invest more in marriage migration. The poorest group of people in the rural areas in India are the landless labourers and we include 'the percentage of agricultural workers in the rural areas of a state that is landless labourers rather than cultivators'[9] as an explanatory variable to see if the poorest group does indeed undertake more marriage migration. The data relate to the year 1971 and are from the 1971 Population census. This variable is labelled PAL. The risk-theoretic approach to marriage migration would also imply that the greater the number of distinct agro-climatic regions in a state, the more marriage migration, *ceteris paribus*, would take place in that state. Accordingly, we include 'the number of distinct agro-climatic regions in a state' as an explanatory variable, labelled ACR hereafter. Agro-climatic regions are those delineated by the National Sample Survey Organization for their 27th round nationwide survey of consumer expenditure carried out between July 1972 and June 1973. Our expectation

[8] See Caldwell *et al.* (1986); Rosenzweig (1988).

[9] The Indian census defines agricultural workers as consisting of 'agricultural labourers' and 'cultivators'. An agricultural labourer, according to the 1971 census, 'is a person who works in another person's land for wages in money, kind or share. He or she has no risk in the cultivation but merely works in another person's land for wages. An agricultural labourer has no right of lease or contact on land on which he/she works'.

'A cultivator is a person who is engaged either as an employer, single worker or family worker in cultivation of land owned or held from Government or held from private persons or institutions for payment in money, kind or share. Cultivation includes supervision or direction of cultivation.'

Table 1. Variable definitions

Variable	Definitions
PSC	The percentage of a state's rural population belonging to scheduled castes
PST	The percentage of a state's rural population belonging to scheduled tribes
PM	The percentage of a state's rural population that is Muslim
PAL	The percentage of agricultural workers in the rural areas of a state that is landless labourers (rather than cultivators)
ACR	The number of distinct agro-climatic regions in a state
PR	The percentage of crop area in a state that is used for rice cultivation
PFL	The percentage of the labour force in the rural areas of a state that is female

would be that both PAL and ACR variables would be positively associated with female outmigration rates for marriage.

However, risk-theoretic considerations alone are unlikely to be the whole story. It seems to us that if women's economic contributions are seen to be valuable in the context of the family and the economy of the natal village, then outmigration of daughters for marriage would, *ceteris paribus*, be lower. A major source of women's economic worth, of course, derives from their participation in the paid labour force. But even outside of the paid labour force and despite women's household work being little valued in most societies, women's economic contributions in family productive enterprises—particularly in agricultural context—can be of substantial value. In Asia, it has been argued that women's importance as agricultural labourers is ecologically based: because of its labour intensity, wet-rice cultivation involves considerably more input from women than does the cultivation of wheat or other crops.[10] Accordingly, we include two variables to capture the influence of women's economic worth to the household and the village. Women's labour force participation is measured in relative terms: 'the percentage of the labour force in the rural areas of a state that is female'. The data relate to the year 1971. This variable is labelled PFL. As a second measure of women's economic value, we include 'the percentage of crop area in a state that is used for rice cultivation' as a variable. The data relate to the year 1971–72. This variable is labelled PR. Our expectation would be that both PFL and PR variables would be negatively associated with female migration for marriage.

The first model we estimate using OLS, therefore, is the following:

$$\text{FMIGRATE}_m = a_0 + b_1\text{PSC} + b_2PST + b_3\text{PM} + b_4\text{PAL} + b_5\text{ACR} + b_6\text{PFL} + b_7\text{PR} + e_1$$

For convenient reference, definitions of independent variables are gathered together in Table 1. e_1 in an error term, assumed to have usual characteristics. We shall also regress the dependent variable pertaining to male migration for marriage, MMIGRATE_m, on the same set of explanatory variables to see if the influences of our explanatory variables do differ greatly across gender. The means and standard deviations of all the variables used in the paper are provided in Appendix 2.

2.1 Results of the FMIGRATE_m Regression

The results of the regression equation with FMIGRATE_m as the dependent variable are presented in Table 2. The variables PSC and PST were omitted from the final

[10] See Bardhan (1974); Moore (1973).

Table 2. Regression analysis of female migration for the purpose of marriage over the period 1971–1981

Variable	Linear Regression Regressand $FMIGRATE_m$ Regression coefficient	$N = 20$ Standard error	t
Constant	−1.0482	0.1295	−8.093
PM	−0.0018	0.0024	−0.752
PAL	0.0043	0.0020	2.142
PR	−0.0025	0.0012	−2.132
PFL	−0.0148	0.0030	−4.990
ACR	0.0717	0.0260	2.755
$\hat{R}^2 = 0.8646$			
$\bar{R}^2 = 0.8163$			

Critical value for t-distribution with 14 degrees of freedom at $\alpha = 0.05$ is 1.761 and at $\alpha = 0.10$ is 1.345

equation: PSC because its coefficient was found not to be significantly different from zero and PST because it was highly correlated with PR and, when included with PR, it performed poorly as a regressor in this model. A plot of the residuals against the predicted values revealed no obvious heteroscedasticity.

The t-value of −4.990 for the PFL variable (the percentage of the labour force in the rural areas of a state that is female) shows that a larger female share of the labour force has a negative effect on female migration for marriage. The percentage of crop area that is used for rice cultivation (PR) is also seen to have a small negative effect on female migration for marriage, with a coefficient of −0.0025. The results for these two variables would thus seem to suggest that if women's economic contributions are seen to be valuable in the context of the family and the economy of the natal village, the outmigration of daughters for marriage would be low. The number of distinct agro-climatic regions in a state (ACR) is seen to have a positive effect on female migration for marriage, thus providing some indirect support for the risk-theoretic view of female marriage migration. The percentage of landless labourers in the total agricultural work-force (PAL), too, is seen to have a positive effect on female migration for marriage.

As already mentioned, of our variables pertaining to social groups, the coefficient of the PSC variable was found not to be significantly different from zero. Scheduled caste parents, in other words, would appear not to behave differently from the parents in the majority communities in this particular context of the marriage migration of their daughters. The PM variable (the percentage of Muslims), however, is seen to have a negative effect on female migration for marriage, though the coefficient of this variable is not statistically significant.

2.2 Results of the $MMIGRATE_m$ Regression

Male migration for marriage constitutes only 1.43 per cent of all intra-state rural–rural migrants and only 2.83 per cent of those intra-state rural–rural migrants who gave marriage as the reason for migration in the 20 states being studied. The results of the regression equation with $MMIGRATE_m$ as the dependent variable are presented

Table 3. Regression analysis of male migration for the purpose of marriage over the period 1971–81

Variable	Linear Regression Regressand $MMIGRATE_m$ Regression coefficient	$N = 20$ Standard error	t
Constant	−3.2292	0.2382	−13.556
PST	0.0156	0.0039	4.007
PM	0.0159	0.0048	3.285
PAL	0.0177	0.0045	3.951
PR	−0.0061	0.0028	−2.136
ACR	−0.0749	0.0504	−1.488
$\hat{R}^2 = 0.6264$			
$\bar{R}^2 = 0.4930$			

in Table 3. The variables PSC and PFL were now omitted from the final equation as their coefficients were found not to be significantly different from zero. In contrast to the case of female migration for marriage, the percentage of Muslims (PM) now has a positive and the number of distinct agro-climatic regions in a state (ACR) a negative effect on outmigration rates. However, as in the case of female migration for marriage, the percentage of crop area in a state that is used for rice cultivation (PR) has a negative and the percentage of landless labourers in the total work-force (PAL) a positive effect on male migration for marriage. The scheduled tribe variable, STR, now becomes significant and has a positive effect. This last result can probably be explained in terms of the more egalitarian gender relationships that prevail in many ST communities and the matrilineal system to be found in some of these communities.[11]

3 MIGRATION FOR PURPOSES OTHER THAN MARRIAGE

The focus in this section is those who gave various reasons other than marriage for migration. It is clear that the determinants of migration for employment and education, in particular, are likely to differ significantly from those of the marriage migration. Nevertheless, given our interest in examining the role of cast, tribe and PM status in affecting rural-to-rural migration and given also that migration for employment and education together constitutes a relatively small proportion of the total rural-to-rural migration flow (only about 10.9 per cent of the total intra-state rural–rural migrants in the 20 states being studied), there may be some merit in examining the extent to which the initial set of seven explanatory variables considered in the context of explaining marriage migration help explain migration for these other purposes.

For migration for employment, where we do not look at male and female migration flows separately, the dependent variable is the natural logarithm of the odds ratio of the flow of rural–rural migrants for employment from any of the villages in a state into any other village of the same state over the 1971–81 decade divided by the 1971 rural work-force of the state under reference. This variable is labelled EMIGRATE.

[11] On evidence on gender relationships and matrilineal systems in ST communities, see Banerjee (1981); Kayastha (1964); Simon (1980).

In respect of migration flows for other reasons, the dependent variable—for male migration and for each category of reasons given—is the natural logarithm of the odds ratio of the flow of male rural–rural migrants who gave that particular reason for migration from any of the villages in a state into any of the other villages of the same state over the 1971–81 decade divided by the 1971 rural male population of the state under reference. For female migration, the corresponding dependent variable is the natural logarithm of the odds ratio of the flow of female rural–rural migrants who gave that same reason for migration from any of the villages in a state into any of the other villages of the same state over the same period, divided by the 1971 rural female population of the state under reference. We label the dependent variables which pertain to male migration by putting a prefix M and those which pertain to female migration by putting a prefix F before MIGRATE, and then use subscripts f, o, and e to denote migration flows for purposes of 'family moved', 'other reasons' and 'education', respectively.[12]

When these dependent variables are regressed on our explanatory variables, we obtain the results shown in Table 4. (Table 4 also reproduces the results of the regressions with $FMIGRATE_m$ and $MMIGRATE_m$ as the dependent variables to facilitate comparison.) In arriving at these results, we followed a two-step procedure. First, we regressed each of the dependent variables on the same initial set of seven explanatory variables originally included in the regression equations when $FMIGRATE_m$ and $MMIGRATE_m$ were the dependent variables. Then, in the second step, we omitted from each equation those explanatory variables whose coefficients were found not to be significantly different from zero in that equation and, then having done so, we regressed the dependent variable pertaining to that equation once again on the remaining explanatory variables. It is the results of these final equations which are reported in Table 4.

For migration for purposes of both 'family moved' and 'other reasons'—migration for these purposes together accounting for nearly 40 per cent of the total rural-to-rural migration flow during the 1970s—PSC (the percentage of scheduled castes) and PM (the percentage of Muslims) variables are each seen to have a negative effect on rural-to-rural migration. The variable pertaining to landless labourers, PAL, by contrast, is seen to have a positive effect on outmigration rates for both of these purposes.[13] SCs are amongst the poorest in the rural areas, so are the landless labourers. These results for the PSC and PAL variables would thus seem to suggest that the scheduled caste status, in these cases, may have an effect independent of its indirect effect on poverty. There are a number of sub-castes among SCs, each 'ordained' to specialize in a particular occupation (like, say, scavenging), apart from working in agriculture which is a caste-free occupation.[14] Because of the discrimination they face in the labour market and elsewhere, SCs may prefer to remain where they currently are and specialize in performing their 'caste ordained duties' rather than move to a new place. (In the case of marriage migration, where caste status was seen not to have

[12] Thus $MMIGRATE_f$ is the dependent variable which pertains to male migration for the purpose of 'family moved' and $FMIGRATE_f$ is the dependent variable which pertains to female migration for the purpose of 'family moved', and so on.

[13] As indeed on outmigration rates for all other purposes with the exception of that for the purpose of employment.

[14] Agriculture is a caste-free occupation in the sense that no caste is 'ordained' to be excluded from working in agriculture.

Table 4. Regression analysis of migration for purposes other than marriage

Independent variable	Reasons given for migration								
	Marriage		Family moved		'Other reasons'		Education		Employment
	Dependent variable		Dependent variable		Dependent variable		Dependent variable		Dependent variable
	$MMIGRATE_m$	$FMIGRATE_m$	$MMIGRATE_f$	$FMIGRATE_f$	$MMIGRATE_o$	$FMIGRATE_o$	$MMIGRATE_e$	$FMIGRATE_e$	EMIGRATE
Constant	−3.2292	−1.0482	−1.4866	−1.4170	1.6676	−1.6761	−2.8701	−3.1537	−1.4405
	(−13.556)	(−8.093)	(−13.820)	(−12.686)	(−10.600)	(−14.200)	(−16.370)	(−20.260)	(−9.584)
PSC	—	—	−0.0156	−0.0158	−0.0106	−0.0041	—	—	—
			(−3.131)	(−3.053)	(−1.622)	(−0.842)			
PST	0.0156	—	—	—	—	—	0.0073	0.0089	—
	(4.007)						(2.336)	(3.229)	
PM	0.0159	−0.0018	−0.0042	−0.0058	−0.0036	−0.0033	—	—	−0.0035
	(3.2285)	(−0.752)	(−1.587)	(−2.104)	(−1.132)	(−1.370)			(−0.895)
PAL	0.0177	0.0043	0.0051	0.0047	0.0052	0.0052	0.0105	0.0080	−0.0011
	(3.951)	(2.142)	(2.146)	(1.874)	(1.918)	(2.569)	(2.490)	(2.154)	(−0.337)
PR	−0.0061	−0.0025	—	—	−0.0031	−0.0045	−0.0006	−0.0012	−0.0032
	(−2.136)	(−2.132)			(−1.960)	(−3.755)	(−0.289)	(−0.602)	(−1.751)
PFL	—	−0.0148	—	—	—	—	—	—	—
		(−4.990)							
ACR	−0.0749	0.0717	−0.0357	−0.0260	—	—	—	—	—
	(−1.488)	(2.755)	(−1.291)	(−0.905)					
N	20	20	20	20	20	20	20	20	20
$\hat{R}^2$	0.6264	0.8646	0.5169	0.5213	0.4014	0.6503	0.3391	0.4176	0.1869
$\bar{R}^2$	0.4930	0.8163	0.3881	0.3936	0.2417	0.5570	0.2152	0.3084	0.0344

Note. *t*-values in brackets.

any effect, it has to be remembered that SC women are married only to men in other SC households and there is no reason why SC parents, in arranging their daughters' marriage, should not be guided by the same consideration as non-SC parents.) These results for the PSC variable, of course, raises the question as to why ST (scheduled tribe) status has no effect on rural-to-rural migration for 'family moved' and 'other reasons'. We offer the following as possible explanations: STs are outside the Hindu caste system and therefore are not 'ordained' to specialize in certain specific occupations. Further, unlike SCs who are dispersed geographically, STs are concentrated in certain areas within states and in which they usually have a sizeable presence and they may therefore feel freer to move within these areas than SCs do generally.

The percentage of crop area that is used for rice cultivation, PR, is seen not to have any effect on migration for reason of 'family movement', but has a negative effect on migration for 'other reasons'. The number of distinct agro-climatic regions in a state (ACR) has no effect on migration for 'other reasons', but, surprisingly, has a negative effect on migration for reason of 'family movement' (though the coefficient of this variable is not statistically significant in this case).

Migration for the purpose of employment is poorly explained by our model with $\bar{R}^2$ of only 0.1869. For migration for the purpose of education, both PST and PAL variables are seen to be positively associated with outmigration rates. PST variable is positively associated with outmigration rates for both males and females.[15] The explanation for this result is likely to be that many ST communities live in remote villages with little or no educational facilities available and individuals in these communities have therefore to migrate to acquire an education.

4 CONCLUSIONS

In this paper we have examined some of the determinants of rural-to-rural migration in India. The volume of such migration in India has consistently been larger than the volume of rural-to-urban migration on which most of the discussions has centred in the literature. We found that for female migration for marriage—which accounted for nearly a half of the total rural-to-rural migration flow during the 1970s—the results of the paper are not in discordance with the view of patrilocal exogamy as an insurance mechanism (with the number of distinct agro-climatic regions in a state, ACR, having a significant positive effect on female migration for marriage). However, we also found indirect support for the view that where women's economic contributions are seen to be valuable in the context of the family and the economy of the natal village, the outmigration of women for the purpose of marriage would, ceteris paribus, be lower (the female labour force participation variable, PFL, in particular, having a significant negative effect on female migration for marriage).

So far as the influence of social factors is concerned, we did not find the influence of our caste variable significant for female migration for marriage, but the scheduled caste (SC) status is seen to be negatively associated with outmigration rates for purposes of both 'family moved' and 'other reasons'—migration for these two purposes together accounting for nearly 40 per cent of the total rural-to-rural migration

[15] As already noted, STs in general display more egalitarian gender relationships than other communities in the country. See the references cited in footnote 11.

flow during the 1970s. The variable pertaining to landless labourers, PAL, by contrast, is seen to be positively associated with outmigration rates for both of these purposes. SCs are amongst the poorest in the rural areas, so are the landless labourers. The results for these two variables—PSC and PAL—would thus seem to suggest that the scheduled caste status, in these cases, may have an effect independent of its indirect effect on poverty. The PM variable (the percentage Muslims) is also in general seen to be negatively associated with outmigration rates.[16] The influence of the PST variable, by contrast, is in general seen to be insignificant, except in cases of male migration for marriage and both male and female migration for education—PST variable in these cases being positively associated with outmigration rates. The rural–rural migration behaviour of the STs, in other words, would seem to differ, in some key respects, from that of our other population subgroups. While we have alluded in the paper to some of the possible reasons for the differing migration behaviour of the STs, clearly this is an important enough topic to merit a more detailed investigation in future.

Finally, with the exception of migration for the purposes of marriage, we did not find the influences of our explanatory variables to differ greatly across gender.

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[16] Except in the case of male migration for marriage. Apropos of the results for the PM variable, it may be pertinent to note that marriage customs in Muslim communities usually differ substantially from those in Hindu (including SC) communities. Muslims also form a distinct subset of the poor in many rural areas.

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APPENDIX 1

DATA SOURCES

Migration data	Census of India 1981, Series 1, India, Migration Tables D3, Part V–A&B(ii)
Scheduled castes (PSC) and scheduled tribes (PST)	Census of India 1971, paper 1, 'Scheduled castes and scheduled tribes', 1975
Muslims (PM)	Census of India 1971, Series 1, India, paper 2 of 1972, 'Religion'.
The percentage of agricultural workers in the rural areas of a state that is landless labourers (PAL), and the percentage of the labour force in the rural areas of a state that is female (PFL)	Census of India 1971, Series 1, India, Part II-B(i), General Economic Tables, B-III, Part B
Agro-climatic regions in a state (ACR)	See *Sarvekshana*, *VI*(3–4) January–April 1983
The percentage of crop area in a state that is used for rice cultivation (PR)	Indian Agriculture in Brief, 14th edition, Directorate of Economics and Statistics, Ministry of Agriculture, Government of India, New Delhi, 1975
Population by gender in rural areas	Census of India 1971, Series 1, India, Part II-A(i), General Population Tables.

APPENDIX 2

MEANS AND STANDARD DEVIATIONS OF VARIABLES

Variable	Mean	Standard Deviations
$MMIGRATE_m$	−2.7175	0.3855
$FMIGRATE_m$	−1.1147	0.3305
$MMIGRATE_f$	−1.6958	0.2145
$FMIGRATE_f$	−1.6293	0.2238
$MMIGRATE_o$	−1.8111	0.2339
$FMIGRATE_o$	−1.7779	0.2296
$MMIGRATE_e$	−2.4517	0.3259
$FMIGRATE_e$	−2.7982	0.3082
EMIGRATE	−1.6250	0.2536
PSC	13.7420	8.0624
PST	18.2545	26.9814
PM	9.7030	14.8340
PAL	29.6780	18.1507
ACR	3.0000	1.5218
PFL	20.0975	12.5058
PR	37,4160	32.5251