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The Impact of Migration on the Position of Women in Rural China

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The Impact of Migration on the Position of Married Women in Rural China

I: Introduction

One of the most significant effects of economic reform in China, one that is integral to the process of reform itself, has been massive labor migration from rural areas. By official statistics, the "floating population" of China, defined as all those persons away from their place of household registration, rose from 31 million in 1990 to 144 million in 2000 (Population Census Office, 2002). The direction of migration has been mainly from rural to urban areas, and from the less-developed middle to the more-developed coastal regions. Most of these migrants return to their villages periodically and return permanently after a few years. This study examines the impact of migration on returned migrant women. We hypothesize that these women bring home new concepts, norms, skills, and financial resources acquired in the urban area. But does what they have experienced, earned, and learned in the city affect their position within the family, their power to make independent decisions, their expectations concerning gender roles, or their educational aspirations for their children?

Women make up more than a third of the floating population in China. The proportion of women varies substantially by destination location: while women were estimated to be 34 percent of the 1993 floating population in Shanghai (Wang, *et al.*, 1995) and the 1997 floating population of Beijing (Postan and Duan, 1999), they represented the majority of the floating population in Pearl River Delta in 1993 (Scharping and Schulze, 1997). Most of these women are coming to work: in the 2000 census, more than two-thirds of temporary migrant women between the ages of 15 and 44 cited "manual labor or business" as the principal reason for their migration (Liang and Ma, 2004). In Beijing, 72 percent of the female migrants were employed in 1997, while only 21 percent were following their spouses (Postan and Duan, 1999). This is

very different from the situation before 1990, when marriage was the leading reason for women's migration (Fan, 2000).

As in most migrations, the age structure of women migrants in China is young, with more than twice as many temporary migrants between the ages of 15 and 29 recorded in the 2000 census than those above that age (Liang and Ma, 2004). One of the reasons for this age structure is that most migrants in China do not stay in the city for long; the dominant pattern is circular migration, with migrants moving from rural to urban areas for a few months or years and then returning to their rural homes. Many women migrate before marriage and then return home and marry, but they quite often migrate again, with or without their husbands (Roberts, *et al.*, 2004). Other women wait until they are married to migrate, but given the relatively early age of marriage in rural China, they are still quite young when they migrate. Moreover, the constraints urban governments place upon the floating population in terms of access to housing, health care, and education for their children, encourage return to rural areas.

Our interest in this paper is in how these women migrants fare upon their return to their villages. A number of studies have looked at migrant women while they are in urban areas, and generally conclude that rural women experience more autonomy in urban areas than they did at home. For example, a qualitative study of the reproductive health status of rural female migrants in Chinese cities showed that these young women were greatly influenced by their migration experience and urban lifestyle (Zheng, *et al.*, 2000). They talked about how classmates at home already had children, while they are still single. They enjoyed their time working in the city, not only because they could earn more, but also because they could experience life outside their village. Most of the young women interviewed said that they would eventually go back home, but they expected they would be changed by their urban experience. Similarly, migrant women

in Tianjin "shared a common perception that the greatest gains from working in the city were the significant differences they had made in their own lives and destiny" (Zhang, 1999: 38). In Beijing, migrant women expressed both nostalgia for home because of loneliness and hardships in the city, and apprehension about their return to the village, marriage and a life of farming (Jacka, 2006). They wanted things to be different for them when they returned.

But whether these experiences and aspirations do, in fact, carry over after they return to the rural areas remains an open question. Davin (1996: 664) believes that these young female migrants "take back with them to the villages notions of love, more companionate marriage, home comforts and luxuries, smaller families and so on." Judd (1994: 161) challenges this view, saying that "this activity on the part of young women is unambiguously temporary and will cease as each marries. It consequently poses no noticeable challenge to existing patterns of gender division of labor (and) does not imply any structural change." This difference in opinion between noted scholars of Chinese women poses important questions for empirical research – questions our research can address.

The data used to answer our questions about returned migrant women were collected for this purpose in Fall 2000 from rural women ages 20-40 in the provinces of Sichuan and Anhui, the top two sending provinces for migrants in China (Liang and Ma, 2004). A large number of variables of interest were collected, including the women's employment situation, the division of labor within the household, their attitudes on marriage and divorce, measures of their role in household decisions, and educational aspirations for their male and female children. Of the 3,186 respondents, one third were returned migrants.

Using multivariate analysis that controls for unobserved factors that affect both migration and women's position, we analyze the effect of being a returned migrant on a set of variables that

relate to women's position in the household. Four main categories of women's status are explored: women's views on male/female relationships; women's role in household decision-making; women's relationships with their husbands; and their views on children and parents. These four categories represent different dimensions of women's position, and the impact of migration may differ among them. Our general conclusion is that having migrated does have some significant lasting effects on a woman's position in the household, though the effect is not universal. Moreover, the mechanism by which migration effects change varies among the different dimensions of women's position: in some cases, it seems to be the timing of migration relative to life events such as marriage or childbearing that matters; in others it is the duration away from home; and in still others it is the destination job and/or location that makes a difference. In addition, our results do not support the hypothesis that rural women who have migrated are self selected to be the more "empowered" women regardless of whether they had migrated or not. For many of the measures of women's position, migration status appears to be exogenous.

The rest of the paper proceeds as follows. Section II presents a review of the literature on the effect of migration on women's position, with an emphasis on placing the Chinese situation within already existing theoretical frameworks. Section III introduces the data, particularly the set of indicator variables we use to measure women's position, and our treatment of the potential endogeneity of women's migration in terms of the women's position in the household. In Section IV we discuss the results of a multivariate analysis of the determinants of women's position, and we summarize our findings in Section V.

II: Literature on the Effect of Migration on Women's Position in the Developing Countries, with Special Attention to China

There is a growing multidisciplinary literature on the interrelationship of demographic change and women's position, which Mason (1993) defines as "women's control over resources, compared to that of men; the degree of their autonomy from men's control; or other aspects of their privilege or oppression that arise from the society's institutions." There is a consensus in this literature that aspects of women's position, which includes power, status, and autonomy, can play important roles in the nature and rate of economic and demographic change. While some scholars argue that women's empowerment should itself be a policy goal, other policy makers take a more agnostic approach, emphasizing the importance of women's empowerment to achieve social goals such as reduced fertility, improved child health and education, and a reduction in the sex ratio at birth and sex differentials in child mortality and morbidity (United Nations, 1994; McIntosh and Finkle, 1995; Kishor, 2000). Authors of theoretical frameworks such as Mason (1993), England (2000), and Kabeer (1999) urge us to acknowledge the multidimensional aspects of women's position or empowerment and allow for differing effects on the outcomes in question. For example, Durrant and Sathar (2000: 5) list dimensions of women's status as "including but not limited to, freedom of movement, access to financial and nonfinancial resources, decision-making autonomy, gender attitudes, freedom from fear and coercion, and equality in her relationship with her partner." These dimensions can impact demographic variables such as fertility, mortality, divorce and reproductive health either directly, indirectly through an intervening variable, or by creating an environment through which other variables are filtered (Mason, 1993: 20).

Our concern here is the effect of migration on women's position or empowerment. According to Hugo (2000: 287), "migration may be an outcome of empowerment but also can

function as… an external change agent, which can set off, facilitate, or catalyze the empowerment process." But there is no expectation that the effect of migration on women's position is always in a positive direction. Parrado, Flippen and McQuiston (2005: 351) argue that migration entails a large change in "structural context," and depending on the "context of reception, the degree of labor market segmentation and the extent to which migrants are isolated in the receiving society, migration may mitigate *or* reinforce patriarchal gender inequality."

Several aspects of migration in China are conducive to the expectation that migration is a positive force for the empowerment of rural women migrants. Migration moves women away from the immediate control of their family and community. As in many other parts of the world, rural areas in China tend to exhibit more traditional social norms and be more tied to historical and cultural roots than are urban areas. Lee (1998: 84) found that young rural women working in Guangdong province "sought to increase their personal autonomy vis-à-vis parental domination and to redefine their familial gender role in the realms of production and marriage." Feng (1997: 61) claims that women migrants in Beijing experienced "a radical change of opinion on the female role … their outlook on life had changed, and rather than living without any conscious aims, they now pursued their own goals; their aims were no longer limited to an ideal marriage, they wanted to achieve something important." Many of China's migrant women earn money for the first time and have some control about how that money is spent, which has been shown in other contexts to enhance their position upon return (England, 2000). Female migrants may not only assimilate urban values concerning women's roles, but often live in communal situations where they are exposed to perspectives of women from other places. Women may also become acculturated to urban life more easily than men: 87 percent of the women working in a city in Hebei province reported that they envied urbanites compared to 69 percent of the men, and more

women than men wanted to stay in the urban area and have their families join them (Song, 1999).

But Chinese rural migrants seldom stay in urban areas; at least for now, most migrants anticipate returniing to rural villages.[1] This expectation may mean that women migrants continue to be influenced by rural norms, since they know they will again be judged by them. In addition, the rural networks in which migrants operate may also inhibit change. Women often find employment through their village network, and may be placed in subordinate positions to men from their local area, transplanting rural patriarchy to the urban area (Lee, 1998). Because "it is rare to find any peasant in the city who is not living or working with a few *laoxiang*, or 'native place fellows'" (Ma and Xiang, 1998: 530), these rural compatriots also become one's social group while in the city, so that there is less exposure to urban ways than might have been expected. Finally, migrant women living in dormitories have very little interaction with urban Chinese women, while those in service roles and vending are doing work that is scorned by young urbanites.

There has long existed a prejudice among urban Chinese toward rural people who work in the city. Honig (1986: 75) likens the pre-war status of women from northern Jiangsu province working in the cotton mills of Shanghai to that of Irish immigrants in the mills of Lowell, Massachusetts during the mid-nineteenth century: both "lived in distinct neighborhoods, dressed differently, spoke a different language … concentrated in the least desirable workshops … these divisions need not be based on migration across national boundaries." Not much has changed in this regard: female workers in the factories on Chinese coast today are frequently called "*dagongmei*" – "maiden workers" who are stereotyped as young, single, immature, and ignorant, as opposed to "*gongren*" or workers, who had the highest status in socialist China. Pun (1999: 3)

deconstructs the term *dagongmei:* "the production of the identity of *dagongmei* deploys a play of difference, establishing a hierarchy between the rural and the urban, the northerner and the southerner, and male and female." This prejudice interacts with the household registration system to produce "cities with invisible walls" (Chan, 1994), so that the closest comparison to Chinese migration is labor migration across national boundaries (Roberts, 1997). Dutton (1998: 9) says "the itinerant migrant worker is as visible and identifiable to the local resident of a city like Beijing as an Afro-American is to the Caucasian in the cities of America, or the Turk is to the German." Women who migrate from their rural villages to work in urban areas are particularly vulnerable in both their status as migrants and in their status as women, with the combination of the two producing a "double jeopardy" (Wang and Shen, 2003), resulting in limited occupational attainment (Huang, 2001) and lower earnings (Song, 1999).

To summarize, certain conditions of women's migration, particularly control of financial resources, absence of familial and rural community social controls, and the exposure to more modern urban lifestyles lead to a hypothesis that migration will have an empowering effect on rural Chinese women. However, other aspects specific to the Chinese pattern of migration, particularly the ties that remain with their rural homes, the separateness of migrants and urban dwellers, and the legacy of legal restrictions, mitigate this positive prediction, so that "experiences of separation from home and exposure to new ideas may not translate directly into autonomy" (Jacka and Gaetano, 2004: 33).

But even if migrating on balance empowers women migrants while they are in the urban areas, we still must question how much autonomy and improved position is retained when they return home to the rural areas. Here it is again useful to think about the theoretical frameworks of women's empowerment offered by Mason (1993), England (2000), and Kabeer (1999). While

family resources and perhaps a woman's claim to these resources are improved by her income earned as a migrant worker, these resources are but one ingredient in the recipe for improved empowerment; agency – acting as a decision maker – is also needed to achieve results (Kabeer, 1999). Similarly, in England's (2000) framework, economic resources must interact with subjective states of self-efficacy and entitlement to effectively influence the use of power, which only then can bring about changes in outcomes that are in women's interest.

In the Chinese case, a substantial portion of the earnings of migrant women are remitted to their families. Single women might benefit little from remittances to parents, which may be used to fund a brother's education or to improve parental housing that will be left upon marriage. However, remittances may also be used to fund a dowry that could improve the young woman's status in her marriage (Brown, 2003). Similarly, remittances from a married woman used for housing might have little direct effect upon her position, unless the additional housing resources allow the couple to move away from his parents' house, which could reduce the power struggles between a young mother and her mother-in-law and increase her autonomy.

Focus group discussions that accompanied our rural survey provide narrative accounts of the family decision making that accompanies migration decisions (Lou, *et al.*, 2004). In many extended families, parents push their grown son and daughter-in-law to migrate, offering to take care of their grandchildren and the farming themselves.[2] Rural men are now willing to entertain the idea of their wives migrating with or without them, and husbands and wives talked about factors influencing the choice of which one of them should migrate, including the well being of their children, the likelihood of each finding employment, and the probability of sending home remittances. The increased likelihood of women migrating potentially changes the bargaining

power of all women, whether they choose to migrate or not, which would result in a smaller observed difference between migrants and non-migrants in rural areas.

Finally, there is the issue of those who have migrated and not returned. It may be the case that those most affected by the migration experience are the least likely to return. So long as almost everyone returns, this is not a problem. But as return becomes more of a choice, then it may be the case that those who respond least positively to urban life will be more likely to appear in a rural sample of returned migrants, which would also reduce the observed effect of migration on women's position.

III: The Data

The data we use were collected during August and September of 2000 in two counties in each of the two provinces of Anhui and Sichuan. Since the survey was done in the villages, it includes only those who were in their rural villages: those women from the villages who were currently migrating out of the area were not included. Data collection was timed to correspond with the rice harvest, which meant that some migrants had returned home to help on the farm. This reduces somewhat the problem of the missing current migrants, but certainly does not eliminate it entirely.

The data were collected using a stratified sampling frame: two townships from each county were selected and three to five villages were chosen from each township. The criteria for selection of counties and townships were (1) that migration was prevalent enough to yield a sample size of migrants sufficient for statistical significance, and (2) that they were mainly agricultural areas, and neither among the most nor the least developed of these. All women ages 20 to 40 were surveyed if they could be located. After substantial quality checks, the sample size

was 3,186 women, one third of whom had migrated. All but 67 of the women were already married, reflecting the average age of marriage in the sample of 21.7 years, the near universality of marriage among rural women, and high rates of outmigration by young single women. This paper focuses exclusively on the married portion of the sample, mainly because many of the issues explored related to power relations within a marriage, but also in order to use husband's migration status as an instrumental variable to control for endogeneity in women's migration.

The content of the questionnaire includes basic information about the village, basic demographic information about the respondent and her current family of residence, the respondent's migration history, her husband's migration information if he ever migrated, information on her marriage, childbearing, contraception and reproductive health, and her opinions on women's role in family decision making. Migration is defined as staying longer than a month in a destination other than the county or city of residence.

Table 1 shows some basic statistics for the four counties in 1999. The two counties of Anhui, Zongyang and Huaining, are both located in the southern part of the province near the Changjiang River, and are both major rice producing areas. The two counties of Sichuan, Xingwen and Changning, are located in the southwestern part of the province. They are hilly and mountainous areas, and among the poorer counties in China. Xingwen, with high mountains and hills, is the least developed of the four counties surveyed, and is on the nation's county poverty list. Due to the lack of roads, some of the villages are very difficult to reach.

[Table 1 here]

Table 2 shows the basic demographic information for the married respondents, comparing those women who have migrated and returned with those women who have never migrated. The two groups are similar in age and age of marriage. The migrated group contains

slightly more middle school graduates and fewer women who have not graduated from primary school. The biggest difference is in current occupation: 24 percent of the ever-migrated women currently work in a paid job, compared to only 3.4 percent of the women who haven't migrated. Similarly, 6.8 percent of the migrants are self employed compared to 2.8 percent of the non-migrated sample.

Table 2 also presents some characteristics of the first migration experience for the sample of married women who have migrated and returned. We see that 34 percent migrated for the first time before marriage, showing that most women in our ever-migrated sample migrated after marriage. Most migrated across provincial borders and to a city, which should be a more transformative experience than a migration within the province or to a smaller town. The average duration of their first migration was almost one year. The majority of women migrated to work in factories or restaurants and other service establishments, but one quarter were self employed, usually working as vendors or peddlers. Women from Huaining county in Anhui were especially likely to take this route, with 49 percent employed in retail trade during their first migration (not shown). While the majority of women migrated only once, 39 percent made at least one more trip and 10 percent migrated at least four times.

[Table 2 here]

Variables Used to Measure Women's Position

Our survey included many questions about the interviewee's opinion on issues of autonomy and decision-making within the family. We have divided these questions into four categories: women's views on male/female relationships; women's role in household decision-making; women's relationships with their husbands; and women's views on parents and children (intergenerational views).

Women's Views on Male/Female Relationships: All of the questions in this first set were asked hypothetically, for example, "Could a wife refuse to have sex with her husband?" They do not ask specifically about the respondent and her husband. The questions in this category include:

1. *Who should decide about who should marry whom?* When asked this question, 80 percent of the sample indicated that the couple should decide themselves, either with parental approval or by themselves; only 28 percent thought the couple should decide by themselves, regardless of parental approval.

2. *Should contraception be available before marriage?* Our sample of women was almost perfectly divided on this question, with 51 percent answering yes.

3. *Is it OK for a couple that does not get along to get divorced?* In keeping with China's low divorce rate, only 30 percent of the sample answered yes to this question.

4. *Is it OK for a woman to go out (to a movie or on a business trip) with a man who is not her husband?* Women were also divided on this question, with 56 percent of the sample answering yes.

5. *Is it OK for a wife to refuse her husband's desire to have intercourse?* 75 percent of the sample who answered the question answered yes. 21 percent did not answer the question.

6. *Is it OK for a wife to ask for sex from her husband?* 76 percent of the sample who answered the question answered yes. 28 percent did not answer the question.

7. *What is your opinion of the statement? "It is not a moral problem if young people have a sexual relationship if they get married later."* 49 percent answered that it is not a moral problem or perhaps it is not a moral problem.

These questions represent attitudes about gender roles. Evidence from the studies cited above shows that migrant women's attitudes often change because of exposure to the more

modern attitudes of urban China. However, as we have said, little is known about whether these attitudes are maintained after return to the rural area. Attitudes about gender roles do not measure women's position directly: at best they measure agency, the notion that one has some control over the process of determining outcomes, though not the outcomes themselves (Kabeer, 1999). For example, believing it is OK for a couple to get divorced may change the bargaining within the household, giving women a greater sense of agency which may translate into a more assertive position on any number of domestic questions. In England's (2000) model, attitudes such as the ones we asked about are modeled as contributing to an increase in the subjective states of "self efficacy and entitlement", which then contribute along with economic resources to increased potential power.

Women's Role in Household Decision Making: Eight questions were asked about who usually makes decisions in the family about events such as children's education, family planning, large purchases, investments and women's migration. For each decision, a code of one was assigned if the wife made the decision on her own or jointly with her husband. A zero was assigned if the husband made the decision or his parents made the decision. We analyze each question separately. The average number of decisions made by the wife or jointly was 5.8 (out of 8) with a standard deviation of 2.3.

These questions are similar to those used by Casique (2001) in Mexico and by Jejeebhoy (2000) in India and Pakistan. One would categorize these questions as measuring agency, the ability to make decisions about aspects of one's life. However, using questions of this sort to measure agency may be problematic as a measure of women's position in the family because most women report that the decisions are joint.[3] In addition, Kabeer (1999: 446) argues that "different decisions are not all equally persuasive as indicators of women's empowerment

because not all have the same consequential significance for women's lives." Still, in this young literature, it seems useful to use questions similar to those used in other contexts.[4]

Women's Relationships with their Husbands: The questions in this category specifically ask the women about their own marriages. The questions include:

1. *Was your husband your first boyfriend?* 87 percent answered yes to this question. The combination of social pressure for students not to show an interest in the opposite sex yet to marry young causes a high percentage of rural women to marry their first boyfriend. Thus, not marrying one's first boyfriend can be viewed as withstanding this social pressure and is an outcome of women's increased agency.[5] (In our multivariate analysis, we have coded the question in reverse, so that a one indicates being married to someone other than one's first boyfriend. The switch here and in a few other variables discussed below allows all variables to be coded so that a one indicates higher position of agency or power for women.)

2. *When you and your husband have a conflict, do you argue with him?* 78 percent answered yes, either "sometimes" or "often."

3. *Has your husband ever beaten you?* 32 percent of the respondents reported being beaten by their husband, either "sometimes" or "often." This variable is coded one if the respondent reported never having been beaten by her husband.

These three questions taken as a group reflect different aspects of women's position, compared to the previous set of questions on attitudes and decision-making. Using the distinctions made by Kabeer (1999), these questions reflect the outcomes of empowerment rather than agency or resources. The question about not marrying one's first boyfriend is an indicator of women's decision making outside the norm, while a greater willingness to argue with one's

spouse and a reduction in the incidence of beating are outcomes of increased women's power within the family.

Intergenerational Views: This fourth category of questions includes the following:

1. *Do you agree with this statement? "It isn't necessary for girls to receive education beyond middle school?"* 86 percent of the respondents disagreed with this statement, either somewhat or totally. Disagreeing with the statement is coded as one, so that the positive response is related to increased women's status.

2. *What is your ideal number of children in a family?* 28 percent answered "one child."

3. *What is your desired living arrangement after marriage?* 69 percent answered that they would like to live with just their children and not their parents.

Like the issues raised by the questions about women's relationship with her husband, believing that girls need education beyond middle school, that one child is enough, and that the ideal living arrangement is in nuclear families can be best characterized as outcomes of empowerment, or at least, a reflection of more "modern" urban preferences within the Chinese context. We would expect women's migration to affect views on these issues even after return if migrant women had assimilated these urban values.

Empirical Models for Estimating the Determinants of Women's Position

Our main interest in this paper is in whether any of the answers to the questions listed above are affected by the migration of the woman. Of course, other characteristics could also affect women's position: education (we categorize educational attainment into three categories: less than a primary school graduate, graduated from primary school, and graduated from middle school); the province of residence; the income level of village where she lives, and age.[6] We

also included the difference between her age and that of her husband, which can also affect power relationships (Parrado, Flippen and McQuiston, 2005).

For each measure of women's position listed above, we estimated two models. The first includes the full sample of married women who answered the question, while the second includes only those married women who had migrated. Model 1 can be written as:

(1) $Y_j^* = \beta_{0j} + \beta_{1j}M + \beta_{2j}Z + \upsilon_j$

for all married women in the rural sample, where Y_j^* is the latent measure of women's position, M is a dichotomous variable that indicates whether she has ever migrated away from the village for more than a month, and Z is the vector of other personal and contextual characteristics described above. The subscript j goes from 1 to 21 to indicate the responses to the 21 questions about empowerment discussed above. We do not observe Y_j^*; instead we observe Y_j, which is equal to either 1 or 0, where 1 indicates more empowerment. We assume $Y_j=1$ when $Y_j^*>0$. We also assume that υ_j is distributed normally.

The second model explores whether the characteristics of a woman's migration history affect the answers given to the questions above. Characteristics of migration which might affect women's status include: 1) the total number of months she has been away from home, for longer time away may facilitate assimilating urban values; 2) the timing of her first migration compared to the timing of her marriage, with those first migrating while single perhaps beginning their marriage with different values; 3) an indicator variable if her first migration was to a city or another province, as moving to a very different place may effect a greater degree of change in the returned migrant; and 4) an indicator variable if her first migration was to a factory job, since factory jobs often mean living in a dormitory and socializing with other workers. This

experience would contrast sharply with that of a retail or restaurant worker, for instance, with unpredictable effects upon women's status. Model 2 can be written as:

$$(2) \qquad Y_j^* = \alpha_{0j} + \alpha_{1j}MV + \alpha_{2j}Z + \varepsilon_j$$

for all married women who have ever migrated, where MV is a vector of migration characteristics described above and Y_j^* and Z have the same meaning as above.

One problem we face in both estimations is the potential endogeneity of having migrated. Let us characterize the decision to have migrated, M*, as a linear combination of exogenous variables:

$$(3) \qquad M^* = \gamma_0 + \gamma_1 X + \eta$$

where M* is the unobserved continuous propensity to have migrated in the past, M is the dichotomous observation of M*, such that M=1 if M*>0, and X is a vector of characteristics thought to affect migration probabilities.

If η and υ_j are correlated for the same individual, then we can not simply include M as a right hand side variable in equation 1 and still expect consistent estimates of the β's. An example of correlation across the error terms might be that more outgoing women are both more likely to be migrants and more likely to make decisions within the household; this would lead to an upward bias in the coefficient $\beta_{1j.}$ The situation we find ourselves in is analogous to a recursive simultaneous equation system, except that both observable variables, Y_j and M are binary. One solution would be to estimate a linear probability model, as in de Brauw and Giles (2005) regarding the effect of migration on educational choices, but we are concerned that some of our dependent variables (the Y_j's) have means quite far from the .5 mark, making linear probability a less attractive compromise. Instead, we have estimated a recursive simultaneous probit model similar to the one used in Greene (1998). The advantage of the recursive probit

model is that we constrain the probabilities to be within the zero/one interval, while allowing for correlation across equations that may be the result of unobserved heterogeneity.[7]

The ever-migrated equation is identified by five variables included in the X vector and excluded from the Z vector. These variables are husband's migration status, the proportion of the village estimated by local authorities to be currently migrating, the distance of the village to the nearest bus stop, the distance to the nearest train station, and indicators whether the terrain is flat, hilly or mountainous. Husband's migration is a good candidate for an instrument, since it is found to be a strong predictor of wife's migration, but in preliminary analysis of our data did not itself predict women's answers to the set of position variables. Distance to the bus stop and hilly terrain are also often significant predictors of M, but less reliably so than husband's migration. In addition, the estimation strategy we use allows for a robust estimation of the standard errors and corrects the standard errors for possible clustering caused by multiple women in the sample coming from the same village.[8]

In Model 2, the potential problem of the endogeneity of migration creates a concern that our sample, which is limited to married women who have migrated, is self selected. Estimating equation 2 using a single equation model would again ignore the potential correlation between the error terms, ε and η in this case. The solution is to acknowledge the potential for sample selection bias by estimating a probit model with selection.[9] The selection equation was the same as used in Model 1, equation 3 above. The procedure we used corrected for the possible effects of clustering on the standard errors.

IV: Findings of the Effect of Migration on Women's Position

The four tables discussed in this section record the results of the multivariate analysis of the four dimensions of women's position available in our data: women's views on male/female relationships, women's role in household decision-making, women's relationships with their husbands, and intergenerational views. Since our focus is on the effect of women's migration on women's position in the household, only the partial derivatives related to migration are reported in these tables. In each table, the row above the break includes the partial derivative of having ever migrated using Model 1 for the sample of all married women; below the break appear the partial derivatives related to the four aspects of the migration experience estimated in Model 2 for the sample of ever-migrated married women.[10] Eight tables with a full set of results, one each for the full sample and the ever-migrated sample for the four categories of women's status, are available from the authors.

Women's Views on Male/Female Relationships

Table 3 shows that only three of the seven questions in this category were significantly affected at the ten percent level by having migrated. Views on who should decide whom to marry, whether contraception should be available before marriage, and whether it is OK to divorce were each positively affected by the women's migration status. The results in terms of which variables show significant effects of having migrated do not differ much from estimating a model in which having migrated is taken as exogenous (not shown). In that case, in addition to the three significant effects shown in Table 3, the question about whether it is OK to socialize with a man who is not one's husband is also positively affected by having migrated. However, the magnitudes of the significant derivatives shown in Table 3 are substantially larger than those that do not control for the endogeneity of migration.

Why the magnitudes of the derivatives should be larger once we have controlled for potential endogeneity is most likely related to our finding that, in the case of who should decide whom to marry and the belief that it is OK to get divorced, there is a significant negative correlation between the women's position equation and the ever-migrated equation. Based on a long literature on the self selection of migrants on characteristics usually thought to be positively related to successful outcomes, we expected that if the migrants were self selected in any way, it would be that they are by their very nature more assertive, more outgoing, and more self assured – all unobservable characteristics – and that these characteristics would make them more likely to answer "yes" to our set of empowerment questions. This expectation translates into an expectation that the error terms of the empowerment equation and the error term of the ever-migrated equation should be positively correlated. Instead we find that in most of the cases where the exogeneity assumption is rejected, the correlation between the error terms is negative. It is difficult to explain this result,[11] but it means that assuming exogeneity would have biased the coefficient of the ever-migrated variable downward rather than upward. Correcting for endogeneity thus leads to an increase in the estimates of the effect of migration on the women's position outcome in question.

[Table 3 here]

The bottom part of Table 3 shows the effect of different aspects of the migration experience upon women's views on male/female relationships. All the outcome variables except for beliefs about divorce and beliefs about refusing sex show a significant effect of some attribute of migration. In terms of couples deciding for themselves whom to marry, it is the timing relative to marriage that matters. In terms of beliefs about contraception and association, it is the duration out that matters. Migrating to a city or different province only affects beliefs

about premarital sex and the effect is the opposite of what was expected; migrating to a city or outside the province reduces the probability that one thinks premarital sex is OK. Perhaps the suspicion of looser morals that some villagers still have of migrating women, especially those far from the eyes of the village, causes the returning migrants to respond in a conservative tone to counter the suspicion. Finally, migrating to a factory job reduces women's autonomy compared to those women who migrated to other jobs in terms of beliefs about premarital contraception and premarital sex, but increases women's autonomy in terms of beliefs about association with other males and sexual relations with husbands. These findings may result from the dormitory housing provided by factories, which both leads to less contact with urban workers and their values on sexual relations, and to more interaction with male employees and discussion of sexual relations among roommates in the dormitory.[12]

To summarize this area of attitudes related to male/female relationships, it seems that women's views on the autonomy of marriage decisions, the availability of contraception for those engaging in premarital sex, and the ethics of divorce reflect a lasting impact of having migrated, with the magnitude of the effects stronger for having accounted for the endogeneity of the ever-migrated category. These views may be thought as providing women agency within their marriage, a greater sense of independence, and perhaps greater strength within the daily negotiations of family life. However, in the area of freedom of association, women's own sexual desires within marriage, and the morality of premarital sex, having migrated does not have any lasting effect on women's views. Among those who had migrated, no clear pattern emerges as to which aspect of migration mattered, though for five of the seven variables at least one aspect of migration proved to be a significant predictor of differences in attitudes.

Findings of the Effect of Migration on Household Decision Making

Table 4 shows the results for each of the eight individual household decisions. The top half of the table shows the somewhat surprising result that the women's migration status is largely unrelated to her participation in decision-making. Only in the case of deciding about her own migration and gift giving does having migrated substantially increase her role in the decision.[13]

[Table 4 here]

Like the top half of Table 4, the bottom half of Table 4 is noteworthy mostly in terms of the lack of significance of the migration characteristic terms. Just as migration itself seems to make little lasting difference for women in decision making, the aspects of migration captured here also have little effect. Who makes the decision to buy consumer durables is affected by both the timing of migration relative to marriage and the total time away. Migrating before marriage might increase a woman's role in decisions regarding the purchase of consumer durables if she has brought money earned while migrating into the marriage at its inception, when the majority of consumer durables are purchased. More time away means a higher contribution to household income and could result in more say in how that money is spent. Childbearing decisions are also weakly affected by more time away, probably because the timing of childbirth becomes a greater issue when a woman spends more time away from home. Finally, migrating first to a factory job is shown to have a negative effect on women's role in decisions related to investments and their own migration. This may be because women working in other types of jobs are often accompanied by their husband, and thus would be more likely to discuss with him whether to participate in a subsequent migration.

Findings of the Effect of Migration on Women's Relationships with their Husbands

Table 5 shows the results for the three questions related to women's relationships with their husbands. We find that women's migration does have a significant lasting effect on their relationships with their husbands in terms of who they marry and the agency to argue with their husbands. As we expected, a woman who has migrated is less likely to have married her first boyfriend. Among those women who had migrated, migrating before marriage greatly decreased the odds of being a victim of domestic violence, as did first migrating to a factory job. While the former was anticipated, it is unclear why the type of job should affect domestic violence.

[Table 5 here]

Findings of the Effect of Migration on Intergenerational Views

Because of the concern in China that women's migration may be linked to increased fertility as rural women leave the watchful eyes of their village for the anonymity of the urban center (Yang, 2000), we were especially interested in our survey in asking questions related to the effect of women's migration on her desired fertility. You (2004) uses the same data to analyze desired family size, completed childbearing and birth spacing, and finds a significant negative effect of migration on both the desired and the actual number of children. We find in Table 6 that having migrated has a strong positive effect on the probability of saying that one child is the ideal number.[14] We found the same result in the model where ever migrated was assumed exogenous, and again the coefficient is larger (.13 versus .08) in the endogeneous model. For those women who have migrated, those who first migrated to a city or another province were substantially more likely to desire one child, which fits with the hypothesis that women who are exposed to city life adjust their expectations based on that exposure. Total

duration of migration is not a significant predicator of desired family size, nor was occupation in the destination or the timing of migration relative to marriage.

[Table 6 here]

We are also interested in the women's answer to their ideal living arrangement, since a woman may migrate in order to raise the money necessary to build a new home and move away from that of her in-laws. The results in Table 6 show that migration status had no effect on a woman's view of the ideal living arrangement.[15] Limiting ourselves to women who have migrated, we find that women whose first migration occurred after marriage are more likely to view living separately from their in-laws as ideal; these may be the women whose motivation for migration was to earn money to build a separate house from their in-laws. Finally, views on the importance of a girl's education are not directly affected by the migration status of the woman. Among migrants, however, the view that girl's education is important was positively affected by the destination of her first migration and by migration before marriage. Women who migrate before marriage often share their earnings with their birth family, so that if one expects one's daughter to follow the same pattern, her education may seem like a better deal for parents.

V. Conclusions

This paper has explored the question of the effect of women's migration on women's position in rural Anhui and Sichuan provinces. While researchers agree that urban life for rural migrants is often quite different from the lives of their fellow villagers who remain in the rural area, the literature has been divided about the lasting effects of migration on women's status, both in rural China and in other parts of the world. Certain aspects of the circumstances in China, such as the wide divide between rural and urban areas, would argue for migration as an

empowering force, but other aspects, particularly the strong ties that remain to rural villages and the low status of migrants in urban areas, lead to the prediction of a neutral or even negative impact of migration on women's position. While our study has provided one of the first direct tests of the effect of migration on women's position in China, our findings do not end this debate, as our results on the importance of having migrated on a set of rural women's agency and outcome variables are mixed.

In the areas of attitudes about marriage, divorce, the availability of contraception to unmarried women and the ideal number of children, we find lasting effects of having ever migrated. Lasting effects were also found in the agency to participate in household decisions about the woman's own migration and child bearing, to argue with one's husband, and to not marry one's first boyfriend. However, in the other areas of relationships between men and women, and in most of the reports about who is making key decisions in the family, there were no direct effects of women's migration. Nor were ideal living arrangements or views about girls' education directly affected by migration.

Concerning the effects of the circumstances in which women migrated, longer duration away from home is correlated with greater autonomy in several instances, such as whether it is OK for a woman to associate with a man who is not her husband or for unmarried women to have access to contraception. Duration also has a positive effect on participation in decisions about buying consumer durables. But in most other cases, where there was any effect at all, it is the timing of the migration, the job one held when away, or the destination of migration that makes the difference. For example, migrating for the first time after marriage is correlated with the view that the ideal living situation is without one's parents-in-law; the motivation to earn money to build a house may be the explanation for this late timing for women's first migration,

while migrating before marriage reduces the incidence of domestic violence. In terms of the type of job one had upon first migrating, migrating to a factory job was shown to reduce returned migrants' willingness to argue with their husbands, to reduce their belief that unmarried women should have access to contraception and that premarital sex is not a moral problem, and to reduce their role in decisions regarding investments and their own migration. On the other hand, having one's first job as a migrant in a factory was positively correlated with the belief that it is OK to socialize with men other than your husband and not being beaten. Clearly, the rhythms of work and dorm life in the factory strongly affect the migrant experience and what is taken from it.

Finally, in terms of the destination of migration, in most of our equations this characteristic of migration had no significant effect on attitudes or agency. But in two very important areas – in the area of desired family size and girls' education – the modern view seemed to be brought home by migrants who had traveled to urban areas or at least to another province. On these attitudes it was the location of the destination, not the duration of time away, that significantly predicted women's answers.

As always, a study of women's position is only as good as the measures of women's position. We have offered a large number of measures that reflect the multidimensionality of women's empowerment, but these may still not be sufficient for understanding the dynamics of the complex relationship we are attempting to measure. We invite future scholars to use the similar questions in other surveys of Chinese women in order to provide comparisons, but also to improve on these questions to better capture the many nuances of women's empowerment.

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Notes

1. The system of household registration is currently undergoing significant revision, and there are signs that the situation regarding migrant settlement might change dramatically in the near future (Roberts, forthcoming)

2. Maurer-Fazio, Hughes, and Zhang (2005) have identified a substantial increase in labor force participation (which includes own-farm labor) by older rural women between the 1990 and the 2000 Chinese censuses. Much of this would appear to be caused by the migration of the younger generation to manufacturing jobs in urban areas.

3. According to Riley (2003) "joint is such a nebulous concept. If a women has a tiny little role in a decision, that's joint. But that kind of role (say she says to her husband, showing a tiny doubt, 'really, you think you want to buy that multiplex TV? Oh…') is different from an equally shared decision or one where the woman takes a larger role in the decision. But they all fall under the rubric 'joint'."

4. Even this statement is subject to some doubt based on the interesting work done by Ghuman, Lee and Smith (2000), who show that empowerment questions must be interpreted within the context of their society and are difficult to compare across locations.

5. While marrying a man who was not one's first boyfriend may simply be the direct result of migration if single women migrants find mates while they are away from home, most women in the sample did marry a man from their home county, and there is no significant difference in the proportion marrying outside the county by migration status.

6. One might consider including family income level, but income is endogenously related to having migrated, with women who had migrated having significantly higher current family income. Having a husband who had migrated was not significantly related to family income.

7. One disadvantage of the recursive probit model is that it requires a strong assumption that the errors are distributed bivariate normal. We did estimate 2SLS linear probability models which are less sensitive to the assumption on the error terms, and the results were essentially unchanged.

8. We used Limdep to estimate the bivarate probit and the marginal effects. Limdep allows us to calculate robust standard errors and adjust the standard errors for the clustering of the sample in villages. There are 38 villages in our data.

9. We used Stata's heckprob procedure which uses a maximum likelihood estimation procedure.

10. These partial derivatives are estimated acknowledging the discreet nature of the variables. The underlying probabilities of answering "yes" to the Y_j variable are evaluated at the mean of all the variables except "ever migrated", which is set first to one and then to zero. The derivative is based on the change in the expected probabilities, evaluated at ever migrated equal to one minus ever migrated equal to zero.

11. One possible explanation for the negative correlation may be that we should be more concerned about the selectivity of who returns from having migrated than we are with the selectivity of who initially migrates (though in 2000, when our data were collected, it was still safe to say that most migrants still returned). All else being equal, we expect those who benefit most from migrating would be less likely to return and appear in our sample of rural women, so returning migrants might have some unobserved characteristics that lead them to be less rather than more "empowered".

12. As in the full sample estimation of the effect of having ever migrated, most of the correlation coefficients related to the self selectivity of migrants into the sample of migrant women are not significant, indicating that the assumption of exogeneity would not have been misplaced for these Yj's. In other words, self selection is seldom confirmed as a problem in the estimates reported in Table 3

13. These results are essentially unchanged if we assume that having ever migrated is exogeneous to decision making. In the exogeneous estimation only women's migration and house building decisions were significantly influenced by migration status. In terms of the decision to build a house, the issue is increased standard errors in the model that corrects for potential endogeneity. As was the case with Table 3, the magnitude of the significant effects is greater in Table 4 than the model that assumes exogeneity. The correlation coefficients for the models presented in Table 4 are uniformly small and insignificant, indicating that assuming exogeneity should not be a problem in the context of these decision-making variables.

14. The results are the same if we treat ideal number of children as a continuous variable: having ever migrated is significantly related to lower ideal number of children.

15. One might be concerned the one's ideal living arrangement was highly correlated with their actual living arrangement, but the correlation is only .43. Clearly, many women imagine an ideal arrangement that is different from their actual one.

Table 1: Population and Economic Statistics of the Four Counties in 1999

County	Population (thousand)	Percentage population rural	GDP/capita (current yuan,)	Agricultural percentage of GDP	Land type
Huaining, Anhui	779.4	89.6	3,576	31	Alluvial Plain
Zongyang, Anhui	946.0	91.2	2,445	39	
Xingwen, Sichuan	423.0	89.4	1,974	41	Mountainous
Changning, Sichuan	422.0	90.5	2,969	36	Hilly

Data sources: Sichuan Statistical Bureau, *Sichuan Statistical Yearbook 2000*, China Statistics Press, 2000; Anhui Statistical Bureau, *Anhui Statistical Yearbook 2000*, China Statistics Press, 2000; *Social-Economic Statistics Summary by County (City) of China, 2000*, China Statistics Press, 2000.

Table 2: Descriptive Statistics of the Married Sample by Migration Status

Variable	*Ever migrated* *Yes*	*No*	*Entire Sample*
Ever migrated (%)	100.0	0.0	35.6
Mean Age	29.4	30.5	30.1
Mean age at marriage	21.7	21.7	21.7
Education (column %)			
Illiterate/some primary school	33.9	37.8	36.4
Primary school graduate/some middle school	43.6	43.9	43.8
Middle school graduate	22.5	18.3	19.8
Current occupation (column %)			
farming	56.0	77.9	70.1
paid job	24.0	3.4	10.7
self employed	6.8	2.8	4.2
housework	13.2	15.9	14.9
Mean age at first migration	23.9		
First migrated before marriage (%)	33.6		
First migrated to another province (%)	80.2		
First destination was big city	30.1		
First destination was mid-small city	48.3		
Duration of stay of first migration (months)	11.6		
Employment status in first migration			
unemployed	6.1		
self employed	24.6		
employee	68.2		
manager	1.2		
Primary job in first migration			
factory worker	41.1		
restaurant worker	15.2		
retailer	21.1		
other	22.6		
Migrated a second time (%)	38.9		
Sample Size	1,109	2,010	3,119

Table 3: Partial Derivatives of Determinants of Views of Male/Female Relationships

	(1) Couple decides whom to marry	(2) Believe unmarried women should have access to contraception	(3) Believe OK to divorce	(4) Believe OK to go out with another man	(5) Believe OK to refuse sex with husband	(6) Believe OK to ask for sex with husband	(7) Believe premarital sex is not a moral problem
All Married Women							
Ever migrated	0.2339***	0.1820*	0.1988***	0.0689	-0.0158	-0.0315	-0.0353
	(0.087)	(0.097)	(0.056)	(0.074)	(0.077)	(0.080)	(0.101)
Ever Migrated Married Women							
1st migrated before marriage	0.0470*	0.0102	0.0324	0.0223	0.0270	0.0221	0.0240
	(0.028)	(0.047)	(0.047)	(0.038)	(0.046)	(0.050)	(0.043)
Total months away from home	-0.0010	0.0025**	0.0007	0.0024*	0.0010	-0.0005	0.0013
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.002)	(0.001)
1st migrated to city or different province	0.0624	-0.0006	0.0644	0.0581	0.0483	0.1317	-0.0402**
	(0.051)	(0.055)	(0.071)	(0.055)	(0.081)	(0.081)	(0.056)
1st migrated to a factory job	-0.0120	-0.0773**	-0.0470	0.0951***	0.0517	0.0093***	-0.0949**
	(0.027)	(0.037)	(0.031)	(0.036)	(0.051)	(0.047)	(0.040)

Standard errors in parentheses
* significant at 10%; ** significant at 5%; *** significant at 1%

In this and the next three tables, the partial derivatives above the line are estimated using bivariate probit, which accounts for the endogeneity of the ever-migrated variable. The right hand side variables for the women's position indicator include whether the woman graduated from primary school, graduated from middle school, age, the age difference between the woman and her husband, and average village income. The right hand side variables in the ever-migrated equation include all those included in the position equation plus whether the woman lives in Anhui province, her husband's migration status, the proportion of the village estimated by village authorities to be currently migrating, the distance of the village to the nearest bus stop, the distance to the nearest train station, and indicators whether the terrain is flat, hilly or mountainous. The standard errors presented here are derived from a robust estimation procedure and are corrected for the clustering within villages.

The partial derivatives below the line are estimated using a maximum likelihood probit with selection model. Control variables not shown are the same as above. Robust standard errors that correct for clustering of the data are presented.

Table 4: Partial Derivatives of Determinants of Household Decision Making

	(1) Child-bearing	(2) Child's education	(3) Giving gifts	(4) Buying consumer durables	(5) Building house	(6) Investments or loans	(7) Women's migration	(8) Family planning
All Married Women								
Ever migrated	0.0184	0.0436	0.1898**	0.0367	0.1015	0.1113	0.2431**	0.0817
	(0.066)	(0.081)	(0.093)	(0.076)	(0.091)	(0.099)	(0.122)	(0.076)
Ever Migrated Married Women								
1st migrated before marriage	-0.0175	-0.0101	0.0280	0.0754**	-0.0365	0.0476	-0.0053	0.0303
	(0.031)	(0.040)	(0.022)	(0.031)	(0.034)	(0.040)	(0.023)	(0.027)
Total months away from home	0.0016*	0.0002	0.0010	0.0036***	0.0005	0.0007	0.0013	0.0011
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
1st migrated to city or different province	0.0285	-0.0229	0.0001	0.0682	-0.0671	0.0293	-0.0139	0.0271
	(0.055)	(0.042)	(0.024)	(0.055)	(0.046)	(0.062)	(0.035)	(0.037)
1st migrated to a factory job	-0.0185	0.0252	0.0065	0.0040	-0.0086	-0.0819**	-0.0459*	0.0363
	(0.028)	(0.027)	(0.017)	(0.033)	(0.027)	(0.034)	(0.026)	(0.022)

Standard errors in parentheses
* significant at 10%; ** significant at 5%; *** significant at 1%

Table 5: Partial Derivatives of Determinants of a Woman's Relationship with her Husband

	(1) Not married to first boyfriend	(2) Argue with husband	(3) Not beaten by husband
All Married Women			
Ever migrated	0.1173***	0.0329**	0.0665
	(0.018)	(0.017)	(0.062)
Ever Migrated Married Women			
1st migrated before marriage	0.0524	-0.0017	0.0782**
	(0.050)	(0.027)	(0.037)
Total months away from home	0.0002	0.0007	-0.0009
	(0.001)	(0.001)	(0.001)
1st migrated to city or different province	-0.0419	-0.0162	0.0893
	(0.036)	(0.036)	(0.060)
1st migrated to a factory job	-0.0130	-0.0615**	0.0535*
	(0.031)	(0.027)	(0.032)

Standard errors in parentheses
* significant at 10%; ** significant at 5%; *** significant at 1%

Table 6: Partial Derivatives of Determinants of Views on Intergenerational Relationships

	(1) Only One Child Desired	(2) Ideal Living Situation is Without Parents	(3) Girl's education is considered necessary
All Married Women			
Ever migrated	0.1356*	0.0463	0.1139
	(0.080)	(0.095)	(0.077)
Ever Migrated Married Women			
1st migrated before marriage	-0.0113	-0.0750***	0.0423*
	(-0.040)	(-0.028)	(0.022)
Total months away from home	0.0006	0.0006	0.0002
	(-0.001)	(-0.001)	(0.001)
1st migrated to city or different province	0.1080**	0.0560	0.0658*
	(-0.053)	(0.050)	(0.040)
1st migrated to a factory job	-0.0236	0.0219	0.0034
	(-0.028)	(0.042)	(0.014)

Standard errors in parentheses
* significant at 10%; ** significant at 5%; *** significant at 1%