Migration within China and from China to the USA: The effects of migration networks, selectivity, and the rural political economy in Fujian Province

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Abstract

This paper tests a new strategy to study domestic and international migration from China simultaneously. Our theoretical discussion draws on ideas from migration networks theory and the market transition debate. Data collection is modeled on the Mexican Migration Project. We find that education is more important in the initiation of internal migration than international migration. Second, although there is consistent evidence regarding the role of migration networks at a community level, migration networks at a family level show a different pattern compared to that in Mexico-US migration. Third, there is evidence that internal and international migration "deters" each other. Finally, we find that individuals with cadres in the family are less likely to undertake internal migration but more likely to participate in international migration, a finding that highlights the continuing significance of positional power in coastal rural China.

Keywords

domestic and international migration; China; migration networks; migrant selectivity; market transition

The twenty-first century is perhaps the best of times to study migration issues, both domestic and international. For the first time in human history over half of the world population lives in urban areas, mainly due to the flow of domestic rural to urban migration. At the international level, globalization, economic integration, the formation of transnational migration networks, and changing economic conditions in migrant-sending countries all combine to spur international migration as well (Held and McGrew 1999; Castles and Miller 2003). Students of migration have tackled many critical issues concerning the causes and consequences of migration. The field of migration studies has seen a major advancement in data collection, methodology, and theoretical innovations. However, with a few exceptions that focus on Mexico (e.g., Shadow (1979), Lindstrom and Lauster (2001), and Davis et al. (2002)), scholarly research tends to focus on either internal migration or international migration alone. Theoretical formulations often go in separate directions as well.

The typical divorce of internal and international migration may have been justifiable for a time when international migration was not a realistic option for individuals in a society, but that is no longer the case in many countries. Fundamental changes in the contemporary world create opportunities for individuals to choose between domestic and international relocation, and therefore provide renewed impetus for migration researchers to consider internal and international migration simultaneously.

Building on previous research, this study places both internal and international migration in the same context and examines the question of how individuals make decisions when facing three choices: move within a country, move to another country, or stay put. Specifically, we ask: how does migration work in the context of both internal and international migration? How is one decision (i.e. internal migration) related to the other (international migration)? The second question has a clear policy dimension. Given the fact that policy makers are increasingly concerned about emigration from China, a good understanding of the relationship between internal and international migration can provide empirical foundations for policy-making. In addition, our paper invokes two lines of theoretical discussion: one is the perspective of migration networks and the other is the market transition debate. In both cases, we derived hypotheses regarding how different individuals will act facing the choices of migration. Empirical analysis draws on the authors' recent bi-national survey of migration conducted in China and the United States.

The case for linking internal and international migration

Although the field of migration studies has a long history with contributions from several major disciplines, scholars have tended to focus on either internal migration or international migration alone. For the most part, studies of internal migration within developing countries have failed to consider international migration (Dang et al. (1997) on Vietnam, Poston and Mao (1998), Roberts (1998), and Fan (2008) on China, and Gerber (2006) on Russia). The same thing can be said about international migration studies.

Of course, it is entirely justified to study either internal or international migration on their own. But the time is right for researchers to consider both processes together as well. This is for three major reasons. First, many countries in the world are experiencing a significant rise in both internal and international migration (Skeldon 2006, 2008). China and Mexico are two major examples.

Second, the twenty-first century, perhaps more than ever, sees the forces of economic globalization and integration redefining national boundaries and easing international travel or migration. Perhaps there is no better example than the case of the European Union, which consists of 27 member states with over 500 million people (Ette and Sauer 2009). Border towns, which are often characterised by relatively relaxed entry and exit controls, form another case of places with more fluid migration, and can be exemplified by towns along China's border regions.

Third, studying internal and international migration together creates potential for providing a unified theory and methodology to study migration issues (White and Lindstrom 2005). For example, the new economics of migration, developed first by Stark and his associates in the context of internal migration in less developed countries, has been used fruitfully in the studies of international migration (Stark 1991; Massey and Espinosa 1997; Lindstrom and Lauster 2001). Likewise, using data from the Mexican Migration Project, Riverro-Fuentes (2004) examines migration networks at the community level (as measured by migration prevalence ratio for internal and international migration). Rivero-Fuentes' results show similar forces of cumulative causation for both internal and international migration, as well

as interaction effects between community level and individual level factors. In addition, the socio-demographic selectivity of migrants is well known to migration researchers (Feliciano 2005), but how selectivity works in consideration of both internal and international migration is not well understood (Lee 1966; Borjas 1987; Chiswick 2000).

Borjas (1987) links immigration selectivity to inequality in immigrant-sending countries and he argues that if the immigrant home country's inequality is higher than that of the United States, immigrants will be negatively selected. Although other studies have revealed different results (Taylor et al. 1996), paying attention to the labor markets in both sending and receiving societies provides important insights. As we will argue below, in the context of Fujian province in China, international migrants are less positively selected than internal migrants in China. This is because most of the international migrants from Fujian came to the U.S. without documents and most available jobs for them are in restaurants or garment factories, where there is no reward for higher education. We also expect a difference in age selectivity between international migrants and internal migrants. Given the long distance and high cost of international migration from China to the United States (Cao 2008), a younger migrant will be able to reap more rewards and benefits over a long time than an older migrant. In contrast, internal migrants are different– if things don't work out they can easily return to the home community.

A final point that makes this endeavor possible and realistic is the increased data availability on both internal and international migration. Some large-scale national surveys now include questions on international migration. For example, a Mexican national survey that contains information on international migration has been used by Massey and Zenteno (2000). In China, several national censuses and large-scale national surveys include questions (albeit limited) on international migration. Under the leadership of Douglas Massey and Jorge Durand, the ethnosurvey approach has been used successfully in the case of Mexico, several Latin American countries, and more recently in the case of China and Poland (Massey and Capoferro 2004).

It is therefore perhaps not an accident that in recent years more researchers have begun to move in the direction of studying international and domestic migration together rather than separately. For example, Lindstrom and Lauster (2001) were among the first to study the impact of local economic opportunity on the competing risks of internal and U.S. migration in the Mexican state of Zacatecas. One methodological issue arising from their study is related to the way they measure migration. Because they measure migration for the period of 1986-90, single and multiple migrations of either internal or international nature cannot be distinguished (Lindstrom and Lauster 2001, p. 1242). Furthermore, the impact of one type of migration on the other cannot be assessed.

Our study builds on previous studies in this area and considers both internal and international migration in Fujian, China. Like the other parts of China, there has been an increase in internal migration both from Fujian and within Fujian province. More notable is the dramatic increase in international migration from Fujian to the U.S. and Europe. We explore the impact of migration networks on internal and international migration and seek to explain whether prior internal migration experience increases the likelihood of international migration. To the extent that previous researchers take the community context into account, they usually center on the economic context and not so much on the political context. One important feature of our research is that we explicitly study the changing political context of migrant-sending communities. Transitional China provides a unique opportunity for doing this exercise.

Migration networks and the perpetuation of migration

Our empirical analysis was guided by two theoretical perspectives, the network theory of migration and the recent market transition debate (developed in the context of transitional societies such as China and Eastern European countries). In reviewing this literature, we aim to identify the strengths of previous studies and point out the areas to which this research promises to contribute.

A significant amount of research has been devoted to demonstrating the role of migration networks on the probability and perpetuation of migration. The idea of cumulative causation has been tested extensively by Massey and his colleagues over the past two decades (Massey et al. 1994; Palloni et al. 2001; Fussell and Massey 2004).

A central idea underlying many of the studies by Massey and his colleagues is the powerful role played by migration networks that link migrants in destination communities and potential migrants in migrant-sending communities. This is often manifested in the form of having a family member or friend who is a migrant. These networks reduce the costs of migration by providing aspiring migrants with information about the migration process, as well as about job availability and housing in the destination community. According to Fussell and Massey (2004), "other things being equal, people who come from communities from which migration is prevalent are more likely to migrate than people who come from places from which migration is rare" (p. 152). What is powerful about this process is the tendency for migration to alter community structures in ways that promote additional migration, a phenomenon that has been termed "cumulative causation". However, much of the discussion about cumulative causation in the literature has been in the context of international migration. We argue that the same logic should also apply to the case of internal migration. Although some authors (Munshi 2003; Krissman 2005) have identified limitations of the migrant networks approach (including potential endogeneity), it continues to be widely used in current migration studies.

While the idea of migration networks is not new, more recent research has produced major innovations to test and validate the role of migration networks in the context of international migration from Mexico to the United States (Massey et al. 1994; Palloni et al. 2001). For example, Massey and his colleagues have developed an innovative measure of migration networks–the migration prevalence ratio for a community. In other words, aside from particular migration networks derived from migrant family members, migration networks can also be measured at a community level. This migration prevalence ratio can also reflect changes in the prevalence of migration over time. Using this measure, Massey and his colleagues are able to show how migration selectivity changes as the level of migration prevalence varies across different migrant-sending communities and over time.

Our study replicates this migrant prevalence ratio measure, not only for international migration but also for internal migration (see De Brauw and Jiles (2008b) for research using a similar measure of migration networks in China). Compared to other studies, we make another innovation in the measurement of the impact of migration networks by introducing a time-varying effect of migration networks at the individual level. We expect the general mechanism of migration networks to operate in migrant-sending communities for both internal and international migrants. However, the specific process of international migration might work differently due to its high costs. In other words, it is difficult for a family to pay the cost of international migration for more than one member of the household during a short period of time. We suspect that the international migration of a family member does not increase the propensity of U.S. bound migration for another household member

immediately, but over time the impact of migration networks will manifest and lead to a high probability of international migration.

Migration and social stratification in rural China

The recent rise in international migration from China's Fujian province is clearly linked to China's opening up to the global community and transition to a market oriented economy since the late 1970s. Many scholars have studied how market transition has changed the mechanism of social stratification in rural and urban China (Nee 1989; Xie and Hannum 1996; Walder 2002a). Here we discuss some recent studies that examine how market transition changes the order of social stratification in China and elucidate its relevance to the study of international migration. In fact, our study site, Fujian province, is especially relevant to the market transition debate because Victor Nee (1989) initiated the debate on the consequences of China's market transition based on a mid-1980s survey conducted in Fujian province. In a series of papers, Nee outlined a theory that deals with formerly central planned economies that are now in the process of moving to a market-oriented economy (Nee 1996). Specifically, he argues that in rural communities village cadres will lose positional power and privileges in a market-oriented economy. Nee has tested his ideas using data from rural Fujian to examine self-employment and entrepreneurship among peasants. Other studies have followed suit (Bian and Logan 1996; Xie and Hannum 1996; Zhou 2000).

Migration (both internal and international) is an issue that has not figured prominently in the early debate of market transition (see recent exceptions by Pfaff and Kim (2003), Naughton (2007), and Fan (2008)). This may be justifiable for the early time period because of the relatively modest scale of the migrant population in China. However, with internal migration now reaching new heights, it would be counter-productive to ignore migration as an important factor in social stratification (see Wu and Treiman (2007) who link the hukou system with social stratification in China). This is especially relevant in rural China, where some communities see 15 to 30 per cent of households sending migrants to other parts of China.

Migration is linked to the market transition debate and the changing mechanisms of social stratification in significant ways. Market forces have led to a dramatic rise in internal migration as the demand for rural labor in coastal regions continues to increase and the role of China's household registration system (*hukou)* gradually erodes (Fan, 2008). Food and lodging can now be obtained through markets instead of government allocations based on urban *hukou* status. Migration can serve as a vehicle for socio-economic mobility, thus it is important to examine who has the opportunity to migrate. Most previous studies focus on income, but income is only one of the possible areas where tangible evidence of cadre advantages can be detected. Other variables of interest include access to housing (Logan at al. 1999) and migration opportunities. We focus on the latter, and our main question is: does a cadre household hold an advantage in terms of migration opportunities? Besides bringing migration into the discussion of the changing nature of social stratification in rural China, we also note that most of the surveys used in previous studies were conducted in the 1980s and 1990s. In light of the fast-changing pace of the Chinese economy and society, this paper offers more recent data which are needed to shed light on current debates in this area.

In this paper, we focus on the way in which cadre status affects migration opportunities for individuals and for their family members. In an important study of life chances of the sent-down youth during China's Cultural Revolution during 1966-76, Zhou and Hou (1999) showed that the children of high-rank officials were more likely to return from rural areas to urban places than those of parents with other occupations. The 'sent down youth" refers to

the episode of millions of urban youth were sent to the countryside as part of re-education campaign for urban youth during 1966-1976.

More recent studies of rural China have examined whether positional power (as measured by rural cadre status) lost favor in the 1990s, as Nee's theory would imply. Walder's studies (2002a and 2002b) suggest that rural cadre households continue to be advantaged in household income. More relevant to our current efforts, Guang and Zheng's research (2005) echoes the spirit of Walder's studies (2002a and 2002b) in suggesting that marketization does not take away the advantage of traditional power. They argue that migration is only "the second-best option "(Guang and Zheng 2005); rather, local peasants desire non-farm work more than migration because migrants tend to work in jobs that are both extremely difficult and poorly compensated. We expect this argument to hold in our case as well.

In light of the significant wage differentials that exist between China and the United States (McKenzie et al. 2006), international migration often leads to socio-economic advancement for individuals. We explore this issue in two ways. One is to investigate the extent to which people with positional power (such as village leaders/cadres) are likely to migrate internationally. Second, we explore whether aspiring migrants from households with rural cadres enjoy any advantage in the process of migration. Although international migration to the United States can be financially rewarding in the long run, it is not risk free. This is especially true for undocumented migrants from Fujian (Rosenthal 2000).

Any calculation of risks and benefits must take into account the individual's position in the migrant-sending community. Officially, the main role of village leaders is to implement policies from the central government. In these migrant-sending villages, village cadres are responsible for many important decisions, for example, making sure that any money that arrives from abroad is spent as the donors intended. Village cadres, such as the village head (*cunzhang*) and the party secretary (*shuji*), often enjoy some fixed amount of stipend in these Fujian migrant villages (Lu 2002, p. 173) in addition to other benefits such as receiving money for attending weddings and funerals.

In light of the advantages bestowed on village leaders, we do not expect village cadres themselves to be more eager to participate in internal and international migration than others. However, individuals from households with village cadres are more likely to be advantaged in international migration. Village cadres are often the first ones to gain information about any opportunity of going abroad. As the process of migration goes, it often involves many players: the boss of the smuggling organization (who rarely shows up in local villages), the recruiters who go to villages to recruit potential migrants, and the potential migrants themselves. In order to recruit migrants for a particular planned trip abroad, recruiters often need to get formal or informal permission from the village leaders. This gives the village cadres a special advantage if they perceive a good opportunity for a member of their own household. The above discussion led to an additional hypothesis: individuals from households with village cadres are more likely to migrate internationally than others.

The case of Fujian province, China

Fujian province, located on the southeast coast of China, is an ideal location for conducting the current study because both internal and international migrations are important in this region (Liang 2001). Fujian province has a long history of sending immigrants abroad, especially to Southeast Asia, but in recent years emigrants from Fujian have chosen United States as the major destination alongside other countries such as Japan, Italy and other European countries (Pieke et al. 2004; Zhang 2008). In the United States, the main

destinations of Fujianese immigrants are New York City and other locations along the east coast. This influx of emigrants from Fujian has provided a supply of labor for the mushrooming Chinese take-out places and buffet restaurants all over the United States. Furthermore, the Fujianese immigrants in Manhattan's Chinatown have become important players in politics, particularly as earlier arrivals gain economic success and become naturalized citizens.

Internal migration is also an important story in Fujian province, with 11.2 per cent of its population considered to be "floating", a term that refers to people who are not registered in the locations where they currently reside (Liang and Ma 2004). This includes both interprovincial migrants and intra-provincial migrants. More relevant to our study is the pattern of internal migration within Fujian province and interprovincial migration from Fujian to other provinces. The numbers of interprovincial migrants from Fujian reported in the 2000 Chinese census and the 2005 China One per cent Population Sample Survey are 810,576 and 1,284,400 respectively (PCO 2002 and 2007). Like migrants from other parts of China, a substantial proportion (over 30 per cent) of interprovincial migrants from Fujian went to Guangdong province in both 2000 and 2005. Other important destination provinces for migrants from Fujian are Shanghai, Jiangsu, and Zhejiang provinces.

Further analysis of the data from the 2000 Chinese census shows that 58 per cent of the intraprovincial migrants and 65 per cent of the interprovincial migrants from rural Fujian reported "manual labor or business" as the reason for migration. While the Chinese census does not separately identify manual labor and business, our survey data suggest that a high proportion of the internal migrant population belongs to the category of doing business rather than manual labor. In addition to the survey data, our visits to several factories located in towns near the survey sites also revealed a tendency to hire migrant workers from other parts of China, especially from Sichuan province.

In summary, Fujian provides an excellent case in order to better understand the relationship between internal and international migration in China. The prominence of both internal and international migration in Fujian's development story offers an opportunity to study both simultaneously. It also gives us the opportunity to examine how internal migration behavior affects the propensity to move internationally.

Data and methods

We adopted the ethnosurvey approach used in the Mexican Migration Project (MMP) (Massey 1987), modifying the MMP questionnaires to take into account the Chinese context. From February to June 2002, we designed three questionnaires to be used in the ethnosurvey: a household questionnaire to be used in China, a household questionnaire to be used in the United States, and a community-level questionnaire for the migrant-sending communities in China. The Chinese household-level questionnaire contained the basic information on the socio-demographic characteristics of each member of the household (including those who were abroad), as well as basic information on the internal and international migration history for all household members. For household heads and spouses, we also gathered marriage history, fertility history, labor history, and consumption patterns. At the household level, we obtained information on remittances in the year of the survey, the cumulative amount of remittances, business formation, ownership of land and other properties, housing conditions and tenure status.

Because of the low rate of return migration, our interviews tended to be with household members who remained in China rather than the immigrants themselves. Household members usually know the basic information about their migrant members (some of the

parents even arranged these trips) because international migration is a big event for family members as well as for the migrants themselves. Like all retrospective data, our survey is subject to recall bias (Smith and Thomas, 2003). For some events such as marriage and fertility which do not happen frequently, recall history is likely to be more accurate. However, for other events like employment history, accuracy might be lower, especially for individuals who have held many jobs throughout their life.

After some modifications, we finalized the questionnaires in the late summer of 2002 and carried out the fieldwork in late 2002 and 2003. Within the region of the Fujian provincial capital city, we selected eight towns as our survey sites. A typical town in this part of Fujian has a population of about 50,000 to 60,000 people, most of whom reside in rural areas. In choosing the specific towns for our survey, we first interviewed members of major Fujianese immigrant organizations in New York City. The idea was to identify common hometowns of Fujianese migrants in New York City, in order to ensure that the surveys in China would identify a reasonable number of international migrants. Similar to the design of the Mexican Migration Project, for each town we had a target sample of 200 households. That is, within each town we selected four villages using the systematic sampling method and then within each village we selected 50 households. This paper uses data from the survey conducted in Fujian province, which are representative of the migrant-sending communities in that region of China (see Liang et al. (2008) for additional discussion of data collection).

To test the hypotheses specified above, we created event history-type data. For each household in our sample, we randomly selected an individual who was 18 years old or above. For each of these selected individuals we constructed event history records since age 15 (in person-year format), which consist of individual marriage and migration histories (both internal and international migration), as well as information on education, previous (internal or international) migrants in the family, cadre status, and other socio-demographic variables. Most variables are time-varying; only three variables (gender, education and community type) are treated as time-constant. The advantages of event history analysis methods are well known. First, clear causal inferences are possible because the order of events is clearly specified. Second, for the time-varying covariates, the incorporation of more precise information at different time points allows predictions about individual behaviors. Third, event history methods can handle censoring issues so that no information on individuals who have not experienced the event (migration) will be wasted (Yamaguchi 1991; Allison 1995).

As noted in our earlier discussion of the literature linking internal and international migration, previous studies using data from Mexico have measured migration in a fixed interval: either a two-year interval before the survey (Curran and Rivero-Fuentes 2003; Rivero-Fuentes 2004), a three-year interval (Davis et al. 2002), or a five-year interval (Lindstrom and Lauster 2001). Two issues should be noted here. First, because of the way in which migration is measured, these studies are not able to distinguish the timing of each event (either internal or international migration), and so are not able to sort through the causal linkages between them. Second, examining migration within a fixed interval tends to mix first-time migrants with other migrants who make frequent trips to the destination country. To the extent that first-time migrants and repeat migrants are different, there may be biases associated with earlier studies. In contrast to these earlier studies, our event history analysis focuses on first time migrants only, for both internal and international migration; it also identifies the exact timing of each event.

Before turning to modeling issues, let us give more information on the migration related variables. Conceptually, we identified five potential paths or sequences of events individuals may experience as depicted in Figure 1: (1) internal migration only; (2) international

migration only; (3) internal migration followed by international migration; (4) international migration followed by internal migration; (5) no migration. Internal migrants were defined as people who left home for more than three months. These include both temporary migrants (the so-called "floating population") and permanent migrants (who change household registration). For individuals who experienced both internal and international migration events, the timing of the first event was treated as duration and the second event was treated as censored. Due to the very small number of individuals who followed path (4), they were not included in our analysis.

We estimated two sets of models. The first set of models is a multinomial logit approach estimating the competing risks of internal and international migration. It was estimated by maximum likelihood with parameters interpreted as logit coefficients (Box-Steffensmeier and Jones 2004).

The second set of models predicts international migration using internal migration as a covariate. In other words, we try to understand the extent to which internal migration affects international migration. For example, does internal migration provide an alternative to international migration? To deal with the clustering within surveyed communities, we used robust standard errors for our models using Stata software.

Following earlier work by Massey et al. (1994), we calculated the migration prevalence ratio at the village level for both internal and international migration. These ratios were calculated using every respondent's year of birth and the date of his or her first U.S. trip (for international migrants) or the first experience of internal migration. The denominator of the ratio is the number of people (15 years old or above) alive in a given year; the numerator is the number of these people who have ever been to the United States up to that year. A similar measure has been calculated for internal migration (including both intra-provincial and interprovincial migration).

Descriptive results

Figure 2 presents the trend of internal migration and international migration from Fujian using our survey data. (Note that these data are representative of U.S. bound migrant towns in Fujian province, but not representative Fujian province overall or of China.) We estimated a basic multinomial logit model of competing risks of internal and international migration using only two variables: time period (a series of dummy variables) and age. The two figures on internal and international migration are based on the predicted probabilities of internal migration and international migration from the above model using age 26, the mean age of migration. Overall, both internal and international migration increased in the early 1980s, following China's economic reform program. The level of internal migration in Fujian seems to be relatively stable (as compared to international migration), suggesting that internal migration at least for this part of Fujian province is not as important as international migration. International migration was clearly on a steady rise until the early 2000s. The major drop in 2002 in international migration possibly reflects some hesitancy among aspiring migrants right after the 9/11 tragedy in the United States. There is also some evidence of a link between the two types of migration; that is, the decline in internal migration in early 1990s was accompanied by a major increase in international migration. It seems that as soon as international migration (financially more rewarding but more risky than internal migration) became a realistic choice, internal migration became less attractive.

We also analyzed the spatial patterns of Fujianese internal migration. In terms of interprovincial migration from Fujian to the other provinces, Guangdong, Jiangxi, Shanghai, and Jiangsu stand out as the most popular destinations. As to intraprovincial migrants, most

went to Fuzhou, the provincial capital city as well as center of political and economic activities within the province. Among international migrants, 94 per cent chose to go to the United States. For this reason, our analysis focuses on US-bound migration only.

Table 1 compares the basic socio-demographic characteristics of four groups of individuals: internal migrants, international migrants, individuals with both internal and international migration experiences, and non-migrants. The results confirm some well-known findings on migration selectivity. One interesting finding is that internal migrants seem to be better selected on education than international migrants (especially at the high end of the education categories). Individuals who have both internal and international migration experiences appear to have the best education.

Major findings

Table 2 shows results from the multinomial logit event history model of migration, treating international migration and internal migration as competing events. First, consider international migration. The results suggest that having a family member who had previously migrated internationally does not have a significant effect on an individual's propensity to migrate. This is a finding that contradicts most of the studies on international migration from Mexico to the United States. However, this finding must be considered within the Chinese context of escalating smuggling fees, which make it impossible for a family to send more than one person abroad in a short period of time.

Consistent with Massey et al. (1994), the community emigration prevalence ratio has a positive impact on international migration. As suggested by Massey et al. (1994), migration network ties between earlier migrants who came from the same village and potential migrants in these communities provide an important resource, serving both as a channel of information regarding potential migrant destinations and as means of support for settlement at the destination.

Several findings regarding internal migration are worth mentioning. First, consistent with the case of international migration, the internal migration prevalence ratio at the village level shows an important impact, suggesting that migration networks linking fellow villagers operate effectively. Second, a comparison of the corresponding odds ratios from the models of international migration and internal migration yields important findings. Education seems to play a more important role for internal migration than for international migration. People in the three less educated categories are significantly less likely to have migrated internally than those with the highest level of education. In contrast, results on international migration from Table 2 show that only one education variable (senior high school) is statistically significantly different to the highest level. This suggests that education is a more important sorting mechanism for internal migrants than for international migrants from Fujian. The jobs available for Fujianese immigrants in the United States mainly concentrate in restaurants and garment factories, neither of which rewards high educational credentials. A higher propensity to migrate internally among those with the highest education is also consistent with the observation that those internal migrants from Fujian province are likely to be engaged in business rather than factory work.

Consistent with previous studies, age variables are powerful predictors for both international and internal migration, but with a slight difference. The likelihood of internal migration is highest in the age group below 25 and the propensity to move internationally tends to decline by age. We also tested using age 20-24 as reference category, and the results were similar. The results show that the age group 20-24 is significantly different from all other categories for internal migration and all categories but 15-19 for international migration.

Third, having international migrants in the family deters individuals from internal migration. If we view migration as a family strategy (Stark 1991), then in situations where international migration already provides a comfortable safety net for the household, there will no longer be a strong incentive to migrate internally. In addition, our fieldwork surveys revealed that migrant households often calculate money in terms of U.S. dollars. Thus, even if the internal migrants' wages seem lucrative in terms of Chinese currency, once converted to the U.S. dollars, they will not seem as attractive.

Table 3 reports results from the discrete time logit model of international migration, treating internal migration as a covariate. The basic idea is to examine whether internal migration experience "deters" international migration. In fact, both intraprovincial and interprovincial migrations have a negative impact on international migration. In other words, individuals who have internal migration experience are less likely to migrate internationally, perhaps because domestic opportunities already give them satisfactory rewards. In addition to variables in Model A, Model B includes the international migration prevalence ratio. A comparison of Model A and Model B reveals that the introduction of the migration prevalence ratio reduces the significance of the number of years since the departure of the earliest family member, but increases the significance of having a previous international migrant in the family. This suggests that individuals in places with a high migration prevalence ratio are more likely to have a relative who migrated previously.

An important variable related to the market transition debate is village cadre status. Consistent across Tables 2 and 3 is the finding that village cadres are less likely to participate in both internal and international migration compared to non-cadres (although the results are statistically insignificant in the case of internal migration). One reason is that such people already tend to be doing well, enjoying respect, power and material rewards. Consistent with earlier research, having a cadre family member reduces the likelihood of internal migration for other family members because cadres usually use their connections and power to assign non-farm work to their family members, thereby eliminating the need to migrate to other places for work (Guang and Zheng 2005). In contrast, having a cadre family member greatly increases the probability of international migration for the other members of the family. This is again related to the power and connections of village cadres. As international migration becomes a more attractive and realistic choice, cadres are able to use their connections to send their relatives to the United States. Furthermore, we found no significant interaction between cadre status and year, suggesting that there is no detectable difference in the positional power of cadres in response to market changes. We should note the possibility of endogeneity of cadre status (Li et al. 2008), but given the lack of an appropriate instrument, we were not able to formally model this.

Discussion and conclusion

Using recent data from Fujian province, we have conducted a systematic analysis of internal and international migration and contributed to the migration literature in three ways. First, our results are consistent with the literature on migration networks but with some important twists and qualifications. To be sure, for both internal and international migration, migration networks (measured by the migration prevalence ratio at the village level) clearly play an important role in promoting the migration of other members of the community.

Second, internal migration networks and international migration networks seem to work independently; in fact, at the community level we fail to find any appreciable impact of internal migration networks on international migration behavior (and vice versa). This makes sense because information derived from migration networks tends to be location specific. That is, information related to internal migration is not likely to be directly useful

for going to the United States (and vice versa). These findings underscore the benefit of a comparative perspective that examines international migration across different countries; it also highlights the benefit of studying both internal and international migration together (Portes 1999; Skeldon 2008). They also provide a stronger empirical foundation for theory building in migration research.

Our third contribution to the migration literature is to introduce the migrant-sending community's political context into the study of migration. By bringing the issue of migration into the discussion of the market transition debate, this study improves our understanding of two lines of inquiry. Although the extant research on market transition has significantly advanced our knowledge of the changing mechanisms of social stratification, most studies unnecessarily focus on income. We demonstrate that migration is another lens through which the mechanisms of social stratification can be observed. In addition, migration studies pay attention to community context, but often focus exclusively on economic context, thereby ignoring important political factors. Previous research on internal migration suggests that cadres usually use their positional power to assign non-farm jobs to family members so that they do not have to migrate to another place in China. However, in the case of international migration, when a lot more reward is at stake, cadres seem to use their positional power to facilitate the international migration of their family members, thus attesting to the persistence of cadre power.

It is well established that migration is selective on certain socio-demographic characteristics of individuals, but this line of inquiry is often done in the context of either internal or international migration. Our research design allows us to compare the selectivity of internal and international migration on individual-level characteristics. One important comparison is particularly worth noting here: education effect. It is well established that internal and international migrants are better educated overall than non-migrants. However, evidence from our study suggests that education plays a more important role in internal migration than international migration. Here we provide some substantive interpretations. Located along the coastal region, Fujian is attractive to young labor migrants from other provinces. Thus migrants from Fujian to other places are often individuals who conduct business (investment in factories and other new businesses such as internet cafés) rather than work as manual laborers. Education is not as important among international migrants because the typical occupations (e.g., restaurant related jobs) in the U.S. for these migrants do not generally require a good education.

Our paper also speaks to the relationship between internal and international migration. Our results suggest that prior internal migration experience does deter international migration. But the precise mechanism for this finding is difficult to ascertain. Perhaps people with internal migration experience are already deriving adequate benefits and so they no longer have the incentive to go abroad, especially when significant risks are involved.

What is clear is that people tend to pursue either an internal or an international migration career, but are not likely to do both. In this regard, the worry that China's monumental volume of temporary migrants, the floating population, may be candidates for international migration proves to be an overreaction. This finding is reinforced by our ethnographic observations in a migrant-sending town in Fujian province about 70 miles away from the communities where we conducted our surveys. A key characteristic of this town is that the local people go to other places in China to do business. Capitalizing on the popular market demand for internet services and computer games, people from this town become engaged in internet café businesses in other places in Fujian province and then eventually expand to other provinces. This surprised us because the town's physical proximity to the international migrant-sending communities suggests that they would be more likely to become

international migrants than to become internal migrants. We note that internal migrants in this case are more likely to be small entrepreneurs or their close associates, and they are therefore not the typical internal migrant laborers that we observe from major migrant-sending provinces of Sichuan and Anhui. Of course, from a policy perspective, we need to identify and foster such opportunities so that individuals can take advantage of these opportunities not far from home.

Finally, we are among the first to explore some of the ways in which internal and international migrations can be examined together in China; this research demonstrates the utility of this approach in the areas of migration selectivity, migration networks, rural political economy, and the relationship between internal and international migration. We expect the need for this kind of approach to increase over time as globalization and economic integration make international migration more accessible to a larger segment of the world population. Our study is obviously the beginning of a much larger enterprise, and there are certainly characteristics of Fujian that make it unique. On this point, it will be important to expand this kind of research to other areas of China. For example, Wenzhou city, in coastal Zhejiang province which saw a major increase in both domestic and international migration (mainly to Europe), is another promising case for studying internal and international migration together. We hope our work can stimulate future research in this direction so that scholars of both internal and international migration join forces to pursue research questions that deal with other aspects of the migration process.

Acknowledgments

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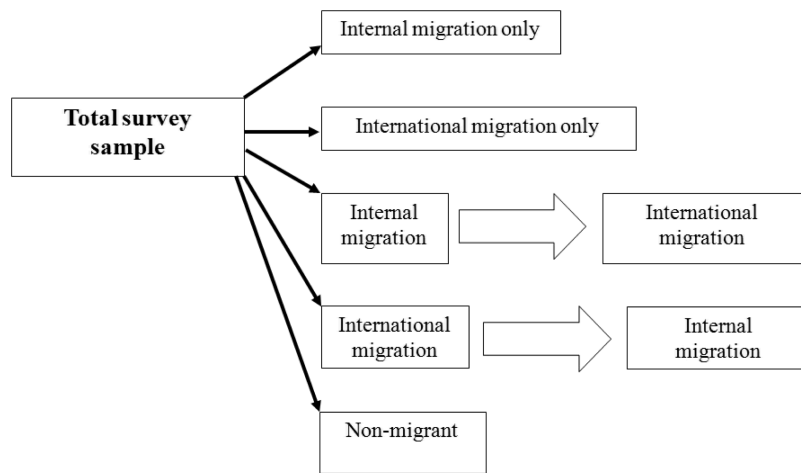**Figure 1.**
Internal and international migration pathways
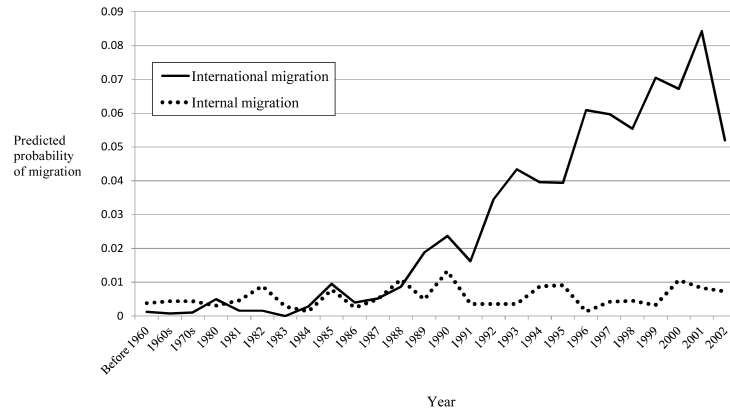*Source*: China International Migration Project.

Figure 2.
Trend of internal and international migration from Fujian, China
Source: China International Migration Project.

Table 1

Descriptive statistics of the survey sample, Fujian, China, 2002-2003

Variables	Internal migrant only (%)	International migrant only Migrant of both types (%)	Non-migrant (%)
Age				
15-19	3.39	3.68	3.57	6.76
20-24	11.86	16.36	10.71	10.15
25-29	11.02	22.70	7.14	10.00
30-34	12.71	19.22	21.43	11.47
35-39	15.25	16.77	25.00	9.85
40-44	7.63	5.93	3.57	9.71
45-49	10.17	7.57	10.71	13.53
50-54	7.63	3.27	3.57	9.71
55-59	8.47	1.64	7.14	5.44
60 +	11.86	2.86	7.14	13.38
Sex				
Male	52.54	64.83	92.86	36.32
Female	47.46	35.17	7.14	63.68
Marital status				
Ever married	85.59	72.84	85.71	83.51
Never married	14.41	27.16	14.29	16.49
Education				
No formal education	3.39	3.31	0	14.48
Elementary school	27.97	24.79	21.43	36.93
Junior high school	40.68	48.97	32.14	33.83
Senior high school	16.10	18.18	32.14	10.04
Vocational high school	5.93	1.86	7.14	2.07
College or above	5.93	2.89	7.14	2.66
Cadre				
Yes	11.97	1.65	0	7.84
No	88.03	98.35	100.00	92.16
Cadre in the family				
Yes	13.56	26.58	17.86	19.85
No	86.44	73.42	82.14	80.15
Prior internal migrant in the family				
Y e s	18.64	20.86	21.43	27.21
No	81.36	79.14	78.57	72.79
Prior international migrant in the family				
Y e s	74.58	52.15	32.14	85.74
No	25.42	47.85	67.86	14.26
Place of Origin				

Variables	Internal migrant only (%)	International migrant only Migrant of both types (%)		Non-migrant (%)
Rural	93.22	93.05	92.86	95.15
Urban	6.78	6.95	7.14	4.85
Total 1315	118	489	28	680

	Internal migration	International migration	No. of communities
Mean migration prevalence ratio	0.10	0.38	33

Note: Age and migration prevalence ratio variables are measured at time of survey.

Source: China International Migration Project.

Table 2

Multinomial logit event-history model predicting migration (treating international migration and internal migration as competing events), estimated using survey data collected in Fujian, China, 2002-2003

Independent variables	International migration		Internal migration	
	e^{β}	(t)	e^{β}	(t)
Age				
15-19	6.94	(6.84)**	7.39	(2.23)*
20-24	12.27	(8.38)**	9.37	(2.68)**
25-29	8.78	(8.44)**	3.58	(1.44)
30-34	7.81	(6.85)**	3.17	(1.38)
35-39	5.59	(5.55)**	1.08	(0.08)
40-44	4.53	(4.79)**	2.02	(0.84)
45+ (reference)	----		----	
Male	2.89	(10.78)**	1.68	(2.59)**
Ever married	1.01	(0.07)	1.69	1.58
Education				
Elementary school or less	1.05	(0.22)	0.11	(−6.75)**
Junior high school	1.53	(1.76)	0.26	(−4.25)**
Senior high school	1.96	(2.88)**	0.32	(−2.93)**
Vocational high school or college (reference)	----		----	
Cadre	0.41	(−2.33)*	0.30	(−1.21)
Cadre in the family	1.35	(2.11)*	0.36	(−2.59)**
Prior internal migrant in the family	1.01	(0.08)	1.24	(0.85)
Prior international migrant in the family	0.78	(−1.76)	0.47	(−1.46)
Number of years elapsed since the earliest emigrant family member left	1.02	(1.44)	0.90	(−1.23)
Rural community	0.85	(−1.08)	1.28	(0.97)
Internal migration prevalence ratio at village level	1.10	(0.68)	3.36	(7.47)**
International migration prevalence ratio at village level	1.54	(4.84)**	1.07	(0.45)
Year				
Before 1985 (reference)	----		----	
1985	6.09	(3.83)**	1.61	(1.36)
1986	2.48	(1.59)	0.48	(−1.06)
1987	3.20	(2.33)*	0.95	(−0.11)
1988	5.03	(4.35)**	1.98	(1.74)
1989	10.14	(6.97)**	0.89	(−0.25)

Independent variables	International migration		Internal migration	
	e^β	(t)	e^β	(t)
1990	11.68	(9.14)**	2.13	(2.25)*
1991	7.22	(4.45)**	0.63	(−0.86)
1992	13.50	(6.89)**	0.63	(−0.67)
1993	15.52	(7.31)**	0.66	(−0.89)
1994	12.33	(6.46)**	1.50	(1.24)
1995	11.96	(8.26)**	1.51	(1.04)
1996	15.46	(8.21)**	0.23	(−1.40)
1997	14.09	(8.09)**	0.73	(−0.57)
1998	11.42	(6.51)**	0.73	(−0.46)
1999	13.67	(6.06)**	0.50	(−0.86)
2000	11.39	(5.91)**	1.61	(1.10)
2001	12.34	(5.80)**	1.30	(0.34)
2002	7.00	(4.27)**	1.13	(0.16)
Intercept	0.00008	(−19.78)**	0.00109	(−7.95)**
Log pseudolikelihood	-2608.99			
Number of person-years	25636			

*
$p < 0.05$

**
$p < 0.01$

Note: Coefficients are presented in exponentiated (odds ratio) form. Numbers in parentheses are t-statistics.

Source: China International Migration Project.

Table 3

Discrete-time event-history model predicting international migration (treating internal migration as a covariate), estimated using survey data collected in Fujian, China, 2002-2003

Independent variables	Model A		Model B	
	e^{β}	*(t)*	e^{β}	*(t)*
Age				
15-19	6.61	(7.76)**	6.42	(7.41)**
20-24	11.07	(9.33)**	10.95	(8.91)**
25-29	8.67	(10.94)**	8.41	(10.05)**
30-34	7.32	(8.47)**	7.05	(8.11)**
35-39	5.25	(6.81)**	5.18	(6.47)**
40-44	3.92	(4.61)**	3.99	(4.72)**
45+ (reference)	----		----	
Male	3.06	(11.85)**	3.11	(12.19)**
Ever married	1.06	(0.28)	1.04	(0.18)
Education				
Elementary school or less	1.13	(0.57)	1.02	(0.11)
Junior high school	1.61	(2.03)*	1.49	(1.64)
Senior high school	1.97	(2.83)**	1.98	(2.91)**
Vocational high school or college (reference)	----			
Cadre	0.37	(−2.64)**	0.35	(−2.70)**
Cadre in the family	1.33	(1.92)	1.35	(2.12)*
Had internal migration experience				
None (reference)	----		----	
Intraprovincial	0.44	(−4.26)**	0.47	(−3.90)**
Interprovincial	0.43	(−2.31)*	0.47	(−1.96)*
Prior internal migrant in the family	0.95	(−0.48)	1.03	(0.34)
Prior international migrant in the family	0.87	(−1.14)	0.76	(−2.24)*
Number of years elapsed since the earliest emigrant family member left	1.05	(2.90)**	1.03	(1.74)
Rural community	0.86	(−1.09)	0.85	(−1.06)
International migration prevalence ratio at village level	----		1.47	(4.96)**
Year				
Before 1985 (reference)	----		----	
1985	6.65	(3.99)**	6.17	(3.85)**
1986	2.75	(1.75)	2.53	(1.61)
1987	3.63	(2.55)*	3.27	(2.35)*

Independent variables	Model A		Model B	
	e^β	(t)	e^β	(t)
1988	6.93	(5.41)**	5.91	(4.99)**
1989	14.93	(7.59)**	11.97	(7.07)**
1990	16.67	(10.41)**	12.29	(8.99)**
1991	12.11	(5.76)**	8.31	(4.81)**
1992	23.68	(8.34)**	14.65	(7.11)**
1993	33.20	(9.16)**	18.77	(7.80)**
1994	28.39	(8.14)**	14.82	(7.07)**
1995	27.95	(12.25)**	13.56	(9.08)**
1996	40.31	(11.86)**	17.82	(8.87)**
1997	42.49	(13.33)**	17.18	(9.76)**
1998	37.04	(10.55)**	13.82	(7.56)**
1999	51.27	(10.83)**	17.41	(7.18)**
2000	51.17	(12.23)**	15.66	(8.12)**
2001	58.52	(13.55)**	16.60	(7.81)**
2002	33.92	(8.80)**	9.27	(4.98)**
Intercept	0.00008	(−23.22)**	0.00008	(−22.19)**
Log pseudolikelihood	−2010.05		−1990.51	
Number of person-years	28007		28007	

*
$p < 0.05$;

**
$p < 0.01$

Note: Coefficients are presented in exponentiated (odds ratio) form. Numbers in parentheses are t-statistics.

Source: China International Migration Project.