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Chapter 18

Education and Attitudes towards Internal Migrants in China*

18.1 Introduction

The number of internal migrants in China accelerated after the early 1980s. Before that time, the so-called hukou household registration system restricted severely rural to urban movements. Imposed in the 1950s, the hukou system requires that every person register their permanent residence and type of work (agricultural or non-agricultural) with local government authorities. In order to migrate, the person either requests an official change of hukou location — which was originally very difficult but has progressively become easier since the 1980s — or migrates without such change of residence, either by using temporary migration permits or other means (non-hukou migrants). The official estimates based on the 2010 Census are that the number of non-hukou migrants in China was about 260 million, up from about 30 million in the late 1980s (Chen and Feng, 2012, p. 3).

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These migrants are often referred to as the country's floating population or *liu dong ren kou* (Goodkind and West, 2002, and Li, 2006). Given that they have not changed hukou location, most of these migrants do not have access to local social safety nets as well as to public education and health benefits.

Internal migrants in China tend to be relatively young, male and with low educational attainment (Chen, 2011). Data from the 2004 Rural Migration Survey of the National Bureau of Statistics (RMS) show that as much as 45 percent of the migrants were 25 years of age or younger. They are relatively unskilled, with estimates from the 2004 RMS showing that 83 per cent of migrant workers had completed no more than nine years of schooling. Most migrants are men, with data from the 2004 RMS indicating that two-thirds were male. The lower likelihood of women to migrate is connected to the greater involvement of women in taking care of children and older family members, which forces them to remain in rural areas.

The next section provides a discussion of the literature on attitudes towards internal migrants in China and a review of the international literature on opinions towards migrants. Later sections describe the data utilized in this essay, the research methodology, results, and conclusions.

18.2 Attitudes towards Migrants in China

There is now a substantial literature examining the socioeconomic status of migrants in China, including their wages (Wang, Oropesa and Firebaugh, 2013; Leng, 2012; Gagnon *et al.* (2009); and Demurger *et al.*, 2009), employment (Roberts, 2001, and Quheng and Gustaffson, 2006), occupations (Kondo and Ou, 2010), job search processes (see Giulletti *et al.* (2012) and Long, Appleton and Song, 2013), labor market discrimination (Meng and Zhang, 2001; Demurger *et al.*, 2009, and Gagnon *et al.*, 2009), education of their children (Lai *et al.*, 2014; Chen and Feng, 2012, and Tan, 2010), and other aspects of their socioeconomic status (Peilin and Feng, 2011, and Tan, 2010).

There is, however, not much formal, statistical research examining the opinions and attitudes of the general population towards

migrants. Evidence of negative attitudes confronting migrants has surfaced from psychological and sociological studies (see Wong, Chang and He, 2007; Wong and Song, 2008, and Roberts, 2002). And a number of studies have suggested that the lack of protections and public benefits faced by many non-hukou migrants, combined with their lower average levels of schooling and low socioeconomic status, appear to have generated a group of the population which is considered as inferior by their fellow Chinese. The potential for discrimination and abuse has been noted by organizations such as Amnesty International (see Amnesty International, 2007) and supported by case studies, qualitative analysis and journalistic reports and documentaries on the troubles of the migrants themselves. As Guan (2010, p. 22) observes:

“Although migrants play an indispensable role in economic growth in China, they are frequently portrayed negatively. Rural-to-urban migrants. . . are perceived as a threat to social stability, and are often linked to the increase in crime rates in cities. They are also perceived as competing with unemployed urban residents who have been laid off from the state-owned enterprises. . . Indeed, the hostility displayed by urban citizens has hurt migrants’ self-image and self-esteem, and has widened the social gap between migrants and citizens.”

There is some research examining attitudes towards migrants in urban China, but the studies have been small in scale and focused on specific cities or urban areas in the country. In the mid-1990s, Solinger (1999) conducted a survey of urban residents, asking their general opinions towards migrants. He found that 74 per cent of Shanghainese blamed migrant workers for at least three of the following four urban problems: crime, transport problems, unemployment and environmental degradation. A similar result is obtained by Nielsen, Nyland, Smyth, Zhang and Zhu (2006), who carried out a comprehensive survey of the attitudes towards migrants of 885 local urban residents working in 23 enterprises in 6 cities in Jiangsu Province, which is one of the coastal provinces attracting large numbers of migrant workers. They found that 62.0 per cent of urban locals felt migrant workers responsible for up to three out of four problems: unemployment, overcrowding, security and hygiene in the city.

The perceptions of urban residents towards internal migrants in China are reminiscent of the attitudes displayed towards immigrants in recipient countries. In fact, some of the sociological literature on attitudes towards internal migrants argues that one can conceptualize the negative views towards these migrants by urban residents as being similar to those attached to ethnic or even racial bias. Following the sociological literature, Zhou *et al.* (2011) note that there are “similarities between racism in western countries and discrimination against migrant workers by urban residents in China. . . the term ‘race’ here seen broadly and defined as a concept that signifies and symbolizes social conflicts. . . The segregation of hukou has resulted in the formation of two distinct ethnic groups, the urban and the rural (cheng hanzu and xiang hanzu), and the gap between the two is deep-rooted and difficult to cross.”

Given the similarities in the experiences faced by rural migrants in Chinese urban cities and those of immigrants in recipient countries — and given the shortage of research by economists or other social scientists on the determinants of attitudes towards internal migrants — the next section provides a brief review of the literature on the determinants of attitudes towards immigrants in the United States and European countries.

18.3 Education and the Determinants of Attitudes towards Migrants

The literature studying the determinants of the attitudes of natives towards foreigners in recipient countries is extensive. Some of these studies are concerned with the theory of how different individuals or interest groups may be affected by immigrants and how these may influence their attitudes (Benhabib, 1996, and Ortega, 2005). Others focus on empirical analysis of survey and other data to study how attitudes towards foreigners are formed (Gang, Rivera-Batiz and Yun, 2013; Facchini and Mayda, 2012; Card, Dustmann and Preston, 2012; Gang, Rivera-Batiz and Yun, 2010; Mayda, 2006; Bauer, Lofstrom, and Zimmermann, 2000); Krueger and Pischke, 1997; and Gang and Rivera-Batiz, 1994).

One of the most common explanations for anti-immigrant attitudes is based on the economic impact of the migrants. It is hypothesized that in countries where economic strain is present, with stagnant or collapsing income and/or employment opportunities, immigrants will be partly blamed for the economic stress thus generating the resentment of the native-born population. Whether immigration does in fact act to lower wages or reduce unemployment opportunities is a matter of debate: the statistical connection between economic variables and attitudes towards migrants found in previous research is based on *perceptions* about how migrants affect the economy, perceptions that are not necessarily based on reality. For example, there is now ample research showing that the economic impact of immigration on the wages and employment opportunities of natives varies and, overall, the impact is small (see Ottaviano and Peri, 2012; Gang and Rivera-Batiz, 1994; Rivera-Batiz and Sechzer, 1991, and Card, 1990). But people may be influenced by rumors and stories reported in the media or heard in the streets about the immigrant invasion which is taking jobs away from them. Those who are directly competing with immigrants for jobs and who may be seeking a factor to blame for job losses, may be more responsive to these rumors and biased stories, developing strong negative attitudes towards foreigners particularly if the press and politicians make the topic a big issue.

Indeed, another major explanation for the emergence of negative sentiments towards immigrants is ethnic or racial prejudice, whose strength is often related to the presence and concentration of immigrants within particular communities. In the United States, historically, there is substantial evidence that racial prejudice was a major factor behind restrictionist movements that reduced immigration flows from particular countries or regions, such as China and Mexico. Racial prejudice has also been found in many of the anti-immigrant activities documented in the last few years in European countries.

Educational attainment is a variable that has been found in the previous literature to constrain negative attitudes towards immigrants. For instance, Gang, Rivera-Batiz and Yun (2013) examine

the determinants of attitudes towards immigrants among European Union citizens, and the changes in these attitudes between 1988, 2003 and 2008. Using a multivariate statistical analysis of the determinants of attitudes towards immigrants, they find that educational attainment is a strong antidote to anti-migrant attitudes. They conclude that rising average schooling in Europe as well as more positive attitudes towards immigrants by the highly educated has ameliorated anti-immigrant attitudes (see also Facchini and Mayda, 2012; Krueger and Pischke, 1997; Mayda, 2006).

The negative connection between increased schooling and anti-migrant sentiments found in the literature may be due to the fact that in most countries and regions of the world, migrants tend to have significantly lower education than natives in the recipient countries or areas. As a result, more educated residents in recipient areas may not feel that they are directly competing with migrants in the labor market and therefore that their jobs or wages are under threat because of increased migration. In fact, they may see the migrants as complements, benefiting them instead of potentially hurting their economic status. Less educated natives, on the other hand, may perceive they are directly competing with the migrants, fueling anti-migrant sentiments.

Alternatively, education may reduce negative attitudes towards migrants because in many countries school and university curricula emphasize civility and tolerance towards persons of different backgrounds and seek to reduce the ignorance often linked to prejudice. As persons go through school systems that favor diversity and promote the integration of migrants, anti-migrant attitudes may diminish.

But some studies have not found that increased education reduces in significant way negative attitudes towards migrants. Indeed, this is the result of several studies in China. Sociologists Y. Zhou, Y. Wang and W. Chen (2011, p. 2), for example, find that: “there is . . . a negative relationship . . . between education and attitude toward equality for migrant workers.” Increased educational attainment may generate anti-migrant attitudes for a number of reasons. For one, if the migrants are highly-educated, then natives with more schooling may

fear for their jobs. But in China, for example, rural to urban migrants tend to be less educated than urbanites, so other explanations are necessary. One hypothesis is that urban anti-immigrant attitudes may be connected to fears that increased migration will deteriorate the quality of life in recipient regions, due to congestion, increased crime, etc. These perceptions may not be based on reality, but fueled by prejudice and bias. They may therefore affect more intensely the more-educated population that is isolated from where the migrants live and may react more intensely to any instances where migrants have been involved in crimes.

In addition, the school systems in recipient areas may not be contributing towards reducing anti-migrant attitudes. In China, as noted earlier, the hukou system has acted effectively to make migrants a separate group in society, segregating migrant children from the children of urban residents, and generating a population with limited legal rights, stimulating the perception that they are inferior to urban residents. Indeed, some sociologists have argued that urban populations with higher socioeconomic status in China may have developed a sub-culture of privilege that distances them from migrants, who are considered as belonging to a different sub-culture towards which they do not have any positive attitudes (see Irwin, 1999).

So, what is the impact of education on attitudes towards migrants in China? The following sections examine the data and empirical strategies adopted in this paper.

18.4 The Determinants of Attitudes towards Migrants in China: Empirical Methodology

This paper utilizes the 2005 wave of the Chinese General Social Survey (CGSS), which includes a series of detailed questions asking respondents to identify their opinions towards migrants. The CGSS is an annual survey carried out since 2003 by Renmin University, the Hong Kong Sciences and Technology University, and other universities and organizations in China. The surveys draw random cross-sectional samples of the population in China each year and interview a set of individuals 18 years of age or older, asking them a core set of

detailed background questions on their socioeconomic status as well as that of the households where they reside.

These are four questions relating to attitudes towards migrants in the CGSS used in this paper: (1) Are you willing to work with them? (2) Can you tolerate them living in your neighborhood? (3) Can you tolerate them living next to you? (4) Are you willing to invite them as guests in your home? (5) Do you consent that your sons, daughters and other relatives court them?

The dependent variable used in the estimation for each question is a categorical variable equal to one or zero based on the responses to the attitude questions. For instance, the responses to the question: "Can you tolerate [migrants] living in your neighborhood?" are coded into a variable PRO-MIGRANT, which is equal to one if the person answered yes and zero if the person answered no. Each question is analyzed separately, as a different dependent variable examined independently of the others. Only individuals residing in urban areas are included. For each question, the analysis will be carried out first including both males and females but later the analysis is separated for males and females.

In order to identify statistically the relative influence of the variables just listed on attitudes towards migrants, a separate probit analysis of each of the five PRO-MIGRANT variables defined earlier is carried out. In the probit analysis, the probability of observing positive attitudes towards migrants on the part of person i of gender m (where $m=1$ for male and $m=2$ for female) is defined as being equal to:

$$P_{im} = \text{Prob}_{im}(\text{PRO-MIGRANT} = 1) = \Phi(\beta'X_{im}),$$

where Φ is a standard normal cumulative distribution function, β is a set of estimated coefficients and X includes various explanatory variables to be specified below.

More specifically:

$$\begin{aligned} \beta'X_{im} = & \beta_{0m} + \beta_{1m}\text{EDUC}_{im} + \beta_{2m}\text{MALE}_{im} + \beta_{3m}\text{AGE}_{ij} \\ & + \beta_{4m}\text{UHUKOU}_{im} + \beta_{5m}\text{ETHNIC}_{im} + \beta_{6m}\text{SOCIALC}_{im} \end{aligned}$$

$$\begin{aligned}
& + \beta_{7m} \text{INTENSITY}_{im} + \beta_{8m} \text{MARITAL}_{im} \\
& + \beta_{9m} \text{COASTAL}_{im} + \beta_{10m} \text{CENTRALR}_{im} \\
& + \beta_{11m} \text{FINCOME}_{im} + \beta_{12m} \text{FULLYEMP}_{im} \\
& + \beta_{13m} \text{UNEMP}_{im} + U_{ij}
\end{aligned} \tag{1}$$

where U_{ij} is a stochastic disturbance term and the explanatory variables represent the different forces that may lead individuals to have negative or positive opinions towards migrants, as defined next.

1. EDUC, representing educational attainment or years of schooling. It is expected that education is inversely associated with negative attitudes towards migrants, partly because educational systems usually act to reduce prejudice and bias, and partly because more educated residents are less likely to be negatively affected by the less-skilled migrants who have flowed into China's cities. However, as discussed in the last section, some of the existing literature on China's migrants has found increased education is not associated with more positive attitudes towards migrants.
2. MALE is a dummy variable equal to one if the person is male and zero if female. This variable could be positive or negative as there may be different forces affecting how male and female urban residents see migrants. The economic approach would suggest that since most migrants are male, it would be male urban residents who — holding other things constant — would feel more threatened by the increased labor market presence of the migrants. On the other hand, sociologists have argued that social conventions may not favor urban women having friendships with migrant men, which could generate more negative attitudes of urban women towards migrants. There may be other social forces that could make females have more negative attitudes towards migrants. Wang and Schwartz (2015) find that rural [migrant] women are much more likely to marry urban men than rural men are to marry urban women. The increased competition in the marriage market may therefore make women in urban areas have more negative attitudes towards migrants, holding everything else the

same, while the increased supply of potential marriage partners for urban men would make them more positive towards migrants.

3. AGE, to incorporate a generational impact on attitudes. One could expect that, since younger persons may have been exposed to more diverse urban environments and, therefore, may be less ignorant about migrants, they would have more positive attitudes towards them. On the other hand, migrants tend to be young workers and young urbanites may be more fearful of competition with them in urban labor markets, which would generate negative attitudes towards the migrants.
4. UHUKOU is equal to one if the person had an urban hukou and zero otherwise. Since only urban residents are included in the analysis, persons with a non-urban hukou (UHUKOU=0) would have been officially registered in rural households and would generally be migrants, while those with an urban hukou (UHUKOU=1) would be urban natives or urbanites. Although one would expect migrants to have more positive attitudes towards other migrants, so that the variable would have a negative coefficient, some of the immigration literature suggests that because of potential competition with other migrants it is possible that the variable could have a positive coefficient.
5. ETHNIC is equal to one if the person declares he or she is a member of the Mongolian, Manchu, Hui, Tibetan, Zhuang, Uygur or other ethnic or national minority group, and zero otherwise. Although most of the population in China is part of the Han ethnicity, there are a variety of ethnic minority groups in the country. Because these groups may be in greater competition with the migrants, it could be expected that they would have more negative attitudes towards them.
6. SOCIALC is a variable that ranges from 1 to 5 and is based on the question: are you familiar with your neighbors? With answers ranging from not familiar at all (SOCIALC=1) to very familiar (SOCIALC=5). It is expected that persons who are more familiar with their neighbors are more likely to be less ignorant and stereotypical of migrants and would, therefore, have more positive attitudes towards them.

7. **INTENSITY**, an index that intends to measure whether the person has had more contacts with migrants. It is derived from the following questions asked by the 2005 CGSS: Have you had a migrant person as your co-worker? Are there any of them living in your neighborhood? Are there any of them living next to you? On the basis of these three questions, the index, **INTENSITY**, was developed to measure the intensity of the contact between the interviewee and migrants. If the answer to all the questions is yes, the value of the index is 3 and if the answer is no to all questions, then the index is 0, and so on. The index will rise according to the extent to which the person has had more contacts with migrants. Note that a greater presence of migrants in the neighborhood or workplace where the person resides (which would be reflected in higher values of the **INTENSITY** index) might lead to stronger negative attitudes towards them. As noted earlier, the literature on attitudes towards immigrants finds that increased intensity of contact with immigrants is often associated with negative attitudes towards the immigrants, but the fears and racial and ethnic prejudice associated with immigrants may not be translated to internal migrants in China, whose contribution to Chinese economic growth is widely recognized, and are generally part of the Han Chinese majority. Instead, increased intensity of contact between migrants and urbanites may lead to a reduction of ignorance about them, greater understanding of the plight of these hard working individuals, and to a more positive attitudes towards them and their contribution to Chinese society.
8. **MARITAL**, reflecting the role of marital status. It is introduced as a dummy variable, equal to one if the person is married and zero otherwise. One expects this variable to be associated with more negative attitudes towards migrants because any perceived negative economic effects of the migrants will be magnified for married persons, who have to manage the economic affairs of a multi-person household that is likely to include children and/or other dependents.
9. **COASTAL**, which is a dummy variable equal to one if the person resides in a coastal province, which includes: Shanghai, Beijing,

Tianjin, Zhejiang, Guangdong, Liaoning, Shandong, Fujian and Jiangsu, and zero otherwise. CENTRAL is a dummy variable equal to one if the person resides in a central province of China, including Hebei, Shanxi, Jilin, Heilongjiang, Anhui, Jiangxi, Henan, Hubei, Hunan, Guangxi, and Hainan, and zero otherwise. These variables are introduced as fixed effects to control for differences in attitudes due to region-specific forces. It is expected that urban residents in the coastal and central provinces may have more negative attitudes towards migrants because of the greater labor market competition these residents face from the migrants, who have migrated in more numbers to these coastal areas.

10. FINCOME is a variable equal to the family income reported by the respondent. Previous studies examining attitudes towards immigrants tend to find that higher socioeconomic status is associated with more positive attitudes towards migrants, whether because of lower fears about possible negative impacts of migrants on jobs and wages, or because those with higher socioeconomic status may have business interests that benefit from migrants. But the existing, sociological literature on attitudes towards internal migrants in China (Irwin, 1999; Zhou, Wang and Chen, 2011) does not find that more persons living in households with greater income have more positive attitudes towards migrants. Note, however, that the previous literature on Chinese attitudes towards migrants have used very limited datasets and these hypotheses need a closer examination using the more comprehensive set of questions available in the 2005 CGSS, as examined in the present paper.
11. A set of explanatory variables denoting employment status are included, which includes fully-employed (FULLYEMP), and partly employed/unemployed (PART/UNEMP), as opposed to the remaining categories, which represent persons out of the labor force. As was noted above, the existing literature on attitudes towards immigrants suggests employment status is a major factor influencing attitudes. It is expected that persons who are unemployed will have stronger negative attitudes towards

migrants, relative to other categories, because of the fears that migrants may be taking their jobs. On the other hand, those who are fully-employed would have more positive attitudes since they do not have to be afraid of the competition faced by the migrants and, instead, may see migrants as being complementary inputs.

18.5 Results

The results presented in this section pull together the male and female samples of the 2005 CGSS. The next section reports the results disaggregated by sex. The probit coefficients are reported first and marginal probabilities are discussed later.

Sample Means

Table 18.1 shows the distribution of answers that were given by sample participants to the five questions they were asked to respond in the 2005 CGSS regarding their attitudes towards migrants. The table shows that a substantial portion of the Chinese urban population had negative attitudes towards the migrants. With respect to question 1, asking whether the person was willing to work with migrants, 73.2% said yes and 26.8% said no. But as additional questions were asked, the percentage with pro-migrant attitudes declines. For question 2, asking whether they would tolerate the migrants living in their neighborhood, the percentage saying yes was 67.2 percent. For question 3, asking whether they would tolerate migrants living next

Table 18.1. Attitudes of Urban Residents in China towards Migrants.

Attitudes Question	% Yes	% No
1. Are you willing to work with them?	73.2%	26.8%
2. Can you tolerate them living in your neighborhood?	67.2%	32.8%
3. Can you tolerate them living next to you?	58.0%	42.0%
4. Are you willing to invite them as guests to your home?	52.0%	48.0%
5. Do you consent to your sons, daughters and relatives courting them?	42.3%	57.7%

Source: CGSS, 2015.

to them, the percentage of urbanites saying yes drops to 58 percent. For question 4, asking if they would be willing to invite the migrants as guests to their home, the percentage saying yes drops further to 52 percent, and for question 5, asking if they would consent to having their sons, daughters and relatives courting a migrant, only 42.3 percent answered yes.

The purpose of this paper is to study what factors can explain the negative attitudes towards migrants displayed in Table 18.1. The focus of the following discussion is on the results of the probit analysis for question 1. Note, however, that the signs and statistical significance of the coefficients on the various explanatory variables for each question do not tend to differ significantly by question; only their absolute value tends to vary. In any case, the results for questions 2 through 5 are presented in Feng (2016).

Table 18.2 displays the sample means for the probit equation that uses a pooled male and female sample of persons in the 2005 CGSS. The sample consists of 46.7 percent males and 53.3 percent

Table 18.2. Sample Means for Probit Equation, Pooled Male and Female Sample.

Variable	Sample Mean
EDUC (Years of schooling)	9.7 years
MALE (% Male)	46.7%
AGE	44.7 years
UHUKOU (1=urban hukou, 0=rural hukou)	91.0%
ETHNIC (1=minority, 0=majority Han Chinese)	4.9%
SOCIALC (1=not close to neighbors, 5=very close)	3.4
INTENSITY (0=no contact with migrants, 3=substantial)	1.7
COASTAL (1=residence in coastal provinces, 0 otherwise)	45.6%
CENTRAL (1=residence in central provinces, 0 otherwise)	35.6%
MARITAL (1=married, 0=not married)	80.5%
FINCOME (Family income in previous year)	27,818 Yuan
FULLYEMP (1=Fully employed, 0=otherwise)	39.2%
PART/UNEMP (1=Unemployed or Part-time Employed)	22.9%
OUTLF (1=out of labor force, 0 otherwise)	37.9%
Number of observations	6,074

Source: 2005 CGSS.

females. Persons who did not answer one or more of the questions used to determine educational attainment, age, etc. were eliminated from the analysis. The number of missing observations was equal to 7.5 percent of the total sample used in this essay and so it does not constitute a serious problem. The rate of excluded observations was 7.1 percent for men and 7.8 percent for women.

As Table 18.2 shows, the average years of schooling in the sample was 9.7 years, their mean age was 44.7 years, 91 percent of them had a permanent household urban hukou (were not migrants or urbanites), 4.9 percent were in a minority ethnic or national group, 45.6% lived in the coastal provinces, and 80.5 percent were married. In terms of the index of social closeness, SOCIALC, defined with a range of values from 1 to 5, with 1 implying the person was not familiar with his or her neighbors and 5 very familiar, the average value for the sample was 3.4. For the index of INTENSITY — with extreme values equal to 0 if the person had no migrant co-workers or neighbors, and three if they had migrant co-workers, migrants living in the neighborhood and migrants living next to them — the average value was 1.7. In terms of the economic variables included in the analysis, the sample mean for annual family income was 27,818 yuan, 39.2 percent of the sample was fully-employed, 22.9 percent were either unemployed or employed part-time, and 37.9 percent were out of the labor force.

Results, Pooled Male and Female Sample

What explains positive versus negative attitudes towards migrants? Table 18.3 displays the estimated coefficients for the probit equations that include the explanatory variables identified earlier. The first column presents the results including only social, demographic and personal characteristics of the individuals while the second column adds the economic variables (family income and employment status). The dependent variable is based on the answers to question 1, equal to one if the person was willing to work with migrants and zero if he or she was not willing to work with migrants.

The first result seen in Table 18.3 is that the coefficient on education, though positive in value, is statistically insignificant at any conventional level of confidence. This contradicts the existing

Table 18.3. Probit Analysis of Pro-Migrant Attitudes with Pooled Male and Female Sample.

Explanatory Variable	Social Variables Coefficient, t Value	Social + Eco Variables Coefficient, t Value
CONSTANT	0.6915* (5.3)	0.5809* (4.0)
EDUC	0.0026 (0.5)	-0.0010 (-0.2)
MALE	0.1596* (4.3)	0.1431* (3.6)
AGE	-0.0109* (-7.9)	-0.0097* (-5.9)
UHUKOU	-0.2721* (-3.7)	-0.2664* (-3.4)
ETHNIC	0.0235 (0.3)	-0.0065 (-0.1)
SOCIALC	0.0354** (1.9)	0.0414** (2.1)
INTENSITY	0.3807* (21.9)	0.3805* (20.9)
MARITAL	0.0636 (1.3)	0.0588 (1.1)
COASTAL	-0.2521* (-4.8)	-0.2877* (-5.2)
CENTRAL	-0.1505* (-2.8)	-0.1525* (-2.7)
FINCOME	—	0.00015* (2.6)
FULLY EMPLOYED	—	0.1097** (2.1)
PART/UNEMPLOYED	—	0.0541 (1.0)
No. of Observations	6,074	5,642
Chi-Square Statistic	715 (99% confidence level)	690 (99% confidence level)

Note: t statistic in parenthesis. One star represents statistical significance at a 99% level of confidence and two stars at a 95% level.

international literature, which finds that increased educational attainment is usually associated with positive attitudes towards migrants. However, it is consistent with the limited literature that has examined opinions about migrants in China (Irwin, 1999; Zhou, Wang and Chen, 2011).

What could explain this result? One hypothesis, mentioned earlier, is based on the power of education to reduce ignorance and prejudice against migrants. In countries subject to immigration, governments in the recipient nations often emphasize the importance of assimilating the migrant population, a task that is spearheaded by the school system. So, the curricula of schools include cross-cultural, inclusive modules, and the teachers are trained in culturally sensitive methods, which are then communicated to children of all races and ethnicities in schools. But because migrants are not from any particular ethnic or national minority group in China, the education

system in urban China has not incorporated into its curriculum or in its teacher training any components that deal with the treatment of migrants. In fact, since for decades the government's official policies have effectively discriminated against the urban migrant population, including the provision of schooling for the children of migrant workers, one could argue that this segregation may have contributed to the absence of more positive attitudes towards migrants among the urban Chinese.

Is gender a significant factor in attitudes towards migrants? Table 18.3 shows that men tend to have much more positive attitudes towards migrants, with the coefficient on the MALE variable in the first column of Table 18.3 being statistically significant at the 99 percent level of confidence. This again does not support the economic approach, which would argue that since most migrants are male, they would be most likely to compete with male urbanites — holding other things constant, including education — and urban males would therefore have more negative attitudes towards them. Instead, the results in Table 18.3 support arguments that have been made by sociologists in relation to the gender and migration phenomenon in China. First, social conventions that frown against urban women having friendships with migrant men would imply that urban women would be more segregated from most migrants and this could generate more negative attitudes towards them. Second, sociologists argue that the marriage market in urban China favors urban men marrying rural women, which might make urban men have more positive attitudes towards the migrants while urban women, who would not consider migrant men as an attractive marriage possibility, would have more negative attitudes towards them. These hypotheses seem to be supported by the results of the research in this dissertation.

Table 18.3 reports that older urban residents have more strongly negative attitudes towards migrants. This tends to contradict the simple economic approach, which argues that since migrants tend to be young workers, the urban young population would be more fearful of competition with them in urban labor markets, which would generate negative attitudes towards the migrants, holding

other things constant. The alternative, more sociological, hypothesis is that younger urbanites may have been exposed to more diverse urban environments and, therefore, would be less ignorant about migrants, and have more positive attitudes towards them, everything else the same.

Do migrants have more positive attitudes towards other migrants? One would expect that social and family links as well as solidarity sentiments would make migrants have more positive attitudes towards other migrants, but some of the immigration literature suggests that because of potential labor market competition, migrants could have more negative attitudes towards other migrants. In Table 18.3, the variable UHUKOU is equal to one if the person had an urban hukou and zero if he or she had a rural hukou. As shown, the coefficient on this variable is negative and statistically significant at the 99 percent confidence level, suggesting that rural migrants do have more positive attitudes towards fellow migrants than urban residents.

Table 18.3 also examines how being part of an ethnic and national minority might affect attitudes towards migrants. The variable ETHNIC is equal to one if the person is a member of a minority and its coefficient, although positive in column 1, is not statistically significant at conventional levels of confidence, suggesting minority groups do not appear to have more positive or negative views towards migrants, holding other things constant.

People who are more familiar with their neighborhood are bound to be more informed about the actual behavior and situation of migrants and less likely to follow more ignorant, stereotypical views of this population. That is why the coefficient on the variable SOCIALC is expected to be positive, being associated with more positive attitudes towards migrants. The values of this variable ranges from 1 to 5, with a one associated with a person who is not “familiar with their neighbors” and 5 is “very familiar” with their neighbors. As reported in Table 18.3, the probit coefficient is positive and statistically significant at the 99 percent level of confidence, confirming the expectation that people who are more familiar with their neighborhoods have more positive attitudes towards migrants.

Table 18.3 reports the effects of the variable INTENSITY, an index that varies from 1 to 3, with a value of 3 meaning that the person has migrants as coworkers, in the neighborhood and living next to him or her, while a zero means that the person has no migrants present at work or in the neighborhood or vicinity. Based on the literature on attitudes towards immigrants, one would expect to find that an increased presence of migrants would have a negative impact on attitudes because (1) it may generate greater fears that the migrants will take jobs away and reduce wages, (2) it may trigger prejudicial fears that the urban environment (cleanliness, safety, etc.) will deteriorate because of the visibility of the migrants. But, as was explained in a previous section, the existing international literature is based on attitudes towards immigrants, where racial and ethnic prejudices play a major role. These phenomena may not therefore apply to internal migrants in China, whose contribution to Chinese economic growth is widely recognized, and are generally part of the Han Chinese majority. By contrast, an increased presence of migrants may be associated with prosperity by urbanites, triggering more positive attitudes towards them. Also, an increased migrant presence may lead to greater face-to-face contact with them and may reduce misconceptions and stereotypes about them. Indeed, the coefficient on the INTENSITY variable is both positive and statistically significant at the 99 percent level of confidence, confirming these hypotheses for the case of internal migrants in China.

The variable MARITAL is a dummy variable equal to one if the person is married and zero otherwise. Based on the previous literature, the hypothesis is that this variable is associated with more negative attitudes towards migrants because married persons tend to have greater demands on their economic situation, especially if they have children or relatives living with them, and this can trigger fears that the migrants will take jobs from them. This does not appear to be supported by the data: the coefficient on MARITAL is not statistically significant at conventional levels of confidence and, in any case, is positive.

In contrast to some of the results obtained so far, the conventional wisdom based on the previous literature seems to prevail in

the results for the explanatory variables, COASTAL and CENTRAL, which are equal to one if a person resides in provinces in these geographical areas. The hypothesis, based on the previous literature, is that both of these variables should have negative signs because these provinces have been inundated with migrants and urban residents in them may fear that the migrants will take jobs from them or lower wages. The coefficients on both, COASTAL and CENTRAL, are negative and statistically significant at the 99 percent confidence level.

The second column of Table 18.3 presents the results of adding a set of crucial economic variables that are hypothesized to have an impact on attitudes towards migrants. These are: annual family income (FINCOME), a dummy variable equal to one if the person was fully-employed and zero otherwise (FULLYEMP), and another dummy variable equal to one if the person was partly employed/unemployed and zero otherwise (PART/UNEMP), as opposed to the remaining categories, which represent persons out of the labor force. Note that, as one compares columns 1 and 2, the signs of the coefficients on the statistically significant variables discussed earlier do not change, and the value of the coefficients remains of the same order. So, the following discussion focuses on the results obtained on the economic variables added to the equation.

The first of these variables is annual family income (FINCOME). The existing international literature tends to find that higher socioeconomic status is associated with more positive attitudes towards migrants because (1) it reduces fears about possible negative impacts of migrants on jobs and wages, and/or (2) those with higher socioeconomic status may have business interests that benefit from migrants. But the sociological literature on attitudes towards internal migrants in China (Irwin, 1999; Zhou, Wang and Chen, 2011) does not find that persons living in households with greater income have more positive attitudes towards migrants. They explain this result by arguing that urban populations with higher socioeconomic status may have developed a sub-culture of privilege that distances them from migrants. But the previous literature have had very limited datasets available. What does an analysis of the 2005 CGSS find?

The results in the second column of Table 18.3 support the hypothesis that greater family income is associated with positive attitudes towards migrants, with the coefficient on FINCOME positive and statistically significant at the 99 percent level of confidence.

The coefficient on the fully-employed variable is positive and statistically significant at the 95 percent level of confidence. This is consistent with the hypothesis that the fully-employed should have more positive attitudes towards migrants since they do not have to be afraid of the competition faced by the migrants and, instead, may see migrants as being complementary inputs. The coefficient on the unemployed/partially employed variable, is positive, but it is not statistically significant at conventional confidence levels.

The coefficients in Table 18.3 do not provide a measure of how each explanatory variable affects the likelihood of pro-migrant attitudes towards migrants, as they need to be combined with the values of the explanatory variables in order to calculate marginal effects. Table 18.4 presents the marginal effects calculated at the sample means, as provided by the MARGINS command in STATA. These show how the probability of having more positive attitudes towards migrants is altered when the explanatory variable changes, holding other variables constant. The variables MALE, UHUKOU, INTENSITY, COASTAL, CENTER AND FULLYEMP appear to provide the stronger effects on the probability of employment, per unit changed in the explanatory variable. For instance, the second column of Table 18.4 shows that being female tends to reduce the probability of having positive attitudes towards immigrants by 0.0418.

The result that gender has a significant effect on attitudes towards migrants leads to the question as to what factors may explain these differences. Do education, age or other variables operate differently in affecting the opinions of men and women towards migrants? The next section examines this issue.

Results, Male and Female Samples Disaggregated

Table 18.5 displays the differences in attitudes towards migrants on the basis of gender, as represented by the responses on the five questions present in the 2005 CGSS. In all cases, women tend to have

Table 18.4. Marginal Probabilities of Pro-Migrant Attitudes with Pooled Male and Female Sample.

Explanatory Variable	Equation:	Equation:
	Social Variables Marginal Effect (dy/dx)	Social + Eco Variables Marginal Effect (dy/dx)
EDUC	0.0008 (0.5)	-0.0003 (-0.2)
MALE	0.0469* (4.3)	0.0418* (-3.7)
AGE	-0.0032* (-8.0)	-0.0028* (-5.9)
UHUKOU	-0.0799* (-3.7)	-0.0778* (-3.4)
ETHNIC	0.0069 (0.3)	-0.0019 (-0.1)
SOCIALC	0.0104** (1.9)	0.0121** (2.1)
INTENSITY	0.1119* (24.6)	0.1111* (23.5)
MARITAL	0.0187 (1.3)	0.0172 (1.2)
COASTAL	-0.0741* (-4.8)	-0.0841* (-5.2)
CENTRAL	-0.0442* (-2.8)	-0.0445* (-2.7)
FINCOME	—	0.00005* (2.6)
FULLY EMPLOYED	—	0.0320** (2.1)
PART/UNEMPLOYED	—	0.0158 (1.0)
No. of Observations	6,074	5,642

Note: t statistic in parenthesis. One star represents statistical significance at a 99% level of confidence and two stars at a 95% level.

Source: 2005 CGSS.

Table 18.5. Attitudes of Urban Residents in China towards Migrants: By Gender.

Attitudes Question	Male		Female	
	%Yes	%No	%Yes	%No
1. Are you willing to work with them?	76.2%	23.6%	70.4%	29.6%
2. Can you tolerate them living in your neighborhood?	69.5%	30.5%	65.3%	34.7%
3. Can you tolerate them living next to you?	59.8%	40.2%	56.5%	43.5%
4. Are you willing to invite them as guests to your home?	54.1%	45.9%	49.6%	50.4%
5. Do you consent to your sons, daughters and relatives courting them?	44.8%	55.2%	40.2%	59.8%

Source: CGSS, 2005.

Table 18.6. Sample Means for Probit Equation, Separate Male and Female Samples.

Variable	Sample Mean	
	Male	Female
EDUC (Years of schooling)	10.3 years	9.1 years
AGE	45.0 years	44.4 years
UHUKOU (1=urban hukou, 0=rural hukou)	92.0%	90.2%
SOCIALC (1=not close to neighbors, 5=very close)	3.4	3.5
INTENSITY (0=no contact with migrants, 3=substantial)	1.7	1.6
COASTAL (1=in coastal provinces, 0 otherwise)	45.7%	45.6%
CENTRAL (1=residence in central province, 0 otherwise)	35.4%	35.8%
MARITAL (1=married, 0=not married)	79.7%	81.3%
FINCOME (Family income in previous year)	29,450 yuan	26,388 yuan
FULLYEMP (1=Fully employed, 0=otherwise)	47.7%	31.8%
PART/UNEMP (1=Unemployed or Part-time Employed)	21.0%	24.5%
OUTLF (1=out of labor force, 0 otherwise)	31.3%	43.7%
Number of observations	2,634	3,008

Source: 2005 CGSS.

less positive attitudes towards migrants. For example, in response to question 1, “are you willing to work with them (migrants),” 76.2 percent of men answered yes while 70.4 percent of women did. Similar outcomes are obtained for the other questions.

As before, the focus in this paper will be on explaining the answers to question 1. However, note that the sign of the coefficients obtained do not vary significantly depending on the question analyzed, although the marginal effects may change (see Feng, 2016).

The sample means for the variables used in the probit equations disaggregated by gender are presented in Table 18.6. These sample means do not diverge much between the two groups, although men do have 1.2 more years of schooling, women have about 90 percent of the average family income men have, and there is an almost 16 percentage point difference in the percentage of fully-employed in the male and female sample, with men having the substantially higher proportion,

Table 18.7. Probit Analysis of Pro-Migrant Attitudes: Separate Male and Female Samples.

Explanatory Variable	Equation for Males Coefficient, t Value	Equation for Females Coefficient, t Value
CONSTANT	0.9285* (4.0)	0.4792* (2.6)
EDUC	0.0024 (0.3)	-0.0060 (-0.8)
AGE	-0.0103* (-4.0)	-0.0098* (-4.3)
UHUKOU	-0.2711** (-2.2)	-0.2660* (-2.7)
SOCIALC	0.0111 (0.4)	0.0668* (2.5)
INTENSITY	0.3927* (14.4)	0.3713* (15.2)
MARITAL	0.0340 (0.4)	0.0830 (1.2)
COASTAL	-0.3166* (-3.9)	-0.2732* (-3.7)
CENTER	-0.1756** (-2.1)	-0.1403 (-1.9)
FINCOME	0.00003* (2.5)	0.000007 (1.0)
FULLY EMPLOYED	-0.0336 (-0.4)	0.2203* (3.1)
PART/UNEMPLOYED	-0.1535 (-1.7)	0.1928* (2.7)
No. of Observations	2,634	3,008
Chi-Square Statistic	311 (99% confidence level)	378 (99% confidence level)

Note: t statistic in parenthesis. One star represents statistical significance at a 99% level of confidence and two stars at a 95% level.

Source: 2005 CGSS.

which is also reflected in much higher rates of women out of the labor force when compared to men. Despite these differences, the values of the sample means for most of the other determinants of attitudes are similar for men and women, so one would expect that the less positive attitudes towards migrants by women may be due to the impact these variables have on attitudes (differences in the coefficients and marginal effects of the explanatory variables).

Table 18.7 shows the coefficients of the estimated probit equations disaggregated by gender and Table 18.8 presents marginal effects. Several variables have different signs in the male and female equations. Education is one of them, although the coefficients are not statistically significant at conventional levels of confidence. In the male equation, the coefficient is positive while in the female equation it is negative, suggesting that, for women, higher education tends to be associated with more negative attitudes towards migrants. For men,

Table 18.8. Marginal Probabilities of Pro-Migrant Attitudes with Separate Male and Female Samples.

Explanatory Variable	Equation for Males	Equation for Females
	Marginal Effect (dy/dx)	Marginal Effect (dy/dx)
EDUC	0.0007 (0.3)	-0.0018 (-0.8)
AGE	-0.0028* (-4.1)	-0.0030* (-4.4)
UHUKOU	-0.0741** (-2.1)	-0.0816* (-2.7)
SOCIALC	0.0030 (0.4)	0.0205* (2.5)
INTENSITY	0.1073* (16.1)	0.1138* (17.0)
MARITAL	0.0093 (0.4)	0.0254 (1.2)
COASTAL	-0.0865* (-3.9)	-0.0838* (-3.8)
CENTER	-0.0480* (-2.1)	-0.0430 (-1.9)
FINCOME	0.000007* (2.5)	0.000002 (1.1)
FULLY EMPLOYED	-0.009 (-0.4)	0.0676* (3.1)
PART/UNEMPLOYED	-0.0420 (-1.7)	0.0591* (2.7)
No. of Observations	2,634	3,008

Note: t statistic in parenthesis. One star represents statistical significance at a 99% level of confidence and two stars at a 95% level.

Source: 2005 CGSS.

the opposite holds, but the impact is not statistically significant. These results continue to support the conclusion arrived earlier that increased schooling is not reducing negative attitudes towards internal migrants in urban China.

The labor force status variables also appear to have different effects for men and women. For men, being fully employed — and to some extent unemployed/partly employed — have negative effects on attitudes towards migrants, although the coefficients are not statistically significant. For women, the coefficients on both of these variables are positive and statistically significant at the 99 percent level of confidence. The implication is that, for men, persons who participate in the labor force tend to have a more negative view of migrants while, for women, being in the labor force is linked to more positive attitudes towards migrants. This result is consistent with men having a more competitive labor market position relative to migrants (as if they were substitutes in production) while women do

not see themselves as competing with migrants in the labor force (as if they were complements in production).

18.6 Conclusions

This paper has examined the relative significance of some of the key factors that influence the attitudes of urban Chinese citizens towards migrants. Using survey data from the 2005 CGSS, the role of educational attainment, age, family income, labor market status, and a set of other variables that potentially influence attitudes towards migrants was analyzed. Estimating probit equations of the likelihood that the respondents in the sample had positive attitudes towards migrants, the research shows the connections between a range of explanatory variables and these attitudes.

The research carried out in this paper indicates that educational attainment does not dampen negative attitudes towards migrants in China. This is different from the results obtained by previous international research on attitudes toward immigrants, in which education has been found to have a negative influence on anti-migrant sentiments. Even when the analysis is disaggregated on the basis of gender there is no statistically significant connection between increased schooling and positive attitudes towards migrants.

The conclusion that increased schooling is not associated with more positive attitudes towards migrants in China has serious implications about educational institutions in the country. At an international level, in many countries and cities that receive substantial numbers of immigrants, governments emphasize the importance of assimilating migrants, who are often of diverse ethnic and racial groups. This task is spearheaded by the school system, through cross-cultural curricula and teacher training. Those with more education thus receive information that combats stereotypes and prejudice. But in China, because migrants are not from any particular ethnic or national minority group in China, the education system does not appear to have incorporated into its curriculum or in its teacher training any components that deal with the treatment of migrants. And government policies — such as the hukou system — that have effectively discriminated against the urban migrant population, even

making difficult the schooling of the children of migrant workers, may have contributed to the absence of more positive attitudes towards migrants among more educated urban populations.

The development of a plan to incorporate migrant-sensitive curricula and teacher training into schools and college may be essential to diminish negative attitudes towards the migrant population. Unfortunately, some aspects of the existing curriculum in China's schools clash with such reforms and would need to be drastically altered. More specifically, the *suzhi* 素质 (personal quality) discourse which was gradually adopted by the school system, presumably to make the population "better-behaved," "more refined," or "higher-quality" (see Murphy, 2004), has used migrants as a negative stereotype, portraying them as uncultured, ignorant and unrefined people whose behavioral characteristics should be avoided at all costs. As Anagnost (2004) reports: "The discourse of population quality (*renkou suzhi*) may have first appeared in the 1980s, in state documents... that attributed China's failure to modernize to the "low quality" (*suzhi di*) of its population, especially in rural areas... By the early 1990s it became a key term in the party-state's policy statements... The discourse of *suzhi* appears most elaborated in relation to... the rural migrant, which exemplifies *suzhi* in its apparent absence." Any educational policy changes intended to reduce negative attitudes towards migrants should eliminate the targeting of migrants as representing an uneducated, uncultured population, showing them instead as being an essential building block of China's economy.

The analysis in this paper also suggests that the *hukou* system that has governed migration policy in China for decades needs to be reformed in order to end the institutional marginalization of migrants in urban areas. As noted before, a person's *hukou* (registration) is determined by his/her place of birth and it is difficult to have an official change of *hukou* from rural to urban areas. Since social benefits, including public education and health benefits, are attached to the person's *hukou*, the system has excluded migrants from having the same rights as urban residents. Experiments to modify the *hukou* system have emerged in some areas, such as Guangdong. And in

2014, China's State Council announced a set of hukou policy reforms intended to allow migrants greater access to public services in cities, such as in education, health care and social security. But the reform is gradual and favors towns and small cities while in larger cities (above 3 to 5 million in population), changes in registration will remain difficult for migrants. A deeper reform needs to be implemented.

On a more positive note, the research in this paper finds that as migrant presence grows in their workplaces and neighborhoods, as detected by respondents in the 2005 CGSS survey, urban residents actually become more positive in their attitudes towards migrants. This contradicts some of the previous literature, which finds that an increased presence of migrants worsens attitudes towards them because it engenders fears that they will take jobs away from natives or that the urban environment (cleanliness, safety, etc.) will deteriorate. But the multivariate analysis carried out in this paper does not find these fears in China. Instead, possibly because migrants are seen as providing a valuable contribution to Chinese economic growth, and perhaps because they are generally part of the Han Chinese majority, an increased concentration of migrants does not worsen attitudes towards them.

Gender is found to have a significant connection to attitudes towards migrants. Men tend to have much more positive attitudes. This is again different from the existing literature, which finds that since most migrants are male, they compete with male urbanites and generate more negative attitudes towards them. Instead, in urban China, perhaps because social conventions frown against urban women having friendships with migrant men, or because the marriage market in urban China favors urban men marrying rural women, men tend to have more positive attitudes towards the migrants than urban women.

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