Analysis of Occupation Intergenerational Mobility Mechanism: Based on the Perspective of Floating Population and Registered Residence System

Yating Chen*
School of Public Finance and Taxation, Zhongnan University of Economics and Law, Wuhan, China

*Corresponding author: 201821070112@stu.zuel.edu.cn

Abstract. The data of China Health and Nutrition Survey (CHNS) were used in this paper, rural population migration variables were introduced for the first time, and combined with registered residence system, the influence of the direction of intergenerational occupational mobility of the population born between 1960 and 1989 was studied. Meanwhile, special attention was paid to the mobility of the agricultural sector. The study found: firstly, the upward mobility of occupation intergenerational mobility is the dominant trend in China, and the upward mobility of farmers plays an important role in the trend, but it’s difficult to achieve leapfrog upward mobility. Occupation is the registered residence of rural registered residence; Secondly, population mobility is conducive to the upward mobility of the occupation, but the intensity of this factor is gradually weakening; Third, the registered residence system leads to unequal opportunities for occupation intergenerational mobility, and urban hukou groups are in a favourable position in the process of upward intergenerational mobility, and can avoid downward mobility.

1. Introduction
With the development of economy and the change of society, Chinese residents aspire to getting rid of the low background and improve social and economic status is more and more urgent. The rise of buzzwords like "the second generation of officials", "the second generation of rich people" and "the second generation of migrant workers" also reflect Chinese residents' anxiety about the current decline in social mobility and the solidification of social class. This requires us to further analyze the internal mechanism of social intergenerational mobility and obtain the influential factors that play an important role in it, so as to help laborers realize the upward intergenerational mobility.

Chinese scholars have discussed the problem of intergenerational transmission from multiple perspectives, mostly focus on the measurement of intergenerational mobility and the analysis of the trend of intergenerational transmission and its influencing factors. Generally speaking, the intergenerational mobility of urban and rural residents in China shows an upward trend [1, 2, 3]. There are also some researches show that a positive correlation exists between the level of economic development and class solidification, and the intergenerational mobility decreases during the period of rapid economic growth [4, 5]. Most of the literature on factors affecting intergenerational mobility focuses on education [6, 7], and it’s agreed that educational improvement contributes to the realization
of upward intergenerational mobility. Some scholars are concerned about the influence of registered residence system itself on the intergenerational transmission of occupation [8]. The existence of the registered residence system makes it difficult for resources to flow freely and solidifies in different regions and strata. However, the above literature does not thoroughly explore the impact of other social changes caused by the registered residence system.

China's unique registered residence system has influenced a series of social factors, and migration is one of the obvious. With the advance of urbanization in China, surplus rural labor force began to work in cities and formed a special floating group, this phenomenon can be called "migratory bird". Compared with urban residents, agricultural floating population has a higher intergenerational occupational mobility [9]. But it remains to be further tested whether the effect of such migration is significant in the intergenerational mobility of occupations in China, and what the influencing mechanism is. In addition, the World Bank report noted that the migration of people from the agricultural sector to the non-agricultural sectors would reallocate China's labor resources. It provides us with a theoretical basis to deeply explore the mechanism of intergenerational occupational mobility of farmers.

In this paper, CHNS data and simple intergenerational career mobility chart will be used to analyze the trend of intergenerational occupational transmission among people born in the 60, 70 and 80's; logit model will be used to study the influence of population migration and household registration system on the level and direction of intergenerational mobility. Main innovation: 1. a new evidence is provided to analyze China's social mobility mechanism from the angle of intergenerational transmission of occupation, which will give reference for future economic policy making. 2. Evaluate the economic effect of the rural floating population under the registered residence system, so as to provide references for further adjusting the current household registration system to cope with the urbanization strategy. 3. Give a feasible way for farmers to achieve non-agricultural employment through an in-depth study on the intergenerational mobility mechanism of farmers.

2. Literature review and hypothesis proposal
The researches on intergenerational mobility concentrate on explore the inner connection between the professions of fathers and children. Empirical researches prove that, the fathers’ career has a crucial influence on the career choice and development of their children [5, 10].

2.1. Studies on intergenerational transmission of occupations
What kind of intergenerational mobility trend occupation presents has been controversial? From the perspective of the relationship between the occupational status of the father and the initial and current posts of the offspring, Shun Zhang and Yi Zhu found the level of intergenerational occupational mobility of urban residents has been on the rise since the reform and opening up [3]. Through the analysis of CGSS data in 2008, Yi Zhang found China's peasant class is rapidly transforming into the working class [11]. And Xuelong Wang and Yiming Yuan studied the intergenerational occupational mobility of Chinese urban residents on the base of urban samples in CHNS data, found the post-60s group had the highest level, the post-70s group was at the lowest level, and the post-80s group was in the middle [12].

The researches focus on the factors those influence the intergenerational mobility of occupation most carried out from the perspectives of family background, human capital, macroeconomics and institutions. From the perspective of family background, Yihang Shao and Chaoyang Zhang found that social relations were conducive to the upward mobility of the whole society in China [13]. From the perspective of human capital, a large number of studies focus on education. It believed that the labor force can change its human capital through education, so as to obtain more career options and realize upward career mobility in the process of economic development characterized by technological progress [3, 6]. From a macro perspective, it’s generally accepted that intergenerational mobility is low during an economic recession, and economic expansion will enhance intergenerational mobility [14].

The above literatures basically carried out research on the overall level and trend of intergenerational mobility, but didn’t discuss the internal mechanism and influencing factors of intergenerational mobility in depth. As far as the mobility mechanism is concerned, Shun Zhang and Yi Zhu point out that the
current occupational status of children achieves a higher net upward mobility compared with that of their parents, but they don’t continue to analyze its influence mechanism [3]. Xing Zhou pointed out that the higher the occupational status of parents and the education level of children, the more favorable for upward occupational mobility of children [6]. Although this positive effect has been widely proven, it can only explain part of the reasons, further influencing factors still need further studied.

2.2. Research hypothesis
The change of household registration system equipped China’s intergenerational mobility with its specificity. Early years of new China, the strict registered residence system was implemented, which hindered the free migration and became a barrier to the flow of rural labour force [15]. After the reform and opening up, registered residence system has been continuously liberalized, and rural labour force has more opportunities to leave agricultural sector to enter other sectors, and realize intergenerational occupational mobility with a wider range of mobility. But the urban population mobility and its range of occupational mobility relatively is small [16]. Although the registered residence system reduces the barriers to population migration, different registered residence systems enjoy different levels of social welfare, such as education and employment opportunities. The quality of education received by rural registered permanent residence is much lower than that of urban registered permanent residence, and this gap is widening [17]. Therefore, hypothesis 1 is proposed.

Hypothesis 1: To some extent, the registered residence system has affected the intergenerational mobility of professions, and the rural household registration group is inferior in the upward intergenerational mobility.

Migration helps to increase intergenerational mobility [18]. Before the reform and opening up, the existence of planned economy system and unit system made the distribution pattern of labour resources was manifested in the form of unit monopoly, without a labour market. In the early stage of reform and opening up, with the rise of township industry, some local labour markets had emerged in small towns, but still subjected to the restriction of the urban-rural registered residence system. After 1980s, the surplus rural labour force constantly poured into cities, which broke the original pattern of state-owned and collective sector monopoly labour market. However, after the 21st century, China's labour supply has shifted to a limited one, many scholars have demonstrated the arrival of Lewis inflection point from multiple angles [19]. Therefore, hypothesis 2 is proposed.

Hypothesis 2: Population migration in China has an indispensable effect on the process of intergenerational migration, but the effect is gradually declining.

Farmers account for a large proportion of the overall population in China. Therefore, the occupational mobility of the peasant class can’t be underestimated in the total mobility. Since the reform and opening up, China's registered residence system has been loosened and urbanization has been promoted, amounts of rural labour force has flood into cities, which made a reallocation of labour resources in China. Moreover, with the development of China's economy, the investment in education has increased, and the quality of education enjoyed by rural groups was also improving. Therefore, hypothesis 3 is proposed.

Hypothesis 3: The intergenerational mobility of the peasantry plays an important role in the overall mobility; the mobility of rural population is conducive to the peasantry's outflow from the agricultural sector and realize its upward mobility.

3. Data and variables

3.1. Data selection
The data used in this paper are from the CHNS. Refer to the idea that EGP takes employment relationship and skill level in the labour market as the dimensions to classify occupations, and the method of occupational classification basing on power relationship proposed by Lulu Li [20]. We recoded and merged 13 classes of occupations in the CHNS data to obtain four classes of occupations: white-collar workers (W), workers (U), waiters (S) and farmers (F), which are shown in Table 1.
Table 1. Occupational classification table.

| Occupational class classification | Corresponding occupations in the CHNS |
|------------------------------------|--------------------------------------|
| Workers (W)                        | Administrators/administrative officers/managers, officers and police officers, senior technical professionals, general technical professionals, athletes/actors/performers, general office staff, soldiers/police officers |
| Workers (U)                        | Skilled or skilled, unskilled or unskilled |
| Waiters (S)                        | Service industry personnel, drivers |
| Farmers (F)                        | Farmers, fishermen, hunters |

The age limit for individuals is 16 to 60 years old, for individuals at this age are basically at work and can provide useful occupational information. Since the post-90s group generally don’t enter the labour market in the survey year, this paper doesn’t consider this part. After eliminating the data with missing values of the paired variables, 6 028 pairs of individuals and their parents were finally obtained, including 565 pairs of the post-60s group, 2 994 pairs of the post-70s group and 2 469 pairs of the post-80s group. There were 1 461 matched data of urban individuals and 4 567 matched data of rural individuals.

3.2. Variable set

3.2.1. Dependent variable set. In the regression part of this paper, the binary variable of flow direction is defined as dependent variable, and the four types of occupations are ranked by constructing occupational status index. According to the calculation principle of ISEI index, a discrete occupational status index suitable for this study was constructed by combining education level and income variables, and the direction of intergenerational flow was determined.

First, construct the educational score:

\[ EI = \sum_{f=1}^{n} \left( \frac{w_f}{\sum_{f=1}^{n} w_f} \right) * e_f \]  \hspace{1cm} (1)

Second, construct the income score:

\[ EW = \sum_{f=1}^{n} \left( \frac{w_f}{\sum_{f=1}^{n} w_f} \right) * W_f \]  \hspace{1cm} (2)

The occupational status index is constructed by combining the two scores:

\[ EO = \frac{1}{2} * \left[ \sum_{f=1}^{n} \left( \frac{w_f}{\sum_{f=1}^{n} w_f} \right) * e_f \right] + \frac{1}{2} * \left[ \sum_{f=1}^{n} \left( \frac{w_f}{\sum_{f=1}^{n} w_f} \right) * W_f \right] \]  \hspace{1cm} (3)

Among them, \( n \) is the total number of samples, \( w_f \) as sample weight, \( e_f \) as samples \( f \) by education level, \( W_f \) as samples \( f \) monthly wages.

As shown in Table 2, White-collar workers have the highest occupational status, while farmers have the lowest. We define upward mobility as when the status index of the child's occupation is higher than that of the parent, and the value is 1, otherwise, it’s 0. When the status index of the child's class is lower than that of its parent, it’s defined as downward flow, with the value of 1, otherwise, its 0.
Table 2. Occupational status index.

| Classifications | White-collar workers | Workers | Waiters | Farmers |
|-----------------|----------------------|---------|---------|---------|
| EO              | 546.49               | 500.38  | 369.07  | 203.41  |

Owing to a large time span between 1960 and 1989, the characteristics of occupational mobility and its influencing factors may change due to changes in policies, social structures, etc. Meanwhile, to avoid the selection bias caused by different periods, we divided samples into three stages: the post-60s group, the post-70s group and the post-80s group. Thus, at all stages, all samples of the same age group basically faced the same social situation and occupational structure, which was consistent with the parallel trend hypothesis. Besides, we also analyse intergenerational migration of farmers and its role played in the overall flow.

3.2.2. Independent variable set. The migration of population in different regions will lead to the reallocation of resources; household registration plays an important role in the course of China's social and economic development. Both of them will have a major impact on the intergenerational migration of career. Therefore, we define the sample that isn’t employed at its place of domicile as the floating population with the value of 1, otherwise it’s 0; the value of the sample with urban household registration is 1, and the value of rural household registration is 0.

3.2.3. Control variable set. In the employment of labour force, human capital is very important, and individual characteristics determine the unobservable ability of samples to a certain extent. Besides, the social environment and family background also have a significant impact on their employment. To reduce regression bias and obtain the causal relationship between major variables more accurately, we control the sample's own variables, parents’ variables and regional factors.

4. Models and methods

4.1. Analysis of career flow direction

In this paper, net difference index is used to measure the direction of intergenerational occupational mobility [20]. The net difference index can describe the upward or downward net deviation degree of the occupational distribution of children compared with that of their parents. The value is positive, indicating that the whole child group has realized the upward intergenerational occupational flow. A negative value indicates downward flow. And the greater the absolute value, the higher the net deviation degree of the career distribution of children relative to their parents.

Upward flow exponential structure:

\[ DI_{up} = \Pr(X > Y) = \sum_{i=2}^{4} X_i \left( \sum_{j=1}^{i-1} Y_j \right) \]

Downward flow exponential construction

\[ DI_{down} = \Pr(X < Y) = \sum_{j=2}^{4} Y_j \left( \sum_{i=1}^{j-1} X_i \right) \]

Net difference index:

\[ NDI_{x,y} = \Pr(X > Y) - \Pr(X < Y) = \sum_{i=2}^{4} X_i \left( \sum_{j=1}^{i-1} Y_j \right) - \sum_{j=2}^{4} Y_j \left( \sum_{i=1}^{j-1} X_i \right) \]
This paper assigns the occupational class from low to high, the farmer class is assigned 1, and the white-collar class is assigned 4. Then, \( X_{i} (i = 1, 2, 3, 4) \) represents the occupational class distribution ratio of children, \( Y_{j} (j = 1, 2, 3, 4) \) represents the occupational class distribution ratio of parents.

4.2. Analysis the influencing factors of flow direction

We estimate the following regression equation to analyse the influence of population mobility and household registration on intergenerational mobility of occupations.

\[
m_{f,s} = \alpha + \beta_{1}X_{1} + \beta_{2}X_{2} + \gamma_{1}X_{s} + \gamma_{2}X_{f} + \gamma_{3}X_{u} + \xi_{f,s} \tag{7}
\]

Among them, \( f \) represents the parent generation, \( s \) represents the child generation, and \( u \) represents the region.

The dependent variable \( m_{f,s} \) represents the direction of intergenerational occupation flow. When the occupational status of the offspring is lower than that of the parent, the occupational flow variable defined downward is 1, otherwise it’s 0. When the occupational status of the offspring is higher than that of the parent, the upward mobility variable is defined as 1; otherwise, it’s 0.

There are two independent variables, the floating population \( X_{1} \), the value of taking office in non-domicile is 1, otherwise it’s 0. Household register variables \( X_{2} \), the urban household registration value is 1, and the rural household registration value is 0. \( X_{s} \) is a series of control variables for the offspring sample, mainly including age, age squared, marital status and educational level of the offspring. \( X_{f} \) is the sample control variable of the parent generation, including age, age squared, years of education and type of employment unit of the parent. Meanwhile, the regional factors \( X_{u} \) has been controlled, and \( \xi_{f,s} \) is error term.

4.3. Analysis of agricultural sector mobility factors

Then, we focus on the outflow of the agricultural sector through equation (8).

\[
F_{f,s} = \delta + \phi_{1}X_{m} + \phi_{2}X_{2} + \tau_{1}X_{s} + \tau_{2}X_{f} + \tau_{3}X_{u} + \epsilon_{f,s} \tag{8}
\]

Where, the dependent variable \( F_{f,s} \) represents the father acting for the farmer and the offspring engaged in non-agricultural industries. When the father is engaged in agriculture and the child is White-collar, the value is 1; otherwise, its 0. When the father is the farmer and the child is the worker, the value is 1; otherwise, its 0. When the father is the farmer and the child is the waiter, the value is 1; otherwise, its 0. The main independent variables are \( X_{m} \) and \( X_{2} \), the rural floating population and household registration \( X_{s}, X_{f}, X_{u} \) as other control variables, \( \epsilon_{f,s} \) for regression errors.

5. Empirical results and analysis

5.1. Descriptive statistics and flow direction analysis

Table 3 makes a basic analysis of the important variables involved in this paper. The results show that the occupational stratum of the offspring generation in the post-60 group is lowest, and the downward occupational intergenerational mobility is dominant. On the one hand, the policy of "going up the mountain and going down to the countryside" let urban youth flow down to the agricultural sector; on the other hand, rural groups born in the 1960s face a strict registered residence system, making it hard to achieve free flow. The combined effect caused overall downward mobility of intergenerational occupation. But the occupational class of the children of the post-70s and post-80s is higher than that of their parents, which indicates that with the development of different industries in China the social occupational structure is gradually upgraded, and upward occupational intergenerational mobility starts to dominate.
From the perspective of the variables of population mobility, the proportion of the population who realize migration is very low, which indicates that the migration of labour force is still hindered to some extent, among which the registered residence system plays an important role. From the perspective of education level, the average number of years of schooling of the sample keeps increasing, indicating the continuous development of education in China, which also provides a partial explanation for the change of intergenerational occupational mobility.

Table 3. Variable description.

| Description of major variables | Post-60s | Post-70s | Post-80s | Instructions |
|-------------------------------|---------|---------|---------|--------------|
| Descendant occupational class |          |         |         | Maximum=4; Minimum=1 |
| Parental occupational class   |          |         |         | Maximum=4; Minimum=1 |
| Rural floating population Household registration | 0.035 | 0.18   | 0.081 | 0.27 | 0.078 | 0.27 |
| Age                           | 29.55    | 8.46    | 25.12   | 7.03 | 23.82 | 6.52 |
| Education level               | 9.75     | 3.82    | 10.10   | 3.68 | 11.38 | 4.09 |
| Marital status                | 0.57     | 0.50    | 0.34    | 0.47 | 0.29  | 0.45 |
| Area                          | 1.07     | 0.83    | 1.10    | 0.83 | 1.20  | 0.81 |

Table 4 describes the occupational distribution of the offspring samples and their parents. Firstly, the relatively high proportion of the group in the agricultural class indicates Chinese peasant group occupies an important position in the distribution of occupations. Then, the proportion of descendants in the working class is relatively high, while in the peasant class drops significantly compared with their parents. In addition, the proportion of the post-60s group in the peasant class declined slightly, while among the post-70s and post-80s group the proportion of their children engaged in the agricultural sector decreased significantly. To a certain extent, it explains the mean value of the descendants of the post-60 population is slightly smaller than that of their parents and there is a downward mobility trend; while upward mobility is dominant in the post-70 and post-80 population. Therefore, it is reasonable to believe that agricultural class mobility contributes the most among all the intergenerational mobility.

Table 4. Intergenerational occupation distribution.

| Occupational stratification | Total sample Parent | Offspring Parent | Post-60s Parent | Offspring Parent | Post-70s Parent | Offspring Parent | Post-80s Parent | Offspring Parent |
|-----------------------------|---------------------|------------------|-----------------|------------------|-----------------|-----------------|-----------------|-----------------|
| White-collar workers        | 1336 (0.22)         | 1212 (0.20)      | 156 (0.28)      | 99 (0.18)        | 719 (0.24)      | 559 (0.17)      | 461 (0.19)      | 554 (0.23)      |
| Workers                     | 1218 (0.20)         | 2113 (0.35)      | 185 (0.33)      | 231 (0.41)       | 585 (0.20)      | 1183 (0.40)     | 448 (0.18)      | 699 (0.28)      |
| Waiters                     | 660 (0.11)          | 1091 (0.18)      | 60 (0.11)       | 81 (0.14)        | 270 (0.09)      | 472 (0.16)      | 330 (0.13)      | 538 (0.22)      |
| Farmers                     | 2814 (0.47)         | 1612 (0.27)      | 164 (0.29)      | 154 (0.27)       | 1420 (0.47)     | 780 (0.26)      | 1230 (0.50)     | 678 (0.27)      |
| Numbers                     | 6028 (0.27)         | 6028 (0.27)      | 565 (0.27)      | 565 (0.27)       | 2994 (0.27)     | 2994 (0.27)     | 2469 (0.27)     | 2469 (0.27)     |

Note: The figures in the table are the sample numbers of each occupational class, and the sample proportions of each occupational class are in brackets.
5.2. Measurement of intergenerational mobility
According to Table 4 and Equation (6), intergenerational mobility direction index and net difference in index are obtained. Among the samples that includes the peasant class, the overall sample realizes an upward mobility of 44% and a downward mobility of 30%, with a net difference index of 14%. It indicates a net upward mobility of 14% for the children's occupations relative to their parents. Among them, the post-60s group has a higher degree of intergenerational mobility, its offspring generation has a 5% lower mobility. Among the post-70s and post-80s, upward mobility of career generations dominates the trend, a net upward shift of 13% and 16% is achieved. In order to further prove the crucial role of the peasant class in the intergenerational upward mobility, next, flow direction index and net difference in index will be recalculated from the sample of the peasant class. Results show in table 5, net difference in dices are all negative, and children's occupations only realize net downward movement compared with their parents' occupations. To be specific, the net decline of the children's occupations in the post-60s sample increased to 8%. The overall sample and the post-70s and post-80s samples changed from net upward flow to net downward flow. It further proves the important role of agricultural stratum plays in intergenerational mobility of the overall occupational group.

Table 5. Measurement of intergenerational mobility.

| Include the peasant class | Eliminate the peasant class |
|---------------------------|----------------------------|
|                           | Total sample | Post-60s | Post-70s | Post-80s | Total sample | Post-60s | Post-70s | Post-80s |
| Upward flow index         | 0.44         | 0.34     | 0.43     | 0.46     | 0.10        | 0.12     | 0.09     | 0.11     |
| Downward flow index       | 0.30         | 0.39     | 0.30     | 0.30     | 0.15        | 0.20     | 0.17     | 0.13     |
| net Difference index      | 0.14         | -0.05    | 0.13     | 0.16     | -0.05       | -0.08    | -0.08    | -0.02    |

5.3. Factors influencing the intergenerational mobility of occupations
Table 6 reports the results of Equation (4) and examines the influencing factors of the direction of intergenerational occupational mobility at various stages, mainly focusing on the factors of population mobility and household registration. Since the minimum variation of each explanatory variable is one unit at least, we report logarithmic ratios to facilitate the interpretation of regression results. Overall, the floating population is more likely to realize the upward mobility among generations than other groups, and household registration variable has a significant influence on the direction of intergenerational occupational mobility, still be a major obstacle.

Table 6. Influencing factors of flow direction.

|                 | Upward mobility | Downward mobility |
|-----------------|-----------------|-------------------|
|                 | Total sample    | Post-70s | Post-80s | Total sample | Post-70s | Post-80s | Total sample | Post-70s | Post-80s | Total sample | Post-70s | Post-80s |
| Floating population | 5.23***  | 1.75*** | 1.70**   | 0.39      | 1.39**     | 1.50**   |
| Household registration | 1.74**  | 3.68*** | 3.26***  | 0.37***   | 0.21***    | 0.37***  |
| Education level   | 0.99    | 1.06*** | 1.08***  | 0.11***   | 0.08***    | 0.08***  |
| Age              | 0.98    | -0.88** | 1.17**   | 1.06      | 0.91**     | 1.01     |
| Age squared      | (010)   | (0.05)  | (0.85)   | (0.12)    | (0.04)     | (0.57)   |
| Marital status   | 1.50    | 1.49**  | 0.59***  | 1.00***   | 0.67***    | 0.69***  |
As for upward mobility, the floating population of the post-60 group realizes 5.23 times as much as the other population. In the following two stages, although this advantage is declining, it is still significant at the level of more than 5%, indicating that the population mobility plays an important role in upward mobility. Because, a large proportion of the floating population are rural groups that mostly at the lowest level of occupational status. They will face more career choices after migrate to urban areas, and most of them will realize upward mobility. Household registration factor shows different results in this part. The urban household registration has a much higher chance of achieving upward mobility than the rural population, and this inequality tends to get worse. For downward mobility, the logarithmic values are all less than 1, indicating that rural registered population is more likely to produce downward mobility and urban household registration is easier to realize upward mobility and can avoid downward mobility to a greater extent. It reflects inequality of opportunity and class solidification brought by China's registered residence system.

The education level of the sample also plays an important role in the intergenerational career mobility. As for total mobility variable, the education level shows a positive effect in each period. An individual's education level increases by one year, the post-60s group more likely to achieve intergenerational occupational mobility by 7%, the post-70s group by 3%, and the post-80s group by 4%, all of which are significant at the level of above 5%. The effect of education level on upward mobility is heterogeneous, not significant in the post-60 group, but significant in the post-70 group and post-80 group at the 1% level. Under the influence of the "Cultural Revolution", the post-60s group generally have a low level of education, lacking for the basic to achieve upward mobility. However, the post-70s and post-80s group have more educational resources and more open educational environment, thus, their education level can play a greater role in upward mobility. In conclusion, the influence of an individual's education level on the intergenerational mobility of career can’t be ignored, which is expected to be a reliable way to improve the solidification of Chinese social strata.

5.4. Analysis of influencing factors of agricultural sector mobility

After the above sample description and flow direction analysis, we will study the factors that affect the upward intergenerational mobility of the peasant stratum. The results are shown in Table 7.

As for the inflow of white-collar workers, the floating population is 1.54 times more likely to realize this migration than other groups, which is significant at the statistical level of 5%. Farmers with urban hukou are 9% more likely to become white-collar workers than those with rural hukou, and the probability is significantly higher at 1%. Ana education also plays an important role in this part of mobility. As for the inflow into the working class, the floating population does not have a significant advantage, but farmers with urban household registration are 6% more likely to become workers than those with rural household registration, which is significant at 1%. Education doesn’t play a significant role in this part. In the case of into the waiter class, the floating population from rural communities into the possibility of a waiter class is 1.59 times that of the other groups, and rural household registration group has more advantages. Although the effect of education was significant at the 1% level, the 6% difference in years of schooling per unit change did not strongly explain the flow.

Next, we further analysis the mechanism of peasant stratum flow through horizontal comparison. From Table 6, we can see although the rural registered population is easier to realize the outflow from the agricultural sector, the advantage of rural registered population gradually decreases when realizing the leapfrog of high class. Besides, the improvement of education level is useful to the realization of the mobility to the white-collar class, but the educational opportunities and quality of the rural registered
permanent residence are difficult to compare with those of the urban registered permanent residence. We can conclude that it’s still difficult for rural household registration to realize the high-class mobility.

### Table 7. Factors influencing farmer mobility.

|                          | FW        | FU     | FS        |
|--------------------------|-----------|--------|-----------|
| Floating population      | 1.54**    | 1.01   | 1.59***   |
|                          | (0.32)    | (0.13) | (0.27)    |
| Household registration   | 0.09***   | 0.06***| 0.03***   |
|                          | (0.03)    | (0.01) | (0.02)    |
| Education level          | 1.18***   | 0.99   | 0.94***   |
|                          | (0.03)    | (0.01) | (0.02)    |
| Age                      | 1.10      | 0.96   | 0.98      |
|                          | (0.98)    | (0.04) | (0.06)    |
| Age squared              | 1.00      | 1.00   | 1.00      |
|                          | (0.001)   | (0.001)| (0.001)   |
| Marital status           | 0.75      | 0.71***| 0.95      |
|                          | (0.18)    | (0.09) | (0.17)    |
| Parent control factor    | control   | control| control   |
| Regional control factors | control   | control| control   |
| Number                   | 2793      | 2793   | 2793      |

Note: Dependent variable refers to the binary variable when the parent takes the farmer's place and the child is off-farm. When the father takes the place of the farmer and the children become white-collar workers, FW should be 1; otherwise, it should be 0; When the father takes the place of the farmer and the child becomes the worker, FU is 1; otherwise, FU is 0. When the father takes the place of the farmer and the child is the waiter, the FS value is 1; otherwise, it is 0.

6. Conclusions and policy recommendations

6.1. Conclusions

This paper uses CHNS to construct a simple occupation intergenerational flow table and flow direction index to analyze the intergenerational flow mechanism of various occupations in different birth groups. According to the empirical analysis results, the following conclusions can be drawn.

1. The overall sample basically realized the net upward mobility, but after excluding the peasant class sample, the trend of upward mobility disappeared and turned into downward net mobility. This shows that upward mobility of the peasant stratum occupies an important position in the overall intergenerational mobility mechanism, but it’s difficult for the peasant stratum to realize the leapfrog upward mobility, especially difficult in realizing the leap to the white-collar stratum.

2. Population mobility has a significant impact on the intergenerational occupational mobility mechanism. The floating population is more likely to have upward mobility, for most of the floating population are rural people engaged in agricultural activities, and they will face more career choices once they migrate. The outflow of their children from the agricultural sector will realize upward mobility, but this favorable trend gradually declines. As a result, the floating population in the post-60 group has a higher chance of achieving upward mobility than other groups.

3. On the one hand, registered residence system affects the intergenerational mobility by affecting the population migration indirectly. On the other hand, the difference between urban and rural areas will affect the intergenerational mobility of occupations directly. For the post-60s group, the registered residence system has no significant impact; for the post-70s and post-80s, it’s easier to realize intergenerational occupational mobility with rural household registration, but it’s more reflected in
downward mobility. For all birth groups, urban hukou groups have more advantages in achieving upward mobility and can avoid downward mobility to a greater extent.

6.2. Policy Suggestions

In order to improve the level of intergenerational mobility of Chinese residents, avoid distortion of the structure of intergenerational mobility, and provide a more equitable upward passage for all citizens, the following policy suggestions are proposed basing on the above analysis.

(1) Optimize the mechanism of upward mobility of the peasant stratum. To further improve the career upward intergenerational mobility of the peasant class, on the one hand, provide more extensive and fairness employment space and a more perfect job information and professional training, in order to promote the rural population flow to the town; on the other hand, optimize the educational quality of rural household registration groups, improve their educational return rate, and lay the foundation for realizing the leaping upward mobility of the peasant class.

(2) Settle on the reform of the registered residence system. Population migration has a significant impact on the intergenerational mobility mechanism, and registered residence system can indirectly affect the intergenerational mobility by controlling population migration. Therefore, first, the registered residence system should be relaxed to further break down barriers between urban and rural areas and realize the free migration of rural population. Secondly, gradually reform the differences in education, employment, housing, medical and other social welfare caused by the registered residence system, focusing on improving the public education system to provide children of migrant workers with more equal and higher quality educational opportunities. Finally, improve the employment system and prohibit some enterprises and units from screening job seekers through household registration, so as to provide more equal opportunities for rural residents to get rid of their parents' disadvantaged occupational class.

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