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RESEARCH ARTICLE

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The Impact of Job Mobility on Earnings Growth of Migrant Workers in Urban China

Abstract Using survey data on migrant workers in urban China, this paper carries out a positive study on the impact of inner-industrial and inter-industrial job shifts on earnings growth of migrant workers. Results show that low human capital, low employment grades and low income are the most important reasons for migrant workers to switch jobs. The migrant workers who are young, unmarried new entrants with low level of education, no training and low income tend to change their jobs within the industry. And those who have high income and who find their jobs by themselves are more likely to switch jobs inter-industrially. Inner-industrial job switches have a significant positive impact on earnings growth of low-income migrant workers and a significant negative one on that of high-income migrant workers. Moreover, inter-industrial shifts have a significant negative impact on earnings growth of migrant workers of all income levels. The inner cause for the positive effect of inner-industrial shifts lie in the fact that the cumulative effect of years of service within enterprises is not obvious while continuing engagement in the same type of job within an industry will lead to accumulation of qualifications, which has a significant augmentation effect on earnings of migrant workers.

Keywords migrant workers, job mobility, earnings growth

JEL Classification E24, E25, N3

1 Introduction

Rural labor force has been pouring into the urban area for jobs in the last three

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decades or so since the reform and opening up of China in 1978. During this period, rural migrant workers experience more frequent job shifts, which is a significant feature of migrant labor market. It is apparent that comprehending job shifts of migrant workers is an important part of analyzing migrant labor market and even urban labor market. Job shift is a market behavior of a rational labor after weighing the costs and benefits. Therefore, studying the consequences of job shift, especially its impact on earnings growth of migrant workers, has important practical significance. There is no consensus among studies out of China based on different theories as for the impact of job shift on earnings growth. Human capital theory holds that since job-specific human capital could not function at a new position, it is difficult for an employee to obtain the original payment; while general human capital of workers will not be lost with the switch of jobs, the remuneration for which may increase after the switch. Therefore, the impact of job mobility on earnings growth is uncertain (Becker, 1962; Parsons, 1972). Search theory (Parson, 1973; Burdett, 1978) believes that job is a pure search good, and the purpose of searching is to find a workplace for the present human capital to be made better use of (with higher productivity and higher wages). Even without general human capital investment, earnings will still increase with the increase of experience, because accumulation of search experience will help increase the opportunities to find better-paid jobs. Therefore, job mobility has a positive effect on earnings growth. Job matching theory (Johnson, 1978; Jovanovic, 1979) holds the opinion that job is an experience good, and when a worker finds that the match is of poor quality (i.e. low productivity), he/she will seek other employment opportunities in order to raise the wage. So earnings will increase after the job shift, but the rate of increase will slow down as work experience increases. And mover-stayer model believes that basic individual features will help workers with higher productivity to stay and force the ones with lower productivity to keep switching. Thus, job mobility has a negative impact on income (Blumen et al., 1955).

Some scholars out of China carry out empirical studies on earnings growth effect of job mobility, the conclusions of which vary too. Using data from Bureau of Labor of the U.S., Mattila (1974) finds that those who have not experienced unemployment during the switch will get higher income afterwards, with an average increase of 10.7 percent, while the increase of those who have been unemployed is not significant. Bartel & Bojas (1981) point out that earnings of young workers will increase after job shifts, yet this increase will slow down with aging of the workers. Empirical study of Mincer (1986) finds that job shift brings about a larger earnings growth for younger workers (with work experience of less than ten years) than for older workers (with work experience of more than ten years), because most older workers change their jobs because of unemployment, which has a negative impact on earnings of the older workers.

Meanwhile, older workers are willing to exchange earnings with less working hours. Besides age, earnings growth from job change also relies on seniority in the preceding job and level of education (Mincer, 1993). Study of Topel & Ward (1992) shows that income of male high school graduates at retirement is twice that at their entry into the labor market, and during the forty-year career span, they change their jobs for ten times; two-thirds of earnings growth and two-thirds of job shifts (about 7 times) take place during the first 10 years, and one third earnings growth comes from job shift. Keith and McWilliam (1999) break down the causes for job shift, and positive study shows that job shifts due to economic factors (for example, the current wage is too low) and employees' individual reasons lead to an increase in income, job shifts for family factors have no significant impact, and job shifts resulted from unemployment have significant negative effect. Using Swedish data on men of 26–35 years of age, Grand & Tahlin (2002) analyze the impact of job mobility on earnings and the study finds that job mobility will bring about earnings growth, which mainly comes from considerable occupational advancement. Using the U.S. panel data, Light & McGarry (1998) employ instrumental variable method to study young workers with 8 years of work experience after graduation. And results show that job shift and earnings growth are overall negatively correlated and the stayers earn higher wages. With data on American youth during 1979–2004, Munasinghe & Sigman (2004) find that income of employees with fewer job shifts is higher than that of the employees who change jobs frequently, which is more obvious with experienced employees. Using the U.S. data, Gottschalk and Moffitt (1999) find that job shift has no significant impact on earnings growth of American employees during 1980s and mid-1990s.

Wages and earnings of migrant workers have been the concern of academic attention in China. Some studies explore wage level of migrant workers and their impacting factors. Zhao (1997), De Brauw and Rozelle (2004) estimate returns to education of migrant workers, and they find rates of return to education at about 8 percent; Yan (2007) and Liu et al. (2007) carry out empirical studies on the impact of human capital, social capital and institution on wages of migrant workers. Yan finds that the growing speed of return rates to education is different between migrant workers and urban residents, and the gap tends to expand when rates of return to education grow fast, and the main reasons are the urban labor market system barriers; Liu et al. find that human capital has positive significantly impact on migrant workers' wage, but social capital and enterprise's nature has no significantly effect. Wang, Cai and Zhang (2008) focus on the impact of education and training on wages of migrant workers, and they find rates of return to education at 5.3 to 6.8 percent, and simple train has no significantly impact on migrant workers' wage while short-term and normal train play a great role in migrant workers' wage. With survey data, some studies

perform empirical test on segmentation of urban labor market and wage differentials between urban residents and rural migrants. Meng and Zhang (2001) find that wage differentials are mostly inner-occupational. Wang (2003), Xie et al. (2006) and Deng (2007) measure the impact of discrimination on wage difference between urban workers and rural migrants. Wang finds that 24 percent of the difference in wage for migrant workers and urban residents is caused by individual characteristics, while discrimination explains 76 percent of the gap. Xie et al.'s estimation results show that 44.8 percent of wage difference is caused by individual characteristics, and the remaining 55.2 percent attributes to discrimination; Deng (2007) finds that 60 percent of the income difference between urban residents and migrant workers is due to discrimination. For data reasons, empirical studies on wages of migrant workers focus on determinants of wages of migrant workers and wage differentials between migrant workers and urban workers, while researches on consequences of job shifts, especially the impact of job mobility on earnings of migrant workers is scarce. This article divides job shifts of migrant workers into two categories: One is job changes between different enterprises within an industry, namely inner-industrial job shift; and the other is job shifts between different enterprises of different industries, namely inter-industrial job shift. The main purpose of this paper is to investigate, using survey data about migrant workers in urban area, the impact of these two types of job shifts on earnings growth of migrant workers.

2 Model and Data

2.1 Model and Variable

Different migrant workers have different personal characteristics, and costs and benefits of job switching vary accordingly. Migrant workers make decisions on whether to change jobs according to their own situations, and thus the sample of workers with job shifts is of self-selection. Therefore, when investigating the impact of job shift on earnings growth, we must pay attention to sample selection bias. In order to solve the heterogeneous problem, we modify with Heckman two-stage method (Heckman, 1979).

First, taking "whether migrant workers will change jobs inner-industrially or inter-industrially" as the dependant variable, estimate with a corresponding Probit equation:

$$P_{k,i}^{*} = \alpha_k Z_i + \mu_{k,i} \tag{1}$$

where $P_{k,i}^{*}$ is the probability of inner-industrial or inter-industrial job changes of migrant workers, Z_i is independent variable, and μ is random error term.

The dependent variable of the model is whether the migrant worker will change his job inner- or inter-industrially (Yes=1). The independent variables include two types: One is personal characteristics of migrant workers, including gender, age, level of education and training; and the other is employment status of migrant workers, including salary, years of migration, nature of work and ownership of affiliation. Gender is coded as a dummy variable, with female as reference group; as for age, 26–35 years old, 36–45 years old and 46 years and above are coded as three dummy variables, with 25 years and below as reference group. Years of education and training are important indexes reflecting human capital. As far as level of education is concerned, we include four dummy variables indicating junior high school, senior high school, secondary vocational and technical school, and college education respectively, with primary and below as reference group; and for training dummy variable, no training is reference group. Monthly earnings of migrant workers are divided into three levels, the first quartile (below 25%) belongs to low-income, and the fourth quartile (above 75%) belongs to high-income group, and the remaining middle-income. Nature of work is coded as three dummy variables, indicating managers, professionals and ordinary staff, with technical personnel (skilled staff) as reference group. As for ownership of affiliation, six dummy variables indicating collective enterprises, private and individual enterprises, foreign investment and joint ventures, township enterprises, non-governmental organizations and other businesses, with state-owned enterprises as reference group. And city is also included as a dummy variable in the model.

Second, on the basis of Probit estimation, λ_1 and λ_2, inverse Mill ratios of inner- and inter-industrial job changes, are calculated and then substituted into the earnings growth equation to correct the sample selection bias.

$$\begin{aligned}\Delta w_i = \ln w_{i,1} - \ln w_{i,0} = \alpha + \beta_1 turnover_{i,in-indus} + \beta_2 turnover_{i,bw-indus} \\ + \gamma X_i + \varphi_1 \lambda_{1,i} + \varphi_2 \lambda_{2,i} + \mu_i\end{aligned} \tag{2}$$

where the dependent variable is earnings growth of migrant workers, i.e. ln(monthly earnings after job change) minus ln(monthly earnings before job change). X_i is a set of explanatory variables and the dummy variables of whether there is inner- or inter-industrial job change ($turnover_{in-indus}$ and $turnover_{bw-indus}$) are included as explanatory variables too.

2.2 Data Source and Descriptive Analysis

The data are from the research group working on the key Philosophy and Social Science project “Research on Employment of Migrant Workers and Social Policy” sponsored by Ministry of Education of China. During August to October

2006, this group investigated migrant workers in seven cities, namely Shanghai, Tianjin, Guangzhou, Shenyang, Kunming, Weihai and Yibin, concerning personal information, employment status, income, training, health and medical care, housing, children's education, social security, service needs, social interaction and social activities. A total of 3 024 questionnaires were returned. With some data missing, the sample size of this study is 2 969. Table 1 shows main information of sample data.

Table 1 Profile of the Sample

	Ratio (%)		Ratio (%)		Ratio (%)
Gender		*Training*		foreign investment and joint ventures	6.8
Male	60.5	Yes	36.3	Private and individual	67.9
Female	39.5	No	63.7	Non-Governmental Organizations	0.6
Age		*Nature of Work*		Others	3.4
16–25	42.1	Ordinary staff	74.8	No job change	19.6
26–35	25.5	Managers	5.2	Inner-industrial job change	41.6
36–45	22.0	Professionals	5.8	Inter-industrial job change	38.8
46 and above	10.4	Technical and semi-technical personnel	14.2	City	
Marriage status		*Job-seeking approach*		Shanghai	16.5
Married	55.4	By oneself	37.4	Guangzhou	16.8
Single	44.6	Through agencies	5.3	Tianjin	16.6
Education Levels		Through relatives and friends	53.5	Shenyang	16.5
Primary and below	22.5	Others	3.8	Kunming	16.4
Junior high school	53.0	*Ownership of affiliation*		Weihai	8.8
Senior high school, secondary vocational and technical school	22.0	State-owned enterprises	12.8	Yibin	8.3
College and above	2.5	Collective and township enterprises	8.4		

As for gender, male accounts for 60.5 percent and female 39.5 percent. As far as age structure is concerned, the percentage of the age group between 16 and 25 years old is the highest, accounting for 42.1 percent of the total sample; followed by the age group between 26 and 35 years old, accounting for 25.5 percent, and

the average age is of 30.42 years old. Regarding level of education, the number of respondents with junior secondary education is the highest, accounting for 53.0 percent of the total; followed by samples with primary and lower education, accounting for 22.5 percent; and 24.5 percent of the samples have high school or secondary vocational education and above. In order to investigate the employment situation of migrant workers, the questionnaire includes such questions as the industries and affiliations of the correspondents at present and at their entering the city. The survey shows that work changes of migrant workers are very frequent. Only 19.6 percent of the total sample has never changed jobs, and up to 80.4 percent has, among which the ratios of inner- and inter-industrial job change are close, with a difference of 2.8 percent. Meanwhile, the monthly earnings of migrant workers are gradually increasing. Average monthly earnings of migrant workers at entering the city are 797.2 yuan, and those at present are 1 064.7 yuan. Deducting price factors, average monthly earnings of migrant workers increase at the rate of 10.7 percent. The growth rate of average monthly earnings of migrant workers with no job change is 8.6 percent, and those of migrant workers with inner- and inter-industrial job changes are 11.2 percent and 6.2 percent respectively.

3 Empirical Results and Analysis

Table 2 displays regression results of job shifts of migrant workers, of which model 1 and model 2 are results of inner- and inter-industrial job changes respectively.

Table 2 Regression Analysis of Factors Influencing Job Mobility of Migrant Workers

Variable	Model 1	Model 2
	Inner-industrial	Inter-industrial
Male	–0.136 (0.52)	0.054** (0.021)
Age (25 years old and below)		
26–35 years old	–0.177** (0.159)	–0.265** (0.214)
36–45 years old	–0.251** (0.232)	–0.283*** (0.221)
46 years old and above	–0.376*** (0.338)	–0.315*** (0.298)
Married	–0.124*** (0.091)	–0.196*** (0.135)
Years of migration	0.115** (0.020)	0.087*** (0.019)
Years of migration squired	–0.014*** (0.003)	–0.012*** (0.0002)
Education (Primary and below)		
Junior high school	–0.213 (0.660)	–0.128 (0.242)

(*To be continued*)

(*Continued*)

Variable	Model 1	Model 2
	Inner-industrial	Inter-industrial
Senior high school	–0.498 **(0.378)	–0.263*(0.151)
Secondary vocational and technical school	–0.527*** (0.406)	–0.342*** (0.319)
College and above	–0.593 **(0.418)	–0.393 **(0.348)
Trained	–0.812*** (0.691)	–1.446*** (0.993)
Nature of work (Technical personnel)		
Managers	–0.605 (0.260)	0.194** (0.132)
Professionals	0.324 (1.73)	–0.207 (0.259)
Average staff	0.468*** (0.397)	0.411*** (0.238)
Monthly earnings (Low-income)		
Medium-income	–0.196*** (0.089)	–0.208 (0.754)
High-income	–0.324*** (0.117)	0.259*** (0.210)
Method of seeking job (by oneself)		
Through agencies	1.832 (0.973)	–0.235** (0.187)
Through relatives or friends	–0.229** (0.165)	–0.312** (0.225)
Others	0.846 (0.779)	–0.191* (0.124)
Ownership of affiliation (state-owned enterprises)		
Collective enterprises	–1.629 (0.872)	2.337 (1.872)
Foreign investment and joint ventures	0.194*** (0.115)	0.155*** (0.096)
Private and individual enterprises	0.216*** (0.180)	0.208*** (0.113)
Township enterprises	–1.502 (1.903)	–2.294 (2.851)
NGOs	0.941 (1.067)	–1.763 (2.118)
Others	2.164 (1.387)	1.359 (0.424)
City dummy variable	----	----
Constant	0.562*** (0.374)	–0.499*** (0.260)
Log likelihood	–6 528.7	–5 793.4

Note: 1. Reference groups and standard errors are in parentheses behind variables and regression coefficients respectively.
2. Significance levels: * denotes $p \leqslant 0.10$, ** denotes $p \leqslant 0.05$, and *** denotes $p \leqslant 0.01$.

(1) Gender has different impacts on inner- and inter-industrial job change. In model 1, regression coefficient of male variable is negative, yet not significant, indicating that there is no significant difference between male and female as far

as inner-industrial job change is concerned; while in model 2, the coefficient is significantly positive, indicating that male has higher tendency for inter-industrial job change than female.

(2) Age has the same impact on these two types of job changes, namely compared with older migrant workers, the younger ones tend to change jobs.

(3) As for marriage status, compared with single migrant workers, married ones have lower tendency to change jobs, no matter inner- or inter-industrially. The probable cause is that changing job will bring about greater burden and stress to married workers.

(4) Coefficients of years of migration in both models are significantly positive, and coefficients of their squared terms are both significantly negative, indicating that increase of migration span will raise the possibility of job change, while further increase will reduce the possibility. Probably because the longer a migrant worker stays in the city, the more searching experience he will obtain in the labor market, and the higher the match quality will be.

(5) Human capital features (such as level of education and training) are important factors influencing job change of migrant workers. Regression coefficients of level of education variables are all negative, with those of junior high school variable not significant and the rest ones significantly positive, indicating that, compared with more-educated migrant workers, the less-educated ones tend to change their jobs. Trained migrant workers' tendency to change job is lower than those without training, because enterprises usually provide training with specificity, indicating that improvement of specific human capital will reduce job mobility of migrant workers.

(6) Nature of work has different impacts on the two types of job change. As for inner-industrial job change, the tendencies to change job of technical personnel, managers and professionals are not significantly different, which indicates to some extent that the demands of the labor market on these kinds of jobs are not significantly different. And compared with technical personnel, ordinary workers tend to change their jobs, indicating that migrant workers with low-grade work tend to change jobs. As for inter-industrial job change, the tendencies of technical personnel and professionals are not significantly different, while those of ordinary workers and managers are significantly higher, indicating that compared with workers with specific human capital (including enterprise-specific and industry-specific), those migrant workers with no specific human capital are more likely to change jobs inter-industrially.

(7) In model 1, regression coefficients of medium- and high-income variables are significantly negative, and the value of the former is larger, indicating that lower-income migrant workers tend to change jobs, and the higher the income, the lower the tendency to change jobs, which indicates that low income is an important factor for migrant workers to change jobs. And in model 2, regression

coefficient of medium-income variable is negative with no significance, and the regression coefficient of high-income variable is significantly positive, indicating that high-income migrant workers tend to change jobs inter-industrially.

(8) As for means of seeking jobs, for inner-industrial, there is no significant difference between migrant workers who find jobs themselves and those through job agencies. But those who find jobs through relatives or friends are less likely to switch. The migrant workers finding jobs themselves are likely to switch inter-industrially.

(9) Concerning ownership of affiliation, regression results of model 1 and model 2 are similar, i.e. no significant difference is shown between tendencies of migrant workers at state-owned enterprises, collective enterprises, non-governmental organizations and others, while those in foreign investment and joint ventures, private and individual enterprises are more likely to switch jobs.

Table 3 presents results of regression on the impact of job mobility on earnings growth. Earnings before job change are not controlled in model 1 and are in model 2. And cross-term of earnings and job change is controlled in model 3. Meanwhile, individual characteristics of migrant workers, such as age, level of education and training, are controlled in each model. Model 1 shows that coefficient of inner-industrial job change is significantly positive, while that of inter-industrial job change is significantly negative, indicating that these two types of job change have quite opposite impact on earnings growth of migrant workers, that is, other things being equal, inner-industrial job change will increase growth rate of earnings, while inter-industrial job change will reduce it. Controlling earnings before job change, model 2 shows that neither inner- nor inter-industrial job change has significant impact on growth rate of earnings. Because on the one hand, as is shown in Table 2, low-income migrant workers are more likely to change jobs; and on the other hand, growth rate of earnings of low-income migrant workers is greater than that of high-income workers, which is proved by the significantly negative coefficient of income before job change in model 2. Model 3 reflects the different impacts of these two types of job change on migrant workers with different levels of income. The coefficient of inner-industrial job change is significantly positive at the significant level of 1 percent, while that of inter-industrial job change is significantly negative at the same level. At the same time, coefficient of the cross-term of inner-industrial job change and low-income is significantly positive at the significant level of 1 percent, that with medium-income is negative without significance, and that with high-level is significantly negative at the significant level of 5 percent, which indicates that inner-industrial job change contributes only to earnings growth of low-income migrant workers, whereas it has negative effect on earnings growth of high-income ones. Meanwhile, coefficients of cross-terms of inter-industrial

Table 3 Estimates of the Impact of Job Mobility on Earnings Growth

	Model 1	Model 2	Model 3
Inner-industrial job change	0.063*** (0.011)	0.014(0.020)	0.106*** (0.082)
Inter-industrial job change	–0.071***(0.018)	–0.055(0.031)	–0.093*** (0.060)
Age	0.054** (0.007)	0.052**(0.007)	0.054** (0.007)
Age squared	–0.0006**(0.000)	–0.0006** (0.000)	–0.0007** (0.000)
Education(Primary and below)			
Junior high school	0.008** (0.003)	0.007** (0.003)	0.007** (0.003)
Senior high school	0.012*** (0.002)	0.010*** (0.002)	0.009*** (0.002)
Secondary vocational and technical school	0.010** (0.004)	0.011** (0.004)	0.010** (0.004)
College and above	0.014* (0.005)	0.014** (0.005)	0.015* (0.005)
Trained	0.075*** (0.008)	0.103*** (0.009)	0.080*** (0.008)
Income before job change		–0.326** (0.020)	–0.304** (0.020)
Inner-industrial job change*low-income			0.067*** (0.013)
Inner-industrial job change* Medium-income			–0.082 (0.191)
Inner-industrial job change* high-income			–0.053** (0.012)
Inter-industrial*low-income			–0.062** (0.014)
Inter-industrial*medium-income			–0.070** (0.015)
Inter-industrial*high-income			–0.079** (0.015)
Inverse Mill ratio of inner-industrial job change	–0.027***(0.004)	–0.023*** (0.003)	–0.096*** (0.010)
Inverse Mill ratio of inter-industrial job change	–0.043***(0.008)	–0.018*** (0.003)	–0.074*** (0.009)
Control variables	Yes	Yes	Yes
R^2	0.3212	0.3847	0.4195

Note: 1. Control variables such as marital status, nature of work, job-searching methods, ownership of affiliation and city are included in all models.
2. Standard errors are in parentheses.
3. Significance levels: * denotes $p \leqslant 0.10$, ** denotes $p \leqslant 0.05$, and *** denotes $p \leqslant 0.01$.

job change and low-, medium- and high-income are all significantly negative, indicating that inter-industrial job changes have negative impacts on earnings growth of migrant workers at all income levels, i.e. inter-industrial job change is not conducive to earnings growth. One main reason is that there is obviously industry-specific human capital for each industry, and if a migrant worker changes jobs inter-industrially, there will hardly be cumulative effect of experience. Moreover, industry-specific human capital accumulated in the preceding industry will devalue to a large extent. Regarding other control variables, earnings growth increases and then decreases with age; earnings growth of migrant workers with high level of education and training is higher than that of those with low level of education and no training, suggesting that human capital has a positive effect on earnings growth.

Next, we explore the underlying mechanism of the positive effect of inner-industrial job change on earnings growth by analyzing the impact of different types of working experience of migrant workers. We classify experience of migrant workers into four types: (A) previous experience, namely years between the migrant worker's entering city and obtaining the present job; (B) occupational seniority, namely years in current occupation; (C) enterprise seniority, namely years of serving the present company; and (D) post seniority, namely years of doing present job. The results of regression on determinants of earnings of migrant workers are displayed in Table 4. Model I, the basic model, mainly studies the impact of personal characteristics (gender, age, education and training) and control variables (industry, ownership of affiliation) on personal income, without considering various work experiences. By adding four variables of work experience on the basis of Model I, Model II explores the impact of work experience on earnings. Test on multicollinearity of the four variables shows that there is no such problem. In order to study the nonlinear effect of experience on income, squared terms of four types of experience are included in Model III. Overall, the estimates of most variables in Model I do not change much with the adding of the experience variables.

When it comes to the basic impact factors, the estimates show that earnings of male are significantly higher than those of female; the relationship between age and earnings is dualistic, i.e. earnings first increase with age and then decrease after a certain age. As for human capital, the coefficients of level of education are all significantly positive, indicating that compared with migrant workers with primary or less education, those better educated can have higher earnings; and the coefficients of training are also significantly positive, suggesting that trained migrant workers have higher income than those without training and training plays a positive role in increasing earnings of migrant workers.

Table 4 Regression Analysis of the Impact of Experience on Earnings of Migrant Workers

	Model I	Model II	Model III
Male	0.165*** (0.028)	0.134*** (0.021)	0.165*** (0.028)
Age	0.068*** (0.007)	0.070*** (0.007)	0.068*** (0.007)
Age squared	–0.001*** (0.000 2)	–0.001*** (0.000 2)	–0.001*** (0.000 2)
Education (Primary and below)			
Junior high school	0.075* (0.033)	0.068** (0.030)	0.067** (0.030)
Senior high school	0.141*** (0.052)	0.125*** (0.048)	0.123*** (0.048)
Secondary vocational and technical school	0.163*** (0.054)	0.161*** (0.054)	0.160*** (0.054)
College and above	0.185** (0.089)	0.179** (0.080)	0.179** (0.080)
Trained	0.294*** (0.102)	0.308*** (0.119)	0.306*** (0.119)
Experience			
Previous experience		0.091 (0.122)	0.090 (0.124)
Occupational seniority		0.164*** (0.031)	0.161*** (0.031)
Enterprise seniority		0.067(0.055)	0.070 (0.065)
Post seniority		–0.042 (0.040)	–0.048 (0.040)
Previous experience squared			–0.0003 (0.0002)
Occupational seniority squared			–0.017** (0.004)
Enterprise seniority squared			–0.0001 (0.0001)
Post seniority squared			–0.0001 (0.0001)
Constant	5.589*** (0.136)	5.762*** (0.132)	5.817*** (0.218)
R^2	0.394	0.488	0.491

Note: 1. Control variables such as marital status, nature of work, job-searching methods, ownership of affiliation and city are included in all models.
2. Standard errors are in parentheses.
3. Significance levels: * denotes $p \leqslant 0.10$, ** denotes $p \leqslant 0.05$, and *** denotes $p \leqslant 0.01$.

The regression results of Model II show that among the four types of experience, namely previous experience, occupational seniority, enterprise

seniority and post seniority, only occupational seniority has significantly positive impact on earnings, indicating that instead of enterprise seniority, occupational experience is the only one that can continually help to increase earnings, that is, earnings growth is more concerned with experience in a certain industry than that in a certain enterprise. This implies that in the labor market of migrant workers, enterprise experience is not much of cumulative effect, thus it could not assure growth of earnings while accumulation of experience by engaging in the same occupation is the main mechanism influencing earnings growth. We believe that there are two main reasons why enterprise seniority does not have accumulative effect: On the one hand, most migrant workers are employed in private enterprises and small or medium enterprises, which are low technology-intensive and mainly engaged in producing export processing products, demanding fast response to international market. At such a market and with such technology structure, accumulation of enterprise seniority may not have much impact on productivity and competitiveness of the enterprises. On the other hand, as a consequence of urban employment system as well as lack of effective promotion system in small and medium enterprises, it is difficult for enterprise seniority to bring about cumulative effect on promotion. For a low-skilled migrant worker, the longer he stays at a position, the lower the possibility for the earnings to increase. Despite the positive impact of occupational experience on earnings growth, inner-industrial job change has a negative effect on high-income migrant workers, as is shown by the estimates in Table 3. The reason may lie in the fact that most migrant workers crowd at jobs with low payment, and for migrant workers who already have high income before job change, the room for growth will be very limited.

Model Ⅲ shows that coefficient of occupational seniority squared is significantly negative, indicating that occupational seniority generates inverted U-shaped effect on earnings and, with the increase of occupational experience, this positive effect will reduce, with a high-low tendency. This also implies that if a migrant worker changes jobs without limit, the cumulative effect of occupational seniority will decline or even become negative, and then job changes will not have positive impact on earnings.

The above analysis shows that the underlying reason for inner-industrial job change to have a positive impact on earnings growth is that enterprise seniority has no obvious cumulative effect while accumulated experience by continuing engagement in the same kind of work within an industry will have a significant positive effect on earnings growth of migrant workers.

4 Conclusion

As a whole, job mobility ratio of migrant workers in the urban area is relatively

high. Using survey data on migrant workers, this paper divides job changes of migrant workers into two types—inner- and inter-industrial ones. Firstly, factors influencing the two types of job change are analyzed. Results show that job change of migrant workers are affected by many factors such as gender, age, level of education, training, occupation, job search methods, ownership of affiliation, industry and so on. Job switching of migrant workers is affected not only by individual factors, in particular human capital, but also labor market and institutional factors. In addition, income is another important factor. Low human capital, low employment grade and low income are the most important causes for migrant workers to change jobs. Young and unmarried migrant workers with low income, short period of migration, low level of education and no training tend to change jobs within an industry. High-income migrant workers who find jobs by themselves are more likely to change jobs inter-industrially. Professionals and managers tend to change jobs inter-industrially than other types of employees. And those employed in foreign investment and joint ventures, private and individual enterprises are more likely to change jobs.

Secondly, the paper focuses on the impact of inner- and inter-industrial job change on earnings growth and the underlying causes and mechanism. Regression results show that inner-industrial job change has positive impact on those migrant workers who have lower income before the change, while the impact on the high-income ones is negative. Meanwhile, inter-industrial job change has negative impact on migrant workers of all income levels. The underlying cause for the positive impact of inner-industrial job change on earnings growth is that enterprise seniority has no cumulative effect while continuing engagement in the same kind of job within an industry will result in accumulation of experience which brings about significant increase in earnings of migrant workers.

Finally, the cumulative effect of occupational seniority shows a high-low tendency. This is in accordance with empirical research on other countries, which draws the conclusion that too frequent job change will not necessarily bring about cumulative effect and may, on the contrary, produce negative impact. Meanwhile, too frequent job change will not only result in non-cumulative effect of experience, but also bring about reluctance of enterprises to invest in human capital of migrant workers. Then it will be difficult for migrant workers to increase their human capital and skill, leading to unstable employment of migrant workers and difficulty in sustainable earnings growth.

Therefore, under current circumstances when level of human capital and income of migrant workers are generally low, it is of high significance for promoting earnings growth of low-income migrant workers to speed up reform in household registration system, education system, employment system and social security system, eliminating labor market segmentation and reducing factors

hindering mobility of migrant workers. Meanwhile, as for balancing the relationship between mobility and stability of migrant workers, China should establish a mode with mobility as the basis for achieving stability.

Through revising "Labor Law" and "Labor Contract Law" and innovating operating mechanism of trade union, strengthening negotiating power of technique personnel, building dispute-on-rights resolution system aimed at stable employment relations, and strengthening stability of employment relations of migrant workers, stability and skill of migrant workers will be improved, and thus enterprise seniority will play a more important role in the determination of earnings. This will be of great significance for earnings growth and its sustainability of both low- and high-income migrant workers.

In addition, since inter-industrial job change is not conducive to earnings growth, while adjusting industrial structure all around China, especially in eastern coastal areas, government should increase investment in new-industry-specific human capital of migrant workers and reduce losses of migrant workers caused by inter-industrial job change by such means as financial subsidies, focusing on the unity and harmony between adjustment of industrial structure and inter-industrial job change of migrant workers.

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