Internal Migration and Labour Market Outcomes among Chinese Men and Women

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Background and research objectives

Over the past few decades of economic reform, China's labour markets have been transformed into a market-driven system. This transformation has given rise to a substantial rural-urban migration and has introduced new dynamics for the work and family life of Chinese men and women. Nowadays, people are free to migrate without the restriction of the Hukou system (H. Zhang, 2010). The 7th National Census in 2020 showed that there were around 493 million migrants, with a 69.73% increase compared to the 6th National Census in 2010. Data from the Migration Population Service Center (China) pointed out that women accounted for around 48% of migrants from 2009 to 2018.

However, studies on internal migration mostly focus on male migrants with women significantly participating in internal migration. Limited research has devoted to comprehending the labour market prospects of female migrants, and there has been even less examination of gender disparities in labour market dynamics following migration. The existing research has confirmed that there is gender segregation in the occupational distribution of migrants (Fan, 2003; Meng, 1998). Consequently, female migrants earn less than male migrants (Magnani & Zhu, 2012). Nevertheless, these conclusions align with broader observations concerning gender disparities in the labour market. There is still an incomplete understanding of how migration influences gender inequality in the labour market. On the one hand, according to the dynamic of internal migration in China, an increasing number of children follow their parents to move, potentially perpetuating the disadvantages faced by women. This may be explained by their less human capital and the expectation of traditional gender roles, such as being a housewife, caring for children and so on (Cook & Dong, 2011; Yu & Xie, 2018; Y. Zhang et al., 2008). On the other hand, migrations do provide some job opportunities for female migrants, which are unavailable in their original place (Liang & Chen, 2004; Summerfield, 1994). Also, relocating to urban areas (economically developed areas) might weaken the influence the traditional gender ideology, which is more prevailed in rural areas, on women. This might have some positive impact on women's labour market outcomes after migration.

This study represents the first attempt to offer a more comprehensive understanding of gender inequality in the labour market under the context of internal migration in contemporary China. We also aim to address whether and how migration events exacerbate gender inequality in the labour market. Importantly, we acknowledge that, apart from gender discrimination, Hukou discrimination is lingering in the labour market as the fallout of ever-implemented urban-Hukou-biased policies in urban areas. The research aims to address the following inquiries:

(1) How does internal migration associates with changes in labour market outcomes among Chinese men and women?
(2) Do these associations vary by family status and Hukou types?

To this end, we analyse labour market outcomes among individuals using the longitudinal data from the China Family Panel Studies (2010-2018) and fixed effects models. We examine individuals' inter-county migration to empirically test hypotheses from established literature on the subsequent outcomes of a move in Western countries and the Chinese context. We consider the labour outcomes as employment, income and working hours. We investigate gender differences in labour market outcomes between pre- and post-migration. We also explore the

influence of family status and its potential role in shaping the relationship between migration and labour market outcomes for both men and women. Additionally, we address whether the association varies across rural and urban origins, to acknowledge the institutional disadvantages faced by people with rural origins.

Extending previous studies, we shed new light on the within-individual variation of subsequent labour market outcomes after relocation, offering a more extensive exploration of gender disparities within the labour market and the impact of migration. This can contribute to understanding whether gender inequality in the labour market is exacerbated by relocation. Moreover, we consider the interactive effect of the Chinese context on the later outcomes, discussing whether female migrants face a double disadvantage from gender and institutional context in post-migration.

Method

Data. The study employs longitudinal data from the China Family Panel Studies (CFPS), an ongoing survey initiated in 2010 by the Institute of Social Science Survey (ISSS) at Peking University (CFPS). In the initial 2010 survey, nearly 15,000 households and 30,000 individuals were interviewed, with subsequent data collection occurring bi-annually. Information in CFPS dataset enables us to test our research questions. The analysis utilizes data collected across 2010, 2012, 2014, 2016, and 2018 wave.

Sample. We used self-reported questionnaires for our analysis. We excluded full-time students, disabled, retired, or armed forces personnel, and those below 16 or above 59 years. Sample sizes for income and working hours analysis were smaller (only 2014-2018 data are comparable), focusing on employed individuals. We included individuals with data for at least two waves and no missing values in all three samples.

Dependent variables. Employment status was binary (0 = not employed, 1 = employed), with family-farmland workers classified as unemployed. Annual income for currently employed individuals were adjusted for inflation using the Consumer Price Index (CPI). Logged income was used in the models.

Independent variables. Women's migration and men's migration were our key predictors. Migration status was defined as the event of changing residential county compared to the first observed wave (0=before migration, 1=after migration). When observations changed the living county in wave t, the value in wave t and later waves was assigned as 1, otherwise, as 0. For the simplicity of analysis, gender and migration status were combined into women's migration (0=men/ women before migration, 1=women after migration) and men's migration (0=women/men before migration, 1=men after migration).

Considering the possibility of multiple migration and circular migration, migration frequency and return migration (based on the first observed county) were controlled in the models. The analyses also include marriage status (0/1), the age of oldest cohabiting children (0=between 0 and 7 years old, 1=between 8 and 18 years old, 2=over than 18 years old), and Hukou types (0=non-agricultural, 1=agricultural). Other variables like age, co-habiting parents (0/1), junior high school (0/1) and the type of living areas (0=rural, 1=urban) are controlled in models.

Analytical strategy. Fixed effects models were employed to assess changes within individuals (e.g., employment status before and after a move). This type of model can control for unobserved factors and remove time-invariant variables. And for the case of income and working hours, only employed observations before and after migration were considered. In the preliminary analysis, we expect that labour market outcomes of both women and men improve after a move. And being married and living with children have a negative impact on women's outcomes after a move.

Preliminary result

Bivariate results (not shown) of employment and income by gender and migration status show that, on average, both women and men experience an increase in these outcomes after migration, and that the gender gaps widen after migration.

Selected results of key coefficients from fixed effects models of employment status and logged income are presented in Table 1. Model 1a shows the employment rate of men after migration is 1.81 times (exp (0.595), $p < 0.05$) higher than men before a move. For women, being married reduces the odds of having a job by 76.2 per cent (1- exp (0.145-1.579), $p < 0.001$) after migration. Moder 2b finds that being a married woman reduces the annual income by 22.7 per cent (1-exp (0.078-0.335), $p < 0.05$) in post-migration. Results in Model 3a indicate that all age groups of the oldest co-habiting child have a negative impact on women's employment vs those who did not have children or cohabited children after migration. And when the age of the oldest cohabiting child is between 8 and 18 years old, women's annual income decreases. As for men, when men hold an agricultural Hukou, a 56.8 per cent (1- exp (-0.159-0.680), $p < 0.05$) reduction is found in their employment between pre- and post-migration compared to those holding non-agricultural Hukou. Annual income cuts by 13.8 per cent (1 – exp (-0.011-0.138), $p < 0.05$) (models are not shown here).

Table 1. Fixed-effects regression models of labour market outcomes

	Employment status (2010-2018)			Income (2014-2018)		
	Model 1a	Model 2a	Model 3a	Model 1b	Model 2b	Model 3b
	Beta[1,2]	Beta[1,2]	Beta[1,2]	Beta[1]	Beta[1]	Beta[1]
Women's migration (ref. before)						
After	0.362 (0.229)	1.833*** (0.415)	0.915*** (0.268)	-0.048 (0.114)	0.208 (0.158)	0.091 (0.132)
Marriage (ref. no)						
Yes	0.067 (0.091)	0.145 (0.093)	0.034 (0.092)	0.055 (0.046)	0.078 (0.047)	0.053 (0.046)
Women's migration * Marriage						
After * Yes		-1.579*** (0.380)			-0.335* (0.138)	
Oldest child's age (ref. no/none)						
0-7	-0.525*** (0.070)	-0.538*** (0.070)	-0.496*** (0.072)	0.033 (0.034)	0.033 (0.034)	0.024 (0.034)
8-18	-0.313*** (0.061)	-0.316*** (0.061)	-0.274*** (0.063)	0.029 (0.029)	0.031 (0.029)	0.034 (0.029)
>18	-0.288*** (0.054)	-0.287*** (0.054)	-0.221*** (0.056)	-0.042 (0.028)	-0.041 (0.028)	-0.039 (0.029)

Women's migration * Oldest child's age

After * 0-7	-0.664** (0.253)	-0.150 (0.140)
After * 8-18	-0.621* (0.254)	-0.302* (0.125)
After * >18	-1.013*** (0.268)	-0.261 (0.158)

Men's migration (ref. before)

After	0.595* (0.235)	1.276*** (0.352)	0.850** (0.273)	-0.134 (0.105)	-0.125 (0.123)	0.091 (0.132)

Source: CFPS 2010-2018

Note: Standard errors are clustered by individuals and shown in parentheses; other variables include migration frequency, return migration, middle high school, co-habiting parents, living area types, age and hukou types;

1*p<0.05; **p<0.01; ***p<0.001;2 Log Odds Ratio

In the next steps, we will examine working hours as well as further model specifications. The results will be discussed in line with key theories presented in the front end of the paper.

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