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*Research Article*

### **Moving towards gender equality in China: The influence of migration experiences on rural migrants' gender role attitudes**

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## **Moving towards gender equality in China: The influence of migration experiences on rural migrants' gender role attitudes**

**Chao Yuan<sup>1</sup>**

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### **Abstract**

#### **BACKGROUND**

Family, schooling, and culture influence attitudes towards gender roles, which life experiences further reinforce. Cross-regional migration is an important life experience that can reshape gender role attitudes. However, little is known about how host-city cultures influence migrant workers' gender role attitudes and the influencing mechanisms.

#### **OBJECTIVE**

This study investigates the impact of migration experiences on rural migrants' gender role attitudes, revealing the influencing mechanisms of urban culture.

#### **METHODS**

The augmented inverse probability weighting method is utilised to develop a model of migration's influence on gender role attitudes. Data are sourced from the 2015 Chinese General Social Survey, conducted with 4,791 rural migrant workers (aged 16–65 years).

#### **RESULTS**

Rural–urban migrants become more accepting of gender equality after migration, although this trend is stronger in the labour market than in the domestic domain. Further, analysing the moderating effect of provincial gender culture and differences on rural migrants' gender role attitudes shows that workers who migrate from more gender-conservative places become more accepting of gender equality after leaving and that women are more strongly influenced by gender equality in urban areas than are men.

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## CONTRIBUTION

The study provides further insight into cultural impacts on migrants' values and how such impacts are differentialised regarding gender, the work–family sphere, and regional culture. This impact is mostly limited to the performance of the rural migrant population in the labour market and does not fully penetrate into this population's family life.

## 1. Introduction

The attitudes of men and women towards gender roles influence role and labour divisions, gender relations, and behaviour patterns and convey the social norms and expectations of how one should act at work and in the family (McHale and Huston 1984; Hudde and Engelhardt 2020). Scholars argue that gender attitudes function as a cultural framework for coordinating human behaviours, regulating the expectation that women should do more household work while men should provide economic resources for the family. As an essential component of individual socialisation processes (Simpson 2004; Cano and Hofmeister 2022), gender role attitudes do not remain static once they are formed but change with the changing economic, political, and cultural environment.

Migration to different cultural environments has the potential to change gender role attitudes (Harrison and Huntington 2000). Researchers have found that international immigrants from countries with relatively conservative gender role attitudes and from developing countries are more likely to be influenced by the gender role attitudes of host countries like the United States and developed European countries (Florian, Flippen, and Parrado 2022; Röder and Mühlau 2014; Wang and Coulter 2019). In particular, women and second-generation immigrants are more willing to proactively participate in the labour market outside the family and are more open to female participation in employment (Wang 2019). For internal migrants, the rural–urban migration experience induces a gradual change in the agricultural-based production and lifestyle of rural migrant workers. Moreover, the abundance of educational opportunities and resources (Dale et al. 2002), mass media, and modern factory work practices in the city also induce gradual changes in the daily lifestyles and cultural values of rural migrants (Cotter, Hermsen, and Vanneman 2011).

In China, the patriarchal attitude that 'men are superior to women' (*nanzun nvbei*) remains strong in rural areas (Feng and Jie 2014). Studies on changing trends in gender role attitudes in China show that attitudes in rural areas remain relatively more traditional than those in urban areas, and the rate of return to 'men are responsible for external work, and women are responsible for household chores' (*nanzhu wai, nvzhunei*) attitudes is higher among rural populations compared to urban populations (Xu 2016). Traditional

gender role attitudes hinge on physiological differences and gendered divisions in labour that create a deep-rooted concept of family among rural women; their expectations for obtaining employment and high levels of education (Zhang 2019) are lower than their expectations for establishing a family (Gaetano 2017). However, with the rapid industrialisation and urbanisation in China since the reform and opening up in 1978, many rural labourers have been attracted to cities for jobs and various development opportunities.<sup>3</sup> Scholars have found that rural people who migrate to urban areas to participate in urban factory work gradually let go of traditional rural attitudes about agricultural-based production and family gender role divisions (Yang, Li, and Zhu 2014); furthermore, the changed living environment and rural women's active participation in the urban labour market transform rural people's cultural values, guiding actions that reshape gender role attitudes (Du, Xiao, and Zhao 2021).

This study contributes to the discussion on whether and how the heterogeneity of the rural–urban migrant experience influences rural migrants' gender role attitudes. Prior studies show that after migrating to urban areas, rural migrants tend to engage in non-agricultural work and acquire vocational skills in the urban labour market, thus increasing their income and educational levels (Ma 2001; Sun and Liu 2018; Swain and Wallentin 2012). This study focuses more on how migration influences the gender culture structure of rural people. That is, rural–urban migration, along with education and intergenerational transmission factors, is considered an alternative factor that promotes (re-)socialisation. This study fills in the gap in the literature examining the transformation trend of rural residents' cultural structure in China's modernisation from the perspective of gender by observing migrant experiences.

Rural–urban migration is connotation-rich, as the influence of the host area's gender culture on rural migrants may differ by social background. Beyond whether they migrate for work, the age of migrant workers, the distance they move, and whether they return to their hometowns have different degrees of influence on the change in gender role attitudes (Xu 2016; Zheng 2017; Yan 2008). Further, whether migrants' genders and the regional gender culture constitute intrinsic mechanism factors that may have different dimensional effects on gender role attitudes of rural migrants requires scholars' further investigation. Hence the second concern of this study is that it would be well worth exploring to what extent gender differences and gender equality in rural areas affect the extent to which rural migrants accept the gender role culture of the urban area.

In answering these questions, the present study uses national survey data (the 2015 Chinese General Social Survey) to analyse a sample of rural household respondents aged

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<sup>3</sup> China's migrant population reached 376 million in 2021, and the movement of the agricultural household registration population to urban areas is the most significant feature of that migration. Further, 52.2%, 63.2%, and 66.3% of the migrant population in 2000, 2010, and 2020, respectively, engaged in rural–urban migration. Data source: National Bureau of Statistics of China, seventh national population census data.

16–65. Those who never moved, those who returned after migrating, and those who migrated to cities were included. We apply the augmented inverse probability weighting method to comprehensively analyse how rural–urban migration affects the rural migrant's gender role attitudes and the internal heterogeneity of migration's effects on gender role attitudes, controlling for migration selectivity.

The rest of the paper is structured as follows: Section 2 reviews the literature on gender role attitudes and rural–urban migration, proposing four major hypotheses. Section 3 describes the study data and measures. Section 4 reveals the empirical results of urban cultural effects on rural migrations and how the migrant experience changes rural migrants' gender values. Section 5 discusses the results and concludes the study, presenting the scope for future research.

## **2. Theoretical framework and research hypotheses**

### **2.1 Migration to engage with urban culture**

According to the theory of conjunction action, when people face new structures, they often encounter specific conjunctures (concrete and perceivable events at some point in their life) (Johnson-Hanks et al. 2011). These drive them to practice 'new knowledge,' integrate existing resources, and make changes as the event evolves (Polavieja 2015). Migrating from rural to urban areas can be regarded as an important conjunctural event that would allow migrants to change their cultural values. This induces a shift in the work and daily life spaces of rural migrants, allowing them to be immersed in urban cultural norms.

The norms in the minds of individuals are the knowledge of various social relationships and values acquired after long-term social practices, and this knowledge guides different social individuals to accumulate knowledge in various contexts to complete their practices and reproduce social structures. When migrating to urban areas, rural migrants use their agency to integrate knowledge from prior cognitive structures into the urban environment, including the lifestyle, production, and social organisation of urban industrial civilisation, to create new cultural knowledge that drives subsequent actions (Kroska and Elman 2009; Sewell 2005). Examples are their choices and attitudes about labour participation and their consumption behaviours (Cleveland et al. 2016; Fernández and Fogli 2009; Giavazzi, Schiantarelli, and Serafinelli 2013).

Research on returning female migrant workers provides further evidence of how accumulated key knowledge in women workers' migration contributes to the generation of a new cultural structure that will guide daily practices (Johnson-Hanks et al. 2011; Vaisey and Lizardo 2016). As scholars note, sometimes such women imitate 'urban

fashion, speech, and behaviour,' follow a higher standard of hygiene, and remain more open-minded about marriage and sexual/fertility behaviours (La Porta et al. 1996; Almond, Edlund, and Milligan 2013; Lou et al. 2004: 234–236; Murphy 2004). Furthermore, as opposed to the patriarchal gender culture rooted in rural backgrounds, the pluralistic and open cultural environment of urban areas is more inclined to recognise gender equality and women's labour and economic contributions (Fan 2003). Migration experiences can therefore be considered alternatives to family environment and education in transforming traditional gender role perceptions of rural migrants, as emphasised by the large urban–rural developmental divide in China. Hence we advance the following hypothesis:

*Hypothesis 1:* Migration positively impacts gender role attitudes among rural people.

Migration accelerates socialisation, creating a rural–urban and tradition–modernity disjuncture (Harris and Todaro 1970; Jin 2010). According to Korska's exposure model theory, people become more inclined towards liberal and egalitarian gender attitudes when highly exposed to sociocultural environments comprising those with higher levels of education and employment, and with advocates for an egalitarian household gender role division (Kroska and Elman 2009). Factories defined by strict time and space management become rural migrants' primary exposure spaces for socialisation after leaving agriculture. The experience of rural migrant men and women working in the same factory space emphasises the cultural perceptions of women's participation in the labour market (Tong 2018; Yan 2008), and these migrants will gradually accumulate knowledge and important material and virtual cultural 'resources' (Swell 1992), inducing men to gradually recognise women's ability beyond the family domain and women's growing professional prestige as wage labourers. In this process, rural migrants integrate 'new knowledge' from rural–urban migration into their traditional gender cultural structure to achieve a personal transformation and a new cultural schema of gender equality, which further guides rural migrants to follow related practices in both work and domestic domains.

In this sense, whether this recognition of women's ability to work in the urban labour market influences rural migrants' attitudes about women's family roles remains a question worth exploring. Studies have argued that rural male migrants may take on a certain amount of caregiving responsibilities since they recognise the rise in the status of women in the family due to the increase in women's income during rural–urban migration (Wang and Fan 2006; Carriero and Todesco 2018). However, scholars also point out that this is a temporary compromise made by male migrants out of a rational consideration of the economic contribution of women to the household (Choi and Peng 2016).

Furthermore, male rural migrants usually make small concessions in family decision-making, such as ceding some household management (usually daily household consumption and day-to-day matters) to migrant women to handle the 'dominant crisis' caused by the rising economic status of women (Chuang 2016; Fan 2021). However, this concession is also an expression of rural migrant men's rationalisation of their traditional gender perceptions of male authority: women migrate to the city to work only temporarily, and when they return to the family, the inherited traditional gender role culture reasserts its 'cultural resources' power to make rural women primary caregivers who take on the main role of managing household chores. This also reintroduces rural migrant women to their perceived status as caregivers at home and the gender role of men as the dominant economic earners under the traditional patriarchal framework, which has the potential to further entrench rural migrant women's perceptions of marriage as stabilising their economic status. Here we propose the following:

*Hypothesis 2:* The influence of rural–urban migration on rural people's gender role attitudes is less prominent in the areas of family and marriage.

## **2.2 The heterogeneity of migration's effects on gender role attitudes**

Does the gender culture of the host area have different impacts on different rural migrants?

The stable cultural values acquired over a long period of socialisation continue to influence the behavioural choices of migrant people through intergenerational transmission (Polavieja 2015). When rural–urban migration happens, migrant people's former inherited value perceptions gradually evolve with their interactions with other people and urban cultures (Fernández 2011). This cultural immersion is such that people's cultural traits change according to the environment; there are individual differences in the effects of cultural immersion, as factors such as age, migration distance, and educational attainment all have different degrees of influence in terms of the culture people have inherited and their acceptance of the new culture (Glenn 1974; Kiley and Vaisey 2020; Xu 2016). This study further examines culture's influence on rural migrants' gender role attitudes by testing the relationship between migration and two other factors: regional gender equality levels and gender differences.



### 2.2.1 Regional gender equality levels

The cultural inheritance effects of rural areas and exposure to urban culture influence individual rural migrants' gender role attitudes, which is the dimension that reflects gender equality. The home village's gender role culture helps forge a migrant worker's initial attitude towards gender roles. The culture migrants are exposed to can be inherited (their birth culture) or acquired (culture encountered in a new environment). The traditional perspective that men are responsible for external work and women for household chores continues to impact migrants. This is described as the inheritance effect of gender culture (Centola et al. 2007). If rural migrant workers move into more economically developed areas with greater gender equality, the cultural exposure may alter their gender role perceptions, leading them to accept more equality and openness. Conversely, if migrants move to areas where the status of women is relatively low, their gender norms will become relatively conservative (Samari 2019). This can be described as the cultural immersion effect. By migrating to a city, migrants temporarily leave their hometowns, breaking away from their long-term agriculture-based lifestyle. Although rural attitudes about gender inequality still impact rural migrant workers, the level of influence changes in the rural–urban migration process.

Studies show that the culture of people's residence significantly impacts their gender role attitudes (Carter, Carter, and Corra 2016; Powers et al. 2003). For instance, people from developed areas align themselves with gender equality (Alwin et al. 1992). Given the traditional social structures and cultural norms in rural areas with low industrialisation levels, inhabitants tend to remain conservative (Zhou 1998). The longer rural migrants are immersed in areas with more conservative gender role attitudes and are influenced by traditional gender cultures, the stronger the cultural inheritance influence. Further, the longer the exposure to modern industrial culture, the more likely migrants are to gradually get influenced by its gender culture and use those norms to regulate their actions. When rural migrant workers move to more developed areas, the impact of urban culture, with its acceptance of gender equality, will be stronger. Thus the impact of cultural immersion on different rural migrant workers is heterogeneous. Therefore we propose the following:

*Hypothesis 3:* The rural–urban migration experience plays a stronger role in areas where people's gender cultures are more unequal.

### 2.2.2 Gender differences

Labour market participation and living among urban people provide an opportunity to engage with urban culture and liberate rural women from families and menial domestic

chores (Ranganathan et al. 2021). Income improvement and the enhancement of rural women's education levels allow women migrants to prove their ability to work and study beyond the family domain. This also benefits rural women who wish to break the framework of the inherited traditional gendered division of labour, freeing women from the role of sacrifice for the family during the migration process and thus imparting a perception of gender roles as being relatively equal (Connelly, Roberts, and Zheng 2010).

However, for men, rural–urban migration may not bring as much of a transformation in traditional gender role attitudes. This is because men have been the beneficiaries of the traditional gender-based culture of division of labour, which legitimises the man's role as decision-maker and 'ruler' in the family and justifies the role of women as the primary caretakers and nurturers. Improvement in women's social status during the migration process on the one hand has weakened the dominance of men in the family and at the same time has forced men to take on more family responsibilities (Lam and Yeoh 2018). Hence men with a vested interest in traditional gender role attitudes are less likely to accept equal gender role divisions owing to their desire to maintain their dominant household position.

Based on the above analysis, we assume that gender differences may exist in the impact of migration on rural migrants' gender cultural perceptions. Women's oppression and lack of independence in family affairs stems from the long-standing rural patriarchy (Yan 2003; Istenič 2007). When rural–urban migration happens as a crucial life event for rural migrants, women become more aware of the constraints of traditional gender culture on access to occupational opportunities and rewards in the process. This makes the immersion effect of the gender role culture in the place of inflow stronger for women, so their traditional gender role culture may undergo a more lasting transformation. However, male migrants are more likely to maintain the authority given to them by traditional gender role attitudes, so the inherited gender cultural traits of the outflowing places are more stable for rural male migrants, who are less likely to be influenced by the gender culture of the inflowing places. Accordingly, we frame the following hypothesis:

*Hypothesis 4:* Migration changes the gender role attitudes of female rural workers more than those of male rural workers.

### 3. Data and measures

#### 3.1 Data

We used data from the 2015 Chinese General Social Survey (CGSS), which is the oldest nationwide, representative, comprehensive, and continuous academic survey in China. It

surveyed 478 villages across 28 provinces, municipalities, and autonomous regions in China, receiving 10,968 valid completed questionnaires (from 6,931 rural and 4,037 urban household respondents). This empirical analysis employed only a sample of rural household respondents aged 16–65 (5,586 rural household respondents). Omitting data with missing values, which covered responses of people who had never moved, experienced return migration, or migrated, yielded 4,791 responses.

## **3.2 Variables**

### **3.2.1 Dependent variables**

Gender role attitudes can manifest in various ways, usually emphasising women's status relative to men in terms of abilities, political performance in the public sphere (Filler and Jennings 2015), equality, opportunity, and treatment in society (Winter 2005). The dependent variables in this study regard respondents' views on gender roles based on women's performance in the workplace and the family domain and the equal treatment of men and women. The variables comprised five items (see Table 1). The items were scored using a five-point Likert scale (totally disagree = 1 to totally agree = 5). The response to the statement 'Husbands and wives should share housework equally' was assigned in reverse (totally disagree = 5 to totally agree = 1) to align each index score. The greater the score of each index, the more men and women were seen as unequal in terms of gender roles. Finally we took the average value of the scores of the five indicators as the total score for each respondent's gender role attitudes.

### **3.2.2 Independent variables**

The core explanatory variable was the respondent's current migration status, measured via the question 'Where is your current household registered?', as per the spatial definition of population mobility in China's census. That is, if the current household registration was outside the area in which an individual currently stayed, that individual was a rural migrant. Migrant status was recorded as 1; non-migrant status as 0. The control variables were age, gender, education level, political outlook, marital status, the logarithm of annual income, religious beliefs, urban area type, provincial gender role attitude levels, population emigration rates by province in the 2010 China census, and rural residence (see Table 1).

**Table 1: Variable definitions**

Variables	Variable label	Definition
Role	Gender role attitudes index	Mean score of five gender role attitudes
Career–family	Men put career first; women put family first	Totally disagree = 1, generally disagree = 2, indifferent = 3, generally agree = 4, totally agree = 5
Capability	Men are naturally more capable than women at work	Totally disagree = 1, generally disagree = 2, indifferent = 3, generally agree = 4, totally agree = 5
Job–marriage	Marrying well is better than being good at a job	Totally disagree = 1, generally disagree = 2, indifferent = 3, generally agree = 4, totally agree = 5
Job dismissal	Women should be fired before men when the economy is in a recession	Totally disagree = 1, generally disagree = 2, indifferent = 3, generally agree = 4, totally agree = 5
Housework	Husband and wife should share housework equally	Totally disagree = 5, generally disagree = 4, indifferent = 3, generally agree = 2, totally agree = 1
G_role	Gender role attitudes (regions)	Based on where the non-migrant respondent's household registration took place; the average score for gender role attitudes was calculated as the measurement of gender role attitudes in this region.
G_career–family	Men are naturally more capable than women at work (regions)	Based on where the non-migrant respondent's household registration took place; the average score for gender role attitudes was calculated as the measurement of gender role attitudes in this region.
G_capability	Marrying well is better than being good at a job (regions)	Based on where the non-migrant respondent's household registration took place; the average score for gender role attitudes was calculated as the measurement of gender role attitudes in this region.
G_job–marriage	Female employees should be fired before men when the economy is in recession (regions)	Based on where the non-migrant respondent's household registration took place; the average score for gender role attitudes was calculated as the measurement of gender role attitudes in this region.
G_dismissal	Husband and wife should share housework equally (regions)	Based on where the non-migrant respondent's household registration took place; the average score for gender role attitudes was calculated as the measurement of gender role attitudes in this region.
G_housework	Men put career first; women put family first (region)	Based on where the non-migrant respondent's household registration took place; the average score for gender role attitudes was calculated as the measurement of gender role attitudes in this region.
Male	Gender	Female = 0, male = 1
Age	Age	Age of respondents
Education	Level of education	Primary school and below = 1, junior high school = 2, senior high school and above = 3
Income(ln)	Respondent's annual income (logarithm)	The logarithmic value of all respondents' annual income
Marriage	Is there a marriage history?	Unmarried = 0, have been married (including divorce and widowhood) = 1
Religion	Religious beliefs	None = 0, yes = 1

**Table 1: (Continued)**

Variables	Variable label	Definition
Party	Communist Party member	Masses = 0, Chinese Community Party members = 1
PER	Percentage of the total household population moving out of the province for more than six months in the 2010 China census (population emigration rate of the province)	
Urban	Site of investigation	Rural = 0, urban = 1
Non-farm	History of engaging in non-agricultural work	None = 0, yes = 1
Migrant	Migrant population	No = 0, yes = 1
P_education	Parents' education level	Primary school and below = 1, junior high school = 2, senior high school and above = 3. The score reflects parents with a higher level of education.
P_party	Parents' political outlook	Masses = 0, Chinese Communist Party members = 1. Any parent who is a member of the Communist Party is recorded as 1; no membership is 0.
P_status	Household socioeconomic status when the respondent was 14 years old	The value is an integer between 1 and 10, with 1 representing the bottom class and 10 the top class.
P_ISEI	Parents' international socioeconomic index	The international socioeconomic index of parents' last or latest occupation

### 3.3 Method

Moving from rural to urban areas for work is a selective consequence, deeply influenced by individual and socioeconomic factors in the outflow and inflow areas. The home village's economic status and culture and the individual's family background and characteristics affect migration choices. Therefore rural–urban migration is not randomly distributed among rural populations. It is endogenous; those with certain characteristics are more likely to migrate to cities. Therefore the estimate of the impact of migration on rural workers' gender role attitudes is likely to be biased if we do not control for the endogeneity of migration. Thus this study applied the augmented inverse probability weighting (AIPW) model to estimate the influence of migrant experiences on rural labourers' gender role attitudes, controlling for migration selectivity. AIPW estimators combine aspects of regression adjustment and inverse probability weighted methods, as the estimation is doubly robust. The estimators use one model to predict treatment status and another to predict outcomes. The AIPW method can obtain consistent estimates for observable endogeneity problems if one of the outcomes or treatment models is correctly set. AIPW estimators use a three-step approach to estimating treatment effects; we used the command 'teffects aipw' in Stata 17 to estimate the model.

First we estimated the treatment model parameters and computed inverse probability weights of migration. Further, Equation (1) estimates the propensity score and explains the influencing factor model of migration from one place to another, where  $\beta$  is the regression coefficient matrix and  $X$  is the independent variable matrix. We used a logit model to predict treatment status as a function of parents' education level, political outlook, and professional economic status; household socioeconomic status when the respondent was 14; respondent's age, education level, marital status, religious beliefs, and political outlook; percentage of the total household population out of the province for more than six months; and provincial gender role attitude variables. Given that the cross-sectional data make it challenging to determine a rural migrant's gender role values before migration, to reduce migration's endogeneity, we included provincial gender role attitude levels (based on non-migrant rural household respondents; the average score for gender role attitudes is calculated using the province as the measurement of provincial gender role attitudes) in the 'factors influencing migration behaviour' model to control for the impact of gender role culture on migration behaviour:

$$\ln\left(\frac{p(\text{migration}=1)}{1-p(\text{migration}=1)}\right) = k + \beta x + \ell \quad (1)$$

Second we estimated separate regression models of the outcome for each treatment level and obtained treatment-specific predicted outcomes for each participant. We used two separate ordinary least squares regressions of  $y$  (gender role attitudes) on  $x$ , one each for the treated (migration) and control (non-migration sample) samples. Linear regression used respondents' gender, age, marital status, education level, income logarithm, religious belief, political outlook, and provincial gender role attitude levels as explanatory variables:

$$\begin{aligned} y_1 &= k_1 + \beta_1 x + \ell_1 \quad \text{if } D_i(\text{migration}) = 1 \\ y_0 &= k_0 + \beta_0 x + \ell_0 \quad \text{if } D_i(\text{migration}) = 0 \end{aligned} \quad (2)$$

Third we computed the weighted means of treatment-specific predicted outcomes; the weights are the inverse probability weights computed in step 1. The contrasts of the weighted averages provide the average treatment effect (ATE) estimates. Equation (3) is the function of the ATE, where  $\hat{\beta}(z_i)$  is a first-step estimate of the logit model in (1),  $\hat{\beta}_1$  and  $\hat{\beta}_0$  are the linear regression estimates, and  $D$  is the treatment variable migration in (2):

$$ATE = \frac{1}{N} \sum_{i=1}^N \frac{D_i(y_i - x_i' \hat{\beta}_1)}{\hat{p}(z_i)} - x_i' \hat{\beta}_1 - \frac{1}{N} \sum_{i=1}^N \frac{(1-D_i)(y_i - x_i' \hat{\beta}_0)}{1-\hat{p}(z_i)} - x_i' \hat{\beta}_0. \quad (3)$$

## 4. Results

### 4.1 Description of the variables

Table 3 summarises the descriptive statistics for each variable. The average gender role attitude value was 2.85 (SD = 0.66), which demonstrates poor gender equality in China. The results demonstrate that migrants espouse attitudes of gender equality regarding women's working abilities and survival opportunities relative to other aspects of their participation in the labour market and distribution of family responsibilities. In the sample, 21.21% had migrated between rural and urban regions. For detailed descriptive statistics of each variable, see Table 2.

**Table 2: Variable descriptions (N = 4,791)**

Variables	Mean (%)	SD	Min	Max
Role	2.85	0.66	1	5
Career–family	3.48	1.14	1	5
Capability	3.10	1.16	1	5
Job–marriage	3.18	1.13	1	5
Job dismissal	2.27	0.99	1	5
Housework	2.20	1.00	1	5
G_role	2.95	0.12	2.62	3.14
G_career–family	3.62	0.21	2.84	4.04
G_capability	3.21	0.19	2.75	3.69
G_job–marriage	3.26	0.16	2.61	3.5
G_job dismissal	2.37	0.18	1.33	2.68
G_housework	2.23	0.19	1.75	2.59
<b>Male</b>				
Women (0)	52.89			
Men (1)	47.11			
<b>Age</b>	44.64	12.72	18	65
<b>Education</b>				
Primary school and below	41.06			
Junior high school	36.38			
High school and above	22.56			
Income(ln)	7.49	4.66	-2.30	16.12
<b>Marriage</b>				
No (0)	9.58			
Yes (1)	90.42			
<b>Religion</b>				
No (0)	89.00			
Yes (1)	11.00			

**Table 2: (Continued)**

Variables	Mean (%)	SD	Min	Max
<b>Party</b>				
Masses (0)	94.93			
Chinese Communist Party member (1)	5.07			
PER	19.16	4.99	11.09	29.72
<b>Urban</b>				
Rural (0)	63.06			
Town (1)	36.94			
<b>Non-farm</b>				
No (0)	42.33			
Yes (1)	57.67			
<b>Migrant</b>				
Non-migrants (0)	78.79			
Migrants (1)	21.21			
<b>P_education</b>				
Primary school and below	77.00			
Junior high school	16.26			
High school and above	6.74			
<b>P_party</b>				
Masses (0)	91.36			
Chinese Communist Party member (1)	8.64			
P_status	2.90	1.67	1	10
P_ISEI	21.38	13.25	16	88

#### 4.2 Propensity results of the augmented inverse probability weighting model

The results show that variables such as gender, age, education level, marital status, religious beliefs, income logarithm, household socioeconomic status at age 14, population emigration rate of the province, and provincial gender role attitudes impact rural people's migration decisions (Table 3).

Next we calculated the propensity score of migration using Equation (1). Table 5 compares the sample's different test results before and after AIPW was conducted. The closer the weighted standardised difference to 0 (and the weighted variance ratio to 1), the greater the balance. From the covariate balance test results of the two groups of data (Table 4), the normalised difference in each variable was reduced and approached 0 after weighting. The variance ratio and normalised difference values were close to 0 after matching, showing that via AIPW, in the matched samples, the migration and non-migration groups achieved a balance on each covariant; that is, the selectivity of migration samples had been effectively controlled for. We then conducted subsequent analyses based on the matched samples.



**Table 3: Model for rural people's migration decisions**

Variables	Coefficient	P-value	95% Conf. Interval
PER	0.049	0.000	[0.035, 0.063]
P_education (reference: primary school and below)			
Junior high school	0.145	0.164	[-0.059, 0.350]
High school and above	0.057	0.705	[-0.237, 0.351]
P_party (reference: mass)	0.186	0.166	[-0.078, 0.450]
P_ISEI	-0.001	0.807	[-0.007, 0.005]
P_status	0.038	0.093	[-0.006, 0.082]
Male (reference: women)	-0.216	0.005	[-0.367, -0.064]
Age	-0.029	0.000	[-0.037, -0.021]
Education (reference: primary school and below)			
Junior high school			
High school and above	0.354	0.000	[0.164, 0.545]
Marriage (reference: no)	0.754	0.000	[0.527, 0.980]
Religion (reference: no)	0.419	0.002	[0.150, 0.687]
Party (reference: mass)	0.220	0.061	[-0.010, 0.449]
Income(ln)	-0.045	0.790	[-0.377, 0.287]
G_role	-2.217	0.00	[-2.782, -1.652]
Constant	4.682	0.000	[2.902, 6.462]
Sample size	4791		
Pseudo R <sup>2</sup>	0.079		

**Table 4: Variable balance test**

Variables	Standardised differences		Variance ratio	
	Raw	Matched	Raw	Matched
PER	0.245	-0.061	1.082	0.897
P_education				
Junior high school	0.249	-0.013	1.495	0.977
High school and above	0.146	-0.005	1.598	0.982
P_party	0.078	0.010	1.248	1.030
P_ISEI	0.141	-0.018	1.170	0.907
P_status	0.203	-0.014	1.155	1.020
Male	-0.094	0.008	0.985	1.001
Age	-0.480	0.015	0.954	0.955
Education				
Junior high school	0.032	-0.011	1.018	0.994
High school and above	0.395	0.002	1.509	1.002
Marriage	-0.143	0.009	1.443	0.974
Religion	0.029	-0.016	1.073	0.959
Party	0.052	0.006	1.231	1.023
G_role	-0.373	0.035	1.550	1.026

### 4.3 Migration and labourers' gender role attitudes

Table 5 presents the empirical results of migration and rural labourers' gender role attitudes. For the total gender role attitudes score in Column (1), the ATE is  $-0.071$  and the  $p$ -value is less than  $0.01$  ( $p = 0.005$ ). This indicates that migrants accept gender equality more than non-migrants. For family and career, in Column (2), the ATE is  $-0.165$ , and the  $p$ -value is less than  $0.001$  ( $p < 0.001$ ). Thus, regarding the statement 'Men put career first and women put family first,' migrants accept gender equality more than non-migrants. For working ability, in Column (3), the ATE is  $-0.051$  and  $p = 0.242$ . Thus migration had no noticeable influence on gender role attitudes in the area of working ability. For marriage and jobs, in Column (4), the ATE is  $-0.070$  and  $p = 0.111$ . Thus migration had no noticeable influence on gender role attitudes regarding 'the significance of marriage and hard work for success in life.' For job dismissal, in Column (5), the ATE is  $-0.091$  and the  $p$ -value is less than  $0.05$  ( $p = 0.014$ ). Therefore, regarding the statement 'Women should be fired before men when the economy is in a recession,' migrants accept gender equality more than non-migrants. Finally, for housework sharing, in Column (6), the ATE is  $0.049$  and the  $p$ -value is not significant ( $p = 0.178$ ). Thus, regarding the statement 'Husbands and wives should share housework equally,' gender role attitudes do not differ much between migrants and non-migrants. In summary, the results of the AIPW model reveal that migration is negatively associated with gender role perceptions of the rural labour force and that migrants accept gender equality more than non-migrants. As noted, migration creates an opportunity for rural people to immerse themselves in the relatively equal gender cultures of urban areas, making them amenable to a culture of greater gender equality. Thus Hypothesis 1 is verified.

The interesting result is that the impact of migration on gender role perceptions of the rural labour force varies across dimensions of gender role perceptions. Regarding the statements 'Men put career first and women put family first' and 'Women should be fired before men when the economy is in a recession,' migration is negatively associated with gender role perceptions of the rural labour force and migrants accept gender equality more than non-migrants. However, regarding the statements 'Men are naturally more capable than women at work,' 'Marrying well is better than being good at a job,' and 'Husbands and wives should share housework equally,' migration had no strong or noticeable influence on gender role perceptions of the rural labour force. This indicates that the influence of rural–urban migration on the change in rural people's gender role attitudes is focused on the labour market dimension rather than the promotion of women's status in the family and the ability to exercise decision-making powers. Thus Hypothesis 2 is verified.

**Table 5: Migration and gender role attitudes (N = 4,791)**

	(1)	(2)	(3)	(4)	(5)	(6)
	Total role score	Family and career	Working ability	Jobs and marriage	Job dismissal	Housework sharing
ATE	-0.071	-0.165	-0.051	-0.070	-0.091	0.049
SE	(0.025)	(0.043)	(0.044)	(0.044)	(0.037)	(0.036)
p-value	0.005	0.000	0.242	0.111	0.014	0.178
CI	[-0.121, -0.021]	[-0.250, -0.081]	[-0.137, 0.034]	[-0.156, 0.016]	[-0.164, -0.018]	[-0.022, 0.121]

#### 4.4 Provincial gender cultural effects

Affected by regional economic development and modernisation levels, perceptions of the value of gender equality differ per region. Provinces with lower gender role attitude scores attribute a higher value to gender equality. Thus, to moderate the migration behaviour effects on rural migrant workers' gender role attitudes, we divided the gender role culture of rural areas into two based on how the culture values gender equality, creating a two-category variable: high ( $\leq$  the mean of provincial gender role attitudes score) and low ( $>$  the mean of provincial gender role attitudes score) gender equality areas. That is, the two levels were calculated at a provincial level; each province of origin for rural migrants has only one value. Table 6 shows the model results for modelling by gender culture classes.

The total role score suggests that in high gender equality areas (sample A: provincial gender role attitudes score  $\leq$  mean value), migration showed no apparent influence on gender role attitudes (ATE = 0.041;  $p = 0.395$ ). In low gender equality areas (sample B: provincial gender role attitudes score  $>$  mean value), migration had an impact on gender role attitudes (ATE = -0.109;  $p < 0.001$ ). Thus, for rural areas with more unequal gender cultures, migration played a negative role in the gender role attitudes of the rural labour force and could increase their perceptions of gender equality. Further, the gender role attitudes of rural labourers from areas that highly value gender inequality improve positively, weakening the inherited effect of the traditional gender role culture.

In high gender equality areas, migration influenced rural labourers' gender role attitudes regarding family and career (ATE = -0.129;  $p = 0.027$ ). In low gender equality areas, migration also caused a change in people's gender role attitudes (ATE = -0.184;  $p = 0.005$ ). Hence the impact of migration on rural migrants' gender role attitudes regarding the statement 'Men put career first; women put family first' is moderated by the rural area's gender culture. Migration's influence on gender role attitudes is greater for rural migrants from low gender equality areas.

For the category working ability, in high gender equality areas, migration had no noticeable influence on attitudes toward gender roles (ATE = 0.040;  $p = 0.526$ ), but in low gender equality areas, migration influenced rural people's gender role attitudes (ATE = -0.123;  $p = 0.046$ ). Regarding the statement 'Men are naturally more capable than women at work,' such influence was moderated by the gender culture of the rural area. Only in rural areas where gender role attitudes identified men as superior to women in their work capability were such attitudes positively influenced by migration.

For the job dismissal statement, in high gender equality areas, migration did not influence gender role attitudes much (ATE = -0.079;  $p = 0.247$ ), but in lower gender equality areas, migration influenced rural people's gender role attitudes (ATE = -0.114;  $p = 0.009$ ). Thus the response to the statement 'Women should be fired before men when the economy is in a recession' is moderated by the gender culture of the rural area. Only in rural areas where attitudes stressed gender inequality were such attitudes apparently affected by migration.

However, regarding the categories of jobs and marriage and housework sharing, migration did not noticeably impact rural people's gender role attitudes in either low or high gender equality cultural samples. The influence of migration on gender role attitudes as reflected in responses to the statements 'Marrying well is better than being good at the job' and 'Husband and wife should share housework equally' was not pronouncedly moderated by the gender culture of the rural area. Thus Hypothesis 3 is partially verified.

**Table 6: Provincial cultural differences in the influence of migration on gender role attitudes**

	(1)	(2)	(3)	(4)	(5)	(6)
	Total role score	Family and career	Working ability	Jobs and marriage	Job dismissal	Housework sharing
High gender equality area (sample A: provincial gender role attitudes score $\leq$ mean value)						
ATE	0.041	-0.129	0.040	-0.044	-0.079	0.069
SE	(0.049)	(0.058)	(0.063)	(0.057)	(0.068)	(0.070)
p-value	(0.395)	(0.027)	(0.526)	(0.445)	(0.247)	(0.395)
CI	[-0.054, 0.137]	[-0.243, -0.015]	[-0.084, 0.164]	[-0.156, 0.069]	[-0.213, 0.055]	[-0.069, 0.207]
N	1,295	2,705	2,474	2,821	1,466	1,395
Low gender equality area (sample B: provincial gender role attitudes score $>$ mean value)						
ATE	-0.109	-0.184	-0.123	-0.102	-0.114	0.041
SE	(0.030)	(0.066)	(0.061)	(0.069)	(0.044)	(0.043)
p-value	0.000	0.005	0.046	0.142	0.009	0.344
CI	[-0.168, -0.051]	[-0.312, -0.055]	[-0.243, -0.002]	[-0.237, 0.034]	[-0.200, -0.028]	[-0.044, 0.125]
N	3,496	2,086	2,317	1,970	3,325	3,396

Note: Gender role perception variables were grouped per changes in the dependent variable using the corresponding provincial-level gender role perceptions.

## 4.5 Gender effects

Table 7 presents the results of the AIPW model to test gender differences' moderating effects, which shows that rural–urban migrant experiences have a multidimensional influence on rural migrants' gender role attitudes. Regarding the total role score, migration was found to have influenced gender role attitudes (ATE =  $-0.063$ ;  $p = 0.050$ ) in both women and men (ATE =  $-0.074$ ;  $p = 0.047$ ). Migration's impact on people's gender role attitudes was not completely moderated by gender. Specifically, the impact of migration on gender role attitudes was not apparent for men and women regarding the categories working ability, marriage and jobs, and housework sharing.

The moderating effect of gender on the gender role attitudes of rural migrants exhibited differences. Regarding family and career, migration had a more obvious impact on men (ATE =  $-0.204$ ;  $p = 0.002$ ) than on women (ATE =  $-0.121$ ;  $p = 0.025$ ) with respect to gender role attitudes towards the statement 'Men put career first; women put family first.' Hence migration's influence on gender role attitudes was moderated by gender. For the job dismissal category, migration influenced gender role attitudes (ATE =  $-0.137$ ;  $p = 0.005$ ) among women. However, migration did not influence this factor much (ATE =  $-0.040$ ;  $p = 0.481$ ) among men. Thus the influence of migration on gender role attitudes was moderated by gender. Moreover, only among women did migration cause a transformation of gender role attitudes regarding the statement 'Women should be fired first when the economy is in a recession.' Accordingly, Hypothesis 4 is verified.

**Table 7: Gender differences in the influence of migration on gender role attitudes**

	(1)	(2)	(3)	(4)	(5)	(6)
	Total score	Family and career	Working ability	Marriage and jobs	Job dismissal	Housework sharing
Sample A: women's sample (N = 2,534)						
ATE	-0.063	-0.121	-0.041	-0.052	-0.137	0.033
SE	(0.032)	(0.054)	(0.057)	(0.058)	(0.049)	(0.048)
p-value	0.050	0.025	0.467	0.366	0.005	0.485
CI	[-0.127, -0.000]	[-0.226, -0.015]	[-0.153, 0.070]	[-0.165, 0.061]	[-0.233, -0.041]	[-0.060, 0.126]
Sample B: men's sample (N = 2,257)						
ATE	-0.074	-0.204	-0.060	-0.082	-0.040	0.081
SE	(0.038)	(0.067)	(0.067)	(0.066)	(0.056)	(0.055)
p-value	0.047	0.002	0.364	0.211	0.481	0.145
CI	[-0.148, -0.001]	[-0.335, -0.072]	[-0.191, 0.070]	[-0.211, 0.046]	[-0.150, 0.071]	[-0.028, 0.189]

## **5. Discussion and conclusion**

Using 2015 CGSS data, this study contributes to our understanding of the role of rural–urban migration in the transformation of rural migrants' gender cultural perspectives. Empirical evidence has indicated that rural–urban migration, as an important life event, has promoted gender equality among rural migrants through their exposure to urban living and working environments. Migration's impact on the rural labour force's attitudes on gender equality is greater in terms of urban labour market participation than it is at the domestic level. The moderating effects of provincial gender culture and gender differences demonstrated that, for migrants from regions with gender role attitudes reflecting inequality, migration weakens the inheritance effect of such attitudes in the areas of family and career, working ability, and job dismissal. However, for gender-based perceptions of jobs and marriage and housework sharing, the host city's gender role culture has no noticeable influence on people from cultures that do not value gender equality. Rural–urban migrant experiences reduce the inheritance effect of gender role attitudes regarding the statement 'Men put career first; women put family first' more among rural men. However, these experiences more obviously impact women migrants than men migrants regarding responses to the statement 'Women should be fired first when the economy is in a recession.'

The findings demonstrate that rural–urban migration, as an important life event, positively transforms people's cultural perceptions into more egalitarian ones. This finding implies that migration can be as important as education and intergenerational transmission in facilitating the re-socialisation of migrant populations and in producing a more egalitarian view of gender roles. Rural migrant men and women are both exposed to urban factories with advanced management techniques, allowing them to understand women's working skills and enhance their economic status, which enables women to accumulate the new knowledge of competing with men in the labour market. The increased participation of women in the workplace and their economic advancement is a significant cultural recognition transformation for migrants who perceive men as playing a dominant economic and decision-making role in the family under the traditional patriarchy.

This change in cultural perception thus makes rural people from cultural areas with a low level of gender equality concede that women can achieve social mobility through working ability and weakens the male migrant worker's notion that marriage is the only outcome for women. This explains why the migration experience in most instances noticeably influenced gender role attitudes in the area of family and careers among rural migrant men from areas with more conservative gender role values. Furthermore, women's participation in the labour force improves their economic capacity and skills (Mason and Lu 1988) and provides them with respect and a beneficial social status. In

this way, women gain a greater recognition of their ability to pursue their own careers and to claim their legal rights to be equally treated when they face job dismissal. The above findings suggest that China's modernisation development is gradual; hence gender culture exhibits urban–rural and regional differences. The transformative effect of rural–urban migration on traditional gender culture in rural China promotes the structural transformation of the gendered division of labour between urban and rural areas in China from traditional to modern and enhances the concept of a culture of gender equality.

However, the present study also proves that the influence of migration on rural individuals is not as prominent in family matters; female migrant workers remain responsible for housework. We believe that this heterogeneity is due to the following:

Once rural migrants are back in the family domain, cultural schemas that justify their professional performance are no longer empowered and regenerated by gender cultural resources in urban work environments. In turn, the inheritance effects of traditional gender role attitudes act as strong cultural schemas that are widespread and constantly practised by actors reclaiming men's long-standing dominant gender cultural roles within the rural migrant's family (Sewell 1992). Men, again, separate women's performance in the labour market from their household responsibilities. In this sense, the principal primacy of family interests from the domestic sphere restricts the free choice of migrant women: They face frequent interruptions in employment and hold short-term jobs in destination cities because of childbirth, children's educational demands, and returning to their hometowns to care for aging relatives.

Moreover, with the refinement of child care concepts, the younger generation of Chinese parents is becoming more involved in their children's education and is increasingly focused on providing companionship and mental health education. However, due to the inadequate allocation of educational resources and poorly developed social welfare support systems, women often withdraw from the labour market and return to family care duties for their children and aging family members. This choice is usually motivated by the economic rationality of the family: To balance family relations and maximise family benefits, women compromise and assume responsibility for child care and caregiving (Kalmijn 2019; Hyman, Guruge, and Mason 2008). This is in line with the recent trend in Chinese society towards a recurrence of the traditional 'male-dominated and female-dominated' model of gender role attitudes (Gu 2013). The return of women to the home, in turn, has reinforced men's rejection of the value of women's work outside the home and their recognition of women's traditional domestic role. China's second- and third-child policies and its aging society further spotlight the domestic caring responsibility of women. In addition, women who return to their families are at risk of losing their source of income. Some rural women continue to maintain their basic means of subsistence through dependence on male members of the family or

through marriage, which may reaffirm the traditional gender role attitudes supporting male domination held by rural migrant people.

It is worth noting that capitalism uses the mechanism of the urban–rural dichotomy to maximise access to cheap rural labour, forcing rural migrants to adopt the most economical intra-household division of labour by dividing economically productive activities and unpaid household work according to traditional gender role divisions in urban and rural living spaces or in small urban migrating families. Meanwhile, the competitive market environment exploits this by providing ‘legitimacy’ for many young female workers temporarily, since they eventually return to their hometowns to care for their families. While migration encourages gender equality, the uneven distribution of treatment and benefits in the urban labour market can put women at a greater disadvantage, forcing them to eventually return to the domestic sphere.

The limitations of this study are related to the following three characteristics: First, given that the CGSS cannot accurately identify the ‘returning rural labour force,’ we used the street, village, and town levels as places of migration to identify migrants who had left their towns (counties) and returned to towns near their original rural areas and to minimise underestimation of the migration effect. Second, an accurate test of the effect of migration on respondents’ gender perceptions requires knowledge of the situation before and after migration. Using a counterfactual framework to capture the effects of migration on gender role perceptions is a relatively appropriate approach when only cross-sectional data are available. It is worth mentioning that our study can only demonstrate that migration affects the gender role attitudes of rural migrants to varying degrees compared with those of rural people with no migrant experiences. However, this is not exactly the same as showing how much migration changes the gender role perceptions of migrants. Third, the mechanisms by which migration influences rural labourers’ gender role attitudes, including personal attributes and the degree of integration and dis-embeddedness of rural migrants in home villages and host cities, are complex and diverse. A comprehensive analysis is necessary to understand the impact of additional factors – such as the level of urbanisation and cultural openness, socioeconomic integration, and the time of migration – on changes in gender role attitudes among migrants. Thus future studies can further empirically examine changes in the rural migrant’s gender role attitudes given rural–urban migration.

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