

## Article

# How Does Labor Mobility Affect Common Prosperity?—An Empirical Study Based on a Panel of Chinese Cities

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**Abstract:** Common prosperity is an essential requirement of socialism and an important feature of China's modernization. Based on panel data from 159 prefecture-level cities in China between 2010 and 2019, combined with a fixed-effects model, mediation regression model, and spatial Durbin model, this study empirically examines the impact and mechanism of labor mobility on common prosperity. The study found that (1) labor mobility can significantly promote the realization of common prosperity, and this conclusion is robust. (2) Labor mobility has a significant mediating effect on the improvement in the common prosperity level by promoting economic growth spillovers and return effects. (3) The impact of labor mobility on common prosperity is heterogeneous, with regions with lower mobility costs and more developed economies showing stronger promotion effects. Based on the research findings, policy recommendations include breaking down barriers to mobility, protecting the rights of farmers, and establishing regional cooperation mechanisms.

**Keywords:** common wealth; labor mobility; industrial structure optimization; industrial agglomeration; threshold effect



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## 1. Introduction

One important characteristic of modern economic development is the mobility of the labor force. As one of the most important factors in production, labor mobility can facilitate economic links between different regions, promoting economic growth and optimizing resource allocation. In China, with the progress of reform and urbanization, an increasing number of people have migrated to cities, resulting in large-scale labor mobility. However, the impact of this mobility is not always positive, with one of the most important issues being whether mobility contributes to the goal of common prosperity.

Common prosperity is a fundamental requirement and feature of socialism with Chinese characteristics, achieving the unity of fairness and efficiency in the development process, so that the benefits of development are shared by all people. Although China has achieved significant economic development in recent years, issues of imbalance and inadequacy still exist, such as income disparities between urban and rural areas, inadequate infrastructure and public services, unbalanced development between eastern, central, and western regions, and the central-peripheral pattern. If these issues cannot be resolved, it will affect China's smooth progress toward achieving the great rejuvenation of the Chinese nation. Therefore, how to achieve common prosperity through labor mobility has become an urgent issue.

Against this background, whether labor mobility can achieve regional convergence and promote common prosperity is a question that needs to be explored. Some studies suggest that labor mobility can promote the coordinated development of regions, thus achieving the goal of common prosperity, while others believe that labor mobility will only exacerbate regional disparities. This divergence reflects the significant uncertainty still surrounding the impact of labor mobility on regional economic development. In addition, as China's economic growth enters the "new normal" stage, emphasis is placed on improving quality, restructuring and upgrading the economy. Supply-side reform will also focus more on the

orderly and free flow of production factors, which will inevitably lead to further adjustment of the quantity and structure of the labor force between regions. In this context, how to properly guide the direction of labor mobility to achieve the goal of common prosperity will be one of the important issues facing China's economic development.

In summary, labor mobility and common prosperity are two important issues in China's economic development, and their relationship is crucial to the country's progress. Therefore, this paper will explore the relationship between labor mobility and common prosperity, aiming to investigate the role and mechanisms of labor mobility in promoting China's economic development and achieving common prosperity. This paper is divided into several parts: the first part will provide an overview of the relationship between labor mobility and common prosperity; the second part will explore the mechanisms by which labor mobility contributes to achieving common prosperity in China, including promoting resource allocation, increasing employment rates, and driving industrial upgrading; the third part will use panel fixed-effect models, spatial Durbin models, and other methods to verify the relationship and mechanisms between labor mobility and common prosperity; and the fourth part will explore how to properly guide labor mobility to achieve the goal of common prosperity. Through this research, this paper aims to provide some reference and inspiration for the realization of labor mobility and common prosperity.

## 2. Literature Review

### 2.1. *The Concept of Common Prosperity and Its Historical Evolution*

The connotation of common prosperity has been continuously enriched and improved with social progress and economic development. The concept of common prosperity first appeared in the "Resolution on Developing Agricultural Cooperatives" in 1953, which proposed to enable farmers to "achieve a life of common prosperity and universal prosperity [1]". After that, Chairman Mao Zedong and other leaders further expanded the connotation of common prosperity. In this stage (1949–1978), the connotation of common prosperity mainly included three aspects: firstly, the prosperity of farmers. As farmers constitute the vast majority of the population and are an important part of the worker-peasant alliance, it is necessary to ensure their common prosperity to consolidate the worker-peasant alliance and the ruling foundation of the Party. Secondly, material and cultural prosperity. On the basis of developing production, it is necessary to gradually improve the level of people's material and cultural life, and achieve material and cultural prosperity [2]. Thirdly, differentiated prosperity instead of egalitarianism. Mao Zedong firmly opposed egalitarianism. A certain reasonable difference in living standards between workers and peasants, urban and rural areas, different occupations, different technical levels, and different regions is necessary, but unreasonable large gaps should be avoided [3].

After the reform and opening up (1978–2013), Deng Xiaoping proposed that common prosperity is the characteristic, fundamental purpose, and principle of socialism: "The essence of socialism is to liberate productivity, develop productivity, eliminate exploitation, eliminate polarization, and ultimately achieve common prosperity [4]." In this stage, the connotation of common prosperity mainly included four aspects: firstly, common prosperity is the prosperity of the entire nation [5]; secondly, it is a prosperity that has differences in timing, speed, and degree. Common prosperity does not mean simultaneous and equal prosperity or complete equality, but rather prosperity that has differences in timing, speed, and degree; thirdly, it requires the unity of material civilization and spiritual civilization, and cannot ignore the construction of spiritual civilization; fourthly, it emphasizes efficiency first and fairness as well [6]. Socialism not only needs to create higher productivity but also needs to achieve higher levels of fairness and justice, allowing all the people to share the fruits of reform and opening up.

In the new era (on 18 October 2017, General Secretary Xi Jinping made a significant declaration in his report to the 19th National Congress of the Communist Party of China, stating that after long-term efforts, socialism with Chinese characteristics has entered a new era.), with the continuous development of China's economy and the improvement in

people's living standards, there has been a relatively obvious phenomenon of wealth and income polarization. The Chinese government has taken a series of measures such as the strategy of poverty alleviation, rural revitalization, and regional coordinated development to try to change this unbalanced and inadequate development pattern. In this stage, the connotation of common prosperity mainly includes the following aspects: firstly, common prosperity is an important goal of socialist modernization and an important characteristic of Chinese-style modernization; secondly, common prosperity is the prosperity of all the people. It is not the prosperity of a small number or a part of the people but the prosperity of all the people, and it is universal prosperity; thirdly, common prosperity is the prosperity of individuals, manifested in the satisfaction of various needs and the comprehensive development of individuals.

## 2.2. Factors Influencing Labor Mobility

There are many factors that affect labor mobility, including economic, cultural, social, and geographic factors. Personal factors include education level, skills, and preferences, while economic factors include salary and employment opportunities. Cultural factors include cultural background and values, while social factors include welfare systems, social networks, and racial factors. Geographic factors include climate, geography, and environmental factors. These factors interact to affect labor migration.

### 2.2.1. Economic and Geographic Factors

Economic factors are an important factor that affects labor mobility. On the one hand, high salaries and superior working conditions can attract labor to a particular region or country. On the other hand, a lack of employment opportunities and low salaries can also cause labor to leave their original work location [7]. The "urban employment model" proposed by Harris and Todaro (1970) suggests that labor moves from rural to urban areas to obtain higher wages and better living conditions [8]. However, labor mobility may be restricted in remote areas or areas with harsh geographic conditions. Wang and Liu's (2015) research found that climate, geography, and environmental factors have a significant impact on the mobility of migrant workers in China. In addition, the lack of basic infrastructure such as transportation and communication can also limit labor mobility, such as the development of some remote areas may be affected by poor transportation [9].

### 2.2.2. Political and Cultural Factors

Political and cultural factors also affect labor mobility. Political instability or a poor political environment can cause some people to leave their hometown or country to seek a more stable living and working environment. For example, the Syrian civil war is one of the main reasons for the large-scale flow of Syrian refugees [10]. Conversely, political stability and a good political environment can attract more people to work in that region or country. Hofstede (2011) points out that cultural background and values may affect people's choices regarding work and life [11]. Some cultures may prioritize family and kinship, which may encourage people to stay and work near their hometown, while other cultures may emphasize personal achievement and career development, leading them to seek better opportunities in larger cities or foreign countries. Ferguson's (2015) research indicates that cultural factors are an important influencing factor in global political and economic development, affecting social development, social change, and population mobility [12].

### 2.2.3. Social Factors

Chakravorty's (2010) research found that differences in social welfare policies and social security systems may affect people's choices of where to work and live [13]. In some countries, the welfare system is relatively comprehensive, which may attract more immigrants to work and live in that area. In contrast, weaker welfare systems in other countries may prompt some people to leave in search of better living conditions. Dustmann and Preston's (2007) research found that race and economic factors play an important role

in immigration attitudes, which may also affect labor mobility [14]. In addition, Massey et al.'s (1993) research shows that social networks play an important role in immigration and labor mobility [15].

### *2.3. Review of the Relationship between Labor Mobility and Common Prosperity*

Labor mobility and common prosperity are two important concepts in the field of economics. Studies on the relationship between labor mobility and common prosperity can be divided into two main lines.

The first line of research focuses on whether labor mobility promotes economic development. The economic development effects of labor mobility are mainly reflected in labor productivity, income effects, and overall economic efficiency. Labor mobility is a process of resource re-allocation that conforms to the law of economic development. When labor moves from the agricultural sector to the industrial sector, it improves resource allocation and utilization efficiency, and labor productivity is enhanced at the macro level [16,17]. The average wage in the industrial sector or the destination area is higher than that in the original agricultural sector or the origin area, and this regional and sectoral flow process increases the absolute income and consumption level of workers [18], resulting in consumption-driven effects that expand the market size and form a virtuous cycle of development [19]. The spatial agglomeration effect of labor mobility helps to achieve human capital accumulation and overall factor productivity increment, while the technological externality brought by skilled workers further promotes overall economic growth [20].

The second line of research focuses on the impact of labor mobility on regional development gaps. Many studies have shown that the economic effects of labor mobility on the origin and destination areas have significant heterogeneity, which is a key factor determining the relationship between labor mobility and development gaps. The economic growth effects of labor mobility are mainly found in the destination areas [21–23], while the impact on the origin areas can be viewed from three perspectives.

The first perspective suggests that labor outflow leads to a lack of essential production factors and economic resources necessary for economic growth, which has a negative impact on local economic development and inevitably exacerbates the existing development gap with the destination areas, hindering the realization of common prosperity [24]. However, under the neoclassical theory of economic growth, the outflow of factors of production from the origin areas realizes marginal productivity and capital–labor ratio convergence, and the income effects of labor outflow reduce regional income gaps, ultimately achieving regional convergence. Research by Li Lanbing (2011), Fan Gang (2005), and Wang Xiaolu (2004) supports this argument [25–27].

The third perspective suggests that the relationship between labor mobility and regional development gaps is uncertain. According to new economic geography theory, the development gap between regions ultimately depends on the comprehensive game result of centripetal and centrifugal forces between core–periphery regions. Based on empirical evidence from different countries, Etsuro Shioji (2001) argues that labor mobility does not necessarily bring about regional convergence, as population migration in some countries widens regional gaps [28]. Taylor and Williamson (1997) suggest that labor mobility can promote the convergence of regional productivity and income, but on the other hand, capital and labor outflows offset its convergence effects, resulting in uncertain changes in income gaps [29].

Based on the existing research, numerous studies have provided detailed descriptions and achieved many research outcomes on the concept of common prosperity, factors influencing labor mobility, and the relationship between the two. However, the shortcomings of the related research include: (1) the current research on the relationship between labor mobility and common prosperity is still two independent topics, and few scholars have conducted systematic research on the relationship between the two; (2) the measurement of labor mobility is relatively crude, and some studies even fail to distinguish between inflow and outflow, resulting in low reliability of regression results; (3) the current measurement of

the equilibrium level in common prosperity has some defects, and some studies emphasize equalization without distinction, which deviates from the actual conditions.

Compared with the existing research, this article may provide marginal innovation by (1) introducing the connotation of common prosperity into labor mobility research and specifically exploring the actual impact of labor mobility on common prosperity; (2) improving the measurement method of the equilibrium level proposed by Li Shenghui (2016) [30]. Based on the comprehensiveness of the indicators, this article changes the idea that every city must coordinate with other cities in previous research by applying geographical distance weights. The improved equilibrium level measurement method makes the upper limit of the equilibrium level between cities decrease with the increase in geographical distance. (3) This article constructs a labor mobility measurement model based on geographical distance, income level, and housing price level, using push–pull theory and the gravity model, and calculates the theoretical labor mobility scale and direction based on this model.

### 3. Analysis of Theoretical Mechanisms: Labor Mobility and Common Wealth

#### 3.1. Labor Mobility Promotes the Realization of Common Prosperity

Labor mobility, as one of the important characteristics of modern economic development, plays a positive role in promoting the realization of common prosperity.

Firstly, labor mobility can eliminate the phenomenon of labor surplus and labor shortage between regions and promote the optimization of resource allocation. According to classical economic theory, when labor flows freely between different regions, the equilibrium supply and demand of labor will be automatically achieved through market mechanisms, thus eliminating the phenomenon of labor surplus and labor shortage between regions and realizing the optimization of resource allocation. In China, the relatively developed eastern regions usually have a surplus of labor, while the relatively underdeveloped central and western regions face a shortage of labor. If labor can flow freely, then labor can flow from the eastern region to the central and western regions, realizing the optimization of labor resources and promoting the realization of common prosperity.

Secondly, labor mobility can promote the flexibility of the labor market and improve economic efficiency. According to labor market theory, the flexibility of the labor market is of great importance in improving economic efficiency. When the labor market is more flexible, enterprises can make more flexible employment arrangements to meet changes in market demand, thereby improving production efficiency. Labor mobility can promote the flexibility of the labor market. When labor can flow freely, enterprises can adjust their employment structure more easily, thereby improving production efficiency.

Thirdly, labor mobility can promote the transfer and sharing of technology and knowledge, thus enhancing the innovation ability and competitiveness of the entire economic system and promoting the realization of common prosperity. Through labor mobility, people can obtain broader development opportunities and better exert their potential and abilities. At the same time, they also have the opportunity to be exposed to advanced technology and management experience from different regions, as well as new markets and business models. This can not only improve personal competitiveness and employment prospects but also drive regional economic development and the improvement in innovation capabilities. For example, due to talent flow and entrepreneurship, Shenzhen has become a globally renowned center for technological innovation and manufacturing in just over thirty years. In developed countries such as the United States, Japan, and Germany, talent mobility played a critical role in achieving economic prosperity. This is not possible within a limited region but can be achieved by expanding the scope, continuous flow, and exchange, absorbing the experience and advanced technology of other regions, promoting the improvement in the innovation and competitiveness of the entire economic system, and promoting the realization of common prosperity.

Finally, labor mobility can promote the optimization of resource allocation between regions and realize common prosperity. Due to the different levels of development and

resource endowments between different regions, the optimization of resource allocation can be achieved through labor mobility. The western region of China is relatively poor but has abundant natural and labor resources, which can be fully utilized through labor mobility to promote its development. At the same time, labor mobility can also promote coordinated development between the eastern and western regions, thus realizing common prosperity nationwide. For example, with the advancement of the Belt and Road Initiative, the eastern region of China will have more opportunities to cooperate and develop with the western region and neighboring countries and regions, jointly promoting the coordinated development of the regional economy and realizing common prosperity.

Based on this, this article proposes the first hypothesis:

**H1.** *Labor mobility can promote the achievement of common prosperity.*

### 3.2. Labor Mobility, Economic Growth Spillover, and Common Prosperity

The spillover effect of economic growth is a key mechanism for labor mobility to promote economic growth in the influx and surrounding areas, and to reduce the development gap between the influx area and the surrounding areas [31]. Therefore, labor mobility has a positive impact on common prosperity. Numerous studies have shown that labor mobility can significantly promote the economic growth of the influx area. This is manifested in:

(1) Income-increasing effects. For the incoming labor force, the conversion of the production sector improves their own production efficiency and income level, and their human capital quality also improves in the process of income accumulation.

(2) Prosperity of the local market. The increased income of migrant workers supports and prospers the local market in the influx area [32], and the consumption-driven effect and factor agglomeration effect achieved in a continuous virtuous cycle promote economic growth in the influx area.

(3) Promoting industrial development. A large number of laborers flocking into the influx area provide a considerable scale of cheap labor, meeting the industrial production requirements for large-scale [33] and intensive production, and promoting the rapid development of the industrial sector in the influx area.

(4) Industry agglomeration effect. There are differences in production efficiency between the influx area and the outflow area, as well as between the agricultural sector and the industrial sector. Therefore, laborers will migrate from the low-efficiency production sectors or regions to the high-efficiency production sectors and regions. The inflow and outflow of production factors will inevitably lead to the expansion of the high-efficiency industrial and service sectors in the influx area, and the expansion of high-efficiency sectors is the basis for the formation of industrial agglomeration [34]. Once the industrial agglomeration is formed, it will promote the economic growth of the influx area through the “hole” effect, correlation effect, innovation effect, and spillover effect [35].

After the inflow of the labor force promotes economic growth in the destination area, it continues to have a positive impact on the surrounding areas’ economic growth through inter-city industrial cooperation and the secondary mobility of the inflow labor force. On the one hand, when the economic conditions and industrial foundations in the destination area develop to a certain extent, they will form division of labor and cooperation relationships with the surrounding areas under the influence of factor costs and supply–demand conditions. The inflow labor force realizes technological spillover and external innovation by cooperating with the surrounding areas in the division of labor, thereby driving the development of the surrounding areas’ industry and economic growth [36].

On the other hand, urban development has an optimal scale determined by factors such as market capacity, environmental carrying capacity, and total factor resources [37]. The continuous influx of the labor force leads to the expansion of the core city’s scale and acceleration of urbanization. However, these core cities experience skyrocketing factor costs, living costs, traffic pressure, and housing costs as the resident population increases, and environmental pollution and ecological damage gradually emerge, which have a negative impact on the further development of the inflow city’s economy. In this situation, some

of the labor force and other mobile populations who have already migrated may seek to return home or settle for less and shift their migration goals to the surrounding areas of the core city.

Compared with the core city, the surrounding areas are geographically close, with similar cultural customs. The inflow labor force only needs to pay limited time and transportation costs to enjoy the core city's living services. Moreover, the surrounding areas have lower living costs and city load levels. The inflow labor force does not have to bear high housing costs and can enjoy suboptimal social security levels and infrastructure conditions here. After the labor force flows into the surrounding areas, it further promotes the economic growth of the surrounding areas through the continued effects of income-enhancing, market prosperity, and industrial agglomeration. When the surrounding area's city load level reaches the critical value, the labor force continues to transfer to the surrounding areas' surrounding areas. Through the process of circulation, the mobility of the labor force drives the economic growth of the entire region, reducing the development gap between the core and surrounding areas and promoting the achievement of the goal of common prosperity.

Based on this, this article proposes the second hypothesis:

**H2.** *Labor mobility promotes the achievement of common prosperity by realizing the spillover of economic growth.*

### 3.3. Labor Mobility, Return Effects, and Common Prosperity

The mobility of labor, especially the outflow of labor, can produce return effects, and the return effect is the key mechanism for the shrinking of the gap between the outflow area and the economic development of the inflow area, and the realization of common prosperity [38]. The so-called return effect refers to the process of bringing economic benefits to the outflow area due to the return characteristics of migrated labor. The reason why the return characteristic exists is, on the one hand, because of the gradually rising urban living costs, strict household registration control policies, corporate income discrimination, and imperfect welfare policies that make it difficult for incoming labor to survive in the migration destination for a long time, and they can only travel back and forth between the two places. On the other hand, the return migration of labor is objectively affected by the family's life, such as caring for the elderly, spouse reunification, and child-raising [39].

Firstly, labor mobility will inevitably have a direct impact on the scale of labor return. The return of labor is based on the outflow of labor, and the larger the outflow scale, the corresponding return will also be greater, and the number of returnees will not exceed the number of outflows.

Secondly, the return effect resulting from the return characteristic promotes the economic growth of the outflow area and reduces the economic development gap with the inflow area. This is mainly reflected in:

(1) Accumulation of monetary capital. Outflow workers increase and improve non-agricultural income through the production sector. Most of the income is injected into the outflow area in the form of remittances, providing a primitive basis for expanding the market scale and upgrading consumption in the outflow area.

(2) Technology spillover. Outflow workers gain advanced technology, management experience, and market frontier information during the process of working and learning in the inflow area, improve their human capital and professional technical level, and provide technical accumulation for the modernization of local agriculture, industrial development, and industrial evolution through a certain stage of "back and forth flow" combined with local physical and human capital. This accelerates the evolution speed of various industries in the outflow area and is conducive to the local economic development of the outflow area.

(3) Acceleration of urbanization process. The return of labor has driven the development of the non-agricultural economy and increased entrepreneurship in rural areas [40]. Various non-agricultural economies and innovative activities in rural areas are promoting agricultural modernization through agricultural services, driving the non-agricultural and urbanization of the region through new economic opportunities. Without the "return"

effect of migrant workers, agriculture and rural areas may be hollowed out, and sustainable urbanization development cannot be supported [39]. The development gap between rural and urban areas will further increase.

(4) Compensation for human capital. It is undeniable that the outflow of labor causes the loss of human capital in the outflow area, but the experience of studying, working, and training in the developed area has improved the human capital level of outflow workers. Their return can be regarded as a high-return compensation for human capital [41].

(5) Progress in concept. The return of labor not only brings monetary accumulation and technological progress to hometowns but also brings advanced ideas, concepts, and ways of thinking to the hometown through the transmission of technology and concepts, which subtly promote the improvement in the spiritual civilization of the outflow area.

(6) Industrial structure optimization effect. The return of labor has raised the price of local labor factors, and companies will seek transformation and upgrading under the market price adjustment mechanism. The return of labor has accelerated the process of local non-agriculturalization, which has gradually balanced the distribution of labor between the three industries and narrowed the difference in labor productivity among them, resulting in an increase in the coupling degree of the overall industrial and employment structures.

Therefore, we believe that the return of labor has significantly promoted the economic development of the outflow area through the above channels, reducing the gap between the economic development of the outflow and inflow areas, thus promoting common prosperity.

Based on this, the third hypothesis of this paper is proposed:

**H3.** *Labor mobility promotes the realization of common prosperity through the return effect.*

#### 4. Model Construction and Current Situation Analysis

##### 4.1. Basic Model

This article explores the impact of labor mobility on common prosperity from an overall perspective [42]. To avoid endogeneity problems caused by unobservable factors that do not change over time, the baseline analysis model of this article is a panel fixed-effect model. The specific model setting is as follows:

$$CP_{it} = \alpha_0 + \alpha_1 LF_{it} + \sum \beta_i X_{it} + v_i + \varepsilon_t + \mu_{it} \quad (1)$$

where  $i$  and  $t$  represent the city and year, respectively;  $CP$  represents the common prosperity index;  $LF$  is the labor mobility, which is the core explanatory variable of this article. When its coefficient is significantly positive, it indicates that labor mobility significantly promotes the realization of common prosperity on the overall level, otherwise it has an inhibitory effect;  $X$  is the control variables;  $\alpha_0$  represents the intercept term;  $v_i$  represents the regional fixed effect;  $\varepsilon_t$  represents the time fixed effect; and  $\mu_{it}$  represents the random error term.

##### 4.2. Mediation Model

To test H3 and verify the mechanism of the impact of labor mobility on common prosperity, this article refers to the research method of Wen Zhonglin and Ye Baojuan (2014) [41] to construct the following mediation model:

$$CP_{it} = \alpha_0 + \alpha_1 LF_{it} + \sum \beta_i X_{it} + v_i + \varepsilon_t + \mu_{it} \quad (2)$$

$$Back_{it} = \vartheta_0 + \vartheta_1 LF_{it} + \sum \pi_i X_{it} + u_i + v_i + \mu_{it} \quad (3)$$

$$CP_{it} = \pi_0 + \pi_1 LF_{it} + \pi_2 Back_{it} + \sum \rho_i X_{it} + u_i + v_i + \mu_{it} \quad (4)$$

In the above equation, Equation (2) examines the direct effect of labor mobility on common prosperity; Equation (3) examines whether labor mobility is related to labor productivity; Equation (4) incorporates the mediating variable, Back, and the core explanatory variable, LF, into the regression model. In this transmission path, this article mainly focuses on the regression coefficients  $\alpha_1$ ,  $\theta_1$ , and  $\pi_1$ . If the coefficients  $\alpha_1$ ,  $\theta_1$ , and  $\pi_2$  are all significant, it proves that industrial structure optimization (Back) has a mediating effect between labor mobility and common prosperity. If the coefficient  $\pi_1$  in Equation (5) is not significant, it proves the existence of a complete mediating effect. The industrial agglomeration transmission mechanism is the same and is not shown or is redundant.

#### 4.3. Spatial Durbin Model

To verify the spillover effects of labor mobility on economic growth proposed by H2, this paper uses a spatial model to test its spillover effect. Labor mobility is the allocation process of factor resources within a spatial range, and it is also influenced by spatial distance and cultural habits with spatial proximity; thus, labor mobility has spatial spillover effects [25]. Based on the spatial characteristics of labor mobility and the potential spillover effects, it is necessary to identify the geographical impact of labor mobility on economic growth from the perspective of spatial effects, in order to make the research conclusion more accurate and complete. The commonly used spatial econometric models are the SAR model, SEM model, and SDM model. The LR test and Wald test show that the explanatory power of the SDM model is better, so the model is set as follows:

$$LNGDP_{it} = \alpha_0 + \rho\omega CW_{it} + \alpha_1 LF_{it} + \sum \beta_i X_{it} + \theta_1 \omega LF_{it} + \sum \theta_i \omega X_{it} + \varepsilon_t + \mu_{it} \quad (5)$$

where  $i$  and  $t$  represent cities and years, respectively;  $LNGDP$  represents economic growth;  $LF$  represents labor mobility, which is the core explanatory variable in this paper;  $\rho$  is the spatial autoregressive coefficient;  $\alpha_1$  and  $\beta_i$  represent the local impact effect coefficients of various explanatory variables including labor mobility on economic growth;  $\theta_1$  and  $\theta_i$  represent the spatial spillover effect coefficients;  $X$  is a variety of control variables;  $\alpha_0$  represents the intercept term;  $\varepsilon_t$  represents the time fixed effects  $\mu_{it}$  represents the random error term; and  $\omega$  is the spatial weight matrix. The first law of geography states that things that are closer are more related, so the spatial weight matrix is expressed as the reciprocal of the distance. The distance between each pair of cities is calculated using the Earth arc distance based on longitude and latitude (from the National Geographical Information Resource Catalogue Service System), with  $R$  as the Earth's radius and  $x$  and  $y$  as the latitude and longitude of the  $i$  and  $j$  regions, and the formula is:

$$d_{ij} = R \times \arccos[\sin x_i \sin x_j + \cos x_i \cos x_j \cos(y_i - y_j)] \quad (6)$$

#### 4.4. Variable Selection

##### 4.4.1. Dependent Variable: Common Prosperity (CP)

The dependent variable in this study is the level of common prosperity (CP), which is composed of the development level (Develop) and the balance level (Balance). This value ranges from 0 to 1, with higher values indicating higher levels of common prosperity and lower values indicating lower levels. The formula for CP is:

$$CP_{it} = \sqrt{Develop_{it} \times Balance_{it}} \quad (7)$$

Taking into account the characteristics of China's development and drawing on relevant research results, this study constructs an evaluation index system for common prosperity based on development capacity, development level, equalization of public services, and level of infrastructure (Table 1). Economic development is the foundation and prerequisite for achieving common prosperity. Without the huge material wealth created by improving productivity and production efficiency, common prosperity can only be achieved through forced averaging, resulting in coordinated poverty. The development

level reflects the extent to which the results of economic development benefit the entire population. The higher the value, the better the distribution relationship between regional economic growth and the people. Equalization of public services is the main force driving common prosperity. The current imbalance in development between urban and rural areas and between regions is a prominent manifestation of the uneven development of basic public services. Rural and other backward areas have shortcomings in medical care, education, and elderly care, which not only reflect the differences in social welfare levels between regions, but also reinforce the inherent development gaps between regions, greatly affecting the realization of social equity and common prosperity. Expanding the scope of basic public services and coordinating the equalization of public service capabilities among regions are key steps to achieving common prosperity. The accessibility of infrastructure is one of the three goals of promoting coordinated regional development. A relatively balanced degree of infrastructure accessibility is an important basis for closely linking regional economic contacts and building economic development potential.

**Table 1.** Indicators for common prosperity.

|                         |                                 |                                                            |     |
|-------------------------|---------------------------------|------------------------------------------------------------|-----|
| Common prosperity level | Development ability             | Per capita GDP (yuan)                                      | X1  |
|                         |                                 | GDP growth rate (%)                                        | X2  |
|                         |                                 | R and D expenditure as a % of regional GDP                 | X3  |
|                         |                                 | Patent applications per 10,000 people                      | X4  |
|                         | Development level               | Rural per capita disposable income (yuan)                  | X5  |
|                         |                                 | Urban per capita disposable income (yuan)                  | X6  |
|                         |                                 | Rural consumption level (yuan)                             | X7  |
|                         |                                 | Urban consumption level (yuan)                             | X8  |
|                         | Equalization of public services | Hospital beds per 10,000 people                            | X9  |
|                         |                                 | Number of college students per 10,000 people               | X10 |
|                         |                                 | Number of public library collections per capita            | X11 |
|                         |                                 | Postal and telecommunications services per capita (10,000) | X12 |
|                         |                                 | Years of education per capita                              | X13 |
|                         |                                 | Government expenditures per capita (yuan)                  | X14 |
|                         | Accessibility of infrastructure | Road density (km/sq km)                                    | X15 |
|                         |                                 | Railway capacity (10,000 tons/sq km)                       | X16 |
|                         |                                 | Per capita electricity consumption (kWh/person)            | X17 |
|                         |                                 | Average number of mobile phones per 100 households         | X18 |
|                         |                                 | Internet penetration rate (%)                              | X19 |

According to the evaluation system based on the common prosperity index, the level of development (*Develop*) is represented by the Formula (8), where  $a_i$  represents the weight of each indicator, and  $X_i$  represents the specific data for each indicator.

$$Develop_i = \sum a_i X_i \quad (8)$$

The concept of “Balanced” is based on the measurement method proposed by scholars such as Li Shenghui et al. [30]. If there are two cities, A and B, and the indicators reflecting their development levels are  $I_A$  and  $I_B$ , respectively, in the same direction, then the balanced level of the two cities, AB, can be expressed as:

$$C_{AB} = \frac{\min(I_A, I_B)}{\max(I_A, I_B)} \quad (9)$$

The value of  $C_{AB}$ , which ranges from 0 to 1, indicates the level of balance, with a higher value indicating a higher level of balance. By extending the model of two cities

to  $N$  regions and applying the principle of mathematical induction, the balanced level of development between the target region and the  $N$  regions can be derived.

$$\text{Balance} = \frac{1}{N-1} \sum_J^N \frac{\text{Min}(I, J)}{\text{Max}(I, J)} \quad (10)$$

The method applies equal weights to each city, assuming that each city should be balanced with every other city. However, in the real world, cities vary in their geographic locations and levels of development. Forcing coordination between two cities with no economic or geographic connection is unreasonable. For example, it is not reasonable to require Beijing and Lhasa, which are 3500 km apart, to be balanced. Instead, it is more reasonable to require coordination between Beijing and the nearby Beijing–Tianjin region and the North China region. Therefore, this paper improves Li Shenghui’s measurement method by applying a reverse distance weight  $W_{ij}$  to each city. The weight value increases as the geographic distance between cities decreases, and vice versa. The improved calculation formula is expressed as follows:

$$\text{Balance}_I = W_{IJ} \frac{\text{Min}(I, J)}{\text{Max}(I, J)} + W_{IK} \frac{\text{Min}(I, K)}{\text{Max}(I, K)} + W_{IL} \frac{\text{Min}(I, L)}{\text{Max}(I, L)} + \dots + W_{IM} \frac{\text{Min}(I, M)}{\text{Max}(I, M)} \quad (11)$$

After generalizing to multiple indicators, it can be expressed as:

$$\text{Balance}_I = \sum_j^n \sum_a^A C_a W_{ij} \frac{\text{Min}(I_a, J_a)}{\text{Max}(I_a, J_a)} \quad (12)$$

where  $\text{Balance}_i$  represents the regional balance level of city  $i$ ;  $C_a$  represents the weight of each indicator in the evaluation system;  $W_{ij}$  represents the reverse geographic distance weight between city  $i$  and city  $j$ ;  $I_a$  represents the specific value of indicator  $a$  in city  $i$ ; and  $J_a$  represents the specific value of indicator  $a$  in city  $j$ . The weight of each indicator,  $C_a$ , is calculated using the entropy weighting method.

#### 4.4.2. Core Explanatory Variables: Labor Force Mobility (LF)

According to the classic push–pull theory, labor mobility is mainly formed by the joint action of “pull” and “push” forces. The former refers to factors that improve living conditions in the destination, such as increasing job opportunities, income, and education. The latter mainly refers to factors that worsen living conditions in the origin, such as resource depletion, unemployment, higher cost of living, or loss of development opportunities. The direction and scale of labor mobility are jointly formed by push and pull factors [43]. With the development of this theory, more factors have been incorporated into the analysis. American economist E.S. Lee (1966) pointed out that population migration not only exists in push and pull forces, but also in various “barriers” formed by intervention factors, and push, pull, and barriers exist in both the destination and origin [44].

Based on the mechanism of the “three forces” in the push–pull theory, this article combines the characteristics of labor mobility in China and the gravity model to construct a Formula (7) for measuring labor mobility. Income is the direct incentive for labor mobility, so the pull force is represented by the average wage (Income). Living cost is a factor that influences labor retention, so the push force is represented by the housing price (Cost) in the residence area. Many studies have shown that labor migration intentions are also influenced by migration costs such as migration distance and transportation costs [45]. Therefore, the barrier force is represented by the geographical distance ( $d_{ij}^2$ ) between the destination and origin.

$$LF_i = \sum_{i,j=1}^N \text{Labour}_i \times [(Income_i - income_j) / d_{ij}^2] + \sum_{i,j=1}^N \text{Labour}_i \times [(Cost_j - Cost_i) / d_{ij}^2] \quad (13)$$

#### 4.4.3. Control Variables

Based on existing research findings and relevant theories, this article includes investment (Inv), technology support (Tec), government involvement (Gov), financial development level (Fin), level of openness to foreign markets (Open), and resident consumption level (Cons) as control variables. Please refer to Table 2 for specific descriptions of these indicators.

**Table 2.** Indicator Descriptions.

| Name                                 | Abbreviation | Definition                                                                                                                                                                    |
|--------------------------------------|--------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Common prosperity                    | CP           | Continuous variable, $CP = (\text{development level} \times \text{balance level})^{1/2}$                                                                                      |
| Labor force mobility                 | LF           | Continuous variable, $LF = \text{local population} \times (\text{attracted population} / \text{geographic distance} - \text{pushed population} / \text{geographic distance})$ |
| Investment                           | Inv          | Continuous variable, total fixed asset investment                                                                                                                             |
| Technology support                   | Tec          | Continuous variable, $Tec = \text{technology spending} / \text{total government fiscal spending}$                                                                             |
| Financial development level          | Finance      | Continuous variable, total amount of loans issued by financial institutions                                                                                                   |
| Level of openness to foreign markets | Open         | Continuous variable, actual utilization of foreign investment                                                                                                                 |
| Government involvement               | Gov          | Continuous variable, total fiscal expenditure                                                                                                                                 |
| consumption level                    | Cons         | Continuous variable, total retail sales of consumer goods                                                                                                                     |
| Labor force return rate              | Return       | Continuous variable, $\text{Return} = \text{current period flow} - \text{previous period flow}$                                                                               |

#### 4.4.4. Mechanism Variables

##### (1) Economic Growth Level: LNGDP

The diffusion effect of economic growth capacity is mainly verified through spatial models. The economic growth indicator is represented by the logarithm of local GDP (LNGDP) after taking the logarithm.

##### (2) Return Effect Level: Return

The measurement of the return effect of labor has rarely been involved in the existing research. It is generally believed that the return of labor will bring about a reverse agglomeration of factors and drive economic growth locally. Therefore, this paper mainly uses the scale of returned labor to represent the size of the return effect. However, the accurate measurement of the scale of the labor return is often obtained through microdata such as CFPS, CHFS, or questionnaire interviews, and there is no specific statistical data on macro-level return indicators. The existing approach is generally to estimate a rough inter-provincial or inter-city return scale by the transition of the flow of the labor force from negative to positive, and this paper also handles it in this way, and is represented by Return.

#### 4.5. Data Source and Processing

This article conducts a study using balanced panel data from 159 prefecture-level cities in China between 2010 and 2019. In 2005, the Chinese government began reforming its household registration system, with one-third of the country's provinces having abolished the classification of agricultural and non-agricultural populations by 2009. This has enabled a significant number of Chinese labor forces to have the foundation for free mobility since that time. As such, the study commences from 2010. Due to the high incidence of missing values in official urban statistical yearbook data post-2019, this study's cutoff is at the end of 2019 based on data completeness. For sample selection, this study only considered the 159 cities that record the key labor mobility indicator, "urban residential price per square meter," in their statistical yearbooks.

The data for this article come from the 2010–2020 China Statistical Yearbook, China Urban Statistical Yearbook, National Bureau of Statistics website, CSMAR database, and EPS Global Statistical Database. The data were processed as follows: for partially missing

data, interpolation was used to fill in the gaps. To eliminate the impact of different units of measurement in the evaluation system of common prosperity, all data involved in the indicator system were standardized. For other variables appearing in the regression equation, except for natural ratio data, logarithmic transformation was used for regression. For continuous indicators in the regression equation, 1% and 99% Winsorize processing were applied. Finally, 159 prefecture-level cities and 1590 observations were obtained.

#### 4.6. Descriptive Analysis of Data

Table 3 shows the descriptive statistical results of the relevant variables. Among them, the mean value of CP is 0.076, the maximum value is 0.209, the minimum value is 0.019, and the standard deviation is 0.038, indicating that there are huge regional differences in the development level of common prosperity in China. The mean value of LF is 0.111, indicating that as of 2019, the overall inflow in the observed cities is greater than the outflow. Other indicators are as shown in the table.

**Table 3.** Descriptive statistics of the data.

| Variable | Obs  | Mean   | Std. Dev. | Min    | Max    |
|----------|------|--------|-----------|--------|--------|
| CP       | 1590 | 0.076  | 0.038     | 0.019  | 0.209  |
| LF       | 1590 | 0.111  | 0.954     | −1.226 | 6.520  |
| Inv      | 1590 | 7.244  | 0.871     | 4.781  | 9.219  |
| Tec      | 1590 | 0.003  | 0.002     | 0.001  | 0.014  |
| Gov      | 1590 | 5.729  | 0.781     | 4.079  | 8.375  |
| Fin      | 1590 | 7.442  | 1.175     | 5.417  | 10.591 |
| Open     | 1590 | 1.246  | 1.608     | −1.894 | 4.057  |
| Cons     | 1590 | 0.392  | 0.090     | 0.185  | 0.626  |
| LNPGDP   | 1590 | 10.738 | 0.590     | 9.432  | 12.009 |
| Back     | 1590 | 0.001  | 0.027     | −0.131 | 0.162  |

## 5. Empirical Analysis of Labor Mobility and Common Prosperity

### 5.1. Baseline Regression Analysis of the Relationship between Labor Mobility and Common Prosperity

This article uses model (1) to test the impact of labor mobility on common prosperity, and the results are shown in Table 4. The first column shows the results with no control variables, only controlling for the fixed effects of time and region. The LF coefficient is positive and significant at the 5% level, indicating that labor mobility can improve the level of common prosperity. Columns (2) and (3) show the fixed-effects regression and random-effects regression with the control variables added, respectively, with coefficients that are positively significant at the 10% and 5% levels, indicating that the conclusion that labor mobility significantly improves the level of common prosperity is robust. Thus, the baseline regression results support the research hypothesis (1) of this article, demonstrating that labor mobility can promote the coordination and development of regions. This result is consistent with previous research in the theoretical field.

The second column reports the regression results with the control variables. The coefficients of technology support (Tec), government participation (Gov), and level of openness to the outside world (Open) are all positively significant, indicating that technological progress can improve social productivity and lay a material foundation for common prosperity, while macroeconomic regulation by the government can promote fair distribution of resources and development opportunities, and increasing openness can bring capital accumulation, advanced technology introduction, and employment opportunities, promoting the evolution of China's industrial structure toward higher and more rational levels. Consumer spending level (Cons) and investment intensity (Inv) are both insignificant, indicating that the influence of these two factors is limited. The level of financial development (Fin) is significantly negative at the 5% level, indicating that financial development has a hindering effect on achieving common prosperity, possibly due to the crowding-out effect

of financial development on the real economy and the centralization of financial resources exacerbating the development gap with surrounding areas.

**Table 4.** Baseline regression results.

|                       | (1)                 | (2)                  | (3)                  |
|-----------------------|---------------------|----------------------|----------------------|
|                       | CP                  | CP                   | CP                   |
| LF                    | 0.001 **<br>(0.001) | 0.001 *<br>(0.001)   | 0.001 **<br>(0.001)  |
| Inv                   |                     | 0.001<br>(0.001)     | 0.001<br>(0.001)     |
| Tec                   |                     | 0.451 ***<br>(0.095) | 0.445 ***<br>(0.097) |
| Gov                   |                     | 0.001<br>(0.001)     | 0.001<br>(0.001)     |
| Fin                   |                     | 0.002 **<br>(0.001)  | 0.003 ***<br>(0.001) |
| Open                  |                     | 0.001<br>(0.001)     | 0.001 *<br>(0.001)   |
| Cons                  |                     | −0.003<br>(0.003)    | −0.003<br>(0.003)    |
| _cons                 | 0.07 ***<br>(0.001) | 0.055 ***<br>(0.007) | 0.042 ***<br>(0.007) |
| Observations          | 1590                | 1590                 | 1590                 |
| Pseudo R <sup>2</sup> | .z                  | .z                   | .z                   |

Standard errors are in parentheses \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ .

## 5.2. Robustness Test

### 5.2.1. Replace the Dependent Variable

The results of Table 4 confirm a significant positive correlation between labor mobility and common prosperity. For the sake of robustness, this study re-regresses by replacing the dependent variable, CP. Following the approach of other scholars, this study selects 11 indicators from three levels: prosperity level, urban–rural gap, and regional gap, to reconstruct the evaluation index system of common prosperity (Table 5), and measures its level of common prosperity through the entropy weighting method. The results in the first column of Table 6 indicate that labor mobility is positively significant at the 1% level, with an impact coefficient of 0.009. Compared to the baseline regression results, there are no significant changes other than an increase in the significance level and impact level, so it can be considered that the previous conclusion is more robust.

### 5.2.2. Removing Outliers

The level of economic development is not only the material basis for achieving common prosperity, but also the direct cause of labor mobility, and is directly related to the explanatory and dependent variables. Therefore, this paper uses the level of economic development as a standard, and excludes the four first-tier cities of Beijing, Shanghai, Guangzhou, and Shenzhen, as well as the two municipalities of Tianjin and Chongqing, which have the highest level of economic development, and six cities with the lowest per capita GDP, including Zhaotong, Tianshui, Fuyang, Bozhou, Baoshan, and Wuwei, as the lowest value. A regression analysis is conducted again (Table 6). The results in the second column of Table 6 show that the significance and direction of the core explanatory variable, LF, have not undergone structural changes, indicating that the previous conclusions are relatively robust.

**Table 5.** Indicators for common prosperity.

|                     | Primary indicator     | Secondary indicator                         | Measurement method                                                                                                               |
|---------------------|-----------------------|---------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|
| Common prosperity A | Prosperity level B1   | Urban income                                | Per capita disposable income of urban residents C11                                                                              |
|                     |                       | Rural income                                | Per capita disposable income of rural residents C12                                                                              |
|                     |                       | Income ratio                                | The ratio of per capita disposable income to per capita GDP C13                                                                  |
|                     | Urban–rural gap B2    | Coordination of urban and rural income      | The ratio of rural residents' income to urban residents' income C21                                                              |
|                     |                       | Coordination of urban and rural consumption | The ratio of rural residents' consumption expenditure to urban residents' consumption expenditure C22                            |
|                     |                       | Theil index                                 | Urban–rural Theil index C23                                                                                                      |
|                     | Regional disparity B3 | Regional urban income gap                   | The ratio of per capita disposable income of rural residents to the national per capita disposable income of rural residents C31 |
|                     |                       | Regional rural income gap                   | The ratio of per capita disposable income of urban residents to the national per capita disposable income of urban residents C32 |
|                     |                       | Regional education gap                      | The ratio of per capita education expenditure to national per capita education expenditure C33                                   |
|                     |                       | Regional medical gap                        | The ratio of per capita hospital beds to the national per capita hospital beds C34                                               |
|                     |                       | Regional cultural gap                       | The ratio of per capita book collection to the national per capita book collection C35                                           |

**Table 6.** Robustness test regression results.

|                    | (1)                  | (2)                  |
|--------------------|----------------------|----------------------|
|                    | CP                   | CP                   |
| LF                 | 0.009 ***<br>(0.002) | 0.001 ***<br>(0.001) |
| Control variables  | Yes                  | Yes                  |
| Individual control | Yes                  | Yes                  |
| Time control       | Yes                  | Yes                  |
| _cons              | 0.17 ***<br>(0.047)  | 0.069 ***<br>(0.008) |
| Observations       | 1590                 | 1470                 |
| R-squared          | 0.437                | 0.648                |

Standard errors are in parentheses \*\*\*  $p < 0.01$ .

### 5.3. Endogeneity Test

Common prosperity can affect the direction and scale of labor mobility by reducing regional and sectoral wage differentials through its impact on regional income, which means there may be a bidirectional causal relationship between labor mobility and common prosperity. To test this potential interfering factor, this study conducted an endogeneity test on the possible endogenous variable, labor mobility (LF), and used the lagged one period of LF (L.LF) as an instrumental variable. Due to heteroskedasticity in the model, the robust DWH method was used to test endogeneity, and the results are shown in Table 7. The results of Table 7 indicate that the core explanatory variable, LF, is not endogenous, so the setting and regression results of the baseline model are robust and reliable.

**Table 7.** Endogeneity test.

|                       |                           |
|-----------------------|---------------------------|
| Durbin (CW) chi2(1)   | 0.185655 ( $p = 0.6666$ ) |
| Wu–Hausman F(1, 1413) | 0.184504 ( $p = 0.6676$ ) |

#### 5.4. Examination of the Mechanism of Labor Mobility and Common Prosperity

The previous results confirm that labor mobility has a robust and significant positive impact on inclusive prosperity at the national level, and the impact of labor mobility on inclusive prosperity varies due to differences in geographical and transportation cost conditions. Although the theoretical analysis of the transmission mechanism between labor mobility and inclusive prosperity was discussed earlier, the specific transmission effects need to be further verified through quantitative tools.

##### 5.4.1. The Economic Growth Spillover Effect of Labor Mobility

As mentioned earlier in the theoretical analysis, the economic growth spillover effect brought by labor mobility is one of the mechanisms for reducing regional development gaps and promoting common prosperity. At the empirical level, it is difficult to measure the economic growth spillover effect caused by labor mobility using a specific economic indicator. Therefore, the economic growth spillover effect is verified by examining whether labor mobility has a significant impact on economic growth in neighboring regions in addition to the local region. Based on the consideration of robustness, the results of the SDM, SAR, and SEM models are presented in Table 8, and the detailed regression results are provided.

**Table 8.** Results of intermediate effect test.

|                   | SDM                  | SAR                  | SEM                  |
|-------------------|----------------------|----------------------|----------------------|
|                   | LNGDP                | LNGDP                | LNGDP                |
| Direct effect     | 0.028 ***<br>(0.005) | 0.069 ***<br>(0.009) | 0.051 ***<br>(0.007) |
| Indirect effect   | 0.318 **<br>(0.099)  | 1.038 ***<br>(0.397) | 2.051 ***<br>(0.026) |
| Total effect      | 0.347 ***<br>(0.099) | 1.107 ***<br>(0.402) |                      |
| Control variables | Yes                  | Yes                  | Yes                  |
| Time control      | Yes                  | Yes                  | Yes                  |
| Observations      | 1590                 | 1590                 | 1590                 |
| R-squared         | 0.431                | 0.483                | 0.397                |

Standard errors are in parentheses \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ .

Table 8 shows that labor mobility has significant positive direct and indirect effects on economic growth. The indirect effects are also significant at the 1% level, indicating that labor mobility not only affects economic growth in the local region but also exerts a positive promotion effect on economic growth in neighboring regions. This promotes shared growth between local and neighboring regions, thereby helping to reduce regional development gaps and achieve coordinated regional economic development. Therefore, hypothesis H2 is validated.

##### 5.4.2. The Feedback Effect of Labor Mobility

The feedback effect is an important mechanism to reduce the regional development gap between the inflow and outflow areas of labor and achieve common prosperity. This article will use the three-step test proposed to examine the mechanism and effect of the feedback effect between labor mobility and common prosperity. The regression results are shown in Table 9. The results in the second column show that the feedback effect variable “Back” and the labor mobility variable “LF” are positively significant at the 1% level. The results in the third column show that even after adding the mediator variable of the feedback effect “Back,” the promotion effect of labor mobility on common prosperity is still positive and significant. Moreover, compared with the baseline model (1), the coefficient of the impact is slightly reduced, indicating that the existence of the feedback effect is the transmission mechanism between labor mobility and common prosperity. In

other words, labor mobility promotes the improvement in the feedback effect level, and the improvement in the feedback effect level promotes the realization of common prosperity. In conclusion, this empirical result supports hypothesis 3.

**Table 9.** Regression results of the mediation effect.

|                    | (1)                  | (2)                 | (3)                  |
|--------------------|----------------------|---------------------|----------------------|
|                    | CP                   | Back                | CP                   |
| LF                 | 0.001 *<br>(0.001)   | 0.55 ***<br>(0.045) | 0.001 *<br>(0.002)   |
| Control variables  | Yes                  | Yes                 | Yes                  |
| Individual control | Yes                  | Yes                 | Yes                  |
| Time control       | Yes                  | Yes                 | Yes                  |
| _cons              | 0.055 ***<br>(0.007) | 0.049<br>(0.102)    | 0.065 ***<br>(0.003) |
| Observations       | 1590                 | 1590                | 1590                 |
| R-squared          | .z                   | .z                  | .z                   |

Standard errors are in parentheses \*\*\*  $p < 0.01$ , \*  $p < 0.1$ .

### 5.5. Heterogeneity Test

#### 5.5.1. Comparison Based on the Cost of Mobility

This section considers the impact of mobility costs on labor mobility and uses the opening of high-speed rail to measure mobility costs. The sample is divided into areas with high and low mobility costs based on whether high-speed rail was opened that year, and columns (1)–(2) in Table 10 show the regression results for each group. The results show that in areas with high mobility costs, the impact of labor mobility on shared prosperity is not significant, with a coefficient of 0.001; in areas with low mobility costs, the impact of labor mobility on shared prosperity is significant, with a coefficient of 0.001 and is significant at the 10% level. The above results indicate that labor mobility is more conducive to shared prosperity in areas with low mobility costs, while in areas with high mobility costs, labor mobility has a suppressing effect on shared prosperity. The reason for the difference is that areas with low mobility costs are conducive to factor agglomeration and the return of migrant workers, while areas with high mobility costs have not been able to effectively allocate resources due to transportation costs and have weakened the willingness of migrant workers to return, resulting in significant negative effects of factor outflow.

**Table 10.** Heterogeneity test results.

|                    | (1)                 | (2)                  | (3)                  | (4)                  |
|--------------------|---------------------|----------------------|----------------------|----------------------|
|                    | CP                  | CP                   | CP                   | CP                   |
| LF                 | 0.001<br>(0.001)    | 0.001 *<br>(0.001)   | 0.001<br>(0.001)     | 0.001 **<br>(0.001)  |
| Control variables  | Yes                 | Yes                  | Yes                  | Yes                  |
| Individual control | Yes                 | Yes                  | Yes                  | Yes                  |
| Time control       | Yes                 | Yes                  | Yes                  | Yes                  |
| _cons              | 0.098 ***<br>(0.02) | 0.043 ***<br>(0.008) | 0.032 ***<br>(0.012) | 0.051 ***<br>(0.011) |
| Observations       | 307                 | 1263                 | 490                  | 1100                 |
| R-squared          | 0.490               | 0.621                | 0.686                | 0.638                |

Standard errors are in parentheses \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.01$ .

#### 5.5.2. Comparison Based on Economic Development Level

This section considers the impact of the economic development level on labor mobility and measures it based on the ranking of per capita GDP during the observation period. The sample is divided into economically developed and underdeveloped areas based on whether the average GDP ranking is in the top 40% of cities or not, and columns (3)–(4) in

Table 10 show the regression results for each group. The results show that labor mobility in economically developed areas has a significant impact on shared prosperity, with a coefficient of 0.001 and is significant at the 5% level, while labor mobility in underdeveloped areas has no significant impact on shared prosperity. The above results indicate that labor mobility in economically developed areas is more beneficial to the realization of shared prosperity compared to underdeveloped areas. The reason for the difference is that economically developed areas are mainly inflow areas, mainly influenced by agglomeration effects and growth effects, while underdeveloped areas are mainly outflow areas, mainly affected by negative effects of factor outflow, resulting in differences in the direction and magnitude of regional influence.

## 6. Research Conclusions and Recommendations

The purpose of this study is to analyze the impact of labor mobility on shared prosperity, and further examine its transmission mechanism and impact characteristics. This study provides new perspectives and evidence for analyzing the impact of labor mobility on shared prosperity and can also be viewed as an extension of shared prosperity research.

Based on panel data from 159 prefecture-level cities in China from 2010 to 2019, this study uses fixed-effects models, mediation models, and spatial Durbin models to empirically analyze the size, transmission mechanism, and impact characteristics of labor mobility on shared prosperity. The following conclusions are drawn: (1) Labor mobility can significantly promote shared prosperity. (2) The mediation effect of labor mobility, which promotes economic growth spillovers and labor return, is significant in achieving shared prosperity. (3) The impact of labor mobility on shared prosperity has heterogeneity, with areas with lower mobility costs and more developed economies showing stronger promotion effects.

Based on the research conclusions, the following suggestions are proposed:

(1) Continue to deepen the household registration system reform, reduce unnecessary administrative constraints [46], and remove unreasonable administrative barriers, further establish and improve a comprehensive and fair social security system covering basic income, medical care, children's education, and basic pension rights for migrant workers, and form a fair and just labor competition market.

(2) For areas with serious population outflows, the government should formulate active talent introduction policies and employment and income growth policies, raise the minimum income standards and protect the basic rights of workers [47], and realize the transition from outflow areas to balanced areas and from inter-regional flow to intra-regional flow.

(3) The continuous outflow of rural labor has seriously hindered the high-quality development of the rural economy. On the one hand, the government should actively guide the transfer of some industries to rural areas or surrounding counties and realize rural employment without leaving home. On the other hand, the government should further expand the scope of agricultural subsidies, increase the purchase price of agricultural products, and actively carry out public facility construction, effectively improving the income level and quality of life of rural residents.

(4) Play the role of a proactive government in macroeconomic regulation and guide the inter-regional flow of factor resources, taking into account both the efficiency of resource utilization and the fairness of distribution. Actively guide the establishment of a regional cooperation mechanism system, break the zero-sum game development thinking of each other, and jointly build a regional economic growth pole based on industrial cooperation.

In addition, achieving the flow of labor from the primary industry to the secondary and tertiary industries is an important means of achieving common prosperity. However, it will inevitably have a negative impact on food security and the healthy development of the primary industry. Therefore, the following measures can be taken to balance the relationship between labor mobility and food security:

(1) Implement differentiated policies: for areas with high population density and significant pressure on food security, the government can adopt measures to restrict population inflows, such as limiting home purchases and household registration migration, to alleviate the negative impact of population mobility on food production.

(2) Strengthen agricultural production and technological innovation: by increasing investment in the agricultural sector, improving grain productivity and quality, reducing grain costs [48], and enhancing agricultural technological innovation, exploring new agricultural technologies such as efficient water-saving agriculture and soilless cultivation to improve the efficiency and sustainability of grain production.

(3) Establish a unified national food security guarantee mechanism: the government can establish a unified national food security guarantee mechanism, adopt national unified food security policies and measures, and ensure the stability and adequacy of the food supply.

(4) Develop a diversified economy: the government can improve the income level of rural residents, attract labor to stay in rural areas, alleviate the pressure of population mobility, improve the quality of life of rural residents, and increase their participation in agricultural production by developing a diversified economy.

The shortcomings of this article are: (1) Insufficient research on the mechanism of labor mobility and common prosperity, failing to explain how labor mobility balances regional development disparities from a deeper level. (2) Limited by research methods, this article's indicator construction for the return effect is relatively rough and can only approximate the number of returnees instead of the return effect, resulting in some errors in the regression results. (3) Due to the lack of good indicators to measure the diffusion of economic growth, this article mainly verifies the spillover effects of labor mobility on economic growth through econometric methods, while the transmission mechanism of "economic spillover–common prosperity" in the latter part is discussed through theoretical analysis, so there are some deficiencies.

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