

Article

The Impact of Urban Public Services on the Residence Intentions of Migrant Entrepreneurs in the Western Region of China

Yu Cui and Yamin Zhang *

School of Management, Minzu University of China, Beijing 100081, China; cuiyu@muc.edu.cn

* Correspondence: 20400047@muc.edu.cn



Citation: Cui, Y.; Zhang, Y. The Impact of Urban Public Services on the Residence Intentions of Migrant Entrepreneurs in the Western Region of China. *Sustainability* **2024**, *16*, 1229. <https://doi.org/10.3390/su16031229>

Academic Editor: Pierfrancesco De Paola

Received: 30 December 2023

Revised: 23 January 2024

Accepted: 29 January 2024

Published: 1 February 2024

Correction Statement: This article has been republished with a minor change. The change does not affect the scientific content of the article and further details are available within the backmatter of the website version of this article.



Copyright: © 2024 by the authors. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (<https://creativecommons.org/licenses/by/4.0/>).

Abstract: Balanced regional development affects high-quality and sustainable development. Previous studies have shown that regional talent allocation, technology business incubators, industrial ecology, cross-regional cooperation, and balanced investment in higher education have positive effects on sustained regional development. Therefore, discussing more influencing factors that promote regionally balanced development is necessary. As far as China is concerned, with the spread of the migrant population to the central and western regions, it is of certain significance to explore the factors affecting the development of the western region from the perspective of migrant entrepreneurs' flow. Urban public services, as an important way for the government to attract talent, directly affect the residence intentions of migrant entrepreneurs in the future. This paper uses the matching data of the 2017 China Migrants Dynamic Survey and 289 prefecture-level city data from the China City Statistical Yearbook to study the impact of urban public services in the western region on the residence intention of migrant entrepreneurs and further examines the heterogeneous impact of urban public services in the western region on the residence intention of migrant entrepreneurs. We find that urban public services in the western region significantly affect the residence intention of migrant entrepreneurs; that is, the higher the level of urban public services, the stronger the residence intention of migrant entrepreneurs. According to the heterogeneity analysis of household registration differences, generational differences, family structure differences, employment identity differences, and industry and flow range differences, this paper finds that public services have a positive impact on the residence intention of non-urban migrant entrepreneurs, the older generation of migrant entrepreneurs, entrepreneurs with small family structures, migrant entrepreneurs in low-tech industries, self-employed entrepreneurs, cross-province migration, and intra-province migrant entrepreneurs. Further analysis indicates that the level of education, culture, medical care, and transportation services in cities significantly enhances the permanent residence intentions of migrant entrepreneurs. The research conclusion not only provides reference and inspiration for China to achieve common prosperity through entrepreneurship and poverty reduction practices, but it can also, to some extent, alleviate population aggregation in large cities and promote the formation of a scientific and reasonable urbanization pattern. In addition, this paper explores the attractiveness of public services to migrant entrepreneurs in the western region of China from the perspective of entrepreneurs' mobility and complements the relevant research on promoting regional balanced development.

Keywords: urban public services; migrant entrepreneurs; residence intention; sustainable development

1. Introduction

Regional development is conducive to promoting economic development, and the relevant literature on regional development shows that regional talent allocation has a positive impact on high-quality economic development [1]. The contemporary literature on regional economic development in the USA predominantly focuses on the conduct and efficacy of economic development policy [2]. Additionally, scholars analyze the relationship between sustained regional development and technology business incubators [3] and

industrial ecology [4] and between cooperative, network-oriented, and rural sustainable development [5]. In addition, scholars analyze the impact of logistics activities on regional social development [6], the mechanism of OFDI in regional capabilities of sustainable innovation [7], the relationship between cross-regional cooperation and balanced investment in higher education and balanced and sustained regional development [8], and regional development from the perspective of coordinated development of industrialization, information technology, urbanization, and agricultural modernization [9]. However, the problem of unbalanced regional development exists because regional social capital differences may lead to differences in regional economic development [8]. Therefore, paying more attention to whether the region can develop in a balanced manner is an issue worthy of discussion in promoting sustainable economic development.

With a vast territory and rich mineral resources, the western region of China is an important area along the “Belt and Road” strategy, as well as a key and difficult area to promote common prosperity [10]. The Chinese government implements the Western Development Strategy, which promotes rapid economic development in the western region. However, compared with the eastern region of China, the western region of China has the problem of underemployment and low entrepreneurship activity, and the economy has room for development [11]. Local economic growth mainly relies on the primary and secondary industries, such as agriculture and processing industries, while the development of the tertiary industry can be improved and the transformation of the industrial structure needs to be accelerated. The Blue Book of Western Region of China: Report on Economy Development in Western Region of China 2021 points out that the driving force of innovation and development in the western region has weakened, and the level of industrial structure is relatively low [12]. Therefore, addressing the factors that constrain the modernization development of the western region and promoting harmonious economic and social development in the western region are important tasks for achieving common prosperity and achieving basic socialist modernization in China by 2035.

However, many scholars have analyzed the relationship between regional development and cross-regional cooperation [8] and coordinated development [9] but have not focused on the relationship between the level of regional public services and migrant entrepreneurs, so there is relatively little research related to the western region. This paper selects migrant entrepreneurs from western cities as the research object, exploring the factors that affect their willingness to stay where they live now and, to some extent, supplementing academic research on the western region.

With the advancement of urbanization, China’s migrant population has experienced a process of concentration in the eastern region and then diffusion to the central and western regions in terms of regional distribution. Before 2005, China’s migrant population was significantly concentrated in the eastern region. From 2005 to 2015, the proportion of migrants flowing to the eastern region decreased by nearly 10 percentage points, while the number of migrants flowing to the western region increased by 5.2 percentage points (see Figure 1). The migrant population flowing to the western region of China mainly engaged in business and labor activities, with some becoming “employers” and “self-employed workers” [13]. Most migrant workers who establish businesses in the western region possess entrepreneurial spirit and are good at identifying and utilizing opportunities, effectively avoiding risks, and integrating and utilizing local resources. Their entrepreneurial behavior not only increases personal income but also creates more job positions and job opportunities for the western region, which is conducive to promoting rapid economic development in the local area. In Figure 2, Sichuan, Yunnan, Guizhou, Xizang Autonomous Region, Chongqing, Shaanxi, Gansu, Qinghai, Xinjiang Uyghur Autonomous Region, Ningxia Hui Autonomous Region, Inner Mongolia Autonomous Region, and Guangxi Zhuang Autonomous Region belong to the western region of China.

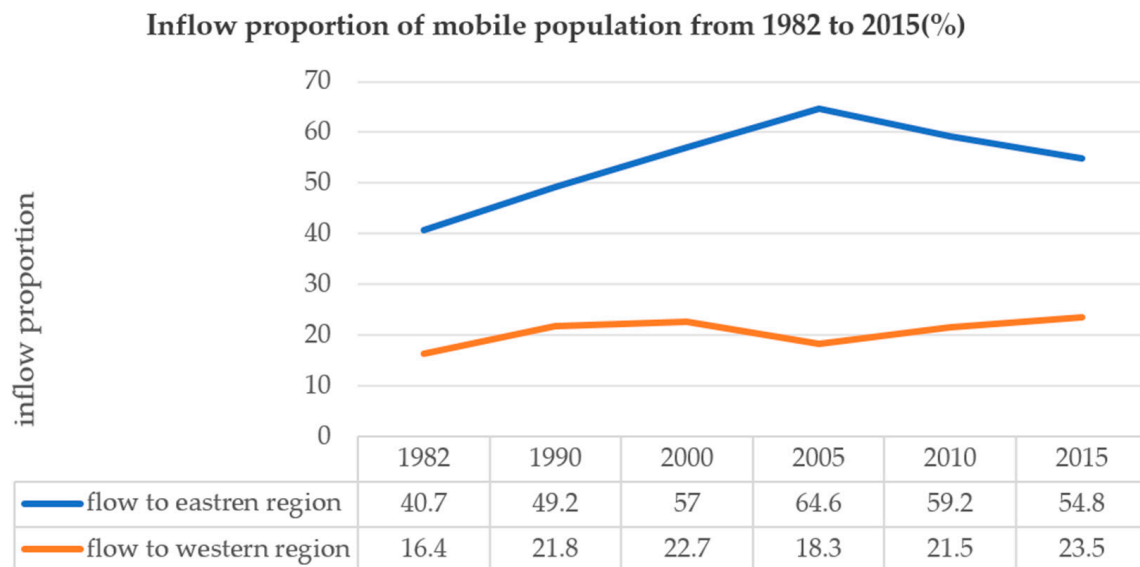


Figure 1. The inflow proportion of mobile population.



Figure 2. The map of China.

The western region of China is the main source of outflows of migrant workers, and the massive loss of labor resources will undoubtedly lead to slow economic development. Therefore, the western region urgently needs to attract a large inflow of labor force and revitalize the local economic development. From the perspective of talent inflow in the western region, the inflow of migrant populations and entrepreneurs can bring higher human and intellectual capital, especially for entrepreneurs from the eastern region. Because the economy of the eastern region of China is prosperous and talents are gathered, most entrepreneurs from the eastern region of China have a higher level of education and a stronger ability to integrate and utilize resources, so they can keenly smell business opportunities and quickly seize them [14]. They can not only bring their rich work experience and good corporate culture to the western region but also utilize the rich local labor resources to promote entrepreneurial enterprises, achieve good business benefits,

and promote local economic development. In addition, entrepreneurs who flow from the northeast region to the western region are mostly affected by the industrial structure and planned economy in the northeast region. They can choose to enter the western region and engage in entrepreneurial industries, engage in industries related to the northeast region to leverage their professional and technological advantages, or engage in industries completely different from the northeast region to unleash the creativity of entrepreneurs. Previous studies have shown that government power plays an important role in guiding population migration in the western region [15,16]. For example, the government mainly provides public services such as education, healthcare, and infrastructure in cities. Therefore, improving urban public services is an important way to attract migrant entrepreneurs. The “foot voting” mechanism also proves the conclusion that people make migration decisions based on urban public services [17,18]. Recent studies have found that human capital externalities favor individuals who gain more learning opportunities to improve their skill levels; places with high population density make it easier to match skills; and labor tends to flow to cities with high average education levels and high population density [19,20]. However, there is still controversy in theory about whether entrepreneurs flow for public services, and there is a considerable lack of relevant empirical research. Therefore, this paper will supplement the research in this area.

This paper uses microdata from the 2017 China Migrants Dynamic Survey to match urban characteristic data from 289 prefecture-level cities to study the impact of urban public services in the western region on the residence intention of migrant entrepreneurs [13] and further examines the heterogeneous effect of urban public services on the residence intention of migrant entrepreneurs. The analysis based on the Logit model shows that, controlling for both urban variables and individual variables, public services in western cities significantly affect the willingness of entrepreneurs to stay. The research findings of this article not only provide empirical evidence for the existence of Tiebout’s “foot voting” mechanism in China but also contribute to a scientific understanding of the impact of public services on the residence intention of entrepreneurs and provide inspiration for alleviating the spatial agglomeration effect of labor in China.

The main contributions of this research are as follows: First, it theoretically expands the research findings on the impact of urban public services on entrepreneurs’ residence intentions, enriches the “foot voting” mechanism, and broadens the research perspective of urban economics. Unlike previous studies, this paper is not a general exploration of whether public services affect entrepreneurship [14,21], but rather a targeted focus on the residence intentions of migrant entrepreneurs. It constructs models and deduces hypotheses from multiple dimensions of urban public services, which helps to identify more accurate factors improving migrant entrepreneurs’ residence intentions in the western region in the future. For the relevant literature on migrant entrepreneurs, this research focuses on the perspective of residence intention where entrepreneurs flow, which will help us understand the driving forces behind migrant entrepreneurs choosing where they live now. Secondly, from the perspective of household registration differences, generational differences, family structure differences, employment identity differences, industry differences, and migration range differences, this paper explains how different public services in western cities influence migrant entrepreneurs’ residence intentions and provides empirical guidance for different areas to take measures to improve the level and quality of public services. Thirdly, compared with existing literature that only uses regional or micro data, this article uses matching data at the urban and micro levels for research, overcoming the reverse causal relationship and endogeneity problems that exist when only using regional aggregate data and controlling for the influence of urban, personal, and family characteristics.

2. Literature Review and Research Hypotheses

2.1. Public Services and Talent Attraction

The National New-Type Urbanization Plan (2014–2020) of China pointed out that public service includes the right to education for migrant children, public employment and entrepreneurship services, social security, basic medical and health conditions, and housing security [22]. Subsequently, most related research analyzes aspects of children's education, housing, transportation infrastructure, social insurance, communication facilities, cultural facilities, doctor and hospital beds, and constructs a measurement index system for public services based on multiple subdimensions [23,24]. In this paper, public services mainly include education, healthcare, culture, environment, transportation, and communication services.

Different types of public services in the western region of China can attract different types of talents from other regions, especially entrepreneurial talents. They usually have high human capital, and their flow into the western region can become a role model for local observation and learning, as well as a key node for knowledge inflow, thereby playing a role in knowledge spillover. Therefore, promoting the level of public services in the western region of China is beneficial for attracting various types of talent inflow [25]. In addition, the dependence of the migrant population on urban public services affects their permanent residence intention, which affects local social and economic development.

For entrepreneurs entering the western region of China, the improvement and convenience of urban public services have a direct impact on their quality of life and entrepreneurial quality, especially in education and medical services. With the gradual shift of migrant entrepreneurs in China towards a family migration model, there is an urgent need for children's education services, health and medical services, and internet communication services. Therefore, when migrant entrepreneurs choose to move into a city, they focus on the level of public services related to their lives and entrepreneurship and tend to flow to cities with good public services [26–28]. Studies through empirical analysis using census data from the United States Department of Housing and Urban Development have found that housing quality and price, education quality, and relative tax rates are the main factors considered by migrants when choosing their place of residence [29]. Moreover, scholars explored the case of Washington, D.C., in the United States and found that the level of public goods provided by the region is an important consideration factor for local families to choose their place of residence [30]. In addition, studies also conducted a micro-level examination of the migration behavior of London residents in the UK and found that the tax-public service combination to some extent affects migration decisions [31]. Furthermore, scholars found that the introduction of basic medical insurance for urban residents has significantly boosted local entrepreneurial activity [21]. Therefore, the level of urban public services in the western region of China is an important influencing factor that cannot be ignored for entrepreneurs.

Previous studies have shown that the level of public services plays a positive role in promoting economic development in the western region of China [11]. The level of public service reflects the level of infrastructure services used to meet the living and development needs of citizens, which creates resource constraints or strong support for the production and operation activities of enterprises in the region. At the same time, there is a phenomenon of capitalization in urban public services, and the level of service has a significant impact on the selection of investment locations [32]. Therefore, places with high-level public services can attract more labor to flow in [27]. However, currently, the level of equalization of public services in the western region of China is not high. The reasons are not only restricted by the natural environment in the western region but also by the difference in economic strength and management services, but the most direct factor is the insufficient fiscal investment and weak fiscal support capacity [33]. In fact, the vast majority of basic public service projects require financial investment, and they are difficult to implement if there is insufficient finance. Therefore, increasing financial support in the western region of China is not only beneficial for improving the level of urban public

services but also for promoting economic development. Scholars have concluded that in order to achieve high-quality development, it is necessary to improve the efficiency of financial development, and the government is an important factor in promoting financial development [34].

High-quality urban public services are an important factor and consideration basis for local governments to attract migrant entrepreneurs [27] and a decision-making basis for whether migrant entrepreneurs reside in the local area [35]. The traditional theory of population migration suggests that people migrate between regions in order to obtain higher wages and pursue better production and living conditions [36–38]. Some scholars found that the choice of labor force to flow to a certain city is not only for wages and employment opportunities but also for urban public services [27]. Therefore, whether urban public services can improve the living conditions of migrant entrepreneurs cannot be ignored in population migration and affects their residence intention to continue staying where they live now.

2.2. Urban Public Services and Residence Intentions of Migrant Entrepreneurs

Migrant entrepreneurs follow the principle of seeking advantages and avoiding disadvantages and tend to choose areas with higher levels of public services to start businesses. If the public services flowing into the city can continuously meet and improve their needs for survival, safety, socialization, respect, and self-actualization in the places they flow into, entrepreneurs tend to continue to reside there [28]. At the same time, the push-pull theory also believes that whether the migrant population can stay in the city for a long time mainly depends on whether their living conditions have improved after entering the city. If they find that the practical experience of living in the city has not improved or enhanced their living conditions, they will consider whether to continue staying in the city. Scholar's research showed the impact of urban public services on residence intention from the perspectives of pension and health and found that the migrant populations who are more likely to access urban public services such as pension insurance and health records were more inclined to reside in the local area [28]. When scholars studied the impact of urban public services on the permanent migration willingness of the migrant population, they found that urban public services significantly affect the permanent migration willingness of the migrant population [39]. In addition, scholars have conducted research based on 980 online respondents aged between 25 and 49 years in Jeonbuk Province, Korea, indicating that in areas with insufficient economic potential, the impact of housing support on sustained housing willingness is further enhanced [40]. The higher the level of urban public services, the stronger the permanent migration willingness of the migrant population. Therefore, public services affect migrant entrepreneurs' entrepreneurial decisions, which in turn also affect their willingness to stay. In summary, this paper proposes the following assumptions:

H1. *The higher the level of urban public service in the western region of China, the stronger the residence intention of migrant entrepreneurs.*

3. Materials and Methods

3.1. Data Source

This paper conducts empirical research using the matching data of the 2017 China Migrations Dynamic Survey (CMDS) and 289 prefecture-level city data, which is open to the public [13]. The CMDS data comes from the website of the National Health Commission of the People's Republic of China and was randomly sampled from 31 provinces (regions, cities) and the Xinjiang production and construction corps in China, where the migrant population was concentrated. The sampling survey used probability proportional to size sampling, and the survey results were representative of the country and various provinces. The survey subjects are non-local residents who have resided in the inflow area for more than one month and are aged 15 years and older. The sample size is 169,989 households [13]. This paper mainly studies entrepreneurs among the migrant population who have the

ability to achieve personal and family migration. Therefore, this paper selects the samples whose status is “employers” and “self-employed workers” and reasons for mobility as work and business. In order to facilitate the identification of urban migrant populations and rural migrant workers based on the attribute of household registration, this article only retains agricultural and non-agricultural household registration and excludes household registration behaviors such as agricultural to rural residents, non-agricultural to rural residents, residents, and other samples.

The variables for city are from the 2017 China City Statistical Yearbook. This article is based on existing research [41] and lags the variables for city data by one year, using the 2016 variables for city. Because there is a reverse causal relationship between urban public services and population migration, it cannot be directly concluded that urban public services affect population migration, or it may be due to population inflows leading to an increase in urban public service expenditures. To address the endogeneity issue caused by reverse causality, the data on urban public services and other urban characteristics lags for one year. This paper matches CMDS data with urban data, resulting in 289 prefecture-level data and 19,121 microdata of the migrant population. Table 1 lists the distribution of the research sample according to the gender, household registration, age, and family scale of the respondents.

Table 1. General description of sample.

Variable	Attribute	Sample Size	Proportion
gender	Female entrepreneur	7484	39.14%
	Male entrepreneur	11,637	60.86%
household registration	non-urban entrepreneurs	17,425	91.13%
	urban entrepreneurs	1696	8.87%
age	Above or equal 35 years old	15,349	80.27%
	After 35 years old	3772	19.73%
family scale	Less than or equal to five people	18,219	95.28%
	More than five people	902	4.72%

3.2. Variable Selection

3.2.1. Dependent Variable

According to the existing literature and based on question 314 of the CMDS questionnaire, “Will you still stay where you live now for some time in the future?” [13] The residence intention of migrant entrepreneurs who flow to the western region is the dependent variable. The answer “no” or “didn’t plan well” is assigned a value of 0, and the answer “yes” is assigned a value of 1.

3.2.2. Independent Variable

The independent variable in this paper is urban public services. Given the availability and representativeness of public service data, this paper divides urban public services into six aspects based on general literature practices [26]: education services, cultural services, medical services, urban transportation, urban environment, and communication services. In order to avoid collinearity between variables and preserve the original data information as much as possible, this paper uses principal component analysis to calculate the public service index to measure the level of urban public service. This article uses IBM SPSS Statistics 25 to calculate the KMO test value of six indicators of urban public services, which is 0.693, meeting the necessary conditions for principal component analysis. The indicators and weights in Table 2 indicate that urban communication services have the highest weight, followed by education services, which is consistent with the current

level of informationization and technological development in China. As we can see from Table 2, science and technology, communication, and education services are the two most important public services provided by cities, as well as the two public services related to personal production and life. This paper extracted four principal components, with a variance contribution rate of 89.9%.

Table 2. Composition and weights of urban public service.

Primary Indicator	Variable	Variable Explanation	Weight	Weights
education service	Average number of university teachers	The number of teachers per 10,000 university students in 2016	0.0486	0.2146
	Average number of high school teachers	Number of teachers per 10,000 high school students in 2016	0.0826	
	Average number of primary school teachers	Number of teachers per 10,000 primary school students in 2016	0.0834	
cultural service	Average number of libraries	Public library collections per 10,000 people in 2016 (thousands of volumes)	0.0626	0.1014
	Television coverage	Overall population coverage of TV programs in 2016 (%)	0.0388	
medical service	Average number of beds	Number of hospital or health center beds per 10,000 people in 2016	0.0768	0.1477
	Average number of doctors	Number of medical practitioner per 10,000 people in 2016	0.0709	
transportation service	Average number of buses owned	Number of buses per 10,000 people in 2016	0.0606	0.1313
	Average number of road area	Actual urban road area per 10,000 people at the end of 2016 (10,000 square meters)	0.0707	
environment service	Sulfur dioxide emission	Sulfur dioxide emissions in 2016 (10,000 tons)	0.0771	0.1510
	Green coverage rate	Green coverage rate of built-up areas in 2016 (%)	0.0739	
communication service	Number of fixed-line subscriptions	Number of fixed line subscribers at the end of 2016 (ten thousand households)	0.0860	0.2540
	Mobile subscribers	Number of mobile phone users at the end of 2016 (ten thousand households)	0.0848	
	Internet subscribers	Number of international Internet users in 2016 (households)	0.0832	

3.2.3. Control Variable

In order to control the influence of other factors on the residence intention of migrant entrepreneurs, this article controlled for two types of factors [39]: urban characteristics and personal characteristics. Urban characteristic factors include average urban wages, economic development level, and industrial structure. Specifically, the level of the urban wage is an important factor in attracting both intra-provincial and non-local migrant populations. The higher the average wage of urban migrants, the greater the pulling force on them and the stronger their residence intentions. This article uses the annual average wage level of urban employees to measure the average city wage. Moreover, this

article captures urban entrepreneurial opportunities by controlling the level of economic development and industrial structure. The higher the level of economic development and the more reasonable the industrial structure, the more entrepreneurial opportunities are representative of the city, the greater the pulling force on the migrant population, and the stronger their willingness to live. This paper uses urban per capita GDP as a proxy variable for economic development level and uses the ratio of urban tertiary industry output to secondary industry output as a proxy variable for industrial structure. In addition, this study draws on related research [39] and takes personal characteristic factors such as family size, gender, age, education level, household registration attribute, nationality, flow range, inflow time, social integration, personal income, and marital status of migrant entrepreneurs as control variables at the individual level. The calculation method for variables is shown in Table 3.

Table 3. Calculation methods for variables.

Variable	Calculation Method
residence	Will you still stay where you live now for some time in the future? (Yes = 1, No or didn't think about it = 0)
publicsever	Comprehensive indicators of urban public services in 2016
averwage	Average annual wage of urban workers in 2016 (10,000 yuan)
gdp	Per capita GDP in 2016 (10,000 yuan)
industry	The ratio of the output value of the tertiary industry to the output value of the secondary industry in 2016
family	How many family members do the interviewees have?
gender	Male = 1, Female = 0
age	2017 minus the year of birth
education	No schooling = 0, primary school = 6, junior high school = 9, high school or technical secondary school = 12, college = 14, bachelor = 16, graduate = 19
nationality	Han ethnicity = 1, others = 0
income	What was your income last month? (10,000 yuan)
maritalstatus	Married = 1, Other = 0
household	Agricultural hukou = 1, non-agricultural hukou = 0
flowrange	Inter-provincial mobility = 1, intra-provincial mobility = 0
inflowtime	2017 minus year of inflow
integration	Do you agree, "I feel like the locals are willing to accept me as a part of it?" (Strongly disagree or disagree = 0, basically agree or completely agree = 1)

3.3. Model Settings

According to the theoretical model, this article matches data from the 2017 China Migrants Dynamic Survey and 289 prefecture-level city data. We also controlled the personal and family characteristics of the migrant entrepreneurs, as well as the characteristics of the inflow cities. The Logit model is used to study the impact of urban public services in the western region of China on the residence intentions of migrant entrepreneurs. The model settings are as follows:

$$\text{Residence}_{ij} = \beta_0 + \beta_1 \text{publicsever}_j + \beta_2 X_i + \beta_3 \text{city}_j + \xi_{ij}$$

Among them, the dependent variable Residence_{ij} represents the residence intention of migrant entrepreneurs in city i , with a value of 1 indicating willingness to continue staying where they live now for a period of time in the future and a value of 0 indicating unwillingness to continue staying where they live now for a period of time in the future.

The core explanatory variable publicservice_j represents the public services of city j , measured using comprehensive indicators of urban public services based on principal component analysis. The size and significance of β_1 are the core concerns of this paper. If the higher the level of urban public services, the more migrant entrepreneurs will be attracted, we expect β_1 to be positive.

The control variables include two categories: one is individual and family characteristic variables X_i , including family population, gender, age, education level, household registration attribute, nationality, flow range, inflow time, social integration, personal income, and marital status; the other type is the urban characteristic variable city_j , which includes the average urban wage, urban economic development, and urban industrial structure. The main purpose of controlling these variables is to alleviate the bias of omitted variables, which may be caused by labor demand and supply factors. ξ_{ij} represents a random perturbation term.

4. Empirical Results and Analysis

4.1. Descriptive Analysis

Table 4 presents descriptive statistics. The average entrepreneur's residence intention is 0.790, indicating a strong overall willingness to stay and start businesses in the western region of China for a period of time in the future. The average of urban public service is 22.250 (the maximum value is 94.611), indicating that the level of urban public service in the western region is generally not high. The average urban wage and industrial structure are around the median, indicating that the average wage level and industrial structure are relatively concentrated and balanced. The average level of economic development is 5.691 (the maximum value is 21.549), reflecting the overall insufficient level of economic development in the western region, which is directly related to geographical location factors and also in line with the classification standards of China's economic regions. In addition, the average family size of migrant entrepreneurs is 3.397, the average marital status is 0.895, and the average age is 43.479, reflecting that migrant entrepreneurs have mostly small core family structures. The average education level is 8.988 (maximum value of 19), and the average social integration level is 0.937 (maximum value of 1), reflecting that the education years of migrant entrepreneurs are generally not high and their degree of integration with local society is relatively high. From the average of age, household registration attribute, flow range, and inflow time, most of the migrant entrepreneurs are older and have agricultural household registration for inter-provincial migration, and the migration time generally exceeds seven years, with overall high residence stability.

4.2. Baseline Regression Analysis

Column (1) in Table 5 shows the regression results of the Logit model without adding the control variable of urban characteristics. The results show that urban public services in the western region of China have a significant and positive promotion effect on the residence intentions of migrant entrepreneurs. The higher the level of urban public services, the stronger the residence intention of migrant entrepreneurs. Column (2) shows the regression results with the addition of urban characteristic control variables based on the first column. The results show that there is still a significant and positive correlation between urban public services and migrant entrepreneurs residence intentions. At the same time, the level of average wage and economic development in the city are significantly and positively correlated with the residence intention of migrant entrepreneurs, indicating that when the level of public services, average wage, and economic development in western cities increases, the residence intention of entrepreneurs becomes stronger. This is consistent with Tiebout's (1956) theory of local finance [17], which states that the higher the level of urban public services, the more likely migrant entrepreneurs are to move to the city.

Table 4. Descriptive statistics of main variables.

Variables	N	Mean	Std.	Min	Max
residence	19,121	0.790	0.407	0	1
publicsever	8732	22.250	24.252	3.861	94.611
averwage	14,123	6.748	1.283	4.523	11.101
gdp	14,123	5.691	2.887	1.189	21.549
industry	14,123	1.255	0.525	0.370	2.629
family	19,121	3.397	1.187	1	10
gender	19,121	0.609	0.488	0	1
age	19,121	43.479	9.535	21	84
education	19,121	8.988	2.909	0	19
nationality	19,121	0.847	0.360	0	1
income	19,121	0.428	0.430	−3	20
maritalstatus	19,121	0.895	0.307	0	1
household	19,121	0.911	0.284	0	1
flowrange	19,121	0.544	0.498	0	1
inflowtime	19,121	7.178	6.300	0	39
integration	19,121	0.937	0.243	0	1

Table 5. Baseline regression results.

Dependent Variable: Residence Intention								
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
publicsever	0.006 ***	0.005 ***						
	(0.001)	(0.001)						
education service			0.064 ***					
			(0.016)					
cultural service				0.198 **				
				(0.087)				
medical service					0.047 ***			
					(0.010)			
transportation service						0.116 *		
						(0.060)		
environment service							0.109 ***	
							(0.037)	
communication service								0.001 ***
								(0.0003)
averwage		0.119 ***	0.066	0.146 ***	0.209 ***	0.159 ***	0.174 ***	0.168 ***
		(0.044)	(0.042)	(0.039)	(0.033)	(0.022)	(0.021)	(0.036)

Table 5. Cont.

Dependent Variable: Residence Intention								
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
gdp		0.024 *** (0.009)	0.008 (0.010)	0.006 (0.011)	−0.011 (0.009)	−0.001 (0.011)	0.009 (0.009)	0.011 (0.008)
industry		−0.087 * (0.048)	−0.266 *** (0.058)	−0.164 *** (0.043)	−0.240 *** (0.044)	−0.201 *** (0.044)	−0.108 ** (0.044)	−0.166 *** (0.041)
family	0.102 *** (0.027)	0.105 *** (0.027)	0.112 *** (0.023)	0.116 *** (0.023)	0.104 *** (0.022)	0.120 *** (0.021)	0.122 *** (0.023)	0.119 *** (0.022)
gender	0.053 (0.056)	0.049 (0.056)	0.067 (0.049)	0.067 (0.050)	0.064 (0.048)	0.119 *** (0.045)	0.096 ** (0.048)	0.095 ** (0.046)
age	−0.012 *** (0.003)	−0.012 *** (0.003)	−0.010 *** (0.003)	−0.010 *** (0.003)	−0.009 *** (0.003)	−0.009 *** (0.003)	−0.009 *** (0.003)	−0.013 *** (0.003)
education	0.065 *** (0.011)	0.066 *** (0.011)	0.061 *** (0.010)	0.048 *** (0.010)	0.046 *** (0.009)	0.058 *** (0.009)	0.062 *** (0.009)	0.047 *** (0.009)
nationality	−0.170 * (0.088)	−0.152 * (0.089)	−0.157 ** (0.079)	−0.226 *** (0.079)	−0.223 *** (0.078)	−0.125 * (0.071)	−0.120 (0.076)	−0.250 *** (0.075)
income	0.404 *** (0.081)	0.381 *** (0.082)	0.435 *** (0.074)	0.444 *** (0.075)	0.418 *** (0.072)	0.371 *** (0.068)	0.310 *** (0.071)	0.437 *** (0.070)
maritalstatus	0.289 *** (0.103)	0.278 *** (0.103)	0.166 * (0.089)	0.182 ** (0.091)	0.178 ** (0.088)	0.174 ** (0.081)	0.252 *** (0.087)	0.200 ** (0.084)
household	−0.044 (0.098)	−0.031 (0.098)	−0.046 (0.087)	−0.054 (0.087)	−0.034 (0.084)	−0.036 (0.082)	−0.017 (0.087)	−0.072 (0.082)
flowrange	−0.301 *** (0.055)	−0.308 *** (0.056)	−0.344 *** (0.049)	−0.334 *** (0.050)	−0.364 *** (0.048)	−0.304 *** (0.046)	−0.303 *** (0.049)	−0.315 *** (0.046)
inflowtime	0.0273 *** (0.005)	0.028 *** (0.005)	0.021 *** (0.004)	0.024 *** (0.004)	0.023 *** (0.004)	0.020 *** (0.004)	0.025 *** (0.004)	0.024 *** (0.004)
integration	0.699 *** (0.096)	0.711 *** (0.096)	0.726 *** (0.082)	0.750 *** (0.084)	0.754 *** (0.080)	0.713 *** (0.076)	0.678 *** (0.083)	0.737 *** (0.077)
constant	−0.195 (0.267)	−1.016 *** (0.375)	−0.396 (0.341)	−1.455 *** (0.437)	−1.008 *** (0.308)	−0.927 *** (0.265)	−1.568 *** (0.299)	−0.743 ** (0.310)
N	8732	8732	11,655	11,264	12,173	13,892	11,815	13,343
chi-square	279.66	302.81	386.34	381.50	419.43	426.08	378.27	463.85
PseudoR ²	0.0312	0.0338	0.0326	0.0333	0.0340	0.0308	0.0317	0.0345

Note: *, **, and *** respectively indicate significant at the 10%, 5%, and 1% levels; The data in parentheses is the standard error.

The regression results of the six subdimensions of the comprehensive indicators of urban public services and the residence intention of migrant entrepreneurs are shown in columns (3) to (8) of Table 5. The results show that there is a positive correlation between urban education services, cultural services, medical services, transportation services, environment services, and communication services and the residence intention of entrepreneurs, which is significant at least at the 10% level, proving the robustness of the baseline regression results. This indicates that the level of various urban public services directly affects the migrant entrepreneurs' residence intentions for some time in the future. Improving the public service levels of various cities in the western region can not only meet the needs of migrant entrepreneurs for local education, culture, medical care, transportation, environment, technology, and communication but also encourage migrant entrepreneurs to continue to stay where they live now and operate entrepreneurial enterprises. Therefore, improving the level of urban economic development and narrowing the gap between the

western region and developed cities is helpful for improving the level of public services, promoting regional balanced development, and achieving common prosperity.

4.3. Robust Test

4.3.1. Replacement Model

To ensure the robustness of the results, this paper uses a probit model and a linear probability model (LPM) to analyze the impact of urban public services in western regions of China on the residence intentions of migrant entrepreneurs. The results in columns (1) to (4) of Table 6 show that, regardless of whether other urban characteristic variables are included, there is a significant and positive correlation between urban public services and the residence intention of migrant entrepreneurs using the probit model and LPM model, which is consistent with the Logit model.

Table 6. Results of robustness test.

Variables	Dependent Variable: Residence Intention								
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Probit Model		LPM Model		Replace Key Explanatory Variables		Expand Research Sample		Add Control Variables
publicsever	0.003 *** (0.001)	0.003 *** (0.001)	0.001 *** (0.0002)	0.001 *** (0.0002)			0.006 *** (0.001)	0.005 *** (0.001)	0.005 *** (0.001)
finance					0.0001 *** (0.00003)	0.0001 *** (0.00003)			
averwage		0.069 *** (0.025)		0.020 *** (0.007)		0.168 *** (0.020)		0.107 ** (0.042)	0.102 ** (0.043)
gdp		0.013 ** (0.005)		0.003 ** (0.001)		0.012 (0.008)		0.026 *** (0.009)	0.022 ** (0.009)
industry		−0.049 * (0.028)		−0.012 (0.008)		−0.157 *** (0.041)		−0.090 * (0.048)	−0.067 (0.048)
family	0.059 *** (0.015)	0.061 *** (0.015)	0.017 *** (0.004)	0.017 *** (0.004)	0.090 *** (0.021)	0.114 *** (0.021)	0.107 *** (0.026)	0.110 *** (0.027)	0.080 *** (0.027)
gender	0.032 (0.032)	0.030 (0.032)	0.009 (0.009)	0.009 (0.009)	0.125 *** (0.044)	0.123 *** (0.045)	0.042 (0.055)	0.038 (0.055)	0.057 (0.056)
age	−0.007 *** (0.002)	−0.007 *** (0.002)	−0.002 *** (0.001)	−0.002 *** (0.001)	−0.010 *** (0.003)	−0.010 *** (0.003)	−0.011 *** (0.003)	−0.011 *** (0.003)	−0.012 *** (0.003)
education	0.038 *** (0.006)	0.039 *** (0.006)	0.011 *** (0.002)	0.011 *** (0.002)	0.046 *** (0.008)	0.056 *** (0.008)	0.066 *** (0.011)	0.068 *** (0.011)	0.056 *** (0.011)
nationality	−0.099 ** (0.050)	−0.089 * (0.050)	−0.025 * (0.013)	−0.021 * (0.013)	−0.262 *** (0.069)	−0.150 ** (0.070)	−0.164 * (0.088)	−0.148 * (0.088)	−0.179 ** (0.089)
income	0.225 *** (0.044)	0.215 *** (0.044)	0.049 *** (0.009)	0.046 *** (0.009)	0.423 *** (0.068)	0.379 *** (0.068)	0.366 *** (0.079)	0.346 *** (0.079)	0.068 (0.098)
maritalstatus	0.172 *** (0.060)	0.166 *** (0.060)	0.051 *** (0.018)	0.049 *** (0.018)	0.114 (0.079)	0.182 ** (0.080)	0.295 *** (0.101)	0.282 *** (0.101)	0.240 ** (0.104)
household	−0.020 (0.055)	−0.012 (0.055)	−0.006 (0.015)	−0.003 (0.014)	−0.040 (0.081)	−0.051 (0.081)	−0.079 (0.088)	−0.071 (0.088)	0.012 (0.099)
flowrange	−0.175 *** (0.032)	−0.178 *** (0.032)	−0.0481 *** (0.009)	−0.050 *** (0.009)	−0.255 *** (0.045)	−0.291 *** (0.045)	−0.296 *** (0.055)	−0.301 *** (0.055)	−0.282 *** (0.057)
inflowtime	0.016 *** (0.003)	0.016 *** (0.003)	0.004 *** (0.001)	0.004 *** (0.001)	0.019 *** (0.004)	0.022 *** (0.004)	0.027 *** (0.005)	0.027 *** (0.005)	0.022 *** (0.005)
integration	0.415 ***	0.422 ***	0.135 ***	0.136 ***	0.710 ***	0.705 ***	0.680 ***	0.693 ***	0.658 ***

Table 6. Cont.

Variables	Dependent Variable: Residence Intention								
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Probit Model		LPM Model		Replace Key Explanatory Variables		Expand Research Sample		Add Control Variables
	(0.058)	(0.058)	(0.021)	(0.021)	(0.075)	(0.075)	(0.095)	(0.096)	(0.097)
family income									0.368 ***
									(0.077)
family housing									0.460 ***
									(0.070)
constant	−0.098	−0.570 ***	0.519 ***	0.380 ***	0.319	−0.943 ***	−0.181	−0.925 **	−0.846 **
	(0.155)	(0.217)	(0.046)	(0.063)	(0.197)	(0.255)	(0.260)	(0.367)	(0.378)
N	8732	8732	8732	8732	14,123	14,123	9006	9006	8732
chi-square	281.22	303.86			343.93	438.08	281.94	304.74	379.00
PseudoR ²	0.0314	0.0339			0.0244	0.0310	0.0307	0.0331	0.0423
F value			23.95	20.70					
R ²			0.0320	0.0346					

Note: *, **, and *** respectively indicate significant at the 10%, 5%, and 1% levels; The data in parentheses is the standard error.

4.3.2. Replacement Key Explanatory Variables

This paper uses principal component analysis to calculate the comprehensive indicators of urban public services to measure the level of urban public services [39,41,42]. Some scholars have also used urban public service expenditure to measure the level of public services [42]. We use the per capita fiscal expenditure in western cities to measure the level of urban public services. Columns (5) and (6) of Table 6 indicate that regardless of whether other urban characteristic variables are included, per capita fiscal expenditure has a significant and positive effect on the residence intention of migrant entrepreneurs, which is consistent with the baseline regression results, further verifying the robustness of the research results in this paper.

4.3.3. Expand Research Sample

We further utilize the method of expanding the research sample for robustness testing. Specifically, this paper takes the research sample with changes in household registration attributes as non-agricultural migration entrepreneurs and combines baseline regression samples for regression analysis. Columns (7) and (8) of Table 6 show that regardless of whether other urban characteristic variables are included, urban public services have a significant and positive effect on the residence intention of migrant entrepreneurs, which is consistent with the baseline regression results.

4.3.4. Add Control Variables

Although this article has controlled some important variables, it may still overlook potential factors that affect the residence intention of migrant entrepreneurs, such as family income and housing, which affect the living conditions of entrepreneurs where they live now [43]. To address the estimation bias caused by omitted variables, this paper added control variables for entrepreneur household income and housing conditions. Among them, the variable of household income is measured by question 105 of the CMDS questionnaire: “What is the average monthly total income of your family in the past year (10,000 yuan)?” The variable of family housing conditions is measured by question 308 of the CMDS questionnaire, “What is the attribute of your current housing?”. If the answer is “self-purchased commodity housing, self-purchased affordable housing, self-purchased small property rights housing, or self-built housing, the value is assigned to 1. If the answer is “affiliation, employer housing, whole rental private housing, shared rental private housing,

rental housing, borrowed housing, employment places or other informal residences,” the value is assigned to 0. Columns (9) of Table 6 show that after adding the two individual and city control variables related to household income and housing, there is a significant and positive correlation between public services and the residence intention of entrepreneurs at the 1% level, indicating that the problem of omitted variables is not serious and that the results of the baseline regression analysis are robust.

5. Heterogeneity Analysis

In recent years, both large and small cities have successively introduced a series of talent-introduction policies. In order to more carefully examine the heterogeneous impact of urban public services on the residence intention of migrant entrepreneurs [27,28], this paper conducts group regression analysis based on household registration differences, generational differences, family structure differences, employment identity differences, industry, and flow range differences.

Migrant entrepreneurs can be divided into urban migrant entrepreneurs and non-urban migrant entrepreneurs according to the type of registered residence, and their household registration is respectively non-agricultural and agricultural. This paper uses grouped regression to examine the heterogeneity of the impact of urban public services on the residence intentions of urban migrant entrepreneurs and non-urban migrant entrepreneurs in the western region of China. Columns (1) and (2) of Table 7 indicate that urban public services have a significant and positive promoting effect on the residence intention of non-urban migrant entrepreneurs entering the western areas but have no significant impact on the residence intention of urban migrant entrepreneurs. Urban average salary, economic development level, family size, education level, personal income, marital status, and inflow time have a significant and positive impact on the residence intention of non-urban migrant entrepreneurs, while urban economic development level, family size, and education level have a significant and positive impact on the residence intention of urban migrant entrepreneurs. This indicates that the main factor affecting the residence intention of urban migrant entrepreneurs is not urban public services but the level of economic development, family size, and human capital in the western region. The important consideration factors for non-urban migrant entrepreneurs residing in the western region include not only the local level of urban public services but also the average urban wage, human capital, economic income, and family migration patterns. This is related to the transition of population migration in China, which means individual labor migration transfers to family migration [22]. The proportion of non-urban migrant entrepreneurs is relatively high. Their family mobility model not only needs to meet the needs of children’s education, healthcare, cultural life, and urban environment but also needs to consider the impact of human capital and social resources of entrepreneurs on their entrepreneurial stability, as well as factors related to economic income such as urban average wages and personal income. It undoubtedly has a significant impact on the residence intentions of non-urban migrant entrepreneurs.

Table 7. Test grouping regression results.

Dependent Variable: Residence Intention												
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
	Urban Migrant Entrepreneurs	Non-Urban Migrant Entrepreneurs	New Generation of Migrant Entrepreneurs	Older Generation of Migrant Entrepreneurs	Small-Scale Family Structures	Large-Scale Family Structures	Individual Businesses	Entrepreneurs	High-Tech Industries	Low-Tech Industries	Intra Provincial Mobility and	Inter Provincial Mobility
publicsever	0.005 (0.004)	0.005 *** (0.001)	0.005 *** (0.001)	0.005 (0.003)	0.005 *** (0.001)	−0.004 (0.007)	0.006 *** (0.001)	0.0001 (0.003)	0.052 (0.033)	0.005 *** (0.001)	0.003 * (0.002)	0.007 *** (0.002)
averwage	−0.183 (0.146)	0.148 *** (0.045)	0.116 ** (0.047)	0.137 (0.102)	0.126 *** (0.043)	0.146 (0.228)	0.112 ** (0.045)	0.225 (0.142)	−0.710 (0.530)	0.126 *** (0.043)	0.141 ** (0.063)	0.094 (0.061)
Gdp	0.121 *** (0.039)	0.017 * (0.010)	0.028 *** (0.010)	0.008 (0.023)	0.021 ** (0.009)	0.088 (0.074)	0.023 ** (0.010)	0.025 (0.029)	0.026 (0.100)	0.023 ** (0.009)	−0.013 (0.012)	0.057 *** (0.014)
industry	−0.017 (0.160)	−0.093 * (0.050)	−0.084 (0.053)	−0.081 (0.115)	−0.097 ** (0.049)	−0.076 (0.304)	−0.057 (0.050)	−0.302 * (0.161)	−0.119 (0.498)	−0.084 * (0.048)	0.061 (0.070)	−0.160 ** (0.068)
Family	0.272 ** (0.106)	0.092 *** (0.028)	0.143 *** (0.031)	0.040 (0.057)	- (0.057)	- (0.302)	0.108 *** (0.028)	0.058 (0.084)	0.801 ** (0.349)	0.098 *** (0.027)	0.101 ** (0.041)	0.114 *** (0.036)
gender	−0.052 (0.191)	0.063 (0.059)	0.011 (0.062)	0.100 (0.131)	0.048 (0.057)	0.274 (0.302)	0.082 (0.059)	−0.250 (0.180)	0.460 (0.580)	0.045 (0.056)	−0.130 (0.082)	0.194 ** (0.077)
Age	−0.004 (0.011)	−0.013 *** (0.004)	- (0.004)	- (0.003)	−0.013 *** (0.003)	−0.019 (0.018)	−0.012 *** (0.004)	−0.014 (0.011)	−0.002 (0.039)	−0.012 *** (0.003)	−0.008 * (0.005)	−0.013 *** (0.004)
education	0.070 * (0.037)	0.066 *** (0.012)	0.085 *** (0.012)	0.038 (0.029)	0.063 *** (0.011)	0.074 (0.061)	0.060 *** (0.012)	0.097 *** (0.033)	−0.021 (0.104)	0.068 *** (0.011)	0.088 *** (0.016)	0.044 *** (0.016)
nationality	−0.481 (0.319)	−0.125 (0.093)	−0.175 * (0.100)	−0.119 (0.196)	−0.161 * (0.090)	0.006 (0.483)	−0.179 * (0.095)	0.067 (0.262)	0.255 (0.816)	−0.157 * (0.090)	−0.336 *** (0.107)	0.465 *** (0.169)
income	0.413 * (0.230)	0.376 *** (0.087)	0.394 *** (0.093)	0.424 ** (0.169)	0.336 *** (0.081)	2.076 *** (0.595)	0.340 *** (0.098)	0.382 ** (0.156)	1.957 * (1.123)	0.363 *** (0.082)	0.686 *** (0.146)	0.233 ** (0.097)
maritalstatus	−0.486 (0.346)	0.362 *** (0.109)	0.014 (0.147)	0.442 *** (0.157)	0.440 *** (0.095)	0.576 (0.893)	0.324 *** (0.110)	0.089 (0.312)	−1.379 (0.982)	0.302 *** (0.104)	0.279 * (0.144)	0.289 * (0.152)

Table 7. Cont.

Dependent Variable: Residence Intention												
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
	Urban Migrant Entrepreneurs	Non-Urban Migrant Entrepreneurs	New Generation of Migrant Entrepreneurs	Older Generation of Migrant Entrepreneurs	Small-Scale Family Structures	Large-Scale Family Structures	Individual Businesses	Entrepreneurs	High-Tech Industries	Low-Tech Industries	Intra Provincial Mobility and	Inter Provincial Mobility
household	-	-	0.030	−0.086	−0.011	−0.011	−0.002	−0.088	−0.217	−0.031	0.059	−0.145
	-	-	(0.106)	(0.262)	(0.099)	(0.710)	(0.107)	(0.252)	(0.696)	(0.100)	(0.137)	(0.142)
flowrange	−0.138	−0.325 ***	−0.272 ***	−0.438 ***	−0.303 ***	−0.578 *	−0.320 ***	−0.214	−0.139	−0.309 ***		-
	(0.194)	(0.059)	(0.062)	(0.133)	(0.057)	(0.324)	(0.060)	(0.170)	(0.580)	(0.057)		-
inflowtime	0.021	0.028 ***	0.021 ***	0.056 **	0.028 ***	0.037	0.031 ***	0.006	0.031	0.028 ***	0.034 ***	0.023 ***
	(0.016)	(0.005)	(0.005)	(0.022)	(0.005)	(0.026)	(0.005)	(0.014)	(0.047)	(0.005)	(0.007)	(0.006)
integration	0.375	0.740 ***	0.703 ***	0.709 ***	0.712 ***	0.661	0.735 ***	0.521	1.000	0.713 ***	0.707 ***	0.698 ***
	(0.408)	(0.100)	(0.108)	(0.214)	(0.098)	(0.563)	(0.101)	(0.341)	(0.925)	(0.097)	(0.137)	(0.138)
constant	0.751	−1.217 ***	−1.554 ***	−1.140	−0.714 *	−1.612	−1.070 ***	−0.644	2.172	−1.040 ***	−1.370 **	−1.508 ***
	(1.248)	(0.369)	(0.378)	(0.797)	(0.375)	(2.132)	(0.398)	(1.145)	(4.186)	(0.377)	(0.567)	(0.519)
N	867	7865	7150	1582	8409	323	7521	1211	145	8587	4556	4176
chi-square	35.41	280.28	240.82	62.08	270.06	31.52	260.70	41.06	23.93	294.21	168.47	157.19
Pseudo R ²	0.0432	0.0345	0.0329	0.0379	0.0313	0.0948	0.0331	0.0393	0.1839	0.0334	0.0386	0.0345

Note: ① The distribution of household population in the sample studied in this paper is between one and ten people. According to the basic family structure in China, it is divided into two groups. Families with a population of less than or equal to five people are considered small-scale family structures, and families with a population of more than five people are considered large-scale family structures. ② This paper defines the sample of self-employed workers as “individual businesses” and the sample of employers as “entrepreneurs”. *, **, and *** respectively indicate significant at the 10%, 5%, and 1% levels; The data in parentheses is the standard error.

This paper further explores the intergenerational differences in the impact of urban public services on the residence intentions of the older and newer generations of migrant entrepreneurs. According to the related research [44], this article regards migrant entrepreneurs under the age of 35 as the new generation of migrant entrepreneurs and entrepreneurs aged 35 and above as the older generation of migrant entrepreneurs and conducts grouped regression analysis on them. As shown in columns (3) and (4) of Table 7, urban public services are only significantly and positively correlated with the residence intention of the older generation of migrant entrepreneurs. In addition, urban characteristics such as average wage and economic development level, as well as personal characteristics such as family size, education level, personal income, inflow time, and social integration, are significantly and positively correlated with the residence intention of the older generation of migrant entrepreneurs. The residence intention of the new generation of migrant entrepreneurs is more influenced by personal characteristics such as income, marital status, inflow time, and social integration. It indicates that the intergenerational differences of migrant entrepreneurs reflect whether urban public services play a significant role, which is related to the different needs of the older generation and the new generation of migrant entrepreneurs for urban entrepreneurial resources. Because the older generation of migrant entrepreneurs has elderly parents and young children, they demand education, health care, an environment, and entrepreneurial resources. The longer they flow in and the higher their degree of integration with the local society, the easier it is for them to obtain rich entrepreneurial resources, thereby increasing their economic income. This conclusion is consistent with existing studies [44].

Entrepreneurs were grouped by family structure for regression analysis to explore the impact of urban public services on the residence intentions of migrant entrepreneurs of different family sizes. Columns (5) and (6) of Table 7 show that there is a significant and positive correlation between the residence intention of entrepreneurs with small-scale family structures and urban public services, while there is no significant correlation between the residence intention of entrepreneurs with large-scale family structures and urban public services. This conclusion is consistent with the characteristic facts of the family structure of the migrant population in China [45]. Migrant entrepreneurs with small-scale family structures need public services such as urban education, culture, and medical care to help them solve children's education and health problems. The influencing factors of the residence intention of migrant entrepreneurs with large-scale family structures are more complex. They generally need to solve the problem of children's education and parental care and seize entrepreneurial opportunities and resources. Therefore, economic income may be the main factor influencing the residence intention of migrant entrepreneurs with large-scale family structures, rather than the level of urban public services.

This paper divides the employment status of migrant entrepreneurs into individual businesses and entrepreneurs and conducts group regression analysis. The results in columns (7) and (8) of Table 7 indicate that there is a significant and positive correlation between the residence intention of migrant entrepreneurs with individual businesses and urban public services, but there is no significant correlation between the residence intention of entrepreneurs and urban public services. This may be due to the weak risk resistance of self-employed individuals and their willingness to rely more on the public resources and services provided by the city, as well as the higher wage levels in the city.

This article also divides entrepreneurs into migrant entrepreneurs in high-tech industries and business entrepreneurs in low-tech industries based on their respective industries and conducts grouped regression analysis. Columns (9) and (10) of Table 7 show that there is a significant and positive correlation between the residence intention of migrant entrepreneurs who start businesses in low-tech industries and urban public services, but there is no significant correlation between the residence intention of migrant entrepreneurs who start businesses in high-tech industries and urban public services. This may be because most migrant entrepreneurs are engaged in basic work with low technological content, which is closely related to daily life and can promote the healthy development of the

western region. They are closely related to social and economic development and various public services in cities. Therefore, there is a significant and positive correlation between the residence intention of migrant entrepreneurs in low-tech industries and urban public services, urban average wages, and urban economic development level.

This article divides entrepreneurs into intra-provincial mobility and inter-provincial mobility based on their flow range and conducts group regression analysis to explore the relationship between the residence intention of entrepreneurs with different flow ranges and urban public services. Columns (11) and (12) of Table 7 show that there is a significant and positive correlation between the residence intention of migrant entrepreneurs who move across provinces and within provinces and urban public services, and the residence intention of migrant entrepreneurs who move across provinces is stronger. This may be because the migration cost of interprovincial mobility is high, human capital is high, and the demand for public services in the destination area increases. Therefore, the level of public services flowing into the city reflects the quality of the local business environment, which can influence migrant entrepreneurs' residence intentions.

However, entrepreneurs who move within the province have relatively low migration costs due to their short distance, small differences in social, cultural, and institutional factors, and weak sensitivity to the local business environment. Whether they reside in the local area not only considers the level of urban public services but also pays attention to the average wage level and the influence of personal factors.

6. Further Analysis

This paper further analyzes the permanent residence intentions of migrant entrepreneurs who are willing to stay where they live now for some time in the future. According to the answer to question 313 of the CMDS questionnaire, "If you meet the conditions for settling down locally, are you willing to move your household registration to the city where you live now?" [13], the proportion of stable migrant entrepreneurs who are willing to settle down in their current place of residence is about 34.05%, which is 8.15 percentage points lower than the overall average level of the migrant population. The proportion of entrepreneurs who plan to continue living in their current place of residence is 73.83%, which is 9.37 percentage points lower than the overall level of the migrant population. The impact of the western region on the permanent residence intention of migrant entrepreneurs is lower than the overall average level. Therefore, the proportion of stable migrant entrepreneurs who are willing to continue living or settle in their current place of residence is relatively high.

To clearly reflect the impact of urban public services in the western region on the permanent residence intention of migrant entrepreneurs, this article conducts regression analysis on the six subdimensions of urban public services on the permanent residence intention of entrepreneurs. Table 8 shows that there is a significant and positive correlation between education services, cultural services, medical services, transportation services, and the permanent residence intention of entrepreneurs, indicating that urban public services in western regions of China have a positive promoting effect on the permanent intention of migrant entrepreneurs. However, there is no significant correlation between the urban environment, communication services, and permanent residence intention. This may be due to the overall high environmental quality and gradual improvement of communication services in the western region, which enhances the experience and happiness of entrepreneurs but does not play a decisive role in their permanent residence intention.

Table 8. Regression results of urban public services' effect on permanent residence intention of entrepreneurs.

Dependent Variable: Permanent Residence Intention						
	(1)	(2)	(3)	(4)	(5)	(6)
education service	0.097 *** (0.016)					
cultural service		0.183 *** (0.059)				
medical service			0.082 *** (0.010)			
transportation service				0.410 *** (0.054)		
environment service					−0.002 (0.036)	
communication service						−0.0003 (0.0002)
averwage	0.080 * (0.043)	0.188 *** (0.039)	0.112 *** (0.032)	0.044 ** (0.019)	0.137 *** (0.019)	0.149 *** (0.034)
gdp	−0.008 (0.009)	−0.007 (0.009)	−0.0134 (0.009)	−0.028 *** (0.010)	0.010 (0.008)	0.017 ** (0.008)
industry	−0.058 (0.056)	0.065 (0.042)	−0.064 (0.046)	−0.020 (0.043)	0.093 ** (0.043)	0.101 ** (0.040)
family	−0.034 (0.023)	0.016 (0.022)	0.024 (0.021)	0.019 (0.020)	0.039 * (0.022)	0.006 (0.020)
gender	−0.038 (0.047)	0.016 (0.048)	0.010 (0.046)	−0.009 (0.043)	−0.001 (0.046)	0.013 (0.044)
age	0.005 * (0.003)	0.006 ** (0.003)	0.006 ** (0.003)	0.008 *** (0.003)	0.006 ** (0.003)	0.004 * (0.003)
education	0.023 ** (0.009)	−0.004 (0.009)	0.005 (0.009)	0.008 (0.008)	0.006 (0.009)	0.003 (0.008)
nationality	−0.415 *** (0.068)	−0.533 *** (0.066)	−0.472 *** (0.065)	−0.488 *** (0.060)	−0.478 *** (0.066)	−0.496 *** (0.063)
income	−0.090 (0.057)	−0.164 *** (0.060)	−0.178 *** (0.059)	−0.127 ** (0.054)	−0.147 ** (0.058)	−0.141 ** (0.055)
maritalstatus	−0.295 *** (0.087)	−0.341 *** (0.090)	−0.324 *** (0.086)	−0.264 *** (0.077)	−0.327 *** (0.085)	−0.261 *** (0.081)
household	−0.756 *** (0.075)	−0.752 *** (0.076)	−0.777 *** (0.074)	−0.760 *** (0.070)	−0.801 *** (0.076)	−0.790 *** (0.071)
flowrange	−0.153 ***	−0.214 ***	−0.274 ***	−0.305 ***	−0.321 ***	−0.229 ***

Table 8. Cont.

Dependent Variable: Permanent Residence Intention						
	(1)	(2)	(3)	(4)	(5)	(6)
	(0.047)	(0.048)	(0.047)	(0.044)	(0.047)	(0.044)
inflowtime	−0.002	0.001	0.002	−0.001	−0.001	0.001
	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)
integration	0.464 ***	0.428 ***	0.509 ***	0.474 ***	0.451 ***	0.474 ***
	(0.108)	(0.112)	(0.108)	(0.098)	(0.106)	(0.102)
constant	−0.855 **	−1.789 ***	−0.919 ***	−0.478 *	−0.971 ***	−1.012 ***
	(0.346)	(0.366)	(0.306)	(0.253)	(0.301)	(0.305)
N	9252	8946	9678	11,134	9413	10,647
chi-square	357.49	333.96	415.68	493.67	420.28	354.40
Pseudo R ²	0.0303	0.0292	0.0335	0.0343	0.0344	0.0260

Note: *, **, and *** respectively indicate significant at the 10%, 5%, and 1% levels; The data in parentheses is the standard error.

7. Conclusions and Policy Implications

7.1. Research Conclusions

This paper uses the 2017 China Migrants Dynamic Survey (CMDs) and matching data from 289 prefecture-level cities to examine the relationship between the residence intention of migrant entrepreneurs in western regions with employment status as “employers” and “self-employed workers” and urban public services. At the same time, this paper conducts group regression analysis according to household registration differences, generational differences, family structure differences, employment identity differences, industry and flow range differences, and other factors, revealing the heterogeneous impact of urban public services on migrant entrepreneurs’ residence intentions in the western region. The main conclusions include:

Firstly, urban public services in the western region of China significantly affect the residence intentions of migrant entrepreneurs. That is to say, the higher the level of urban public services, the stronger the residence intention of migrant entrepreneurs. Meanwhile, further analysis of the permanent residence intention of migrant entrepreneurs who are willing to continue staying in the local area in the future shows that the level of urban public services such as education services, cultural services, medical services, and transportation services significantly enhances the permanent residence intention of migrant entrepreneurs.

Previous studies have explored the significant impact of urban public services on the permanent migration willingness of migrant populations at the overall level [39] or analyzed the driving effect of investment on entrepreneurship from the perspective of a single public service investment in urban community infrastructure [27–31]. This paper uses urban public services and sub-dimensions such as education, culture, medical care, transportation, environment, and communication services to analyze the residence intentions of migrant entrepreneurs, providing a reference for how to attract the flow of the migrant population in the western region.

Second, under the different circumstances of household registration differences, generational differences, family structure differences, employment identity differences, industry and flow range differences, and other factors, the residence intention of migrant entrepreneurs in the western region of China and urban public services have a heterogeneous impact. This indicates that adjusting the local urban public service level according to local conditions in the western region is beneficial for enhancing the residence and permanent residence intentions of migrant entrepreneurs.

7.2. Management Inspiration

Regionally coordinated development has been an important approach to achieving sustainable regional development, which can also promote economic development. This paper can be regarded as a part of the study of regional coordinated development and sustainable development, which can provide a reference for future discussions on regional development.

Firstly, this paper analyzes the issue of the residence intention of migrant entrepreneurs from the perspective of urban public services, which can provide a feasible macro-research perspective for existing entrepreneurial challenges and supplement current entrepreneurial research. Entrepreneurs among the migrant population are a special group in cities who play an important role in driving local economic development and increasing economic income for the migrant population. This article not only considers the impact of comprehensive indicators of urban public services on the residence intention of migrant entrepreneurs but also explores the impact of the six subdimensions of urban public services on the residence intention of migrant entrepreneurs. It deeply analyzes the impact of multidimensional factors related to people's livelihoods on the residence intentions of migrant entrepreneurs, providing a global and local perspective for studying the entrepreneurial issues of the migrant population.

Secondly, the equalization of basic public services is the focus of achieving common prosperity. Improving the level of urban public services and benefiting more migrant populations with the fruits of economic development can not only increase the residence intentions of migrant entrepreneurs but also promote balanced development in the western region, thereby promoting the strategy of common prosperity.

7.3. Policy Recommendations

The stable residence of migrant entrepreneurs not only has a significant impact on promoting the sustainable development of entrepreneurial enterprises but also helps alleviate the urban problems caused by population agglomeration in large cities. Based on the results of baseline regression and heterogeneity analysis, this paper proposes the following policy recommendations aimed at increasing the residence intention of migrant entrepreneurs flowing to the western region and providing reference for solving the problem of urban scale polarization caused by population agglomeration and achieving common prosperity through entrepreneurial poverty reduction practices.

Firstly, focus on the residence intentions of middle-aged migrant entrepreneurs with family mobility. They mostly engage in individual businesses and generally have a higher willingness to stay in the local area. Encourage local governments to provide corresponding public services based on their needs for education services, medical services, technology, and communication services. Secondly, encourage the government to rely on the power of communities and society to provide diversified and segmented public services for migrant entrepreneurs in order to retain local migrant entrepreneurs and attract more migrant entrepreneurs. Thirdly, due to the influence of geographical location, the population in various cities in the western region is mostly scattered. Local governments are encouraged to adjust the location of public service facilities in a timely manner according to the distribution of entrepreneurial enterprises and populations and provide entrepreneurs with the necessary public services such as education, medical care, environment, technology, and communication services.

7.4. Research Shortcomings and Future Research

The study has several shortcomings that do not diminish its quality and do not call into question the obtained findings. The first shortcoming is that the research data is cross-sectional, which cannot well observe the temporal trend of the impact of urban public services on migrant entrepreneurs' residence intentions. Another drawback is that this paper only uses empirical analysis to explore the relationship between public services and

residence intention in western cities in China, and the internal mechanism of how the two affect each other is still unclear.

Therefore, the most important guidelines and suggestions for further research are as follows: (1) Panel data can be used to analyze the relationship between public services and residence intention in western cities. (2) One or more sample cities can be selected, and the case study method is used to explore the mechanisms of public services and the residence intentions of migrant entrepreneurs.

Author Contributions: Conceptualization, Y.C. and Y.Z.; methodology, Y.C. and Y.Z.; writing—original draft preparation, Y.Z.; writing—review and editing, Y.C. and Y.Z., All authors have read and agreed to the published version of the manuscript.

Funding: This research was funded by the National Natural Science Foundation of China grant number 71872018, the Beijing City Federation of Social Science Circles, and the Beijing Philosophy and Social Sciences Planning Office grant number 23GLB011.

Institutional Review Board Statement: Not applicable.

Informed Consent Statement: Not applicable.

Data Availability Statement: The data presented in this study are available on reasonable request from the corresponding author. The data are not publicly available due to the privacy.

Conflicts of Interest: The authors declare no conflicts of interest.

References

1. Liu, L.; Si, S.; Li, J. Research on the Effect of Regional Talent Allocation on High-Quality Economic Development—Based on the Perspective of Innovation-Driven Growth. *Sustainability* **2023**, *15*, 6315. [\[CrossRef\]](#)
2. Valler, D.; Wood, A. Conceptualizing Local and Regional Economic Development in the USA. *Reg. Stud.* **2010**, *44*, 139–151. [\[CrossRef\]](#)
3. Lamine, W.; Mian, S.; Fayolle, A.; Wright, M.; Klofsten, M.; Etzkowitz, H. Technology business incubation mechanisms and sustainable regional development. *J. Technol. Transf.* **2016**, *43*, 1121–1141. [\[CrossRef\]](#)
4. Deutz, P.; Gibbs, D. Industrial Ecology and Regional Development: Eco-Industrial Development as Cluster Policy. *Reg. Stud.* **2008**, *42*, 1313–1328. [\[CrossRef\]](#)
5. Hirschi, C. Strengthening Regional Cohesion: Collaborative Networks and Sustainable Development in Swiss Rural Areas. *Ecol. Soc.* **2010**, *15*, 16. [\[CrossRef\]](#)
6. Tiago, V.; Ângela, S.; Esparteiro, G.; Wellington, A. Boosting Regional Socioeconomic Development through Logistics Activities: A Conceptual Model. *Bus. Syst. Res. Int. J. Soc. Adv. Innov. Res. Econ.* **2022**, *3*, 63–83.
7. Ye, Y.; Zhao, S. The Effect of Outward FDI on Capabilities of Sustained Innovation: Evidence from China. *Sustainability* **2023**, *15*, 4196. [\[CrossRef\]](#)
8. Xu, H.; Hsu, W.; Meen, T.; Zhu, J. Can Higher Education, Economic Growth and Innovation Ability Improve Each Other? *Sustainability* **2020**, *6*, 2515. [\[CrossRef\]](#)
9. Li, Y.; Wang, J.; Liu, Y.; Long, H. Problem regions and regional problems of socioeconomic development in China: A perspective from the coordinated development of industrialization, informatization, urbanization and agricultural modernization. *J. Geogr. Sci.* **2014**, *24*, 1115–1130. [\[CrossRef\]](#)
10. Leverett, F.; Wu, B. The New Silk Road and China's Evolving Grand Strategy. *China J.* **2017**, *77*, 110–132. [\[CrossRef\]](#)
11. Yang, F.; Yang, M.; Xue, B.; Luo, Q. The effects of China's western development strategy implementation on local ecological economic performance. *J. Clean. Prod.* **2018**, *202*, 925–933. [\[CrossRef\]](#)
12. Ren, B.; Ru, S.; Yao, C.; Li, H.; Li, H. *Annual Report on Development in Western Region of China (2021)*; Social Sciences Academic Press: Beijing, China, 2021.
13. National Health Commission of the People's Republic of China, China Migrants Dynamic Survey 2017. Available online: <https://www.chinaldrk.org.cn/wjw/#/home> (accessed on 1 June 2023).
14. Long, F.; Zheng, L.; Qian, H. Entrepreneurship in China's peripheral regions. *Ann. Reg. Sci.* **2022**, *70*, 287–313. [\[CrossRef\]](#)
15. Susan, M.; Leonard, M.L. Government spending and intergenerational mobility. *J. Public Econ.* **2008**, *92*, 139–158.
16. Bærenholdt, J.O. Government mobility: The Powers of Mobility. *Mobilities* **2013**, *8*, 20–34. [\[CrossRef\]](#)
17. Tiebout, C.M. A Pure Theory of Local Expenditures. *J. Political Econ.* **1956**, *64*, 416–424. [\[CrossRef\]](#)
18. Li, C.; Luo, J. Empowerment and energization: How “internet plus government service” creates a soft environment for local development. *Chin. Public Adm.* **2021**, *5*, 47–52.
19. Moretti, E. Human capital externalities in cities. In *Handbook of Regional and Urban Economics*; Henderson, J.V., Thisse, J.-F., Eds.; North Holland: Amsterdam, The Netherlands, 2004; pp. 2243–2291.

20. Fu, Y.M.; Liao, W.C. *What Drive the Geographic Concentration of College Graduates in the Evidence from Internal Migration*; NBER Working Paper: Cambridge, MA, USA, 2012.
21. Liu, L.; Zhang, Y. Does non-employment based health insurance promote entrepreneurship? Evidence from a policy experiment in China. *J. Comp. Econ.* **2018**, *46*, 270–283. [\[CrossRef\]](#)
22. Communist Party of China Central Committee, National New-type Urbanization Plan (2014–2020). Available online: https://www.gov.cn/gongbao/content/2014/content_2644805.htm (accessed on 1 July 2023).
23. Jia, T.; Si, J.; Hu, Y. The impact of basic public service expenditure on the level of regional income: A study based on labor forth structure. *Chin. J. Popul. Sci.* **2022**, *2*, 61–73.
24. Zeng, H. Study on standardization systems for equalization of basic public services and assessment method of fiscal transfer payment in China. *Econ. Res. J.* **2012**, *6*, 20–32.
25. Lu, M. For public interest: A research outline for ideal social construction from an Economist. *Chin. J. Sociol.* **2013**, *3*, 29–38.
26. Liang, R.; Tang, Y. Tiebout model in local public goods supply: An empirical study based on housing prices in Chinese cities. *J. World Econ.* **2008**, *10*, 1–83.
27. Xia, Y.; Lu, M. The “three migration of Mencius” between cities: An empirical study on the influence of public service on labor flow. *J. Manag. World* **2015**, *10*, 78–90.
28. Hou, H. The difference of urban public service supply and its influence on population movement. *Chin. J. Popul. Sci.* **2016**, *1*, 118–125.
29. Sharp, E.B. *Citizen Demand-Making in the Urban Context*; University of Alabama Press: Birmingham, AL, USA, 1986.
30. Borrow, L. School choice through relocation: Evidence from the Washington D.C. Area. *J. Public Econ.* **2002**, *1*, 155–189. [\[CrossRef\]](#)
31. John, P.; Dowding, K.; Biggs, S. Residential mobility in London: A micro-level test of the behavioral assumptions of the Tiebout model. *Br. J. Political Sci.* **1995**, *3*, 379–397. [\[CrossRef\]](#)
32. Li, Z. *China’s Urban Business Environment Index Report*; China Development Press: Beijing, China, 2019; pp. 1–50.
33. He, W. System optimization of basic public services in the perspective of common prosperity. *Chin. J. Popul. Sci.* **2022**, *1*, 2–15.
34. Liu, Z.; Shi, Y.; Chen, H.; Lin, G.; Chen, H. Does financial development promote high-quality economic development goals of China? Novel findings and implications from technological innovation perspective. *Environ. Dev. Sustain.* **2023**, *1*–20. [\[CrossRef\]](#)
35. Tversky, A.; Kahneman, D. Advances in prospect theory: Cumulative representation of uncertainty. *J. Risk Uncertain.* **1992**, *5*, 297–323. [\[CrossRef\]](#)
36. Ravenstein, E. The laws of migration. *J. Stat. Soc.* **1885**, *2*, 167–227. [\[CrossRef\]](#)
37. Lewis, W.A. Economic Development with Unlimited Supplies of Labour. *Manch. Sch.* **1954**, *22*, 139–191. [\[CrossRef\]](#)
38. Todaro, M.P. A model of labor migrant and urban unemployment in less developed countries. *Am. Econ. Rev.* **1969**, *1*, 138–148.
39. Liu, J.; Wei, H. The effect of urban public services on permanent migration intention of floating population. *Bus. Manag. J.* **2019**, *11*, 20–37.
40. Lee, K.-Y. Relationship between Public Service Satisfaction and Intention of Continuous Residence of Younger Generations in Rural Areas: The Case of Jeonbuk, Korea. *Land* **2021**, *10*, 1203. [\[CrossRef\]](#)
41. Dahlberg, M.; Eklöf, M.; Fredriksson, P.; Jofre-Monseny, J. Estimating preferences for local public services using migration data. *Urban Stud.* **2011**, *49*, 319–336. [\[CrossRef\]](#) [\[PubMed\]](#)
42. Day, K.M. Interprovincial Migration and Local Public Goods. *Can. J. Econ.* **1992**, *25*, 123–144. [\[CrossRef\]](#) [\[PubMed\]](#)
43. Tan, S.; Li, Y.; Song, Y.; Luo, X.; Zhou, M.; Zhang, L.; Kuang, B. Influence factors on settlement intention for floating population in urban area: A China study. *Qual. Quant.* **2015**, *51*, 147–176. [\[CrossRef\]](#)
44. Cui, Y.; Zhang, Y. How mobile entrepreneurs “build to last”: From the perspective of social connection. *Bus. Manag. J.* **2022**, *5*, 121–141.
45. Duan, C.; Lv, L.; Zou, X. Major challenges for China’s floating population and policy suggestions: An analysis of the 2010 population census data. *Popul. Res.* **2013**, *2*, 17–24.

Disclaimer/Publisher’s Note: The statements, opinions and data contained in all publications are solely those of the individual author(s) and contributor(s) and not of MDPI and/or the editor(s). MDPI and/or the editor(s) disclaim responsibility for any injury to people or property resulting from any ideas, methods, instructions or products referred to in the content.