A Review of the Evolution Trends and Characteristics of Rural Population Changes in Jiangsu Province

Dingkun Yang

Department of Sociology, University of Warwick, Coventry, CV4 7ES, The United Kingdom

U5618415@live.warwick.ac.uk

Abstract. In the context of rapid economic development in China, urban development has also been accelerating, leading to a large influx of urban migrants. The problem of regional development imbalance has emerged as a result. Therefore, it is necessary to study the evolution trends and characteristics of rural population changes, because a large portion of these urban migrants come from rural areas. Jiangsu Province, as the most economically developed and powerful province in China, still shows significant differences in rural development and urbanization development in its southern and northern regions. Therefore, the theme of this study is the evolution trends and characteristics of rural population changes in the Jiangsu region. The article reviews some of the existing literature and research in this field and finds that the scale changes of urban and rural migrant populations in China since 2000 have always been the transfer of rural population to urban areas. This trend is currently weakening and is expected to end between 2040 and 2050. At the same time, the development of high-quality rural population still faces various challenges, and the returnees are mainly economic migrants. Currently, research on population change trends is mainly focused on specific regions, but according to the data from Jiangsu Province's statistical yearbook, it can be proved that the population change trends in Jiangsu Province are consistent with the above trend. However, without specific research on specific regions, it is still difficult to make changes to the current situation in that region.

Keywords: Rural population changes, Jiangsu province, urban development, regional development imbalance.

1. Introduction

The pace of change in the modern era is rapid, and the growth rate of the population serves as a clear indication of this. Italian demographer Massimo Livi-Bacci has studied the global population and its long-term growth. The global population has increased from 6 million in 10,000 BC to over 6 billion in 2000 and has exceeded 7 billion by the end of 2011 [1]. Population is an important production factor for rural development in China. Studying the distribution patterns of rural population in different periods and the influencing factors is an important foundation for understanding rural issues in China and promoting the rural revitalization strategy [2]. In the context of China, the changes in rural population have shown considerable universality and urgency. With the rapid development of China's economy, cities have also developed rapidly, and the urban population has significantly increased. Some of these are called urban migrants, who have migrated from rural areas to cities. A large number of rural populations have moved to towns. The imbalance in regional development in China has led to this migration, and the transfer of population may also exacerbate the imbalance in development. However, with the deepening of urbanization, the attractiveness of some rural areas has gradually increased, leading to the phenomenon of population moving back to the countryside. China is currently in a critical stage of deepening urbanization and the transformation of the population structure. The national rural population is expected to drop to 262 million by 2050, with an aging rate exceeding 30%, and the labor force size will continue to shrink. At the same time, the scale of the transfer of people between rural and urban areas shows a three-stage characteristic of "stable - fluctuate - decline", and rural areas face multiple challenges such as hollowing out, aging, and marital pressure. In this context, differentiated research at the regional level has become a key entry point to solve the national-level problems. As a major economic province in eastern China's coastal area, the changes in the rural population in Jiangsu Province not

only represent the national urbanization process, but also possess unique research value due to significant regional differences between the north and the south, highly active county economies, and a deeply aging society. The research on the evolution of rural-urban population changes in Jiangsu aims to reveal its inherent patterns and regional characteristics, providing a "Jiangsu model" for national rural revitalization and urban-rural integration. In terms of theoretical value, the research significance lies in filling the gap in regional differentiation studies, enriching the "gradient theory" of population migration and exploring diverse paths for rural revitalization in economically developed areas. From the perspective of practical urgency, Jiangsu needs to formulate differentiated policies based on the north-south differences for policy-making requirements.

This article aims to study the trends and characteristics of rural population changes in these regions. Based on the existing literature, a review is conducted, and personal experiences are appropriately combined to critically evaluate the previous research results. After a preliminary search of the existing literature, it was found that there are not many studies specifically focusing on the number of population changeers, and those that do focus on the region of northern Jiangsu are even fewer. Most of them only discuss future development plans and the impact of population migration on other fields.

The existing literature and research mainly focus on the socio-economic impacts brought about by the rural population outflow and the future planning for rural population and rural revitalization.

2. Literature Review

The literature review in this paper includes four articles: First is The Scale Changes and Trends of Urban-Rural Migrants in China, second is Changes in Rural Population and the Dilemma of High-Quality Population Development, third is Research on Rural Population and Rural Changes in China towards 2050, forth is Spatial Characteristics, Driving Mechanisms and Impact Effects of Rural Population Migration Phenomenon - A Systematic Review Based on Domestic and Foreign Literature [3-6]. The first two articles mainly introduce the transfer and changes of urban-rural population. The third article combines previous data to make predictions for the next 25 years. The fourth article introduces the phenomenon of rural population migration and is a literature review type article. Article one analyzes the scale changes of urban-rural migrants in China from 2000 to 2023 and makes predictions for future trends. It is stated that due to the rapid urbanization since the reform and opening up, the migration of rural population has become the main driving force for the growth of urban population. The data is sourced from the national population censuses from 2000 to 2023, 1% population sample surveys, China Statistical Yearbook, China Population and Employment Statistical Yearbook, etc. The article uses the population balance method to calculate the scale of urban-rural migrants and through the multiplication of consecutive years, the scale of migrants and the urbanization rate obtain the regression coefficient equation, based on which the future trend of population changes is predicted. The past data shows that the scale of urban-rural migrants shows three stages: from 2000 to 2003, the annual migration scale was approximately 18 million people, from 2004 to 2015, due to economic policies, there were fluctuations, the lowest in 2008 was 14.08 million people, the highest in 2011 was 24.67 million people, and from 2016 to 2023, the scale of migrants decreased, in 2023 it was 10.84 million people. The proportion of rural migrants in urban population growth has significantly increased from 2011 to 2020, accounting for 74.86%, while the population growth due to administrative division adjustments has decreased from 25.99% to 10.77%. These data prove that although the scale has decreased, the population in rural areas still continues to migrate to urban areas. The regression analysis shows that the scale of urban-rural migrants and the annual growth rate of urbanization show a strong positive correlation. Article two focuses on the population structure. It is stated that the rural population structure has undergone drastic changes after transitioning from a high fertility rate to a low fertility rate and from rural areas to outflows outside the town. The author summarizes six trends of rural population changes in the article, including a continuous decline in the size of school-age population, an improvement in female human capital, a continuous decrease in the number of births, an increase in aging, a coreization of family structure,

and population concentration in county towns. The dilemmas faced by the high-quality development of rural population are a lack of continuity in education, a decline in marital stability, gender imbalance, insufficient old-age security, and the return of migrant workers showing an inverse Lewis process, that is, older, less healthy, and with low work production efficiency. Both articles mention the trend of rural population outflow, and the problems of population dilemmas in article two, the author have also seen them during field research and will mention them later. Article two's research on the return of migrant workers can be compared with article four. Article four explains that as the urbanization process deepens, urban problems become prominent, the attractiveness of some rural areas increases, so there is a phenomenon of population migration, as the author once said in a certain exchange, while paying attention to the characteristics or policies that attract people back to rural areas, it is also necessary to consider whether there is a problem of declining attractiveness or inability to keep people in the surrounding cities. If specifically considering the impact of rural areas, this variable must be controlled, but in most cases, it needs to be discussed from two dimensions. The article also states that China's rural revitalization strategy has driven this trend, making the migration of rural population characterized by economic-driven policies and other features. Using VOSviewer for literature hotspots and trend analysis, combined with ArcGIS for research area spatio-temporal evolution analysis. The data sources include 2188 English-language papers from Web of Science and 92 Chinese-language papers from CNKI. The time period is up to April 2023. The article distinguishes the concept of rural population migration, summarizing two categories: leisure-type migration and economic-type migration. The research on rural population migration in China has emerged only in recent years, with a focus on economic-type migration, and research on leisure-type migration has also begun to gradually increase. The article divides the areas of migration into three categories: regions dominated by natural elements, regions dominated by human elements, and regions dominated by economic elements. The driving forces for rural population migration are divided into two types: internal drive and external drive. China mainly focuses on economic-type migration, mostly influenced by the combined effects of high urban pressure and strong support from rural areas. This is an external drive. The article discusses the impact effects and differences between China and the West regarding this phenomenon, which is beyond the scope of this review. Article three focuses on the rural population change research for the next 25 years, similar to articles one and two. The article also mentions the current background, which is the acceleration of urbanization and the decrease in rural population. The article predicts that the permanent rural population will decrease from 509 million in 2020 to 365 million in 2035 and to 262 million in 2050. Similar to article two, article three mentions the problem of an aging population. The proportion of people aged 65 and above is expected to increase from 11.7% in 2020 to 28.1% to 30.9% in 2050. At the same time, the article also mentions that the rural working-age population will decrease from 280 million in 2025 to 150 million in 2050. The article predicts that the net migration from rural areas to urban areas is expected to end between 2040 and 2050. At the same time, based on the Jiangsu Statistical Yearbook, the particularity of Jiangsu Province can be analyzed, namely the imbalance between the north and the south and the dual challenges of economic and population structure. Jiangsu Province is a typical representative of regional development imbalance. There are significant gradient differences among the three major regions of Jiangsu Province, namely the southern, central, and northern regions. The southern region is highly urbanized (with an urbanization rate exceeding 80%), and has a developed economy but a prominent problem of rural aging. The northern region is a traditional labor export area, with a low urbanization rate (about 65%) and population outflow leading to an intensification of rural hollowing. This imbalance has led to a "two-way flow" of rural-urban population migration throughout Jiangsu Province, where the population from the northern region migrates to the southern urban agglomeration, while some labor force returns to work due to industrial transfer policies [7].

3. Particularity of Jiangsu

In terms of economic characteristics, Jiangsu Province shows an active county-level economy but uneven industrial carrying capacity. Jiangsu's county-level economic total is the leading in the country, but there is a significant difference between the north and the south. The southern counties are dominated by high-end manufacturing and digital economy, attracting high-quality talents to return to the countryside. The northern counties are still dominated by agriculture and traditional manufacturing, with weak employment attractiveness, leading to a continuous outflow of young people. This industrial pattern makes the northern region a "pressure concentration area" in the rural-urban population change in Jiangsu Province.

The depth of aging in Jiangsu Province is also higher than the national average. China is the country with the largest number of elderly people in the world, with over 200 million elderly people, and Jiangsu is one of the earliest provinces to enter the aging population in China. In 2023, the proportion of elderly population exceeded 23%, and the rural aging degree is higher than that of cities [8]. The rural areas in the northern region face an increase in the proportion of the elderly over 80 years old and a trend of solitary living. The shortage of elderly care resources is also a problem, and the coverage rate of rural elderly care services is less than 30%. This characteristic requires Jiangsu to explore rural elderly care models and population policies that are in line with the local conditions. However, at present, the research on rural population change in China mainly focuses on large regions and major trends. There are few studies specifically targeting specific regions. Although the rural population problem in China shows homogeneity, that is, similar problems and evolution trends exist in various regions, different regions still have subtle differences due to the influence of their environment and industrial characteristics. That is, first, the total rural population is in a decreasing trend, and the scale and speed of the decrease are accelerating. Second, rural population changes have obvious spatial differences. In some regions, the decline in rural population is significant, while in other regions, it has increased. Third, the spatial differences in rural population changes are closely related to economic factors such as per capita GDP and urbanization level, as well as non-economic factors such as rural population size and fertility level [9]. However, as mentioned at the beginning, the trends and problems summarized by the above literature and those of the northern region are mostly consistent, that is, the population mainly flows from rural areas to urban areas, and the urban-rural income gap is significant [10]. However, specific and detailed research on specific regions is still needed.

4. Discussion and Critical Analysis

Based on four pieces of literature, the overall trend of rural population change is the continuous migration to urban areas. However, in recent years, the scale has declined, and structural problems have become prominent. The consensus in the literature includes that the scale of migration has decreased, that is, the number of people moving from rural to urban areas has dropped from nearly 25 million per year at the peak to about 10 million at present, reflecting that urbanization has entered the middle and later stages. Secondly, structural changes, namely aging, low birth rate and family centralization, have become the new normal in rural areas, leading to the predicament of high-quality development. Thirdly,the driving factors, namely economic factors (such as the income gap between urban and rural areas), are the main impetus, but policy and social factors (such as rural revitalization) are also gradually playing a role.

However, most of the literature is based on national data and lacks region-specific analysis. For instance, the northern Jiangsu region, as a relatively economically backward area, its population migration may be more influenced by the radiation of neighboring cities (such as Shanghai and Nanjing), with a shorter migration distance. However, this point has not been deeply explored in the literature. The author's on-site observations show that the problem of "inability to retain people" in rural areas of northern Jiangsu not only stems from economic disparities but also involves insufficient public services such as education and healthcare. This is in line with the issues mentioned in the

literature such as "insufficient pension security" and "lack of educational continuity". However, there is relatively little discussion on regional differences in the literature, and future research requires more microdata support.

Furthermore, the literature pays insufficient attention to the return of population. Although "Spatial Characteristics of Rural Population Migration Phenomenon" mentions leisure-type migration, there are still few empirical studies in China. In northern Jiangsu, some rural areas have attracted a small number of returnees through tourism or characteristic agriculture, but it remains questionable whether this can reverse the overall trend. The author observed in a certain county of Xuzhou that despite policies encouraging returnees to start businesses, the effect was limited. The reasons included backward infrastructure and an unfavorable entrepreneurial environment. This suggests that policy-making needs to be more precise, distinguishing the types and driving factors of migration in different regions.

In terms of methods, the literature mostly relies on macro statistical data and may overlook individual motivation and community-level factors. Qualitative research and personal narratives should be incorporated more to enrich understanding. For instance, the author's travel experiences show that the psychological distance between urban and rural areas (such as the yearning for urban life) is also an important driving force for migration, but this is not fully reflected in the literature.

5. Conclusion

The transformation of rural population is a core component of China's urbanization process, characterized by decreasing scale, aging structure and diversified driving factors. Based on the literature review, this paper summarizes the following points: 1. The population change trend is that the scale of the rural-urban transfer population is expected to further decline, and it may stabilize at 6.83-9.49 million people per year by 2035, with the urbanization rate reaching 74-76%. The rural population structure will continue to age, challenging the stability of the social economy. The driving factors are that economic factors dominate the migration decision, but policy and social factors (such as rural revitalization) are playing an increasingly important role in promoting the return flow. The national research on regional differences has masked regional specificity. Regions such as northern Jiangsu may face more acute demographic and economic gradients as well as service shortcomings. Research gaps: Due to the lack of in-depth analysis of leisure-type migration and regional micro-dynamics in existing literature, future research should combine quantitative and qualitative methods, focusing on regional cases and individual stories.

For the northern Jiangsu region, it is suggested that policymakers strengthen the supply of public services (such as education and healthcare) to slow down population outflow and explore characteristic industries to attract people to return. Meanwhile, the academic community should enhance regional comparative studies to reveal the diversity of population changes.

This article, through a review and personal observations, emphasizes the complexity of rural population changes. Understanding these changes not only contributes to academic development but is also the key to promoting common prosperity. Future research needs to pay more attention to the human dimension and see the story of each migrator behind the data.

References

[1] Giddens A, Sutton P W. Sociology (8th ed.). Polity Press, 2017.

[2] Zhang H, Zhang S, Liu Z. Evolution and influencing factors of China's rural population distribution patterns since 1990. PLoS ONE, 2020.

[3] Liu H, Zhang G. Changes in the scale of rural-urban migrants in China: Characteristics and trends. Urban Observation, 2025, (03): 34–46+160.

[4] Shi Z, Feng Y. Changes in rural population and the dilemma of high-quality population development. Social Sciences Digest, 2025, (04): 103–105.

[5] Research Group of China Rural Revitalization Institute, Han C. Research on China's rural population and rural changes towards 2050. Agricultural Economic Issues, 2025, (06): 4–10.

[6] Zeng C, Han S, Yan N, et al. Spatial characteristics, driving mechanisms and impact effects of rural population migration phenomenon: A systematic review based on domestic and foreign literature. International Urban Planning, 2025: 1–16 [2025-08-30].

[7] Jiangsu Provincial Government. Jiangsu Statistical Yearbook 2024. Jiangsu Provincial Government, 2025-01-05. https://www.jiangsu.gov.cn/col/col84736/

[8] Chen C. The living situations of the aged in rural areas and their social support. Social Science Research, 1998, 6: 97–101.

[9] Liu Z, Liu S, Jin H, Qi W. Rural population changes in China: Spatial differences, driving forces and policy implications. Journal of Rural Studies, 2017, 51: 189–197.

[10] Fu Y. Characteristics, problems and countermeasures of rural development in Jiangsu under the background of urban-rural integration. In: China Urban Planning Society. People's City, Planning Empowerment – 2023 China Urban Planning Annual Conference Proceedings (16 Rural Planning). Jiangsu Planning Design Group Co., Ltd., 2023: 215–224.