

A Study on the Phenomenon of "Middle Collapse" in Chengdu-Chongqing Shuangcheng Economic Circle

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Abstract: With the continuous development of economy and the deepening of reform and opening up in China, the phenomenon of "cadres collapse" widely appears in the areas between the major economic centers, often accompanied by the outflow of population in these areas, and the economic development faces difficulties. Based on this law, this paper takes the cities in Chengdu-Chongqing Shuangcheng Economic Circle as the research objects and focuses on analyzing the "central collapse" problem in the central cities between Chengdu and Chongqing. The results show that compared with Chengdu and Chongqing, After ten years of development, these central regions between Chengdu and Chongqing have shown large gaps in terms of economic development level, population size, education development level, transportation infrastructure construction level, etc., and some cities have even experienced their own retrogression.

Keywords: Chengdu-Chongqing Dual Economic Circle, Central Collapse, Economy, Education

1. Introduction

The phenomenon of "central collapse" attracted the attention of scholars in the early stage of our country because of the rise of the eastern region and the predicament of the economic development of the central region caused by the development of the western region, involving six provinces in the central region, namely Hunan, Hubei, Anhui, Jiangxi, Henan and Shanxi, and the wide range of influences caused by the "central collapse" has made it concerned by many scholars for a long time. Based on the above characteristics combined with the characteristics of the Chengdu-Chongqing dual economic circle with distinct dual-core cities, it is considered to pay attention to the economic development of the central region between the two core cities of Chengdu and Chongqing and the surrounding periphery areas.

2. Research Overview

The pattern of China's reform and opening up is to take the lead in opening up a number of cities along the eastern coast and implement the strategy of unbalanced development. In the same period, the difference between the per capita income of the eastern and central regions and the central region is showing a tendency to expand and spread, that is, the so-called "central collapse". Li Yue believes that the "central collapse" is manifested in the fact that the central region lags behind the national average level and the eastern coastal areas in terms of economic aggregate, development level, development speed, and industrialization and urbanization and marketization process [1]. Ma Xiaolong et al. derived the concept of collapse from the central collapse, and believed that collapse refers to the obvious backwardness of the research object in a certain scale relative to a given frame of reference in a specific period of time [2]. Yang Yuanmiao and Dou Xuecheng proposed the phenomenon of "location collapse" by comparing the economic development of Gansu with the rest of the country [3]. Wang Ya et al. proposed that "location subsidence" is a phenomenon in which the position relationship or role of the constituent elements of the economic system relative to a given reference system declines in a certain period of time, and the strategic position declines [4]. Wang et al. defined regional subsidence from the two dimensions of time and space, and pointed out that regional subsidence is the continuous decline of population, economy, environment, and society within a region for a period of time, and the relative loss of labor, capital, ecology, and other factor resources in a certain region relative to other regions on the spatial scale [5].

3. Chongqing-Chengdu Central Area Research Overview

Wang Xiaoxin et al. found that there is obvious spatial heterogeneity in the coupling coordination degree of transportation-economic system in the Chengdu-Chongqing Economic Circle, that is, there is an obvious "central collapse" in the coupling coordination degree of transportation-economic system, and the urbanization rate of the surrounding areas of Chengdu-Chongqing is low, and the inter-city transportation accessibility is not high [6]. There is a large difference in the level of urbanization development within the Twin-City Economic Circle, with the urbanization level of the core city and

the core region being high, while the urbanization level of other cities and peripheral areas in the region is low, showing a V-shaped structure trend [7].

Based on the analysis of the research results of domestic scholars, there is no research on the "central collapse" in the central region between Chengdu and Chongqing, and the possible marginal contribution of this paper is to describe the phenomenon of "central collapse" from multiple perspectives such as economy, population, inter-city linkage, financial investment level, and distribution of educational resources, so as to provide reference for the government in the process of planning and implementing the construction of the Chengdu-Chongqing Economic Circle.

4. Research Methods and Data Sources

4.1 Data Analysis of Education Development Level

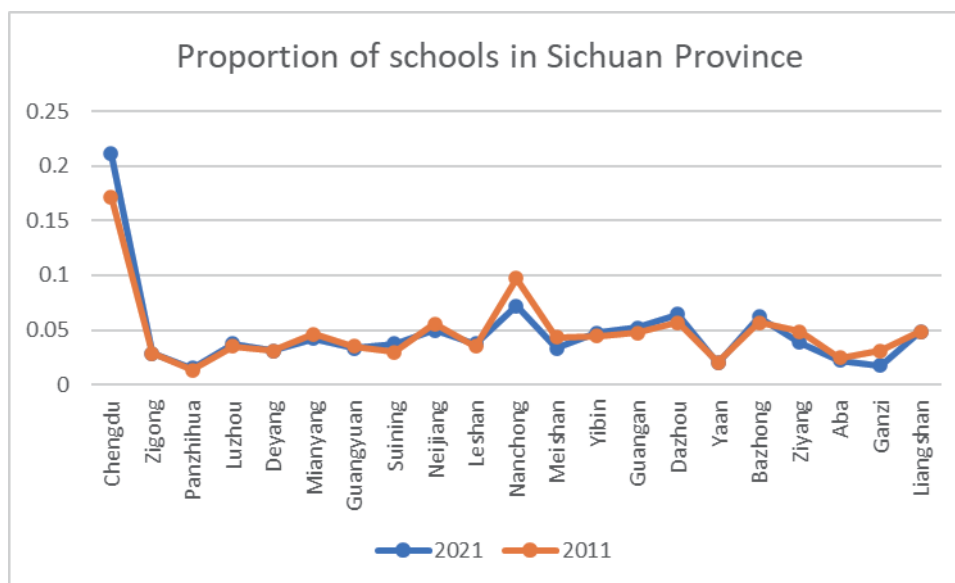


Figure 1. Proportion of schools in Sichuan Province

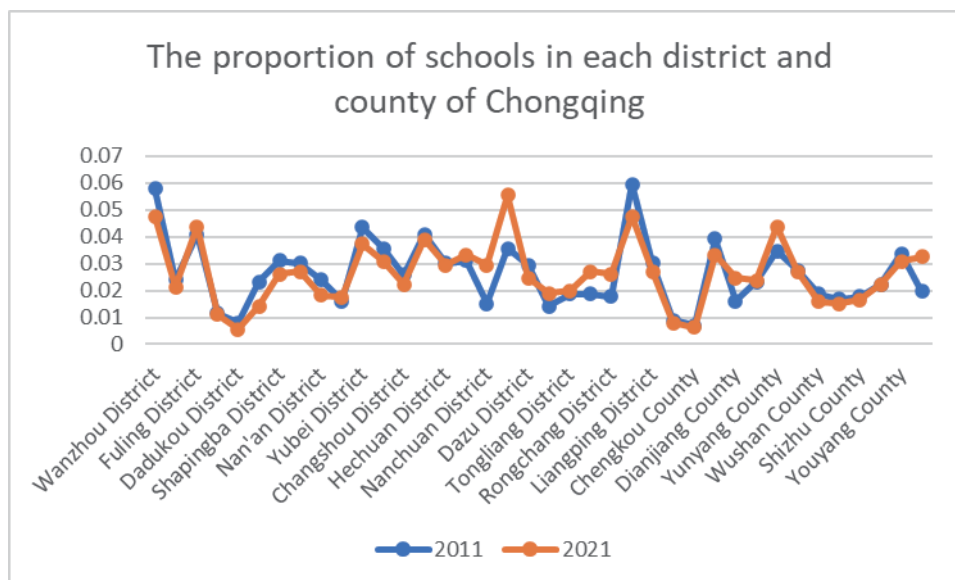


Figure 2. The proportion of schools in each district and county of Chongqing

4.2 Data Analysis of Traffic Development Level

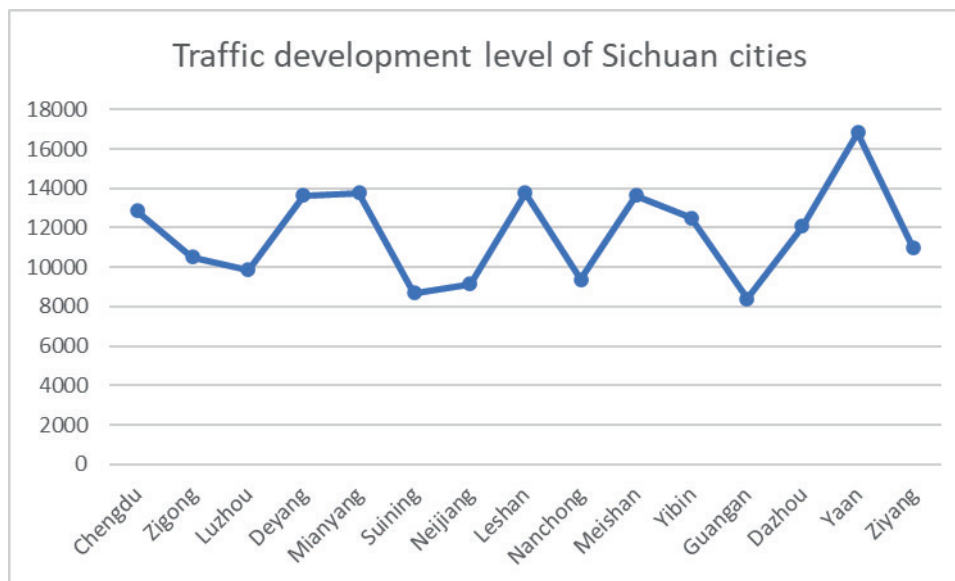


Figure 3. Traffic development level of Sichuan cities

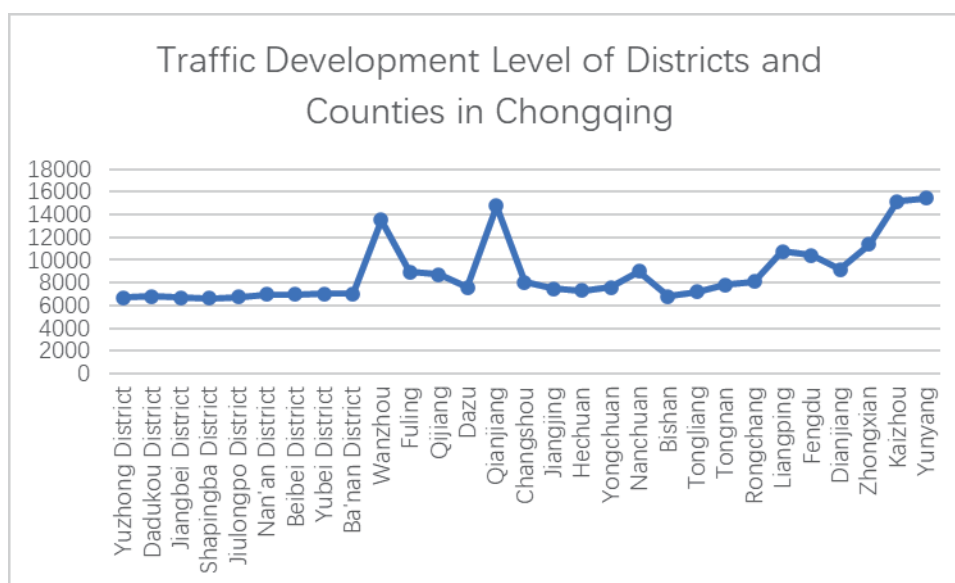


Figure 4. Traffic development level of districts and counties in Chongqing

4.3 Data Source

Data is selected from the shortest driving distance on Gaode Map, "Sichuan Statistical Yearbook," and "Chongqing Statistical Yearbook." The research scope covers all cities and counties in the Chengdu-Chongqing Economic Circle, including Sichuan part such as Chengdu, Ziyang, Zigong, Luzhou, Deyang, Mianyang (excluding Pingshu, Beichuan), Suining, Neijiang, Leshan, Meishan, Nanchong, Yibin, Dazhou (excluding Wanyuan), Guang'an, Ya'an (excluding Tianquan, Baoxing), and Chongqing part including Yuzhong District, Jiangbei District, Dadu District, Shazibai District, Jiulongpo District, Nanshan District, Beibei District, Yubei District, Banan District, Wanzhou, Fuling, Qijiang, Dazhu, Qianjiang, Chongqing, Jiangjin, Heyuan, Nanchuan, Bishan, Yongchuan, Tongliang, Rongchang, Liangping, Tongnan, Fengdu, Dianjiang, Kaizhou, Zhongxian, Yunyang. Among them, Yuzhong District, Jiangbei District, Shazibai District, Jiulongpo District, Nanshan District, Dadu District, Beibei District, Yubei District, and Banan District are the central urban areas of Chongqing, which are the core areas of Chongqing studied in this paper.

5. Result Evaluation

According to the calculation and comparison of economic data in the past five years, it is found that the proportion of the primary industry in Ziyang and Neijiang in the central part of Chengdu and Chongqing in the province shows an upward trend. In the secondary industry, Ziyang, Neijiang and Zigong City have all seen a significant decline in the proportion of the province in the past ten years, especially the secondary industry in Ziyang City has fallen by nearly 50% in five years, and the absolute value of the secondary industry has also dropped by nearly 20 billion yuan in the past ten years, and the industry is extremely hollowed, and it is the city with the largest decline in the absolute value of the secondary industry in Sichuan Province in the dual economic circle, in addition to Neijiang in the central part of Chengdu and Chongqing has also fallen by about 800 million yuan.

Through the calculation, it can be seen that the level of transportation infrastructure construction in Chongqing is higher than that in Chengdu urban agglomeration. Specifically, it is manifested in many places in Chongqing, mainly the total mileage of the central urban area to other cities in the economic circle is 6,000 to 7,000 kilometers, which is the best level of the Chengdu-Chongqing Twin City Economic Circle, indicating that Chongqing has close ties with the cities in the dual economic circle, and actively builds transportation facilities that communicate Chengdu and Chongqing, but the total mileage of the Chengdu metropolitan agglomeration belonging to the economic circle to other cities is generally more than 10,000 kilometers, including Chengdu and Ziyang, which has a geographical advantage, which shows that the local transportation construction level is relatively backward. Inefficient inter-city connectivity means that there are often detours to destinations, and traffic conditions need to be further improved. At the same time, cities far away from core cities, such as Ya'an, Mianyang, Wanzhou, Yunyang and other places, also have a high total mileage of access to cities in the circle, and the degree is more serious.

6. Conclusions

6.1 The economic collapse of Chengdu and Chongqing is different

The urban subsidence in the central part of Sichuan Province in the study area is more serious and more common than that in the central part of Chongqing City, and the situation in Chongqing is basically stable and coordinated, except for some areas far away from the Chongqing metropolitan area, such as Wanzhou, where there is obvious industrial subsidence. From the perspective of industry, the primary, secondary and tertiary industries in the subsidence areas are different, that is, the proportion of the primary industry in the collapsed cities tends to increase in the province, while the secondary industry declines, and the secondary industry is very sensitive to the impact caused by the collapse. In the past ten years, the economic development of Chongqing has been relatively coordinated, and there is no obvious economic collapse in Tongnan, Dazu, Tongliang, Hechuan and other cities near the central part of the Chengdu-Chongqing Shuang Economic Circle.

6.2 The population growth rate of core cities is greater than that of non-core cities

The total population of the non-core cities in the Chengdu-Chongqing Economic Circle showed a net outflow or negative population growth during the study period, and the population absorption capacity of the core cities reached more than one million, which was greater than the outflow of population in various places, resulting in an increase in the total population within the Chengdu-Chongqing Economic Circle. The population growth rate of the central urban area of Chongqing in the past ten years is 16%, and the population growth rate of Chengdu is 34.82%, which is almost the same as the increase of two people in the central urban area of Chongqing, which may be related to the GDP of the two cities, because the GDP of Chengdu in 2021 is about 2 trillion yuan, and the central urban area of Chongqing in the same period is just 1 trillion yuan, which shows that there is also an imbalance in the population absorption capacity of the core cities of Chengdu and Chongqing.

6.3 The "central collapse" city has both relative and absolute educational collapse

The collapse of the central cities between Chengdu and Chongqing is also reflected in the education industry, that is, the investment in education is at a relatively backward level compared with Chengdu and Chongqing, and not only that, but there is even an absolute collapse of these areas themselves in the education field in the central region of Chengdu and Chongqing.

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