

Evaluation on the Effect of Investment in Employment and Poverty Alleviation under the Guidance of Urban Pairing Assistance Policy

Zhiqi Huang *

School of Medical Business, Guangdong Pharmaceutical University, Zhongshan, Guangdong, 528458, China

* Corresponding author Email: huangzhiqi_sharon@163.com

Abstract: In 2013 and 2016, The State Council issued the policy of urban pairing assistance in western China and put forward new prospects and requirements in employment assistance. To this end, governments responded to the call of forming a twinning employment support portfolio of developed cities in the east to help developing cities in the west. Based on the policy research, this paper evaluates the effect of policy implementation by using Difference-in-Difference (DID) method. The research results show that employment assistance has achieved certain success, the overall economic aggregate of the helped cities has been improved, and the poverty-stricken employed population has been lifted out of poverty and got rich by improving the employment and wage level. However, compared with the increase of the economic aggregate, the fiscal revenue did not realize the synchronous growth with the economy. The main reason is that this round of matching assistance mainly focuses on infrastructure investment, which lacks a sustained hematopoietic mechanism, thus affecting the synchronization of fiscal revenue and GDP growth.

Keywords: Twinning Assistance; Employment and Poverty Alleviation; DID Model.

1. Introduction

To alleviate the employment contradiction of migrant workers, solve the poverty problem, achieve national prosperity, The State Council clearly pointed out that Guizhou is a province with a relatively prominent employment poverty problem. Relieving employment pressure through pair help can effectively solve the problem and provide advanced cases for twinning support between east and west. [1] The 2015 policy announced that it should improve the working mechanism to achieve poverty alleviation through industrial support, labor export, consolidate the phased results achieved in the fight against poverty alleviation, and realize common prosperity for all the people. [2] The pairing cities and pairing time are shown in Table 1.

Migrant worker discrimination hinder development of the poor labor force and employment and poverty alleviation policies can directly stimulate the endogenous motivation of the poor population. Based on the theoretical analysis of classic wage difference and the economics of discrimination, new generation of migrant workers suffered from household registration discrimination based on the theoretical analysis of classic wage difference and the economics of discrimination. At the same time, the employment pressure and the quality of employment and low education level affects their work skills and professional quality. [3] Special policy interventions can form an employability support system ranging from individual and personal environmental endowment to institutional level. [4] At the same time, government investment can drive the development of regions and industries and promote the process of poverty alleviation. Researchers [5] argue that investment plan is unreasonable, and there are still problems such as investment shortage and dislocation. It is necessary to adjust the investment scope and management policy, improve the constraint by using performance appraisal and evaluation, promote industrial

upgrading and alleviate the problem of unbalanced regional development.

Table 1. Pairing of eastern and western cities and autonomous prefectures to help people

Pair help combination and pair time		
Helping City, Province	Assisted City/ Prefecture, Province	Helper relationships determine time
Dalian, Liaoning	Liupanshui, Guizhou	2013
Shanghai	Zunyi, Guizhou	2013
Suzhou, Jiangsu	Tongren, Guizhou	2013
Hangzhou, Zhejiang	Qiandongnan , Guizhou	2013
Ningbo, Zhejiang	Qiannan , Guizhou	2013
Qingdao, Dhandong	Anshun, Guizhou	2013
Guangzhou, Guangdong	Qiannan and Bijie, Guizhou	2013
Fuzhou, Fujian	Dingxi, Gnasu	2016
Xiamen, Fujian	Linxia Hui, Gansu	2016
Jinan, Shandong	Xiangxi, Hunan	2016
Ningbo, Zhejiang	Yanbian, Jilin	2016
Qingdao, Shandong	Longnan, Gansu	2016
Hangzhou, Zhejiang	Enshi, Hubei	2016
Foshan, Guangdong	Liangshan, Sichuan	2016
Zhongshan and Dongguan, Guangdong	Zhaotong, Yunan	2016
Zhuhai, Guangdong	Nuijiang, Yunnan	2016

The east should continue to share the responsibility of poverty alleviation in the west, so as to achieve prosperity together with the rich in the first place. An example of Beijing [6] can determine the innovative results achieved by the anti-poverty main and side body structure and the anti-poverty demand side, but also point out that the poverty subject, the cooperation goal and the strategic orientation are gradually changing, and the supply-side structural reform of the poverty alleviation industry should be accelerated. The cooperation is not only a mechanism to improve poverty, but also to promote the realization of common prosperity. East-west cooperation mechanisms and rural revitalization should be combined to achieve a reasonable connection between different development stages. [7] Common prosperity is a higher level of poverty alleviation through employment, and adheres to overall development from primary distribution, redistribution and third distribution, and improves the system of "raising the lower level". [8]

2. Research and Design

2.1. Construction of Econometric Model

It is proposed to analyze the panel data through DID model, to summarize the effect of the implementation of the twinning assistance policy, compare the local implementation policy and regional difference of help, and put forward appropriate suggestions according to the examples and data analysis.

Through examples to understand the implementation of policies before and after the reform of employment and poverty alleviation in local areas. To explore the effect of policy implementation in the employment rate, supported industries, per capita income and other data of the western region, as well as the results of targeted assistance. Using DID method, analyze the local general public budget, revenue and expenditure and other financial statistical data of the studied area before and after the policy implementation under the condition of precise assistance, and analyze the effect of the policy implementation. The econometric model is set as follows:

$$y_{it} = \alpha_0 + \beta_1 treat_{it} * post_{it} + \beta_2 treat_{it} + \beta_3 post_{it} + \beta_4 X_{it} + \varepsilon_{it} \quad (1)$$

In the model, $treat$ means whether to be helped by policy, $post$ is the policy help time. y is the observed value of the cities measured during the t period. Using the annual regional GDP and general public budget revenue, the two main measures of regional fiscal levels of these areas, to measure the significance of the influence of the policies before and after the implementation of the policies. X represents other control variables. ε represents the random disturbance term.

2.2. Index Selection and Description

Panel data of 30 cities from 2010 to 2018 are selected for empirical analysis. The regions that received matching help in 2013 were selected as the experimental group, and those that the rest were selected as the control group, completing the setting of the single-period DID model. The regions that received help from 2013 to 2016 were taken as the experimental group, and the other regions were taken as the control group to complete the setting of the model of multi-period DID.

2.2.1. Dependent Variable

Pairing effect (y). The matching assistance effect measured in this paper is mainly from two perspectives: per capita GDP (GDP) and per capita fiscal income (Revenue). Per capita fiscal revenue is measured by per capita general public budget revenue. The data was obtained from China Urban Statistical Yearbook.

2.2.2. Core Explanatory Variables

In the single-period DID segment, this paper takes 2013 as the time node. It is set before 2013 and after 2013. In 2013, the regions receiving matching help are set, and the other regions are set. In the multi-period DID segment, only the time dummy variable was set in this paper.

2.2.3. Control Variables

Urbanization Level (URB) is Urbanization rate. Industrialization Level (GDP2) is the rate of added value of secondary industry in GDP of the province. Economic Openness (IE) is the rate of import and export value in GDP of the province. Research and Development Investment Level (R&D) use the rate of R&D expenditure in the GDP of the province. Data were obtained from Wind Database and National Bureau of Statistics.

3. Common Trend Assumption and Descriptive Statistics

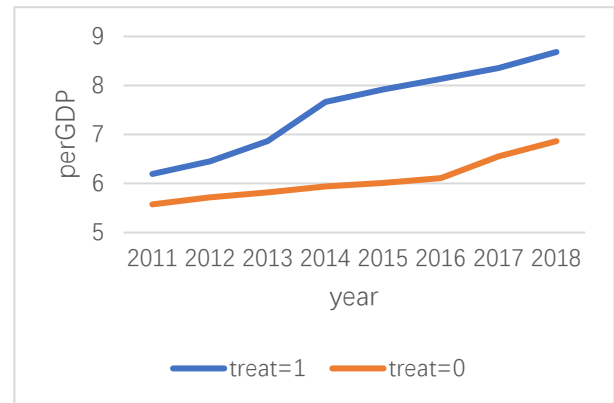


Figure 1. Parallel trend test of GDP

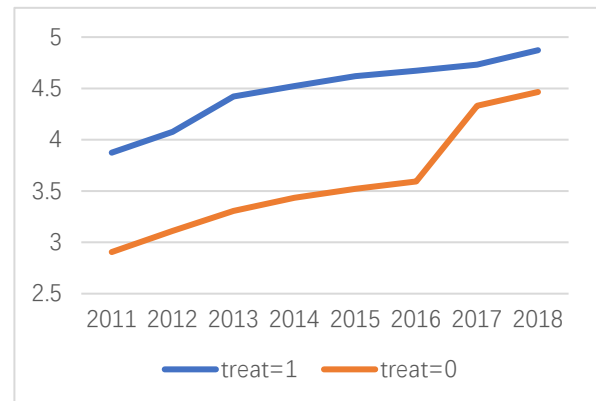


Figure 2. Parallel trend test of Revenue

To analyze the DID model, the equilibrium trend test is required. The test is that the experimental group and the control have different change trends only at the time when the policy occurs. Therefore, this paper tests the parallel trends of GDP and Revenue of the experimental group and the control group respectively. First, GDP of the experimental group and the control group during 2011-2018 is calculated respectively and compared. The results are shown in Figure 1. Then,

Revenue of the experimental group and the control group during 2011-2018 is calculated respectively and compared. The results are shown in Figure 2.

According to the test, GDP and Revenue show the same trend before the policy change. However, when policy change, the experimental group had a further change compared with the control group. Specifically, as the experimental group received the poverty alleviation policy in 2013, the variables

of this group showed a jump increase in 2013. Whereas the control group received policy in 2016, then the variables jumped in 2016.

3.1. Empirical Results

In this paper, the diff command and the xtreg command are used respectively to carry out the regression analysis of the DID model. The results are shown in the table 2.

Table 2. Estimated results of DID in a single period

Variables	GDP	Revenue	GDP	Revenue
post*Treat	276.959* (153.112)	23.671* (12.591)	275.652* (150.113)	24.055* (13.971)
post	211.772** (103.311)	33.552*** (9.721)	219.709** (111.331)	33.559*** (12.433)
Treat	500.711*** (111.223)	61.221*** (8.551)	155.066 (101.551)	15.015 (10.112)
URB	1960.335*** (165.066)	1972.011*** (118.635)	1927.068*** (100.925)	1923.055 (109.912)
GDP2	2309.711*** (223.068)	2313.016*** (228.562)	2337.441*** (209.925)	2444.122*** (221.008)
IE	1992.707*** (251.015)	1995.075*** (258.023)	1982.274*** (260.963)	1973.776*** (2619.707)
R&D	1099.126*** (114.24)	1152.665*** (168.552)	1127.751*** (169.244)	1110.656*** (159.662)
Time fixation effect	YES	YES	YES	YES
Regional fixed effect	YES	YES	YES	YES
Constant	-113.655*** (32.016)	70.442** (32.132)	275.762*** (65.065)	29.553*** (9.192)
R ²	0.290	0.450	0.291	0.455

From the analysis of single-period DID model, it can be found that with the gradual implementation of policy, the GDP and Revenue of the region affected by poverty alleviation have been greatly increased. This means that the effect of the poverty alleviation policy is remarkable. Then, this paper uses the multi-period DID model for further analysis. The results are shown in the table 3.

Table 3. Estimated results of multi-phase DID

Variables	GDP	Revenue
post	0.665*** (0.092)	26.755* (14.011)
Control variables	YES	YES
Time fixation effect	YES	YES
Regional fixed effect	YES	YES
Constant	10.462*** (0.350)	79.212*** (16.116)
R ²	0.402	0.344

From the results of multiple periods of DID, the impact of the policy on GDP and Revenue of the poor areas is very significant. Therefore, the above results are further verified. The reason is that the poverty alleviation policy has injected new impetus into the regional economic growth. For example, the poverty alleviation policy has promoted the employment level in the region and accelerated the improvement of the regional industrial structure. Under the combination of these factors, the economic growth of the region has been significantly improved, and the poverty alleviation policy has achieved its intended purpose. However, the effect of the poverty alleviation policy on fiscal revenue increase is limited,

as it is only significant at the 10 percent level.

4. Case Study

4.1. Matching Assistance from Zhejiang to Sichuan and Guizhou

From 2019 to 2021, Zhejiang Province has invested 10.2 billion yuan of assistance funds to Sichuan and Guizhou provinces, and implemented 3,835 assistance projects, covering various fields. It has selected a number of elites in management and technique to strengthen assistance based on labor cooperation. By virtue of its unique e-commerce environment, Zhejiang has helped western regions integrate e-commerce resources to promote the consumption. It not only gives play to its resource advantages as a helping province, but also effectively solves the limited sales channels in west regions and further expands its sales scope. The advantages of the east complement the disadvantages of the west, improve the working enthusiasm of the poor labor and increase their income by improving sales situation, so as to help the poor households and counties out of poverty.

4.2. Matching Assistance from Guangdong to Guizhou

Nansha, Guangzhou has taken benefit of Guangdong-Hong Kong-Macao Greater Bay Area to build a "vegetable basket" base in Huishui County, Qiannan, Guizhou and the local land is relatively fertile to build standardized vegetable greenhouses, which have more than tripled the income of farmers. Nansha Government implements multiple assistance in its poverty alleviation program: For the general labor force, it actively guides them to find jobs in the local industrial park, organizes the young labor to participate in the "e-commerce talent training", and attracts the companies that need

industrial transfer or technological transformation in Guangzhou to invest and develop in Qiannan. In view of the difficulty of finding jobs for the middle-aged labor force, the two places plan public welfare positions. To provide them with posts such as security guards and cleaners, so that the labor force of all ages can play their own value and improve their living standards through their own efforts.

5. Conclusion

In conclusion, matching assistance plays a certain role in the development of poor areas, which is more reflected in the total economic volume, but not very significant in fiscal revenue. Generally speaking, employment poverty alleviation is a policy that serves the development of western China for a long time. Meanwhile, the improvement of the economic outlook of western China cannot be achieved overnight. The process of the policy should constantly try and improve, and gradually shows its superiority in practice.

Therefore, when considering the effect, we should view the changes brought by the policy dialectically, especially focusing on industrial changes in industry and employment. Meanwhile, local governments should adhere to the existing matching assistance policies to help the basic industry (agriculture and livestock industry) export, so as to improve the income level of the grassroots people and build the poverty alleviation workshop. Do more research of the local environment resources, location and advantages in other aspects, construct regional industry with local characteristics, balance of the employment proportion of the three industries. Help the poor people get rid of poverty, improve the quality of life, enhance the comprehensive strength of the provinces and cities. Then, gradually penetrate into the three industries,

as well as culture, education and other fields, so as to realize the comprehensive development of the western region.

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