

Research on the Strategy of Higher Occupation Education Development Based on the Regional Industrial and Employment Structure

Taking Shunyi District of Beijing as an Example

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Abstract—Focused on how to face the market running of higher occupation education, this paper points out that the starting point for strategic research of higher occupation education should be the development of regional industry and employment structure. It not only demonstrates that the higher occupation education is the basic way to solve the contradiction of industry development and employment structure, and takes Shunyi as an example from the evolutionary trend of employment elasticity correlation, deviation building analytical framework, combined with the outline for the development of regional "the 12th five-year plan", discusses the strategic task of higher occupation education development power region, makes a positive attempt for the development of higher occupation education strategy.

Keywords- higher occupation education; industrial development; employment structure

I. INTRODUCTION

《National medium and long-term educational reform and development plan (2010-2020)》 put forward to "promote the occupation education to adapt the economic development mode and the adjustment of industrial structure". And the eighteen big reports of the party put forward "accelerate the development of new ideas of modern occupation education". Correlation study of regional industrial development and the employment structure, is the foundation of higher occupation education power of regional economic development, is the higher occupation education development strategy of regional priorities. Taking Shunyi area as the research object, discusses the equilibrium of regional industrial development and employment structure, unifies "the 12th five-year plan of Shunyi", further puts forward the suggestions of regional technical talent, provides examples of occupation education development strategy in the period and the makers.

II. LITERATURE REVIEW

The higher occupation education is an important way of skilled personnel obtain occupation skill, is the link of labor skills and industrial demand, employment structure is a bridge between regional industrial development and regional higher occupation education research. Marx's employment theory

points out technological advances led to the development of productivity, at the same time, the origin is the problem of unemployment. Technological progress to promote industrial development and structural adjustment, at the same time, but also the relative surplus population, pushing hands, have a great influence on the structure of employment. Keynes believes that the solution of insufficient employment has two, namely, the proactive fiscal policy and monetary policy. Lai Desheng (2011) evaluation of the employment policy in China for nearly ten years, that increased government spending and a proactive employment policy a significant role for promoting the employment rate to. Study on the relationship between employment and the existing literature on the development of the industry and explores the deep, influence factors, mechanism of action, investigation methods, and achieved fruitful results. But literatures neglected to improve the effect of occupation education on employment structure, ignoring the adaptability problem of industrial development and employment structure.

The occupation education, especially the higher occupation education, is the basic way to solve the technological progress of non-balanced development of industry and employment structure.

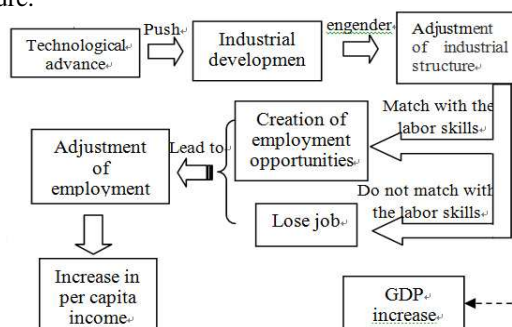


FIGURE I. THE ANALYSIS OF INDUSTRY STRUCTURE AND EMPLOYMENT STRUCTURE

From the above results, technical progress is the root of the development of productivity and employment problem,

whether the adjustment and industrial employment structure of balanced development is the core of the problem, and the matching degree of the adjustment of industrial structure and labor skills are the inner reasons that lead to the creation of employment opportunities or unemployment. Increase GDP growth and per capita income is the inevitable result of the adjustment of industrial structure and employment structure. Therefore, in order to fundamentally solve the employment problem, we must start from the study of industry development and employment structure, monetary policy, fiscal policy and employment policy in the contradiction between supply and demand in the short term, the macro level of effective adjustment of industrial structure and labor skills, and occupation skill education, especially the higher occupation education can solve the contradiction between the supply and demand from fundamentally, the optimization of the industrial structure at the same time, to realize full employment.

III. EMPIRICAL RESEARCH OF THE HIGHER OCCUPATION EDUCATION DEVELOPMENT BASED ON INDUSTRIAL DEVELOPMENT AND EMPLOYMENT STRUCTURE

Shunyi District is an important node in Northeast Beijing Development Zone, is the national service, facing the World Airport Industrial Center and a modern manufacturing base. The unemployment rate is only 2.8%, relatively full employment international standard 5% low 2.2 percentage points, urban and rural two or three industry employment rate reached 95%, the registered urban unemployment rate within the control of the 1.5%.

A. Regional Industry Development Trend

From the regional economic development situation, this paper selects Shunyi annual gross domestic product from 2003 to 2012 as the research object.



FIGURE II. THE GROWTH RATE OF REGIONAL GDP AND EACH INDUSTRIAL ADDED VALUE IN SHUNYI FROM 2003 TO 2012

From the point of growth rate, as shown in Figure 2, 10 years, except in 2008 grew fast, stable, area growth rate fluctuations in about 20%; the first industry growth changed from negative to positive, rising steadily; in 2009, second and three industry growth rate showed a declining trend, the tertiary industry growth rate fluctuations, for two consecutive years of 2011 and 2012, the growth rate of less than second industry growth rate, to enhance the development potential.

B. Analysis of Industry Development and Employment Structure Equilibrium

Since statistics calibre inconsistencies, this paper selects the 2008-2011 of Shunyi industry structure and employment structure data are compared and analyzed, as shown in table 1:

TABLE I. INDUSTRIAL AND EMPLOYMENT STRUCTURE CHANGE FROM 2008 TO 2011

Year	1st industry		2nd industry		3rd industry	
	GDP	number of workers	GDP	number of workers	GDP	number of workers
2008	3.71%	1.03%	42.65%	47.09%	53.63%	51.88%
2009	3.10%	1.08%	43.11%	45.43%	53.79%	53.49%
2010	2.56%	1.04%	43.04%	45.88%	54.40%	53.08%
2011	2.40%	0.61%	43.46%	45.53%	54.14%	53.87%

As can be seen from the table, the first industrial added value decreased from 3.71% in 2008 to 2.4% in 2011, the number of workers decreased from 1.03% in 2008 to 0.61%, were declining trend. Value added, the number of workers to maintain the basic stability of second industries in 2011, the proportion of the added value increased, the number of workers more than the same period last year decreased slightly; the tertiary industry added value changed little, the number of employees has rise, firm in 2011, the tertiary industry added value reached 54.14%, at the end of the year vocational workers reached 53.87%, becoming the leading industry of Shunyi area to absorb employment. From the overall development trend, second industrial workers fell by 1.56 percentage points, the tertiary industry the number of workers increased by 1.99 percentage points, with the more obvious second industry professionals to the tertiary industry flow phenomenon, consistent with the Patti-Clark law.

C. Elastic Analysis

Employment elasticity is an effective index to measure whether the industry development and employment structure adjustment balance. Measurement of industry employment elasticity can be seen every one percent growth in the industry of industry employment growth contribution, namely: employment elasticity = number of employees growth / industrial added value growth rate.

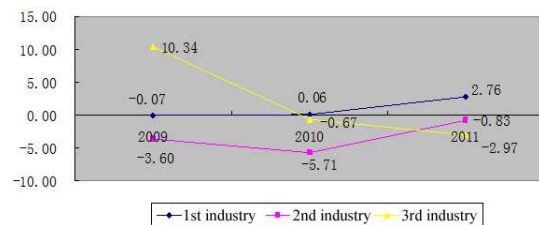


FIGURE III. EACH INDUSTRIAL EMPLOYMENT ELASTICITY IN SHUNYI FROM 2009 TO 2011

From the development trend of employment elasticity, the first industry is on the rise, industry increases the absorbing capacity of employment is stronger, but the first industry average annual value added accounted for only 2.9% of Shunyi's GDP, and not the main labor industry; second industry

employment elasticity decreased firstly and then increased, all is negative, showing a strong the crowding out effect on employment; the tertiary industry showed a downward trend, fell from 10.34 in 2009 to -2.97 in 2011, because of the tertiary industry is the main labor industry, showing weakness, should solve this problem.

D. Correlation Analysis

Pearson correlation coefficient is used to one of the most commonly used linear correlation index. In general, the absolute value of correlation coefficient is greater than 0.8 for the strong correlation between 0.5-0.8, weakly correlated, below 0.5 for not related. Increase the selection of 2008-2011 in Shunyi of three industrial value proportion and employment proportion structure, calculate the correlation coefficient of the industrial structure and employment structure.

TABLE II. CORRELATION COEFFICIENT OF INDUSTRIAL AND EMPLOYMENT STRUCTURE

1st industry	2nd industry	3rd industry
0.59	-0.87	0.52

First, three linear correlation between industrial structure and employment structure has weaker, the second industry has a strong negative linear correlation. That is to say, the second industry employment proportion is higher, the added value of the industry is low; and the first, the three industry on the contrary. In view of the first industry added value of the ratio is very low. Therefore, effectively promote the second industry to the tertiary industry labor force migration will be conducive to regional economic development, it is urgent to solve the problem.

E. Deviation Analysis

Deviation is mainly used to measure the deviation between industrial development and employment structure, degree of deviation is small, industrial development and employment structure in a more balanced. Deviation number to increase three times industry gross value proportion and employment proportion, directly reflect the difference between industrial and employment share.

TABLE III. DEVIATION OF EACH INDUSTRY AND SHUNYI DISTRICT FROM 2008-2011

Year	Shunyi District	1st industry	2nd industry	3rd industry
2008	8.86%	2.68%	-4.43%	1.75%
2009	4.64%	2.02%	-2.32%	0.30%
2010	5.69%	1.52%	-2.84%	1.32%
2011	4.14%	1.80%	-2.07%	0.27%

The overall situation in Shunyi, from a narrowing trend, non-equilibrium problems of industrial development and employment structure is not prominent. The first industrial departure number between 1.52%-2.68% fluctuation, basically stable, will not lead to increased unemployment; the second industry from all the negative number, generally speaking, departure number associated with labor productivity was positively relationship, therefore, the second industry labor

productivity is low, the employment proportion, is the main labor pool; the tertiary industry departure number slightly large fluctuations, fell from 1.75% in 2008 to 0.27% in 2011, industry and employment structure balanced development to further optimize.

F. Regional Higher Occupation Education Development Strategy

1) Adhere to the connotation type development, to build the core professional occupation, improve the quality of Education.

In 2004, Shunyi District Vocational School of automobile repair automobile application specialty and was assessed as the backbone of Beijing city specialty. In 2009, Shunyi District first occupation school, was approved as a provincial-level key occupation school. Among them, automotive technology occupation high school "auto repair technical training base" and Shunyi first occupation school "electronic technology training base" in Beijing city is listed as key training base. Beijing Modern Vocational and Technical College "vehicle inspection and repair technology training base" by the Beijing Municipal Education Commission identified as "the first Beijing city level demonstration of higher occupation education training base". In Shunyi the transformation of economic development, sustainable development, the major industrial consumer pull, push and the development of the modern service industry and manufacturing industry service, increase the economic management personnel requirements. In 2012, the economic and management specialty in higher vocational education enrollment area reached 50%, setting the aviation business, logistics, community and other professional, docking Shunyi aviation, logistics and other core industries, formed has obvious regional industrial specialty cluster.

2) Continue to consolidate the achievements of skilled personnel, rely on the industry enterprise development occupation education

Since 2003, Shunyi District has invested in training incentive fund 160000000 yuan, training the urban and rural labor force 169000 people, after training the employment rate reached 85%. In 2005 the efforts to achieve the rural labor force "three 100%" project. In 2009, in the city take the lead in establishing lifelong free training system for all urban and rural labor force. I come out in front in the various districts and counties of the city occupation skill training work of the assessment for nine consecutive years; in 2012 June, Beijing city to promote the occupation training work on-site meetings held in the region; in 2012December, human social security department held the national hundred city occupation training will promote the work, my area as the 5 national advanced unit on behalf of the first to do the typical to speak.

At present, the region of 247000 urban and rural labor skill talent ratio reached 59%, total amount of skilled talents increase from 12000 in 2003 to 148000, the amount of high skilled personnel up to 11600 people, accounting for the total skills 7.8%. Occupation education shows its irreplaceable role in skills training.

IV. POLICY ADVICE

It continues to strengthen the construction of occupation, science education system.

The government should increase financial support. According to the municipal human resources and Social Security Bureau for a new round of policy, increase financial support, adhere to industry and employment inclusive development, promoting urban and rural labor force nearby employment. Establish a unified and efficient, effective, interactive education, vocational training, occupation skill system. To further improve the higher education, occupation education and training system connecting, training mode, construction of education occupation training and job transition integrate talent. Take the market as the guidance, to produce practitioners "employee"; the "low-end industries, low paying jobs" labor" replacement" for employees; job skills "upgrade"; on the new labor "double certificate", to the enterprise name or order training mode, the development of school and enterprise union training, training skills and qualifications certificate system mechanism, and actively explore the market oriented,

community oriented, self-development, self-restraint mechanism, resolve the problem of production, learning and research.

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