

Analysis on Employment Conditions of Mining City

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Abstract The paper compares the employment structure, the industry structure, the ownership structure of mining cities. It draws a conclusion that there is small increase of town-and-village employment in mining cities. The tertiary industry can accept people with a bigger increase than that of the first industry. Yet the secondary industry can offer fewer positions than before and there appears severe unemployment. The employment weight of the state-owned enterprises and manufacture industry is decreasing fast, while that of the none-state-owned enterprises and the service industry is increasing rapidly. During the early economic transformation, many state-owned firms go bankrupt and there happen many asset reorganizations so as to increase efficiency by downsizing staff. Furthermore, there is too much structural unemployment. Meanwhile, some economic units in countryside have only limited ability to accept unemployed staff, whereas more unemployment is caused.

Keywords Mining City; Labor; Employment Structure

1 Introduction

Labor employment is a very complex social and economic problems prevailing in the world, and it attracted widespread attention. Labor are distributed according to a certain percentage in different sectors and industries, the proportion is reasonable or not which played a major impact in the direction, speed, energy of economic development. Development of mining cities in China showed a high degree dependence on resources, due to a crisis or depletion of natural resources, in the early stages of economic restructuring, a significant increase in laid-off workers, urban and rural labor force structure, industrial structure, industry structure and ownership structures of labor employment take place a series of changes.

2 The urban and rural structure of labor force employment in mining city^[1,2]

The towns and villages employment status of Mining cities shown in Tab.1.

2.1 Coal city

Fuxin, Fushun, Pingdingshan and Yibin four cities, from 2006 to 2008, the average employment in urban and rural areas changed from 55.9 million and 158.6

million to 53.5 million and 160.2 million. The share of average employment number of towns and villages in total average employment surged from 26.0 percent and 74.0 percent to 25.1 percent and 75.0 percent, The proportion of urban employment occupied fell by nearly 1.0 percentage points, while villages increased by 1.0 percentage points. That shows the average employment in urban began to fall away, rural average employment is rising, the proportion of urban employment is on the decline, while the proportion of rural employment is rising, but the proportion of urban employment is still much lower than rural, the level of urbanization is lower, the urbanization process is slow.

2.2 Oil-type cities

The average employment number of towns and villages of Panjin and Daqing were 67.5 and 54.9 million separately in 2006, in 2007, urban had risen to 69.9 million, while rural dropped to 53.2 million. The share of average employment number of cities and towns occupied in total employment is 55.9%, rural is 45.4% in 2006; By 2007 the proportion of urban average employment accounted for 56.8 percent, rural shared 43.2 percent, the proportion of urban average employment increased by 0.9 percent, villages fell by 1.7 percentage points. The rising extent of average employment number of cities and towns is small, which of villages decreased greatly. The level of urbanization increased.

2.3 Metallurgical cities

Anshan, Benxi, Panzhihua and Tongling four cities, from 2006 to 2008, the average employment in urban and rural areas changed from 42.0 million and 44.7 million to 39.6 million and 46.5million. The share of average number of towns in total average employment is 48.4 percent in 2006, it is 51.6 percent in rural, they are 46.0 percent and 54.0 percent respectively in 2008, the proportion of urban average employment fell by 2.4 percentage points, the ratio between them is approximately 4:5. We can see that the average employment in urban began to fall away; rural average employment has increased in a slight extent, the level of urbanization in slow drop. The city Panzhihua which is most outstanding has a low level of urbanization.

Through the comparison of employment structure of urban and rural among mining cities, urban and rural employment in mining cities have different levels of increase and decrease, but the speed of increase is slower. The share of average employment in rural is faster than in urban, the level of urbanization has increased, but the process is slow. Among mining cities, the employment ratio of urban and rural among coal cities 1:3, the level of urbanization is slow. This is due to the late development of resource-based cities, during the period of economic restructuring, and perfect take over industry failed to establish, the task of nurturing and developing new economic growth point is heavy, resulting in cutting employment opportunities, the process of industrialization is slow. Therefore, urbanization, and the change of agricultural labor force is the challenge faced in China's employment [3].

Tab.1 urban, rural employment status among mining cities**Unit: million**

	Year	Coal cities			Oil cities				Metallurgical cities		
		Fuxin	Fushun	Yibin	Pingdingshan	Panjin	Daqing	Anshan	Panzhuhua	Benxi	Tongling
Total-employment	2006	111.6	129.2	310.4	306.76	91.1	150.4	161.1	62.9	79.3	43.2
	2007	103.5	126.7	315.6	305.24	92.1	154.1	158.4	64.0	75.8	43.2
	2008	115.9	117.3	317.3	304.24	104.7	159.5	159.6	64.1	76.2	44.5
Cities-employment	2006	48.5	80.3	30.6	64.02	55.4	79.6	74.9	18.2	52.4	22.3
	2007	39.7	77.5	31.4	64.55	56	83.8	69	17.8	48.4	22.3
	2008	51.1	67.5	32.1	63.49	68.1	87.3	67.5	17.3	48.5	25.1
Countries-employment	2006	63.1	48.8	279.8	242.74	35.7	74.0	86.2	44.7	26.9	20.9
	2007	63.8	49.2	284.2	240.69	36.1	70.3	89.4	46.3	27.4	20.9
	2008	64.9	49.8	285.2	240.75	36.6	72.2	92	46.8	27.7	19.4

Source: Urban Statistical Yearbook of the above (2007,2008,2009)

3 Three industries structure of employment in mining city

Urban industrial structure and employment structure of mining cities and the employment conditions and flexible features of three industries such as Table 2, Table 3 below. Make analysis about the three industry structure of labor force employment in mining cities by contrasting the output value structure and employment trends and the changes of employment growth elasticity in different industries^[4].

3.1 Coal city

From 2006 to 2008, Fuxin, Yibin, Pingdingshan and Huainan four cities had a decline in the average value proportion of primary industry and service sector, the average output value proportion of secondary industry has been increased, the employment proportion of primary industry has dropped;The second and third industrial have a gradual increase in the proportion of employment.

3.2 Metallurgical cities

Anshan, Tongling and Panzhihua three mining cities, from 2006 to 2008, the output value proportion of three industry and primary industry were decreased in different degree, in which the output value proportion of tertiary industry declined by a large margin, the employment proportion of primary industry dropped, while tertiary industry was up; The output value proportion of secondary industry increased, while the share of employment declined.

3.3 The characteristics of employment elasticity of mining cities

Fuxin, Huainan, Pingdingshan, Anshan, Panzhihua, Yibin and Tongling seven cities, the average employment elasticity of the first, second and tertiary industries are 0.2381,0.0642 and 0.1519 respectively.The first, second and tertiary industries

showed positive growth in average output, had a fast economic growth, while primary industry have a negative employment elasticity, reflecting the increase in labor productivity during this period leading to the result of labor surplus, industrial enterprises had an effective results in attrition, resulting in a serious unemployment problem; And the economic growth of third industry played a great role in driving employment^[5].

From 2006 to 2008, the output value proportion of primary industry dropped by an average of 0.25 percentage points every year, resulting in decreasing in the proportion of employment; The GDP growth rate of secondary and tertiary industries were 55.19 percent and 35.27 percent, employment growth elasticity coefficients were 0.0642 and 0.1519. That shows the economic growth of economic growth were fast during this period^[6], and promoted employment. The main reason is, with the adjustment of industrial structure, the updating of state-owned enterprises equipment and technical progress, a lot of redundancy promoted labor productivity. The economic growth of second and tertiary industries of mining cities are fast during this period, in which primary industry economic growth have almost doubled in value, is faster than the potential production capacity, while the value of the proportion is decreasing. This is because the developing unbalance of three industrial, single industrial structure. The secondary industry output value has a large proportion of the gross national product. With the acceleration of economic growth of second and third industries, employment growth elasticity increased, employment demand increased, Especially the employment growth elastic coefficient of service sector is large, thus the demand of employment is greater.

Tab.2 The position of industrial structure and employment structure of mining cities

type	name	2006						2007						2008					
		industrial structure (percent)			employment structure (percent)			industrial structure (percent)			employment structure (percent)			industrial structure (percent)			employment structure (percent)		
		primary industry	secondary industry	tertiary industry	primary industry	secondary industry	tertiary industry	primary industry	secondary industry	tertiary industry	primary industry	secondary industry	tertiary industry	primary industry	secondary industry	tertiary industry	primary industry	secondary industry	tertiary industry
coal	Fuxin	20.7	37.9	41.4	36.0	25.8	38.2	21.6	38.9	39.6	37.8	25.4	36.8	22.3	40.7	37.8	33.7	23.8	42.5
	Yinbin	19.5	51.2	29.3	53.6	21.3	25.1	20.3	52.4	27.4	51.7	21.9	26.3	19.3	55.2	25.4	50.4	24.2	25.4
	Huainan	10.9	53.2	35.9	29.5	38.3	32.2	10.6	55.9	33.6	25.3	39.1	35.8	8.7	61.2	30.9	24.9	41.8	33.3
	Pingdingshan	10.9	61.7	27.4	52.9	22.8	24.3	9.8	62.7	27.5	50.9	25.2	23.9	9.5	65.2	25.3	51.9	26.0	22.1
	Average value	15.5	51.0	33.5	43.0	27.1	30.0	15.6	52.4	32.1	41.4	27.9	30.7	15.0	55.4	29.7	40.3	28.9	30.8
metallurgy	Anshan	5.4	54.8	39.8	30.0	36.0	34.0	4.6	55.8	39.6	29.9	36.3	33.8	4.5	54.7	40.8	30.7	35.9	33.4
	Panzhihua	4.5	70.5	25.0	35.6	34.0	30.4	4.8	71.3	23.9	34.8	32.3	32.9	4.5	73.3	22.2	33.9	30.4	35.7
	Tongling	2.9	67.0	30.1	25.2	34.0	40.0	2.7	67.8	29.5	25.2	34.0	40.0	2.6	67.1	30.3	22.1	36.4	41.4
	Average value	4.3	64.1	31.6	30.3	34.9	34.8	4.0	65.0	31.0	30.0	34.5	35.6	3.9	65.0	31.1	28.9	34.2	36.8
Average value among mining cities		9.9	57.6	32.6	36.6	31.0	32.4	9.8	58.7	31.6	35.7	31.2	33.1	9.4	60.2	30.4	34.6	31.6	33.8

Source: Statistical Yearbook of the above cities (2007, 2008, 2009); Industry structure refers to

the ratio of industrial output value in GDP; The structure of employment means the share of employment in total employment.

Tab.3 The employment growth elasticity elasticity of different industries in mining cities between 2006 and 2008

The name of cities	The annual average change rate of industrial output value (percent)			The annual average change rate of industrial in employment (percent)			Elasticity of employment growth in the industry		
	primary industry (A)	secondary industry (B)	tertiary industry (C)	primary industry (a)	secondary industry (b)	tertiary industry (c)	primary industry (a/A)	secondary industry (b/B)	tertiary industry (c/C)
Fuxin	62.72	55.64	34.29	-2.74	-4.84	15.73	-0.0437	-0.0870	0.4587
Huainan	19.75	72.46	25.49	-20.1	3.33	-1.86	-1.0177	0.0460	-0.0730
Pingdingshan	38.09	67.15	45.56	-2.63	13.01	-9.89	-0.0690	0.1937	-0.2171
Anshan	19.78	41.17	44.98	1.45	-1.38	-2.74	0.0733	-0.0335	-0.0609
Panzhihua	48.58	53.25	30.74	-3.13	-8.88	19.9	-0.0644	-0.1668	0.6474
Yibin	48.6	62.81	31.52	-3.9	16.34	3.34	-0.0802	0.2601	0.1060
Tongling	19.74	33.82	34.33	-9.17	8.00	6.94	-0.4645	0.2365	0.2022
Average value	36.75	55.19	35.27	-5.75	3.65	4.49	-0.2381	0.0642	0.1519

4 The ownership structure of urban in employment among mining cities

With the reform of economic system, changing in property rights of corporate ownership, diverse forms of ownership develop side by side emerged. Here divided the type of ownership into the formal sector and informal sector, informal sector further divided into traditional and emerging informal sector. Employment status of different ownership Units among mining cities as shown in Tab.4.

4.1 Coal city

View from the formal sector, Fuxin, Fushun, Pingdingshan and Yibin four cities, the share of average employment in total average of traditional formal sector had an increase by seven percentage points for three years. The proportion of average employment of emerging formal sector have increased almost one percentage point. The share of average employment of non-formal sector has dropped by eight percentage points. We can find that from 2006 to 2008, the average employment rate of informal sector of coal cities has a large degree reduction, new and traditional informal sector have both an increase in average employment rate, and the average employment of traditional formal sector have increased by a margin large.

4.2 Oil-type cities

View from the formal sector, for Panjin city, the share of employment in the

traditional informal sector in total employment fell by 4.4 percentage points. The proportion of employment shared by emerging formal sector fell by 3.4 percentage points. The employment proportion of informal sector increased by 7.8 percentage points. That the employment proportion of traditional formal sector employment of oil cities decreased greatly, emerging formal sector had small increase in employment, informal sector employment increase is substantial.

4.3 Metallurgy cities

Anshan, Benxi, Tongling three mining cities, the share of average employment of traditional formal sector in total average employment has been increased by 5.6 percentage points. The proportion of average employment shared by emerging formal sector rose by 4.9 percentage points, the employment proportion of informal sector has declined by 10.5 percentage points, That means the specific gravity of average employment of traditional and booming formal sector among metallurgy cities has ascended by a greater degree; the average employment share of informal has dropped by year, and the extent is larger.

Tab.4 Employment position of different ownership units of mining cities Units: Million

Type	Year	Mining cities								
		Coal-cities				Oil-cities	Metallurgy-cities			
		Fu xin	Fushun	Pingdingshan	Yibin	Panjin	Anshan	Benxi	Tongling	
Urban employment	2006	48.5	80.3	64.02	30.6	55.4	74.9	52.4	22.3	
	2007	39.7	77.5	64.55	31.4	56	69	48.4	22.3	
	2008	51.1	67.5	63.49	32.1	68.1	67.5	48.5	25.1	
Formal sector	Traditio- nal	2006	14.3	15.7	23.2	16.6	37.5	33.4	20.9	6.6
		2007	14.2	14.7	23.7	16.1	38.1	32.6	20.6	6.4
		2008	20.2	22.1	23.7	16.0	43.1	35.7	23.5	6.2
	emerging	2006	7.4	21.4	22.72	4.3	9.6	14	11.4	7.8
		2007	8.8	18.3	23.35	5.1	8.8	12.4	6.1	7.8
		2008	12.2	15.4	23.59	4.5	9.5	16.7	12	9.5
Informal	2006	26.8	43.2	18.1	9.7	8.3	27.5	20.1	7.9	
	2007	16.7	44.5	17.5	10.2	9.1	24.0	21.7	8.4	
	2008	18.7	30.0	16.2	11.6	15.5	15.1	13.0	9.4	

Note: The traditional informal sector, including state-owned economic units and urban collective units; Emerging informal sector, including cooperative units, joint ownership units, limited liability company, joint stock limited partnership, Hong Kong, Macao and foreign investment units; The informal sector, including urban private and individual economic units. Source: Urban Statistical Yearbook of the above (2007, 2008, 2009).

Above results described that, from 2006 to 2008, with the mining city's ongoing of economic transformation,

The regulation of pattern of ownership composed mainly of state-owned economic units is large in scale, State-owned sector implemented assets

restructuring through shutting down, stopping, merging, and transferring, resulting in a variety of emerging economic types. The dual effects made by streamlining of former state-owned enterprise employment and internal labor productivity, causing the employment decline. While informal sector has greatly eased the employment pressure^[7].

5 Conclusions

Based on the above analysis, we can believe that it happened great changes to the urban-rural structure, industrial structure, and labor force employment changes status of different types of mining cities is different respectively. Overall, in the early stage of economic restructuring, the urban-rural average employment of mining cities is increasing, but the extent of increasing is not large, the process of urbanization is slow. A serious surplus of agricultural labor turned to urban, the efficiency of cutting down the number of employees improved, labor productivity increased significantly, resulting in pressure on employment. The proportion of emerging and non-public ownership enterprises absorbing unemployed persons increased, it providing more employment opportunities. And social services make a greater contribution to ease the employment pressure.

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