

Research on the Influencing Factors of Employment Location Selection for College Graduates: A Case Study of Anhui Province

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Abstract

The choice of a suitable employment city is crucial for graduates in seeking employment, as it not only determines how employers identify job seekers, but also directly and profoundly affects the allocation of local talent resources, which has important implications for the local economy and society. With the rapid development of the times, the job market for undergraduate students has become increasingly complex. The Ministry of Education and other relevant departments are working hard to find new solutions to promote the coordinated and rapid development of regional economy and society. To solve this problem, we need to strengthen the supervision of the job market economy for graduates, and promote the healthy development of the economy. Although there has been relatively little research on the choice of employment location for college graduates in recent years, and most of the related research has been from the perspective of individual situations, there are still considerable limitations. Therefore, it is particularly important to explore the reasons that affect the selection of employment locations for college graduates and investigate the mechanism of graduate talent flow. Based on the data of the employment quality report of ordinary college graduates in Anhui Province from 2019 to 2022, we used SPSS software for statistical analysis and explored the correlation between the selection of employment locations by college graduates and various factors through chi-square tests. Finally, we constructed a regression model to deeply explore the influencing factors of the selection of employment locations for college graduates in Anhui Province. Scientific research has shown that college graduates are directly influenced by multiple factors when choosing their employment locations, including the socio-economic situation, natural environment, and personal traits.

Keywords

College Graduates; Influencing Factors; Employment Location Selection; Regression Analysis.

1. Introduction

Employment is the most important livelihood issue, which includes three aspects: quantity, structure and quality. It is an important component of a good life, and people not only hope to have a job, but also have greater expectations for the quality of employment. The report of the 20th National Congress of the Communist Party of China further clarifies: "Improve the employment promotion mechanism and promote high-quality and full employment." In recent years, due to the impact of the epidemic situation, the increase in job opportunities has been limited, the number of college graduates has surged, and the phenomenon of "slow

employment" among students has become increasingly prominent. The difficulty of employment for college students has attracted widespread attention from the whole society.

++++With the development of social economy and the increasing convenience of obtaining online and offline recruitment information, the flow of employment regions for college graduates has become more frequent. The choice of employment and job-seeking locations for graduates is an important issue, driven by people's aspirations for high-quality employment and a good life, which has resulted in a shift of population from regions with relatively limited resources to regions with abundant resources. Analyzing the changing trend of graduate employment regional mobility can better guide the career planning of lower-grade students and provide employment guidance for graduates. The changing trend and influencing factors of graduate employment regional mobility can effectively assist local governments in making decisions on population planning and talent recruitment management. Currently, there is little research from the perspective of graduate employment regional data analysis on the changing trend of college graduate population migration.

In summary, this paper selects the distribution data of employment regions for college graduates in Anhui Province from 2019 to 2022, and analyzes the changing trend of regional mobility for graduates from a specific perspective.

2. Data Source

This study uses data from the Anhui Provincial Education Department's employment quality report for graduates from ordinary universities in the years 2019-2022 to analyze the changing trend of employment regional mobility for graduates in Anhui Province. The data source is the Anhui Province Graduate Employment Information Database. The economic data in this paper is sourced from the "China Statistical Yearbook" , as shown in [Table 1](#).

Table 1: Distribution of Employment Regions for Graduates from Anhui Province Universities by Source of Graduates from 2019 to 2022.

/Year	employment within the province		employment outside the province			
	graduates from the local province	graduates from outside the province	graduates from the local province	graduates from outside the province	graduates from outside the province	graduates from outside the province
2019	175544 65.92%	6716 2.52%	67236 25.24%	16826 6.32%		
2020	145044 65.64%	4229 1.92%	57313 25.94%	14372 6.50%		
2021	167698 67.63%	6415 2.59%	56838 22.93%	16988 6.85%		
2022	236271 71.66%	8389 2.55%	64156 19.46%	20885 6.33%		

Through the organization and analysis of data on the ratio of graduates' employment in and outside of Anhui Province, as well as an examination of the distribution of graduates from different educational levels in Anhui Province between 2019 and 2022, the employment rate of graduates who choose to stay in Anhui has steadily risen to over 70%. The highest retention rate among graduates was seen in higher vocational colleges, at over 70%, followed by undergraduates at just over 60%, and the lowest retention rate was observed among postgraduates, at just over 50%.

Regarding the distribution of graduate employment, 45% to 50% of graduates chose to work in Hefei, while the majority of those who chose to work outside of the province (over 70%) selected cities in the Yangtze River Delta region such as Shanghai, Jiangsu, and Zhejiang due to their proximity to Anhui and high levels of economic development.

In June 2022, a network survey of the employment status of university students was conducted in the province, with a total of 237,738 valid samples collected. According to the survey data,

the most important factors for students when choosing a workplace were geographic location and personal development prospects, both of which were selected by over 50% of respondents (multiple choices), while personal relationships were the least important. In terms of the preferred and signed working areas, most of the respondents chose Hefei, other cities in Anhui Province, and the Yangtze River Delta (excluding Anhui) economic circle.

3. Analysis and Discussion of the Trends in Regional Mobility of Graduates' Employment in Anhui Province

To better reflect the population mobility trends, a simple analysis of the flow of graduates from Anhui Province does not suffice. By incorporating the "population migration theory" in geography and introducing a modified double logarithmic model formula, we obtain the following formula:

$$\ln Y = \beta_0 + \beta_1 \ln X_1 + \beta_2 \ln X_2 + \dots + \mu \quad (1)$$

Where the number of people who have migrated from Anhui Province's graduation source to their employment destination outside the province is taken as the dependent variable Y, and variables that may affect the choice of the source location from various aspects such as socioeconomic factors and natural factors are selected as independent variables X. β_0 represents the constant term, β_k ($k=1,2,\dots$) represents the coefficients of the independent variables, and μ is the random error term.

Based on the above model and data, the variables are introduced into the model, and the parameter estimation results are shown in Table 2.

Table 2: Variable names and corresponding data

Variable Type	Variable Name	Hefei Data	Anhui Province Data
Social And Economic Factors	GDP per capita gap (X1)	121200	73600
	Income gap per capita (X2)	46009.1	30904.3
	Ratio of secondary industry output (X3)	36.54%	38.2%
	Ratio of tertiary industry output (X4)	60.37%	54.3%
	Employment opportunity gap (X5)	2.77	2.46
	Dependence on external sources gap (X6)	3324.8/11412.8	6920.2/42959.18
	Wage price (X7)	104729	93861
	Consumer price index (X8)	101.7	100.7
	Passenger volume in Hefei and Anhui Province (X9)	6848.7 (million times) / 946.5 (million people)	27673 (million times) / 6113 (million people)
	Natural Factors	Urban environment (X10)	44.18%

Through the analysis of the second and third industry output values of Hefei city and Anhui province, the overall industrial structure of Hefei city and Anhui province can be reflected. The proportion of the second industry in Hefei city is lower than the provincial average, while the

proportion of the third industry is higher than the provincial average. Additionally, the second industry output value is much higher than other cities in the province, which suggests that the local economy and society of Hefei city are more developed.

Typically, the unemployment rate is used to characterize employment opportunities. The urban registered unemployment rate in Hefei city and Anhui province is less than 5%, which not only reflects the absorption capacity of Hefei city and the province in recent years, indicating the size of employment opportunities but also shows the supply-demand situation of urban labor. The proportion of the total import and export volume of Hefei city and Anhui province to GDP in 2021 shows that Hefei city's external dependence ratio reached 29%, which is much higher than the provincial average of 16%.

The consumer price index in Hefei city and Anhui province in 2021 is a relative number that measures the relative price level of consumer goods and services items compared to the previous year.

The urban green coverage rate of Hefei city is 44.18%, which is slightly higher than the average of urban built-up area green coverage rate of 44.07% in Anhui province.

According to the geography theory of push-pull, as long as there is a gap between two areas, the direction of population migration will be from the low-level areas to the high-level areas. This can be reflected in the choices of job location for college graduates, who tend to choose relatively developed areas due to the attractiveness of the job market and the economic level difference of their hometown.

4. Heterogeneity Analysis in Empirical Study

To further examine the employment preferences of graduates with different educational backgrounds, we divided the graduates into different educational categories for analysis. The overall regression results of graduates' employment choices in Anhui Province are presented in Table 3.

Table 3: Overall Regression Results of Graduates' Employment Choices within Anhui Province

Indicators	(1)	(2)	(3)	(4)
Education level	0.00888 [0.0195]	0.239*** [0.0343]	0.313*** [0.0389]	0.31*** [0.0391]
Gender	-0.188*** [0.0204]	-0.244*** [0.0359]	-0.269*** [0.0406]	-0.268*** [0.0407]
Discipline category	-0.609*** [0.0209]	-0.237*** [0.0374]	-0.202*** [0.0423]	-0.190*** [0.0424]
Hometown	1.919*** [0.0186]	2.530*** [0.0345]	2.127*** [0.0387]	2.132*** [0.0391]
Industry of employment	0.161*** [0.0190]	0.422*** [0.0321]	0.337*** [0.0365]	0.332*** [0.0367]
Excellent graduates	0.0874 [0.0530]	0.398*** [0.0985]	0.454*** [0.1119]	0.437*** [0.1117]
Students from financially challenged backgrounds	-0.148*** [0.0607]	0.414*** [0.0435]	-0.601*** [0.0495]	-0.596*** [0.0498]
Per capita GDP		-7.875***	-7.613***	-7.829***

		[0.0910]	[0.1220]	[0.1326]
Salary level		6.236***	10.04***	10.17***
		[0.1430]	[0.2274]	[0.2328]
Industrial structure		0.249***	0.233***	0.232***
		[0.0094]	[0.0146]	[0.0151]
Patent ownership			-0.150***	-0.0830***
			[0.0291]	[0.0309]
Enterprise profit			-22.53***	-23.58***
			[0.5319]	[0.5641]
Per capita R&D			-0.0781***	-0.0750***
			[0.0038]	[0.0039]
Air quality				0.00496***
				[0.0003]
House price				0.282
				[0.3607]
Observation number	66671	66671	66671	66671

Note: Standard errors are presented in brackets; * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$. Data source: Compiled by the present study.

4.1. Regarding Differences in Educational Background

The selection of employment locations by Anhui province's college graduates is restricted by various factors, including GDP, corporate profits, per capita R&D, and air quality. Compared to graduate students (master's and doctoral), undergraduate students' personal characteristics play a more significant role in their employment decisions. For example, female and double-excellent students tend to stay and work in Anhui province, while economically disadvantaged students are less willing to stay and choose to go to the Shanghai-Suzhou-Zhejiang region with higher economic development level, closer distance, and convenient transportation. Doctoral students are almost not restricted by their personal characteristics when choosing their work locations.

4.2. Regarding Gender Differences

Female college graduates in Anhui province tend to choose humanities disciplines, and this trend is particularly evident in the local recruitment market. As there is less demand for humanities disciplines, the recruitment market in Anhui province provides more employment opportunities for female graduates in order to effectively reduce the recruitment costs for employers.

4.3. Regarding Disciplinary Classification

Graduates' choices have an impact on their career development and are influenced by their personal characteristics, economic status, local innovation capability, and environmental conditions. For example, science and engineering graduates tend to work in "outflow" regions because of their higher economic development levels. On the other hand, humanities graduates prefer to work in "staying" regions, and they also prefer to work in their home province, the results corresponding to sections 4.1 to 4.3 can be found in Figure 1.

Indicators	According to educational level			According to gender		According to major	
	Undergraduate Students	Master's Students	PhD Students	Male	Female	STEM Disciplines	Humanities Disciplines
				0.350*** [0.0487]	0.243*** [0.0667]	0.494*** [0.0453]	-0.203* [0.0802]
Gender	-0.268*** [0.0494]	-0.237** [0.0887]	0.0525 [0.2655]			-0.269*** [0.0508]	-0.310*** [0.0700]
Discipline category	0.0990* [0.0481]	-0.914*** [0.1062]	-0.234 [0.4233]	-0.146* [0.05687]	-0.253*** [0.0639]		
Hometown	2.003*** [0.0442]	2.324*** [0.0929]	1.827*** [0.2520]	2.114** [0.0483]	2.237** [0.0683]	2.075*** [0.0455]	2.23g*** [0.0767]
Industry of Employment	0.561*** [0.0412]	-0.061 [0.0901]	-0.17 [0.4114]	0.327** [0.0449]	0.318*** [0.0653]	0.323*** [0.0419]	0.355*** [0.0773]
Excellent Graduates	0.812*** [0.1712]	-0.137 [0.1939]	0.335 [0.6176]	0.337* [0.1495]	0.562** [0.1665]	0.378** [0.1380]	0.471* [0.1980]
Students from Financially Challenged Backgrounds	-0.588*** [0.0491]	-0.12 [0.1876]	-1.773* [0.7914]	-0.574** [0.0614]	-0.631*** [0.08571]	-0.636** [0.0585]	0.492*** [0.0955]
Per capita GDP	-6.606*** [0.1419]	-10.81*** [0.3484]	18.18*** [1.5946]	-8.500*** [0.1704]	-6.545** [0.2149]	7.664*** [0.1554]	8.272*** [0.2571]
Salary level	8.754*** [0.2549]	15.00*** [0.5947]	-6.024 [4.1784]	11.20*** [0.3057]	8.177*** [0.37271]	10.07*** [0.2804]	10.72*** [0.4395]
Industrial structure	0.183*** [0.0162]	0.270*** [0.03837]	0.455*** [0.1270]	0.262*** [0.0194]	0.171** [0.0235]	0.217*** [0.0177]	0.248*** [0.0286]
Patent ownership	-0.0812* [0.0337]	-0.0592 [0.0794]	2.982*** [0.4014]	0.0072 [0.0384]	-0.250*** [0.05371]	-0.0176 [0.0359]	-0.207*** [0.0627]
Enterprise profit	-20.27*** [0.6261]	-30.04*** [1.4056]	63.08*** [5.5565]	-25.61** [0.7339]	-20.52*** [0.8964]	24.80*** [0.6799]	20.64*** [1.0279]
Per capita R&D	-0.0726*** [0.0045]	-0.0941** [0.0096]	-0.0610* [0.0270]	-0.0752** [0.0050]	0.0728** [0.0066]	-0.0686** [0.0046]	-0.0933*** [0.0077]
Air quality	0.00440*** [0.0003]	0.00575*** [0.0008]	0.00914** [0.0033]	0.00549*** [0.0004]	0.00410*** [0.0005]	0.00550*** [0.0004]	0.00398*** [0.0005]
House price	0.0449 [0.4079]	1.31 [0.8839]	-0.124 [2.9050]	0.0629 [0.4475]	0.675 [0.6080]	0.158 [0.4195]	0.79 [0.7127]
Observation number	38584	25012	3075	44268	22403	45454	21217

Figure 1. Regression results of employment choices for different categories of graduates in Anhui Province.

5. Conclusion

This study investigates the trend of regional employment mobility among Anhui graduates and conducts empirical analysis by dividing graduates into different educational categories. It is found that the number of graduates who choose to stay in Anhui for employment is slightly lower than that of local students, and the retention rate of high-level talent, especially doctoral students, is relatively low, indicating an outflow of innovative high-level talent. The retention rate of junior college graduates in Anhui is the highest, followed by undergraduate students and graduate students. Furthermore, graduates from ordinary local universities tend to choose

smaller cities as their employment destinations, and the correlation between job satisfaction and gender, major, and hometown is weak.

Prospect: The evaluation and selection of outstanding graduates from universities have become more diverse, which is attributed to the increasingly clear social division of labor brought about by economic development and the continuous improvement of the functions of various social organizations, providing more space for university graduates to choose. Against the background of rapid social and economic development, more convenient information transmission and reception, and the continuous improvement of the functions of various social organizations, it is expected that Anhui will attract more high-level talents to stay and work in the province as its economic development level improves and the strategy of becoming a strong manufacturing province accelerates. However, it is necessary to recognize the differences among graduates of different educational levels, genders, and disciplines. It is recommended that different cities in Anhui formulate corresponding policies according to their own economic development levels to attract more high-level talents.

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