

A Research on Index System for Measuring the Employment Quality of Chinese University Graduates

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Abstract

It is the foundation of assessing university graduates' employment situation to establish an index system for measuring employment quality. This paper makes a brief introduction of China's previous studies on university graduates' employment quality, and attempts to give a definition of its content, so as to understand the employment situation, main characteristics, and development trends. Besides, the paper initially makes short-term and long-term index systems for measuring university students' employment quality based on the objective of giving guidance to education and teaching. Furthermore, complete approaches to monitoring the quality of university students' employment are put forward to guide the reform of higher education and improve Chinese students' employment system.

Key words: University students' employment; Employment quality; Index system

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INTRODUCTION

With the development of the employment problem of university graduates, employment quality of university graduates has become a hot issue concerning the whole society. In recent years, there are an increasing number of students graduating from colleges and universities.

In 2000, university graduates totaled 1.07 million, which increased to 6.99 million in 2013. And in 2014, 7.27 million students are expected to graduate from universities. (Figure 1); as far as the growth rate of college graduates is concerned, the year 2003 witnessed a peak growth rate of 46% for the past 14 years; nevertheless, the initial employment rate plunged from 80.1 % in 2002 to 70% in 2003 over the same period; after 2003, the growth rate continued to decline, reaching 3 % in 2013. Although the growth rate of college graduates slows down, the conflict between the increasing total employment and limited jobs and the conflict between the higher expectations from graduates on job market and the reality continue to exacerbate. Therefore, we are facing intensified difficulties in ensuring the quality of university graduates' employment.

According to the Third Plenary Session of the 18th Central Committee, the role of market should be given full play in the allocation of resources and education should be in line with the laws of market economy. Under the background of market economy, the employment quality of university graduates is the direct reflection of colleges and universities to train market-oriented competent personnel. Besides, it could, to a certain extent, reflect the schooling level of universities as well as the supply and demand for talents in society. So the employment of university graduates is related to the development and stability of the society. In this sense, under the increasingly severe employment situation, it is necessary to establish a scientific index system for measuring university graduates' employment quality, guide the allotment of funds, adjust enrollment plan, clarify the setting of disciplines, and conduct education reform, and so forth. All these are of great benefit to objectively guide and assess the work of college graduates' employment and the work of training competent personnel. In addition, as important reference factors for making policies including the arrangement of education funds, adjustment

of enrollment plan, improvement of the education level, and the reform of discipline setting, all the practices will exert positive impact on higher education's long-term development and training talents for socio-economic development (Yang & Zhang, 2013).

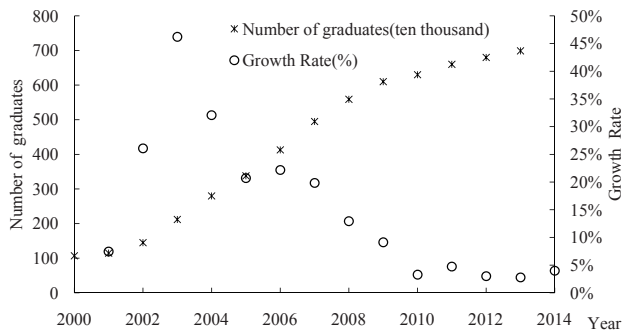


Figure 1
Number of university graduates and growth rate between 2000 and 2014

1. RESEARCH STATUS AND WEAKNESS

Evaluation of university graduates' employment quality has become an important part of university graduates' employment work. In 1990s, China began to get involved in the research of employment quality (Shi, 2008). In 2003, the Ministry of Education issued the regulation—"Opinions of Promoting the Employment Work for University Graduates", which related the expansion of university's enrollment with its employment rate of graduates, that is, enrollment should be reduced when the employment rate of one area or one university is significantly lower and the enrollment of one major should be also decreased when its employment rate is too low. According to the Ministry of Education, all colleges and universities are required to gradually release an annual report of their students' employment quality since 2014 (Yao, 2013). However, there is no unified and viable index system for measuring employment quality in China, and the general evaluation of employment quality is almost based on employment rate (Qian, Xu, & Huang, 2013). Some universities even unreasonably conduct employment work because of one-sided pursuit of high employment rate, which leads to serious activities such as giving false employment information and deliberately altering the employment rate to make it higher. So it is obvious that a scientific index system for measuring employment quality and evaluation are the foundation of rightly grasping the education level and employment situation of universities, and are important reference factors of adjusting enrollment plan and discipline setting as well as reforming education. What is more, establishing a mechanism that could make professional warning, exit, and conduct dynamic adjustment based on the employment quality of graduates will further promote the setting of college disciplines to match with the needs of society (Yao, 2013).

In 1999, China published the employment rate of college graduates for the first time, which made many universities and media to use "employment rate" to represent the employment quality of university graduates (Luo, 2006). On June 14, 2005, Luo Mingdong put forward the concept of "employment quality" from "employment rate" 2 in the paper "Improving the Employment Quality of University Graduates", and also proposed some approaches to improving the employment quality. So achievement has been made on the theoretical research of university graduates' employment quality, but the opinions of different scholars on index system for measuring employment quality are different.

1.1 Research on Connotation of Employment Quality

As to the research on the connotation of university graduates' employment quality, EU Foundation has advocated understanding employment quality from such four dimensions as job stability, health care and welfare, skill development, balance between life and work. Luo Mingdong (2005) considers that the content of employment quality should mainly include income, workplace, work environment, major relevance, personal development prospect, job satisfaction and others. The employment quality in "University Employment Index" system established by Wu Hanchou includes level of salary, degree of satisfaction, space of development and so on (Luo, 2006). Liu Suhua (2005) is convinced that employment quality contains three factors—job characteristics, working conditions and job satisfaction. Leng Tianqiong (2008) believes the quality of employment mainly encompasses income, workplace, working conditions, major relevance, and job satisfaction, etc. Tong Ling (2011) argues that it should include level of employment, job direction, income, workplace, work environment, major relevance, personal development, job prospect and job satisfaction. Chen Huan (2012) assumes that employment quality refers to the situation of employment about whether it is good or not, including income, job satisfaction, personal development prospect and other factors, which finds their reflection in level of employment, professional fitness, potential development and so on. Qian Zhenming (2013) points out that the quality of graduates is a comprehensive concept used to measure the employment situation of graduates in their whole employment process.

Therefore, we can find that there is no unified definition of graduates' employment quality, but it is not difficult to find that the inclusion of income, work environment, job satisfaction and space for development into the connotation of employment quality has been acknowledged unanimously. However, this paper argues that employment quality of university graduates is an objective reflection of the basic situations such as the number of graduates, degree of major relevance, way

of employment, nature of employment, as well as the comments from college graduates, universities and enterprises. Through a comprehensive measurement in terms of “quantity” and “quality”, the paper believes that the supply and demand for competent personnel will be balanced and the reform of higher education and teaching will be promoted to be in line with the socio-economic development.

1.2 Research on Index System to Measure Employment Quality

When it comes to the research on index system for measuring employment equality of university graduates, the main scholars are as follows: after establishing a system from such three dimensions as work characteristic, income and job fitness, Dai Ying has chosen seven indexes to measure employment quality which are the nature of employment unit, area of employment, income, social insurance, other professional welfare, major relevance, and job satisfaction. Yet the lack of index—the number of employment makes it difficult to understand the supply and demand for talents in colleges and universities. Zhang Peide (2007) uses 49 indexes to measure the employment of college graduates from four aspects—employment effects, job satisfaction, serving process and supporting mechanism. Wang Bangtian (2009) explores the establishment of index system for measuring the employment quality from the perspective of graduates, employers, universities and authorities in charge of employment. His system contains 38 specific indexes. Feng Yonglong (2009) constructs a basic index system which includes such indexes as employment rate, signing rate, grass-root employment rate, rate of employment in key employing units, job satisfaction, reassignment rate, and talent rate, striving to measure employment quality by means of quantitative factors. Chen Huan (2012) designs five first-level indexes containing employment rate, supply and demand ratio of graduates, income level, employment structure and social recognition; apart from this, 10 second-level indexes are also included. Ni Wei (2012) tries to evaluate the overall employment quality by virtue of employment rate. Besides, he also attempts to evaluate the quality of average graduate employment through nine indexes such as career development, level of employing units, level of jobs, income, and major relevance. But the drawback is that no index related to employer is included. Yang Qiyong (2013) proposes that the main indexes to measure employment quality are satisfaction from personal person, family, society, university, and employer; nevertheless, these indexes takes too much time to measure and are much subjective, and is not suitable for colleges and universities to measure their graduates’ employment quality of that year. Zhang Yaoxiang (2013) elects 27 indexes to measure employment quality based on the satisfaction from government, graduate, and employer.

However, as for the empirical research on index system for measuring employment quality, Yu Rencai (2007) set Liaoning Provincial College of Communications as an example to distribute 2300 questionnaires to students who graduated in 2002 and 2003. An index system for measuring employment quality is then established whose indexes are the matching between ability and income, work environment, major relevance, interpersonal environment, geographical location and workplace environment, job interest, and work prospect. Employment quality is then measured by giving scores for each index. Tan Lu (2009) tries to establish an index system for measuring employment quality from such six aspects as employment rate, important demand, employment structure, recognition from employer, graduate as the subject, and social reputation. And she attempts to conduct research and give comments through the example of Guangxi University of Technology. Shi Shutao (2008) believes that the basic indexes of employment quality index system are income and benefits, personal development and labor relations. She then details 15 specific indexes to build an index system for measuring university graduates’ employment quality to conduct a comparative study on employment quality of graduates from different majors in one university in Henan Province, thus verifying the feasibility of the index system. Zhuru Hua (2013) tries to conduct a qualitative research on employment quality through the example of Zhejiang Province. She designs questionnaires and make sample investigation on the nature of employing units, features of jobs, degree of job matching, and work environment. Yet the weakness is the inability to objectively reflect the employment quality of the current year.

“The Index System for Measuring the Employment Quality of University Graduates in China” takes advantage of three levels of indexes. The first-level indexes include professional index, quality index, and potential index. The second-level indexes are work force, rate of major relevance, ability to land a job, adaptability, stability, self-confidence, employment rate, income level, and enterprises’ satisfaction. The third-level indexes are the detailing of the second ones. However, this index system has ignored the measurement of the number of graduates. As for the methodology for measurement of this system, it mainly uses analytic hierarchy process, Delphi method, questionnaire method, and method of average value of accumulated years. The biggest difficulty within is to determine the proportion of each index in the whole system.

1.3 Comments on Current Research

In the current research on index system for measuring the employment quality of university graduates, there is no distinction between short-term assessment of employment quality and medium-and-long-term assessment of employment quality. So the established index systems could not help release the report on employment quality

of university graduates. From the perspective of education reform and college students' employment, the aims to master the short-term and medium-and-long-term quality of employment are different, so the focus should also be different. Short-term employment quality assessment can visually reveal the employment situation of the very year, show the current hot industries and emerging fields, and give direction for personnel training; while medium-and-long-term employment quality assessment are of great guiding significance to professional development, development of major potential and graduates, and professional training. Following the line, the paper makes an attempt to establish short-term and medium-and-long-term index systems for measuring the employment quality of graduates.

2. ESTABLISHING INDEX SYSTEM

A scientific index system for measuring college graduates' employment quality is the key of assessing employment quality. Under the national circumstances of being in the primary stage of Chinese socialism, the assessment of university graduates' employment quality should be guided by Marxist theory and the "Labor Law of People's Republic of China", and should be in line with the current development level of the social economy. Besides, it should reflect the job-seeking value of college students, and balancing the relation between the

allocation of resources and the quality of employment. On the basis of the main idea of allocating resources according to market and the definition of employment quality's content by the writer, the paper considers that the index system for measuring employment quality can be classified into short-term index system and medium-and-long-term index system, mainly including four parts: Basic circumstances of employment, satisfaction from university graduates, satisfaction from universities, and satisfaction from enterprises, among which the basic circumstances of employment focus on the objective facts of college graduates' employment; while the satisfaction index is to monitor the employment quality and master the employment trend, potential of majors, values of majors, and existing problems, thus coordinating and improving universities' training system, structure of majors, curriculum system, and guidance for university graduates.

2.1 Short-Term Index System for Measuring Employment Quality

Short-term index system for measuring university graduates' employment quality mainly refers to the measurement of employment quality of the very year. Since students have not yet enter the workplaces and accuracy is lacked in "qualitative" indexes, so the main focus is on the assessment and publication of "quantitative" indexes, that is, the assessment of basic conditions of employment, as well as job satisfaction of graduates. The specific indexes are as follows (Table 1):

Table 1
Short-Term (Current Year's) Index System for Measuring University Graduates' Employment Quality

First-level index	Second-level index	Third-level index (short-term)	Method of measurement	
Basic circumstances of employment	Employment rate	Initial employment rate	Data expression	
		Employment rate at the end of year		
		Rate of major relevance		
		Self-employment rate		
		Two-way employment rate		
	Way of employment	Rate of furthering study	Data expression	
		Rate of working or studying overseas		
		Flexible employment rate		
		Rate of unemployment and applying for postgraduate study		
	Channel of employment	Job fair in campus	Job market	Data expression
			Employment information in media	
			Recommendation	
Employment area		Self-employment	Data expression	
		East area		
		Central area		
		West area		
Capital city	Provinces of colleges and universities	Data expression		
	Grass roots (below the level of county)			

To be continued

Continued

First-level index	Second-level index	Third-level index (short-term)	Method of measurement
Basic circumstances of employment	Nature of employment	Party and government organs	Data expression
		Public institutions and state-owned enterprises	
		Enterprises on the Fortune 500 list	
		Other enterprises	
	Nature of jobs	Others	Data expression
		Management	
		Professional skill	
		Teaching	
	Income	Labor Work	Data expression
		Others	
Over the average rate			
Below the average rate			
Social insurance	Monthly income level	Date expression	
	Coverage rate of pension insurance		
	Coverage rate of work-related injury insurance		
	Coverage rate of medical care		
Equality of employment	Coverage rate of maternity insurance	Data expression	
	Coverage rate of unemployment insurance		
	Man and woman employment ratio		
	Man and woman's monthly income ratio		
Satisfaction from graduates	Comment on work	Employment will	Highly satisfied; satisfied; dissatisfied; very dissatisfied
		Income level	
		Work environment	
		Learning and training	
	Comment on major learning in school	Content	Highly satisfied; satisfied; dissatisfied; very dissatisfied
		Teaching effects	
		Practical activities	
		Application effect	
	Comment on employment guidance work	Social practice and internship	Highly satisfied; satisfied; dissatisfied; very dissatisfied
		Association work	
Job fair hosted by universities			
Providing employment information			
Job-selecting consciousness	Providing employment guiding courses	Highly satisfied; satisfied; dissatisfied; very dissatisfied	
	Providing employment training		
	Encouraging employment		
	Space for development		
Satisfaction from universities	Income	Care much; care; not care; not care at all	
	workplace		
	Nature of employing unit		
	Major relevance		
Satisfaction from universities	Accomplishment of training employment goal	Whether they have accomplished the goal and plan of employment training or not	Yes, No

2.2 Medium-and-Long Term Index System for Measuring Employment Quality

Medium-and-long-term index system for measuring university graduates' employment quality refers to the employment situation of graduates after three years (medium term) and five years (long term). When designing the indexes, focus should be given on the stage achievement of improving employment quality, summarizing the development trends of employment,

mastering graduates' work abilities and potentials, so that the system could give guidance to the teaching feedback. Specific index system is rectified from the short-term index system of employment quality. First, the third-level indexes of employment rate are amended to be the present employment rate and rate of major relevance; second, "Satisfaction from enterprises" is added in the system whose specific indexes are as follows (Table 2):

Table 2
Medium-and-Long-Term Index System for Measuring University Graduates' Employment Quality

	Professional skills	Job adaptability	Highly satisfied; satisfied; dissatisfied; very dissatisfied
		Practicing ability	
Satisfaction from enterprises	Ideology and morality	Professional theory and knowledge	Highly satisfied; satisfied; dissatisfied; very dissatisfied
		dedication	
		integrity	
		responsibility	
Basic qualities		Verbal expression	Highly satisfied; satisfied; dissatisfied; very dissatisfied
		Writing ability	
		Teamwork	
		Learning ability	
		Anti-pressure ability	

3. APPROACHES TO PERFECTING INDEX SYSTEM FOR MEASURING EMPLOYMENT QUALITY

(1) Establishing a tracking and evaluation system for university graduates' employment quality. It is highly urgent to establish a tracking and evaluation system for university graduates' employment quality in China. Only by tracking and evaluating in a long term can we effectively grasp universities' employment characteristics and trends, and scientifically guide the reform in higher education. For example, since 1998, Canadian Red River College has released an annual report on its graduates' job satisfaction and employment every year. It adjusts its discipline setting and training program through the survey of graduates' income as well as their feelings and attitudes for the education in Canadian Red River University.

(2) Improving the platform for college graduates' communication. Mastering the current employment situation and contact information of graduates are the basis of conducting survey and research on their employment quality. To build platforms for graduates to communicate information through technology and capital investment of universities will provide effective approach to investigation work on employment.

(3) Building a research base for university graduates' employment quality. It will enhance the capacity of studying college graduates' employment quality, and help establish a long-term mechanism for the systematic

and effective study on graduates' employment quality. In addition, the base will help actively explore employment policies, perfect employment policy system, service system and market system, and strengthen government's function of actively expanding employment.

(4) Carrying out academic exchanges and activities. According to the demand for talents in the socio-economic development, exchanges and activities such as theme essay contest, expert reports, inviting related personnel in universities, enterprises, and others to participate in seminars and exchanges will facilitate updating the indexes of measuring employment quality.

REFERENCES

- Chen, H., & Liu, C. F. (2012). A study on establishing a system for evaluating university graduates' employment quality. *Modern Education Management*, (12), 57-60.
- Cheng, L. (2011). Evaluation of graduates' employment quality based on ahp and fuzzy comprehensive assessment. *Journal of Chongqing Jiaotong University (Social Science Edition)*, 11(1), 117-120.
- Dai, Y. (2012). A study on establishing index system for measuring university graduates' employment quality. *Contemporary Education Theory and Practice*, 4(8), 56-58.
- Feng, Y. L. (2009). Establishing index system for measuring university graduates' employment quality under the guidance of scientific outlook on development. *Journal of Capital Normal University (Social Science Edition)*, 141-142.

- Leng, T. Q. (2008). An analysis of the status quo of university graduates' employment and suggested strategies. *Journal of Kunming University*, 19(4), 88- 91.
- Liu, S. H. (2005). Employment quality: Relation between its connotation and quantity of employment. *Inner Mongolia Social Sciences* (Chinese Edition), 26(5), 125-128.
- Luo, M. D. (2006). Improving the employment quality of university graduates. *Guangming Daily*.
- Ni, W. (2012). A research on establishment of index system for measuring university graduates' employment quality evaluation index system construction. *Theoretical Exploration*, (24), 18- 21.
- Qian, Z. M., Xu, L. & Huang, F. (2013). A tentative study on standardized development of employment quality assessment of chinese university graduates. *Standard Science*, (7), 70 -73, 96.
- Shi, S. T. (2008). Index system for measuring college graduates' employment quality and its estimation. *Journal of Zhengzhou Institute of Aeronautical Industry Management*, 26(1), 139- 141.
- Shi, S. T. (2008). Methods and procedures of measuring university graduates' employment quality. *Journal of Henan Business College*, 21(2), 103-105.
- Shi, S. T. (2010). A comparative study on employment quality of university graduates from different majors. *Heilongjiang Higher Education Research*, (1), 77-79.
- Tan, L. (2009). Research and practice of evaluation methods of graduates' employment quality in local universities. *Continue Education Research*, (7), 119-121.
- Tong, L. (2009). Reflections on improving the employment quality of university graduates. *Entrepreneur World*, (11), 92- 93.
- Wang, B. T. (2009). The establishment of index system for measuring university graduates' employment quality. *Researches in Medical Education*, 8(9), 1103-1105.
- Wei, T. L. (2013). Establishment of model for measuring university graduates' employment quality based on AHP. *Education and Economy*, (2), 43-47.
- Yang, Q. Y., & Zhang J. (2013). Five satisfactions: Reflections on the system for measuring university graduates' employment quality. *Southwest Normal University (Natural Science)*, 38(1), 151 -155.
- Yao, X. D. (2013). Ministry of education starts the system of annual report on employment quality. *Guangming Daily*.
- Yu, R. C., Zhang, Z., & Li H. J. (2007). Discussion on measures of evaluating university graduates' employment quality. *Liaoning Education Research*, (12), 115-117.
- Zhang, P. D. (2007). A study on building evaluation system for employment work in colleges. *Chinese Staff Journal*, (8), 25-27.
- Zhang, W. (2009). Colleges should publish employment quality report from next year. *Legal Daily*.
- Zhang, Y. X. (2013). A study on evaluation of college graduates' employment quality based on satisfaction from three perspectives. *Higher Education Research*, (5), 82-86.
- Zhu, R. H., & Zhen, Y. J. (2013). An investigation of college graduates' employment quality: Taking zhejiang province as an example. *Chinese Adult Education*, (5), 117-120.