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## A Study on the Employment of Graduates of Higher Education in the Context of the Financial Crisis

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### Abstract

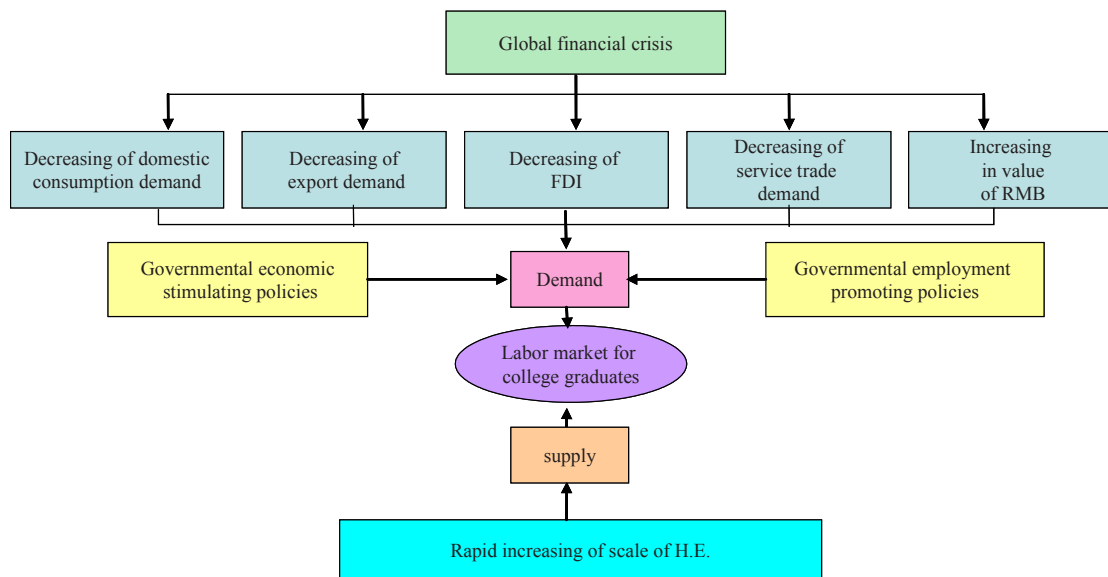
Based on analysis of four surveys conducted during the time period of 2003-2009, this paper examines basic characters and changes in college student employment trends under new circumstances triggered by the current global financial crisis. The data shows that the crisis has negatively influenced the growth of student employment and has aggravated the already serious imbalance of supply and demand in the Chinese job market for university graduates. Shifts in economic growth structures caused by the financial crisis have decreased demands in the job market for university graduates. Although Chinese government carried out a series of reforms aimed at promoting employment for university graduates, their individual preferences about work options and tendencies of choosing location have not been noticeably changed. This is due to the significant imbalance of socioeconomic development among geographical regions, urban and rural regions, as well as labour market segmentation.

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Lastly, this paper highlights a number of policy considerations based on the findings, including 1) reducing vast gaps of incomes and social security among various industries, occupations, regions, labour markets, and systems will diversify graduates' work options regarding location; 2) Given the facts that private returns to higher education has reduced and that employment risks have increased in recent years, personal enthusiasm (especially that of socially vulnerable groups) to invest on higher education might be declined in future. In order to ensure a high quality of higher education and to make preparation for an economic recovery, policy makers should consider 1) increasing proportions of monetary investment to higher education and to add financial aid to students from socially vulnerable backgrounds; 2) encouraging diversification by offering more autonomy to higher education institutions so as to promote higher teaching quality and to reduce the crowding-out effect and the substitution effect among various groups of graduates. 3) allowing higher education institutions to redesign their academic programs and curriculum based on shifts of demands in the job market, to encourage coordinated efforts between university and industries, and to foster a growth in practice opportunities for students by institutionalizing college student internships.

Since 2008, a worldwide financial crisis has aggravated the already serious problems in the Chinese job market for college graduates. The financial crisis has exerted profound impacts on economy and employment in China. As is described in the figure below, we can make a basic analysis about demand and supply in the labor market facing college graduates. On the demand side, economics growth rate has slowed down for lowered domestic demand, export demand, international trade and FDI scale, and trade in services, as well as the appreciation of Chinese currency due to the financial crisis. As a result, labor demand decreased not only in manufacturing and export-oriented entities, but also in the service sector, reducing the employment opportunities for college graduates. On the supply side, the number of college graduates in China has been growing rapidly because of continuously enlarged enrollment of higher education institutions since the late 1990s. Statistics show that, China's college graduates reached 6.10 million in 2009 and above 8 million college graduates including those who did not get employed in the past years would compete for employment opportunities provided that year. At the same time, the government has issued series of policies to stimulate economic growth and expand employment in order to narrow the great gaps between supply and demand in the labor market.



As employment of college graduate becoming a focus concerned by the whole society, what was the employment situation of college graduates in 2009? Based on analysis of four surveys<sup>1</sup>, this paper examines the employment of college graduates in China in the context of the financial crisis.

## 1. Initial Employment Rate and Starting Salary

### A Significant Decline in Initial Employment Rate

Initial employment rate is defined as the percentage of those, among all college graduates, who have already signed labor contracts, have confirmed employers, will start up their own enterprises, attend graduate schools, or work or study abroad. (This definition is different from the one in labor economics.) Initial employment rate appears reversed U-shape, starting at 59.8% in 2003, increasing to 69.9% in 2005 and then 71.1% in 2007, and declined to 67.1% in 2009. Based on statistical analysis, the proportions of college graduates who “have already signed labor contracts” when they graduate are generally below 50%, reported as 40.4%, 47.2% and 40.4% in 2003, 2005 and 2007 respectively. In 2009, this rate hit its low point of 34.5%, the first time below 40% since 2003, illustrating the negative influences of the financial crisis on college graduates.

The characteristics of employment categorized by degree levels are: 1) Students with higher degree levels tend to remain better employment status, reflecting the preference to graduates of high degrees in the labor market. 2) The change rate also tends to appear reversed U-shape. In 2009, there is a significant downward trend in initial employment rate across various degree levels. The decline rate of initial employment for graduates with master degree is as high as 15.2%, the highest among all graduates. This rate for graduates with doctoral degree, higher vocational and junior college degree and bachelor degree are, in sequence, 12.12%, 4.0% and 2.4%.

Noticeably, between 2003 and 2007, as China entered WTO, economic development in China is characterized as the enormous increase in import and export value and fixed assets, leading to an expansion of employment in private enterprises and foreign enterprises. Therefore, there is an increase in demand for junior college graduates. However, the foreign trade industry in China is greatly influenced by the financial crisis, possibly resulting in the decline of initial employment rate for college graduates, especially for higher vocational and junior college graduates.

#### **Change in Starting Salary**

The surveys characterize the changes in starting salary as: 1) Starting salary tends to increase as the level of academic degree rises. In 2009, the starting salaries for junior college degree, bachelor degree, master degree and doctoral degree are respectively 1510, 2276, 3637 and 3757 RMB. 2) Before-tax salary slowly rose with the value of 1569, 1659, 1798 and 2331 RMB in 2003, 2005, 2007 and 2009 respectively. However, the CPI adjusted starting salaries are 1569, 1569, 1598 and 1978 RMB in these years. One of the reasons for a steep increase in 2009 is the significant change in the employment structure of work units. The employment proportion significantly increased in state-owned enterprises, public institutions and government agencies where average income is relatively higher<sup>ii</sup>.

#### **Significant Gender Variance in Employment**

Gender is a significant influencing factor in employment opportunities of college graduates. Employment opportunity for male is significantly higher than female. Gender is also a significant predictor for starting salary, which for male graduates is significantly higher than female. Gender variance mainly reflects in science, engineering, agriculture and medical majors.

In 2009, initial employment rates are 71.7% for male and 61.7% for female graduates, with a gap of 10.0%. Starting salaries are 2459 RMB for male and 2144 RMB for female, with a gap of 315 RMB.

## **2. Preferences of Work Units and Locations**

#### **Structural Disparity in Employment**

The main work units for college graduates are government agencies, schools, state-owned enterprises, three types of foreign-funded enterprises and private enterprises. 1) Before 2007, employment proportion expanded fastest in private enterprises among all work units, from 10.7% in 2003 to 16.3% in 2005, and then 34.2% in 2007. Therefore, private enterprises became the main employers for college graduates. In 2009, however, the employment proportion of private enterprises dropped to 31.0%, ranked just below state-owned enterprises. 2) Before 2007, employment proportion declined fastest in schools among all work units, from 23.1% in 2003 to 19.3% in 2005 and 5.4% in 2007, but bounced back to 6.0% in 2009. 3) Before 2007, employment proportion in state-owned enterprises significantly dropped from 34.5% in 2003 to 29.7% in 2005 and 23.5% in 2007, but drastically increased to 34.5% in 2009, ranked top among all work units. 4) The three types of foreign-funded enterprises are also one the main employment intentions for college graduates, weighing 10% in employment proportion. The weight of employment proportion in government agencies is as consistent as 10% across these years.

In particular, significantly influenced by the financial crisis in 2009, the employment proportion increases in state-owned enterprises yet dropped in foreign-funded and private enterprises. There are two main reasons for this structural change. First, government took measures in employment policy making by creating more positions in state-owned enterprises, raising the employment proportion. Second, due to the

significant decline in employment proportion in foreign-funded and private enterprises, even though more positions are created, the employment proportion in state-owned enterprises became relatively higher. That is to say, the growth in the employment proportion does not necessarily indicate the absolute growth in the number of working positions.

### **Preference to Working Location**

In respect of student source and location of higher education institutions, students tend to remain and work in the same place after they graduate. Based on student source surveys in 2008, on average, 82.3% of college graduates remained to work where their hometowns are. In Beijing, Tianjin and Shanghai area, this number hit its highest point of 95.3%, followed by 89% in eastern China (not including Beijing, Tianjin and Shanghai) and 76.7% in western China. In central China, only 75.6% of local students remained to work there. Based on university location surveys in 2008, 74.6% of college graduates remained to work where their universities are located. In eastern China (not including Beijing, Tianjin and Shanghai), 88.3% of graduated remained, ranked the first across all regions in China, followed by 69.6% in western China, 66.3% in Beijing, Tianjin and Shanghai, and 64.8% in central China. These figures illustrate the great impact of the location of student source and of higher education institutions on job seeking for college graduates.

### **Mobilizing to the East: The Main Characteristics of Mobilization**

In terms of the scales of mobilization, eastern China remains its greatest attraction to college graduates. Beijing and Tianjin region keeps the highest ratio of graduates inflow to outflow. Central China is the region with the greatest outflow of college graduates and the lowest ratio of inflow to outflow. In western China, the ratio of inflow to outflow is slightly higher than central China. The trend of college graduates mobilizing to the east remains remarkable.

### **The Downward Trend of Mobilizing to the East**

Based on the inflow and outflow of college graduates, although eastern China including Beijing, Tianjin and Shanghai remains the ideal working location for college graduates, a downward trend of inflow of graduates from central and western China has been observed between 2004 and 2008. Meanwhile, the outflow from eastern China to central and western regions is rising. The main reasons for this trend are changes in employment policies and development strategies and the labor market saturation in eastern China. Noticeably, this trend was turned over in 2008 to some extent that while fewer graduates mobilized from eastern China to central and western China, the vice-versa mobilization increased compared to 2007. Based on currently available data, it is unknown whether this trend is caused by the changes in the labor market.

## **3. Conclusion and Policy Implications**

First, based on the change in initial employment rate, the financial crisis will influence employment rate and aggravate the supply-demand relation. In 2008, the year-on-year GDP growth is 9% in China, 4% lower than the previous year and the first time below 10% since 2003. This decline will have negative influence on initial employment rate of college graduates.

Second, the structural change in economy caused by financial crisis will influence the structure of demand to college graduates. Due to government interventions, the employment proportions in public institutions including state-owned enterprises, administrative institutions and government agencies significantly increased, while in private institutions and medium/small-scaled enterprises, these proportions enormously dropped. This may be taken as one of the reasons of relatively high initial salary of college graduates.

Third, because of regional disparity and labor market segmentation, college graduates are barely motivated to work in less developed areas or some occupations. In spite of government's western development policies to mobilize college graduates, students' investment on human capital can be hardly returned. Therefore, it is difficult to radically change the basic trend of employment of college graduates.

Policy implications are:

1) Employment of college students is closely related to government's labor and distribution policies. Reducing vast gaps of income and social security among various industries, occupations, regions, systems and labor markets will diversify and rationalize graduates' work options regarding location.

2) Given the facts that private returns to higher education has reduced and that employment risks have increased in recent years, personal enthusiasm (especially that of socially vulnerable groups) to invest on higher education might be declined in future. Therefore, government should increase proportions of monetary investment to higher education and add financial aid to students from socially vulnerable backgrounds.

3) Encourage diversification by offering more autonomy to higher education institutions so as to promote higher teaching quality and to reduce the crowding-out effect and the substitution effect among various groups of graduates. In particular, government should enforce higher education institutions to redesign their academic programs and curriculum based on shifts of demands in the job market, to encourage coordinated efforts between university and industries, and to foster a growth in practice opportunities for students by institutionalizing college student internships.

4) Improve the structure of the labor market of university graduates, enhance online recruitment and adjust the format of career events. Government should encourage research institutes to conduct long-term follow-up investigations to the labor market of graduates of higher education by disclosing adequate and concrete information of labor market to university graduates for their career development.

5) Intensify career development service in higher education institutions to improve the efficiency of job application. The career service department can serve as a professional organization in higher education institution to reduce total social cost by scaling career service.

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## References

<sup>i</sup> Peking University Graduate School of Education and Institute of Economics of Education conducted four large-scaled surveys of graduating college students in June of 2003, 2005, 2007 and 2009.

<sup>ii</sup> Besides these work units, the salary level in foreign enterprises is also fairly high.