Higher Education and the Labor Market in China

A case study of Three Universities in Shanxi Province

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We will get married in October, 2008. I dedicate this thesis to my beloved fiancé as a wedding gift.

Yang Xing

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Abstract

Along with the transition of Chinese economy, the relationship between graduates and the labor market in China changes accordingly. This thesis is based on a case study in Shanxi province and the data come from three different types of universities in this province. The aim of the study is to trace the trajectories of graduates from higher education institutions to the labor market in Shanxi province so as to gain an understanding of the relationship between higher education and the labor market in reform-era China.
Chapter One: Introduction

1.1 Research Background and Rationale

China has been undergoing a complex and crucial transformation in economy from planned system into market system. During the process, economic efficiency has been emphasized and becomes the core of the new system. It requires that other social aspects should develop around this core, and serve for it. Higher education is one of the social aspects and it implicitly must meet the need of economic development and contribute to the new system. We can apparently conclude that the nature of higher education under such system is to match the economic efficiency (Liu, 2002). In order to accomplish its goal, there have been a number of reforms that are carried out in the Chinese higher education since 1999.

One of the important reforms was to increase the enrollment rate. In 1999, the rate increased by 47.3% and until 2004, the gross enrollment rate was 19% and there were over 20,000,000 students studying in universities and colleges (Yang, 2005). Chinese higher education began the process of the massification from then on. The rationale of this reform is to produce sufficient qualified and specialized labors for the market so as to increase the economic efficiency. In the contemporary Chinese context, the market is not in a perfect competition, thus, there are many uncertainties in the labor market. Employers always change their structure on human resources in order to compete with his counterparts in the market. Such constant changes result in the changes the employability of university graduates in the labor markets (Liu, 2002).

There is an arresting phenomenon in the Chinese labor market nowadays. Many of university graduates cannot find jobs or very hard to find relevant jobs and their minimum salary keep decreasing year after year (Xinhua, 2008). This is the current situation in China, and I want to explore this phenomenon and to figure out the reason behind the scene by conducting a case study in Shanxi Province.
1.2 Research Aim, Problem and Questions

University students are having hard time on being employed in general. China, the third largest country in the world, has its own uniqueness and complexity in each of its province. When it comes to higher education, there are over 2003 different higher education institutions (Ministry of Education in China, 2002) distributed unevenly in 23 different provinces, 4 directly central governed cities, 5 autonomous regions and 2 special administrative regions. The geographic complexity determines the different characteristics in each region. In this thesis, I conduct a research in Shanxi province which locates in the middle part of China and is not very developed in economy.

The aim of this thesis is to analyze to what extent higher education is relevant to the labor market reflected by the trajectories of graduates during the transition from higher education to the labor market in Shanxi Province within the context of massification of higher education.

My research questions are as follows:

1. What is the relationship among universities, graduates and labor market in the contemporary Chinese context?

2. What is the situation of graduate employment in Shanxi Province as seen through the three universities in this study?

3. What are the main factors that may have affected the trajectories of new graduates from higher education to the labor market?

1.3 Significance of the Research Question

Viewing that each higher education institution in China has its own characteristics to some extent, and the structure of each institution varies from region to region, I believe it is worth to do some research on different regions to reveal its uniqueness.
Demonstrating the relationship between graduates and work in Shanxi province is a way to present background information for the further analysis higher education in China. Shanxi province is a part of China, and many policies on higher education made by the central government have been implemented here. Some of the results of these policies in Shanxi province share some similarities with other regions or provinces. Therefore, an outline or grand picture on this specific issue is helpful to understand the further analysis.

After that, the next research question refers to the special features in Shanxi province. The research was conducted in Shanxi province, so there is a great need to know some local background information. Next, it comes to the major part of the thesis. Through the data analysis, I will conclude some findings. What are the reasons behind these findings will be the major contribution of this paper.

Finally, whether the findings explored in Shanxi province can explain the same issue in other regions is worth to be found out. It is significant to have an analysis on the relevancy of this finding in other context. In the end, reflect the findings back to the first question and generalize it and then have a comprehensive analysis on the issue.

1.4 Delimitation and Limitations

Although my research questions can be investigated from many other perspectives, I have discussed them only from the perspective of the trajectory of graduates from the three universities to the labor market.

Due to the constraints of time and resources, I failed to enlarge my sample to a larger size. The findings thus may have only limited generaliability. Moreover, I do not have many data in other regions or provinces, and can hardly manage to give a comprehensive comparison among regions.
1.5 Outlook of the Structure of the Thesis

The thesis will be organized as follows:

In Chapter 2, I will introduce the general information about Chinese higher education under the process of massification in the first section; and then comes to the information of policies on graduates and the labor market; after that, I will present the relationship between graduates and employment in China. In the second part of chapter 2, I will demonstrate the information about Shanxi province on the prospect of employment situation and higher education institutions, and will specifically present the information about the three selected universities where I collected my data.

After methodology in Chapter 3, theoretical framework will be mentioned in chapter 4. I am going to introduce human capital theory, filter theory to work out a conceptual framework on the relationship between graduates and work.

In Chapter 5, I will present the data I collected in Shanxi province. In the first part of this chapter, I will analyze the findings from each university and explore the reasons behind these figures, and in the second part, I will give a comprehensive analysis based on the comparison of these three universities. In addition, I will compare the findings in Shanxi province with other provinces and then generalize the findings in whole Chinese context.

In chapter 6, I will summary what I have accomplished in this paper and give some suggestions to higher education institutions in Shanxi province based on my analysis.
Chapter 2 Chinese Higher Education in the Market Economy: with a Special Reference to Expansion

2.1 Graduate Policy before and after Mass Higher Education

Before 1988, China was still under the central planned economy structure and everything was distributed according to the plan and highly controlled by the central government. Higher education institutions, the only place to produce intellectuals for the country, were free of charge and appointed jobs to every graduate without negotiation. The state provided free higher education to students, but on one condition, the students had to follow the order from the government to work wherever there was a need. Due to this highly controlled policy, many young graduates went to place where they did not like and did the job they were not willing to take. According to a conceptual framework (Brennan, Kogan & Teichler, 1996), higher education and work is supposed to be linked by labor market, regulatory system and life-long education and work. However, in the Chinese context, labor market and regulatory system became the major links in such relationship.

Along with the shift from planned economy to market economy, Chinese labor market affords more flexibility and mobility on graduates. The old way of distributing graduates was no longer suitable to the new economic system in late 1980’s. Chinese government started to carry out a reform on distributing university graduates in 1994. It allowed the students to go freely to the labor market to meet the employers and negotiate with the salary and working conditions, which were quite successful and gained popularities among employers and graduates. For example, in 1995, about 60% of the graduates from Tsinghua University found jobs in factories in the cities or towns and 10% of them went to the remote area willingly, which met the satisfaction of employers, graduates and universities (Zhu, 2000).

Such policy was not only required by the change of economic system in the macro level but also required by graduates themselves and employers in the micro level.
First, from graduates’ point of view, “human capital” theory (Becker, 1980; Schultz, 1961) insists that education is one of the best investments for individuals and families, because it can make the students more productive afterwards. The internal rate of return, IRR, is very high in the investment of higher education. Therefore, university graduates prefer to pursue a career and expect to develop it into a profession, in order to avoid a dramatic decline in status. (Brennan, Kogan & Teichler, 1996) Human capital theory states that in the beginning of one’s career, he always gets less paid than what he actually produces, but when he works in the administration level later on, he will get much more back than what he actually contributed (Becker, 1980)

Second, from the employer’s point of view, most of the available social research on Chinese higher education concluded as follows:

1. Employers more and more tend to emphasize broad knowledge and flexibility of a graduate. In the old mode of Chinese higher education system, flexibility towards employment for graduates was impossible. Every student had to follow the order from government, so it is necessary to change.

2. A growing number of jobs require knowledge from several disciplines, thus calling for new mixes of fields of study and for the ability to cooperate with experts from other disciplines. In Chinese context, graduates with mixed field of knowledge are more popular than the normal graduates. But in the old system, students had no choice to learn more than one major, so it is necessary to change.

3. There is a growing mistrust on the part of employers in many countries as to whether traditional modes of higher education are good enough to prepare graduates who are able to learn professional problem-solving on the job. Therefore, there is always an “internship” for graduate in companies. After internship, the company then will made a decision whether or not he is employed. “Internship” was a quite new concept to Chinese students in late 1980’s, because everyone started to work in the factories right after graduation. No matter whether this job was suitable for him, he would be accepted. There was no selection mechanism, so it is necessary to change.
4. Employers tend to place a high value on social skills and motivation when they recruit graduates. In the context of China in 1980’s, motivation of students hardly existed, because everyone had a concrete job afterwards. No one needed to be passionate about any jobs or positions. No competition, no motivation. It needs to be changed.

In summary, the old fashioned central plan distribution of graduates should definitely be changed and let the free labor market adjust the relationship between graduates and employment. (Brennan, Kogan & Teichiler, 1996)

2.2 The Employment Situation of University Graduates during the Transformation of Chinese Labor Market from 1978 till now.

With great influence by Confucius, Chinese are more valued on education. The accomplishment achieved by Japan and South Korea on their economy manifests the importance of education, especially higher education. As we all know, science and technology is initiated or innovated from higher education research, and the development of new technology has a great impact on economic efficiency, so strengthen the devolvement on education, especially higher education is important for each country.

Being aware of the significance of higher education, Chinese government decided to increase the rate of enrollment in higher education institutions in China from 1999. This policy appeared very rational and practical for China at that time. Increasing on recruitment means an increasing on its product, graduates, for the labor market years later. However, the result was not that satisfying as it was expected. The circumstance of labor market was that the supply of labor was much more than the demands. Chinese university gradates were gradually losing their superiority when it comes to competing for jobs.

How does it happen? Since 1978, China initiated the reform and opened its door to the world and began to have international communication. Ever since then, there has been great
changes take place in Chinese economic system and there were many problems coming along. One of the apparent consequences caused by the changes is that millions of workers get laid off. Many previously stated own companies and enterprises transformed into private owned units. They keep cutting off employees to live up to the standards of high economic efficiency. The unemployment rate in 2002 was 12.44%, which is 34,370,000 in number and the worst situation would happen between 2002 and 2006, and then through encouraging more enterprises which can offer more jobs to be established, the unemployment rate may drop to 4% by 2015. (Cai, 2003)

In such situation, salaries decreased gradually. Moreover, once laid off, it becomes harder and harder to find another job year after year. Many of the laid-offs have no choice but to start their own small businesses, which is encouraged by the government. There was a series of preferential policies carried out by the state council to help laid-offs set up their own business. For example, the procedures to authorize a company for laid-offs have been shortened in time and free of change in many items (State Council, 2002). Although government and the society made a great effort on employment, and they will keep doing it, due to the large population, Chinese labor market is still facing the problem of high unemployment rate.

How do these problems in the labor market affect the University graduates? On one hand, due to the mass higher education, more and more graduate come to the labor market, and this causes more intense competition and then leads a decrease in salary. For example, in 2004, 34.7% of the graduates have salaries between 1000 RMB to 2000 RMB every month; in 2006, 58% of them would like to accept less than 2000 RMB salary in their first month of working (Da, 2007). On the other hands, the rise in inflation rate in June 2007 was 4.4%. (Ruo, 2007). Living cost went up in China. To graduates, they feel more pressure from the labor market. The salary they earned every month is not enough to lead a normal life. A new graduate in Beijing was interviewed by Xinhua News Agency. He complained that he found a job as a computer programmer with 2000 RMB per month’s salary, and the minimum of living cost in Beijing for him was 1700 RMB every month. He was very reluctant and disappointed to accept the job (Xinhua, 2008). According to a survey conducted by China
HR, a job hunting company, the month salary for new graduates in the city of Beijing, Shanghai, Guangzhou and Shenzhen deceased by 1000 RMB on average in 2008, due to the inflation. (Xinhua, 2008)

In addition, university graduate are also challenged by less educated workers in the labor markets, because many of them went to work in an early age, so they have more social and working experience than university graduates. When it comes to a job which requires not much high skills, university graduate do not have much merit to compete with the more experienced but less knowledgeable workers.

2.3 The Relationship between Graduates and Work in China

It is obvious that the graduate is the link between higher education intuitions and the labor market. University students go to higher education institutions, learning knowledge, and then go to the labor market and try to transform their knowledge into practice. However, these three actors, higher education institutions, graduates and the labor market, are very unique in Chinese context, because of the complexity of Chinese higher education system, huge amount of graduates and not well regulated labor market. Although the situation is complex, I will discuss it based on a theory done by Brennan, Kogan and Teichler (1996) "Higher Education and Work: A Conceptual Framework". This comprehensive theory will also be introduced in the theoretical framework chapter. There is a conceptual framework that is constructed in order to easy and clear express the an analysis on the relationship between higher education and work.

2.3.1 Dimensions of Higher Education Relevant to Work

The first is about the contribution of quantity of graduates. Chinese higher education institutions expand its capacity for more students by merging or enlarging their own infrastructures in order to provide a growing number of graduates to the labor market years later.
The second is about the influence from of structural development of an institution. Universities are trying to build good reputation. Many Chinese higher education institutions make a great effort to attract prestigious professors to work in his institution, because this can boost their reputation. Generally speaking, graduates from reputable universities have more chances of being employed.

The third is about the development of curricula. Universities are undergoing a lot of reforms on curriculum and program design, in order to provide student more relevant knowledge to work.

### 2.3.2 Linkages between Higher Education and Work

First, in the graduate labor markets in China, supply and demand is imbalanced. Supply seemingly higher than demands, but in fact, the demand for higher education graduates is higher than the supply. Why? One major reason is that many university students expect to work in the big city with good pay, so they all rush to one place and compete, and then some of them failed and got no job. This does not mean that these graduate can not find jobs, but means that these graduates do not want to work in the place where really need them. Therefore, such unemployment is caused by the structure of the labor market.

Second, in Chinese context, graduates will end up with all kinds of occupations no matter which major he studies at university. This is because the intense competition in the labor market. More and more graduates, in order to find jobs and accumulate working experience, would like to accept all kind of jobs as long as they are capable enough to do it.
2.3.3 Dimensions of Work Relevant to Higher Education

First, a large amount of graduates work in occupations which require more knowledge and skills, for example, lawyers, doctors, teachers, and so on. Most of them work on full time basis in both public and private sectors. They tend to work in the coastal areas, because the economy is more developed in those places. Due to the intense competition, graduates would like to take any opportunities to work. In addition, some of the students decided to have further education with the purpose of getting better job afterwards.

Second, graduates take career seriously. Once they found a suitable job, they tend to stick on it as long as possible, or change into another place if necessary, but still do the same or similar business. For example, a college English teacher may quit his job and start working in another institution and doing research on English language learning or keep teaching the language. They believe that the more experience you accumulated in one business, the more chances for you to success in this business.

Third, employers in Chinese labor markets prefer graduates with good command of English, strong research ability for science students and strong communication skills for art students and also team work spirits. English, as the most useful language in the world, has been broadly used in China, so language ability becomes one of the basic criteria for graduate. In Chinese markets, people give more focus on the development of science and technology. Thus, for science students, the ability to innovate and create is required. For art students, more and more communication is going on between china and the world and also there are a lot of information exchanges in all kinds of forms, so it is important to have this skill in commentary Chinese markets.

2.4 The Background in Shanxi Province

In response to the national reform initiatives in higher education, from 2000 to 2005, higher education institutions in Shanxi province produced 251,101 graduates to the labor market, and kept a stable employment rate at 65%. In 2005, Shanxi government proposed a
series of policy to increase the employment rate. One of them is to encourage graduates to go to work in the grass-root units. In the end of 2005, there were 36,651 students followed the policy. The number increased by 49.9%, compared with the figure in 2004. 8841 of the 36651 students went to the poor rural area to work. Meanwhile, the local government made great effort on setting up platforms for the employers and the graduates. More than 50 times of labor fairs had been organized and to some extent, increased the interactions between graduates and the enterprises. A government run website serves only for graduates in Shanxi province and plays an important role in information exchange for graduates and the labor markets. (Li, 2006)

2.5 The Information of the Three Selected Universities

Shanxi University

Shanxi University was founded in 1902. It is currently the sole comprehensive university in Shanxi Province with all academic fields covering philosophy, economics, law, education, literature, history, science, engineering, medicine and management. Its education programs extend to 66 specialties for undergraduates and 18 specialties for the double bachelor's degree. At present, it has 137 general Masters of Arts / Masters of Sciences (M. A. / M. S.) programs, 6 specialized M. A. / M. S. programs, 48 doctorate programs and 4 centers for post-doctoral studies. Shanxi University puts emphasis on the overall quality of talent, and always views “teaching complex knowledge, cultivating profound talents and meeting the country's demands” as its task. At present, 15,683 undergraduates and 4,000 graduate students are studying in this university. Around 20% of undergraduate students pursues higher degree studies upon graduation. The employment rate is consistently ranked top in Shanxi province. In 2003, the university passed the evaluation of undergraduate teaching conducted by the Ministry of Education and won an “Excellence” score. Shanxi University ranked the 64th among over 1,000 Chinese universities in terms of comprehensive educational institutions, according to the Chinese university rankings in 2006. (Shanxi University website)
Taiyuan Normal University

This University was merged from Shanxi University Teaching College, Taiyuan Normal College and Shanxi Education College in 1999. It became one of the prestigious normal universities in Shanxi province. It has three campuses and 9,643 full time students, 813 part time students and 309 night school students. It offers 30 programs. The educational capacity of this university has been enhanced dramatically after the merge, especially on teaching capacity. There are 731 full time teachers and professors at present, 6014 seats of multi-media classroom, and over one million books in the library. Educational research and international cooperation are encouraged by the university in recent years. (Taiyuan Normal University website)

Yuncheng University

Yuncheng University is growing up from a teaching school in 1978. Until 1983, it became an education college, and then later on in 2002, it was authorized to form the Yuncheng University. At present, Yuncheng University recruits students from nineteen provinces in China, and has 9272 full time students, and 2526 adult students. It offers 56 different programs. This university covers an area of 100 acres and owns 50 different kinds of labs. There are 811 staff in this institution, which include 456 teachers and professors. Emphasis on the construction of teaching capacity is the present focus of this university. More and more young teachers have been provided with all kinds of trainings, in order to give better lectures to the students. Keeping the quality of teaching is the main focus of this university. It follows a model to cultivate every student, which is “from knowledge to ability then to the quality.” (Yuncheng University website)
Chapter Three: Methodology

3.1 Method

This is a case study of three universities in Shanxi Province which mainly relies on document analysis. The documentary data were personally collected by the researcher in three selected universities in two different cities in Shanxi province from 27th Dec. 2007 to 24th Jan, 2008. Graduates information are recorded in the students’ files and kept in the library or in the archive office in many universities. There is too much information about graduate and they are compiled very differently from universities to universities. Since my research question is about the relationship between gradates and the labor market, I chose the information on gradates’ employment. All the information are categorized in one way or another in the documents, I can easily discern the patterns.

In addition, much of the information about China in this thesis comes from the Internet. A Chinese search engine, “Baidu”, plays in important role in the information gathering process.

3.2 The Process of Data Collection

I spent almost a month to get the document data from the three universities. Here is the journey of my data collection.

Choice of the Research Sites

Why choose three universities? In Chinese tertiary education, there are mainly two types of institutions, the first type is universities or colleges which offer degrees and the other type is vocational colleges which offer only diploma. In the first category, it has been further divided into three types based by reputation and quality of education, the first class, the second class and the third class. Because of this hierarchy system, I select three universities in Shanxi province based on my own experience. The first one is Shanxi University. Because it is the best university in Shanxi province, it represents the first class. I
studied in this institution for four years. The second one is Taiyuan Normal Universities, where I worked for two years as an English teacher. It represents the second class. The last one is Yuncheng University, the only local university in my home town. This institution offers both degree programs and diploma programs, so it represents the third class and the vocational type. Data from these universities can provide us with a more comprehensive picture of higher education in Shanxi Province.

Shanxi University

On 27th, December, 2007, I contacted with a lecture and also an old friend in Shanxi University and asked her about where I can get the wanted information. The friend told me that it was in the students’ office not in the archive or library.

On 8th Jan, 2008, I arrived at the university in Taiyuan, the capital city of Shanxi province, after 20 hours of train from Shanghai. I went to the office, and explained to the officer why I was here and what I needed. Unfortunately, he refused my request in the first place with the excuse that he was not in charge of the documents that I asked for, and was reluctant to tell me who was in charge. I tried to persuade him to trust me by showing the letter from Oslo University. Because he did not speak English, the letter did not actually help. Then I started to talk to them that I was a graduate of this university, trying to get a mercy from them. After two attempts, I gave up and went home.

On 9th Jan, 2008 the every next day, I asked the friend in the university to help me out. She asked one of her colleague who is working in the head office of the university to company me to the student office again by noon. This time, everything went smoothly. However, in the end, the director of the office said one thing to the colleague who led me there “If there is any problem of the data in her paper, you should take the full responsibility.” I am so surprised to hear that and sadly felt the mistrust between him and me. I was very disappointed about this experience. I think it is very unwise to secretly protect these data, and it will not do any good for academic research and study. On the contrary, this information should be available and easy access to the public.
Taiyuan Normal University

On 10th Jan, 2008, I went to Taiyuan Normal University collecting the data. I learned from yesterday. I should find someone important that can prove my real identity. Even though, I worked in this university for two years, I doubted whether I can get everything done all by myself. I went to the department where I used to work at and asked our dean for help. The data was in the archive. The archivist assisted me to select my sample cautiously and in the very end, she warned me that “Do not misuse these data!”

Yuncheng University

On 24th, Jan, 2008, I was in Yuncheng, a city located in the south part of Shanxi province and five hour of train away from Taiyuan. I contacted with the staff who took in charge of the documents. They are in the graduates’ office. Luckily, things went much easier than I expected. The staff was a nice young man and quite open to offer all kinds of data that are available at his hands.

3.3 Introduction of the Data

The first university is Shanxi University. The data were compiled quite chronological by the university. They were collected according to the year of graduation and categorized by 18 different departments. They have the whole collection from year 2000 to 2003. Two officers were watching me when I actually selected my sample. I was quite stressed when I conducted, so I only managed to copy the data in 2000 and in 2003. I randomly chose 50 pieces of information out of 2046 in 2000 and 50 out of 3080 in year 2003.

The second university I visited is Taiyuan Normal University. The situation in this institute was like this. When the student graduate, he find a job, sign a contract with his employer and then send a copy of this contract to the university, in exchanging, he will have his own educational files from the university. The educational file contains the information
of a student’s education background, achievements or punishment during schooling. It is required by the employer to register social welfare and medical cares for the employee. However, some of the students from this institution failed to get employed when they graduated, so they came back to the university some years later, claimed their situation and brought the files away when they found jobs. Because of this, the graduate information in this institution was compiled according to the year when the students got jobs. For example, in 2006, there were 2000 pieces of graduate’s employment information, but these students were different in the year of graduation. They had only one thing in common was that they found jobs in the same year. There was another point needed to be mentioned here was that the information about students who graduated for over 4 years and then get employed, is not included in the data. For example, in the data of 2006, we would never find a student who graduated before 2001. Under this circumstance, I organized my sample like this. I randomly chose 30 pieces of information from the year 2006 out of 3000 and 30 pieces out of 2000 in the year 2005. These information included graduates in 2001, 2002, 2003, 2004, 2005, and 2006 from 18 different departments.

The last institution is Yuncheng University. The information was collected in a chronological way as Shanxi University. The only difference is that this college also offers vocational programs, so it has the information on graduates who get diploma. I randomly chose 30 pieces out of 1686 and 30 out of 1393 information on the diploma student in 2006 and 2007 respectively; 20 out of 761 and 20 out of 1318 degree student in 2006 and 2007 respectively. They are from 14 different departments.

I will compare these data in two different ways. Firstly, I will interpreter the data of each university and find out the features of each university on graduate employment and analysis the reasons. Secondly, I will compare the data of these three institutions, and find out the similarities and differences. Last but not the least, I will generalize my findings and discuss it in the broad Chinese context.
Chapter Four: Theoretical Framework

4.1 Introduction

In higher education study, there are many theories from economy which have been applied to analyze some higher educational phenomena, because education is becoming more and more closely related to economical life. Some countries, like Australia and England, they already treated higher education as a profitable industry. “All across the world, higher education has become a large enterprise. The use of the word enterprise is intentional here” (Amaral, Dill, Jongbloed & Teixeira, 2004), “one can also observe a more ‘business-like’” approach in the way the higher education sector is managed these days” (Amaral, Dill, Jongbloed & Teixeira, 2004). Less and less funding from the government requires more and more other resources to get involved in higher education. Therefore, there are many changes take place in the relationship between the universities and the labor markets. Let us take a closer look at the theories that are related to this issue. There are four important theories on graduates and labor market. They are human capital theories generated in 1960’s; filter theory in early 1970’s, queuing theory in 1975 and assignment or matching theory in 1980. The human capital theory focuses on education itself. Education is a public good and it can improve one’s productivity. Filter theory focuses on graduate; queuing theory focuses on the chances to be employed and the matching theory focuses on the perfect match between employers and employees. These theories came forward at different time, but we can easily tell a trend that there is a shift on focus from education itself to the labor market, which also clearly shows that the relationship between university and labor market become more and more important

4.2 Chinese Higher Education in the Various Theoretical Perspectives

4.2.1 Human Capital Theory

Human capital theory (Schultz, 1961) originally based on an estimation of money rate of return to college and high-school education in the United State, gradually become a significant general analysis in formal economic theory. “It offers a unified explanation of a wide range of empirical phenomena, which have either been given ad hoc interpretations or have baffled investigators.” (Becker, 1980, p. 7)
In Chinese, more and more university graduates choose to take further education. There were 1,275,000 students applied for graduate school in 2005. This number was 9% higher than the number in 2004 (Gao, 2005). Why was this happening? I think human capital theories can provide a very good explanation. From graduate perspective, “workers with higher levels of education and more work experience tend to have higher wages.” (Weiss, 1995, P133). “The most common explanation for these correlations has been that time spent in school or on the job increases wages by directly increasing the worker’s productivity.” (Weiss, 1995, P133)

From employer’s perspective, in many cases, they take education into account when hiring workers and they favor better-educated workers (Weiss, 1995). “Student will choose a length of schooling to “signal” their ability to employers, and employers will demand a minimum level of schooling from applicants in order to “screen’ their workers.” (Weiss, 1995, P134) Employers in China tend to require higher and higher education to the applicants. I would like to take myself for example. In 2006, I was an English teacher in Taiyuan Normal University, a second class university in Shanxi province. I was holding a bachelor degree in English language. After two years of study in Oslo University, in 2008, when I went back to China and tried to find a new job, I was so shocked to learn that I could be employed by a vocational college still as an English teacher. However, this time, I will be holding a master degree! Two years changes in Chinese labor market could be described as “tremendous”.

### 4.2.2 Screen or Filter Theory

This theory was raised by Arrow (1973). He claims “higher education, in this model, contributes in no way to superior economic performance; it increase neither cognition nor socialization. Instead, “higher education serves as a screening device, in that it sorts out individuals of differing abilities, thereby conveying information to the purchasers of labor.” (Arrow, 1973, P194). It is based on the assumption that economic agents have highly imperfect information. In particular, “the purchaser of a worker’s service has a very poor
idea of his productivity.” (Arrow, 1973, P194) “The buyer has very good statistical information but nothing more.” (Arrow, 1973, P194). The buyer can not distinguish the productivities of individuals, but they know whether not the individual having a diploma (Arrow, 1973)

In Chinese labor market, filter theory applies very vividly:

From students’ point of view, millions of high school students were selected by national entrance examination to go to universities. After four years of study at the university, they went to the labor market. Because of competition, more and more students found jobs that had nothing or less to do with his major. For example, a student majored in sports found a job as a salesman. “The diploma serves primarily as an imperfect measure of performance ability rather than as evidence of acquired skills.” (Arrow, 1973, P193)

From employers’ point of view, when they select candidates, the first aspect they pay attention to is the education background. This can be found in the application forms. They believe degrees means productivity. On this point, filter theory is similar to sorting model which is an extension of human capital theory. Actually, “the filter theory of higher education is distinct from the productivity-adding human capital theory but it not in total contradiction to it.” (Arrow, 1973, P194) From the viewpoint of individual, students study at school and are “certified to be more valuable is more valuable, to an extent which depends upon the nature of the production function.” (Arrow, 1973, P194) However, from the social or labor market point of view, such certificates can not help the employer to distinguish the productivity of student A from student B, when they hold the same certificate. “Therefore, the filtering role of education is a productivity-adding role from the private viewpoint; but as we shall see, the social productivity of higher education is more problematic.”(Arrow, 1973, P194). That is why, in Chinese labor market, graduates have been sorted into different classes based on their diplomas. From my own experience, when I went to a university, and applied for a position as an English teacher, they looked at the resume for about 5 seconds and refused me directly with only one reason that my degree did not match their requirement, then I had to go to a place where I thought they might accept my education background. The labor market is sorting graduates by their diplomas.
4.2.3 Queuing Theory

Queuing theory sounds like its name, presented by L. Thurow in 1975, he holds the point that many people’s productivity is gained from work after they graduate. It is the job that trains a student or person to be productive. There are only two types of labors, one is unqualified workers and the other is higher education graduates. When the labor markets have higher demand, then there will be more unqualified workers to work, but the more education you took, the higher chances that you can keep the job. In this theory, it is not emphasis on education itself, it only states that higher education can help a graduate have more chances to get employed than the non educated people, because university student learned how to learn and how to learn something complicated fast in school. The training in the work has the similar function that it trains people to learn and to do fast.

4.2.4 Matching Theory

The last theory is matching theory (Sørensen and Kalleberg, 1981). This theory states that productivity comes from both sides. Individual graduate get educated in school and increase his productivity and also get trained in the job and also increased his productivity. However, the problem between the graduates and the labor market is that the employers do not know the graduates’ capacity; meanwhile the graduates also do not know what kind the job is, so they all need some quality time to try to know each other and then they can tell whether they would perfect match or not.

Combination of the queuing theory and matching theory can explain why in Chinese labor market, graduates are reluctant but have to accept a job with relatively low salary and relatively bad working environment change it in a very short period of time. When gradates complete their school, they have barely any work experience and they learn only the basic skills and knowledge about a certain subject, so it is unsurprising to employers that a new graduate can not accomplish a task on his own in the beginning of a work. From graduates’ point of view, they clearly know about their disadvantage, so in the labor market where everyone is competing for jobs, new graduates would like to take jobs, no matter how much
they get paid, for the only purpose of get experienced. When they get trained during the work, they increase their productivity more or less, and then they start thinking about whether this job is good enough for them, if not they change. Matching between the employers and the employees is now taking place. There are 70% of the new graduates in Beijing changing jobs in their first three years of employment (Ren, 2005).

4.3 A Comprehensive Theory

All the theories I introduced above are focusing on the graduates labor markets, in order to have a comprehensive analysis about the relationships between graduates and work, John Brennan, Maurice Kogan and Ulrich Teichler in 1993 provided a very thorough conceptual framework. “Relationships between higher education and work consist of dimensions of work relevant to higher education; linkages between higher education and work and dimensions of higher education relevant to work” Because of this very comprehensive concept structure, it will be more relevant for me to interpreter such relationships in China. I will apply this theory as the main theory in my following thesis.

There are two kinds of relationships between graduates and labor market I want to construct. One is to construct such relationship in Chinese context which is already explained in chapter two, and the other is to construct it in Shanxi context which will be raised and discussed in chapter five. In the following part, I will present only the definition of each relevant parts of this framework and the structure of this concept framework based on Chinese situation.

4.3.1 Dimensions of Work Relevant to Higher Education

In this dimension, these are five factors get involved as follows:

1. Employment: “describes the quantitative and structural development of graduate positions in the occupation system.” (Brennan, Kogan & Teichler, 1996, p 165)
2. Careers:

“This term refers to typical or actual sequences of employment and work tasks within occupational life-spans.” (Brennan, Kogan & Teichler, 1996, p168)

Graduate careers: Career in terms of a foreseeable ladder of occupational status progress; Systematic information on graduate careers is scarce; relation between the early stage of the career and the subsequent path; graduates are always looking for the perfect match with employers and constructing their career.

3. Work tasks and requirements

“Work tasks refer to the specific activities regularly undertaken in jobs.” (Brennan, Kogan & Teichler, 1996, p169). “Requirements’ addresses the implications of job tasks for abilities and relevant training.” (Brennan, Kogan & Teichler, 1996, p169)

4. Expectations of employers

Employers more and more tend to emphasise broad knowledge and flexible attitudes of graduates. There are a growing number of jobs requiring knowledge from several disciplines. Employers tend to place a high value on social skills, attitudes and motivation in recruiting graduates.”

5. Quality of work and Employment

The quality aspect of employment involves with elements of income, status, quality of the work environment, Workload, social welfare, and medical care. Graduates concerned much about social welfare and medical care, because these systems in China are not well constructed.

4.3.2 Dimensions of Higher Education Relevant to Work
This dimension contains only two relevant factors in Chinese context.

1. Qualitative and Structural Developments

   - Number of graduates: demand or supply effect? Shortages or over-education?
   - Structure of HE: binary system, different levels of prestige
   - Differences in employment prospects

2. Curricula and Additional Job-Related Training

   - Curricula strongly directed towards preparation for research and the creation of knowledge
   - Curricula might be geared closely to occupational preparation or be unrelated to it
   - Curricula might differ according to the extent they attempt to shape students personality

4.3.3 Linkage between Higher Education and Work

In this bridge dimension, there are two elements relevant to the Chinese context

1. The graduate labour market

   - The market for graduates should be studied in relation with the other levels of education
   - Different theoretical frameworks:
     - Human capital
     - Filter
     - Queuing
     - Assignment/Matching
   These theories have been introduced in the previous part of this chapter, and they can be concluded in this comprehensive framework.

2. The transition from higher education to employment
“Length and difficulty of transition process are related to the diffuseness of employment destination from different kinds of programme and institution. For some students, the transition period incorporates not only a process of job search but also a process of occupational choice.” (Brennan, Kogan & Teichler, 1996, p181)

To conclude this chapter, the theories reviewed here all provide insight into the questions I am exploring. However, I will mainly draw on the comprehensive theory proposed by Brennan, Kogan and Teichler (1996).
Chapter Five: Data Presentation and Analysis

5.1 Introduction

There is a grand survey conducted by Beijing University in 2005 on “higher education and labor market” in 16 provinces out of 23 provinces in China. The result shows that only 33.7% of new graduates in total got jobs right after their study. (Li, 2005) In other words, 66.3% of the students had no jobs. What is the situation in Shaanxi province as seen through the three universities in this study?

Another interesting result from the survey is that the first five factors that effect graduate employability are working capacity, work experience, educational level, and major of the study and the fame of the university. What are the factors that may influence the trajectories’ of new graduates in Shaanxi province?

In the following section, I will be lead by the questions above, presenting the data from the three selected universities respectively and trying to find out the answers through the data analysis.

5.2 Data Presentation and Finding Analysis in Each University

5.2.1 The First Class Institution: Shanxi University

I should explain first the policies on graduates in Shanxi University. Every year, the university publishes data on the number of students who manage to go to the labor markets. The rate they calculated is based on the number of contracts that the students signed with and the explorers. The contracts here are regarded as employed. In this university, the contract can be obtained from the following four ways. One, if the students really found a job in an enterprise, he signs a formal working contract; two, if the students go to graduate school, he shows his admission as a contract; three, if the student joins the army, he is also counted as get employed and have a contract with the state; four, if the students gets no jobs and then his educational file will be sent back to the educational department in his hometown 3 years
after his graduation, which mean he signed a contract with his hometown. In the following data presentation, those whose file has been sent to his hometown had been counted as a group with no jobs. Lately, in China, there are a couple of new encouragement policies for graduates; one is going to the west part of China. The students will be paid relatively high salary, but working in relatively poor condition. This is an encouragement from the state to push the university students to go the poor region and help. There is another encouragement policy. It encourages the graduate to go to the rural areas to become an assistant for the village leader, or become a leader of a village. They are expected to provide their knowledge to the place where they work for. But in the following data, there are few items about going to the west and no item involved with going to the village.

The data include graduates’ information from year 2000, and year 2003

In 2000, I randomly chose 50 items from 2046. The data show that there are 26 students out of 50 who found jobs right after they graduated from university (52%); and 8 of them went to graduate school (16%) and 16 of them did not manage to go to the labor markets (32%).

In the 26 cases which found jobs, 4 of them found jobs outside of the province (15.3%) and 1 joined the army (3.8%). The 4 cases who found jobs outside of the province hold the degree on English language, international trade, computer science and informatics. In addition, the one, who joined the army, held a degree on computer science.

In 2003, I also chose 50 pieces of information out of 3080. There are 24 who found jobs (48%) and 3 went for further education (6%) and 23 had no jobs (46%). In the 24 cases of employment, there are 4 of them found jobs outside (16.7%) and 3 join the army (12.5%). The 4 special cases hold the degree on English language, law, computer science and applied chemistry. The 3 who joined the army hold degrees on media, law and Chinese language and literature.
Compared with the data between 2000 and 2003, we can obviously see that although the number of graduates increased almost 1000, the employment rate drops during the two years from 52% to 48%; the percentage of students for further education goes down dramatically from 16% to 6%; and unsurprisingly, the unemployment rate increases by 14%, which means there are 655 students in year 2000 and 1417 students in year 2003 found no jobs when they graduate. It is worth noting that the students who graduate in 2000 are the product before massification carried out, while the graduates in 2003 are the first batch of students caused by massification in Chinese higher education in 1999. In China, undergraduates program takes 4 years. In Shanxi University’s case, there are 762 surplus graduates for the labor market caused by the massification policy in 2003, compared with the number in 2000. This is the direct consequence of mass education, and also clearly shows that the labor market was not ready for the extra graduates by then.

In addition, from the decrease in the number of graduates who took further education from 16% (327) to 6% (184), it manifests that before massification, students were better educated and more qualified in absorbing knowledge than the graduates in 2003. It also means that the quality of education as a whole in this university decreased during the three years.

From the data of employment, the graduates gain more opportunities to go out side the province, which means that the graduates are more mobilized in the labor market than before; and the percentage of students who join the army reflects that Chinese government is strengthening its army in science and technology. It also shows that joining army is becoming a better choice for graduate, because, it is better paid, more guaranteed in social welfare and medical care. From the original data, the students who are both employed outside of the province and joined the army study popular majors, such as English, international trade and computer science. This shows that these hot programs can improve student’s employability somehow. The policy on encourage students to serve for the west part of China launch in 2003, but we can see from the table that there are no student actually follow. It show that even the salary is relatively good, students are not willing to go, because they all know that working condition in the west is poor in general and they would rather
find a job in his own province with less money than going to bear the worse working environment with relatively high salary. In other words, they would think of going to the west as the last option.

In summary

1. Shanxi university, the best university in Shanxi province, have many of recruits from the province itself and the students go back to serve this province when they graduate.

2. Due to the massification, student’s employment slightly drops and program choice, to some extend, affects student’s employability.

3. State’s new policy on serving in the West has almost no effect on students by 2003.

4. The number of graduate school applicants decreased and few were willing to go to the grass-root units.

5. Generally speaking, graduates are low in productivity and high in unemployment rate from 32% to 46%.

5.2.2 The Second Class Institution: Taiyuan Normal University

The situation in this university is a little different than the other two, the way they organize the records is led by the year when the students get employed, but it won’t affect the analysis that much, because all these universities follow the same policies on graduates.

The data include graduates’ information on year 2005, and year 2006

In 2005, the data include the information of students who enrolled in 2001, 2002, and 2003. I randomly chose 30 items from about 2020. The data present us that there are 12 students out of 30 found jobs right after they graduate from university (40%); and 9 of them went to graduate school for further education (30%) and 9 of them did not manage to get employment (30%). In the 12 cases which found jobs, there is only one of them find a job
outside of the province (8.3%) and 1 join the army (8.3%). The only special case holds the degree on chemistry. The one, who joined the army, hold a degree on education.

In 2006, the data includes the information on students enrolled in 2002, 2003, 2004, and 2005. I chose 30 from 3034. There are 8 found jobs (26.7%) and 6 went for further education (20%) and 16 had no jobs (53%). In the 8 cases of employment, there is only one of them found a job outside (12.5%) and nobody join the army (0%). The only one special case holds the degree on physics.

This university is a place to cultivate teachers for the labor market, so many of the graduates get jobs in schools. From the data, we can conclude that employment rates decreased dramatically in a year’s time from 40% (808) to 26.7 % (810). It reflects that teaching profession in the labor market is over supplied in general. The students in this data are the product of massification. The percentage of students who were admitted in graduate school goes down from 30% (606) to 20% (606). The mass higher education started in China in 1999, so until 2003, when the increased amount of students finish their bachelor degree study, the number of students who may think of take a further education is increased accordingly. Therefore, the decreasing number of students who went to graduate schools in Taiyuan Normal University manifests that the students are losing their capability in doing research, and is also losing the interest of perusing academic professions. It also shows that the quality of education is decreased. When it comes to the unemployment rate, there is a dramatic increase from 30% (606) to 53% (1608). Almost 1000 students laid off with one year difference in time; it reflects that the labor market in Shanxi province can not digest the huge amount of teaching professionals. When it comes to the inner structure of employment, one year different in time can cause 13.3% decrease on employment rate. From the labor markets perspective, this shows us that competition on looking for jobs in teaching professions is extremely intense. The percentage on students who found jobs outside the province increased. Based on their majors which are chemistry and physics, to some extent, it shows that science subject gain more favor than art subjects in the labor market. Speaking of joining army, the percentage drops. It also shows that teaching profession is not popular in army.
In summary

1. The rate of Taiyuan Normal University’s employment is dropping dramatically from 40% to 26.7%

2. Teaching profession is overload in Shanxi labor markets and the demands decreased dramatically in one-year-time.

3. Scientific major graduates gain favor in the labor market.

4. In addition, students are losing the ability and interest to go for further education.

5.2.3 The Third Class Institution: Yuncheng University

The university offers two kinds of programs, so it has two branches of graduates. One is having bachelor degrees and the other is getting diplomas. I will present the data separately.

The Degree Students

In 2006, I randomly chose 20 items from about 760. The data presents us that there are 7 students out of 20 found jobs right after they graduate from the university (35%); and 4 of them went of graduate school for further education (20%) and 9 of them did not manage to go to the labor markets (45%). In the 7 cases which found a job, no one find a job outside of the province and 1 went to the village (14.3%). The only special case holds the degree on Chinese language.

In 2007, I chose 20 from 1320. Surprisingly, there are 19 found jobs (95%) and no one went for further education and 1 had no jobs (5%). In the 19 cases of employment, there is only one of them found a job outside (5.3%) and nobody join the army. The only one special case holds the degree on preschool education.
This university got accreditation in 2005 and started to recruit degree student since then, which mean all the diploma students who take another two years of study can get a bachelor degree in this university. From the data I collected, it is very surprising to see that the employment rate in 2007 is too good to be true. This made me keep questioning myself whether these data are reliable and valid enough to the study. By recalling the process how I conducted my data, I found no trace of misdeed, so I will stick to what I got and give an analysis.

May be the year 2007 is very special for this institution and the graduates are very lucky to have 95% (1254) of employment rate, which is much better than 35% (266) in 2006. Students in new popular programs, preschool education, found jobs outside of the province in 2007, it means that market oriented programs could increase students employability. In 2006, there are 14.3% of the students choose to serve for the poor area, but it decreased to none in 2007. It reflects that students get better education than one year ago and increase their employability to compete in the labor markets. But the figure 14.3% on the other hand shows that, before, the education for the students in Yuncheng University was not good enough, so to some graduates, they have no choice but to serve in the poor area just for survival. It also shows that intense competition in the labor market for bachelor graduates. This institution belongs to the third class of institutions in Shanxi province, so its graduate has not much advantage in the labor market in general. In addition, it is a local university, so it enrolled many local people who may come from poor areas. These two reasons above may provide a further explanation on figure 14.3% in 2006. Speaking of students who went to the graduate school, the number drops, it reveals one fact that when students have a good chance to work, they will go for it first and then thinking about further education if it is necessary for their future career. What make graduates to think like this? The answer is intense competition in the labor market. The ill balance between labor demand and supply caused every graduate would like to make full effort to grasp any kind of opportunity to work. In addition, it is also a state policy to encourage university students to serve villages. On the other hand, the unemployment rate decreased amazingly from 45% (342) to 5% (66) within one year. This number obviously shows that the employability of the students boosted.
In summary

1. Yuncheng University has a great success on student employment rate from 35% to 95%;

2. To some extent, market oriented programs played an important roll in such success.

3. Students would like to take a job first and then choose perfect job after and lose the interest of taking further education.

4. Students from rural area has the tendency to work in the grass-root units

The diploma students

In 2006, I randomly chose 30 items from about 1686. The data presents us that there are 15 students out of 30 found jobs right after they graduate from university (50%); and none of them went of graduate school for further education and 15 of them did not manage to go to the labor markets (50%). In the 15 cases which found a job, two find jobs outside of the province (13.3%). The two special cases hold the degree on machinery and international trade.

In 2007, I chose 30 from 1393. Surprisingly, there are 26 out of 30 found jobs (86.7%) and no one went for further education and 4 had no jobs (13.3%). In the 26 cases of employment, there is three of them found jobs outside (11.5%) and nobody join the army. The three special cases hold the degree on fine chemistry, computer process and plate making.

According to the data, the employment rate of the diploma students increases dramatically from 50% (843) to 86.7% (1207) within a year. However, the percentage on going out for job drops slightly by 2.3% from 13.35 in 2006 to 11.5% in 2007. In addition, there is no evidence prove that students tend to go further study. This demonstrates that
diploma students are becoming popular in the market because they learned applied knowledge. It is easier for them to find a job in the local area and there is no need to go on study. Another figure worth mentioning here is that the total number of such kind of graduate decreased. Why? The answer and reason is massification. Since China has millions and millions of more degree students coming into the labor markets, most employers are favor of high educated employees, the sorting theory (Weiss, 1995), so in terms of education background, diploma students tend to be eliminated from the market in Chinese context and it is also the real situation in Shanxi province. Thus, although, diploma students have higher rate on employment, it is decreasing in enrollment.

**In summary**

1. Diploma students are gradually decreased in number, although with high rate of employment in the case of Yuncheng University.

2. Applied knowledge can increase the chances of employment.

3. Students are employed more in the local labor market.

**5.3 A Comprehensive Analysis of the Three Universities**

“Information is a vital ingredient for any market.” (Amaral, Dill, Jongbloed & Teixeira 2004, p1). In Chinese “quasi- market” of higher education, information asymmetry arouses some mismatches among employers and graduates. It directly causes an increasing number of laid-off students in the labor markets. (Zhou, 2005)

In this section, I will compare the data from the three universities in table 9. I compile the data twice, the first time without the diploma graduates and the second time with them, because in the labor market in Shanxi province, there are more degree students than the diploma students, so employers tend to have bias against diploma students.
From the table, we can see that, 12,260 degree students in Shanxi province from these three universities from year 2000 to 2003 have average employment rate 49.45%, 15.3% rate of pursuing higher education and 35.17% chance to get laid off. If including diploma students 15,339 in total, the figure goes up on employment rate to 54.17%, drops on further education which is down to 11.5% and slightly decreases in unemployment rate which keeps at 34.29%. The following are the three common trends that have emerged from the comprehensive analysis:

1. Their employment rate is gradually dropping year after year until 2006 and in 2007 there is an apparent rebound, to a much extent, it attributes to the success of the program reform in Yuncheng University.

2. Further education is increased from year 2000 to 2005 and then decrease afterwards. It shows that labor market can not provide enough positions for the mass graduates and competition become intense, so students have to go to further education in order to enhance their productivity and employability in the market. However the rate goes down after 2005, it reflects that the changes in the markets. During the process of massification, labor market is adjusting itself to face the million higher education graduates, and it tend to get used to the amount of graduates. Meanwhile, graduates realize bit by bit that having a job is much more important then have a perfect job when they graduate. Find a job first and then choose suitable job becomes a university policy for graduates. Students are encouraged to find a job whatever kind it is and then waiting for the better change and then find a perfect match with the employer.

3. From the university policy and these figures, it shows that, from the societal point of view, higher education institution is the place to pass or fail students to go to the labor markets, and the student get less or no working productivities before jobs (Arrow, 1973) This is the filter theory all about.

In this part, I will include the data of diploma students. They are special in Chinese higher education, because during the massification process, hundreds of new universities come up and the state gives more focus on reinforce the growth of degree programs. In
Shanxi province, Taiyuan Normal University has the accreditation from the state and can offer degrees. Shanxi University is also including several colleges and enlarges the quantity of degree programs. Yuncheng University was originally a local college, offer only diploma, but in 2002, it strengthened on its facility and teaching capacity and started offering degree programs. Since there is an expanding on the degree programs, students are encouraged to go take these programs.

Now after including the deployment data, we have a still more telling picture of tertiary education in Shanxi University:

1. Surprisingly, the employment rate increases but not drops, as I already mentioned earlier on in this paper.

2. Diploma students are becoming popular in the labor market. This is highly related to the subject they study at the university. They learned many applied subjects and skills which can be used directly in the jobs.

3. Many diploma students get jobs, so they would not consider for the further education, so the figure in this item drops to 11.5% and unemployment rate decreased to 34.29% as it is expected.

5.4 Summary

Comprehensive Findings

1. Based on my study, the average graduates’ employment rate in Shanxi province is 54.17%, which is lower than the figure 65% published by Shanxi government (Li, 2006)

2. More than half of the graduates get employed within Shanxi province

3. Due to the competition, graduates tend to find jobs first and meanwhile lose the interest for further education

4. Graduates with applied major and market oriented market have more chances to find a job.
5. In general, nobody concerns about working in the grass root unit, expect a small amount of students who come from those poor areas.

The Relationship between labor market and graduates in Shanxi province

The following part is based on the concept framework raised by Brennan, Kogan, and Teichler, (1996)

Dimension of higher education relevant to work

1. Higher education is keeping producing surplus graduates to the labor market

2. Quality of education is decreasing, which can be inducted from the decreasing number of graduate school applicants. Fewer and fewer undergraduates qualified for the further study.

3. Market popular programs are not enough. This caused many graduates find no jobs, because their major were out dated.

Linkage between higher education and work

1. The competition in the labor market is intense and graduate tend to find a job first and then change another suitable later on.

2. Graduate do not want to go to work in the rural area, which caused their unemployment.

To this point why graduates do not want to work in the rural area, I will argue as follows. From the perspective of graduates, they believe that they spent 17 years of education, and dedicated all possible spare time to get through all the hard years of study, trying to find a better life than others, so better jobs which offer better working environment, better payment and better potential promotion are their focus. Many of them refuse or are reluctant to accept a job with normal pay and plain working environment, because they always hold the idea that they are the elite of the society. However, China has already been in the track of higher education. Therefore, we can reach the conclusion that although higher
education is under massification in form, the participant, graduate student, still keeps the elite way of thinking. This may be a good reason to explain why they do not want take a job in the rural areas.

**Dimension of work relevant to higher education**

1. Graduates have requirement on stability and social security of a job, which can be reflected from the number of graduates who joined the army.

2. Graduates with scientific education background or applied education can match with the requirement of the employers, for example, English major, computer science, and chemistry.

All the data I presented above is the case in Shanxi province. China consists of 23 different provinces, and 4 directly central governed cities and Hong Kong and Macao special districts. Each province has their own special situation and policy on university students. For example, in Hong Kong, the higher education system is very different from the mainland, which is very westernized. Policies go much easier to the province in the west than the east. So my data and analysis is only applied in Shanxi province. In big China, higher education development is related closely to the development of economy. From the economic point of view, China can be divided into three parts. The first is in the well developed eastern part, centering around Shanghai. There are many international companies and factories their, thus there are more well paid jobs and high in employment rate. The second is the relatively developed region, lying in the middle part of China. Shanxi province is one of them. The last is the poorly developed western area. Higher education is related to the economy of each province. This is because the research funding is partly supplied by the provincial government. The better developed regions, the more financial support on higher education will be given and the better structure in the labor market and the lower rate of unemployment. Vice verse.
Shanxi province is one of the 5 provinces in the middle of China and it has the weakest economy in this group. This means the higher education system in this province is relatively old fashioned. For example, it has very little international cooperation and few modern marketized degree programs and less funding on research. All these factors contribute to the low rate on graduate employment.

We can reach to a conclusion that the situation in Shanxi province maybe better than some regions in the west and worse than the regions in the east. The most distinct feature in Shanxi on graduate employment is localization. A large percentage of graduates found jobs within Shanxi province. This is maybe due to the relatively poor quality of education, which does not make the graduates capable enough to compete. It could also because the programs offered by the university are not popular enough in the labor market.

In Chinese labor market as a whole, no matter which part of China, there is something in common. That is imperfect competition, which also means there is an existence of market failure (Amaral, Dill, Jongbloed & Teixeira 2004). Information asymmetry, as a classic example of market failure does exist in the labor market. We are now living in a world full of information. Who gets the information first, who will get the advantage to control the matter. In the Chinese context, information is expressed and delivered in many different channels, so getting correct and fast information becomes one of the most important factors when it comes to job hunting. Career center function as an information gathering place, provide students the latest and classified employment advertisement.

However, in many cases, equality on information can hardly be realized, especially when it comes to very good job opportunities. Information on both sides of employers and graduates can be different. For example, there is a company which needs to hire three new graduates, and then they send this ad’s, to the career center in university. It might happen like this. There are only two positions wanted in the ad’s, because of the “carelessness” of the staff. Students or teachers would prefer to block some information in order to reduce the intensity of competitiveness on jobs. If we have a second thought about this phenomenon, it
is easy to find out the reason. This is because such information is so scarce, and everyone wants it, and then it is controlled within a small circle. Although information asymmetry can hardly be avoid, we can try to reduce it by more face to face interactions between employers and employees, or any other hi-tech ways of interaction.
Chapter Six: Summary and Conclusion

6.1 Summary

Along with the transition of Chinese economy, the relationship between graduates and the labor market in China changes accordingly. This thesis is based on a case study in Shanxi province. Data was collected from three different types of universities in this province. It is on the trajectories of graduates from higher education institutions to the labor market in Shanxi province. Through comparing the data of each university individually and comparing the data of the three universities collectively, the research found out the situation of graduate employment in Shanxi province and analysis the reason. The aim of the study is to trace the findings from the case so as to gain an understanding of the relationship between higher education and the labor market in reform-era China.

6.2 Suggestions on Higher Education

Some of the theories reviewed in this thesis seem to indicate that higher education is playing a weaker and weaker role in the transition of graduates to the labor market. In 1960’s, the human capital theory stated that higher education could increase the productivity of a student and would benefit him more afterwards, while in the 21 century, Osmo and Jouni (2007) claims that education does not really matter much. This transition made me wonder what the higher education can do to help strengthen this relationship. I agree with the suggestion that is raised by Osmo:

“maybe a lot could be done by organizing education in ways that students’ skills of planning, organizing, decision making and team-working would be trained, not to speak about understanding complex systems, skills of documenting ideas and information as well as oral communication skills” (Osmo and Jouni, 2007,P17).

All these suggestions are the traditional academic virtues which are being eroded by mass higher education nowadays.
Inspired by the statement above, I would like to give some suggestions on the graduates in Shanxi province as follows

1. The universities can try to create more platforms for the enterprises and the graduates, like provide flexible field work plan for graduates and strengthen the cooperation between companies and universities.

2. The universities should try to have more communication with universities in the eastern areas and learn some experience from them on the graduate employment issue.

3. They should also make an effort on program reform, canceling some out-dated programs and set up some modern program, like e-commercial program.

4. Take measures to prevent the brain drain on faculties. Because of the low economic development, many talented teachers and professor in Shanxi province went to eastern part of China. Teaching capacity is decreased dramatically recently. The local government should take measures to prevent the brain drain. For example, it can increase their salary and provide more research fund and better working environment, and so on. On the other hand, it should try to bring in more new teaching ideology from outside of the province. Enhance the interactions between labor market and university.

Suggestions on graduates’ policy in China

1. Give more access for the graduate to the poor area in China and encourage them to those places and let them see the promising future is waiting for them there.

2. Make more efforts on skill training than theory practice on students through whole education in university. In other words, provide them more chances to practice their knowledge and skills.

3. Encourage Chinese students to go abroad and wide their horizon
6.3 Limitation of the Thesis

The limitation of the thesis is that the data is not enough.

If I have more time, I would like to try to generalize my findings by doing a survey through alumni network. My sample group would be my high school classmates. I have over 70 of their contact information. We have a social network on the internet. Why I would choose them as my sample, because first, they are relatively easy to get contacted with; second, over 80% of them passed the national entrance exam and went to universities all over China and parts of them settle down in the city where their university locates and parts of them move to another city. Some of them who didn’t pass the exam may stay in the local region or maybe move to another place as well. In a word, they spread all over China with or without higher education. Their employ information can be reliable and valid to show the real picture of Chinese university graduate employability. I will focus on measuring the employability of the graduates to show how much higher education is relevant to the labor market in Chinese contemporary context.

I would also keep tracking a certain amount of students to make a focus group, and have interviews with some employers and new graduates, in order to increase the generaliability of my data.

6.4 Conclusion

Relationship between higher education and the labor market in China is that due to the massification on higher education, Chinese higher education institutions enlarge their capacities and meanwhile decrease their quality of education to produce a growing number of graduates to the labor market. These lead to intense competition among graduates. They begin asking less and less in amount of salary and less demanding on working conditions, expect the stability of the job; on the other hand, employers have higher and higher demand for graduates productivity and treat education diploma or certificate as a basic criteria to judge a students’ productivity.

Through the case study in Shanxi province, I interpreter the data in Shanxi context and construct the relationship between graduate and labor market in Shanxi, and analyze the reasons. The situation in Shanxi is quiet similar to the situation in China, expect two
points. One is that quality of education is lower in Shanxi province because of the brain drain on teaching faculties due to the poor economic development. The other point is that graduate tends to find jobs in the local labor market. This is because of the graduates are not productive and competitive enough to compete outside of this region.

All in all, the relationship between higher education and labor market will be more and more closely connected. Higher education is still playing an important role in this relationship in China.
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Yuncheng University  
http://www.ycu.edu.cn/
## Appendix

### Table 1 Data on Shanxi University students in 2000

<table>
<thead>
<tr>
<th>Shanxi Uni 2002</th>
<th>Employed</th>
<th>Further education</th>
<th>unemployed</th>
</tr>
</thead>
<tbody>
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<tr>
<td>percentage</td>
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<td>16%</td>
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</tr>
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**Special cases**

<table>
<thead>
<tr>
<th>Inner province</th>
<th>Out province</th>
<th>Join Army</th>
<th>Gowestern or villages</th>
</tr>
</thead>
<tbody>
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Total No. 50/2046

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<tr>
<td>percentage</td>
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<td>6%</td>
<td>46%</td>
</tr>
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</table>

**Special cases**

<table>
<thead>
<tr>
<th>Inner provin</th>
<th>Out provin</th>
<th>Join Army</th>
<th>Gowestern or villages</th>
</tr>
</thead>
<tbody>
<tr>
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Total No. 50/3080
Table 3 Data on Taiyuan Normal University graduates in 2005

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<td>30%</td>
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<th>Out province</th>
<th>Join Army</th>
<th>Gowestern or villages</th>
</tr>
</thead>
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<td></td>
<td>30/2020</td>
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Table 4 Data on Taiyuan Normal University graduates in 2006

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<th>unemployed</th>
</tr>
</thead>
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<td>53%</td>
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<thead>
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<th>Out province</th>
<th>Join Army</th>
<th>Gowestern or villages</th>
</tr>
</thead>
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<td></td>
<td></td>
<td>30/3034</td>
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Table 5 Data on Yuncheng University degree students in 2006

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<th>Further education</th>
<th>unemployed</th>
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</thead>
<tbody>
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<td>number</td>
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<th>Gowestern or villages</th>
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| Total No. | 20/760 |

Table 6 Data on Yuncheng University degree students in 2007

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<thead>
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<th>Out province</th>
<th>Join Army</th>
<th>Gowestern or villages</th>
</tr>
</thead>
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| Total No. | 20/1320 |
Table 7 Data on Yuncheng University diploma students in 2006

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<th>Out province</th>
<th>Join Army</th>
<th>Gowestern or villages</th>
</tr>
</thead>
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Table 8 Data on Yuncheng University diploma students in 2007

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<td>4</td>
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<tr>
<td>percentage</td>
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<td>13.3%</td>
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<table>
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<th>Out province</th>
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<th>Gowestern or villages</th>
</tr>
</thead>
<tbody>
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<td></td>
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<td></td>
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</table>
Table 9 Data comparison on the three institutions

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<td>2046</td>
</tr>
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<td>3080</td>
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<td>30%</td>
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<td>53%</td>
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</tr>
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<td>20%</td>
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<td>YCd:2007</td>
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<td>1320</td>
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<tr>
<td><strong>Average</strong></td>
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<td><strong>15.3%</strong></td>
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<td><strong>11.5%</strong></td>
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