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Research paper

Market Strategy of Chinese Educational Agencies

Introduction: With more and more Chinese students coming to study in the US, more and more educational agencies opened up in China. Those agencies help students in China applying for US colleges. This new rising market is attractive and growing rapidly. Not only in China, there are many educational agencies like these established in Korea, Japan and India. The regulation for the market seems to be weak in China. Many agencies set their price according to the ranking of colleges as well as other factors. There is a considerable regional distinction between the big cities and small cities, with locations in the big cities charging 2000 RMB (about 30% of the mean fee) per application higher on average than those in the small cities. The study aims to find whether there is price discrimination in the educational agency market.

The first Chinese educational agency China LiuXue City was founded in 2000. This is a controversial issue because a lot of agencies claim themselves to be the first educational agency in business. Although we are not sure who the first is, we can still tell that those agencies have been around for 14 years. Here are some typical services they offer: 1. Help Chinese students select colleges and universities 2. Revise personal statements and recommendation letters 3. Assist online application and submission 4.Consult financial situation 5. Prepare for Visa 6. Offer transportation services. Many Chinese students are willing to pay a high price to the agencies in order to get into US colleges.

Hypothesis: There may not be a standard price in the market and some agencies may charge a higher price than others. Many Chinese students are willing to pay a high price to study in a US college and many are going back to China to work, so it is interesting to see whether there is a return to college quality for Chinese students. The agencies in other Asian countries, for example, Japan, Korea and India might have the price discrimination as well.

Literature search: According to *Coaching and Much More for Chinese Students Looking to U.S*. (Levin, 2011), there were 39,947 Chinese undergraduate students studying in the United State during the year 2009-2010, which is a 52-percentage increase from the previous year. Chinese students found themselves not well prepared for the admission process at American colleges. In recent years, numerous educational agencies have spread to the fast-growing and lucrative market in China, which offers full–service designer courses, extracurricular activities and focused application assistance. Among numerous overseas educational agencies about 400 are certified by the Chinese Ministry of Education (Levin 2011). According to *Global Post (Winn, 2011),* depending on the degree of assistance, Chinese families can be expected to pay between $5,000 and $15,000. Admission into a top 10 or top 30 schools, as defined by the *US News & World Report*, can bring a $3,000 to $10,000 bonus to the agencies (Winn, 2012). In *Coaching and Much More for Chinese Students Looking to U.S.* Levin also mentioned that some agencies promised to offer a 100 percent money back guarantee if their students were rejected from all the universities they helped applied for. After taking account of the exchange rate, the services fee that is required by educational agencies in China for top 10 US colleges will be around $10,000, which is approximately the tuition of a quarter/semester in a less expensive school. Around 15% of the students who used agencies think the price is too high. The expected return

to college quality to those Chinese students is closely related to their willingness to pay high service fees. The return to college quality for a domestic student may be different from a Chinese student, since a lot of Chinese students go back to China for work after graduating in the US. If controlled for other variables, we can compare the income level considering the exchange rate to see the return to college quality.

Hagedorn and Zhang (2011) found that lack of information about the US colleges application process is one of the most important reasons for students to use agencies. Students who use agencies usually have difficulty in English and they think that with the help of agencies, they will have a better chance to get accepted by US Colleges. They also found out that family' income has a high coefficient with whether the students will use an agency or not. Students from rich families tend to use agencies more than others. "There is virtually no research regarding the balance of costs and benefits of using an agent nor is there evidence of any testing if Chinese students have been well served by the agent while applying to American universities."(Schulz 2010) In the article *Heterogeneity and Higher Education* by Jeff Smith (2007), he suggested that "the various commercial rankings, such as those produced by *Barron's* and by *U.S. News and World Reports*, provide valuable information, in the sense that these rankings (and the variables that underlie them) predict later labor market outcomes even after controlling for the non-random matching of students to colleges". So it would be interesting to see how those agencies match students with US colleges and whether rankings are the only measurement of qualities of colleges.

The paper by Hagedorn (2011) is written from an education perspective and studies why Chinese students use these agencies. In her paper, she mentioned that students and parents

seek out agencies for their specialized knowledge in the entire college application process, which are regarded as experts in international education. She said, “Those agencies possess rich resources of information regarding quality of higher education institutions in foreign countries, college application procedures, costs of education, and other facts” (Hagedorn 2011). Smith’s paper is from US colleges’ perspective and studies the return to college quality. He suggested that it seems unlikely that colleges only have a single quality dimension and the quality of particular department and program often varies within a given university. (Smith 2007) Present research on Chinese educational market lacks studies from Chinese agencies’ perspective and the market itself. The Chinese educational market is no different to the other middlemen market and it is worth to find the similarities. The following research is designed in order to test the hypothesis.

I. Research Design and Methodology.

Research Design: All the data are obtained from telephone surveys on agencies and price lists they offered. It is interesting to see how rankings of colleges are related to the qualification of different students. Qualification of different students can be obtained from agencies.

Here are some questions potential applicants would ask of Chinese education agencies:

If I am a senior year in high school and I would like to study in a US college, what schools will you recommend me to apply for? This question can test the different qualifications of students for different schools. In order to understand the agencies’ function, we can ask what kind of services they could offer. Then we can ask them how much money they will charge to see their price strategy. Finally we can ask them how many students have been successfully get into US college in order to know their credibility.

To further test the hypothesis. We can ask them more questions.

What if I am a graduate student or transfer student? Will there be any difference when I am applying for graduate school? This question may able to further test different qualifications of students. We can also ask the agencies whether they offer any different service to graduate students or transfer students. This may help us better understand the agencies. Moreover, ask the agencies the price for graduate students and transfer students enable us know better their pricing strategy. Ask the agencies whether they can guarantee us to get into a dream school will help us further test their credibility.

Data: Not many people have done research on Chinese educational agencies before, especially from an economics perspective, so it is hard to find established data set about the market. Also those educational agents have no price range on their website which makes it harder to collect data. Since the price data can neither be found on the website of National Bureau of Statistics of China or State Administration of Taxation or the Ministry of Education, the best way to get the data is market survey. It might be a good way of collecting data to call the agencies and ask for the price range. Since the price offered by the agencies may differ from the price when negotiating at the table, calling more agencies and call the same agency more than once could reduce errors.

The data are collected from 78 different agencies in China, which are mainly in major cities, 35 in Beijing, 11 in Shanghai, 8 in Tianjin, 7 in Guangzhou and 17 from other non-major cities. There are official price lists from 15 different agencies. Prices of the other agencies were obtained from taking notes during telephone surveys. The price may be biased since it is possible that the price is overstated on the phone. Data that can be collected over the phone

are price lists, official contract and service items. There are also data that are valuable but hard to collect, for example the number of students who use the agencies and the student's personal information like their high school GPA.

The price that is charged by the educational agencies depends largely on ranking of US colleges. The table below is the price list from one educational agency. The price lists for other agencies follow the same pattern.

Beijing Cedca Educational Agencies

Admission Manner	Basic Price	Service offered	Additional fees			
Direct Admission (5) (TOEFL>79)	25,000	Documentation preparation	1,500 per college added			
Dual Admission (5) (TOEFL<79)	20,000	Green passage (Airport Pickup, Dormitory application, language center application)	1,500 per college added			
Rankings	91-131	66-90	51-65	36-50	16-35	1-15
Undergraduate (direct Admission)	3,000	5,000	10,000	20,000	35,000	60,000
Scholarship	30% of the first year's scholarship					

Note:

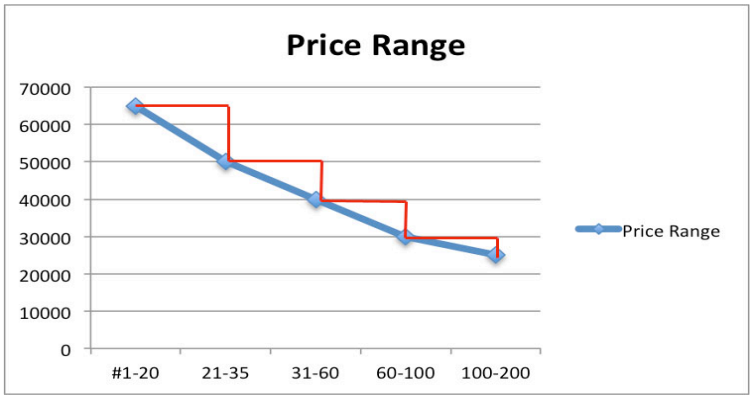
1. We have a good network with many of the US universities.
2. Admission manner: Direct admission means that students will enroll in university class directly. Dual admission means that students cannot enroll university class directly and they need to take language class and test before taking regular university classes.
3. Rankings: According to annual report of US News colleges' rankings list.
4. Scholarship: If agency help student to get a scholarship, receiver needs to give 30% of their first year scholarship to the agency.

Usually, ranking of US colleges that a student can apply for depends partly on their TOEFL score and high school GPA or college GPA if they were transfer students. The price varies

in different areas as well. In major cities in China, agencies tend to charge a higher price. Also agencies from big major cities and those who have more branches tend to have more price discrimination. There are two ways to define a major city. One way is to define by the geographic term, the capital of each province. The other way is according to the GDP level of each city. There are also other minor cities or less developed cities, here we use prefectural-level cities as an indicator. The size of agencies affects the price strategy as well. There are 60 agencies, which have fewer than 10 branches. Prices charges by smaller agencies usually do not fluctuate much between different ranking levels. Some agencies even have flat price. In general, the bigger the size the agencies are, the larger gap between prices of different rankings. In the data set, agencies with more than 10 branches charge 14,000 RMB more on average than the smaller agencies with less than 10 branches across the same ranking of universities.

Methodology:

We will first find the relationship between price and ranking of university for each individual agency, which is the slope of price relative to ranking. For example, the graph below shows the price relative to ranking from one agency. Then we will use the slope as dependent variable and use the number of branches in capital cities, number of branches in top 10 cities and square of number of braches as independent variable. Applying least square method and run regression. The expected negative sign refer to a negative relationship between slope variable and other dependent variables. It shows that as there are more branches in a major city in China, the slope will become steeper, which shows more discrimination. As it is shown in the table, the result matches the hypothesis.



The horizontal axis shows the ranking of the university. The vertical axis shows the price charged correspond to each university. As the ranking gets lower, the price gets lower as well. It is interesting that the majority of the agencies charge the same price for big universities, Liberal Arts College and graduate schools. The price only varies by the ranking. The price for top 20 (60,000RMB) is twice as much as for the top 50 (30,000RMB). Charging different on different rankings help agencies maximize their profit and makes it easier for the agencies, since it is hard to measure the potential value of their "product" – students.

Dependent Variable: SLOPE			
Method: Least Squares Observations: 78			
Variable	Coefficient	T-Statistic	Prob.
CAPITAL	-0.188	-3.760	0.03
TOP10GDP	-0.459	-3.491	0.08
BRANCHES	-0.170	-3.348	0.13
SQRT BRANCHES	-0.587	-1.765	0.05
PREFECTURAL LEVEL	0.135	3.937	0.02

Model:

Y (Slope) =-0.188Capital-0.459Top10 GDP-0.170Branches-0.587SqrtBranches+0.135Prefectural-level

Hypothesis: The selected data set includes price, category of ranking, maximum schools application, number of branches, and number of countries where school are located. The major hypothesis is that more branches one agency has, the more the price discrimination. The next approach is from the geographic difference. Hypothesis is that, agencies from big major cities will have bigger price discrimination since agencies with more branches usually have higher reputation than the smaller agencies. There are two ways to define a major city. One way is to define by the geographic term, the capital of each province. The other way is according to the GDP level of each city. There are also other minor cities or less developed cities. Since each agency has several different prices corresponding to each different ranking category, the bigger gap between the prices in each category, the bigger the discrimination is. The linear relation between the prices and each ranking category can be seen from the graph with ranking on X-axis and prices on Y-axis. The slope of each linear equation can be calculated. Slope of agencies measures the scale of price difference in different ranking categories within one agency. From the data, we observe that all the slopes are downwards.

Result: Results conformed hypothesis. The P-Statistic is 0.13, which shows the result is moderately significant. Number of major cities location is negatively correlated with slopes with the probability of 0.03. The result matches the hypothesis that the greater the number of branches and the more major city locations, the higher the price discrimination is. Number of countries of schools' location is also included in the regression. We can see also from the regression that there is a negative relation between number of countries and the slopes, which shows that the more countries one agency applies for, the bigger the price discrimination.

By comparing the price across agencies, the coefficient of slope is -0.188 and the P-Statistic are 0.03. We can see that agencies with more branches locate in capital cities have a steeper slope, which indicates higher price discrimination. However, the slope of agencies with more branches in prefectural-level cities tends to be flatter which indicate lower price.

On the other hand, students will do the market survey before they choose an agency. More importantly, maybe the success rate of applications to top schools is a good attraction to students. So the agencies will try their best to advertise their success rate of application. Agencies that charge higher price usually have more successful stories to tell which attracts more consumers.

II. Second stage of study:

Research Design: This second stage of study approaches from a different angle. The previous study looked at the Chinese educational market from agencies' perspective, while this study will examine the market from students' point of view. In order to study the educational market from students' perspective, 28 Chinese students from the Ohio State University have been given out survey questions. Those students use different educational agencies to apply for the Ohio State University. This survey focuses on the reason why students use agencies, how they feel about agencies and how agencies charge different prices depending on the different students.

Data: In order to see whether the price charged by the agency is varies from students to students, we asked students about the price they paid to the agencies for the services. The hypothesis is that there is price discrimination for the agency. To test the hypothesis, we need to find out what those discriminations are. We asked the students their high school GPA and

amount of effort they put in their study to see whether there is discrimination on different individuals. We asked the students the city they are from to test whether there is a regional discrimination. Here is the result of the survey.

Use agencies	Yes 25 No 3
Study hard	Yes 17 No 11
Hour of studying	3.95 hr.(range from 0-10)
Top reason to study hard	Maintain a high GPA
Difficulty in English	Yes 13 No 15
Take GaoKao	Yes 9 No 21
Agency in hometown	Yes 20 No 5
Overpay agency	Yes 19 No 6
Amount paid	25,652.17 RMB (range from 10,000RMB-50,000RMB)
Satisfy with service	Yes 9 No 16
Compare agency	Yes 23 No 2
Number of colleges	8 per person
Media of recognition	Advertisement
Most important character	Success rate
Reason use agency	Ignorance of application process
Use agency again	Yes 4 No 21

As it is shown in the table above, out of 28 students, 25 of them have used agencies before they came to the US, which is 89.28%. 17 students of out of 28 claimed they studied very hard. Average study hours are 3.95 hours per day. Top reason given by the students to study hard is maintaining a high GPA. 13 of them had difficulty in studying in English and the major problem is speaking. There is high proportion of students (21 out of 30) who have not taken the college entrance examinations (GaoKao) in China, which is very interesting. 5 among 25 students who use the agencies did not use the agencies from their hometown and they are all from a non-major city in China. When asked about whether they think they have overpaid the agencies, 19 among 25 students think they have overpaid the agencies. 16 students are not satisfied with the serviced provided by the agencies. Students who used agencies paid on

average RMB 25,652.17 to the agency. Students were asked whether they have compared the agencies before they choose one. Only two students did not compare with other agencies before he/she choose his/hers. Students applied 8 colleges per person. The most common way they heard about the agencies is though advertisement. When they choose an agency, the success rate of application plays the most important role. The leading reason why they use an agency is that they do not understand the process of applying on oneself. Last but not least, 21 students said that they would not use the agencies again if they are applying for graduate school and they will do all the applications on their own. The reason being that they have already known the process of how to apply on their own and their English is much better after years of study in US colleges. More importantly, they said is that agencies did not really do a good job since they could not give much attention to each individual student. They have too many clients to take care of. Especially, if the agency help students on writing a motivation letter or recommendation letter. They will use the same pattern of words for everyone. Students know themselves better and can explain themselves with their own individual stories. Thus they can do a better job and apply for better university.

Cross-correlation coefficient									
Method least square				Observation: 29					
	Hard study	Hour study	GaoKao	Satisfy	# College	High Sch	Use	GPA	Price
Hard study		0.532	0.104	0.062	0.019	0.027	0.001	0.236	0.085
Hour study	0.532		0.007	0.039	0.023	0.034	0.018	0.167	0.059
GaoKao	0.104	0.007		0.009	-0.075	0.068	-0.005	0.011	-0.086
Satisfy	0.062	0.039	0.009		0.093	0.016	-0.038	0.591	0.036
# College	0.019	0.023	-0.075	0.093		-0.021	0.002	0.006	0.055

High Sch	0.027	0.034	0.068	0.016	-0.021		-0.002	0.061	-0.416
Use	0.001	0.018	-0.005	-0.038	0.002	-0.002		-0.008	0.059
GPA	0.236	0.167	0.011	0.591	0.006	0.061	-0.008		0.002
Price	0.085	0.059	-0.086	0.036	0.055	-0.416	0.003	0.002	

Notes:
1. Hard study: level of effort that students put into their study scale 1-10 in the survey
2. Hour study: number of hour that student put into their study every day outside class
3. GaoKao: college entrance exams in China, once a year in June. Measure whether students had taken the college entrance exams before applying for US colleges in the survey
4. Satisfy: level of satisfaction of students on the service of agencies over all
5. # College: number of US colleges applied by students through agencies
6. High Sch: Grade of students in high school
7. Use: indicate whether a student use an agency when applying for US colleges
8. GPA: measure of students current GPA in college
9. Price: amount of money a student paid to an agency

Hypothesis: There is price discrimination on students according to different qualification. Students who had a better high school score pay less. There is also a regional difference that student use agencies from smaller cities pay less than those who use agencies from bigger major cities. Agencies would encourage good students who had a better chance to get admitted by offering a discount. The regional discrimination can be compared with the result from the first stage of study.

Result: The correlation between price that students paid to agencies and their high school GPA is -0.416. There is a negative relation between price and GPA. The higher GPA a student has in high school, the lower price he/she paid to the agency. The correlation between GaoKao and price students paid is -0.086. If a student has taken the college entrances examination before applying US colleges, he/she paid less than those who have not taken the exam. Agencies offer discount to encourage good students who have a better chance to be admitted to good universities to use their agency. This can use this as an advertisement for them as well.

Agencies match students with different school according to their ability. For example, students who had a better high school score or who had taken the GaoKao, which is the college entrance examination in China study harder and longer in high school. They are likely to have better learning ability than those who had never taken the test before. Those who had taken the college entrance examination also paid less to the agencies for the reason that they are more competitive in applying for colleges. Agencies can do less work to get them in an ideal college than others. Compared to those who did not take GaoKao, those who took the test had a lower percentage of using the agencies.

Another factor, which influences the price of agencies, is the number of colleges they have applied for. Many agencies have the rules that the price stayed the same as long as students applied no more than five universities. Students who applied beyond five universities need to pay an additional fee to the agencies. The more schools they applied the higher price they pay to the agency.

Students will compare agencies before they choose one. It shows that those students who compared between agencies paid less than those who did not ask around the agencies. Most students use agencies from their hometown. Students who are searching more carefully attain more information on price and have better options than those who have not compared the agencies. Those who use agencies outside their hometown tend to pay less for they might know the price advantage over other agencies and are able to bear the transportation inconvenience. The most popular way for students to know about agencies is through advertisement. More than a third of students from the survey group heard about the agency through advertisement. Reputation of an agency plays the most important role for students to

choose an agency. This coherent to the hypothesis in first stage of study that agency with bigger size and better reputation will charge more than other smaller agencies. Agencies that locate in major cities also charge a higher price than those locate in non-major cities according to the data, which also match the result from first stage of study.

Whether to use or not to use agencies had an influence on students' study in the US as well. Those who paid more to the agency tend to study harder and longer than those who paid less to the agencies. The high cost of agencies fees might become a motivation of study. Their GPA, as it is showed in the survey is higher. To maintain a high GPA, not surprisingly, is the top reason for them to study.

From above, we can see that results match the hypothesis that students paid more to agencies, which are located in big cities, and to those who have higher reputation. This also matches the result from the first stage of study that there is geographic price discrimination and also size discrimination for agencies. Also, the results also matches the hypothesis that students are better off if they compared the agencies and if they have a better grade.

Future study:

Is it a good investment for all Chinese students to study abroad? What are the payoffs? Graduate school? If so, will they have a promising future by entering a top graduate school in US? What are the opportunity costs for the Chinese students? Before they came in college: high payment to the middleman (the educational agencies), the whole year studies for standard test (SAT, TOEFL). When they are at college, they will face the high tuition, higher living cost in US, language difficulty, cultural shock or even discrimination. They need to study harder to get a good grade or even through cheating. Moreover, there will be more challenges for them after

graduating from college, for examples, restrictions on international students in the job market, competition with the peers from their own country.

What are the benefits earned by US universities by accepted more and more Chinese students, on the universities' budgets and on the local economy? Is this a balanced market? --- In the study abroad market, both students and universities play a leading role. Who has more market power?

In order to answer those questions, more long-term surveys need to be sent out among the students. For examples, data of their employment information after graduation or graduate school if they continue their study need to be collected. So far, we have look at the market from perspective of two major participants, agencies and students. However, in order to gather information from the third participants is not very easy. It is still interesting to see the how agencies affects university administration.

It is also worthwhile to collect data on the historical price of those agencies to see whether the price increase over the years. What is a possible explanation for that, an increase in demand or inflation? Or is there a decrease in price instead, because of more competition in the market or less difficulty to get a student visa? Is the success rate of application rising or falling? How does it vary from agency to agency? The problem is that those data are always hard to collect since they are always secret of agencies. So it might be a good idea to wait and collect the data next year to compare the price. Also, if with more data, we can also study whether there is discrimination within one agency among branches in different cities. Another potential study would be comparing the different educational agencies in different parts of the world, or specifically Asia since it is one of the largest suppliers of international students. How

much price do the agencies charge in Japan, Korea, and India? If they have regulation over the educational agencies in their countries, there may be some that can be adopted by China.

Reference

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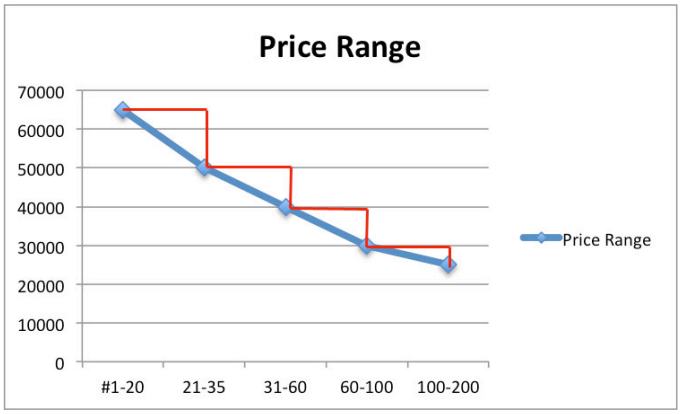
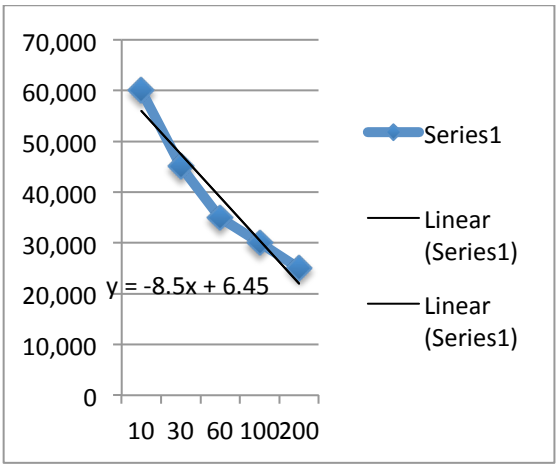
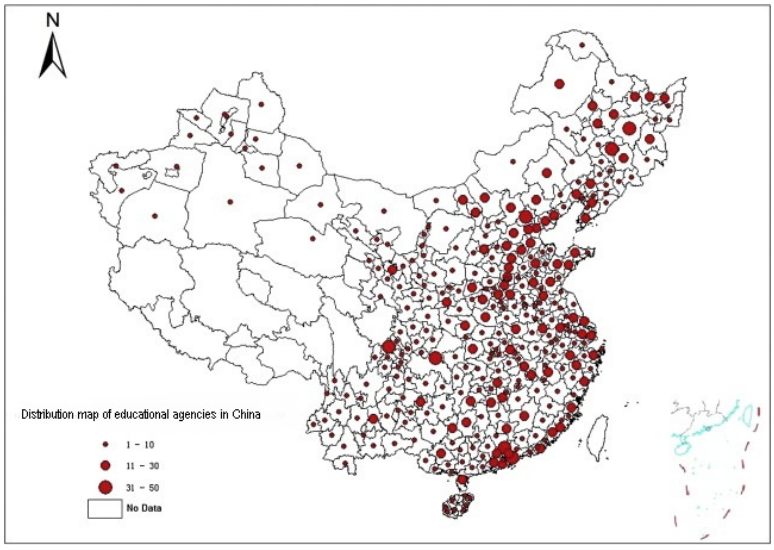
Appendix:

Graph and regression





Agency distribution map



Dependent Variable: SLOPE			
Method: Least Squares Observations: 78			
Variable	Coefficient	T-Statistic	Prob.
CAPITAL	-0.188739	-3.760067	0.03
TOP10GDP	-0.459902	-3.491087	0.08
BRANCHES	-0.170490	-3.348453	0.13
SQRT BRANCHES	-0.587152	-1.765141	0.05
PREFECTURAL LEVEL	0.1356618	3.937482	0.02

Y (Slope) =-0.188739Capital-0.459902Top10 GDP-0.170490Branches-0.587152Sqrt Branches+0.1356618Prefectural level

*Notes:

1. Slope: Linear trend of the price step function within one agency

2. Capital: Number of branches in one agency in capital cities of province (Beijing, Tianjin, Shanghai, Chongqing, Guangzhou, Nanjing, Xi'an, Chengdu, Hangzhou, Wuhan, Harbin, Shenyang, Kunming, Urumqi, Changsha, Changchun, Fuzhou, Jinan, Hohhot, Hefei, Haikou, Lanzhou, Nanchang, Nanning, Taiyuan, Shijiazhuang, Guiyang, Xining, Yinchuan)

3. Top10 GDP: Number of branches of one agency in Top10 per capita GDP provinces in China (Tianjin, Shanghai, Beijing, Jiangsu, Zhejiang, Inner Mongolia, Liaoning, Guangdong, Shandong, Fujian)

4. Branches: Total number of branches in one agency

5. SQRT Branches: Square root of number of branches of one agency

6. Prefectural level: Number of branches of one agency located in Prefectural level cities