Holding China Back: How the Household Registration System and Education System Are Hindering Economic Development in China

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Introduction

The economic growth China has enjoyed over the past few decades is nothing short of impressive. Against significant odds this enormous nation not just forged its way towards economic development, but also managed to do so at an economic rate of growth consistently higher than that of the vast majority of the world's other economies. Since the reforms of Deng Xiaoping were put into practice in 1978, China has turned away from an inefficient command economy model to a much more productive economy based on capitalism. As a result economic growth has yielded great improvements in the lives of citizens. Ask any citizen of the PRC what caused the Chinese economy to experience so much success and the response invariably will be that Deng Xiaoping and his Gaige Kaifang (改革□ 放)—the "opening up", or liberalization, of China's economy—is why China, economically, has had almost unparalleled success. Certainly Deng's set of dramatic economic reforms to the economic structure of China's economy during the late 1970s and early 1980s allowed this economy to grow and develop. These reforms have shaped China into the nation we know today as an economic power—a rising giant.

China's economic growth has been been distributed unevenly across the population. All have benefited from the growth, but some groups of people have benefited at a rate drastically higher than other groups[1]. This is not surprising; basic principles of economics point out that unequal distribution of wealth is a natural product of competition. Any economic structure with roots in capitalism and free market economics will allow people of above-average wealth-generating ability (entrepreneurship, administrative skills, creativity, etc.) to bring in more wealth than those of below-average ability. China, as does any other nation, has people on both

1 See Illustrations 1-3 on pages 16-17

sides of that spectrum, and so economic inequality is inevitable. But apart from the influence of competition and market economics, government policy also plays a role in the wide differences in income across the nation. In China, where communism's influence is so strong, it would be difficult to believe that government policy does not have a hand in the inequality; communist governments tend to have their hands in every aspect of a nation. There is at least one political institution in China today that has a very real effect on income inequality. This institution is China's Household Registration System—the *hukou* system (□ 口制度).

Through the *hukou* system the PRC government records and manages information relating to individual citizens; it is a very complex institution that was first implemented in the 1950s after the formation of the PRC. At the time, the PRC government felt the need, for political and economic reasons, to heavily restrict internal migration. The *hukou* system provided the tools to do that. By issuing all people one of two types of *hukou*—agricultural or nonagricultural—the *hukou* system set up a very real divide between rural and urban areas in China. In the 1950s, when this system first started, these differences were very tangible. Urban residents were given food rations while the peasants were expected to grow their own food and were provided no such assistance.[2] In addition, non-locals were not allowed to rent houses or temporary rooms, they were even unable to find jobs or buy oil or cloth because of their *hukou* status.[3]

In the 1980s the policies regarding the *hukou* system were relaxed a great deal. Ration coupons were no longer passed out and by the early 1990's virtually anyone could buy grain in any city on the free market.[4] With the elimination of the subsidy program, the *hukou* lost its

2 Delia Davin. Internal Migration in Contemporary China. Chippenham: Macmillan Press Ltd., 1999. 7
3 Ibid.
4 Fei-Ling Wang. Organizing Through Division and Exlusion. (Stanford, California: Stanford University Press,

main driving force that had established the rifts between the rural and urban populations. But the housing subsidies and employment benefits were still around and managed to keep the divide.[5] Even without control over food rations, the *hukou* system still was able to control migration and effectively prevent rural-to-urban migration through this regulation of housing subsidies and employment opportunities.[6]

Today the *hukou* system still has a very real and very influential role in China. Despite the incredible liberalization China's economy has seen over the last thirty years, the *hukou* system is still creating barriers for internal migration. There are significant social problems that come as a result; people are divided along lines drawn out by the government and are treated very differently according to those classifications. The *hukou* system effectively shuts off legitimate access to urban areas for rural residents in efforts to keep them from migrating to the urban areas, creating a seemingly hopeless situation for these rural residents. Fei-Ling Wang refers to this as "institutionalized exclusion," exclusion effected from the government institution of the *hukou* system applied to the entire population in China[7]. This exclusion is aimed at the majority of the nation: the poor, lower-middle class rural resident.

Through this exclusion a great emphasis is placed on education as the only real, fair way to succeed; getting a good education and graduating from college is, in a sense, the "every man's" way to success. Understandably this places great pressure on the education system, funneling students hoping for a chance at success to the college admissions examination system. These policies of exclusion and the emphasis that has been placed on the education as the route

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2005) 51.

5 Ibid.

6 Ibid. It is important to note that the policies regulating employment were not near as stringent as they were when first implemented in the 1950s when jobs were directly allocated according to *hukou* status.

7 Ibid, 1-8

to success creates an interesting dynamic.

It seems that the *hukou* system, by excluding large segments of China's population, places great pressure and focus on the education system. What are the economic effects of this? Common sense dictates that education is pretty important for economic development. After all, to get a higher salary, one must sometimes receive more education. Is that true here, on a macrolevel? How does the *hukou* system effect education's effect on China's economy? It seems like the hukou system, by placing undue pressure on the education system through the exclusion of the rural hukou holders, hinders the return of investment in human capital and thus hinders economic development.. By analyzing the exclusionary policies of the *hukou* system, the level of fairness exhibited in the educaiton system, the *hukou*'s effect on the education system, and finally the role of education in economic development, it should become clear how the *hukou* system affects China's economy through its influence in the education system.

The Household Registration System in Modern China

Government Objectives

Before any discussion on the types and processes associated with the *hukou*, it is important to have an understanding of the purpose of the *hukou* system in China today. There are two main purposes of this system: the first is to control the population in terms of migration and the second is to monitor and control groups and individuals termed dangerous for China. All three of these works provide well-grounded assertions as to what the purposes are that the PRC seeks to fulfill through the modern *hukou* system. This discussion is made somewhat difficult by the confusing discussion of Western and Chinese media on this topic. Both seem to skew the realities of this system; both focus on how the *hukou* relates to internal migration and the population of migrant workers while not giving much attention to other possible goals sought through this system. In reality the PRC pursues a wider range of goals through the *hukou* system and with complexities that are commonly ignored. This other objective is to monitor and sometimes control the actions and freedom of people deemed a threat to national security (ie. criminals, cult leaders, etc.).[8]

Migration Control

When the PRC embarked on "the heavy-industry-oriented development strategy" urban areas in China became attractive destinations for migrants seeking jobs.[9] This migration promised to place great strain on China's urban economy as rural migrants sought to move in and

8 Kam Wang Chan and Li Zhang. "The Hukou System and Rural-Urban Migration in China: Processes and Changes" (CHINA QUARTERLY, 1999 Dec;(160)) 2-3

9 Ibid., 3

enjoy their share of the benefits of newly developing urban economies. In the late 1950s, this potential drain on urban resources motivated the government to develop the migration control capability of the *hukou* system. Government policies also set prices in rural areas artificially high and prices in urban areas artificially low so as to use the rural economies to financially support their urban counterparts. The urban economy was vital to China's economic and political success thus it was deemed necessary to implement a system that would greatly limit the number of migrants entering the cities and would allow the government to allocate them so as to be of best use to the government.[10] Trading goods and services between rural and urban economies would hamper the government's system of artificially set prices and in effect cause the underfunding of urban industrialism and hold the entire Chinese economy back in terms of development.[11]

Though the motivations for the implementation of the *hukou* first led the government to take actions a half-century ago, recent governments have differed little from this original goal of the *hukou* system. Today there are strict controls in place to greatly discourage and actively prevent rural-to-urban migration. Evidence for this is found in how the *hukou* categorizes citizens and the processes for official migration according to these categorizations.

Divisions and Groupings

Registration: Location and Status

At the most basic level the *hukou* is given based on one's locality. The *hukou* was

10 Ibid., 4.
11 Ibid.

traditionally most important for its use in taxation and social population management and so had a great deal to do with the location of individuals. People whose location is unknown cannot be effectively taxed or controlled, especially before the days of electronic networking. The *hukou* was used to record location and confine the *hukou*-holder to that area. The *hukou* uses location to categorize people. Today this sort of classification is known as *hukou suozaidi* and is the most basic of two classifications in *hukou* registration.[12]

The Ming and Qing dynasties implemented another system of categorization that classified people according to occupation and social status[13]. Today the PRC categorizes people in a similar manner by issuing two different *hukou*'s based on a similar system: the agricultural (*nong*; □) *hukou* and the non-agricultural (*feinong*; 非□) *hukou*. This classification is known as *hukou leibie*. Originally the *hukou leibie* was classified according to agricultural and non-agricultural occupations, but in present-day such occupational distinctions are blurred.[14] The modern-day *hukou* system defines the *leibie* classification according to citizens' "socioeconomic eligibility" and their relationship with the government[15].

The duality of the the *hukou* classification system, according to Chan and Zhang, allows for a single location to have members whose *suozaidi* status (based on locality) is the same but whose *leibie* classification is different. The most efficacious result of having a system of dual classification is in how it serves to set more obstacles before people transferring *hukou* status for the purposes of rural-to-urban migration. This system establishes "two bureaucratic barriers for

12 Ibid.
13 Wang., 39, 41. People were put into categories such as merchants, handicraft workers, peasants, military, etc.
14 Chan and Zhang 4-5.
15 Ibid, 4

rural-urban migrants" instead of one.[16]

The most important topics to discuss when dealing with the *hukou* system are the real differences between various classifications. Advantages and disadvantages of having one sort of registration over another fuel the problems associated with this system today. Despite the existence of the dual-classification system as Chan and Zhang point out, in general the *hukou* is referred to has having two main groupings-rural (□ *nong*) and non-rural (非□ *feinong*). These two overall groupings are quite decisive in the lives of Chinese citizens as there are definite advantages to having urban-*hukou* status while clear disadvantages to having a rural registration. These differences are vital to this discussion and are at the roots of the "institutionalized exclusion" inherent in the *hukou* system.

The Agricultural Hukou (nong; ") and the Non-agricultural Hukou (feinong; 非 ")

When looking at the role of the *hukou* China, one must analyze the practical differences between the rural and urban *hukou*—the effect of one's *hukou* on one's ability to generate income and improves one's life. *Hukou*-related policy will illustrate government's attitude towards the two types of *hukou* how policy has been set up to create large practical barriers between the urban and rural *hukou* holders. Secondly economic data will, outside the bounds of political goals and agendas, illustrate what the overall economic disparity between the two registrations is really like.

16 Ibid, 5

Policy

Originally the *hukou* system included a great deal of subsidies, a system of "price scissors" benefiting the urban population and creating highly unfair advantages for urban industries and residents by artificially lowering prices on a wider range of goods urban-*hukou* holders had access to[17]. As the Chinese economy liberalized and opened up, many such marks of the command economy have faded away. In recent years these "price scissors" no longer exist as they did before, and so this important difference in registration no longer applies[18]. But this is not to say that the differences between rural and urban registration defined by policy exist no longer, the policy-induced disparities have simply become of lesser importance and fewer in number.

There are still areas, however, in which policy has induced significant disparity based on *hukou* registration. In recent years the most prominent differences between urban and rural registration status in China are found in the areas of purchasing real estate, education, and employment.

It is a general rule applicable to most any region or country of the world that life in urban areas allows for much easier access to a greater number of goods and services. In developing nations, like China, this difference between urban and rural comes in the form of access to amenities. Running water, clean water, sewage systems, electric grids, and gas heating are some major amenities available in urban areas that are unavailable in many rural areas of the country.[19] If rural areas are not given the resources to develop ways to provide similar amenities, citizens

17 Davin, 66-68.
18 Arvinder Singh. "Shaping up the New Countrysides." China Report, Vol. 43, No. 2, 2007. 231-236. Wang, 45, 51, 67-68. After 1985 the PRC began to phase out systems of subsidizing food.
19 Ibid, 45, 51, 67-68.

have only one option if they wish to benefit from such things; they must go to the cities. Policy exercises a heavy hand over the allocation of these resources specific to urban areas. Though running water and sewage systems and the like would be very difficult to control on their own, these amenities have in common their distribution through the unit of the home. Homes, apartments or individual housing units, receive these services. Policy controls this distribution by controlling the sale of real estate according to *hukou* status. In recent times there are no longer absolute restrictions keeping rural-*hukou* holders from purchasing or renting homes, but barriers are set up to prevent them from doing so. Housing subsidies for urban-*hukou* holders give them a definite advantage over their rural counterparts in the real estate market, as unsubsidized prices are normally prohibitively high.[20] The state, through the simple mechanism of selectively providing housing subsidies to those of urban registration and withholding them from rural-*hukou* holders, manages to create a major benefit gap between the rural and urban *hukou* not only with regards to housing but, more importantly, with regards to the amenities that come with housing. Rural-*hukou* holders are denied the opportunity to improve their lives in basic ways simply for the fact of their registration.

The second major way that policy influences lives significantly according to *hukou* status is in the area of primary and secondary education. Creating national policies and strategies of universal education is a tradition now that is foreign to very few nations. China has a policy of universal education and has been seeking to educate its people since 1986.[21] Similar to the control of amenities, education is distributed according to one's *hukou* status.

20 Ibid, 67

21 Yusheng Liu,. "Zhongguo Yiwu Jiaoyu Zhengce Shi Zhi Ming Gui." China News Net. Sept. 2, 2008. <http:// www.chinanews.com.cn/edu/jysp/news/2008/09-02/1368720.shtml> March 13, 2009.

Education in rural areas is significantly worse than in urban areas. Rural areas have a lack of financial and human resources to provide the level of education common to urban educational institutions. In addition to having fewer educational resources, rural students are excluded from the level of funding urban students receive for their first nine years of schooling.[22] The differences in the educational resources offered to people of urban and rural registration status provide a significant incentive to obtain urban-hukou status. The exclusion inherent in the hukou system, along with traditional values, causes a high level of importance to be placed on education as a method of achieving self-improvement and socioeconomic mobility. This aspect of education really comes into the light upon analysis of the National College Entrance Examination system (NCEE). For now it is important to point out the differences in primary and secondary education as an incentive for *hukou* transfer.

Employment is a third area in which policy creates definite advantages for the urban registered citizens. In the past there have been very clear policies against the employment of unregistered people in urban areas (they would have rural-*hukou* status). This is especially true for state-sponsored employers, but even private and foreign employers must document the *hukou* information of their employees.[23] Construction and other labor-intensive jobs can usually be obtained without urban *hukou* status, but these jobs are temporary and often quite risky for non-registered employees. There have been many cases in the past few years of major contractors delaying the payment of their employees for months and sometimes even years at a time with little recourse available to the poor and unrepresented workers.[24] In this way policy provides incentives for *hukou* transfer by limiting the types of jobs available to rural-*hukou* holders so that

22 Gang Guo. "Persistent Inequalities in Funding for Rural Schooling in Contemporary China." (Asian Survey. Vol. , XLVII No. 2, March/April 2007.) 225
23 Wang., 68
24 Weifeng Liu. "Legal team helps win back wages for workers." China Daily. Jan. 29, 2008. 5.

a good portion of the good, steady jobs are unavailable to them. Simple physical relocation from rural areas to urban ones is not enough, one must also seek to change one's *hukou* status to truly enjoy the benefits of the urban areas.

These policies causing differences in rural and urban registration create incentives for people to change their *hukou* status. Simply moving from a rural to urban locale does not suffice in providing an individual with urban benefits, as is the case in most nations. Instead a change of *hukou* status is necessary.

Judging from policies analyzed, there is an official agenda of actively excluding the majority (the rural-*hukou* holders) from benefits enjoyed by the minority (urban-*hukou* holders). Through these two forms of political control over the benefits coupled with the different *hukou* registrations a pattern of what Wang calls "institutional exclusion" is clear.[25]

25 Wang., 1-8

Economic Disparity

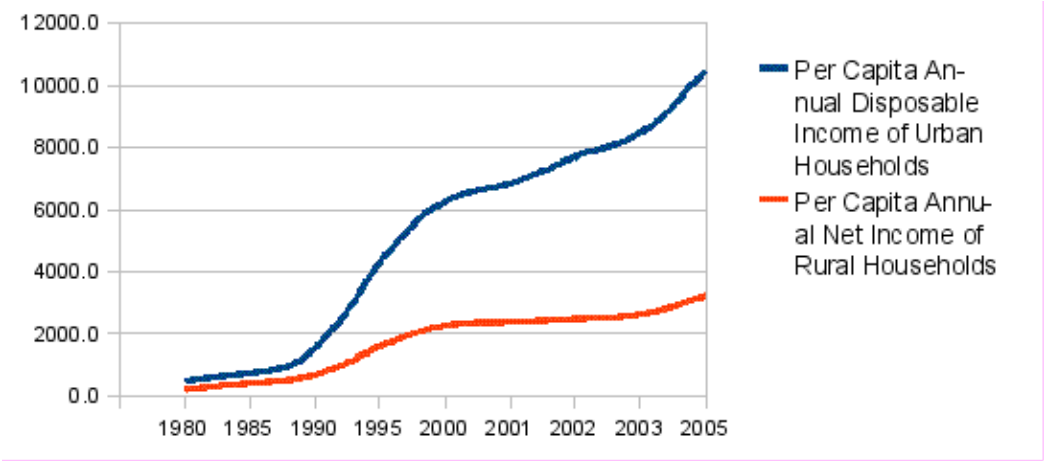

Illustration 1: Rural-Urban Disposable Income Disparity

Illustration 1 clearly shows a significant difference in the average disposable income of the urban and rural areas. This gap has been growing since the early eighties and continues to widen. Illustration 2 further describes this gap by illustrating the average rural disposable income as a percentage of the average urban disposable income. Apart from the rise and peak from 1980 to 1985, average rural disposable income becomes a smaller and smaller percentage of its urban counterpart. The gap between rural and urban average disposable income is increasing. This creates an imbalance in income that most certainly attracts rural residents to the cities to find jobs. Since disposable income in the cities is so much higher (three times higher in recent years) urban jobs are highly desirable. With such a gap, even the lowest paying jobs of the cities can attract rural migrants. Illustrations 3 and 4 show the urban-rural disparity by looking at the differences between spending on necessities (food) and on two purely consumer

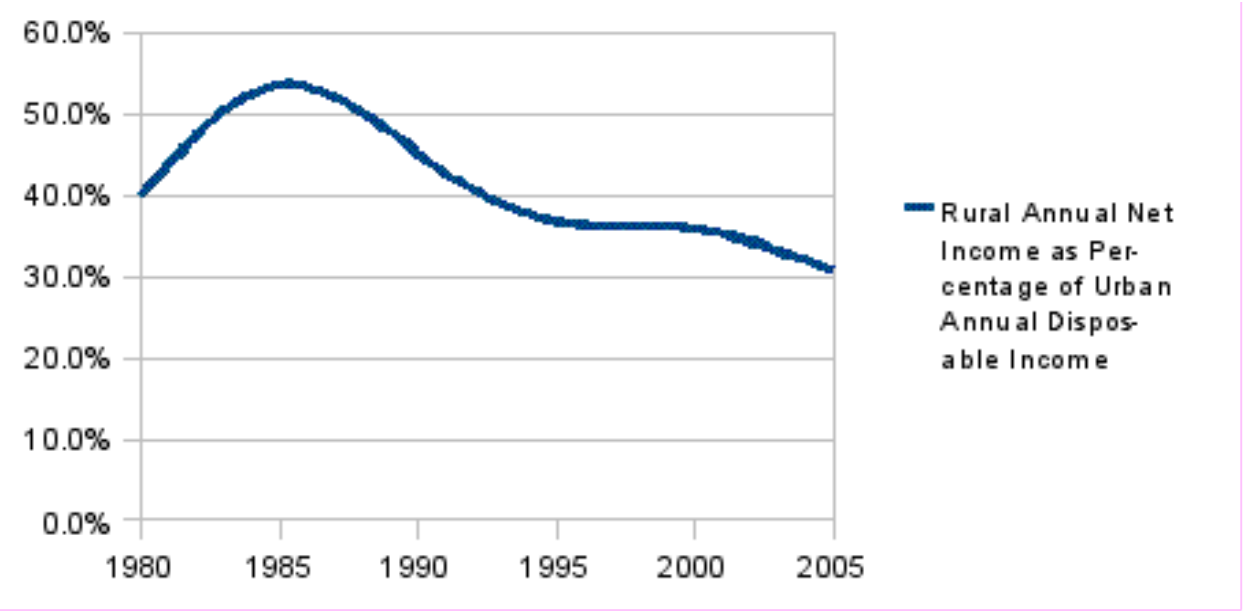

Illustration 2: Rural-Urban Disposable Income Gap Trend

SOURCE: Zhongguo Tongji Nianji (China Statistical Yearbook) 2007. Beijing; China Tongji Press, 2007.

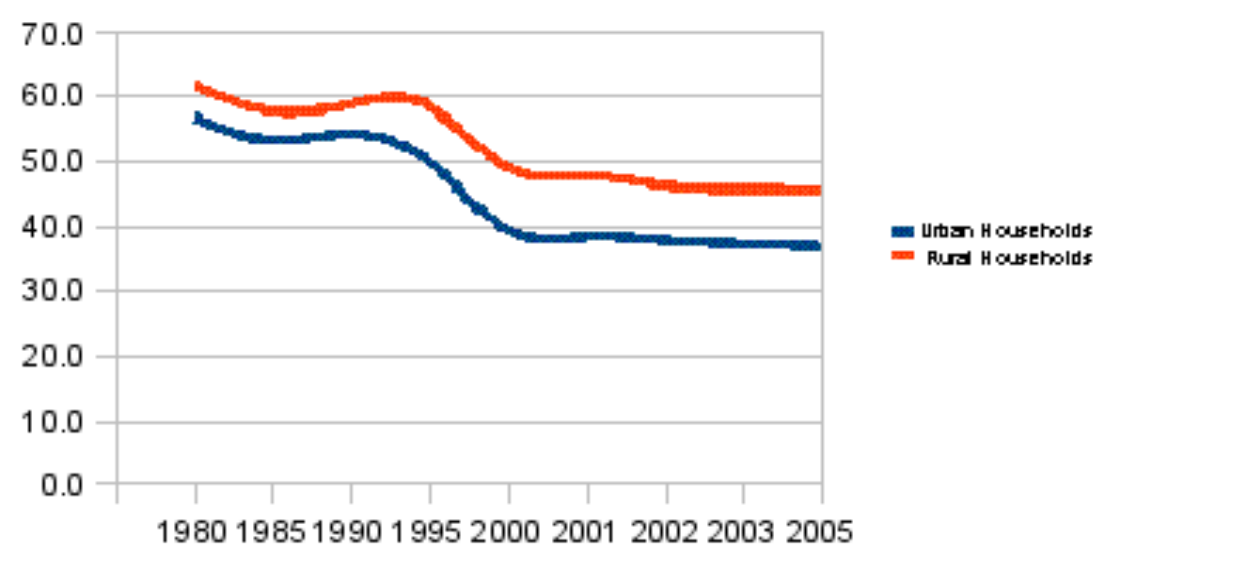

Illustration 3: Engle Coefficient for Urban and Rural Households

SOURCE: Ibid. to Illustration 2

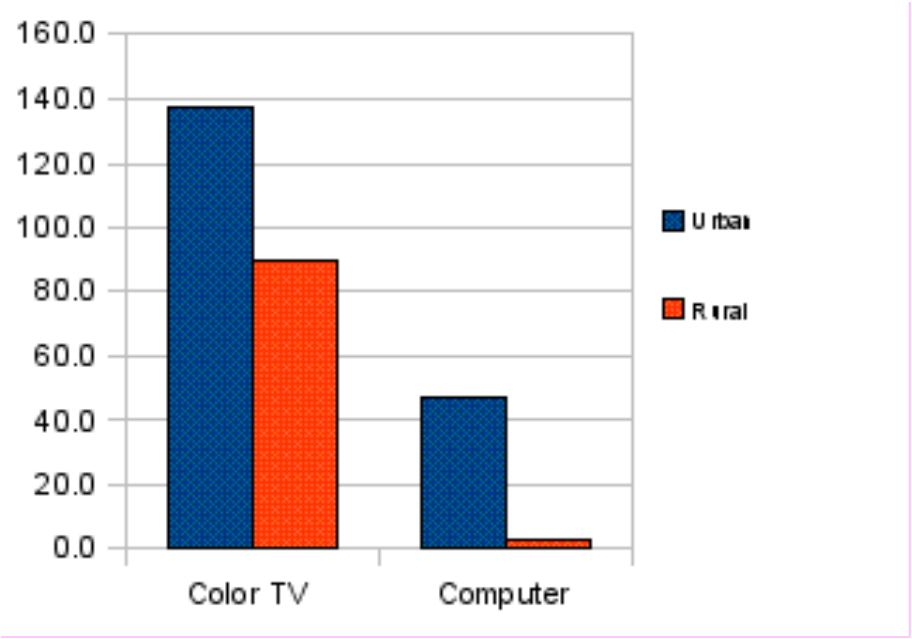

Illustration 4: Goods per 100 Households

SOURCE: Ibid. to Illustration 3

goods, computer and color TV's. To analyze the difference between expenditure on necessities the Engle coefficient is very useful.[26] There is a distinct difference between the urban and rural Engle coefficients that clearly favors the urban areas. This means in urban areas, households spend a smaller percentage of income on food than do their rural counterparts. This information sheds light on urban-rural disparity in China from a different perspective by showing that, in general, food costs are significantly more burdensome in rural areas than in urban areas. Finally, the last table shows the respective urban and rural consumption of two goods, color TV's and computers. Both of these goods are purely consumption goods and are totally unnecessary. By showing the differences in usage of these two very common goods one can get an idea of the restrictions placed on such spending in rural areas. Looking at the wide difference between the percentage of TV-owning households in rural areas and urban areas (a significantly lower

26 The Engle Coefficient measures the burden of the costs of food by finding the percentage income spent on food.

percentage of rural households have TVs than do urban households), it is clear that in the rural areas consumption spending is much lower than in the urban areas. Such spending can do a lot towards causing people some measure of happiness.

Hukou Transfer

When it comes to discussion of the *hukou* the most important topic is that of how to change *hukou* status. It is here this system's effect on the population is most apparent and how the government uses this system for exclusion most clearly displayed. In their respective works, Wang, Chan, and Zhang all roughly identify *hukou* status changes as being of two main groupings, the regular processes and special processes.[27] It is important to notice through these processes and the policies associated with them how elites are given preferential treatment while the average Chinese is officially excluded from urban life and benefits.

Regular Processes

In China today there is one major route by which citizens can transfer their *hukou* through official processes. This comes quite simply through an application to the *hukou* police. Because the government greatly encourages migration from urban areas to smaller urban areas/rural areas, it is not pertinent to discuss it in depth.[28] Such migrations can happen almost at will, the only limitation being the time it takes to process the necessary forms. Rural-to-urban migration, on the other hand, is very troublesome and often near impossible. There are three main ways to do this: through tertiary education, through an open application, and finally through state

27 Chan and Zhang, 6 Wang discusses these two different groupings throughout his book, but does divide them specifically into "regular" and "special" classifications.
28 Wang., 91

occupations.

Education

Transferring of the *hukou* through tertiary education is done by many students each year, but these students have already been chosen from a much larger cohort of students and so this method excludes a great number of people. This does, however, account for a significant portion of the *hukou* transfers during any given year, possibly as much as a quarter of all transfers[29]. Such transfers are granted to students when they complete an undergraduate degree from a state accredited institution. Graduate students are given even more freedom with regards to hukou transfer upon graduation, with persons holding doctoral degrees having permission to transfer their *hukou* to almost any location they find desirable.[30] It is important to notice the significant portion of *hukou* transfers taking place because of this policy allowing such transfers for all college graduates.

Open Application

For the applicants who have obtained one of the three required documents, the chances of being granted a transfer are greatly reduced because of a strict quota system in place. Quotas numbers are far fewer than demand and make a *hukou* transfer extremely difficult for the ordinary citizen. In some places it is as prohibitive as 0.15% of all rural-*hukou* holders.[31] At present China's rural population is around 780 million; 0.15% of the rural population is 1.17

29 Chan and Zhang, 11. They point out that in many cities the Ministry of Education has control of around a quarter of all transfers.
30 Wang, 96.
31 Chan and Zhang, 7.

million, which is less than 1% of the 150 million rural-to-urban migrants in China today.[32] The excessively prohibitive limitations put on this process have made it very impractical.

Transfers Through State Occupation

Chan and Zhang point out that apart from using the quota system the Ministry of Public Security (MPS), the ministry in charge of the *hukou* and granting transfers, has little control over most current migrations. The MPS is in charge of *hukou* transfers through open application, but the percentage of transfers taking place through the application process is rather small. For example, according to a survey taken in 1992 less than 5% of all official migration to Beijing was approved by the MPS.[33] The vast majority of legal migrations take place through means other than the standard application process.

The state rewards high-ranking state employees by giving them and their spouses urban registration.[34] These state employees vary anywhere from the more conventional section chiefs and township heads to high-level scientists and prison managers.[35] On a more basic level, all state employees can obtain urban registration in the place they work and live if documentation is provided. Urban registration through this means is limited as the government can decide who to let in and who to not by simply not allowing them a state job.

32 "China sees soaring migrant population." China Economic Net. Oct. 29, 2006. <http://en.ce.cn/National/Rural/200610/29/t20061029_9179748.shtml#### > March 13, 2009.
33 Chan and Zhang, 11.
34 Wang, 95
35 Ibid.

Special Processes

There are a number of different special processes by which some members of society can change their *hukou* in classification and/or location. These processes are different from the "regular" processes because they are opened to a very limited group of people and tend to serve as rewards for some sort of national contribution. There are three main categories; military service, land requisition, and an "other" category encompassing a wide range of lesser-reaching policies. Land requisition is basically a system of compensation similar to that found in eminent domain law in the United States. Because individuals have no power over land requisition and cannot seek *hukou* transfers on their own except in response to the government requisitioning of their lands, this aspect is not pertinent to this discussion.

Military Demobilization

Some argue that one of the best ways for an average Chinese citizen to change their *hukou* status and gain opportunities to rise up the educational and social ladder is through military service in the People's Liberation Army.[36] Hukou transfers available to college degree holders and graduate level degree holders have been discussed as one of the regular processes of *hukou* transferral.

Upon being discharged, military personnel have opportunities to obtain urban *hukou* status if they meet eligibility requirements. Officers are given the best opportunities, each being able to obtain urban *hukou* status in their place of rural registration (towns can be divided into urban and rural sections). Higher ranking officers can generally given permission to live where

36 Zhu, 544.

they wish to live and are registered in that locale as an urban-*hukou* holder (this does not apply to "highly controlled [cities]" like Beijing an Shanghai).[37] Ordinary draftees and volunteer soldiers also have opportunities for *hukou* relocation; the former may obtain urban *hukou* status through a state job if they receive a certain level of decoration while the latter will receive urban status after a predetermined number of years of service.[38] Through policies facilitating *hukou* transfers for loyal soldiers and opening the military to volunteers, a legitimate and reasonable path for *hukou* transfer is made available to the average citizen, not exclusively for the wealthy and powerful. However, despite the opportunities offered to ordinary citizens by military service on an individual level, the military is a tiny fraction of the rural population of China, approximately a third of a percent.[39] Though the "military option" for *hukou* transfer seems a viable option for ordinary citizens, in reality only very few can take advantage of this.

Other

The PRC seems willing to allow urban-*hukou* status to those in whom there is promise of making significant economic or nationalistic contributions to China. Winning an international or major national sporting competition can be reason to issue an athlete an urban *hukou*.[40] Olympic medal winners, for example, would most certainly be eligible for an urban *hukou* and would probably be able to choose most any urban area in which to live.[41] For those who make

37 Wang, 92.

38 Xiaogang Wu and Donald J. Treiman. "The Household Registration System and Social Stratification in China: 1955-1996." (Demography. Vol. 41, No. 2, May 2004).366
Wang, 92, 94.

39 IISS (International Institute for Strategic Studies). The Military Balance 2001-2002. Oxford: Oxford University Press 2001.
World Development Indicators database. World Bank 2005.
China's rural population is around 777,000,000 according to World Bank while its military personnel is roughly 3,000,000 according to data supplied by the IISS.

40 Wang, 94.

41 Ibid.

extraordinary sacrifices for China as a nation there is also hope. Coal miners of certain areas receive this privileged treatment as do those willing to work for the government in hardship areas like rural Xinjiang in the deeply impoverished West.[42] This sort of *hukou* transfer can sometimes provide an urban-*hukou* to ordinary people, but this sort of transfer is permissible for very few.

Blue-seal/Blue-stamp Hukou

During the late eighties the CCP implemented a policy of issuing transitional *hukou*'s, which were, because of their color, commonly called "blue-seal *hukou*'s." These blue-seal registrations were a response to the rising demand for urban registrations; the government's attempt to satiate some of the demand for urban registration.[43] The use of blue-seal *hukou*s still does not allow the discriminated access to the benefits of urban registration. On the contrary, the blue-seal *hukou* was effectively only made available to the elite: the rich, the exceptionally talented, and those who had somehow earned a great deal of merit with the government.[44] The methods of acquiring this transitional registration status for any given urban area vary according to state and local law, but these methods do follow a basic pattern. One can effectively purchase a *hukou* by buying property (generally some sort of housing like an apartment) or by running a business employing a certain number of locals.[45] A decent amount of wealth is required to obtain a blue-seal *hukou*, especially since applicants are required to purchase the property at

42 Chan and Zhang, 837.
Wang, 94

43 Chan and Zhang, 836-837.

44 Ibid, 837

45 Linda Wong, and Huen Wai-Po. Reforming the Household Registration System: A Preliminary Glimpse of the Blue Chop Household Registration System in Shanghai and Shenzhen (International Migration Review, Vol. 32, No. 4 (Winter, 1998)) 978.
Wang, 92-93.

government-set prices significantly higher than market price.[46] Though the two methods just described seem to be the most common way the blue-seal *hukou* is obtained, there are other ways. If one has some special skill that is in great demand or has accomplished some great athletic feat, etc. one may also be eligible for a blue-seal *hukou*.[47] Though they vary, there is a strong relationship between the different methods of obtaining this kind of *hukou*: only extraordinary people have access to this path of registering in an urban area. As is seen throughout the *hukou* system, the average Chinese citizen is excluded and legal obstacles are set up limiting his chances for success.

Hope?

From the discussion of both the regular and special processes it is clear that within the framework of these methods of official *hukou* relocation there are strong barriers set up that keep the majority of the Chinese people from ever being able to obtain urban status. Receiving an urban *hukou* by applying through the normal processes is next to impossible because of the exceedingly restrictive quotas set up to keep the millions of rural-*hukou* holders from ever having a hope of legitimate *hukou* transfer. Overall, preference is given to four different categories of people who all directly contribute to the nation. These groups can be defined by their contribution; the rich make a financial contribution, government officials provide political resources, members of the army provide defensive power, and finally there are those who contribute to the nationalistic spirit of the nation through sports and other achievements. The people found within these groups are a very small portion of the urban-*hukou* seeking

46 Wong and Huen, 978-979
47 Wang, 50-51

population. The *hukou* system excludes the ordinary Chinese citizen with rural status by setting up barriers preventing them from enjoying the same benefits accorded to urban-*hukou* holders.

In his book on the *hukou* system, Wang speaks of two methods as "the two realistic ways of permanently changing *hukou* status from agricultural to nonagricultural."[48] He makes the case that only by entering the People's Liberation Army or earning a college degree can people of rural status and ordinary rural income realistically hope to obtain an urban-*hukou*. It is certainly true that rural people who are not wealthy have very little hope of ever changing their *hukou*. It also true that the military and the college system do provide ways for such a demographic to overcome this discrimination. For those who desire to change their *hukou* from rural to urban these routes must be taken. Moreover, since the military is by nature an organization of exclusion—by necessity it must exclude those not in good physical shape, etc.—by far the most fair and open route by which a rural-*hukou* holder can change their *hukou* is through tertiary education.

The *hukou* system, by excluding the average rural people from urban-*hukou* benefits, funnels those seeking to improve their lives and come out of their situation of rural poverty through the college admissions system. With dreams of rising out of the underprivileged rural areas students seek to gain urban status by getting into a state-accredited institution. Thus, the college system has come to be considered a fair institution in China today. It is looked upon as a mechanism by which one can improve one's own situation through hard work and dedication. Many Chinese consider the university to be a "leveler" of sorts, leveling the playing field and making a prosperous life possible for all willing to give what it takes. Such feelings of fairness

48 Wang, 91

and equality do not necessarily equate with reality. Is the education system in China truly a leveler? Does it really provide opportunities for socioeconomic mobility to everyone willing to work hard? In order to answer these questions one must examine the college admissions system In place and observe how it excludes and/or includes those striving for upward mobility.

The National College Entrance Examination: Promoting Inclusion

In contrast to the *hukou* system and its inherent exclusion is the inclusion professed to be an integral part of the National College Entrance Examination (NCEE) institution. Like the *keju* civil service examination system set up centuries ago in Imperial China, the NCEE is aimed at giving all Chinese students an equal chance at attending a good university, and thus giving them a chance to succeed in modern-day China, by providing a standardized test in a secure and fair manner to examinees. In a nation so mired in inequality and discrimination according to wealth and social status, the NCEE provides hope for many young students who grow up hoping to improve their situation through high test scores. As was the *keju* system of imperial China, the NCEE is seen as allowing all an opportunity to rise above the status quo and become a figure of importance and consequence, to become respected and successful. The *hukou* system creates an environment of exclusion that all but closes other doors to legal urban residence so that when any hint of opportunity or possibility of success emanates from the NCEE people are attracted by it and in effect the *hukou* ends up serving to funnel people to this college entrance system.

History

Although the modern NCEE does not directly find its origin in the civil service examination of the past (*keju* 科□), there are some notable similarities. Both are put forth as paths of success, and not only are they avenues for opportunity but are open to many more than have access to other means of self-improvement. Hope lies in excellence in the examination and

remarkable amounts of energy go into securing such excellence. It seems that the cultural precedent of the *keju* system may have left a place for the modern day NCEE to fill after the exam was terminated in 1905.[49] Like the *keju*, the NCEE gave the majority of the population potential access to auspicious jobs, post, and positions in society.

The first version of the NCEE was created and implemented in 1952, but was done away with at the beginning of the Cultural Revolution in 1966. During the decade of the Cultural Revolution, deemphasis on exams kept the college examination system out of national policy until 1977.[50] When Deng Xiaoping stepped into Mao Zedong's role as CCP Chairman and leader of the PRC the great economic need of the nation was overwhelmingly apparent to all. Calling a meeting to discuss these economic problems in 1976, Deng and many advisors were appalled at the differences in number of scientists between China, the US, Japan, and the USSR. Deciding to follow the example of Japan in its recent economic success, Deng decided to emphasize the sciences and education in general by reinstating the NCEE.[51] Since that February of 1977, every year the NCEE has been administered.

Content

The NCEE consists of three mandatory subjects and one section whose subject depends on the educational goals of the examinees. Some refer to this system as the "3 + X" system, three subjects plus the subject matter chosen by examinees.[52] These three subjects are Chinese,

49 Max A. Eickstein and Harold J. Noah. Secondary School Examinations: International Perspectives on Policies and Practice. (New Haven: Yale University Press, 1993) 210.
50 Eickstein and Noah, 91.
51 "Weida de Licheng." China Central Television. Episode 1.
52 Gareth Davey, Chuan De Lian, and Louise Higgins. "The university entrance examination system in China." (Journal of Further and Higher Education. Vol 31, No. 4, Nov. 2007, pp. 385-396) 387.

mathematics, and foreign language, which now is almost exclusively English. The fourth component is determined by the students' educational goals; students choose between a list of subjects: biology, physics, politics, history and geography.[53] From the standpoint of subject matter, it seems that the NCEE is quite comprehensive and includes all of the material, and possibly more, as do many college entrances exams in other nations.

When discussing the actual content of the NCEE it is important to mention both the subject mattered covered as well as the way in which these subjects are approached in the exam questions. The way the exam approaches the various subjects is important as it determines how students will train in preparation for answering them. The NCEE is divided up into two different sections based on the question style: one section is made up of multiple-choice questions while the other section consists of questions requiring students to input their answers (as opposed to choosing from a list), write essays, and take an oral English exam.[54] On the whole the NCEE seems to be a test based on memorization and not on independent thinking. As Eickstein and Noah put it, these exams "tend to focus on formal aspects of the subject, with relatively little application to actual situations" and the majority of the NCEE provides supportive evidence of this.[55] The first section of multiple choice questions does require the student to respond to a question and provides guidance for their response by providing a list of possible answers. Examinees need few skills of independent thinking and use rote memorization to tackle this section. The second section does consist of essays and an oral foreign language exam, both of which require more independent thinking skills, but the rest of

53 Davey, De Lian, and Higgins, 388
54 Ibid.
55 Eickstein and Noah, 154

this section differs from the first only in that it requires students to come up with their own answers to problems instead of passively choosing from a list. Again the rote memorization of facts and calculation methods seem to be perfectly adequate methods of preparing for this kind of exam. Students are asked to provide information on the formal, abstract aspects of the subject and so students memorize answers.

There seems to be a rather strong sentiment shared by many (Chinese and non-Chinese alike) that the NCEE focuses too much attention on objective questions like those in this first section and doesn't require students to think creatively and practically enough. An alternative to this method asking objective questions requiring memorized answers is requiring students to take their formal knowledge of a subject and apply it to a specific situation. The latter requires analysis, creativity, and understanding while the former requires the memorization of texts. The essay section of the NCEE does seem to require more analysis and independent thought, however. At the same time, as was very popular during the time of the civil service exam, students can also very well memorize past successful essays. Takers of the civil service exam would often use books of published essays to memorize essays and then reuse them on the exam with some alterations.[56] Similarly today there is a great deal of material available to aid students, and as can be imagined this material is solely focused on the improvement of test-taking skills with memorization as the major tool.[57]

It is important to note that few tests used to the scale the NCEE is used in China are much different. Creating and evaluating a test that asks questions with very short,

56 Yu Lan and Hoi K. Suen. "Historical and Contemporary Exam-driven Education Fever in China". (The University of Pennsylvania. KEDI Journal of Educational Policy Vol.2 No.1 2005) 6.
57 Ibid, 28

nonnegotiable answers is drastically easier and cheaper than preparing and grading tests designed at evoking individual thought and analysis. It is easy to imagine at least some of the difficulties faced in fairly evaluating several million exam essays consisting entirely of personal opinion and analysis. The inadequacies of this exam are important because of the emphasis that is placed upon the exam as a result of the influence of the hukou system.

Fairness

The annual development and administration of the examination appear to be done so with the utmost concern for maintaining the secrecy of the content of the exam and providing ample defenses against cheating. Some may even, with reason, claim that the resources used to this end are excessive and a result of obsession. But no matter what one thinks, it seems to be agreed upon that the NCEE provides an exam whose contents are kept quite secret and whose administration is run so as to provide as equal a playing field on test day as possible for all examinees. In the words of Eickstein and Noah, the NCEE "greatly reduces the risk of overt favoritism, influence-peddling, and corruption in the allocation of university places."[58]

In order to write the test, writers are sent off to a secluded location where they are isolated from the rest of the country while the test is being written so as to prevent the leaking of information. An even more extreme measure is taken in the actual printing of the examinations. Tests are all printed exclusively in secluded, maximum security prisons by prisoners serving nothing less than a life sentence.[59]

58 Eickstein and Noah, 57
59 Lan and Hoi, 27

On the actual test day preventing cheating is of the highest concern and there are systematic defenses against this. Students are randomly assigned to one of a variety of possible locations and test proctors are not assigned specific rooms until immediately before the test begins in order to decrease the number of opportunities for bribery.[60] Randomly assigned seating and having multiple versions of the exam to hand out make collaboration or cheating between students without being caught by the proctor very difficult. Finally, stiff penalties also check proctors' and students' motivation to cheat. Examinees caught cheating are dismissed immediately and banned from the exam for life. Proctors are given extra incentive to combat cheating: proctors in charge of students found guilty of cheating are fired immediately without question.[61]

The NCEE system by all appearances is fair and provides as fair of an examination as can be expected. In a nation in which test scores are so influential in the lives of the examinees, having a fair system of creating and administering examinations is very important as the motivation to cheat is high because the stakes are high. Of probably greater importance than the actual fairness of the system is the *perceived* fairness. In China, it seems that right now most people perceive this system to be a decently fair one and have faith in its ability to look past socioeconomic, familial, and political backgrounds to measure a person's ability to excel in academics. The importance of this aspect of the NCEE cannot be overstated. Fairness, or at the very least the perceived fairness, is what gives this system legitimacy and is why so many Chinese place such importance upon it. This legitimacy achieved through apparently fair administration allows citizens to put their trust and hope in it. It is critical that such trust be

60 Ibid, 6
61 Ibid.

maintained so that citizens feel safe in resting hopes and dreams on the results of this test.

Inclusion

Whereas the *hukou* system does a great deal to exclude the majority from socioeconomic mobility, the NCEE is often seen to provide relief in the form of an alternate route to success. This alternate route is, as previously stated, roughly similar to that provided by the *keju* system before the 20th century. The great extent to which administrators and government officials go in order to ensure the fairness of the examination and its administration is incredible and legitimizes the entire process, making the NCEE "considered one of the few fair systems open to every Chinese citizen."[62] This system is unique to China and serves as a beacon of hope for students striving to better their situations through upward mobility. Standing as a foil to the hukou system, the NCEE is one of the few institutions in China that level the playing field for all Chinese citizens and given them opportunities otherwise limited to those with wealth or power. The NCEE has become a rare example of institutionalized inclusion in China today. But this inclusion is short sighted and its practical influence is cut short because of the influence of the hukou system.

62 Wang, 140

Education and the Hukou

Education in China is the main way of socioeconomic improvement for people who are not already wealthy, powerful, and/or influential. The *hukou* exclusionary practices has effectively denied access to opportunities for economic success for those who need them most, but has left a few doors of opportunity open, the widest and most important being education, more explicitly a college degree. The *hukou* quite clearly denies and allows access to certain benefits for Chinese citizens based not mostly on merit or productivity, but on one's *hukou* status. In the midst of this unfair system in which urban residents are allowed access to much more economic success than are their rural counterparts, the NCEE system stands out as a system that includes all by giving all residents an opportunity to earn enrollment into university through a meritocratic system. Yet, despite the NCEE system and how it seeks to evenly distribute opportunities to gain admission into college and in effect access to urban *hukou's*, in reality these opportunities are significantly more accessible to those living in urban areas with urban *hukou* status at the expense of those of rural origin and rural *hukou* status. In effect, the fairness of the NCEE system does little to improve the development of human resources while the *hukou*-shaped divisions between rural and urban stand strong and hinder education in rural areas. The NCEE system fails to improve the distribution of good education not because of major inadequacies inherent in itself, but because of the policies regulating institutions on either side of it: primary/secondary education systems and systems of college admission. The *hukou* system has created a nation divided between the rural and the urban to an extent that has affected the education system. These effects are manifest in two major areas, the primary/secondary

educational systems and in college admissions.

Primary and Secondary Education

Rural-Urban Differences—Retention Rates

Differences between urban and rural areas are clearly illustrated by the differences between rural and urban education systems. Illustrations 5 and 6 very clearly show these differences. In Illustration 5 there is a marked difference between the number of students presently in school in the urban areas and in the rural areas. In order to gain an opportunity to take the NCEE and thus have a chance at attending college, students must make it to high school. Illustration 5 shows that a much smaller percentage of rural middle school graduates ever make it to high school than do their urban counterparts. Illustration 6 supports this evidence, showing that rural students drop out of school at a much steeper rate than do their urban counterparts as they grow older. Fewer than one-fifth of rural citizens of the age 18 who have been enrolled in school before are still attending school. This is a big difference from the 50% retention rate observed in the urban settings. From this data, the odds of a rural student successfully making it through primary and secondary education are decently small, much smaller than the probability that an urban student will make it into high school. Whatever the reason for this huge difference in retention rates, this data shows that there are very real differences in the education systems of rural and urban areas that simply make it more difficult for rural students to gain access to education.

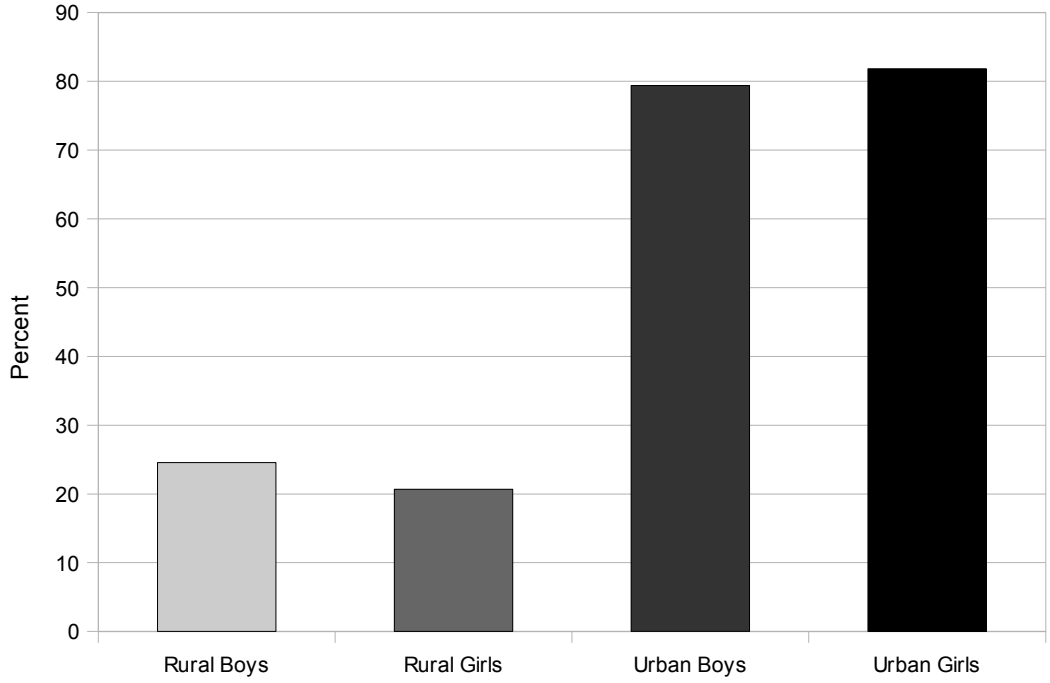

Illustration 5: Percentage of middle school graduates who attended high school (2001)

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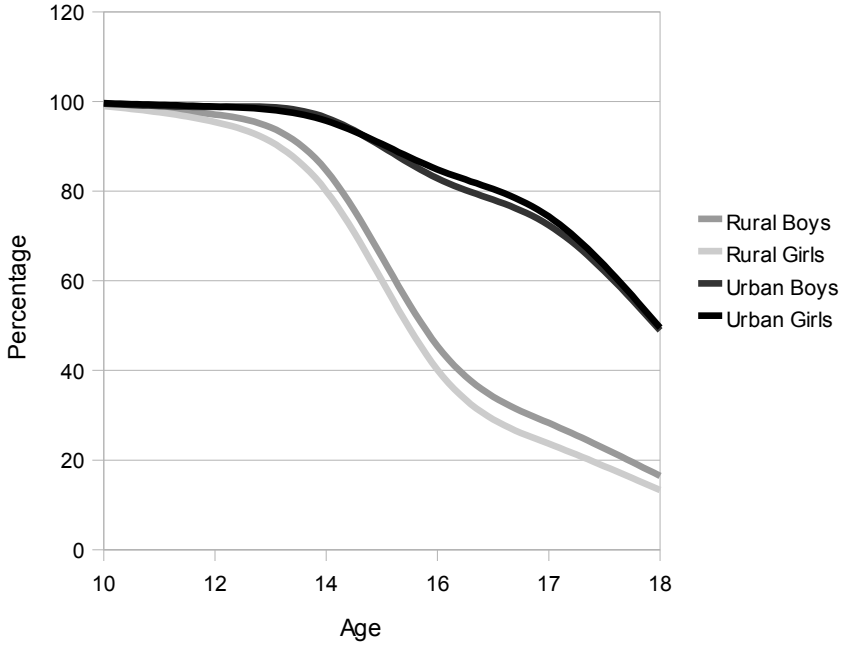

Illustration 6: Percentage of students who have enrolled into school in the past who are still currently enrolled (2001)

SOURCE: Rachel Connelly and Zhenzhen Zheng. "Enrollment and graduation patterns as China's reforms deepen, 1990-2000." (<u>Education and Reform in China</u>. New York, NY: Routledge, 2007.) 83

Not only do statistics show that the education systems of the urban areas has more power to retain their students than do the rural education systems, urban education systems receive significantly higher levels of funding from the government. At least from 1993 to 2005 the PRC government has spent significantly more money per student in urban areas than in rural areas.[63] During this time period per student education expenditure in rural areas has grown from 88.9% to 90.8% of the national average for elementary school, with an overall difference of less than 2%, and from 84.5% to 87.8% of the national average for junior middle schools.

Primary and Secondary Education Influenced by NCEE

The importance given the NCEE in turn heightens the importance of the preparatory system found in secondary education. With a college entrance examination being of such great importance to individuals, there is a great deal of emphasis placed on preparation for the exam: according to China's Ministry of Education Chinese families allocated about 12% of their family budget (less was spent on food) towards spending on education.[64] This emphasis has in turn created an entire system of secondary education bent on training students for the NCEE. Students are being almost exclusively taught material they will see on the exam and are taught in such a way that best equips them to be successful on the exam, rather than equipping them to use the knowledge in practical, work-day circumstances. Instead of secondary education influencing the content and format of the college entrance exam, "developments in secondary education are

63 Guo, 225
64 Lan and Hoi, 18

determined by the university entrance exam."[65] Therefore the *hukou* system indirectly has a very strong effect on the secondary education system by leading it to be almost entirely reactive to the policies and practices of the NCEE.

Because the NCEE tests subjects in Chinese, mathematics, English (rarely a different foreign language), and one or several out of biology, physics, history, geography and politics, these are the subjects taught in secondary schools. Likewise, "subject matters that are not tested, no matter how valuable, will be ignored or de-emphasized."[66] Skills and knowledge not tested on the NCEE, and therefore not part of the equation for success, are ignored and forgotten. This has caused two major phenomena that detract from the education of Chinese students: harsh, intensive, exam-driven curriculum that drive students to drop out of school or worse and students who are almost wholly untrained when it comes to developing and synthesizing ideas.

The pressures placed on the millions of students preparing for the NCEE each year are tremendous. Parents and teachers alike place great expectations on their children and students as they prepare to take the potentially life-changing exam, a phenomenon exacerbated greatly by the one-child policy and the single-child household majority.[67] The extent of this pressure has grown so much as to become the main culprit of rising suicide rates among school-children in their late teens.[68]

The second phenomenon is the inadequate training of students during their years of secondary schooling. As teachers and students like depend on high exam scores for their future

65 Davey, De Lian, and Higgin,s 386
66 Lan and Hoi, 26
67 Davey, De Lian, and Higgins, 392
68 Ibid.

success (teachers are often evaluated according to their students' NCEE scores) the curriculum revolves around test material.[69] Students memorize facts and theories and determine success in studying by how much they can remember and recite, as that is exactly what they will be asked to do on exam day. Moreover, students rarely get opportunities to use equipment that will allow them to have practical knowledge of the various subjects, especially the sciences. Either there is not enough funding and/or teachers avoid such diversions from exam preparation and focus on the theory that will be tested.[70] These purely "chalk and talk" methods have created millions of students who, lacking genuine skills in figuring out practical problems, find it very hard to take all of the facts and theory they have memorized and apply them in the practical realm.[71]

The pressures placed on the NCEE system because of the *hukou* system's exclusionary policies have created a pre-tertiary education system that is focused almost entirely on the taking the NCEE. The undue pressure placed on students yields a student population under tremendous amounts of stress and so are, as a result, not as productive in learning. Secondly such great emphasis on the NCEE has led to a system almost entirely bent on studying for the exam, and so valuable educational lessons are missed out on. Students go through school learning in preparation for the test, which is standardized and mostly objective, and in the process miss out on learning how to apply theoretical knowledge in real-life situations.

College Admissions

The NCEE system appears to operate with fairness and commitment to rating students

69 Ibid.
70 Ibid.
71 Ibid, 391-392
Eickstein and Noah, 55

according to merit. But after the students are rated, whether or not test scores are used fairly is a different question. Are test scores used to give students opportunities according only to qualifications displayed through the test results? Unfortunately it seems that *hukou* status comes into play to keep the system from being a meritocracy. In order to examine the relationship between the *hukou* system and the NCEE we will look at average test scores by region and province as provided in Illustration 7.

Location	2001 Exam Score	Above/Below National Average Exam Score	Admission Rate
National	**492**		**52%-53.2%**
Beijing	454	-38	70%-80%
Tianjin	480	-12	92.8%%
Eastern/Coastal	**511**	**19**	
Hainan	468	-24	64.00%
Fujian	494	2	54.30%
Liaoning	500	8	70.00%
Jiangsu	511	19	68.00%
Hebei	538	46	48.90%
Zhejiang	538	46	60.00%
Shandong	594	102	
Western/Interior	**483**	**-9**	
Yunnan	429	-63	50.00%
Ningxi	452	-40	54.30%
Guizhou	453	-39	62.90%
Xinjiang	457	-35	66.00%
Shangxi	494	2	40.20%
Anhui	504	12	47.10%
Hubei	517	25	56.80%
Hunan	524	32	50.00%
Jiangxi	527	35	53.20%

Illustration 7: Admission rates and average NCEE scores by region and province

SOURCE: Fei-Ling Wang. Organizing Through Division and Exlusion. (Stanford, California: Stanford University Press,2005) 142.

The Influence of the Hukou on Exam Scores

Looking at Illustration 7 there are clearly some major gaps in average test scores between different provinces and regions. From the lowest average score of 255 for Tibetans in Tibet to the highest average score of 594 in Shandong province, there is a wide variety of average scores and similarly varied reasons for this disparity. Some of these reasons are related to the institution of the *hukou*. In order to fully understand the significance of these scores, one must first understand the setting; what are the pertinent characteristics of each region. The differences between the Western/Interior region and the rest of the country are probably most entirely due to a lack of investment and development. The Chinese West/Interior is under notably worse conditions economically than other parts of the country and has in many ways missed out on significant portions of China's economic development. This affects NCEE scores in two ways. First of all, poor economies generally do not generate healthy education systems that can produce good students consistently. There is not sufficient money to supply a lot of needs and education costs must be kept low in many places. It has been very difficult to attract teachers, businessmen, officials, etc. to the poor regions of the West/Interior and so the education system improves only slowly. The major minorities of this group are even worse off when it comes to exam scores. Tibetans received the lowest average score of 237 points below the national average! Mongolians of Inner Mongolia and the Muslims of Ningxia also have similarly low average scores, 73 points and 89 points below the average, respectively. Despite the number of variables that must be considered when evaluating the effectiveness of an education system, it is fairly certain that most of the problems found in the West, as well as amongst these minority groups, are the result of poor funding and management by the

government.

The second distinction that should be made when looking at Illustration 7 is between the East/Coastal region and the metropolises. On average, provinces in the East/Coast area have higher average exam scores, about 30 points higher. Why should this be the case? The province with the highest average test score, Shandong, is the birthplace of Confucius and so the people of Shandong, per the strong cultural influence of Confucius, place an incredible amount of importance on scholarship. But only Shandong is home to Confucius and so this reasoning does not extend outside of Shandong's borders. Again, education is a complex subject and involves many variables, but this table of average test scores for these provinces and cities due points to at least one very important pattern. Much of the population of the East/Coastal region of rural status cannot realistically expect to change their situation greatly without the catalyst of education and the opportunities education offers for hukou transfers. There is a great deal of motivation in the Eastern rural areas to excel in scholarship in order to gain high marks on the NCEE and gain admission into a good college. This comes from the direct influence of the hukou system through the rural-urban disparity and the exclusion promoted by the government. This is evident within the statistics for Shandong. Although the average test score for Shandong is 102 points higher than the average, the average scores of its largest cities, Qingdao and Jinan, are both significantly lower than the province's average.[72] This disparity falls right along with the assertion that in less urbanized areas the motivation to obtain high scores is greater than in more urban areas because of a major benefit of a college education: an urban *hukou*. In order to secure a chance for success, rural students study diligently. Conversely, the urban areas in

72 Wang, 142

Illustration 7 have average score lower than the national average. This phenomenon is probably very much related to the ability of the East/Coast area students to earn high scores on the exam: instead of feeling a need to score high on tests because of the possibility of obtaining an urban *hukou*, these urbanites already enjoy full benefits of the urban *hukou* and so are less desperate in their search for success.

The *hukou* system affects the NCEE in students' motivation to do well on the test. The differences between rural and urban registration create an environment in which high marks on the NCEE is a key path to success and rising out of poverty and/or other difficult socioeconomic situations. But do these high average test scores translate to higher success rates when it comes to college admission? In order to answer this question we will again look at Illustration 7, but this time will focus on the college admission rates in order to analyze the quota system used to determine admissions.

Quotas

A national system of household registration may not, at first glance, seem to have a close relationship with college admissions, but in China these two institutions are intimately related. The *hukou* system institutionalizes exclusion and inclusion through *hukou*-based college admissions policies.[73] This is primarily in the form of a quota system under government control regulating how many students of a certain origin, their place of registration, can/must be admitted into a certain university.[74] These quotas seem to be university specific, but there is a

73 Ibid.
74 Ibid, 141

definite overall pattern that can be observed from admissions records. In data compiled by Wang, as portrayed in Illustration 7, Illustration 8, and Figure ,3 there are some major discrepancies between the admission rates in the Eastern region, the Western region and the largest metropolitan areas.[75] Looking at Illustration 7, again it is important to take note of the average exam scores of each region. The Eastern/Coastal region has an average exam score

Location	Average Exam Score	Population (2001)	Number of Students Admitted into Beijing Universities	Admission Rate into Beijing Universities
Beijing	454	64479	25000	39%
Shangdong	594	313140	80000	26%

Illustration 8: Admission rates into Beijing Universities for Beijing and Shandong residents

SOURCE: Ibid. to Illustration 7

Location	Average Exam Score	Applicants	Number of Students Admitted into Tsinghua	Admission Rate
Beijing	454	60000	600	1.00%
Shangdong	594	300000	100	0.03%
Hubei	517	200000	88	0.04%

Illustration 9: Admission rates of Beijing, Shandong, and Hubei residents for Tsinghua Univeristy

SOURCE: Ibid. to Illustration 8

75 Ibid, 142

well above the national average of 492 points, with Shandong enjoying the highest average score in the nation at 594 points. The Western region and the metropolises have average exam scores lower than the national average with some areas in the West receiving scores over 200 points below the national average. Using a nationally uniform exam system one would think China's admissions policies would create admission rates according to province proportional to the average test score of that area. For example, it would seem that the average student from Hebei would have a much greater chance to gain admission into university than an average student from Beijing; the average student in Hubei has a higher test score than does the average student in Beijing. This, however, is not the case. As we can see from Illustration 7, Beijing residents enjoy the high admission rate of around 75% while residents of Hebei have a poor admission rate of less than 50%. There are numerous other examples of a province earning a significantly higher average exam score than a large metropolis, but the metropolis enjoying a high rate of admission. This is evidence of the quota system. Instead of simply determining college admissions solely by test scores there are annually established quotas limiting the number of students permitted to be admitted according to registration.

The most telling example of the influence of the quota system is exhibited in Illustration 8 and Illustration 9. The average test score for students taking the test in Beijing in 2001 was 38 points below the national average; 38 points is a significant amount. Shandong and Hubei both earned very high averages and both have populations many times the size of Beijing. Yet Beijing residents enjoy distinct preference over their Shandong and Hubei counterparts simply because of their status as Beijing residents and not their test scores. First, in Illustration 8 we can see the number of Beijing students and Shandong student admitted into Beijing universities.

Though the average Shandong student scored 140 points higher than their Beijing counterpart, around 40% of Beijing's college applicants were admitted into Beijing universities while only a quarter of Shandong college applicants were granted this privilege. One might contend that this makes perfectly logical sense since Beijing residents will most certainly have more representation in Beijing universities than anyone else. First of all, at least in 2001 this was not true as Shandong residents outnumbered Beijing students three to one. Secondly, virtually all of China's universities are located in urban areas, including almost one hundred being located in Beijing alone.[76] Competition to get into Beijing schools is fierce, and so it seems a great number of Shandong residents are more than happy to leave home for higher education in Beijing. In reality there are quotas that limit the number of people with a Shandong *hukou* allowed to enter Beijing universities and likewise quotas set the number of Bejing residents meant to be admitted each year.[77] Looking at Illustration 9 one can see a yet clearer example of such exclusion of students based on *hukou* registration. This table deals with the number of students admitted into Tsinghua University based on their *hukou* registration. Tsinghua University is one of the two most competitive universities in China, it seems very appropriate to admit students solely on the basis of ability. Illustration 9, however, hints that that is very possibly not true, that students are selected for their ability as well as where their *hukou* is registered. Despite the number of applicants in Shandong and Hubei respectively being several times the number of applicants coming from Beijing, proportionally a great many more Beijing residents were admitted than residents of Shandong or Hubei. Moreover the average test score in Beijing was much lower than that of Shandong or Hubei. College admission, a pathway to

76 Quanguo Putong Gaoxiao Mingdan (List of Ordinary High-level Educational Institutions), Ministry of Education of the People's Republic of China, 18 May 2007, <http://www.moe.gov.cn/edoas/website18/level3.jsp?tablename=322&infoid=28364> (April 20, 2009).

77 Wang., 141-143

success normally open to all, is controlled according to the *hukou* registration and is not a leveler of the playing field as many once thought and still do think. Despite the original belief that the NCEE is a fair system, it is a fair system within a system of college admissions dependent on *hukou* status.

Effects

By further excluding, though to a lesser degree, the non-urban *hukou* holders in favor of urban residents, the *hukou* coupled with the NCEE sets up a system that once again favors the rich and powerful. In order to take advantage of the quota system and its preferential treatment of urban residents, well-to-do families will effectively buy an urban *hukou* through the blue-stamp *hukou* system. With great importance placed on college, for some families there are few sacrifices too great for admission into a high-level institution. Through the blue-stamp *hukou* system families can simply purchase an urban-*hukou* of desirable location by buying real estate (an apartment usually) at an inflated price set by the government. Elite families will use these methods of moving one's *hukou* in order to increase the chances of their student being admitted into a good school.

The discrimination institutionalized by the *hukou* system manifests itself in another way as well. When one talks to Chinese high school students preparing to take the NCEE one will quickly get a sense of the examination's utmost importance. Students prepare for this examination with a singular focus that begins years before the test is taken and completely takes over their lives until the test is completed. In the West there is probably not a truly comparable

institution. What Yu and Suen describe as an "exam-driven education fever" has taken over China and has been an integral part of Chinese society for a long time, formerly in the civil service examination system (*keju*: 科 □) and most recently in the NCEE.[78] Driven by the understanding that education is the only path to success, most examinees see the NCEE as the singular chance they have for success in modern-day China. High marks can result in admission into one of China's "National Key Universities" and greatly increase one's chances of finding a stable, self-paying job of merit. Moreover, a college degree not only provides the earner with high occupational prospects but also secures for him/her a much coveted urban *hukou.*[79] In this way the NCEE has become a "high-stakes [test]".[80] This pressure has come to define the NCEE as one of the most stressful times in an educated person's life.

China's education is significantly hindered by the division created by the *hukou* system. In terms of primary and secondary education, the distribution of government funding to schools is done so according to the *hukou* divisions of rural and urban: rural areas receive significantly less than urban areas do. This coupled with curricula bent on preparing students for the NCEE at the end of their high school careers has greatly hindered the primary and secondary education systems. Students do not benefit from good, strong schooling system. On the other side of the NCEE, college admissions standards based on *hukou* registration keep the NCEE system from working as a meritocracy. Instead of basing admission only on the merit of students according to the NCEE, college admissions standards favor the urban-*hukou* holders, thus preventing some true academic talent, or another sort of talent, form being produced; human resources are wasted.

78 Lan and Hoi, 17
79 Wang, 93
80 Lan and Hoi, 25

This negative effect on China's education system can also give rise to another, possibly more serious reaction—the slowing down of economic development. How does China's problems with education affect its economy? In order to answer that question one must first learn the theorized relationships between education and economic development.

Education and Economic Development

> *The acquisition of such talents, by the maintenance of the acquirer during his education, study, or apprenticeship, always costs a real expense, which is a capital fixed and realized, as it were, in his person. Those talents, as they make a part of his fortune, so do they likewise of that of the society to which he belongs.*
>
> -Adam Smith[81]

Throughout the era of modern economics education has been considered "a capital fixed" and a way to encourage and promote development. Indicators of educational development in a given nation have been used as indicators for human development for years. This is not surprising, as education is very much a part of the development of any individual and consequently an important part of the development of society. But analysis of education levels is not only used to measure human development, it is also commonly used when discussing a nation's economic development. Literacy rates and rates of participation in each educational sector are key indicators of human development and more often than not line up with the level of a nation's economic development. There is little debate as to whether or not education is important to economic development. Any layman will tell you that education (in its many forms) is important to improving one's life. Why should this common-sense rationale not apply to a nation as a whole? Education enhances the ability to produce and thus leads to the creation of more wealth. The exact role and specific effects on economic development, however, are not so clear and are in fact rather difficult to measure. In order to better understand the role of education in economic development, one must first explore the difficulties faced when trying to

81 Adam Smith, An Inquiry into the Nature and Causes of the Wealth of Nations, Cannan ed. (reissued by Modern Library), Random House, Inc., 1937, book II, pp. 265-266

measure the economic effects of education, then decide on a way to analyze education's effect on development, and finally decide what education's role is in economic development.

Difficulties in Measuring the Economic Return on Education

> *In practice, it is virtually impossible to calculate the rate of financial return on an educational project in the same manner as on a dam or factory because of the difficulty of ascertaining how much is really consumption and how much represents investment.*
>
> -Harbison and Myers[82]

Finding the rate of return of education is a messy business. There are two obstacles when one tries to find said rates of return; first, a challenge of differentiating between correlations and causations and secondly the obstacle of differentiating between education as consumption and education as investment.

The complexity of education (formal and informal alike) render analysis of it very difficult; the number of variables involved are hard to identify and isolate so as to clearly show cause-and-effect relationships. Just as it can be difficult to say which ingredient in a stew gives the stew its flavor it is difficult to separate the many ingredients of education so that it can be analyzed thoroughly. In the discussion of education's economic effects in a nation, one faces this problem; it is very difficult to define where resources allocated for education actually end up. As Adams and Bjork discuss in their book Education in Developing Areas, while analyzing education exclusively through economic means there are three main obstacles to contend with.[83]

82 Frederick Harbison and Charles A. Myers. Education, Manpower, and Economic Growth. (New York: McGraw-Hill Book Company, 1964) 11.

83 Don Adams and Robert M. Bjork. Education in Developing Areas. (New York: David McKay Company, INC, 1969) 42.

First, it is very difficult to measure the externalities of education. Not being a tangible good, it is difficult to see where and who the influence of education goes. For example, many resources can be allocated to provide for one's education, but one can spread some of this education to others free of cost, such as through informal training. These transfers are not traced and recorded and so are difficult to include in an analysis of the financial return on the resources used. Secondly, the higher income of an educated person may simply be the result of "family money," unearned personal wealth. Education is often more available to the wealthy and so it can sometimes be difficult to separate personal wealth and the contribution made by an individual to the larger economy because of the education they received. Lastly, the educated may simply be of "intrinsic superiority" that is totally unrelated to education.[84] In other words, it can be difficult to ascertain whether or not the relationship between financial gain (economic development) and education are causal or simply correlated. Simply put, does money follow education or does education follow money? Is there a relationship at all? The number of variables involved and their complex relationships make these questions quite difficult to answer sometimes. This first obstacle makes detailed economic analysis of education very complex and tedious.

The second major obstacle faced when trying to calculate the rate of return with regards to education is the difficulty in distinguishing between education as consumption and education as investment. When are resources put towards education fulfilling the desire of consumption and when are these resources being put towards education as an investment in hopes for a solid return in the end? In the introduction to an in-depth study on the effects on education on economic growth, Harbison and Myers point out that "it is virtually impossible to calculate the

84 Adams and Bjork, 42

rate of financial return on an educational project" like a more tangible good.[85] A way to deal with this obstacle is to analyze such economic effects in a very practical manner: analyze the overall effects of education on the economy while treating all sorts of educational expenses without worrying about which are consumption and which are investment.

The Role of Education in a Developed Nation

In the 1960s, Adams and Bjork tackle the challenge of determining the role of education in economic development by first identifying the role of education in a developed nation. In whatever way education is vital to the "maintenance of societies in a developed form", education is similarly important to the development of a developing nation.[86] The points Adams and Bjork make are more suited to a time when many nations struggled with a significant illiterate population. During the time Adams and Bjork were writing this was the situation most developing nations found themselves in. Today many developing nations have managed to educate most at least at the basic level; illiteracy is not as severe a problem. However, the principles Adams and Bjork put forth are still very true and applicable in today's world. They argue that if education is necessary for an economy to sustain its developed form it must rely on a "almost wholly monetized" system of production and trade. Mathematical skills and reading are required of all who wish to purchase or sell goods and services. Likewise the ability to read, comprehend, and analyze the law (to a small extent) are necessary to follow the rule of law in developed societies. In nations like the US, the law is of the utmost importance and relies on its members' understanding of it, which is in turn reliant on citizens' educational background.

85 Harbison and Myers, 11
86 Adams and Bjork, 20

Thirdly developed societies are very much dependent on increasingly advanced technology; education allows for an understanding of this technology in order to use it and is vastly more important for the development of technology. Lastly Adams and Bjork argue that education is a demographic balancer and that "no developed society can be maintained without some demographic balance."[87] For example, in developing nations improvement in education generally leads to decreases in fertility rates and death rates and results in a nation with a stable and balanced demography. On another level, education levels out the economic playing field by giving the non-elites opportunities to find success and self-improvemnt through their education. Adams and Bjork had yet to witness the aging and shrinking populations of many modern-day developed nations (Japan, Germany, etc.), but Adams and Bjork's assertions that education aids in the stabilization of the size of a population and the prevention of dangerously rapid fluctuations are true and commonly agreed upon. Education has an important role in the maintenance of the developed status of a nation and so it can be inferred to have a role in the process a government undergoes on the way to development. But finding out what this role looks like and how it is measured is difficult.

87 Ibid, 22

The Effect of Education on Development

A good educational system may be the flower of economic development, but it is also the seed

—Jerome B. Wiesner[88]

Virtually no one would now dispute the point that education has a clearly positive effect on economic development. More education, at least to a degree, leads to higher economic returns. When scholars first began to examine education in in terms of its economic benefits, there was not a lot of data to deal with, certainly not nearly as much as is available today, and many spent much effort analyzing the general effects of education and how those might lead to economic development. Harbison, Myer, Schultz, Adams, and Bjork all were involved with studying the effects of education on a developing economy. Each of these men also shied away from establishing specific functions to describe the quantitative economic return of education. Instead they identify ways in which education is likely to yield returns and not the quantity of the returns themselves.[89] These men have complex arguments that go into considerable detail, but it will suffice to forgo much of these complexities in order to understand a simpler framework of education's role in the economy. Schultz's work is probably best at making this understanding of this framework accessible. It is important to note that Schultz is well-respected by his peers as his work and ideas are cited by many others who have contributed to this area of research.[90]

The first area identified is research. Education is obviously essential to any sort of research. Systems of providing advanced education must be set up as well as opportunities

88 Eickstein and Noah, 182
89 Harbison and Myers, 11
90 Theodore W. Schultz. The Economic Value of Education. New York: Columbia Univeristy Press, 1963, pp. Viii-xi, 38-46.

provided to minds cultivated by such systems for their focus to be placed on research. In turn energies spent in this area will provide innovation that generates returns.[91] Secondly, education allows people to more quickly and effectively adjust to changes in the market.[92] This is particularly true for developing nations because of the inevitable shift from reliance on the primary sector to reliance on the secondary and finally tertiary sectors. Education allows individuals to take on the new jobs of an ever growing economy and thus provides labor that can help a great deal to fuel economic development. Third, the use of education to provide high level manpower necessary for future growth is a very important economic aspect of education.[93]

By looking to future needs of the economy, the education system can anticipate such needs by cultivating the high level manpower needed and thus consistently fuel a constantly growing economy. Lastly, education systems serve the role of identifying talent.[94] By identifying the intelligence and work ethic of students through tests, papers, etc. educational systems are able to identify a nation's talent so that said talent can be placed, either by the free market or government policy, into environments conducive to productivity.

In addition to studying the way in which education effects an economy, in the late 20th century scholars have quantitatively measured education's role in the economy, that is to say many have measured the economic returns yielded by investment in education for certain regions.[95] Though there are significant variations in the rate of these returns from region to

91 Schultz, 40-41
92 Ibid.
93 Ibid, 42
94 Ibid, 41
95 Raymond P. Byron and Evelyn Q. Manaloto. "Returns to Education in China." .Economic Development and Cultural Change, Vol. 38, No. 4 (Jul., 1990), pp. 783-796

region, it seems that the world rate of return to education is at about 10%.[96] This is a significant rate of growth for investment and so investment in education is worthwhile. As already discussed, the complexities of understanding and keeping track of all of the externalities of education make measurements difficult and make education systems very different from region to region. Studies have also been done on East Asia and China in particular. The first such study done on China, at least the first done by a Western scholar, found the rate to be considerably lower than this figure of 10% at around 4%.[97] In 2001 another study was done using more comprehensive techniques of data analysis (ie. all incomes were recorded in terms of hourly wages instead of some being recorded as salaries as salaries workers often worked less than non-salaried workers) and this rate of return was found to be too low.[98] A more accurate rate of return was found to be 5.4%. Though higher than previous estimates, this is still significantly lower than the world average of 10%. There are a couple of possible reasons for this, the most significant being that China's economy has still to be fully privatized, in fact even into the late nineties most of the industrial workers were employed by the state.[99] Privatization should push this rate of return higher as more and more the market is allowed to determine wages and so education becomes more valuable.

Education is important in the both the development and maintenance of an economy. Education provides both the economic stimulus to help generate the sort of growth necessary for strong development as well as the ability to function at that level of higher development.

96 George Psacharopoulos and Harry A., Patrinos. "Returns to Investment in Education: A Further Update." (World Bank Policy Research Working Paper No. 2881. September 2002.) 4.
97 Haizheng Li. "Economic transition and returns to education in China" (Economics of Education Review. Volume 22, Issue 3, June 2003.) 317-318. Li quotes these figures from the study done by Byron and Manaloto in 1990.
98 Ibid, 325-326
99 Ibid.

However, education systems vary greatly from nation to nation and so it is also important to discuss what sort of education is effective.

What Sort of Education is Beneficial?

> *Balance in important in any program, no matter how efficiently a system is run if it has the wrong focus it is not helpful.*
>
> —Harbison and Myers[100]

When discussing the role of education in a nation's economic development, it is very important not to leave out a discussion of what sort of education is important. The term "education" is very broad, and to simply say education is effective in the encouraging/creating of economic development is not enough. What sort of education is effective? In China the makeup of the NCEE becomes very important when the secondary education system is designed in response to the demands of this exam. Is this design effective in yielding fruit from its investment in students, or is its fruit simply higher NCEE scores? What are the characteristics of education that yields the highest economic returns? This answer will provide a standard by which to analyze the effectiveness of the present education system, and subsequently the effect of the *hukou* on economic development through its effect on education.

In their analysis of the role of education (and other forms of human resource development) in economic development, Harbison and Myers set forth several different characteristics of education that will contribute to economic development.[101] Likewise in

100Harbison and Myers, 185
101Ibid, 173-176

Education and Development, Hanson and Brembeck come up with several traits common to economically productive education systems.[102] Combining these two sets of characteristics they can be broken down into five general categories of characteristics of effective education systems: 1) preparation of students for entrance into the economy, 2) disciplined work ethic, 3) the idea that quality is better than quantity, 4) consideration of the individual, and 5) the provision of incentives.

An education system first and foremost must serve to prepare students to become active and productive members of the economy. This can take place through several different forms: pre-employment training, the emphasis of science and technology over the humanities, and finally the openness of the education system to new ideas and ways of thinking.[103] An education system should prepare students for future employment by teaching them marketable skills. In order to teach marketable skills an education system must be in tune with the market, fully aware of what is going on so as to best anticipate future demand. Vocational training is a very obvious solution, but there need to be other strategies of doing this as well. Probably the most important two characteristics of such a system are that it focuses on the sciences (instead of the humanities) and is a very open system that teaches students to think independently, bringing theory to practical applications.[104] Adams and Bjork identify the lack of openness and appropriateness of curricula are deficiencies common to developing nations.[105] Curricula that does not serve the purpose of preparing students for entrance into the job market and "real life" is an inappropriate and wasteful use of resources.

102John W. Hanson and Cole S. Brembeck. Education and the Development of Nations. (New York : Holt, Rinehart and Winston, 1966) 123-125.
103Harbison and Myers, 174-175
104Hanson and Brembeck, 123-124
105Adams and Bjork, 123-124

The second category is the instillation of disciplined work ethic in students. In order for an education system to serve to further development, Hanson and Brembeck believe that the fostering of discipline in students is vital.[106] Not only must a curriculum be aimed at producing open minds prepared to be productive members of the economy, but it must also be designed to teach students to work hard. A strong work ethic is key to development and developing such a work ethic in the schools will serve to benefit all.

The third category is based on the principle of quality trumping quantity. Harbison and Myers point out that quality education for fewer students is more effective at encouraging economic growth than is lower-quality education spread over more students. Obviously this distinction is a little vague, and they do not exactly present a method of qualitative measurement nor a standard by which to analyze such a measurement. However one can apply this principle by determining whether or not a system of education sacrifices significant quality for the sake of providing education of inferior quality to more students.

Fourth, it is important for an education system to provide incentives that will guide students to enter the economy in areas of need. Harbison and Myers point out that no economy can "completely rely on market forces to provide the incentives" required to guide people to areas important for development such as engineering and scientific research.

The final category of education that spurs development is consideration for the needs of individuals.[107] This is very much about balance, as individuals' needs must be considered along with the needs of the economy as a whole. Finding this balance is important and can be quite

106Hanson and Brembeck, 124
107Harbison and Myers, 175

difficult. Consideration must be given to individuals so that the talents, skills, intelligence, and other qualities they offer the economy can be developed most efficiently. However the economy must also be considered so that it can be provided with the human resources necessary for development.

These five guidelines for systems of education that spur on economic development are important in the analysis of the effects of the hukou system on the economy through education. Using these five guidelines one can analyze the effectiveness of the present secondary education system. Is it efficiently promoting economic development? Is it developing the right sort of human resources that are needed right now? Answering these questions will clarify the role of the hukou in that effectiveness and through that discussion identify what sort of effects the hukou has indirectly had through education on economic development.

Effects of Hukou-limited Education on Development

The *hukou* system is a system of exclusion that can very easily be used, via urban *hukou* status, to give greater access to socioeconomic opportunities to those the government pleases. There is a clear pattern that the fortunate groups who have greater access to these opportunities also have have quite a bit else in common; they all offer very explicit contributions to China financially, politically, defensively (through the military), and/or in terms of nationalistic spirit (for example, athletes are sometimes awarded an urban *hukou*). Simply put, the *hukou* system excludes most of those who do not fall into the category of rich, powerful, and/or influential—the ordinary Chinese citizen is discriminated against. However this pattern of exclusion appears to break down when one looks at the NCEE and the opportunities that a college degree provides. Under policies of universal education for the first nine years of schooling, virtually all Chinese have access to a measure of education today and so many have a legitimate chance of performing well on the NCEE.[108] Because of the opportunities to succeed reputedly offered openly by the college entrance system, great emphasis is placed on this examination and it has become a focal point of educational systems in China today. Such emphasis has created an educational culture focused almost exclusively on preparing for this exam and has placed tremendous pressure on examinees to do well.

This door of opportunity, however, is not as open for everyone as many seem to believe. Again the exclusionary policies of *hukou* deliver definite advantages to urban residents over the rural residents. Urban residents are allowed into universities under lower admissions standards

108Davey, de Lian, and Higgins, 388. The Compulsory Education Law is the policy of universal education.

and are overrepresented in universities today, especially in top-tier institutions in urban areas.

How do these problems affect the present and future development of China? Their effects are two fold, one in terms of the discriminatory practices of college admissions based in part on *hukou* status and not fully on academic eligibility. This creates a system of human resource allocation that is no only unfair, but more importantly inefficient. The second area affected is in the quality and effectiveness of the education itself in view of its role in economic development.

College Admissions Quota System-Effects

The system of quotas set by the *hukou* system has created college admissions that are not based solely on test scores and the intelligence, work ethic, and academic ability they represent, but are significantly affected by a college admissions system of quotas set by the *hukou* system and based on applicants' *hukou* status. The problem with this system is not necessarily a problem of equality and equal access to education for everyone. As Harbison and Myers point out, educational equality is often simply political with no economic theory to back it up; it is more efficient to bring the best minds together instead of spreading educational resources widely across a geography and population.[109] Deng Xiaoping recognized the economic reasons for such allocation of resources famously encouraging citizens to accept economic discrimination through policy saying "some regions and some people can get rich first and lead and help other regions and other people gradually to become rich together."[110] With this said, the fact that exclusion from tertiary education that takes place because of the *hukou* is not necessarily a problem. The problem lies in the criterion for exclusion; for an educational system intelligence, knowledge and

109Harbison and Myers, 174
110Guo, 217. This was translated from Deng Xiaoping Wenxue (The Selected Works of Deng Xiaoping).

diligence should be the factors measured. Instead in this system one's *hukou* status has a significant effect in access to tertiary education. *Hukou* status has absolutely no relationship to one's ability to excel through access to tertiary education. Exclusion is not the problem, but exclusion should be based on merit of academic aptitude solely and not be heavily influenced by an institution that is totally unrelated. By using excluding according to *hukou* status, human resources are wasted as there is potential for highly productive individuals to never make it to university simply because they have the "wrong" *hukou* status.

How does this use of quotas based on *hukou* status effect economic development? This effect lies in the allocation of human resources. The present system, by not measuring students solely on the basis of academic aptitude, does not effectively and efficiently use the human resources as represented by the college applicants in China. First of all, not all talent is being recognized and sufficiently cultivated. By making it more difficult for some to get into college it narrows the possibility of them getting in a college program best suited to their talents and needs that will most effectively and efficiently cultivate them into highly productive members of the economy. Second, by allowing less qualified students into universities and colleges on the basis of their *hukou* status harm is being done to the academic environments conducive to innovation. Placing highly intelligent people together encourages more innovation than would occur if they were separated. Using the NCEE to identify these people allows for the possibility of appropriate allocation of these resources through an admissions process based solely on those traits identified as being conducive to academic work. The *hukou*-based quota system, however, undermines this effect. The best minds should be brought together to the best universities, not the best minds and lesser minds who happen to have the "right" *hukou* status.

NCEE-Led Education System—Effects

The second major effect of the *hukou* system on economic development through education is in the area of secondary education. The emphasis force onto the NCEE because of the exclusionary policies of the *hukou* system have created a secondary education system led by the NCEE and it content. Curricula is based on the contents of the exam and students are taught with the singular purpose of NCEE preparation. This system has thusly been shaped so that it does not efficiently encourage economic development like it could.

There are five areas characteristics of an education system that are conducive for economic development: the provision of incentives, quality over quantity, cultivating of work ethic, consideration for individual needs and talents, and finally preparation for entrance into the economy. The secondary system in China most certainly places a great deal of importance on work ethic and the discipline displayed by Chinese high school students is incredible with compared with their Western counterparts. Moreover incentives are provided for academic success in China as well, the incentives being opportunities for socioeconomic mobility via the acquisition of an urban *hukou*. However this system is found lacking in the consideration of individuals as individuals, the preparation of students for entrance into the economy, and finally in putting importance on quality over quantity. Being a system bent on preparing students for success on the NCEE, the secondary education system often fails to teach subjects or subject areas not tested on the NCEE. This creates a narrow curriculum that gives no heed to the talents and needs of individual students, treating every student the same. This way of education does not lend itself to the effective cultivation of human resources. This aspect of education also relates to the ability to prepare students for entrance in the economy. By utilizing strategies of

rote memorization almost exclusively, students are taught in such a way that success is often contingent on th ability to memorize and not necessarily to solve problems and think independently. As a productive member of the economy the ability to solve problems and think independently is vital and by not encouraging the like results in the inadequate preparation of students. This also leads prevents students from being treated as individuals and allowing cultivation of individual's potential to be highly productive contributors to the economy through the development of individual skills, talents, and desires. Here the role quality and quantity comes into play. On the secondary level it seems quantity takes precedence in the teaching and learning styles through the usage of memorization and the learning of theoretical knowledge without emphasis placed on practical knowledge. Students are learning much theoretical knowledge, but they often are much less capable at using the theoretical knowledge practically, they are poor at applying this knowledge in a variety of ways.

The Other Side

The PRC is not an unintelligent organization who, for the lack of an understanding of basic economics, would willfully waste such human resources without reason. No, policymakers in the PRC government are undoubtedly aware of this situation. Then why would they allow such a phenomenon to occur? Though it is difficult to, from documents, ascertain their motivations, there are at least two possible reasons that come to mind. In reality there are undoubtedly more. The first is the belief that urban residents, because of their time living in metropolitan areas, have a wealth of experience that goes unmeasured by the NCEE. Familiarity with technology and foreign cultures and ideas is valuable and something rural

residents are simply not as familiar with. Thus, in the education system urban residents are favored over rural ones. A second reason is that there are still strong motivations, probably political, to limit and control (as much as possible) internal migration. China is still a communist nation, its political system may not be able to afford free internal migration that might create instability as populations move. Again, these are but to conjectures as to what the Chinese policymakers may be thinking.

Future Work

The interaction between the *hukou* system and China's education system is fascinating and very complex. Probably the most productive work to be done on this topic in the future is going into deeper economic analysis of the present-day education system and how effectively it is developing human resources versus how well it potentially could be developing human resources. This would require greater skills of statistical analysis than exhibited in this work and a lot of data that is difficult to find. At the same time the rewards of performing such a project would be great and could lead to the planning of better strategies when it comes to education in China.

Another avenue of research that can be taken is regarding the development of the *hukou* system. The *hukou* system seems to be in almost constant flux, continually being changed by new policies. This system is very important in Chinese society and deeper understanding of it would be of great value. It would be of great interest to find out more what policymakers are thinking and doing about this subject of the *hukou*. China is a huge and complex political body, it would be simply fascinating to map the parties involved in the *hukou* system and analyze the situation using principles of game theory.

Bibliography

Adams, Don and Robert M. Bjork. Education in Developing Areas. New York: David McKay Company, INC, 1969.

Byron, Raymond P. and Evelyn Q. Manaloto. "Returns to Education in China." Economic Development and Cultural Change, Vol. 38, No. 4 (Jul., 1990), pp. 783-796.

Chan, Kam Wang and Li Zhang. "The *Hukou* System and Rural-Urban Migration in China: Processes and Changes." China Quarterly, 1999 Dec;(160):818-55.

"China sees soaring migrant population." China Economic Net. Oct. 29, 2006. <http://en.ce.cn/National/Rural/200610/29/t20061029_9179748.shtml#### > March 13, 2009.

Chung, Tiejun and Mark Selden. "The Origins and Social Consequences of China's Hukou System." The China Quarterly. No. 139, Sep., 1994, 644-668

Connelly, Rachel and Zhenzhen Zheng. "Enrollment and graduation patterns as China's reforms deepen, 1990-2000." Education and Reform in China. New York, NY: Routledge, 2007.

Davey, Gareth; De Lian, Chuan; Higgins, Louise. "The university entrance examination system in China" Journal of Further and Higher Education. Vol. 31, No. 4 (2007), pp. 385-396.

Davin, Delia. Internal Migration in Contemporary China. Chippenham: Macmillan Press Ltd., 1999.

Eckstein, Max A. and Harold J. Noah. Secondary School Examinations: International Perspectives on Policies and Practice. New Haven: Yale University Press, 1993.

French, Howard W.. "Big, Gritty Chongqing, City of 12 Million, Is China's Model for Future." New York Times 01/06/2007 15 Sep 2008. <http://www.nytimes.com/2007/06/01/world/

asia/01chongqing.htmlpartner =rssnyt&emc=rss&pagewanted=print>.

Guo, Gang. "Persistent Inequalities in Funding for Rural Schooling in Contemporary China." Asian Survey. Vol. , XLVII No. 2, March/April 2007. 213-230.

Hanson, John W. and Cole S. Brembeck. Education and the Development of Nations. New York: Holt, Rinehart and Winston, 1966.

Harbison, Frederick and Charles A. Myers. Education, Manpower, and Economic Growth. New York: McGraw-Hill Book Company, 1964.

Knight, John and Lina Song. The Rural-Urban Divide: Economics Disparities and Interactions in China. 1. New York: Oxford University Press, 1999.

Lan Yu, Hoi K. Suen. "Historical and Contemporary Exam-driven Education Fever in China". The University of Pennsylvania. KEDI Journal of Educational Policy Vol.2 No.1 2005 17-33.

Li, Haizheng. "Economic transition and returns to education in China." Economics of Education Review. Volume 22, Issue 3, June 2003. 317-328.

Liu, Weifeng. "Legal team helps win back wages for workers." China Daily. Jan. 29, 2008. 5.

Liu, Yusheng. "Zhongguo Yiwu Jiaoyu Zhengce Shi Zhi Ming Gui." China News Net. Sept. 2, 2008. <http://www.chinanews.com.cn/edu/jysp/news/2008/09-02/1368720.shtml> March 13, 2009.

Psacharopoulos, George and Harry A., Patrinos. "Returns to Investment in Education: A Further Update." World Bank Policy Research Working Paper No. 2881. September 2002.

Shultz, Theodore W. The Economic Value of Education. New York: Columbia University Press, 1963. pp. viii-xi, 38-46.

Singh, Arvinder. “Shaping up the New Countrysides.” China Report, Vol. 43, No. 2, 2007. 231- 236.

Smith, Adam. An Inquiry into the Nature and Causes of the Wealth of Nations. Cannan ed (reissued by Modern Library), Random House, Inc., 1937.

Solinger, Dorothy J.. Contesting Citizenship in Urban China. 1. Los Angeles: University of California Press, 1999.

van Luyn, Floris-Jan. A Floating City of Peasants. 1. New York: The New Press, 2008.

Wang, Fei-Ling. Organizing Through Division and Exlusion. Stanford, California: Stanford University Press, 2005.

Wang, Feiling. “Reformed migration control and new targeted people: China's hukou system in the 2000s.” The China Quarterly, Vol. 177, 2004. 115-132.

“Weida de Licheng.” China Central Television. Episode 1.

White, Donald. “Taxes in the Ancient World” Almanac, Vol. 48, No. 28, April 2, 2002. 13 Dec. 2008 <http://www.upenn.edu/almanac/v48/n28/AncientTaxes.html>.

Wong, Linda and Huen Wai-Po. "Reforming the Household Registration System: A Preliminary Glimpse of the Blue Chop Household Registration System in Shanghai and Shenzhen." International Migration Review, Vol. 32, No. 4, 1998, 974-994

Wu, Xiaogang and Donald J. Treiman. “The Household Registration System and Social Stratification in China: 1955-1996.” Demography, Vol. 41, No. 2, May 2004, 363-384

Yang, Chunyue, Qi Lu, and Lishuang Xie. "Rural-urban migration, rural household income and local geographical contexts--A case of northwestern Guangxi, China." Chinese

Geographical Science, 18(2008): 17-23.

Zhongguo Tongji Nianji (China Statistical Yearbook) 2007. Beijing; China Tongji Press, 2007.

Zhu Lijiang. "The Hukou System of the People's Republic of China: A Critical Appraisal under International Standards of Internal Movement and Residence." Chinese Journal of International Law, 2.2 (July 2003): 519-565.