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# Efficiency of Public Policies for Higher Education: the Case of People's Republic of China

## Eficiência das Políticas Públicas para a Educação Superior: o Caso da República Popular da China

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### ABSTRACT

This research performs the analysis of the main public policies for higher education in People's Republic of China between the period from 2003 to 2012, starting from a gap to be explored concerning the proposition of new public policies to assist in financing higher education worldwide, taking as reference practices already carried out in other country. When it comes to the methodological procedures, the study was designed as exploratory and quantitative, in which a group of public policies were statistically analyzed, using as reference the compound annual growth rate (CAGR), taking into account the investment made and the number of students attended in the period, in order to check the efficiency of each policy. The results showed a series of possibilities to promote the advancement of higher education worldwide, with examples of policies that can be replicated to other nations, and, therefore, assist them in their development. **Keywords:** Evaluation; Efficiency; Public policy; Higher education; People's Republic of China.

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## RESUMO

Esta pesquisa realiza a análise das principais políticas públicas para o ensino superior na República Popular da China entre o período de 2003 a 2012, a partir de uma lacuna a ser explorada quanto à proposição de novas políticas públicas para auxiliar no financiamento do ensino superior em todo o mundo, tomando como base práticas já realizadas em outro país. No que se refere aos procedimentos metodológicos, o estudo foi concebido como exploratório e quantitativo, no qual foram analisadas estatisticamente um conjunto de políticas públicas usando como referência a taxa de crescimento anual composta (CAGR), a partir do investimento realizado e do número de estudantes atendidos durante o período analisado. Os resultados mostraram uma série de possibilidades para promover o avanço do ensino superior em todo o mundo, com exemplos de políticas que podem ser replicadas para outras nações e, com isso, auxiliá-las no seu desenvolvimento.

**Palavras-chave:** Avaliação; Eficiência; Políticas públicas; Ensino superior; República Popular da China.

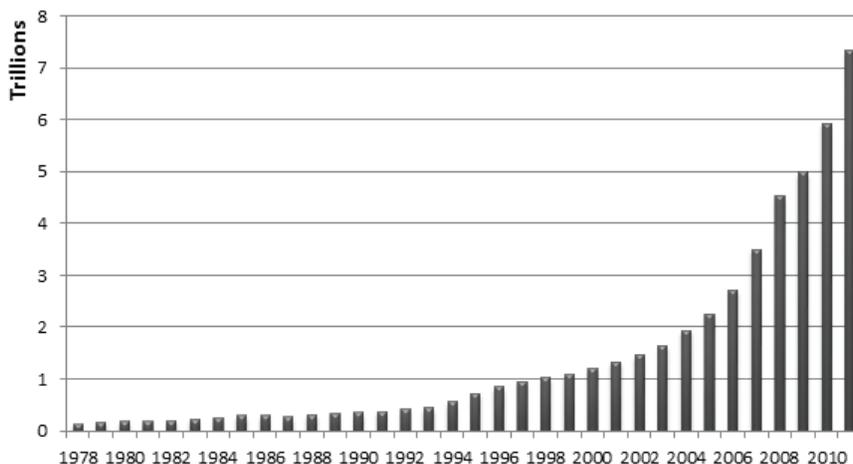
## INTRODUCTION

Education in China has always been seen as fundamental to the country's progress. One of the greatest cultural traditions of the region, Confucianism, has emphasized education in the development process. Between the ancient classics, are phrases like “-To develop a nation, education must come first” or “-A man without education is not an ethical and well informed man” (MIN, 2004).

Over the past decades, when China decided to open up to the world, Chinese leaders have become aware of the importance of higher education, in order to ensure a higher quality labor force and also to conduct advanced research (HAYHOE; ZHA, 2004). This priority to education, especially higher education, has helped in the formation of qualified human resources and generated scientific and technological inventions which are absorbed more easily (MIN, 2008).

Over the past 20 years, the world has witnessed a tremendous growth of China's Gross Domestic Product (GDP), something unheard of until then, as shown in Graph 1:

*Graph 1 - Chinese GDP growth (1978-2010) in US dollars.*



Source: Prepared by the author with data from WORLD BANK (2013).

According to Zhou Zhong, professor of the Tsinghua University Department of Education, one of the most prestigious universities in China, investment in education is the support base for the success of the Chinese economy (NAOE, 2012).

To demonstrate the difference in investment and educational growth of China with other countries, Assmann and Laws (2008) make a simplistic comparison with Brazil, with regard to the training of engineers. The authors cite that China spent \$ 90 billion on education, equivalent to 13.3% of the total budget of the country in 2008, on the other hand, Brazil was investing something around 21 billion dollars, equivalent to 1.3% of the general budget. To compare the effectiveness of the systems, the authors present the number of engineers who graduate each year in both countries: China - 1 engineer to 3.400 inhabitants and Brazil - 1 engineer for 7.300 inhabitants.

The authors compliment saying that even if you have charging of tuition fees in universities, two-thirds of higher education institutions are public (at the time of comparison), in parallel to Brazil, which had less than a third. When performing a confrontation with the expenses in relation to primary education, the authors conclude that the Brazilian government spends 12 times more on higher

education (which has less than a third of public higher education institutions) in relation to primary education, while the Chinese government spends only 3 times (and has two-thirds of public higher education institutions).

What is behind the success of the Chinese higher education? For Zha and Hayhoe (2008) is the “visible hand” of the Central Government, which has developed a number of instruments and policies to promote a massification of higher education. In addition, the authors argue that China starts to create an emerging model of university, which is linked with national and local development plans, giving a unique support for institutions and academics, who work to meet government needs. Policy initiatives “post-expansion” also represent an effort to growth to be qualitative, combining interests of the Central Government, local governments and universities.

To better understand the application of financial resources in Chinese higher education, this article aims to analyze the effectiveness of public policies that receive these resources, considering the amount invested and the number of students served, in a period from 2003 to 2012. Understand the results of public policies for the Chinese higher education can serve as a benchmark for many other countries that wishing to improve their higher education system.

## **2. EVOLUTION OF PUBLIC POLICIES FOR CHINESE HIGHER EDUCATION**

In 1993, the document entitled “Outline for Educational Reform and Development in China” (1993) highlighted the various strategies of the country aimed at development, including a belief in education and science as pivot areas to guide the expected modernization and bring the nation the most developed countries of the world. Actions such as decentralizing the administrative structure, increase university autonomy, reorganizing universities for efficiency, effectiveness and expansion, as well as diversification of funding sources, have been strengthened. All these points were subsequently legislated in the Higher Education Law, which was implemented on 1 January 1999, representing a new institutionalization of governance and management of Chinese higher education (ZHA, 2009).

Levin (2010) says that in the celebrations of the hundredth anniversary of Peking University, China's president at the time, Jiang Zemin, publicly revealed the country's intentions to seek a broad expansion of its higher education system, and that's what actually happened. In 1990, only 3,4% of the age group between 18 and 22 years were allocated in higher education in 1995, this percentage reached 7,2% and in 2000 at the astounding rate of 12,5%. It was the beginning of an unprecedented expansion in the global scenario (HAYHOE; ZHA, 2004).

However, the actual process of massification of higher education begins in 1999, with a noticeable increase in enrollment, particularly in areas involving science and technology. At this time, the engineering institutions have increased the variety of its subjects, in order to increase the student's number and also to make some of its universities world leaders. Seeking to vitalize education for the century that would start, it was defined the following goal: increase the gross participation in higher education to 11% in 2000. Subsequently, the goal becomes more audacious, seeking to achieve the indicator of 15% of young people aged 18-22 years by 2010, since this is an internationally recognized limit for a mass higher education (STATE COUNCIL, 1999). The results were a 47,2% leap in the number of new registrations, out of 1,08 million new students (1998) to 1,59 million (ZHA, 2011a).

Initial results were promising and in December 2003 China announces that it is promoting the largest higher education system in the world (CHENG, 2004). The rapid expansion continued until 2004, when the enrollment of higher education (considering all levels), reached its peak of 20 million students (twice in 1998), from then on, growth continued but more moderate. Regular higher education institutions also had rapid growth, out of 1.022 (1998) to 2.263 (2008), an increase of 121,4% in 10 years. With reference to the 2008 year, China reaches the surprising rate of 30 million students enrolled in higher education, and of these, 24.2% are in the age group 18 to 22 years, which makes the Chinese system the largest in the world in absolute numbers (ZHA, 2011a). Even if it uses the 2004 data, China would still be on the front:

1. China: 20 million students;
2. United States: 14 million students;
3. Russia: 6.5 million students;
4. India: 5 million students; and
5. Japan: 3 million students (CHENG, 2004).

Note that the participation rate increased about 15% in 10 years. To achieve this same growth, the United States took 30 years (1911 to 1941), Japan 23 years (1947 to 1970) and several other European countries around 25 years (ZHA, 2011a).

Several factors were decisive for this remarkable growth and one of them was the incentive to initiate the operations of private higher education institutions, since the government thought alone public education could never meet the great demand for higher education, beginning the process in the mid 90's. Data from 2002 shows that were opened over 60.000 private schools in the country, among which 1.200 were in higher education (CHENG, 2004), but not all were accredited by the Ministry of Education to issue degrees, and in 2008 the number of accredited private institutions was 638, including 322 independent colleges. These institutions accounted for 28% of all higher education institutions in China, with four million students enrolled. It is worth noting that these institutions mainly absorbed students from economically disadvantaged families, as students from more affluent families were enrolled in traditional Chinese universities (ZHA, 2011a).

Another important change that helped was the adoption of charging tuition fees in public institutions, which becomes official in 1997. This initiative helped to expand the system as the government could no longer claim that it had no financial capacity to support universities, with enrollment stimulated by social demand from that date. Table 1 shows the percentage of the composition of resources according to the years:

*Table 1 - Percentage composition of the revenue of Chinese higher education institutions: 1990-2005*

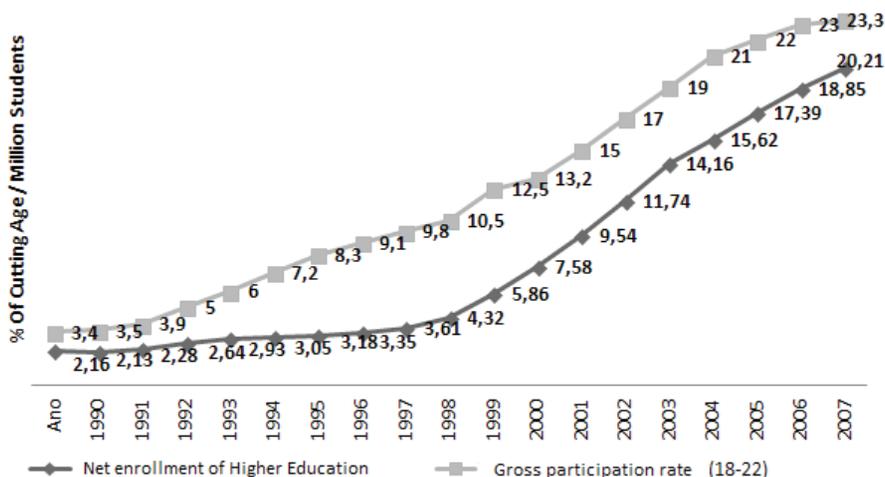
Year	Governmental Investment	Non-governmental Investment	Student fees	Donations	Others*	Total (%)
1990	93.5	-	0.5	-	6.0	100.0
1999	62.5	0.5	17.0	2.3	17.7	100.0
2000 57.3		0.9	22.1	1.6	18.1	100.0
2001	53.4	2.0	25.0	1.4	18.2	100.0
2002	49.7	2.7	26.9	1.8	18.9	100.0
2003	46.8	4.1	29.3	1.4	18.4	100.0
2004	44.7	5.8	30.7	1.0	17.8	100.0
2005	42.5	6.8	31.5	0.8	18.4	100.0

Source: Zha (2011a, p. 755).

\*Note: Other includes research based on revenue, return on investment and service sales, etc.

It can be seen in Table 1 intense reduction of government investment, which was 93.5% in 1990 to 42.5% in 2005. On the other hand, the student tuition fees increased considerably, from 0.5% in 1990 to 31.5%, demonstrating the strength of this action. Even with the reduction of direct transfer (TABLE 1), in 2006 China apply 1.5% of GDP only in higher education, almost three times what it was applied in the previous decade. After the public declaration of Jiang Zemin (on the anniversary of Peking University), China created the world's largest higher education sector (LEVIN, 2010). Graph 2 illustrates this statement:

Graph 2 - Net enrollment of Higher Education \* and increase in the participation rate \*\*: 1990-2008



Source: Zha (2011b, p. 27), adapted by the author.

\* Note: Enrollments in regular institutions of higher education, including post-graduate students.

\*\* Note: Participation fee living in the age group 18-22 in all forms of higher education.

In short, China's action to create a mass higher education system resulted in a rapid expansion of enrollment and also a large systemic differentiation of institution types: traditional universities, vocational colleges, private institutions, among many others. Despite the tendency of a qualitative decline in universities, the debate on the quality guided the whole process of expansion. According to Hayhoe and Zha (2004), still in 1993, the government announced a number of national initiatives aiming to give financial support to the 100 best universities in China, so that they can reach a status of "world class" in the century that would start. This project was named "Project 211". Table 2 shows the percentage of the additional funds received by these universities beyond the national total:

*Table 2 - Proportion of Project 211, additional percentage beyond the national total*

Resources	Additional Percentage via Project 2011 (%)
Library books volume	25.65
Scientific equipment and instrumentation	38.70
Bachelor Enrollment and under-graduate	18.33
Master Enrolment	69.14
Doctoral enrollment	86.01
Enrollment of international students	58.19
Proportion of full-time professors (national average 9.77)	18.85
Research funds	70.10
National key laboratories	100
National key programs	83.61
Patents filing	72.81

Source: Hayhoe and Zha (2004, p 89).

With the celebration of the 100th anniversary of the best Chinese university, Peking University, it was created in May 1998 another project, called "Project 985", in order to further support even harder a special group of 9 universities, they are:

- a) polytechnics: Tsinghua, Zhejiang, Shanghai Jiao Tong, Xi'an Jiao Tong, USTC, and Harbin Institute of Technology;
- b) traditional: Beijing, Fudan and Nanjing.

These nine universities became part of the C9 League in 2009, which is Chinese reference to Ivy League of US. In anyway, a greater concentration of resources is placed at the Universities of Beijing and Tsinghua, aiming to propel them to the top twenty in the world (HAYHOE; ZHA, 2010; LEVIN, 2010). In the second phase of the project, 39 universities became part of the Project 985. To Marcovitch (2008), the simple fact of the Chinese initiative in creating the Academic Ranking of World Universities shows that the country wants to know the top universities and prepare their universities to be part

of this select group. Regarding the values received by the Project 985 universities, the universities of Beijing and Tsinghua received each CN¥ 1,8 billion, equivalent at that time to US\$ 225 million. For other universities, there was a variation between CN¥ 1,4 billion and CN¥ 400 million (HAYHOE; ZHA, 2004; LEVIN, 2010).

With regard to private higher education institutions, which held a large number of seats, the Chinese government also sought alternatives through funding to economically support disadvantaged students. Actions such as scholarships, grants, student loans and study/work programs were implemented (MIN, 2008). To synchronize the private education with public education in China, Levy (2008) suggests some strategies:

- a) Variable rates: tax rates mix, with higher rates of charges for those who can pay for them (especially for post-graduate students);
- b) Credit plans: a kind of student support through government loans for future repayment. The available credit should be sufficient to cover all expenses (not just fees), both the included students studying in China and students contemplated studying abroad;
- c) Action to promote access: actions to include disadvantaged young people with the student body, knowing that they often cannot envision higher education on the horizon of their lives for lack of money; lack of information (in many cases the benefits exist and the students do not know them); and lack of preparation in basic education.

In China Education Ministry's website, it can meet some of the programs to this inclusion, such as the Green Passage, which aims to ensure that all students, especially those from poor families, have access and permanence in higher education, preventing students to leave the course for financial difficulties. In this program, the Chinese government, universities and banks have created a special support system for needy students. Besides Green Passage, these students can apply for waivers of tuition fees, scholarships, subsidies, among others. The government has the responsibility to create programs and universities and banks have a responsibility to provide the benefits (CERNET, 2013).

Being a country with continental dimensions, China now also invest in distance education, as a way to expand geographically access and democratizing education in the country. From then on, the intensive use of information technology in education has been promoted. Since 1999, 68 regular institutions of higher learning and the Central Radio and Television University of China (CCRTVU) had a pilot project approved by the Ministry of Education with the aim of promoting education at distance. As a result, 140 programs in 10 disciplines were developed by the end of 2002, a total of 1.373.000 students. In order to cover the entire national territory, the 68 participating institutions have opened 2.027 educational institutions outside their respective geographic locations, providing academic knowledge via CCRTVU (CERNET, 2013).

Finally, to continue to thrive in regard to higher education, the Chinese government established in July 2010 the National Panorama for Reform and Education Development of The Medium and Long Term (2010-2020), also known as "Plan 2020," with it focus on the aspects of improvement and quality assurance and intended to encourage creativity among students, and also includes a number of Chinese universities between universities recognized worldwide. Within the Planning 2020 it is a Strategic Plan for Higher Education, which sets the main priority to guarantee the quality of higher education to be achieved through:

- a) development of university professors;
- b) curriculum development;
- c) creative education for talented students;
- d) development programs for innovators;
- e) transformation of Post-graduate Programs;
- f) deepening of the Projects "211" and "985" (ZHA, 2012).

In addition, the Chinese government has set ambitious goals for the areas of research and country's development, in order to apply to 2,5% of GDP in R&D by the year 2020 (LEVIN, 2010; IEDI, 2011) and raise the number of researchers to 4 million by the same year, especially in the areas of innovation, in a plan known as "plan for Medium and Long Term and Talent Development". This plan also has a policy to attract talent from other countries to become researchers in China (something very common in the United States

in the recent decades), ensuring not only the quantitative prosperity, but also qualitative.

### **3. METHODOLOGY**

In this research, due to the objectives, the study was developed as an exploratory research.

An exploratory research is conceived in an area in which there is little accumulated and systematic knowledge, seeking to provide more information about the subject being investigated (ANDRADE, 2001; VERGARA, 2004). For Gil (1995) and Collins and Hussey (2005), the exploratory research should evaluate which theories or concepts can be applied to a relevant problem, or if new concepts and theories can be developed. From then on, such study is characterized as exploratory for seeking to deepen the articulation of public policies for the financing of higher education in China.

The research was elaborated to support the design provided for a quantitative study. The quantitative approach is confirmed as numeric values were used regarding variables that shape the system of higher education in a country, as well as the public policies for the financing of higher education of the country studied.

For the current study, data were collected through documentary research, which is a source of data collection performed from documents (contemporary or retrospective), but classified as a scientifically authentic (MARCONI and LAKATOS, 1990). From then on, data collection documents were used from China, such as: from National Bureau of Statistics of China, management reports of the governments on public policies for the higher education financing between 2003 and 2012, management report of the results of policies in higher education institutions, statistical data concerning public policies and data from the respective Ministries of Education of the country studied.

Thereafter, data were collected regarding the amount of investment and the number of students attended (when available), the following policies:

*Chart 1 - Data Collection of public policies analyzed*

<b>Country</b>	<b>Collection Period</b>	<b>Name</b>
China	2003-2012	Government-subsidized Student Loan Program (GSSLP)
	2003-2012	Fee-Charging Policy
	2003-2010	Decentralization Plan
	2005-2010	Open University of China (OUC) – investment
	2003-2010 and 2012	Open University of China (OUC) – number of students
	2003-2012	Green Passage - only investment
	2003-2011	Project 211 – investment
	2003-2006-2009-2012	Project 211 – number of students
	2004-2011	Project 985 – investment
	2012	Project 985 – number of students

Source: Elaborated by the author.

The analysis and quantitative treatment were performed together with the numeric findings of the respective public policies, originating from documentary and bibliographic data collection, following the assertion of Barbeta (2008, p. 65), who argues that this procedure allows “[...] to introduce techniques which allow to organize, summarize and present such data, so that it is possible to interpret them in the light of the research objectives.”

After collection and filing the results from 6 public policies selected, the data systematization and standardization was performed. The policies that didn’t exhibit the annual data evolution couldn’t be analyzed through historical timeline.

The indicators of public policies were presented throughout the period of its existence in tables and charts. To check the growth or decline in each indicator over the period, the compound annual growth rate was used (CAGR). The choice of this equation is given as an alternative to verify the efficacy of the public policies studied, taking as a reference the financial contributions invested (initial and

final) as well as the number of students attended (initial and final) over the years analyzed.

The compound rate of annual growth is given by:

$$CAGR = \left( \frac{Final\ Value}{Initial\ Value} \right)^{1/n} - 1$$

The results allowed to understand the behavior and performance of public policies in function of the years, both in the amount of investments intended for their respective policies, regarding the number of students attended, in order to better understand the relationship between these two variables. At the end of each section, a comparative table was presented with the results of all policies of a country, to facilitate the data interpretation and dissemination.

The software used for all quantitative analysis was R version 3.0.3.

#### 4. RESULTS

In order to understand more deeply the public policies directed to higher education in China in the period from 2003 to 2012, the investment (or collection) and the amount of students served by policies Government-subsidized Student Loan Program (GSSLP), Fee-Charging Policy, Decentralization Plan, Open University of China (OR C) and Green Passage (or Green Pass) were evaluated.

Were calculated the period totals and the average annual growth rates, both for investment and for the student's number. It was also calculated the average investment per student and its average annual growth rate. For the Green Passage policy, it was only obtained information on the investment. At the end, it also presents some data related to public policies Project 211 and Project 985, which could not be included in historical analysis to be policies that have their transfers operated in stages, and not on a yearly basis.

##### 4.1. *Government-subsidized Student Loan Program (GSSLP)*

In May 1999, the Regulation on Student Loan Administration subsidized by the Government was proposed by the People's Bank of China, the Ministry of Education (MoE) and the Ministry of Finance (MOF). The Government-subsidized Student Loan Program

(GSSLP) was a pilot loan scheme in central institutions on eight cities: Beijing, Shanghai, Tianjin, Chongqing, Wuhan, Shenyang, Xi'an and Nanjing. Students who applied for loans needed guarantors and took a commercial interest rate with 50% of the interest subsidized by public funding and a term of four years repayment after completion of the course.

In August 2000, a Supplemental Rules was released for the Administration of Student Loan, expanding GSSLP for the rest of the country. The original bank, named Industrial and Commercial Bank of China (ICBC), now has three other state-owned commercial banks: China Construction Bank (CCB), the Agricultural Bank of China (ABC), and Bank of China (BC). The target audience was expanded graduation for both undergraduate and post-graduate.

In June 2001, the National Conference on student loans subsidized by the government was held in Beijing. The changes made were favorable to the creditor banks. The changes included canceling the rule of "one bank to an institution", to be replaced by the policy of an institution for several banks, which extended the participation of banks and the program as a whole (SHEN; LI, 2003).

In order to promote the sustainability of GSSLP, the government announced major changes in June 2004, in particular in order to facilitate the repayment terms. The opportunity of loan beneficiaries was given the choice to start the refund at any time within two years after graduation, in addition, the maximum repayment period was extended to six years. The government now supports the loan interest costs during the study period, and students paid interest expenses only after graduation. In addition, it was created the "GSSL Risk Compensation Special Fund", jointly funded by the government and higher education institutions, to compensate the creditor banks against risks associated with the program (SHEN; SHEN; ZIDERMAN, 2009).

In short, since its inception in 1999, the GSSLP faced several changes in order to monitor the changes and the development of higher education. Its three main advantages are:

- a) the commercial banks are responsible for GSSLP, which gives certain power to banks to operate the scheme;
- b) regulation on the maximum loan money and the proportion of students receiving GSSL protects the interests of students

and ensures that the poorest students receive one GSSL, which is sufficient for their needs;

- c) banks that operate in politics are exempt from taxes on student loans. In case of bad debt, the government helps taking part of the losses.

Special goals of GSSLP are:

- a) help needy students have access to higher education institutions and continue their studies;
- b) support education through financial means;
- c) help cultivate the independence of consciousness and self-support of the students;
- d) contribute to the establishment of a single credit system throughout the country (in China, a credit system which covers the whole country has not been established, therefore, a national initiative like GSSLP helps in this regard, since jointly embraces all the nation's institutions) (SHEN; LI 2003).

Table 3 lists the amount of investments intended for GSSLP and students who were attended during the study period:

*Table 3 - GSSLP, total investments and students attended from 2003 to 2012*

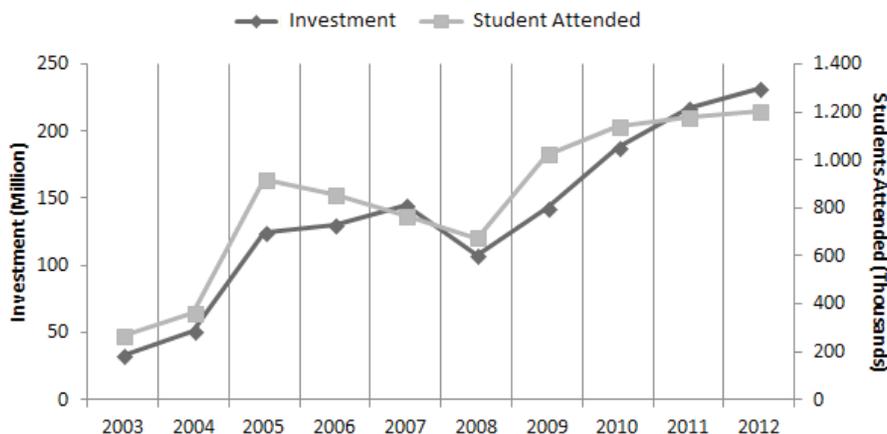
GSSLP		
Year	Investment (\$ dollar)*	Students Attended
2003	33.092.628,89	264.900
2004	51.003.503,58	360.400
2005	124.734.785,22	916.200
2006	129.834.005,99	854.900
2007	144.902.857,14	764.400
2008	107.737.382,62	673.900
2009	142.206.153,85	1.020.700
2010	187.772.267,73	1.138.400
2011	217.109.130,87	1.177.600
2012	231.458.861,14	1.200.100

Source: Prepared by the author with data from National Bureau of Statistics of China (2003-2012).

Note: \* To avoid discrepancies due to the dollar's fluctuation depending on the year, it was used as a reference to US trade dollar quotation, 09 October 2014. Price, \$ 1.00 = 6.25  *yuan*.

Graph 3 illustrates the development of investment by the student's number attended during the reporting period:

*Graph 3 - Development of investment by the student's number attended in GSSLP*



Source: Prepared by the author with data from Table 3.

The GSSLP was analyzed since 2003 and in the 10 years of evaluation showed a total investment of U\$ 1,37 billion, with an average annual growth rate of 24,1%. Over the period 8.371.500 students were attended, and it was seen an average growth of 18,3% of students attended per year. The average investment per student was U\$ 158,54, and this value increased on average by 9,1% per year.

#### **4.2. Fee-Charging Policy**

The Fee-Charging Policy begins to be studied at the end of the 80's, a time when China was facing a severe financial constraint. In order to bridge the gap between demand and available funding, the Chinese government and its departments have tried to solve the problem using two methods: one was the expansion of the funding, exploring more channels to raise funds for education, and the other was improve the efficiency utilization of educational resources.

The Chinese system of financing higher education then went from a fully government-funded system for a system which aimed

for a part of cost recovery. The logic behind charging tuition fees was as it follows:

- a) solve financial difficulties in the higher education system;
- b) meet private demand for higher education;
- c) receive a contribution by private benefits associated with higher education;
- d) attend some World Bank studies, which concluded that the cost sharing and student aid system is fairer and more efficient than the free charge education system.

From 1997, all higher education institutions across the country began to charge tuition fees regularly. The cost recovery policy was then implemented in all institutions of higher education in China. Thus, they began to contribute to the system governments, students and their families, industry and philanthropists. With this policy, about 25% to 30% of total expenditure of higher education began to be covered by the students themselves.

Table 4 lists the amount of government revenue with this policy, as well as students who were attended during the study period:

*Table 4 - Fee-Chargin Policy, total collections and students attended from 2003 to 2012*

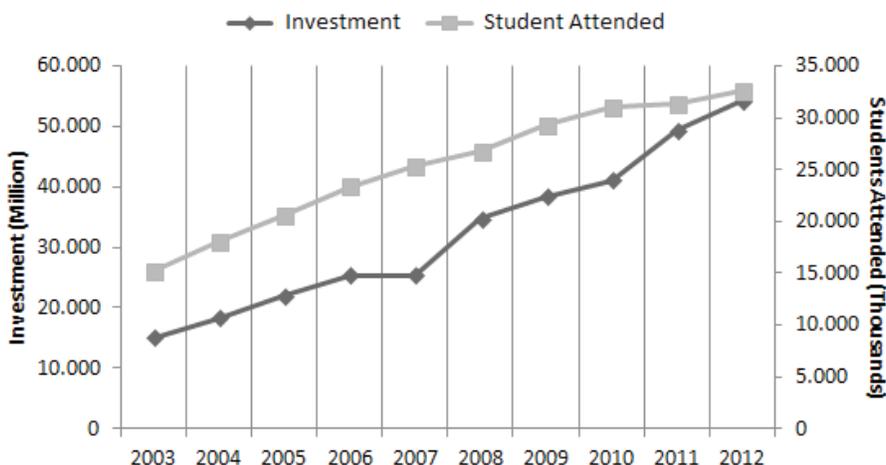
Fee-Chargin Policy		
Year	Collection (\$ dollar)*	Students Attended (cumulative)
2003	15.080.093.143,30	15.186.217
2004	18.327.571.685,08	18.090.814
2005	22.005.400.827,02	20.601.219
2006	25.380.076.485,06	23.360.535
2007	25.368.238.965,72	25.346.279
2008	34.823.385.141,46	26.691.696
2009	38.392.324.009,44	29.295.841
2010	41.110.004.760,87	31.046.735
2011	49.280.388.206,38	31.308.378
2012	54.206.121.426,79	32.585.961

Source: Prepared by the author with data from National Bureau of Statistics of China (2003-2012).

Note: \*Quote of October 9, 2014, \$ 1.00 = 6.25 *yuan*.

Graph 4 illustrates the evolution of revenue by the student's number attended during the reporting period:

Graph 4 - Evolution of the revenue by the student's number attended in Fee-Chargin Policy



Source: Prepared by the author with data from Table 4.

The Fee-Chargin Policy was analyzed since 2003 and in the 10 years of evaluation showed a tax revenues total of U\$ 323,97 billion, with an average annual growth rate of 15,3%. Over the period 32.585.961 students were attended, and it was seen an average growth of 8,9% of students attended per year. The average revenue per student was U\$ 1.233,84, and this value increased on average by 10,9% per year.

### 4.3. Decentralization Plan

The Decentralization Plan was a Chinese government initiative aimed to grant autonomy to the provinces to manage part of the higher education.

In order to support the first major expansion of the Chinese higher education, which took place between 1986 and 1993, and prepare for the second major expansion, the document "1993 Outline for Educational Reform and Development in China" who

announced some modifications to the development of higher education in the country, such as the decentralization of the administrative structure and expansion of university autonomy, a reorganization of the universities to the efficiency, effectiveness and expansion, and diversification of sources of funding for higher education institutions (something already explored in the previous section). Thus, it institutionalizes a structure of two levels of governance of higher education. The central government would then administer directly only a small number of key institutions that seek national development, and serve as models for the rest of the institutions, and other institutions would be managed by provincial governments (ZHA, 2011b).

Many of the responsibilities and powers begins to be delegated to provincial governments, whose main objective will be to coordinate the growth of higher education to meet their province needs. Universities then start to gain autonomy over decisions regarding the supply of places, programs offered, staff appointments, professional development, compensation standards and the cost of funds.

In 1998 it was launched the "1998 Action Plan for Vitalizing Education for the Twenty-first Century", with a schedule of 3 to 5 years for the decentralized governance structure effectively be deployed and provincial governments assume the role of coordinating the development of higher education in their jurisdictions. In 1999, it reinforces the idea of decentralization as one of the main goals of higher education reform, which would have greater integration of higher education with the local and regional economy.

All these changes were intended to streamline and optimize the Chinese higher education structure. The ultimate goal of the Decentralization Plan was to improve the overall competitiveness of China, through the central institutions (elite), while at the same time, attended the internal social demand, a role performed mainly by local institutions (ZHA, 2011b).

Initially considering the central institutions, the Table 5 lists the amount of collection of institutions (including all sources of funding, such as government, tuition fees paid by students, companies, among others), and the student's number who were assisted by this type of institution between 2003 and 2010:

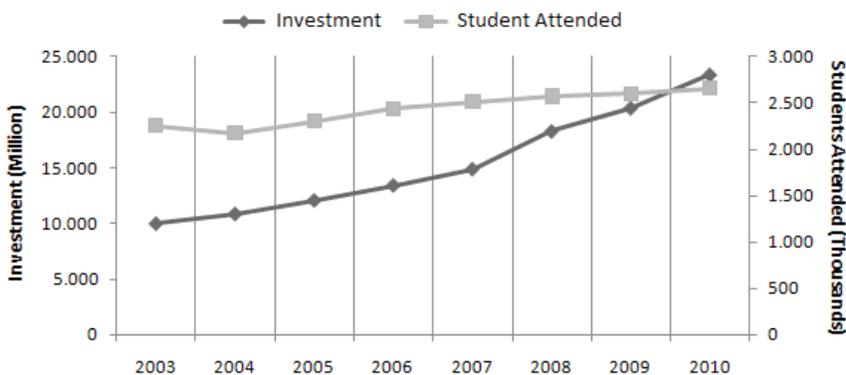
Table 5 - Decentralization Plan, total collections and students attended by central institutions from 2003 to 2010

Decentralization Plan (Central Institutions)		
Year	Collection (\$ dollar)*	Students Attended (cumulative)
2003	10.001.429.488,14	2.256.318
2004	10.879.705.080,59	2.174.447
2005	12.094.414.065,59	2.302.815
2006	13.451.960.805,50	2.436.091
2007	14.916.035.904,49	2.515.421
2008	18.317.730.999,48	2.569.519
2009	20.409.066.011,52	2.598.320
2010	23.409.293.099,15	2.660.335
2011	N/D	N/D
2012	N/D	N/D

Source: Prepared by the author with data from National Bureau of Statistics of China (2003-2012). Years 2011 and 2012 were not disclosed until the time of data collection. Note: \*Quote of October 9, 2014, \$ 1.00 = 6.25 yuan.

Graph 5 illustrates the evolution of the collection of central institutions by the student's number attended during the reporting period:

Graph 5 - Evolution of the collection of central institutions by the student's number attended, Decentralization Plan.



Source: Prepared by the author with data from Table 5.

The Decentralization Plan (central institutions) was analyzed since 2003 and in eight years evaluated was presented a tax revenue total of U\$123 billion, with an average annual growth rate of 12,9%. Over the period 2.660.335 students were attended, and it was seen an average growth of 2,4% of students attended per year. The average revenue per student was U\$ 6.240,35, and this value increased on average by 14,7% per year.

Assessing now the results of local institutions, Table 6 lists the amount of collection of institutions (including all sources of funding, such as government, academic fees paid by students, companies, among others), and the student's number who were attended for this type of institution during the period 2003-2010:

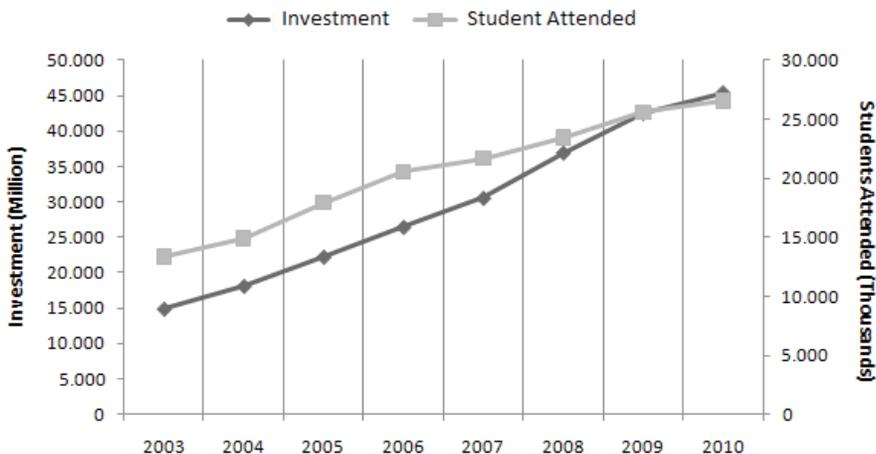
*Table 6 - Decentralization Plan, total collections and students attended by local institutions from 2003 to 2010*

Decentralization Plan (Local Institutions)		
Year	Collection (\$ dollar)*	Students Attended (cumulative)
2003	14.961.028.152,46	13.339.830
2004	18.175.302.051,84	14.907.720
2005	22.283.803.817,28	17.951.193
2006	26.483.586.659,28	20.555.300
2007	30.574.861.358,40	21.663.598
2008	36.956.046.009,60	23.455.015
2009	42.528.767.999,76	25.613.206
2010	45.441.511.835,04	26.556.398
2011	N/D	N/D
2012	N/D	N/D

Source: Prepared by the author with data from National Bureau of Statistics of China (2003-2012). Years 2011 and 2012 were not disclosed until the time of data collection. Note: \*Quote of October 9, 2014, \$ 1.00 = 6.25 *yuan*.

Graph 6 illustrates the evolution of the collection of local institutions by the student's number attended during the reporting period:

Graph 6 - Evolution of the collection of local institutions by the student's number attended, Decentralization Plan



Source: Prepared by the author with data from Table 6.

The Decentralization Plan (local institutions) was analyzed since 2003 and in eight years evaluated was presented a tax revenue total of U\$ 237,4 billion, with an average annual growth rate of 17,2%. Over the period 26.556.398 students were attended, and it was seen an average growth of 10,3% of students attended per year. The average revenue per student was U\$ 1.403,62, and this value increased on average by 8,8% per year.

#### 4.4. Open University of China (OUC)

The Open University of China (OUC) was named China Central Radio & TV University (CCRTVU) by the year 2009. The purpose of its creation was to bring higher education to more remote areas, particularly rural areas.

In 1978, the proposition to create the CCRTVU was approved and in 1979 began offering education at distance programs across the country. The OUC is under direct supervision of the Ministry of Education in China and TVs, and university radios sites are under the responsibility of their respective jurisdiction, but under the academic management control of OUC. The OUC is not only

responsible for developing criteria, but also for evaluation, and aims to provide learning opportunities and quality education for all people in society, especially those in remote, rural areas and ethnic minority regions (OUC, 2014).

The OUC maintains the educational philosophy of “transparency, accountability, quality, diversity and internationalization.” The university is rapidly expanding, integrating modern technology with education to build a route for learning throughout life, contributing to the formation of society and meeting the development needs of individuals, as well as economic and social development goals of the nation. The name “Open University of China” was just chosen to represent a university based on a new model, “without walls”, open to all members of society.

Currently, OUC is the largest open education and at distance system in the world and the goal of the Chinese government is turning it into an open university of world reference (OUC, 2014).

Table 7 lists the amount of investments destined for OUC and the students who were attended during the study period:

*Table 7 - OUC, total investments and students attended*

Open University of China (OUC)		
Year	Investment (\$ dollar)*	Students Attended (cumulative)
2003	N/D**	1.206.500
2004	N/D**	1.603.700
2005	2.712.949.698,35	1.830.040
2006	3.889.465.659,84	1.867.300
2007	4.067.790.043,55	1.986.300
2008	4.194.137.200,85	2.249.700
2009	4.659.480.482,64	2.663.500
2010	5.572.514.403,29	2.953.200
2011	N/D**	N/D**
2012	N/D**	3.590.000

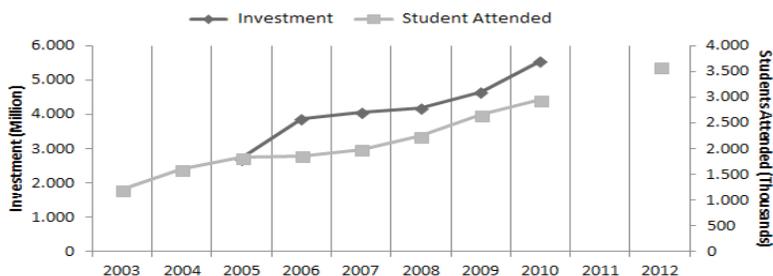
Source: Prepared by the author with data from OUC (2014).

\* Note: Quotation of October 9, 2014, \$ 1.00 = 6.25 *yuan*.

\*\* Note: The data related to investment in the years 2003, 2004, 2011 and 2012 as well as the amount of students in 2011 were not available in the annual reports of OUC.

Graph 7 illustrates the development of investment by the student's number attended during the reporting period:

*Graph 7 - Development of investment by the student's number attended at OUC*



Source: Prepared by the author with data from Table 7.

The OUC was analyzed since 2003, but the investment information was obtained only between 2005 and 2010, when it presented a total investment of U\$ 25,09 billion, with an average annual growth rate of 15,5%. Over the period it attend 3,59 million students, and was seen an average growth of 12,9% of students attended per year. The average investment per student between 2005 and 2010 was U\$ 1.852, being that this value increased on average 4,9% per year.

#### **4.5. Green Passage**

The Green Passage is not necessarily a government public policy. It is an institutional action to prevent economically disadvantaged students from being excluded from the system. The action is similar to that of the welfare foundations in the Brazilian federal universities, where the student registers and if a real situation of lack is confirmed, that student will have support from the institution to which he will study.

From 2000, the higher education institutions in China have established a Green Passage system to ensure successful entry of all new university students from poor families. In the process, these students should be allowed to advance the admission procedures and should receive assistance regarding the various financial assistance policies available to them, according to the situation of the family.

For this reason, the Ministry of Education requires all higher education institutions to establish the Green Passage system because it will allow students from poor families who have been accepted

by universities to start your registration first, and then apply for financial aid (MENGKUI, 2009).

The intention of the institutions to open a Green Passage is to allow students to begin their studies before paying tuition fees and the first tuition. So, from the time the student receives notice that has been approved and also the registration procedures, he/she is already informed about financial aid policies and introduced to the Green Passage. The idea is to ensure that disadvantaged students feel at ease at the university and finish their educational process without major concerns.

For the development of this action, the Ministry of Education establishes cooperation with banks and financial departments to carry out all necessary assistance to needy students in the country. Whenever you start a school year, the Ministry of Education calls on all institutions to open a process of Green Passage still in registration, to identify those students who cannot get enough money to pay for the possible fees (WILLMANN; SCHUCHER 2005).

Table 8 shows the amount of investments allocated to the Green Passage over the analysis period:

*Table 8 - Green Passage, total investments from 2003 to 2012*

Green Passage*	
Year	Investment (\$ dollar)**
2003	1.294.062.009,25
2004	1.555.791.493,49
2005	1.808.346.612,58
2006	2.424.717.823,93
2007	2.658.685.134,39
2008	4.846.917.072,92
2009	9.378.425.776,44
2010	9.588.729.888,92
2011	11.229.998.338,41
2012	13.611.059.120,25

Source: Prepared by the author with data from National Bureau of Statistics of China (2003-2012).

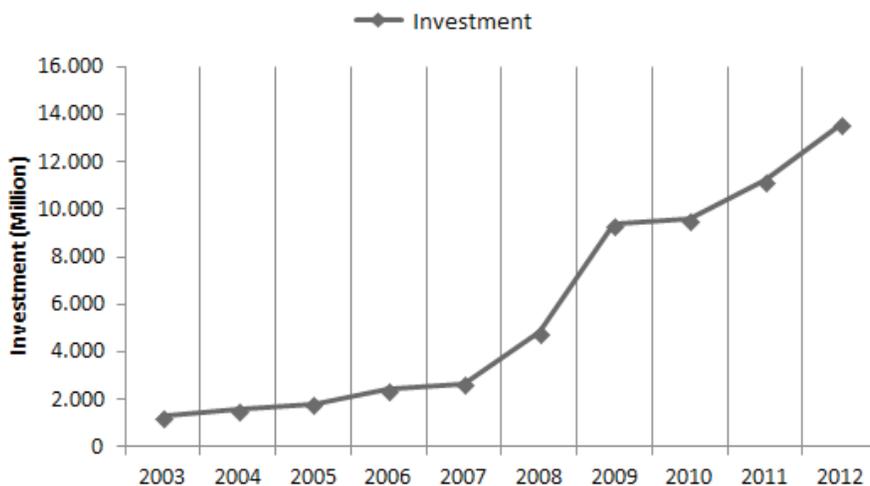
\* Note: Specific records are not released for the Green Passage policy. This policy is calculated in the "Student Grants" tab of the National Department of Education of China.

\*\* Note: Quotation of October 9, 2014, \$ 1.00 = 6.25  *yuan*.

\*\*\* Note: As this is a specific data of each institution, no information was received about the total student's number attended in the period.

Graph 8 illustrates the evolution of investment during the analysis period:

*Graph 8 - Investment Evolution in Green Passage*



Source: Prepared by the author with the Table 8 data.

The Green Passage was analyzed since 2003 and in the 10 years of evaluation showed a total investment of U\$ 58,4 billion, with an average annual growth rate of 29,9%. It is worth mentioning that as it is a specific action in each institution, consolidated data regarding the Green Passage are not disclosed. This policy is calculated on the “student grants”, the National Bureau of China’s education. Moreover, no information was obtained on the total student’s number attended.

#### **4.6. Projects 211 and 985**

As already explained on this research, the Project 211 and 985 were policies in order to help Chinese universities to become recognized worldwide.

In short, the 211 Project is a project launched in 1995 by the Chinese Ministry of Education focused in key national universities and colleges. The objective of this project is to increase the search patterns of the prominent universities and cultivate strategies for socio-economic development.

Currently, the 211 Project covers about 6% of the country's universities (118 institutions of higher education) designated as 211 Project institutions because they met certain scientific, technical and human resource standards. The institutions in Project 211 assume the responsibility of training four-fifths of doctoral students, two-thirds of graduate students, half of foreign students and one-third of undergraduate students (CAI; KOHTMÄKI, 2014).

The project name comes from an abbreviation of the XXI century and 100 (approximate number of participating universities), turning then "21-1".

As a way to achieve an even more differentiated work in a smaller number of universities, the Project 985 comes in 1998 to promote the development and reputation of the Chinese higher education system, focusing on the development of world-class universities throughout the century XXI. The project involves both national and local governments, allocating large amounts of funding for some universities, in order to build new research centers, improve facilities, hold international conferences, attract researchers and world-renowned professors and help the Chinese professors participate in conferences abroad.

Thirty-nine universities are participating in this policy, and in 2011 it was announced that there would be more likely to attend other schools. In order to achieve even better indicators and in a shorter time, were chosen 9 of 39 of the 985 project universities to form the china called C9 League, that is, the first 9 Chinese institutions that receive massive support to be included among the best universities in the world (KING; MARGINSON; NAIDOO, 2011).

In the case of the 985 Project, the name is a combination of values extracted from the project start date: May 1998. Soon, 1998/5 eventually became 98/5.

Because the funding transfer is in stages rather than annually, it could not perform the historical series of projects 211 and 985. However, because of the importance they represent to the Chinese higher education, these projects are explored below.

Table 9 shows the total resources (phases) transferred by the government to the participating universities:

*Table 9 - Evaluation of Investment and students attended (in stages) in Public Policies Projects 211 and 985*

Project 211			Project 985		
Year	Investment (\$ dollar)*	Students Attended (cumulative)	Year	Investment (\$ dollar)*	Students Attended** (cumulative)
2003	970.000.000,00	2.418.678	2003	N/A	N/A
2004		N/A	2004	3.110.000.000,00	N/A
2005		N/A	2005		N/A
2006		2.797.946	2006		N/A
2007		N/A	2007		N/A
2008	N/A	2008	5.800.000.000,00		N/A
2009	1.600.000.000,00	2.927.731		2009	N/A
2010	N/A	N/A		2010	1.734.343
2011	N/A	N/A		2011	N/A
2012	N/A	3.327.293	2012	N/A	2.092.005

Source: Prepared by the author with data from: Project 211, Cai and Kohtmäki (2014) for investments and National Bureau of Statistics of China (2003-2012) for students attended; Project 985, King, Marginson and Naidoo (2011) for investments and National Bureau of Statistics of China (2003-2012) for the students attended.

\* Note: Quotation of October 9, 2014, \$ 1.00 = 6.25  *yuan*.

\*\* Note: The only data available is in relation to the student's number in 2010 and 2012, the other years are classified by the government as "confidential".

In relation to Project 211, it was observed a total investment of U\$ 970 million in the period 2003-2006 and U\$ 1,6 billion between 2007 and 2011. While in 2003 were 2.418.678 the students benefited in 2012 this value was 3.327.293, representing an average annual growth of 3,6%.

The Project 985 presented a total investment of U\$ 3,11 billion between 2004 and 2007 and U\$ 5,8 billion between 2008 and 2011. While in 2010 the project attended 1.734.343 students in 2012 this value rose to 2.092.005, representing an average annual growth of 9,8% in the period.

#### 4.7. Comparative performance: China public policies

Once a specific analysis of the main public policies for higher education in China was made, it attempts now understand the performance of the analyzed comparatively policies in order to facilitate the interpretation and spread of data.

Table 10 presents the evaluation of investment and students attended (if applicable) in public policies analyzed in China:

Table 10 - Comparative performance of public policies in China

		G.Pass	(OUC)	Fee-Chargin	GSSLP	Decen. Plan *** (Central Inst.)	Decen. Plan *** (Local Inst.)
Period	Number of years	10	10**	10	10	8	8
	Initial year	2003	2003	2003	2003	2003	2003
Invest./ Col. (\$ dollar)	Total in period (billions)	58,39	25,09*	323,97	1,36	123,47	237,40
	Annual average grown rate	29,9%	15,5%*	15,3%	24,1%	12,9%	17,2%
Students Att.	Total in period	-	3.590.000	32.585.961	8.371.500	2.660.335	26.556.398
	Annual average growth rate	-	12,9%	8,9%	18,3%	2,4%	10,3%
Invest. per student	Average in period	-	1.852*	1.233,84	158,54****	6.240,35	1.403,62
	Annual average growth rate	-	4,9%*	10,9%	9,1%	14,7%	8,8%

Source: Prepared by the author.

\* Note: Considering only the period between years 2005 and 2010.

\*\* Note: No information on investment in years 2003, 2004, 2011 and 2012 and students in 2011.

\*\*\* Note: No information on investment and student's number in years 2011 and 2012.

\*\*\*\* Note: The average value in the period for investment per student is significantly lower than other policies, since the majority of the resources invested occur via bank (plus, there is the return of values to the government later).

However, it is worth noting that it is policies with different focuses, both in composition and in objective, therefore, it should evaluate them with some caution. In anyway, it is possible to draw conclusions based on the data shown in Table 10, such as:

the collection policy of academic fees, Fee-Chargin Policy, was responsible for the collection of more than 323 billion dollars in the period, which shows the importance of this collection to maintain system expansion and even other policies, such as the welfare policies example. In addition, such policy represented an annual growth of around 9% in the student's number in the system;

Green Passage showed an average annual growth rate (investment) slightly higher than GSSLP, suggesting a concern of the Chinese government to expand the policy assist;

On the other hand, the GSSLP showed an annual growth of 18,3% in total students attended, which also signals a representative offering of student loans;

On Decentralization Plan, it can be clearly observed the role profiled by central institutions and local institutions. The indicators corroborate the view of local institutions, which is to form the mass order, especially internal labor, work in the country and with the central institutions, which provides a differentiated education worldwide. Especially the average investment per student, which is more than 4 times lower in local institutions than in central institutions, which further confirms the role performed by each;

The OUC showed an average annual growth rate significant in the student's number attended, highlighting the importance of distance education has played in the Chinese higher education system.

## **5. FINAL THOUGHTS**

The analysis of public policies for higher education in China demonstrated a direct relationship between the results of the country and the actions taken by them during the period evaluated.

Both the public policies and the impact of some structural adjustments in the system were analyzed. The financial support intended for the Chinese policies have proven that higher education, for decades forgotten, began to receive the necessary attention. The numbers are so significant that an assistance policy as GSSLP

met more students over the period than the entire system of higher education currently does.

Due to its continental dimension and the difficulty of being present throughout the territory of the country, China has also started to invest increasingly in distance education, by means of OUC. In the period analyzed, the investments had an average annual growth of approximately 15,5% and an average increase in the annual number of students of 12,9%.

The policies Project 211 and Project 985 demonstrated an essential role in the qualitative advances in higher education in China. For a country which until a few decades had no higher education as a key area, defining actions to transform their universities in “world class” institutions confirm the position of the nation concerning this segment. The originality of the policies also deserves to be highlighted, since the traditional route for the universities to seek to improve their position in the international rankings is through an ongoing process and in most cases slow. However, China has established two policies with this objective explicit and clear, applying large financial contributions to meet this goal. The boldness of the country in this action must be emphasized.

As a proactive action, it is also possible to highlight the Green Passage policy, which combines a series of welfare benefits and discloses to the students at the institutional level, those benefits to which they are entitled, in order to provide for the economically disadvantaged students. The determination of the government so that the institutions open the process of Green Passage at the moment in which students receive the information they were approved, helps the institutions and the government to anticipate the problem of students enrolling in higher education and subsequently discover that they cannot stay, generating a disadvantageous drop out tax in the system.

In addition to the policies that receive public funding from governments, it was also analyzed issues of structural order, especially those that involve diversification to inflow of resources that are intended for higher education. It is possible to realize that China has sought efficient options to ensure a larger amount of resources to the system, divided into two major actions: collection of tuition fees and the decentralization of its system.

Even though it is a relatively recently action (1997), collection of tuition fees, was a milestone in Chinese higher education, something noticed by both the analysis of quantitative data, as well as the perception of the research participants, via analysis of qualitative data. In 10 years of evaluation, China raised a sum exceeding 323 billion dollars, an amount sufficient to promote a complete restructuring in any one of the three systems studied. This injection of additional resources was preponderant so that the Chinese higher education system expanded and attended more than 30 million students, becoming the largest system in the world in quantitative terms. The final impact was so positive, that the participants themselves from the system recognize and defend its importance. Even though it is a polemic and controversial theme in Brazil, the case of China demonstrates the importance of carrying out a reflection on this subject.

Another structure that brought significant results, especially in the quantitative increase in the number of enrollments, was the decentralization of the management of the system, granting more autonomy to the provincial governments. In the case of China, the Central Government still sets the strategies and rules to be followed, however, each province can choose the best way to comply with them. These governments also receive autonomy to apply the specific resources for higher education which collect at the local level. The biggest differential of this strategy was that the provinces began to compete among themselves, improving each time more its educational system to attract more students (which contribute to the tuition fees and foster the system). This “competition” has been responsible for ensuring a continuous improvement of the system, as well as inevitably increase the number of vacancies and consequently the access.

*Table 11 - Summary of the main reflections observed in the quantitative analysis of public policies*

Policies	Main reflexes
GSSLP	Attended more students over the period than the entire system of higher education currently does.
OUC	There was an average annual growth of approximately 15,5% and an average increase in the annual number of students of 12,9%.
Projects 211/985	Demonstrated an essential role in the qualitative advances in higher education in China, applying large financial contributions to meet this goal.
Green Passage	It combines a series of welfare benefits and discloses to the students, at the institutional level, proactively.
Tuition fees	In 10 years of evaluation, China raised a sum exceeding 323 billion dollars.

Source: Elaborated by the author.

As future studies, it is suggested to perform a comparative study between public policies for higher education in China and public policies in other countries, such as Brazil, which has experienced a great increase in the number of enrollments in the last 20 years. Another point that can be addressed is the real impacts of increasing the number of graduates if it is considered that China still needs to improve the employment rate for recent graduates. It'll be interesting to improve the debate on the massification of higher education that has created an imbalance between the number of graduates, the quality of training and the real needs of society. It will be interesting to improve the debate on the massification of higher education by studying the imbalance between the number of graduates, the quality of training and the real needs of society.

Finally, the joint evaluations of the results of all policies showed a series of possibilities to promote the advancement of higher education worldwide, with examples of policies that can be replicated to other nations, and, therefore, assist them in their development.

## REFERENCES

- ANDRADE, M. M. **Como Preparar Trabalhos para Cursos de Pós Graduação**. 4th. ed. São Paulo: Atlas, 2001.
- ASSMANN, Selvino, A.; LAWS, H. R. De como salvar a universidade pública dela mesma. **INTERthesis**, Florianópolis, v. 5, p. 122-130, 2008.
- BARBETTA, Pedro Alberto. **Estatística aplicada às ciências sociais**. 7th. ed. Rev. Florianópolis, SC: Editora da UFSC, 2008.
- CAI, Y.; KOHTMÄKI, V. (orgs.). **Transformation of higher education innovation systems in China and Finland**. Tampere, Finlândia. Tampere University Press, 2014.
- CERNET. MOE: Survey of the Educational Reform and Development in China. China Education and Research Network. 2004. Disponível em: <[http://www.edu.cn/Researchedu\\_1498/20060323/t20060323\\_113688.shtml](http://www.edu.cn/Researchedu_1498/20060323/t20060323_113688.shtml)>. Acesso em 2 de Abril de 2013.
- CHENG, K. Expansion of higher education in China: then what? **Harvard China Review**, v.5, n.1, p. 82-86, 2004.
- COLLIS, Jill; HUSSEY, Roger. *Pesquisa em Administração*. 2nd. ed. Porto Alegre: Bookman, 2005.
- GIL. **Métodos e Técnicas de Pesquisa Social**. São Paulo: Atlas, 1995.
- HAYHOE, Ruth; e ZHA, Qiang. Becoming World Class: Chinese Universities Facing Globalization and Internationalization. **Harvard China Review**, Cambridge, v.5, n.1, p. 87-92. 2004.
- HAYHOE, Ruth; e ZHA, Qiang. The Polytechnic Universities in China's Transformation. **International Higher Education**, Boston, n. 60, p. 11-13. 2010.
- IEDI. Instituto de Estudos para o Desenvolvimento Industrial. **A Transformação da China em Economia Orientada à Inovação**. São Paulo: n. 482, 2011.
- KING, R.; MARGINSON, S.; e NAIDOO, R. **A Handbook of Globalization and Higher Education**. Cheltenham: Edward Elgar, 2011.
- LEVIN, Richard C. A Ascensão das Universidades Asiáticas. **Revista Ensino Superior Unicamp**, Campinas, n. 2, p. 26-36. 2010.
- LEVY, Daniel, C. Intersectoral Interfaces in Higher Education Development: Private and Public in Sync? In: LIN, Justin Yifu; e PLESKOVIC, Boris (Orgs). **Annual World Bank Conference on Development Economics - Regional 2008: Higher Education and Development**. Washington: World Bank Publications. 2008. p. 101-123.
- MARCONI, M. A.; LAKATOS, E.M. **Técnicas de Pesquisa**. 2nd. ed. São Paulo: Editora Atlas, 1990.
- MARCOVITCH, J. A Revolução Acadêmica. **Revista USP**, São Paulo, v. 78, p. 6-13, 2008.
- MENGGUI, Wang. *Good Governance in China - A Way Towards Social Harmony: Case Studies by China's Rising Leaders*. Nova York: China Development Research Foundation (CDRF), 2009.
- MIN, Weifang. The Legacy of the Past and the Context of the Future. In: ALTBACH, P.; UMAKOSHI, T. **Asian Universities: Historical Perspectives and Contemporary Challenges**. Baltimore: Johns Hopkins University Press, 2004.
- MIN, Weifang. Higher education financing in east Asia: policy implications for China. In LIN, Justin Yifu; e PLESKOVIC, Boris (Orgs). **Annual World Bank Conference on Development Economics - Regional 2008: Higher Education and Development**. Washington: World Bank Publications. p. 41-46. 2008.

- NAOE, Aline. O desenho educacional que move a inovação na China. **Revista Eletrônica de Jornalismo Científico**, Unicamp, Campinas. 2012.
- NATIONAL BUREAU OF STATISTICS OF CHINA. **China Statistical Yearbooks (2003-2012)**. Beijing: China Statistics Press, 2003-2012.
- OUC. **Statistical Bulletin on the Status of the CRTVUs**. The Open University of China. Pequim, China. Disponível em: <<http://en.ouchn.edu.cn/index.php/about/annual-report>>. Acesso em 6 de Outubro de 2014.
- SHEN, Hong; LI, Wenli. **A Review of the Student Loans Scheme in China**. UNESCO Bangkok: International Institute for Educational Planning. 2003.
- SHEN, Hua; SHEN, Hong; e ZIDERMAN, Adrian. Student Loans Repayment in China: Designing a New Model to Ease the Repayment Burden. **Higher Education in Europe**, v. 34, n. 2, p. 281-290, Reino Unido, 2009.
- STATE COUNCIL. Action plan for vitalizing education for the twenty-first century. In: **China Education Yearbook**. Pequim: Ministry of Education of China, People's education press. p. 107-16. 1999.
- VERGARA, S. C. **Projetos e relatórios de pesquisa em Administração**. São Paulo: Atlas, 2004.
- WILLMANN, Katrin; e SCHUCHER, Günter. Facts about and Development in the Rural Education of the PRC. **China aktuell**, [S.I.] v. 5, p. 10-15. 2005.
- WORLD BANK. **The World Bank Database**: China. Washington. Disponível em: <<http://www.worldbank.org/en/country/china>>. Acesso em 31 de Março de 2013.
- ZHA, Qiang; HAYHOE, Ruth. The Beijing Consensus and Chinese Higher Education: The Successful Stories and Looming Crisis (Apresentação). In: **ENSINO SUPERIOR E DESENVOLVIMENTO: A EXPERIÊNCIA DOS BRICS (Seminário Internacional)**. 2008, Campinas. **Anais...** Campinas: Unicamp, 08 de Novembro de 2008.
- ZHA, Qiang. Diversification or Homogenization: How Governments and Markets Have Combined to (Re)Shape Chinese Higher Education in Its Recent Massification Process. **Higher Education**, v.58 n.1, p.41-58. Estados Unidos: Jstor, 2009.
- ZHA, Qiang. China's move to mass higher education in a comparative perspective. **Compare: A Journal of Comparative and International Education**, v.41, n.6, 751-768. Estados Unidos: Springer, 2011a.
- ZHA, Qiang. Chapter One: Understanding China's Move to Mass Higher Education from a Policy Perspective. In: HAYHOE, Ruth; LI, Jun; LIN, Jing; ZHA, Qiang. **Portraits of 21st Century Chinese Universities: In the Move to Mass Higher Education**. Comparative Education Research Centre, The University of Hong Kong & Dordrecht. Hong Kong: Springer. 2011b.
- ZHA, Qiang. The Study-Abroad Fever among Chinese Students. **International Higher Education**. Number 69, (Fall 2012), 15-17, Boston, 2012.

Recebido em: 25-8-2017

Aprovado em: 17-10-2018

Avaliado pelo sistema double blind review.

Editor: Coordenação do PPGA/UMESP

Disponível em <http://mjs.metodista.br/index.php/roc>