





---

# An analysis of the Chinese higher education system (1949-2019): policies, advances and challenges

*An analysis of the Chinese higher education system (1949-2019): policies, advances and challenges*

Marcos Costa Lima<sup>1</sup>   
Pedro Fonseca<sup>2</sup>   
Amanda Salvino<sup>3</sup>   
Júlia Benning<sup>4</sup> 

DOI: 10.22478/ufpb.2525-5584.2020v5n3.55346

*Date of Recieival:* 29/09/2020  
*Date of Approval:* 27/10/2020

**Abstract:** This article aims to analyze historically the Chinese higher education system, presenting its main policies and advances. It is perceived that Chinese development is surprising, and the role of these educational reforms has contributed to advances, both in human resources and in innovation, as well as in educational infrastructure. superior education has undergone reformulations since 1949, but in the post-reform and opening-up period, when massive reforms were implemented in order to provide the Chinese superior education system with greater capacity to meet social demands and China's policy. Therefore, between 1993 and 2010, reforms emphasized massification, decentralization, liberation and privatization. The work also focuses on explaining two projects, the first entitled Project 211, implemented in 1995, with the government seeking to invest in around 100 universities to provide them with greater technical and scientific capacity in the 21st century. The second project, launched in 1998, it was called Project 985 and aimed to create world-class universities in the 21st century. Finally, the work presents challenges that still exist for the development of higher education.

**Keywords:** Chinese university. Marxism. Xi Jinping. Mao Zedong. Marxist Theory.

---

<sup>1</sup> Universidade Federal de Pernambuco. E-mail: [marcosfcostalima@gmail.com](mailto:marcosfcostalima@gmail.com)

<sup>2</sup> Universidade Federal de Pernambuco. E-mail: [pe.fonseca@outlook.com](mailto:pe.fonseca@outlook.com)

<sup>3</sup> Universidade Federal de Pernambuco. E-mail: [amandasalvinocpri@gmail.com](mailto:amandasalvinocpri@gmail.com)

<sup>4</sup> Universidade Católica de Pernambuco. E-mail: [juliabenning1194@gmail.com](mailto:juliabenning1194@gmail.com)

**Resumo:** Este artigo tem como objetivo analisar historicamente o sistema educacional superior chinês, apresentando suas principais políticas e avanços. É percebido que o desenvolvimento chinês é surpreendente, e o papel dessas reformas educacionais tem contribuído com os avanços, tanto em recursos humanos quanto em inovação, bem como em infraestruturas educacionais. O ensino superior tem sofrido reformulações desde 1949, quando massivas reformas foram implantadas com o intuito de dotar o sistema superior chinês de maior capacidade de atender as demandas sociais e política da China. Desse modo, entre 1993 e 2010, as reformas tiveram ênfase na massificação, descentralização, liberação e privatização. O trabalho incide ainda na explicitação de dois projetos, o primeiro intitulado de Projeto 211, implementado em 1995, com o governo buscando investir em cerca de 100 universidades para dotá-las de maior capacidade técnico-científica no século XXI. Já o segundo projeto, lançado em 1998, foi chamado de o Projeto 985 e tinha como objetivo criar universidades de nível mundial no século XXI. Por fim, o trabalho apresenta desafios ainda existentes para o desenvolvimento do ensino superior.

**Palavras-chave:** Universidades; Universidades na China; Reformas do Ensino Superior na China; Políticas de desenvolvimento.

## **1. Introduction**

The main objective of this article is to present the transformations of the Chinese higher education system. For this, it was necessary to point out some elements of the Country's Educational System, since a system seen in a watertight way always undermines a holistic understanding of the process. Higher education has undergone reformulations since 1949, but in the post-reform and opening-up period, the tipping point in higher education came in 1993 when massive reforms were implemented in order to provide the Chinese higher system with greater capacity to meet social demands and China's policy. Thus, between 1993 and 2010, reforms emphasized massification, decentralization, liberation and privatization.

Therefore, the present is divided as follows, to contextualize the reader about Chinese education, Chapter 2 presents a brief evolution of the Chinese basic education system. From the beginning of the Cultural Revolution until 1978, school financing was either carried out by local communities (*minban*), or managed by the state (*gongba*), but the difficulties were numerous. In addition to establishing the main changes chronologically, the chapter also discusses the three theories that served as a basis for thinking about the Educational System in China: the Theory of Modernity, the Theory of Human Capital and the Postcolonial Mentality (Li, 2017).

Chapter 3 deals specifically with the superior system, from the revolution in 1949 to 2019. We sought to present the 3 periods of university reforms, which began as early

as 1980, when there was a departure from the Soviet model, and started with a approximation with the North American model; in a next moment, a more pragmatic view of teaching; and, in the third stage, starting in 1993, when a series of reforms in higher education began, with emphasis on the “Outline for Reform and Development of Education in China” (CC-CPC, 1993).

Chapter 4 analyzes the main policies for higher education, *Project 211* and *Project 985*, in order to make a case study. The first was *Project 211*, started in 1995, which made reference to the slogan “Run a hundred universities in the 21st century”, in free translation of the original in Mandarin<sup>5</sup>, where the government sought to invest in around 100 universities to provide them not only with greater technical-scientific capacity, but to make them world-renowned universities in the 21st century (Wan, 2003; Zhao & Zhu, 2010).

The second policy called *Project 985* was launched after the speech by former President Jiang Zemin, on May 4, 1998, at the centenary of Beijing University. Its main objective was to create world-class universities for the 21st century. The project involved the national and local spheres and sought to invest in a select group of Universities (Cai, 2013).

Finally, chapters 5 and 6 deal with the advances and challenges of the reforms. China China realizes that to move forward, investment in quality education and science is necessary. This is clear from Xi Jinping, who, with the materialization of the idea of national rejuvenation, starts to give a new centrality to education (Xinhua, 2020). Chapter 7 is devoted to final considerations.

## **2. Chinese Education: a brief evolution of the educational system and policies for basic education**

The increasing impact of educational reforms across the Chinese education system has been the subject of unprecedented changes (Oyniran & Uwamahoro, 2017). The increased impact of these educational reforms has provided significant advances, both in human resources and in innovation, as well as in educational infrastructures, which facilitated and gave consistency to progress in the country's economic, political, cultural

---

<sup>5</sup>面向 21 世纪办好百所高校 (*Miànxàng 21 shìjì bàn hǎo bǎi suǒ gāoxiào*)

and social development. So, this section seeks to present the main points of the evolution of the Chinese education system.

If we take the Chinese educational system as a comparison during the Cultural Revolution, we will see the great advances achieved. According to Emily *et al* (2008), documents of the time indicate that much of the funding of schools during the Cultural Revolution was at the expense of local communities (*minban*), or managed by people, teachers and schools, which are distinct from (*gongba*), or state-run teachers and schools. As part of this process, many primary school teachers in rural areas were compensated with “work points” instead of wages and reclassified as rural residents (Tsang, 2000).

*Minban-style* education grew rapidly during the Cultural Revolution, first in rural areas and then in cities. Educational authorities have given responsibility for state-run primary schools to local production teams or brigades, communes, factories, businesses, neighborhood revolutionary committees and other instances of Chinese administration (Tsang, 2000; Wang, 2002).

During this period, *minban* teachers were paid in grain rations and supplementary cash subsidies per unit of work based on the work points they earned, while state teachers received salaries from governments. It is important to say under this arrangement that the direct costs of education were rarely borne by families, even in rural communities, and that every child in the countryside was able to attend primary school free of charge during the final years of the Cultural Revolution (Han, 2001).

In the late 1970's, a differentiated agenda guided educational policy, as leaders thought about promoting market reforms and economic modernization. In March 1978 Deng Xiaoping delivered an opening speech at the National Symposium on Science and Technology in Beijing. In this speech, he reiterated the importance of science and technology for economic modernization and stated that “the basis for training science and technology is based on education” (Shen, 1994).

Since 1978, Chinese educational policy has gone through four stages, namely: i) the recovery and reconstruction of the educational order (1978-1984); ii) the beginning of a total reform of the educational system (1985-1992); iii) adjustment of the educational policy capable of facing the reform of the economic market system (1993-2002); iv) and the new development of educational policy under the command of scientific perspectives on development (2003-2009).

Li (2017) points out that the starting point is in 1985 when the government outlines long-term goals, such as the consolidation of the compulsory 9-year educational system and greater autonomy in higher education. These objectives have been modernized over time to dialogue with China's needs. Thereby, this modernization resulted in an increase in educational policies, as can be seen in the period from 2000 to 2017, when the Chinese state enacted 22 documents related to educational policies (Li, 2017).

In addition, the author points out that over the years, three types of theories - have been juxtaposed to create Chinese development policies. What are the Theory of Modernity, the Theory of Human Capital and the Postcolonial Mentality. These reasoning is based on a philosophical concept of Confucius (*Zhong-Yong*). Li (2017) describes it as a “Confucian model of development”.

Modernization Theory holds that Chinese leaders have always pursued modernization. As such, they saw education as the foundation structure for reforms. In other words, education had an instrumental role in national rejuvenation. In turn, Human Capital theorists saw education as the largest investment in human capital that could be made. In this way, Chinese leaders used reasoning that educational reforms should raise the quality of education and student development. Consequently, this would produce a more qualified workforce, leading to further modernization and development. In this way, there would be economic growth and achievement of national goals, ultimately raising national competitiveness (Li, 2017).

As soon, for Li (2017), the Confucian Development Model, based on these three mindsets, has resulted in significant changes in recent decades. In particular, expanding access to education, expanding higher education, optimizing the educational system and structure and improving teacher training.

The completion of nine-year compulsory education provided a sufficient basis for further education reform for the new century. The reform covered all stages of training, from pre-school education to continuing education, including educational objectives, the role of teachers and researchers and international cooperation (Li, 2017).

Article 19 of the 1982 Constitution of the People's Republic of China stipulates that "the State develops socialist education to raise the cultural and scientific standard of the entire people" (CRPC, 1983). On May 27, 1985, the decision to reform the educational system was made by the Central Committee of the Communist Party of China (CC-CPC) (Ming, 1986). In 1986, China enacted the Compulsory Education Law, which

guaranteed the implementation of nine years of compulsory education, which is now applied throughout the national territory, according to the Law, which stipulates that all children and adolescents must receive free, compulsory and universal education (MoE, 2009).

In 1993, China's Educational Reform and Development Program was issued by the CC-CPC and the State Council (Yang, 2009). In 1995 a major effort was made to increase rates of secondary education and tertiary education. The reform was designed to achieve a number of objectives, among which were: i) generalize compulsory education for nine years, when at the time, only 75% were enrolled; ii) end illiteracy; iii) develop technical secondary education, adult education and continuing education; iv) improving the level of education of girls and national minorities in poor areas; v) construct, renovate buildings for research and teaching, aiming to increase the number of students.

Advancing into the 21st century, in 2007, coverage of compulsory education and literacy reached 98% (MoE, 2007). In 2010, 50.94% of high school students were enrolled in vocational secondary schools and students enrolled in all forms of professional higher colleges represented 46.92% of the total number enrolled in higher education (Statistical Bulletin for National Educational Development, 2010, p .34).

Finally, by the end of 2011, China had had ample success in reaching the goal of “Universal Compulsory Education for Nine Years” across the country with an enrollment rate that reached 100% (MoE, 2013). According to the Ministry of Education, the gross enrollment rate in secondary schools reached 100.1% (MoE, 2012a, p.34). In 2013, 100% of the locations at the municipality level reached the goal of universalizing mandatory 9-year education. In 2015, the total gross enrollment rate in higher education was 36% (Sang, 2015, p.35).

### **3. The Chinese Higher Education System (1949-2010)**

The origin of the Chinese higher education can be traced back to the ancient period, and Shuyuan<sup>6</sup> (Chinese classical learning academy) in the Tang Dynasty (618-

---

<sup>6</sup> Confucian philosopher, educator and scholar, Zhan received his jin shi diploma during the reign of Hongzhi (1488–1505) and was appointed president of the Imperial Nanjing Academy in 1524. He later became minister of the Cabinet of Rites after the Personnel Office, and after the War Office in Nanjing. Famous educator, during his life he founded more than 40 Shu yuan (Confucian academies). As a philosopher, he was a follower of Zhu Xi (1130–1200), a Confucian scholar of the Song dynasty and who became a leading figure in the School of Principles and the most influential neo-Confucian rationalist in China. He was also a longtime friend of the philosopher Wang Yangming (1472–1529) and, although his

907 AD) is a prototype of it (Cai, Kivistö & Zhang, 2011). However, the development of modern universities and the higher education system in China is relatively recent. The first institution considered as the counterpart of the western university was created in 1895, namely *Beiyang gongxue* - the precursor to Tianjin University. Subsequently, Shanghai Jiaotong University (南洋公學 *Nanyang gongxue*) and Imperial University (Beijing University) were successively founded in 1896 and 1898.

After the establishment of the People's Republic of China (PRC) in 1949, there was a reformulation of higher education, as was happening in other areas of Chinese society. Thus, for the sake of better understanding, Chen (2012), in his analysis, divides the process into three temporal stages: the destructive legacy of the old Soviet model and the Cultural Revolution (1949-1976); second reorganization of the university and its paradoxical development in the economic transition (1977-1997) and the expansion of higher education and the recognition of the intrinsic value of knowledge in the knowledge economy (1998–2010).

The first stage is defined by the widespread influence of the Soviet model, which is characterized by centrally planned mechanisms, such as “governments allocating higher education resources, appointing university leaders, assigning jobs to graduates and deciding enrollment numbers for individual institutions” (Cai, 2004, p. 158). In addition, Chinese universities were restructured into “a political apparatus and an economic instrument for socialist political and economic development” (Chen, p. 102, 2012). This resulted in a loss of the freedom and autonomy of universities and their academics to the detriment of the political ideology of the Communist Party of China (CPC).

From the end of the 1970s, together with the introduction of an “open door” policy, China has continuously launched a series of reforms, especially in the economic sphere<sup>7</sup>. Over time, the country was gradually transformed from a centrally planned economy to a market-oriented economy. From that moment on, there is a change in the purpose of Chinese universities, that is, universities no longer have a purpose of knowledge as an end in itself, to have a purpose of functional and technical development of society (Chen, 2012; Li, 2017).

---

intellectual paths diverged, he shared with Wang an appreciation of xin xue (idealism), Taoism and Buddhism.

<sup>7</sup> The policy is inserted in the context of reform and openness carried out by Deng Xiaoping in 1978. This new behavior sought to integrate China in the international environment.

From the second phase onwards, what characterized the reforms in Chinese higher education since the 1980s was the move away from the Soviet model towards an approach of American influence, with the exception of higher education programs from 2 to 3 years old. Professional guidance, inherited from the former Soviet Union, which remained with some modifications under German influence (Cai *et al.*, 2011).

Inserted in this context of change, Chinese universities underwent a reorganization, of which two points stand out. The first concerns the merger of former specialized colleges into broader universities (Chen, 2012). The second point, on the other hand, was, in a way, the commercialization of universities, that is, universities were encouraged to go to the market to generate revenue (Chen, 2012). This is due to the context of reforms that China was undergoing, there was a retraction of the role of the State with regard to investment.

Finally, the last stage is characterized by the recognition of the strategic role that universities would have in Chinese development. As an example of this perception was the internet *boom* in the late 1990s in China, where most information technology (IT) business leaders and high-tech *start-up* entrepreneurs were graduates from major Chinese universities, such as Tsinghua University, the University of Beijing and the University of Science and Technology of China. Therefore, Chen (2012) states that

Knowledge production and transfer were no longer peripheral services as one of the university's three uses (Kerr, 1995), but an essential source of economic growth and wealth creation, which is fully recognized by Chinese leaders after the Asian economic crisis in 1997 (Chen, p. 103, 2012)

It should be noted that, within the third stage presented by Chen (2012), the year 1993 is considered as the turning point, as it was in that year that a series of reforms in higher education began, with emphasis on the “Sketch for Education Reform and Development in China” (Yang, 2000, p. 48). These reforms were implemented with the aim of providing the superior Chinese system with a greater capacity to meet China's social and political demands.

Among the strategies used were to introduce market forces in order to liberalize education, creating the impetus for change. In addition, the government used legislation to regulate the social relations, practices and behaviors that emerged from the entry of liberalizing forces (Cai, 2013). In other words, the Chinese government sought to maximize the positive aspects of a more liberal education, but sought to create



mechanisms to control the negative externalities that would result from greater liberalization. So, between 1993 and 2010, reforms emphasized decentralization, liberation and privatization (Cai, 2013).

In addition to this, in 1999, the Ministry of Education of China initiated the universalization of higher education, with a 50% increase in the number of enrollments and the continuous expansion of enrollments in the next ten years. The expansion of higher education was based on the political understanding of Chinese education: turning its population size into an asset through the development of human capital (Levin & Xu, 2006). In other words, more people in universities means more human capital generated to support the knowledge economy and face global competition (Chen, 2012, p. 103). In this way, the main objectives of the political reforms of massification of higher education were to meet the growing demand for the rapid development of the economy, a way of minimizing the urban problem of unemployment and promoting the qualified use of human resources (Wu & Zheng, 2008).

It is worth noting that the reforms in the period from 1980 to 2000 achieved remarkable results, including massive expansion of higher education, progress in the development of the teaching staff, decentralization of administration, diversification of financing, privatization of education provision, development of competitive universities and internationalization (Wang & Liu, 2009).

However, reforms also encountered problems and dilemmas, including deteriorating teaching conditions and quality, weak ability to cultivate excellent and talented personnel, difference between skills taught at universities and demands from industry, unstable and inadequate conditions for the sustainable development of higher education and the pressure to employ university graduates (Cai *et al.*, 2011). These questions about results and dilemmas have been better debated and presented in the following sections that cover the advances and challenges of the Chinese higher education system.

#### **4. Chinese Superior Education Policies and Governance: an analysis of Projects 211 and 985**

Despite common sense to understand the Chinese political system as being a monolithic bloc, the reality is presented in an opposite way. Despite the fact that China has a government in which only one party has control, the distribution of power and, in

turn, administration, is governed by the relationship between central government and local governments<sup>8</sup>. In this way, regular public higher education institutions (HEIs)<sup>9</sup> are administered from these two levels. Thus, at the central government level, 73 higher education institutions are administered by the Ministry of Education (MOE) and 40 by other ministries (MoE, 2015)

At the provincial level, in 2014, 1,684 institutions were administered by the provincial governments, autonomous regions or municipalities (MoE, 2015). With regard to access to Chinese higher education, the country has the *gaokao* (高考) or National Examination for Admission to Higher Education. Higher education at the undergraduate level included three-year degree programs (*dazhuan*) and four-year degree programs.

The policies implemented by the Chinese State were formulated in the context of the decade and 1990, that is, in a period of decentralization, liberation and privatization (Cai, 2013). Among the objectives outlined were the following priorities: transformation of governance in higher education, restructuring of higher education institutions, 'massification' of higher education, construction of world-class universities and improvement of social engagement and internationalization of the university (Cai, 2013).

Among these public education policies for higher education, two stand out for reasons of directing large flows of investments to universities and for having objectives of providing educational institutions in large centers of global scientific production. The first policy implemented was Project 211, which started in 1995. Having this name in reference to the slogan "Run a hundred universities in the 21st century"<sup>10</sup>, the government sought to invest in around 100 universities to provide them with greater technical and scientific capacity in the 21st century.

At the beginning, each university received an investment of ¥ 400 million from the central government, in addition to investments from local governments (Ma, 2007)<sup>11</sup>. Analyzing the period between 1995 and 2005, Zhang *et al* (2013, p.767) point out that general investments in Project 211 totaled ¥ 36.836 billion, of which ¥ 16.541

---

<sup>8</sup> Although there are other parties in China, it is up to the CPC to lead the country, as can be analyzed from the Chinese constitution (Council of State, 2019). In addition, the CPC occupies the main key organs of the Chinese state, like the National Congress and the State Council.

<sup>9</sup> The term "regular" is used to distinguish these institutions from "adult" higher education institutions; who supposedly receive a marginal share of all enrollments.

<sup>10</sup> 面向21世纪办好百所高校 (*Miànxàng 21 shìjì bàn hǎo bǎi suǒ gāoxiào*).

<sup>11</sup> As examples of local government investments, Ma (2007, p.33) points out that the Shanghai government contributed about ¥ 120 million to Fudan University and Shanghai Jiao Tong University in 1995.

billion were allocated to the construction of key disciplines and ¥ 7.1 billion in the establishment of a public service system. In addition, ¥ 2.409 billion was earmarked to strengthen the faculty and ¥ 10.771 billion to build infrastructure.

With regard to special funds, in 2008 the then Director of the Department of Education, Science and Culture of the Ministry of Finance, Zhao Lu said that in the first phase of Project 211, about ¥ 2.755 billion was invested in special funds; in the second phase, ¥ 6 billion was allocated and, finally, the third phase of the project approximately ¥ 10 billion (Lu, 2008).

Despite representing only 6% of all Chinese higher education institutions, universities within Project 211 are responsible for training 4/5 of doctoral students, 2/3 of graduate students, 1/2 of students abroad and 1/3 of undergraduate students. In addition, they offer 85% of the main subjects / themes of direct interest to the State; holds 96% of the state's main laboratories; and use 70% of the funding for scientific research (Lu, 2008).

The second most prominent higher education policy was Project 985. This project was launched after the speech by former President Jiang Zemin, on May 4, 1998, at the centenary of Beijing University. With the objective of creating world-class universities in the 21st century, *Project 985* involved the national and local spheres and sought to invest in a select group of universities, building new research centers, improving facilities, attracting world-renowned professors and visiting academics, in addition to help Chinese teachers attend conferences abroad.

The project initially had two institutions, Beijing University and Tsinghua University, which received ¥ 1.8 billion in the first three years of the project, ¥ 300 million in 1999, ¥ 600 million in 2000 and ¥ 900 million in 2001 (Chen, 2013, Zhang *et al*, 2013). In 2011, when the program was closed, the project had 37 institutions<sup>12</sup> of higher education, in addition to those previously mentioned.

---

<sup>12</sup> They are: Xiamen University; Nanjing University; Fudan University; Tianjin University; Zhejiang University; Nankai University; Xi'an Jiao Tong University; Southeast University; Wuhan University; Shanghai Jiao Tong University; Shandong University; Hunan University; Renmin University of China; Jilin University; Chongqing University; University of Electronic Science and Technology; Sichuan University; Zhongshan University; South China University of Technology; Lanzhou University; University of the Northeast; Northwest Polytechnic University; Harbin Institute of Technology; Huazhong University of Science and Technology; China Ocean University; Beijing Institute of Technology ; Dalian University of Technology; Beihang University; Beijing Normal University; Tongji University; South Central University; China University of Science and Technology; Agricultural University of China; National Defense Science and Technology University; Minzu University of China; East China Normal University; Northwestern University of Agriculture and Forestry.

During the first phase of the project (1999–2003), the central government made an allocation of ¥ 14 billion to universities and in the second phase (2004–2007), with the “Action Plan for the Rejuvenation of Education 2003–2007”, the allocation of ¥ 18.9 billion, of which ¥ 12.9 billion was earmarked for teacher training, resulting in the creation of 372 platforms for scientific and technological innovation and innovation bases in philosophy and social sciences (Ying, 2011, p. 23).

In this way, Project 985 was successful in significantly improving international competitiveness and enhancing Chinese technological innovation (Ying, 2011). In addition, Zhang *et al* (2013) point out that, within Project 985, second- and third-sized universities<sup>13</sup> perform better than the first ones, but in general, there was an increase in the rate of publications for universities Project 985, demonstrating that Chinese researchers are publishing more in international journals.

Finally, in addition to these two projects, in 2017, the Chinese government launched a third project known as “*Double World Class*”. In order to develop another 42 higher education institutions and specific courses at another 95 universities. This policy aims to continue the process of evolution of Chinese higher education at a level compared to institutions of recognized global renown (Xinhua, 2017).

## **5. Advances**

The Chinese state has maintained its policy of expanding higher education. To this end, it launched the National Medium and Long Term Education Reform and Development Plan (2010–2020) in which it seeks, among other objectives, to transform China into a country with a huge educational system for one with a strong international system, improves the quality and level of education, aiming at research and service and forming a system that aggregates Chinese cultural values with global standards.

Education 2020 is geared towards education at all levels and based on the ideology that “education is the cornerstone of national rejuvenation and social progress, and a fundamental way to improve the quality of citizens and promote their general development, with the hope of millions of people” (MoE, 2010, s.p.).

---

<sup>13</sup> Zhang *et al* (2013) points out that the size of universities is defined according to their inclusion in Project 985 and through their reputation in the ranking of international universities. The first universities entered the project in 1999 and are considered elite universities. The second ones also entered the project in 1999, but they are below the top universities in the international ranking and are responsible for gaining international recognition. The third companies also entered the project in 1999 and are developing with the objective of being nationally recognized universities.

In general, while higher education reforms before 2010 can be characterized by the expansion of higher education mainly in terms of quantity, the reform has since then been engaged in improving quality in all aspects. It is important to check in Table 1 the Chinese jump when compared to the United States and European Union<sup>14</sup>.

**Table 01:** Comparison between the number of undergraduate enrollments (2000-2010).

Year/Country	China	USA	European Union
2000	495.624	1.254.618	1.077.459
2005	1.465.786	1.456.401	1.264.903
2010	2.590.535	1.668.227	N/A

Source: Science and Engineering Indicators.

Table 2 shows, between 1998 and 2010, the big jump in the number of Chinese institutions of higher education with more than 1,336 new establishments being created in the period. Also the average number of students among these universities is impressive, since there were 3,335 students on average in 1998, increasing to 9,298, an average increase of slightly less than 3 times in just 13 years. The number of new enrollments also jumped from one million new students in 1998 to 6 million six hundred and ten thousand new university students in 2010.

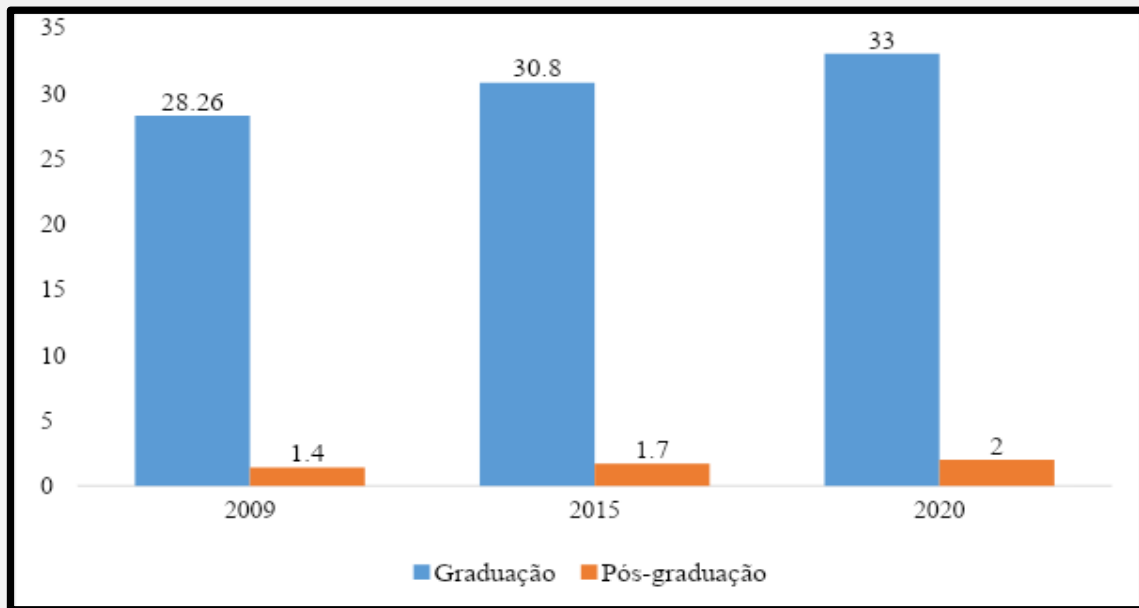
**Table 02:** Development of Higher Education in China 1998-2010

Year	No. of Higher Education Institutions	Average Students per Institution	New Entry for University Students (1000)	Growth rate of student entry over the previous year (%)
1998	1022	3335	1,083.60	8.32
1999	1071	3815	1,548.60	42.91
2000	1041	5289	2,006.10	29.54
2001	1225	5870	2,682.80	33.73
2002	1396	6471	3,037.60	13.22
2003	1552	7143	3,821.70	25.81
2004	1731	7704	4,473.40	17.05
2005	1792	7666	5,044.60	12.77
2006	1867	8148	5,460.50	8.24
2007	1908	8571	5,659.20	3.64
2008	2263	8931	6,076.60	7.38
2009	2305	9086	6,349.60	5.24
2010	2358	9298	6,617.60	3.48

Source: Cai & Yan (2017).

<sup>14</sup> Aggregate figures for the United Kingdom, France, Germany, Italy and Spain

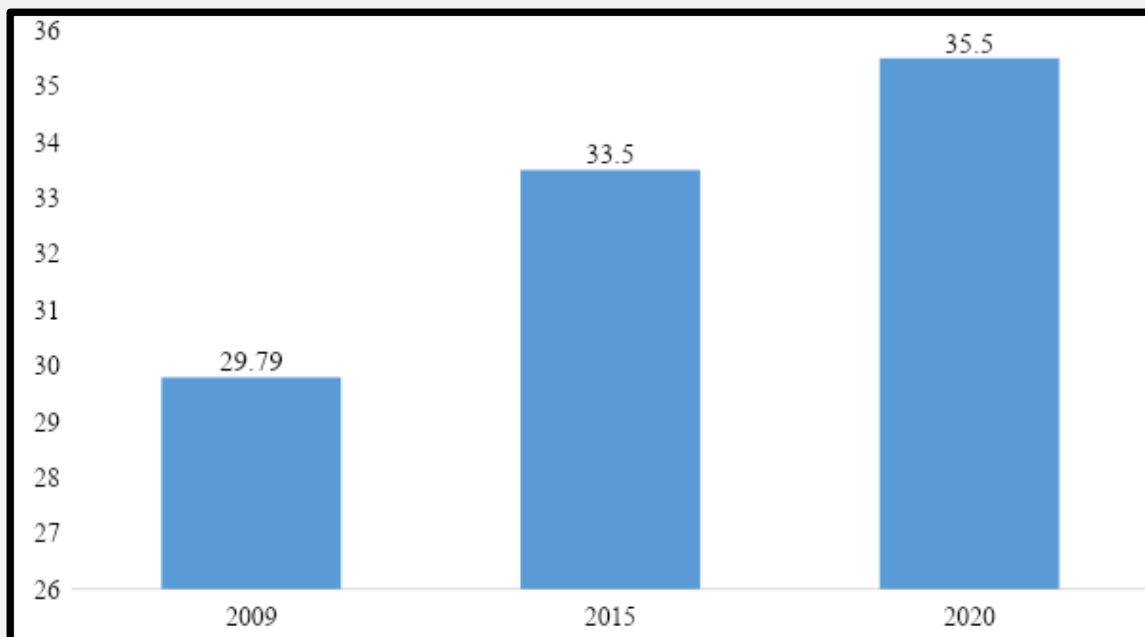
**Graph 01:** Total enrollments, in millions. (2009-2020)



Source: Authors' Elaboration based on Cai (2013).

From these data, we can see that the policy of massification of Chinese higher education, regardless of its economic objectives, reached its goals in terms of enrollment rates, because in the country, this rate had never exceeded 4% until 1992. 2010, the enrollment rate had reached 26.5%. Success also created new problems, especially the decline in the quality of education, inequality in access to higher education and high unemployment rates among graduates (Cai & Yan, 2017, p.180).

**Graph 02:** Number of undergraduate and graduate students, in millions (2009-2017)

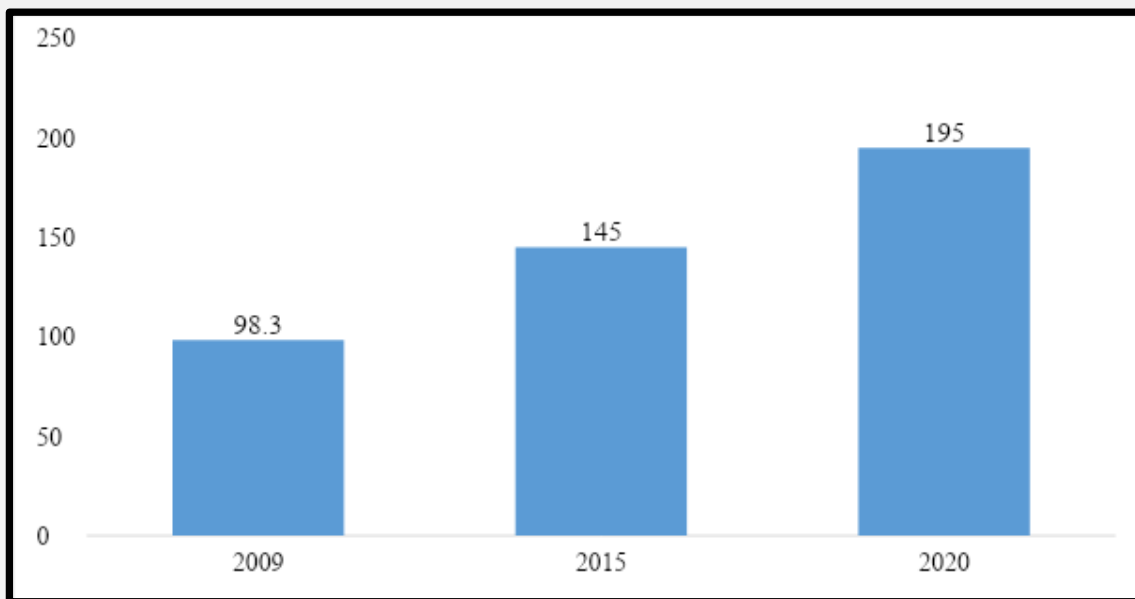


Source: Authors' elaboration based on Cai (2013)

The data presented in Graph 1 show that the expansion planning of universities has taken place in order to provide the expansion of access to higher education. Total enrollments increased by 19%, from almost 30 million to 35.5 million in the period between 2009 and 2015.

Finally, we have the number of individuals with higher education and the percentage of those who work. Graph 3 shows a considerable increase in the number of people with higher education. Between 2009 and 2015, the number of people with a diploma jumped from 98.3 million to 145 million and in 2020 it is expected to reach 195 million, an increase of 98%.

**Graph 03:** Number of Chinese with higher education, in millions (2009-2020)



**Source:** Authors' elaboration based on Cai (2013)

Among this population with higher education, the percentage of those who work demonstrates the main challenge of Chinese educational policies. Despite the increase in 2009 and 2015, from 9.9% to 15%. In other words, in 2009, 9.7 million Chinese with higher education were employed, in 2015 this number rises to 21 million. In 2020, the rate is expected to be 20% (39 million).

However, the Chinese state has faced problems and dilemmas in the quest to develop a full educational system. Due to the objectives pursued, the massification of higher education, the development of universities of global standard and of high quality, there are problems such as the lack of mechanisms that guarantee the quality of institutions, the distribution and unequal access of resources and different social groups

(Cai, 2013) and the conflict between the ideologies of the Communist Party of China (CPC) and the West (Cai, 2013).

Despite its economic purpose, the massification policy has achieved its goals in terms of tuition fees. In China, the gross enrollment rate in higher education had never exceeded 4% until 1992. In 2010, the rate had already reached 26.5% (Cai, 2013). Despite this achievement, the rapid growth in enrollment has created a number of problems, particularly a decline in the quality of education, unequal access to higher education and high unemployment among graduates

## **6. Challenges**

Despite the success of the implemented policies, there are challenges that still persist and others that are products of the implemented policies, such as the drop in the quality of education due to universalization. Among the challenges and dilemmas posed for the development of Chinese higher education, we can classify those that still persist in three areas. Are they. i) rural and urban inequalities; ii) the contrasts and paradoxes within the educational system and iii) regional inequalities.

According to Gao (2014), there is a great gap in educational opportunities between students in rural areas and those in cities. Gao also noted that around 60 million students in rural areas are children "left behind", who live in the care of grandparents as parents seek work in distant cities. While many of the urban children go to schools equipped with state-of-the-art facilities, in addition to well-trained teachers, rural students often encounter difficulties with regard to school physical infrastructure and understanding advanced topics such as English and chemistry, amid a shortage of qualified instructors (Gao, 2014, p.39).

With regard to contrasts within the international system, one can point out the inequality in pay between teachers in rural areas who are less prepared and receive lower salaries than those in the urban area. In 2001, the proportion of teachers with higher education in the city was 40.94% for primary and 23.51% for colleges, while in rural areas these proportions were respectively 20.25% and 9.35% (Yixian & Yanshu, 2004 *apud* Oyniran & Uwamahoro, 2017 ).

However, challenges still remain due to the lack of funding that is also the main focus of other socioeconomic issues. In fact, in urban areas almost all children attend schools, but school fees and tuition are very expensive. The example



of Beijing's reputable R schools is that fees are at least ¥ 1000 per month, about U\$S 170 per child aged 0 to 6 years. At a time when China changes to be and have more influence in the world, it still has a huge disparity between rural and urban in terms of educational quality (Collins, 2016, p.40).

With regard to regional inequalities, since 2009, 2,305 colleges and universities have qualified to become research universities and have started master's and doctoral programs. However, the conditions for the sustainable development of higher education are not yet adequate or stable. Many colleges and universities are in debt, the debt is estimated to reach ¥ 250 billion in total.

According to Grenier and Belotel-Grenié (2006), the decentralization of education financing has widened regional disparities: three quarters are illiterate in rural areas and 72.7% of them are women, according to the 2000 census. Made by the authorities for decades to raise the level of education in China. *China Development Bank* reports (CDB, 2015) confirmed educational progress, suffice it to mention that after introducing a new compulsory curriculum in 1986, the country reached a 100% enrollment rate in 2011, while illiteracy was reduced to 1.08% among adults (CDB, 2015, p. 44)

With all these efforts, the quality of Chinese universities still lags behind those of other countries at the center of world power. Data from the Times Higher Education World University Rankings 2016-2017, a prestigious gauger of the position of world universities, includes only two Chinese universities among the 100 most worldwide universities, which are Tsinghua University and Beijing in the 22nd and 31st place respectively (THE, 2019.)

Another point to be highlighted concerns the geographical distribution of high-level universities. Chinese universities are generally divided into four levels, the first level of which receives substantial investments from the central government to create world centers of excellence. These are located in rich municipalities and provinces. Five of the top 10 are located in Beijing and Shanghai. When the distribution of Project 985 universities is observed, the inequality is greater. In the study by Zhang *et al* (2013), of 24 universities examined, three are located in Beijing, three in Shanghai, two in Guangzhou and nine in the eastern capitals. Only seven universities in the program are located in western and central China.

Finally, enrollments in Chinese higher education, as already shown, also reflect the strong divide between China's urban and rural education. At the national level, just

over a quarter of the country's university-age population is enrolled in a tertiary institution. Shanghai, one of the richest municipalities in China, has a 70% enrollment rate, while provinces like Guangxi suffer from enrollment rates below 20%.

## **7. Final Remarks**

The present study sought to carry out a historical analysis of the Chinese higher education system, presenting its development policies, the advances and challenges that the Asian country had throughout the process. We chose, as case studies, to analyze two of these policies, Projects 211 and 985. From this, it is understood that although it faces challenges, such as the great inequality between regions of the country due to the disparities between the countryside and the city, the a project to expand and improve Chinese educational policies has proven to be effective in achieving the various goals achieved, especially with regard to the number of enrollments.

Yet, even if this article develops the outline referring to the universities of China, the mention of mandatory policies for basic education, the way the Chinese think modernization and plan national development in the long term is imperative to the deep understanding of the plans for expansion of the higher education in China. For, it focuses on not only a sharp public policy, but the unique way of thinking and planning a country in the long term, mixing economic insertion on an international level and the ambition of a Chinese projection that is not only numerous, but significant. This, combined with the goals of growth and development of its people.

The figures collected during the survey demonstrate mostly the success of the initiatives put in place by the Chinese Government, the biggest obstacle materializing in a dilemma known to China, not only in the cut of higher education, and which is usually present in other problems faced by the country is the social, technological and development gap between the rural and urban areas of China, since, being massively applied the measures and programs of studies makes the young population, and above all female, find great difficulties in accompanying the progress of education, whether due to the level of classes or the disparity in the training of education professionals teaching in each of the regions. As a consequence, it also affects the horizontality of access to universities in the country.

Despite the difficulties, it is clear that, on the road to what it aspires for the future, China is doing well in the policies it has applied and it appears to be aware of the obstacles

**Lima, Fonseca, Salvino, Benning. *Uma Análise do Sistema de Ensino Superior Chinês (1949-2019)***

and disparities mentioned during the discussion and perceived by the authors mentioned above. As well as their educational actions and policies, they align and converge to leverage the crucial position of relevance in several aspects of the international sphere.

## References

Cai, Y. (2004). Confronting the global and the local--a case study of Chinese higher education. *Tertiary Education and Management*, 10(2), 157-169.

Cai, Y., Kivistö, J., & Zhang, L. (2011). Introduction. In Y. Cai & J. Kivistö (Eds.), *Higher education reforms in Finland and China: experiences and challenges in post-massification era* (pp. 9-17). Tampere: Tampere University Press.

Cai, Y. (2013). Chinese higher education: The changes in the past two decades and reform tendencies up to 2020. In L. d. C. Ferreira & J. A. G. Albuquerque (Eds.), *China and Brazil: Challenges and Opportunities* (pp. 91-118). Campinas: Anablumme.

Cai, Y., & Yan, F. (2017) Higher Education and University. In W. J. Morgan, Q. Gu, & F. Li (Eds.), *Handbook of Chinese Education* (pp. 169-193): Edward Elgar.

CBD, China Development Bank. (2015) La chine a misé sur l'éducation et la formation professionnelle pour développer les compétences. *Rapports de la Banque chinoise de développement (CDB). Experience with China's Literacy and Compulsory Education et Experience with the Development of Vocational Education in China*. Disponível em: <<http://www.worldbank.org/content/dam/Worldbank/Event/Africa/Investing%20in%20Africa%20Forum/2015/investing-in-africa-forum-education-and-vocational-training-for-sk-ills-development-in-china-fr.pdf>>. Acesso em: 15 de maio de 2020.

CC-PCCh, Comitê Central do Partido Comunista da China. (1993). Notice of CCCPC and the State Council on Issuing Program for the Reform and Development of Education in China.

Chen. S.-Y. (2012). Contributing knowledge and knowledge workers: the role of Chinese universities in the knowledge economy. *London Review of Education*. Vol. 10, No. 1, 101–112.

China Power. (2018). How does education in China compare with other countries? Em: <<https://chinapower.csis.org/education-in-china/>>. Acesso em 20 de fevereiro de 2020.

Collins, J. (2016). Positive Changes for Chinese Adult Education. *BORGEN Magazine*.

Conselho de Estado (2019). Constitution of the People's Republic of China. Disponível em: <[http://english.www.gov.cn/archive/lawsregulations/201911/20/content\\_WS5ed8856ec6d0b3f0e9499913.html](http://english.www.gov.cn/archive/lawsregulations/201911/20/content_WS5ed8856ec6d0b3f0e9499913.html)>. Acesso em: 10 de novembro de 2020.

**Lima, Fonseca, Salvino, Benning. *Uma Análise do Sistema de Ensino Superior Chinês (1949-2019)***

Emily, H.; Behrman, J.; Meyan, W.; Jihong, L. (2008). Education in the Reform Era. In: China's Great Economic Transformation. Cambridge University Press.

Gao, H. (2014). China's Education Gap. The New York Times.. Disponível: <[https://www.nytimes.com/2014/09/05/opinion/sunday/chinas-education-gap.html?\\_r=0](https://www.nytimes.com/2014/09/05/opinion/sunday/chinas-education-gap.html?_r=0)>. Acesso em: em 20 fevereiro 2020.

Grenié, M., & Belotel-Grenié, A. (2006). Education in China in the Era of Reform. *Transcontinentales*, 3, 67-85.

Han, D. (2001) Impact of the Cultural Revolution on Rural Education and Economic Development: The Case of Jimo County. *Modern China*. 27(1), pp. 59–90.

Jun, L. (2017). Educational Policy Development in China for the 21<sup>st</sup> Century: Rationality and Challenges in a Globalizing Age, *Chinese Education & Society*, 50:3, 133-141.

Kerr, C. (1995). *The uses of the university*. Cambridge, MA: Harvard University Press

Levin, H.; & Xu, Z. (2006). Issues in the expansion of higher education in the People's Republic of China. In *Education, globalization and social change*, ed. H. Lauder et al., 620–41. Oxford University Press.

Lu, Z. (2008). Over 10 billion yuan to be invested in "211 Project". Disponível em: <<http://en.people.cn/90001/6381319.html>>. Acesso em: 03 de março de 2020.

Ma, W. (2007). The flagship university and China's economic reforms. Em: Altbach, P., Balan, J. (Eds.), *World-Class Worldwide: Transforming Research Universities in Asia and Latin America*. Johns Hopkins University Press, Baltimore, pp. 31–53.

Ming, C. K. (1986). China's Recent Education Reform: the beginning of an overhaul. *Comparative Education*, 22(3), 255–269.

MoE, Ministry of Education. (2001) *Outlines of the reforms of basic education curriculum*.

\_\_\_\_\_. (2007). Ministerial Press Release on the Development of Compulsory Education and Literacy Education. Beijing. Disponível em: <<https://www.kpmg.de/docs/Education-in-China-201011.pdf>>. 05 de abril de 2020.

\_\_\_\_\_. (2009). *Compulsory Education Law of the People's Republic of China*. Beijing. Disponível em: <[http://en.moe.gov.cn/documents/laws\\_policies/201506/t20150626\\_191391.html](http://en.moe.gov.cn/documents/laws_policies/201506/t20150626_191391.html)>. Acesso em: 08 de novembro de 2020.

\_\_\_\_\_. (2010). *A Blueprint for Educational Modernization*. Beijing. Disponível em: <<http://old.moe.gov.cn//publicfiles/business/htmlfiles/moe/s3501/201010/109029.html>>. Acesso em: 04 de março de 2020.

**Lima, Fonseca, Salvino, Benning. *Uma Análise do Sistema de Ensino Superior Chinês (1949-2019)***

\_\_\_\_\_. (2012). Statistical newsletter of educational development in 2010. 2012. Disponível em: <[http://www.moe.edu.cn/publicfiles/business/htmlfiles/moe/moe\\_633/201203/1326](http://www.moe.edu.cn/publicfiles/business/htmlfiles/moe/moe_633/201203/1326)>. Acesso em: 15 de março de 2020.

\_\_\_\_\_. (2015). 高等教育学校（机构）数 (number of Higher Education Institutions). Disponível em: <[http://www.moe.gov.cn/s78/A03/moe\\_560/jytjsj\\_2014/2014\\_qg/201509/t20150901\\_2\\_04585.html](http://www.moe.gov.cn/s78/A03/moe_560/jytjsj_2014/2014_qg/201509/t20150901_2_04585.html)>. Acesso em: 03 de março de 2020.

Oyeniran, R.; & Uwamahoro, E. (2017). Impacts of Reforms in Chinese Educational System. *International Journal of Education*. Vol. 9, No. 1. 2017.

Sang, G. (2015). Barriers of Educational Development. [PowerPoint slides]. Reprinted from Lecture Notes entitled Education Systems, Policy and Management in China Faculty of Education of Beijing Normal University. International PhD/MA Program in Comparative Education (Education Management and Leadership).

Shen, A. (1994). Teacher Education and National Development in China. *Journal of Education*. 176(2), pp. 57–71.

THE, Times Higher Education. (2019). World University Rankings 2019. Disponível em: <[https://www.timeshighereducation.com/world-university-rankings/2019/world-ranking#!/page/0/length/25/locations/CN/sort\\_by/rank/sort\\_order/asc/cols/stats](https://www.timeshighereducation.com/world-university-rankings/2019/world-ranking#!/page/0/length/25/locations/CN/sort_by/rank/sort_order/asc/cols/stats)>. Acesso em: 4 de novembro de 2020.

Tsang, M. (2000). Education and National Development in China Since 1949: Oscillating Policies and Enduring Dilemmas. *China Review-An Interdisciplinary Journal on Greater China*, pp. 579–618.

Yang, M. (2009). *Educational System in China*. Zhejiang University Press.

Yixian, Z.; & Yanshu, Z. (2004) *Rural Education: Progress and Problems*. China's Education Blue Book, (pp. 150-175). Beijing: Higher Education Press.

Ying, C. (2011). Uma reflexão sobre os efeitos do projeto 985. *Educação e Sociedade Chinesa*, 44 (5), 19-30.

Wan, Y. (2003). Merger in Chinese higher education: What can we learn from the international experience? Paper presented at the International Conference on Higher Education Reform in China, Xiamen, China.

Wang, C. (2002). Minban Education: The Planned Elimination of the 'PeopleManaged' Teachers in Reforming China. *International Journal of Educational Development*. pp. 109–129.

Wang L. B. (2005). *Basic Education in China*. China: Zhejiang University Press. Wang, R.

**Lima, Fonseca, Salvino, Benning. *Uma Análise do Sistema de Ensino Superior Chinês (1949-2019)***

Wang, X. (2014). L'éducation en Chine, entre tradition et modernization, Colloque: L'éducation en Asie en 2014.

Wu, B., & Zheng, Y. (2008). Expansion of higher education in China: Challenges and implications. The University of Norttingham, China Policy Institute, Briefing Series, (36).

Xu, X.; & Mei, W. (2009). Educational Policies and Legislation in China. Zhejiang University Press.

Xinhua. (2017). China strives for world-class universities, courses. Disponível em: <[http://en.moe.gov.cn/Specials/Review/Highlights/201806/t20180606\\_338548.html](http://en.moe.gov.cn/Specials/Review/Highlights/201806/t20180606_338548.html)>. Acesso em 03 de março de 2020.

\_\_\_\_\_. (2020). Citações de Xi sobre respeito aos professores e valorização da educação. Disponível em: <[http://portuguese.xinhuanet.com/2020-09/10/c\\_139358501.htm](http://portuguese.xinhuanet.com/2020-09/10/c_139358501.htm)>. Acesso em: 12 de novembro de 2020.

Zhao, L., & Zhu, J. (2010). China's higher education reform: What has not been changed? East Asian Policy, 2(4), 115-125.

Zhang, H., Patton, D. & Kenney, M. B. (2013). global-class universities: Assessing the impact of the 985 Project. Research Policy, 42(3), 765–775.