

College Enrollment Expansion: Thoughts on Educational Economics of the Reform of College Enrollment System in China in the Past 20 Years

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Abstract

The year of 1999 and the year of 2019 are two important time nodes in the process of popularizing higher education in China. During the ten years from 1999 to 2008, China's higher education experienced a leapfrog development, completing a historic leap from "elite education" to "mass education", and achieving the largest higher education in the world [1]. 2019 is also the first year of the implementation of the million-yuan enrollment expansion policy for higher vocational colleges, which serves the national overall strategic significance. In 2019, the number of students in the college entrance examination returned to 10 million, and with the enrollment expansion of vocational colleges, the total number exceeded 10.31 million [2]. From the perspective of education economics, it is of great significance to explore the problems and solutions faced by the reform of college enrollment system in China in the past two decades to promote the high-quality development of China's higher education and the country's economic and social development in the new era.

Keywords

College enrollment expansion; Reform of the enrollment system; Economics of education.

1. Introduction

In 2019, China's higher vocational education will usher in a "highlight moment". First, in January 2019, the State Council issued the Implementation Plan of the National Vocational Education Reform (Article 20 of Vocational Education), which proposes that "vocational education and general education are two different types of education and have equal importance". [3] that reflects the current our country has made the development of vocational education as an important breakthrough, deepen the education reform at the national level for the first time the professional education of high quality can ensure cultivating talents, abundant and diverse technical skills can docking the market demand, the larger for vocational education and training, can help students master the skill, and achieve higher quality, more adequate employment entrepreneurship. On March 5, 2019, prime minister li keqiang explicitly put forward in the government work report "to reform and perfect the higher vocational colleges admissions exam way, to encourage more high school graduates and veterans, laid-off workers, migrant workers to enter oneself for an examination, massive expansion this year, 1 million people", this is the first time in our country higher vocational education students will be written on the government work report, the development of higher vocational education planning "promotions" on the macro policy level. In order to implement the policy of increasing higher vocational enrollment by 1 million yuan, the Department of Vocational Education and Adult Education of the Ministry of Education issued and implemented the Implementation Plan for The Special Work of Expanding Higher Vocational Enrollment. In accordance with the principles of "not lowering standards, diversified modes and flexible length of schooling",

national higher vocational colleges completed the target of increasing enrollment by 1 million yuan in the fall of 2019.

Looking back to 20 years ago, in order to deal with a series of economic problems caused by the Asian financial crisis, the Chinese government implemented the large-scale enrollment expansion of colleges and universities, which to a certain extent stimulated consumption, boosted domestic demand and promoted domestic economic development. In 1999, the State Council issued the Action Plan for Revitalizing Education for the 21st Century, and decided to expand the enrollment of local colleges and universities, with an increase of more than 15 percent. In the same year, the Regulations of the CPC Central Committee and the State Council on Deepening Educational Reform and Comprehensively Promoting Quality-oriented Education were promulgated. The effect was that the number of college students in that year expanded from 1 million to 1.5 million, with an increase of nearly 50%, indicating that the popularization of higher education in China had entered a stage of leap-forward development. By 2008, the enrollment rate of local colleges and universities had reached 23.4 percent, making China a major country in higher education. In 2012, considering the quality of higher education after the enrollment expansion, the Ministry of Education issued several Opinions on Comprehensively Improving the Quality of Higher Education, requiring the steady development of the enrollment scale of local colleges and universities. From 1998 to 2015, China completed a massive expansion of college enrollment rate from 9.8 percent to 40 percent.

Compared with the college enrollment expansion policy in 1999 and after, the enrollment expansion policy in 2019 has the following characteristics: First, the main institutions of enrollment examination are higher vocational colleges, with 1,418 higher vocational colleges participating in the enrollment expansion; Second, we should give full play to the advantages of the entrance examination system of classified admission, comprehensive evaluation and diversified admission, encourage the exploration of the reform of vocational education college entrance examination, and select new students through independent examination and vocational adaptability test. Third, the types of students are more complex and diverse. In addition to this year's (previous) high school (secondary vocational) graduates, there are ex-servicemen, laid-off workers, migrant workers, new type of professional farmers and other social personnel; Fourth, we will give greater prominence to the requirements for high-quality enrollment expansion. For example, the Education Department of Shandong Province specially issued the Notice on Further Improving the Enrollment Expansion and Student Cultivation Management of Higher vocational Colleges, proposing 10 measures to ensure the enrollment expansion, teaching standards, training quality, employment advantages and development prospects of higher vocational colleges.

2. China's Colleges and Universities in the Expansion of Enrollment in the Recruitment of Education Economics in the Past Two Decades

As for the study of college enrollment expansion policy and related enrollment system since 1999, researchers pay more attention to such issues as changes of human capital and labor market, education cost and income level, education equity, etc. As for the study on the enrollment expansion policy and its related enrollment system, which mainly focuses on the enrollment expansion of higher vocational colleges in 2019, researchers pay more attention to the problems caused by the enrollment expansion, such as the allocation of educational resources and the education supply side reform.

2.1. The Relationship Between College Enrollment Expansion and Labor Market Unemployment Rate

The theory of human capital holds that there is a progressive relationship between education and labor productivity, wages and total domestic output. The increment of human capital formed by education makes the income of society and individual increase to compensate the cost of education, so as to realize the balance between education investment and income. [4] That is to say, the improvement of education level can raise the wage level and reduce the unemployment rate in a certain period of time. But since 1999, after the enrollment expansion of colleges and universities of the phenomenon of college students' employment in a certain extent means education's role in reducing unemployment in abate, researchers in 1990, 2000, 2005, 2010 and 2015, five point analysis education impact on unemployment, respectively, the results show that the education on the reduction of unemployment has been a significant impact, and presents the first after rising downward trend. Especially since the expansion of college enrollment in 1999, the role of college education in reducing the unemployment rate has been significantly reduced, with the unemployment rate of college and college education only 1.5 and 3.5 percentage points lower than that of high school education. [5]

2.2. The Relationship Between the Expansion of College Enrollment and the Stratification of Higher Education and the Distribution of Admission Opportunities

So far, researchers have put forward various theories to describe and analyze the relationship between college enrollment expansion and enrollment opportunity inequality. Among them, the MMI hypothesis and EMI hypothesis are considered to be the most influential theoretical models widely used to explain how the expansion of college enrollment leads to the inequality of admission opportunities. Both hypotheses point out that the expansion of college enrollment will not reduce the inequality of higher education enrollment, and that the advantageous classes always give priority to ensuring their own access to the best quality higher education and maintain the inequality in outcomes. [6] Other researchers pay attention to the relationship between college enrollment expansion and key school system, as well as the entrance opportunities of urban and rural higher education. The research results show that college enrollment expansion has a significant positive effect on reducing the inequality of entrance opportunities of higher education caused by key school system, but there are obvious differences between urban and rural areas in this effect. College enrollment expansion plays a significant role in reducing the access to general higher education for urban key and non-key high school students, but there is still inequality in the access to general higher education between rural key and non-key high school students. Meanwhile, the stratification effect of the key school system on the higher education opportunity of urban ordinary high school students has evolved to the unequal access to quality higher education. [7]

2.3. Relationship Between College Enrollment Expansion and Higher Education Premium Level

The education premium is determined by the relative supply and the relative demand of the high and low education labor force in the labor market. When the demand for highly educated people in the labor market increases and the number of highly educated people is relatively stable, the education premium level will rise. Some research results show that the expansion of college enrollment in a short time only has a depressing effect on the education premium of the young group. Due to the irreplaceability of labor in the older group, the increase in the size of the younger group has little impact on it. However, in the long run, when the young group gradually "gets old", the continuous college enrollment expansion will bring down the overall education premium level significantly. [8]

2.4. The Relationship Between College Enrollment Expansion and Higher Education Resource Allocation

The reasonable allocation of educational resources in the sense of educational economics refers to the reasonable growth, use and flow of educational resources under certain technological and economic conditions. It includes the allocation of resources to the education sector and the optimization of the stock of educational resources. Because of the scarcity of social resources, the education sector must improve the efficiency and dynamics of resource utilization and the complementarity between market and government regulation. [9] In 2019, the national higher vocational colleges are faced with the expansion of enrollment of 705 students per school, so as to expand the enrollment scale. In three years, the higher vocational colleges have an increase of more than 2,000 students per school. According to the survey data of 1,418 vocational colleges nationwide in 2019, the expected resource gap caused by enrollment expansion is shown in Table 1.

Table 1. Statistics on the expected gap of basic running resources of 1,418 vocational colleges nationwide in 2019

Main school-average supply resource (unit)	school-average gap
Construction area of school buildings (10000m ² / school)	2
Teaching administrative room area (10000 m ² / school)	1.1
Books (10000 volumes/school)	4.9
Full-time teacher (person/school)	40
Teaching equipment and equipment (10000 YUAN/school)	666.8

Note: The data are from the national Higher vocational colleges' ability assessment to adapt to social needs.

Take a high-quality vocational college in Zhejiang Province as an example. As of August 31, 2019, the number of full-time students is 10,367, and the basic educational resources of 2019 students are shown in Table 2. After the enrollment expansion, the number of full-time junior college students is expected to reach 11,790. According to the annual enrollment increase of about 1,000, the size of the students will reach 14,000 in two years, and the basic educational resources per student will be greatly challenged.

Table 2. Statistics of the expected gap of basic running resources of a high quality vocational college in Zhejiang Province after enrollment expansion

Main per capita supply resources	2019 per capita data	2021 per capita data	(expected) gap rate / %
The ratio of students to teachers	14.07	18.72	33.05
Teaching administrative room per student (M ² / student)	18.18	12.09	33.50
Value of teaching and research equipment per student (YUAN/student)	16386.01	12679.4	22.62
The average student area (m ² / student)	69.58	51.53	25.94
Student dormitory area (m ² / student)	10.88	8.05	26.01
Place of practice per student (M ² / student)	8.56	6.62	22.66

Note: Data are from higher vocational Data Center of Ministry of Education.

It can be seen from the above data of the expected gap of basic running resources of national higher vocational colleges and single higher vocational colleges that the enrollment expansion of one million is likely to cause the shortage and structural imbalance of higher education resources in a certain period of time. Therefore, some researchers believe that a more flexible resource allocation model and regulation mechanism should be established to attract other social resources, such as industry and enterprise resources, and expand teaching and training places outside the campus through school-enterprise cooperation, enterprise investment and sponsorship. In addition, we also need to increase financial input to expand the basic teaching resource base. [10]

2.5. Relationship Between College Enrollment Expansion and Education Supply-Side Reform

"Opinions of the General Office of the State Council on Deepening the Integration of Industry and Education" (Guoban Fa [2017] No. 95) clearly points out: "The supply side of talent training and the demand side of industry cannot fully adapt in terms of structure, quality and level. Modern industrial system is constitute one of the most important part of modern economic system, and support the modern industrial system of modern education is the most powerful support system, the modern vocational education system is the important point of the modern industry system, the supply side of the vocational education especially the higher vocational education structure and quality must be docking industry development, must follow the transformation and upgrading of industrial structure on reform of talent cultivation of supply side. The important function of higher vocational education is to provide talents and intellectual support for regional economic development, especially to set up specialties and groups that meet the needs of industrial development for regional pillar industries, and to give full play to the role of talent cultivation, scientific and technological application innovation and social service. Nowadays, a new economic form with "new technologies, new industries, new forms of business and new modes" as the core and mutual integration has gradually taken shape, which puts forward new requirements and development directions for higher vocational colleges in terms of specialty setting, personnel training, teacher construction, school-enterprise cooperation and social services. The advantage of higher vocational colleges lies in that they can improve the production and technical capacity of the new labor force and the existing labor force through the dual channels of academic education and vocational training, so as to effectively alleviate the structural contradictions on the supply side of the current labor market.

3. Solutions to the Problems Faced by the Reform of College Enrollment System in China in the Past Two Decades

3.1. Integrate Various Educational Resources to Build A First-Class University

In November 2015, the State Council issued the Overall Plan for Promoting the Construction of World-class Universities and World-class Disciplines, making a major strategic plan for the construction of world-class disciplines and world-class universities. On December 13, 2019, the list of construction units of the "Plan for Building High-level Vocational Schools and Majors with Chinese Characteristics" was officially released. The Ministry of Education and the Ministry of Finance focused on high-end industries and industries and supported a number of high-quality vocational schools and major groups to take the lead in development. The construction of "double first-class" and "double universities" has opened a new journey of higher education development to high quality in the new era, which is bound to be accompanied by a new round of comprehensive reform of higher education. To deepen the comprehensive reform of higher education, the first step is to reform the mode of resource allocation. Scientific and reasonable resource allocation mode is an important guarantee for the construction of world-class

universities, first-class disciplines and first-class higher vocational colleges. At present, the world's powerful higher education funds mainly come from two aspects: self-raised funds and government allocations. The funds allocated by the government are divided into basic regular allocation and competitive project allocation. [11] The funds for running schools in China's institutions of higher learning mainly come from government appropriations, and there is a single resource channel for running schools, which affects the balanced development of higher education. Therefore, an important breakthrough in the implementation of the policy of "double first-class" and "double universities" is to introduce the market mechanism, build the community of interests of the government, enterprises and universities, and establish the co-construction mechanism of the government, enterprises and universities to form a pattern of multiple investment and concentration. At the same time, colleges and universities should enhance their self-financing capacity, expand social exchanges and cooperation, actively attract social investment and donations, improve the long-term mechanism of social support for higher education, and enhance their self-development capacity.

3.2. Build A Diversified and Interactive Ecosystem for Innovation and Entrepreneurship That Meets the Needs of Multi-Agent Development

In May 2015, the State Council general office issued "on deepening the reform of creative education in universities implement », proposed to improve the innovation of colleges and universities entrepreneurship education system and mechanism for deepening the reform of university innovation entrepreneurship, the support of cluster innovation entrepreneurship elements and resources, unified leadership, manages concertedly, opening up and cooperation, full participation, the formation of social support of innovative entrepreneurship education good ecological environment. [12] The success of national innovation and entrepreneurship education is directly related to the construction of innovation and entrepreneurship ecological system, in which various factors such as universities, enterprises, talents, institutions and research institutes have weak interaction and lack of linkage development mechanism. Many key universities combine the cultivation of innovation and entrepreneurship talents with the construction goal of "double first-class". They train teachers of innovation and entrepreneurship education through reform of the curriculum system of innovation and entrepreneurship education, and promote the development of innovation and entrepreneurship education in schools through school-enterprise cooperation. The proposal of the "Double High School Plan" catalyses the improvement and upgrading of the education system of "mass entrepreneurship and innovation". It optimizes the education system of "mass entrepreneurship and innovation" in terms of cultural environment, curriculum system, practice platform, faculty and organizational structure, and provides high-quality human resources support for the country's development. As a social activity, education should follow two rules. One is the law of the relationship between education and social development, that is, the law of the external relationship of education; The second is the law of the relationship between education and human development, namely the law of the internal relationship of education. Innovation and entrepreneurship education in colleges and universities must straighten out its internal relations and fully consider and judge its external relations. The education reform of "mass entrepreneurship and innovation" should not only meet the internal needs of "universities and students", but also meet the external needs of "industrial enterprises, government and families". [13] In addition, more and more colleges and universities have realized the significance of cultivating the professional spirit with craftsman spirit as the core for innovation and entrepreneurship education. The innovation and entrepreneurship education in colleges and universities and the cultivation of craftsman's spirit have obvious correspondence in value orientation, cultivation goal, cultivation representation and thinking mode. [14] Colleges and universities can help more students understand and get familiar with

the general process of innovation and entrepreneurship activities by setting up maker Spaces. We should pay close attention to the local economic development strategy and market demand, set up the innovation and entrepreneurship base with complete supporting facilities, and attract excellent innovation and entrepreneurship talents and teams from both inside and outside the university. Colleges and universities should guide students to conduct detailed research on innovation and entrepreneurship projects and gradually turn the spirit of craftsman into the intrinsic quality of students.

3.3. In Line with the Law Of Human Development, Improve the Lifelong Education System Led by Innovation and Entrepreneurship Education

The goal of innovation and entrepreneurship education is to teach students the key knowledge and skills of innovation and entrepreneurship, so that students' innovation consciousness and entrepreneurial ability can be accumulated and improved. With the gradual enrichment of the connotation of innovation and entrepreneurship education and the continuous expansion of the audience scope of innovation and entrepreneurship education, the number of entrepreneurs has also increased significantly. Innovation and entrepreneurship education is not only the college education needed by college students, but also the education needed by college graduates, the public and even primary and middle school students. In November 2019, the Ministry of Education and 14 departments jointly issued "the comprehensive vocational colleges for professional training, promoting employment entrepreneurial action plan, this is the first dedicated to the Ministry of Education's vocational training work, by many departments jointly issued by the special file, the file points out" the implementation of academic education and training is a professional institution (including the mechanic colleges) statutory duties. Extensive vocational training provided by vocational colleges to all workers is conducive to supporting and promoting employment and entrepreneurship, and is also conducive to improving the quality of personnel training and school-running capacity of schools. [15] According to the employment development and ability development needs of learners, higher vocational colleges can provide innovative and flexible training modes for learners, such as school-enterprise cooperative training mode, "face-to-face classroom teaching + online teaching" training mode, and "educational background + skills" training mode. Three consecutive years since 2019, geared to the needs of diverse types of students in higher vocational colleges enrolment of 1 million a year, bridging degree education in the process of vocational training, can satisfy the demand of training students degree increase, improve personal culture quality and academic level, such as migrant workers and veterans groups, with employment, job-transfer needs education is particularly important. Rolled out in 2019, the State Council and other relevant department issued by the national vocational education reform plan "2019" government work report "China 2035" education modernization "about the colleges" certificate + a number of professional skill level certificate "pilot plan system" and a series of files, multiple files repeated construction national qualifications framework, credit bank and 1 + X certificate system, to learn is divided into the carrier, revitalize the study achievement, realizing 1 + X "1" on the system of record of formal schooling education and mutual recognition and transformation between the "X" qualification certificate, It can effectively get through horizontal and vertical channels among education institutions, training institutions, industry associations and learners such as industry, vocational colleges, applied undergraduate courses, etc., and become an overpass for lifelong education and other learning outcomes. [16]

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References

- [1] Jian Weixiu. Analysis of problems and Causes after college Enrollment Expansion in ten years [J]. Science and Technology Information,2008(36):15-16.
- [2] The Ministry of Education: In 2019, more than 10.31 million people have registered for the college entrance examination, and more measures have been taken to prevent substitutes [EB/OL].Chinese news website, <https://baijiahao.baidu.com/s?id=1635537937714966988&wfr=spider&for=pc>,2019-06-05.
- [3] Gao Liang. Implementation Plan of National Vocational Education Reform issued by the State Council [N]. China Education News,2019-02-14 (01).
- [4] Xiao Hao. Education Economics [M]. Wuhan University Press, 2010.
- [5] Yang Ziwei, Xing Chunbing. Education, Unemployment and Human Capital Investment [J]. Research on Labor Economy,2019(7):60-75.
- [6] Yang Jin, Ye Xiaoyang, Wu Yinduo, Ding Yanqing. Higher education stratification and Admission Opportunity Distribution in college Enrollment Expansion [J]. Research on Education Development,2019(7):13-20.
- [7] Dai Siyuan, University Enrollment Expansion, Inequality between key Schools and urban and rural higher education (1978-2014) [J]. Education and Economics,2018(34):18-26.
- [8] Ma Guangrong, Ji Yang, Xu Jianwei. How does university enrollment expansion affect higher education premium? [J]. World of Management (Monthly),2017(8):52-63.
- [9] Xiao Hao. Education Economics [M]. Wuhan University Press, 2010.
- [10] Huang Fang. Cold Thoughts on the Development response of Higher vocational Colleges under the background of enrollment expansion of 1 million [J]. Vocational Education Forum,2019(7):156-160.
- [11] Liu Ran. Research on comprehensive Reform Path of Colleges and Universities under the background of "Double First-class" construction [J]. Education Review,2019(11):29-30.
- [12] Zheng Qinghua. Construction and Practice Exploration of Innovation and Entrepreneurship Ecological System in Universities [J]. Higher Engineering Education Research,2020(4):163:166.
- [13] Che Changjin, Liu Wei. Innovation and Entrepreneurship Education in Local Colleges and Universities driven by "multi-subject demand" [J]. Journal of North China University (Social Sciences edition),2020(21):145-149.
- [14] Zhang Hong, Sun Hongxing, Xu Tao et al. Research on factors influencing cultivating Effect of Students' Spirit of Craftsman in Higher Vocational Colleges [J] China Vocational and Technical Education,2018(9) :36-42.
- [15] Fourteen departments, including the General Office of the Ministry of Education. Notice on the Issuance of the Action Plan on Promoting Employment and Entrepreneurship through Comprehensive Vocational Training in Vocational Colleges: [2019] No. 5 [A].
- [16] Chen Yuling. Credit Bank Construction under 1+X Certificate System [J]. Journal of Zhangzhou Polytechnic College,2020(22):62:66.