

The Influence of Henan Higher Education Scale on Its Economic Development and Countermeasures

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Abstract

The relationship between higher education and economic development has always been a hot topic in the field of education and economy. With the rapid development of our economy since the reform and opening up, talents are the driving force for development. Therefore, education has become the focus of our country's increasing attention. In recent years, all Provinces across the country are improving or expanding the scale of higher education. On the theoretical level, based on the theoretical research on higher education and economic development, and taking the scale of higher education and economic development in Henan Province as an example, this paper will analyze the impact of the scale of higher education in Henan Province on the economic development of the Province.

Keywords

Higher education, Economic development, Henan Province.

1. ANALYSIS OF THE RELATIONSHIP BETWEEN HIGHER EDUCATION AND ECONOMIC DEVELOPMENT

China's higher education ushered in a relatively late period of rapid development. Only after the reform and opening up did it gradually move towards prosperity and development, and achieved remarkable achievements. At the same time, it has the characteristics of "three-plus", namely, many levels, many forms, many disciplines, and can promote the national economy and social development. Our country's higher education system has been basically perfected and occupies an important position in the development process of our country. As far as the construction of socialist modernisation is concerned, it has trained a large number of professionals for it, thus promoting the construction of socialist modernisation. In terms of social development, higher education is also essential. It has promoted the prosperity of the national economy and the pace of scientific and technological development and social development. At the same time, economic development has rich connotations and covers a wide range of areas. It includes material growth, social development, economic system evolution and cultural development. Coordinated development is different from other systems or elements. It hopes that the development of one system will not destroy other systems or elements, maintain the balance of two or more systems, and idealize the relationship between them. The goal of coordinated development of higher education and economy is to achieve common goals. Under the support of their internal, mutual and external environments, they are interdependent and mutually reinforcing, which can be realised.

As we all know, if a country wants to achieve economic growth, it must rely on labour investment, capital investment and technology investment. Looking at the country's economic

growth, we find that the key to economic growth lies in high-level talents. If high-level talents reach a certain scale, the country's technology will be greatly improved, thus realising economic growth. The times are progressing, and the ways on which the economy depends are also constantly upgrading. In the past, the country mainly relied on labour-based industries to achieve economic growth. Now, the mode of economic growth has changed. The country mainly relies on technology-based industries, while technology-based industries mainly rely on high-level talents. Therefore, if we want to achieve economic growth, high-level talents are the key point, while higher education is the base for training higher talents.

On the other hand, observing the situation of higher education and economically developed areas in our country, we will find an obvious rule: higher education and economic situation are positively correlated. As the people in economically developed areas are richer in life, they are willing to pay higher education expenses, and so is the government. Therefore, the local colleges and universities are better than those in economically underdeveloped areas in terms of teachers, educational facilities and scientific research equipment. Since the goal of institutions of higher learning is to train high-level talents, the purpose of high-level talents is to contribute to society and thus realise economic growth. Therefore, institutions of higher learning can eventually achieve economic growth, and to some extent, we can also think that the direction of economic development can determine the direction of development of higher education.

2. THE INFLUENCE OF HENAN HIGHER EDUCATION SCALE ON ITS ECONOMIC DEVELOPMENT

2.1. The Influence Mechanism of Higher Education Scale on Regional Economic Development

1. The talent training function of higher education

Expanding the scale of higher education can increase the number of talents trained, and with the increase in the number of people with higher education, the human capital level of the whole society will also be promoted and improved. Schultz's human capital theory holds that the accumulation of human capital is an important source of economic growth. Therefore, promoting human capital will also promote economic development. Also, the speciality of higher education covers a wide range and involves all aspects of society. Expanding higher education can provide talents for all walks of life in the world, supplement the vacancies of talents and improve the production efficiency of the whole industry.

2. Science and technology training function of higher education

As an important base for scientific and technological research and development, the expansion of the scale of higher education will be accompanied by an increase in the scientific research strength of the entire higher education. Expanding the scale of higher education means increasing investment in scientific research and strengthening the construction of scientific research facilities. Improving scientific research strength means improving the level of local science and technology. The progress of science and technology is closely related to the local economic growth, because on the one hand, the progress of science and technology will promote the improvement of local productivity and production efficiency, on the other hand, the progress of science and technology can improve the utilisation rate of local resources, make originally useless resources play a new role, or make originally useful resources get more efficient use, which have an impact on the local economic growth.

3. The social service function of higher education

The role of higher education in society is not only knowledge education, but also includes various social services such as personnel training, consultation, library resources open to the society, and various social public welfare services in which students participate. These services

are conducive to the promotion of local cultural quality and overall quality to a certain extent, and play a different degree of economic and social benefits. Therefore, expanding the scale of higher education will give full play to the social service function of higher education institutions in society and promote its accompanying social and economic benefits.

4. The inheritance and innovation function of higher education to traditional culture

Some scholars believe that higher education shoulders the inheritance and innovation of traditional culture in addition to the above three functions. Education is the carrier of a country's cultural heritage. The development of higher education is conducive to a nation's deeper understanding of its culture, so that people can better understand and beat their national spiritual wealth, so that their culture can be continuously developed in the torrent of history and will always control vitality and vigour. Also, higher education requires more and more innovation, which also plays an important role in improving the innovation ability of regional culture. Expanding higher education can promote the development of China's cultural industry.

2.2. The Low Investment in Higher Education in Henan Province Affects the Economic Growth Rate of the Province

At present, the main channel for higher education institutions in Henan Province to obtain education funds is the state financial input, and the rest comes from tuition fees paid by students and loan applications. In 2000, Henan Province's per capita education expenditure for college students was 13,878 yuan. By 2013, the per capita education expenditure increased to 17,093.73 yuan, an increase of only 1.23 times. In the past 13 years, the absolute expenditure of higher education institutions in Henan Province on each student has increased. Research data show that the path of increasing expenditure is very tortuous, with irregular rising curve and great fluctuation. Among them, the average expenditure on education dropped sharply from 2004 to 2009. Also, since the implementation of the higher education enrollment expansion policy in 1999, since 2000, with the rapid increase in the number of college enrollment expansion. On the contrary, the growth rate of education funds is very slow, and even there was a reverse growth between 2001 and 2000. As of 2011, the expenditure increased to 14,886.7 yuan, an increase of 31.19% over 2010, the first significant increase in 14 years. Although positive growth has been maintained, the growth rate is too slow and there is a big gap between the two. This fully reflects the serious imbalance between the state financial support for higher education institutions in Henan Province and the enrollment expansion of higher education institutions in the same period. Also, the investment in higher education in Henan Province lags behind the actual development speed of higher education institutions, which affects the economic growth of Henan Province.

As we all know, large population is a long-term problem in Henan's development. The gap between the funds needed for the development of higher education in Henan Province and the actual government investment has two characteristics: first, the proportion of budget investment is not high. According to statistics, the budget investment of Henan provincial government accounted for 0.59% of higher education GDP in 2014, increasing 16 times in 13 years, and the average student expenditure only increased 1%. There is also a gap between the expenditure of each student in the Central Plains Economic Zone and that of other Provinces. There is no denying the fact that in recent years, the investment in higher education in Henan Province has continuously expanded. However, the foundation of higher education in Henan Province is weak, resulting in a sharp contrast between the financial investment in higher education and the per capita investment in education. Also, the Ministry of Education of our Province has no universities with direct attributes, and the scarcity of state investment proportion also creates the illusion that the financial support of local governments is not obvious. Second, the source of funds is too single. At present, Henan Province's funds are mainly

invested by local finance, tuition and miscellaneous fees are paid by students and donated by social organizations. The lack of funds for investment in education in Henan colleges and universities hinders their construction and even seriously hinders the development of Henan's economic construction. Up to now, the lack of funds has led to the development of higher education not achieving the expected results, and the economic development is in an embarrassing situation. In order to achieve sustainable development, we will stimulate economic returns by investing material capital. This has exacerbated the lack of confidence of local governments in investing in the construction of higher education, forming a vicious circle. With the expansion of the scale of higher education, mistakes in investment, a decline in the quality of education, and inadequate personnel training, which serve the vicious circle of local economic construction, how can we talk about mutually beneficial development of the two?

2.3. Shortage and Unbalanced Allocation of High-Quality Educational Resources in Henan Province Affect the Coordinated Development of the Province's Economy

First, higher education lacks high-quality resources. So far, there is no "985" university in Henan Province, only one "211". Taking 2014 as an example, the total population of Henan Province accounted for 6% of the total population at the end of the year. The number of high school graduates was 608,800, accounting for 7% of the country's high school graduates. Shandong Province belongs to the Central Plains Economic Zone. At the end of the year, the population accounted for 7% of the total population. The number of high school graduates was 559,200, accounting for 7% of the country's high school graduates. Shandong has three "211" universities, one of which is "985". While giving full play to its role, it will also serve local development better. At present, the unbalanced development of higher education resources in Henan Province is a prominent phenomenon of excessive resources and insufficient allocation of local development. There is no platform or mechanism to build mutual trust in the traditional concept among school levels. Also, the concept of resource sharing has never been instilled, which makes the interoperability of teaching resources among colleges and universities in Henan Province insufficient, and even some scarce teaching resources enjoyed by some colleges and universities cannot serve the students of foreign schools. In colleges and universities with scarce higher education resources, the utilisation rate of precious resources is reduced. Therefore, the scarcity of educational resources caused by unbalanced distribution of resources is becoming increasingly serious, resulting in unfair education. Secondly, the allocation of resources is not balanced. From the perspective of teaching funds, with the integration of provincial capital cities and most colleges and universities in Henan Province, 10% of the government's investment in education infrastructure has gone to the provincial capital of Henan Province.

2.4. The Imbalance Between the Educational Level Structure of Higher Education and the Structure of Labour Technology in Henan Province Affects the Sustainable Economic Development of Our Province

The characteristic of the high-end talent training structure in our Province is the slow development of postgraduate education, whose scale is far lower than that of the existing undergraduate professional talent training. The labour force receiving education at different stages has different labour skills. Higher education is an important means to transform the traditional and cheap technical structure into a high quality and high-efficiency technical structure. The advanced technological structure is restricted by the efficiency of local economic development. The low-end production structure causes low productivity, severely restricts economic development and hinders social development. Productivity, technological structure, personnel training and economic trends are four interrelated systems. Its function is equivalent to the "food chain" in ecology. Each link acts as a link. Through education, talents can be trained at a higher level and labour skills can be improved. The level of personnel training in schools

should be more reasonable. The so-called rationality can be divided into two levels: first, schools have the responsibility to train talents at all levels to meet the needs of social development. Second, the proportion of personnel training at all levels should be reasonable. From the above two aspects, there is an imbalance between the personnel training structure and the labour technology structure, that is, there is no need for training. In 2015, China's tertiary industry accounted for more than 50% for the first time, which was 8.7 percentage points higher than that of the secondary industry, thus releasing a trend of economic development and the formation of a service-oriented tertiary industry. The proposal of "internet plus" requires a large number of highly skilled and innovative talents, but the stock of high-end talents in our Province is relatively small and the supply and demand of talents are lack of coordination.

3. THE PROBLEMS EXISTING IN HIGHER EDUCATION IN HENAN PROVINCE AND THE REASONS RESTRICTING ECONOMIC DEVELOPMENT

3.1. The Lack of High-Level Talents Restricts the Rapid Economic Development of Our Province

The shortage of high-level talents is mainly reflected in two aspects: first, the number of high-level talents is small. When we say high-level talents, we mainly refer to master and doctoral students. The number of master and doctoral students in Henan Province is relatively small. In contrast, the number of undergraduates and junior college students in Henan Province is relatively large. This can be seen from the number of universities. At present, there is only one "211" engineering university in Henan Province, namely Zhengzhou university, which to some extent limits the number of master and doctoral students accepted and trained. Second, professionals and society are derailed. At present, the economic growth in the Central Plains is fast, and Henan Province has a new orientation: new industrialisation, urbanization and agricultural modernisation. Because the specialities set up by colleges and universities are not in conformity with the future development orientation of Henan Province, the higher talents trained by colleges and universities appear to be heroes and useless in Henan Province, leading to the loss of high-level talents.

Therefore, due to the lack of high-quality talents, our Province's talent reserve is insufficient, which further affects our Province's development in other economic fields and leads to the restriction of economic growth rate.

3.2. The Scientific Research Achievements Have Not Been Applied to Reality, Resulting in the Waste of Scientific Research Funds in Our Province

There is an idiom called "applying what we have learned" which means that our ultimate goal of learning knowledge is to apply it to our lives and bring convenience to our lives. Judging from the current situation in Henan Province, applying what we have learned has not been brought into full play. Higher education is very important. While providing high-level talents for economic growth, it can also promote the progress of science and technology and the development of enterprises. Among them, the most important is the scientific research achievements in universities.

At present, almost every university has scientific research projects. These high-level talents do have a lot of research results and there are countless patent applications every year. However, on the other hand, few of these scientific research results and patents have been translated into practical applications. At the same time, our Province has increased its expenditure on scientific research funds. As a result, if it cannot be used in reality, it will be a serious waste of talents, funds and time.

3.3. The Irrational Allocation of Higher Education Resources Is Not Conducive to The Sustainable Development of Our Province's Economy

Higher education resource is a general term, which represents infrastructure, teaching resources, human resources, etc. If the higher education resources in a certain area are well allocated, the economy of that area will surely develop vigorously.

At present, the allocation of higher education resources in Henan Province is unreasonable. First, the distribution of colleges and universities is unreasonable. Most colleges and universities in Henan Province are located in Zhengzhou, Xinxiang has 7 colleges and universities, while there are few colleges and universities in other regions, in short, there will not be more than 3. Second, the sharing of educational resources is too poor. We all know that competitiveness exists everywhere, and universities are no exception. Every university has its speciality. Due to the different specialities, the supporting facilities of colleges and universities are also different. However, due to the competitive relationship between them, they cannot share the same professional resources.

The irrational allocation of higher education resources has reduced the promotion of higher education to economic development in our Province and restricted the coordinated and balanced development of our Province's economy.

3.4. The Single Source of Funding for Higher Education Restricts the Innovation and Development of Scientific Research in Colleges and Universities in Our Province

The capital of Henan Province is mainly the local financial input, followed by tuition and miscellaneous fees paid by students and donations from social organizations. Taking 129 colleges and universities in Henan Province in 2014 as an example, the allocation of education funds was 132,265.98 million yuan, while the tuition and miscellaneous fees of students were 241,189 million yuan. This reflects the fact that higher education pursues long-term and stable development. The shortage of education funds is a reality, but it cannot rely solely on local government funding. Develop a variety of investment channels to enrich the sources of funds for non-financial higher education in Henan Province. Otherwise, the innovation and development of scientific research in colleges and universities in our Province will be limited due to the shortage of educational funds.

3.5. The Educational Level Structure of Higher Education Is Too Low to Promote the Transformation and Upgrading of Economic Development

Henan Province has long been facing the problems of industrial structure optimisation and transformation. With the strategic deployment of "revitalising Henan through education", "the rise of central China" and "the planning of the central plains economic zone", Henan Province has put forward the demand for high-end talents. In 2014, for example, the proportion of graduates trained by Henan colleges is 1:20:20, and the proportion of graduates is 1:19:21, that is, 19 of 100 fresh graduates have received full-time undergraduate education, 21 have received vocational education such as high education, and only 1 has received postgraduate education. Under the premise of the development of the new era, colleges and universities should conform to the changes of the times and cultivate pillars suitable for the structure of labour technology. By improving the hierarchical structure of higher education, we can further promote the transformation and upgrading of economic development.

4. COUNTERMEASURES FOR OPTIMIZING HIGHER EDUCATION IN HENAN PROVINCE TO BOOST ECONOMIC DEVELOPMENT

At present, all Provinces are increasing their investment in higher education in order to cultivate talents and continuously output new energy for sustainable economic development. However, given the above problems, the following suggestions are put forward:

4.1. Henan Province Needs to Continue to Expand the Scale of Higher Education and Increase Its Investment in Higher Education

According to the development of the times, education is no longer a luxury resource, but a public resource. In the development of colleges and universities, the government and other aspects need to give corresponding policy support and financial support. While expanding the scale of higher education in our Province, we should also pay attention to the degree of adaptation between education and the market. The trained talents should meet the market demand and expand the contribution of higher education to regional economic growth. Therefore, with the growth of the scale of higher education, the increase in the number of talents in colleges and universities will exert a subtle influence on the speed of economic growth in Henan Province.

4.2. Henan Province Needs to Strengthen School Enterprise Cooperation

The connectivity between Henan's companies and universities is not strong, which is called information asymmetry. Because every university has many specialities, but as far as the present situation is concerned, this speciality may have reached saturation. Every year, colleges and universities recruit students of this major. However, the number of job demands is far lower than the number of graduates, which eventually leads to the unemployment of college students. Also, when colleges and universities train students, they focus on theoretical study, and the practical link is only slightly touched, which makes students have only theoretical knowledge but no practical ability. Enterprises prefer graduates with good theoretical knowledge and practical ability, so most students have lost their advantages when looking for jobs. Therefore, colleges and universities must strengthen cooperation with enterprises. Only by cultivating students in this way can they obtain the talents needed by society and make students adapt to society and work better after graduation.

Also, the links established between universities and enterprises must be long-term. Only in this way can schools, students and enterprises benefit at the same time and achieve a win-win situation. From the school level, cooperation with enterprises can cultivate talents more suitable for the society, improve the employment rate of the school, reduce the waste of human capital, and at the same time improve their visibility. From the enterprise level, the enterprise can obtain talents more suitable for its future development, and if the high-efficiency scientific research results can be utilised, it can not only obtain financial profits but also gain fame and increase its competitiveness in the market. At the student level, they can understand their goals more clearly and get more realistic skills guidance.

4.3. Henan Province Should Increase the Sources of Funding for Higher Education and Increase Investment in Education

High-level education belongs to public utilities and serves social construction. Henan government has the property of public welfare. Henan government can increase investment to support the construction of higher education. However, the development of higher education cannot rely too much on government investment. It should change its concept, open up various channels and supplement fresh blood for funding sources.

Broadening channels should be linked with local policies. Can provide preferential policies to entrepreneurs or groups investing in education. For example, the group can use part of its

profits to invest in education and give tax incentives to the group's enterprises to show incentives. Or draw lessons from the financing experience in the form of sports lottery, and adopt education welfare lottery to share the pressure of government investment in education. Also, we can also publicize the advantages and characteristics of local colleges and universities and carry out various forms of self-recommendation activities, especially to attract overseas Chinese enterprises or individuals to donate or cooperate in running schools in Henan Province.

4.4. Henan Province Needs to Improve the Educational Level Structure of Higher Education and Promote the Transformation and Upgrading of Economic Development

At present, according to the characteristics of the demand structure of the labour market in Henan Province, the stock of labour force educated in junior and senior high schools contributes the most to economic growth. With the continuous improvement of education level, the contribution of high-end skilled workers to economic growth has not yet reached the expected level. This is closely related to the characteristics of Henan's past industrial structure. In the past, agriculture and traditional processing industry were the main industries in Henan Province. With the gradual transfer of the secondary industry to the tertiary industry dominated by technological innovation and service industry, the economic structure of our Province has begun to develop in the direction of optimisation. In 2014, the ratio of full-time undergraduate colleges to specialized colleges in Henan Province was 1:1. The graduate enrollment rate is 1:20. Finally, all functional schools should cooperate to realise the combination of production, teaching and research. Regular exchange of disciplines is carried out, and the three characteristic universities help each other to provide high-quality talents for industrial upgrading.

Judging from the educational background structure of the labour market, most of the labour force on Henan's economic construction road is in the secondary education stage, which is difficult to find. Unfortunately, the shortage of innovative talents in the structure of labour technology is becoming more and more serious, and the development of innovative talents training in higher education is not optimistic. Therefore, we should strengthen the training of high-end talents, especially postgraduates. Research universities mainly focus on training high-end education, actively set up a good discipline leading role, and establish a good scientific research team; Comprehensive Universities Should Pay Attention to Cultivating Comprehensive Ability. According to local characteristics, technical colleges and universities should set up specialities suitable for local economic construction and strengthen close ties with markets and enterprises. In the system of promoting students from basic universities to scientific research universities, educational resources should be well shared among different functional schools. At the same time, we should strengthen the connection between applied universities and research universities. Change the training mode and promote the transfer of economic development.

4.5. Henan Province Needs to Promote Educational Fairness and Quality Improvement, and Realise Innovation-Driven Economic Development

As far as the development of higher education in Henan Province is concerned, the allocation of resources is unfair and the quality of colleges and universities needs to be improved. To this end, we should do this: first of all, strengthen the appeal for educational fairness. At present, there are only 211 universities in Henan Province. The number of high-level universities in the country is calculated on a per capita basis. Henan has come to an end. For a Province with a population of nearly 100 million, the distribution of educational resources is extremely unfair. This kind of unfair phenomenon is mainly manifested in the following three aspects: the

number of high school graduates in our Province is large, the number of principals in famous schools is small, and the number of students enrolled in famous schools in our Province is small.

By 2015, our Province's subordinate colleges and universities will have 4% of the country's total enrollment. This also shows that in the absence of "985" colleges and universities, only 5 out of 100 people in Henan can go out of Henan and enjoy high-quality educational resources. Henan Province has a large population base. Without high-quality educational resources and fair support, how can its economic development be improved? Second, break the concept of allocation of educational resources. In order to break the traditional concept of "one Province, one school" and allocate high-quality educational resources, we must consider such realistic factors as regional population, postgraduate population in higher education, and economic development strength. According to the actual development of the region, reasonably allocate high-quality higher education resources. Let Henan students enjoy high-quality higher education resources at the gate to avoid discrimination against non-985 and 211 students in employment caused by inequality factors such as population, geography and education. Finally, we should strengthen the responsibility of private higher education. As of 2018, 37 of the 129 colleges and universities in Henan Province are private colleges and universities, accounting for 28% of the total number of colleges and universities. The development of private higher education has become an indispensable force in the whole higher education system. Changing the social identity of private higher education. It requires the development of quality and quantity of private education, sharing the responsibility of talent cultivation in Henan higher education, and actively participating in scientific and technological innovation. Strengthen the cooperative development relationship between private enterprises and public institutions, cultivate high-quality talents for Henan's economic development, and realise innovation-driven economic development.

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