The Status of Chinese School Education and Its Analysis

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Abstract. Education is one of the most important factors closely related to the country's economic and political activities. In recent years, China has achieved great success in many fields, greatly improving the quality of life of people. Based on these facts, it shows that Chinese education reflects its potential value. In order to better understand the current state of education levels in the country and in specific regions, this paper focuses on the level of primary and secondary education and its educational environment, and how we try to use regression analysis tools to analyse China's primary and secondary education fast level trend of growth.

1. Introduction

For a long time, many international critics were not very optimistic about the future of China's education system. But in the last ten years, Chinese educators have sent a lot of talents to various fields, and the national economy has been greatly improved, so we have summarized China's educational methods[1], this paper focuses on attaching importance on the primary and secondary education[2-3]. So what the foundation of national education is, how it has been conducted in the past ten years and how it has developed since[4-5], by looking for different materials, carefully studying data from some online libraries and official websites[6-8], this article focuses on the relationship between different variable sets[9], take advantage of regression analysis tools to analyze today's China Primary and secondary education the trend of growth[10].

2. Data analysis

After a lot of data collection, collation and thinking, this paper selects two sets of data to begin data analysis.

2.1 Student-faculty ratio and financial education expenditure

Table 1. The 10-year data on Student-faculty ratio and financial education expenditure

CHN	Financial education expenditure	Student-faculty ratio
2018	3420.77546	13.39
2017	3139.62519	13.65
2016	2922.14511	14.01
2015	2642.0582	14.44
2014	2448.82177	14.95
2013	2314.75698	15.47
2012	1858.67009	15.77
2011	1467.0067	15.99
2010	1223.10935	16.3
2009	1044.96296	16.78

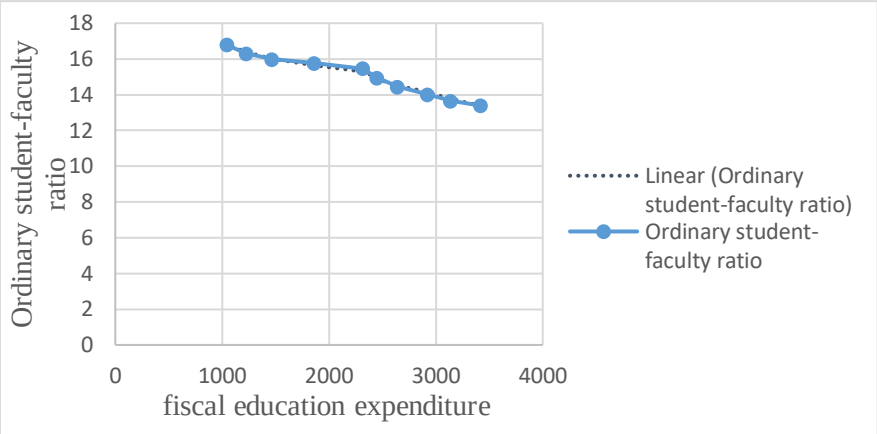

Fig. 1. The scatter plot to reflect the Student-faculty ratio and financial education expenditure

From the official website of the National Bureau of Statistics of China, collected data to draw the statistical Table 2, Student-faculty ratio is determined Y factor (dependent variable), which identifies financial education expenditure as X factor (independent variable). After you put two sets of data in two columns, use the tools on Excel to draw a scatter plot Fig.1 to reflect the trend and relevance of this set of data. From the scattered plot, we can see that with the increase of financial education expenditure, the ratio of students to teachers decreases with the increase of financial education expenditure, forming a negative linear relationship.

2.2 Per capita education, culture, entertainment expenditure and number of ordinary high school graduates

Table 2. The 10-year data on entertainment expenditure and number of ordinary high school graduates

CHN	Per capita expenditure	Number of graduates of high school
2018	2086	735.8
2017	1915	704.2
2016	1723	680.9
2015	1536	659.4
2014	1398	638.7

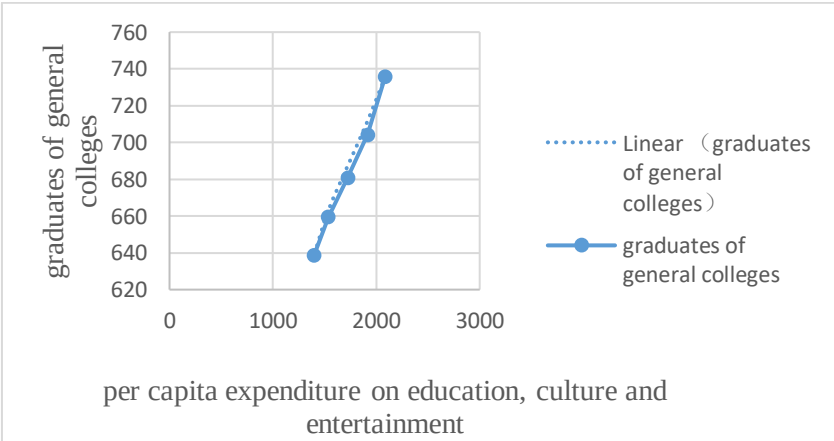

Fig. 2. The scatter plot to reflect the entertainment expenditure and number of ordinary high school graduates

As the Table 2 and Fig. 2 show, they reflect a new pattern of education trends in China. As people's incomes rise, investments in the cultural and educational sectors and these investments will directly affect the quality of higher education colleges. So plot scatter sites using per capita expenditure on education, culture and recreation, and the number of graduates from ordinary colleges and universities, with the result that the results are closely positively correlated/ linear function.

3. Regression Analysis

The regression of the above two sets of data is calculated to further illustrate the data trend and prove its credibility.

Table 3. The R Square、Standard error of the data

Multiple R	**0.925355**
R Square	0.856282
Adjusted R	0.731282
Standard error	898.3793
Observations	9

Table 4. The Prediction、Residual and Standard Residual of the data

Observations	Prediction 3420.775	Residual	Standard Residual
1	1845.041	1294.584	1.528435
2	1893.701	1028.444	1.214219
3	1951.823	690.2348	0.814917
4	2020.759	428.0627	0.505387
5	2091.046	223.7107	0.264121
6	2131.597	-272.927	-0.32223
7	2161.334	-694.327	-0.81975
8	2203.236	-980.126	-1.15717
9	2268.116	-1223.15	-1.4441

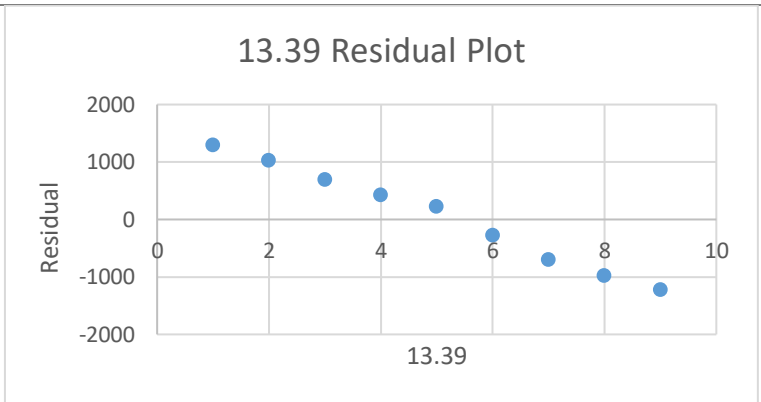

Fig. 3. The scatter plot of regression analysis

As the Table 3、Table 4 and Fig. 3 show, from the calculation of the return of the Student-faculty ratio and financial education funds, it can indicate the R-squared value and P-value. Since R-squared are indeed close to 100% and the P value is small enough to jointly demonstrate that the regression line is ideal, the results show that the reliability of the data.

After selecting and analyzing all the data collected, calculate the significant regression between the two variables and the observable linear correlation. In order to consider the practice of these ideas and results, and find out how these trends have a beneficial impact on the development of China's primary and secondary education industry. Group I negative expenditure on financial education and the ratio of student-faculty indicates that as the government increases the construction of the education industry, the quality of national education will be greatly improved, and to a large extent, class size smaller, students benefit more from smaller classes, and students get an educational environment significant improvement. Secondly, it also shows that with the improvement of the environment, the government has gradually begun to cut back on some over-built schools, thus effectively improving the quality of teaching in limited schools. In this case, more teachers are concentrated in smaller schools, and the ratio of student-faculty subsequently declines. For the third

set of data, the trend is broader, including the consideration of the education of their children by ordinary citizens. As can be seen from the chart, people's thinking about the next generation of education has changed very well in the past five years, resulting in a rapid rise in college graduation rates. With the increase of per capita expenditure in education, culture, entertainment, the graduation rate of colleges and universities has increased rapidly. This is a significant improvement in the overall educational environment of the national features.

4. Conclusions

After analyzing and calculating all the data, the potential new question is: how people can use these analyses and results wisely to make valuable recommendations for predicting future trends and make national education better. From the above results analysis, the importance of government input and the importance of the people's awareness of education. To some extent, the support of the government and the people is of great importance to the advancement of national education. Driving force. Therefore, the government's decision-making and publicity in education investment are important factors affecting the future trend of China's education environment. Forecasts from the regression line drawn show that the government is doing well in improving the primary and secondary education environment. In addition, with the improvement of people's living standard and people's quality, China's transformation from examination-oriented education to quality education, so that students have all-round development of morality, intelligence, physical beauty, and labor. China's education environment is developing in a benign direction.

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