

The Influence of Sino-US Trade War on Chinese Students Studying in the United States

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Abstract: China has promulgated a series of policies on trade, immigration, and culture, which will undoubtedly greatly impact Chinese students preparing to study in the United States. This paper focuses on the influence of American policies and a series of chain reactions on Chinese students studying in the United States since the Sino-US trade war in 2018. It analyzes the factors that affect Chinese students' decision to study in the United States. This paper conducted a quantitative study by issuing online questionnaires, and 323 valid questionnaires were received. The basic information, educational experience, and factors affecting the respondents' going to the United States were investigated, and a series of statistical methods were applied to analyze them. Finally, the following conclusion is drawn: the Sino-US trade war greatly influences Chinese students' decision on whether to go to the United States, mainly including the influence of visa and professional restrictions. The factors that affect Chinese students' decision to study abroad are family and policy factors, teacher factors, and intermediary factors.

Keywords: Sino-US trade war, Chinese students, United States, international students

1. Introduction

Chinese students have studied in the United States for over forty years. According to statistics, in 2022, Chinese students went to the United States to receive education at different stages, from primary school to doctoral degrees. China is the largest source of international students in the United States. Since March 2018, the Trump administration has launched a 301 investigation on China and promulgated a series of policies on trade, immigration, and culture, which will undoubtedly greatly impact Chinese students preparing to study in the United States. This article will discuss these effects in detail.

2. Literature Review

2.1. Sino-US Trade War

The trade dispute between China and the United States was further escalated in March 2018 when the United States launched a series of sanctions against China in accordance with Article 301 of the Trade Act of 1974. Therefore, the tariffs of both sides were raised, which led to the development of trade disputes into trade wars [1]. In response, China's Ministry of Commerce released a list of 232

measures on March 23rd, including increasing tariffs on products imported from the United States of about 21 billion RMB and suspending concessions on steel and aluminum products imported from the United States.

The main reason for the Sino-US trade war is the imbalance of international payments. That is, China's exports to the United States are much larger than those of the United States to China. In 2017 alone, China's trade surplus with the United States reached 2,726.5 billion yuan [2]. China's perennial trade surplus with the United States and the United States' restrictions on products exported from China to China, such as some high-tech products, made the United States want to change this situation and protect its trade. However, in the past 40 years, China's GDP growth has been three times that of the United States, which worries American stakeholders because the dominant position of international trade may further deteriorate [3].

2.2. The History and Present Situation of Chinese Students Studying in the United States

As early as 1847, Rong Hong and his classmates Huang Sheng and Huang Kuan went to the United States to study. Rong Hong returned from his studies 7 years later and devoted himself to introducing Western learning to the East, creating the earliest Chinese education in the United States [4]. Statistics show 2,710 Chinese students in American universities in 1948, distributed in 45 states [5]. The following year, the number of students studying in the United States increased by 40%, with 3797 students. Some researchers believe that these post-war students studying in the US have some obvious characteristics compared with previous students studying in the US: the level of education has been greatly improved, the number of graduate students accounted for more than half of all students studying in the US; the number of students studying in the United States choosing liberal arts increased [6]. Since 2010, Chinese students in US universities have exceeded 150,000, accounting for 18.5% of all US students studying abroad [7].

2.3. Reasons for Chinese Students Studying in the United States

After 30 years of rapid education development in the United States, Chinese people's understanding of studying there has become relatively mature. One of the manifestations is that Chinese students studying in the US now show a more diversified trend in majors and development choices, showing rationality and pragmatism.

The affirmative action policy was formulated by President Obama during his term of office, which enabled American universities to adhere to diversified admission during the Obama administration. It mainly ensures that students of every gender, race, and belief can have a fair chance to enter American universities. According to a study in 2012, the SAT scores of Asian students in the top 30 universities in the United States are, on average, 160 points higher than whites, 210 points higher than those of brown people and 450 points higher than black people. In addition, yellow people are not worse than other races in other aspects. The promulgation of the equal rights law undoubtedly supports protecting Asian students.

The change in China's economic development is the main reason for the upsurge of studying in the United States in the past decade. Since 1980, the people's living standard in China has constantly improved, and the middle class has expanded. The high cost of studying abroad is no longer an obstacle for overseas students in China. America has the largest number of high-level universities in the world. In the rankings of universities worldwide, American universities are among the top, and the United States is naturally more popular with Chinese university students.

2.4. The Influence of the Sino-US Trade War on Chinese Students

Since 2018, the Trump administration has reissued the document of the Affirmative Action Bill. They decided to return to the policy of “racial neutrality” during the Bush administration, and American universities will no longer consider racial factors when enrolling. What followed it was that the Trump administration called on American universities to close the application channels for international students in sensitive majors, especially Chinese students.

The Trump regime influences Chinese students studying in the United States. As the world’s largest recipient of international students, the number of new international students in the United States has continued to increase yearly since its statistics. Still, this number has dropped by more than 10,000 in one year for the first time since Trump took office, and it is much more difficult for 38 countries that are not long-term allies of the United States to obtain American visas.

The current situation in the United States worries many students and parents who want to study there. This can be seen from the decrease in college applicants in the United States and inside HigherEd reported that a recent survey of more than 250 universities in the United States showed that 4 out of 10 universities indicated that the number of applications from international students decreased [8]. Among them, 25% of the schools surveyed said that the number of undergraduate applicants in China decreased, and 32% said that the number of graduate applicants from China decreased. In this regard, college freshmen admissions officers generally attribute it to the changes in the 2016 US election and visa policy. 77% of the international admissions officers of the schools surveyed expressed concern about the future.

3. Method

3.1. Introduction

This research uses the design of quantitative research. Quantitative research is a way to process relevant and statistical data using mathematical methods, reflecting the regular relationship between related variables and calculating various numerical values of the research object. Because this study adopts a survey method and collects data through an online questionnaire, the purpose is to analyze a large number of data and to study the influencing factors of Chinese students studying in the United States. Hence, the quantitative design is the most suitable.

3.2. Questionnaire

This research uses the design of quantitative research. Quantitative research is a way to process relevant and statistical data using mathematical methods, reflecting the regular relationship between related variables and calculating various numerical values of the research object. Because this study adopts a survey method and collects data through an online questionnaire, the purpose is to make a statistical analysis of a large number of data and to study the influencing factors of Chinese students studying in the United States, so the quantitative design is the most suitable.

The research method of a questionnaire survey can collect the relevant opinions of the respondents as comprehensively as possible and collect information systematically. In addition, the questionnaire has a larger sample size to improve the accuracy of the data. Other survey tools, such as focus groups or interviews, can be biased due to the smaller sample they typically collect data from [9,10]. In this study, in order to ensure that the respondents are international students or interested groups in studying abroad, questionnaires were distributed on the websites of the International Student Forum and WeChat friends circle of the top 100 universities in the United States.

The questions and options of the questionnaire are determined according to the literature review results and the problems studied in this paper. This questionnaire investigates the relevant situation

of the respondents from three aspects: first, the basic information of the respondents; second, their intention to study abroad, such as the country of intention to study abroad, changes in the country of intention, etc., and finally, the factors that affect the respondents' decision-making about studying abroad.

3.3. Ethical

Considering the protection of respondents' privacy, the questionnaire did not collect information about their specific identities, such as their names and addresses. When launching the questionnaire, the respondents will be told that the questionnaire is not mandatory and they are free to choose whether to participate in the survey or not.

3.4. Limitations

Due to the time factor, the questionnaire can only set a certain sample size. Generally speaking, the larger the sample size, the more universal the data conclusions are. In theory, more than 300 samples can reach 95% confidence. Because of the way of issuing questionnaires, it is impossible to rule out repeated questionnaires, although considering this limitation, and explaining the instruction of "Please read carefully when answering questions, and don't answer them at will". At the same time, the use of convenient sampling limits the external validity of the data because the respondents are not randomly selected from a wider population, so, as mentioned above, it will produce biased samples [11].

4. Results

A total of 330 questionnaires were received in this survey, of which 323 were valid. More than half of the respondents were women, accounting for 61.6%, reaching 199; Men accounted for 38.4%, reaching 124. Among these 323 people, 89.4% of the respondents have plans to study abroad in the next three years. Table 1 shows the basic information of the participants and their study abroad.

Table 1: Sample Characteristics.

General Information	Sample number	%
Gender		
Male	124	38.4
Female	199	61.6
Previous Study Abroad Experience		
Yes	124	38.4
No	199	61.6
Plan to Study Abroad in the Next 5 Years		
Yes	289	89.4
No	34	10.6

4.1. Multiple Response Analysis

The questionnaire selects the six most relevant factors that affect Chinese students to study in the United States, namely, restricting Chinese students from studying technology that may be used for national security (factor 1), visa restrictions introduced by the Trump administration (factor 2), the essence of Sino-US trade war is technology competition (factor 3), the speed of China students going to the United States is slow due to visas and other reasons (factor 4), China students have more

restrictions on studying in the United States (factor 5), and Sino-US relations (factor 6). The survey results are shown in the figure below.

As can be seen from the data, the biggest influence on the respondents to study in the United States is that it is more difficult for Chinese students majoring in national security to apply, accounting for more than 70%. The visa restrictions accounted for 69%, followed by the Sino-US trade war, in which technology competition was the essence, accounting for 67%. China students' speed of going to the United States slowed down due to visas and other reasons, accounting for 66%, and international students' restrictions on going to the United States increased, accounting for 57%. Sino-US relations influenced 33% of the respondents. Generally speaking, the higher the correlation, the better the reliability of the data. The α coefficient in this survey is the internal correlation test. Generally, there are two ways. First, add questions. According to the theoretical basis and own theoretical evidence, add questions that match the concept of the questionnaire: The more same questions, the better the reliability. Second, delete topics that differ from other items and increase the alpha coefficient. As to which one to delete, we can see the operation of calculating the α coefficient according to SPSS. In addition, it can also be carried out on a theoretical basis, but the title is deleted. In short, it is to add and delete the same questions with different qualities. Reliability is a necessary condition for validity. According to the data, the reliability of the questionnaire is acceptable.

4.2. Correlation Analysis

The analysis was pre-tested before analyzing the factors that affect Chinese students to study in the United States. The test result data is much higher than the standard value, indicating that the data is suitable for sampling and factor analysis. This paper makes a correlation analysis of the reasons that affect Chinese students' decision to go to the United States. Generally speaking, the stronger the correlation, the closer the correlation value is to 1. The correlation values of teachers, parents, persuasion of study abroad agents, peer competition, and personal attitude towards current affairs are all between 0.67 and 0.88, which shows that these six factors have a positive influence. Teachers' opinions and peer competition have the strongest influence, and the correlation values are 0.87 and 0.83, respectively.

4.3. Multiple Regression Analysis

Table 2 is an analysis of variance table to test the reliability of survey data and the significance of multivariate linear equations. The f value of this data is much greater than 1, indicating that the difference between different mean values is statistically significant. Multiple linear regression can explore the influence of different independent variables on dependent variables [11]. This survey refers to the influence of different elements on Chinese students' decision to study in the United States. Multiple linear regression can get quantitative results to explore the research problems better.

Table 2: Variance analysis.

ANOVA					
	df	ss	ms	f	Significance f
Regression analysis	5	228.4485	45.6897	502.5349	1.8E-147
Reidual	314	28.54839	0.090918		
Total	329	256.9969			

Table 3 is the T-test table, which is tied with the F-test to test the reliability of the data. The number of samples in this survey is 323, which is relatively large, so the t distribution is (0,1). When α is set

to 0.05, the quantile of α on n is 1.96, and the t Stat in the table far exceeds 1.96, which proves that the linear regression coefficient is reliable.

Table 3: T-test and linear regression.

	Coefficients	SE	T Stat	P-value	Lower 95%	Upper 95%	Lower limit 95.0%	Upper Limit 95.0%
Intercept	-0.13882	0.048582	-2.87886	0.005597	-0.43266	-0.01917	-0.11255	-0.02916
X Variable 1	0.283782	0.01286	11.61027	1.46E-26	0.222678	0.276582	0.222678	0.276582
X Variable 2	0.227173	0.012383	5.507384	6.49E-09	0.087024	0.270523	0.087024	0.270523
X Variable 3	0.252748	0.013583	7.269916	2E-08	0.204398	0.100298	0.204398	0.100298
X Variable 4	0.116782	0.01891	9.156178	4.2E-25	0.284518	0.171082	0.284518	0.171082
X Variable 5	0.252518	0.011238	7.890027	5.987E-11	0.208557	0.285501	0.208557	0.285501

5. Discussion

5.1. Introduction

In this chapter, the research results of this paper will be compared and discussed with the existing research, that is, the second part of this paper. The scope of application and inapplicability of this conclusion will also be discussed, and finally, some relevant suggestions will be put forward.

5.2. Findings

This study aims to investigate the following questions: Does the Sino-U.S. trade war impact Chinese students studying in the United States? If so, how is it affected? The following key findings have shed light on this question from a review of relevant literature and primary research. First of all, the Sino-US trade war seems to have had an impact on students going to study in the United States. Due to a series of policy changes, such as increasing the difficulty of applying for sensitive majors and reducing the number of H1-B and F-1 visas, Chinese students studying in the United States decreased significantly in 2018. Students who originally planned to study in the United States changed their first choice to EU countries or Britain.

5.2.1. Policy Influence

The results of this study show that 68% of the questionnaire participants do not choose the United States as their intended country for studying abroad because of visa restrictions, and the most important aspects of visa restrictions are the validity period and application difficulty. The visa problem caused by the policy has affected the decision of Chinese students to study in the United States, which is consistent with the results of the literature review in the second part of this paper.

H-1B visa is a kind of non-immigrant visa in the United States and a work visa. This visa is mainly issued to non-American employees with special professional skills. People with H1B visas can get legal residency for up to six years. After that, if they can't get other types of visas, they must leave

the United States. According to the relevant policies, it is more difficult to obtain an H1-B visa, which also greatly affects the intention of Chinese students to study in the United States. In this study, there was no special option for an H1-B visa, so comparison with previous research with respect to this aspect is not possible.

Another change caused by policy reasons is the increase in tuition fees, especially related majors in high-tech fields. In this paper, 25% of the respondents gave up studying in the United States because of the high increase in tuition fees.

5.2.2. Teacher Influence

According to the literature in the past, Chinese students are mainly influenced by their parents when deciding to study abroad. However, according to the survey in this paper, the teachers in middle schools or universities have a greater influence on their decision-making.

5.2.3. Parents Influence

In China, parents are also an important factor influencing students' decision to study abroad, mainly divided into two aspects. The first is the income of parents or families. Data show that more than 85% of the funds for Chinese students to study abroad come from their families, and funds are the key to deciding whether students can study abroad. According to the data, in 2022, Chinese students spent an average of 100,000 dollars a year in the United States. Therefore, the high cost of studying abroad determines that parents are an important factor affecting students' studies in the United States. Secondly is the parents' education level. If parents have overseas experience or received higher education, their willingness to let their children study abroad is stronger than parents who have only received secondary vocational education. Parents who have received higher education are more willing to create conditions for their children to study abroad, including financial conditions. Therefore, the influence of parents' spirit and financial support on children's decision to study in the United States can not be ignored.

5.2.4. Agence Influence

The investigation of this paper also considers the influence of intermediaries on students. The advice of intermediaries in the United States or China impacts students' decision to study in the United States, including the choice of study country, preparation for different periods before studying abroad, and choice of schools and majors. The influence of an intermediary is rarely considered in previous studies.

5.2.5. Competitive Influence

Conformity psychology is also a major factor affecting students' decision-making. Some students say they want to study abroad because all their classmates or friends of the same age have gone to study, so they want to study abroad themselves. Or listen to classmates say that the current employment form is not good and is the best choice to study abroad and improve yourself, so blindly follow without considering other circumstances. The research of Xu and Tu shows that students who have been engaged in consistent activities for a long time are more likely to correlate strongly with each other's behavior. Obviously, this kind of student's willingness to study abroad is not clear, and there is a high possibility of giving up due to various factors in the future. Therefore, students' values and feelings of competition with peers are also important factors that affect students' decision to study abroad, which is consistent with the conclusions of other related documents.

5.3. Research Implications

The advice of teachers and parents was the most significant factor influencing whether Chinese students would decide to study in the United States. In addition, this study's other four strongly correlated influencing factors were all positively correlated. This can provide suggestions for students and families who want to study abroad in the future and can guide them to make relevant decisions about studying abroad from more angles. At the same time, this finding provides support for related studies. Therefore, results relating to the factors influencing Chinese students study in the US during the U.S.-China trade war proposed in this paper may provide new ideas for future researchers in view of the diverse choices of different students.

5.4. Limitations

The sample surveyed in this study was restricted to the region, and more than half of the respondents are residents of Beijing. In addition, although the questionnaire has tried to collect the factors that may affect students' decision-making, it is a comprehensive decision to influence whether students study abroad and where to study, so the factors designed in the questionnaire are limited and not comprehensive. Compared with other research techniques in the survey method, such as interviews, the restriction imposed on the questionnaire design by the need to collect quantitative data did not consider the wide range of decision-making factors. Finally, the COVID-19 epidemic broke out at the end of 2019, which greatly reduced the number of round-trip flights between China and the United States, changed the original flight routes, and made the entry procedures in China and the United States cumbersome, which would also have an impact on the decision-making of China students. However, this survey did not consider this sudden factor.

6. Conclusion

According to all the survey results in this paper, Chinese students have changed when making relevant decisions to study in the United States. Respondents in this article believe that the deterioration of Sino-U.S. relations caused by the Sino-U.S. trade war is the biggest reason why respondents no longer choose the United States as a country to study abroad. Secondly, the very important reason is that the United States has tightened the visa for Chinese students and the immigration policy due to the deterioration of Sino-US relations, which has greatly affected the willingness of Chinese students to study in the United States.

This paper also analyzes the factors that affect the decision-making of studying abroad. Based on the family and policy factors in previous studies, it also analyzes the factors of teachers and institutions studying abroad. This study also shows that the influence of teachers is deepening day by day.

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