Regression Analysis of Social Events on Values

Xia Li¹, Zeyuan Hao¹, Ziyang He¹, Yifang Liu¹*, and Dengshan Wang²

¹School of Economics, Central University of Finance and Economics, Beijing, 100081, PR China
²Beijing Information Science & Technology University, Beijing, 100081, PR China
*Corresponding author’s e-mail: liuyifang@cufe.edu.cn

Abstract. This study uses CFPS (2010) database researching issues related to the formation of values. We use the OLS (Ordinary Least Square) method to identify the long-term effects of this group of values on those who were enrolled in school between 1986 and 1989 and aged between 15 and 22 in two dimensions, the year of birth and the highest degree. Between 1986 and 1989, two large-scale student movements took place in China. Through the use of social survey data at the individual level, the regression found that those affected by the school sentiment were more concerned with social events and less concerned with social relationships.

1. Introduction

Values play a very important role in individuals and countries. For individuals, values directly influence what decisions they make; for countries, the values of their nationals tend to directly influence economic development and play an important role in the decision-making process of economic development. There are many empirical studies have confirmed that there is a certain correlation between values and economic development [1-5]. Although there are many empirical studies focusing on the role of personal values in the politics and economy of a country, there are very few articles on how individual values are formed and how their values change over time.

Sociology researches find that the basic values of individuals are formed in a period of strong psychological plasticity, that is, during their adolescence, after which their basic values will not change [6]. Therefore, the special experience of adolescence will have a major impact on the values of individuals and their subsequent behaviour. In this study, we focus on the impact of the 1986 schooling event on the values of that generation of youth.

For the campus upheaval, most of the domestic literature is analysed from the perspective of historical research, while the impact of sociology and economics on the academic tide is less. In addition, there is almost no literature on the impact of academic trends on values from an economic perspective. People pointed out that the ubiquitous corruption in the school, the frequent occurrence of campus upheavals, and the ruin of the school, have triggered unprecedented social repercussions and social problems [7]. Some scholars studied the impact of Chinese uphill and rural sports on values [8]. Similarly, we use the CFPS dataset to analyse the tidal events between 1986 and 1989 to further study the impact of student strikes on values. The empirical results show that there is a significant correlation between student strikes and the values.

The student strike has a significant impact on education, diet, life rights, and freedom of speech. The Huangpu student strike in 1937 greatly improved the political environment at the time and had a profound impact on education. The "anti-civil war, anti-hunger" student strike of 1947 made the rights and interests of the students in the civil war between the Kuomintang and the Communist Party widely
respected. The domestic high-level class paid more attention to people's livelihood and effectively alleviated the basic living problems of the people. Behind these influences, whether there is a change in the confidence of the contemporary people due to the improvement of their rights; whether there is a change in the importance of national education to education due to the improvement of the educational environment. These problems are more worthy of thinking behind the student strikes.

For the past student strikes, the government mostly adopted strategies such as negotiation and suppression. If there is an impact on the values of students at that time, the government can adjust and optimize the corresponding coping strategies to improve the quality of that generation and further increase labour output. Conversely, a generation with significant deviations in values may be reluctant to invest time in individual work because of lack of confidence in life, which in turn leads to a backward production level of the national population, and even indirectly leads to a low economic period in a certain period of time. The level of welfare has thus declined. Not only that, our values also affect the individual's emphasis on social relationships, which in turn affects the relationship between employees, employees and employers, and create choices in corporate recruitment. Therefore, whether personal development or the choice of business strategy to the formulation of the country's approach to dealing with similar issues, the study of the impact of student strikes on values has important significance. At the same time, this study can once again prove by empirical methods that large-scale social and political events can have a significant impact on the values that are forming during this period.

The remainder of the paper is organized as follows. The Second section summarizes the data and briefly introduces related student strikes. In the third section, we discuss the empirical model and presents the empirical findings. The fourth section shows robustness test and the last section concludes.

2. Introduction to data sources and student strikes

2.1. Student strikes
During the two academic tides of the "eight-six academic tide" in 1986 and the "six-four academic tide" in 1989, many college students marched on the streets, calling for political reform, appealing to democracy, and appealing to human rights. However, the influence of the students on the university students was not only from the demonstrations on the streets, but also from the extensive discussion of these issues behind the demonstrations. The most direct manifestation is the change in the number of students and the size of the two student strikes. The number of people participating in the “eight-six academic tide” is about 29,000, and students from 36 universities are involved. However, by the “six-four academic tide” in 1989, there were as many as one million people participating in the parade in Tiananmen Square. There were also demonstrations in about 400 cities across the country. It can be seen from the “eight-six academic tide” that topics such as political reform, democracy, and human rights have caused widespread discussion throughout the country, especially in the student group. During the four years from 1986 to 1989, heated discussions on these topics have the potential to significantly affect the values of groups of 15 to 22 years old with a highly plasticized value. Since this is a very sensitive political topic, there are very few academic studies on these two academic trends, and the study of the influence of these two academic trends on values is even more embarrassing.

2.2. Data sources
The data we use is the 2010 China Family Tracking Survey Data (CFPS). This data was implemented by the Social Science Research Center (ISSS) of Peking University, focusing on the economic and non-economic welfare of Chinese residents, as well as many economic activities, educational achievements, family relationships and family dynamics, population migration, health, etc. The research is a national, large-scale, multidisciplinary social tracking survey project. The CFPS sample included 15,517 households and 33,600 adult respondents who responded in 2010.

The personal values we study focus on four areas: the level of attention to wealth, the level of confidence in the future, the importance of social relationships, and the focus on social issues. The reason for choosing these four aspects is that students in the academic tide constantly discuss social
issues and even participate in street parade. These experiences will strengthen the individual's attention to social issues and reduce the importance of wealth. The end of the failure of the student movement will largely affect the students' confidence in the future, and this influence will accompany these students throughout their lives. At the same time, we found in the study that this group of students who experienced the academic tide is more likely to be pushed by the government.

The frequency of paying attention to social issues and the importance attached to social relations are all differentiated by 1-3, and 1 represents little attention. The CFPS survey is very informative and contains both statistical and socioeconomic characteristics such as family, gender, age, education, marriage, family, social status, and income. We focus on the groups born between 1967 and 1971 excluded groups born before 1930 and born after 1992 (the former observed individuals are very limited, and there may be selection bias; the latter was not yet 18 years old in 2010, and the core values have not yet been fully formed). The final sample contains 32,147 observations. Descriptive statistics about our variables are shown in Table 1.

Table 1. Statistical description of data.

|                          | High school and above | Junior high school and below |
|--------------------------|-----------------------|-----------------------------|
|                          | Observations          | 6234                        | 24784                       |
|                          | Mean                  | S.D.                        | Mean                       |
|                          |                      | Obs.                        | S.D.                       | Obs.                      |
| Dependent variable       |                       |                             |                             |
| Frequency                | 2.59                  | 0.56                        | 2.42                       | 0.66                      | 8277                      |
| Degree                   | 4.09                  | 0.45                        | 4.02                       | 0.39                      | 16062                     |
| Independent variable     |                       |                             |                             |
| Age                      | 40.87                 | 13.89                       | 48.01                      | 14.71                     | 24784                     |
| Account (12 years old)   | 0.43                  | 0.49                        | 0.09                       | 0.29                      | 24585                     |
| Log (Income)             | 9.64                  | 1.26                        | 8.49                       | 1.62                      | 16547                     |
| Nationality              | 0.95                  | 0.22                        | 0.91                       | 0.29                      | 24784                     |
| Gender                   | 0.56                  | 0.49                        | 0.47                       | 0.49                      | 24784                     |
| Years of education       | 13.03                 | 1.62                        | 6234                       | 4.36                      | 3.85                      | 24784                     |
| Political Background     | 0.34                  | 0.47                        | 0.09                       | 0.29                      | 24784                     |
| Father's education years | 7.88                  | 4.49                        | 3480                       | 4.25                      | 4.22                      | 8911                      |
| Mother's education years | 5.39                  | 4.69                        | 4091                       | 1.98                      | 3.35                      | 11472                     |

Notes: “Frequency” represents “Frequency of attention to social issues”; “Degree” represents “Emphasis on social relations”; “Log(Income)” represents “Logarithm of income”; “National” represents whether the nationality is Han or not (1 for the Han, 0 for the minority); The political background is whether or not to join the Communist Youth League (joined 1 and not added 0). Source: CFPS.

Our sample contains 6,838 individuals with a high school education or above and 25,285 individuals with junior high school or below. At the age of 12, 40% of the students with high school education or above are urban account, but in junior high school and below, this proportion is less than 10%. In the personal political background, nearly 40% of the high school and above are participating in the Communist Youth League. In the junior high school and below, this proportion is exactly 10%. From the above statistics, we also find that highly educated groups are more susceptible to unreasonable government push. By a rough comparison, groups with high school education or above have little difference in the importance of wealth, confidence in the future, and frequency of attention to social issues (up to a maximum of 0.2). In general, groups with high school education and below do not pay much attention to wealth, have more confidence in the future, and pay more attention to social issues.

3. Empirical model and findings

3.1. Empirical Model

We target individuals who were born between 1967 and 1971. The people born during this period were between the ages of 15 and 22 between 1986 and 1989, and the group was most likely to be involved or
affected by student prosperity. Therefore, we first construct a dummy variable about the year of birth to see if the student strike really has an impact on the value of this particular year. In the Ordinary Least Squares Model (OLS), we control the variables that cause missing variables, such as age, income, gender, ethnicity, years of education, political background (whether or not they have participated in the Communist Youth League), and control the fixed effects of the region. We first select two dependent variables that reflect social values for OLS regression: the importance attached to social relations and the degree of attention to social issues.

3.2. Empirical results

Table 2 presents the OLS estimation results. According to the results in Table 2, we can see that the dummy variables of the year of birth in these two regressions are not significant (but the p value is close to 0.1).

| Var.                  | Degree Coe. | Degree Obs. | Frequency Coe. | Frequency Obs. |
|-----------------------|-------------|-------------|----------------|----------------|
| Age                   | -0.002***   | 15635       | -0.001***      | 14173          |
|                       | (0.000)     |             | (0.000)        |                |
| Log (Income)          | 0.016***    | 15635       | 0.011***       | 14173          |
|                       | (0.002)     |             | (0.002)        |                |
| Account               | 0.029***    | 15635       | 0.007          | 14173          |
|                       | (0.010)     |             | (0.008)        |                |
| Nationality           | 0.020       | 15635       | 0.022*         | 14173          |
|                       | (0.015)     |             | (0.011)        |                |
| Gender                | 0.013*      | 15635       | 0.003          | 14173          |
|                       | (0.007)     |             | (0.005)        |                |
| Political Background  | 0.029***    | 15635       | 0.003          | 14173          |
|                       | (0.010)     |             | (0.007)        |                |
| Years of education    | 0.002**     | 15635       | -0.000         | 14173          |
|                       | (0.001)     |             | (0.001)        |                |
| Target groups         | -0.009      | 15635       | -0.002         | 14173          |
|                       | (0.009)     |             | (0.007)        |                |
| Constant              | 3.989***    | 15635       | 1.923***       | 14173          |
|                       | (0.052)     |             | (0.040)        |                |

Notes: Cluster robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1. The account is the state of observation at the age of 12. The political background is: whether it is a member.

We believe that the academic tide has different degrees of influence on people of different educational levels. For the people born in 1967-1971 with the highest education in junior high school and below, they are between 15 and 22 years old in the period of 1986-1989 years, but because their highest education is in junior high school and below, most of the academic level during the period in which the student tide occurred, the crowd has entered the society and is not in the stage of school attendance (the eight or six academic tide broke out in December of 1986). Therefore, for this part of the population, the student tide event is likely to not affect the population, so that our regression results become insignificant.
4. Conclusion
The empirical research on the formation of values is still at an early stage at home and abroad, and research on these issues is scarce. This paper uses the survey data of CFPS2010 to focus on the impact of social events on the formation of personal values, and provides an empirical basis for further research on the formation of values.

We demonstrate that social events can have a significant impact on the values of adolescents at the stage of value formation and maturity. In particular, we use empirical methods to prove that the two academic trends in 1986 and 1989 have had a significant impact on the formation of the values of adolescents who were in school during this period. We use the OLS regression method to find that the group of students who are in school during the schooling period and are between 15 and 22 years of age have significantly higher attention to social issues and significantly less emphasis on social relations.

Through a series of tests, we prove the robustness of our results and prove that social events can indeed influence the formation of values. The conclusions drawn in this paper not only help to understand the formation of values, but also provide an empirical basis for further research on the value formation mechanism.

References
[1] Hambrick D. C., Mason P. A. (1984). Upper echelons: The organization as a reflection of its top managers. Academy of management review, 9(2):193-206.
[2] Hambrick D. C., Brandon G. L. (1988). Executive values. Elsevier Science/JAI Press, US.
[3] Schwartz S. J., Unger J. B., Zamboanga B. L., Szapocznik J. (2010). Rethinking the concept of acculturation: implications for theory and research. American Psychologist, 65(4):237.
[4] Guiso L., Sapienza P., Zingales L. (2009). Cultural biases in economic exchange? The Quarterly Journal of Economics, 124(3): 1095-1131.
[5] Barro R. J., McCleary R. (2003). Religion and economic growth. National Bureau of Economic Research, 2003(5): No. w9682.
[6] Krosnick J. A., Alwin D. F. (1989). Aging and susceptibility to attitude change. Journal of personality and social psychology, 57(3):416.
[7] Ma Z. Y. (2002). Schools, students and students in the first decade of the 1911 Revolution. Shi Lin, 2002(01):43-50.
[8] Gong J., Lu Y., Xie H. (2014). Adolescent adversity and long-run health. http://dx.doi.org/10.2139/ssrn.2460350.