

# Chapter 11

## Learning Ants: A Portrait of Chinese College Students in Mass Higher Education

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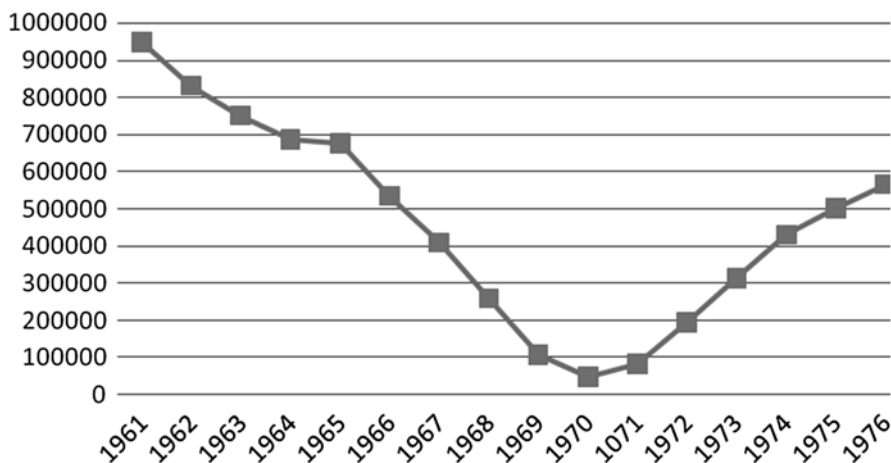
### 11.1 An Historical Glimpse of China's Move to Mass Higher Education

Like all non-Western cultures, China enjoyed a long tradition of higher learning institutions before it confronted the first wave of globalization in the nineteenth century and became the victim of western colonialism. September 2nd 1905 witnessed the abolition of the imperial civil service examination that had lasted for thirteen centuries and in its place the establishment of a national schooling system based on Western models. After the success of the Northern Expedition (北伐) led by the Kuomintang (KMT) in 1928, which led to the unification of China and the establishment of the Nanjing government, Chinese higher education flourished in a 'golden age'. The country had 116,504 college students enrolled in 205 modern higher education institutions when the Communist Party took over power in 1949, despite of the Sino-Japan war that had lasted for 7 years (1937–1945).

During Mao's era (1949–1976), all higher education institutions were brought under the jurisdiction of the communist government, and the Soviet model was adopted to guide the restructuring of Chinese higher education system. As a result, the higher education system became overspecialized and departmentalized. Research, which had once been the main function of the university, was separated and housed in the institutes of the China Academy of Science and China Academy of Social Science. After the restructuring, China made its first attempt to expand the higher education sector in 1957. More than 1,060 new higher education institutions had established by far in 1960 compared to 229 in 1957, and the total enrollment had increased to 961,623 in 1960 from 441,181 in 1957. However this attempt

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**Fig. 11.1** Chinese higher education enrollment (1961–1976) (Source: *Thirty Years of National Education Statistics: 1949–1978*, p44)

to expand higher education proved to be a failure because of the economic crisis (1960–1962) and the political turbulence that followed, in particular the Cultural Revolution (1966–1976). Both the number of higher education institutes and enrolled students declined dramatically. Enrollments were at their lowest ever with only 47,815 in 1970, which was 41 % of the 1949 figure at the founding of the People’s Republic. Despite the trend of increasing enrollment since 1971, the number of enrolled students was recorded at 500,993 in 1976, 59 % of the figure in 1960 when Chinese higher education was at its peak in Mao’s era (Fig. 11.1).

With the end of Mao’s era in the late 1970s, China restored its higher education system and initiated educational reforms along with the move towards economic globalization, which is characterized by its reforms on the redistributed economy and the ‘open policy’ integrating global capital into its national economy system (Luo 2007). A “user-pays” system was formulated and implemented, along with the restructuring of higher education institutions around ‘marketization’, with the emphasis placed on efficiency and accountability. Both universities and local governments regained their autonomy, allowing the former to mobilize resources from the market and the latter to manage its higher education system according to the needs of local economy (Bai 2006). After the reforms were successfully implemented across the country, China made another attempt at expanding its higher education system.

Unlike the efforts in 1957–1960, this round of expansion proved to be sustainable, underpinned by the increase in tuition fees that proved to make the major part of students’ learning cost. It’s turned out that the total enrolment of college students reached 33.25 million in 2012, 8.9 times higher than that of 1997 (3.35 million). In other words, the size of Chinese higher education had on average doubled every 2 years during this time period. With the largest higher education system in the

world, China announced that such expansion would continue to 2020, when the gross enrollment rate of Chinese higher education is predicted to reach 40 %. According to Trow's distinction between elite, mass, and universal higher education – a higher education system where more than 50 % of the population or age grade participates is considered a universal system, between 16 and 50 % is a mass system, and up to 15 % is an elite one (Trow 1970). By 2002, China had entered the stage of mass higher education when the gross enrollment rate had reached 16 %.

Trow argued that the difference between elite, mass, and universal higher education systems lies in the ways in which the higher education system associates with different kinds of knowledge and how such knowledge was implicated in social power. For instance, the purpose of an elite higher education system was to prepare social elites, and consequently the institutions were small-sized with clear boundaries marking the academic community off from the public. In contrast, the purpose of a mass higher education system was to transmit knowledge and skills, preparing the segment of population for a broader range of roles in technical and economic development. As for a universal system, participation in higher education was an expression of human rights, since individuals had to survive an employment environment driven by rapid knowledge and social changes making university education a must (Trow 1970).

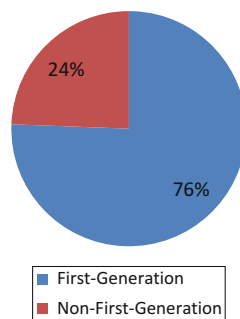
The expansion of higher education brings significant changes beyond an increase in enrollment. Most of all, it changes the composition of the college students, resulting in the purpose of education being tuned to the expectations of a wider student population. With the repositioning of educational purpose, teaching activities in colleges change in terms of class size, learning content, and student-faculty interactions. This article, which is a case study of higher education in China, will take a closer look at these fundamental changes. The author will answer the following questions: in mass higher education, who participate in Chinese universities? What do they learn, and through what experience? And what is their employment situation after graduation?

## 11.2 Who Participates in Chinese Mass Higher Education?

The data presented here are taken from the Chinese College Student Survey (CCSS) undertaken by Tsinghua University. Using the same theoretical framework as the National Survey of Student Engagement (NSSE) of the United States, the Chinese College Student Survey involved 27 higher education institutions in China in 2009, 47 higher education institutions in 2010, 59 in 2011 and 2012, and 73 in 2013. Applying stratified sampling to higher education institutions and random sampling to students within each institution, CCSS obtained representative samples with a total number of 357,716.

According to the CCSS conducted in 2013, 76 % of Chinese college students were the first-generation college students in their families. Considering that each

**Fig. 11.2** Proportion of first-generation and non-first generation college students in China, year 2013



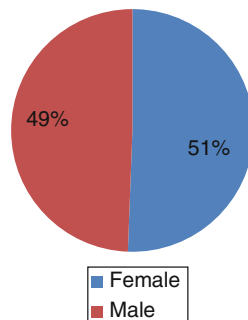
Chinese family has 1.45 children on average, this means that approximately 4.3 million families celebrate their first family member entering college each year. This is a great achievement, particularly in a Confucian culture where a university degree provides the cultural and psychological basis for an individual to escape the social structural constraints upon his or her capacity to understand and interrogate the world. In another word, for these college students and their families, entering college means freedom of thinking (Fig. 11.2).

According to CCSS, 63.3 % of the enrolled college students in China are from rural households. When students' social economic status is taken into account, data show that 18.1 % of the enrolled college students come from socially advantaged families, 63.5 % from middle-level classes, and 18.4 % from the bottom classes. Chunling Li, a well-known Chinese sociologist discovered that the expansion of Chinese higher education had contributed to the equity of college entrance in a quantitative way though the chances of disadvantaged social groups entering top-quality higher education institutions in China shrank (Li 2010). Examining the family background of college students at Peking University, Yunshan Liu (2009) revealed that students whose parent(s) held a status of cadre (elites in the Communist Party) accounted for more than 50 % of the enrolled students in Peking University during the period of 1978–2005. Although students from families of rural households accounted for nearly 40 % during late 1980s, their numbers have progressively declined since the 1990s (Liu 2009). The latest available data for Peking University is 14.2 % in 2013.

An interesting finding is that females benefited most from the expansion of Chinese higher education. In 2010, 50.6 % of the enrolled Chinese college students were female.<sup>1</sup> It's revealed that females in China have a better chance of entering college than males do. While this statistics might support the argument that Chinese higher education expansion promoted gender equity in China, it is complicated by the differentiation between females from urban families and those from rural families. Although the proportion of females from urban families increased significantly,

<sup>1</sup> *Educational Statistics Yearbook of China 2010*, Beijing: People's Educational Press (September of 2011). p23.

**Fig. 11.3** Proportion of female and male college students in China, year 2010



the proportion from rural families declined steadily. Rural females are the most disadvantaged group in accessing top-quality universities in China (Li 2010) (Fig. 11.3).

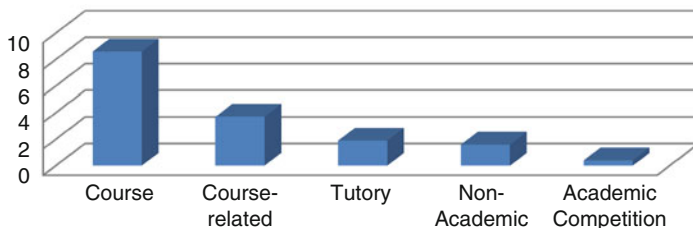
Mass higher education in China has opened up education to significantly higher numbers of students from less advantaged social groups, such as female students from rural and cultural-deprived families. However these social disadvantaged groups are excluded from the top-quality higher education institutions. In one way, they have become the victims of mass higher education in China, paying higher rates of tuition for much lower quality higher education following the implementation of the national users-pay system (Luo and yang 2011).

### 11.3 Are the College Students Well Prepared?

The data presented here are from the Survey of Freshmen of Beijing Higher Education Institutions (SFBHEI) conducted by Peking University in 2011. It involved 28 higher education institutions in Beijing, with a representative sample of 4,244 students.

Students reported that they averaged 8.6 h each day attending their courses in high school. On top of this, they averaged 3.7 extra hours per day on course-related learning, in most cases for homework or other types of academic exercises, and 13.3 h per week on private tutoring. In addition, they still need to spend 11 h per week on non-academic learning, such as sports and art. Those preparing for academic competitions, generally in mathematics and sciences, spend 2.8 h per week on the special courses or learning outside of formal schooling (Fig. 11.4).

In Summary, Chinese high school students average 15.9 h per day on their course and course-related learning as well as other types of learning activities, preparing to access higher education. This is an alarming statistic for it means that Chinese high school students spend almost all of their time on learning except for the 8 h of sleeping, and that is for every day! Like working ants, Chinese students are ‘Learning Ants’ – they live for learning.



**Fig. 11.4** Students' learning hours in high school per day, SFBHEI (2011)

Studies conducted by American scholars have demonstrated that students' academic performance in high school predicts their grades in college. Those who had a high level of academic engagement in high school tend to have a high level of academic engagement in higher education (Pike and Saupe 2002). This is also true for Chinese students. Students who enrolled in science and engineering, who more frequently interacted with teachers, and who had participated in various academic competitions during their high school years were more engaged in academic learning during their college years. The study also found that students' learning habits had a significant influence on their academic performance in college (Yang 2014).

## 11.4 Students' College Learning Experiences

Students' learning experience has always been a "black box" not only to the public but also to policy-makers. It is generally believed that since it is difficult to uncover the dynamics of students' learning activities it makes more sense to measure students' learning outcomes instead. This might be true for the Chinese, but during the past decades the emphasis has been on the other end – the input of teaching resources provided by institutions. It is believed that the quality of college students' learning cannot be guaranteed unless the institutions provide them with sound educational resources on campus. However, both institutional inputs and students' learning outcomes are hardly to be improved in a short period. This is especially true in the context of Chinese higher education system the level of students can be recruited, how high tuition fees can be set and the amount of financial support provided by the central and the provincial governments are all leveraged by government policies. So, if there is a place that institutions can exercise some autonomy, it would be educational practices.

The Chinese College Student Survey (CCSS) was designed to uncover and measure the elements of college teaching and learning, with the purpose of diagnosing

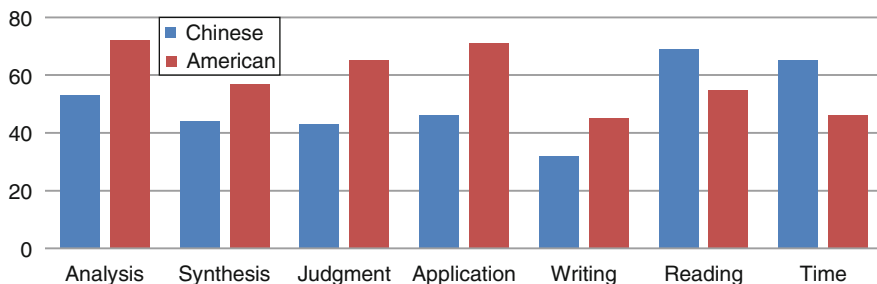
problems and improving practices. Using the survey results from CCSS and NSSE, I will discuss the learning behaviors of Chinese college students by comparing them with their American counterparts.

### 11.4.1 *Level of Academic Challenges*

Level of Academic Challenges is a measure of how demanding is the learning tasks required by educational institutions. It includes three sub-dimensions: cognitive objectives of the curricula, the tasks of course-related reading and writing, and the time that students spend on their academic learning.

Data from CCSS and NSSE shows that Chinese research universities do not perform to the same standard as the American universities on the four cognitive objectives of their curricula analysis, synthesis, judgment and application. The courses provided by Chinese research universities tend to emphasize the learning of knowledge rather than encourage students to develop their own viewpoints. That is why writing is less emphasized in Chinese research universities than reading. Despite of the curriculum gap between Chinese and American universities, Chinese college students spend much more time on their out of class academic learning than American students. 23.6 % of students in Chinese research universities reported they spent more than 30 h per week on out of class learning (Fig. 11.5).

A similar pattern exists in the second tier (local comprehensive universities) and third tier (local polytechnic universities and colleges) of Chinese higher education institutions. Although both of the types scored lower on the Level of Academic Challenge compared to the top national research universities, the differences are of no statistical significance.



**Fig. 11.5** Comparing Chinese Research Universities with American parallels on the level of academic challenges, CCSS& NSSE (2009)

### ***11.4.2 Student-Faculty Interaction***

Student-Faculty Interaction is a key indicator in measuring college teaching and learning behaviors. This indicator measures how often: students participate in faculty research projects, they discuss course-related perspectives or problems with a faculty member, faculty members give feedback on students' academic performance, students discuss their career plans with faculty members, and students discuss grades with faculty members. The survey shows that more Chinese undergraduate students have been involved in research projects conducted by faculty members than American students do. However, 75.1 % Chinese college students reported they had never discussed grades with their faculty members whereas only 7 % American students reported this. 50.2 % Chinese college students reported they had never discussed career plans with any faculty member, while only 21 % American students reported not doing so. When asked about feedback on their academic performance 35.6 % Chinese college students said they had never been given feedback compared with only 7 % of the American students reported so.

The gap between Chinese and American universities in relation to student-faculty interaction may help to explain the gap in quality between the two systems. However, one needs to treat these data with care for the gap could also be attributed to cultural differences. China is a country with a cultural heritage of Confucianism. As a set of ethical-sociopolitical doctrines, Confucianism builds social order through socializing authoritative role relationships in society. The Chinese teacher-student relationship, modeled after the father-son relationship which is governed by the ethic of filial piety, is characterized by status disparity, affective distance, and unidirectional communication from teacher to student (Ho et al. 2001). Chinese college students seldom discuss, ask questions, or make presentation in class but do devote enormous amounts of time to course-related study outside of class. Very few Chinese faculty members give feedback to students on their academic performance as it is understood that both classes and grades are under their jurisdiction.

### ***11.4.3 Enriching Educational Experience***

The indicator Enriching Educational Experience reveals how high-impact educational practices influence college students' development. It is comprised of items such as practicum or internship, studying abroad, culminating senior experience (capstone course or academic competition), foreign language coursework, community service, working on a research project with a faculty member outside of course or program requirement, and participating in a learning community. Data from CCSS and NSSE show that contrary to the impression that Chinese higher education is monotonous there is no significant difference between Chinese and American college students on this indicator. More than 10 % of Chinese students enrolled in the top national research universities said that they had studied abroad,



approximately 20 % reported that they had participated in academic competitions during their college years, and 50 % had experienced internship or practicum.

#### ***11.4.4 Supportive Institutional Environment***

Supportive Institutional Environment comprises three sub-dimensions of measurement: institutional support for students' academic learning; institutional support in the form of financial aid; and institutional support for inter-personal relationships, particularly student-student relationships, student-faculty relationships, student-staff relationships and student-administrator relationships. Data from CCSS and NSSE show that Chinese scored higher than the Americans in all three sub-dimensions, but the differences are of no statistical significance.

To conclude this part, Chinese college students are not satisfied with the curricula provided by their institutions, because the courses that require more reading than writing are not challenging enough. Since Chinese college students view faculty members as authoritative figures, they seldom interact with faculty either in class or outside of class, and few students seek advice from faculty on their future career plans. These does not mean that Chinese college students are passive learners. On the contrary, they are actively engaged with their learning. First of all, they are hard-workers, interacting actively with their peer students both in terms of academic learning and personal development. Furthermore, they take advantage of many opportunities to enhance their development, studying foreign languages, obtaining credentials, entering academic competitions, and undertaking community service and internships. A high proportion of Chinese college students falls into the category of learners with self-authorship, the capacity of internally define a coherent identity that coordinates engagement with their relations with the context of universities (Baxter Magolda 2008). For top national research universities in China, such type of students accounts for 38 % of the whole population of college students. Even for local colleges and universities, which make the third tier of Chinese higher education institutions, this category has made approximately 24 % of the student population (Bao 2009).

In the following section, I will present data on the performance of Chinese college students in relation to employment as a learning outcome.

### **11.5 Student Employment**

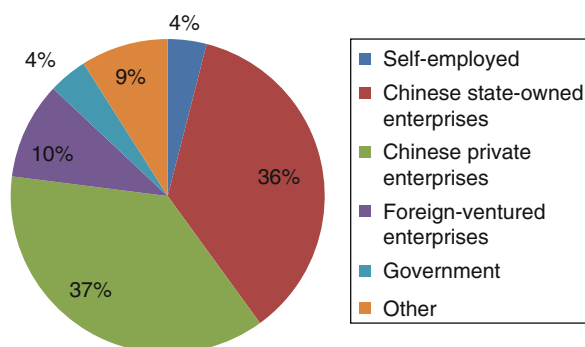
The data collected through CCSS in 2010 show that 68 % of Chinese college students sought employment that year, and 72 % of them successfully contracted themselves with employers with an average starting salary of 2,153 RMB. Only 3 % of the college graduates reported that their start salaries were more than 5,000 RMB. The lowest salary level was reported as 500 RMB, far below the salary of

Chinese peasant labors, which is 1,670 RMB on average. The survey data also show that of the 50 % of the graduate students who chose to work in eastern China, 25 % chose a cosmopolis such as Beijing, Shanghai, Guangzhou or Shenzhen with an average starting salary of 2,529 RMB, which is 27 % more than those of the other areas. The average salary for western China is 2,048 RMB, which is higher than that of middle China. This seems to prove the phenomenon of 'Central Fall'.<sup>2</sup>

Sixty percent of the CCSS sample of 2010 reported that their ideal employers are governments and state-owned enterprises. It is no surprise that college students do not favor foreign-owned enterprises as in the 1990s. Although 4 % of the graduates finally chose self-employment, 18 % of the surveyed students expressed a desire to do this. Chinese private enterprises are the least favored employer for college graduates. However, data show that 37 % of the college graduates accepted employment with Chinese private enterprises. If this is combined with the 36 % who contracted with state-owned enterprises, the proportion of Chinese college graduates who joined the enterprise sector is 73 % (Fig. 11.6).

The salary of those who were employed in the field of transportation is 3,067 RMB on average. This was ranked at the top of the all fields. Information technology came next, with an average salary of 2,588 RMB. Cultural Media and Sports came in the third, at 2,416 RMB, followed by electricity at 2,377 RMB. The salary provided by the employers in finance and manufacturing is 2,312 RMB, above the average of all fields. It is discouraging to note that education and health came in last with an average starting salary of less than 2,000 RMB.

A study conducted by the Tsinghua research team revealed that the GPA obtained by college students during their college years does not correlate with their employment status and salary level. The start salary of those whose GPA was ranked in the top 20 % in their class proved to be 10 % lower than the average salary level. The



**Fig. 11.6** Proportion of the employers Chinese college students contracted with, CCSS 2010

<sup>2</sup>Chinese government released a document entitled 'Action Plan to Accelerate the Rise-up of Central China' in September 23 of 2009, in which the phenomenon of 'Central Fall' was defined and illustrated.

experience of internship or practicum made no contribution to students' employment and salary. On the contrary, the salary of those who had never worked part-time during their college years is 10 % higher than those who did. The only two factors which contributed to a higher salary are: (1) English proficiency; and (2) the social networking. Students whose English grades ranked in the top 20 % in the national test of Level Four reported a start salary of 2,516 RMB, 18 % higher than the average (Li et al. 2012).

## 11.6 Summary and Conclusion

This chapter reviewed the survey results conducted by Tsinghua University and Peking University in China, providing a portrait of Chinese college learners in mass higher education. It seems that Chinese college students are well prepared for their academic learning during their high school years. They spend almost all of their time on studying for the National College Entrance Examination, and competing for the enrollment of the first-tier of Chinese higher education institutions that are usually national research-intensive ones. After entering college, they are active learners, despite the inadequate quality of the courses. They work harder than their American counterparts do. Although their relationship with faculty members is characterized by status disparity, affective distance, and unidirectional communication from teacher to student, they have developed a very active interaction with their peer students. Furthermore, they make use of many opportunities to enhance their self-development: studying foreign languages, obtaining credentials, challenging themselves through academic competitions, doing community service and internships. A high proportion of them are learners with self-authorship. However, given with the time and energy that Chinese college students devote to their study, the economic return is poor. Starting salary are very low and they have an uncertain career future. Whereas once they were the elite, Chinese university students are fast becoming the economic equivalent of Chinese peasant labors.

The expansion of Chinese higher education is unlikely to stop in the foreseeable future. This puzzles observers in other cultures, as it appears irrational to invest heavily in money, time, and energy while knowing that the reward is very poor! In fact, the cultural heritage of Confucianism which holds a strong belief in the power of knowledge has sustained this rapid expansion in China – Chinese parents have not only paid the enormous tuition fees, but have housed and supported their children after graduation. They even use their networks to attempt to find employment for their children.

Like a colony of ants, Chinese college students live with a culture of collectiveness. They spent their study lives mostly together with their peer student groups. After graduation, they move into tough job markets, supported by their families and the family networks. As learners, they spend most of their time in learning; when they gain employment, work occupies the major part of their lives. Just as a Tsinghua student said, "I have worked too hard to think". There is a voice saying that higher

education institutions should provide their students with *hard* knowledge and skills, and the curriculum should move away from rote learning in favor of teaching them to think. This voice becomes more and more discernable in China.

Even have to live like ants, Chinese college students wish they could be creative.

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