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Eastern Dreams: Alternative Pathways for Chinese Students Pursuing Baccalaureate Degrees in the United States

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Eastern Dreams: Alternative Pathways for Chinese Students Pursuing Baccalaureate Degrees in the United States

Abstract

The number of international students pursuing postsecondary degrees in the United States has increased consistently over the past several years (Institute of International Education 2012, 2013). In fact, the most recent report— for academic year 2012–13—indicates that compared to the previous academic year, the number of international students at U.S. colleges and universities increased by 7.2 percent, to more than 800,000. Students from China lead this global trend, accounting for 28.7 percent of all international postsecondary students in the United States. Moreover, the number of Chinese students studying in the United States continues to increase, as demonstrated by the sharp increase (21.4 %) compared to the previous academic year (IIE 2012, 2013). All indications are that the number of Chinese students applying to U.S. colleges and universities will continue to increase, perhaps resulting in a need for enrollment professionals to examine current policies for relevance and fairness and to understand how students from China are preparing to enroll.

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Eastern Dreams: Alternative Pathways for Chinese Students Pursuing Baccalaureate Degrees in the United States

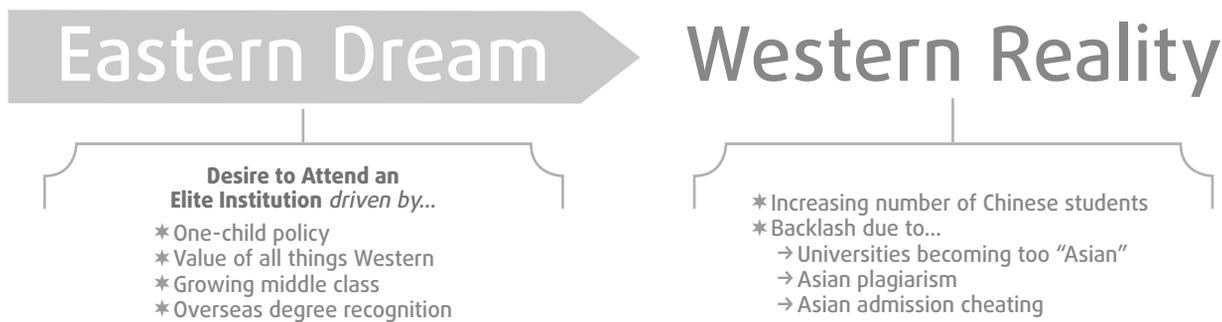
BY LINDA SERRA HAGEDORN AND JIAYI HU

The number of international students pursuing postsecondary degrees in the United States has increased consistently over the past several years (Institute of International Education 2012, 2013). In fact, the most recent report—for academic year 2012–13—indicates that compared to the previous academic year, the number of international students at U.S. colleges and universities increased by 7.2 percent, to more than 800,000. Students from China lead this global trend, accounting for 28.7 percent of all international postsecondary students in the United States. Moreover, the number of Chinese students studying in the United States continues to increase, as demonstrated by the sharp increase (21.4%) compared to the previous academic year (IIE 2012, 2013). All indications are that the number of Chinese students applying to U.S. colleges and universities will continue to increase, perhaps resulting in a need for enrollment professionals to examine current policies for relevance and fairness and to understand how students from China are preparing to enroll.

The surge in numbers may be traced to China's historical and cultural emphasis on education, which has been augmented by the country's one child policy and an increasingly large middle class. Together, these factors have produced a generation of parents with not only the highest expectations for their sole offspring but also the

resources to invest in an education they believe will help their children distinguish themselves from their peers. Many Chinese parents believe that a western education at an elite university will guarantee their children a bright future. Overseas degrees are highly valued in the Chinese job market, with U.S. degrees the most favored (Inside Higher Ed 2014). The increase in the number of Chinese applicants to U.S. universities—particularly elite and Ivy League universities—has resulted in intense competition among Chinese students.

Yet the drastic increases in the number of Chinese college students at U.S. colleges and universities is not universally welcome. For example, there is evidence that some Americans believe that Chinese students displace U.S. students. The *Chronicle of Higher Education* reports that the increasing number of Chinese students has resulted in complaints that campuses have become “too Asian” (Ruse 2010). Some Americans also believe that many Chinese students cheat on tests and academic work (Winn 2012). These issues together have made the admission of Asian students—Chinese students, especially—increasingly controversial (Jiang 2011). Chinese high school students who dream of success must be even more competitive and must strive even more to distinguish themselves from their peers. (See Figure 1, a framework for understanding



■ **FIGURE 1.** *Factors Affecting “Eastern Dream” and “Western Reality”*

the nature of and the conflicts among “eastern dreams,” Chinese students’ need to distinguish themselves, and the perceptions of Asian students at western universities.)

In an effort to distinguish themselves from their peers and turn their dreams of a U.S. education into reality, Chinese students pursue additional coursework, intensive English language training, and alternative educational pathways. This article describes the various pathways available to Chinese students who seek to prepare for a baccalaureate education in the United States. For each pathway, we provide a description, a synopsis of its current status, and an overview of related challenges.

ALTERNATIVE PATHWAYS

Chinese students with eastern dreams must begin the process of distinguishing themselves from their peers long before they begin filling out college applications. In many cases, this process turns into a frenzy of additional training, classes, alternative college credits, and working with education agents. Although students may participate in a full array of strategies designed to “win” the college admissions race, the actual criteria or ways that these activities are evaluated have never been researched or documented. Given the consequent lack of knowledge of what really works and a pervasive belief that “more is better,” eastern dreamers often pursue courses and activities that require significant commitments of time and money.

PATHWAY 1: EDUCATION AGENTS

What is an education agent?

The cloaked nature of how elite colleges choose whom to admit has inspired the rise of education agents who, for a price, promise assistance with and success in the college application process. An education agent is a person, company, or organization that provides services for a fee to students seeking to earn a degree abroad. (The fee may be paid by the students, U.S. institutions, or both.) Agents may enroll students in special classes, assist with the college application process, and/or help students obtain visas. Zhang and Hagedorn (2011) describe the burgeoning of agents as phenomenal.

The Current Status of Education Agents

According to Zinch China (Bergman, 2012), 80 percent of Chinese undergraduate students employ an agent to assist in the filing of their college applications. While some agents operate scrupulously and provide helpful services to families with no prior experience of study overseas, others prey on the ignorance of students and their families and charge high prices, often for unnecessary services. Moreover, some agents write their clients’ personal statements, forge letters of recommendation, and may even produce fraudulent admission and/or English test scores (Hagedorn and Zhang 2012).

Challenges Related to Education Agents

Zinch China (Bergman 2012) estimates that as many as 90 percent of recommendation letters in support of Chinese students' U.S. college and university applications are fraudulent; 70 percent of such students' college application essays are not written by the students; and half of all high school transcripts of Chinese applicants to U.S. institutions are falsified (Kwok 2012). Students who gain admission to elite programs on the basis of fraudulent means (e.g., cheating) may fail out and/or find themselves subject to other negative outcomes subsequent to their enrollment (Bergman 2012; Ma 2012).

Some U.S. institutions work with specific agents to recruit international students. In some instances, the college or university may pay the agent a commission or finding fee. At present, no licensing or listing identifies agents who can be trusted or those who are suspected of engaging in fraudulent or otherwise questionable behaviors.

PATHWAY 2: SPECIAL COLLEGE PREPARATION PROGRAMS (CPPS)

What are special college preparation programs?

College preparation programs are relatively long-term (typically two- or three-year) programs that feature English proficiency, college preparatory, and study skills courses as well as application services. Most CPPs are conducted at Chinese high schools for students who plan to study abroad in English-speaking countries. Some programs award transferable college credit. (Such programs are typically high cost and high stakes.)

Global Access Certificate. The Global Access Certificate (GAC), a product of ACT Education Solutions, Limited (a subsidiary of ACT Inc.), is a typical example of a college-credit-based preparation program. The GAC program is reported to provide students with the academic knowledge, learning skills, English language skills, and confidence to enter and successfully complete a bachelor's degree program at a foreign university. The GAC program operates within Chinese high schools by offering courses during regular school hours. The courses are comparable to dual enrollment programs in the United States whereby students may earn college credit that can be transferred to a foreign university. Students who earn the GAC by completing three levels of courses may transfer as many as 31

credits to any of at least 24 U.S. colleges and universities. (The transfer credits are verified by the American Council on Education's College Credit Recommendation Service.)

The GAC program has been offered in China since 2000. In 2008, approximately 30 GAC-approved teaching centers were in operation (New GAC Centers Opening in China, ACT Education Solutions 2008). The China Center for International Education Exchange (2013) reported that in 2013, 24 GAC centers were operating in China—with plans for more.

International Baccalaureate (IB) program. The International Baccalaureate program assists students who are contemplating studying abroad. Students take a series of college-level courses during their last two years of high school. The IB program comprises three core sections and six subject groups. A central part of the program is an extended essay that requires independent research related to one of the IB subjects. In addition to the core courses, IB students must choose one subject from each of five groups: (1) language and literature, (2) additional language(s), (3) the social sciences, (4) the experimental sciences, and (5) mathematics and computer sciences. In addition, the student may choose either an arts subject from a sixth group (the arts) or a second subject from one of the other groups (1 through 5).

What is the current status of special college preparation programs?

The number of students enrolled in special college preparation programs in China is increasing rapidly. Consider Shenzhen, one of the developed cities in China, with almost 4,000 students decide to study abroad by avoiding National College Entrance Exam in China per year, ten public high schools have begun to offer international college preparation programs during the year 2011 and 2012 (Souhu Education Online 2012). Take the capital city Beijing as an example, the report published by China Education Online (2014) indicates that until 2013, seventeen high-performance high schools in Beijing have established 22 international college preparation programs. From 2009 to 2013, sixteen new international college preparation programs have been established, with a doubled increase rate.

The first IB-authorized school in China was established in 1991 (IBO 2013c, 2013d). The IB Primary Years Programme (PYP), for students aged three to twelve years, fo-

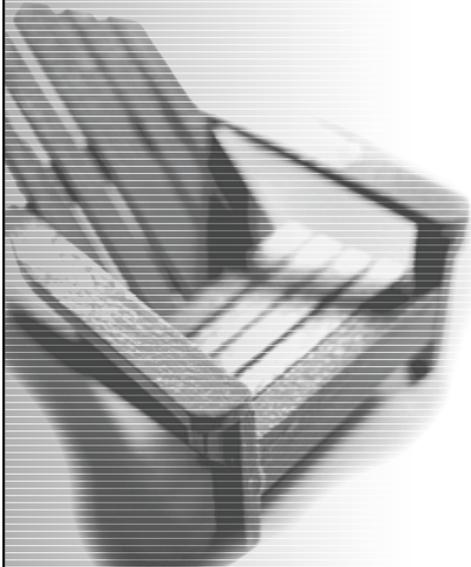
cuses on the development of the child as an inquirer, both in the classroom and in the world. The IB Middle Years Program, in operation since 1994, is designed for students aged eleven to sixteen. The IB Diploma Program starting from 1968, was designed, for students aged 16 to 19, to deliver an academically challenging and balanced program of education with final examinations that prepare students for success at the postsecondary level and beyond. The latest statistics indicate that 75 IB world schools in China offer one or more of the three IB programs; 29 schools offer the primary years program; 23 schools offer the middle years program; and 63 schools offer the diploma program (Hagedorn and Hu [in press]).

What are the challenges related to special college preparation programs?

Despite the rapid growth of interest in CPPs, no regulations govern the marketing or establishment of such programs in Chinese high schools. In addition to the two major CPPs described above, numerous individual pro-

grams operate in private Chinese high schools and other venues. No official listing or governing policy exists for businesses that purport to serve students and their families in attaining their dreams of international study. Most parents enroll their children in special high school programs without the benefit of full knowledge of other programs that offer similar services. Some programs may mislead parents by advertising—aggressively or even falsely—that they successfully enroll large percentages of students at top U.S. institutions.

Once a Chinese student enrolls in a special program whose curriculum differs significantly from that of a traditional Chinese high school, he must opt out of taking the gaokao, the national college exams. CPPs prepare students to take the tests required for consideration for admission to U.S. institutions (*e.g.*, the Test of English as a Foreign Language, or TOEFL, and the ACT). The gaokao require an entirely different preparation process. Thus, Chinese students who enroll in CPPs forego their eligibility for enrollment at Chinese universities. Once the decision is made



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to prepare for international college admission, the door to postsecondary education in the home country is closed.

PATHWAY 3: INTERNATIONAL COLLABORATIVE DEGREE PROGRAMS

What are international collaborative degree programs?

In general, international collaborative degree programs serve Chinese college students who have taken a more traditional path in high school, have taken the gaokao, and have been admitted to a Chinese university. The international collaborative degree program is the result of a partnership between institutions that allows students to earn a U.S. baccalaureate degree as well as a Chinese degree. There are various types of collaborative degrees, including:

- *Joint Degree*: Two institutions (one American and the other Chinese) collaborate on the award of one degree. The diploma typically records both institutions' names.
- *Dual Degree*: Two institutions award separate though articulated degrees.
- *Single Degree*: Students take courses in one country and transfer earned credits to an institution in another country; the degree is earned from the institution to which the credits are transferred.

Popular configurations of collaborative programs are the “1+3” and the “2+2.” Students enrolled in a 2+2 program pursue half of the program requirements (two years' worth) at their host country campus and the other half at the foreign institution with which their host campus has a collaborative degree agreement. This provides students with time both to improve their English language skills and to gain college experience prior to going abroad.

What is the current status of international collaborative programs?

Universities often hesitate to develop collaborative programs because they require a close and carefully monitored relationship based on agreements specific to degree components. Collaborative programs may include agreements regarding tuition charges, transfer credit policies, and when and how to “double count” credits earned across both degrees.

Students and their families find collaborative degree programs attractive because of the versatility and utility of earning two university endorsements simultaneously. Having to spend less time in the United States also may result in some cost savings.

What are the challenges related to international collaborative programs?

Because participation in a collaborative program typically results in students' spending less time in the United States than if they were enrolling outright in a U.S. baccalaureate degree program, students are likely to have a more limited international experience. Students enrolled in a collaborative program also may encounter some difficulties in relating advanced courses in one country to the introductory courses they took in another country. Beyond differences in curriculum, teaching style, and assignments, social and cultural differences may hinder students' success.

Another challenge for students participating in collaborative programs relates to their lack of institutional choice. Chinese students admitted to a program cannot earn a degree from any other U.S. university than that stipulated in the cooperative agreement.

PATHWAY 4: “SWIRLING TRENDS”

What is the “swirling trend” as it relates to international students from China?

The term “swirl” was first used in 1990 by Maricopa County Community College officials to describe the non-linear paths forged by college students admitted to multiple colleges. A student may alternate enrollment between two- and four-year colleges or may attend both types of colleges concurrently, taking courses and earning credit at both institutions (Palmer 2001). Like their peers in the United States, increasing numbers of international students are taking courses at more than one institution (Hu and Hagedorn [in press]). For example, it is not uncommon for international university students to also take courses at community colleges. Students then transfer the credits from the two-year to the four-year institution.

What is the current status of swirling?

Swirling between two- and four-year institutions became increasingly common between 2006 and 2012 (Hagedorn

and Hu [in press]). The reasons that underlie swirling include efforts to offset the high tuition at four-year institutions and to decrease time to degree, seeking access to popular professors at two-year institutions, bypassing difficult courses at four-year institutions, and optimizing one's course schedule (Hu and Hagedorn [in press]). According to a case study at one midwestern U.S. research university, Chinese international students were most likely to enroll in language and literature courses at community colleges.

What are the challenges related to swirling?

Unlike students who enroll in collaborative programs, students who 'swirl' negotiate multiple institutions' requirements on their own. No cohesive guiding policy or regulations direct them to the correct courses for their degree programs. Students may find that certain course credits either do not transfer at all or may not count toward their graduation requirements. Students who enroll in online coursework may find they are less successful than they might have been in a traditional course. Students also may choose to enroll in certain courses at an alternative institution (such as a community college) because they anticipate that the course will be less rigorous than at their primary institution. For the four-year institution, the trend of international students 'swirling' is likely to result in a loss of tuition revenue.

PATHWAY 5: INTERNATIONAL SUMMER SCHOOL

What is international summer school?

This pathway is unique in that it targets students who have already completed at least one year of postsecondary coursework at a U.S. college or university. International summer schools are independent educational entities that enroll students during the summer while they are in their home country (e.g., China). They offer students the opportunity (1) to decrease either the time to degree or their course load during the regular academic year and (2) to continue their studies throughout the summer. International summer school programs advertise that credits earned will transfer to the U.S. colleges or universities at which students are regularly enrolled and will apply toward their degrees.

What is the current status of international summer school?

The SIE International Summer School is the most prominent program of this type, having partnered with some of China's best universities—including East China Normal University (Shanghai), University of International Business and Economics (Beijing), Beijing Normal University, Nanjing University, and Sun Yat-Sen University (Guangzhou) (SIE International Summer School 2012). Since its founding in 2009, it has enrolled more than 1,200 students and has reported helping them save millions of dollars of college tuition while offering a U.S. university-level education (SIE International Summer School—Undergraduates 2013). According to an SIE International Summer School administrator, the program was begun by a Wabash College graduate who saw the need for Chinese students to return home during the summer and to earn college credit while there. SIE's mission is to be the pioneer and leader in establishing international summer school programs in China and to provide the opportunity to earn U.S. university-level transfer credits.

By 2013, most competitor organizations had gone out of business. At the time of this writing, SIE is the only international summer school operating in China.

What are the challenges related to international summer school programs?

Enrolling in an international summer school may seem an opportune way for students to utilize their time and save money, but the effectiveness of ISS courses has not been tested. Moreover, there is no guarantee that a particular U.S. college or university will accept such credits for transfer. In fact, because the credit transfer system has not been standardized, some U.S. institutions—for example, Michigan State University and Indiana University at Bloomington—refuse to accept credits from programs like the Chinese International Summer School (McMurhrie and Farrar 2013).

RECENT REFORMS OF CHINESE COLLEGE ADMISSION

For China, the rapidly growing numbers of its students pursuing international study is troubling. Concerns about "brain drain" and about fewer students taking the gaokao have prompted new policies. Policy makers in China understand that many students choose to study abroad so

they can bypass the fierce competition of the gaokao. According to Zhang and Hagedorn (2011), the gaokao is a “typical example of large-scale selective exams with fierce competitions and extremely high stakes. It has been the most important and the most influential exam in China” (p.10). A student’s scores on the gaokao are the solitary determinant not only of what university the student is eligible to enter but also whether he can enter any Chinese university. The pressure is tremendous—particularly as a student may take the gaokao only once.

At the October 2013 Third Plenary Session of the 18th Communist Party of China, the Central Committee recommended reforms to the gaokao in order to eliminate many of its most devastating disadvantages (including its sole assessment standard, sole selection method, and sole college entrance channel). The Ministry of Education subsequently developed a set of reform measures: First, the college admission standard will be modified to focus not only on students’ gaokao scores but also on their academic performance and high school social activities. A formative assessment that quantifies a student’s current academic capabilities as well as his potential will replace the summative assessment, and the measurement focus will shift from test scores to the whole learning process. The new assessment standards assign levels from A to F rather than specific scores. In the past, students could miss by a mere point the opportunity to enroll at the university of their choice. It is expected that the levels (A to F) will assess student capabilities more fairly. These changes will make college admission more objective, accurate, and effective in the assessment of student capabilities.

Second, the gaokao will be offered multiple times a year. Some subjects, such as English, will be tested multiple times a year, allowing students to prepare according to their own schedules. In the past, students had to prepare for all subjects at the same time and took all of the exams during an appointed period of time. In contrast, the gaokao reform will allow students to take subject-specific exams upon completion of intensive study of just that subject. Thus, students will have the flexibility to schedule their study of specific subjects over a longer time span and so will be able to devote their attention to one or two subjects at a time.

Third, colleges will have more freedom to recruit students in accordance with their own objectives. They will

be able to organize exams that test the learning capabilities they particularly value.

Fourth, although the Chinese central government will continue to manage the college admission process, it has expressed a desire to lessen its oversight of certain areas and to allow education authorities to exercise greater responsibility.

College admission in China seems to be becoming more flexible, expanding opportunities for students to enter Chinese universities. Such changes may relieve some of the pressure that in recent years has significantly increased the number of Chinese students studying abroad.

CONCLUSION AND IMPLICATIONS

U.S. higher education remains the envy of the world. It is no surprise that Chinese students and their families dream of undertaking postsecondary study in the west. The dream typically features an Ivy League university, but in fact, all forms of U.S. postsecondary instruction are considered prime. The number of preparatory high school programs suggests that the surge of students from China will not abate anytime soon. (A related trend is the rise of programs and intensive English instruction for elementary and even preschool students in China.) These numbers cannot be ignored. U.S. colleges and universities must respond thoughtfully with policy that will balance opportunities for access among its citizens and its admirers. Moreover, they must also develop policy related to alternative means to earning a college degree domestically and internationally. Agents, special programs, and swirling are not uniquely Chinese issues but are contemporary global trends. Such innovations are developing more rapidly than policies for managing them.

Confucius, in his doctrine of the golden mean, stated that “too much is as bad as too little” (Dorter 2002). Today’s Chinese student dreams of a U.S. college education and is bombarded with many alternatives and pressure to achieve more. U.S. institutions must seek to develop policy that will delicately balance international students’ desire to study in America, the goals of globalization, and the need to maintain appropriate access. In short, U.S. institutions need to seek their own golden mean.

REFERENCES

Bergman, J. 2012. Forged transcripts and fake essays: How unscrupulous agents get Chinese students into U.S. schools. *Time*. Available

- at: <<http://world.time.com/2012/07/26/forged-transcripts-and-fake-essays-how-unscrupulous-agents-get-chinese-students-into-u-s-schools/>>.
- China Center for International Exchange. 2013. *Project of Global Access*. China Education Online. 2014. 2014年出国留学趋势详细数据报告. Available at: <www.kentrex.cn/usadaxue/guwen/2014040812569_5.html>.
- CCIEE. See China Center for International Exchange.
- Dorter, K. 2002. The Concept of The Mean in Confucius and Plato. *Journal of Chinese Philosophy*. 29(3): 317–335.
- Jiang, X. 2011. Selecting the right Chinese students. *The Chronicle of Higher Education*. Available at: <<http://chronicle.com/article/Selecting-the-Right-Chinese/129621/>>.
- Hagedorn, L.S., and J. Hu. In press. Earning American college credits in China: New model of transfer college credit programs. *Journal of Interdisciplinary Studies in Education*.
- Hagedorn, L.S., and Y. Zhang. 2012. Applying to U.S. institutions: The Chinese student dilemma. *International Briefs for Higher Education Leaders*. 2012(1): 20–22.
- IBO. See International Baccalaureate Organization.
- Inside Higher Ed*. 2014. Questions in China on value of foreign degrees. Available at: <www.insidehighered.com/quicktakes/2014/01/02/questions-china-value-foreign-degrees>.
- Institute of International Education. 2012. *Open Doors 2012: International Students in the United States*. Washington, D.C.: IIE.
- . 2013. *Open Doors 2013: International Students in the United States*. Washington, D.C.: IIE.
- International Baccalaureate Organization. 2013a. *Four Programmes at a Glance*. Available at: <www.ibo.org/programmes>.
- . 2013b. *Professional Development*. Available at: <www.ibo.org/programmes/pd/>.
- . 2013c. *IB World School Statistics*. Retrieved January 2013 from: <www.ibo.org/facts/schoolstats/>.
- . 2013d. *Information for China*. Available at: <www.ibo.org/country/CN/>.
- Kwok, Y. 2012. Codes of ethics for overseas education agents. *The New York Times*. Available at: <www.nytimes.com/2012/05/07/world/europe/07iht-educside07.html>.
- Ma, J. 2012. College apps cheating scandal is a learning moment for China. *Forbes*. Available at: <www.forbes.com/sites/jasonma/2012/02/13/how-to-stop-chinese-kids-from-cheating-on-college-apps/>.
- ACT Education Solutions. 2008. New GAC centers opening in China. Available at: <www.actinternationalservices.com/en/news/index.html?p=1497>.
- Ruse, M. 2010. Too Asian? *The Chronicle of Higher Education*. December 19. Available at: <<http://chronicle.com/blogs/brainstorm/too-asian/30168>>.
- Souhu Education Online*. 2012. 深圳至少四千高三生出国留学,不挤高考“独木桥”. Available at: <<http://goabroad.sohu.com/20120606/n344862609.shtml>>.
- Winn, P. 2012. Elite Asian students cheat like mad on U.S. college applications. *Globalpost*. January 4. Available at: <www.globalpost.com/dispatch/news/regions/asia-pacific/thailand/120103/US-college-application-fraud-asia-elite-economy-china>.
- Zhang, Y., and L.S. Hagedorn. 2011. College application with or without assistance of an education agent: Experience of international Chinese undergraduates in the U.S. *Journal of College Admission*. 212: 6–16.
- Zhang, Y. 2011. The Use of Agents in Applying to the U.S. Higher Education: Experience of Chinese Undergraduate Students. Iowa State University. Doctoral Dissertation.

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