Executive Summary

Since the 2010s, U.S. officials have voiced concerns that the Chinese government may attempt to influence or exploit Chinese students on study abroad programs in its quest for foreign technology.\(^1\) Some Chinese student associations at U.S. universities have spoken out about the Chinese government’s efforts to provide unwanted “guidance.”\(^2\) However, in the first half of 2020, the U.S. Department of Justice charged several Chinese students with committing visa fraud and acting as agents of the People’s Republic of China.\(^3\) The extent to which the PRC government may attempt to influence Chinese students, by what means, and how to respond, remain the subjects of debate in the United States.

One avenue by which the Chinese government could exert influence over students is through scholarship and exchange programs. This paper synthesizes Chinese-language resources on the China Scholarship Council—the primary vehicle by which the Chinese government provides scholarships. It describes the characteristics and features of the CSC’s largest programs but does not attempt to assess the intent of these programs beyond what is explicitly stated by Chinese primary sources.

Key Takeaways

- The CSC sponsors about 12 percent of foreign students studying in China in a given year (roughly 65,000 students) and seven percent of Chinese students studying abroad (again, approximately 65,000 students).
- The CSC’s largest study abroad scholarship programs are for Chinese graduate students.
- No more than 18 of percent of Chinese students in the United States receive funding from the CSC, but the number is likely closer to seven percent (about 26,000 students).
- The CSC strongly encourages, and in some cases requires, Chinese scholarship recipients to return to work in China after completing their studies abroad, regardless of country of study.
- Despite this pressure, more than 85 percent of U.S.-based Chinese STEM PhD students intend to stay in the United States.\(^4\)
More recently, the CSC has drastically increased the number of cooperative training programs it sponsors between elite foreign universities and Chinese research institutions, some of which are subject to U.S. export controls or affiliated with China’s defense industrial base.

Introduction

The China Scholarship Council, officially the “National Education Fund Management Committee” (国家留学基金管理委员会), is the body responsible for administering China’s National Scholarship Fund. Established by the Chinese Ministry of Education in 1996, the CSC provides support for international academic exchange with China and reports to the MoE.

The CSC funds several scholarship programs designed to support different types of exchanges: foreign students in China, Chinese students abroad, and Chinese research institutions that wish to cultivate exchanges with faculty and staff at foreign universities. In 2018, CSC scholarships financed 65,000 foreign students in China and an equal number of Chinese students abroad. Each of these groups is examined in detail below.

Foreign Students in China

One of the CSC’s main tasks is to offer scholarships to foreign students who wish to study in China. The umbrella National Scholarship Fund (NSF), which totaled $469 million USD (3.32 billion RMB) in 2018, comprises dozens of scholarship programs for students from different regions of the world. All Chinese government scholarships offer free tuition, room and board, and a monthly stipend of $350–500 USD (2,500–3,500 RMB). While receiving scholarship funds, students may not leave China for more than 15 days at a time.

Data from the MoE indicates that 492,185 international students from 195 countries studied in China in 2018. Of all foreign students in China, 12 percent (about 65,000 students) received Chinese government scholarships, whereas 88 percent did not.

Collectively, 289 Chinese universities offer NSF scholarships to foreign students; the full list of participating universities is available online. Data from the MoE indicates that 60 percent of foreign students in China are from Asian
countries. Each university also tends to publish online the list of students who have received scholarships. A preliminary scan of awards by universities in Jiangsu, Sichuan, and Zhejiang indicates that many 2020 scholarship recipients came to study in China from countries in the Middle East and South Asia. U.S. students also benefit from Chinese government scholarships; some CSC scholarships each year are reserved for American students to study in China, though CSET could not determine how many.

**Chinese PhD Students Abroad**

Another major task of the CSC is to administer scholarships to Chinese students looking to study abroad. The number of new scholarships the CSC provides for Chinese students each year has grown rapidly, from 12,000 in 2012 to 30,000 in 2016, where it has remained since. As of 2018, about 65,000 Chinese students abroad (seven percent) received public funding from the Chinese government.

CSET is unable to determine how many Chinese students in the United States receive funding from the CSC. However, we estimate that it is between 26,000 and 65,000—and most likely, closer to the lower number—based on the current distribution of CSC scholarships and the most recently available numbers of Chinese students abroad. Of the roughly 928,000 PRC students overseas in the 2017–2018 academic year, about 370,000 (40 percent) were studying in the United States. If every one of the CSC’s scholarships were for U.S.-based students, they would account for no more than 18 percent of Chinese students in the country. If CSC scholarships are evenly distributed geographically, it is likely that about seven percent of Chinese students in the United States receive funding from the CSC, which would be 26,000.

For Chinese students, most CSC scholarships are reserved for PhD students and postdocs. The MoE reported in 2017 that 42 percent of the CSC’s study abroad scholarships were for senior researchers and postdocs, 35 percent for PhD students, and 23 percent for masters and undergraduate students. In 2020, CSET could confirm that of the 30,000 scholarships the CSC awards annually, at least 10,000 are for doctoral or postdoctoral students.

Two CSC scholarships support PhDs and postdocs in particular: public funding for Chinese students looking to enter elite, foreign doctoral or postdoctoral programs (the National Construction High-Level University Postgraduate Program), and an individual merit award for Chinese PhD
students and postdocs who are already studying at foreign universities (the Government Award for Outstanding Self-Financed Students Abroad). These programs are discussed further below.

**The National Construction High-Level University Postgraduate Program**

Central government funding for Chinese PhD students is a national priority for China. While the CSC operates several scholarship programs for Chinese students to go abroad, the National Construction High-Level University Postgraduate Program (国家建设高水平大学公派研究生项目; NCHUPP) is the largest, sponsoring more than 10,000 Chinese PhD students and postdocs to study abroad each year. Applicants must be Chinese nationals, demonstrate advanced foreign language capabilities, complete training by the MoE’s Overseas Study Training Department, and must not hold permanent residence abroad.19

According to planning documents published by Zhejiang University and the CSC, the NCHUPP has been financing scholarships for larger numbers of PhD students year over year—but fewer postdocs—while the total number of yearly scholarship recipients has remained constant at around 30,000. Table 1 indicates how many students the CSC planned to sponsor each year for the past six years:

**Table 1. Quotas of NCHUPP Scholarship Awardees Over Time**

<table>
<thead>
<tr>
<th>Year</th>
<th>PhD Students</th>
<th>Postdocs</th>
<th>Total NCHUPP Awardees</th>
</tr>
</thead>
<tbody>
<tr>
<td>2020</td>
<td>8,500</td>
<td>2,500</td>
<td>11,000</td>
</tr>
<tr>
<td>2019</td>
<td>7,500</td>
<td>2,500</td>
<td>10,000</td>
</tr>
<tr>
<td>2018</td>
<td>6,500</td>
<td>3,000</td>
<td>9,500</td>
</tr>
<tr>
<td>2017</td>
<td>6,500</td>
<td>3,000</td>
<td>9,500</td>
</tr>
<tr>
<td>2016</td>
<td>5,500</td>
<td>3,000</td>
<td>8,500</td>
</tr>
<tr>
<td>2015</td>
<td>5,000</td>
<td>3,000</td>
<td>8,000</td>
</tr>
</tbody>
</table>


The CSC prioritizes funding for “urgently needed talents serving major national strategies, important industries, key fields, major projects, cutting-edge technologies, and basic research.”20 The council also focuses on
funding PhD candidates to study in countries that have signed on to participate in China’s Belt and Road Initiative. CSET has been unable to locate information about the destination countries or universities of postgraduate students funded by the NCHUPP.

Upon completing their PhD or postdoc program, scholarship recipients are contractually obligated to return to live and work in China for at least two years. When applying for the scholarship, applicants must supply personal information and contact details for financial guarantors, who are held financially responsible for repaying the total sum of the scholarship award, plus penalties, should the student not return to China upon completing the study abroad program.

While we do not know how many NCHUPP participants are in the United States, we do have data on how many Chinese PhD graduates stay in the United States. Ongoing CSET work shows that about 5,000 Chinese students complete STEM PhD degrees in the United States each year. Of these 5,000 graduates, between 85 and 90 percent intend to stay in the country in nearly all STEM fields. Published research on long-term career outcomes among Chinese PhDs also shows five- and ten-year stay rates of more than 80 percent.

The 2019 announcement for NCHUPP program eligibility published by Peking University stipulates that applicants “shall embrace the leadership of the Communist Party of China, love the socialist motherland, have good ideological and moral character and political qualities, integrity in academic work, excellent academic performance, good physical and mental health, no record of violations of the law or of discipline, and the dedication and sense of responsibility to return to China to serve in the construction of the motherland.” Guidance published by Zhejiang University also indicates “candidates shall be strictly screened based on political and psychological qualities.”

The National Outstanding Self-Funded International Student Scholarship

The CSC also supports Chinese students who are attending graduate school abroad, but who otherwise are not financed by the Chinese government, through its National Outstanding Self-Funded International Student Scholarship. Awards range in value from $6,000 to $10,000 USD, and applicants must have successfully completed at least their first year of a PhD or postdoc and hold a Chinese passport to be
eligible for the scholarship\textsuperscript{28} The CSC has given merit awards to more than 5,900 Chinese graduate students since the program was established in 2003.\textsuperscript{29} From 2014 to 2018, 500 Chinese students per year received NOSIS scholarships for their achievements studying at foreign universities.\textsuperscript{30}

The NOSIS scholarship program is designed to persuade Chinese students to return to China after their studies abroad, or otherwise “encourage them to return to work or serve the country in various forms.”\textsuperscript{31} For example, Chinese news sources have used an interview with a postdoc student in the Department of Materials Science and Engineering at Stanford to portray the scholarship’s success. She is quoted as saying, “I’ll consider going back to China after my postdoctoral work in the U.S., as I see a very promising future in China.”\textsuperscript{32} Although the CSC does not obligate NOSIS awardees to return to work in China, it strongly encourages them to do so. In the event awardees cannot return, the CSC instructs Chinese embassies and consulates to “maintain contact with them” and “encourage and support them to serve the country in various ways.”\textsuperscript{33}

CSET was able to find publicly available lists of the 2,500 Chinese PhD students who received NOSIS awards from 2014 to 2018.\textsuperscript{34} During that time, one third of scholarship recipients (839 students) were based in the United States:

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{Figure1.png}
\caption{Chinese NOSIS Scholarship Awardees by Country of PhD or Postdoc Study} \\
\textit{Source: Author’s calculations based on data from the China Science News Agency and China Scholarship Council, 2014–2018 (2,500 awardees).} 
\end{figure}
Each scholarship recipient is processed by the education office of a specific Chinese embassy or consulate. Within the United States, scholarship recipients appear evenly distributed among consular locations:

Table 2. Number of NOSIS Applications Processed by Chinese Consulates in the United States, 2014–2018

<table>
<thead>
<tr>
<th>Consulate Location</th>
<th>No. of Applications</th>
</tr>
</thead>
<tbody>
<tr>
<td>New York</td>
<td>181</td>
</tr>
<tr>
<td>Chicago</td>
<td>162</td>
</tr>
<tr>
<td>Washington</td>
<td>162</td>
</tr>
<tr>
<td>Houston</td>
<td>118</td>
</tr>
<tr>
<td>San Francisco</td>
<td>115</td>
</tr>
<tr>
<td>Los Angeles</td>
<td>101</td>
</tr>
<tr>
<td>Total</td>
<td>839</td>
</tr>
</tbody>
</table>


University Exchange Programs

Since 2014, the CSC has awarded funds to Chinese universities that cultivate high-level exchange programs with foreign institutions. Each exchange program has unique terms and conditions, but typically takes the form of a summer- or semester-long exchange for doctoral or postdoctoral researchers, and sometimes graduate or even undergraduate students. CSET was able to locate the full text of cooperation agreements between the CSC and higher education departments in Hungary, Israel, and North Korea, as well as agreements with Moscow State University, Rice University, and the Royal Swedish Institute of Technology; collectively, these six programs provide for nearly 600 student and staff participants per year.35

One formal channel for cooperation is CSC’s International Cooperative Program for Innovative Talents (创新型人才国际合作培养项目; ICPIT), whereby the CSC and foreign counterparts jointly fund exchange programs for faculty and staff. One example of an ICPIT-funded project is the Fulbright Program, which is based in the United States.36 Some ICPIT programs, such as Fulbright, are truly administered jointly; Chinese and American experts sit on the selection panel. CSET has not assessed the jointness of other ICPIT projects. The CSC’s website asks that proposed projects “reflect the strategy of serving the country, focus on high-tech and innovation, and foster
innovation in training models.” The CSC prioritizes collaborative projects led by “high-level scientific research bases such as national laboratories, state key laboratories, national engineering centers, Plan 111 intelligence bases, and key laboratories of the Ministry of Education.”

The number of projects financed under ICPIT has grown rapidly. In 2018, the CSC approved 19 new exchange programs. In 2019, it approved 122 new programs. Although the number of financed programs has increased, CSET has not been able to determine whether total funding for the ICPIT program has increased commensurately. Collectively, the programs funded by ICPIT in 2019 planned to sponsor 4,500 researchers, professors, and other university staff for international exchanges.

Some of the CSC’s collaborative training projects are led by institutions affiliated with the Chinese defense industry. In 2019, 15 (12 percent) of the CSC’s 122 new ICPIT projects were exchanges between foreign universities and Chinese institutions that are on the U.S. Bureau of Industry and Security’s Entity List or produce a disproportionate number of graduates who work in the Chinese defense-industrial base. Table 3 reflects projects approved in 2019 that are listed publicly in Chinese science and technology media. We do not know if this is a complete or partial list. CSET was not able to verify whether the foreign universities below actually established training programs with Chinese partners.

Table 3. 2019 ICPIT Projects with Defense-Affiliated Universities Published in Chinese Science and Technology Media

<table>
<thead>
<tr>
<th>Chinese University</th>
<th>Apparent Foreign University Partner</th>
</tr>
</thead>
<tbody>
<tr>
<td>University of Electronic Science and Technology</td>
<td>National Research Council of Canada</td>
</tr>
<tr>
<td>University of Electronic Science and Technology</td>
<td>Fraunhofer Institute for Electronic Nano Systems, Germany</td>
</tr>
<tr>
<td>University of Electronic Science and Technology</td>
<td>Lund University, Sweden</td>
</tr>
<tr>
<td>University of Electronic Science and Technology</td>
<td>McGill University, Canada</td>
</tr>
<tr>
<td>Beijing University of Aeronautics and Astronautics</td>
<td>Monash University, Australia</td>
</tr>
<tr>
<td>Beijing University of Aeronautics and Astronautics</td>
<td>University of Paris, France</td>
</tr>
</tbody>
</table>
Conclusion

The findings of this paper suggest that the United States should adopt a measured approach to China’s scholarship incentives. There are roughly 370,000 Chinese students studying in the United States in 2020. Of these, at most 18 percent receive CSC scholarships, although we estimate the figure to be closer to seven percent, or 26,000—one in 14 Chinese students.

The charges filed in 2020 against several Chinese students raised concerns that the Chinese government may use exchange students to further its technology transfer objectives. CSC scholarship agreements do contain provisions designed to persuade or compel students to return to China or otherwise “serve the country” after their scholarship programs end. However, these provisions could simply reflect an attempt to get a “return on investment” for China’s scholarship spending, or indicate a broader effort to transfer technical know-how to China—or both. In any case, the actual effectiveness of these provisions is uncertain, given that more than 85 percent of U.S.-based Chinese STEM PhD students intend to stay in the United States after completing their degrees.
Acknowledgments

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Endnotes


10 “Statistical report on international students in China for 2018.”

“Suzhou University CSC Scholarships Result 2020 Announced.”


There are varying accounts of how many PRC students are abroad each year and how many study in the United States. This paper assumes 928,000 PRC students were abroad in 2018; see “Global Flow of Tertiary-Level Students,” *UNESCO*. For the 370,000 PRC students in the United States, see “2019 Open Doors Report,” *Institute for International Education*, https://www.iie.org/en/Research-and-Insights/Open-Doors/Data/International-Students/Places-of-Origin.


Other Chinese scholarship programs may also finance doctoral and postdoctoral students, but it is difficult to tell exactly how many. The CSC’s single largest scholarship program, the National Construction High-level University Postgraduate Program, finances 10,000 students per year, all of whom are PhDs or postdocs. Beyond this program, we could not determine how many of the CSC’s remaining 20,000 scholarship recipients were PhD or postdoc recipients; there are at least eight other CSC scholarship programs for Chinese students not discussed in this brief. For more information on CSC programs, see “2019 China Study Abroad Funding Subsidy Selection Guide.”

“(Update) Zhejiang University’s ‘2019 National Construction High-Level University Public Graduate Project’ Implementation Measures” [更新]浙江大学“2019年国家建设高水平大学公派研究生项目”实施办法], *Graduate School of Zhejiang University*, translated by CSET,

20 “(Update) Zhejiang University’s ‘2019 National Construction High-Level University Public Graduate Project’ Implementation Measures.”

21 “(Update) Zhejiang University’s ‘2019 National Construction High-Level University Public Graduate Project’ Implementation Measures.”

22 For more details, see “Subsidized Study Abroad Agreement” [资助出国留学协议书], translated by CSET, https://cset.georgetown.edu/wp-content/uploads/0133_subsidized_study_abroad_agreement_EN.pdf.

23 “Subsidized Study Abroad Agreement.”

24 The exceptions are computer science, where more than 90 percent indicate an intention to stay, and agriculture, where around 75 percent do so. The most recent available data on the number of graduates and intention-to-stay rates is from 2018.


27 The original language is “对选拔对象的政治素质和心理素质严格把关。” See “(Update) Zhejiang University's '2019 National Construction High-Level University Public Graduate Project' Implementation Measures.”

28 NOSIS recipients do not otherwise receive funding from the Chinese government; most receive scholarships from the foreign institutions at which they study, or otherwise self-finance their PhD programs. See “Notification of Application for ‘National Outstanding Self-Financed International Student Scholarship’ in 2019,” Consulate-General of the People’s Republic of China in Houston, June 12, 2019, http://houston.china-consulate.org/chn/jy/11680543.htm.

29 “Outstanding Chinese Students Honored with Government Award,” Xinhua Net, February 4, 2018,
30 “Outstanding Chinese Students Honored with Government Award.”

31 “Notification of Application for ‘National Outstanding Self-Financed International Student Scholarship’ in 2019.”

32 “Notification of Application for ‘National Outstanding Self-Financed International Student Scholarship’ in 2019.”


34 Disambiguation of Chinese names is difficult; we have not verified the accuracy of information contained in these lists, nor can we reliably identify individuals who may have received awards.


“2019 Implementation Measures for the International Cooperation and Cultivation Project of Innovative Talents.”


Author’s own calculation, based on lists of ICPIT projects approved in 2019.

“Summary of the 2019 National Scholarship Fund to Fund Overseas Students.”
