Foreign Students and the Risks Surrounding Optional Practical Training

Responsible Offices: Student and Exchange Visitor Program, National Security Investigations Division, Immigration and Customs Enforcement (ICE); Service Center Directorate, USCIS

PRESIDENTIAL PROCLAMATION

Pursuant to the Homeland Security Act, the Ombudsman's Office is expected in its annual report to conduct full and substantive analysis of pervasive and serious problems encountered by individuals and employers in the adjudication and processing of immigration benefits, including other information that the Ombudsman deems advisable. In addition, as a component of the Department of Homeland Security (DHS), the Ombudsman's Office supports the Department's larger mission objectives, core values and guiding principles, which include contributing to the integrity of the immigration system while identifying systemic risks that threaten the security and prosperity of the United States. It was for these reasons that the

Ombudsman's Office initiated research on the Optional Practical Training (OPT) program in December 2019.

As the Ombudsman's Office was drafting this study on the OPT program for inclusion in this year's Annual Report, President Trump on May 29, 2020, issued a *Proclamation on the Suspension of Entry as Nonimmigrants of Certain Students and Researchers from the People's Republic of China*.[355] The Proclamation indicated that authorities from the People's Republic of China (PRC) were using "some Chinese students, mostly post-graduate students and post-doctorate researchers, to operate as non-traditional collectors of intellectual property," which represented a threat to the long-term economic vitality of the United States and to the "security of the American people."[356]

More specifically, the Proclamation suspended the entry of PRC nationals under F and J visas who are connected to entities that implement or support "the PRC's 'military-civil fusion strategy' . . . mean[ing] actions by or at the behest of the PRC to acquire and divert foreign technologies, specifically critical and emerging technologies, to incorporate into and advance the PRC's military capabilities." The suspension does not apply to PRC nationals "seeking to pursue undergraduate study" in the United States.[357]

Among other things, the Proclamation directs the Secretary of State and the Secretary of Homeland Security to examine nonimmigrant and immigrant programs for potential reform, to take other actions to "mitigate the risk posed by the PRC's acquisition of sensitive United States technologies and intellectual property," and report back to the President within 60 days.

The Proclamation aligns with the Administration's National Security Strategy of December 2017. The Administration indicated in the Strategy that it would review "visa procedures to reduce economic theft by non-traditional intelligence collectors. We will consider restrictions on foreign STEM students from designated countries to ensure that intellectual property is not transferred to our competitors, while acknowledging the importance of recruiting the most advanced technical workforce to the United States."[358]

While this study may have utility to the 60-day review of nonimmigrant and immigrant programs directed by the Proclamation, it is not intended to function as a response to the Proclamation by the Ombudsman's Office or by the DHS.

WHAT OPT IS, AND ISN'T

Foreign students in the United States, of which there are over one million annually, arrive here through several different pathways. F visas are for foreign students pursuing full courses of academic study at a college, university, or other accredited academic institution (including secondary institutions), or in an accredited language training program; M visas are for foreign students pursuing full courses of study at an established vocational or other recognized nonacademic institution, including language and flight schools.[359] F and M visas are, like all visas, issued by the Department of State (DOS), but most of their maintenance and compliance is administered by the Student and Exchange Visitor Program (SEVP), the arm within the U.S. Immigration and Customs Enforcement (ICE) charged with maintaining data about student entries, maintenance of status, and activities during their studies.[360] The DOS manages nonimmigrant exchange visitors in the J visa classification, who may also come to pursue academic post-secondary studies. Each visa category is specific to a group of students arriving to study in a variety of contexts.[361] The Ombudsman's study is primarily focused on F-1 students seeking post-secondary education at the bachelor's, master's or doctoral

[355] Proclamation No. 10043, 85 Fed. Reg. 34353 (Jun. 4, 2020).

[356] *Id*.

[357] *Id*.

[358] United States. *The National Security Strategy of the United States of merica, p. 22,* [Washington]: President of the U.S., 2017, p. 22; https://www.whitehouse.gov/wp-content/uploads/2017/12/NSS-Final-12-18-2017-0905.pdf (accessed Jan. 28, 2020).

[359] F-1 and M-1 visas are reserved for the students themselves; spouses and children may enter in F-2 and M-2 status. INA §§ 101(a)(15)(f), (m); 8 USC §§ 1101(a)(15)(f), (m).

[360] DHS ICE Webpage, "Student and Exchange Visitor Program," Feb. 6, 2020; https://www.ice.gov/sevis (accessed Jun. 15, 2020).

[361] For a succinct discussion of the differences between the F and J student categories, see DOS Webpage, "Studying at U.S. Universities and Colleges: F-1 versus J-1 Visas" (undated); https://j1visa.state.gov/basics/other-u-s-visas/studying-at-u-s-universities-and-colleges-f-1-versus-j-1-visas/ (accessed May 7, 2020).

level, and after completion of that education seeking a course of practical, on-the-job training.[362]

How students arrive at U.S. colleges and universities takes the efforts of several private and governmental actors. All F-1 and M-1 (as well as J-1) students interact to some extent with the SEVP. SEVP certifies schools to be authorized to receive students and oversees both the schools and the students.[363] Students may, in some circumstances, enter under another nonimmigrant visa category and change to student status; others enter after submitting the school- and SEVP-issued documentation and applying for a student visa at a U.S. consulate.

Nonimmigrant students have some options to pursue non-academic learning activities, including employment. OPT is designed to be temporary employment that is directly related to a nonimmigrant student's major area of study.[364] A foreign student can engage in OPT during the academic program ("pre-completion OPT"), either while school is in session (including academic breaks), or after completing the academic program ("post-completion OPT"). A student can apply for 12 months of OPT at each education level (*e.g.,* a 12-month OPT period at the bachelor's level and another 12-month period at the master's level, assuming the student engages in both at a U.S. college or university).[365] OPT may be granted at almost any time in a student's career after a year of course work has been completed, but must be completed no later than 14 months after graduation, with the sole exception being the science, technology, engineering, and math (STEM) extension (described *infra*).[366] For various reasons, including the need to obtain evidence of this authorization from U.S. Citizenship and Immigration Services (USCIS) in the form of an employment authorization document (EAD), a majority of students prefer to save OPT for post-academic use.

OPT is distinguished from other types of work, fellowships, or internships in which a foreign student may engage. There are limited employment opportunities that may be unrelated to a student's study, including employment in cases of economic hardship.[367] There are also on-campus employment opportunities (generally part-time, but can include off-campus sites that are affiliated with the school).[368] OPT is categorized as a training opportunity, but there are two such types of training categories for foreign students, distinguishable from each other. The first involves internship or practicum activities, known as curricular practical training (CPT), which can take place on or off campus with sponsoring employers, and is considered "an integral part of an established curriculum."[369] The other is OPT, defined as "temporary employment … directly related to the student's major area of study."[370]

Those who earn a degree in certain STEM fields are also eligible to apply for a 24-month extension of the original 12-month post-completion OPT.[371] This extension is available to those students who complete and obtain a STEM degree (as defined by DHS) from a school designated by a recognized accrediting agency, are employed by an employer that is enrolled in and using the E-Verify program, and have already received an initial grant of post-completion OPT based on that STEM degree.[372] In order to obtain STEM OPT, an employer must offer a training program, given to the Designated School Official (DSO), demonstrating goals and objectives, how those goals will be reached, and how the student will be supervised and evaluated.[373] It is the only OPT category in which an employer's name must be identified prior to the student's application for employment authorization.[374]

[362] Recent data indicates that the overwhelming majority of students admitted to the United States entered in F-1 status, a total of 1,862,828 in FY 2018. W. Navarro, "Annual Flow Report, U.S. Nonimmigrant Admissions: 2018," DHS Office of Immigration Statistics, Table 1; https://www.dhs.gov/sites/default/files/publications/immigration-statistics/yearbook/2018/nonimmigrant_admissions_2018.pdf (accessed Jun. 5, 2020). (Admission "events" are not reflective of total admissions, but instead reflect every admission of an individual in that category. Students entering more than once each year would be counted as multiple admission events.) M-1 students constitute only another one percent (18,838). Exchange visitor admissions represent a significant number of admissions (611,373) but only a percentage of these are post-secondary students. One major distinction between seeking F status and J status is that an F student must demonstrate financial independence to complete their course of study. 8 C.F.R. § 214.2(f)(1)(i)(B).

[363] Government Accountability Office, "Student and Exchange Visitor Program: DHS Can Take Additional Steps to Manage Fraud Risk Related to School Recertification and Program Oversight," GAO-19-297, p. 1 (Mar. 2019); https://www.gao.gov/assets/700/697630.pdf (accessed Jun. 7, 2020).

[364] See generally 8 C.F.R. § 214.2(f)(9)-(10).

[365] 8 C.F.R. § 214.2(f)(10).

[366] 8 C.F.R. § 214.2(f)(10)(ii)(A)(3).

[367] 8 C.F.R. § 214.2(f)(9)(ii)(C).

[368] 8 C.F.R. § 214.2(f)(9)(ii).

[369] 8 C.F.R. § 214.2(f)(10)(i).

[370] 8 C.F.R. § 214.2(f)(10)(ii).

[371] 8 C.F.R. § 214.2(f)(10)(ii)(C).

[372] *Id.*

[373] 8 C.F.R. § 214.2(f)(10)(ii)(C)(7).

[374] U.S. Government Accountability Office, "Student and Exchange Visitor Program: DHS Needs to Assess Risks and Strengthen Oversight of Foreign Students with Employment Authorization," GAO-14-356, p. 2 (Mar. 2014); https://www.gao.gov/assets/670/661192.pdf (accessed Jun. 20, 2020).

Figure 6.1: Growth in OPT, STEM OPT and CPT

Students with an Employment Authorization Document (EAD) who were employed by calendar year												
Authorizations with Employment in the Indicated Year												
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
OPT	24,838	45,357	46,198	51,080	56,421	62,628	67,740	77,619	99,323	37,570	152,681	145,564
STEM OPT	2	2,128	5,869	9,356	13,504	15,937	18,782	21,456	27,493	41,782	64,481	69,650
Total SEVIS IDs W/OPT	**24,838**	**47,432**	**51,985**	**60,348**	**69,804**	**78,364**	**86,284**	**98,825**	**126,509**	**171,593**	**204,633**	**200,162**
CPT	57,403	61,171	48,568	57,409	63,911	68,482	76,223	92,528	111,135	122,529	132,380	151,525

Students issued an Employment Authorization Document (EAD) by calendar year												
Issued OPT and STEM Authorizations in the Indicated Calendar Year												
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Total SEVIS IDs W/OPT	**81,976**	**82,525**	**82,843**	**91,860**	**103,393**	**111,978**	**120,897**	**133,098**	**159,298**	**190,683**	**218,998**	**208,065**

Source: DHS ICE Webpage, "2007 to 2018 Annual Growth in OPT, STEM OPT and CPT Authorizations and Employment Authorization Document (EAD) Issuances;" https://www.ice.gov/doclib/sevis/pdf/data-ApprovedEmploymentAuthorizations2007-2018.pdf (accessed Jun. 4, 2020).

THE GROWTH OF OPT: A PRIMER

The OPT program has expanded exponentially in size and scope over the past 20 years, proving attractive to students pursuing post-secondary degrees. The percentage of all foreign students in the United States who participated in OPT in 2018, as indicated by ICE records, was more than 20 percent.[375] According to the Pew Research Center, nearly 1.5 million international students were approved for OPT between 2004 and 2016.[376] The total number of OPT students rose from 24,838 in 2007 to 200,162 in 2018, an increase of over 700 percent. During the same period, the subset of students pursuing extended STEM OPT rose from 2 individuals, when the category first became available, to 69,650 individuals.[377]

Over the past few years OPT program participation has increased, even where international student growth on U.S. campuses has slowed slightly.[378]

The OPT program, in particular its STEM subset, has been characterized as a high-tech worker program containing none of the worker protections mandated by the Immigration and Nationality Act (INA) for foreign worker programs, such as the H-1B program.[379]

OPT is not what many would consider an internship arrangement. There are separate provisions for training opportunities tied to the academic program, such as fellowships and internships, both on and off campus, that are distinguished from OPT.[380] DHS regulatory amendments in 2016 required a training plan from the employer, to be approved by the school in advance, as well

375 DHS Immigration and Customs Enforcement, "Student and Exchange Visitor (SEVP) Program: SEVIS By The Numbers 2018" (undated); https://www.ice.gov/doclib/sevis/pdf/sevisByTheNumbers2018.pdf (accessed Jun. 11, 2020).

376 Neil G. Ruiz and Abby Budiman, "Number of foreign college graduates staying in U.S. to work climbed again in 2017, but growth has slowed," Pew Research Center Fact Tank (Jul. 25, 2018); https://www.pewresearch.org/fact-tank/2018/07/25/number-of-foreign-college-graduates-staying-in-u-s-to-work-climbed-again-in-2017-but-growth-has-slowed/ (accessed Jun 3, 2020).

377 DHS ICE Webpage, "2007 to 2018 Annual Growth in OPT, STEM OPT and CPT Authorizations and Employment Authorization Document (EAD) Issuances" (undated); https://www.ice.gov/doclib/sevis/pdf/data-ApprovedEmploymentAuthorizations2007-2018.pdf (accessed Jun. 4, 2020).

378 Institute of International Education, "Leading Places of Origin," Open Doors: Report on International Educational Exchange (Nov. 2019); https://www.iie.org/en/Research-and-Insights/Open-Doors/Data/International-Students/Places-of-Origin (accessed Jun. 7, 2020). "Open Doors®, supported by a grant from the Bureau of Educational and Cultural Affairs at the U.S. Department of State, is a comprehensive information resource on international students and scholars studying or teaching at higher education institution." https://www.iie.org/Research-and-Insights/Open-Doors.

379 For a discussion of the H-1B program, including several of those protections, see Annual Report 2019, pp. 8–42.

380 *See, e.g.*, 8 C.F.R. § 214.2(f)(10)(i).

as an attestation from the employer that the student was not replacing a full- or part-time, temporary or permanent U.S. employee.[381]

It is alleged (and is the subject of current litigation) that employers are attracted to hiring OPT students by tax incentives aligned to the status of the students.[382] We state no position on that litigation, but note that nonresident foreign students are exempt from U.S. Social Security and Medicare taxes on wages paid for services performed within the United States, as long as such services are allowed by USCIS and are performed to carry out the purposes for which such visas were issued.[383] This applies for the duration of F-1 status, although the exemption does not apply to unauthorized employment or to employment unaligned with the program requirements (*e.g.*, not closely related to course of study for which the visa was issued).[384] In the case of a STEM OPT recipient, this period of time can last up to 36 months after graduation. In the case of a STEM student who pursues a complete post-secondary education in the United States, that period of time can be, cumulatively, up to 6 years (up to 3 years each after receiving 2 degrees).[385]

While foreign students arrive in the United States from all over the world, a few countries predominate the program. The top two countries by total number of active Student and Exchange Visitor Information System (SEVIS) records in 2018 were China (478,732) and India (251,290).[386] Post-secondary students from China and India represent more than 50 percent of the total international student population of over 1 million.[387]

The National Science Foundation (NSF) data on trends in doctorates in Science and Engineering (S&E) fields demonstrates that of the 55,195 doctorate recipients in 2018, 17,124 were given to temporary visa holders.[388] Over one-third, 6,182, were from China, which is consistently the top foreign country from which doctoral degree candidates originate in the last decade, followed by India, South Korea, Iran and Taiwan. This aligns with another study undertaken by the NSF, which found that China and India are two of the top three countries from which those coming for doctoral study "intend to stay" after completing that degree; specifically, 88 percent of Indian doctoral recipients and 87 percent of Chinese recipients planned on remaining in the United States after graduation.[389] Moreover, students from India and China were more likely to remain in the United States than those from other countries, even 10 years after receiving their doctorates.[390]

[381] 8 C.F.R. § 214.2(f)(10)(ii)(C)(10)(*ii*).

[382] See NAFSA, "STEM OPT WashTech Litigation" (Apr. 13, 2020); https://www.nafsa.org/professional-resources/browse-by-interest/stem-opt-washtech-litigation (accessed Jun. 17, 2020).

[383] Internal Revenue Service Webpage, "Social Security/Medicare and Self-Employment Tax Liability of Foreign Students, Scholars, Teachers, Researchers, and Trainees" (Dec. 11, 2019); https://www.irs.gov/individuals/international-taxpayers/foreign-student-liability-for-social-security-and-medicare-taxes (accessed Jun. 6, 2020).

[384] Internal Revenue Service Webpage, "Social Security/Medicare and Self-Employment Tax Liability of Foreign Students, Scholars, Teachers, Researchers, and Trainees" (Dec. 11, 2019); https://www.irs.gov/individuals/international-taxpayers/foreign-student-liability-for-social-security-and-medicare-taxes (accessed Jun. 6, 2020).

[385] 8 C.F.R. § 214.2(f)(10)(C) ("If a student completes all such course requirements for another qualifying degree at a higher degree level than the first, the student may apply for a second 24-month extension of OPT while in a valid period of post-completion OPT … In no event may a student be authorized for more than two lifetime STEM OPT extensions.")

[386] DHS ICE Webpage, "2018 All Countries of Citizenship by Total Number of Active SEVIS Records" (undated); https://www.ice.gov/doclib/sevis/pdf/data-CitizenshipActiveStudents_2018.pdf (accessed Jun. 10, 2020).

[387] The Institute of International Education posits that there were approximately 1,095,299 foreign students in the United States in the 2018-19 academic year. Institute of International Education, "Leading Places of Origin," Open Doors: Report on International Educational Exchange (Nov. 2019); https://www.iie.org/en/Research-and-Insights/Open-Doors/Data/International-Students/Places-of-Origin (accessed Jun. 7, 2020).

[388] National Science Foundation, "Doctorate Recipients from U.S. Universities 2018," Table 25 (December 2019); https://ncses.nsf.gov/pubs/nsf20301/report (accessed Jun. 7, 2020).

[389] "From 1980 onward, the number of temporary visa holders intending to stay in the United States after earning a doctorate increased at an average annual rate of 5.4%, whereas the growth in number of temporary visa holders intending to leave the United States after graduation has been more modest (2.8% average annual increase). As a result, in 2015, the number of temporary visa holders intending to stay in the United States was nearly three times as great as the number intending to leave (11,508 versus 3,885)." National Science Foundation, "Doctoral Recipients from U.S. Universities 2017," p. 10 (Jun. 2017); https://www.nsf.gov/statistics/2017/nsf17306/static/report/nsf17306.pdf (accessed Jun. 7, 2020).

[390] STEM graduates from the PRC (90 percent) and India (83 percent) stayed at higher rates than European students (69 percent). Congressional Research Service, "In Focus: Foreign STEM Students in the United States," Nov. 1, 2019; https://crsreports.congress.gov/product/pdf/IF/IF11347 (accessed Jun. 6, 2020)(citing the 2017 NSF study).

Figure 6.2: Top 25 Places of Origin of International Students, 2017/18 & 2018/19

Rank	Place of Origin	2017/18	2018/19	% of Total	% Change
	World TOTAL	**1,094,792**	**1,095,299**	**100.0**	**0.05**
1	China	363,341	369,548	33.7	1.7
2	India	196,271	202,014	18.4	2.9
3	South Korea	54,555	52,250	4.8	-4.2
4	Saudi Arabia	44,432	37,080	3.4	-16.5
5	Canada	25,909	26,122	2.4	0.8
6	Vietnam	24,325	24,392	2.2	0.3
7	Taiwan	22,454	23,369	2.1	4.1
8	Japan	18,753	18,105	1.7	-3.5
9	Brazil	14,620	16,059	1.5	9.8
10	Mexico	15,468	15,229	1.4	-1.5
11	Nigeria	12,693	13,423	1.2	5.8
12	Nepal	13,270	13,229	1.2	-0.3
13	Iran	12,783	12,142	1.1	-5.0
14	United Kingdom	11,460	11,146	1.0	-2.7
15	Turkey	10,520	10,159	0.9	-3.4
16	Kuwait	10,190	9,195	0.8	-9.8
17	Germany	10,042	9,191	0.8	-8.5
18	France	8,802	8,716	0.8	-1.0
19	Indonesia	8,650	8,356	0.8	-3.4
20	Bangladesh	7,496	8,249	0.8	10.0
21	Colombia	7,976	8,060	0.7	1.1
22	Pakistan	7,537	7,957	0.7	5.6
23	Venezuela	8,371	7,760	0.7	-7.3
24	Malaysia	8,271	7,709	0.7	-6.8
25	Spain	7,489	7,262	0.7	-3.0

Source: Institute of International Education, "Leading Places of Origin," Open Doors: Report on International Educational Exchange (Nov. 2019); https://www.iie.org/en/Research-and-Insights/Open-Doors/Data/International-Students/Places-of-Origin (accessed Jun. 7, 2020).

IDENTIFYING THE VULNERABILITIES IN THE PROGRAM: GENERAL CONCERNS

SEVP has been administered within ICE since DHS's creation.[391] SEVP is part of the National Security Investigations Division of ICE, and coordinates information for all of the government organizations that have an interest in such information on nonimmigrant students, including DOS, USCIS, and U.S. Customs and Border Protection (CBP).[392] SEVP provides "integrity to the United States immigration system by collecting, maintaining and analyzing information so only legitimate nonimmigrant students or exchange visitors gain entry into the United States."[393] A school must be certified by ICE through SEVP to accept foreign students in order for those students to obtain F-1 or M-1 visas, which is accomplished through the school submitting Form I-17, *Petition for Approval of School for Attendance by Nonimmigrant Student*, and includes a site visit to the campus.[394] SEVP assists in ostensibly tracking and providing oversight of foreign students, both facilitating the flow of legitimate students and preventing exploitation of student pathways by unscrupulous actors.[395]

SEVP manages SEVIS, the web-based system for monitoring of student records, in partnership with other agencies (including USCIS and DOS, the latter of which oversees documentation for J exchange visitors). SEVP relies on DSOs to provide to ICE, through SEVIS, needed information to ensure the system performs its functions to monitor both the schools and the students, deny terrorists' acceptance into the U.S. academic system, and ensure enforcement of applicable immigration laws.[396] DSOs are school employees who must be U.S. citizens or lawful permanent residents and who are responsible for entering student information and maintaining it in the

[391] Homeland Security Act Section 442(a)(4) put the administration of the SEVP, which had been developed pursuant to the 1996 Illegal Immigrant Reform and Immigrant Responsibility Act of 1996, into the hands of what became Immigration and Customs Enforcement at DHS.

[392] DHS Webpage, "Student and Exchange Visitor Program: SEVP Overview" (Feb. 26, 2020); https://www.ice.gov/sevis (accessed Jun. 15, 2020).

[393] DHS Webpage, "Get to Know SEVP: The Student and Exchange Visitor Program" (undated); https://studyinthestates.dhs.gov/assets/Get%20to%20Know%20SEVP_Oct2018.pdf (accessed Jun. 6, 2020).

[394] *See generally* 8 C.F.R. § 214.3.

[395] U.S. Government Accountability Office, "Student and Exchange Visitor Program: DHS Needs to Assess Risks and Strengthen Oversight of Foreign Students with Employment Authorization," GAO-14-356, p. 2 (Mar. 2014); https://www.gao.gov/assets/670/661192.pdf (accessed Jun. 7, 2020).

[396] *See generally* 8 C.F.R. § 214.3(l)(1).

system, recording any changes as they occur.[397] ICE is largely dependent on DSOs to properly maintain student information in SEVIS, even if that means obtaining information from students well after graduation, and to report violations.[398]

Both SEVP and DSOs are leanly staffed yet have a significant set of responsibilities. SEVP works in the field through its representatives. ICE indicated in January, 2020 that for the approximately 9,000 certified schools (that encompass a wide range from K–12 through universities), divided into approximately 60 regions, there is roughly 1 representative for each region.[399] That SEVP representative is responsible for site visits to schools (potentially hundreds, depending on the region) at least once each year, reviewing records and ensuring schools comply with program requirements and regulations.

DSOs (and the Principal DSO, or PDSO) take on a significant array of responsibilities with respect to ensuring information on students is fully and timely entered into SEVIS.[400] DSOs support the students regarding their status, the school regarding compliance, and the federal government regarding enforcement of immigration laws. They are also responsible for ensuring their continuing intent to comply with all program rules regarding the requirements for nonimmigrant students' admission, maintenance of status, change of status, and requirements for school approval, upon penalty of perjury.[401]

In 2019, approximately 10 percent of the Ombudsman's public engagements involved school-related stakeholders, engaging with hundreds of DSOs across the country. DSOs reported significant data problems, including gaps in communication between SEVIS and USCIS' Computer-Linked Application Information Management System (CLAIMS). These gaps can lead to errors that have a ripple effect on students, schools, and employers, especially when the student is seeking OPT, and cause DSOs to spend significant amounts of time correcting them. DSOs also say they are called upon to explain the intricacies of immigration regulations to SEVIS staff, who may not have worked directly with international students.[402] Site visits from field representatives, which are to take place every year, do not always occur as required (some more frequently, some less frequently).[403] And DSOs experience a relatively high rate of turnover—DHS noted a rate of 37.1 percent in 2012, when fewer foreign students undertook OPT and there were fewer requirements for post-completion STEM OPT.[404]

Several times over the past decade the Government Accountability Office (GAO) has identified substantial deficiencies in SEVIS, including actions relating to OPT reporting and compliance requirements. In 2012, GAO found that ICE had not developed a process for identifying program risk since it assumed responsibility for the SEVIS program, making several recommendations for initiating such a process.[405] Two years later, GAO reiterated its concerns regarding fraud risk, this time specifically with OPT, recommending that DHS "identify and assess OPT-related risks and require additional employment information from students and schools."[406] GAO's recommendation stemmed in part from interviews with ICE enforcement officials, who voiced their concern that the program contained higher levels of fraud and noncompliance because "it enables eligible foreign students to work in the United States for extended periods of time without obtaining a temporary work visa," and because of the length of the work authorization.[407] GAO recommended that DHS take specific actions to clarify eligibility rules, determine alignment of job and degree, and add reporting requirements, all to better ensure DSOs' and students' compliance with OPT requirements.[408]

In 2019, GAO returned to SEVP, this time focusing on

[397] For an overview of DSO reporting requirements, see DHS ICE Webpage, "SEVIS Reporting Requirements for Designated School Officials" (Mar. 29, 2019); https://www.ice.gov/sevis/dso-requirements (accessed Jun. 17, 2020).

[398] Students may be given limited access to SEVP when in post-completion OPT to provide changes to their address and employment; it is discretionary on the school to require students to complete this reporting, but they may not block students from this limited access. DHS ICE Webpage, "SEVIS and the SEVP Portal" (Mar. 22, 2019); https://studyinthestates.dhs.gov/sevis-help-hub/student-records/fm-student-employment/sevis-and-the-sevp-portal (accessed Jun. 20, 2020).

[399] Information provided by ICE (Jan. 16, 2020).

[400] *See* 8 C.F.R. § 214.3(a)(1).

[401] 8 C.F.R. § 214.3(a)(1)(ii).

[402] Information provided by stakeholders (Apr. 17 and Jun. 17, 2020).

[403] Information provided by stakeholders (Jun. 19, 2020).

[404] "Adjustments to Limitations on Designated School Official Assignment and Study by F–2 and M–2 Nonimmigrants," 80 Fed. Reg. 23680, 23686, ftnt. 12 (Apr. 29, 2015).

[405] GAO, "Student and Exchange Visitor Program: DHS Needs to Assess Risks and Strengthen Oversight Functions," GAO-12-572 (Jun. 18, 2012); https://www.gao.gov/assets/600/591668.pdf (accessed Jun. 7, 2020).

[406] GAO, "Student and Exchange Visitor Program: DHS Needs to Assess Risks and Strengthen Oversight of Foreign Students with Employment Authorization," GAO-14-356, p. 31 (Mar. 2014); https://www.gao.gov/assets/670/661192.pdf (accessed Jun. 7, 2020).

[407] *Id.* One relevant observation made at the time was that nonimmigrants are a vulnerable population that can be exploited by illegitimate companies or organizations that lure students to the United States with false promises of high-paying jobs and potential ways to stay in the country.

[408] *Id.* at 31.

the certification and re-certification of schools, but also recommending specific fraud training for DSOs.[409] This report noted several program deficiencies regarding the vetting and training of DSOs, including background checks and verification of eligibility, pointing to yet another weakness in the program—DSOs potentially overwhelmed by program responsibilities and not fully trained.[410] It was noted that "DSOs with multiple job responsibilities may not have time to keep up with SEVP rules and policy updates" and that "DSOs have a high rate of turnover, especially at small schools, and may lack the expertise to effectively follow program requirements."[411] Because DSOs carry significant responsibility for ensuring program compliance of both the school and the student, these observations are concerning.

The introduction of nonimmigrant students into American workplaces, especially in STEM fields, ultimately involves the sharing of technology and/or intellectual property with foreign nationals. In many cases it is innocuous, trivial, or otherwise protected against. But in the case of STEM students, the vulnerability has been largely ignored.

ON THE JOB TRAINING?

Nonacademic training of a nonimmigrant student, both during and subsequent to academic coursework, is not specifically mentioned in the current definition of a student in the INA.[412] However, "practical training" employment authorization for foreign students, growing out of their academic programs, has been in existence since before the McCarren-Walter Act introduced the modern definition of a foreign student.[413] Regulations were promulgated in 1953 to create the modern parameters of a work program. It has survived in varying forms ever since.

Work authorization for students was given a specific legislative life in the Immigration Act of 1990. That statute created a pilot program for off-campus work that was *unrelated* to the student's course of study.[414] As an attempt to measure impact on the U.S. workforce, it was to be studied and reported on by both the Secretary of the Department of Labor (DOL) and the Commissioner of legacy Immigration and Naturalization Service (INS) evaluating its usefulness.[415] When the evaluation took place, DOL and INS recommended it not be extended.[416] It was not.

The growth of OPT, and the creation of a separate STEM OPT, has brought substantial focus to its controversial nature. STEM students were given the ability to extend their OPT from 12 months to 29 months in 2008.[417] Citing the competitive global market and the recognized shortages in STEM fields, by providing F-1 students with a longer period to remain in the United States, DHS sought to mitigate the "immediate competitive disadvantage faced

[409] GAO, "Student and Exchange Visitor Program: DHS Can Take Additional Steps to Manage Fraud Risks Related to School Certification and Program Oversight," GAO-19-297, March 2019; https://www.gao.gov/assets/700/697630.pdf (accessed May 5, 2020).

[410] *Id.* at 41.

[411] *Id.* at 48.

[412] An F-1 student is generally defined as "an alien having a residence in a foreign country which he has no intention of abandoning, who is a bona fide student qualified to pursue a full course of study and who seeks to enter the United States temporarily and solely for the purpose of pursuing such a course of study consistent with section 1184[m] of this title at an established college, university, seminary, conservatory, academic high school, elementary school, or other academic institution or in an accredited language training program in the United States, particularly designated by him and approved by the Attorney General after consultation with the Secretary of Education, which institution or place of study shall have agreed to report to the Attorney General the termination of attendance of each nonimmigrant student, and if any such institution of learning or place of study fails to make reports promptly the approval shall be withdrawn.…" INA § 101(a)(15)(F)(i); 8 U.S.C. § 1101(a)(15(F)(1).

[413] Immigration and Nationality Act of 1952, § 101(a)(15)(f), Pub. L. 82–414, 66 Stat. 163 (Jun. 27, 1952). In 1947 regulations regarding students were finalized, which included the definition of a student based in the statute but also included discretion for practical training: "[8 C.F.R.] § 125.15 Employment … (b) In cases where employment for practical training is required or recommended by the school, the district director may permit the student to engage in such employment for a six-month period subject to extension for not over two additional six-month periods, but any such extensions shall be granted only upon certification by the school and the training agency that the practical training cannot be accomplished in a shorter period of time." 12 Fed. Reg. 5355, 5357 (Aug. 7, 1947).

[414] Immigration Act of 1990, § 221(a)(2), Pub. L. 101–649, 104 Stat. 4978 (authorizing the Attorney General to establish a pilot to grant work authorization to a student who has completed at least 1 year of study, to be employed in a position unrelated to the student's field of study and off-campus, if the employer provided "the educational institution and the Secretary of Labor with an attestation that the employer (A) has recruited for at least 60 days for the position and (B) will provide for payment to the alien and to other similarly situated workers at a rate equal to not less than the actual wage level for the occupation at the place of employment or, if greater, the prevailing wage level for the occupation in the area of employment …") It was created as a 3 year pilot and extended to 5 years in 1994. Immigration and Nationality Technical Corrections Act of 1994, § 215, Pub. L. 103–416, 109 Stat. 4305 (Oct. 25, 1995).

[415] *Id.*

[416] D. Costa, "Little-known temporary visas for foreign tech workers depress wages," TheHill.com, Nov. 11, 2014; https://thehill.com/blogs/pundits-blog/technology/223607-little-known-temporary-visas-for-foreign-tech-workers-depress (accessed Jun. 5, 2020).

[417] "Extending Period of Optional Practical Training by 17 Months for F-1 Nonimmigrant Students with STEM Degrees and Expanding Cap-Gap Relief for All F-1 Students with Pending H-1B Petitions," 73 Fed. Reg. 18944 (Apr. 8, 2008).

by U.S. high-tech industries."[418] In 2016, the DHS rules were again modified, allowing for in total a 36-month period of employment, but also requiring certain program modifications when seeking the additional 24 months. These modifications included new requirements on students, employers, and DSOs, such as the requirement of an employer and student to submit a formal training plan to identify and execute learning objectives; the requirement that the student not replace an existing U.S. worker; the requirement that STEM OPT employers be enrolled in and remain in good standing with E-Verify, as determined by USCIS, and that they report changes in the STEM OPT student's employment; a requirement that the student's terms and conditions of employment be commensurate with similarly situated U.S. workers; optional site visits to the employer; and additional reporting requirements for DSOs.[419] These provisions have been the subject of protracted litigation that is unresolved at this time.[420]

The numbers of post-completion OPT holders have continued to grow.[421] In 2014, GAO noted that 100,000 of the roughly 1 million international students at that time were remaining after completing a course of study to engage in practical training.[422] In the past 3 years for which there is data, F-1 students make up the overwhelming majority of the student population admissions, comprising between 1.86 million and 1.89 million from 2016 to 2018.[423] This correlated to the number of actual student records in SEVIS, which in 2018 numbered over 1.55 million.[424] Of those students, more than 10 percent are engaged in OPT. In fact, the numbers of students in OPT, and in STEM OPT, have surpassed first-time H-1B workers. In 2016, more than 171,593 were in OPT programs; by 2018, approximately 200,162 were working pursuant to OPT, of which 69,650 were in STEM.[425]

The concerns expressed by GAO regarding risk are only partially alleviated by the additional reporting and validation requirements for DSOs, employers, and students added to the STEM OPT extension program (and only to that program). Students represent a relatively small portion of the total numbers of nonimmigrants to the United States (only about 2.4 percent in FY 2018),[426] yet present a problem due to their relative youth and looser ties to their home countries. In FY 2018, 3.73 percent stayed beyond the authorized window for departure at the end of their program—a total of 68,593 students.[427] Broken down, 3.59 percent in the F visa category overstayed their visas, while 10.80 percent of M visa students and 3.86 percent of J visa students overstayed.[428] The countries with the largest numbers of overstayers was China, with 12,924 students, India, with 5,716, and Saudi Arabia, with 3,917.[429] While the percentage of all foreign students who overstay is relatively small, the cumulative numbers are significant.

HOW FOREIGN STUDENTS ARE CLEARED TO WORK

In the 2019 Annual Report, the Ombudsman's Office studied "*Challenges Facing Timely Adjudication of Employment Authorization Documents*."[430] Among other things, the Report discussed:

a) The growth in EAD application filings due in part to the increase in the F-1 student population seeking OPT;

[418] "Extending Period of Optional Practical Training by 17 Months for F-1 Nonimmigrant Students with STEM Degrees and Expanding Cap-Gap Relief for All F-1 Students with Pending H-1B Petitions," 73 Fed. Reg. at 18947.

[419] "Improving and Expanding Training Opportunities for F–1 Nonimmigrant Students with STEM Degrees and Cap-Gap Relief for All Eligible F–1 Students," 81 Fed. Reg. 13040 (Mar. 11, 2016).

[420] For a succinct summary of the ongoing Washtech litigation challenging OPT, see NAFSA Webpage, "STEM OPT WashTech Litigation" (Apr. 13, 2020); https://www.nafsa.org/professional-resources/browse-by-interest/stem-opt-washtech-litigation (accessed Jun 16, 2020).

[421] N. Ruiz, "More foreign grads of U.S. colleges are staying in the country to work," Pew Research Center Fact Tank (May 18, 2017); https://www.pewresearch.org/fact-tank/2017/05/18/more-foreign-grads-of-u-s-colleges-are-staying-in-the-country-to-work/ (accessed Jun. 5, 2020).

[422] GAO, "Student and Exchange Visitor Program: DHS Needs to Assess Risks and Strengthen Oversight of Foreign Students with Employment Authorization," GAO-14-356, p. 1 (Mar. 2014); https://www.gao.gov/assets/670/661192.pdf (accessed Jun. 5, 2020).

[423] W. Navarro, "Annual Flow Report, U.S. Nonimmigrant Admissions: 2018," Table 1, DHS Office of Immigration Statistics (Oct. 2019); https://www.dhs.gov/sites/default/files/publications/immigration-statistics/yearbook/2018/nonimmigrant_admissions_2018.pdf (accessed Jun. 5, 2020). Admission "events" are not reflective of total admissions, but instead reflect every admission of an individual in that category. Students entering more than once each year would be counted as multiple admission events.

[424] DHS Webpage, "2018 All Countries of Citizenship by Total Number of Active SEVIS Records" (undated); https://www.ice.gov/doclib/sevis/pdf/data-CitizenshipActiveStudents_2018.pdf (accessed Jun. 9, 2020).

[425] *Id.*

[426] W. Navarro, "Annual Flow Report, U.S. Nonimmigrant Admissions: 2018," Table 1, DHS Office of Immigration Statistics (Oct. 2019); https://www.dhs.gov/sites/default/files/publications/immigration-statistics/yearbook/2018/nonimmigrant_admissions_2018.pdf (accessed Jun. 5, 2020).

[427] DHS, "Fiscal Year 2018 Entry/Exit Overstay Report" (undated); https://www.dhs.gov/sites/default/files/publications/cbp_-_fiscal_year_2018_entry_exit_overstay_report.pdf (accessed Jun. 7, 2020).

[428] *Id.* at 12.

[429] *Id.*

[430] *See* Ombudsman's Annual Report 2019, pp. 70–84.

b) The top five EAD categories by receipts in FY18 included 227,000 requests from students, including those seeking OPT; and

c) When adjudicating a Form I-765, USCIS adjudicators must under standard operating procedure confirm the identity of the applicant, review the current immigration status of record, and perform background and security checks to determine whether there are any criminal, national security, or other issues that must be resolved before reviewing the substantive benefit request.

One of the observations the Ombudsman put forward in the context of the Form I-765, *Application for Employment Authorization,* adjudication delays was the very short amount of time USCIS spends looking at such applications, which was recently reconfirmed by the agency. USCIS has determined the average hours per adjudication of this benefit (meaning the time an employee with adjudicative responsibilities actually handles the case) is two-tenths of an hour, or 12 minutes.[431] While additional time is spent on administrative duties, including printing an approved card, an average EAD application takes only that amount of time to review, vet, and clear within the agency. And for some students, this may be the first—and possibly only—encounter between the student and USCIS.[432]

Most nonimmigrant worker programs are subject to statutory and regulatory norms, either requiring a demonstration of the lack of adverse impact on U.S. workers, or the explicit exemption from those protections (such as those in the context of the L-1 intracompany transfer visa, or O visas for nonimmigrants of extraordinary ability). The single bulwark in the OPT program is the training plan submitted by employers and employees in the STEM extension OPT portion, attesting to the parameters of the training program and demonstrating that it is indeed a training program and not fully "work."[433] OPT fails to include many of the customary protections that would have been legislated in (or negotiated out) had it been developed by Congress, rather than created by regulation that did not include analysis of necessary resources to securely administer a program that would eventually dwarf the H-1B program, and tangentially impact U.S. workers working in STEM or other disciplines. Those protections in the STEM OPT extension lie: (1) in the training plan submitted with the extension application, which is a shared responsibility of the employer, employee, and DSO to submit, maintain, and demonstrate progress toward the evaluation process, and (2) in the attestations of the employer that the terms and conditions of a STEM practical training opportunity are commensurate with the terms and conditions of employment for other similarly situated U.S. workers in the area of employment.[434] Under the current regulatory regime, it is incumbent on DSOs, not the Federal government, to review and approve the training plan, to ensure amendments to the training plan are entered, and to see evaluations through.[435]

The demonstration of OPT is the EAD, obtained by the student through USCIS, not through ICE. As a fee-funded agency, USCIS is currently seeking a fee increase to "right-size" the actual costs of its operations.[436] The proposed increase for the EAD is 20 percent, or an additional $80, for a total of $575, which includes $85 to capture biometrics.[437] Given the time taken currently by USCIS with respect to the EAD, this may seem adequate. It does not, however, account for any of the costs to ICE for managing SEVP, which must be covered by fees

[431] "U.S. Citizenship and Immigration Services Fee Schedule and Changes to Certain Other Immigration Benefit Request Requirements," 84 Fed. Reg. 62280, 62291, Table 6 (Nov. 14, 2019).

[432] A student who has received an F-1 visa outside the United States and has not needed to travel, or who has travelled and reentered on a valid student visa, may never have come before USCIS in any way, as no updates to status are needed, until the EAD is sought. Students who maintain full-time courses of study and do not violate the terms of their status are considered to be in valid status for the duration of their stay. A student who entered the United States in another status and changed to that of a student would have need to file for such change of status with USCIS.

[433] 8 C.F.R. § 214.2(f)(10)(ii)(C)(7). "The training plan … must identify goals for the STEM practical training opportunity, including specific knowledge, skills, or techniques that will be imparted to the student, and explain how those goals will be achieved through the work-based learning opportunity with the employer; describe a performance evaluation process; and describe methods of oversight and supervision. Employers may rely on their otherwise existing training programs or policies to satisfy the requirements relating to performance evaluation and oversight and supervision, as applicable."

[434] 8 C.F.R. § 214.2(f)(10)(ii)(C)(8).

[435] However, if USCIS has derogatory information regarding the applicant, school or DSO that raises concerns of non-compliance with any of the program requirements when adjudicating the OPT authorization, it may request a copy of the Training Plan, Form I-983, from the DSO to assist the officer in the adjudication process. Information provided by USCIS (Apr. 25, 2019).

[436] *See* "U.S. Citizenship and Immigration Services Fee Schedule and Changes to Certain Other Immigration Benefit Request Requirements," 84 Fed. Reg. 62280 (Nov. 14, 2019).

[437] "U.S. Citizenship and Immigration Services Fee Schedule and Changes to Certain Other Immigration Benefit Request Requirements," 84 Fed. Reg. at 62327 (Table 19).

associated with SEVP, nor for any additional vetting or security screening of a student to ensure eligibility for the benefit sought. After a student is vetted prior to the start of the program by DOS in the securing of a visa, and CBP upon admission into the United States, there is minimal oversight of student activities.[438] A student may reside in the United States for years—studying and working with OPT without anyone questioning what activities the student might be engaged in, much less what activities they may be involved in related to their home country. Under current regulations, if a student does not travel, triggering the need for a new visa from DOS, generally no security vetting takes place by any U.S. government agency after the student's admission.

The funding for SEVP activities, including the vetting of schools and students prior to entry, comes from fees paid by schools and foreign students approved for the program.[439] These fees are authorized under the INA as part of the costs of the program.[440] In June 2019, SEVP increased its fees and introduced 2 new fees to adjust for diminishing revenues from FY 2016 through FY 2018, to recover the cost of operations.[441] Under the current cost recovery model, a school pays $3000 to obtain an initial certification and $655 for the required site visit.[442] Recertification is less than half that amount, at $1250. Students pay differing amounts for documentation certifying their ability to enroll; F-1 students pay $350 with the Form I-901, *Fee Remittance for Certain F, J and M Nonimmigrants*, to be entered into SEVIS, which enables the student to obtain the documentation necessary to have a visa or change of status issued.

These SEVP fee increases, the first in 10 years (because, according to ICE, increases were previously rendered unnecessary due to "surplus revenue"), were specifically made "to cover the current deficit between revenue and expenditures plus make necessary service upgrades… ensuring full cost recovery by providing fees for each specific benefit that will more adequately recover the cost associated with administering the benefit."[443] The fees do not reflect increases in vetting and screening, or enhancements to systems to ensure compliance, such as increased costs for additional field representatives to conduct site visits, or more testing of DSOs to ensure understanding of program rules.

One of the more intransigent dilemmas that make up the foreign student program is that the vast majority of the student program—tracking, compliance, and monitoring of student status and completion of milestones—is overseen by ICE, while the OPT portion of the program is primarily handled by USCIS. This bifurcation within DHS allows each entity autonomy but does not foster coordination.

OPT requests for employment authorization are handled in the same general fashion as all EADs.[444] At this stage, the background checks are the same as for other EAD categories. The eligibility is based on demonstration of program completion as evidenced by the Form I-20, *Certificate of Eligibility for Nonimmigrant Student Status,* and SEVIS.[445] There is no indication that USCIS performs additional verification of status or additional verification of nonimmigrant intent. There is no ability for USCIS to conduct further evaluation of the school program, DSO compliance with program requirements, or screening of the applicant. In non-STEM OPT, there is not even a requirement to identify an employer; the EAD is obtained in the absence of an offer of employment, with the understanding that the student will work in a field related to the degree.[446] In STEM OPT, more is done to confirm eligibility, including that the employer participates in the E-Verify program, but the review of the program and the attestation of the DSO is already certified in SEVIS.[447]

438 *See infra* for comments regarding the visa process, as indicated by the Department of State. "Student Visa Integrity: Protecting Educational Opportunity and National Security," *before the* Subcommittee on Border Security and Immigration *of the* U.S. Senate Judiciary Committee, 115th Cong. 1st Sess. 2 (2018) (prepared statement of Edward J. Ramotowski, Deputy Assistant Secretary of State, Bureau of Consular Affairs); https://www.judiciary.senate.gov/imo/media/doc/Ramotowski%20Testimony.pdf (accessed Jun. 3, 2020).

439 U.S. Government Accountability Office, "Student and Exchange Visitor Program: DHS Needs to Assess Risks and Strengthen Oversight of Foreign Students with Employment Authorization," GAO-14-356 (Feb. 2014); https://www.gao.gov/assets/670/661192.pdf (accessed Jun. 5, 2020).

440 INA § 286(e)(1), 8 USC § 1372(e)(1).

441 "Adjusting Program Fees for the Student and Exchange Visitor Program," 84 Fed. Reg. 23930 (May 23, 2019). "As a consequence of multiple factors, including inflation, costs associated with SEVIS enhancement, complying with a two-year recertification cycle of schools, increased demand for program and investigatory services, and increased litigation related to administrative enforcement and regulatory actions, the surplus is expected to be exhausted in FY 2019 even without any further service upgrades. The projected shortfall poses a risk of degrading operations and services funded by fee revenue." 84 Fed. Reg. at 23931.

442 "Adjusting Program Fees for the Student and Exchange Visitor Program," 84 Fed. Reg. at 23931.

443 *Id.*

444 *See generally* Annual Report 2019, pp. 70–72.

445 Adjudicators are to look to see whether there is "evidence of F-1 status, SEVIS Form I-20, I-20 meets filing requirements, evidence of program completion." Information provided by USCIS (Apr. 25, 2019).

446 8 C.F.R. § 214.2(f)(10).

447 Information provided by USCIS (Apr. 25, 2019).

Absent a fraud indicator, such as information that the school or a STEM employer may be fraudulent (or that the student is not eligible, for example having violated the terms of status), USCIS has little authority to do more.[448]

As the number of foreign nationals employed through OPT and STEM OPT have risen in the past decade, Federal officials in the Departments of Defense, State, Justice and Homeland Security, along with a variety of Congressional committees and subcommittees, have expressed concern at the emergence of OPT as a means for foreign countries to conduct data collection of sensitive technologies through students and researchers. Their concern has particularly focused on the activities of the PRC government, the Chinese Communist Party (CCP), and the People's Liberation Army (PLA).

These concerns have not been ignored. Even before the President's Proclamation last month, in June 2018, DOS announced it would restrict visas for Chinese graduate students studying in sensitive research fields to 1 year, while permitting annual renewals.[449] DOS has not identified exactly which disciplines are subject to this higher level of scrutiny. But a Chinese national who enters the United States may not need to travel again, and if the student remains in the United States in a full-time course of study, no new visa is needed, and thus no additional scrutiny except that placed by a DSO.

Given that much of the concern over OPT and STEM OPT concerns the integrity of the immigration system, and involves individuals and employers who are obtaining work authorization from USCIS, and is of particular concern to Congress, the Ombudsman finds it advisable to provide an objective analysis of risk surrounding OPT.

ASSESSING RISK AROUND THE OPT PROGRAM

To gain an understanding of potential risks surrounding the OPT program, it is helpful to employ a risk analysis framework. The framework is intended to provide an objective evaluation of risk; to promote understanding and consensus; and to identify actions that government might take to mitigate or eliminate risk in the program.

The framework separately examines threat, vulnerability and consequence to evaluate risk. Threat and vulnerability analysis help us to understand the probability of a danger arising in activities around the program; consequence analysis helps us to understand the nature and magnitude of the danger. These three together help us to determine whether activity around the program manifests low, medium or high levels of risk. This approach is incremental; if at any point in the analysis there is no perceived threat, or vulnerability, or consequence, then little or no risk is manifested and the analysis can conclude. However, if some level of risk exists within the program, it becomes necessary to examine strategies to mitigate or eliminate the risk.

In studying the objective evaluation of risk surrounding the OPT program, the Ombudsman emphasizes Federal Bureau of Investigation (FBI) Director Wray's observation that "[t]his threat is not about the Chinese people as a whole, and certainly not about Chinese-Americans as a group,"[450] and the view expressed by Deputy Assistant Secretary of State Edward Ramotowski that "foreign students, often with no nefarious intent in their plan to study in the United States, may be co-opted by their home governments to share technical expertise that they acquired while working in the U.S."[451]

THREATS SURROUNDING THE OPT PROGRAM

Threat analysis focuses on the government program and those entities or persons who are taking part in the program or making use of it in some way. To conduct threat analysis, we separately examine three items: access, intent and capability, asking, "What level of access do entities or persons have to participating in the program or leveraging it to their advantage? Do those entities or persons intend to engage in actions that are detrimental to the United

[448] "Students are not required to submit the Training Plan, Form I-983, with their STEM OPT extension applications, and officers should consider the endorsement of the DSO sufficient to meet the attestation requirements of the STEM OPT extension program." *Id.*

[449] A. Yoon-Hendricks, "Visa Restrictions for Chinese Students Alarm Academia," The New York Times, Jul. 25, 2018; https://www.nytimes.com/2018/07/25/us/politics/visa-restrictions-chinese-students.html (accessed Jan. 29, 2020).

[450] Christopher Wray, Director, FBI, "Responding Effectively to the Chinese Economic Espionage Threat," *at the* DOJ China Initiative Conference, *hosted by* Center for Strategic and International Studies, February 6, 2020; https://www.fbi.gov/news/speeches/responding-effectively-to-the-chinese-economic-espionage-threat (accessed Jun. 10, 2020).

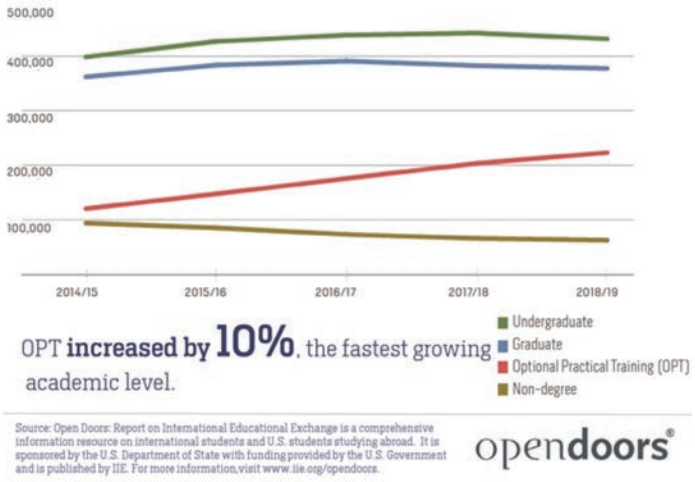
[451] "Student Visa Integrity: Protecting Educational Opportunity and National Security," *before the* Subcommittee on Border Security and Immigration *of the* U.S. Senate Judiciary Committee, 115th Cong. 1st Sess. 2 (2018) (prepared statement of Edward J. Ramotowski, Deputy Assistant Secretary of State, Bureau of Consular Affairs); https://www.judiciary.senate.gov/imo/media/doc/Ramotowski%20Testimony.pdf (accessed Jun. 3, 2020).

States? Do those entities or persons have the technical and organizational capability to exploit vulnerabilities inherent in the program?"

Access

As indicated above, the OPT program has experienced exponential growth, which in turn has increased Access. In the last 5 academic years from 2014 to 2019, OPT averaged a 16 percent annual growth rate; in the 2018–2019 academic year, approximately 223,000 foreign students on nonimmigrant visas were reportedly using the program to obtain employment in academic, research or corporate environments in areas related to their course of study.[452]

Figure 6.3: Academic Levels of International Students



This potentially gives them access to innovative technologies, trade secrets, experimental processes, unpublished data, cutting-edge software, blueprints, confidential business information and other intellectual property that may be sensitive or proprietary in nature, and which may be funded in whole or in part by U.S. government grants.[453]

A significant number of foreign nationals, most of whom are from the China, access American universities and colleges to obtain doctoral degrees in STEM fields, a trend that has continued over the last 20 years. As noted above, NSF reporting indicates that Chinese nationals (including Hong Kong) obtained nearly 45,000 S&E doctorates in the decade from 2008 to 2018, and represented the majority of foreign nationals awarded doctorates in engineering, math and computer sciences in the United States over the same period.[454]

The duration of time that a foreign national is permitted to remain and work in the United States on a nonimmigrant visa is relevant to the access analysis. As discussed above, OPT allows a student to work for 12 months (either pre- or post-graduation) for each degree earned; optional training for those who studied in STEM disciplines (STEM OPT) permits an additional 24-month work authorization period in addition to the 12-month OPT work authorization, for a total of 3 years of work authorization. Foreign students who obtain a second STEM degree can receive an additional 3 years of work authorization, allowing for a cumulative 6 years of work authorization.[455]

While granting PRC and other foreign nationals access to U.S. schools and workplaces has many benefits, as recognized by U.S. employers and the academic community, and "most do not have access to sensitive information or technology,"[456] it does contribute to risk. Author Daniel Golden testified in 2018 that, "[g]lobalization has transformed American universities into a front line for espionage. Some small but significant percentage of international students and faculty come to help their countries gain recruits for clandestine operations, insights

[452] Institute of International Education (IIE) Open Doors 2019 Fast Facts, https://www.iie.org/en/Research-and-Insights/Open-Doors/Fact-Sheets-and-Infographics/Infographics/International-Student-Data (accessed Jun. 10, 2020).

[453] "Student Visa Integrity: Protecting Educational Opportunity and National Security," *before the* Subcommittee on Border Security and Immigration *of the* U.S. Senate Judiciary Committee, 115th Cong. 2nd Sess. 3 (2018) (statement of E.W. Priestap, former Assistant Director, Counterintelligence Division, FBI); https://www.judiciary.senate.gov/imo/media/doc/06-06-18%20Priestap%20Testimony.pdf (accessed Jun. 9, 2020).

[454] The National Science Foundation, National Center for Science and Engineering Statistics, Directorate for Social, Behavioral and Economic Sciences, Survey of Earned Doctorates, "Doctorate Recipients from U.S. Universities, 2018;" https://ncses.nsf.gov/pubs/nsf20301/report/fields-of-study and https://ncses.nsf.gov/pubs/nsf20301/report/u-s-doctorate-awards (accessed Jun. 21, 2020).

[455] 8 C.F.R. § 214.2(f)(10)(C).

[456] "Student Visa Integrity: Protecting Educational Opportunity and National Security," *before the* Subcommittee on Border Security and Immigration *of the* U.S. Senate Judiciary Committee, 115th Cong. 2nd Sess. 2 (2018) (statement of Joseph Morosco, Assistant Director, Office of the National Intelligence Manager for Counterintelligence, National Counterintelligence and Security Center); https://www.judiciary.senate.gov/imo/media/doc/06-06-18%20Morosco%20Testimony.pdf (accessed Jun. 9, 2020).

into U.S. government plans, and access to sensitive military and civilian research."[457]

In 2019, a Commissioner on the U.S.-China Economic Security Review Commission testified in the Senate that "U.S. advanced technology and technological expertise is transferred to China, through both legal and illegal means [in part through] the tens of thousands of Chinese students and researchers at U.S. universities and research institutes who return to China after completing these programs."[458]

In a 2018 hearing before the Senate Intelligence Committee, FBI Director Christopher Wray, when asked about "the counterintelligence risk posed to U.S. national security from Chinese students, particularly those in advanced programs in the sciences and mathematics," testified that the PRC government's "use of nontraditional collectors, especially in the academic setting, whether it's professors, scientists, [or] students," was observed "in almost every field office that the FBI has around the country. It's not just in major cities. It's in small ones as well. It's across basically every discipline." He added that some PRC nationals were "exploiting the very open research and development environment that we have, which we all revere, but they're taking advantage of it."[459] Director Wray later testified in 2019 that

> asymmetric espionage, typically carried out by students, researchers, or businesspeople operating front companies, is prevalent. Foreign intelligence services not only seek our nation's state and military secrets, but they also target commercial trade secrets, research and development, and intellectual property, as well as insider information from … U.S. corporations, and American universities. Foreign intelligence services continue to employ more creative and more sophisticated methods to steal innovative technology, critical research and development data, and intellectual property, in an effort to erode America's economic leading edge. These illicit activities pose a significant threat to national security.[460]

Students enrolled in U.S. schools who seek to exfiltrate data or knowledge back to their home countries are regarded as non-traditional collectors (NTCs). They are not necessarily trained in intelligence-gathering, but may serve PRC government interests due to their access to U.S. research and technology.[461] A senior State Department official testified before the Senate Judiciary Committee in 2018 that the PRC government's use of NTCs "is common in academic settings … such actors have exploited the opportunity to work with renowned U.S. scholars and researchers and have taken advantage of the very open research and development environment prevalent at U.S. colleges and universities."[462]

The FBI explained before the Senate Judiciary Committee that foreign intelligence services allow

> students and scholars to conduct their U.S.-based academic pursuits, waiting to leverage them once they return to their home countries…. Many of those whom they target are young, inexperienced, and impressionable. Likewise, [such individuals] are also relatively inexpensive, inconspicuous,

457 "Scholars or Spies: Foreign Plots Targeting America's Research and Development," *before the* Subcommittee on Oversight *of the* U.S. House of Representatives, Committee on Science, Space and Technology, 115th Cong. 2nd Sess. (2018) (prepared statement of Daniel Golden); https://docs.house.gov/meetings/SY/SY21/20180411/108175/HHRG-115-SY21-Wstate-GoldenD-20180411.pdf (accessed Jun. 10, 2020); *see also* Defense Security Service, "Targeting U.S. Technologies 2016: A Trend Analysis of Cleared Industry Reporting," (undated) at 18–19; https://www.dcsa.mil/Portals/69/documents/about/err/2016_Trend_Analysis_Report.pdf (accessed Jun. 12, 2020).

458 "Winning the Race to 5G and the Next Era of Technology Innovation in the United States," *of the* U.S. House Committee on Commerce, Science, and Transportation, 116th 1st Sess. 2 (2019) (prepared statement of Michael Wessel, American commissioner of the US-China Economic and Security Review Commission); https://www.commerce.senate.gov/services/files/3B1AD4D5-B73A-4B01-BF93-8E6695095CA8 (accessed May 16, 2020).

459 "Open Hearing on Worldwide Threats," *before the* U.S. Senate Select Committee on Intelligence, 115th Cong. 1st Sess. (2018) (prepared statement of Christopher Wray, Director of the Federal Bureau of Investigation); https://www.intelligence.senate.gov/hearings/open-hearing-worldwide-threats-0# (accessed Jan. 28, 2020).

460 "Oversight of the Federal Bureau of Investigation," *before the* U.S. Senate Judiciary Committee, 116th Cong. 1st Sess. 4 (2019) (prepared statement of Christopher Wray, Director of the Federal Bureau of Investigation); https://www.judiciary.senate.gov/imo/media/doc/Wray%20Testimony1.pdf (accessed Jun. 12, 2020).

461 "China's Non-Traditional Espionage Against the United States: The Threat and Potential Policy Responses," *before the* Committee on the Judiciary *of the* U.S. Senate Judiciary Committee, 115th Cong. 1st Sess. (2018) (prepared statement of John C. Demers, Assistant Attorney General, National Security Division, U.S. Department of Justice); https://www.justice.gov/sites/default/files/testimonies/witnesses/attachments/2018/12/18/12-05-2018_john_c._demers_testimony_re_china_non-traditional_espionage_against_the_united_states_the_threat_and_potential_policy_responses.pdf (accessed Jun. 12, 2020).

462 "Student Visa Integrity: Protecting Educational Opportunity and National Security," *before the* Subcommittee on Border Security and Immigration *of the* U.S. Senate Judiciary Committee, 115th Cong. 1st Sess. 2 (2018) (prepared statement of Edward J. Ramotowski, Deputy Assistant Secretary of State, Bureau of Consular Affairs); https://www.judiciary.senate.gov/imo/media/doc/Ramotowski%20Testimony.pdf (accessed Jun. 3, 2020).

> and expendable, making them attractive options to further the foreign intelligence services' priorities and collection needs.[463]

The Defense Security Service within the Department of Defense (DOD) reported in 2017 that "[a]lthough East Asia and the Pacific entities engage in traditional forms of collection and espionage, nontraditional collectors who do not serve official intelligence roles continue to make up the majority of collection attempts," adding that East Asia consistently led the top collector regions seeking sensitive or classified information from U.S. companies, academic and research institutions.[464]

> Near East countries used Near East students and professors with science and engineering backgrounds in the United States to collect sensitive academic and scientific research to advance indigenous weapons programs…. Academic solicitations will likely remain high as increasing numbers of Near Eastern students continue to target U.S. academic programs that can be directly linked to improving military capabilities.[465]

Apart from NTCs, it is believed that foreign intelligence officers have obtained U.S. student visas to conduct espionage. The U.S.-China Economic and Security Review Commission cited research indicating that the Chinese military has "sponsored more than 2,500 Chinese military scientists and engineers to travel to universities in the United States and elsewhere as students or visiting scholars."[466] The FBI's current Most Wanted list includes a military officer from the PLA who entered the United States on a J-1 visa and studied for approximately 18 months at Boston University's Department of Physics, Chemistry and Biomedical Engineering while "completing numerous assignments from PLA officers" to obtain data on U.S. military capabilities.[467] The FBI believes "that the officer has fled to China."[468]

Intent

Intent analysis considers whether any entity that has access to a government program has an interest in taking actions that could be detrimental to the interests of the United States. Such actions could be harmful even if driven exclusively by commercial incentives. Intent is of course made evident in public statements and in patterns of behavior.

Discussing the intent of PRC government leadership in 2020, FBI Director Wray explained,

> we need to understand … the scope of China's ambitions, which are no secret … it is about the Chinese government and the Chinese Communist Party. The Chinese government is fighting a generational fight to surpass our country in economic and technological leadership. But not through legitimate innovation, not through fair and lawful competition, and not by giving their citizens the freedom of thought and speech and creativity we treasure here in the United States. Instead, they've shown that they're willing to steal their way up the economic ladder at our expense . . . to surpass America, they need to make leaps in cutting-edge technologies. Last March, at a Communist Party gathering, Chinese Premier Li made that understanding pretty clear. He said: 'Our capacity for innovation is not strong, and our weakness in terms of core technologies for key fields remains a salient problem.' To accomplish the breakthroughs they seek, China is acquiring American intellectual property and innovation, by any means necessary.[469]

[463] "Student Visa Integrity: Protecting Educational Opportunity and National Security," *before the* Subcommittee on Border Security and Immigration *of the* U.S. Senate Judiciary Committee, 115th Cong. 2nd Sess. 4 (2018) (prepared statement of E.W. Priestap, former Assistant Director, Counterintelligence Division, Federal Bureau of Investigation); https://www.judiciary.senate.gov/imo/media/doc/06-06-18%20Priestap%20Testimony.pdf (accessed Jun. 9, 2020).

[464] Defense Security Service, "Targeting U.S. Technologies 2017: A Trend Analysis of Cleared Industry Reporting," (undated) at 20; https://www.hsdl.org/?view&did=816264 (accessed Jun. 3, 2020).

[465] *Id*. at 20, 23–24.

[466] Sean O'Conner, U.S.-China Economic and Security Review Commission, Staff Research Report, "How Chinese Companies Facilitate Technology Transfer from the United States" (May 6, 2019) at 9; https://www.uscc.gov/sites/default/files/Research/How%20Chinese%20Companies%20Facilitate%20Tech%20Transfer%20from%20the%20US.pdf (accessed Jun. 8, 2020).

[467] FBI Webpage: "Most Wanted: Yanqing Ye" (undated); https://www.fbi.gov/wanted/counterintelligence/yanqing-ye (accessed Jun. 3, 2020).

[468] Michele McPhee, "The China Spy Scandal That Entangled Harvard Could Hit Yale and MIT Next," Newsweek (Feb. 29, 2020); https://www.newsweek.com/china-spy-scandal-that-entangled-harvard-could-hit-yale-mit-next-1489806 (accessed May 4, 2020).

[469] Christopher Wray, Director, Federal Bureau of Investigation, "Responding Effectively to the Chinese Economic Espionage Threat," *at the* DOJ China Initiative Conference, *hosted by* Center for Strategic and International Studies, (Feb. 6, 2020); https://www.fbi.gov/news/speeches/responding-effectively-to-the-chinese-economic-espionage-threat (accessed Jun. 10, 2020).

The Director also noted, "Even as we speak, the FBI has about 1,000 investigations involving China's attempted theft of U.S.-based technology, in all 56 of our field offices, spanning almost every industry and sector."[470]

Intent Expressed Through the 'Thousand Talents Plan'

A 2019 staff report from the Senate Committee on Homeland Security and Governmental Affairs stated, "Some countries . . . seek to exploit America's openness to advance their own national interests. The most aggressive of them has been China. China primarily does this through its more than 200 talent recruitment plans—the most prominent of which is the Thousand Talents Plan."[471]

The Thousand Talents Plan (TTP) was initiated by the PRC government in 2008. The TTP "encourages participants to transfer research and other proprietary information from the United States to China."[472] The Senate staff report explains that the TTP

> incentivizes individuals engaged in research and development in the United States to transmit the knowledge and research they gain here to China in exchange for salaries, research funding, lab space, and other incentives. China unfairly uses the American research and expertise it obtains for its own economic and military gain. In recent years, federal agencies have discovered talent recruitment plan members who downloaded sensitive electronic research files before leaving to return to China, submitted false information when applying for grant funds, and willfully failed to disclose receiving money from the Chinese government on U.S. grant applications.[473]

A number of eminent professors working in U.S. universities have been criminally charged for activities resulting from their participation in the TTP, often because they concealed their relationships to the PRC government, universities, or corporations. They have included a professor who allegedly performed disease research at a major U.S. university while being employed by two Chinese universities for the same type of research;[474] another who allegedly received grant monies from NASA for high-temperature electronics packaging and failed to disclose close ties with the PRC government and Chinese companies; [475] and another who allegedly received significant personal and professional benefits[476] while collaborating with numerous Chinese scientists on the development of nanotechnologies considered important to U.S. defense agencies for potential military applications such as sensing, munitions, power and energy, structural materials, and coatings.[477]

Recruiting through the TTP is not confined to tenured professors. FBI Director Wray testified in 2019 that

> we have seen through lots of investigations of abuse of those talent plans and essentially we have situations where it has created a pipeline in some cases at major universities especially at the graduate level more so than at the undergraduate level of key intellectual properties sometimes that has dual use potential flowing back to China for the advancement of its various strategic plans and

[470] *Id.*

[471] U.S. Senate, Permanent Subcommittee on Investigations, Committee on Homeland Security and Governmental Affairs, Staff Report, "Threats to the U.S. Research Enterprise: China's Talent Recruitment Plans" (Nov. 19 2019) p. 1; https://www.hsgac.senate.gov/imo/media/doc/2019-11-18%20PSI%20Staff%20Report%20-%20China%27s%20Talent%20Recruitment%20Plans.pdf (accessed Jun. 8, 2020).

[472] Sekar, Kavya, Library of Congress, Congressional Research Service, "Foreign Interference in NIH Research: Policy Implications" (Dec. 19, 2019); https://crsreports.congress.gov/product/pdf/IN/IN11207 (accessed Jun. 3, 2020).

[473] U.S. Senate, Permanent Subcommittee on Investigations, Committee on Homeland Security and Governmental Affairs, Staff Report, "Threats to the U.S. Research Enterprise: China's Talent Recruitment Plans" (Nov. 19, 2019), pp. 17–18; https://www.hsgac.senate.gov/imo/media/doc/2019-11-18%20PSI%20Staff%20Report%20-%20China%27s%20Talent%20Recruitment%20Plans.pdf (accessed Jun. 8, 2020).

[474] Department of Justice Press Release, "Former Emory University Professor and Chinese 'Thousand Talents' Participant Convicted and Sentenced for Filing a False Tax Return" (May 11, 2020); https://www.justice.gov/opa/pr/former-emory-university-professor-and-chinese-thousand-talents-participant-convicted-and (accessed Jun. 3, 2020).

[475] Department of Justice, U.S. Attorney's Office, Western District of Arkansas Press Release, "University of Arkansas Professor Arrested for Wire Fraud" (May 11, 2020); https://www.justice.gov/usao-wdar/pr/university-arkansas-professor-arrested-wire-fraud (accessed Jun. 3, 2020); *see generally* NASA Science Mission Directorate, Tech Port Webpage, "500°C Capable, Weather-Resistant Electronic Packaging for Extreme Environment Exploration" (undated); https://techport.nasa.gov/view/92294 (accessed Jun. 3, 2020).

[476] Department of Justice Press Release, "Harvard University Professor and Two Chinese Nationals Charged in Three Separate China Related Cases," (Jan. 28, 2020); https://www.justice.gov/opa/pr/harvard-university-professor-and-two-chinese-nationals-charged-three-separate-china-related (accessed on Jun. 19, 2020); *see also* Robert Plumb, Federal Bureau of Investigation, "Affidavit in Support of Application for Criminal Complaint," (Jan. 21, 2020) 1–2; https://www.justice.gov/opa/press-release/file/1239796/download (accessed Jan. 30, 2020).

[477] Douglas Belkin, "Harvard Chemistry Chairman Under Investigation Is a Giant of His Field," *The Wall Street Journal*, (Jan. 29, 2020); https://www.wsj.com/articles/harvard-chemistry-chairman-under-investigation-is-giant-of-field-11580345484 (accessed Jan. 30, 2020); U.S. Department of Defense, "Defense Nanotechnology Research and Development Program," (Dec. 2009) p. ES-1; https://www.nano.gov/sites/default/files/pub_resource/dod-report_to_congress_final_1mar10.pdf (accessed Jan. 30, 2020).

the irony is that the U.S. is essentially funding that economic resurgence through various money that it provides through grants.[478]

Intent Expressed Through 'Made in China 2025'

In 2015, the PRC government issued a plan to transform "China into a leading manufacturing power by the year 2049," titled the 'Made in China 2025' plan.[479] Among other things, the plan is intended to promote "breakthroughs in ten key sectors," including information technology, robotics, aerospace equipment, polymers and other new materials, and bio-medicine.[480]

Figure 6.4: "Made in China 2025" Target 10 Strategic Industries for Development (NSD)

Source: "China's Non-Traditional Espionage Against the United States: The Threat and Potential Policy Responses," *before the* U.S. Senate Judiciary Committee, 115th Cong. 1st Sess. (2018) (statement of John C. Demers, Assistant Attorney General, National Security Division); https://www.justice.gov/sites/default/files/testimonies/witnesses/attachments/2018/12/18/12-05-2018_john_c._demers_testimony_re_china_non-traditional_espionage_against_the_united_states_the_threat_and_potential_policy_responses.pdf; *see also* "China's Non-Traditional Espionage Against the United States: The Threat and Potential Policy Responses," *before the* U.S. Senate Judiciary Committee, 115th Cong. 1st Sess. (2018); https://www.judiciary.senate.gov/meetings/chinas-non-traditional-espionage-against-the-united-states-the-threat-and-potential-policy-responses (accessed Jun. 12, 2020).

In February 2020, U.S. Attorney General William Barr characterized the plan as "a sustained, highly-coordinated campaign to replace the United States as the dominant technological superpower," mobilizing "all elements of Chinese society" and massive financing "to dominate the core technologies of the future."[481] He added, "Unfortunately, it also involves industrial espionage and theft of technology and intellectual property, as well as . . . engaging in cyber intrusions . . . and using non-traditional collectors, such as graduate students participating in university research projects."[482] The Attorney General concluded that "[t]he PRC's economic aggression and theft of intellectual property comes with immense costs. It has been estimated that the annual cost to the U.S. economy could be as high as $600 billion."[483]

Intent Expressed Through Military-Civil Fusion and Dual-Use Technologies

The hazards of losing sensitive technology to strategic competitors such as the PRC are not merely economic. For over a decade, the PRC government has pursued "a policy of 'military-civil fusion,' which bind Chinese civilian entities with the PLA in a common goal" of strengthening Chinese military capabilities.[484] The DOS has asserted that, "military-civil fusion . . . prioritizes the development or acquisition of advanced technology that is useful militarily, either for the modernization of the [PLA] or for other domestic security purposes, such as general surveillance or the particularly egregious repression occurring in Xinjiang" of Muslim ethnic Uyghurs.[485]

478 "Oversight of the Fed. Bureau of Investigation," *before the* U.S. Senate Judiciary Committee, 116th Cong. 1st Sess. (2019) (statement of Christopher Wray, Director of the Federal Investigation Bureau); *cited in* U.S. Senate, Permanent Subcommittee on Investigations, Committee on Homeland Security and Governmental Affairs, Staff Report, "Threats to the U.S. Research Enterprise: China's Talent Recruitment Plans" (Nov. 19, 2019), p. 30; https://www.hsgac.senate.gov/imo/media/doc/2019-11-18%20PSI%20Staff%20Report%20-%20China%27s%20Talent%20Recruitment%20Plans.pdf (accessed Jun. 20, 2020).

479 The State Council of the People's Republic of China Webpage, "Made in China 2025 plan issued," (May 19, 2015); http://english.www.gov.cn/policies/latest_releases/2015/05/19/content_281475110703534.htm (accessed Jun. 3, 2020). The website "English.gov.cn" is the official English-language site for the State Council of the People's Republic of China.

480 *Id.*

481 Attorney General William P. Barr, U.S. Department of Justice, Federal Bureau of Investigation, "Keynote Address," *at the* DOJ China Initiative Conference, *hosted by* Center for Strategic and International Studies (Feb. 6, 2020); https://www.justice.gov/opa/speech/attorney-general-william-p-barr-delivers-keynote-address-department-justices-china (accessed Apr. 27, 2020).

482 *Id.*

483 *Id. See also* "Student Visa Integrity: Protecting Educational Opportunity and National Security," *before the* Subcommittee on Border Security and Immigration *of the* U.S. Senate Judiciary Committee, 115th Cong. 2nd Sess. 4 (2018) (statement of E.W. Priestap, former Assistant Director, Counterintelligence Division, Federal Bureau of Investigations); https://www.judiciary.senate.gov/imo/media/doc/06-06-18%20Priestap%20Testimony.pdf (accessed Jun. 9, 2020).

484 Kate O'Keeffe and Aruna Viswanatha, "U.S. Turns Up the Spotlight on Chinese Universities," *The Wall Street Journal* (Jan. 21, 2020); https://www.wsj.com/articles/u-s-turns-up-the-spotlight-on-chinese-universities-11579602787 (accessed May 28, 2020).

485 "Securing the U.S. Research Enterprise from China's Talent Recruitment Plans," *before the* Permanent Subcommittee on Investigations *of the* U.S. Senate Committee on Homeland Security & Governmental Affairs, 116th 1st Sess. 3 (2019) (written testimony of Edward J. Ramotowski, Deputy Assistant Secretary of State, Bureau of Consular Affairs); https://www.hsgac.senate.gov/imo/media/doc/Ramotowski%20Testimony.pdf (accessed May 28, 2020).

Fusion enables the PRC government "to continue international collaboration with scientists while not disclosing that such collaboration may be for modernizing China's military,"[486] even as the PLA operates as "a funding source, research partner and an elite customer"[487] of "the central players in China's IT sector."[488] In January 2020, U.S. Secretary of State Mike Pompeo emphasized that, "Under Chinese law, Chinese companies and researchers must—I repeat, must—under penalty of law, share technology with the Chinese military."[489]

The DOD reported in 2009 that "the 'major specialty items' to be targeted for research and innovation [by the PRC government] include: core electronic components, high-end universal chips and operating system software, very large-scale integrated circuit manufacturing, broadband wireless mobile communications, high-grade numerically controlled machine tools, large aircraft, high-resolution satellites, manned spaceflight, and lunar exploration."[490] More recently, the PRC government has announced growth initiatives to include Strategic Emerging Industries (SEI) catalogs for "next-generation information technology as [a] priority. Such technology includes artificial intelligence, cybersecurity services, integrated circuits and network equipment and software. Other SEI's include biotechnology, energy efficient and environmental technologies and high-end equipment manufacturing."[491] The IT catalog is "a state-driven initiative, featuring regulatory scrutiny over foreign investments in the strategic industries, mergers, joint ventures, access to foreign IP, and agreements between the government and foreign entities for 'strategic assets to remain in China or under the control of a Chinese company.'"[492] In 2019, the PRC Ministry of Commerce, following approval by the Chinese Communist Party Central Committee, reportedly identified its key industries for investment to include smart devices, vaccine production and fifth-generation technologies and components, such as drones, mobile phones, optics, sensors and lasers.[493]

It is noteworthy that many of the research, development, acquisition and manufacturing priorities expressed by the PRC government in its 'Made in China 2025' plan and SEI catalogs, are cleared fields of study in STEM OPT. When DHS expanded the duration of STEM OPT in 2016, ICE created a STEM Designated Degree Program List indicating what "fields of study that DHS considers to be [STEM fields] for purposes of the 24-month STEM optional practical training extension." Leveraging Department of Education classifications, the list includes items such as "Cyber/Electronic Operations and Warfare," "Combat Engineering," "Directed Energy Systems" and "Undersea Warfare" as well as others of interest to the PRC government.[494]

Capability

Having examined access and intent, the final element to be considered when examining threat is Capability. Capability is defined as the technical and organizational skill of an adversary or competitor to exploit vulnerabilities or loopholes in a U.S. government program.

As already indicated in this analysis, it is apparent to numerous Federal authorities that the PRC government is capable of exploiting OPT to advance its own agendas. Commenting on PRC government capabilities, the

[486] U.S. Senate, Staff Report, Permanent Subcommittee on Investigations, Committee on Homeland Security and Governmental Affairs, "Threats to the U.S. Research Enterprise: China's Talent Recruitment Plans" (Nov. 19, 2019) p. 19; https://www.hsgac.senate.gov/imo/media/doc/2019-11-18%20PSI%20Staff%20Report%20-%20China%27s%20Talent%20Recruitment%20Plans.pdf (accessed Jun. 7, 2020).

[487] James Mulvenon, Rececca Samm Tyroler-Cooper, "China's Defense Industry on the Path of Reform," The US-China Economic and Security Review Commission (October 2009), p. 39; https://www.uscc.gov/sites/default/files/Research/REPORT_DGI%20Report%20on%20PRC%20Defense%20Industry111009.pdf (accessed May 28, 2020).

[488] *Id.*

[489] Secretary of State Michael R. Pompeo, "Remarks to the Silicon Valley Leadership Group: Technology and the China Security Challenge"(Jan. 13, 2020); https://id.usembassy.gov/remarks-by-secretary-pompeo-on-technology-and-the-china-security-challenge/ (accessed May 28, 2020).

[490] James Mulvenon, Rececca Samm Tyroler-Cooper, "China's Defense Industry on the Path of Reform," The US-China Economic and Security Review Commission (Oct. 2009), p. 38; https://www.uscc.gov/sites/default/files/Research/REPORT_DGI%20Report%20on%20PRC%20Defense%20Industry111009.pdf (accessed May 28, 2020).

[491] Institute for Security & Development Policy, "Made in China 2025," Backgrounder (Jun. 2018), p. 3; https://isdp.eu/content/uploads/2018/06/Made-in-China-Backgrounder.pdf (accessed May 7, 2020).

[492] *Id.*

[493] Dorcas Wong, "China Releases New Draft List of Encouraged Industries for Foreign Investment," *China Briefing from Dezan Shira & Associates* (Feb. 19, 2019); https://www.china-briefing.com/news/china-2019-draft-encouraged-industries-foreign-investment/ (accessed May 28, 2020). Chinese interest in 13 critical areas of technology is discussed in a November 2019 U.S. Senate Staff Report. *See* U.S. Senate, Staff Report, Permanent Subcommittee on Investigations, Committee on Homeland Security and Governmental Affairs, "Threats to the U.S. Research Enterprise: China's Talent Recruitment Plans" (Nov. 2019), pp. 17–18; https://www.hsgac.senate.gov/imo/media/doc/2019-11-18%20PSI%20Staff%20Report%20-%20China%27s%20Talent%20Recruitment%20Plans.pdf (accessed May 28, 2020).

[494] DHS ICE Webpage, "STEM Designated Degree Program List, Effective May 10, 2016," https://www.ice.gov/sites/default/files/documents/Document/2016/stem-list.pdf (accessed Jun. 17, 2020).

former CEO of Quantum and Symantec, Michael Brown, stated before the House Permanent Select Committee on Intelligence in 2018 that the PRC government has the capacity to obtain what he referred to as "the crown jewels of U.S. innovation" through combinations of legal investments and economic espionage. As to the latter capability, the theft or duplication of U.S. military-sponsored technologies was achieved by means of cyber exploits and "using Chinese foreign national students [placed] in sensitive areas of U.S. research." Concerning PRC government's legal acquisition of technologies through venture investing in early-stage companies, market knowledge and the use of professional organizations, he asserted, "[v]iewed individually, the legal practices may seem benign but when viewed in combination, and at the scale China is employing them, the composite picture illustrates the intent, design and dedication of a regime focused on technology transfer at a massive scale" in the areas of "artificial intelligence, autonomous vehicles, augmented/virtual reality, robotics, blockchain and genetic engineering," all of them "critical in advancing U.S. military capability."[495]

At the same hearing, a witness from the Center for a New American Security stated, "In some cases, students and researchers have leveraged academic research environments in ways that may contravene U.S. law or academic norms. The potential for negative externalities has been clearly illustrated by the case of Liu Ruopeng, a Duke Ph.D. student, who allegedly appropriated sensitive research funded by the U.S. military on metamaterials, and then returned to China to fund a highly successful research institute … which supports the Chinese military in advanced technological developments."[496] There is speculation that Ruopeng, "who came to the U.S. with the express intent of studying" metamaterials in the Duke lab, "was actually on a mission from the Chinese government."[497]

Concerned by the PRC government's access to academic institutions in the United States and its stated intentions to grow its expertise across a constellation of technologies, the DOJ created the "China Initiative" in 2018, led by DOJ's National Security Division, "which is responsible for countering nation-state threats to the United States." Among other goals, the Initiative seeks to "[i]dentify priority trade secret theft cases," advance "an enforcement strategy concerning non-traditional collectors (e.g., researchers in labs, universities, and the defense industrial base) that are being coopted into transferring technology contrary to U.S. interests," and "[e]ducate colleges and universities about potential threats to academic freedom and open discourse from influence efforts on campus."[498]

Vulnerability

To evaluate vulnerability, we examine the attributes of a Federal government program that leave it susceptible to exploitation by malign actors or governments. Vulnerabilities often arise from the Federal government's lack of information, situational awareness, resource allocation or failure to anticipate first, second and third order effects when designing the program.

Vulnerability Due to Exploitation by Foreign Governments

The OPT program as presently designed and administered exhibits a number of significant vulnerabilities. Its principal vulnerability is that it may be exploited by foreign governments with interests adverse to those of the United States. While OPT was created with the benign intention of offering foreign students the opportunity to gain work experience in their area of study, and may help them defray some of the costs of their education in the United States, it is currently being used by government

[495] "China's Threat to American Government and Private Sector Research and Innovation Leadership," *before the* Permanent Select Committee on Intelligence *of the* U.S. House of Representatives, 115th Cong. 2nd Sess. (prepared statement of Michael A. Brown, Presidential Innovation Fellow), at 2–4; https://congress.gov/115/meeting/house/108561/witnesses/HHRG-115-IG00-Wstate-BrownM-20180719.pdf (accessed Jun. 3, 2020).

[496] "China's Threat to American Government and Private Sector Research and Innovation Leadership," "China's Threat to American Government and Private Sector Research and Innovation Leadership," *before the* Permanent Select Committee on Intelligence *of the* U.S. House of Representatives, 115th Cong. 2nd Sess. 8 (prepared statement of Elsa B. Kania, Center for a New American Security), at 8; https://docs.house.gov/meetings/IG/IG00/20180719/108561/HHRG-115-IG00-Wstate-KaniaE-20180719.pdf (accessed Jun. 15, 2020).

[497] Cynthia McFadden, Aliza Nadi and Courtney McGee, NBC News, "Education or espionage? A Chinese student takes his homework home to China," NBC News (July 24, 2018); https://www.nbcnews.com/news/china/education-or-espionage-chinese-student-takes-his-homework-home-china-n893881 (accessed Jun. 15, 2020).

[498] U.S. Department of Justice, "Information about the Department of Justice's China Initiative and a Compilation of China-Related Prosecutions since 2018;" https://www.justice.gov/opa/page/file/1223496/download (accessed Jun. 17, 2020). *See also* G. Kolata, "Vast Dragnet Targets Theft of Biomedial Secrets for China," The New York Times (Nov. 4, 2019); https://www.nytimes.com/2019/11/04/health/china-nih-scientists.html (accessed Jun. 25, 2020).

actors from countries such as the PRC as a means of conducting espionage and technology transfer through some portion of the many thousands of foreign nationals who have obtained OPT employment in the United States.

Another key vulnerability to the OPT program is the amount of time that it affords a nonimmigrant student to remain employed in the United States. As explained above, a foreign national who pursues STEM OPT may remain employed in the United States for periods that add up to 6 years. If the student is acting as an NTC for his or her government, the longer the period of employment, perhaps with different employers, increases the amount and variety of information that the student can exfiltrate. It also increases the likelihood that a student NTC can establish and grow trust relationships with U.S. employers, which have proven an important factor in cases like that of Liu Ruopeng, who apparently leveraged "an exact replica" of his professor's Duke University lab back in China.[499]

Further, as noted above, aside from the vetting and screening that DOS conducts when issuing a visa, and USCIS background checks in issuing an EAD, there is no existing mechanism for continuous vetting of foreign national students, which might indicate whether the student is exhibiting predetermined risk factors that might warrant follow-up inquiries from the Federal government.[500]

Vulnerability Due to Fraud

There are significant indications that the OPT program is vulnerable to fraud because agency compliance resources are not scaled to (or keeping pace with) the size of the program. As previously noted, in 2019 there were "1.2 million foreign students at nearly 9,000 SEVP-certified schools across more than 18,000 campuses."[501] The total number of SEVP employees at ICE directly administering this very large program is approximately 376 full-time employees.[502]

Initial and continuing OPT compliance apparently falls in part to SEVIS field representatives.[503] The SEVP is divided into 60 territories in the United States,[504] with a single SEVIS field representative assigned to each territory. According to ICE, "Field representatives serve as liaisons between SEVP and SEVP-certified schools," and "enhance national security by fostering regulatory adherence and [SEVIS] data integrity." They meet with school officials "in their territories normally a minimum of once per year" to ensure schools "understand SEVP rules and regulations, to answer questions, provide training to PDSOs and DSOs, and to help "school officials with the SEVP recertification process by conducting scheduled school visits."[505] A single SEVP representative can be responsible for as many as 240 schools.[506] As a program matter, visits to participating schools (unless some problem is manifest) is usually a single visit per year.[507]

The failure of OPT designers to foresee growth in the program and to anticipate the proportionate staff resources that would be required to assure its security

[499] Cynthia McFadden, Aliza Nadi and Courtney McGee, NBC News, "Education or espionage? A Chinese student takes his homework home to China," NBC News (Jul. 24, 2018); https://www.nbcnews.com/news/china/education-or-espionage-chinese-student-takes-his-homework-home-china-n893881 (accessed Jun. 15, 2020); Marc S. Reisch, "Acknowledging the spies on campus," Chemical & Engineering News (Jun. 27, 2018); https://cen.acs.org/policy/intellectual-property/Acknowledging-spies-campus/96/i27 (accessed Jun. 15, 2020).

[500] As indicated previously, DOS decided in 2018 to limit Chinese student visas to a duration of 1 year. Such students, if they return home and seek to re-enter the United States, are subject to multiple screenings, including interviews, by DOS.

[501] GAO, "Student and Exchange Visitor Program: DHS Can Take Additional Steps to Manage Fraud Risks Related to School Recertification and Program Oversight," GAO-19-297 (Mar. 2019) at 50; https://www.gao.gov/assets/700/697630.pdf (accessed Jun. 15, 2020). As previously mentioned, in addition to colleges and universities, participating academic institutions include language training schools, vocational schools, K-12 schools, and flight schools. DHS ICE Webpage, "2018 SEVIS by the Numbers Report" (undated); https://www.ice.gov/doclib/sevis/pdf/sevisByTheNumbers2018.pdf (accessed Jun. 17, 2020).

[502] Department of Homeland Security, U.S. Immigration and Customs Enforcement, Budget Overview, Fiscal Year 2020 Congressional Justification, Student and Exchange Visitor Program, ICE -SEVP -3. https://www.dhs.gov/sites/default/files/publications/19_0318_MGMT_CBJ-Immigration-Customs-Enforcement_0.pdf (accessed Jun. 10, 2020).

[503] GAO, "Student and Exchange Visitor Program: DHS Can Take Additional Steps to Manage Fraud Risks Related to School Recertification and Program Oversight," GAO-19-297 (Mar. 2019) at 50; https://www.gao.gov/assets/700/697630.pdf (accessed Jun. 20, 2020).

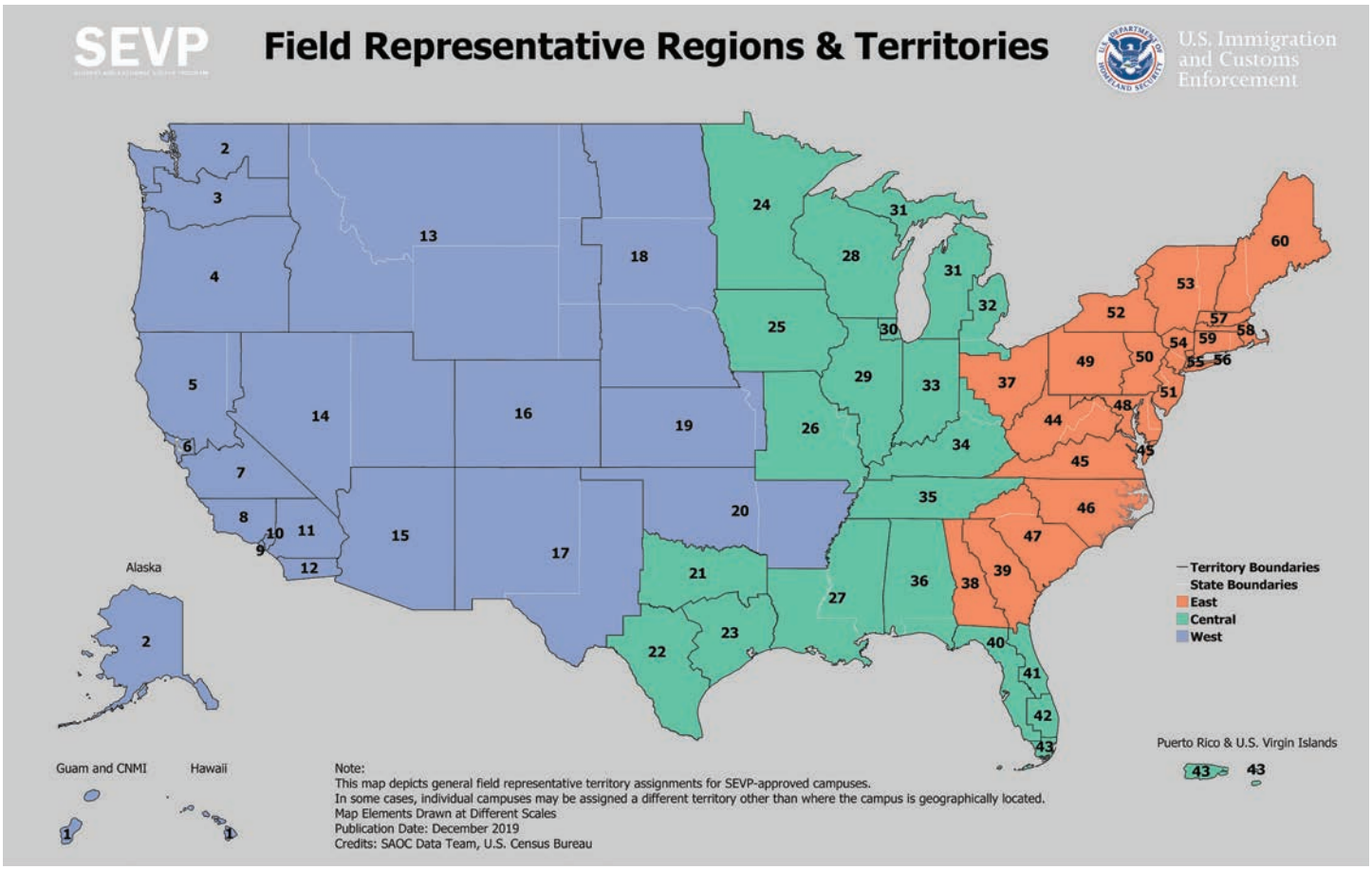
[504] DHS ICE Webpage, "SEVP Field Representative Regions & Territories" (Dec. 2019); https://studyinthestates.dhs.gov/assets/sevp_fieldrepresentativeunitmap.png (accessed Jun. 11, 2020).

[505] DHS ICE Webpage, "SEVP Field Representatives" (undated); https://studyinthestates.dhs.gov/sevp-field-representatives (accessed Jun. 18, 2020).

[506] Information received from stakeholders (Jan. 16, 2020).

[507] Information received from stakeholders (Jun. 19, 2020). *See also* "Adjusting Program Fees for the Student and Exchange Visitor Program," 84 Fed. Reg. 23930, 23958 (May 23, 2019) ("SEVP performs 600 site visits annually. Of these 600 visits, 426 will be at schools that apply for initial certification . . . [t]he remaining 174 site visits may include visits when a school adds a new physical location or campus.").

Figure 6.6



Source: DHS ICE Webpage, "Study in the States" (Dec. 2019); https://studyinthestates.dhs.gov/assets/sevp_fieldrepresentativeunitmap.png (accessed Jun. 15, 2020).

and integrity perhaps accounts in part for the SEVP's inability to detect fraud among some participating students, schools and employers. It was not apparently compliance oversight within the SEVIS program that led to well-publicized discoveries in late 2019 that at least a dozen businesses listed by ICE as among the top employers of OPT students appeared to be fraudulent shell companies.[508] The revelation that two of those shell companies had fraudulently "employed" not less than 2,685 F-1 student visa holders seeking to extend their stay in the United States for years between 2013 and 2019 did not apparently originate from any certification action or site visit conducted by the SEVP; rather, it resulted from an FBI investigation of a foreign student in Chicago who was allegedly performing tasks for a PRC intelligence agency.[509]

As noted above, the GAO has repeatedly studied SEVIS and concluded that the program is vulnerable to fraud. In its most recent report in 2019, the GAO cataloged a variety of weaknesses in the SEVP, including its lack of vetting and verification of DSOs, and its failure to provide mandatory and universal training to DSOs, especially

[508] Stephen Stock, Michael Bott, Sean Myers, Jeremy Carroll, Michael Horn and Molly Forster, NBC Bay Area and NBC News, "Thousands of Foreign Students May Have Overstayed Visas Through Employment at Possible Shell Companies," *NBC Bay Area and NBC News* (Dec. 10, 2019); https://www.nbcbayarea.com/news/local/thousands-of-foreign-students-may-have-overstayed-visas-through-employment-at-shell-companies/2178507/ (accessed Jun. 16, 2020); Immigration and Customs Enforcement, "2017 Top 200 Employers for Pre- and Post-Completion Optional Practical Training (OPT) Students" (undated); https://www.ice.gov/doclib/sevis/pdf/data_Top200_EmployersPrePostCompletion_OPT_Students2017.pdf. (accessed Jun. 21, 2020).

[509] Todd Lighty, Chicago Tribune, "How a Chicago college student ended up in the middle of an FBI investigation into Chinese spying," *Chicago Tribune*, (Sept. 26, 2019); http://www.chicagotribune.com/investigations/ct-chinese-espionage-chicago-20190926-xh74yrhorzakjpsnojyx4aapfm-story.html (accessed Jun. 15, 2020); U.S. v. Weiyun Huang, 19-CR-275, N.D. IL., at 4; https://www.justice.gov/usao-ndil/press-release/file/1187726/download (accessed Jun. 21, 2020).

"about their role to prevent and report fraud."[510] In 2014, GAO reported that ICE had not assessed potential risks in the OPT program and could not fully ensure that foreign students were maintaining their legal status in the United States.[511] And, in 2012, GAO reported that weaknesses in "ICE's monitoring and oversight of SEVP-certified schools" and its failure to manage and share key information on potentially criminal violations in the SEVP contributed "to security and fraud vulnerabilities"[512] within the program.

CONSEQUENCE

The analysis of consequence examines the nature and magnitude of dangers arising from vulnerabilities in the government program.

Both the Attorney General and the Secretary of State have publicly expressed significant concerns with the adverse economic and military consequences of technology transfer to strategic adversaries.[513] In addition, the FBI Assistant Secretary for Counterintelligence testified in 2018 that foreign state adversaries illicitly acquiring "U.S. academic research and information to advance their scientific, economic, and military development goals . . . save their countries significant money, time, and resources while achieving generational advances in technology. Through their exploitative efforts, they reduce U.S. competitiveness and deprive victimized parties of revenue and credit for their work."[514] The theft or plagiarism of advanced technology, cutting-edge research, classified data, world-class equipment and expertise, he added, is adverse to both government and the private-sector, and can undermine national security. "When these foreign academics unfairly take advantage of the U.S. academic environment, they do so at a cost to the institutions that host them, as well as to the greater U.S. innovation ecosystem in which they play a role. Directly or indirectly, their actions cost money, jobs, expertise, sensitive information, advanced technology, first-mover advantage, and domestic incentive to innovate."[515]

CONCLUSIONS ON RISK SURROUNDING OPT

The risk analysis framework applied in this study indicates that risk is present in the environment surrounding the OPT and STEM OPT programs. These programs allow many nonimmigrant students, including graduate students in STEM, to work in academic, research or corporate environments where they may have access to technologies or other intellectual property that may be sensitive or proprietary in nature. Foreign entities like the PRC government with clearly expressed intentions to achieve economic, technical and military dominance by acquiring intellectual property and cutting-edge innovations, have succeeded in leveraging some portion of its student population to perform as NTCs, while also inserting intelligence operatives into the mix of students working in the United States, often for significant periods of time. OPT, which has not been designed, staffed or administered to systemically counter such threats, is vulnerable to exploitation by foreign governments with interests adverse to those of the United States. Accordingly, there appears to be a high risk that the OPT is being used as a means for strategic adversaries to conduct espionage and technology transfer from the United States.

Consideration of Mitigation Strategies

As we indicated at the outset, this study does not function as a DHS or Ombudsman response to the Presidential

[510] U.S. Government Accountability Office, "Student and Exchange Visitor Program: DHS Can Take Additional Steps to Manage Fraud Risks Related to School Recertification and Program Oversight," GAO-19-297 (Mar. 2019) at 49; https://www.gao.gov/assets/700/697630.pdf (accessed Jun. 3, 2020).

[511] U.S. Government Accountability Office, "Student and Exchange Visitor Program: DHS Needs to Assess Risks and Strengthen Oversight of Foreign Students with Employment Authorization," GAO-14-356 (Feb. 2014) at 15-30; https://www.gao.gov/assets/670/661192.pdf (accessed Jun. 17, 2020).

[512] " 'Student and Exchange Visitor Program: DHS Needs to Take Actions to Strengthen Monitoring of Schools,' GAO-12-895T (Jul. 24, 2012)," *before the* Subcommittee on Immigration, Refugees, and Border Security *for the* U.S. Senate Committee on the Judiciary, 113th Cong. 1st Sess. (2013) 2-3 (prepared statement of Rebecca Gambler, Government Accountability Office); https://www.gao.gov/products/gao-12-895t (accessed Jun. 17, 2020); U.S. Government Accountability Office, "Student and Exchange Visitor Program: DHS Needs to Assess Risks and Strengthen Oversight Functions," GAO-12-572 (Jun. 18, 2012) at 21–36; https://www.gao.gov/assets/600/591668.pdf (accessed Jun. 17, 2020).

[513] Attorney General William P. Barr, U.S. Department of Justice, Federal Bureau of Investigation, "Keynote Address," *at the* DOJ China Initiative Conference, *hosted by* Center for Strategic and International Studies, (Feb. 6, 2020); https://www.justice.gov/opa/speech/attorney-general-william-p-barr-delivers-keynote-address-department-justices-china (accessed Apr. 27, 2020).; Secretary of State Michael R. Pompeo, "Remarks to the Silicon Valley Leadership Group: Technology and the China Security Challenge,"(Jan. 13, 2020); https://id.usembassy.gov/remarks-by-secretary-pompeo-on-technology-and-the-china-security-challenge/ (accessed May 28, 2020).

[514] "Student Visa Integrity: Protecting Educational Opportunity and National Security," *before the* Subcommittee on Border Security and Immigration *of the* U.S. Senate Judiciary Committee, 115th Cong. 2nd Sess. 2 2 (2018) (prepared statement of E.W. Priestap, former Assistant Director, Counterintelligence Division, Federal Bureau of Investigation); https://www.judiciary.senate.gov/imo/media/doc/06-06-18%20Priestap%20Testimony.pdf (accessed Jun. 9, 2020).

[515] *Id.* at 4.

Proclamation of May 29, 2020. The Proclamation directs DOS and DHS, consulting with other appropriate agencies, to recommend within 60 days "any other measures requiring Presidential action that would mitigate the risk posed by the PRC government's acquisition of sensitive United States technologies and intellectual property." In deference to this ongoing process, this study does not include any specific recommendations to diminish risk in the OPT. However, based upon previous study and outreach conducted by the Ombudsman's Office, there are two potential risk mitigation strategies that could be accomplished through operational or administrative actions.[516]

Assisting DSOs

The Ombudman's Office, which conducts over 100 structured outreach events with immigration stakeholders each year, has met with DSOs and other school representatives on numerous occasions. Our consistent take-away from such meetings is that school officials are very interested in ensuring that they are aligned with SEVP directives. DSOs from small schools to the largest universities carry significant responsibilities in maintaining school and student records in SEVIS, brokering the many problems students encounter in the immigration system, and ensuring databases and substantive requirements are reflective of one another. As discussed *supra*, GAO has noted the difficulties faced by DSOs, especially in being adequately trained, including playing a role in detecting fraud. Because there are potential criminal penalties that could attach to school officials (who like students themselves could be victims of criminal schemes), SEVP should ensure that DSOs are not unwittingly assisting in violations of criminal statutes against false statements or the fraudulent and unlawful use of immigration documents in the United States.

DSOs carry a significant responsibility to interpret student obligations, to interpret school compliance and to ensure both sets of obligations are met. As mentioned above, most DSOs seek to fully perform their duties and ensure their students comply with all program requirements. However, the GAO noted last year that enhanced training for DSOs was necessary to ensure that DSOs "adequately understand the program's regulations" and "their own responsibilities within the program," and that DSOs were lacking uniform training to identify "fraud schemes or trends . . . including student visa exploitation and national security vulnerabilities."[517] We have learned through our outreach that DSO activities extend well beyond the academic program, ensuring students comply with reporting requirements through the length of what can be a years-long OPT when the student has left the campus, and can be challenging regardless of the size of the program. Because DSOs can assist in combatting threats to national security, and want to avoid unwittingly assisting in potential criminal violations, fulsome training and support for DSOs should be considered an important mitigation strategy.

To meet these obligations, DSOs require additional resources. Agency compliance resources have not kept pace with the growth of foreign student participation in the United States and would benefit from being re-evaluated in light of current participation rates. Certification and recertification of DSOs should include insuring full demonstrated understanding of program requirements, with additional training to assist them well beyond the use of tools such as video tutorials. Site visits need to be annual and should be meaningful opportunities for dialogue to articulate issues and concerns and seek redress. SEVIS support should include ongoing dialogue to fix the data entry and data reconciliation problems that frustrate DSOs and can cause status problems for students. And DSOs should be given the ability to ensure the government is a full partner in detecting and reporting fraud and similar concerns, so they can use the tools that enable them to concentrate on legitimate students.

Securing Issuance of EADs at USCIS

Protections can be added to the process to minimize the potential for illegitimate use of an EAD, and USCIS could have considerably more authority over confirming the eligibility and legitimacy of the employer, the training opportunity, and the student. Among other options, USCIS should be able to verify the existing requirements, which for STEM extension OPT includes the existence of the training program, the identity of the employer, and the good standing and completion of the student of the course of study.

[516] We do not consider potential legislative solutions, such as the "Holding China Accountable Act" recently introduced in the House. *See* U.S. House of Representatives, Permanent Select Committee on Intelligence, Press Releases, "Ranking Member Nunes introduces the Holding China Accountable Act" (Jun. 11, 2020); https://republicans-intelligence.house.gov/news/documentsingle.aspx?DocumentID=1107 (accessed Jun. 3, 2020).

[517] GAO, "Student and Exchange Visitor Program: DHS Can Take Additional Steps to Manage Fraud Risks Related to School Certification and Program Oversight," GAO-19-297, pp. 47–49 (Mar. 2019); https://www.gao.gov/assets/700/697630.pdf (accessed Jun. 20, 2020).

Other protections might be added. Non-STEM students could be subject to the same requirements STEM students currently undergo. For example, only STEM OPT requires an employer be identified in advance, but this could be extended to encompass all EAD recipients.[518] Verification through SEVIS, requiring the participation of the school in the disclosure, would enable USCIS to verify employer identity using existing tools. Another option is expanding the mandatory use of E-Verify to encompass all OPT employers. EADs of students who fail to report in to an employer within a reasonable time after EAD issuance with a legitimate employer could be cancelled. As for an EAD that has been cancelled, verification of the authorization of the EAD through a mandatory E-Verify check would assist employers who seek legitimate hires.

[518] If new rules were promulgated to require that all OPT applicants identify employers prior to filing EAD applications, USCIS would need to adjust its EAD processing to ensure students have proof of employment authorization to secure and keep job offers. Most employers cannot wait 3 to 6 months after making an offer to onboard an employee, especially if the EAD processing time is deducted from the 14-month limit on the available duration of work experience.