Supplementary Materials for

Caught in the Crossfire: Fears of Chinese-American Scientists

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Supplementary Materials 1: Ph.D. Students from China

We calculated the number of science and engineering (S/E) Ph.D. recipients and those of them holding temporary visas in the US in 2020 from data reported by the National Science Foundation (NSF) Survey of Earned Doctorates (*1*). We aggregated the data in Table 17 ("Doctorate recipients, by broad field of study and citizenship status: Selected years, 1975–2020") in the Survey of Earned Doctorates data tables across four major fields: life sciences, physical sciences and earth sciences, mathematics and computer sciences, and engineering. We then obtained the number of S/E Ph.D. recipients from China in Table 26 ("Top 10 countries of origin of temporary visa holders earning US doctorates, by country of citizenship and field of study: 2010–20"). The numerical results are given in Table S1.

Table S1: Number of S/E Ph.D. in 2020 by immigration status and Chinese origin

	Numbers
Total	33,676
US citizen or permanent resident	18,338
Temporary visa holder from all countries	15,338
From China	5,730

The NSF also reports "stay rates," percentages of US doctorate recipients holding temporary visas who intend to stay in the US by countries of origin (*2*). For all temporary visa holders, the average stay rate in 2005–2015 was 73.7%. For those from China, the average stay rate was 87.2%.

Supplementary Materials 2: Trends in Patent Applications, China versus the US

We measure the yearly number of patent applications in China and the US as an indicator of technology development in the two countries. The data are published by the World Bank and collected by CEIC Data (*3*), for the following series: US Patent Applications: Residents (ID: 265144402), US Patent Applications: Non-Residents (ID: 265129602), Chinese (CN) Patent Applications: Residents (ID: 265132202), and Chinese (CN) Patent Applications: Non-Residents (ID: 265123902). The US data began in 1980, and the Chinese data began in 1985.

Table S2: Yearly number of patent applications in China and United States, by resident status.

	CN Patent Applications: Non-Residents	CN Patent Applications: Residents	US Patent Applications: Residents	US Patent Applications: Non-Residents
1980			62,098	42,231
1981			62,404	44,009
1982			63,316	46,309
1983			59,391	44,312
1984			61,841	49,443
1985	4,493	4,065	63,673	51,562
1986	4,515	3,494	65,195	55,721
1987	4,084	3,975	68,315	63,522
1988	4,872	4,780	75,192	68,644
1989	4,910	4,749	82,370	76,337
1990	4,305	5,832	90,643	80,520
1991	4,051	7,372	87,955	84,160
1992	4,387	10,022	92,425	90,922
1993	7,534	12,084	99,955	84,241
1994	7,876	11,191	107,233	95,522
1995	8,688	10,011	123,962	104,180
1996	11,114	11,628	106,892	105,054
1997	12,102	12,672	119,214	101,282
1998	33,645	13,751	134,733	102,246
1999	34,418	15,626	149,251	116,512
2000	26,560	25,346	164,795	131,100
2001	33,412	30,038	177,513	148,958

2002	40,426	39,806	184,245	150,200
2003	48,548	56,769	188,941	153,500
2004	64,598	65,786	189,536	167,407
2005	79,842	93,485	207,867	182,866
2006	88,183	122,318	221,784	204,182
2007	92,101	153,060	241,347	214,807
2008	95,259	194,579	231,588	224,733
2009	85,508	229,096	224,912	231,194
2010	98,111	293,066	241,977	248,249
2011	110,583	415,829	247,750	255,832
2012	117,464	535,313	268,782	274,033
2013	120,200	704,936	287,831	283,781
2014	127,042	801,135	285,096	293,706
2015	133,612	968,252	288,335	301,075
2016	133,522	1,204,981	295,327	310,244
2017	135,885	1,245,709	293,904	313,052
2018	148,187	1,393,815	285,095	312,046
2019	157,093	1,243,568	285,113	336,340
2020	152,342	1,344,817	269,586	327,586

Supplementary Materials 3: Trends in Migration of Chinese-American Scientists from the US to China

We estimate the trends in the migration of US-based Chinese scientists to China by drawing on the large-scale academic bibliometrics database Microsoft Academic Graph (*4*), which indexed 208,440,142 scientists from 27,077 institutions authoring 2,316,278,852 scientific publications dated until December 2021.

We identified Chinese scientists by their surnames. We first collected 832 common Chinese surnames from Wikipedia (https://en.wikipedia.org/wiki/List_of_common_Chinese_surnames), including those in Chinese characters and romanized names, in Hanyu Pinyin (the system of Chinese romanization mostly used by mainland Chinese scientists) and Wade–Giles (the system mostly used by Cantonese-speaking and Taiwanese scientists). This methodology results in the non-counting of Chinese scientists who have changed their surnames (usually females after marriage), leading to an undercount.

We searched for those surnames in the authors' full names recorded in Microsoft Academic Graph, and identified a total of 28,140,577 Chinese scientists. To retain a high degree of reliability in individual identification, we removed scientists with a gap of more than 5 years between consecutive publications, which we believed were false results in which Microsoft Academic Graph's name disambiguation algorithm incorrectly merged multiple individuals. We ended up with 27,595,008 Chinese scientists.

Microsoft Academic Graph records every paper with one or more field labels from a total of 716,883 possible fields, such as "message passing" or "quantum process." Along with those labels comes a tree-like structure grouping small fields into 19 first-level fields and 292 second-level fields. We mapped all those first- and second-level fields to 4 major disciplines: mathematics and physical science (including statistics), life science, engineering and computer science, and social sciences and others, following the classification in Xie and Shauman's book *Women in Science* (*5*).

Table S3: Grouping Microsoft Academic Graph fields into 4 major disciplines.

Major disciplines	Microsoft Academic Graph first-level field	Microsoft Academic Graph second-level field
Engineering and computer science	Engineering, Computer science	Aerospace engineering, Biochemical engineering, Electrical engineering, Chemical engineering, Process engineering, Geotechnical engineering, Manufacturing engineering, Computer vision, Data mining, Computational science, Information retrieval, Computer security, Knowledge management, Civil engineering, Forensic engineering, Library science, Speech recognition, Operations research, Marine engineering, Reliability engineering, Mining engineering, Simulation, Telecommunications, Operating system, World Wide Web, Parallel computing, Systems engineering, Waste management, Transport engineering, Control engineering, Architectural engineering, Mechanical engineering, Construction engineering, Automotive engineering, Pattern recognition, Engineering physics, Process management, Machine learning, Computer engineering, Programming language, Human-computer interaction, Computer network, Engineering ethics, Petroleum engineering, Aeronautics, Structural engineering, Theoretical computer science, Nuclear engineering, Computer architecture, Computer graphics (images), Pulp and paper industry, Database, Internet privacy, Natural language processing, Data science, Real-time computing, Distributed computing, Algorithm, Embedded system, Artificial intelligence, Engineering management, Agricultural engineering, Industrial engineering, Electronic engineering, Multimedia, Computer hardware, Software engineering, Engineering drawing.
Life science	Environmental science, Medicine, Biology	Environmental planning, Molecular biology, Oncology, Virology, Bioinformatics, Environmental health, Medical emergency, Urology, Pathology, Biological system, Immunology, Cancer research, Botany, Physical medicine and rehabilitation, Dermatology, Biochemistry, Pharmacology, Animal science, Soil science, Andrology, Agricultural science, Gastroenterology, Ophthalmology, Paleontology, Biotechnology, Food science,

		Toxicology, Optometry, Orthodontics, Genetics, Risk analysis (engineering), Gerontology, Internal medicine, Cardiology, Neuroscience, Family medicine, Veterinary medicine, Microbiology, Medical education, Medical physics, Physiology, Surgery, Dentistry, Agronomy, Zoology, Biomedical engineering, Cell biology, Ecology, Psychiatry, Obstetrics, Astrobiology, Horticulture, Environmental protection, Traditional medicine, Gynecology, Clinical psychology, Computational biology, Evolutionary biology, Anatomy, Intensive care medicine, Audiology, Biophysics, General surgery, Radiology, Pediatrics, Water resource management, Physical therapy, Agroforestry, Nursing, Environmental engineering, Anesthesia, Environmental resource management, Fishery, Nuclear medicine, Endocrinology, Emergency medicine.
Mathematics and physical science	Physics, Geography, Chemistry, Materials science, Geology, Mathematics, Statistics	Earth science, Geochemistry, Hydrology, Environmental chemistry, Particle physics, Applied mathematics, Combinatorics, Mathematical analysis, Analytical chemistry, Condensed matter physics, Photochemistry, Oceanography, Cartography, Algebra, Pure mathematics, Nuclear chemistry, Quantum mechanics, Composite material, Mechanics, Astronomy, Crystallography, Inorganic chemistry, Polymer chemistry, Nanotechnology, Forestry, Physical geography, Combinatorial chemistry, Discrete mathematics, Mathematics education, Atomic physics, Petrology, Arithmetic, Theoretical physics, Geometry, Quantum electrodynamics, Statistical physics, Computational chemistry, Archaeology, Economic geography, Nuclear magnetic resonance, Control theory, Polymer science, Seismology, Calculus, Mathematical physics, Stereochemistry, Classical mechanics, Astrophysics, Medicinal chemistry, Metallurgy, Geodesy, Acoustics, Remote sensing, Mathematical optimization, Topology, Meteorology, Statistics, Optics, Radiochemistry, Molecular physics, Nuclear physics, Computational physics, Chemical physics, Geophysics, Optoelectronics, Climatology, Geomorphology, Physical chemistry, Organic chemistry, Chromatography, Thermodynamics, Mineralogy, Ceramic materials, Atmospheric sciences, Biostatistics.
Social sciences and others	Art, Sociology, Economics, Political science, Philosophy, History, Psychology, Business	Art history, Commerce, Environmental ethics, Environmental economics, Social psychology, Aesthetics, International trade, Finance, Economic system, Gender studies, Psychoanalysis, International economics, Econometrics, Welfare economics, Financial economics, Ethnology, Social science, Socioeconomics, Applied psychology, Political economy, Management science, Economy, Visual arts, Marketing, Keynesian economics, Genealogy, Accounting, Literature, Regional science, Industrial organization, Demographic economics, Agricultural economics, Business administration, Management, Operations management,

		Classics, Mathematical economics, Anthropology, Media studies, Criminology, Actuarial science, Linguistics, Development economics, Economic history, Pedagogy, Public administration, Public economics, Market economy, Public relations, Positive economics, Demography, Humanities, Natural resource economics, Psychotherapist, Religious studies, Theology, Economic policy, Advertising, Ancient history, Monetary economics, Economic growth, Financial system, Neoclassical economics, Law and economics, Law, Communication, Epistemology, Labor economics, Cognitive psychology, Classical economics, Microeconomics, Cognitive science, Developmental psychology, Macroeconomics.

We leveraged Google Maps API to parse all 27,077 institution names in Microsoft Academic Graph, and retrieved their country labels. Therefore, we could label every Chinese scientist's working country in any publishing year. Specifically, we focused on Chinese scientists leaving the US, i.e., those who were trained in the US (first paper affiliated in the US) and who subsequently moved from the US to China (i.e., stopped using US affiliations and started to use Chinese affiliations). For each such scientist, we counted the year range of all his/her papers affiliated in the US and affiliated in China, and annotated his/her leaving year as the year of his/her first subsequent paper after his/her most recent usage of a US affiliation. This was more accurate than simply using his/her last year with a US affiliation, which might produce false positives that counted current US-based Chinese scientists. We further identified two groups of interest among US-based Chinese scientists: "junior" scientists—those who had published their first papers in the US, started publishing with Chinese affiliations within 5 years thereafter, and finally left the US within 7 years thereafter; and "experienced" scientists—those who had published over 25 papers in their whole career and outperformed 97% of scientists. Table S4 reports the yearly total number of US-based Chinese scientists who dropped US affiliation in each year since 2000. In Figures S1 to S3, we present the normalized trends for the groups as a whole and for the junior and experienced scientists.

Table S4: Yearly number of US-based Chinese scientists who dropped US affiliations for China affiliations

	Engineering and computer science	Mathematics and physical science	Life science	Social sciences
2000	3	18	6	0
2001	3	19	12	0
2002	6	19	10	1
2003	15	25	24	2
2004	18	44	37	2
2005	22	49	36	5
2006	30	74	51	6
2007	31	66	71	5
2008	36	111	81	11
2009	57	117	110	13
2010	77	149	131	13
2011	85	185	141	18
2012	85	193	192	20
2013	97	211	253	28
2014	138	239	280	34
2015	110	279	294	32
2016	168	319	348	40
2017	175	341	348	50
2018	196	416	393	57
2019	202	468	430	73
2020	244	495	423	53
2021	298	639	478	75

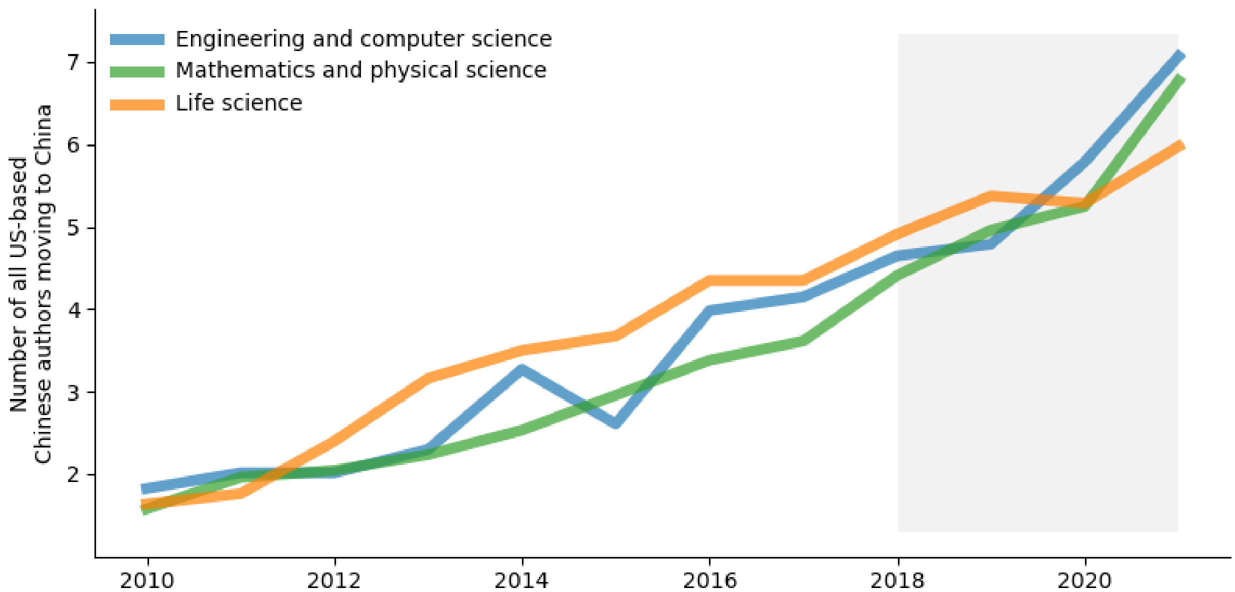

Figure S1: Trends in Chinese scientists migrating from the US to China. Number of all Chinese scientists leaving the US in each year from 2010 to 2021, normalized as ratios to the 2005–2010 level in each discipline.

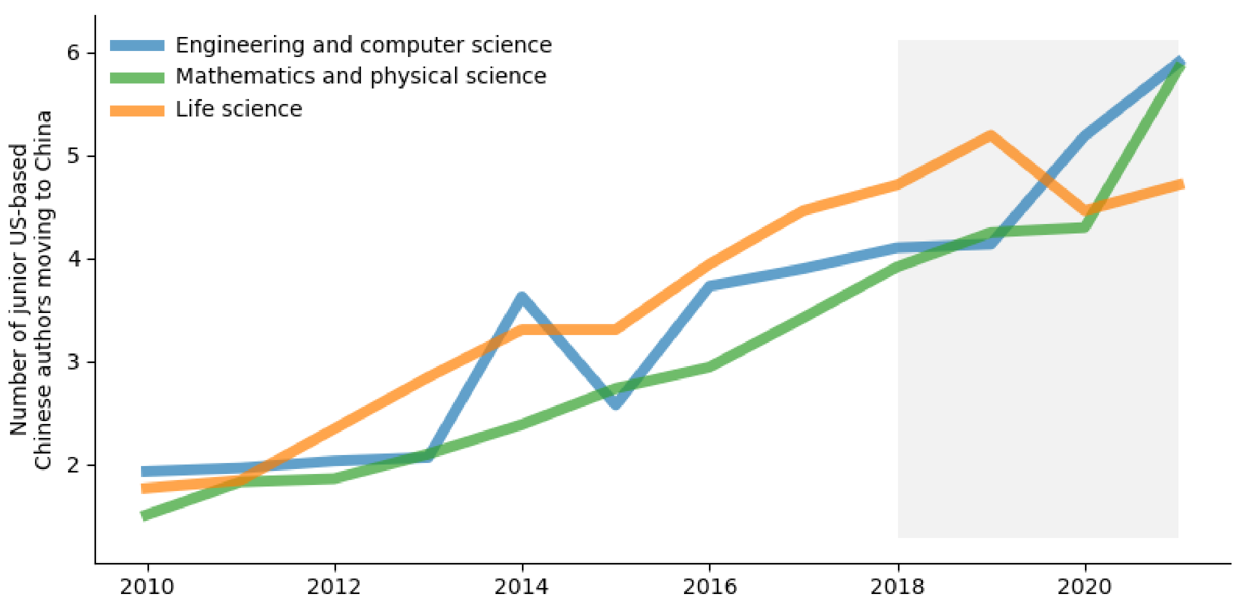

Figure S2: Trends in junior Chinese scientists migrating from the US to China. Number of junior Chinese scientists leaving the US in each year from 2010 to 2021, normalized as ratios to the 2005–2010 level in each discipline.

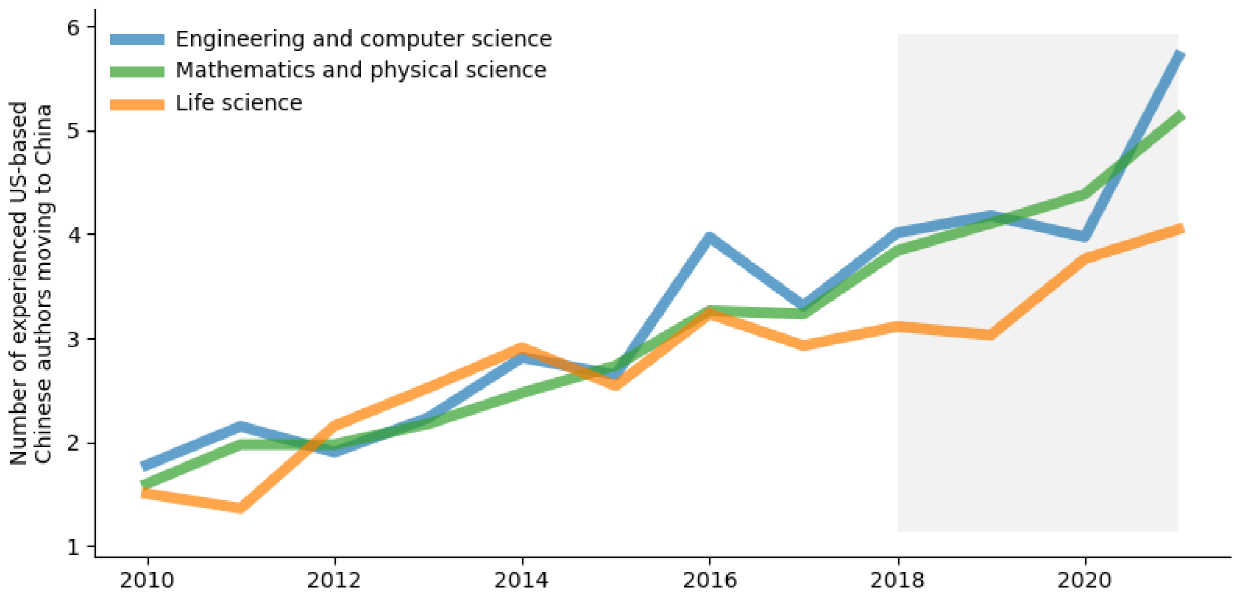

Figure S3: Trends in experienced Chinese scientists migrating from the US to China. Number of experienced Chinese scientists leaving the US in each year from 2010 to 2021, normalized as ratios to the 2005–2010 level in each discipline.

Supplementary Materials 4: Asian American Academic Climate Survey

The Asian American Scholar Forum (AASF) (aasforum.org) conducted an online survey of Asian American faculty in the US between December 2021 and March 2022. The stated objective of the survey was to understand challenges and experiences of Asian American scholars in their research and educational environments, including their perceptions of academic climate, academic activities, and mental and physical well-being. We designed the survey questionnaire and helped field the survey. To protect the confidentiality of the respondents, the survey began with a consent form and a promise that their responses would be collected and analyzed anonymously. In collaboration with various professional associations, the AASF sent the survey to intended respondents nationwide. Specifically, AASF asked all of its 55 members to forward the invitation message with the link to the survey to Chinese-American faculty members; AASF emailed the presidents of the following 11 Chinese-American professional associations that co-sponsored the AASF webinar series, asking them to forward the survey to their members (see below for the list).

1. Association of Chinese Scholars in Computing
2. Chinese-American Chemistry & Chemical Biology Professors Association
3. Chinese-American Oceanic and Atmospheric Association
4. Chinese Biological Investigator Society (CBIS)
5. International Chinese Statistical Association
6. North America Federation of Tsinghua Alumni Associations
7. Peking University Alumni Association of New England
8. Peking University Alumni Association of Washington DC
9. The Society of Chinese Bioscientists in America (SCBA)
10. Tsinghua Alumni Academia Club of North America
11. US Chinese Scholar Association of Combustion Institute

We obtained valid responses from 1,394 respondents. All participants signed the consent forms. For the analyses reported in this paper, we excluded 37 observations who selfidentified as non-Chinese Asian American and 18 observations of missing Asian ethnicity. We further excluded 5 observations from graduate students and 30 observations for whom the current position was either missing or in industry. The aforementioned case exclusion criteria left us with a total of 1,304 observations of Chinese-American faculty. We then excluded 75 cases containing any missing values in the covariates for the logistic regression analysis presented in Table S5. Therefore, the main analytic sample size for predicting scholars' intention of relocating outside the US is 1,229, and the analytic sample size for predicting scholars' intention of avoiding federal grant applications is 934 (further restricted to those who had even been awarded grants from US government agencies). In Table S5, we provide the main descriptive statistics from the survey.

Methodologically, two sources of potential bias could be present in the AASF survey. The first is called "sample selection bias": potential respondents were more likely to participate in the AASF survey if they already perceived themselves to have been impacted by the China Initiative. The second is called "social desirability bias": respondents knew the objective of the AASF survey and may have supplied information consistent with the objective. Note that both sources of bias are in the direction of exaggeration of the negative impact of the China Initiative. Therefore, the results reported in this article should be interpreted with caution.

TABLE S5. Descriptive Summary for the Main Analytical Sample of AASF Survey Data (n=1299)

	Percentages
Intention of Relocating Abroad (Either Asian or non-Asian Countries)	61%
Intention to relocate to Asian countries	47%
Intention to relocate to non-Asian countries	46%
Intention of Avoiding Federal Grants[1]	45%
Have Been Awarded a US Federal Grant	77%
Intention of Contributing to the US Leadership in Science and Technology	89%
Perceptions of Current Academic Climate:	
Feel unwelcome as an academic researcher in the US	35%
Do not feel safe as an academic researcher in the US	72%
Fearful of conducting research in the US	42%
Worried about collaborations with China	65%
It is more difficult to recruit top international students now	86%
Received disclosure inquiries from my institution in the last two years	42%
Sense of Belonging to Local Institution and Professional Community:	
Feel that I belong	55%
Neutral	28%
Feel that I don't belong	17%
How Often Have You Been Bullied under Professional Settings Last Year?	
Never	25%
Rarely/Sometimes	59%
Often/Most of the time	10%
Not Sure	6%
How Often Have You Been Insulted by Others under Non-professional Settings Last Year?	

Never	13%
Rarely/Sometimes	72%
Often/Most of the time	11%
Not Sure	4%
Current Position:	
Assistant Professor	24%
Associate Professor	23%
Full Professor	48%
Non-tenure-track academic	5%
Male	74%
Field of Study:	
Mathematics and physical science	29%
Life Science	30%
Engineering and computer Science	35%
Social Sciences and others	6%
Region of Institution:	
West	19%
Midwest	24%
Northeast	21%
South	37%
Type of Institution:	
Public	70%
Private	30%

Note: Based on the larger analytic sample focusing on intentions of relocating abroad.
1: Among those ever-awardees of grants from US government agencies, 45% indicated intentions to avoid federal grants.

Supplementary Materials 5: Explaining Stated Intentions

TABLE S6. Logistic Regression Models Predicting Scholars' Intentions of Avoiding Applying for Federal Grants and of Relocating Abroad

	Scholar Intentions			
	Avoiding Federal Grants [1]		Relocating Abroad	
	Model 1A	Model 2A	Model 1B	Model 2B
Perceptions of Current Academic Climate:				
Feel unwelcome as an academic researcher in the US		0.465*		0.505**
		(0.189)		(0.173)
Do not feel safe as an academic researcher in the US		0.807***		0.727***
		(0.219)		(0.159)
Fearful of conducting research in the US		1.389***		0.523**
		(0.187)		(0.166)
Worried about collaborations with China		0.794***		0.529***
		(0.192)		(0.148)
It is more difficult to recruit top international students now		0.493+		0.535**
		(0.274)		(0.193)
Received disclosure inquiries from my institution in the last two years		-0.206		0.029
		(0.166)		(0.140)
Sense of Belonging to Local Institution and Professional Community (ref. Feel that I belong):				
Neutral		-0.154		0.392*
		(0.196)		(0.161)
Feel that I don't belong		0.234		0.412+
		(0.269)		(0.223)
How Often Have You Been Bullied under Professional Settings Last Year? (ref. Never)				
Rarely/Sometimes		0.098		0.091

		(0.230)		(0.185)
Often/Most of the time		0.864*		0.244
		(0.424)		(0.361)
Not sure		0.550		0.208
		(0.443)		(0.327)
How Often Have You Been Insulted by Others under Non-professional Settings Last Year? (ref. Never):				
Rarely/Sometimes		0.165		0.793***
		(0.300)		(0.230)
Often/Most of the time		0.151		1.134**
		(0.424)		(0.361)
Not sure		-0.477		0.614
		(0.567)		(0.428)
Current Position (ref. Full Professor):				
Assistant Professor	-0.779***	-0.642**	0.517***	0.925***
	(0.190)	(0.225)	(0.157)	(0.184)
Associate Professor	-0.223	-0.045	0.368*	0.593***
	(0.168)	(0.201)	(0.153)	(0.175)
Non-tenure-track academic	-0.485	0.210	-0.047	0.289
	(0.398)	(0.460)	(0.271)	(0.311)
Male (ref. Female)	0.325+	0.089	0.236+	0.072
	(0.167)	(0.200)	(0.139)	(0.159)
Field of Study (ref. Mathematics and physical science):				
Life science	-0.330+	-0.792***	0.068	-0.191
	(0.180)	(0.218)	(0.157)	(0.179)
Engineering and computer science	0.493**	0.128	-0.052	-0.384*
	(0.170)	(0.202)	(0.149)	(0.170)
Social Sciences/Others	0.455	-0.090	0.387	0.317
	(0.512)	(0.627)	(0.280)	(0.314)

Region of Institution (ref. West)				
Midwest	0.215	0.338	0.027	0.012
	(0.210)	(0.247)	(0.184)	(0.205)
Northeast	-0.043	0.077	-0.164	-0.085
	(0.224)	(0.262)	(0.194)	(0.216)
South	-0.022	0.178	0.076	0.102
	(0.192)	(0.229)	(0.170)	(0.190)
Public Institution (ref. Private Institution)	0.429**	0.474*	0.138	0.079
	(0.161)	(0.191)	(0.139)	(0.156)
Have Been Awarded a US Federal Grant (Ref. Never)			0.433**	0.494**
			(0.154)	(0.178)
Constant	-0.681**	-3.084***	-0.362	-2.871***
	(0.259)	(0.474)	(0.268)	(0.394)
Observations	936	934	1,234	1,229
Pseudo R2	0.0503	0.259	0.0168	0.167

Notes: 1. the analytic sample for "avoiding federal grants" is restricted to those ever-awardees (past or current) of grants from US government agencies. Reporting the coefficients from logistic regression models; standard errors in parentheses; *** p<0.001, ** p<0.01, * p<0.05, + p<0.10.

Supplementary Materials 6: Predicting Fears

TABLE S7. Logistic Regression Models Predicting Scholars' Fears

	Indicators of Fear		
	Do Not Feel Safe	Feel Unwelcome	Fearful of Conducting Research
	Model 1	Model 2	Model 3
Current Position (ref. Full Professor):			
Assistant Professor	-0.233	-0.198	-0.525***
	(0.166)	(0.157)	(0.157)
Associate Professor	-0.180	-0.113	-0.136
	(0.164)	(0.153)	(0.150)
Non-tenure Track Academic	-0.455	-0.234	-0.733*
	(0.286)	(0.293)	(0.306)
Field of Study (ref. Mathematics and physical science):			
Life science	0.144	0.307+	0.603***
	(0.166)	(0.163)	(0.160)
Engineering and computer science	0.522**	0.414**	0.743***
	(0.165)	(0.154)	(0.153)
Social Sciences/Others	-0.313	0.344	0.385
	(0.275)	(0.281)	(0.289)
Male (ref. Female)	0.218	0.219	0.389**
	(0.147)	(0.145)	(0.143)
Region of Institution (ref. West)			
Midwest	-0.187	0.020	-0.067
	(0.204)	(0.185)	(0.184)
Northeast	-0.254	-0.083	-0.044
	(0.214)	(0.201)	(0.197)
South	-0.200	-0.033	-0.116
	(0.188)	(0.171)	(0.170)
Public Institution (ref. Private Institution)	0.143	0.329*	0.190
	(0.150)	(0.145)	(0.141)
Have Been Awarded a US Federal Grant (Ref. Never)	-0.019	-0.000	0.346*
	(0.166)	(0.159)	(0.161)

Constant	0.808**	-1.156***	-1.240***
	(0.289)	(0.279)	(0.278)
Observations	1,234	1,234	1,234
Pseudo R2	0.0195	0.0133	0.0431

Reporting the coefficients from logistic regression models; standard errors in parentheses.
*** p<0.001, ** p<0.01, * p<0.05, + p<0.10.

Supplementary Materials 7: Explaining Fears

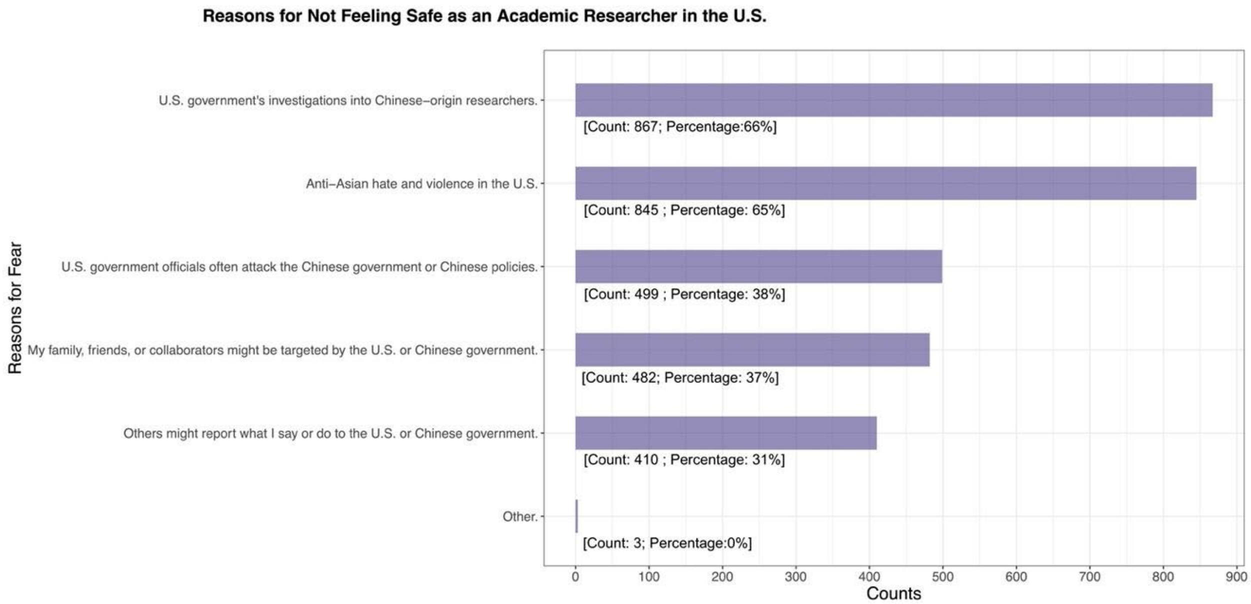

Figure S4: Reasons for not feeling safe as an academic researcher in the US

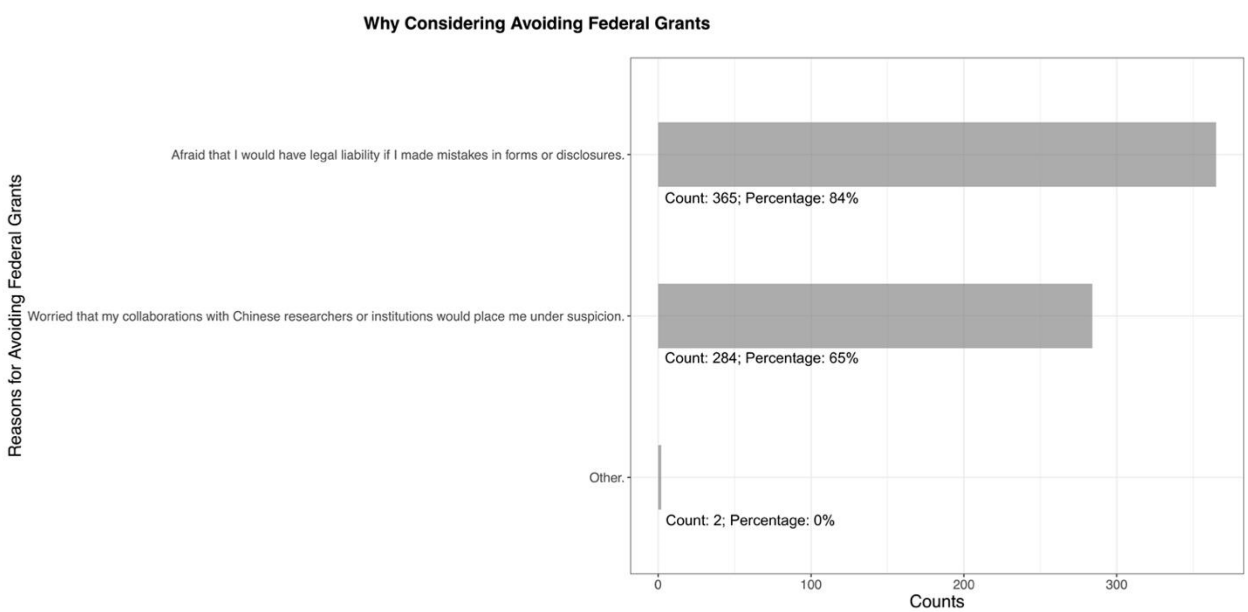

Figure S5: Reasons for considering avoiding applying for federal grants (N=436)

Supplementary Materials 8: Comparison of the AASF Survey to Two Other Surveys

Two additional surveys on the same topic were conducted: the University of Arizona survey and the University of Michigan survey. For simplicity, we will refer to the first survey as the UA survey and the second survey as the UM survey. In Table S8, we compare the sampling methods of the three surveys in detail, using sources in (*6,7*). By survey standards, all of the three surveys are considered “convenience” samples. That is, they are not probability-based (which is the most desirable) samples because there is no national sampling frame from which a sample could be drawn. In addition, we do not know the response rate of the AASF survey. Because the AASF survey is a convenience sample with an unknown response rate, we acknowledge that the results can be subject to sampling and response biases.

Table S8: Comparison of Methodology across the Three Surveys

	AASF Survey	University of Michigan (UM) Survey	University of Arizona (UA) Survey
Survey Distribution Methods	(1) AASF asked all its 55 members to forward the invitation message with the link to the survey to Chinese-American faculty members in their networks; (2) AASF emailed to the presidents of the 11 Chinese-American professional associations that co-sponsored the AASF webinar series, asking them to forward the survey to their members (see below for the list).	"Invitations were sent to 927 members of Asian/Chinese faculty associations at five universities: University of Michigan, Michigan State, Iowa State, Columbia, and Notre Dame" (according to the slides shared by the University of Michigan survey team).	(1) "The University of Arizona and the Committee of 100 administered a national survey between May and July 2021 among scientists in top US universities, including faculty, post-doctoral fellows (postdocs), and graduate students. … The survey was sent to: a) all Chinese name scientists; and b) a random sample of non-Chinese name scientists across 83 US universities. … (2) In order to purposely oversample Chinese scientists for comparison, we sent the survey invitation through email to the entire Chinese name group, and an equivalent number of randomly selected scientists from the non-Chinese name group." (*7*, p.29)
Sample Size	1,394 valid responses in total, including 1,304 Chinese-American faculty members (unknown response rate).	295 full responses (32% response rate).	1,060 responses from scientists with Chinese surnames and 889 responses from scientists with non-Chinese surnames. Total sample size is 1,949 (6.8% overall response rate).
Survey-Fielding Dates	December 2021–March 2022	July–August 2021	May–July 2021
Sample Composition	Chinese faculty members at US institutions nationwide (excluding students)	Asian/Chinese faculty members at five institutions (excluding students and postdocs)	Chinese and non-Chinese faculty members, including postdocs and graduate students.

Note: Sources for the UM survey and the UA survey and are in (*6, 7*). List of associations that forwarded the AASF survey invitation: Association of Chinese Scholars in Computing, Chinese-American Chemistry & Chemical Biology Professors Association, Chinese-American Oceanic and Atmospheric Association, Chinese Biological Investigator Society (CBIS), International Chinese Statistical Association, North America Federation of Tsinghua Alumni Associations, Peking University Alumni Association of New England, Peking University Alumni Association of Washington DC, The Society of Chinese Bioscientists in America (SCBA), Tsinghua Alumni Academia Club of North America, US Chinese Scholar Association of Combustion Institute.

We further compare the main findings from the three surveys, summarized in Table S9. Because the AASF survey is primarily a survey of Chinese-origin academic scientists, we compare the results to those of “Chinese” scientists in the UA survey. Table S9 shows that all major findings, when they are comparable, are remarkably consistent across the three surveys. With different wordings for the question on feelings of safety, for example, 51% of the respondents in the AASF survey feel unsafe, 59% of the respondents in the UM survey do not feel safe, and 50.7% of the Chinese respondents in the UA survey feel fear/anxiety of being surveilled by the US government. The three surveys each collected information on respondents’ feelings toward applying for federal grants. In the AASF full analytical sample, 34% have considered avoiding applications for federal grants due to the current political climate in the US; in the UM sample, 28% have considered avoiding applying for federal grants; in the UA sample, 38.4% report having experienced more difficulty in obtaining research funding in the US as a result of their race/nationality/country of origin. Responses concerning intentions to leave the US are also consistent across the surveys: In the AASF survey, 46% intend to relocate to Asia, and 47% to non-Asian countries; in the UM survey, 32.2% have thought about moving to Asia, and 26.2% to Canada, Europe, Australia, or New Zealand; in the UA survey, 42.1%. report that FBI investigations and the China Initiative have affected their plans to stay in the US. Similar consistency is found for other survey items of interest when they are comparable across the surveys.

Table S9: Comparison of Findings from the Three Surveys

	AASF Survey	University of Michigan (UM) Survey	University of Arizona (UA) Survey (Chinese only)
Question: Do you feel safe…	I currently feel safe as an academic researcher in the US. Feel unsafe: 51%; unsure: 21%.	Do you feel safe as Chinese-origin academic researchers in the US? Do not feel safe: 59%; not sure: 12%.	Scientists who feel fear/anxiety of being surveilled by US gov't 50.7%.
Question: Reasons for not feeling safe…	I do not feel safe because… Because of the US gov't investigations into Chinese-origin researchers: 66%. Because of anti-Asian violence in the US: 65%. Because US gov't officials often attack the Chinese gov't or Chinese policies: 38%. Because my family, friends, or collaborators might be targeted by the U.S. or Chinese gov't: 37%. Because others might report what I say or do in the US to Chinese gov't: 31%.	I do not feel safe because… Because of the US gov't investigations into Chinese-origin researchers: 56%. Because of anti-Asian violence in the US: 55.9%. Because US gov't officials often attack the Chinese gov't or Chinese policies: 29.4% Because Chinese gov't could target my family/friends/collaborators to retaliate: 10.7%. Because other Chinese might report what I say or do in the US to Chinese gov't: 8%.	
Question: Research grants (broadly defined)	Have you considered avoiding applications for federal grants due to the current political climate in the US? Yes, I have: 34% of the full analytic sample (N=1234); 45% of ever-awardees of federal grants (n=936).	Have you considered avoiding federal grants? Yes, I have: 28% of the full analytic sample (N=295).	Scientists who experience more difficulty in obtaining research funding in the US as a result of their race/nationality/country of origin 38.4%.

Question: Intention to leave the US	Intention of relocating abroad (either Asian or non-Asian Countries): 61% overall. To Asia: 46%; to non-Asian countries: 47%.	Given current political environment in the US, thought about moving… To Asia: 32.2%; to Canada, Europe, Australia or New Zealand: 26.2%.	Scientists who report that FBI investigations and/or the China Initiative affected their plans to stay in the US 42.1%.
Question: whether my university encouraged collaboration with China	Before 2018, did you feel that the University encouraged collaboration in China? 80% of the 922 non-missing responses (56% of the full analytic sample).	Before 2018, did you feel that the University encouraged collaboration in China? 77% of the 139 non-missing responses (i.e., 36% of the full survey sample).	
Question: whether my university still encourages collaboration with China now	Do you feel that this university currently encourages collaborations in China? 3.4% of the 916 non-missing responses (2.4% of the full analytic sample).	Do you feel that this university currently encourages collaborations in China? 9% of the 168 non-missing responses (5% of the full survey sample).	

Sources: Based on (1) our calculations from the AASF analytic sample; (2) PowerPoint slides shared by the UM Survey research team via email (*6*); and (3) public report of the UA Survey posted on Committee of 100 website (*7*).

Note: In this table, we underlined comparable yet not identical questions asked across the three surveys.

Supplementary Materials 9: Evaluation of the AASF Survey Using ACS Data

Because the AASF survey is a convenience sample, it may not be representative of its underlying population. To evaluate the representativeness of the AASF sample, we compare a few key sociodemographic characteristics of the AASF sample to the American Community Survey (ACS), the "gold standard" government survey conducted by the US Census Bureau (https://www.census.gov/programs-surveys/acs/). Unfortunately, there are only a limited number of variables that are available in both the AASF survey and the ACS survey (pooled annual files 2015–2019). We present the results of the evaluation in Table S10. Note that the sample size of the ACS survey is small due to the sample restriction. There are some small discrepancies. For example, we observe a higher proportion of respondents in engineering and computer science, and a lower proportion in life science, in the AASF survey than in the ACS. One possibility is that a high proportion of Chinese-origin life scientists are employed in non-tenure-track positions and thus were non-eligible for the AASF survey. Engineers and computer scientists are likely to be employed in tenure-track positions and are eager to participate in the AASF survey because they are impacted by the China Initiative. Further, the AASF sample is much older than the ACS sample. Compared to younger researchers, senior researchers are more likely to be approached by professional organizations to participate in the AASF survey, and they are more motivated to participate in the survey because they are more likely to be impacted by the China Initiative. Aside from these two discrepancies, the demographic representativeness of the AASF survey is overall adequate.

Table S10: Comparison of Demographic Characteristics between the AASF Survey and the American Community Survey (ACS) 2015–2019

	Main Analytical Sample of AASF Survey Data (n=1299, from TABLE S5)	ACS 2015–19, Pooled Annual Samples (n=662)
Male	74%	61%
Field of Study:		
Formal/Physical Science and Statistics	29%	29%
Life Science	30%	46%
Engineering and Computer Science	35%	18%
Social Sciences/Others	6%	7%
Region of Institution:		
West	19%	24%
Midwest	24%	18%
Northeast	21%	24%
South	37%	33%
Age Category:		
18–40	30%	63%
41–50	33%	20%
51–60	28%	12%
61+	9%	4%

Notes: The pooled sample of American Community Survey (ACS 2015–19) is restricted to foreign-born respondents aged 18+, whose race is "Chinese," holding "doctoral degree," whose industry is "colleges and universities," and whose occupation is broadly defined as a "scientist." Unfortunately, we cannot further restrict the ACS sample to those who hold tenure-track positions versus non-tenure-track positions.

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