Asian American Scholar Forum (AASF) National Academic Climate Survey Findings
Brief Introduction of AASF (https://aasforum.org/)

- 54 Asian American Full Professors from 30 Universities
  - 18 NAE, NAM, NAS and AAA&S Members
  - 8 Past and Current University Presidents, Provosts and Vice Provosts, Deans and Associate Deans
  - 15 Past and Current Department Chairs
  - 24 Center, Institute and Program Directors
- AASF organizes a popular monthly webinar series in collaboration with 13 Asian American professional societies of 7,000+ members since 2021
Emerging Challenge in Retaining and Attracting Talents

- The US leadership in science and technology (S/T) has benefitted from immigrants
  - Asian accounted for 24% of NIH R01 PIs
  - 46% of US PhDs in S/T were given to international students
  - The largest group of foreign students is from China: 37%.
  - Most Chinese students (87%) stay in the US after their PhDs

- There are indications that Chinese-origin faculty now feel pressure in the US and consider leaving US and avoid applying for federal grants.
Significant increase of Chinese-origin Scientists who have returned to China in the last 4 years

Chao et al. (2021) analyzed trends in the migration of Chinese-American scientists to China from 2010 to 2020. The graph shows trends in migration for three fields: Engineering and computer science, Mathematics and physical science, and Life science. The data indicates a significant increase in the migration of Chinese-origin scientists to China, particularly in the fields of engineering and computer science and life science, over the last decade.
• **Objective:** Learn the challenges & experiences of Asian American scholars in academic environment, research and educational activities, and sentiment.
Participant Professional Characteristics (n=1354)

- **Field**
  - Engineering: 22.2%
  - Math/Physics/Chemistry/Other Science/Tech: 19.9%
  - Biology and Bioinformatics: 18.4%
  - Computer Science: 12.8%
  - Statistics and Biostatistics: 11.8%
  - Health: 10.1%
  - Liberal Arts/Humanities/Business/Law: 4.8%

- **Rank**
  - Professor (with tenure): 47.8%
  - Associate Professor (with/without tenure): 23.3%
  - Assistant Professor (tenure track): 23.9%
  - Research Scientist or Research Professor (any rank): 5.0%

- **Type**
  - Public: 70.6%
  - Private: 29.4%

- **Number of Responses**
  - 100+ responses shown in yellow, decreasing to 0 in grey.

The map shows the distribution of responses across the United States, with different states colored to represent the number of responses.
76% of Participants are Past and Current PIs of Federal Grants

Past and Current PIs of Federal Grants

- Yes: 1031 (76.1%)
- No: 323 (23.9%)

Funding Agencies of Current PIs

- NIH: 493 (36.4%)
- NSF: 494 (36.5%)
- DOE: 129 (9.5%)
- DOD: 169 (12.5%)
- NASA: 47 (3.5%)
- DARPA: 25 (1.8%)
- ARPA-E: 14 (1.0%)
- Other: 88 (6.5%)
67% considered moving out of US, especially young faculty and grant awardees

**Background:** In biomedicine, Asians made up
- 31% of trainees (graduate students and postdocs)
- 21% of faculty

NSF (2019) and Jan (2022, Cell)
Who are the 67% who thought about moving out of US?

OR=odds ratio

• Young faculty
  (OR(18-40 vs 61+)=3.6)
  Odds of thinking of moving for 18-40 yrs old is 3.6 times of that of 61+ yrs old.

• Grant awardees (OR=1.5)
89% would like to contribute to strengthening US leadership in science & technology

Percentages who would like to contribute (89%) are similar between those who thought of moving and those who thought of staying.
60% thought students & postdocs of Asian descent are more likely to pursue careers out of US compared to 5 years ago, especially in biology.

- 90% thought it is more difficult to recruit top international students compared to 5 years ago, especially in tech and life science.
Takeaway #2

Significant Risk of Losing Talent in Federal Sponsored Research

44% considered avoiding applying for federal grants, especially CS and engineering and public univ faculty

**Background:** In 2020, Asian accounted for

- 26% of NIH applicants
- 24% of NIH R01 PIs

Collins, et al. (2021, Cell) and Jan (2022, Cell)
44% Considered Avoiding Applying for Federal Grants

Who are they?

CS and Engineering

Public Univ (OR=1.8)

Chinese Descent (OR=13)

The significant higher rate of avoiding grant applications among CS/E faculty is explained by their having more fear of conducting research.
Takeaway #3

A large fraction found federal agency instructions on disclosure

- were unclear 5 years ago
- were more clear in the last 2 years
- are in need of continuing improvement
65% thought instructions were unclear 5 yrs ago

45% thought instructions were made more clear in the last 2 yrs

19% experienced unequal treatment in disclosure inquiries, especially Chinese descent, engineering and life science faculty.
Takeaway #4

Widespread fear in conducting research & academic activities

64% (35%) Felt Unsafe (Unwelcome) as an Academic Researcher in the U.S.
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Who felt more unsafe?

- Chinese descent (OR=5.9)
- Grant awardees
- Senior faculty
- Engineering and CS

43% felt fearful of conducting research and normal academic activities
A High Fraction of Participants Were Concerned about the Academic and Research Environment in US

- Great stress
- Risk of conducting federal sponsored research
- Risk of collaboration with scholars in China
- Risk of research dissemination
54% Did Not Feel Comfortable Sharing Their Concerns With University Leadership

Especially faculty in public universities

Across all fields
Takeaway #5

Fear strongly predict the intention of avoiding federal grant applications and considering relocating abroad.
Summary of Takeaways

• High risk of losing & failing to attract talent of Asian descent, especially young researchers and grant awardees.

• High risk of losing talent in federal sponsored research & open science, especially public univ & CS and engineering faculty.

• Widespread fear of conducting normal academic activities, federal grant applications, and research dissemination, due to fear.

• A vast majority of Asian American scholars would like to contribute to the US leadership in science and technology, but felt unsafe in staying.

• **Strategies forward**: Addressing fear and making the academic environment welcoming and attractive for all will help retain and attract scientific talent and strengthen the US leadership in science and technology.