Ensuring Research Security & Integrity in an Era of Global Science
A Perspective from the United States

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OECD and JST-CRDS Joint Workshop on Research Integrity and Security

June 28, 2022

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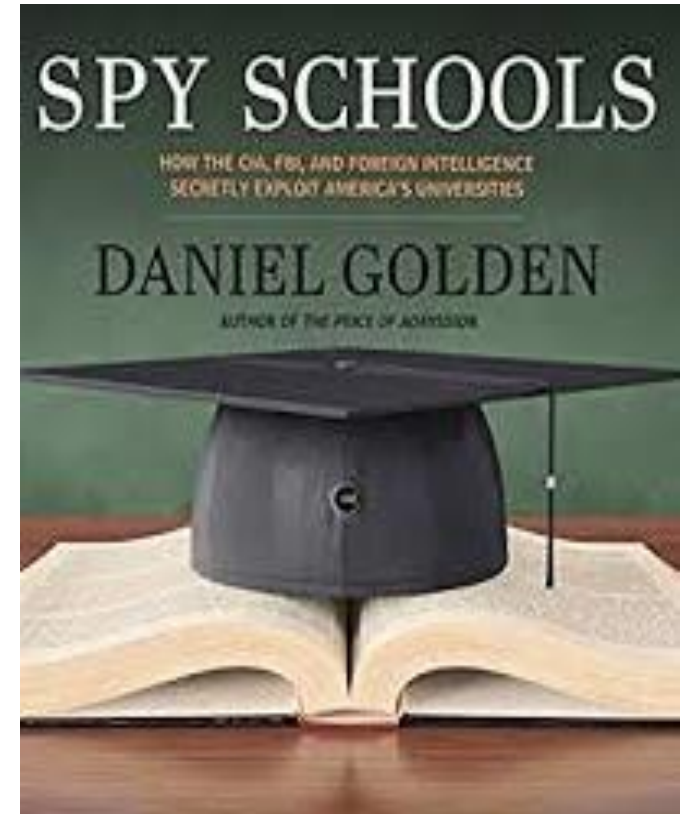
Who We Are

The Association of American Universities (AAU) is an association of leading research universities - 64 U.S. and two Canadian - that transform lives through education, research, and innovation. AAU member universities collectively help shape policy for higher education, science, and innovation; promote best practices in undergraduate and graduate education; and strengthen the contributions of leading research universities to American society.

Context

- The U.S. is in the middle of a major reassessment of its national policies for ensuring continued innovation and global scientific and technological leadership.

- This reassessment is being driven by:

  -- An historic acceleration in the pace and scale of technological advances;

  -- A profound re-shaping of our workforce; and

  -- A changing geopolitical environment driven by growing international competition from motivated challengers.

- This context is profoundly shaping the national dialogue and policy landscape regarding future international collaboration.
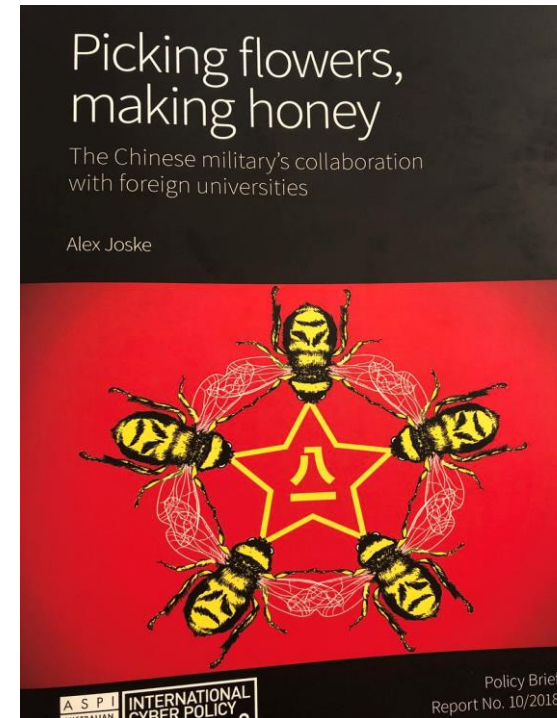
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The Challenge

- Concern has been growing regrading undue foreign influence, IP theft, economic espionage, and threats to research integrity in the United States.

- Federal and state governments are responding with new – and at times ill-informed -- research security requirements.

- Universities are engaging & responding.

SPY SCHOOLS

HOW THE CIA, FBI, AND FOREIGN INTELLIGENCE SECRETLY EXPLOIT AMERICA'S UNIVERSITIES

DANIEL GOLDEN

AUTHOR OF THE PRICE OF ADMISSION

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Research Integrity and Security
Specific Concerns

- Malign foreign talent recruitment programs.
- Economic espionage and loss of critical technologies and research
- Discloser of foreign funding sources/affiliations by faculty and potential conflicts (COI and COC).
- Institutional funding relationships with foreign entities.
- Other:
  - Cybersecurity
  - Genetic Information
  - Gain of Function Research
  - Soft Power Initiatives

Picking flowers, making honey
The Chinese military's collaboration with foreign universities
Alex Joske
A S P I AUSTRALIAN INTERNATIONAL CYBER POLICY
Policy Brief Report No. 10/2018

China's Influence and American Interests
PROMOTING CONSTRUCTIVE VIGILANCE
A PUBLICATION OF THE HOOVER INSTITUTION

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Historical Context

- Early 1980s - Fears arise that universities are targets/points of leakage of military technology to the Soviet Union; the Nation's "soft underbelly"

- DoD-University Forum created by AAU and the Department of Defense.

- NAS Corson Report -- *Scientific Communication and National Security (1982).*

- NSDD-189 Issued by President Reagan (September 21, 1985)

NATIONAL
SECURITY CONTROLS
AND UNIVERSITY RESEARCH

INFORMATION
FOR INVESTIGATORS AND
ADMINISTRATORS

PREPARED BY THE
ASSOCIATION OF AMERICAN UNIVERSITIES
FOR THE
DEPARTMENT OF DEFENSE--UNIVERSITY FORUM

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National Security Decision Directive 189
NSDD-189

Established U.S. policy for controlling the flow of science, technology, and engineering information produced in federally-funded fundamental research

Key Components of NSDD-189

➢ Fundamental research: *basic and applied research* in science and engineering, the results of which ordinarily are published and shared broadly within the scientific community"

➢ To the *maximum extent possible fundamental research should remain unrestricted*; *classification should used as the mechanism to control information* generated during federally-funded fundamental research when it is determined that controls are necessary

Summary: Recent Legislative Proposals & Federal Actions

- Increased institutional reporting of funding received from foreign gifts and contracts (HEA Section 117).

- Clarification of existing and new faculty disclosure requirements (Section 223, FY 2021 NDAA)

- Increased restrictions on participation in malign foreign talent programs; potential outright prohibition pending in Congress.

- Creation of new categories of "emerging" and "foundational" technologies and/or "sensitive research" which could limit access to foreign students & scholars to certain labs and research projects.

- Increased government-wide coordination and harmonization of research agency policies and disclosure requirements (e.g., National Security Presidential Memorandum 33).

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NSPM-33 Implementation Guidance

- Seeks to _standardize disclosure requirements_ across federal agencies for researchers.
- Calls on the agencies develop _uniform reporting instructions and forms_ to enable development/usage of tools like electronic curricula vitae and digital persistent identifier services and platforms to make compliance easy and less burdensome for researchers.
- Directs agencies to develop and implement _specific and consistent guidelines for determining appropriate consequences_ when researchers violate disclosure requirements.
- Seeks to _ensure clarity and consistency in how federal agencies share information about violations/potential violations_ with each other consistent with due process, privacy considerations, and other applicable laws.
- _Provides additional guidance on how to comply with research security program requirements_ contained in NSPM-33 for research organizations receiving more than $50 million in federal research funds annually. Focuses on export controls; cybersecurity; researcher training; and travel policies.
- **_Requires_** _federal agencies to implement NSPM-33 "…in a nondiscriminatory manner_ that does not stigmatize or treat unfairly members of the research community, including members of ethnic or racial minority groups."

University Response

➢ Universities are taking the concerns seriously.

➢ Steps taken by individual universities include:

-- Enhanced campus coordination efforts;
-- Strengthened COI and COC requirements;
-- Enhanced communications and training for
    faculty and students;
-- New foreign travel safeguards and protections; and
-- Increased review and scrutiny of international collaborations, contracts,
    and foreign gifts.

➢ Additionally, universities have:

-- Supported specific legislative and regulatory efforts;
-- Worked to enhance cooperation with security and research agencies; and
-- Fought to ensure due process for faculty and students with
    respect to federal investigations and to guard against racial profiling.

University Association Response

➢ AAU-APLU 2018 and 2020 surveys on effective practices

- *Over 40 schools have provided ~145 examples*

- *Key Areas of Focus:* communication; coordination; training; enhanced risk assessment; cyber and data security; IP protection; security agency interaction; foreign travel; international visitors; export controls.

- *2020 Survey emphasis:* 1) Faculty disclosure requirements and managing conflicts; 2) Promoting faculty/student awareness and training; and 3) increased focus on risk mitigation strategies, processes, and assessment.

➢ AAU-APLU Presidential Working Group on Research Security

➢ *AAU-APLU Principles and Values to Guide University Actions Related to Foreign Government Interference in University Research*

➢ COGR *Framework for Review of Individual Engagements in Academic Research*

Finding the Right Balance

- Universities and their faculty are in the business of "sharing knowledge."

- Essential that we focus on research security and integrity to protect the very openness we value and which is essential to scientific advancement.

- Science must be international.... no one country has monopoly on scientific knowledge.

- The best way to secure U.S. scientific & technological leadership is to build high walls around a narrow set of strategic technologies.

- Clear lines are needed between what is controlled and what should be shared at the outset of the research.

- Controlling broad areas of scientific research (i.e., artificial intelligence, quantum computing, robotics, etc.) would do more damage than good.

- The free flow of international talent is critical to continued U.S. S&T success.

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Resources & Relevant Organizations in the United States

➢ **AAU - Science and Security webpage**
  – *https://www.aau.edu/key-issues/science-security*
  – *Science and Security Resources Document*
  – *AAU-APLU Research Security Effective Practices Survey Summary*
  – *AAU-APLU Principles and Values to Guide Actions Relevant to Foreign Government Interference in University Research*

➢ **COGR - Science and Security**
  – *Website: https://www.cogr.edu/science-and-security*

➢ **OSTP/NSTC Research Security and Integrity Best Practices Report**
  – *https://trumpwhitehouse.archives.gov/wp-content/uploads/2021/01/NSTC-Research-Security-Best-Practices-Jan2021.pdf*

➢ **ASCEP**
  – *Academic Security & Counter Exploitation Program*
  – *Website: https://asce.tamus.edu*

➢ **AUECO**
  – *Association of University Export Compliance Officers*
  – *Website: www. http://aueco.org*

➢ **REN-ISAC**
  – *Research and Education Networks Information Sharing and Analysis Center*
  – *https://www.ren-isac.net/*