

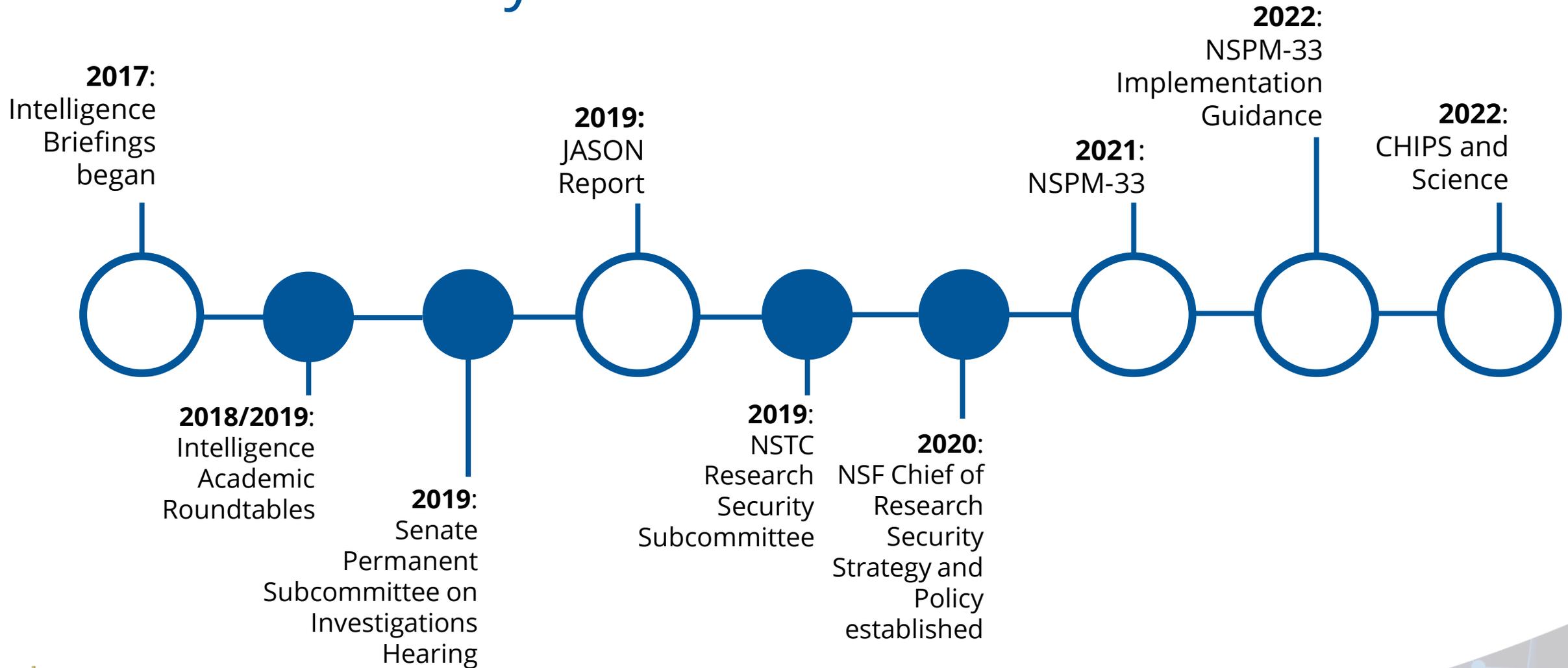


Overview of Research Security Initiatives at NSF

Dr. Rebecca Keiser, Chief of Research Security, Strategy and Policy (CRSSP)

October 2023

Research Security Timeline



THE WHITE HOUSE
WASHINGTON
January 14, 2021

NATIONAL SECURITY PRESIDENTIAL MEMORANDUM - 33

MEMORANDUM FOR THE VICE PRESIDENT
THE SECRETARY OF STATE
THE SECRETARY OF DEFENSE
THE ATTORNEY GENERAL
THE SECRETARY OF THE INTERIOR
THE SECRETARY OF AGRICULTURE
THE SECRETARY OF COMMERCE
THE SECRETARY OF HEALTH AND HUMAN SERVICES
THE SECRETARY OF TRANSPORTATION
THE SECRETARY OF ENERGY
THE SECRETARY OF EDUCATION
THE SECRETARY OF VETERANS AFFAIRS
THE SECRETARY OF HOMELAND SECURITY
THE ASSISTANT TO THE PRESIDENT AND CHIEF OF STAFF
THE ADMINISTRATOR OF THE ENVIRONMENTAL PROTECTION AGENCY
THE DIRECTOR OF THE OFFICE OF MANAGEMENT AND BUDGET
THE DIRECTOR OF NATIONAL INTELLIGENCE
THE DIRECTOR OF THE CENTRAL INTELLIGENCE AGENCY
THE ASSISTANT TO THE PRESIDENT FOR NATIONAL SECURITY AFFAIRS
COUNSEL TO THE PRESIDENT
ASSISTANT TO THE PRESIDENT, DEPUTY COUNSEL TO THE PRESIDENT FOR NATIONAL SECURITY AFFAIRS, AND NATIONAL SECURITY COUNCIL LEGAL ADVISOR
THE DIRECTOR OF THE OFFICE OF SCIENCE AND TECHNOLOGY POLICY
THE DIRECTOR OF THE NATIONAL SCIENCE FOUNDATION
THE ADMINISTRATOR OF THE NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
THE DIRECTOR OF THE FEDERAL BUREAU OF INVESTIGATION
THE SECRETARY OF THE SMITHSONIAN
THE DIRECTOR OF THE NATIONAL INSTITUTES OF HEALTH

NSPM-33

NATIONAL SCIENCE AND TECHNOLOGY COUNCIL



GUIDANCE FOR IMPLEMENTING NATIONAL SECURITY PRESIDENTIAL MEMORANDUM 33 (NSPM-33) ON NATIONAL SECURITY STRATEGY FOR UNITED STATES GOVERNMENT-SUPPORTED RESEARCH AND DEVELOPMENT

A Report by the

Subcommittee on Research Security

Joint Committee on the Research Environment

January 2022

136 STAT. 1366

PUBLIC LAW 117-167—AUG. 9, 2022

Public Law 117-167
117th Congress

An Act

Aug. 9, 2022
[H.R. 4346]

Making appropriations for Legislative Branch for the fiscal year ending September 30, 2022, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. TABLE OF CONTENTS.

The table of contents for this Act is as follows:

Sec. 1. Table of contents.
Sec. 2. References.

DIVISION A—CHIPS ACT OF 2022

Sec. 101. Short title.
Sec. 102. Creating helpful incentives to produce semiconductors (CHIPS) for America fund.
Sec. 103. Semiconductor incentives.
Sec. 104. Opportunity and inclusion.
Sec. 105. Additional GAO reporting requirements.
Sec. 106. Appropriations for wireless supply chain innovation.
Sec. 107. Advanced manufacturing investment credit.

DIVISION B—RESEARCH AND INNOVATION

Sec. 10000. Table of contents.
Sec. 10001. Short title.
Sec. 10002. Definitions.
Sec. 10003. Budgetary effects.

TITLE I—DEPARTMENT OF ENERGY SCIENCE FOR THE FUTURE

Sec. 10101. Mission of the Office of Science.
Sec. 10102. Basic energy sciences program.
Sec. 10103. Biological and environmental research.
Sec. 10104. Advanced scientific computing research program.
Sec. 10105. Fusion energy research.
Sec. 10106. High energy physics program.
Sec. 10107. Nuclear physics program.
Sec. 10108. Science laboratories infrastructure program.
Sec. 10109. Accelerator research and development.
Sec. 10110. Isotope research, development, and production.
Sec. 10111. Increased collaboration with teachers and scientists.
Sec. 10112. High intensity laser research initiative; helium conservation program; Office of Science emerging biological threat preparedness research initiative; midscale instrumentation and research equipment program; authorization of appropriations.
Sec. 10113. Established program to stimulate competitive research.
Sec. 10114. Research security.

TITLE II—NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY FOR THE FUTURE

Sec. 10201. Definitions.

Subtitle A—Authorization of Appropriations

Sec. 10211. Authorization of appropriations.

CHIPS And Science Act



The Chips and Science Act of 2022

The Chips and Science Act includes several research security provisions, including:

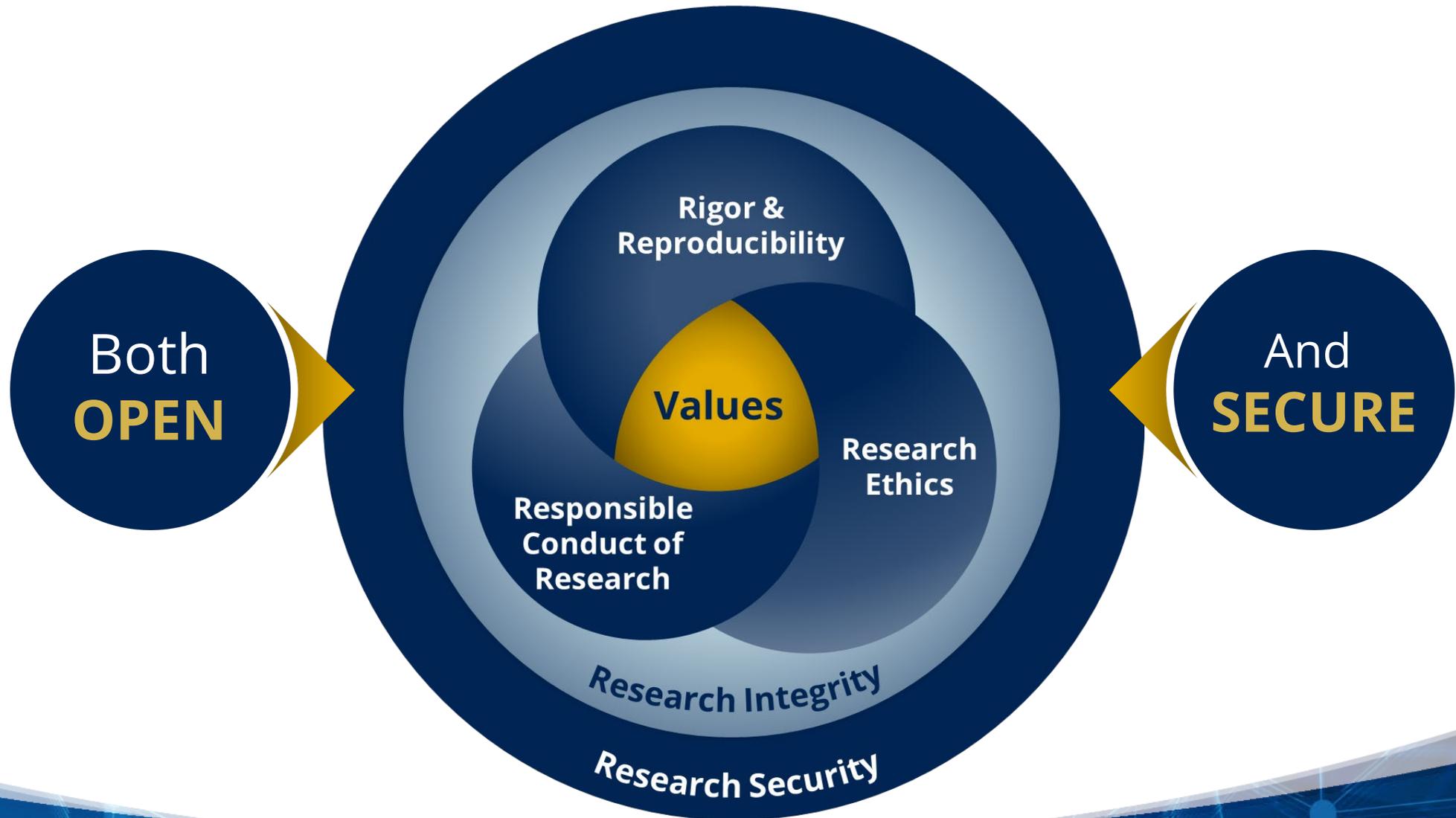
- Prohibition of malign foreign government talent recruitment programs
- Requirement to establish a Research Security and Integrity Information Sharing and Analysis Organization (SECURE Center)
- Research security training requirement for all covered personnel
- Inclusion of research security training as part of Responsible and Ethical Conduct of Research training
- Reporting on foreign financial transactions and gifts
- Prohibition of Confucius Institutes

A photograph of President Joe Biden sitting at a wooden table outdoors, signing a document. He is wearing a blue suit and sunglasses. He is surrounded by a group of people, including Vice President Kamala Harris, who is clapping. Other people are also clapping and smiling. The table has a seal on it that reads "THE PRESIDENT OF THE UNITED STATES".

President Biden sits at a table with the recently signed 'CHIPS and Science Act,' surrounded by legislators and Vice President Kamala Harris.



Values are the Heart of Research Security



SECURE

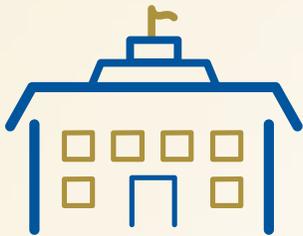
Safeguarding the Entire Community in
the U.S. Research Ecosystem



Today's Geopolitical Environment is Challenging for Research



Researchers & Institutions



SECURE is the bridge



US Government





Mission:

Empower the research community to make security-informed decisions about research security concerns



Approach:

Providing information, developing tools, and providing services



Audience:

IHEs, non-profit research institutions, and small and medium-sized businesses



Duties of SECURE under CHIPS

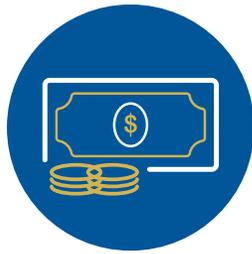
- 1** **Serve as a clearinghouse for information** to help enable the members and other entities in the research community to understand the context of their research and identify improper or illegal efforts by foreign entities to obtain research results, know how, materials, and intellectual property;
- 2** **Develop a standard set of frameworks and best practices**, relevant to the research community, to assess research security risks in different contexts;
- 3** **Share information concerning security threats** and lessons learned from protection and response efforts through forums and other forms of communication;
- 4** **Provide timely reports** on research security risks to provide situational awareness tailored to the research and STEM education community;
- 5** **Provide training and support**, including through webinars, for relevant faculty and staff employed by institutions of higher education on topics relevant to research security risks and response;
- 6** **Enable standardized information gathering** and data compilation, storage, and analysis for compiled incident reports;
- 7** **Support analysis of patterns of risk and identification** of bad actors and enhance the ability of members to prevent and respond to research security risks;



What SECURE will do... and won't do



Uniform Quality of Service



Reduce Cost and Administrative Burden



Frameworks and Best Practices



Advice, Decisions, Investigations, Policy



Curated Syntheses



Patterns of Risk

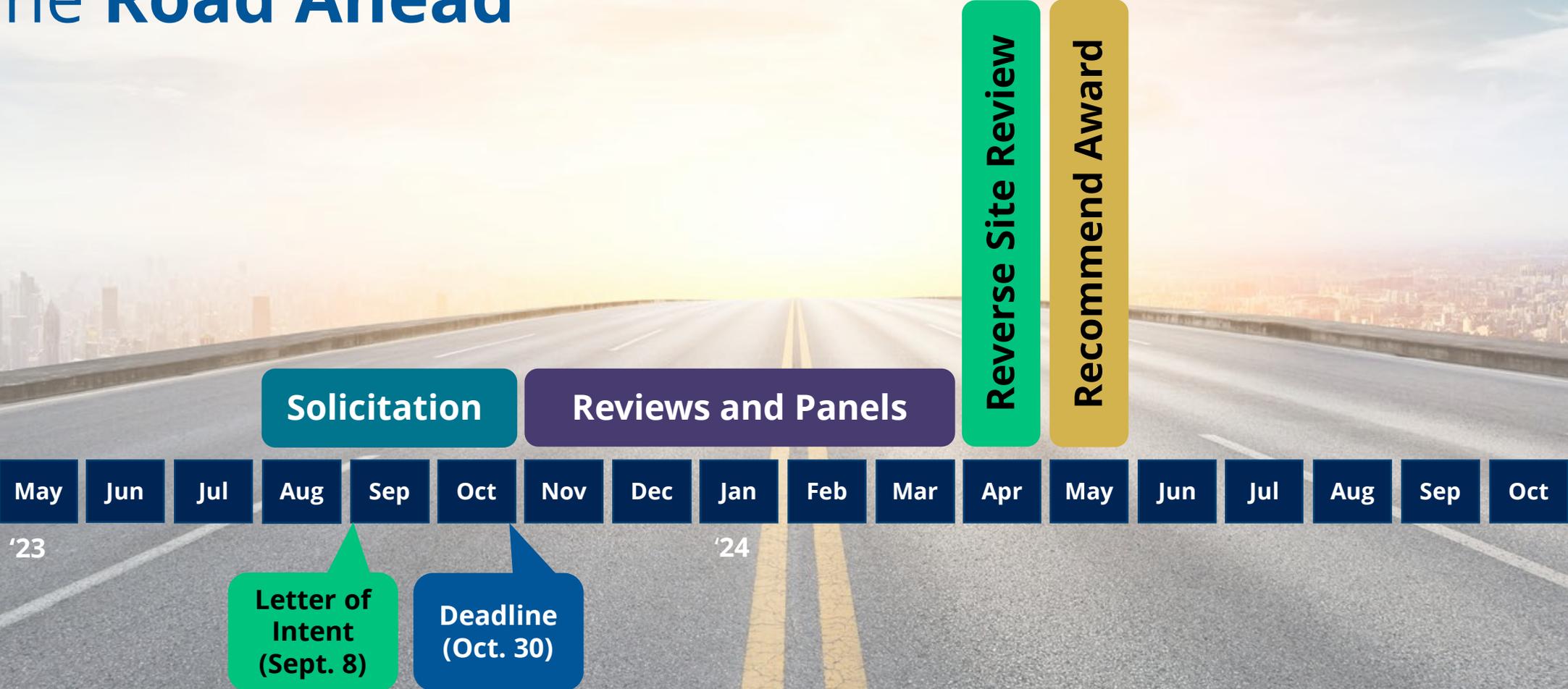


Analytical Tools

Governance Structure of SECURE



The Road Ahead



Research on Research Security Program (RRSP)



Research on Research Security Program (RRSP)

NSF seeks to fund research that will...

-  Identify and characterize attributes that distinguish research security from research integrity
-  Improve understanding of the nature, scale, and scope of research security risks
-  Provide insight into methods for identifying, mitigating, and preventing research security violations
-  Develop methodologies to assess the potential impact of research security threats on the U.S. economy, national security, and research enterprise



Creating a Community of Practice



Potential Themes & Topics



Nature &
Pervasiveness of
Research Security
Threats



Research
Security Threat
Identification,
Mitigation, and
Prevention



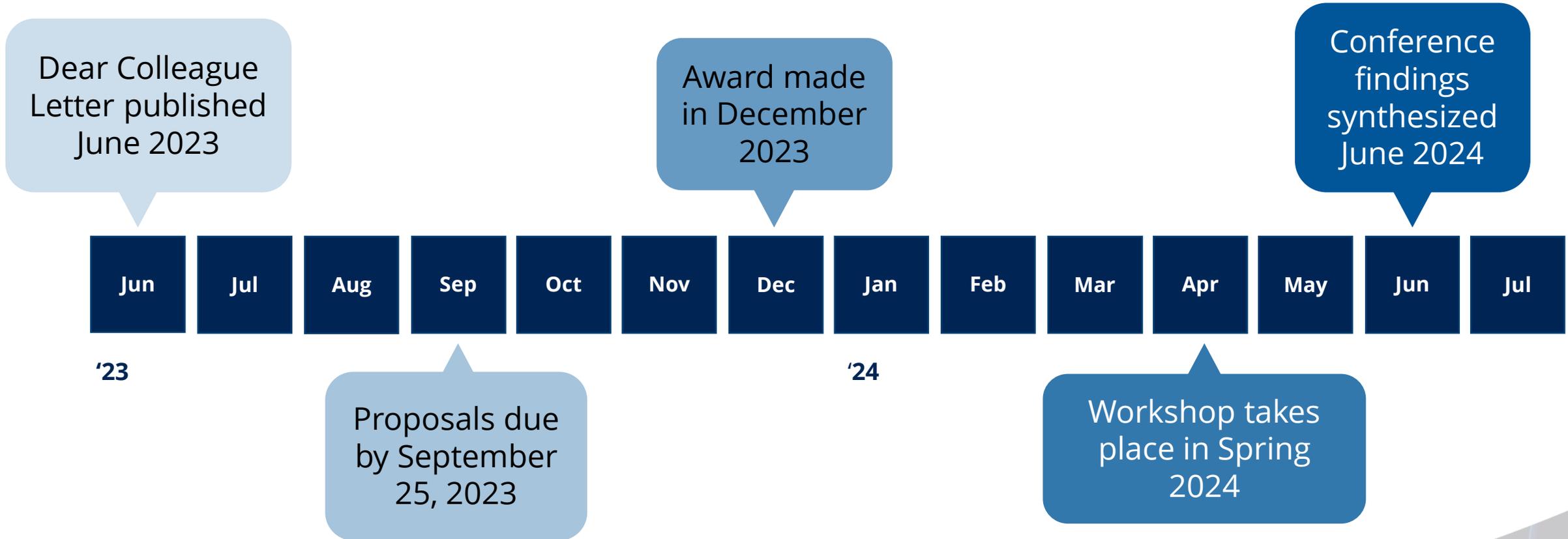
International
Dimensions of
Research Security



& others as
identified by
workshop
organizers



Workshop Timeline



Research Security Training Modules



Research Security Training for the U.S. Research Community

- Four teams developing research security training frameworks and training modules
- Co-funded with National Institutes of Health (NIH), Department of Energy (DOE), and Department of Defense (DOD)
- Available for all appropriate researchers, stakeholders, students, academics, research security experts and leaders, government agencies and national laboratories



Module Topics

1

What is
Research
Security



2

Disclosure



3

Manage and
Mitigate Risk



4

International
Collaboration



Standardized Disclosure Forms



Standard Common Disclosure Forms

- The objective of the *Disclosure Requirements and Standardization* section of NSPM-33 Implementation Guidance is to, "**Provide clarity regarding disclosure requirements** (e.g., who discloses what, relevant limitations and exclusions), **disclosure process** (e.g., updates, corrections, certification, and provision of supporting documentation), and **expected degree of cross-agency uniformity**"
- National Science and Technology Council (NSTC) Research Security Subcommittee has worked to develop consistent disclosure requirements for use by senior personnel, as well as to develop proposed common disclosure forms for the Biographical Sketch and Current and Pending (Other) Support sections of an application for Federal research and development (R&D) grants or cooperative agreements
- The National Science Foundation (NSF) has agreed to serve as steward for these common forms as well as for posting and maintenance of the table entitled, *NSPM-33 Implementation Guidance Pre- and Post-award Disclosures Relating to the Biographical Sketch and Current and Pending (Other) Support*



Drafts of these forms are currently available on NSF website

Biographical Sketch

INSTRUCTIONS FOR SUBMISSION OF THE BIOGRAPHICAL SKETCH

This template provides instructions for submission of the biographical sketch by each individual identified as a [senior/key person](#) on a Federally funded research project. The biographical sketch is used to assess how well qualified the individual, team, or organization is to conduct the proposed activities.

Consistent with NSPM-33, individuals are required to disclose contracts associated with participation in programs sponsored by foreign governments, instrumentalities, or entities, including [foreign government-sponsored talent recruitment programs](#). Further, if individuals receive direct or indirect support that is funded by a foreign government-sponsored talent recruitment program, even where the support is provided through an intermediary and does not require membership in the foreign government-sponsored talent recruitment program, that support must be disclosed. Individuals must also report other foreign government sponsored or affiliated activity. In accordance with 42 USC § 19232, individuals are prohibited from being a party in a [malign foreign talent recruitment program](#).

A table entitled, *NSPM-33 Implementation Guidance Pre- and Post-award Disclosures Relating to the Biographical Sketch and Current and Pending (Other) Support*¹ has been created to provide helpful reference information regarding pre-award and post-award disclosures. The table includes the types of activities to be reported, where such activities must be reported in the application, as well as when updates are required in the application and award lifecycle. A final column identifies activities that are not required to be reported.

Individuals are reminded **not to submit any personal information in the biographical sketch**. This includes items such as: home address; home telephone, fax, or cell phone numbers; home e-mail address; driver's license number; marital status; personal hobbies; and the like. Such personal information is not appropriate for the biographical sketch and is not relevant to the merits of the proposal. The Federal research funding agency is not responsible or in any way liable for the release of such material.

The format of the biographical sketch is as follows:

*** = required**

*Identifying Information

***Name:** Enter the name of the senior/key person (Last Name, First Name, and Middle Name, including any applicable suffix).

Persistent Identifier (PID) of the Senior/Key Person: Enter the PID of the senior/key person. The PID is a unique, open digital identifier that distinguishes the individual from every other researcher with the same or a similar name.

Current & Pending Support

INSTRUCTIONS FOR SUBMISSION OF CURRENT AND PENDING (OTHER) SUPPORT INFORMATION

The individual agrees to update this disclosure at the request of the Federal research funding agency prior to the award of support and at any subsequent time the agency determines appropriate during the term of the award. (Refer to the Federal research funding agency's policy on updating award support).

Instructions for Completion of the Current and Pending (Other) Support Template

Current and pending (other) support information is used to assess the capacity or any [conflicts of commitment](#) that may impact the ability of the individual to carry out the research effort as proposed. The information also helps assess any potential scientific and budgetary overlap/duplication with the project being proposed.

This document provides instructions on submission of current and pending (other) support information for each individual identified as a [senior/key person](#) on a Federally funded research project.¹

A separate submission must be provided for each proposal and active project, as well as in-kind contributions using the instructions and format specified below. Note that there is no page limitation for this section of the application, though some fields have character limitations for consistency and equity.

Consulting activities must be disclosed under the proposals and active projects section of the form when any of the following scenarios apply:

- The consulting activity will require the senior/key person to perform research as part of the consulting activity;
- The consulting activity does not involve performing research, but is related to the senior/key person's research portfolio and may have the ability to impact funding, alter time or effort commitments, or otherwise impact scientific integrity; and
- The consulting entity has provided a contract that requires the senior/key person to conceal or withhold confidential financial or other ties between the senior/key person and the entity, irrespective of the duration of the engagement.

Consistent with NSPM-33, individuals are required to disclose contracts associated with participation in programs sponsored by foreign governments, instrumentalities, or entities, including [foreign government-sponsored talent recruitment programs](#). Further, if individuals receive direct or indirect support that is funded by a foreign government-sponsored talent recruitment program, even where the support is provided through an intermediary and does not require membership in the foreign government-sponsored talent recruitment program, that support must be disclosed. Individuals must also report other foreign government sponsored or affiliated activity. In accordance with 42 USC § 19232, individuals are prohibited from being a party in a [malign foreign talent recruitment program](#).



Research Security Analytics Tools



The NSF Research Security Analytics Guidelines

is a public document describing NSF's internal guidance for research security data-related practices

Uses for the data-related practices include:

- Compliance-monitoring responsibilities of program staff
- Vetting for employment



NSF guidelines for research security analytics

Last updated February 2023

Table of Contents

Table of Contents.....	1
1. Summary.....	2
2. Foreword by the chief of research security strategy and policy	3
3. Review	5
4. Relevant authorities and supporting documentation.....	5
5. Definitions	5
6. Research security responsibilities and process of the Office of the Chief of Research Security Strategy and Policy.....	7
6.1 OCRSSP research security responsibilities	7
6.2 Process for notification and communication with institutions.....	10
7. Monitoring and reporting by NSF offices and staff.....	11
7.1 Terms and conditions compliance-monitoring responsibilities of program staff.....	11
7.2 Vetting for employment.....	12
8. Permissible and prohibited practices for research security-related analytics by the CRSSP	12
8.1 Permissible approaches for research security analytics.....	12
8.2 Prohibited practices for research security analytics.....	13
8.3 Individual matching criteria for validation and information sharing activities.....	13
9. Data, services and methods used for research security analytics	14
9.1 Non-NSF data used in research security analyses.....	14
9.2 Analysis criteria and purpose	15
9.3 Services used in research security analyses.....	15
10. Sharing guidelines for security-related information	15
10.1 Human oversight.....	15
10.2 Sharing of information with institutions.....	15
10.3 Sharing of information by OCRSSP with inspector general or federal agencies.....	15

Research Security Analytics Summary



Routine Assessment

- Guardrails established to ensure unbiased monitoring techniques
- Research security related analytics restricted to OCRSSP staff only



Validation

- Human oversight is a critical part of the validation process
- Process in place to ensure open-source information is accurate and represents the activities of the attributed individuals



Reporting

- Reporting requirements to OIG & other federal agencies outlined in guidelines
- What information may be shared detailed in the guidelines

