

DARPA Fundamental Research Risk-Based Security Reviews Policy and Process

Jesse Watkins, Program Security Officer (PSO)

DARPA VPR Workshop

26 August 2024





Agenda



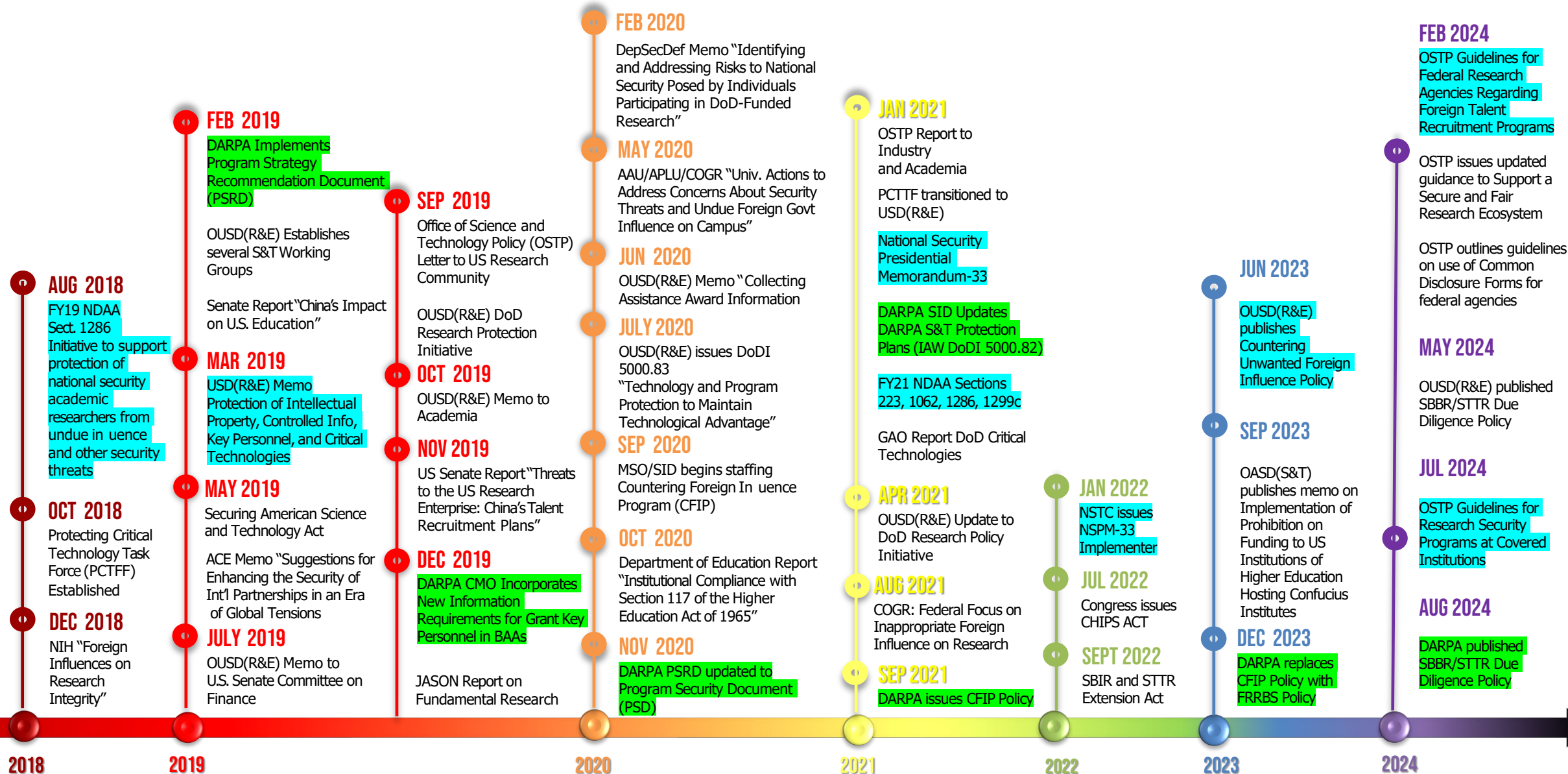
- Fundamental Research Policies and Road to Fundamental Research Security
 - OSTP Guidelines for Research Security Programs at Covered Institutions (9 Jul 24)
 - OUSD(R&E) Decision Matrix for Fundamental Research Security
 - DARPA FRRBS Process
 - Historical Metrics
- Malign Foreign Talent Recruitment Programs
 - OSTP Guidelines for Federal Research Agencies (14 Feb 24)
 - National Defense Authorization Act for Fiscal Year 2019, section 1286(c)(8), (aka "1286 list)
- Mitigation Strategies
- Impact on Academic Institutions and Q&A



Fundamental Research Risk-Based Security Reviews



Fundamental Research Security, Key Policy References





OSTP Guidelines for Research Security Programs – 9 Jul 24



1. Institutions of higher education must certify that the institution will implement a cybersecurity program
 2. Institutions will implement periodic training on foreign travel security to covered individuals
 - a. Includes: sponsored international travel, organization business, teaching, conference attendance, or research
 - b. Covered individual must take training once every 6 years
 3. Institutions will implement a travel reporting program
 4. Covered institutions will certify that the institution has implemented a research security training program for all covered individuals
 5. Covered institutions will certify that the institution requires covered individuals who perform R&D involving export-controlled technologies to complete training on U.S. export controls and compliance requirements
- ❖ Implementation Timeline:
- ❖ NLT 9 Dec 24, federal research agencies submit to OSTP & OMB plan for updating policies;
 - ❖ Institutions have no more than 18 months to complete implementation of research security programs



OUSD(R&E) Decision Matrix for Fundamental Research Security



"Factors"

1. Foreign Talent Recruitment Programs
2. Funding Sources
3. Patents
4. Entity Lists

Table 1: Decision Matrix to Inform Fundamental Research Proposal Mitigation Decisions				
	Factors for Assessing a Covered Individual's Associations, Affiliations, Collaborations, Funding, and the Policies of the Proposing Institution that Employs the Covered Individual			
	Factor 1: Foreign Talent Recruitment Programs	Factor 2: Funding Sources	Factor 3: Patents	Factor 4: Entity Lists
Prohibited Factors	<p>For the Period after 9 Aug 2024:</p> <p>Indicators of participation in a malign foreign talent recruitment program (MFTRP) meeting any of the criteria in Sec. 10638(4)(A)(i)-(ix) of the CHIPS and Science Act of 2022.</p> <p>Policy of proposing institution employing the covered individual does not prohibit participation in an MFTRP.</p>			
Factors discouraged by DoD policy, mitigation measures required, rejection of proposal required if no mitigation possible	<p>For the period after 9 Aug 2022:¹</p> <p>Indicator(s)² of participation³ in a foreign talent recruitment program (FTRP) meeting any of the criteria in Sec. 10638(4)(A)(i)-(ix) of the CHIPS and Science Act of 2022.</p>	<p>Indicator(s) that the covered individual is currently receiving funding from a foreign country of concern (FCOC) or an FCOC-connected entity.</p>	<p>Patent application(s) or patent(s) not disclosed in proposal, that resulted from research funded by the U.S. Government (USG), that were filed in an FCOC prior to filing in the U.S. or filed on behalf of an FCOC-connected entity.</p>	<p>For the period after 9 Aug 2022:</p> <p>Indicator(s) of association with an entity on: the U.S. Bureau of Industry and Security (BIS) Entity List,⁴ the Annex of Executive Order (EO) 14032⁵ or superseding EOs, or Sec. 1260H of the National Defense Authorization Act (NDAA) for Fiscal Year (FY) 2021.⁶</p>
				<p>For the period after 10 Oct 2019:⁶</p> <p>Indicator(s) of affiliation with an entity on: the U.S. BIS Entity List, the Annex of EO 14032 or superseding EOs, or Sec. 1260H of the NDAA for FY 2021.</p>
Mitigation measures recommended	<p>For the period between 10 Oct 2019⁷ and 9 Aug 2022:</p> <p>Indicator(s) of participation in an FTRP meeting any of the criteria in Sec. 10638(4)(A)(i)-(ix) of the CHIPS and Science Act of 2022.</p>	<p>For the period between 10 Oct 2019 and 9 Aug 2022:</p> <p>Indicator(s) that the covered individual received funding from an FCOC or an FCOC-connected entity.</p>	<p>Patent application(s) or patent(s) disclosed in proposal, that resulted from research funded by the USG, that were filed in an FCOC prior to filing in the U.S. or on behalf of an FCOC-connected entity.</p>	<p>For the period between 10 Oct 2019 and 9 Aug 2022:</p> <p>Indicator(s) of association with an entity on: the U.S. BIS Entity List, the Annex of EO 14032 or superseding EOs, or Sec. 1260H of the NDAA for FY 2021.</p>
				<p>For the period prior to 10 Oct 2019:</p> <p>Indicator(s) of an affiliation with an entity on: the U.S. BIS Entity List, the Annex of EO 14032 or superseding EOs, or Sec. 1260H of the NDAA for FY 2021.</p>
Mitigation measures recommended	<p>For the period after 9 Aug 2022:</p>			

No longer enforced, pending removal in updated matrix.



OUSD(R&E) Decision Matrix for Fundamental Research Security (cont)



	Policy of proposing institution employing the covered individual does not prohibit participation in an MFTRP.			
Mitigation measures suggested	For the period after 10 Oct 2019: Covered individual's co-author(s) ⁸ on publications in scientific and engineering (S&E) journals are participants in an MFTRP or an FTRP meeting any of the criteria in Sec. 10638(4)(A)(i)-(ix) of the CHIPS and Science Act of 2022.		Patent application(s) or patent(s) not disclosed in fundamental research project proposal, that resulted from research funded by the USG, that were filed in a non-FCOC prior to filing in the U.S. or on behalf of an entity in a non-FCOC. Co-patent applicant with a person on the U.S. BIS Denied Persons List. ⁹	For the period after 10 Oct 2019: Covered individual's co-author(s) on publications in S&E journals are affiliated with an entity on: the U.S. BIS Entity List, the Annex of EO 14032 or superseding EOs, or Sec. 1260H of the NDAA for FY 2021. Covered individual is a co-author on a publication in an S&E journal with a person on the U.S. BIS Denied Persons List
	For the period prior to 10 Oct 2019: Indicator(s) of participation in an FTRP meeting any of the criteria in Sec. 10638(4)(A)(i)-(ix) of the CHIPS and Science Act of 2022.	For the period prior to 10 Oct 2019: Indicator(s) that the covered individual received limited or partial funding from an FCOC or an FCOC-connected entity.		For the period prior to 10 Oct 2019: Indicator(s) of association with an entity on: the U.S. BIS Entity List, the Annex of EO 14032 or superseding EOs, or Sec. 1260H of the NDAA for FY 2021.
No mitigation needed	No indicator(s) of participation in an MFTRP; or No indicator(s) of participation in an FTRP meeting any of the criteria in Sec. 10638(4)(A)(i)-(ix) of the CHIPS and Science Act of 2022.	No indicator(s) that the covered individual is receiving or has received funding from an FCOC or an FCOC-connected entity.	All patent application(s) or patent(s), resulting from research funded by the USG have been filed in the U.S. prior to filing in any other country.	No indicator(s) of any association or affiliation with an entity on: the U.S. BIS Entity List, the Annex of EO 14032 or superseding EOs, or Sec. 1260H of the NDAA for FY 2021, and no indicator(s) of publication in S&E journals co-authored with an individual on the U.S. BIS Denied Persons List.

Note 1: The level of mitigation needed is elevated if any of the disclosed or identified indicators occurred after the signing of the CHIPS and Science Act of 2022.

Note 2: An indicator may reveal or acknowledge undue foreign influence. Examples include foreign funding or foreign affiliations revealed in proposal disclosures, publications, curriculum vitae (CV), institution website announcements, or social media posts.

Note 3: Participation may be identified by a contract between the covered individual and an FTRP reported by the covered individual in the fundamental research project proposal or on a CV or resume or identification in an acknowledgement in a publication listing the covered individual and an FTRP.

Note 4: An addition to the U.S. BIS Entity List is active on or after the Federal Register citation date provided on the U.S. BIS Entity List.

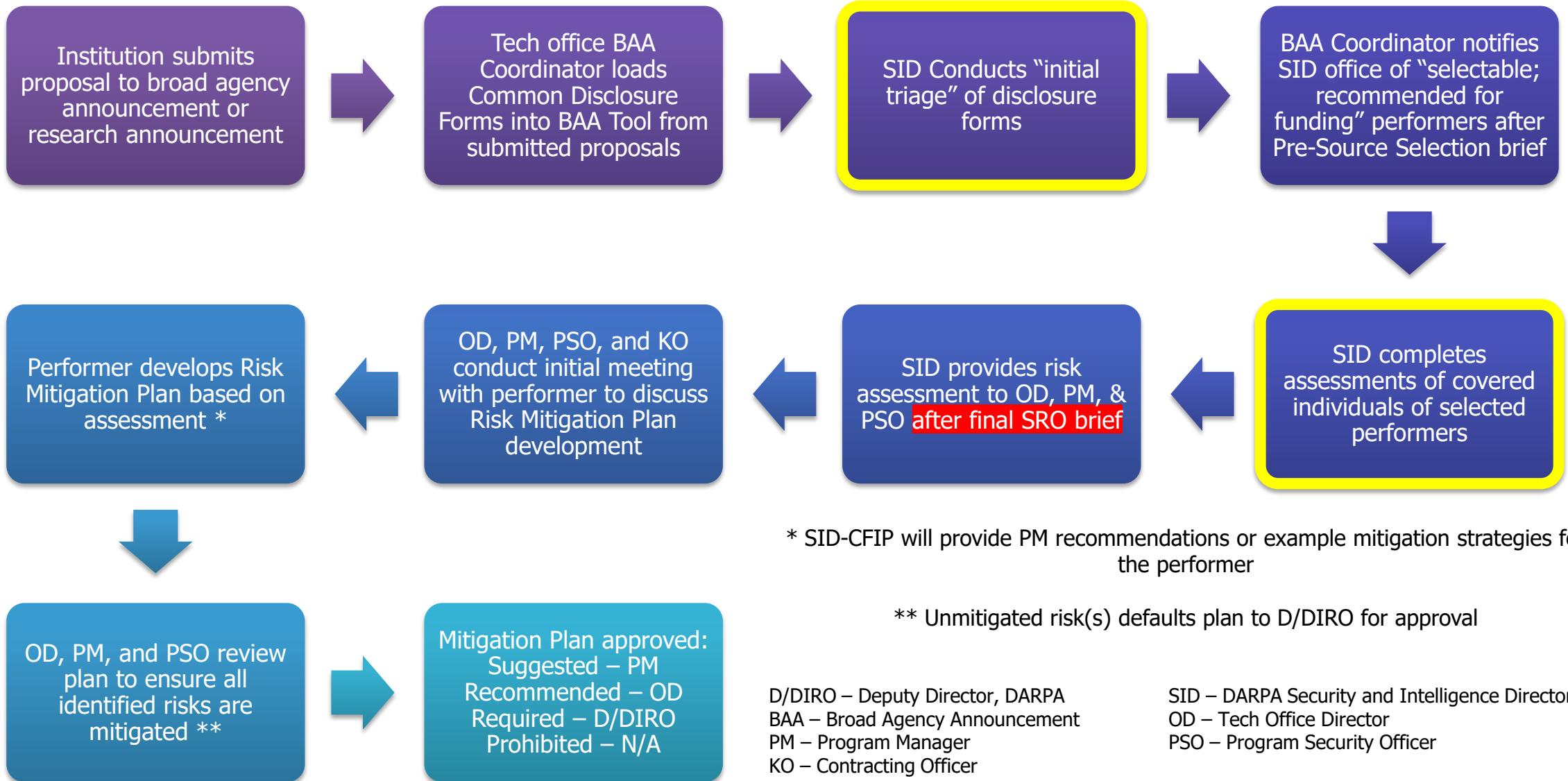
Note 5: EO 14032, "Addressing the Threat From Securities Investments That Finance Certain Companies of the People's Republic of China," dated 3 June 2021 (superseding EO 13959) bans new U.S. investment in of certain communist military companies (CCMCs). The DoD maintains and updates lists of CCMCs for the purposes of compliance with EO 14032.

Note 6: The Notice of Designation of Chinese Military Companies Under Section 1260H of the NDAA for FY 2021 is published in the Federal Register (86 FR 33994), effective 28 June 2021.

Note 7: The level of mitigation needed is elevated if any of the disclosed or identified indicators occurred after publication of the Under Secretary of Defense for Research and Engineering (USD(R&E)) Griffin Letter to Academia, dated 10 Oct 2019.



DARPA FRRBS Process

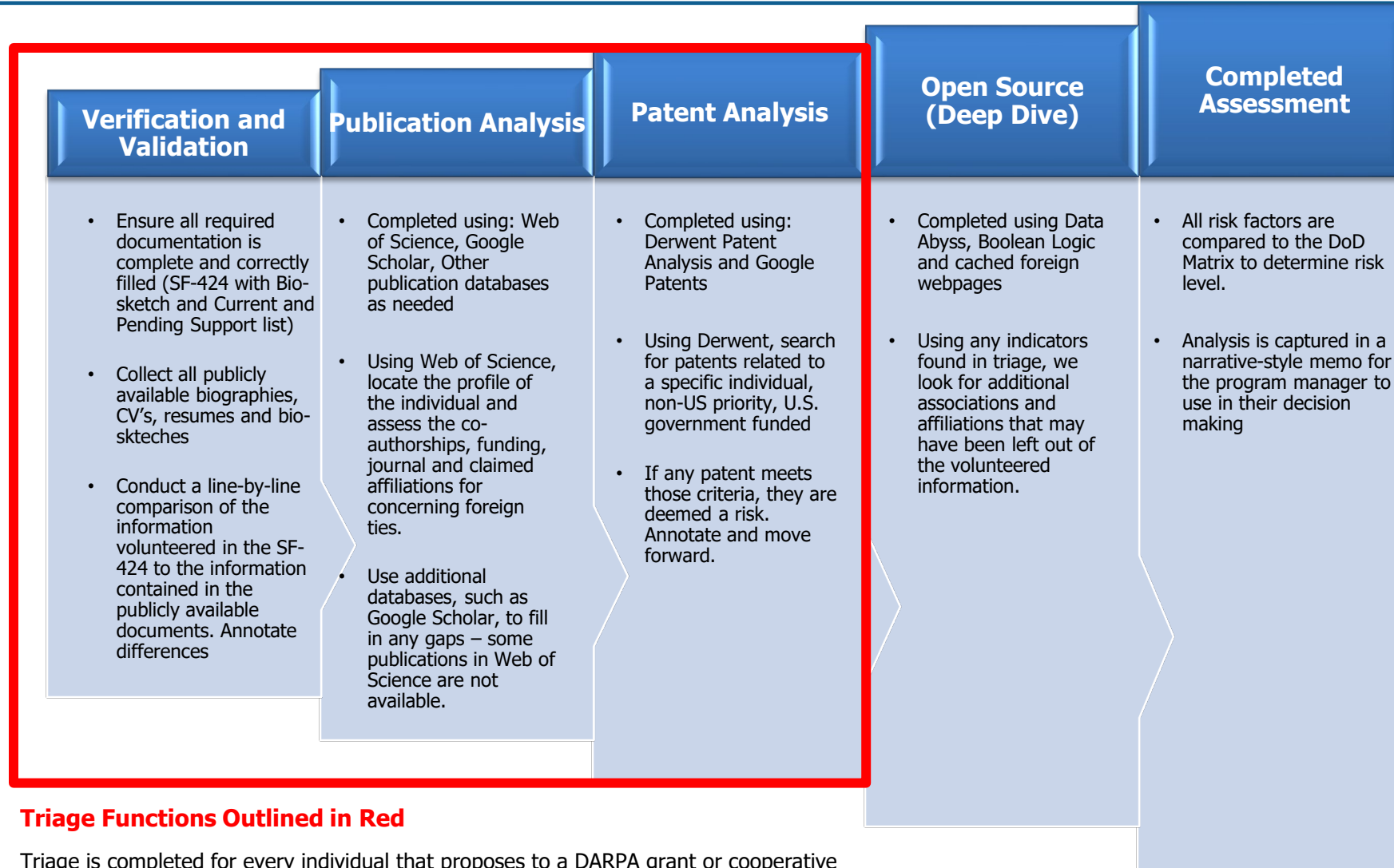


* SID-CFIP will provide PM recommendations or example mitigation strategies for the performer

** Unmitigated risk(s) defaults plan to D/DIRO for approval

D/DIRO – Deputy Director, DARPA
BAA – Broad Agency Announcement
PM – Program Manager
KO – Contracting Officer

SID – DARPA Security and Intelligence Directorate
OD – Tech Office Director
PSO – Program Security Officer

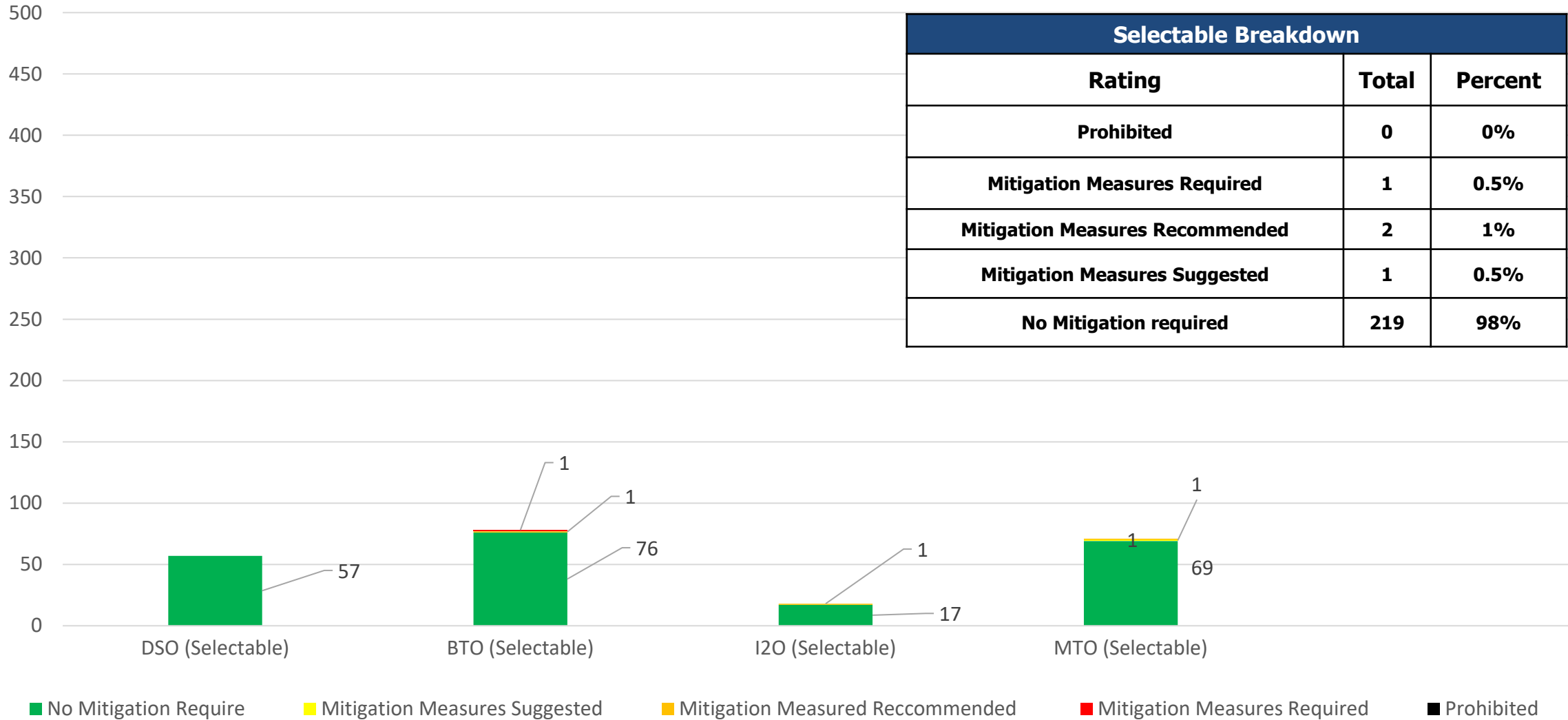


Triage Functions Outlined in Red

Triage is completed for every individual that proposes to a DARPA grant or cooperative agreement. This gives us a much larger pool of data to work with for pattern analysis and better prepares us to quickly provide finished assessments once proposals are deemed selectable.



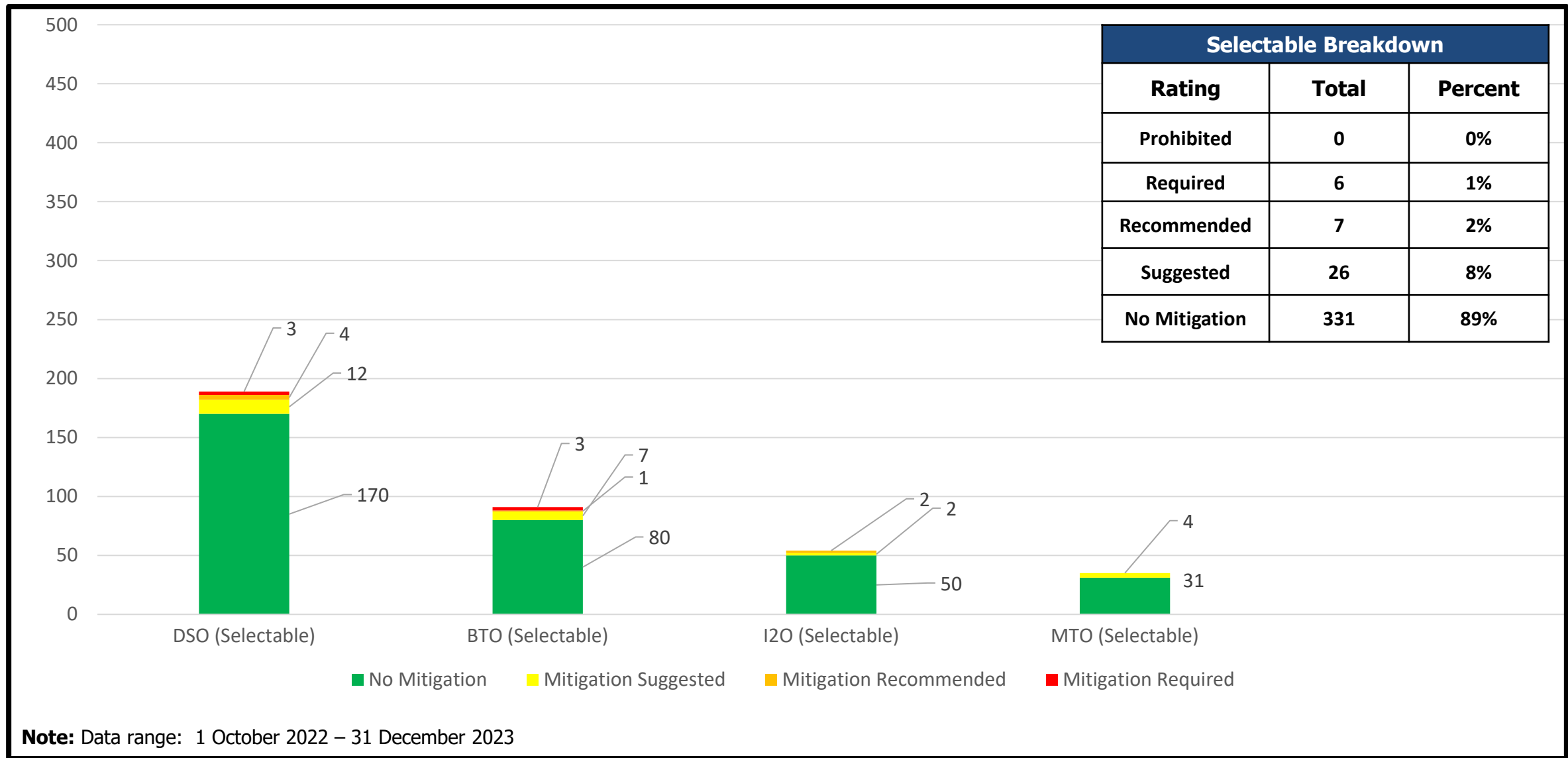
FRRBS Current Metrics



Note: Data for this slide begins January 1, 2024



FRRBS Historical Metrics





Malign Foreign Talent Recruitment Programs



1. Each covered individual listed in such proposal certify that each such individual is not a party to a malign foreign talent recruitment program ... and annually [certify] thereafter for the duration of the award
 2. Each institution of higher education or other organization applying for such an award certify that each covered individual who is employed by such institution of higher education or other organization has ... complied with the requirement under paragraph (1)
- Concerns of malign foreign talent recruitment programs
 - Only applies to “covered individuals” as defined in Section 10638 of “the Act”
 - “an individual who (A) **contributes in a substantive, meaningful way** to the scientific development or execution of a research and development project proposed to be carried out with a research and development award from a Federal research agency; and (B) is designated as a covered individual by the Federal research agency concerned. Agencies may also define other individuals as covered persons as appropriate and consistent with their mission.”
 - Only applies to current and/or ongoing participation in MFTRP
 - Excludes certain international collaboration activities involving “open and reciprocal exchange of scientific information aimed at advancing international scientific understanding”



Malign Foreign Talent Recruitment Programs*



- A malign foreign talent recruitment program is any program, position, or activity that **includes compensation** in the form of cash, in-kind compensation, including research funding, promised future compensation, complimentary foreign travel, things of non de minimis value, honorific titles, career advancement opportunities, or other types of remuneration or consideration **directly provided by a foreign country** at any level (national, provincial, or local) or their designee, or an entity based in, funded by, or affiliated with a foreign country, whether or not directly sponsored by the foreign country, **to the targeted individual**, whether directly or indirectly stated in the arrangement, contract, or other documentation at issue, **in exchange for the individual**:
 - (i) engaging in the **unauthorized transfer of intellectual property**, materials, data products, or other nonpublic information **owned by a United States entity** or developed with a Federal research and development award to the government of a foreign country, or an entity based in, funded by, or affiliated with a foreign country regardless of whether that government or entity provided support for the development of the intellectual property, materials, or data products;
 - (v) through funding or effort related to the foreign talent recruitment program, being limited in the capacity to carry out a research and development award or required to **engage in work that would result in substantial overlap or duplication with a Federal research** and development award;
 - (vi) being required to apply for and successfully **receive funding from the sponsoring foreign government's funding agencies** with the sponsoring foreign organization as the recipient;
 - (ix) having a **conflict of interest or conflict of commitment contrary to the standard terms** and conditions of the Federal research and development award

* Defined by Section 10638(4) of the CHIPS and Science Act of 2022



Malign Foreign Talent Recruitment Program (cont)



- A malign foreign talent recruitment program is a program that is sponsored by:
 - (i) a foreign country of concern or an entity based in a foreign country of concern, whether or not directly sponsored by the foreign country of concern
 - (ii) an academic institution on the list developed under section 1286(c)(8) of the John S. McCain National Defense Authorization Act for Fiscal Year 2019 (10 U.S.C. 4001 note; Public Law 115-232); or
 - (iii) a foreign talent recruitment program on the list developed under section 1286(c)(9) of the John S. McCain National Defense Authorization Act for Fiscal Year 2019 (10 U.S.C. 4001 note; Public Law 115-232)."



"1286 List"



Distribution Statement A: Approved for public release. DOPSR case #24-T-2146 applies. Distribution is unlimited.

Introduction to FY23 Lists Published in Response to Section 1286 of the National Defense Authorization Act for Fiscal Year 2019 (Public Law 115-232), as amended.

This document is the Department of Defense's FY23 update to the list of foreign institutions engaging in problematic activity as described in Section 1286, as amended, of the National Defense Authorization Act for Fiscal Year 2019. The Department also reaffirms the FY22 list of foreign talent programs that pose a threat to national security, as required in Section 1286. Updating the Section 1286 lists is an important continuing effort in highlighting and countering mechanisms of unwanted technology transfer to foreign countries of concern. Caution is advised for any researcher or institution engaging with institutions on this list. The full lists are on the following pages.

- *Table 1: List of Institutions in the People's Republic of China, Russian Federation, and Other Countries with Specified Characteristics*
- *Table 2: Foreign Talent Programs that Pose a Threat to National Security Interests of the United States*
- <https://basicresearch.defense.gov/Programs/Academic-Research-Security/>



Development of Mitigation Strategies



Mitigation Strategies (Best Practices)



- Certification of Status
 - Mitigation hinges on ensuring that disclosed information is valid; researcher reviews their disclosure documents and correct any mistakes or add any additional, pertinent information not previously disclosed
- Confirmation of Disassociation
 - Institution provides documentation confirming that the researcher (Senior/Key Person) has disassociated with the foreign entity of concern
- Periodic Security Communication
 - Includes tailored threat briefings, contact information for the institution's security personnel, reminders of existing, regulations, disclosure requirements, export control requirements and any other responsibilities under federal and institutional rules and policies
- Expanded Reporting Requirements
 - Researchers update their budgetary, employment, and financial status more frequently than the typical 6-month periodicity
- Tailored COI/COC Management Plan
 - Institution updates the COI/COC management plan of the researcher
- Information Sequestration
 - Individual is "walled off" from parts of the research as part of their mitigation strategy



Mitigation Strategies (Prime / Sub Relationship)



- Prime contractor is notified of all sub-contractors that require development of mitigation strategies
- DARPA approved mitigation plan will be included in prime award vehicle for compliance oversight
- Prime contractor should NOT replace sub-contractor merely for fact of mitigation strategy requirement
- Prime contractor PI can provide additional supporting information to advocate requirement for individual of concern (e.g. letter of compelling need)
- Prime contractor does not need to participate in negotiations of strategies between sub-contractor and DARPA

NO INSTITUTION BLACKLISTING



Case Study 1 – Expanded Reporting Requirements

- A researcher was rated **MITIGATION REQUIRED** due to multiple active affiliations with PRC government-connected entities and several instances of active funding from the same. The Program Manager wanted to mitigate and requested the institution implement expanded reporting requirements as one part of a mitigation plan.
 - *"The researcher will meet with the Office of Scientific Integrity on a quarterly basis to review a list of his active collaborations to determine if anything should be reported to funding agencies or any additional management/oversight to put in place (e.g., a new COI management plan or modifications to existing plans)."*
 - *"On a quarterly basis the institution will send an updated list of the researcher's collaborations or a certified notification that there is no change from the previous submission."*
 - *"The institution will require the researcher to request permission before engaging in any new foreign collaborations. These collaborations will be vetted by the institution's Office of Scientific Integrity to determine whether the researcher can begin a collaboration or whether additional mitigation measures need to be implemented."*
 - *"During the six-month reporting period, the researcher will be required to submit an updated SF-424. The SF-424 does have an overall page limitation, which prevented the researcher from including all of his information previously. Going forward, additional pages will be included for any required information that does not fit within the page limit."*



Case Study 2 – Tailored COI/COC Management Plan

- A researcher was rated **MITIGATION REQUIRED** due to multiple active affiliations with PRC government-connected entities and several past instances of foreign talent program participation. The Program Manager wanted to mitigate and requested the institution provide and updated, tailored COI/COC management plan for the researcher.
 - *"The researcher's COI management plan for the PRC government connected entities in question will be updated to reflect this mitigation plan and a path forward will be issued to the researcher for and future relationships."*
 - *"As part of the COI/COC plan, the institution will review all future research proposals prior to submission and all awards prior to acceptance for any foreign collaborations/components/participants (etc.) in order to address any compliance concerns that might arise. Additionally, the researcher must request permission before engaging in any new foreign collaborations (to include those related to PRC). These collaborations will be vetted by the compliance office to determine if the relationship would be appropriate or if it would require additional protective measures"*
 - *The COI/COC plan of the researcher will be reviewed every month by the PI and quarterly with the institution compliance officials, and revisions made as such need arises. Any change in this COI/COC plan will first be reviewed by the institution compliance officials and will then be sent to DARPA for approval."*



Impact on Academic Institutions Discussion and Q&A



www.darpa.mil

Comments / questions: DARPA-FRRBS@darpa.mil