

Scientific Integrity Concerns

The [Presidential Memorandum on Scientific Integrity](#) (March 9, 2009) directs that “Each agency should have in place procedures to identify and address instances in which the scientific process or the integrity of scientific and technological information may [have been] compromised.” EPA’s Scientific Integrity Policy requires “mechanisms to ensure accountability.” Allegations may be reported to the Scientific Integrity Official, any Deputy Scientific Integrity Official, or the Inspector General Hotline.

In FY 2018, the Program drafted a new procedure creating a two-pronged approach separating those seeking advice about scientific integrity concerns from those reporting allegations. In general, the new advice track was designed to resolve concerns before they became a formal allegation by giving informal and early counsel. Eight allegations and 93 requests for advice were received during FY 2021.

Advice Lane

The aim of the advice track is early preventive action to uphold EPA’s culture of scientific integrity. Anyone with a question or a concern is encouraged to have a conversation with the Scientific Integrity Official (Francesca Grifo), the Deputy to the Scientific Integrity Official, or any of the Agency’s Deputy Scientific Integrity Officials in each program or regional office. These officials can provide timely advice or assistance. If the issue is not one of scientific integrity, they can assist in redirecting it as appropriate such as directing retaliation, waste, fraud or abuse to EPA’s Office of the Inspector General. If advice and assistance do not resolve the issue, an allegation may be filed with the Scientific Integrity Official, Deputy Scientific Integrity Officials, or the EPA’s Office of Inspector General. Following the development of the two-track procedure described in Box 1 below, the Scientific Integrity Program reviewed all prior allegations and reclassified many of them as requests for advice.

Allegations

When advice does not resolve an issue, is not appropriate or an issue is novel or complex, employees may file an allegation. If an issue concerns an unaddressed significant risk to public health or the environment, submitters are directed to [EPA’s elevation procedures](#) or the [Office of Inspector General](#).

Any covered entity (employees, political appointees, contractors, trainees, interns, fellows, grantees, volunteers, special government employees and advisory committee members) within EPA may report an allegation to the Scientific Integrity Official, any Deputy Scientific Integrity Official, or the Office of Inspector General. To allow the Scientific Integrity Official or Deputy Scientific Integrity Official to more efficiently address allegations, allegation reports should include, when possible, detailed references to the specific provision(s) of EPA’s Scientific Integrity Policy that were violated, supporting evidence with a timeline, and the names of witnesses who can

provide pertinent information. Once received, the Scientific Integrity Program screens the allegation, gathers additional pertinent information, and makes a determination based on the available information, drawing on the experience and expertise of the Scientific Integrity Committee as needed. The determination includes recommendations for corrective scientific action and other preventive measures as appropriate. Recommendations are not directed at individual employees but rather at safeguarding the science. Relevant managers and supervisors are informed of the outcomes of allegations as disciplinary and other corrective actions are their responsibility, and not within the purview of the Scientific Integrity Program. Throughout the process, confidentiality is maintained to the extent the law allows and knowledge about the identity of persons submitting or otherwise involved in the allegation is limited to those who need to know.

Box 1. Advice or Allegation?

Advice or Allegation?

Advice

- First conversation.
- Is it scientific integrity?
- Next steps are clear.
- Informational conversation.
- Not high profile or directly linked to a threat to public health.
- Can be anonymous.

Allegation

- Based on current information, it would be a violation of the Policy.
- The submitter is aware of our limitations on confidentiality and wishes to proceed.
- Advice is not appropriate.
- Previous advice was not effective or effective enough.
- Urgent or high profile.
- Expertise or support of the Scientific Integrity Committee is warranted.

Annual Update on Allegations and Advice

Advice and Allegations Through FY 2021

Between February 2012 and September 30, 2021, there have been 328 requests for advice and 109 allegations. Figure 3 illustrates allegations, indicated in green, and advice requests, indicated in blue, by year since the Policy was adopted. For a breakdown of submissions by quarter, see Figure 4.

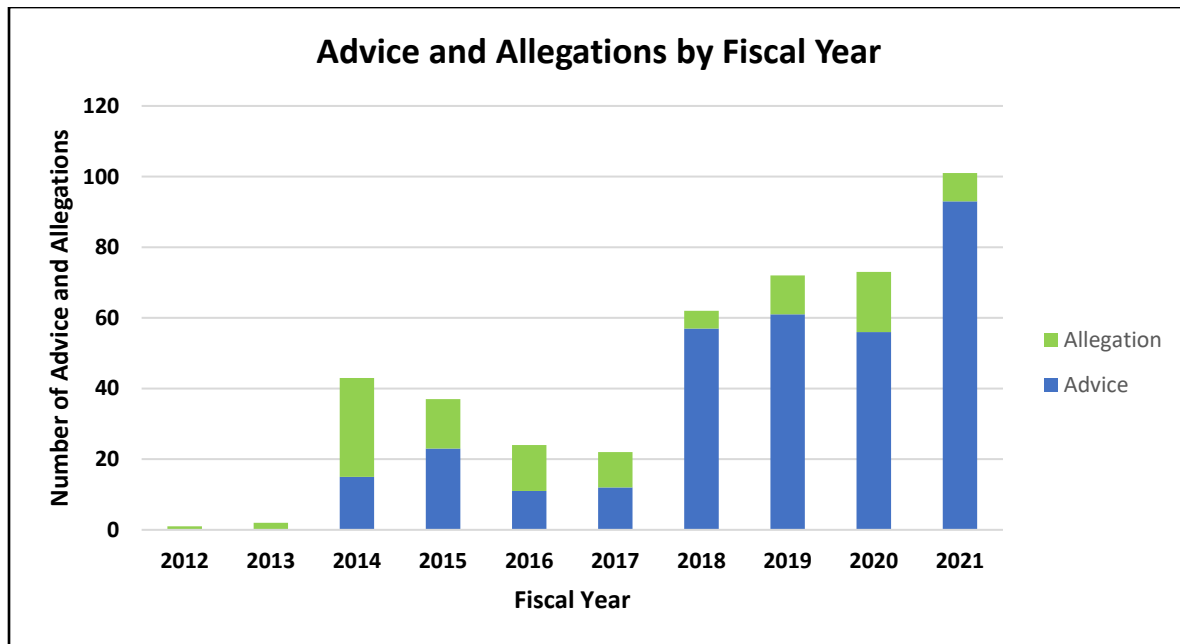


Figure 3. Advice and allegations by fiscal year

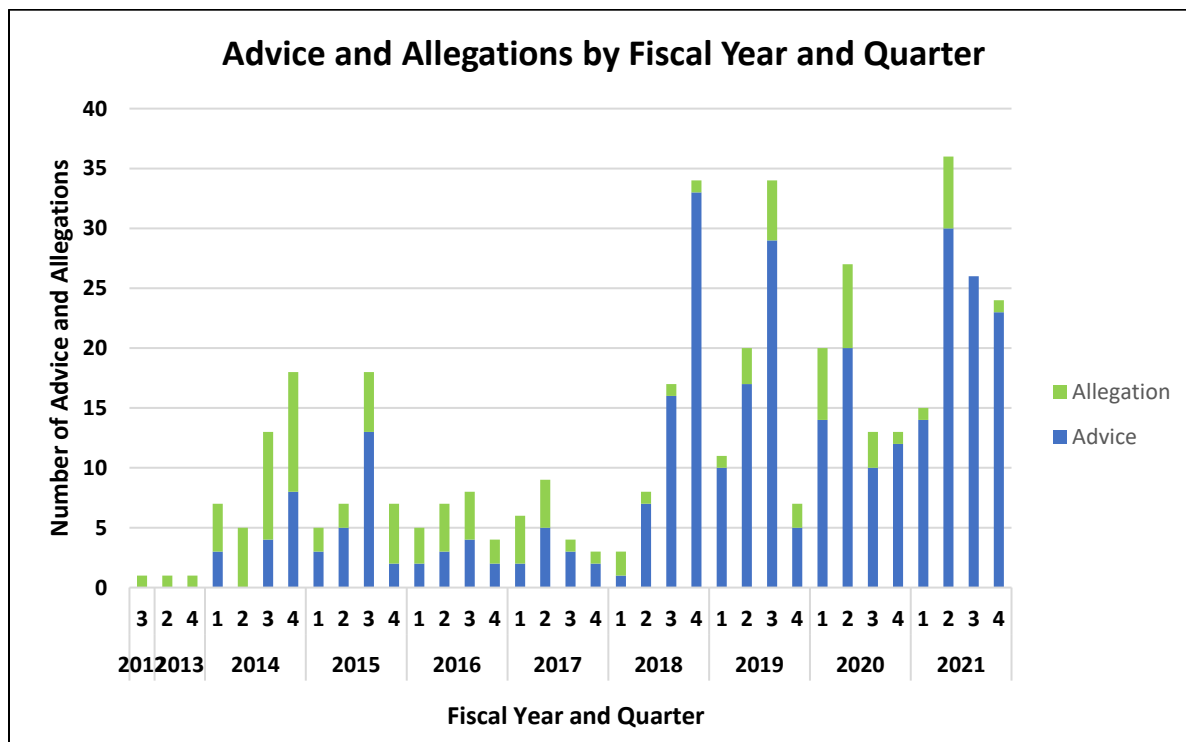


Figure 4. Number of advice and allegations received by quarter

Requests for Advice in Fiscal Year 2021

In FY 2021, we received 93 requests for advice (Figure 5). These ranged from questions about delay and suppression of scientific products (5%) to inappropriate interference (41%). Figure 6 details requests for advice in FY 2012-2020.

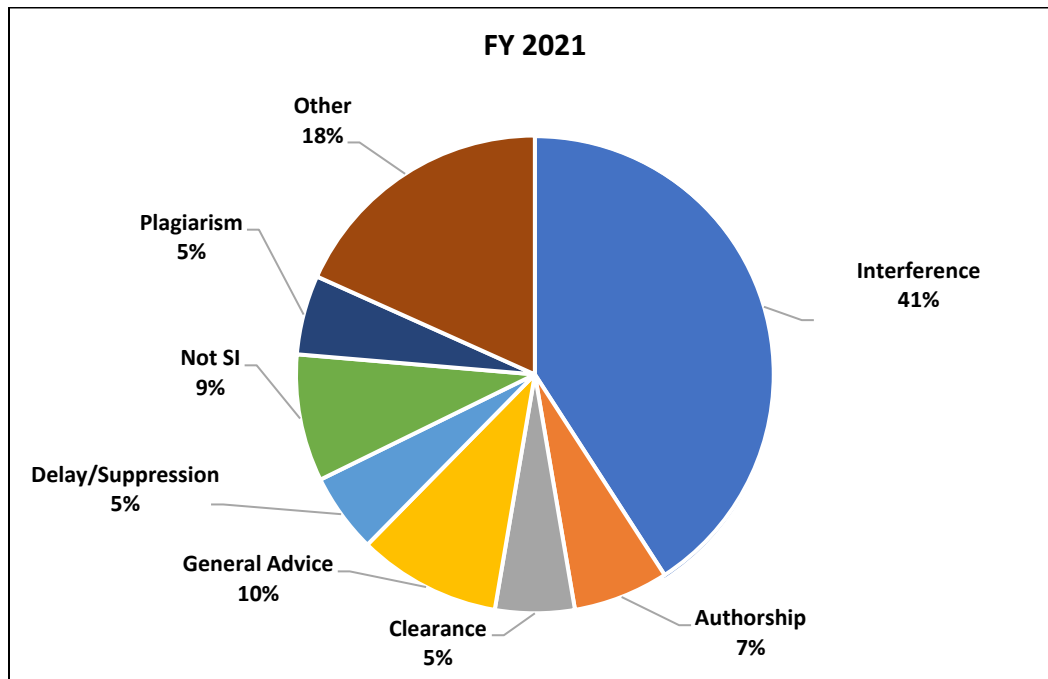


Figure 5. Request for advice in FY 2021 (N=93)

Note* Anything less than 5% of the total was included in other (Quality Assurance, Retaliation, Conflict of Interest, Differing Scientific Opinion, Professional Development, Misconduct, Peer Review, Data Quality)

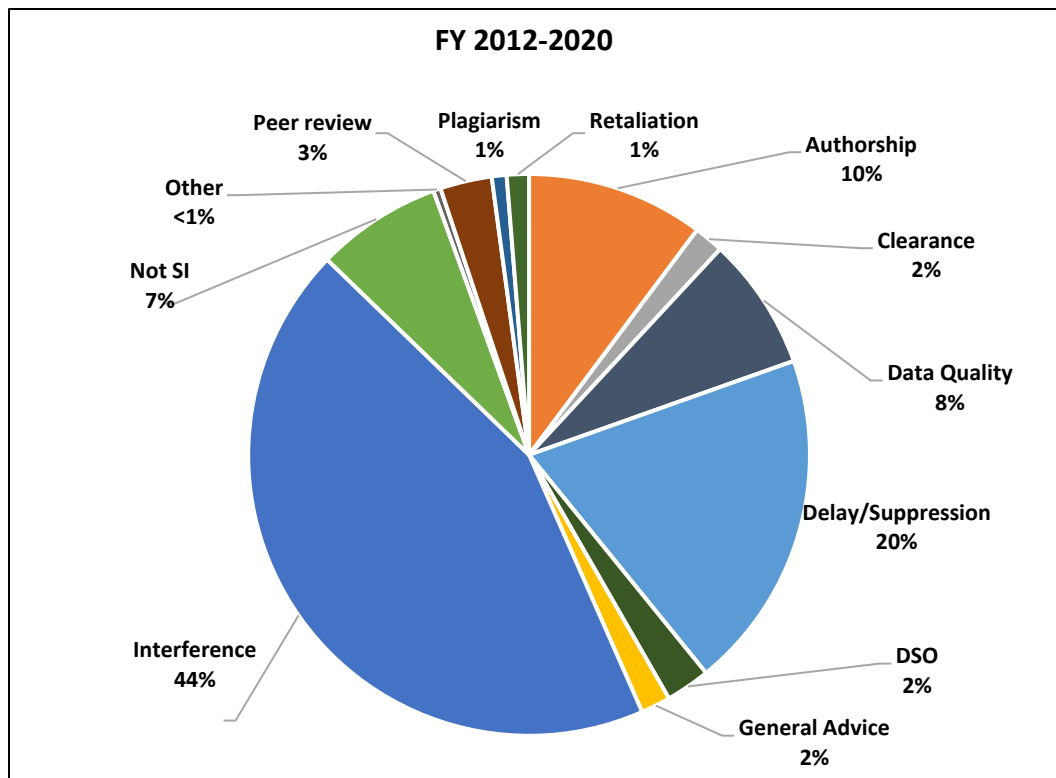


Figure 6. Requests for advice from FY 2012-2020 (N=235)

Increase in Categories

There was a significant increase in number of requests for advice, along with an expanded number of categories used to classify them during FY 2021. This may be due to employees becoming more comfortable with reaching out to the Scientific Integrity Official or their Deputy Scientific Integrity Official for advice, and therefore deescalating the situation before an allegation would need to be made. For example, the general advice category increased from 2% of all queries in the years leading up to FY 2021 to 10% in FY 2021.

Box 2. What is Interference?

What is Interference?

The altering of scientific products without scientific justification. For example:

- Manipulation of science used in decision making;
- Removing studies, cherry picking studies for inclusion, or narrowing the scope of the science without scientific justification;
- Rejection of models, new methods, information, or procedures;
- Downplaying or exaggerating uncertainty;
- Using inadequate, outdated, or substandard science;
- Risk management considerations driving risk assessment decisions;

Summary of Allegations in FY 2021

Allegations in FY 2021

In FY 2021, the Program received 8 allegations (Figure 7). This is a decrease from the 17 allegations received in FY 2020. These ranged from allegations regarding peer review and attribution to interference. Figure 8 breaks down the status of allegations between FY 2012- 2020.

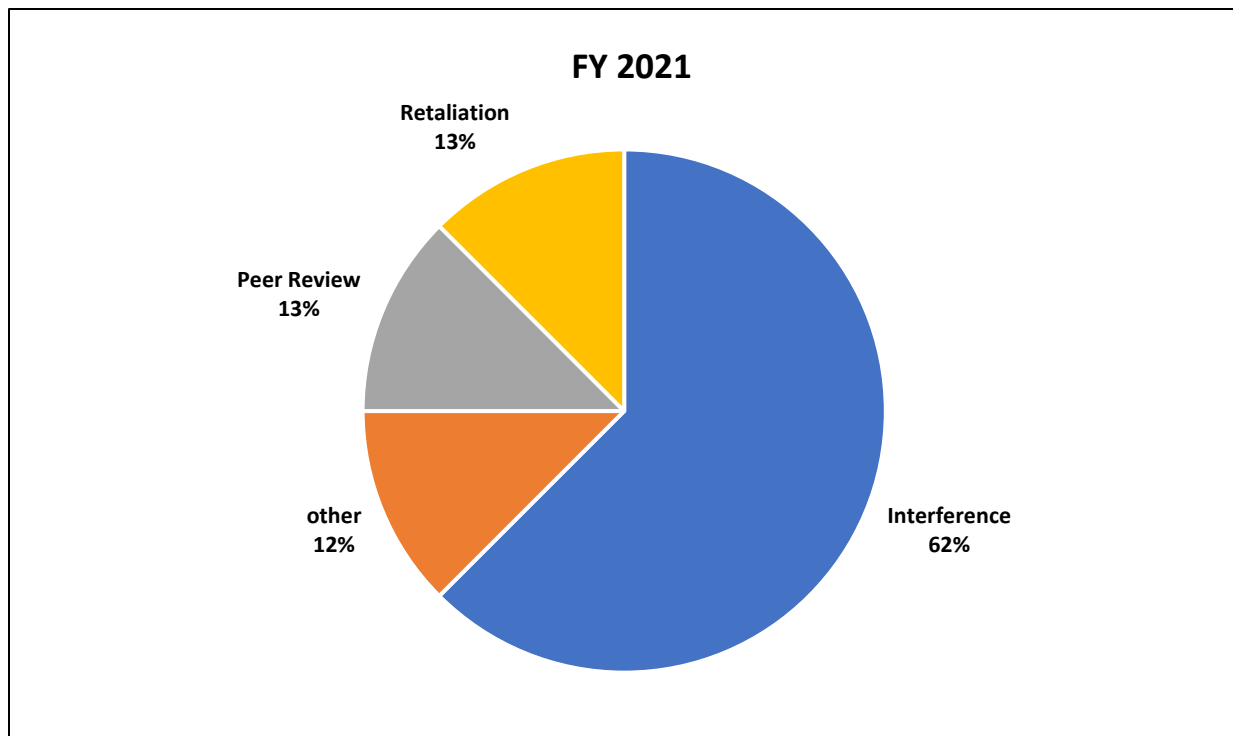


Figure 7. Allegations by topic FY 2021 (N=8)

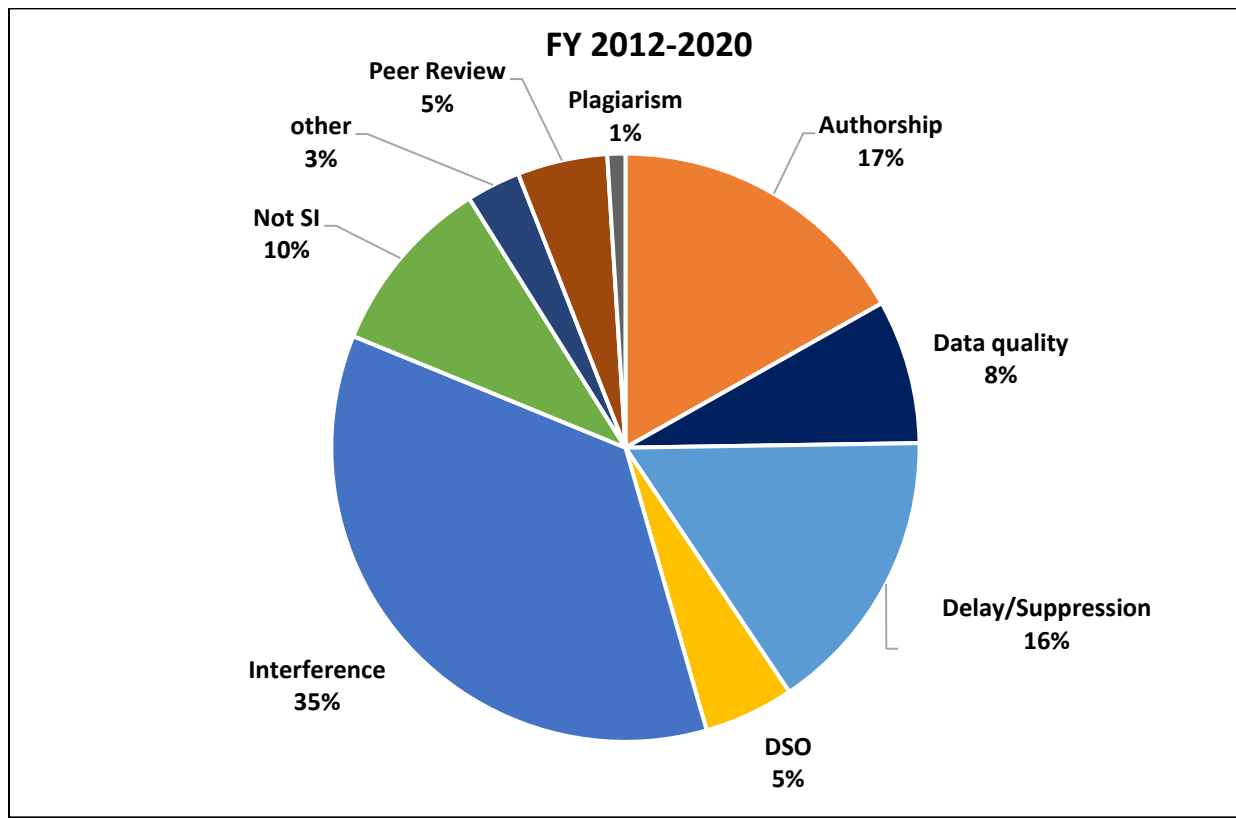


Figure 8. Allegations by Topic FY2012-2020 (N=101)

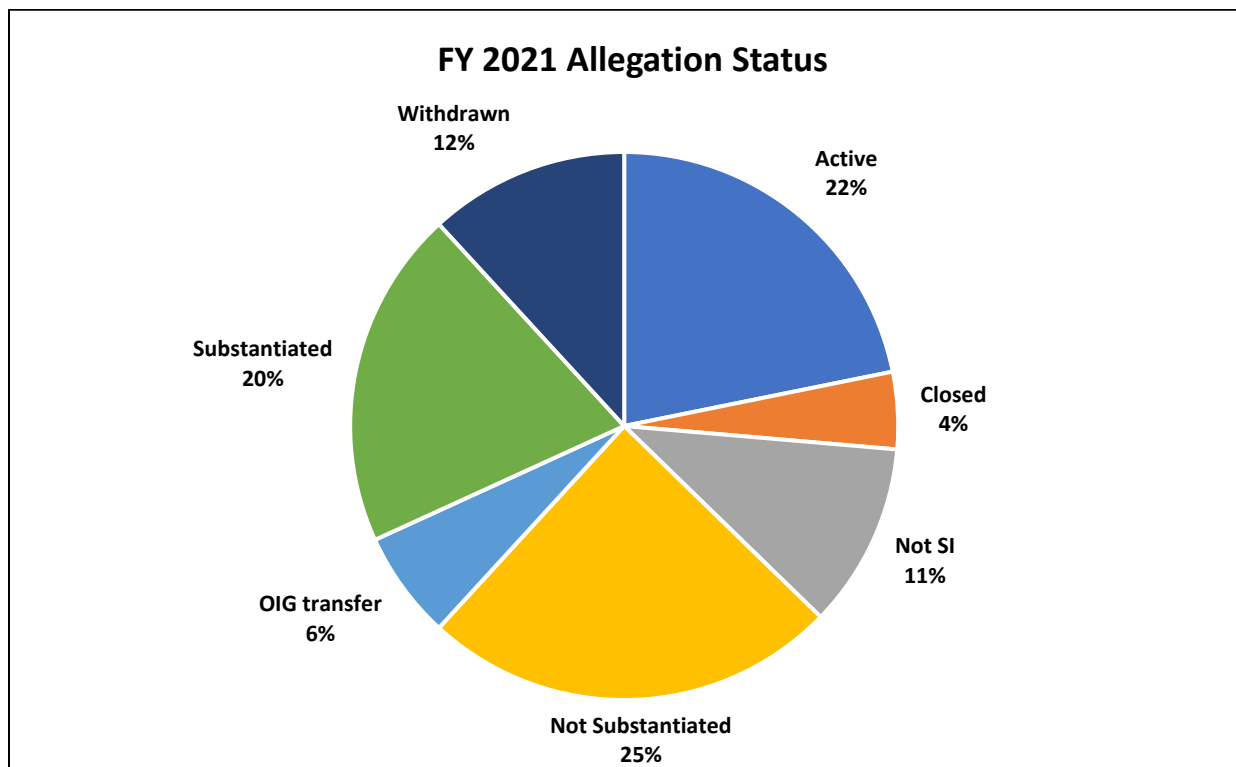


Figure 9. Status of Allegations (as of the end of FY 2021) (N=109)

Increase in Advice and Allegations

More than half of the allegations received in FY 2021 were in the interference category. While the number of allegations dropped, the total number of advice and allegations continued to rise from 73 in 2020 to 101 in 2021.

Status of Allegations

The status of allegations throughout the Program's entirety can be found in Figure 9.

Summary of Closed Allegations in FY 2021

One allegation was closed during FY 2021. A summary of the allegation adjudicated during FY 2021 is detailed below.

A Differing Scientific Opinion (DSO) was submitted by a group of scientists in a Program Office. Typically, the submission of a DSO is not considered an allegation of a lapse in scientific integrity as a DSO is a legitimate part of the scientific process. However, two of the authors of this DSO alleged that their concerns had not been adequately considered by their Program Office management.

The Program Office management acknowledged that the processes outlined in EPA's "Approaches for Expressing and Resolving Differing Scientific Opinions" had not been adequately applied in relation to this DSO; therefore, this allegation is substantiated. The Program Office agreed to apply the processes described in "Approaches for Expressing and Resolving Differing Scientific Opinions" to this and any future DSOs.

Office of Inspector General Report on Scientific Integrity

On May 20, 2020, EPA's Office of Inspector General (OIG) issued the report #20-P-01734, "[Further Efforts Needed to Uphold Scientific Integrity Policy at EPA](#)." The report examined whether the EPA's Scientific Integrity Policy was being implemented as intended to assure scientific integrity throughout the EPA. The OIG audit examined the "extent and type of employee concerns with SI at the EPA; employee awareness of EPA's SI Policy, including the process for reporting potential violations; reasons potential violations may not be reported; and the adjudication process for allegations of SI Policy violations."

The report included recommendations of actions designed to help the Scientific Integrity Official, the Committee, Office of the Administrator, and other offices consistently implement the Scientific Integrity Policy across the Agency such as finalizing procedures to address allegations of scientific integrity violations, tracking mandatory scientific integrity training, and supporting release of scientific products through a centralized clearance system. The Program adjusted its work plan to implement corrective actions in response to the report's recommendations.

In FY 2021, EPA completed four recommendations: developed and implemented a resource plan that addressed the action items in Appendix A (of the OIG Report #20-0173); incorporated summaries of allegations of scientific integrity violations (as applicable and to the extent that privacy allows) in annual reporting; developed a timeline to ensure the prior fiscal year annual report by the Agencywide annual meeting on Scientific Integrity (03/31/2021); and, posted prior year Annual Reports (2018, 2019) on Scientific Integrity to the EPA's public website. As detailed in Figure 7, EPA is continuing work to address the remaining recommendations.

No.	OIG Recommendation	EPA Status
1	Determine the extent and cause of the culture and “tone at the top” concerns, based on the indicators from the OIG’s scientific integrity (SI) survey. Issue the results to all EPA staff and make available to the public.	On track
2	With the assistance of the Scientific Integrity Committee (SIC), develop and identify which performance measures will be used to define SI Program success and effective Scientific Integrity Policy (SI Policy) implementation.	On track
3	With the assistance of the SIC, develop and execute a plan, including resource needs and milestones, to address the remaining action items identified by the agency to improve the implementation of its SI Policy.” (Appendix A)	Completed
4	In coordination with OMS and the SIC, develop and implement a process for tracking completion of SI training for all new employees, including senior leadership and political appointees	Completed
5	Provide updated information on SI training completion rates to SIC members and supervisors.	Completed
6	In coordination with OMS, complete the development and implementation of the electronic clearance system for scientific products across the agency.	On track
7	With the assistance of the SIC, finalize and release the draft procedures for addressing allegations of a violation of the SI Policy and incorporate the procedures into SI outreach and training materials.	On track
8	With the assistance of the SIC, develop and implement a process to adjudicate allegations of SI Policy violations involving high-profile issues or senior officials in the agency for which the SIO or SIC does not feel it can adequately adjudicate via existing procedures; include an indicator for when the process should be used.	On track
9	With the assistance of the SIC, finalize and implement a charter or procedures to clarify the roles and responsibilities of SIC members.	Completed

10	Include in the SI Program's annual reporting on allegations of SI violations (as applicable and to the extent that privacy allows): (a) adjudication outcome; (b) description of the process used to reach the adjudication outcome; (c) description of corrective actions and/or any longer-term changes or consequences to address the cause of substantiated violations; (d) whether and how the allegation was resolved through the advice/assistance process."	Completed
11	With the assistance of the SIC, finalize and post to the EPA's public website prior year Annual Reports on SI.	Completed
12	Develop a timeline or procedure that ensures the prior fiscal year annual report on SI is completed and distributed before the annual agency wide meeting on SI.	Completed

Figure 10. Status of OIG Recommendations (End of FY 2021)