



# NSF OIG Research Misconduct Investigations



Peggy Fischer, Ph.D.  
Associate Inspector General for Investigations  
Office of Inspector General  
National Science Foundation

---

---

---

---

---

---

---

---

## The White House Office of Science and Technology Policy (OSTP)



- Issued Federal policy on RM in 2000
  - All Fed agencies supporting intra- or extra- mural research
  - Fair, accurate, timely, fact- and document- based process
  - Separate phases: inquiry, investigation, adjudication, appeal
  - Reliance on community-based standards
  - Independence, referral, partnership with institutions
  - Level of intent, standard of proof, seriousness of offense
  - Confidentiality for subjects and informants
  - Similar actions to protect Federal interests, ranging from reprimand to debarment



---

---

---

---

---

---

---

---

## NSF Research Misconduct Policy



- Consistent with OSTP Policy <http://www.sc.doe.gov/misconduct/finalpolicy.pdf>
- RM means **fabrication, falsification, or plagiarism** in proposing or performing research, reviewing research proposals, or in reporting research funded by NSF. 45 C.F.R. 689.1.a <http://www.nsf.gov/oig/resmisreg.pdf>
- RM is not an honest error or a difference of opinion
- Policy covers all research and education activities

Fabrication:  
making up data or results and recording or reporting them

Falsification:  
manipulating materials, equipment, or processes, or changing or omitting data or results

Plagiarism:  
appropriation of another person's ideas, processes, results or words without giving appropriate credit.

---

---

---

---

---

---

---

---

## OIG's Procedures

- **Inquiry (jurisdiction / nature of allegation)**
  - Contact subject? (close or proceed)
  - Assess nature of allegation (RM or other)
  - Substantive? (close or proceed)
- **Investigation**
  - Refer to Institution (88%)
  - Evaluate Institution Report (accept 33%)
  - OIG conduct Investigation
- **Adjudication**
  - Report to NSF's Deputy Director with recommendations
  - Director decides appeals




---

---

---

---

---

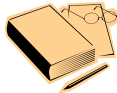
---

---

---

## Principles regarding Subjects and Complainants

- > **Complainants**
  - Confidential review
  - Fair, objective assessment
  - No role on investigation committee
  - Informed of case resolution
- > **Subjects**
  - Confidential review
  - Ask first for information
  - Defer investigations to awardees  Assessment by peers
  - Multiple opportunities to provide input
  - Independent adjudication
  - Informed of case resolution




---

---

---

---

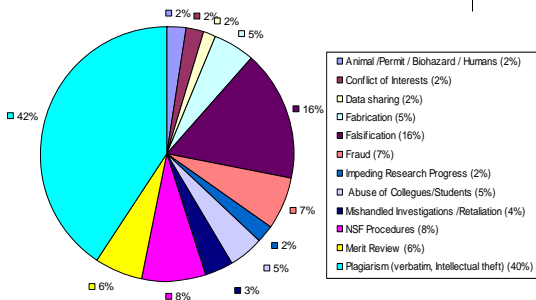
---

---

---

---

## Common Types of Administrative Allegations




---

---

---

---

---

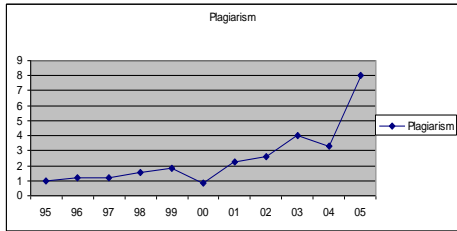
---

---

---

## Trends

(x=year, y= relative increase, base year 1995)



When you start looking, you can find interesting things!

---

---

---

---

---

---

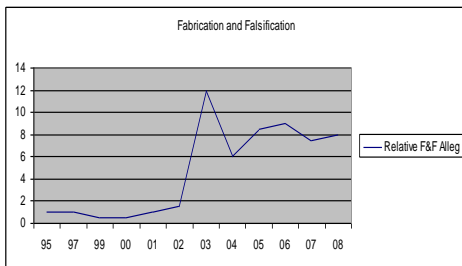
---

---

---

---

## Trends, again




---

---

---

---

---

---

---

---

---

---

## Timeline of an Investigation



Step	Time-frame Targets	
1. Receipt		
2. Inquiry	90 days - OIG	90 days - Awardee
3. Investigation	180 days - OIG	180 days - Awardee
4. Adjudication	120 days - NSF	
5. Appeal	30 days - NSF	

- ⚡ Case may close at any step
- ⚡ Provide on-site assistance




---

---

---

---

---

---

---

---

---

---

## Procedural Considerations



- Adhere to Institution / Agency policies and procedures
- Notify OIG WHEN initiate an investigation
- Integrated policies and separate phases for investigation, adjudication, appeal, grievance
- Assess relevant factors
  - Act, intent, burden of proof, seriousness
  - Community / discipline / peer standards
- Free of inappropriate bias and conflict
- OIG provide assistance



---

---

---

---

---

---

---

---

## Procedural Considerations



- Confidential independent process
- Fair, accurate, timely, objective and thorough review
- Evidence-based, carefully documented
- Presumption of innocence
- Consistent enforcement and equitable actions
- FOIA and Privacy Act considerations
- Ensure coordination with other entities



---

---

---

---

---

---

---

---

## The Inquiry



- Who conducts?
  - Institution
  - Agency
  - Decided by what entity received allegation
- Purpose
  - Determine need to go to detailed investigation
- Complainant contacted for additional information
- Subject informed of allegation, provided evidence, input sought

---

---

---

---

---

---

---

---

## Sample Plagiarism Inquiry Letter



- Did you copy material? If not, explain how the questioned text appears in your document.
- If you copied the text why was it not properly cited from your original material?
- If the questioned text is so constrained by its technical nature that it can only be described with this text, please provide copies of at least two sources other than your own publications that contain the same text.
- Is there any additional text that was copied from another source that is not properly cited?
- Is there material in any other documents you have submitted to NSF that was copied from another source but not properly cited?

---

---

---

---

---

---

---

---

## Investigation Process



- NSF OIG:
  - Notifies Subject of allegation and process
  - Refers investigation to institution or conducted by the funding source(s)
  - Defers OIG investigation
  - Review institution report and can
    - Accept in lieu of OIG investigation
    - Supplement institution report
    - Initiate OIG investigation

**NSF NOT BOUND BY INSTITUTION'S FINDINGS**

---

---

---

---

---

---

---

---

## Investigation: **FACT FINDING**



- Assess: Who? What? When? Where? How?
- Interview witnesses
- Gather supporting documents and evidence
- Assess information to develop conclusion
- Consider alternative hypotheses
- Acknowledge (resolve) inconsistencies
- Establish perspective for the actions
- Schedule regular case review and analysis



---

---

---

---

---

---

---

---

## Institution Evaluation



- Act meet definition?
- Proper intent level?
- Standard of proof? Preponderance vs. Beyond a reasonable doubt
- Significant departure from accepted practice?
- Make sure actions are proportionate to misconduct and protect Institution's interests



---

---

---

---

---

---

---

---

## OIG Evaluation of Institution Reports



- Balanced Committee free of COI
- Complete documentation
- Answered difficult questions
- Supported conclusions
- Careful evaluation of act, intent, significance of action
- Balanced and fair adjudication
- Ensure coordination with other entities



---

---

---

---

---

---

---

---

## Adjudication



OIG makes recommendations based on an evaluation of:

- scientific community's assessment
- seriousness
- intent
- evidence of a pattern
- involvement of other awards or agencies
- actions taken by institution
- need to protect FEDERAL interest



NSF management actions reflect community standards and protect Federal interests.

---

---

---

---

---

---

---

---

## Possible Federal Actions



- Possible actions NSF can take:
  - Letter of Reprimand
  - Ban from serving as a reviewer
  - Ethics Training
  - Certifications
  - Assurances
  - Federal-wide Debarment
  - Fines / Restitution

---

---

---

---

---

---

---

---

## International Implications



- OSTP policy consistent with Global Science Forum Efforts on
  - Best Practices for Ensuring Scientific Integrity and Preventing Misconduct
    - <http://www.beedl.org/2016/01/17/40189303.pdf>
  - International Co-ordinating Committee for Facilitating Research Misconduct investigations
    - Report will be structured as follows:
      - Guidance Notes
      - Overarching Principles for Investigating RM
      - Procedures for Investigating RM Allegations
      - Communication Strategy

---

---

---

---

---

---

---

---

## Elements of Principles and Procedures



- Overarching Principles
  - Integrity
  - Fairness
  - Confidentiality
  - No detriment
  - Balance
- Procedures for Investigations
  - Structural requirements
  - Scope and clearly framed definitions
  - Allegation evaluation
  - Clearly defined procedure
  - Reporting



---

---

---

---

---

---

---

---

## “Boilerplate” Text



We, the parties, agree:

- to conduct our research according to the standards of research integrity, as defined in OECD documents and other appropriate documents, including: *(specify the national codes of conduct, and disciplinary or national ethical guidelines that apply)*;
- that any suspected deviation from these standards, in particular alleged research misconduct, will be brought to the immediate attention of *(all designated contact point(s))* and investigated according to the policies and procedures of *(to be filled in with the body with primary responsibility)*, while respecting the laws and sovereignty of the States of all participating parties;
- to cooperate in and support any such investigations; and
- to accept (subject to any appeal process) the conclusions of any such investigation and to take appropriate actions.

---

---

---

---

---

---

---

---