Research Integrity Investigations at the NSF Office of Inspector General

PRESENTED TO SRA INTERNATIONAL ANNUAL MEETING

OCTOBER 21, 2019

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RESEARCH INTEGRITY AND ADMINISTRATIVE INVESTIGATIONS
Office of Inspector General (OIG)

• Independent oversight office at each federal agency that:
  – Promotes economy, efficiency, and effectiveness . . .
  – Prevents and detects fraud, waste, and abuse . . . in agency programs and operations.
  – Has full access to records and subpoena power
  – Reports to head of agency (e.g., National Science Board) and Congress
National Science Foundation OIG (Established 1989)

Immediate Office
Legal Counsel, Chief of Staff, professional/administrative staff

Office of Investigations
- Research Integrity & Administrative Investigations: regulatory and policy violations, personnel matters
- Program Integrity: criminal/civil
- Legal: assist/lead on all case types
- Investigative Proactive Analytic Reviews and Evaluations

Office of Audit
- Compliance Analytics; Financial & IT audits; CPA contract audits oversight; External audits; Performance Audits

Office of Management
OIG is delegated the responsibility for investigating RM allegations involving NSF programs.

Unique among the IG Community in that only IG with staff dedicated to addressing these allegations
### Table 6. Investigative Case Activities

<table>
<thead>
<tr>
<th>Activity</th>
<th>Count</th>
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</thead>
<tbody>
<tr>
<td>Referrals to DOJ Criminal Prosecutors</td>
<td>10</td>
</tr>
<tr>
<td>Referrals to Criminal State/Local Authorities</td>
<td>0</td>
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<tr>
<td>Indictments/Criminal Information</td>
<td>0</td>
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<tr>
<td>Arrests</td>
<td>0</td>
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<tr>
<td>Criminal Convictions/Pleas</td>
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<tr>
<td>Referrals to DOJ Civil Prosecutors</td>
<td>4</td>
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<tr>
<td>Referrals to Civil State/Local Authorities</td>
<td>0</td>
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<tr>
<td>Civil Settlements/Judgements/Compliance Plans</td>
<td>4</td>
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<tr>
<td>Investigative Reports Issued to NSF Management for Action</td>
<td>17</td>
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<tr>
<td>Research Misconduct Findings Issued by NSF</td>
<td>4</td>
</tr>
<tr>
<td>Government-wide Suspensions/Debarments/Voluntary Exclusions</td>
<td>5</td>
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<tr>
<td>Administrative Actions taken by NSF</td>
<td>27</td>
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<tr>
<td>Total Investigative Recoveries</td>
<td>$4,522,891</td>
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<tr>
<td>Substantiated Whistleblower Retaliation</td>
<td>0</td>
</tr>
<tr>
<td>Substantiated Agency Interference</td>
<td>0</td>
</tr>
</tbody>
</table>

### Table 7. Investigative Case Statistics

<table>
<thead>
<tr>
<th>Category</th>
<th>Preliminaries</th>
<th>Investigations</th>
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</thead>
<tbody>
<tr>
<td>Cases Active at Beginning of Period</td>
<td>1</td>
<td>179</td>
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<tr>
<td>Cases Opened this Period</td>
<td>6</td>
<td>36</td>
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<tr>
<td>Cases Closed this Period</td>
<td>6</td>
<td>42</td>
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<tr>
<td>Cases Active at End of Period</td>
<td>1</td>
<td>173</td>
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<tr>
<td>Research Integrity</td>
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<tr>
<td>Plagiarism</td>
<td>NSF’s Merit Review</td>
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<tr>
<td>Human Subjects</td>
<td>Conflict of Interests</td>
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<tr>
<td>Data Fabrication</td>
<td>Animal Research</td>
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<tr>
<td>Fraud</td>
<td>CV Inaccuracies</td>
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<tr>
<td>Inaccurate C&amp;PS</td>
<td>Failure to reveal affiliations</td>
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<tr>
<td>Data Falsification</td>
<td>False Statements</td>
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<td>Inaccurate Reports</td>
<td>Data Sharing</td>
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<td>Data Management</td>
<td>Biohazards</td>
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<tr>
<td>SBIR activities</td>
<td>Mentor Oversight</td>
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</table>
Why Do We Care About Research Integrity?

Fairness
◦ NSF proposal is a request to obtain Federal funds from the taxpayer
◦ RI violations can weaken public trust in funding programs
◦ False representation of data and plagiarism misleads reviewers assessments of PIs capabilities/knowledge/accomplishments

Economy, efficiency, and effectiveness
Do not want to pay for research already completed
Do not want subsequent work to be based on misrepresented work
General Trends

• ‘Static’ slope for referrals and for RM findings by NSF—pipeline limits

• Total allegations per year are down – less proactive, greater scrub at intake

• False statements of contents in the proposals or annual reports
  • Falsification of letters of support
  • Puffery of publications and other accomplishments
    • NSF has made RM findings on both these issues

• Stockpiling grants
  • Spending sequentially but reporting accomplishments across the board
  • More on this later
General Trends

• Disconcerting number of PIs [no RCR] who believe copying text is ok if you include a citation to source or if just “background” material

• Data Management/Sharing
  • PI didn’t have lab notebooks or other data supporting research
  • PI didn’t keep copies of graduate student’s lab notebook
  • PI didn’t review graduate student’s data before thesis award, only when subsequent review raised questions about reproducibility
  • PI and co-PI at different institutions and co-PI refused to share data with PI
General Trends

• Conflicts between faculty and small business time & effort
• Upward trend in violations of NSF’s merit review / peer review confidentiality

• Litigation
  ◦ The last handful of RM cases adjudicated by NSF have resulted in appeals
  ◦ Graduate student files injunction to quash IG subpoena
  ◦ PhD graduate returns to university and admits to manipulating data; sues university to keep degree
  ◦ PI files suit against NSF after making an RM finding
Case Study 1: Data Falsification: Those quotes are definitely indirect

- A PI (Physical Scientist) and co-PI (Social Scientist) study the science of learning STEM

- After surveys, they draft a publication together
  - Social Scientist changes quotations
  - PI objects and asks to see original quotes -> computer problems
  - PI presses -> lost his hard drive at an airport
  - PI files allegations

- University conducts thorough investigation
  - Calls airport, then companion, then students

- His graduate student had used data in her publication and in a chapter of her dissertation
Case Study 2: Annual Report Falsification: I’ve been busy

- PI’s annual report misrepresented accomplishments
  - Of 50+ claimed publications, only a handful were directly attributable to award
  - Many submitted/published before grant date
  - Many claimed support other than from NSF
  - Many did not even exist!
- University determined act met the definition of falsification
- NSF agreed: Finding, letter of reprimand, RCR training, and 3 years certs/assurances
Case Study 3: IRB Falsification/Fabrication: What lies beneath?

• Professor served as PI on 24 awards, valued > $50 mil
• NSF PO asks for IRB approval
  • University later conducts routine audit; prof admission
  • Contacted NSF OIG, conducted RM investigation, made a finding, removed prof from awards
  • Voluntarily relinquished $1.6M award; returned $37K
• Professor admitted fabricating 3 of his 4 IRB approvals
• OIG refers to AUSA (false claims, false certifications)
  • Accepted by civil AUSA
  • Settlement for >$130K
  • Voluntary Exclusion for almost 2 years
Case Study 4: Post-doctoral Fellowships: Happiness X 2

- Post doc awarded NSF Postdoc Fellowship
- She already has a university fellowship
- Hides NSF Fellowship from university and vice versa

Claims she is working two projects and therefore can have two fellowships
Case Study 5: Peer Review: #violation

NSF merit review panelist, participating remotely, used Twitter account to “live-tweet” observations about applications, panel, and panelists

PO asked her to stop; she didn’t
- Posted rationalization to justify tweeting in case NSF objected

PO asked her to delete posts; she didn’t

PO removed panelist from review

NSF reprimanded panelist and banned her from serving as a reviewer, advisor, or consultant for 3 years
Case Study 6: Plagiarism/Confidentiality Violation

• Former NSF PO
• Took a declined NSF proposal when he left NSF
• Used text from declined proposal in his own later proposal.
• NSF reviewer recognized the formerly declined proposal and reported the matter
• NSF was NOT pleased; imposed an even longer debarment than we recommended.
Case Study 7: Figure Fabrication: For Your Lies Only (a play in three acts)

Act 1: Manuscript returned – figure inconsistent with claims
  ◦ Figure desired was never obtained
  ◦ Galley proofs had falsified figure

Act 2: Design checked out even though incorrect info accidentally sent
  ◦ Lie for me PLEASE!

Act 3: PI tells student he paid an outside expert $5K to verify the results
  ◦ But she called Sandia National Labs
Case Study 8: Fraud: “I would like you to write a short letter to help make someone go away”

Proactive review of suspicious business addresses identified two companies at the same location

Search Warrant
- Defendants created false documents to respond to OIG’s requests
- “Signature bank” folder (used for fraudulent letters of support)

Trial
- 18 days, 56 witnesses: wire fraud, aggravated identity theft, and falsification of records

Sentenced:
- Husband – 15 years in prison, 3 years supervised release
- Wife – 13 years in prison, 3 years supervised release
- $10.6M forfeiture money judgement, $10.6M in restitution
Plagiarism Project

- Assessed case data for last 10 years
- Report hopefully out this Fall
- Education is key
Serial Spending Project

- PIs with multiple grants
- Multiple NCEs
- Rapid spend down of oldest grant after NCEs
- Claim personnel worked on grant despite no payments
- Claim accomplishments on newer grants despite lack of spending
NSF-OIG Serial Spending Project

• Grants more than 2 years old with less than 20% spent
  • Exclusions
  • Look at spending profile, annual reports

• Focus:
  • ID old grants with low expenditures
  • ID serial spending

• Results: end of year or early next
NSF-OIG RIO Workshop

• Response was strong

• Topics:
  ◦ 4 corners of investigation/institutional reports
  ◦ Best and worst
  ◦ Foreign influence
  ◦ Data management (F/F)
  ◦ RCR

• Split day

• Mid June 2020
Conclusions

Multi-pronged effort to maintain research integrity
◦ Investigations (RM, COI, fraud)
◦ Responsible Conduct of Research Training
◦ Proactive reviews
◦ Outreach

Fight the good fight
◦ Not standing ground puts research integrity in peril and subsequently the research enterprise as a whole
Contacting OIG


• Hotline: 1-800-428-2189

• Phone: 703-292-7100 (business hours) or 703-328-3932

• E-mail: [oig@nsf.gov](mailto:oig@nsf.gov)

• Fax: 703-292-9159

• Mail: 2415 Eisenhower Ave, Alexandria, VA 22314
  ◦ ATTN: OIG HOTLINE
Whistleblower Protection

A core value of OIG is the protection of NSF employees, contractors, and grantees who step forward to identify potential wrongdoing.

Federal law prohibits retaliation for providing information reasonably believed to evidence:
- a violation of law, rule, or regulation;
- gross mismanagement;
- a gross waste of funds;
- an abuse of authority; or
- a substantial and specific danger to public health or safety.
Whistleblower Protection

- **NSF Federal employees** are protected if they make a whistleblower disclosure to the U.S. Office of Special Counsel, OIG, or a supervisor.
- **Employees of NSF contractors and grantees (and subcontractors/subgrantees)** are protected if they make a whistleblower disclosure to their management, an OIG, or an official responsible for investigating misconduct.
- **All of the above** are also protected for communications to Congress.

Info on whistleblower protection is available on our web site and the Office of Special Counsel web site.

http://www.nsf.gov/oig/whistleblower.jsp
http://www.osc.gov
Contact Information

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rallbrit@nsf.gov

www.nsf.gov/oig