NULLIUS IN VERBA:

INSIGHTS FROM AN INSPECTOR GENERAL

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National Academy of Sciences
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What is an OIG?

- **What are Offices of Inspector General?**
  - Provide leadership and coordination to implement policies to:
    - Prevent and detect fraud, waste, abuse
    - Promote economy, efficiency, effectiveness
    - Conduct civil, criminal and administrative investigations,
    - Conduct audits, inspections, reviews of agency programs (funded activities), and operations

- **Features:**
  - Independent of agency management
  - Jurisdiction (NSF activities, programs, operations)
  - Staff of experts: administrators, attorneys, auditors, criminal investigators, and scientists

Council of the INSPECTORS GENERAL on INTEGRITY and EFFICIENCY

NATIONAL SCIENCE FOUNDATION

- Independent Federal Agency
  - funds researchers through merit-based review of proposals, supports Antarctic/Arctic research, ships, major facilities and centers
  - principal federal agency promoting science and engineering education

- Annual budget is allocated as follows:
  - <4% federal budget for research and development.
  - nearly half of the federal support for non-medical basic research at U.S. colleges and universities.
    - Physical sciences ~ 41%
    - Engineering ~ 41%
    - Environmental Sciences ~ 49%
    - Social Sciences ~ 52%
    - Mathematics ~ 60%
    - Biology (ex. NIH) ~ 67%
    - Computer Science ~ 86%

NSF'S EXPECTATIONS

- The **awardee has full responsibility** for the conduct of the project or activity supported under this award and for adherence to the award conditions. Although the awardee is encouraged to seek the advice and opinion of NSF on special problems that may arise, such advice does not diminish the awardee's responsibility **for making sound scientific and administrative judgments** and should not imply that the responsibility for operating decisions has shifted to NSF. (Article 1, GC-1)

- By accepting this award, the awardee agrees to **comply with the applicable Federal requirements** for grants and cooperative agreements and to the **prudent management** of all expenditure and actions affecting the award. (NSF's Grant General Conditions, since 1988)

- **The awardee must report issues related to research misconduct** (NSF's Grant General Conditions, since 1988).

FROM THE GOVERNMENT'S PERSPECTIVE GRANTS ARE NOT "SMALL BUSINESS"

Federal Spending for FY 2009

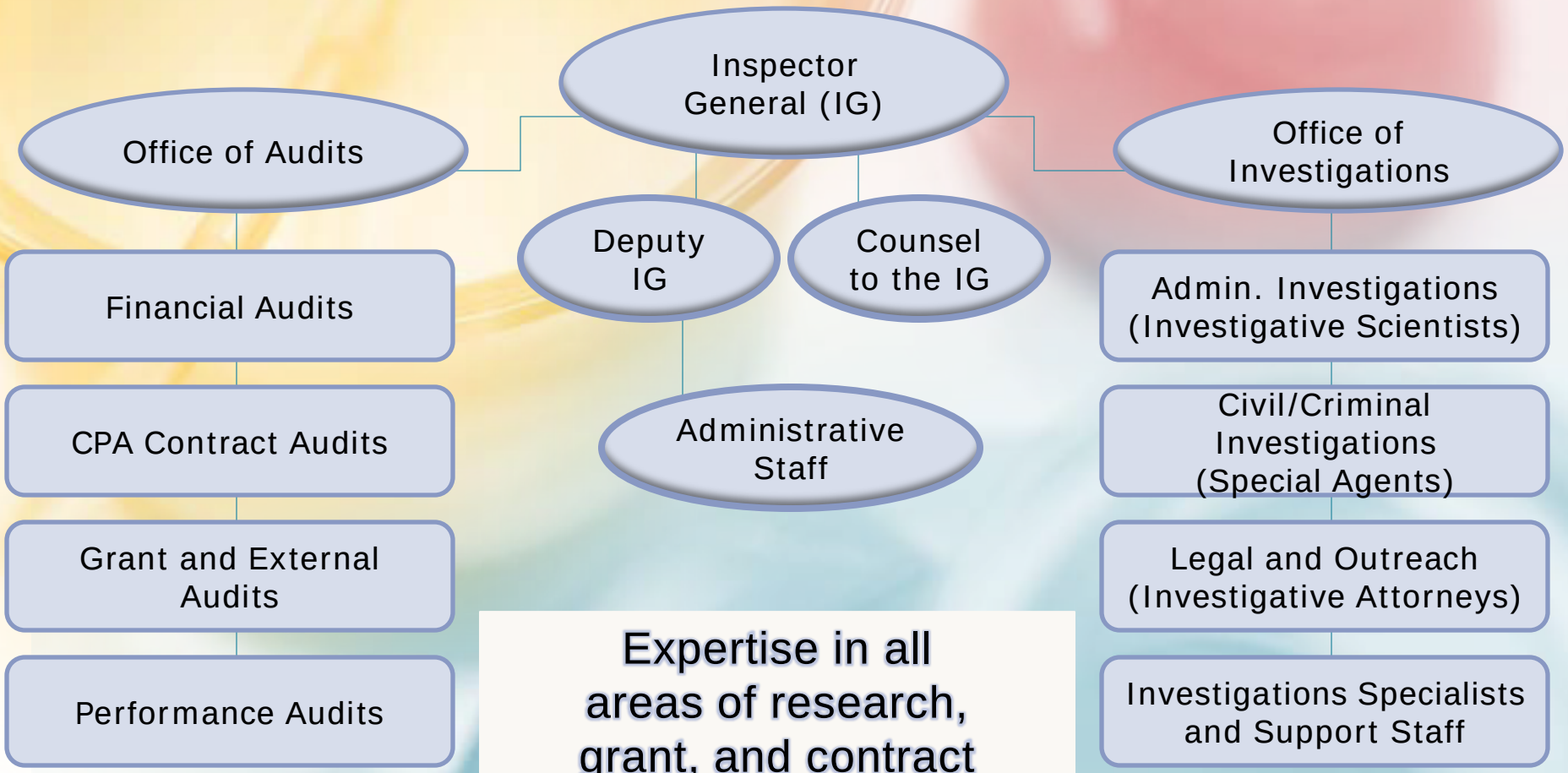
Export

Award Type	Amount	Total Percentage
Direct Payments	$799.9B	33%
Grants	$659.1B	27%
Contracts	$537.8B	22%
Insurance	$443.6B	18%
Others	$2.2B	0%
Loans	$727.2M	0%

Government oversight is increasingly focused on:

- Transparency
- Accountability
- Documentation
- Is the activity worthy of the government's expenditure of funds?

WHO IS NSF OIG?



Expertise in all areas of research, grant, and contract administration

OFFICE OF AUDIT

- **Financial and Information Technology Audits**
  - Financial statements
  - OMB Circular A-133 (Single Audit Act) oversight
  - IT security, policies
- **Grant and Contract Audits**
  - Compliance with terms and conditions
  - Internal controls
  - Allowability of costs (per OMB circulars and NSF rules)
- **Performance Audits**
  - NSF program oversight and operations
  - Economy and efficiency of programs

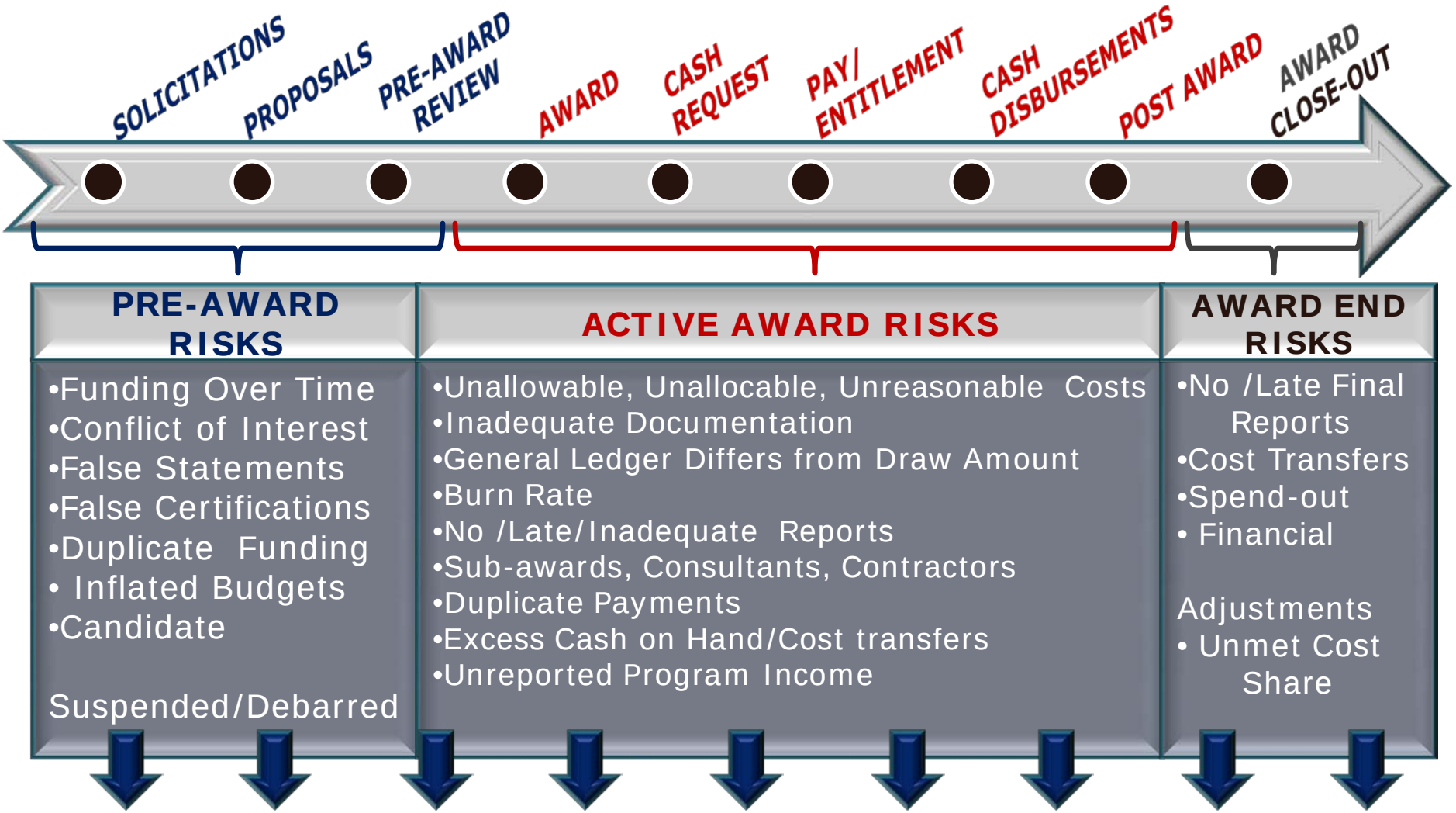
SOURCES OF AUDITS

- **Annual audit work plan**
- **Statutory requirements**
  - CFO Act financial statement audits
  - Federal Information Security Management Act (FISMA)
  - OMB Circular A-133 (Single Audit Act) oversight
- **Risk-based**
  - Trends from prior audit results
  - Investigative referrals and hotline complaints
  - Data analytics
- **Congressional requests**
- **NSF and National Science Board requests**
- **Quick response audits of current issues**

AUDIT PRIORITIES FOR 2011

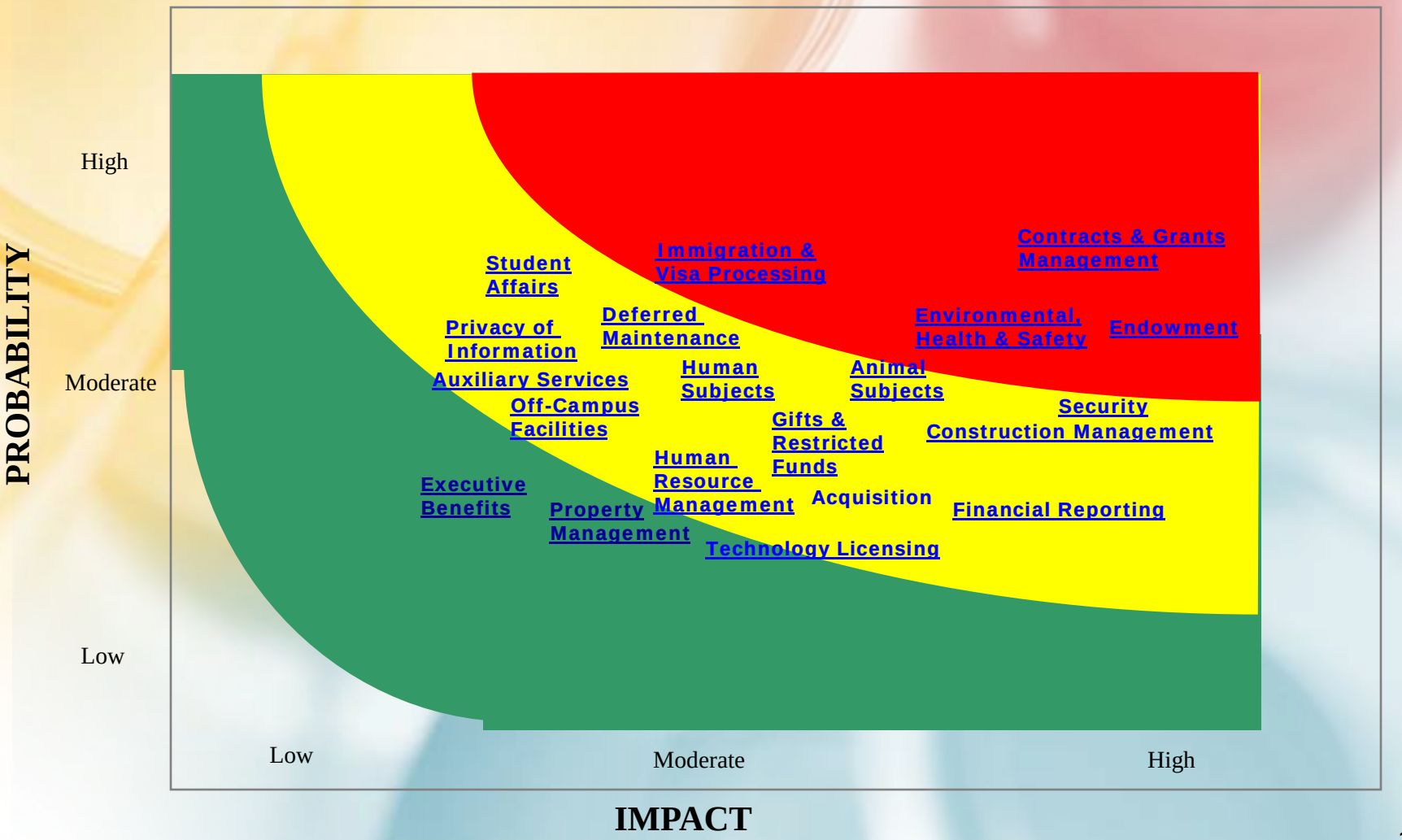
- Contract administration
- Allowability of contingency costs on awards
- Labor effort reporting by awardees
- Human capital
- Information technology audits
- Increased government-wide oversight coordination
  - Recovery Board and other OIGs
  - Council of Inspectors General for Integrity and Efficiency (CIGIE)
- Increased use of data analytics
  - Improve risk-based audit planning
  - Emphasis on the end-to-end process for grant oversight

END TO END PROCESS FOR GRANT OVERSIGHT



ONE UNIVERSITY'S RISK ASSESSMENT

HEAT MAP



INVESTIGATIONS

- **Civil and Criminal Investigations**
  - Cases of Fraud, Theft, Conspiracy, Embezzlement, False Statements, Etc.
  - Consequences:
    Restitution, Fines, Prison, Compliance Plans

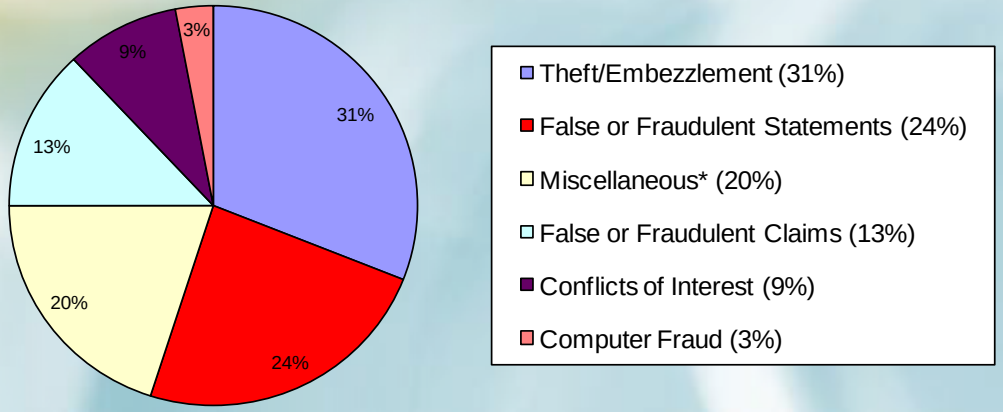
- **Administrative Investigations**
  - Cases of Research Misconduct; Breach of Confidentiality; Human Subjects; Animal Welfare
  - Consequences:
    Debarment, Certifications and Assurances, Remedial Training, etc.

WHAT IS FRAUD?

- It's a civil or criminal investigation (Civil Fraud, Qui Tam, 18 USC 1001, Conflicts of Interest)
- Fraud: "intentional perversion of truth for the purpose of inducing another in reliance upon it to part with some valuable thing belonging to him or to surrender a legal right." Black's Law Dictionary 1990. (element are: lie, with intent, reliance, loss)
- Is not a synonym for Research Misconduct (administrative). Fraud is a very narrow term and may "promote complacency and the belief that scientific research is free of misconduct."

AAAS/ABA Project on Scientific Fraud and Misconduct Workshop Number 2, 1989

Common Types of Civil/Criminal Allegations

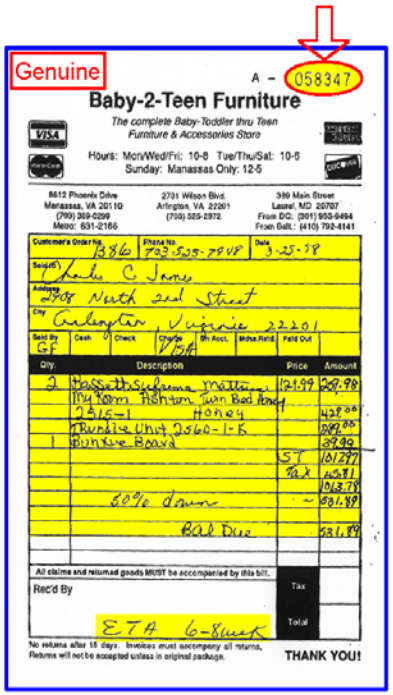


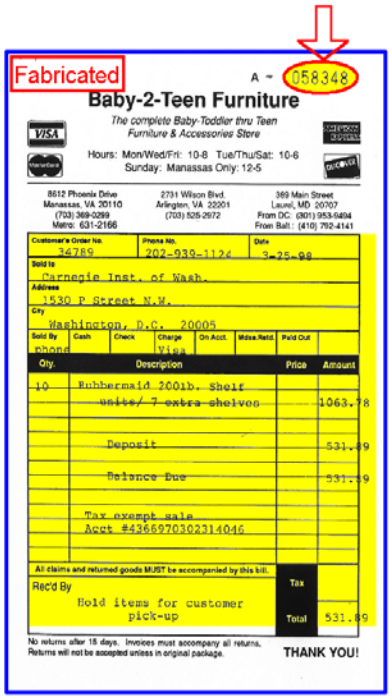
*Includes mail fraud, false identification insurance fraud, impersonating a government officer, and copyright infringement.

Grant money for rent and tuition?

<u>Individual fraud on an NSF Grant</u>

- Fraudulent final report submitted to NSF by professor
- NSF grant money used for personal expenses
- NSF: Professor's grant was suspended and he had to repay almost $200,000
- Criminal result: Professor pled guilty and was fined $15,000 and faced 5-years probation





False receipts?

Individual fraud on an NSF Grant

- Subject had embezzled at least $214,000 in grant money by submitting falsified expense vouchers
- Sentenced to 1 year in prison followed by 2 years supervised release
- Ordered to pay $93,053 in restitution to the government
- NSF debarred him for 3 years

CONSEQUENCES FOR INSTITUTIONAL FINANCIAL MISMANAGEMENT

Government Imposed Compliance Plans

1. $5 M, compliance plan, violated terms of Cooperative Agreement
2. $500,000, 5 year compliance plan, unable to account for funds
3. $1.5 M, 5-year compliance program; cost-sharing
4. $150,000, 5-year compliance program; misuse of federal funds
5. $2.5 M, 5-year compliance program; cost-sharing, salaries, double charging

Institutional Fraud

- Typically resolved as civil false claims
- Financial Restitution
- Compliance plans based on key elements of the sentencing guidelines
    1. Responsible Officials and Tone from the top
    2. Due Care in Assignments with Substantial Discretionary Authority
    3. Communication Standards and Procedures
    4. Establish Monitoring, Auditing and Disclosure System
    5. Consistent Enforcement of Standards and Rules
    6. Respond Appropriately to the Offense

RESEARCH MISCONDUCT (RM)

- RM means "fabrication, falsification, or plagiarism in proposing or performing research funded by NSF, reviewing research proposals submitted to NSF, or in reporting research results funded by NSF." 45 C.F.R. 689.1(a)

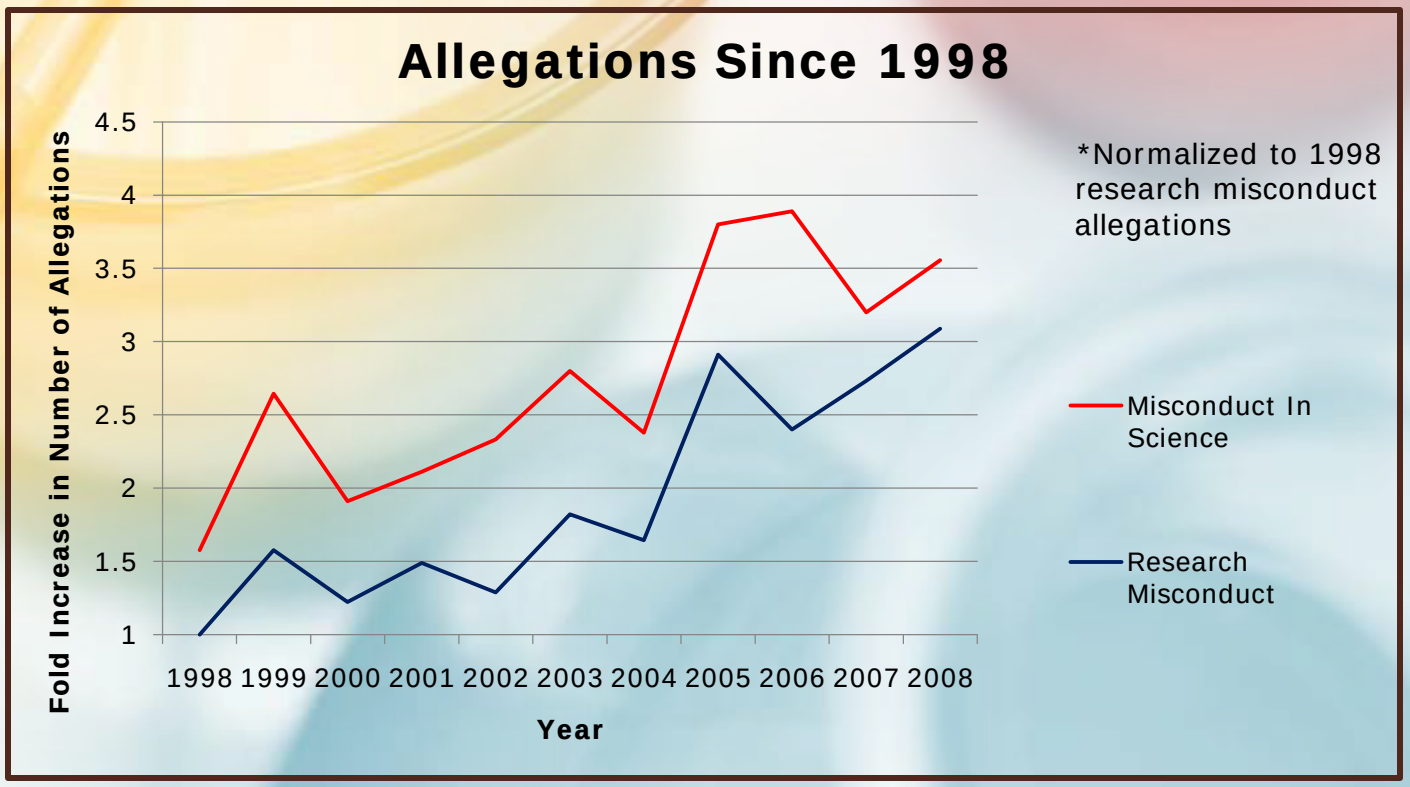
- Does not include mistake or honest error.

- "Awardee institutions bear primary responsibility for prevention and detection of [RM], and for the inquiry, investigation, and adjudication . . ." 45 C.F.R. 689.4(a)

- OIG reviews institution reports for accuracy, fairness, and completeness. If warranted, conducts additional investigation and reports to NSF Deputy Director, who adjudicates.

INCREASING ALLEGATIONS

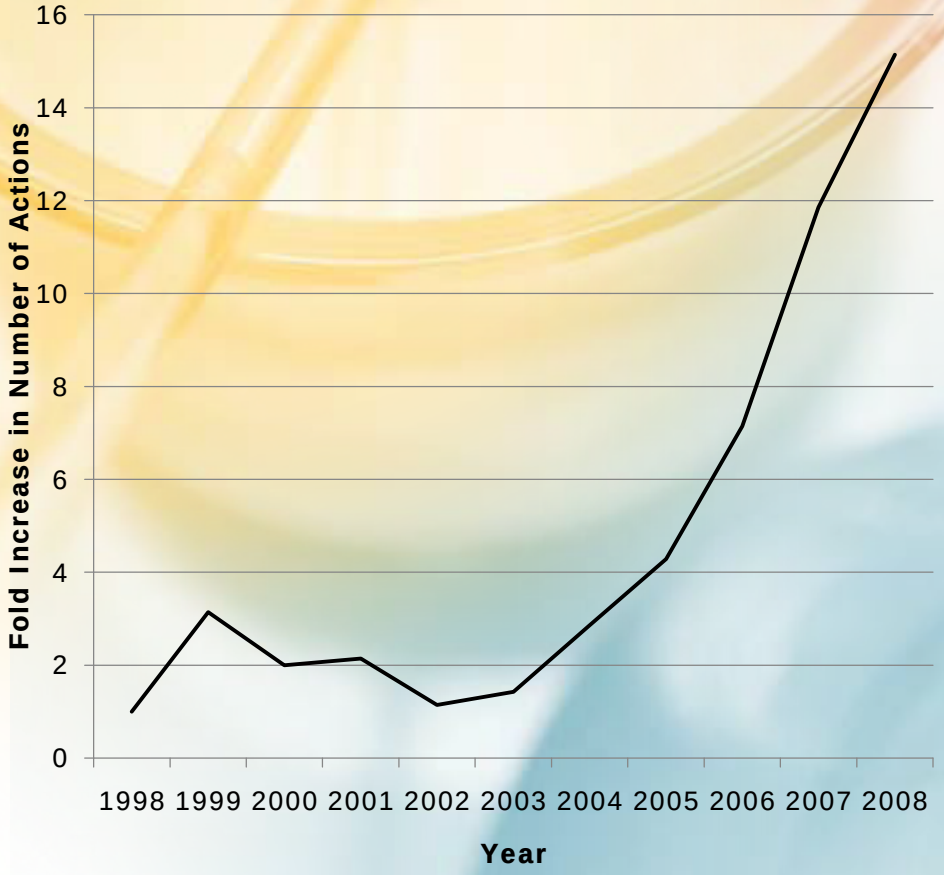
- From 1998-2008, NSF has observed a 3-fold increase in RM allegations



HALL OF EXCUSES

- I didn't do it. My grad student/undergraduate/postdoc/grant writer/faculty colleague/secretary/Co-PI/SRO/AOR/VP of Research/Dean/spouse wrote that section.
- It's only background/introductory material (or it had no technical merit).
- The reviewers are smart enough to know what is my work and what is someone else's.
- It's in the public domain.
- It's not plagiarism; it's just bad citation.
- I used the same words, but I meant something different.
- There's no other way to say that.
- I didn't have space for all the citations
- "It's only a proposal. It's not like it's a publication"
- "Fastlane removed all the quotation marks"
- "My English teacher told me it's not plagiarism if I change every 7th word."
- "I was told that having between 70-80 citations in a proposal was enough.
- Anymore and I would look like I wasn't proposing to do something new."
- "If that was done by me, it was not intentional, and if I did it, I was not aware that I was doing it, and if I did it, it stopped."
- A bird distracted me.
- I was suffering from severe acid reflux.

Research Misconduct Actions Since 1998



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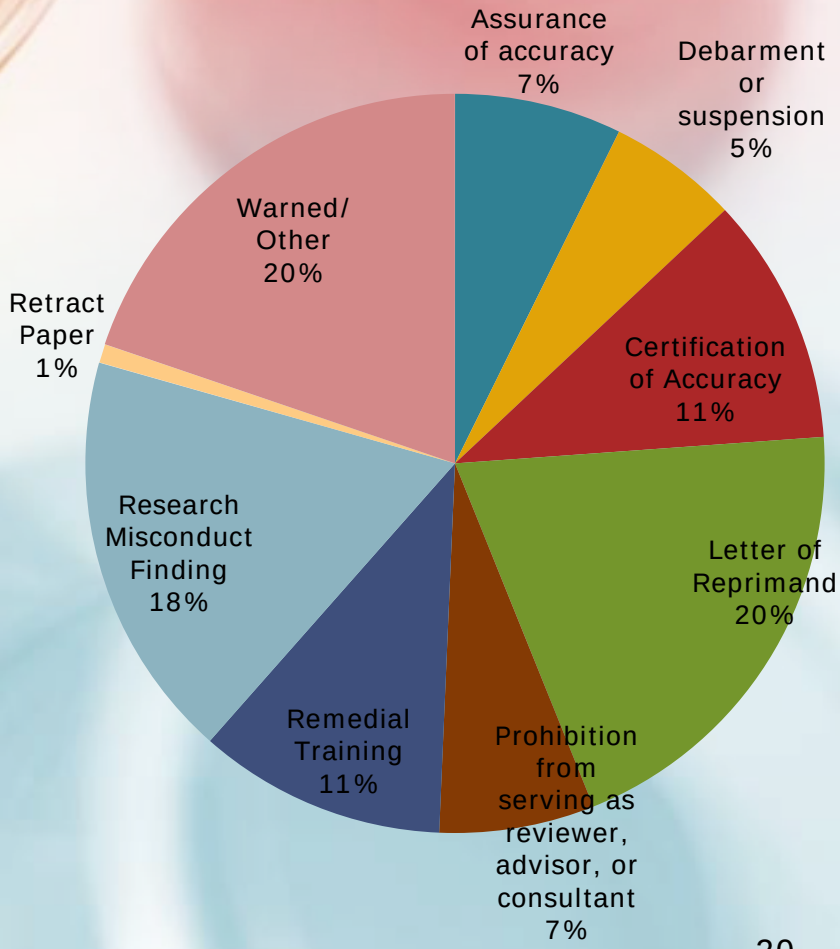

WHAT'S IN YOUR RCR TRAINING PLAN?

- ***What's the format?***

  On-line?
  Face-to-face meetings w/advisor?
  Faculty-led courses?

- ***What's the subject matter?***

  "9 core elements" (RM policies, authorship and citation practices, data acquisition and sharing*, animal/human subjects protection, IRBs, gov't requirements).
  Or issues as determined by risk assessment.

- ***Who participates?***

  Only students/postdocs directly funded by an NSF grant?
  Foreign-educated?
  All?

RESPONSIBLE CONDUCT OF RESEARCH

- **Institutional Responsibilities to NSF** (proposals submitted ON or AFTER January 4, 2010)
  - Certify that a Plan exists for RCR and ethical training for undergrads, grad students, and postdocs.
  - Designate person to oversee compliance
  - Institutions must verify that students and researchers have received proper training
- Institutional plans and efforts are subject to review.

WHAT IF THE IG SHOWS UP?

- **Don’t panic**
- **Provide full disclosure**
- **Self-identify** – problems and solutions to correct them
- **Maintain confidentiality** – reputation is the currency of science

QUESTIONS, THOUGHTS??

CONTACT INFORMATION

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