

RCR Education in a Contrary Research Environment

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**Melissa S. Anderson
University of Minnesota**

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Collaborators

**Brian C. Martinson, Raymond De Vries,
A. Lauren Crain, Emily A. Ronning,
Dana McGree**

Our Focus

- **Misconduct and misbehavior**
- **Environment of science**
- **RCR training, mentoring, and continuing ed.**

Our Studies

- **ORI/NIH Research on Research Integrity Prog.**
- **Focus groups**
- **Survey:**
 - Over 7,000 NIH-funded scientists**
 - Mid-career: 52% response (n=1,768)**
 - Early-career: 43% response (n=1,479)**
- **Survey:**
 - 5,000 scientists: 35% response (n=1,701)**

Misconduct and Misbehaviors

– Misconduct: **FFP**

– Misbehavior:

Data

Outside influence

Methods

Peer review

Policy

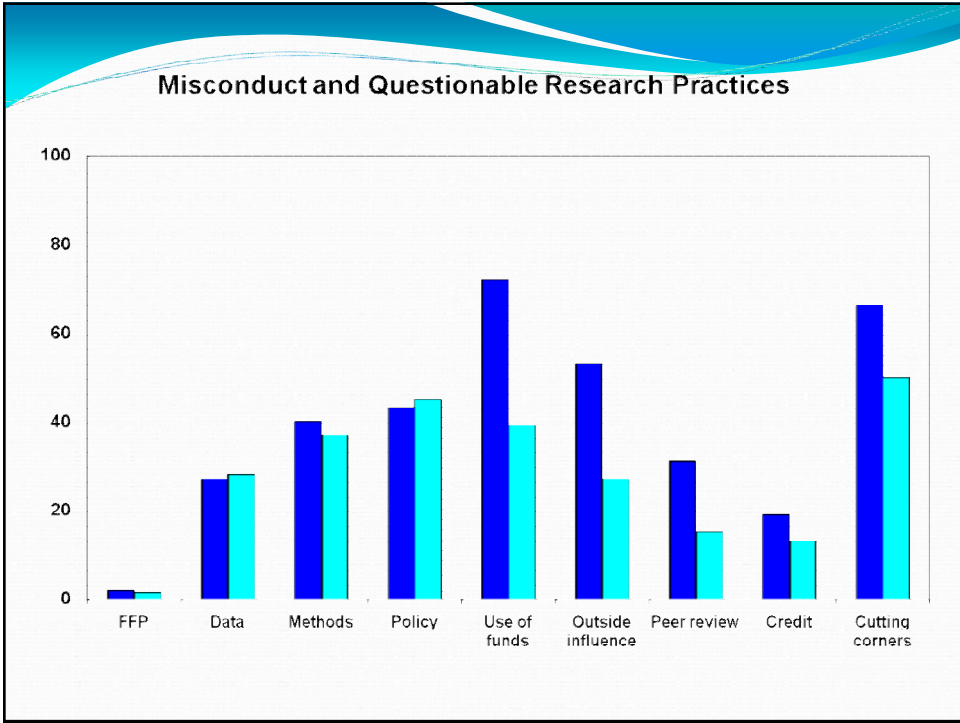
Intellectual credit

Use of funds

Cutting corners

Notes for next slide

– The bars show the percentages of respondents (mid-career, blue; early-career, teal; N=3,247) who reported having engaged in at least one form of misbehavior in the indicated category during the previous 3 years.



So ...

**What is going on
in the research environment?**

Research Environment

- 1. Cooperation and Competition
- 2. Norms and Counternorms of Science
- 3. Injustice / Alienation
- 4. Training and Mentoring

Notes for next slide

- This slide summarizes logistic regressions of misbehaviors on environmental variables. Significant associations at the .05 level are shown in color: green=negative association; red=positive association. All regressions control for academic discipline, gender, and international vs. U.S. training.

	FFP	Data	Method	Policy	Use of Funds	Extern. Influen.	Peer Review	Intell. Credit	Cutting Corners
Cooperat.		M	M	M	M				M
				E					E
Competit.	M	M	M	M	M	M	M	M	
		E	E	E			E	E	E
Norms		M	M	M	M	M			
		E	E	E			E	E	
C. Norms		M	M		M	M	M	M	
		E	E	E		E			
Injustice/ Alienation	M	M	M	M	M	M	M	M	M
		E	E			E	E	E	E

Training and Mentoring

... to the rescue

EARLY CAREER	FFP	Data	Method	Policy	Use of Funds	Extern. Influen.	Peer Review	Intell. Credit	Cutting Corners
<u>Instruction</u>									
Separate		MORE							
Combined									
Both	LESS	MORE							
<u>Mentoring</u>									
Ethics			LESS						LESS
Research	LESS	LESS	LESS		LESS				LESS
Financial	LESS				MORE				
Survival	MORE		MORE		MORE		MORE		
Personal			LESS			LESS	LESS		

Recommendations

- Training
- Mentoring
- Survival in science
- **Collective openness**



Contact:

Melissa S. Anderson

mand@umn.edu