

UNIVERSITY *of* NEW ENGLAND



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NEW ENGLAND

INNOVATION FOR A HEALTHIER PLANET

RESEARCH MENTORING: ROLES, GOALS, AND RESPONSIBILITIES

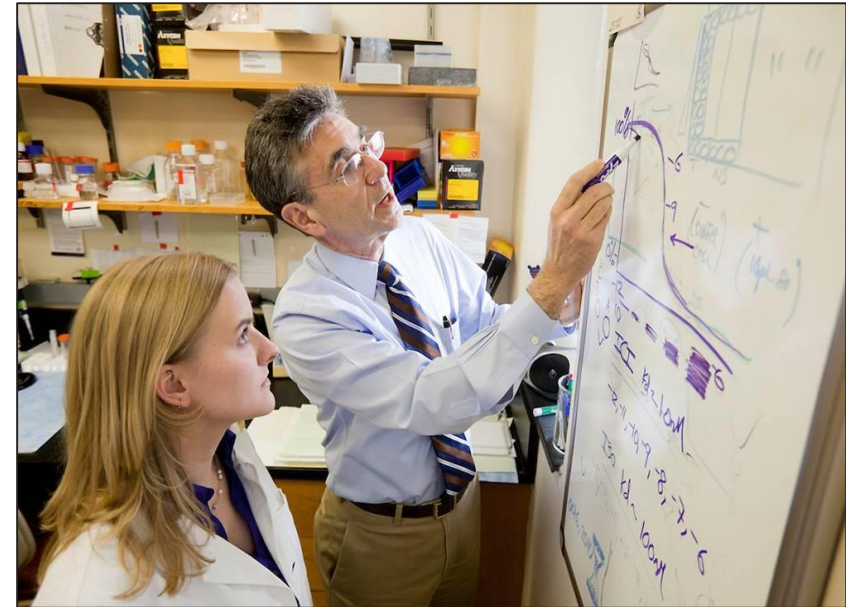


- Objectives
 - Acknowledge the significance of mentoring for scientific discovery
 - Define the roles and responsibilities of mentors and mentees
 - Describe common challenges in research mentoring and strategies for addressing challenges
 - Recognize the responsibility to mentor minorities and women in science
 - Provide additional mentoring resources

THE SCIENTIFIC SIGNIFICANCE OF MENTORING

“I believe that one of the most important contributors to future success is not where one went to school or trained but rather who one’s mentors were.”

This is because the truly important determinants of success in most activities are very subtle and can’t be learned from books and classes. Instead, they need to be acquired experientially by working with a mentor whose values and approaches one gradually internalizes.”



Robert Lefkowitz
Professor of Biochemistry
Winner of Nobel Prize in Chemistry

MENTOR: ROLES AND RESPONSIBILITIES

- What is a mentor?
 - A mentor has experience with challenges the mentee will face, ability to communicate that experience, and the willingness to do so.
- Who is a mentor?
 - Faculty advisor, laboratory director, senior student, another faculty member, or simply a person with experience

MENTOR: ROLES AND RESPONSIBILITIES

What roles do mentors play?

- Complex and multidimensional
 - Adviser/guide
 - Teacher/coach
 - Role model
 - Advocate/opener of doors
 - Boss/rule setter and enforcer

What responsibilities do mentors have?

1. Research development
2. Ethical development
3. Career development and preparation for job market
4. Socialization into the profession (e.g., collegiality, institutional cultures, skills for communication, working in teams, leadership, idea expression)
5. Mentors should be advocates
6. Mentors should be available

MENTEE: ROLES AND RESPONSIBILITIES

What roles do mentees play?

- Complex and multidimensional
 - Advisee
 - Student/trainee
 - Research assistant
 - Teaching assistant
 - Colleague

What responsibilities do mentees have?

1. Identify goals and career plans
2. Locate prospective mentor(s)
3. Distinguish between supervisors and mentors
4. Communicate needs and expectations
5. Learn and define effective mentoring

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COMMON CHALLENGES

- Power differentials
- Competing and conflicting roles
- Too much or too little oversight
- Giving and receiving criticism
- Personality differences



COMMON CHALLENGES



- Power differentials

- Inherent imbalance of power can result in an abuse of that power

- Examples of unethical behavior

- Failing to train or advocate for mentee
 - Refusing to give proper credit to mentee's research contributions
 - Seeking favors or making unreasonable requests in exchange for special treatment or normal mentoring duties
 - Setting unclear boundaries
 - Exercising power "over" a mentee

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- Competing and conflicting roles
- Too much or too little oversight
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FACING CHALLENGES

- Compacts
 - Time commitments
 - Criteria for judging performance and providing feedback
 - How responsibilities are shared or divided in the research setting
 - SOPs (e.g., way data are recorded, stored, interpreted)
 - Guidelines of authorship and ownership for research activities
- Regularly scheduled times to check-in
- Openness for criticism and improvement
- Allow for differences in personality and interaction styles
- Let mentees make their own decisions

RESEARCH MENTORING: ROLES, GOALS, AND RESPONSIBILITIES



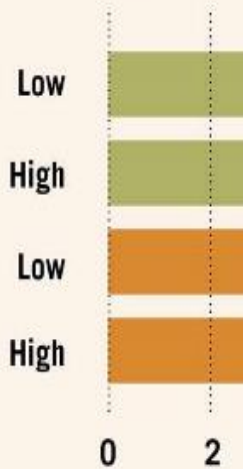
- Objectives

- Acknowledge the significance of mentoring for scientific discovery
- Define the roles and responsibilities of mentors and mentees, including mentoring on ethics and RCR
- Describe common challenges in research mentoring and strategies for addressing challenges
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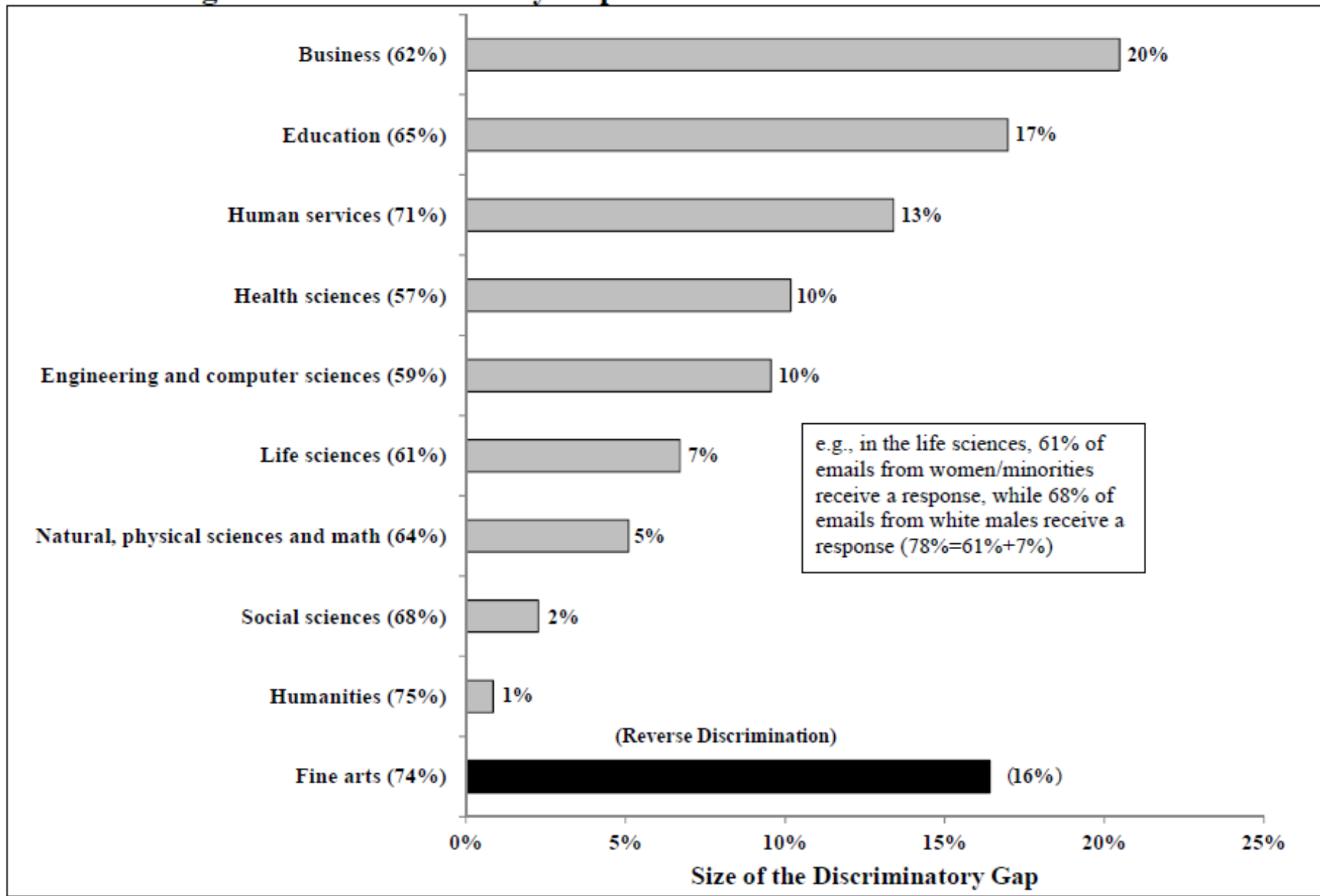
Racism in

Job applicants with names got fewer

▼ Resume quality



Source: Bertrand and



^a Response rate to minorities and females, collectively, in parentheses after the discipline's name. Reverse-discrimination in black.

BUT EVEN AFTER ACCESS...

DAILY NEWS

Nobel Prize biologist says

BY LEE MORAN
NEW YORK DAILY NEWS Wednesday, June 10, 2015, 3:36 AM



*Three things happen when they are in the lab, you fall in love w
(IMAGES)



PICTURE A SCIENTIST



MENTORING MINORITIES AND WOMEN

- History matters...
 - Women and minorities have been excluded from the academy
- Current context matters...
 - White trainees more likely than minority trainees to have a mentor
 - Men more likely than women to have a mentor
- For scientific knowledge to progress, people need access to mentors
- Potentially different challenges for women, queer, and BIPOC mentees and mentors.
- Institutional support matters

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ADDITIONAL MENTORING RESOURCES



- Health and Human Services (HHS) ORI
 - [RCR Research mentoring](#)
- American Psychological Association (APA)
 - [Responsible Mentoring](#)
- Compacts/Contract examples
 - [Dr. Trina McMahon \(UW-Madison\)](#)
 - [Association for American Medical Colleges \(AAMC\) compact guidelines](#)
- Case studies
 - [Case study 1](#)
 - [Case study 2](#)

RESEARCH MENTORING: ROLES, GOALS, AND RESPONSIBILITIES

- Questions?

