

Women in Science Writing

A step towards solutions

Women in Science Writing: Solutions Summit 2014
June 14, 2014



Two Science Writers in our M.A. Program; Both Women!

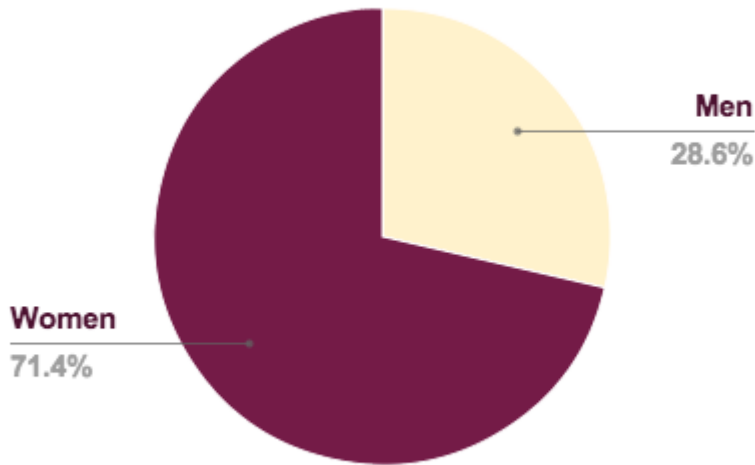


Karen Hess and Aparna Vidyasagar
Graduate Students, University of Wisconsin-Madison

School of Journalism & Mass Communication University of Wisconsin-Madison

Current Undergraduates

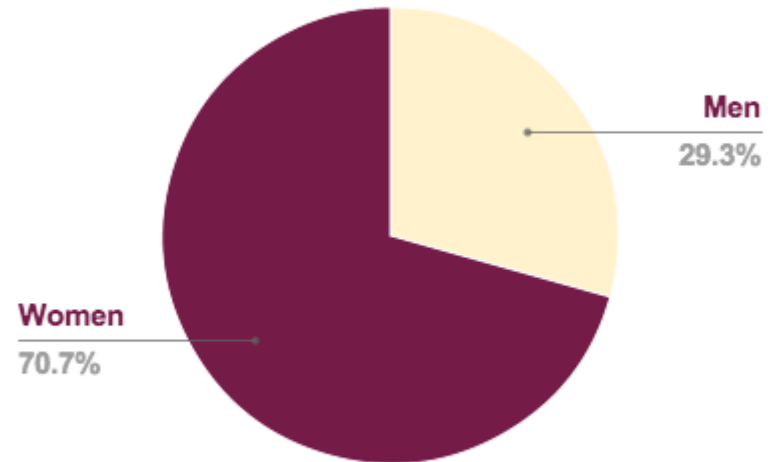
*As of Spring 2014



Women: 387
Men: 155
Total: 542

Professional Track M.A.

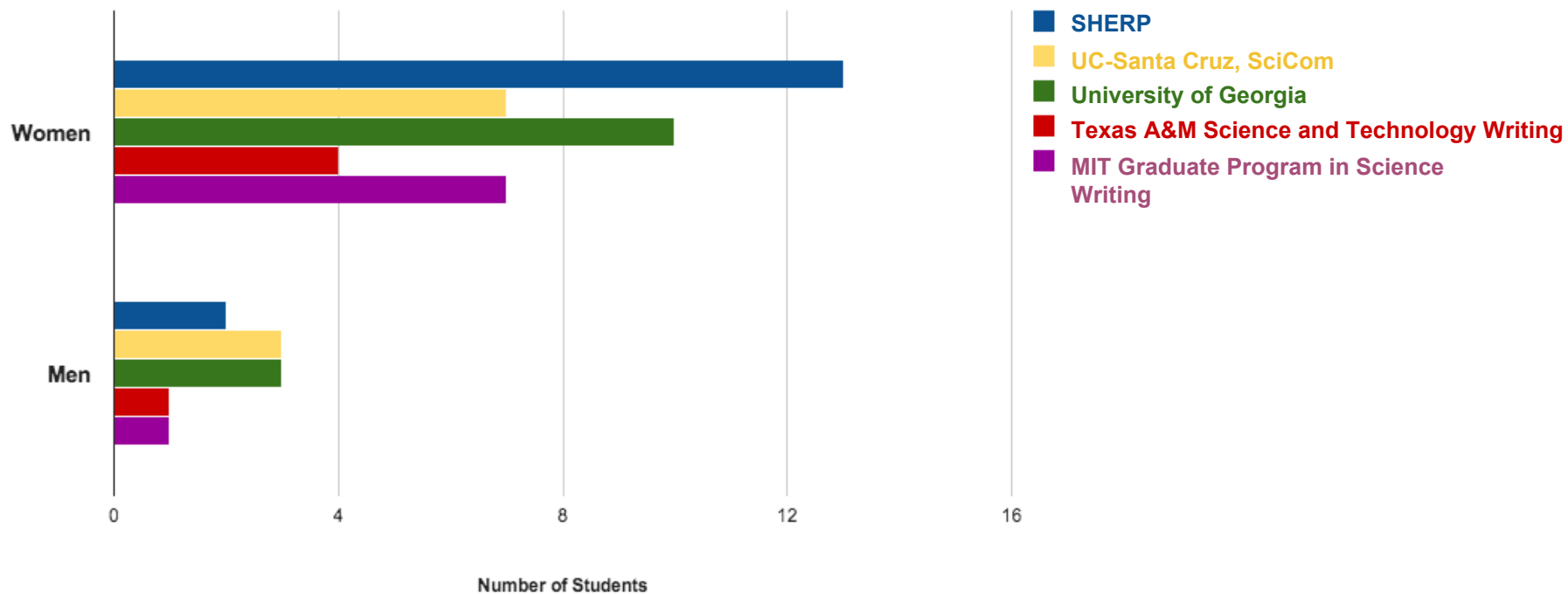
*2005-2014



Women: 53
Men: 22
Total: 75

Science Writing Programs

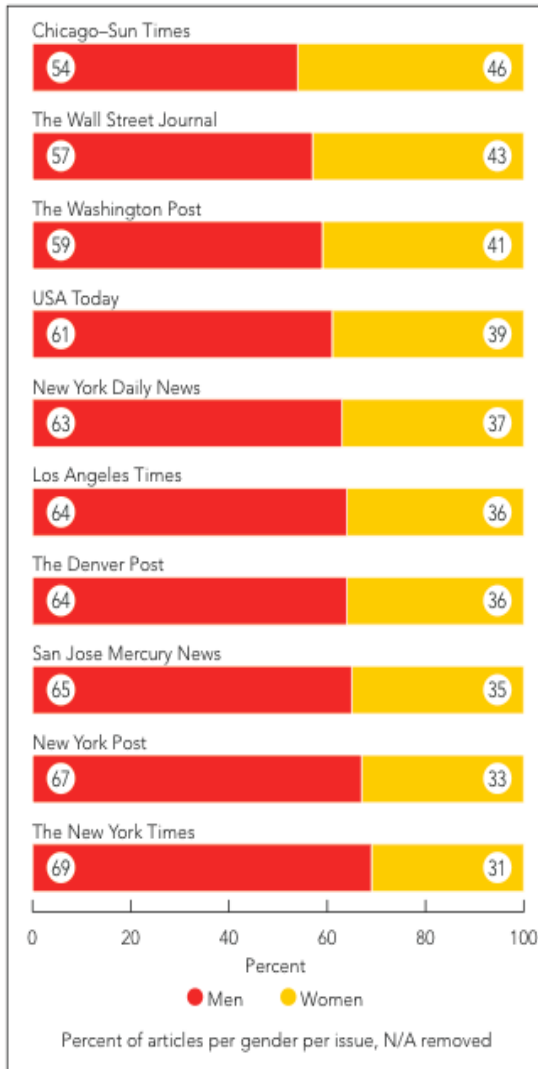
Current Programs as of May 2014



What's in store for these women
and the many others who choose
to write about science?

Bylines at Major Newspapers

Print breakdown



Source: Women's Media Center

At the nation's 10 most widely circulated newspapers

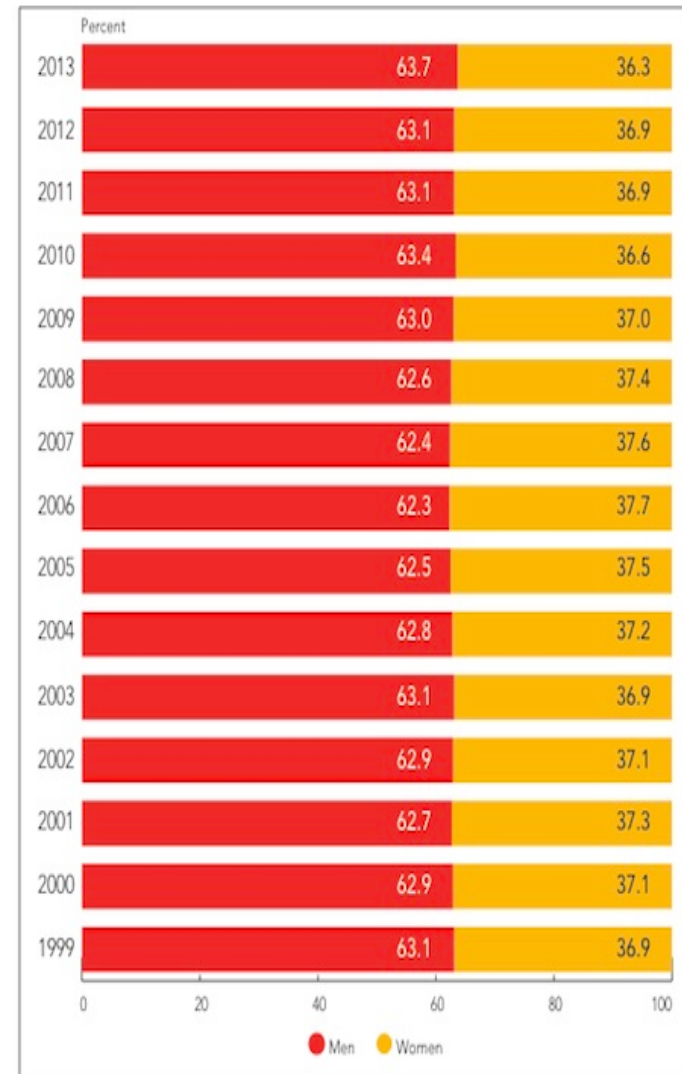
Bylines on average over three month period:

- Men: 63%
- Women: 37%

Staff Positions in Newsrooms

- Since 2009, have men have consistently outnumbered women in newspaper newsrooms

Gender representation in newspaper newsrooms, 1999-2013



Source: American Society of News Editors

Gender Imbalance in Articles by Subject

Men more frequently report on all news topics, but inequality is particularly pronounced in topics such as **world politics, business and economics, technology** and **science**.

Women begin to approach parity in the reporting of news issues like **health, entertainment, lifestyle, and culture**.

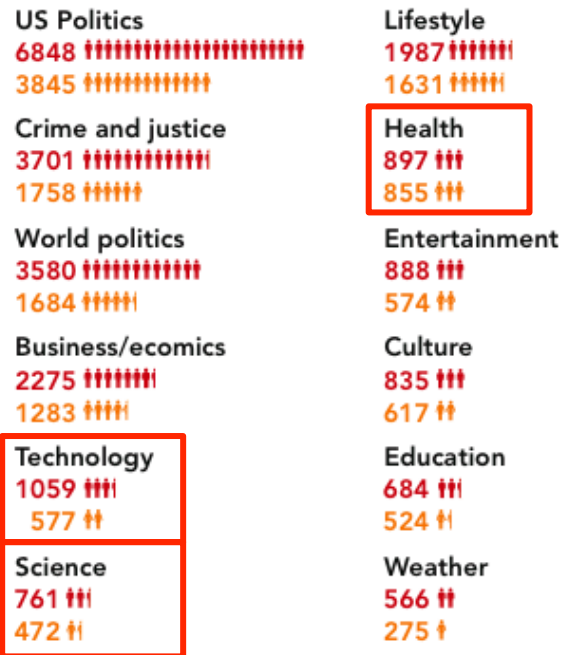


 Women
 Men

What are the Numbers?

WHAT DO WOMEN REPORT ON?

Each icon equals 300 articles.



The Status of Women in the U.S. Media 2014

Women
Men

Crunching the Numbers (good news and bad news!)

- **Technology Writing:**

Only **35%** of the articles are written by women.

- **General Science Writing:**

Only **38%** of the articles are written by women

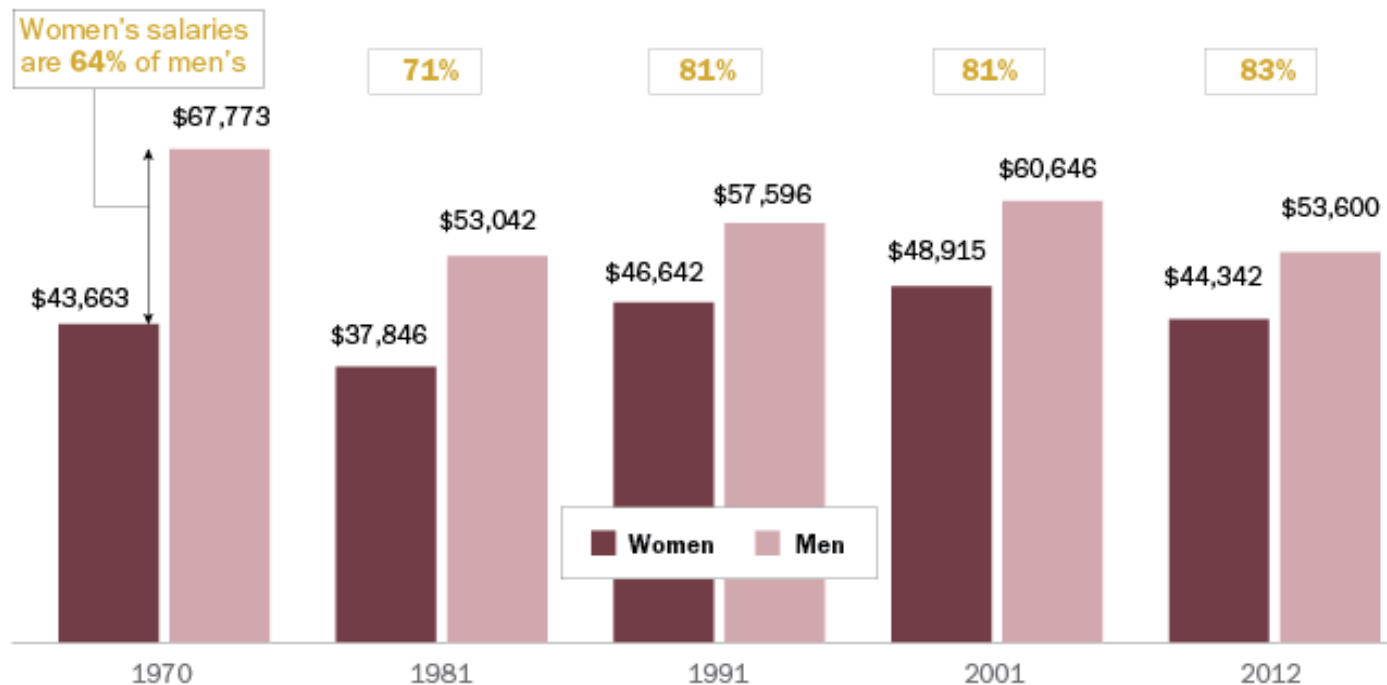
- **Health Writing**

Women and men contribute nearly **equally (48.8% if you're counting)**.

Income by Gender

Pay Gap in Journalism Has Shrunk Over Time, But Less So in Recent Decades

Median salaries in constant 2012 dollars



Female journalists' median salary in 2012 was \$44,342, about 83% of men's median salary

Source: Indiana University American Journalist Survey

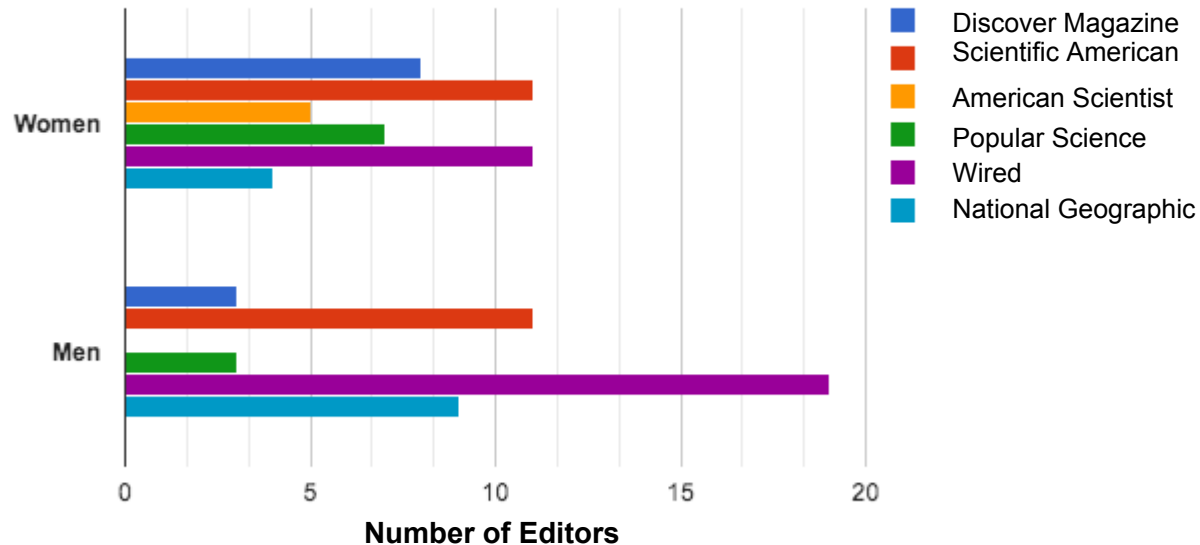
PEW RESEARCH CENTER

Positions at Publications

(a few examples)

Editors

(excluding Editors-in-Chief)



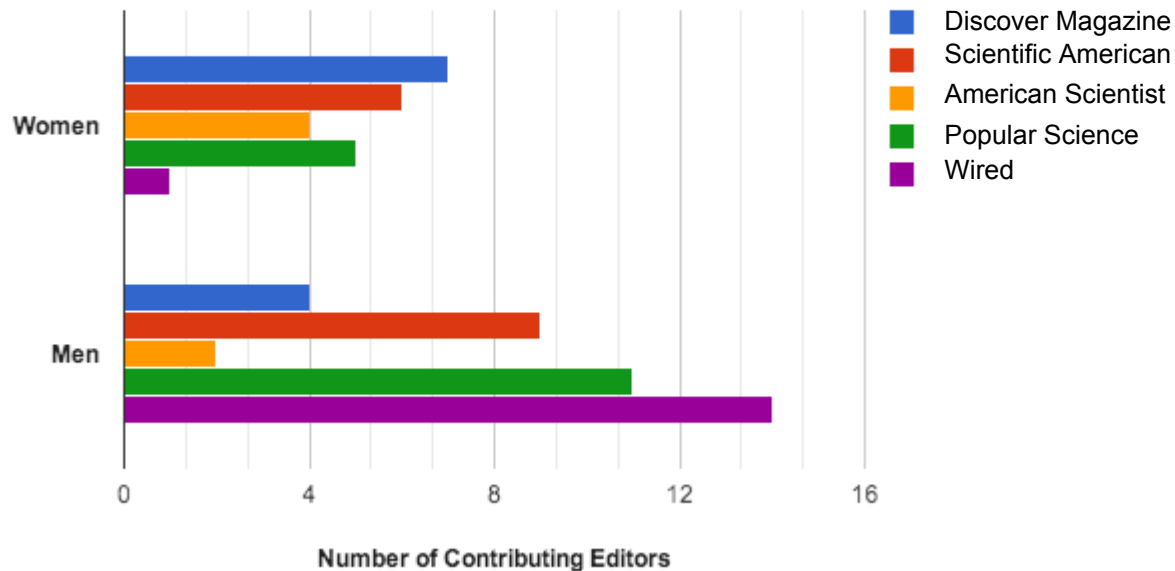
*Includes those with “editor” in the title

*Excludes art/photography departments and copy editors

Positions at Publications

(a few examples)

Contributing Editors

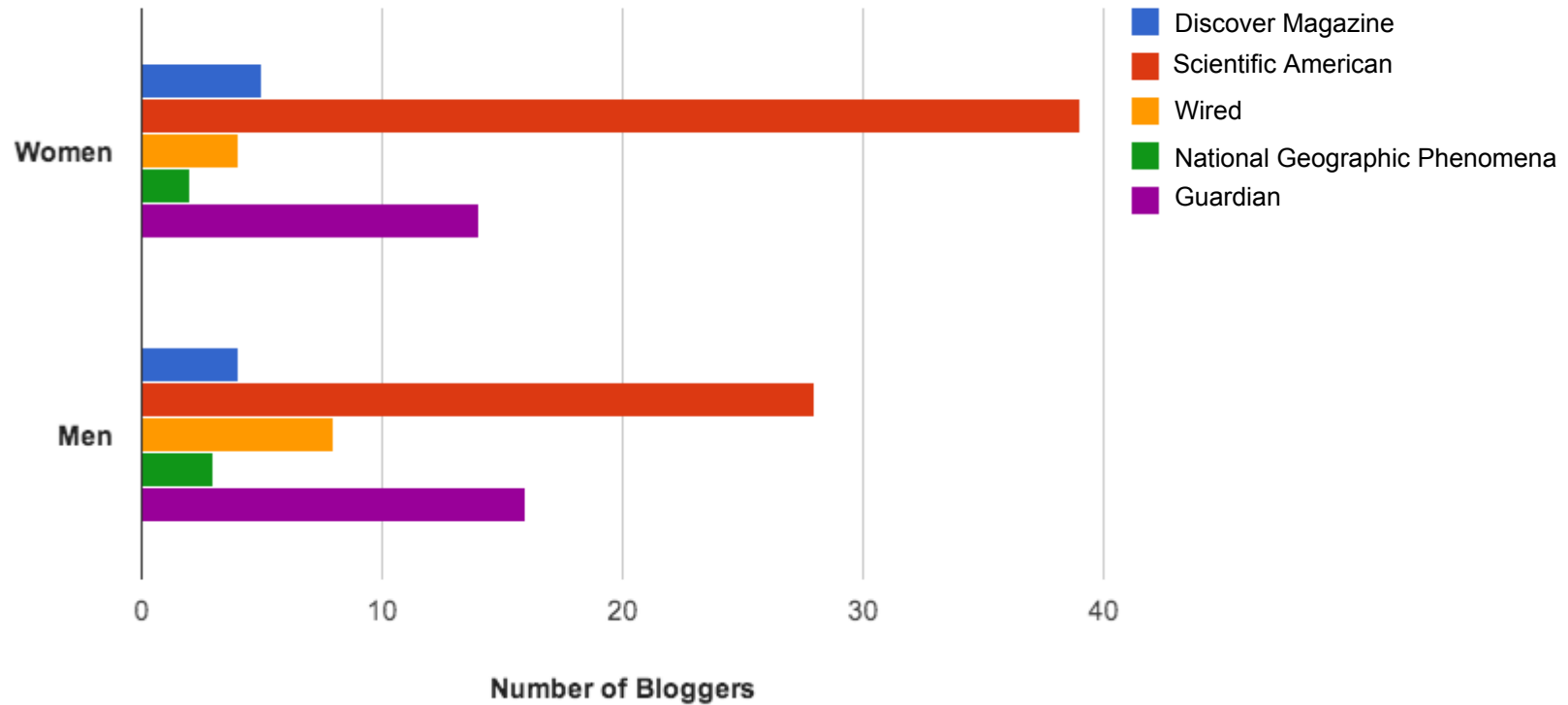


*National Geographic does not list any Contributing Editors.

Positions at Publications

(a few examples)

Bloggers



Editors-in-Chief

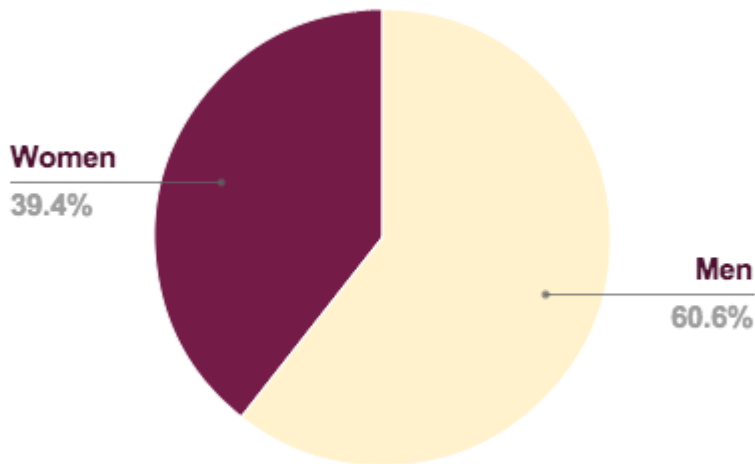
Men	Women
American Scientist	National Geographic
Discover	Scientific American
Popular Science	
Wired	

In Popular Anthologies

Best American Science Writing

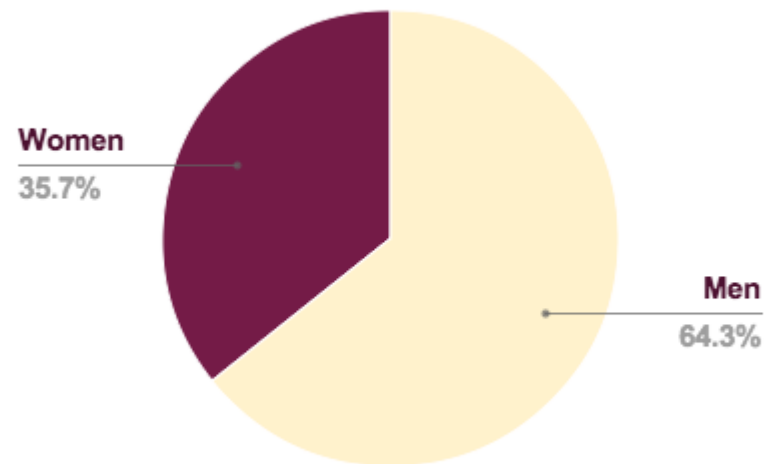
(Discontinued in 2012)

Contributors
*2007-2012



Women: 52
Men: 80
Total: 132

Guest Editors
*2000-2012



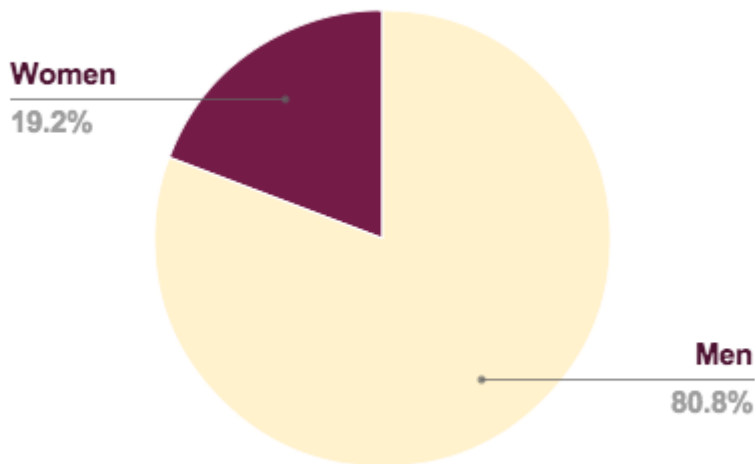
Women: 5
Men: 9
Total: 14

- 2004, 2007, 2008, 2009, 2011
- Dava Sobel, Gina Kolata, Sylvia Nasar, Natalie Angier & Rebecca Skloot (with Floyd Skloot).

In Popular Anthologies

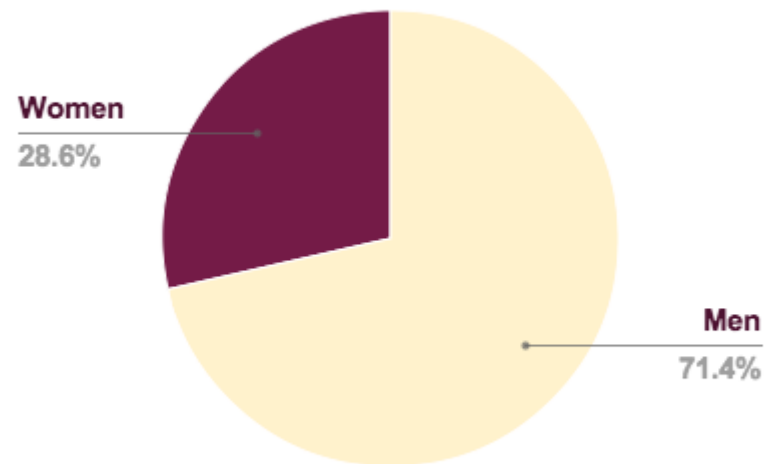
Best American Science and Nature Writing

Contributors
*2009-2013



Women: 25
Men: 105
Total: 130

Guest Editors
*2000-2014



Women: 4
Men: 10
Total: 14

- 2002, 2009, 2011, 2014
- Natalie Angier, Elizabeth Kolbert, Mary Roach, Deborah Blum

Recognition: Awards and Reviews

Royal Society Winton Prize for Science Books



Winner 2013

The Particle at the End of the Universe

- No women on the 2013 short-list
- No women winners since 1988

- Top 10 Most Influential Popular Science Books by New Scientist Magazine
 - **1 woman, 9 men**
- New York Times- Science Times best seller list: May 2014
 - **9 women, 11 men**
- NYU's 100 Outstanding Journalists in the United States in the Last 100 Years
 - **78 men to 22 women**

VIDA Count™

The New York Times Book Review

Authors Reviewed
2013

Female: 332
Male: 482

To Contact:
books@nytimes.com

Letters to the Editor
The New York Times Book Review
620 Eighth Avenue, 5th Fl.
New York, NY 10018

www.vidaweb.org

VIDA Count™

The New York Review of Books

Authors Reviewed
2013

Female: 80
Male: 307

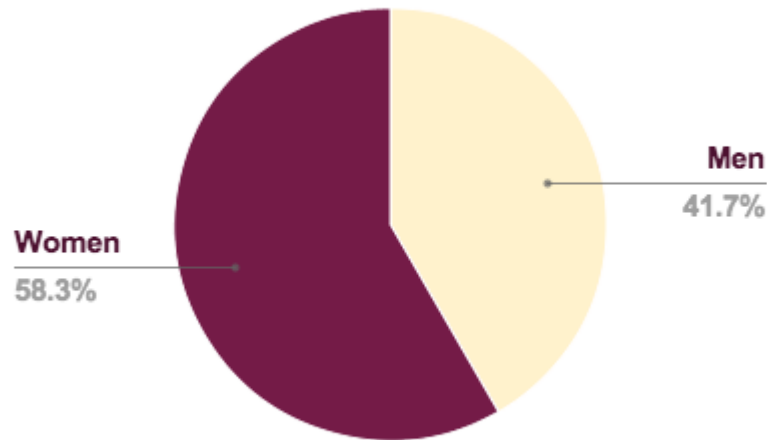
To Contact:
Tel: 212 757-8070
editor@nybooks.com

The New York Review of Books
435 Hudson St, 3rd floor
New York, NY 10014-3994

www.vidaweb.org

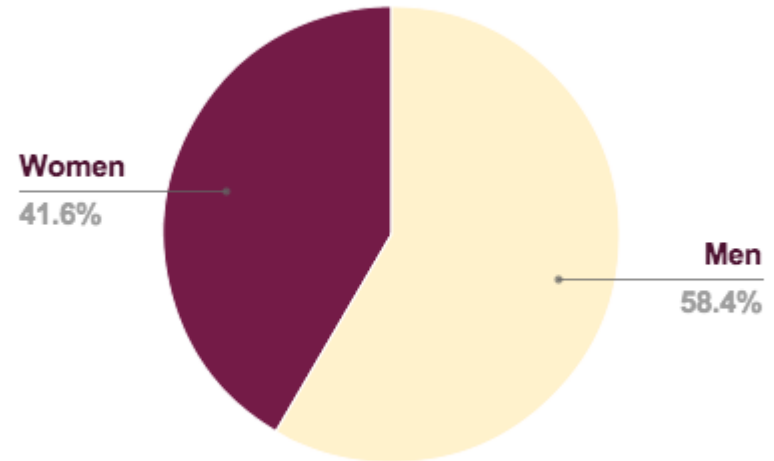
Professional Association Awards

NASW Science in Society Awards
*2009-2013



Women: 21
Men: 15
Total: 36

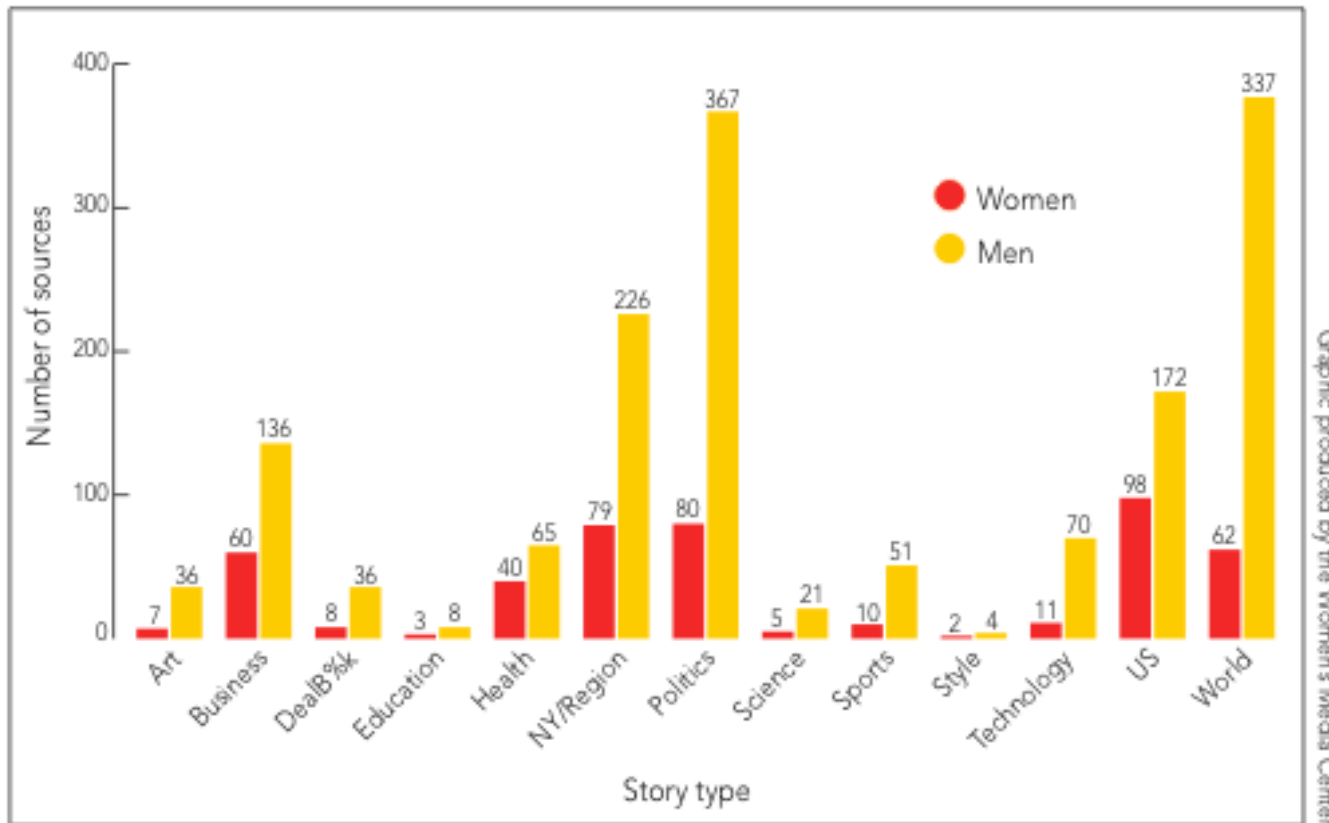
AAAS Kavli Science Journalism Awards
*2009-2013



Women: 32
Men: 45
Total: 77

Women as Sources

The New York Times sources by story type



Source: University of Nevada at Las Vegas

Jan-Feb 2013

In science stories:

- 5 women
- 21 men

Graphic produced by the Women's Media Center

What are the experiences of science writers today?

We wanted to hear directly from the community through a survey.



Goal

To gain an understanding of the attitudes, experiences, and the role of gender among science writers.

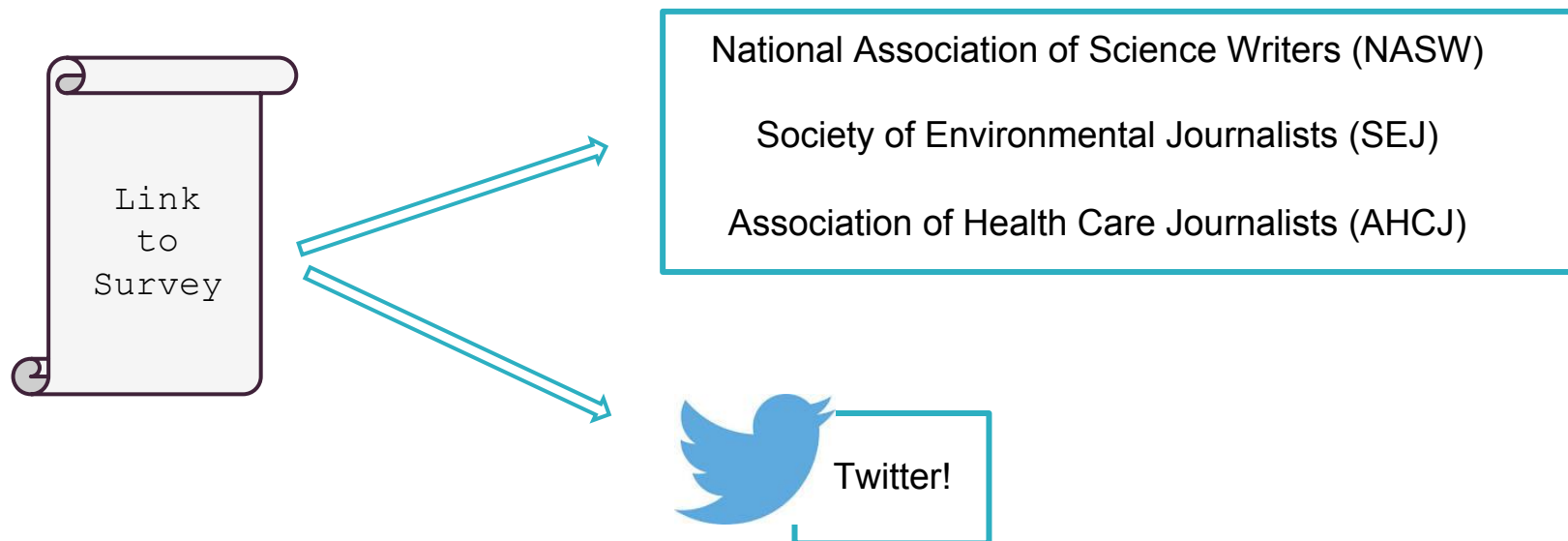
Survey Aims

- Gather representative data on age, income and education.
- Gauge whether appearance and mid-career breaks impact career opportunities.
- Determine whether a perception of gender bias exists in the science writing community and how it manifests.
- Understand perceptions and experiences of inappropriate behavior and harassment in the science writing community.

Outline

- **Overview**
 - Who are our survey respondents? Summaries of age, education, position and ethnicity.
- **Income**
 - Are there differences between men and women?
- **Mid-Career Breaks**
 - Did they have a positive or negative impact?
- **Appearance**
 - Do people feel it helps or hurts employment opportunities?
- **Gender Bias**
 - What are the experiences?
- **Harassment and Inappropriate Behavior**
 - Do men and women agree?
- **Voices**
 - Hear what writers had to say.

How Survey Data Were Collected



502 people responded.
422 based in the United States (used in analysis).

Respondents

Total: 422

Demographics

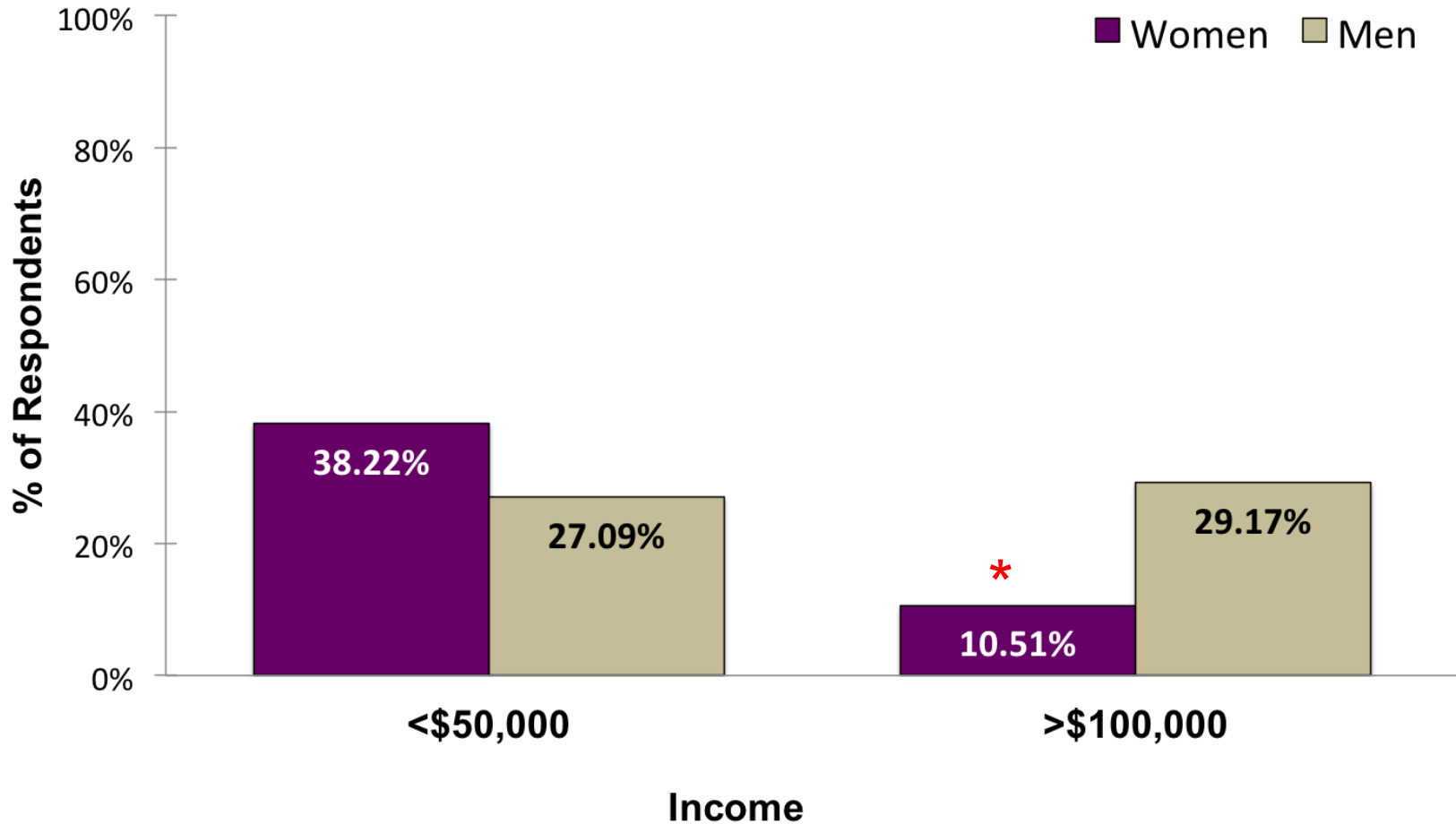
- Female (74.64%)
- White (86.12%)
- Freelance writer (43.84%)
- Holds a master's degree or higher (71%)
- Average age: 46.43 years old, men older than women
- Average experience: 19.23 years

Memberships

- 76.78% NASW (324)
- 19.91% AHCJ (84)
- 15.64% SEJ (66)

Income by Gender

Below \$50,000 and Above \$100,000



Mid-Career Breaks, Appearance and Gender Bias

Mid-Career Breaks (of 3 months or more):

- Are more women than men taking breaks?
- How does the break impact career success?

Appearance:

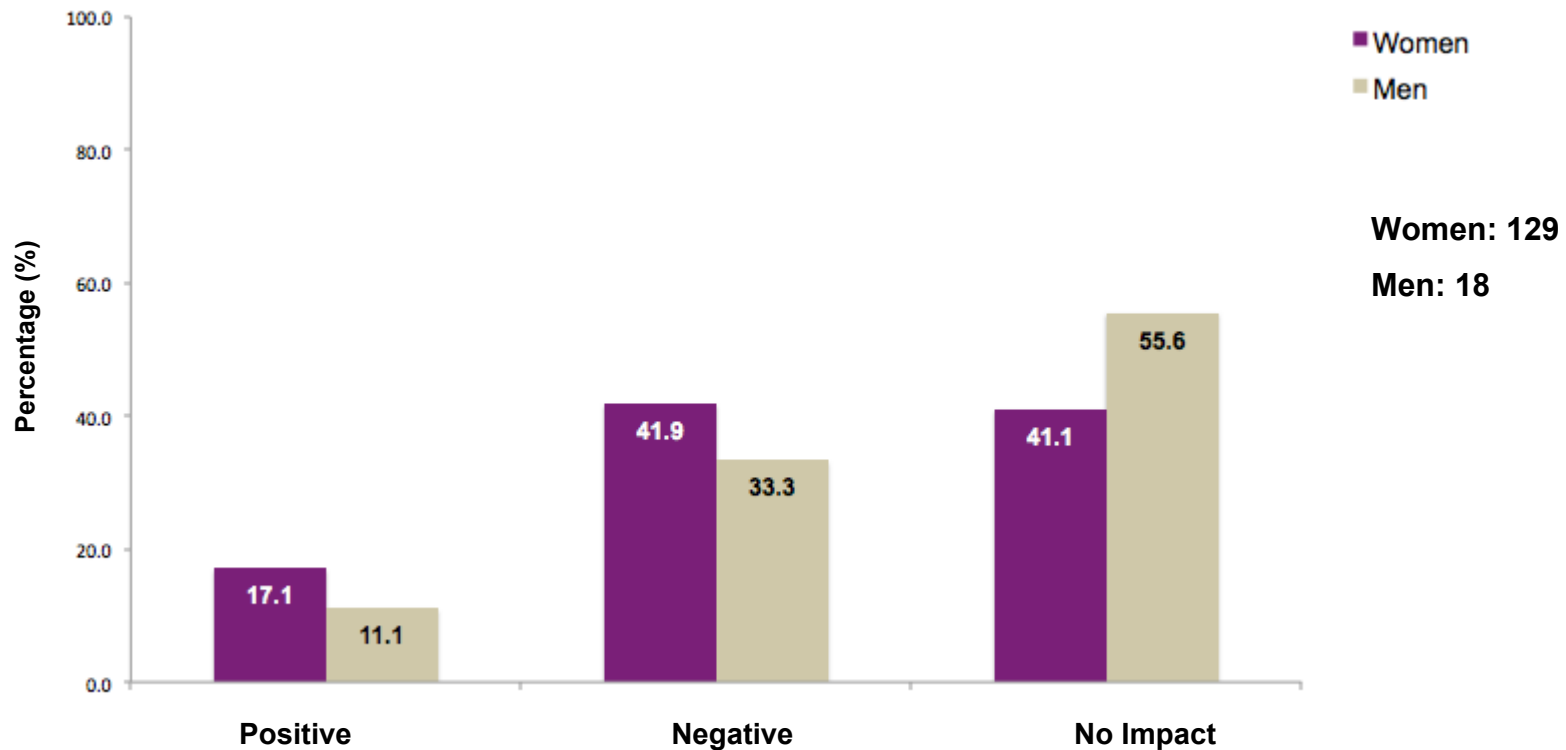
- Do women and men believe their appearance impacts employment opportunities?

Gender Bias:

- Is there gender bias in the science writing community?
- What are the experiences of men and women because of their gender?

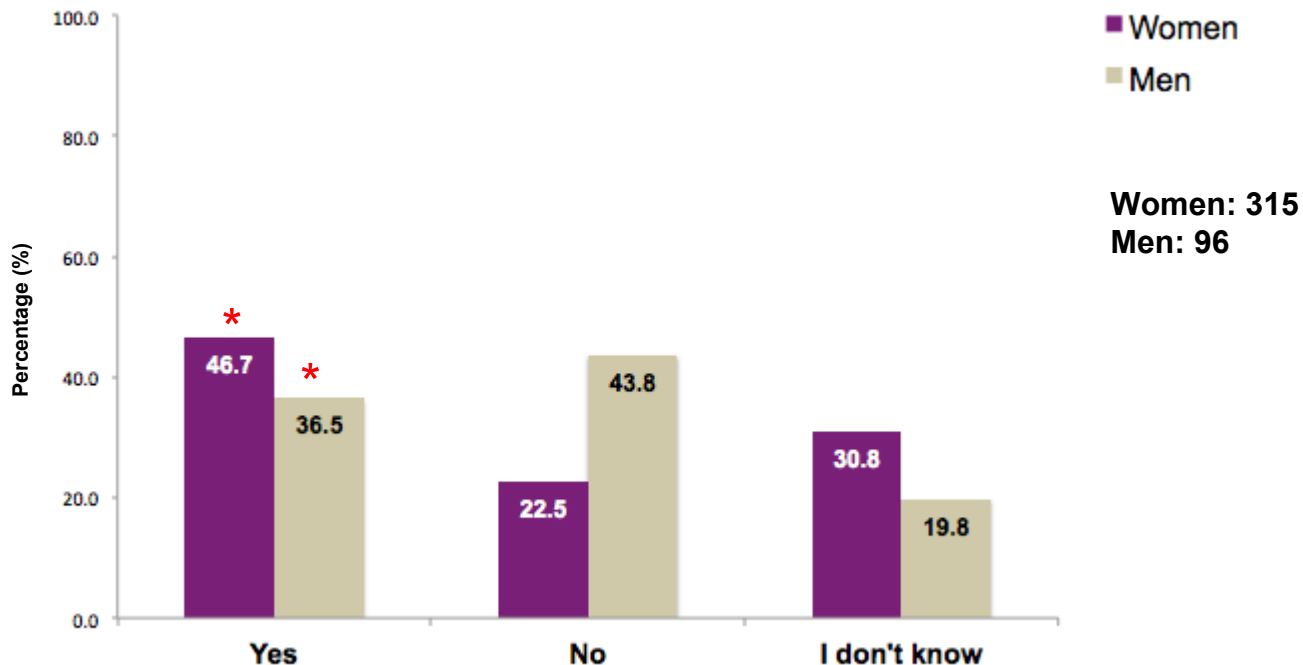
Impact on Career Success: By Gender

- Significantly more women (**40.95%**) than men (**18.75%**) had taken a break.
- However, no statistically significant differences in perceptions of impact on career success between women and men.



Impact of Appearance on Employment

- A significantly higher percentage of women felt appearance had an impact on employment opportunities than not.
- Most often, women and men report that their appearance has a positive impact on their career.



Some Comments About Appearance

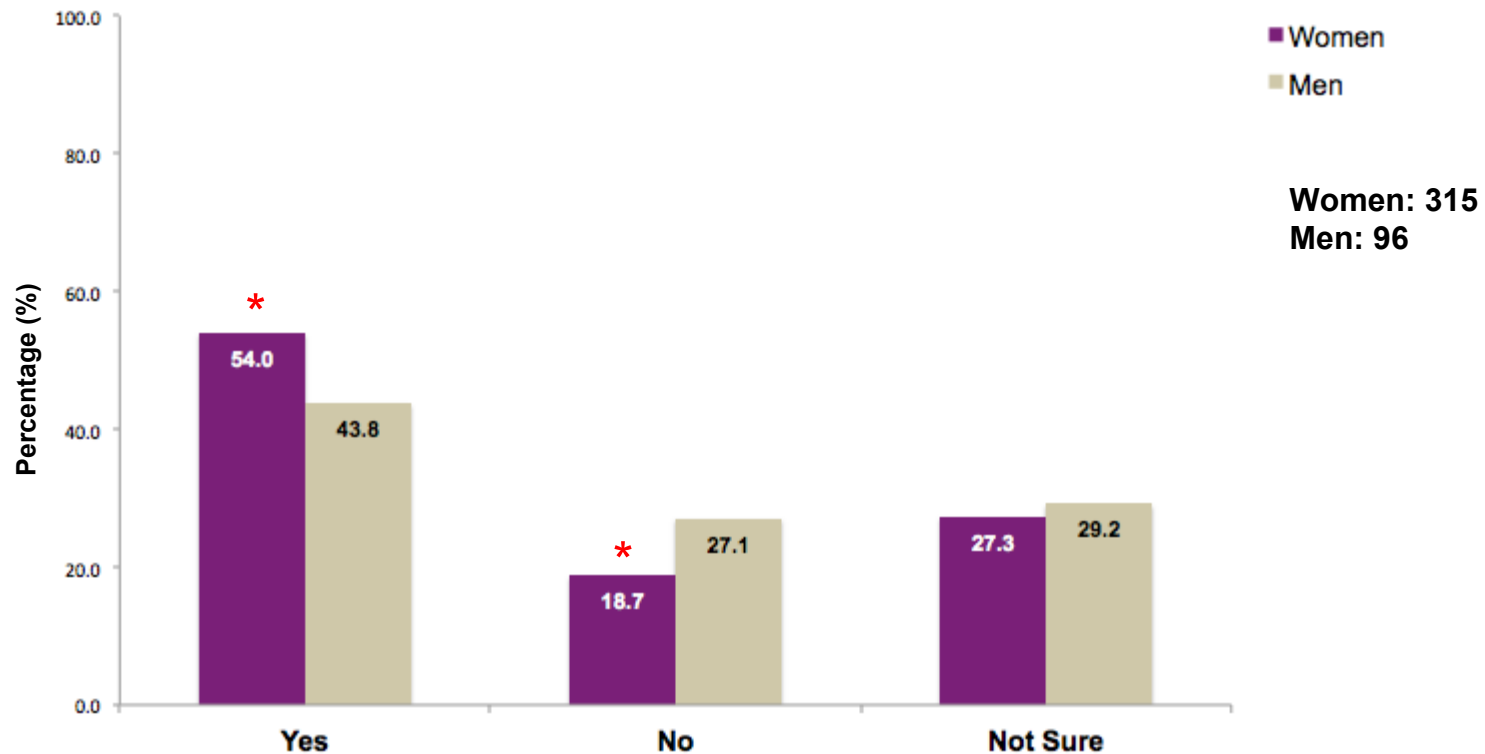
“ [...] You can be held back AND pushed forward for all the wrong reasons.
- Female, 20s

I responded that I do believe it (appearance) has made a difference in my career, but that's not to say that I have earned advancement merely because of good looks. What I mean is that I believe all of us gather an impression of another person based on what we see and hear, particularly upon a first meeting. ”
[...]
-Female, 30s

No men responded with comments on appearance.

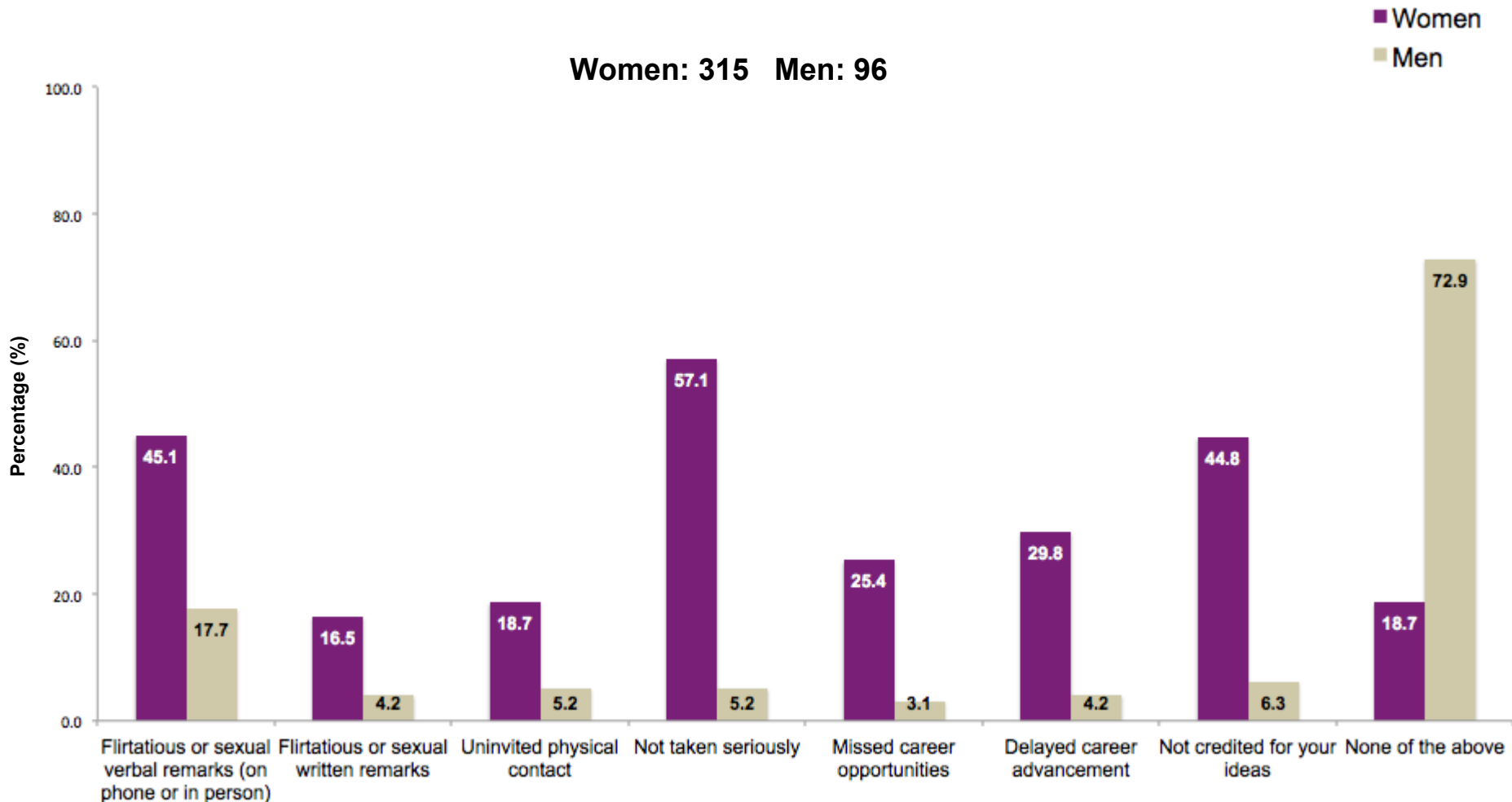
Gender Bias in Science Writing

Women and men agree that gender bias exists in science writing/journalism



Gender Related Experiences (Professional Setting)

- The differences in various experiences between women and men were statistically significant across the board.



Some Comments About Gender Bias

“

[...] I believe there may have been situations in which a male editor making a decision about hiring or giving visibility to a writer preferred to hire a woman or promote the work of a woman blogger . However I have no proof of this [...]

-Male, 30s

”

Male colleagues' inappropriate behavior tolerated/excused but if I ever confronted it/gave it back, I got in trouble.

-Female, 30s

In written comments,

- 14/55 women cited lower pay
- 4/55 mentioned discrimination by age (old and young)
- 3/55 mentioned discrimination due to motherhood.

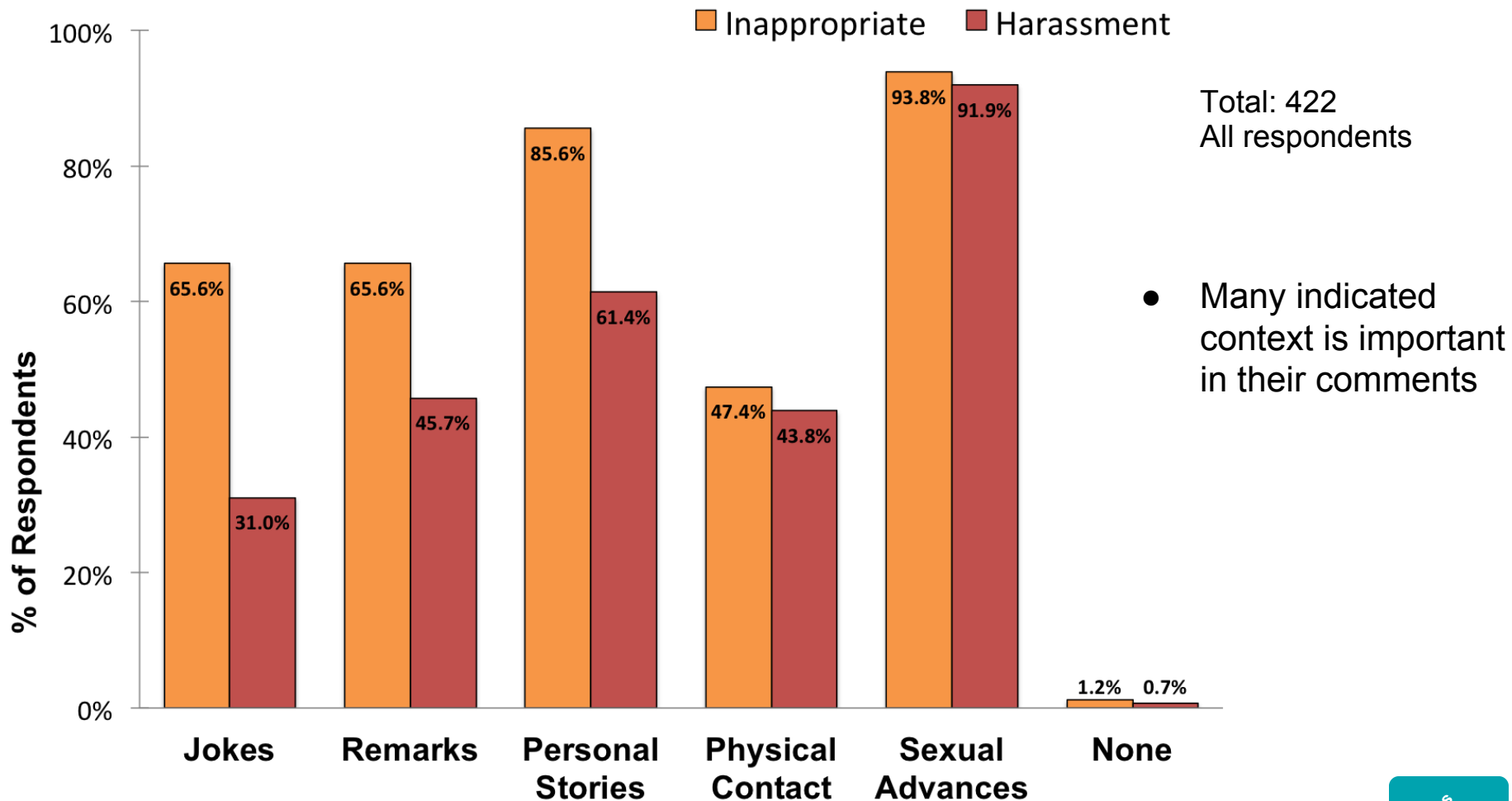
Summary of Findings

- Significantly more women than men take mid-career breaks.
- However, women and men who take breaks experience a negative impact on their career success.
- Most often, women and men report that their appearance has a positive impact on their career.
- Women and men agree that gender bias exists in science writing.
 - However, women report negative experiences more often than men (flirtatious remarks, missed career opportunities, delayed career advancement, not taken seriously, not credited for ideas etc.).

Examining Harassment

- Defining harassment.
 - What do men and women consider inappropriate behavior and harassment?
- Experiences of those who have been harassed.
- Experiences of those who witness harassment.
- Experiences of those who perpetrate harassment.

Inappropriate Behavior vs. Harassment



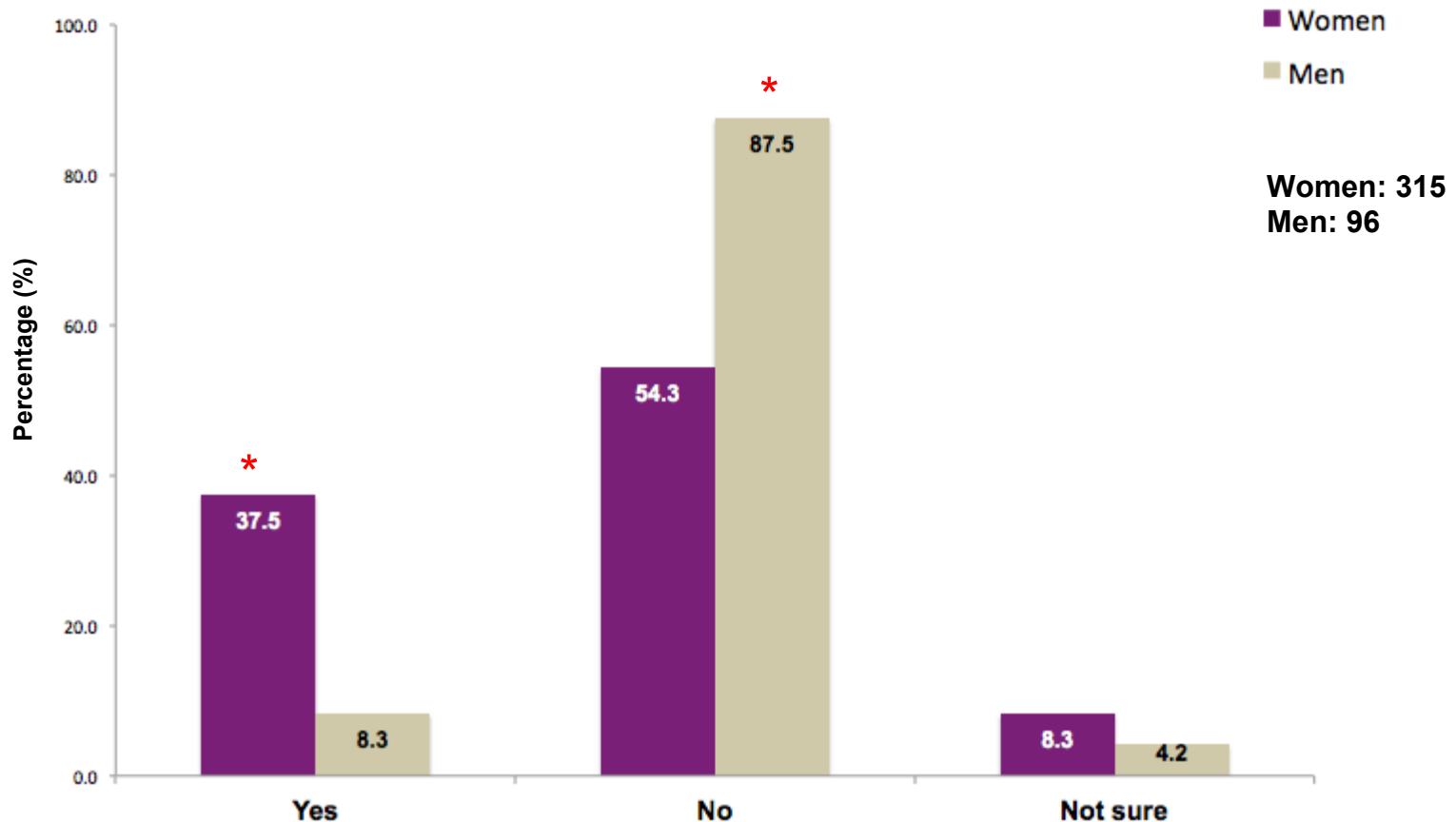
- Overall, men and women agreed on what behavior is inappropriate

Comments Suggest Harassment is Hard to Define

- “This is a gray area. So much depends on relationship, context and whether it's a one-off or repeated.”
-Female, 40s
- “It depends on degree, frequency, tone, power differential, etc.”
-Female, 50s
- “All of the above. But only if the harasser continues after being told once to stop.”
-Female, 30s
- “The legal definition of sexual harassment per the U.S. EEOC is UNWELCOME verbal or physical conduct. The eye of the beholder: context is key.”
-Male, 50s

Experiencing Harassment

Significantly more women reported being harassed than men.



Experiencing Harassment

- Women and men most frequently identified the opposite gender as their harasser (statistically significant).

91.5% (108/118) of women identified a man as their harasser.

75% (6/8) of men identified a woman as their harasser.

- Women and men most often experienced harassment from their **subordinates**.

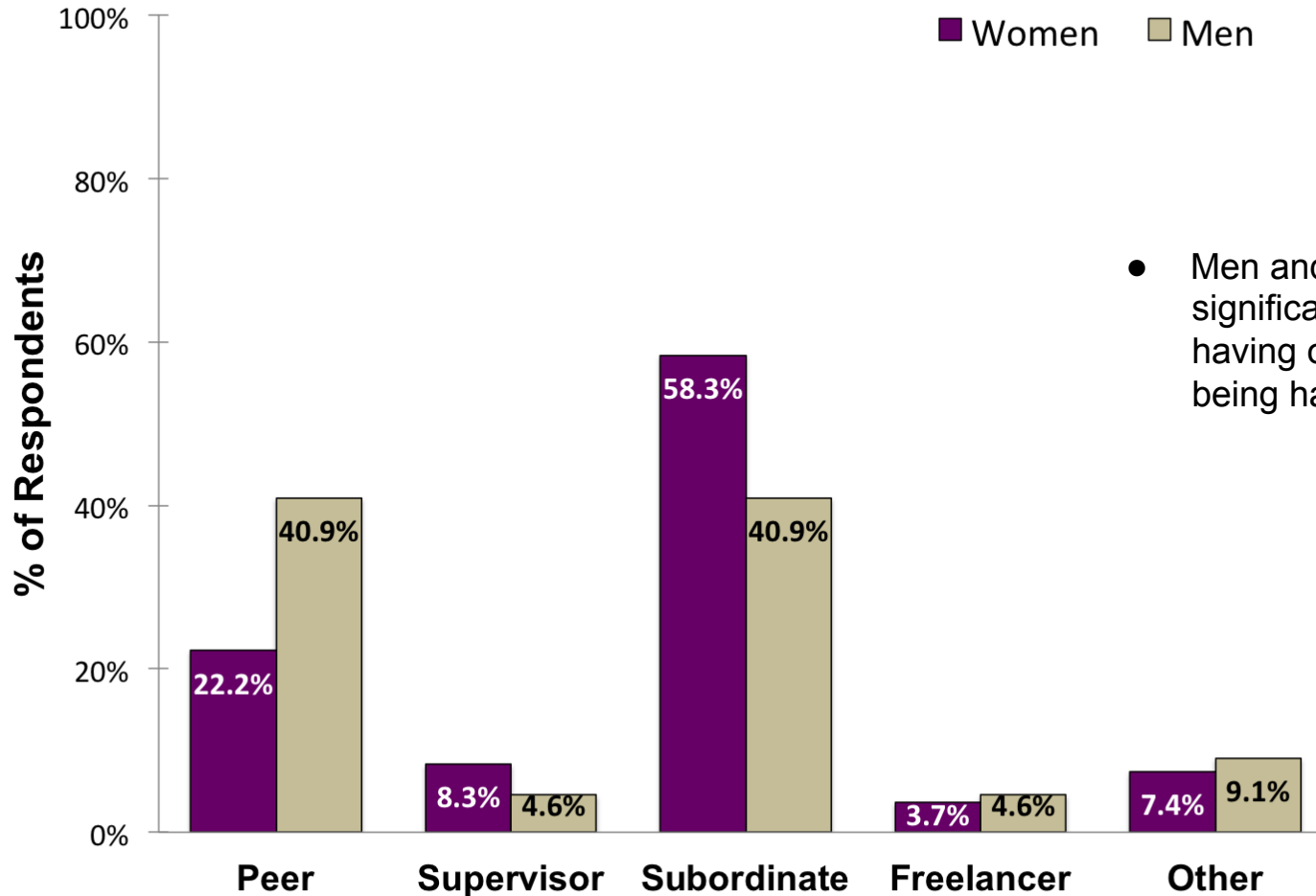
Women: 42.4% (50/118)

Men: 50% (4/8)

In the write in comments 2 women reported being harassed by sources.

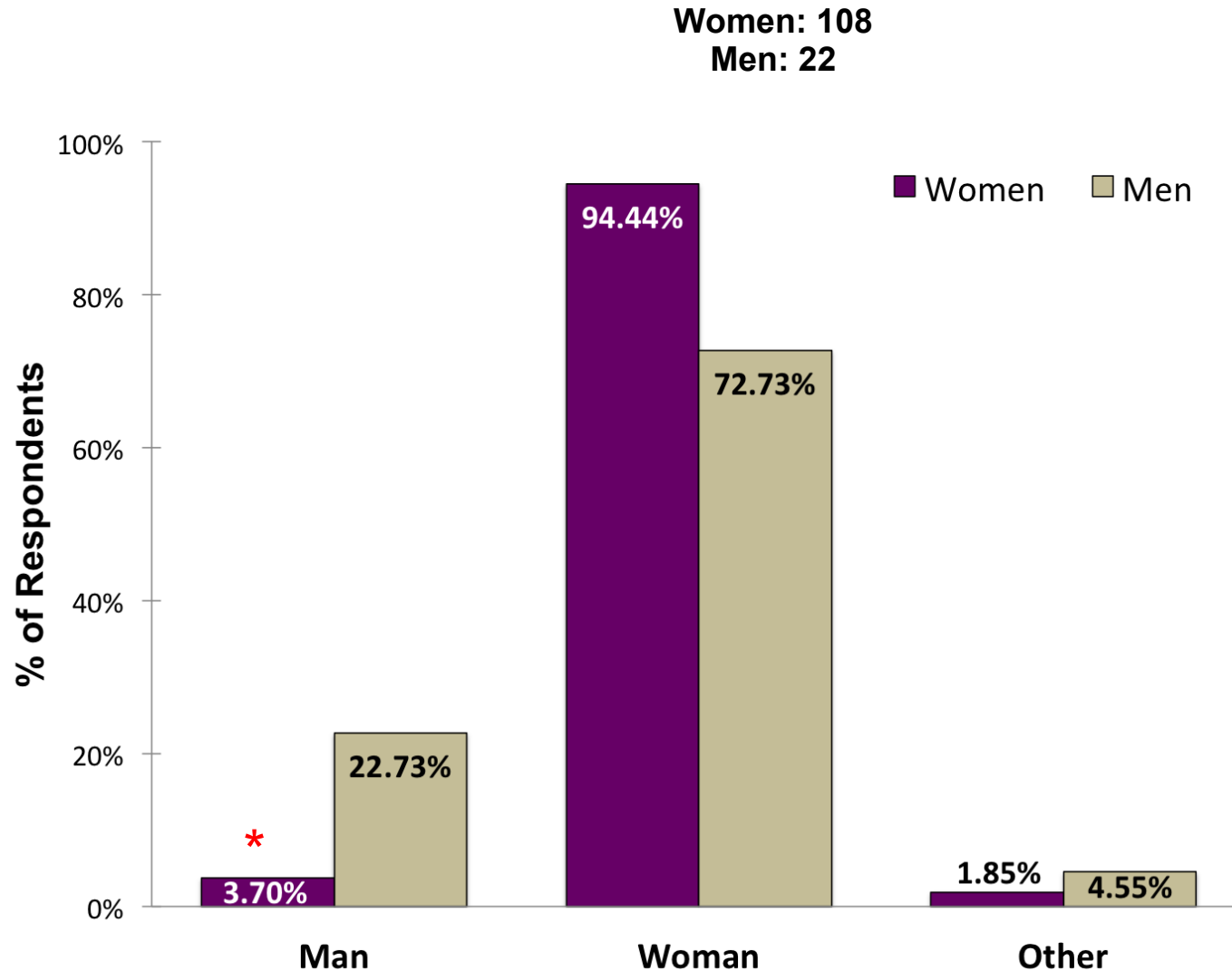
Relationship Between Harasser and Individual Harassed

Women: 108
Men: 22



- Men and women did not differ significantly in reporting having observed someone being harassed.

Gender of Individual Being Harassed



- A statistically significant difference between men and women identifying a male
- Both genders more often witnessed a woman being harassed.

Both genders also most often identified a male as the harasser

Admitting to Being the Harasser

- **8.33%** (8/96) of men were not sure.
- **6.67%** (21/315) of women were not sure.

2 men and 2 women (not statistically significant) admitted to having harassed someone in a professional setting:

- Both men harassed women (one a freelancer and one a peer)
- One woman did not specify gender of individuals harassed (peer and subordinate)
- Other woman harassed a man (peer)

Summary of Findings

- Significantly more women than men reported being harassed.
 - Those who experienced harassment (both women and men) most frequently identify the opposite gender as the harasser.
- The majority of men and women either hadn't witnessed harassment or weren't sure.
 - Of those who witnessed, both genders most often witnessed a woman being harassed by a man

Limitations

Harassment questions required respondents to comment upon a single incident.

- Respondents chose either the most recent or the most persistent memory of an incident.
- Multiple events and anomalies could be addressed in the comments section.

Write-in Comments on Harassment

Thanks for doing this. Sexual harassment is everyone's problem, and so it is important to keep in mind that those who harass may be of any gender.

-Male, no age given

Speaking as an older male respondent, I'd have liked to see a question or two about mixed messages by young women, and efforts to manipulate me with flirtatious behavior. Trust me, it happens. [...]

-Male, 60s

Write-in Comments on Harassment

I am transgender, so my situation may be unusual. But rest assured there is a great deal of gender-related harassment on the job, mainly from sources/the public, not necessarily coworkers.

-Other, 30s

I think its important to remember that females can also discriminate against other females. [...] It is just as harmful, maybe more because it can be harder to get others to recognize women-on-women abuse. I hope that the focus going forward will be on ensuring fair treatment of all science writers male and female. I know men who have been denied parental leave because they are men. I strongly believe that the driver of much of the harassment is based on a toxic workplace culture, where bullying by senior staff is considered appropriate behavior.

-Female, 30s

Write-in Comments on Harassment

- Some respondents wanted to move on from discussing issues of gender and harassment.

“I think every one of these is nuanced. If you are trying to sterilize the workplace you will sterilize creativity. I'd much rather see men and women learn to manage their interpersonal relationships without a bunch of rules that may or may not apply when all is said and done [...]”

-Woman, 50s

Key Findings

- **Income**

- The median salary for men was higher than for women.
- A significantly higher percentage of men earned salaries > \$100,000.

- **Gender Bias**

- Though men and women agree that gender bias exists, a significantly higher percentage of women report a range of negative experiences.

Key Findings

- **Harassment**

- Respondents felt strongly that inappropriate and harassment behavior is not easy to define (in written comments).
- Significantly more women reported being harassed than men.
 - Both genders most frequently identified the opposite gender as their harasser.
- Women and men most often witnessed a women being harassed (statistically significant).

Areas for Future Study

- Some respondents expressed a desire for a much more in-depth analysis of issues of harassment.
- Women of different age groups brought up ageism as being a concern.

‘Ageism’ seems to be just as important as sexism from my work experience. [...]

-Female, 20s

A few things: the survey didn't distinguish where harassment was current or long ago. I experienced "light" harassment from sources in my 20s and early 30s. Not since then. And ageism has become much more of a threat recently regarding career. I think that's true for men and women. [...]

-Female, 50s

Acknowledgements

Thank you!

- **Funding Sponsors**

National Association of Science Writers (IDEA grant)

Massachusetts Institute of Technology

- **To all those who took the time to respond to the survey!**