Equity in Motion: Four Years of Action in Science Faculty Hiring

Christian, SL, Booth, V, Harding, S, Todd, A, and Berry, MD (2025). Equity in action: a 4-year journey towards gender parity and racial diversity in biochemistry hiring. Biochem Cell Biol 103, 1-9.



EDI-AR Lunch Hour - Oct 15, 2025

Valerie Booth - Department of Biochemistry Human Biosciences, MUN

Who are we?

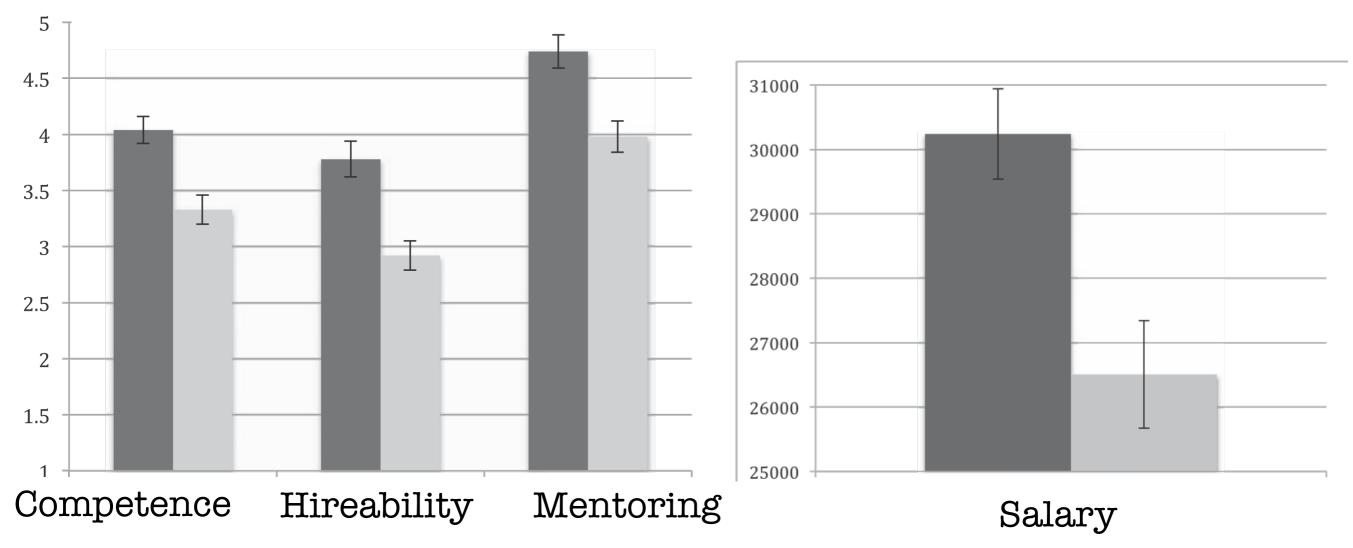


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How it started ~ Late 2010s (?)

 Started teaching EDI-AR in Biosciences material in undergrad classes —> Learned more —> Action to counter student/ instructor depression

Example of material taught in class: <u>Same resume - only difference was if the name on it</u> was male or female (rated by science profs)

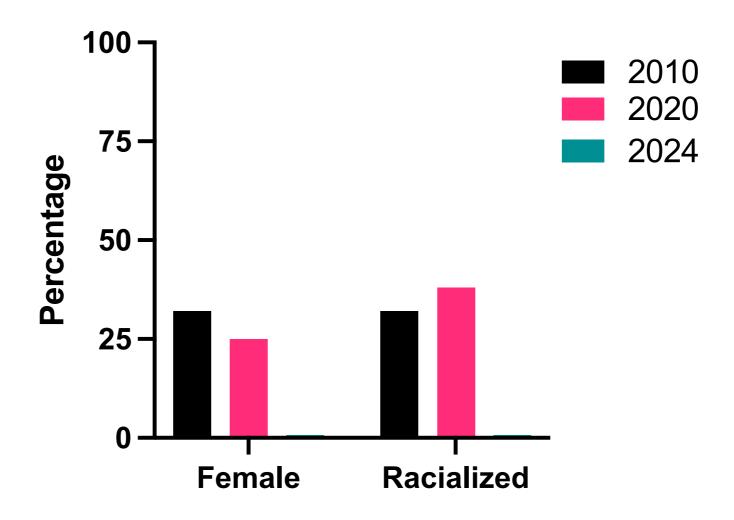


- Male Student
- Female Student
- Results did not depend on whether the prof ranking the student was male or female
- Moss-Racusin C A, Dovidio J F, Brescoll V L, Graham M J, Handelsman J. Science faculty's subtle gender biases favor male students. Proc Natl Acad Sci U S A. 2012;109:16474-16479.

How it started ~ Late 2010s (?)

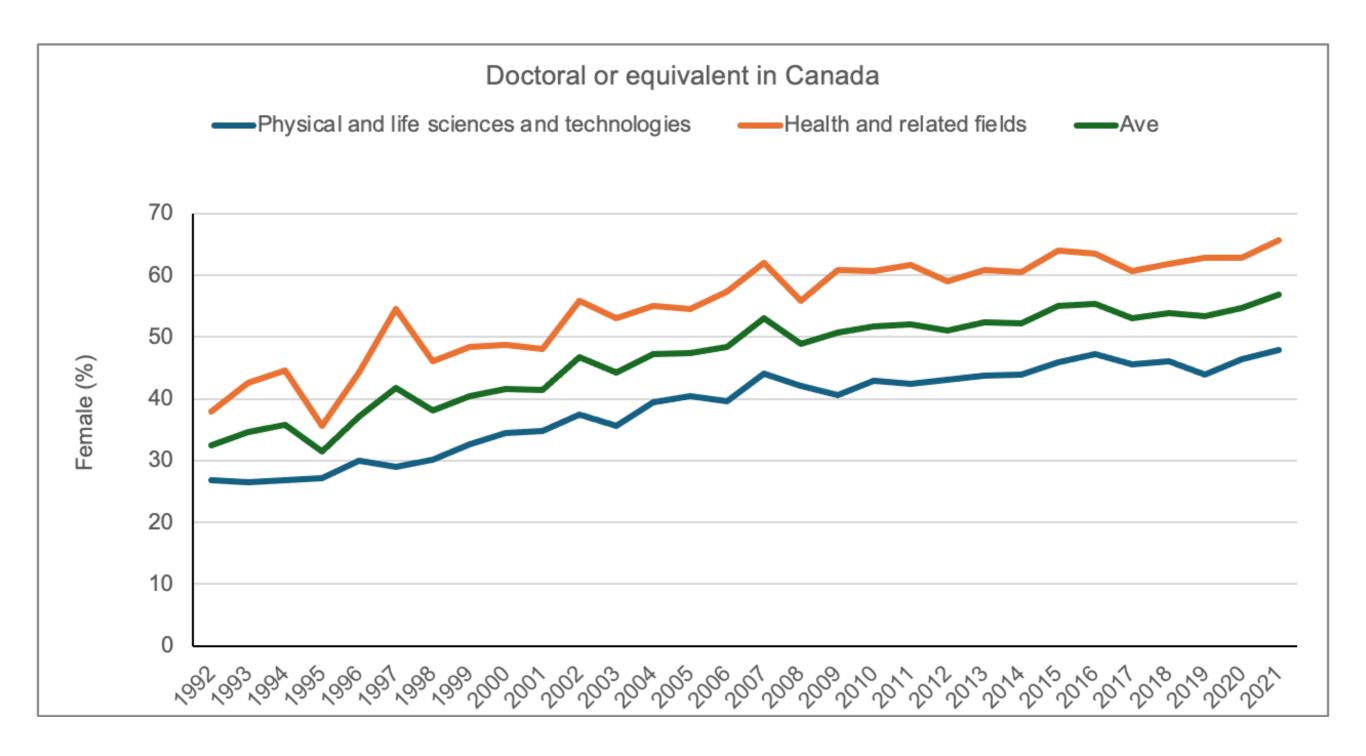
- Started teaching EDI-AR in Biosciences material in undergrad classes —> Learned more —> Action to counter student/ instructor depression
- Sherri Christian:
 - noted our hiring pattern and
 - did a sabbatical at UBC where she learned about their faculty hiring best practices then
 - led the way

Biochemistry Faculty



Representation? —> this group of people teaches more than 1000 students every year

Stats Canada: Candidate Pool



 PhDs at parity since mid-90s; would expect to have been hiring at parity since early 2000s

An experiment we did on ourselves

- Literature: identical CVs rated differently depending on name
- Hypothesis: redacting application materials from candidate applications for tenure-track faculty positions will change hiring patterns
- Resistance? Not zero (e.g. some co-workers felt a bit like they were being accused of bias in past searches), but overall a pretty willing group of people



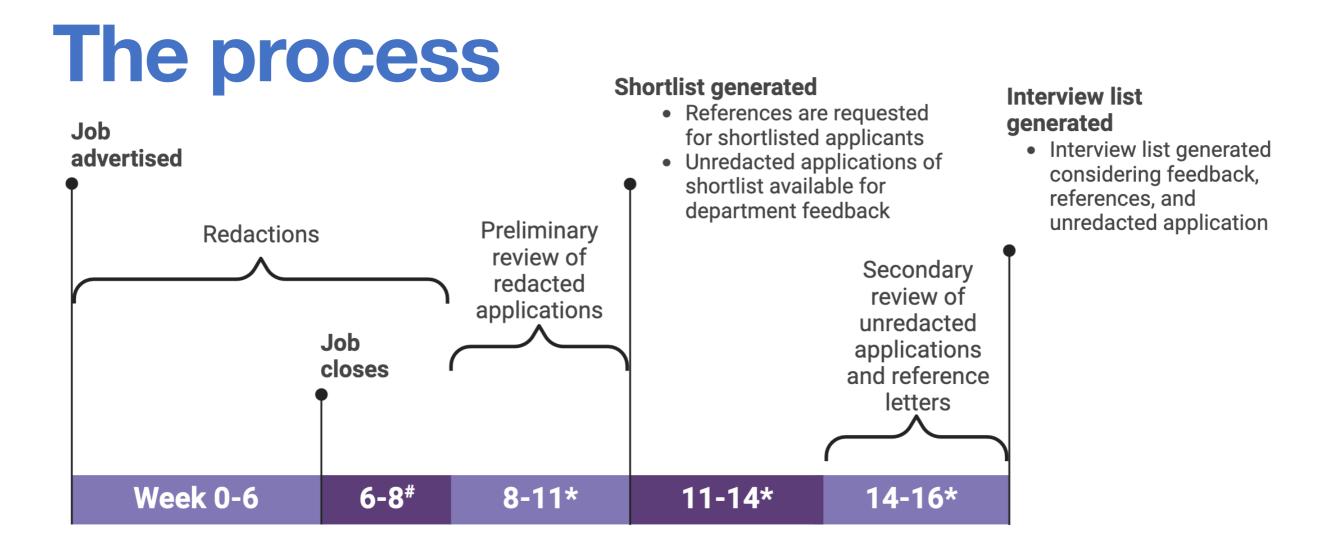
Application redaction (by Dept Head)

Redacted:

- all names
- all country names
- all institutional names
- all contact information
- all leaves of absences (eg. parental leave, sick leave)
- the location of talks
- any information from which the candidate's gender, gender, religion, ethnicity, race, age, nationality

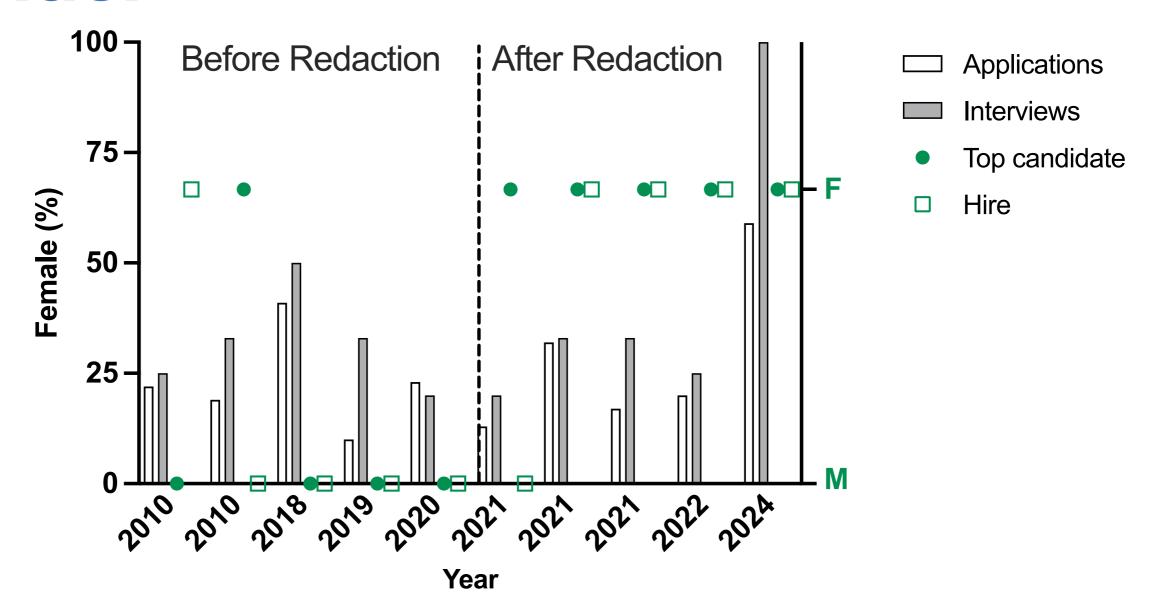
Retained:

- the location and titles of conference presentations
- degree type and year awarded
- thesis titles
- publication: titles; year; and journal
- added to the CV was the location of the candidate in the authorship line (e.g. "1/5" indicates first author out of five total authors) of each publication and presentation



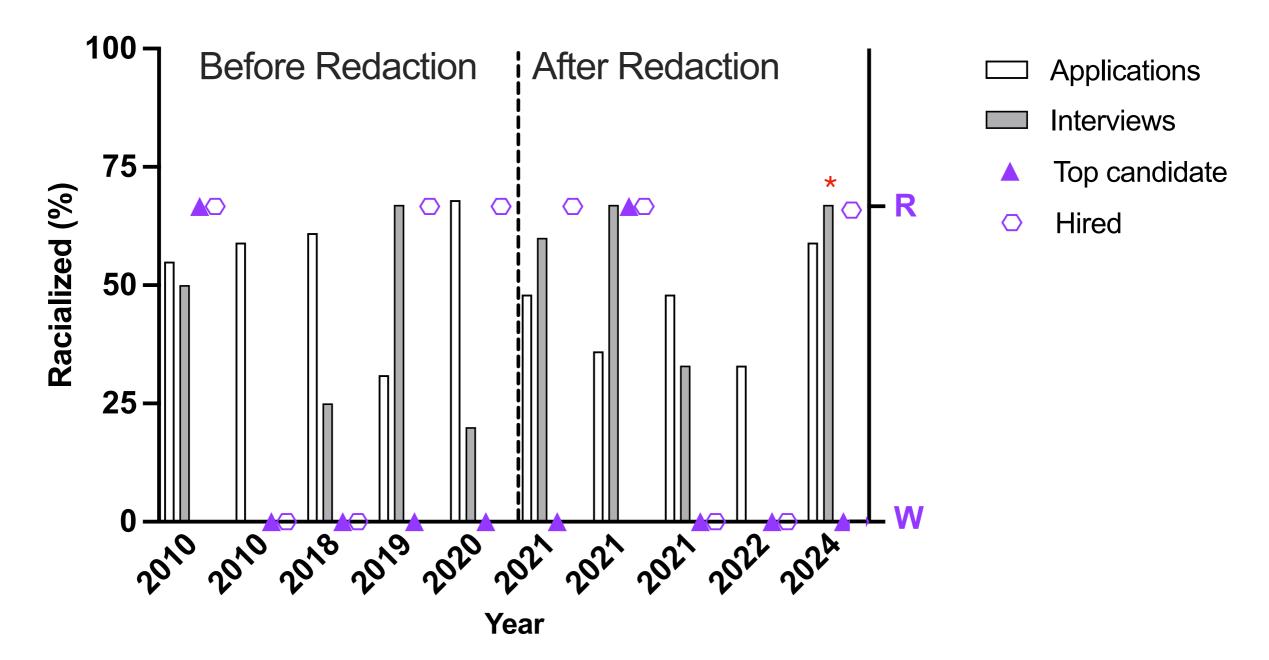
- Had to make rubrics different committee members were free to make different rubrics
- Sample comments from faculty:
 - relief that they no longer had to attempt to reduce their implicit bias consciously and could just focus on the qualifications
 - fewer instances where committee members would claim a "lack of fit" without substantive reasons or speculations that the candidate "may not be able to communicate well in English"
- Conflict-of-interest "bonus"

Gender



- Pre-redaction we don't seem to have viewed women interviewees as serious candidates - maybe they were included as tokens
- Post-redaction the women interviewed were more likely to be ranked highly

Racialized

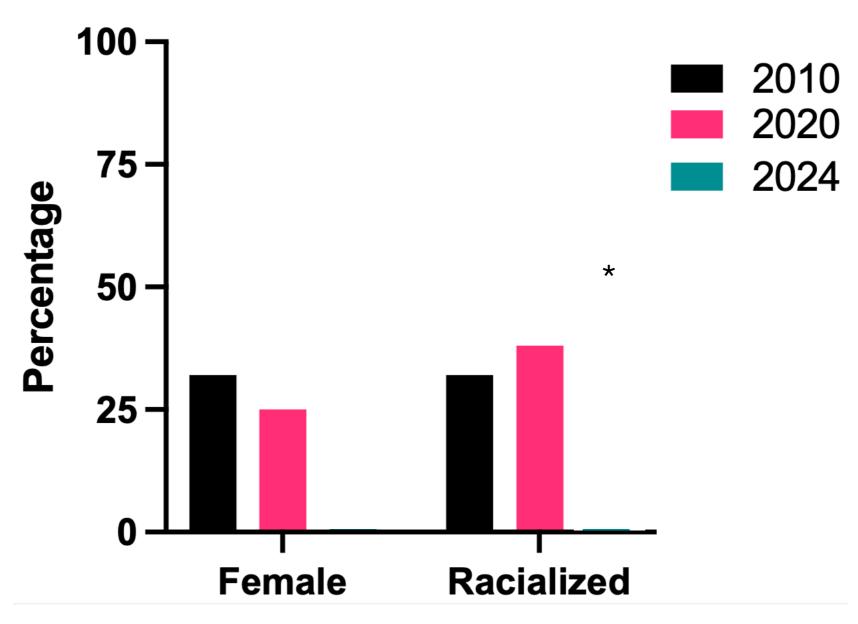


 Application pressure is harder to evaluate than for gender - our equity data from Human Resources does not differentiate between Canadian/PR candidates and everyone else who applies

Beyond %Female and %Racialized

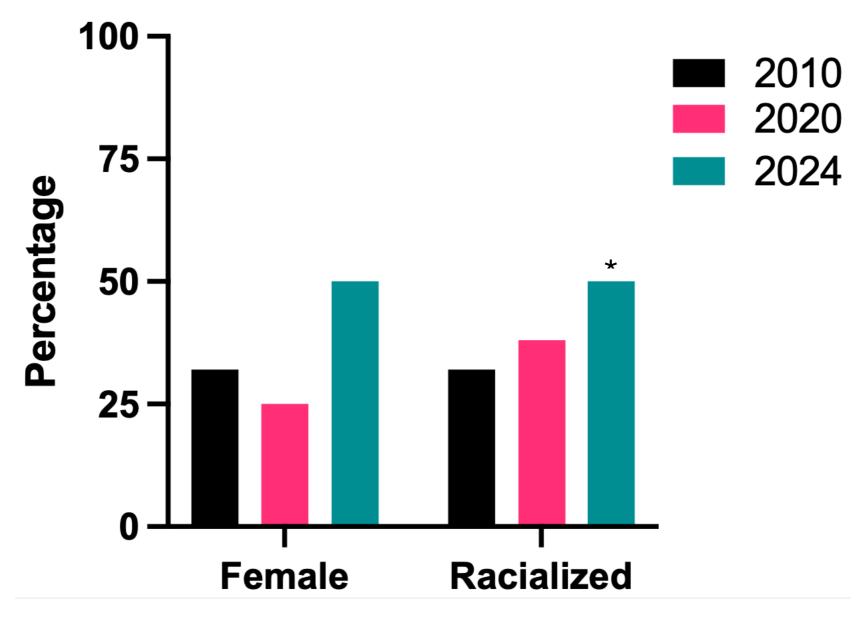
 Are many additional equity seeking groups, e.g. Indigenous, disabled, neurodivergent, 2SLGBTQ+, ...

Then and now



*updated from published article to reflect 2025 data

Then and now



*updated from published article to reflect 2025 data

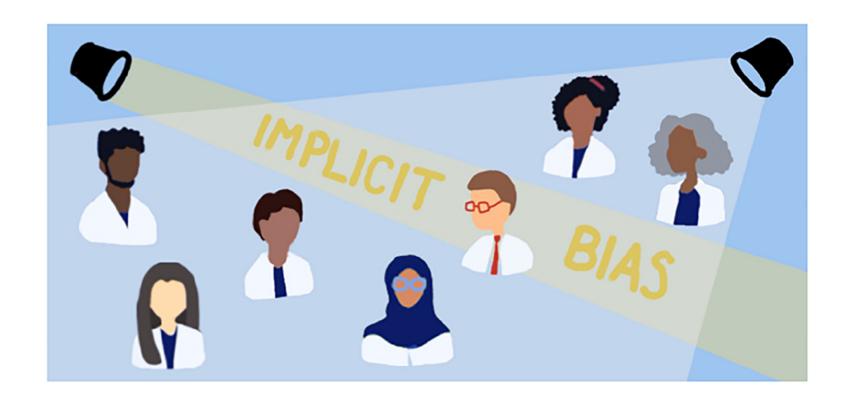
Achieved gender parity in 4 years!



- (Combined effect of new hires + retirements)

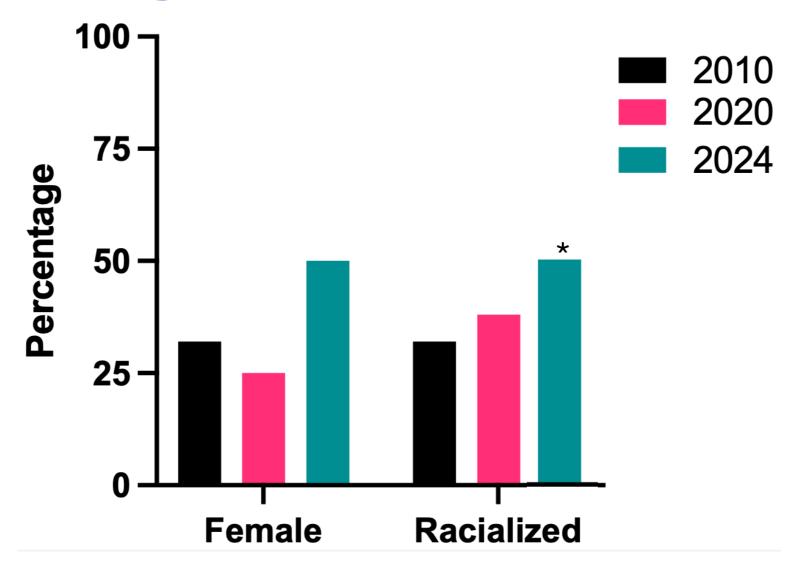
A challenge: Scientists recognizing they have unconscious bias





 "research demonstrates that people who value their objectivity and fairness are paradoxically particularly likely to fall prey to biases, in part because they are not on guard against subtle bias (24, 25)" (Moss-Racusin C A, Dovidio J F, Brescoll V L, Graham M J, Handelsman J. Science faculty's subtle gender biases favor male students. Proc Natl Acad Sci U S A. 2012;109:16474-16479)

Has quality suffered?

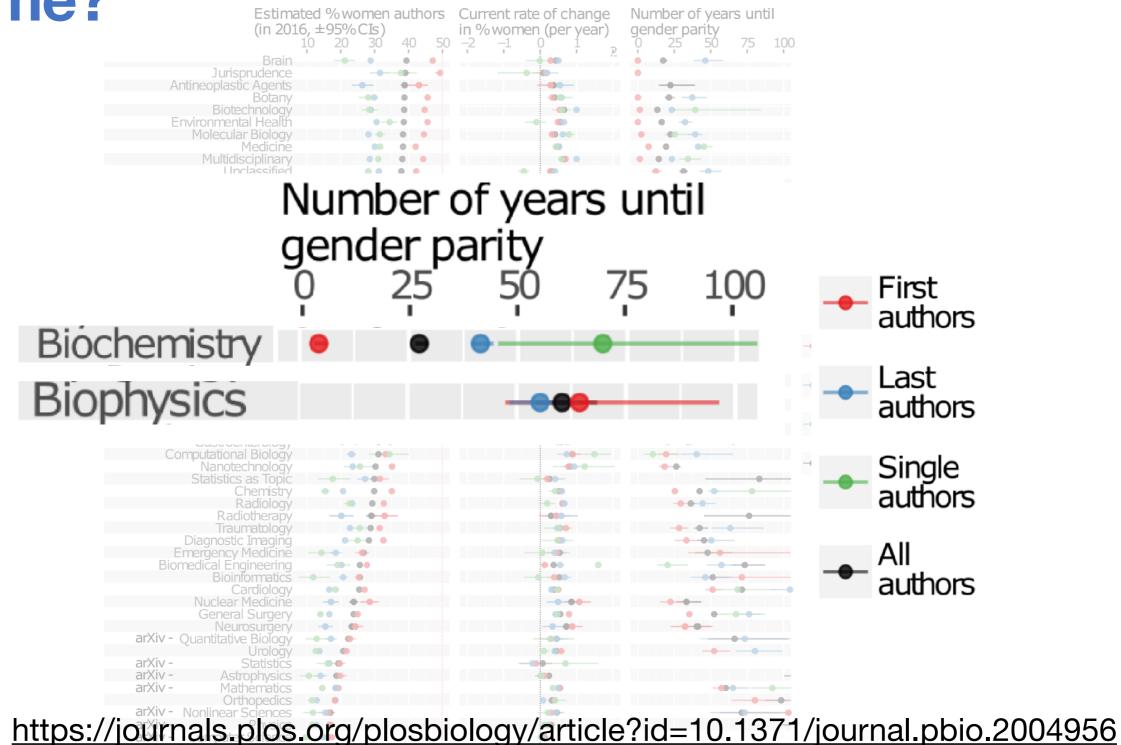


*updated from published article to reflect 2025 data

- Still very early career, so metrics are limited, but
 - Succeed at much higher rates for NSERC DG applications than national averages
 - Teaching and service indicators are very good

Isn't gender balance just going fix itself over time?

Estimated %women authors. Current rate of change. Number of years until



• If current efforts hold steady, our field is set to reach gender parity in ~30-60 years (in terms of publication authorship)

What made the difference?

- CV redaction itself?
- And/or increased education/conversation in the department making people more aware of implicit bias and how to counteract it?



- Other possible factors:
 - Job ads written a little more inclusively
 - Many of the interviews were conducted a bit differently than traditionally

We chose to publish this and publish it in a science journal

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- Why?
 - In the hopes that other science departments will be inspired to take action (not necessarily the same action, but some action)
 - To try to speak to our science colleagues who say things like,
 "I'm not a social scientist, therefor I can't take action on EDI-AR"
 - Aside... this is the paper we are all least qualified to write and has received the most attention of anything we've every published over the course of our careers

Thank You!