Research Productivity in Economics

Gender differences in sorting

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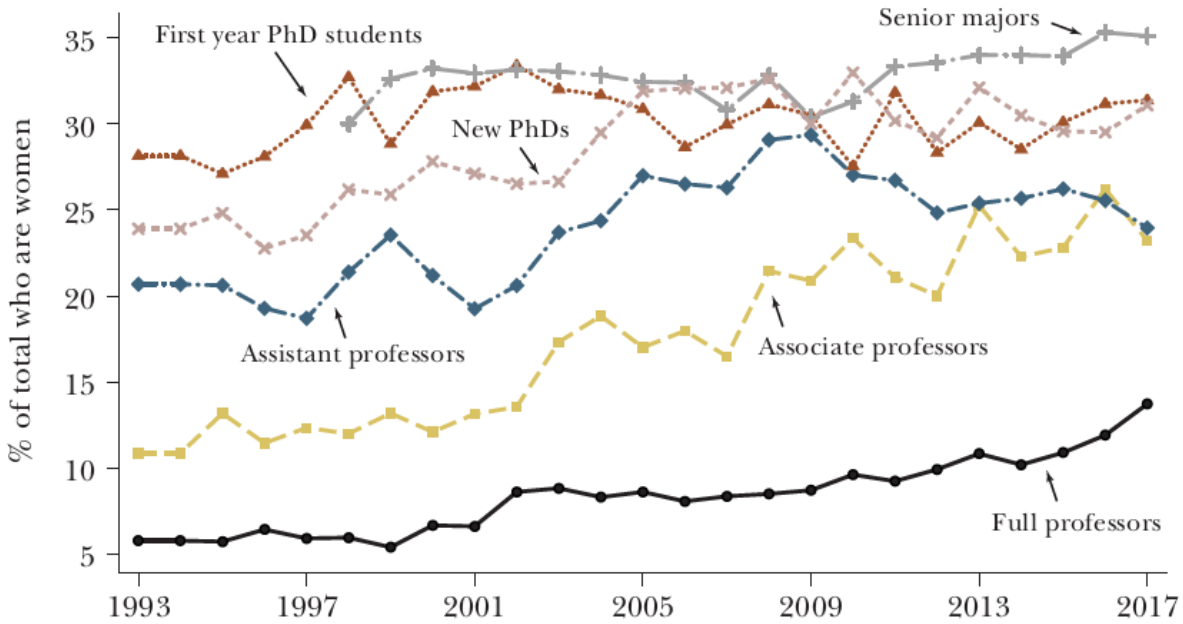
Motivation



- Women are missing from academia (Lundberg & Stearns, 2019) worse in the United States (Auriol et al., 2022)
- Efficiency concerns

Literature Review

- Discrimination
  - Gender bias in reference letters (Eberhardt et al., 2022); forums posts (Wu, 2018); lower research output in early career (Hilmer & Hilmer, 2007)
  - No evidence of gender bias in
    - Promotions (Bagues et al., 2017)
    - Referee Evaluations (Abrevaya & Hamermesh, 2012)
    - Editorial Decisions (Card et al., 2020)
  - Winslow and Davis (2016): "institutionalized policies and subtle biases, rather than overt discrimination"
- Competition Aversion & Field Choice
  - Do women prefer less competitive environments? (Croson & Gneezy, 2009)
  - Gneezy et al. (2003): lab experiment shows difference
  - Dolado et al. (2012): women are unequally distributed across fields; Ductor et al. (2018) field choice and networks matter!

Contribution

What is the role of institutions? Research support, role models, networks, policies

Data

Data Sources

- Publications and Affiliations: OpenAlex (Priem et al., 2022)
  - 213 million authors
  - 240 million publications
  - 100,000 institutions
  - 2 days just to extract the data on the university cluster
- Economics Journals - Quality: Web of Science & EconLit
- University Rankings: QS, CWUR, Times Higher Ed.
- Name-Gender: SSA, WGND

Dimensions

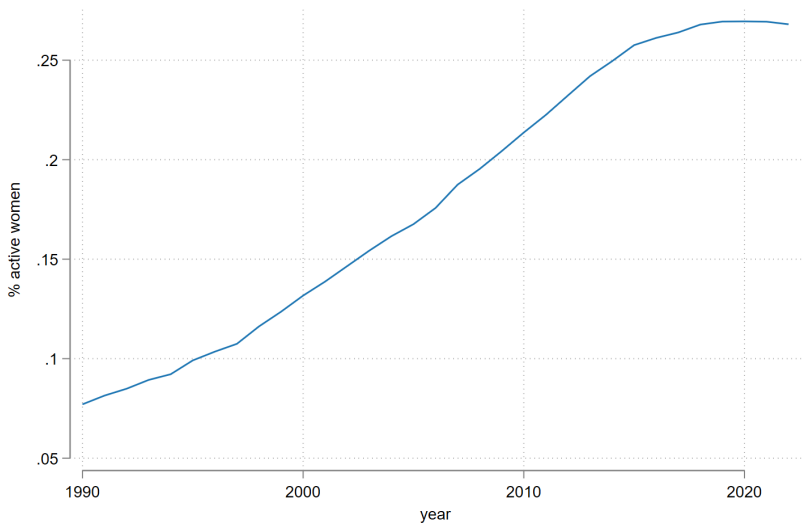
- Years 2000-2020
- 35,000 authors
- 1,500 institutions

Variables

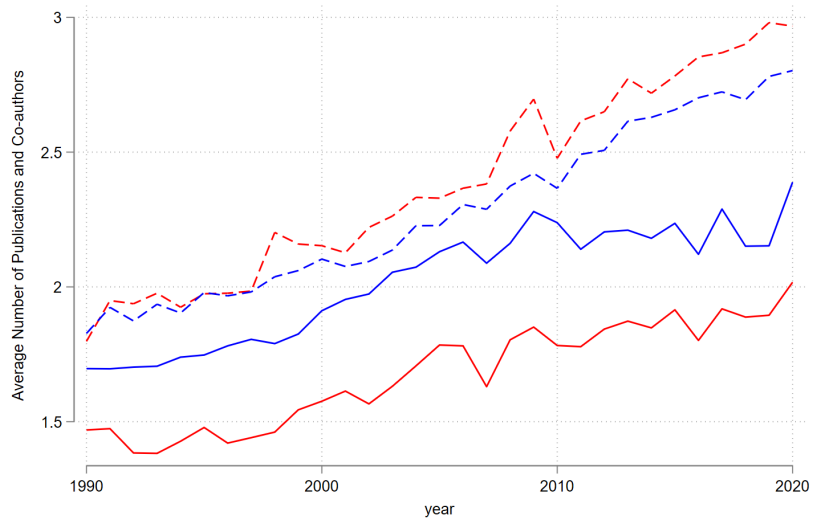
- Number of Publications
- Citations
- Article Influence Score

Descriptive Statistics

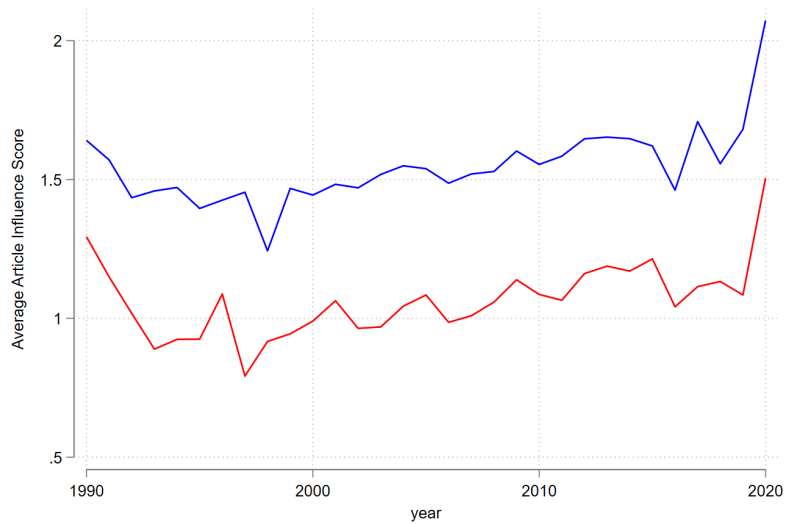
- Share of women increases but plateaus



- Constant gap in *productivity* over time



Solid: Number of publications; Dashed: Collaboration



Empirical Strategy

AKM model (Abowd et al., 1999) used by Bhaskarabhatla et al. (2021) to analyse sorting in research using patent data

$$Y_{ikt} = \alpha_i + \varphi_k + \varepsilon_{ikt}$$

- Y_{itk}: productivity
- α_i: individual fixed effects
- φ_k: department fixed effects

Identification

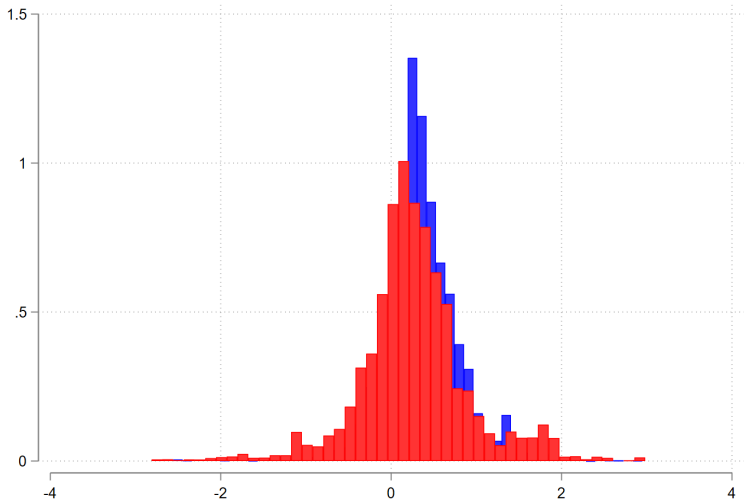
- Exogenous moves
- Connected institutions
- Sufficient number of movers - ca. 35%

Issues

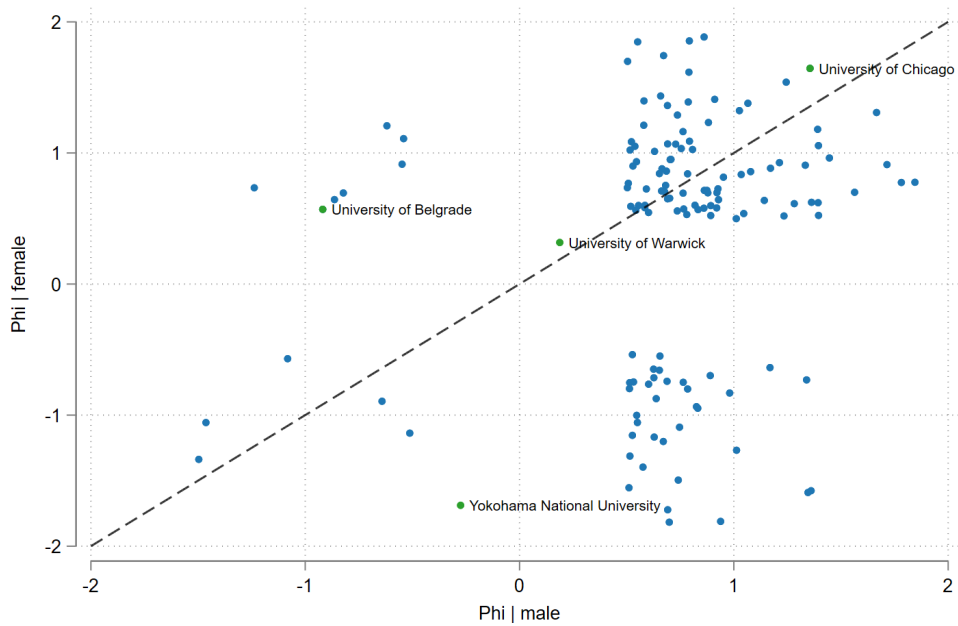
- Limited mobility bias
- Time invariant variables
- Quality of productivity variable

Preliminary Results

- Institution FEs are larger for men (not by much)
- Larger variance for women & heavier lower tail



$H_o : \varphi_k \mid male - \varphi_k \mid female = 0$
0.0813^{***}
$p = 7.17$



Conclusion & Next Steps

Next Steps

- Merge rankings data, analyse if FEs actually align with rankings
- Refine data cleaning procedure, drop as few observations as possible
- Develop econometric model
- Relax timing exogeneity assumption (Abowd et al., 2021; Bonhomme et al., 2019)
- Explore data, think about further research questions

Conclusions

- The database is of significant value for further research
- So far circumstantial evidence of institutional level differences