

Discussion of:

Undergraduate Gender Diversity and the Direction of Scientific Research

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How exposure to a diverse environment influences research agendas?

Exploit switch to co-education among research-oriented universities in the US in 1960-90

Main findings:

- increase in undergraduate female student body
- **induced** interest in gender-related topics among researchers

Further clarifications about interpretation

- Policy change vs exposure
- Persistence of induced interest in gender topics
- Spillover effects within the analysis sample
- Employment-related incentives

Additional comments and suggestions

- Analysis of results of gender-related papers
- Intensities
- Co-authorship patterns
 - Seniority
 - Topic scopes
 - More discussion about lower co-authorship with incumbent female researchers
- Teacher information in course catalogues
- Additional measure of quality based on conference presentations
- Similar study by race

- Comparisons in descriptive plots
For example, female vs male, gender- vs non-gender related papers, elite vs rest, etc.
- Institutional context
To what extent could faculty influence university admission policies?

Thank you!

Extended comment: Policy change vs exposure

Could the change in admission policy alone, even if there were no increase in female enrolments, generated interest in gender-related topics?

Even if results cannot be disentangle the two, some discussion may be helpful.

Extended comment: Persistence of induced interest in gender topics

This is related to the first comment whether interest was induced by exposure or policy change. The switches to co-education analysed in the study period may have been special and different from prior switches because it included largest wave of switches and higher share of elite universities. Therefore, the switch events alone could have generated interest in the topic, which for most researchers probably finishes as abruptly as it started. Analogous to the boom in Covid research. Therefore, analysis of how long-lasting these effects were could provide additional information whether the effects could be attributed to exposure or policy change.

The existing results in Figures 6 and D3 do suggest that the effect start dying out after year 3, which can be consistent with the policy-change induced interest.

Extended comment: Spillover effects within the analysis sample

1. One consideration is randomness of sample observations. Universities in the analysis sample are well-known, meaning their switch is more visible to everyone. So, if Brown switches to co-education, it might influence decision of Yale to follow.
2. Second consideration are spillovers of treatment effect. In introduction, the authors claim that in-sample universities are more research-oriented than out-of-sample universities. So, one possibility is that Brown switching to coeducation, sparks interest among Yale researchers. In addition, co-authorship ties within in-sample universities are potentially stronger than between in- and out-of-sample universities*. So, Yale researchers may have been involved in gender-related projects by their treated Brown colleagues.

One potentially useful robustness analysis could be to progressively exclude universities switching around 1970 (donut-ring type) or progressively exclude universities depending on co-authorship strength with elite research universities.

*Which is what the current spillover analysis focuses on.

The analysis in Section 6 suggests that faculty composition shifted

- towards having more female researchers (Table 4) and
- towards researchers with prior interest in gender topics (Table A11).

This suggests that researchers may have been (informally) required to produce some gender-related research in order to find or keep academic positions.

Extended comment: Analysis of results of gender-related papers

It could be interesting to analyse effects on gender-related research in terms of direction and strength of the results. Huntington-Klein et al. (2021) show that researcher degrees of freedom may dramatically influence the results of a study. Even though the determinants of these differences are not clear, they may include researchers' own biases. Therefore, it is interesting to what extent the new gender-related research, especially by incumbents with low prior interest, was supporting the importance and existence of gender biases (at the level of summarising sentences in abstracts).

It may be helpful to include analysis exploiting intensities in addition to indicators. For example,

- intensity of increased exposure to female student body
- intensity of relatedness of paper to gender topics (female words mentioned once in abstract vs ten times)
- intensity of interest in gender topics (publishing one gender-related paper vs ten papers)

Extended comment: Co-authorship patterns

- Seniority
One possibility is that increased co-authorship with women can be driven by possible employment-related incentives on men's side and maximising publication chances on women's side. If so, then (a) seniority gap between co-authors would have increased as a result of co-education, and (b) the increased production of gender-related research does not necessarily signal induced interest in gender topics of incumbent (male) researchers.
- Topic scopes and reduced co-authorship with incumbent female researchers
It is also interesting whether co-authorships on gender-related topics crowded out co-authorships on non-gender related topics. In other words, if female researchers were "forced" to specialise in gender-related topics.

Huntington-Klein, Nick, Andreu Arenas, Emily Beam, Marco Bertoni, Jeffrey R. Bloem, Pralhad Burli, Naibin Chen, et al. 2021. “The Influence of Hidden Researcher Decisions in Applied Microeconomics.” *Economic Inquiry* 59 (3): 944–60.
<https://doi.org/10.1111/ecin.12992>.