Publication Patterns of Women in the Finance Profession

Preliminary data from the AFFECT Board
2018 AFA, Philadelphia
Representation of women in profession based on conference participation 2013 – 2015

Representation of women declines, as one progresses from entry student level to higher levels of profession.
Key objectives of data presented this evening (as shown on following slides)

1. Representation of women authors

2. Longer time series of women’s representation in finance

3. Women’s co-author networks
Representation of women in profession: 2013 – 2015

Representation of women based on publications:

- Student Members at AFA: 25%
- Submitters to AFA: 15%
- Authors in 14 Finance Journals: 10%
- Authors in Top 3 Finance Journals: 10%
- Co-authors of accepted papers: 15%
- Discussants: 15%
- Keynotes: 10%
Representation of women based on publication rates
A longer time series

- Representation of women has been increasing
- Representation is slightly lower in Top 3 Journals
- Compared to broader measure of 14 finance journals

Data = papers published in 14 finance journals, by finance authors
Finance author = a person that published 2+ papers in one of these 14 journals over 1947 – 2017
Women’s propensity to solo-author vs co-author

No evidence that women are significantly more or less likely to solo-author
Confirmed through regression analysis
% of Publications in 14 finance journals

Gender composition of co-author pairs

- Female-Female: 2%
- Female-Male: 21%
- Male-Male: 76%

Data:
- Papers with exactly 2 authors
- 14 finance journals
- 1980-2017
- 4,717 papers

Finance author = a person that published 2+ papers in one of these 14 journals over 1947–2017
Propensity of co-author teams to be among people of same seniority level Conditional on gender

Data
• 14 Finance journals
• 1980 - 2017
• Papers with 2 co-authors
• Same level = co-authors seniority level within 6 yrs of each other

Suggests social networking effects may be particularly important, among female co-authorships

Less evidence of strong mentoring effects

Across Female - Female papers, 75% are among author-pairs at same level

Across Male - Male papers, 59% are among author-pairs at same level

• Data = 2-author papers published in 14 finance journals, by finance authors
• Finance author = a person that published 2+ papers in one of these 14 journals over 1947 – 2017
Whom do women choose to co-author with? Are they particularly likely to co-author with other women?

- **Social networks**
  - Women may be more likely to have common interests and to develop connections

- **Homophily**
  - People work better with people that are more similar to themselves

- Regression analysis to examine this more precisely
Whom do women prefer to co-author with?

<table>
<thead>
<tr>
<th>Characteristics of first author</th>
<th>Probability of having a female teammate</th>
<th></th>
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</thead>
<tbody>
<tr>
<td></td>
<td>(1)</td>
<td>(2)</td>
</tr>
<tr>
<td>Female</td>
<td>0.0368**</td>
<td>0.0385**</td>
</tr>
<tr>
<td></td>
<td>(0.0168)</td>
<td>(0.0190)</td>
</tr>
<tr>
<td>Publications in Top 3</td>
<td></td>
<td>0.0007</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(0.0012)</td>
</tr>
<tr>
<td>Female*Publications in Top 3</td>
<td>-0.0003</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.0041)</td>
<td></td>
</tr>
<tr>
<td>Year Fixed Effects</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Journal Fixed Effects</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Observations</td>
<td>4,717</td>
<td>4,717</td>
</tr>
<tr>
<td>R-squared</td>
<td>0.027</td>
<td>0.027</td>
</tr>
</tbody>
</table>

Women are 3 – 4% more likely than men to co-author with another women.

This effect is unrelated to person’s productivity.

- Data = papers published in 14 finance journals, by finance authors, 1980 – 2017
- Finance author = person that published 2+ papers in one of these 14 journals over 1947 – 2017
Is women’s propensity to co-author with other women concentrated within Same seniority (networking) or senior-junior (mentoring)

Magnitudes based on regression analyses
Same level = co-authors with seniority difference <= 6 yrs

- Data = papers published in 14 finance journals, by finance authors
- Finance author = person that published 2+ papers in one of these 14 journals over 1947 – 2017

Women’s propensity to co-author with other women is strongly concentrated within author pairs at the same level

Social networking seems impt

Less evidence of mentoring
Women’s propensity to co-author with other women: Finance vs economics

**In Finance**

Women are **4 - 5%**

More likely than men to co-author with other women

**In Economics**

Women are **13%**

More likely than men to co-author with other women

*Based on Boschini and Sjogren (2007)*

WHY is this tendency so much larger in economics?

Possible explanation: Boschini et al find that this tendency is positively related to percent of women in the field

1. Are there more women in economics?
2. Has this effect increased over time in finance, as representation of women has increased?
Factor #1: Lower representation of women in finance, compared to economics

Fewer women publishing in top finance journals, compared to top economics journals

In finance: Lower female representation potentially contributes to lower tendency of women to co-author with other women
- Compared to economics

1991 - 2002

Data = papers published in Top 3 finance journals, by finance authors
- Finance author = a person that published 2+ papers in one of these 14 journals
Factor #2: Women’s propensity to co-author with other women over different time periods

- Has increased over time
- As women’s participation in profession has increased

Women’s propensity to co-author with other women

<table>
<thead>
<tr>
<th>Time Period</th>
<th>Entire Sample</th>
<th>More Recent Sub-period</th>
</tr>
</thead>
<tbody>
<tr>
<td>1980 - 2017</td>
<td>4%</td>
<td></td>
</tr>
<tr>
<td>2000 - 2017</td>
<td>5%</td>
<td>6%</td>
</tr>
</tbody>
</table>
Summary: Women’s propensity to co-author with other women
By time period, and by similarity of authors’ level in profession

Women are 9% more likely than men to co-author with a woman
• 2000 – 17 time period
• Author pair of similar seniority level
Conclusion

1. Women’s representation has increased over time
   • Publications in broad set of 14 Finance journals
   • Publications in Top 3 Finance journals

2. Women are significantly more likely to co-author with other women
   • This pattern is stronger in more recent years, when there are more women in profession
   • This pattern is concentrated among co-author pairs that are at similar seniority levels