Falling off the Academic Bandwagon:

Why women are more likely to quit at the postdoc to principal investigator transition

Findings of the NIH postdoc subcommittee survey

The NIH postdoc subcommittee: Elizabeth Martinez, Jeannine Botos Kathleen Dohoney, Theresa Geiman, Sarah Kolla, Ana Olivera, Geetha Rayasam, Yi Qiu, Diana Stavreva, and Orna Cohen-Fix

National Summit on Gender and the Postdoctorate, March 2010
Second task force on the status of intramural women scientists
Why women are more likely to quit at the postdoc to principal investigator transition?

Question: Are you currently considering a PI position?

• Women are less likely to consider a PI position

Where does the difference between men and women come from?
Demographics

Years of postdoc experience:

Age distribution
### Demographics

<table>
<thead>
<tr>
<th>Marital State and Children (%)</th>
<th>men</th>
<th>women</th>
</tr>
</thead>
<tbody>
<tr>
<td>single</td>
<td>27.5</td>
<td>33.3</td>
</tr>
<tr>
<td>married* without children</td>
<td>28.6</td>
<td>33.1</td>
</tr>
<tr>
<td>married with children</td>
<td>44.0</td>
<td>33.6</td>
</tr>
<tr>
<td>total</td>
<td>100%</td>
<td>100%</td>
</tr>
</tbody>
</table>

*married* = either married or live with a partner

- Married women with children are underrepresented in the postdoc population

**US 2004 census**: in the general population, 75% of women and 62% of men between the ages of 30-34 have children
### Demographics

<table>
<thead>
<tr>
<th>Spouse/partner</th>
<th>men</th>
<th>women</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full time job</td>
<td>51.4</td>
<td>83.4</td>
</tr>
<tr>
<td>Part time job</td>
<td>12.4</td>
<td>8.6</td>
</tr>
<tr>
<td>does not work</td>
<td>36.2</td>
<td>8</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>men</th>
<th>women</th>
</tr>
</thead>
<tbody>
<tr>
<td>Child care by a spouse/relative <strong>during the day:</strong></td>
<td>42.5%</td>
<td>15.5%</td>
</tr>
<tr>
<td>Child care by a spouse/relative <strong>after school:</strong></td>
<td>71.5%</td>
<td>25%</td>
</tr>
</tbody>
</table>

- Women postdocs are more likely to face child care challenges
Question: How important are these factors in influencing your decision on whether to pursue a PI position?

- Having children: 57% of married women w/o children, 29% of married men w/o children

Also no difference:
- Managerial duties
- The need to obtain tenure
Question: If both you and your spouse have a full time job, which of you is more likely to make career-related concessions?
In pursuing a PI position, women’s family-related issues fall into two categories:

• The desire to spend more time with children/other family members

• The reality of having a full time working spouse.
The confidence issue

Could you get a PI position?

Will you try again to get a PI position if at first you don’t succeed?

If you had a PI position, how confident are you that you will get tenure?
The relationship between having a project and anticipated success in getting a PI position

Do you have a project to take with you?

Men

Women

Percent who said yes

percent of total

position

yes no yes no

project

yes no project
Ability to be a PI: a self assessment:

- Creativity
- Competitive drive
- Assertiveness
- Aggressiveness for science
- Oral presentations
- Communication skills
- Networking skills
- Grant writing skills
- Scientific writing skills
- Experimentation
- Manage stress

% not adequate

- Women
- Men
Ability to be a PI: a self-assessment:

- Creativity
- Competitive drive
- Assertiveness
- Aggressiveness
- Passion for science
- Oral presentations
- Communication skills
- Networking skills
- Grant writing skills
- Scientific writing skills
- Experimentation
- Manage stress

% not adequate
Ability to be a PI: a self assessment:

• Overall, women are less confident in their ability to succeed as a PI.
Question: Which of these factors will have a positive effect on your decision to pursue a PI position?

- Family considerations and time management play a greater role in women’s vs. men’s decision to pursue a PI position.
Summary

• Fewer women than men want to pursue a PI track

• There were no differences in age and postdoc experience between men and women. However, married women with children are under-represented in the postdoc population.

• There are significantly more women with full-time working partners than the other way around. Conversely, 4-times more men than women have a spouse who is not working.

• Key factors that influence women’s decision whether or not to pursue a PI track are related to family: having kids, spending time with kids and other family members, proximity to partner’s job location, etc.

• In general, women are less confident about their future success as PI

• The two major issues identified are: family considerations and confidence
Food for thought

• Why the under-representation of women with children in the posdoc cohort is a problem:
  Some women postdocs without children may be planning to have kids at a later stage, which may coincide with starting a lab.

• During recruitment, men and women candidates have different priorities; addressing childcare, possibility of spouse employment, flexible work hours etc., could increase the number of women PIs

• Further studies are needed to address the issue of confidence
  Better mentoring, networking, support groups, career related courses etc…
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