Dreams of Balance: The Intersection of Expectations, Balance, Isolation and Connections for Women and Men Early in PhD Training

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Scientific Careers Research & Development Group
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Current Choices, Future Careers

Situation

Women in the sciences are less likely to gain tenure at top research universities, often attributed to issues of balance and parenting

- Other research notes an increasing desire for a “work-life balance” beyond parenting for women and men
- The research on balance looks intensively at work-personal conflicts among working people, and not prospectively toward future careers
- Career trajectories toward academic science begin long before tenure decisions

What’s missing?

Our Research

Qualitative study of 54 PhD students explores factors in student dissertation lab choice

Contribution

Women and men use a combination of expectations around science careers, desire for balance (discretionary time and family time), and a sense of connection to laboratory and cohort colleagues to make decisions about current and future trajectory
National Longitudinal Study of Young Biomedical Scientists (NLSYBS)

- How do biomedical scientists make decisions about their science career trajectories?
- What factors influence these trajectories along the way?
- How do these factors differ for women, men, and scientists of color?

Total recruitment: 533

Of those going on to graduate school in the biomedical sciences:

Students recruited as undergraduates: 98
Students recruited as postbaccalaureates: 31
Students recruited as graduate students: 167
TOTAL PHD COHORT: 320
## NLSYBS PhD Cohort

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<th>Women</th>
<th>Men</th>
<th>TOTAL</th>
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## Characteristics of Our Study Sample

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How does a desire for balance play into career trajectories?

- Women seek positions for more flexibility (Ceci & Williams 2011)
- Glass ceiling/maternal wall (Williams & Segal 2003)
- Contemporary family forms lead to greater concerns with balance (Jacobs & Gerson 2001)
- Norms of long hours and putting science first (Etzkowitz, Kemelgor & Uzzi 2000)
Students are already taking future family into account

Of the 54 students...

36 say they plan to have children (18 women, 18 men)

A slightly different 36 (18 women/18 men) say they will take family into account when making career choices:

*I want to have a family and things and I know that people can do it um, while working in any field, so, uh, and it’s going to be like an important aspect when I am deciding which job I want to take which will be nice to have to decide that.*

(Hispanic male, married, 2\textsuperscript{nd} interview)

- Time
- Flexibility
- Money
- Location
Dreams of Balance in a science career trajectory

So if you were going to be an exceptional scientist balancing like science, family, ah, you know, if you decide to have kids like that’s a crazy balance.
Dreams of Balance in a science career trajectory

So if you were going to be an exceptional scientist balancing like science, family, ah, you know, if you decide to have kids like that’s a crazy balance.

But, you know, sometimes you just have to go to the gym during the day and that’s balancing, too.

(White female, single, 1st interview)
Q: Um, was there any particular challenging or stressful time [during the first year]?
A: Besides all the time?

(White female, single, 2nd interview)
Finding the first year’s triple balance

*There's coursework, there's rotations in lab, and also you gotta have a personal life.*
(White female, single, 1\textsuperscript{st} interview)

*I actually have to balance everything from taking care of myself, taking care of class work and lab work*
(Asian male, single, 2\textsuperscript{nd} interview)

Began balanced: 19 (9F,10M)
- 10 (4F, 6M) stayed balanced
- 3 (2F, 1M) lost balance
- 6 (F) didn’t say

Began out of balance: 22 (14F, 8M)
- 7 (5F, 2M) found balance
- 10 (5F/6M) stayed out of balance
- 5 (4F, 1M) didn’t say

*Balance between what I like to do and what I have to do*
(White male, married, 1\textsuperscript{st} interview)
Choosing a lab as a “pivotal point”

Um, there was a little stress choosing which lab that I was going to because to me that was sort of a pivotal point in my graduate career that could … not make or break it but would profoundly affect what I am doing later.

(White male, married 2\textsuperscript{nd} interview)
Balance and lab choice

Students choosing a dissertation lab focus on scientific interest…

And as far as type of project, obviously I would have to be interested in the project

(White female, single, 1st interview)
Balance and lab choice

Students choosing a dissertation lab focus on scientific interest…
…but also worry about fit with the social environment of the lab

And as far as type of project, obviously I would have to be interested in the project but for me, it's almost more important that I get along with the people in the lab.

(White female, single, 1st interview)

Fit includes:

• Social integration with labmates and PI
• Matching expectations for workstyle
• Feeling of social support
Social integration with lab community

I mean, in, in my experience science has been more social than it has been even experimentation... **You have to make a lab work socially.** I mean, and it’s really important that the people get along because ...that’s where you are every day, all day. (laughter)

(White female, single, 1st interview)

-- the lab I chose as -- for my dissertation lab. They were actually the ones to start out this, uh, workout challenge, this cardiovascular exercise challenge.... and I also enjoyed it as well, so.

(Asian male, single, 2nd interview)
Workstyle: how it feels and time

I became pretty good friends with some of the people that I work with, and I think that it was just a good balance of science…mixed with a little bit of fun. (White female, single, 2\textsuperscript{nd} Interview)

I didn’t have any bad rotations. Like everything was just fine, but -- and I could've joined either of the first two labs I rotated in; but I -- I was never comfortable in them and I -- it was just -- so there were times when I was working whatever, 60,70 hours a week, and not feeling like at home doing that. (White male, married, 2\textsuperscript{nd})
Feeling of social support

And [the PI is] very hands-on, in lab with us, teaching us things, working, doing experiments next to us. But also encouraging us to -- I mean, when you're in lab do your work, get your work done, be efficient. But don't live there. So I really, I really appreciate that.

(White female, single, 2nd interview)

And, uh, the last rotation, which is the lab I joined, uh, I didn't really… I should say I feel comfortable about the research project they're working on, even though not the best match. Uh, but I feel, like, I, I was taken care of and I, I can talk to the, uh, people in the lab all the time. And I got support. So that's why I choose this lab.

(Assian male, married, 2nd interview)
How does a desire for balance play into choosing a dissertation lab and career?

Connections to labs and programs
- Social support
- Networks
- Socialization

Expectations for careers
- Fit with notions of ideal balance
- Scientific interest
- Teaching/research responsibilities
How can understanding students’ dreams of balance improve programs?

Well, I think I was just less prepared to take care of so many different tasks. I think if it was just a matter of being able to manage all those things separately or independently of each other, and integrate that all together. *That was the part that I felt I wasn’t as prepared as I probably should’ve been.*

(Asian male, single, 2\textsuperscript{nd} interview)
How can understanding students’ dreams of balance improve programs?

Balance includes family time and discretionary time

Undergrad programs can:
• Facilitate students in developing strong time management skills
• Aid students in creating strategies to identify, build, and maintain a personally comfortable balance

Graduate programs can:
• Provide meaningful support for students becoming integrated into the school, the program, and the lab
• Make expectations clear
• Support students in extending time management and task prioritization skills
• Address both faculty and student negotiation skills around work-life balance.
How can understanding students’ dreams of balance improve programs?

Balance matters for women and men

Undergrad programs can:
• Mainstream sessions on balance outside of “women in science” programming

Graduate programs can:
• Recognize fathers in “family-friendly” policies
• Treat “work-life balance” as more than a women’s issue
• Listen for, recognize, and serve populations with different needs
How can understanding students’ *dreams of balance* improve programs?

Balance matters now, and in future career decisions

Undergrad programs can:
- Provide useful models of working scientists (graduate students, faculty, and industry scientists), with holistic information about work, family, and discretionary time
- Emphasize variety within job category

Graduate programs can:
- Recognize that while many students enter graduate school with a firm idea of what sort of job they might prefer, these choices remain malleable
- Provide meaningful support for ALL student trajectories, not just the PI-bound students
Next Steps

The NLSYBS will continue to follow these students as they move through graduate school and beyond. With this group we will closely examine:

- How does feeling socially integrated into their labs matter in the graduate experience over time?
- As women and men age, enter committed relationships, and begin to have children, how do their dreams of balance change?
- How do lab fit and scientific interest evolve over the course of graduate school?
- How does time pressure and balance play out for students from historically marginalized groups?
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