

Don't Interrupt this Talk!

...and Other Thoughts on Diversity

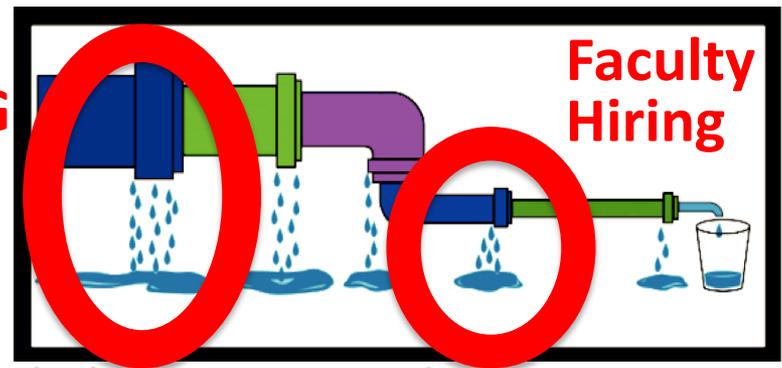
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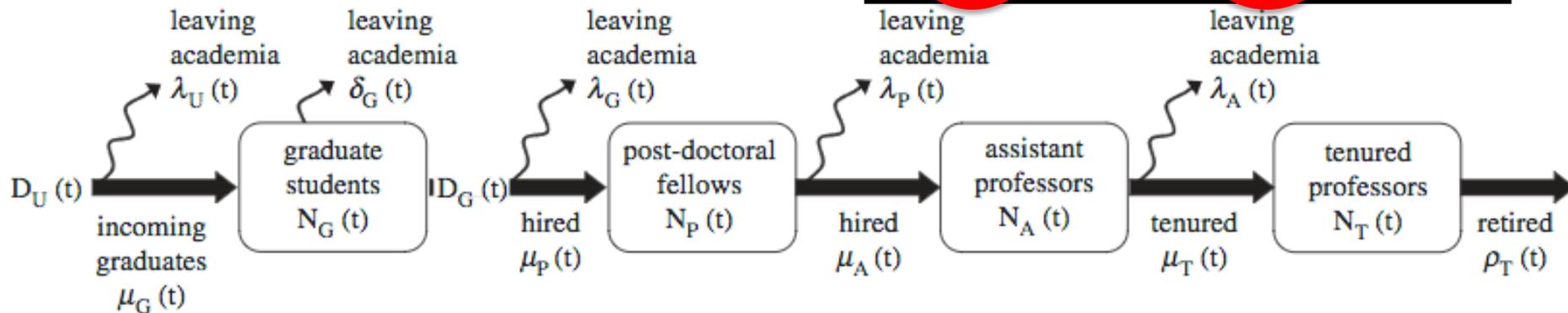


Leaky Pipeline Model

HS → UG



- Demographic inertia plays huge role in the numbers



Shaw and Stanton, *Proc. Royal Society B*, 2012

- For which transition are the numbers *least* explained by demographic inertia?

A) Undergrad → Grad student

B) Grad student → Postdoc

C) Postdoc + Grad Student → Asst Professor

D) Asst Professor → Tenured Professor

(Other main problem is the transition from high school to undergraduate majors)

Many Causes for Slow Progress at Faculty Level

Hiring:

- Lack of role models
- Biases in recommendation letters
- Biases in teaching evaluations
- Citation patterns
- Shifting criteria
- etc.

Retention:

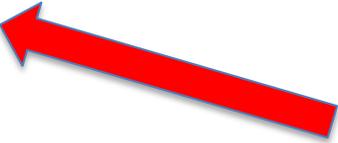
- Concerns about hostile climate
- Two-body problems
- Lack of mentoring
- Exclusion from useful networks
- etc.

Not much studied: The Interview Day

The Interview Day

- **1-hour research seminar** open to faculty, students
- Meet Department Chair
- Individual meetings with faculty
- Lunch, dinner
- Other stuff...

Job Talk



Research on Interruptions in Conversation

Many contexts studied:

- Corporations
- Press briefings
- Parent-child
- Fictional TV
- Doctor-patient
- Supreme Court

Groups with different:

- Gender composition
- Knowledge level
- Status
- Size
- Setting
- Topics of discussion

- Interruptions indicate power & dominance
- Gender and status effects
- Many complex effects

How would you define an Interruption?

- Simultaneous speech more than two syllables before the end of someone's sentence
 - Interrupting in the midst of incomplete grammatical unit
- Didn't raise your hand; didn't get acknowledged by the speaker



Definitions of Interruptions

Presenter is Presenting:

Raise your hand, get acknowledged

- ACKNOWLEDGED QUESTION

Otherwise

- INTERRUPTION

Presenter is Answering a Question:

Wait until the presenter has finished their answer, then ask another question without raising hand

- FOLLOW-UP QUESTION

Otherwise (ask another question without letting presenter finish, speech overlap)

- INTERRUPTION



Data Set: Video recordings of job talks

- 140 videos
- 91 men, 49 women
- Seniority:
 - PhD students: 44
 - 1-2 years out: 26
 - 3-4 years out: 28
 - 5-6 years out: 12
 - 7-21 years out: 30
- 2 large public R1 schools
- Multiple departments
 - EE, CS, ME, BioEng
- Use all available ♀ data
- ♂ Select approx. 2:1 seniority matched data
- Data analysis from pre-Q&A portion

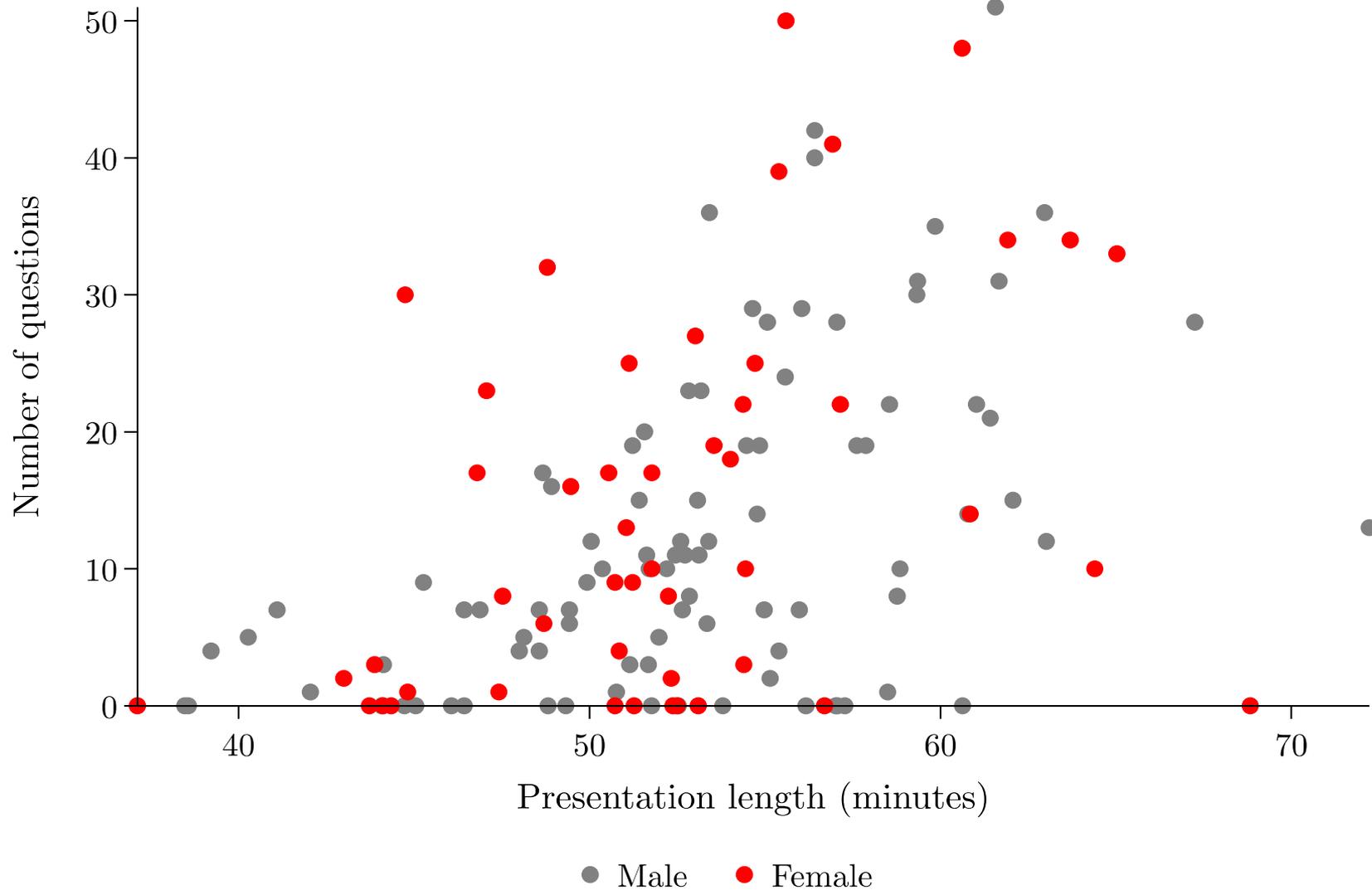
Question: Is it Bad to get More Questions?



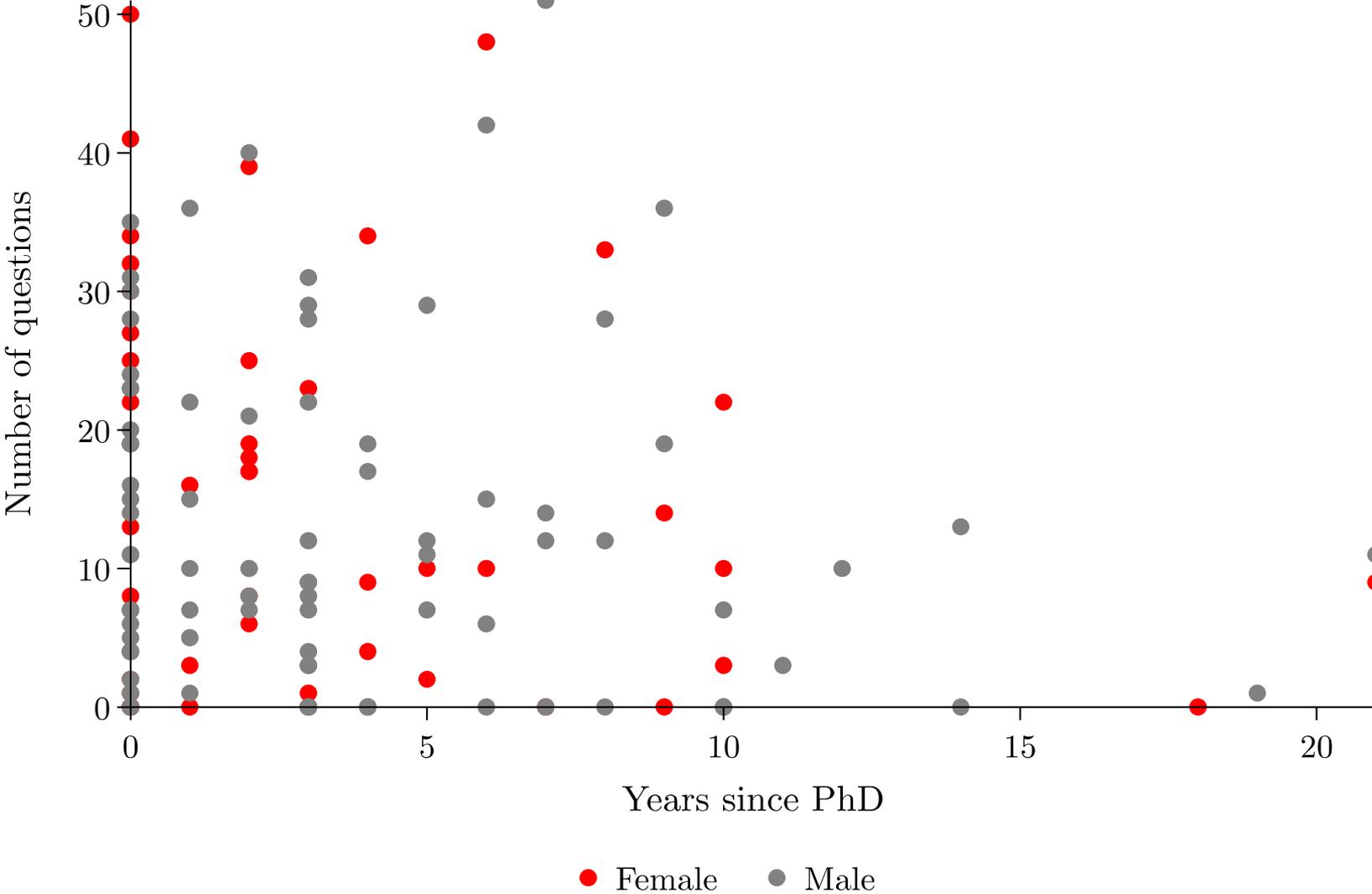
Sample Data

Female, PhD+4	Start	End	Duration	Type
Presenting	0:01:22	0:11:25	10:03	
Question (Acknowledged)	0:11:26	0:11:33	00:07	Neutral
Answer	0:11:34	0:11:46	00:12	
Presenting	0:11:47	0:15:40	03:53	
Question (Interruption)	0:15:41	0:15:44	00:03	Neutral
Answer	0:15:45	0:15:51	00:06	
Question (Follow-up)	0:15:51	0:15:54	00:03	Neutral
Answer	0:15:55	0:16:09	00:14	
Question (Interruption)	0:16:09	0:16:11	00:02	Hostile
Answer	0:16:12	0:16:18	00:06	

Number of Questions vs. Length of Talk



Number of Questions vs. Years since PhD



Descriptive Statistics (excluding BioEng)

Dependent Variables	Men	Women
Interruptions	3.77	4.95
Ack. Questions	5.49	5.39
Follow-ups	4.83	6.66
Total Questions	14.1	17
Audience time %	0.038	0.050
N talks	78	41

- Gender effect:
 - Women get 3 more questions, on average
 - Women experience more talks with zero questions
 - Conditioned on getting any questions, women get 6 more questions than men, on average
- Slight seniority effect for both men and women
 - More senior people get fewer questions

Is it Bad to get More Questions?

- Could be a sign of audience interest
- No outcome information (offers, hires)
- More questions correlated with speaker rushing:
 - “For the sake of time, I’m going to skip this part”
 - “There’s not much time left; I will rush through this”
 - “I’m going to skip to the end”
 - “I’m going really quick here because I want to get to the second part of the talk”
 - “We’re running out of time so I’m not going into the details”

Didn't expect #2: Department gender effect

- More women on faculty → fewer questions are asked
 - Both men/women candidates *receive* fewer questions
 - Both men/women in audience *ask* fewer questions
- Bigger effect than gender of speaker or seniority

Didn't expect #3: Interdisciplinary issue

- 81% of talks in Bioengineering have zero questions
- Unless it's a clarification question, save it for the Q&A
- Only 9% of talks in other departments do
- Culture clash:
 - Candidate can be shocked by unaccustomed aggressiveness
 - Risk for interdisciplinary candidates

Some Thoughts

- Analysis difficulty: Zero questions because of
 - Departmental effects
 - Candidate is super clear
 - Train wreck



- Possible double effect:
 - Women get more questions
 - Even with same number, women may view questions as more aggressive, unfriendly
- Many people seem to accept that their department has reputation for being mean



Suggestions of what to do

- Fix the Woman or Change the System



- Do both

Suggestions for Faculty

- Awareness: Not all candidates are comfortable saying: “Let’s hold remaining questions for the end”
- Search committee can agree on host who steps in and says it, if needed
 - Most natural for introducer to say it
- No explicit formula



Suggestions for Department Chairs

- Departmental discussion about norms of behavior
- *“We don’t want a snowflake”* 
 - Ability to handle aggressive questioning required at age 27?
 - Or develop that skill on the job?
- *“Talk is useless if I don’t understand something early on”*
 - But everyone else may want to hear the talk

Suggestions for Department Chairs

- Be aware of cultural differences:
 - Departments & disciplines have different cultures
 - Especially an issue for interdisciplinary candidates
- Agree that audience will be reminded of behavioral norms at start of each talk
- Remind the faculty:
 - *Department is interviewing the candidate*
 - *Candidate is interviewing the department*

Ongoing Research

Publication: M. Blair-Loy, L.E. Rogers, D. Glaser, Y.L.A. Wong, D. Abraham, P.C. Cosman, "*Gender in Engineering Departments: Are there Gender Differences in Interruptions of Academic Job Talks?*," **Social Science**, Volume 6, Issue 1, 2017.

- May 2017, NSF Grant
- Directorate for Education and Human Resources (Core Research)
- Interviews of early career scholars on job market experiences
- Asking for your help: Videotapes of job talks?
 - Need 5-10 universities to be able to study URM

Some ECE Changes Last Few Years

- Hired 5 women in the last 3 years!

- Went from 2 to 7
- Critical mass



- Faculty hiring:
 - Use of rubrics
 - More discussion of candidate's contributions to diversity at faculty meetings

- Started WECE group for grad women and postdocs
- Faculty morale:
 - **WIRED** = Weekly Imbibing Reinforces Educator Development



- **SPAM** = Social Pre-Assembly Munchies

Discussion Topics

- Strategies for making department culture less aggressive, more welcoming
 - Did you get anything on this in Chair Training?
- Anything special you do (that other schools don't) for inclusion and mentoring for women & URM faculty?
 - New faculty.... Higher levels...?
- Insights on improving morale & climate?