

CSWA Town Hall: Portrait of a Generation of Women in Astronomy

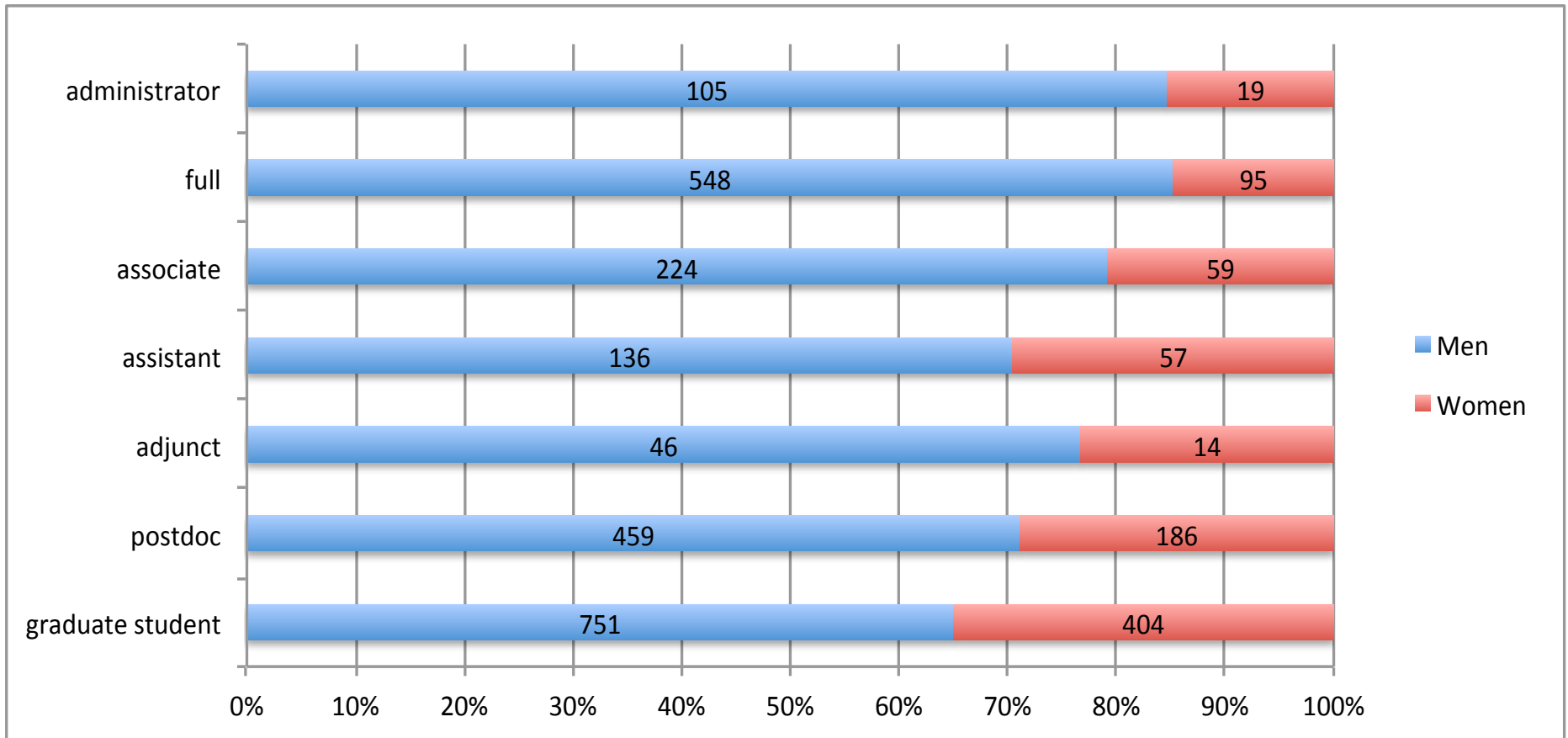
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Steph LaMassa, Karly Pitman

About the Survey

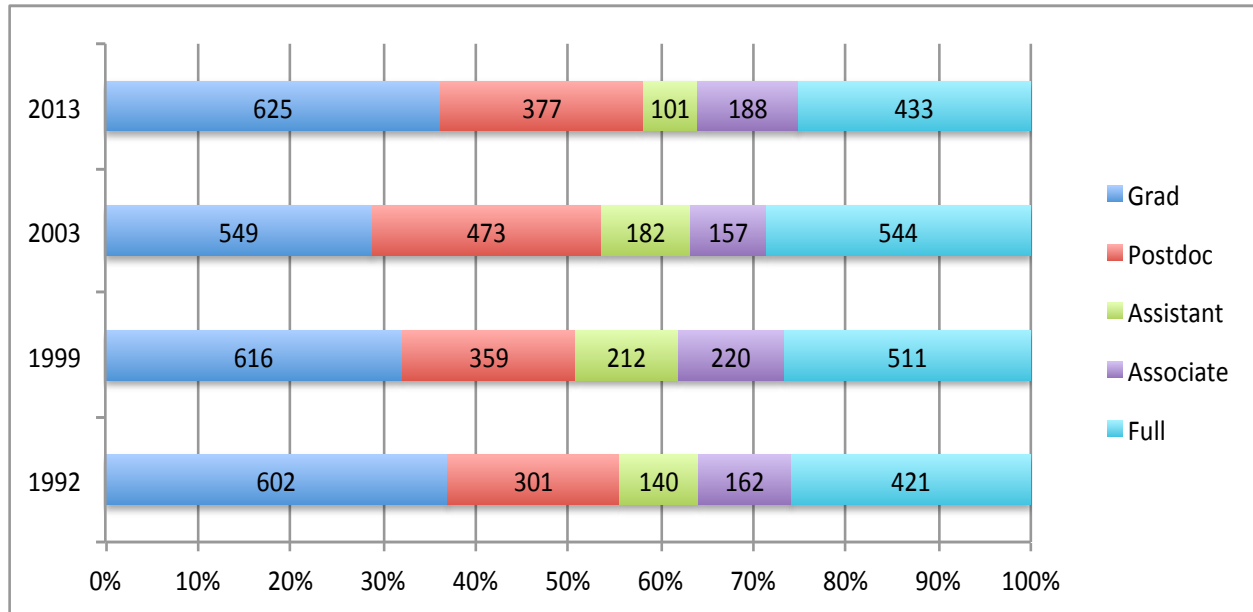
- 40 (32) universities, 7 (4) national research centers
- 3117 astronomers at the grad student through full professor level
- Astronomers only, even in combined departments (self-reported)
- Simple questions: count the number of men/women/nonbinary at each level
- Tenure track vs. research equivalent
- New this year: adjuncts and administrators, tenure

2013 Snapshot: Where are we now?

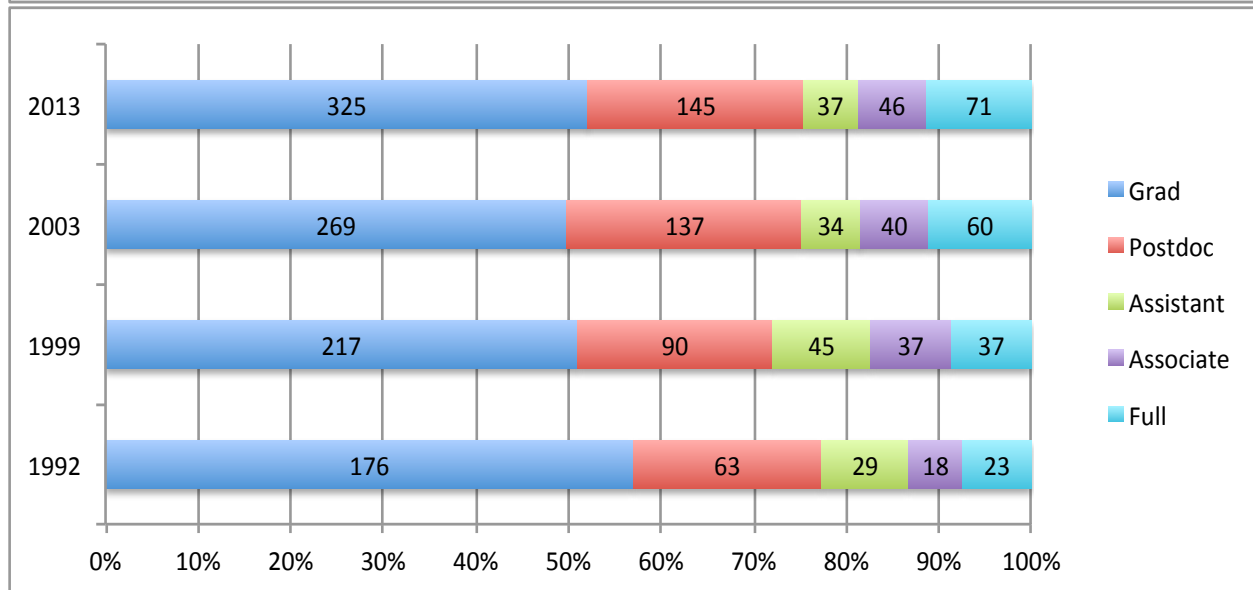


Changes with time 1: Seniority

Men:



Women:



Changes with time 1: Seniority

Rank	% Women 1992	% Women 1999	% Women 2003	% Women 2013
Grad student	22	26	30	34
Postdoc	17	20	22	28
Assistant Prof (total/faculty/research)	17/--/--	18/--/--	15/20/10	27/27/27
Associate Prof (total/faculty/research)	10/--/--	14/--/--	20/21/19	20/21/19
Full Prof (total/faculty/research)	5/--/--	7/--/--	9/9/9	14/15/11

Fraction of female assistant professors has nearly doubled in the past ten years

Fraction of female associate professors has not budged. Why?

Changes with time 2: Survival analysis

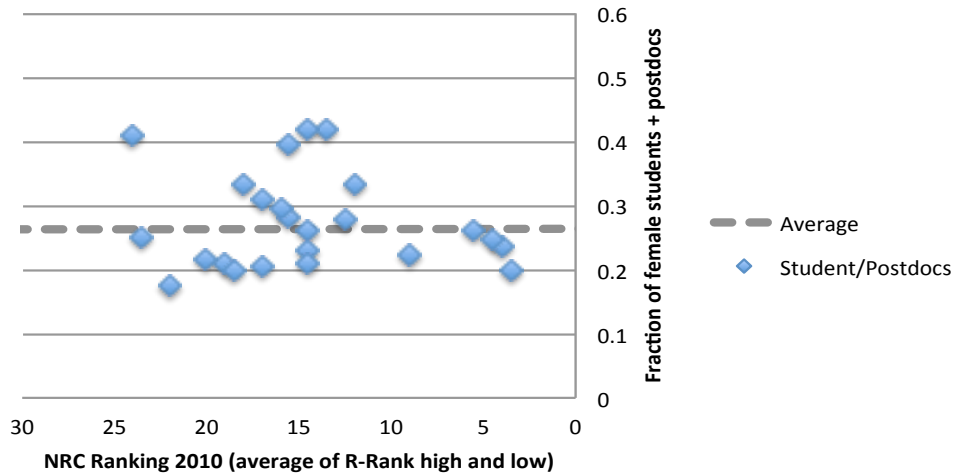
	1992 Grad students	2003 Assistant profs	% Advancement
# Men	602	182	(30±3)%
# Women	176	31	(18±3)%
% Women	(23±2)%	(15±3)%	
	1992 Postdocs	2003 Assoc. Profs	% Advancement
# Men	301	157	(52±5)%
# Women	63	39	(62±13)%
% Women	(17±2)%	(20±4)%	
	2003 Grad students	2013 Assistant profs	% Advancement
# Men	549	106	(19±2)%
# Women	235	37	(16±3)%
% Women	(30±2)%	(26±4)%	
	2003 Postdocs	2013 Assoc. Profs	% Advancement
# Men	473	194	(41±3)%
# Women	130	50	(38±6)%
% Women	(22±2)%	(20±3)%	

In the last decade, unlike the previous decade, women have advanced to the assistant professor level at rates approximately proportional to their representation at lower levels. On average, policies to retain junior women are working! (More on that later)

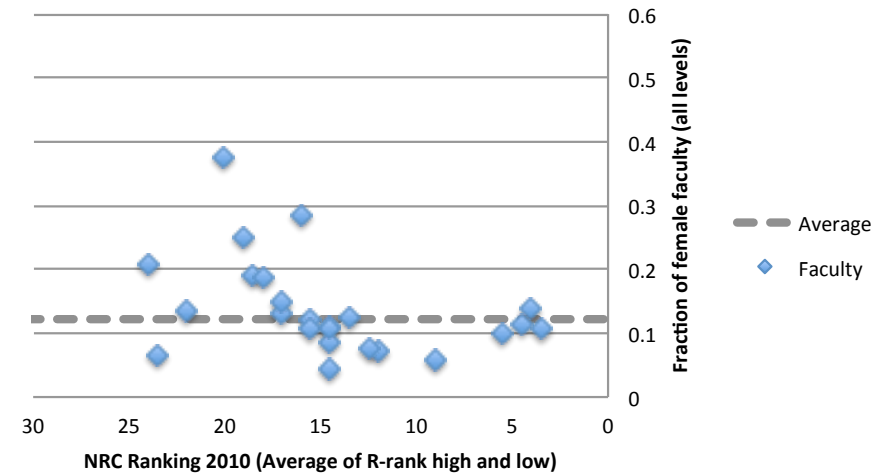
If current trends continue, associate professors will be ~30% women by 2023 (lots of postdocs)

Institutional variation 1: NRC ranking

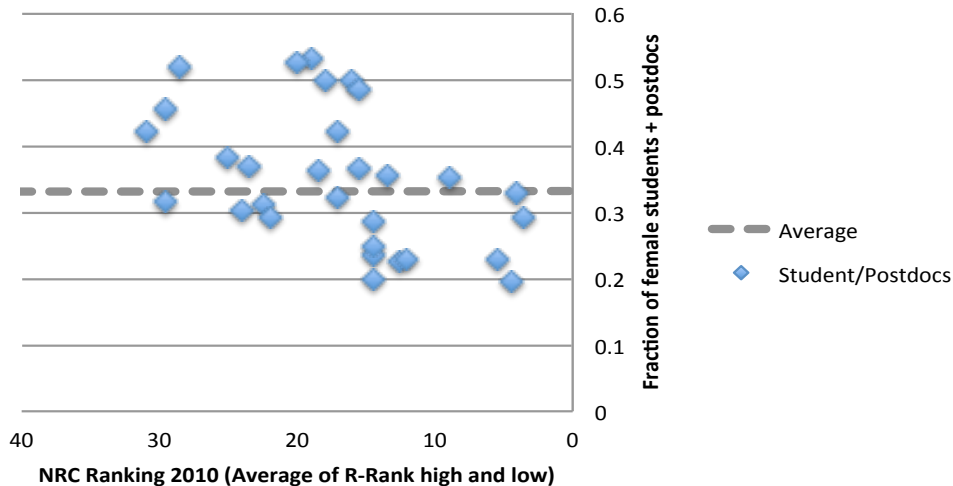
2003 - Student/Postdocs



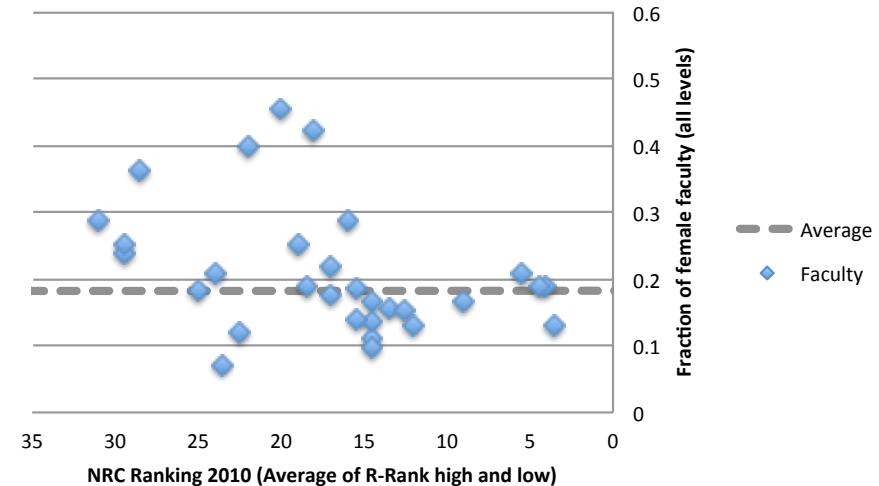
2003 - Faculty



2013 - Students and Postdocs



2013 - Faculty



Higher-ranked institutions have on average been slower to incorporate women

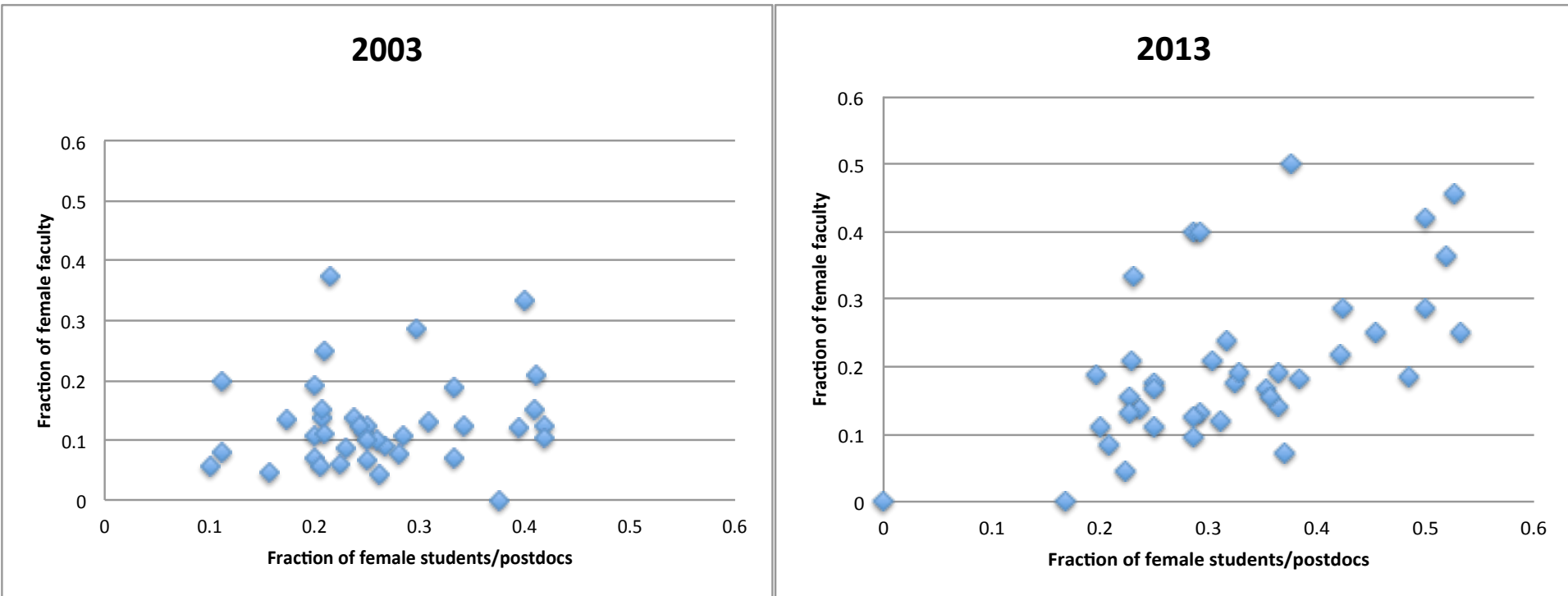
Institutional variation 2: Examples

	1992		1999		2003		2013	
Institution A	M	W	M	W	M	W	M	W
Grad Students	16	2	11	1	11	3	8	9
Assistant Profs	0	0	2	0	1	1	1	1
Associate Profs	2	1	0	0	0	0	2	1
Full Profs	4	0	4	1	4	2	3	3
Institution B	M	W	M	W	M	W	M	W
Grad students	30	9	20	7	24	2	9	0
Assistant Profs	0	0	3	0	7	0	2	0
Associate Profs	1	0	0	0	3	0	2	0
Full Profs	11	1	13	1	5	1	5	0

Some institutions have been successful at recruiting and retaining women, while others have not. Are these outliers, or are institutions polarizing in their ability to recruit and retain women?

Note: these institutions have similar NRC rankings (the top one is slightly higher)

Institutional variation 3: Polarization



In 2003 there was no correlation between the fraction of female faculty and the fraction of female students/postdocs... but now there is.

Difficult to interpret without more data, but two likely interpretations: (1) savvy universities implement policies that promote recruitment/retention of women at all levels, and (2) increased presence of senior female role models has a positive impact on students/postdocs

Take-home Messages

Good news: In the last decade, universities have on average been recruiting and retaining women into assistant professor positions at rates approximately consistent with their representation at junior levels (with appropriate caveats).

Morally ambiguous news: In the last decade, there is some evidence that the currently highest-ranked (NRC) institutions have been slower to promote and retain women than mid- to lower-ranked institutions. Research track is still more male-dominated.

Unfortunate news: Departments appear to have become more polarized in their recruitment/retention of women. On which end of the spectrum does your department lie?

We want to learn how the astronomical community and their partners are geographically distributed, and how factors such as career position, career activities, gender and children influence two body careers.

Survey on Two-Body Careers in Astronomy

We need your input!



<http://www.surveymonkey.com/s/CSWATwoBodyCareers>

Thank you