The 30% Benchmark: Women in Astronomy Postdocs at US Institutions

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ABSTRACT
The gender-related data gathered for the Astro2010 committee shows that, for almost 20 years, approximately 30% of the prize postdoctoral fellowships in astronomy have gone to women. These include the Hubble, Spitzer, Chandra, Fermi, Einstein, NRAO, and Jansky fellowships. In most cases, these individuals were chosen by a committee whose members would more than likely remind each other that gender balance was an important factor in the selection process. We were wondering what happened when postdoc applications are evaluated by individual scientists (or telescope support groups) rather than prize fellowship committees. Would women have a similar success rate? We analyzed data from CfA, NRAO, NOAO, STScI, and Gemini Observatory. We find that for these institutions, there is no significant difference between the success rate of women in prize fellowships and individual postdocs: each is about 30%. This result serves as a benchmark for progress in equitable hiring. Since the fraction of astronomy PhDs going to women has been between 25% and 30% in recent years, these numbers indicate that the postdoc selection process, on average, introduces no additional gender-related bias.

DATA
Gemini Science Fellow hiring over the past 10 years: 20M; 10F or 33%F. Hiring takes place by selection committee.
NRAO stats from 1997 through 2008:
Jansky: 33M; 11F or 25%F; Non-Jy: 14M; 6F or 30%F
STScI stats since Feb 1999: 55M; 29F or 34.5%F
CfA stats from 2006 and 2007:
Named: 21M; 7F or 25%F; Indiv.: 72M; 34F or 32%F
NOAO stats from 2004 through 2009:
Named: 5M; 4F or 44%F; Indiv.: 14M; 8F or 36%F

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CONCLUSIONS
Graduate enrollment in US astronomy departments has risen from 25% in 1997 to 30% in 2006 (NSF-NIH Survey of Grad Students and Postdocs in S&E).
Percentage of Astronomy PhDs earned by women in the US has increased steadily from <20% in 1997 to almost 30% in 2006 (NSF Survey of Earned doctorates).
Percentage of women faculty at stand-alone astronomy departments in 2006 was 28% (assistant professors), 24% (associate professors), and only 11% (full professors).
The good news: the Grad Student – Postdoc joint of the leaky pipeline does not appear to be leaking!
The not so good news: the faculty pipeline continues to leak.
Benchmark: If the % of women postdocs at your institution is significantly lower than 30%, then there may be a problem.

Grad Student–Postdoc joint patch
Faculty joint leaks

The Leaky Pipeline