

GETTING A CLEAR PICTURE

RESULTS OF THE UAF ADVANCE CATALYST PROJECT

PI Joy F. Morrison, Ph.D.
and Cécile Lardon, Ph.D.



Background

- National Science Foundation ADVANCE program
- Awarded a two-year Catalyst grant late 2008 (PI Dr. Joy Morrison, co-PI Dr. Sine Anahita)
- Created a blog for publishing interim findings, “Catalysis at UAF”, at end of year 1.
- Co-PI Anahita left April 2010 and Dr. Cécile Lardon was hired to assist with analyses of data.
- November 2010 results published on blog.

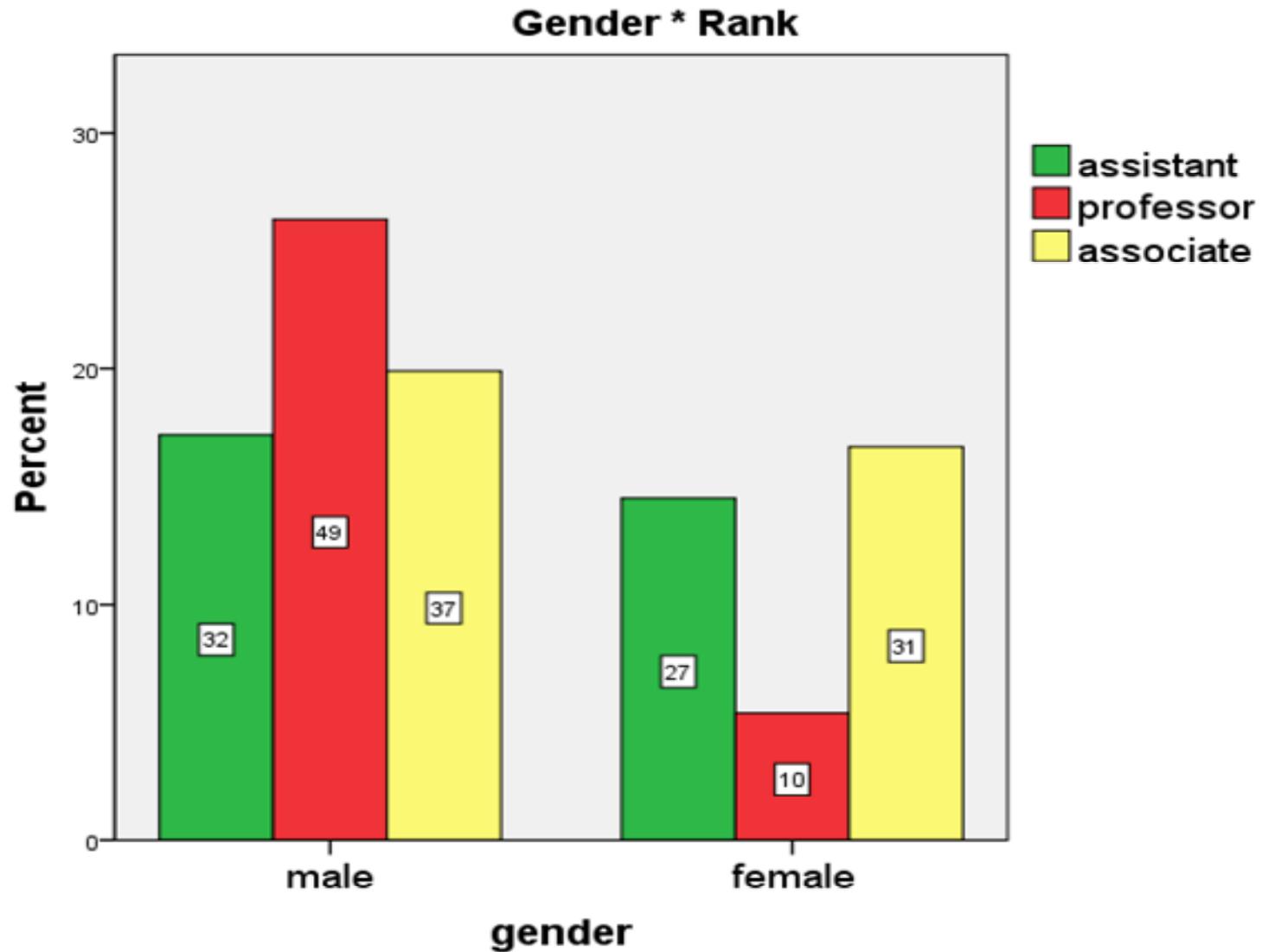
Advisory Committee

- Dr. Anupma Prakash, Professor, GI, UAF
- Dr. Barbara Hacker, Professor of Chemical Engineering, Cal-Poly Pomona. PI of their 5-year, \$3m ADVANCE-IT grant (2004-2009)
- Dr. Stephanie Pfirman, Hirschorn Professor and Department Chair, Department of Environmental Science, Barnard College, New York

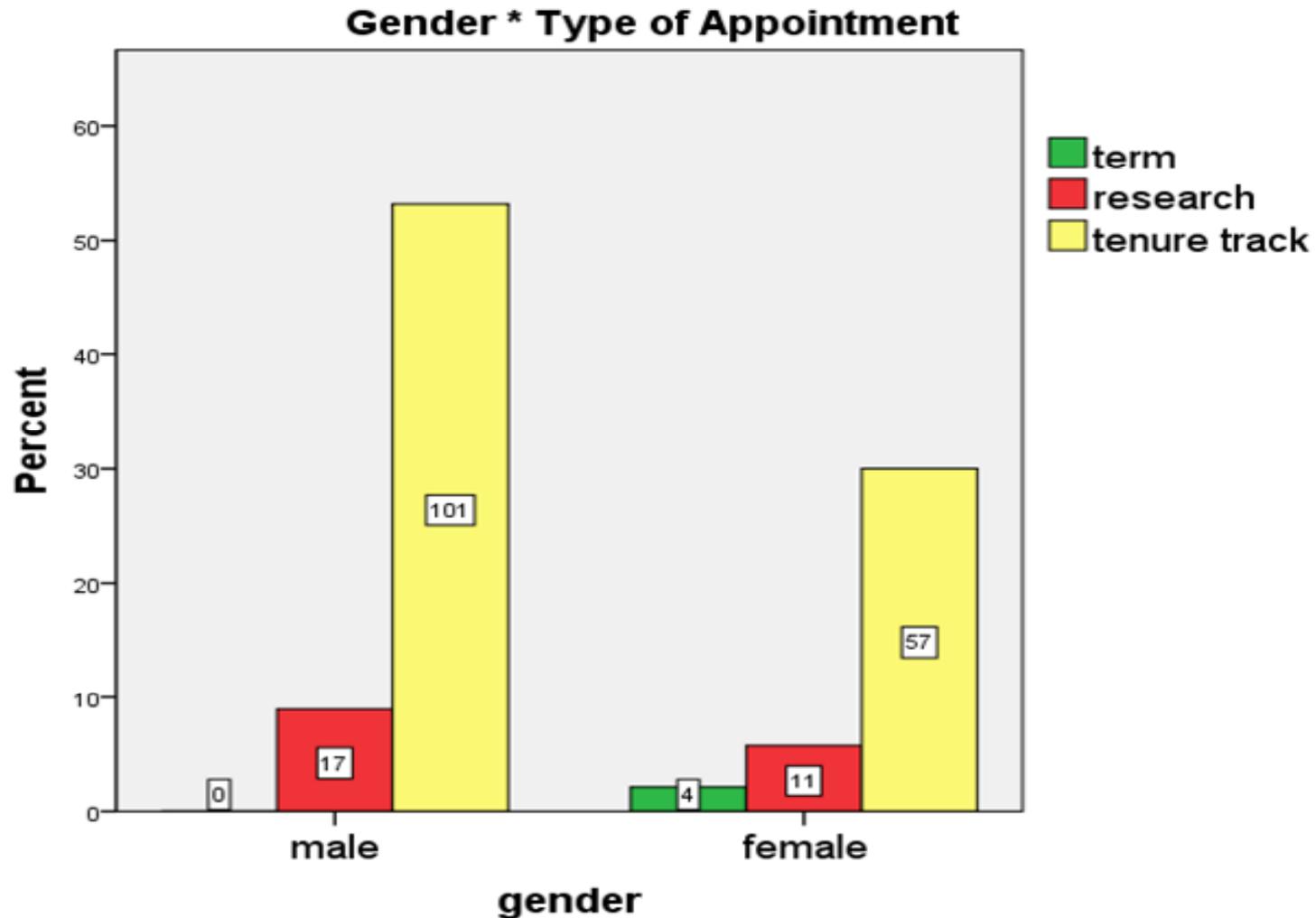
Methodology 1 – Survey

- Survey of all STEM faculty at UAF
 - Survey designed by Sine Anahita and Joy Morrison
 - Consisted of 28 questions
 - Responses on 1 – 5 Likert scale and written comments
 - Delivered via Survey Monkey in April-May 2010
 - 211 responses; 10 were not complete
 - Response rate of 70 %

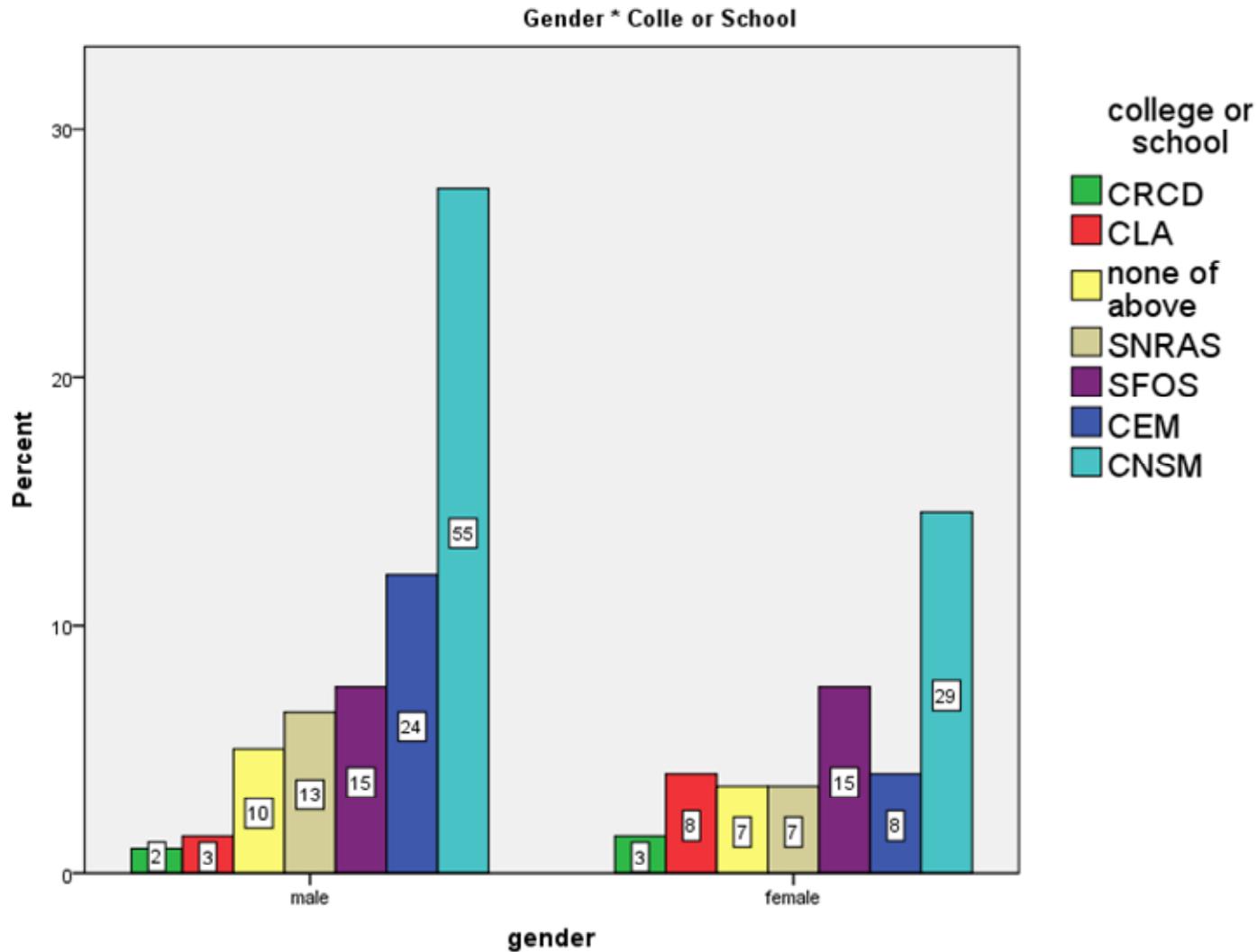
Survey Sample



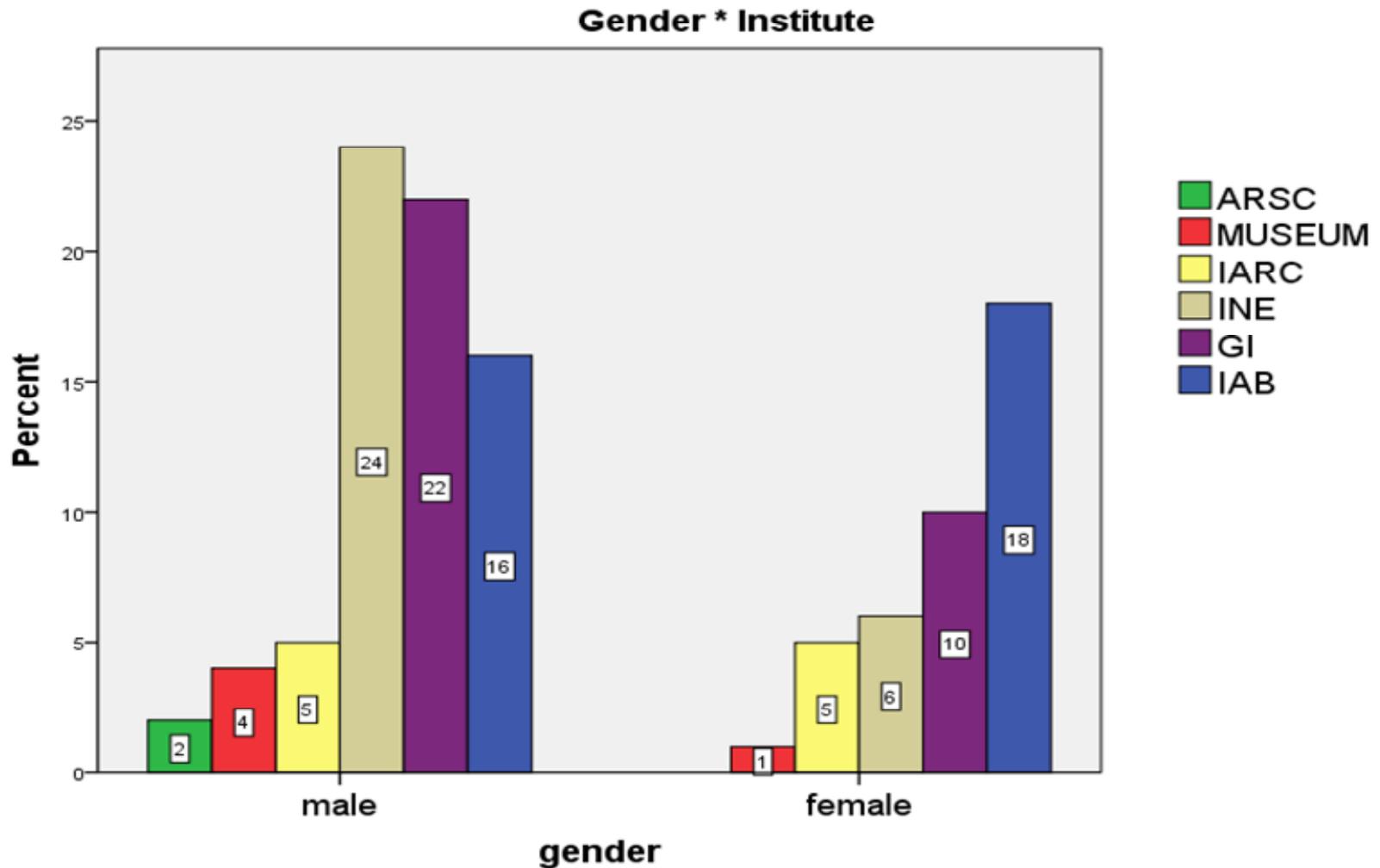
Survey Sample continued



Survey Sample continued



Survey Sample continued



Gender Differences in Type of Appointment

	Term-Funded	Research	Tenure-Track	Total
Men	0 (0%)	17 (14.4%)	101 (85.6%)	118
Women	4 (5.6%)	11 (15.3%)	57 (79.2%)	72
Total	4 (2.1%)	28 (14.3%)	158 (81.6%)	190

Chi-Square significant: More women and fewer men in term-funded positions

Gender Differences in Academic Rank

(Tenure-track & research faculty only)

	Assistant	Associate	Full	Total
Men	32 (27.1%)	37 (31.4%)	49 (41.5%)	118
Women	27 (39.7%)	31 (45.6%)	10 (14.7%)	68
Total	59 (31.9%)	68 (36.7%)	59 (31.4%)	186

Chi Square significant: More women than expected in lower ranks;
More men than expected in higher ranks, especially in CNSM, IAB, and GI.

Gender Differences on Survey Items – Suitability and Ability

	Mean for Male Faculty	Mean for Female Faculty
Men are generally better at math and sciences than women.	2.44	1.86**
Women and men have the same innate abilities to be successful in academic sciences.	4.13	4.52**
Most women are not suited to become academic scientists.	1.83	1.38**
Women are sometimes “bad investments” for departments to make because they are not as committed to their profession as men.	1.77	1.51*

* = $p > .05$; ** = $p > .01$

Gender Differences on Survey Items – Work/Life Balance

	Mean for Male Faculty	Mean for Female Faculty
Women have to work harder than men to have successful career in the sciences.	2.69	3.90**
Women find it more difficult to balance their home and work life than men do.	3.07	3.61**
Childcare and other family issues present difficulties for faculty at UAF.	3.76	4.15**

* = $p > .05$; ** = $p > .01$

Gender Differences on Survey Items – Working Conditions

	Mean for Male Faculty	Mean for Female Faculty
My Dean or Director unfairly favors men faculty.	1.99	2.50**
Women and men faculty in the STEM disciplines are provided the same resources at UAF.	3.67	2.92**
In general, the climate for women STEM faculty is good at UAF.	3.68	3.34**
On average, men and women get paid equally in the STEM disciplines at UAF.	3.21	2.43**

* = $p > .05$; ** = $p > .01$

Gender Differences on Survey Items – Importance of Gender Equality

	Mean for Male Faculty	Mean for Female Faculty
UAF should be concerned about gender equity in the STEM disciplines.	3.48	4.22**
Some women faculty in STEM fields were hired because UAF wanted to increase faculty diversity, not because they are qualified.	2.52	2.08**
Hiring committees in STEM disciplines do everything they can to include women in the initial candidate pools.	3.70	3.18**
Hiring and promoting more women in the STEM disciplines will have a negative impact on excellence at UAF.	2.07	1.45**

* = $p > .05$; ** = $p > .01$

Survey Items Men & Women Agreed On

	Mean for Male Faculty	Mean for Female Faculty
Men are naturally more competitive than women.	2.68	2.88
Men and women have equal drive to succeed in academic science, technology, math , and engineering positions.	3.72	3.81
My Dean or Director is generally supportive of me.	3.94	3.97
I am comfortable working with male/female colleagues.	4.49/4.57	4.42/4.55
In general, women STEM faculty are as productive as men STEM faculty.	3.91	4.07
Alaska is generally a good place for women in the STEM disciplines.	3.59	3.40

Methodology 2 – Focus Groups

- Conducted 4 focus groups with STEM faculty in April 2010; 2 with men and 2 with women
- Groups were attended by 44 participants (24 men and 22 women)
- Discussions were taped and transcribed
- Data were analyzed using content analysis

Focus Groups



In the first men's focus group several men said that the recruiting process is unfair to women. Other felt the men and women were treated the same, so no agreement here. Some felt that once here women are not treated equally, others disagreed. They mentioned the salary differentials.

Focus Groups (cont.)

All agreed that UAF has come a long way in the past ten years but that inadequate provision of daycare on campus affects women faculty more than men. Faculty demographics were discussed at length because of the perception that we have a lot of 60-70 year old and emeriti male faculty who had stay-at-home wives in their careers, and we also have large numbers of 30-40 year old, dual-career couples. Lots of the departmental decisions are still made by the more senior men. (This point was a major focus – and source of discontent -- in the two women's focus groups).

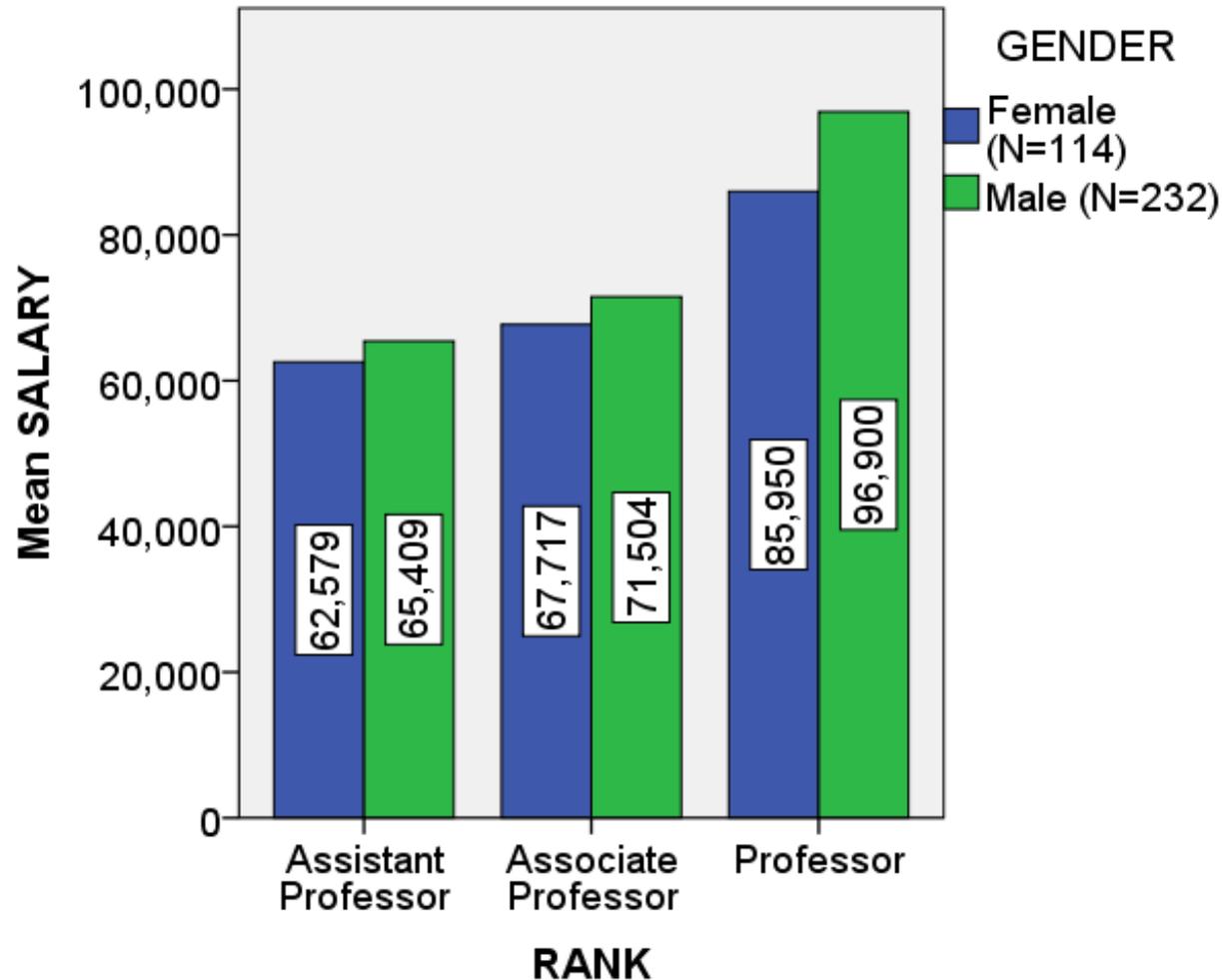
Selected Comments from Men

- “I think women should be more like men, be congenial without being helpful. They tend to be congenial and helpful. Successful men say ‘I need to succeed in research so I am not going to make time for this or that’. I disagree. I don’t think women should change; I think men should change and become more like these women faculty.”
- “One way women might change is to be more assertive and demand that the work they do is recognized, whether the tenure clock is stopped for two years or not.”
- “Every women candidate was examined in detail where the male candidates just breezed through the T&P process.”

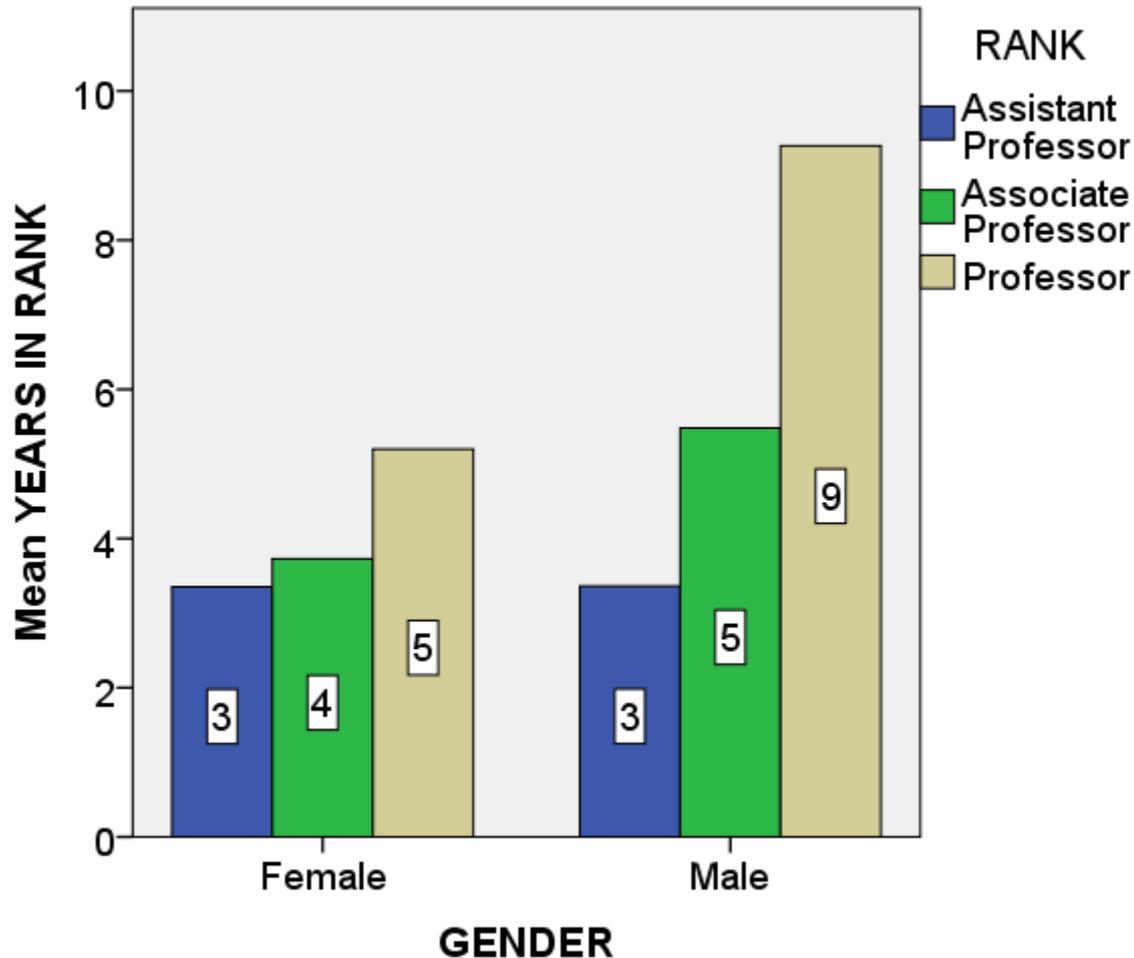
Selected Comments from Women:

- “It’s appalling that maternity leave has to be taken as sick leave.”
- “Part of the problem I see is that the search committees are frequently very male-dominated.”
- “I was considered a high risk hire because I was a single female.”
- “I knew I was well-qualified when I was hired but the men in my department all had the feeling I was hired because I was a woman.”

Gender Differences in Salaries



Gender Differences in Salaries

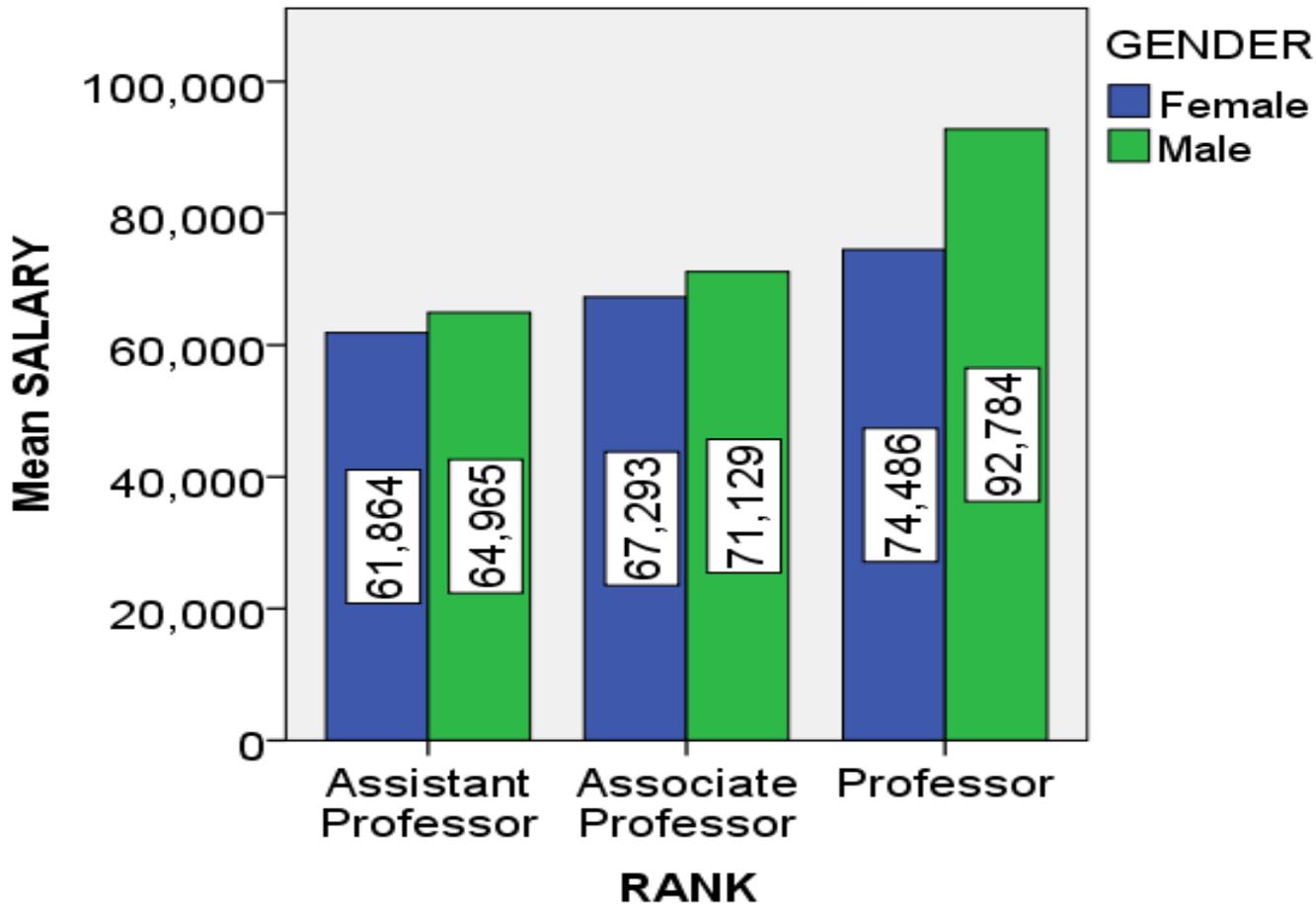


Male faculty have more years in rank than women faculty.

In a regression analysis, gender was not a significant predictor after rank and time in rank had been accounted for.

Salary Comparison for Faculty Hired in Last 5 Years

Salary by Gender & Rank for Faculty Hired in Last 5 Years



Conclusions

- Male and female STEM faculty perceive their work place differently.
 - ▣ Male faculty perceive more gender equity and less need to make efforts to increase women in the STEM disciplines.
 - ▣ Female faculty perceive themselves as having to work harder and having fewer resources available as their male colleagues.
- They also agree on some issues.
 - ▣ See men and women as equally productive and driven to succeed, but men as more competitive.
 - ▣ Feel supported by their Dean or Director.
 - ▣ See Alaska as a good place for women STEM faculty.

Conclusions continued

- Women STEM faculty seem to be advancing through the ranks but are underrepresented at the Associate and Full Professor ranks. UAF continues to hire fewer women in the higher ranks.
- Women STEM faculty earn less than their male colleagues but that is mainly due to time in rank.