



A Balancing Act: A Quantitative Analysis of the Influence of Work/Life Balance and Work Atmosphere on Personal and Professional Success of Women Scientists

Tim Archie, Sandra Laursen, and Marina Kogan

Ethnography & Evaluation Research, 580 UCB, University of Colorado, Boulder, CO 80309-0580



Structural Equation Model Multi-Group Comparisons

Background

- ▶ Women are disproportionately underrepresented in the geosciences. Despite increases in the numbers of women pursuing advanced degrees in the geosciences, the number of women in academic and professional fields remains flat (NSF, 2004).
- ▶ In our previous study, women geoscientists' most commonly (62%) reported barrier to career advancement was work-life balance issues.

Previous Research

- ▶ As job satisfaction increases, productivity increases and turnover decreases. (Carr et al. 2003)
- ▶ Work-life balance and workplace climate are positively associated with job satisfaction (Callister 2006).
- ▶ Personal life spillover and working long hours negatively influence work-life satisfaction. (Parker et al. 2003)

Research Questions

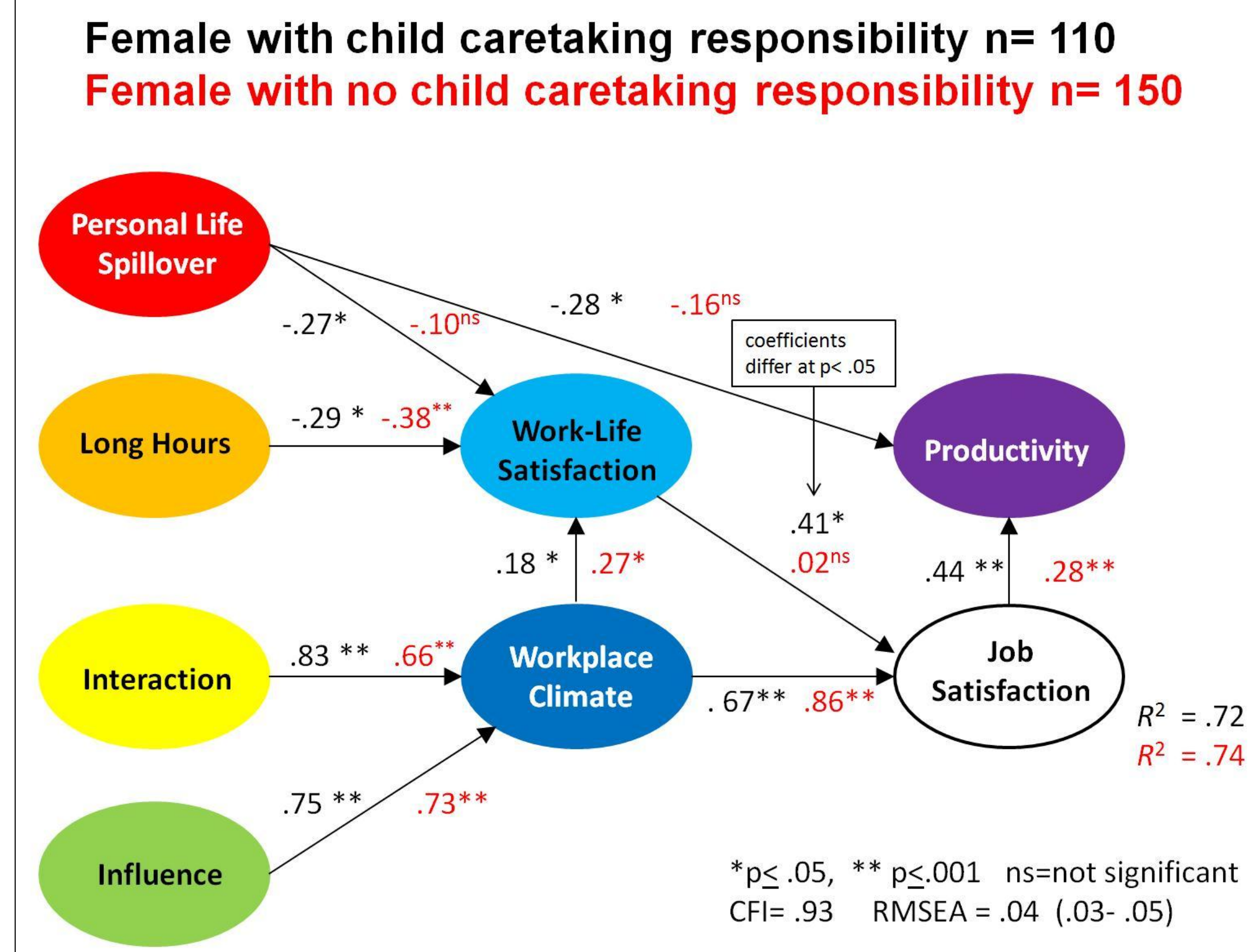
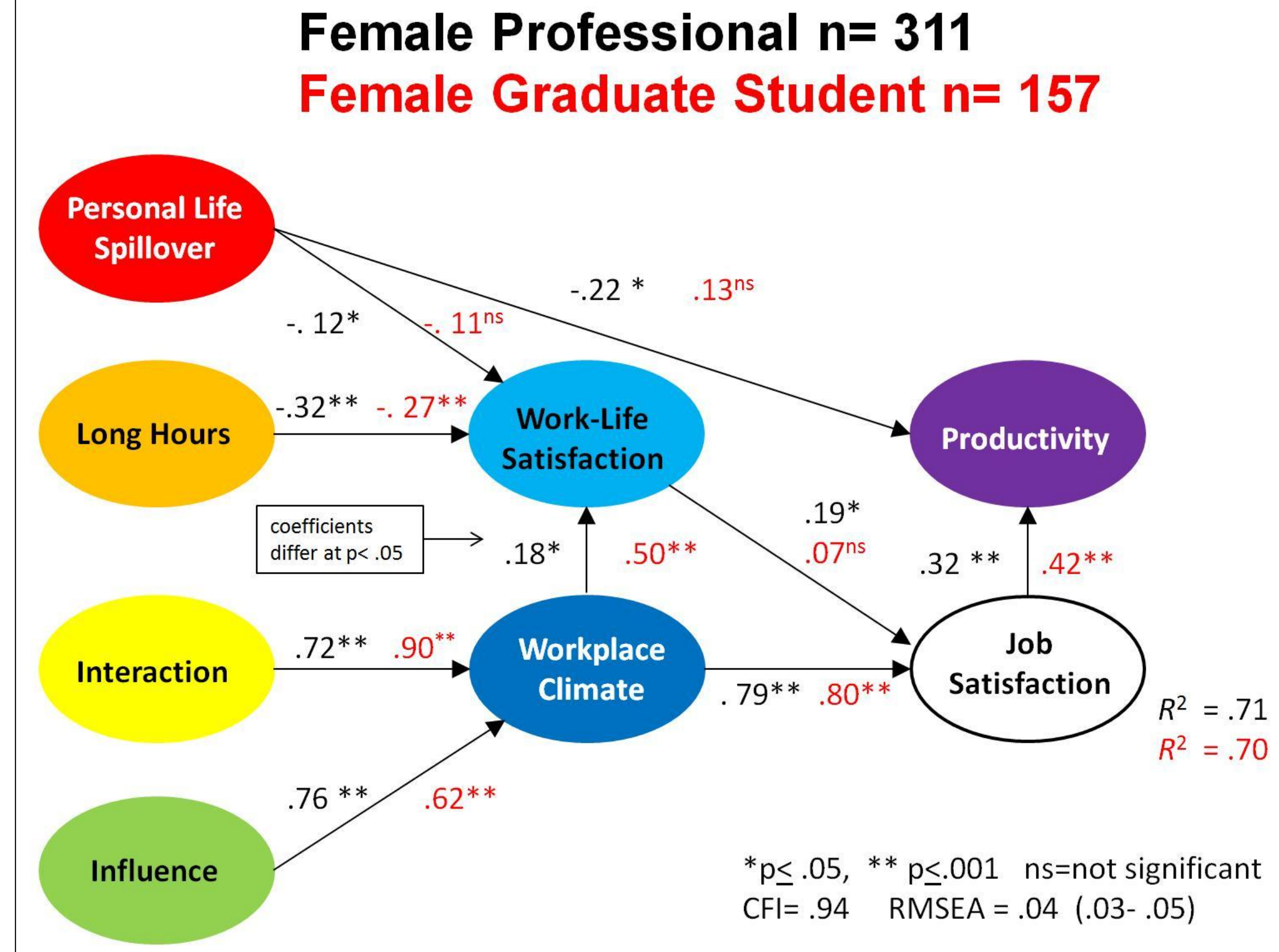
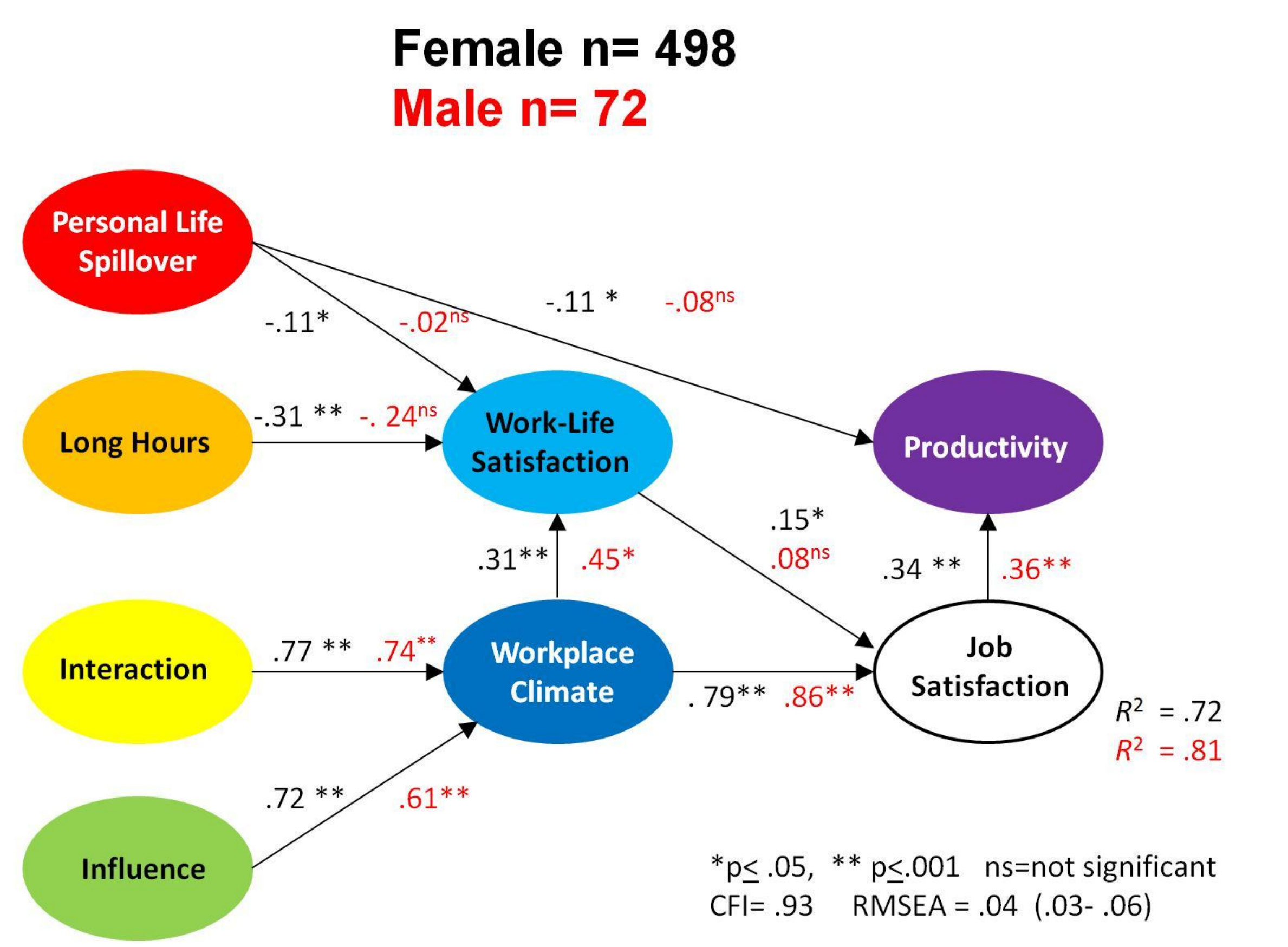
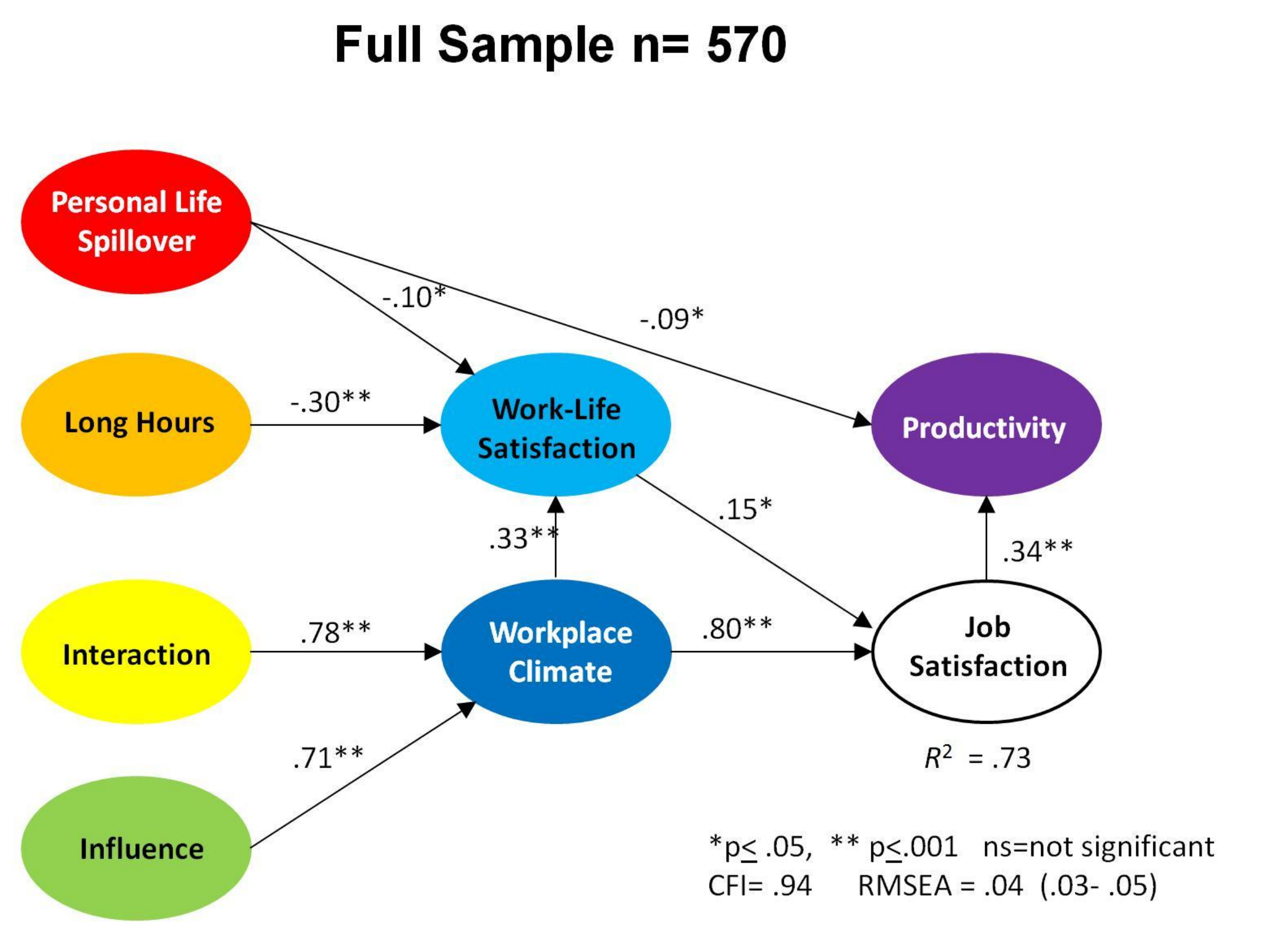
- ▶ How do work-life satisfaction and workplace climate affect job satisfaction? Is one more influential than the other?
- ▶ How are the relationships among work-life satisfaction, workplace climate, and job satisfaction moderated by gender, career stage, and caregiving responsibilities?

Methods

- ▶ Online survey of primarily early career women geoscientists (n= 498) and a limited number of male geoscientists (n=70).
- ▶ Structural equation modeling (AMOS 20) used to examine relationships between latent variables and group differences.



Earth scientist and mother Kelli Archie doing the "balancing act"



Latent Variables	Reliability	Mean Scores					
		Gender		Career Stage		Caretaking Responsibility	
		Female	Male	Professional	Grad Student	Child	No Child
Job Satisfaction	single item	3.24	3.37	3.27	3.19	3.22	3.31
Work-Life Satisfaction	.79	2.77*	3.00*	2.78	2.65	2.75	2.79
Productivity	.78	5.88*	6.38*	6.00**	5.47**	5.77*	6.19*
Long Hours	single item	2.70	2.55	2.68	2.80	2.73	2.65
Personal Life Spillover	.82	2.16	2.20	2.25**	2.65**	3.13**	1.67**
Interaction	.84	2.94*	3.18*	2.93	2.97	2.96	2.93
Influence	.88	2.74**	3.02**	2.80*	2.62*	2.77	2.84

*p<.05, **p<.001
All items coded on 4 point scale: 1=strongly disagree/dissatisfied 2=disagree/dissatisfied 3=agree/satisfied 4=strongly agree/satisfied
Productivity coded on a 10 point scale: 1=very unproductive 10= very productive

Latent & Observed Variables

Job Satisfaction	How satisfied are you with your current job?
Productivity	How would you rate your overall level of productivity compared to others in your unit? How do you think your work unit views your productivity, compared to the unit average?
Work-Life Satisfaction	I am usually satisfied with the way in which I balance my professional and personal life. How satisfied are you with the balance between professional and personal life?
Long Hours	Working long hours is an important sign of commitment in my workplace.
Personal Life Spillover	I often have to forego professional activities because of personal responsibilities. Personal responsibilities and commitments have slowed down my career progress.
Interaction	I feel like I "fit" in my work unit. I feel isolated in my work unit. Satisfaction with amount of social interaction with members of my unit Satisfaction with intellectual stimulation in my contacts with colleagues
Workplace Climate	I participate in my unit's problem-solving and decision-making. I have a voice in how resources are allocated. Meetings allow for all participants to share their views. Tasks are rotated fairly to allow for participation by all colleagues. My unit head involves me in decision-making.

Results

Across all groups:

- ▶ A moderate positive relationship between job satisfaction and productivity.
- ▶ Job satisfaction is primarily a function of workplace climate.
- ▶ Climate has a positive influence on work-life satisfaction.

Group differences:

- ▶ For all women, job satisfaction is also a function of work-life satisfaction.
- ▶ Work-life satisfaction is more important for women with child caretaking responsibilities than for women without child caretaking responsibilities.
- ▶ Work-life satisfaction is more important for women professionals than women graduate students.
- ▶ Among women, personal life spillover and working long hours negatively influence work-life satisfaction, job satisfaction, and productivity. These relationships are stronger for women with child caretaking responsibilities and those who have started a career.

Conclusion

- ▶ Positive changes in workplace climate may increase job satisfaction, and subsequently productivity, regardless of an individual's gender, child caretaking responsibilities, and career stage.
- ▶ Positive changes in workplace climate may increase work-life satisfaction, and subsequently increase job satisfaction for women, especially for women with child caretaking responsibilities and for women early in their professional careers.
- ▶ Institutional policies, such as flexible work schedules and child care opportunities, may effectively mitigate barriers to work-life satisfaction for women with child caretaking responsibilities and for women early in their professional careers.

Acknowledgment: This work was funded by the National Science Foundation under grant HRD-0929828 and carried out in collaboration with the Earth Science Women's Network.