THE CLIMATE FOR WOMEN FACULTY IN THE SCIENCES AND ENGINEERING: THEIR STORIES, SUCCESSES, AND SUGGESTIONS

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Table of Contents

SECTION I: INTRODUCTION 1
Background 2
WISELI Project Activities 2
Administrative Structure 2
Evaluation and Research 2
SECTION II: STUDY DESIGN 4
Purpose of Interviews 4
Timeline for Data Collection and Analysis 4
Participant Selection 5
Data Collection 6
Analysis and Interpretation 8
Limitations of the Study 8
SECTION III: THEIR STORIES 10
The Decision to Apply to UW-Madison 10
The University and Department 10
The City of Madison 10
Other Factors 12
The Hiring Process 12
Interactions with Others 12
Start-up Package and Negotiations 13
Family Considerations 15
Their Professional "Home" 16
The Department 17
Encouragement and Other Intangibles 17
Resources and Other Tangibles 18
The Department Chair 19
Their Personal "Home" 20
Academic Culture and Balance 20
Influence of Family on Maintaining Balance 22
Impact of Children on Career 29
SECTION IV: THEIR SUCCESSES 32
Tenure 32
Supports and Barriers 32
The Tenure Clock 34
Post-Tenure 36
Career Progression 39
The Faculty Role 39
Gender Differences 40
Leadership 41
Getting Women Involved 42
Lack of Interest In Leadership 43
The Decision to Stay 44
The Future for Women 45
SECTION V: THEIR SUGGESTIONS 47
Hold Educational Sessions, Workshops, Seminars 47

Create a Network For and About Women 47
Support Career Progression and the Development of Leaders 47
Change the Institutional Culture 47
Encourage Balance in Professional and Personal Lives 48
SECTION VI: CONCLUDING NOTES 49
SECTION VII: APPENDICES 50
Appendix A: Interview Protocol 50
Appendix B: Example Invitation Letter 55
Appendix C: Informed Consent Form 56

SECTION I: INTRODUCTION

This report presents the results of semi-structured interviews with 26 female faculty members at the University of Wisconsin-Madison. The interviews were conducted on behalf of the Women in Science and Engineering Leadership Institute (WISELI), a National Science Foundation-funded initiative that seeks to increase the number of women as faculty and as leaders on the UW-Madison campus. The purpose of the interviews was threefold: 1) to serve as a baseline from which to measure changes in women's experiences on campus following the completion of the grant; 2) to inform the development of a baseline survey that would be distributed to all faculty on the UW-Madison campus; and, 3) to help the WISELI staff as they make decisions about areas of further study and the development of WISELI-sponsored programs on campus.

The report is divided into five sections. The first section provides a general description of WISELI and its administrative structure. The second section presents the methodology used to conduct and analyze the interviews. The third, fourth, and fifth sections identify a portion of the data stemming from the analysis of the interviews, and overarching themes that represent the interviewees' stories, successes, and suggestions. The last two sections identify future directions for the interview project, and contain the interview protocol, the invitation sent to the participants, and informed consent form.

BACKGROUND

The Women in Science and Engineering Leadership Institute (WISELI) project is funded through a National Science Foundation (NSF) grant for five years. It was one of 9 cooperative agreements awarded in 2002 through the NSF ADVANCE[1] Program to primarily doctoral universities around the country. The long-term goal of WISELI is to ensure that the gender make-up of faculty, department chairs, and deans reflects the make-up of the undergraduate students. To achieve that goal, the WISELI initiative seeks to transform the UW-Madison campus into a "living laboratory" to promote gender equity for women in science and engineering through "issue studies," research and evaluation, and the continuation and development of campus initiatives and programs.

WISELI Project Activities

A key component of the WISELI project is the creation of initiatives to promote change on the UW-Madison campus and to study the effectiveness of new and existing initiatives. Examples of some of the "new" initiatives include: 1) becoming a center that monitors "issues for women" on campus, in part, through the use of data-driven studies; 2) creating workshops for faculty, lab managers, and campus leaders to improve the environment for all employees, especially women; and, 3) creating funding sources that bring women scientists to campus to speak and that provide monetary support to women at critical junctures in their careers.

Administrative Structure

Molly Carnes (Professor of Medicine) and Jo Handelsman (Professor of Plant Pathology) are the Principal Investigators of WISELI and act as its co-directors. Jennifer Sheridan is the Executive and Research Director of WISELI. Also, central to the project is the Leadership Team, which consists of faculty and staff in the sciences and engineering whose role it is to lead and carry out initiatives. WISELI also has an external advisory team consisting of leaders in the sciences and the study of women in science.

Evaluation and Research

The WISELI Evaluation & Research Team (ERT) consists of faculty and staff on campus[2] and supports the WISELI project by providing evaluation and research expertise. The three overarching questions that the ERT seeks to address are:

1. What are the climate-related factors, barriers, attitudes, and experiences of women in science and engineering at UW-Madison?
2. To what extent are the current equity programs and the proposed initiatives successful in addressing these factors?

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[1] NSF SBE – 0123666, $4.75 million provided from January 1, 2002 to December 31, 2006; the ADVANCE Program is subtitled "Increasing the Participation and Advancement of Women in Academic Science and Engineering Careers" and its mission as stated is: "The goal of the ADVANCE program is to increase the representation and advancement of women in academic science and engineering careers, thereby contributing to the development of a more diverse science and engineering workforce" (Program solicitation).

[2] Jennifer Sheridan (WISELI Executive Director), Eve Fine (Researcher, WISELI), Amy Stambach (Associate Professor of Anthropology/Education Policy Studies), Ramona Gunter (Project Assistant to Amy Stambach, Graduate Student in Educational Policy Studies), Cecelia Ford (Professor of English), the WISELI Evaluators (Sue Lottridge, Christine Maidl Pribbenow, and Deveny Benting, formerly at The LEAD Center), the UW Survey Research Center (John Stevenson, Deb Wright, Therese Thompson-Colon), and Margaret Harrigan (Office of Budget Planning and Analysis).

3. To what extent can the eventual institutional transformation model be replicated and extended to other campuses?

The research component of the WISELI project includes three major studies: 1) an ethnographic study to determine key indicators of climate (Stambach, Gunter); 2) a discourse analysis of the "ignoring my ideas" phenomenon that women often report (Ford); and, 3) a quantitative analysis of a baseline and end-of-grant survey to identify factors which predict success at UW-Madison (Sheridan, Harrigan). The evaluation component consists of: 1) a study of the effectiveness of new and existing initiatives; 2) a formative evaluation of WISELI initiatives and components; and 3) a study of the effectiveness of WISELI overall at influencing factors related to campus climate and women's success (Pribbenow, Lottridge, Benting).

A key element of the evaluation of the WISELI project is the collection of baseline and end-of-grant data through a survey of all faculty and staff in the biological and physical sciences and through interviews with a sample of faculty and staff in these divisions. The purpose of collecting baseline data is to measure the climate-related factors, barriers, attitudes, and experiences of women in science and engineering at UW-Madison, and to evaluate attitudes toward existing campus initiatives. The purpose of the end-of-grant data is to measure the climate-related factors, barriers, attitudes, and experiences of women in science and engineering at UW-Madison for comparison against the baseline data, and to evaluate the attitudes toward the existing newly developed initiatives. Surveys of faculty and staff will be administered by the UW Survey Research Center, and members of the WISELI Evaluation & Research Team will conduct the interviews.

SECTION II: STUDY DESIGN

In this section, we[3] present the overall study design for the interviews of a sample of female faculty and staff in the biological and physical sciences. We outline the purpose of the study, timeline of our activities, process for selecting participants, the data collection process, and our analysis methods. As stated in the "Evaluation and Research" section above, the WISELI Evaluation & Research Team conducted baseline interviews with 41 women faculty, scientists, researchers, and instructors. This report presents the analysis of the data collected from 26 faculty members; it does not include any data from the 15 staff members.

PURPOSE OF INTERVIEWS

The WISELI Evaluation & Research Team had three goals for conducting the interviews with faculty. These goals were: 1) to serve as a baseline from which to measure changes in women's experiences on campus following the completion of the grant; 2) to inform the development of a survey that would be distributed to all faculty on the UW-Madison campus; and, 3) to help the WISELI leadership as it makes decisions regarding areas of further study. Interviews with the same participants will occur in the last year of the grant.

TIMELINE FOR DATA COLLECTION AND ANALYSIS

The timeline for the collection, analysis, and reporting of the interview data appears in Table 1.

Table 1: Timeline of data collection, analysis, and reporting activities

Activity	Time Period
Collection and synthesis of reports from other similar initiatives on climate for women	January – February 2002
Development of the interview protocol	March – April 2002
Selection of sample	April 2002
Invitations to sample	May 2002
Interviews conducted	May – July 2002
Tapes transcribed	June – August 2002
----- break in analysis for survey development ------	
Interviews coded in qualitative software program	October 2002-January 2003
Codebook finalized	January 2003
Report outlined, writing began	February 2003
----- break in writing for staff changes and pilot testing of WISELI initiatives -----	
Report draft	November-December 2003
Final draft completed	January 2004

[3] Researchers who use qualitative methodology become inextricably linked with the process and product of a research study. "The presence of 'I' or 'we' in the text reflects our presence in the research setting . . . It is not a disembodied account that presumes to be objective by virtue of omitting clear reference to the human agent who lived through a particular research experience" (Creswell, 1994, p. 167). Accordingly, the following sections and chapters are written in the first-person plural voice to reflect our involvement in the data collection, analysis and reporting of this research study.

PARTICIPANT SELECTION

The selection of interview participants involved defining the population and then drawing the sample. Identifying the sample was conducted primarily by Sheridan and Harrigan, with assistance by Carnes and Handelsman.

The definition of the population was shaped by the focus of the National Science Foundation on science, math, and engineering fields. The population was defined as those faculty members who: 1) were not clinical faculty (and thus on the tenure track); 2) who claimed one of the biological and physical sciences divisions as their disciplinary home;[4] 3) who had larger than 0% appointments; and 4) who were female.

The sample was generated by first determining the number of women to be selected from each college, and then randomly selecting the women in each college. The numbers in the sample for each college were intended to be roughly proportional to those in the population. As seen in Table 2, there were proportionally more women in the sample for two colleges (CALS and L&S) and proportionally fewer in the sample for the remaining colleges.

Table 2: The distribution of population, sample and sample percentage of population by college

UW-Madison College or School	Population	Sample	Percentage
College of Agriculture and Life Sciences (CALS)	39	7	18%
College of Engineering	13	2	15%
Graduate School[5]	0	0	0
College of Letters and Sciences (L&S)	42	8	19%
Medical School	72	7	10%
School of Pharmacy & Veterinary School	13	2	15%
Total	**179**	**26**	

Within the numbers of each college, an effort was made to select women from different departments, titles (Assistant, Associate, Full, Distinguished), divisions, years at UW, and number of appointments. A random process was used to select participants; however, when two women from the same department were, by chance, selected, the second one was replaced. Table 3 and Table 4 show the distribution of the sample by title and by years employed at the UW-Madison campus.

[4] All faculty members choose one of the four divisions on campus as their disciplinary home. The divisions that deal with promotion and tenure are: Biological Sciences, Physical Sciences, Social Studies, and Humanities. For those faculty who were hired very recently and had not yet chosen a division, a decision was made based on information found on the Internet about their research.

[5] The graduate school does not have any women faculty.

Table 3: Distribution of sample by faculty title

Faculty Title	Sample
Assistant Professor	10
Associate Professor	4
Professor	12
Total	**26**

Table 4: Distribution of sample by years employed at UW-Madison

Years	Sample
1-4 years	12
5-9 years	5
10-19 years	7
20-30 years	2
Total	**26**
Average number of years=8.2	

It should be noted that race/ethnicity could not be ascertained ahead of time. A list of the full sample pool was given to Harrigan with the final sample names. The race/ethnicity distribution of the final sample compared to the total population of women in that category is seen in Table 5.

Table 5: Distribution of population and sample, by race/ethnicity

Racial/Ethnic Group	Population	Sample
Black	1.6%	3.8%
Asian	7.6%	3.8%
Hispanic	1.6%	3.8%
White	88.0%	88.5%
Not Reported	1.1%	0.0%

In two cases, substitutions had to be made (respondent refusal or because respondent was to retire before re-interview could occur in Year 5). When a substitution was made, the next randomly-selected name on the list was chosen within the same school as the original. Originally, 25 participants were selected to be in the sample, but one participant was replaced and then still interviewed due to a miscommunication. This resulted in a sample size of 26 (approximately 15% of the population of 179).

DATA COLLECTION

An interview protocol was developed and used as a guide to interviewing the women faculty (see Appendix A). The protocol categories were based on the personal experiences of women faculty on the Leadership Team and the Evaluation & Research Team, on the research literature on gender and the workplace, and on reports about the climate for women. Members of the Leadership Team, the Evaluation & Research Team, and other scholars of gender and workplace issues reviewed the protocol.

Because one main purpose of the interviews was to develop the baseline survey, the researchers sought to understand the breadth of women's experiences in the workplace rather than studying a few issues in-depth. Thus, the protocol covers a wide range of topics, and concentrates on women's experiences, levels of satisfaction, and needs in eight areas. These areas are: the hiring and promotion process; the climate in their unit; balancing professional and personal life; career development and recognition at UW-Madison; gender issues in any area of their professional life; use of UW-Madison resources; thoughts about the future of women at UW-Madison; and the role WISELI could play in improving the climate for women on the campus. In addition, we asked the participants about their professional roles (e.g., title, allocation of work, department).

The women were emailed an invitation to participate, and the letter that was used (with some variation) appears in Appendix B. In this letter, the women faculty were informed about WISELI, the purpose of the study, the length of the interview, the protection of their participation as "human subjects," and were requested to provide times and places that worked best for them. All but two women faculty agreed to participate, and most preferred to be interviewed in their offices.

At the start of the interview, the researchers informed the women faculty of their rights as participants in this study, and asked them to read an informed consent form (see Appendix C). If the women faculty agreed to its terms, they were asked to sign two copies, keeping one copy for themselves and giving one copy to the researcher.[6] Following this, the participants were asked if the interview could be taped. If they agreed to this, the researcher set up the recording equipment and began the interview. If the participant did not agree to be taped, the researcher took extensive notes of the interview (four participants refused to be taped).

The interviews were semi-structured and open-ended. That is, the interviewer would guide the conversation using the interview protocol, and would ask open-ended questions as well as follow-up questions to clarify unclear points, and steer the conversation towards the key areas of the interview protocol. The interviewers did not necessarily follow the order of the protocol; rather, they followed the "train of thought" of the participant and referred back to the protocol to ensure that the topics were covered. The interviewers made every effort to reduce bias by minimizing the use of "leading" questions (i.e., questions which encourage the participant to answer in ways the interviewer is intending). Also, because gender is often difficult for people to talk about, the interviewers chose to ask questions about gender only if the participant did not allude to gender in their responses. Most interviewers were not able to ask all of the questions that appeared in the interview protocol; no effort was made to follow up with participants to answer unasked questions.

Following the interview, the interviewers wrote summary notes about the interview, described the office and details of the interview that would not appear in the transcript, and submitted the tapes from the interview to the LEAD Center for transcription.

[6] None of the women faculty refused to sign the consent form.

Most interviews lasted one hour, with a few lasting up to three hours. Six researchers from the Evaluation & Research Team conducted the 41 interviews, and five researchers conducted the interviews with the 26 women faculty participants who are included in this report.[7]

ANALYSIS AND INTERPRETATION

Tapes from the interviews were transcribed by UW-Madison undergraduate students at the LEAD Center. An attempt was made to have the transcriptions reflect the exact statement of the interviewee and interviewer, including indications of pauses, repetition of phrases, the use of linguistic fillers (e.g.,"um" and "uh"), and the use of emphasis. This process resulted in interview transcripts ranging from 20 to 60 pages. The transcripts were reformatted and inserted into ATLAS.ti©, a software program for qualitative data analysis.

After extensively reading and reviewing the transcripts, the three authors of this report agreed upon critical thematic categories. Following this process, the researchers divided the transcripts into three groups and coded them independently in ATLAS.ti©. The coding process involved identifying sections of text that revealed more detailed ideas in each of the categories. The process was iterative, in that the codes were expanded upon and modified as the researchers coded additional transcripts.

Once all of the transcripts were coded, the codebooks from each of the three researchers were merged. This resulted in a total of 2,042 coded excerpts and 1,000+ codes for the transcripts of the 26 women. Pribbenow reorganized the codebook by removing redundant codes, re-categorizing codes, and coding in more detail those codes that had a significant number of mentions (20 or more mentions). This resulted in a final codebook consisting of 367 codes that were sorted into 18 thematic areas.

Once the codebook was finalized, the evaluators used the coded categories to write each section found in "Results." The researchers queried ATLAS.ti© for coded categories, received as output a list of the interview excerpts, and then summarized the data into a section of the report. The researchers included interview excerpts that were illustrative of a particular theme or idea. Due to the potential length of describing all 367 codes, Pribbenow determined the areas that represented "climate" for the women, and included the areas of interest to the WISELI PIs, Executive Director, and Leadership Team. Consequently, this report describes only a portion of the resulting data from the interviews.

LIMITATIONS OF THE STUDY

This following report is intended to provide a picture of the experiences on the UW-Madison campus of the 26 women faculty we interviewed. It is important to note that the study design and the findings described within this report do have limitations:

- The interviews were short (approximately one hour) relative to the number of questions in the interview protocol; thus, not every participant addressed every question or topic.
- The nature of an open-ended, semi-structured interview allows for topics to be raised voluntarily by the participant and to be prompted by the interviewer with a question. This open-ended approach has the benefit of drawing out the experience of the participant

[7] Dianne Bowcock, Sue Lottridge, Ramona Gunter, Susan Millar, and Amy Stambach.

in ways that are very rich and real to the participant; however, it also compromises to some degree the consistency of the topics covered among all of the participants.
- The interviews did not achieve the level of redundancy that would indicate that all topics were raised and understood to a sufficient degree.

Because of the limitations outlined above, as well as the limitations inherent in the use of qualitative methodology, the interviews cannot be used to indicate pervasiveness of an identified issue. Rather, the results suggest the range of experiences of these particular women on the UW-Madison campus. The report will therefore focus on providing the range of experiences of these women, but for most topics will not provide the proportion of participants who mentioned a particular topic. We anticipate that the results of the *Study of Faculty Worklife at the UW-Madison* survey will provide measures of pervasiveness, and that the interview report will both complement and provide the "voice" and real-life experiences that reflect the results of the survey.

SECTION III: THEIR STORIES

THE DECISION TO APPLY TO UW-MADISON

When asked about the reasons why they chose to apply for a position at UW-Madison, most of the faculty members said they found the "environment" appealing. The most commonly cited positive aspects of the environment included the institution itself, the department to which they were applying, and the city of Madison. In making the decision to apply for a position at UW-Madison, they recognized how attributes in each of these environments would affect them, both professionally and personally.

The University and Department

The University itself tended to be the draw for many of the interviewees. Specifically, they identified it as a "top-notch research institution," citing the reputation of the University, as well as the quality of individual departments. In their opinion, the prestige of the University was due to the caliber of research that is completed and the faculty and students who are responsible for it. Flora,[8] an assistant professor, describes this:

> *I knew a lot about the department, having taken classes with some of the professors, and I knew it was a strong, friendly department. And the University is very strong with research, which is what I'm primarily interested in.*

Often the interviewees' view of the University was determined by their knowledge and impression of the department. In their eyes, the strength of the research in the department was important, as well as how faculty members within the department treated them. A few of the interviewees specifically mentioned having an overall feeling or impression when they visited here. For example, Jodi, an associate professor, described the people she met:

> *Human . . . person-to-person contact having nothing to do with science, having everything to do with humanity. Caring. Honestly, [the department] didn't strike me as a rat race. It didn't strike me as an environment where I was looked at for what I could give to this place – what I could do for others – but what I could bring in terms of scholarship to the University.*

About one-third of the interviewees said that they felt that they would be a good "fit" in the department based on their individual scholarship or discipline specialty. Yet very few women talked about specific resources or support that the department or the University could provide to them. Only two identified "support to junior faculty" as a reason they applied to the University. Three women identified specific resources available in the department when discussing their decision to apply (e.g., start-up funding, equipment).

The City of Madison

Some of the interviewees identified Madison as the environment in which they wanted to live and work. Jodi had a positive impression immediately: "The minute I walked off the plane, I

[8] All of the participants' names within the report are pseudonyms to provide them with anonymity.

thought this is it. I love the feeling already of Madison . . . I could see myself fitting into the environment here." She continued:

> *I wanted to walk to work . . . so, [Madison had the] quality of life from the point of view of not having to have a car and walk to work. And for my personal life, I was committed to someone and I knew we wanted to start a family. I knew then that in an environment like Madison we could do what we had planned – I would work and my spouse would stay home and look after our children. And we could do it on one salary.*

When discussing their reasons for applying, approximately one-third of the interviewees compared the environment of the University or Madison to other places they considered applying or had worked in the past. Joanne used her post-doc experience as a comparison:

> I:[9] What struck me was when you said [your colleagues] felt like family, you said 'I felt welcomed.' I was wondering how [the department] compares to your experience as a post-doc?
>
> R:[10] *Very different. There was an arrogant atmosphere there. When I started, it was a small science division, but when I left it was huge and they brought in a lot of very famous people. And they were just keeping to themselves. Each lab is about ten, twenty people and they kept within the unit. I couldn't go very easily and knock on the door and ask for advice. People were too busy, too arrogant to – they didn't want to give you the time of the day.*

Clearly, the women interviewed considered the environment in relationship to their personal life. Six of the interviewees mentioned how a move to Madison would affect their spouse. Often job-hunting occurred simultaneously, with Ingrid noting:

> *We decided we would both look for permanent jobs and whoever got the best offer, that is where we would go. And I got the best offer. So we came here.*

At the same time, they also considered how the environment would affect their personal life. Jodi commented:

> *This is the best place that I could have had for what I do – honestly, I'm convinced of it. I don't think I could have got as far as I have gotten if I had been at a place like, let's say Harvard or MIT or other high-pressure places where family life is considered kind of an afterthought. This is the place that makes me feel like a real human, and not some kind of automaton and stressed out and wondering how I'm going to balance everything.*

Many of the women used similar terms to describe their impression of the environment – friendly, caring, welcoming. They used these impressions to determine how applying would impact themselves, their spouse/partner, and their families.

[9] I=Interviewer
[10] R=Respondent or Interviewee

Other Factors

Five of the interviewees mentioned being "recruited" or invited to apply for a position. The main reason they were asked was due to their discipline or research specialty. Four of the five had heard about the institution; consequently they used similar factors when making their decision to apply as those described previously. Only one had no experience or impression of the University and Midwest before applying.

THE HIRING PROCESS

As described in the previous section, the decision to apply and interviewing on campus were often connected in the interviewees' minds. They talked about the hiring process when thinking about why they chose to apply for and ultimately accept a position at UW-Madison. For purposes of the analysis and reporting of the data, the hiring process included the processes of interviewing, negotiating and accepting an offer.

The women faculty we interviewed were very willing to share their experiences when asked about how and why they were hired. In general, every woman's experience in the hiring process included both positive and negative aspects. They provided their perceptions with comments that included sweeping generalizations (e.g., "It was terrific!") or specific details (e.g., "Professor [Smith] was an excellent mentor during the negotiation process."). Consequently, the themes that emerged in this section reflect the range of experiences as described by the interviewees.

Interactions with Others

The faculty identified specific interactions or meetings with others as one of the most positive aspects of the hiring process. Specifically, they talked about the people they met and what they gained from those interactions. For example, when asked to reflect on her interview, Flora commented:

> *Actually my experience overall was very positive. The department chair was very enthusiastic and when I would suggest something he would look into it. When I visited it was very friendly and I had the opportunity to talk to everybody in the department, and find out a little bit about the graduate students and sort of what's expected. So I feel it went well.*

Clearly, it was important that the women we interviewed felt welcomed by those they met. Like Flora, most people who identified a positive interaction with a specific person, mentioned the chair of the department. In this role, examples of words that were used to describe the chair included, "welcoming," "accessible," and "supportive." Besides meeting with the chair and other future colleagues in the department, a few of the interviewees talked about meeting people from other departments. Ingrid described her experience:

> *I had a great lunch with the students, and then they had this wonderful party where there were people, not just from the [XX] department, but from all over campus. . . . It was extremely impressive to me that they could bring together that group of people, and they were all very warm, enthusiastic and eager for me to come.*

Further, some of the departments set up structures to allow the interviewee to speak with future colleagues openly and honestly about ways to improve their negotiations. Flora experienced this:

> *The research group relevant to what I do took me out for lunch and then afterwards, the two most junior members [of the department] took me separately aside, and they were very helpful in saying what they had previously got in their start-up package . . . it was really useful to know what other people had gotten.*

Very few interviewees mentioned having someone who specifically helped or mentored them during the hiring process. When this did occur, it served to support and improve their negotiations and overall satisfaction with the process. A few of the faculty we interviewed identified specific people who helped them with the hiring process. These included family members, colleagues in the department, or others they had intentionally sought out. For example, Pamela said that she "had interviewed with a mentor before [she] had even arrived," which was "an important decision before [she] actually accepted the job."

Start-up Package and Negotiations

Ideally, the department worked to provide the interviewee with the resources and structures necessary to succeed after being hired. Barbara, who has been on campus for four years, responded to the interviewer's question about what she received:

I: And then for the start-up package, you mentioned getting equipment, lab, student support, anything else?

R: *Support in terms of making sure that I had a light teaching load initially so I could get my research reestablished and off the ground . . . not appointing me to committees, except for that one lab instruction committee – the one course I do teach is a lab course.*

I: It sounds like overall the chair of the hiring committee and the chair of the department really tried to make it an environment that you could succeed in as a researcher. Could anything have been improved about the hiring process?

R: *No, I can't say that it could have been.*

When the interviewees were unable to get what they needed, they often attributed this to the chair "not doing his or her job." For example, Brenda reflected back to when she was hired:

R: *I didn't know it at the time, but the chair wasn't doing his job. It's the chair's job to look out for the assistant professors and fight their battles so they can get a start. So at the end of the tenure process, then you can say, 'well you know they had every chance.' The department chair didn't do that, he didn't do his job. You know I came in July, I was teaching in September, that wasn't appropriate.*

I: So you shouldn't have been [teaching], why was that not appropriate?

R: *Well usually they give at least the first semester off in teaching, so you can start your lab. And then after [I was hired] we got a new department chair who looked out for the assistant professors.*

Many of the faculty recognized that they could have negotiated a start-up package that was appropriate; yet approximately two-thirds of the women said that they had not. Ingrid, a Professor of over 20 years, talked about her experience "in those days":

> *You didn't negotiate in those days, you were just glad to get a job. My salary was something like $13,000. And that was a princely sum in those days. I had no start-up package. They just didn't do that or if they did I was too naïve to even ask. And they didn't offer anything . . . I don't remember that I even got money for a computer. I guess I must have, but you just didn't get those sorts of things back in those days.*

The interviewees who were hired since that time also admitted to being "naïve" or ignorant about negotiating for what they needed to succeed in the position. When asked about the negotiation process, Deborah described her experience:

I: How did the negotiation for your start-up package go?
R: *Absolutely abysmally from my standpoint; from their standpoint, probably great. Here I was in a very vulnerable position, and I was asking to postpone my start date, and I had no post-doc, I was straight out of a Ph.D. [program]. I was so grateful to have the position that I didn't negotiate at all. I had an abysmal start-up package, and I just didn't feel empowered to [negotiate].*

Those who did negotiate also acknowledged that they could have done a better job of it. In reflecting back on when she was hired, Natalie commented, "it was not a bad start-up package but I think that it's a good example of how one could lose in making quick negotiations." Brenda felt that ensuring equitable start-up packages, among other things, was a way to improve women's experiences on campus:

I: Let's talk about what you think can be done on campus to improve the climate for women?
R: *I think the tenure and the start-up process are critical. The Graduate School can help with that.*
I: And what can they do?
R: *Well, renegotiate the start-up and make sure that the women get their fair share.*
I: And how would they do that?
R: *By making sure when they award the start-up packages, that they are equitable. That they're giving as much to the men as the women.*

Not everybody was unhappy with what they negotiated for or received. Often, it was the overall package that was used as the basis for accepting a position. The faculty who were satisfied with what they received identified salary or other resources to ensure their success. Jodi, who has been on campus for nine years, responds to a question about her overall start-up package:

I: Can you tell me a little bit about the start-up space and the start-up dollars?
R: *In retrospect, it probably wasn't very much. My starting salary was about $50,000. My start-up funds were $150,000. And that was meant to buy a lot of microscopes and material for [my research], and pay for a technician and so*

forth. Regarding the space . . . my entire lab was renovated according to my own design. So that was wonderful. That was part of the contract.

In the worst cases, the faculty member did not receive even "the basics" to develop or continue their research. Carrie described how she received $15K in flexible funding, which was not sufficient to do the work she needed. She was able to do work because she got research funding and additional money from the University. She did not have access to her own laboratory for eight years. A colleague was nice enough to let her use part of his lab to do her work.[11]

Family Considerations

Besides either successfully or unsuccessfully negotiating for what they needed to succeed professionally, about half of the faculty members we interviewed had a spouse/partner to consider as well. Once again, the women described a range of experiences, both positive and negative. As an example of a positive spousal hire, Ingrid describes how she and her husband were supported during the hiring process:

They were also quite supportive of my husband. There was no spousal hire program at the time, but they asked questions; 'What does your husband do? Should he need a job we'll try and put him in contact with the right people.' He did not come with me on the interview trip, but later on, they were very solicitous and did in fact put him in touch with someone who was doing similar research . . . that led into something else and he's been fine here ever since.

This example occurred almost thirty years ago when there were no policies or incentives to departments for helping with a spousal hire. Even with recent changes and policies to attract dual-career couples, three faculty members described situations in which they were unable to negotiate or get support for their husbands. Joanne described her experience:

I: So did you do any kind of negotiating when you were in this process?
R: *Well, the main concern for me was a job for my husband. And that was what I was fighting for. [I] got nothing.*
I: Nothing, huh?
R: *[Another] department told him that if he brings his grant, they'll give him the space. Then he pulled the grant and they gave him the space and actually, he was quite fine for a few years. He's still on soft money, but my department gave me absolutely nothing and would not negotiate with me.*

Beyond discussing dual-career issues and their attraction to the Madison environment, very few women identified how the hiring process and eventual acceptance of the job would impact a family. For example, only one woman talked about finding childcare while discussing her hiring process. This can be attributed to most of the women arriving at the UW-Madison without children.[12] At the same time, three women talked about being asked inappropriate or illegal questions about their age or having children during the interviewing process. Carrie explained what happened during her interview:

[11] Direct quote from notes taken by the interviewer during the interview.
[12] For a discussion of children and the interviewees, see *Their Personal "Home."*

It was clear that they were worried about hiring a woman. They told her they were happy that she was 'mature' (she had taken some time off between her undergraduate and graduate work and was older than a typical new hire), and she wasn't sure how to interpret this. The Dean even asked her if she was married. He said, 'I know I'm not supposed to ask you this, but are you married?' She responded, 'I know I don't have to answer this, but I want the job, so I'll tell you I'm not married.' She did get the job, but had no idea what they were looking for – her sexual preference, the likelihood of her stability?[13]

In these types of situations, the women were selective about the information they gave, trying to balance out the effects of telling the truth and their desire to be hired for the position. For some, lying was not an option, as was the case with Joanne:

R: *They welcomed me. I don't know if it was because I was pregnant. I felt very much at home.*
I: I'm just curious. Were you showing when you were pregnant?
R: *Oh yeah. Big time . . . The joke when I came was that I would shoot them if they didn't give me the job.*
I: That was the joke?
R: *That was – that was [XX] years ago when women did not get jobs when they were pregnant.*
I: Did they find out when you showed up or were they aware that you were pregnant?
R: *No, I announced it before I came. They called me to invite me and I said, 'Look, there is a time problem here. We have to do it within this window of opportunity or I'll come with the baby.' And they were very good about it.*

This interviewee felt welcomed and supported during the hiring process, which was integral to her ultimately accepting the position.

In general, about half of the interviewees described the hiring process positively and felt that the department "did all they could do" for them. When describing these experiences, the faculty mentioned that they felt welcomed and had the opportunity to meet people in the department and across campus, received either formal or informal mentoring, negotiated and received what they asked for, and had the opportunities, resources, and support to begin a faculty position successfully. Negative experiences were described as opposite to these aspects – the women had little opportunity to interact with others, no mentoring, were unsuccessful or did not negotiate, and did not have the resources and support to begin a successful faculty career.

THEIR PROFESSIONAL "HOME"

The faculty members we interviewed represent a variety of departments and disciplines. Further, some of the women had been in their departments for more than twenty years, while others had been hired as recently as a year ago. Due to the variety of experiences that were reflected in the interviews, overarching themes or commonalities did not emerge from the data. Rather, this

[13] Direct quote from notes taken by the interviewer during the interview.

section provides examples of some of the supportive or positive aspects, as well as the negative aspects, found within some of the science and engineering departments[14]at UW-Madison, as identified by the women in this study.

The Department

Each of the interviewees was asked to describe the overall "feel" or climate of her department. When answering this question, most immediately identified how they were or were not being supported. In other words, having support or the lack of support was how they operationally defined climate. Understandably, the responses to this question ranged, with most of the comments suggesting a positive view of their experiences in the department due to specific types of support they received.

The women interviewed specifically mentioned three areas in which they felt support within their departments – through intangible aspects such as verbal encouragement, with their research and in other aspects of their professional life, and in the recognition of family and its corresponding commitments. Each of these appears to be important, although to varying degrees depending upon the experiences and needs of the individual. Conversely, women in departments that were described as having "poor" climate identified examples of little encouragement or support, and not being provided what they need to succeed as a faculty member and consequently, at the institution.

Encouragement and Other Intangibles

"Support" is often defined in terms of tangible things, such as equipment or funding. Yet when asked about their departments, many of the women described it as "generally supportive," without identifying specific things that they received. Joanne, who found verbal encouragement to be an invaluable aspect of the department and even more necessary than tangible supports, provided an example:

> *The most important thing for me was to be encouraged . . . constantly get encouragement. Salary was not as important. Space was not. Just keep encouraging me. Everybody has their downs – grants and papers coming back rejected. When you are surrounded by women or men who care – it really makes a difference. You can keep breathing.*

She continued to explain how this type of support was especially important while she was a junior faculty member and striving to achieve tenure:

> I: When you were a junior faculty here, were there other kinds of support that you think were important or critical to your success in the tenure process?
> R: *The constant encouragement – everybody told me, 'You're great.'*
> I: Well that can never hurt!
> R: *That was terrific. I mean, even if they didn't think it, they said it. And if I could not get my grant on the first try, everybody was behind me to push to get to the second one and forget the first one.*

[14] To maintain confidentiality, individual departments will not be identified in this report.

Feeling that the department was supportive of their research was clearly important to many of the women. Jodi knew that many of her colleagues were "clueless" about the type of work she did and where it was going. Yet they stood behind her throughout her tenure process. She commented:

> *I've come out at the other end of the tunnel and I know now what I have and where it ought to go, but in those first few years this was a department that took on someone with a relatively slim publication record . . . and was willing to believe that it had promise . . . They saw something there that I knew was inside and just rode it out with me.*

Without encouragement and verbal support, Jodi felt that she might not have achieved tenure last year. She attributes this achievement to the chair of her department being "totally supportive" of what she was doing. Flora, who was recently hired, recognized soon after her arrival that "the chair plays a huge role [in the culture of the department] . . . and is very instrumental in the way the department does things." Of the intangibles mentioned by the women, "listening" appeared to be the most beneficial thing a department chair could do to support them. They also appreciated chairs who were "approachable" and did not ignore them.

At the same time, a few women had very different experiences, describing the culture of the department as "unsupportive," "unfriendly," and in the worst cases, "hostile." As an example, Gloria felt welcomed during the hiring process, but encountered a completely different atmosphere once she arrived:

> *I had this community of people who all thought that I was a really worthwhile individual and that I had a lot to offer. And here, I just feel like I showed up, and to the extent that I have opinions, I'm just a pain in the ass and nobody is the slightest bit interested in anything I have to say.*

In her opinion, she is not the only one who feels the antagonistic culture of the department. She described how some of her colleagues "fight dirty, lie, and cheat" and that "the people who are decent [in the department] are getting demoralized." In this extreme case, the overall feeling is one of negativity, where people are not listened to or supported.

<u>Resources and Other Tangibles</u>

In the best cases, the faculty members provided examples of how their research agenda is furthered through resources and other types of tangible supports that they receive. Mara, an assistant professor, commented:

> *The people I work with are great; the best thing is the support . . . The system has been very responsive to me and my needs, and is very responsive to providing me the resources to build the [research] program I want to build.*

Specific resources mentioned by the women included administrative support, such as program assistants, teaching assistants, or research assistants; computers and technical support; equipment; and space. Space as a resource was particularly meaningful to the women we interviewed in light of the role it plays in the lives of scientists. Without having a lab or other

venue to conduct their work they knew they would face failure, but resources were often difficult to obtain. According to a few of the interviewees, resources were available to those who had "power." Often, power was gained by the number and amount of research grants one had. The equation, as described by some of the women, is this: money = power = space. Those with less power (i.e., money) perceived themselves to have less space. Jodi provided an example:

> I: You called it 'power.' How is that expressed?
> R: *I think it's expressed in terms of space. I think that if I had multiple grants . . . I could go to the Dean and say, 'Look, I've got three grants here and I want to bring in 10 post docs, and if you don't give me more space, I'm out of here.' So grants are the leverage for getting what you want.*

Now that Jodi is "bringing in big money" she feels as if she is more "powerful . . . in terms of [her] male peers" and can ask for more space. Another faculty member, Joanne, also used the money = power = space equation when describing how space gets negotiated. To her, it happens "behind closed doors" with the chair, who may force people to give up space if they are lacking in research dollars. This has far-reaching consequences, both professionally and personally, for the person who loses space:

> *Space, in general, is more important than your own self. That's how people look at it. They won't mind if you cut their salary, or won't raise it . . . But if you take space away, that's a blow to the ego.*

As many people noted, the chair has the power to affect many areas of a faculty member's personal and professional life. Some examples are described in the subsequent section.

The Department Chair

The chair, according to some of the women interviewed, can "make or break" a faculty member's career. We heard varying reports about chairs in the departments that were represented by the interviewees. Some described their chairs, as "supportive," "approachable," and "professional," while others described their chairs as "ineffective," "unsupportive," and "discriminatory." Examples of the different types of experiences that the interviewees had suggested how the chairs can affect all areas of their lives, negatively or positively. For example, Jodi described what happened her first year after arriving on campus:

> *I was pregnant the first year that I arrived here, and I never felt that he said, 'Oh, we just hired her and she just went out and got pregnant . . . there goes her research career. There goes our investment.' I never felt that. And in fact, [the chair] was so good and so wonderful about the whole thing that I even attribute the health of my family and being happy in this environment [to him].*

She also described a similarly supportive response from her colleagues, whose "tone" was set by the chair. Flora, although a recent hire on campus, immediately picked up on the role that the chair plays in "setting the direction" of the department, both positive and negative. In extreme cases, the chair impacts the current members as well as potential hires by his or her behavior, as explained by Jaclyn:

> *There are some departments here where you may have a chair who is actively antagonistic towards women, who does not have any tolerance for flexibility of schedule, who is not willing to say 'Well we know you get your work done, and so if you're in here on Saturday and Sunday, but you have to be out on Tuesday and Wednesday, that's okay.' Instead they say, 'No, you be here, our hours are from 8 to 4:30, and you be here from 8 to 4:30 every day.' . . . I would not encourage new faculty members, if I knew the people that they were interviewing, I would not encourage them to go into that department. Because life is too short . . . there's no reason that people should have to deal with that.*

This particular woman felt as if the chair only kept tabs on the women, whereas the men in the department did not have to be available from 8 to 4:30 everyday. In another gender-related example the interviewee explained how her chair always has a "graceful smiley face" when he talks to her and "asks a lot about her kids" in contrast to discussing the research she is doing. And lastly, Elaine told a story in which she was asked to complete a survey about salaries in order to identify any inequities:

> *My chair came to me and said 'Don't you dare send the survey back to the Dean. You work for me.'*

She decided to throw away the survey because as an assistant professor, she was afraid of losing her job. Fortunately, not all of the interviewees described negative experiences. In the best cases, the chair was supportive of family obligations, encouraged their professional development (e.g., learning new lab techniques), and provided money for resources to establish and maintain their research. According to the interviewees, many of these things are integral to ensuring women's success, both professionally and personally.

THEIR PERSONAL "HOME"

The women faculty we interviewed talked in detail about balancing their professional and personal lives, and for many, the issue of finding balance was very important and often a struggle. Regardless of whether the interviewee had children or not, the women faculty commented that it took some effort to find a balance between their career and their personal lives. Some reported striking a satisfactory balance, whereas others felt they did not. In this section, we describe the factors that contribute and detract from the women's ability to succeed in their career *and* their ability to maintain a personal life.

Academic Culture and Balance

Many of the women faculty talked about the intensive demands of academic work, and especially the demands of a research career at a "Research I" institution such as UW-Madison. Aside from the intensive demands of conducting research, writing grants, managing a lab and maintaining visibility in their discipline, the faculty also taught and advised students, and were often in demand for local service in the form of committee work and for national service on editorial boards or professional organizations. It was clear from the interviews that many of the women faculty had to develop strategies to limit the demands on their time. Ingrid described how she limits her obligations:

That is just the life that I've chosen and that's the way it is. The only thing I can do is say 'no' to some of these outside committees that I've been involved in, which I'm doing. It tends to get overwhelming and sometimes [I get] a little resentful that here it is Saturday and I have a box of manuscripts I have to process for my editorial duties and I want to be out riding my bike or even doing the laundry and I can't. . . . That's the price of the freedom of the job.

In addition, a few of the women faculty identified the "culture of science" as a factor in achieving balance between work and a life outside of work. These women cited an unstated expectation that "successful, serious scientists" worked almost around the clock. These women reacted negatively to this expectation, noting that scientists could be more productive if the opposite were true – namely, if they led more balanced lives. Jaclyn described this culture and her reactions to it:

I think there are . . . people – regardless of whether it's because you have kids or because you like to go sail boarding – if you're not in the lab and you're not working 80 hours a week and doing nothing else, that you're not really working hard, you're not trying, you're not putting out. So I do think that's there and I think there needs to be much better recognition of the fact that there's a value to being well-rounded in one's life.

Finally, the intense work required for tenure also contributed to the balance issue. The majority of the comments around tenure and the work-life issues dealt with having children; namely, the difficulty of having small children when under pressure to achieve tenure.

The women who discussed the work-life balance issue described coping mechanisms and other supports that enabled them to strike a balance. These mechanisms were often personal coping strategies, whereas a few were structural. One example of a coping mechanism was the crafting of goals in both their professional and personal life, prioritizing those goals, and then using this list as a basis for taking on or refusing requests. Jaclyn described this approach:

Learning how to manage your time is one of the most important and untaught skills of a training scientist, for men and for women. Because even if you don't juggle the family stuff, if you're not good at managing your time, you're going to have a terrible time in your first faculty, or your faculty positions overall. I think the people who are successful are able to keep their priorities straight and be able to operate from those priorities and their decisions that they make about what they choose to do and not to do, and what things you do to the Nth degree and what things you do to satisfactory is just fine. You don't need to do everything perfectly.

The interviewees mentioned that another key to balance was to make their personal life a priority – to make time for hobbies, social relationships, sleep, and exercise. Also, faculty identified their spouse or partner as integral to achieving balance, since this person often provided emotional support, helped in the home, and did other things to support the woman's career. Dependence on a spouse or partner was more pronounced for faculty with children; however,

faculty without children also mentioned it. Ingrid, a former department chair, described the role her spouse played in her career:

> *It does get to be difficult to juggle everything at once. So I have a working husband who is extremely supportive to me, when I've been chair for example. He has been there logistically, and he often goes with me to professional meetings and he'll handle all the other stuff for me. You know, he'll get the taxicabs and he'll figure out where we are going to dinner and he'll organize the graduate students to go out to dinner. So he is always there to do the logistics and he can do that because he doesn't have the same kind of high power job [that I have].*

One woman struck a balance by keeping her research program small, because that reduced the amount of time she needed to support and manage a large lab. Another mentioned taking advantage of the uninterrupted time of summer to focus exclusively on research.

The women who said that they had not achieved balance identified a number of ailments. For example, some women described having general anxiety, feeling irritable or stressed, lacking sleep or suffering from insomnia, experiencing headaches or stomach distress, failing to eat well, drinking too much caffeine, and having other symptoms of illness when they were unable to find time for themselves.

Influence of Family on Maintaining Balance

Seventeen of the women we interviewed had children of varying ages, from infants to grown children. Many of them reported that the addition of children into their household had a significant influence on the balance of their professional and personal lives. In fact, some women felt the issues women face in their careers were closely related to the issues of parenting. Some felt that it influenced both women and men, whereas others felt it influenced women more than men. Alison, Jaclyn, and Natalie reflected these ideas, as seen in their comments:

> *I don't care if you're a father or a mother. I don't care if you're a father with a stay at home wife. Having kids changes things. It takes your mind away when you least expect it. It limits the time you can spend here.*
>
> *****
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> *That's the advent of when all of a sudden you go from just being a professional scientist with no constraints on you . . . to all of a sudden being a mom. Having to juggle that for a long time . . . I think that was the first time where I felt that there was a difference [between men and women faculty], and I have felt that ever since.*
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> *I think it is really difficult because typically young faculty are at the young family stage as well. So I think it's probably very difficult to find two new responsibilities as a young parent – I mean for men and for women. . . . [I've] thought many times that some of the barriers for women are barriers for families in general.*

The women with children felt that they were constantly making trade-offs between their careers and their families and used terms such as "constant battle" and "really demanding." Deborah described this trade-off:

R: *It's always a struggle, and I think we lose and win on both sides.*
I: What do you mean by that?
R: *Um, I've never had the focus or energy in my research program that I would have if I never had kids. On the other hand, my kids have never had a mom that's as invested as if I would be at another job. So, what I really tried to do, and I think I've actually done a pretty good job at it, is balancing both.*

In general, the women faculty's descriptions of the ways that children influenced their professional lives fell into five categories:

- Greater dependence on childcare providers' schedules. Many of the women with young children described being dependent on their childcare providers' schedules, because they needed to be at their childcare providers at a certain time in the morning or in the evening and this limited when they could be at work. In particular, it made early morning or evening meetings or other work engagements difficult, if not impossible, to attend.

- Need to leave work if their child was sick. The women faculty said that they were often required to leave work to pick up and tend to a sick child.

- Decrease in professional travel. Many faculty said that they limited their work travel significantly, or did not travel at all, when their children were young. For some, the decision to limit travel was made to support a spouse/partner; for others, it was impossible because they were the only parent or because their spouse was unsupportive. In the quotes below, Joanne and Deborah described their situations regarding travel:

  When [my children] were younger I did not travel at all. Or, [I would go] once a year to one meeting. That's it. I stayed home. Now I am going whenever I can to make up for lost time, but when they were younger I really was homebound . . . I could have probably progressed a little bit faster and expanded a little bit more if I did travel more. But that's something that families work together. In my family, that's the way I wanted it and I'm sure if I wanted to go, [I could have]. . . . But that's the way I wanted it to be and probably I paid a price.

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  My husband would never agree to go with me anywhere and to pull the kids out of school. And so my option for a sabbatical would be, 'Well, go off and do it.' I didn't.

- Increase in sleep deprivation. Faculty with very small children said that sleep deprivation was a major issue for them because it greatly influenced their productivity. The following quote by Jaclyn illustrates the influence of sleep deprivation after the birth of a child:

  When my first child was born, I thought, 'Well okay, I'm going to be home for eight weeks' and I had three manuscripts I was going to write during that time, because I assumed 'Well, the baby's sleeping, I can write, that would be great.' You know, I didn't have a clue as to what it's like to have sleep deprivation for weeks, and to realize that if

you could make your lunch and eat it in the same day, that you had made progress! I had no idea about the change in how much you could get done in a day or week or month or a six-month block of time.

- Emotional attachments to their children. Some women also mentioned that the bond between themselves and their children was very strong, and that it was important to them that they spend a significant amount of time together. A few women felt that the strength of this bond between children and their parents was stronger with mothers than for fathers – they felt that men did not "feel parenting" as strongly as women did, and that children placed a high priority on having their mother available. The strength of the attachment of the mothers to their children extended to work, where the women reported that worries about their children sometimes encroached on them, making their time less productive. Jaclyn and Mara describe this attachment in the quotes below.

  And you know, if dad says he's not going to be home later today, they say 'Okay fine dad, if you have to go away for the weekend, okay bye.' If mom has to go away for the weekend, [it's] 'Mom, don't go' . . . there seems to be a different relationship that is established.

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  I ache when I can't see my children . . . You know when I have a 7 a.m. meeting and I don't get home until after they're in bed, I hate that. And men sort of accept that as part of their lives, that occasionally they don't see their kids, and you know, 'I'll see them tomorrow.' It's just different.

The women with children described strategies to cope with the balance of family and their professional lives. Their comments were similar to those in the previous section on balance. In this area, the women generally described three supports or coping mechanisms that helped them to balance their work and family lives: 1) making children and work their main priorities (often at the expense of oneself); 2) using the flexibility of the faculty position to work around childcare issues; and, 3) having the support at home from a spouse, partner, or paid provider.

1) Making children and work the main priorities. The women prioritized their goals so that their children/family and work were at the top. This meant, for many, separating their work and home by setting time limits on their working schedule, and by doing minimal, if any, work when they were at home. It also meant spending little time on anything other than work and family. Partly, this separation was necessary because of the needs of their children, but was also a decision made by the women about their own priorities. Jodi described her approach to drawing boundaries between work and home:

Yeah it's really balanced . . . The pursuit of the science is never finished – it could go on for 24 hours if you let it. So I have starting and stopping points, and organize my day almost neurotically and finish at a particular time. I go home and I'm with my family 100%. And I only come back if I'm in the middle of an experiment that needs to be scored that night or there is some paperwork that needs to be done. And I try not to be here on weekends.

A few women said that one major benefit of their separation of work and family was that they could use one to balance the other – that is, they could use work to "escape" stresses at home, and being at home relieved stress from work. A few women described becoming more efficient at work, out of necessity and out of the desire to be with their family. Rebecca and Gloria described the impact of their children on their work:

R: *I think that when I go home, all of the worries that I have in the office disappear when I see my son. Sounds really corny, but I do have perspective on life that I didn't have as a post-doc.*
I: So one balances the other?
R: *I think so! And if things get really annoying at home, I go into the office, I go look in the microscope.*

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R: *I mean I've talked to a lot of people who say, 'Well after I had my kids I got my work done better.' I just didn't understand how this was possible. But I think it is true that you do get more efficient.*
I: You kind of have to.
R: *Well, yeah – I think that that's what happens, either you do or you die.*

Missing from the dual priorities of family and work was the time women made to do things for themselves. Taking the time for oneself was viewed by these women as difficult to do. Further, women took time infrequently or not at all, because it meant that someone else (i.e., spouse/partner or work colleague) had to cover for the woman's absence. Mara and Rebecca described this issue:

I feel like I spend 100% of my time doing my job or taking care of my kids, and there's no time for myself. And if I try to make time for myself then my husband gets resentful because he has to pick up the slack.

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I was applying for young investigator award, and they said, 'What are your outside interests?' And I was like 'Oh!' . . . I used to run marathons, but basically it's work, and then . . . my son and my husband. And of course there are all those things that I'd like to do, like yoga and pottery and running. And occasionally I'll make time to do those, but [usually] it's nothing, nothing.

2. Using flexibility of the faculty position to work around child issues. A key factor in women's ability to balance their family and work lives was the flexibility inherent in their faculty position. Many of the women described creating work arrangements different from the typical "9 to 5" schedule – they worked at home some days, began or ended their day at unusual hours, or left in the middle of the day. Often these arrangements centered around a childcare provider's schedule, their spouse/partner's schedule, and school activities. Jaclyn described finding a schedule that worked for her by "trial and error":

After my daughter was born, my husband and I traded off, so I worked at home Tuesdays and Thursdays, and I came in for my faculty meetings because those are on Tuesdays, and or if something really critical was going on – but I tried not to. And that's actually

been an effective schedule. I've stuck with that. And you know what, you learn that people figure out when you're going to be here, and in fact you can cue up your meetings on Monday, Wednesday, Friday, and you can keep your Tuesdays, Thursdays for your own work. And nothing bad happens, it works. And so part of this is that you go by trial and error and figure out how things work.

A few of the women who had children while at UW-Madison spoke of childcare arrangements where they did not take a leave of absence, but instead worked continuously though a part-time or alternative arrangement. Leanne described this arrangement:

I started going back to work a couple of weeks after my son was born. I would bring him in with me. I was working about half-time, but I didn't really take a lot of time off and so I'm having a more extended part-time, than solid time off and then solid time starting.

These alternative arrangements often meant that the woman missed some departmental functions, but most described ways in which their department was able to deal effectively with any issues. As described in the quotes above and in the one below, some women made sure that they "pulled their weight" so that their colleagues would not feel that they were getting special treatment. The issue of special considerations for childcare came up in a variety of interviews, and it was clear that this was an issue for the faculty we interviewed, either one they experienced as parents or in their observations of other parents. As Joanne described below, the women found other ways to help their colleagues and contribute to the department:

Actually people took it very well because I tried to balance the two in ways I could. After the kids were in bed, when I was writing grants I was here until 1 a.m. People saw the effort and really tried very hard to work with me if there was a conflict in schedule. They really always tried. Maybe because whenever they needed it, I backed them up. I don't know. But I did not have any problem and the department's really terrific [and] understanding. And you know, it was known that at five o'clock I'm out of here. That's it . . . I think a lot has to do with what you do for other people as well. And so I don't think people should expect it – just because you have kids people will understand if you are late.

The women also said that the support of the chair, and sometimes the department, was critical in finding alternative arrangements. Women who were able to work atypical hours were thankful of a supportive chair or of a department that valued families and children. In one case, the chair supported a woman who had young children, and was unable to travel, by helping to bring colleagues to UW-Madison. Jaclyn described the support of her chair and colleagues:

My actual experience here was very good . . . for the most part, my colleagues in my department were just super. And it made a tremendous difference to me to have a department chair who was really supportive of that, because I was still relatively new, it was my second or third year here, and to have at least a handful of colleagues who would

come over and say, 'How's it going? How are you doing? Oh, it's so fun to have a baby come to the meetings.' You know, they would make nice comments to me.

A few women described very negative experiences around alternative arrangements, and often pointed to their department chair as part of the problem. These women described how their chair had been unwilling to support them in key ways. Examples included: 1) One chair required all staff to be in their office from 9 to 5 (although appeared to only enforce the rule with women); 2) one chair spoke negatively about a woman, implying that she was getting special treatment because of family leave; and, 3) a few chairs did not know, provide, or support the options provided by UW-Madison regarding family leave or tenure clock suspension. These same women described departments whose views on working mothers were negative. Elaine, Faye, Gail, and Edie described their situations:

And [a colleague] was overheard at one point talking with the new chair about not hiring a woman post-doc, because she was of childbearing age . . . And, there is some good old boy mentality about how women don't put time into their career because they are distracted by kids.

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Family leave-this seems to be a big negotiating thing each time. There seems to be general direction, but no policy. As an example, she said a faculty colleague had a heart attack. He took a semester off, [the chair] cancelled the course, and continued to pay the person. For her pregnancy she said they said, 'Use sick leave, just deal with it.' Not realizing that both instances need to take time off. Their attitude about pregnancy was that she chose it.[15]

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She said she would have benefited from discussions at the administrative level that did not require her to be face-to-face with just the department chair to discuss and solve the pregnancy issue. If there had been an external place to get information or help with creative solutions to address the issue without it being so personalized just to her, that would have helped. She re-iterated how the chair and the committee seemed to have no creativity or thoughts about how to proceed. . . . She further explained that she would like to see an 'official mechanism' that helps women know what all of the options are, and helps them to determine the best choices. There needs to be a 'more formalized system' so people have ideas about how to proceed. The [department] didn't know what to do. She wanted official options to consider – that would have made it easier for her to decide what to do.[16]

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Before I got here, when [X] was chair, two other people had babies under his leadership and [it] was fine! 'Oh! Congratulations! Good. Take the semester off. You have a grad student to fill in. Okay, that's no problem.' Blah blah blah. And it was, you know, a handshake and a nod and, 'Of course . . . do what you need to do. Let me know when you can get back on your feet'-type thing. Versus [the new] chair has never had kids, does not think the idea of parental leave is meritorious.

[15] Direct quote from notes taken by the interviewer during the interview.
[16] Direct quote from notes taken by the interviewer during the interview.

3. Having support at home from a spouse, partner, or paid provider. A critical factor the women described in their ability to balance work and family life was to have support at home, particularly from a spouse or partner. The women described the necessity of support in the day-to-day activities of child-rearing and home maintenance and in the emotional support provided by a spouse or partner. Edie noted, "You can't do it all yourself – you have to be able to share duties with a spouse." In fact, some of the women we interviewed felt that the happiest couples were ones in which the partner worked part-time or did not work at all, as Pamela described below:

> *Well, I think the happiest people I see in [academia] are women whose partners are part-time or at home full-time . . . Many people whose husbands do not have a full-time career. Now there are certainly some whose husbands do have as full of a career as they do, but the ones that I see sticking together and raising families often have husbands that are home at least part of the time . . . And, you know, when I was thinking about going into [this discipline], you were promised as a woman, 'You could have it all – you can have a family, you can have a career.' Well it's not true . . . I mean it takes time to raise children.*

The women described the various arrangements they had with their spouse/partner around responsibilities in the home – some divided the work equally, some relied on their partner/spouse, and a few said that they did the majority of the work. The quotes below by Edie, Ingrid, and Jodi highlight some of the work done by the spouse/partner, and the importance of that work to these women:

> *You know, we alternate weeks, 'Okay, your turn to pick up the kids this week, my turn to cook.' Alright, switch it around next week or next month or whatever.*
>
> *****
>
> *As we are speaking I have a graduate student who is getting his Ph.D. and he went through the graduation ceremony and his mother and his sister are here from Taiwan. The day of the graduation ceremony, he says 'Can I bring my mother and sister to see your house just briefly?' The house is a total chaos! I thought 'Oh my god, No, you can't bring them here, but next week we'll have them over for cake and they can stay and see the house.' So [my husband] is cleaning the house as we speak in preparation.*
>
> *****
>
> I: So is it important for you that you have a spouse at home who takes care of things?
>
> R: *Yeah that is probably the most important thing in my life.*
>
> I: How would your career be different? . . . I'm just asking you because not everybody has that.
>
> R: *Oh I know. I think first of all, I wouldn't have had children. So that is how it would have been different. I wouldn't have ever had a child unless one of us stayed home.*

Unfortunately, not all of the partnered women we interviewed described success stories. Deborah described her experience:

When I was up for tenure – oh my God! There was no serious illness, but it was just very stressful. And one of the things that added to my personal stress along the way, is that I had a marriage and a husband that wasn't supportive of me being a professor . . . His family never viewed being a professor in a Big Ten University as any sort of a big deal at all . . . I started getting questions from his family, 'Well, when are you going to quit your job?'

As described by the interviewees, support, or lack thereof, played a significant role in either helping or hindering their success.

Impact of Children on Career

The addition of children to the women faculty's lives greatly influenced their career and their career plans. Almost all of the women who were parents felt that having children had slowed down their career advancement. Moreover, a few of the women said that their inability to balance their professional and personal lives may mean leaving UW-Madison. Further, many of the women without children commented on the difficulty of deciding when to have children, and whether it was possible to have children given the intense demands of their work.

- Slows down career advancement. Many of the women who had children and drew boundaries around their work said that their career had advanced more slowly than their male colleagues' who had children, and that they would have advanced more quickly if they had not had children. The slowing down of their advancement was because they were unwilling (or unable, in some cases) to give their career the benefit of around-the-clock attention, as described by Mara:

  If I were a man, I'd have a very different career. My career will advance much more slowly because I'm a woman and because it's important for me to go home at five and play with my children and not come in on the weekend. My male colleagues, who I'm sure are wonderful dads, will say, 'I'm spending Saturday in the office to get caught up,' and I won't do that. It's not because I couldn't – if I told my husband I have to go in and catch up, he'd support me and let me do that. It's because I don't want to. I want to spend those days with my children. And if I'm not caught up at work, I'm not caught up at work.

Cutting back on travel, as described earlier, was seen as significant in its effect on women's careers because attending and presenting at professional meetings fostered professional relationships and maintained visibility. Without these, it was more difficult to find like-minded colleagues with whom to collaborate and to appear visible and viable in the professional communities. Joanne and Deborah, in the quotes below, described the impact of professional travel on career advancement:

People read your papers, but it's you being there, you talking to people. It's the communication one-on-one with the important scientists or not-so-important scientists. It's very important, you know, to be invited. So I go to one meeting a year and then disappear from the scene until next November. It's not so good . . . I really don't think I realized the impact that traveling can have.

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I don't think [not taking a sabbatical] has to [impact a career]. I think maybe in my case it has. You have to work at establishing relationships outside your university and collaborations, particularly international ones. And it takes a lot of effort to do that and I think that one of things that going on sabbatical does is that it kind of formalizes those ties between you and someplace else and maybe either initiates collaboration or cements collaboration.

Some of the faculty members described how having children impacted them while trying to achieve tenure. The pre-tenure years were particularly difficult in that they required a high level of productivity when the women also had young children. Mara and Renee, both assistant professors, spoke to this issue and the need for a slower timeline for women:

One of the big underlying issues and misconceptions is that what you do in the next five years is the most important thing . . . that it's rapid production that matters, rather than looking at an investment in a person over the totality of their career . . . I feel like I'm being very productive, I'm bringing income into [the unit name], so they can't argue with that. And I feel like I will get my research done, but I need to do it on my own timeline, and my own timeline isn't their timeline. I think that's true for a lot of women, that we will be productive, but we will do it over a longer period of time.

*****

From what I observed in basic science departments elsewhere, you're on the tenure clock during your child bearing years, and that it's stacked against women. Unless you choose to not have children. Or your children could potentially suffer if you decided you are going to be completely devoted to your job only and work weekends and nights for six years. How could your kids not be impacted by that? Whereas if you're a man doing that your kids are impacted, but I don't think as deeply.

- Affects retention. It was clear from the interviews that finding the right balance was very important for many of the women with children, and that in the end, children and family would ultimately win out over a career. The women observed that they, or other women, would leave academia if they could not strike a balance. Natalie provided a poignant picture of her need for balance, and her potential plans to leave UW-Madison if she was unable to find a solution:

R: *I think it's not so much what role gender has played in success of my career, but in the next ten years, my ability to continue to do good research will depend on my family. I think that once your family is compromised, your support system is compromised . . . I think if the University wants to retain people mid-career on, which is important for a university because we train them. We put all this money into people. But I think retaining women after you've invested so much . . .*

I: It's going to be the challenge because, because women are leaving?

R: *Yeah. Women are leaving if they cannot make it, it's not [that] they're not getting high enough pay and things like that, but that you can't make your whole life work.*

Many of the women faculty of child-bearing age without children mentioned concerns about when to have children and how to balance their career and family. These women were concerned with whether to have children at the appropriate time for their personal lives (often, pre-tenure) or for their professional lives (often, post-tenure). Three of the women faculty without children were unable to consider having kids without one person in their household working part-time; however, they also did not envision themselves as being able to work part-time, so it would have to be their spouse. For these women, having family and career seemed to be an "either/or" option. Pamela and Natalie described their concerns:

> *The only way I can see starting a family is to go part time, unless you have a spouse who is at home, which many women do. You find that a lot of women you talk to in science, the ones who are most successful, have a spouse that is home full-time or part-time.*
>
> *****
>
> R: *I asked about [working part-time] when being considered for the tenure-earning position and senior colleague that was helping usher me through said, 'Don't even [try].'*
>
> I: Really? Because . . .
>
> R: *They'll think you're not dedicated . . . I actually think that despite the good attitude of this department, I still think that there's progress to be made in considering less than full-time positions. It's still the culture that one is not dedicated if you consider that.*

The women with children or who wanted to have children described a few of their needs and concerns. First and foremost was the availability of childcare close to their work or home, with a strong preference for on-site daycare. Other needs raised by women were to have space for nursing in each building, have UW-Madison provide clear guidelines about family leave for negotiations with the chair, and have the possibility of part-time positions.

SECTION IV: THEIR SUCCESSES

TENURE

In general, discussions about the tenure process yielded more negative reactions than positive ones, yet achieving this milestone was definitely considered a "success." The lack of positive stories may be due in part to the number of tenured women interviewed (16 out of 26). They may have felt that they had succeeded; consequently, they did not feel the need to say much about the process. For example, Ingrid, a faculty member for almost 30 years, noted:

> *The department had been very supportive and I had felt like I knew what was required to get tenure and that I had done it. I don't think there was an issue there.*

The remaining ten were enmeshed in the process and feeling the stress of achieving this milestone. At the same time, the issues with tenure that the interviewees identified cut across women at all faculty levels (assistant, associate, and full) and lengths of time at the University.

Supports and Barriers

The interviewees described family responsibilities, the stress of the process, and lack of support, both tangible and intangible, as examples of barriers to achieving tenure. Often, these factors became so intertwined that it was impossible to identify which one was the most compelling and causing the greatest stress. Jaclyn hypothesized how different factors can become co-mingled:

> *If you don't have tenure and you have a lot of people watching over your shoulder all the time, not used to having people do things differently, maybe not willing to consider that you're serious, and if you're not working full-time the whole time . . . Also, if you know there's a fair number of faculty who don't have a life outside of their research and they may have chosen to not have children, then they're not terribly tolerant [of you].*

The interviewees felt that the department, in the form of the chair and others, demonstrated their understanding of these issues by offering support or advice. For example, Ingrid was encouraged to limit her obligations:

> *I was advised not to take on any major thing while I was getting tenure, which was good advice. We are very careful as a department to watch [assistant professors] . . . to make sure that we didn't overload them in the department. We also give them the advice that they shouldn't be accepting editorships and they shouldn't be accepting a lot of committee assignments while they are getting tenure. So we do watch over them here.*

Leanne, who has been on campus for two years, had a similar situation where she limited her obligations and focused solely on her research:

> *Right now I'm basically almost 100% research. But that will change since I'm teaching one course next year, and then will probably start teaching one or two courses from then on. I think I've been fairly protected since I'm the newest assistant professor in the department, and in terms of departmental service, it's very low. I'm contributing to a*

committee for the first time starting this summer. I realize I'm very slow compared to other people on campus, but I've been able to focus on research.

Helping the women faculty to limit obligations was the most commonly-cited support. Another was to rely on the "mentoring committee." Leanne mentioned her mentoring committee as one of the most valuable supports she felt:

I've talked to other people at other universities and they don't have such a formal structure for mentoring new professors, so I can't say enough positive things about it. I thought it was a very positive experience in helping me to assess my priorities and helping me with my game plan in terms of teaching and research and so I feel very positive [about the process].

In general, the women recognized that their colleagues in the department served either in supportive or detrimental roles to their success. Hannah suggested that the "good" faculty should band together to negate any damage caused by "bad" faculty:

R: *What I would love to see is that tenured faculty as a group deal with untenured faculty as a group, so that if some faculty was seeing that I wasn't getting what I needed from my mentor, they should've stepped in and provided it. You know, 'Where is this study going? What's getting her bogged down or what does she need? Can we offer to read this for her? Let's take her out to lunch.'*

I: And does she have the right mentor?

R: *Exactly. You could've asked her [about her mentor], 'How are your research discussions going?' She would've said, 'Well, we don't have very many.'*

In this suggestion, other faculty members could have recognized that she was not getting what she needed. Brenda, who felt as if the department put up "roadblocks" when she was enmeshed in the process, described another negative situation:

One of the problems with junior women faculty in this environment is that your tenure and your prestige is based on your research. So, if that's the case, why not support the women faculty so that they can be successful in that? That comes down to space, equipment, and having time to do the research, and to not teach or run an undergraduate program [like I did]. They put up a huge roadblock for me to get tenure.

This faculty member did achieve tenure despite barriers at the University- and department-level. It is only now, after being on campus for almost twenty years, that she is able to identify the challenges she faced and as a department chair and help new faculty be successful.

At the same time, others noted that their experiences were negative because they did not know how to achieve tenure and faced other unforeseen barriers. Consequently, they were unsure of the supports they needed. The tenure process, according to Alison, was "amorphous" and at times, out of her (and her mentoring committee's) control:

I know I have to get publications. Day to day, how do I get publications? How do you make students not leave? How do you? I lost 3 students last spring – graduate students who up and left. Money and time has been invested in these students. Projects were left open, unpublishable. I can't control these and neither can my tenure committee.

She, like others, continued to identify University policies as a means to address issues during the tenure process that both women and men face. One such policy, suspending the tenure clock, was discussed with the interviewees and is described below.

The Tenure Clock

One supportive measure sanctioned by the University is the implementation of a policy known as "stopping" or suspending the tenure clock. This policy allows assistant professors to extend their probationary period for either a semester or one year after the birth or adoption of a child, or for other extenuating circumstances. The discussion of this policy with the interviewees centered on if and how it was used, and perceptions of the policy by themselves and others.

In general, the women we interviewed had a positive view of stopping their tenure clock, especially in cases where it proved to be valuable for them personally and professionally. Each of the examples below is reflective of the many reasons given by the faculty members who used this policy. Brenda, who was chair of her department at the time, talked about how it was used to support another faculty member:

I: What's your opinion on the [tenure clock suspension policy]?
R: *Outstanding, outstanding . . . I did that for an assistant professor. She had trouble with getting the space she needed, and also had tremendous problems with her family.*
I: And you advocated on her behalf, she didn't do it on her own?
R: *Exactly. I advocated for her, and the faculty member who was the chair of her tenure committee, we talked it over and agreed . . .The process was completely smooth. And that's very important for women, particularly if they have families.*
I: And do you think it will make a difference in her tenure recommendations?
R: *I'm not sure she's going to need it, because she's doing so well now.*

Renee, who is close to achieving tenure, talked about her experience:

I: What about stopping the tenure clock? Did that ever come up for you?
R: *Yeah I had a kid while I was here so it did, and I was very much encouraged to do it. There was no question – no one said, 'Oh no you shouldn't do that.' Everyone said, 'It's there, take it. You're foolish not to.'*
I: So you did it? And you're happy that you did?
R: *I am. I am definitely going to need the extra year. Just to wrap it all up . . . I did it because I was told that I should. That they really want you to take all the time, otherwise they see it as going up early.*

For other women, the choice to use the policy came at a time when their personal lives and professional lives were dealt with devastating blows. Hannah lost a close family member, which affected her professional plans:

R: *And then exactly when I got this job my [family member] died, so that that was a big mess. And so then I just thought, 'Well, I'll just stay here for a while.'*
I: What a difficult time.
R: *Oh it was. That's why I've actually been here eight years, because the first year was given to me, if you will, it was taken off of the tenure-track time.*

When Barbara arrived, she realized that to be successful here, she needed to change her research focus. She adapted her tenure clock to this circumstance:

R: *It was extended when I was hired because of the slight change in the research focus. All of my projects at my previous university were very regional projects and I had to drop them and start in a new area here.*
I: So it wasn't a family reason . . . Interesting – I hadn't heard that before.
R: *Because of the change in research focus.*
I: And that was negotiated with your start-up package?
R: *Yes.*

Luckily, Barbara was aware of the policy and was able to include the extension in her contract. A few of the women noted that they had never heard of the policy or became aware of it only after they could have used it. Alison described her disappointment in not being aware of the tenure clock extension earlier:

> *I had an 11 month old son when I started, and nobody took me aside and said, 'Get your year. You have to speak up now if you want to delay yourself a year. I don't care if you think you need it. Take it. The worst thing that can happen is that you'll go up a year early. But take the year.' And now it's too late.*

Mara, who has been on campus for less than three years, explained how she "doesn't know the rules":

> *I know that for issues of child bearing and small children there are ways to [extend the tenure clock], I haven't explored it. I expect I will try to lengthen my tenure clock at some point and plead excessive [position-related] responsibilities to do so, but I don't know the rules. I do have 2 small children as well.*

Helen, another recent hire, described a similar situation:

> *Sometimes I wonder about what the policy is . . . I sort of know that the tenure clock can stop if you give birth and then after that it is kind of a vague idea. I know I can do it. I just have to go and find out, but I really don't know how I should start.*

In these instances, the women were lacking integral information about how to use the policy as a supportive mechanism in the tenure process. At the same time, not all of the interviewees perceived the extension positively. Jaclyn talked about how other women on campus had used it:

R: *Some of them did and some of them didn't. Some of them felt that that was going to be viewed negatively . . . I think there's still a lot of question marks and uncertainty and just psychological pressure that goes along with that process.*
I: So [the policy] may not be helpful?
R: *Well, I would not want say get rid of it. I think it's, in some cases, it's necessary, but it's not viewed as a completely positive thing.*

Also, a few noted that the tenure process, itself, is the problem. Pamela explained:

> *Well, extend[ing] my tenure time by a year . . . is one option I've considered. But that doesn't address the funding issue. When you're hired on in a research position, particularly if you're spending 75% of your time doing research within your division, then you're expected to be funded. And those funds come with stipulations, you must put in a certain percentage of your time into working on this grant . . . but to get tenure you have to have funding, and if you have to be full-time to keep your funding, then you're in a circle of not being able to get out of that unless you completely get out of the tenure clock. You know, completely get out of the tenure system altogether, which is what I think some people do. So, that's my current issue, having funding, that's determining whether my time could be extended and stretched out. You know maybe a four-year grant could be turned into a five-year grant, but some of that be part-time. And make your salary less, and your funding less. But as far as I know, that's not an option with the NIH.*

Nicole felt that tenure should be extended to a "reasonable" time for everybody:

> *I'm not sure it's reasonable to expect everyone who becomes an academic to work that hard. I think doing something with tenure, maybe extending it to ten years and allowing more flexibility, would be better.*

According to these women, the tenure timeline could be improved with an increase in supports, use of policy, and perhaps changing tenure altogether. Regardless, many looked forward to achieving the milestone and described how their lives changed or would change once it was achieved.

Post-Tenure

Many of the interviewees described how tenure provided them with a sense of security, both professionally and personally. Some felt as if they found their "voice" and were less intimidated and more willing to share their opinions and perspectives. A few mentioned that gender differences would no longer be a factor, while others mentioned the positive impact that achieving tenure would have on their mental and physical health, and on their overall life.

Jodi, who was recently promoted to associate status, was questioned by the interviewer about her feelings of intimidation during her years on campus:

I: You described feeling intimidated by the 'old timers' and I'm wondering why? Is there something that they do?
R: *. . . It could have been just pre-tenure.*

She described how being intimidated by the "old-timers" had affected relationships with other colleagues:

> *And in fact, I think that by not being saying what I thought . . . hindered my relationships with my colleagues. . . . And I feel that my relationships with my colleagues have improved as a result because they know now where I'm coming from.*

The interviewer asked about other ways in which this impacted her:

I: Did you feel that being non-assertive was an obstacle for you? A challenge for you?
R: *It was a challenge, it was difficult. I think it screwed me up in my pre-tenure years mentally, because I wasn't saying what I really thought. Where it was never that way as a post-doc or graduate student.*

Elaine had a similar situation with her department chair:

R: *Early on, and again this is pre-tenure, my voice, I was interrupted a lot, I would get drowned out . . . I'd offer ideas and [the department chair] would immediately say 'no' to them. And so I just shut up, I basically didn't say anything.*
I: For the first six years?
R: *Almost. And then post-tenure, I finally understood that he can't do anything to me . . . I have tenure and I feel a little more secure.*
I: So you didn't feel secure. . .
R: *No, pre-tenure, no.*
I: What were the biggest concerns for you then?
R: *Just being, I guess, outspoken.*
I: You thought that might threaten you.
R: *Yeah, yeah. So after tenure I've become outspoken.*
I: But you weren't then?
R: *No, I wasn't then.*

In this situation, Elaine felt as if she said what she wanted, something negative would happen. Once tenure was achieved, others "can't do anything" to her.

Jaclyn described somewhat of an opposite situation and feels as if she is "heard" more because she has seniority:

I'm more senior now . . . so it's hard to distinguish if people listen to you more, because you're more established. And do you may have the opposite problem – I had that with students in my lab group. I told them 'Just because I say it, don't believe me.' I feel like I've crossed a little bit of a threshold to where people take you too seriously or they are not as likely to counter your opinion because you're the more senior person.

After achieving this status, many of the women talked about how they would use their time differently, especially to address ways in which they could improve their skills. For example, a few talked about how they would "speak up" about things related to gender issues. Jodi came to this realization as her status changed:

R: *I've been thinking more about it lately, and now that I feel I have more time, I would like to go to one of these workshops that tells us how to be more assertive in situations of conflict. . . . At some point in her career a woman is going to encounter something in some area that is going to make her aware that she's a woman and that there are differences. I don't think any of us can escape that.*
I: So when did that happen for you?
R: *At tenure.*

Once they achieved tenure, a few mentioned that they might be more willing to take on leadership roles. Elaine described becoming the director of a program on campus after tenure, while Adele admitted that she was going to wait to take on leadership in her department until after she achieved it. Others were happy to talk about how their personal lives would improve after tenure. Alison described a recent talk she had with her family:

R: *Right now it's not balanced at all. I am working probably 75 to 80 hours a week here. I said to my kids the other day, 'If I get tenure it will be a family effort. It's going to be that all four of us got tenure.' So we talk about it a lot at home, why I'm not home very much, why I'm missing out on soccer games and why I can't bring my kids in for a day in the lab to see how to do experiments.*
I: And do you anticipate the number of hours and that intensity to decrease once you get tenure?
R: *I think it has to. I don't think I can keep this up and maintain a family. It's really stressful on my family.*

Alison also admitted to "not exercising, drinking way too much caffeine, and not enough water." She wonders if general happiness, mental and physical health can even be achieved "pre-tenure":

And it's really hard to know if general happiness can be achieved pre-tenure. I know of a woman who went through the tenure process without a blink of an eye. For her, it just was not a problem; for me, it is.

Clearly, this milestone is something that is foremost on their minds. The interviewees, however, also identified other aspects of their professional life that either contribute to or detract from being satisfied with their careers. These aspects are described in the following section.

CAREER PROGRESSION

Each of the interviewees was in a different stage of her career – some were newly hired while others had been on campus for close to thirty years. When discussing being a faculty member, regardless of the length of time on campus, the interviewees identified a variety of factors that either contributed to or detracted from their satisfaction. For example, many felt as if they had experienced differences in how they were paid and rewarded, valued as a scientist, and expected to contribute to research, teaching, and service. Others felt that they had been treated equitably and fairly – in other words, as a professional. Similar to the rest of this report, it is impossible to generalize any of the following comments to the other interviewees or all women on campus. Their comments, however, do allow the reader to understand what the interviewees chose to share about their professional lives.

The Faculty Role

The first year as a faculty member was mentioned by a few of the interviewees, who felt that this initial stage played an integral, and often, negative role in setting the stage for future progression. Three women, in particular, described having a "horrible" time. Elaine said that she felt "dumped on" with the attitude being, "give it to the new person." Gloria felt like she "wasn't given the time of day" by her colleagues or other staff members. In the worst cases, the women felt as if they were not given the resources to "hit the ground running" and ultimately succeed.

On the other hand, about half of the women we interviewed said that their career had evolved as expected. This conclusion was split equally among both tenured and non-tenured faculty. Helen noted:

> R: *I think I have a great job right now. It is very ideal – a good balance between teaching, consulting, and collaboration and research. If I get tenure I can keep working on this, and I think that I will really continue to enjoy it.*
> I: So you really like that combination of all of those things?
> R: *Right.*

Rebecca, who has been on campus for three years, commented:

> *I guess my career aspirations are basically to run my own research program because I love doing science. And I wasn't even confident toward the middle end part of my post-doc that I would be able to find a position because they are hard to come by. So how this fits my criteria, is it's basically the job that I want. The teaching load is reasonable, I think, and I'm really, really very happy with the environment in Madison. I was at [another institution], which is pretty intense, small . . . I came here with a 2-month old, and I was worried about how it would work, having family and career, and I must say that Madison has probably been the most supportive out of all of the institutions that I've been.*

When asked about other professional aspirations that the women had, a few mentioned that they wanted to "give things to science," "do something novel and helpful," and "have a useful, valuable, long and healthy career." Two mentioned that they wanted to write a book, while one voiced an interest in working in the private sector. In general though, most appreciated the "life

of the intellect," with all that being a faculty member entails – autonomy to do the research and science that they enjoy.

Gender Differences

The majority of the complaints about being a faculty member were due to perceived gender differences. The interviewees identified inconsistencies in the ways in which they were treated, as compared to men, and the expectations that others had for them. For example, the interviewees noticed that women are often asked to be on committees as the "token" woman. One said that she was put on a committee on one of her first days of work. Others felt that women were asked to be committees due to the expectations that others have for them and for themselves. One interviewee noticed that women tend to be "team players" and will do things for the "good of the cause." This same woman noted that she had to "twist men's arms" to do things that would benefit the entire department, but not necessarily the men directly. These expectations played a role in how the women felt they were treated and in how they treat others.

Some of the differences were said to be self-imposed, as reflected by Helen who noted, "women volunteer for committees more often than men." Jaclyn talked about the difficulty in keeping balance, as many women often volunteer for committees while concurrently being asked to serve on them:

> *There are limits, I could do nothing but service if I said 'yes' all the time. And again there's a smaller pool of women scientists at the correct level for serving on many of these things. And so the same people are hit up multiple times. And if you have a reputation for being effective, then it's even more so. So I think as a woman you have to actually learn how to say 'no,' and learn to assert yourself while still being a good citizen. I'm not talking about shirking any contribution or shirking responsibilities, but if you said 'yes' all the time, you'd be driven into the ground and you wouldn't get your work done, which is what you need to do for your long-term research, or your long-term academic success.*

Saying "no" was one way in which the women tried to control the number of commitments in their lives. Others noted that they tried to negotiate for lighter teaching loads when needed. A number of the interviewees specifically noted the need for part-time positions, or had attempted to arrange them. Unfortunately, they also noted that doing this in a faculty position would be impossible. Jaclyn was successful in achieving balance with a part-time position as a "scientist" before she applied for a faculty position:

> *As a young mother and scientist, I think it was much easier to be in that position than it would have been to be an assistant professor and have a new baby. Because I was able to work part-time with full support, I was promoted while I was working part-time. I ended up working my way back from 50% to about 80% time over three years, and you can't tell that from looking at my resume . . . that I had a hiatus from working full-time. And I had the support of my administration in doing it. I think that's a tremendous plus, it got me through, and I think it contributed to my ability to be successful as a scientist and to be able to juggle what is oftentimes impossible to juggle.*

Others agreed that having a part-time option as a faculty member would be, "hugely beneficial." Natalie noted that a culture shift would have to occur with her colleagues first:

> *They'll think you're not dedicated . . . I actually think that despite the good attitude of this department I still think that there's progress to be made in considering less than full-time positions. It's still the culture that one is not dedicated if you consider that. So personally for me, I have not taken that step but might.*

The interviewees noted that women and men make different professional choices, which have consequences for their career progression. For example, Jaclyn noted that when possible, female colleagues drop out of "high pressure" career paths:

> I: Have you observed differences between the career choices or paths of women and those of men in science?
> R: *Yeah, I think a lot more women drop out of the more high-pressure career paths, and it's because at some point, a lot of people feel that the price is too high to pay having a career and family.*
> I: So the price of being able to have your family and . . .
> R: *Yeah. Because you can't slow down to the point where you're not productive, because you'll never get caught back up. And I know a lot of people don't want to not be involved with their kids.*

Other interviewees felt that men were more likely to take on administrative positions because they are "more comfortable with spending more hours at the job and have wives that balance their family." Mara's comment reflected this idea:

> *If I were a man, I'd have a very different career. My career will advance much more slowly because I'm woman and because it's important for me to go home at five and play with my children . . . I think traditionally, particularly in [this discipline], your research gets done on nights and weekends. It's demanding, and the idea that you'll spend 50% of your time doing research is ludicrous. And I think that anyone in [this discipline] will tell you that.*

A few of the women noted that they made a deliberate choice to go into a specific discipline or specialty because they could work part-time or have a clinical position versus a research position. Further, they felt as if they would have more security in these types of positions. They recognized how these choices did impact their career progression, both positively and negatively.

LEADERSHIP

The interviewees provided a number of examples of administrative or leadership positions that they currently hold. These examples ranged from informal departmental groups they had created to large-scale national panels to which they had been appointed. Once again, they described how they made choices to be in a leadership role on campus, or not. Most of the women understood that being on committees, both departmental and University-wide, were part of the required "service" in their faculty position. Other leadership positions, such as department chair or college dean, were to be consciously chosen, as they understood how strongly this decision

would impact their lives, both professionally and personally. The following sections describe how and why women made choices to be current and future campus leaders.

Getting Women Involved

Having women involved in campus leadership is deemed necessary to the well-being of the University, as described by Natalie:

> *It would be healthy for the university. I think there's a different style of problem-solving that we've been socialized to excel at . . . So I think that having women in administration would enhance the University's ability to use all kinds of resources to solve problems. We have a problem-solving mentality that's [based in] collaboration.*

Even though the interviewees acknowledged that women's contributions benefited all of campus, many thought that there was an optimal time for individuals to get involved in leadership positions – post-tenure and mid-career. The interviewees shied away from leadership positions in the midst of achieving tenure; clearly, this was considered necessary to their long-term success. Alison talked about being too "naïve" and felt as if she had been thrown "into the political arena too early" as an assistant professor. Renee, who had been in a departmental leadership position, "stopped doing it after a year because [her] research was suffering." She acknowledged that "post-tenure would have been better."

Even post-tenure, some of the women had concerns about being in a leadership position. Jaclyn, talked about the pressure to become department chair:

> *And then it gets down to those of us in our early-to-mid 40s, and we're all in active research careers . . . I mean why would you want to take an active faculty member and make them department chair? That seems nuts, because it's a middle management, thankless job! You have no power to speak of and you're trying to satisfy faculty and staff and deans and upper levels, ugh! So when I grow up, I don't want to be department chair! And I have said that, but I have also said 'Well when I'm older and my research career is winding down, that's a good time for me to do it, but not now!'*

Natalie described how she would be more effective in a leadership position in the future:

> R: *Yeah, I think at some stage you're able to make more of a difference.*
> I: Stage being some stage in your career?
> R: *Yeah, in your career. Right now I think I'd opt to do excellent work. At some stage when my grant area is less hot, I have a lot of skills and a lot of insight that I could contribute to an administrative position. And so while that's not what I aspire to, I think that that would be a good thing for women to do at some point – be involved in [administration].*

Two of the interviewees who were in high-visibility campus leadership positions admitted to doing it because they were asked to. They accepted them because they felt that their departments and the campus would benefit from them being in the positions. In other words, both of them said that they "did it for the team" versus out of self-interest.

Lack of Interest In Leadership

A number of women said they had absolutely no interest in applying for or accepting leadership positions on campus, either now or in the future. When asked if they ever considered going into administration, these women gave an unconditional, "no!" Others admitted they would consider it, but only under extreme circumstances. For most, however, the rigors of the faculty position and maintaining their research program were enough of a deterrent. When asked about being a department chair in the future, Barbara responded:

I: So would anything stand in the way of accepting a position? Say, chair?

R: *The only thing that would stand in the way now is whether or not I would want to do it. I'm not sure that is what I want to do because it would [require] a learning curve. I'm learning how to be the advisor of students, and how to deal with people's personal concerns or conflict. And if I go into positions of greater leadership I'd have to be even better at that. I'm not sure that I am good enough or would want do that. I like science.*

I: So it remains an option, but it has to be somehow compatible with the work you are interested in doing and your own skills that you develop over time?

R: *Yep, and even though a lot of what my job is now involves administration it's not the part I like about my job. So it would depend upon how well I would be able to do that or be able to delegate things to other people. But I think if I went into positions like chair or dean it would be more of that and less of the stuff I really like.*

Of all the reasons that the interviewees provided about being reluctant to assume an administrative position, "I prefer doing research" was most often identified, as reflected by Jaclyn's comments:

> *I chair our department's [X] committee, and I've done that for four years, but I'm actually consciously not trying to go [into administration], because I love doing science, that's why I got into the field to begin with. My time is split right now between family obligations and work. What I like to do when I get up in the morning is work, is research, and I'd rather do it, than administer It. . . I don't aspire to be come a dean or department chair, yet I'm at the level now where they'll say, 'We're looking for a new Dean of the School of such and such.' . . . No! I want to be a research scientist.*

Jodi, an associate professor, talked about what she considers to be advancement, and leadership does not factor into that:

> *Advancement? All I know about in terms of advancement was getting tenure so that I could spend my time in the lab doing more risky things. That to me was advancement. I know that for others it might be headed toward being a chair or a dean – that is not something that has ever, even remotely, been on my radar. All I want to be is an excellent scientist.*

A few recognized that to be in these positions, one had to have "the stature and national recognition" in their field, even for on-campus positions. In general, achieving tenure and

maintaining their research was enough pressure to deter them from trying to be a leader in other venues, either on- or off-campus.

THE DECISION TO STAY

Occasionally, the interviewees were asked if they had ever thought about leaving their faculty position or they voluntarily disclosed that they had considered leaving the University. When discussing their thoughts or the attrition of women in general, the interviewees identified many of the factors that had been described throughout this paper – balancing family and work, feelings of respect or lack thereof, and the overall lack of fit with the position, department or at the University.

Some of the women identified "family" as both the reason that they have chosen to stay, as well as the reason why they would leave. For example, Gloria's family life is wonderful, yet her work life is not:

> *At home, everything is so great – my daughter is so happy, my husband loves his job . . . the situation at home is so good, but boy I hate my department.*

She feels torn between managing her negative feelings and the impact of leaving the University on her husband and child. Other women recognized the toll that tenure has had on their family life and consequently, considered leaving their positions because of that. Further, a few of the interviewees talked about how family issues impact the choices that woman make when they consider even going into academia. Graduate students and post-docs observe women assistant professors struggling to balance work and family and recognize that pre-tenure coincides with "childbearing years." All of a sudden, the ability to have a successful career and family becomes compromised.

A few other interviewees who considered leaving noted that they would like to find a position where they would be treated with "more respect." This would be achieved by moving to another institution or by making a career change. Hannah recognized that in her three years on campus, she has grown to know herself better:

> *Now that I know me better and I know this department and University better, I can see that I would've been better off someplace else.*

Helen also talked about her attitudes toward the faculty position:

> *I think it's maybe my attitude towards life, certainly attitude towards how one spends one's life. I've never been one to say a job or a particular activity is the only and the most important thing for me. So I didn't enter this job saying, 'YES!!! I want to be an assistant professor. I want to be professor.' It was an interesting thing to do and I like it a lot. But I have lots of other interests. So I bring all of these attitudes into academia that I think are negative points.*

To her, being a faculty member is not the "be-all and end-all" of her professional life. She would consider other options outside of academia.

The women who were convinced that they were committed to being a professor cited the flexibility and autonomy inherent in the position as the main reason why they would stay at the University. They talked about their departments and the UW as being "supportive and flexible" as opposed to other institutions, which were described as "rigid." Renee cited other reasons:

> *I love living here. I love the whole environment. The weather sucks, but that's maybe the only thing. I get calls about different [positions] and I don't think that there could be a better job situation.*

Ingrid talked about the comparisons she has made:

> *I would, as an assistant professor, go out to other universities to give guest lectures and I was always thinking, 'Would I want to be at this university instead of Madison?' Or 'Where else would I like to be instead of Madison?' And the answer always came back 'I want to be back in Madison.' In comparison to all other places I visited, Madison was by far the most comfortable place to be and the best place for me to be.*

Clearly, the reasons that people give when they consider leaving or staying are multi-faceted and complex. The few women who were willing to share some of their thoughts provide only a glimpse into these very personal decisions.

The Future for Women

The few women who were asked about the future for women on campus represented both optimistic and pessimistic points of view, and were often conflicting. Rebecca admitted that she was unsure:

> *I've had several women graduate students come up to me and say that they really liked seeing me, because they see that they can have a family and a successful career, so I think that hopefully I'm being a good role model for them, but I don't know where the glass ceiling is right now. And I guess I won't know until I hit it, if it's there. So I don't know. I'm optimistic, but I don't know.*

Jaclyn also called herself "optimistic," yet recognized the challenges in the perceptions when hiring women:

> *I'm optimistic I guess. What I would like to see more of is [women hired], but only if they're the best people. I'm not into quotas and I know personally that I would never want to be hired under a situation where I was hired because I was a woman and not because I was the best scientist for the job. Hiring women under those circumstances does not do us service, because then they aren't taken seriously, and they come in behind the 8 ball, and that's not a good thing for anybody. So I would like to see that enhanced, but only without compromising quality.*

Jaclyn encouraged supporting women who are in the beginning stages of their careers:

Whatever mechanisms we can do to support women in particular who are trying to juggle careers and families at that critical point in their life – it's a decade or so worth of time in particular that life is really difficult, and you're pulled in so many different directions. Whatever mechanisms are effective for that, with the recognition that there is not a one-size-fits-all solution.

Nicole thinks the future for women depends on their abilities to be "driven":

I get the sense that women have to be more driven to be successful. I think they have to face the challenges of childbirth, childcare more than the average man does. And so I think it's not quite equal. I think for women who are going into a major research institution and being successful in biological sciences with the demands of getting grants, having a lab, training graduate students, being a small business person because you have to run the lab, it's not easy. It's really not easy. And I think It's harder than it needs to be and I'm not sure that the people that get cut out are necessarily intellectually the ones that should be cut out.

Ensuring success for both women and men on campus depends upon the ability to provide effective support structures. The final section includes the suggestions provided by the interviewees that, if implemented, would improve the experience of being in academe.

SECTION V: THEIR SUGGESTIONS

During the interviews, the women provided many practical ideas that would have improved their experience if these supports had been available to them or if they would have known about various services and resources on campus. Their suggestions fell into five categories: 1) offer education and support, 2) create networks for women, 3) support career progression and leadership development, 4) change the institutional culture, and 5) help faculty to balance their professional and personal lives. Often their suggestions fit into more than one category. Consequently, the following ideas are in no particular order and many could be listed under more than one category.

Hold Educational Sessions, Workshops, Seminars

- Suggested topics: Advocating for oneself and others, departmental and University politics, negotiation skills, sexual harassment, tenure process for assistant professors, promotion process for associate professors, how to write a grant, how to write a budget, administrative and organizational structure of the University, how to say 'No,' communication skills (e.g., assertiveness, dealing with challenging people)
- Prepare graduate students for entering and succeeding in academia

Create a Network For and About Women

- Invite women to become part of a network, on campus and elsewhere
- Fund women's research and professional development opportunities
- Strengthen mentoring on campus
- Connect junior faculty members with senior faculty
- Encourage female applicants to apply for faculty and administrative positions
- Train people to value and accept different conversational and interactional styles

Support Career Progression and the Development of Leaders

- Help women beyond the point that they enter tenure track positions
- Have a central office or ombudsperson to assist new faculty members in negotiating their start-up packages
- Renegotiate faculty members' start-up packages so that they are equitable
- Identify successful role models
- Help women enter and succeed in leadership positions
- Help people match their skills and interests with potential jobs
- Appoint people with diverse perspectives into leadership positions

Change the Institutional Culture

- Make administrators responsible for ensuring gender equity in departments and schools/Colleges
- Create a clearinghouse of information and support, which is based in the University (not department)
- Maintain information about other institutions' policies and resources
- Decrease pressure to work long hours, nights, and weekends

- Change the tenure process to account for faculty work life and expectations
- Encourage collaboration
- Change the perception of what makes a "good" faculty member
- Make more of an effort to recruit women
- Create the expectation that all new buildings should include space for nursing children, daycare, etc.
- Offer faculty appointments at less than 100% time
- Ensure equitable workloads among faculty members

Encourage Balance in Professional and Personal Lives

- Change preconceived notions of how pregnancy is experienced
- Change attitudes toward parents and parenting, and place value on spending time with children
- Offer space for women to nurse their children
- Support and inform people of current family-friendly policies available to them
- Improve the tenure process for men and women who have or would like to have children
- Increase the number of child care slots available on campus, especially for infant care
- Decrease the costs of or subsidize on-campus child care centers
- Provide emergency care for children (e.g., sick, school closing, after-hours)
- Have a central office or ombudsperson to assist men and women negotiate family leave, tenure clock suspension, etc.

SECTION VI: CONCLUDING NOTES

This report provides the reader with a glimpse into the lives of 26 women faculty in some of the science and engineering disciplines on the UW-Madison campus. These women provided us with a snapshot of their experiences up until the point of the interviews, and their thoughts, feelings, and perceptions about those experiences. If we were to re-interview them today, they would undoubtedly provide different answers to some questions and similar answers to others. Since their first interviews, some have achieved tenure while others have left the University. Nonetheless, they were candid and forthcoming about their lives with the hope of improving others.

Since the interviews, the *Study of Faculty Worklife at the UW-Madison* survey was distributed to approximately 2200 faculty members, with 60% completing the instrument. Jennifer Sheridan has almost completed analyzing the results of this comprehensive and thorough survey. While the results of the survey provide breadth and pervasiveness of issues and concerns on campus, this report provides depth and gives voice to the experiences of a small sample of faculty on campus. Both sources are useful on their own, but when considered together, each is enhanced.

Our plan is to approach all twenty-six women in 2005 and re-interview them. During those interviews, we will use their initial transcripts as a starting point while also asking them about any changes they have seen on campus in the past four years. No doubt, their stories will be equally compelling.

SECTION VII: APPENDICES

APPENDIX A: INTERVIEW PROTOCOL

1. Tell me how you got to where you are today in your current position at UW. Start as early as you like.

FOR FACULTY:

We know: Title (Assistant., Associate, Full professor; Tenure-track or Tenured)

- How long working at UW-Madison in <u>current</u> position?
- Transferred from elsewhere? Went through tenure process elsewhere?
- Current position entails?
    - (__ % research, ___% teaching, __% service, __% administration)
- Educational background (degrees- Ph.D.? Working toward Ph.D.?)
- If switched from academic staff to faculty –find out when and how.

FOR ACADEMIC STAFF (RESEARCHERS, SCIENTISTS):

We know: Title (Researcher or Scientist --Assistant, Associate, Full)

- How long working at UW-Madison in <u>current</u> position?
- Transferred from elsewhere?
- Current position entails?
    (___ % research, ___ % teaching, ___% service, ___% administration)
- Educational background (degrees- Ph.D.? Working toward Ph.D.?)
- If switched from faculty to academic staff – find out when, how, and why.

FOR INSTRUCTORS:

We know: Title (Lecturer, Associate Faculty; other)

- How long working at UW-Madison in <u>current</u> position?
- Transferred from elsewhere?
- Current position entails?
    (___ % research, ___ % teaching, ___% service, ___% administration)
- Educational background (degrees- Ph.D.? Working toward Ph.D.?)

2. Tell me about your experience starting here. Start with when you first applied. Why here? Tell me about process, negotiations, etc.

Get info about:

- What motivated you to apply at UW-Madison?
- The hiring process (i.e., the application, interview, contract negotiation process).
    - FACULTY: Start up space? Start up dollars? What did you negotiate? What did you get? Satisfied with start up package?
- What was good about the hiring process? What could have been improved?
- Did you receive mentoring during the negotiations of start-up package? By whom?
- Was "dual hiring" an issue? Describe.
- How did this position fit (or not fit) with your career aspirations?

3. Let's talk about your [department, unit, or lab].

A) Briefly describe your [department, unit, lab] for me. (How large? Geographical layout (e.g. in one location or several locations)? Diversity in terms of gender, race/ethnicity, age?)

B) What's it like to work/be in your [department, unit or lab]? We are interested "in general" and for you "personally." Interested in resources and social environment.

Examples of prompts:

- What is "tone" of department? (friendly, supportive, competitive, hostile)
- unit/lab/departmental meetings-- how do you feel about your participation in meetings with colleagues? Other collegial interactions?
- how committee assignments are made
- FACULTY/INSTRUCTOR: how teaching assignments are made
- resources available in the department
- support for advancement in your career
- kind of chair/director you have
- your colleagues and your relationships with them

C) Do you or have you had a role in leadership? Describe. Do you want or plan towards a role in leadership?

D) What are the best features of your work environment?

E) How does working in this [department, unit, or lab] compare to other [departments, units, labs] (here and at other jobs) with respect to:

- resources?
- social environment?

F) What are the issues that come up for you in your [department, unit or lab]? How do/did you handle these issues?

EXAMPLES INTERVIEWEES MAY RAISE – Some may be used as probes if interviewee doesn't discuss.

- Amount of work demanded
- Amount of resources – space, assistance
- Course and service assignments
- Sense of isolation or limited social interaction in workplace
- Leadership by chair/director and support in your career
- Colleagues to work/talk with; Respect from colleagues
- Availability of mentors or role models
- Having a voice in unit/department policy
- Balance between work and non-work life (including child care)
- Sexual harassment
- Discrimination
- Things that are done to make you feel valued or de-valued

G) Based on issues raised by interviewee, ask:

- Have you used campus resources/initiatives to address these issues? [mention all]

  Examples: Mentoring
  Stopping the tenure clock
  Extended tenure clock
  Committee on Women
  Sexual Harassment Workshops/Brochures
  Women Faculty Mentoring Program
  Employee Assistance
  Child care
  Family leave
  Academic Staff merit
  Faculty Ombudsperson

- Are there initiatives that WISELI could undertake to address these concerns?
  (e.g., Leadership training for chairs/deans; Professional development workshops for faculty/staff; Studies of key issues)

4. Let's talk about balancing life at work and life outside of work.

A) Tell me about your commitments/interests outside of work.

- Partner/spouse?
- Children? Other dependents?
- Dual career? Both in sciences or engineering? Primary & secondary earners?
- Other commitments?
- How are responsibilities shared?

B) How do these commitments/interests influence your work?

Examples:

- Expectations about balancing career and life outside of work
- Ability to attend late meetings, work nights and weekends, work in lab 24-7
- Time
- Interruptions

C) Does balancing work and home life/interests have an effect on your physical and mental health? If so, in what way? Would you consider this effect to be positive or negative?

5. Can I ask you to reflect on your career at UW-Madison and to think about your future?

A) Tell me about how your career has evolved at UW-Madison?

- Has it evolved as you expected? How happy or satisfied are you in your career? Tell me about success and your definition of success. What motivates you?
- What are your short-term and long-term career goals?
- What has been most influential?
- Have you ever wanted or tried to leave UW-Madison? If so, what prompted you to want to leave? And, what kept you here? Did you re-negotiate space, salary, etc.?
- Do you plan to stay at UW-Madison?

B) Do you feel that your work has been supported/recognized at UW-Madison?

- If so, how has it been supported?
  (e.g., financial or other rewards; request for leadership roles; access to key committees; access to resources such as equipment and graduate students; research collaborators)

- Are there ways that you feel your work has NOT been supported/recognized at UW-Madison?

6. What role has gender played in your career and in your experience?

A) In your view, did gender effect your early career aspirations, experiences, or planning?

B) Does it effect your current work experience?

C) What's it like to be a woman working at UW in the [science, engineering]?
- Are there challenges or obstacles that women in [science, engineering] <u>in general</u> encounter?
- Are there challenges or obstacles that <u>you</u> encounter?
- Many women leave the [sciences, engineering] and leave academia. What keeps you in the [sciences, engineering]? Are there factors that keep you here?

D) How, if at all, do you think gender might play a role in your future professional career?

E) Have you observed differences between the career choices or paths of women and those of men in [science, engineering] in your [department, unit, or lab]? If so, what are they?

7. Let's talk about some of the gender issues people raise.

Discuss chart with interviewee

8. If these are experienced by you, where do you go (would you go, or did you go) to get assistance with these types of issues? What is available here? Where is more help needed?

9. What are your thoughts about the future for women in [sciences or engineering] at UW in particular? Why do you feel this way? How could WISELI fit with this future? Where should efforts be focused?

10. Feel free to make any additional comments.

FOR QUESTION #7:

The literature on women in science and engineering describes possible differences experienced by men and women in academic science and engineering careers. Here is a list of possible differences. Can you let us know:

- Have you have experienced any of these differences? (describe, if you have)
- Have you observed any differences experienced by other women in [science or engineering]?
- In your view, are some of these more serious/critical than others?

Differences in…	**Experienced by interviewee**	**Observed by interviewee**	**Considered most/more critical**
Allocation of teaching/service assignments (e.g., committees)			
Access to resources (lab or office space)			
Salary (although similar rank, title, experience, publications)			
Value/respect by colleagues			
Degree to which taken seriously as scholar/scientist/engineer			
Attitudes or consequences if one needs to meet family responsibilities, uses family leave, stops tenure clock, or attempts to job share			
Processes or standards for promotion			
Inclusion into professional collegial relationships			
Access to senior faculty			
Opportunities to show leadership			
Value given to informal service activities (e.g., community involvement)			
Negotiating salary when about to go elsewhere			
Involvement with colleagues in informal activities			
Interactional/conversational styles			
The experience of having your ideas ignored			
Feelings of professional or social isolation			
Feelings of being undervalued or ignored by colleagues			
Sexual harassment			
General happiness/mental health			
Physical health			

APPENDIX B: EXAMPLE INVITATION LETTER

Dear Dr. <last name>,

As you may have heard via the Provost's office, Professors Jo Handelsman and Molly Carnes at UW-Madison recently received an NSF award to address personal and institutional barriers facing women in science and engineering. The resulting program, Women in Science and Engineering Leadership Initiative (WISELI), is in the early stages of collecting data on women's experiences on our campus. More information on WISELI can be found at their website (http://wiseli.engr.wisc.edu/index.html) or by contacting their office at (608) 263-1445.

As part of this effort, I am writing to request your participation in an hour-long interview designed to elicit your views regarding campus climate. The interview is voluntary and confidential and will be guided by the ethical principles set forth by the National Commission for the Protection of Human Subjects.

As one of only 40 women selected on this campus for interview, your participation is very important and will have a significant impact on the WISELI program. Information collected through interviews will be used to develop a campus-wide survey to all women in sciences and engineering, and will help shape the direction that WISELI takes for the next five years.

I would be delighted to meet with you at your earliest convenience. I will be in touch over the next few day; however, if it is easier for you, feel free to contact me (via email or phone), and we can set up a time to talk.

Thank you in advance for your thoughtful consideration of this campus initiative.

Sincerely,
<Researcher name and contact information>

APPENDIX C: INFORMED CONSENT FORM

ADVANCE – Institutional Transformation
Consent Form for Administrators, Faculty, Staff, Students

The Learning through Evaluation, Adaptation, and Dissemination (LEAD) Center at the University of Wisconsin-Madison is coordinating the evaluation for ADVANCE, funded through the National Science Foundation. Through this effort, researchers from the LEAD Center will conduct interviews and surveys with participants such as administrators, faculty, staff, and students.

Participants will be asked to voluntarily participate in audio-taped interviews either in person or by phone. Most interviews should take no more than one hour. The interview will be entirely confidential, and the identity of the interviewees will not be known to anyone other than the researchers. Audiotapes made during interviews will be available only to the LEAD Center staff, who will use them to obtain accurate accounts of the interviews. An electronic copy of the audio recording will be kept at the LEAD Center for seven years.

Participation in the interviews and/or surveys is completely voluntary and subjects may stop participating at any time. Information about individual choice to participate or not will be kept in confidence by the evaluators. There are no risks associated with participation. Participants in similar studies report that the time spent in interviews has been enjoyable and helpful.

The LEAD Center may publish papers based on the results of this evaluation, but these materials will present information in aggregate form and will contain no information that would identify specific participants.

You may ask questions of the evaluator now, or may direct questions to Susan Millar, Director, UW-Madison LEAD Center, 1402 University Ave., Madison, WI 53706, (608) 265-5943.

I have read the above and give my consent to participate in the interviews and surveys.

_____ _____
Signature Date

_____
Printed Name