



**Final Report of the ADVANCE Program for University of
Wisconsin-Madison**

2002-2007

Principals, *University of Wisconsin-Madison*

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Appendix 2: Summative Evaluation Report of WISELI: The Women in Science and Engineering Leadership Institute

WISELI: *FORWARD* With Institutional Transformation

Final Report to the National Science Foundation

Introduction: What is ADVANCE? What is WISELI?

In response to the concerns that we as a nation are not training enough or sufficiently diverse people to meet the growing demands of our scientific workforce and that there are already critical shortages in some fields, the National Science Foundation (NSF) launched the ADVANCE program. The goal of this program is to increase the participation and advancement of women in academic science and engineering, with particular emphasis on increasing the number of women in positions of leadership. In the inaugural round of funding, nine sites were awarded Institutional Transformation Awards (\$3.75 million over 5 years), including the University of Wisconsin-Madison (UW-Madison). The UW-Madison project, which began January 1, 2002, has established the Women in Science and Engineering Leadership Institute (WISELI). WISELI is approaching the issue comprehensively and with an evidence-based framework designed to answer the questions: What are the barriers impeding the participation and advancement of women in science and engineering? How can we eliminate or overcome these barriers?

WISELI is a centralized, visible administrative structure with a mission to address a number of impediments to women's academic advancement. The center structure of WISELI allows the institute to bring the issues of women scientists and engineers from obscurity to visibility. It provides an effective and legitimate means of networking women faculty across departments; performing research and evaluation on programs and initiatives designed to improve the environment for women; administering new programs (grant programs and workshops) promoting gender equity; bringing in new grants relevant to improving gender equity on campus and at other universities; and monitoring of gender equity indicators for the UW-Madison campus overall.

Section I: Status and Outcomes of all proposed activities

In this section, we provide brief reports on each proposed element of our ADVANCE project. Following the outline of the original proposal, we describe the intent of the proposed activity and whether the activity was implemented. If the form of implementation changed we describe the change. If an activity was not implemented, we explain why it was not; if it was implemented, we describe the participation in the activity, provide a summary of evaluation reports regarding the activity (if appropriate), and describe the future of the activity (e.g., institutionalization, dissemination plans, future funding.) The initial proposal first outlined a series of research and evaluation projects, and then outlined new initiatives ADVANCE would implement. Some of the new initiatives are actually research or evaluation projects; we retain the original headings and language as initially outlined in our proposal.

Research Proposed: Establish Longitudinal Data System

Description of Activity. We proposed to establish a system whereby data regarding gender equity on campus are collected in order to track progress. At the same time, we proposed to

develop a system whereby participant data are tracked and linked together with other data, centralized at WISELI. Such a database would become the core method of evaluation of all of WISELI's initiatives.

Implemented? This activity was implemented immediately upon creation of WISELI. Institutional Review Board (IRB) approval for all WISELI activity was obtained, and participants at almost all WISELI events were recorded in a database for future correlation with other data (survey data; institutional data; interview data) collected by WISELI. The "longitudinal data system" has been central to all of WISELI's evaluation activities. The collection and analysis of the "NSF 12" indicators were folded into the already-planned longitudinal data system.

Results. Some reports/publications resulting from data stored and collected in this longitudinal database include:

Refereed Presentations

Sheridan, Jennifer; Christine Maidl Pribbenow; Eve Fine; Jo Handelsman; and Molly Carnes. 2007. "Climate Change at the University of Wisconsin-Madison: What Changed, and Did ADVANCE Have an Impact?" Women in Engineering Programs & Advocates Network (WEPAN) 2007 Conference Proceedings (on CD-ROM). <http://www.wepan.org/storelistitem.cfm?itemnumber=18> , Paper #0045. June 2007.

Sheridan, Jennifer; Eve Fine; Jessica Winchell; Christine Maidl Pribbenow; Molly Carnes; and Jo Handelsman. 2007. "Searching for Excellence & Diversity: Does Training Faculty Search Committees Improve Hiring of Women?" American Society for Engineering Education (ASEE) 2007 Conference Proceedings. <http://www.asee.org/conferences/v2search.cfm> , Paper #992. June 2007.

Working Papers

Frehill, Lisa; Cecily Jeser-Cannavale; Priscilla Kehoe; Ellen Meader; Jennifer Sheridan; Abby Stewart; and Helena Sviglin. January 2005. "Toolkit for Reporting Progress Toward NSF ADVANCE: Institutional Transformation Goals." <http://www.advance.nmsu.edu/Documents/PDF/toolkit1.pdf> .

Frehill, Lisa; Elena Batista; Sheila Edwards-Lange; Cecily Jeser-Cannavale; Jan Malley; Jennifer Sheridan; Kim Sullivan; and Helena Sviglin. May 2006. "Using Program Evaluation To Ensure the Success of Your ADVANCE Program." <http://www.advance.nmsu.edu/Documents/PDF/toolkit2.pdf> .

Non-Refereed Presentations

Sheridan, Jennifer. April 20, 2004. "ADVANCE Institutional Data: Using Institutional Data to Create Institutional Change." NSF ADVANCE National Conference. Georgia Institute of Technology. Atlanta, GA.

Sheridan, Jennifer. May 19, 2005. "Indicators and Dissemination: Question 2. What are the Outcomes of Institutional Processes of Recruitment and Advancement for Men and Women?" NSF ADVANCE P.I. Meeting, National Science Foundation. Washington, DC.

Sheridan, Jennifer. May 17, 2006. "Data Collection and Reporting: The NSF Indicators." 5th Annual NSF ADVANCE PI Meeting. National Science Foundation. Washington, DC.

Pribbenow, Christine. May 19, 2006. "Using Evaluation Data to Affect Institutional Change." 5th Annual NSF ADVANCE PI Meeting. National Science Foundation. Washington, DC.

Evaluation Reports

Sheridan, Jennifer. May 2007. "Gender Equity By The Numbers: Status of Women in Biological & Physical Sciences at the University of Wisconsin-Madison, 2002-2006."

Future of Activity. WISELI continues to collect and store in a longitudinal fashion all data regarding gender equity and participation in WISELI activities. Human subjects protocols will remain active (they are renewable annually); collection of most of the "NSF 12" indicators will continue; linking of varied sources of data to answer particular questions will continue. These data, combined with the survey data (see below), will continue to be the bedrock of WISELI's institutional change efforts.

Research Proposed: Establish Baseline Data Collection

Description of Activity. In-depth interviews with 32 women faculty, conducted at the beginning of the grant period, will provide a baseline from which program evaluation will emanate. Follow-up interviews with the same women will occur in the last year of the grant.

Implemented? This activity was implemented immediately upon creation of WISELI. Some changes to the original plan were made. Rather than interviewing 32 women faculty, we interviewed 26 women faculty and 15 women academic staff in the sciences and engineering. Staff members were interviewed in addition to faculty in order to gather planning data to inform many of WISELI's proposed activities revolving around academic staff (e.g., promote staff women to faculty positions; leadership development for academic staff; creation of a climate survey for academic staff.) Respondents were selected using a stratified random sample of both faculty and staff, to ensure representation across schools and colleges, ranks, time at the institution, and divisional affiliation. In 2002, 26 faculty agreed to be interviewed (two were replacements—one due to a refusal, and one because the subject was planning to retire before the re-interview in 2006), and 15 staff agreed to be interviewed (four were replacements due to refusals.) In 2006, 19 out of 23 faculty remaining at UW-Madison agreed to be interviewed (three of the original 26 faculty interviewed in 2002 retired or otherwise left the University.) We did not follow up with the staff interviewees in 2006, as these interviews were primarily used for planning purposes and were not designed to be part of the summative evaluation of WISELI.

Results. Results from the 2002 phase of data collection are summarized in the following presentations and reports:

Refereed Publications

Gunter, Ramona and Amy Stambach. 2003. "As Balancing Act and As Game: How Women and Men Science Faculty Experience the Promotion Process." *Gender Issues*. 21(1):24-42.

Gunter, Ramona and Amy Stambach. 2005. "Differences in Men and Women Scientists' Perceptions of Workplace Climate." *Journal of Women in Minorities in Science & Engineering*. 11(1):97-116.

Pribbenow, Christine Maidl; Jennifer Sheridan; Molly Carnes; Eve Fine; and Jo Handelsman. "Departmental Climate: Differing Perceptions by Faculty Members and Chairs." *The Journal of Women and Minorities in Science and Engineering*. [2006 draft accepted and under revision.]

Working Papers

Pribbenow, Christine Maidl; Jennifer Sheridan; and Deveny Benting. 2007. "Extending the Tenure Clock: The Experiences of Faculty at One University."

Non-Refereed Presentations

Stambach, Amy and Ramona Gunter. May 2003. "As Balancing Act and As Game: How Women and Men Science Faculty Experience the Promotion Process." Gender, Science, and Technology International Conference. Trondheim, Norway.

Gunter, Ramona. October 20, 2003. "Science Faculty Talk about Self, Home, and Career." WISELI Seminar. University of Wisconsin-Madison. Madison, WI.

Pribbenow, Christine Maidl. March 22, 2004. "The Climate for Women Faculty in the Sciences and Engineering: Blueprints for Failure and Success." WISELI Seminar. University of Wisconsin-Madison. Madison, WI.

Parker, Brenda. April 19, 2007. "NSF ADVANCE: Lessons for Geography Departments" (Panelist). American Association of Geographers Annual Meetings. San Francisco, CA.

Evaluation Reports

Pribbenow, Christine Maidl, Lottridge, Sue, & Deveny Benting. February 2004. "The Climate for Women Faculty in the Sciences and Engineering: Their Stories, Successes, and Solutions."

Sheridan, Jennifer; Deveny Benting; and Christine Maidl Pribbenow. July 27, 2004. "Evaluation of the Women Faculty Mentoring Program at the University of Wisconsin-Madison."

Sheridan, Jennifer and Deveny Benting. October 29, 2004. "Evaluation of the Tenure Clock Extension Policy at the University of Wisconsin-Madison."

Sheridan, Jennifer; Deveny Benting; and Christine Maidl Pribbenow. December 2005. "Evaluation of Childcare Needs and Practices at the University of Wisconsin-Madison."

Pribbenow, Christine Maidl; Jennifer Sheridan; Brenda Parker; Jessica Winchell; Deveny Benting; Kathy O'Connell; Cecilia Ford; Ramona Gunther; and Amy Stambach. July 2007. "Summative Evaluation Report of WISELI: The Women in Science and Engineering Leadership Institute."

Future of Activity. Although interviews with women faculty and staff in the Science, Technology, Engineering, and Math (STEM) disciplines will remain an important method of monitoring gender equity progress, WISELI has no further plans to re-interview these particular subjects. This research project is complete.

Research Proposed: Develop and Administer Climate Surveys

Description of Activity. We proposed to create a climate survey based upon the interview data collected from the women faculty, and administer the climate survey to all faculty in the biological and physical sciences in year one, and again in year five.

Implemented? WISELI developed an extensive climate survey instrument based on the interview data from women faculty and staff in the STEM disciplines. The survey did not go into the field in year one as planned, however; it was actually administered at the beginning of Year 2 (February 2003). The Office of the Provost funded the administration of the survey to faculty in all divisions. Thus, we sent the survey to 2,221 faculty and received 1,338 responses, for a response rate of 60.2%. The follow-up survey was administered in 2006, and again the Office of the Provost funded its implementation to all faculty. We received a 55.7% response rate for the 2006 survey.

In addition to these faculty surveys, WISELI also created a climate survey for academic staff in research, teaching, and clinical positions based on the interview data from our in-depth interviews with academic staff. We surveyed a 50% random sample of academic staff in selected positions, and received a 47.6% response rate to this survey. We did not perform a follow-up to this survey of academic staff in 2006.

Results. The survey data have been instrumental to WISELI's efforts to transform the institution. A number of reports, presentations, and publications have resulted from the survey data, and more will come as the climate survey data have become an important campus resource on faculty and staff attitudes on satisfaction, climate, and more.

Climate survey instruments and selected results are available online:

2003 Faculty Survey:

<http://wiseli.engr.wisc.edu/initiatives/survey/results/facultypre/index.htm>

2006 Faculty Survey:

<http://wiseli.engr.wisc.edu/initiatives/survey/results/facultypost/index.htm>

2003 Academic Staff Survey:

<http://wiseli.engr.wisc.edu/Products/academicstaffversion.pdf>

Some of the reports/presentations using data from the climate surveys include:

Refereed Publications

Pribbenow, Christine Maidl; Jennifer Sheridan; Molly Carnes; Eve Fine; and Jo Handelsman. "Departmental Climate: Differing Perceptions by Faculty Members and

Chairs.” *The Journal of Women and Minorities in Science and Engineering*. [2006 draft accepted and under revision.]

Refereed Presentations

Sheridan, Jennifer; Christine Maidl Pribbenow; Eve Fine; Jo Handelsman; and Molly Carnes. 2007. “Climate Change at the University of Wisconsin-Madison: What Changed, and Did ADVANCE Have an Impact?” Women in Engineering Programs & Advocates Network (WEPAN) 2007 Conference Proceedings (on CD-ROM). <http://www.wepan.org/storelistitem.cfm?itemnumber=18> , Paper #0045. June 2007.

Sheridan, Jennifer; Eve Fine; Jessica Winchell; Christine Maidl Pribbenow; Molly Carnes; and Jo Handelsman. 2007. “Searching for Excellence & Diversity: Does Training Faculty Search Committees Improve Hiring of Women?” American Society for Engineering Education (ASEE) 2007 Conference Proceedings. <http://www.asee.org/conferences/v2search.cfm> , Paper #992. June 2007.

Sheridan, Jennifer; Jo Handelsman; and Molly Carnes. August 14, 2004. “Assessing “Readiness to Embrace Diversity”: An Application of the Trans-Theoretical Model of Behavioral Change.” Annual Meeting of the American Sociological Association. San Francisco, CA.

Papers in Progress

Pribbenow, Christine Maidl; Jennifer Sheridan; and Deveny Benting. 2007. “Extending the Tenure Clock: The Experiences of Faculty at One University.”

Non-Refereed Presentations

Sheridan, Jennifer. January 12, 2004. “Women in Science & Engineering Leadership Institute at UW-Madison” (Panelist). AdvanceVT Inaugural Workshop, “ADVANCEing Women in Academe: Voices of Experience.” Virginia Tech. Blacksburg, VA.

Sheridan, Jennifer. February 17, 2004. “Implementing a Campus Climate Survey: Logistical Notes and Preliminary Findings.” Center for Demography & Ecology Training Seminar. University of Wisconsin-Madison. Madison, WI.

Sheridan, Jennifer. April 13, 2004. “Study of Academic Staff Work Life at UW-Madison: Preliminary Results.” Wisconsin Center for the Advancement of Postsecondary Education Academic Staff Institute 2004. University of Wisconsin-Madison. Madison, WI.

Sheridan, Jennifer. April 21, 2004. “WISELI’s Study of Faculty and Academic Staff Worklife Surveys.” NSF ADVANCE National Conference. Georgia Institute of Technology. Atlanta, GA.

Sheridan, Jennifer. March 17, 2006. “Climate and Institutional Change: ADVANCE Efforts to Improve Departmental Climate.” Committee on Institutional Change-Women in Science and Engineering (CIC-WISE) Group Meeting. Chicago, IL.

Fine, Eve. May 18, 2006. "Climate Workshops for Department Chairs." 5th Annual NSF ADVANCE PI Meeting. National Science Foundation. Washington, DC.

Sheridan, Jennifer. May 19, 2006. "Collection and Use of Climate Survey Data at the UW-Madison." 5th Annual NSF ADVANCE PI Meeting. National Science Foundation. Washington, DC.

Sheridan, Jennifer. March 27, 2007. "WISELI: Improve Departmental Climate for Women Faculty and Faculty of Color" (Poster). Showcase 2007. University of Wisconsin-Madison. Madison, WI.

Evaluation Reports

Sheridan, Jennifer; Deveny Benting; and Christine Maidl Pribbenow. July 27, 2004. "Evaluation of the Women Faculty Mentoring Program at the University of Wisconsin-Madison."

Sheridan, Jennifer and Deveny Benting. October 29, 2004. "Evaluation of the Tenure Clock Extension Policy at the University of Wisconsin-Madison."

Sheridan, Jennifer; Deveny Benting; and Christine Maidl Pribbenow. December 2005. "Evaluation of Childcare Needs and Practices at the University of Wisconsin-Madison."

Winchell, Jessica K. and Christine Maidl Pribbenow. April 2006. "Evaluation of the Gender Pay Equity Study and Equity of Faculty Salaries Policy at the University of Wisconsin-Madison."

Winchell, Jessica K. and Jennifer Sheridan. September 2006. "Evaluation of the Sexual Harassment Information Sessions at the University of Wisconsin-Madison."

Sheridan, Jennifer. October 31, 2006. "Perceived Benefits of and Barriers to Interdisciplinary Research at the UW-Madison: Evidence from the 2006 *Study of Faculty Worklife at the University of Wisconsin-Madison*." Prepared for and presented to the steering committee for the Wisconsin Institutes for Discovery.

Sheridan, Jennifer. December 4, 2006. "Department Climate in the College of Letters and Sciences: Evidence from the 2003 and 2006 *Study of Faculty Worklife*." Report prepared for the Equity and Diversity Committee in the College of Letters & Sciences.

Pribbenow, Christine Maidl; Jennifer Sheridan; Brenda Parker; Jessica Winchell; Deveny Benting; Kathy O'Connell; Cecilia Ford; Ramona Gunther; and Amy Stambach. July 2007. "Summative Evaluation Report of WISELI: The Women in Science and Engineering Leadership Institute."

Future of Activity. The climate surveys have been such an essential element of WISELI's success that we intend to continue surveying faculty every five years. We are actively setting

aside funding for these efforts, and expect our next survey to be implemented in 2011. We have also agreed to assist with a campus-funded climate survey for academic staff that encompasses more of the staff experience than we were able to study in our 50% sample in 2003.

Research Proposed: Issue Studies

Description of Activity. We proposed to complete three “issue studies” during years 2-4 of the ADVANCE funding. WISELI would identify some topic that requires more in-depth study, and then design a research study to collect data and produce useful findings for continued institutional transformation.

Implemented? WISELI directors and staff successfully identified and studied three different topics as “issue studies.” The first was a study of the differing perceptions that department chairs have regarding their departmental climate, compared to women faculty. The second study we called “Why Women Leave”, consisting of exit interviews with women faculty. This study was combined with our evaluation of the dual career hiring program, because the results were similar. Finally, we studied the efficacy of track changes from academic staff to faculty positions.

Results. The three papers/reports identified as WISELI “issue studies” are:

Refereed Publications

Pribbenow, Christine Maidl; Jennifer Sheridan; Molly Carnes; Eve Fine; and Jo Handelsman. “Departmental Climate: Differing Perceptions by Faculty Members and Chairs.” *The Journal of Women and Minorities in Science and Engineering*. [2006 draft accepted and under revision.]

Evaluation Reports

O’Connell, Kathleen; Christine Maidl Pribbenow; and Deveny Benting. March 2006. “The Climate at UW-Madison: Begins Sunny and Warm, Ends Chilly.”

O’Connell, Kathleen and Christine Maidl Pribbenow. December 2006. “She’s Got a Ticket to Ride: Strategies for Switching from Non-Tenure to Tenure-Track Position at UW-Madison.”

Future of Activity. WISELI will continue to identify topics of interest and will investigate as staff and faculty have the time and resources to do so.

Research Proposed: Discourse Analysis

Description of Activity. Prof. Cecilia Ford was selected to run a research study investigating the “ignoring my ideas” phenomenon often reported by women faculty. She planned to use observation, videotaping, transcription, and analysis of both men and women faculty to document the phenomenon among the women.

Implemented? Dr. Ford completed this research.

Results. As Dr. Ford began to more clearly formulate her research question, her focus shifted from documenting how women are ignored in meetings, to documenting how women get their voices heard in meetings. Using videotapes and detailed transcriptions of naturally-occurring conversations in a variety of meetings, Dr. Ford found that the women in her data regularly use questions to open participation and to project trajectories of further talk in which the questioners

emerge as major contributors. This finding contrasts with some previous studies that pointed to women's use of questioning as a powerless or weak strategy; Ford proposes that some forms of questioning give power to the questioner rather than the addressee. The book also offers a chapter presenting a fine-grained analysis of two women who succeed in presenting disaffiliative or disagreeing turns directed toward persons of higher institutional rank (persons who happen to be men). Some of the presentations and publications in which she presents these findings include:

Refereed Publications

Ford, Cecilia. "Questioning in Meetings: Participation and Positioning." In *Why Do You Ask? The Function of Questions in Institutional Discourse* (Susan Erlich and Alice Freed, Eds.) Oxford University Press. In press.

Ford, Cecilia E. 2007. *Women Speaking Up: Getting and Using Turns in Workplace Meetings*. New York: Palgrave Macmillan.

Papers in Progress

Ford, Cecilia E. and Barbara A. Fox. 2005. "'Can I Make a Brief Comment on That': Reference and Social Organization In and Around an Extended Turn." In progress.

Refereed Presentations

Ford, Cecilia. July 2003. "Gender and Language in/as/on Academic Science: Combining Research with a Commitment to Institutional Change." Perception and Realization in Language and Gender Research Conference. Michigan State University. East Lansing, MI.

Ford, Cecilia. May 3, 2004. "'Having our ideas ignored': CA and a Feminist Project." American Association for Applied Linguistics Annual Conference. Colloquium entitled "CA as Applied Linguistics: Crossing Boundaries of Discipline and Practice." Portland, OR.

Ford, Cecilia. June 11-16, 2005. "'Can I Make a Brief Comment on That': Reference and Social Organization In and Around an Extended Turn" (Invited lecture). Symposium on Reference and Referential Form in Interactional Linguistics, organized by the Nordic Research Board. Helsinki, Finland.

Ford, Cecilia and Barbara A. Fox. July 6-9, 2005. "Reference and Repair as Grammatical Practices in an Extended Turn" (Plenary address). 15th Annual Meeting of the Society for Text & Discourse. Amsterdam, Netherlands.

Ford, Cecilia and Teddy Weathersbee. July 25, 2005. "Women's Agency and Participation: Feminist Research for Institutional Change." Symposium on Gender in Public Settings: Approaches to Third Wave Feminist Analysis at the 14th World Congress of Applied Linguistics Conference. University of Wisconsin-Madison. Madison, WI.

Ford, Cecilia. May 11-14, 2006. "Studying Turn Taking in Workplace Meetings as 'Interdisciplinary/Applied' Conversation Analysis." International Conference on Conversation Analysis. Helsinki, Finland.

Ford, Cecilia. May 15, 2006. "Methods and Challenges in the Study of Language in Interaction" (Invited speaker). Department of Linguistics. Stockholm University. Stockholm, Sweden.

Non-Refereed Presentations

Ford, Cecilia. September 16, 2003. "Gender and Talk: Looking Back and Looking Forward." Women's Health Forum of the UW-Madison Center for Women's Health and Women's Health Research. University of Wisconsin-Madison. Madison, WI.

Ford, Cecilia. February 16, 2004. "Getting our Voices Heard: Patterns of Participation in University Meetings." WISELI Seminar. Madison, WI.

Ford, Cecilia. May 2005. "Language and Heteronormativity." Workshop on Global Perspectives on Sexual Diversity and Gender Relations in a Changing World. Multicultural Student Center and International Student Services. University of Wisconsin-Madison. Madison, WI.

Ford, Cecilia. March 8, 2006. "The Extraordinary Precision of Ordinary Talk: A Linguist's Perspective on Social Interaction." University Roundtable. University of Wisconsin-Madison. Madison, WI.

Future of Activity. Once the scholarly book is published, Dr. Ford's attention will return to less formal venues for sharing the insights from the study and its approach to understanding interaction. The intention is to write for and present to non-linguistic audiences in more accessible language than that in the book chapter and the linguistics presentations so far, accessibility and wider effect being part of the feminist commitment of the enterprise. WISELI will continue to be involved in assisting Dr. Ford as she disseminates this work to a broader audience.

Research Proposed: Ethnographic Study

Description of Activity. Based upon knowledge gained from the initial interviews with women faculty, and also survey findings, participant observation in formal (e.g., faculty meetings, classrooms, theses defenses, etc.) and informal (e.g., labs and working spaces) settings will occur to examine the degree to which the organizational structures and divisions of labor within departments, in laboratories, in instructional settings, on grants, and in research collaborations and initiatives, contribute to the production and reproduction of career-impeding gender schemas and hierarchies. Open-ended interviews with observed participants will augment the observational data. Ultimately, data from the ethnographic study should feed back to inform the issue studies.

Implemented? Prof. Amy Stambach guided doctoral candidate Ramona Gunter's work for this proposed research project. The initial faculty/staff interviews were conducted, in part, by Dr. Gunter, and the focus of the project emanated from these in-depth interviews (but not the survey

data.) Gunter observed two different laboratory settings and also observed classrooms, as indicated in the proposal. She also interviewed additional lab members. The ethnographic research did not feed back into issue studies as expected, however. This project evolved as a stand-alone research project.

Results. Through the course of the interview and observational data she collected, Dr. Gunter reaffirmed the importance of *communication* in facilitating the learning and research progress of graduate students. What she discovered was not the usual finding that women were disadvantaged in their laboratory workgroups due to a lack of communication (i.e., isolation), but rather that gendered patterns of communication shaped conversations in ways that benefit men and hinder women. In addition to the gendered modes of interpersonal communication, Gunter uncovered both subtle and not-so-subtle examples of social structures and social expectations that also tended to enhance men's progress towards their degrees, and hinder women's progress.

Some of the publications, presentations, and other work emanating from this research project include:

Refereed Publications

Gunter, Ramona and Amy Stambach. 2003. "As Balancing Act and As Game: How Women and Men Science Faculty Experience the Promotion Process." *Gender Issues*. 21(1):24-42.

Gunter, Ramona and Amy Stambach. 2005. "Differences in Men and Women Scientists' Perceptions of Workplace Climate." *Journal of Women in Minorities in Science & Engineering*. 11(1):97-116.

Refereed Presentations

Stambach, Amy and Ramona Gunter. May 2003. "As Balancing Act and As Game: How Women and Men Science Faculty Experience the Promotion Process." Gender, Science, and Technology International Conference. Trondheim, Norway.

Non-Refereed Presentations

Gunter, Ramona. October 20, 2003. "Science Faculty Talk about Self, Home, and Career." WISELI Seminar. University of Wisconsin-Madison. Madison, WI.

Gunter, Ramona. April 3, 2006. "Men and Women Graduate Students' Experiences in Two Plant Science Laboratories." Fort Atkinson Branch of American Association of University Women Meeting. Fort Atkinson, WI.

Dissertation

Gunter, Ramona. 2007. "Laboratory Talk: Gendered Interactions and Research Progress in Graduate Science Education." Doctoral Dissertation: University of Wisconsin-Madison.

Future of Activity. This project is completed. Dr. Gunter may produce a book and/or future journal articles from her dissertation work.

Research Proposed: Modeling Predictive Variables of Campus Climate

Description of Activity. After creating a scale measure of “perceived climate” using the faculty survey data, discriminant analysis will be used to uncover a set of variables that significantly affect perceived departmental climate. Analyses will be guided by Dr. Murray Clayton, who has used this technique in the past.

Implemented? This study was never completed, as Dr. Clayton took on first a high-level administrative leadership position in the University (chair of the University Committee), and then became chair of the Plant Pathology department.

Results. None.

Future of Activity. It may be possible to pursue this analysis in the future.

Research Proposed: Evaluation of Existing Campus Programs

Description of Activity. WISELI will gather and analyze data on the following existing programs at UW-Madison, in order to evaluate their effectiveness in creating gender equity: Dual Career Couples programs, Tenure clock extensions, Split Appointments, Gender Pay Equity Studies, Women Faculty Mentoring Program, The Chancellor’s UW-Madison Climate Initiative, Sexual Harassment Information Sessions, Campus Child Care, and the WISE Dormitory.

Implemented? Evaluation of the following existing programs was completed: Dual Career Couples programs, Tenure clock extensions, Campus Childcare, Gender Pay Equity Studies, Women Faculty Mentoring Program, and the Sexual Harassment Information Sessions. Split appointments were not investigated because we uncovered only one couple sharing a faculty appointment, and they left the UW-Madison in 2005/06. The UW-Madison Climate Initiative was not a formal program that we could evaluate, and the WISE Dormitory completed an internal evaluation in 1998 and planned a follow-up in 2003 in collaboration with the CIRTL/DELTA program, so it was unnecessary for us to duplicate these efforts.

Results. Main findings from each of the evaluation reports completed by the WISELI evaluation team are summarized in the final evaluation report (see Appendix 2).

Evaluation Reports

Sheridan, Jennifer; Deveny Benting; and Christine Maidl Pribbenow. July 27, 2004. “Evaluation of the Women Faculty Mentoring Program at the University of Wisconsin-Madison.”

Sheridan, Jennifer and Deveny Benting. October 29, 2004. “Evaluation of the Tenure Clock Extension Policy at the University of Wisconsin-Madison.”

Sheridan, Jennifer; Deveny Benting; and Christine Maidl Pribbenow. December 2005. “Evaluation of Childcare Needs and Practices at the University of Wisconsin-Madison.”

O’Connell, Kathleen; Christine Maidl Pribbenow; and Deveny Benting. March 2006. “The Climate at UW-Madison: Begins Sunny and Warm, Ends Chilly.”

Winchell, Jessica K. and Christine Maidl Pribbenow. April 2006. “Evaluation of the Gender Pay Equity Study and Equity of Faculty Salaries Policy at the University of Wisconsin-Madison.”

Winchell, Jessica K. and Jennifer Sheridan. September 2006. "Evaluation of the Sexual Harassment Information Sessions at the University of Wisconsin-Madison."

Pribbenow, Christine Maidl; Jennifer Sheridan; Brenda Parker; Jessica Winchell; Deveny Benting; Kathy O'Connell; Cecilia Ford; Ramona Gunther; and Amy Stambach. July 2007. "Summative Evaluation Report of WISELI: The Women in Science and Engineering Leadership Institute."

Future of Activity. WISELI evaluated many of these programs for the first time, and thus demonstrated the importance of evaluating diversity-related programs in order to both enhance the programs and justify the public funding supporting them. As WISELI evolves to become part of a wider diversity-related institute at UW-Madison, we anticipate that we will become a source of outside evaluation for other programs that have never been evaluated, thereby enhancing the UW-Madison's programming for diversity with an evidence-based approach.

New Initiative Proposed: Establish WISELI

Description of Activity. The Women in Science & Engineering Leadership Institute (WISELI) will be a centralized, visible administrative structure with space, a phone number, and a web site. At a Town Hall Meeting, to which all UW faculty and staff will be invited, our plans will be announced and discussed. Articles in the campus-wide and individual college newsletters and the local newspapers will announce the NSF award and the establishment of WISELI. Space will be provided in the College of Engineering (CoE) near the Dean's Office with prominent signage on the door. The Co-Directors (proposal PIs) will report directly to the Provost. A web page and letterhead will be developed and will include links to multiple national and local sites relevant to women in science and engineering.

Implemented? WISELI was established immediately in the College of Engineering. The promised space in the Deans' Suite in Engineering Hall was provided to the WISELI staff, and a website, listserv, phone number, and letterhead were all created. Town Hall meetings were implemented in April 2002. Announcements of WISELI's creation and the award of the ADVANCE grant were prominently advertised on the UW-Madison website and in the faculty/staff newspaper, *Wisconsin Week*. In Summer 2003, WISELI became an official University center when the Academic Planning Council approved our request for center status. The website is a wealth of information regarding both WISELI's programs, and other information related to women in science and engineering.

Website. <http://wiseli.engr.wisc.edu> .

Results. WISELI as a research center has been a very visible and recognizable center for research and programs related to gender equity on campus. As outlined in some detail in our final evaluation report (see Appendix 2), WISELI is generally acknowledged to have: (1) raised the awareness level about the climate for women on campus; (2) performed rigorous and valuable research; and (3) created high-quality, effective programs. These outcomes are acknowledged by both high-level administrators, and women faculty in STEM themselves. Elsewhere in the report, the success of WISELI's listserv and website in developing networks, promoting communication, and increasing the visibility of women in science and engineering are highlighted (see also "Develop Networks, Promote Communication, Increase Visibility of

Women in Science and Engineering” below.) Some of the presentations and publications we produced, or press articles about WISELI, include:

Refereed Presentations

Carnes, Molly and Jo Handelsman. October 2002. “The NSF ADVANCE Program at the University of Wisconsin-Madison: An Interdisciplinary Effort to Increase the Recruitment, Retention, and Advancement of Women in Academic Departments in the Biological and Physical Sciences.” Retaining Women in Early Academic Science, Mathematics, Engineering, and Technology Careers Conference. Iowa State University. Ames, IA.

Murphy, Regina. November 2002. “The Women in Science & Engineering Leadership Institute at UW-Madison.” American Institute of Chemical Engineers (AIChE) Annual Meeting. Indianapolis, IN.

Sheridan, Jennifer; Molly Carnes; and Jo Handelsman. 2003. “The University of Wisconsin-Madison ADVANCE Program: Progress to Date.” Women in Engineering Programs & Advocates Network (WEPAN) 2003 Conference Proceedings (on CD-ROM). <http://www.wepan.org/storelistitem.cfm?itemnumber=14> , Paper #1040. June 2003. Available online:

http://dpubs.libraries.psu.edu/DPubS?service=Repository&version=1.0&verb=Disseminate&view=body&content-type=pdf_1&handle=psu.wepan/1181071718# .

Carnes, Molly. February 13, 2004. “Status of STEM Female Faculty Recruitment, Retention and Advancement” (Discussant). “Systemic Transformations in the Role of Women in Science and Engineering” Symposium, 2004 American Association for the Advancement of Science Annual Meeting. Seattle, WA.

Parker, Brenda. April 19, 2007. “NSF ADVANCE: Lessons for Geography Departments” (Panelist). American Association of Geographers Annual Meetings. San Francisco, CA.

Non-Refereed Presentations

Sheridan, Jennifer; Molly Carnes; and Jo Handelsman. April 3, 2002. “WISELI” (Poster). Showcase 2002. University of Wisconsin-Madison. Madison, WI.

Handelsman, Jo and Molly Carnes. December 2002. “University of Wisconsin-Madison Women in Science and Engineering Leadership Institute.” Plant Pathology Research Seminar Series. University of Wisconsin-Madison. Madison, WI.

Wendt, Amy. September 2003. “NSF ADVANCE at UW-Madison: WISELI Activities.” 25th Anniversary of the Women in Computer Science and Engineering Organization. University of California-Berkeley. Berkeley, CA.

Spear, Peter. April 21, 2004. "Sustainability of ADVANCE Programs" (Panelist). NSF ADVANCE National Conference. Georgia Institute of Technology. Atlanta, GA.

Carnes, Molly. October 20, 2004. "NSF ADVANCE Program at UW-Madison" (Invited Speaker). University of Illinois-Chicago. Chicago, IL.

Carnes, Molly; Jo Handelsman; Lillian Tong; and Amy Wendt. December 8, 2004. "WISELI Update—Status of Our Efforts to Promote the Advancement of Women in Science and Engineering." WISELI Seminar. University of Wisconsin-Madison. Madison, WI.

Peercy, Paul. December 13, 2004. "NSF ADVANCE Institutional Transformation Award at UW-Madison." NSF ADVANCE Engineering Workshop. National Science Foundation. Washington, DC.

Coppersmith, Sue. April 8, 2005. "NSF ADVANCE Institutional Transformation Award at UW-Madison." Mathematical and Physical Sciences (MPS) Advisory Committee Meeting. National Science Foundation. Washington, DC.

Handelsman, Jo; Molly Carnes; Jennifer Sheridan; Eve Fine; and Christine Pribbenow. December 9, 2005. "NSF ADVANCE at the UW-Madison: Three Success Stories" (Poster). National Academies' "Convocation on Maximizing the Potential of Women in Academic Science and Engineering." National Academies of Science. Washington, DC.

Sheridan, Jennifer. May 17, 2006. "Lessons Learned from ADVANCE at the UW-Madison: What We Wish We Had Known...." 5th Annual NSF ADVANCE PI Meeting. National Science Foundation. Washington, DC.

Carnes, Molly and Jennifer Sheridan. April 11-12, 2007. "Overview of WISELI: Lessons Learned" and "Overview of WISELI: New Initiatives at UW-Madison" (Invited speakers). University of Minnesota. Minneapolis, MN.

Evaluation Reports

Sheridan, Jennifer; Jo Handelsman; and Molly Carnes. 2002. "Current Perspectives of Women in Science & Engineering at UW-Madison: WISELI Town Hall Meeting Report." Available online at:
http://wiseli.engr.wisc.edu/reports/TownHallReports/WISELI_Town_Hall_Report.pdf

Pribbenow, Christine Maidl; Jennifer Sheridan; Brenda Parker; Jessica Winchell; Deveny Benting; Kathy O'Connell; Cecilia Ford; Ramona Gunther; and Amy Stambach. July 2007. "Summative Evaluation Report of WISELI: The Women in Science and Engineering Leadership Institute."

Press Reports

"Women in Science Get a Major Boost From NSF, UW-Madison." *Wisconsin Week*. October 19, 2001. <http://www.news.wisc.edu/6687.html> .

“Institute Plans Effort to Boost Women in Science.” *Wisconsin Week*. March 26, 2002. <http://www.news.wisc.edu/7231.html> .

“Documentary Depicts Women in Science.” *Wisconsin Week*. February 24, 2004. <http://www.news.wisc.edu/9465.html> .

“NSF Program Working to Help Women Attain Leadership in Science and Engineering.” *UW-Madison College of Engineering Perspective*. Spring 2004. <http://www.engr.wisc.edu/alumni/perspective/30.3/PerspectiveSpr2004.pdf> .

“Working for Women.” *Wisconsin State Journal*. May 23, 2004. <http://www.madison.com/archives/read.php?ref=/wsj/2004/05/23/0405190389.php> .

“Women in Medicine Said to Face Widespread Bias.” *Richmond Times Dispatch*. March 6, 2005.

“Gender, Attitude, Aptitude and UW: In the Wake of the Harvard President’s Comments, UW Women Take a Look at Their Own Campus.” *Wisconsin State Journal*. March 27, 2005. <http://www.madison.com/archives/read.php?ref=/wsj/2005/03/27/0503260393.php> .

“For Women in Sciences, Slow Progress in Academia.” *The New York Times*. April 15, 2005. <http://select.nytimes.com/gst/abstract.html?res=FA0912FE3A5A0C768DDDAD0894DD404482> .

“A Woman’s Place in the Lab: Harvard Studies Efforts to Boost Female Faculty at U-Wisconsin.” *The Boston Globe*. May 1, 2005. http://www.boston.com/news/local/articles/2005/05/01/campus_strives_to_boost_female_faculty/ .

“Women Still Face Bias in Science.” *Financial Times*. August 19, 2005.

“Women in Science: Climbing the Career Ladder.” Talk of the Nation, *National Public Radio*. August 26, 2005. <http://www.npr.org/templates/story/story.php?storyId=4817270>.

“The Gender Gap in Science is Shrinking at Universities.” *St. Louis Post-Dispatch*. October 23, 2005.

“WISELI Survey to Analyze Quality of Worklife for UW-Madison Faculty.” *Wisconsin Week*. January 17, 2006. <http://www.news.wisc.edu/12040.html>.

“Looking Through the Glass Ceiling of Science: Women in Science and Engineering Continue to Struggle for Equality.” *The McGill Daily*. March 13, 2006.
<http://www.mcgilldaily.com/view.php?aid=4983> .

Products Available to the Public

“WISELI: Advancing Institutional Transformation.” Documentary Video, first in series of three. Available online through *The Research Channel*:
<http://www.researchchannel.com/program/displayevent.asp?rid=2217> .

“WISELI: Building on a Legacy.” Documentary Video, second in series of three. Available online through *The Research Channel*:
<http://www.researchchannel.org/prog/displayevent.asp?rid=3455> .

“WISELI: *FORWARD* with Institutional Transformation.” Documentary Video, third in series of three. Available online through *The Research Channel*:
<http://www.researchchannel.org/prog/displayevent.aspx?rID=16095&fID=345> .

Future of Activity. As we wrote in an announcement to our WISELI affiliates in December 2006, “WISELI *will* go on!” Because we became an official center, with a UDDS code, this enabled WISELI to apply for other diversity-related grants. We were successful in obtaining an NSF Louis Stokes Alliance for Minority Participation grant (named the Wisconsin Alliance for Minority Participation, or WiscAMP), and have submitted an Alliance for Graduate Education and the Professoriate (AGEP) proposal in three successive cycles with the third submission currently under review. In 2006, we successfully obtained a Partnerships for Adaptation, Implementation, and Dissemination (PAID) grant, which enables WISELI to continue offering workshops at UW-Madison, disseminating our approach to hiring and departmental climate to other universities, and creating products such as brochures that enable faculty to talk to each other about ways to combat gender and other biases at performance evaluation junctures. In addition to grant funding, WISELI is funded through general purpose revenue contributions from the Office of the Provost, the College of Engineering (CoE), the College of Letters & Sciences (L&S), the School of Medicine and Public Health (SMPH), the College of Agricultural and Life Sciences (CALS), the School of Veterinary Medicine (VetMed), and the School of Pharmacy (Pharm). WISELI is also developing a plan to seek gift funds from which to operate, and has created a revenue-generating account so that the materials and services we provide to campus and to universities beyond UW-Madison can become a source of support for WISELI as well. We have applied for a trademark for “Women in Science & Engineering Leadership Institute” to protect our name.

At least through 2009, WISELI will continue to be housed within the College of Engineering. The organizational structure of WISELI will likely change in the future, however. WISELI will no longer be the umbrella organization that houses the WiscAMP and AGEP projects, but rather a new entity (tentatively titled the “Wisconsin Institute for Research and Evaluation on Diversity”, or WIRED) will be the umbrella organization housing WISELI, WiscAMP, AGEP/GERS, and other projects related to diversity of students, staff and faculty under the three major pillars funded by NSF: Sex and Gender, Race and Ethnicity, and Disability. The College of Engineering has identified space to house WIRED.

New Initiative Proposed: Examine patterns of assigning institutional resources for uneven distribution by gender

Description of Activity. Information on start-up packages, assigned space, access to administrative support, assignment of teaching assistants, type of class (e.g. undergraduate vs. graduate), number of graduate students and postdocs, and location of office and laboratory will be collected and examined for gender discrepancies. If discrepancies are uncovered, further investigation into the causes will ensue, and formal reports will be made to deans and other high-level administrators.

Implemented? Some of the listed institutional resources were examined for gender disparities directly, and others were investigated using survey data to look for gender differences in satisfaction with the resources (rather than with the level of resources themselves.) Other resources were not examined. Startup packages and assigned space were examined empirically and satisfaction with startup and space was examined using survey data. Survey data on faculty satisfaction with access to administrative support, assignment of TAs, and other resources not included in the initial grant (access to needed equipment, maintenance of equipment, departmental travel funds, internal funding for research, technical/computer support, and clinical support) were also included on the survey. We did not collect data (either empirical data or satisfaction data) on the types of teaching assignments, and the numbers of graduate students/postdocs.

Results. Men and women faculty report similar satisfaction with their office and their lab space, and they also report similar levels of TA support and maintenance of their equipment. Women report more often than men that they are dissatisfied with their animal space, departmental travel funds, technical/computer support, and access to office/clerical support. Women report more satisfaction than men on their access to internal funding. Although women report satisfaction with space (office and lab) at similar levels to men, we did collect data on the square footage of office and lab space for the six participating colleges. Results indicate that while women have significantly less lab space than men (but not office space), once grant funding is controlled the significant gender coefficient disappears. Startup packages appear to be roughly equivalent between men and women faculty. Startup data is now collected annually by the Office of Academic Planning & Analysis, which helps to ensure gender equity of offers.

Some of the resource study results can be found at:

Evaluation Reports

Sheridan, Jennifer. May 2007. "Gender Equity By The Numbers: Status of Women in Biological & Physical Sciences at the University of Wisconsin-Madison, 2002-2006."

Pribbenow, Christine Maidl; Jennifer Sheridan; Brenda Parker; Jessica Winchell; Deveny Benting; Kathy O'Connell; Cecilia Ford; Ramona Gunther; and Amy Stambach. July 2007. "Summative Evaluation Report of WISELI: The Women in Science and Engineering Leadership Institute."

Future of Activity. Periodic evaluation of institutional resources will continue to be pursued by WISELI as funding permits. With the induction of new deans in several colleges, we might have access to better data on space than we did in 2003 when we completed our initial study. An

empirical investigation of teaching assignments would likely be the next resource to examine, as this was not investigated fully in the faculty surveys, nor did we attempt to gather data on teaching assignments for men and women faculty during the ADVANCE period.

New Initiative Proposed: Study the impact and feasibility of moving outstanding non-tenure line researchers into faculty positions

Description of Activity. Many women with PhDs in STEM fields at UW-Madison are working not on our tenure-track faculty, but in academic staff positions instead. WISELI will establish a working group, including representatives from the Academic Staff Council and administration, to determine the number of possible track switches and identify administrative, financial, and attitudinal barriers to accomplishing conversions. If such a program would have a positive impact, WISELI will work with campus administration to develop a systematic process for such track conversion.

Implemented? Institutional and survey data were used to determine the numbers of women in academic staff positions who might be performing work appropriate for a faculty position, and survey data was also collected to gauge the overall interest in making this track switch among women staff scientists. WISELI co-PIs Jo Handelsman and Molly Carnes worked with eleven individual women academic staff to facilitate a track switch.

Results. Academic staff climate survey data indicated that relatively few women staff members actually desired a tenure-track faculty position. Furthermore, few of the academic staff women that WISELI co-directors thought would be eligible for such a switch actually decided to pursue the change. For those that did pursue a track change, the most successful cases occurred in the School of Medicine and Public Health (SMPH), where status differences between clinical professors and tenure-track professors are smaller than status differences between staff scientists and faculty outside the SMPH. One positive policy change was implemented when Drs. Carnes and Handelsman obtained a commitment from the Provost and the Graduate School to treat track changes as new hires; e.g., a startup package would be offered to an employee making such a switch. Our conclusion is that while advocacy and coaching for track switches for individual women may be important for the academic careers of those individual women, track-switches overall are not an effective or efficient way to increase the numbers of women on our STEM faculty. Publications and presentations with these results are:

Evaluation Reports

O'Connell, Kathleen and Christine Maidl Pribbenow. December 2006. "She's Got a Ticket to Ride: Strategies for Switching from Non-Tenure to Tenure-Track Position at UW-Madison."

Non-Refereed Presentations

Sheridan, Jennifer. April 13, 2004. "Study of Academic Staff Work Life at UW-Madison: Preliminary Results." Wisconsin Center for the Advancement of Postsecondary Education Academic Staff Institute 2004. University of Wisconsin-Madison. Madison, WI.

Carnes, Molly. May 19, 2005. "Converting Academic Staff to the Tenure Track at the UW-Madison: A Viable Strategy?" 4th Annual NSF ADVANCE PI Meeting. National Science Foundation. Washington, DC.

Future of Activity. Molly Carnes continues to advocate for women in the SMPH who are interested in a track switch. These cases are much more difficult outside of the SMPH, but WISELI personnel are prepared to assist in such cases when asked.

New Initiative Proposed: Workshops for Department Chairs

Description of Activity. We will introduce a workshop on climate into the existing Leadership Series offered by the Provost's Office. The new workshop will address the nature of climate, including real experiences of respected women scientists, strategies to address each of the manifestations of climate described above or discovered in our evaluation, and approaches to successful implementation of strategies.

Implemented? WISELI designed and implemented the workshop series *Enhancing Departmental Climate: A Chair's Role*. A series of three workshops, based on the concepts of active learning, the workshop engages small groups of department chairs in discussion about climate in their own departments, and provides chairs with the opportunity to learn from each others' experiences and ideas. A brief departmental climate survey administered between the first and second workshops allows chairs to identify specific issues of concern for their departments and develop a plan to address these issues. This series was not merged with the Academic Leadership series in the Provost's Office, because the Academic Leadership series ceased operating when Associate Vice Chancellor Linda Greene stepped down from the AVC position.

From 2003 through 2005, 27 department chairs representing 26 departments (one department participated twice) have participated in these intensive workshops. Workshops were not offered in 2006 to avoid interfering with two other survey efforts on campus—WISELI's own *Study of Faculty Worklife*, and the National Research Council (NRC) ranking survey that was issued in the fall. Most of the participating departments were in the biological and physical sciences; of the 70 STEM departments with which we work, 24 (or, 34%) participated in these workshops. Approximately 2,930 faculty, academic and classified staff, postdoctoral fellows, scientists, researchers and graduate students to assess climate in their departments. Of these, 1,401 responded for an average response rate of 48% (range 31% to 71%).

Website. http://wiseli.engr.wisc.edu/initiatives/climate/workshops_deptchairs.html .

Results. One of WISELI's most well-known initiatives, the *Enhancing Departmental Climate: A Chair's Role* workshops have been well-received by chairs, faculty, and the UW-Madison administration. Evaluation results show that department chairs value the information they receive in the workshops, and feel that they are taking positive steps towards enhancing departmental climate. When departments are re-surveyed, the climate scores tend to increase after participation in the workshop. Yet, the evidence of effectiveness among rank-and-file faculty members is mixed. Survey results show that minority faculty in departments who participated in the workshops thought their departmental climate improved between 2003 and 2006, but women faculty from participating departments did not think their climate improved; in fact, they report a slight decline in their departmental climate. Whether this decrease for women stems from some sort of backlash resulting from a chair's participation in the workshops, or from a generalized increase in awareness of climate issues brought on by a chair's participation remains to be seen.

WISELI has begun disseminating this workshop series by allowing the program coordinator of the University of Illinois-Chicago (UI-C) ADVANCE team (WISEST Director Linda Seibert Rapoport) to participate in an entire 3-session training workshop in spring/summer of 2007.

Some of the reports and presentations describing this workshop, or emanating from this workshop, include:

Refereed Publications

Committee on Maximizing the Potential of Women in Academic Science and Engineering. 2006. "Beyond Bias and Barriers: Fulfilling the Potential of Women in Academic Science and Engineering." The National Academies Press: Washington, DC. <http://www.nap.edu/catalog/11741.html> . Pages 224-225.

Pribbenow, Christine Maidl; Jennifer Sheridan; Molly Carnes; Eve Fine; and Jo Handelsman. "Departmental Climate: Differing Perceptions by Faculty Members and Chairs." *The Journal of Women and Minorities in Science and Engineering*. [2006 draft accepted and under revision.]

Non-Refereed Presentations

Sheridan, Jennifer and Eve Fine. April 5, 2004. "WISELI Leadership Workshops" (Poster). Showcase 2004. University of Wisconsin-Madison. Madison, WI.

Handelsman, Jo. May 20, 2005. "Affecting Climate/Culture Change — Using Multiple Points of Entry in the Department of Kumquat Science." 4th Annual NSF ADVANCE PI Meeting. National Science Foundation. Washington, DC.

Fine, Eve. May 20, 2005. "Working with Department Chairs: Enhancing Department Climate." 4th Annual NSF ADVANCE PI Meeting. National Science Foundation. Washington, DC.

Handelsman, Jo; Molly Carnes; Jennifer Sheridan; Eve Fine; and Christine Pribbenow. Dec. 9, 2005. "NSF ADVANCE at the UW-Madison: Three Success Stories" (Poster). National Academies' "Convocation on Maximizing the Potential of Women in Academic Science and Engineering." National Academies of Science. Washington, DC.

Sheridan, Jennifer. March 17, 2006. "Climate and Institutional Change: ADVANCE Efforts to Improve Departmental Climate." Committee on Institutional Change-Women in Science and Engineering (CIC-WISE) Group Meeting. Chicago, IL.

Fine, Eve. May 18, 2006. "Climate Workshops for Department Chairs." 5th Annual NSF ADVANCE PI Meeting. National Science Foundation. Washington, DC.

Products Available to the Public

"Recommendations for Enhancing Department Climate." Available online at: <http://wiseli.engr.wisc.edu/initiatives/climate/Recommendations.pdf>

“Enhancing Department Climate: A Chair’s Role. Resources.” Available online at: http://wiseli.engr.wisc.edu/initiatives/climate/ResourceBook_07.pdf .

“Benefits and Challenges of Diversity.” Essay available online at: http://wiseli.engr.wisc.edu/initiatives/climate/Benefits_Challenges.pdf .

“Advice to the Top: Top 10 Tips for Academic Leaders to Accelerate the Advancement of Women in Science and Engineering.” Essay available online at: http://wiseli.engr.wisc.edu/Products/top_10_tips.pdf .

“Sex and Science: Tips for Faculty.” Essay available online at: http://wiseli.engr.wisc.edu/Products/Sex_and_Science.pdf .

“WISELI: Building on a Legacy.” Documentary Video, second in series of three. Available online through *The Research Channel*: <http://www.researchchannel.org/prog/displayevent.aspx?rid=3455> .

“WISELI: *FORWARD* with Institutional Transformation.” Documentary Video, third in series of three. Available online through *The Research Channel*: <http://www.researchchannel.org/prog/displayevent.aspx?rID=16095&fID=345> .

Evaluation Reports

Pribbenow, Christine Maidl. November 14, 2003. “WISELI Department Climate Workshops: Formative Evaluation Report.”

Pribbenow, Christine Maidl. July 14, 2005. “WISELI’s Climate Workshops for Department Chairs: Evaluation Report.”

Pribbenow, Christine Maidl; Jennifer Sheridan; Brenda Parker; Jessica Winchell; Deveny Benting; Kathy O’Connell; Cecilia Ford; Ramona Gunther; and Amy Stambach. July 2007. “Summative Evaluation Report of WISELI: The Women in Science and Engineering Leadership Institute.”

Future of Activity. Despite the mixed evidence of the effectiveness of this program, we plan to continue these workshops with a goal of running one, 3-session workshop each semester each year. In spring/summer of 2007, we trained 7 new faculty to serve as facilitators for this workshop series, and will begin a new workshop series in September 2007. As part of our PAID grant, we will design a plan to disseminate these workshops beyond UW-Madison, probably in consultation with UI-C as we see how their implementation of our workshops unfolds. We will continue to evaluate the workshops, and make a final designation of their effectiveness following the planned faculty climate survey in 2011.

New Initiative Proposed: Workshops on Laboratory Management

Description of Activity. A workshop series on laboratory management will be developed for principal investigators. The focus will be on issues that affect women disproportionately, but will be advertised on the basis of improving the overall functioning of their laboratories. Topics

will include learning how to motivate members of a team by positive approaches, resolve conflict, provide a supportive, respectful, and safe environment, and build cohesive, collegial teams.

Implemented? Design of this workshop series for PIs was not begun until early 2007, and a pilot workshop series will be implemented in fall 2007. The development of this workshop was postponed in order to develop the hiring workshops (see below). We have designed an 8-session workshop series, in which a cohort of new PIs will participate together in small group discussion on various topics of laboratory management, including hiring and retaining good employees and students, understanding how the money flows through the university, mentoring, lab climate, leadership, and other topics as they arise. A junior and senior faculty member in the sciences will facilitate the workshops, and many outside experts and presenters will be incorporated into the discussions.

Website. http://wiseli.engr.wisc.edu/initiatives/labmanagement/labmanagement_main.htm .

Results. Because this project is currently in the design phase, we have no results to report.

Future of Activity. We plan to pilot the workshop series in 2007/08, with 12-15 new faculty in biological sciences—primarily in CALS, but we will extend to new faculty in other colleges if we do not fill the 12-15 slots. These workshops will eventually be offered to all PIs in biological and physical sciences, and may be extended to all PIs (including social sciences) in the future. Evaluation of the PI workshops will be an important element of their design and continuation.

New Initiative Proposed: Celebrating Women in Science and Engineering Seminar Series

Description of Activity. A Celebrating Women in Science and Engineering Symposia series will be initiated. Outstanding women scientists will be hosted each semester of the granting period (a total of 10 series). When these women scientists are at UW-Madison, WISELI will sponsor trans-departmental receptions, and schedule special sessions with graduate students and postdoctoral fellows.

Implemented? The Celebrating Women in Science & Engineering seminar series was implemented slightly differently than envisioned in the original grant. Two “Celebrating” initiatives developed: (1) the WISELI seminar, and (2) the Celebrating Women in Science & Engineering grant program. The WISELI seminar began as a monthly seminar highlighting researchers on the UW-Madison campus who are studying issues related to women in STEM. In total, 23 WISELI seminars were presented from 2002 through 2006, see:

<http://wiseli.engr.wisc.edu/initiatives/seminar.html> . The Celebrating Women in S&E grants are awarded to student groups, departments, or other groups that want to bring in an outside speaker that will in some way address the status of women in science and engineering. This program was funded through contributions from five of the six schools and colleges housing the STEM fields. From 2002 through 2006, we awarded 34 grants, and have brought in 66 women speakers to 24 departments/programs in five schools/colleges.

Website. <http://wiseli.engr.wisc.edu/initiatives/celebrating/celebrate.html> .

Results. The WISELI seminars began with strong attendance and great enthusiasm, but within two years it became clear that this was not a good use of WISELI’s time and resources. Attendance began to dwindle, and we never developed a “core” group of attendees; it seemed that each seminar attracted a very different audience depending on the topic. Leadership Team members rarely attended the WISELI seminars. The final evaluation report (Appendix 2, Chapter VI) indicates a number of reasons why women faculty did not attend these seminars. We decided to discontinue offering them as of fall 2006.

The Celebrating Women in S&E grants, on the other hand, are thriving. In 2007 we received a commitment from all six of the STEM colleges to continue their contributions to the program through 2009 (the one college that did not contribute in 2002-2006 has now begun to contribute along with the rest of the STEM colleges.) Each individual grantee completes an evaluation of the program they hosted, and these evaluations indicate that women students, staff and postdocs in the departments who receive the funds appear to be the primary beneficiaries of the program. We have some anecdotal evidence that the availability of these funds facilitates grassroots organization of women in a STEM department. In several departments, women have collaborated to prepare a Celebrating grant, and then continued their association even after the grant ended. One of the events funded by the Celebrating program, a visit by Dr. Virginia Valian in 2003, is still cited by women faculty as one of the best programs WISELI presented during the course of our grant. Other events were open to the UW-Madison community more generally, and offered some professional development opportunities to women faculty, staff and students. Some of these professional development/leadership development events include:

- “Symposium on Women in Science Policy.” In partnership with Graduate Women in Chemistry.
- “Women and Environmental Leadership Symposium.” In partnership with Forest Ecology and Management department.
- “The Act of Teaching: Theatrical Tips for Teachers” led by Nancy Houfek (COACH). In partnership with the Astronomy department.
- “Encouraging Success in Science and Medicine.” In partnership with Medical Science Training Program.
- “Women in Science Roundtable Discussion: Striving for Equality in an Academic Environment” led by Dr. Linda Nicholson. In partnership with the Chemistry department.
- “How to Feel as Bright and Capable as Everyone Seems to Think You Are,” led by Valerie Young. In partnership with Graduate Women in Science (GWIS).
- “Communication Techniques for Strategic Negotiation and Leadership” led by Nancy Houfek (COACH). In partnership with Graduate Women in Chemistry.
- “Mentoring Women for Leadership,” a panel including all of the women deans at UW-Madison (Robin Douthitt, Luoluo Hong, Katharine May, Jeanette Roberts, and Frances Westley). In partnership with the Women Faculty Mentoring Program (WFMP).

Evaluation reports related to the Celebrating Women in Science & Engineering Grant Program include:

Evaluation Reports

Benting, Deveny and Christine Maidl Pribbenow. November 14, 2003. “Survey of the Virginia Valian Luncheon: Final Report.”

Winchell, Jessica. October 2004. “Celebrating Women in Science & Engineering Grant Program, 2002-2004: Interim Evaluation Report.”

Future of Activity. We have discontinued the WISELI seminars. However, the overwhelming success of the Virginia Valian visit in 2003 indicated to us that one very special event that brings together all women faculty on campus around an extraordinary speaker is worth more than many smaller, sparsely-attended events. Therefore, WISELI will be collaborating with the “Committee Honoring Denice’s Memory” (a small group of friends of Denice D. Denton) to host an annual Denice D. Denton Distinguished Lecture. Each year, the Denice D. Denton Memorial Fund and WISELI will host a high-profile campus visit, and include some sort of networking event for women faculty around that visit. In 2007, this event was the Denice D. Denton Memorial Symposium featuring Dr. Donna Shalala as the keynote speaker.

The Celebrating Women in S&E grants will continue through 2009, at which time an intensive evaluation on the program will be performed to ascertain whether it is meeting its goals. The issue of grassroots organizing of women faculty and students will be studied in more detail. The future of the program will be determined based on this summative evaluation.

New Initiative Proposed: Cluster Hire Initiative

Description of Activity. WISELI will work with senior women faculty in an interdisciplinary field of science or engineering to develop a proposal for a Cluster Hire: a group of new faculty positions for research in an interdisciplinary area.

Implemented? We were not able to develop a proposal for a new cluster for women in science and engineering, as the UW-Madison has not issued a call for new cluster proposals since November 2001—prior to the award of the ADVANCE grant.

New Initiative Proposed: Women in Science and Engineering Leadership Programs and Workshop

Description of Activity. We proposed to provide professional development opportunities for women in STEM, in a variety of formats and times. In addition to workshops for women in academic science and engineering, WISELI proposed to develop national training sessions for senior administrators (men and women) incorporating the principles established by WISELI's research and best practices.

Implemented? Although women at the very early Town Hall Meetings indicated that professional development was important to them (over 60% selected “Faculty and Staff Workshops” as a “high priority”), WISELI did not invest a great deal of effort into creating new professional development opportunities (although some were created through the Celebrating Women in Science & Engineering grant program, see page 24). We found that women faculty and staff at UW-Madison have access to an array of leadership development opportunities through programs already existing on campus. Thus, we shifted our priority from creating these opportunities from scratch, to facilitating women’s participation in already-existing professional development activities on campus. When we uncovered an opportunity in line with WISELI’s goals, we advertised it to the women faculty, staff and students on our listserv, and offered to facilitate registration and pay for attendance. We often negotiated group rates at training events. From 2002 through 2006, we sent over 35 women, both faculty and academic staff, to workshops or seminars such as: “Perspectives for Success Breakfast Series”, “A Framework for Understanding Campus Climate”, “Hail to the Chiefs: Leadership Insights from Those Who Have Seen Everything”, “Ethics, Law, and Postsecondary Education: A Primer for College and

University Administrators”, “Demystifying the Budget Process”, “Advancing Your Career in Campus Leadership”, and “Something Ventured, Something Gained: Negotiation for Women.”

Although not a workshop, one activity will result in a professional development opportunity for junior faculty. A WISELI Leadership Team member developed a “self-assessment guide” for untenured faculty. This project is under review by Cambridge University Press, and may be published as early as 2008.

The “national training sessions for senior administrators” was realized through the offering of a train-the-trainer workshop developed from the *Searching for Excellence & Diversity* hiring workshops. Two of these workshops were provided in Madison—one in June 2004 for faculty and administrators from the University of Wisconsin System universities (57 attendees from 12 universities), and one in January 2005 for faculty and administrators from the Wisconsin Technical College System (56 attendees from 15 institutions.)

Website. <http://wiseli.engr.wisc.edu/initiatives/hiring/OtherUniversities.htm> .

Results. We found that combining faculty and administrators from so many campuses did not necessarily facilitate the creation of hiring workshops on their own campuses. Thus, we committed to doing these “train-the-trainer” workshops at hosting institutions instead, so that a greater number of faculty and staff could experience the workshop first-hand, which increases the possibility that training is actually implemented on the campus. We have traveled to UW-Stout and Washington University in St. Louis to present these train-the-trainer workshops (entitled *Implementing Workshops for Search Committees*.)

Working Papers

Crone, Wendy. *Survive and Thrive: A Self-Assessment Guide for Untenured Faculty*. 2007 draft under review/tentative publication agreement. Cambridge University Press.

Evaluation Reports

Benting, Deveny and Christine Maidl Pribbenow. July 5, 2005. “Survey Results of WISELI’s ‘Implementing Training for Search Committees’ Workshop.”

Benting, Deveny and Christine Maidl Pribbenow. March 14, 2006. “Survey Results of WISELI’s ‘Implementing Training for Search Committees’ Workshops for the Wisconsin Technical College System.”

Benting, Deveny. March 26, 2007. “Evaluation of ‘Searching for Excellence and Diversity: A Workshop for Search Committees’”. Presented at UW-Stout on March 1, 2007.”

Benting, Deveny. March 28, 2007. “Evaluation of ‘Searching for Excellence and Diversity: A Workshop for Search Committees’”. Presented to the Washington University Danforth Campus on March 6, 2007.”

Benting, Deveny. March 29, 2007. "Evaluation of 'Searching for Excellence and Diversity: A Workshop for Search Committees'. Presented to the Washington University Medical School on March 5, 2007."

Future of Activity. Professional development activities on the UW-Madison campus abound for faculty members who are alert and watching for them. WISELI will continue to monitor such opportunities that are of special interest to women faculty and the issues affecting women more often, and will devote space on our website for such opportunities. However, due to the reduction of our funds, we will not be paying for faculty members to attend these events where there is a cost involved.

Reaching out to other universities and performing workshops that disseminate WISELI initiatives will remain an important element of the WISELI mission. We already have a system in place for disseminating our hiring workshops in this manner (see website above). As part of our PAID proposal, will develop a plan for disseminating our department chair climate workshops by 2009.

New Initiative Proposed: Life Cycle Research Grants

Description of Activity. Research grants will be available to women faculty at critical junctures in their professional careers (e.g. between grants, a new baby, parent care responsibilities). These grants are meant to be flexible and women may apply for varying amounts and academic purposes.

Implemented? The Life Cycle Research Grant program was initiated in Fall of 2002. This pilot phase ran for three years, funding 10 faculty with additional support from the Graduate School and the Office of the Provost. In 2005, the Trustees of the Estate of William F. Vilas voted to fund the program annually, extending it to all faculty and permanent PIs in all divisions. In 2005 we awarded \$310,000 to 18 faculty, and in 2006 we awarded \$310,000 to 18 faculty. In 2006, the Vilas Trustees voted to increase the amount provided for this program to \$372,000.

Results. From the first Town Hall Meetings with women faculty, the proposal of the Life Cycle Research Grants (later renamed the Vilas Life Cycle Professorship program) generated a great deal of excitement and interest. The initial evaluation of the program showed that the goal of providing support during critical career junctures was being met. In addition, we found among the early recipients that:

- It is the only grant of its kind;
- The grant provided psychological support;
- It had an impact on others' lives as well;
- It was an investment in the grantees' futures *and* the University's.

This evaluation convinced the Provost, and the deans of the Graduate School, to find a funding mechanism so that the program could be continued on campus. WISELI prepared a proposal for the Vilas Trustees in February 2005, and were funded in time for a spring 2005 deadline for the newly-expanded program. In Spring 2006, the Vilas Life Cycle Professorship program was selected as a Sloan Foundation/American Council on Education Award for Faculty Career Flexibility, recognizing our innovation in career flexibility for tenured and tenure-track faculty.

Reports and presentations related to the Life Cycle Research Grants/Vilas Life Cycle Professorship program include:

Refereed Presentations

Sheridan, Jennifer. October 14, 2004. "WISELI's Life Cycle Research Grant Program." Society of Women Engineers 2004 National Conference. Milwaukee, WI.

Non-Refereed Presentations

Sheridan, Jennifer. May 19, 2005. "WISELI's Life Cycle Research Grant Program." 4th Annual NSF ADVANCE PI Meeting. National Science Foundation. Washington, DC.

Handelsman, Jo; Molly Carnes; Jennifer Sheridan; Eve Fine; and Christine Pribbenow. December 9, 2005. "NSF ADVANCE at the UW-Madison: Three Success Stories" (Poster). National Academies' "Convocation on Maximizing the Potential of Women in Academic Science and Engineering." National Academies of Science. Washington, DC.

Sheridan, Jennifer. May 18, 2006. "Vilas Life Cycle Professorship Program." 5th Annual NSF ADVANCE PI Meeting. National Science Foundation. Washington, DC.

Products Available to the Public

"WISELI: Building on a Legacy." Documentary Video, second in series of three. Available online through *The Research Channel*:
<http://www.researchchannel.org/prog/displayevent.asp?rid=3455> .

"WISELI: FORWARD with Institutional Transformation." Documentary Video, third in series of three. Available online through *The Research Channel*:
<http://www.researchchannel.org/prog/displayevent.aspx?rID=16095&fID=345> .

Evaluation Reports

Pribbenow, Christine Mairl and Deveny Benting. June 9, 2004 (revised September 23, 2004.) "WISELI's Life Cycle Research Grant Program: Formative and Summative Evaluation."

O'Connell, Kathleen and Jennifer Sheridan. April 2006. "Evaluation of the Vilas Life Cycle Professorships."

Pribbenow, Christine Mairl and Jennifer Sheridan. April 2007. "Evaluation of the Vilas Life Cycle Professorships Program."

Future of Activity. The Vilas Life Cycle Professorship program will continue, administered by WISELI, as long as the Vilas Trustees continue to fund the program.

New Initiative Proposed: Endowed Professorships for Women in Science

Description of Activity. The Chancellor has included 10 professorships (20 million dollars) for women in science and engineering on the select list of targets for fundraising.

Implemented? While the Chancellor did include the professorships on the fundraising list, funds were not actively solicited for the program, in part because of the questionable legality of a

professorship program for women faculty only. Thus, no female faculty were ever awarded a professorship for women in science through this mechanism.

New Initiative Proposed: Develop Networks, Promote Communication, Increase Visibility of Women in Science and Engineering

Description of Activity. WISELI will develop list serves and email distribution lists to connect WISE faculty, staff, graduate students, and postdocs; maintain a web site, sponsor receptions for the Celebrating Women in Science and Engineering Seminar Series, publish a WISE Research Resource Book with a picture and academic sketch of each woman faculty member in the biological and physical sciences; and publish a newsletter on the web to provide updates on arrivals of new women faculty, accomplishments and milestones, and research news from the women faculty in science. The Leadership Team will serve as a nominating committee, actively seeking awards for eligible women at UW-Madison. Further linkages with other campuses will be achieved by sending women to the CIC WISE and other national WISE meetings.

Implemented? Almost all of these activities were implemented, and most occurred within the first year of the grant period. WISELI has a listserv and a website. We sponsored Celebrating Women grants and also the WISELI seminar (see above). The Leadership Team served as a nominating committee, actively seeking awards for women faculty and staff (see also the “senior women” initiative below). WISELI-affiliated faculty and staff attended CIC-WISE meetings and other national meetings, including WEPAN, SWE, and of course the ADVANCE PI meetings. The WISE Research book was not implemented, and we did not produce a newsletter. Rather, we monitored UW-Madison press releases, and also the press releases of participating schools and colleges, to highlight the news and accomplishments of our women faculty and staff in an ever-changing “News” column on our webpage.

Website. <http://wiseli.engr.wisc.edu> .

Listserv. <http://wiseli.engr.wisc.edu/getin.html> .

Results. The success of WISELI to decrease isolation of women faculty in STEM at UW-Madison is outlined in the summative evaluation report (see Appendix 2, Section VI). Although causal relationships cannot be proved, women who responded to our faculty survey reported lower levels of both departmental isolation and isolation at UW-Madison overall between 2003 and 2006. The relationships are not statistically significant, likely due to the small numbers (N~150), but are large enough that we are very encouraged by the trend. For example, in 2003 44.9% of women reported feeling isolated in their departments, and in 2006 35.7% reported feeling isolated in their departments, a fairly large drop.

The visibility of women may be linked to the visibility of the WISELI website. Our website receives approximately 3,000 unique visitor “hits” each month, and the number one page accessed is the front page, on which we feature accomplishments of women STEM faculty at UW-Madison. The visibility of women in STEM might also be linked to the visibility of WISELI itself. WISELI has become a highly visible organization on the UW-Madison campus promoting gender equity for STEM faculty. In 2006, significantly more STEM faculty—men and women—report having heard of WISELI, and valuing WISELI, than did in 2003. In 2003, 20% of women faculty respondents to the survey had never heard of WISELI; in 2006 it was only 9%. Although men are significantly more likely to say they have never heard of WISELI, they too are much more aware of our presence in 2006 than they were in 2003. In 2003 over half of men faculty (56%) reported never having heard of WISELI, and in 2006 30.5% report never

having heard of WISELI. Among those faculty who have heard of WISELI, 71% report that WISELI is valuable. Women are significantly more likely than men to say that WISELI is valuable in 2006 (87% vs. 66%); still, two-thirds of male faculty agree that WISELI is a very, quite, or somewhat valuable program on campus.

The connections of women through WISELI's listserv have continued to grow over the years. When we began, we had only 68 affiliates on our listserv. As of the end of June 2007 we have 301 members, more than quadrupling over the course of the grant period.

Evaluation Reports

Pribbenow, Christine Maidl; Jennifer Sheridan; Brenda Parker; Jessica Winchell; Deveny Benting; Kathy O'Connell; Cecilia Ford; Ramona Gunther; and Amy Stambach. July 2007. "Summative Evaluation Report of WISELI: The Women in Science and Engineering Leadership Institute."

Future of Activity. WISELI will continue to use our website and listserv to connect women and make women's accomplishments more visible to the campus community, and the public at large; these plans include a major re-design of the website in 2007/08 which reflects the actual directions WISELI has taken. We plan to hold an annual event (the Denice D. Denton Distinguished Lecture) that will bring women faculty from all over campus together to promote networking (see "Celebrating Women in S&E" initiative). Finally, a study of gender equity in the images and press surrounding our women faculty in campus publications (*Wisconsin Week* and *On Wisconsin* alumni magazine) has been in a design phase for several years.

New Initiative Proposed: Time-Stretcher Services

Description of Activity. WISELI will 1) work with Joan Gillman (Director, Special Industry Programs) and a student in Journalism to compile available time-saving services currently available (e.g. all home delivered services) and make this publication available to everyone at UW-Madison and 2) work with Professor Anne Miner (UW Business School) to explore a UW-Community partnership to develop a Time-Stretcher Service. This service would enable women and men working for UW-Madison to hire individuals to run simple tasks that would take time away from activities important to their personal or professional development.

Implemented? Preliminary perusal of the landscape indicated that such a service already exists on campus—Errand Solutions. Therefore, this initiative was not implemented further. See: http://wiseli.engr.wisc.edu/initiatives/timestretcher/timestretcher_main.htm .

New Initiative Proposed: Leadership Development of Non-Tenure Line Women in Science & Engineering

Description of Activity. WISELI will promote the leadership development of staff women in science and engineering by including them in the proposed initiatives and developing special leadership training modules for staff scientists.

Implemented? Women on the academic staff who are doing STEM research and teaching STEM courses have been important constituents of WISELI. Staff women serve(d) on our Leadership Team (Susan Millar, Lil Tong, Cathy Middlecamp, Manuela Romero), they participated in our Town Hall meetings, and invitations to attend professional development workshops through WISELI were always extended to academic staff (see "Women in Science

and Engineering Leadership Programs and Workshop” above.) In addition, WISELI time and resources were invested in the “Study the impact and feasibility of moving outstanding non-tenure line researchers into faculty positions” outlined above, as well as the climate survey for academic staff (see “Develop and Administer Climate Surveys” above.)

Results. We learned through our research and initiatives that it is not easy to reach women staff, or to develop leadership capabilities of staff. Conversions to the tenure track are extremely difficult to negotiate, and women staff overall are not very interested in making these kinds of conversions (staff survey results.) The issues of status and respect, job security, professional development opportunities, and isolation are important for this group. More must be done, in cooperation with other campus organizations supporting our academic staff, to ensure that all our academic staff are reaching their full potential and making important contributions to science.

Future of Activity. Academic staff will continue to be an important constituent of WISELI, and WISELI is committed to improving the climate and working conditions of women staff.

WISELI will continue their policy of including women staff scientists and lecturers in our efforts to create networks and advocate for women in STEM on campus. Further, WISELI has committed to working with the Academic Staff Executive Committee (ASEC) and the Office of the Provost on a follow-up survey of academic staff, when and if campus finds the funding for such an effort.

Section II: Status and Outcomes of other activities (not proposed)

In this section, we outline six initiatives or areas of focus that were important additions to WISELI's portfolio, but which were not included in our original proposal to the National Science Foundation. Some of these initiatives were new ideas that surfaced after the writing of the proposal, and others were projects that emerged unexpectedly from other work we were doing. All were vital to the success of WISELI.

Searching for Excellence & Diversity

Description of Activity. WISELI has implemented a workshop, *Searching for Excellence and Diversity*, that provides faculty with information, advice, and techniques that will help them run more effective and efficient search committees, diversify their applicant pools, their interviewed candidates, the offers they make, and ultimately the new faculty they hire.

Implementation. Designed in 2002 and piloted in 2003, these workshops were implemented in full on campus beginning in Fall 2004. As of June 2007, 119 STEM faculty (10% of the total STEM faculty) in 49 STEM departments (70% of STEM departments) have received the training. Materials developed for this workshop include a guidebook and a brochure, and the materials and approach are in demand by other universities across the country. As of June 2007, we have shipped approximately 6,343 copies of our brochure "Reviewing Applicants: Research on Bias and Assumptions" to 21 institutions across the U.S. and Canada (not including UW-Madison). We offer these workshops in a variety of formats, using many different campus experts to inform chairs of faculty search committees of the university policies, best practices, and resources for hiring the best and most diverse faculty possible.

Website. http://wiseli.engr.wisc.edu/initiatives/hiring/training_hiring.html .

Results. One of WISELI's best-known and most successful initiatives, the *Searching for Excellence and Diversity* workshops have had a positive impact on hiring women faculty (and, to a lesser extent, faculty of color) in STEM departments at UW-Madison. Our evaluation reports show that the workshops are useful to the participants, and that departments who send at least one faculty member to a hiring workshop make more offers to women applicants, and hire more women applicants. Furthermore, the individuals who attend the workshops show a marked change in their attitudes towards diversity. Those who have attended the workshops appear to be much more likely to disagree that "The climate for faculty of color in my department is good", a finding we believe indicates a greater awareness of the actual climate experienced by faculty of color.

For information and results of WISELI's *Searching for Excellence & Diversity* workshops, see:

Refereed Presentations

Sheridan, Jennifer; Christine Maidl Pribbenow; Eve Fine; Jo Handelsman; and Molly Carnes. 2007. "Climate Change at the University of Wisconsin-Madison: What Changed, and Did ADVANCE Have an Impact?" Women in Engineering Programs & Advocates Network (WEPAN) 2007 Conference Proceedings (on CD-ROM). <http://www.wepan.org/storelistitem.cfm?itemnumber=18> , Paper #0045. June 2007.

Sheridan, Jennifer; Eve Fine; Jessica Winchell; Christine Maidl Pribbenow; Molly Carnes; and Jo Handelsman. 2007. "Searching for Excellence & Diversity: Does

Training Faculty Search Committees Improve Hiring of Women?” American Society for Engineering Education (ASEE) 2007 Conference Proceedings.
<http://www.asee.org/conferences/v2search.cfm> , Paper #992. June 2007.

Non-Refereed Presentations

Carnes, Molly. October 13, 2004. “Searching for Excellence, Equity & Diversity: Unconscious Assumptions and Lessons From Smoking Cessation” (Invited Speaker). Virginia Commonwealth University. Richmond, VA.

Handelsman, Jo. March 2, 2005. Informal workshop on bias and prejudice in academic evaluation. Oregon State University. Corvallis, OR.

Carnes, Molly. May 9-10, 2005. “Incorporating Research on Biases and Assumptions into Search Committee Training” (Invited Speaker). University of Minnesota. Minneapolis, MN.

Handelsman, Jo; Molly Carnes; Jennifer Sheridan; Eve Fine; and Christine Pribbenow. December 9, 2005. “NSF ADVANCE at the UW-Madison: Three Success Stories” (Poster). National Academies’ “Convocation on Maximizing the Potential of Women in Academic Science and Engineering.” National Academies of Science. Washington, DC.

Sheridan, Jennifer. March 14, 2006. “Searching for Excellence & Diversity: An Evidence-Based Approach to Training Search Committees.” Wisconsin Technical College System Leadership Development Institute. Madison, WI.

Sheridan, Jennifer. April 7, 2006. “Searching for Excellence & Diversity: An Evidence-Based Approach to Training Search Committees.” 10th Annual Absence of Color Conference. Blackhawk Technical College. Janesville, WI.

Fine, Eve and Jennifer Sheridan. May 17, 2006. “Searching for Excellence & Diversity—Training Workshops for Search Committees” (Poster). 5th Annual NSF ADVANCE PI Meeting. National Science Foundation. Washington, DC.

Sheridan, Jennifer. May 24, 2006. “Searching for Excellence & Diversity: An Evidence-Based Approach to Training Search Committees.” Wisconsin Association for Equal Opportunity’s 29th Annual Spring Conference. Milwaukee, WI.

Products Available to the Public

“Searching for Excellence and Diversity: A Guide for Faculty Search Committee Chairs.” Available in PDF format online at:
<http://wiseli.engr.wisc.edu/initiatives/hiring/SearchBook.pdf> , and also available for purchase for \$4.00 per book plus mailing costs at
<https://wisccharge.wisc.edu/wiseli/items.asp> .

“Reviewing Applicants: Research on Bias and Assumptions.” 2nd Edition. Brochure available online at:

http://wiseli.engr.wisc.edu/initiatives/hiring/BiasBrochure_2ndEd.pdf , and also available in large quantities for 25¢/brochure plus mailing costs by contacting at <https://wisccharge.wisc.edu/wiseli/items.asp> .

“WISELI: Building on a Legacy.” Documentary Video, second in series of three. Available online through *The Research Channel*: <http://www.researchchannel.org/prog/displayevent.asp?rid=3455> .

“WISELI: FORWARD with Institutional Transformation.” Documentary Video, third in series of three. Available online through *The Research Channel*: <http://www.researchchannel.org/prog/displayevent.aspx?rID=16095&fID=345> .

Evaluation Reports

Winchell, Jessica K. and Christine Maidl Pribbenow. February 2006. “WISELI’s Workshops for Search Committee Chairs: Evaluation Report.”

Pribbenow, Christine Maidl; Jennifer Sheridan; Brenda Parker; Jessica Winchell; Deveny Benting; Kathy O’Connell; Cecilia Ford; Ramona Gunther; and Amy Stambach. July 2007. “Summative Evaluation Report of WISELI: The Women in Science and Engineering Leadership Institute.”

Future of Activity. As one of WISELI’s best-known and most successful initiatives, we plan to continue the *Searching for Excellence & Diversity* workshops at UW-Madison, expanding them to all departments on campus as well as searches for staff positions with funding from the Office of the Provost, the School of Medicine and Public Health, and from the NSF PAID award. We continue to revise and update the workshop materials (funded by an NSF ADVANCE PAID award), and offer them at cost plus shipping to other institutions via our “WISELI Bookstore” (<https://wisccharge.wisc.edu/wiseli/items.asp>). We have disseminated these workshops to other institutions through (1) large “train the trainers” workshops that invite small groups from several universities to come together to learn about our approach—we have done two of these; (2) “train the trainers” workshops that we run on another campus—we have done two of these and have two more scheduled for 2007/08; and (3) inviting interested people from off-campus to sit in on a hiring workshop in Madison—we have hosted people from Massachusetts General Hospital and University of Oklahoma to date, and are fielding inquiries for visits to our Fall 2007 workshops. Finally, we have moved to trademark the workshop title *Searching for Excellence & Diversity*.

WISELI Videos

Description of Activity. Document WISELI’s five-year “institutional transformation” project on video.

Implementation. In collaboration with Eclipse Multimedia Productions, we produced three documentary videos. In the first, “WISELI: Advancing Institutional Transformation”, we outline the grant and our hopes for the next five years. This video was the recipient of a Telly Award. The second video, “WISELI: Building on a Legacy,” outlines our three major initiatives (Life Cycle Grants, *Searching for Excellence & Diversity* workshops, and *Enhancing Department Climate: A Chair’s Role* workshops), and also introduces viewers to some of the unexpected outcomes in our quest for transformation. Finally, the third video, “WISELI:

FORWARD with Institutional Transformation” provides some evaluation data to document the success of the three initiatives discussed in video two, and discusses the future of those initiatives and the future directions of WISELI. These three videos have been playing in rotation on *The Research Channel* and have also been showing locally in Madison on the *Madison Metropolitan School District* local cable channel. For videos one and two, we held a public viewing of the videos.

Results. The three documentary videos provide us an alternative way of disseminating the work we have done. The videos also provide us with clips of faculty, department chairs, evaluators, WISELI personnel, high-level administrators, and knowledgeable outsiders, on elements of the WISELI program, allowing us to present our results in an eye-popping, original way.

Products Available to the Public

“WISELI: Advancing Institutional Transformation.” Documentary Video, first in series of three. Available online through *The Research Channel*:
<http://www.researchchannel.com/program/displayevent.asp?rid=2217> .

“WISELI: Building on a Legacy.” Documentary Video, second in series of three. Available online through *The Research Channel*:
<http://www.researchchannel.org/prog/displayevent.asp?rid=3455> .

“WISELI: *FORWARD* with Institutional Transformation.” Documentary Video, third in series of three. Available online through *The Research Channel*:
<http://www.researchchannel.org/prog/displayevent.aspx?rID=16095&fID=345> .

Future of Activity. This activity is complete, although we may continue to isolate specific interviews and quotes for use in future presentations.

Senior Women Project/Awards and Honors

Description of Activity. This initiative began with a simple idea—“let’s meet with all 80 of the female full professors in biological and physical sciences.” The goal was to understand what senior women wanted, particularly with respect to taking on formal leadership positions.

Implementation. We arranged meetings with approximately half (42) of the target group. Most meetings took place in small group discussions, although some individual meetings took place. Four senior women on the WISELI Leadership Team—Jo Handelsman, Molly Carnes, Bernice Durand, and Patti Brennan—facilitated the meetings, and Jennifer Sheridan attended all meetings to take notes. From these meetings, a concerted effort by WISELI to nominate women for campus and national awards occurred, as well as an effort to convince senior women themselves that it is important to pursue these honors.

Results. The results from this initiative are difficult to quantify. Nine women of the 42 who participated in the conversations have since taken leadership positions such as department chair, associate dean, or vice provost, compared to three women among the 40 we did not speak with. Of course, a selection effect is likely in place (whereby the women most interested in leadership were more likely to speak with us). A new interest in women’s access to awards and honors stemmed directly from these conversations: WISELI leaders called department chairs urging nominations of women for awards, and prepared nominations themselves; a brochure encouraging women to pursue honors and awards for themselves was developed; and a research

study of the language used in one high-visibility award (the NIH Director's Pioneer Award) resulted in numerous presentations and publications. A list of senior women (female full professors in biological and physical sciences) is maintained by WISELI, updated annually, and workshops, awards, or other opportunities that may be of interest are occasionally offered to this select group, enhancing our connections to them. Finally, some women brought particularly problematic issues to the table in these meetings, and came seeking WISELI's assistance in solving these problems; the expectation of individual advocacy was an unexpected side effect of these meetings, yet was very important in terms of cementing WISELI's reputation as a place on campus that helps change the system for women faculty.

Some of the publications and presentations related to senior women, women's leadership, and awards and honors include:

Refereed Publications

Carnes, Molly; Stacie Geller; Evelyn Fine; Jennifer Sheridan; and Jo Handelsman. 2005. "NIH Director's Pioneer Awards: Could the Selection Process be Biased Against Women?" *Journal of Women's Health*. 14(8):684-691.

Sheridan, Jennifer; Patricia Flatley Brennan; Molly Carnes; and Jo Handelsman. 2006. "Discovering Directions for Change in Higher Education Through the Experiences of Senior Women Faculty." *Journal of Technology Transfer*. 31(3): 387-396.

Carnes, Molly. 2006. "Gender: Macho Language and Other Deterrents." Letter to the Editor. *Nature*. 442:868.

Carnes, Molly and Carole Bland. 2007. "A Challenge to Academic Centers and the NIH to Prevent Unintended Gender Bias in Selection of CTSA Leaders." *Academic Medicine*. 82(2):202-206.

Carnes, Molly and JudyAnn Bigby. 2007. "Jennifer Fever in Academic Medicine." *Journal of Women's Health*. 16:299-301.

Marchant, Angela; Abhik Bhattacharya; and Molly Carnes. 2007. "Can the Language of Tenure Criteria Influence Women's Academic Advancement?" *Journal of Women's Health* (in press).

Non-refereed Presentations

Durand, Bernice. April 20, 2004. Session Coordinator, "Senior Women and Advancement—A Facilitated Discussion" panel. NSF ADVANCE National Conference. Georgia Institute of Technology. Atlanta, GA.

Carnes, Molly. October 20, 2004. "Women in Academic Leadership: The Issues, the Goals, the Process" (Invited Speaker, over 50 women faculty from UI-C STEM departments). University of Illinois-Chicago. Chicago, IL.

Brennan, Patricia; Molly Carnes; Bernice Durand; Jo Handelsman; and Jennifer Sheridan. November 10, 2004. "Discovering the Experiences of Senior Women in Academic Science & Engineering." WISELI Seminar. University of Wisconsin-Madison. Madison, WI.

Carnes, Molly. November 17, 2004. "The Impact of Unconscious Biases on Evaluation: Relevance to the NIH Director's Pioneer Awards" (Invited presenter). Office of Research on Women's Health Roundtable. National Institutes of Health. Bethesda, MD.

Carnes, Molly. March 4, 2005. "Women in the World of Medicine: What's Holding Us Back?" *Leadership Skills and Equity in the Workplace: Lessons Learned* Conference. Virginia Commonwealth University. Richmond, VA.

Carnes, Molly. March 12, 2005. "Women Physicians and Leadership: The Issues, The Goals, The Process" (Keynote). Women's Physician Council of the American Medical Association. Washington, DC.

Carnes, Molly. April 26, 2005. "Women in Academic Leadership: Institutional Transformation Required" (Grand Rounds/Merritt Lecture). Indiana University School of Medicine. Indianapolis, IN.

Carnes, Molly. May 9-10, 2005. "Incorporating Research on Biases and Assumptions into Search Committee Training;" "Women in the World of Academic Health Sciences: What's Holding Us Back?" "Women in Academic Leadership: Has There Been Progress?" (Invited Speaker). University of Minnesota. Minneapolis, MN.

Carnes, Molly. May 13, 2005. "Women in Academic Leadership: Has There Been Progress?" (Keynote). Women Against Lung Cancer Annual Meeting. Orlando, FL.

Carnes, Molly. May 19, 2005. "Insights from Social Science Research on Achieving Academic Awards and Honors: A Local and a National Example." 4th Annual NSF ADVANCE PI Meeting. National Science Foundation. Washington, DC.

Carnes, Molly. October 17, 2005. "Women in Academic Leadership: Institutional Transformation Required" and "Advice From a Few Mistakes I've Made & Some Things I've Done Right (workshop)." 8th Annual Professional Development Conference Focus on Health & Leadership for Women. University of Pennsylvania School of Medicine. Philadelphia, PA.

Carnes, Molly. October 21, 2005. "Women and Leadership: When Working Hard is Not Enough." Wisconsin Women's Health Foundation Rural Women's Health. Madison, WI.

Carnes, Molly. April 22, 2006. "Gender Bias in Scientific Review: The Case of the NIH Pioneer Awards" (Keynote). Institute for Research and Education on Women and

Gender, Graduate Student Conference. State University of New York-Buffalo. Buffalo, NY.

Carnes, Molly. May 18, 2006. "Engaging Senior Female Faculty" Roundtable (Chair). 5th Annual NSF ADVANCE PI Meeting. National Science Foundation. Washington, DC.

Carnes, Molly. June 19, 2006. "Gender Bias in Scientific Review: A Case Study of the NIH Pioneer Award." Annual meeting of the Graduate Women in Science. University of Wisconsin-Madison. Madison, WI.

Carnes, Molly. August 3, 2006. "Activation of Gender-Based Stereotypes: Can This Undermine Women's Academic Advancement?" (Keynote Plenary Address). Annual Meeting of the Association for Education in Journalism and Mass Communication. San Francisco, CA.

Carnes, Molly. February 21, 2007. "Gender Bias in Scientific Review" (Invited speaker). Medical College of Wisconsin. Milwaukee, WI.

Carnes, Molly. February 22, 2007. "Words Matter: How Language Can Promote the Activation of Stereotypes" (Invited speaker). University of Illinois-Chicago. Chicago, IL.

Carnes, Molly. March 14, 2007. "Bias in Scientific Review: The Case of the NIH Directors Pioneer Award." Center for the Study of Cultural Diversity in Healthcare Training Seminar. University of Wisconsin-Madison. Madison, WI.

Carnes, Molly. March 21-22, 2007. "Careers in Academic Medicine: Evaluation at Gatekeeping Junctures" (Medical Grand Rounds) and "Women Leaders in Academic Health Sciences: Institutional Transformation Required" (Invited speaker). University of Utah. Salt Lake City, UT.

Carnes, Molly. May 2-3, 2007. "NIH Director's Pioneer Award: Lesson in Scientific Review" and "Workshop: Lessons Learned in Shaping a Career" (Invited speaker). Brown University. Providence, RI.

Carnes, Molly. May 23-25, 2007. "Women in Academic Medicine: Institutional Transformation Required" (Whittington Lecturer) and "Careers in Academic Medicine: Evaluation at Gatekeeping Junctions" (Medical Grand Rounds). University of Florida. Gainesville, FL.

Products Available to the Public

"Advancing Your Career through Awards and Recognitions: A Guide for Women Faculty in the Sciences & Engineering." Brochure available in large quantities for 25¢/brochure plus mailing costs at <https://wisccharge.wisc.edu/wiseli/items.asp> .

Evaluation Reports

Benting, Deveny and Christine Maidl Pribbenow. July 24, 2003. "Meetings with Senior Women Faculty: Summary of Notes."

Future of Activity. Although this initiative officially ended in 2003, we continue to have special relationships with the women we met with in our first 18 months. We have considered doing a similar activity with women faculty of color.

WISELI Library

Description of Activity. Develop a library of articles, books, and webpages of materials related to gender equity. Produce an online version of this database that is easily searchable, and includes abstracts.

Implementation. As of June 2007, 1,164 items are indexed in the library. Hyperlinks to most journal articles are available in the online version, making it easy for users at a university with access to the major journal databases to easily access the articles with a click.

Website. <http://wiseli.engr.wisc.edu/library.html> .

Results. The WISELI "library" has been an indispensable resource for not only WISELI personnel, but for anyone working on gender equity issues. The library webpage is the third most-often referenced page on the entire WISELI website, after the main page, and the Larry Summers archive.

Future of Activity. We will continue to monitor the various research literatures that contribute to WISELI's efforts at UW-Madison, and continually update our online "library." Some users have suggested we develop a better search engine, or better organization of the library, or allow outside users to add their own entries. To date we have not pursued these options as the resources involved in programming are beyond our reach. However, should the library continue to be a valuable resource to the women-in-science community, we might consider applying for grants or working with other ADVANCE sites (such as Virginia Tech and the ADVANCE Portal) to improve this resource.

Individual Advocacy

Description of Activity. Women faculty with intractable problems approach WISELI leadership for help.

Implementation. Although these requests for help were unexpected, WISELI co-Directors did take on some cases where a clear injustice was being perpetrated. At least six women approached the co-Directors with problems they wanted addressed. Preliminary inquiries into the situations were performed to understand all of the issues involved in the case, and four cases were pursued by Carnes and Handelsman.

Results. When Carnes/Handelsman chose to champion a case, usually a good outcome occurred. In one case, they helped a woman negotiate a department change. In another, a tenure case was overturned. In a third case, a staff member who was impeding the research of a female faculty member was encouraged to retire. On the other hand, not all cases were pursued. Sometimes preliminary inquiries uncovered more complexity than the original case presented. In one case (a complaint of salary discrimination), an empirical analysis of the data showed that the faculty member was actually paid well in her department and that the comparison across departments was not a valid one. Overall, co-PI Handelsman has reported that the work done on behalf of individual women may have been unexpected, and may have been very time consuming, but in

the end this work may have been the most important that WISELI undertook because of the profound impact it had on the lives and careers of the individuals we helped.

Some of the publications and presentations in which we have discussed our individual advocacy work include:

Refereed Publications

Sheridan, Jennifer; Patricia Flately Brennan; Molly Carnes; and Jo Handelsman. 2006. "Discovering Directions for Change in Higher Education Through the Experiences of Senior Women Faculty." *Journal of Technology Transfer*. 31(3): 387-396.

Non-Refereed Presentations

Handelsman, Jo. May 20, 2005. "Affecting Climate/Culture Change — Using Multiple Points of Entry in the Department of Kumquat Science." 4th Annual NSF ADVANCE PI Meeting. National Science Foundation. Washington, DC.

Products Available to the Public

"WISELI: Building on a Legacy." Documentary Video, second in series of three.

Available online through *The Research Channel*:

<http://www.researchchannel.org/prog/displayevent.asp?rid=3455> .

"WISELI: *FORWARD* with Institutional Transformation." Documentary Video, third in series of three. Available online through *The Research Channel*:

<http://www.researchchannel.org/prog/displayevent.aspx?rID=16095&fID=345> .

Future of Activity. Though this is not an "advertised" initiative of WISELI's, our visibility and strong leadership will continue to provide women who are experiencing difficulties a place to go for help. We refer such cases to the institution's ombuds where appropriate. However, sometimes strong intervention from a senior faculty member is the only way to solve a problem. WISELI's leaders are committed to continuing to advocate for women on a case-by-case basis, perhaps even formalizing the function by expanding the network of advocates into the future.

National Influence

Description of Activity. WISELI has been active in the national conversation about the leadership of women in academic science and engineering. Disseminating WISELI's work, becoming ambassadors of the ADVANCE program, participating on national panels about women in science, and providing leadership in times of "crisis" have been important to WISELI's mission to increase the participation and advancement of women in academic science and engineering.

Implementation. WISELI has contributed to the national conversation on women's leadership in science in many ways:

- Contribution of a theoretical framework ("stages of change") for thinking about the change process with regards to diversity;
- Publication of a high-profile piece in *Science* ("More Women in Science");

- Participation on the Committee on Maximizing the Potential of Women in Academic Science and Engineering, and dissemination of the committee’s findings (“Beyond Bias and Barriers”);
- Participation in collaborative efforts to share measurement and evaluation techniques across ADVANCE institutions;
- Engagement with the national conversation surrounding the January 14th, 2005 remarks of Harvard President Larry Summers (<http://wiseli.engr.wisc.edu/news/Summers.htm>), including meeting with President Summers and the Harvard deans;
- Numerous presentations to academic institutions, professional societies, and other organizations regarding the status of women in science and engineering (including in many cases an overview of the NSF’s ADVANCE program);
- Help, assistance, and advice to institutions on specific topics (frequent topics include climate survey implementation, hiring committee training, department chair training, assistance with ADVANCE proposals, and examples of UW-Madison policies); and
- Leadership in national organizations promoting women in science.

Results. The institutions/organizations at which WISELI personnel have given invited talks include:

- American Institute of Chemical Engineers (Regina Murphy, November 2002)
- University of California, Berkeley (Amy Wendt, September 2003)
- Virginia Tech (Jennifer Sheridan, November 2003)
- Virginia Commonwealth University (Molly Carnes, October 2004 & March 2005)
- University of Illinois-Chicago (Molly Carnes, October 2004 & February 2007)
- NIH, Office of Research on Women’s Health (Molly Carnes, November 2004)
- NSF, Engineering Directorate (Paul Peercy, December 2004)
- Oregon State University (Jo Handelsman, March 2005)
- NSF, MPS Directorate (Sue Coppersmith, April 2005)
- Indiana University (Molly Carnes, April 2005)
- University of Minnesota (Molly Carnes, May 2005; Molly Carnes & Jennifer Sheridan, April 2007)
- Women Against Lung Cancer (Molly Carnes, May 2005)
- American Astronomical Society (Ellen Zweibel, June 2005)
- Howard Hughes Medical Institute (Jo Handelsman, June 2005)
- Harvard University (Jo Handelsman, June 2005)
- University of Pennsylvania (Molly Carnes, October 2005)
- Colorado State University (Jo Handelsman, November 2005)
- Barnard College (Jo Handelsman, February 2006)
- Stanford University (Jo Handelsman, February 2006)
- Committee on Institutional Cooperation-WISE Group (Jennifer Sheridan, March 2006)
- Blackhawk Technical College (Jennifer Sheridan, April 2006)
- State University of New York at Buffalo (Molly Carnes, April 2006)
- Association for Education in Journalism and Mass Communication (Molly Carnes, August 2006)
- American Sociological Association (Jennifer Sheridan, August 2006)
- Briefing to aides of Senators Kennedy and Murray (Jo Handelsman, September 2006)

- NIH Officials and Women in Medicine Committee (Jo Handelsman, October 2006)
- Phillips Exeter Academy (Jo Handelsman, October 2006)
- University of Lethbridge (Alberta, CA) (Jo Handelsman, November 2006)
- Medical College of Wisconsin (Molly Carnes, February 2007)
- University of Utah (Molly Carnes, March 2007)
- American Association of Geographers (Brenda Parker, April 2007)
- Brown University (Molly Carnes, May 2007)
- University of Florida (Molly Carnes, May 2007)

In addition, we have provided specific help or advice to 94 additional institutions not listed above, including: Arizona State University, Boston University, Howard University, New York University, Purdue University, Rutgers University, Syracuse University, University of Alaska, Washington University in St. Louis, Yale University, and many campuses within the University of Wisconsin System. The majority of these requests are for specific information about some aspect of the WISELI program, especially advice on administering a climate survey or more information about our work with hiring committees. Many of the contacts are requests for permission to use our materials, especially our survey instruments and text from our “Searching for Excellence & Diversity” guidebook. Thirty different institutions have attended a hiring workshop, either visiting one on our campus, or attending a “train-the-trainers” workshop. Finally, at least 14 institutions have requested large quantities (i.e., 50 or more) of our “Reviewing Applicants” brochure.

WISELI has assumed leadership in national organizations promoting women in science and engineering. Cathy Middlecamp was an officer in AWIS; Jennifer Sheridan is co-chair of the WEPAN Research Committee, and Jo Handelsman is president of the Rosalind Franklin Society.

Some of the publications we have contributed to, and presentations we have made regarding “More Women in Science”, *Beyond Bias and Barriers*, the stages of change model, measurement of gender equity, the Larry Summers debate, and other national-level activities that are not specifically related to any of the initiatives outlined above include:

Refereed Publications

Handelsman, Jo; Nancy Cantor; Molly Carnes; Denice Denton; Eve Fine; Barbara Grosz; Virginia Hinshaw; Cora Marrett; Sue Rosser; Donna Shalala; and Jennifer Sheridan. 2005. "More Women in Science." *Science*. 309(5738):1190-1191.

Carnes, Molly; Jo Handelsman; and Jennifer Sheridan. 2005. “Diversity in Academic Medicine: The Stages of Change Model.” *Journal of Women’s Health*. 14(6):471-475.

Committee on Maximizing the Potential of Women in Academic Science and Engineering. 2006. “Beyond Bias and Barriers: Fulfilling the Potential of Women in Academic Science and Engineering.” The National Academies Press: Washington, DC. <http://www.nap.edu/catalog/11741.html> .

Fine, Eve. 2008. “Response to Lawrence Summers’ Remarks on Women in Science.” In *The Blair Reader: Exploring Contemporary Issues*, 6th edition. Edited by Laurie G.

Kirszner and Stephen R. Mandel. Prentice Hall. Originally published January 2005 on WISELI's website: (http://wiseli.engr.wisc.edu/news/LawrenceSummers_Response.pdf)

Non-Refereed Publications

Frehill, Lisa; Cecily Jeser-Cannavale; Priscilla Kehoe; Ellen Meader; Jennifer Sheridan; Abby Stewart; and Helena Sviglin. January 2005. "Toolkit for Reporting Progress Toward NSF ADVANCE: Institutional Transformation Goals."

<http://www.advance.nmsu.edu/Documents/PDF/toolkit1.pdf> .

Frehill, Lisa; Elena Batista; Sheila Edwards-Lange; Cecily Jeser-Cannavale; Jan Malley; Jennifer Sheridan; Kim Sullivan; and Helena Sviglin. May 2006. "Using Program Evaluation To Ensure the Success of Your ADVANCE Program."

<http://www.advance.nmsu.edu/Documents/PDF/toolkit2.pdf> .

Refereed Presentations

Sheridan, Jennifer; Jo Handelsman; and Molly Carnes. August 14, 2004. "Assessing "Readiness to Embrace Diversity": An Application of the Trans-Theoretical Model of Behavioral Change." Annual Meeting of the American Sociological Association. San Francisco, CA.

Sheridan, Jennifer. February 20, 2006. "Methodological Challenges in Measuring Institutional Transformation, Part II: The Limits of Quantitative Indicators." 2006 American Association for the Advancement of Science Annual Meeting. St. Louis, MO.

Sheridan, Jennifer. August 13, 2006. "Why Does ADVANCE Need Sociologists?" Annual Meeting of the American Sociological Association. Montréal, Canada.

Non-Refereed Presentations

Carnes, Molly. October 13, 2004. "Searching for Excellence, Equity & Diversity: Unconscious Assumptions and Lessons From Smoking Cessation" (Invited Speaker). Virginia Commonwealth University. Richmond, VA.

Sheridan, Jennifer. May 19, 2005. "Indicators and Dissemination: Question 2. What are the Outcomes of Institutional Processes of Recruitment and Advancement for Men and Women?" NSF ADVANCE P.I. Meeting, National Science Foundation. Washington, DC.

Handelsman, Jo. June 9-10, 2005. "Sex and Science." Howard Hughes Medical Institute New Investigator Training. Howard Hughes Medical Institute. Chevy Chase, MD.

Handelsman, Jo. July 11, 2005. "Diversity, Bias, and Change" (Invited speaker). Harvard Deans' Retreat. Harvard University. Cambridge, MA.

Handelsman, Jo. January 11, 2006. "More Women in Science." Madison Chapter of TEMPO. Madison, WI.

Sheridan, Jennifer. May 17, 2006. "Data Collection and Reporting: The NSF Indicators." 5th Annual NSF ADVANCE PI Meeting. National Science Foundation. Washington, DC.

Sheridan, Jennifer. May 17, 2006. "Lessons Learned from ADVANCE at the UW-Madison: What We Wish We Had Known...." 5th Annual NSF ADVANCE PI Meeting. National Science Foundation. Washington, DC.

Sheridan, Jennifer. May 19, 2006. "Collection and Use of Climate Survey Data at the UW-Madison." 5th Annual NSF ADVANCE PI Meeting. National Science Foundation. Washington, DC.

Pribbenow, Christine. May 19, 2006. "Using Evaluation Data to Affect Institutional Change." 5th Annual NSF ADVANCE PI Meeting. National Science Foundation. Washington, DC.

Carnes, Molly. May 19, 2006. "Institutionalization—Cross Site Findings of Institutionalization Workgroup" (Discussant). 5th Annual NSF ADVANCE PI Meeting. National Science Foundation. Washington, DC.

Handelsman, Jo. June 2006. Workshop on Diversity. National Academies Summer Institute on Undergraduate Education in Biology. University of Wisconsin-Madison. Madison, WI.

Handelsman, Jo. September 26-27, 2006. Briefing of Senators Kennedy and Murray's aides on "Beyond Bias and Barriers" report from the National Academies Committee on Maximizing the Potential of Women in Academic Science and Engineering. Washington, DC.

Sheridan, Jennifer. October 21, 2006. "Systemic and Institutional Barriers Women Face in Science and Engineering." "Encouraging Success in Science and Medicine" Symposium. University of Wisconsin-Madison. Madison, WI.

Handelsman, Jo. October 24, 2006. Briefing of NIH officials and the Women in Medicine committee on the "Beyond Bias" report. Bethesda, MD.

Handelsman, Jo. October 29-30, 2006. "Diversity." Invited speaker, all-school assembly at Phillips Exeter Academy. Exeter, NH.

Handelsman, Jo. November 3, 2006. "Beyond Bias and Barriers: A Call to Arms about Women in Science" (Keynote). Cabinet 99 Symposium. University of Wisconsin-Madison. Madison, WI.

Handelsman, Jo. November 10, 2006. "Best Practices and Gender Equity in the Academy." University of Lethbridge. Lethbridge, Alberta, Canada.

Sheridan, Jennifer. January 17, 2007. "Beyond Bias and Barriers." Zonta International. Madison, WI.

Sheridan, Jennifer. January 30, 2007. "Beyond Bias and Barriers: Fulfilling the Potential of Women in Academic Science and Engineering." Center for Demography & Ecology Training Seminar. University of Wisconsin-Madison. Madison, WI.

Future of Activity. WISELI will continue to be a player in the national efforts to promote the participation and advancement of women in academic science and engineering.

Section III: WISELI Personnel

Faculty Paid on ADVANCE	
<p>Name: Molly Carnes Title: Professor, Medicine Role: co-Director of WISELI, 2002 - 2006 Percentage: 40%/year, 2002 - 2006 WISELI Initiative Contributions: Establish WISELI, senior women project, Stages of Change model, NIH Awards papers, designer, presenter and facilitator of <i>Searching for Excellence & Diversity</i> workshops, design team for <i>Enhancing Department Climate: A Chair's Role</i> facilitated academic staff conversions, individual advocacy for women faculty, and national leadership role. Notes: Prof. Carnes has worked with Prof. Douglass Henderson to secure an LSAMP grant, and submit AGEF proposals, all administered under the WISELI umbrella. She and Prof. Henderson are leading the effort to create a new administrative structure that will include WISELI, but broaden the mission to include other pillars of diversity.</p>	<p>Name: Jo Handelsman Title: Professor, Plant Pathology Role: co-Director of WISELI, 2002 - 2006 Percentage: 30%/year, 2002 - 2006 WISELI Initiative Contributions: Establish WISELI, senior women project, <i>More Women in Science, Beyond Bias and Barriers</i>, designer, presenter and facilitator for <i>Searching for Excellence & Diversity</i> workshops, designer and facilitator for <i>Enhancing Department Climate: A Chair's Role</i>, designer of PI workshops, facilitated academic staff conversions, individual advocacy for women faculty, and national leadership role. Notes: Prof. Handelsman stepped down as co-Director of WISELI upon completion of the grant in July 2007. She will become chair of Bacteriology in Fall 2007.</p>
<p>Name: Caitilyn Allen Title: Professor, Plant Pathology Role: Leadership Team member, 2002-2003 Percentage: 8%/Year, 2002 – 2003 WISELI Initiative Contributions: N/A. Notes: Prof. Allen stepped down as WISELI Leadership Team member in Fall 2003 in order to chair the Biological Sciences Divisional Committee.</p>	<p>Name: Vicki Bier Title: Professor, Industrial & Systems Engineering Role: Leadership Team member, 2002 - 2006 Percentage: 10%/year, 2002 - 2003 WISELI Initiative Contributions: N/A. Notes: Served as liaison to Campus Childcare Committee, and continues to be involved in WISELI through the "Committee Honoring Denice's Memory," which will fund and administer the Denice D. Denton Distinguished Lecture Series.</p>

Faculty Paid on ADVANCE (Continued)

<p>Name: Patricia Brennan Title: Professor and Chair, Industrial & Systems Engineering Role: Leadership Team member, 2002 - 2006 Percentage: 10%/year, 2002 – 2006 WISELI Initiative Contributions: Senior women project, awards brochure, <i>Discovering Directions for Change</i> paper, preliminary analyses of patent disclosures by gender. Notes: Prof. Brennan became chair of ISE in Summer 2007.</p>	<p>Name: Wendy Crone Title: Associate Professor, Engineering Physics Role: Leadership Team member, 2006 Percentage: 10%/year, 2006 WISELI Initiative Contributions: “Survive and Thrive: A Self-Assessment Guide for Untenured Faculty.”</p>
<p>Name: Bernice Durand Title: Professor, Physics and Vice Provost for Diversity and Climate Role: Leadership Team member, 2002 - 2006 Percentage: 7%/year, 2002 and 2005 WISELI Initiative Contributions: Senior women project; designer, facilitator and presenter for <i>Searching for Excellence & Diversity</i> workshops; design team for <i>Enhancing Department Climate: A Chair’s Role</i> workshops. Notes: Prof. Durand assumed a major campus leadership role in 2003 when she accepted the position of Vice Provost for Diversity and Climate.</p>	<p>Name: Cecilia Ford Title: Professor, English Role: Leadership Team member, 2002 - 2006 Percentage: 18%/year, 2002 – 2006 WISELI Initiative Contributions: Discourse analysis linguistic research, Life Cycle Research Grant program. Notes: Prof. Ford has stepped down from the Vilas Life Cycle Professorship evaluation team in 2006.</p>

Faculty Paid on ADVANCE (Continued)	
<p>Name: Amy Stambach Title: Associate Professor, Curriculum & Instruction Role: Leadership Team member, 2002 - 2005 Percentage: 10%/year, 2003 - 2005 WISELI Initiative Contributions: Ethnographic research project. Notes: Prof. Stambach stepped down from the WISELI Leadership Team in 2005.</p>	<p>Name: Amy Wendt Title: Professor and Chair, Electrical & Computer Engineering Role: Leadership Team member, 2002 – 2006 Percentage: 8%/year, 2002 – 2004 WISELI Initiative Contributions: Life Cycle Research Grants, Celebrating Women in Science & Engineering Grants, examination of women’s career choices in engineering, facilitate <i>Enhancing Department Climate: A Chair’s Role</i>. Notes: Prof. Wendt assumed the Department co-Chair of ECE position in 2005, and will become co-Director of WISELI in Summer 2007, replacing Prof. Jo Handelsman. She is a member of the “Committee Honoring Denice’s Memory,” which will fund and administer the Denice D. Denton Distinguished Lecture Series.</p>

Academic Staff Paid on ADVANCE	
<p>Name: Deveny Benting Title: Research Specialist, WISELI Role: WISELI staff member and evaluation team member Percentage: 100%, 2002 - 2006 WISELI Initiative Contributions: WISELI website, documentary videos, listserv, baseline interview data, issue studies, evaluation of existing programs, <i>Enhancing Department Climate: A Chair’s Role</i> (evaluation), <i>Searching for Excellence & Diversity</i> workshops (evaluation), “Train the trainer” workshops for search committee training (evaluation), senior women project (evaluation), awards brochure.</p>	<p>Name: Dianne Bowcock Title: Assistant Scientist, WISELI Role: Evaluator Percentage: 50%, 2002 WISELI Initiative Contributions: Preliminary evaluation plan, baseline interview data.</p>

Academic Staff Paid on ADVANCE (Continued)

<p>Name: Susan Daffinrud Title: Associate Researcher, WISELI Role: Evaluator Percentage: 25%, 2002-2003 WISELI Initiative Contributions: Baseline interview data, faculty and staff climate surveys, <i>Searching for Excellence & Diversity</i> workshops (evaluation).</p>	<p>Name: Evelyn Fine Title: Researcher, WISELI Role: WISELI staff member Percentage: 75%, 2002 - 2006 WISELI Initiative Contributions: <i>Searching for Excellence & Diversity</i> workshops, <i>Enhancing Department Climate: A chair's role</i> workshops, design team for PI workshops, WISELI library, Celebrating Women in S&E grants, WISELI website, WISELI seminar series, "Train the trainer" workshops for search committee training, and national leadership role (esp. Larry Summers response).</p>
<p>Name: Dennis Kennedy Title: Assistant Scientist, WISELI Role: Evaluator Percentage: 5%, 2002 WISELI Initiative Contributions: Preliminary evaluation plan.</p>	<p>Name: Ainslie Little Title: Research Associate, WISELI Role: WISELI staff member Percentage: 50%, 2007 WISELI Initiative Contributions: PI training workshops.</p>
<p>Name: Susan Millar Title: Senior Scientist, Wisconsin Center for Education Research Role: Leadership Team member, 2002 Percentage: 10%, 2002 WISELI Initiative Contributions: N/A. Notes: Dr. Millar resigned from the WISELI Leadership team in 2002, as she was making a major job change within the university at that time. She is a member of the "Committee Honoring Denice's Memory," which will fund and administer the Denice D. Denton Distinguished Lecture Series.</p>	<p>Name: Kathleen O'Connell Title: Assistant Researcher, WISELI Role: Evaluator Percentage: 75%, 2006 WISELI Initiative Contributions: Issue Studies, evaluate existing programs, Vilas Life Cycle Professorship program (evaluation).</p>
<p>Name: Brenda Parker Title: Assistant Researcher, WISELI Role: Evaluator Percentage: 25%, 2006 WISELI Initiative Contributions: Follow-up interview data.</p>	<p>Name: Christine Maidl Pribbenow Title: Assistant Scientist, WISELI Role: Evaluator Percentage: 50%, 2002 - 2006 WISELI Initiative Contributions: Baseline and follow-up interview data, faculty and staff climate surveys, issues studies, evaluation of existing programs, <i>Enhancing Department Climate: A Chair's Role</i> (design and evaluation), <i>Searching for Excellence & Diversity</i> workshops (evaluation), Life Cycle Research Grants (evaluation).</p>

Academic Staff Paid on ADVANCE (Continued)	
<p>Name: Jennifer Sheridan Title: Assistant Scientist, WISELI Role: WISELI staff member Percentage: 100%, 2002 - 2006 WISELI Initiative Contributions: Establish WISELI, longitudinal data collection, climate surveys for faculty and staff, evaluation of existing programs, gender equity of campus resources studies, professional development opportunities for women faculty and staff, design team, facilitator and presenter for <i>Searching for Excellence & Diversity</i> workshops, design team for <i>Enhancing Department Climate: A Chair's Role</i>, design team for PI workshops, Celebrating Women in S&E grants, Life Cycle Research Grants, listserv, CIC-WISE representative, documentary videos, senior women project, <i>Discovering Directions for Change</i> paper, national leadership role.</p>	<p>Name: Lillian Tong Title: Faculty Associate, Center for Biology Role: Leadership Team member, 2002 - 2006 Percentage: 7%, 2003 - 2004 WISELI Initiative Contributions: Celebrating Women in Science & Engineering grants, design team for <i>Enhancing Department Climate: A Chair's Role</i>.</p>

Students Paid on ADVANCE	
<p>Name: Maimoona Bowcock Tasks: Transcription.</p>	<p>Name: Tina Chang Tasks: Transcription.</p>
<p>Name: J Kate Dawson Tasks: Transcription.</p>	<p>Name: Stephanie Dysert Tasks: Transcription.</p>
<p>Name: Nathaniel Greene Tasks: Transcription.</p>	<p>Name: Sharmarisa Hammonds Tasks: General clerical.</p>
<p>Name: Sarah Marxhausen Tasks: Transcription, WISELI library.</p>	<p>Name: Tia Marie Onsager Tasks: Transcription.</p>
<p>Name: Erin Ruffedt Tasks: Transcription.</p>	<p>Name: Kimberly Schultz Tasks: Transcription.</p>
<p>Name: Ayako Takasaki Tasks: Transcription, WISELI library.</p>	<p>Name: Anjali Tannan Tasks: Transcription. WISELI library.</p>
<p>Name: Margaret Tyler Tasks: Transcription.</p>	<p>Name: Teddy Weathersbee-Kardash Tasks: Research assistance, website maintenance.</p>
<p>Name: Jessica Winchell Tasks: Transcription, longitudinal data system, evaluation of existing programs, <i>Searching for Excellence & Diversity</i> workshops (evaluation), Celebrating Women in S&E grants (evaluation), faculty and staff climate surveys, WISELI library, research assistance, general clerical.</p>	

Cost-Shared Faculty, Staff and Students	
<p>Name: Judith Burstyn Title: Professor, Chemistry Role: Faculty director of WISE Residential Program Percentage: 5% effort, 2002 WISELI Initiative Contributions: N/A.</p>	<p>Name: Mei-Hsia Chen Title: Project Assistant Role: Researcher Percentage: 100% effort, 2003-2004 WISELI Initiative Contributions: Longitudinal database.</p>
<p>Name: Rosa Garner Title: Assistant Dean, SMPH Role: Ombudsperson Percentage: 5% effort, 2002-2006 WISELI Initiative Contributions: Design team for <i>Enhancing Department Climate: A Chair's Role</i>, and presenter, and facilitator for <i>Searching for Excellence & Diversity</i> workshops.</p>	<p>Name: Sandy Gossens Title: Administrative Program Specialist Role: Assistant to Jo Handelsman Percentage: 33% effort, 2004-2006 WISELI Initiative Contributions: N/A.</p>
<p>Name: Linda Greene Title: Professor, Law and Associate Vice Chancellor for Faculty Programs Role: Leadership Team member, 2002-2006 Percentage: 3% effort, 2002-2004 WISELI Initiative Contributions: Facilitated academic staff conversions, individual advocacy for women faculty, design team for <i>Searching for Excellence & Diversity</i> workshops, design team for <i>Enhancing Department Climate: A Chair's Role</i>.</p>	<p>Name: Ramona Gunter Title: Research Assistant (to Amy Stambach) Role: Researcher Percentage: 100% effort, 2004-2005 WISELI Initiative Contributions: Ethnographic research project, baseline interview data. Notes: Dr. Gunter received her PhD in 2006. She has been funded through the contribution of the Graduate School.</p>
<p>Name: Margaret Harrigan Title: Sr. Policy/Planning Analyst, Academic Planning and Analysis Role: Liaison to institutional data Percentage: 5% effort, 2002-2006 WISELI Initiative Contributions: Longitudinal data collection, baseline interview data (sample).</p>	<p>Name: Stephen Montagna Title: Media Specialist, UW Center for Women's Health Research Role: Webmaster Percentage: 5% effort, 2002-2005 WISELI Initiative Contributions: WISELI website.</p>
<p>Name: Gloria Sarto Title: Professor Emerita, OB/GYN Role: Leadership Team member, 2002-2006 Percentage: 5% effort, 2002 WISELI Initiative Contributions: N/A.</p>	<p>Name: Paru Shrestha Title: Project Assistant Role: Researcher Percentage: 100% effort, 2003-2004 WISELI Initiative Contributions: Longitudinal database. Notes: Paru's project assistant position was funded by the Office of the Chancellor.</p>

Cost-Shared Faculty, Staff and Students (Continued)

<p>Name: Carol Sobek Title: University Grants & Contracts Specialist Role: Financial manager Percentage: 50%, 2005-2006 WISELI Initiative Contributions: N/A. Notes: Provost office contributed 50% of Carol's salary, College of Engineering contributed 50%.</p>	<p>Name: Lindsey Stoddard-Cameron Title: Sr. Administrative Program Specialist, Office of the Secretary of the Faculty Role: Liaison to Committee on Women, Women Faculty Mentoring Program, Sexual Harassment Training Sessions, and New Faculty Training Percentage: 5% effort, 2002-2006 WISELI Initiative Contributions: Evaluation of existing programs.</p>
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Leadership Team members, unpaid

<p>Name: Pat Farrell Title: Vice Dean for Academic Affairs, College of Engineering; Provost Role: Leadership Team member, 2002-2006 WISELI Initiative Contributions: Design team for <i>Searching for Excellence & Diversity</i> workshops, design team for <i>Enhancing Department Climate: A Chair's Role</i>. Notes: Dr. Farrell, a member of WISELI's Leadership Team from the beginning and a contributor to the design of both the hiring workshops and the climate workshops, became Provost of UW-Madison in April, 2006.</p>	<p>Name: Douglass Henderson Title: Professor, Engineering Physics Role: Leadership Team member, 2003-2006 WISELI Initiative Contributions: N/A. Notes: Dr. Henderson is co-PI, with Molly Carnes, on the WiscAMP and the North Country Alliance (AGEP) programs.</p>
<p>Name: Nancy Mathews Title: Professor, Nelson Institute for Environmental Studies Role: Leadership Team member, 2005-2006 WISELI Initiative Contributions: Vilas Life Cycle Professorships, facilitate <i>Enhancing Department Climate: A Chair's Role</i> workshops. Notes: Dr. Mathews was one of the first recipients of the Life Cycle Research Grants, and she now serves on the evaluation committee for the grants.</p>	<p>Name: Cathy Middlecamp Title: Distinguished Faculty Associate, Chemistry Role: Leadership Team member, 2002-2006 WISELI Initiative Contributions: N/A. Note: Cathy Middlecamp is an academic staff member who unsuccessfully attempted to transfer to the tenure track.</p>

Leadership Team members, unpaid (Continued)	
<p>Name: Paul Percy Title: Dean, College of Engineering Role: Leadership Team member, 2002-2006 WISELI Initiative Contributions: N/A. Note: Dean Percy has continued to provide space and support for WISELI in the College of Engineering beyond the 5-year grant period (including support for grants administrator Carol Sobek.)</p>	<p>Name: Manuela Romero Title: Assistant Scientist, WiscAMP Role: Leadership Team member, 2005-2006 WISELI Initiative Contributions: N/A. Notes: Dr. Romero is the executive director of WiscAMP, and co-PI of the North Country Alliance (AGEP) program.</p>
<p>Name: Gary Sandefur Title: Dean, College of Letters & Science Role: Leadership Team member, 2002-2006 WISELI Initiative Contributions: N/A. Notes: Dr. Sandefur, a member of WISELI's Leadership Team from the beginning, became Dean of L&S in August, 2004. He was the first dean to mandate attendance at WISELI's <i>Searching for Excellence & Diversity</i> workshops for all faculty hiring committee chairs.</p>	

Evaluation Team members, unpaid	
<p>Name: John Stevenson Title: Director, UW Survey Center Role: Evaluation Team member, 2002-2006 WISELI Initiative Contributions: Climate surveys for faculty and staff.</p>	<p>Name: Theresa Thompson-Coloñ Title: Project Director, UW Survey Center Role: Evaluation Team member, 2004-2006 WISELI Initiative Contributions: Climate surveys for faculty.</p>
<p>Name: Debra Wright Title: Project Director, UW Survey Center Role: Evaluation Team member, 2002-2003 WISELI Initiative Contributions: Climate surveys for faculty and staff.</p>	

Administrative Partners, unpaid	
<p>Name: Elton Aberle Title: Dean, College of Agricultural and Life Sciences, UW-Madison Role: Administrative partner, 2002-2004 WISELI Initiative Contributions: N/A.</p>	<p>Name: Daryl Buss Title: Dean, School of Veterinary Medicine, UW-Madison Role: Administrative partner, 2002-2006 WISELI Initiative Contributions: N/A.</p>
<p>Name: Martin Cadwallader Title: Dean, Graduate School, UW-Madison Role: Administrative partner, 2002-2006 WISELI Initiative Contributions: N/A.</p>	<p>Name: Phil Certain Title: Dean, College of Letters & Sciences, UW-Madison Role: Administrative partner, 2002-2003 WISELI Initiative Contributions: N/A.</p>

Administrative Partners, unpaid (Continued)	
<p>Name: Robin Douthitt Title: Dean, School of Human Ecology, UW-Madison Role: Administrative partner, 2002-2006 WISELI Initiative Contributions: N/A.</p>	<p>Name: Phil Farrell Title: Dean, SMPH, UW-Madison Role: Administrative partner, 2002-2005 WISELI Initiative Contributions: N/A.</p>
<p>Name: Robert Golden Title: Dean, School of Medicine & Public Health, UW-Madison Role: Administrative partner, 2006 WISELI Initiative Contributions: N/A.</p>	<p>Name: David Hogg Title: Interim Dean, College of Agricultural and Life Sciences, UW-Madison Role: Administrative partner, 2005 WISELI Initiative Contributions: N/A.</p>
<p>Name: Molly Jahn Title: Dean, College of Agricultural and Life Sciences, UW-Madison Role: Administrative partner, 2006 WISELI Initiative Contributions: N/A.</p>	<p>Name: Katharine Lyall Title: President, UW System Role: Administrative partner, 2002-2003 WISELI Initiative Contributions: N/A.</p>
<p>Name: Cora Marrett Title: Sr. Vice President, UW System Role: Administrative partner, 2003-2005 WISELI Initiative Contributions: N/A.</p>	<p>Name: Katharyn May Title: Dean, School of Nursing, UW-Madison Role: Administrative partner, 2002-2006 WISELI Initiative Contributions: N/A.</p>
<p>Name: Terry Millar Title: Associate Dean for Physical Sciences, Graduate School, UW-Madison Role: Administrative partner, 2002-2006 WISELI Initiative Contributions: N/A.</p>	<p>Name: Tim Mulcahy Title: Associate Dean for Biological Sciences, Graduate School, UW-Madison Role: Administrative partner, 2002-2004 WISELI Initiative Contributions: N/A.</p>
<p>Name: Donna Paulnock Title: Associate Dean for Biological Sciences, Graduate School, UW-Madison Role: Administrative partner, 2005-2006 WISELI Initiative Contributions: N/A.</p>	<p>Name: Luis Piñero Title: Director, Office for Equity and Diversity Role: Administrative partner, 2004-2006 WISELI Initiative Contributions: Designer, presenter and facilitator for <i>Searching for Excellence & Diversity</i> workshops.</p>
<p>Name: Jeanette Roberts Title: Dean, School of Pharmacy, UW-Madison Role: Administrative partner, 2003-2006 WISELI Initiative Contributions: N/A.</p>	<p>Name: Virginia Sapiro Title: Interim Provost, UW-Madison Role: Administrative partner, 2002-2004 WISELI Initiative Contributions: Presenter and facilitator for <i>Searching for Excellence & Diversity</i> workshops.</p>
<p>Name: Don Schutt Title: Director, Office of Human Resource Development Role: Administrative partner, 2002-2006 WISELI Initiative Contributions: Design team for <i>Enhancing Department Climate: A Chair's Role</i>, design team for PI workshops.</p>	<p>Name: Peter Spear Title: Provost, UW-Madison Role: Administrative partner, 2002-2004 WISELI Initiative Contributions: N/A.</p>

Administrative Partners, unpaid (Continued)	
<p>Name: Melvin Weinswig Title: Dean, School of Pharmacy, UW-Madison Role: Administrative partner, 2002 WISELI Initiative Contributions: N/A.</p>	<p>Name: Frances Westley Title: Director, Nelson Institute for Environmental Studies Role: Administrative partner, 2006 WISELI Initiative Contributions: N/A.</p>
<p>Name: Mariamne Whatley Title: Associate Dean, School of Education, UW-Madison; Chair, Women's Studies Program Role: Administrative partner, 2002-2006 WISELI Initiative Contributions: Presenter and facilitator for <i>Searching for Excellence & Diversity</i> workshops.</p>	<p>Name: John Wiley Title: Chancellor, UW-Madison Role: Administrative partner, 2002-2006 WISELI Initiative Contributions: N/A.</p>

Other participating faculty and staff, unpaid	
<p>Name: Teri Balsler Title: Associate Professor, Soil Science WISELI Initiative Contributions: Design team for PI training workshops.</p>	<p>Name: Elizabeth Bolt Title: Assistant Dean for Human Resources, School of Medicine & Public Health WISELI Initiative Contributions: Presenter and facilitator for <i>Searching for Excellence & Diversity</i> workshops.</p>
<p>Name: Ann Burgess Title: Director Emerita, BioCore WISELI Initiative Contributions: Design team for PI training workshops.</p>	<p>Name: Laurie Beth Clark Title: Professor of Art and Vice Provost for Faculty and Staff Programs WISELI Initiative Contributions: N/A.</p>
<p>Name: Sandy Courter Title: Adjunct Assistant Professor, Engineering Professional Development WISELI Initiative Contributions: Facilitator for <i>Searching for Excellence & Diversity</i> workshops.</p>	<p>Name: Sue Coppersmith Title: Professor & Chair, Physics WISELI Initiative Contributions: Design team for <i>Enhancing Department Climate: A Chair's Role</i>.</p>
<p>Name: Maury Cotter Title: Director, Office of Quality Improvement WISELI Initiative Contributions: Design team for <i>Enhancing Department Climate: A Chair's Role</i>.</p>	<p>Name: Steve Cramer Title: Professor of Civil and Environmental Engineering and Associate Dean for Academic Affairs, College of Engineering WISELI Initiative Contributions: N/A.</p>
<p>Name: Dawn Crim Title: Community Relations, Chancellor's Office WISELI Initiative Contributions: Presenter for <i>Searching for Excellence & Diversity</i> workshops.</p>	<p>Name: Mike Culbertson Title: Professor and Chair, Genetics WISELI Initiative Contributions: Design team for PI training workshops.</p>

Other participating faculty and staff, unpaid (Continued)	
<p>Name: Chris DeMarco Title: Professor and Former Chair, Electrical & Computer Engineering WISELI Initiative Contributions: Presenter for <i>Searching for Excellence & Diversity</i> workshops.</p>	<p>Name: John Dowling Title: Sr. University Legal Counsel WISELI Initiative Contributions: Presenter for <i>Searching for Excellence & Diversity</i> workshops.</p>
<p>Name: Randy Durand Title: Professor Emeritus, Physics WISELI Initiative Contributions: Design team for <i>Searching for Excellence & Diversity</i> workshops.</p>	<p>Name: Sarah L. Esmond Title: Project Manager, Center for the Study of Cultural Diversity in Healthcare WISELI Initiative Contributions: Presenter and facilitator for <i>Searching for Excellence & Diversity</i> workshops.</p>
<p>Name: Chris Green Title: Professor (CHS) and Chair, Pediatrics WISELI Initiative Contributions: Facilitate <i>Enhancing Department Climate: A Chair's Role</i> workshops.</p>	<p>Name: Linda Heidman Title: Human Resource Manager, College of Agricultural & Life Sciences WISELI Initiative Contributions: Design team for <i>Enhancing Department Climate: A Chair's Role</i>.</p>
<p>Name: Kathleen Holt Title: Sr. Administrative Program Specialist, Employee Assistance Office WISELI Initiative Contributions: Design team for <i>Enhancing Department Climate: A Chair's Role</i>.</p>	<p>Name: Eden Inoway-Ronnie Title: Chief of Staff, Provost's Office WISELI Initiative Contributions: Design team for <i>Enhancing Department Climate: A Chair's Role</i>.</p>
<p>Name: Julia Koza Title: Professor, Music WISELI Initiative Contributions: Facilitate <i>Enhancing Department Climate: A Chair's Role</i> workshops.</p>	<p>Name: Patty Loew Title: Associate Professor, Life Sciences Communication WISELI Initiative Contributions: Presenter and facilitator for <i>Searching for Excellence & Diversity</i> workshops.</p>
<p>Name: Steve Lund Title: Director, Office of Human Resources WISELI Initiative Contributions: Design team for <i>Searching for Excellence & Diversity</i> workshops.</p>	<p>Name: Laurie Mayberry Title: Assistant Vice Provost, Faculty Programs WISELI Initiative Contributions: Presenter for <i>Searching for Excellence & Diversity</i> workshops.</p>
<p>Name: Patty McManus Title: Professor, Plant Pathology WISELI Initiative Contributions: Presenter and facilitator for <i>Searching for Excellence & Diversity</i> workshops.</p>	<p>Name: Denise Ney Title: Professor and Former Chair, Nutritional Sciences WISELI Initiative Contributions: Facilitate <i>Enhancing Department Climate: A Chair's Role</i> workshops.</p>

Other participating faculty and staff, unpaid (Continued)	
<p>Name: Phil O’Leary Title: Professor and Chair, Engineering Professional Development WISELI Initiative Contributions: Presenter for <i>Searching for Excellence & Diversity</i> workshops.</p>	<p>Name: Chris Pfund Title: Associate Researcher, Wisconsin Program for Scientific Teaching WISELI Initiative Contributions: Design team for PI training workshops.</p>
<p>Name: Sarah Pfatteicher Title: Assistant Dean for Academic Affairs, College of Engineering WISELI Initiative Contributions: Facilitator for <i>Searching for Excellence & Diversity</i> workshops.</p>	<p>Name: Dean Pribbenow Title: Academic Staff, Office of Quality Improvement WISELI Initiative Contributions: Design team for <i>Searching for Excellence & Diversity</i> workshops.</p>
<p>Name: Jeff Russell Title: Professor and Chair, Civil Engineering WISELI Initiative Contributions: Facilitate <i>Enhancing Department Climate: A Chair’s Role</i> workshops and presenter for <i>Searching for Excellence & Diversity</i> workshops.</p>	<p>Name: Steve Stern Title: Professor and Former Chair, English WISELI Initiative Contributions: Presenter and facilitator for <i>Searching for Excellence & Diversity</i> workshops.</p>
<p>Name: Brian Yandell Title: Professor, Statistics and Horticulture WISELI Initiative Contributions: Presenter and facilitator for <i>Searching for Excellence & Diversity</i> workshops.</p>	<p>Name: Lydia Zepeda Title: Professor, Consumer Science WISELI Initiative Contributions: Member, “Committee Honoring Denice’s Memory.”</p>
<p>Name: Jane Zuengler Title: Professor, English WISELI Initiative Contributions: Evaluation Committee for Vilas Life Cycle Professorship program.</p>	

External Advisory Team, unpaid	
<p>Name: Denice D. Denton Title: Dean, College of Engineering, University of Washington; Chancellor, University of Santa Cruz Role: External advisor, 2002-2006 WISELI Initiative Contributions: N/A.</p>	<p>Name: Joan King Title: Consultant, Beyond Success Role: External advisor, 2002-2006 WISELI Initiative Contributions: N/A.</p>
<p>Name: Sally Gregory Kohlstedt Title: Professor, History of Science and Technology, University of Minnesota Role: External advisor, 2002-2006 WISELI Initiative Contributions: N/A.</p>	<p>Name: Charlotte Kuh Title: Deputy Executive Director of the Policy and Global Affairs Division, National Research Council Role: External advisor, 2002-2006 WISELI Initiative Contributions: N/A.</p>

External Advisory Team, unpaid (Continued)	
<p>Name: Sue Rosser Title: Dean, Ivan Allen College, Georgia Tech Role: External advisor, 2002-2006 WISELI Initiative Contributions: N/A.</p>	

Notes on WISELI organizational structure

ADVANCE co-PIs Jo Handelsman and Molly Carnes became WISELI’s co-Directors. Jennifer Sheridan was hired in February 2002 to become WISELI’s Executive and Research director; later, Dr. Sheridan was added as a co-PI of the ADVANCE grant. These three individuals formed the core executive committee of WISELI.

The ADVANCE grant specified that a Leadership Team consisting of women faculty and staff from campus was to be created. Throughout the course of the grant, 19 individuals (in addition to co-Directors and other WISELI staff) served on the Leadership Team, some paid and some unpaid. Early in the grant, some of the funds designated for Leadership Team salary were moved to provide funding for additional WISELI staff to assist with workshop creation and research.

Throughout the course of the grant, WISELI has accomplished its goals with between 3.25 and 4.50 FTE of staff to perform the research, evaluation, programmatic, and administrative duties necessary to accomplish our mission. The core WISELI staff includes:

- Jennifer Sheridan, Ph.D. (Sociology). Executive and Research Director. Responsible for overall administration of WISELI, the Life Cycle Research Grants/Vilas Life Cycle Professorship program, research, and outreach. 1.0 FTE.
- Eve Fine, Ph.D. (History of Science). Researcher and Workshop Developer. Responsible for WISELI library and tracking all research literature related to WISELI’s mission; developed the *Searching for Excellence & Diversity* and the *Enhancing Department Climate: A Chair’s Role* workshop scripts and materials; runs the Celebrating Women in S&E grants and the WISELI seminars. 0.75 FTE.
- Christine Maidl Pribbenow, Ph.D. (Educational Leadership and Policy Analysis). Evaluation Director. Responsible for overall WISELI evaluation, survey administration for *Enhancing Department Climate: A Chair’s Role*, issue studies, evaluation of existing programs, and formative evaluation of WISELI initiatives. 0.25 – 0.75 FTE.
- Deveny Benting, B.S. (Geography and Women’s Studies). Research specialist. Responsible for assistance with evaluation, the WISELI videos, and web development. 1.0 FTE.
- Carol Sobek, B.S. (Accounting). Grants and Contracts Specialist. Responsible for all issues related to WISELI finances, including administration of Life Cycle/Vilas grants and Celebrating grants. 0.25 – 0.5 FTE (funded by Provost and the College of Engineering).
- Jessica Winchell, M.S. and ABD (Political Science). Project Assistant. Responsible for assisting with all research and evaluation needs of WISELI, and an invaluable member of the team. 50% appointment.

Originally, all evaluation was to be performed by staff from the LEAD (Learning through Evaluation, Adaptation, and Dissemination) Center. In the first year of the grant, WISELI's assigned Evaluation Director from LEAD changed two times, from Dianne Bowcock, to Sue Daffinrud, and finally to Christine Pribbenow. When in early 2003 the LEAD Center proposed to replace Dr. Pribbenow with a fourth evaluator, WISELI chose instead to hire Dr. Pribbenow and one of her staff persons (Deveny Benting) directly on the WISELI project, rather than continue to have turnover in this important position. Including evaluators directly on WISELI's staff provided the project with much more personal, in-depth evaluation than would have been possible even from the nearby LEAD Center. In 2005, the LEAD Center ceased to exist.

As the ADVANCE Institutional Transformation period nears its end, changes to the administrative structure of WISELI will occur. A new co-Director (Amy Wendt) will replace Jo Handelsman. The contracts of some evaluation staff who came on board to assist with the final summative evaluation will end, and the funding for the postdoc who is leading the design of the PI workshops will end. An opportunity to re-design our advisory teams—both internal and external—will ensue, replacing the old Leadership Team and External Advisory Team with a new structure. Finally, WISELI itself will be included under the umbrella of a new research center, along with other diversity-in-STEM programs such as the Wisconsin Alliance for Minority Participation (WiscAMP), the North Country Alliance for Graduate Education, and the Graduate Engineering Research Scholars (GERS). This new institute will be called the Wisconsin Institute for Research and Evaluation on Diversity (WIRED) for STEM.

Section IV: Financial Reports

Spending, NSF funds and direct support from campus

WISELI Final Financial Report

January 2002 - June 2007

	NSF Funds	Other* Funds
Income		
NSF ADVANCE	\$3,748,973	
Celebrating Grants		\$40,000
College of Engineering		\$59,000
Provost's Office		\$40,785
Expenditures		
Salaries and Fringes		
Directors	\$652,237	
WISELI Staff	\$815,991	\$40,785
Leadership Team	\$368,796	
Evaluators	\$384,603	
Travel	\$48,891	\$7,310
Supplies and Equipment	\$40,476	\$23,467
Initiatives		
Celebrating Women in S&E Grants	\$1,901	\$47,965
Life Cycle Research Grants	\$148,972	
Documentary Video	\$53,850	\$5,794
Faculty and Staff Climate Surveys	\$37,528	\$14,171
Books Distributed	\$2,151	
WISELI Seminar	\$6,214	
Senior Women Development	\$286	
Professional Development Workshops for Women Faculty & Staff	\$7,895	
<i>Enhancing Department Climate: A Chair's Role</i>	\$1,431	
<i>Searching for Excellence & Diversity</i>	\$6,830	\$293
Awards Brochure	\$315	
Dissemination Activities	\$6,181	
Overhead (45.5%)	\$1,164,269	\$0
Total Income	\$3,748,973	\$139,785
Total Expenditures	\$3,748,817	\$139,785
Remaining Funds	\$156	\$0

* Direct contributions to WISELI General Purpose Revenue (101) and Capital Exercise (150) accounts.

Effort distribution across campus

Use of WISELI's Resources, January 2002 - June 2007

	Searching for Excellence & Diversity Workshops		Climate Workshops for Department Chairs		Celebrating Women in S&E Grants		Life Cycle Research Grants and Vilas Life Cycle Professorships			
	# Particip.	% Total	# Particip.	% Total	\$ Awarded	% Total	# Apply	# Awarded	\$ Awarded	% Total
College of Engineering	34	10.3%	8	30.8%	\$9,026	17.5%	1	1	\$30,000	2.5%
School of Medicine & Public Health	84	25.4%	8	30.8%	\$10,100	19.6%	16	13	\$301,517	25.4%
College of Agricultural & Life Sciences	31	9.4%	3	11.5%	\$7,337	14.2%	13	7	\$188,716	15.9%
College of Letters & Sciences	80	24.2%	5	19.2%	\$19,320	37.5%	27	18	\$384,076	32.4%
School of Pharmacy	27	8.2%	1	3.8%	\$0	0.0%	1	1	\$30,000	2.5%
School of Veterinary Medicine	10	3.0%	1	3.8%	\$1,400	2.7%	1	1	\$30,000	2.5%
Other*	65	19.6%	0	0.0%	\$4,333	8.4%	14	11	\$222,525	18.7%

* Search Workshops: Business (2), Law (1), SoHE (1), Education (13), Nursing (2), Graduate School (2), and other units such as UHS and Dean of Students (44);
Celebrating Grants: GWIS; Life Cycle Grants: Education, SoHE, IES, Business, Nursing.

Direct and indirect cost distribution across campus

Contributions to WISELI/Indirects from WISELI, 2002 - 2006

	Direct Support		In-Kind Contributions ⁴		Indirects Received	
College of Engineering ¹	\$79,000	16.7%	\$3,985	0.8%	\$733,020	63.0%
School of Medicine & Public Health	\$10,000	2.1%	\$60,301	12.7%	\$187,761	16.1%
College of Agricultural & Life Sciences	\$0	0.0%	\$4,058	0.9%	\$142,802	12.3%
College of Letters & Sciences	\$20,000	4.2%	-	-	\$68,476	5.9%
School of Pharmacy	\$10,000	2.1%	-	-	-	-
School of Veterinary Medicine	\$10,000	2.1%	-	-	-	-
Provost's Office	\$130,753	27.6%	\$195,894	41.3%	-	-
Vilas Estate ²	-	-	\$28,959	6.1%	-	-
WISE Residential Program	-	-	\$36,825	7.8%	-	-
Graduate School	\$76,044	16.0%	-	-	-	-
Graduate School & Provost Office ³	\$138,007	29.1%	-	-	-	-
School of Education	-	-	-	-	\$28,345	2.4%
IES	-	-	-	-	\$3,865	0.3%

¹ College of Engineering provides office space, computer support, administrative/grants support, some supplies in addition to the discretionary funds noted under "Direct Support".

² A small portion of spending from Vilas Life Cycle Professorships was used as cost-share contribution.

³ Life Cycle Research Grants funded by Grad School or Provost's Office funds.

⁴ In-Kind contributions include cost-share contributions not indexed in the "direct support" columns.

Cost-share report

Official Cost Share Reporting, 2002 - 2006

	2002	2003	2004	2005	2006	Total	%
College of Engineering	\$10,803	\$30,403	\$35,334	\$20,663	\$16,766	\$113,968	15.2%
School of Medicine & Public Health	\$26,098	\$23,338	\$37,613	\$15,332	\$5,418	\$107,799	14.4%
College of Agricultural & Life Sciences	\$5,904	-	-	-	-	\$5,904	0.8%
School of Veterinary Medicine	-	\$1,771	\$3,192	\$3,254	-	\$8,217	1.1%
School of Pharmacy	-	\$1,771	\$3,192	\$3,254	-	\$8,217	1.1%
College of Letters & Science	\$7,275	\$1,771	\$3,192	\$3,254	-	\$15,492	2.1%
Office of Provost or Chancellor*	\$19,353	\$44,317	\$36,283	\$110,271	\$69,215	\$279,439	37.3%
Graduate School	\$15,446	\$80,638	\$31,174	\$17,325	\$20,997	\$165,580	22.1%
WISE Residential Program	\$17,493	\$13,631	\$8,336	\$5,923	-	\$45,383	6.1%
TOTAL TO NSF	\$102,372	\$197,640	\$158,317	\$179,275	\$112,396	\$750,000	100.0%

* Includes some cost-share from Vilas Life Cycle Professorships.

Section V: ADVANCE Impact

ADVANCE Impact: By the Numbers

The report “Gender Equity By The Numbers: Status of Women in Biological & Physical Sciences at the University of Wisconsin-Madison, 2002-2006” (Appendix 1) summarizes the trends in women’s presence in the ranks of biological and physical science faculty at UW-Madison, along with some measures of resource equity. Some of the main findings of the report include:

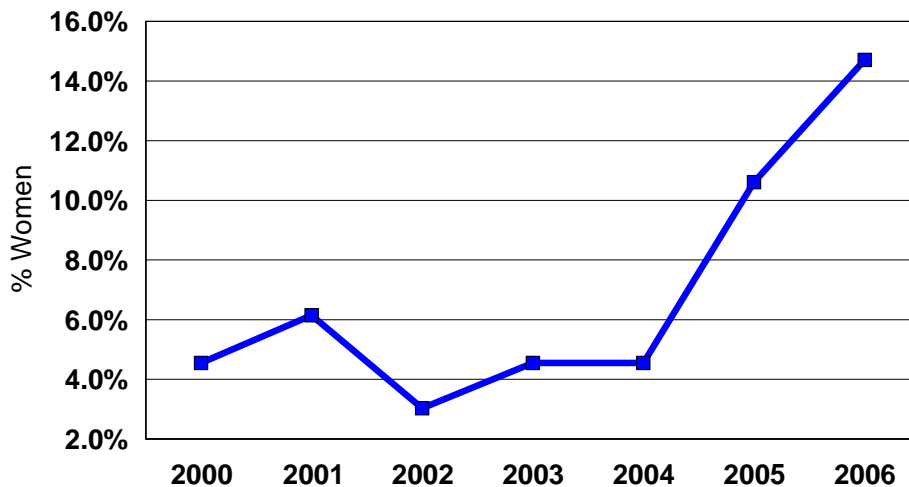
- Compared to 2000, there are more women faculty, and women are a higher percentage of the faculty, in biological science and physical science departments in 2006:

Increases in Percent Women Faculty, 2000 - 2006

Division	2000			2006			Percentage Change/Year, 2000 - 2006		
	Women FTE	Men FTE	% Women	Women FTE	Men FTE	% Women	Women FTE	Men FTE	% Women
Physical Sciences	42.25	414.79	9.2%	59.50	400.80	12.9%	5.7%	-0.6%	5.6%
Biological Sciences	139.26	590.54	19.1%	185.31	580.79	24.2%	4.8%	-0.3%	3.9%
TOTAL SCIENCE	181.51	1005.33	15.3%	244.81	981.59	20.0%	5.0%	-0.4%	4.5%
Social Studies	194.61	391.31	33.2%	230.20	360.23	39.0%	2.8%	-1.4%	2.7%
Arts & Humanities	136.47	235.99	36.6%	158.25	212.23	42.7%	2.5%	-1.8%	2.6%
TOTAL NON-SCIENCE	331.08	627.30	34.5%	388.45	572.46	40.4%	2.7%	-1.5%	2.6%

- In 2006, we have many more women department chairs in biological and physical science departments than we did in 2000:

Percent Women Department Chairs Physical & Biological Science Faculty Only



- Tenure rates for men and women have equalized in the past five years (i.e., women are no longer differentially leaving prior to a tenure decision):

Tenure Promotion Outcomes by Gender, 2006

Physical Sciences

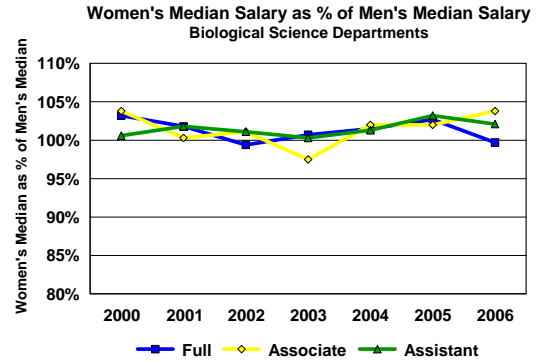
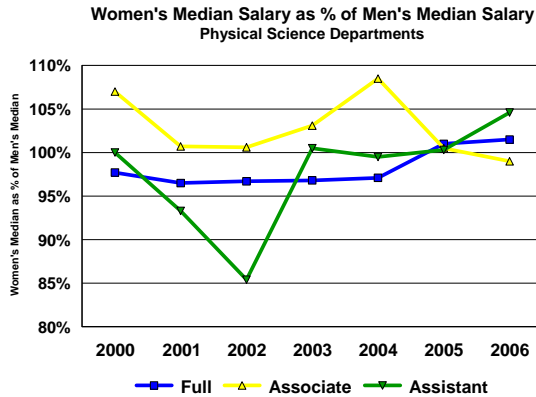
Entering Cohort	Women				Men			
	Total Hired	% Still Probation	% Left w/o Tenure	% Tenured	Total Hired	% Still Probation	% Left w/o Tenure	% Tenured
1987-91	16	0.0%	12.5%	87.5%	87	0.0%	24.1%	75.9%
1991-95	7	0.0%	57.1%	42.9%	35	0.0%	20.0%	80.0%
1995-99	10	0.0%	40.0%	60.0%	34	0.0%	11.8%	88.2%
1999-03	15	46.7%	13.3%	40.0%	76	34.2%	13.2%	52.6%
2003-07	20	100.0%	0.0%	0.0%	57	94.7%	1.8%	3.5%

Biological Sciences

Entering Cohort	Women				Men			
	Total Hired	% Still Probation	% Left w/o Tenure	% Tenured	Total Hired	% Still Probation	% Left w/o Tenure	% Tenured
1987-91	27	0.0%	40.7%	59.3%	103	0.0%	32.0%	68.0%
1991-95	26	0.0%	26.9%	73.1%	82	0.0%	24.4%	75.6%
1995-99	23	4.3%	21.7%	73.9%	49	2.0%	26.5%	71.4%
1999-03	46	45.7%	17.4%	37.0%	86	40.7%	20.9%	38.4%
2003-07	30	96.7%	3.3%	0.0%	57	94.7%	3.5%	1.8%

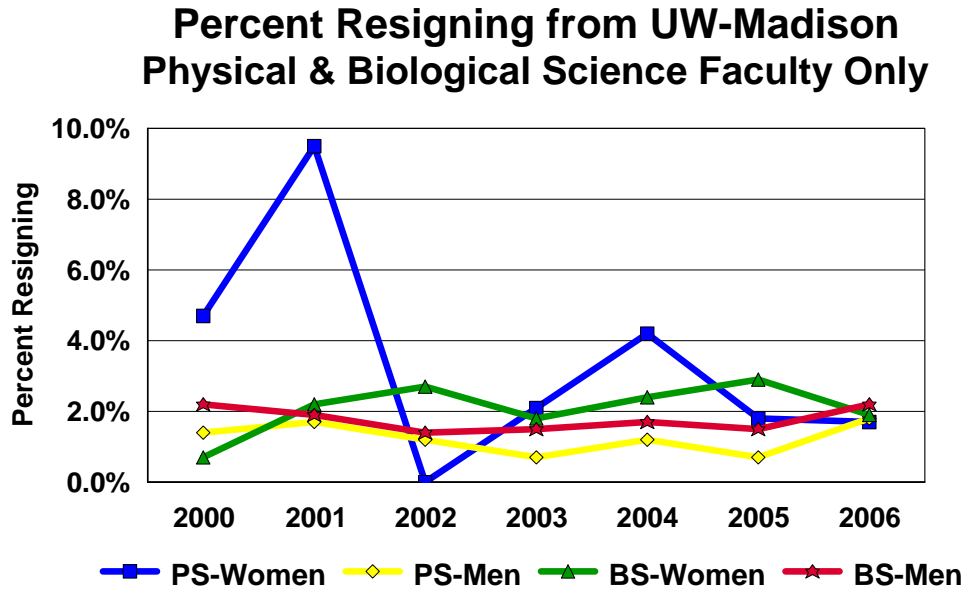
NOTE: Numbers in **BOLDFACE** are final; numbers in normal typeface are in flux and will change year-to-year as new faculty are hired, are tenured, and/or leave the UW without tenure.

- Men's and women's salaries are approximately the same once rank and division are controlled:

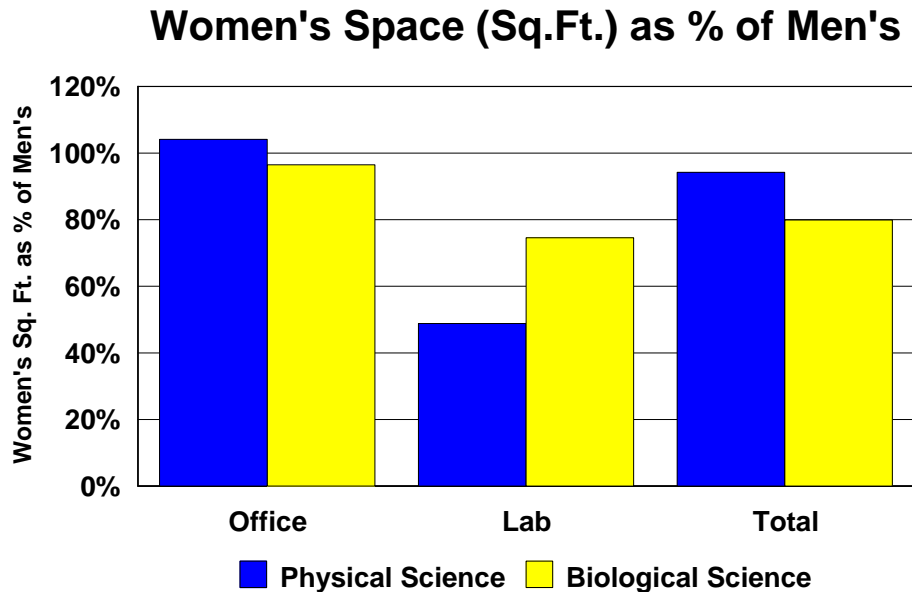


At the same time as we have recorded these gains for women faculty in the biological and physical sciences, there is still work to be done.

- Women still leave the UW-Madison at higher rates than men:

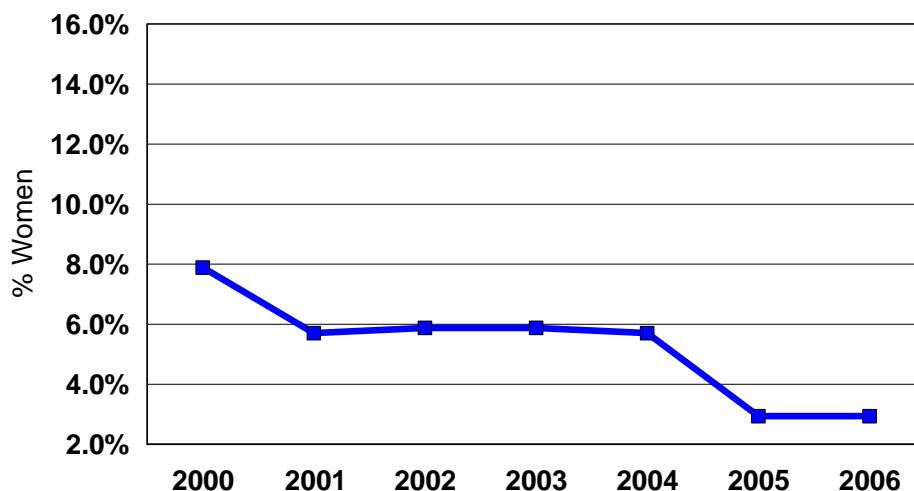


- Women faculty may have less lab space than their male peers:



- No change or negative change was observed in the numbers of women directing major centers and institutes in the biological and physical science departments:

Percent Women Center Directors Physical & Biological Science Faculty Only



In summary, some areas of gender equity are improving at UW-Madison, while other areas are in need of continued attention. Tracking the gains and uncovering the remaining problem areas are crucial to the efforts of WISELI and the UW-Madison administration to achieve gender equity. Continued collection, reporting, and analyses of these gender equity indicators are imperative to achieve this goal.

ADVANCE Impact: Climate for Women

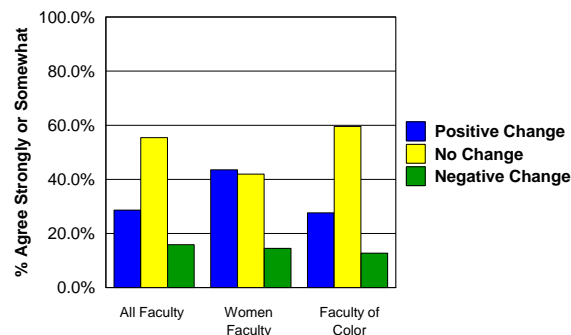
Improving the climate for women faculty in biological and physical sciences was a major goal of the UW-Madison ADVANCE program. We attempted to measure climate, and climate change, in a number of ways: campus-wide faculty surveys, within-department surveys taken as part of an *Enhancing Department Climate: A Chair's Role* workshop, and in-depth interviews with a stratified random sample of women faculty. In addition to the complicated problem of measuring a concept as diffuse as “climate”, we had an additional problem of measuring climate *change*, and theorizing about what a positive climate change might look like as measured in survey and interview data. Specifically, we suspected that a process of improving “climate” in the long run might actually manifest in decreased measures of climate in the short-run, as department members worked through the climate issues that had been unspoken for a long time. We therefore imagined the idea of “climate change” as occurring in a series of stages¹, and devised questions for our surveys and interviews accordingly.

¹ Carnes, Handelsman, and Sheridan. 2005. “Diversity in Academic Medicine: The Stages of Change Model.” *Journal of Women's Health*. 14(6):471-475.

What we found was that climate is even more complicated than we imagined. Positive changes on one set of measures occurs simultaneously with negative changes in other measures. Overall, we summarize the changes we see in departmental climate for women faculty as follows:

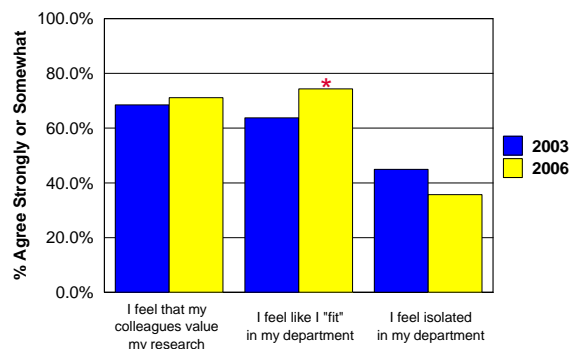
- When you ask individual faculty how they, themselves, are experiencing the climate in their departments, we find that climate in 2006 generally is slightly more positive or shows no change from 2003. This seems to be true for both women and faculty of color in STEM departments. Both survey and interview data confirm that climate is slightly more positive in 2006 than it was when the ADVANCE project began.

Climate Change in Department For Me Personally



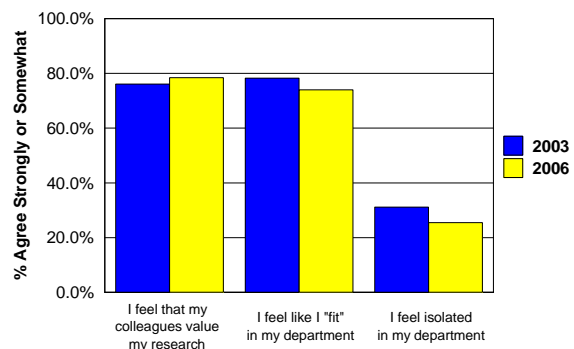
Biological and physical science faculty only, N=572.

Climate Change in Department Selected Indicators/Women Faculty



Biological and physical science faculty only, N=150. * Indicates significant t-test at p<.05.

Climate Change in Department Selected Indicators/Faculty of Color



Biological and physical science faculty only, N=50. * Indicates significant t-test at p<.05.

Example of Positive Change (woman faculty interviewed):

“So I think over time there was some building of trust with the department and the faculty over the previous administration which had eroded some of that...I think the [administrator] was a much more collaborative person, straight-forward. He inspired trust in people because he kept to his word, so there was just kind of a return to the more open communication that it had been.”

Appendix 2, Chapter III.

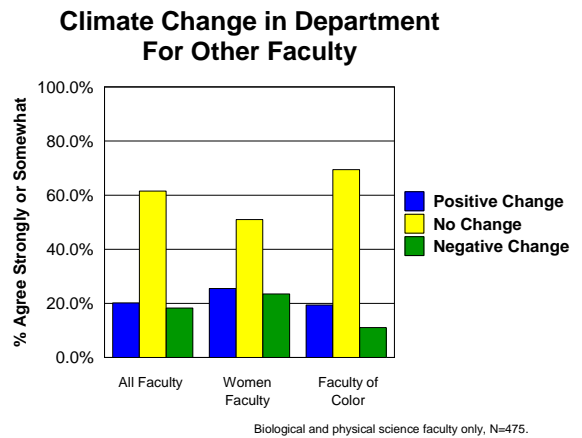
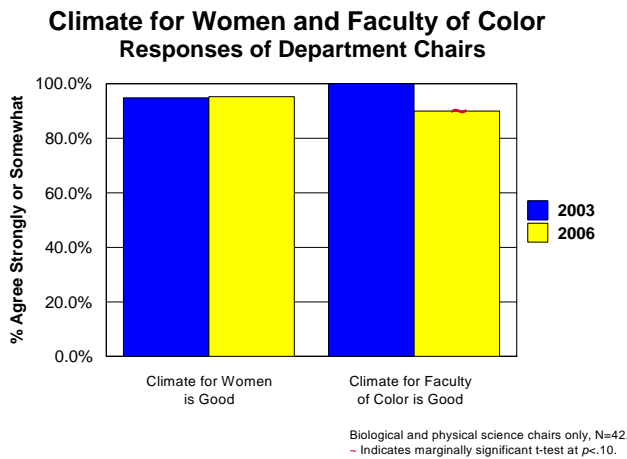
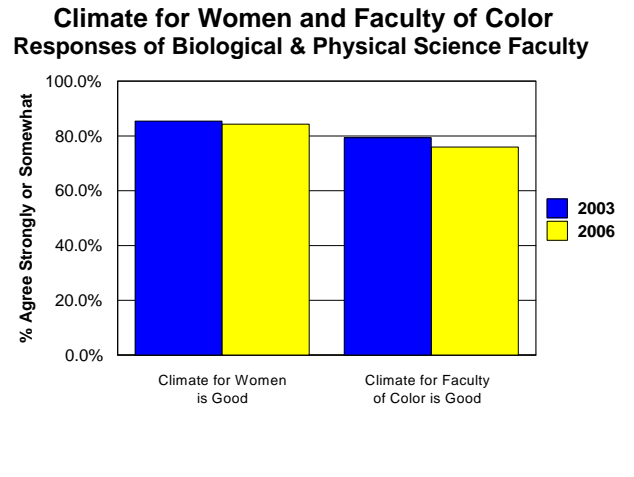
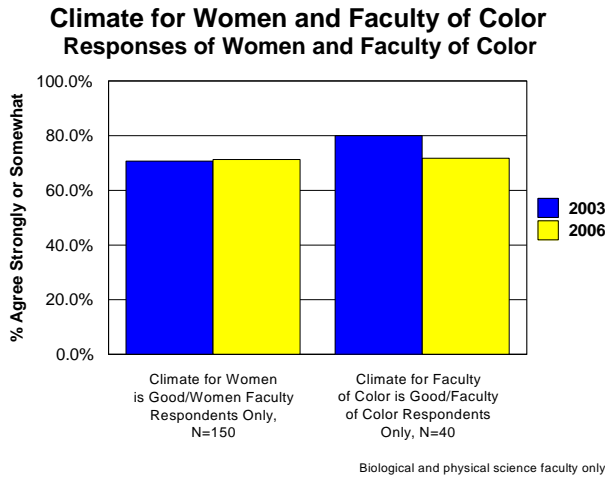
Example of No Change (woman faculty interviewed):

“It’s hard to say. I think that...I don’t know if it’s gotten better or worse. I think that the department has factions. I don’t know if the factions have gotten better or worse.” *Appendix 2, Chapter III.*

Example of Negative Change (woman faculty interviewed):

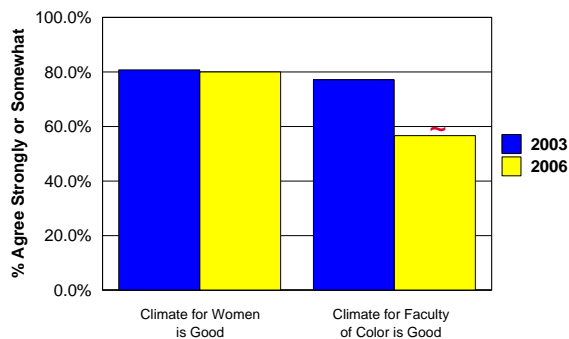
“I don’t know if it’s a crisis, but one of the women faculty did not get tenure. We did not vote to give her tenure the first time around. She appealed and then she got it but that generated big stress for everyone. That really did not help the atmosphere here... People were quite emotional about—we had two groups basically—for and against. It did not help the atmosphere. People still talk about it and it happened about a year ago already.” *Appendix 2, Chapter III.*

- At the same time, more negative changes are occurring when faculty are asked to report about the climate in their departments for other people, in particular women faculty and faculty of color. That is, when we ask faculty to report about the climate experienced by *others* in their units, the responses are more negative in 2006 than they were in 2003, or the numbers reporting negative change from 2003 to 2006 are almost the same as those reporting positive change.



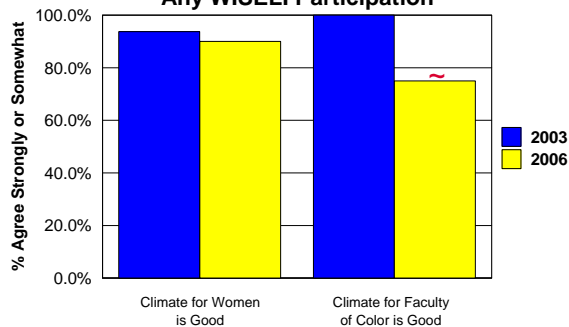
- We have some evidence that WISELI has had a direct impact on climate, as participation in WISELI events (especially the *Searching for Excellence & Diversity* workshops) is associated with a *more negative* view of climate for women and for faculty of color in 2006 compared to 2003.

Climate for Women and Faculty of Color Responses of Hiring Workshop Participants



Biological and physical science chairs only, N=52.
 - Indicates marginally significant t-test at $p < .10$.

Climate for Women and Faculty of Color Responses of Department Chairs With Any WISELI Participation



Biological and physical science chairs only, N=20.
 - Indicates marginally significant t-test at $p < .10$.

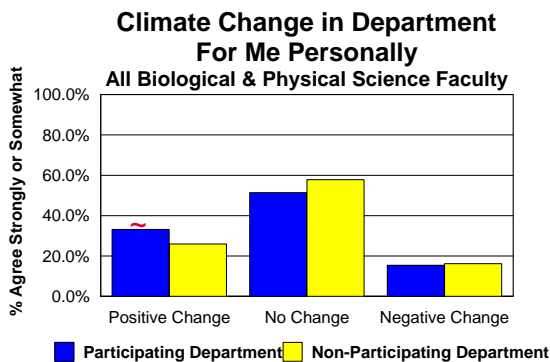
Positive WISELI Impact (woman faculty interviewed):

“I think it’s [the climate at UW-Madison] improving. I think that there’s more awareness and that helps. I think the WISELI seminars for hiring—I think that was a really good target, to work with the search committees to try and make them aware of things up front. I really think that has some benefits. And it has long-reaching benefits because even if in this particular search they end up with a candidate that doesn’t have a lot of diversity, that’s fine. They thought about the process, it causes more conscious examination of those issues.” *Appendix 2, Chapter II.*

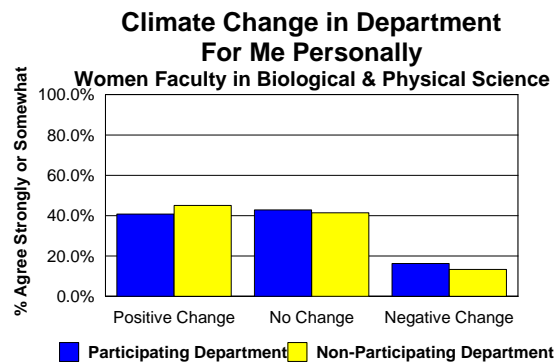
No WISELI Impact (woman faculty interviewed):

“As I said, no impact whatsoever...But that doesn’t mean WISELI is not a wonderful thing. I am just saying it has had no impact on me.” *Appendix 2, Chapter II.*

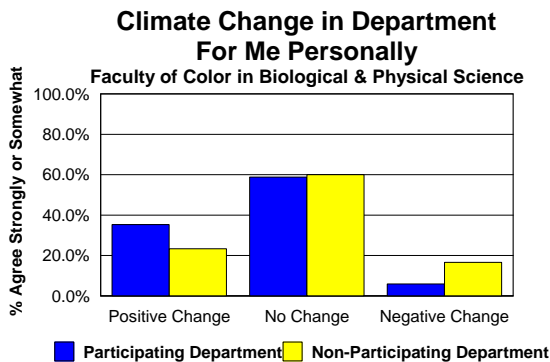
- Participation in the WISELI initiative that was designed to specifically affect departmental climate for women and minorities, the *Enhancing Department Climate: A Chair's Role* workshops, is associated with a slightly more negative sense of their own climate for women faculty in the departments participating in the program, and a slightly more positive sense of their own climate for faculty of color in those departments. Department chairs who participated in these climate workshops decreased their perceptions of the climate for women and minorities in their units.



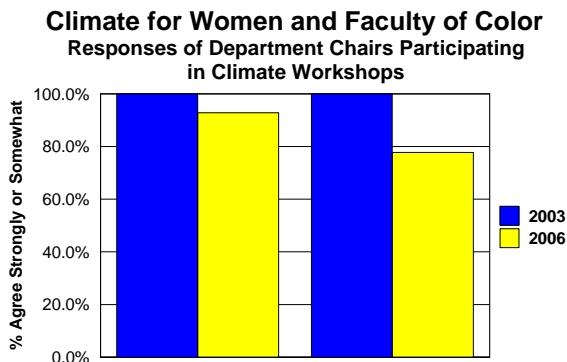
Departments participating in *Enhancing Department Climate: A Chair's Role* workshops, N=214. For non-participating departments, N=358.
 - Indicates marginally significant t-test at $p < .10$.



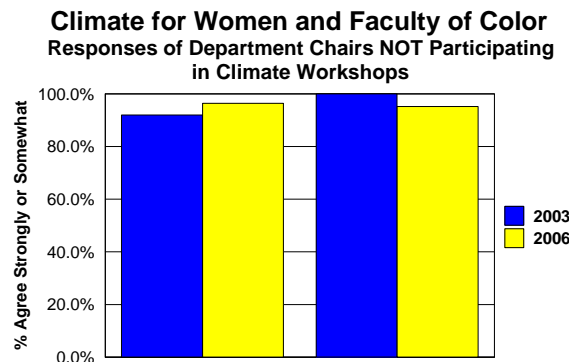
Departments participating in *Enhancing Department Climate: A Chair's Role* workshops, N=49. For non-participating departments, N=82.



Departments participating in *Enhancing Department Climate: A Chair's Role* workshops, N=30. For non-participating departments, N=17.



Biological and physical science chairs only, N=14.



Biological and physical science chairs only, N=28.

Taking all of these various findings together, we conclude that the climate is slowly improving for women, and also for faculty of color, in the STEM departments at UW-Madison. At the individual level, most faculty regardless of gender or race/ethnicity, report slightly better climate in 2006 than in 2003 for themselves. The one exception—women whose department chairs participated in our climate workshops—may indeed be experiencing a more negative climate as their department works through some of the issues brought to the surface as a result of workshop participation; it remains to be seen whether the long-term effects of participation do indeed result in climate improvements for those women faculty. The large negative change in perceptions of climate for women, or climate for faculty of color, we think is a result of increased awareness by all faculty about the real experiences of climate by these underrepresented groups. In 2003, we found an overwhelming tendency for majority groups (men, white faculty) and leaders (department chairs) to over-estimate the climate for women and minorities. In 2006, the responses of these majority groups and leaders is more similar to the actual responses of women and minorities themselves, indicating a better understanding of the climate issues in their units. We see this as a positive change—increased awareness of a problem is an important step towards making lasting change.

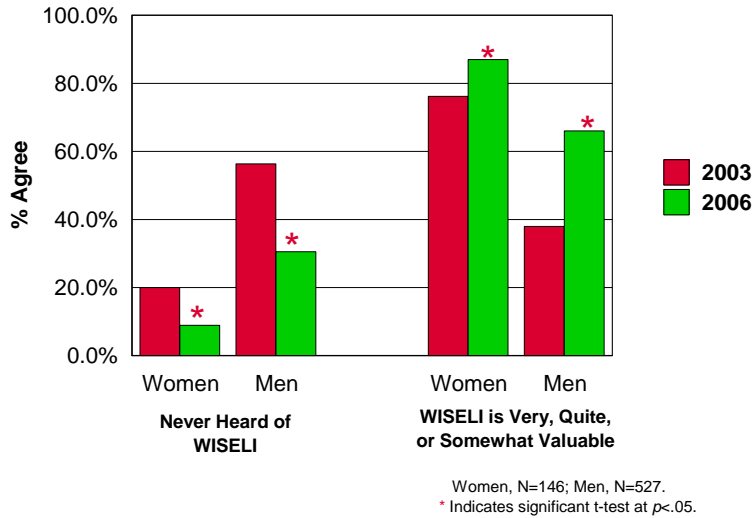
Summaries of both survey and interview data regarding changes in the climate for women faculty at UW-Madison can be found in the summative evaluation report (Appendix 2, see especially chapters II, III, and X), and the results from the *2006 Study of Faculty Worklife at UW-Madison* (<http://wiseli.engr.wisc.edu/initiatives/survey/results/facultypost/index.htm>).

ADVANCE Impact: Visibility of Women

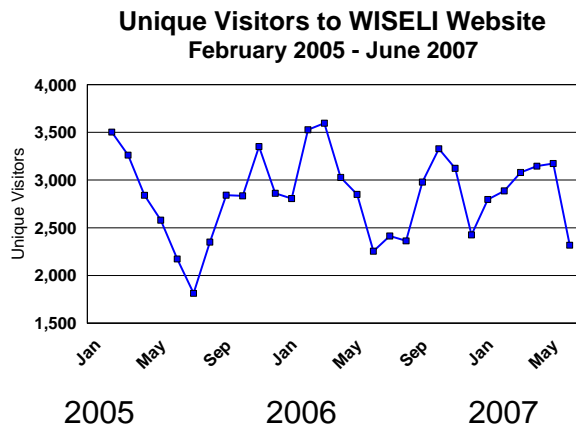
The final summative evaluation report (Appendix 2) documents the number of ways that WISELI promoted the visibility of women—including the visibility of WISELI itself. WISELI has been extremely successful at bringing the issues of women faculty to the forefront at UW-Madison. As one interviewee noted, “I think also just the elevation of awareness of women’s issues on campus that’s been useful because it doesn’t seem like a brand new topic when you bring it up. It’s been a part of the discussion on campus in various ways. So that makes it less threatening to bring up those issues because well they’re everyday issues that we need talk about.” (*Appendix 2, Chapter I*). See Chapters I and VI of the summative evaluation report (Appendix 2) for a full review.

To the extent that the visibility of WISELI enhances the visibility of women at UW-Madison, we can report a high name-recognition and value of WISELI as an organization on campus, by both men and women faculty in the biological and physical sciences.

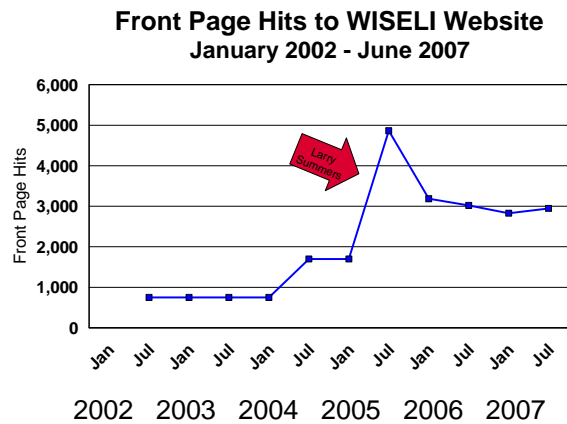
Visibility and Value of WISELI Biological & Physical Science Faculty



The WISELI website is a high-visibility method we use to communicate not only with women faculty on campus, but also with anyone interested in issues of gender equity for women faculty nationally. The pattern of visits to our website from 2005 to the present (AWStats statistics were not available until February 2005) show a very large peak at the beginning of 2005 (coinciding with the remarks made by Harvard President Larry Summers on 1/14/05), usage dropping off in the summer months and in December. This large increase in visibility is corroborated when looking at the WebCounter hits to the WISELI front page, from 2002 to 2007. The large increase in front page hits is noted in the period January- June 2005, with a higher average level of hits to the WISELI homepage after that high-usage period in early 2005.



Source: AWStats



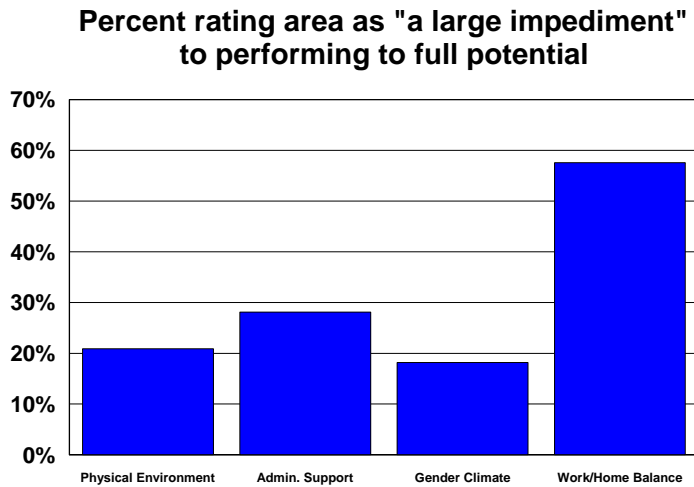
Source: WebCounter

Despite what we feel is our success at making women faculty issues visible, and WISELI visible, our in-depth interviews reveal that more work is to be done particularly in the SMPH:

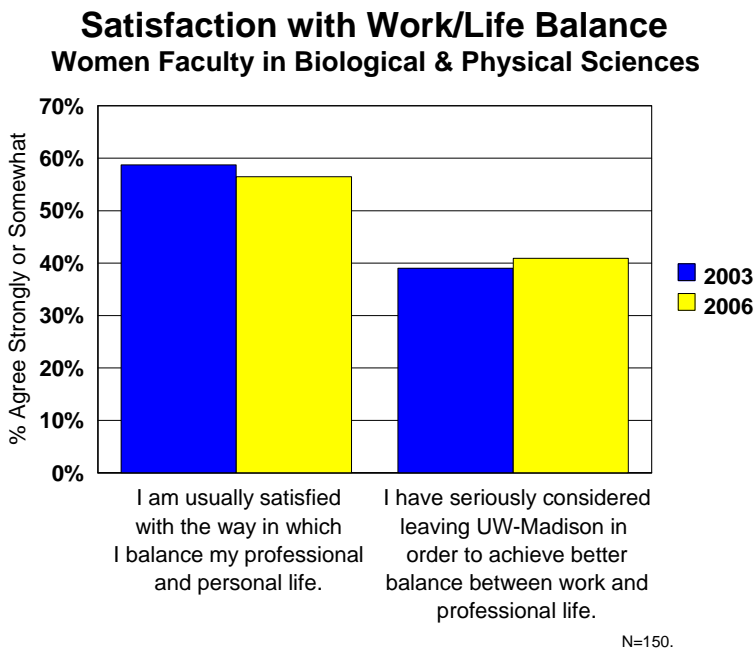
“I don’t see anybody from WISELI acting at the medical school on our behalf or mentoring us...I would like WISELI to get somebody who will do something for the women in the medical school.” *Appendix 2, Chapter II.*

ADVANCE Impact: Work/Life Balance

Work/life balance was identified at our early Town Hall Meetings as the number one issue of women faculty and staff.

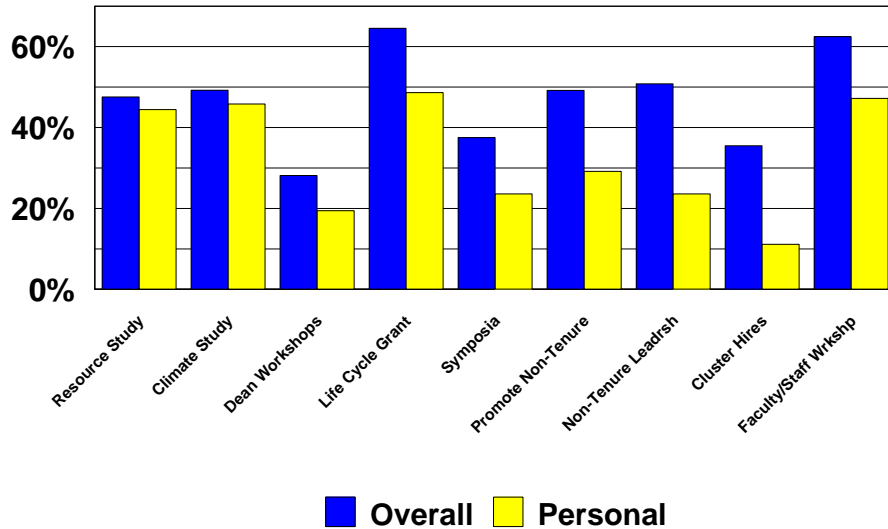


In 2006, our interview and survey data indicate that women at UW-Madison continue to be challenged by work/life balance issues, and that this has not much changed from 2003, or has even gotten a bit worse. Little change was observed in women’s responses to the specific elements contributing to a good work/life balance (e.g., colleagues support of family leave, early/late meetings, difficulty adjusting schedules.)



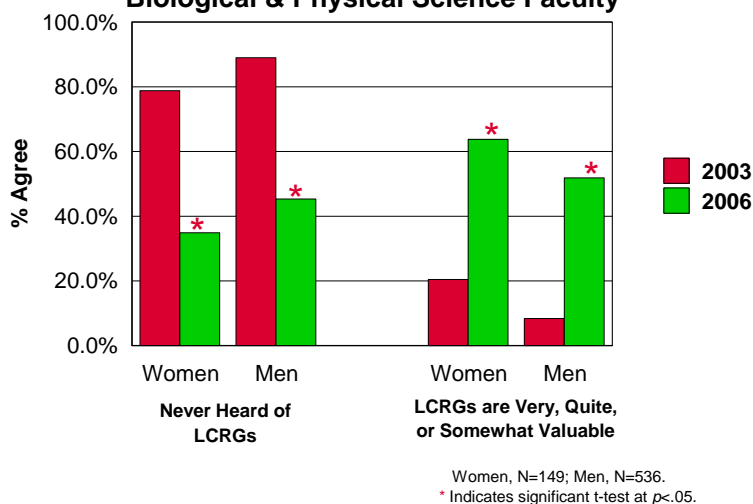
The one new program introduced by WISELI to help alleviate some stress caused by conflicts between work and family life, the Life Cycle Grants/Vilas Life Cycle Professorship program, has been a resounding success. This program was the most anticipated new program by the Town Hall meeting attendees, and thus one of WISELI's first programs to be implemented.

**Highest Priority WISELI Initiatives:
"Overall Importance to UW-Madison" and
"Importance to Me Personally"**



After the pilot period using NSF funding, the program became institutionalized through funding from a private trust, and extended to all faculty at UW-Madison. The program is loved by faculty and has been recognized nationally by the American Council on Education and the Sloan Foundation for being an “innovation in faculty work/life flexibility” (see Appendix 2, Chapter VIII for more details.)

Visibility and Value of Life Cycle Research Grant Program Biological & Physical Science Faculty



While WISELI has added to the safety net for faculty attempting to better balance their personal and professional lives, there is much work to be done to improve the day-to-day work/life balance struggles faced by women faculty in the STEM fields.

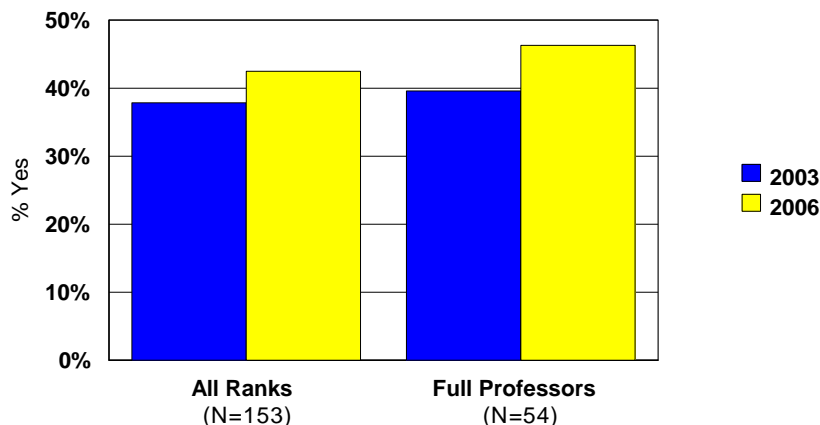
ADVANCE Impact: Leadership

The perception among some women faculty that WISELI has not “personally affected” them very likely stems in part from the decision early on to not spend a great deal of time and effort on the professional development of women faculty, despite an expressed desire for such education (see above, Town Hall meetings.) We surely did offer some professional development opportunities, either through offers to participate in professional development opportunities already occurring on campus or through events created through a Celebrating Women in Science & Engineering grant. Still, these efforts were haphazard and not always visible to *all* women; i.e., if a woman did not sign up for the WISELI listserv, she was unlikely to know about them. An effort of WISELI to affect the leadership development of women faculty more indirectly was the meetings with senior women faculty. The forty-two women we spoke to expressed a much broader vision of “leadership” than the narrow one measured by counting department heads and deans. This same theme emerged in the final evaluation report (Appendix 2, Chapter V.)

Despite this lack of direct focus and effort on developing the leadership skills of our women faculty in biological and physical sciences, we are pleased to report the remarkable changes in the gender composition of our department chairs and deans in biological and physical sciences from 2002 to 2006. As reported above (“By the Numbers”), we greatly increased our numbers of women department chairs in biological and physical science departments, from 2 women chairs (out of 68) in 2002, to 10 women chairs in 2006. In addition, of the six schools that house the biological and physical sciences, two are led by women in 2006 (Pharmacy and CALS), compared to none in 2002. Additionally, L&S is now headed by an American Indian man, adding some much-needed racial/ethnic diversity to the deans’ council as well. The number of women directors of the large research centers and institutes in the STEM fields has remained

very low, however. Interest in formal leadership positions at UW-Madison among the women faculty in STEM fields has increased from 2003 to 2006 (non-significant), with a slightly larger increase for senior women.

**Interest in Formal Leadership at UW-Madison
Women Faculty in Biological & Physical Sciences**



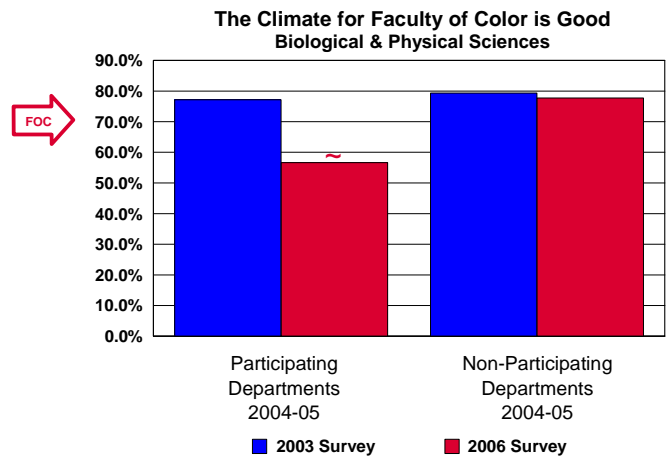
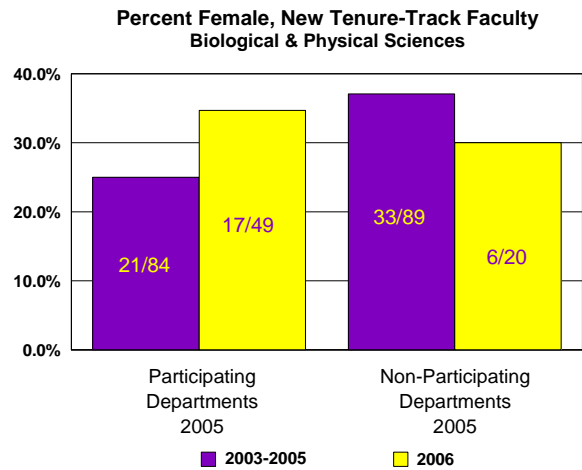
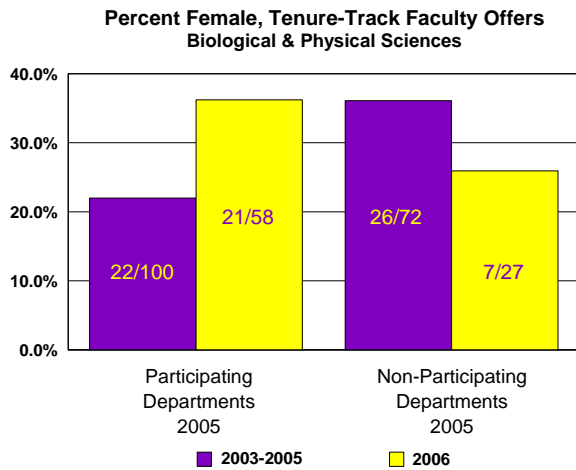
We therefore conclude that a concerted effort to provide individualized leadership development opportunities is not necessary to increase the number of visible women leaders in formal positions, nor is it necessary to increasing the *interest* of women faculty in taking on these formal positions. WISELI may have lost some of the support of women who may have felt we did not do enough at the individual level, but at the institutional level the goals of the ADVANCE grant—more women leaders—were met.

ADVANCE Impact: Hiring Practices and Policies

Perhaps one of the biggest areas of ADVANCE impact on the UW-Madison campus—and beyond—is our effects on hiring policies and practices within departments (Appendix 2, Chapter IV.) Through our *Searching for Excellence & Diversity* workshops for chairs of hiring committees, we have reached a large audience of primarily men faculty in the biological and physical sciences, and introduced them to best practices for faculty searches and interviews, as well as the research literature on the effects of unconscious biases and assumptions, and the potential effects of these biases on the evaluation of candidates. We have evidence that participation in these workshops is associated with increased numbers of offers to women candidates, increased hiring of women candidates overall, increased satisfaction of new hires in the departments who participated, and even increased awareness of climate issues overall (an unanticipated impact.) Many of these findings are reported in WEPAN² and ASEE³ conference proceedings, and include:

² Sheridan, Jennifer; Christine Maidl Pribbenow; Eve Fine; Jo Handelsman; and Molly Carnes. 2007. “Climate Change at the University of Wisconsin-Madison: What changed, and did ADVANCE have an impact?” Women in Engineering Programs & Advocates Network (WEPAN) 2007 Conference Proceedings (on CD-ROM). <http://www.wepan.org/storelistitem.cfm?itemnumber=14> , Paper #0045. June 2007.

³ Sheridan, Jennifer; Eve Fine; Jessica Winchell; Christine Maidl Pribbenow; Molly Carnes; and Jo Handelsman. 2007. “Searching for Excellence & Diversity: Does Training Faculty Search Committees Improve Hiring of



* Agree Strongly to the item "I was satisfied with the hiring process overall."

The elements of the *Searching for Excellence & Diversity* workshops that we feel contribute the most to their success include:

- Peer Teaching: Incorporating faculty from the unit to deliver short presentations and serve as discussion facilitators;
- Active Learning: Most time is spent in discussion and a sharing of practices from different departments and presentation is kept to a minimum;
- Unconscious Biases & Assumptions: Participants are introduced to the social psychological literature on unconscious biases and assumptions, and learn how these tendencies might impact the hiring process;
- Accountability: Participants report on their success at recruiting diverse applicants to their pools.

Continuing to offer these *Searching for Excellence & Diversity* workshops on the UW-Madison campus, and extending them to non-STEM faculty as well as staff search committees, is a priority for WISELI. It is also a priority for WISELI to continue to offer the materials from

Women?" American Society for Engineering Education (ASEE) 2007 Conference Proceedings. <http://www.asee.org/conferences/v2search.cfm>, Paper #992. June 2007.

these workshops (the “Reviewing Applicants: Research on Bias and Assumptions” brochure and the “Searching for Excellence & Diversity” guidebook for search committee chairs) to campuses outside of UW-Madison who may be reforming their own faculty hiring practices, as well as a direct training experience towards replicating this effort at other colleges and universities. WISELI has hosted visitors who wanted to view a workshop “in action”, and we have also brought our *Implementing Workshops for Search Committees* “train-the-trainer”-style workshop to many university and technical college campuses both within Wisconsin, and outside the state.

ADVANCE Impact: Tenure Process and Policies

WISELI did not put a great deal of focus on the tenure and promotion processes at UW-Madison. Although we tracked tenure and promotion rates for women and men faculty in STEM, there was not an obvious reason from these rates to place a large amount of emphasis on the tenure process this early in our Institutional Transformation process. In the past, a large number of women faculty in physical science departments were leaving UW-Madison prior to tenure. For some cohorts, the rates were 40% or higher (compared to men’s rates of 20% or lower.) This did not appear to be an issue in the biological science departments, where both women and men faculty were leaving prior to tenure in approximately equal rates, around 25%. In the most recent cohorts (assistant professors who arrived on campus in 1999 or later), this differential attrition prior to tenure does not seem to be a problem; the attrition rates are approximately equal for men and women, and both genders have relatively low rates compared to past cohorts (see Appendix 1, pages 7-10.)

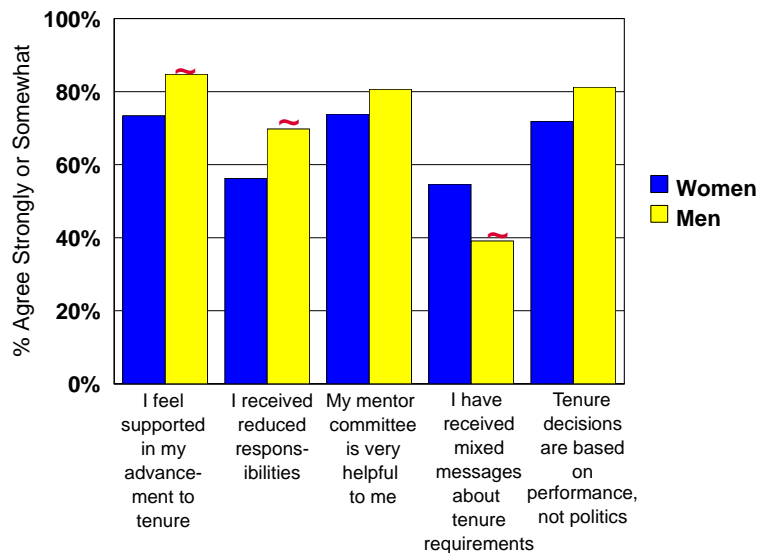
Although the numbers show approximate gender parity in tenure rates, more in-depth interviews with women faculty show that there are still gender differences in the experience of tenure for men and women faculty, differences that negatively impact women and their chances of moving forward. As reported in Appendix 2, Chapter VII, some of the common stories include:

“It’s not about the work you do, and I’ve realized that now. You could do ten times more work, it’s all politics and whether you play the boys’ game, at least in some departments.” *Appendix 2, Chapter VII.*

“I’m not the first woman or minority to be hired and dumped on with course work and committees. Here’s the new kid on the block. Dump it on her. And if a person is going to succeed, they need to be given the best opportunity. Well I never would have said anything until I saw the men come in the department at assistant professor levels and they’re protected. They have collaborators in the department almost immediately. They’re given research space. They don’t have to teach the first year. You know, I didn’t see that with myself.” *Appendix 2, Chapter VII.*

These perceptions are somewhat verified in the climate survey. Although more women than men report these negative perceptions of the tenure process, the gender differences are not statistically significant (although some are marginally significant at $p < .10$.)

Differing Tenure Perceptions STEM Assistant Professors hired 2000-2003



Women, N=57; Men, N=82.

- Indicates marginally significant t-test at $p < .10$.

Thus, while outcomes may be equalized for tenure in the past several years, the experience of the process appears to be different for men and women faculty in biological and physical sciences. Future efforts of WISELI to promote gender equity on campus must address the tenure process.

Section VI: Overall Summary

WISELI's Most Successful Strategies

In the past five years, WISELI personnel did a number of things that were “right” in order to nudge our campus towards institutional change. Some of the things were just lucky; some were strategic approaches; some were approaches based on evidence from research. Not all of these approaches would be right for another campus. The one particular feature of the UW-Madison campus that might make some of our “most successful strategies” appropriate for us and not for others is our very strong tradition of faculty governance. Top-down approaches to change are more difficult at UW-Madison; change must have clear faculty leadership in addition to administrative support in order to manifest.

The “top 10” successful strategies include:

- 1. Use of data and excellent research to reach faculty and administrators.** The use of climate survey data, institutional data, evaluation data, and qualitative data (“the power of the quote”) was key to reaching our target audiences. Presenting our case with data and charts, and being able to switch to another format when needed (“these numbers are very nice; do you have an anecdote you could share that would illustrate what this means?”) helped us to make our points to numerous faculty and administrators in a very convincing way.
- 2. Using literature on unconscious biases and assumptions to approach the issue from a non-accusatory angle.** Using Valian’s *Why So Slow?*⁴ as the beginning point of our own education on the impact of unconscious biases and assumptions, performing our own literature search in the social psychological literature that Valian references, teaching ourselves to communicate these studies as Valian does so well, and incorporating these messages into our work with faculty and administrators (especially around the evaluation of candidates in the hiring process) has been a key element of change. Not only is the use of these messages correlated with more hiring of women, but departmental climate also improves when faculty are exposed to this literature.
- 3. Use of active learning & peer teaching strategies to deliver our messages.** Based on the literature for student learning, we realized that the best way to present our messages to our target audiences was not for us to tell people what they needed to do; they need to discover this for themselves. We are in the business of challenging habits, firmly held beliefs, and attitudes about women and minorities as somehow of less “quality” than majority persons. We used active learning (less presentation and more discussion) and peer teaching (ask participants to learn from each other; less reliance on an outside expert) techniques in our workshops.
- 4. Fearless intervention where required.** Just by virtue of putting up a sign that says “Women in Science & Engineering Leadership Institute” on the door, women faculty and staff quickly identified us as a resource to get their problems solved. What took more time was helping the administration to trust that the problems we brought to their attention were truly issues of injustice into which they needed to intervene. We did not

⁴ Valian, Virginia. 1999. *Why So Slow? The Advancement of Women*. MIT Press: Cambridge, MA.

bring every problem to them for intervention; we carefully investigated each case and made sure there was an underlying inequity before asking administrators to help. In the end, administrators came to see WISELI as a trusted ally not only in improving the campus climate, but also keeping the University out of lawsuits and negative media spotlight because serious issues were addressed internally rather than through litigation and newspaper editorials.

5. **Use of media (website, video) to reach audiences.** WISELI used the internet, electronic communication, and less-traditional media (i.e., video) to reach a wide audience. Our website became a highly visible and important tool for dissemination after January 2005, when we created a webpage to track the media surrounding the Larry Summers remarks about women in science. Our front page averaged 200 hits per month prior to that incident; after it, we consistently receive 300-500 hits per month on our front page. Even two and one half years after the Summers incident, the Larry Summers page remains the second most-visited page within our web domain. The documentary video provided us visibility in the Madison community, and also provided WISELI personnel a unique way to demonstrate our “institutional transformation” through the voices of faculty and administrators here on campus.
6. **Including both qualitative and quantitative social scientists on the ADVANCE team and using their research and findings to guide the process.** It might go without saying that women faculty in the biological and physical sciences need to be involved in order to make an ADVANCE effort succeed. It is less clear that social scientists must also be involved. From the beginning, WISELI’s co-PIs recognized that they needed expertise in social science data and analysis, and included both qualitative and quantitative researchers as an integral part of the WISELI team. This decision was key to providing the essential data needed for success (see #1 above.) The collection of excellent records of attendance and participation at WISELI events, and linking these data with administrative and survey data, was especially important to documenting our success, and is a direct result of hiring social scientists on the project.
7. **Placing WISELI outside of campus administration (an independent unit)—also having PIs who are respected faculty and not administrators.** UW-Madison is a highly decentralized campus with a long (and strong) history of faculty governance. Top-down approaches to institutional change are often met with strong resistance, and have little chance for succeeding if there is not a strong faculty voice to support them. For this reason, creating an independent, official UW-Madison research center that is outside central administration was one key to our success. Research and evaluation performed by WISELI was seen as “independent”, and helped us to gain support and response among faculty. Having two PIs who were successful and respected in their fields, active in their own research, and outside of the normal administrative hierarchy was extremely useful, and helped us to get our voices heard among faculty who are often distrustful of administrators.
8. **Having strong, supportive leadership.** As important as independence from UW-Madison administration was, it was equally important to our success that our Chancellor, Provost, Graduate School Dean, and the Deans of STEM colleges strongly supported our work. Some of the tangible ways that these high-level administrators assisted in our transformation efforts include: material support (funds, space, personnel); access to college-level data; invitations to speak at executive meetings (e.g., deans’ council,

department chair operations meetings); preliminary remarks at hiring workshops; interviews for documentary video; encouragement of faculty/chairs to participate in WISELI workshops (including one dean who mandated attendance at hiring committee workshops before releasing a faculty position!); highlighting WISELI's work beyond campus (e.g., the ADVANCE conference at Georgia Tech or the Engineering directorate summit at NSF); intervention in situations affecting women faculty; and more. Without their support and leadership, it would have been impossible to accomplish all we did.

9. **Having an external advisory team to make recommendations for increased campus resources.** Our external advisory team not only gave great advice for our programmatic elements, they helped us to secure more internal resources (specifically, campus support for clerical assistance) which made our WISELI team more productive. Not only did we ask our external advisors to meet with high-level administrators such as the Provost, we asked them to provide a written letter of recommendations which we then used to ask for resources.
10. **Refrain from producing any program that is gender-specific.** Although we are WISELI, and our mission is to promote the “participation and advancement of women in academic science and engineering,” we hope and expect that men are the most common participants in our programming. Our workshops for department chairs and for chairs of hiring committees are attended mostly by men. Men are frequent awardees of Celebrating Women in Science & Engineering grants (20%). Finally, our Life Cycle Grants/Vilas Life Cycle Professorship program has been open to men from the beginning, and 29% of all applicants are men (21% of awardees are men). As men are the majority of our science and engineering faculty, we cannot hope to engage in institutional transformation without their active participation in the process. Further, we have found that making the working environment better for women makes it better for men as well. Thus, we produced programs that both men and women faculty could embrace, enhancing the opportunity for true institutional transformation to occur.

WISELI's Least Successful Strategies

1. **Including too many leaders in project at beginning.** It seems that everybody has an idea of “what must be done” in order to improve gender equity on campus. Even our proposal was very ambitious, and attempted to address the issues for women faculty in biological and physical sciences from every angle. Going in too many directions at once, however, can dilute the effectiveness of any individual effort. Of course, it is important to have the input and support of many committed people; it just may not be the most effective strategy to have too many leaders.
2. **Employment track changes are not a way to increase the numbers of women faculty on a large scale.** Although anecdotally it seems there are many women “stuck” in staff positions who are currently performing in a faculty role and could be converted to faculty, in reality we found that most women in staff roles do not desire the faculty role (evidence from the academic staff climate survey.) We were successful in converting clinical academic staff in the SMPH to the tenure-track, but were not successful in converting staff in scientist and lecturer/faculty associate positions to the tenure track. Although we will continue to assist women who desire a track change, we no longer believe this is a viable way to increase the numbers of women faculty at UW-Madison.

- 3. Including faculty from all one unit in a small-group workshop (especially climate).** One of the strengths of our two workshop series is the inclusion of participants from many different departments and colleges, so that they may learn from each other various new strategies for hiring or for improving departmental climate (“peer learning.”) A tension arises, however, when we recruit faculty to participate in our workshops—a frequent complaint is that the unit to which a faculty member belongs is “so different” from the rest of campus that they would prefer to participate only in a group from their school, or from similar departments. We allowed one such group to take place. One session of our climate workshops for department chairs was arranged with only chairs from the SMPH. This workshop did not go well at all. The chairs came into the sessions believing they knew exactly what their problems were, and because all of the other participants operated in the same environment, they all reinforced their pre-existing beliefs. No other chairs from outside were available to challenge these beliefs, and we think that the workshop was less effective for this group than for all others who participated. We no longer allow the “we’re so different” rationale for determining who we ask to participate in our workshops.
- 4. Allowing institutionalization to occur too soon.** When we began developing the workshops for chairs of hiring committees, faculty and staff in the Office of the Provost became very enthusiastic about the trainings because they had identified a campus need for such training years before. They were so enthusiastic that they wanted us to expand the workshops beyond what we felt able to do, so they asked to administer the workshops from the Provost’s Office rather than WISELI. Unfortunately, attendance at these early efforts out of the Provost’s Office was sparse, and so we did not really begin our large-scale training of hiring committee chairs until 2004, a full year after we could have if we had retained control of the process and rolled it out as we had planned. We were grateful that the Provost’s Office was so enthusiastic, but have learned that ceding control over an initiative should happen when we feel it is ready to be institutionalized.
- 5. Expecting faculty to attend too many meetings.** Despite the stated desire of women faculty to get together, to meet, to attend professional development seminars, and to become less-isolated, in practice our faculty (especially women faculty, and especially women faculty with children) have little time to “add on” more meetings that don’t directly benefit their teaching or their scholarship. Attendance at our Leadership Team meetings (monthly) dwindled; attendance at our “WISELI Seminars” (2x/semester) dwindled; responses to invitations to attend professional development seminars or workshops were much more sparse than we expected. Although committed to the issues, people are just too busy to devote unpaid time to more meetings. Therefore, as WISELI moves forward, we will be moving to an approach that requires less meeting time. We will have ONE annual meeting for our “advisory committee”, and we will have ONE large gathering of women faculty per year. We may help sponsor smaller events (such as through the Celebrating grant), but in general we intend to ask for less of people’s time, and concentrate on a few, very high-quality experiences.

Future of ADVANCE at UW-Madison

We are fortunate that the UW-Madison campus has valued the work that WISELI has accomplished through the ADVANCE funding from the National Science Foundation, and has determined to follow-through on promises to support ADVANCE efforts at UW-Madison beyond the ADVANCE grant. WISELI will primarily be supported by various units on campus, including:

- Office of the Provost is contributing the salary and FTE for Executive and Research Director Jennifer Sheridan's position. This fulfills the commitment expressed in the original grant application in 2002.
- College of Engineering is contributing space and supplies for WISELI, in addition to supporting a grants administrator (.25 FTE) and supplying \$10,000/year in discretionary spending.
- School of Medicine and Public Health is contributing \$70,000/year (renewable) for WISELI in discretionary spending. These funds will primarily be used for faculty and staff salaries.
- College of Letters & Sciences, College of Agricultural & Life Sciences, School of Veterinary Medicine, and School of Pharmacy are each contributing \$2,000/year towards the Celebrating Women in Science & Engineering Grant program.

These contributions, combined with funds from an ADVANCE "Partnerships for Adaptation, Implementation, and Dissemination" (PAID) grant, will support WISELI's two faculty co-Directors, 3.5 FTE staff, and one graduate student, through 2009.

With the end of the ADVANCE Institutional Transformation award, some structures and programs within WISELI will change. While WISELI will become a campus-wide entity, and will continue to offer our hiring workshops and department chair workshops for units throughout campus, we have decided to retain our name, and our focus, on women in science and engineering. We will broaden our focus to the science and engineering pipeline, even while we retain the word "Leadership" in our name. Some of the anticipated changes include:

- WISELI co-Director Jo Handelsman will step down from the co-Director post, and Prof. Amy Wendt will join Molly Carnes in co-Directing the Institute.
- WISELI will represent sex and gender equity under one of three main "pillars" of diversity supported by a new overarching institute we are calling the Wisconsin Institute for Research and Evaluation on Diversity for STEM (WIRED for STEM). In addition to sex/gender, WIRED will include a pillar for race/ethnic equity (the WiscAMP program and GERS/AGEP program will be included in this pillar), and a pillar for diversity related to disability status (the *MIDWEST Alliance in STEM* program may be included in this pillar.) The WIRED Institute will bring these diversity-related programs together, utilizing shared space and resources to enhance the ability of each individual program to fulfill its diversity-related mission in STEM.
- WISELI will continue developing workshops for PIs of laboratories, and offering them campus-wide beginning as a pilot program in Fall 2007.
- WISELI has been selected to administer the campus-wide exit interview process for departing faculty. The campus-wide process implemented in 2003 was not as effective as the Provost's Office had hoped. WISELI's experience doing exit interviews as part of

our “Why Women Leave” study provided the impetus for campus to ask WISELI to pick up this work.

- With the addition of Amy Wendt to the WISELI co-Director team, WISELI will begin to work on pipeline issues for women in Engineering, a passion of Dr. Wendt’s. After studying the issues in the College of Engineering for one year, we will work with the College of Engineering administration to implement new policy or programmatic changes we think will improve the recruitment and retention of women students in Engineering.
- WISELI will work with the Committee Honoring Denice’s Memory to stage an annual Denice Denton Distinguished Lecture. This annual event will provide networking and mentoring opportunities for women faculty and staff in the sciences, using the event of a distinguished lecture to draw women together.
- The former Leadership Team will be reconfigured to an Advisory Committee, which we anticipate will consist of both internal and external members. An annual meeting will take place that will update the Advisory Committee on WISELI’s progress and the UW-Madison’s progress; this meeting will be scheduled around the Denice Denton Distinguished Lecture in order to capitalize on the excitement surrounding the event.

Conclusion

In five years, WISELI has worked tirelessly to promote the participation and advancement of women in academic science and engineering at the UW-Madison and beyond. We are very proud of what we have accomplished, but it is abundantly clear that there is more to do. We look forward to continuing our work with an ever-widening group of faculty, staff, and organizations committed to diversity in STEM at the UW-Madison and beyond. *FORWARD* with institutional transformation!