



2001-2007 FINAL REPORT

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I. THE IMPACT OF UW ADVANCE SIX YEARS INTO THE GRANT

The UW ADVANCE Center for Institutional Change has continued to work toward its original goals and to expand its activities to also address similar issues across the University of Washington campus. Evaluation of this program has demonstrated a marked improvement in recruiting and retaining women faculty, creating a sense of community within and across science, technology, engineering, and mathematics (STEM) departments, and fostering a culture of leadership in STEM. This program is seen as a national leader in faculty professional development and a model program for other institutions. Appendix K provides a two-page overview of the results and impact of the program. This report provides a more in depth look at the program.

The visibility of the UW ADVANCE Center for Institutional Change has had a striking upsurge of interest by both male and female faculty. Faculties who were beneficiaries of one of more of the ADVANCE programs have volunteered to provide testimony about the value of the ADVANCE programs. They have also offered to meet with the Provost, or go before the Washington legislature to testify for the need of institutional funds to continue the efforts begun under the ADVANCE grant and to identify strategies to expand it to all faculty on the campus. Other faculty have voiced an interest in working on national legislation that would influence policies on maternity leave and other family-friendly issues.

Some of the key ways in which the UW has been transformed due to the ADVANCE program include leadership training for department chairs; increased numbers of women faculty in STEM; a strong community of women faculty; more women in leadership positions; changes in how faculty searches are done; and improvement in the culture around faculty work/life. While each of these areas is discussed in greater detail in the following sections of this report, what follows is a brief highlight of the scope of the impact in these areas.

Leadership Training for Department Chairs: ADVANCE has offered leadership development workshops to department chairs in science and engineering since 2002. Each half-day quarterly workshop covers topics that enable chairs to run their departments better, thereby improving the climate for all faculty members. Diversity is woven in the context of a given topic, instead of being a stand-alone. Emerging leaders attend to help build the next leadership pipeline. The UW offered two national workshops in 2004 and 2005 and received a grant from ADVANCE's PAID program to continue the national leadership workshop program in 2007-2010. The ADVANCE workshop reputation has also resulted in expanding the model throughout the UW campus. The first of the campus-wide department chair leadership workshops was offered in Fall 2006.

Chairs call this program "Chair School" and express great appreciation of the program. UW ADVANCE personnel are frequently contacted by other universities to describe the program and/or to visit UW to attend workshops. Talks on leadership development

have been given at Utah State University, Rice University, and Boston University as well as at several national conferences.

Increased Numbers of Women Faculty in STEM Departments: The percentage of women ladder faculty in STEM departments at UW has risen from 12.6% in Fall 2000 to 16.8% in Fall 2006, representing a 33% increase in the number of tenured or tenure-track women faculty in ADVANCE departments. Further, of the 77 women ladder faculty currently in ADVANCE departments at UW, 42.9% are full professors, a very high percentage. On the recruitment front, the ADVANCE program has provided support to ADVANCE departments interviewing women faculty candidates in that either co-PI Joyce Yen or co-PI Eve Riskin meet with the woman faculty candidate during her visit to campus to discuss the UW ADVANCE program. The women candidates have responded uniformly positively to the program and a number have cited ADVANCE as a primary reason for coming to UW. Faculty candidates frequently discuss work/life balance issues such as dual career scenarios or childcare concerns, thus allowing ADVANCE and the departments to take more timely action to address these issues during the recruitment process. Once the new women faculty arrive on campus, ADVANCE sets up a one-on-one meeting with the faculty to check in and trouble-shoot any problems or questions which have surfaced. These follow up meetings have helped new women faculty feel connected to the university and have allowed for early intervention for some issues which had potential to expand into full-scale retention problems. In general, women faculty routinely come to ADVANCE when faced with conflicts within their departments, some that are potentially career-threatening. In many cases, we lead them to solutions.

A Strong Community of Women Faculty: The ADVANCE program provides women faculty a wonderful networking community through its monthly gatherings, listserv, professional development opportunities, Transitional Support Program and associated mentoring, and additional programs for faculty. The ADVANCE program also provides support for women around work/family balance.

In 2006 the UW was awarded an Alfred P. Sloan "Flexible Faculty Careers" Award. ADVANCE figured heavily in applying for the grant and in helping to get the required 40% response to a work/life survey. Fourteen respondents mentioned the ADVANCE program in the open-ended comments in the survey. Further, whenever ADVANCE calls on its senior women faculty to speak at professional development workshops or at leadership workshops, they are almost always willing to help develop the next wave of women faculty. Women faculty have also stated that the ADVANCE program has changed the climate at UW and improved their experiences as women faculty.

More Women in Leadership Positions: While the UW has had a number of women in positions of leadership throughout the grant period, since the inception of ADVANCE's Mentoring-for-Leadership Program in May 2003, nine women who participated in the Mentoring-for-Leadership program have advanced to positions of leadership. To date, seven of these women still remain in these positions. In addition, UW has a woman provost, woman executive vice provost, and five women vice provosts.

In addition to women who have transitioned to new positions of leadership, ADVANCE's Mentoring-for-Leadership lunch series is also influencing how the women faculty participants view leadership and their suitability for taking on such roles and helping create a greater sense of community among the women faculty in STEM.

Improvements in Faculty Searches: Although UW had its faculty recruitment toolkit in place when the grant started in 2001, the ADVANCE program has publicized it and has repeatedly discussed best practices around hiring women with its department chairs. In addition, ADVANCE's faculty retention toolkit, written by co-PI Joyce Yen, provides an invaluable tool to department chairs to help them retain their faculty.

As a result of the community built through ADVANCE's leadership development program, no department chair would dream of interviewing just men, and no dean would ever have a year in which only male faculty were hired in a College or School. During the 2004-2005, five of the eleven new hires in the College of Engineering were women. Further, almost all ADVANCE departments have hired at least one woman since the implementation of UW ADVANCE program, including the first woman ever hired in the Department of Aeronautical and Astronautical Engineering.

Improvements in faculty work/life culture: Another accomplishment of the UW ADVANCE CIC is institutional cultural change regarding work-life flexibility for faculty, as evidenced by the success of the Transitional Support Program (TSP) and the receipt of a Sloan award. The TSP proved to be a low-cost (relative to recruitment and retention costs) and effective strategy for supporting outstanding faculty who were undergoing transitions which could negatively impact their career progression. The small grants awarded through the TSP program helped faculty maintain their career momentum and better balance the competing demands on their time. The program was a positive and much appreciated demonstration of UW's interest and investment in these excellent faculty members as whole people.

Beyond the individual work/life efforts of the TSP, the ADVANCE CIC initiated campus efforts in 2003 to explore ways to improve both the flexible policy options for UW faculty, and the climate for faculty using them, because these options disproportionately benefit women faculty. These efforts positioned the UW to compete successfully for a 2006 Alfred P. Sloan "Flexible Faculty Careers Award," which provides a \$250,000 grant to accelerate campus efforts to improve flexible options and to increase the number of faculty utilizing them. Obviously, new campus leadership must also be credited with this success, but without the groundwork that had already been laid by the ADVANCE CIC, it is doubtful that the UW would have won. Specifically, the ADVANCE CIC efforts brought about improvements in the way tenure clock extensions are processed and in the part-time options for tenure line faculty. The first round of the competition focused on the breadth of policy availability on campus. Additionally, workshops hosted by the ADVANCE CIC increased the awareness of department chairs and faculty of flexible options. The second round of the competition included a survey of faculty regarding awareness of and experiences with these policies. Without the presence of ADVANCE

on campus, it is doubtful that the UW would have attained the 40% response rate on the faculty survey required to remain in the competition or that the faculty responses would have demonstrated such a high level of policy awareness and satisfaction.

The UW ADVANCE Program has provided faculty with an increased sense of community and more transparent communication and has helped prepare faculty to be better leaders. Many institutions around the country look to the UW ADVANCE program as a model for faculty professional development. The CIC Staff have been recognized nationally and on campus with awards for their leadership and work on these issues. Many of our programs and activities have attracted national attention as evidenced by the numerous consultation requests we receive.

Even with these great strides and voices of support, the program's future is still somewhat unclear. For the 2007-08 academic year, the program has obtained approximately \$210,000 in campus funding to sustain the efforts that have been assessed as the best practices with the greatest amount of impact. In particular, this year the Provost provided \$120,000 for one year to give more time to develop ways to justify ADVANCE programs that could be institutionalized across all departments, colleges and schools at the UW. Both deans of engineering and arts & sciences have continued to contribute annually to their participation in the program. Other colleges and schools who are participating in the campus-wide leadership workshops for department chairs and other faculty leaders have also made small financial contributions to the CIC to help cover the workshop costs. Additionally, the CIC staff has been awarded several grants for new programmatic efforts which complement the original CIC work. Nevertheless, a more sustainable funding model must be developed. Perhaps the final resolution of institutionalizing the ADVANCE program would be to identify another entrepreneurial strategy, where each college, school or department contributes a share to sustain these programs.

II. LEADERSHIP DEVELOPMENT

A hallmark of the UW ADVANCE program has been the leadership development activities which have occurred in the form of leadership workshops for deans, chairs, and emerging leaders and mentoring women for leadership through an informal monthly speaker program. (Note: the Mentoring-for-Leadership program for women faculty will be discussed in more detail in Section V) These programs have contributed to a stronger culture of leadership, increased sense of community between departments and colleges through the relationships developed by chairs and faculty participating in these programs, and expanded opportunities to address issues which impact faculty and department chairs' ability to be successful.

A key lesson from the leadership development activities has been the value of learning from peers. All of the leadership and developmental activities use a model of peers presenting their own experiences on a topic. This model is instructive to the participants in multiple ways. First, the presenters have an opportunity to reflect on their own strategies, what worked well, what did not work well. Furthermore, as one teaches

about a topic, one gains an even deeper understanding of the topic. Second, in addition to learning from the presentations, the audience is also able to identify a potential topic mentor. That is, the presenter her/himself becomes a “real live” resource whom participants may seek for advice. Third, the ensuing discussions allow individuals to examine with the group the nuances of their own situations and how the newly learned information may be applied. Fourth, addressing topics in a group setting creates opportunities to examine issues or ideas not previously considered by an individual, thus potentially offering individuals a preview of what could be on his/her horizon. This model works well because, in our experience, UW faculty prefer to learn from other faculty, peers who have credibility for understanding the faculty environment and who speak from experience. While outside experts have useful information and insight to share, ongoing interactions with presenters (because they are at the UW), is more highly valued. Outside expert information is provided in the form of handouts or through comments made by ADVANCE staff and leadership team members at the activities.

A. UW Chair Quarterly Leadership Workshop
(www.engr.washington.edu/advance/workshops/)

The quarterly leadership workshops provide opportunities for academic leaders to address issues of gender equity, leadership, faculty recruitment, faculty professional development, family-friendly policies, and policy implementation. Each workshop provides resources to support and advance issues relevant to the success of all faculty, and women faculty in particular.

The quarterly leadership workshops have evolved into a highly valued activity. Department chairs report that these workshops are one of the best uses of their time. The workshops are an ongoing opportunity to examine issues relevant to supporting outstanding departments and faculty and issues which particularly impact women faculty in science and engineering. The program has actively engaged faculty from all the participating departments, as demonstrated by the participation rates. Two-thirds of the ADVANCE departments have had a faculty member or department chair present at a quarterly workshop. Spreading around speaker duties has allowed a diversity of experiences to be discussed. Also, because the ADVANCE program bridges two colleges, workshop participants are exposed to different college and different department models and norms.

Due to the workshop success, Provost Phyllis Wise requested the workshop be expanded to the rest of upper campus (excludes the health sciences) through the Leadership, Community, and Values Initiative (LCVI) in 2006-07. More than 230 faculty from across campus attended the six LCVI/ADVANCE workshops which were offered in 2006-07. At the end of the academic year, the Provost expressed interest in ADVANCE offering some type of leadership development workshop to the School of Medicine. However, after having a conversation with the School of Medicine leadership, they determined that they would not be able to take advantage of ADVANCE’s programs. Nevertheless, this expansion to the rest of campus indicates a strong need for and absence of cross-college leadership development and community building activities. While department chairs often gather within their own colleges and divisions, they have

less opportunity for cross-disciplinary gatherings to address issues such as those addressed in these workshops. The campus-wide workshops continue to be offered in 2007-08.

Between November 2002 and June 2007, 15 quarterly workshops have been offered to the ADVANCE departments. A summary of the workshop topic ratings is provided in Appendix J. In early spring 2007, ADVANCE provided the UW Provost with some data about the impact of these workshops. At that time, 30 topics had been offered in 14 workshops; the average attendance of invited department chairs was 76.5%; and 98 emerging leaders (46 women) had attended at least one of the 14 workshops.

B. National Chair Workshops

When talking with faculty around the country about the UW ADVANCE activities, discussions about the campus quarterly leadership workshops generated much interest. Based on this interest and on the suggestion of Maria Klawe, then Dean of Science and Engineering at Princeton University, UW ADVANCE piloted a national leadership workshop for department chairs in science, engineering, and mathematics in 2004. This event was successful and led to an Alfred P. Sloan Foundation grant to fund another pilot national chairs workshop in 2005 with an emphasis on family-friendly policies for faculty. These two successful pilots and continuing national interest in attending such workshops led UW ADVANCE to submit a successful PAID (partnerships, adaptation, implementation, and dissemination) proposal to the NSF ADVANCE program. The first PAID-funded workshop, called LEAD: Leadership Excellence for Academic Diversity workshop, was held in July 2007. To date, more than 160 faculty, including 30 different speakers, representing over 60 different institutions from 31 states, the Virgin Islands and British Columbia, have participated in the national workshops.

These national workshops have had broad impact. As previously noted, to date, faculty from over 60 different universities have attended the workshops, helping ensure that their home institutions will benefit from the professional development these faculty have received. Also, more than 60 of the participants have been department chairs or deans, and thus are poised to have far-reaching impact at their institutions. Another example of how the national workshop has had broad impact is how the faculty family friendly policy summaries, created for the 2005 workshop, have been used by other institutions to benchmark their own policies. As another example of the broad impact of these workshops, in September 2007 the three 2007 workshop participants from Iowa State University held a discussion session on their campus, which was attended by 20 department chairs and deans, to share what they learned from the national workshop. In addition, the 2007 workshop was discussed in an article in Inside Higher Ed on July 13, 2007 (<http://insidehighered.com/news/2007/07/13/advance>) and our ADVANCE staff has published several papers on both the national and campus-based leadership workshops.

The success and ongoing interest in these national workshops highlights a gap in the training and education of our departmental leadership in science and engineering. It

also demonstrates an interest on behalf of these leaders to learn and improve their leadership skills and expand their resources toolbox for increasing the participation of women and minorities in science and engineering faculty positions. Another by product of these workshops has been the networking and shared peer wisdom. While some fields have department chair networks, faculty still value learning from peers from a variety of related disciplines. Respondents from the 2007 workshop stated that it was a “great opportunity to interact and share experience with peers” and that discussions with other participants were critical, leading to good, useful ideas. A 2005 participant would recommend the workshop to others because of the “useful information, excellent people, and tools I can use today.” Additionally, a 2004 participant found the “topics relevant to many aspects of academic life at all levels ... [and] discussing them in an open sharing environment a big plus.”

UW ADVANCE has learned valuable lessons from each iteration of the national workshop offerings. Lessons learned include constructing and maximizing both formal and informal networking opportunities for participants, finding ways to address differences across institutional settings, creating more explicit opportunities to address diversity and implicit bias, and offering speakers and perspectives from a diverse set of institutions.

More detailed evaluation results from the 2004 and 2005 national workshops can be found in the prior annual reports. Table 1 shows a summary of the workshop topic evaluation results for all three national workshops. Topic relevance was rated on a scale of 1 to 5, where 1 was not at all relevant and 5 was extremely relevant. The complete evaluation results for the 2007 LEAD workshop will be included in the ADVANCE PAID annual reports. Highlights from the LEAD workshop evaluation, which had a 65% response rate, include that 93% of the respondents would recommend the workshop to others and that gaining “new knowledge” and “useful tools” were the most valuable aspects of the workshop. Figures 1 and 2 provide some additional evaluation data from the 2007 LEAD workshop.

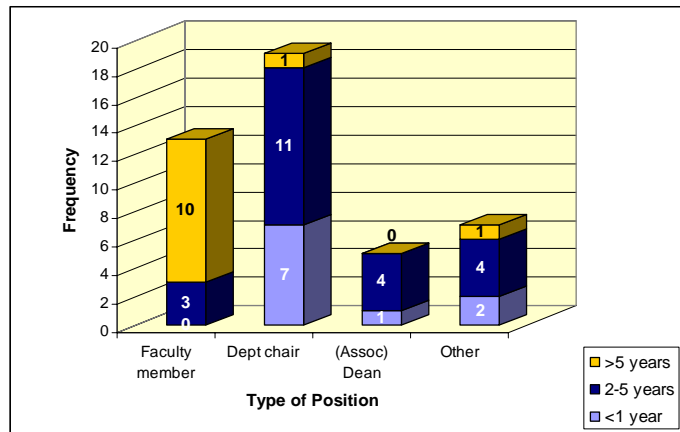
Table 1. Summary of National Workshop Topic Evaluation Results

Relevance of Topics to my Position Ratings

Topic	Year
	2004
Diversity & Excellence: Recruitment and Retention of Faculty	4.65
Working With Your College Dean	4.4
Dual Career Hires, Family Leave, and Tenure Clock Extensions	4.15
Mentoring Faculty Throughout Their Careers	4.79
Recruitment & Retention Toolkits and a Recruitment Case Study	4.79
A Year in the Life of a Department Chair: Case Studies	4.05
Building Consensus	4.32
Development and Your Department	4.05
Communication: What They Didn't Teach Us in Chair School	4.56
Preferences, Work Styles and Leadership: A Conversation	4.47
Applying Skills – Exploring Solutions	4.5

Topic	2005
Data and Background on Underrepresented Faculty	4.05
Implicit Association Test	4.21
Recruitment Toolkit & Strategies	3.8
Dual Career Hires	3.9
Retention Toolkit	3.9
Work and Family Balance for Faculty	4.2
Strategies for Facilitating Transitions in Faculty Careers	3.75
What They Didn't Teach You in Chair School	4.29
Mentoring Faculty Throughout Their Careers	4.17
Managing Up and Down (N=2)	5

Topic	2007
Data and Background on Underrepresented Faculty	4.31
Information on Biases and the Implicit Association Test	4.364
Faculty Recruitment	4.244
Faculty Retention	4.372
Mentoring Presentation and Discussion	4.512
Work/Life Balance as a Department Chair	4.103
Communication Skills: What They Didn't Teach You in Chair School	4.442
Making Difficult Decisions – presentation and discussion	4.375
Strategic Planning: Moving Organizations Forward	4.455



Source: LEAD Post-Workshop Survey, July 2007

**Figure 1. 2007 LEAD Workshop Survey Respondents:
Current Position and Duration**

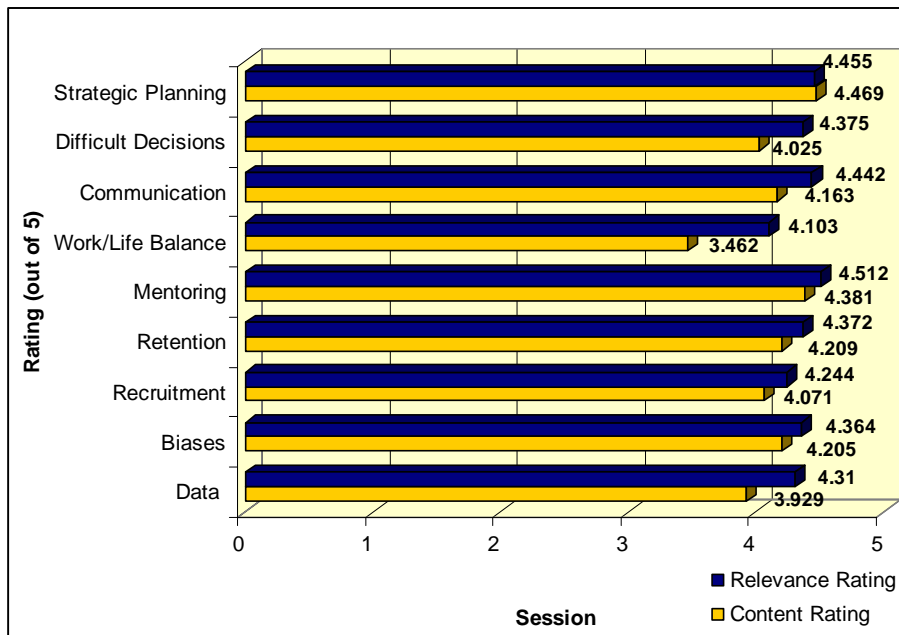


Figure 2. 2007 LEAD Workshop Average Quality Ratings of Session Relevance & Content (1 = “extremely poor”, 5 = “excellent”)

C. Women in Leadership

The three NSF indicators used to evaluate women’s progress in leadership are: 1) number and proportion of women scientists and engineers in administrative positions; 2) number of women STEM faculty in endowed/named chairs; and 3) number and proportion of women STEM faculty on promotion and tenure committees. The list of administrative positions monitored by the UW ADVANCE program is at the end of this report in Appendix C. Table 2 below shows the proportion of women faculty in administrative and/or leadership positions from the baseline year of 2001 to the most recent 2006-2007 academic year.

- This year the absolute number of women who hold positions as deans/associate deans (n=1) decreased relative to 2001.
- The number of women department chairs (n=2), associate/vice chairs, and endowed chairs and professorships (n=7) increased relative to 2001.
- Women’s membership on promotion and tenure committees (n=5) was the same as in 2001.
- Overall, the proportion of women holding leadership positions decreased from 16.9% to 15.1% from the baseline year to the 2006-2007 AY.
- Four of the eight members of the College of Arts & Science promotion and tenure committee are female, and one of the ten members of the promotion and tenure committee in the College of Engineering is female.

Table 2: UW ADVANCE Women Faculty in Administrative Positions (AY 2001-06)

Position	Total	Female	Total	Female	Total	Female	Total	Female	Total	Female	Total	Female	Total	Female
	2001	2001	2002	2002	2003	2003	2004	2004	2005	2005	2006	2006	2007	2007
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Deans/Associate Deans	8	50.0%	8	50.0%	8	50.0%	9	44.4%	9	33.30%	10	50.0%	9	11.1%
Chairs	20	5.0%	20	5.0%	20	5.0%	18	5.6%	21	9.50%	19	15.8%	19	10.5%
Associate/Vice Chairs	15	13.3%	15	13.3%	17	17.7%	16	12.5%	17	5.90%	15	6.7%	25	12.0%
Endowed Chairs & Professorships	28	10.7%	28	10.7%	28	14.3%	30	13.3%	26	15.4%	26	15.4%	48	14.6%
Promotion & Tenure Committees	18	27.7%	18	38.9%	18	44.4%	18	44.4%	18	16.70%	18	33.3%	18	27.8%
Total all positions	89	16.9%	89	19.1%	91	22.0%	91	20.9%	91	14.3%	88	21.6%	119	15.1%

III. DEPARTMENTAL CULTURAL CHANGE

A. Department Transformation Grants (DTG)

Through the DTG program, departments could apply for funds to create opportunities for women and minorities and to address department cultural change. This initiative was created in response to feedback from department chairs. Five DTG award have been made since the program began, all given in the academic years 2003-2004 and 2004-2005. No new awards were given this past year, although Electrical Engineering had activity with their DTG this year. Otherwise, the 2005-2006 final report describes in detail the activities and accomplishments of the DTG's. The following five departments are those who were granted DTG funds: Biology, Civil and Environmental Engineering, Electrical Engineering, Math, and Mechanical Engineering.

Biology Departmental Transformation Grant

- In 2005 the Department of Biology was awarded a transformation grant that promoted awareness of the broad contributions of women and minorities as leaders in Biology. The department approached this goal via (1) a series of department-wide lectures (the "Uncommon Leaders Lecture Series"), (2) a course in which graduate students in Biology identified 11 uncommon leaders in Biology and (3) a website created by the graduate students that highlighted the contributions and challenges faced by each of these leaders.

Civil and Environmental Engineering Departmental Transformation Grant

The goal of the Civil and Environmental Engineering Department's DTG grant was to transform faculty culture, department recruitment goals and direction in CEE. The CEE department has benefited from the ADVANCE program in several important ways.

- First, meetings and presentations for department chairs were very valuable to get original information to pass on to the department faculty. This resulted in supporting materials that helped hire three female and one minority faculty.
- Two female faculty and spouses have benefited from the transitional grants to allow release of teaching obligations after child birth that allowed the continuation of research programs. This support is extremely important for tenure and promotion.
- Until ADVANCE, the chair had no interaction with a single chair in the sciences. ADVANCE changed that with the Quarterly Leadership Lunches, and he now knows

7 or 8 chairs outside of engineering. This was very valuable when looking for jobs for partners of faculty being recruited.

Electrical Engineering Departmental Transformation Grant

The Electrical Engineering Departmental Transformation Grant was used to improve the department's culture of community and faculty mentoring.

- Meetings of senior women faculty with junior women faculty during winter quarter to advise them in preparing for their spring quarter review. Both the junior and senior women reported that the meetings were useful.
- Development of web pages with mentoring resources and useful information for new faculty.
- A quarterly series of panel discussions aimed at graduate student professional development
- A series of lunch meetings for women graduate students and faculty

Math Departmental Transformation Grant

The Mathematics department proposed to initiate and establish a new series of talks by prominent women mathematicians within the Math department's colloquium series in 2004-5. The goal was to dedicate six of the 18-22 colloquium slots in 2004-5 to women speakers. These visits were designed to involve substantially more interaction and mentoring activities than a typical visit by a colloquium speaker.

- The ADVANCE talks have significantly changed the profile of the typical colloquium speaker in mathematics in the last year. The PIs believe that the ADVANCE sponsored talks have helped considerably in initiating a new awareness and appreciation of female researchers in the Math department.
- This program has greatly increased the awareness of ADVANCE and its goals throughout the department, for both faculty and students. There has been a considerable increase in attendance numbers from previous years.

Mechanical Engineering Departmental Transformation Grant

The Mechanical Engineering Department was granted DTG monies to allow for strategic planning for the recruitment, retention and advancement of women and minority faculty and graduate students. The department has embarked on several new initiatives to increase the recruitment and retention of women and minority faculty and graduate students. A few of these new initiatives are highlighted below:

- Annual meetings with junior faculty to assist with mentoring and preparation of P&T portfolios.
- The department is teaming with several UW-wide minority resources (Office of Minority Affairs and resources within the Graduate School) to help identify women and minority faculty or faculty candidates who will be invited to give technical presentations at the department's seminar series for academic year 2006-07.
- A new seminar series was created, which distinguished alumni are invited to speak on their professional lives.
- Offered the first Mechanical Engineering Graduate Visiting Day, March 31, 2006. This event was viewed as highly successful and was a deciding factor for a significant number of new incoming graduate students.

- During the last recruiting period, used the GEM national database for recruitment. Also, further developed the department's efforts to give personalized attention to recruiting graduate student applicants and in particular women and minority applicants.

B. The Cross-Department Cultural Change Program

In Winter 2004, ADVANCE worked with ADVANCE Visiting Scholar Chris Loving to develop a Cross-Department Cultural Change Program (CDCCP), designed to help departments enrich communication, enhance collaboration, seek and utilize diversity more effectively, and improve faculty recruitment and retention. The program also intended to encourage more effective peer mentoring and collegiality, to foster a positive and inclusive environment, and thus to create a more vibrant and fulfilling intellectual community. The CDCCP created an opportunity for department chairs and faculty to work together on specific department issues around cultural change. The beginning of the Program was focused on developing a cultural change skill set. Concurrently, these concepts and skills were used to create and implement specific initiatives to improve the climate for everyone in the department. Department chairs along with two-three other faculty members form a department team and identify a department project. In an effort to increase the number of faculty who support improving department climate, some department chairs chose to invite faculty other than those who are already clearly supportive of department cultural change. One cohort of four departments (Biology, Mechanical Engineering, Material Science and Engineering, and Civil and Environmental Engineering) participated in this program, which occurred over the course of several quarters.

While the program was not able to continue beyond one cohort of departments, overall the program was a positive experience for those involved. In particular, many of the faculty seemed to appreciate the coaching and counseling provided by our visiting scholar in addition to learning concepts, such as the role personal preferences plays in how change is experienced, and acquiring skills, particularly communication skills, during the formal meetings. Also, not surprisingly, the departments which were most engaged with the program gained the most benefit and saw actual changes in the attitudes of the participating faculty.

Perhaps the greatest lesson from this experience is that cultural change is hard and requires a long-term investment. Although this program ran over the course of almost a full year, the departmental projects were just getting underway. While participants did gain from the experience, the department-wide effect was not as widespread as intended. In hindsight, the program was likely terminated prematurely.

More detail about this program can be found in the 2005 ASEE Conference Proceeding paper "The Cross-Department Cultural Change Program at the University of Washington."

C. Faculty Recruitment and Retention Toolkits

Just prior to the establishment of the UW ADVANCE Center for Institutional Change, the UW's Presidential Advisory Committee on Women's (PACW) research assistant created the UW Faculty Recruitment Toolkit under the guidance of Denice Denton, then PACW Chair and former UW ADVANCE PI. The ADVANCE CIC assumed responsibility for updating the toolkit's content and also spearheaded efforts to inform science and engineering departments, via their deans, about the toolkit. This effort led to a more systematic effort to address diversity throughout the faculty search process. Changes in faculty search processes at the dean level included discussing the toolkit explicitly with search committees, reviewing faculty interviewee short lists for diversity, inviting ADVANCE staff to meet with women faculty candidates during their campus visits, and asking search committees to explicitly discuss their selection criteria and explain why top women and underrepresented minority candidates were not selected for interview. In summer 2007 the toolkit was moved from the Equal Opportunity Office's website to the campus-wide Academic Human Resources website and ADVANCE had a major role in updating the toolkit content once again. ADVANCE will likely be involved in the proposed toolkit evaluation process tentatively slated for 2007-08.

In 2004 UW ADVANCE wrote a companion toolkit, the Faculty Retention Toolkit. This document addresses a variety of issues such as faculty development at all career stages, faculty workload, and transparency in operations. This toolkit was distributed to ADVANCE departments and has been a general resource for other ADVANCE workshops and activities.

Because both toolkits are online, they serve as resources for the greater national and international academic community.

D. Indicators¹ of Departmental Cultural Change

In this section are tables presenting the NSF indicators used to measure and evaluate departmental cultural change at the UW. The NSF indicators presented in this section are as follows: 1) number and proportion of women faculty by department and rank in STEM departments; 2) tenure promotion outcomes by gender; 3) years in rank by gender; 4) time at institution; 5) attrition by gender; and 6) salary of STEM faculty by gender. Each is discussed in detail below.

In order to clarify the definition of faculty categories, we provide the following explanation of our three faculty categories. The data in this section reports on ladder faculty, unless otherwise noted.

- Ladder faculty includes tenure-track and those without tenure due to funding source (WOT).

¹ Data presented are for the original nineteen UW ADVANCE in the College of Arts and Sciences (Applied Mathematics, Astronomy, Atmospheric Sciences, Biology, Chemistry, Earth & Space Sciences, Mathematics, Physics, and Statistics) and the College of Engineering (Aeronautics & Astronautics, Bioengineering, Chemical Engineering, Civil & Environmental Engineering, Computer Science & engineering, Electrical Engineering, Industrial Engineering, Materials Science & Engineering, Mechanical Engineering, and Technical Communication).

- Teaching faculty includes all lecturers, acting instructors, teaching associates, and temporary teaching faculty (acting assistant professors & visiting professors).
- Research faculty includes all assistant research, associate research and research professors. Research associates or post-docs are excluded.

Faculty at the University of Washington includes three job categories: 1) ladder faculty; 2) nonladder and temporary teaching faculty; and 3) research faculty. Ladder faculty includes personnel on state-funded tenure-track lines and those who are without tenure solely by reason of funding (also known as WOT). WOT faculty are not state-funded positions, yet they are held to the same standards and duties as faculty in tenure-track state-funded positions. WOT and state-funded tenure-track faculty have similar voting and employment rights. Both groups are expected to teach, conduct research and provide service to the university community. WOT faculty are promoted in the same manner as state-funded faculty members and have University voting privileges. The UW database codes for Ladder Faculty are: 101, 102, 103, 111, 112, 113, 116, 123.

1. Number of women faculty in STEM departments

Figure 3 shows that with the exception of teaching faculty, the proportion of females increased in each faculty category relative to Fall 2001 (baseline year). In Fall 2006, the gender composition of faculty by faculty category was 17% female for ladder² faculty, 41% female for teaching³ faculty, and 19% female for research⁴ faculty. As noted in previous reports, women continue to make up a larger proportion of non-ladder faculty than ladder faculty. A summary of faculty by category in each ADVANCE department for Fall 2000 to Fall 2006 is included as Appendix D.

² Ladder faculty includes tenure-track and those without tenure due to funding source (WOT). The ranks are professor, associate professor, assistant professor, professor without tenure, associate professor without tenure, and assistant professor without tenure, assistant professor with tenure, acting assistant professor.

³ Teaching faculty includes all lecturers, acting instructors, teaching associates, and temporary teaching faculty (acting and visiting).

⁴ Research faculty includes all assistant research, associate research, and research professors. Post-doctorates and research associates are excluded.

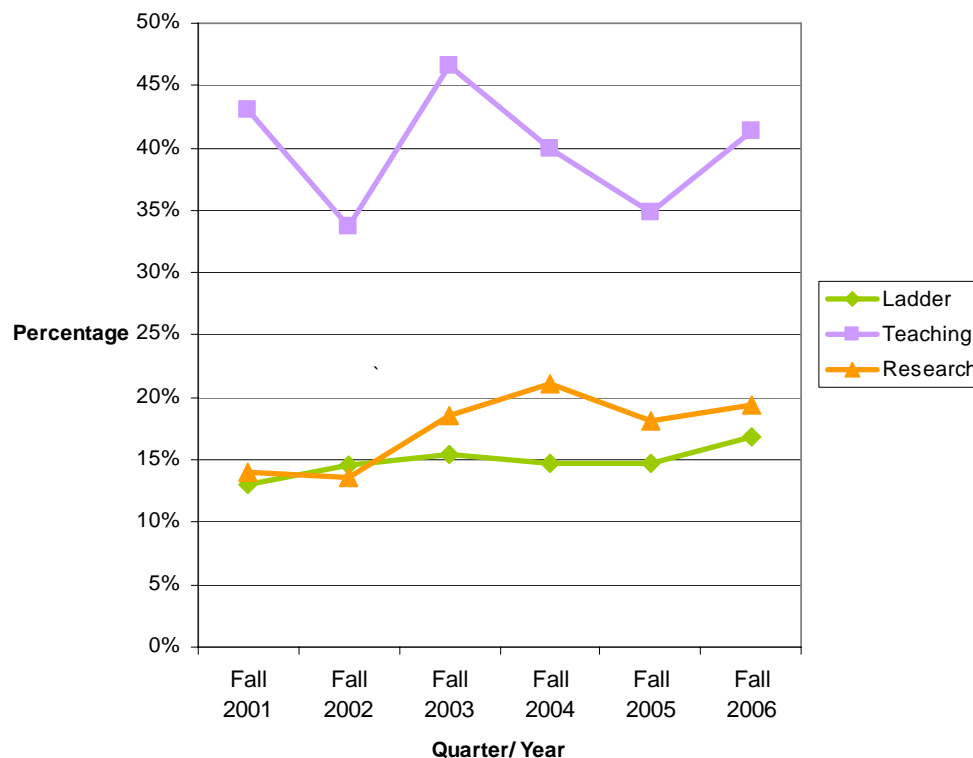


Figure 3. Percentage of ADVANCE Female Faculty by Faculty Category, Fall 2001 to Fall 2006

As indicated in Figure 4 below, there were a total of 77 tenure track (ladder) female faculty members in ADVANCE departments in Fall 2006 – an increase of seventeen since the grant began. All ranks have seen overall increases in the numbers of women faculty. Women comprised 12% (33 out of 288) of faculty at the professor level, 24% (22 out of 91) of faculty at the associate level, and 33% (22 out of 66) of faculty at the assistant professor level. Figure 4 also shows the high number of female full professors at UW, as well as positive tenure decisions, and increases in hiring women at the assistant professor level.

The College of Arts and Sciences⁵ had a total of 41 female ladder faculty (19 out of 177 full professors, 12 out of 40 associate, and 10 out of 32 assistant) and the College of Engineering had 36 female ladder faculty (14 out of 111 professors, 10 out of 51 associate professors, and 12 out of 34 assistant professors).

⁵ Again, the data presented are for the original UW ADVANCE departments in the College of Arts and Sciences (Applied Mathematics, Astronomy, Atmospheric Sciences, Biology, Chemistry, Earth & Space Sciences, Mathematics, Physics, and Statistics)

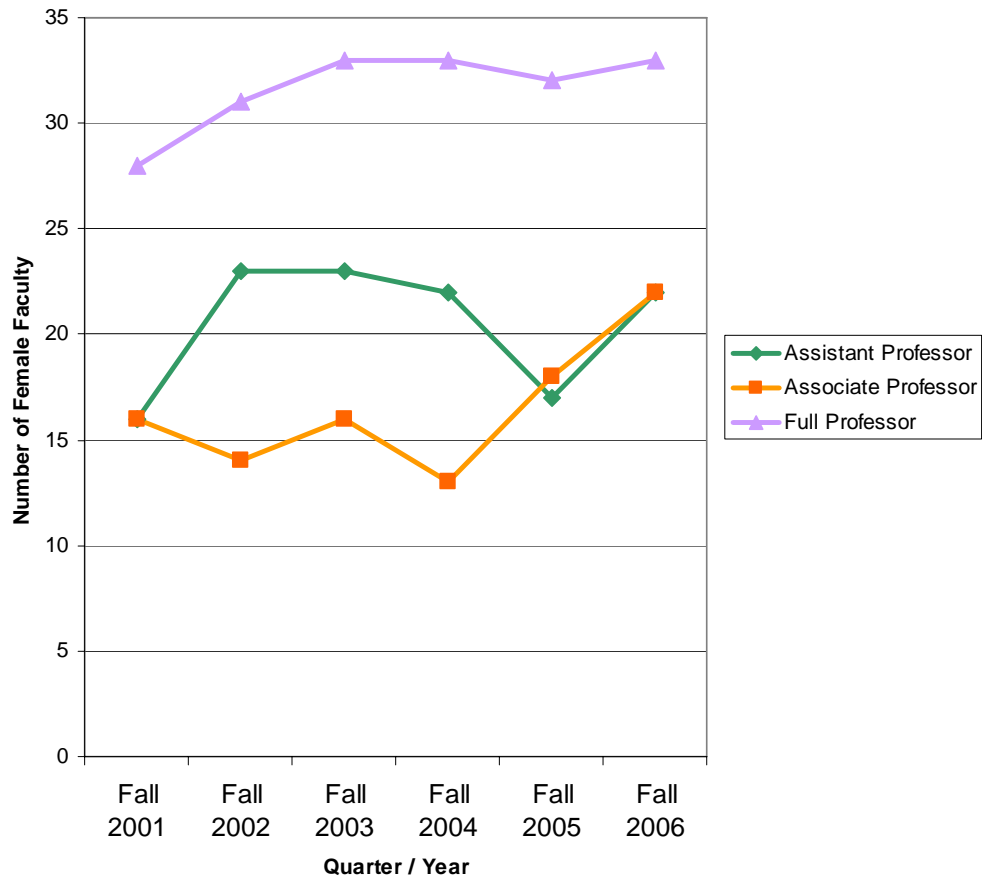


Figure 4. Number of ADVANCE Female Ladder Faculty by Rank, Fall 2001 to Fall 2006

For AY2006-07, 10 women and 16 men were hired. One of the female hires was at the professor level⁶.

The female ladder faculty numbers are an improvement relative to the baseline year. However, there are still departments within each college that have only one female ladder faculty, or who only have female ladder faculty at one rank. This lack of female ladder faculty has consequences for attracting and retaining female students and/or having female faculty available for mentoring and leadership.⁷ In addition, the recruitment and inclusion of women of color remains a challenge for the UW ADVANCE program. In 2001 there were 7 female ladder faculty of color, and this year there were

⁶ New hires are those ladder faculty who started working between between October 16, 2005 and October 15, 2006.

⁷ This is not to say that men cannot serve as mentors for female graduates but studies have shown the importance of having women and racial minorities as mentors in disciplines with diverse populations particularly at the undergraduate level, and more recently data from AAAS indicate the importance for graduate students as well.

10 women of color. The increase is the result of hiring 3 female Asian ladder faculty. (Appendix E lists faculty by rank within each ADVANCE department and Appendix G list faculty by gender and race/ethnicity within each department for Fall 2006.)

2. Tenure promotion outcomes by gender

Tenure and promotion outcomes for Assistant Professor cohorts in ADVANCE departments since 1990 are shown in Table 3. Prior to 1999 the number of women in Assistant Professor cohorts was minimal, thus it is difficult to analyze promotion rates for those cohorts. The 1999 cohort was the first cohort in which a meaningful analysis could be done – nine women and seventeen men. In the 1999 cohort, 89% percent of the women and 82% percent of the men have been promoted to Associate Professor as of Fall 2006. Of the subsequent cohorts, only the 2000, 2001, 2002, and 2003 cohorts could have faculty eligible for tenure review and promotion. (Assistant professors are on average reviewed for promotion during their fourth year of service although they may be reviewed and promoted at any time.)

Table 3. University of Washington ADVANCE Departments Assistant Professor Cohorts 1990-2006^{8,9}

Assistant Professor Cohorts Since 1990

Cohort Year	# in Cohort		Promoted/Tenured				Left UW/Tenure Track Prior to Tenure Review or After Denied Promotion				As of Fall 2006, Still at UW, Not Yet Tenured			
	M	F	M	F	M	F	M	F	M	F	M	F		
1990	12	3	9 (75.0%)	2 (66.7%)	3 (25.0%)	1 (33.3%)								
1991	12	1	9 (75.0%)	1 (100.0%)	3 (25.0%)									
1992	8	2	7 (87.5%)	2 (100.0%)	1 (12.5%)									
1993	8	4	5 (62.5%)	1 (25.0%)	3 (37.5%)	3 (75.0%)								
1994	3	0	3 (100.0%)											
1995	5	1	4 (80.0%)	1 (100.0%)	1 (20.0%)									
1996	9	2	7 (77.8%)	2 (100.0%)	2 (22.2%)									
1997	7	0	5 (71.4%)		2 (28.6%)									
1998	13	1	9 (69.2%)	1 (100.0%)	4 (30.8%)									
1999	17	9	14 (82.4%)	8 (88.9%)	3 (17.6%)	1 (11.1%)								
2000	15	7	12 (80.0%)	4 (57.1%)	3 (20.0%)	1 (14.3%)				2 (28.6%)				
2001	12	2	8 (66.7%)	1 (50.0%)	1 (8.3%)	1 (50.0%)			3 (25.0%)	7 (87.5%)	2 (33.3%)			
2002	8	6	1 (12.5%)	1 (16.7%)				3 (40.0%)	7 (88.9%)	3 (60.0%)				
2003	9	5	1 (11.1%)					2 (40.0%)	8 (88.9%)	3 (60.0%)				
2004	9	2	2 (22.2%)						7 (77.8%)	2 (100.0%)				
2005	9	2	1 (11.1%)						8 (88.9%)	2 (100.0%)				
2006	12	9							12 (100.0%)	9 (100.0%)				
Totals	168	56	97 (57.7%)	24 (42.9%)	26 (15.5%)	12 (21.4%)			45 (26.8%)	20 (35.7%)				

* Two asst. professors were promoted but later moved from one ADV. department to a non-ADVANCE department, maintaining rank

⁸ From this report forward the label “denied promotion” will replace “not promoted.” This change was made for clarification purposes. In particular, the change was made to make more obvious the distinction between “not promoted” and “not tenured.” “Denied promotion” means an individual(s) came up for tenure review and was not promoted.

⁹ “Not yet tenured” means an individual has not come up for tenure review.

As shown in Table 3, in the baseline year cohort (2001), 67% of men have been promoted while of the two women, one is tenured as of Fall 2006 and the other left the tenure-track prior to tenure review. Among women in the 2002 and 2003 cohorts, 50% and 40% were denied promotion and/or left the institution prior to tenure review, respectively. One man in the 2005 cohort received tenure, but in general it is too early to analyze the 2004, 2005, and 2006 cohorts.

There were seven faculty in the College of Arts & Sciences and ten in the College of Engineering reviewed for promotion this year. The College of Arts and Sciences reviewed and promoted four faculty from assistant to associate professor (2 women and 2 men) and 3 from associate to full professor (1 woman and 2 men). In the College of Engineering, six assistant professors (5 men and 1 women) were reviewed for promotion to associate professor – five were approved (1 woman and four men), and one was denied (male). Among the four associate professors (all men) reviewed, all four were promoted to professor.

3, 4. Years in Rank by Gender and Time at Institution

Tables 4 and 5 present the mean years in rank by gender and the time at institution by gender in all original UW ADVANCE departments as of Fall 2006. For both of these indicators, four categories of ladder faculty are not included. These four categories are: Professor WOT, Associate Professor WOT, Assistant Professor WOT and Acting Assistant Professor¹⁰. There are 13 ladder faculty within these four categories.

Across all ranks, female faculty average fewer years in rank than males in similar ranks, although the differences are most prominent for associate and full professors. For example, the gender difference in average years in rank is 2.4 years for associate professors, and 3.95 years for professors.

Table 4. Mean Years in Rank by Gender, Fall 2006

	Assistant			Associate			Professor		
	<i>N</i>	<i>Mean (years)</i>	<i>SD</i>	<i>N</i>	<i>Mean (years)</i>	<i>SD</i>	<i>N</i>	<i>Mean (years)</i>	<i>SD</i>
Female	20	2.75	2.05	22	4.09	3.98	33	10.64	7.23
Male	45	2.98	1.64	69	6.49	6.98	255	14.59	8.4
Total	65	2.91	1.77	91	5.91	6.44	288	14.14	8.36

Similar to mean years in rank, female faculty on average have fewer years at the institution than males. Table 5 shows that the mean and median years at the UW for females is less than that of their male colleagues as of Fall 2006. The mean years for females decreased this year (11.67) relative to last year (12.06).

¹⁰ The codes which are not included in these calculations are: 111, 112, 113 and 123.

Table 5. Time at Institution by Gender, Fall 2006

	N	Mean (years)	Median (years)	SD
Female	75	11.67	8.00	9.53
Male	369	17.15	18.00	10.08
Total	444	16.23	16.00	10.19

5. Attrition by gender

Tables 6 thru 8 show attrition at the University of Washington. Table 6 shows that a grand total of 98 men and 16 women are no longer at the UW. Of this total, 43 ladder faculty (21% women) left the institution as of Fall 2006. Females seem to leave the institution in greater proportions while they are assistant professors while males leave the institution in almost equal numbers when they are assistants and full professors (Table 7). Most female assistant professors leave for other institutions in year five or earlier, with few leaving in year six or later. Most male assistant professors leave in all years but the trend among men is to leave later (Table 8).

**Table 6. Attrition UW ADVANCE Departments
Fall 2001 – Fall 2006**

	Male	Female
Left UW	34	9
Retired	59	4
Died	1	0
Other	4	3
Total	98	16

Table 7. Rank at Time of Exit, Fall 2001 – Fall 2006

	Male			Female		
	Assistant	Associate	Full	Assistant	Associate	Full
Left UW	14	7	13	6	1	2
Retired	1	6	52	0	2	2
Died	0	9	1	0	0	0
Other	1	2	1	3	0	0
Total	16	24	67	9	3	4

Table 8. Assistant Professors* - Year of Exit, Fall 2001 – Fall 2006

	Total	Female	Male
Year 3 or earlier	8	4	4
Year 4 - Year 5	10	4	6
Year 6+	6	1	5

*Excludes Terminal Asst Professor Retirement

6. Salary of STEM Faculty by Gender

Below, Table 9 reports the salary of faculty by college, rank, and gender in Fall 2006. The techniques used to analyze salary data are consistent with conventional reporting on pay gaps between men and women.¹¹ Salary ratios¹² can be interpreted as the amount the average female faculty earns for every dollar the average male faculty earns. However, no statistical controls were used in this analysis and the results must be interpreted with caution.

Table 9. ADVANCE Faculty Monthly Salary by Gender and Rank, Fall 2006

	College of Arts & Sciences ¹			College of Engineering ²			Total ADVANCE ³		
	Female	Male	Gender Gap ⁴ and Ratio ⁵	Female	Male	Gender Gap and Ratio	Female	Male	Gender Gap and Ratio
Professors⁶			Gap:			Gap:			Gap:
Mean	\$10,371.74	\$11,084.79	\$713.05	\$12,696.50	\$12,858.00	\$161.50	\$11,271.65	\$11,765.21	\$493.56
Median	\$10,038.00	\$10,588.00	\$550.00	\$12,467.50	\$12,503.00	\$35.50	\$11,112.00	\$11,175.00	\$63.00
Maximum	\$13,494.00	\$24,360.00		\$15,365.00	\$20,040.00		\$15,365.00	\$24,360.00	
Minimum	\$7,845.00	\$6,698.00	Ratio:	\$9,470.00	\$7,521.00	Ratio:	\$7,845.00	\$6,698.00	Ratio:
Std Dev	\$1,334.73	\$2,476.66	0.95	\$1,756.71	\$2,329.70	1.00	\$1,877.61	\$2,566.53	0.99
# Cases	19	159		12	99		31	258	
Associate Professors⁷			Gap:			Gap:			Gap:
Mean	\$8,296.25	\$8,239.78	(\$56.47)	\$9,145.10	\$10,116.25	\$971.15	\$8,682.09	\$9,402.66	\$720.57
Median	\$8,175.00	\$8,372.00	\$197.00	\$9,067.50	\$10,061.50	\$994.00	\$8,724.50	\$8,890.00	\$165.50
Maximum	\$10,000.00	\$9,094.00		\$10,237.00	\$13,265.00		\$10,237.00	\$13,265.00	
Minimum	\$6,788.00	\$6,703.00	Ratio:	\$7,743.00	\$7,334.00	Ratio:	\$6,788.00	\$6,703.00	Ratio:
Std Dev	\$888.95	\$685.78	0.98	\$913.94	\$1,637.17	0.90	\$979.32	\$1,631.82	0.98
# Cases	12	27		10	44		22	71	
Assistant Professors⁸			Gap:			Gap:			Gap:
Mean	\$7,577.70	\$7,486.30	(\$91.40)	\$8,522.75	\$8,658.91	\$136.16	\$8,093.18	\$8,059.58	(\$33.60)
Median	\$7,349.50	\$7,500.00	\$150.50	\$8,386.00	\$8,341.00	(\$45.00)	\$8,029.00	\$7,843.00	(\$186.00)
Maximum	\$9,523.00	\$8,334.00		\$9,577.00	\$10,030.00		\$9,577.00	\$10,030.00	
Minimum	\$6,000.00	\$6,826.00	Ratio:	\$7,725.00	\$7,510.00	Ratio:	\$6,000.00	\$6,826.00	Ratio:
Std Dev	\$1,018.98	\$369.83	0.98	\$589.97	\$781.73	1.01	\$926.98	\$843.47	1.02
# Cases	10	23		12	22		22	45	

Notes:

¹ College of Arts & Sciences' departments include Applied Mathematics, Astronomy, Atmospheric Sciences, Biology, Chemistry, Earth & Space Sciences, Mathematics, Physics, and Statistics

² College of Engineering departments include Aeronautics & Astronautics, Bioengineering, Chemical Engineering, Civil & Environmental Engineering, Computer Science & Engineering, Electrical Engineering, Industrial Engineering, Material Science & Engineering, Mechanical Engineering, and Technical Communication

³ Total ADVANCE represents the original nineteen departments named above in the College of Arts & Sciences and College of Engineering

⁴ Gender Gap: Male minus Female (numbers in parentheses indicates women have an advantage)

⁵ Ratio: Ratio of female to male median monthly salary

⁶ Professors includes seven professor(s) without tenure and excludes 4 Deans and 1 Vice Provost

⁷ Associate Professors includes four Associate Professor(s) without tenure and excludes one Associate Professor because on unpaid leave

⁸ Assistant Professors includes one Assistant Professor(s) without tenure and one Acting Assistant Professor

¹¹The methods used to create the data in Table 8 were drawn from those performed by New Mexico State University.

¹² Salary Ratio is the ratio of female to male median monthly salary

As shown in Table 9, women's mean salary is for the most part lower relative to their male peers. The largest gender pay gap among ADVANCE ladder faculty is in the College of Engineering for associate professors.

On average, in the College of Arts & Sciences, women assistant (\$7,577.70) and associate professors (\$8,296.25) have higher monthly salaries relative to men (\$7,486.30 and \$8,239.78, respectively) but lower salary as professors – \$11,084.79 for men and \$10,371.74 for women.

In the College of Engineering, women professors, on average, have lower monthly salaries relative to male colleagues (\$12,696.50 versus \$12,858.00). Women assistant and associate professors have lower salaries relative to men at their level - \$8,522.75 compared to \$8,685.91 (assistants) and \$9,145.10 compared to \$10,116.25 (associates).

IV. POLICY TRANSFORMATION

A. Policy transformation activities

During the course of the ADVANCE Institutional Transformation grant it became clear that the University of Washington actually had many policies in place which can provide flexibility for faculty; however, neither faculty nor department chairs knew of these policies and/or were reluctant to use them. Thus, the largest contribution of the ADVANCE program in this arena has been increasing the understanding of the needs for and reasons behind these policies and changing attitudes and perspectives about these policies. In particular, ADVANCE featured several policy related topics such as facilitating dual career hiring situations, using tenure clock extensions and other family-friendly policies at the quarterly leadership workshops. ADVANCE also proactively highlights these institutional policies when meeting with women faculty candidates. In 2005 ADVANCE established a new lactation station on campus, giving priority use to faculty, staff, and students from ADVANCE departments. To date more than twenty people have used the lactation station. For each of these policy areas, ADVANCE has partnered with appropriate units on campus to leverage the impact of these efforts. For more details about the activities in these areas, see the 2002-03, 2003-04, and 2004-05 annual reports.

B. ACE-Sloan Flexible Faculty Careers Award

In part because of the work done by the ADVANCE program to raise awareness of the policies on campus, the UW won a 2006 Alfred P. Sloan Foundation Flexible Faculty Careers Award. This award recognized the progress already made toward supporting the work-life balance of UW faculty and provided funding to accelerate additional efforts. The award created Balance@UW, a comprehensive package of policies and programs designed to support UW faculty in balancing productive academic careers with satisfying personal lives. By supporting faculty through the various stages of life, Balance@UW will enhance the ability of the UW to recruit and retain the best and brightest faculty, and enhance the ability of faculty to perform their best teaching and

research. For more information about Balance@UW visit <http://www.washington.edu/provost/initiatives/balance/>.

V. MENTORING WOMEN IN STEM

The UW ADVANCE mentoring component focuses on female faculty, pre-tenure faculty, and graduate students. Graduate student mentoring programs include the Faculty Graduate Mentoring Program managed by the Center for Workforce Development (CWD), and the Leadership Institute for Tomorrow at the University of Washington (LIFT™ UW). The faculty mentoring programs are group seminar and networking experiences rather than one-on-one matching programs. At the beginning of the grant, an informal monthly networking brown-bag lunch for women faculty was held, but due to low levels of interest, this lunch was discontinued and will not be discussed in this final report. Mentoring programs for faculty, which are discussed here, include the Mentoring for Leadership Program for female faculty and the professional development workshops for pre-tenure faculty.

A. Mentoring-for-Leadership Lunch Series

A detailed discussion of the UW ADVANCE Mentoring-for-Leadership Lunch program can be found in the paper "The ADVANCE Mentoring-for-Leadership Lunch Series for Women Faculty in STEM at the University of Washington," by Joyce W. Yen, Kate Quinn, Coleen Carrigan, Elizabeth Litzler, and Eve A. Riskin, which appeared in the *Journal of Women and Minorities in Science and Engineering, Volume 14, Issue 3-4, 2007*. What follows here is a brief overview of the program and some of the evaluation outcomes documented in the *Journal of Women and Minorities in Science and Engineering* paper.

In 2003, UW ADVANCE created the monthly Mentoring-for-Leadership lunch series for women faculty in STEM fields to focus specifically on women as leaders and to offer personal counterexamples to the dearth of women leaders in STEM. These lunches are spaces in which women faculty can collectively strategize on how to successfully integrate into male-dominated institutions. Speakers remark on personal experiences and thoughts on being in a position of leadership. For example, previous speakers have told their personal history; summarized career obstacles and how they overcame them; discussed success strategies; described what surprises they found when moving into academic leadership or the challenges encountered; explained how and why they made the decision to take on a leadership position; and shared work/life and research/administration balancing strategies.

This program aims to encourage STEM women faculty to consider leadership and to expose women faculty to different career paths. In constructing the Mentoring-for-Leadership program, ADVANCE chose to use a network mentoring model rather than the traditional one-on-one model to maximize the number of leaders with whom participants interact while minimizing the effort of all involved. The entire event format is discussion-based and is quite informal, with formal speaker remarks limited to 20 minutes of the 90-minute event.

Speakers have held a variety of leadership positions. Although many of the speakers have a STEM background, the program has invited leaders from a variety of fields across campus. Between May 2003 and September 2007, 53 women have spoken. During that time, 57.4% of the speakers were from the University of Washington and 42.6% were from other universities or national organizations. Sixty-six percent of the speakers have been at the associate dean level or higher. Several of the speakers have moved to higher leadership positions since speaking in the program. While many of the speakers occupy administrative leadership positions, speakers also represent research leaders or occupy other non-positional leadership roles. The program aims to include a variety of leadership examples, as illustrated in Table 10.

Table 10. Leadership levels of Mentoring-for-Leadership lunch speakers, May 2003 – Sep. 2007

Position	Number	Percentage
President	4	8%
Provost/Vice Provost/Vice President	9	17%
Dean/Associate Dean	22	42%
Academic/Non-Academic Directors	5	9%
Chairs	4	8%
Faculty/Scientist	9	17%

One of the key elements and benefits of the program is cross-unit networking and community building. More than 120 women have participated in the program between May 2003 and September 2007. In addition to learning from the guest speaker, participants have the opportunity to learn from each other. Past participants represent over 40 STEM departments at UW and at other institutions and range from recently arrived faculty to emerita faculty to visiting faculty. This program offers women faculty a chance to gather with colleagues whom they might not normally see. Furthermore, as women are still significantly underrepresented in STEM faculties, faculty women may have few opportunities to gather in a room full of fellow women science and engineering faculty. The networking and mentoring is multi-directional. Even the speakers have commented on the powerful experience of being in a room full of Ph.D.-level women scientists and engineers.

For many of the attendees, a close-up look into the life of an academic leader is a unique experience. The typical lunch size is 15-30 faculty women, which enables intimate discussion. The feeling in the room is more of a dinner party than a formal presentation. Speakers have commented that this event has given them an opportunity to reflect on their own accomplishments and consider how gender influenced their successes. Learning from other women about what it is like to be in a particular leadership position and what strategies other women leaders use to navigate their various responsibilities, women faculty can be inspired to consider being leaders themselves.

Evaluation results suggest that this program is highly successful and the format fitting for the audience. Evaluation results were obtained from quarterly evaluation surveys which included formative and some summative evaluation, and a one-time goals assessment instrument which provided an expanded summative assessment of the program. Women who returned the quarterly evaluations and answered the question (n=60) overwhelmingly (83.3%) indicate that the luncheons are an effective approach to mentoring for them. When respondents were asked on the quarterly evaluations whether they would like a more formal mentoring program where they are matched with one individual, 63 women responded, and only 16% indicated they would like a more individual mentoring relationship. Over half of the respondents said they did not want that type of a relationship. When asked on the goals assessment if they would recommend that 'the Mentoring-for-Leadership lunch series be adopted at other institutions,' 53 (98.1%) said "yes" and the remaining one respondent indicated "maybe." The participant comments and evaluation demonstrate that the program format suits the leadership mentoring needs of the majority of women faculty participating in this program.

The lunches have helped reduce isolation and have increased a sense of belonging among the women faculty. Three questions from the goals assessment evaluated whether participation in the lunches increased aspects of community. On the statement that participation has resulted in a 'greater sense of community at UW' 52 (96.3%) responded "agree" or "strongly agree." Likewise, 46 (85.2%) indicated that they "agree" or "strongly agree" that the lunches resulted in an 'expanded network of scholars.' Finally, 28 (51.9%) indicated that they "agree" or "strongly agree" that they have 'initiated contact (outside of the lunches) with other lunch participants.'

Many of the participants found particular aspects of the Mentoring-for-Leadership luncheons helpful for their professional growth and for encouraging them to consider leadership positions. Figure 5, based on the quarterly evaluation data, indicates that women find hearing different perspectives on leadership the most helpful aspect of the luncheons. Furthermore, many of the qualitative comments from the quarterly evaluations noted how this program has made leadership more accessible. Not only do participants have access to women in positions of academic leadership and access to their personal stories, but they have also started to view themselves differently. From the goals assessment, 52 (96.3%) participants responded "agree" or "strongly agree" to the statement that participation has increased awareness of 'diverse paths to leadership.' Likewise, 52 (96.2%) indicated that they "agree" or "strongly agree" that the lunches resulted in increased awareness of 'various leadership styles.' Another 39 (72.2%) indicated that they "agree" or "strongly agree" that they are 'more likely to pursue a position of leadership at some point' in their career. Finally, 43 (79.7%) indicated that they "agree" or "strongly agree" that they have a 'more positive perception of being in a leadership position.'

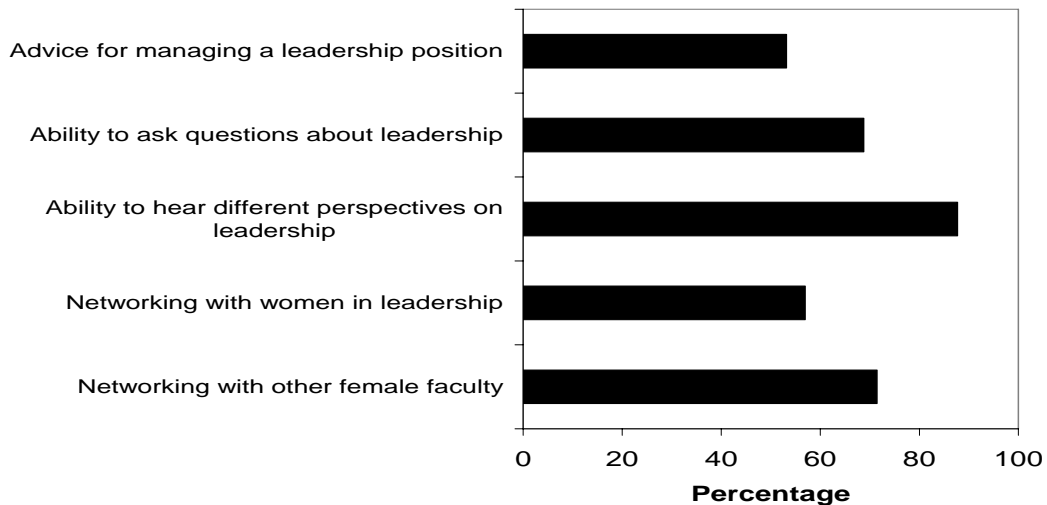


Figure 5. Percentage of respondents who indicated that a particular aspect of the luncheons is helpful for their professional growth

B. Mentoring Pre-tenure Faculty

In addition to offering monthly leadership lunch events for women faculty, UW ADVANCE offers quarterly professional development workshops for all pre-tenure faculty in ADVANCE departments. Each year ADVANCE hosts a welcome lunch to meet the new faculty and inform them of the resources, workshops, and services offered by UW ADVANCE. These welcome lunches also serve as a forum to hear about the issues our new faculty are thinking about and brainstorm possible workshop topics. Past workshop topics included time management, managing a research lab, mentoring and advising graduate students, navigating the tenure track, and balancing research, teaching, and service. The workshop format follows the successful strategy developed with the quarterly leadership workshops, namely where two faculty who are experienced with the topic give a brief overview of their experiences and lessons learned. A question and answer discussion occurs following the presentations. ADVANCE staff explore the research and resources related to the workshop topics and create accompanying handouts. To broaden the workshop impact, workshop handouts are posted online at <http://www.engr.washington.edu/advance/mentoring/pretenure.html>.

Between April 2003 and April 2007, more than 100 different faculty (60% women) have participated in 20 workshops. Figure 6 lists the workshops by date, topic, and speakers. As a result of participating in the workshops, 96% of evaluation respondents said they have a greater sense of community at UW and 91% have learned strategies to balance teaching, research, and service. Evaluation respondents cite focusing on specific professional development issues (72%); networking (60%); and learning strategies and tools for career success from senior faculty (60%) as the most helpful workshop elements.

Date	Topic	Speaker	# of Attendees
15-Apr-03	Navigating the Tenure Track	Denice D. Denton	7
5-May-03	Navigating the Tenure Track	Denice D. Denton	17
10-Sep-03	P&T with ADVANCE Prof. Development Consultants	Bruce Darling, Lynn M. Riddiford	10
14-Oct-03	Welcome Lunch	Denice D. Denton, Eve Riskin, Joyce Yen	12
5-Nov-03	Working with Development	Dondi Cupp, Joyce Cooper, Judy Mahoney, Lorena McLaren	5
21-Nov-03	Time Management	Denice D. Denton, Elizabeth Warrick, Loveday Conquest, Mary Lidstrom, Scott Hauck	12
27-Apr-04	Managing Research Groups	Debbie Flores, Elizabeth Van Volkenburgh, Richard Ladner	15
5-Oct-04	Welcome Lunch	Denice D. Denton, Eve Riskin, Joyce Yen	12
4-Nov-04	Balancing Research, Teaching and Service	Anne C. Steinemann	13
7-Dec-04	Mentoring Graduate Students	Christopher Moore, Dee Boersma	13
21-Apr-05	Applying for a NSF Career Award	Lyatt Jaegle, Suzie Hwang Pun, Eric Stuve, Anne Steinemann	14
23-May-05	Nuts and Bolts of Managing a Research Lab	Glenn Bartholowmew, Mari Ostendorf	12
21-Oct-05	Welcome Lunch	Eve Riskin, Joyce Yen	NA
14-Nov-05	Teaching Tips	Mary Pat Wenderoth, Anne C. Steinemann	11
14-Feb-06	Navigating the Tenure Track	Arthur Nowell	13
19-Apr-06	Applying for a NSF Career Award	Julianne Dalcanton, Mary Heusner, Rick Keil, Suzie Hwang Pun, Xingde Li	12
20-Oct-06	Welcome Lunch	Eve Riskin, Joyce Yen	NA

9-Nov-06	Identifying Promising Graduate & Undergraduate Students	Nathan Kutz, Les Atlas	12
2-Mar-07	Time Management	Scott Hauck	3
16-Apr-07	How to Apply for a CAREER Proposal	Kristi Morgansen, Eric Agol, Wendy Thomas	15

Total number of events: 20

Total attendees for all events: 208

Figure 6. Pre-Tenure Faculty Workshop Topics and Speakers, 2003-2007

Occasionally, ADVANCE also offered workshops to more senior faculty. Past workshop topics included promotion to full professor, building large-scale initiatives, and student ratings of women faculty and strategies for teaching. Generally one of these broader faculty workshops is offered once a year depending on demand and interest in the workshop topics. These activities have been a much small segment of ADVANCE's work.

C. LIFT™ UW

When ADVANCE was working with Visiting Scholar Chris Loving, we also launched LIFT™ (Leadership Institute for Tomorrow) UW, a leadership program for science and engineering graduate students. The LIFT™ curriculum was delivered by Chris Loving through a series of day-long workshops. Workshop topics included communication skills, personal leadership, Myers-Briggs Type Indicator, and others. The participants of the cutting-edge program gained knowledge and skills which helped them better navigate relationships, improve communication and reduce misunderstanding, and have more productive and satisfying interpersonal interactions which would lead to better, more fruitful, and more creative research. ADVANCE sponsored this program for almost two years, after which the students spun off into their own registered student organization. Co-PI Joyce Yen is still serving as the faculty/staff advisor and the curriculum continues to be offered on campus through the student organization. More information about the current program is online at www.students.washington.edu/~liftuw.

D. Faculty and Graduate Student Mentoring program

The graduate student mentoring program administered by CWD builds upon an existing program which was instituted to encourage female graduate students to pursue faculty careers. More than 180 students have participated in the program since the initiation of the ADVANCE program (Figure 7). The program benefits from CWD's nationally recognized mentoring training curriculum which helps mentees and mentors establish and maintain effective mentoring relationships. The goals of the Faculty and Graduate Student Mentoring Program are to:

- Provide STEM graduate students with personal and career guidance
- Encourage students to pursue STEM fields
- Enhance retention of students pursuing STEM graduate degrees

- Prepare students with a realistic viewpoint of faculty experiences in their chosen field
- Utilize faculty expertise for the professional and personal development of STEM graduate students

This past year (2006-2007), the Faculty and Graduate Student Mentoring Program continued to offer its services to graduate students in science and engineering. During this year, efforts were made to include not only women in STEM fields, but also people of color in these fields. There were forty-one mentees involved with the program during the 2006-2007 school year, consistent with our levels of participation over the last four years.

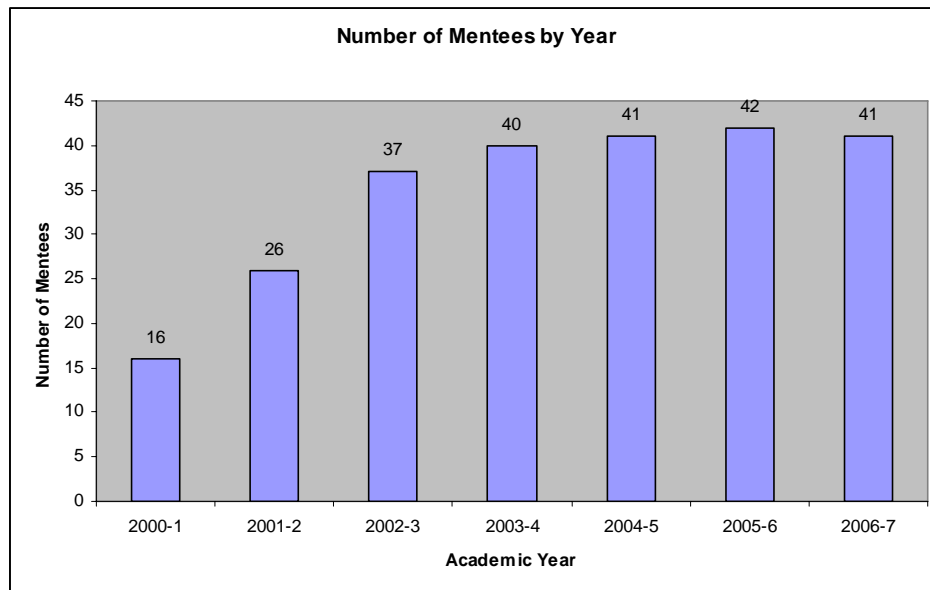


Figure 7. Participation by Mentees in the Faculty and Graduate Student Mentoring Program, 2000-2006

In the past three years, multiple changes were made to the mentoring programs that have helped them to be successful. These changes include:

- Revising the mentoring training curriculum
- Changing the focus of events programming from being focused on the job search to being focused on multiple aspects of personal and professional development,
- Increasing levels of contact with participants through email newsletters and regular check-ins, and
- Collecting additional data on mentees to better evaluate the program and its effects on mentees.

Making these changes has helped provide participants with important information as well as helped mentoring program staff be more knowledgeable about our participants and their experiences in the program. During the 2006-2007, mentoring program staff presented the following two papers at conferences concerning the recent changes described above.

- Wheelless, A., Blaser, B., & Litzler, E. (2007). Mentoring of graduate students in STEM: Perceptions and outcomes. 2007 ASEE Annual Conference & Exposition, 24-27 June 2007, Honolulu, HI.
- Blaser, B., Wheelless, A., & Litzler, E. (2007). Enhanced connections: Making changes to mentoring programs for science and engineering graduate students. WEPAN 2007 National Conference, 10-13 June 2007, Orlando, FL.

While the UW ADVANCE program did not explicitly focus on graduate student climate issues, in Spring 2007 focus groups were held with female graduate students to assess graduate students' perceptions of the impact that ADVANCE has had on the climate in their departments. The questions for graduate students pertained to the climate in their department, integration into culture of the department, support from faculty advisors, current career goals and whether their plans changed since entering graduate school and professional development opportunities. A total of 9 female graduate students attended two focus groups.

It is important to note that the students who participated in these focus groups self-selected to take part, which means that they may feel like they had something to say. There is likely some selection bias in the results reported below, and this potential bias should be kept in mind when reading the following summary of the focus group responses.

Female Graduate Students (N = 9)

- Women graduate students indicate an awareness of diversity in their departments, but not a specific focus on increasing the number of women.
- Integration of graduate students into the culture of departments varies by department. Some departments have in-depth orientations, others do not.
- As found in other literature, graduate programs in general lack written guidelines for navigating their doctoral programs.
- Many of the graduate students in the focus groups indicated that they were told their advisors were also their mentors. In some departments students choose their own advisors, and in others students are assigned advisors.
- Many of the graduate students wanted to be professors when they first entered graduate school, but after awhile, they realized they did not want to be a professor and would prefer to teach in a community college or go to industry to do research.
- In general, students indicated receiving some funding from their departments for professional development, such as attending conferences.

VI. TRANSITIONAL SUPPORT PROGRAM FOR STEM FACULTY

In 2001 ADVANCE established a Transitional Support Program (TSP) to assuage the detrimental impact of major life transitions on faculty careers. Between 2001 and 2007, this program awarded grants of \$5,000 to \$38,000 to outstanding STEM faculty in the midst of major life transitions, such as the arrival of a child, personal illness, family

illness, moving into positions of leadership, and/or elder care. In 2004 the Provost Office created a campus-wide TSP program for all faculty facing extreme, life-threatening circumstances, but the Provost-funded campus-wide program has been sustained only for these rare cases. To date, three TSP grants have been given under the campus-wide program.

Under the ADVANCE grant, 51 ADVANCE TSP awards to 48 faculty were distributed between Fall 2001 and Summer 2007. A total of \$938,834 was awarded, and the average award size was \$18,000. Awards were given for both personal and professional transitions, see Figure 8 for award type information. Of the 48 awardees, 42 are female and 6 are male. All of the male recipients were awarded ADVANCE TSP grants for transitions due to a new baby or an emergency health condition affecting their child. Information on the rank of faculty at the time of their TSP award is given in Figure 9.

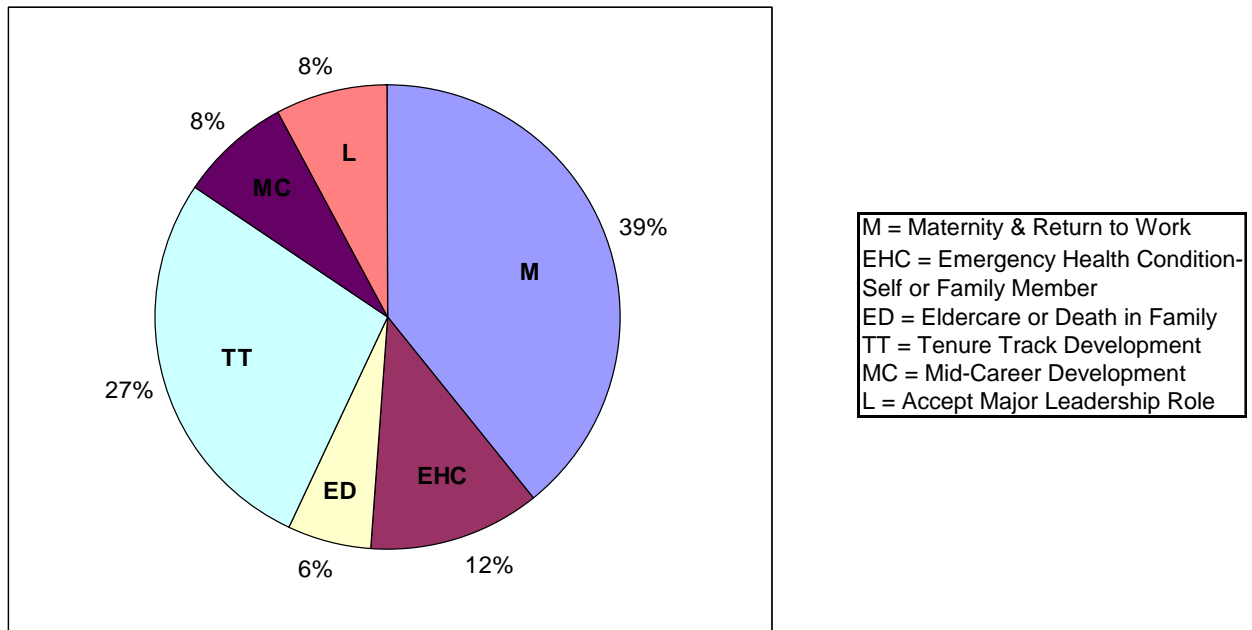


Figure 8. Type of Transition for TSP Awards, 2001 – 2007

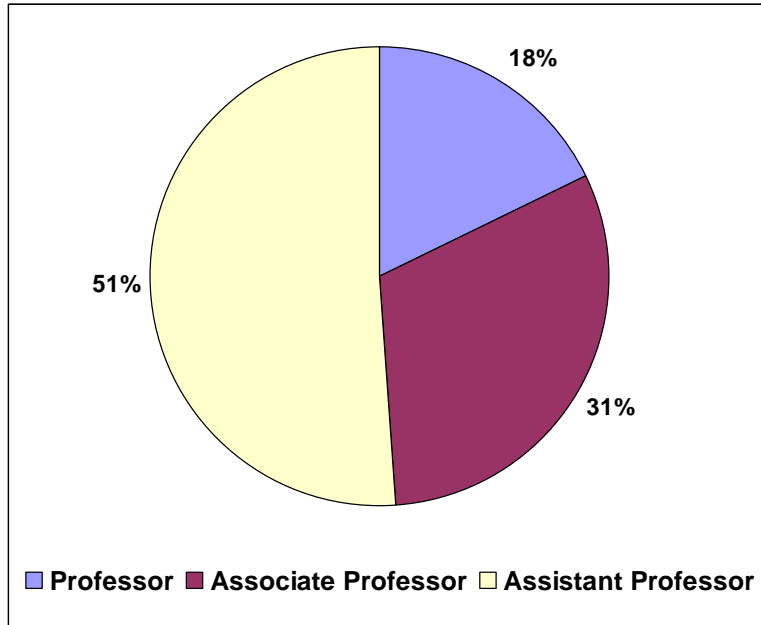


Figure 9. : Faculty Rank of TSP Recipients at time of their Award, 2001 - 2007

Two personal stories illustrate the power of supporting faculty during these difficult life transitions:

Story 1:

In April 2002, a baby girl was born to a UW faculty couple. The father is in a STEM department while the mother is in a non-STEM department. At one week of age, the baby was diagnosed with a 4.5 inch tumor in her abdomen. A major surgery followed. In May 2002, the father contacted UW ADVANCE for support. Under the ADVANCE TSP program, ADVANCE paid for a course release for the father in Autumn 2002 to give him more time to be with his infant and prepare his (successful) tenure case. Because the mother was not in a STEM department, the ADVANCE TSP was unable to support her directly. However, with the ADVANCE program's encouragement, the mother's Chair and Dean paid for a course release for her for Autumn 2002. Later, a private university tried to recruit the couple, and the support of the ADVANCE TSP was one important factor in their decision to stay at UW.

Story 2:

An assistant professor has a young son who is disabled. She spent countless hours seeking treatment for him, and as a result, her research career understandably suffered. An ADVANCE TSP of \$20,000 granted to her in Autumn 2001 was used to purchase supplies and equipment for her to begin a new research project. To date, she has been awarded a total of \$774,000 of NSF funding for research that originated with this TSP grant. More importantly, She has been granted tenure. She writes that the TSP made a "huge difference" in her recent success.

Interviews with ADVANCE TSP award recipients indicate that the program has been extremely valuable for faculty productivity and morale in times of crises. Many of the ADVANCE TSP recipients noted that for the first time in their faculty careers they felt as

if the institution were invested in their success. Program participants report that the grant enabled them to stabilize their personal situations and ultimately return their full attention to academic pursuits without losing too much ground. In particular, when asked “What impact did the TSP have on your personal or professional life?,” 57% of personal transition and 59% of professional transition respondents made reference that their ADVANCE TSP grant helped them increase or maintain their ability to perform their tenure track duties (such as organize and attend conferences, submit papers, teach, etc.). In addition, 35% of the personal transition and 29% of professional transition respondents cited that their ADVANCE TSP grant improved their experience by providing flexibility, time, stress relief, etc. When asked “Has the TSP affected the direction and/or momentum of your research program, and if so, how?,” 65% of the personal transition and 56% of professional transition respondents commented on maintaining or accelerating research progress and 26% (personal transitions) and 22% (professional transitions) commented on generating new momentum (e.g. new ideas, funding). Of the personal transition awardees who responded to the question “If your transition is complete, have you been able to continue the research projects, writing, or other work started with the TSP award?” 91% responded “Yes.” Eight-five percent of professional transition respondents replied “Yes” to this same question. The most satisfying part of the ADVANCE Transitional Support Program for many of the faculty has been the formal acknowledgement that her or his overall success was worth an intervention and investment.

The overwhelming majority of the 48 TSP participants interviewed for this report positively rated the program. In fact, almost 90 percent of participants reported that the TSP helped them to perform tenure-track related duties or improved “the human environment,” which was characterized as increased time and/or decreased stress. More specifically, the TSP provided: valuable hours of graduate student time; time to write proposals, journal articles and conference papers; and flexible schedules that allowed faculty to balance home and work commitments. More than 40 percent of respondents reported that the TSP had served as a catalyst for other awards, particularly NSF funding, and an additional 20 percent were awaiting notification regarding pending applications. Thus, it is not surprising that over 60 percent of those interviewed felt so strongly about the program that they would request TSP funds again if a relevant situation arose in their personal or professional lives.

Given that the average award size was \$18,000, this program is a small investment with large payoffs. The payoffs occur not just in terms of the costs of lost productivity or the revenue from new grants, but in terms of reducing the time and financial costs of faculty retention and/or recruitment to replace lost faculty. Several years ago the UW College of Engineering conducted an internal cost analysis and estimated that the number of years it takes to recoup the start-up funds for a new faculty member is ten years for assistant professors and seven years for full professors. Given that startup packages now average over \$700,000 in the College of Engineering, \$18,000 per faculty is a small cost to retain outstanding faculty who are experiencing major life transitions.

VII. VISITING SCHOLARS PROGRAM

UW ADVANCE created the visiting scholars program in hope of bringing nationally-recognized scholars to campus that could advise our programmatic efforts, expose the ADVANCE program to new information about women in science and engineering, and/or visit one of our ADVANCE departments as a technical scholar. Unfortunately, the program did not work as well as we had intended. The program was originally envisioned as an opportunity to host professionals or faculty who were on sabbatical, however identifying appropriate and interested scholars who could stay for several months proved difficult. Only one visiting scholar, Chris Loving, advised and worked with the program in this capacity. Consequently, the program was modified to sponsor shorter visits, generally 2-5 days.

The UW Center for Institutional Change has hosted forty visiting scholars since the inception of the program in January 2003. Some of the scholars were visitors of opportunity whose visit was entirely funded through another unit on campus, but who gave some time to the ADVANCE program for a workshop, lunch etc. Only some of the scholars helped departments with their cultural change efforts.

- Eighty percent of the forty visiting scholars have been women
- Approximately half of the visiting scholar visits were initiated by the departments.
- \$144,514 has been spent on the visitors to date.

This program ended in the Spring of 2005 because it was not working as it expected, and it was not clear how the VSP was meeting ADVANCE goals nor how it was contributing to institutional transformation other than being a possible mechanism for recruitment.

A lesson learned from this program is the importance of clearly identifying a selection strategy which reflects the program goals. In order to determine this selection strategy, the program goals should have more specificity than those which were originally outlined. This selection strategy could also help define

VIII. SPACE ALLOCATION BY GENDER

Space allocation data was collected in the 2002-2003 and 2005-2006 academic years. The data collection was limited to tenure and tenure track faculty in the original 19 UW ADVANCE departments. Information on the logistics of collection, challenges and limitations of the data have been discussed in previous reports. Below is a basic summary of some of the more interesting findings from previous years.

The space allocation analysis revealed the following findings:

- No significant differences between men and women in mean square footage.
- Men have much greater ranges of square footage than women, and this is not the result of a few outliers.
- The amount of grant funding affects square footage allocation.

- While gender has no significant effect on square footage alone, when funding is controlled for in the analysis with gender, being male is associated with a statistically significant increase in square footage.
- When the department is used as the unit of analysis, departments that have lower percentages of women are more likely to have greater square footage differences between the men and women in their department (men have the advantage).

IX. OTHER NSF INDICATOR DATA

A. *Climate for Female Faculty*

Three faculty focus groups were held in Spring 2007. The purpose of the focus groups was to assess female faculty perceptions of the impact that ADVANCE has had on the climate in their departments. The specific questions for women faculty pertained to the climate, dual career issues, experience with Promotion and Tenure, space, family friendly policies, teaching workload and others. A total of 10 female faculty attended three focus groups.

As mentioned in the graduate student focus group discussion, it is important to note that the women who participated in these focus groups self-selected to take part, which means that they may feel like they had something to say. There is likely some selection bias in the results reported below, and this potential bias should be kept in mind when reading.

Female Faculty (N =10)

- A few faculty indicated that more attention is paid to recruiting and retaining female faculty, but less is done for underrepresented groups.
- One faculty member indicated that she felt really good about her department's diversity in terms of faculty hires. A few other faculty lamented the small numbers of women, but indicate that their departments are trying to recruit more URM faculty.
- Dual career partnerships are still an issue. Female faculty tend to have husbands/partners in the same department or in another department or in industry, but this is not always the case. Dual career hires worked for some of the faculty from the focus group, but others did not have success in getting the UW to do a dual career hire.
- One of the female faculty from the focus groups had a painful time in the tenure process. Another faculty reported feeling marginalized and unsupported by the department. A few of the other faculty in the focus groups have been told that they will not receive promotion to full professor until they bring in a large grant and that departments want to see international work for promotion to full professor.
- The majority of the female faculty said that they were unaware of any identification process for university/national awards and recognition or that a process did not exist, though some noted that a few departments have

subcommittees for identifying people for awards or emails announcing award opportunities are received from the college or other parts of the university.

- Lack of space is a major problem in the College of Engineering and College of A&S for almost everyone, although most of the faculty focus group participants believe that the space was allocated fairly or equally poorly by gender.
- Several female faculty have had delays in getting their lab space or being isolated in buildings outside of the main part of their department. It is not clear if this is gender specific or a problem for all junior faculty.
- A few participants felt that there were inadequate facilities and programs for childcare, compared to other institutions. Some faculty did not know about the university policies related to helping faculty balance work and life.
- One respondent indicated that in terms of comparisons of workload between faculty members, “we are equally overwhelmed”. Another indicated that balancing work and family is difficult for all faculty.
- Two female faculty responded that in their departments workload for teaching depends on whether you have a big grant. The result is a bi-modal distribution where those with big grants have lower service requirements and those with smaller grants do more service and teaching.
- In general, female faculty responded that ADVANCE has increased awareness of diversity issues in their department. However, a few said that they see little change or they are losing momentum for change.
- The ADVANCE programs that were mentioned as positive included the Mentoring-for-Leadership luncheons, the advice on balancing work and family and pregnancy, transitional support program, money to bring in women speakers, and the professional development components of ADVANCE.

B. Start-up packages

The funding and resources offered in the start-up packages of new faculty members provides a foundation upon which they initiate a lifetime of research and scholarly productivity. As part of its National Science Foundation ADVANCE program, the University of Washington reviews the contents of new hire offer letters to determine if gender differences are evident. Copies of offer letters are provided to the Center for Workforce Development by each of the nineteen academic departments participating in ADVANCE. Academic departments are asked to provide letters, any correspondence regarding start-up packages and any relevant budget details for any new tenure track hires. The data was compiled and analyzed by CWD.

The data report here reflects hiring seasons spanning academic years 1999-2000 to 2004-2005. Note that the start dates of these new hires may not be in the academic year immediately following the year in which they were hired. One hundred thirteen individuals were hired between 2000 and 2005. Two individuals were removed from the population since they were Acting Assistant Professors and one individual who was hired as a Full Professor without tenure was recoded so as to be included in the Full Professor category. As a result, the final population was 111.

Starting Salary: Table 11 below presents the starting salaries for new hires disaggregated by rank and sex. It is important to note that rank represents the level at which the faculty member was hired at rather than his/her current rank at the time of this report. Briefly, 79 male faculty and 32 female faculty were hired during the time window of interest. Thus, men made up 71% of the population. The largest number new hires were Assistant Professors and the female sub-group began at higher mean and median salaries than their male colleagues. While the minimum amount at which male Assistant Professors was slightly higher than the minimum amount for female Assistant Professors, the maximum salaries were identical. Male Associate and Full Professors out-earned and outnumbered women of similar ranks, although neither the mean nor the median differences were particularly substantial. Female Associate Professors did begin at a lower salary than males, however, and they maxed out at \$82,000, more than \$14,000 less than the maximum for male Associate Professors. Finally, comparisons across the male and female Full Professor categories should be avoided since only one woman was hired at this rank thereby making the data difficult to interpret insofar as we do not know whether the female Full Professor represented the norm or an outlier.

Rank at Hire		Female	Male
Assistant Professor	Sample size	27	62
	Mean	\$65,107.30	\$64,757.71
	Median	\$64,800	\$63,450
	Range	\$45,198-\$84,006	\$50,000-\$84,006
Associate Professor	Sample size	4	6
	Mean	\$70,601	\$77,440.50
	Median	\$72,702	\$76,905
	Range	\$55,000-\$82,000	\$63,000-\$96,633
Full Professor	Sample size	1	11
	Mean	\$99,000	\$110,109.55
	Median	\$99,000	\$104,400
	Range	N/A	\$85,914-\$140,100

Table 11: Starting Salaries by Rank and Sex

Discretionary Funding: Data were collected relevant to whether or not new hires were provided discretionary funds as part of their offer letter. Discretionary funds were often used for equipment, summer salary, student support, travel or any item related to the support of a faculty's research program. Twenty-six women (81%) and 66 men (84%) were offered discretionary funds, the amounts of which are detailed below in Table 12. Female Assistant Professors were offered considerably higher mean and median discretionary funding packages as was the one female Full Professor. As in the previous table, Table 11, however, comparisons across the male and female Full Professor categories should be avoided since only one woman was hired at this rank. While the minimum amounts for women were identical to those of men who were hired as Assistant Professors, they were considerably lower among Associate Professors (\$35,000 vs. \$98,000). Female and male Associate Professors had the same maximums while male Assistant Professors were awarded up to \$750,000 in discretionary funds as compared with \$610,000 for females.

Rank at Hire		Female	Male
Assistant Professor	Sample size	22	53
	Mean	\$213,590.91	\$195,846.23
	Median	\$172,500	\$100,000
	Range	\$5,000-\$610,000	\$5,000-\$750,000
Associate Professor	Sample size	3	4
	Mean	\$159,666.67	\$165,750
	Median	\$144,000	\$132,500
	Range	\$35,000-\$300,000	\$98,000-\$300,000
Full Professor	Sample size	1	9
	Mean	\$509,000	\$318,777.78
	Median	\$509,000	\$300,000
	Range	N/A	\$15,000-\$700,000

Table 12: Discretionary Funding by Rank and Sex

Equipment Funding: Data were also collected relevant to whether or not new hires received monies allocated specifically for equipment; that is, these funds were not part of the above-mentioned discretionary funds. Overall, 6 women (19%) and 24 men (30%) received discretionary funds, the overwhelming majority of whom were hired as Assistant Professors. Table 13 below reveals that male faculty were awarded considerably higher discretionary amounts than their female colleagues and also that the one female Full Professor hired was not awarded any separate discretionary funds. Moreover, only one of the four female Associate Professors hired was provided with discretionary funding and it was valued at approximately 11% of the discretionary funding mean for male Associate Professors (\$10,000 versus \$92,000).

Rank at Hire		Female	Male
Assistant Professor	Sample size	5	18
	Mean	\$81,800	\$98,888.89
	Median	\$34,000	\$75,000
	Range	\$10,000-\$300,000	\$10,000-\$300,000
Associate Professor	Sample size	1	2
	Mean	\$10,000	\$92,000
	Median	\$10,000	\$92,000
	Range	N/A	\$75,000-\$109,000
Full Professor	Sample size	0	4
	Mean	N/A	\$240,000
	Median	N/A	\$205,000
	Range	N/A	\$50,000-\$500,000

Table 13: Equipment Allocation by Rank and Sex

Teaching Loads and Student Support: A temporary reduction in teaching load and some student support were present in some of the start up packages. Specifically, 65 of 111 (58.5%) had decreased teaching loads for the first year while 30 faculty had lighter teaching loads for the first 2 years. As for student and post-doc support, some new hires had to use their discretionary funding for research personnel (45 faculty), while others

were provided funding outside of discretionary funds for research personnel (almost 50 new hires).

X. DISSEMINATION

The UW ADVANCE program's active dissemination efforts are demonstrated by the numerous consultative conversations, national and campus-specific presentations, and written resources we have produced. In particular, the CIC has produced more than ten conference papers, eight journal papers, book chapters, program descriptions, and commentaries, 60 conference or workshop panels and presentations, and ten magazine and newspaper interviews. Staff from the CIC have presented or participated a wide variety of workshops and conferences such as the Academic Chairperson's conference, the American Society for Engineering Education conference, the Women in Engineering Program and Advocates Network conference, the Institute for Operations Research and Management Science conference, the Keeping our Faculties conference, and many others. Our experiences and materials are additionally disseminated through the two national conferences in which we are involved, namely LEAD: Leadership Excellence for Academic Diversity workshop for department chairs in STEM, and WEBS: Women Evolving the Biological Sciences Symposium for early career women ecologists and evolutionary biologists. Furthermore almost all workshop materials developed by ADVANCE or our speakers is posted to our program website. A partial listing of some of the articles and presentations from the CIC can be found on our website at http://www.engr.washington.edu/advance/resources/#other_resources. A more complete listing of our dissemination efforts appears in Appendix I.

XI. INTERNAL AND EXTERNAL ASSESSMENT EVALUATION DESIGN

The UW ADVANCE program utilized both internal and external evaluation. The external evaluation was conducted by Dr. Shirley Malcolm and Ms. Yolanda George of the AAAS. The internal evaluation and collection of NSF Indicator data was conducted by the Center for Workforce Development. The external evaluation occurred in years 2001-2002, 2002-2003, 2003-2004, 2004-2005, and 2005-2006.

The internal evaluation team included Dr. Suzanne G. Brainard, Dr. Sheila Edwards Lange (she left the project in 2005) and Ms. Elizabeth Litzler. The team utilized a research assistant all four quarters of each year. The evaluation team used qualitative and quantitative evaluation techniques including interviews and focus groups with chairs, deans, and female faculty,

In general, once federal dollars are gone for evaluation, it usually is not continued. However, it is the opinion of the evaluators that the CIC recognizes and values the importance of evaluation. They have made evaluation and data collection an important part of their requests for funding from the Provost and other sources. The evaluation is an important part of sustaining this effort at the University of Washington. Without the data collection on ladder faculty, successes or failures in advancing women are anecdotal.

With a project of this size, institutional memory is an issue. There were multiple ways that the project team tried to create memory, but there were challenges with this. Making documents on how to collect data was done for some indicators but not for others. Additionally, the process sometimes changed for collecting the indicator data and documents were not always updated.

Certain indicators were more difficult to get access to than others. For example, space allocation information was extremely difficult because the university did not have the information centralized or consistently updated. The person-hours to collect qualitative space data was overwhelming and was not done. Also, the UW does not consistently collect information on the gender and race of faculty interview pools.

The evaluation team utilized two sources for data on faculty. One was from a database administrator in the College of Engineering and the other was from the UW's Equal Opportunity Office (EOO). It was possible to get the data from the College of Engineering in Fall quarter, but EOO has not been able to provide the data until February at the earliest. These two sources of data are compared and disparities are researched and decisions made. It is important to note that each year one list will have some faculty which the other does not, and vice versa. The evaluation team found it very important to not rely on one source of faculty data.

XII. BUDGET SUMMARY

Through the six years of the cooperative agreement, a total of \$4,000,180 was spent to support the UW ADVANCE activities. The cost sharing requirements were met as of 2006. The \$875,454 in cost sharing represent UW matching funds, two awards from the Sloan Foundation totaling almost \$90,000 and in-kind faculty time as reflected on faculty effort certification forms.

A summary of the budget expenditures (excluding the in-kind faculty time and the two Sloan awards) appears below in both table form (see Table 14) and in graphical form (Figure 10). The budget information below represents 3.75 million dollars in NSF funding and \$250,180 in UW matching funds. It should be noted that while the direct program expenses are a rather small portion of the entire budget, those numbers do not account for the staffing costs of designing, facilitating, and administering the programs.

UW ADVANCE, Expenditures, 2001-2007

Staff Salary & Benefits	\$ 1,753,705
Supplies, Materials, Equipment	\$ 30,518
Contract Support	\$ 94,500
Travel	\$ 24,518
TSPs	\$ 938,834
VSPs	\$ 94,514
Department Transformation Grants	\$ 101,523
Evaluation	\$ 838,468
Program Costs (estimate)	
MfL Lunches (estimate)	\$ 30,600
Quarterly Leadership Workshops (estimate)	\$ 75,000
National Leadership Workshop (estimate)	\$ 8,000
Jr. Faculty Workshops (estimate)	\$ 10,000
TOTAL	\$ 4,000,180

Table 14: UW ADVANCE Expenditures 2001-2007

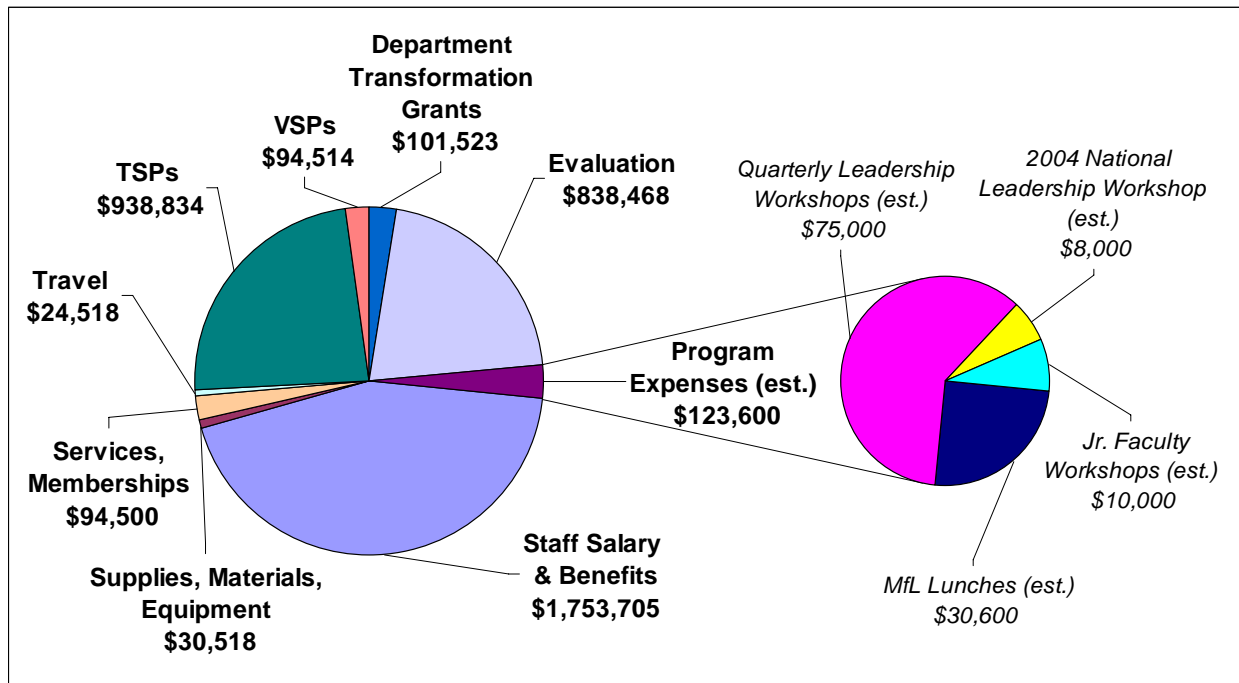
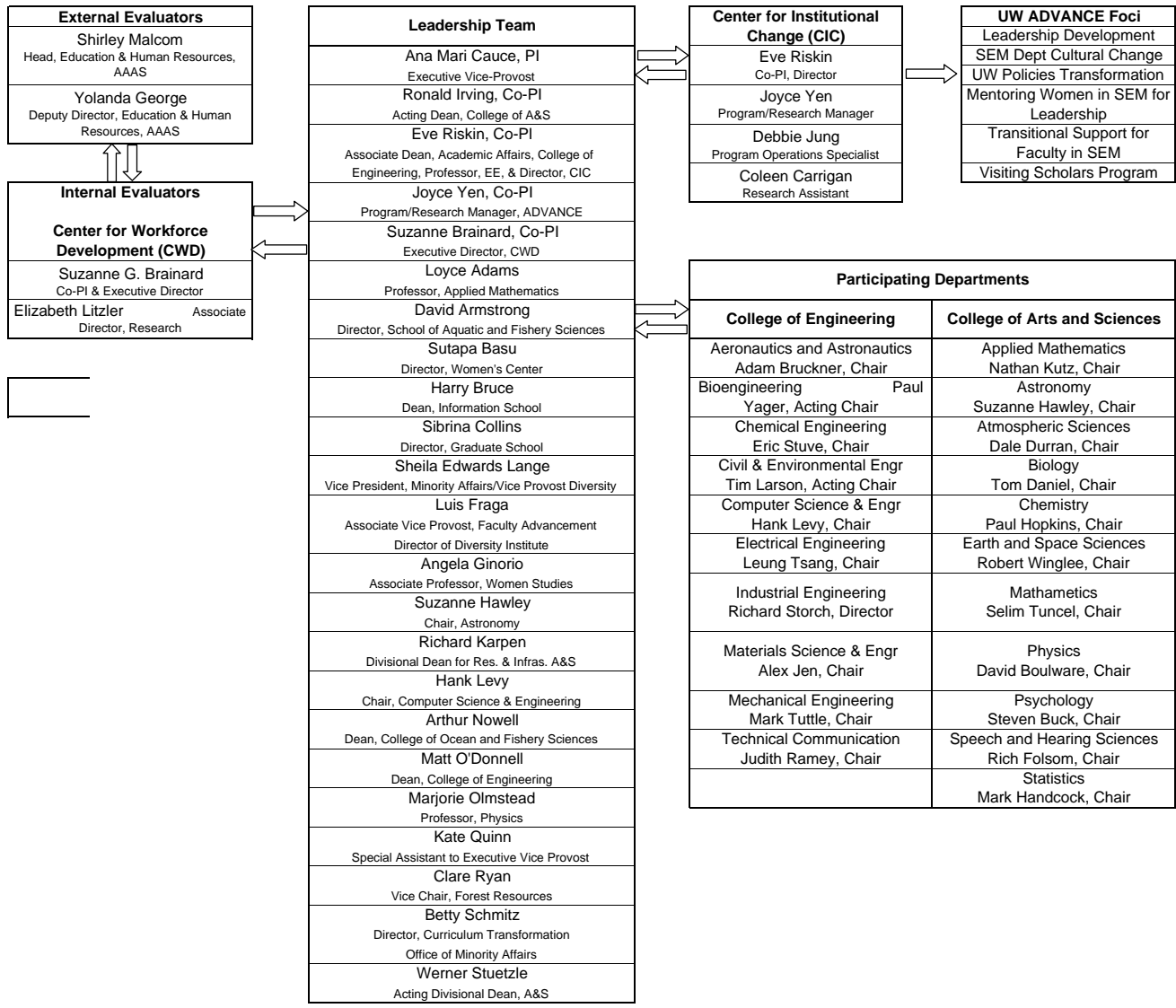


Figure 10: UW ADVANCE Expenditures 2001-2007

UW ADVANCE
2001-2007 Final Report
Appendices

**Appendix A
University of Washington ADVANCE
Organizational
Chart (as of September 2007)**



UW ADVANCE Events: October 2006 – September 2007

Mentoring for Leadership Lunch with Three Full Professors: (M)

[Loyce Adams](#), Professor of Applied Mathematics, University of Washington

[Jody Bourgeois](#), Professor of Earth & Space Sciences, University of Washington

[Anna Karlin](#), Professor of Computer Science & Engineering, University of Washington

Friday, **October 13**; 12:00 pm - 1:30pm; EE1 403

For Women Faculty in ADVANCE Departments

Welcome Lunch for New Faculty (M)

Friday, **October 20**; 12:00 pm - 1:30 pm; Loew 355

For New Faculty in ADVANCE Departments

LCVI/ADVANCE Quarterly Leadership Workshop (L)

Monday, **October 30**; 8:15 am - 12:30 pm, HUB 200ABC

For Invited Deans, Associated Deans, Chairpersons

Mentoring for Leadership Afternoon Tea with [Maria Klawe](#), President, Harvey Mudd College (M)

Thursday, **November 2**; 2:30 pm - 3:15 pm; CSE 503 (Voyager Capital Room in Allen Center/CSE)

For Women Faculty in ADVANCE Departments

Junior Faculty Professional Development Workshop, "Identifying Promising Graduate Students" (M)

Thursday, **November 9**; 2:30 pm - 4:00 pm; Loew 355

For Assistant Professors in ADVANCE Departments

Mentoring for Leadership Lunch with [Cheryl Cameron](#), Vice-Provost for Academic Personnel, University of Washington (M)

Tuesday, **December 12**; 12:00 pm - 1:30pm; Loew 355

For Women Faculty in ADVANCE Departments

Mentoring for Leadership Lunch with [Patricia Wasley](#), Dean of the College of Education, University of Washington (M) (RESCHEDULED DUE TO BAD WEATHER)

Tuesday, **January 16**; 12:00 pm - 1:30pm; Loew 355

For Women Faculty in ADVANCE Departments

Mentoring for Leadership Lunch with [Matt O'Donnell](#), Dean of the College of Engineering, University of Washington (M)

Tuesday, **January 30**; 12:00 pm - 1:30pm; EE1 303

For Faculty in ADVANCE Departments

Mentoring for Leadership Lunch with [Eve Riskin](#), Associate Dean of Academic Affairs, College of Engineering, and Professor of Electrical Engineering, University of Washington (M)

Tuesday, **February 6**; 12:00 pm - 1:30pm; **EEB 303 (Note Room Change)**

For Women Faculty in ADVANCE Departments

ADVANCE Quarterly Leadership Workshop (L)

Thursday, **February 15**; 8:45 am - 12:30 pm, HUB 310

For Chairs and Invited Emerging Leaders in the ADVANCE cohort

Junior Faculty Professional Development Workshop, "Time Management" (M)

Friday, [March 2](#); 12 noon - 1:30 pm; EEB 303
For Assistant Professors in ADVANCE Departments

Mentoring for Leadership Lunch with [Sandra Archibald](#), Dean of Daniel J. Evans School of Public Affairs, University of Washington (M)

Tuesday, [March 27](#); 12:00 pm - 1:30pm; EEB 303
For Women Faculty in ADVANCE Departments

Mentoring for Leadership Lunch with [Ron Irving](#), Interim Dean of the College of Arts and Sciences, University of Washington (M)

Friday, [April 6](#); 12:00 pm - 1:30pm; EE1 303
For Faculty in ADVANCE Departments

Building Successful Large Scale Initiatives Workshop with [Larry Dalton](#), Professor of Chemistry, University of Washington and [Matt O'Donnell](#), Dean of the College of Engineering, University of Washington (M)

Thursday, [April 12](#); 3:00 pm - 4:30pm; EE 303
For Faculty in ADVANCE Departments

Junior Faculty Professional Development Workshop, "How to Apply for a CAREER Proposal" (M)

Monday, [April 16](#); 12 noon - 1:30 pm; Loew 355
For Assistant Professors in ADVANCE Departments

Mentoring for Leadership Lunch with [Dr. Debra Rolison](#), Head, Advanced Electrochemical Materials, Naval Research Laboratory (M)

Monday, [April 16](#); 12:00 pm - 1:30pm; EEB 303
For Women Faculty in ADVANCE Departments

Mentoring for Leadership Lunch with [Patricia Wasley](#), Dean of the College of Education, University of Washington (M)

Tuesday, [April 24](#); 12:00 pm - 1:30pm; Loew 355
For Women Faculty in ADVANCE Departments

Mentoring for Leadership Lunch with [Mary-Claire King](#), Professor of Medicine (Medical Genetics) & Genome Sciences, University of Washington (M)

Tuesday, [May 1](#); 12:00 pm - 1:30pm; Loew 355
For Women Faculty in ADVANCE Departments

Mentoring for Leadership Lunch with [Frances Kirwan](#), Professor of Mathematics, University of Oxford (M)

Thursday, [May 10](#); 12:00 pm - 1:30pm; HUB 309
For Women Faculty in ADVANCE Departments

ADVANCE Quarterly Leadership Workshop (L)

Friday, [May 11](#); 8:45 am - 12:30 pm, HUB 310
For Chairs and Invited Emerging Leaders in the ADVANCE cohort

Mentoring for Leadership Lunch with [Christina Surawicz](#), Assistant Dean for Faculty Development, UW School of Medicine, Chief of Gastroenterology and Hepatology, Harborview Medical Center (M)

Friday, [June 22](#); 12:00 pm - 1:30pm; Loew 355
For Women Faculty in ADVANCE Departments

Mentoring for Leadership Dinner with [Terri Fiez](#), Professor and Director of the School of Electrical Engineering and Computer Science, Oregon State University
Pre-event for LEAD National Workshop (M)

Sunday, **July 8**; 5:00pm - 6:30pm; Silver Cloud Inn, 5036 25th Ave NE, Seattle
For Chairs, Deans and Emerging Leaders in Science, Engineering and Mathematics, Nationwide

[2007 LEAD National Workshop](#), Leadership Excellence for Academic Diversity (L)

Monday-Tuesday, **July 9-10**; 8:30am - 5:00pm; Urban Horticultural Center
For Chairs, Deans and Emerging Leaders in Science, Engineering and Mathematics, Nationwide

Mentoring for Leadership Lunch with [Susan Jeffords](#), Interim Vice-Chancellor for Academic Affairs, University of Washington, Bothell

Friday, **September 7**; 12:00 pm - 1:30pm; Loew 355
For Women Faculty in ADVANCE Departments

Welcome Lunch for New Faculty in ADVANCE Departments

Friday, **September 28**; 12:00 pm - 1:30pm; Loew 355
For New Faculty in ADVANCE Departments

**Appendix C: UW ADVANCE Administrative Positions
Summer 2007**

Office	Position	Gender
College of Engineering	Dean	Male
	Associate Dean, New Initiatives	Male
	Professor & Associate Dean, Academic Affairs	Female
Aeronautics & Astronautics	Associate Dean of Facilities	Male
	Chair	Male
Bioengineering	Director, Aerospace and Energetics Research Center (AERP)	Male
	Acting Chair	Male
	Vice Chair	Male
	Director, Resource Facility for Population Kinetics (RFPK)	Male
	Director, UW Engineered Biomaterials Research Center (UWEB)	Male
Chemical Engineering	Director, National Simulation Resource Center	Male
	Director, National ESCA Surface Analysis Center for Biomedical Problems	Male
	Chair	Male
	Associate Chair	Male
Civil and Environmental Engineering	Acting Chair	Male
	Director, Transportation Northwest (TransNow)	Female
Computer Science and Engineering	Chair	Male
	Associate Chair (education, course assignments)	Male
	Associate Chair (Development)	Male
	Associate Chair (research)	Male
Electrical Engineering	Chair	Male
	Associate Chair, Research and Development	Male
	Associate Chair, Education	Male
Industrial Engineering	Director	Male
Materials Science and Engineering	Chair	Male
	Associate Chair	Male
Mechanical Engineering	Chair	Male
	Associate Chair (Infrastructure)	Male
	Associate Chair (Academics)	Male
Technical Communication	Chair	Female
Interdisciplinary/Other	Director, Center for Engineering Learning & Teaching	Female
	Director, Center for Institutional Change (UW ADVANCE)	Female
	Co-Director, Microscale Life Sciences Center	Female
	Director, Center for Nanotechnology (NanoTech)	Male
	Director, Washington State Transportation Center (TRAC)	Male
	Director, Center for Applied Microtechnology (CAM)	Male
	Co-Director, Center for Design of Analog-Digital Integrated Circuits (CDADIC)	Male
	Director, Center for Intelligent Materials and Systems (CIMS)	Male
	Director, Human Interface Technology Laboratory, (HITL)	Female
	Director, The Water Center	Female
	Director, Valle Scholarship and Scandinavian Exchange Program (Valle)	Male
	Director, Technical Japanese Program	Male
	Director, Microcellular Plastics Lab	Male
	Director, Center for Excellence for Advanced Materials in Transport Aircraft Structures (AMTAS)	Male
	Director, Engineering Center for Surfaces, Polymers, and Colloids	Male
Director, Turing Center	Male	

Appendix D: Ladder, Research & Teaching Faculty
ADVANCE Original List of Participating Departments
Fall 2000 - Fall 2006

ADVANCE Total	Fall 2000			Fall 2001			Fall 2002			Fall 2003			Fall 2004			Fall 2005			Fall 2006		
	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women
Ladder	460	402	58 (12.6%)	459	399	60 (13.1%)	467	399	68 (14.6%)	465	393	72 (15.5%)	461	393	68 (14.8%)	457	390	67 (14.7%)	457	380	77 (16.8%)
Teaching	91	59	32 (35.2%)	93	53	40 (43.0%)	92	61	31 (33.7%)	88	47	41 (46.6%)	95	57	38 (40.0%)	83	54	29 (34.9%)	87	51	36 (41.4%)
Research	75	65	10 (13.3%)	78	67	11 (14.1%)	81	70	11 (13.6%)	81	66	15 (18.5%)	76	60	16 (21.1%)	77	63	14 (18.2%)	67	54	13 (19.4%)
Total	626	526	100 (16.0%)	630	519	111 (17.6%)	640	530	110 (17.2%)	634	506	128 (20.2%)	632	510	122 (19.3%)	617	507	110 (17.8%)	611	485	126 (20.6%)

Ladder faculty includes tenure-track and those without tenure due to funding source (WOT).

Teaching faculty includes all lecturers, acting instructors, teaching associates, and temporary teaching faculty (acting assistant professors & visiting professors).

Research faculty includes all assistant research, associate research and research professors. Research associates or post-docs are excluded.

College of Arts and Sciences	Fall 2000			Fall 2001			Fall 2002			Fall 2003			Fall 2004			Fall 2005			Fall 2006		
	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women
Applied Mathematics																					
Ladder	10	9	1 (10.0%)	10	9	1 (10.0%)	9	8	1 (11.1%)	10	9	1 (10.0%)	10	9	1 (10.0%)	10	9	1 (10.0%)	9	8	1 (11.1%)
Teaching	0	0	0 N/A	0	0	0 N/A	0	0	0 N/A	0	0	0 N/A	3	2	1 (33.3%)	2	2	0 (0.0%)	2	1	1 (50.0%)
Research	1	1	0 (0.0%)	1	1	0 (0.0%)	1	1	0 (0.0%)	1	1	0 (0.0%)	0	0	0 N/A	0	0	0 N/A	0	0	0 N/A
Astronomy																					
Ladder	11	8	3 (27.3%)	11	8	3 (27.3%)	11	8	3 (27.3%)	10	7	3 (30.0%)	11	8	3 (27.3%)	11	8	3 (27.3%)	11	8	3 (27.3%)
Teaching	3	1	2 (66.7%)	3	0	3 (100.0%)	1	0	1 (100.0%)	1	0	1 (100.0%)	1	0	1 (100.0%)	2	1	1 (50.0%)	2	1	1 (50.0%)
Research	5	3	2 (40.0%)	2	1	1 (50.0%)	4	3	1 (25.0%)	4	3	1 (25.0%)	3	2	1 (33.3%)	2	1	1 (50.0%)	4	3	1 (25.0%)
Atmospheric Sciences																					
Ladder	14	13	1 (7.1%)	15	14	1 (6.7%)	15	14	1 (6.7%)	15	14	1 (6.7%)	15	14	1 (6.7%)	15	12	3 (20.0%)	16	13	3 (18.8%)
Teaching	0	0	0 N/A	0	0	0 N/A	0	0	0 N/A	0	0	0 N/A	0	0	0 N/A	1	1	0 (0.0%)	0	0	0 N/A
Research	9	8	1 (11.1%)	7	6	1 (14.3%)	9	8	1 (11.1%)	10	9	1 (10.0%)	9	8	1 (11.1%)	8	8	0 (0.0%)	7	7	0 (0.0%)
Botany																					
Ladder	12	9	3 (25.0%)	10	7	3 (30.0%)	Merged with Zoology to form														
Teaching	0	0	0 N/A	2	1	1 (50.0%)	Biology department														
Research	2	1	1 (50.0%)	2	1	1 (50.0%)															
Biology																					
Ladder							39	27	12 (30.8%)	38	27	11 (28.9%)	37	26	11 (29.7%)	40	29	11 (27.5%)	39	26	13 (33.3%)
Teaching							23	9	14 (60.9%)	22	6	16 (72.7%)	17	5	12 (70.6%)	20	9	11 (55.0%)	19	6	13 (68.4%)
Research							7	2	5 (71.4%)	6	1	5 (83.3%)	6	1	5 (83.3%)	7	2	5 (71.4%)	5	0	5 (100.0%)
Chemistry																					
Ladder	40	37	3 (7.5%)	43	39	4 (9.3%)	41	37	4 (9.8%)	45	40	5 (11.1%)	43	39	4 (9.3%)	40	37	3 (7.5%)	41	38	3 (7.3%)
Teaching	5	3	2 (40.0%)	3	3	0 (0.0%)	5	4	1 (20.0%)	4	2	2 (50.0%)	4	2	2 (50.0%)	4	3	1 (25.0%)	5	4	1 (20.0%)
Research	9	9	0 (0.0%)	10	10	0 (0.0%)	10	10	0 (0.0%)	7	7	0 (0.0%)	6	6	0 (0.0%)	6	6	0 (0.0%)	6	6	0 (0.0%)

Earth and Space Sciences																							
Ladder	28	26	2 (7.1%)	29	27	2 (6.9%)	30	27	3 (10.0%)	29	26	3 (10.3%)	25	23	2 (8.0%)	24	22	2 (8.3%)	22	20	2 (9.1%)		
Teaching	2	1	1 (50.0%)	1	1	0 (0.0%)	3	3	0 (0.0%)	4	4	0 (0.0%)	4	3	1 (25.0%)	3	2	1 (33.3%)	3	2	1 (33.3%)		
Research	9	9	0 (0.0%)	10	10	0 (0.0%)	9	9	0 (0.0%)	10	9	1 (10.0%)	10	9	1 (10.0%)	14	12	2 (14.3%)	11	11	0 (0.0%)		
Mathematics																							
Ladder	50	46	4 (8.0%)	51	47	4 (7.8%)	52	46	6 (11.5%)	50	44	6 (12.0%)	52	46	6 (11.5%)	49	43	6 (12.2%)	50	43	7 (14.0%)		
Teaching	15	8	7 (46.7%)	18	10	8 (44.4%)	14	9	5 (35.7%)	16	8	8 (50.0%)	12	6	6 (50.0%)	11	7	4 (36.4%)	15	11	4 (26.7%)		
Research	0	0	0 N/A	0	0	0 N/A	0	0	0 N/A	0	0	0 N/A	0	0	0 N/A	0	0	0 N/A	0	0	0 N/A		
Physics																							
Ladder	46	42	4 (8.7%)	44	40	4 (9.1%)	44	40	4 (9.1%)	44	39	5 (11.4%)	45	41	4 (8.9%)	46	42	4 (8.7%)	45	41	4 (8.9%)		
Teaching	4	3	1 (25.0%)	5	2	3 (60.0%)	8	4	4 (50.0%)	7	4	3 (42.9%)	7	4	3 (42.9%)	5	4	1 (20.0%)	4	3	1 (25.0%)		
Research	16	16	0 (0.0%)	14	14	0 (0.0%)	15	14	1 (6.7%)	12	11	1 (8.3%)	14	12	2 (14.3%)	9	8	1 (11.1%)	10	9	1 (10.0%)		
Statistics																							
Ladder	17	15	2 (11.8%)	16	14	2 (12.5%)	16	14	2 (12.5%)	17	14	3 (17.6%)	17	14	3 (17.6%)	19	15	4 (21.1%)	21	16	5 (23.8%)		
Teaching	4	4	0 (0.0%)	2	2	0 (0.0%)	5	4	1 (20.0%)	3	2	1 (33.3%)	5	3	2 (40.0%)	2	1	1 (50.0%)	1	0	1 (100.0%)		
Research	2	1	1 (50.0%)	2	1	1 (50.0%)	2	1	1 (50.0%)	3	1	2 (66.7%)	3	1	2 (66.7%)	2	1	1 (50.0%)	2	1	1 (50.0%)		
Zoology																							
Ladder	31	22	9 (29.0%)	28	20	8 (28.6%)	Merged with Botany to form																
Teaching	11	5	6 (54.5%)	11	3	8 (72.7%)	Biology department																
Research	4	1	3 (75.0%)	5	1	4 (80.0%)																	
Subtotal																							
Ladder	259	227	32 (12.4%)	257	225	32 (12.5%)	257	221	36 (14.0%)	258	220	38 (14.7%)	255	220	35 (13.7%)	254	217	37 (14.6%)	254	213	41 (16.1%)		
Teaching	44	25	19 (43.2%)	45	22	23 (51.1%)	59	33	26 (44.1%)	57	26	31 (54.4%)	53	25	28 (52.8%)	50	30	20 (40.0%)	51	28	23 (45.1%)		
Research	57	49	8 (14.0%)	53	45	8 (15.1%)	57	48	9 (15.8%)	53	42	11 (20.8%)	51	39	12 (23.5%)	48	38	10 (20.8%)	45	37	8 (17.8%)		
	360	301	59 (16.4%)	355	292	63 (17.7%)	373	302	71 (19.0%)	368	288	80 (21.7%)	359	284	75 (20.9%)	352	285	67 (19.0%)	350	278	72 (20.6%)		

College of Engineering	Fall 2000			Fall 2001			Fall 2002			Fall 2003			Fall 2004			Fall 2005			Fall 2006				
	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women		
Aeronautics & Astronautics																							
Ladder	17	17	0 (0.0%)	15	15	0 (0.0%)	18	17	1 (5.6%)	18	17	1 (5.6%)	17	16	1 (5.9%)	17	16	1 (5.9%)	17	16	1 (5.9%)		
Teaching	1	1	0 (0.0%)	0	0	0 N/A	0	0	0 N/A	0	0	0 N/A	0	0	0 N/A	2	2	0 (0.0%)	2	2	0 (0.0%)		
Research	2	2	0 (0.0%)	2	2	0 (0.0%)	2	2	0 (0.0%)	1	1	0 (0.0%)	1	1	0 (0.0%)	1	1	0 (0.0%)	2	2	0 (0.0%)		
Bioengineering*																							
Ladder	8	6	2 (25.0%)	9	7	2 (22.2%)	10	7	3 (30.0%)	10	6	4 (40.0%)	10	7	3 (30.0%)	11	8	3 (27.3%)	10	7	3 (30.0%)		
Teaching	2	2	0 (0.0%)	1	0	1 (100.0%)	0	0	0 N/A	0	0	0 N/A	2	2	0 (0.0%)	1	1	0 (0.0%)	0	0	0 N/A		
Research	1	1	0 (0.0%)	3	3	0 (0.0%)	4	4	0 (0.0%)	3	2	1 (33.3%)	2	1	1 (50.0%)	1	0	1 (100.0%)	2	0	2 (100.0%)		
Chemical Engineering																							
Ladder	15	13	2 (13.3%)	15	13	2 (13.3%)	15	13	2 (13.3%)	15	13	2 (13.3%)	14	13	1 (7.1%)	14	13	1 (7.1%)	13	11	2 (15.4%)		
Teaching	1	1	0 (0.0%)	2	2	0 (0.0%)	2	2	0 (0.0%)	1	1	0 (0.0%)	3	3	0 (0.0%)	3	3	0 (0.0%)	3	3	0 (0.0%)		
Research	3	2	1 (33.3%)	3	2	1 (33.3%)	1	1	0 (0.0%)	1	1	0 (0.0%)	1	1	0 (0.0%)	2	2	0 (0.0%)	0	0	0 N/A		
Civil & Environmental Engineering																							
Ladder	30	26	4 (13.3%)	29	26	3 (10.3%)	30	26	4 (13.3%)	29	25	4 (13.8%)	31	26	5 (16.1%)	30	25	5 (16.7%)	33	26	7 (21.2%)		
Teaching	15	13	2 (13.3%)	16	14	2 (12.5%)	10	10	0 (0.0%)	9	9	0 (0.0%)	11	10	1 (9.1%)	3	2	1 (33.3%)	7	5	2 (28.6%)		
Research	1	1	0 (0.0%)	0	0	0 N/A	1	1	0 (0.0%)	2	2	0 (0.0%)	4	4	0 (0.0%)	4	4	0 (0.0%)	3	3	0 (0.0%)		
Computer Science & Engineering																							
Ladder	34	31	3 (8.8%)	37	34	3 (8.1%)	39	36	3 (7.7%)	38	35	3 (7.9%)	39	36	3 (7.7%)	39	36	3 (7.7%)	41	37	4 (9.8%)		
Teaching	3	2	1 (33.3%)	7	6	1 (14.3%)	6	5	1 (16.7%)	8	6	2 (25.0%)	9	8	1 (11.1%)	5	4	1 (20.0%)	11	8	3 (27.3%)		
Research	2	1	1 (50.0%)	2	1	1 (50.0%)	1	1	0 (0.0%)	0	0	0 N/A	0	0	0 N/A	1	1	0 (0.0%)	2	2	0 (0.0%)		

College of Engineering	Fall 2000			Fall 2001			Fall 2002			Fall 2003			Fall 2004			Fall 2005			Fall 2006		
	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women
Electrical Engineering																					
Ladder	40	36	4 (10.0%)	39	34	5 (12.8%)	40	34	6 (15.0%)	43	35	8 (18.6%)	42	34	8 (19.0%)	40	34	6 (15.0%)	37	30	7 (18.9%)
Teaching	3	2	1 (33.3%)	1	1	0 (0.0%)	1	1	0 (0.0%)	2	2	0 (0.0%)	2	2	0 (0.0%)	1	1	0 (0.0%)	2	1	1 (50.0%)
Research	3	3	0 (0.0%)	9	8	1 (11.1%)	9	8	1 (11.1%)	12	10	2 (16.7%)	9	7	2 (22.2%)	9	7	2 (22.2%)	6	4	2 (33.3%)
Industrial Engineering																					
Ladder	7	4	3 (42.9%)	8	4	4 (50.0%)	8	4	4 (50.0%)	7	4	3 (42.9%)	7	4	3 (42.9%)	7	3	4 (57.1%)	8	4	4 (50.0%)
Teaching	2	1	1 (50.0%)	2	2	0 (0.0%)	2	1	1 (50.0%)	1	0	1 (100.0%)	2	1	1 (50.0%)	1	1	0 (0.0%)	0	0	0 N/A
Research	0	0	0 N/A	0	0	0 N/A	0	0	0 N/A	0	0	0 N/A	0	0	0 N/A	0	0	0 N/A	0	0	0 N/A
Materials Science & Engineering																					
Ladder	11	9	2 (18.2%)	10	8	2 (20.0%)	10	8	2 (20.0%)	10	8	2 (20.0%)	10	8	2 (20.0%)	9	8	1 (11.1%)	10	8	2 (20.0%)
Teaching	2	2	0 (0.0%)	1	1	0 (0.0%)	0	0	0 N/A	1	1	0 (0.0%)	2	2	0 (0.0%)	5	3	2 (40.0%)	2	1	1 (50.0%)
Research	4	4	0 (0.0%)	4	4	0 (0.0%)	3	3	0 (0.0%)	4	4	0 (0.0%)	3	3	0 (0.0%)	5	5	0 (0.0%)	4	4	0 (0.0%)
Mechanical Engineering																					
Ladder	29	27	2 (6.9%)	29	27	2 (6.9%)	29	27	2 (6.9%)	27	25	2 (7.4%)	26	24	2 (7.7%)	27	25	2 (7.4%)	25	23	2 (8.0%)
Teaching	7	6	1 (14.3%)	4	2	2 (50.0%)	2	1	1 (50.0%)	1	0	1 (100.0%)	1	0	1 (100.0%)	4	3	1 (25.0%)	3	1	2 (66.7%)
Research	2	2	0 (0.0%)	2	2	0 (0.0%)	3	2	1 (33.3%)	5	4	1 (20.0%)	5	4	1 (20.0%)	6	5	1 (16.7%)	3	2	1 (33.3%)
Technical Communication																					
Ladder	10	6	4 (40.0%)	11	6	5 (45.5%)	11	6	5 (45.5%)	10	5	5 (50.0%)	10	5	5 (50.0%)	9	5	4 (44.4%)	9	5	4 (44.4%)
Teaching	11	4	7 (63.6%)	14	3	11 (78.6%)	10	8	2 (20.0%)	8	2	6 (75.0%)	10	4	6 (60.0%)	8	4	4 (50.0%)	6	2	4 (66.7%)
Research	0	0	0 N/A	0	0	0 N/A	0	0	0 N/A	0	0	0 N/A	0	0	0 N/A	0	0	0 N/A	0	0	0 N/A
<i>Subtotal</i>																					
Ladder	201	175	26 (12.9%)	202	174	28 (13.9%)	210	178	32 (15.2%)	207	173	34 (16.4%)	206	173	33 (16.0%)	203	173	30 (14.8%)	203	167	36 (17.7%)
Teaching	47	34	13 (27.7%)	48	31	17 (35.4%)	33	28	5 (15.2%)	31	21	10 (32.3%)	42	32	10 (23.8%)	33	24	9 (27.3%)	36	23	13 (36.1%)
Research	18	16	2 (11.1%)	25	22	3 (12.0%)	24	22	2 (8.3%)	28	24	4 (14.3%)	25	21	4 (16.0%)	29	25	4 (13.8%)	22	17	5 (22.7%)
	266	225	41 (15.4%)	275	227	48 (17.5%)	267	228	39 (14.6%)	266	218	48 (18.0%)	273	226	47 (17.2%)	265	222	43 (16.2%)	261	207	54 (20.7%)

*Bioengineering is an interdisciplinary field and many of its faculty members hold primary appointments in other academic departments. UW Office of Equal Opportunity counts, which are based on primary appointments, are used here and may vary from departmental counts.

Source: Departmental Rosters & Equal Opportunity Office Rosters, Fall 2006
Compiled by the Center for Workforce Development 1/26/2006

**Appendix E: ADVANCE PARTICIPATING DEPARTMENTS
LADDER FACULTY PROFILE BY RANK
Fall 2006**

		Applied Math		Astronomy		Atmos Science		Biology		Chemistry		ESS		Math		Physics		Statistics				Subtotal				
		F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M							
College of Arts & Sciences																										
0101-Professor, tenured		1	6	2	6		9	6	19	2	29	2	16	2	33	3	30	1	10			177				
0102-Associate Professor, tenured			2	1	1	1	1	5	3	1	2		2	3	7	1	6		4			40				
0103-Assistant Professor, tenured																						0				
0111-Professor WOT																						4				
0112-Associate Professor WOT																						0				
0113-Assistant Professor WOT																						1				
0116-Assistant Professor			0		1	2	2	2	4		6		2	2	3		4	2	1			31				
0123-Acting Assistant Professor																						1				
Subtotal		1	8	3	8	3	13	13	26	3	38	2	20	7	43	4	41	5	16			254				
		A & A		BioE		ChemE		Civil Eng.		CSE		EE		IE		Matl Sci		ME		TC		Subtotal				
		F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M					
College of Engineering																										
0101-Professor, tenured			7		2	1	8	3	16	3	20	3	18	2	3		6		15	2	2	111				
0102-Associate Professor, tenured			4	1	1		3		5		10	2	8	2		1	2	2	5	2	3	51				
0103-Assistant Professor, tenured																						0				
0111-Professor WOT			1		1				1		1											4				
0112-Associate Professor WOT			1		1																					3
0113-Assistant Professor WOT																						0				
0116-Assistant Professor		1	3	2	2	1		4	4	1	5	2	4		1	1			3			34				
0123-Acting Assistant Professor																						0				
Subtotal		1	16	3	7	2	11	7	26	4	37	7	30	4	4	2	8	2	23	4	5	203				

	0101-Professor	0102-Assoc Prof.	0103-Asst Prof w/T	0111-Prof.WOT	0112-Assoc Prof.	0113-Asst Prof.	0116-Asst. Prof.	0123-Acting Asst
Female	33	22	0	0	0	1	20	1
	11.5%	24.2%	0.0%	0.0%	0.0%	0.0%	30.8%	0.0%
Male	255	69	0	8	3	0	45	0
	88.5%	75.8%	0.0%	100.0%	100.0%	0.0%	69.2%	0.0%
Total	288	91	0	8	3	1	65	1

All Ladder Faculty	
Female	77
Male	380
Total	457

Compiled by CWD: Equal Opportunity & Departmental Faculty Rosters 10/2006

Note: Biology - Peter Ward counted in ESS and not Biology per the EOO rosters.

Appendix F
University of Washington Ladder Faculty by Rank
Fall 2001 – Fall 2006

Fall 2001

Ladder Faculty Rank	Total University			Total ADVANCE Departments		
	<i>All</i>	<i>Female</i>	<i>%Female</i>	<i>All</i>	<i>Female</i>	<i>%Female</i>
Professor, tenured	1066	212	19.9%	299	28	9.4%
Associate Professor, tenured	461	187	40.6%	78	16	20.5%
Professor, WOT	311	56	18.0%	4	0	0.0%
Associate Professor, WOT	399	114	28.6%	3	0	0.0%
Assistant Professor, WOT	303	124	40.9%	0	0	0.0%
Assistant Professor, tenured	2	0	0.0%	1	0	0.0%
Associate Professor, temporary WOT	1	0	0.0%	0	0	0.0%
Assistant Professor, untenured	394	173	43.9%	73	16	21.9%
Acting Assistant Professor	11	5	45.5%	1	0	0.0%
Total all ladder ranks	2948	871	30.0%	459	60	13.1%

Fall 2002

Ladder Faculty Rank	Total University			Total ADVANCE Departments		
	<i>All</i>	<i>Female</i>	<i>%Female</i>	<i>All</i>	<i>Female</i>	<i>%Female</i>
Professor, tenured	1061	218	20.5%	300	31	10.3%
Associate Professor, tenured	474	192	40.5%	84	14	16.7%
Assistant Professor, tenured	2	0	0.0%	1	0	0.0%
Professor, WOT	345	70	20.3%	6	0	0.0%
Associate Professor, WOT	412	121	29.4%	2	0	0.0%
Assistant Professor, WOT	300	116	38.7%	0	0	0.0%
Assistant Professor, untenured	403	183	45.4%	74	23	31.1%
Acting Assistant Professor	17	9	52.9%	0	0	0.0%
Total all ladder ranks	3014	909	30.2%	467	68	14.6%

Fall 2003

Ladder Faculty Rank	Total University			Total ADVANCE Departments		
	<i>All</i>	<i>Female</i>	<i>%Female</i>	<i>All</i>	<i>Female</i>	<i>%Female</i>
Professor, tenured	1069	229	21.4%	304	33	11.2%
Associate Professor, tenured	480	198	41.3%	85	16	17.6%
Assistant Professor, tenured	1	0	0.0%	0	0	0.0%
Professor, WOT	380	79	20.8%	6	0	0.0%
Associate Professor, WOT	397	121	30.5%	1	0	0.0%
Assistant Professor, WOT	311	123	39.6%	0	0	0.0%
Assistant Professor, untenured	392	173	44.1%	69	23	33.3%
Acting Assistant Professor	9	6	52.9%	0	0	0.0%
Total all ladder ranks	3014	929	30.6%	465	72	15.5%

Fall 2004

Ladder Faculty Rank	Total University			Total ADVANCE Departments		
	<i>All</i>	<i>Female</i>	<i>%Female</i>	<i>All</i>	<i>Female</i>	<i>%Female</i>
Professor, tenured	1072	235	21.9%	302	33	10.9%
Associate Professor, tenured	497	199	40.0%	82	13	15.9%
Assistant Professor, tenured	1	0	0.0%	0	0	0.0%
Professor, WOT	399	81	20.3%	7	0	0.0%
Associate Professor, WOT	410	132	32.2%	1	0	0.0%
Assistant Professor, WOT	315	117	37.1%	0	0	0.0%
Assistant Professor, untenured	386	174	45.1%	69	22	31.9%
Acting Assistant Professor	15	7	46.7%	0	0	0.0%
Total all ladder ranks	3095	945	30.5%	461	68	14.8%

Fall 2005

Ladder Faculty Rank	Total University			Total ADVANCE Departments		
	<i>All</i>	<i>Female</i>	<i>%Female</i>	<i>All</i>	<i>Female</i>	<i>%Female</i>
Professor, tenured	1099	257	23.4%	295	32	11.1%
Associate Professor, tenured	512	214	41.8%	88	18	19.3%
Assistant Professor, tenured	1	0	0.0%	0	0	0.0%
Professor, WOT	423	83	19.6%	8	0	0.0%
Associate Professor, WOT	416	142	34.1%	3	0	0.0%
Assistant Professor, WOT	315	124	39.4%	1	1	100.0%
Assistant Professor, untenured	379	172	45.4%	62	16	25.8%
Acting Assistant Professor	9	3	33.3%	0	0	0.0%
Total all ladder ranks	3154	995	31.5%	457	67	14.6%

Fall 2006

Ladder Faculty Rank	Total University			Total ADVANCE Departments		
	<i>All</i>	<i>Female</i>	<i>%Female</i>	<i>All</i>	<i>Female</i>	<i>%Female</i>
Professor, tenured	1082	254	23.5%	288	33	11.5%
Associate Professor, tenured	534	222	41.6%	91	22	24.2%
Assistant Professor, tenured	1	0	0%	0	0	N/A
Professor, WOT	448	90	20.1%	8	0	0%
Associate Professor, WOT	422	150	35.5%	3	0	0%
Assistant Professor, WOT	308	126	40.9%	1	1	100%
Assistant Professor, untenured	409	192	46.9%	65	20	30.8%
Acting Assistant Professor	18	11	61.1%	1	1	100%
Total all ladder ranks	3204	1034	32.4%	456	77	16.8%

* The codes for Ladder Faculty are: 101, 102, 103, 111, 112, 113, 116, 123

**Appendix G: LADDER FACULTY PROFILE BY GENDER & RACE/ETHNICIT:
ADVANCE PARTICIPATING DEPARTMENTS
FALL 2006**

	Total All	Total	Total	Black		Asian		Hispanic		Native American		Caucasian	
	All	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male
College of Arts and Sciences													
Applied Mathematics	9	1	8	0	0	0	2	0	1	0	0	1	5
Astronomy	11	3	8	0	0	0	0	0	0	0	0	3	8
Atmospheric Sciences	16	3	13	0	0	0	1	0	0	0	0	3	12
Biology	39	13	26	0	0	2	0	0	2	0	0	11	24
Chemistry	41	3	38	0	1	0	4	0	0	0	0	3	33
Earth and Space Sciences	22	2	20	0	0	0	1	0	0	0	0	2	19
Mathematics	50	7	43	0	0	1	5	1	1	0	0	5	37
Physics	45	4	41	0	0	0	2	0	1	0	0	4	38
Statistics	21	5	16	0	0	0	0	0	0	0	0	5	16
Subtotal	254	41	213	0	1	3	15	1	5	0	0	37	192
College of Engineering													
Aeronautics & Astronautics	17	1	16	0	0	0	3	0	0	0	0	1	13
Bioengineering	10	3	7	0	0	1	2	0	1	0	0	2	4
Chemical Engineering	13	2	11	0	1	1	1	0	0	0	0	1	9
Civil and Environmental Engineering	33	7	26	0	0	0	1	0	1	0	0	7	24
Computer Science and Engineering	41	4	37	0	0	0	3	0	1	0	0	4	33
Electrical Engineering	37	7	30	0	0	1	10	0	0	0	0	6	20
Industrial Engineering	8	4	4	1	0	0	1	0	0	0	0	3	3
Materials Science and Engineering	10	2	8	0	0	2	6	0	0	0	0	0	2
Mechanical Engineering	25	2	23	0	1	0	8	0	1	0	0	2	13
Technical Communication	9	4	5	0	0	0	1	0	0	0	0	4	4
Subtotal	203	36	167	1	2	5	36	0	4	0	0	30	125
Advance Total	457	77	380	1	3	8	51	1	9	0	0	67	317
Advance Female Faculty of Color				Black		Asian		Hispanic		Nat Amer			Total
				1		8		1		0			10

Source: Equal Opportunity Office Faculty Rosters 10/2006
Compiled by the Center for Workforce Development

**Appendix H: UW ADVANCE
Science and Engineering
Original Departments
Fall 2006**

Dean College of Arts & Sciences: Ron Irving (Acting)
Dean College of Engineering: Matt O'Donnell

Faculty by Job Type and Gender 2001-2006

Job Type	Fall 2001			Fall 2006			Change Female
	Total	Female	Male	Total	Female	Male	
Ladder	459	60	399	457	77	380	(+17)
Teaching	93	40	53	87	36	51	(-4)
Research	78	11	67	67	13	54	(+2)
Total	630	111	519	611	126	485	(+15)

Notes

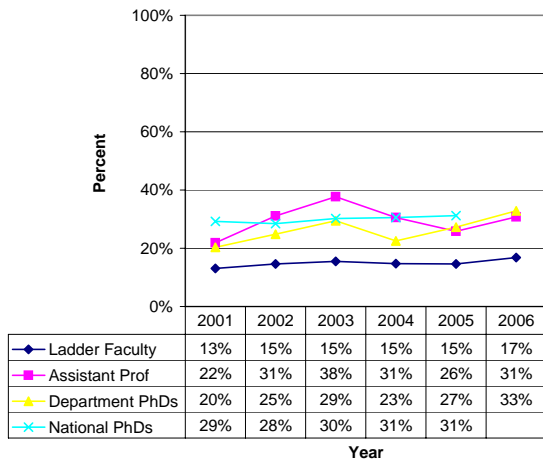
- ¹ Data source for Tables 1 thru 3 is UW EEO faculty rosters.
- ² Ladder faculty includes tenure track and those without tenure.
- ³ Teaching faculty includes all lecturers, acting instructors, teaching associates, and temporary teaching faculty (acting assistant professors & visiting professors).
- ⁴ Research faculty includes all assistant research, associate research and research professors. Research associates or post-docs are excluded.

Table 2: Ladder Faculty by Gender and Race/Ethnicity - Fall 2006

Rank	Total		Faculty of Color*		
	All	Female	Male	Female	Male
Professor, tenured	288	33	255	2	38
Associate Prof, tenured	91	22	69	4	15
Professor, WOT	8	0	8	0	0
Associate Prof, WOT	3	0	3	0	0
Assistant Professor, WOT	1	1	0	0	0
Assistant Professor	65	20	45	4	10
Acting Assistant Professor	1	1	0	0	0
Total	457	77	380	10	63

* Faculty of Color includes Asians, Blacks, Hispanics, and Native Americans. Numbers represent 59 Asian (4 F & 8 M Asst, 3 F & 12 M Assoc, 1 F & 31 M Prof), 4 Black (1 F Assoc, 3 M Prof), and 10 Hispanic (2 M Asst, 3 M Assoc, 1 F & 4 M Prof) faculty.

Chart: Percent Females by Faculty Type and Doctorate Degrees Awarded 2001-2006



Raw Numbers	2001	2002	2003	2004	2005	2006
Ladder Faculty	(60/459)	(68/467)	(72/465)	(68/461)	(67/458)	(77/457)
Assistant Prof	(16/73)	(23/74)	(26/69)	(22/72)	(16/62)	(20/65)
Department PhDs	(35/172)	(40/161)	(50/170)	(42/186)	(49/180)	(70/213)
National PhDs	4805/16432	(4797/16867)	(4880/16153)	(5118/16736)	(5861/18778)	

Notes

- ¹ Data source for Department PhDs is the UW Graduate School.
- ² National PhDs data source is NSF's Survey of Earned Doctorates (SED). SED "fields of study" equivalent to ADVANCE departments.
- ³ Time period for ladder faculty and assistant professor data is fall of year shown.
- ⁴ Time period for department and national PhD data is July 1st of prior year to June 30th of year shown (e.g. July 1, 2000 to June 30, 2001).
- ⁵ National PhD data not yet available for 2004-2005 graduation period.

Table 3: Ladder Faculty Annual Salary by Rank and Gender - Fall 2006

Rank	N			All			Female			Male		
	All	Female	Male	High	Low	Average	High	Low	Average	High	Low	Average
Professor	270	31	239	\$178,029	\$60,282	\$104,612	\$128,385	\$70,605	\$101,445	\$178,029	\$60,282	\$105,023
Associate Prof	89	22	67	\$119,385	\$60,327	\$83,117	\$92,133	\$61,092	\$78,139	\$119,385	\$60,327	\$84,752
Assistant Prof	65	21	44	\$90,270	\$54,000	\$72,824	\$86,193	\$54,000	\$73,199	\$90,270	\$61,434	\$72,645

Notes

- ¹ Appointment Term - 9, 9.5, and 10 months
- ² Includes professors w/o tenure
- ³ Excludes 16 faculty, 4 Deans and Vice Provost, totaling 21
- ⁴ Includes Professor(s) WOT in professor rank.
- ⁵ Includes Assoc Prof WOT in the Assoc Prof rank

APPENDIX I
University of Washington
NSF ADVANCE Center for Institutional Change
Project Dissemination Activities
(<http://www.engr.washington.edu/advance>)
October 2001-September 2007

JOURNAL AND BOOK PUBLICATIONS

- “Supporting Faculty during Times of Transition” Riskin, E. A, Lange, S. E., Quinn, K., Yen, J. W., and Brainard, S. G., *Transforming Science and Engineering: Advancing Academic Women*, edited by Abigail J. Stewart, Janet E. Malley, and Danielle Lavaque-Manty, University of Michigan Press. pg 116-130. 2007.
- “The ADVANCE Mentoring-for-Leadership Lunch Series for Women Faculty in STEM at the University of Washington” Joyce Yen, Kate Quinn, Coleen Carrigan, Elizabeth Litzler and Eve Riskin. *Journal of Women and Minorities in Science and Engineering*, Expected publication, Volume 13, Issue 3, pages 191-206. Fall 2007.
- “Leadership Development Workshops for Department Chairs: A Model for Enabling Family-Friendly Cultural Change” Kate Quinn, Joyce W. Yen, Eve A. Riskin, and Sheila Edwards Lange. *Change Magazine* Vol. 39, No. 4 (July/August) pg. 42-47. July 5, 2007.
- “Proactive Leadership Development for Department Chairs and Emerging Faculty Leaders” Joyce Yen. *The Department Chair*. Winter 2007.
- “Working at a Family Friendly University” Eve Riskin, Association of American Colleges and Universities, *On Campus With Women*, Vol. 35, No 1, http://www.aacu.org/ocww/volume35_1/fromwhereisit.cfm.2007. 2007.
- “Family-Friendly Policies and the Research University” Quinn, K., Lange, S. E., & Olswang, S. G.. *Academe* 90(6), 32-34. 2004.

CONFERENCE PAPERS AND PRESENTATIONS

- *2007 ADVANCE PI Meeting*, Washington D.C., June 2007.
 - Roundtable Discussion: Maintaining Momentum in the Face of Changing Leadership - Joyce Yen and Eve Riskin.
 - Roundtable Discussion: Faculty Professional Development – A How to Guide – Kate Quinn and Joyce Yen.
 - Poster “The ADVANCE Mentoring-for-Leadership Lunch Series for Women Faculty in STEM at the University of Washington” Joyce W. Yen, Kate Quinn, Coleen Carrigan, Elizabeth Litzler and Eve A. Riskin. .
- *2007 American Society for Engineering Education (ASEE) Annual Conference*. Honolulu, Hawaii. June 2007

- “Five Years Later: The Institutionalization and Sustainability of ADVANCE” Elizabeth Litzler, Catherine Claiborne, and Suzanne Brainard. *American Society for Engineering Education Annual Meeting Proceedings*. 2007.
- “Mentoring of Graduate Students In STEM: Perceptions and Outcomes” by Liz Litzler, A. Wheelless, B. Blaser. *American Society for Engineering Education Annual Meeting Proceedings*. 2007.
- “Enhanced Connections: Making Changes to Mentoring Programs for Science and Engineering Graduate Students” Liz Litzler, A. Wheelless, B. Blaser. *American Society for Engineering Education Annual Meeting Proceedings*. 2007.
- “Faculty Recruitment: A Case Study for Department Chairs” Joyce W. Yen and Coleen Carrigan. *Academic Chairperson’s Conference*. Orlando, FL. February 2007.
- 2006 ADVANCE PI Meeting, Washington D.C., May 2006.
 - “Leadership Workshop Development for Chairs”, Eve Riskin.
 - “Creating Transition Legitimacy”, Suzanne Brainard.
- “Sustainability, Challenges, and Outcomes of ADVANCE Institutional Transformation Grants” Suzanne Brainard. 2006 AAAS Annual Conference. February 2006.
- “Demystifying Family-Friendly Policies for Faculty: Resources for Department Chairs” Yen, J. W., Quinn, K., and Riskin, E. A. *American Society for Engineering Education Annual Conference & Exposition*. Chicago, IL. June 2006.
- Poster: “Leadership Workshops to Effect Cultural Change.” Eve A. Riskin, Kate Quinn, Joyce W. Yen, Sheila Edwards Lange, Suzanne Brainard, Ana Mari Cauce, and Denice D. Denton. *National Academies Convocation on Biological, Social, and Organizational Contributions to Science and Engineering*. Washington, D.C. December 9, 2005.
- 2005 ASEE (*American Society for Engineering Education*) Annual Conference. Portland, OR. June 2005
 - “Toolkits for Retention and Recruitment: Utilization and Outcomes” Sheila Edwards Lange and Joyce Yen.
 - “ADVANCE Mentoring Programs for Women Faculty in SEM at the University of Washington” Joyce Yen, Kate Quinn, Sheila Edwards Lange, Eve Riskin, and Denice Denton.
 - “The Cross-Department Cultural Change Program (CDCCP) at the University of Washington” Joyce Yen and Christopher J. Loving. Paper was selected as a finalist for the ASEE Women in Engineering Best Paper Award.
- 2005 ADVANCE PI Meeting. Arlington, VA. May 2005
 - “Working with Department Chairs at the University of Washington” Ana Mari Cauce.
 - “Department Cultural Change at the University of Washington” Joyce W. Yen
- “Update on ADVANCE Activities at the University of Washington” Eve Riskin. *NSF ADVANCE Engineering Workshop*. Arlington VA. December 2004.

- “Toolkits for Retention and Recruitment: Utilization and Outcomes” Sheila Edwards Lange and Joyce Yen. *Keeping Our Faculties III: Recruiting, Retaining, and Advancing Faculty of Color*. Minneapolis, MN. November 2004.
- “The University of Washington Experience Implementing Family-Friendly Policies for Faculty” Kate Quinn. *Association for the Study of Higher Education Annual Meeting*. Kansas City, MO. November 2004.
- “ADVANCEing Women Faculty at the University of Washington” Joyce Yen. *INFORMS (Institute for Operations Research and Management Science) 2004 Annual Conference*. Denver, CO. October 2004.
- “Leadership Development for Department Chairs at the University of Washington” Joyce Yen. *Society of Women Engineers 2004 National Conference*. Milwaukee, WI. October 2004.
- “Mentoring for Academic Leadership: Career Paths and Choices” Denice D. Denton. *PAESMEM/Stanford School of Engineering Workshop on Mentoring in Engineering*. Stanford, CA. June 2004.
- “Mentoring Programs at the University of Washington” for the Mentoring Support: National and Local Resources for Mentoring Panel. Suzanne G. Brainard. *PAESMEM/Stanford School of Engineering Workshop on Mentoring in Engineering*. Stanford, CA. June 2004.
- “Part-Time Faculty Careers at the University of Washington” Kate Quinn. *Sloan MIT Forum: Careers in the Academy*. Cambridge, MA, May 2004.
- *WEPAN (Women in Engineering Programs and Advocates Network) Conference*
 - “Part-time Tenure-Track Policies: Assessing Utilization” Kate Quinn, Sheila Edwards Lange, and Eve A. Riskin. *WEPAN 2004 Conference Proceedings*. Albuquerque, NM. June 2004
 - “Leadership Development Workshops for Department Chairs” Joyce W. Yen, Sheila Edwards Lange, Eve A. Riskin, and Denice D. Denton. *WEPAN 2004 Conference Proceedings*. Albuquerque, NM. June 2004.
 - “Implementing a Transitional Support Program” Sheila Edwards Lange, Eve A. Riskin, Suzanne G. Brainard, and Denice D. Denton. *WEPAN 2003 Conference Proceedings*. Chicago, IL. June 2003.
- *NSF ADVANCE National Conference*, Georgia Tech, Atlanta, GA. April 2004.
 - “Promotion and Tenure at the University of Washington” Eve Riskin.
 - “Family/Work Policies and Practices: The UW Experience” Kate Quinn, Sheila Edwards Lange, Eve Riskin, and Joyce Yen.
 - “Strategies to Diversify Faculty and Staff Ranks” Denice Denton.
 - “UW’s Cross Department Cultural Change Program” Joyce Yen.
 - “UW Faculty Retention Toolkit” Joyce Yen.
 - “Women and Networking at the University of Washington” Denice Denton.
- “Gaps in ‘Family Friendly’ Policy/Program Intentions and Actual Practice” Kate Quinn and Suzanne G. Brainard. *AAUP Research Roundtable on Work/Family Issues for Faculty*. Washington, DC. July 2003.

- “Making Institutional Change” Denice Denton and Alice Huang. *Committee on the Status of Women Astronomers (CSWA) Women in Astronomy Conference*, Pasadena, CA. June 2003
- NSF ADVANCE Conference. Suzanne G. Brainard, Denice Denton, Sheila Edwards Lange, and Eve Riskin. Washington D.C. April 2003

WORKSHOPS AND PANELS

Organized and/or Facilitated

- Organized and hosted the first LEAD National Workshop for SEM Chairs and Faculty. University of Washington, Seattle, WA. July 2007.
- Suzanne Brainard organized “Sustaining Institutional Change without External Funding: Is it Possible?”. *2007 AAAS Annual Conference*. February 2007.
- Organized and hosted the *Second Annual National Leadership Workshop for Department Chairs in SEM*. University of Washington. Seattle, WA. July 2005.
- Joyce Yen served as a facilitator at the *Women in Academia Conference*. Purdue University, West Lafayette, IN. May 2005.
- Eve Riskin co-organized a panel on Dual Career and Family-Friendly Policies with Columbia University. 2005 ADVANCE PI Meeting, Arlington, VA, May 2005.
- Joyce Yen organized the “ADVANCEing Women in OR/MS” panel discussion at the *2004 Institute for Operations Research and Management Sciences (INFORMS) Annual Conference*. Denver, CO. October 2004.
- Organized and hosted the *First Annual National Leadership Workshop for Department Chairs in SEM*. University of Washington. Seattle, WA. July 2004.
- Eve Riskin organized “Mentoring support: National and local resources for mentoring” session at *PAESMEM/Stanford School of Engineering Workshop on Mentoring in Engineering*. Stanford, CA. June 2004.
- Sheila Edwards Lange, Kate Quinn, and Joyce Yen organized “Family/Work Policies and Practices” session. *Georgia Tech NSF ADVANCE National Conference*. Atlanta, GA. April 2004.
- Suzanne Brainard, Sheila Edwards Lange, Eve Riskin, and Joyce Yen organized “Systemic Transformations in the Role of Women in Science and Engineering” symposium. Denice Denton served a panelist, *AAAS National Meeting*, Seattle WA. February 2004.

Participated as a Speaker or Panelist

- "Working Wise Group Project" *Intergenerational Voices on Women in Science and Engineering Conference*. Coleen Carrigan was part of the working group co-writing a paper. UMASS Lowell. April 2007.
- “Sustaining Institutional Change without External Funding: Is it Possible?” Suzanne Brainard. *2007 AAAS Annual Conference*. February 2007.
- Joyce Yen and Eve Riskin were panelists for *AWIS – Women in Academia*. February 21, 2007.

- "Current Trends in Climate Assessment in Engineering." Sheila Edwards Lange was a panelist. *WEPAN (Women in Engineering Programs and Advocates Network) Conference*. June 2006.
- "UW ADVANCE: Successes and Challenges" at Annual Meeting of the Council of Colleges of Arts and Sciences (CCAS). Sheila Edwards Lange was on panel with other ADVANCE institutions. November 3, 2005, Vancouver, BC.
- Sheila Edwards Lange, Joyce Yen, and Eve Riskin served as subject matter experts for the New Mexico State University Dissemination Grant retreat focused on recruiting and improving faculty diversity. Cloudcroft, NM. July 2005
- Eve Riskin attended a Utah State University workshop for all of their Department Heads. She gave a talk on "Mentoring Faculty Throughout Their Career." She also described the University of Washington Leadership Workshop program for department chairs and led a discussion on topics that could be covered at a similar leadership development program at Utah State. In addition, she discussed both the Utah State and UW programs with Professor Kim Sullivan and Mary Feng of the Utah State ADVANCE program. Logan, UT. May 2005.
- "Work-Family Policies at U.S. Colleges and Universities, Work-Family Policies at U.S. Colleges and Universities." Kate Quinn was panelist. *2005 Annual Conference of the College and University Work/Family Association*. Atlanta, GA. February 2005.
- Denice Denton lead a panel on recruiting a diverse faculty at the *Advancing Women at Virginia Tech Workshop*. Blacksburg, VA. January 2005.
- Closing Keynote Address "How To: Transformational Work in Higher Education" Denice Denton. *Advancing Women at Virginia Tech Workshop*. Blacksburg, VA. January 2005.
- Denice Denton presented on a panel on mentoring for the associate and full professors of the Department of Pediatrics at the University of Washington. Seattle, WA. October 2004.
- "Overview of UW ADVANCE Center for Institutional Change" Eve Riskin. *University of Alabama ADVANCE Fall 2004 Symposium*. Birmingham, AL. September 2004.
- "Strategies to Diversify Technical Ranks" Denice Denton. Two workshops at the University of California-Irvine: one for UCI's ADVANCE Equity Advisory Committee; one for Deans and Associate Deans. Irvine, CA. September 2004.
- "Communication Skills: Essential Tools for Success as a TA and Graduate Student" Chris Loving and Joyce Yen. *College of Engineering Teaching Assistants Workshop*. Seattle, WA. September 2004.
- "Climate Toolkit for Senior Administrators" Denice Denton and Rusty Barceló. *University of Washington*. Seattle, WA. April 2004.
- "Strategies to Diversify Technical Ranks" Denice Denton. *Microsoft Corporation Anita Borg Lecture Series*. Redmond, WA. April 2004.
- "Building Excellence in Undergraduate STEM Education" Denice Denton. *AAAS/NSF Course, Curriculum, and Laboratory Improvement Conference*. Crystal City, VA. April 2004.
- "ADVANCE at the University of Washington" Joyce Yen. *University of Nebraska – Lincoln*. Lincoln, NE. March 2004.

- “Panel Discussion: Is Diversity a Vision or a Reality? Recruitment and Retention for Faculty Diversity and Globalization” Denice Denton. *Texas A&M University*. College Station, TX. March 2004.
- “Systemic Transformations in the Role of Women in Science and Engineering” symposium. Denice Denton served a panelist, *AAAS National Meeting*, Seattle WA. February 2004.
- “Mastering Transitions: Growing into Leadership.” Panel discussion with Denice Denton. *Association for Women in Science: Women in Science Leadership Skills Workshop*. Seattle, WA. February 2004.
- “ADVANCEing Women in Academe: Voices of Experience” Joyce Yen. *Virginia Polytechnic Institute and State University*, Roanoke, VA. January 2004.
- “Strategies for Enhancing Gender Diversity in Engineering” Denice Denton. *IEEE Women in Engineering Committee Forum*. Seattle, WA. November 2003.
- “Diversity Day” workshop, Joyce Yen. *University of Rochester*. Rochester, NY. October 2003.
- “ADVANCE at the University of Washington”, Joyce Yen. *Susan B. Anthony Institute, University of Rochester*. Rochester, NY. October 2003.
- “UW ADVANCE” and “Strategies to Diversify Faculty and Staff Ranks” Denice Denton. *Iowa State University*. Ames, IA. September 2003.
- “UW ADVANCE” and “Strategies to Diversify Faculty and Staff Ranks” Denice Denton. *Michigan Technology University*. Houghton, MI. September 2003.
- “Student Ratings of Women Faculty: Data and Strategies,” Angela Linse. *University Puerto Rico-Humacao*. Humacao, PR. August 2003.
- “Negotiating the Tenure Track System” Denice Denton. *Clare Boothe Luce Centennial Celebration*. South Carolina. April 2003.
- “Faculty Recruitment Toolkit Roundtable” Denice Denton. *Leveraging Experience to Accelerate Progress Towards Gender Equity (LEAP) Meeting*. National Academy of Engineering, Washington D.C., January 2003.
- “UW’s Faculty Retention Toolkit” presented to the *Committee on the Status of Women in Astronomy*. Seattle, WA. January 2003.
- “The UW Faculty Recruitment Toolkit” Sheila Edwards Lange and Rusty Barceló. *Keeping our Faculties: Addressing Recruitment and Retention of Faculty of Color Symposium*. April 2002.

MAGAZINE AND NEWSPAPER ARTICLES

- Eve Riskin was quoted in an article, “Female Science and Engineering Professors Still Face Bias”, *Medill Reports*, October 23, 2007.
<http://news.medill.northwestern.edu/washington/news.aspx?id=66355>
- Joyce Yen was quoted in an article, “Women in Science Make Connections”, *Seattle Woman*, June 2007.

- Ana Mari Cauce, guest columnist for *The Seattle Times*, authored a piece titled, “Women in Science, looking beyond bias and barriers”. December 19, 2006.
<http://archives.seattletimes.nwsourc.com/cgi-bin/texis/cgi/web/vortex/display?slug=cauce19&date=20061219>
- Eve Riskin and Kate Quinn were interviewed and quoted by Christine Frey for the *Seattle P-I* article, “Moms in Academia: Will it be Faculty or Family?”. October 31, 2006.
http://seattlepi.nwsourc.com/local/290331_womeninacademics28.html
- Eve Riskin was interviewed for “Challenges and Opportunities for Women in Science and Engineering,” which appeared in *JOM*, the member magazine of The Minerals, Metals & Materials Society, April 2005.
- Eve Riskin and Kate Quinn were interviewed for “Family Matters: Stopping Tenure Clock May Not Be Enough.” Yudhikit Bhattacharjee. *Science Magazine*. December 2004.
- Eve Riskin spoke with Rob Kelly, editor of *Academic Leader*, a monthly newsletter for department chairs and academic deans, about ADVANCE. June 2004.
- Cited in “Supporting Women and Minority Faculty” JoAnn Moody. *Academe*. January-February 2004.
- Marjorie Olmstead and Joyce Yen interviewed for “Changing the World of Engineering, Policy by Policy” Dee Anne Finken. *SWE*. Spring 2004.
- Eve Riskin was interviewed for "The next Frontier - Women in Academic Leadership," *SWE*, Fall 2003.
- Denice Denton co-authored an article for *The Seattle Times* suggesting that Washington State revise I-200 to codify the Supreme Court's standards on affirmative-action. July 18, 2003.
- Denice Denton interviewed for “Facing the Problem” Margaret Mannix. *Prism*. October 2002.

CONVERSATIONS AND PRESENTATIONS WITH INDIVIDUALS OUTSIDE OF THE UNIVERSITY OF WASHINGTON

- Held numerous consultative conversations with people from institutions applying for NSF ADVANCE grants for the 2007 RFP. Fall 2007.
- Joyce Yen met with Staci Sleigh-Layman (Central Washington University) to discuss ADVANCE. Nov 20, 2007.
- Joyce Yen had a phone meeting with Dr. Mary Wyer, North Carolina State University, about quarterly leadership workshops. October 18, 2007.
- Joyce Yen gave brief presentation on ADVANCE at the Faculty Diversity in STEM/Health Fields conference call sponsored by the HEC Board. October 11, 2007.
- Joyce gave brief presentation on ADVANCE to Education Committee of the Washington Higher Education Coordinating Board. September 6, 2007.

- Joyce Yen and Ana Mari Cauce met with Anne Condon, Professor of Computer Science at University of British Columbia, to talk about the ADVANCE program. July 24, 2007.
- Joyce Yen consulted for Briana Keller about a “surviving tenure” workshop for graduate students in late May 2007. April 3, 2007.
- Joyce Yen exchanged emails with Isabel Cristina Materon of Gilead Sciences, Inc about recruiting a female candidate for Gilead Sciences. March 12, 2007.
- Joyce Yen offered advice to Mariko Chang, Managing Director, Brown University, ADVANCE program, on finding visiting scholars or hiring consultants to help develop a department chair program. February 27, 2007.
- Ana Mari Cauce and Eve Riskin spoke to Sue Shafer, Consultant to Women’s Careers In Science, San Francisco, CA about the UW ADVANCE program, and the successful interventions that have been implemented to increase the number and improve the progression of women STEM faculty to full professor and into leadership positions. February 19, 2007.
- Joyce Yen replied to Nancy Hall, (faculty at University of Maine) questions on an equity committee to ensure equity amongst female and male faculty, and how UW ADVANCE addresses equity issues. February 9, 2007.
- Joyce Yen responded to Tina Johnson Cartwright’s, ADVANCE Program Director, Marshall University, inquiry about the use of external evaluators. January 23, 2007.
- Joyce Yen responded to Jan Rinehart’s, Executive Director, ADVANCE Program, Rice University, inquiry about having an external advisory board, and using an external evaluator. January 23, 2007.
- Joyce Yen sent a few sample evaluations to Richard Rowley, WISE program, Boston University, who inquired about post workshop surveys for the ADVANCE Leadership Workshops. January 23, 2007.
- Joyce Yen replied to Rebecca Wood’s (project coordinator of NSF ADVANCE program at Kansas State University) inquiry for information about Maternity Leave Policies. January 5, 2007.
- Eve Riskin referred Elizabeth Ivey (AWIS president 2004, 2005) to the UW ADVANCE weblink for the faculty recruitment and retention toolkits. December 6, 2006.
- Joyce Yen spoke to Deborah Kaminski from RPI about staffing for their ADVANCE grant. September 25, 2006.
- Joyce Yen and Eve Riskin sent a draft of the Mentoring for Leadership Lunch Program Paper to Sue Shafer, Consultant, Women’s Careers in Science. Sue inquired about the paper to prepare for her talk on ADVANCE at a symposium at Idaho State, a recipient of the ADV PAID award. February 27, 2007.
- Eve Riskin and Joyce Yen met with Catherine Mavriplis, Research Scientist, Univ. of Oklahoma and Prof. Teri Murphy, Mathematics, Univ. of Oklahoma at UW, Seattle, on Feb 15, 2007 to discuss what worked well with the UW Leadership Workshops and how the model might adapt at OU.

- Joyce Yen replied to Sarah Dunkin, CWU, inquiring about ADVANCE's faculty development programs and activities on December 7, 2006.
- Eve Riskin met with Carla Shelton, Rice McGill and Aly Vander Stoep about UW's program related to science, technology, engineering and math (especially related to women and underrepresented minorities). Carla Shelton is a representative from BP Cherry Point Refinery on October 6, 2006.
- Eve Riskin and Joyce Yen responded to Margaret Martonosi, Associate Dean of Academic Affairs, Eng. And Applied Sciences, Princeton University, via email about suggestions on creating a reference sheet for chairs and others about best practices for diversity. October 2, 2006.
- Suzanne Brainard and other members of the ADVANCE leadership had a meeting with Cara MariAnne to discuss about a recruitment and retention program (how to build support within an organization for diversity efforts and the evaluation of workforce) on September 26, 2006.
- Joyce Yen discussed with Deborah Kaminski (RPI) about their new ADVANCE grant and Joyce Yen offered advice/suggestions for their staffing structure and needs. September 25, 2006.
- Joyce Yen responded an inquiry from Jennifer Hymer, Project Coordinator, Thompson Studies, Fred Hutchinson Cancer Research Center, about the ADVANCE workshops and seminars that teach mentoring skills, leadership of junior faculty, and career development. September 22, 2006.
- Joyce Yen spoke to Jane Tucker PhD., Change Management, Duke University, over the phone about institutional transformation. September 21, 2006.
- Eve Riskin won the 2006 IEEE Hewlett-Packard/Harriet Rigas Award, which recognizes outstanding faculty women who have made significant contributions to electrical/computer engineering education through excellence in teaching, encouraging and supporting increased participation of women in electrical/computer engineering, demonstrated scholarship/research, development of educational technology which enhances student learning, and/or service to the engineering profession. August 2006.
- Marjorie Zatz, University Vice-Provost of Arizona State University corresponded with Ana Mari Cauce via email, inquiring about what UW does about leadership training and professional development. Ana Mari Cauce informed her of our ADVANCE Leadership Workshops, ongoing work for LCVI leadership workshops, and national workshops funded by the PAID grant. September 11, 2006.
- Gretalyn Mary Leibnitz, Faculty Recruitment Coordinator for the College of Engineering & Architecture at WSU initiated a meeting with Sheila Edwards Lange, to discuss the Faculty Recruitment Toolkit. Such things discussed was how has the toolkit been helpful in recruiting faculty, measures used to determine efficacy, recommendations to revise the toolkit, process and timeline in developing the kit, recommendations to someone undertaking

the process of developing a recruitment toolkit. Dean Candis Claiborn referred the UW Faculty Recruitment Toolkit. August 7, 2006

- Gretalyn Mary Leibnitz (WSU) met with Joyce Yen to discuss the Faculty Retention Toolkit. August 4, 2006.
- Joyce Yen forwarded link of Dean Denton's National Workshop Presentation, "Working with your College Dean" to Patricia Hyer, Associate Provost for Academic Administration, Virginia Tech. July 26, 2006.
- Davida Murphy-Smith of Deaconess College of Nursing in St. Louis, MO, has referred to the Faculty Retention Committee toolkit and inquires if other documents are available on the topic. Joyce Yen responds that no other formal documents regarding faculty retention are written but refers to workshop presentations and handouts that are posted on our website, and often addresses the topic. July 19, 2006.
- Joyce Yen and Kate Quinn shared the family-friendly policies for faculty packet developed for the 2005 National Leadership Workshop for SEM Department Chairs with a number of institutions (John M. Dunn, Provost and Vice Chancellor Southern Illinois University; Jane Rowlett, Director of Academic Services, Kansas State University; Andrea Davies Henderson, Ph.D., Research Associate, Institute for Research on Women and Gender, Stanford, CA; Gloria Thomas, OWHE-ACE (Office of Women in Higher Education, American Council on Education); Rebecca E. F. Wassarman, Assistant Dean for Academic Affairs, Faculty of Arts and Sciences, Harvard University; Robert Baskett, Ph.D., Assistant Professor of Social and Behavioral Sciences, University of Southern Maine at Lewiston-Auburn College; and Kelly Ward, Higher Education, Washington State University; and Chris Anderson, Executive Director Educational Opportunity and Special Assistant to the President for Institutional Diversity, Michigan Technological University).
- Various member of the core UW ADVANCE team corresponded with numerous schools (including Boise State University, Oregon State University, Arizona State University, Northeastern University, Yale University, Washington State University, Cornell University, Purdue University, and South Dakota School of Mining and Technology) who were preparing proposals to the third round of the NSF ADVANCE program. July 2005.
- Joyce Yen shared information with Gilda Paul of Princeton University regarding the template letter, developed under a Sloan grant, for explaining to outside reviewers how to evaluate faculty who have take tenure track extensions or who are less than full time. July 2005.
- Joyce Yen shared handouts and resources from the 2004 National Leadership Workshop with Dr. Richard A. Marston, Professor and Head of the Department of Geography, Kansas State University and AAG (Association of American Geographers) Vice President, 2004-05. Dr. Marston was organizing the AAG's second Healthy Department Workshop in June 2005 and will be distributing materials from the 2004 National Leadership Workshop at his event. June 2005.
- Joyce Yen shared information about the UW ADVANCE program with Vonna L. Viglione, North Carolina Community College System. May 2005.

- Eve Riskin discussed the UW ADVANCE program with Professor Sheila Hemani of Cornell University, Electrical and Computer Engineering Department. May 2005.
- Eve Riskin discussed the UW ADVANCE program with Professor Margaret Martonosi of Princeton University, Electrical and Computer Engineering Department. May 2005.
- Eve Riskin discussed the UW ADVANCE program with Professors Toni Doolen, Bob Paasch, Mike Quinn, and Joe Zaworski from the College of Engineering at Oregon State University. April 2005.
- Eve Riskin spoke on an educational panel for the “Gender Matters” day at Lakeside School. April 2005.
- Joyce Yen shared information about recruiting a diverse faculty with Eugenio Matibag, Iowa State University. April 2005.
- Joyce Yen and Eve Riskin met with Sheila O’Rourke (University of California) and Sally Dickson (Stanford) to inform them about ADVANCE’s activities and to discuss increasing the numbers of women of color in STEM disciplines. March 2005.
- Joyce Yen shared information with Rachel Cush, a research assistant for Professor Jane Goodman-Delahunty of the School of Psychology at the University of New South Wales. March 2005.
- Joyce Yen and Eve Riskin met with Jean Trehwella, Manager of Advanced Optoelectronic Packaging Technology at IBM’s T.J. Watson Research Center, to discuss increasing the participation and advancement of women in science and engineering. February 2005.
- Joyce Yen spoke with Irene Hecht about sharing information on the National Chairs’ Workshop through ACE. Irene Hecht shared workshop fliers at an ACE National Chairs Workshop in Washington, DC. February 2005.
- Joyce Yen met with the Astronomy Faculty Recruitment Committee to share ideas of how to increase the diversity of their applicant pool. February 2005.
- Eve Riskin met with Jan Cuny of NSF/University of Oregon. November 2004.
- Kate Quinn shared information with Karen S. Markel, Assistant Professor of Management and Marketing, School of Business Administration, Oakland University, Rochester, MI. November 2004.
- Eve Riskin met with Irene Hecht of ACE. Links to UW ADVANCE resources were posted at the ACE site. November 2004.
- Joyce Yen and Kate Quinn shared information with Mary Feng, Utah State University. October 2004.
- Kate Quinn shared information with Louise M. Kubo, Interim Program Officer for Academic Affairs, Manoa Chancellor's Office, University of Hawai'i. October 2004.
- Eve Riskin discussed ADVANCE with Marjolein van der Meulen, Associate Professor of Mechanical and Aerospace Engineering at Cornell University. October 2004.
- Kate Quinn shared information with Jan Nolan, University of Toronto. October 2004.
- Joyce Yen shared program information with Karen Watanabe of Oregon Health and Science University. September 2004.

- Dr. Louis A. Martin Vega, Dean of the College of Engineering at the University of Southern Florida, requested permission to copy the UW Faculty Recruitment Toolkit and Faculty Retention Toolkit for distribution at a meeting at Florida State University. He wanted to use the toolkits as samples of best practices and of how an institution might put together a plan to better focus on these two important areas. Dr. Vega's presentation at the meeting focused on faculty recruitment and retention, with a special focus on minorities and women in the academic community. He was "very impressed with the two 'tool kits' on your website that dealt with recruitment and retention of faculty." June 2004.
- Joyce Yen met with the University of Wisconsin, Madison ADVANCE team to share best practices. June 2004.
- Eve Riskin met with Marie Klawe, Dean of Engineering at Princeton University to discuss ADVANCE's activities. April 2004.
- Joyce Yen and Eve Riskin met with Camille George, Assistant Professor of Mechanical Engineering at University of St. Thomas, to talk about ADVANCE. January 2004.
- Joyce Yen shared the Faculty Retention Toolkit and David Notkin's talk on Mentoring Associate Professors with the Committee on the Status of Women in Computing Research's Cohort of Associate Professors Project, and ADVANCE funded project focused on mentoring women associate professors in computer science for advancement to full professor ranks. Joyce Yen emailed the two resources to Professors Mary Jane Irwin (Pennsylvania State University), Jan Cuny (University of Oregon), and Mary Lou Soffa (University of Pittsburgh). January 2004.
- Denice Denton and Joyce Yen met, separately, with Cheryl Bunnett Schrader, Dean and Professor of the College of Engineering at Boise State University to discuss ADVANCE's activities. November 2003.
- Sheila Edwards Lange and Joyce Yen met with Dr. Cammy Abernathy, Professor of Materials Sciences and Engineering at the University of Florida to discuss ADVANCE. November 2003.
- Joyce Yen shared the ADVANCE newsletter with Irene Hecht from the American Council on Education (ACE). Irene Hecht has posted a link to the UW ADVANCE webpage from the ACE resource site for department chairs. November 2003.
- Denice Denton met with Bonita Banducci to talk about ADVANCE. Joyce Yen also met with Ms. Banducci and shared with her the ADVANCE newsletter. October 2003
- CIC Director Eve Riskin met with Dr. Margaret Martinosi, associate professor of EE at Princeton University and a visitor to the UW CSE, and discussed ADVANCE. October 2003.
- Eve Riskin and Joyce Yen met with representatives from Intel, Corp. to share information about the UW ADVANCE program and brainstormed ways to collaborate with them as they develop their strategies for diversity. October 2003.
- Sheila Edwards Lange and Joyce Yen met with JoAnn Moody, author of Faculty Diversity: Problems and Solutions to discuss ADVANCE. August 2003.
- Joyce Yen and Denice Denton met with Janie Fouke, Dean of Engineering at Michigan State University, to discuss ADVANCE. July 2003.

- Eve Riskin met with Dick Yue, Associate Dean of Engineering and Professor of Hydrodynamics and Ocean Engineering at Massachusetts Institute of Technology to discuss ADVANCE. June 2003.

OTHER SHARED RESOURCES

- **ADVANCE newsletter** highlighting CIC programs and activities. They were completed in October 2003 and distributed to all faculty in ADVANCE departments, other ADVANCE schools, faculty candidates in ADVANCE departments, advance@ee listserv, attendees of the LEAP conference, etc. The newsletter is also available online at <http://www.engr.washington.edu/advance/resources/UW-ADVANCE-newsletter-Oct03.pdf>
- **Taking the Leadership Plunge Handout** for women faculty who are considering leadership positions. The handout was disseminated to women faculty in the UW ADVANCE departments and to the advance@ee listserv. The handout is also available online at <http://www.engr.washington.edu/advance/resources/LeadershipPlunge.pdf>
- **UW Faculty Recruitment Toolkit** (http://www.washington.edu/admin/eoo/forms/ftk_01.html) contains concrete suggestions for recruiting a diverse applicant pool. Topics discussed include faculty hiring policies and procedures; general search tips; resources for diversity; language for advertisements and announcements; benefits and resources for new hires; and other miscellaneous resources.
- **UW ADVANCE Faculty Retention Toolkit** (<http://www.engr.washington.edu/advance/resources/Retention/>) to assist department chairs in retaining their faculty across all ranks. The topics discussed include: (a) monitoring the health and welfare of departments; (b) transparency in operations including fair and open promotion and tenure guidelines; (c) creating a welcoming department climate; (d) mentoring; (e) valuing diversity in the department; (f) supporting career development of pre-tenure faculty; (g) encouraging mid-career professional development; (h) faculty development programs, benefits, and resources; and (i) flexible and accommodating policies and practices.
- **UW ADVANCE Guidelines for Facilitating Dual Career Hires** (http://www.engr.washington.edu/advance/resources/dual_career_hires.html) In addition to the official UW policy on Dual Career Hires, ADVANCE has generated recommendations for department chairs.
- **UW ADVANCE website** (<http://www.engr.washington.edu/advance>) contains handouts from all workshops and seminar as well as general information about the program and program activities.

SERVICE

- Served as panel reviewers for the 2005 round of NSF ADVANCE Leadership Awards.
- Served as panel reviewers for the 2005 round of the NSF Broadening Participation in Computing Demonstration Project Awards.
- Served as panel reviewers for the 2002-2003 Round of the ADVANCE Institutional Transformation awards.
- Denice Denton serves on the Sigma Xi Committee on Education.

- Served on Planning Committee for the January 2004 LEAP meeting: Leveraging Experience to Accelerate Progress Towards Gender Equity, a meeting regarding gender equity in engineering.
- ADVANCE Professor Billie Swalla served on an 2003 ADVANCE Leadership Awards Panel
- ADVANCE co-PI Suzanne G. Brainard served on the Year 1 (2004) AAAS site visit team review fore the University of Alabama, Birmingham.

INTERNAL UW PRESENTATIONS

- Email sent to UW campus re-announcing campus-wide TSP. October 2004.
- TSP Brochures distributed to new faculty at Faculty Fellows. October 2004.
- TSP Flyers distributed by Academic Human Resources. October 2004.
- Overview Presentation about ADVANCE by members of the ADVANCE Leadership Team
 - UW Faculty Fellows Reception for new women. September 2002
 - Computer Science and Engineering Graduate and Undergraduate Women's group. April 2003
 - UW Committee on Women in Medicine. October 2003
 - Statistics Department Faculty meeting. December 2003
 - Issues for Women and Ethnic Minorities in Science and Engineering class. February 2, 2004.
- Kate Quinn. "Part-Time Tenure Track Policies at the University of Washington," Graduate and Professional Student Senate Multidisciplinary Lecture Series. May 2004.
- Suzanne Brainard, Priti Mody, and Sheila Edwards Lange from the UW's Center for Workforce Development gave a presentation on gender issues, programs and policies in Professor Maurice Green's diversity graduate class. February 2003.
- Women in Graduate School: Strategies for Successful Mentoring. President's Advisory Committee on Women Winter Forum co-sponsored with ADVANCE. February 2003.
- Negotiating Academic Appointment Contracts with Professor John Wingfield of Biology, Assistant Professor Joyce Yen of Industrial Engineering, and Vic Snyder of Career Services, co-sponsored by the Center for Workforce Development and ADVANCE. February 2003.
- Susan Jeffords, ADVANCE Leadership Team member and Vice Provost for Academic Planning, distributed the ADVANCE Faculty Retention Toolkit to her department chairs. October 2003.
- Joyce Yen distributed the ADVANCE Faculty Retention Toolkit and information regarding various ADVANCE events and resources to Professor Fred Rivara in Pediatrics. September 2004.

Contact information:

Email: advance@enr.washington.edu

Website: <http://www.enr.washington.edu/advance>

Quarters	Topics	Rating	Speakers	Chair/Deans/etc attended	Emerging Leaders attended
Autumn 2002	Dual Career Policy & Hiring	4.6	Michael Brown and John Wingfield	22	17
Winter 2003	Dealing with Difficult Faculty	4.4	Denice Denton	16	14
	Transition from Associate to Full Professor	4.6	David Notkin		
	Faculty Development Opportunities	4.4	Joe Ammirati		
Spring 2003	Providing Feedback and Delivering Bad News	4.5	Denice Denton and Julie Stein	21	10
	Research on Student Ratings of STEM Women Faculty	4.1	Angela Linse and Angela Ginorio		
Autumn 2003	Family Leave and Tenure Clock Extension	4.9	Denice Denton, David Hodge, and Joyce Cooper	21	12
	Nominating Faculty for Awards & Recognition	5	Tom Daniel and Ed Lazowska		
Winter 2004	Getting Consensus Among Your Faculty	4.6	Barbara Wakimoto, Mani Soma	18	9
	Building job offers	4.8	Paul Hopkins, Mary Lidstrom		
Spring 2004	Recruiting for Diversity	4.5	Scott Rutherford, Ana Mari Cauce, Johnella Butler	17	11
	Background & Data on Underrepresented Faculty	4.9	Marjorie Olmstead and Angela Ginorio		
	Implicit Association Test	4.2	Anthony G. Greenwald & N. Sriram		
Autumn 2004	Institutional Transformation and Department Cultural Change	4	Karen DePauw & Michael Brown	24	15
	Search Committees and Recruitment	4.04	Denice Denton, Ron Irving, Blake Hannaford		
Winter 2005	How to get to a win-win with faculty and administrators	4.64	Ana Mari Cauce & Mary Lidstrom	23	12
	Building Esprit de Corps in Academic Departments	4.31	Jean-Loup Baer & Bruce Balick		
Spring 2005	Faculty Retention Strategies	4.7	Paul Hopkins & Yongmin Kim	28	11
	Tips for Conducting Faculty Merit Reviews	4.4	Judy Ramey & David Boulware		
Autumn 2005	Succession Planning	3.88	Dee Boersma and David Notkin	26	21
	Supervising non-academic staff	4.25	Linda Nelson and Nicki McCraw with Carney, Badley, and Spellman and former member of UCIRO		
Winter 2006	Center for Research on Learning and Teaching (CRLT)	4.45		12	19
Spring 2006	Preparing Faculty for Promotion to Full Professor	4.17	Santosh Devasia and Steve Buck	20	16
	Gender, Diversity and Faculty Hires	3.67	Ana Mari Cauce, Eve Riskin, and Selim Tuncel		
	Institutional Transformation and ADVANCE	3.6			
Autumn 2006	Difficult Conversations	4.21	Fierce Conversations	47	14
	Synthesized Discussion and "Next Steps"		Joyce Yen		
Winter 2007	Annual faculty evaluation meetings	4.55	Mani Soma, Ana Mari Cauce, and Cheryl Cameron	25	22
	Promotion and Tenure Files	4.27	Selim Tuncel, Ana Mari Cauce, and Cheryl Cameron		
Spring 2007	Faculty Merit Reviews and Raises	4.14	Paul Hopkins & Eric Stuve	24	15
	Harassment: A Case Study Discussion	4.57	Debbie Flores & Nicki McCraw		

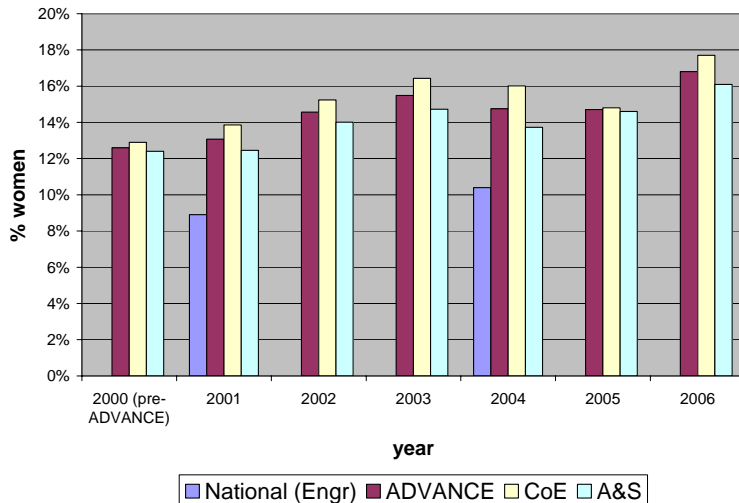
Results from and Impact of the University of Washington ADVANCE Center for Institutional Change

FUNDING AGENCY: National Science Foundation
FUNDING LEVEL: \$3.75M grant
October 2001-September 2007

OBJECTIVE To create a campus in which all SEM departments are thriving, all faculty are properly mentored, the diversity among faculty are recognized, and every SEM faculty member is achieving his or her maximum potential.

CONSTITUENTS 21 SEM departments – 10 in the College of Engineering and 11 in the College of Arts and Science, Science Division. The College of Ocean and Fishery Sciences and the Information School are informal partners. (Note: original 19 departments were 10 engineering and 9 science departments.)

SEM WOMEN LADDER FACULTY AT UW (19 ORIGINAL ADVANCE DEPARTMENTS)

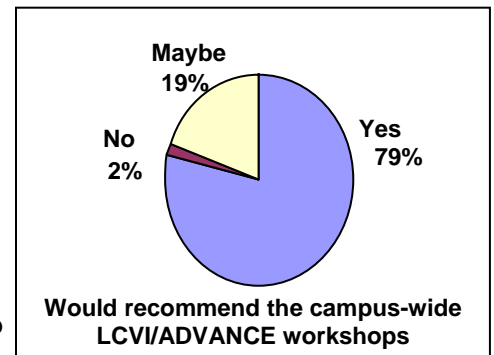


INCREASING WOMEN FACULTY REPRESENTATION IN ADVANCE DEPARTMENTS (ORIGINAL 19 DEPTS)

- **28.3% increase in the number of tenured or tenure-track women faculty (60 to 77)** (Fall 2001 to Fall 2006)
- **17.8% increase in number of women full professors (28 to 33)** (Fall 2001 – Fall 2006).
- Through AY04-05, **more than 37% of the women in the faculty interview pool were offered positions**, resulting in 16 new women faculty through Fall 2004.
- ADVANCE CIC staff has met with over 25 women faculty candidates

SIGNATURE INITIATIVES

- ◆ **Quarterly Leadership Workshops for UW Department Chairs and Emerging Leaders**
(www.engr.washington.edu/advance/workshops/)
 - 14 quarterly leadership workshops offered (11/02 – 3/07)
 - Average attendance: 76.5% of department chairs invited
 - 30 topics offered. Topic ratings ranged from 3.6 – 5.0, with a mean of 4.35 (scale 1-5, 5=excellent)
 - 98 emerging leaders (46 women) attended at least 1 workshop
 - AY06-07 workshops expanded campus-wide via LCVI (see graph)
 - 238 attendees in 6 LCVI/ADVANCE workshops
- ◆ **Annual Two-Day National Leadership Workshop for SEM Department Chairs and Emerging Leaders**
(www.engr.washington.edu/lead/)
 - In 3 workshops, have had 160+ participants (including 30 different speakers) representing 60+ institutions from 31 states, the Virgin Islands and British Columbia
 - In 2006 received a \$500,000 NSF ADVANCE PAID grant to continue workshops through 2009. Workshops now called LEAD: Leadership Excellence for Academic Diversity
- ◆ **Faculty Professional Development Workshops**
 - 103 participants (60% women) in 18 workshops (4/03 – 4/07)
 - As a result of participating in the workshops, 96% of evaluation respondents said they have a greater sense of community at UW and 91% have learned strategies to balance teaching, research, and service
 - Most helpful workshop elements: focusing on specific professional development issues (72%); networking (60%); and learning strategies and tools for career success from senior faculty (60%)



◆ **Mentoring-for-Leadership Lunch Series for Women Faculty (5/03 – 9/07)**

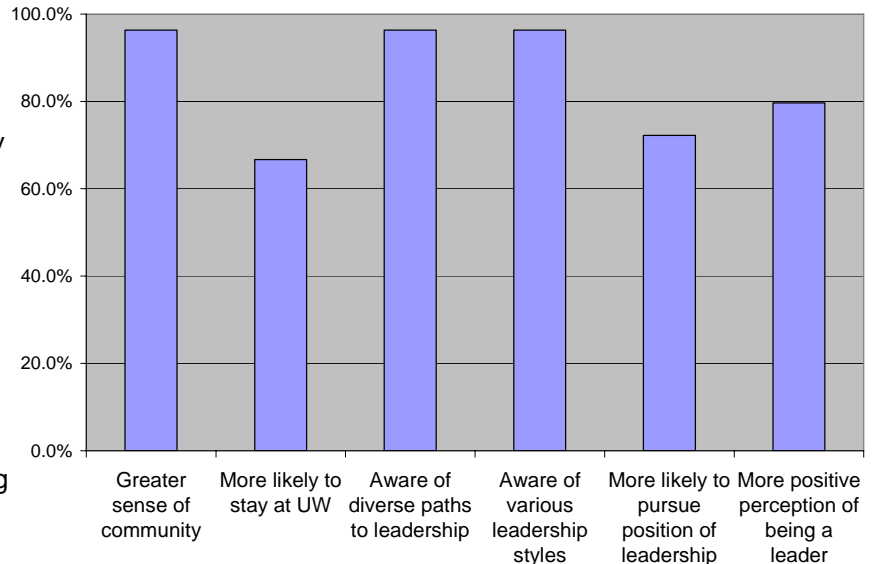
- 53 speakers (23 external & 30 internal women leaders)
- 120+ women participants; Majority have attended 1+ events
- Program duplicated at Boston University

◆ **Transitional Support Program (TSP) Grants**

- 51 TSP awards, totaling \$938,834; 42 women and 6 men awardees
- Campus-wide TSP available for emergencies
- Awardees reported impact of TSP
 - 87.5% able to continue work started with TSP
 - 57.5% increased/maintained ability to perform tenure-track duties during award period
 - 61.0% maintained/accelerated research progress

- Sample outcome: A faculty member stated the \$20,000 TSP grant was integral to the \$774,000 she subsequently received from the NSF, and to her tenure and promotion to Associate Professor.

Mentoring-for-Leadership Series Evaluation (N = 54)
Percent of respondents reporting “agree” or “strongly agree”



GENERAL BEST PRACTICES AND STRENGTHS

- ◆ TSP saves careers
- ◆ Peer-led professional development
- ◆ Highly functional core team
- ◆ Campus and national resource
- ◆ Community builder
- ◆ Use targeted content
- ◆ Address broader faculty issues, not just ‘women’ issues
- ◆ Steady drumbeat of activities (but not too much)
- ◆ Strategically offer faculty professional development
- ◆ Meet with women faculty when they interview and after they arrive on campus

DISSEMINATION AND NATIONAL PRESENCE

- ◆ 10+ conference papers and 8 journal papers, book chapters, program descriptions, and commentaries (See http://www.engr.washington.edu/advance/resources/#other_resources for partial listing and links)
- ◆ 60+ conference/workshop panels and presentations
- ◆ 10+ magazine and newspaper article interviews
- ◆ **Faculty Retention Toolkit** (www.engr.washington.edu/advance/resources/Retention/index.html)
- ◆ **Faculty Recruitment Toolkit** (www.washington.edu/admin/acadpers/procedures/search_and_hire/aa_recruitment_toolkit.html)

AWARDS AND RECOGNITION

- ◆ Eve Riskin - 2007 University of Washington David B. Thorud Leadership Award
- ◆ Joyce Yen – 2007 College of Engineering Professional Staff Innovator Award
- ◆ Eve Riskin - 2006 IEEE Hewlett-Packard/Harriet Rigas Award
- ◆ Eve Riskin - first WEPAN University Change Agent Award, 2006
- ◆ Joyce Yen - 2004 Outstanding Young Alumni Award from the University of Nebraska-Lincoln

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