

AERONAUTICS AND ASTRONAUTICS

APPLIED MATHEMATICS

ASTRONOMY

ATMOSPHERIC SCIENCES

BIOENGINEERING

BIOLOGY

CHEMICAL ENGINEERING

CHEMISTRY

CIVIL AND ENVIRONMENTAL ENGINEERING

COMPUTER SCIENCE AND ENGINEERING

EARTH AND SPACE SCIENCES

ELECTRICAL ENGINEERING

INDUSTRIAL ENGINEERING

MATERIALS SCIENCE AND ENGINEERING

MATHEMATICS

MECHANICAL ENGINEERING

PHYSICS

STATISTICS

TECHNICAL COMMUNICATION

UW



ADVANCE

University of Washington Center for Institutional Change



WELCOME

The University of Washington is delighted to have received an ADVANCE Institutional Transformation award from the National Science Foundation during the first round of the initiative. We are dedicated to the overarching goal of ADVANCE: “to increase the participation of women in the scientific and engineering workforce through the increased representation and advancement of women in academic science and engineering careers.” We are committed to supporting this effort on our campus and sharing what we learn with our colleagues around the country.

To that end, we established the UW ADVANCE Center for Institutional Change (CIC). The CIC has been spearheading our campus efforts and, as you will see in this newsletter, we have made good progress in this arena. We have increasing numbers of women who have been promoted in rank during the time of this grant.

We have a new project that is coming online, our Faculty Retention Toolkit. This toolkit is intended for use by departments that wish to address the departmental culture, provide a more positive working environment for all faculty, and ensure faculty professional development. The Faculty Retention Toolkit is a companion piece to our Faculty Recruitment Toolkit, which has been in use for over five years.

ADVANCE involves a partnership between the Colleges of Arts and Sciences and Engineering. We have also endeavored to partner with other ADVANCE schools around the country. We next look to institutionalize our best practices with the rest of campus.

We are pleased to be sharing our work with you, and we look forward to hearing your ideas. If you are interested in any of our programs or would like to become more involved with ADVANCE, please contact us at advance@engr.washington.edu.

Sincerely,

Denise D. Denton

DEAN, COLLEGE OF ENGINEERING



I am proud that the College of Arts and Sciences is a part of UW’s ADVANCE program and strongly support its goals. Increasing the participation and advancement of women in science and engineering provides exceptional opportunities for individuals who might otherwise not choose these fields. Just as significant is the impact this effort has on the overall development of the various fields of science and engineering. Maximizing participation of people of all backgrounds and providing support for faculty through the different stages of their careers ensure a healthy and robust foundation for future research and education. ADVANCE has developed several programs that are making this happen. The leadership workshops for chairs and emerging leaders and the Transitional Support Program have already provided invaluable opportunities for many of our faculty. Please read this newsletter, learn more about ADVANCE, participate in its programs, and help us build an academic climate here at UW that is welcoming and encouraging to all.

Sincerely,

David Hodge

DEAN, COLLEGE OF ARTS AND SCIENCES

UWADVANCE

UW ADVANCE envisions a campus in which all science, engineering, and mathematics (SEM) departments are thriving, all faculty are properly mentored, and each SEM faculty member is achieving his or her maximum potential. UW believes cultural changes that are designed to help underrepresented groups invariably improve the environment for everyone. In 2001, the University of Washington received an ADVANCE Institutional Transformation award from the National Science Foundation to increase the participation and advancement of women faculty in academic SEM careers.

As part of the ADVANCE award, the University of Washington created the Center for Institutional Change (CIC). The CIC focuses on implementation of programs designed to eliminate existing barriers and to precipitate cultural change at both the departmental and institutional levels. The CIC has six areas of focus:

- Leadership development for current chairs and deans in SEM
- SEM departmental cultural change
- Examination of UW policies for equity and policy transformation
- Mentoring women in SEM for leadership
- Transitional support for faculty in SEM
- Visiting Scholars Program

Read on to learn about the various activities and initiatives we are pursuing. We invite you to join us for any of our events and encourage you to apply for any of our programs. ADVANCE is helping ensure that all SEM faculty are productive members of the UW community.



“INTELLECTUAL DIVERSITY HELPS GIVE OUR NATION ITS COMPETITIVE EDGE. ADVANCE IS AN INNOVATIVE PROGRAM THAT PROMISES TO CHALLENGE ASSUMPTIONS AND INSPIRE CHANGE IN THE WAY WE MAKE SCIENCE AND ENGINEERING CAREERS WELCOMING TO ALL.” — NSF DIRECTOR RITA COLWELL

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OPPORTUNITIES FOR FACULTY

Departmental Transformation Grants – Taking Applications Now!

In response to feedback from department chairs regarding low numbers of women and minority faculty, and requests for suggestions on improving unit culture, the ADVANCE Center for

Institutional Change announces the Departmental Transformation Grant. Grants are available to help support departments interested in pursuing these issues. Proposals must address

both creating opportunities for women and minorities *and* departmental cultural change.

More information regarding this initiative, including proposal requirements and examples of funded abstracts, can be found at www.engr.washington.edu/advance. ADVANCE and the Center for Workforce Development team members are available for consultation about the proposed efforts. If you have questions, contact CIC Director Eve Riskin, riskin@ee.washington.edu.



FACULTY MEMBERS ARE ENCOURAGED TO APPLY FOR A DEPARTMENTAL TRANSFORMATION GRANT. SEE THE ADVANCE WEB SITE FOR DETAILS.

Visiting Scholars Program

The ADVANCE Center for Institutional Change has created a Visiting Scholars Program to host nationally-recognized scholars in the sciences, engineering, and mathematics (SEM) or in fields that study SEM workforce issues. This program provides networking opportunities for faculty, visibility for women and minority scholars, and opportunities for faculty and scholars to work together on issues surrounding gender and SEM.

There are two types of visiting scholar opportunities:

1. Individuals who work with ADVANCE to help achieve its programmatic goals.
2. Faculty in an ADVANCE SEM department whom departments (faculty or students) wish to invite to campus.

IF YOU WOULD LIKE TO NOMINATE SOMEONE TO BE AN ADVANCE VISITING SCHOLAR, VISIT www.engr.washington.edu/advance/visiting_scholars.html FOR APPLICATION INFORMATION.

ADVANCE Visiting Scholars at the University of Washington

DR. KEIVAN STASSUN, an astronomer and Hubble Postdoctoral Fellow at the University of Wisconsin-Madison, has experience with recruitment and retention of minorities. In April 2003, he facilitated a discussion about diversity in the Astronomy department.

graduate students in Chemistry and served on a mentoring panel, co-sponsored by ADVANCE and PACW.

MR. CHRISTOPHER J. LOVING, author, nationally recognized motivational speaker, and founder of Loving Leadership, will be working with ADVANCE this year on several programmatic goals such as leadership development and departmental cultural change.

DEAN JANIE FOUKE, Dean of Engineering at Michigan State University, led a Mentoring-for-Leadership lunch in July 2003 for women faculty in ADVANCE departments and met with members of the ADVANCE team to exchange best practices.

DR. ROBERT GRAY, Professor and Vice Chair of Electrical Engineering at Stanford University, won the 2002 PAESMEM award for having mentored 13 women Ph.D.s in Electrical Engineering. Dr. Gray participated in a lunch in May 2003 with women

DR. BARBARA L. WHITTEN, Vernor Z. Reed Professor of Physics at Colorado College, will hold a discussion in the physics and women's studies departments. Dr. Whitten has conducted research on recruitment and retention of women in undergraduate physics programs.



STASSUN



LOVING



GRAY



FOUKE



WHITTEN

Developing the Next Generation of Women SEM Faculty

Managed by the Center for Workforce Development, the Faculty-Graduate Student Mentoring Program component of ADVANCE encourages excellent female graduate students to pursue faculty careers. The mentoring program offers one-on-one mentoring with a UW faculty member and career development seminars on making the transition from graduate student to faculty.

During the 2002–03 academic year, 37 graduate students were mentored by professors in science and engineering. A sample of the events offered during the 2002–03 year includes:

- Curriculum Vitae and Resume Development Workshop
- Panel on “Children and the Road to Academia”
- Faculty Graduate Brunch

- Women in Graduate School (A three-part series on strategies for success and mentoring, co-sponsored with the President’s Advisory Committee on Women)
- Negotiating Academic Appointment Contracts
- Grant Writing and Style in Technical Writing – For Science and Engineering

For more information regarding the graduate student mentoring program, please contact Kim Thomas, kdt2@u.washington.edu, Faculty-Graduate Student Mentoring Program Coordinator, or Sheila Edwards Lange, sredward@u.washington.edu, Associate Director of Research, Center for Workforce Development, and ADVANCE internal evaluator.

FACULTY IN ADVANCE DEPARTMENTS: DON'T MISS AN OPPORTUNITY TO NOMINATE YOUR EXCELLENT WOMEN GRADUATE STUDENTS FOR THIS PROGRAM. ALSO, CONSIDER BECOMING A MENTOR YOURSELF.

Need a Letter of Support for Proposals?

Writing a large-scale proposal? ADVANCE would be happy to write you a letter of support talking about how we could work together, especially if you have plans for outreach to women and minority faculty, postdoctoral associates, and graduate students in SEM. For more information, contact CIC Director Eve Riskin, riskin@ee.washington.edu.



PHOTO, UPPER LEFT: Women faculty attend a monthly ADVANCE networking lunch.

PHOTO, RIGHT: University of Washington Quad, looking south toward downtown Seattle.

LEADERSHIP DEVELOPMENT

Leadership Workshops: Creating Enlightened Leadership

A key focus of the University of Washington CIC is leadership development. Through half-day quarterly ADVANCE Leadership workshops, department chairs, deans, and other faculty are offered professional development workshops to help them become more effective leaders. For each workshop, the Department Chairs are encouraged to invite an emerging leader so that other faculty can be exposed to academic leadership issues.

Past and future workshop topics have included:

- Dual career hiring process
- Transition from associate to full professor
- Faculty development opportunities
- Dealing with difficult people
- Student ratings of SEM women faculty
- Providing feedback and delivering bad news
- Tenure clock extensions
- Nominating faculty for awards

HANDOUTS AND PRESENTATIONS FROM THE LEADERSHIP WORKSHOPS ARE AVAILABLE ONLINE AT www.engr.washington.edu/advance/workshops.

Check out the many professional development opportunities that are available to you, and discuss them with your Chair.

www.engr.washington.edu/advance/workshops/20030227-development_opportunities.pdf

PHOTO, RIGHT: May 2003 ADVANCE Leadership Workshop



Mentoring Women for Academic Leadership

ADVANCE has designed a leadership development program to encourage women faculty to consider and pursue positions of academic leadership. Each month, a different woman leader discusses her career trajectory and the benefits and challenges of holding an administrative job. Emphasized are techniques for time management,

obtaining consensus among faculty, and implementing a vision of excellence.

Past speakers have included:

Associate Dean for New Initiatives, UW College of Engineering, **Mary Lidstrom**

Divisional Dean of the Social Sciences, UW College of Arts and Sciences, **Susan Jeffords**

Michigan State University Dean of Engineering, **Janie Fouke**

UW Dean of Engineering, **Denice Denton**



PHOTO, RIGHT: Associate Dean Mary Lidstrom

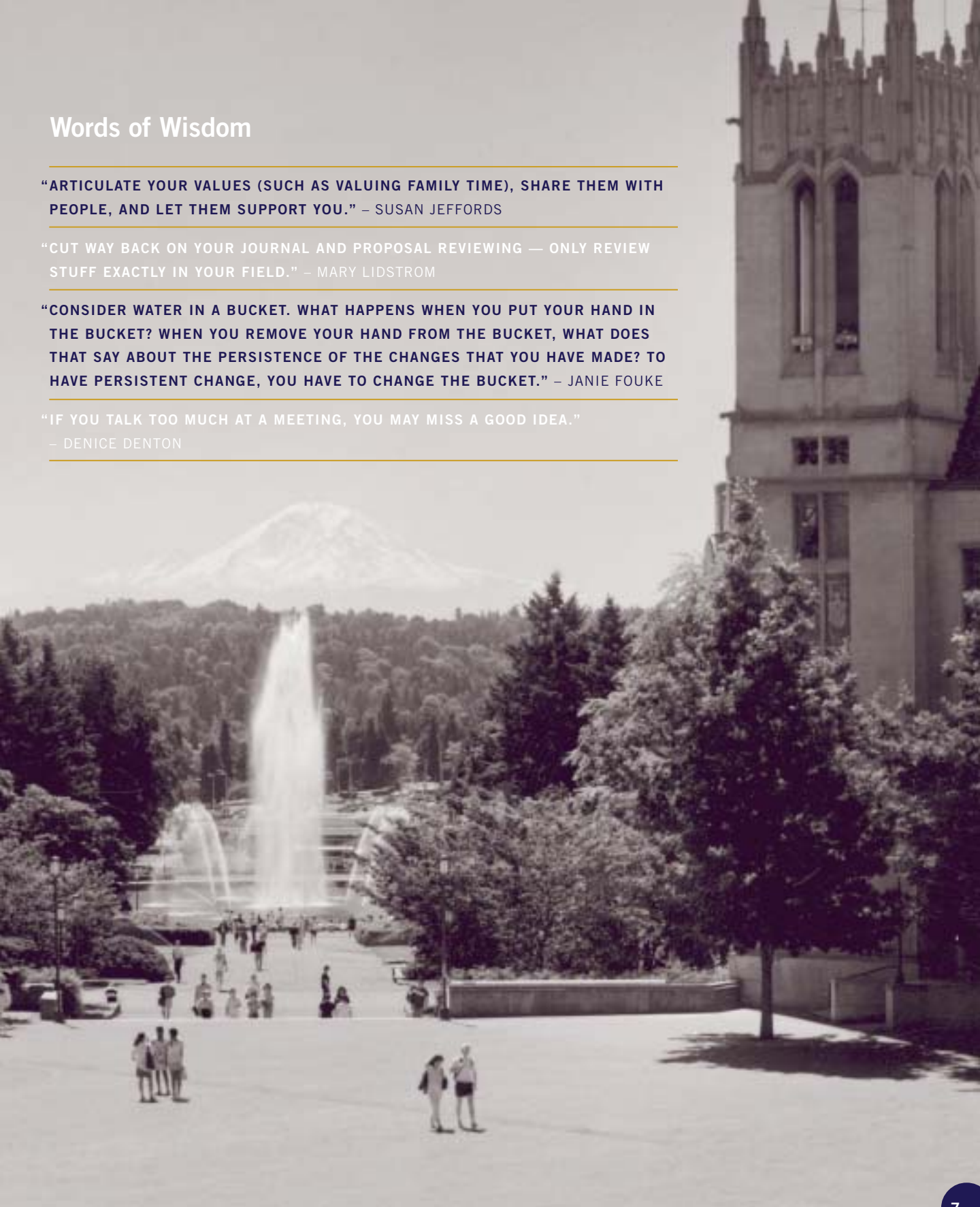
Words of Wisdom

“ARTICULATE YOUR VALUES (SUCH AS VALUING FAMILY TIME), SHARE THEM WITH PEOPLE, AND LET THEM SUPPORT YOU.” – SUSAN JEFFORDS

“CUT WAY BACK ON YOUR JOURNAL AND PROPOSAL REVIEWING — ONLY REVIEW STUFF EXACTLY IN YOUR FIELD.” – MARY LIDSTROM

“CONSIDER WATER IN A BUCKET. WHAT HAPPENS WHEN YOU PUT YOUR HAND IN THE BUCKET? WHEN YOU REMOVE YOUR HAND FROM THE BUCKET, WHAT DOES THAT SAY ABOUT THE PERSISTENCE OF THE CHANGES THAT YOU HAVE MADE? TO HAVE PERSISTENT CHANGE, YOU HAVE TO CHANGE THE BUCKET.” – JANIE FOUKE

**“IF YOU TALK TOO MUCH AT A MEETING, YOU MAY MISS A GOOD IDEA.”
– DENICE DENTON**



PHOTO, ABOVE: Mt. Rainier and the University of Washington campus.

RECRUITMENT & RETENTION

Faculty Recruitment Toolkit: Helping Diversify UW Faculty

The Faculty Recruitment Toolkit contains concrete suggestions for recruiting a diverse applicant pool. You'll find it at www.washington.edu/admin/eoo/forms/ftk_01.html or on the ADVANCE web site. This toolkit was written and compiled on behalf of the University of Washington's President's Advisory Committee on Women. In particular, it discusses:

- Faculty hiring policies and procedures
- General search tips
- Resources for diversity
- Language for advertisements and announcements
- Benefits and resources for new hires
- Miscellaneous resources



THE FACULTY RECRUITMENT TOOLKIT OFFERS TIPS FOR EACH PHASE OF THE RECRUITMENT AND SEARCH PROCESS TO ENSURE A DIVERSE FACULTY APPLICANT POOL.

Faculty Retention Toolkit: Helping Retain Faculty at UW

Faculty retention is as critical as recruitment to the health of a university department. ADVANCE has created a new Faculty Retention Toolkit to assist department chairs in retaining their faculty across all ranks. The topics discussed in the toolkit include:

- Monitoring the health and welfare of departments
- Transparency in operations including fair and open promotion and tenure guidelines
- Creating a welcoming department climate
- Mentoring
- Valuing diversity in the department

- Supporting career development of pre-tenure faculty
- Encouraging mid-career professional development
- Faculty development programs, benefits, and resources
- Flexible and accommodating policies and practices

The toolkit was completed in September 2003 and can be viewed online at the ADVANCE web page: www.engr.washington.edu/advance.

SINCE FACULTY REPLACEMENT COSTS TEND TO BE MUCH HIGHER THAN RETENTION COSTS, FACULTY RETENTION IS AS IMPORTANT FOR ECONOMIC REASONS AS IT IS FOR DEPARTMENTAL MORALE.

Helping with Dual Career Hires

The number of dual career partners has increased substantially and is often a critical component to the hiring process. A dual career hire situation is one in which one partner has received an offer (or made the short list) at an institution and a suitable career opportunity must be found for the other partner. Dual career situations can be excellent retention opportunities as people may appreciate a university's responsiveness to the needs of a dual career couple.

In addition to the dual career resources listed on the UW Academic Human Resources webpage, ADVANCE has generated

recommendations for department chairs. The recommendations are posted on the ADVANCE web page at www.engr.washington.edu/advance/resources/dual_career_hires.html.

ADVANCE encourages its departments to include language in job ads that states that the University of Washington has an active dual career hiring program. Such a statement encourages the applicant to disclose early on in the interview process that he/she has a partner who will need job placement assistance. With more time, the chances of finding a job for the partner are greatly increased.

DUAL CAREER SITUATIONS CAN BE EXCELLENT RETENTION OPPORTUNITIES.

Electrical Engineering Reaches 20% Women Faculty

The University of Washington's Electrical Engineering (EE) Department reached an exciting and important milestone in Fall 2003 — women now make up 20% of the EE faculty!

The women and their years of arrival are: Linda Shapiro (joint with Computer Science & Engineering, 1986), Eve Riskin (1990), Deirdre Meldrum (1992), Denice Denton (1996), Denise Wilson (1998), Mari Ostendorf (1999), Tara Javidi (2002), Lih Lin (2003), and Maya Gupta (2003).

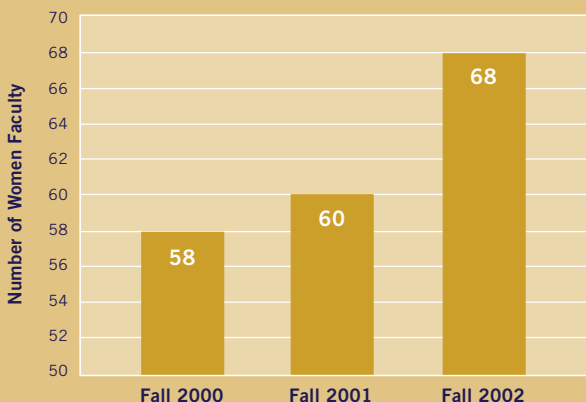
Half of these women were hired under outgoing Chairperson Howard Chizeck.

The EE Department has a long tradition of women faculty. Its first, Emerita Professor Irene C. Peden, was hired in 1961.

PHOTO, LEFT: Women faculty in UW Electrical Engineering department

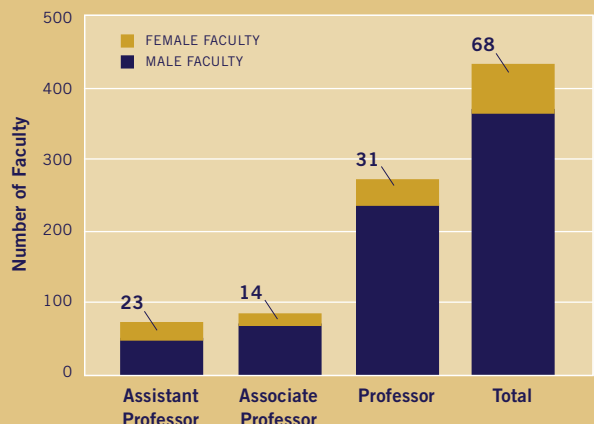


UW ADVANCE Female Faculty



UW ADVANCE Ladder Faculty

Distribution (ACADEMIC YEAR 2002-2003)



ADDITIONAL ADVANCE PROGRAMS

Mentoring Pre-Tenure Faculty



For pre-tenure faculty, ADVANCE has developed a group mentoring program rather than using the traditional one-on-one model.

The mentoring opportunities occur at a peer level and across ranks. A sampling of activities include:

- monthly lunch gatherings
- quarterly workshops with revolving senior faculty members covering a “nuts and bolts” topics related to achieving tenure
- “Go-To List” of senior women faculty who are available to meet individually to provide feedback on grant proposals, tips for handling various situations, and general advice.

Topical workshops are another mentoring tool used by ADVANCE. In Spring 2003, Dean Denton gave two workshops, which were open to all faculty, on “Navigating the Tenure Track.”

A promotion and tenure workshop in September 2003 featured the ADVANCE professional development consultants. Potential future workshop topics include research group management and time management. Faculty who would like to see other topics addressed are invited to make suggestions to Program/Research Manager Joyce Yen at joyceyen@u.washington.edu.

NEW IN AUTUMN 2003! ADVANCE IS ORGANIZING A LUNCH SERIES THIS AUTUMN QUARTER TO FACILITATE NETWORKING AMONG ALL INTERESTED PRE-TENURE FACULTY. WATCH FOR EMAILS ANNOUNCING THIS EVENT.

PHOTO, LEFT: Dean Denice Denton leads a “Navigating the Tenure Track” workshop.

Transitional Support Program

The ADVANCE Transitional Support Program (TSP) for tenure-track faculty is available for SEM faculty (regardless of gender) in the midst of major life transitions, such as the birth or adoption of a child, personal medical needs, family illness, and/or caring for an elderly parent. Examples of support the program provides include release time, student support, and funding for research personnel in a faculty member’s lab.

To date, grants have been awarded in six rounds to a total of 25 faculty members in 16 ADVANCE departments, who are designated “ADVANCE Professors.” Three ADVANCE Professors won National Science Foundation CAREER awards in 2003.

Some examples of TSP grant outcomes include:

- tenure
- an NSF ITR grant
- an NSF Center
- promotion to full professor

Moreover, ADVANCE professors cite having more time and resources to write papers, submit grant proposals, and better balance their personal and professional priorities. ADVANCE Professors also report the mentoring the program provides is as important as the funding.

Faculty in ADVANCE departments are encouraged to apply for transitional support grants if they are experiencing a challenging life transition. More information about the TSP can be found at www.engr.washington.edu/advance/tsp.html.

THE TRANSITIONAL SUPPORT PROGRAM HELPS FACULTY DEAL WITH THE CHALLENGES OF BALANCING CAREER AND HOME.

Institutionalizing ADVANCE Initiatives

An important goal of the ADVANCE program is to create university-wide systemic change that will carry on after the five-year grant is over. To that end, we are looking toward institutionalizing the best of ADVANCE's programs at the University of Washington. Denice Denton, Dean of Engineering, has formed an ad hoc committee of academic leaders throughout the UW campus including:

- **Dr. Christina Surawicz**, Assistant Dean of Faculty Development of the Medical School and Professor of Medicine, Division of Gastroenterology
- **Dr. Susan Jeffords**, Divisional Dean of the Social Sciences, College of Arts and Sciences
- **Dr. Michael Halleran**, Divisional Dean of the Humanities, College of Arts and Sciences

- **Dr. Arthur Nowell**, Dean of the College of Ocean and Fishery Sciences
- **Dr. Nancy Woods**, Dean of the School of Nursing

Programs for possible institutionalization include:

- University-wide Transitional Support Program
- Leadership development workshops for all UW chairs
- Promotion and tenure workshops throughout the Colleges
- Professional development consultants who are former College Promotion & Tenure committee members
- More mentoring programs for graduate students.

Professional Development Consultants

The CIC is piloting a program called Professional Development Consultants. Two senior faculty members have been hired to help create transparency in the promotion & tenure process. This pilot program is available for the women faculty in ADVANCE departments and if it is well received, it will be expanded to all ADVANCE faculty.

These faculty consultants, one from the College of Engineering and one from the College of Arts & Sciences, are currently available to discuss career paths with individual faculty members, particularly on how best to prepare the curriculum vitae at promotion time. Having

previously served on their respective colleges' promotion and tenure committees, they provide a unique perspective on the criteria for excellence that the College values. This program does not ensure promotion or career advancement but can help dispel some myths about the P&T process. (For additional information, please contact CIC Director Eve Riskin at riskin@ee.washington.edu or visit the ADVANCE website at www.engr.washington.edu/advance/resources/development_consultants.html.)

Sloan Grant to Study Part-Time Policy

During the 2002-2003 academic year, ADVANCE received an Alfred P. Sloan Foundation grant to conduct an exploratory study on the implementation of part-time tenure-track faculty careers at the University of Washington. Initial findings indicated that policies are underutilized for several reasons. These findings regarding the UW's part-time faculty policy were presented at an American Association of University Professors workshop in July 2003 by Dr. Suzanne Brainard, Executive Director, Center for Workforce Development (and an ADVANCE internal evaluator), and Kate Quinn, a research assistant working on this project. For more information contact Kate Quinn at kquinn@u.washington.edu.



SUCCESS!

The following faculty members are only a few of many successful women SEM faculty honored at the University of Washington.

LOYCE ADAMS, APPLIED MATH – received a supplemental grant of \$342,500 for the GK-12 Program in Mathematics which places graduate students as math specialists in K-12 classrooms.

MARTI BOSMA, BIOLOGY – received a National Science Foundation award in 2003 entitled “Spontaneous activity in mouse hindbrain motor neurons.” This work was based, in part, on her ADVANCE Transitional Support Program funding.

SUSAN EGGERS, COMPUTER SCIENCE & ENGINEERING – became a Fellow in 2003 in both the IEEE “for contributions to the design of multithreaded and shared memory multiprocessors and compiler technology” and the ACM (the Association for Computing Machinery). In August 2003, she received a medium NSF ITR award entitled “WaveScalar, A New Approach to Scalable System Design,” to design and evaluate a distributed dataflow architecture and its implementation, with Mark Oskin and Tom Anderson.

JULIANNE DALCANTON, ASTRONOMY – received a Sloan Research Fellowship in 2002. She also received a 2003 NSF CAREER award for her proposal entitled “The Early History of Galaxy Disk Formation.”

LYATT JAELE, ATMOSPHERIC SCIENCES – received a 2003 NSF CAREER award. Her topic is “Global Modeling of Long-Range Transport of Tropospheric Ozone and Mercury.”

MARY LIDSTROM, CHEMICAL ENGINEERING – received an award from The Howard Hughes Medical Center for Learning at the Life Science/Engineering Boundary in 2002.

LIH LIN, ELECTRICAL ENGINEERING – was selected as a TR100/2003. This award is given to the top 100 young innovators under 35. Dr. Lin was cited for building micromirror switches for faster, all-optical telecommunications networks.

MARINA MEILA, STATISTICS – received a National Science Foundation Information Technology Research award in 2003 entitled “Spectral clustering of link data — theory and algorithms.” This work was based, in part, on her ADVANCE Transitional Support Program funding.

KRISTI MORGANSEN, AERONAUTICS & ASTRONAUTICS – received a 2003 NSF CAREER award. The title is “Coordinated Control from Deformable Virtual Structures with Dynamic Communication.”

MARJORIE OLMSTEAD, PHYSICS – was elected a fellow of the American Physical Society in 2003 for “innovative studies of interface formation between dissimilar materials, especially the competition between thermodynamic and kinetic constraints in controlling morphologies and properties of heterostructures.”

JENNIFER TURNS, TECHNICAL COMMUNICATION – received a 2003 NSF CAREER award. The title is “Using Portfolios to Promote Knowledge Integration in Engineering Education.”



If you have some good news to share, send it to CIC Director Eve Riskin and we will post it to the ADVANCE Awards and Recognition web page.