

ACADEMIC RESUME

JOYCE W. YEN, PhD

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PRESENT POSITION

Program/Research Manager, ADVANCE Center for Institutional Change, University of Washington, Seattle (June 2003 – present)

RESEARCH AND PROFESSIONAL EXPERIENCE

Program/Research Manager, *ADVANCE Center for Institutional Change, University of Washington, Seattle (June 2003 – present)*

- ◆ Spearhead cultural change initiatives at multiple levels, including department, faculty, and graduate students
- ◆ Identify barriers to women in SEM related to policy (such as pay equity, promotion and tenure processes, and dual career) and work with appropriate parties to revise policies as appropriate.
- ◆ Create a faculty retention toolkit which offers ideas to improve faculty experiences and strategies for retaining outstanding faculty. Toolkit to be disseminated among other ADVANCE schools and other universities.
- ◆ Identify, develop, and maintain documents and resources which support Center activities
- ◆ Survey relevant research and synthesize resulting information for inclusion in Center resources
- ◆ Organize mentoring and leadership development programs including workshops and networking opportunities for women faculty, department chairs, and emerging leaders
- ◆ Lead organization of 9-person site visit from the National Science Foundation which involved coordination of over 65 faculty, staff, and students
- ◆ Serve as liaison to broader UW and national communities
- ◆ Facilitate networking and information sharing among program constituents and related organizations
- ◆ Distribute best practices through leading and facilitating workshops, speaking on panels, and delivering presentations
- ◆ Organize Annual 2-Day National Leadership Workshop for Department Chairs in SEM
- ◆ Write proposals to obtain funding for CIC activities and related projects. Proposals resulted in over \$780,000 in funding.
- ◆ Organize and oversee programming efforts of the CIC
- ◆ Coordinate and supervise expansion of CIC activities to broader university campus

Assistant Professor, *Industrial Engineering, University of Washington, Seattle, (January 2001 – June 2003)*

- ◆ Advised two Ph.D. students and three master's student research projects
- ◆ Taught general optimization and stochastic processes classes at undergraduate and graduate level
- ◆ Served as departmental high school outreach liaison and coordinated visits to local high schools
- ◆ Conducted research on problems involving resource allocation and decision-making under uncertainty
- ◆ Awarded five-year \$918,000 grant from The Boeing Company (Co-PI: Prof. Zeldia Zabinsky)
- ◆ Named Best Paper Honorable Mention, 2003 JFIG (Junior Faculty Interest Group) Paper Competition, Institute for Operations Research and Management Sciences, for "A Stochastic Integer Programming Approach to Solving a Synchronous Optical Network Ring Design Problem" by J.C. Smith, A. Schaefer, and J.W. Yen.
- ◆ Continued research contract from the Boeing Company as an Affiliate Assistant Professor with Industrial Engineering (July 2003 – September 2004)

Intern, Women in Engineering Office, University of Michigan, Ann Arbor, (November 1997 – November 2000)

- ◆ Serve as technical consultant for interactive climate theater project
- ◆ Coordinate on-site logistics for the 2000 Women in Engineering Programs and Advocates Network (WEPAN) Conference – Washington D.C., June 2000 and attend 1999 WEPAN conference
- ◆ Coordinated outreach programs for the *Legacy of Marie Curie Special Exhibit*. Scheduled more than 30 middle and high school visits (over 1500 students) to tours of the College of Engineering, Phoenix Lab and Ford Nuclear Reactor, and Legacy of Marie Curie exhibit. Visits occurred over a four-week period.
- ◆ Contributed to development of office mission statement, goals, objectives, outcomes, and assessment plan
- ◆ Planned and hosted programs on issues facing women in engineering

Institute Coordinator and Senior Advisor to the Founder, Michigan Leadership Institute for Tomorrow (LIFT) (formerly called The Loving Leadership Institute), University of Michigan, Ann Arbor (November 1997 – January 2000)

- ◆ Advised Director regarding Institute curriculum
- ◆ Represented Director at meetings with University leaders
- ◆ Taught and facilitated Institute sessions on Communication skills, Assertiveness training and conflict resolution, WORLDS – diversity and cultural change, Myers-Briggs Type Indicator
- ◆ Secured funding for Institute programs and activities growing seminar from a one-year, one session program to a multi-year, multiple-sessions-a-year program
- ◆ Direct all Institute logistics

WOMEN IN SCIENCE AND ENGINEERING PUBLICATIONS

- ◆ “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. Submitted to *Change Magazine*.
- ◆ “Demystifying Family-Friendly Policies for Faculty: Resources for Department Chairs” Joyce W. Yen, Kate Quinn, and Eve A. Riskin. *ASEE 2006 National Conference Proceedings*. Chicago, IL. June 2006.
- ◆ “Supporting Faculty during Times of Transition” Riskin, E. Lange, S. E., Quinn, K. Yen, J. W., and Brainard, S. G. – Forthcoming in the volume *Learning from Advance*, edited by Abigail J. Stewart and Janet E. Malley, to be published by the University of Michigan Press.
- ◆ “The Cross Department Cultural Change Program at the University of Washington” Joyce W. Yen and Christopher J. Loving. *ASEE 2005 National Conference Proceedings*. (<http://www.asee.org/conferences/search>) Paper selected as a finalist for the ASEE Women in Engineering Best Paper Award. Portland, OR. June 2005.
- ◆ “ADVANCE Mentoring Programs for Women Faculty in SEM at the University of Washington” Joyce W. Yen, Eve A. Riskin, Kate Quinn, Sheila Edwards Lange, and Denice D. Denton. *ASEE 2005 National Conference Proceedings* (<http://www.asee.org/conferences/search>) Portland, OR. June 2005.
- ◆ “Toolkits for retention and recruitment: utilization and outcomes” Sheila Edwards Lange and Joyce W. Yen. *ASEE 2005 National Conference Proceedings* (<http://www.asee.org/conferences/search>) Portland, OR. June 2005.
- ◆ “Toolkits for retention and recruitment: utilization and outcomes” Sheila Edwards Lange and Joyce W. Yen. *Keeping our Faculties III: Recruiting, Retaining, and Advancing Faculty of Color Conference and Conference Proceedings*. Minneapolis, MN. November 2004.
- ◆ “Leadership Development Workshops for Department Chairs” Joyce W. Yen, Sheila Edwards Lange, Eve A. Riskin, and Denice D. Denton. *WEPAN 2004 Conference and WEPAN 2004 Conference Proceedings*. Albuquerque, NM. June 2004
- ◆ *UW ADVANCE Faculty Retention Toolkit*. Joyce W. Yen. September 2003
- ◆ “The Wealth of Health: A Look into the Wellness Concept.” Joyce W. Yen, *Programming*, Dec. 1992.
- Winner of the National Association of Campus Activities 1992 Prize Papers Undergraduate Division

OPERATIONS RESEARCH PUBLICATIONS

- ◆ “A Stochastic Programming Approach to the Airline Crew Scheduling Problem” Joyce W. Yen and John R. Birge. *Transportation Science*. Vol. 40, Number 1. February 2006. p. 3-14.
- ◆ “Addressing Capacity Uncertainty in Resource-Constrained Assignment Problems” Berkin Toktas, Joyce W. Yen, and Zeld B. Zabinsky. *Computers and Operations Research*. vol. 33 (2006) p. 724-745.
- ◆ “A Stochastic Programming Approach to Resource-Constrained Assignment Problems” Berkin Toktas, Joyce W. Yen, Zeld B. Zabinsky. *Stochastic Programming E-Print Series*, May 2004. (<http://dohost.rz.hu-berlin.de/speps/>)
- ◆ “A Stochastic Intra-Ring Synchronous Optimal Network Design Problem” J. Cole Smith, Andrew J. Schaefer, and Joyce W. Yen. *Networks*, Vol. 44, No. 1. 2004. pg. 12 – 26.
- ◆ “A Stochastic Intra-Ring Synchronous Optimal Network Design Problem” J. Cole Smith, Andrew J. Schaefer, and Joyce W. Yen, *Stochastic Programming E-Print Series*, April 2002. (<http://dohost.rz.hu-berlin.de/speps/>)
- ◆ “A Stochastic Programming Approach to the Airline Crew Scheduling Problem” Joyce W. Yen and J.R. Birge. *The 35th Annual Conference of the Operational Research Society of New Zealand Conference Proceedings*, December 2000.
- ◆ “Active and Cooperative Learning of Markov Processes in a Half-Term Course” Joyce W. Yen and T. Olsen, *ASEE 1999 National Conference Proceedings* (<http://www.asee.org/conferences/search>)
- ◆ “Optimal Scheduling of Graduate Teaching Assistants” Joyce W. Yen and S. Dunbar, *Mathematica in Education and Research*, Fall 1995.

LEADERSHIP RECOGNITION HONORS

- ◆ University of Nebraska 2004 Outstanding Young Alumni Award
- ◆ University of Michigan College of Engineering 1999 Distinguished Leadership Award
- ◆ University of Nebraska-Lincoln 1993-1994 Outstanding Female Student Leader Award and Scholarship
- ◆ University of Nebraska-Lincoln College of Arts and Sciences 1995 Outstanding Senior Student Leader

EDUCATION

- ◆ **University of Michigan, Ann Arbor campus**
PhD, Industrial and Operations Engineering, May 2001 (Advisor: John R. Birge)
Dissertation: Stochastic Integer Programming as Applied to the Airline Crew Scheduling Problem
MS, Industrial and Operations Engineering, May 1997
- ◆ **University of Nebraska-Lincoln**
BS, Mathematics, May 1995, Highest Distinction and with Honors, Phi Beta Kappa

SERVICE

- ◆ University of Washington Director of Honors Search Committee, August 2006 – December 2006
- ◆ University of Washington Honors Program Faculty Council, February 2003 - present
- ◆ Review Panelist for the National Science Foundation, December 2003, September 2005
- ◆ WEPAN Professional Enhancement Committee: Summer 2005 - present
- ◆ WEPAN Research and New Opportunities Committee, Fall 2005 – present
- ◆ University of Washington Women’s Center Making Connections Mentor, September 2002 – August 2005

PROFESSIONAL MEMBERSHIPS

American Society of Engineering Education (ASEE) ◆ Association for Women in Science (AWIS) ◆ Institute for Operations Research and the Management Sciences (INFORMS) ◆ Society of Women Engineers (SWE) ◆ Women in Engineering Program and Advocates Network (WEPAN)

FUNDING

- ◆ National Leadership Development Workshops for Science, Engineering, and Mathematics Department Chairs. National Science Foundation. \$500,000. 9/15/06 – 9/15/09. *PI: Ana Mari Cauce, Co-PI: Joyce W. Yen and Eve A. Riskin*
- ◆ Collaborative Research for the ADVANCE Leadership Award: Women Evolving Biological Sciences - WEBS Symposium for early career female scientists. National Science Foundation. \$273,180. 11/01/06 – 10/31/09. *PI: Claire Horner-Devine, Co-PI: Joyce W. Yen and Samantha Forde.*
- ◆ National Leadership Development Workshops for Science, Engineering, and Mathematics Department Chairs: A Pilot Program. Alfred P. Sloan Foundation. \$44,825. 11/01/04 – 12/31/06. *PI: Eve A. Riskin Co-PI: Joyce W. Yen*
- ◆ ADVANCE Institutional Transformation Award. National Science Foundation. \$3,750,000. 10/01/01 – 9/30/06. One year extension to 9/30/07 *PI: Ana Mari Cauce. Co-PI: Eve A. Riskin, Suzanne G. Brainard, Joyce W. Yen (added as Co-PI: July 2006), and Ronald S. Irving.*
- ◆ Air Traffic Flow Management Under Temporary Capacity Constraints. The Boeing Company. \$918,000. Original dates: 9/01 – 8/06, however grant terminated in 2003 due to insufficient funds from Boeing team. *Co-PIs: Zelda B. Zabinsky and Joyce W. Yen*