

Iowa State University ADVANCE Program: An Integrated Approach to Advancing Women Faculty in STEM Fields

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Introduction

ISU ADVANCE has become Iowa State's most prominent vehicle to recruit, retain, and advance women and women of color in STEM faculty positions. We are known for a well-managed network, innovative research, and an integrated approach to change. We work within departments using a collaborative transformation approach to improve the work environment for all faculty members. Our program identifies cultures, practices, and structures that enhance or hinder the careers of ISU faculty, and works with faculty and administrators to transform university policies, practices, and academic culture in pursuit of a diverse and vibrant faculty in STEM disciplines.

In all of our relationships, our strategy is to collaborate with and develop agents of change. We create change from the "bottom up" by using a collaborative transformation approach in focal departments. We work with all faculty, including ADVANCE Professors and the chairs, to enhance the work environment for all faculty.

We work within and create new college and university infrastructure to develop the sustainable capacity for institutional transformation. Working from the "top down," we also create the capacity for change at the college and university levels through our Equity Advisor positions and our ADVANCE Leadership Council. The ADVANCE Scholar program for women faculty of color strengthens other mentoring programs at ISU, such as the Provost Office Mentoring Program for tenure-eligible faculty.



The New Norm of Faculty Flexibility: Transforming the Culture in Science & Engineering, ISU ADVANCE National Conference World Cafe Discussions, October 2008

Goal 1: Overcome barrier of lack of career flexibility

We hosted a national conference in October 2008 on the theme of The New Norm of Faculty Flexibility: Transforming the Culture in Science & Engineering. The conference was attended by 145 representatives of 20 states, including 60 faculty and administrators from Iowa State University. Discussions at the conference have influenced ongoing discussions of faculty flexibility at ISU. Presentations and summaries of the conference are available at www.advance.iastate.edu.

Goal 2: Identify and eliminate department specific barriers:

One key aspect of our program focuses on transforming departmental structures, practices, and cultures using Collaborative Transformation.

Our Collaborative Transformation participants:

- Nine focal departments in the colleges of Agriculture & Life Sciences, Engineering, and Liberal Arts & Sciences
- Department faculty that work together with social science researchers.

The Collaborative Transformation Process:

1. Focus groups meet with facilitator to discuss department culture, practice and structure.
2. Department report is prepared to "mirror back" to department ways workplace climate influences how positive their climate is and how effective the department's recruitment.
3. Needs assessment meetings conducted by ADVANCE Professors are tailored to meet the needs of individual departments.
4. Collaborative problem solving sessions include department faculty and ADVANCE program leaders.

Work within our first three focal departments has revealed six common issues that affected faculty members' ability to conduct their best work. Each focal department developed an action plan to address issues and the departments are currently implementing those plans.



Focus group meetings were organized by rank so that Assistant Professors (shown here) could have candid conversations with the facilitator.

Our Program Goals

1. Overcome known barriers to the advancement of women faculty in STEM disciplines (known barriers are: departmental transparency, isolation from colleagues, quality and quantity of mentoring, and career flexibility)
2. Identify and eliminate department specific barriers to the advancement of women faculty in STEM disciplines
3. Increase the representation of women and underrepresented minorities at senior faculty and leadership ranks
4. Institutionalize positive change across the university

Examples of Interventions to Address Our Goals



Goal 3: Increase representation of underrepresented minorities

The ISU ADVANCE Scholar Program facilitates mentoring and collaborative relationships between ISU STEM women faculty of color and eminent scholars in their fields. Tenure-eligible faculty members as well as mid-career (tenured) faculty members who are nearing critical transition points in their careers have the opportunity to work in conjunction with her department chair to identify an Eminent Scholar in her area of research from outside Iowa State University who she believes would be a good mentor. The ADVANCE Scholar Program sponsors reciprocal travel for the ADVANCE Scholar and the Eminent Scholar to visit each others campuses, present seminars, and discuss their research.

- In 2008-09 five ADVANCE Scholars participated in the program, representing the departments of Civil, Construction & Environmental Engineering, Computer Science, Food Science & Human Nutrition, and Mathematics. Their Eminent Scholars are from universities in California, Illinois, British Columbia, Montreal, and the Netherlands.
- The ISU ADVANCE Scholars will be asked to complete an evaluation form during summer 2009 regarding their experiences and outcomes associated with the Program.
- We plan to hold a group meeting during the summer with the five 2008-09 ADVANCE Scholars to invite their input and feedback on the program.
- A STEM department that has very few women faculty used the ADVANCE Scholar program in recruiting a woman faculty of color. Her start-up package includes travel funds for the new faculty member and mentor during her first three years.

Goal 4: Institutionalize positive change

One mechanism of institutionalizing positive change is to provide workshops and training opportunities for department chairs and faculty members across campus. We have held two effective workshops that incorporated Reader's Theater using actors from STEM departments. Scripts for the Reader's Theater productions were developed by Dr. Jan Thompson, a college Equity Advisor, based on Case Studies written by Drs. Sharon Bird and Florence Hamrick, co-PIs of the ADVANCE Program. Workshops that incorporated Reader's Theater were:

- A university-wide workshop "Practical Tools for Recognizing and Reducing Unintentional Bias" included a Reader's Theater production of "The Faculty Meeting"
- A workshop for chairs on "Promotion and Tenure at ISU: Strategies for Ensuring Equity" included a Reader's Theater production of "Tenure Assistance"



ISU ADVANCE Program Reader's Theatre

Reference:

Bird, Sharon R. and Florence A. Hamrick. 2008. *ISU ADVANCE Collaborative Transformation Project: First Round Focal Department Synthesis Report*. Ames, IA: Iowa State University ADVANCE Program.

Bird, Sharon R., Kristen Constant, Fred Janzen and Jo Anne Powell-Coffman. 2008. *ISU ADVANCE Collaborative Transformation Project: First Round Focal Department Transformational Strategies and Outcomes, January 2008 – January 2009*. Ames, Iowa: Iowa State University ADVANCE Institutional Transformation Program.