

# EVOLUTION OF INSTITUTIONAL CULTURE TO DIVERSIFY THE PROFESSORIATE

Bonnie S. Bowen, \*Diane M. Debinski and Fredric J. Janzen, \*Presenter  
Ecology, Evolution and Organismal Biology, Iowa State University, Ames, IA

## About Iowa State ADVANCE

It has long been recognized that there is a “leaky pipeline” of women moving into the professoriate, particularly in Science, Technology, Engineering and Math (STEM) fields. Despite the high numbers of female graduate students, the proportion of women in STEM faculty positions -- including ecology -- grows at a slower pace than one would expect based on demographic projections, and these issues are exacerbated for women of color. The goal of NSF’s ADVANCE program is to encourage assessments and interventions that address the factors resulting in the low representation of women in the STEM professoriate. We report here on ISU’s ADVANCE Institutional Transformation award, which began in 2006.

The ISU ADVANCE Program uses a comprehensive approach to improve the recruitment, retention, and advancement of women faculty in STEM disciplines. Our program identifies cultures, practices, and structures that enhance or hinder the careers of ISU faculty and we work with faculty and administrators to transform university policies, practices, and academic culture in pursuit of a diverse and vibrant faculty in STEM disciplines. Our program works at all levels of the university, jointly using “top-down” and “bottom-up” approaches to facilitate the evolution of institutional culture.



## Our Approaches

We are using a “bottom up” approach within departments that we call “Collaborative Transformation.” Facilitators (from outside ISU) hold focus group meetings to discuss department culture, practice and structure. Findings from the meetings are shared with departments. Needs assessment meetings are conducted by ADVANCE Professors and tailored to meet the needs of individual departments. These meetings have enhanced the awareness of the role that departmental climate can have on recruitment, retention and advancement of faculty. Departments have responded to these assessments by:

- changing the time of departmental meetings to accommodate child care and school schedules
- increasing transparency in the assignment of teaching responsibilities
- strengthening mentoring programs for new faculty
- changing governance documents to clarify protocols for advancement to full professor
- creating guidelines describing how the arrival of children affects teaching and research responsibilities

At the college and university levels (“top-down” approach), the ISU ADVANCE Program has sponsored workshops and discussions to inform the faculty of ways that culture, practices, and structures can enhance and/or hinder recruitment, retention, and advancement, including events that address:

- ways to increase flexibility in faculty careers
- ways faculty search committees can increase diversity in candidate pools and avoid unintentional bias during the interview and selection processes
- pathways to promotion to full professor



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

## Changes at Iowa State 2001-2009

Our work has met with some success, though there is still need for improvement. We investigated the number and percentage of women in STEM disciplines from 2001-2009. We also examined the percentage of women in leadership at ISU.

Figure 1. The number of tenured and tenure-eligible faculty at ISU has declined; the number of STEM faculty has been stable.

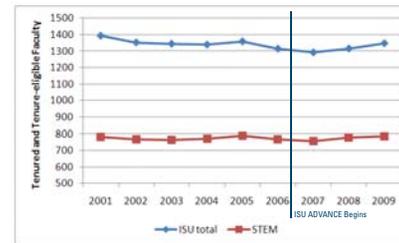


Figure 2. The percentage of full and associate professors who are women has increased as women have moved through the academic ranks.

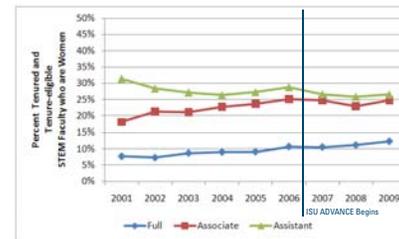
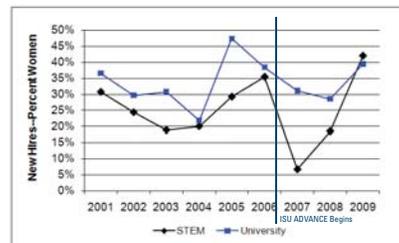


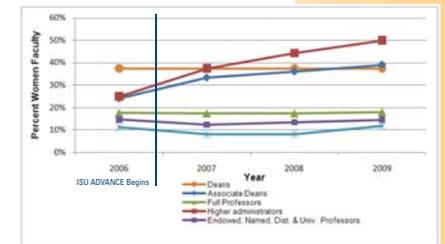
Figure 3. The percent of new faculty hires in STEM disciplines who are women reached a ten-year peak in 2009.



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Women fill leadership positions at Iowa State, but there is still room for improvement in the advancement and recognition of women faculty.

Figure 4. The leadership categories that have shown an increase during the course of our grant are higher administrators and associate deans. Women are well represented among higher administrators, deans and associate deans, but not among department heads.



## Summary

Our goal is to create positive change in institutional culture to make Iowa State University a better place to work for both women and men. We anticipate that, as ISU continues evolving, this institutional transformation will yield lasting changes in the representation and advancement of women faculty and underrepresented minority faculty in STEM disciplines.

### ISU ADVANCE Leadership Team

Susan Carlson (PI), Sharon Bird, Bonnie Bowen, Diane Debinski, Carla Fehr, Sandra Gahn, Florence Hamrick.

### Partners in Colleges & Departments

Kristen Constant, Charles Glatz, Mark Gordon, Shauna Hallmark, Fredric Janzen, Lisa Larson, Elisabeth Lonergan, Ralph Napolitano, Jo Anne Powell-Coffman, James Raich, Steve Rodermel, Jan Thompson