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SECTION I. EXECUTIVE SUMMARY

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.

The ISU ADVANCE Program’s Comprehensive Institutional Intervention Strategy has four primary goals:

1. Overcome known barriers to women’s advancement across ISU STEM fields, focusing on departmental transparency, isolation, mentoring, and career flexibility.
2. Overcome department-specific barriers to women’s advancement in STEM.
3. Increase overall participation/advancement of women faculty in senior and leadership ranks.
4. Institutionalize positive changes at the university level.

As stated in our original grant proposal, the ISU ADVANCE Program involves both “bottom up” and “top down” approaches. Our “bottom up” activities include department interventions that are included in the Collaborative Transformation project. We also engage in “top down” activities that address policies and practices at the college and university levels. We seek to illuminate both subtle and overt impediments to equity, and to design strategies to dissolve impediments, thus transforming Iowa State University into an institution that facilitates retention and advancement of women and all underrepresented groups.

During Year 3, we identified the theme of Recruiting the Best: The role of work-life flexibility. We focused on this theme as we initiated new activities and continued many of those begun in Years 1 and 2.

Important accomplishments in Year 3 include:

Program organization and evaluation

The Council expanded to include representatives from five STEM colleges, three new 2nd round focal departments and representatives from 3rd round departments.

We hired a new Program Assistant to replace the Assistant that left for a new opportunity at Iowa State.

Evaluation included a Council retreat, consultation with our External Advisors, and planning with an evaluation consultant at Iowa State.

Addressing barriers in departments through Collaborative Transformation

We added three 2nd round departments (new ADVANCE Professors and chairs), in which climate data were gathered and are under review.

First round focal departments are effecting change that they believe improves their culture, structure, practice. Progress was shared with the campus during a workshop.
Addressing barriers at the college and university levels:

Transparency
Faculty search resources developed by last year’s administrative fellow were shared with the campus during two workshops and through the distribution of >200 CDs.
A workshop for department chairs used a Readers Theatre to address the topics of promotion and tenure.

Isolation
The ADVANCE lecture series demonstrates the easy connection between eminent scholars and transformation of the academy.

Mentoring
The ADVANCE Scholars program has matched five women of color with external Eminent Scholars. ADVANCE Scholar – Eminent Scholar pairs have met to discuss research and present seminars.

Faculty Flexibility
We hosted a national conference on faculty flexibility, with key national figures and attendees from across the country. More than 60 faculty and administrators from ISU attended. The conference received coverage in the national media and mention at other conferences.
This year’s administrative fellow developed key materials on work-life balance to promote flexibility in faculty careers.

Institutionalize positive change
We are strengthening our efforts at the college level through college councils. Two colleges have united to hold joint ADVANCE Coordinating Council meetings.
We have worked with a campus network of partners to effect passage in the Faculty Senate of a “modified duties” policy for faculty who are new parents.
We are building new on-campus initiatives for additional funding, including the preparation of an I³ (Innovation through Institutional Integration) proposal to NSF.
We have made presentations on our program to 6 non-focal departments around campus and 9 more presentations occurred before the end of the academic year.
Analysis of the AAUDE Faculty Satisfaction Survey has been instrumental in helping us make the case for the transformation we seek and has provided the PI, in her capacity as Associate Provost, important data that help justify an “integrated” approach to faculty recruitment, retention, and advancement.
We have engaged in dissemination at national meetings, in publications, and in the media. Invitations are extended to our major contributors to bring word of ISU ADVANCE to other campuses.

As we enter the fourth year of our award, the ISU ADVANCE Program is poised to engage our partners in the STEM colleges and departments in the activities needed to understand and change the culture, practices and structures of the university so that all faculty can be successful.
SECTION II. ISU ADVANCE MANAGEMENT AND INFRASTRUCTURE

A. PROGRAM ORGANIZATION—ORIGINAL DESIGN AND CHANGES THAT STRENGTHEN THE PROGRAM

The ISU ADVANCE Program draws strength from a multi-level approach to achieving change through Comprehensive Institutional Intervention. In the third year, the influence and activities of the ISU ADVANCE Program have continued to expand on campus through our partnerships at the college and department levels.

The original proposal to NSF specified a management plan that included:

- **ADVANCE Co-PI Leadership Team** (also referred to as the Co-PI Team and ADVANCE Team) of PI, co-PIs, Senior Personnel, graduate students and program assistant
- Activities at three levels of academic structure
  - **Executive Vice President and Provost Office** — ADVANCE Council (Associate Provost, Dean/Associate Dean from colleges, ADVANCE Program Director, Program Assistant and ADVANCE Team)
  - **STEM Colleges** — Equity Advisor, College Coordinating Council with Dean/Associate Dean, ADVANCE Professors, focal Department Chairs, ADVANCE Program Director
  - **Focal Departments** — ADVANCE team led by ADVANCE Professor, with chair, three additional departmental faculty and college Equity Advisor. In April 2008, ADVANCE Professors were selected in a second round of three new focal departments, which began Collaborative Transformation activities in fall 2008.
- **External Advisors**
- **Diversity Facilitator**
- **External Evaluators**

In Year 2 we added three components to the management plan that have continued to enhance our program in Year 3. In addition, in Year 3 we have modified and added components to the management and staffing plans, which we explain below.

- **Steering Committee** — Added in Year 2, this committee is composed of the PI, Executive Director, Research Director, and one representative from the group of Equity Advisors and ADVANCE Professors. The Steering Committee provides oversight to the program, approves requests for budgetary allocations, and meets twice a month throughout the academic year. In Year 3 the Steering Committee continued as the primary decision-making group. This structure has been very successful for the ADVANCE Program.
- **Research Director** — Based on formative evaluation during our June 2007 planning retreat and the recommendations of the External Evaluators in January 2008, we created the position of Research Director to recognize the leadership and commitment of the coordinator of the Research Team. Co-PI Dr. Sharon Bird was the Research Director in Years 2 and 3.
- **Council – Non-focal college partners**: Our program has continued to develop in Year 3 with the expansion of the Council to include Associate Deans from the Colleges of Human Sciences and Veterinary Medicine. These colleges have STEM faculty who benefit from the campus-wide programs we offer, even though these faculty are not in focal colleges and are not involved in the Collaborative
Transformation project. The Deans of these colleges welcomed our invitation to join the Council and explore ways that their colleges could benefit from the progress that ADVANCE has made.

- **Council – Equity Advisors and ADVANCE Professor (Round one):** Year 3 was also a time of transition of our college and department partners, with the resignation and replacement of one Equity Advisor and three ADVANCE Professors from round one focal departments. In December 2008, Dr. Charles Glatz resigned as Equity Advisory for the College of Engineering and Dr. Kristen Constant (formerly ADVANCE Professor for Materials Science & Engineering (MSE)) was selected to become the new Equity Advisor. In the position vacated by Dr. Constant, Dr. Ralph Napolitano was selected to replace Dr. Constant. Dr. Glatz made many important contributions to the program and his willingness to be the first Equity Advisor in Engineering greatly benefitted the program. Although we feel a loss following his departure, we know that he will always be an ally of the program. Dr. Constant’s move to a new role has opened the opportunity to bring a new member of the MSE department onto the Council and further expand the group of ADVANCE partners in the MSE department. In the Ecology Evolution and Organismal Biology (EEOB) Department, ADVANCE Professor Dr. Fred Janzen resigned as ADVANCE Professor in December 2008, following two years in that position. Dr. James Raich joined the Council in January 2009 as his replacement. Dr. Jo Anne Powell-Coffman, Department of Genetics, Development and Cell Biology (GDCB), will end her 2.5 year term at the end of May 2009 and Dr. Steve Rodermel will become the new ADVANCE Professor in GDCB. These transitions of Equity Advisors and ADVANCE Professors have been challenging because the new participants did not have the working knowledge of ADVANCE that the original Council members had. However, we recognize that adding new partners to our working group will expand our presence within departments, colleges, and the university.

- **Council – ADVANCE Professor (round two):** In Year 3 we added three new focal departments to the Collaborative Transformation project. ADVANCE Professors were selected for those departments late in Year 2 and they became active participants in the program in Year 3. The new members are Dr. Mark Gordon (Chemistry), Dr. Shauna Hallmark (Civil, Construction and Environmental Engineering), and Dr. Elisabeth Lonergan (Animal Science).

- **Equity Advisor/ADVANCE Professor Working Group** — The Equity Advisor/Advance Professor (EA/AP) Working Group was formed in Year 2 and was very active in Year 3. Coordinated by co-PI Dr. Diane Debinski, it is composed of college Equity Advisors (Year 3: Dr. Lisa Larson, Dr. Charles Glatz [through December 2008], Dr. Kristen Constant [replacing Dr. Glatz April 1], and Dr. Janette Thompson), ADVANCE Professors (Year 3: Dr. Kristen Constant, Dr. Ralph Napolitano [replacing Dr. Constant May 1], Dr. Fred Janzen [through Dec 2008], Dr. James Raich [beginning January 2009] and Dr. Jo Anne Powell-Coffman), Dr. Debinski, who represents the ADVANCE co-PI team, and Dr. Bonnie Bowen, who represents the Steering Committee. Other ADVANCE team leaders attend as necessary, depending upon current activities. The Equity Advisors and ADVANCE Professors meet as a group every two weeks, and communicate the notes from their meeting to the ADVANCE Co-PI Leadership team. The goal of this group is to promote synergistic efforts among departments, colleges, and the university community at large. This working group has been very productive and very successful in providing communication with the Program and throughout the campus.
• **Internal Advisory Board** — This group is composed of the Executive Vice President and Provost and the Deans of the five colleges with STEM departments. The members of the Steering Committee met with the Internal Advisory Board once in Year 2 and twice in Year 3, and the Board provided feedback on ADVANCE activities, including research, programming, data collection and dissemination, training, communications and networking. This group of high level administrators has helped us adjust our resources and prepare to sustain elements of the ADVANCE program when NSF funding ends. Engagement of the Deans and Provost is especially important during these times of economic challenge at the university.

• **Staff** – Important staff transitions occurred since the last Annual Report was written. Susan Masters, our Program Assistant since December 2006, resigned in May 2008. Susan was an active partner in establishing the ADVANCE Program at Iowa State and her contributions are greatly appreciated. The position was vacant until late July, 2008, when Nicol Jones joined the ADVANCE Program as our new Program Assistant. Nicol’s expertise in communication has enhanced the program and she has made important contributions to Web site development, organizing the conference in October 2008, and supporting the ADVANCE Scholar program.

B. PARTICIPANTS

PI and co-PIs

Susan Carlson

Dr. Susan Carlson, PI on the ADVANCE grant, has kept the program visible in central administration, particularly with the President, the Executive Vice President and Provost (EVPP), and the Deans and academic vice presidents. She made it a priority to work with the Internal Advisory Board (the EVPP and the five STEM deans) in Year 3 to ensure continuing support for the program. She continues to work closely with the Executive Director on program management, including serving as co-chair of the committee that planned the national conference on flexible careers in STEM, which occurred in Ames October 10-11, 2008. She has supervised the third ADVANCE Administrative fellow who focused on work-life issues and training materials. Throughout the year, she has worked with the co-PIs and others to prioritize dissemination and to finalize authorship and dissemination guidelines. She continues to build partnerships with other programs on campus, most recently with the ISU AGEP efforts. Dr. Carlson is a member of the ADVANCE Steering Committee, the ADVANCE Council, and co-PI Team. Dr. Carlson has also been invited to share ISU ADVANCE Program successes at North Dakota State University, the American Council on Education/State Network Coordinators Conference, and the Western Academic Leadership Forum. She also presented ADVANCE work at the AAC&U conference on faculty careers.

Sharon Bird

Dr. Sharon Bird, is a co-PI, ISU ADVANCE Research Director, and member of the ADVANCE Steering Committee, Council, and co-PI Team. During Year 3, Dr. Bird’s efforts include: guiding and presenting results from the ISU Collaborative Transformation (CT) project; updating/modifying and further developing protocols and IRBs for ISU Collaborative Transformation (CT) project; coordinating and participating in the collection and analysis of Round 2 focal department interview and focus group data; working with external focus group/interview facilitator to arrange
qualitative data collection; working with on-campus research institute (RISE) to arrange for transcriptions and coding of qualitative interview data; preparing template for three new focal department reports (on climate/recruitment/retention/promotion) (with Fehr, Larson); working with Round 1 focal department ADVANCE Professors to document progress towards department-specific CT goals, ensure confidentiality and appropriate presentation of findings from departmental reports, and prepare presentations for conferences (with Constant). Dr. Bird also presented findings from the Collaborative Transformation project at the ADVANCE PI meeting (with Hamrick, Constant, Janzen and Powell-Coffman) (June 2008), and findings from research on success strategies of women in academic STEM (with Rhoton) at the Society for the Study of Social Problems conference (Boston, August 2008), and met with ADVANCE co-PIs from other institutions at professional society meetings. Dr. Bird organized Research Team meetings (or portions of team meetings on research); developed budget for research activities; guided research assistants Becky Sremack and Laura Rhoton; participated in meetings of the ISU ADVANCE Steering Committee, Council, Internal Advisory Board, ADVANCE Professor/Equity Advisor group, and meetings of new focal department chairs and APs. Additionally, she has participated with other ADVANCE Council members in presentations to other non-focal departments.

Bonnie Bowen

Dr. Bonnie Bowen is a co-PI and the program Executive Director. Dr. Bowen has monitored all aspects of the project and has devoted time wherever it is needed to assure that we are meeting the requirements of NSF as well as the timeline that our team developed. In Year 3 she was co-chair of the committee that planned the national conference on flexible careers in STEM, which occurred in Ames October 10-11, 2008. She has supervised a graduate student who worked on the conference. Dr. Bowen is responsible for financial and personnel management, as well as communications. She manages the ADVANCE office and supervises the program assistant. As Executive Director she has provided a supportive structure for the team, the Council, our meetings, and our partners. She meets regularly with diversity partners on campus and participated in the development of an I3 (Innovation through Institutional Integration) proposal to NSF. Additionally, she has participated with and supported other ADVANCE Council members in presentations to other non-focal departments. Dr. Bowen is a member of the ADVANCE Steering Committee, the ADVANCE Council, and co-PI Team. She meets with the Equity Advisor/ADVANCE Professor group (twice per month) and with the Internal Advisory Board (twice per year). She also participates in the Site Visit Planning Committee. She presented a poster about ISU ADVANCE work at the annual meeting of the Society for the Study of Evolution 2008.

Diane Debinski

Dr. Diane Debinski is a co-PI and served as a leader in college, department, and program development areas. Her primary roles were: 1) leading the Equity Advisor/ADVANCE Professor group meetings (twice per month) and communicating the results of these efforts to the co-PI Team, 2) facilitating the Collaborative Transformation efforts at the focal department and college level, and 3) serving as an active member of the co-PI team (assisting with the management, implementation, dissemination, reporting and evaluation of the program). Additionally, she has participated with other ADVANCE Council members in presentations to other non-
focal departments in the College of Agriculture and Life Sciences. Dr. Debinski is a member of the ADVANCE Council and co-PI Team.

Carla Fehr
Dr. Carla Fehr is a co-PI and member of the co-PI Team and the ADVANCE Council. She conducts diversity training for new ADVANCE Council members each year. In Year 3, she became a member of the ADVANCE Research Team, where she worked with a focal department and synthesized data from focus group interviews. She also participates on the NSF Site Visit Planning Committee. Dr. Fehr published a book chapter, 'Are Smart Men Smarter than Smart Women,' on the impact of studies of gender and intelligence on women in science. In Year 3 she presented findings from ADVANCE research at the Feminist Epistemology, Metaphysics, Methodologies and Science Studies Association 2009 Meeting.

Senior Personnel – Serving on the ADVANCE Team

Sandra Gahn
Dr. Sandra Gahn has been on the ADVANCE Team since August 2006 and is a co-PI in the ISU system from May 2007 forward. She is the Associate Director of the Iowa State University Office of Institutional Research. She develops and updates the database on faculty that has been used to produce the indicator reporting tables. She is also authoring reports, publications and presentations using ADVANCE data. She is a member of the Council, co-PI Team and Research Team and is involved in collecting and analyzing salary, space, start-up costs and survey data. She gave a presentation with graduate research assistant Jason Pontius in March of 2009 about the results of the AAUDE Faculty Satisfaction Survey at ISU. In Year 3 she presented findings from ADVANCE research at the Women in Educational Leadership Conference (Oct 2008), Mid-American Association for Institutional Research Conference (Nov 2008) and at our Conference on Faculty Flexibility (Oct 2008).

Florence Hamrick
Dr. Florence Hamrick is a co-PI in the ISU system and joined the co-PI Team and ADVANCE Council in September 2006. Dr. Hamrick became the leader of the ISU ADVANCE Scholar Program (external mentoring program) in April 2008. Since that time, she has updated the Scholar Program informational materials and met with academic deans and department chairs about the Program. She maintains contact with ISU faculty members who are current or prospective ADVANCE Scholars, and she works with the ADVANCE Office and individual ADVANCE Scholars to facilitate scheduling and travel arrangements. Additionally, she has participated with other ADVANCE Council members in a presentation to a non-focal department in the College of Human Sciences. In Year 3 she presented findings from ADVANCE research at the Women in Educational Leadership Conference (Oct 2008), Mid-American Association for Institutional Research Conference (Nov 2008) and at the University of New Mexico Mentoring Institute Conference: Fostering a Mentoring Culture in the 21st Century: Bringing Best Practices and Research to Higher Education. In Years 1 and 2 Dr. Hamrick was a member of the Research Team and worked with focal departments engaged in the Collaborative Transformation project.
Frankie Laanan
During Year 1 (2006-07) Dr. Frankie Santos Laanan supervised the development and launch of the ISU ADVANCE Web site and organized the External Mentoring program in his capacity as an Administrative Intern in the Office of the Provost. He was a member of the ISU ADVANCE co-PI Team and ADVANCE Council. During the summer of 2007, Dr. Santos Laanan developed a handbook for mentors and mentees and continued to lay the groundwork for the External Mentoring program. In Year 2 (2007-08), he took a leave of absence from Iowa State during most of the academic year, so he did not continue his leadership of the mentoring program. In May 2008, he returned to his academic duties, but resigned from the ADVANCE Program.

Bonita Glatz
Dr. Bonita Glatz, Emerita Professor of Food Science and Human Nutrition, was the Provost's Administrative Fellow January - May 2008 and a member of the ADVANCE Council during Year 2. She compiled information on faculty recruitment and retention and prepared resources that are posted on our Web site and on our internal electronic resource repository, WebCT. She gave presentations to the Council and the 2008 Chairs workshop. She also designed a resource CD for departments, and gave a workshop to the campus to introduce it. She was supported with funds from the Provost's office.

Mary Harris
Dr. Mary Harris, Adjunct Assistant Professor of Natural Resource Ecology & Management and Entomology, is the Provost's Administrative Fellow September 2008 - May 2009 and a member of the ADVANCE Council during Year 3. She is compiling information on work-life balance and faculty flexibility. She is supported with funds from the Provost's office.

Jill Bystydzienski
Dr. Jill Bystydzienski was a co-PI in Year 1 and resigned from Iowa State in June 2007. In Year 2 & 3 she was not on the Leadership Team, but she maintained her affiliation with our program by serving as an external member of the Conference Organizing Committee.

Equity Advisors in Focal Colleges

Charles Glatz
Dr. Charles Glatz, Professor of Chemical & Biological Engineering, began serving as Equity Advisor in mid-March 2007. He was responsible for leading the College of Engineering's ADVANCE effort and convened the College of Engineering Council. He was a member of the ADVANCE Council and participated in the Equity Advisor/ADVANCE Professor group which meets twice monthly. Dr. Glatz gave a talk on unconscious biases and search committee practices to Search Committee Chairs in the College of Engineering, compiled materials on attracting a diverse candidate pool and interviewing practices for those Search Committees, and organized a workshop for Deans and Chairs on overcoming cognitive errors. He also co-hosted an engineering women's lunchtime discussion with ADVANCE Professors in his college. He helped prepare materials for a campus workshop on faculty search resources in December 2008. Dr. Glatz resigned from the ADVANCE Council in December 2008.
Lisa Larson
Dr. Lisa Larson, Equity Advisor in the College of Liberal Arts and Sciences and Professor of Psychology is responsible for leading the College of Liberal Arts and Sciences’ ADVANCE effort. Dr. Larson began serving as Equity Advisor in March 2007. Dr. Larson works with college leadership to plan, coordinate, and implement ADVANCE efforts in the college. She partnered with Dr. Thompson to convene the CALS/LAS Leadership Council, which met twice during Year 3. She was a member of the Council and participated in the Equity Advisor/ADVANCE Professor group, which meets twice monthly. In addition, Dr. Larson has collected data to clearly define problem areas and strength areas in the college. She was a presenter in November 2007 at the ADVANCE Networking Event ‘Making a Career in STEM: Three Women’s Stories.’ Moreover, Dr. Larson has presented to the Chair Council and to the Dean’s Leadership Team to share with them information and suggest strategies. Dr. Larson has also served a leadership role in supporting ADVANCE efforts on campus. For example, she was one of the presenters at the Collaborative Transformation Synthesis Workshop on April 1, 2008. She has also led a STEM Advisory group meeting of senior women in STEM disciplines and has spoken at networking events on campus. Finally, she has developed and implemented the ADVANCE lectureship program committee, whereby ADVANCE awards two $1,000 awards and ten $300 awards to departments across campus to bring in female speakers and minority speakers. In Year 3, she became a member of the ADVANCE Research Team, where she worked with a focal department and synthesized data from focus group interviews. She was a discussion leader at the campus workshop on faculty search resources in December 2008. Additionally, she has participated with other ADVANCE Council members in presentations to other non-focal departments.

Janette Thompson,
Dr. Janette Thompson, Equity Advisor in the College of Agriculture and Life Sciences and Associate Professor of Natural Resource Ecology & Management, is responsible for leading the College of Agriculture and Life Sciences’ ADVANCE effort. Dr. Thompson began serving as Equity Advisor in January 2007. She partnered with Dr. Larson to convene the CALS/LAS Leadership Council, which met twice during Year 3. She is a member of the ADVANCE Council and participates in the Equity Advisor/ADVANCE Professor group, which meets twice monthly. Dr. Thompson is a member of the ADVANCE Steering Committee and meets with the Internal Advisory Board (twice yearly). Dr. Thompson works with college leadership to develop programs, policies, and distribute information to improve working environments, serves as a liaison between the College of Agriculture and Life Sciences and ADVANCE, leads and provides support for ADVANCE events on campus, and encourages participation by others in ADVANCE events. She was a discussion leader at the campus workshop on faculty search resources in December 2008. She had conducted several informal lunchtime discussions with female faculty members in her college. She also planned the 2009 ADVANCE Chairs workshop about promotion and tenure. She has developed two Reader’s Theater scripts based on case studies about unintentional bias. Additionally, she has participated with other ADVANCE Council members in presentations to other non-focal departments.
Kristen Constant
Dr. Kristen Constant, past ADVANCE Professor, current College of Engineering Equity Advisor and Associate Professor of Materials Science & Engineering, has been responsible for coordinating ADVANCE activities in her department. She is a member of the ADVANCE Council, College of Engineering Leadership Council, and she participated in the Equity Advisor/ADVANCE Professor group which meets twice monthly. Dr. Constant began serving as ADVANCE Professor in January 2007. With her working group in MSE, Dr. Constant developed an action plan for collaborative transformation and began implementation. She was a presenter in November 2007 at the ADVANCE Networking Event 'Making a Career in STEM: Three Women's Stories. Dr. Constant has also participated in presentations to the university community on the progress of ISU ADVANCE, including the Collaborative Transformation Synthesis Workshop on April 1, 2008. Dr. Constant has recently transitioned into the position of College of Engineering Equity Advisor and helped identify a new ADVANCE professor for the Materials Science and Engineering department. She continues to have monthly conversations with the Interim Dean of Engineering on topics related to ADVANCE, and served on the diversity committee to interview Dean candidates for the COE. Dr. Constant helped prepare and deliver presentations to faculty in the non-focal engineering departments and in non-focal departments outside the engineering college. She continues to coordinate activities with the second ADVANCE Professor in the second round engineering focal department. She was a panel speaker during the Collaborative Transformation workshop held in the spring of 2009. She also has helped coordinate breakfast and lunch informal discussions with College of Engineering women faculty. Dr. Constant also helped plan the 2009 ADVANCE Chairs workshop about promotion and tenure. Dr. Constant has given presentations about ISU ADVANCE activities at the conference of the American Society for Engineering Education (ASEE). She has written a manuscript on unintended bias in faculty searches in engineering, which has been submitted to and accepted by the Proceedings of the ASEE.

ADVANCE Professors in Focal Departments

Fredric Janzen
Dr. Fredric Janzen, ADVANCE Professor and Professor of Ecology, Evolution & Organismal Biology (EEOB), is responsible for coordinating ADVANCE activities in his department. He is a member of the ADVANCE Council, and the CALS/LAS Leadership Council. He participates in the Equity Advisor/ADVANCE Professor group and was a member of the Reader's Theater production on unintentional bias. In the Collaborative Transformation process, Dr. Janzen has worked with the Research Team to edit the EEOB focus group report, has facilitated discussions of the report within EEOB, and has worked with the department chair and the ADVANCE team to develop and implement strategies to address issues that were illuminated in the EEOB focus groups. He was a panel speaker during the Collaborative Transformation workshop held in the spring of 2009. Dr. Janzen resigned from the ADVANCE Council in December 2008.

Jo Anne Powell-Coffman
Dr. Jo Anne Powell-Coffman, ADVANCE Professor and Associate Professor of Genetics, Development & Cell Biology, is responsible for coordinating ADVANCE activities in her department. She is a member of the Equity Advisor/ADVANCE Professor group, which meets twice monthly. Dr. Powell-Coffman began serving as
ADVANCE Professor in January 2007, and will continue through spring 2009. Dr. Powell-Coffman has worked toward communicating the needs of GDCB and STEM colleagues to the ADVANCE program. In the Collaborative Transformation process, Dr. Powell-Coffman has worked with the research team to edit the GDCB focus group report, has facilitated discussions of the report within GDCB, and has worked with the department chair and the ADVANCE team to develop and implement strategies to address issues that were illuminated in the GDCB focus groups. She was a panel speaker during the Collaborative Transformation workshop held in the spring of 2009. Dr. Powell-Coffman also presents ISU ADVANCE posters at disciplinary conferences (developmental biology) and is participating in presentations to non-focal departments.

Mark Gordon
Dr. Mark Gordon is a Distinguished Professor and the ADVANCE Professor for Chemistry. The Department of Chemistry became a round 2 focal department in the fall of 2008 (Year 3). He is a member of the ADVANCE Council and the CALS/LAS Leadership Council and he participates in the Equity Advisor/ADVANCE Professor group, which meets twice monthly.

Shauna Hallmark
Dr. Shauna Hallmark is an Associate Professor and the ADVANCE Professor of Civil, Construction & Environmental Engineering (CCCE). CCCE became a round 2 focal department in the fall of 2008 (Year 3). She is a member of the ADVANCE Council and the College of Engineering Leadership Council, and she participates in the Equity Advisor/ADVANCE Professor group, which meets twice monthly. She also has helped coordinate breakfast and lunch informal discussions with College of Engineering women faculty. She participated in presentations to non-focal departments in the College of Engineering. Dr. Hallmark also was involved in the 2009 ADVANCE Chairs workshop about promotion and tenure.

Elisabeth Lonergan
Dr. Elisabeth Lonergan is a Professor and the ADVANCE Professor of Animal Science. Animal Science became a round 2 focal department in fall 2008 (Year 3). She is a member of the ADVANCE Council and the CALS/LAS Leadership Council, and she participates in the Equity Advisor/ADVANCE Professor group, which meets twice monthly. She is participating in presentations to non-focal departments.

James Raich,
Dr. James Raich, ADVANCE Professor and Associate Professor of Ecology, Evolution & Organismal Biology (EEOB), is responsible for coordinating ADVANCE activities in his department. He joined the ADVANCE Program in January 2009 when Dr. Janzen completed his 2-year term. He is a member of the Equity Advisor/ADVANCE Professor group. In the Collaborative Transformation process, Dr. Raich is working with the Research Team and the ADVANCE co-PI Team to develop and implement strategies to address issues that were illuminated in the EEOB focus groups. He also was involved in the 2009 ADVANCE Chairs workshop about promotion and tenure.
Adam Bogdanove
Dr. Adam Bogdanove is an Associate Professor in the Department of Plant Pathology. He became a representative of Plant Pathology, a third round focal department, on the ADVANCE Council in the spring of 2009 (Year 3).

Deans/Associate Deans/Provost

Diane Rover
Dr. Diane Rover, Associate Dean of the College of Engineering, joined the ADVANCE Council in Year 2. She attends Council meetings and coordinates activities in the College of Engineering with Equity Advisors Charles Glatz and Kristen Constant. She also participates in the College of Engineering Leadership Council.

David Oliver
Dr. David Oliver, Associate Dean of the College of Liberal Arts & Sciences, is a member of the ADVANCE Council. He works with the Equity Advisor (Larson) and ADVANCE Professors for EEOB (Janzen, Raich) and GDCB (Powell-Coffman) to coordinate ADVANCE activities in the college. He attends Council meetings and contributes his perspective on ways ADVANCE could be implemented at Iowa State. He attended the Big XII Workshop at Oklahoma in January 2008, and was part of a workshop at ISU, sharing insights on what was learned. He also attends meetings of the CALS/LAS Leadership Council and participated in the 2009 Chairs workshop and the NSF Site Visit Planning Committee.

Joe Colletti
Dr. Joe Colletti, Senior Associate Dean of the College of Agriculture and Life Sciences (CALS) is a member of the ADVANCE Council. He works with the Equity Advisor (Thompson) and ADVANCE Professor in GDCB (Powell-Coffman) to coordinate ADVANCE activities in the college. He attends meetings of the ADVANCE Council and the CALS/LAS Leadership Council and contributes his perspective on ways ADVANCE could be implemented at Iowa State. He also was involved in the planning of the 2009 ADVANCE Chairs workshop about promotion and tenure.

Mark Kushner
Years 1 & 2: Dr. Mark Kushner, Dean of the College of Engineering, was a member of the ADVANCE Council. He worked with the Equity Advisor (Glatz) and ADVANCE Professor in MSE (Constant) to coordinate ADVANCE activities in the college. He attended Council meetings and participated in the Chairs Workshop that was sponsored by the College of Engineering and coordinated by COE Equity Advisor Charles Glatz. He resigned his position at Iowa State in September 2008.

Lisa Nolan
Dr. Lisa K. Nolan is the Associate Dean for Academic and Student Affairs in the College of Veterinary Medicine. She became a representative on the ADVANCE Council in the spring of 2009 (Year 3).
Carla Peterson
Dr. Carla Peterson is the Associate Dean for Research and Graduate Education in the College of Human Sciences. She became a representative on the ADVANCE Council in the spring of 2009 (Year 3).

Wendy Wintersteen
Dr. Wendy Wintersteen is the Dean of the College of Agriculture & Life Sciences. She is a member of the ADVANCE Internal Advisory Board, which meets with the ADVANCE Steering Committee each semester.

John Thomson
Dr. John Thomson is the Dean of the College of Veterinary Medicine. He is a member of the ADVANCE Internal Advisory Board, which meets with the ADVANCE Steering Committee each semester.

Pamela White
Dr. Pamela White is the Dean of the College of Human Sciences. She is a member of the ADVANCE Internal Advisory Board, which meets with the ADVANCE Steering Committee each semester.

James Bernard
Dr. James Bernard is the Interim Dean of the College of Engineering. He is a member of the ADVANCE Internal Advisory Board, which meets with the ADVANCE Steering Committee each semester.

Michael Whiteford
Dr. Michael Whiteford is the Dean of the College of Liberal Arts & Sciences. He is a member of the ADVANCE Internal Advisory Board, which meets with the ADVANCE Steering Committee each semester.

Elizabeth Hoffman
Dr. Elizabeth Hoffman is the Executive Vice President and Provost of Iowa State University. She is a member of the ADVANCE Internal Advisory Board, which meets with the ADVANCE Steering Committee each semester.

Graduate Students

Rebecca Sremack
Rebecca Sremack was a graduate student in Sociology who worked with the ISU ADVANCE Program in Years 1 and 2. In Year 1, she worked with Dr. Sandra Gahn to produce, error check, and format the indicator reporting tables and she provided administrative support for Team and Council meetings during fall 2006 semester. She also summarized relevant scholarly literature on gender bias and women in academia. In Year 2 she provided support on dissemination activities to the Equity Advisor/ADVANCE Professor group, the ADVANCE office and Dr. Bonita Glatz. She was conducting her Master’s research on space satisfaction, in consultation with Drs. Bird and Fehr. She has worked on administering and analyzing the space satisfaction survey. Rebecca received stipend and tuition support from the grant. Her participation ended in Spring of 2008 (Year 2).
Christopher Chandler
Year 2: Chris Chandler is a graduate student in Ecology, Evolution and Organismal Biology. He joined the ADVANCE Program in April 2008 to modify and enhance our Web site. He received a stipend from the grant during part of the summer 2008. He completed the Web site in August of 2008 (Year 3).

Jason Pontius
Jason Pontius is a Doctoral Student in Educational Leadership and Policy Studies. He worked with Dr. Sandra Gahn on the database for the indicator tables, the Faculty Salary Equity and Faculty Start-up Cost Equity studies, and the AAUDE Faculty Satisfaction and Space surveys. He gave a presentation with ADVANCE co-PI Dr. Sandra Gahn in March of 2009 about the results of the AAUDE Faculty Satisfaction Survey at ISU. Jason is a member of the Council and Research Team. He received stipend and tuition support from the grant.

Divinity O'Connor-Roberts
Year 2 & 3: Divinity O'Connor-Roberts is a Graduate Student in Sociology. She worked as an administrative graduate assistant to support the organizing duties of the national conference that was held in October 2008. She received a stipend and tuition support from the grant. Her participation ended December 31, 2008.

Laura Rhoton
Laura Rhoton joined the ISU ADVANCE Program in August 2008 as a graduate research assistant. Her primary role in Year 3 is to participate in the Collaborative Transformation research in focal departments as a graduate student. Ms. Rhoton is a member of the Council and Research Team.

Program Staff
Susan Masters
During Year 1 & 2, Susan Masters was Program Assistant for ISU ADVANCE and was an integral part of the ADVANCE Program. She was responsible for correspondence, scheduling, book-keeping, faculty and student personnel actions, and supervising maintenance of the Web site. She was supported with funds from the grant. She resigned in May 2008 to accept a new opportunity at Iowa State.

Nicol Jones
Nicol Jones joined the ISU ADVANCE Program in July 2008 as the Program Assistant. She is responsible for correspondence, event preparation, scheduling, book-keeping, production of communications materials, and maintenance of the Web site. She was a member of the committee that planned the national conference on flexible careers in STEM, which occurred in Ames October 10-11, 2008. She attends the meetings and takes minutes for the ADVANCE Council, co-PI Team, Steering Committee, Internal Advisory Board, and the Site Visit Planning Committee. She is supported with funds from the grant.
Undergraduate Students

Jessica Romaine
Year 1: Ms. Romaine transcribed interview tapes and assisted in the office with Web site maintenance and preparation of tables for the annual report. She worked in the ADVANCE office during summer 2007. Year 2: Ms. Romaine returned to the ADVANCE office during summer 2008 to assist with preparation of the annual report, analysis of data, and general office assistance. Year 3: Ms. Romaine worked in the fall of 2008 to help with general office duties and preparation for the national conference held in October. Ms. Romaine graduated from Iowa State University in December of 2008. She was supported by the grant.

Britney Peterson
Britney Peterson was an undergraduate student in Graphic Design at Iowa State. She worked with the ADVANCE program during spring 2008 to develop brochures, flyers, posters, and other dissemination materials for the program. She was supported by the grant. Year 3: Ms. Peterson did not work for ADVANCE.

Other Organizations and Collaborators

The ISU ADVANCE Program was involved with the following organizations and collaborators since the last annual report during Year 2 or 3. These are organized into two groups, beginning with the organizations and collaborators beyond Iowa State University and followed by the organizations and collaborators within Iowa State University.

Beyond Iowa State University:
- 47th Annual Midwest Developmental Biology Meeting (meeting hosted paper presentation Year 3)
- AAC&U conference on faculty careers (meeting hosted paper presentation Year 3)
- American Council on Education/ Network State Coordinators Leadership Development Conference
- American Society of Engineering Education Annual Meeting (meeting hosted paper presentation Year 2)
- C. elegans Stress, Aging and Pathogenesis and Heterochrony Topic Meeting #4 (meeting hosted poster presentation Year 3)
- Evolution 2008 (Meeting of the Society for the Study of Evolution) (meeting hosted poster presentation Year 2)
- Feminist Epistemology, Metaphysics, Methodologies and Science Studies Association (meeting hosted paper presentation Year 3)
- Mid-American Association for Institutional Research Conference (meeting hosted paper presentation Year 3)
- North Dakota State University
- Society for the Study of Social Problems (meeting hosted paper presentation Year 3)
- University Materials Council for Chairs of Materials Science and Engineering (Gender Equity Workshop) (meeting hosted paper presentation Year 2)
- University of New Mexico Mentoring Institute Conference: Fostering a Mentoring Culture in the 21st Century: Bringing Best Practices and Research to Higher Education (meeting hosted paper presentation Year 3)
- Western Academic Leadership Forum (meeting hosted paper presentation Year 3)
Women in Educational Leadership Conference (meeting hosted paper presentation Year 3)

Planning Committee for conference: The New Norm of Faculty Flexibility: Transforming the culture in science & engineering: Committee members are from American Council on Education, University of Michigan, Ohio State University, University of Washington, Sauer-Danfoss Corporation, and Iowa State University

External Advisors:
  o Dr. Jacquelyn Litt, University of Missouri-Columbia
  o Dr. Ronda Callister, Utah State University
  o Dr. Caroline Sotello Viernes Turner, Arizona State University
  o Dr. Claire Van Ummersen, American Council on Education

Discussions with faculty from other campuses during Year 3
  o Dr. Diana Billimoria, Case Western Reserve University
  o Dr. Dana Britton, University of Kansas
  o Dr. Karen Bennett, University of Missouri
  o Dr. Jill Bystydzienski, The Ohio State University
  o Dr. Ronda Callister, Utah State University
  o Dr. Henri Darmon, McGill University
  o Dr. Evi Goldfield, NSF Chemistry program
  o Dr. Elissa Hallem, California Institute of Technology
  o Dr. Jana Heisler White, University of Wyoming
  o Dr. Sheila Innis, Child and Family Research Institute, University of British Columbia
  o Dr. Ellen D. Ketterson, Indiana University
  o Dr. Jackie Litt, University of Missouri ? Columbia
  o Dr. Julie McQuillan, University of Nebraska ? Lincoln
  o Dr. Helen Mederer, University of Rhode Island
  o Dr. Maria Orive, University of Kansas
  o Dr. Alice Pawley, Purdue University
  o Dr. Muriel Poston, Skidmore College
  o Dr. Patricia Roos, Rutgers
  o Dr. Klaas van Breugel, Delft University of Technology
  o Dr. Amy Wharton, Washington State University
  o Dr. Lixia Zhang, University of California, Los Angeles
  o Iowa State University College of Engineering Dean candidates
  o Kansas State University ADVANCE co-PIs
  o Utah State University ADVANCE program

Within Iowa State University:
  • College of Agriculture and Life Sciences Dean's Cabinet
  • College of Agriculture and Life Sciences Search Chairs
  • College of Engineering Dean's Academic Council
  • College of Engineering Search Chairs
  • College of Liberal Arts and Sciences Dean's Cabinet
  • Emerging Leaders Academy
  • Faculty Senate
  • ISU Conference Services
  • Program for Women in Science and Engineering (PWSE)
  • Women and Minorities Committee of the Faculty Senate
  • Women's Faculty Network, Margaret Sloss Women's Center
• WINR--Women in Natural Resources
• Women in STEM Lectureship Committee
• Women's Studies Program
• Internal Advisory Board:
  o Dr. Pamela White, Dean, College of Human Sciences
  o Dr. Elizabeth Hoffman, Executive Vice President and Provost
  o Dr. James Bernard, Interim, Dean, College of Engineering
  o Dr. John Thomson, Dean, College of Veterinary Medicine
  o Dr. Michael Whiteford, Dean, College of Liberal Arts and Sciences
  o Dr. Wendy Wintersteen, Dean, College of Agriculture and Life Sciences
SECTION III. SUMMARY OF PROJECT ACTIVITIES AND FINDINGS FOR YEAR 3, 2008-2009  
THIS REPORT COVERS THE PERIOD MAY 2008 – MARCH 2009

A. INTRODUCTION TO PROGRAM ACTIVITIES AND FINDINGS

The ISU ADVANCE Program’s Comprehensive Institutional Intervention Strategy has four primary goals:

1. Overcome known barriers to women’s advancement across ISU STEM fields by improving perceived levels of departmental transparency, reducing isolation from colleagues, improving quality and quantity of mentoring, and institutionalizing career flexibility.

2. Overcome department-specific barriers to women’s advancement in STEM by working with department chairs and faculty to improve department and university climates for women and members of under-represented minority groups and to implement best practices guidelines.

3. Increase overall participation/advancement of women faculty in senior and leadership ranks by increasing the number of women who submit tenure packets, earn tenure and promotion to associate professor and earn promotion to full professor, and by increasing the proportion of women in university leadership roles.

4. Institutionalize positive changes at the university level by increasing awareness among top administrators and the proportion of top administrators actively supporting institutional transformation, with regard to improving faculty work satisfaction and organizational commitment, and reducing work/family conflict.

As stated in our original grant proposal, the ISU ADVANCE Program involves both “bottom up” and “top down” approaches. Our “bottom up” activities include department interventions that are included in the Collaborative Transformation project. We also engage in “top down” activities that address policies and practices at the college and university levels. We seek to illuminate both subtle and overt impediments to equity, and to design strategies to dissolve impediments, thus transforming Iowa State University into an institution that facilitates retention and advancement of women and all underrepresented groups.

During Year 3, we identified the theme of Recruiting the Best: The role of work-life flexibility. We focused on this theme as we initiated new activities and continued many of those begun in Years 1 and 2. We have organized our reporting on these activities into three components, listed here and detailed in the coming sections of the report. We will begin with the “bottom up” component of the program, the Collaborative Transformation project at the department level.

Institutional Change in Departments, College, and the University  
(Report section II-B)  
B.1 Assessing and facilitating cultural change in departments: Collaborative Transformation (CT) Project  
B.2 Facilitating Change in Culture and Practices in the Colleges and University  
B.3 Workshops and Networking Events  
B.4 Mentoring Program to Combat Isolation
B.5  Hosting a National STEM Conference (2008)

Program Management and Evaluation
(Report section II-C)
C.1  ADVANCE Council and Team Leadership
C.2  Training to Support Transformation
C.3  Communication, Marketing, Publicity and Web site
C.4  Financial Management
C.5  Formative Evaluation
C.6  Consultations with External Advisors
C.7  Evaluation of Workshops and Networking Events
C.8  Survey of Faculty Satisfaction (AAUDE)
C.9  Survey of Faculty Satisfaction with Space
C.10  Interpretation of Key Indicators

Dissemination
(Report section II-D)
B. INSTITUTIONAL CHANGE IN DEPARTMENTS, COLLEGES AND THE UNIVERSITY

B.1. Assessing and Facilitating Cultural Change in Departments: Collaborative Transformation (CT) Project

CT Project Description

The ISU Collaborative Transformation (CT) project is designed to gather department-level information about workplace climate, and then to use this information to develop collaborative strategies for enhancing aspects of departmental climate that negatively impact faculty recruitment, retention and promotion. Collaborative transformation is a project that respects differences across departments in the kinds of work cultures departments embrace, routine departmental practices, and structures for organizing the faculty members’ work. Climate results, which are based on the analysis of focus group and interview data from each department, are “mirrored back” to faculty in each department. These results encompass both positive and negative aspects of workplace climate in each department and include findings related to departmental recruitment, retention and promotion practices (especially as these affect women and faculty of color). After each department receives the results of the climate study, they develop their own department-specific change strategies. ISU ADVANCE researchers work with the departments throughout this process. Results from the CT project are disseminated at ISU workshops, which are attended by faculty and administrators from across campus. Results are also disseminated outside the ISU campus at STEM and SBS professional association conferences (posters, paper presentations, etc.) and as articles published in academic journals.

CT Project Leaders

During the first two years of the ISU ADVANCE grant, CT data-collection, analysis, and implementation activities were led by researchers Sharon Bird (ISU ADVANCE Research Director/Co-PI) and Florence Hamrick (Co-PI) and by focal departmental ADVANCE Professors (APs), Kristen Constant (Materials Science and Engineering (MSE)), Fred Janzen (Ecology, Evolution and Organismal Biology (EEOB)) and Jo Anne Powell-Coffman (Genetics, Development and Cell Biology (GDCB)). Also during the first two years, diversity training workshops for APs, ADVANCE Equity Advisors, and focal department chairs were led by Carla Fehr (Co-PI) and Luiza Dreasher (Liberal Arts and Sciences College Multicultural Liaison Officer). In Year 3 of the grant, CT activities were led by researchers Sharon Bird (ISU ADVANCE Research Director/Co-PI), Carla Fehr (Co-PI), Lisa Larson (ADVANCE Equity Advisor), focal department ADVANCE Professors Kristen Constant (MSE), Fred Janzen/Jim Raich (EEOB), Jo Anne Powell-Coffman (GDCB), Elisabeth Lonergan (Animal Science), Mark Gordon (Chemistry) and Shauna Hallmark (Civil, Construction and Environmental Engineering), and research assistant, Laura Rhoton. The diversity training workshop for 2nd round focal department APs and 2nd round focal department chairs (and two Equity Advisors) was led by Carla Fehr (Co-PI) and Joanne Powell-Coffman.

CT Project Steps

Each focal department that participates in the CT project proceeds through a series of steps. These steps include (a) training on issues of subtle bias for each focal department Chair and ADVANCE Professor; (b) an introduction to the CT process for the faculty members of each focal department; (c) participation of focal department faculty members and department
Chair in focus groups and/or interviews; (d) focal department ADVANCE Professors working with CT researchers to revise climate study reports (specific to each separate department); (e) focal department ADVANCE Professors working with intra-departmental teams to develop strategies for addressing issues identified in climate study reports; (f) focal department ADVANCE professors reporting back to faculty members in their own department the results of the climate study and proposed strategies for addressing climate issues; (g) ADVANCE professors working with intra-departmental team, department chair, and the rest of the department’s faculty to implement strategies for enhancing departmental climate; and (h) ISU ADVANCE Co-PI team, ADVANCE Professors, and ISU ADVANCE Equity Advisors working together to ensure follow-up with each focus department regarding the implementation of departmental change strategies and the dissemination of findings based on focal department climate study findings (regarding climate issues and effective change strategies) across the university and to external audiences.

In addition to the steps outlined above regarding the collection and analysis of data for focal department climate reports, there are additional steps in this process that take place “behind the scenes.” First, ISU ADVANCE hires an external facilitator to conduct focus groups and interviews. Second, ISU ADVANCE hires an on-campus research institute (Research Institute for Studies in Education (RISE)) to transcribe and code focus group and interview sessions. Third, ISU ADVANCE researchers complete the analysis of data for each focal department and prepare drafts of separate reports for each focal department. Fourth, focal department teams (comprised of the department’s ADVANCE Professor and 2-3 other faculty in the same department) meet initially to discuss how to present findings from the climate study report and change strategies, and meet thereafter to ensure implementation of change strategies. Fifth, focal department ADVANCE Professors meet regularly with ADVANCE researchers throughout the entire CT process, and meet all together as part of an “Equity Advisor/ADVANCE Professor” team facilitated by Diane Debinski (ISU ADVANCE Co-PI). Sixth, findings from the CT project are disseminated routinely by ISU ADVANCE Equity Advisors (who have included Chuck Glatz (Engineering), Lisa Larson (Liberal Arts and Sciences), Jan Thompson (Agriculture and Life Sciences) and Kristen Constant (Engineering), the ISU ADVANCE Executive Director (Bonnie Bowen) and the ISU ADVANCE PI (Susan Carlson) and other members of the ISU ADVANCE Co-PI Leadership Team (Bird, Debinski, Fehr, Gahn, Hamrick).

CT Project Goals and Objectives

Goal:
- Enhance departmental climate and enhance recruitment, retention and promotion of women faculty.

Objectives:
- Collaborate with ADVANCE Professor, department head/chair, and faculty in each focal department to (a) identify barriers to faculty members’ satisfaction and teaching/research productivity, (b) “mirror back” to each department those aspects of departmental climate, recruitment, retention and promotion that faculty find most/least helpful; (c) develop strategies for enhancing departmental climate, recruitment, retention and promotion that faculty find most/least helpful.
- Analyze focus group and interview data across focal departments to identify (a) general barriers to satisfactory work climate, recruitment, retention and promotion, and (b) best approaches for diagnosing and addressing barriers, and how to implement them.
3rd Year (2008-2009) CT Project Activities

During Year 3 of the ISU ADVANCE grant (2008-2009), 1st round focal department ADVANCE Professors continued to lead their respective departments in the implementation of change strategies that were developed in response to each department’s climate study (previously conducted). These change strategies focus on enhancing department climate, especially in ways that help improve the recruitment, retention and promotion of highly qualified women faculty. Findings from the 1st round focal department climate studies were used also to create a synthesis report about the issues common across 1st round focal departments (presented to the broader ISU community in Year 2 of the grant, 2007-2008). Similarly, findings from 1st round focal department intervention efforts were used to create a synthesis report about the results of departmental change efforts (See Appendix 1). The report on results from departmental change efforts was then presented to the broader ISU community in Year 3 of the grant in a workshop held on January 28, 2009. The workshop was attended primarily by department chairs in the 3 colleges designated by the ISU ADVANCE program as “focal colleges” (i.e., Agriculture and Life Sciences, Engineering, and Liberal Arts and Sciences).

Also during Year 3 of the ISU ADVANCE grant, 2nd round focal departments began the CT process. These departments are Animal Science, Chemistry, and Civil, Construction and Environmental Engineering (CCEE). Prior to beginning the actual work involved in collecting information for the CT project from each 2nd round focal department, ADVANCE professors and Department Chairs for each new department participated in an orientation to the ADVANCE Program (with the first part of the orientation in Spring 2008 and the second part in Fall 2008). The new ADVANCE professors, Elisabeth Lonergan (Animal Science), Mark Gordon (Chemistry) and Shauna Hallmark (CCEE), and their department chairs, Maynard Hogberg (AS), Jake Petrich (Chemistry) and Jim Alleman (CCEE), also participated in a diversity training workshop held in early Fall 2008. Data collection via focus groups and personal interviews began in each of the 2nd round focal departments shortly thereafter.

By December 2008, each of the 2nd round focal departments had completed all focus groups and interviews for the climate study portion of the CT process. By February 2009, all focus group and interview sessions had been transcribed and an initial round of data coding had been completed. Final coding of the data, preparation of drafts of departmental reports, and consultations with between ADVANCE researchers and ADVANCE professors continued in April and May, 2009, after the reporting period ended. These activities will be elaborated in the 3rd quarter report in June 2009.

CT Departmental Climate Study Findings

Results from focal department climate studies are presented first in departmental reports (containing information specific to each individual focal department). Analysis of data for each 1st round focal department revealed 9-10 key findings per department. Department-specific findings from the climate study are reported back to the faculty in each focal department. Department-specific reports are not part of the public record. However, a

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1 The primary aim of the ISU ADVANCE CT project is to develop a better understanding for how to positively change department climate. Identifying each department’s strengths and weaknesses, in other words, is a means to an end, not an end in itself.
synthesis of findings based on the analysis data across all 3 of the ISU ADVANCE 1st round focal departments (EEOB, GDCB and MSE) are available in a report entitled, “ISU ADVANCE Collaborative Transformation: Synthesis Report of Year 1 Department-Level Findings” (Bird and Hamrick, 2008). (See report for a listing of these findings.)

Second round focal department reports are currently still in draft form. Once these reports have been completed and each 2nd round focal department ADVANCE Professor has begun the process of presenting the results of these reports back to their respective departments, a second “synthesis report” of climate study findings across the 1st and 2nd round focal departments will be prepared.

CT Departmental Change Strategies Findings

Following the implementation of change strategies in each of the 1st round focal departments (EEOB, GDCB, MSE) under the leadership of the ADVANCE Professors in each of these departments (Janzen, Powell-Coffman, Constant), a synthesis report of departmental transformation outcomes was also prepared. As noted, this report, entitled, “ISU ADVANCE CT Project: First Round Focal Department Transformational Strategies and Outcomes (January 2008 – January 2009)” (Bird, Constant, Janzen, Powell-Coffman 2008) was presented at a workshop in January 2009. (See report for a listing of these findings.)

CT Scholarly Dissemination: Reports, Presentations
(See Dissemination, Section II-D, for reports and presentations in Year 3)

B.2. Facilitating Change in Culture and Practices in the Colleges and University

To meet Goal 1 (Overcome known barriers to the advancement of women faculty in STEM disciplines) and Goal 4 (Institutionalize positive change across the university) of our program, we are engaged in a variety of activities and interventions that function from the “top down,” at the college and university levels. In Year 3 we continued many of the programs begun in Year 2 and initiated new activities that focused on our theme of Recruiting the Best: The role of work-life flexibility.

Activities
Our activities were focused in three arenas: the college level, the university level and the infrastructure for communication among levels.

Activities at the college level

- In the College of Engineering, the Equity Advisor assumed an active and visible role working with chairs of departments and search committees to encourage use of the Resources for Faculty Searches developed by the ADVANCE Program. Within the college women were interviewed for faculty positions and offers were extended to several women. Progress and success was often reported to the Equity Advisor and the ADVANCE office, which indicated the influence that our program had in the search process in this college.
- In the College of Liberal Arts & Sciences the Equity Advisor met with the Dean’s cabinet of department chairs and shared data about the status of women in the college. This data-driven perspective was valued by the chairs and prompted questions and follow-up.
• In the College of Agriculture and Life Sciences, the Equity Advisor reports to the college on ADVANCE activities at each meeting of the Dean’s cabinet of department chairs.

Activities at the university level

• Development and dissemination of resources on faculty searches
We built on the work of Dr. Bonita Glatz, Administrative Fellow in Year 2, who prepared resources on faculty searches. These resources were disseminated to the campus community at two workshops in Fall 2008 and through a CD and Web site (additional details on the workshops and resources can be found in Sections II-B3 and II-C3). These resources were widely used across the campus during the fall and winter faculty search season.

• Administrative Fellow: work-life resources
An administrative fellow was appointed in the Executive Vice President and Provost’s Office and the ADVANCE Program to consolidate and enhance resources on work-life balance, faculty flexibility, and family friendly policies at Iowa State. During Fall 2008 and Spring 2009, Dr. Mary Harris, Adjunct Assistant Professor in Natural Resource Ecology & Management and Entomology, reviewed the resources of Iowa State University and other campuses nationwide, especially other ADVANCE institutions. Dr. Harris was an active participant in the Conference on Faculty Flexibility in October, 2008, which was attended by several nationally known speakers. During the Spring semester, Dr. Harris has been working to adapt (with permission) Creating a Family Friendly Department: Chairs and Deans Toolkit that was produced by the UC Faculty Family Friendly Edge (http://ucfamilyedge.berkeley.edu/). The ISU version of the Toolkit will focus on policies and procedures that are appropriate at Iowa State University. In Fall 2009, Dr. Harris will lead a workshop to present the toolkit to the campus community.

• ISU ADVANCE supported events for department chairs.
  o Workshop for Department Chairs in ADVANCE Focal Colleges, April 20, 2009. Promotion and Tenure at ISU: Strategies for Ensuring Equity. The program included a brief overview, a Readers Theatre presentation, and time for discussion with colleagues about practices and processes related to promotion and tenure at ISU. ISU ADVANCE partnered with the Executive Vice President and Provost’s Office to offer a workshop for department chairs on faculty flexibility (January 30, 2009).

• ISU ADVANCE met and partnered with diversity partners on campus.
  o Executive Director and PI meet regularly with the Women’s Leadership Consortium. Several partnerships have developed, including diversity partnerships with the new Bioeconomy Institute.
  o Executive Director and PI met with committees designing other major proposals for external funding, to explore ways to partner with ISU ADVANCE. We are currently exploring the opportunity to submit a proposal to the NSF I^3 (Innovation through Institutional Integration) competition.
  o PI presented a workshop on “work/life Issues and data” to the ISU Emerging Leaders Academy, a group of faculty and staff interested in academic leadership (January 23 2009).
ADVANCE co-PIs, ADVANCE Professors, and Equity Advisors worked with the Faculty Senate, the University Committee on Women, and the Women’s Leadership Consortium to compile data and information that led to Faculty Senate approval of a new “Modified Duties” policy for new parents.

Activities in the area of infrastructure for communication among levels

The Equity Advisor/ADVANCE Professor (EA/AP) Working Group was formed in Year 2 and continued to meet twice a month during Year 3. The primary goal of the EA/AP Working Group is to report to one another on ADVANCE-related activities initiated within each college and department. Members also report to the group on successes and challenges in their intervention work. Notes from these meetings are then circulated via e-mail to the ADVANCE team and archived in the internal ADVANCE electronic resource.

EAs conduct the majority of their work at the college level and represent ADVANCE at events such as college-level cabinet meetings of the deans and departmental chairs. They also participate in organizing college and university-wide activities such as networking events, workshops, and the ADVANCE lectureship series. APs conduct the majority of their work at the departmental level and play leading roles in the Collaborative Transformation activities. These groups all work together and communicate regularly to promote synergistic efforts among departments, colleges, and the university community at large.

The EA/AP Working Group serves to ensure communication across the three partner colleges included in the ISU ADVANCE program and between the college-level EAs and the six focal department APs. It also ensures communication among ADVANCE members and other university groups whose activities might be synergistic.

Findings

Efforts to facilitate change at the college and university levels have succeeded in the following ways:

- This group became particularly important in Year 3 as we brought in our second round of focal department ADVANCE Professors and as we began transitioning to new individuals playing the role of the ADVANCE Professor (these positions are generally 2 yrs in length). The EA/AP Working Group meetings have been critical in bringing new team members up to speed in understanding the overall goals and approaches of the ADVANCE program at Iowa State and in understanding how collaborative transformation is accomplished.

- In Year 3, the EA/AP Working Group has effectively become the venue where “grassroots” ADVANCE efforts and ideas are initiated and discussed. Because many of our other meetings (e.g., the ADVANCE Council) have increased in size as additional partners that are brought in each year, there is less opportunity for spontaneity and these meetings have become largely “reporting out” sessions to the larger college and university community. This has made the EA/AP Working Group even more important as a more informal venue for discussion.

- There is a realization across colleges (largely due to ADVANCE efforts) that faculty need mentoring to move from the Associate to the Full Professor ranks. The Office
of the Executive Vice President and Provost and several deans are redesigning mentoring programs as a result. For example, the College of Liberal Arts and Sciences now offers four workshops each year that address the various stages of the promotion process: Getting Started (brand new LAS faculty); Preparing for a Successful Preliminary Review (LAS faculty in years 1, 2, or 3); Promotion and Tenure: Expectations and Best Practices (LAS faculty in years 4, 5, 6); Maintaining Excellence Beyond Promotion and Tenure: A workshop on Promotion for Associate Professors. These workshops were stimulated by ADVANCE conversations that revealed that faculty do not understand the basis for P&T evaluation processes and decisions.

- Chairs and deans who are becoming involved in ADVANCE activities on a frequent basis are demonstrating their understanding of the issues related to ADVANCE as they adopt the language and become much more sophisticated in their discussions of recruitment, retention and advancement.

- ADVANCE co-PI Dr. Diane Debinski and ADVANCE Professor Dr. Jo Anne Powell-Coffman worked together with another female faculty member to obtain a Women's Enrichment Minigrant for a “Promising Postdoc” seminar series in three biology departments. This activity has provided reciprocal mentoring of graduate students by the visiting postdocs while the ADVANCE partners and other faculty members served as mentors for the visiting postdocs.

- We initiated the ADVANCE Lecture series. This has brought in several high profile women in STEM fields who have given lectures, met with administrators, and shared insights from their universities and colleges regarding issues such as recruitment and retention of minority undergraduate students.

- EAs and APs in collaboration with Dr. Bonnie Bowen put together a PowerPoint presentation describing the ISU ADVANCE program and updated our ADVANCE brochure as a way to disseminate information regarding ADVANCE work at ISU. During Spring 2009, EAs, APs and ADVANCE team members have begun the process of visiting many of the non-focal departments during their faculty meetings to present this information.

Challenges/solutions

- ADVANCE activities require many additional meetings for all players involved. Planning ADVANCE meetings for faculty or chairs during already scheduled and required events (e.g., departmental meetings, chair councils) is a good way to get faculty and chairs to participate and is not viewed as an additional responsibility.

- Getting full participation from male STEM faculty members remains a challenge. During the course of the project, we have had three male ADVANCE Professors (of seven APs) and one male Equity Advisor (of four EAs). We believe that it is critical that some of these roles be filled by male partners.

- Maintaining the momentum for ADVANCE Professors in the second year of their involvement presents some challenges. In some cases there is turnover of the individual playing the role of ADVANCE Professor. In other cases, the perception
may be that most of the work is over. Maintaining the level of interest and urgency can take a little bit more effort after the reports have been discussed and some strategies for change have been implemented.

- As part of its ADVANCE activities, one of our focal departments created a draft policy for “Relief from Teaching for New Parents.” This policy was a response to the fact that the Board of Regents had not accepted ISU’s Arrival of Children policy. The departmental-level policy was meant to provide a safety net until the university level policy was approved. However, the university legal counsel deemed it inappropriate for a department to provide “benefits” to faculty members if such benefits were not available to all faculty within the University. This process of grassroots policy development, which was stymied by university level rules, left the ADVANCE professors with a certain level of disenchantment and confusion regarding their role. In early 2009, the Faculty Senate passed a Faculty Modified Duties Assignment (FMDA) policy for the arrival of children. However, due to financial limitations, this policy will not be taken to the Board of Regents until budgetary issues are not looming so largely. This is one example where top-down and bottom-up approaches to problem solving have not worked perfectly to resolve an ADVANCE-related issue.

B.3. Workshops and Networking Events

Workshops

- Fall Workshop: September 10, 2008. **Resources for Faculty Searches.** Dr. Bonita Glatz, ADVANCE Administrative Fellow (Spring 2008), presented guidelines and resources that she gathered and prepared for conducting a faculty search, with emphasis on best practices for recruiting diverse candidates. September 10, 2008.

- Fall Workshop: December 3, 2008. **Workshop on Faculty Search Resources.** This workshop focused on the CD that ADVANCE produced and distributed about Faculty Search Resources. Topics included (1) best practices for candidate evaluation, (2) best practices during interviews, (3) avoiding cognitive errors when evaluating candidates and reading letters of recommendation and (4) facilitating the hiring process by making the best use of Iowa State University’s electronic application system. Attendees chose two of the four topics to attend within the hour. Leading the discussions of each topic were ADVANCE College Equity Advisers Dr. Jan Thompson, Dr. Lisa Larson, and Dr. Chuck Glatz, Francesca Galarraga, Asst. Director of Equal Opportunity and Diversity Office, and Dr. Bonnie Bowen.

- Spring Workshop: January 28, 2009. **ISU ADVANCE Collaborative Transformation: Enhancing the Academic Work Environment.** This workshop began with a brief overview of departmental transformation efforts and accomplishments in three focal STEM departments by Dr. Sharon Bird, ISU ADVANCE Research Director. A panel comprised of the three ISU ADVANCE Professors, Dr. Kristen Constant (MSE), Dr. Fred Janzen (EEOB), and Dr. Jo Anne Powell-Coffman (GDCB)—who helped guide transformation efforts in the three focal STEM departments—engaged in interactive dialogue with audience members.

- Spring Workshop: March 2, 2009. **Faculty Satisfaction at Iowa State: Results from the 2008 Survey.** Dr. Sandy Gahn, ISU ADVANCE co-PI, and Jason Pontius, Graduate Research
Assistant, discussed the results of the AAUDE Faculty Satisfaction Survey administered at ISU in 2008 (See Appendix 2 for the Executive Summary).

Networking Events

- **College of Agriculture & Life Sciences Women’s Lunchtime Discussion**: Led by Dr. Jan Thompson, Equity Advisor. October 21, 2008 and December 8, 2008.

- **College of Engineering Women’s Discussions (2)**: Dr. Kristen Constant, MSE ADVANCE Professor, Dr. Shauna Hallmark, CCEE ADVANCE Professor and Dr. Chuck Glatz, Equity Advisor, Lunchtime December 2, 2008, and Breakfast March 24, 2009.

- **Women Scientists at Liberal Arts Colleges: Are Their Lives Different?**: Dr. Muriel Poston, Dean of the Faculty, Skidmore College, March 13, 2009. Dr. Poston’s visit to Iowa State was sponsored by ADVANCE through the ADVANCE Lecturer program.

- **Improving the Climate for Women and Minorities in Engineering**: Dr. Paulette Clancy, Professor and William C. Hooey Director, Cornell University School of Chemical and Biomolecular Engineering, March 13, 2009. Dr. Clancy’s visit to Iowa State was sponsored by ADVANCE through the ADVANCE Lecturer program.

ISU ADVANCE Lectureships

In Year 2 we initiated a competition for two ADVANCE Lectureships, which carried awards of $1,000 per lecture. Departments applied for the funds to sponsor lectures by prominent women in STEM fields during Year 3. Lecturers presented disciplinary seminars in the departments and also attended networking events with interested faculty and students (see above). The response to the Lectureship program was positive and we plan to sponsor two additional awards in Year 4.


- Department of Chemical and Biological Engineering: "Molecular-Level Insight from Computer Simulations of Thin Film Growth in Organic Electronics": Dr. Paulette Clancy, Professor and William C. Hooey Director, Cornell University School of Chemical and Biomolecular Engineering, April 9, 2009.

ISU ADVANCE Lecture Co-sponsorships

In addition to the ADVANCE Lectureships, we offered to co-sponsor (with awards up to $300) lectures/seminars by speakers who addressed topics of interest to ADVANCE. In Year 3 we sponsored 11 presentations, using funds from an account from the Provost’s office.

- Department of Mathematics Lecture: "Orthogonal Representations of Hopf Algebra," Dr. Susan Montgomery, Professor of Mathematics, University of Southern California, September 2, 2008

Professor of Geological and Environmental Sciences, Stanford University, October 10, 2008

- Department of Geological & Atmospheric Sciences Geology Seminar Series: "Geoscience Departments: Articulating Goals and Developing Skills Throughout the Curriculum," Dr. Heather McDonald, Professor of Geology, College of William and Mary, October 17, 2008

- Department of Geological & Atmospheric Sciences Geology Seminar Series: "Co-Evolution of Precipitation Patterns and Topography," Dr. Alison Anders, Assistant Professor, University of Illinois, Urbana-Champaign Department of Geology, October 31, 2008

- Department of Ecology, Evolution, and Organismal Biology Seminar Series: "How and Why Eyespots Appeared on the Wings of Butterflies," Dr. Antonia Monteiro, Assistant Professor in Evolutionary Developmental Biology, Yale University, December 4, 2008

- Women’s Studies Program: A Sense of Wonder: A screening of the film based on a one-woman play about Rachel Carson. Immediately following was a short panel, including Carla Espinoza, Associate Vice President for Human Resource Services and Director of Equal Opportunity & Diversity, Matt Sivils, Assistant Professor of English, Danielle Wirth, Lecturer in Philosophy & Religious Studies, March 5, 2009

- Center for Excellence in Science, Mathematics and Engineering Education (CESMEE) Seminar Series, "Working Toward Improving STEM Student Success: One STEP at a Time," Dr. Maureen Scharberg, Associate Dean in the College of Science at San Jose State University, April 21, 2009

- Industrial and Manufacturing Systems Engineering Seminar: "Retail Facilities Design - Considering Revenue, Adjacencies and Aisle Structure," Dr. Alice E. Smith, Professor & Chair, Industrial and Systems Engineering Department, Auburn University, April 22, 2009

- Women’s Leadership Series Keynote Address: "Women and Power: Glass Half Full - or Half Empty?" Dr. Barbara Kellerman, the James MacGregor Burns Lecturer in Public Leadership at Harvard University's John F. Kennedy School of Government, April 24, 2009

- Interdepartmental Genetics Workshop: "Metagenomic and Proteomic Analyses of the Structure and Dynamics of Natural Microbial Communities," Dr. Jill Banfield, Professor at the University of California – Berkeley, May 12, 2009

Women in STEM Lecture Series
The ISU ADVANCE Program partnered with the Women’s Leadership Consortium and the ISU Lectures Program to initiate the Women in STEM Lecture Series. ADVANCE was a co-sponsor of some lectures and other ISU programs, such as the Bioeconomy Institute, sponsored others.

- Department of Geological & Atmospheric Sciences Geology Seminar Series: "The Impact of Groundwater Seepage on Coastal Ecosystems," Dr. Adina Paytan, Assistant Professor of Geological and Environmental Sciences, Stanford University, October 9, 2008

- "Environmental Impacts of Ethanol Production: The Good, the Bad, and the Alternatives": Dr. Felicia Wu, Assistant Professor of Environmental and Occupational Health and Adjunct Professor in the Center for Bioethics and Health Law, University of Pittsburgh, October 16, 2008
Women’s Enrichment Fund Mini-Grant
Two ADVANCE Council members, Drs. Diane Debinski and Jo Anne Powell-Coffman, partnered with a colleague in Biophysics, Biochemistry and Molecular Biology, to apply for a mini-grant that sponsored three seminars by promising women post-docs in their respective fields. The guests gave seminars and met with faculty and graduate students during their visits.

Evaluation of Workshops and Networking Events
See Section II-C7.

B.4. Mentoring Program to Combat Isolation

ISU ADVANCE Scholar Program
(formerly the ISU ADVANCE External Mentoring Program)

Program
The ISU ADVANCE Scholar Program is intended to enhance the recruitment, retention and advancement of women faculty of color in STEM disciplines. The objective is to facilitate mentoring and collaborative relationships between ISU STEM women faculty of color and eminent scholars in their fields. The target audiences are ISU tenure-eligible faculty members as well as mid-career (tenured) faculty members who are nearing critical transition points in their careers. Reciprocal campus visits for the ISU Advance Scholars and Eminent Scholars are arranged and funded. Co-PI Dr. Flo Hamrick coordinated the program in Year 3.
Activities in Year 3

- Contacted all 19 eligible faculty members (assistant and associate professors in STEM departments), met with 13 (at their invitation) to discuss program specifics and invite their participation.
- Confirmed participation of five 2008-09 ISU ADVANCE Scholars.
- Developed an internal system for tracking visit logistics and associated expenses.
- Met with Deans and department chairs of the Colleges of Agriculture and Life Sciences, Engineering, and Liberal Arts and Sciences to distribute program information and encourage use of the Program as a potential recruiting tool in faculty searches. Met with chairs of the College of Human Sciences two STEM departments, and forwarded information to the Human Sciences dean.
- Initiated web site for ADVANCE Scholar Program with photos of Scholars and links to their web sites and those of their Eminent Scholars.

Findings/Results

- Two visits to ISU by Eminent Scholars with one additional visit scheduled for May 2009. ISU ADVANCE representatives attended the colloquia to meet the Scholars and visit with chairs or faculty members about ISU ADVANCE.
- Two rounds of publicity within academic departments (Computer Science and Mathematics) featuring or noting ISU ADVANCE Program sponsorship of the Eminent Scholars’ visits and colloquia.
- Support and interest from department chairs. One department chair proposed examining arrangements by which three cooperating departments would open ISU ADVANCE Scholar Program participation to all women faculty in their departments (i.e., with departmental funding). The subsequent economic crisis and budget shortfalls make this potential institutionalization highly unlikely.
- A STEM department that has very few women faculty used the ADVANCE Scholar program in recruiting a woman faculty of color. Start-up package includes travel funds for new faculty member and mentor during her first three years.

Evaluation

- Designed form for ISU ADVANCE Scholars to complete regarding their experiences and outcomes associated with the Program. Evaluation forms will be distributed in summer 2009 since most Scholar pairs have delayed at least one of their reciprocal visits until late Spring semester or Summer.
- Plan to hold a group meeting (or individual meetings, or a combination) during the summer with the five 2008-09 ADVANCE Scholars to invite their input and feedback on the program.

Challenges/Solutions

- Challenge: A number of eligible participants declined participation because: they did not want to be part of a “special” program that provided unfair advantages, they anticipated potentially negative P&T considerations within the department should they participate, their family situations (e.g., new children), and their career timing (e.g., desire to achieve tenure first). Solution: Will contact (have begun contacting) individuals again to invite their participation in case their circumstances have become conducive to their participation.
- Challenge: Developed greater sensitivity to perceptions that the notion of “mentoring” can connote “remediation” or “weakness” for some, which could serve as a barrier to participation or to individuals’ understandings of the program. Solution: Adopted the
name ISU ADVANCE Scholar Program and also featured collaborations and networking as desired program outcomes.

- Challenge: Concerns by chairs that other universities (i.e., the Eminent Scholar’s university) will try to hire away the visiting ISU ADVANCE Scholars. Solution: Communicate that this concern isn’t limited to the ISU ADVANCE Scholar program. Suggest that chairs request that their traveling ISU ADVANCE Scholars meet with graduate students and postdocs during their visit to the Eminent Scholar’s campus to engage in advance recruitment efforts such as discussing the research conducted at ISU and distributing information on (announced or future) faculty and postdoc opportunities at ISU. Also emphasized benefits accruing to the home department from hosting Eminent Scholars in the discipline or field.

- Challenge: In some cases, women of color in STEM departments are non-tenure track faculty members and ineligible for the ISU ADVANCE Scholar Program. Solution: Decided to open Program to non-tenure track faculty members in cases where the department chair and dean document their support of this individual and plans for this individual to enter a tenure-track position.

- Challenge: Somewhat unanticipated work load for ISU ADVANCE Office staff with first year program implementation, expectations, processes, clarifications, exceptions, etc. Solution: Review the ISU Scholar Program’s 2008-2009 year and revamp or fine-tune these aspects.

Eminent Scholar Lectures at Iowa State University:

December 8, 2008

Eminent Scholar: Dr. Lixia Zhang, Professor, Department of Computer Science, University of California Los Angeles

ADVANCE Scholar: Dr. Lu Ruan, Assistant Professor of Computer Science, Iowa State University

"Towards a New Routing Architecture for the Future Internet". Delivered as part of the ISU Department of Computer Science Distinguished Lecture Series

Four ADVANCE Scholar – Eminent Scholar trips are planned for April and May 2009, including the following pairs:

ADVANCE Scholar: Dr. Ling Long, Assistant Professor of Mathematics, Iowa State University

Eminent Scholar: Dr. Henri Darmon, James McGill Professor, Department of Mathematics, McGill University, Montreal, Canada

ADVANCE Scholar: Dr. Manju Reddy, Associate Professor of Food Science and Human Nutrition

Eminent Scholar: Dr. Sheila Innis, Professor, Faculty of Medicine, Department of Pediatrics & Faculty of Agricultural Sciences, Foods, Nutrition and Health, Child and Family Research Institute, University of British Columbia.

ADVANCE Scholar: Dr. Lu Ruan, Assistant Professor of Computer Science, Iowa State University

Eminent Scholar: Dr. Lixia Zhang, Professor, Department of Computer Science, University of California Los Angeles
**ADVANCE Scholar:** Dr. Kejin Wang, Associate Professor of Civil, Construction & Environmental Engineering  
**Eminent Scholar:** Dr. Klaas van Bruegel, Professor, Civil Engineering & Geosciences, Delft University of Technology, Netherlands


**The New Norm of Faculty Flexibility:**  
*Transforming the Culture in Science and Engineering Careers*  
**October 10-11, 2008**

ISU ADVANCE sponsored a successful national conference in October, bringing together 145 people representing 20 states and the District of Columbia (including one from Alaska!), and more than 60 faculty, staff and students from Iowa State University. Given travel restrictions already in place on many campuses, this was a robust number. We worked with co-sponsor, the American Council on Education, and a Planning Committee with representatives from ACE as well as other ADVANCE universities; we put together an interactive program that brought the nation’s experts in flexibility in faculty careers to Ames to share strategies for advancing best practices in this area. The focus of conference programming was to create dialogue among those speaking and those attending so that all participants would leave with enhanced understanding of the issues and an action plan for next steps on their campuses; this synthesis came not only through coordinated panel presentations but through the facilitated conversations at our World Café events. The conference was also the lynchpin in our theme for Year 3: “Work/life Balance.”

**Committee Members**  
**Iowa State University**  
- Dr. Claire Andreasen, Professor and Chair, Veterinary Pathology  
- Dr. Bonnie Bowen, Executive Director, ISU ADVANCE  
- Dr. Susan Carlson, PI, ISU ADVANCE  
- Nicol Jones, ISU Program Assistant  
- Divinity O’Connor-Roberts, Graduate Assistant, ISU ADVANCE Program  

**American Council on Education**  
- Dr. Gloria Thomas, Associate Director, Office of Women in Higher Education  

**Ohio State University**  
- Dr. Jill Bystydzienki, Professor and Chair, Women's Studies Department  

**Sauer-Danfoss Corp., Ames, Iowa**  
- Becky Stadlman, Director of Human Resources  

**University of Michigan**  
- Dr. Abigail Stewart, Director, UM ADVANCE Program  
- Cynthia Hudgins, Program Manager, UM ADVANCE Program  

**University of Washington**  
- Dr. Joyce Yen, Program/Research Manager, UW ADVANCE Program  
- Dr. Kate Quinn, Project Director, Balance@UW, Sloan award initiative

**Conference Details**  
**Keynote Speakers**  
- Dr. Mary Ann Mason, Professor, University of California, Berkeley  
- Professor Joan Williams, Hastings College of Law, University of California  
- Dr. Shirley Malcom, American Association for the Advancement of Science
Publicity
E-mail was our most reliable form of publicity, but we also targeted attendees at the ACE Annual conference in February 2008 with flyers; ads and promotional stories appears in the Chronicle of Higher Education, The Office of Women in Higher Education Newsletter, and Women in Higher Education.

Sponsorship
ISU’s President, Executive Vice President and Provost, and all five of ISU’s STEM colleges contributed funds to support the conference. The University of Washington, the American Council on Education, and Sauer-Danfoss also provided support.

World Café Conversations
The World Cafe is a conversational process that allowed conference participants to use limited discussion time to collaborate on ideas and to build on the keynote and panel presentations. Our World Café conversations consisted of two sessions of roundtables, each having a specific question or topic for discussion. Participants had 15 minutes to consider the question at an individual table and share their perspectives, recording their observations on flipcharts; then participants travelled to another table to build on the topic at that table. At the end of the serial table conversations, the participants of all tables reflected as a group and shared key insights that emerged from the conversational process.

Post-Conference Dissemination
All of the interactive moments of the conference (Q&A, World Café, etc.) were targeted on ways to keep the conference conversation alive beyond the two days in Ames. We have posted all available electronic materials on the conference web site, including PowerPoint presentations, handouts, and World Café notes. In addition, Executive Summaries of the presentations and follow-up discussion are available on the conference web site. Many of the conference presentations have been profiled in Women in Higher Education (see November 2008, December, 2008 January 2009, February 2009, and March 2009 issues). The ISU ADVANCE Program is also working with ACE to profile issues from the conference in its publication, The Presidency.

It is also important to recognize the on-campus effect of the conference. We were able to
educate ISU chairs, deans, and faculty who attended about the national conversation of which ISU ADVANCE is a part. The conference continues to filter into policy decisions and training conversations, including several conversations the Executive Vice President and Provost has had with the Deans.

**Evaluation**

Of the 145 attendees, 63 responded to the evaluation form. Overall, the conference received high evaluation scores for its different components. Attendees felt that the conference was valuable in developing their knowledge of flexible careers (4.3 on a 5.0 scale) and valuable as a networking tool for new contacts (4.25 on a 5.0 scale). Most attendees felt they would go back to their institutions to share the new practices discussed (4.32 on a 5.0 scale).

The three panel discussions were rated between 3.7 and 4.5 on a 5.0 scale. Attendees appreciated hearing about the different climates at other institutions, as well as the strategies presented for changing them. A few people commented they would have liked more time for discussion in these sessions.

There were also four keynote speakers addressing a variety of work-life balance topics. Attendance at these talks was high, and received high ratings on evaluations, 4.8 on a 5.0 scale. Several commented that the keynotes offered valuable information to take back to their institutions.

Another key component of the Conference was the World Café discussions. This process earned high marks from evaluations, 4.1 on a 5.0 scale. Attendees overwhelmingly commented that the networking opportunities presented were invaluable for meeting new colleagues and exchanging ideas.

Anecdotally, we continue to get reports about the quality of the conference programming. It was recently mentioned in a keynote at the AAC&U conference on *Shaping Faculty Roles in a Time of Change* (San Diego, April 2009).

**C. Program Management and Evaluation**

**C.1. ADVANCE Council and Team leadership**

As described in Section II (Management and Infrastructure), our ADVANCE Council and ADVANCE Team were initially the primary entities responsible for oversight and implementation of the program. In Year 2 of our program, as our collaborators grew in number, we modified the structure of our groups to promote increased efficiency of meetings. Key changes were the establishment of the Steering Committee and the Internal Advisory Board. In Year 3 we have continued the structures we implemented in Year 2. The Steering Committee (membership is described in Section II-B) met every two weeks to discuss management of the project, personnel issues and financial decisions. The ADVANCE Co-PI team continues to meet twice per month to discuss progress with respect to implementation of the grant, research, project administration and roles of personnel. The Steering Committee agendas and minutes were circulated to the co-PI team to keep everyone informed. The ADVANCE Council met twice per semester in Year 3. The additional members from non-focal colleges and second and third round focal departments increased the size of the Council and the potential for reaching additional faculty and departments. The Research Team and EA/AP working group also met separately, with one
of the co-PIs as the organizer (Dr. Sharon Bird as Research Director and Dr. Diane Debinski as organizer of the EA/AP working group) and circulated their minutes to the larger team. This new subdivision of labor has facilitated management of our increasingly complex program.

C.2. Training to Support Transformation

In Year 3 we presented a Diversity Workshop that was similar to the one presented in Year 1. The target audience for this workshop was ADVANCE Professors and Chairs from round two focal departments and other members of the ADVANCE Council who had not participated in the workshop in Year 1. Dr. Carla Fehr was again the co-PI Team member who was responsible for coordinating this workshop, which focused on the impact of implicit gendered bias at individual, interpersonal and institutional levels of organization. Drs. Fehr and Jo Anne Powell-Coffman (ADVANCE Professor) presented the workshop. Building on the success of the first workshop, one of the case studies developed by Drs. Flo Hamrick and Sharon Bird was discussed at the workshop. The case study chosen addressed the topic of Promotion and Tenure. Based on the valuable conversations that occurred during the discussion of this case study, Dr. Jan Thompson, Equity Advisor in the College of Agriculture and Life Sciences, decided to develop a Readers Theater presentation using this case study as a basis. The Readers Theater was performed at a workshop for Chairs in April 2009.

In addition to the formal training session of the Diversity Workshop, we have found that opportunities for education and discussion about ADVANCE issues present themselves through our daily interactions with our colleagues and during meetings of the EA/AP Working Group. The EA/AP group joined with several co-PIs to discuss literature important to ADVANCE, including Susan Sturm’s article about the U Michigan ADVANCE Program (Sturm, S. The architecture of inclusion: advancing workplace equity in higher education. Harvard Journal of Law & Gender, Vol. 29, No. 2, June 2006)

C.3. Communication, Marketing, Publicity and Web site

We have disseminated information about the ISU ADVANCE Program through our Web site (www.advance.iastate.edu). Through Web site statistics we are able to determine the needs of our community. Between the months of April 2008 and March 2009, we had an average of 563 different visitors view our Web site each month, for an average of 863 total visits per month.

Sections of the Web site that made the top 10 list for viewing each month for the past 12 months, include our upcoming events (average 127 visits/month in 12 months on the top 10 list), ADVANCE Scholar program and mentoring information (average 60 visits/month in 12 months on the top 10 list), resources for faculty searches (average 56 visits/month in the 8 months the page was on the top 10 list), and resources from our national conference (average 85 visits/month in 6 months on the top 10 list). In addition, the resource page about the people in our program was on the top 10 list in all of the past 12 months.

In addition to pages dedicated to our different initiatives, we have started a new section in Year 3 called e-Updates. Each month, we send an email to more than 200 faculty members and partners of ADVANCE that gives reminders of program services and upcoming events,
with relevant links to the ADVANCE Web site. We also keep an archive of these updates on the homepage.

In Year 3, ISU ADVANCE created resources to aid ISU in campus searches. We distributed a bookmark to make people aware of the resources we had available on our Web site. Administrative Fellow Dr. Bonita Glatz created a CD of Resources for Faculty Searches. Included on this CD are guidelines and suggestions for the search process, sample forms, and ideas for discussions to have with departmental faculty. This CD contains all the documents we have available to the campus on our Web site, plus presentations about best practices. In September 2008 we printed 100 CDs to distribute at our workshops, then later in the year we printed 200 additional copies to respond to requests for the CD from faculty and administrators.

Members of the ADVANCE Council share access to our internal electronic resource (Web CT), so that working documents and materials developed by various individuals and committees are readily available. Meeting minutes and presentations are archived here for future reference. Our Web site is continuously evolving as new resources are added and new events are highlighted.

ADVANCE keeps in touch with the campus using our two-page descriptive handout (Appendix 3), and event posters. In Year 3 we also revised our tri-fold brochure (Appendix 4) to distribute to colleagues on campus and off campus. This brochure is a brief overview of our goals, initiatives and activities. In the Spring of 2009 we presented this brochure, along with a PowerPoint presentation, to 15 departments that are not directly involved with ADVANCE to create awareness of the program on campus.

Articles and announcements about ADVANCE have appeared on the front page of the ISU Web site, in the local Ames newspaper (Ames Tribune), the Iowa State University student newspaper (Iowa State Daily), and a weekly publication for faculty and staff (Inside Iowa State). Announcements of our activities appear regularly in printed and electronic newsletters of our partner colleges. The College of Agriculture and Life Sciences (CALS) has a Web page for ADVANCE events of interest to CALS faculty and staff (http://www.ag.iastate.edu/aginfo/advance/), and links to the ADVANCE Web site appear on the College of Liberal Arts & Sciences and College of Engineering Web sites, as well as the Web sites of our focal departments.

In Year 3 we received publicity about our program in local and national media, including Women in Higher Education and PE, the Magazine for Professional Engineers. The following articles appeared:

- **Articles appearing in Women in Higher Education**
  - November 2008
    - Gypsy Journalism at the October Conferences
    - Author: Mary Dee Wenniger
    - Subject: Review of the STEM Conference “The New Norm of Faculty Flexibility: Transforming the Culture in Science & Engineering.”

  - December 2008
    - How to Retain Female Scientists Who Want a Life, Too
    - Author: Sarah Gibbard Cook
Subject: Retaining female scientists in academia (Dr. Shirley M. Malcom, keynote speaker at ISU ADVANCE STEM Conference)

December 2008
HERC Links Dual Career Couples to Campus Jobs
Author: Mary Lou Santovec
Subject: Information about the Higher Education Recruitment Consortium (Nancy Aebersold, panel speaker at ISU ADVANCE STEM Conference)

January 2009
Schedule Creep, Stigma Push Women Out of the Academy
Author: Sarah Gibbard Cook
Subject: Key barriers for women in university careers (Joan Williams, keynote speaker at ISU ADVANCE STEM Conference)

January 2009
Plugging the Brain Drain of Women in the STEM Fields
Author: Mary Lou Santovec
Subject: Women scientists and engineers leave academia for other careers (Dr. Anne Petersen, panel speaker at ISU ADVANCE STEM Conference)

February 2009
Quantify Flexible Policies’ Value: ‘It’s Cheaper to Keep Her’
Author: Mary Lou Santovec
ADVANCE Personnel Featured: Dr. Susan Carlson, Dr. Sandra W. Gahn
Subject: Flexible policies save money through improved faculty retention.

April 2009
How Do Women, Faculty of Color See Mentoring?
Author: Sarah Gibbard Cook
Publication Date: April 2009
ADVANCE Personnel Featured: Dr. Florence A Hamrick, Dr. Sandra W. Gahn
Subject: Iowa State University campus-wide mentoring program

Publication: Iowa State University Department of Materials Science and Engineering Website (http://www.mse.iastate.edu/index.php?id=6197)
Article Title: ADVANCE Sees the Science in Diversity
Publication Date: March 2009
ADVANCE Personnel Featured: Dr. Kristen Constant
Subject: A small percentage of women engineers hold tenured faculty positions.

Publication: Professional Engineer Magazine
Article Title: Grants help women ADVANCE in STEM academics
Publication Date: March 2009
ADVANCE Personnel Featured: Drs. Kristen Constant and Bonnie Bowen

C.4. Financial Management

We have established sound financial management practices with the assistance of staff in the Office of Sponsored Programs Administration and the Office of the Executive Vice
President and Provost. Primary responsibility for day-to-day accounting is assumed by Nicol Jones, our Program Assistant. Dr. Bonnie Bowen, Executive Director, oversees all financial activity and regularly reports our financial status to the PI, the Steering Committee, and the co-PI Team. Recommendations regarding allocation of funds are made by the Steering Committee, and the final responsibility for decisions lies with Dr. Susan Carlson, PI.

C.5. Formative Evaluation

ADVANCE Council Retreat, June 2008

For the third year, the ISU ADVANCE Council held a half-day planning retreat to establish a theme, goals, and guiding principles for the year. The retreat was conducted with the recognition that a multi-faceted program like ISU ADVANCE needs to update plans and goals regularly and on a comprehensive basis. The retreat included a “State of the Program” address from the PI, a review of Year 2 goals and accomplishments, and two sets of breakout sessions that resulted in the direction for Year 3. We agreed to the Year 3 theme of “Recruiting the Best: the role of work-life flexibility”—this theme has allowed us to continue the refinement of the recruitment theme of Year 2 and to focus on the particular challenges of integrating recognition of work-life issues into academic decision-making. It has allowed us to build on the work of the October 2008 conference and of the Administrative Fellow, as well as the findings in our first-round focal departments.

In addition, we set six goals for the year and six guiding principles, as follows:

Theme
Recruiting the Best: The role of work-life flexibility

Goals for the Year
- Disseminate research and accomplishments of ISU ADVANCE through publications, conference presentations and posters, web site, and other electronic means. Target current “friends of ADVANCE” as well as upper administration at ISU, senior STEM faculty, donors, regents.
- Build a strong collaborative transformation (CT) project in six focal departments and three focal colleges.
- Have a successful October conference which influences work-life issues on- and off-campus. Use administrative fellow to lead campus progress in work-life.
- Plan for a successful third year site visit by NSF (August 4-6, 2009).
- Expand and sustain an effective set of programs (mentoring, lectures, events) and partnerships (i.e. Equal Opportunity and Diversity, University Committee on Women, Faculty Senate, ISU Foundation).
- Sustain progress in faculty search processes.

Guiding Principles
- Sustainability
- Institutional Transformation
- Recruitment, retention, and advancement of a diverse STEM faculty
- Building on- and off-campus communities
• Building comprehensive, reliable, and innovative data sets
• Effective and well-planned communications

The theme, goals, and guiding principles were used regularly during the course of the year to set priorities and manage our workload.

Program Evaluation Consultation - Spring 2009

In January 2009 we began working with Dr. Kevin Saunders, Coordinator of Continuous Academic Program Improvement, Office of the Executive Vice President and Provost, to determine the status of our program evaluation and needs for future evaluation. Dr. Saunders met with several members of the co-PI Team, including Drs. Carlson (PI), Bowen (Executive Director), Bird (Research Director), and Gahn (Institutional Research). He developed an evaluation model and outline for our program. In consultation with the co-PIs, he initiated a plan that includes a plan to:

• Draft a synthesis document that integrates information from prior assessment activities.
• Conduct formative assessment conversations with team and Council members during the Council planning retreat in May 2009.
• Determine the need for follow-up data collection that would target specific program activities and would seek to gather information about impact of activities.
• Share assessment plan overview with larger ADVANCE team for discussion and revision.

During the late spring and summer we will continue to work with Dr. Saunders and anticipate having information available to present to the site visit review team in August.

C.6. Consultations with External Advisors

On March 2, 2009, members of the co-PI Team and Steering Committee participated in a 45-minute conference call with three of our External Advisors, Drs. Ronda Callister, Jackie Litt, and Claire Van Ummersen. Prior to the conversation we sent copies of the Collaborative Transformation Strategies and Outcomes progress report (Appendix 1), the AAUDE Faculty Satisfaction Survey Report Executive Summary (Appendix 2), and links to the Web pages for the Conference on Faculty Flexibility and the ADVANCE Scholar Program. Highlights of the conversation are reported here.

Collaborative Transformation Project Progress: The evaluators felt that we have a very impressive list of accomplishments, including the changes we have already made.

• Suggestions from advisors: Consider presentations to introduce conclusions rather than just disseminating the report. Think about and anticipate broader dissemination of the report.
• Our response: At each stage ADVANCE is trying to have a presentation to the campus. So far there have been presentations to the campus at large, the Dean’s Councils in STEM colleges, the Provost, and the Chairs. We agreed to include more
information about dissemination in the report itself and have done that in the version that is currently being distributed.

- **Question from the advisors:** The design of this program is very impressive. Are you finding that in the focal departments there is a core that continues to work on activities? It is important to know how many were on board when the program started compared to how many aren’t on board now.

- **Our response:** Our Equity Advisors and ADVANCE Professors meet together every other week to discuss issues in their department and our program. The group that is considered the “change agents” within the department has grown as new departments have been added. Chairs are trying to put in place policies and structures. Within the first round focal departments, we are transitioning from the initial ADVANCE Professor to a new ADVANCE Professor. This transition increases the awareness of our program and expands the group of allies within the focal departments.

- **Suggestions from advisors:** Transitioning to a new group of ADVANCE Professors is a good idea to keep the program moving. Keep your eye on expanding the core of knowledge and defining it within the departments. Be sure to watch for the turnover of department Chairs. Encourage policies to be written into the governance documents for the departments.

- **Our Response:** We agree with the goal of expanding the participants in the program and are seeking opportunities to collaborate with new allies in leadership positions.

**Satisfaction Survey Report:** The report on faculty satisfaction that was provided to the advisors has already been presented in the Faculty Senate by the Executive Vice President and Provost. ADVANCE presented the report in a campus-wide workshop later in the day on March 2. The same survey will be repeated in a couple of years.

- **Comments from advisors:** They discussed the finding that overall women and minorities that are tenured or tenure-eligible had few gender differences in satisfaction. However there are quite a few differences when the data are analyzed by rank. We discussed why women who have made tenure are unhappy, including the possibility that problems build up over time in the tenure process until it becomes overwhelming to the individual. Women are highly successful, but the journey to get there is much more difficult.

- **Other points included in the discussion:** Women are promoted at the same rate as men; however, we are finding different responses in how people feel about the process. When candidates with partners are questioned about benefits when negotiating, a male typically negotiates higher pay, while a female typically negotiates a job for her partner.

- **Suggestion from advisors:** The ideal purpose of the survey is to use it to make our case for changes in policy. Be proactive in explaining the data to scientists who don’t understand survey research. They focus on the fact that women are successful and question what the issue is. Explain that we are looking at the barriers to success, and how to reduce those barriers. This includes the high stress rate and personal sacrifice perceived by women. Although this is not the basis on which departments are motivated to create change, show that it’s a retention factor.

**Strategies for institutionalizing our successful initiatives, especially the college-level Equity Advisors:** ADVANCE is currently making an effort to give presentations about the program to non-focal departments. More than half of the STEM departments will have been
visited by next fall. This year we also added three more focal departments to the existing three, and the final three will come in year five. We are beginning to bring the final three departments into the program now as representatives on the Council to get them acclimated.

- **Question from the advisors:** Are there approximately the same number of women in each of your focal departments?
- **Our response:** There are fewer women in some of the focal departments than others.
- **Questions from advisors:** Do you see this as an issue in your research?
- **Our response:** Not necessarily. We feel we can learn a lot from all the departments.

- **Question from the advisors:** How much money is spent from the grant to support people working within the program?
- **Our response:** Currently money from the grant goes to support the partners that work with us through course buyouts. We are funding about $80,000 a year for our college Equity Advisors; senior faculty within the colleges, who work closely with the Associate Deans. Our program is dependent on these individuals. They are a constant presence, who communicate with the faculty and provide accountability. We have indications that colleges may support this beyond the grant period.
- **Suggestion from advisors:** The more you can get into written policy on this issue the better. Make sure the colleges are using these people while ADVANCE is in place, and it will have a better chance to continue after the program is over.

Overall, the advisors were impressed with the structure and progress made by the ADVANCE program. They feel we are progressing in the right direction. ISU ADVANCE will continue to stay in touch with its advisors along the way for advice on institutionalizing the program.

**C.7. Evaluation of Workshops and Networking Events**

**Workshops and Networking Events**

There were 199 attendees at these five events, 72 of these attendees indicated that the event was their first ADVANCE event. These events had a combined rating of 4.3 on a 5.0 scale. Most respondents at these events indicated that they would recommend future ADVANCE events to their colleagues.

**Resources for Faculty Searches**

**Date:** 9/10/2008

This event had 65 attendees, 33 of whom filled out evaluation forms. The overall rating of this event was good, 3.9 on a 5.0 scale indicated their expectations were met. The highest rating was for the topic of the presentation (4.3) and the lowest rating was for the content (3.7). Most respondents were satisfied with the length of the event, and indicated they would recommend ADVANCE events to their colleagues. The comments indicated that the CD that was distributed would be very helpful in the departments. Several people also indicated they would have preferred more discussion of the topics covered on the CD, rather than a tutorial on how to use it.

**Workshop on Faculty Search Resources**
Date: 12/3/2008
This event had 63 attendees, 26 of whom filled out evaluation forms. The overall rating of this event was good, 4.1 on a 5.0 scale indicated their expectations were met. The highest rating was for both the topic and the usefulness of information in the presentation (4.1) and the lowest rating was for the opportunity to discuss (4.0). Most respondents were satisfied with the length of the event, and all of them indicated they would recommend ADVANCE events to their colleagues.

ISU ADVANCE Collaborative Transformation: Enhancing the Academic Work Environment
Date: 1/28/2009
This event had 45 attendees, 29 of whom filled out evaluation forms. The overall rating of this event was good, 4.1 on a 5.0 scale indicated their expectations were met. Many attendees felt the most valuable aspect of the presentation was the firsthand accounts of what happened in the first round focal departments by the ADVANCE Professors. A few attendees felt that defining terms such as “work-life balance” would be helpful. Although the large-group discussion was commended by everyone, it was suggested that small groups would have been easier for discussion.

Faculty Satisfaction at Iowa State: Results from the 2008 Survey
Date: 3/2/2009
This event had 17 attendees, 9 of whom filled out evaluation forms. The overall rating of this event was good, 4.5 on a 5.0 scale indicated their expectations were met. Many attendees felt the most valuable aspect of the presentation was the importance to the University as a whole (4.89). Most said they would recommend ADVANCE events to their colleagues (4.89).

Women Scientists at Liberal Arts Colleges: Are Their Lives Different?
Date: 3/13/2009
This event had 9 attendees, 5 of whom filled out evaluation forms. The overall rating of this event was excellent, 4.8 on a 5.0 scale indicated their expectations were met. The overall indication from attendees was that this networking event provided useful information that appealed to the University as a whole. Everyone indicated that they would definitely recommend ADVANCE events to their colleagues.

C.8. Survey of Faculty Satisfaction (AAUDE)

Findings from the Faculty Satisfaction Study (See Appendix 2)
The Association of American Universities Data Exchange (AAUDE) Faculty Satisfaction survey was administered to all 1,676 Iowa State University faculty via the web in January, 2008 (Year 2). Of that group 21 faculty opted out through the web survey administration system. Of the remaining 1,655, we received survey responses from 890 faculty for a 53.8% response rate. Faculty respondents were representative of the overall faculty population. For these analyses, administrators, as defined by those faculty who hold president, provost, dean, or chair positions (n = 64), were removed from the analyses.

General Themes to Emerge from the Research:
The following themes were found in the research study:
• In general, full professors tended to be the most satisfied while associate professors tended to be the least satisfied.
• Few differences were found between tenure-eligible faculty by gender or race/ethnicity.
• The responses by ISU tenure-eligible faculty to the survey were very similar to responses to similar questions by ISU tenure-eligible faculty in the 2006 COACHE survey.
• Most statistically significant differences found by gender related to work and life stressors, issues of work/life balance, and tenure clock policies.
• Most statistically significant differences found by gender and rank were among associate professors.
• Very few statistically significant differences in faculty responses were found by race or ethnicity. Most statistically significant differences found by race and ethnicity related to differences between Asian and non-Asian faculty at Iowa State.

Below we highlight some of the key findings related to STEM faculty and the issues of critical importance to the ADVANCE program.

**STEM Faculty Salary Satisfaction by Gender and Rank**

Figure 1 depicts salary satisfaction gender differences by rank among STEM tenured and tenure-eligible faculty. The graph shows that female full professors rated their salary satisfaction as significantly higher than male full professors. Salary satisfaction for associate professors of both genders were rated below average. This figure shows statistically significant gender differences within each rank, but not across ranks.

**Figure 1. STEM Faculty Salary Satisfaction by Gender and Rank**

![Salary Satisfaction Graph](image)

Scale: 1 = Very dissatisfied, 3 = Neither satisfied nor dissatisfied, 5 = Very satisfied

Responses for STEM tenured and tenure-eligible faculty only

Red line = mean response for all faculty

Source: Iowa State University Institutional Research (2008 AAUDE Faculty Satisfaction Survey)
STEM Faculty Perception of Departmental Fit

Figure 2 below depicts gender differences in perceptions of department fit by rank among STEM tenured and tenure-eligible faculty. The graph shows that female associate professors rate their perception of department fit as significantly lower than male associate professors. Female full professors rated department fit higher than their male counterparts, but the difference was not statistically significant. This figure shows statistically significant gender differences within each rank, but not across ranks.

Figure 2. STEM Faculty Perception of Departmental Fit by Gender and Rank

Number of Children Among STEM Faculty

Figure 3 below depicts gender differences in the number of children faculty have (for those faculty who reported having children) by rank among STEM tenured and tenure-eligible faculty. The graph shows that across all ranks, male faculty have more children on average than female faculty. Male full professors have significantly more children (almost twice the number of children) on average than female full professors. This figure shows statistically significant gender differences within each rank, but not across ranks.

Figure 3. Number of Children by Gender and Rank for STEM Faculty
Figure 4 below depicts the percentage of faculty by gender who have children. Female STEM faculty are much more likely than male STEM faculty to have no children. More than one third of STEM female faculty have no children, compared to 19% of male STEM faculty. It is interesting to note that the percent of female STEM faculty with no children is lower than the average of 41% found for all female faculty at Iowa State. Among STEM faculty with children, female faculty are more likely to have one child, whereas male faculty are more likely to have two or more children.

Figure 4. Percentage with Children by Gender for STEM Faculty

Number of Committees Served On by STEM Faculty

Figure 5 below depicts gender differences for the number of university committees served on within the past 12 months by rank among STEM tenured and tenure-eligible faculty. The graph shows that within STEM departments, female faculty serve on more university committees, on average, than male faculty. Female assistant professors serve on significantly more university committees than male assistant professors. This figure shows statistically significant gender differences within each rank, but not across ranks.

Figure 5. Number of University Committees Served On by Gender and Rank
Figure 6 below depicts gender differences for the number of departmental committees served on within the past 12 months by rank among STEM tenured and tenure-eligible faculty. The graph shows that female associate professors in STEM departments serve on significantly fewer departmental committees than male associate professors. Male professors serve on more departmental committees than female professors among assistant professors, but the reverse is true for full professors. This figure shows statistically significant gender differences within each rank, but not across ranks.

**Figure 6. Number of Departmental Committees Served On by Gender and Rank**

![Number of departmental committees served on within the past 12 months](image)

### Spouse/domestic partner employment status

The two figures below depict gender differences for the employment status of the spouse/domestic partner of ISU faculty members. All responses are by faculty who reported having a spouse/domestic partner. The first figure shows responses for STEM faculty, while the second figure shows responses for social and behavioral science (SBS) faculty. Among STEM faculty, women are more than 3 times more likely to have a spouse or partner who is also a faculty member at Iowa State (40.3% for women, 12.5% for men). That ratio is only 1.4 to 1 for women faculty in SBS. Male faculty for both STEM and SBS are more likely than female faculty to have a spouse or partner working at ISU as a non-faculty employee.
Figure 7. Spouse/domestic partner employment status for faculty with a spouse or domestic partner for STEM (7A) and SBS (7B) disciplines.

<table>
<thead>
<tr>
<th>What is your spouse’s / domestic partner’s employment status?</th>
<th>7A</th>
<th>7B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tenured and tenure-eligible faculty only</td>
<td>STEM Faculty</td>
<td>Social Science Faculty</td>
</tr>
<tr>
<td>ISU faculty member</td>
<td>9.7</td>
<td>31.9</td>
</tr>
<tr>
<td>ISU post-doc</td>
<td>3.2</td>
<td>12.5</td>
</tr>
<tr>
<td>ISU graduate student</td>
<td>11.7</td>
<td>40.3</td>
</tr>
<tr>
<td>ISU employee, non-faculty</td>
<td>8.1</td>
<td>0.0</td>
</tr>
<tr>
<td>Non-ISU faculty member</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Non-ISU post-doc</td>
<td>1.6</td>
<td>2.0</td>
</tr>
<tr>
<td>Non-ISU graduate student</td>
<td>3.2</td>
<td>0.0</td>
</tr>
<tr>
<td>Employed, not at ISU</td>
<td>11.8</td>
<td>16.5</td>
</tr>
<tr>
<td>Not employed, actively seeking</td>
<td>6.4</td>
<td>12.9</td>
</tr>
<tr>
<td>Other</td>
<td>7.8</td>
<td>12.5</td>
</tr>
<tr>
<td>Not applicable</td>
<td>4.3</td>
<td>12.5</td>
</tr>
</tbody>
</table>

Tenured and tenure-eligible faculty only
Source: Iowa State University Institutional Research (2008 AAUDE Faculty Satisfaction Survey)

C.9. Survey of Faculty Satisfaction with Space

ISU Faculty Perceptions of Quality of Space Survey
The ISU ADVANCE Faculty Perceptions of Quality of Space Survey was conducted in October 2007 to gather data on faculty satisfaction with their office, lab and classroom space, as well as their attitudes regarding job satisfaction and job commitment. The Space Survey was coordinated by Dr. Carla Fehr, a member of the co-PI Team. Detailed analyses are ongoing to compare these data regarding the amount of space available to individual faculty members. These analyses will be reported at a later time.
C.10. Interpretation of Key Indicators

The ISU ADVANCE program has been using the Frehill, et.al., Toolkit recommendations for institutional data going back to Fall 2001. Dr. Sandra Gahn, a member of the ADVANCE ISU co-PI Leadership Team, is associate director in the Office of Institutional Research and has been tracking and reporting these indicator data for Iowa State University. In addition, a graduate student funded by the ADVANCE program, Jason Pontius, worked with Dr. Gahn to develop the trend data shown below.

The following charts and figures offer insight into the data collected at ISU in Years 1, 2, and 3 which are reported in Section V. in more detail. We will continue to monitor these key indicators as the ISU ADVANCE Program progresses.

Tenured and Tenure-Eligible Faculty

The total number of tenured and tenure-eligible faculty decreased at Iowa State for the second year in 2008-2009. Figure 8 (based on data from Table 2) shows that there was a decline among both STEM and SBS women. Women in STEM departments have held between 15.6% and 18.9% of the tenured and tenure-eligible faculty positions in the past 8 years. The percentage rose slightly between 2001 and 2006, but has dropped since then. Women in the social and behavioral sciences have held between 40.2% and 46.0% of the tenured and tenure-eligible faculty positions in the past 8 years.

![Figure 8. Tenured & Tenure-Eligible Women Faculty by Discipline, 2001-2008](chart)
Figure 9 (based on data from Table 1) shows STEM women faculty by rank and compares them across time. Since 2002 there has been consistent growth each year in the number of female full professors in STEM fields. Also evident is that between 2008 and 2007, the largest decline of women faculty was in the associate professor rank. A closer examination of these data revealed that a number of women who had been associate professors were promoted to full professor rank.

Figure 9. Number of STEM Tenured & Tenure-Eligible Women Faculty by Rank, 2001-2008

Non-Tenure-Eligible Faculty

Figure 10 (based on data from Table 2) shows the trend lines for the percent of non-tenure-eligible positions held by women from 2001 to 2008. Women in STEM departments have held between 41% and 57% of the non-tenure eligible faculty positions in these departments in the past 8 years. In 2007 there was an increase from 49% to 57%, but the percentage dropped back down to 50% in 2008. Women in the STEM have held between 41% and 57% of the non-tenure-eligible faculty positions over the past 8 years.

Figure 10. Percent of Non-Tenure-Eligible Women by Discipline, 2001-2008
Tenure Rates

Figure 11 (based on data from Table 3) presents a cumulative picture across eight years of the faculty who applied for tenure and those who achieved tenure. Table 3 in Section V provides the detail for 2008 data. Because the number of faculty who apply for tenure in any given year can be relatively small, multiple years of data were combined for a more comprehensive evaluation. The total numbers are presented in the graph below and are represented as a ratio below the percentages in each bar. The first number in the ratio indicates the number of faculty who earned tenure. The second number indicates the number of faculty who applied for tenure.

The data presented here refer only to those faculty who have advanced through the departmental review process and have submitted their materials to the Office of the Executive Vice President and Provost. These rates do not take into account any assistant professors who leave following their third-year review and before a tenure review is completed.

Figure 11 shows there are relatively small differences by gender among STEM and SBS faculty and larger differences by gender among “Other” faculty (i.e., humanities, business, design). In all discipline categories women achieved tenure at a slightly higher rate than men. The tenure achievement rate for men in the non-STEM, non-SBS disciplines may call for closer examination of this group by the Office of the Executive Vice President and Provost but is beyond the scope of the ADVANCE grant.

Figure 11. Percent Achieving Tenure by Gender and Discipline, 2001-2008
Promotion Rates

Figure 12 (based on data from Table 3) presents a cumulative picture across eight years of the associate faculty who applied for promotion to full professor rank. Table 3 in Section V provides the detail for 2008 data. Because the number of faculty who apply for promotion in any given year can be relatively small, multiple years of data were combined for a more comprehensive evaluation. The numbers are presented as a ratio below the percentages in each bar. The first number in the ratio indicates the number of faculty who earned promotion. The second number indicates the number of faculty who applied for promotion.

The data refer only to those faculty who have advanced through the departmental and college review processes and have submitted their materials to the Office of the Executive Vice President and Provost. These rates do not take into account any associate professors who withdrew their application for promotion at any time during the process.

Figure 12 shows there are relatively small differences by gender among STEM and SBS faculty and larger differences by gender among “Other” faculty (i.e., humanities, business, design). Female STEM faculty were awarded promotion at a slightly lower rate than male STEM faculty. In SBS and Other discipline categories women achieved promotion at a slightly higher rate than men. The graph appears to show a much lower promotion achievement rate for men in the non-STEM, non-SBS disciplines but the chart is deceptive. The difference in percent of male faculty promoted among Other faculty is the result of only three male faculty being denied promotion vs. one female faculty being denied promotion.

Figure 12. Percent Promoted to Full Professor by Gender and Discipline, 2001-2008
Women in Leadership Positions

Figure 13 shows the percentage of women in leadership positions, in relation to the percentage of all faculty who are women and the percentage of full professors who are women. Between 2006 and 2008 there were fluctuations, but no consistent increase or decrease in the percentages. The percentage of women in the Faculty Senate and on Curriculum Committees was slightly lower than the percentage of women on the faculty. The percentage of women who were Deans and Department Heads was similar to the percentage who are full professors. The percentage who were honors professors—University Professors, Distinguished Professors and who held endowed and named chairs—was consistently lower than the percentage of full professors who are women.

Figure 14 shows that the percentage of women on college promotion and tenure committees is slightly less than the overall percentage of women on the faculty. Between 2006 and 2008, the percentage increased slightly and by 2008, the percentage was about the same as the percentage of full and associate professors combined (26%). Women are on the graduate council more than would be expected based on the percentage of women on the faculty.
D. DISSEMINATION (INCLUDING LIST OF PRODUCTS AVAILABLE)

ISU ADVANCE has made significant scholarly and research contributions to various disciplinary communities during Year 3. This section is organized by the following types of dissemination:

- Journal Articles
- Other one-time publications, such as technical reports
- Internet dissemination
- Conference presentations
- ISU ADVANCE poster Displays at Disciplinary and ADVANCE Conferences
- Presentations to STEM Departments and Colleges at Iowa State University
- Presentations to ADVANCE partner groups
  - Deans, college cabinets and other leaders
  - ADVANCE College-Level Advisory Groups and Partners
  - College-level Faculty Networking
  - ISU Diversity Partner Discussions
- Interactions Outside ISU
- List of products available
  - Resources for Faculty Recruitment
  - Reports from the AAUDE Faculty Satisfaction Survey
  - Reports from the Collaborative Transformation Project
  - Additional Reports Produced for Departments (not available to the public)
  - Other Resources Available on the ADVANCE Web site

Journal Articles
Author: Bird, S. R.
Title: “Unsettling the University’s ‘Incongruous, Gender Bureaucratic Structures’: A Case Study Approach.”
Bibliographic Info: Gender, Work and Organization
Status: Accepted awaiting publication
Date: March 2009
Is NSF support formally acknowledged in the publication? Yes

Other one-time publications, such as technical reports
Author: Bird, S. R., Constant, K., Janzen, F., Powell-Coffman, J. A.
Bibliographic Info: 9 pages, Ames, IA: Iowa State University ADVANCE Institutional Transformation Program
Date: December 2008
Status: Published
Is NSF support formally acknowledged in the publication? Yes
Internet Dissemination

ISU ADVANCE Web site
URL: http://www.advance.iastate.edu/

Explain/update how this site relates to the award:
Is NSF support acknowledged on the Web site: Yes
The ISU ADVANCE Web site contains information on the goals of our project, the participants, and ADVANCE events for the campus community. It also highlights the ISU ADVANCE initiatives, including the lectureship program competition, the ADVANCE Scholar program and resources for mentoring, information about the Collaborative Transformation project, resources for search committees, and information about work-life balance. We have added a page about our national conference, The New Norm of Faculty Flexibility: Transforming the Culture in Science & Engineering, held in October 2008. You can also find links to other resources, including our annual reports, program goals and summaries. Included are links to Web resources and other ADVANCE programs.
Conference Presentations

Presenters: Dr. Sharon R. Bird, Dr. Kristen Constant, Dr. Florence A. Hamrick, Dr. Fredric J. Janzen, and Dr. Jo Anne Powell-Coffman
Title of Talk: *Iowa State University ADVANCE Collaborative Transformation Project: Enhancing Departmental Cultures, Practices and Structures*
Conference: NSF meeting of ADVANCE Institutional Transformation PIs
May 12-13, 2008, Alexandria, VA

Presenters: Dr. Bonnie S. Bowen, Dr. Diane M. Debinski, and Dr. Susan L. Carlson
Title of Talk: *Building and Maintaining an ADVANCE Team*
Conference: NSF meeting of ADVANCE Institutional Transformation PIs
May 12-13, 2008, Alexandria, VA

Presenters: Dr. Susan L. Carlson
Title of Talk: *O Brave New World: Partnerships and Policies for Institutional Transformation* (Keynote address)
Conference: Gender Equity Workshop: University Materials Council for Chairs of Materials Science and Engineering
May 18, 2008, College Park, MD

Presenters: Dr. Sharon R. Bird and Dr. Laura Rhoton
Title of Talk: *We can Work it Out?: Gender Strategies of Women Scientists in Academia*
Conference: Society for the Study of Social Problems meetings
August 2008, Boston, MA

Presenters: Dr. Sandra Gahn, Dr. Susan L. Carlson
Title of Talk: *Breaking the Norms: Measuring the Impact of New Policies*
Conference: “The New Norm of Faculty Flexibility: Transforming the Culture in Science & Engineering”
October 11, 2008, Ames, IA

Presenters: Dr. Florence A. Hamrick, Dr. Sandra Gahn
Title of Talk: *Faculty Perceptions of Mentoring, and Mentoring for Women STEM Faculty of Color*
Conference: Women in Educational Leadership Conference
October 13, 2008, Lincoln, NE

Presenters: Dr. Florence A. Hamrick
Title of Talk: *Mentoring and Transforming Institutional Cultures, Structures, and Practices*
Conference: University of New Mexico Mentoring Institute Conference: Fostering a Mentoring Culture in the 21st Century: Bringing Best Practices and Research to Higher Education
October 24, 2008, Albuquerque, NM

Presenters: Dr. Sandra Gahn, Dr. Florence A. Hamrick, Jason Pontius
Title of Talk: *The Role of Institutional Research in Policy Analysis and Grant-Funded Research on Faculty*
Conference: Mid-American Association for Institutional Research Conference
November 13, 2008, Kansas City, MO
Presenters: **Dr. Susan L. Carlson**
Title of Talk: *Addressing Work-Life Issues for Faculty: A National Priority*
Conference: ACE Network State Coordinators Leadership Development Conference
February 7, 2009, Washington D.C.: 

Presenters: **Dr. Carla Fehr**
Title of Talk: *How to Talk to Scientists about Gender Diversity: Lessons From the Trenches*
Conference: Feminist Epistemology, Metaphysics, Methodologies and Science Studies Association 2009 Meeting
March 19, 2009, University of South Carolina – Columbia, South Carolina

**ISU ADVANCE Poster Displays at Disciplinary and ADVANCE Conferences**

NSF meeting of ADVANCE Institutional Transformation PIs, Arlington, VA
May 12-13, 2008
ADVANCE personnel: Drs. Sharon Bird, Bonnie S. Bowen, Susan L. Carlson, Kristen Constant, Diane M. Debinski, Carla Fehr, Sandra Gahn, Charles Glatz, Florence A. Hamrick, Frederic Janzen, Lisa Larson, Jo Anne Powell-Coffman, and Janette Thompson

*Iowa State University ADVANCE Program’s Collaborative Transformation: Advancing Women Faculty in STEM Fields*

47th Annual Midwest Developmental Biology Meeting, University of Iowa, Iowa City, IA
June 6-8, 2008
ADVANCE personnel: **Dr. Jo Anne Powell-Coffman**

*Iowa State University ADVANCE Program’s Collaborative Transformation: Advancing Women Faculty in STEM Fields*

Evolution 2008 (Meeting of the Society for the Study of Evolution), Minneapolis, MN
June 20-24, 2008,
ADVANCE personnel: Drs. Bonnie S. Bowen, Frederic Janzen, and Diane M. Debinski

*Iowa State ADVANCE Program: Multiple Approaches to Recruit and Retain a Diverse Faculty*

American Society of Engineering Education Annual Meeting, Pittsburgh, PA
June 22-25, 2008
ADVANCE personnel: Drs. Kristen Constant, Sharon Bird, Florence A. Hamrick

*Iowa State University ADVANCE Program: Advancing Women Faculty in STEM Fields – The First Two Years*

*C. elegans* Stress, Aging and Pathogenesis and Heterochrony Topic Meeting #4, University of Wisconsin – Madison, WI
August 3-6, 2008
ADVANCE personnel: **Dr. Jo Anne Powell-Coffman**

*Iowa State University ADVANCE Program’s Collaborative Transformation: Advancing Women Faculty in STEM Fields*
Presentations to STEM Departments and Colleges at Iowa State University

Presenters: Dr. Kristen Constant, Dr. Lisa Larson, Dr. Shauna Hallmark
Title: Presentation to Civil, Construction and Environmental Engineering Faculty
September 18, 2008

Presenters: Dr. Charles Glatz
Presentation: Diversity Discussion with ME Department Faculty
September 30, 2008

Presenters: Dr. Charles Glatz
Presentation: Presentation to Cluster Hire Committee
Audience: Search Chairs in College of Engineering departments
October 7, 2008

Presenters: Dr. Charles Glatz
Title: Presentation on Searches and Mentoring to Chemical and Biological Engineering Faculty
October 2008

Presenters: Provost Elizabeth Hoffman
Title: Faculty Satisfaction Survey (AAUDE)
Audience: ISU Faculty Senate
November 4, 2008

Presenters: Provost Elizabeth Hoffman
Title: AAUDE Faculty Satisfaction Survey Highlights
Audience: ISU President’s Council
December 19, 2008

Presenters: Dr. Susan Carlson
Title: Workshop on work/life issues for Emerging Leaders Academy
January 23, 2009

Presenters: Dr. Susan Carlson
Title: Presentation to Department Chairs on Faculty Flexibility
January 30, 2009

Other ADVANCE attendees: Drs. Lisa Larson, Bonnie Bowen, Mary Harris

Presentation: A Program of Institutional Transformation to Make Iowa State University an Optimal Environment for All Faculty
Audience: Non-focal department faculty meetings
- Economics (March 3, 2009), Dr. Janette Thompson, Dr. Kristen Constant
- Food Science & Human Nutrition (March 9, 2009), Dr. Bonnie S. Bowen, Dr. Diane M. Debinski
- Agricultural Education & Studies (March 11, 2009), Dr. Janette Thompson, Dr. Kristen Constant
- World Languages & Cultures (March 12, 2009), Dr. Lisa Larson
- Journalism & Communication (March 13, 2009), Dr. Lisa Larson
- Agronomy (March 31, 2009), Dr. Janette Thompson, Dr. Elisabeth Lonergan
Presentations to ADVANCE partner groups

**Deans, college cabinets and other leaders:**
Discussant: Dr. Charles Glatz, Dr. Bonnie S. Bowen, Dr. Susan L. Carlson, Dr. Kristen Constant, Dr. Shauna Hallmark
Title: Orientation for new interim Dean Jim Bernard
September 12, 2008

Discussant: Dr. Jan Thompson
Title: College of Agriculture & Life Sciences Deans Cabinet Meeting

Discussant: Dr. Charles Glatz
Title: Discussion of Goals and Action Items for Faculty Diversity with Dean’s Academic Council
October 21, 2008

Presenters: Dr. Lisa Larson
Presentation: Best Practices for Early Steps in the Search Process
Audience: Liberal Arts & Sciences Chairs Council (LAS Deans, Associate Deans, LAS Chairs)
November 18, 2008

Presenters: Dr. Shauna Hallmark, Dr. Kristen Constant
Title: Discussed ADVANCE with four College of Engineering Dean Candidates
March 2009

**ADVANCE College-Level Advisory Groups and Partners**

Title: College of Agriculture & Life Sciences College Council, College of Agriculture & Life Sciences – Liberal Arts & Sciences College Council
Discussants: Drs. Jan Thompson, Bonnie S. Bowen, Diane M. Debinski, Fredric Janzen, Lisa Larson, Jo Anne Powell-Coffman, Jim Raich
September 27, 2008, December 17, 2008

Title: College of Engineering Dean’s Academic Council
Discussants: Drs. Charles Glatz, James Alleman, Bonnie Bowen, Kristen Constant, Shauna Hallmark, Richard Lesar, Adin Mann, Diane Rover
December 4, 2008

**College-Level Faculty Networking**

Title: College of Agriculture Women’s Lunchtime Discussion
Discussants: Drs. Janette Thompson, Bonnie S. Bowen, Diane M. Debinski, Mary Harris, Jo Anne Powell-Coffman
October 21, 2008, December 8, 2008

Title: College of Engineering Women’s Discussions (breakfast or lunch events)
Discussant: Drs. Charles Glatz, Kristen Constant, Shauna Hallmark
October 21, 2008; December 2, 2008; March 24, 2009
ISU Diversity Partner Discussions

Title: **Women and Minorities Committee of the Faculty Senate**
Discussant: **Dr. Kristen Constant**
Date: October 13, 2008; November 10, 2008

Title: **Faculty Women’s Network--discussions and steering committee**
Discussants: **Drs. Bonnie S. Bowen, Mary Harris**
Date: January 21, 2008; February 27, 2008

Title: **WINR--Women in Natural Resources**
Discussant: **Drs. Bonnie S. Bowen and Mary Harris** and undergraduate women in NREM department
Date: March 3, 2009

Interactions outside ISU

Council/Team Member: **Dr. Diane M. Debinski**
Describe Interaction: Meeting with Kansas State University ADVANCE co-PIs
Location: Manhattan, KS
Names: Beth Montelone, Associate Dean of the College of Arts and Sciences
May 2, 2008

Council/Team member: **Dr. Sharon R. Bird**
Describe Interaction: Organized group and met with Research Directors/ Social Science Research Leaders of 2nd, 3rd round-ADVANCE awardees, recent PAID grants awardees, and potential ADVANCE and PAID awardees
Location: Alexandria, VA
Names: Sharon Bird (Iowa State University), Dana Britton (University of Kansas), Ronda Callister (Utah State), Jackie Litt (University of Missouri-Columbia), Julia McQuillan (University Nebraska-Lincoln), Helen Mederer (University of Rhode Island), Patricia Roos (Rutgers), Amy Wharton (Washington State University); and met separately with Diana Billimoria (Case Western) and Alice Pawley (Purdue).
May 10, 11, 12 (met 3 times)

List of Products Available

Resources and reports available on the Iowa State University ADVANCE Web site during Year 3 include reports for faculty search committees, results of the AAUDE Faculty Satisfaction Survey, and products from the Collaborative Transformation Project.

Resources for faculty recruitment

Many of the reports for faculty searches are used with permission or adapted from other sources, both within and outside the university. Several reports were created for the Iowa State University ADVANCE program by Dr. Bonita Glatz, Administrative Fellow from January to May 2008. A list of documents posted to the site follows. The new, original documents are marked with an asterisk.

Brief (1- to 2-page) guidelines for specific aspects of the search process:
- Administrators’ Checklist of Best Practices for a Diverse Search (overall guidelines)
• Strategies for Recruiting Women Faculty (overall guidelines)
• Best Practices Checklist for Running a Faculty Search (focus on early steps of process)
• Tips and Suggestions for Broadening the Candidate Pool (brief tips)
• Tips for Creating an Inclusive Position Description (wording and content)
• Tips for the Interview Process (focus on on-campus interviews)
• Guidelines for Effective Interviews (tips for before, during, after interviews)
• Evaluating Letters of Recommendation (how to evaluate [and write] letters)

Questions to ask (or not ask) candidates and their references:
• What to Ask? What Not to Ask? (allowable and not allowed questions)
• Human Resources Interview Questions (questions for various types of jobs)
• Sample Interview Questions (questions for candidates)
• Sample Questions for Phone References

Sample evaluation forms available in PDF or Word Document format:
• Sample Form for Initial Screening of Applicants (for search committee screening step)
• Teaching Seminar Plan (to send to candidates to prepare teaching seminar)
• Teaching Seminar Evaluation Form (matches seminar plan)
• Sample Form for Obtaining Feedback on Finalists (for feedback from various audiences)
• Candidate Evaluation Tool (University of Michigan)
• Candidate Evaluation Rubric Form (with rubrics to describe characteristics)

Short documents to facilitate discussion of unconscious bias:
• Top Ten Rationalizations (excuses not to hire women/minorities)
• Reducing Stereotypic Biases in Hiring (Cornell University)

Forms to evaluate the search process available in PDF or Word Document format:
• Evaluation of the Search Process (search committee's comments)
• Evaluating a Search (department chair's report on why candidates did/did not accept offer)

In addition to these documents, which are available publicly at http://www.advance.iastate.edu/resources/facultysearches.shtml, Dr. Bonita Glatz prepared additional resources that are available on the Faculty Search Resources CD. A copy can be obtained from the ADVANCE Program (advance@iastate.edu).

Reports from the AAUDE Faculty Satisfaction Survey

Gahn, Sandra. and Jason Pontius. 2009. Iowa State University 2008 Faculty Satisfaction Survey Executive Summary, 12 pages (Appendix 2 in Year 3 Annual Report)

Gahn, Sandra. and Jason Pontius. 2009. Iowa State University 2008 Faculty Satisfaction Survey Full Report, 90 pages
Reports from the Collaborative Transformation Project


Additional Reports Produced for Departments (not available to the public)


Other resources available on the ISU ADVANCE Web site

ISU ADVANCE Program Goals, Year 3

ISU ADVANCE Project Summary, Fall 2008 (Appendix 3 in Year 3 Annual Report)


Brochure, ISU ADVANCE Scholar Program. January 2009

ISU ADVANCE Research, Scholarship & Authorship Guidelines, September 2008 (Appendix 5 in Year 3 Annual Report)
SECTION IV. PERSONNEL AND FINANCIAL REPORT

A. PERSONNEL — RESPONSIBILITIES OF FACULTY AND STAFF SUPPORTED BY THE GRANT

Iowa State received the ADVANCE-Institutional Transformation award on 28 August 2006. Our year runs from 1 August to 31 July.

The ISU ADVANCE Program has a co-PI Leadership Team of 7 Senior Personnel listed in the Year 3 report. These include:

- Principal Investigator (Carlson),
- 4 faculty listed as co-PIs with NSF (Bird, Bowen, Debinski and Fehr),
- 2 additional faculty/staff listed as co-PIs in the ISU system (Gahn and Hamrick)

In addition, we have partners at the college level (Deans/Associate Deans and Equity Advisors) and department level (ADVANCE Professors), who serve on the Council. Some of these partners receive funds from the grant.

Detailed descriptions of the responsibilities and accomplishments of our participants are described in Section II-B and in the Participants section of Fast Lane.
Section V: Report of Key indicators

During Year 3 we continued to monitor the eight key indicators and added to the tables that were created last year. ISU Co-PI Team member, Dr. Sandra Gahn led the effort to compile the data from 2001-2009. The tables that follow provide an extension of the data presented in the two previous Annual Reports. These key indicators continue to provide valuable data for the assessment of the impact of the institutional transformation being undertaken by the ADVANCE Program.

Below we provide the eight indicator tables. Charts and figures for some of these tables appear in sub-section C.10 of Section III. We continue to divide the ISU departments into three disciplines, STEM (science, technology, engineering and mathematics), SBS (social and behavioral sciences) and HBD (humanities, business, and design). Most tables are aggregated by discipline. We have aggregated data by department, where appropriate. For Tables 3 and 4, dealing with tenure and promotion review, we have aggregated data by colleges and by discipline. Tables that are aggregated by department are not aggregated by college, because of the complexity of departments that are administered jointly by two colleges.
Table 1. Number and Percent of Women Tenured and Tenure Track Faculty by Rank, Department, and Discipline 2008

<table>
<thead>
<tr>
<th>Discipline, Technology, Engineering, &amp; Mathematics (STEM)</th>
<th>Women</th>
<th>Men</th>
<th>Percent Women</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Aerospace Engineering</strong></td>
<td>STEM 0</td>
<td>0</td>
<td>0.0%</td>
</tr>
<tr>
<td><strong>Agricultural &amp; Biosystems Engineering</strong></td>
<td>STEM 0</td>
<td>0</td>
<td>0.0%</td>
</tr>
<tr>
<td><strong>Agronomy</strong></td>
<td>STEM 2</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td><strong>Animal Science</strong></td>
<td>STEM 2</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td><strong>Biochemistry, Biophysics, &amp; Molecular Biology</strong></td>
<td>STEM 3</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td><strong>Biomedical Sciences</strong></td>
<td>STEM 0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td><strong>Chemistry &amp; Biological Engineering</strong></td>
<td>STEM 2</td>
<td>0</td>
<td>3</td>
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<tr>
<td><strong>Chemistry</strong></td>
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<td>1</td>
<td>2</td>
</tr>
<tr>
<td><strong>Civil, Construction, &amp; Environmental Engineering</strong></td>
<td>STEM 0</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td><strong>Computer Science</strong></td>
<td>STEM 1</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td><strong>Ecology, Evolution, &amp; Organismal Biology</strong></td>
<td>STEM 3</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td><strong>Electrical &amp; Computer Engineering</strong></td>
<td>STEM 1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td><strong>Entomology</strong></td>
<td>STEM 2</td>
<td>0</td>
<td>1</td>
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<tr>
<td><strong>Food Science &amp; Human Nutrition</strong></td>
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<td>4</td>
<td>2</td>
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<tr>
<td><strong>Genetics, Development, &amp; Cell Biology</strong></td>
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<td>2</td>
<td>0</td>
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<tr>
<td><strong>Geologic &amp; Atmospheric Sciences</strong></td>
<td>STEM 0</td>
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<td>1</td>
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<tr>
<td><strong>Horticulture</strong></td>
<td>STEM 1</td>
<td>3</td>
<td>0</td>
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<tr>
<td><strong>Industrial &amp; Manufacturing Systems Engineering</strong></td>
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<td>0</td>
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<tr>
<td><strong>Kinesiology</strong></td>
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<tr>
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<td>0</td>
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<tr>
<td><strong>Mathematics</strong></td>
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<td>2</td>
</tr>
<tr>
<td><strong>Mechanical Engineering</strong></td>
<td>STEM 1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td><strong>Natural Resources Ecology &amp; Management</strong></td>
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<td>4</td>
<td>2</td>
</tr>
<tr>
<td><strong>Physics &amp; Astronomy</strong></td>
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<td>0</td>
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<tr>
<td><strong>Plant Pathology</strong></td>
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<td>2</td>
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<tr>
<td><strong>Statistics</strong></td>
<td>STEM 3</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td><strong>Veterinary Clinical Science</strong></td>
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<td>5</td>
<td>2</td>
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<tr>
<td><strong>Veterinary Diagnostic &amp; Production Animal Medicine</strong></td>
<td>STEM 1</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td><strong>Veterinary Microbiology &amp; Preventive Medicine</strong></td>
<td>STEM 1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td><strong>Veterinary Pathology</strong></td>
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<td>2</td>
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<tr>
<td><strong>STEM Totals</strong></td>
<td>STEM 44</td>
<td>49</td>
<td>44</td>
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Iowa State University ADVANCE Program
Year 3 2008-09 complete for distribution
Table 1. Number and Percent of Women Tenured and Tenure Track Faculty by Rank, Department, and Discipline 2008-continued

<table>
<thead>
<tr>
<th>Discipline</th>
<th>Women</th>
<th>Men</th>
<th>Percent Women</th>
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<tbody>
<tr>
<td></td>
<td>Full</td>
<td>Assoc</td>
<td>Asst</td>
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<tr>
<td><strong>Social &amp; Behavioral Sciences (SBS)</strong></td>
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<td></td>
<td></td>
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<tr>
<td>Agricultural Education &amp; Studies</td>
<td>SBS</td>
<td>0</td>
<td>1</td>
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<tr>
<td>Anthropology</td>
<td>SBS</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Apparel, Educational Studies &amp; Hospitality Management</td>
<td>SBS</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>Curriculum &amp; Instruction</td>
<td>SBS</td>
<td>2</td>
<td>6</td>
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<tr>
<td>Economics</td>
<td>SBS</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>Educational Leadership &amp; Policy Studies</td>
<td>SBS</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>Human Development &amp; Family Studies</td>
<td>SBS</td>
<td>8</td>
<td>7</td>
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<tr>
<td>Political Science</td>
<td>SBS</td>
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<td>0</td>
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<td>Psychology</td>
<td>SBS</td>
<td>3</td>
<td>3</td>
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<tr>
<td>Sociology</td>
<td>SBS</td>
<td>6</td>
<td>6</td>
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<td><strong>SBS Totals</strong></td>
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<td><strong>Humanities, Design, &amp; Business</strong></td>
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<td>Accounting</td>
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<td>Landscape Architecture</td>
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<td>1</td>
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<td>Library</td>
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<td>Logistics, Operations, &amp; Management Information Systems</td>
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<td>Management</td>
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<td>Marketing</td>
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<tr>
<td>Music</td>
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<td>3</td>
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<tr>
<td>Philosophy &amp; Religious Studies</td>
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<td>4</td>
</tr>
<tr>
<td>World Languages &amp; Cultures</td>
<td>HBD</td>
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<td>3</td>
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<td><strong>HDB Totals</strong></td>
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<td><strong>University Totals</strong></td>
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Iowa State University ADVANCE Program
Year 3 2008-09 complete for distribution
Table 2. Number and Percent of tenure track and non-tenure-eligible faculty by gender, department, and discipline for 2008

<table>
<thead>
<tr>
<th>Department</th>
<th>Discipline</th>
<th>Tenured &amp; Tenure-Track</th>
<th>Non-tenure-eligible</th>
<th>Non-tenure-eligible</th>
<th>Non-tenure-eligible</th>
</tr>
</thead>
<tbody>
<tr>
<td>Department</td>
<td></td>
<td>Total Women &amp; Men</td>
<td>Women</td>
<td>%Women</td>
<td>Total Women</td>
</tr>
<tr>
<td>Science, Technology, Engineering &amp; Mathematics (STEM)</td>
<td>STEM</td>
<td>26 0 0.0%</td>
<td>5 1</td>
<td>20.0%</td>
<td>100.0%</td>
</tr>
<tr>
<td>Aerospace Engineering</td>
<td>STEM</td>
<td>30 2 6.7%</td>
<td>3 0</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Agricultural &amp; Biosystems Engineering</td>
<td>STEM</td>
<td>45 6 13.3%</td>
<td>6 2</td>
<td>33.3%</td>
<td>25.0%</td>
</tr>
<tr>
<td>Agronomy</td>
<td>STEM</td>
<td>47 6 12.8%</td>
<td>4 3</td>
<td>75.0%</td>
<td>33.3%</td>
</tr>
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<td>Animal Science</td>
<td>STEM</td>
<td>23 5 21.7%</td>
<td>0 0</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Biochemistry, Biophysics, &amp; Molecular Biology</td>
<td>STEM</td>
<td>21 3 14.3%</td>
<td>3 1</td>
<td>33.3%</td>
<td>25.0%</td>
</tr>
<tr>
<td>Biomedical Science</td>
<td>STEM</td>
<td>18 5 27.8%</td>
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<td>28.8%</td>
</tr>
<tr>
<td>Chemical &amp; Biological Engineering</td>
<td>STEM</td>
<td>29 6 20.7%</td>
<td>2 0</td>
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<td>0.0%</td>
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<tr>
<td>Civil, Construction, &amp; Environmental Engineering</td>
<td>STEM</td>
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<td>11.1%</td>
<td>16.7%</td>
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<td>Computer Science</td>
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<td>20.0%</td>
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<td>Ecology, Evolution, &amp; Organismal Biology</td>
<td>STEM</td>
<td>26 7 26.9%</td>
<td>4 3</td>
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<td>30.0%</td>
</tr>
<tr>
<td>Electrical &amp; Computer Engineering</td>
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<td>49 3 6.1%</td>
<td>1 0</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Entomology</td>
<td>STEM</td>
<td>14 3 21.4%</td>
<td>0 0</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Food Science &amp; Human Nutrition</td>
<td>STEM</td>
<td>27 14 51.9%</td>
<td>10 10</td>
<td>100.0%</td>
<td>41.7%</td>
</tr>
<tr>
<td>Genetics, Development, &amp; Cell Biology</td>
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<td>27 4 14.8%</td>
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<td>60.0%</td>
<td>42.9%</td>
</tr>
<tr>
<td>Geologic &amp; Atmospheric Sciences</td>
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<td>13 2 15.4%</td>
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<td>33.3%</td>
<td>33.3%</td>
</tr>
<tr>
<td>Horticulture</td>
<td>STEM</td>
<td>15 4 26.7%</td>
<td>2 1</td>
<td>50.0%</td>
<td>20.0%</td>
</tr>
<tr>
<td>Industrial &amp; Manufacturing Systems Engineering</td>
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<td>2 1</td>
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<td>33.3%</td>
</tr>
<tr>
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<td>11 11</td>
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</tr>
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<td>4 1</td>
<td>12.5%</td>
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<tr>
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<td>5 3</td>
<td>60.0%</td>
<td>33.3%</td>
</tr>
<tr>
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<td>7 2</td>
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<td>50.0%</td>
</tr>
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<tr>
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<td>STEM</td>
<td>26 8 30.8%</td>
<td>36 22</td>
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<td>73.3%</td>
</tr>
<tr>
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<td>STEM</td>
<td>24 4 16.7%</td>
<td>21 7</td>
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<td>63.6%</td>
</tr>
<tr>
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<td>16 3 18.8%</td>
<td>0 0</td>
<td>0.0%</td>
<td>0.0%</td>
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<tr>
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<td>14 5 35.7%</td>
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<td>Total Women</td>
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</tr>
<tr>
<td>Apparel, Educational Studies &amp; Hospitality Management</td>
<td>SBS</td>
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<td>28.6%</td>
<td>16</td>
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<tr>
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<tr>
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</table>
Table 3. Tenure Review Outcomes 2008

| STEM Disciplines College          | # Reviews |  | # Approvals |  | # Denials |  |
|-----------------------------------|-----------|-----------------|-----------------|-----------------|-----------------|
|                                   | Female    | Male | Total | Female | Male | Total | Female | Male | Total |
| Agriculture & Life Sciences       | 0         | 2    | 2     | 0      | 2    | 2     | 0      | 0    | 0     |
| Engineering                       | 0         | 10   | 10    | 0      | 9    | 9     | 0      | 1    | 1     |
| Human Sciences                    | 0         | 1    | 1     | 0      | 1    | 1     | 0      | 0    | 0     |
| Liberal Arts and Sciences         | 1         | 4    | 5     | 1      | 4    | 5     | 0      | 0    | 0     |
| Veterinary Medicine               | 0         | 0    | 0     | 0      | 0    | 0     | 0      | 0    | 0     |
| **TOTAL**                         | **1**     | **17** | **18** | **1** | **16** | **17** | **0** | **1** | **1** |

| SBS Disciplines College           | # Reviews |  | # Approvals |  | # Denials |  |
|-----------------------------------|-----------|-----------------|-----------------|-----------------|-----------------|
|                                   | Female    | Male | Total | Female | Male | Total | Female | Male | Total |
| Agriculture & Life Sciences       | 0         | 1    | 1     | 0      | 0    | 0     | 0      | 1    | 1     |
| Human Sciences                    | 3         | 3    | 6     | 3      | 3    | 6     | 0      | 0    | 0     |
| Liberal Arts and Sciences         | 1         | 1    | 2     | 1      | 1    | 2     | 0      | 0    | 0     |
| **TOTAL**                         | **4**     | **5** | **9** | **4** | **4** | **8** | **0** | **1** | **1** |

| HBD Disciplines College           | # Reviews |  | # Approvals |  | # Denials |  |
|-----------------------------------|-----------|-----------------|-----------------|-----------------|-----------------|
|                                   | Female    | Male | Total | Female | Male | Total | Female | Male | Total |
| Business                          | 1         | 2    | 3     | 1      | 1    | 2     | 0      | 1    | 1     |
| Design                            | 0         | 1    | 1     | 0      | 1    | 1     | 0      | 0    | 0     |
| Liberal Arts and Sciences         | 5         | 3    | 8     | 4      | 3    | 7     | 1      | 0    | 1     |
| Library                           | 0         | 0    | 0     | 0      | 0    | 0     | 0      | 0    | 0     |
| **TOTAL**                         | **6**     | **6** | **12** | **5** | **5** | **10** | **1** | **1** | **2** |

Note: STEM refers to Science Technology, Engineering & Math; SBS refers to Social & Behavioral Sciences; HBD refers to Humanities, Business & Design

These numbers reflect tenure review outcomes that were submitted to the Executive Vice President & Provost Office.

Source: Office of Institutional Research
### Table 4. Promotion Review Outcomes 2008

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th>SBS Disciplines</th>
<th></th>
<th>HBD Disciplines</th>
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</thead>
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<td># Approvals</td>
<td># Denials</td>
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<td>Male</td>
<td>Total</td>
<td>Female</td>
<td>Male</td>
<td>Total</td>
</tr>
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<td>Agriculture &amp; Life Sciences</td>
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<td>7</td>
<td>9</td>
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<td>4</td>
<td>1</td>
<td>3</td>
<td>4</td>
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<td>23</td>
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<td>Male</td>
<td>Total</td>
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<td>Female</td>
<td>Male</td>
<td>Total</td>
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<td>1</td>
<td>3</td>
</tr>
</tbody>
</table>

**Note:** STEM refers to Science Technology, Engineering & Math; SBS refers to Social & Behavioral Sciences; HBD refers to Humanities, Business and Design

These numbers reflect promotion review outcomes that were submitted to the Executive Vice President & Provost Office.

**Source:** Office of Institutional Research
### Table 5a. Years in Rank at the Associate Professor Level Hired as Assistant Professors as of October 2008

#### STEM

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<th>Years in Rank</th>
<th>Women</th>
<th>% Women</th>
<th>Men</th>
<th>% Men</th>
<th>Total</th>
</tr>
</thead>
<tbody>
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<td>0-2</td>
<td>12</td>
<td>29%</td>
<td>39</td>
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<td>51</td>
</tr>
<tr>
<td>3-5</td>
<td>11</td>
<td>27%</td>
<td>28</td>
<td>21%</td>
<td>39</td>
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<tr>
<td>6-8</td>
<td>5</td>
<td>12%</td>
<td>6</td>
<td>4%</td>
<td>11</td>
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<tr>
<td>9-11</td>
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<td>12%</td>
<td>11</td>
<td>8%</td>
<td>16</td>
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<tr>
<td>12-14</td>
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<td>12</td>
<td>9%</td>
<td>16</td>
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<tr>
<td>15 or more</td>
<td>4</td>
<td>10%</td>
<td>40</td>
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#### Those 15 and more:

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#### SBS

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<th>Men</th>
<th>% Men</th>
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<td>6</td>
<td>35%</td>
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</tr>
<tr>
<td>3-5</td>
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<td>5</td>
<td>29%</td>
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<tr>
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<td>0%</td>
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<tr>
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<td>24%</td>
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#### Those 15 and more:

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#### HBD

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<th>% Men</th>
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<td>19</td>
<td>29%</td>
<td>34</td>
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<tr>
<td>3-5</td>
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<td>13</td>
<td>20%</td>
<td>21</td>
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<tr>
<td>6-8</td>
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<td>6</td>
<td>9%</td>
<td>15</td>
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<tr>
<td>9-11</td>
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<td>13</td>
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<tr>
<td>12-14</td>
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<td>4</td>
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<td>8</td>
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<tr>
<td>15 or more</td>
<td>16</td>
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<td>18</td>
<td>27%</td>
<td>34</td>
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#### Those 15 and more:

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<tr>
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<tr>
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**STEM = Science, Technology, Engineering and Mathematics**  
**SBS = Social and Behavioral Science**  
**HBD = Humanities, Business and Design**  

Iowa State University ADVANCE Program  
Year 3 2008-09 complete for distribution
Table 5b. Years in Rank at the Associate Professor Level for Faculty Hired as Associate Professors as of October 2008

<table>
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<tr>
<th>Years in Rank</th>
<th>STEM Women %</th>
<th>Men %</th>
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<tbody>
<tr>
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<td>12 41%</td>
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<tr>
<td>3-5</td>
<td>2 25%</td>
<td>10 34%</td>
<td>12</td>
</tr>
<tr>
<td>6-8</td>
<td>2 25%</td>
<td>4 14%</td>
<td>6</td>
</tr>
<tr>
<td>9-11</td>
<td>2 25%</td>
<td>0 0%</td>
<td>2</td>
</tr>
<tr>
<td>12-14</td>
<td>0 0%</td>
<td>1 3%</td>
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</tr>
<tr>
<td>15 or more</td>
<td>0 0%</td>
<td>2 7%</td>
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</tr>
<tr>
<td>Total</td>
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Those 15 and more:
Range: 0 22-24
Mean: 0 23
Std. Deviation: 0 1.41
Median: 0 23

<table>
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<td>3-5</td>
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</tr>
<tr>
<td>6-8</td>
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<td>1 11%</td>
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<td>9-11</td>
<td>0 0%</td>
<td>0 0%</td>
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<td>12-14</td>
<td>0 0%</td>
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<tr>
<td>15 or more</td>
<td>1 33%</td>
<td>2 22%</td>
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Those 15 and more:
Range: 17 18-20
Mean: 17 19
Std. Deviation: 0 1.41
Median: 17 19

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<td>6-8</td>
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<td>9-11</td>
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<tr>
<td>15 or more</td>
<td>1 14%</td>
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<td>Total</td>
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<td>17</td>
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Those 15 and more:
Range: 22 21-27
Mean: 22 24.0
Std. Deviation: 0 4.24
Median: 22 24

STEM = Science, Technology, Engineering, and Mathematics
SBS = Social and Behavioral Science
HBD = Humanities, Business and Design
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STEM = Science, Technology, Engineering Mathematics
SBS = Social Behavioral Sciences
HBD = Humanities, Business Design

Iowa State University ADVANCE Program
Year 3 2008-09 complete for distribution
<table>
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<th>Category/Department</th>
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<th>Associate Professor Total</th>
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STEM = Science, Technology, Engineering and Mathematics
SBS = Social and Behavioral Science
HBD = Humanities, Business and Design
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Iowa State University ADVANCE
Collaborative Transformation Project

First Round Focal Department Transformational Strategies and Outcomes (January 2008 - January 2009)

By:

Sharon R. Bird, Kristen Constant, Fred Janzen, and Jo Anne Powell-Coffman

Iowa State University ADVANCE Program

Citation information:


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Iowa State University ADVANCE Collaborative Transformation Project¹

First Round Focal Department Transformational Strategies and Outcomes (January 2008 - January 2009)

Sharon R. Bird²
Kristen Constant
Fred Janzen
Jo Anne Powell-Coffman
Iowa State University ADVANCE Program

I. Background

“The Iowa State University ADVANCE program is […] designed to create an infrastructure at ISU for transforming structures, cultures, and practices in ways that enable and support recruitment and retention of a diverse, highly qualified and cohesive faculty. This infrastructure is designed to include “top down” university policies and procedures as well as “bottom up” initiatives involving departmental work climate and strategies for improving recruitment, retention and promotion of faculty” (Bird and Hamrick 2008).

To this end, ISU ADVANCE:

• collects base-line quantitative data on faculty recruitment, retention and promotion, and on faculty work issues such as satisfaction with departmental work climate and resource distributions,
• supports policies designed to enhance faculty productivity and job satisfaction,
• implements new programs such as faculty networking events and a mentoring program for faculty of color,
• supports three Equity Advisors in the three focal colleges,
• provides training to STEM faculty and department Chairs about subtle biases and how they operate,
• supports ADVANCE Professors in each of 9 focal departments who work with the ADVANCE Leadership Team, focal department Chairs, and fellow faculty members to develop and implement department-level transformation strategies as part of a process called “Collaborative Transformation.”

The ISU ADVANCE Collaborative Transformation (CT) project is a three-step action research process that involves researchers trained in social science

² For more information, contact Sharon R. Bird, email: sbird@iastate.edu.
research methodologies working with faculty from nine ISU STEM departments (phased into the program over 5 years).

- The CT Project is designed to first “mirror back” to faculty in each participating department aspects of their own departmental structures, cultures and practices, particularly those involving faculty recruitment, retention and promotion that affect the relative representation of women and men faculty, and relative representation of other groups. Focal department faculty participate in focus groups and interviews in order to provide the information necessary for the CT project.
- The CT project is designed to enable faculty in each focal department to utilize the information gleaned during the data collection process to formulate action plans for departmental changes (in those areas identified by departmental faculty themselves).
- The CT project is designed to enable faculty in each department to implement transformation strategies\(^3\) for enhancing departmental structures, cultures and practices in ways that meet departmental goals for enhancing faculty productivity and satisfaction.

Findings from each separate focal department are then used to create synthesis reports (in years 2, 4 and 5 of the grant project) that integrate results from multiple departments in order to identify patterns in departmental structures, cultures and practices that (a) most enhance faculty members’ scholarly productivity and job satisfaction, and (b) most enhance the successful recruitment, retention and promotion of women faculty (as well as men faculty). The first synthesis report (based on Round 1 Focal Departments) is now available (Bird and Hamrick 2008) at [http://www.advance.iastate.edu/](http://www.advance.iastate.edu/).

An underlying assumption of the CT approach is that enhancing the recruitment, retention and promotion of women faculty requires universities to transform workplace structures, cultures and practices to meet the career and quality of life needs of women faculty. Many of these needs, such as parental leave and dual-career hiring, affect both women and men. But because these are issues that continue to affect women at a higher rate, women faculty are disproportionately negatively affected in universities that have not adequately altered their structures, cultures and practices.

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\(^3\) Transformation strategies are strategies specific to each department. ADVANCE Team members are available to assist Department Chairs, ADVANCE Professors, and the departmental ADVANCE team in developing the appropriate strategies, implementing these strategies, documenting conditions within the department as they relate to the issue being addressed with each strategy. As the department moves forward with each transformation strategy, ADVANCE team members will also gather information regarding progress toward change. In addition to interview and focus group data, responses to university wide surveys (e.g., COACHE survey) will be used to assess aggregated attitudinal and behavioral changes of the faculty within focal departments.
Findings from the CT project will be used in the latter stages of the 5 year project to develop a comprehensive guide to best approaches for diagnosing and addressing barriers to faculty productivity and satisfaction. This guide will be available as a resource for university administrators at all levels of the university.

II. Round 1 Focal Department Transformational Strategies and Outcomes

Round 1 ISU ADVANCE Focal Departments are Ecology, Evolution, and Organismal Biology (EEOB), Genetics, Development and Cell Biology (GDCB), and Materials Science and Engineering (MSE).

A. Outcomes associated with Training of Departmental ADVANCE Professors and Chairs for ISU ADVANCE CT Project

1. Following our first training on subtle bias in the workplace, which preceded the data collection for the CT project in the first 3 focal departments, focal department Chairs took Assistant professors in their own departments out for breakfast or lunch to discuss any questions the Assistant professors might have had about departmental operating procedures, tenure and review, mentoring, etc. Assistant professors in each focal department later reported (in focus groups and interviews) a highly favorable response to the Chairs’ proactive steps towards ensuring transparency and clear communication among Assistant professors. Department Chairs have institutionalized this practice.

2. Focal department Chairs report that their departments’ participation in the ADVANCE CT project and ADVANCE networking events, along with the formal designation of ADVANCE Professors, has enhanced opportunities for faculty discussions about topics not ordinarily broached in faculty meetings or casual faculty discussions.

B. Outcomes associated with Collaborative Transformation Project in the Departments and Leadership of ADVANCE Professors

Departmental efforts made thus far under the leadership of ADVANCE Professors to improve department climate and to create structures more conducive to recruitment, retention and promotion of faculty—especially women faculty—include:

1. Addressing Work-Life Issues:

   - One department (GDCB) drafted a set of mechanisms for providing “Relief from Teaching for New Parents” and is working to meet this departmental objective within the context of
University guidelines (Powell-Coffman 2008a). Another department has also discussed this issue (EEOB). Another department (MSE) has agreed that they should consider related options with an awareness of the arrangements that are most likely to be acceptable to departmental faculty (Constant 2008a; Janzen 2008c).

- One department sponsored a meeting between the department Chair, the AP and Associate Provost Susan Carlson to discuss the limitations of current University policies on parental leave and guidelines for modifying departmental governance documents to address work/life issues (Powell-Coffman 2008b).
- Discussions in the departments about work-life issues for parents have led also to conversations about how illness and other life events might affect faculty position responsibilities (Janzen 2008a; Powell-Coffman 2008c).
- Two departments (EEOB, MSE) raised the issue of appropriate faculty meeting times.
- One department invited Associate Provost Susan Carlson to meet with them to discuss ISU’s existing work-life balance policies (Constant 2007).
- Faculty in two departments (GDCB, EEOB) collaborated to produce a mechanism for providing childcare for visiting speakers. Similar efforts were made for workshops hosted by these departments (Powell-Coffman 2008a).
- Three department APs have provided input and have expressed considerable support for a proposed University-level policy for modifying faculty duties to accommodate the needs of parents of “newly arrived children.” APs have also discussed the proposed policy at their own departmental faculty meetings and in meetings with colleagues outside their home departments.

2. Addressing Recruitment Issues:

- All three departments held discussions during job searches (most at the department level, some at the college level) about the importance of understanding and avoiding cognitive (gender and race-related) errors and subtle gender biases. Not all faculty who were a part of these discussions necessarily agreed with or “got” the issues regarding unintentional bias, but ADVANCE Professors explain that the CT project has at least provided a space for these discussions (Constant 2008b; Janzen 2008b; Powell-Coffman 2008a).
- Similarly, faculty in all three focal departments have addressed the issue of whether and to what extent “diversity” should be consciously used (or not) in faculty searches. Lack of consensus exists in the departments regarding how and when
“diversity” should enter discussions (e.g., is “diversity” a reasonable “tie-breaker” issue?) (Constant 2008b; Janzen 2008b; Powell-Coffman 2008a).

- Two departments (GDCB, EEOB), in collaboration with a non-Focal Department (BBMB), wrote a proposal for and received a women’s enrichment mini-grant to support a seminar series “for promising post-doctoral fellows and future faculty in the basic life sciences.” The intent is to invite promising women scholars and scholars of color. Three promising women scholars are scheduled to visit the campus in the inaugural year of this seminar series (Powell-Coffman 2008a).

- One department (GDCB) has engaged in discussion among the faculty regarding the implications of including particular phrasing in faculty position recruitment advertisements that may unintentionally reduce the number of women applicants for open faculty positions.

- Similarly, another department (EEOB) has charged departmental search committees for hiring new faculty to strive “to solicit and receive applications from a broad and diverse applicant pool.” Departmental search committees are also now formally charged with (a) judging applicants’ vitas “based on explicit criteria,” (b) using “a matrix to ensure objectivity” in this process, and (c) notifying voting faculty within the department at least three days in advance of the faculty meeting for discussing an initial short list of possible interviewees of the “proposed candidates.” “The voting faculty may” then “choose to interview candidates other than, or in addition to, those recommended by the search committee.” These procedures are now part of the department’s governance document (Janzen 2008c).

- One department (MSE) has increased participation among departmental faculty in educational efforts regarding best practices for recruiting women faculty and faculty of color by sponsoring a faculty member (Full professor who is not the department’s ADVANCE Professor) to attend a national workshop and to then present back to the faculty on lessons learned from the workshop.

3. Addressing Tenure and Promotion Issues:

- One department (GDCB) developed a seminar series specifically for departmental Assistant professors to present their own “research in progress” and encouraged Assistant professors to invite prominent scholars in their area of research to come to ISU to give presentations (with funding support) (Powell-Coffman 2008a).
• One department (MSE) is in the process of developing a departmental mentoring guide (Constant 2008a).

• One department (EEOB) instituted a formal policy whereby Associate professors may request to meet with a special review committee comprised of Full professors who will provide feedback to the Associate professor regarding issues of promotion to Full professor. This policy was written into the departmental governance document (Janzen 2008c).

• Two departments (EEOB, MSE) are discussing the possibility of implementing “team mentoring” (i.e., teams of tenured faculty who mentor tenure-track Assistant professors) (Constant 2008a; Janzen 2008c).

4. Addressing Department Climate Issues:

• All departments (many but not all faculty members, Chairs) participated in a “Practical Tools for Recognizing and Reducing Unintentional Bias” Workshop organized by ADVANCE Equity Advisor, Janette Thomson; APs and EAs also participated as “players” in a reader’s theater enactment of subtle bias (October 31, 2007).

• Two departments have acknowledged the need to ensure that Assistant professors feel welcomed to participate in and state frankly/honestly their own views in discussions about important department issues (Janzen 2008b; Powell-Coffman 2008a). One of these departments (GDCB) acknowledged the importance of senior faculty asking junior faculty for their input (as a way to ensure full and open participation of the faculty). A third department did not report problems in this area (Bird and Hamrick 2007).

• In one department (GDCB), an Assistant Professor, post-docs and graduate students organized a special seminar on “communication with journal editors.” The seminar helped to address the perception among many faculty and students that this information was most readily available through informal networks (Powell-Coffman 2008a).

• One department (GDCB), though initially skeptical that ADVANCE CT would lead to excessive faculty meetings, reports that this has not been the case. The department AP and Chair successfully leveraged the cumulative goodwill and professional respect they had previously established with their faculty to reassure other faculty of the intentions of ADVANCE to ensure a positive work climate for all faculty. This strategy, along with the forward-looking methodology of the CT project, helped provide space in the department for discussion of climate issues of interest to all faculty members (Powell-Coffman 2008c).
• One department (EEOB) created and implemented a new policy—embedded in its governance document—whereby non-tenure-track faculty can participate in all departmental matters other than those involving promotion and tenure decisions.

These departmental efforts and outcomes have influenced and have been influenced by simultaneous efforts being made at the college and university level. Under the leadership of 3 Equity Advisors (Chuck Glatz (ENG), Lisa Larson (LAS), and Jan Thompson (CALS)), and members of the ADVANCE Co-PI team (including the CT researchers), information about and findings from the CT process have been disseminated widely. Also, training tools developed for departmental leaders have been adapted for use more broadly across campus—particularly those training tools for recognizing and addressing unintended gender biases.

III. Round 1 Focal Department ADVANCE Professors’ & Chairs’ Assessments of Most Successful Departmental Initiatives

ADVANCE Professors and department Chairs were asked to indicate “Which success stories about the ISU ADVANCE Collaborative Transformation project do you think are most important for others to hear about?” Their responses were then organized by department.

A. Ecology, Evolution, and Organismal Biology (EEOB), Fred Janzen and Jonathan Wendel:

1. More open communication among the faculty in EEOB about issues that previously were less commonly discussed; including the concept of ‘implicit bias’ and work-life balance issues.
2. Even more proactive steps towards (and discussions about) increasing the diversity of applicant pools for faculty searches.
3. Consideration of new departmental mechanisms for new parents to spend time with their children; and related discussions regarding family care issues (e.g., care for an elderly or ill family member).
4. Clarification of norms regarding levels of departmental/college committee work (and other service work) for faculty at different ranks; and related efforts to clarify departmental expectations for faculty via informal meetings between Assistant professors and the department Chair and discussions among senior faculty about best practices for mentoring.

B. Genetics, Development and Cell Biology (GDCB), Jo Anne Powell-Coffman and Martin Spalding:

1. Discussions about how to increase the number of women in the candidate pool led to the seminar series for promising post-docs.
2. Drafting departmental guidelines to enable new parents to modify work duties so that they may work from home and appropriately prioritize research efforts.
3. Department Chair’s meetings with Assistant professors to clarify questions about tenure, mentoring or any other issue of interest.
4. Special seminars to increase awareness of scholarly research by Assistant professors (a mentoring issue, as well as providing for more informed faculty evaluation).
5. During the 2007-2008 academic year, the faculty formally voted to make diversifying the GDCB faculty a long-term goal of the Department.

C. Materials Science Engineering (MSE), Kristen Constant and Richard LeSar:

1. Explicit discussion among the faculty about ensuring diverse applicant pools during job searches.
2. Multiple discussions among the faculty (led by K. Constant) on avoiding implicit biases during candidate interviews and during the evaluation of candidates for faculty positions. These discussions are ongoing.
3. Level of engagement among the faculty about the issue of effective mentoring. These discussions are also ongoing. The department is working to develop a manual of “best practices” for mentoring.
4. Provision of informational resources to the department (via K. Constant’s work with the ADVANCE program) about “best practices” in recruitment of faculty, departmental climate, faculty evaluation processes, and mentoring.

References

—. 2008b. "Spring Semester 2008 ADVANCE Activities within Materials Science Engineering." Iowa State University, Ames, IA.
Janzen, Fred. 2008a. "Email correspondence with Sharon Bird, December 9, 2008." Ames, IA.
—. 2008b. "Personal correspondence with Sharon Bird, April 15, 2008."
Executive Summary

Prepared by Jason Pontius & Sandra Gahn
Office of Institutional Research
ISU ADVANCE Program

This survey was conducted in cooperation with the Association of American Universities Data Exchange

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Iowa State University
Office of the Executive Vice President & Provost

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Appendix 3: Comparison of ISU Tenure-Eligible Faculty Responses to 2008 AAAUDE Faculty
Satisfaction Survey and 2006 COACHE Survey ................................................................................... 89
The Survey: The Association of American Universities Data Exchange (AAUDE) Faculty Satisfaction survey was administered to all 1,676 current Iowa State University faculty via the web in January, 2008. Of that group 21 faculty opted out through the web survey administration system. Of the remaining 1,655, we received survey responses from 890 faculty for a 53.8% response rate. Faculty respondents were representative of the overall faculty population. For this report, administrators, as defined by those faculty who hold president, provost, dean, or chair positions (n = 64), were removed from the analysis.

General Themes in the Report:
- In general, full professors tended to be the most satisfied while associate professors tended to be the least satisfied.
- Few differences were found between tenure-eligible faculty by gender or race/ethnicity.
- The responses by ISU tenure-eligible faculty to the survey were very similar to responses to similar questions by ISU tenure-eligible faculty in the 2006 COACHE survey.
- Most statistically significant differences found by gender related to work and life stressors, issues of work/life balance, and tenure clock policies.
- Most statistically significant differences found by gender and rank were among associate professors.
- Very few statistically significant differences in faculty responses were found by race or ethnicity. Most statistically significant differences found by race and ethnicity related to differences between Asian and non-Asian faculty at Iowa State.

The Statistical Analysis: Tests to compare average responses, t-tests and analysis of variance tests (ANOVAs), were used to determine if statistically significant differences existed between sub-groups. To adjust for different sample sizes between sub-groups, unequal variance t-tests (i.e. Satterthwaite/Welch tests) were used in this report to determine differences by gender, race/ethnicity, and for comparisons between tenured and tenure-eligible faculty. Due to the small numbers of faculty of color, non-White faculty were combined to create a “faculty of color” variable. Because Asian faculty comprised 67% of “faculty of color”, Asian faculty were analyzed separately for some questions to look for significant differences.

When one-way ANOVAs were conducted, this study used Bonferroni’s post-hoc analyses to determine if significant differences existed between categories.

Notes about the Report:
- Graphs depicting the results reported below can be found in the Tables & Graphs section of the Final Report.
- The total percentage of responses reported (e.g., “satisfied” and “dissatisfied”) may not sum to 100%. The remaining percentage were neutral responses (e.g., “neither satisfied nor dissatisfied”).
- Five-point response scales for satisfaction and agreement were collapsed into a three-point scale (e.g., “very satisfied” and “somewhat satisfied” responses were collapsed into a single “satisfied” category and “very dissatisfied” and “somewhat dissatisfied” were collapsed into “dissatisfied”).
- The response scale for questions about the appropriateness of scholarly work and service in the tenure and promotion sub-section were substantively different from the response scales in the rest of the survey. For example, a response of “3”, normally a neutral value, corresponded instead to “valued appropriately”. Lower numbers corresponded to undervaluation and higher numbers corresponded to overvaluation. Questions about the work and outside stressors were also based on a 3-point scale rather than a 5-point scale.
- When statistically significant differences were found between colleges, the graphs in the next section of the report show where the differences occur.

Sub-Sections of Executive Summary:
1. Overall Satisfaction
2. Faculty Resources
3. Work Stressors
4. Workload
5. Work Cultures & Values
6. Mentoring
7. Tenure & Promotion
8. Hiring & Retention
9. ISU Flexible Tenure Policies
10. Life Outside the Institution
OVERALL SATISFACTION

Overall Job Satisfaction
67.9% Satisfied  24.1% Dissatisfied
8% Neither satisfied nor dissatisfied
No statistically significant differences were found by gender, race/ethnicity, tenure status, or rank.

Faculty Salary
50.5% Satisfied  39.8% Dissatisfied  9.7% Neither satisfied nor dissatisfied
Significant differences:
- Full professors and assistant professors were significantly more satisfied with their salary than associate professors.
- Full professors were significantly more satisfied than non-tenure-eligible faculty.
- Statistically significant differences in satisfaction with salary were found by college.

Start-Up Costs
46.2% Satisfied  33.0% Dissatisfied  20.7% Neither satisfied nor dissatisfied
59.4% of tenure-eligible faculty were satisfied with their start-up costs
Significant differences:
- Tenure-eligible faculty were significantly more satisfied with start-up costs than all other faculty.

FACULTY RESOURCES

Availability Of Parking
64.9% Satisfied  23.5% Dissatisfied
Significant differences:
- Non-tenure-eligible faculty were significantly less satisfied than other faculty ranks.
- Tenured faculty were significantly more satisfied than tenure-eligible and non-tenure-eligible faculty.
- Male tenure-eligible faculty were significantly more satisfied than female tenure-eligible faculty.
- Statistically significant differences in satisfaction with the availability of parking were found by college.

Office Space
79.6% Satisfied  12.6% Dissatisfied
Significant differences:
No statistically significant differences were found by gender, race/ethnicity, tenure status, or rank.

Lab or Research Space
62.0% Satisfied  25.5% Dissatisfied
Significant differences:
- Associate professors were significantly less satisfied than full professors.
- Female full professors were significantly more satisfied than male full professors.

Teaching Responsibilities
80.3% Satisfied  10.6% Dissatisfied
Significant differences:
- Female associate professors were significantly less satisfied than male associate professors.
- Female non-tenure-eligible faculty were significantly less satisfied than male non-tenure-eligible faculty.

Access to Teaching Assistants
47.6% Satisfied  38.5% Dissatisfied
No statistically significant differences were found by gender, race/ethnicity, tenure status, or rank.

Quality of Graduate Students
58.9% Satisfied  25.8% Dissatisfied
No statistically significant differences were found by gender, race/ethnicity, tenure status, or rank.
Advising Responsibilities
65.3% Satisfied 14.7% Dissatisfied
Significant differences:
• Female full professors were significantly more satisfied than male full professors.

Time Available for Scholarly Work
34.8% Satisfied 47.7% Dissatisfied
Significant differences:
• Female faculty were significantly less satisfied than male faculty.
• Significant differences were found by tenure status showing that female tenured, tenure-eligible, and non-tenure-eligible faculty were less satisfied than their male colleagues.
• By rank, significant gender differences were found among assistant professors but not by gender when comparing female associate professors to male associate professors or female full professors compared to male full professors.

Committee & Administrative Responsibilities
36.8% Satisfied 31.6% Dissatisfied
Significant differences:
• Non-tenure-eligible faculty were the most satisfied, while tenured faculty were the least satisfied.
• Assistant professors were significantly more satisfied than associate professors.

WORK STRESSORS
(Items have been sorted to show results with the largest percent of “very” plus “somewhat” stressful first.)

Securing Funding For Research
44.4% Very stressful 47.7% Somewhat stressful 8.0% Not stressful
Significant differences:
• Assistant professors reported significantly higher levels of stress than full professors.
• Female full professors reported significantly higher levels of stress than male full professors.
• Statistically significant differences in reported stress levels were found by college.

Scholarly Productivity
33.4% Very stressful 51.0% Somewhat stressful 15.6% Not stressful
Significant differences:
• Assistant professors reported the highest levels of stress, full professors reported the lowest levels of stress.
• Female faculty reported significantly higher levels of stress than male faculty.
• Female associate professors reported significantly higher levels of stress than male associate professors.

Managing a Research Group or Grant
22.7% Very stressful 57.7% Somewhat stressful 19.6% Not stressful
Significant differences:
• Female faculty reported significantly higher levels of stress than male faculty.
• Underrepresented faculty of color reported significantly lower levels of stress than White and Asian faculty.
• Female associate professors reported significantly higher levels of stress than male associate professors.
• Statistically significant differences were found by college.

Review/Promotion Process
35.2% Very stressful 44.4% Somewhat stressful 20.4% Not stressful
Significant differences:
• Female faculty reported significantly higher levels of stress than male faculty.
• Female tenured faculty reported significantly higher levels of stress than male tenured faculty.
• By rank and gender, female associate professors reported higher levels of stress than male associate professors, but the difference was not statistically significant.
• Assistant professors reported significantly higher levels of stress than all other faculty ranks. Associate professors reported significantly higher levels of stress than full professors.

Department or Campus Politics
33.5% Very stressful 43.7% Somewhat stressful 22.8% Not stressful
Significant differences:
• Associate professors reported significantly higher levels of stress than full professors.
• Statistically significant differences were found by college.

Teaching Responsibilities
15.0% Very stressful 59.3% Somewhat stressful 25.7% Not stressful
Significant differences:
• Female associate professors reported significantly higher levels of stress than male associate professors.
• Statistically significant differences were found by gender within some colleges.
Committee and/or Administrative Responsibilities
16.4% Very stressful  56.2% Somewhat stressful
27.4% Not stressful
Significant differences:
- Full professors reported significantly higher levels of stress than assistant professors and non-tenure-eligible faculty.
- Associate professors reported significantly higher levels of stress than non-tenure-eligible faculty.
- Female full professors reported significantly higher levels of stress than male full professors.
- Statistically significant differences were found by gender within some colleges.

Timing of Departmental Meetings and Functions
6.9% Very stressful  44.6% Somewhat stressful
48.5% Not stressful
Significant differences:
- Female faculty reported significantly higher levels of stress than male faculty.
- Female associate professors reported significantly higher level of stress than male associate professors.

Advising Responsibilities
7.4% Very stressful  41.5% Somewhat stressful
51.1% Not stressful
Significant differences:
- Asian faculty reported significantly higher levels of stress than non-Asian faculty.
- Underrepresented faculty of color reported significantly lower levels of stress than other faculty.
- Statistically significant differences were found by college.

Number of Undergraduate Classes Taught in the Last 12 Months
Average: 2.6 undergraduate classes taught
- Non-tenure-eligible faculty taught significantly more undergraduate classes on average per year (Mean = 3.7) than full professors (Mean = 2.2), associate professors (Mean = 2.7), and assistant professors (Mean = 2.4).
- Asian faculty taught significantly more classes than full professors.
- Asian faculty taught significantly fewer undergraduate classes (Mean = 2.1) than non-Asian faculty (Mean = 2.7).
- Statistically significant differences were found by college.

Number of Graduate Classes Taught in the Last 12 Months
Average: 0.97 graduate classes taught
- Full and associate professors taught more graduate classes on average (Mean = 1.2 for both) than assistant professors (Mean = 0.87) and non-tenure-eligible faculty (Mean = 0.41).
- Non-tenure-eligible faculty taught significantly fewer graduate classes than all other ranks.
- Statistically significant differences were found by college.

Number of Undergraduate Classes Taught That Were Close to Research Interests
- 57% of undergraduate classes taught were close to the faculty member’s research interests.
- No significant differences were found by gender, race/ethnicity, rank or tenure status.

Number of Graduate Classes Taught That Were Close to Research Interests
- 82% of graduate classes taught were close to the faculty member’s research interests.
- No significant differences were found by gender, race/ethnicity, rank or tenure status.

Number of Departmental Committees Served on in the Last 12 Months
Average: 2.7 committees
- Professors of higher rank served on more departmental committees than professors of lower rank. The difference in the number of committees is significant between every rank except between full and associate professors.
- Tenured faculty served on the greatest number of departmental committees, while non-tenure-eligible faculty served on the least number of committees.
- Male faculty served on significantly more departmental committees (Mean = 2.8) than female faculty (Mean = 2.5).

Number of University/College Committees Served on in the Last 12 Months
Average: 1.6 committees
- Professors of higher rank also served on more university/college committees. The difference in the number of committees is statistically significant between every rank except between full and associate professors.
- Tenured faculty served on the greatest number of university/college committees, while non-tenure-eligible faculty served on the least number of committees.
Female full professors served on significantly more university committees (Mean = 2.7) than male full professors (Mean = 2.0).

Asian faculty served on significantly fewer university/college committees (Mean = 0.9) than non-Asian faculty (Mean = 1.6).

**Number of External Committees or Boards Served on in the Last 12 Months**
Average: 1.7 committees

- Faculty with higher rank served on statistically more external committees and boards than those faculty with lower rank.
- Tenured faculty served on the greatest number of departmental committees, while non-tenure-eligible faculty served on the least number of committees.
- Statistically significant differences were found by college.

### WORK CULTURES & VALUES

#### My Colleagues Value My Research
60.1% Agree 22.7% Disagree

Significant differences:
- Female faculty were significantly less likely to agree than male faculty.
- Female tenured faculty were significantly less likely to agree than male tenured faculty.
- Full professors were significantly more likely to agree than associate professors or non-tenure-eligible faculty.

#### My Colleagues Value My Teaching
71.8% Agree 13.6% Disagree

No statistically significant differences were found by gender, race/ethnicity, tenure status, or rank.

#### I Am Satisfied with Opportunities to Collaborate with Faculty in My Primary Department
60.2% Agree 24.1% Disagree

Significant differences:
- Full professors were significantly more satisfied than associate or assistant professors.

#### I Am Satisfied with Opportunities to Collaborate with Faculty in Other ISU Departments
59.3% Agree 19.1% Disagree

Significant differences:
- Female faculty were significantly less satisfied than male faculty.
- Full professors were significantly more satisfied than all other ranks.
- Statistically significant differences were found by college.

#### Interdisciplinary Research is Rewarded in My Department
53.5% Agree 25.0% Disagree

Significant differences:
- Full professors were significantly more likely to agree than associate professors.
- Statistically significant differences were found by college.

#### My Chair Creates a Collegial and Supportive Environment
67.9% Agree 21.6% Disagree

Significant differences:
- Female faculty were significantly less likely to agree than male faculty.
- Associate professors were significantly less likely to agree than all other ranks.
- Tenured male faculty were significantly more likely to agree than tenured female faculty.
- Statistically significant differences in levels of agreement were found by college.

#### My Dean Creates a Collegial and Supportive Environment
46.1% Agree 29.7% Disagree

Significant differences:
- Female faculty were significantly less likely to agree than male faculty.
- Associate professors were significantly less likely to agree than all other ranks.
- Tenured male faculty were significantly more likely to agree than tenured female faculty.
- Statistically significant differences in levels of agreement were found by college.
- Within some colleges, faculty of color were significantly more likely to agree than White faculty.

#### My Chair Helps Me Obtain the Resources I Need
58.6% Agree 22.8% Disagree

Significant differences:
- Associate professors were significantly less likely to agree than assistant professors.
- Non-tenure-eligible faculty were significantly more likely to agree than tenured faculty.

#### My Dean Helps Me Obtain the Resources I Need
38.1% Agree 33.1% Disagree

Significant differences:
- Associate professors were significantly less likely to agree than assistant professors.
I Have a Voice in the Decision-Making That Affects the Direction of My Department
58.1% Agree  28.8% Disagree
Significant differences:
- Female faculty were significantly less likely to agree than male faculty.
- Full professors were significantly more likely to agree than all other faculty.
- Statistically significant differences were found in levels of agreement by race/ethnicity within some colleges.

I Can Navigate the Unwritten Rules of Faculty Conduct
69.4% Agree  13.7% Disagree
Significant differences:
- Full professors were significantly more likely to agree than all other faculty.

My Department is a Good Fit for Me
68.5% Agree  17.2% Disagree
Significant differences:
- Male tenured faculty were significantly more likely to agree than female tenured faculty.
- Associate professors were significantly less likely to agree than full professors and non-tenure-eligible faculty.
- Statistically significant differences were found by race/ethnicity within some colleges.

I Can Comfortably Raise Personal/Family Responsibilities When Scheduling Departmental Obligations
66.3% Agree  18.9% Disagree
Significant differences:
- Female faculty were significantly less likely to agree than male faculty.
- Male tenured faculty were significantly more likely to agree than female tenured faculty.
- Associate professors were significantly less likely to agree than full professors.
- Non-tenure-eligible faculty were significantly more likely to agree than associate or assistant professors.

I Feel Excluded From an Informal Network in My Department
27.3% Agree  49.0% Disagree
Significant differences:
- Female tenure-eligible and female non-tenure-eligible faculty were significantly more likely to agree than their male colleagues.
- Non-tenure-eligible faculty were significantly more likely to agree than tenured or tenure-eligible faculty.
- Statistically significant differences by gender were found within some colleges.

I Have To Work Harder Than Colleagues to be Perceived as a Legitimate Scholar
38.3% Agree  37.8% Disagree
Significant differences:
- Female faculty were significantly more likely to agree than male faculty.
- Female tenured faculty were significantly more likely to agree than male tenured faculty.
- Full professors were significantly less likely to agree than all other faculty.
- Statistically significant differences in level of agreement were found by college.

MENTORING

Have You Had a Formal Mentor Within Your Department?
23.9% Yes, one was assigned  19.7% Yes, one was chosen  56.4% No
Significant differences:
- Significant differences were found by rank with 17.7% of full professors, 56.6% of associate professors, 90.6% of assistant professors, and 14.1% of non-tenure-eligible faculty having had a formal mentor in their department.
- There was no significant difference by gender in the percent of faculty who had a formal mentor when controlling for faculty rank.
- Faculty of color were significantly more likely to have had a formal mentor (58.4%) than White faculty (41.1%). Of tenured and tenure-eligible faculty only, 64.6% of faculty of color and 48.1% of White faculty had a formal mentor.

How Helpful was Formal Mentoring
57.9% helpful  25.6% unhelpful
Significant differences:
- Female faculty were significantly more likely to find formal mentoring helpful than male faculty.
- White full professors rated formal mentoring as more helpful than their faculty of color colleagues.

Have You Had One or More Informal Mentors While at Iowa State?
63.7% Yes  36.4% No
Significant differences:
- There were significant differences by rank with 56.5% of full professors, 62.8% of associate professors, 81.2% of assistant professors, and 56.9% of non-tenure-eligible faculty having had one or more informal mentors while at Iowa State.
- Significantly more female faculty reported having an informal mentor, even when controlling for rank.
Female full and associate professors were significantly more likely than their male colleagues to have reported having one or more informal mentors.

Asian faculty were significantly less likely to have had one or more informal mentors than non-Asian faculty.

**How Helpful was This Informal Mentoring?**

78.0% helpful  20.2% unhelpful

Significant differences:

Female faculty of all ranks were significantly more likely to rate informal mentoring as helpful than their male colleagues.

**Have You Received Adequate Mentoring at ISU?**

56.3% Yes  43.7% No

Significant differences:

Associate professors were significantly less likely to be satisfied with their mentoring than full or assistant professors.

Tenure-eligible faculty were significantly more likely to be satisfied than tenured or non-tenure-eligible faculty.

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## TENURE & PROMOTION

### Criteria for Promotion and/or Tenure are Clearly Communicated

61.3% Agree  31.2% Disagree

Significant differences:

Full professors were significantly more likely to agree than associate or assistant professors.

Asian faculty were significantly more likely to agree than non-Asian faculty.

Statistically significant differences were found by college.

### To What Extent is Research/Scholarly Work Valued in the Tenure and/or Promotion Process?

0.8% Valued slightly or not at all

3.5% Somewhat valued  95.7% Highly valued

No statistically significant differences were found by gender, race/ethnicity, tenure status, or rank.

### How Appropriately is Research/Scholarly Work Valued in the Tenure and/or Promotion Process?

5.2% Undervalued  52.8% Appropriately valued  42.0% Overvalued

Significant differences:

Female assistant professors were more likely to report that research is overvalued in the tenure and/or promotion process than male assistant professors.

Statistically significant differences were found by college.

### To What Extent are Teaching Contributions Valued in the Tenure and/or Promotion Process?

21.5% Valued slightly or not at all

59.6% Somewhat valued  18.9% Highly valued

No statistically significant differences were found by gender, race/ethnicity, tenure status, or rank.

### How Appropriately Are Teaching Contributions Valued in the Tenure and/or Promotion Process?

62.6% Undervalued  33.1% Appropriately valued  4.3% Overvalued

No statistically significant differences were found by gender, race/ethnicity, tenure status, or rank.

### To What Extent Is Service Valued in the Tenure and/or Promotion Process?

53.1% Valued slightly or not at all

42.3% Somewhat valued  4.6% Highly valued

No statistically significant differences were found by gender, race/ethnicity, tenure status, or rank.

### How Appropriately Is Service Valued in the Tenure and/or Promotion Process?

53.9% Undervalued  42.0% Appropriately valued  4.1% Overvalued

Significant differences:

Female faculty were significantly more likely to rate service as undervalued (63%) than male faculty (49%).

Female full professors and female assistant professors were significantly more likely to rate service as undervalued than male full and assistant professors.

Associate professors were significantly more likely to rate service as undervalued than full or assistant professors.

### To What Extent is Extension & Professional Practice Valued in the Tenure and/or Promotion Process?

41.7% Valued slightly or not at all

48.0% Somewhat valued  10.3% Highly valued

No statistically significant differences were found by gender, race/ethnicity, tenure status, or rank.

### How Appropriately is Extension & Professional Practice Valued in the Tenure and/or Promotion Process?

57.3% Undervalued  37.8% Appropriately valued  5.0% Overvalued

No statistically significant differences were found by gender, race/ethnicity, tenure status, or rank.

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## HIRING & RETENTION

In the Last Five Years at Iowa State, Have You Received a Job Offer that You Took to Your Chair?

18.7% Yes  81.3% No

Significant differences:
Assistant professors (12%) and non-tenure-eligible faculty (11%) were significantly less likely to receive a job offer than full (24%) and associate professors (23%).

Has an Outside Job Offer(s) Resulted in Adjustments to Any of the Following?
51.6% Salary 43.4% No adjustment
11.3% Course load 7.5% Research start-up funds

Findings:
- Male faculty were more likely than female faculty to have used an outside job offer to negotiate an adjustment in salary, course load, research start-up funds, administrative duties, summer salary, and tenure clock timing.
- Female faculty were more likely than male faculty to have used an outside job offer to negotiate an adjustment in leave time and a job for a spouse/domestic partner.
- Female faculty were less likely than male faculty to have used an outside job offer to negotiate any adjustments in their current job.

In the Next Three Years, How Likely are You to Leave Iowa State?
37% Likely 44% Unlikely

Significant differences:
- Non-tenure-eligible faculty were significantly more likely to leave than full professors.

To What Extent Have You Considered the Following as Reasons to Leave?
Top reasons for leaving considered: Enhance career beyond tenure and salary, increase salary, find a more supportive work environment

Significant differences:
- Female faculty (Mean = 2.06) were significantly more likely to consider leaving Iowa State to find a more supportive work environment than male faculty (Mean = 1.89, p = 0.007).
- Female faculty (Mean = 1.92) were significantly more likely to consider leaving Iowa State to reduce stress than male faculty (Mean = 1.62, p < 0.001).
- Female faculty (Mean = 1.35) were significantly more likely to consider leaving Iowa State to address child-related issues than male faculty (Mean = 1.16, p < 0.001).
- Female faculty (Mean = 1.69) were significantly more likely to consider leaving Iowa State to improve the employment situation of a spouse/partner than male faculty (Mean = 1.54, p = 0.021).

Is an Outside Job Offer(s) Resulted in Adjustments to Any of the Following?
51.6% Salary 43.4% No adjustment
11.3% Course load 7.5% Research start-up funds

Findings:
- Male faculty were more likely than female faculty to have used an outside job offer to negotiate an adjustment in salary, course load, research start-up funds, administrative duties, summer salary, and tenure clock timing.
- Female faculty were more likely than male faculty to have used an outside job offer to negotiate an adjustment in leave time and a job for a spouse/domestic partner.
- Female faculty were less likely than male faculty to have used an outside job offer to negotiate any adjustments in their current job.

How Supportive Was Your Department Concerning Your Tenure Clock Extension?
64.3% Supportive 32.1% Unsupportive

Significant differences:
- Among faculty who had their tenure clock extended, male faculty reported significantly less support from their department than female faculty. Of those faculty, 46% of male faculty reported that their department was unsupportive (38% indicated “very unsupportive”) vs. 22% of female faculty (9% indicated “very unsupportive”).

Having a Tenure Clock Policy Shows Iowa State is Supportive of Family Issues
80.9% Agree 5.4% Disagree

Significant differences:
- Female faculty were significantly more likely to agree than male faculty.
- Female full professors were significantly more likely to agree than male full professors.

Using the Tenure Clock Policy Might Reflect Poorly on a Faculty Member's Job Performance
34.2% Agree 36.2% Disagree

Significant differences:
- Full professors were significantly less likely to agree than associate or assistant professors.
Additional Time for Tenure Will Not Help Because Colleagues Will Look at Ratio of Publication Per Year
43.1% Agree  30.9% Disagree
Significant differences:
- Assistant faculty were significantly more likely to agree than full professors.
- Underrepresented faculty of color were significantly more likely to agree than other faculty.

The Tenure Clock Policy Will Help Iowa State Recruit Faculty
56.1% Agree  13.1% Disagree
Significant differences:
- Female faculty were significantly more likely to agree than male faculty, regardless of rank or tenure status.
- Underrepresented faculty of color were significantly more likely to agree than other faculty.

My Department Already Provides Enough Tenure Flexibility for Family Issues
30.5% Agree  28.3% Disagree
Significant differences:
- Full professors were significantly more likely to agree than assistant professors.
- Male faculty were significantly more likely to agree than female faculty.
- Male full professors and male associate professors were significantly more likely to agree than their female colleagues.

Extra Time on the Tenure Clock Provides an Unfair Advantage
14.0% Agree  67.2% Disagree
Significant differences:
- Full professors were significantly more likely to agree than assistant professors.
- Male faculty were significantly more likely to agree than female faculty.
- Male full professors and male associate professors were significantly more likely to agree than their female colleagues.

Care of a Family Member is Not a Legitimate Reason to Grant Extra Time on the Tenure Clock
4.5% Agree  85.8% Disagree
Significant differences:
- Full professors were significantly more likely to agree than assistant professors.
- Male faculty were significantly more likely to agree than female faculty.
- Male full professors and male associate professors were significantly more likely to agree than their female colleagues.

Using the Part-Time Policy Would Place an Undue Burden on Colleagues
32.1% Agree  35.7% Disagree
Significant differences:
- Male full professors were significantly more likely to agree than female full professors.

Using the Part-Time Policy Would Hurt a Faculty Member’s Chances for Promotion or Tenure
41.1% Agree  24.4% Disagree
No statistically significant differences were found by gender, race/ethnicity, tenure status, or rank

The Part-Time Policy Will Help Iowa State Retain Qualified Faculty Members
56.7% Agree  11.1% Disagree
Significant differences:
- Female faculty were significantly more likely to agree than male faculty, regardless of rank or tenure status.

LIFE OUTSIDE THE INSTITUTION
(Items have been sorted to show results with the largest percent of “very” plus “somewhat” stressful first.)

Managing Household Responsibilities as a Source of Stress
15.0% Very stressful  53.0% Somewhat stressful
32.0% Not at all stressful
Significant differences:
- Full professors reported significantly lower levels of stress than associate or assistant professors.
- Tenure-eligible faculty reported significantly higher levels of stress than tenured faculty.
- Female faculty reported significantly higher levels of stress than male faculty.
- Within some colleges, statistically significant differences in levels of stress were found by college.

Childcare as a Source of Stress
14.3% Very stressful  33.8% Somewhat stressful
51.9% Not at all stressful
Significant differences:
- Full professors reported significantly lower levels of stress than associate or assistant professors.
- Tenure-eligible faculty reported significantly higher levels of stress than tenured or non-tenure-eligible faculty.
- Female faculty reported significantly higher levels of stress than male faculty.
- Female assistant faculty reported significantly higher levels of stress than male assistant faculty.
- Female tenured faculty reported significantly higher levels of stress than male tenured faculty.

Iowa State University ADVANCE Program
Year 3 2008-09 complete for distribution
Care of Someone Who is Ill, Disabled, Aging, or in Need of Special Services as a Source of Stress
15.6% Very stressful    29.6% Somewhat stressful
54.8% Not at all stressful

Significant differences:
- Female faculty reported significantly higher levels of stress than male faculty, regardless of rank or tenure status.
- Associate professors reported significantly higher levels of stress than assistant professors.
- Statistically significant differences in levels of stress were found by college.
- Within some colleges, statistically significant differences in level of stress were found by gender.

Personal Health as a Source of Stress
7.1% Very stressful    33.6% Somewhat stressful
59.3% Not at all stressful

No statistically significant differences were found by gender, race/ethnicity, tenure status, or rank.

Cost of Living as a Source of Stress
6.6% Very stressful    32.9% Somewhat stressful
60.5% Not at all stressful

Significant differences:
- Cost of living was not at all stressful for 70% of full professors, 54% of associate professors, 65% of assistant professors, and 48% of non-tenure-eligible faculty. Some of these differences by rank were significant. Associate professors and non-tenure-eligible faculty were both significantly more stressed about cost of living than full professors.
- Non-tenure-eligible faculty reported significantly higher levels of stress about cost of living than tenured or tenure-eligible faculty.
- Statistically significant differences in levels of stress were found by college.

Are You Currently Caring for or Managing Care for an Aging and/or Ill Parent, Spouse, or Other Relative?
17.1% Yes    82.9% No

Significant differences:
- Female faculty were significantly more likely to be involved with such care (21%) than male faculty (14%).
- A greater percentage of associate professors (22%) than other ranks indicated that they were involved with such care.

Do You Have a Spouse or Domestic Partner:
80.5% Spouse    4.9% Domestic Partner
14.5% Neither

Significant differences:
- Full professors (92%) were significantly more likely than assistant professors or non-tenure-eligible faculty (79% for both) to have a spouse or partner. Eighty-four percent of both associate professors and non-tenure-eligible faculty have a spouse or partner.
- Female faculty were significantly less likely to have a spouse or partner than male faculty (74.5% vs. 92.1%, respectively).
- Female faculty were significantly less likely to have a spouse or partner than male faculty except for non-tenure-eligible faculty.

What is Your Spouse's/Domestic Partner's Employment Status?
35.9% Employed, not at ISU
21.0% ISU faculty member
12.6% ISU employee, non-faculty

Findings:
- Thirty-four percent of female faculty respondents versus 15% of male faculty respondents report that their spouse/domestic partner is a faculty member at Iowa State.

How Satisfied is Your Spouse/Domestic Partner with His/Her Employment Situation?
54.5% Satisfied    37.2% Dissatisfied

Significant differences:
- Female assistant professors were significantly more likely than male assistant professors to report their spouse/partner was satisfied.
- Non-tenure-eligible faculty were significantly more likely to report their spouse/domestic partner was satisfied than all other ranks.
- Asian faculty were significantly less likely than non-Asian faculty to report their spouse/domestic partner was satisfied.

How Many Children Do You Have?
Average for all faculty: 1.5 children
Average for those with children: 2.14 children

Significant differences:
- Among all faculty, regardless of whether or not they have children, female faculty have significantly fewer children on average (Mean = 1.1) than male faculty (Mean = 1.8). This is not surprising considering that female faculty were also significantly more likely to have no children than male faculty (41.3% vs. 21.5%).
- When comparing only those faculty with children, female faculty have significantly fewer children on average (Mean = 1.9) than male faculty (Mean = 2.2).
- Female full and associate professors have significantly fewer children than male full and associate professors.
- Asian faculty have significantly fewer children (Mean = 1.0) than non-Asian faculty (Mean = 1.6).
Goal

The goal of the ISU ADVANCE program is to investigate the effectiveness of a multilevel collaborative effort to produce institutional transformation that results in the full participation of women faculty in science, technology, engineering and math fields in the university. Our approach focuses on transforming departmental cultures (views, attitudes, norms and shared beliefs), practices (what people say and do), and structures (physical and social arrangements), as well as university policies, through active participation of individuals at all levels of the university. As we enter the third year of our award, the ISU ADVANCE Program is poised to engage our partners in the STEM colleges and departments in the activities needed to understand and change the culture, practices and structures of the university so that all faculty can be successful. During the year, we will also expand efforts to take our findings and practices beyond the campus, most importantly in our October 2008 conference, The New Norm of Faculty Flexibility.

Constituents

Faculty in 30 STEM departments across 5 colleges, representing over 750 faculty members in total, are included in the program’s constituents. Additionally, 9 focal departments in the STEM disciplines, representing 3 colleges, have been selected for targeted departmental transformation intervention over the course of the project. Key partners and change agents are Equity Advisors, one in each of the 3 focal colleges, and ADVANCE Professors and department chairs in each of the 9 focal departments.

Accomplishments during Year 2: 2007-2008 Academic Year

Collaborative Transformation

• Implemented full Collaborative Transformation process in three focal departments, resulting in three reports focused on climate, recruitment, and retention.
• Completed and disseminated a synthesis report on the three focal departments
• Three-step process for departmental transformation that included (1) focus groups, (2) needs assessment meetings and training sessions, and (3) collaborative problem solving

Faculty Issues

• Administrative Fellow focused on Faculty Recruiting
  o New resources, information and adaptations of information
  o Short handouts, checklists and tip sheets were posted on the website and distributed on CDs
• Designed and administered American Associations of University Data Exchange (AAUDE) faculty satisfaction survey
• Designed and administered survey on ISU faculty perceptions of quality of space

Conference Development

• Assembled a conference committee that meets regularly, created Web site for information & online registration, distributed a postcard, announced conference by electronic mail
• Secured more than a dozen national experts - including keynote speakers and panelists who discussed topics including:
  • Having your science and your life too: institutional responsibilities, individual strategies,
  • Help for Dual Career academic couples
  • Taking a strategic approach to assessing cultural change
  • Breaking the norms: measuring the impact of new policies

Outcomes:

Outcomes of the ISU ADVANCE program can be measured in terms of changing structure, practice, and culture. Changes are being initiated both from the bottom up (department) and from the top down (college or university).

Unintended Lessons:

Time-intensive efforts to prepare protocols and educational materials at the beginning of the ADVANCE Program have laid a solid foundation for the program.

Interactions between the ADVANCE Professor and department chair are key to effectiveness of departmental Collaborative Transformation efforts.

Collaborative Transformation efforts in departments are "invisible" to many faculty on campus. There is a need for greater visibility across the university.
Events

- Held four networking events and two campus-wide workshops based on the theme of unintentional bias.
- Department Chair Workshops
  - Cognitive Errors led by Dr. Jo Ann Moody
  - Cognitive Errors follow-up led by Equity Advisors
  - COACHE summary regarding tenure-eligible faculty with Dr. Cathy Trower
  - Report from STEM chairs that attended LEAD conference hosted by University of Washington ADVANCE program

Enhanced Organizational Structure

- Added Steering Committee, Equity Advisors & Advance Professors group, Internal Advisory Board, and Research Director
- Built partnerships both within the university and outside the university
- Shared costs with the Office of the Executive Vice President and Provost and with college deans

Formative Evaluation

- Held retreat for Council, which resulted in Year 2 focus of unintentional bias
- Hired organizational consultant to advise ADVANCE team
- External evaluation visit and report provided feedback on strengths and suggestions for change
- Completed Year 2 Annual Report to NSF

ADVANCE Council

Principal Investigator

*Susan Carlson, Associate Provost for Faculty Advancement and Diversity, Professor of English

Co-Principal Investigators and Senior Personnel

*Bonnie Bowen, Executive Director, Ecology, Evolution & Organismal Biology
*Sharon Bird, Research Director, Sociology
Diane Debinski, Ecology, Evolution & Organismal Biology
Carla Fehr, Philosophy & Religious Studies
Sandra Gahn, Institutional Research
Florence Hamrick, Educational Leadership & Policy Studies

Department Partners

ADVANCE Professors

Kristen Constant, Department of Materials Science and Engineering
Mark Gordon, Department of Chemistry
Shauna Hallmark, Department of Civil, Construction and Environmental Engineering
Fredric Janzen, Department of Ecology, Evolution & Organismal Biology
Elisabeth Lonergan, Department of Animal Science
Jo Anne Powell-Coffman, Department of Genetics, Development & Cell Biology

College Partners

College of Engineering
Diane Rover, Associate Dean
Chuck Glatz, Equity Advisor

College of Liberal Arts and Sciences
David Oliver, Associate Dean
Lisa Larson, Equity Advisor

College of Agriculture and Life Sciences
Joe Colletti, Sr. Associate Dean
*Janette Thompson, Equity Advisor

Graduate Students

Divinity O’Connor Roberts, Graduate Assistant, Sociology
Jason Pontius, Graduate Assistant, Educational Leadership & Policy Studies
Laura Rhoton, Graduate Assistant, Sociology

* Member of Steering Committee

Internal Advisory Board

Elizabeth Hoffman, Executive Vice President & Provost
James Bernard, Interim Dean, Engineering
John Thomson, Dean Veterinary Medicine
Pamela White, Interim Dean, Human Sciences
Michael Whiteford, Dean Liberal Arts & Sciences
Wendy Wintersteen, Dean Agriculture & Life Sciences

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October 2008
Promoting Full Participation of Women in Science, Technology and Engineering Fields By Making Iowa State University an Optimal Environment for All Faculty

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Focal Colleges & Departments

College of Agriculture and Life Sciences
Animal Science
Genetics, Development and Cell Biology
Plant Pathology

College of Engineering
Civil, Construction and Environmental Engineering
Materials Science and Engineering
Chemical and Biological Engineering

College of Liberal Arts and Sciences
Chemistry
Ecology, Evolution and Organismal Biology
Physics and Astronomy

The goal of the National Science Foundation (NSF) ADVANCE Program is to increase the representation and advancement of women in academic science and engineering careers, thereby contributing to the development of a more diverse science and engineering workforce.

Institutional Transformation Awards support innovative and comprehensive programs for institution-wide transformation to promote the increased participation and advancement of women scientists and engineers in academe. Beginning in 2001, 43 institutions have received ADVANCE Institutional Transformation Awards.

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Amy Kaleita, Assistant Professor in Agricultural & Biosystems Engineering

January 2009
Goal

The goal of the ISU ADVANCE Program is to investigate the effectiveness of a multi-level collaborative effort to produce institutional transformation that results in the full participation of women faculty in science, technology, engineering and math fields in the university. Our approach focuses on transforming departmental cultures, practices, structures as well as university policies through active participation at all levels of the university - from departmental faculty to university administration.

Leadership & Partners

The ISU ADVANCE Program is lead by an interdisciplinary team of co-Principal Investigators. Partners in the program include the Provost, Deans, Associate Deans, College Equity Advisors, ADVANCE Professors and Department Chairs from selected departments, who are working together to develop and transform policies to:

- Increase the transparency of decision making
- Institutionalize flexible career options
- Strengthen and expand mentoring efforts
- Reduce isolation of women faculty
- Increase awareness of administration, faculty and staff

Our Comprehensive Approach to Institutional Transformation employs “bottom up” (departmental) and “top down” (university and college) activities that are

Guiding Collaborative Transformation at the department level by:

- Supporting ADVANCE Professors to lead department activities in nine “focal departments” that have been selected for intensive study
- Enabling faculty in focal departments to explore barriers to career success and advancement
- Working with focal departments to develop and implement strategies to improve culture and practices.

Building infrastructure for change at the college and university levels by:

- Supporting Equity Advisors to lead ADVANCE activities in three colleges (see list on back)
- Engendering cultural change in colleges by building on lessons learned in focal departments
- Coordinating ISU’s resources on the faculty recruitment process and on work-life balance and career flexibility
- Hosting a national conference on career flexibility
- Coordinating with existing gender equity programs and policies at ISU
- Sponsoring the ADVANCE Lectures program to support seminars by prominent women scientists

Combatting isolation of women faculty and faculty of color by:

- Hosting networking events
- Sponsoring the ADVANCE Scholar Program for ISU women faculty of color and external eminent scholars

Frequently Asked Questions

Q. What does the ISU ADVANCE Program have to offer all departments on campus?

Regardless of the field of study, ADVANCE can offer ALL departments assistance in enhancing workplace climate to recruit and retain excellent faculty. The lessons learned in the focal departments will also provide useful information that other departments can use.

Q. What is the benefit of focusing on social climate in departments?

The ADVANCE program seeks to make long-term transformations in the university culture that are sustainable. Research shows that by optimizing the workplace environment for all members, the entire university community benefits.

Q. How does the university as a whole benefit from the ISU ADVANCE Program?

The ISU ADVANCE Program is providing leadership in the areas of faculty flexibility and work-life issues on the ISU campus. Networking events and workshops, the ADVANCE Lectureship program, and ADVANCE Scholar program are open to faculty in many departments, not only the ADVANCE focal departments. For more information about these programs, visit www.advance.iastate.edu.

“The ISU ADVANCE Program has built powerful networks across the university to enhance our ability to recruit and retain women faculty in STEM; we are serving a diverse student body, strengthening the university, and building the future STEM workforce.”

- Elizabeth Hoffman, Executive Vice President & Provost, Iowa State University
ISU ADVANCE Program
Research, Scholarship, and Authorship Guidelines

1 Goals of Research, Scholarship, and Authorship Guidelines

A key goal of the ISU ADVANCE Program is to disseminate findings and successes beyond ISU. Given the nature of the ISU program, such dissemination will often be a collaborative project and will, even in single-authored publications, build on the overall strength of the program.

A secondary goal is to offer faculty, staff, and graduate students involved in the program significant opportunities to channel their participation into publications, presentations, and scholarly products that will advance their careers.

To meet these goals, program members have identified a process and criteria by which decisions about authorship will be made. A primary goal of this process is information sharing among those involved in the program and the development of scholarly products out of program resources and responsibilities. Most authorship designations will be straightforward, but in all cases, using the same process will allow program participants to develop a working model of authorship during and after the life of NSF ADVANCE funding. The authorship designation will be a consultative process, as outlined below.

2 Types of dissemination in ISU ADVANCE Program

2.1 The most important products will be publications in referred journals and books; such publications may have single or multiple authors.

2.2 Annual reports to NSF are “authored” by the co-PI team. All who are members of the current co-PI team will be credited. Past team members or other ISU ADVANCE partners may also be credited for their contributions in a note that specifies their efforts.

2.3 Presentations at NSF annual meetings are also “authored” by the current ISU co-PI ADVANCE team, augmented as appropriate by other ADVANCE partners; the actual presenters at such meetings may or may not include the entire team or all listed co-authors.

2.4 Posters and presentations may also be given at conferences within a team member’s or ADVANCE partner’s discipline(s). These may have single or multiple authors.

Guidelines developed from 2006-2008 by members of the ISU ADVANCE co-PI team, including Sharon Bird, Bonnie Bowen, Susan Carlson, Diane Debinski, Carla Fehr, Sandra Gahn, Florence Hamrick, Carolyn Hesing, Frankie Laanan, Judy Vance.

ISU ADVANCE partners include members of the ADVANCE Council and may include focal department chairs.
2.5 Presentations to audiences outside the ADVANCE network, ISU departments (not focal departments), at universities and colleges (not ISU) and for community and student organizations. Titles of these presentations will be recorded for reporting, but they will not be issued an ADVANCE publication number, unless the author requests one.

3 Oversight Process

All research and scholarship products that grow out of the work of the ISU ADVANCE Program should be reviewed through the following process.

3.1 The ISU ADVANCE Steering Committee will serve as a dissemination oversight committee (DOC) to review all dissemination plans (including NSF reporting) and keep track of the publication and presentation of research and scholarship. The DOC will update the ADVANCE co-PIs regularly and work with that group to identify any gaps in planned dissemination. The Steering Committee/DOC will also report dissemination plans to the ADVANCE Council each semester. The primary role of the DOC will be to coordinate dissemination of research and scholarship; should any disputes over authorship or dissemination arise, the DOC will be augmented with one additional member suggested by each of the disputing parties to work through a resolution (these additional members will normally be ISU ADVANCE partners or co-PIs).

3.2 As soon as a co-PI or an ADVANCE partner understands herself/himself and others (if others are involved) to have developed a research/scholarship project with dissemination potential, s/he should fill out the “dissemination plan form”. Defining this moment of submission will differ for various scholarly products, but co-PIs or ADVANCE partners will submit a form NO LATER THAN the date of submission for a presentation or a publication. Designation of authors at this point may differ from designation of authors once the project is more fully developed, as noted in 3.5. All scholarly products related to participation in or funding from ISU ADVANCE/NSF should be reported.

3.3 The DOC will consider the plan and, if necessary, seek additional input from ADVANCE co-PIs and partners to ensure that authors listed are expected to contribute meaningfully to the end project. The lead author is expected to include as authors those who contribute to the end product (e.g., poster, presentation, report, publication). The DOC’s objective is not to impose non-contributors onto others’ projects, and all partners are bound by University codes of ethics and disciplinary codes of ethics where appropriate. Any disagreements between the potential author(s) and the DOC will be discussed with the PI to ensure timely resolution.

3.4 Dissemination plan forms agreed to by the author(s) and the DOC will be kept in a WebCT folder and will be accessible to all ADVANCE Council members.
3.5 The person designated as the lead author will be responsible for reporting any changes in authorship to the DOC and submitting an amended dissemination plan form for posting in WebCT.

4 Guidelines for the Authorship of ADVANCE Research and Scholarship

Two key issues are among those that should be considered in defining research and scholarship projects in the ISU ADVANCE Program.

People being included as authors when they don’t want to be. For example, some disciplines like philosophy or physics have been very slow to engage in feminist research or practices; as a result, some of the research that members of the ADVANCE team may conduct, even though it is excellent in its own right, may do more harm than good on a philosophy or physics faculty member’s CV. As a result, it is crucial that all authors included in authorship lists agree to being listed.

People not being included as authors when they want to be. Different disciplines have different standards for who is included as an author and for determining the order of authorship. What from one disciplinary perspective may be seen as a standard courtesy may from a different disciplinary perspective be seen as free riding. There will also be cases in which our ADVANCE team members or partners will collaborate with teams from other ADVANCE institutions. In these cases it is likely that only one or possibly two ISU personnel can be included as authors.

Guidelines for defining authorship follow.

4.1 ADVANCE co-PIs and partners do not receive authorship on research papers or publications automatically based on being a co-PI or ADVANCE partner, but rather based on contributions to research manuscripts, presentations, reports, etc. “Contributions” may, however, come in many forms (i.e., not just analyzing or collecting data). Some examples of contributions that might warrant inclusion would be:

--statistical analysis of data
--participating in the development of key ideas/concepts original to the paper
--researching published literature related to the paper
--writing and interpretation of the results of a statistical analysis
--extensive editing and rewriting of a manuscript someone else drafted.

4.2 Those who have made a substantial contribution to the work, while not meeting the criteria for authorship, should be identified in a note and acknowledged by name, with permission. This may include sharing of research data, assistance in grant writing, or contributed service critical to the project.
4.3 Co-authors will include an endnote that explains contribution to the paper (Note: the journal *Nature*, and other notable journals use this policy). If the target journal does not accept such endnotes, the information will be kept on file in WebCT. Co-authors should determine as early as possible the percentage of each individual’s contribution to the project, although it is understood that these percentages will likely change.

4.4 In general, a research or scholarly paper will begin when one or more co-PIs or ADVANCE partners propose preparing a paper or presentation. The lead author will assume responsibility for being the contact with the DOC. The lead author provides the information for the reporting form (outline, including the argument and the hypothesis for the paper, and data sources to be used). Each authorship team will determine the role of the lead author and others involved in the project; in some disciplines, the lead author will be the first author listed and will take primary responsibility for writing the theoretical framework of the paper, writing the review of relevant literature (if applicable), and for pushing the paper through to completion. The order of authorship as listed on publications or presentations varies from discipline to discipline, so each authorship team should come to agreement about the order and what it means.

4.5 The lead author can call on other members of the co-PI team or ADVANCE partners to contribute to the paper depending on their expertise. Such invitations will be determined by the lead authors and should follow guidelines in sections 4.1 and 4.2. Disciplinary practice, publication or presentation deadlines or external invitations may also play a role in the lead author’s decisions about collaboration. Scholarly deliverables for all co-authors will likely involve a specific task and a deadline. Completing the task in a satisfactory manner by the deadline merits inclusion as an author.

4.6 Much of this ISU ADVANCE research and scholarship should be disseminated as quickly as possible, preserving a high standard of quality. As a result, the lead author may choose to step down if the paper cannot be completed in a timely fashion. Similarly, if a co-author cannot complete part of the paper in a timely manner, s/he may choose to step down, the lead author may talk with the co-author and, together, they may determine that the co-author should step down. The DOC may ask a lead author or a co-author to step down after consultation with the parties.

4.7 ADVANCE team members and partners have an obligation to ensure that the papers and presentations directly related to the success of the ISU ADVANCE Program be completed in a timely manner, and that papers more peripherally related to the project (that utilize the data collected for ADVANCE purposes) not interfere with the completion of primary ADVANCE research, scholarship, and reporting.

4.8 In the case of papers an ADVANCE co-PI or partner wishes to write either as a sole author or with collaborators outside the ISU ADVANCE Program, the team member/partner must:

--inform the DOC
--explain why the paper is necessarily sole-authored or requires collaboration outside of ADVANCE team members and partners.

5 Acknowledgement of Support

In accordance with the NSF Grant Policy Manual, the lead author should assure that the following conditions are met when papers are submitted for publication or material is posted on a Web site:

5.1 The grantee is responsible for assuring that an acknowledgment of NSF support is made:

(i) in any publication (including Web pages) of any material based on or developed under this project, in the following terms:

“This material is based upon work supported by the National Science Foundation under Grant No. SBE 06003999.”

(ii) NSF support also must be orally acknowledged during all news media interviews, including popular media such as radio, television and news magazines.

b. Disclaimer. The awardee is responsible for assuring that every publication of material (including World Wide Web pages) based on or developed under this award, except scientific articles or papers appearing in scientific, technical or professional journals, contains the following disclaimer:

“Any opinions, findings, and conclusions or recommendations expressed in this material are those of the author(s) and do not necessarily reflect the views of the National Science Foundation.”
Dissemination Plan Form  
ISU ADVANCE Program

Please supply the following information to the dissemination oversight committee (DOC). 
Submissions should be made to the program assistant by e-mail, who will number submissions, 
distribute to the DOC, and file in Web CT. The DOC will report to the ADVANCE co-PIs regularly 
on planned projects. Reports will be made to the ADVANCE Council twice a year.

This form should generally be one page or less.

1. Date: ____________________________

2. Project Title: ____________________________

3. Lead author (and contact to DOC): ____________________________

4. Other co-authors: ____________________________

5. Order of authors on submission (if known): ____________________________

6. Percentage of contribution (if known): ____________________________

7. Immediate goal for this project (manuscript, presentation, abstract): ____________________________

8. Future plans for this project: ____________________________

9. Projected date of completion or presentation: ____________________________

10. Brief project description (may include outline, argument, hypothesis, key data sources): ____________________________

11. For single authored projects or projects prepared in collaboration with those outside of 
the ISU ADVANCE Program, please explain why the paper/presentation is sole-authored or 
requires collaboration outside of those affiliated with the ISU ADVANCE Program.