

Kansas State University ADVANCE Institutional Transformation Project Year Three 4th Quarter and Year Four Activities to Date

Our ADVANCE Institutional Transformation Project was designed to address three barriers to women's advancement in science, engineering, and mathematics (SEM) at Kansas State University (K-State): lack of effective recruitment, exclusion from networks, and subtle biases working against them. We had four goals at the inception of the project. These were:

- 1) To institute changes in existing departmental policies, procedures and practices, and develop new ones as needed to foster a gender-equitable climate within partner departments;
- 2) To expand and enhance departmental recruitment practices to attract more women applicants and ensure that candidates are not subject to subtle bias in the search and hiring process;
- 3) To implement effective programs that foster the careers of women faculty and encourage their retention through tenure and promotion; and
- 4) To propagate the successes achieved in partner departments to all SEM departments.

We report here on project activities occurring since our last annual report. This covers the period July 1, 2006 through June 30, 2007, which represents the last quarter of project year three and the first three quarters of project year four. Our activities are organized according to the level at which they were designed to have an effect: at the level of the entire project (27 SEM departments in four SEM colleges), at the college level, or at the department level. We have included in parentheses after each activity description the goal it was intended to address. This document also includes responses to the recommendations of the site visit team, as directed by the ADVANCE program officer in her letter of 30 November 2006.

Executive and Steering Committees

- The Executive Committee met regularly to discuss the progress and policies of the ADVANCE project. One of the project Co-PIs, Dr. Terry King, Dean of Engineering, assumed the position of Provost at Ball State University on July 15, 2006. An internal interim dean, Dr. Richard Gallagher, was appointed. Dr. Gallagher had served as a member of the K-State ADVANCE Steering Committee since the beginning of the project, and we added him as a Co-Principal Investigator on the grant and as a member of the Executive Committee until a new dean was selected. Dr. John English has been appointed as the new dean of engineering effective July 1, 2007, and he will be added as Senior Personnel on the project and as a member of the Executive Committee. Executive Committee members have identified specific initiatives within each college that they plan to institutionalize after the end of the grant period. (Goals 1-4)
- Jan Middendorf, Assistant Director, Office of Educational Innovation and Evaluation (OEIE), began attending the Executive Committee meetings in October 2006. She is observing the meetings to gain contextual knowledge surrounding the decision making processes of the project and to provide both formative and summative feedback to the project leaders. (Goals 1-4)
- The Steering Committee met monthly to coordinate and guide the direction of the project initiatives. Dr. Ronaldo Maghirang joined the Steering Committee in November 2006 to represent the College of Engineering while Dr. Gallagher served on an interim basis on the Executive Committee. This committee reviewed the ADVANCE Distinguished Lecture Series (ADLS), Career Advancement Program (CAP), and Internal Advisory Board (IAB) Initiative proposals and made funding recommendations to the PIs. (Goals 1-4)
- Dr. Dana Britton, Professor, Sociology, joined the Steering Committee in February 2007. She brings the perspective of a social scientist specializing in gender research. She will provide both

Kansas State University ADVANCE Institutional Transformation Project Year Three 4th Quarter and Year Four Findings Report

We report here the findings available to date from our project activities. The activities on which we are reporting may have taken place in the current or previous reporting years; however, the findings were obtained during the current reporting period. We include information on recruiting success of women faculty and administrators, outcomes of the ADVANCE Distinguished Lecture Series, report from completed projects from the Career Advancement Program, outcomes of the four College programs, and results from interviews with SEM department heads.

Recruitment of SEM Women into Faculty and Administrative Ranks

Our ADVANCE program has illuminated many of the issues facing women faculty in SEM disciplines, and in response, a number of our deans and department heads have become very strong advocates for increasing the representation of women and have provided exceptional leadership in the recruitment, retention, and advancement of women within their units.

We are pleased to report in Project Year Four the following successes in recruiting, promoting, and advancing SEM women:

- Nine women faculty members hired in seven SEM departments in the last year; seven are tenure-track positions, one is clinical track, and one is a tenured full professor
- Two women tenured and promoted to associate professor in two SEM departments. One of these departments had no tenured women prior to this year
- One woman promoted to full professor in an SEM department
- One woman appointed as the interim department head in an SEM department
- One woman appointed as Interim Associate Dean for Academic Programs in the College of Veterinary Medicine
- Three women full professors in SEM departments accepted administrative positions at other institutions

All three of the women who were tenured and/or promoted have participated in K-State ADVANCE initiatives, including the ADVANCE Distinguished Lecture Series, the Career Advancement Program, Career Enhancement Opportunities, and Research Enhancement Visits.

Since the beginning of the K-State ADVANCE program the percentage of women in full-time tenure line faculty positions has increased from 13.3% in Fall 2003 to 15.3% in Fall 2006. The percentage of women SEM faculty members who are full professors has increased from 4.7% in Fall 2003 to 6.9% in Fall 2006. The number of women SEM faculty members who are in administrative positions has increased from 6 in Fall 2003 to 12 in Fall 2006.

Although we are always disappointed when SEM women leave K-State, it is less painful when we know that they are leaving to assume higher-level administrative positions at other institutions. The three women who are included in the last bullet in the list above, all of whom have been leaders in departmental initiatives in our ADVANCE project, are moving to become a Dean, a department head, and a research center director, respectively. Since advancement of women is one of our project goals, we are including this information in our report even though these women are leaving K-State.

We have included a faculty flux chart retrospective to our benchmark year of 1997 which tracks the movement of women faculty into and out of our 27 SEM departments. We think it highlights our recent successes at both recruiting and retaining women in SEM departments. This chart is shown at the top of the next page.

formative and summative feedback to the project leadership and will be assisting with the evaluation and analysis of changes made by partner departments to their annual merit evaluation, promotion, and tenure documents. (Goal 1)

Project-level Activities:

ADVANCE Distinguished Lecture Series (ADLS)

- The project hosted an ADVANCE Distinguished Lecture (ADLS) Series panel luncheon in Fall 2006. We invited all eligible participants (tenure-track women faculty), their department heads, and deans to a panel luncheon to learn more about the ADLS program and the benefits of and suggestions for hosting a speaker under its auspices. The panel consisted of four women, each representing one of our four SEM colleges, who spoke about their experiences in hosting a distinguished lecturer and provided advice and encouragement to other eligible women. Deans provided financial support for women faculty members in their colleges to attend. (Goal 3, 4)
- Created ADVANCE Distinguished Lecture Series (ADLS) *Tips on Hosting a Speaker* brochure. The brochure was made available to all prospective hosts during the Spring 2007 semester. This brochure is available on the K-State ADVANCE website at the URL below. (Goal 4)
<http://www.k-state.edu/advance/SeminarsEvents/Tips%20on%20Hosting%20a%20Speaker.pdf>
- Calls for proposals were issued for the ADLS in Fall 2006 and in Spring 2007. This initiative was expanded to allow tenured women associate professors to participate as of the Spring 2007 call. Twenty-seven women received awards to host speakers in project year four. We will also issue another call with applications due in September 2007. The outcomes of seminars that have occurred to date are reported in the Findings section. (Goal 3)

Career Advancement Program (CAP)

- One call for proposals for the Career Advancement Program (CAP) for tenured women faculty members in SEM departments was issued. Four awards have been made. (Goal 3)

Equity Action Workshop

- Two offerings of an Equity Action Workshop on Implicit Bias were conducted February 28-March 1, 2007. They were co-sponsored by the Women in Engineering and Science Program and featured presentations on identifying implicit biases by Dr. Anthony Greenwald, Professor, Department of Psychology, University of Washington. 172 individuals attended the workshops, of which 89 were from ADVANCE departments, including 18 of 27 SEM department heads. K-State is considering implementing a web-based assessment program that will help track changes over time in implicit bias on our campus. (Goals 1, 2)

Special Assistant to the Provost

- Continued the Special Assistant to the Provost position to provide a semester-long central administrative experience for tenured faculty members. Eight individuals have been selected for this position to date, two white females, two African-American females, one Asian male, and three white males. The terms of appointment have been for Spring, Summer, and Fall 2005, Spring and Fall 2006, Spring and Fall 2007, and Spring 2008. Funding for this position is provided through grant indirect cost return. (Goal 3)

Websites

- The guidelines, reporting forms, upcoming events, and resources for all K-State ADVANCE initiatives were maintained on the K-State ADVANCE website. (Goals 1-4)
- The Work/Life website created by ADVANCE was advertised to all SEM faculty and staff. (www.ksu.edu/worklife) (Goals 2-3)

Other Activities

- The PIs, Project Coordinator, and Executive Committee had two meetings with representatives from the K-State Foundation to discuss fundraising opportunities to sustain the project in the future. Project Coordinator Wood has prepared a draft letter of solicitation to approach Kansas foundations which support higher education. (Goal Sustainability)

College-level Activities:

All four participating colleges continued to conduct specific programs to benefit or enhance the number of SEM women faculty in their colleges.

- Agriculture sponsored a fourth round of Professional Development Awards. In this reporting period, 12 of these awards (ca. \$2000 each) were made for travel and conference attendance, seed funding for research projects, and sabbatical leave. (Goal 3)
- Arts & Sciences made a fourth round of awards to 20 individuals (ca. \$1000 each) through the Career Enhancement Opportunities Program during this reporting period. This competition was opened for the first time this year to faculty members in three social science departments: Economics, Psychology, and Sociology, Anthropology, & Social Work.(Goal 3)
- Engineering conducted two programs; one focused on recruitment and the other on retention and professional advancement.
 - Recruiting to Expand Applicant Pools (REAP) supports department heads and/or senior faculty on recruiting trips to sites likely to have large numbers of eligible women faculty candidates. No departments applied for REAP funding during this reporting period. (Goal 2)
 - The Research Enhancement Visits (REV) program provided travel funds to tenure-track and tenured women faculty members to allow them to visit national laboratories or travel to collaborate with colleagues elsewhere. In this reporting period, ten awards were made to nine faculty members. (Goal 3)
- Veterinary Medicine used its funding to continue to support the group mentoring program, Parallel Paths. The two established groups increased their membership and 27 individuals are participating in year four. Each group is composed of tenure-track and tenured men and women faculty members. Each group met monthly over dinner and discussed issues pertaining to career advancement. Group members also were eligible for small professional development grants. They continued their professional development seminar series and made four teaching awards in the college. (Goal 3)

Department-level Activities:

- Partner departments mentored other SEM departments as part of the Internal Advisory Board (IAB) projects. Three of these IAB departments carried out website revisions, making use of the website rubric guidelines prepared by Dr. Cynthia Burack. (Goals 1, 2)
- Three partner department head meetings were held.
 - In September 2006, the PIs gave a status report of ADVANCE progress to date and discussed the format for the upcoming site visit. (Goal 4)
 - Two Joint Partner Department Head/Executive Committee meetings were held in January 2007. The partner departments summarized the progress they made on the ADVANCE project initiatives over the entire project and discussed goals for years 4 and 5. (Goal 1)
- Partner departments also submitted written reports of their activities to the Executive Committee. These are summarized below: (Goal 1)
 - Animal Sciences & Industry held two faculty retreats. The September 2006 retreat was for women faculty members and discussions focused on the need for faculty mentoring. As a

result, a second retreat for all department faculty members was held in January 2007. Dr. Suzanne Brainard, from the University of Washington, facilitated the workshop, which was attended by all but three of 41 full-time faculty members. The focus of the workshop was on establishing and supporting effective mentoring relationships, and has resulted in the department implementing a formal mentoring program for all junior faculty members. Career MAPS have been used in mentoring of junior faculty and have been incorporated into the annual evaluation and goal-setting process for all faculty members.

The department completed review and revision of its faculty evaluation policies and procedures in spring 2006 and these changes were approved by the University in September 2006. The revised documents were used in the 2006-07 academic year evaluation process. The revision incorporated more objective measures and assessment processes and included specific language regarding mentoring, probationary review procedures, and was more closely aligned with University policies.

The Fall 2006 retreat also included a discussion of the need for maternity leave policies at the University and department level beyond the Family Medical Leave Act requirements. Senior department faculty were tasked with developing language for a departmental maternity leave policy. This work is ongoing.

- Biological & Agricultural Engineering continued work on its departmental website and plans to update it more regularly. They have made faculty members aware of the importance of featuring diverse individuals and women in images and text posted on the department and individual web pages. In particular, they plan an “Alumni Corner” section of the website that will showcase women alums and demonstrate career opportunities to prospective and current women students.

The one tenure-line woman faculty member in the department has worked with the department head to develop a Career MAP and use it as a personal planning tool.

A full-scale faculty evaluation policy review is ongoing. The outcome of this review will make their annual evaluation more consistent with promotion and tenure review and increase transparency of these processes for all faculty members.

The department has used some ADVANCE funds to provide professional development support for female undergraduate and graduate students. These funds support attendance at professional meetings and participation in activities such as design teams, paper/poster competitions, and visits with potential employers. Several of the students supported by this initiative achieved awards in competitions for best student poster, graduate student research, and design team. As a result, undergraduate and graduate women students are becoming more engaged in their profession through participation in professional society activities, making research presentations, and establishing a broader network of colleagues. Four of the undergraduate women who attended professional meetings last year are currently enrolled in the BAE graduate program.

- Diagnostic Medicine/Pathobiology updates its recruitment literature on a semi-annual basis to include both current departmental information and assure that the language is inclusive. It has created a formal mentoring process for all probationary faculty in the department that utilizes a committee of three tenured faculty members. The committee members are familiar with the professional activities of the mentee. The committee and mentee meet two-three times per year to review progress and provide advice to the mentee. The committee provides a written report to the department head following each committee meeting; these reports become part of the mentee’s file for annual evaluation.
- Four new partner departments were added in January 2007: Agronomy, Chemistry, Clinical Sciences, and Computing & Information Sciences. Executive Committee met with heads of these

departments to give them their charge, inform them of funding they will receive, and answer questions. (Goal 1)

- One Internal Advisory Board meeting was held in September 2006, at which the PIs gave a status report of ADVANCE progress to date and discussed the format for the upcoming site visit. (Goal 4)
- Round one IAB department activities conducted in this reporting period included:
 - The Department of Electrical and Computer Engineering (EECE) updated their website in 2006, using the rubric previously developed by our consultant Cynthia Burack. In addition, they sponsored a graduate student recruitment workshop in November 2006. Fourteen undergraduate women students from 5 universities participated. Three students were from underrepresented minority groups. The topics covered during the workshop included 1) finding the right school; 2) gender issues; 3) balancing life and work; 4) succeeding in graduate school; and 5) applying to graduate school. Participants reported feeling more prepared for and having more desire to attend graduate school. The Department of Chemical Engineering is a mentor on this project.
 - The Department of Mathematics assigned funds to 1) support visits of prominent mathematicians to campus who would work with current department faculty, including one woman faculty member, to develop collaborative focused research projects, and 2) provide travel funds for the woman faculty member to gain additional professional exposure. The goal is to provide an enriched climate and to provide the department with national recognition of its opportunities for women mathematicians, both faculty and graduate students. Activities supported in the reporting period included partial funding for the woman faculty member to present three invited talks and a contributed talk at an international conference. Her efforts have resulted in her being asked to serve on two NSF review panels and on a nominating committee for the Association for Women in Mathematics.
 - The Department of Physics has used funding to improve the look and content of their departmental website. They believe that this update resulted in a large increase in the number of REU applications received this year as compared to previous years. The department is also planning a workshop on women in science for September 2007. The workshop will include discussions led by prominent women physicists of issues facing women scientists. The Division of Biology and Department of Chemical Engineering are mentors for this project.
- Round two IAB initiatives were awarded and activities planned or accomplished are listed below.
 - The Departments of Agronomy, Horticulture/Forestry/Recreation Resources, and Plant Pathology are working toward improvements in the recruitment and retention of women faculty. A survey of former K-State women faculty and MS and Ph.D. alumnae from these departments was conducted to obtain information pertinent to recruitment and to identify recommendations for improvements in retention. The completion rate of this survey was 80% for faculty. It will be sent to former graduate students this summer, following which analysis of all the responses will be completed.

Two outstanding women scientists will be invited for campus visits to give public seminars and to share their experiences with faculty (one guest per semester). In addition, professional development funds have been provided to three newly recruited Assistant Professors.

Bimonthly luncheons for women graduate students and faculty were scheduled; four have been held to date. Attendance has ranged from 12-29 at these luncheons. Each featured focused discussions on topics such as preparing women graduate students for future careers in academia and helping new faculty be successful. The outcomes of these luncheons have been reports by participants of getting to know women in other departments in the college, reducing a feeling of isolation, and utilizing information gained from the discussions for professional advancement. An example of the latter is three women reported enhanced self-efficacy in negotiation and annual reporting. The Department of Animal Sciences & Industry and the Department of Biological & Agricultural Engineering are mentors for this project.

- The Department of Clinical Sciences is implementing a professional development plan for Assistant Professors to facilitate their transition to successful careers in academic clinical veterinary medicine. A monthly seminar series has been created to provide training not offered during clinical residency programs, including didactic teaching, communication, leadership, and research skills, and orientation to university procedures. Eight seminars have been held to date, with four more planned.

A grant calendar, searchable by date, topic, and/or funding agency, has been developed to make faculty members aware of funding opportunities and upcoming deadlines. The calendar can be viewed at the URL <http://www.vet.ksu.edu/research/funding/funding.aspx>

In addition, each junior faculty member will identify a tenured faculty member as a mentor with whom they will work to develop an individualized Career MAPS document. The Department of Diagnostic Medicine and Pathobiology is a mentor for this project.

- The Department of Mathematics is implementing a seminar series featuring prominent women mathematicians and a speaker series introducing women postdoctoral fellows from other institutions to our campus. The seminar series, to date, has included Dr. Jill Pipher, Chair of the Mathematics Department, Brown University, and Dr. Patricia Baumann from Purdue University. The postdoctoral speaker series is intended to provide the opportunity for women who will be seeking tenure-track positions in the near future to meet faculty members in our Mathematics department and be considered as new potential colleagues. The Department of Geology is a mentor for this project.

Indicator Data:

- PIs Montelone and Dyer met periodically with staff members from the K-State Office of Planning and Analysis to discuss data collection for the majority of the 12 NSF Indicators for year four of the grant period. (Goals 1-3 and the NSF Indicator data collection process)
- Project Coordinator Wood compiled information from departments on start-up packages, administrative positions, endowed/named chairs, and promotion and tenure committees (NSF Indicator). (Goals 1-3 and the NSF Indicator data collection process)
- Evaluators from the Office of Educational Innovation and Evaluation compiled reports for some project initiatives as well as the NSF Indicator report. (Assessment and the NSF Indicator data collection process)

Assessment:

- PIs Montelone and Dyer and Project Coordinator Wood met with staff members of the Office of Educational Innovation and Evaluation (OEIE) periodically to discuss evaluation methods and procedures. (Assessment)

Assessment activities performed by OEIE in Year 4:

- Completed Year 4 Indicator Data report

- Developed, administered, and began analysis of the data from the *2007 Kansas State University Community and Climate Survey*
- Conducted interviews with ADLS awardees
- Documented the ADLS Luncheon
- Developed, implemented, and summarized data from the ADLS Speakers' survey on their perceptions of the ADLS Program and their experiences
- Conducted interviews with Internal Advisory Board members and select department heads and reported the preliminary data
- Project Coordinator Wood coordinated the Year 3 NSF site visit. She scheduled meetings with all ADVANCE partners, made logistical arrangements, and created a financial report. The PIs created a six-page summary report for the site team visit. (Assessment)
- Project Coordinator Wood compiled climate surveys from other ADVANCE institutions. We incorporated questions from these models into a previously used campus-wide climate survey and administered the survey in Spring 2007. (Assessment)

Dissemination Activities:

- Project Coordinator Wood continued to promote the ADVANCE Distinguished Lecture Series through an electronic ADVANCE informational newsletter to all SEM faculty and staff. (Goal 4)
- All SEM faculty were invited to attend two informational meetings in September 2006. The PIs gave a status report of ADVANCE progress to date and discussed the format for the upcoming site visit. (Goal 4)
- An ADVANCE recognition ceremony was held in December 2006. New hires, tenures, promotions, and awards of female faculty were recognized. The accomplishments of the ADVANCE program were shared with participants. (Goal 4)
- PI Dyer and Co-PI Montelone made a presentation on the K-State ADVANCE Distinguished Lecture Series as part of a panel at the 2007 American Educational Research Association (AERA) Annual Meeting in Chicago on April 9-10. Panel was chaired by Janet Malley from the University of Michigan. Danielle Lavaque-Manty from University of Michigan and Diana Bilimoria from Case Western were also part of the panel. (Dissemination)
- PI Dyer and Co-PI Montelone made a presentation on the Parallel Paths Program in the K-State College of Veterinary Medicine at the 2007 Women Engineering Program and Advocates Network (WEPAN) Annual Conference, at Lake Buena Vista, Florida, June 10-12. (Dissemination)
- Co-PI Montelone made a presentation on mentoring and networking, in particular our Parallel Paths Program, at one of the roundtable discussions at the 2007 Annual ADVANCE PIs meeting in DC on June 19-20. (Dissemination)
- Dyer and Montelone are authors of a chapter on our ADLS program that will appear in the book *Transforming Science and Engineering: Advancing Academic Women*, edited by Stewart et al, to appear in October 2007.
- The EECE department initiative on recruiting women graduate students will be discussed in a paper to be presented at the IEEE Frontiers in Engineering Conference to be held in Milwaukee, WI in October 2007. (Dissemination)

Institutionalization:

The K-State ADVANCE Project has continued to expand its efforts to the other SEM departments at K-State beyond the original six partner departments. These efforts include 1) the addition of four new

partner departments in January 2007; 2) sharing information about ADVANCE programs with non-SEM departments via new department head training in the 2007-08 academic year; and 3) expanding the CEO program to include eligible women from social science departments and adding a social scientist to the Steering Committee. The success of the various ADVANCE initiatives has led to the commitment by each of the four SEM deans to continue either the college-level programs or some aspect of the project-level initiatives.

The Executive Committee has met with the Provost and with representatives of the KSU Foundation to discuss funding levels to support the project in future years and possible sources of such funds.

We also have discussed with the Provost the possibility of including a session on ADVANCE initiatives in the upcoming New Department Heads Orientation program and for the monthly First Tuesday Breakfast Roundtable series attended by department heads. Such sessions might include discussions of subtle bias, gender schemas, and implicit bias, together with strategies for countering the negative effects of these phenomena. There also will be a new session added to the new department heads orientation this year on negotiation of start-up packages. We plan to develop a template that provides categories for items that might be included in a start-up request by a new faculty member. Female candidates frequently are not as aggressive about start-up requests as their male counterparts, and as a result, may fail to request some needed items. The planned template would help to improve the transparency of the negotiation process and could be provided to all candidates invited to campus for interviews. This would institutionalize the work that our ADVANCE project has done to help reduce subtle bias in policies, procedures, and practices on our campus.

K-State Update and Report on Recommendations from Site Visit Team

The recommendations (in boldface) are followed by the comments provided from the site visit team. The update and report on each recommendation by K-State is in italics.

1. Institute Paid Maternity Leave and Infant/Child Care. Empirical research has indicated that key factors influencing the career advancement of women faculty are childbearing and infant/child care; i.e., having children, and the number of children a woman has, are inversely related to career advancement (see Mary Ann Mason, *Do Babies Matter?*). Therefore, policies pertaining to paid maternity leave and the availability of infant/child care make a difference. If such policies and facilities leave it up to the individual woman or family to struggle on their own with the difficulties of infant care, there is evidence to suggest that the woman's career will suffer. KSU's ADVANCE grant focuses on recruitment as one of three critical barriers to the advancement of women in SEM disciplines. The site visit team has identified the lack of adequate maternity leave policies and infant/child care facilities as one of the critical components that constitute the recruitment barrier, and this component should be addressed by KSU. In addressing the recruitment barrier, KSU's ADVANCE program, together with institutional leadership, should consider two key issues that are related to child birth and infant/child care: 1) paid maternity leave that is equivalent to that provided at peer institutions; and 2) increasing the availability of infant/child care on campus. Women in SEM disciplines, especially those early in their careers who want to have families, may examine these factors and may choose other institutions that provide such support over those that do not.

Both paid maternity leave and infant/child care are important aspects related to the recruitment and retention of faculty members. Our ADVANCE grant did not include any specific initiatives that addressed either of these issues, though we agree that improvement in these policies would be a very beneficial outcome for our institution.

The maternity leave issue is particularly complex for us to address, since the university policy is set not by the university, but by the Kansas Board of Regents and by the State of Kansas laws. We are in the process of working to develop a proposal to present to the Kansas Board of Regents in the fall of 2007

that would request an expansion of our current shared sick leave policy to include maternity/parental leave.

K-State also plans to break ground in Spring 2008 on a new child care facility that would expand the current child care capacity from 172 children to 274 children. Currently, 10 infants and 32 toddlers can be accommodated. In the new facility, 35 infants and 65 toddlers can be accommodated. Though this new facility will not provide space for all of the needs in our community or on our campus, it will provide a significant increase in care for infants and toddlers.

2. Elicit an Overall Program Assessment from an External Evaluator. The ADVANCE program has initiated assessment of individual program elements, but there is no overall program assessment of how the entire project is working to achieve high-level program goals and how the parts are interacting in complex ways. An external evaluator could provide an outside view of institutionalized gender bias and/or departmental climates that discourage, dismiss, or marginalize women; capture issues of leadership, such as whether the upper administration is knowledgeable about the program and committed to transformation; and bring a voice that can raise political issues without causing tension or problems for the PIs. It would be beneficial if the evaluator had experience in the assessment of similar programs.

We are in the process of scheduling a visit by Dr. Lisa Frehill, Executive Director of Commission on Professionals in Science and Technology, to our campus in early Spring 2008 to provide us with this type of assessment. Dr. Frehill has extensive knowledge and experience with land-grant universities similar to K-State in geographic location and makeup, and she has conducted similar external evaluations of other ADVANCE institutions.

We also are asking our local outside evaluators from the Office of Educational Innovation and Evaluation (OEIE) to provide us with formative and summative evaluations of our overall project to ensure that the project activities are functioning effectively to achieve the project goals. The OEIE evaluators began attending Steering Committee and Executive Committee meetings in November 2006, and they are obtaining a broader perspective on how the individual initiatives function together.

3. Include a Social Science Researcher on the Project Team. To enable members of the project team to enhance their conceptualization of institutional transformation, it would be helpful if a social science researcher were invited to join the project team. A social scientist on the executive committee could preview proposed initiatives and relate these to existing research on recruiting, retaining, and advancing women. A scholar with expertise in a basic or applied area of social science also would support design and implementation of the climate survey that is planned for 2006-07.

We have added Dr. Dana Britton, Professor in Sociology, Anthropology and Social Work, to our project team as Senior Personnel. Dr. Britton is a social scientist who specializes in gender research. She began attending our Steering Committee meetings in February 2007. She will provide both formative and summative feedback to the project leadership and will be assisting with the evaluation and analysis of changes made by partner departments to their annual merit evaluation, promotion, and tenure documents.

4. Identify a Second Group of Partner Departments. To maintain momentum during the last two years of the program, the project team should identify a second group of partner departments that are “ripe for change”. These could then be the focus of program activities in the last two years, and they could be mentored by the first group of departments. For example, the equity action workshops could be re-started with this second group of departments, and the workshops could be improved using feedback from the first round. Based on diffusion of innovation theory, the “early adopters” (first group of partners) should be ready to help convince and guide the second group of departments to a faster and more successful transformation, enhancing the likelihood of sustaining the transformation. Feedback emerging from the evaluation process should be targeted toward enhancement of program elements that are introduced to departments engaged in the second wave.

Four new partner departments were added in January 2007: Agronomy, Chemistry, Clinical Sciences, and Computing & Information Sciences. The Executive Committee met with the heads of these departments to give them their charge, inform them of funding they will receive during the fourth year of the project, and answer any questions they had about the project or expectations. Three of these departments had received Internal Advisory Board awards and were already well engaged with the project. All of the department heads were eager to participate as new partner departments.

5. Create Mechanisms for Wide Information Sharing and Dissemination. Based on information gained during the site visit, it appeared that information related to the program was being shared selectively (e.g., e-mail messages for fliers were sent only to female faculty members), perhaps as a means to reduce the potential for controversy. During the last two years of the project, it is important that successes be shared more widely so that institutionalization becomes possible after the ADVANCE grant is completed. The project team should create mechanisms for sharing successful practices and processes across departments so that everyone knows what is going on, including male faculty, regardless of whether or not this generates controversy. Some controversy is necessary, even healthy, for fundamental change in a major institution. The site visit team did not see much resistance or conflict, nor did it hear very different views of the project. The team considers this to be unusual. It is appropriate for people to make and discuss suggestions that are outside of the project team's plans and ideas; diverse viewpoints have to be expressed, using a conflict management approach to making good decisions. The PI's mentioned that people are coming up with many interesting new ideas, and these should be solicited and discussed for their ability to lead to project goals. Not eliciting these ideas could be viewed as being the same as suppressing them or denying them when they arise and in the long run may result in lack of buy-in. One way to facilitate communication is to create information sharing panels, in which department heads and/or faculty present experiences and successes in the implementation of innovations aimed at recruiting, retaining, and developing SEM women. Other department heads and faculty can listen and learn, ask questions, and then adopt the learning to their own situations. These experiences can be written up, placed on the website, or mentioned in a University-wide ADVANCE newsletter. There also could be a link from the KSU web page to the ADVANCE website, made prominent so that anyone searching that page can see it readily.

We have created a project-wide ADVANCE listserv that goes to all faculty members, male and female, in the 27 SEM departments involved in our ADVANCE project. After consultation with the Provost, we have received his support for including a session on ADVANCE initiatives in the 2007-08 New Department Heads Orientation program and for the monthly First Tuesday Breakfast Roundtable series as described above in the Institutionalization section of this document. There is a link from the K-State Office of the Provost page to the ADVANCE project website.

6. Clarify the Plan for Sustainability. Once the evaluation has indicated those program elements that are most effective in achieving overall goals, the Deans and Provost should indicate program elements they intend to sustain over time and how these will be funded. If external fundraising is to be the source of monies to support program elements for the long term, then these activities need to be planned in advance of the project's completion.

In December 2006, the Executive Committee met with the Provost to discuss the issues of sustainability. The Provost and each of the four deans who are members of the Executive Committee made commitments to providing funding to continue the ADLS program and the college-level initiatives once the grant funding ends. The scope of the programs may undergo some change at the conclusion of the grant. The Provost also suggested that the Executive Committee meet with representatives from the KSU Foundation to identify strategies for pursuing continuing funds for specific initiatives. The Executive Committee met with these representatives, and they suggested that we pursue contacting Kansas Foundations who have an expressed interest in educational initiatives. We have developed a letter and an accompanying insert to send to these foundations, and we will initiate these contacts and send out mailings this summer.

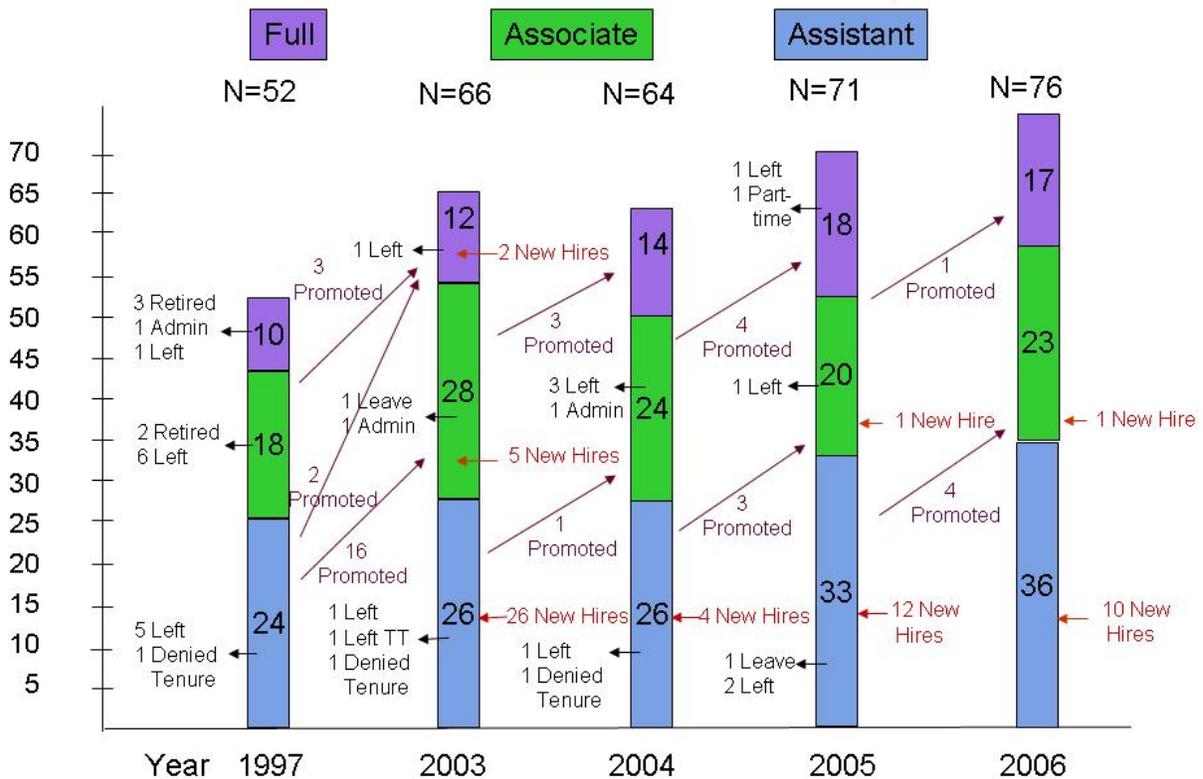
7. Expand the Project Coordinator Role. The PI's should explore the further uses of the project coordinator's training, experience and interests. She has the capacity to contribute more to the project than administrative support, and she could play a role in the area of information analysis and dissemination. It is recommended that she be linked with local evaluators to take advantage of her awareness of events and contextual knowledge that cannot be captured by surveying or interviewing target audiences for outcomes.

The Project Coordinator is working more closely with our local external evaluators to provide additional details and insight regarding specific initiatives. She also is included in discussions of development of assessment instruments and surveys, such as the recent university climate survey. We will continue to find ways in which we can make additional use of her talents and interests.

8. Provide High-Level Support for Dual-Career Couple Hires. The Provost's office should become more involved in finding placement for dual-career spouses to minimize the burden on Department Chairs and Deans and to provide greater opportunity for retention. Additional staff could be provided to the office of the Associate Provost for Diversity and Dual Career Development or the dual career development function be split off and centrally located.

The Provost is considering various options for enhancing communication among the departments and colleges with regard to dual-career issues.

Full-Time Tenure-Line Women SEM Faculty 1997-2006



Project-level Activities

ADVANCE Distinguished Lecture Series

We have received a total of 69 applications to date to host speakers, all of which have been approved. In the first year of the program, there were 23 eligible women faculty members in 15 of the 27 SEM departments. Fourteen women (61%) from ten departments submitted applications. This group consisted of two faculty members of Asian origin, two Hispanics, and the rest White. In the second year of the program, there were 24 eligible women faculty in 12 SEM departments, of whom 13 (54%) submitted applications. These applicants represented 10 SEM departments; of these awardees, three are Asian, two are Hispanic, and the rest are White.

In the third year of the program, there were 35 eligible women faculty members in 19 SEM departments, of whom 15 (43%) have submitted applications. These applicants represented 11 SEM departments. The awardees included three Hispanic, three Asian and nine White women. Of the year three awardees, nine were women hired into tenure-track positions and thus eligible for the first time; there were twelve such women eligible.

In the fourth year of the program, there were 38 eligible tenure-track women faculty members in 21 SEM departments, of whom 25 (66%) submitted applications. These applicants represented 19 departments, and included three Hispanic, six Asian, and 14 White women. Ten of these faculty members were in their first year at K-State. The number of participating women and the departments they represent are substantially higher in year four than in previous years.

We are pleased to see the trends of consistent levels of participation, involvement of faculty members from departments that had not previously had eligible women, and high engagement of newly hired

faculty members, which suggests that these new hires are being encouraged to participate in this program by their department heads, associate deans, deans and female colleagues, some of whom are previous awardees of this program. Indeed, interviews with ADLS hosts to be reported later in this section confirmed this conjecture.

In December 2006, we hosted our second annual luncheon and panel presentation for all SEM women faculty eligible for this program. We invited department heads and deans to attend with their eligible faculty members. Four of our previous awardees participated as panel members and shared their experiences with hosting speakers as part of this program. They addressed many of the details involved in arranging the visits and provided advice about choosing a speaker, issuing the invitation, making arrangements for the visit, developing the itinerary, scheduling activities during the visit, and interactions after the visit. Panelists were extremely positive when discussing their experiences hosting an ADLS speaker and were appreciative of the opportunity the ADVANCE grant had provided to them to host a speaker. Panelists shared what they had learned from the speakers, the benefits from the speaker's visit, and the collaboration that has occurred between themselves and the speakers since the visit. Finally, panelists reported on a few challenges that they encountered as they planned the visit and hosted the speaker. A question and answer period followed the panelists' comments.

We have prepared a brochure containing advice from previous ADLS hosts on all aspects of inviting and hosting a speaker in the ADLS series. This document is available on our project website and is provided to all new tenure-track SEM women faculty members.

Assessment results. Our evaluators from the Office of Educational Innovation and Evaluation (OEIE) conducted interviews either face-to-face or via email with twelve of the 22 **awardees** who hosted speakers during the 2006-07 academic year. All twelve were first-time hosts. The interviewees were asked about the process of selecting and inviting their speakers, how they planned and scheduled activities for the visit, and professional benefits they derived from the experience. All awardees interviewed felt that their participation in the ADLS initiative was beneficial to their careers. They learned strategies for inviting speakers and for prioritizing activities during speakers' visits. Awardees expected that a variety of benefits would result from collaborations that were initiated or strengthened through their participation. Anticipated benefits included stronger grant proposals, possible publications, increased professional networking, and support for earning promotion and tenure. These outcomes are consistent with what we have heard before from ADLS hosts. A noteworthy item learned from the most recent set of interviews is that all of the awardees mentioned that the experience of hosting a speaker contributed to their sense of 'belonging in their department'. This addresses the isolation that many SEM women feel when they are the only woman or one of a few in a department.

OEIE also used an online survey to ask previous **speakers** about their experience as an ADVANCE Distinguished Lecturer at K-State. Specifically, survey questions asked speakers about the benefits and challenges of having participated in the ADLS; what types of interactions the speakers and hosts engaged in during the visit; the extent to which the speaker was able to provide the host with helpful information; whether any follow-up collaboration or interactions have transpired since the visit; and recommendations for future ADLS hosts. The response rate was 29/49 for whom accurate email addresses could be obtained; 26 of the 29 provided a complete set of answers to survey questions. In general, all ADLS speakers were very positive about their experience at K-State and felt that the program is fulfilling its goal of professionally benefiting tenure-track female faculty members. Other key points from the survey responses include:

- Nearly all ADLS speakers reported that their visit had been enjoyable. Of those who gave specific reasons, respondents cited the pleasure of networking and interacting with students and faculty, of engaging in intellectually stimulating activities, and of having the opportunity to visit K-State.

- Most of the survey respondents indicated that they discussed research directions with their host. More than half also discussed research techniques, grant proposal preparation or possible collaborative projects.
- Respondents reported many benefits of participating as an ADLS speaker, including the opportunity to meet or interact with their hosts, learning about K-State and department facilities, meeting with K-State faculty and students, learning new information related to their research, beginning new collaborations, and opportunities to mentor or present their work. Ten of the 26 respondents reported that they had continued to interact with their hosts after their visit to K-State; most of this interaction took the form of research collaboration with their hosts.
- Speakers provided advice for future hosts that included 1) making sure that adequate one-on-one interaction time was included in the visit schedule, 2) taking advantage of the mentoring opportunities offered by the visit, and 3) asking the speaker for specific help needed by the host.

In general, the speakers confirmed the benefits and interactions that the hosts had reported previously. We are pleased to note that the speakers also indicated that they had benefited from the visits as well. One of the items that emerged from the speaker responses was that this lecture series has succeeded in raising the national visibility and profile of K-State in general, which is a benefit that we had not directly anticipated.

Sustainability. We will be seeking financial support from individual donors and corporations to sustain this program in its present form for SEM junior women faculty members beyond the NSF grant period. However, it is our goal to encourage each SEM department to adopt this lecture series model as a part of the culture of the unit in promoting the success of all junior faculty members. We recognize that departmental resources may not be sufficient to allow each junior faculty member to host a seminar speaker each year during the probationary period. Nevertheless, we want to encourage departments to give junior faculty members priority for issuing seminar invitations to guest speakers who could become important members of the junior faculty member's professional network. Indeed, our interviews with participating SEM department heads have indicated that this model has already become at least partially embedded into the culture in their units. We plan to continue the annual luncheon for new tenure-track SEM women faculty to provide them with information about the program and its benefits.

Career Advancement Program

Eight awards to nine individuals (one was a joint project) were made in June 2006 with start dates of October 1, 2006. Only one of these projects has been completed. The two individuals with the joint project have gathered preliminary data that will support preparation of extramural grant proposals, including one planned for an October 1, 2007 deadline. They will leverage their CAP award with other funding to purchase equipment that will facilitate future studies.

We have recently made four new awards for projects that will begin October 1, 2007.

College-level Activities

College of Agriculture

The Professional Development Program (PDP) offers small competitive awards to tenured and tenure-track women faculty members to enhance their scholarly and instructional activities.

This program has had the following outcomes:

- 12 women (3 Full Professors, 3 Associate Professors, and 6 Assistant Professors) from five departments participated in the most recent year of the project.
- 45 total awards to 22 women have been made over the course of the project.
- Awards have supported domestic and international conference attendance, workshop participation, sabbatical leave, seed money for research, and visits to other universities.

- Participants reported benefits such as making new contacts in a research area, developing grant proposals with new colleagues; enhancing an existing research area; learning about educational innovations at other universities; and implementing new leadership skills.

College of Arts & Sciences

The Career Enhancement Opportunities (CEO) initiative provides competitive funding for tenure-track women faculty members to enhance their scholarly activities.

The CEO initiative has had the following outcomes:

- 20 awards were made in year four of the project to women (all Assistant Professors) from eight natural and three social science departments. This was the first year in which women from the social sciences were eligible to participate.
- 55 total awards to 27 different women have been made over the course of the project.
- Awards have provided funds for domestic and international conference attendance, workshop participation, research support, and visits to other universities.
- Participants have reported benefits such as establishing important professional relationships; obtaining feedback on current research projects and exploring ideas for future research projects; increasing visibility for their research; identifying possible areas of collaboration; learning a research new technique; jump-starting a new line of research; meeting program officers from funding agencies which resulted in successful grant proposals and panel service.

College of Engineering

The Research Enhancement Visits (REV) initiative provides funding for tenured and tenure-track women faculty members to enhance their scholarly activities.

- Ten awards were made in year four of the project to nine women in five departments.
- 25 total awards have been made to 11 different women over the course of the project.
- Awards have supported domestic and international conference attendance, workshop participation, and visits to other universities, research centers and federal agencies.
- Participants reported benefits such as making contacts for future research collaborations; providing visibility within their research disciplines, receiving review of research from member of National Academy of Engineering who encouraged submission of research to journal he edits; and meeting program directors of federal funding agencies to discuss research proposals.

College of Veterinary Medicine Parallel Paths Program

All CVM faculty (tenured, tenure-track, and term) are eligible to participate in Parallel Paths. The Parallel Paths initiative involves groups of CVM faculty known as Prides. It is intended to foster the development of junior faculty, sustain the productivity of senior faculty, and create an environment that helps them be successful in their teaching, research, clinical, and service roles. Pride groups consist of three senior faculty facilitators and ten to eleven junior faculty in each group. These groups meet monthly to focus on achieving success on paths that are parallel but specific for each faculty member. A total of 27 faculty members, 9 women and 18 men, are participating in the program this year.

Professional Development Seminar Series

The Parallel Paths program initiated a professional development seminar series in 2005-06 featuring speakers from the CVM, other universities, and national funding agencies. This series continued in 2006-07, with two events held to date during the reporting period. These were presentation on interactive teaching with technology, one on using a student response system and the other on using the OneNote software package. Attendance included faculty members from the entire College of Veterinary Medicine as well as from other SEM colleges.

Department-level Activities

Activities of partner departments and their short-term outcomes are described in the Activities section of this report. To obtain information on institutional change occurring as a result of departmental participation, we asked OEIE to interview partner department and other SEM department heads.

Department Head Interviews

OEIE conducted interviews with ten department heads who have been involved with the project to date. Three additional interviews will be conducted at a later time. Department heads were asked 1) which ADVANCE initiatives they had implemented in their departments; 2) which have had the most impact; 3) what challenges they had faced in implementing the initiatives and how these had been resolved; 4) whether they thought the ADVANCE program has been beneficial to K-State in general and to their department in particular, 5) whether they plan to sustain any of the initiatives within their departments; 6) what feedback they had received from their faculty about the ADVANCE program; 7) what factors led to incorporating ADVANCE initiatives into departmental priorities; and 8) for any additional comments about the program.

Overall, department heads reported more strengths than weaknesses with regards to ADVANCE. Almost all department heads were uniform in providing broad, positive commentary, such as “ADVANCE has really helped in many ways and [has] been a complete positive, constructive opportunity for this campus.” Specific benefits mentioned included raised awareness of gender and STEM faculty issues, a greater sense of community and collegiality in the department, enhanced professional development activities for women, and taking advantage of ADVANCE initiatives in recruiting faculty.

In terms of sustainability, department heads reported that they plan to sustain many of the initiatives, in particular, those dealing with policy and procedures, career advancement, and mentoring. The policy and procedures category includes website review and active recruiting (our REAP initiative). Some of the department heads have identified specific funds for sustaining some of the initiatives.

Two particular issues, not linked to any of the specific questions asked by the interviewers, emerged from the interviews. One of these issues, identified by five of the ten department heads, was recruitment of female faculty. Department heads who have extremely low numbers of female tenure-line faculty (≤ 1) discussed the fundamental problem of not obtaining female applicants for potential hires, which prematurely hinders the goal of diversifying the workplace. The department that seemed to have overcome this difficulty engaged in proactive recruitment strategies, such as spurring current faculty to look out for exceptional graduate students (i.e., potential future hires) at conferences. This is an area in which our project needs to do additional dissemination across departments and colleges about successful initiatives that have been developed.

The second issue raised by five of the ten department heads interviewed was the link between supporting female faculty and undergraduate/graduate students. One department head specifically mentioned that female undergraduate and graduate students can be used as a recruitment tool for potential female hires. By the same token, the more female faculty members a department has, the more female undergraduate—and even more importantly, graduate—students it can attract. Thus, one department head discussed the importance of cultivating junior female faculty members to be superlative mentors of undergraduate and graduate women, as well as of any future female junior faculty members. While the K-State ADVANCE project leadership understands the importance of role models and mentors of the same sex, it will be important for our project to disseminate successful mentoring models used elsewhere, including group mentoring and cross-sex mentoring. Otherwise, expecting one or a few women faculty members to do all the mentoring for all the female students perpetuates the old system.