

Kansas State University ADVANCE Institutional Transformation Project Year Four 4th Quarter and Year Five 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, the assessment report of the Career Advancement Program, outcomes of the four College programs, and reports from the new partner departments.

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 Five the following successes in recruiting, promoting, and advancing SEM women:

- Five women faculty members hired in five SEM departments in the last year; all are tenure-track positions, with one position being a conversion from a non-tenure track to tenure track.
- Eight women tenured and promoted to associate professor in eight SEM departments. Two of these departments had no tenured women prior to this year.
- Two women promoted to full professor in two SEM departments.
- One woman was selected as a University Distinguished Professor (UDP), the highest academic honor the university bestows.
- One woman appointed as department head in an SEM department.

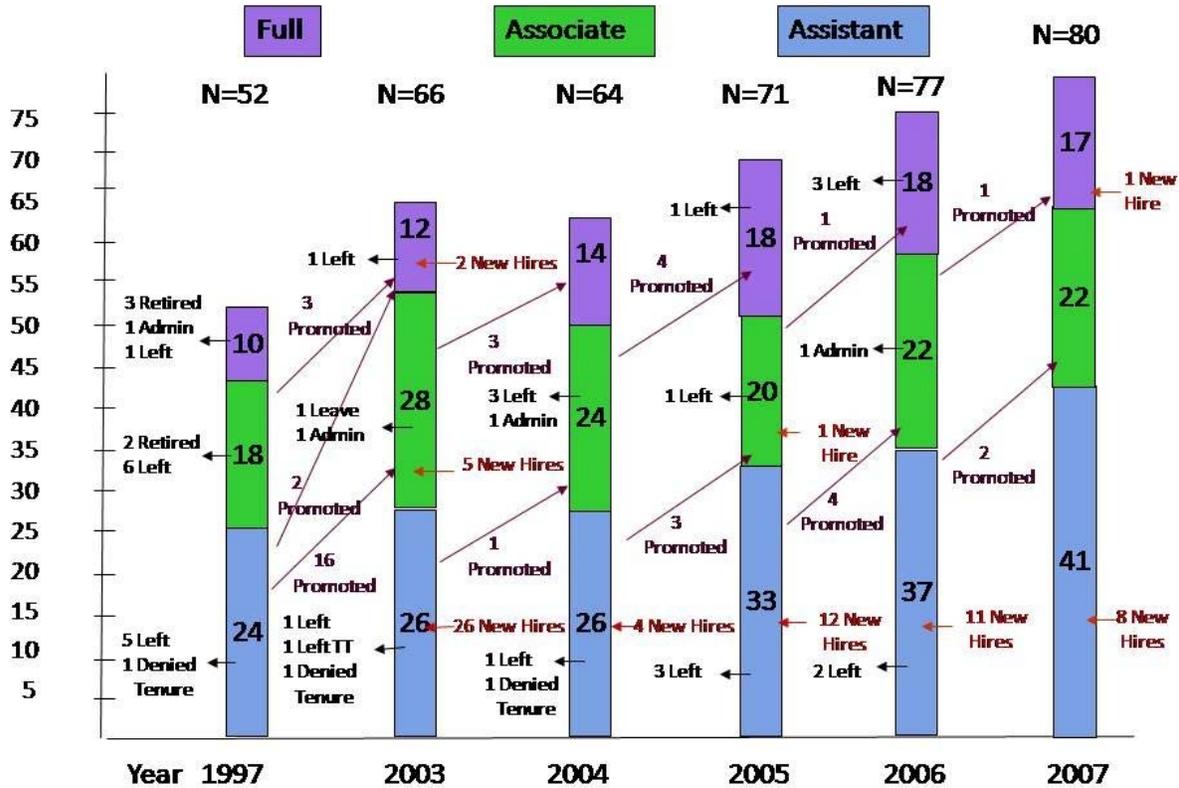
There was a total of 10 new faculty members hired in the 27 SEM departments for 2007-2008, of which five were women. This is a significant percentage of women to men hires.

All ten 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, Research Enhancement Visits, and Parallel Paths.

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 15.7% in Fall 2007. The percentage of women SEM faculty members who are full professors has increased from 4.7% in Fall 2003 to 6.9% in Fall 2007. The number of women SEM faculty members who are in administrative positions as of Fall 2007 is 10.

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.

Full-Time Tenure-Line Women SEM Faculty 1997-2007



Project-level Activities

ADVANCE Distinguished Lecture Series

We have received a total of 97 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.

In the fifth year of the program, during the first call for proposals, there were 38 eligible tenure-track women faculty members in 22 SEM departments, of whom 17 submitted applications. These applicants represented 12 departments, and included two Hispanic, three Asian, and 12 White women.

In the second call for proposals, we expanded the number of departments in which eligible women were found to include four social science departments from Arts & Sciences, four departments in Human Ecology, and three departments in Technology & Aviation. This increased the number of eligible women by 19. Eleven submitted applications from ten of the 31 departments with eligible women. The applicants included two Asians and 9 White women.

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.

In January 2008, we hosted our third 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. At the request of the ADVANCE principal investigators, a follow-up evaluation of newly tenured female faculty in Science, Engineering, and Mathematics (SEM) departments at Kansas State University (K-State) who have hosted a lecturer for the ADVANCE Distinguished Lecturer Series (ADLS) was conducted in May, 2007. An electronic mail message was sent from the Office of Education Innovation and Evaluation (OEIE) to six tenured women who were former ADLS award recipients. Of the six potential respondents, three did not reply, two responded to the questions provided, and one respondent did not respond directly to the questions, but provided comments about her experience with the lecture series.

The questions are listed below with the participants' responses immediately following.

Did you include the ADLS Lecturer as an outside reference for your promotion and tenure review? If not, please explain why.

Both respondents indicated that they had previously hosted two ADLS lecturers. One faculty member had asked one of her lecturers to be included as a reviewer for her promotion and tenure package due to the fact that the other ADLS lecturer worked in the private industry. The other respondent indicated that she had both lecturers as outside references on her package.

If you did include your ADLS Lecturer as an outside reference, what additional assistance did he/she provide during your promotion and tenure review process?

One respondent indicated that one of her ADLS Lecturers provided her with "a letter of recommendation supporting promotion and tenure." While the other respondent suggested that her ADLS lecturers did not

offer any additional assistance, they were “particularly positive and encouraging” when she contacted them to ask them to serve as outside references during the promotion and tenure process.

Did you include your ADLS experience in your promotion and tenure materials (e.g., as an award received)?

Respondents replied they had listed their ADLS awards in their promotion and tenure materials. One faculty member listed both of her ADLS lecture experiences under "internal grants received."

Have you experienced any additional benefits to your academic career as a result of hosting the lecturer? If so, what were they?

One respondent replied that through her hosting of the ADLS lecturers and being acquainted with them, they have given her more recognition in her field and assisted her with networking at conferences. In addition, the respondent discussed the additional benefits to her career that the lecture series provided: “Although I had (and used) other avenues as well to bring in speakers, this program allowed me to bring in more and higher level speakers, and I think the nature of the program placed them in more of a position to promote my career.” The other respondent could not speak of any additional benefits from her ADLS experience, but hoped to collaborate with her lecturers in the future for research projects.

Sustainability. We have submitted a request to the Provost for base funding to continue this program for the current set of 38 departments past the end of NSF funding. We are encouraging 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 are asking 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

Four awards were made in June 2007 with start dates of October 1, 2007. Of the 18 awards made since the beginning of the grant period, qualitative content analysis was conducted on 10 reports, since eight of the projects were not yet completed at the time of the analysis.

Assessment results: Qualitative Content Analysis

Participants reported the following significant outcomes of their CAP sponsored activities:

- making significant and satisfactory progress on a collaborative project supported by the CAP award
- gaining increased visibility in the research community and ability to serve in leadership roles, especially as it relates to ‘leading funding initiatives’ and serving in various professional settings
- having the opportunity to assume a new leadership and/or administrative role without giving up research and/or laboratory and, “thereby sacrificing significant credibility’
- obtaining new knowledge and skills to utilize an important research tool (e.g., protocol)
- enriching and/or strengthening an existing research agenda or developing a new one
- expanding research networking that enhance collaborative and leadership opportunities
- having the opportunity and experience to work with a team that consists of faculty, graduate students, and residents
- achieving the rank of full professor
- making improvements in the departmental graduate curriculum

This set of activities by these ten awardees has led to the following additional outcomes. Eight awardees submitted grant proposals, with five reporting that their grants were funded. Five submitted journal

articles and two individuals reported their articles were published during their year of funding. Seven made presentations at national meetings, two traveled to conduct research at other sites, three reported receiving new research knowledge and learning new skills, one expanded her professional service opportunities, and two received prestigious awards.

Reports also included information on activities that the recipients planned to pursue in the year following the completion of the CAP projects. The items are listed in the order of decreasing frequency by which they were mentioned, with the number of responses noted in parentheses.

- seeking extramural funding (mentioned in 9 of 10 reports)
- submitting manuscripts (i.e., refereed journal articles) (6)
- strengthening collaborative relations that were developed as a result of the CAP project activities (5)
- advancing a new skill gained as a result of the CAP project activities (4)
- utilizing a new research instrument (3)
- expanding activities that were initiated and supported by the CAP award (3)
- utilizing experiences to prepare for promotion to full professor (1)

Other benefits mentioned in the reports were the ability to use CAP funds to provide support for research assistants and graduate assistants or obtain release time. This provided the opportunity to spend quality time in other activities, such as preparing competitive grant applications, writing manuscripts, attending short-term courses/seminars, and expanding one's professional network by attending national and international conferences. These opportunities led to an increased visibility in the research community.

Further, close relationships with mentors during the course of the CAP project had a positive impact on faculty promotion to full professor, success with extramural funding, and scholarly writing and publications. Three faculty members attributed their promotion to full professor to the CAP award. In addition, faculty cited expanded research interactions and opportunities to develop mutually beneficial collaborative projects with faculty in other institutions, locally, nationally, and internationally, as being particularly useful.

Assessment results: Focus Groups

A focus group was conducted to discover CAP awardees' overall perspectives of the CAP program and identify effective strategies that would support the continued development of tenured women in mid-career, senior rank, and leadership positions. The rationale of conducting a focus group, as opposed to utilizing other data collection activities, was to capitalize on the CAP awardees' shared experiences of participating in the program, explore the successes and challenges of the program, generate discussion to identify gaps in supporting tenured women, and articulate specific strategies to address these gaps.

Potential focus group participants included 16 of the 17 CAP awardees from the first four rounds of this competition. One of the awardees had already left K-State to assume a leadership position at another university. Twelve of the 16 invited CAP awardees attended the focus group.

The 12 attendees were provided a set of questions prior to the session. During the focus group, these questions were used to stimulate the discussion, but not to limit it. At the start of the focus group, the moderator described the agenda that would be followed (i.e., individual CAP project highlights, discussion of strengths and challenges, aspects of an ideal program and sustainability, and a short wrap-up session) and reiterated the goals of the CAP program.

Emails with questions similar to those used during the focus group were sent to the four CAP awardees who were unable to attend the focus group. Two email replies were received; these responses also were incorporated into the compiled results from the focus group.

CAP Project Highlights

Focus group participants were asked to share highlights of their project, specifically how their project enhanced networking opportunities, research expertise and stature, and development of leadership skills.

Responses indicated the most frequently utilized aspects of projects from CAP funds were

- sustaining or bridging current research
- hiring of a staff person (e.g., technician, graduate student assistant)
- traveling for professional purposes
- using seed money to start research projects
- continuing their research while transitioning to an administrative position
- developing a new curriculum
- attending training programs
- bringing people to K-State
- covering summer salary
- developing collaborations

Strengths of CAP

Focus group participants identified the following items as strengths of CAP: the flexibility in the use of the funds, availability of seed money for research projects, and the opportunity for networking and mentoring. Participants also commented on the ability to leverage funds, the opportunity to participate in leadership activities, the assistance CAP provided in balancing their personal and professional lives, and the formalized relationship with or commitment from mentors.

Challenges of CAP Project

Focus group participants discussed the lack of flexibility in terms of the time frame of the award, specifically the predetermined beginning and ending dates of the award period. Concern was also expressed about the procedures for accounting and budgeting of the awards not being well established during the early stages of the CAP program.

Another point of discussion was related to the need for more recognition for the awardee and the mentor. Some focus group participants wanted the award to receive more publicity and more of a focus on the mentoring relationship. Others discussed the burden of educating colleagues on the purpose or intent of the award. Members of the focus group expressed concern with the way the request for proposals was delivered personally by a department head, which created the perception of the award as a “set aside” for female faculty. As one participant noted, in her department as the recipient of the CAP award, the perception was, “I got it because I’m a woman and I need it because I’m a woman.” Some participants also mentioned the perception of discrimination ADVANCE and CAP awards created in their departments due to how the awards were publicized.

An additional challenge mentioned by one participant was the definition and the requirement of a mentor in the CAP RFP. She explained that in some professions independent work is encouraged and reliance on a mentor is considered a weakness. Enforcing the accountability of the mentor had been a challenge for one CAP awardee, while another awardee questioned how beneficial interaction with a mentor was.

The Ideal Program

The focus group was asked to provide their perspectives on what would constitute an “ideal program” with the goals of CAP (i.e., supporting tenured women, enhancing research, networking, and leadership skills) and how this ideal program would be sustained.

One of the themes that emerged from the discussion was that an ideal program would have extremely flexible guidelines in terms of utilization of funds, timing of the award period, and support for research staff. In addition to flexibility, several participants mentioned the importance of including various types of training, including formalized training in the acquisition of leadership, research, technical, and advocacy skills, and formal advice on how to share one’s accomplishments. There also were suggestions that the

program include a more formal process for recognition of recipients and that the number of awards per year be increased.

Responses during this session also indicated that focus group participants were interested in networking with other CAP awardees. One focus group participant suggested avenues of proactive communication (i.e., purposeful meetings), while another recommended a shared approach for mentoring, namely having previous awardees mentor new awardees (e.g., full-circle learning). Other aspects of the ideal program for tenured women should include implementing graduated funding levels, making mentoring optional, providing funds specifically for travel, maintaining a focus on faculty, and incorporating eligibility to reapply.

Sustainability

The final topic of discussion for the focus group participants was sustainability. Suggestions for sustainability included reinvestment into CAP of sponsored research overhead funds from grants subsequently received by CAP awardees, as a form of return on investment. An additional recommendation to ADVANCE posited by a focus group participant was to emphasize private fund raising to support the program. Focus group participants also discussed requesting that department chairs, college deans, and university administrators provide support for programs that focus on tenured women through internal reallocation. The need to institutionalize mentoring as part of the annual merit evaluation process was also emphasized.

Climate Survey Findings

The purpose of the Kansas State University (K-State) Community and Climate Survey was to assess how faculty members at K-State perceive the environment in which they work and live. As such, “climate” was defined as current attitudes, behaviors, and standards of employees and students concerning the access for, inclusion of, and level of respect for individual and group needs, abilities, and potential. The format of the survey was guided by K-State’s *Principles of Community*. These principles help frame the climate at K-State and affirm collective expectations for the campus community.

This report presents the results of the K-State Community and Climate Survey, including descriptions of how the instrument was developed, as well as survey administration procedures. The results of the survey are organized by section (I. Hiring Process, II. Current Work Environment, III. Current Institutional Environment, IV. Professional Advancement and Leadership, and V. Demographics), with supportive analyses and evidence provided in the appendices as noted. For reporting purposes, demographic data are presented first to provide context for the reader.

Procedure

In the spring of 2007, all K-State faculty with valid email addresses ($N = 1261$), including faculty at K-State Libraries and the Salina Campus, received an email from Provost Duane Nellis requesting their participation in an upcoming survey regarding faculty’s perceptions of the overall climate of the campus community. The survey itself was open for two weeks, with several reminders to complete the questionnaire sent to faculty who had not yet responded.

Methods

Survey responses were aggregated to preserve survey participants’ confidentiality. Additionally, data were not reported if a particular demographic group contained six or less respondents, or if individuals were easily identifiable. Highlights from faculty responses are discussed in the text below.

Faculty Profile

A total of 612 K-State faculty responded to the K-State Community and Climate Survey for a 48.5% response rate. Of the 612 respondents, 573 completed the entire survey (i.e., 93.6% completion rate). Demographic information highlights include:

Demographic Information	Number of Respondents
<i>Ethnicity</i>	
White	84.6% (n = 518)
Asian	9.2% (n = 56)
Hispanic	2.5% (n = 15)
Black	1.8% (n = 11)
<i>Gender</i>	
Male	64.4% (n = 394)
Female	33.8% (n = 207)
<i>Tenure Status</i>	
Tenured	63.9% (n = 391)
Tenure-track	20.4% (n = 125)
Non-tenure-track	10.1% (n = 62)
<i>Academic Rank</i>	
University Distinguished Professors	2.5% (n = 15)
Full Professors	33.8% (n = 207)
Associate Professors	28.1% (n = 172)
Assistant Professors	21.6% (n = 132)
Instructors	6.9% (n = 42)

Analyses of Results

I. The Hiring Process

Included in this section were questions pertaining to respondents' attitudes toward the hiring process itself, as well as retrospective and current attitudes toward their job. There were no statistically significant differences based on gender, ethnicity, or tenure status; however, respondents overall reported having reasonably more positive attitudes toward their job than the hiring process.

II. Current Work Environment

The first items in Section II asked about faculty members' attitudes toward their current work environment. University distinguished professors reported extremely positive attitudes when compared to all other faculty ranks. However, in general, all faculty ranks reported positive responses about their environment, with scores falling well above the midpoint of the scale.

The next set of items addressed respondents' perceptions of seven different types of workload (teaching, advising, service, upper-level grad courses, research requirements, extension service, and committee work) in comparison to colleagues with similar appointments. Across the following four types of workloads (advising, graduate courses, research, and committee work), tenured faculty reported having a higher workload than either tenure-track and/or non-tenure-track faculty. Next, questions addressed whether faculty have access to various resources (e.g., teaching assistant support, release time, staff support), as well as perceptions of the quality of their office and lab space. Results showed that there was no statistically significant difference in access to resources. For faculty who have both office space and lab space, respondents reported being more satisfied with their office space than their lab space.

On issues related to mentorship, results indicated that women were two times more likely to have an individual that assisted them in career development than men. Respondents reported that mentors provided equal assistance in a variety of categories (e.g., promotion, professional development) regardless of gender, ethnicity, or tenure status.

The last items in Section II addressed attitudes toward the tenure and promotion process. Results showed no statistically significant differences in attitudes by gender, ethnicity, or tenure status.

III. Current Institutional Environment

This section examined the extent to which the institution creates and preserves a climate that adheres to the K-State *Principles of Community* and offers a positive working environment. The first set of items asked about work-life conflict; specifically looking at the ease of achieving balance between work and personal life, and the quantity and quality of on-campus support. Correlation analyses indicated that for individuals who reported a higher level of work-life conflict, they also reported lower levels of achieving balance and receiving on-campus support. Moreover, those reporting receiving more on-campus support also reported an increase in achieving balance.

The next several items related to perceived discrimination in the workplace. The first four items assessed the perceived frequency of inappropriate sexual email/advances, sexist remarks, and whether sexual harassment claims are taken seriously. Specifically,

- Tenured faculty reported higher frequencies of inappropriate sexual email/advances and sexist remarks in their current work environment as compared to non-tenure-track faculty.
- Tenured and non-tenure-track faculty reported that sexual harassment claims are taken seriously more frequently (i.e., more 'Rarely' than 'Never') as compared to tenure-track faculty.
- White faculty reported that sexual harassment claims are taken seriously more frequently (i.e., more 'Rarely' than 'Never') as compared to Non-White faculty members.

The next nine items related to the frequency of discriminatory behavior based on categories outlined in K-State's *Principles of Community*. There was little variability in respondents' ratings on these items, such that scores tended to fall in the lower end of the distribution, indicating that, on average, discrimination *Never or Rarely* happens.

The next four items related to dual careers. Correlations between these items showed that as partner/spouse job satisfaction increased, respondents were less likely to consider leaving the university to enhance their partner/spouses' career opportunities. Tenure-track respondents reported that they were somewhat more likely to consider leaving the university to enhance their partners/spouses' career than tenured or non-tenure track individuals.

The next set of questions asked about respondents' perceptions of whether female faculty or faculty of color are underrepresented in their departments and whether the departments are actively engaged in recruiting and promoting these groups.

- Men were more likely than women to report that their departments have made an effort to actively recruit and promote female faculty, with scores falling well above the midpoint of the scale for men and slightly above the midpoint for women.
- As compared to White faculty, Non-White faculty reported a higher level of agreement that female faculty are underrepresented in their departments.
- As compared to White faculty, Non-White faculty reported a lower level of agreement that their departments have made an effort to actively recruit and advance faculty of color.

Lastly, respondents reported their level of overall job and career progression satisfaction at K-State. Job satisfaction and career progression satisfaction were highly and positively correlated (i.e., as respondents' job satisfaction increased, satisfaction in their career progression also increased). Regardless of gender, ethnicity or tenure status, respondents reported a slightly higher level of job satisfaction than career progression satisfaction.

IV. Professional Advancement and Leadership

Items in this section looked at on-campus and off-campus leadership positions, as well as departmental and campus-wide committee service. With regard to on-campus and off-campus leadership positions,

Whites were 2.47 times more likely to report at least one on-campus leadership position and Non-Whites were 2.30 times more likely to report having held at least one off-campus leadership position. Results showed no statistically significant findings for gender.

For departmental and campus-wide committee service during the past five years, the analysis reviewed frequency data that indicated whether respondents had served on, chaired, or both served on and chaired various committees. Across all groups, the majority of respondents reported serving on 1 - 4 committees and chairing no committees, with the exception of White men who chaired 1 - 4 committees during the academic year.

V. Predicting Job and Career Progression Satisfaction: A More Detailed Analysis

Hierarchical regression analyses were performed on items 29.1 (Job Satisfaction) and 29.2 (Career Progression Satisfaction) to provide a more detailed picture of job and career progression satisfaction. In Step 1, gender and ethnicity were entered, and in Step 2, either job or career satisfaction values were entered (for the models predicting career progression satisfaction and job satisfaction, respectively) to help control for the high correlation between the two variables. Then, in Step 3 other relevant variables were entered to see whether these variables provided any predictive utility after controlling for demographic characteristics and for the relationship between the two areas of satisfaction. The relevant variables for Step 3 were chosen by looking at the zero-order correlations between the major constructs created in analyzing the survey. The major constructs were: career progression satisfaction, hiring process, job characteristics, current work environment, attitudes towards the tenure process, achieving balance, on-campus support, and discrimination by category (total scale score).

The predictors accounted for a statistically significant amount of variance in both job satisfaction (62%) and career progression satisfaction (58%), although the predictors differentially predicted job and career progression satisfaction. Job satisfaction increased as career progression satisfaction increased, and vice versa. Job satisfaction also increased as positive attitudes toward their department and more favorable perceptions about their job increased. On the other hand, career progression satisfaction increased as positive attitudes toward the hiring process and tenure process increased, as well as when their reports of discrimination decreased. Thus, the more positive respondents felt about their career, their department, and their jobs, the more they were satisfied with their jobs; however, the more positive respondents felt about their jobs, the hiring process, and the tenure process, the more satisfied they were with their career progression.

Conclusions

In general, respondents were fairly positive about the climate at K-State. These results are evidenced by respondents' overall satisfaction with their job and career progression, low rates of perceived discrimination, positive attitudes toward the tenure process, and equal access to resources. In general, respondents reported that female faculty and faculty of color were underrepresented in their departments. Faculty respondents also indicated that their departments have made an effort to actively recruit and promote female faculty and faculty of color.

Moreover, the results of the hierarchical multiple regression analyses revealed that attitudes and perceptions most related to job satisfaction were higher career progression satisfaction and more positive attitudes toward work environment and qualitative aspects of the hiring process. In addition, attitudes and perceptions most related to career progression satisfaction were more positive attitudes toward financial aspects of the hiring process and the tenure process, and a decrease in all aspects of discrimination.

A more comprehensive analysis is still in the process of being completed.

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:

- 15 women (4 Full Professors, 4 Associate Professors, and 7 Assistant Professors) from five departments participated in the most recent year of the project.
- 61 total awards to 23 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:

- The year 5 competition for CEO is pending. Assistant professors in the natural and social sciences will be eligible.
- 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.

- Five awards were made in year five of the project to five women in three departments.
- 33 total awards have been made to 12 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 24 faculty members, 11 women and 13 men, are participating this year.

Kansas State University ADVANCE Institutional Transformation Project Year Four 4th Quarter and Year Five 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, 2007 through June 30, 2008, which represents the last quarter of project year four and the first three quarters of project year five. 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.

Executive and Steering Committees

- The Executive Committee met regularly to discuss the progress and policies of the ADVANCE project. Dr. John English was appointed as the new dean of engineering effective July 1, 2007, and he was added as Senior Personnel on the project and as a member of the Executive Committee. Dr. Dana Britton, Professor, Sociology, joined the Executive Committee in April 2008. She brings to the project the perspective of a social scientist specializing in gender research. The four academic deans, who are members of the Executive Committee, have identified specific initiatives within each college that they plan to institutionalize after the end of the grant period. (Goals 1-4)
- The Steering Committee met monthly to coordinate and guide the direction of the project initiatives. Dr. Rich Gallagher returned to the Steering Committee in July 2007 to represent the College of Engineering when the new Dean of Engineering was appointed to the Executive Committee. This committee reviewed the ADVANCE Distinguished Lecture Series (ADLS) and Career Advancement Program (CAP) proposals and made funding recommendations to the PIs. (Goals 1-4)

Project-level Activities:

ADVANCE Distinguished Lecture Series (ADLS)

- The project hosted an ADVANCE Distinguished Lecture (ADLS) Series panel luncheon in Spring 2008. 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)
- Distributed the ADVANCE Distinguished Lecture Series (ADLS) *Tips on Hosting a Speaker* brochure to new ADLS awardees. 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 2007 and in Spring 2008. The decision was made to maximize use of limited resources by limiting participation to tenure-track women faculty members for the Spring 2008 call. However, we expanded the scope of the project by identifying additional departments in which women were eligible to participate. This included 11 additional departments in two other colleges. A total of 34 women received awards to host speakers in project year five. We will issue another call with applications due in September 2008. Assessment of this program continues and recent results 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 in Spring 2007. Four awards were made, which are in progress. (Goal 3)

Equity Action Workshop

- On January 25, 2008, we co-sponsored two workshops facilitated by JoAnn Moody. These dealt with mentoring issues for newly-hired/pre-tenure and mid-career/senior faculty, respectively. (Goals 1, 2)

Special Assistant to the Provost

- A white male and an African American female served as Special Assistants to the Provost during Year Five. Funding 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

- Developed a one-page document that serves as a guide for discussion of start-up needs for new faculty members and department heads. This guide is available on the ADVANCE website and department heads are encouraged to send this document to all candidates invited to campus for interviews. The goal is to improve the transparency of the negotiation process and to institutionalize the work that our ADVANCE project has done to help reduce subtle bias in policies, procedures, and practices on our campus. (Goal 1-2)
- Analyzed data from 13 years of delay of tenure clock requests to determine the tenure outcomes from male and female faculty who utilized this policy. Results were shared with Executive Committee, Steering Committee, and IAB. (Goal 1)
- Developed draft parental leave policy and presented to Deans' Council for review. The revised policy will be shared with department heads and presented to Faculty Senate for possible action. (Goal 1)
- A team of six SEM faculty members and administrators attended the ADVANCE Big 12 Workshop on Faculty Recruitment and Retention at the University of Oklahoma in January 2008 as representatives of the K-State ADVANCE Project. The K-State President provided funds to support the travel expenses of the team (Goals 1-4)
- Dyer, Montelone, and Britton met periodically with the OEIE staff to analyze and discuss the results from the university-wide climate survey, developed by the K-State ADVANCE Project and administered in April 2007. An Executive Summary is being prepared for campus-wide distribution in August 2008. (Goals 1-4)

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 fifth round of Professional Development Awards. In this reporting period, 15 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 delayed the next round of the implementation of the Career Enhancement Opportunities (CEO) awards until August 2008 due to a reassessment of the most effective mechanisms to encourage institutional transformation. (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. One department used REAP funding in conjunction with a department head search 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, five awards were made to five 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 24 individuals are participating in year five. Each group is composed of tenure-track and tenured men and women faculty members. Each group met periodically over dinner and discussed issues pertaining to career advancement. (Goal 3)

Department-level Activities:

- Original partner departments submitted written reports of their activities to the Executive Committee. These are summarized below: (Goals 1-3)
 - Biological and Agricultural Engineering (BAE) provided financial support to a female faculty member and several of her female undergraduate and graduate students to participate in four national professional conferences. These individuals gave technical presentations and took part in student poster, paper, and design competitions. This female faculty member also received support for lab personnel and travel conducted in conjunction with her role as an elected member of the Board of Trustees of a national professional society. The review and revision process for BAE's Annual Evaluation Guidelines and Promotion and Tenure Guidelines were completed during this reporting period.

These activities provided professional development for the female faculty member and her students, as well as national exposure and recognition of faculty member's research programs. Student and technician support have enabled this individual to expand her research programs and to secure additional funding from a federal agency.
 - Chemical Engineering focused their Year Five activities on enhancing the recognition of their junior faculty members (2 female and 1 male) in the hopes that this would lead to enhanced networking opportunities for the group, improved ability to attract research staff and students, and, ultimately, an improved probability of career success. Specifically, ADVANCE project funds were used to:

- Support the design and publication of a departmental newsletter which included articles devoted to each of the junior faculty members and which was distributed to all U.S. Chemical Engineering departments and to departmental alumni.
- Support recruitment of highly qualified graduate students to our program. These graduate research students will be essential to the ultimate success of the junior faculty and attracting them to the program is a top priority.
- Support the training of ChE faculty and staff in issues related to achieving gender equity in the faculty. Four ChE faculty members and four ChE graduate students attend a workshop hosted by the KSU Physics department which explored these issues.

Furthermore, the department completed the following complementary activities using non-ADVANCE funding during Year Five:

- Supported travel for junior faculty members to attend professional meetings.
 - Allowed junior faculty members to select and host national leaders in their fields as departmental seminar speakers.
 - Ensured that each junior faculty member visited with every departmental seminar speaker (to expand their networking opportunities).
 - Introduced junior faculty members to potential collaborators on campus.
- Diagnostic Medicine/Pathobiology (DMP) recruited 5 new faculty, 3 women and 2 men, to the Department. In addition, they were able to attract high quality graduate students, post-docs, and residents. The departmental website and other related documents were revised and updated to reflect the personnel and program changes. The Annual Evaluation of Faculty and Tenure and Promotion Guideline documents were reviewed and updated to reflect ongoing changes and trends in the Department. The formal mentoring process was implemented for all probationary faculty, and the department intends to continue to work to make the process consistent and uniform.

In FY 08, the department head nominated Dr. Melinda Wilkerson for the Outstanding Woman Veterinarian of the Year, and she was selected to receive this award. The award will be presented in July 2008 at the American Veterinary Medical Association (AVMA) Annual Convention.

ADVANCE funds were provided as seed funding for a collaborative project by a new woman faculty member and a senior woman faculty member.

- Geology interviewed one woman candidate for a faculty position and hosted two additional women seminar speakers during Year Five. Department faculty members also attended ADVANCE lectures in other departments. In two searches for new faculty, they advertised with the Association for Women Geoscientists and made efforts to seek out women candidates. The Geology Department will be recruiting again this coming year, and will again be actively seeking women applicants.

The department is continuing to update and revise its website so that it is more welcoming and attractive to women students and potential faculty recruits. They also plan to expand their department seminar program to invite more speakers, and they intend to especially seek out women speakers.

- New partner departments provided updates on their activities to the Executive Committee as well as written reports. A summary of each department's activities is included below.
 - Agronomy had recently completed a review of its promotion and tenure policies prior to becoming an ADVANCE partner department. An evaluation committee was charged to review the policies again to look for subtle gender biases. The department has formalized a mentoring

process, in which all new hires have mentoring committees. The Career MAPS initiative is being incorporated for use by faculty mentoring committees.

As part of an upcoming accreditation review of the department, its website is being revised and the committee working on the website is using the guidelines developed for the K-State ADVANCE Project by Dr. Cindy Burack. The department has hired a graphic artist/web manager, and they are incorporating new images into the website. They also have recruited students to help update the content.

Agronomy also participates in the Women in Throckmorton faculty luncheons, an initiative begun as part of an ADVANCE Internal Advisory Board grant. The department has encouraged participation in the ADLS and other programs for which its faculty are eligible. The department is also actively recruiting women faculty and has recently hired a new woman faculty member.

The department would like to involve graduate students in the ADVANCE Project, as they believe this will help encourage more women to consider academic positions. In their department, women are well-represented in the M.S. programs but not in the Ph.D. and faculty ranks. The department head has noted that the ADVANCE Project has provided him with ideas on how he can support women faculty. Male faculty members in the department are not as familiar with the ADVANCE program as women, but periodic reminders are sent out regarding activities and available resources.

- The Chemistry Department had reviewed its department documents in April 2006 and these have been sent to Dr. Dana Britton, a sociologist who is a consultant with our project, for review. They also launched a complete website redesign in September 2006, using the Burack matrix. They plan to include links to resources from both local and national initiatives, such as ADVANCE, WESP, GROW, COACH, CIRTL.

The department head has been working with the K-State Women in Engineering and Science Program to co-sponsor a COACH workshop in Spring 2009. The workshop will feature professional skills development for graduate students (negotiation, conflict resolution). In addition, the department co-sponsored an ADVANCE workshop with Physics in February 2008 on the K-State campus.

Other highlights reported by Chemistry were a very good turnout at the Greenwald workshop on Implicit Bias in February 2007, two women speakers hosted as part of the ADLS program, and one of their recent hires, Christine Aikens, appears to be off to a great start. The department head said that the ADVANCE activities have allowed everyone to see the advantage of pursuing opportunities for women and minorities. ADLS has been the most beneficial, is the easiest for them to sustain, and it is easily extendable to tenure-track male colleagues.

- Clinical Sciences has completed their website redesign and reviewed their departmental policies. The evaluation, tenure, and promotion policies were shortened from thirteen to three pages. Discrepancies with the university handbook were removed. The clinical-track evaluation procedures were changed the most. This will need to be voted on by faculty.

The department head explained that she arranges a mentoring committee for each new faculty member that includes two faculty members from within the department and one from outside the department. She deliberately selects mentors from members of the search committee, because people who helped recruit faculty members have an interest in seeing them succeed. Each mentoring committee meets twice per year.

Departmental funds also were used to send a new woman faculty member to a workshop.

- Computing and Information Science (CIS) focused on three ADVANCE activities in Year Five. The first activity focused on using Cynthia Burack's Gender Equity Website Evaluation Rubric to

review and revise CIS documents for faculty recruiting advertisements, documents on the department website (<http://www.cis.ksu.edu>), and documents that govern promotion and tenure. These documents were reviewed by three women faculty members, one from inside the CIS Department, one from K-State but outside CIS, and one from another university. The only changes suggested by these reviewers were two places where the documents used the male gender pronoun to refer the department head.

The second major activity involved the CIS website faculty committee, composed of three men and two women. One of the outside reviewers noted above suggested that the CIS website should emphasize the team-oriented nature of computing to attract more women to the department. Updating the graphics and images on the department website to improve the “inclusive” team nature of software development is now an ongoing activity.

The third ADVANCE activity centered on professional development for a junior woman faculty member, making use of mentoring materials from the Computing Research Association for Women (CRA-W) (<http://www.cra-w.org>). Funding from ADVANCE and the department for professional travel allowed this same junior faculty member to make significant professional connections and to host a national leader in her research area.

- An Internal Advisory Board meeting was held in March 2008, at which the team that attended the Big 12 ADVANCE workshop provided a report on the conference, and the PIs provided data related to tenure outcomes for faculty who used the delay of the tenure clock option. Several department heads also shared information about mentoring programs in their departments. (Goal 4)
 - Round one IAB department activities conducted in this reporting period included:
 - The Department of Physics conducted a workshop on women in science on February 15-16, 2008. The workshop included discussions led by prominent women physicists of issues facing women scientists.
 - Round two IAB initiatives conducted in this reporting period included:
 - The Departments of Agronomy, Horticulture/Forestry/Recreation Resources, and Plant Pathology are continuing to sponsor bimonthly luncheons, called “Women of Throckmorton Hall”, for women graduate students and faculty members. These luncheons have featured speakers or focused discussions on topics relevant to women in science and preparation for academic careers. At one luncheon this year, a senior woman faculty member shared a summary of a survey sent to female faculty members who had left one of these three departments. These individuals were faculty members at K-State from 3 to 16 years.

Three junior women in these three departments hosted women ADLS speakers in Spring 2008, and they invited their guest speakers to attend the Women in Throckmorton Hall meetings. Each guest shared some of her life story with the group over dessert or pizza. The response to these interactions was very positive.

IAB funds supported conference attendance for two junior women faculty members as part of their professional development activities.

- The Department of Clinical Sciences has implemented a professional development plan for Assistant Professors to facilitate their transition to successful careers in academic clinical veterinary medicine. The 2007 ADVANCE IAB department award was used to support a monthly seminar series to provide training not offered during clinical residency programs including didactic teaching, communication, leadership, and research skills, including orientation to university procedures. These programs are reported to improve retention and promotion rates in academic clinical departments of medicine. In addition, participants rate themselves significantly higher in self-confidence in all areas of professional academic skills after completion

of the program, compared to non-participants. These programs have the greatest impact in retention of women and under-represented minority faculty.

- The Department of Mathematics has implemented a seminar series featuring prominent women mathematicians and a speaker series introducing women postdoctoral fellows from other institutions to our campus. The postdoctoral speaker series provides 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. During Project Year Five, two senior and one junior female mathematicians have given lectures. One of the senior women visited campus at the same time as the junior woman did, and both attended a luncheon hosted by the department for female faculty members, post-docs, graduate and advanced undergraduate students.

Indicator Data:

- PIs Dyer and Montelone 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 five 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 Dyer and Montelone 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 5:

- Completed Year 5 Indicator Data report
 - Conducted analyses of data from the *2007 Kansas State University Community and Climate Survey* and reported preliminary results
 - Conducted interviews with ADLS awardees and reported findings; collected feedback on impact of participation in ADLS from awardees who received tenure
 - Documented the ADLS Luncheon, reported findings, and provided recommendations for the ADLS program
 - Conducted a focus group and performed qualitative analysis of the annual reports from Career Advancement Program awardees
 - Attended and documented mentoring workshops for tenure-track and tenured faculty (facilitator - JoAnn Moody)
- Lisa Frehill, Executive Director of the Commission on Professionals in Science and Technology, was invited to conduct an external evaluation of the K-State ADVANCE Project as recommended by the NSF Third-Year Site Visit team. Her visit took place in January 2008 and included meeting with Executive and Steering Committee members as well as participants in various project initiatives. (Assessment)

Dissemination Activities:

- Each ADVANCE Distinguished Lecture Series presentation was announced to all SEM faculty members through an electronic ADVANCE informational listserv. (Goal 4)

- Dyer and Montelone made a presentation on the Career Advancement Program at the 2008 Women in Engineering ProActive Network (WEPAN) Annual Conference, at St. Louis, Missouri, June 8-10. (Dissemination)
- Montelone made a presentation on distinguished lecturers during a concurrent session at the 2008 Annual ADVANCE PI meeting in DC on May 12-13. (Dissemination)
- Dyer and Montelone authored a chapter on the K-State ADLS program in the book *Transforming Science and Engineering: Advancing Academic Women*, edited by Stewart et al., which appeared in October 2007. (Dissemination)
- Gallagher presented a poster on the K-State ADVANCE Project, which highlighted the College of Engineering initiatives, at the ASEE meeting in Pittsburgh, PA, in June 23, 2008. (Dissemination)
- EECE department representatives presented a paper on their IAB initiative on recruiting women graduate students at the IEEE Frontiers in Engineering Conference 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 eleven new departments in two other colleges to the ADLS program and 2) sharing information about ADVANCE programs with non-SEM departments via new department head training in the 2008-2009 academic year. 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 Provost appointed a university-wide task force to develop recommendations for implementing a mentoring program for all faculty members (tenure-track, tenured, and non tenure-track). Dyer is chairing this Task Force; members include Executive Committee members English and Montelone, Partner Department Heads Rush and Pierzynski. This task force resulted from feedback received through K-State ADVANCE initiatives and the recommendations will be informed by successful programs at other ADVANCE institutions.

The Provost has met with the ADVANCE PI to discuss base funding for ADVANCE initiatives following the end of the grant period. A final determination of funding has yet to be made.

Dyer, Montelone, and Britton participated in a series of conversations with ADVANCE programs at New Mexico State and Utah State to develop a proposal for the ADVANCE PAID solicitation. A proposal focusing on research into the process of promotion to full professor and possible gender effects was developed jointly by these three institutions. It will include research and interventions to be conducted at other western public institutions in addition to the three ADVANCE IT awardees.