

## **Project Summary**

The Kansas State University (K-State) ADVANCE project team has a vision of an academic world in which women's concerns, interests, and contributions are recognized and valued, and where women and men work together in equal partnerships for the benefit of society. The intent is to create a transformed institution that purposefully attracts, retains, supports, and advances women in the disciplines of science, engineering, and mathematics (SEM). Six SEM departments have agreed to engage in the transformation initiatives described below. The project goals are:

- Institute changes in existing departmental policies, procedures, and practices, and develop new ones as needed, to foster a gender-equitable climate within partner departments;
- 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;
- Implement effective programs that foster the careers of women faculty and encourage their retention through tenure and promotion; and
- Propagate the successes achieved in partner departments to all SEM departments.

Achievement of these goals will move reality closer to the vision and will be accomplished through a set of integrated initiatives that address three primary barriers to the advancement of women faculty in SEM: lack of effective recruitment; exclusion from networks; and subtle biases. The project's initiatives are (1) Equity action workshops; (2) Departmental policy development and review; (3) Recruiting strategies; and (4) Mentoring and networking activities. These initiatives include university-wide, college-wide, and department-specific elements. They address every stage of an academic career, with programs for women students and for tenure-track and tenured faculty members. Faculty members will examine and make changes in departmental policies, procedures, and practices to create a gender-equitable environment. Successes and lessons learned in partner departments will then be disseminated within K-State and to other universities. Together, these components form an integrated program of institutional transformation of SEM at K-State.

### **Intellectual merit**

The new tools, policies, and procedures resulting from this project will foster retention and success of women faculty in SEM at K-State and can be used as models for institutional transformation elsewhere.

The proposed project includes a balance of top-down and bottom-up approaches. The project team includes the K-State Assistant Provost, the Director of the Women in Engineering and Science Program, an associate director of Biology, and the deans of the four colleges that include most of the SEM departments. Six SEM department heads have made a commitment to engage in this project. Innovative aspects of this project include: a seminar series connecting women with disciplinary leaders; formal group mentoring; an academic career exploration program for undergraduate minority women; creation of inclusive departmental web sites that appeal to potential women faculty of all ethnic backgrounds; and career mapping that spans faculty life from "hire to retire."

### **Broader impact**

The direct emphasis of the proposed project is on enhancing the participation of women, an underrepresented group, in SEM. While the primary focus of the project is on faculty women, we have included aspects that deal explicitly with undergraduate women of color. This is part of K-State's responsibility to prepare the next generation of minority women faculty in SEM.

A network of partnerships within and among departments at K-State, and among SEM faculty at K-State and elsewhere, will be created. The partnerships will function to connect women with disciplinary colleagues and promote efforts toward gender equity.

The PIs will disseminate information about the project internally through college-wide retreats, at the University's department head workshop series, on K-State's ADVANCE project website, in presentations at national conferences, and through publication in refereed journals.

This project will enhance the recruitment, retention, and advancement of women, resulting in an increase in the SEM talent pool and the creation of an intellectual workforce that is more representative of society.

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## **C. PROJECT DESCRIPTION**

### **I. Introduction**

Imagine an academic world in which women's concerns, interests and contributions are recognized and valued, and where women and men work together in equal partnerships for the benefit of society. This is the vision of Kansas State University's ADVANCE project team. The reality we must address is that women are underrepresented among the faculty in every science, engineering, and mathematics (SEM) department at Kansas State University (K-State), and some SEM departments have no women faculty at all. We want to create a transformed institution that purposefully attracts, retains, supports and advances women in SEM disciplines. K-State's strategic plan sets forth priorities that will help the university move into the 21<sup>st</sup> century. Diversity is centrally embedded in this strategic plan as one of nine specific themes. Therefore, our ADVANCE project will build upon and work in concert with existing university efforts to move reality toward our vision. We want K-State to be known as an institution where women thrive.

Our project goals are: 1) to institute changes in existing departmental policies, procedures and practices to foster a gender-equitable climate; 2) expand and enhance departmental recruitment practices to attract more women applicants and ensure that candidates are not subject to subtle bias; 3) implement effective programs that foster the careers of women faculty and encourage their retention through tenure and promotion; and 4) propagate the successes to all SEM departments.

Our institutional transformation project consists of four components: equity action workshops, departmental policy development and review, recruiting strategies, and mentoring and networking programs. These components will work synergistically to achieve our goals.

A key feature of our project is the strong commitment of the four deans of the colleges in which SEM departments are primarily found: Terry King, Engineering; Stephen White, Arts and Sciences; Marc Johnson, Agriculture; and Ralph Richardson, Veterinary Medicine. These deans serve as co-PIs or Senior Personnel on this proposal. The enthusiastic support of K-State's central administration is demonstrated by the letters from President Jon Wefald and Provost James Coffman.

Our ADVANCE project team is intensely committed to gender equity, and team members have worked effectively together in the past on a variety of successful initiatives. Assistant Provost Ruth Dyer (PI of this proposal) is the senior advisor to the Provost on gender issues. As chair of the university's Equity Issues Committee, she recently led the faculty salary study and the development of an equity toolkit that all units on campus can use. Dr. Suzanne Franks (co-PI), founding Director of the Women in Engineering and Science Program (WESP), has implemented two highly successful mentoring programs for under-graduate and graduate women, initiated a summer workshop for high school girls, and established the WESP Distinguished Lecture Series. Dr. Beth Montelone (co-PI), Associate Director of Biology, is a founding member of the K-State chapter of the Association for Women in Science and is the principal investigator of one of K-State's NSF-funded Program for Gender Equity projects (with Dyer and Franks). Dean Terry King and Dean Stephen White (co-PIs) led the effort to establish WESP as a joint program of their colleges. Dean Ralph Richardson (Senior Personnel) is a member of the Association for Women Veterinarians and has led discussions in his college on issues facing women faculty (with Dyer, Franks and Montelone). Dean Marc Johnson (Senior Personnel) was a member of the K-State Equity Issues Committee (with Dyer) and has created a college-level office to address diversity issues in agriculture.

Our project team has identified specific gender equity issues in each of the SEM colleges. We have developed an integrated plan to address these issues, and we are eager to implement our plan.

### **II. Current Status of Women at K-State**

In this section, we describe a number of studies, programs and projects at K-State undertaken to address gender and diversity issues. These efforts have provided the essential baseline data and laid the groundwork for the institutional transformation project we propose herein. In addition, Dr. Myra Gordon, K-State's Associate Provost for Diversity and Dual Career Development, will conduct a university-wide climate survey over the 2002-2003 academic year. The survey results will be used to shape various aspects of our proposed project.

## University-Wide Diversity Programs

K-State's central administration has taken a proactive approach to identifying and addressing equity issues and has sent a clear signal that K-State is serious about creating an inclusive community.

- Equity Issues Committee.
  - *General:* Appointed by the Provost in 1999 to study faculty salaries and other equity issues.
  - *Problem:* Determine if statistically significant inequities existed in salary between male and female faculty or between minority and non-minority faculty; develop equity issues toolkit.
  - *Solution:* Initial study of FY99 faculty salaries identified small, but statistically significant, differences in male and female faculty salaries university-wide as an issue to be addressed. Analysis of salary by rank showed largest differences at full professor. Committee recommended similar studies on a bi-annual basis to maintain equity, and in 2002, recommended (1) university-wide administration of assessment tools to determine areas of concern regarding equity issues, (2) sharing survey results with members of appropriate campus units, and (3) incorporating actions taken by central and departmental administrators to address issues of concern as part of their annual and five-year evaluations.
  - *Outcome:* Department heads were asked to review achievement records of women faculty with salaries outside a specified salary range, make appropriate salary adjustment, or explain why adjustment was not warranted. Follow-up study of FY01 faculty salaries did not find a statistically significant difference in male and female faculty salaries university wide. Committee developed an equity issues toolkit containing institutional data, assessment tools, and resource materials, available online: <http://www.ksu.edu/academicservices/equitytoolkit>.
- Retention Study.
  - *General:* A university-wide study was conducted in 1999.
  - *Problem:* Ascertain if gender differences exist in retention.
  - *Solution:* Conduct self-study on relationship between gender and retention.
  - *Outcome:* Self-study revealed gender inequities in retention as a problem to be addressed. Status of all individuals in yearly cohorts, six academic years after the year of hire, is shown in Table I for faculty hired in 1989-90 through 1995-96. Male faculty tenured in each cohort is relatively constant at ~65%; female faculty tenured in each cohort fluctuates widely, between 33% and 79%. In the 27 SEM departments, trends are similar for males and females, with overall retention rate since 1989 of 59% for men, 50% for women. Identified need for strategies that provide a climate for women faculty leading to increased retention.

**Table I. Tenure and retention of K-State faculty cohorts, by gender, six years after hire**

Year of hire	# of hires		# receiving tenure		# denied tenure		# denied reappointment		# resigned	
	M	F	M	F	M	F	M	F	M	F
<b>1989-90</b>	62	13	39 (63%)	8 (62%)	-	-	1	-	22	5
<b>1990-91</b>	64	29	43 (67%)	11 (38%)	2	-	3	3	16	15
<b>1991-92</b>	60	20	37 (62%)	10 (50%)	5	2	3	1	15	7
<b>1992-93</b>	34	14	22 (65%)	11 (79%)	-	-	1	1	11	2
<b>1993-94</b>	36	15	24 (67%)	5 (33%)	-	-	1	-	11	10
<b>1994-95</b>	33	16	21 (64%)	12 (75%)	-	-	-	1	12	3
<b>1995-96</b>	33	17	23 (70%)	11 (65%)	-	-	1	-	9	6

- Office of Diversity and Dual Career Development (DDCD).
  - *General:* Established in 1990; known as Multicultural Affairs prior to 1996.
  - *Problem:* Need to increase retention of faculty, staff and students of color and address challenges implicit in dual-career hires.

- *Solution:* Creation of unit reporting directly to the Provost to work with all sectors of the University to enhance racial/cultural diversity and create a campus environment that fosters both academic excellence and appreciation of diversity. Work collaboratively with deans and department/unit heads to broker solutions to dual-career hires.
- *Outcome:* Faculty, staff, and students of color have a voice in central administration. Partners of faculty members seeking employment are provided with information, referrals, networking and advocacy. DDCD was instrumental in creating the Dow Diversity Partnership. This partnership provides scholarships; established the Dow Multicultural Research Center; endowed the director's position for the Multicultural Engineering Program (MEP); and funded WESP summer science and engineering workshop for high-school girls.
- Task Force on Women Faculty.
  - *General:* Appointed in 1997 by the Provost to consider issues facing women faculty.
  - *Problem:* General feeling of dissatisfaction and lack of recognition among women faculty.
  - *Solution:* Study the achievements of KSU women faculty, gather gender-based strategic action plans from other institutions, and make recommendations on a specific university-wide plan of action to assist women faculty in fulfilling their potential.
  - *Outcome:* Task force report identified specific recommendations for the Provost [23], which include encouraging the establishment of mentoring programs; naming of a Senior Advisor for Gender Issues (the P.I. of this proposal); and holding deans and department heads responsible for increasing gender diversity. Each college has appointed diversity committees, charged to address gender issues and faculty diversification.
- Provost's Lecture Series.
  - *General:* Established in 1995.
  - *Problem:* Need for fresh perspectives on national and local academic issues.
  - *Solution:* Creation of university-wide lecture series featuring nationally known speakers and on-campus experts to address topics of importance in higher education. One to two lectures each year are devoted to addressing gender and diversity issues.
  - *Outcome:* Lively campus forum for discussion and debate on issues that impact academic environment. Average attendance 100+ administrators, faculty and staff; lectures available on tape and cable TV. Recent participants include Allan Johnson, author of The Gender Knot [22], and Virginia Valian, author of Why So Slow? The Advancement of Women [44].

### **Programs for Women and Minorities in SEM**

K-State also recognizes that the SEM fields present unique challenges for members of underrepresented groups. Several programs exist to foster their inclusion and success.

- K-State Mentoring Program for Women and Minorities in the Sciences and Engineering [30].
  - *General:* Established in 1993 and continued in 1995 with funds from the Sloan Foundation; full funding assumed by the university in 1999.
  - *Problem:* Retention of women and minority faculty in SEM.
  - *Solution:* Creation of broad-based program to match tenure-track women and/or minority faculty with mentor in discipline and provide flexible funding to support initiation of research.
  - *Outcome:* To date: 39 individuals in five K-State colleges received awards (7 minority women, 3 minority men); 27 secured extramural funding; 18 received tenure; two women promoted to full professor within 10 years of hire. Recipient-reported outcomes of funding: "jump-start" research; support of travel, training courses or field research; purchase of equipment. Recipient-reported benefits of mentoring: access to expertise in proposal preparation, information on departmental politics and procedures, tips on setting up and maintaining a research program, and advice on managing instructional and service responsibilities. Recipients attribute individual and program success to customized mentoring relationships ("one size does not fit all") and flexible funding guideline.

- The Women in Engineering and Science Program (WESP).
  - *General:* Established in 1999 as a joint program between the College of Engineering and the College of Arts and Sciences, with support from the Office of the Provost.
  - *Problem:* Recruitment and retention of women students in engineering and science.
  - *Solution:* Creation of program to provide outreach, recruitment, and retention for girls and women from middle school through post-graduate education.
  - *Outcome:* Established *Women Mentoring Women (WMM)*—peer-mentoring program for first-year women in engineering (initiated with grant support; sustained by corporate support). Preliminary data show increased retention for participants. Membership in *MentorNet*—national e-mentoring program for undergraduate and graduate women in SEM; to date, 122 students from 17 majors have participated; funded by Cargill. WESP Distinguished Lecture Series speakers provide women students with mentoring and career advice; funded by SBC.
- The Multicultural Engineering Program (MEP).
  - *General:* Established in 1977 as a program in the College of Engineering.
  - *Problem:* Recruitment and retention of students of color in engineering.
  - *Solution:* Creation of program to provide support base to foster academic and social growth and assist student transition into professional life upon graduation.
  - *Outcome:* Scholarships for students with 3.0+ GPA; academic, personal, and career advising; tutoring; Multicultural Students Center; mentoring; an engineering orientation class; and multicultural professional engineering societies have all contributed to increase the percentage of undergraduate students of color in engineering from negligible to 7%.

The university-wide initiatives, including DDCD services and the Task Force, Retention Study, and Equity Issues Committee, focused on situations facing all women faculty across the entire university. These efforts, along with the K-State Mentoring Program, have initiated positive change for women faculty, including those in SEM. However, there is a critical need to focus increased attention and effort on gender issues for faculty in the SEM disciplines, as illustrated by the data in Table II.

University-wide, women faculty members comprised 22% of 1011 tenure-track and tenured full-time faculty in the fall of 2001. Table II shows the number of women faculty at each rank in SEM by college. With the exception of Veterinary Medicine, the percentage of women faculty in all SEM departments is significantly lower than the university-wide percentage. There are only 10 full-time women full professors, 6 in the College of Agriculture and 4 in the College of Arts and Sciences. There are 2 women full professors in engineering; however, both hold full-time central administrative appointments and do not have active appointments in the college. Of the 27 SEM department heads, only one is female. Women of color comprise only 2.1% of full-time SEM faculty.

**Table II. K-State full-time women SEM faculty, by tenure and rank, as of Fall 2001**

College	# of women faculty by rank (# of minority women by rank)*			Total # women faculty	Total # faculty	% women (% minority)*
	Assistant	Associate	Full			
<b>Agriculture</b>	8 (1)	7 (2)	6 (0)	21 (3)	190	11 (1.6)
<b>Arts &amp; Sciences<sup>+</sup></b>	10 (3)	8 (1)	4 (1)	22 (5)	154	14 (3.2)
<b>Engineering</b>	4 (0)	3 (1)	0 (0)	7 (1)	106	7 (0.9)
<b>Veterinary Medicine</b>	8 (2)	8 (0)	0 (0)	16 (2)	69	23 (2.9)
<b>Total</b>	<b>30 (6)</b>	<b>26 (4)</b>	<b>10 (1)</b>	<b>66 (11)</b>	<b>519</b>	<b>13 (2.1)</b>

\*Includes Asian/Pacific Islanders, Black, Hispanic, and Native American. K-State includes Asian/Pacific Islanders in statistics on underrepresented minorities; nationally, Asian/Pacific Islander women may be underrepresented, even if Asian/Pacific Islander men are not.

<sup>+</sup>Data represent 9 science departments.

## Specific Barriers to Women's Advancement at K-State

In preparing this proposal, the principal investigators met with department heads and faculty from the six partner departments to discuss possible short-term and long-term initiatives. The meetings, informal surveys, and the results of previous university-wide diversity initiatives led to identification of three primary barriers to women's advancement in SEM fields at K-State. These are:

- Lack of effective recruitment

Effective recruiting refers both to increasing the number of women in the applicant pool and to increasing the acceptance rate for offers extended to women. Search committees must be proactive, not merely "envelope opening committees" [37]. They also must learn to recognize and compensate for any unconscious biases they have as they review candidate credentials and select candidates to interview. Achieving a critical mass of women faculty and department chairs in SEM is necessary to alter the culture and environment that women experience [12, 16, 18, 29, 31]. Efforts to increase the numbers of women in SEM at higher ranks are integrally related to our ability to effectively recruit them initially [37, 44]. Recruitment emerged as a particularly challenging issue for Engineering and Veterinary Medicine. In all four colleges, dual-career issues have arisen.

- Exclusion from networks

Typically, male faculty members enjoy a collegial, professional, and informal mentoring network of their peers that facilitates their advancement and creates a sense of community. In contrast, because the numbers of women faculty in SEM are so low, similar networks are not available to them. In addition, women are often excluded from or have difficulty entering existing departmental and college networks, which are predominantly male. This difficulty persists even for women who have achieved tenure [33, 37, 38]. The low numbers of women in the SEM at all ranks, and their exclusion from informal networks, reduce opportunities for women to receive mentoring and advice on university and departmental politics, information about wise choices for service commitments, and the most effective means of establishing a national reputation [17, 28, 34, 36, 41, 43]. Each of these issues arose in conversations with K-State faculty and department heads. Failure to include women in existing departmental networks hampers their individual success and reduces the possible contributions of those women to the success of their departments. As a result, everyone loses.

- Subtle biases

Achieving a critical mass of women faculty and administrators is necessary but not sufficient for institutional transformation. As Kitts states: "Subtle limitations seem to arise from the fact that the architecture of academic science was created by males for a male constituency. The 'rules' are based on a 'male model' of 'doing' science that requires an absolute time commitment from the participator and an aggressively competitive attitude towards peers...[Women] want to participate in and contribute to science, but because science is framed within a system that [women] did not help to build, it does not take [women's] beliefs, wants, and needs into consideration. [Women] are forced to work in an atmosphere that is incompatible with [their] psyche[s] or get out" [24]. Subtle limitations and unconscious biases play a continuing role even when the numbers of women increase. They constitute a barrier to the entry of women in the first place, and contribute to the higher rates of attrition for women faculty in SEM fields. An informal, anonymous survey of current tenured women faculty at K-State revealed the existence of numerous subtle biases: gender-biased student evaluations of teaching, a mismatch in the value systems of men and women faculty, disproportionate service burdens, and perceptions of male colleagues that women lack ability and/or commitment. Taken together, these factors result in a more difficult road to tenure and a longer time in rank for women at the associate professor level [1-5, 9, 14-16, 18, 21, 24, 33, 35, 40, 42, 44, 45].

These three barriers contribute to an asymmetrically gendered effect on the success of women and men. This is not unique to K-State, but has been documented elsewhere [44, 45]. The asymmetry functions to advantage men and disadvantage women. In the words of Valian, "like interest on capital, advantages accrue; like interest on debt, disadvantages accrue" [45]. Institutional transformation requires a comprehensive effort to create awareness of this asymmetry, actively work to negate its effects, and change policies, procedures and practices to remove it entirely.

### III. Vision and Goals

Etzkowitz et al state "...much of the process by which disadvantage is created and reinforced occurs within organizations and at the level of the department...the seat of change is at the department and organizational level" [16]. At K-State, governance has historically been decentralized and much decision-making takes place at the level of the department. For these reasons, institutional transformation at K-State must begin with individual departments. We have selected six departments to be involved in this proposal: Grain Science (Agriculture), Biology and Geology (Arts & Sciences), Biological & Agricultural Engineering and Chemical Engineering (Engineering), and Diagnostic Medicine & Pathobiology (Veterinary Medicine). To choose these departments, we reviewed the faculty turnover rates in all the SEM departments, and the projected vacancies due to retirements in the next five years, identifying departments with a high turnover rate and a large number of expected vacancies. The Deans then evaluated the candidate departments within their colleges and selected the departments most ripe for change.

We have four goals for our project:

- 1) 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) 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) Implement effective programs that foster the careers of women faculty and encourage their retention through tenure and promotion, and
- 4) Propagate the successes achieved in partner departments to all SEM departments.

Achievement of these goals will move the current reality closer to our vision of K-State as an academic home in which women's concerns, interests and contributions are recognized and valued, and where women and men work together in equal partnerships for the benefit of society. We will accomplish this through a set of integrated initiatives, described below, that address the identified barriers. Overall, we wish to provide and facilitate opportunities for male colleagues to work with women to transform the system. K-State is strongly committed to this process, as evidenced by letters of support from university central administrators, deans, and department heads.

### IV. Results of Prior NSF Support

P.I.s Montelone, Dyer, Spears, and Takemoto: HRD-9975936; \$29,956; 9/1/99--8/31/00, no cost extension to 8/31/01; *Women on the Prairie: Bringing Girls into Science through Environmental Stewardship* and P.I.s Montelone, Dyer, Franks, Spears, and Takemoto: HRD-0114723, *DEM: Women on the Prairie: Bringing Girls into Science through Environmental Stewardship*, \$875,343; 9/1/01--8/31/04

These awards, funded by the Program for Gender Equity in SMET, address ways of sustaining the interests of middle-school girls and undergraduate college women in SMET. We have created a program called Girls Researching Our World (GROW) that 1) provides hands-on experiences for middle-school girls in a three-day on-campus workshop; 2) established a network of K-State faculty, staff, and students interested in furthering the participation of women and girls in SMET disciplines and professions; and 3) included community and corporate partners whose participation has helped us carry out our goals. Results from the planning grant are described in Spears et al. [39], and establishment of the GROW project and network is described in Franks et al. [19]. The goals of these projects are consistent with the efforts proposed herein.

### V. Planned Activities

The six partner departments will initiate efforts to improve recruiting, reduce exclusion from networks, and eliminate subtle biases. Feedback from participating colleges and departments has guided development of the initiatives described below. Each college and department will work with us to develop practices appropriate to its discipline. Equity action workshops will help administrators and faculty better understand and recognize issues that need to be addressed through policy development and revision. Strategies will be implemented that reflect changes in policies, and

assessment will inform additional revisions of the various initiatives. The accomplishments of the partner departments will serve as models and will be shared with other departments in each college during retreats coordinated by the college administration, leading eventually to institution-wide changes. Funding will be provided to each of the participating departments and colleges to help implement the proposed initiatives, as detailed in the budget justification.

## **A. Initiatives**

### **1. Equity Action Workshops**

During the proposal preparation process, our discussions with department heads and deans moved beyond conversations about initiatives to address our identified barriers. These individuals shared the recruiting challenges and dual-career issues they face and began to exchange ideas and best practices. They explicitly requested a venue for continuing these discussions. This led to the development of our first initiative, which incorporates both continuing conversations of this nature and facilitated workshops.

We will invite nationally recognized experts to campus to consult with the K-State ADVANCE Steering Committee (see Management Plan in Section B) and to lead workshops for college-level administrators and faculty on relevant issues. Prior to the workshops, K-State's Dr. Myra Gordon will conduct a university-wide climate survey and provide us with data on the perceptions of the climate held by various groups of faculty members. These data will inform the content of the Equity Action Workshops. The workshops will be led by outside consultants Dr. Cynthia Burack (Ohio State University) [6-8] and Dr. Virginia Valian (Hunter College) [44, 45], as well as by Dr. Myra Gordon and Steering Committee members Dyer, Franks, and Montelone. Dr. Burack's research focuses on the importance of language, images, and communication in groups and institutions. In addition, she has lectured widely on race and gender issues and has conducted workshops for faculty groups, professional organizations, and federal government offices on workforce diversity issues. Dr. Valian is a nationally recognized expert on gender schemas and the ways in which they function to disadvantage women and advantage men. Letters of commitment from Burack, Gordon and Valian are included in the Supplementary Materials.

Equity Action Workshops will help departments address the following issues:

- What are gender-equitable recruiting strategies? How can we display cultural sensitivity in interactions with candidates and colleagues? What options are available for addressing dual-career issues across colleges? (Gordon)
- How do subtle biases affect evaluation of women at the undergraduate and graduate levels? How can we improve evaluation of faculty applicants to remove gender and racial bias? How do we identify subtle biases in annual review, promotion, and tenure documents? (Valian)
- What are the explicit and implicit messages sent by departmental websites and recruiting literature? How can websites and recruiting literature be used to communicate a message of inclusiveness? (Burack)
- How can we develop strategic plans to address both planned and unplanned faculty absences? How can we make sure these plans are transparent and include fairness and reciprocity? (Dyer, Franks, and Montelone)

These workshops will provide participants with a greater understanding of gender issues and prepare them to create a more equitable climate within their units. Deans and department heads will meet with the Steering Committee three times yearly to share ideas and progress.

**Outcomes:** An understanding of subtle biases and how to address them, workshop materials that college administrators and department heads can use to evaluate their own documents. Identification of key issues and possible solutions to pursue will be included for discussion at sessions of the K-State Department Heads Workshop Series.

**Impact:** Equity Action Workshops address all three barriers and form the foundation for all initiatives.

## **2. Departmental Policy Development and Review**

As discussed in an essay from the Knight Higher Education Collaborative, “leadership at the department level...is often the most critical factor in changing a dominant culture” [25]. It is a department’s own policies and procedures that create the culture. Our partner departments will initiate a self-study of their websites, recruitment literature and methods, and faculty evaluation documents to identify and address subtle biases that may be present.

These efforts will be informed by the Equity Action Workshops conducted by outside consultants and on-campus experts. The Steering Committee will assist departments in this process and help locate examples of gender-equitable policies to be used for comparison and as models for the revision process. Departments will sign agreements to implement new or revised policies following their reviews. Dr. Burack will conduct a follow-up Equity Action Workshop at which departments will share their findings and proposals for change and receive feedback for further refinement.

An innovative aspect of this proposal is the involvement of departments in strategic planning to address faculty leave issues. These include sabbaticals, leaves without pay, illness (of the individual, his or her partner, or a family member), pregnancy, child care, and elder care. These are often handled on an *ad hoc* basis and are rarely acknowledged as issues departments should address proactively. When policies are explicit and transparent, they reduce the stress on individual faculty members as well as the department as a whole by facilitating accommodation of both planned and unplanned absences. An established policy will ensure that the burden of increased duties is distributed fairly, and will include appropriate elements of reciprocity.

Discretionary funds will be distributed to departments on a schedule dependent on their progress, which will be monitored by the Steering Committee in cooperation with the relevant college dean.

**Outcomes:** New and revised policies and procedures free of subtle biases, resulting in an enhanced ability to recruit, retain, and promote the advancement of women in SEM. These policies and documents will serve as models for other departments at K-State and at other institutions.

**Impact:** Addresses ineffective recruitment and subtle biases; completion represents achievement of the first goal of this project.

## **3. Recruiting Strategies**

**a. Departmental and university websites.** In this day and age, the first look a potential candidate gets at a department of interest is often through the departmental website. This website may create the impression of an inclusive community for teaching and research or leave the impression of an uninviting environment that does not acknowledge diversity and that functions to isolate women. Faculty members from partner departments will be responsible for revising their departmental websites using information gained from Equity Action Workshops and internal review conducted in the Departmental Policy Development and Review stage. Dr. Burack will develop a rubric to evaluate revised websites and will report on their status to the Steering Committee. Discretionary funds will be distributed to the departments upon completing a successful website revision.

In addition, recruiting of women will be enhanced by a central, highly visible and easily accessible collection of K-State and community resources that benefit women and showcase women faculty, their research interests, and their accomplishments. Innovative aspects of this women’s resource website include: integration of personal and professional resources in one location; ability to search for information on specific needs; and a compilation of individual strategies to negotiate work-life balance issues. The website will be accessible through our ADVANCE project website.

**Outcomes:** Website evaluation rubric any department can use to assess presentation of an inclusive community that welcome women. Enhanced ability to recruit women of all ethnic groups. Facilitates dissemination of information women often find vital but difficult to ask for on interviews, or after joining the faculty. Provides a safe way for women to explore the availability of needed resources and discover links with other women.

**Impact:** Both website efforts address ineffective recruitment, exclusion from networks, and subtle biases and contribute to achievement of our second goal.

**b. Recruitment and hiring policies and strategies.** We will work with the partner departments to implement recruitment and hiring policies and strategies to ensure that the pool of applicants for faculty positions contains women in proportions reflecting national availability percentages in the discipline [32]. A proven model that could be used to achieve this goal is that developed and implemented by Dr. Gordon at Virginia Tech. The revised recruiting and faculty evaluation procedures for the College of Arts and Sciences at Virginia Tech resulted in a dramatic increase in the hiring of women and minority faculty members (from 35% of all hires in 1997 to 88% in 2001) [13]. This model, a modification consistent with the department or college culture, or a completely different model approved by the Steering Committee may be employed. The search process does not end with a representative applicant pool. Search committees will receive assistance and guidance from the Steering Committee and outside consultants to reduce the impact of subtle biases on the interview process and the evaluation of women of all ethnic backgrounds as discussed in Equity Action Workshops. Funding provided by the project to the partner departments will be contingent on achieving appropriately constituted applicant pools and on interviewing and successfully hiring women and minorities.

**Outcomes:** Increased numbers of women applicants, reduction of gender bias in evaluation, increased cultural sensitivity in interview process.

**Impact:** Counteracts ineffective recruitment and subtle biases; supports our second goal.

**Recruiting to Expand Applicant Pools (REAP)** is a program proposed by the College of Engineering that will provide competitive funding awards to departments to create novel recruiting strategies. For example, proposals might request funding to send the department head or faculty members on recruiting trips to institutions that produce significant numbers of women Ph.D.s in their discipline. Another possible use of such funds could be as an incentive in dual-career situations. The innovative aspect is the implementation of active and more visible recruiting strategies.

**Outcomes:** Increased numbers of women applicants, fast-track accommodation of dual-career issues and target-of-opportunity hires.

**Impact:** Counteracts ineffective recruitment and subtle biases; supports our second goal.

#### **4. Mentoring and Networking**

Research supports the benefits of mentoring at all stages in a person’s career [12, 16, 20, 30, 38, 46], and K-State has successfully implemented a number of mentoring programs for both faculty and students, as previously described. Table III provides a summary of the mentoring and networking opportunities for women at K-State that will be created in this project.

**Table III. Summary of Proposed Mentoring and Networking Opportunities**

<b>Proposed Initiative</b>	<b>Target Audience</b>	<b>Managers</b>
Academic Career Exploration (ACE)	SEM undergraduate women, focus on underrepresented groups	WESP
K-State Mentoring Program for Tenured Women Faculty (MPTW)	SEM women faculty members	Provost’s Office
Career Milestones for Academic Personal Success (Career MAPS)	Women faculty members in partner departments	College deans and department heads
Seminar Series	SEM tenure-track women faculty members	College deans
Administrative Shadowing Program	SEM women faculty members in the College of Arts and Sciences	CAS
Research Enhancement Visits (REV)	Women faculty members in Engineering and in Agriculture	COE and COA
Parallel Paths	Faculty members in the College of Veterinary Medicine	CVM

The collective intent of these initiatives is to make mentoring an integral part of the entire University experience, and to ensure that mentoring and networking opportunities are provided at all stages in a career. Mentoring opportunities will take a variety of forms, such as traditional one-on-one mentoring, peer mentoring, and group mentoring, and will be provided by departments, by colleges, and at the university-wide level. Effective training of mentors and mentees promotes realistic expectations, management, and success of mentoring relationships [20, 46]. Dr. Suzanne Franks (co-PI and Steering Committee member), will offer and conduct a training workshop for mentors and mentees each year. Each mentoring and networking program is described in detail below.

**a. Mentoring programs for K-State students.**

The first choices along a career path are made at the undergraduate level. Students typically will choose from career options with which they are familiar, or for which information is easily accessible. As on many campuses, K-State has an Office of Career and Employment Services that helps students identify, prepare for, and obtain positions in industry. However, there is no similar office or program for careers in academia. Current mentoring programs for undergraduate and graduate women in SEM disciplines include Women Mentoring Women (WMW) and MentorNet. These are focused on the undergraduate experience and careers in industry, respectively. We propose to develop one additional undergraduate mentoring activity: Academic Career Exploration (ACE).

- **ACE** is a mentoring program for undergraduate women of color in SEM, designed to encourage them to consider careers in academia. First- and second-year female SEM students from underrepresented groups will participate in monthly activities. Students involved in the WMW program will also be invited to these events. In the ACE sessions, students will 1) learn about research being conducted at K-State, tour laboratories, practice using equipment, and meet one-on-one or in small groups with faculty members in various disciplines; 2) hear from teaching award winners about development of course materials and other aspects of teaching; 3) receive information and coaching on summer research opportunities and best practices for preparing applications and soliciting letters of reference. Each participant will receive a copy of *The Women's Guide to Navigating the PhD in Science and Engineering* [26].

The innovative aspects of this program are: focusing on minority women early in their undergraduate careers; exposing students to the entire range of faculty responsibilities; and encouraging students to attend graduate school at any university. A letter of support from Ms. Thirkelle Howard, MEP Director, details her commitment to help recruit women students for this program. See Supplementary Materials.

We view this program as part of our responsibility to help prepare the next generation of minority women faculty in SEM, regardless of whether they ever become K-State faculty. We cannot hope to significantly expand the pool of minority women faculty candidates unless we expand the numbers of such students choosing graduate degree programs. Approaches to achieving this outcome, as incorporated into the ACE program, are recommended in a recent *Prism* article [27].

**Outcomes:** Increased awareness of academic career opportunities among minority women SEM students, and a model that can be shared with other institutions.

**Impact:** Addresses ineffective recruiting and exclusion from networks, and contributes to achievement of our second and third goals.

**b. Mentoring and Networking Programs for K-State Faculty.**

The K-State Mentoring Program for Women and Minorities in SEM, described above, provides support and mentoring for tenure-track faculty members. This program has had a strong positive impact on the extramural funding success and retention of women at K-State [30]. Therefore, we propose to build on this success and create a new formal mentoring program for tenured women faculty members and to develop several other models that include peer and group mentoring and networking opportunities. These initiatives will advance women into senior and leadership ranks.

- **K-State Mentoring Program for Tenured SEM Women.** The needs of tenured women faculty members often go unrecognized locally and by national funding agencies. Recently, women in the chemical sciences have organized to address barriers and provide professional development

opportunities at all career stages [11]. We propose to create a mentoring program for tenured women to facilitate their transition to senior-level positions. Key features that contributed to the success of our program for tenure-track faculty will be incorporated into this program: customized mentoring relationships and flexible funding. Four awards of \$20,000 each will be made annually. As in the program for tenure-track faculty, a competitive proposal process with a university-wide selection committee will be used. Mentors will be expected to advise award recipients on critical mid-career topics, e.g., promotion to full professor, assumption of administrative responsibilities, and negotiation of appropriate release time for increased duties. The innovative aspect of this program is support for women's advancement into senior ranks.

**Outcomes:** More rapid advancement of women to full professor ranks; increased inclusion of women in collaborative networks; a model that can be shared with other institutions.

**Impact:** Addresses exclusion from networks and subtle biases; contributes to our third goal.

- **Career MAPS** is a "hire-to-retire" program. Deans and department heads will work with women faculty members at all ranks to develop long-term career plans. Together, they will set goals and milestones; identify the accomplishments needed for tenure and promotion; plan the timing of sabbatical leave; discuss active participation in professional societies, development of leadership skills, and careful selection of service assignments; and consider other discipline-specific issues. The Steering Committee will prepare guidelines for Career MAPS, which will be refined for each college by the participating Deans, who will provide them to the department heads. Departments may choose to expand the Career MAPS program to all faculty members [10].

**Outcomes:** Clear, long-term career plan for any faculty member; improved retention of women; more rapid advancement of tenured women to full professor ranks; a nurturing plan to enable all faculty members to achieve their potential; a model that can be shared.

**Impact:** Addresses all three barriers; completion contributes to achievement of our third goal.

- **Seminar Series.** We propose a unique seminar series that allows tenure-track women faculty to identify up to five leaders (male or female) in their research area for invitation to campus over a subsequent five-year period. Those having the longest tenure or strongest research programs often influence the choice of seminar speakers. This program allows new women faculty to have an immediate voice in these decisions, and elevates their status by publicly linking them with their deans and disciplinary leaders. It also offers women the chance to showcase their research programs to leaders in their discipline, who may in the future serve as external evaluators of their grant proposals, journal articles, or tenure packages. The campus visits will feature one-on-one time for the faculty member with the speaker, and when possible, visits by the speaker to the faculty member's classes. The woman faculty member and her dean will issue invitations to the seminar jointly, and the presentation will be advertised widely across campus. Departments will have the option of including these presentations as a part of any existing annual seminar series. Evening dinners with the speaker will provide an additional opportunity to build relationships and will enhance the potential for collaboration and mentoring.

**Outcomes:** Accelerates the development of the new faculty member's network; includes women in decision-making roles; creates links between women faculty and disciplinary leaders.

**Impact:** Addresses ineffective recruitment and exclusion from networks; completion contributes to achievement of our second and third goals.

### c. College-specific efforts for faculty women.

- **Parallel Paths** is a group-based faculty-mentoring program in the College of Veterinary Medicine (CVM) designed to foster the development of junior faculty and sustain the productivity of senior faculty. Each group will consist of 4-7 junior faculty and 3 senior faculty facilitators. Groups will meet monthly to focus on achieving success on paths that are parallel but specific for each faculty member. Topics will include teaching strategies or techniques, learning styles, grant proposal writing, graduate student and resident training, achieving a balanced academic life, leadership skills, politics of higher education, and status and future of veterinary medicine. Funds allocated to Parallel Paths will be used to support faculty development workshops,

conference fees, and travel. The overall goal of Parallel Paths is to help the CVM create an environment that develops and sustains success in all faculty roles.

- **Administrative Shadowing Program** is a program developed by the College of Arts & Sciences to identify ways in which women faculty members may gain experience in and awareness of issues involved in administration. Women early in their post-tenure career will be paired with unit heads or college administrators to be able to learn about college processes, to observe how decisions are made, and to reflect on the leadership roles an administrator plays. The mentor will include the faculty member in the day-to-day conduct of the office and meet with her to discuss issues. Summer stipends for participating faculty members will be provided; further experience for interested women faculty will be provided by participating department heads who will receive discretionary funds from the college for that purpose.
- **Research Enhancement Visits (REV)** is a program the Colleges of Agriculture and Engineering will use to encourage follow-up to the connection made by a woman faculty member with a disciplinary leader in the course of the seminar series. Funds will be provided for the woman faculty member to travel to the leader's institution or company for the purpose of initiating collaboration, learning a new technique, or interacting with relevant industry leaders.

**Outcomes:** Accelerates development of networks for new faculty; shifts the power balance within a department or college to include women in leadership roles; enhances links between women faculty and disciplinary leaders; increases inclusion of women in collaborative networks.

**Impact:** Addresses ineffective recruitment and exclusion from networks; completion contributes to achievement of our second and third goals.

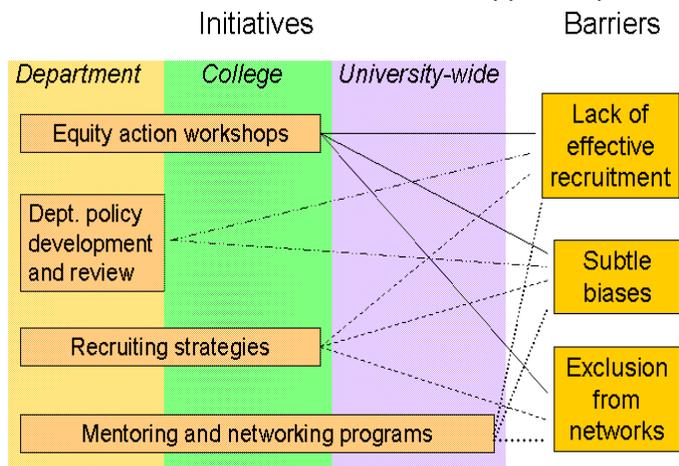
### 5. Expansion to other departments

As evaluation data become available on the outcomes of the first four initiatives, we will share our results with other SEM departments during retreats coordinated by the college administration.

**Outcomes:** Spread of successful strategies and initiatives to other SEM departments; overall advancement of women in SEM; K-State known as institution where women faculty in SEM thrive.

**Impact:** Addresses all barriers; completion represents achievement of our fourth goal.

**Global impact of the project:** Project outcomes: raise awareness and foster understanding of gender bias; reduce its effects; and institutionalize changes in policies, procedures and practices to create a gender-equitable environment. Innovative aspects: seminar series connecting women with disciplinary leaders; formal group mentoring; academic career exploration program for minority undergraduate women; creation of inclusive departmental web sites that appeal to potential women faculty of all ethnic backgrounds; and career mapping that spans faculty life from "hire to retire." In addition, we have included a number of initiatives with features proven to facilitate the advancement of women, such as the K-State Mentoring Program for Tenured Women, recruitment strategies that increase the number of women in the applicant pools, and equity action workshops.



The synergy among program initiatives is illustrated in the figure at left. Each barrier to the success of women faculty members at K-State is addressed by several of the initiatives we have proposed, which span the range from university-wide to college-specific to those unique to a department. They address every stage of an academic career, beginning with education programs for students. They include improved faculty recruitment and promote the advancement and retention of women faculty members. Together, the initiatives form an integrated program of institutional transformation of SEM at K-State.

## B. Management Plan

The ADVANCE project PI and two Co-PIs form the Steering Committee that will oversee K-State's institutional transformation project. This committee will guide the implementation of all initiatives, review progress of partner department and college initiatives, authorize allocation of funds based on progress and completion of initiatives, disseminate results, and select and manage the Project Assistant and students hired on the project. The committee will meet biweekly to ensure timely progress of all initiatives. Specific duties of each Steering Committee member are listed below:

### Role of Steering Committee Member

<b>Dr. Ruth Dyer</b> Assistant Provost Professor, Electrical & Computer Engineering	Administer overall project; coordinate Equity Action Workshops and subsequent interactions among deans, department heads, faculty, and consultants; direct University-wide initiatives, such as the mentoring program for tenured women and design of the women's resource web site.
<b>Dr. Suzanne Franks</b> WESP Director Adjunct Faculty, Women's Studies	Direct the ACE program for undergraduate women of color; present workshops on mentoring; help organize the seminar series; and assist in the search for corporate partners to sustain programs.
<b>Dr. Beth Montelone</b> Associate Director, Division of Biology; Associate Professor	Chair the selection committee for the mentoring program for tenured women; help organize the seminar series; coordinate the Division of Biology's participation in the departmental initiatives.

The Deans who are Co-PIs or Senior Personnel on this project (Terry King, Engineering; Stephen White, Arts & Sciences; Marc Johnson, Agriculture; and Ralph Richardson, Veterinary Medicine) will direct transformation activities in each of their colleges and meet bi-monthly with the Steering Committee. They will promote the Equity Action Workshops; oversee departmental policy development and review; initiate and direct the seminar series; implement the Career MAPS program in the partner departments; direct college-wide recruitment and retention efforts; lead college-wide retreats to disseminate findings and progress in the partner departments; and work with the department heads to develop and implement program components. Deans and partner department heads will meet with the Steering Committee three times yearly to share ideas and progress. Departmental initiatives and progress will be reported to and evaluated by the Steering Committee, the K-State Office for Education Innovation and Evaluation, and outside consultants. The Project Assistant will manage the day-to-day project details. Criteria for selection of the Project Assistant will be an undergraduate degree in an engineering or science discipline or in women's studies and an advanced degree or professional experience in project management.

## C. Timeline

	Y1	Y2	Y3	Y4	Y5
<b>Hire program coordinator</b>	■				
<b>Equity action workshops</b>	■	■	■	■	■
Facilitated workshops	X X	X X			
Dept heads/deans meetings	■	■	■	■	■
<b>Departmental policy development and review</b>		■	■		
<b>Recruiting strategies</b>		■	■	■	■
<b>Mentoring/Networking programs</b>	■	■	■	■	■
<b>Expansion to other SEM depts.</b>					
<b>Evaluation and assessment</b>	■	■	■	■	■
<b>Dissemination</b>		■	■	■	■

## **D. Sustainability**

### Leadership involvement, commitment, participation of senior faculty and academic administrators:

This is both a “top-down” and “bottom-up” project, with the support of the highest academic officials of the university. The PI is a high-ranking central administrative woman. Two deans are Co-PIs and two deans are Senior Personnel. Two other Co-PIs are women in SEM college or department leadership positions. Project leadership across all academic administrative levels and the active involvement of partner department heads will ensure each initiative receives appropriate facilitation and oversight. Some initiatives will be implemented at the university or college level; others will be created and developed directly by the departments, thus distributed leadership is vitally important. Letters of support from deans and department heads show their enthusiastic commitment.

The deans have committed to provide start-up packages for new women faculty at levels specified in the attached letters of support. The university has developed an outstanding track record of identifying corporate or internal sponsorship of programs begun with grant funding. The K-State Mentoring Program for Women and Minorities in the Sciences and Engineering and the Women Mentoring Women Program are two such examples. The Dow Chemical Company recently provided a gift of \$1.5 million to K-State to establish a partnership directed at recruiting and retaining students of color. The deans and central administration will work with the KSU Foundation to identify sponsors for similar gifts to sustain the initiatives implemented as part of this ADVANCE project.

Institutional commitment: Enhancing diversity is one of K-State’s nine strategic themes. Diversity initiatives described in Section II above demonstrate our commitment to creating an inclusive community that is widespread and entrenched. Another example is the creation of the Tilford Group in 1997. This interdisciplinary research and development group of faculty, administrators, and students has formed partnerships with industry to research diversity practices and policies. This group is a successful model for sustaining and expanding the initiatives of the ADVANCE project.

Development and revision of departmental policies, procedures and practices creates built-in sustainability. Standard operating procedures for recruitment, support and advancement of women faculty will be transformed. Workshop materials and tools developed as part of the Equity Action Workshops will facilitate propagation of institutional transformation throughout all SEM departments.

## **E. Dissemination**

The PIs will disseminate information about project initiatives through campus programs, on our ADVANCE project website, and at national conferences. The latter include: American Association for Higher Education Faculty Roles and Rewards Conference, the Women in Engineering Programs and Advocates Network (WEPAN) conference, and the Academic Chairpersons Conference. We will publish results in journals such as the *Journal of Women and Minorities in Science and Engineering*, the *Journal of Higher Education*, and the *Journal of Engineering Education*. Successful outcomes and best practice recommendations resulting from efforts in partner departments will be shared with other department and unit heads through college-wide retreats and the K-State Department Heads Workshop Series, whose programs are organized by the Office of the Provost.

## **F. Assessment**

The Office of Educational Innovation and Evaluation (OEIE) in the K-State College of Education will provide the external evaluation. A detailed description of the expected outcomes, evaluation methods, evidence to substantiate progress and timeframe associated with each of the major initiatives is summarized in the table that follows. The evaluation plan is consistent with the Program Evaluation Standards established by the Joint Committee on Standards for Educational Evaluation (1994). On-going data generation and analysis (*formative* feedback) will be provided to the project leadership to make necessary modifications throughout the project. Data from multiple methods (such as surveys, interviews, archival records, pre/post developed for the project) will be compiled, analyzed and triangulated where possible. *Summative* evaluation will be provided to the project personnel annually. Both the formative and the summative evaluations will help determine which activities are most effective.

**Evaluation Plan by Integrated Initiatives, Outcomes, Impacts and Evidence**

<b>Expected Outcomes</b>	<b>Planned Activities</b>	<b>Evaluation Methods</b>	<b>Evidence to Substantiate Progress</b>
<b><i>Initiative 1: Equity Action Workshops (CC) – Years 1-2</i></b>			
<ul style="list-style-type: none"> <li>• Change in knowledge, attitudes</li> <li>• Tools &amp; how to use them</li> <li>• Wksh mtls for eval. indiv. department documents</li> </ul>	<ul style="list-style-type: none"> <li>• Nat'l experts lead workshops on targeted issues</li> <li>• Deans/dept. head meetings</li> </ul>	<ul style="list-style-type: none"> <li>• Pre/Post survey—all workshops (10)</li> <li>• Documentation / tracking</li> </ul>	<ul style="list-style-type: none"> <li>• ↑ in knowledge, more inclusive attitudes</li> <li>• Product: Wkshp dates, topics, presenters, attendees, materials</li> </ul>
<b><i>Initiative 2: Departmental Policy Development and Review (DPDR) – Years 2-3 and ongoing</i></b>			
<ul style="list-style-type: none"> <li>• New/revised policies in 6 candidate departments (free of bias, equitable)</li> <li>• ↑ in recruitment, retention &amp; promotion of women in SEM</li> </ul>	<ul style="list-style-type: none"> <li>• Self-study--policies, web sites, eval &amp; recruitment mtls</li> <li>• Participants will prepare written Action Plan (signed change agreement)</li> </ul>	<ul style="list-style-type: none"> <li>• Content Analysis: Self-study framework mtls</li> <li>• Doc—Action plan; Tracking timeline</li> <li>• Track employment/ advancement of women in SEM</li> <li>• Doc of innovative faculty leave options</li> </ul>	<ul style="list-style-type: none"> <li>• Product: results of self-study; equitable policies</li> <li>• Product: Action Plan w/timeline</li> <li>• ↑ trend—employ, retain, advance SEM women</li> <li>• Product: Innovative fac. leave policies for dissem.</li> </ul>
<b><i>Initiative 3: Recruiting Strategies (RS) – Years 2-4 and ongoing</i></b>			
<ul style="list-style-type: none"> <li>• Revised gender inclusive department websites, policies</li> <li>• Dissemination of “vital but difficult to ask” info to women candidates</li> <li>• ↑ in women fac SEM applicants</li> </ul>	<ul style="list-style-type: none"> <li>• Self-study—dept. websites using rubric</li> <li>• Create website of interest to women faculty</li> <li>• Review of recruit &amp; hiring policies</li> </ul>	<ul style="list-style-type: none"> <li>• Outside expert to evaluate dept websites</li> <li>• Survey women fac's percept of website</li> <li>• Tracking applicant pools</li> </ul>	<ul style="list-style-type: none"> <li>• Product as evidence: Websites redesigned</li> <li>• + Survey results and/or change feedback</li> <li>• ↑ trend in selection, retent, advance women</li> </ul>
<ul style="list-style-type: none"> <li>• Creative recruitment strategies</li> <li>• Reduction of gender bias in evaluation</li> </ul>	<ul style="list-style-type: none"> <li>• Competitive grants for novel recruitment strategies</li> </ul>	<ul style="list-style-type: none"> <li>• Doc / description</li> <li>• Tracking interviewee pools</li> </ul>	<ul style="list-style-type: none"> <li>• Innovative recruitment strategies implemented, disseminated</li> <li>• Δ dept. gender disparity</li> </ul>
<b><i>Initiative 4: Mentoring and Networking (MN) – Years 1-5 and ongoing</i></b>			
<ul style="list-style-type: none"> <li>• Realistic expectations of mentoring relationships</li> <li>• Inc awareness of academic career opport among minority women SEM students</li> <li>• More rapid advancement of tenured women to full professors</li> <li>• Inclusion of women in collab networks</li> <li>• Improved retention, more rapid adv of women faculty in SEM</li> <li>• Dev of faculty member's network</li> <li>• Network dev. - new fac members; inclusion of women in leadership</li> </ul>	<ul style="list-style-type: none"> <li>• Training wksh for mentors &amp; mentees</li> <li>• Create ACE program; prepare future minority women faculty</li> <li>• Create formal mentoring program for tenured women faculty</li> <li>• Create guidelines for long-term career plans—6 depts.</li> <li>• Seminar Series</li> <li>• College-specific mentoring—multiple different programs</li> </ul>	<ul style="list-style-type: none"> <li>• Pre/Post workshop survey</li> <li>• Content analysis: series of reflective responses at end of each activity</li> <li>• Doc advancement of women fac</li> <li>• Baseline &amp; document participation in collab. networks</li> <li>• Doc of process</li> <li>• Doc ident. &amp; invit. leaders</li> <li>• Interviews—tenure track women fac.</li> <li>• Doc of implementation</li> <li>• Survey participants</li> </ul>	<ul style="list-style-type: none"> <li>• Change in knowledge/attitudes</li> <li>• Constructivist Coding for dimensions related to faculty preparation</li> <li>• ↑ in #s of women adv in academe</li> <li>• ↑ in reported networks</li> <li>• Product: Guidelines for dissemination</li> <li>• Ratio (ident/invit &amp; invit/acc)</li> <li>• Women faculty's percept.</li> <li>• Indiv depts track and report participation, retention &amp; advancement</li> </ul>

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