



**NSF ADVANCE: Institutional Transformation  
Texas A&M University**

**Year 1, Interim Report 3  
June 1, 2011 – August 31, 2011**

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## **PROGRAM SUMMARY**

During the summer months of Year 1, the TAMU ADVANCE Center for Women Faculty made progress on all aspects of the program. Committees met regularly and moved forward their respective agendas, with a particular focus on planning versus programming due to the summer period. On June 1, the External Advisory Board (EAB) met with the ADVANCE Leadership Team, the Internal Advisory Board (IAB), Activity Leaders, Development Staff, and senior faculty members from targeted colleges (see Appendix A for report). Chris Kaunas attended the June 6-8 NSF Joint Annual Meeting in Washington, DC and participated in the first AIM breakout session. Ms. Kaunas finalized an updated budget, and it was submitted to NSF on August 15.

## **ENGAGING THE UNIVERSITY COMMUNITY**

On June 10, Ms. Kaunas met with the Texas A&M University System Chancellor's Diversity Council to inform them about the Center's efforts and identify synergies. (The Council is in its third year of studying best practices and formulating recommendations for the Chancellor for the improvement of diversity among faculty, staff, and students.) Also in June, the ADVANCE Center responded to a request for input on the university's lactation policy (see Appendix B); a response is pending. The Center has also been working to augment child care services on campus, and on July 29 forwarded a memo (see Appendix C ) to campus deans for review; the outcome is pending. During July, Ms. Kaunas also worked with the College of Agriculture and Life Sciences (COALS) to institutionalize the ADVANCE program for 5 departments that were not previously targeted (see Appendix D). COALS is now providing funding for these additional departments to participate in the program; this brings the count of Targeted Departments to 39 (see Appendix E ). Ms. Kaunas will continue to work with other units in the university to bring them on board in the same manner as COALS. She also met with the TAMU Women's Faculty Network on August 24 to identify synergies with this group.

## **ENGAGING THE ADVANCE COMMUNITY**

In order to respond to the NSF request to broaden participation in the ADVANCE program, both Chris Kaunas and Eric Lindquist (ADVANCE Evaluator) have been meeting with Lisa Robertson of the University of Houston (UH) to discuss UH's ADVANCE proposal development. On a larger scale, early discussions are underway with Rice University and UH to develop a regional ADVANCE collaboration of former, current, and future ADVANCE institutions (e.g. UT-EI Paso, Texas A&M-Prairie View, Louisiana Tech, and University of North Texas-Denton). Collaborations with regional organizations are also being discussed (e.g. [MD Anderson Women's Faculty Program](#) in Houston). Additional efforts to engage the ADVANCE community include continued participation in monthly AIM meetings and inclusion of TAMU system women in the conference for the ADVANCE Scholar program.

## **UPCOMING EVENTS**

- The ADVANCE Speaker Series committee will announce the fall speakers on September 1.
- Chris Kaunas will attend the Rice University "Negotiating the Ideal Faculty Position" workshop which is scheduled for September 19-20. The purpose of this visit is to identify best practices for TAMU's Workshop for Early-Career Academics (a.k.a. the Roadmap Workshop).

- On September 23, Chris Kaunas and Rice ADVANCE staff will visit the University of Houston. The purpose of this visit is to assist UH's ADVANCE proposal team and discuss potential collaboration.
- Four focus groups for the Faculty-Staff Interaction activity are scheduled for September 21, 22, 28, and 29 to gather information that will inform program development.
- Department Heads are currently identifying candidates for the Roadmap Workshop. Invitations to apply will be sent out starting October 1.
- As part of the LEAD Program (formerly Department Head Diversity Training activity), a Conflict Management for Administrators workshop is scheduled for November, and a 2-day Mediation Training for Department Heads is scheduled for spring.
- Dr. Sherry Yennello and Chris Kaunas plan to attend the ADVANCE PI meeting in November.
- On November 10, the ADVANCE Center will host a reception for Joya Misra, a Professor of Sociology and Public Policy at the University of Massachusetts, Amherst. Dr. Misra is coming to campus to discuss her research on the "ivory ceiling of service" for women faculty. This event will also serve as a celebration of the first year of the ADVANCE program.
- The conference for the ADVANCE Scholars Program is scheduled for the end of April, 2012.
- Three performances for the Student Diversity Training activity are scheduled for the fall semester.

## **GENERAL INDICATORS OF INSTITUTIONAL TRANSFORMATION**

The ADVANCE program at TAMU encompasses a series of interrelated interventions designed to change the climate, enhance professional success, and improve the recruitment and retention of female faculty. Each of these 12 activities will be evaluated separately and collectively as part of an overarching analysis of institutional transformation. The analysis of institutional transformation will be based on university wide data on faculty climate, faculty recruitment and retention, space allocations, start-up packages, and salaries.

One key element of the evaluation will be a series of climate surveys conducted by the Dean of Faculties office. Dr. Jeff Froyd, who is a member of the ADVANCE leadership team, is the director of this survey, and the social scientists on Texas A&M's ADVANCE team have had considerable input into the survey's design. A first survey was conducted in fall 2006, and a second survey, which will be used as a baseline for the ADVANCE project, was conducted in fall 2009. (For more on TAMU's faculty climate survey, visit <http://diversity.tamu.edu/CampusClimate/2006FacultySurvey.aspx>.) Texas A&M has committed to conducting the Climate Survey every three years. The 2009 survey will provide baseline data, while subsequent surveys will provide data on progress that will be used to measure changes in the workplace climate at Texas A&M.

The next Campus Climate Survey is tentatively scheduled for fall of 2012. In preparation for the 2012 survey, the Social Science Research Team has continued to analyze the 2009 Campus Climate Survey data. The overall response rate for this survey was 24%. For STEM colleges, the response rate ranged from 4.5% to 21.7%. (Note: not all departments within each college are STEM.) Three hundred twenty-two respondents were from STEM departments, and 83 of those respondents identified themselves as women. Members of the Social Science and Evaluation Teams are working on strategies to increase the response rate for the 2012 survey.

In part because of the small response rates to the 2009 Campus Climate Survey, the College of Liberal Arts administered their own brief diversity survey to faculty and staff in the spring of

2011. Recognizing that other colleges may also pursue their own surveys, ADVANCE Co-Investigators Mindy Bergman and Kathi Miner, with the input from the Social Science Research Team, created a Diversity Survey Menu (see Appendix F) that includes a set of core diversity items so that different units can benchmark their diversity climate against the whole university or other units. The Menu also provides survey options for inappropriate behavior, stress and other outcomes, and diversity. The Menu was customized for the different populations of interest (students, faculty, staff) so similar items could be used with different groups (e.g., from the collegiality climate scale: “My colleagues are willing to help each other” for faculty and staff vs. “My classmates are willing to help each other” for students.) The Social Science Team is working to gain access to data from any college-level surveys using the Menu.

The remaining aspects of institutional transformation will be evaluated based on Texas A&M’s administrative records. Wherever possible, baseline analyses will be conducted using panel data for the ten most recent academic years; subsequent analyses will be conducted each year of the ADVANCE Center.

- The recruiting analysis will focus on changes (if any) in the probability of hiring women assistant professors in STEM disciplines, conditioned on the number of recent women graduates and post-doctoral fellows in the respective fields
- The retention analyses will follow the economics literature by using hedonic models of faculty turnover. The evaluators will examine the extent to which turnover patterns among STEM faculty differ by gender, and the extent to which any such differences change with the implementation of the ADVANCE Center program. The retention analysis will also examine the extent to which differences in departmental climate help to predict differences in turnover among women faculty.
- The promotion analysis will examine gender differences, if any, in the rates at which STEM faculty seek promotion and the rates at which they are promoted.
- The space allocation analysis will rely on newly developed data on space allocations at TAMU. Baseline data were collected this summer and are in the process of being cleaned. These data will be the first to link individual records for TAMU faculty with descriptive characteristics of specific offices and laboratories. The baseline analysis will examine the extent to which there are gender differences in the allocation of office or laboratory spaces, conditional on the appropriate demographic characteristics of faculty. Subsequent analysis will examine changes, if any, in the gender pattern of space allocation.
- The analysis of start-up packages will rely on data currently under development by the ADVANCE team. The baseline analysis will examine the extent to which there are gender differences in start-up packages, conditional on the appropriate demographic characteristics of faculty. Subsequent analysis will examine changes, if any, in the gender pattern of start-up packages.
- The baseline salary analysis will examine faculty salaries for the fiscal years 2001 to 2011. Data have been cleaned in consultation with the various Colleges at TAMU. These conversations have resulted in several improvements to the model, but have also required researchers to collect additional data not included in TAMU’s administrative databases. As a result of the constructive iterations, the final longitudinal model will be more widely understood and supported across the campus. However, conversations and iterations have taken much more time than forecast. Preliminary analyses have been conducted using linear mixed models, also referred to as hierarchical linear models, or multilevel models. (Linear mixed models are used in situations in which data are correlated over time, as is the case in the current situation). Separate models for each College have been developed which include fixed effects for gender, fiscal year indicators, age, race/ethnicity,

administrative duties (yes/no), years since receiving the PhD, age group, faculty rank, rank at hire, status changes from the previous year (Title Change, Newly Tenured, Other Promotion, Demotion), and department. All models also allow for the interaction between gender and a linear time trend to determine if the rate of salary growth from year to year was different between males and female. Because the model is not final, the averages are offered (see Table 1) as evidence that the ADVANCE project has collected salary data and analyzed the salary data to present the table with a comparison of average salaries. The ADVANCE project team does not contend that the table provides sufficient evidence for a constructive comparison of faculty salaries for men and women; however, it does demonstrate that progress has been made toward a constructive comparison.

<p align="center"><b>Table 1</b>  <b>Average Monthly Salaries for Faculty in STEM Departments</b>  <b>by College, Rank and Gender</b>  <b>2009-2011</b></p>			
<b>College</b>	<b>Faculty Rank</b>	<b>Males</b>	<b>Females</b>
Agriculture And Life Sciences	Assistant Professors	\$7,049	\$6,510
	Associate Professors	\$7,882	\$7,671
	Full Professors	\$10,806	\$11,250
Engineering	Assistant Professors	\$9,039	\$8,792
	Associate Professors	\$10,709	\$10,700
	Full Professors	\$14,187	\$14,711
Geosciences	Assistant Professors	\$6,633	\$6,875
	Associate Professors	\$8,126	\$8,598
	Full Professors	\$10,966	\$11,060
Liberal Arts	Assistant Professors	\$8,133	\$7,672
	Associate Professors	\$8,782	\$9,268
	Full Professors	\$13,782	\$13,244
Science	Assistant Professors	\$8,250	\$8,059
	Associate Professors	\$8,660	\$9,465
	Full Professors	\$13,246	\$12,787
<p>Note: Only some of the departments in the Colleges of Agriculture and Life Sciences and Liberal Arts are STEM departments. Average monthly salaries have not been adjusted for departmental affiliations, faculty experience or changes over time in the gender composition of the Colleges.</p>			

All analyses of institutional transformation will use a difference-in-difference approach to assess whether or not ADVANCE activities can help to explain changes over time. The Evaluation Team is developing a database indicating the extent to which each TAMU department (both target and non-target) has engaged with the ADVANCE program. Scales are currently being developed to measure the degree of engagement, as measured by participation in ADVANCE

activities, and by participation in ADVANCE design efforts. The underlying hypothesis is that departments which have been more engaged with ADVANCE will show greater improvements in climate, retention, recruitment, and resource balance over time.

Confounding Factors: As is always the case with non-experimental research designs, there are other factors outside of our control that offer an alternative explanation for any institutional change.

There are a number of alternative explanations for improvements in the university climate. Interventions implemented through the University's Vision 2020 (particularly the 12 Imperatives, <http://vision2020.tamu.edu/the-twelve-imperatives>) and Strategic Plans for the Colleges of Engineering ([http://provost.tamu.edu/strategic-planning-2010/Engineering\\_Apr30.pdf](http://provost.tamu.edu/strategic-planning-2010/Engineering_Apr30.pdf)) and Science ([http://provost.tamu.edu/strategic-planning-2010/Science\\_June22%20-6-22-2010.pdf](http://provost.tamu.edu/strategic-planning-2010/Science_June22%20-6-22-2010.pdf)), and small grants initiatives offered through the Office of the Vice President and Associate Provost for Diversity (<http://diversity.tamu.edu/Documents/FundingOpportunities2009.pdf>) and Multicultural Services Office <http://dms.tamu.edu/diversityplangrant> as well as LGBT initiatives (<http://diversity.tamu.edu/Documents/State%20of%20Diversity%20Report.pdf>) will most likely interact with the interventions proposed by our TAMU-ADVANCE initiative.

There are also ongoing events that appear to be disproportionately affecting climate among STEM faculty, although there is no reason to believe that they are disproportionately affecting female STEM faculty. The Governor has embraced a series of education reform initiatives (<http://texashighered.com/7-solutions>) that are generally opposed by TAMU faculty, and there is considerable uncertainty about the extent to which those reforms will be implemented on campus. Particularly relevant to any analysis of faculty climate, recruitment, retention, and promotion are proposals to increase the weight on student evaluations and other teaching indicators in tenure decisions, to separate research from teaching budgets, and to increase the teaching load for senior faculty.

Furthermore, TAMU's budget has been cut significantly since the last round of climate surveys. One response to the budget cuts has been to offer early retirement packages which, given the age distribution of TAMU faculty, likely had a disproportionate impact on male faculty.

Untangling the degree to which various types of interventions interact with one another cannot be achieved simply through the triangulation of factor analysis, surveys, and content analysis results; hence, a more comprehensive analysis is needed. The difference-in-difference research design, which will rely largely on changes over time in the differences among departments, was specifically chosen to at least partially address such concerns.

## PROGRAM ACTIVITIES

**Overview:** There are a total of 12 ADVANCE activities that are designed to increase gender equity by transforming Texas A&M University for women STEM faculty. Each activity is aligned with one or more of the five Psychologically Healthy Workplace (PHW) practices – the underlying, evidence-based framework for this initiative. The activities are organized into 3 broad categories: Climate Change, Success Enhancement and Recruitment and Retention. Each category has two Co-Chairs that oversee the related activities; an Activity Leader; and a committee made up of individuals from various units throughout the university. Each of the 12 activities is being evaluated for efficacy and social science research studies are being conducted in concert with 6 of the activities. Table 2 below details the updated activity implementation timelines.

<b>Table 2 Updated ADVANCE Activity Implementation Timeline</b>							
	<b>Fall 2010</b>	<b>Spring 2011</b>	<b>Summer 2011</b>	<b>Fall 2011</b>	<b>Spring 2012</b>	<b>Summer 2012</b>	<b>Fall 2012</b>
<b>Climate Change</b>							
LEAD Program							
Faculty Staff Interaction							
Student Diversity Training							
Merit Pool Incentives							
Departmental Mini-Grants							
<b>Success Enhancement</b>							
ADVANCE Scholar Program							
Administrative Fellow Program							
Success Circles							
<b>Recruitment &amp; Retention</b>							
Workshops for Early Career Academics							
Award & Search Committee Training							
ADVANCE Speaker Series							
Faculty Recognition							
Note: Grey areas indicated planned implementation of activity.							

### CLIMATE CHANGE

#### Co-Chairs - Christine Stanley and Mary Jo Richardson

Workplace climate is a major factor affecting women STEM faculty's success and efficacy at Texas A&M. In order to address this, the ADVANCE Center for Women Faculty is engaged in 5 Climate Change Activities which are designed to improve the work environment by reducing bias. Christine Stanley, Vice President and Associate Provost for Diversity, and Mary Jo Richardson, Regents Professor, Department of Oceanography, Co-Chair this effort.

**LEAD Program (Leadership Engaging ADVANCE Departments)**  
**Activity Leader - Simon Sheather**

Activity Summary: The ADVANCE Center for Women Faculty is collaborating with the Dean of Faculties and the Office of the Vice President and Associate Provost for Diversity to enhance existing diversity training for current and newly appointed Department Heads. *Formerly the Department Head Diversity Training activity*, the goal of the LEAD Program is to expand training related to implicit bias and provide further support to help Department Heads improve departmental climate for all faculty and meet diversity goals related to women STEM faculty. To that end, the committee is establishing a leadership program for Department Heads building on the successful effort at the University of Washington's ADVANCE Center for Institutional Change.

Activity Update: The TAMU LEAD Program will provide workshops each semester (and possibly during the summer sessions) that focus on issues related to department leadership; training related to implicit bias will be woven into each workshop. The format of the LEAD workshops will: 1) be largely based on participant interaction and case studies, 2) allow for discussions related to best practices, and 3) involve departments from different colleges in order to facilitate the proliferation of new ideas. Where appropriate, each Department Head will be asked to identify an emerging leader from their department to attend each workshop with him/her in order to build the leadership pipeline. Department Heads will be encouraged to identify emerging leaders from underrepresented groups where possible to help ensure that the leadership pipeline includes women and faculty of color.

The first LEAD workshop topic is mediation training (the last two TAMU Climate Surveys demonstrated that “handles disputes/problems effectively” is significantly related to faculty perception of “effective Department Heads”). Although the standard mediation training is a forty-hour workshop conducted over two weeks, the committee firmly believes that Department Heads will not commit to such a lengthy training. After consultation with training professionals, the committee has decided to provide a four-hour workshop in order to deliver an effective amount of training while taking into account the multiple demands on Department Heads' time. It is likely that the same session will be offered twice each semester to allow for greater access. These workshops are tentatively scheduled to take place during October or November. It is anticipated that these shorter sessions will prompt Department Heads to seek additional training. To that end, we are scheduling a one and one-half day continuation training in the spring (2012). Again, it is likely that this longer workshop will be offered twice in the semester to provide the greatest amount of access. After the spring trainings, the committee will make modifications to this plan based on feedback from the workshop participants and provide the workshops again in future project years.

Nancy Watson, PhD, LPC, will conduct the mediation workshops. Dr. Watson founded the Center for Change and Conflict Resolution (CCCR) in 1995, and as President of CCCR, she provides counseling and conflict management services. She consults and facilitates groups all over the world in the areas of effective communication, conflict management, and diversity.

It should be noted that Dr. Watson has provided mediation training at TAMU in previous years through the Office of the Dean of Faculties. This training effort has recently moved to the Office of the Vice President and Associate Provost for Diversity (OVPAPD). This move has provided an opportunity for cross-activity collaboration in that an ADVANCE Administrative Fellow, Dr. Claire Gill (College of Agriculture and Life Sciences) is currently providing leadership for the University mediation training program as part of her fellowship in the OVPAPD. ADVANCE is

working with Drs. Stanley (ADVANCE Co-Investigator and TAMU Vice President and Associate Provost for Diversity) and Gill to identify synergies across these efforts.

The committee is working to identify additional topics for future LEAD workshops. Some initial ideas include consensus building, increasing faculty visibility, and evaluating faculty.

Intervention / Theory & Hypotheses: The first selected intervention (mediation training) is informed by conflict reduction theory ([http://www.niacr.org/pages/mediation\\_resources.html](http://www.niacr.org/pages/mediation_resources.html)). The ADVANCE hypothesis is that four hours of mediation training will help improve Department Heads' conflict reduction skills which will contribute to the improvement of workplace climate. Although the evidence is currently inconclusive, there is some quasi-experimental support for this hypothesis (e.g. Kessel & Pruitt (1989); DeDrue et al (2000), Brazerman (2005)).

Sample & Comparison Group(s): There are a total of 39 Department Heads only one of which has received mediation training. An attempt will be made to provide mediation training to those who have not yet received training. Non-probability (i.e., convenience) sampling will be used because the Department Heads will decide whether or not they want to participate in the training. A naturally occurring comparison group exist which is a number of Department Heads who have not been trained.

Research Method, Design & Procedures: The evaluation team will track participation in the training and survey participants about their satisfaction with the experience. The TAMU Climate Survey will be used to assess the impact of the 4 hour mediation trainings as well as the ensuing one and one-half day continuation training. Information regarding the reliability and validity of the Climate Survey can be found at <http://diversity.tamu.edu/CampusClimate/2006FacultySurvey.aspx>

Statistics & Data Analysis: Inferential statistics and alpha levels will be used and a determination of the impact of mediation will be performed through the use of multiple-regression analyses. Faculty from the Statistics and Psychology departments will assist the evaluation team in the analysis.

External Validity: The objective is to obtain positive results during initial implementation of the mediation training (and subsequent workshops) and for those results to continue (or generalize) to subsequent years. Approximately 20% of the Department Heads turn over each year. Hence, the generalizability of positive results of the research year to subsequent years will depend, in part, on the percent of Department Head trained and the degree of attrition from the position.

### **Faculty-Staff Interaction**

#### **Activity Leader - Merna Jacobsen**

Activity Summary: A positive working relationship between faculty and staff is critical to the success of the University. The ADVANCE Center for Women Faculty is working to increase faculty and staff awareness of intentional or unintentional bias toward female faculty by expanding existing training related to gender equity and diversity.

Activity Update: Over the summer, the committee developed the first phase of this activity: faculty and staff focus groups. The focus groups are being conducted to inform program design; however, the data will also be used as baseline information and focus groups will be conducted in the future for comparison purposes. A total of four focus groups are being scheduled for September. In order to gain the broadest perspective, the groups will be

comprised of one group of female faculty, one group of male faculty, and two co-ed groups of staff. Eight to twelve participants will be scheduled for each of the two-hour sessions. Tenure-track faculty and staff will be randomly selected from ADVANCE Target Departments. The staff positions of interest are being identified by reviewing TAMU job titles as grouped by EEO codes (Clerical, Professional Non-Faculty, Technical/Paraprofessional, and Skilled Craft), focusing on that spend at least 50% of their day interacting with faculty. In order to gain the most cooperation possible, Department Heads are being notified in advance of potential participants to ask their support for those faculty and staff that are chosen, available, and choose to participate. Each randomly selected faculty and staff member will then be contacted via email with phone follow-up. Merna Jacobsen, the Activity Leader for this effort, will moderate all focus groups; Chris Kaunas, Program Director, will assist. Both individuals have experience in conducting focus groups.

The activity team is currently awaiting IRB approval for this effort. The focus group guide that was submitted (see Appendix G) contains questions that will probe the nature of interaction between faculty and staff, gender differences in those interactions, the impact of faculty/staff interaction, and actions that can be taken to improve the relationships. The four sessions will be recorded, transcribed, and coded for analysis. Once the information is analyzed, the committee will design a program around bringing faculty and staff together for open dialogue regarding implicit bias and faculty-staff interaction.

Intervention / Theory & Hypotheses: The ADVANCE hypothesis is that improving general faculty-staff interaction and reducing bias will contribute to the improvement of workplace climate for women STEM faculty. Categories of faculty-staff interaction issues are poor work organization (e.g. problems with work demands, time pressure, decision latitude, reward and recognition, support from supervisors, job clarity, job design, poor communication), poor organizational culture (e.g. lack of policies and practices related to dignity or respect for all workers, harassment and bullying, discrimination and/or intolerance for diversity, lack of support for a healthy lifestyle), management style (e.g. lack of consultation, negotiation, two-way communication, constructive feedback, and respectful performance management), and fear of job loss related to mergers, acquisitions, reorganizations, or the labor market/economy. These issues can be addressed by reallocating work to reduce workload, removing or retraining supervisors in communication and/or leadership skills, enforcing workplace bullying and discrimination laws, allowing flexibility in the location and/or timing of work and/or raising employee awareness and/or providing them with conflict reduction training ([http://www.who.int/occupational\\_health/healthy\\_workplaces\\_workshop\\_report.pdf](http://www.who.int/occupational_health/healthy_workplaces_workshop_report.pdf)).

Sample & Comparison Group(s): The number of faculty and staff from ADVANCE Target Departments is currently being established. Approximately sixteen to twenty-four staff will participate in the focus groups; the same number of faculty will be asked to participate. The number of faculty and staff that will participate in the intervention will be determined once the intervention is defined. Non-probability (i.e., convenience) sampling will be performed.

Research Method, Design & Procedures: A set of focus group questions was generated by the committee and categories of responses will be generated according to the items listed in the Intervention Theory & Hypothesis section above.

Statistics & Data Analysis: Descriptive statistics (i.e., mean, median, mode and range) will be used to assess the pre-post differences. Focus group audio-tapes will be forwarded to the Social Science Research Team for transcription. Focus group data interpretation will be conducted by Chris Kaunas, Merna Jacobsen, Mary-Jo Richardson, and Edwina Dorch.

External Validity: The objective is to obtain positive results in the implementation year and for those results to continue (or generalize) to subsequent years. Approximately 16% of TAMU staff retire or resign annually. Hence, the generalizability of positive results of the research year to subsequent years will depend, in part, on trained staff attrition.

Social Science Study: This activity is the focus of one of the six ADVANCE social science research studies. The working title for this effort is “Reducing Staff & Student Implicit Biases: Campus Climate Perceptions before and after Diversity Workshops and Training.” ADVANCE Co-Investigator Kathi Miner is leading this analysis of longitudinal Campus Climate Survey data that assesses women STEM faculty’s perceptions of personal and vicarious experiences of disrespect from staff and undergraduate students (see Student Diversity Workshops below) before and after diversity training. The next Campus Climate Survey is tentatively scheduled for fall of 2012. A first draft of the climate survey will be generated in March of 2012.

In an effort to get staff buy-in for the need for (staff→faculty) incivility training, the Social Science Research Team has developed a (faculty → staff) incivility survey and is currently seeking Institutional Review Board approval to administer this survey to staff in ADVANCE Target Departments. The data generated from this survey will supplement the analyses mentioned above.

**Student Diversity Workshops**  
**Activity Leader - CJ Woods**

Activity Summary: In order to improve the workplace climate for women STEM faculty, the ADVANCE Center for Women Faculty is engaged in an effort to teach students that respecting all faculty is part of the culture of Texas A&M. The Center is collaborating with members of the TAMU Performance Studies Department to develop interactive theater experiences that address issues of implicit bias, prejudices, and stereotypes of women and minorities. The theater experiences are spontaneous, surprise performances in public spaces for unsuspecting audiences (i.e., the audience does not know they are witnessing a performance).

Activity Update: The Performance Studies Team conducted faculty interviews in order to learn more about gender bias issues specific to women STEM faculty on our campus and develop scenarios for Guerilla Theater performances. Four interviews were conducted during this quarter, including the TAMU Provost, 2 Associate Professors and 1 Associate Dean. The interview questions are in Table 3.

<b>Table 3</b> <b>Faculty Questions for Scenario Development</b>	
1.	Where did you get your undergraduate and graduate degrees?
2.	At those institutions, what percentage of your classmates were men?
3.	At those institutions, what percentage of your faculty were men?
4.	At those institutions, did you consciously think about being a female student?
5.	Is your department now mostly male faculty? What's the percentage?
6.	Have you experienced prejudice based on your gender when you were hired/at the beginning of your job?
7.	Have you experienced prejudice from your students?
8.	How does sexism vary on this campus versus other campuses you've been on?
9.	Have you ever been placed in a position to be the token female?

To date, 2 "conversation" scenarios and 1 "flash carnival" scenario have been developed. The 2 conversation scenarios are as follows:

1. a discussion between two women students talking positively about their women faculty and teaching assistants in their shared STEM classes; and
2. a discussion between two women and two men about a STEM class they are all in together (Dr. vs. Mrs./Miss will be addressed)

The "flash carnival" scenario will be a game show featuring a host asking questions of a mixed audience (performers plus the unsuspecting audience). The answer to each question will reveal information about achievements, inventions, and innovations made by female scientists.

The committee for this activity visited Mosher Hall to identify the best location for the scenarios to take place. It was determined that Studio 12, a common study space for 4 adjoining dormitories (Mosher Hall included), would be the best location to pilot test the program (visit <http://reslife.tamu.edu/current/studio12/photos.asp> to view photos of the location).

In order to recruit student performers, an email was sent to a variety of STEM student organizations announcing the project and training times. Training took place August 22-24; 6 students and 3 faculty attended. (It is anticipated that the Guerilla Theater will be held in a number of classroom settings in the spring, so willing faculty were invited to attend the training to learn more about the activity.) Dates for the first Studio 12 performances are pending, but it is anticipated that three events (2 conversations, 1 flash carnival) will take place in September or early October. Additional Studio 12 events will take place next spring. The Social Science Research Assistants will attend the training and all performances to learn about the Guerilla Theater process and document the events. This is primarily a data gathering stage in which students will be exposed to the performances. However, the nature and duration of the intervention (the performances) may be modified and additional interventions may be implemented (e.g. in classroom setting) and their efficacy examined.

Intervention / Theory & Hypotheses: The ADVANCE hypothesis is that the Guerilla Theater performances will reduce student bias which will contribute to the improvement of workplace climate for women STEM faculty. Since 2000, the Center for Research on Learning and Teaching at the University of Michigan has presented an educational theatre program for professional development of faculty and graduate students Kaplan et al. (2006). This intervention is an adaptation of Brazilian director, Augusto Boal's Theatre of the Oppressed. In developing this methodology Boal drew on the work of another, Paulo Freire, an educational theorist and author of the pedagogy of the Oppressed. Boal's methodology involves "presenting a problem involving some sort of oppression and then inviting the audience to advance and discuss solutions to the problem, often with individuals from the audience acting out those solutions on stage (Kaplan et al. p. 35). There are a number of models for how such change occurs, but they share several common steps: gaining awareness of the need for change, devising strategies, changing behavior and making change permanent" (Kaplan et al. p. 35). Of 2000 evaluations of the program, 75% agreed that the discussion enhanced their understanding of difficult issues. The selected intervention (Guerilla Theater) is informed by 'role play' theory.

Sample & Comparison Group(s): We are currently gathering information about the number of STEM students in the four dormitories as well as the average number that attend the Studio 12 study space per session. This information will allow us to determine the approximate percentage of students who can be exposed to the Guerilla Theatre. Dormitory students self-select whether or not to attend the study sessions and given that the Guerilla Theatre is performed in some

dormitories and not others, students (with the same demographics) in dormitories where the theatre performances are not offered should represent a naturally occurring comparison group.

Research Method, Design & Procedures: Formative analyses of the intervention will be conducted this fall. Graduate Students from Performance Studies will observe performances and gather observational data to conduct a formative evaluation so that future performances can benefit from lessons learned. Social Science Research Assistants will observe the interventions and take notes about the context and behavior before, during, and after the performances in an effort to assess student reactions to the performances.

The Evaluation Team will rely heavily on the social science study (see below) for the summative evaluation of this activity. When we are able to extend the Guerilla Theater into classrooms (planned for either spring or fall 2012) then TAMU Teacher Evaluation Forms will be utilized to compare classrooms exposed to the performance with other classrooms that were not treated. Similar to the climate survey, student ratings utilize Likert-type scales. The reliability or the validity of these forms can be found at <http://mars.tamu.edu/ratings/index.htm#research>.

Statistics & Data Analysis: For evaluation purposes, t-tests of the differences in means between treated and non-treated classrooms for the same course (e.g. Biology 101) will be used. Measurement and Research Services (MARS) in the Office of Institutional Studies and Planning employs the Personalized Instructor/Course Appraisal (PICA) online course evaluation system. Baseline measures for each STEM female faculty will be retrieved from this system and forwarded to the Evaluation Team for analysis. Data interpretation will be conducted by a MARS staff representative along with Stephanie Payne, Jeff Froyd, Lori Taylor, Edwina Dorch, Chris Kaunas and Mary-Jo Richardson.

External Validity: The objective is to obtain positive results during initial implementation of the Gorilla Theater performances and for those results to continue (or generalize) to subsequent years. TAMU enrolls approximately 8,100 freshman students each year and 79.5% of those freshman graduate after six years. Hence the generalizability of positive results of the research year to subsequent years will depend, in part, on STEM freshman student attrition.

Social Science Study: The Student Diversity Workshops are being conducted in concert with one of the ADVANCE social science research studies currently titled "Reducing Student Implicit Biases: Analysis of Course Evaluations before and after Student Diversity Workshops." Co-Principal Investigator Stephanie Payne is leading this content analysis of students' teaching evaluations pre- and post-diversity training to examine whether or not women STEM faculty receive less disrespectful comments on their teaching evaluations after the institution of gender bias material into student orientation activities. The Social Science Research Team has obtained a master list of faculty with demographic variables from the Dean of Faculties office in order to devise a stratified random sampling plan that considers sex, ethnicity, rank, course level, and course size. Measurement and Research Services (MARS) in the Office of Institutional Studies and Planning employs the Personalized Instructor/Course Appraisal (PICA) online course evaluation system for some of the STEM departments. The Team has developed a coding rubric based on the implicit bias literature in order to code qualitative comments. Each comment will be coded on nine variables including referent, positive/negative affect, focus on professor vs. course, communal and/or agentic characteristics attributed to the professor, etc. This coding system has been piloted by 10 coders with two sets of data. Multiple control variables have also been identified including sex of the student, level of the course, if the course is required, anticipated grade, etc. Preliminary analyses of course evaluation data from two departments have been conducted. Course evaluations from the spring of 2011 will be coded in

the fall of 2011 and serve as baseline data for the study. Multiple hypotheses concerning STEM women faculty have also been formulated. Statistical comparisons will be made to male STEM faculty in the same department.

The “Reducing Staff & Student Implicit Biases: Campus Climate Perceptions before and after Diversity Workshops and Training” study is also related to the Student Diversity Workshops. ADVANCE Co-Investigator Kathi Miner is leading this analysis of longitudinal Campus Climate Survey data that assesses women STEM faculty’s perceptions of personal and vicarious experiences of disrespect from staff (see Faculty-Staff Interaction) and undergraduate students before and after diversity training. The next Campus Climate Survey is tentatively scheduled for fall of 2012. A first draft of the climate survey will be generated in March of 2012.

### **Merit Pool Incentives**

#### **Activity Leader - Christine Stanley**

Activity Summary: Christine Stanley, the Vice President and Associate Provost for Diversity (VPAPD) and ADVANCE Co-Investigator, and her Council on Climate and Diversity (CCD) annually assess the progress made by each university unit (academic colleges as well as non-academic units) toward reaching diversity goals. The ADVANCE Center for Women Faculty is working with Dr. Stanley’s office to leverage this new institutional practice to further the goals of the ADVANCE program (e.g. participant tracking for Departmental Mini-Grants serves both ADVANCE and university diversity reporting requirements).

Activity Update: As previously reported, due to the current fiscal climate (i.e., no merit raises at Texas A&M), there were no funds available for an increase in base funds to units based on diversity considerations in 2011. However, \$1 million in one-time funds were allocated in 2011 through the VPAPD office to campus units based on benchmarking and diversity planning as evaluated by the CCD. ADVANCE Co-Investigators Mindy Bergman and Kathi Miner continue to consult with various units through the Diversity Operations Committee (DOC) to assist them in meeting the assessment plan goals for their units. (The DOC is the operational committee formed under the 2009 TAMU Campus Diversity Plan to assist with ongoing planning, implementation, assessment, and evaluation of University and unit progress with respect to accomplishing goals related to accountability, climate, and equity.)

### **Departmental Mini Grants**

#### **Activity Leader - Al Boggess**

Activity Summary: The aim of this activity is to support departments in their diversity efforts and to provide an avenue for strategies that promote the success of women STEM faculty at Texas A&M. Mini-grants for innovative projects are being awarded annually to individual departments based on how well the proposed projects support the goals of the ADVANCE program.

Activity Update: Awarded departments began their proposed initiatives July 1 (see Table 4). Mid-grant reports are due January 1, 2012 and final grant reports are due June 30, 2012.

**Table 4  
Mini Grants Funded in 2011**

<b>College / Department</b>	<b>Proposal Aims</b>	<b>Sample Size</b>	<b>Instruments</b>	<b>Statistics &amp; Data Analysis</b>	<b>Labor, Interpretation &amp; Department's Report</b>	<b>ADVANCE Funding &amp; Dept. Matching Funds</b>
College of Agriculture & Life Sciences	Develop and sustain a cross-departmental women's support network and a formal mentoring process for Assistants and Associates	16 Female Full Professors and 36 Females With Other Titles	Departmental Survey: Along With Formative and Summative Evaluation	Presumed: Descriptive Departmental Survey Statistics	Nancy H. Ing	\$2000
Anthropology	A series of sessions with a professional mediator, a panel and mini symposium on strategies for success	9 Female Faculty	Presumed: Departmental Climate Survey - Post-Test Only	Presumed: Descriptive Departmental Survey Statistics	Cynthia Werner	\$8000 + \$3,750 Matching Funds
Biomedical Engineering	Speakers, lunches, a website, and surveys to address issues related to mentorship and the feelings of isolation	24 Female Professors and Associate Professors	Departmental Survey of Students and Faculty:	Descriptive Statistics Utilizing Survey Monkey	Kristen Maitland	\$4,500 + \$2,500 Matching Funds
Chemical Engineering	Travel funds for professional development and graduate student recruiting, a speakers program and a monthly meetings series led by the director of a local conflict resolution center	3 Female faculty for travel; 5 female faculty for conflict resolution; All faculty for speakers Program:	Speaker survey and tracking of number and quality of graduate student applications	Presumed: Descriptive Speaker Survey Statistics Descriptive statistics for applications from schools visited by TAMU female faculty	Mariah Hahn and Nancy Algert-Watson	\$10,000+ \$4,000 Matching Funds
Mechanical Engineering	Seminar to address gender inequities and research seminars by prominent female engineers	All Faculty Members (Male & Female) in Engineering	Presumed University Climate Survey	Presumed 2009 v. 2012 Pre-Post Climate Survey Results	David Staack	\$5,000
Oceanography	Informal gatherings of female faculty to discuss work-life issues	All Female Faculty In Oceanography	Presumed Work-Life Balance Survey	Presumed 2011 v. 2012 Improved Work-Life Balance Survey Results	Mary Jo Richardson & Lisa Campbell	\$1,000 (For 2 Years)

## **SUCCESS ENHANCEMENT**

### **Co-Chairs - Antonio Cepeda-Benito and Dorothy Shippen**

The Success Enhancement component of ADVANCE activities is designed to foster the professional development of women STEM faculty. There are 3 Success Enhancement Activities that have been established to foster the professional development of women STEM faculty. Antonio Cepeda-Benito, Dean of Faculties and Associate Provost, and Dorothy Shippen, Department of Biochemistry & Biophysics, Co-Chair this effort.

## **ADVANCE Scholar Program**

### **Activity Leaders - Christine Stanley and Becky Pettit**

Activity Summary: The purpose of the ADVANCE Scholar Program is to provide mentors for underrepresented women STEM faculty, particularly women of color. The ADVANCE Center for Women Faculty is also establishing a national conference for underrepresented women in STEM, the first of which is tentatively scheduled for April, 2012.

Activity Update: As previously reported, 16 women responded to the call for applications. The ADVANCE Scholar committee, comprised of senior faculty (largely from STEM departments), chose to accept all 16 applicants. Eleven of the 16 Scholars are faculty in the College of Liberal Arts, 3 are faculty in the College of Agriculture and Life Sciences, and 2 are faculty in the College of Engineering. It should be noted that no Scholar in this first cohort has publicly shared that she identifies with other marginalized groups (e.g. women with disabilities, those who identify as lesbian).

After selection, the Scholars were assigned "internal advocates" who are senior faculty on the ADVANCE Scholar committee. These internal advocates have been pivotal in the design and implementation of this program. The original intentions for these assignments were: 1) for the internal advocate to meet with the newly selected Scholar to assist her in identifying an appropriate Mentor/Eminent Scholar in her field, and 2) to assist the Scholar with strengthening her curriculum vitae (if necessary) before sharing it with the potential Mentor/Eminent Scholar. Going beyond these original intentions, this group of senior colleagues has broadened the Scholar's circle of contacts within the university and established a sustainable development network.

This summer, the committee also established an assessment plan for the Scholar activity. Success of the program will be evaluated based upon factors such as the Scholars' retention and advancement and evidence of their having achieved self-established goals.

In order to assist our Scholars in securing Mentors/Eminent Scholars, a letter of invitation (signed by both the Provost and the Vice President and Associate Provost for Diversity) was sent to potential Mentors/Eminent Scholars. (Some Scholars requested to contact potential Mentors/Eminent Scholars themselves.) To date, 6 of the Scholars have secured Mentors/Eminent Scholars from the following institutions: Duke University, Rice University, Texas A&M University, The University of British Columbia, University of California-Davis, and Yale University. One of the 6 Scholars has arranged to interact with her mentor at a conference in Seattle, WA in September, 2011, one has arranged a joint conference/campus visit with her mentor in November, 2011, and the others plan to arrange a meeting venue in the coming weeks.

Conference planning is underway. Potential dates and venues have been identified for an April 2012 event. The committee will convene early September to solidify plans. In preparation for the next cohort, the committee has requested a list of incoming women faculty of color who are in STEM disciplines. The process and timing of engaging the new cohort will be discussed at the September meeting as well.

Intervention / Theory & Hypotheses: The overarching goal of the ADVANCE Scholar Program is to increase likelihood of success of underrepresented women faculty in the STEM disciplines, particularly women of color. Faculty members who apply and are selected for the program will be referred to as ADVANCE Scholars. Mentoring has been advocated as a strategy to provide guidance and support necessary to increase success of any faculty member. The working hypotheses are that ADVANCE Scholars will:

- report satisfaction with their mentor-protégé relationships; and
- report that their mentor-protégé relationships have positively influenced their scholarship and academic careers.

Research Method, Design & Procedures: The evaluation will largely follow a case-study design. Each ADVANCE Scholar will be interviewed annually about their participation in the program, their relationship with their mentor, and influences of the relationship on their academic scholarship and career. Audio-tapes will be forwarded to the Evaluation Team for transcription. Data interpretation will be conducted by the Evaluation team and members of the ADVANCE Scholar committee.

### **Administrative Fellow Program**

**Activity Leader - José Luis Bermúdez**

Activity Summary: *Formerly called the Rotating Administrator Program*, this activity provides opportunities for women STEM faculty at the associate or full professor level to serve in developmental assignments in the offices of the Provost, Deans of targeted colleges, Vice President for Research, VP and Associate Provost for Diversity, and the Dean of Faculties. Administrators are selected based on a proposed project, jointly developed by the faculty member with the college or administrative office, and supported jointly by the ADVANCE project and the host office.

Activity Update: Three women STEM faculty represent the first cohort of Administrative Fellows as described in Table 5. The third position was added during this quarter in the Office of the Vice President and Associate Provost for Diversity (see Appendix H) and will continue for a duration of two years. Institutionalization for this program has already progressed in that two of the three positions are funded by sources other than ADVANCE. The committee for this activity is now focusing on efforts to support these Fellows and to provide programming for the leadership pipeline. Several efforts are underway to meet those objectives. The Administrative Fellows will be highlighted on the ADVANCE website, and a notice will sent out to the University community introducing them as ADVANCE Administrative Fellows. A monthly lunch series for the Fellows to meet with campus administrators (President, Provost, VPs, Deans etc.) is being planned. Further, the Fellows will be asked to identify emerging leaders from underrepresented groups to join them at these lunches. Additionally, seminars are being organized that will involve the Administrative Fellows as well as other women STEM faculty interested in leadership. The seminars will focus on such issues as University financing. Finally, a lunch will be held at the end of each academic year where interested faculty can meet with the Fellows to discuss their experience in the ADVANCE Administrative Fellows Program.

**Table 5  
ADVANCE Administrative Fellows - Cohort 1**

<b>Faculty Home Department</b>	<b>Position Title</b>	<b>Position Location</b>	<b>Position Dates</b>	<b>Funding Source</b>
Psychology, College of Liberal Arts	Associate Dean of Research	College of Liberal Arts	July 1, 2011 - June 30, 2012	ADVANCE College of Liberal Arts
Animal Science, College of Agriculture and Life Sciences	Associate Vice President	Office of the Vice President and Associate Provost for Diversity	July 1, 2011 - May 31, 2013	Office of the Vice President and Associate Provost for Diversity
Pathobiology, College of Veterinary Medicine	Associate Dean for Academic Freedom and Faculty Governance	Office of the Dean of Faculties and Associate Provost	September 1, 2011 - August 31, 2012	Office of the Dean of Faculties and Associate Provost

Intervention / Theory & Hypotheses: The overarching outcome goal of this ADVANCE activity is to increase the percentage of STEM faculty in administrative positions who are women. Related activity goals are to assist Administrative Fellows in reaching their self-described goals for participation in the program, to increase awareness of administrative positions among women STEM faculty, and to establish a pipeline for women STEM faculty to enter administrative positions.

The selected intervention strategy includes the following Outputs/Activity Goals:

- establishment of 2-3 administrative positions each year for women STEM faculty;
- establishment of related programming for Administrative Fellows (mentoring lunches etc.); and
- provision of leadership workshops/seminars for women STEM faculty.

Both the activity goals and intervention strategy are informed by a theory of “strategic planned change” or “strategic culture change approach” to managing gender diversity, in which both structural/institutional and organizational culture are addressed. Although the literature clearly supports the multi-faceted approach to advancing women in leadership positions utilized in this intervention, because of the specificity of the TAMU organizational context and the variability of the ADVANCE Administrative Fellow arrangements, this intervention is best classified as an “evidence informed” intervention per Mercer & Piogotti (2007).

Sample & Comparison Group(s): The samples will be threefold. For tracking demographic changes over time, all STEM departments and key administrative units will be included in the analysis. For analysis of climate changes, samples will comprise naturally occurring comparison groups that exist between those departments that sponsor ADVANCE Administrative Fellows and those departments that do not, and STEM faculty that participate and those that do not. Further, study of climate change will also occur using a “purposive sampling” approach, in which in-depth qualitative research occurs at the departmental level with participating sponsor, ADVANCE Administrative Fellow, co-workers, and support personnel.

Research Method, Design & Procedures: Evaluation of the ADVANCE Administrative Fellows Program will utilize a mixed method design, comprising the following:

- analysis of changes in demographic data in STEM departments and key central administrative roles over the duration of ADVANCE project;
- use of the TAMU Climate Survey to assess the relationship between changes among STEM women in administration and climate change;
- interviews by the ADVANCE Social Science Team with sponsoring department heads/administrative units (i.e., those units/departments sponsoring ADVANCE Administrative Fellows), ADVANCE Administrative Fellows, several coworkers, and several support staff (please refer to Social Science section for full details); and
- process analysis of application, recruitment, and selection documents.

Statistics & Data Analysis: Inferential statistics and alpha levels will be used and a determination of the impact of ADVANCE Administrative Fellow participation (as a discrete variable and as part of a larger “engagement in ADVANCE” variable) will be performed through the use of multiple-regression analyses. In addition, qualitative analysis of interview and narrative data will be carried out, using both inductive and deductive approaches to coding, analysis, and interpretation of data. The use of both inductive and deductive logic allows evaluators to test the theoretical assumptions and intervention strategies, as well as to discover emergent themes associated with the intervention. Analyses and interpretation of demographic and Climate Data will be performed by members of the evaluation team in collaboration and in coordination with other uses of these data sets. Analysis of qualitative interview and narrative data will be carried out by Angela Bies.

Social Science Study: In conjunction with this activity, Mindy Bergman is conducting interviews with the Rotating Administrators and their colleagues. The working title of the study is “Advancing Women into Leadership Positions: Effectiveness of the Administrative Fellows Program.” The goal of this study is to develop a thick-description case study of women entering academic leadership and administration for the first time via a part-time, short duration position. The research questions focus on the changing beliefs and expectations of Fellows throughout their first year in administration, the fit of the position into the administrative unit (as this type of position is relatively unusual at Texas A&M), and the effect on a variety of psychologically healthy workplace outcomes (e.g., work-life balance) and career trajectories as a typical faculty member (e.g., research productivity, student mentoring). All Administrative Fellows will be interviewed at three points during their first year of appointment (beginning, middle, end). Additionally, the sponsor of the position (i.e., the unit head) as well as several peers and support staff will be interviewed at the beginning and end of the first year of each Fellow’s appointment. To date, the first set of interviews has been completed in the College of Liberal Arts and the Office of the VP for Diversity for both Fellows and their colleagues (10 interviews total); interviews have been scheduled for the Dean of Faculties office. Semi-structured interview protocols were developed for both the Fellows and their colleagues. Questions probe the efficacy and fit of the position into the host unit (all respondents), components of the psychologically healthy workplace model (especially work-life balance; Fellows), and the effects of joining administration on faculty career trajectories such as maintaining an active research program (all respondents). Qualitative analyses will be conducted. Currently, we are in the process of transcribing interviews, so analyses have not yet begun.

## **Success Circles**

### **Activity Leader - Jane Welsh**

**Activity Summary:** The ADVANCE Center for Women Faculty is organizing mentoring groups centered on personal and professional interests. This activity functions as a complement to existing one-on-one mentoring (Women’s Faculty Network, the Mexican American Latino Faculty Association and the Black Faculty Alliance) and facilitates the development of social connections among women faculty with the goal of greater satisfaction and well-being. This activity is also the focus of one of the six social science research studies that will examine the merits of fostering support groups.

**Activity Update:** One Success Circle was held this summer: In Pursuit of Balance - Academic Careers & Personal Lives; 24 women STEM faculty registered and 16 signed-in for the event. As previously reported, one group that has emerged around a recurring mentoring activity is the New Mothers group. These 7 women met with committee members in June to plan for future activities; their next meeting is pending.

The committee for this activity has identified four topics to focus on for the upcoming academic year: dependent care, grant writing/proposal development, elder care, and fitness and well-being. The committee is currently working on a schedule for the 2011-12 academic year and intends to hold separate activities in these four areas. The hope is that meetings on a more regular basis around a single topic may more readily lead to durable connections and long-lasting relationships. Multiple formats will be utilized for each activity to maximize interaction between participants (see Table 6).

<b>PHW Category</b>	<b>Success Circle Topic</b>	<b>Potential Formats</b>
Work Life Balance	Elder Care Dependent Care (New Mothers Group)	Academic Year Series Round Table Discussions Panels 2-Part Workshops/Seminars
Employee Growth & Development	Grant Writing / Proposal Development	Clubs (e.g. writing, walking) Open Socializing Events by College College to College Invitations
Health & Safety	Walk Across Texas Community Events	Cluster People Across Ranks Technology (e.g. Podcasts, Blogs Facebook, Twitter)

**Intervention / Theory & Hypotheses:** Outcome goals of the Success Circles Activity are threefold, and include:

- enhanced networking among women in STEM disciplines;
- improved professional development and/or life management skills (e.g., elder and/or child care, lab management, work/life balance); and
- reduced feelings of isolation in pursuit of career advancement.

The selected intervention strategy includes the following Outputs/Activity Goals:

- initiate regularly scheduled informal mentoring groups organized around common work-related and personal interests

Consistent with the other Success Enhancement goals, the activity goals and intervention strategy of Success Circles are informed by a theory of “strategic planned change” or “strategic culture change approach” to managing gender diversity, in which both structural/institutional and organizational culture are addressed. Similarly, this intervention is best classified as an “evidence informed” intervention per Mercer & Piogotti (2007) due to the strong evidence in support of networking and knowledge acquisition as success enhancement strategies, but also in recognition of the complexity and multi-faceted nature of such interventions due to the heterogeneity of topics, workshop participation variation, and participant needs.

Research Method, Design & Procedures: Evaluation of the Success Circles is threefold, comprising the following:

- tracking of participation by STEM departments;
- using the TAMU Climate Survey to assess the relationship between participation in Success Circle Activity and climate change; and
- using post-event surveys of participants to gauge perceptions of quality, networking, professional development, skills acquisition, and reduction of isolation feelings (please refer to Social Science section for full details).

Statistics & Data Analysis: Inferential statistics and alpha levels will be used and a determination of the relationship between of Success Circle participation (as a discrete variable and as part of a larger “engagement in ADVANCE” variable) and climate change will be performed through the use of multiple-regression analyses. In addition, analysis of event survey data will be carried out. Analyses and interpretation of participation/engagement and climate change data will be performed by members of the evaluation team in collaboration and in coordination with other uses of these data sets. Analysis of survey data will be carried out by Angela Bies.

External Validity: The objective is to obtain positive results in the implementation year and for those results to continue (or generalize) to subsequent years. Further, formative evaluation will contribute to improvements in program design, with insights gained from comparison across cases annually and over time.

Social Science Study: The original plan to conduct a quasi-experimental study has been revised given a poor response rate to the new faculty survey distributed last August and the artificial nature of the original idea of assigning faculty to groups. The activity now seeks to “spark” support groups based on shared interests and are formed by hosting events (e.g., speakers) oriented on a topic. To date, faculty register for the events, sign in upon arrival, and complete an anonymous one-page evaluation. Thus participation across events can be tracked and feedback on events considered as new topics and events are scheduled. Because participants self-select into groups based on their own interests and needs and comparison groups will be difficult to identify a priori, a within-subjects study design will most likely be conducted. Correspondingly, a survey is being developed to administer to participants of success circles following 2-3 meetings. This survey will assess the perceived value of the group, new relationships formed, and the psychologically healthy workplace components.

## **RECRUITMENT AND RETENTION**

**Co-Chairs - Robin Autenreith and Sarah Bednarz**

While the number and diversity of women faculty at Texas A&M University has seen recent gains, a great need still exists to attract and keep women of excellence in the STEM fields. To that end, the ADVANCE Center for Women Faculty has established 4 activities focused on Recruitment and Retention of women STEM faculty. Robin Autenreith, Co-PI and Associate Dean of Graduate Studies in the College of Engineering, and Sarah Bednarz, Associate Dean of Geography, are Co-Chairs for this effort.

### **Workshops for Early Career Academics**

**Activity Leader - Ben Wu**

Activity Summary: This activity, formerly the Workshops for Future Women Faculty, is designed for internal (A&M) and external (non-A&M) post-doctoral researchers and Assistant Professors (in the first two years of their position) in STEM fields. The purpose of these annual workshops is to assist departments in the recruitment and retention of women STEM faculty.

Activity Update: The committee for this activity made great progress this quarter. The first Roadmap for a Successful Academic Career workshop will take place March 26-28, 2012 (see Appendix I). The first workshop is limited to 50 attendees, no more than 20 of which will be external candidates. Department Heads will recommend up to three candidates to attend the workshop. They will do this online by providing contact information and a rank order for each candidate (see Appendix J). The ADVANCE Center will invite the number one recommended candidate from each of the ADVANCE Target Departments to apply online (see Appendix K) and will guarantee the candidates a spot in the workshop. Additional invitations to apply will be sent out to number two and three ranked candidates, but these applications will be considered by the workshop committee on a competitive basis. Department Heads have until September 30, 2011 to recommend a candidate. To date, 5 recommendations have been received. Invitations to apply to the workshop will be sent out starting October 1; the deadline to apply is December 1. Notifications will go out no later than February 1, 2012 by which time pre-workshop materials will be online for participant access. A draft agenda can be reviewed in Appendix L.

Intervention / Theory & Hypotheses: The workshops will provide attendees with professional development and with opportunities for networking with their professional peers and with TAMU faculty. The working hypothesis is that women who participate in the Workshops will be more likely to apply for and accept positions at TAMU.

Research Method, Design & Procedures: As part of the accompanying Social Science Study (see below) TAMU will survey Workshop attendees about their experiences. The Evaluation Team will use those responses in formative analyses of Workshop satisfaction. The Evaluation Team is also developing a survey of Department Heads who recommended candidates. The Department Head survey will gather information about traditional recruiting practices and the perceived efficacy of the Workshops as a recruiting tool. Applications for TAMU positions by workshop attendees (and other students from their home institutions) will be tracked, and compared with applications by similarly situated students in previous years. Hiring will also be monitored and evaluated.

Social Science Study: Kathi Miner will conduct a study currently titled "Repairing the Leaky Pipeline: Workshops for Future Women Faculty." This study of post-doctoral researchers will

investigate whether workshop attendees report higher levels of self-efficacy for negotiating and, in turn, higher levels of well-being than non-workshop attendees. The sample will consist of all 50 participants. Applicants who are not chosen or unable to participate and a comparable friend of each participant (e.g., colleague from graduate school) will serve as a comparison group. IRB approval has been attained, and a survey is currently being designed. Some baseline data concerning knowledge of various topics (e.g., grant writing, negotiating, etc.) will be gathered in the application. We hypothesize participants will report higher levels of self-efficacy and broader professional and personal networks of colleagues to call upon for support than nonparticipants. A follow-up survey will be sent to participants approximately 1 year after the workshop and CVs will be requested.

### **Award and Search Committee Training** **Activity Leader – Ray Juzaitis, Nuclear Engineering**

Activity Summary: The Dean of Faculties and the ADVANCE Center for Women faculty are working together to expand existing gender bias training for all members of search committees, committees making decisions on university and college awards, and committees making decisions on tenure and promotion.

Activity Update: The committee for this ADVANCE activity has been working on several tasks to inform program development. They have been querying Targeted Departments to assess existing search and P&T committee characteristics (number of members by gender, how members are elected/appointed, the existence of guidelines) and have started a database of internal awards by discipline. (The committee is working with the Faculty Recognition Committee to create a single awards database containing both internal and external awards searchable by discipline.) Efforts on this activity have slowed somewhat given the Activity Leader for the committee had to resign. The committee identified a new Activity Leader upon the writing of this report (Dr. Ray Juzaitis, Nuclear Engineering). Efforts are underway to scheduling the next full committee meeting. Spring 2012 implementation is still targeted.

Intervention / Theory & Hypotheses: The working hypothesis is that expanded award and search committee training will lead to changes in the composition of award and search committees, and improvements in the process for recruitment (interviews, offers, hires), promotion, and award nomination of women STEM faculty.

Research Method, Design & Procedures: The Evaluation Team will rely heavily on the corresponding social science study (see below) for evaluation of this activity. To supplement that analysis, the Team is gathering data from STEM departments regarding the composition of search, P&T and awards committees and will report on changes in the composition of those committees over time.

Social Science Study: One of the six social science studies will be conducted around this activity; the study is currently titled “Improving Selection and Promotion of STEM Women Faculty: Reducing Search and Award Committee Biases.” Mindy Bergman will conduct this quasi-experimental study of administrators’ selection and promotion decisions. The basic hypothesis for the social science study is that training will increase knowledge of equal opportunity laws and decrease explicit sex biases substantially as well as decrease implicit sex biases more moderately. The current plan is to use a Solomon 4-group design to compare pre-/post- training attitudes and knowledge regarding implicit sex biases and equal opportunity laws. Instruments for the social sciences study are awaiting development because the course content is not yet designed.

## **ADVANCE Speaker Series**

### **Activity Leaders - Nancy Amato and Jennifer Welch**

Activity Summary: The ADVANCE Speaker Series has two goals: 1) to bring in one or two senior women scientists and engineers per year who have also been active in gender and diversity issues to speak and 2) to bring in mid-career and senior women scientists and engineers that are nominated by STEM departments for recruiting purposes.

Activity Update: The committee for this activity made great progress over the summer. They developed a Call for Nominations (see Appendix M) and disseminated it to the Target Departments via email and the ADVANCE Center website. To date, 9 nominations have been received for the fall semester. The committee is currently reviewing these applications and will announce the selected speakers on September 1. In order gain feedback about the speaker events, departments will submit a short report (one page or less) within 30 days of an event which details the activities, approximate attendance (number, gender, and academic rank) at each activity, and impressions on how well the visit met the objectives of the ADVANCE Speaker Series.

Intervention / Theory & Hypotheses: -The Speaker Series will provide audience members with opportunities for networking with prominent scholars in their field, provide role models for existing faculty and increase opportunities for Department Heads to recruit mid-career and senior women STEM faculty. The working hypotheses are that climate will improve in departments that host the speakers, and that the speakers themselves will be more likely to:

- apply for and accept positions at TAMU themselves
- encourage their students to apply for and accept positions at TAMU.

Research Method, Design & Procedures: The Evaluation Team has developed a database to use in tracking speaker activity on campus. The database contains the name, gender, and field of all eminent STEM and SBS speakers who have visited campus since 2004. Eminent speakers have been defined as those whose talk was widely advertised and presented in a room with a capacity of at least 100 persons. Preliminary analysis suggests that by these criteria there have been 148 eminent speakers on campus since 2004, and that only 18 percent of them (26) have been women. The database will be maintained over time and changes (if any) the fraction of women speakers will be assessed.

The Evaluation Team will track the speakers visiting TAMU as part of the ADVANCE speaker series and will report on changes (if any) in the number of students applying. The team is in the planning stages of an analysis of recruitment activity associated with the ADVANCE speakers. The Evaluation Team is also developing a survey to be administered to faculty attending the speaker series.

## **Faculty Recognition**

### **Activity Leader - Elena Castell-Perez**

Activity Summary: This activity is focused on highlighting the success of women STEM faculty. In collaboration with the Dean of Faculties office, the Women's Faculty Network, the Women Engineering Faculty Interest Group, the Women Administrators Network, and the Vice President of Research, the ADVANCE Center for Women Faculty is organizing events to recognize and publicize the achievements of women faculty.

Activity Update: The committee continues the work of gathering information for a database of awards by discipline for women STEM faculty so that nominations can be made in a systematic manner; a calendar of important dates will accompany this database. The committee is also finalizing the effort to highlight prominent STEM professors on the program website along with other news items that are featured there. They are investigating the option of having a workshop on preparing nomination packages. There is also potential synergy with the LEAD Program in that a potential workshop for Department Heads relates to increasing faculty visibility. Currently, the committee is collecting faculty CVs to determine who could most immediately be targeted for major recognition. Additionally, the committee is attempting to add additional members to the committee to ensure the broad scope of this effort is covered.

Intervention / Theory & Hypotheses: The working hypothesis is that by providing women with more information about existing award programs, ADVANCE will increase the number of women STEM faculty that get nominated and/or win major teaching, research, and service awards.

Research Method, Design & Procedures: The evaluation of this activity will focus on measuring changes over time, if any in the level of participation by TAMU faculty in existing awards programs. Participation will be measured not only by the number of faculty who receive such awards, but also by the number of TAMU faculty who apply for or are nominated for such awards. The Evaluation team is developing the database necessary for such analysis.

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