



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

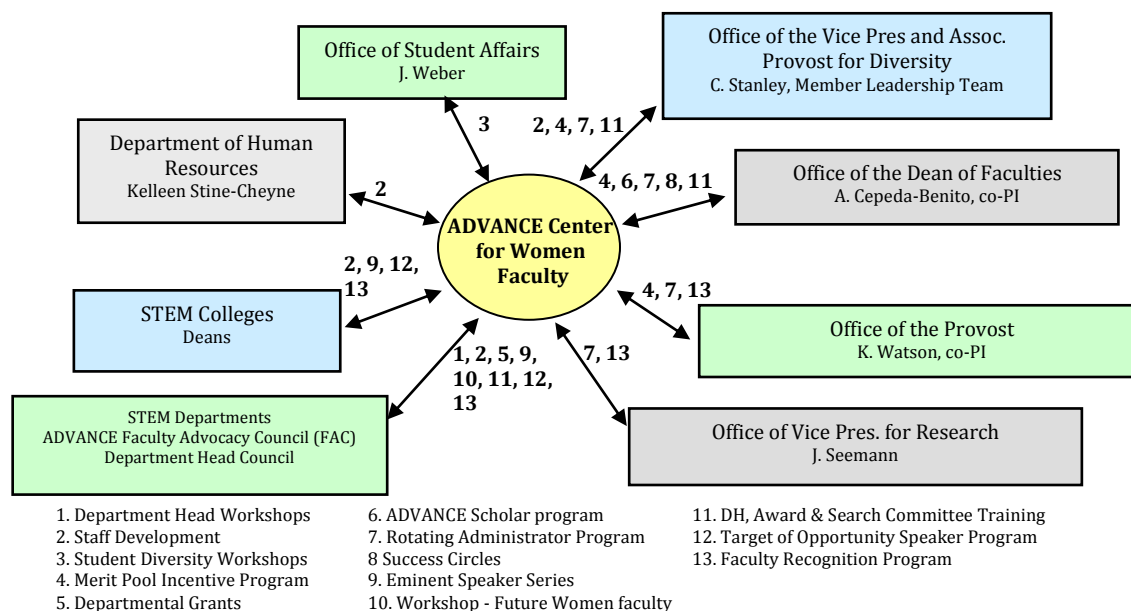
**Year 1, Interim Report 1  
October 1, 2010 – December 31, 2010**

Principal Investigator  
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The TAMU ADVANCE-IT program was designed with partnerships to campus units as an integral part of the project, as shown in figure below. Therefore the ADVANCE team has been engaging the university community to build on and enhance these relationships during the first quarter. Additionally, we have in place the evaluation team, the social science research team the co-chairs of the committees, the activity leaders and a 50% time administrative assistant. We are searching for a full time director.



### Engaging the TAMU community

Campus reception – (program as attachment)

Leadership retreat – (agenda as attachment)

Dr. Sherry Yennello presented ADVANCE program at College of Science External Advisory and Development Council

Dr. Sherry Yennello presented ADVANCE program to Council of Deans

Dr. Sherry Yennello presented ADVANCE program to Executive Committee of Faculty Senate

Dr. Sherry Yennello presented ADVANCE program to Executive Committee of Department Heads

Dr. Dr. Sherry Yennello & Dr. Stephanie Payne met with Dr. Jose Bermudez who is the recently hired Dean of liberal arts

### Engaging the ADVANCE community

Dr. Sherry Yennello attended PI meeting and presented poster (attached)

Dr. Sherry Yennello & Linda Stelly are involved in AIM (ADVANCE implementation mentors)

Discussions with Dr. Jan Rinehart from Rice University

## Upcoming events

First visit of Dr. Sandra Laursen (external evaluator) set for 10 January 2011

First meeting of Internal Advisory Board set for 19 January 2011

Dr. Sherry Yennello to meet with Council of Principle Investigators on 12 January

Dr. Sherry Yennello & Dr. Dorothy Shippen to meet with Dr. Mark Hussey, Dean of Agriculture on January 18, 2011

NSF site visit set for 1 March 2011

In process of scheduling the first meeting of External Advisory Board for spring 2011

## **Progress on specific activities**

### Climate Change Committee:

Mary Jo Richardson (Regents' Professor of Oceanography) & Christine Stanley (Vice President and Associate Provost for Diversity), co-chairs

### *Department Head Workshops:*

Enhance the training for departmental leaders by expanding current workshop offerings to cover implicit bias and transforming departmental climates.

Lead: Simon Sheather - Department Head - Statistics

Timeline: Begin formulating content in February 2011. Meet with Dean of Faculties - February 2011.

### *Staff Development*

Training for departmental and college level staff who frequently interact with faculty will focus on helping participants understand the institutional and societal barriers and challenges (e.g., gender bias and inequity, the accumulation of advantage/disadvantage) that negatively impact women faculty in the STEM fields.

Lead: Merna Jacobsen – Department of Multicultural Services

Timeline: Work with Human Resources during calendar year 2011. Small pilot program to request feedback in Fall 2011. Implementation in Spring 2012.

### *Student Workshops*

Interactive theater performances will address issues such as gender bias and classroom dynamics in a non-threatening but thought-provoking way and will focus on revealing people's implicit biases, prejudices, and stereotypes of women and minorities. This type of interactive learning experience has been shown to improve awareness and change behavior of participants.

Lead: C.J. Woods – Assistant Vice President for Student Affairs

Timeline: Pilot with academic advisors for feedback in Fall 2011. Implementation in Summer 2012.

### *Merit Pool Incentives*

As part of annual assessment of diversity in the college, a new incentive program, 10% of the merit raise pool funds, will be awarded to units based on their work to actively improve diversity.

Lead: Christine Stanley - Vice President and Associate Provost for Diversity.

Timeline: Immediate. First allocations Fall 2011.

### *Departmental Mini-Grants*

Departmental mini-grants for innovative projects will be awarded to support department-initiated activities to address department-specific challenges for women faculty and provide a test bed for novel ideas for future implementation university-wide.

Lead: Al Boggess - Department Head - Mathematics

Timeline: Formulate guidelines for submitting and awarding proposals in February 2011. First awards June 2011.

### Faculty Success Enhancement Committee

Antonio Cepeda-Benito (Dean Of Faculties & Associate Provost) and Dorothy Shippen, (Professor of Biochemistry & Biophysics), co-chairs

### *ADVANCE Scholar Program*

Through the Advance Scholar Program, the ADVANCE team will help identify eminent researchers willing to serve as mentors to TAMU faculty who may be caught in a double bind and provide travel funds for junior women faculty to travel to meetings to meet their mentors or to bring these mentors to campus. Also, the ADVANCE will host a conference for Women STEM Faculty of Color from TAMU and our system schools, and be open for national participation.

Lead: Christine Stanley & Becky Petit (Assistant Vice President of Diversity)

Timeline: first mentoring pairs spring 2011

### *Rotating Administrator Program*

Associate or full professors to serve as an Administrative Fellow through developmental assignments in one of several administrative offices. These rotations will provide individuals administrative experiences, increase the visibility of women as administrative leaders, and change the mental model of who can be an administrator.

Lead: Martyn Gunn – Vice Provost for Academic Services

Timeline: Formulate guidelines in spring, first participants in summer/fall

### *Success Circles*

Mentoring groups organized around common interests that may be research-based or based on personal interests with the goal of fostering faculty success by recognizing faculty's multiple demands and identities.

Lead: Jane Welsh – Professor of Veterinary Pathobiology

Timeline: Spring 2011

### *Eminent Speaker Series*

1-2 senior women scientists and engineers who have also been active in gender and diversity issues will be brought to campus. These speakers will provide seminars on their research expertise and participate in networking events with faculty, post docs, and students.

Lead: Nancy Amato – Professor of Computer Science

Timeline: planning spring 2011, speakers fall 2011

### Recruitment and Retention Activities

Sarah Bednarz (Professor and Associate Dean Geography) and Robin Autenrieth (Associate Dean for Graduate Programs Dean of Engineering)

### *Workshops for Future Women Faculty*

Annual workshop for women STEM postdoctoral research associates from across the country who are considering academic careers. The workshop will invite top candidates to campus that can be identified by departments and provide mentoring and mentoring opportunities for other future women faculty across the country.

Lead: Bob Web - Professor of Physics And Astronomy

Timeline: planning in spring; workshop in fall 2011

### *Award and Search Committee Training*

Expansion of programs offered by the Dean of Faculties office to train all members of search committees, committees making decisions on tenure and promotion, and committees making decisions on university and college awards.

Lead: Mike Pishko - Professor and Head of Chemical Engineering

Timeline: Spring 2011

### *Target-of-Opportunity Speaker Series*

Coordinated with departments to bring in mid-career and senior women scientists and engineers for professional presentations. This speaker series will be an additional vehicle for recruiting senior women faculty and provide an opportunity for women faculty to network with nationally known senior women researchers

Lead: Lead: Jennifer Welch – Professor of Computer Science

Timeline: Spring 2011

### *Faculty Recognition*

Campus-wide dissemination of major awards and accomplishments achieved by women faculty and will expand on the Women Faculty Network's annual luncheon to highlight and recognize women faculty for their accomplishments.

Lead: Elena Castell-Perez – Professor of Biological & Agricultural Engineer

Timeline: ongoing

### **Update on data for NSF indicators**

|    |  |                       |
|----|--|-----------------------|
| 1  | Number and Percent of Women Tenured and Tenure Track Faculty in Science/Engineering by Rank and Department | 80% complete          |
| 2  | Fall 2010 STEM and SBS Departmental Faculty Gender Composition   | 80% complete          |
| 3  | Tenure Review Outcomes by Gender – STEM Fields   | Available             |
| 4a | Promotion Review Outcomes by Gender: Assistant to Associate Professor – STEM Fields                        | Available             |
| 4b | Promotion Review Outcomes by Gender: Associate to Full Professor – STEM Fields                             | Available             |
| 5a | Years in Rank at the Associate Professor Level for STEM and SBS Faculty Hired as Assistant Professors      | 20% complete          |
| 5b | Years in Rank at the Associate Professor Level for STEM and SBS Faculty Hired as Associate Professors      | 20% complete          |
| 6  | Voluntary, Non-Retirement Attrition, by Rank and Gender, year  | Unsure                |
| 7  | New-Hires in STEM and SBS, year  | Unsure                |
| 8  | Faculty Leadership Positions   | Unsure                |
| 9  | Salary   | Not required annually |
| 10 | Space  | Not required annually |
| 11 | Start-up   | Not required annually |

## ADVANCE Social Science Studies

| Researchers   | Study Design and Participants  | ADVANCE Activity   | Example Testable Hypotheses  |
|---|--|--|--|
| <b><i>Climate Change</i></b>  | <i>Impact of implicitly biased behavior toward female faculty by students and staff on the well-being of women faculty</i>                   |  |  |
| Mindy Bergman<br>Laura Lomeli   | A. Longitudinal survey of faculty perceptions of interactions with staff and students  | Student Diversity Workshops & Staff Development Training | Institutionalization of gender-bias workshops will decrease gender-based differential treatment by staff and students and increase the well-being of women STEM faculty.   |
| Stephanie Payne<br>Violet Xu<br>Steven Cooley<br>Evangelina Benavides | B. Content analysis of students' teaching evaluation comments  | Student Diversity Workshops                              | STEM women faculty will receive less disrespectful comments on their teaching evaluations after the institution of gender bias material into student orientation activities.   |
| <b><i>Success Enhancement</i></b>                                     | <i>Impact of development and training opportunities tailored to women faculty on the negative effects of implicit gender-based biases.</i>   |  |  |
| Stephanie Payne<br>Violet Xu<br>Becky Thompson                        | C. Quasi-experimental study of assistant professors' mentoring experiences and well-being outcomes   | Success Circles  | STEM women faculty who engage in success circles aimed at acknowledging their multiple demands (e.g., as a faculty member and parent) will report higher mentoring well-being benefit than women STEM faculty who engage in traditional mentoring. |
| Kathi Miner-Rubino<br>Amber Smittick                                  | D. Case study of associate and full professors in rotating administrator positions   | Rotating Administrator Program                           | STEM female faculty who participate in a rotating administrator program report increases in self-efficacy and involvement and, in turn, higher well-being.   |
| <b><i>Recruitment and Retention</i></b>                               | <i>Nature and level of the relationship between implicit bias toward women and minorities, selection/promotion decisions, and well-being</i> |  |  |
| Mindy Bergman<br>Laura Lomeli   | E. Longitudinal survey of post-docs  | Workshops for Future Women Faculty                       | Workshop attendees will report higher levels of self-efficacy for negotiating and, in turn, higher levels of well-being than non-workshop attendees.   |
| Kathi Miner-Rubino<br>Amber Smittick                                  | F. Quasi-experimental study of administrators' selection & promotion decisions   | Search & Award Committee Training                        | Department workshop attendees will allocate resources more equitably to job candidates following training than before training.  |

### **A. Longitudinal survey of faculty perceptions of interactions with staff and students**

The longitudinal faculty climate study will consist of climate surveys assessing STEM women faculty's perceptions of personal and vicarious experiences of disrespect from undergraduate students and staff before and after the Student Diversity Workshops and Staff Development Workshops are instituted. Institutional Review Board (IRB) approval has been attained and we are currently designing the survey for the next data collection.

In addition, we are examining the 2009 faculty climate data for patterns and trends that will serve as baseline data and ideas for the next climate survey. A paper by Stephanie Payne and Becky Thompson concerning the need for mentoring that includes an examination of women STEM faculty based on the 2009 data was accepted for presentation at the Society for Industrial and Organizational Psychology conference which will take place in April of 2011 in Chicago.

### **B. Content analysis of students' teaching evaluation comments**

We have met with university personnel about gaining access to online faculty evaluations. While there is one primary office that handles these, not all departments utilize their services. Some departments (e.g., statistics, chemistry) use other systems, so additional coordination will be required to access evaluations for faculty in these departments. We are seeking a master list of faculty with demographic variables from the Dean of Faculties office so we can devise a stratified random sampling plan that considers sex, ethnicity, rank, course level, and course size. We are also developing a coding rubric based on the implicit bias literature so we can code qualitative comments once we receive them. We plan to code a small sample this spring. Evaluations conducted prior to the Student Diversity Workshops will serve as pre-test data.

### **C. Quasi-experimental study of assistant professors' mentoring experiences and well-being outcomes**

The Dean of Faculties office currently sponsors a mentoring program. A list of current pairs has been obtained and may be used as a comparison sample. A review of the literature has revealed very little research on group mentoring. We are currently exploring the possibility of using a new university database called Maestro as a tool for facilitating identification of faculty members with shared research interests as a mechanism for creating success circles (mentoring groups). A committee of committed faculty members has been formed to brainstorm the best way to implement the success circle program. A survey focused on the effectiveness of mentoring has been developed.

### **D. Case study of associate and full professors in rotating administrator positions**

The rotating administrator program interviews have been designed and approved by IRB. The study of the rotating administrator program will include multiple interviews with both the woman administrator (at the start, middle, and end of the administrative assignment) and her colleagues (at the start and end of the assignment). Women administrators will be asked about their perceptions of administrative assignments, work-life balance, and women's leadership roles in academia, with the goal of assessing changes in these over the term of the assignment. The rotating administrators' colleagues will be asked about their perceptions of women as administrators and leaders in academia, with the goal of assessing changes in these over the term of the assignment.



### **E. Longitudinal survey of post-docs**

The longitudinal survey of post-docs examines the extent to which negotiation skill training included in the Workshops for Future Women Faculty enhances women STEM faculty's self-efficacy for negotiation. Institutional Review Board (IRB) approval has been attained and we are currently designing the survey.

### **F. Quasi-experimental study of administrators' selection & promotion decisions**

Pre-test materials for the search committee training are being developed, with the goal of submitting a revised proposal to IRB in January and launching pre-testing later in the spring semester. Training is planned for August of 2011. The search committee training experiment will empirically evaluate implicit and explicit biases and attitudes toward women candidates. Using quasi-experimental research designs, we will evaluate trainees pre and post training. We will also compare the attitudes and biases of people who attend training with those who do not.

### **Dissemination**

Mindy Bergman plans to write an article for *The Industrial and Organizational Psychologist* in 2011 which will probably be published in 2012. Additional papers will be submitted to the Society of Industrial and Organizational Psychology and Academy of Management Conferences. We are also exploring the possibility of one or two of our graduate students attending the American Psychological Association's Psychologically Healthy Workplace conference in Chicago in April of 2011.