



**NSF ADVANCE  
INSTITUTIONAL TRANSFORMATION  
FOR FACULTY DIVERSITY**

**Year End Report  
September 1, 2004 through August 31, 2005**

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## Table of Contents

Participants .....	3
Project Participants .....	6
Partner Organizations .....	6
Other Collaborators .....	7
Advisory Board Members .....	7
Institutional Action Board .....	7
Subcommittees .....	8
Other Specific People Not Listed .....	8
Activities and Findings .....	9
Research and Educational Activities .....	9
Policy and Recruitment .....	9
Faculty Development .....	11
Collaborative Leadership .....	12
Evaluation .....	14
Findings .....	16
Policy and Recruitment .....	16
Faculty Development .....	17
Collaborative Leadership .....	19
Evaluation .....	23
Training and Development .....	31
ADVANCE Sponsored Training .....	31
Awareness .....	32
Training and Development Sessions Attended by ADVANCE Team .....	33
Outreach Activities .....	33
Publications .....	34
Journal Publications .....	34
Other Specific Products .....	36
Internet Dissemination .....	38
Contributions .....	38
Contributions within Discipline .....	38
Contributions to Other Disciplines .....	39
Contributions to Education and Human Resources .....	39
Contributions to Resources for Science and Technology .....	40

## I. PARTICIPANTS

### A. PROJECT PARTICIPANTS

**Posey J Evelyn** : Principal Investigator

**Has worked for more than 160 hours** : Yes

**Contribution to project** : Evelyn Posey is responsible for providing the leadership, education, incentives, and plans to ensure successful implementation of this initiative. The ADVANCE Coordinator and Evaluator report directly to her. Dr. Posey chairs the internal Institutional Action Board and the external Advisory Board. Dr. Posey's support, 10% of her 100% salary for 12 months, comes from the university cost sharing portion of the grant.

**Anthony Y Elizabeth** : CoPrincipal Investigator

**Has worked for more than 160 hours** : Yes

**Contribution to project** : Elizabeth Anthony leads the Policy and Recruitment component. Her responsibilities are to develop work-life policies, support recruitment efforts by interacting closely with search committees and the EO/AA officer, and provide research support to female faculty and/or faculty involved in gender research via open competition Graduate Research Assistantships (GRA). Dr. Anthony's support, 33.3% of her salary 4.5 months, comes from the university cost sharing portion of the grant, and 1 summer month salary from the 'Salaries and Wages' portion of the NSF grant budget.

**Gates Q Ann** : CoPrincipal Investigator

**Has worked for more than 160 hours** : Yes

**Contribution to project** : Ann Gates co-leads the Collaborative Leadership component with Patricia Witherspoon. The overarching objective of the Collaborative Leadership component is to facilitate the creation and sustenance of a culture and climate conducive to recruiting, retaining, and promoting diverse faculty at UTEP. Dr. Gate's support, 33.3% of her salary for 4.5 months, comes from the university cost sharing portion of the grant, and 1 summer month salary from the 'Salaries and Wages' portion of the NSF grant budget.

**Reimers Christine** : CoPrincipal Investigator

**Has worked for more than 160 hours** : Yes

**Contribution to project** : Christine Reimers leads the Faculty Development component which is designed to increase retention and promotion of a diverse, highly qualified faculty body by acculturating new faculty into the academe and working with them closely as they prepare themselves for career success. Originally, Dr. Reimer's support, 1.5 summer month salary, was to come from the 'Salaries and Wages' portion of the NSF grant budget. Instead, her pay is being supported at 100% by the university; therefore, rather than charging it to the grant, it will be offered as a cost-share/matching. Her effort/contribution to the grant has not changed.

**Witherspoon Patricia** : CoPrincipal Investigator

**Has worked for more than 160 hours** : Yes

**Contribution to project** : Patricia Witherspoon co-leads the Collaborative Leadership component with Ann Gates. The objectives of the Collaborative Leadership component

are described above (see Ann Q. Gates). Dr. Witherspoon's support, 5% of her 100% salary for 12 months, comes from the university cost sharing portion of the grant

**Romero Manuela** : Senior personnel

**Has worked for more than 160 hours** : Yes

**Contribution to project** : Manuela Romero leads all evaluation efforts for each component of the grant and for overall grant activities. She works closely with the investigators in designing and implementing evaluation methods. She designs research studies, creates and manages databases and completes analysis for studies to achieve effective program assessment. Dr. Romero's support, 100% of her salary for 12 months, comes from the 'Salaries and Wages' portion of the NSF grant budget.

**Andronicos Kelly** : Senior personnel

**Has worked for more than 160 hours** : Yes

**Contribution to project** : Kelly Andronicos works closely with the investigators to create, implement, and document the grant activities. She facilitates communication between the investigators and department chairs and faculty to inform them of the progress of the grant and opportunities provided by the grant. She is responsible for the daily operations and management of the ADVANCE office. Ms. Andronicos's support, 100% of her salary for 12 months, comes from the 'Salaries and Wages' portion of the NSF grant budget.

**Baker G Susan** : Senior personnel

**Has worked for more than 160 hours** : Yes

**Contribution to project** : Susan Gonzalez Baker assumed responsibility for data collection and analysis corresponding to the NSF 12 Quantitative Indicators of Activity and Progress. She worked with the investigators and with the staff of UTEP administrative data collection units to secure preliminary estimates for the indicators and to develop a strategy for consistent data collection methodologies for future grant years. She is responsible for working with the investigators to implement an evaluation component for each of the substantive grant activities in the remaining grant years that will serve to diagnose areas for revision, assist in the identification of 'best practices' associated with each component, and to document institutional changes attributable to the grant's initiatives. Dr. Baker's support, 100% of her salary for 12 months, came from the 'Salaries and Wages' portion of the NSF grant budget. Dr. Baker was appointed as the Program Evaluator in June of 2005.

**Lister A Lynda** : Graduate student

**Has worked for more than 160 hours** : Yes

**Contribution to project** : Ann Lister, Department of Communication, aided in the acquisition of data from the Center for Institutional Evaluation Research and Planning (CIERP) and conducted literature reviews. Ms. Lister's support, 100% of her half-time salary for 6 months, came from the 'Students and Wages' portion of the NSF grant budget.

**Torres R Roberto** : Graduate student

**Has worked for more than 160 hours** : Yes

**Contribution to project** : Roberto Torres, from the Department of Computer Science, assisted in the evaluation component of the grant. His primary responsibilities were to

prepare data files for analysis. Mr. Torres's support, 100% of his half-time salary for 12 months, came from the 'Students and Wages' portion of the NSF grant budget.

**Ochoa Yolanda** : Graduate student

**Has worked for more than 160 hours** : Yes

**Contribution to project** : Yolanda Ochoa, Department of English, assisted Evelyn Posey, Professor of English and Principal Investigator, with research related to the ADVANCE grant. Ms. Ochoa's support, 100% of her half-time salary for 3 months, came from the 'Students and Wages' portion of the NSF grant budget.

**Alferez D Joana** : Undergraduate student

**Has worked for more than 160 hours** : Yes

**Contribution to project** : Joana D. Alferez, Department of Biology, assisted with general office duties including data entry and event organization and management. Ms. Alferez's support, 100% of her half-time salary for 9 months, came from the 'Students and Wages' portion of the NSF grant budget.

**Mendez-Villaverde Elvira** : Undergraduate student

**Has worked for more than 160 hours** : Yes

**Contribution to project** : Elvira Mendez-Villaverde, Department of Mechanical and Industrial Engineering, served as the student assistant for the Faculty Mentoring Program for Women and the IMPACT Seminar. Ms. Mendez-Villaverde's support, 100% of her half-time salary for 4 months, came from the 'Students and Wages' portion of the NSF grant budget.

**Elias Nichole** : Undergraduate student

**Has worked for more than 160 hours** : Yes

**Contribution to project** : Nichole Elias, Department of Political Science, served as the student assistant for the Faculty Mentoring Program for Women and the IMPACT Seminar. Ms. Elias' support, 100% of her half-time salary for 12 months, came from the 'Students and Wages' portion of the NSF grant budget.

**Cortez Raquel** : Technician, programmer

**Has worked for more than 160 hours** : No

**Contribution to project** : Raquel Cortez was responsible for creating data files for the evaluation component of the grant. Ms. Cortez's support, 10% of her salary for 4 months, came from the 'Salaries and Wages' portion of the NSF grant budget.

**Suskacevic Dejan** : Technician, programmer

**Has worked for more than 160 hours** : Yes

**Contribution to project** : Dejan Suskacevic was responsible for creating data files for the evaluation component of the grant. Mr. Suskacevic's support, 10% of his salary for 9 months, came from the 'Salaries and Wages' portion of the NSF grant budget.

**DeSantiago E Celia** : Administrative Assistant

**Has worked for more than 160 hours** : Yes

**Contribution to project** : Celia E. DeSantiago provides administrative support to the Program Coordinator and Program Evaluator including entering data, arranging travel, processing purchase requisitions, managing records, and maintaining the financial

records database. Ms. DeSantiago's support, 100% of her salary for 12 months, comes from the 'Salaries and Wages' portion of the NSF grant budget.

**Payne Mary** : Research Experience for Undergraduates

**Has worked for more than 160 hours** : Yes

**Contribution to project** : Mary Payne, Computer Science, conducted a literature review on mentoring, tenure and promotion, third-year reviews, time management, and recruitment and retention. In addition, she completed the Diversity Inventory that gathered information concerning other initiatives, organizations, programs, and centers on campus with goals that align with the ADVANCE program. Ms. Payne's support, 100% of her half-time salary for 4.5 months, came from the 'Salaries and Wages' portion of the NSF grant budget.

## B. PARTNER ORGANIZATIONS

New Mexico State University: Financial Support; Collaborative Research

UTEP and NMSU are working together on dual career couple recruitment and are collaborating (including sharing financial responsibility) on the production of a brochure to promote this initiative.

UTEP co-sponsored guest speaker Deirdre McCloskey who presented the following: 'The Bankruptcy of Statistical Significance and Other Measures of Fit as a Measure of Importance, Economical Writing, and A Novice Woman in Academic Life: Being a Woman and a Professor.'

UTEP and NMSU are working together on dual career couple recruitment and collaborated (including sharing financial responsibility) on the production of a brochure to promote this initiative. Co-PI Dr. Gates is also part of a NMSU grant proposal 'Effective Strategies to Diversify Academic STEM.'

University of Maryland Baltimore County: Financial Support; Collaborative Research; Personnel Exchanges UTEP sponsored one junior female faculty member from the Department of Electrical and Computer Engineering and one junior female faculty member from the Department of Chemistry and her senior level female graduate student to attend the Faculty Horizons Workshop.

University of Michigan: Financial Support; Collaborative Research Contributing chapter on mentoring entitled 'A Faculty Mentoring Program for Women: Building Collective Responsibility for Developing a Highly Qualified Faculty' for the book Learning from ADVANCE.

University of Washington: Financial Support; Collaborative Research UTEP sponsored ADVANCE department chairs from Civil Engineering, Industrial Engineering, and Psychology to attend the National University of Washington ADVANCE Summer Leadership Workshop.

Virginia Polytechnic Institute and State University: Collaborative Research; Personnel Exchanges UTEP ADVANCE PI, Evelyn Posey, was interviewed by Ellen Plummer as part of the Virginia Tech and Michigan study to determine the successes and challenges of the NSF ADVANCE institutional transformation efforts.

Co-sponsored Ann Gates and Roberto Osegueda, College of Engineering, to attend the ADVANCE Engineering Deans meeting.

## C. OTHER COLLABORATORS

### 1. Advisory Board Members

The Advisory Board is responsible for continuous refinement of the UTEP NSF ADVANCE initiative provides innovative ideas, monitors progress, and, at the conclusion of the grant, will assess the success of our initiative. The seven members of the board are representative academic, business, and scientific leaders who are recognized nationally for their work in organizational transformation and commitment to diversity.

UTEP ADVANCE conducted its second Advisory Board Site Visit April 29, 2005. *Committee Chair* - Karan Watson, PhD, PE, Dean of Faculties and Associate Provost, Texas A&M University

The Advisory Board members:

- Committee Chair - Karan Watson, PhD, PE, Dean of Faculties and Associate Provost, Texas A&M University
- Myrna Deckert, Consultant
- Lisa Frehill, PhD, Associate Professor, Department of Sociology and Anthropology, New Mexico State University
- Frances E. Kendall, PhD, Consultant
- Emir José Macari, PhD, Dean, College of Engineering, University of Texas at Brownsville
- James E. Murphy, Consultant
- Orlando Taylor, PhD, Vice Provost for Research and Dean of the Graduate School, Howard University

### 2. Institutional Action Board

The Action Board is responsible for continuous refinement of the initiative through initiating policy change, defining strategies for change, guiding future grant initiatives, and developing a plan for sustainability. In addition to the grant investigators and program evaluator, the board is comprised of the deans of Business, Engineering, Liberal Arts, and Science; the campus EO/AA officer; chairs of selected ADVANCE departments, and other faculty leaders.

UTEP ADVANCE conducted its fall Institutional Action Board Meeting October 27, 2004 and its spring meeting April 13, 2005.

The Action Board Members:

- Barry Benedict, Dean, College of Engineering
- Michael Eastman, Interim Dean, College of Science
- Gary Mann, Interim Dean, College of Business
- Howard Daudistel, Dean, College of Liberal Arts
- John De Castro, Chair, Psychology
- Diane Doser, Chair, Geology
- Carlos Ferregut, Chair, Civil Engineering
- Joe Heyman, Chair, Sociology and Anthropology
- Janice Joplin, Chair, Marketing and Management
- Roy Mathew, Director, CIERP
- Kate Miller, Associate Dean, College of Science
- Patricia Nava, Associate Professor, Electrical and Computer Engineering
- Deirdre Rommelmeyer, Coordinator, Equal Opportunity/Affirmative Action
- Martha Smithey, Associate Professor, Sociology and Anthropology
- Godwin Udo, Chair, Information and Decision Sciences

### 3. Subcommittees

The following faculty served on the Graduate Research Assistant Awards Proposal Review Committee.

- Elizabeth Anthony, Co-PI, Geology
- Diane Doser, Associate Professor, Geology
- Benjamin Flores, Chair, Electrical and Computer Engineering
- John Hadjimarcou, Associate Professor, Marketing and Management
- Cheryl Howard, Associate Professor, Sociology and Anthropology
- Elizabeth Walsh, Associate Professor, Biology

### 4. Other Specific People Not Listed:

Roy Mathew, Director of the Center for Institutional Evaluation, Research and Planning facilitated the acquisition of data used in this report.

Karina Arcaute, Department of Mechanical and Industrial Engineering, assists Ryan Wicker, Associate Professor of Mechanical and Industrial Engineering, with research.

Vanessa Espejel-Garcia, Department of Geological Sciences, assists Elizabeth Anthony, Professor of Geological Sciences and Co-PI, with research.

Diana French, Department of Geological Sciences, assists Elizabeth Anthony with research.

Aaron Kelts, Department of Geological Sciences, assists Elizabeth Anthony with research.

Angelica Olmos, Department of Communication, assists Pat Witherspoon, Professor of Communication and co-PI, with research related to the ADVANCE grant.

Claudia Rojas, Digital Media Center, provides web site design and maintenance.



## II. ACTIVITIES AND FINDINGS

### A. RESEARCH AND EDUCATION ACTIVITIES

The University of Texas at El Paso (UTEP) NSF ADVANCE Institutional Transformation for Faculty Diversity initiative remains dedicated to the recruitment, retention, and advancement of women in academic science and engineering disciplines.

During year two of the initiative ADVANCE further refined the UTEP goals. By the end of the grant period, the ADVANCE team would like to ensure that the UTEP science (including the social and behavioral sciences) and engineering departments 1) value a talented, diverse faculty and recognize that a collegial, productive environment can be created for anyone—and everyone and 2) understand that organizational commitment and communication are vital to the realization of this mission.

ADVANCE continues to work toward these goals through the four ADVANCE program components:

- a **policy and recruitment** process that proposes faculty support and retention policies, supports recruitment efforts, and provides research support
- a **faculty development** process that helps faculty define a holistic and integrated academic career
- a **collaborative leadership** process that works at the departmental level to identify and support innovative leaders, share best practices, and facilitate improvement of departmental climates
- an **evaluation** process that includes both formative and summative self-assessments and review by an Institutional Action Board and an external Advisory Board

This initiative benefits all UTEP departments and colleges as the university develops processes through which we identify needs, create strategies, and implement plans to improve the quality of the faculty. In other words, the lens that is focused on women in the grant-funded departments helps us to learn what works and does not work for the faculty as a whole. What we learn is disseminated through Web sites, brochures, submission to journals and other publications, presentations at national conferences, and networking with ADVANCE institutions and other national networks.

Following is a summary description of year two Research and Education activities for each of the four components.

#### 1. **Policy and Recruitment**

Policy and Recruitment continues its focus in two areas: 1) recruitment and 2) retention of women faculty.

##### *Recruitment*

As part of recruitment, members of the ADVANCE team met with over 95% of the female and dual career candidates (39 first visits and 6 dual career partners for a total 45

contacts) who visited campus to interview in the ADVANCE departments. (See Appendix A: Female Candidate Interviews 2004-05 for a complete list.) We made substantial progress in tracking the career choices of these candidates: data include number and percent of females and minorities as finalists and the outcome when they were identified as finalists. We track offers tendered, acceptance/declined, and reasons given for declined offers. This data set allows us to refine the UTEP recruitment process and contribute to an understanding of the career paths of female academic candidates. Active coordination between UTEP's EO/AA officer and the ADVANCE office made these activities possible, with all of the ADVANCE team participating in the candidate interviews. Findings from the recruitment phase are described in the next section.

Two of the ADVANCE Co-PI's were specifically involved in the recruitment efforts for STEM faculty. Dr. Gates chaired the Search Management Committee for the College of Engineering, a critical component in this recruitment cycle. Her activities and findings as chair are discussed under the Collaborative Leadership section. Dr. Anthony led the overall ADVANCE recruitment effort, and she also served as chair for a search in her department, Geological Sciences. Her activities as search chair included meeting with the EO/AA officer for training, conducting a database search for female and minority PhD graduates, identifying people from that search who planned to attend the major fall geological conferences, formal recruitment of candidates at both Geological Society of America (GSA) and American Geophysical Union (AGU) meetings, candidate screening via telephonic interviews, and organizing campus visits for four finalists. Through these activities, she tracked the number of female, dual career, and minority candidates in the applicant pool. Drs. Anthony and Gates service as chairs of these recruitment committees has provided the ADVANCE team invaluable insight into the current roadblocks to diverse hiring in science and engineering. Dr. Anthony also conducted a session on diversity for the annual search chair orientation and training workshop hosted by the office of the Vice President for Academic Affairs (VPAA). This activity is described more fully in the Training and Development section.

### *Retention*

ADVANCE also conducted its second competition for Graduate Research Assistantship (GRA) awards. This effort included coordinating mailings to eligible faculty, constituting a committee to rank proposals, and coordinating the distribution of funds. Findings related to this activity are discussed in the next section.

Throughout the year, the ADVANCE team actively worked on a number of policy initiatives that affect recruitment and retention:

- Drs. Posey and Witherspoon served on the College of Liberal Arts committee that developed a 3<sup>rd</sup> year review policy. They also served on the Faculty Advisory Committee for a new Leadership Development Program to be hosted by the VPAA's office.
- Dr. Anthony served on the College of Science Promotion and Tenure Committee, the group that conducts 3<sup>rd</sup> year review for the College of Science.
- Dr. Witherspoon chaired the College of Liberal Arts Promotion and Tenure Committee and chaired a university committee to review the role of the department chair.

- Dr. Gates served on the Provost Search Committee, chaired the Engineering Search Management Committee, and was appointed Department Head for the Department of Computer Science.
- Drs. Posey and Witherspoon served as chairs in their own departments, English and Communication respectively. Dr. Reimers served as Director of the Center for Effective Teaching and Learning (CETaL).
- Dr. Reimers served on the Centennial Commission Task Force on Campus Climate, and Dr. Witherspoon served on the Centennial Commission Committee on UTEP's Image.

## 2. Faculty Development

Faculty Development continues its focus in two areas: 1) the Faculty Mentoring Program for Women and 2) the IMPACT Seminar Series.

### *The Faculty Mentoring Program for Women (FMPW)*

The FMPW, which now includes 32 active mentees, invites all new tenure-track women faculty (ADVANCE and non-ADVANCE departments) to participate in the program. New this year was a group mentoring model, including informal monthly group luncheons where the entire mentoring group assembled to discuss matters of interest. Ideally, the mentee team consisted of four to five new women faculty from the same college and even from the same department. In some cases, mentees were grouped across colleges with similar disciplines. These mentee groups were then matched with two mentors who were from the respective college(s), but not from any of the departments represented within the group. In addition, monthly brown bag lunches provided an efficient venue to deliver information on topics such as how to negotiate the challenges of maternity and progress toward tenure, definitions of leadership, and development of teaching portfolios. September and October were reserved for formal sessions that covered essential program information. Even though this team mentoring approach was new this past academic year, the program's goals remain the same:

- *Access:* Increase women faculty's effectiveness and visibility through improved access to information and resources that support academic activities and to networking opportunities for new ventures and relationships.
- *Balancing Work Loads:* Facilitate the attainment of individual strategic career objectives by providing an environment where women faculty can discuss the conflicting demands of work and family and prioritizing the diverse demands of teaching, research and service.
- *Acculturation:* Orient new women faculty to UTEP, including helping them avoid mere trial and error approaches to managing relationships with students, faculty, staff and administrators.

### *IMPACT Seminar Series*

IMPACT is designed to increase the effectiveness of participating faculty by developing new ways of integrating teaching, research, and service. Each cohort meets for one week in May for two consecutive years. A major component of this two-part seminar is the development of leadership skills. During the 2004-05 IMPACT seminars, IMPACT Fellows discussed daily readings on leadership in the academe. The seminar also

featured an in-depth session of 1½ - 3 hours on definitions of leadership, leadership styles, and effective communication strategies presented by an invited expert on leadership. ADVANCE IMPACT Fellows also met regularly with Dr. Reimers throughout the academic year to work on specific career projects.

What these fellows learned about leadership development in IMPACT was shared with the entire campus through invitation to workshops presented by leadership experts and dissemination of IMPACT best practices. Further discussion and a list of the participants for the first IMPACT Seminar is provided in the next section.

### **3. Collaborative Leadership**

Collaborative Leadership continues its focus in the following areas: 1) completion of analysis of a faculty worklife survey and development of a technical report for dissemination (described under the Evaluation section below); 2) interviews with department chairs; 3) group discussions with department chairs; 4) completion of a diversity inventory; 5) initial planning of a search management strategy; and 6) continuation of research into best practices that facilitate a culture and climate conducive to recruiting, retaining, and promoting women faculty.

The Collaborative Leadership component continues to study how the climate and culture at departmental, college, and university-wide levels affect women faculty and to develop processes to facilitate the recruitment, retention, and promotion of women in the Colleges of Science and Engineering and the social science departments in the Colleges of Liberal Arts and Business.

Specifically, Collaborative Leadership continues to 1) assess aspects of UTEP's culture affecting faculty recruitment, retention, and promotion through interviews, focus groups, and surveys, as well as discussions with university administrators on the Institutional Action Board; and 2) work with the 18 ADVANCE departments to develop action plans that facilitate recruitment, retention, and promotion of women faculty.

The original plan was modified at the beginning of the 2004-05 academic year because the work of the Collaborative Leadership component was influenced by several major internal events and issues, including:

- Southern Association of Colleges and Schools (SAC's) accreditation preparation
- the search for a new Executive Vice President and Provost
- initial efforts to reorganize the College of Engineering
- activation of several committees and task forces to develop institutional goals designed to be met by the university's centennial in 2014
- ongoing campus discussions, both formal and informal, prompted by a recommendation from a high-level, external advisory group that UTEP should become a Doctoral/Research-Intensive university

With changes in the university's direction, department chairs and some members of the general faculty began to experience increased workload. As a result, the ADVANCE team decided not to move directly into development of departmental action plans, asking more from individuals already burdened with administrative tasks in addition to teaching, research, and service. Instead, the Co-PI's decided to develop increased feedback

channels and to get more input from department chairs and other faculty affected by the institution's changing climate and culture.

By the end of spring 2005, the team had begun to discuss the development of college-wide, rather than departmental, plans of action, based in part on the pressures on departments created by major institutional change, on results of research activities conducted during 2004-05, and on proposed reorganizations in more than one college. The next two years will determine if a university-wide plan for recruitment, retention, and promotion of women faculty, especially minority women faculty, may be appropriate.

#### *Interviews with Department Chairs*

Four department chairs from the Colleges of Business, Engineering, Liberal Arts, and Science were interviewed by Drs. Gates and Witherspoon to identify existing efforts and initiatives within each department, document best practices, and identify issues that affect the recruitment, retention, and promotion of women faculty. (Four chairs were also interviewed during 2003-04, and others representing the 18 departments will be interviewed during the remaining years of the initiative.) The chairs are interviewed in stages to obtain a sense of how departmental initiatives, best practices, and issues emerge in the 18 departments across the life of the initiative.

#### *“Chair Chats”*

Because UTEP was undergoing a variety of changes in the fall of 2004 and chairs and faculty were burdened with considerable work (as described earlier in the report), Drs. Gates and Witherspoon saw the need for more feedback channels related to campus morale and other climate and cultural issues. They hosted two “chair chats” allowing chairs (12 of the 18 departments were represented) to attend and talk freely; the Co-PIs’ took notes, with no identification of source, on two major questions:

- 1) What about the climate and culture of UTEP affects, positively or negatively, the recruitment, retention and advancement of faculty?
- 2) What about the climate and culture of UTEP affects, positively or negatively, the recruitment, retention, and advancement of women faculty?

The results of these discussions are described in the next section.

#### *Diversity Inventory*

The diversity inventory, designed to report on various campus efforts to promote diversity, was completed in 2004-05. In December 2004, ADVANCE hosted a meeting that included a variety of programs on campus whose goals align with ADVANCE: programs such as African-American Studies, Center for Inter-American and Border Studies, Chicano Studies, and Woman Studies. The purpose of the meeting was to promote understanding of UTEP's ADVANCE program and to identify possible areas of collaboration. In addition, the meeting was designed to gain insight from the attendees with respect to concerns of female minority faculty who are entering the university and community, recommendations for best practices, and roles that their programs can play in helping the university network with female minority faculty and doctoral candidates.

### *Search Management Committee*

Dr. Gates chaired the Search Management Committee for the College of Engineering, and she worked with faculty across the college to begin identifying effective practices for recruiting women and others from underrepresented groups. The purpose of this committee is to ensure that various interest groups, i.e. faculty in academic programs and faculty and other researchers associated with research programs, have input into the search selection and that the core values of the university, college, and program are considered in the selection process. In addition, the committee promotes cooperation among academic and research programs. An outcome of this effort is dissemination to the college of best practices, based on the literature, for conducting faculty searches. Although there were a number of problems that surfaced during the new search process, the lessons learned will be discussed and the process refined. Dr. Gates and other members of the leadership team are also part of a New Mexico State grant project, "Effective Strategies to Diversify Academic STEM."

### *Best Practices*

The final research activity undertaken by Collaborative Leadership was the continuation of identification of best practices at other ADVANCE institutions, at institutions represented at conferences attended by UTEP's ADVANCE team, and through ongoing research using a variety of databases. For instance, during summer 2005, Dr. Witherspoon worked with a graduate student to review the literature on the paths that Latinas and other women of color forge to attain a doctoral degree and begin their work as faculty members. Dr. Gates is an active member of the Academic Alliance for the National Center for Women in Information Technology which is developing a repository of research-based best practices.

## **4. Evaluation**

Evaluation continues its focus in three areas: 1) the worklife survey, 2) the NSF 12 ADVANCE indicators, and 3) ongoing formative self-assessment.

### *Worklife Survey*

The "Study of Faculty Worklife at the University of Texas at El Paso" was administered in February 2004 to full-time lecturers and assistant, associate, and full professors. Results of this worklife survey were presented during fall 2004 and spring 2005 at "town hall" meetings and to the ADVANCE Action Board and the UTEP Faculty Senate. In addition, results were disseminated to the following individuals and groups: President, Provost, Vice President for Academic Affairs, Deans, Chairs of the 18 ADVANCE departments, the office of Equal Employment/Affirmative Action, and Women Studies. A summary version was also presented to the external Advisory Board in April.

In an effort to more widely disseminate these findings, Drs. Gates and Romero summarized them in a technical report (Appendix B). All faculty in the 18 departments were notified via e-mail of the availability of this report on the ADVANCE Web site.

### *Ongoing Formative Self-assessment*

The internal Institutional Action Board and the external Advisory Board continued to assist with continuous refinement of the initiative. The Action Board is comprised of the deans of Business, Engineering, Liberal Arts, and Science; the campus EO/AA officer; the grant investigators and program evaluator; chairs of ADVANCE departments; and key opinion leaders. The external Advisory Board is comprised of national leaders in institutional change and diversity. Names and affiliations of board members are listed in the Participants/Collaborators section. In meetings led by PI Dr. Posey, these groups continued their efforts to:

- initiate policy change
- define strategies for change
- guide future grant initiatives
- develop a plan for institutionalization and sustainability
- provide formative assessment

The ADVANCE team met with the Institutional Action Board in the fall and spring semesters to describe activities, share critical issues, and seek guidance. Because ADVANCE would like to see the mission and goals of this initiative become part of the core values of this university, we proposed the creation of a position of a Vice President of Faculties whose responsibilities would include oversight of faculty recruitment, retention, development, and advancement.

The UTEP ADVANCE team also met with the external Advisory Board in April 2005. A summary list of the board's recommendations is provided in the next section. A response to these recommendations will be the focus of an upcoming all-day retreat.

### *NSF 12 Indicators*

Two principal data collection activities took place during the 2004-2005 academic year: 1) a space allocation survey to create basic data for indicator 11, and 2) updating of information on the NSF 12 indicators obtained through the Center for Institutional Evaluation, Research, and Planning (CIERP) and the Office of the Provost.

The space allocation survey was initiated in the fall of 2004, based upon a three-tiered strategy for data collection and verification. First, ADVANCE student assistant Ms. Alferez obtained blueprints for each building in which the 18 ADVANCE departments were housed, along with a standard university-wide "room-type" coding system for space usage. This blueprint system provided an independently verifiable data source for square footage associated with each room in 15 buildings housing either departmental offices or laboratory facilities for ADVANCE faculty. Ms. Alferez created a data file with the baseline blueprint data. Second, Ms. Alferez and student assistant Ms. Elias began a series of physical walkthroughs for each building in the blueprint database. Working with senior administrative staff in each ADVANCE department, the student assistants identified the faculty member assigned to each room in the blueprint database. When space was shared, the student assistants noted all faculty members sharing the space. When she arrived in June, Dr. Baker assembled a master data file merging the blueprint data with information on the departmental affiliation, gender, and rank of all faculty members occupying space as either a faculty office or a non-classroom laboratory.

Preliminary analyses of space differentials by department, faculty rank, and gender were then conducted and are discussed in the next section of this report.

Dr. Baker also met with CIERP and the Office of the Provost staff in order to update information for the additional NSF 12 indicators and to discuss a protocol for consistent data collection in future ADVANCE grant years. Preliminary data from these offices serve as the basis for 2004-05 point-estimates on most of the additional indicators. These analyses are discussed in the next section of this report. However, gaps between institutional data-gathering practices and procedures for the university and the informational needs of the initiative for the evaluation of gender equity issues persist. Therefore, Dr. Baker will coordinate an overhaul of the ADVANCE data-gathering protocol for the NSF 12 in the next year of the initiative, drawing upon lessons learned in years one and two. As issues have arisen, all parties at the university have agreed to cooperate in the creation of a data-gathering action plan that will yield a consistent set of indicators across units and over time.

## **B. FINDINGS**

### **1. Policy and Recruitment**

#### *Recruitment*

In the two years since the beginning of the ADVANCE initiative, substantial effort has been directed to the hiring of female faculty in the 18 departments. Final numbers for the first recruitment year are included as Appendix C: Faculty Search Results 2003-04. Almost half of the hires were female and four dual career placements were made. As of 6/17//2005, with the majority of searches completed for this second recruitment season, 9 of the 27 hires (33%) are female and two dual career placements have been made (Appendix D: Faculty Search Results 2004-05). Significantly, a number of ADVANCE departments who did not place a female in the first year of the initiative have hired a female in this second cycle, indicating that the impact of the initiative is widening. Also, the number of females now in tenure-track positions compares favorably to the total number of female tenure/tenure-track in the 18 departments (16.8%) at the onset of the grant. The challenge is, of course, to ensure that these women have the opportunity to succeed in obtaining tenure and to encourage them to think about leadership positions.

A principal accomplishment of the second recruitment cycle was to streamline the database for interviewees. From the knowledge gained through this effort we can make two preliminary observations: 1) open discussion of dual career placement has brought extremely qualified candidates to UTEP. Many of our brightest young scientists have dual career considerations, and UTEP's facilitating dual career placement serves as a recruiting edge. 2) The majority of females who decline an offer at UTEP are moving into the tenure stream at another institution. The "leak" in the pipeline for females entering academe is not among the women who are being offered positions at UTEP. We plan to implement a follow-up survey for all female candidates – both those extended offers and those who were not the top finalist – to answer the other important question: did those women not offered positions at UTEP, i.e. those who were finalists but not the top picks, place in tenure-track positions at other institutions?



Through offering a session on diversity at the chairs' workshop and serving as chairs of committees for the recruitment process, the ADVANCE team has come to learn first hand the current roadblocks to diverse hiring. These roadblocks range from inadequate training and resources for search chairs to active and passive resistance to qualified female candidates. We will use this knowledge in future recruitment years to fine-tune the search process.

### *Retention*

The GRA competition continues to be a very important part of the ADVANCE initiative. The competition provides direct support of the most important kind: salary funds to students so that students and faculty can move forward in their research agenda to a broad group of researchers (Appendix E: Graduate Research Assistantships Spring 2005). Students and faculty who have benefited from this program, both male and female, have a deep appreciation of the ADVANCE program at UTEP. As we refine the efforts of the ADVANCE initiative over the next year, we will request that more of these funds go toward supporting faculty who are willing to take active roles in recruitment and mentoring activities.

Substantial progress was made on policy implementation during year two of the initiative.

1) Dual career placement is now an open part of the hiring process, and a handbook based on the experiences of the first two years of experience is in development. 2) Three of the four colleges that house ADVANCE departments have formal 3<sup>rd</sup> review policies, and the fourth college is considering such a policy. A handbook that summarizes these policies is in development.

3) Based on experiences of Dr. Reimers and recommendations from President Natalicio and the Advisory Board, the structure for mentoring will be reviewed and revamped, with the colleges taking a more active role in mentoring activities. The initiative at the University of California Irvine and University of Michigan will serve as examples. Family leave policies such as stopping the tenure clock and modified duties remain the sole policy initiative to be formalized.

## **2. Faculty Development**

### *Faculty Mentoring Program for Women (FMPW)*

In an assessment survey, participants in the FMPW say they find support in ways that departments cannot or are not providing. The program offers opportunities for pre-tenure women faculty to ask questions and talk about issues they are uncomfortable discussing with their immediate colleagues. For example, participants mention that being able to meet other pre-tenure women outside their department helps them to discuss and solve problems and to feel less isolated and alone. Mentees have expressed explicit interest in continuing with such discussions over the next years. Mentors express a sense of renewal from having the opportunity to work with junior colleagues.

A pattern for the past several years has been for new women faculty to be very active in the program in their first year of participation, cease participating during their second year, but returning for more discussion and to request opportunities to help orient the first year faculty during their third year on campus. Senior faculty members now approach

FMPW director Dr. Reimers to ask whether they may be mentors. Past participants and chairs regularly alert her to the arrival of new faculty women whom they wish us to invite into the program.

The biggest challenges for FMPW are still 1) finding enough qualified mentors, 2) handling ever larger numbers of participants (due to success at recruiting new women faculty and to the participants' pattern of continuing participation in FMPW events until tenure), and 3) continually refining the mentor and mentee orientations so that relationships are more effective. To address the shrinking pool of mentors, the program adopted a group mentoring model where two mentors serve a group of four to six mentees. In order to keep pace with the increasing numbers of program participants, the ADVANCE team has requested a full time PhD-level position to assist the FMPW director.

### *IMPACT Seminar*

The objective of the IMPACT seminar is for participating faculty to reflect deeply on the connection and balance between their research, teaching, and service activities in order that they may create a more streamlined career that focuses on personal and professional success. A preliminary evaluation of the comments from the first and second year IMPACT participants reveal that the seminar has had far wider impact than initially expected. The following are benefits and trends specifically mentioned by participants:

- *enhanced interdisciplinary collaboration, collegueship:* participants regularly mention the value added of meeting colleagues from other disciplines because such contacts benefit them by providing new information on how the institution works as a whole; offering new perspectives on 'local' problems within departments and colleges; providing confirmation that challenges faced by participants are the kinds of problems all faculty face, no matter what department or college they are in; and presenting new possibilities for collaboration. Participants have begun conversations about collaborations in research and are supporting one another in active writing groups
- *offered a sense of connection to others on campus:* faculty often complain about a feeling of isolation. Spending all their time within departments, faculty rarely come to know people outside their very local environments. Participants mention the positive feeling of "being connected" to the rest of the university by making new acquaintances across disciplines in the IMPACT Seminar
- *introduced ways to identify new leadership roles in department, college, and university:* several of the participants have mentioned that they have changed their self-perception from "follower" and "part of a herd" to "leader" and "facilitator." They regularly comment on how they have learned to take greater responsibility for challenges facing them and have found new solutions through discussions inspired by the IMPACT program
- *explored effective ways to increase productivity through integration of research, teaching, and service:* participants regularly comment that this is the first time that they have taken the time to reflect on the connections between the parts of their careers and that they have begun to focus on the more important aspects of those interconnections, leaving behind projects that did not further their productivity in research, teaching, or service. Participants mention they can better sort through the myriad demands on their time and that they make better decisions on how to spend their time productively

- *provided support in overcoming barriers to success*: participants mention that the IMPACT seminar empowers faculty and provides them with the tools to make positive changes to their mindset, their skill set, their communication skills, their management skills, and their emotional well-being. They mention that they were able to formulate concrete plans for overcoming challenges in research and teaching, that they left monthly meetings armed with suggestions for success, and that this level of support and information reduced their stress as they focused on the most important aspects of their careers

### 3. Collaborative Leadership

#### *Worklife Survey*

Analyses of the worklife survey revealed issues that should be investigated further by the the ADVANCE team and the university's administration. In brief, the results showed that females, Hispanics, and assistant professors are significantly more likely to feel:

- they are isolated in their departments
- they do not have a voice in how resources are allocated
- their department chair does not involve them in the decision-making process
- they are dissatisfied with the way their careers have progressed at UTEP
- they are unsupported in their advancement towards tenure and promotion
- they do not understand the criteria for tenure and promotion
- there is not a strong fit between the way they did/do research, teaching, and service and the way that it was/is evaluated for tenure

#### *Interviews with Department Chairs*

Several issues emerged from these interviews, including but not limited to the following:

- adequacy of faculty salaries affects recruitment of women in several departments, especially in Colleges of Business, Engineering and Science
- another significant issue is whether the chair serves as a leader in hiring diverse faculty, and in being a mentor for such faculty, or facilitating mentoring relationships within his/her department between senior faculty and junior faculty
- top-down decision-making and a perceived lack of shared governance create defensive, rather than supportive climates that may affect retention of faculty in general at UTEP, and women faculty in particular
- the El Paso community has a lack of jobs for individuals who are highly-educated and command high salaries. As a result, some women faculty, as well as men, choose to go to urban institutions where jobs for spouses are more readily available
- criteria for promotion and tenure appear to be changing at UTEP, emphasizing research productivity and grantsmanship more than teaching. Because of these changes, there are still uncertainties within departments and colleges about what it takes to get promoted and to be tenured
- lack of senior women in college leadership affects decisions related to facilitating diversity

- some women faculty have lower salaries but are held to higher performance standards
- more faculty need to see factual information about the lack of women faculty at UTEP to clearly demonstrate the need for ADVANCE initiatives

*“Chair Chats”*

The following comments summarize findings related to the two questions asked in discussions with chairs. (NOTE: Drs. Gates and Witherspoon did not actively participate in the discussions but wrote responses and listened to comments without responding, so as to avoid sharing opinions in this particular format.) As is seen from these comments, not all chairs at UTEP are supportive of initiatives to increase the number of women faculty at UTEP. They equate these initiatives with hiring unqualified people for faculty positions.

1) What about the climate and culture of UTEP affects, positively or negatively, the recruitment, retention, and advancement of faculty? (The following listing is a sampling of responses.)

- poor planning
- administrators, including chairs, with insufficient administrative experience or other qualifications
- unknown rules/processes
- vague promotion criteria
- attempts to conduct interdisciplinary research
- positive and supportive climate
- increasing importance of research
- lack of travel funds
- lack of quality in graduate education
- teaching load too high for a research extensive/intensive university
- salary compression affects retention

2) What about the climate and culture of UTEP affects, positively or negatively, the recruitment, retention, and advancement of women faculty? (The following listing is a sampling of responses.)

- can't compete with other research universities in salaries or start-up funds
- disheartening to have to add women/minorities to a list when some women and minorities are already on that list
- meritocracy is best. Hiring unqualified persons at a higher salary than others equals a negative climate
- women get tenure with the weakest record
- we support a three-year merit evaluation
- in some academic areas, there are few women PhDs and therefore the pool of women for a faculty position may be very small

*Diversity Inventory*

The following comments summarize findings related to the discussions held with directors of other campus programs with an emphasis on diversity:

- Centers find it difficult to leverage influence, either singly or as a group, because they lack core faculty. Center faculty are shared with academic departments who make decisions regarding hiring, promoting, and budgeting.
- More collaboration/communication is needed between centers and departments to hire faculty and manage heavy faculty workloads.
- A university-wide holistic approach is needed to bridge center/department objectives. Centers/departments often operate in isolation and struggle with both organizational and interdisciplinary concepts.

#### *Search Management Committee*

As chair of the Search Management Committee for the College of Engineering, Dr. Gates introduced best and promising practices (from Dr. Jo Ann Moody, Virginia Tech's Computer Science Search Handbook and Greenwood and Associates consulting firm) into the search management process in the College of Engineering. The process and activities are being refined based on input from committee members and college leaders. The general flow of information in the search process is given in Fig. 1. In this figure, squares represent sources or destinations of information, ovals represent process activities, open rectangles represent data stores, and arcs represent flow of information.

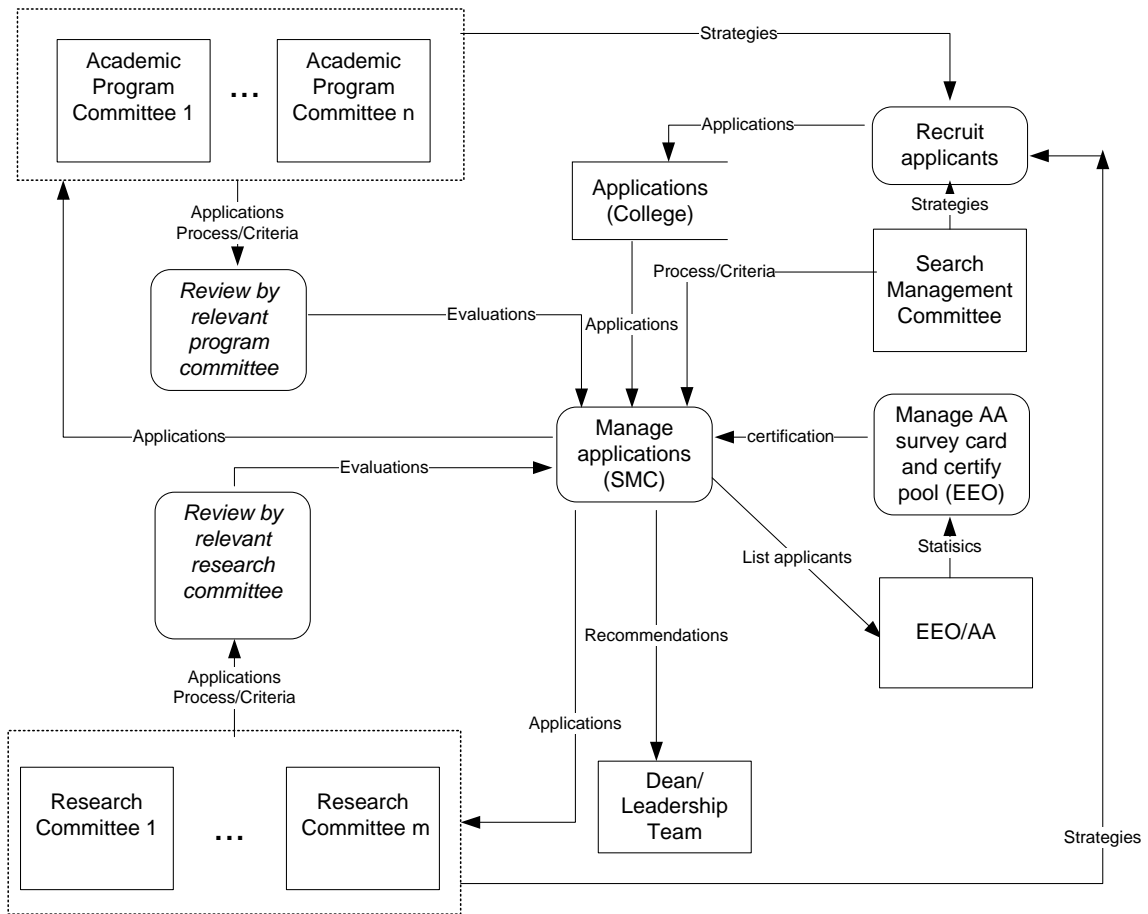


Fig. 1: Flow of communication in College of Engineering search process.

### Best Practices

Best practices identified through the chair interviews include, but are not limited to, the following. In several instances, these practices are working at other institutions and are still goals, not realities, at UTEP.

- The tenure clock should be “slowed” for family issues, awarding half-time appointments that allow for parenting time.
- Research release time should be made available at the departmental level, i.e. paid research leave.
- Recruiting at national conferences is a successful best practice as is attending national workshops on diversity issues.
- Placing departmental search ads in Web publications and in the main newsletter for women in this particular discipline have been helpful toward recruiting women.
- Third year reviews are helpful in retaining women faculty, by giving them early feedback relating to their work toward tenure.

- Active recruitment of females and others from underrepresented groups at the PhD level is a practice promoted by the Department of Geological Sciences at UTEP. Rochester's Institute of Technology's Future Faculty Career Exploration program provides an example of institutionalization of such a practice.
- Strategic planning at the department level is facilitated by a qualified faculty member from the College of Business; this practice has been introduced in the departments of Civil, Mechanical, and Industrial Engineering at UTEP. The ADVANCE program is asking that the practice include development of strategies that address recruitment, retention, and advancement of females.

#### 4. Evaluation

##### *Worklife Survey*

During the fall semester, Dr. Romero further analyzed the results of the worklife survey. All analyses were disaggregated by gender, ethnicity (White, Hispanic, Other), position (professor, associate, assistant and lecturer) and departmental discipline [departments were grouped by whether they were in a STEM field (science, technology, engineering, or mathematics) or in a social and behavioral sciences field]. The response rate was as follows:

Please see Appendix B for an in-depth discussion of survey results.

##### *Ongoing Formative Self-assessment*

Meetings with the internal Institutional Action Board and the external Advisory Board were invaluable in helping shape the future of the initiative. For the fall meeting of the Institutional Action Board, the ADVANCE team spent the majority of the meeting describing the activities and findings of the first year of the initiative. For the spring meeting, we resolved to talk less and listen more. Co-PI Pat Witherspoon led the group in a discussion of three areas. Following is a sampling of the responses:

How to show faculty they are valued by the university, as part of improving UTEP's institutional climate:

- The nature of academia is to be isolationists, not conducive to building community. Must find ways to celebrate and encourage interdisciplinary research.
- Expectations need clarification.
- Share successful tenure packets with junior faculty.
- Include interdisciplinary work, mentoring, and collegiality into evaluation process.
- Provide rapid rewards and responsiveness for those who excel.
- Communication is key. Deans should meet with individual faculty periodically
- Build on strength and talents of individuals; focus less on weaknesses.
- Chair training and criterion for evaluating chairs would be helpful. Leadership series is in development.
- Good leaders train people to take their place. Delegating is important chair behavior.

How to encourage/establish mentoring within UTEP's colleges:

- Mentoring can be a by-product of a good climate. Otherwise, mentoring will not be institutionalized.
- Mentoring requires relationships to develop naturally, not forced.
- "Culture of helpfulness" is more effective than artificial hierarchies arising out of mentee/mentor pairs.
- Hybrid mentoring programs should be developed that include informal/formal mechanisms.

How to persuade departments to seek out female candidates for faculty positions when this has not been a practice in the past

- Some faculty feel that dual career hiring is being forced by upper administration.
- Put recruitment data in context.
- Deans must insist on women/minorities in pool.
- Recruitment of women cannot be passive.
- Seek out candidates with ties to El Paso area. Connect with community leaders with opportunities.
- Post-doc positions provide opportunity to grow and promote new faculty.
- Other schools know their budgets and see that dual career is in addition to, not instead of future hires.

The ADVANCE team met with the external Advisory Board in April 2005. At the debriefing and in a follow-up letter to the President and the Provost, the board made the following recommendations:

- realign funds to support only sustainable activities
- conduct an in-depth analysis of raw data to better understand underlying themes
- expand the faculty mentoring program for women to all newly hired faculty
- institutionalize dual career couple hiring
- work to better understand what works for women of color
- enlist the local community in recruitment of new faculty
- develop a leadership program for administrators
- create a group to seek extramural funds to continue the work of ADVANCE

The ADVANCE team will soon meet to discuss ways to implement these recommendations.

### *NSF 12 Indicators*

In January 2005, the ADVANCE: IT Working Group issued a "toolkit" document providing guidelines for the reporting of information from each ADVANCE site on the NSF 12 Quantitative Indicators of Activity and Progress. The toolkit assembles these indicators into four overarching thematic questions.



- 1) What is the distribution of science and engineering faculty by gender, rank and department?
- 2) What are the outcomes of institutional processes of recruitment and advancement for men and women?
- 3) What is the gender distribution of women of science and engineering faculty in leadership positions in the institution?
- 4) What is the allocation of resources for science and engineering faculty by gender at the institution?

Several measures in the NSF 12 can be employed to address each of these questions. However, several challenges continue to face the ADVANCE program evaluation project in collecting data on each of the indicators, particularly retrospective data, with sufficient consistency to make valid comparisons across time. Therefore, this section reports information on the 2004-05 academic year for 10 of the 12 indicators, organized around the four thematic questions and, where applicable, reviews the major data challenges faced and solution strategies under development for the UTEP ADVANCE program evaluation project in the coming years. The tables corresponding to the NSF 12 data are found in Appendix F of this report.

*Distribution of Science and Engineering Faculty by Gender, Rank, and Department (NSF 12 Indicators 1, 2, and 6)*

In June 2005, the UTEP Center for Institutional Evaluation, Research and Planning (CIERP) provided data to the ADVANCE program regarding faculty distribution by gender, rank and department. These data are used to address NSF 12 Indicators focusing on compositional questions regarding the science and engineering faculty.

As a global measure of women's presence on the UTEP faculty, Table 1A reports the gender distribution for the university as a whole and for the 18 ADVANCE departments. With the exception of faculty in administrative positions, all faculty in tenured, tenure-track, and non-tenure track arrangements are included. Women represent 39.4 percent of the UTEP faculty and 24.0 percent of the faculty in ADVANCE departments.

Considerable variation exists, however, in the distribution of women faculty across the 18 ADVANCE departments. Table 1B reports the gender distribution of faculty by department. Women are overrepresented on the faculty of Social and Behavioral Science (SBS) departments, relative to the share of all ADVANCE faculty housed in these departments. For instance, SBS accounts for 29.4 percent of total ADVANCE faculty, but it accounts for 46 percent of the women faculty in ADVANCE departments.

At the departmental level, Table 1B reports the highest proportion of women faculty in Communications (48.1 percent), followed closely by Languages and Linguistics (47.5 percent). These two departments represent the only ADVANCE departments in which the percent female exceeds that of the female share for the university faculty as a whole. Outside SBS, the department of Computer Science displays the highest proportion of female faculty (36.8 percent). Table 1B also reports an absence of women on the faculty in three of the five ADVANCE departments in the College of Engineering. Civil Engineering, Mechanical and Industrial Engineering, and Metallurgical and Materials Engineering had no women faculty in their departments during this reporting period. While roughly one in five STEM faculty members is a woman (19.3 percent), this

presence is driven substantially by faculty housed in departments within the College of Science rather than the College of Engineering. College of Science departments range from a low of 15.8 percent female in Physics to 28.0 percent in Biological Science. Women represent very modest shares of the Business faculty in Economics and Finance (9.5 percent) and Information and Decision Sciences (5 percent), with a substantially greater showing (28.6 percent) in the Marketing and Management Department.

The first two years of the ADVANCE initiative at UTEP have focused considerable attention on the role of departmental leadership in creating a climate conducive to the recruitment, retention and promotion of women faculty. Faculty leadership is discussed in more detail below; however, it bears mention that the departments with the highest shares of female faculty in STEM (Computer Science), SBS (Communications), and Business (Marketing and Management) in the 2004-05 academic year were each chaired by senior women. Furthermore, the lone department in the College of Engineering with a female chair (Electrical and Computer Engineering) is also the lone department in that college with any other female faculty members. This pattern suggests a rationale for continued attention to the relationship between departmental leadership and the fostering of a climate hospitable to women faculty.

As the ADVANCE initiative concerns itself primarily with the presence of women faculty in tenured and tenure-track positions, Table 2 presents the distribution of women faculty by gender and faculty rank for the 18 ADVANCE departments. As is the case for the university as a whole, the representation of women in the ADVANCE departments is highest at the assistant professor level (25 percent) and lowest at the full professor level (10 percent). Eleven of the ADVANCE departments had no female full professors on the faculty in the fall semester of 2004. None of the full professors in the three departments housed in the College of Business were women. In the STEM departments, only Biological Sciences, Geological Science, and Mathematical Science had women on the faculty at the full professor level. The highest representation of women at the most senior level, once again, is found in the Social and Behavioral Sciences, where only the Department of Sociology and Anthropology lacks at least one woman full professor.

At the associate professor level, nine of the ADVANCE departments have at least one female faculty member. STEM departments house five women as associate professors during the reporting period; SBS departments house four and Business departments house two. Half of the faculty appointed as associate professors in the Department of Computer Science are women.

At the assistant professor level, representations of women are substantially higher among the ADVANCE faculty than at more senior levels. Twelve ADVANCE departments include at least one female assistant professor. Again, considerable variation exists across departments. In Languages and Linguistics, all of the assistant professors during the reporting period were women. In addition, the distribution of junior faculty women spans a wider variety of departments across a wider number of colleges than is the case at the more senior levels. The highest proportional representation of women on the junior faculty outside of Languages and Linguistics are found in Marketing and Management (66 percent), Psychology (50 percent), Communication (40 percent) and Chemistry (40 percent).

Finally, Table 3 presents a breakdown of faculty by tenure status. As evidenced in the previous tables, women constitute a distinct minority of the ADVANCE faculty in tenured positions. Representation of women increases at the tenure-track level for each major ADVANCE subfield. However, Table 3 also reveals the importance of non-tenure track faculty in the total science and engineering profile, and the extent to which women are concentrated in non-tenure track positions. In both the STEM and SBS subfields, the percent female of the non-tenure track faculty exceeds that of female faculty at either point in the tenure system by a substantial margin. As UT-El Paso faces the challenge of increasing enrollments endemic to many state universities in Texas, STEM, SBS, and Business departments appear to rely heavily on non-tenure track faculty to carry out the instructional mission. In fall 2004, approximately two out of every five faculty appointed in the three major ADVANCE subfields were employed outside the tenure system. Furthermore, the concentration of non-tenure track faculty among the women in each subfield was higher than that of the total faculty for that subfield. Over half the female faculty in both the STEM and SBS subfields, for instance, worked outside the tenure system during the reporting period. Taken together, the data in Table 3 suggest a distinctly gendered dimension to the large “contingent” labor force on the ADVANCE faculty. Although women faculty outside the tenure system are not the primary focus of the ADVANCE grant initiatives, their sheer numbers suggest the need for continued monitoring in the ensuing years of the grant. As the ADVANCE initiatives targeting tenured and tenure-track women become institutionalized, it will bear noting whether any of the adjustments in gender “climate” will alter the objective or subjective conditions facing their non-tenure track counterparts.

*Outcomes of Institutional Processes of Recruitment and Advancement by Gender (NSF 12 Indicators 3, 4, and 5)*

Along with a profile of women’s position on the science and engineering faculty, the NSF 12 Indicators call for an assessment of women’s trajectories through the processes of institutional advancement, particularly with respect to tenure and promotion. Unfortunately, two of the indicators--years in rank by gender (Indicator 4) and time at institution/attrition by gender (Indicators 5a and 5b)--are not currently available through any central data collection system at UT-El Paso. In meeting with representatives from the Center for Institutional Evaluation, Research and Planning and the Office of the Vice President for Academic Affairs, a consensus emerged that the only methodology for collecting this information will require the ADVANCE evaluation staff to secure access to faculty personnel records through the university’s Human Resources department annually during the ensuing years of the initiative. The ADVANCE evaluator will be working with these units to create a protocol for compiling the information beginning fall 2005. Although data on these indicators were not available for this report, the Office of the Vice President for Academic Affairs was able to draw upon an internal database in order to secure information on tenure outcomes by gender (Indicator 3). Table 4 presents the outcomes of tenure review for the 2004-05 academic year.

Four female faculty members underwent tenure and promotion review during the reporting period. In each case, the review process was successful, with two women in the STEM subfield receiving promotion to full professor, and two women in the SBS subfield receiving promotion to associate professor with tenure. These results compare favorably, as well, to those outside the ADVANCE fields. Furthermore, tenure and promotion outcomes were more positive for women on the science and engineering

faculty than for men. In the STEM subfield, only 50 percent of male faculty members seeking promotion were successful in moving forward to either the associate or full professor levels. In SBS, two out of the three male faculty seeking promotion to associate professor with tenure were successful and one SBS faculty male was promoted to full professor status. For the university as a whole, male faculty member efforts at promotion to associate professor with tenure fell far short of the profiles for women, with only 28 percent of the cases reaching successful completion. Thus, the data suggest that female candidates for promotion on the science and engineering faculty are compiling highly competitive dossiers. However, as the university continues implementation of a strategic plan to achieve Research Extensive status, the weight of such indicators as research grantsmanship, graduate student supervision, and top-tier publication is likely to shift upward. It will be incumbent upon the ADVANCE formative evaluation process to monitor the extent to which the ADVANCE initiatives are addressing these elements of the dossier in the ensuing years of the grant.

*Distribution of Science and Engineering Faculty in Leadership Positions by Gender (NSF Indicators 7, 8, and 9)*

While the recruitment of women into the early stages of the academic career is an important goal of the ADVANCE initiative, it is also important that the university display a commitment to gender diversity in faculty leadership. Table 5 presents the gender distribution of faculty in selected leadership positions. While women represent a modest minority of full professors currently appointed in ADVANCE departments, they have begun to occupy leadership positions in those departments. In each subfield, women serve as departmental chairs, with the highest proportional representation in the Social and Behavioral Sciences. As noted earlier, those departments chaired by women also serve as departments with the highest proportion of total women faculty members. Women are also substantially represented at intermediate levels of administration, including program directorship and assistant/associate dean appointments. Three of the four college promotion and tenure committees included a woman during the current reporting period. Only the College of Engineering lacked any female representation. Women are well-represented among the most senior administrative appointments as well, occupying nearly 40 percent of the highest administrative offices on campus. However, gaps in female representation do remain. During the current reporting period, none of the four college deans supervising ADVANCE departments were women. Similarly, very few women occupy endowed/named chairs and professorships in the colleges housing the ADVANCE departments. Only the College of Liberal Arts counted women among these elite faculty members in the current reporting period. Taken together, the evidence suggests that, despite a relatively small base of senior women faculty, significant inroads are being made toward meaningful campus leadership, with added potential in key slots for future growth.

*Allocation of Resources for Science and Engineering Faculty by Gender (NSF Indicators 10, 11, and 12)*

The distribution of resources to faculty is a critical dimension by which gender equity can be assessed. The NSF 12 Indicators suggest a review of gender equity with respect to three dimensions: salary, space allocation, and the composition of start-up packages offered to new faculty members recruited by the institution. This section of the evaluation report reviews each of these dimensions.

Table 6 presents mean salary packages for male and female faculty in the 18 ADVANCE departments and in the university as a whole. In each comparison, mean salaries were assessed for statistically significant differences by gender via one-way analysis-of-variance tests. No significant differences emerged. For STEM faculty, male faculty salaries slightly exceeded those for female faculty in the full professor and assistant professor categories, while female associate professors earned slightly more than their male counterparts. In the Social and Behavioral Science categories, female full professors earned slightly more than their male counterparts, while female associate and assistant professors earned slightly less. While there are no female full professors in the College of Business departments against whom male full professors could be compared, female associate and assistant professors earned slightly more than their male counterparts. Taken as a whole, these results are comparable in scale to university-wide results, where female full professors earn slightly less than their male counterparts and women at the associate and assistant levels earn slightly more.

Table 7 presents the results of the NSF ADVANCE space allocation study. Data were collected in the fall semester of 2004 and analyzed in the summer of 2005. For each ADVANCE department, student assistants working for ADVANCE contacted departmental administrative staff who led them through a physical walkthrough of the buildings in which faculty office and laboratory spaces were housed. The student assistants and departmental administrators referenced blueprints secured from the university's physical plant offices in order to match square footage with office and laboratory assignments. Analyses were limited to those spaces allocated as faculty offices or as non-teaching research laboratory facilities under the directorship of one or more faculty members. Shared space was parceled out equally to all faculty members identified by the department as using the space for research purposes.

As was the case for salary analyses, no statistically significant differences by gender via analysis-of-variance tests emerged in the allocation of either office or laboratory space for the 18 ADVANCE departments. Rather, the driving force determining space differentials is simply the campus building in which departments are housed. Across the 18 ADVANCE departments, Geological Science professors, housed in one of the premier facilities on the UTEP campus, display the largest faculty office assignments, while professors in Biological Sciences and Chemistry are assigned the largest laboratory spaces. One anomaly, while not statistically significant, does emerge in the laboratory assignments for Electrical and Computer Engineering faculty, attributable to a large lab space assigned to a single male faculty outlier. Aside from this outlier, space allocations are virtually uniform with respect to gender. Additional information will be available in the coming years, as several key departments in the College of Engineering and the College of Science are currently making transitions into new university buildings.

Finally, Table 8 presents the average value of start-up packages for new faculty whose appointments began during the 2004-05 academic year in the 18 ADVANCE departments. Given the specialized nature of faculty research interests and the attendant resource needs, comparisons of start-up should be made cautiously. Nevertheless, some basic themes emerge from the data reported by the Office of the Vice President for Academic Affairs. Wide variation exists across colleges in the extent to which start-up packages are offered; however, equipment for laboratory start-up constitutes the bulk of the funds allocated. No start-up packages were reported for the College of Business

during this time period. In the College of Engineering, female assistant professors received, on average, larger start-up funds for equipment and travel/moving expenses than did male assistant professors. Start-up offers were highest in the College of Science, where all new faculty members received substantial equipment budgets and several received offers that included student support budgets. In the College of Liberal Arts, equipment packages for new faculty, all recruited into the Department of Psychology, allowed for the outfitting of new laboratory spaces.

Taken together, the data on resource allocation reflect substantial parity by gender for the ADVANCE departments. While specific start-up packages do vary widely, these variations have more to do with specific research needs and college-wide policies than with gender. With respect to salary and space allocation, negligible gender differences are in evidence.

### *NSF 12 Summary*

The NSF 12 Indicators provide baseline data by which the status of women faculty can be assessed throughout the grant period. The major themes emerging from these data for the current reporting period suggest both continued challenge and significant accomplishment.

With respect to female representation on the science and engineering faculty, considerable challenges remain. First, while women represent a significant share of the science and engineering faculty, that share continues to fall short of the profile for the university as a whole. In particular, substantial gaps continue to emerge between the goals of the ADVANCE mission and the representation of women in the engineering subfields. Furthermore, the female presence on the faculty is heavily concentrated in the most junior levels. Second, heavy reliance on non-tenure track faculty in the ADVANCE departments is a gendered phenomenon. One of the key themes for continued evaluative research in the project will be to assess the extent to which changes in university climate with respect to gender can make the university a more hospitable working environment for non-tenure track women and can create opportunities for these women to pursue the tenure-track option, should they so desire.

With respect to recruitment and advancement, the data indicate that women are feeding into the faculty pipeline at the assistant professor level across a substantial array of subfields. Furthermore, tenure and promotion profiles show that women are demonstrating high rates of success in their quest to advance through the faculty ranks. Thus, the “retention” period between initial recruitment and each effort at promotion continues to demand prime attention from the university. Without standardized data on time-in-rank or attrition, it was not possible in this report to assess whether women’s retention profiles differ from men’s; however, the new protocol to be implemented in cooperation with the institutional research offices on campus will make it possible for the ADVANCE evaluator to assess this phenomenon in the ensuing years of the initiative.

Successful efforts at promotion will also serve as a critical feature in improving the representation of women among faculty leaders. The data for the current reporting period show that the ADVANCE departments are making strides in increasing the number of women who chair science and engineering departments, and are represented on the promotion and tenure committees in three of the four colleges housing ADVANCE

departments. However, very few women are represented among the endowed/named chairs and professorships in these colleges.

Finally, the resource allocation data suggest that science and engineering faculty are not distinguishable statistically by gender with respect to salary, space and start-up. Women faculty members do not appear to face a resource disadvantage. Substantial funds were available, in particular, for new junior faculty recruited in the sciences and seeking to outfit their research facilities during the current reporting period. Taken together, the resource data hold forth the promise that the university, at both the departmental and administrative levels, is taking the commitment to gender equity promoted by ADVANCE seriously and is implementing that commitment in concrete ways.

### C. TRAINING AND DEVELOPMENT

The NSF ADVANCE initiative sponsored numerous training and awareness sessions during 2004-05. A partial list is provided below. For a complete list of dissemination activities, see Appendix G: Dissemination Matrix Academic Year 2004-05.

#### 1. **ADVANCE sponsored training activities:**

- University of Washington's Chairs' Leadership Workshop: the following faculty attended in summer 2005

John De Castro, Chair, Psychology  
Rafael Gutierrez, Chair, Industrial Engineering  
Wen-Whai Li, Chair, Civil Engineering

- University of Maryland – Baltimore County Faculty Horizons Workshop: the following faculty and graduate student attended in summer 2005

Zarhelia Carlo, graduate student, Chemistry  
Wen-Yee Lee, Assistant Professor, Chemistry  
Stella Quinones, Assistant Professor, Electrical and Computer Engineering

- IMPACT Seminar: designed to increase the effectiveness of participating faculty by developing new ways of integrating teaching, research and service, and by developing leadership skills. Fifteen were funded by NSF ADVANCE (\$18,497.20) while 4 were funded by the Provost (\$4924.60):

ADVANCE funded:

Stephen Aley, Associate Professor, Biology  
Irasema Coronado, Associate Professor, Political Science  
Elizabeth Gardner, Assistant Professor, Chemistry  
Tina Garza, Assistant Professor, Biology  
Nasir Gharaibeh, Assistant Professor, Civil Engineering  
Peter Golding, Associate Professor, Metallurgical and Materials Engineering  
Virgilio Gonzalez, Assistant Professor, Electrical and Computer Engineering  
John Hadjimarcou, Associate Professor, Marketing and Management

Kastro Hamed, Assistant Professor, Physics  
Kyle Johnson, Assistant Professor, Biology  
Lawrence Lesser, Associate Professor, Mathematical Sciences  
Richard Pineda, Assistant Professor, Communication  
Todd Primm, Assistant Professor, Biology  
Stacey Sowards, Assistant Professor, Communication  
Stella Quinones, Assistant Professor, Electrical and Computer Engineering

Provost-funded:

Meredith Abarca, Assistant Professor, English  
Gary Braun, Associate Professor, Accounting  
Ezra Cappell, Assistant Professor, English  
Rockie Pederson, Assistant Professor, Kinesiology

- “Keeping Chaos at Bay: Even When They Keep “Speeding Up the Line””: an all-day workshop co-sponsored with the Center for Effective Teaching and Learning. Dr. Meggin McIntosh, consultant, led an interactive session on time management and life balance.
- Mentoring Luncheons: The Faculty Mentoring Program for Women sponsored these sessions where issues of effective scholarship and publishing, mentoring success, goal setting and personal success strategies, and networking were discussed.
- Brown Bag Lunches: informal lunch meetings for pre-tenure women faculty around readings and issues of concern to them.
- “Loving Leadership””: Chris Loving, consultant, facilitated a two day workshop to help grant PI’s and Institutional Action Board members identify critical campus issues.
- “Calibrated Peer Review””: IMPACT participant Beth Gardner conducted this workshop, promoting an Internet-based system that enables students to learn by writing and peer evaluation, while at the same time reducing the time an instructor spends reading and assessing student writing.
- VPAA Workshop on Faculty Recruitment: ADVANCE prepared and made a presentation to a group of faculty and administrators, including department chairs and search committee chairs, on effective ways to recruit and retain women. Used resources available from other ADVANCE Institutional Transformation Web sites.

## **2. ADVANCE sponsored awareness meetings:**

- Advisory Board Meeting: met with the external advisory board to review the activities and findings of the second year, discuss concerns, and hear suggestions for improvement. A discussion of this meeting can be found in “Findings.”



- Action Board Meetings: met in fall 2004 and spring 2005 to review the activities and findings of the second year, discuss concerns, and hear suggestions for improvement.
- Town Hall Meetings: Two meetings were conducted to present the results of the the faculty worklife survey to interested faculty.
- Research Task Force Committee: Met with committee chairs to communicate results of the faculty worklife survey.
- President and Provost Meetings: Met with the President and Provost to discuss the ADVANCE initiative and its progress.
- “Chair Chats”: Collaborative Leadership met with chairs to identify ideas, concerns, and suggestions related to recruitment, retention, and promotion of faculty.
- ADVANCE and Faculty Leadership: presented on ADVANCE to administrators developing a leadership workshop series.
- Preparing Future Faculty: presented on ADVANCE at this graduate student workshop hosted by the UTEP and Howard University Graduate Schools.
- “Notions of Leadership”: presented to FMPW participants on the topic of leading from all positions in the university.
- National Science Board: met with Dr. Arden Bement to communicate work on UTEP ADVANCE.

### **3. Training and Development Sessions Attended by ADVANCE Personnel:**

- COACH workshop in conjunction with American Chemical Society Annual Meeting: Participated in workshops on strategic persuasion and leadership for STEM women in academia. Discussed resources available through ADVANCE Web sites and other dissemination products.
- UTEP EO/AA officer: met to coordinate 1) efforts for faculty recruitment and 2) record- keeping practices in order to evaluate success of ADVANCE recruitment strategies.
- Virginia Valian at NMSU: ADVANCE personnel attended the guest speaker’s talk on gender equity at NMSU.
- NSF ADVANCE Meeting: Washington, DC.

### **C: OUTREACH**

Members of the ADVANCE team provided outreach to members of other communities. A partial list is provided below. For a complete list of dissemination activities, see Appendix G: Dissemination Matrix Academic Year 2004-05.

- Dr. Anthony organized and presented at a special session on ADVANCE at the American Geophysical Union (AGU) meeting. Her co-organizer was Dr. Robin Bell of Columbia University, a recent ADVANCE IT awardee. The session was entitled “Strategies and resources for success in the Geosciences: The NSF-ADVANCE Initiative and other opportunities.” Eight presentations were made, including presentations from ADVANCE IT institutions (University of Rhode Island, University of Michigan, University of California Irvine, UTEP, and

Columbia) as well as ADVANCE Leadership grantees from University of Nebraska and Wesleyan University.

- Dr. Anthony presented the poster NSF ADVANCE Initiative: Institutional Transformation to Achieve Faculty Diversity at the Geological Society of America (GSA) Annual Meeting. The presentation was in a special session entitled: "Minorities, women, and persons with disabilities in the Geosciences: Continuing issues and innovative solutions." The GSA Geoscience Division and the GSA Committee on Minorities and Women in the Geosciences sponsored the session. The session included 22 oral and poster presentations.
- Dr. Reimers served on a round table discussion entitled "How Can We Recognize, Reward, and Encourage Mentoring During Major Institutional Change – When Mentoring is *Most* Needed" at the national Professional and Organizational Network (POD) Conference.
- Dr. Reimers presented "Sustaining a Successful Faculty Mentoring Program: Challenges and Responses" on the Institutionalization/Sustainability Panel at the NSF PI Meeting.
- Dr. Reimers participated in the College and University Work/ Family Association (CUWFA) Conference and discussed dual career hiring, policy changes, and mentoring.
- Dr. Witherspoon presented the paper "Communication at the Center of Leadership Education: Looking to the Future," National Communication Association annual convention.

### III. PUBLICATIONS

#### A. JOURNAL PUBLICATIONS

Anthony, E., "NSF ADVANCE Initiative: Institutional Transformation to Achieve Faculty Diversity", *Geological Society of America Abstracts: Special Session Minorities, Women, and Persons with Disabilities in the Geosciences: Continuing Issues and Innovative Solutions*, vol. , (), p. . Submitted

Anthony, E.; Bell, R., "Empowering Women Scientists and Engineers: The ADVANCE Program at the NSF", *American Geophysics Union Abstracts: Special Session on Strategies for Academic Success*, vol. , (), p. . Submitted

Archuleta, R.J.; Hoppes, Y.P.; Primm, T.P., "Mycobacteria Enter a State of Metabolic Dormancy in Response to Starvation", *Tuberculosis*, vol. , (), p. . Submitted

Cappell, Ezra, "Review Essay: Key Text in American Jewish Culture, Jack Kugelmass, ed.", *Modern Jewish Studies*, vol. , (), p. . Accepted

Fernandez, L.; Amastae, J.; Howard, C., "Education and Migration in a Border City", *Journal of Borderland Studies*, vol. 18, (2004), p. 2. Forthcoming

Gonzalez, H.O.; Bain, L.J., "Physiological Changes and Differential Gene Expression in Mummichogs (*Fundulus heteroclitus*) Exposed to Arsenic", *Environmental Health Perspectives*, vol. , (), p. . In preparation

Lee, Wen-Yee; Iannucci-Berger, William; Eitzer, Brain D.; White, Jason C.; Mattina, Mary Jane I., "Quanitation of Soil-to-Plant Transfer of Weathered Chlordane: Consequences for POPs Cycling and Phytoremediation", *Environmental Toxicology and Chemistry*, vol. , (), p. . Accepted

Morales, A.; Fernandez, L., "The Social Origins and Prospects for Mobility of Recent Mexican Law School Graduates", *Social Science Quarterly*, vol. , (), p. . Submitted

Rajabi, L.; Courreges, C.; Montoya, J.; Aguilera, R.J.; Primm, T. P., "Actophenones With Selective Antimycobacterial Activity", *Letters in Applied Microbiology*, vol. , (), p. . In revision

Tran, T.; Saheba, E.; Arcerio, A.; Chavez, V.; Martinez, L.E.; Primm, T.P., "Quinones As Antimycobacterial Agents", *Bioorganic & Medicinal Chemistry*, vol. , (), p. . In press

Valerio-Flores, O.L.; Murr, L.E.; Hernandez, V.S.; Quinones, S.A, "Observations and Simulations of the Low Velocity to Hypervelocity Impact Crater Transition for a Range of Penetrator Densities Into Thick Aluminum Targets", *Journal of Materials Science*, vol. , (), p. . Accepted

Ward, K.; Hollingsed, T.; Aldaz-Salmon, J.A., "Acknowledgement Use With Synthesized and Recorded Prompts", *Proceedings of the 5th SIGdial Workshop on Discourse and Dialogue*, vol. , (2004), p. 85. Published

Benedict, B., Fisher, W.W., Golding, P., Ortega, R., Osegueda, R. and Perez, L.T., "Basic Engineering Science and Technology Success for Students at Community Colleges and Universities," *Extreme Makeover: Improving Education in the Classroom to Ensure Student Success*, vol. , (2004), p. np. Published

Brouthers, Lance E., Edward O. Donnell and John Hadjimarcou, "Generic Product Strategies for Emerging Market Exports into Triad Nation Markets: A Mimetic Isomorphism Approach," *Journal of Management Studies*, vol. 42, (2005), p. 225. Published

Brouthers, Lance E., John W. Story and John Hadjimarcou, "An Investigation of Three Strategies for Overcoming Negative Country of Origin Stereotypes", *The 2nd Annual JIBS/AIB/CIBER Invitational Conference on Emerging Research Frontiers in International Business*, vol. , (2004), p. np. Published

Brouthers, Lance E., John W. Story, John Hadjimarcou, "Signaling Theory and Country of Origin Effects", *Journal of International Business Studies*, vol. , (2005), p. . Submitted

Fernandez, L.; Howard, C., and Amastae, J., "Education, Race/Ethnicity and Out-migration from a Border City.", *Population Research and Policy Review.*, vol. , (), p. . Submitted

Fernandez, L. and Amastae, J., "College Students Use of Cross-Border Health Services", *Population Research and Policy Review.*, vol. , (), p. . Submitted

Gonzalez, H.O.; Bain, L.J., "Physiological Changes and Differential Gene Expression in Mummichogs (*Fundulus heteroclitus*) Exposed to Arsenic", *Aquatic Toxicology*, vol. , (), p. . Submitted

Lair, S.L; Herndon, W.C.; Murr, L.E.; Quinones, S.A., "End Cap Nucleation of Carbon Nanotubes", *Carbon*, vol. , (), p. . Submitted

Leonidou, Leonidas C., John S. Kaminarides and John Hadjimarcou, "Exploring Manufacturer-Customer Relationships: Domestic Versus Foreign Business", *Thunderbird International Business Review*, vol. 45, (2004), p. 545. Published

Coronado, Irasema, Garcia, Sonia, Jaramillo, Patricia, Valerie, Martinez , Navarro, Sharon, "Latina Trailblazers in the Texas Political Arena", *Políticas*, vol. , (2005), p. . Submitted

Eds. Hansen, Ellen and Mattingly, Doreen, "Women Leaders at the Border: Styles, Strategies and Issues", *Border Women in Movement Tucson, Arizona*, vol. , (2005), p. . Submitted

Eds. Eschle, Catherine and Maignasscha, Bice, "Resistance on the Global Frontlines: Gender Wars at the U.S.-Mexico Border with Kathleen Staudt.", *Critical Theories, World Politics and the Anti-Globalisation Movement Routledge: London 2005*, vol. , (2005), p. 1. Published

## B. OTHER SPECIFIC PRODUCTS

### **Brochure**

NSF ADVANCE: Institutional Transformation for Faculty Diversity Provides information about the UTEP NSF ADVANCE initiative. This brochure is used both on and off-campus to promote ADVANCE.

### **Brochure**

New Mexico State University and the University of Texas at El Paso Dual Career Opportunities  
UTEP and NMSU will use this as part of their faculty recruitment efforts, striving to jointly increase methods of accommodating the needs of dual career couples.

### **Data or databases**

Faculty Work-Life Survey. (modification of the University of Wisconsin Madison Faculty Work-Life Survey)

This survey establishes baseline data for issues of culture and climate to draw distinctions across gender, ethnicity, departments and colleges and to document a case study for future research and publications.

During Fall semester, we will hold town hall meetings to share survey findings with the faculty in the 18 ADVANCE departments. We will also share findings at regional and annual NSF ADVANCE conferences as well as at other professional conferences.

**Data or databases**

UTEP's NSF ADVANCE: Dissemination Matrix

This database is a collection of dissemination activities. It briefly describes the activity, the date of the activity, the component responsible for the activity and the number of individuals involved in the activity.

This database helps track the effort involved in guiding institutional change. We will encourage any researchers interested in tracking such activity to use the information we have collected. We will also share this matrix with other ADVANCE sites and encourage them to collect this type of information so that comparisons can be made across the various institutions.

**Data or databases**

NSF Quantitative Indicators of Activity and Progress

This database tracks the 12 NSF indicators over time. Data is available from 1996 - 2003. The data will be supplemented each fall. Since the data set includes individual-level information, confidentiality issues will prevent us from sharing any information other than in aggregate form.

**Website**

This is the official Web site for the Faculty Mentoring Program for Women.

<http://www.dmc.utep.edu/mentoring>

Used as promotional information for the grant.

**Promotional Materials Folder**

The UTEP NSF ADVANCE folder promotes initiative through visual logo recognition while serving as a practical means to disseminate UTEP ADVANCE brochures, business cards, promotional materials, and other information.

Used as promotional information for the grant.

**Data or databases**

The UTEP's NSF ADVANCE: Dissemination Matrix database is a collection of dissemination activities. It briefly describes the activity, the date, the component responsible for the activity, and the number of individuals involved in the activity.

Used as promotional information for the grant.

**Data or databases**

NSF Quantitative Indicators of Activity and Progress

This database tracks the 12 NSF indicators over time. Data is available from 1996 - 2003. The data will be supplemented each fall. Since the data set includes individual-level information, confidentiality issues will prevent us from sharing any information other than in aggregate form.

Used as promotional information for the grant.

#### C. INTERNET DISSEMINATION

<http://www.dmc.utep.edu/advance>

This is the official Web site for the award.

### IV. CONTRIBUTIONS

#### A. CONTRIBUTIONS WITHIN DISCIPLINE

Following is a list of UTEP ADVANCE contributions made within the discipline at the national level:

Dr. Anthony organized and presented at a special session on ADVANCE at the American Geophysical Union (AGU) meeting. Her co-organizer, Dr. Robin Bell of Columbia University, is a recent ADVANCE IT awardee. The session, entitled 'Strategies and resources for success in the Geosciences: The NSF-ADVANCE Initiative and other opportunities' was one of eight presentations made by ADVANCE Institutional Transformation institutions (University of Rhode Island, University of Michigan, University of California Irvine, Columbia, and UTEP) as well as ADVANCE Leadership grantees from the University of Nebraska and Wesleyan University. Attendance at the AGU meeting was approximately 10,000 people.

Dr. Gates was part of a New Mexico State grant project, 'Effective Strategies to Diversify Academic STEM.'

Dr. Posey presented on UTEP ADVANCE to Dr. Arden Bement, Director of the National Science Board, when he attended an NSB meeting on the UTEP campus.

Sustainability of ADVANCE goals is immeasurably strengthened by principal investigators involvement in their professional societies. This bipartite approach also benefits the principal investigators, who must retain their own research careers through the duration of the initiative. Additionally, through these efforts females from ADVANCE institutions, who have not been actively involved in the ADVANCE initiatives on their own campus, become part of the network.

The UTEP ADVANCE team is committed to contributing to the knowledge base by presenting on NSF ADVANCE at their professional meetings. A list of presentations is provided in the 'Activities and Findings'/'Outreach' section of this report.

#### B. CONTRIBUTIONS TO OTHER DISCIPLINES

Following is a list of UTEP ADVANCE contributions to other disciplines at the national level:

Dr. Gates is a member of the Academic Alliance for the National Center for Women in Information Technology, which is developing a repository of research-based best practices.

Dr. Gates and Associate Dean of Engineering, Roberto Osegueda, attended the ADVANCE Engineering Deans meeting in Blacksburg, VA.

Dr. Gates is also leading an effort to create the Computing Alliance of Hispanic Serving Institutions. The core purpose of the Alliance is to create a unified voice and to consolidate the strengths, resources, and concerns of Alliance institutions committed increasing the number of Hispanics who pursue and complete baccalaureate and advanced degrees in computing areas.

The Alliance institutions include California State University-Dominguez Hills, Florida International University, New Mexico State University, Texas A & M University - Corpus Christi, University of Houston Downtown, University of Puerto Rico - Mayaguez, University of Puerto Rico - Rio Piedras, and the University of Texas El Paso. The structure of the Alliance creates a community of organizations that can be more effective in instituting change by providing consolidated direction for initiatives that address the under-representation of Hispanics in computing. The Alliance structures interaction with industry and other organizations that support its goals. This includes the Hispanic Association of Colleges and Universities (HACU), the Computing Research Association (CRA) and its Coalition to Diversify Computing, National Center for Women and Information Technology, GEM Consortium (a national consortium for graduate degrees for minorities in Engineering and Science, and the NSF ADVANCE programs at UTEP and NMSU.

#### C. CONTRIBUTIONS TO EDUCATION AND HUMAN RESOURCES

Following is a list of UTEP ADVANCE contributions to human resource development at the national level:

Drs. Posey and Reimers and Ms. Andronicos recently submitted a chapter on the UTEP Faculty Mentoring Program for Women to be published in a book on ADVANCE by the University of Michigan Press.

Dr. Witherspoon received national recognition when the Annette Strauss Institute for Civic Participation, an entity within the College of Communication at the University of Texas at Austin, named their student research awards after her.

The joint development with New Mexico State University of a brochure

to disseminate information about opportunities for dual career couple hires is a model of university collaboration to promote ADVANCE goals.

D. CONTRIBUTIONS TO RESOURCES FOR SCIENCE AND TECHNOLOGY

Dr. Baker is working on a sub-committee of ADVANCE evaluators who are looking at the most effective way to measure ADVANCE institutional transformation.

The need for data for the NSF 12 indicators has caused UTEP to reconsider the way it collects and maintains faculty data. The current system of coding individual-level data is not complete and, on occasion, leads to unintended alteration of previous data. As a result, new processes are being established and shared with other institutions.