



## **ADVANCE: Institutional Transformation**

Annual Report  
January 1, 2008 – December 31, 2008

### **PRINCIPAL INVESTIGATOR/PROGRAM DIRECTOR**

Lisa Frehill (1/1/02-5/15/05)

Tracy M. Sterling (5/15/05 to present)

### **CO-PRINCIPAL INVESTIGATORS**

Waded Cruzado (8/15/04 to present)

LeRoy Daugherty (1/1/02 to present)

Josephine De Leon (8/15/04-9/15/05) (4/15/06-5-15/08)

William Flores (8/15/05-4/15/06)

Carmen Gonzales (5/15/08 to present)

Richard Hills (1/1/02-8/15/04)

Christine Marlow, Associate Dean (ending 8/15/04)

Kenneth Paap, Dean (ending 8/15/04)

Rudi Schoenmackers (8/15/04 to present)

### **ASSOCIATE DIRECTOR**

Pamela Hunt (6/1/05 to present)

### **PROGRAM COORDINATORS**

Pamela Hunt (2/29/02-6/1/05)

Shawn Werner, Program Coordinator (2/1/5/08 to present)

### **RESEARCH ANALYSTS**

Cecily Jeser-Cannavale (10/15/03-4/15/06)

Abby Javurek-Humig (8/19/06-8/21/07)

### **ADMINISTRATIVE ASSISTANT**

Rebecca Zaldo (8/15/03-12/18/05)

### **GRADUATE ASSISTANTS**

Jammie Benton-Speyer (5/1/02-12/31/04)

Nicole Fuchs (1/1/2002-5/31/02)

Abby Javurek-Humig (5/15/05-5/10/06)

Lauren Ketcham (6/15/04-5/15/05)

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## **I. PARTICIPANTS**

### **Program Personnel**

#### **PRINCIPAL INVESTIGATOR/PROGRAM DIRECTOR (PI/PD)**

Tracy Sterling, PI/PD starting 5/15/05, Professor, Department of Entomology, Plant Pathology and Weed Science

The principal Investigator (PI) is responsible for all aspects of ADVANCE. The PI conducts institutional self-study. The PI also serves as chair of the Committee on the Status of Women in STEM. As Program Director (PD), the PI/PD oversees all program activity, participates in and supports programs of all ADVANCE committees, and supervises Associate Director. The Associate Director supervises the Research Analyst and the Administrative Assistant. Sterling stepped in as PI/PD on May 15, 2005 when Frehill began a position as Program Director at the University of California, Irvine Advance Program.

Lisa M. Frehill, Principal Investigator and Program Director ending 5/15/05, Associate Professor, Department of Sociology and Anthropology

The principal Investigator (PI) is responsible for all aspects of ADVANCE. The PI conducts institutional self-study. The PI also serves as chair of the Committee on the Status of Women in STEM. As Program Director (PD), the PI/PD oversees all program activity, participates in and supports programs of all ADVANCE committees, and supervises associate director. The associate director supervises the research analyst and the administrative assistant. Frehill stepped down as PI/PD in May to begin a position as Program Director at the University of California, Irvine Advance Program.

#### **CO-PRINCIPAL INVESTIGATORS**

Dr. Waded Cruzado, Co-PI, Dean, College of Arts and Sciences (until August 31, 2007): Executive Vice President/Provost (starting September 1, 2007, Interim President starting July 15, 2008))

Administration of program. Serves on the Committee on the Status of Women in STEM.

Dr. LeRoy Daugherty, Co-PI, Associate Dean, College of Agriculture and Director, Agricultural Experiment Station

Administration of program. Serves on the Committee on the Status of Women in STEM, the Recruitment Subcommittee and the ADVANCING Leaders Committee.

Dr. Josephine De Leon, Co-PI, Associate Provost for Academic Affairs and Community Colleges (until 5/15/08)

Administration of program. Serves on the Committee on the Status of Women in STEM

Dr. William Flores, Co-PI, Executive Vice President and Provost (until April 6, 2007)

Administration of program. Serves on the Committee on the Status of Women in STEM; develops institutionalization of program.

Dr. Carmen Gonzales, Co-PI, Vice President for Student Success and Dean, College of Extended Learning

Administration of program. Serves on the Committee on the Status of Women in STEM.

Dr. Richard Hills, Co-PI, Associate Dean, Engineering Research Center (ending 8/15/04)

Administration of program. Serves on the Committee on the Status of Women in STEM and Committee on Research.

Dr. Christine Marlow, Co-PI, Professor, Social Work (ending 8/15/04)

Administration of program. Serves on the Committee on the Status of Women in STEM and Committee on Faculty Development.

Dr. Kenneth Paap, Co-PI, Associate Dean, College of Arts and Sciences (ending 8/15/04)

Administration of program. Serves on the Committee on the Status of Women in STEM and Committee on Research.

Dr. Rudi Schoenmackers, Associate Dean, Engineering Research Center

Administration of program. Serves on the Committee on the Status of Women in STEM and the Committee on Research.

#### STAFF

Pamela Hunt, Associate Project Director starting 6/1/05, Program Coordinator ending 6/1/05)

Associate Director handles the daily oversight and management of the ADVANCE Program, including budget oversight, staff supervision, and implementation of program activities by working with faculty, the PI/PD, and university administrators. She facilitates the work of the Committee on the Status of Women in STEM and its subcommittees by: providing logistical support; organizing workshops for faculty and students; coordinating with other relevant on-going programs on campus; facilitating communication among faculty, staff, and administrators; maintaining website; producing program brochure/flyers; monitoring budget; writing interim and annual reports. The Associate Director supervises the Research Analyst.

Shawn Werner, Program Coordinator (starting 2/1/08)

Assist with on-going internal data collection and analysis, including workshop evaluation and reporting. Also responsible for preparing and dissemination of program results at appropriate conferences and in publications, as specified in grant proposal.

Abby Javurek-Humig, (5/10/06-8/21/07) and Cecily Jeser-Cannavale (10/15/03-4/15/06) Research Analyst

Assist with on-going internal data collection and analysis, including workshop evaluation and reporting. Assist with production of publications to disseminate results. As Research Analyst, responsible for on-going internal data collection and analysis, including workshop evaluation and reporting and the required NSF indicators. Also responsible for dissemination of program results at appropriate conferences and in publications, as specified in grant proposal. The Research Analyst supervises the graduate assistant and reports to the PI although her work is managed by the Associate Director in the PI's absence. Works with founding PI on the Advance Supplemental grant to develop indicators of programmatic success.

Abby Javurek-Humig (5/15/05-5/10/06), Lauren Ketcham (6/15/04-5/15/05) and Nichol Fuchs, (1/1/2002-5/31/02), Graduate Assistant

Assist with on-going internal data collection and analysis, including workshop evaluation and reporting. Assist with production of publications to disseminate results.

Rebecca Zaldo, Administrative Assistant (8/15/03-12/18/05)

Provides programmatic support to the Program Coordinator including: meeting facilitation, financial records processing, and financial records database maintenance.

### **Committee Members**

The PI/Program Director and Associate Director are ex officio members of all ADVANCE Committees.

### **Committee of the Status of Women in STEM**

Each Committee member attends meetings of the committee and serves on one of the five subcommittees. This committee is chaired by the PI/Program Director.

Laurie Churchill, Program Coordinator, New Mexico Alliance for Graduate Education and the Professoriate (NM-AGEP) (until April 2007)  
Sonya Cooper, Associate Professor, Engineering Technology and Surveying Engineering  
Champa Gopalan, Professor, Plant and Environmental Sciences  
Roger Hartley, Department Head (through 7/1/04), Computer Science  
Patricia Hynes, Project Director, NM Space Grant  
Ricardo Jacquez, Professor, Civil and Geological Engineering and Program Director, New Mexico Alliance for Minority Participation  
Abby Javurek-Humig, Research Analyst, ADVANCE (until August 21, 2007)  
Cecily Jeser-Cannavale (until April 10, 2006)  
Steven Loring, Administrative Analyst, Agricultural Experiment Station  
Jill Schroeder, Professor, Entomology, Plant Pathology and Weed Science  
Ann Vail, Department Head, Family and Consumer Sciences (until 8/1/05)  
Shawn Werner, Program Coordinator (starting 2/1/08)  
Mark Wise, Department Head, Animal and Range Science

### **Subcommittees**

Transition – This committee was established in the spring of 2006 in response to evaluator Dr. Laura Kramer's recommendation, to steer ADVANCE towards institutionalization.

Co-Chair, Sonya Cooper, Department Head, Engineering Technology and Surveying Engineering  
Co-Chair Tom Burton, Department Head, Mechanical Engineering and Aeronautical Engineering  
Christina Chavez Kelley, Senior Special Assistant to the President  
Waded Cruzado, Co-PI  
Mary O'Connell, Professor, Plant and Environmental Sciences  
LeRoy Daugherty, Co-PI  
Bill McCarthy, Special Assistant to the Provost  
Nancy McMillan, Professor, Geological Sciences  
Desh Ranjan, Department Head, Computer Science  
Rudi Schoenmackers, Co-PI

### Recruitment

Chair, Tom Burton, Academic Department Head, Mechanical Engineering and Aeronautical Engineering (member starting 12/15/06, Chair starting 5/15/06)  
Chair, Roger Hartley, Professor, Computer Science (member 1/1/02-5/15/07, Chair 2/1/04-5/15/06)  
Chair, Linda Riley, Associate Department Head, Industrial Engineering (1/1/02-2/1/04)  
Josefina Alvarez (until 5/18/06), Professor, Mathematical Sciences

Le Roy Daugherty, Associate Dean, College of Agriculture and Home Economics  
and Director, Agricultural Experiment Station  
Colleen Jonsson, Associate Professor, Chemistry and Biochemistry (1/1/02-  
5/15/03)  
Tammy May, Associate Professor, Animal and Range Sciences (1/1/02-5/15/03)  
Jill Schroeder, Professor, Entomology, Plant Pathology and Weed Science  
Michelle Nishiguchi (joined fall 2006), Associate Professor, Biology

#### Research

Chair, Patricia Hynes, Project Director, NM Space Grant  
Sonya Cooper, Associate Professor, Engineering Technology and Surveying  
Engineering  
Robert Czerniak, Associate Dean, Arts and Sciences (5/1/504-5/15/07)  
Tiziana Giorgi, Assistant Professor, Mathematical Sciences  
Champa Gopalan, Professor, Plant and Environmental Sciences  
Richard Hills, Co-PI, Associate Dean, Engineering (1/02-8/15/03)  
Kenneth Paap, Co-PI, 1/1/02-8/15/04)  
Rudi Schoenmackers, Associate Dean of Research, College of Engineering  
(starting 5/15/03)  
Mark Wise, Department Head, Animal and Range Sciences

#### Distinguished Visiting Professor

Chair, Steven Loring, Administrative Analyst, Agricultural Experiment Station  
(member starting 1/1/02, chair starting 5/1/5/05 to present)  
Chair, Ann Vail, Academic Department Head, Family and Consumer Sciences  
(1/1/02-5/15/05)  
Stuart Munson-McGee, Professor, Chemical Engineering  
Tracy Sterling, Professor, Entomology, Plant Pathology and Weed Science  
Nicole Vogt, Assistant Professor, Astronomy

#### Faculty Development

Chair, Inna Pivkina, Associate Professor, Computer Science (member starting  
8/15/04, chair 5/15-08 to present)  
Chair, Steven Kanim, Associate Professor of Physics (member starting 8/15/03,  
chair 5/15/07-5/15/08)  
Chair, April Ulery, Associate Professor, Plant and Environmental Sciences  
(member starting 8/15/03, chair 5/15/05-5/15/07)  
Chair, Sonya Cooper, Academic Department Head, Engineering Technology and  
Surveying Engineering (member starting 8/1/5/03, chair starting 8/15/04-  
5/15/05)  
Chair, Christine Marlow, Professor, Social Work (member starting 1/1/02, chair  
7/13/03-8/15/04)  
Chair, Laura Huenneke, Academic Department Head Biology (ending 7/15/03)  
Laurie Churchill, Specialist, Program Development (1/1/02-5/15/07)  
Sue Forster-Cox, Associate Professor, Health Science (starting 5/15/07)  
Maria Luisa Gonzales, Academic Department Head, Educational Management  
and Development (5/15/03-8/1/07)  
Tara Gray, Director, New Mexico State University Teaching Academy  
Ereny Hadjigeorgalis, Assistant Professor, Agricultural Business and Economics  
(5/15/07-5/15/08)  
Nirmala Khandan, Professor of Civil and Geological Engineering

Patrick Morandi, Academic Department Head, Mathematical Sciences (starting 5/15/07)

William Quintana, Associate Academic Department Head, Chemistry and Biochemistry (starting 5/15/07)

Rene Walterbos, Professor, Astronomy (starting 5/15/07)

#### ADVANCING Leaders Committee

The leadership development program for faculty at NMSU completed the end of its second year. Highlights of the spring semester were completing 'The Provost's Project', a new facet of the program as established in the fall by the EVP/Provost, William Flores.: Participants formulated an approach to clarifying a university-wide issue, the recently established Research Clusters. They conducted focus groups and presented their findings to the Provost and Vice President for Research. Committee members are:

Chair, Robert Rhodes, Department Head and Professor, Special Education and Communication Disorders, Interim Associate Dean, College of Education (starting August 2008)

Past Co-Chair, Patricia Hynes, Program Director, New Mexico Space Grant Consortium

Co-Chair, Michael Morehead, Associate Dean, College of Education

Richard Adkisson, Professor Economics and International Business (starting 8/2008)

Cynda Clary, Special Assistant to the Provost (until August 2008), Chair, Department of Agricultural Business and Economics (starting August 2008)

Tracy Sterling, Professor, Entomology, Plant Pathology and Weed Science and ADVANCE PI/Program Director

Tara Gray, Director, Teaching Academy (starting July 2006)

Bonnie Daily, Associate Professor, Department of Management (until 6/1/05)

LeRoy Daugherty, Associate Dean, College of Agriculture and Home Economics and Director, Agricultural Experiment Station

Alison Mann, Associate Professor, Nursing (starting 8/1/05, ending June 27, 2007)

Michele Nishiguchi, Associate Professor, Biology

Diane Prindeville, Director, Women's Studies Program

Todd Savage, Assistant Professor, Counseling and Educational Psychology (ending December 15, 2007)

#### ADVANCING Leaders Participants (2004-2005) (Inaugural year of program)

Brenda Benefit, Department Head and Professor, Sociology and Anthropology

Janice Black, Associate Professor, Management

Carolyn Chavez, Assistant Professor, Management

Steven Franks, Department Head and Associate Professor, Survey Engineering

Ricardo Jacquez, Professor, Civil and Geological Engineering and Director, New Mexico Alliance for Minority Participation

Desh Ranjan, Department Head and Associate Professor, Computer Science

Allison Mann, Assistant Professor, Nursing

Gary Roemer, Assistant Professor, Fishery and Wildlife Sciences

Tracy Sterling, Entomology, Plant Pathology and Weed Science

Cynthia Pierard, Department Head, Research and Reference Services, NMSU

#### Library

Connie Stout, Associate Professor, Special Education/Communication Disorders

Mentors for this cohort were:

Wes Holley, Associate Dean/Associate Director of Academic Programs, CAHE  
Dan Howard, Academic Department Head, Biology  
Marvin Bernstein, Professor, Biology  
Douglas Gillan, Academic Department Head, Psychology  
Sherry Mills, Associate Professor, Accounting and Business Computer Systems  
Anne Gallegos, Regent's Prof, SPED/CD  
George Alexander, Academic Department Head, Engineering Technology  
Kenneth White, Academic Department Head, CAGE  
Kathy Brook, Associate Dean, Business College

ADVANCING Leaders Participants (2005-2006)

Jeffrey Arterburn, Professor, Chemistry and Biochemistry; Program Director, NM-BRIN  
Ann Bock, Professor, Family and Consumer Sciences  
Teresa Brandon, Professor and Program Director, Health Occupations, Dona Ana  
Branch Community College  
Martha Desmond, Associate Professor, Fishery and Wildlife Sciences  
Gerald Hampton, Academic Department Head and Professor, Marketing  
David Jauregui, Associate Professor, Civil and Geological Engineering  
Martha Mitchell, Academic Department Head and Associate Professor, Chemical  
Engineering  
Robert Rhodes, Academic Department Head and Professor, Special Education and  
Communication Disorders  
Patricia Sandau-Beckler, Associate Professor, Social Work, co-chair Border Research  
Cluster  
Laura Thompson, Professor, Psychology  
Karin Wiburg, Associate Dean and Director, Educational Research Center

Mentors for this cohort were:

Michael Hites, Chief Information Officers, Information & Technologies Services  
Liz Ellis, Academic Department Head, Finance  
Peter Gregware, Associate Dean, Arts and Sciences  
Ken White, Academic Department Head, Civil and Geological Engineering  
Rebecca Dukes, Vice President, University Advancement  
Eneida Vazquez, Associate Dean, Graduate School  
Janet Green, Academic Department Head, Hotel, Restaurant & Tourism  
Management  
LeRoy Daugherty, Associate Dean, College of Agriculture and Home Economics  
and Director, Agricultural Experiment Station  
Cynda Clary, Special Assistant to the Provost  
Patricia Hynes, Program Director, New Mexico Space Grant Consortium  
Tracy Sterling, Professor, Entomology, Plant Pathology and Weed Science and  
ADVANCE PI/Program Director

ADVANCING Leaders Participants (2006-2007)

Tom Burton, Academic Department Head, Mechanical Engineering and  
Aeronautical Engineering  
Richard Fortin, Professor, Finance  
Mary Hoke, Professor, Nursing  
J. Philip King, Associate Department Head, Civil Engineering  
Eric Lopez, Associate Professor, Special Education



Michele Nishiguchi, Associate Professor, Biology  
Felipe Peralta, Associate Professor, Social Work  
Susan Pinkerton, Assistant Professor, Library Science  
Todd Savage, Assistant Professor, Counseling and Educational Psychology  
Larry Tunnell, Associate Professor, Accounting and Information Systems  
April Ulery, Associate Professor, Plant and Environmental Sciences

Mentors for this cohort were:

Waded Cruzado, Dean, Arts and Sciences  
Rober Czerniak, Associate Dean Arts and Sciences  
Gladys De Necochea, Associate Vice President, Community Colleges  
Rebecca Dukes, Vice President, University Advancement  
Gregory Fant, Assistant to the Dean/Academic Department Head, Arts and Sciences  
Mary O'Connell, Professor, Plant and Environmental Sciences  
Luis Vazquez, Academic Department Head, Counseling and Educational Psychology  
Ben Woods, Senior Vice President, Planning, Resources and University Relations  
Walter Zakahi, Associate Dean/Academic Department Head, Communications

ADVANCING Leaders Participants (2007-2008)

Richard Adkisson, Professor, Economics and International Business  
Elsa Arroyos-Jurado, Assistant Professor, Counseling and Educational Psychology  
Jamie Bronstein, Associate Professor, History  
Susan Brown, Program Coordinator, Education Research and Budgeting  
Earl Burkholder, Associate Professor, Engineering Technology and Surveying Engineering  
Rebecca Creamer, Associate Professor, Entomology, Plant Pathology and Weed Science  
Ivan De la Rosa, Associate Professor, Social Work  
Sheila Horan, College Associate Professor, Electrical and Computer Engineering  
Lou Reyes, Associate Professor, Curriculum and Instruction  
Elba Serrano, Professor, Biology  
Jeanette Smith, Professor, Information Services

Mentors for this cohort were:

Jeffrey Brown, Academic Department Head, History  
Judith Weisinger, Associate Professor, Management  
Luis Vazquez, Associate Dean, Graduate School  
N. Khandan, Professor, Civil and Geological Engineering  
Kathleen Brook, Associate Dean, Business  
Satya Krishnan, Associate Professor, Health Science  
Scott Moore, Dean of Students, Office of the Dean of Students  
Carmen Gonzales, V P for Student Success and Dean, College of Extended Learning  
Garrey Carruthers, Dean, Business  
Lowell Catlett, Dean, Agriculture and Home Economics  
Jeanne Gleason, Academic Department Head, Agricultural Information

#### ADVANCING Leaders Participants (2008-2009)

Laurie Abbott, Associate Professor Animal and Range Sciences

Julia Barello, Professor Art

Joseph Berning, Assistant Professor Human Performance, Dance and

#### Recreation

Chris Brown, Associate Professor Geography

Dana Christman, Associate Professor Educational Management and

#### Development

Sonya Cooper, Academic Department Head Engineering Technology and  
Surveying Engineering

Yosikazu DeRoos, Associate Professor Social Work

Chris Erickson, Associate Professor Economics and International Business

Anne Hubbell, Academic Department Head Communication Studies

Mardi Mahaffy, Assistant Professor Library Reference and Research

Maria Mercado, Associate Professor Education

Graciela Unguez, Associate Professor Biology

Dawn Vanleeuwen, Professor Agricultural and Extension Education

#### Mentors for this cohort were:

Katherine Brook, Associate Dean Business and Administration

Patricia Conn, Assistant Dean for Advancement Education

Roberta Derlin, Associate Vice President, Division for Student Success and  
Associate Dean, College of Extended Education

William Eammon, Dean Honors College

Lizbeth Ellis, Academic Department Head Finance

Gregory Fant, Associate Dean Arts and Sciences

Carmen Gonzales, V P for Student Success and Dean College of Extended  
Learning

Janet Green, Academic Department Head Hotel Restaurant and Tourism  
Management

Jay Jordan, Associate Vice President Research Programs

Ricardo Rel, Assistant Vice President Agriculture and Extension Education

Elizabeth Titus, Dean Library

Benjamin Woods, Senior Vice President Planning/Physical Resources/University  
Relations

#### Other Specific People Not Listed:

- The EVP/Provost continued to participate in the university-wide promotion and tenure workshops and working sessions in collaboration with ADVANCE, the Hispanic Caucus, and the Teaching Academy. Co-PI Dr. Waded Cruzado was the keynote speaker the Spring session in February 2008, as was Interim EVP/Provost, Dr. Moulton in the Fall session.
- Co-PI Dr. Waded Cruzado, EVP/Provost, was appointed Interim President on 7/15/08. Dr. Cruzado has long championed ADVANCE goals at NMSU, and is a strong proponent of diversity.
- Dr. Tara Gray, Director of the Teaching Academy, worked with the ADVANCE PI/PD and Associate Director to transition the program to its current home in that department. While the Teaching Academy and ADVANCE have always collaborated to deliver faculty development workshops, Dr. Gray worked with the Associate Director to formalize a department head colloquia with numerous

events throughout the year. In addition, Dr. Gray helped disseminate ADVANCE Best Practices to the PAID Alliance for Faculty Diversity, of which she became Co-PI this year.

- Dr. Carmen Gonzales, Co-PI is Vice President for Student Success and. Dean of the College of Extended Learning, in which the Teaching Academy/ADVANCE Program now reside. She and her Associate Dean, Roberta Derlin, met with the PI/PD to discuss the legislative initiative, the importance of faculty diversity, and the NSF-PAID grant, in its first year.
- Dr. Luis Vazquez, Associate Dean, Graduate School and past Chair, Hispanic Caucus has partnered actively with ADVANCE since the grant's inception, planning and presenting at trainings for Promotion and Tenure and Mentoring both at NMSU and for NM-PAID.
- Dr. Walter Zakahi, Associate Dean, Arts and Sciences and member, Hispanic Caucus has partnered actively with ADVANCE since the grant's inception, planning and presenting at trainings for Promotion and Tenure and Mentoring both at NMSU and for NM-PAID.
- Dr. Robert Moulton, Dean, Education and Interim Executive Vice President and Provost has actively supported ADVANCE initiatives throughout the grant, particularly regarding Promotion and Tenure revisions, with which he participated as a task force member.
- Dr. Elizabeth Titus, Dean NMSU Library, chaired the President's Commission on the Status of Women (PCSW) until May 2008. Dean Titus worked with the program on various leadership, development, and annual data gathering efforts. Those efforts will continue with Wanda Eastman, Professor Family and Consumer Sciences, who succeeded Titus as Chair.
- Ms. Christina Chavez-Kelley, Senior Assistant to the President, worked help draft the position announcement for NMSU's first Omsbud position, a position proposed by the PCSW and supported by President Martin. That position was staffed, and an Ombuds Office was created in 2007. Ms. Chavez-Kelly remains actively involved with ADVANCE.
- Ms. Diana Quintana, former Director of Human Resources, was promoted to Assistant to the President and made Director of the newly created Office of Ombuds. In the fall of 2008 she became Chair of the Diversity Council.
- Dr. Festus Otopo Addo-Yobo, Director of Ethnic Programs, collaborated with the ADVANCE Program to bring Diversity speaker Jane Elliott, creator of the Brown-Eyes, Blue-Eyes exercise to NMSU in 2008, to present "The Anatomy of Prejudice."

## Participants' Summary

Between January and December 2008, 538 faculty, students, staff and community members attended events.

One hundred and sixteen tenure-track STEM and social science faculty attended ADVANCE Mentoring Program events throughout the year.

Forty-nine tenure-track faculty members attended a spring university-wide tenure working session co-sponsored by ADVANCE and the office of the EVP/Provost.

Fifty-four tenure-track faculty attended a fall university-wide tenure workshop co-sponsored by ADVANCE, the Teaching Academy and the Hispanic Caucus.

One hundred and twenty-one faculty members attended eight Department Head training sessions. With the exception of the PAID Department Head Retreat, these events were co-sponsored by ADVANCE and the Teaching Academy.

Details on participants:

- 82 (38 female, 49 male) STEM faculty and department heads from all of the 18 target STEM departments attended at least one ADVANCE event. (Note: One of the original 19 target departments, Surveying Engineering, has been merged into Engineering Technology, now known as Engineering Technology and Surveying Engineering.)
- 86 faculty and department heads from 24 of the 36 non-STEM NMSU departments participated in an ADVANCE event.
- 120 faculty and administrators—mostly from STEM fields, with 25 from the social sciences—participated in the mentoring program (half men, half women).
- 21 department heads from 20 academic departments attended at least one ADVANCE-sponsored department head training event.
- Deans and/or associate deans from all seven of NMSU's colleges attended at least one ADVANCE event.
- The President, two Vice Presidents, the Executive Vice President/Provost, all three members of the Provost's Office, and nine senior administrators participated in at least one ADVANCE event.

Because the goal of ADVANCE is institutional transformation, involvement of faculty and administrators from across campus is essential in changing the institution and for garnering support for the continuation of ADVANCE programs after the end of the award period.

Attending the ADVANCE PI meeting in DC this year was PAID Program Coordinator, Shawn Werner.

## **II. ACTIVITIES & FINDINGS**

### **Overview**

ADVANCE activities are administrated through a Committee on the Status of Women in STEM at NMSU. The PI/Program Co-PI's, faculty from each of the three colleges involved in ADVANCE (Agriculture and Home Economics, Arts and Sciences, and Engineering) and program directors from related NMSU programs work on this Committee and its five subcommittees. The five subcommittees manage the various programmatic elements and include several faculty members beyond those who work on the main Committee on the Status of Women in STEM. In addition, a new committee was formed upon the recommendation of external evaluator Dr. Laura Kramer: The Transition Committee.

The Transition Committee works to steer ADVANCE towards institutionalization.

The Committee on the Status of Women in STEM (CSW-STEM) engages in outreach activities and is responsible for coordinating the annual research report on the status of women in STEM at NMSU. The report forms the basis for subsequent programming to address gender disparities in STEM at NMSU. Over the course of the grant, an office staff consisting of an Associate Director, Research Analyst, Graduate Assistant and two seasoned undergraduate student assistants have provided necessary administrative, data collection and analysis, and logistical support for the CSW-STEM's, five subcommittees' and the ADVANCING Leaders Committee's activities.

The Recruitment Subcommittee is involved with outreach (meetings with job candidates), research (surveys about search processes, startup, etc.) and training and development (work with departmental search committees) activities. The Faculty Development Subcommittee is involved with educational and training and development activities. The Research Subcommittee meets to administer a program of grants to existing female STEM faculty for research and travel within their disciplines. The Distinguished Visiting Professor Subcommittee administers another research-related activity that involves a strong outreach component and makes women scientists more visible. The ADVANCING Leaders Subcommittee oversees a leadership development program for faculty at NMSU, which included an academic year of monthly luncheons, and a two-day, off-campus retreat. Financial support is obtained from all six NMSU academic colleges and the library for the program. And an ad-hoc Exit Interviews Subcommittee conducts face-to-face and phone interviews to understand why STEM faculty leave.

### **Research and Education**

The ADVANCE Program at NMSU supports institutional and faculty development research projects that are conducted largely by ADVANCE Program personnel (Frehill, Jeser-Cannavale, and Javurek-Humig). In 2007, with the grant on a no-cost extension, the research and travel grant program for female STEM faculty in the 19 target STEM departments ended.

All reports and data are posted to the ADVANCE program webpage. We routinely bring copies of reports to key administrators (e.g., the President, Provost, Vice Provost for

Research, Deans, Director of the Teaching Academy, etc.) to discuss findings and seek assistance in solving problems.

#### ADVANCE Program Staff Research

- **Institutional Data:** We compiled data for the 12 required indicators (except start-up packages) for the 19 STEM and 6 SBS departments as in the past (findings reported in the attached file) and we compiled many of these indicators for the non-STEM departments. In addition, this year we compiled more trend data to make meaningful presentations about the trends in women's involvement in STEM and academic administration for the five-year period prior to ADVANCE (i.e., 1997-2001) and for the first five years of the ADVANCE Program.
  - **Attrition data** for the entire campus were analyzed and presented to: Roles and Rewards Taskforce (and included in the Taskforce's second report to the Provost on Promotion and Tenure); the Associate Provost; the Vice Provost for Research.
  - **Toolkit:** Founding PI Lisa Frehill and Jeser-Cannavale produced a toolkit for other ADVANCE institutions to use in collecting, compiling and reporting the data for the 12 required indicators. The toolkit forms the basis for the supplemental funding award (\$60,000) to bring together data analysts from several ADVANCE institutions to craft a uniform approach to the data reporting tasks.
- **Program Analysis.** We are collecting and analyzing data on participants in our programs to determine the overall effect of the program on individuals.
  - **Career Advancement.** We are creating a cohort data set so that we can determine the career advances of faculty who were active with the ADVANCE Program over the course of the grant.
  - **Mentoring Program.** An analysis of the ADVANCE mentoring program was conducted. Twenty-four interviews with participants and 24 interviews with non-participants were conducted. A paper on this work appeared in conference proceedings.

#### Publications

- Frehill, Lisa, Cecily Jeser-Cannavale, and Janet Malley. "Measuring the Status of Women Towards Cross-Institutional Analysis to Understand Institutional Transformation" forthcoming in *Learning from ADVANCE* edited by Abigail Stewart, Danielle Lavaque-Manty and Janet Malley, Ann Arbor, University of Michigan Press (2007).
- Frehill, Lisa M., Cecily Jeser-Cannavale, Lauren Ketcham. "The Impact of a Mentoring Program on Women and Men in Science and Engineering." Proceedings of the 2007 WEPAN Conference.
- **Dual Career Couples:** ADVANCE personnel have worked with five couples at NMSU to make accommodations, which has resulted in recruitment/retention of

six STEM faculty (including two college track females) and two social and behavioral science faculty (both college track).

- **Exit Interviews:** Working through the Provost's Office in 2007, ADVANCE obtained a list of faculty who have left for reasons other than retirement and their contact information from Human Resources and the NMSU Institutional Review Board approved interviews. Thirty-four interviews were ultimately completed by Dr. Christine Eber of the Sociology/Anthropology Department. Dr. Eber, PI/PD Sterling and Associate Director Hunt presented the report to the Interim EVP/Provost Dr. Robert Moulton and Interim President Cruzado on December 15. (A copy of this report is included in the Appendices.) The report was also presented to the Academic Deans Council and will be presented to the Colleges of Engineering and Business. The impact of this effort on the institution is already evident: When Employee Relations was working to develop a university-wide exit interview process, their staff requested a meeting with ADVANCE exit interview researcher to review the questionnaire designed by ADVANCE.
- **Diversity in engineering:** Several presentations and papers have been based upon this work. Diversity as it relates to recruitment has been a consistent theme in this research strand.

## **Institutionalization of ADVANCE**

### **Institutional Transformation at NMSU through NSF-ADVANCE**

Significant changes have been brought about at New Mexico State University (NMSU) since the inception of the NSF-ADVANCE Institutional Transformation Program in 2002. ADVANCE was the first externally funded effort to deal with gender equity at NMSU. As a result, its substantial monetary resources have provided leverage for a methodological study of the status of women in the disciplines of Science, Technology, Engineering and Mathematics (STEM) where women are under-represented in tenure-track faculty positions relative to Ph.D. degrees awarded. In addition, it has provided the resources to create programming and policy change to improve climate as well as double the numbers of tenure-track female faculty hired into STEM disciplines. The core initiatives for faculty recruitment and retention are now available to all faculty on campus, as the program has been institutionalized and is now located in the Teaching Academy.

In November 2008, over 40 faculty and administrators gathered to celebrate the accomplishments of the NSF-ADVANCE Institutional Transformation grant and to honor the many faculty, staff, and administrators whose vision and dedication made this initiative successful. The achievements of the female STEM faculty members whose work was supported by ADVANCE were also recognized

Looking back, it is clear that significant changes have been brought about since the inception of this \$3.75 mi non-renewable grant. Specific successes and publications are enumerated at <http://www.advance.nmsu.edu/>. Major recruitment and retention initiatives included:

- Twenty-five new hires received over \$1 mi in start-up package enhancement awards. This strategy coupled to working with Department Heads and Search

Committees to broaden applicant pools has doubled the hiring rate for female tenure-track faculty in STEM from 17% in the years prior to ADVANCE to 35% in the seven years of ADVANCE, creating a net increase in STEM female faculty of over 40% (see figure).

- Bi-annual P&T workshops, the Mentoring program where there are now over 100 participants, Department Head Training, and the year-long ADVANCing Leaders Program are available to all faculty on campus
- Strong grass-roots support with over 60 faculty members and administrators filled 115 volunteer positions on the six ADVANCE committees over the life of the grant.
- Partnering for policy change to create a transparent and flexible Promotion & Tenure process, the Employee Climate Survey, the President's Commission on the Status of Women, and NMSU's first Ombudsman's office.
- Over \$1 mi for research, travel, undergraduate research, and visiting professor awards to enhance research and teaching programs, as well as build collaborations across the nation.
- A new \$0.5 mi award, NSF-ADVANCE PAID, is disseminating our best practices of Mentoring and P&T workshops to UNM, NMT and LANL, and is also providing annual department head retreats to discuss recruitment and retention of faculty

THE DATA: In a world where female and underrepresented minority faculty researchers in the sciences are in high demand, it is difficult for universities to attract high quality, diverse faculty members. For this reason, start up packages, and start-up package enhancement can play a huge role in attracting and retaining high quality diverse faculty.

This has been the experience of the ADVANCE Program at NMSU. The ADVANCE grant came at a very unique time in NMSU history. Recent waves of retirement in the STEM fields in 2001 had left several Tenure-track positions open. The ADVANCE Program was able to offer over \$1 million in start up package enhancements to 25 tenure-track female scientists and engineers increasing the representation of high-quality female academic scientists at the university.

NMSU's program worked to both increase awareness of diversity issues and bring in high demand female STEM faculty. By training department heads and search committees in proper searching techniques, about the importance of diversity, and about cognitive errors that we commonly make which may result in subtle discrimination, ADVANCE helped to reduce barriers to diverse candidates in the hiring process. By taking the time to meet with female candidates and working with departments to augment start up packages, the program was able to surpass its initial goal of increasing the number of women in STEM fields by 20%, and actually increased this by 40%. The number of STEM new hires roughly doubled the rate at which women were being hired into NMSU's STEM fields.

The data presented in Appendix 1 illustrates the progress ADVANCE has made at NMSU

#### INSTITUTIONALIZATION ACTIVITIES, 2007-2008

##### *ADVANCE Co-PI University Leader*

In the aftermath of EVP/Provost's Flores appointment to the position of deputy secretary of higher education for the state of New Mexico, the university launched a search for a new EVP/Provost. In August 2007 the promotion to that position of Waded Cruzado,



Dean of the College of Arts and Sciences and a Co-PI of the ADVANCE Program was announced. In July 2008, after President Michael Martin left NMSU to accept a position at Louisiana State University, the Regents appointed Dr. Cruzado to serve as Interim President. Dr. Cruzado has long championed ADVANCE goals at NMSU, and serves as a powerful ally in realizing the aims of the program.

#### *Promotion and Tenure Policy Revision Adopted*

PI/PD Sterling served as co-chair of the Provost-convened Faculty Senate Task Force on Promotion and Tenure Revision from Fall 2006 through September 2008. In August 2008 the revised policy went into effect. Sterling and Dr. Larry Creider, Associate Professor of Library Archives and Special Collections, and past-chair of Faculty Senate, reviewed the revisions to the P&T policy with academic department heads from the College of Engineering on 8/27/08 and with College of Arts and Sciences department heads on 1/8-9/08. In addition Drs. Creider and Sterling met with the Executive Vice President/Provost (4/21/08) to discuss the revisions.

Sterling had Co-Chaired the Task Force with Donna Alden, past Faculty Senate Chair and Roles and Rewards co-Chair with Frehill. In November 2006 the Task Force had released a draft document for public comment across campus (including branch campuses and Extension faculty from across the state); each committee member had met with Department Heads and P&T committees from each College to engage dialog and encourage input. In January 2007, the Task Force reconvened, and incorporated changes that were presented as legislation to the Faculty Senate in spring 2007. On May 3, 2007 the Faculty Senate passed Proposition 18-06/07, which revised Sections 5.88, 5.90, and 5.91 of the NMSU Policy Manual. President Mike Martin approved the legislation on May 11, 2007 and the Board of Regents ratified the new promotion and tenure policy on September 7, 2007 and October 22, 2007. Additional edits were approved through the same process in Spring 2008 to clarify certain sections. In August and September 2008, Interim Provost Moulton reconvened the Task Force to edit each College's new policy to confirm it was in compliance with the new policy which was made official in August 2008 (<http://www.nmsu.edu/~fsenate/ptp/index.html>). This umbrella policy is to serve as a guide for Colleges and Department to increase the transparency of the tenure process and to recognize the need for flexibility, particularly with 'Stopping the Tenure Clock' and 'Part-Time Tenure-track positions' as well as the definition of 'Scholarship,' and the need that candidates should be reviewed on their allocation of effort. Sterling and Senate Chair, Larry Creider, presented to the Dean's Summer Retreat the highlights of the new policy in order to guide the Deans as they re-write their College policies to come into compliance with the new University policy.

Sterling chaired the College of Agriculture's P&T Action Team charged with, as per the new University policy, bringing the College Promotion and Tenure Document into compliance with the University's new policy.

*Faculty Senate Legislation for College-Track Faculty representation on Faculty Senate*  
As Senator, Sterling sponsored a bill which passed Faculty Senate; the entire NMSU faculty voted to include non-tenure track faculty representation on Faculty Senate (<http://www.nmsu.edu/~fsenate/bills/voted/2007-2008/Prop%20190708.pdf>).

#### *Exit Interviews Report Completed*

Working through the Provost's Office in 2007, ADVANCE obtained a list of faculty who have left and their contact information from Human Resources and the NMSU

Institutional Review Board approved interviews. Thirty-four interviews were ultimately completed by Dr. Christine Eber of the Sociology/Anthropology Department. Dr. Eber, PI/PD Sterling and Associate Director Hunt and presented the report to the Interim EVP/Provost Dr. Robert Moulton and Interim President Cruzado on December 15. (A copy of this report is included in the Appendices.) The report was also presented to the Academic Deans Council and will be presented to the Colleges of Engineering and Business. The impact of this effort on the institution is already evident: When Employee Relations was working to develop a university-wide exit interview process, their staff requested a meeting with ADVANCE exit interview researcher to review the questionnaire designed by ADVANCE.

PI/PD Sterling and Dr. Christine Eber, Professor of Anthropology, had met with Provost Flores and Diana Quintana (HR) in 2006 to share an initial report on findings from 12 interviews of faculty who have left NMSU in STEM and non-STEM departments for reasons other than retirement; we were encouraged to continue completing another 16 interviews of faculty who have left NMSU for reasons other than retirement.

#### *Permanent Funding for ADVANCE Programs and Personnel Obtained*

In July 2008 NMSU granted the ADVANCE Program in the Teaching Academy \$30,000 in Performance Award Funds to carry on four key programs: Mentoring, Promotion and Tenure, Leadership Development (ADVANCING Leaders), and Department Head Training. Performance Award Funds are reviewed annually for three years before becoming a permanent part of the budget. In 2007 the university Budget Committee had approved fully funding the Associate Director's salary starting in July. This position was placed administratively in the Teaching Academy within the College of Extended Learning and is permanently funded. The Teaching Academy is devoted to training Faculty in Professional Development specific to teaching. It is a long-term collaborator of ADVANCE, helping to deliver many of the program's Best Practices (i.e. Mentoring, Department Head training, P&T Workshops, ADVANCING Leaders). In 2007 and 2008 it served as a critical dissemination tool for the newly awarded NSF-PAID grant, with the Teaching Academy Director Dr. Tara Gray becoming a Co-PI of PAID.

Additional evidence of our partnership with the Teaching Academy and institutionalization was the continuing co-sponsorship of Department Head training events in 2007 and spring 2008. With funding from ADVANCE, the Teaching Academy brought the CRLT players to NMSU, held workshops on assessment, and hosted a series of freewheeling discussions for department heads. Additionally, the Teaching Academy and ADVANCE joined with Black Studies and Chicano Programs to present a series of diversity lectures, featuring Harold Bailey, Peggy McIntosh and Tim Wise. Starting in fall 2008, ADVANCE offerings at the Teaching Academy have been funded by NMSU Performance Award Funds.

#### *Legislative Efforts*

With the support of President Michael Martin and EVP/Provost Flores, ADVANCE succeeded in getting a house bill on the docket of the New Mexico State legislative session in 2005, 2006 and 2007. In these years PI/PD Sterling traveled to Santa Fe where she testified to the house committee on higher education. Annually Sterling submitted a Proposal in June to the NMSU Budget Committee. President Martin brought the bill to the NM Legislature for the January session. In 2007 the bill requested \$600,000 to recruit diverse faculty in STEM disciplines through start-up package augmentation. It was a top priority for the College of Extended Learning, where both the

ADVANCE grant and the permanent ADVANCE program are now housed. While the bill did not pass the senate, the progress made in 2007 constitutes a strong foundation for future efforts to obtain the support of state funds.

#### *Ombuds Office Created*

A proposal for an ombudsperson, crafted by founding PI Lisa Frehill and former Research Analyst Jeser-Cannavale, was approved in June 2007, and an Office of the Ombuds was created, under the direction of an assistant to the President. In a communication to the Faculty Senate, the Director of the Office of Ombuds publicly recognized the key role that ADVANCE and the President's Commission on the Status of Women played in this initiative. In 2008 for staff and faculty ombudspersons were appointed.

#### *Data Gathering*

In 2005, Institutional Research, Planning and Outcomes Assessment (IRPOA) was placed within Information and Communication Technologies (ICT). The director of IRPOA retired and a search was initiated. In December 2005, the ADVANCE PI/PD was invited to join the search committee for this position, and she worked actively on this committee throughout the Spring; Carmen Santana-Melgoza assumed the position in Summer 2006 and has been helpful in helping ADVANCE access critical data. In August of 2007 ADVANCE Research Analyst Abby Javurek-Humig joined the staff of IRPOA, in a newly created position that is designed to help meet the data-analysis needs of programs such as ADVANCE. In October 2007 IRPOA was placed under the Office of the Executive Vice President/Provost.

Working with the Chief Information Officer and IRPOA, ADVANCE obtained access to the raw data for this annual report and for NMSU's employee climate survey conducted in 2004. The data included in the 2005 Annual Report is the first data report produced by any NMSU grant program based on raw personnel data. ADVANCE aggregated the Employee Climate Survey data so that differences between gender, units, and campuses could be available to evaluate climate in specific areas (<http://irpoa.nmsu.edu/EmployeeClimateSurvey/EmployeeClimateSurvey.html>). NMSU had committed to another Employee Climate Survey in 2007 and consistently thereafter, and to work with UW-Madison to generate questions that have been found by other ADVANCE institutions to be sensitive to gender differences or shown to be reliable indicators of institutional climate. However, the turnover in the position of EVP/Provost contributed to the postponement of this goal to 2008. ADVANCE personnel will meet with Provost Moulton and Director of IRPOA in February 2009 to discuss the process for the second ECS.

#### *Other Efforts*

The PI/PD continues to work to ensure that gender diversity in the sciences and engineering is part of NMSU's vision of diversity.

With input from ADVANCE, the Library included the Journal of Minorities and Women in Science and Engineering in the new periodicals that it determined to obtain after a serials collection review and collection project.

Related to institutionalization, the PI/PD and Associate Director met regularly with the Director of the Teaching Academy, the Assistant to the President, and the Human

Resources Director to discuss ways to collaborate on programming with a plan to move gender and ethnic equity-related programming into these established institutional offices.

As a member of the President's Commission on the Status of Women (PCSW) representing ADVANCE, the PI/PD worked on developing a gender equity policy during the past two years, that was approved in 2007. Very few universities in our country have established a gender equity policy. No other university in New Mexico has such a policy. The policy sets foundation to ensure that gender equity is a value for NMSU. With this policy statement, the Administration will determine whether additional recommendations from the President's Commission on the Status of Women will be implemented in the future. Other accomplishments include finalizing a draft of the search committee handbook that is open, transparent, and describes a gender-neutral process.

The PI/PD participated in the Higher Learning Commission institutional accreditation effort by serving as a "reader" of the self-study document in 2007. In 2008, she met with the Criterion 4 (Acquisition, Discovery and Application of Knowledge) site team subcommittee to review ADVANCE and its programs and initiatives.

To help move forward institutionalization, the program relies on specialized part-time staff. Using operational funds, the program hired a seasoned part-time major gifts officer, Mark Hohnstreiter. As a permanent part-time employee of the NMSU Teaching Academy, Hohnstreiter is familiar with faculty development programs and with the NMSU foundation, for which he has also worked on a contractual basis. This professional works to stage events intended as advocacy and outreach activities attendees ranging from key ADVANCE participants and committee members, NMSU leadership, deans, and department heads, members of the NMSU Foundation, media, elected officials, and University donors. Other participants have included the local chapter of the American Association of University Women and the NM High Tech Research Consortium. We make a general presentation on the accomplishments of the program, present status, and future directions, and engage the group in discussion.

Placing the ADVANCE Program within the Teaching Academy provides access to a strong administrative infrastructure, as evidenced by the assistance given by the Teaching Academy webmaster, who re-designed the ADVANCE website to update it and conform to NMSU style guides. In addition, on-line registration is now available for ADVANCE events, again through the Teaching Academy. The majority of ADVANCE programs and events took place in the Teaching Academy meeting room.

The PI/PD also continued in an effort to work out strategies for a regional "consortia" approach to addressing the needs of dual career couples.

## **Findings**

### Indicators and Reports

See 2008 tables reporting the 12 required indicators.

In the context of its 2008 no-cost extension the program discontinued internal awards for research and travel. The program did continue to pursue the aim of enhancing start-up packages to increase the number of female STEM tenure-track faculty hired.

### Recruitment Efforts

ADVANCE start-up enhancement funds succeeded in helping to attract a new Biologist, Dr. Maria Castillo, who arrived on campus in 2008. In addition Dr. Nancy Chanover of Astronomy and Dr. Karen Villaverde of Computer Science were promoted from college-track to tenure-track starting in the fall of 2008. Drs. Castillo and Chanover were both awarded start-up enhancement funds. Lastly, Dr. Tess Grasswitz, new assistant professor of Entomology (25% Research) was hired and received start-up funds.

The PI/PD and Associate Director met with four women candidates for tenure-track positions in the College of Engineering, three of which accepted positions even though ADVANCE start-up enhancement funds were no longer available:

#### *ADVANCE Meetings with STEM Hire Candidates*

Mechanical Engineering	Anastasia Dobrofski – Accepted position
Chemical Engineering	Jessica Houston – Accepted position
Chemical Engineering	Longmei Luo – Accepted position
Chemical Engineering	Holly Martin

Dr. Dobrofski will be the first woman to fill a tenure-track position in the Department of Mechanical Engineering throughout the more than 100-year history of that department.

### ADVANCE Undergraduate Research Scholarships

ADVANCE Undergraduate Research Scholarships are designed to permit ADVANCE recipients of internal awards (start-up fund enhancements or research grants) and other female STEM faculty to work with female undergraduate students on research projects. In 2007 there were four ADVANCE scholars: Valerie Greif, Virginia Lee and Jeni Petersen

- Kalli Lambeth, a 2007 ADVANCE Undergraduate Research Scholarship recipient, now holds an NSF-REU research fellowship and is a Masters student in the laboratory of Dr. Kathy Hanley, her ADVANCE advisor who is a recipient of ADVANCE start-up enhancement funds. Her 2008 journal publication with Drs. Hanley and K.M. Pepin is listed in the Journal Publications section of this report.
- Arely Torres's ADVANCE Undergraduate Research Scholarship allowed her to work over the summer of 2008 as a member of an NMSU water-purification student team. Her team was one of 42 funded by the U.S. Environmental Protection Agency to participate in the People, Prosperity and the Planet National Student Design Competition. Their project, Drinking Water Purification for USA-Mexico Border Region, was awarded \$10,000. Her ADVANCE advisors were Dr. Martha Mitchell, Academic Department Head of Chemical Engineering, and Dr. Shuguang Deng, Chemical Engineering associate professor and head of the research team. In 2008, Ms. Torres was honored by the Center for International Programs as an outstanding International Student and Engineering Honors

Student. Ms. Torres, of Chihuahua, Mexico, was a chemical engineering major with a 4.0 GPA who was on the National Dean's List and received the Rotary Youth Leadership Award. She also received the AIChE Minority Affairs Committee Scholarship, the AIChE Donald F. and Mildred Topp Othmer National Scholarship and the Dr. Edward Groth Jr. Endowed Memorial Scholarship. An actively involved student, Torres was a member of the Society of Hispanic Professional Engineers as well as Omega Chi Epsilon, a chemical engineering honor society. She served as Engineering Council Vice-President of Affairs and Student President of AIChE. Torres is currently pursuing graduate studies at the University of Kansas, where she was accepted into the doctoral program and will specialize in catalysis.

- Valerie Greif delivered a presentation on her research, "Does UV light facilitate fish predation?" at the April 2008 NMSU Undergraduate Research and Creative Arts Symposium (URCAS). Her Faculty Advisor was Dr. Wiebke Boeing, Fish, Wildlife and Conservation Ecology – a recipient of an ADVANCE start-up fund enhancement.
- Virginia Lee, , presented at the April 2008 URCAS on her work with faculty advisor Dr. Champa Sengupta-Gopalan, Plant and Environmental Sciences, "Analysis of Transcript Abundance and Amino Acid Levels in Nitrogen-Deficient and Nitrogen-Sufficient Alfalfa."
- Jeni Petersen, who worked with Faculty Advisor Shanna Ivey, Animal and Range Sciences (a recipient of ADVANCE start-up funds), presented at the April 2008 URCAS: "Extract from *Larrea* Influences Rumen Fermentation"
- Tori Gomez presented a poster at the October 2006 Geological Society of America national conference in Philadelphia. She worked with Dr. Nancy McMillan on the use of portable X-Ray Fluorescence Spectrometry to determine the provenance of gem beryls. Dr. McMillan's research had initially been funded by an ADVANCE research subaward. She subsequently received funding to continue this research from the U.S. Army.

## **Opportunities for Training and Development**

### ADVANCE Program Staff

The PI/PD was selected to participate in the 2007-2008 LEAD <sup>21</sup> program, Leadership Development for the 21<sup>st</sup> Century: Linking Research, Academics and Extension. LEAD <sup>21</sup> is a nine-month development process with three multi-day sessions requiring pre-reading and preparation activities, designed to meet the future needs for leadership development of faculty, specialists, department heads, etc. in land grant universities' colleges of agricultural, environmental, and human sciences and USDA/CSREES.

The Associate Director attended the 2008 NM-PAID Alliance for Faculty Diversity Retreat, (5/22-23/08) in Elephant Butte NM. In 2007 the Associate Director Attended the PAID Retreat (5/17-18/07) in Sevilleta, NM and the PAID Committee Training Program (3/30-31/07) at the University of New Mexico, Albuquerque, NM as well as the NM-PAID Pipeline Strategy Session (12/5/07), Socorro, NM.

### Other Faculty and Administrators

The Deans of NMS ADVANCE's three "target colleges" – Dean Lowell Catlett of the College of Agriculture and Home Economics, Dean Pamela Jansma of the College of

Arts and Sciences and Dean Steven Castillo of the College of Engineering – provided the funding to bring MentorNet to NMSU.

#### *Conference Attendance for Diversity*

The ADVANCE Program provided training programs that reached many faculty and administrators from almost every NMSU academic department and a limited number of students (graduate and undergraduate). In addition to ADVANCE events on campus, the ADVANCE Program provides support to the NMSU Teaching Academy and enables STEM faculty, administrators, and students to attend important off-campus workshops and conferences related to gender in the STEM fields.

Associate Professor Inna Pivkina and Professor Enrico Pontelli of Computer Science attended the Grace Hopper Celebration of Women in Computing: We Build a Better World (10/1-4/08), where they presented “Recruiting High School Women into Computer Science” at the Birds of a Feather Session.

Academic Department Head Dave Thompson of Entomology, Plant Pathology and Weed Science attended the 2007 LEAD: Leadership Excellence for Academic Diversity workshop.

#### *Programs and Grants Related to Diversity in STEM Fields*

- The Computer Science Summer Program, funded by an NSF CREST grant, is headed by PI Dr. Desh Ranjan, Academic Department Head of Computer Science and ADVANCE mentor. In the summer of 2008 (July 7-Aug. 8) the Department of Computer Science at New Mexico State University offered three programs to increase participation by underrepresented groups in computer science and bioinformatics. The CREST program at NMSU is aimed at introducing community college students from underrepresented minority groups to NMSU, Computer Science, possible career opportunities in Computer Science, and the field of bioinformatics. This program is particularly interested in attracting women and American Indian students, who historically are underrepresented in the field of Computer Science. Thirty-four people participated in the three programs in the summer of 2008: Young Women in Computing, the High School Bioinformatics Summer Program and the College Camp.
- The Young Women in Computing Summer Camp, first funded in 2005, is exclusively for female high school students. Female students accepted into this program receive free books, materials and meals, as well as \$200 weekly for five weeks. Accepted participants also have the opportunity to participate in monthly luncheons during the academic year to meet experts and learn valuable skills for their future college careers.
- In September 2008 Computer Science faculty members Drs. Inna Pivkina (recipient of ADVANCE start-up enhancement funds) and Professor Enrico Pontelli (ADVANCE mentor), along with Assistant Professor Karen Villaverde were awarded a \$600,000 NSF Broadening Participation in Computing supplemental grant for the Young Women in Computing program. With this three-year supplemental grant the team hopes to expand the program beyond its original five-weeks of summer classes and monthly seminars. Dr. Villaverde is an ADVANCE mentee who was recently moved from the non-tenured to the tenure track.

- ADVANCE start-up enhancement recipient, Associate Professor Jing He of the Department of Computer Science, is a PI of NMSU CREST: Center for Research Excellence in Bioinformatics and Computational Biology” grant (National Science Foundation, 2004-2009, \$4,500,000). CREST devotes resources to sponsoring outreach in the field of Bioinformatics and Computational Biology that actively recruits from community colleges in the Southwest, including Dona Ana Community College, El Paso Community College, San Juan College, and Dine College, located on the Navajo Nation. All students must be current community college students interested in computer science who have expressed an interest in transferring to a four-year institution.
- Dr. Elba Serrano, Professor of Biology is a recipient of ADVANCE research funds, has served in the ADVANCE mentoring program as both a mentor and trainer, and has participated in the ADVANCING Leaders Program. In January 2008, Dr. Serrano assumed directorship of NMSU’s National Institutes of Health Research Initiative for Scientific Enhancement (RISE) program to increase the number of underrepresented minority students who achieve Ph.D. degrees.
- Professor Laura Thompson of the Department of Psychology is a past participant of the ADVANCING Leaders Program and an ADVANCE mentor. In 2008 she received a four-year, \$1.1 million grant from the Eunice Kennedy Shriver National Institute of Child Health and Human Development to study how infant adrenocortical functioning and learning are affected by various factors in the environment, including maternal sensitivity.
- ADVANCE mentor and Promotion and Tenure trainer Dr. Mary O’Connell of Plant and Environmental Sciences is a PI of the NMSU U54 Partnership for the Advancement of Cancer Research. New Mexico State University and the Fred Hutchinson Cancer Research Center (Seattle, WA) was awarded a \$10 million National Cancer Institute grant to support a partnership between these two institutions. The partnership’s major objective is to establish cancer research at NMSU and to increase the number of minorities involved in cancer research. The grant was initially funded 2002-2007 and has been renewed 2007-2012.

#### *National and Local Recognition of Participants in ADVANCE Programs*

- Dr. Jeanine Cook, Associate Professor in the Klipsch School of Electrical and Computing Engineering and recipient of ADVANCE start-up funds enhancements, was selected in December 2008 as one of the winners of the prestigious Presidential Early Career Award for Scientists and Engineers (PECASE). Dr. Cook directs the Advanced Computer Architecture Performance and Simulation Laboratory at NMSU. She was recommended for the PECASE award by the Sandia National Laboratory scientists whose applications performance problems Cook solved by building a simulator to pinpoint the problem’s exact location.
- David V. Jáuregui, Associate Professor of Civil Engineering at NMSU and participant in the ADVANCING Leaders Program, was selected as Higher Education Educator of the Year 2008 by the Society of Hispanic Professional Engineers (SHPE). Dr. Jáuregui was also named as the recipient of one of four new professorships named by the College of Engineering, the Wells/Hatch Family Civil Engineering Professorship.
- NMSU’s Regents Professorships are considered the highest academic honor. Two new Regents Professorships were awarded at New Mexico State University’s Spring Convocation in January of 2009: Dr. Elba Serrano, Professor



of Biology and recipient of ADVANCE research funding, and Professor Nancy V. Baker of Government, an ADVANCE mentor.

- Dr. Martha Mitchell of Chemical Engineering is an ADVANCE mentor and the first woman department head in the NMSU College of Engineering. In October 2008 she was named as the recipient of one of four new professorships named by the College of Engineering, the Robert Davis Chemical Engineering Professorship.
- Dr. Thomas Burton, Academic Department Head of Mechanical Engineering and Aeronautical Engineering, and ADVANCE mentor and Recruitment for Diversity trainer for ADVANCE/PAID received one of four new professorships named by the College of Engineering, the Robert G. Myers Department Head Professorship in Mechanical Engineering. In 2008 Dr. Burton succeeded in recruiting the first woman ever to fill a tenure-track position in the more than 100-year history of his department.
- ADVANCING Leaders participant Joseph Berning, Interim Department Head of Physical Education, Recreation and Dance, was recognized with the 2008 Patricia Christmore Teaching Award.
- Dr. Ricardo Jacquez, Professor of Civil Engineering, is a member of the ADVANCE Committee on the Status of Women and mentor in the ADVANCE mentoring program. As director of the Alliance for Minority Participation at NMSU, he has proven to be a staunch ally of ADVANCE. In 2007 he received the Presidential Award for Excellence in Science, Mathematics and Engineering Mentoring.
- ADVANCE start-up fund recipient and mentee in the mentoring program, Dr. Paola Bandini, Assistant Professor of Civil Engineering, received the 2007 NMSU Patricia Christmore Teaching Award for setting the standard in the areas of teaching, mentoring and advising for her college.
- Two other participants in the ADVANCE mentoring program who were also ADVANCE research award recipients of ADVANCE were honored in 2007. Dr. Martha Desmond of the Department of Fishery and Wildlife Sciences was recognized as an E. de la Garza Fellow in the USDA's Hispanic-Serving Institutions National Program in 2007. Dr. Elba Serrano, of the Department of Biology, was selected to the Center for Integrated Nanotechnologies User JumpStart Program of the Department of Energy Nanoscale Science Research Center.
- Engineering Dean Steven Castillo, another institutional transformation ally of ADVANCE, was appointed by the NSF and National Academy of Engineering in 2007 to serve on the Committee on Engineering Education.

ADVANCING Leaders participant Susan Brown, director of the Southern New Mexico SEMAA (Science, Engineering, Mathematics, and Aerospace Academy) at NMSU, received the 2007 John M. Hairston Jr. Award from NASA's SEMAA office.

#### *Professional Accomplishments of ADVANCE Participants*

- ADVANCE Co-PI Waded Cruzado, formerly dean of the College of Arts and Sciences, was appointed Executive Vice President/Provost of NMSU in August of 2007. In the fall of 2008 she was selected as Interim President by the Board of Regents, in the wake of President Michael Martin's departure to accept a position as Chancellor of Louisiana State University. Dr. Cruzado is the first woman ever to serve as Provost or President at NMSU.
- ADVANCE Co-PI and NMSU Executive Vice President/Provost Dr. William Flores, a strong ally of ADVANCE initiatives throughout the life of the grant, was

appointed deputy secretary of higher education for the state of New Mexico in May 2007.

- ADVANCE Co-PI and NMSU Associate Provost, Dr. Josephine De Leon, was appointed deputy secretary of higher education for the state of New Mexico (October 2005 – May 2006). In April 2008 she accepted a position at the University of New Mexico as Vice President for Equity and Inclusion, where she is working with Sterling on the collaborative PAID grant to disseminate NMSU's best practices to NM Institutions of Higher Learning and Research.
- Dr. Michele Nishiguchi, Associate Professor of Biology, recipient of ADVANCE research fund and participant in the ADVANCING Leaders Program who has served as mentee, mentor and workshop facilitator in the ADVANCE mentoring program was named as the new leader of the NMSU Bioscience Cluster in April of 2008, charged with invigorating interdisciplinary research under a broad spectrum of bioscience-related research areas.
- Dr. Rebecca Creamer, Associate Professor in the Department of Entomology, Plant Pathology and Weed Science, recipient of ADVANCE research funds and participant in the ADVANCE mentoring program was named the Director of the Molecular Biology Program at NMSU In August 2008.
- Diana Quintana, formerly Director of Human Resources, was appointed Assistant to the President and Director of the Office of Ombuds in 2007.

#### *On Campus Events*

The ADVANCE Program features a number of training events associated with mentoring, department head training and ADVANCING Leaders programs. Attendance at these events averages about 26 people.

In November 2007, the ADVANCE Program co-sponsored a diversity lecture series presented by Black Programs, featuring Harold Bailey, Executive Director of the New Mexico Office of African-American Affairs, Peggy McIntosh, Director of the Wellesley Centers for Women of Wellesley College, and anti-racist writer and activist Tim Wise.

While the mentoring program focuses predominantly upon faculty in the STEM and now SBS fields, several participants are from departments outside these target disciplines and several key NMSU administrators outside of STEM participate in this program. An additional cohort of social and behavioral sciences participants was recruited this year and the program expanded to include all new tenure-track faculty to NMSU, with plans to include college-track STEM faculty in the future. In fall 2008, with the ADVANCE Program established at the Teaching Academy, the focus of the program was broadened to include all faculty, especially underrepresented faculty, and all faculty participating in the New Faculty Orientation session were invited to participate.

The ADVANCING Leaders Program also reaches across campus in important ways. Not only are the participants from all six academic colleges plus the NMSU Library, but the invited speakers include important administrators at NMSU. Past speakers include: Provost William Flores, Dean/Provost/Interim President and ADVANCE Co-PI Waded Cruzado, Interim Provost Moulton, Senior Vice President, Planning, Resources and University Relations Ben Woods, Legislative Liaison for NMSU Ricardo Rel and Vice President Gladys De Necochea (Student Affairs). Deans serving as mentors include Carmen Gonzales, ADVANCE Co-PI and Vice President for Student Success/Dean of the College of Extended Learning, Garrey Carruthers, Dean of Business Administration

and Economics, Scott Moore, Dean of Student Affairs, and Luis Vazquez, Interim Dean of the College of Health and Social Services. Several Associate deans from multiple colleges were involved as mentors or are on the planning committee for the program including: Kathleen Brooks (College of Business Administration and Economics); LeRoy Daugherty and Wes Holley (College of Agriculture and Home Economics); Peter Gregware ( College of Arts and Sciences); Enedina Vasquez (Graduate School); Michael Morehead (College of Education); Robert Czerniak (Arts and Sciences); and Walter Zakahi, Associate Associate Dean (Arts and Sciences).

<u>Date</u>	<u>Attendees</u>	<u>Event</u>
1/11/08	7	ADVANCING Leaders Luncheon: Patricia Witherspoon, Conflict Management Workshop
2/1/08	12	ADVANCING Leaders Luncheon: Carter Campbell, Seven Habits Follow-up
2/14/08	6	Department Head Training: A Free Wheeling Discussion for Department Heads
2/15/08	48	Promotion and Tenure Workshop: Getting a Head Start on Tenure Review, with EVP/Provost Cruzado
2/22/08	7	Faculty Hiring: Diversity and Excellence Go Hand-in-Hand, with Biology Academic Department Head Dan Howard
2/28/08	14	Department Head Training: Want to Electrify Your Performance Evaluations?
2/29/08	12	Department Head Training: Want to Electrify Your Performance Evaluations?
3/5/08	26	Mentoring Program Workshop/Lunch: Microaggressions: Their Impact on Your Well-Being with Dean Luis Vazquez, Graduate School
3/7/08	10	ADVANCING Leaders Luncheon: Antonio Cachazo, Mid-West Textile Co.
3/12/08	23	Department Head Training: Want to Electrify Your Performance Evals?
3/13/08	2	Department Head Training: A Free Wheeling Discussion for Department Heads
4/4/08	14	ADVANCING Leaders Luncheon: Tim Nesbitt, Keeping the University Solvent
4/17/08	1	Department Head Training: A Free Wheeling Discussion for Department Heads
5/7/08	27	ADVANCING Leaders Recognition Luncheon with President Cruzado
6/17/08	12	Department Head Training: Audio Conference on Diversity: Promoting Faculty Careers for Women
8/15/08	18	ADVANCING Leaders Department Head Retreat
8/27/08	38	University-Wide Event: ADVANCE Open House honoring Dean Pamela Jansma, Arts and Sciences
9/5/08	20	ADVANCING Leaders Introductory Luncheon: Interim Provost Robert Moulton, Path to Leadership
9/5/08	26	Special Speaker: Finding Your Voice: An Introduction to Breath
9/15/08	13	Department Head Training: A Free Wheeling Discussion for Department Heads

9/17/08	48	Promotion and Tenure Workshop: Making the Transition from Assistant to Associate Professor with Provost Robert Moulton
9/29/08	12	Promotion & Tenure: The Scholarship of Engagement
9/30/08	42	Mentoring Orientation/Lunch: Mentoring Roles and Rewards with AFD Committee member Professor Rene Walterbos, Astronomy
10/3/08	15	ADVANCING Leaders Luncheon: Ricardo Rel, Legislative Issues and Procedures
10/14/08	26	Department Head Training: ADVANCE: Department Head Colloquia, Negotiating Allocation of Effort
10/16/08	27	Mentoring Program Sponsored University-Wide Workshop: Just Whelmed: Maintaining a Vibrant and Productive Work Life, with national speaker Meggin McIntosh
10/24/08	21	Mentoring Program Workshop/Lunch: Incorporating Research into Classes and Student Assignments with Associate Professor Shuguang Deng, Chemical Engineering
11/7/08	14	ADVANCING Leaders Luncheon: Ramon Dominguez, Associate Provost on Leadership
11/13/08	49	Mentoring Program Sponsored University-Wide Workshop: The Anatomy of Prejudice, with national speaker Jane Elliott
11/13/08	50	Special Speaker: The Anatomy of Prejudice
11/17/08	39	University-Wide Event: ADVANCE Recognition Reception and Poster Session
12/5/08	29	ADVANCING Leaders Mentors Luncheon: Patricia Sullivan and Patricia Conn, Fundraising
12/15/08	8	Department Head Training: Strategies for Junior Faculty Job Satisfaction

All ADVANCE workshops are evaluated, with a report prepared by the Associate Director for use by the Faculty Development Subcommittee in planning future workshops.

#### *NMSU Teaching Academy Programs*

The NMSU ADVANCE Program supports and promotes events at the NMSU Teaching Academy, which provides a range of professional development activities for all NMSU faculty. The Teaching Academy provides the ADVANCE Program with names of STEM faculty who attend so that we can determine topics of interest to STEM faculty in particular

### **Outreach Activities**

#### Miscellaneous Visits and Meetings

- PI/PD Sterling was invited by the EVP/Provost to attend the first meeting Experimental Statistics Task Force (1/11/08). Experimental Statistics lost its two female faculty; the task force met to discuss the education and research mission of the department.
- PI/PD Sterling met with the outside evaluator during the week of 6/23/08 to review the NIH NIGMS Minority Biomedical Research Support-Research Initiative for Scientific Enhancement (RISE) grant.

- The Alliance for Minority Participation (AMP) grant also requested Sterling's participation in their site visit (3/18/08). In addition, Sterling presented "Planning for Graduate School" for an AMP audience (10/16/08).
- ADVANCE Recognition Gala, NMSU, Las Cruces, NM (11/17/08). Tracy Sterling, PI/PD presented a slide show and talk describing the NMSU ADVANCE program accomplishments and best practices. Sterling and Shawn Werner, Program Coordinator presented a Poster, "NSF ADVANCE Institutional Transformation."
- PAID Retreat 2008 (5/21-22/08), Elephant Butte, NM: Two Academic Department Heads shared NMSU ADVANCE best practices at the NM PAID annual Retreat, led by ADVANCE/PAID PI/PD Sterling. Dr. Thomas Burton of Mechanical Engineering and Aeronautical Engineering led the Recruitment session, "Effective Strategies to Diversify Faculty. Dr. Anne Hubbell of Communications and Journalism led a session on Collegiality. Faculty and Researchers from the partner institutions, University of New Mexico, New Mexico Institute of Mining and Technology and Los Alamos National Laboratory, participated in these trainings.
- PAID Retreat 2007 (5/17-18/07), La Sevilleta, NM: At the 2007 NM-PAID Retreat NMSU faculty members who have been active in the ADVANCE initiative also participated in disseminating best practices to PAID partners. Associate Dean Dr. Luis Vazquez of the Graduate School led a session, "Collegiality and Approaches to Creating Department Cohesion." Academic Department Heads Dr. Dan Howard of Biology, Dr. Tom Burton of Mechanical and Aeronautical Engineering, and Dr. Sonya Cooper of Engineering Technology and Surveying Engineering participated in a panel discussion, "Creative Start-Up Packages and Dual Career Issues." Dr. Howard also led a Recruitment session, "Effective Strategies to Diversify Faculty."
- PAID Training 2007 (3/30-31/07) University of New Mexico, Albuquerque, NM: Faculty members active in ADVANCE at NMSU also helped train PAID Alliance for Faculty Diversity committee members get off the ground at a meeting at the University of New Mexico at the grant's outset. Led by Sterling and then-Co-PI Mary O'Connell, attendees from the partner institutions learned how best to organize Promotion and Tenure Training Programs and Mentoring Programs from Dr. Cooper, Dr. April Ulery, Professor of Plant and Environmental Sciences, Dr. Vazquez, and Dr. Walter Zakahi, Associate Dean of Arts and Sciences.

### Committee Memberships

The Program Director was involved in several committees:

- President's Commission on the Status of Women
- Faculty Senate
- Provost's Promotion and Tenure Revision Task Force – co-chair
- College of Agriculture's Promotion and Tenure Revision Action Team - chair
- Biochemistry Search Committee - member
- Institutional Research, Planning and Outcomes Assessment Search Committee - member
- Leadership Institute – an embryonic grass-roots committee engaged in creating Leadership curriculum for all staff and faculty at NMSU

The Associate Director was also doing committee work:

- Children's Village Planning Committee (on-site daycare)
- Committee on Diversity
- Working with Housing to create MOUs among the science colleges to create Living Learning Communities for Women in Science and Engineering; The first WISE hall was established in fall 2006; the AD meets periodically with the students and their residential hall and faculty advisor, inviting them to our events, several of which they have attended.
- Women's Studies Steering Committee
- Chair, Women's History Month – Theme: Women in Science and Technology
- Leadership Institute – an embryonic grass-roots committee engaged in creating Leadership curriculum for all staff and faculty at NMSU

The Research Analyst served on:

- President's Commission on the Status of Women
  - Monitoring Policies Subcommittee
  - Maternity and Family Leave Policy Subcommittee

Presentations to NM science faculty/staff audiences to disseminate ADVANCE initiatives throughout New Mexico's doctoral-granting institutions and National Labs:

- A meeting of the Alliance for Faculty Diversity committee members formed by the NMSU PAID grant in March in Albuquerque on the campus of UNM. ADVANCE staff and NMSU faculty and administrators presented workshops on mentoring and promotion and tenure.
- Participation of ADVANCE staff and NMSU faculty and administrators as presenters and workshop facilitators in the PAID Department Head Retreat in May.

#### Sessions Organized/Moderated/Presented at Conferences

##### Conferences

- NSF ADVANCE PI Meeting, Alexandria, VA (05/12/08, 05/13/08). Roundtable Presentation by Tanja Pietraß, NMT Co-PI of NM-PAID grant and Shawn Werner, ADVANCE Program Coordinator, "NM-PAID: Partnering for Diversity at New Mexico Institutions of Higher Learning and Research.
- ADVANCE Distinguished Lecture Series, NSF, Washington, D.C. (10/06/08). Presentation by Tracy Sterling, PI/PD, "Institutional Advancement to Increase Faculty Diversity."
- D. Tiziana Giorgi, a recipient of ADVANCE start-up enhancement funds, presented at a session on women in mathematics of the annual meeting of the American Mathematical Society: "ADVANCE Program at NMSU: A Formalized Mentoring Program for STEM Faculty" in 2007.

##### Poster Presentations:

- WEPAN Conference, St. Louis, MO (06/10/08). Poster Presentation by Shawn Werner, Program Coordinator, "NSF ADVANCE-PAID: Partnering for Diversity. New Mexico Institutions of Higher Learning and Research.
- Sterling, T. M., L. M. Frehill, and C. Jeser-Cannavale. 2007. NSF-ADVANCE: Institutional transformation for faculty diversity. ADVANCE PI Meeting.

- Sterling, T.M., P. Hunt, L.M. Frehill, and C. Jeser-Cannavale. 2007. NSF-ADVANCE: Institutional transformation for faculty diversity. NMSU University Research Council Fair – Placed as one of top three posters at the fair.
- ENGAGE New Mexico Day, Las Cruces, NM (04/25/08) – Connecting STEM and Knowledge Workforce Solutions Statewide in order to educate New Mexicans about the need for STEM education, support collaboration between communities, education, government, industry, youth development, etc., and to build capacity for local schools to provide improved STEM education and career guidance. Poster Presentation presented by Tracy Sterling, PI and Shawn Werner, Program Coordinator, “ADVANCE Institutional Advancement.”
- New Mexico Network for Women in Engineering and Science Annual Meeting, Truth or Consequences, NM (10/25/08). Poster Presentation by Pamela Hunt, Associate Director: “NSF ADVANCE: Institutional Transformation.”
- UNM Mentoring Institute Conference – Fostering a Mentoring Culture in the 21<sup>st</sup> Century, Albuquerque, NM (10/22/08, 10/23/08). Poster Presentation by Shawn Werner, Program Coordinator, “NSF ADVANCE: Institutional Transformation.”
- American Association for the Advancement of Science (AAAS). Southwestern and Rocky Mountain (SWARM) Division Conference, Albuquerque, NM (04/11/08) , Poster Presentation, by Tracy Sterling, PI and Shawn Werner, Program Coordinator: “NSF ADVANCE-PAID: Partnering for Diversity. New Mexico Institutions of Higher Learning and Research.”

Distinguished Visiting Professor: In April 2007, the ADVANCE Distinguished Visiting Professors Program supported a visit by Dr. Mary Jane West-Eberhard hosted by Dr. Timothy Wright, Assistant Professor, of Biology. Dr. West-Eberhard is a senior scientist at the Smithsonian Tropical Research Institute. Her work in evolutionary biology led to her election to the National Academy of Sciences and the American Academy of Arts and Sciences. Her ideas on the role of development in evolution are discussed in her 2003 book, *Developmental Plasticity and Evolution*, which was awarded the Hawkins Award from the American Association of Publishers for the best scholarly book of 2003. West-Eberhard's schedule follows:

Date/Time	Event	Location	Target Group
<b>Wednesday 4/18/07</b>			
10:30 AM -2:00 PM	Meet with Biology 550 seminar class for discussion of Developmental Plasticity and Evolution and lunch	Biology 550 Seminar	Graduate students
2:30-5:00PM	Meetings with Biology faculty, students and staff	Biology Department	Biology faculty, students and staff
<b>Thursday 4/19/07</b>			
12:30-2:00 PM	Slideshow and questions and answer session, “Natural	Elementary	1 <sup>st</sup> and 3 <sup>rd</sup> grade students

	History of Tropical Wasps"		
4:00 – 5:00 PM	Public Seminar: "Development and Evolution: a Darwinian Renaissance in Biology"	Hardman 208	General public, NMSU faculty, students and staff
<b>Friday 4/20/07</b>			
12:00-1:30PM	Luncheon talk: "Women in Science: A Cross-cultural Perspective"	Dona Ana Room, Corbett Center	Faculty and students

In addition to Dr. West-Eberhard, the ADVANCE Program arranged an informal meeting/discussion with one of the nation's leading nuclear chemists, Dr. Darleane Hoffman, who was speaking at the Chemistry/Biochemistry Colloquium. Dr. Hoffman and her daughter, the pathologist Dr. Maureane Hoffman, met with female faculty to discuss their careers in science.



### III. PRODUCTS

The ADVANCE program at NMSU has produced an impressive array of products in a large number of STEM disciplines via the mini-grants program that provides research and travel funds to women faculty in 19 departments at NMSU.

#### **Websites**

<http://www.advance.nmsu.edu/> . ADVANCE program website.

#### Journal Publication

Amster, P., De Napoli, P. and M.C. Mariani. An H-system for a revolution surface without boundary. *Abstract and Applied Analysis*. 2006.

Amster, P. and M.C. Mariani. A system of coupled pendulii. *Nonlinear Analysis*. Accepted in 2006, v. 64, n. 8, 1647-1653.

Amster, P., Mariani, M.C. and O. Mendez. Solutions of nonlinear elliptic equations in unbounded Lipschitz domains. *Forum Mathematicum*. Volume 19, Issue 1, 1435-5337, 0933-7741, 2007

P. Amster, M.C. Mariani. Oscillating solutions of a nonlinear fourth order ordinary differential Equation. To appear in *Journal of Mathematical Analysis and Applications*. Volume 325, Issue 2, 15 January 2007, Pages 1133-1141.

Amster, P., De Napoli P. and M. C. Mariani. Periodic Solutions for p-Laplacian Like Systems with Delay. *Dynamics of Continuous, Discrete and Impulsive Systems (series A)*. 2006, v. 13, n. 3-4, 311-319.

DeMouche, L., Bathke, D.J. and Doesken, N., "Master Gardeners' Role in Encouraging Water Conservation Using a Rain Gauge Network," *Journal of Extension*. Volume 45, Number 4. 2007

Cuellar, H., Kim, J.A., and Unguez, G.A. Evidence of post-transcriptional regulation in the maintenance of a partial muscle phenotype by electrogenic cells of *S. macrurus*. *FASEB J*. 2006;20:2540.

DeMouche, L., D. Bathke, and N. Doesken, "Master Gardeners Role in Encouraging Water Conservation Using a Rain Gauge Network", *Journal of Extension*, 2007. v. 25, n. 4

Elizabeth Gasparim and Pedro Ontaneda. Three Applications of Instanton Numbers. *Communications in Mathematical Physics*, 270, 1 (2007), 1-12.

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Gehrke, M., H.A. Priestley Canonical extensions of certain algebras with binary operations: an algebraic perspective on duality, with, submitted to Journal of Pure and Applied Algebra. V. 209, no. 1, 2007. 269-290.

Gehrke, M., G. Bezhanishvili, R. Mines, and P. Morandi, Profinite and canonical completions of Heyting algebras. Order: A Journal on the Theory of Order Sets and Its Applications, v. 23, n. 2-3. 2006

Giorgi, T. and H. Jadallah. "The onset of superconductivity at a superconducting/normal interface." *European Journal of Applied Mathematics*. 2006, VOL 17; PART 6, pages 633-650

Guerrero-Ferreira, R.C. and M.K. Nishiguchi. "Identification of light organ symbionts from the genera *Uroteuthis*, *Loliolus*, and *Euprymna*." *Cladistics*. 2007. v. 23 n. 5, 497-506

Hanley, K.A., J.T. Nelson, E.E. Schirtzinger, S.S. Whitehead, C.T. Hanson. "Superior Infectivity for mosquito vectors contributes to competitive displacement among strains of dengue virus." *BMC Ecology*. 2008, 8:1.

Jones, B.W., A. Maruyama, C.C. Ouverney, and M.K. Nishiguchi. "Spatial and temporal distribution of the Vibrionaceae in coastal waters of Hawaii, Australia, and France." *Microbiol. Ecol.* 2007. v. 54, n. 2, 314-323(10)

Kothandam Krishnamoorthy and Cynthia G. Zoski, "Fabrication of 3D Gold Nano Electrode Ensembles by Chemical Etching", *Analytical Chemistry*, 77 (2005) 5068-5071.

McMillan, N., McManus, Harmon, DeLucia, and Wiziolek, Laser-Induced Breakdown Spectroscopy Analysis of Complex Silicate Minerals – Beryl. *Journal of Analytical Biochemistry and Chemistry*, v. 385, N. 2. 2006

Mariani, M.C., M. Ferraro, N. Furman, Y. Liu, M.C. and D. Rial. Analysis of Intermittence, Scale Invariance and Characteristic Scales in the Behavior of Major Indices near a Crash. *Physica A*, v. 359, n. 1. 2006. 576-588

Nianjun Yang and Cynthia G. Zoski\*, "Polymer Films on Electrodes: Investigation of Ion Transport at Poly(3,4-ethylenedioxythiophene) films by Scanning Electrochemical Microscopy", *Langmuir*, Electrochemistry Edition. 22 (25), 10338 -10347, 2006

Cynthia G. Zoski\*, Nianjun Yang, Peixin He, Luca Berdondini, and Milena Koudelka-Hep, "Addressable Nanoelectrode Membrane Arrays: Fabrication and Steady State Behavior", *Analytical Chemistry*. 2007. 79 (4), 1474 -1484.

#### Conference Proceedings

Frehill, Lisa M., Cecily Jeser-Cannavale, Lauren Ketcham. "The Impact of a Mentoring Program on Women and Men in Science and Engineering." *Proceedings of the 2007 WEPAN Conference*.

#### Book

Cynthia G. Zoski, Editor, *Handbook of Electrochemistry*, Elsevier, Amsterdam. 2007

#### Book Chapter

Frehill, Lisa, Cecily Jeser-Cannavale, and Janet Malley. "Measuring the Status of Women Towards Cross-Institutional Analysis to Understand Institutional Transformation" in *Transforming Science and Engineering: Advancing Academic Women*, edited by Abigail Stewart, Danielle Lavaque-Manty and Janet Malley, Ann Arbor, University of Michigan Press (2007).

Articles in Preparation

Hanley, K.A., Blaney, J.E., Jr., Murphy, B.R., Whitehead, S.S. "Chimeric flaviviruses provide insight into the genetic determinants of virus specificity and infectivity for their arthropod vectors." Submitted to *Journal of Vector-Borne and Zoonotic Diseases*.

Blaney, J.E., Jr., N. Sathe, C.Y. Hanson, L. Goddard, T. A. Romero, K.A. Hanley, B.R. Murphy, S.S. Whitehead. "Dengue virus type 3 (DEN3) vaccine candidates generated by introduction of deletions in the 3' untranslated region (UTR) or exchange of the DEN3 3' UTR with that of DEN4." For submission to *Journal of Virology*.

## **IV. Contributions**

### **Within PI Discipline**

In 2008 the PI/PD was named Co-PI on a new NSF PAID grant (Partnerships in Adaptation, Implementation and Dissemination), PROMOTE. PROMOTE is headquartered at Utah State University and that includes five other universities including NMSU. The grant's aim is to improve the Promotion to Full process at each university. USU will interview professors at each university, and each university will offer a workshop session for promotion to full within the first year of the grant. Each university will also work to ensure that STEM colleges have guidelines in place for promotion to full.

In 2007 the PI/PD was named PI on the NSF PAID grant awarded to NMSU. This grant seeks to disseminate best practices for mentoring, promotion and tenure training and department head training with partner institutes: University of New Mexico, New Mexico Institute for Mining and Technology, and Los Alamos National Laboratory.

The Associate Director, in her new capacity as head of the permanently established ADVANCE Program at the NMSU Teaching Academy, became a member of the NMSU Diversity Council in Fall 2008. The Diversity Council serves as an engaged advocate for achieving a diverse faculty, staff and student body by creating effective and meaningful recommendations and policy in support of an inclusive university environment.

Through 2007 the Research Analyst worked with founding PI Frehill to prepare a number of manuscripts within the field of sociology. To some extent, the data related to the institution and the question of how to make meaningful and appropriate cross-institutional comparisons among the original nine ADVANCE institutions has formed the basis of one thread of work, measuring the status of women. This work will continue, with additional presentations and publications.

Other related research used in-depth qualitative interviews and other programmatic records maintained by the ADVANCE program to understand how institutional forces affect faculty work lives. Frehill and the research analyst, also a sociologist, worked on several projects to be presented at sociology and educational management conferences. These projects examined the impact of the mentoring program and the study of space allocation that we have completed at NMSU.

### **Contributions to Other Disciplines**

Over the course of the grant, ADVANCE funds have assisted in the preparation of scholarly work in eight STEM disciplines: Plant and Environmental Sciences, biology, computer science, fishery and wildlife, food sciences, geological sciences, industrial engineering, and mathematical sciences. Wide-reaching contributions across the STEM fields have been and will continue to be made as a result of this grant.

### **Development of Human Resources**

ADVANCE start-up package enhancements, research awards, mini-grants and undergraduate student researcher scholarships have been essential to scholar's professional development over the life of the grant.

Second, ADVANCE start-up fund enhancements contributed to breakthrough hires in two departments. The Physics Department, which had been without a female tenure-

track position since 2002, was able to hire Dr. Kanani Lee. And in Biology, Michele Shuster transitioned from “college track” to tenure track – a major success for the ADVANCE Program which has engaged in activities to develop college track women to enable them to compete successfully for future tenure-track openings. Dr. Shuster was a recipient of ADVANCE mini-grants in 2006.

Fourth, ADVANCE research funds contributed to the professional development of recipients. M. Cristina Mariani, a recipient of the first “round” of start-up package enhancements, became the first in that cohort to receive tenure. Her progress was augmented by an ADVANCE research grant. An ADVANCE research grant was also instrumental in the tenure of Elizabeth Gasparim, also of the Department of Mathematical Sciences. Susana Salamanca-Riba used her research funds to work with a collaborator at MIT on a wide-ranging project on Lie groups. And Nancy Flores of Food Science conducted research to collect data designed to contribute to future USDA and CREES grant proposals.

Fifth, the ADVANCING Leaders Program and the department head training sessions contributed the development of the managerial capabilities of women in science and the furthering of a constructive university climate.

Sixth, the ADVANCE Program granted scholarships of up to \$2,000 to seven female undergraduate students who assisted in the research of their faculty mentors. Megan Lockwood, working with her faculty mentor, Elizabeth Gasparim of Mathematical Sciences, studied string physics – work which she has found helpful as she continues her studies in physics. Kalli Lambeth, working with Kathryn Hanley of Biology, studied patterns of inter-seotypic competition in dengue virus. Not only does this scholarship program encourage undergraduate female STEM students to pursue graduate work and perhaps faculty careers by forming mentoring relationships with their faculty sponsors – these sponsors in turn receive valuable assistance in their research by highly motivated students.

Seventh, ADVANCE Program mini-grant enabled Associate Professor Inna Pivkina and Professor Enrico Pontelli of Computer Science to present “Recruiting High School Women into Computer Science” at the Birds of a Feather Session of the Grace Hopper Celebration of Women in Computing: We Build a Better World (10/1-4/08). Attendance at the Grace Hopper Celebration enabled these faculty members to increase their understanding of the underlying issues confronting broadening participation of women in computing, and to learn more about other attempts and initiatives in this area.

**Physical, institutional, or information resources that form the infrastructure for research and education.**

The ADVANCE program was instrumental in providing significant support for increased information resources at NMSU for STEM and non-STEM fields. Working with the Office of the Provost, the Hispanic Faculty/Staff Caucus, the Teaching Academy and Faculty Senate the program provided support for broad-based institutional training. ADVANCE program funds have been essential to the launch of the NMSU Teaching Academy.

In addition, the program, in collaboration with the University of Texas at EL Paso ADVANCE Program, has produced a brochure on “Dual Career Couples” for use by the institutions in solving dual career dilemmas. The program brought top administrators

and department heads together to attend Virginia Valian's briefing dinner and discuss gender equity in recruitment and working across colleges and disciplines. The program has established a reputation among department heads of providing quality, value-added programming that is truly relevant to their administrative roles. NMSU President Martin has continued these conversations with President Natalicio of UTEP, demonstrating an institutional commitment to dual career issues.

The ADVANCE program website, and the vital connections maintained with the other ADVANCE institutions have been essential in making information about institutional change easily accessible to a wide audience. The PI, Research Analyst, and Research Analyst made presentations about women's status in STEM fields and the ADVANCE Program to various NMSU, state, and national audiences.

Program personnel participation in other institutional efforts - notably a campus-wide Provost's Taskforce on Roles and Rewards, the President's Commission on the Status of Women, the Committee on Diversity and the Employee Climate Survey Committee are important in disseminating the information learned via the many data collection efforts of the program across campus. Such involvement insures that issues related to the status of women at the institution are kept at the forefront of these other institutional efforts.

### **Other Aspects of Public Welfare**

Research on diversity in science and engineering is important in determining how more women and under represented minorities can be recruited and retained at all levels of the science engineering pipeline. Affecting the pipeline is also one important role of the Distinguished Visiting Professor program. This year's Distinguished Visiting Professors, Melissa Gerald, Heidi Hammel, and Radia Perlman visited K-12 classrooms or educators as part of their visits. Such women were an inspiration to the young girls in these classes, providing them with role models affirming that there are women in science.

\*All Data Provided by the Office of Institutional Research, Planning, and Outcomes Assessment (IRPOA) unless otherwise noted

**Table 1: New Mexico State University Faculty by Category, Fall 2008**

Faculty Category	All NMSU			STEM and SBS Departments			Social and Behavioral Science Departments			ADVANCE (STEM) Departments		
	All	Female	% Female	All	Female	% Female	All	Female	%Female	All	Female	% Female
Tenured/ Tenure Track	582	198	34.0%	290	73	25.2%	46	20	43.5%	244	53	21.7%
Temporary / Non-Tenure Track	141	92	65.2%	51	29	56.9%	13	8	61.5%	38	21	55.3%
Total	723	290	40.1%	341	102	29.9%	59	28	47.5%	282	74	26.2%

<sup>1</sup>For a complete list of Social and Behavioral Science Departments and ADVANCE (STEM) Departments, see Table 3.

**Table 2: Distribution of NMSU STEM Faculty by Category and Gender, Fall Semesters 1995-2008**

	Tenure/ Tenure Track			Non- Tenure Track			All Categories		
	Total	Female	%Female	Total	Female	%Female	Total	Female	%Female
1995	251	34	14%	35	15	42.9%	286	49	17.1%
1996	246	33	13%	31	15	48.4%	277	48	17.3%
1997	250	40	16%	31	17	54.8%	281	57	20.3%
1998	247	41	17%	36	18	50.0%	283	59	20.8%
1999	240	42	18%	27	16	59.3%	267	58	21.7%
2000	231	20	9%	32	22	68.8%	263	42	16.0%
2001	233	37	16%	30	18	60.0%	263	55	20.9%
2002	232	41	18%	39	19	48.7%	271	60	22.1%
2003	236	42	18%	24	16	66.7%	260	58	22.3%
2004	241	46	19%	23	13	56.5%	264	59	22.3%
2005	244	47	19%	21	13	61.9%	265	60	22.6%
2006	247	51	21%	31	17	54.8%	278	68	24.5%
2007	255	52	20%	41	22	53.7%	296	74	25.0%
2008	244	53	22%	37	21	56.8%	281	74	26.3%

**Table 3: Fall 2008 STEM and SBS Departmental Faculty Sex Composition**

	Tenured and Tenure Track			Non-Tenure Track			Non-Tenure Track as % All Females
	All	Female	%Female	All	Female	%Female	
<b>Agriculture and Home Economics</b>	66	19	28.8%	6	2	33.3%	9.5%
Agronomy and Horticulture	18	3	16.7%	1	0	0.0%	0.0%
Animal and Range Science	19	2	10.5%	1	0	0.0%	0.0%
Entomology, Plant Pathology and Weed Science	9	3	33.3%	2	0	0.0%	0.0%
Family and Consumer Science	11	9	81.8%	1	1	100.0%	10.0%
Fishery and Wildlife Science	7	2	28.6%	1	1	100.0%	33.3%
<b>Arts and Sciences</b>	104	26	25.0%	25	17	68.0%	39.5%
Astronomy	10	2	20.0%	1	1	100.0%	33.3%
Biology	19	7	36.8%	1	1	0.0%	12.5%
Chemistry and Biochemistry	19	3	15.8%	5	2	40.0%	40.0%
Computer Sciences	11	3	27.3%	1	1	100.0%	25.0%
Geological Sciences	6	2	33.3%	0	0	0.0%	0.0%
Mathematical Sciences	24	8	33.3%	14	10	71.4%	55.6%
Physics	15	1	6.7%	3	2	66.7%	66.7%
<b>Engineering</b>	72	8	11.1%	6	2	33.3%	20.0%
Electrical and Computer Engineering	19	1	5.3%	1	1	100.0%	50.0%
Chemical Engineering	7	1	14.3%	0	0	0.0%	0.0%
Civil and Geological Engineering	13	2	15.4%	0	0	0.0%	0.0%
Engineering Technology	10	2	20.0%	1	1	0.0%	33.3%
Industrial Engineering	5	1	20.0%	1	0	0.0%	0.0%
Mechanical Engineering	15	0	0.0%	2	0	0.0%	0.0%
Survey Engineering	3	0	0.0%	0	0	0.0%	0.0%
<b>Social and Behavioral Sciences</b>	57	24	42.1%	14	9	64.3%	27.3%
Communications	6	3	50.0%	3	3	100.0%	50.0%
Criminal Justice	10	4	40.0%	6	3	50.0%	42.9%
Geography	6	2	33.3%	0	0	0.0%	0.0%
Government	11	4	36.4%	1	1	0.0%	20.0%
Psychology	12	3	25.0%	0	0	0.0%	0.0%
Sociology and Anthropology	12	8	66.7%	4	2	50.0%	20.0%



**Table 4: Distribution within Sex and Field of Rank and Tenure Status of NMSU Faculty, Fall 2008**

	Social and Behavioral Sciences				NMSU-ADVANCE STEM Fields				Non-STEM or SBS			
	Females		Males		Females		Males		Females		Males	
	#	%	#	%	#	%	#	%	#	%	#	%
<b>Non-Contract</b>												
Instructor	2	66.7%	1	33.3%	4	57.1%	3	42.9%	36	61.0%	23	39.0%
Assistant	3	60.0%	2	40.0%	6	54.5%	5	45.5%	25	80.6%	6	19.4%
Associate	3	75.0%	1	25.0%	10	66.7%	5	33.3%	5	45.5%	6	54.5%
Full	0	0.0%	0	0.0%	1	25.0%	3	75.0%	3	50.0%	3	50.0%
<b>Tenure-Track/ Tenured</b>												
Assistant, Tenure-Track	10	55.6%	8	44.4%	14	27.5%	37	72.5%	43	57.3%	32	42.7%
Assistant, Tenured	1	50.0%	1	50.0%	1	33.3%	2	66.7%	4	66.7%	2	33.3%
Associate, Tenure-Track	4	66.7%	2	33.3%	5	27.8%	13	72.2%	13	44.8%	16	55.2%
Associate, Tenured	5	33.3%	10	66.7%	12	19.7%	49	80.3%	37	46.3%	43	53.8%
Full, Tenured	4	25.0%	12	75.0%	20	18.2%	90	81.8%	28	27.5%	74	72.5%
<b>Total</b>	32	46.4%	37	53.6%	73	26.1%	207	73.9%	194	48.6%	205	51.4%
<b>Non-Contract, Total</b>	8	67%	4	33.3%	21	57%	16	43.2%	69	64%	38	35.5%
<b>Tenure-Track, Total</b>	14	58%	10	41.7%	19	28%	50	72.5%	56	54%	48	46.2%
<b>Tenured, Total</b>	10	30%	23	69.7%	33	19%	141	81.0%	69	37%	119	63.3%

**Table 5: Faculty by Gender and Ethnicity, Number and Percent Total within Tenured and Tenure-Track and Non-Tenure Track**

2007		Tenured and Tenure-Track						Non Tenure-Track					
		Hispanic	Asian	Black	White	Am. Indian	Not coded	Hispanic	Asian	Black	White	Am. Indian	Not coded
<b>STEM</b>	<b>Female #</b>	8	7	0	36	0	1	0	1	0	18	0	3
	%	3.1%	2.8%	0.0%	14.2%	0.0%	0.4%	0.0%	2.5%	0.0%	45.0%	0.0%	7.5%
	<b>Male #</b>	16	25	2	150	1	8	0	1	0	17	0	0
	%	6.3%	9.8%	0.8%	59.1%	0.4%	3.1%	0.0%	2.5%	0.0%	42.5%	0.0%	0.0%
	<b>Total</b>	24	32	2	186	1	9	0	2	0	35	0	3
<b>SBS</b>	<b>Female #</b>	3	1	0	16	0	3	0	0	0	7	0	2
	%	5.4%	1.8%	0.0%	28.6%	0.0%	5.4%	0.0%	0.0%	0.0%	14.0%	0.0%	4.0%
	<b>Male #</b>	3	0	0	24	0	6	1	0	0	3	1	1
	%	5.4%	0.0%	0.0%	42.9%	0.0%	10.7%	2.0%	0.0%	0.0%	6.0%	2.0%	2.0%
	<b>Total</b>	6	1	0	40	0	9	1	0	0	10	1	3
<b>Non-STEM and Non-SBS</b>	<b>Female #</b>	14	2	2	84	3	13	11	0	1	31	0	7
	%	5.2%	0.7%	0.7%	31.5%	1.1%	4.9%	15.3%	0.0%	1.4%	43.1%	0.0%	9.7%
	<b>Male #</b>	19	5	1	110	4	10	7	0	0	12	0	3
	%	7.1%	1.9%	0.4%	41.2%	1.5%	3.7%	9.7%	0.0%	0.0%	16.7%	0.0%	4.2%
	<b>Total</b>	33	7	3	194	7	23	18	0	1	43	0	10

2008		Tenured and Tenure-Track						Non Tenure-Track					
		Hispanic	Asian	Black	White	Am. Indian	Not coded	Hispanic	Asian	Black	White	Am. Indian	Not coded
<b>STEM</b>	<b>Female #</b>	8	6	0	36	0	2	0	1	0	18	0	3
	%	3.3%	2.5%	0.0%	14.8%	0.0%	0.8%	0.0%	2.6%	0.0%	47.4%	0.0%	7.9%
	<b>Male #</b>	15	29	2	136	1	8	0	1	0	14	0	1
	%	6.2%	11.9%	0.8%	56.0%	0.4%	3.3%	0.0%	2.6%	0.0%	36.8%	0.0%	2.6%
	<b>Total</b>	23	35	2	172	1	10	0	2	0	32	0	4
<b>SBS</b>	<b>Female #</b>	4	0	0	17	0	3	0	0	0	8	0	1
	%	7.0%	0.0%	0.0%	29.8%	0.0%	5.3%	0.0%	0.0%	0.0%	57.1%	0.0%	7.1%
	<b>Male #</b>	3	0	0	25	0	5	1	0	0	3	1	0
	%	5.3%	0.0%	0.0%	43.9%	0.0%	8.8%	7.1%	0.0%	0.0%	21.4%	7.1%	0.0%
	<b>Total</b>	7	0	0	42	0	8	1	0	0	11	1	1
<b>Non-STEM and Non-SBS</b>	<b>Female #</b>	14	2	2	84	3	20	11	1	1	35	0	13
	%	4.8%	0.7%	0.7%	28.8%	1.0%	6.8%	12.6%	1.1%	1.1%	40.2%	0.0%	14.9%
	<b>Male #</b>	21	5	2	113	5	21	6	0	0	13	0	7
	%	7.2%	1.7%	0.7%	38.7%	1.7%	7.2%	6.9%	0.0%	0.0%	14.9%	0.0%	8.0%
	<b>Total</b>	35	7	4	197	8	41	17	1	1	48	0	20

**Table 6A: Assistant Professor Cohorts, ADVANCE (STEM) Departments**

Cohort Year	# In Cohort		Tenured		Left Institution				Not Yet Tenured	
					After P/T		Without P/T			
	M	F	M	F	M	F	M	F	M	F
1995	9	4	8	0	0	1	1	3	0	0
1996	10	1	4	1	3	0	3	0	0	0
1997	9	1	6	0	0	0	3	0	0	1
1998	5	3	5	2	0	1	0	0	0	0
1999	7	4	5	4	0	0	2	0	0	0
2000	6	2	5	1	0	0	1	1	0	0
2001	18	1	5	0	0	0	8	0	5	1
2002	11	6	9	5	0	0	2	0	0	1
2003	14	4	1	1	0	0	3	2	10	1
2004	7	5	0	0	0	0	2	1	5	4
2005	5	1	0	0	0	0	0	0	5	1
2006	6	4	0	0	0	0	0	2	6	2
2007	4	0	0	0	0	0	0	0	4	0
2008	5	0	0	0	0	0	0	0	5	0
Total	116	36	48	14	3	2	25	9	40	11
Total 1995-2007	111	36	48	14	3	2	25	9	35	11

**Table 6B: Assistant Professor Cohorts, Non-ADVANCE (STEM) Departments**

Cohort Year	# In Cohort		Tenured		Left Institution				Not Yet Tenured	
					After P/T		Without P/T			
	M	F	M	F	M	F	M	F	M	F
1995	10	13	4	4	3	2	3	7	0	0
1996	9	15	6	5	1	3	2	7	0	0
1997	8	12	2	4	1	3	5	5	0	0
1998	10	5	2	2	1	0	7	3	0	0
1999	8	5	5	1	0	0	2	3	1	1
2000	10	9	6	3	1	1	3	3	0	2
2001	4	13	1	4	1	1	0	1	2	7
2002	15	21	8	11	0	0	4	6	3	4
2003	12	5	1	1	0	0	3	1	8	3
2004	5	12	0	1	0	0	3	3	2	8
2005	4	7	1	0	0	0	1	1	2	6
2006	7	10	0	0	0	1	0	0	7	9
2007	7	6	0	0	0	0	0	0	7	6
2008	5	4	0	0	0	0	0	0	5	4
Total	114	137	36	36	8	11	33	40	37	50
Total 1995-2007	109	133	36	36	8	11	33	40	32	46

**Table 7A: Associate Professor Cohorts, ADVANCE (STEM) Departments**

Cohort Year	# In Cohort		Promoted		Left		Not Yet Promoted		Not Yet Tenured	
	M	F	M	F	M	F	M	F	M	F
1995	6	1	2	1	2	0	2	0	0	0
1996	7	3	3	1	3	1	1	1	0	0
1997	9	1	4	1	3	0	2	0	0	0
1998	8	4	5	3	0	1	3	0	0	0
1999	10	2	6	1	2	1	2	0	0	0
2000	9	3	3	0	3	3	3	0	0	0
2001	7	1	3	0	1	1	3	0	0	0
2002	5	1	2	0	2	0	1	1	0	0
2003	6	0	3	0	0	0	3	0	0	0
2004	8	2	2	0	1	0	5	2	0	0
2005	4	5	0	0	0	0	4	5	0	0
2006	11	3	0	1	0	0	11	2	3	0
2007	1	0	0	0	0	0	1	0	1	0
2008	9	6	0	0	0	0	9	6	4	1
<b>Total</b>	100	32	33	8	17	7	50	17	8	1
Total 1995-2007	91	26	33	8	17	7	41	11	4	0

**Table 7B: Associate Professor Cohorts, Non-STEM Departments**

Cohort Year	# In Cohort		Promoted		Left		Not Yet Promoted		Not Yet Tenured	
	M	F	M	F	M	F	M	F	M	F
1995	8	11	2	3	2	5	4	3	0	0
1996	11	6	5	1	4	4	2	1	0	0
1997	5	3	1	0	0	2	4	1	0	0
1998	7	9	3	2	2	5	2	2	0	0
1999	6	10	4	3	2	5	0	2	0	0
2000	4	4	3	2	1	1	0	1	0	0
2001	2	5	1	2	1	1	0	2	0	0
2002	11	7	5	2	3	1	3	4	0	0
2003	5	7	0	2	2	2	3	3	0	1
2004	5	4	0	0	0	1	5	3	2	0
2005	5	5	0	0	0	0	5	5	1	1
2006	10	8	0	0	0	1	10	7	1	3
2007	1	1	0	0	0	0	1	1	1	0
2008	7	18	0	0	0	0	7	18	2	8
<b>Total</b>	87	98	24	17	17	28	46	53	7	13
Total 1995-2007	80	80	24	17	17	28	39	35	5	5

**Table 8: Tenured and Tenure Track Age, Time at NMSU, Experience, 2008**

2008	SBS Departments			STEM Departments			NonSTEM/SBS Departments		
	Males	Females	Gender Gap	Males	Females	Gender Gap	Males	Females	Gender Gap
<b>Age</b>									
Mean	48.8	44.4	4.4	49.6	48.6	1.0	52.7	49.2	3.5
Median	51	44.5	6.5	49	47.5	1.5	54	49	5.0
Std. Dev.	9.9	9.1		9.2	7.9		9.5	9.7	
Minimum	32	31		28	33		32	29	
Maximum	63	61		76	67		72	77	
# of valid cases	33	24		191	52		167	125	
<b>Time at NMSU</b>									
Mean	12.8	8.9	3.9	14.9	11.8	3.1	14.5	9.5	5.0
Median	14	8	7.9	14	10.5	3.5	14	7	7.0
Std. Dev.	9.1	6.8		9.9	6.9		9.5	7.4	
Minimum	0	0		0	0		0	0	
Maximum	33	19		42	25		37	35	
# of valid cases	33	24		191	52		167	125	
<b>Years of Experience</b>									
Mean	15.9	11.9	4.0	19.7	15.6	4.1	19.4	12.4	7.0
Median	15	10.5	4.5	19	14	5.0	18	11	7.0
Std. Dev.	9.8	7.8		9.3	7.7		9.8	8.1	
Minimum	1	1		1	2		0	0	
Maximum	34	30		47	33		41	35	
# of valid cases	33	20		180	52		153	115	

\*Gender Gap = Male - Female

\*Years of Experience = current year - date of PhD.

**Table 9: Tenure and Tenure Track Monthly Salary By Rank, 2008**

	SBS Departments			STEM Departments			Non-STEM and Non-SBS		
	Males	Females	Gender Gap	Males	Females	Gender Gap	Males	Females	Gender Gap
<b>Monthly Salary: Assistant Professors</b>									
Mean	\$5,436.06	\$4,813.50	\$622.56	\$6,901.25	\$6,306.55	\$594.70	\$5,968.96	\$5,178.41	\$790.55
Median	\$5,757.33	\$4,519.50	\$1,237.83	\$6,611.11	\$6,111.11	\$500.00	\$5,346.72	\$4,730.25	\$616.47
Std. Dev	\$872.91	\$726.12		\$1,289.94	\$1,286.66		\$1,895.70	\$1,137.92	
Minimum	\$4,000.00	\$4,080.00	Ratio:	\$4,795.94	\$4,699.23	Ratio:	\$3,583.33	\$3,747.69	Ratio:
Maximum	\$6,348.02	\$5,760.03	0.89	\$9,215.69	\$9,411.61	0.91	\$11,333.33	\$10,168.29	0.87
# valid cases	9	11		39	15		34	47	
<b>Monthly Salary: Associate Professors</b>									
Mean	\$5,919.26	\$5,953.00	(\$33.74)	\$7,270.28	\$6,976.15	\$997.08	\$6,668.03	\$6,446.39	\$221.64
Median	\$5,620.13	\$5,473.73	\$146.40	\$7,088.20	\$6,877.36	\$740.83	\$6,310.43	\$5,761.45	\$548.98
Std. Dev	\$1,164.46	\$880.19		\$1,385.91	\$1,058.61		\$1,854.61	\$1,809.64	
Minimum	\$4,564.16	\$4,967.99	Ratio:	\$4,993.50	\$5,539.64	Ratio:	\$2,550.00	\$4,466.82	Ratio:
Maximum	\$8,314.02	\$7,203.89	1.01	\$10,118.96	\$9,704.44	0.87	\$11,447.55	\$11,231.33	0.97
# valid cases	12	9		62	17		59	50	
<b>Monthly Salary: Full Professors</b>									
Mean	\$7,429.77	\$6,865.93	\$563.84	\$8,686.31	\$7,973.23	\$713.08	\$8,339.71	\$7,816.96	\$522.75
Median	\$7,392.47	\$6,780.86	\$611.61	\$8,355.29	\$7,618.19	\$737.10	\$8,174.66	\$7,852.33	\$322.33
Std. Dev	\$960.81	\$1,333.86		\$1,589.70	\$1,097.19		\$2,034.49	\$1,747.00	
Minimum	\$5,425.96	\$5,577.39	Ratio:	\$6,301.93	\$6,755.43	Ratio:	\$4,932.12	\$5,256.76	Ratio:
Maximum	\$8,834.98	\$8,324.64	0.92	\$13,670.14	\$10,293.43	0.92	\$14,425.28	\$12,709.03	0.94
# valid cases	12	4		90	20		74	28	

**Table 10: Non-Contract Age, Time at NMSU, Experience and Monthly Salary 2008**

2008	SBS <sup>1</sup> Departments			STEM <sup>2</sup> Departments			Non STEM/SBS <sup>3</sup>		
	Males	Females	Gender Gap <sup>4</sup>	Males	Females	Gender Gap <sup>4</sup>	Males	Females	Gender Gap <sup>4</sup>
<b>Age</b>									
Mean	58.8	49.7	9.1	54	44.4	9.6	55.2	50	5.2
Median	60	48	12	55.5	46	9.5	58	50	8
Std. Dev.	3.27	13.6		12.1	7.5		9.77	9.5	
Minimum	55	28		31	28		26	30	
Maximum	63	67		71	57		65	64	
# valid cases	5	9		16	21		26	61	
<b>Time at NMSU</b>									
Mean	11	11.9	-0.9	15.8	9.1	6.7	10.4	8.9	1.5
Median	9	9	0	17	7	10	8	5	3
Std. Dev.	3.7	9.3		10.4	7.3		9.3	8.4	
Minimum	8	4		3	1		1	0	
Maximum	15	33		29	27		35	36	
# valid cases	5	9		16	21		26	61	
<b>Years of Experience</b>									
Mean	20.6	15.6	5	21.1	14.6	6.5	21	13.6	7.4
Median	17	18	-1	20	15	5	21	13	8
Std. Dev.	11.3	10.9		11.6	6.5		11.5	8.9	
Minimum	9	2		3	2		2	1	
Maximum	34	36		41	25		39	38	
# valid cases	5			15	20		25	56	
<b>Monthly Salary: All Non-Contract</b>									
Mean	\$4,344.91	\$3,728.20	\$616.71	\$5,362.98	\$4,258.89	\$1,104.09	\$4,626.22	\$4,279.74	\$346.48
Minimum	\$1,961.12	\$2,538.67		\$1,656.93	\$1,656.93		\$2,111.71	\$1,586.67	
Maximum	\$6,448.22	\$4,533.33		\$13,057.28	\$7,031.77		\$8,097.58	\$9,374.41	
# valid cases	5	9		16	21		26	61	
<b>Monthly Salary: Excluding Instructor Rank</b>									
Mean	\$4,344.91	\$3,728.20	\$616.71	\$5,997.85	\$4,663.29	\$1,334.56	\$4,897.36	\$4,643.17	\$254.19
Minimum	\$1,961.12	\$2,538.67		\$2,400.40	\$2,400.40		\$3,000.00	\$1,610.24	
Maximum	\$6,448.22	\$4,533.33		\$13,057.28	\$7,031.77		\$8,097.58	\$9,374.41	
# valid cases	5	9		13	17		21	37	

**Table 11: NMSU Administrative Leadership Positions, Fall 2002 and 2008**

	2002				2008			
	Total	Male	Female	% Female	Total	Male	Female	%Female
<b>STEM Department Heads</b>	19	17	2	10.5%	18	14	4	22.2%
<b>STEM Associate Department Heads</b>	7	6	1	14.3%	4	3	1	25.0%
<b>STEM Assistant Department heads</b>	1	1	0	0.0%	2	2	0	0.0%
<b>Vice Presidents / Provosts</b>	5	3	2	40.0%	6	3	3	50.0%
<b>Vice Provosts</b>	3	1	2	66.7%	3	1	2	66.7%
<b>Deans</b>	7	5	2	28.6%	9	6	3	33.3%
<b>Associate Deans</b>	11	7	4	36.4%	14	11	3	21.4%

**Table 12: Social and Behavioral Science (SBS) Faculty, ADVANCE (STEM) Faculty, and Faculty not in ADVANCE Departments nor Social and Behavioral Science Departments (non-STEM and Non-SBS) Holding Regents Professorships, 2008**

	Total	Men	Women
SBS Departments	3	2	1
STEM Departments	12	10	3
Non-STEM and Non-SBS	9	8	2
Total	24	20	6



**Table 13: Gender Distribution of Promotion and Tenure Committees 1997-2008**

	College of Agriculture and Home Economics			College of Arts and Sciences			College of Engineering		
	Total	Female	% Female	Total	Female	% Female	Total	Female	% Female
1997-1998	N/A	N/A	N/A	6	0	0.00%	6	0	0.00%
1998-1999	5	1	20.00%	6	0	0.00%	7	0	0.00%
1999-2000	5	2	40.00%	6	1	16.60%	6	0	0.00%
2000-2001	5	2	40.00%	6	1	16.60%	7	0	0.00%
2001-2002	5	2	40.00%	6	1	16.60%	6	0	0.00%
2002-2003	5	2	40.00%	6	1	16.60%	6	0	0.00%
2003-2004	5	2	40.00%	6	2	33.30%	5	0	0.00%
2004-2005	5	2	40.00%	6	2	33.30%	5	0	0.00%
2005-2006	7	3	42.90%	6	3	50.00%	6	1	16.60%
2006-2007	8	3	37.50%	6	3	50.00%	5	0	0.00%
2007-2008	12	3	25.00%	7	4	57.14%	6	1	16.60%

\*Data Source: College Dean's Offices.

**Table 14: Women as a Percent of All Ph. D. Recipients Nationwide, 2003, Post Docs, 2001, Academic Employment, 2003 and NMSU Faculty, 2008**

	Physical Sciences <sup>1</sup>	Biological and Agricultural Sciences <sup>2</sup>	Earth and Atmospheric Sciences <sup>3</sup>	Mathematical Sciences <sup>4</sup>	Computer Sciences <sup>5</sup>	Engineering <sup>6</sup>
<b>National, 2003</b>	26.90%	44.00%	33.10%	26.50%	20.20%	17.00%
<b>Post Docs, 2001</b>	23.10%	43.10%	25.00%	25.00%	0.00%	22.20%
<b>Employed in Academia, 2003</b>	14.80%	32.1% *		17.10%	18.30%	10.30%
<b>NMSU Faculty<sup>7</sup>, 2008</b>	13.6%	23.60%	33.30%	33.30%	27.30%	9.70%

<sup>1</sup>Physical Sciences Includes: Astronomy, Chemistry and Biochemistry, and Physics

<sup>2</sup>Biological and Agricultural Sciences Includes: Agronomy and Horticulture; Entomology, Plant Pathology and Weed Science; Animal and Range Sciences; Fishery and Wildlife Sciences and Biology

<sup>3</sup>Earth and Atmospheric Sciences Includes: Geological Sciences

<sup>4</sup>Mathematical Sciences Includes: Mathematical Sciences

<sup>5</sup>Computer Sciences Includes: Computer Science

<sup>6</sup>Engineering Includes: Chemical Engineering; Civil and Geological Engineering; Electrical and Computer Engineering; Engineering Technology; Industrial Engineering; Mechanical Engineering and Survey Engineering

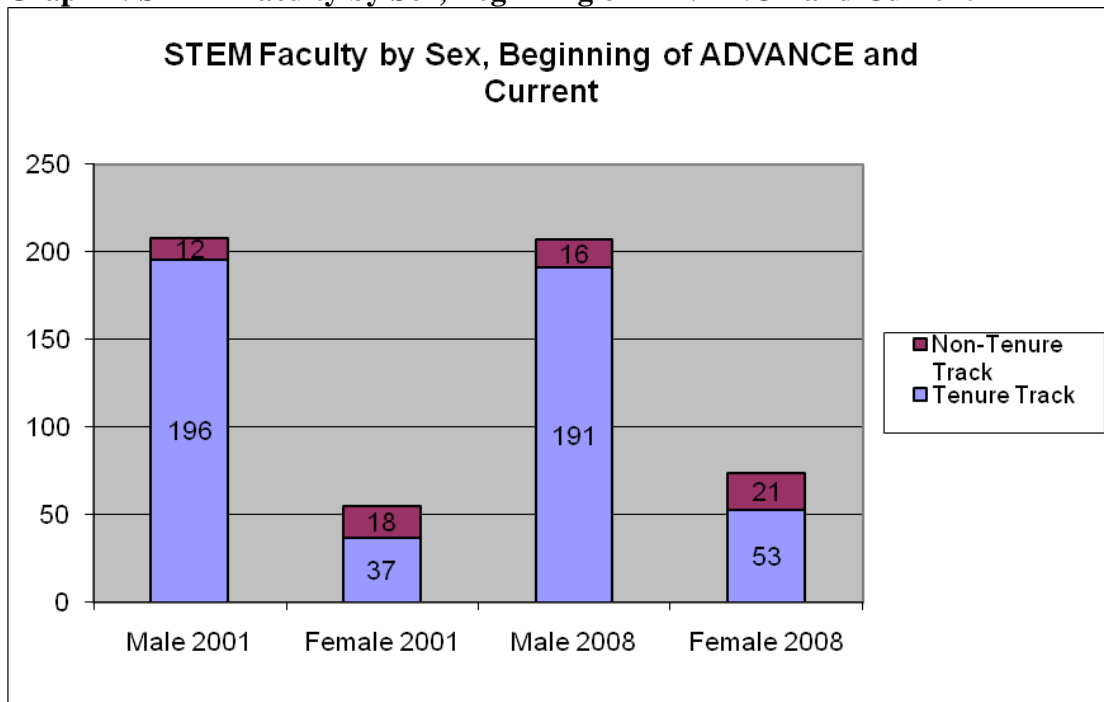
<sup>7</sup>Tenured and Tenure-Track Faculty Only.

\* In 2001, the percentage of women employed in Academia Biological and Agricultural Sciences was 31.3% and Earth and Atmospheric Sciences was 18.6%. In 2003 there was not a report splitting these two groups up.

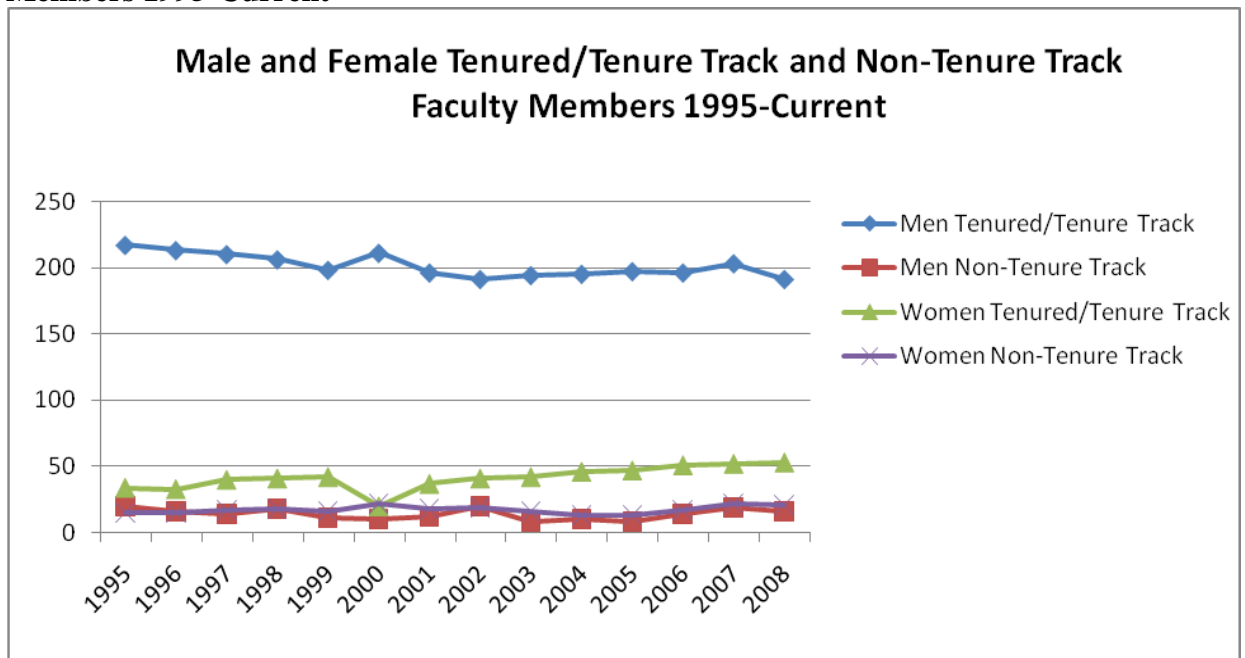
**Table 15: Women as a percentage of all STEM New Hires 1995-2008**

1995	33%
1996	9%
1997	0%
1998	29%
1999	36%
2000	22%
2001	6%
2002	35%
2003	33%
2004	36%
2005	38%
2006	40%
2007	28%
2008	27%

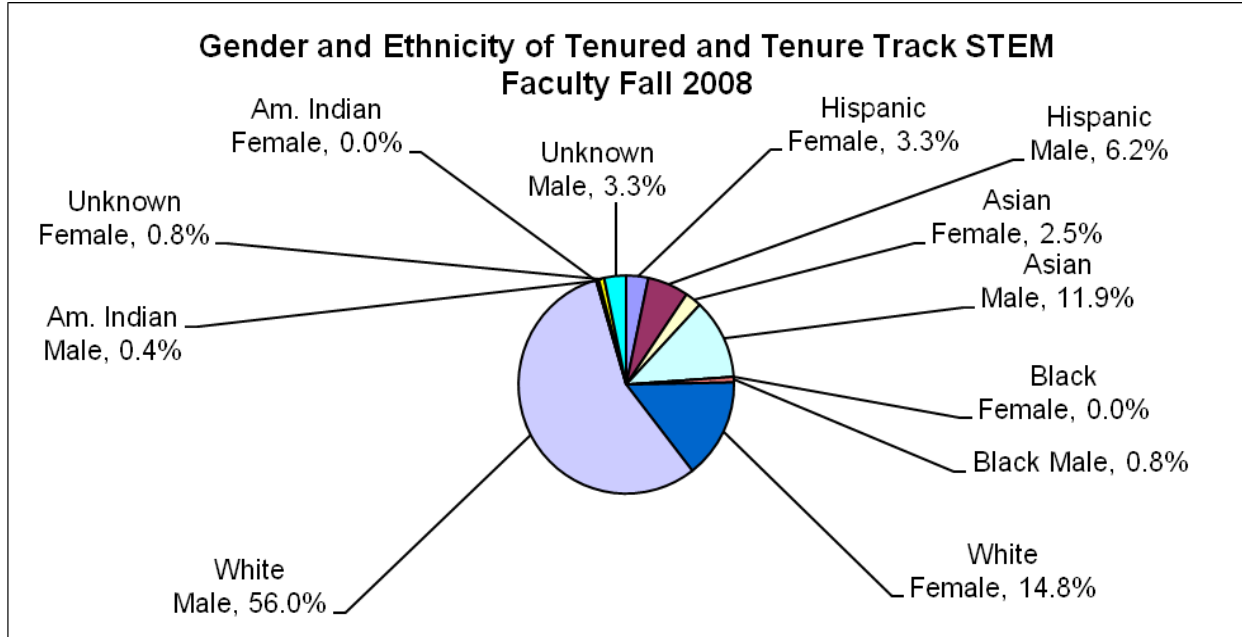
**Graph 1: STEM Faculty by Sex, Beginning of ADVANCE and Current**



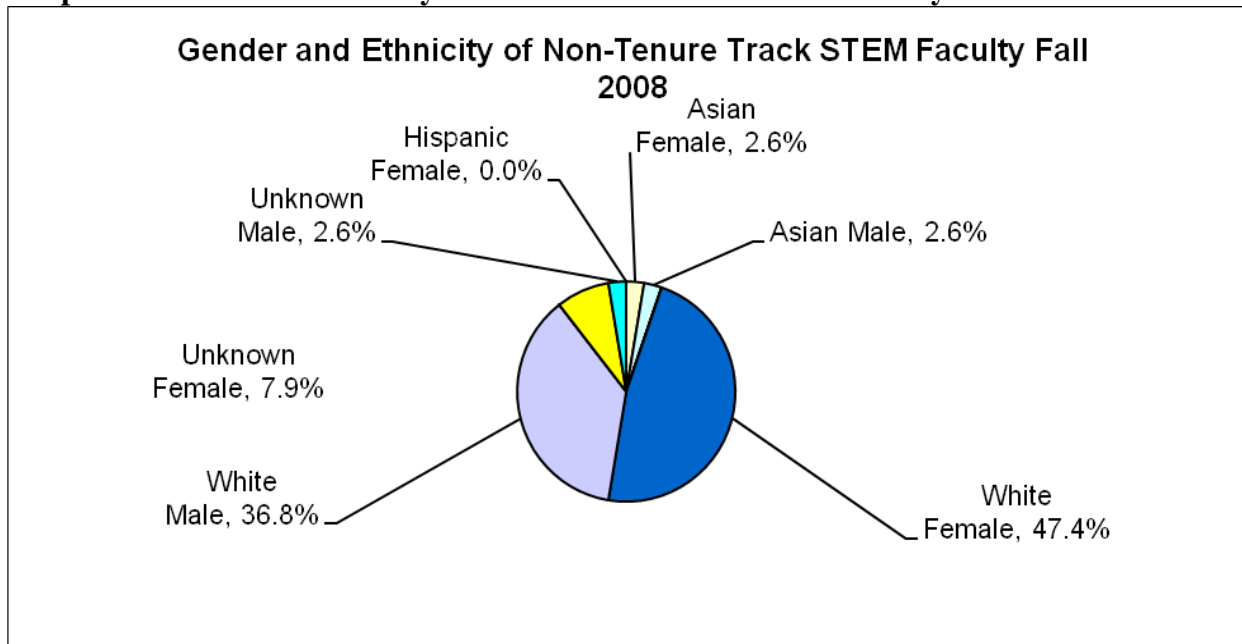
**Graph 2: Male and Female Tenured/Tenure Track and Non-Tenure Track Faculty Members 1995-Current**



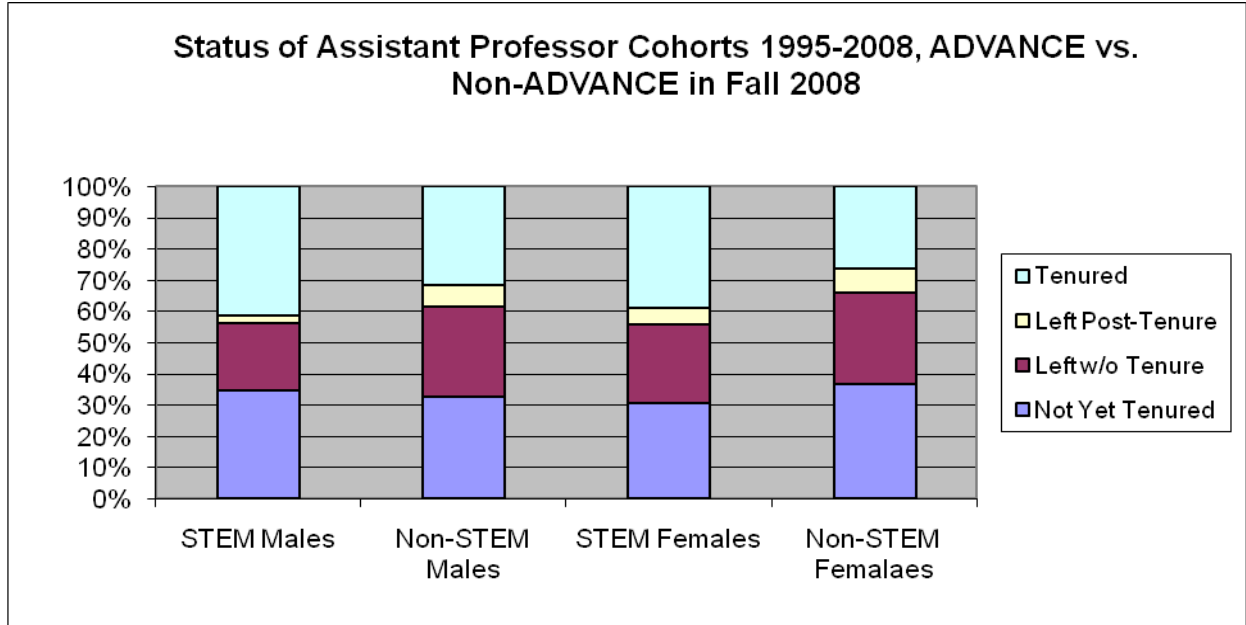
**Graph 3: Gender and Ethnicity of Tenured and Tenure Track STEM Faculty Fall 2008**



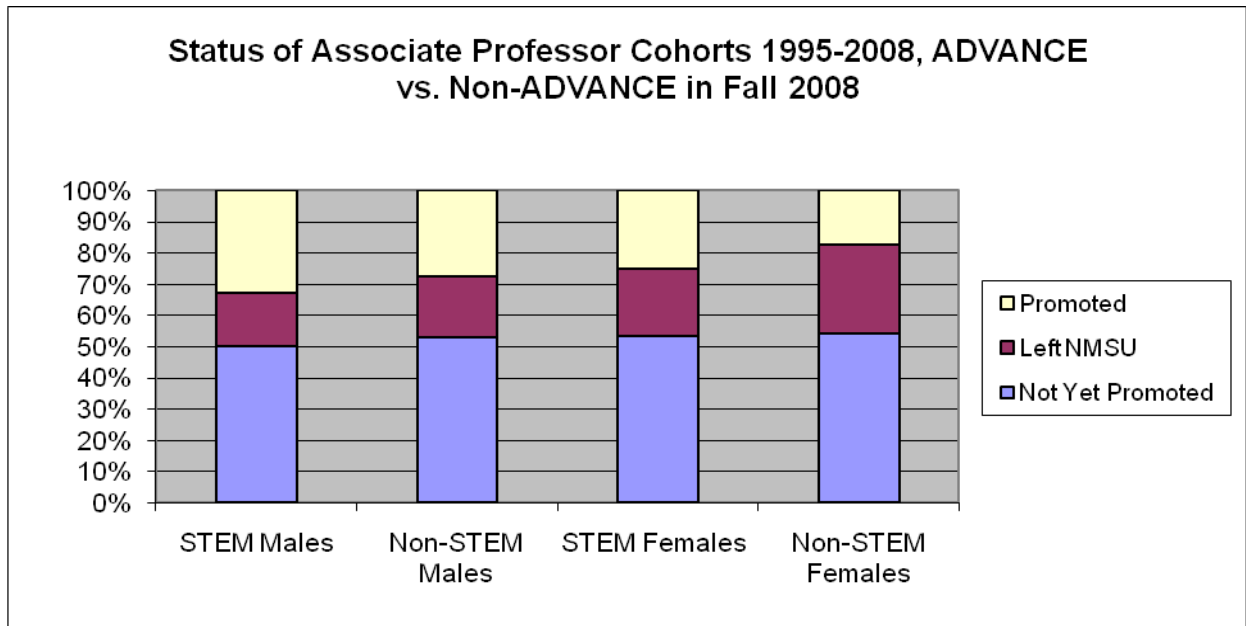
**Graph 4: Gender and Ethnicity of Non-Tenure Track STEM Faculty Fall 2008**



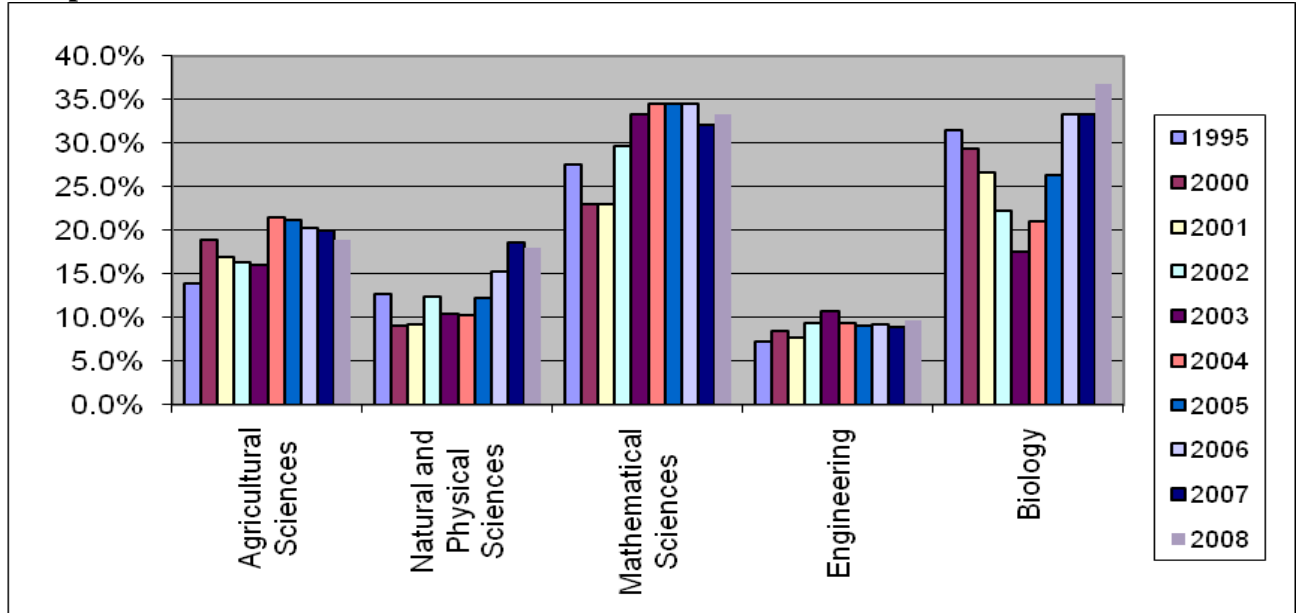
**Graph 5: Status of Assistant Professor Cohorts 1995-2007, ADVANCE vs. Non-ADVANCE in Fall 2008**



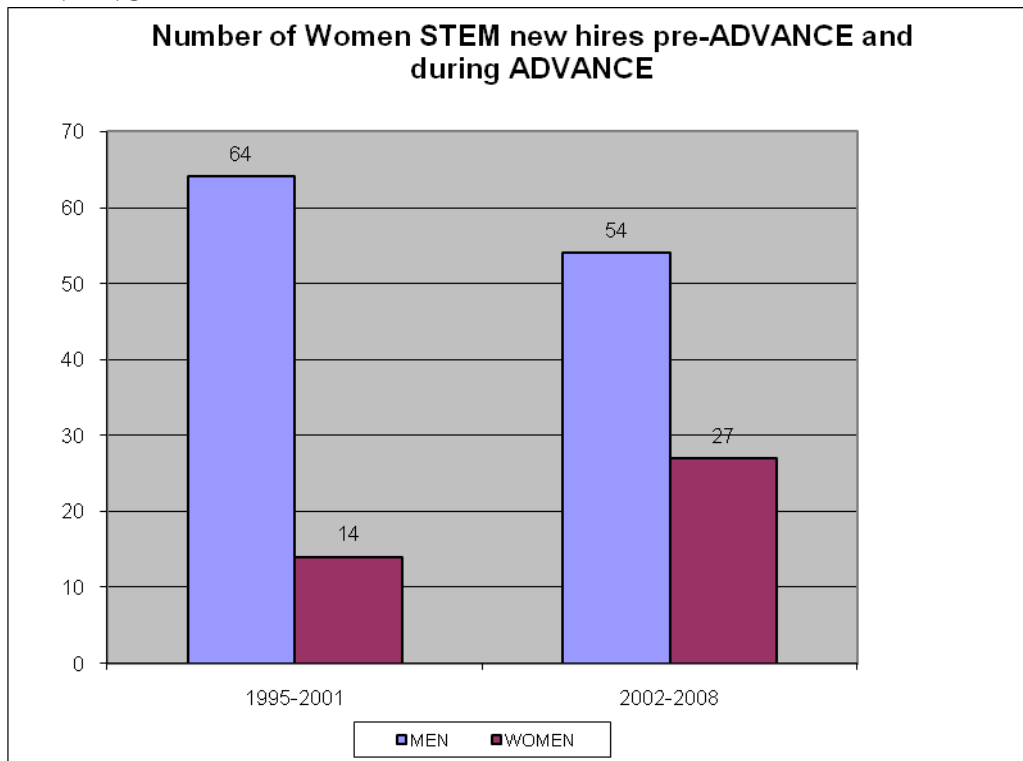
**Graph 6: Status of Associate Professor Cohorts 1995-2007, ADVANCE vs. Non-ADVANCE Fall 2008**



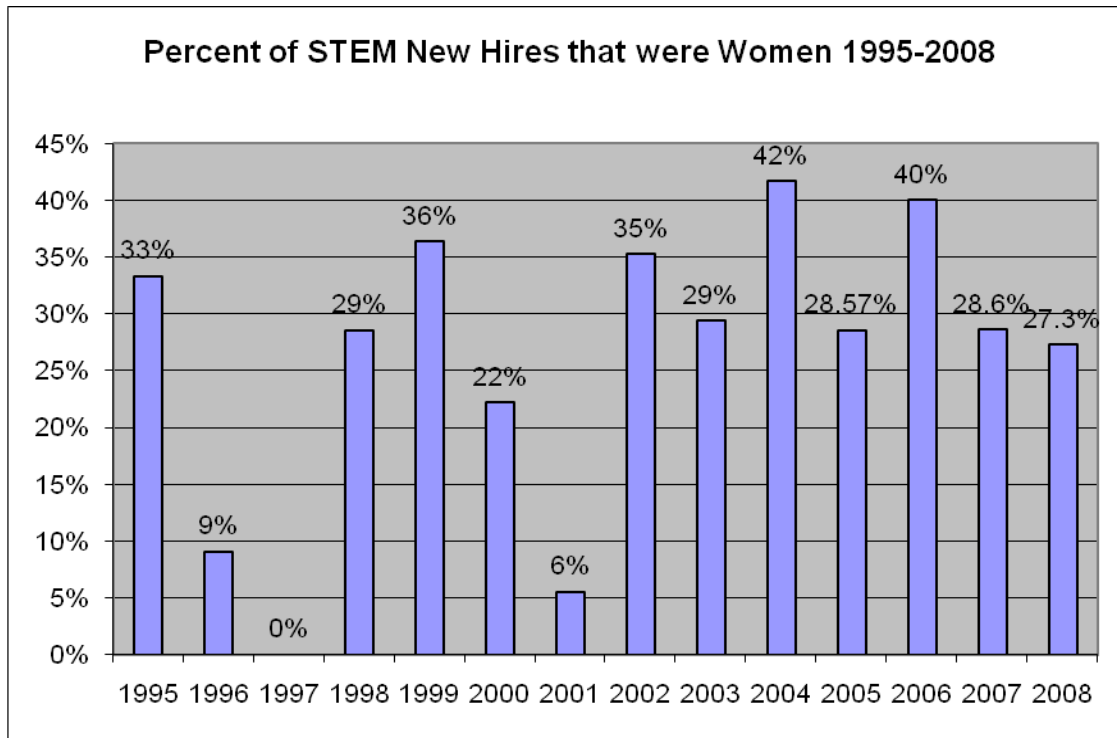
**Graph 7: Women as a Percentage of STEM Tenured and Tenure-track faculty by discipline 1995-2008**



**Graph 8: Number of Women STEM new hires pre-ADVANCE and during ADVANCE**



**Graph 9: Percent of STEM New Hires that were Women 1995-2008**



# **"A Diamond in the Rough"** **Faculty Retention at New Mexico State** **University**

**A report on research exploring why faculty leave NMSU**

*Under the auspices of ADVANCE, NMSU*

By Christine E. Eber, Associate Professor  
Department of Sociology and Anthropology

November 2008



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# **"A Diamond in the Rough"**

## **Faculty Retention at New Mexico State University**

### **I. Executive Summary**

Interviews with 34 former faculty members from New Mexico State University (NMSU) indicated that those who join the faculty and stay do so for a variety of reasons. These reasons speak to a quality of life that they value in this region and at the university. The interviewees, who left the university to assume other positions between 2005 and 2008, reported that their daily interactions with NMSU colleagues and students were fulfilling and rewarding. One volunteered, "I love this institution! There is so much potential for this institution and so much for the people associated with it. This place is a diamond in the rough." Many placed more importance on the quality of life for themselves and their families than they did on salary levels. However, the former faculty members interviewed for this study also reported myriad problems that, on top of low salaries, finally made it too difficult for them to rationalize staying at NMSU.

#### **Major problems**

In answering open-ended interview questions, respondents cited many reasons that contributed to their decisions to leave NMSU. They consistently reported that they were frustrated by problems related to university policy, procedures and academic climate. Their perceptions can be summarized as follows:

1. **Respondents felt lack of appreciation for their contributions.** Respondents viewed the faculty as a major strength of NMSU and felt that administrators do not respect faculty members or appreciate their contributions and achievements. They felt that NMSU culture accepts and even enforces mediocrity, and projects a sense of low self- and collective-esteem. This feeds a myth that NMSU is not as good as other universities.
2. **Respondents observed a lack of transparency.** A large communication gap exists between the faculty and administrators that is fueled by lack of transparency in decision making. Faculty members do not feel that their input in decision making is welcome. Faculty members are apprehensive about the corporate model of leadership that pits programs and people against one another in a competitive system.
3. **Respondents perceived teaching loads to be unrealistic.** Unrealistic teaching loads compound the frustration and exhaustion of faculty members who also are trying to maintain their research programs or compete for funding to expand them. Low salaries and high benefits costs combine with burdensome teaching loads to fuel low morale.

4. **Respondents lamented a lack of assistance and mentoring.** Faculty members do not receive enough assistance during their first year when the tone often is set for an entire career and for their partners' or families' adaptation to a new community. Support for partners and families is sorely lacking at NMSU. Meaningful mentoring was unavailable to most of those interviewed throughout their tenures at NMSU.
5. **Respondents reported a limited understanding of diversity.** Administrators often have superficial or limited understandings of diversity and seldom reflect about their actions in respect to diversity. Faculty members perceive that administrators do not take action to stop abusive and discriminatory behavior.

### Key suggestions for improving faculty retention

While the former faculty members interviewed offered a detailed view of the problems facing the university in regard to faculty retention, they also suggested a number of ways that the university can reduce the sources of frustration that overwhelm many faculty members and cause them to leave NMSU. As one interviewee stated, "It is important for NMSU to hire good faculty who do research and then to show them that they are valued and appreciated, especially if you walk through the door with a big grant." Another asked that administrators "be cognizant of the need to develop a faculty member's psychological contract with the university – help them fall in love with their work. Help them feel that they get to go to work, not have to go to work." The following is a summary of interviewees' key suggestions:

1. **Provide extensive support to first-year faculty members.** Support is especially important in the first few months and at the end of the first year of a new faculty member's tenure. Orientations need to be expanded beyond informing the faculty about benefits. New faculty members and their families need to be introduced to the university and surrounding communities in order to make them feel welcome and help them find where they can make their unique contributions. This study reveals a critical need for a conversation at the end of a faculty member's first year between the faculty member and the ombuds or senior faculty members recruited for this purpose. This conversation could catch problems before they become insurmountable. The ombuds office needs to be advertised widely to the faculty. The end-of-first-year conversation, if it is institutionalized, should be advertised also.
2. **Involve administrators at the highest level at pivotal points in faculty members' careers – upon arrival, at the time of major achievements, and when they make it known that they are considering leaving.** Welcome receptions for new faculty members hosted by the provost and president send a strong message that NMSU values its faculty. A personal "thank you" from the president and provost to faculty members who bring in large grants or make other important contributions reminds faculty members that they are valued for their efforts. Involving the president and provost in timely and meaningful counter offers when faculty members make it known that they are considering leaving NMSU sends the

message that the faculty is an important part of the NMSU community and not easily replaceable.

3. Reduce the teaching load so that faculty members can do quality research, teaching and service.
4. Raise faculty base salaries and create a more effective merit-pay system, such as a step system. Ask faculty members what rewards or compensations they would like to have.
5. Expand, extend and diversify mentoring programs. Mentoring is critical to faculty members' success, and those from underrepresented groups are less likely to receive informal mentoring.
6. Create a more family-friendly environment at NMSU. Create an effective policy on spousal/domestic-partner hires and assist non-academic spouses or partners to find meaningful employment in the area. Faculty members need to be treated as "whole people" who have partners and families who may need assistance.
7. Create transparent and dependable pathways of communication between administrators and the faculty about issues that affect the faculty and the campus community. Make college and university-wide strategic planning contingent on departmental planning, rather than the other way around, thus ensuring faculty input at the beginning stages of decision making.
8. Improve professional development for leadership and administration. Department heads and deans need more intensive training in dealing with harassment, discrimination, non-renewal of contracts, promotion and tenure and other issues. Department heads, deans and the provost need to take action when people in leadership positions abuse their power.

The goal of this research is to provide administrators and the faculty with a deeper and broader understanding of the faculty retention issue at NMSU. This is intended to help them create conditions and a culture at NMSU that make it highly unlikely for faculty members to feel that they are easily replaceable. The university has begun to address some of the problems through, for example, revisions of guidelines for promotion and tenure, institutionalizing the Advancing Leaders Program, beginning an effort to bring faculty salaries up to par, and creating an ombuds office. However, this research points out additional areas in which improvements can be made and suggests courses of action.

## II. Introduction and Research Significance

This report is the culmination of qualitative research focused on faculty retention funded by a National Science Foundation ADVANCE Program grant from 2002 to 2008. In 2003 Dr. Lisa Frehill and colleagues completed a preliminary study with input from 11 former NMSU faculty members in the STEM fields (Science, Technology, Engineering and Mathematics). In September 2006 I resumed their research, interviewing an additional 34 former faculty members in both STEM and non-STEM departments. This report details findings from my research. (See Appendix A, page 27, for the summary of findings from Dr. Frehill's research.)

The major question guiding this research was: Why do faculty members leave NMSU? The purpose was to determine the factors that account for faculty members' decisions to leave NMSU. A related goal was to ascertain strengths of the institution upon which faculty recruitment and retention efforts could be built. The information gathered as a result of this research relates to several goals of NMSU's *Living the Vision: A Performance Plan for Excellence* (<http://ltv.nmsu.edu>), such as the importance of recruiting and retaining a high quality and diverse faculty.

The impact of losing faculty members is many-faceted. In terms of the bottom line, the cost of replacing an employee averages one and a half times his/her salary. The loss of faculty members involves indirect costs, including the time and expense to fill open faculty positions. Searches often take more than a year, and sometimes are unsuccessful. Once replacements are found, the new faculty members need time to learn about the institution and to "get up to speed." Moreover, loss of the unique skills and scholarly and community networks of departing faculty members may be felt for a long time after they leave. Although faculty replacements bring new sets of unique abilities, those lost with the previous faculty members are irreplaceable.

While the above reasons justify making faculty retention a priority at NMSU, also important are issues of morale and a sense of community. Fifty percent of this study's respondents expressed feelings that NMSU did not value their contributions and administrators did not make much effort to retain them. One respondent described feeling as if she were "fungeable," a term Donald Rumsfeld used to describe the troops in Iraq. While this statement is one of the strongest ones made by respondents in this study, it speaks to the low morale and lack of confidence in the institution's direction that many faculty members interviewed for this study felt while employed at NMSU.

Part III describes the methods used to conduct this research. Part IV contextualizes key findings within the culture, social relations and structure of NMSU. Specifically, this part relates this study's findings to existing NMSU initiatives related to faculty retention and recommends additional steps that NMSU may take to improve faculty retention. (See Appendix C, page 29, for a list of existing NMSU programs).

The goal of this research is to provide administrators and faculty members with a deeper and broader understanding of the faculty retention issue at NMSU to help them create conditions that make it highly unlikely that faculty members feel they are easily replaceable.

### III. Methods

#### **Research approach**

This research takes its inspiration from the field of cultural anthropology. Researchers working in this field assume that a deeper and broader understanding of a given community is possible only through carefully listening to people talk about their lives, and observing and participating in the activities of the diverse groups and individuals in the community. Ideally, ethnographers seek to understand the diversity of perspectives in a community. My research with a small number of former NMSU faculty members provides only a partial view of the NMSU community with a focus on faculty retention. My research findings highlight the need to conduct ethnographic research with diverse groups of people currently on campus.

Participant-observation is the primary method of cultural anthropology and in-depth interviews are its primary technique. While ethnographers are typically not from the communities they study, increasingly anthropologists conduct research in communities to which they belong. This faculty retention research is such a project because the researcher is a NMSU faculty member.

Cultural anthropologists tend to view bias differently from researchers in other fields. Ethnographers maintain that biases are unavoidable and that the best one can do is be transparent about them and attempt to minimize their interference in efforts to obtain an in-depth understanding of social phenomena. In respect for transparency, I came to NMSU in 1995 after three years in a tenure-track position at Central Connecticut State University. I am an Associate Professor of Anthropology in the Department of Sociology and Anthropology, and I also teach in the Women's Studies Program. I maintain an active research agenda in an indigenous township of Chiapas, Mexico. Social justice concerns inform my research, service and teaching.

A major aim of research in cultural anthropology is to achieve an understanding of the diverse subjective experiences of members of a community. Ethnographers maintain that subjective experiences are valuable in part because differences can be profound in any community even when, on the surface, groups of people may seem quite similar. When one is immersed in a particular social reality without regular opportunities to interact with people who see and experience life differently, perspectives are likely to narrow and social separations to increase. Social separations tend to breed stereotypes and misunderstandings.

Findings from this research indicate that numerous obstacles make it difficult to share experiences with people from different units and in different social locations at NMSU. While this fact is not unusual in universities, it is problematic at NMSU given the often conflicting experiences and perceptions of the NMSU community held by the faculty, staff, administrators and students. The faculty members speak to this concern in some of their comments. (For detailed findings and comments, see Appendix D, page 31.)

In writing up their research, ethnographers reflect on everything they have heard and observed in light of their research question and theoretical developments. The resulting narrative is a merger of voices and perspectives, although the ethnographer bears sole responsibility for the narrative. This narrative of research on faculty retention departs from more traditional ethnographic narratives by taking the form of a report. I chose this style to make this document more accessible to administrators and the faculty at NMSU who, I hope, will use it to address the faculty-retention problem. The report style also facilitates comparison with the NMSU Research Environment Survey, the quantitative part of which is available at <http://research.nmsu.edu/score/>. The qualitative part (Part II) is pending. (See Appendix B, page 28, for a comparison of findings of the two studies.)

Findings in this report are the result of conversations by phone and/or face-to-face with 34 former NMSU faculty members. (See Appendix E, page 60, for the interview questions. These are the same questions used in the 2003 study.) At the time of the interview or soon after, I asked each faculty member to read and sign the consent form. This form assures respondents that I will make every effort to protect their anonymity. It also explains the aims of the research and possible benefits of participating in the research. (See Appendix F, page 62, for a copy of the consent form.)

During the course of the research, I requested interviews with an additional 15 former faculty members who either did not respond to my e-mail, letter or call, or with whom I was unable to confirm an appointment after I received a positive initial response.

My specific method of recording data involved taking notes while listening to faculty members respond to my questions. As I took notes I attempted to capture key statements verbatim. In this report I include such remarks in italicized quotes when doing so does not reveal the identity of the respondent. Comments not in quotes and not italicized are paraphrased statements. My goal is to present faculty members' experiences and perspectives as accurately as possible while still respecting anonymity. (See Appendix D, pp. 31-59; respondents' quotes and paraphrased comments start on p. 37.)

The usual conversation length was one and a half hours, although several interviews were two or more hours. Some faculty members provided additional information by e-mail



after our initial conversation. I was impressed by the faculty respondents' generosity and their willingness to share their experiences at NMSU. The comparative perspectives they provided between their current institutions and NMSU gave their comments additional breadth.

Soon after each interview I made a typed copy of my handwritten notes. During the data analysis stage I drew upon the 34 typed transcripts to find common themes, problems or issues. In most cases the phrasing of themes in this report reflects closely the wording that faculty members gave me. In some cases it was necessary to create a phrase to encapsulate responses that clustered around a common issue. For example, "low collective-esteem" is my phrase based on repeated references to a profound perceived lack of recognition for the high quality of the NMSU faculty and students and the perceived resistance or inability to build on faculty and student strengths. Delineating themes was how I attempted to synthesize the 34 faculty members' responses in order to provide an accurate and meaningful picture of why faculty members left NMSU during the period of this study.

## Participants

Participants in this study were 34 tenure-track faculty members who left NMSU for other positions between 2005 and 2008. The following is a summary of demographic data from Part I of the interview questions.

<u>Demographic characteristic</u>	<u>Number of respondents</u>
Women	18
Men	16
Living with a spouse or domestic partner while employed all or part of the time at NMSU	24
Spouse or domestic partner employed at NMSU	6
Spouse or domestic partner living in another area of the U.S.	2
Single while employed at NMSU	9
Employed in STEM departments (science, technology, engineering and mathematics)	10
Held non-tenure-track positions part of their time at NMSU	4
Held administrative positions during part of their academic careers	9
Left NMSU for another tenure-track academic position	28
Hired at NMSU at the assistant-professor rank and left at this rank	24
Hired at the assistant-professor rank and left NMSU after being tenured and promoted	1

Hired at the associate-professor level with tenure and left at that level	1
Hired at the associate-professor level and left at that level without tenure	1
Left NMSU at the full-professor rank	6

In the remainder of this report I refer to the participants by either “respondent,” “interviewee” or “faculty member.” Based on feedback received from respondents on the rough draft of this report, I eliminated gender identifiers.

## **Acknowledgments**

I would like to thank the 34 former faculty members for sharing their time and thoughts with me, and the ADVANCE Program for awarding me a course release and summer salary to conduct the research. I am grateful to the following people for their assistance throughout the process of collecting, analyzing and writing up the data: NMSU Provost Waded Cruzado-Salas, now Interim President; Tracy Sterling, director of the ADVANCE Institutional Transformation Program; Pam Hunt, associate director of ADVANCE; Jan Brydon editor, Edit Plus; and Janet Darrow, data analyst of the SCORE Program Research Environment Survey. I am grateful also for the groundwork laid by Lisa Frehill, Cynda Clary, Laura Huenneke, Linda Riley and Sonya Cooper (The ADVANCE Ad Hoc Exit Interviews Committee) in the first study of faculty retention at NMSU in 2002 and 2003.

## IV. Findings and Recommendations

**A common refrain in this study is: “You retain faculty by changing the culture.” Describing the culture at NMSU, much less changing it, is a complex task. For the purposes of this summary I focus on 11 problematic characteristics of NMSU’s culture and social structure that faculty respondents highlighted. These characteristics are ranked by the percentage of respondents who mentioned each characteristic. Please note that a low percentage does not indicate necessarily that a problem is not as significant as another with a higher percentage. As previously mentioned, I did not ask interviewees to respond to a list of problems; percentages likely would be higher for most problems if I had given respondents all of the problems to consider as factors that influenced them to leave NMSU.**

**In this section I also suggest measures that NMSU could take to bolster the university’s strengths and ameliorate the worst effects of its weaknesses. After discussing each finding, I describe ongoing initiatives at NMSU that address the specific finding, and I propose new initiatives.**

A promising finding from this research is that several cultural factors influencing faculty members to leave can be addressed quite easily by NMSU administrators and in fact administrators already are addressing some of these. For example, involving the faculty in decision making about issues that directly affect them and being more transparent about reasons for decisions does not ask a great deal of administrators. Yet it is a problem at NMSU that many respondents reported. Also, showing the faculty that it is respected and appreciated for its contributions requires relatively little effort or expense. Yet, faculty members interviewed for this study reported that they rarely received gestures of appreciation or “thank yous” for exceptional contributions that they made. Several respondents who brought in large grants mentioned that a simple thank-you note from someone in the upper administration would have influenced them to stay at NMSU.

Administrators also can convey quite easily to faculty members their readiness to work with them to solve problems. Yet, again, many faculty respondents reported feeling that administrators did not welcome their questions and did not take their problems seriously. Many interviewees in this study seemed doubtful that administrators are sincerely concerned about how faculty members perceive and experience their working conditions. A good number of faculty respondents stated that they felt that administrators did not tolerate debate and dissent and perceived those who question the university’s direction or priorities as disloyal to

NMSU. The problem of trust between the faculty and administrators needs to be addressed in order to develop an effective faculty-retention program.

**1. A myth persists that NMSU is not as good as other universities. The culture at NMSU accepts and even enforces mediocrity and projects a sense of low self- and collective-esteem.**

In this study, 55.8 percent of those interviewed referred to a low self-esteem problem at NMSU rooted in a resource-poor environment and a lack of faith in what makes NMSU unique and strong. They pointed to students and colleagues in their own and other departments as major strengths of NMSU. Several stated that their students could compete with the best in the nation. Respondents often described their colleagues as “great” and “wonderful,” as people who care deeply about their research and their students. One respondent mentioned being impressed by the high quality of the NMSU faculty and students when he was involved with McNair scholars and their mentors.

Many respondents spoke about how administrators resigned themselves to low expectations and did not fight to keep visionary and creative faculty members. One respondent suggested that the message, “We are great here, you are great,” is a much healthier message than “We don’t do that here,” or “Why can’t you be like so-and-so?”

It seems important for NMSU to find a middle ground between honestly assessing NMSU’s strengths and weaknesses and praising NMSU unconditionally. This study suggests that the faculty and students are a major strength of NMSU and that in many cases faculty members do not feel that administrators respect and appreciate them for the quality of their contributions.

**What is NMSU already doing?**

The SCORE Research Environment Survey explores perceptions of research value among colleagues at NMSU. (See Appendix B, page 28 for a comparison of results from the research environment survey with this faculty-retention research.)

In fall 2004, NMSU released the first results of its Employee Climate Survey (ECS). This survey provided input from the faculty and staff on issues such as work expectations, employee development, performance rewards, conflict-resolution processes, discrimination in hiring and work environment, and the challenges of balancing personal and work demands. Results are posted on the Web site of the Institutional Research,

Planning and Outcomes Assessment (IRPOA) at <http://irpoa.nmsu.edu/EmployeeClimateSurvey/EmployeeClimateSurvey.htm>.

The recent revision by the Faculty Senate of the guidelines for promotion and tenure, a pending Senate bill on faculty workloads, and the Research Environment Survey are examples of ongoing efforts to address some of the concerns interviewees expressed in this study. Findings of this research back up many of those from the research environment survey.

### **What more can be done?**

Data from this study suggest that NMSU could enhance the health of the institution if it were to engage in an ongoing, broad-based assessment of its strengths and weaknesses, not only at required points, such as the April 2008 review of NMSU by the Higher Learning Commission of the North Central Association of Colleges and Schools. For example, repeating the Employee Climate Survey every three years would enable NMSU to track progress in campus climate over time.

Administrators also would do well to allocate funding to construct more, diverse spaces where the faculty, staff and students can easily congregate to socialize, share common concerns, and appreciate the daily realities of others on campus. Few spaces for such interaction exist.

## **2. Faculty members do not feel that their administrators appreciate their efforts and unique talents.**

A dominant theme that emerged from the interviews was that many administrators do not adequately value faculty members' contributions. Many interviewees felt that administrators do not see faculty members' departures as a great loss to the university and that administrators viewed the faculty as replaceable. Several interviewees stated that they felt as if the administration regarded faculty members as "migrant workers," "itinerant workers," "laborers in an intellectual factory," "homogenous labor power," "replaceable" or "fungible," as Rumsfeld referred to the troops in Iraq.

One respondent who had been an NMSU administrator spends a lot of time in his/her current position in meetings with fellow administrators. In meetings at the new institution, he/she does not hear the faculty bashing that he/she remembers hearing among administrators at NMSU.

*What is NMSU already doing?*

**This study's respondents communicated that gestures such as welcome receptions and expressions of gratitude, along with administrators being genuinely concerned to know about faculty members' needs and problems, could**

have gone a long way in helping them feel that they are not just “laborers in an intellectual factory,” but have a valued place in a community that sustains them and that they, in turn, sustain. Recently, Provost, and now Interim President, Waded Cruzado-Salas has made efforts to address these concerns by institutionalizing more faculty recognition.

What more can be done?

It would be helpful if administrators would ask faculty members what forms of appreciation are most meaningful to them. In general, this research suggests that assuming anything about a group of people is not a good way to begin to address problems. It is important to seek out faculty members’ opinions and to base decisions on their feedback. For example, being released from courses to work on pressing research or teaching projects is a form of appreciation many participants in this study suggested they would welcome. Yet this form of appreciation is difficult to obtain at NMSU.

### 3. Department heads and deans are powerful actors in shaping a faculty member’s experiences.

Department heads and deans emerge in this study as powerful actors influencing faculty members’ experiences in both negative and positive ways. Twelve respondents cited poor leadership at the dean level as a problem in faculty retention. Fifteen interviewees did not have any conversations with their deans about their plans to leave NMSU. Nine respondents mentioned poor leadership by department heads as a factor that hampers faculty retention. Among the respondents who found their department heads ineffective, oppressive or abusive, this problem was often the pivotal factor in why they left NMSU. While many interviewees noted that they “felt good” about their department heads, in many cases even the best department head was powerless to mitigate the negative actions of a dean. In these cases, the dean was a pivotal factor in why the faculty member left NMSU.

Respondents’ experiences suggest strongly that the deans, provost and president need to explain their limitations in making counter offers and express that they’d like to keep the faculty member. Faculty members reported feeling that administrators seem resigned to the fact that they can’t do anything and don’t try hard to retain faculty members. One respondent stated that the problem of a resource-poor environment rests in the state’s allocations, but NMSU needs to see what it can do within the constraints the state places on it. The sense of resignation translates for many faculty members into NMSU not caring very much whether they stay or leave.

Of faculty members interviewed, 26 percent stated that counter offers from deans and department heads usually came at the last minute, after they had become demoralized or had already made up their minds to leave.

Several faculty members pointed out the great loss to NMSU when mid-career faculty members leave. For example, as a result of losing several mid-career faculty members after they received tenure, one department has a huge gap between beginning professionals and ones close to retirement. Six participants in this study left at the full- professor rank.

What is NMSU already doing?

Over the past few years NMSU has been addressing leadership development. The ADVANCE Program's Advancing Leaders Program is one such effort, initially funded by the ADVANCE grant but now a permanent program funded by NMSU and housed at the Teaching Academy. Also, department-head-training workshops put in place by the grant now are institutionalized.

What more can be done?

Administrators could improve faculty retention by not conveying the message that they don't care whether faculty members stay or leave. Based on these findings, it would behoove deans and upper administrators to take a proactive role in retaining faculty members. It is critical to start early in faculty members' careers to retain them. One faculty member remembers a welcome reception at the president's home that sent the message that NMSU valued its new faculty members. To catch problems that faculty members are experiencing with supervisors who abuse their power, the ombuds office could touch base with new faculty members at the end of their first year. (See #10, below, for suggestion to formalize a conversation with each new faculty member at the end of his/her first year.)

When senior faculty members are contemplating leaving, the provost and president should talk to them as soon as it is known that they are considering leaving. When faculty members make it public that they are considering leaving, deans and department heads need to make counter offers as soon as possible. These counter offers need to address faculty members' concerns meaningfully.

#### **4. Faculty members become frustrated and exhausted trying to balance unrealistic teaching loads and their research programs.**

Interviewees pointed to a serious conflict among NMSU's teaching, research and service missions. The 3/3 load, plus graduate students, was simply too much for many faculty members interviewed. Many faculty spoke of admiring how their colleagues made the best of what they had to work with, but that their successes were "against the odds."

Many respondents looked positively on the emerging initiative to create more of a teaching culture at NMSU. However, they were frustrated by conflicts between this initiative and simultaneous encouragement by administrators to increase research output to improve NMSU's national research standing. Many felt that the research push was not adequately supported. They felt that it was not possible to carry the heavy teaching load required, maintain research programs and compete for funding to expand those programs.

**What is NMSU already doing?**

In 2004 the Roles and Rewards Task Force, that met weekly for two years, presented its findings and recommendations in *The Geneseo Teaching Scholar: A Conceptual Framework for Faculty Roles, Rewards, and Evaluation*. The work of this task force led directly to the Faculty Senate revision of the promotion-and-tenure guidelines that became effective in August 2008. Each department also was called upon to revise its department promotion-and-tenure guidelines to give greater appreciation for the scholarship of teaching. While helpful in some ways, these efforts did not reduce the burdensome teaching load of many faculty members.

Recently, the Faculty Senate introduced a workload policy bill with recommendations for negotiating faculty workloads within departments. The Administrative Council is reviewing this bill and will return it to the Faculty Senate for final approval in the 2008-2009 academic year.

**What more can be done?**

Bringing NMSU's teaching load into line with that of peer institutions is of critical concern to participants in this study. For example, in the social sciences and humanities, most graduate-program faculty members at peer institutions teach 2/2 or 3/2, while most at NMSU teach 3/3. Many of those interviewed left NMSU for positions with fewer courses or fewer students which helped them teach and conduct research with more quality and integrity.

Administrators also could help faculty members by reducing the number of reports that the faculty and department heads are required to generate to justify and defend programs. Faculty members cannot keep up the quality of their research and teaching under such pressures to collect data about what they are doing. Course releases or other measures are needed to compensate faculty members who write such reports.

Increasing funding for graduate assistantships and waiving tuition for graduate assistants would go a long way toward assisting faculty to manage their course loads. It also would improve NMSU's ability to recruit quality graduate students.

**5. Low salaries and high benefit costs.**

The NMSU faculty is among the lowest paid in the nation. In a recent survey of average salaries of full professors at doctoral-granting institutions, NMSU ranked 216 out of 218. NMSU full professors are paid, on average, approximately \$27,000 per year less than the average at doctoral institutions in the Mountain West region.

Despite lower-than-average salaries, dissatisfaction with salary was not a major factor in most respondents' decisions to leave NMSU. Only four respondents stated that salary



was a major factor, despite the fact that 58.8 percent of respondents received substantial salary increases in their new jobs. I did not get the impression that this low number reflects a lack of honesty because respondents often went out of their way to stress to me that salary was not one of the main reasons why they left NMSU.

Faculty members who choose to work at NMSU do not come for the money. Many interviewees stated that quality-of-life and family issues were more important to them than money. Furthermore, they believed this to be true for most other faculty members, especially women. This study indicates that faculty members come to NMSU and stay for a variety of reasons that speak to a quality of life that they value in this region and at NMSU. Faculty members at NMSU find fulfillment and reward through their daily interactions with colleagues and students. Under normal conditions these and other forms of fulfillment may be enough to offset low salaries. However, faculty members interviewed for this study indicated myriad problems that on top of low salaries finally made it too difficult for them to rationalize staying at NMSU.

Some respondents also recounted inappropriate actions of administrators in the context of a resource-poor environment. One respondent reported becoming frustrated when the department head denied a request for a lap-top computer that would have enabled the faculty member to work at home. The department head's decision set an unsupportive tone that eventually undermined the faculty member's confidence in obtaining tenure. The 14 respondents who received better benefits packages at their new places of employment described a variety of benefits and substantially lower health-care costs, all of which constantly reinforces the message that they are valued at their new jobs.

*What is NMSU already doing?*

**The Board of Regents has stated that one of the main tasks of the new NMSU president will be to bring faculty salaries up to par. NMSU, in conjunction with the Mercer Firm, completed an analysis of all regular faculty positions against market averages. Permanent base adjustments based on the Mercer study will become effective on January 1, 2009.**

*What more can be done?*

Raising salaries on par with other similar institutions is the most important way to address this problem. In the meantime, however, NMSU can maximize other compensations. Administrators can begin by asking faculty members what kinds of rewards they feel would offset low pay and the high cost of benefits. The faculty would welcome such a survey.

Providing more professional development opportunities for the faculty and increasing travel funds also would help offset low salaries. Many faculty members are falling behind in their careers because they cannot afford to travel to even one conference a year on the funds that their departments provide for this purpose.

Fulfilling reasonable equipment requests is an important way that department heads and deans can show faculty members that their needs are important. Fulfilling vital equipment requests costs very little in the larger scheme of things while giving faculty the message that their needs are important. Although NMSU cannot afford to be very generous under resource-strapped conditions, it is important not to be stingy or shortsighted.

Several interviewees pointed out that, compared to the institutions where they currently work, NMSU is not as “user friendly” or helpful to faculty members in their day-to-day lives. For example, they pointed out the difficulty of finding funds to purchase resources for courses, such as films, or to obtain help easily and quickly with computer problems. Taken together, these small amenities or forms of assistance can make a big difference in a faculty member’s daily life and morale.

Many respondents stated that they did not have much intellectual interaction about research with colleagues and that they felt at times that they were doing research in a vacuum. They felt that steps were needed to encourage a more intellectual environment on campus that would lead to innovation and new ideas. Those who discussed NMSU’s initiatives in this direction did not find them very stimulating because they did not come from the grassroots and seemed to be driven by fundraising motives. The College of Arts and Sciences has made strides recently in involving the faculty in creating a stimulating intellectual environment with a new lecture series for which the faculty nominates potential lecturers.

One faculty member suggested replacing NMSU’s merit pay system with the merit pay system at his new university. It involves five steps at the assistant and associate levels. The normal review cycle is every two years at which time faculty members apply for a step increase. The extra pay awarded is outside of what the legislature provides. Assuming pay rates stay the same, a faculty member can map the financial future a bit more easily with this system. In terms of professional progress, with each step a faculty member’s standing is clear. From an administrative viewpoint, this system enhances faculty productivity and retention.

## **6. Lack of meaningful mentoring**

Only 24 percent of the interviewees stated that they received adequate and meaningful mentoring. Most stated that mentoring would have made a considerable difference in their experience at NMSU. Several reported receiving more mentoring and overall support in their new jobs. One said that the dean at her/his new job told her/him they would “throw at her/him all the support we can” to help her/him succeed. In contrast, at NMSU the message was more along the lines of “we’ll see if he/she can make it.” Data from this study indicate that faculty members can become isolated easily at NMSU, making effective mentoring all the more critical.

A few former NMSU faculty members are at universities where all tenure-track faculty members receive a semester leave before applying for tenure. Most faculty members have

mentors in their new jobs who work with them from the time they arrive until applying for tenure and promotion.

Prior to the Teaching Academy and ADVANCE mentoring programs, NMSU faculty members relied upon informal mentoring which was often inadequate. In this sink-or-swim situation, faculty members could slip easily through the cracks. One interviewee left NMSU specifically because of the lack of mentoring.

Faculty statements revealed the importance of being able to trust one's mentor. A statement, such as "I'm there for you," from a department head is not a meaningful mentoring effort if the faculty member does not feel comfortable being mentored by the department head.

Nine of the faculty members interviewed were involved in the Teaching Academy and ADVANCE mentoring programs. All comments from the six faculty members involved in the Teaching Academy mentoring program were positive. One faculty member remarked, "I received great mentoring through the Teaching Academy." Three faculty members were involved in the ADVANCE Mentoring Program. Their statements also were positive, although several mentioned that finding the right fit between mentor and faculty member is critical to a positive experience.

### **What is NMSU already doing?**

NMSU has made strides in improving mentoring over the past few years through mentoring programs under the ADVANCE Program and the Teaching Academy.

### **What more can be done?**

This study reveals the critical role that mentoring plays in retaining faculty members and helping them thrive. NMSU would do well by its faculty to expand, extend and diversify mentoring at NMSU, building upon the already successful Teaching Academy and ADVANCE mentoring programs. Based on faculty members' statements, it seems important to keep mentoring programs flexible enough to meet faculty members' diverse needs and to ensure a good fit between mentors and faculty members.

NMSU also could explore the possibility of creating a program that pairs new faculty members with retired faculty members. Retirees have much to offer and are often in a position to be more generous with their time than faculty members currently carrying heavy loads of teaching, research and service. If such a program were created, it would be important to provide some form of recognition or compensation to the retired faculty members.

As NMSU moves toward a higher research profile, it is clear that mentoring will need to be a higher priority. One participant in this study is now at a Research 1 Institution. In contrast to having no mentoring at NMSU, he/she now will be followed through to tenure by a dedicated team of five faculty mentors. The team meets periodically with the faculty member and reads everything that he/she writes in order to guide him/her in choosing

appropriate publishing venues. Although this model is unrealistic for NMSU, it is helpful to keep such quality programs in mind as we work on improving mentoring.

## **7. Support for spouses and families is poor at NMSU. NMSU lacks a family-friendly environment.**

Being happy or satisfied in their jobs seemed to help faculty members to deal with the challenges that their partners and children faced. When problems at their jobs intensified and changes did not come in areas about which they were concerned, it became difficult for them to rationalize the sacrifices that they and their partners and children were making.

Difficulty finding meaningful work for spouses or partners in the Las Cruces area or at NMSU (if an academic) and feeling that NMSU did not care about their spouses, partners or families was a dominant theme. Several faculty members left NMSU because their spouses/partners could not find meaningful work. One stated, "When a faculty member flourishes, it's often because both the faculty member and their spouse flourish." Some noted that the university's attitude toward families contradicted the family-oriented ethos of the region or even of the university's public persona. One faculty member felt as if it were too bad for NMSU that he/she had a family; if he/she had not had children, "they could have gotten more out of me." All but two interviewees liked the community and thought it was a good place to live and raise families. Most regretted having to leave NMSU.

Single faculty members face a unique set of problems in Las Cruces. They perceived the city to be family-oriented. They felt, consequently, that it does not provide many opportunities for single people to socialize or meet potential life partners. Single people are important to NMSU's diversity, yet several single people in this study mentioned feeling that the university did not seem aware of their unique challenges.

*What is NMSU doing?*

**The Children's Village, located at Building A in the Vista Del Monte Apartments on campus, is a center for early childhood education and is meant to help faculty, staff and students balance work and family life. The village is an expansion of the Dove Learning Center in O'Donnell Hall and is expected to host approximately 300 children at its full capacity. Currently, about 50 children are cared for at the village.**

*What more can be done?*

NMSU needs to work harder to help spouses or family members find meaningful work in the Las Cruces area or, if they are academics, at NMSU or at nearby universities and

colleges. A policy on spousal/domestic partner hires is a critical need at NMSU. Several faculty members suggested that offers of college-track positions for academic spouses or partners are not always viable offers as their spouses/partners may not feel fulfilled or may be truncated in their careers in these positions.

Several interviewees suggested that deans and department heads could help spouses find employment in outlying communities by developing community-university networks, thus strengthening university and community connections.

Creating viable family-leave policies for maternity leave and care of sick family members would improve retention, as would improving health benefits and expanding health coverage to include family planning.

A college-wide welcome event and follow-up events throughout the year would be helpful to new faculty members as a way for them to find intellectual and other support beyond their departments. These or other social activities might assist single faculty members to connect with each other and help them feel less isolated.

## **8. Faculty members need assistance during their first year when the tone often is set for their entire tenure at NMSU.**

Many faculty members in this study reported not having received assistance during their first year to become integrated into the NMSU community. Some of them became isolated in the NMSU sink-or-swim environment. When a faculty member becomes isolated, he/she is at high risk for leaving due to low morale or to being denied tenure.

### **What is NMSU already doing?**

In 2008 the responsibility for faculty orientation was placed in the Teaching Academy. The academy will hold two orientations annually, one in the fall and one in the spring. In addition, ADVANCE at the Teaching Academy runs promotion-and-tenure sessions twice yearly in which faculty members sit with others from their own colleges and discuss promotion and tenure. These programs are vital to new and early-stage faculty members.

Interim President Cruzado-Salas, in her terms as provost and dean of the College of Arts and Sciences, put a greater emphasis on welcome receptions and other forms of support for new faculty members. She was instrumental in assisting faculty members to develop the Milestones Project that hosted welcome receptions for new faculty members in fall 2007 and fall 2008. (See Appendix C, page 29.)

### **What more can be done?**

This study strongly suggests that to improve faculty retention, the provost and president must become proactive when a faculty member is having problems and considering leaving. The work of retention cannot be left only to deans and department heads.

NMSU administrators could address the faculty retention problem by being proactive in the first weeks and year of a faculty member's tenure at NMSU. The department heads, deans, provost and president all need to be involved in welcoming new faculty members. Formal receptions during which faculty members meet their deans, the provost and president send a message to them that they are valued. Such events communicate that the faculty is part of a larger whole that sustains them and that they, in turn, sustain. Informal gestures, such as being invited for a meal at a colleague's home or being walked around campus to learn about resources and to meet other faculty members, can help a faculty member feel welcome and avoid becoming isolated.

One of the most important suggestions from this study is to formalize a conversation with each new faculty member at the end of his/her first year. These conversations could be instrumental in helping NMSU retain faculty members by uncovering problems before they become insurmountable. The ombuds, as a fellow faculty member, is an appropriate person to initiate such a conversation. However, to institutionalize this conversation, additional faculty members would be needed to assist the ombuds. One way to enable faculty to assist the ombuds would be to offer course releases to interested senior faculty members. It is important that the faculty members conducting the conversations bring any problems gleaned from these conversations to the provost's attention. These problems should not be placed only in the hands of department heads or deans who may be contributing to the problems that faculty members report.

The idea for the first-year conversation with the ombuds came from meetings in 2007 that comprised Debra Weir, Augustín Díaz, Pam Hunt, Tracy Sterling and me. At that time we gave feedback on the formal exit interview protocol developed by Human Resources for the entire NMSU faculty and staff. We suggested that, for the purposes of faculty retention, these interviews would be carried out best by faculty members. As suggested for the conversation after the first year, senior faculty members could be given a course off to conduct these interviews.

## **9. Faculty members perceive that administrators do not take action to stop abusive behavior, such as bullying and mobbing.**

Department heads emerge in this study as powerful forces in both positive and negative ways in faculty members' experiences at NMSU. When they are negative, they are often the major factor in a faculty member's decision to leave NMSU. Faculty respondents described department heads' abusive actions that included racist, sexist and homophobic remarks, and allowing bullying, mobbing (a group of faculty members ganging up on a faculty member) and other discriminatory behaviors to continue.

Several respondents reported that they were not successful in getting help to deal with a department head or dean who bullied them, undermined them or was abusive in other ways. A few respondents were victims of mobbing. The faculty members in these cases felt powerless to change their situations and felt that leaving was their only recourse. One

of them stated: “NMSU needs a system for reporting abuse that works, that is not based solely on actionable abuses.” Many faculty members do not want to grieve based on actionable abuses alone.

#### *What is NMSU already doing?*

An ombuds office now exists at NMSU. It did not exist when most of the former faculty members interviewed for this study made their decisions to leave the university. Several respondents regretted that there was no ombuds when they were at NMSU. They felt that their only recourse was to go down a litigious road if they had a personnel problem, and they did not want to take that route. One of the reasons they cited was that they had heard that faculty members are treated badly by university lawyers.

Dario Silva has been conducting civility workshops on campus. A civility policy may be under development.

#### **What more can be done?**

In the event that a faculty member files a formal grievance, it is important that NMSU conduct a thorough investigation of allegations of abuse rather than sweeping them under the rug. In many of the cases in which respondents had problems with their department heads or superiors, the respondents left, while the senior faculty members remained in their positions even though they continued to act in abusive ways.

NMSU needs to publicize the existence of the ombuds office and tell faculty members how they can use it so that they have a neutral place to go when they experience abusive work situations. More extensive training is needed for department heads and deans in how to respond to employees' complaints of harassment and discrimination.

### **10. NMSU has serious issues with diversity. Administrators often have superficial or limited understanding of diversity and seldom reflect about their actions in respect to diversity.**

Many faculty respondents experienced difficult working conditions at NMSU due to a culture that has not embraced diversity to the extent needed to retain a diverse faculty. A tendency exists to see diversity in ethnic terms and not to acknowledge that sexism, homophobia and racism are problems in the university community. One faculty member stated, “It is possible to flourish at NMSU, but mostly only white men flourish.”

A few Anglo respondents mentioned being accused of racism for going up against Hispanic administrators who, they felt, abused their power.

A couple of respondents were the victims of mobbing or scapegoating by their department heads and colleagues.

A few respondents also raised the issue of age diversity. These faculty members were single while at NMSU. During their tenure at NMSU they confronted a bias toward faculty members with families.

NMSU administrators range greatly in their awareness of what diversity encompasses and the key role it plays in a healthy university community and society.

### **What is NMSU already doing?**

The Women's Studies Program became an academic department during the course of this research. In fall 2007 the Women's Studies Steering Committee founded the Milestones Project that addresses a diverse faculty's needs. The President's Commission on the Status of Women also is charged with reviewing data on gender distribution for the staff and faculty work force at NMSU. (See Appendix C, page 29 for more information on the Milestones Project and The President's Commission on the Status of Women.)

In 2007 NMSU formed a Diversity Council focused on issues of race, gender and ethnicity. (See Appendix C, page 29.)

In spring 2008 allegations of abuse-of-power and discrimination were raised against an NMSU college administrator in a case involving non-renewal of two faculty members' contracts. Part of the university's response was to appoint a special task force to examine whether university policies were followed with regard to the mechanics of hiring and non-renewal of the faculty members and whether the policies are "clear, defensible and fully articulated within and outside the university." (See *Regents Professors Task Force Final Report*, June 2008, p. 1 at <http://www.nmsu.edu/president/taskforce/taskforcereport.pdf>.) The committee was composed of Regents Professors, faculty senate representatives, students and university officials. The task force's formation was a positive step toward demonstrating a commitment to ensuring fair processes at NMSU.

### **What more can be done?**

It is paramount that administrators take faculty members' reports of discrimination very seriously. The case can be made that at least three junior faculty members in this study left NSMU because they were unable to resolve their problems with senior male faculty members who belong to an "old-boy network" that protected them at the expense of the junior faculty members. The NMSU old-boy network is no longer confined to white men. Hispanic men in positions of leadership at NMSU may find that their privilege makes them less sensitive to sexism and homophobia than to racism. Sexism and homophobia remain insidious problems at NMSU and have not received the attention they deserve.

It is important that the Diversity Council address the range of diversity issues on campus, not only those related to ethnicity. Administrators must respect and protect differences of gender, class, age, sexual preference and religious affiliation, among others that shape faculty members' identities.



**11. Many respondents perceive a large communication gap between the faculty and administrators fueled by lack of transparency in decision making. Faculty members do not feel that their input in decision making is welcome. Many also do not agree with economic efficiency as the standard of value and success.**

An us-versus-them perception of the relationship between the faculty and administrators has evolved at NMSU, stemming in part from problems explored in this study. One respondent summed up the general message received from the dean level and above: “Work harder, do more and don’t ask the kind of questions you are asking.” Several faculty members reported similar messages that erected impenetrable barriers between themselves and administrators. Some faculty members described a general fear of debate and dissent at NMSU. They felt that it was difficult to air differences without someone accusing them of betraying their departments, colleges or the larger university.

Of those interviewed, 32.3 percent did not feel comfortable with economic efficiency being a dominant measure of value at NMSU. Several argued that student credit hours are not a sufficient measure to drive decision making about resources, faculty functions and criteria. They pointed to pressures on middle managers (deans) to make their units more profitable and how this trickled down to departments in ways that undermined their programs.

Several interviewees described a pattern at NMSU of rationalizing institutional processes to optimize productivity. They felt that quality teaching and research are sacrificed in this process and that the broader quality of life at the university is eroded.

Other respondents stated that administrators are pressuring faculty members to respond to students’ and parents’ job-market anxieties by gearing programs to job-training goals.

Some respondents felt that administrators required departments to be transparent and accountable in response to parents’ and students’ desires to get the best education for their money. Yet, they felt that upper-level administrators did not hold themselves to the same standards of transparency and accountability.

*What is NMSU doing?*

The Regents Professors Task Force was formed in April 2008 and charged to examine and review events in the College of Health and Social Services in Spring 2008 and make recommendations to address problems and concerns that arose during that period. The task force submitted its final report in June 2008 (<http://www.nmsu.edu/president/taskforce/taskforcereport.pdf>). The report made several recommendations relevant to faculty retention. For example, it recommended a review of training programs for administrative positions with a special emphasis on intensive training for department heads in policies regarding harassment and discrimination, non-renewal of contracts and promotion and tenure. The report also recommended that more

emphasis be placed on effective communication among administrators, the faculty and students. For example, the report recommended placing university policies that directly affect the faculty in a more prominent place on NMSU's Web site, and informing the faculty that these policies exist and where to find them.

In Fall 2008, Interim President Waded Cruzado-Salas began sending a Monday Morning Letter to the faculty and staff informing them of activities at NMSU's various campuses and inviting feedback through e-mail.

*What more can be done?*

**Measures need to be taken at NMSU to reduce the disconnection that faculty members report feeling between themselves and administrators. Involving the faculty more centrally and meaningfully in decision making is one measure that NMSU administrators can take to improve morale and retention.**

**Teaching courses or conducting research would help administrators stay in touch more closely with faculty members' needs and concerns.**

**Accompanying faculty members during a daily round of activities would give administrators a better feeling for the demands on faculty members.**

**Being open to other measures or standards of success, in addition to economic efficiency, would assure the faculty that NMSU values quality teaching and research. Rethinking the corporate model of management and development is a suggestion that several interviewees gave for improving retention.**

**As I conclude this report, NMSU has lost another president. This recent change is yet one more in the series of non-stop changes among upper administration that many respondents found problematic. Reducing instability at NMSU and making a commitment to a vision and strategic plan that is grounded in faculty members' needs and concerns would go a long way toward improving working conditions for faculty members and ultimately in retaining them.**

## APPENDIX A

### **Themes Common to this Research and 2003 Preliminary Research**

Results from the current study support many of the findings from the preliminary ADVANCE study conducted in 2003 with 11 former NMSU faculty members interviewed. The complete 2003 report is included as Appendix 3, Exit Interview Report (pp. 55-65) of the *2003 ADVANCE Year-End Report* available at <http://www.advance.nmsu.edu/Documents/PDF/ann-rpt-03.pdf>. Both studies reveal that compensation was not the driving issue in faculty members' decisions to leave NMSU. Common reasons cited by interviewees in each study include:

- difficulties enacting the multiple roles associated with research, teaching and service;
- issues related to sexism and racism;
- unresolved interpersonal problems between department members or between department heads and the faculty; and
- lack of formal training for academic administration.

In the 2003 study, the following suggestions for improving faculty retention were identified:

- diversity training for all faculty members, with an emphasis on subtle racism and sexism;
- post-tenure review or other mechanisms to punish full professors' inappropriate conduct;
- increased training for department heads, especially in the areas of general management, conflict resolution and leadership; and
- development of fair methods to ensure that faculty members with funded research are able to access institutional resources necessary for their projects, including space.

## **APPENDIX B**

### **Findings Common to this Survey and the NMSU Research Environment Survey**

The NMSU Research Environment Survey conducted from October 19 to December 15, 2006 under the auspices of SCORE (Support of Continuous Research Excellence) is an important initiative undertaken to understand the factors that help or hinder research at NMSU. The results of the qualitative and quantitative parts of the survey are available at <http://research.nmsu.edu/score/>.

Common concerns among SCORE-survey respondents and faculty-retention respondents include:

- lack of faculty input in decision making;
- lack of recognition and appreciation for faculty contributions;
- inadequate resources to support research; unrealistic teaching loads for research expectations;
- low morale;
- poor salaries;
- poor communication between administrators and the faculty; and
- lack of transparency and lack of trust in upper administration.

## **APPENDIX C**

### **NMSU Programs and Initiatives that Address Faculty Retention**

- **ADVANCE Program**, under a National Science Foundation grant, made many important contributions to faculty diversity from 2002 to 2008. The Mentoring Program begun under the grant has become a permanent program. Based in the Teaching Academy, the ADVANCE mentoring program pairs early-career faculty with established faculty members in different but related departments. This program works to build a climate in which all faculty members receive support and encouragement in achieving tenure and promotion and in transitioning to university leadership roles. The mentoring program supports the goals of the initial grant to increase the recruitment, retention and advancement of female faculty members, to work toward policy changes that foster work-life balance, and to cultivate a climate that promotes professional development for all faculty members.
- **NM-PAID**, under a National Science Foundation grant, conducts annual, state-wide Department Head Training Retreats that focus on recruitment and retention initiatives for STEM faculty at NMSU, the University of New Mexico,, New Mexico Institute of Mining and Technology and Los Alamos National Laboratories.
- **Teaching Academy's** Mentoring Program
- **Faculty Task Force on Salaries** was established in 2008 to obtain faculty input on the Mercer Study of faculty salaries.
- **Ombuds Office** was created after most of this study's participants had left NMSU. Widely advertising the ombuds office is important for increasing faculty retention rates, as is instituting a conversation at the end of each faculty member's first year. (See Human Resources, below.)
- **Commission on the Status of Women** gathers data on the status of women on the NMSU faculty and staff; reviews institutional documents to determine how institutional policies and procedures affect gender; reports findings to the NMSU Board of Regents every three years; recommends appropriate courses of action on policies and procedures to promote gender equity; and monitors data, policies, procedures and campus issues at NMSU in light of local and national trends.
- **Diversity Council** (DCC, Formerly the Minority Recruitment and Retention Committee) makes recommendations to the provost on issues related to diversity in student, staff and faculty recruitment and retention.
- **Human Resources** has recently instituted a **formal exit interview process** for all NMSU faculty members and staff. Debra Weir and Augustin Díaz of Human Resources, Pam Hunt and Tracy Sterling of ADVANCE and I met in November 2007 to discuss how to incorporate findings from the faculty-retention study into the new exit interview. We came to the conclusion that a conversation at the end of each faculty member's first year is important for faculty retention.

- **Newly revised promotion and tenure guidelines.** All NMSU departments have recently completed the process of revising their departmental promotion and tenure guidelines and bringing them into line with changes made by the Faculty Senate in the university-wide guidelines. These revised documents contribute to faculty retention by giving the entire faculty a clearer picture of what is expected at the department, college and university level in research, teaching and service.
- **Provost Office's initiatives** to recognize faculty members include a reception each April for newly tenured and promoted faculty members.
- **The Milestones Project** is a faculty initiative within the Women's Studies Program to recognize and provide support for women faculty, graduate students and staff at pivotal points in their careers. The project started in fall 2006 and each year since has organized a series of events including a welcome event for new faculty members in the fall and a celebration of faculty members' achievements in the spring. Recently, ADVANCE joined forces with Women's Studies to extend this program to all NMSU community members, but especially to those who are from underrepresented groups. A key goal of the Milestone Project is to assist those who feel at risk for not receiving adequate or appropriate support within their departments.
- **Lecture series** by scholars on and off campus and **workshops** at the Teaching Academy have been initiated since this research began.
- **Hispanic Faculty/Staff Caucus** collaborates with the NMSU administration to recruit and retain Hispanic faculty, professional staff and students and supports community efforts that celebrate the region's diverse cultures. The caucus aims to enhance the quality of education and the quality of life for the faculty, professional staff and students, and residents of surrounding communities.
- **Roving coffee with the deans**, held each Wednesday in the College of Arts and Sciences, serves to help administrators and faculty get to know one another in an informal venue.
- **The New Faculty Club**, founded in fall 2006.

## Appendix D

### Detailed Findings

Detailed findings of this study are given in three sections below. The first section gives responses to interview questions 3-8 in part II of the interview protocol. (See Appendix E, page 60, for the interview questionnaire.) These pertain to the participant's new job. Questions 1 and 2 are omitted to protect anonymity. The second section gives the responses to the interview questions pertaining to the respondents' experiences at NMSU. (Part III, questions 1-7 in the interview protocol.) Numbers and percentages are provided where relevant. The third section presents suggestions that the respondents made for improving faculty retention at NMSU. These were elicited by questions 8 and 9 in part III of the interview.

### New Job Details

#### **Question 3: What kind of position did you take after leaving NMSU?**

<i>No. of Respondents</i>	<i>Response</i>
18	left NMSU for tenure-track assistant professor positions
1	left for an associate professor position with tenure
1	left for an associate professor position with promise of becoming the department head the next year
2	left for deanships
2	left for department headships or comparable positions
1	left for a directorship of a center
1	left for an endowed chair
4	left for non-academic positions
4	left without another job

**Question 4: Did you receive a start-up package in your new position? How did it compare to NMSU?**

<i>No. of Respondents</i>	<i>Response</i>
5	received start-up packages comparable to NMSU
11	received better start-up packages compared to NMSU
3	received worse start-up packages compared to NMSU
<b>Notes:</b> Not included in the above numbers are faculty members who started at NMSU in the 1980s when start-up packages were considerably less and faculty members who went to non-academic jobs. Also, <u>two</u> respondents who received packages similar to their NMSU packages were able to negotiate full-time tenure-track positions for spouses; <u>one</u> was able to negotiate a non-tenure-track position for her spouse; and <u>one</u> , who had a package similar to NMSU's, negotiated a one-year research leave with full pay after one semester of teaching.	

**Question 5: Did you receive an increase in salary? How does your salary compare to NMSU?**

<i>No. of Respondents</i>	<i>Response</i>
5	received slight increases
20	received substantial increases (Salary increases ranged from \$15,000 - \$55,000.)
2	received similar salaries
3	received decreases
<b>Note:</b> No data for <u>five</u> faculty members.	

**Question 6: Did you receive a better benefits package? If better, in what way?**

<i>No. of Respondents</i>	<i>Response</i>
7	received benefits packages comparable to NMSU
6	received better benefits packages compared to NMSU
8	<b>received much better benefits packages compared to NMSU</b>
1	<b>received a worse benefits package compared to NMSU</b>
<b>Note:</b> No data are included for faculty members who did not leave for tenure-track academic positions or who already were vested with NMSU.	



### **Question 7: What were the major factors in your decision to leave NMSU?**

Below are summaries of the 34 faculty members' responses to this question. Making the decision to leave NMSU for most of the interviewees was complicated, involving a mixture of personal and professional factors. Rarely did respondents give simple statements or only one factor to explain why they left NMSU.

- The faculty member's department seemed to be "spinning out of control." The faculty member didn't get help to "find my place" at NMSU. The faculty member only had "slivers" of time for research. Partner was ABD (all but dissertation) but could not find a position at NMSU.
- A major reason the faculty member left was the department head's poor leadership and lack of support for the respondent's work. Also, the faculty member's partner was not able to find meaningful work in Las Cruces. The faculty member wanted a smaller teaching load, to work with Ph.D. students, and to live closer to family to reduce costs of trips back and forth.
- The faculty member didn't want to live in a small town. Quality-of-life issues made the faculty member leave.
- A lighter teaching and service load at the new job was the major reason the faculty member left. Also, the faculty member's spouse was able to obtain a job at the same institution where the faculty member was hired.
- The faculty member did not like the dean or the desert. The dean did not give reasons for decisions and did not communicate well with the faculty. There were bad feelings in the college. The faculty member wanted to set down roots, but not in the desert.
- The faculty member's family is in another state. Family concerns and concerns about tenure expectations were the main factors in deciding to leave.
- The faculty member was not happy in the Southwest or at NMSU. He/she did not feel welcome at NMSU or that his/her talents were being used. The faculty member was uncomfortable with being in a holding pattern and falling behind professionally. The faculty member did not agree with the college's goals and wanted to live in a less isolated place and closer to family.
- The faculty member wanted to be closer to family. It was difficult to be single in Las Cruces. Professionally, lack of transparency and other problems at the college level became too great for the faculty member to tolerate.
- The faculty member's spouse was unable to find work in Las Cruces and had to go back often to a distant state for family reasons. The new job brought the faculty member closer to his/her spouse's family and made the spouse's life easier. Also, lack of good leadership in the department and clashing with the department head influenced the faculty member's decision to leave.
- The faculty member wanted to be at a Research I Institution and didn't find an intellectual community at NMSU. Sexism at the dean and department head levels was the other reason the faculty member gave for leaving. There was a lot of conflict in the college and between the department and the dean. Also, being single in Las Cruces was not easy.

- The faculty member was very disappointed with how things turned out at NMSU. A few people in power pushed the faculty member out of NMSU. No one in the upper administration took action to stop the bullying behavior of these people. The new job brings the faculty member closer to family.
- The faculty member wanted to be back in another state where his/her spouse works and they have a home. Push factors were that NMSU is “resource challenged” and the pace of change is too slow.
- Joining partner in another state was a pull. Other factors included that the department was in the “middle of a war” and the faculty member was not moving ahead financially. The faculty member’s workload and working conditions were abusive. Also, poor support for families was a factor.
- Poor leadership at NMSU led the faculty member to feel that his/her talents were squandered and that no one cared about doing quality work. The faculty member also was upset by strident racism throughout the university.
- The faculty member’s new job provided a better salary, a less burdensome work load, and it wasn’t necessary to go after grant money to pay the faculty member’s own salary. The new job afforded more time to focus on research and receive more financial support for research.
- The faculty member wanted a lower teaching load and to work at a more prestigious university. NMSU’s inability to make a counter offer was a major reason for leaving. The faculty member didn’t see much chance for advancement at NMSU.
- Reasons were 75 percent personal and 25 percent professional. The personal reasons were being closer to the spouse’s family and area where the faculty member has conducted research. The professional reasons were lack of support for the faculty member’s specific program and feeling overworked with a 3/3 teaching load and graduate students.
- The faculty member and family did not feel welcome and valued at NMSU or in Las Cruces. The department head did not value the things that the faculty member valued. The department head and dean expected the faculty member to be superhuman. It became impossible for the faculty member to work with integrity under the department head. The faculty member did not feel valued at NMSU.
- The faculty member left NMSU because the department head put every obstacle possible in the faculty member’s way to conduct research, teach graduate students and develop the Ph.D. program.
- The faculty member left mainly because of the “form of thinking” at NMSU which does not have a “strong, outward thrust.” The faculty member feared never being able to get beyond a limited level of research productivity at NMSU. The faculty member wanted to be part of a larger research community in order to benefit from research career enhancements. The faculty member didn’t feel appreciated for research efforts at NMSU. Also, the respondent’s spouse wanted to live closer to family in another state.
- The faculty member feared limiting options by staying in academia and at NMSU, but now has some regrets about leaving.

- The faculty member was fully vested at NMSU, but left because it was time for a change. The faculty member was looking for a change and the timing was right. (His/her daughter had graduated from college.)
- The main reason was to be closer to both the faculty member's family and spouse's family in another state. If family had been in the area, the faculty member would have stayed at NMSU.
- The faculty member had a serious conflict with colleagues in a large research grant. The faculty member had become quite unhappy at NMSU and was unable to get another administrative position at NMSU.
- The faculty member's spouse was not getting research support at NMSU and wanted to be closer to family. The faculty member could do more research at the new job. At NMSU the faculty member was doing the job of three people. NMSU's counter offer for the faculty member and spouse came too late.
- A major push factor was colleagues' disdain for the focus of the faculty member's research. The faculty member came to feel that NMSU was not well run. The faculty member was becoming cynical and regretted feeling that way. The breaking point came at the same time that a job became available.
- The faculty member felt devalued and unappreciated at NMSU. All doors seemed closed to grow as an administrator at NMSU. The university's hiring processes were not fair.
- Being unable to find a position at NMSU for the faculty member's spouse was a big factor in leaving. NMSU didn't do enough to try to keep the faculty member by accommodating his/her spouse. The faculty member did not feel adequately valued for contributions.
- Spouse's career issues influenced the faculty member's decision, as well as being closer to both their families in another state. Also, the faculty member wanted to work in a Ph.D. program and have a smaller teaching load and didn't see the potential for support at NMSU for the research he/she was doing.
- The faculty member's spouse was not happy in the desert and with the Las Cruces schools. Also, prospects for a fair salary as a full professor influenced the faculty member's decision to leave. The faculty member didn't like the direction in which NMSU is going and found the upper administration's CEO style of leadership "chilling," leaving little room for humanistic education. The faculty member preferred smaller classes where he/she could get to know students and have good discussions.
- Lack of mentoring was the main reason the faculty member did not stay in a tenure-track position at NMSU. The faculty member did not receive any mentoring and harbored doubts about an academic career. The faculty member resigned when obtaining tenure seemed unlikely.
- The faculty member's spouse could not find a faculty position at NMSU. Major factors were a job for the spouse, being closer to both their families and the opportunities for professional growth that didn't seem possible at NMSU.

- The need to settle down somewhere closer to family was the main reason the faculty member left. The faculty member had a wider view of options beyond NMSU from a previous career and wanted to pursue these.
- The possibility of living in the same area with the faculty member's spouse and the resource-strapped conditions at NMSU influenced the faculty member's decision to leave.

**Question 8: Did partner/family considerations influence your decision? If so, how? Did the other institution offer you support/services for your family's relocation? If so, what was this support or what were these services?**

<i>No. of Respondents</i>	<i>Response</i>
12	partner and family considerations were the main factor for leaving NMSU
7	partner and family considerations were one of the factors
4	partner and family considerations were a minor factor
10	partner and family considerations were not a factor
<b>Note:</b> There are no data for one faculty member.	

## NMSU Experiences

Question 1: What are some of the best features of NMSU? What did you like best about working at NMSU?

<i>No. of Respondents</i>	<i>Positive Feature</i>	<i>Notes</i>
9	Colleagues	in their own departments 21 in other departments 7 in the Women's Studies Department 1
25	Students	first-generation college students 3 older, non-traditional students 2 culturally diverse students 2 Native American students 1
8	Department heads	
7	Teaching Academy	
6	Facilities	Specifically mentioned were the library, "beautiful" campus and swimming pool.
5	Weather	
4	Culturally diverse region	
5	Feeling of freedom to create one's own path, such as what courses one teaches	

3	Attractive geographical area	
3	Very friendly people	
3	ADVANCE Program	
3	Library	Pegasus 1
3	Focus on building a teaching culture that puts students first and rewards faculty members for teaching	
2	Feeling part of a community	
2	Tuition-free courses	
2	Honors College	
2	NMSU being a minority-serving institution	
2	Unique opportunities of being on the border	
1	Chance to develop programs; team teaching; liberty with using accounts; opportunity and rewards for teaching on-line; sharp, intellectual community; research space; events (sports, concerts); AGAP; Office of Research; American Indian Bridges Program; Spanish professors (Faculty member had taken courses in Spanish.); start-up package; liberal climate; potential; good student-body size; access to upper administrators; chance to have one's voice heard; NMSU being an agricultural university; alliances with UNM and NM Tech; Center for Latin American and Border Studies; opportunities to connect outside one's department.	

**Some of the statements made by faculty members in response to Question 1 are as follows:**

- *"I love the students!"*
- *"Students are bright undergrads who can compete with any undergrads across the country."*
- *"Phenomenal colleagues."*
- *"I love this institution! There is so much potential for this institution and so much for the people associated with it. This place is a diamond in the rough."*
- *"Upper administrators don't know what a jewel NMSU is."*
- *"NMSU has a lot to offer."*
- *"ADVANCE. This is so key! I can't talk enough about that."*
- *"The longer I was at NMSU the more I felt that faculty are really good, smart, dedicated people who work hard at everything."*
- *"In some ways it's like the wild, wild west in New Mexico. There is a unique set of people who want to do their own thing. It's a challenge, but a nice challenge to work with them."*

Question 2: What are some of the more problematic features of working at NMSU?

**The list below covers problematic aspects of faculty members' experiences at NMSU. The list of 18 problems begins with the most often mentioned problems and the percentage of respondents who identified this problem. (For a summary of the most important problems without the supporting data please see the Executive Summary.) Please note that low percentages do not indicate necessarily that these problems are not as significant as problems with higher percentages. My interview method relied on faculty offering all information; I did not ask interviewees to respond to a list of problems as was done in the NMSU Research Environment Survey. Percentages would likely be higher on most problems if I had given respondents all of the problems to rank.**

**In some cases my analysis of problems involved creating a phrase to encapsulate responses that cluster around a common issue. For example, "low collective esteem" is my phrase based on repeated references to a profound lack of recognition of the high quality of the faculty and students at NMSU and the resistance or inability to build on faculty and student strengths. In most cases the phrasing of problems reflects closely the wording that faculty members gave me.**

**Each problem opens with selected quotes from interviewees. Each quote represents a separate respondent.**

Problem 1. Collective low self-esteem and morale exhibited in: 1) resignation about limited resources; 2) acceptance of mediocrity and the status quo; 3) not thinking highly enough of one's colleagues and students; and 4) administrators feeling threatened by faculty members with new ideas and theoretical perspectives.

Percentage of respondents who mentioned this problem: 55.8 percent (19 respondents)

- *"Low self-esteem plagues NMSU. When people come to know the place they love it. But when faculty leave there is often this sentiment that they think they are too good for NMSU, while in fact NMSU is very good. It is a myth that most faculty desire more prestigious jobs with more money. Quality of life and family issues are principal concerns for most faculty, especially women."*
- *"You retain valuable faculty through changing the culture not offering higher salaries. The culture of mediocrity needs to change to a culture of excellence."*
- *"Upper administrators don't see what a jewel NMSU is. They give the message to faculty, 'You aren't very good. You've got to deal with it or leave.' Yet, the longer I was at NMSU the more I felt that faculty are really good, smart, dedicated people who work hard at everything."*
- *"In the department a few national players wanted to come to NMSU but my department head wouldn't hire them. He didn't want them because he felt that the department is a teaching department and that people do research 'on the side.' I was search committee chair two times when my department head put the nix on hiring really good people who do research because he felt that our department was a teaching department."*

- *“The department head gave the impression that he felt that none of the research we did mattered anyway. He recommended that I not submit to high-ranking journals. He said you could burn half of the research that was done and it wouldn’t make any difference”*
- *“How can I judge the feedback? My supervisors were willing to accept mediocrity. I always look on the horizon. The way administration viewed success kept me from being competitive along the lines I wanted. I couldn’t get the training. I was always putting out hot spots rather than doing research and developing new programs.”*
- *“NMSU lacks a vision of what it can be. At [new university] in contrast, people view the university as a national player, even if they aren’t completely so.”*
- *“NMSU needs more vision. Administrators lack imagination and vision. They are into maintaining the status quo. They don’t know how to support visionary faculty.”*
- ***At NMSU if you came up with a new idea there was much resistance. They always wanted to do it their way.***
- ***“Why in the hell are we doing what we are doing? No one cared to ask or answer the question.”***
- ***“Most everything that is great happens in spite of administrative support, not because of it.”***

Problem 2. Upper-level administrators are not involved enough in retaining faculty members and do not take their problems seriously enough.

Percentage of respondents who mentioned this problem: 52.9 percent (18 respondents)

- *“Counter offers come too little too late.”*
- *“Offers come too late to consider before having to take the new job.”*
- *“NMSU needs to value its employees while they are still at NMSU, rather than waiting until they are really frustrated and have an offer. By that time they have cut their emotional ties with NMSU. The offer has to be made before faculty are totally frustrated and ready to give up. Timing is an important factor in offering changes, too.”*

**Problem 3. Lack of appreciation for faculty members’ efforts and a tendency to squander faculty members’ unique talents**

Percentage of respondents who mentioned this problem: 50 percent (17 respondents)

- *“I felt expendable. I was young, unsure of what was expected of an academic and no one told me or helped me. I didn’t have as much information as I needed and didn’t know what to ask.”*

- *“Administrators give faculty the impression that they are replaceable, “fungible,” as Rumsfeld said about the troops in Iraq. NMSU has a callous, cavalier attitude about losing faculty.”*
- *“Administrators view faculty like migrant workers or itinerant workers. Administrators see faculty as people who process ‘x’ number of students. That is mostly what matters to them.”*
- *“I did not feel that welcome at NMSU or that my talents were used. At my interview I remember faculty being excited that I had expertise in \_\_\_\_\_, but I was never able to build on those skills in my job because the college did not value those objectives. I felt that I could have done a lot to make a national name for NMSU and myself. I felt that I was in a holding pattern at NMSU or worse that I fell behind.”*
- *“I got some very large grants that went to NMSU. I never got a note from anyone, no acknowledgement that this was an important contribution to NMSU. If a person had contributed as a donor, they would have received a thank-you card. A note from the VP or Provost - ‘This is wonderful’ - would have been nice. I got the impression that getting huge amounts of money is just expected of faculty at NMSU.”*
- *“If people had said ‘thank you’ to me it would have made a lot of difference. If anyone had said, ‘We value what you do’ it would have greatly helped me. . . . I felt that my expertise was not appreciated or valued. I even felt they were saying to me, ‘You don’t know what you’re talking about.’”*
- *“I never received a thank you at NMSU. It is unnecessary to treat each other with such disrespect. With all the professional training, people don’t say a simple thing like ‘thank you’ which can make all the difference. I am currently in a job where my bosses have only a high school education yet they consistently say ‘thank you’ at the briefings each day. They assure us that we are valued.”*
- *“My department struck gold when I was hired [the faculty member had nine years of experience]. NMSU needs to stop squandering valuable faculty.”*
- *“No one asked me to stay when I said I was quitting. There was no response, just ‘Que te vaya bien’ [That you go well]. It would have made all the difference in the world if someone had said, ‘please stay,’ and had really meant it. I was eager to produce at NMSU and the university squandered me.”*
- *“E-mail messages describing the accomplishments of departments and faculty from the college had the effect of pitting departments against one another, evoking a sense of competition, rather than of celebration. There must be a better way to celebrate faculty accomplishments.”*
- One faculty respondent remembered a welcome reception at the President’s house the month he was hired. It gave him the feeling that NMSU valued him.

**Problem 4. Low salaries, poor benefits, ineffective merit pay system and inadequate support for professional development.**

Percentage of respondents who mentioned this problem: 47 percent (16 respondents)



- **“Salaries are just not keeping up. When I was interviewing and thinking about choices, I had to figure out if he was working just as a hobby based on the kind of effort I was putting in and the salary I was receiving. I had to keep my staff happy on poor salaries. A telling thing was that when we graduated students they all left and got higher salaries than my peers or I were getting.”**
- *“I was frustrated with the benefits costs.”*
- *“The benefits package is poor and NMSU needs to address this at the state level.”*
- *“More financial freedom would help retain faculty. NMSU needs something to offset the fact that Las Cruces is more isolated without the social support and opportunities for faculty and families that larger urban areas have.”*
- *“Pace of salary change is too slow, behind the curve.”*
- *“Merit pay is not an effective reward as research productivity didn’t seem to make any difference in merit pay.”*

**Note:** The 14 faculty respondents who received better benefits packages at their new jobs described a variety of benefits as well as substantially better health coverage that gave them a strong message that they are valued and supported at the new institution.

Problem 5. Faculty members feel over-worked, that they cannot do all that is expected of them in research, teaching and service; they feel as if they are being “squeezed and squeezed.”

Percentage of respondents who mentioned this problem: 44 percent (15 respondents)

- *“A 3/3 teaching load, plus graduate students, is too much.”*
- *“I could not do research with such a heavy teaching load. I was expected to be superhuman.”*
- *“The teaching load was a down-side of NMSU for both faculty and department heads.”*
- *“The work load was the biggest problem.”*
- *“I don’t mind working hard but at NMSU it was like Sisyphus pushing the rock up the hill only to have it fall back down each time. Nobody was there to help me push the rock. In fact people from my own department were pushing the rock back down on me.”*
- *“The work load was way too broad. My supervisors said, ‘We just don’t have enough people to go around and anything you can do will benefit us.’ I refused to accept this line of thinking. I tried to do well, but I felt a lot of angst robbing Peter to pay Paul, trying to juggle many things. I wanted a realistic job description.”*
- *“The message I got from administration was work harder, do more and don’t ask the kinds of questions that I was asking.”*
- *“All faculty at NMSU do burdensome work, serve on many committees and lots of extra-curricular work. The learning curve to serve on committees is steep. The administration at NMSU keeps wanting to suck people dry.”*

Problem 6. Lack of a sense of community and looking out for others' welfare exhibited in 1) inadequate welcome, orientation and assistance for new faculty members to integrate into the NMSU and surrounding communities; and 2) a sense of people competing with one another for scarce resources, recognition, benefits, etc.

Percentage of respondents who mentioned this problem: 35 percent (12 respondents)

- *"It seems all about the individual and climbing instead of being supportive and helping people move to the next level."*
- *"Petty jealousies are a problem at NMSU."*
- *"No senior faculty member spoke up when my department head bullied me in faculty meetings."*
- *"I didn't feel that NMSU took the step to welcome me and integrate me into the NMSU and surrounding communities. I needed help with this. I felt a void in my life during the 2½ years at NMSU."*
- *"There were no efforts to integrate new faculty into the larger NMSU community. I had to do everything on my own. At my new job I have been invited to and introduced at many events since my arrival. Faculty have helped me get to know the people I can work with. No such effort was made at NMSU."*
- *"No one took any interest in showing me around the community, inviting me to go out to eat at a special restaurant to introduce me to the community. I was all alone, knew only one other person who I had seen at conferences. Without any family in a family-oriented town I needed some people to reach out to me. I never had trouble making friends until I came to Las Cruces."*
- *"It is really important to have a support network for faculty. If you have explicit opportunities for new faculty to join into groups to share challenges, successes, as early as possible this will help with retention. When a faculty member is isolated and feels as if they don't have colleagues, this is when problems begin."*
- The faculty member recalls "strange e-mails" coming from upper administration trying to create a sense of community or pride in NMSU when such a sense must grow up from the grassroots.
- After arriving at NMSU the faculty member found that it was not a particularly welcoming place.
- NMSU tolerates people leaving because they can't find support at the university. Administrators accept this condition without caring to change it.

Problem 7. Racism, sexism, classism, homophobia and poor understanding of what constitutes diversity.

Percentage of respondents who mentioned this problem: 32 percent (11 faculty respondents)

- *“It is not good that there are no women administrators in the college.”* This faculty member saw a major disjunction between the diversity in the faculty member’s department and the lack of diversity in the college leadership.
- *“There is lots of misogyny in the college. There is too much male dominance and sexism at NMSU.”*
- *“To have a healthy faculty NMSU needs a diverse faculty. If they lose lots of young, single people they will risk being too homogenous, without diverse perspectives and experiences. The people will be left who meet the slim criteria of fitting in at NMSU – family oriented, established in their careers. A university loses a lot when its faculty are not diverse.”*
- The faculty member was warned to wear high-necked blouses when going in to talk with the associate dean.
- At the beginning of the faculty member’s career, it was necessary to battle male colleagues over not hiring a potential candidate who was sexist, rude and inappropriate. This confrontation set a negative tone for the faculty member’s career.
- A few faculty members mentioned a sexual harassment lawsuit in their college that happened several years before they arrived but that contributed to bad feeling in the college.
- Racism was strong in the faculty member’s department and college and throughout the university. The faculty member’s personality got him/her into “the club” but while in there he/she got the message, “Remember, you’re not one of us.” The faculty member feels that the department and college lacked awareness of the social and cultural aspects of the work they were doing.

**Problem 8. Inadequate support for research contradicts the “talk” about increasing NMSU’s research standing nationwide. NMSU is resource-challenged but administrators don’t work respectfully and fairly with faculty members to confront this challenge.**

Percentage of respondents who mentioned this problem: 38 percent (13 respondents)

- **“NMSU talks the talk but doesn’t walk the walk with faculty development and support for research that a Carnegie extensive institution should do.”**
- *“NMSU has Carnegie research extensive aspirations but doesn’t treat its faculty in accordance.”*
- *“Department heads kept being asked to do more with fewer and fewer resources.”*
- *“Department budgets need to be increased. When I finally left three years later there had been no increase in department budgets. In fact we had less money than three years previous, 97 percent of previous year. My breaking point and the job opening in [new job] coincided.”*

- Faculty members do the best they can with what they have, but their successes are against the odds.
- One faculty member said that Human Resources and Payroll were difficult to work with. This faculty member was on grants and found it strange that the only way to go on grants was to go on a leave without pay. Also, dealing with support staff was difficult.

Problem 9. There are many obstacles to working in teams and coordinating or collaborating with other units on campus. Colleges and departments are poorly connected.

Percentage of respondents who mentioned this problem: 38 percent (13 respondents)

- Difficulty working across departments or units was a problem. In the faculty member's current position working across units is considered an advantage because the university is trying to transform itself. There is greater willingness to try different things.
- The respondent directed a program within a department and had no access to the dean. A disconnection between the faculty member's program and the college was a problem.
- *"What most sticks out that is negative about NMSU is how disjointed everything was."* The faculty member wanted to make resources available to people and coordinate with different programs but found that very difficult to do at NMSU. It was necessary to "jump through hoops." The faculty member didn't want to "reinvent the wheel" but felt that was happening because of lack of coordination and talking between units on campus. The faculty member also felt that difficulties in coordination were connected to feelings about turf: *"This is my turf and I'm going to keep it as long as I can."*

**Problem 10. Large communication gap or lack of connection between faculty, staff and administrators. Each group does not know the others' realities. Administrators are out of touch with faculty members' realities and don't seem to care to know.**

Percentage of respondents who mentioned this problem: 35 percent (12 respondents)

- *"It is a problem that different departments and colleges don't understand each others' realities."*
- *"The worst decisions that administrators make are the product of their being removed from the day-to-day realities of faculty. This is one reason I do both research and teaching as an administrator."* [in her/his current position]
- ***"Everyone at upper levels of administration are oblivious of the effects of their decisions."***

- *“Administrators are out of touch with faculty and don’t seem to care about them.”*
- The faculty member recalls attending a reception for first-year faculty members at the president’s house. It conveyed the message that faculty are valued and have access to the president. Faculty member now feels a greater disconnection between upper administration and the faculty.
- **The staff and faculty don’t know that much about each other’s realities, and if they did, their working relationships might improve. Interaction with staff members made the faculty member aware that they had little idea about his/her reality, nor he/she of theirs. The faculty member thinks that some staff members have meaningless jobs and don’t see how they fit into the larger mission of the department or university. This can create hostility. For example, some staff members think that professors just show up for their classes. The faculty member doesn’t think that departmental staff members were being cantankerous in and of themselves, but that they often seemed to throw obstacles in the way of faculty members or didn’t try to help faculty members when they needed help. The faculty member often felt that faculty are not very important or respected at NMSU at all levels; the perception of disconnection between people working on the campus and the larger whole makes work loads feel more onerous than they need be. The faculty member suggests that reducing the disconnection between faculty, staff and students would go a long way to creating stronger morale and sense of community.**

**Problem 11. NMSU’s current development model based on economic efficiency or cross-subsidization threatens valuable programs and creates disharmony and low morale.**

Percentage of respondents who mentioned this problem: 32.3 percent (11 faculty respondents)

- *“Mike Martin is a CEO . . . . The money-based model that they follow doesn’t consider the broader quality of life of faculty, students and staff. It is reprehensible.”*
- *“The bottom line mentality is that the university needs to run like a business, but NMSU administrators have never run a business! They need to understand what their product is – knowledge. NMSU disseminates knowledge.”* The faculty member further stated that every aspect of the university administration should be to enhance that function. Businesses are not mostly about making money. If they do not provide a high-quality product, they will not stay in business.
- From working in industry, the faculty member has known what it is like in “old style” engineering firms where you’re lucky to have a job. The faculty member sees the same attitude at NMSU. In reality, NMSU is lucky to have the faculty.
- Over the last five years the respondent felt that at the highest level there was not much commitment to student quality. It was all about numbers. Recruiting sufficient numbers of high-quality students was a problem in her program. NMSU didn’t do enough to promote itself to potential grads. Lack of resources at NMSU to do anything creative is a problem.

- The cross-subsidization idea and the CEO model of governance are a problem. The respondent served on Faculty Senate and once heard the provost speak and felt as if the faculty members were being addressed like members of a corporation. The respondent would have liked to see the Faculty Senate have more of a sense of participation in decision making. The respondent appreciates the driving force to make NMSU more economically sound, but is concerned about the ruthless pursuit of economic efficiency. The respondent feels that NMSU risks losing sight of humanistic education in this process. The research clusters left no place for the faculty member's specialty. He/she had deep concerns about the focus on student retention and standards. The respondent felt that faculty members were being placed in the position of working twice as hard with no further compensation, that NMSU was using corporate ploys to increase productivity without due compensation.

**Problem 12. Faculty members perceive a lack of transparency in decision making at the Dean level and above and insufficient communication between upper administration and the faculty about decisions. Faculty members do not feel that their input in decision making at the dean level and above is welcome**

Percentage of respondents who mentioned this problem: 32 percent (11 respondents)

- *"I really wanted to understand the basis for decisions. It was strange that people should perceive my interest in knowing why as a criticism."*
- *"Administrators need to share with all faculty what is going on. There is no overall sense of openness."*
- *"I asked and couldn't get answers from administrators about resource distribution. I got more opinions than answers. I was disturbed a lot by the college's use of [another department] as a whipping boy. 'Be thankful you aren't in [name of department] where you would have to teach even more students.' The reaction from administrators of threats or of dismissal of concerns was wholly inappropriate."*
- *"It still bugs me that a person could be denied tenure and the dean didn't feel [he/she] had to say why. People need to be armed with reasons. It's very debilitating not to have reasons."*
- The respondent felt a continuing level of frustration with people at the dean level and higher who did not want faculty input. The respondent felt that not to involve faculty was the "exact wrong way" to implement programs. Administrators acted as if they knew it all already. That attitude and lack of respect for faculty input was the most persistent and plaguing part of the respondent's experience at NMSU (although that is not a problem unique to NMSU, the respondent added).
- The respondent felt that high-level meetings are where decisions are made, that faculty members' efforts on search committees were empty because in the end administrators made the decision about whom to hire. The respondent feels that administrators need faculty members' feedback. Because of lack of feedback faculty members have no ownership in the process. In the respondent's experience, getting consensus was not important, nor was transparency. These conditions fostered a sense of isolation.

**Problem 13. Short-sightedness and focusing on quick fixes are all too common responses to problems. Lack of a serious commitment to long-range, creative planning with a clearly thought-out vision due to non-stop changes in upper administration with continuous revamping of policies and procedures.**

Percentage of respondents who mentioned this problem: 23.5 percent (8 respondents)

- “NMSU needs to be less shortsighted, to focus less on what works in the moment.”
- “At NMSU it seems that the president is always reinventing the wheel. I worked under 6 presidents while at NMSU. NMSU has missed many opportunities. I can’t count all the reports I have read from committees whose recommendations were never implemented because a new president came in and started afresh with his ideas. This kind of effort that leads to no change expends a lot of wasted emotional and mental energy that faculty could use in much better ways.”
- “I had zero faith in the direction my department head was going. In my department two or three people sit around a table with no real planning. People just do what they want and the meeting is to justify what they want to do. No faculty involvement.”
- **“The department head repeatedly made bad decisions without consulting with faculty because there was no long term plan, no team work, no effective committees. The department functioned on a crisis management basis.”**
- “College strategic planning came first and then departments had to fit their strategic plans to the college.” It is better to start strategic planning at the grassroots, then bring departments together and let them make the college plan.

**Problem 14. Little support for taking the university to the people of the State of New Mexico.**

Percentage of respondents who mentioned this problem: 23.5 percent (8 respondents)

- Given that Las Cruces is small, it should be possible for the university and community to have better communication.
- There is not enough respect in the college for qualitative research and working with communities in respectful collaborations. Some community groups are angry at NMSU for not working with them respectfully. People feel that NMSU has imposed upon them, hasn’t worked in a reciprocal way, that researchers have taken the data and run with it.
- The respondent stated that university entities must be responsible to the communities. After the devastating rain in New Mexico in 2006, the university did not do anything for the nutrition and food safety of displaced migrants in the affected areas. There were no course releases for efforts to take the university to the people, because no one cared about this. The lack of reaching out creatively “drove me crazy” when the respondent was at NMSU.

- When the faculty member arrived at NMSU there was a lot of animosity between NMSU and [a local public entity]. The faculty member worked hard to research the problems and mend the relationship, but the dean imposed his/her own ill-conceived plan on the program. In the process, the relationship was set back to where it was when the faculty member started.
- No creative thinking about how departments could work together to combat social problems, such as school violence or natural disasters like the Hatch flood.

**Problem 15. Support for spouses and families is sorely lacking at NMSU. NMSU lacks a family-friendly environment and needs a spousal-hire policy.**

Percentage of respondents who mentioned this problem: 17.6 percent (6 respondents)

- *“Stable twosomes are a great bonus that NMSU needs to appreciate.”*
- *“NMSU needs to be honest with faculty when they start their job about opportunities for their spouses. Faculty believe general statements such as, ‘We’ll try to help,’ and they hope for the best but rarely are any appropriate accommodations made for their spouses.”*
- *“NMSU needs to understand that faculty are whole people. NMSU needs to see people in their entirety. When a faculty member flourishes, it’s often because both the faculty member and their spouse flourish. It is possible to flourish at NMSU, but mostly only white men flourish.”*
- *“NMSU needs to regard families’ well-being as important. I felt as if I was an expendable resource at NMSU. The attitude I got was, ‘Too bad for NMSU that you have a family.’ Having a family meant I couldn’t give the university 24 hours a day of myself.”*
- *“NMSU should work harder to help faculty make a home in Las Cruces for not just the faculty member but for their families. If the university could build stronger partnerships with the community it might help spouses get jobs and families integrate better and want to stay. I was struck by the contradiction in lack of support I felt for my spouse from the department and the way NMSU ‘is all about family’ (e.g., the graduations in which all the family come). It is ironic that NMSU doesn’t take better care of employees’ families.”*
- *“My former head said that he didn’t like women faculty to have babies. He was intolerant in terms of family.”*
- *“I couldn’t have afforded to have a child at NMSU as I needed fertility treatments which would not have been possible under NMSU’s coverage. This is especially important for women who put off having children for their career and then may want to have them when they are older (common among women academics). I don’t want to be someone who eventually says, ‘Oh, I forgot to have a baby!’ My new position offered full coverage for fertility treatment and/or an \$8,000 credit toward adoption. I chose a position in a family-friendly environment that was enlightened enough to realize that recent studies indicate that including comprehensive fertility coverage in*



*insurance benefits may actually reduce costs. This was a powerful incentive for me to leave NMSU.”*

- It is difficult for single people to find people to date or life partners in the Las Cruces area.
- There is not a good benefits package for family leave.

**Problem 16. Tenure policies and processes need revamping.**

Percentage of respondents who mentioned this problem: 17.6 percent (6 respondents)

- *“My final annual evaluation was based on how well I played politics that year within my department. My first two years I had wonderful evaluations (though I was not as prolific in my research). My last evaluation was intended to be punitive. Certain members of my department did not approve of my support for the chair and the dean. The evaluation bore little resemblance to the department P&T list of criteria for promotion. Ironically, I had amazing success in terms of publishing on a national level that year, but the committee did not acknowledge these accomplishments. Clearly, this was an abuse of the tenure process, a case of ‘publish or perish.’”*
- The respondent was disappointed after arriving at NMSU with seven years of experience and a good publication record to find no flexibility in the college for credit toward tenure. (The respondent had been in a non-tenure track position prior to NMSU.) When the respondent compared her/his output with that of faculty members who came in from tenure-track positions with many fewer publications than the faculty member, he/she felt discouraged; some appreciation of faculty member’s past contributions by giving some time toward tenure would have enabled the respondent to feel encouraged and appreciated. The respondent felt that there was little flexibility and creativity in recruitment and little regard for retention.
- The respondent felt a lack of assurance that P&T committee will follow proper procedures and decisions will be fair.
- The tenure process “definitely needs improvement” to help the faculty feel more secure. Tenure had been overhauled in the respondent’s college but there were issues about the process. Some people with tenure may have felt that they got it easier or had to do more than the newer people.
- The respondent was concerned about her/his tenure-track status given that the masters degree is the terminal degree in her/his field. It wasn’t clear how the tenure requirements for faculty in the college differed from that of other faculty members with Ph.D. degrees.

Problem 17. There is inequality of resource distribution across departments and colleges, with a tendency to slight the humanities and social sciences.

Percentage of respondents who mentioned this problem: 17.6 percent (6 respondents)

- “Humanities and social sciences faculty are good people and care deeply about what they are doing and are not being supported by the administration.”
- The respondent feels that the university is stuck in a frame of mind that it has had since the beginning that its main strength is the natural sciences. The humanities get slighted as a result. More value is placed on quantitative research.

**Problem 18. There is widely perceived administrative inaction in relation to faculty members’ problems and to conflict-torn departments. Administrators are reticent to confront bullying, mobbing and other forms of dominating behavior by groups within the faculty and individuals in department head and dean positions.**

Percentage of respondents who mentioned this problem: 14.7 percent (5 respondents)

- “The provost and the dean are aware of problems but are not willing to move fast enough to save valuable faculty.”
- “The culture at NMSU is not good at handling conflict.” There is a general lack of trust and no environment for fostering empathy. The institution isn’t doing anything for conflict management. NMSU needs flexibility, humanity.
- “At whatever level, administrators should be more willing to act, not just listen and put the onus of responsibility on the person having the problem.”
- Better department and college leadership would have made a difference for the respondent. For example, if another individual had been department head, the respondent would have stayed.
- At NMSU the respondent felt monitored; people worked at cross-purposes.
- There is a lack of administrative action. The respondent’s department head berated the respondent at faculty meetings. No one spoke up against that. No senior faculty member said that this kind of behavior is unacceptable.
- Bad feelings in the respondent’s college were one of the most problematic features. There was a long history behind the bad feelings, including a sexual harassment lawsuit.

Questions 3: How did you feel about your department?

Although this question did not ask specifically what faculty members felt about their department heads, department heads emerge as powerful forces in both positive and negative ways in faculty members’ experiences at NMSU. Hence, a sub-category of this question covers feelings about department heads.

<i>No. of Respondents</i>	<i>Response</i>
15	felt good overall about department
8	felt mixed feelings about department
11	felt badly or had concerns about department

<i>No. of Respondents</i>	<i>Concern</i>
2	racism
4	low standards or limited vision
3	sexism
2	homophobia
4	factionalism or cliques
1	disdain for work from colleagues
1	mobbed by colleagues
1	colleagues gave no value to faculty member's work
2	lack of mentoring or support
2	no strategic plan or vision
1	low morale

**Faculty members' statements included the following:**

- *"I truly loved my department."*
- *"We were like a family."*
- *"Give them all a raise!"*
- *"The best work environment I've ever been in."*
- *"It was the best of times and the worst of times."*
- *"Racism was strong in my department."*
- *"I feel pity and sadness for my department. They were in a self-destructive mode."*
- *"The department functioned on a crisis-management basis."*
- *"The faculty act like battered children or spouses in relation to the department head."*
- *"I felt as if I was walking on thin ice for two years under [department head]."*

**Faculty members who mentioned department heads in their feelings about their departments fell into following categories:**

<i>No. of Respondents</i>	<i>Response</i>
11	Department head was mostly a positive force.
9	Department head was mostly a negative force.
2	Respondents experienced a mix of positive and negative feeling about department heads (e.g., faculty member served under several heads, some good or not so good; or served under just one head who had both positive and negative aspects).

**Question 4: How did you feel about your college? Is it clear how the department's expectations and functions relate to the overall direction from the college?**

<i>No. of Respondents</i>	<i>Positive Responses</i>
2	felt good about college
2	saw a clear relationship between college and department
1	saw a correlation between department and college goals, but did not agree with those goals
1	felt that the college valued the department
1	felt it was very clear about what was required to get tenure and promotion at college level
1	felt that the dean was very sympathetic and encouraging to the department.
1	felt that tenure workshops held by college were helpful

<i>No. of Respondents</i>	<i>Problems cited</i>
	Lack of clarity
4	<ul style="list-style-type: none"> <li>Not clear about overall direction of the college and how faculty members' jobs related to it</li> </ul>
3	<ul style="list-style-type: none"> <li>College lacked a clear vision and imagination.</li> </ul>
1	<ul style="list-style-type: none"> <li>College didn't fully understand its important role.</li> </ul>
1	<ul style="list-style-type: none"> <li>Lack of clarity about promotion and tenure issues at the college level</li> </ul>
	Lack of support from college and lack of faith in dean
2	<ul style="list-style-type: none"> <li>College didn't support the department well.</li> </ul>
1	<ul style="list-style-type: none"> <li>Little follow through from the college</li> </ul>
1	<ul style="list-style-type: none"> <li>Hostile relationships between department heads and college</li> </ul>
1	<ul style="list-style-type: none"> <li>Lots of misogyny in the college</li> </ul>
1	<ul style="list-style-type: none"> <li>Faculty member does not believe that the dean is advocating for their programs.</li> </ul>
1	<ul style="list-style-type: none"> <li>Not good that there are no women administrators in the college; little diversity at deans level</li> </ul>
1	<ul style="list-style-type: none"> <li>Respondent could feel the tension in the college.</li> </ul>
1	<ul style="list-style-type: none"> <li>Lots of conflict between the department heads and dean</li> </ul>
1	<ul style="list-style-type: none"> <li>Respondent was afraid of grieving decisions.</li> </ul>
1	<ul style="list-style-type: none"> <li>Did not feel appreciated at the college level</li> </ul>
1	<ul style="list-style-type: none"> <li>Dean's statements could not be trusted.</li> </ul>
1	<ul style="list-style-type: none"> <li>Constant talk from deans about shutting the department down</li> </ul>
1	<ul style="list-style-type: none"> <li>Respondent didn't trust being in the dean's hands in relation to a tenure-and-promotion decision.</li> </ul>
4	<ul style="list-style-type: none"> <li>Communication gap and disconnection between the college and the faculty</li> </ul>
1	<ul style="list-style-type: none"> <li>Felt like a single unit working without connection to a larger framework</li> </ul>

2	• College would not give reason why it stopped things.
1	• Dean's decision making style involved insulting people.
2	• The dean's actions were a mixed bag
1	• Dean only talked at the faculty, did not listen to them.
1	• Dean only had one meeting per semester with the faculty.
1	• Giant communication gap between the college and the faculty
	Deans do not adequately involve departments in decision making.
1	• Deans make decisions about issues that faculty should have autonomy to decide.
1	• College strategic planning came first, and then departments had to fit their plans into college plan.
1	• College tends to focus on career-focused degrees at expense of the humanities.
1	• College got in the way of departments.
1	• Department head did the bidding of the dean.
1	• College didn't seem to welcome questions.
1	• Relationship with college depended on who was dean.
1	• Dean was not "pushy" enough.
1	• Dean was not a creative administrator.
1	• Dean was a poor leader.
	• There is a giant communication gap between the college and the department.
	Not much contact with or opinion about the college
1	• Not attuned to the college due to focusing on getting tenure
1	• Was aware of conflicts in the college but they didn't effect the respondent
1	• Did not have much contact with deans or college
1	• Did not occur to respondent to work with dean
1	• Funding scheme in college and university needs to be fixed.
1	• Felt college was pushing to bring in students who were not ready for college
1	• People in college harbored many grudges.
1	• Up until recently college has exploited the department's lack of vision.
1	• No data

**Faculty members' statements included the following:**

- ***"I love the new research dean. He/she is helping build up morale again."***
- ***"The Dean was very sympathetic and encouraging to our department."***
- ***"The dean nixed faculty proposals without a word of explanation."***
- ***"There's lots of conflict between the department heads and dean."***

- ***“The college got in the way of the departments.”***
- ***“I didn’t trust myself in the dean’s hands.”***
- ***“You can feel the tension in the college.”***
- ***“People in the college seemed to be harboring many old grudges.”***
- ***“The college could have had a more interdisciplinary commitment.”***
- ***“There wasn’t enough respect in the college for qualitative research and working with communities in respectful collaborations.”***

**Question 5. When you first came to NMSU, was mentoring available? Did you want it? Did you receive it? If you didn’t, how might it have helped you?**

<i>No. of Respondents</i>	<i>Responses</i>
11	did not receive any mentoring
7	received informal but inadequate mentoring
8	received adequate-to-good informal and formal mentoring or a mixture of both
1	No data available
3	did not seek out mentoring because they did not feel they needed it. In their current administrative positions they are making mentoring a priority for new faculty members. These people were men in STEM departments.
1	received “negative mentoring” in the form of pushing the faculty member to take a career path that was not right for them
3	stated that mentoring needed to be “discipline specific” and a good fit
2	mentioned the value of mentoring to negotiate the “political terrain” at NMSU
2	found mentoring in the Writing Across the Curriculum Program and with a retired former faculty member

**The following statements were made by faculty members who received inadequate or no mentoring:**

- *“I felt as if I was floating during most of my career. It seemed to be a sink-or-swim situation.”*
- *“Let’s see if he/she can make it.”* [regarding administrators’ attitudes about faculty members]
- *“There was a dramatic lack of mentoring and support.”*
- *“I wanted mentoring badly but no program was available.”*
- *“Someone gave me a file and said, ‘Follow that.’”* [regarding preparation for tenure and promotion]
- *“I received no orientation.”*

- *“The department head worked us so hard there wasn’t time for mentoring. No one had time to go out to lunch.”*
- *“No one in my department valued collaboration.”*
- *“It was hard to get a research community organized.”*
- *“I didn’t find an intellectual community.”*
- *“Mentoring is critical for new faculty.”*
- *“Mentoring needs to be discipline-specific.”*
- *“Women faculty need women mentors.”*
- *“No one in my department valued collaboration.”*
- *“It was hard to get a research community organized.”*
- *“Not just anyone will do. Mentoring needs to be a good fit.”*
- *“I wanted mentoring but I needed to find the right fit.”*
- *“It doesn’t work to assign a mentor.”*

**Question 6. When you first realized that you might leave NMSU, did your department head discuss possible improvements in your situation here, or possible offers to match the offer being made by your new employer?**

<i>No. of Respondents</i>	<i>Responses</i>
10	had one or more discussions with department head that involved counter offers or offers to improve the situation to enable the faculty member to stay
8	had one or more discussions with department head in which the department head asked if he/she could do something and/or understood that the faculty member did not want a counter offer or that it would be irrelevant or insufficient
1	faculty member and spouse both talked with respective department heads who made counter offers.
1	had one or more discussions with the department head, but did not receive an offer because of head’s philosophy that the faculty is a team and nothing special should be done for one person
1	had a discussion which involved requesting a one-year leave of absence to take a non-academic position but the department was not amenable
1	had a discussion with department head in which the head told him/her to go to the dean
1	left as an administrator and received inadequate offers for other administrative positions
1	faculty member was department head
2	did not have any discussions about leaving with their department heads because of hostile relations
2	did not tell department head until the faculty member had accepted the

	offer
2	had a discussion with the department head in which the head did not make any offers, only said “goodbye” or that he would “start the paper work”
2	no data

Question 7. Did you have discussions/communication about such offers or improvements with your dean, either directly or through your department head? What did those conversations consist of?

<i>No. of Respondents</i>	<i>Responses</i>
15	had one or more conversations with dean
15	did not have any conversations with dean
2	had conversations with the provost
1	had conversations with the provost and the president
1	no data
6	received counter offers
4	did not open the door for counter offers because they felt they would not be negotiating in “good faith,” that they were not comfortable “playing one side against the other,” or that there was no way NMSU could come close to their offer
2	said that the Dean had done the best that he or she could

The following responses were given by those interviewed:

- ***“I was surprised that the dean didn’t ask to talk to me.”***
- *“The dean seemed preoccupied with face-saving.”*
- *“I got the impression that the dean didn’t care.”*
- *“I got the sense that the dean expected faculty to leave.”*
- *“O.K., there goes another one.”* [regarding the sense that faculty member had of what the dean was thinking]
- *“Good people are leaving and the college and university doesn’t seem to care.”*
- *“The dean kept sending me back to the department head who was the one I was having problems with.”*
- *The dean had no resources and if you wanted to leave he as much as said, “See you.”*
- *“I didn’t think about going to the dean. My life was wrapped up in the department.”*
- *“The provost and dean are aware of problems but are not willing to move fast enough to save valuable faculty.”*
- *Too little, too late”* [re: counter offers]
- *“Had the dean or upper administration taken my leaving seriously, cared about trying to help me stay, it would have made a big difference.”*



## **Respondents' Suggestions for Improving Faculty Retention**

This section contains responses to questions 8 and 9 of Part III of the interview. Below I have combined responses to these questions in the list of recommendations to improve faculty retention. Selected faculty members' verbatim statements preface this section.

**Question 8. Are there specific items or factors that would have resulted in your deciding to stay at NMSU?**

**Question 9. Is there anything else you have to say about faculty retention from your experiences or those of others?**

Interviewees made the following statements in response to the above questions:

- *"Another way to improve the situation for faculty is not to have such a negative or low opinion of NMSU."*
- *"Greater openness to people outside of the university is needed."*
- *"More interdisciplinary committees and connections are needed."*
- *"Stop punishing and beating down faculty and ignoring problems when they come up."*
- *"Clean house in departments that are dysfunctional."*
- *"Strengthen leadership at the college level."*
- *"NMSU needs long-term solutions, not quick fixes."*
- *"Follow policies and procedures so as not to put the university at risk."*
- *"NMSU needs visionary thinking at all levels."*
- *"Everyone needs to be more respectful of students and community members."*
- *"I wished for more opportunities to talk about what faculty are doing and who people are as faculty members and people."*
- *"Increase rigor, don't settle for minimum standards."*
- *"Reduce the male dominance and sexism."*
- *"It's important for NMSU to hire good faculty who do research and then to show them that they are valued and appreciated, especially if you walk through the door with a big grant."*
- *"Help faculty develop their talents, not feel like drones."*
- *"It is important for administrators at the highest level to get involved in negotiations to keep faculty. It is in their best interests to work hard to retain mid-career faculty as these people are at their most productive points in their careers and bring in large research dollars. I brought in a great deal of research money to NSMU and half went to NMSU for indirect costs. After a while it became less clear who was working for whom. I felt as if I was working for free."*

- *“Treat everyone as professionals who are working hard and deserve respect.”*
- *“Be cognizant of need to develop a faculty member’s psychological contract with the university – help them fall in love with their work. Help them feel that they get to go to work, not have to go to work.”*
- Foster more teamwork and camaraderie.
- Foster an intellectual community. Increase opportunities for faculty to hear what each other is doing.
- Solicit faculty members’ input on rewards needed. What would they like to have? Courses off for professional development, for example.
- Give faculty a sense that they are valued and recognize them above and beyond their personalities. Value their professional accomplishments and recognize these.
- Appreciate and support faculty members’ drive to succeed, to investigate and to do things differently.
- Keep open to diversity of thought.
- The respondent suggests that a mind set of “go and get a grant” is often a meaningless mantra unless people are asking what is important and what the money is needed for.
- The respondent suggests that the NMSU administration needs to see the close link between the university’s advancement and the advancement of individual faculty. If encouraged, appreciated and supported in bringing his/her skills to the university, the respondent could have raised NMSU’s status nationally as well as the respondent’s own status professionally. But the respondent was not allowed to use his/her skills and training. Ultimately, being at NMSU was not a learning experience for the respondent; neither the institution nor the faculty member benefited much.

### **Summary of faculty suggestions for improving retention**

- Seek ways to transform the culture at NMSU from one that accepts mediocrity and fosters a sense of low-self and collective esteem to one that builds upon faculty members’ and students’ considerable strengths.
- **Rethink the corporate model of leadership that pits programs and people against one another in a competitive system.**
- Treat faculty members as “whole people” who have partners and families that need support. Create a spousal hire policy.
- Show faculty members that they are appreciated and valued.
- Expand, extend and diversify mentoring programs.
- **Give extensive support to faculty members in their first year.**
- **Improve professional development for leadership and administration.**
- **Take action when individuals in leadership abuse their power.**
- **Break down barriers between units on campus to make collaboration easier.**

- Deans, the provost and the president need to play a major role in faculty retention by talking with faculty members as soon as it is known that they are considering leaving. Counter offers need to come sooner and be more viable.
- Support for research and teaching needs to be brought into line with the talk. Reduce the teaching load so that faculty can do quality research, teaching and service. Give faculty members latitude to do their research.
- Honor and follow through with promises made at hire.
- Institute a more effective merit-pay system.
- Put department planning before college and university-wide strategic planning, not the other way around.

## APPENDIX E

### Interview Questions

#### **I. Demographics**

*My first questions are some basic, background information about your employment at NMSU and your family situation.*

1. When did you come to NMSU and where did you come from?
2. What was your 1st position at NMSU?

*Ask next questions as applicable:*

3. If you did not start on a tenure track appt., when did you start a tenure-track appointment at NMSU?
4. Have you received tenure? If so, when did you receive tenure?
5. When were you promoted to Associate Professor?
6. When were you promoted to Professor?
7. Have you held other positions at NMSU? If so, please describe briefly.
8. What was your family status at NMSU? (Prompt: marital status, number and GENERAL age-range of children)
9. Did your family status change while you were at NMSU? If so, how? What is your current family status?

*If spouse/domestic partner, then also ask:*

10. What did your spouse/domestic partner do here in Las Cruces? How did he or she feel about your life in Las Cruces?

#### **II. Destination or new job details**

*Next, please tell us about the position to which you are going or are already working in:*

1. Did you receive an invitation or solicitation to apply elsewhere or how did you go about looking for another job?
2. Where is this position?
3. What kind of position?
4. Did you receive a start-up package?
5. Did you receive an increase in salary?
6. Did you receive a better benefits package? If better, in what way?
7. What were the major factors in your decision to leave NMSU? What about this new job really “pulled” you?
8. Did spouse/family considerations influence your decision to leave NMSU? If so, how? Did the other institution offer you support/services for your family’s relocation? If so, what was this support or what were these services?

### **III. NMSU Issues**

*Now, let's talk a little about whether there was anything that NMSU could have done to keep you here and your reflections on your job and the institution in general.*

1. What do you think are some of the best features of NMSU? What have you liked best about working at NMSU?
2. What are some more problematic features of working at NMSU? What have you liked least about working at NMSU?
3. How do you feel about your department? [Possible prompt: Would you say it's collegial or do people just do their own thing, etc.]
4. How do you feel about your college? Is it clear how the department's expectations and functions relate to the overall direction from the college?
5. When you first came to NMSU, was mentoring wanted and/or available? Did you receive mentoring? If you didn't, how might it have helped you?
6. When you first realized that you might leave NMSU, did your department head discuss possible improvements in your situation here, or possible offers to match the offer being made by your new employer?
7. Did you have discussions/communication about such offers or improvements with your dean, either directly or through your department head?
8. Are there specific items or factors that would have resulted in your deciding to stay at NMSU? Please describe.
9. Is there anything else you have to say about faculty retention from your experiences or those of other?

## **APPENDIX F**

### **Informed Consent Form**

Principal Investigator:

Dr. Christine Eber  
Associate Professor: Department of Sociology and Anthropology  
New Mexico State University  
(505) 646-2448

#### **Description**

I (Christine Eber) and my colleagues at the National Science Foundation ADVANCE Program at NMSU are interested in understanding the various reasons why faculty leave NMSU. To this end we are attempting to interview all faculty who left NMSU over the past few years. The occasion of an employee choosing to leave the institution provides us with an opportunity to gain some perspective on what NMSU needs to do to retain valued faculty regardless of gender. In addition, a goal of this research is to support the recruitment and retention of women in faculty and administrative positions in science, mathematics, and engineering fields at NMSU.

You are being asked to participate in this research because you are a faculty member who left NMSU in the last few years. The interview will last approximately one hour and will give NMSU an understanding of why faculty choose to leave the institution.

#### **Confidentiality and risks**

Because we realize that some of the issues we will discuss are personal, we will make every effort to disguise your identity in any reporting related to this interview. A preliminary copy of the report will be sent to you, and you will be asked to comment on its contents. At that time you will have the opportunity to verify that we have protected your identity. No names, department names, or other identifying information will be conveyed – unless so requested by you – in this report.

#### **Benefits**

Benefits to you may include the opportunity to voice your concerns or satisfaction with your employment at NMSU as well as gain perspective on your career path. Each year we plan to use these career transition interviews as one of many pieces of information to improve NMSU, especially with respect to issues related to gender equity, via a report to the Provost.

#### **Voluntary Nature of Participation and withdrawal privilege**

Your participation in this study is voluntary. If you do not wish to participate, or would like to end your participation in this study, you may do so at anytime. There are no consequences for choosing not to participate, or for ending your participation in this study.

#### **Debriefing**

As stated above, a preliminary copy of the final report will be sent to you, and you will be asked to comment on its contents. At that time you will have the opportunity to verify that we have adequately protected your identity. A copy of the final report will be sent to you.

#### **Contact people**

If you have any questions about this research, please contact the Principle Investigator, Christine Eber, at (505) 646-2448 or ADVANCE Program Director, Tracy Sterling, at (505) 646-3636. If you have any questions about your rights as a research subject, please contact the Office of the Vice Provost for Research at New Mexico State University at (595) 646-2481.

#### **Signature**

Your signature on this consent form indicates that you fully understand the above study, what is being asked of you in this study and that you are signing this form voluntarily.

Signature \_\_\_\_\_ Date \_\_\_\_\_  
Print Name \_\_\_\_\_

Interviewer Signature \_\_\_\_\_ Date \_\_\_\_\_  
Print Name \_\_\_\_\_

# Appendix III

2008 Budget	As of December 31, 2008	Total NSF	NMSU	Committed
<b>PERSONNEL</b>	Program Director: Research Time	30,620		
	Associate Director	0	55,000	
	Co-PIs	0	14,000	
	Exit Interviews Course Buy-Out	2,925		
	Research Analyst/Program Coord.	7,140		
	Student Workers	5,259		
	Fringes	11,375	15,950	
<b>TRAVEL</b>	NSF PI Meeting	1,107		
	Other related travel	3,812		
<b>PARTICIPANT SUPPORT</b>	Alliance for Faculty Diversity Participants	0		
	Undergraduate Researcher Scholarships	0		
<b>CONSULTANT</b>	Exit Interviews	1,208		
	Evaluator	1,306		
<b>START-UP FUNDS</b>	Start-Up Funds for new STEM female tenure-track faculty		23,732	68,800
<b>RESEARCH FUNDS</b>	Research Materials	368		
	Mini-Grants	1,000		
<b>FACULTY DEVELOPMENT</b>	Mentoring Workshops	335	1,130	
	Promotion & Tenure Workshop Co-Sponsorship	0	951	
	Department Head Training	0	1,211	
	Teaching Academy Workshop Leaders	20,000		
<b>ADVANCING LEADERS</b>	Retreat, Luncheons, Books and Supplies*	2,713	9,881	
<b>RECRUITMENT</b>	Workshop	0		
<b>VISITING PROF</b>	Visiting Professor Program: Fees and Publicity	0		
<b>OUTREACH COMMUNICATIONS</b>	Diversity Lecture Series	3,000		
	Communications	1,122		
	<b>Total</b>	143,235	243,710	