



# Partnership of Women in Engineering, Research and Science



## NSF ADVANCE-PAID at Texas Tech University

Charlotte Chorn Dunham, Sociology; Caryl Heintz, Biological Sciences; and Karlene A. Hoo, Chemical Engineering

### RETENTION

**GOAL:**  
To increase the retention of women faculty in science and engineering by providing effective mentoring.

**PROGRAMS:**  
ONE-ON-ONE MENTORING  
Women faculty were matched one-on-one with senior faculty mentors.  
GROUP MENTORING  
Child care information meeting.  
Program manager relationships meeting.

**DATA COLLECTIONS**  
1) *Emailed survey* of faculty women in PoWERS departments about mentoring needs.; 2) *Telephone interviews* measuring progress of mentoring pairs; and 3) One-on-one interviews with 20 faculty about mentoring.

Table 1: Major Themes in Mentoring Interviews

Goals for Mentoring	1. Negotiate the system. 2. Deal with gender issues. 3. Career strategies/networking
Gains from Mentoring	1. Career advancement. 2. Social and professional ties 3. Emotional support 4. Ability to call on someone when needed.
Problems	1. No mentor or program available. 2. Mentor not helpful 3. Mentor not responsible 4. Lack of trust. Feeling vulnerable. 5. Would have preferred a woman.
Barriers	1. Time pressure 2. Stage of career 3. Bad experiences with mentoring
Other Themes	1. Not enough senior women to mentor 2. Programs may marginalize women 3. Need allies to negotiate male dominated environment

*Acknowledgement:* TTU administration & faculty

Former Chancellor D. Smith	President	J.
Whitmore Provost	William Marcy Senior VP	E.
Hall Burns Dean A&S	J. Winer Dean CoE	P.
Eibeck PoWERS	Dept. Chairs PoWERS	

### PROGRAM OVERVIEW

- To improve the recruitment and retention of women in science and engineering departments.
- To adopt and adapt programs from NSF ADVANCE programs to a relatively isolated yet diverse university campus

### TEXAS TECH UNIVERSITY

- Has an enrollment of 28,200 students in eight colleges.
- Is located in the South Plains region of West Texas. The closest major urban centers are San Antonio, Albuquerque and Dallas, which are all about 300 miles from Lubbock.
- Is the largest employer in the city of Lubbock, a city of about 200,000 in one of the largest cotton producing regions in the United States

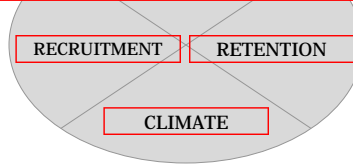


Table 2: Faculty in PoWERS Departments

Department	Total Female	Total Faculty	% Female
<b>ENGINEERING</b>			
Chemical	3	12	25.0
Civil & Environmental	1	21	4.8
Computer Science	3	22	13.6
Electrical & Computer	4	25	16.0
Engineering Technology	1	14	7.1
Industrial	1	12	8.3
Mechanical	4	22	18.2
Petroleum	1	5	20.0
<b>TOTAL ENGINEERING</b>	<b>18</b>	<b>133</b>	<b>13.5</b>
<b>ARTS AND SCIENCES</b>			
Biological Science	7	45	15.5
Chemistry & Biochemistry	3	29	10.3
Geosciences	5	23	21.7
Physics	3	22	13.6
<b>TOTAL A&amp;S</b>	<b>18</b>	<b>119</b>	<b>15.1</b>
<b>TOTAL</b>	<b>36</b>	<b>252</b>	<b>14.3</b>

### RECRUITMENT

**GOAL:**  
To increase the number of women in the final candidate pools for consideration for positions in science and engineering.

**PROGRAMS:**  
PoWERS STRIDE FACULTY  
Teaching load reductions for faculty to serve as liaisons to searches to help with best practices for recruitment of women. There were eight faculty, four from each college, 37.5% were male.

**RECRUITMENT ASSISTANCE**  
Recruitment assistance provided to inform STRIDE faculty and search committees as to best recruitment practices and identifying hidden gender bias. Training was provided through 1) Recruitment handbook and 2) Recruitment workshop.

**DATA COLLECTION:**  
Candidate evaluation matrix, including evaluation of criteria for removing candidates from the initial candidate pools.  
Search Committee Survey Instrument, which measures impact of the program on recruitment and perceptions of female candidates.  
Institutional data, including EEO data.

Table 3: Searches in PoWERS Departments by Rank

Departments	Ranks			
	Assistant	Asstt./A soc.	Open	Endowed Chair
<b>ARTS AND SCIENCES</b>				
Biological Sciences	1	0		0
Chemistry and Biochemistry	3	0		0
Geosciences	1	0		0
Physics	0	0		0
<b>ENGINEERING</b>				
Chemical Engineering	3	1		
Civil Engineering	3			
Computer Science			1	
Electrical and Computer Engineering	2	2		
Engineering Technology	1			
Industrial Engineering		1		1
Mechanical Engineering	2			
Petroleum Engineering	2			1
<b>TOTAL SEARCHES</b>	<b>18</b>	<b>4</b>	<b>1</b>	<b>3</b>

### CLIMATE

**GOAL:**  
To address issues faced by women related to the professional and scholarly support experienced in their academic careers.

**PROGRAMS:**  
Exit Interviews.  
Implementation of an on-line, anonymous exit interview  
Implementation of third year review process in College of Engineering.

**DATA COLLECTION:**  
Analysis of exit survey delayed. Inadequate response rate.  
Interview faculty's experiences of third year review process (FY08-09)

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