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# Female Faculty Members at Texas Community Colleges: Any Changes Since 2000? 

Dr. John Slate and Dr. Anthony Harris


#### Abstract

In this study, the authors examined the extent to which the number and percentage of female faculty members employed full-time and part-time at Texas community colleges had changed from 2000 to 2006. Both the absolute number and percentage of female faculty members employed full-time and employed part-time had significantly increased over this 7 year time period. Females comprise more than half of the community college faculty members in the State of Texas. Implications of these findings for faculty diversity are discussed.


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The historical and contemporary mission of community colleges is to serve the local and area citizenry through relevant academic, workforce, and enrichment programs that result in both individual and community development (Kenney-Wallace, Cox, Lu, \& Slate, 2006; Wang, Gibson, Solis, Selinas, \& Slate, 2007). An important element of that historical and contemporary mission has also been to respond to the needs of the staff by providing appropriate programs and services that engender institutional loyalty, promote professional development, and encourage personal fulfillment.

Though the presence of women in the workforce is not new, the presence of women, particularly women with children, in community college faculties is a relatively new and growing phenomenon (Wolf-Wendel, Ward, \& Twombly, 2007). The percentage of women in the U.S. labor market with children under the age of 6 has increased from nearly $40 \%$ in 1975 to nearly $60 \%$ in 2004, thus suggesting a growing general acceptance in society of working mothers (United States Department of Labor, 2005).

The United States Department of Education (2002) reported that, of all full-time faculty members in the country, women represented $37 \%$ of full-time faculty members. This percentage was an increase of $14 \%$ from the early 1970s (Chamberlain, 1998). Noted in the 2002 U.S. Department of Education's report was that $28 \%$ of all college faculty were employed in public two-year institutions, or community colleges. This educational institutional level has the greatest percentage of faculty members (e.g., public research universities employ $18 \%$ of the total faculty in the United States). Regarding female faculty members employed at two-year colleges, women comprised 44\% of the full-time faculty members in 1997 (Babco, 2000).

The highly visible presence of women in the community college faculty (Trower, \& Chait, 2002), in part, can be traced to the prominence of the community college mission, particularly its commitment to personal fulfillment. The nature of that mission and its timehonored recognition of the centrality of teaching have enabled women to find community college teaching a profession that allows them to balance family and career. Wolf-Wendel et al. (2007) pointed out that nearly one-half of community college faculty members are women. Due to the centrality of teaching in community colleges, women who seek a balance between work and family, find the community college to be a place that supports their desire to have a family and a career. Generally, in four-year comprehensive and doctoral degree universities, a "publish or perish" tradition (Gad-el-Hak, 2004, p. 61) is present that tends to force some women to postpone or to abandon the notion of having a family in lieu of the career. Often, the tenure clock and the biological clock are in conflict (Bhattacharjee, 2004). At the community college level, such a conflict does not exist, at least not to the extent that it does at the university level.

In addition, gender politics at the community college are not as strident and stressful as they are at the university level (Hagedorn \& Laden, 2002). As a result, political tension between men and women at the community college may not be as inhibiting a factor for women when it comes to avoiding gender discrimination.

## Purpose of the Study

The purpose of this study was to determine the extent to which female faculty members employed full-time and employed part-time at community colleges in the State of Texas had changed since 2000. Given the emphasis placed on faculty diversity, the number and percentage of female faculty members, both full-time and part-time, should have significantly increased since 2000. This increase is even more important, given the increase in student diversity present at community colleges.

## Research Questions

1. What are the numbers and percentages of female faculty members employed full-time at Texas community colleges in 2000 and in 2006?
2. What are the numbers and percentages of female faculty members employed parttime at Texas community colleges in 2000 and in 2006?
3. Is there a statistically significant difference in the percentages of female faculty members employed full-time at Texas community colleges from 2000 to 2006?
4. Is there a statistically significant difference in the percentages of female faculty members employed part-time at Texas community colleges from 2000 to 2006?

## Method

## Participants

Participants for this study were the 75 community colleges on whom data were available at the Texas Higher Education Coordinating Board Accountability system website (http://www.txhighereddata.org/Interactive/Accountability/). Using the Interactive Institutional List function on the Texas Higher Education Coordinating Board Accountability system website, the number of female faculty members employed full-time at Texas community colleges in 2000 and in 2006, as well as the total number of faculty members employed full-time at these institutions for 2000 and for 2006 were downloaded into an Excel file (http://www.txhighereddata.org/Interactive/Accountability/Matrix_All.cfm?Type=CC). Then these data, after transposing the columns and rows, were converted into a database suitable for analysis by the Statistical Package for the Social Sciences-PC Version 15.0 (SPSS, http://www.spss.com/spss/index.htm?source=homepage\&hpzone=ad_box).

This process was repeated to obtain the number of female faculty members employed part-time at Texas community colleges in 2000 and in 2006 and the total number of faculty members employed part-time at these institutions for 2000 and for 2006. Once converted into an SPSS datafile, the number of female faculty members employed full-time at Texas community colleges in 2000 was divided by the total number of faculty members employed full-time at Texas community colleges in 2000 . This calculation yielded the percentage of faculty members employed full-time at Texas community colleges in 2000 who were female. This same computation was conducted for 2006 and yielded the percentage of faculty members who were employed full-time at Texas community colleges in 2006 who were female. Given that the total numbers of faculty members employed full-time at community colleges had substantially
increased from 2000 to 2006, this percentage figure was the appropriate measure to subject to statistical analysis. This same process was repeated for the part-time faculty member SPSS database. Accordingly, the percentage of faculty members employed part-time who were female was generated for 2000 and for 2006.

## Results

## Full-Time Employment

The number of female faculty members employed full-time at Texas community colleges ranged from a low of 0 (at 1 community college) to a high of 331 (at 1 community college) in 2000. This number of female faculty members employed at Texas community colleges ranged from a low of 6 (at 1 community college) to a high of 378 (at 1 community college) in 2006. In addition to an increase in the highest number of female faculty members employed from 2000 to 2006, the mean number of female faculty members differed from 2000 to 2006. The average number of female faculty members employed full-time at Texas community colleges in 2000 was $75.07(S D=69.88)$ whereas the average number of female faculty members employed fulltime at Texas community colleges in 2006 was $88.11(S D=78.89)$. A paired samples $t$-test, conducted to ascertain whether the number of female faculty members employed full-time had increased over this time period, yielded a statistically significant result, $t(73)=-3.78, p=.0001$, $d=.18$. Using Cohen's criteria (1988), this finding reflects a small effect size. Thus, the actual number of female faculty members employed full-time at Texas community colleges had significantly increased from 2000 to 2006.

These numbers can be misleading because the total number of faculty members employed full-time at Texas community colleges increased from 2000 to 2006. The average number of faculty members employed full-time in 2000 was 155.04 ( $S D=149.88$ ) whereas the average number of faculty members employed full-time in 2006 was $174.84(S D=161.10)$. Thus, it would be possible for the number of female faculty members employed full-time to increase over this 7 year time period without an increase in the percentage of female faculty members employed full-time. A paired samples $t$-test was conducted to determine whether a statistically significant increase had occurred in the total number of faculty members employed full-time at Texas community colleges from 2000 to 2006. This analysis resulted in a statistically significant difference, $t(73)=-3.12, p=.003, d=.13$. This effect size was again small (Cohen, 1988). As expected, the total number of faculty members employed full-time at Texas community colleges had significantly increased over this 7 year time period.

Because of this finding, the percentage of female faculty members employed full-time was calculated for 2000 and for 2006. In 2000, the average percentage of faculty members employed full-time at Texas community colleges who were female was 48.79\% ( $S D=7.78 \%$ ). In 2006, the average percentage of faculty members employed full-time at Texas community colleges who were female was $50.65 \%(S D=7.10 \%)$. To determine whether a statistically significant increase was present in the percentage of female faculty members employed full-time at Texas community colleges, a paired samples $t$-test was conducted. The result was statistically significant, $t(72)=-2.72, p=.008, d=.24$. Using Cohen's criteria (1988), this finding was reflective of a small effect size. The percentage of female faculty members employed full-time across this 7 year time period had increased $1.76 \%$.

## Part-Time Employment

The number of female faculty members employed part-time at Texas community colleges ranged from a low of 0 (at 2 community colleges) to a high of 927 (at 1 community college) in 2000. This number of female faculty members employed part-time at Texas community colleges ranged from a low of 2 (at 1 community college) to a high of 1337 (at 1 community college) in 2006. In addition to an increase in the highest number of female faculty members employed parttime from 2000 to 2006, the mean number of female faculty members differed from 2000 to 2006. The average number of female faculty members employed part-time at Texas community colleges in 2000 was $129.77(S D=149.03)$ whereas the average number of female faculty members employed part-time at Texas community colleges in 2006 was 172.93 ( $S D=215.27$ ). A paired samples $t$-test, conducted to ascertain whether the number of female faculty members employed part-time had increased over this time period, yielded a statistically significant result, $t(73)=-4.52, p=.0001, d=.24$. This effect size was similar to the magnitude of the effect sizes for full-time female faculty employment, small (Cohen, 1988). Thus, the actual number of female faculty members employed part-time at Texas community colleges had significantly increased from 2000 to 2006.

Again, these numbers can be misleading because the number of faculty members employed part-time at Texas community colleges increased from 2000 to 2006. The average number of faculty members employed part-time in 2000 was $268.11(S D=311.06)$ whereas the average number of faculty members employed part-time in 2006 was $331.88(S D=416.72)$. Thus, it would be possible for the number of female faculty members employed part-time to increase over this 7 year time period without an increase in the percentage of female faculty members employed part-time increasing.

A paired samples $t$-test was conducted to determine whether a statistically significant increase had occurred in the total number of faculty members employed part-time at Texas community colleges from 2000 to 2006. This analysis resulted in a statistically significant difference, $t(73)=-3.82, p=.0001, d=.18$, small effect (Cohen, 1988). As expected, the total number of faculty members employed part-time at Texas community colleges had significantly increased over this 7 year time period.

Because of this finding, the percentage of female faculty members employed part-time was calculated for 2000 and for 2006. In 2000, the average percentage of faculty members employed part-time at Texas community colleges who were female was $48.60 \%$ ( $S D=8.53 \%$ ). In 2006, the average percentage of faculty members employed part-time at Texas community colleges who were female was $53.98 \%(S D=8.37 \%)$. To determine whether a statistically significant increase was present in the percentage of female faculty members employed part-time at Texas community colleges, a paired samples $t$-test was conducted. The result was statistically significant, $t(72)=-3.71, p=.0001, d=.64$. Unlike the previous findings, this result indicated a large effect size (Cohen, 1988). The percentage of female faculty members employed part-time across this 7 year time period had increased 5.41\%.

## Discussion

Our purpose in conducting this study was to determine whether the number and percent of full-time and of part-time women faculty members in community colleges had changed over a 7 year time period. In both cases, the numbers and percentages of female faculty members showed statistically significant increases. For full-time employment, the average number of female faculty members at Texas community colleges had increased from an average of 75.07 in 2000 to an average of 88.11 in 2006. Because the total number of faculty members employed at Texas community colleges had increased over this time period, the percentage increase of female faculty members was computed and showed an increase from $48.79 \%$ of full-time faculty members in 2000 to $50.65 \%$ of full-time faculty members in 2006. Thus, female faculty members showed a gain of $1.76 \%$ over this time period.

The increases, both in numbers and percentages, were much greater for female part-time employment. An average of 129.77 female faculty members was employed part-time in 2000, compared with an average of 172.93 female faculty members in 2006 at Texas community colleges. Given the increase in the total employment of part-time faculty members, percentages of part-time faculty members who were female were calculated. In 2000, $48.60 \%$ of the part-time faculty members at Texas community colleges were female. This figure was $53.98 \%$ in 2006, which shows an increase of $5.41 \%$.

Female faculty members now constitute more than half of the faculty members at Texas community colleges who are employed either full-time or part-time. This increase in female faculty members at Texas community colleges is reflective of the increased presence of female students enrolled at colleges (Mather \& Adams, 2007). That is, women are enrolled in colleges, both community colleges and universities, at much higher percentages than are men. Mather and Adams (2007) reported that women now make up $54 \%$ of the 10.8 million young adults who are enrolled in American 2-year and 4-year institutions of higher education.

In a report by Northwestern University (2004), a series of suggestions were made by a campus diversity committee to help ensure the continued significant presence of women in the faculty. Though that report addresses the recruitment and retention of women faculty at Northwestern University, we believe that their suggestions are generalizable to other educational settings. Concerning recruitment, search committees need to be proactive in seeking prospective applicants. Rather than restricting faculty position advertisements to sources such as The Chronicle for Higher Education, search committees should cast a broad net. By doing so, search committees avoid being too parochial and can increase the likelihood that a greater number of prospective applicants will be reached. Active and intentional efforts have to be made to identify women who might be interested in applying for faculty vacancies. Creative early identification programs such as Grow Your Own can be very beneficial in identifying, cultivating, and hiring prospective women faculty members. Also, consulting directories that specialize in maintaining CV databases can be extremely helpful. Many databases are discipline specific and can be accessed relatively inexpensively.

Regarding retention, suggestions made by the Northwestern University Faculty Diversity Committee were quite specific in nature. For example, the simple but profound act of welcoming
a new faculty member, who is probably filled with anxiety and apprehension, can help ease the transition into the department. Such an effort could make the difference in helping the new faculty member feel welcome and part of the team or an outsider who may not be welcome. Mentoring of new women faculty members, especially if there are few other women present in the department, can be a substantial source of help and guidance. Senior faculty members can assist the new faculty member in identifying and responding to a myriad written and unwritten departmental rules, traditions, and practices. Mentoring can also aid the new faculty member in understanding unique challenges that affect women faculty, such as requests for their service on committees, which rarely carry sufficient weight in the tenure and promotion process. Networking is essential to the retention effort. By introducing the new faculty member to colleagues in other departments and at other institutions, inviting her to collaborate on research projects and professional presentations, and including her in other professional and social functions, she is more likely to achieve success as a new faculty member than if these efforts are not made.

In sum, women faculty members have increased their presence in Texas community colleges over a 7-year time period, both in terms of part-time employment and in full-time employment. Given that the majority of students enrolled in 2-year and in 4-year colleges are female, we believe that having faculty members who are reflective of the students they teach is positive. In this study, we addressed the issue of female faculty members for only one state. The extent to which our findings generalize to other states is unknown. Other researchers are encouraged to examine this issue, not only as it relates to faculty member's gender but to their ethnic membership as well. Until these findings are replicated, readers should avoid over generalizing these findings.

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