# Women in University Leadership Positions: Comparing Institutions with Strong and Weak Gender Equity Track Records 

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#### Abstract

Using AAUP 2006 faculty gender equity indicators, we compare structural dimensions of the top and bottom ten doctoral-granting institutions. We examine incidence of women in academic and nonacademic leadership positions, expecting higher representation of women in academic leadership roles in the "top" schools. We further examine in detail one "bottom" university's representation of women in administrative ranks over time, revealing a pattern of an acceptable proportion of nonacademic positions being held by women, but a longstanding low percentage of women in academic leadership positions.


Keywords: leadership, women, AAUP

## Introduction

Limited representation of women in the upper ranks of universities is not a new concern. But with more than half of new Ph.D. degrees today being awarded to women and the subsequent increase of qualified women in the labor pool for a substantial number of years, this continuing issue is not so simply explained. While the proportion of women at lower academic ranks is growing, the pipeline upwards continues to leak, resulting in a mere trickle at the top. Less than full participation of a university's total talent pool negatively impacts not only women, with constrained careers often accompanied by frustration and disappointment, but also the university itself through a truncated set of ideas and opportunities. Greater visibility of these problems has led to various theories and remedies, and substantial variability in the representation of women in upper university ranks depending on the particular institution.

One prominent idea is the value of a having a critical mass of women in responsible leadership positions. The belief is that a substantial percentage of women, generally thought to be about 35$40 \%$, is necessary to meaningfully diminish the social isolation and perceived tokenism associated with being in the non-dominant group (Karsten 1994; Valian 1998). The fundamental argument is that more women throughout the organization in various departments and ranks rather than segregated in certain disciplines or clustered at the bottom ranks - tempers gender stereotypes that contribute to a "chilly climate" (Sandler 1986) in the workplace and career obstacles for women. As the proportion of women increase, it becomes easier to view each person as a reflection of themselves rather than a representative group. But the chilly climate has been described as even "colder at the top" (Sandler 1986, 13) as the few women in top positions do not fit neatly into male styles and cliques, becoming even more isolated yet increasingly visible for scrutiny. In essence, an additional layer of potentially negative impacts on evaluation and performance can be created if one is perceived as a token appointment (Thompson and Sekaquaptewa 2002).

Alongside perceived token appointments is another dilemma: the all-too-common practice of advancing and holding up for display only women who demonstrate achievement far surpassing both female and male colleagues, feeding the notion that notable career advancement for women is only for those with exceptional star qualities (Bilen-Green, Froelich, and Jacobson 2008). This can be linked to the "queen bee syndrome" (Funk 2004), where the rare exalted woman prefers to remain on a prominent throne within the otherwise male hierarchy. Neither of these practices facilitates achievement of a critical mass of women in the upper organizational ranks.

Research has shown that workplaces with at least 35\% women are better overall working environments for women (Collins 1998; Tolbert, Simmons, Andrews, and Rhee 1995) since the detrimental effects of the so-called solo status (Thompson and Sekaquaptewa 2002) is removed. Attaining a critical mass of women throughout the ranks can be especially important for role modeling and to position an institution for change, given the observation that "few women want to go to places where few women are" (Steffen-Fluhr 2006). Especially in visible academic administrative positions, more women can facilitate further change in their institutions. Their personal experience with and inherent understanding of subtle barriers faced by women in the gendered organization (Acker 1992) provide insight which, combined with levers of authority in their positions, can be instrumental to improve relevant policies and practices. Having more women in academic leadership positions provides a powerful signal of the desired culture change underway, at the same time opening networks to expose both women and men to additional not-so-male perspectives (Bilen-Green, Froelich, and Jacobson 2008). Essentially, having a critical mass of women in academic leadership positions enables an institution to attack the leaky pipeline from the top as well as from the long arduous road at the bottom.

We know leadership positions to be critically important dimensions of organizational structure. Resource dependence theory posits that more powerful positions are those associated with key organizational tasks (Pfeffer and Salancik 1978). In universities, key tasks center on academics, with visible leadership positions being that of department chairs and deans, and higher to provost and president. Less powerful positions generally involve supporting functions including library, information systems, student affairs, public relations, and even financial functions. As attention to the importance of demonstrating promotion of women grows, it is interesting to consider whether such promotions are to more or less powerful positions. Accordingly, examining institutions with strong compared to weak track records regarding prevalence of women in the higher academic ranks may be useful to illuminate organizational structure differences that underlie work contexts favorable to women's career advancement.

## Methodology

Using AAUP 2006 faculty gender equity indicators (West and Curtis 2006), this study compares structural dimensions of the top ten and bottom ten doctoral granting-institutions, based on the reported percentage of full professors who are women. Using additional data gleaned from the web pages of each of the twenty institutions, we examine incidence of women in academic and nonacademic leadership positions, and in executive leadership positions.

Academic leadership positions are categorized as those with direct line authority over academic programs, such as chair, dean, and various provost/academic affairs positions. Nonacademic
leadership positions are categorized as staff positions with responsibility for supporting functions such as student affairs, public relations, information technology, etc. "Executive level" leadership positions are those at the uppermost levels surrounding the president/chancellor and are defined by each university according to information provided on their respective web pages. Generally, we expect notably higher representation of women in leadership roles in the "top" schools; additionally, we expect a higher representation of women in academic leadership roles in the "top" schools, and expect the "bottom" schools to rely more on nonacademic positions to demonstrate opportunities for women.

We also examine details of one "bottom" university's representation of women in administrative ranks over a 15-year period. Archival records from 1992-2006 were accessed to identify the total number of academic and nonacademic administrative positions, and percentage women in each category, for each year.

## Comparison of "Top 10" and "Bottom 10" Doctoral-Granting Universities

Table 1 lists "Top 10" and "Bottom 10" Doctoral-Granting Universities, in terms of representation of women in full professor ranks. The "Top 10" approach critical mass of women in the top rank, ranging from $28.8 \%$ to $36.2 \%$, with mean of $32.4 \%$. The "Bottom 10 " exhibit low percentage of women in the top rank, ranging from $6.7 \%$ to $11.8 \%$, with mean of $9.4 \%$.

Table 1. "Top 10" and "Bottom 10" Doctoral-Granting Universities, in terms of full professors, \% women, in comprehensive U.S. universities with a broad range of students and programs: comparative findings/descriptive statistics.
$\left.\begin{array}{rcrc}\hline \text { "Top 10" Doctoral-Granting Universities } & \begin{array}{c}\text { \% } \\ \text { Women }\end{array} & \text { "Bottom 10" Doctoral-Granting } \\ \text { Universities }\end{array} \begin{array}{r}\text { \% } \\ \text { Women }\end{array}\right]$

Tables 2-4 summarize institutional characteristics of "Top 10" and "Bottom 10" DoctoralGranting Universities listed in Table 1. Whereas the "Top 10" schools are of a variety of affiliation types except land grant universities, the "Bottom 10" are overwhelmingly public universities, including land grants. There appears to be little difference in size of the institutions in the top and bottom schools. About half the "Bottom 10" schools previously were and in some cases are still named as rather narrow technological/engineering schools (University of Missouri, Rolla; NJ Institute of Technology; Florida Institute of Technology; Georgia Tech; Clarkson) even though their program offerings have now broadened considerably. Program tradition based
in technology/engineering likely underlies the lower percentage female students in the "Bottom 10 " set of schools.

Table 2. Institutional Affiliation of "Top 10" and "Bottom 10" Doctoral-Granting Universities

| Affiliation | "Top 10" | "Bottom 10" |
| ---: | :---: | :---: |
| Religious | $40 \%$ | $0 \%$ |
| Private-Independent | $30 \%$ | $20 \%$ |
| Public | $30 \%$ | $80 \%$ |
| Public, Land Grant | $0 \%$ | $30 \%$ |

Table 3. Institutional Size in terms of number of students of "Top 10" and "Bottom 10" Doctoral-Granting Universities

| Number of Students | "Top 10" | "Bottom 10" |
| ---: | :---: | :---: |
| $<10,000$ | $30 \%$ | $40 \%$ |
| $10,000-15,000$ | $50 \%$ | $40 \%$ |
| $>15,000$ | $20 \%$ | $20 \%$ |
| Mean | $\sim 13,000$ | $\sim 14,000$ |

Table 4. Representation of female students in "Top 10" and "Bottom 10" Doctoral-Granting Universities

| \%Female Students | "Top 10" | "Bottom 10" |
| ---: | :---: | :---: |
| $20-29 \%$ | $0 \%$ | 1 of 6 |
| $30-39 \%$ | $0 \%$ | 1 of 6 |
| $40-49 \%$ | $0 \%$ | 4 of 6 |
| $50-59 \%$ | $60 \%$ | 0 of 6 |
| $60-69 \%$ | $40 \%$ | 0 of 6 |
| Mean | $\sim 58 \%$ | $\sim 40 \%$ |

Tables 5-7 provide information on representation of women in the very top leadership positions in "Top 10" and "Bottom 10" Doctoral-Granting Universities. Clearly the "Top 10" schools demonstrate a greater presence of women at the very top (i.e, president, provost) academic administrative ranks (Table 5). Broadening our view to include other executive leadership positions, we still see higher representation of women in this top tier in the "Top 10" schools, yet substantial representation of women in the "Bottom 10" schools (Table 6). It appears from the data that as fewer total executive positions exist, representation of women in executive positions is lower. Perhaps with more executive positions some can be populated by women without jarring an existing (male-favoring) organizational culture (Table 7)?

Table 5. Percentage of Schools with Women in Upper-Most Academic Administrative Ranks in "Top 10" and "Bottom 10" Doctoral-Granting Universities.

|  | "Top 10" | "Bottom 10" |
| ---: | :---: | :---: |
| President/Chancellor | $20 \%$ | $0 \%$ |
| Provost/VPAA | $20 \%$ | $10 \%$ |
| Either | $30 \%$ | $10 \%$ |

Table 6. Executive Leadership Positions, \% women (executive leadership as defined by each university) in "Top 10" and "Bottom 10" Doctoral-Granting Universities.

| \%Women in Executive <br> Leadership Positions | "Top 10" | "Bottom 10" |
| ---: | ---: | :---: |
| $0-9 \%$ | $10 \%$ | $10 \%$ |
| $10-19 \%$ | $10 \%$ | $20 \%$ |
| $20-29 \%$ | $20 \%$ | $50 \%$ |
| $30-39 \%$ | $10 \%$ | $10 \%$ |
| $40-49 \%$ | $10 \%$ | $10 \%$ |
| $50-59 \%$ | $20 \%$ | $0 \%$ |
| $60-69 \%$ | $20 \%$ | $0 \%$ |
| Mean | $\sim 37 \%$ | $\sim 22 \%$ |

Table 7. Average number of Executive Positions in the University by Percentage of Women in Executive Positions

| $>30 \%$ women in executive positions | 18 total executive positions |
| :--- | :---: |
| $<15 \%$ women in executive positions | 9 total executive positions |
| $<10$ women in executive positions | 5 total executive positions |

Tables 8-10 look at academic compared to nonacademic leadership positions held by women. Both the "Top 10" and "Bottom 10" schools show women executive leaders generally in nonacademic rather than academic positions; the "Top 10" have a larger total number of executive leadership positions. The high proportion of women in academic executive positions in the "Bottom 10" schools is influenced by University of Texas, Dallas which indicates 23 executive positions including 6 otherwise untitled "associate provost" positions occupied by women (Table 8). In cases where women hold academic executive positions, a high proportion are at the very top level, even more so in the "Bottom 10 " schools, again reflecting possible distortion from the high number of nebulous associate provost positions at Dallas (Table 9). In other than the very top positions, three of the nine academic executive positions represent the research function in the "Top 10" schools (Table 10).

Table 8. Women in Executive Positions by type, \% academic and nonacademic

| Type of Position | "Top 10" | "Bottom 10" |
| ---: | :---: | :---: |
| Academic | $12 \%$ | $28 \%$ |
| Nonacademic | $80 \%$ | $72 \%$ |
| Total \# | 43 | 32 |

Table 9. Of Women in Academic Executive Positions, \% in Core (Chancellor/President/Provost/VPAA) Academic Leadership Positions

| "Top 10" | "Bottom 10" |
| :---: | :---: |
| $56 \%(5$ of 9$)$ | $78 \%(7$ of 9$)$ |

Table 10. Areas of Women's Academic Executive Positions Other Than Chancellor/ President/ Provost/ VPAA

| "Top 10" | "Bottom 10" |
| :--- | :---: |
| Continuing Education and Outreach | Online Learning |
| Research |  |

Looking at titles of women in executive positions, "Top 10" schools have more women at full vice president ranks, while the "Bottom 10" have a large proportion with an associate title (Table 11). Table 12 shows the prevalence of women in nonacademic areas of marketing, finance, and student-related areas in the "Top 10" and equity/diversity, IT, and enrollment in the "Bottom 10 ".

Table 11. Title Prefixes of Women Executive Positions

| Titles | "Top 10" | "Bottom 10" |
| ---: | :---: | :---: |
| Vice President | $37 \%$ | $25 \%$ |
| Vice | $9 \%$ | $16 \%$ |
| Associate | $21 \%$ | $44 \%$ |
| Assistant | $26 \%$ | $6 \%$ |
| Other | $7 \%$ | $9 \%$ |

Table 12. Areas of Women’s Nonacademic Executive Positions (* indicates most prevalent)

| "Top 10" | "Bottom 10" |
| :--- | :--- |
| Marketing/public relations/communication* | Equity and diversity* |
| Finance* | IT* |
| Student affairs* | Enrollment* |
| Assessment* | Public affairs/communication |
| Enrollment* | Advancement |
| General counsel | General counsel |
| Administration | Accreditation |
| Advancement | Government affairs |
| Outreach | Student affairs |
| Equity and diversity | Finance |
| Human resources | Operations |
| Student success |  |
| Government relations |  |
| University life |  |
| Enrollment |  |
| Planning |  |
| IT |  |

Looking next at dean positions, again we find that schools in the "Top 10" exhibit a higher percentage of women in academic leadership positions than those in the "Bottom 10"(Table 13). Gender stereotyping is observed in terms of the areas in which women serve as academic deans, even in the "Top 10" schools where $57 \%$ of the women deans are in the fields of nursing, arts and sciences, and education, as well as in the "Bottom 10" schools where $46 \%$ of women deans are in arts and sciences, human development and education, and libraries (Table 14).

Table 13. Percentage of Academic Deans positions held by Women

| \%Women in Deans | "Top 10" | "Bottom 10" |
| ---: | :---: | :---: |
| $0-19 \%$ | $50 \%$ | $40 \%$ |
| $20-39 \%$ | $30 \%$ | $40 \%$ |
| $40-59 \%$ | $10 \%$ | $20 \%$ |
| $60-79 \%$ | $0 \%$ | $0 \%$ |
| $80-99 \%$ | $10 \%$ | $0 \%$ |
| Mean | $\sim 28 \%$ | $\sim 19 \%$ |

Table 14. Women Academic Deans by Area, in order of prevalence

| "Top 10" | "Bottom 10" |
| :--- | :--- |
| Nursing; Health and human services (27\%) | Arts and sciences (20\%) |
| Arts and sciences (17\%) | Human development and education (13\%) |
| Education (13\%) | Libraries (13\%) |
| Communication (7\%) | Business (13\%) |
| Business (7\%) | Natural sciences (13\%) |
| Graduate studies (7\%) | Nursing |
| Law (7\%) | Graduate studies |
| New learning | Veterinary medicine and biomedical science |
| Computer science and information technology | Agriculture |
| Freshman studies and special programs |  |
| Libraries |  |
| Natural science and mathematics |  |

## Details of One "Bottom" University's Representation of Women in Administrative Ranks

Women are underrepresented in academic leadership positions due to a multitude of factors. Several recent studies confirm that women do not advance as often and as rapidly as men; women with same qualifications as men wait longer to apply for promotion to full professor, apply for leadership positions, and once in a leadership position are less likely move to top executive positions. Women administrators face devaluation of their administrative contributions (Niemeier and Gonzalez 2004) and their leadership, in general, (Lyness and Heilman 2006), and are more likely to face prejudice in evaluations of their leadership (Eagly and Karau 2002) limiting their ability to move to other administrative positions.

We next examine in depth representation of women within leadership ranks at one "Bottom 10" University for the years 1992 and 2006. Figure 1 compares the representation of women in academic and nonacademic leadership positions. Women are severely underrepresented in most executive administrative positions. The University has never had a woman president in its history and no woman has recently held the position of vice president for academic affairs/provost.

Figure 1. Percentage of Women in Leadership Positions, Academic versus NonAcademic Positions, for one particular "Bottom 10" University


Representation of women within leadership ranks increased from 20\% of administrators in 1992 to $26 \%$ in 2006. However, while the representation of women in nonacademic leadership positions increased from approximately $27 \%$ to $39 \%$, the representation of women in academic administrator positions remained steady around $14 \%$. At any given time, of the eight academic dean positions no more than two were held by women ( $\sim 18 \%$ ). Including assistant and associate dean positions, the percentage of women in dean positions has been around $25 \%$. There has never been a woman dean of engineering /science (nor assistant/associate dean of engineering/science).

Representation of women in chair positions is no better. In fact, between 1992 and 2006, the percentage of women chairs varied between $7 \%$ and $10 \%$. In 2006, of the 39 chair positions only three were held by women. In science and engineering fields only one woman held the position of chair since 1992. The very low representation of women in academic administrative positions is similar to that of women in tenured (9.8\%) and full professor ranks (6.7\%).

Average time served as an academic administrator is summarized in Table 15 for various positions. When all academic positions (vice president, assistant/associate vice presidents, dean, assistant/associate dean, chair, and director) are considered, the average time served is 3.92 years regardless of gender. Women administrators, while too few in overall representation, stay in their administrator positions longer than men: 4.59 years versus 3.82 years. Same pattern holds in middle and lower management positions (dean, assistant/associate dean, and chair positions); women serve on the average 4.56 years while men serve 3.74 years in such positions. One women dean (out of three) and two women chairs remained in their positions over 15 years.

Table 15. Average Time in Academic Leadership Positions, for one particular "Bottom 10" University

| Academic Administrators | Average Time in Position, in years |  |
| :---: | :---: | :---: |
|  | Men Administrators | Women Administrators |
| Overall, Vice Presidents, Chairs, and Deans | 3.82 | 4.59 |
| Overall, Chairs and Deans | 3.74 | 4.56 |
| Overall, VP Associate/Assistant VP | 8.25 | 3.00 |
| Vice Presidents | 15.00 | 3.00 |
| Associate/Assistant Vice President | 6.00 | 0.00 |
| Overall, Deans, Assistant, Associate Deans | 4.13 | 4.64 |
| Deans | 4.25 | 9.00 |
| Associate Deans | 3.65 | 4.00 |
| Assistant Deans | 9.00 | 3.14 |
| Chairs | 3.65 | 4.50 |
| Directors | 0.00 | 5.25 |

## Discussion and Conclusions

First, we note with disappointment the large variability in representation of women at the full professor rank in broad-based U.S. doctoral granting institutions, averaging less than $10 \%$ in our "Bottom 10" set of schools to over $30 \%$ in the "Top 10". Overall, we find as predicted that the "Top 10" universities in terms of percentage of women in the full professor rank also exhibit higher representation of women in formal leadership positions than the "Bottom 10" schools. The stronger gender equity track record of the top group is evident not only in the full professor
rank but also president/chancellor or provost/VPAA positions, women in the institution's expanded executive leadership group, and dean positions.

However, in both sets of schools there is long way to go before gender equity is demonstrated. Contrary to expectations, the "Bottom 10" actually had higher percentage of women's executive positions in the academic rather than nonacademic functions than the "Top 10" schools, although eliminating University of Texas, Dallas from the analysis would reverse the finding. In either case, $75-80 \%$ of women's executive positions are in nonacademic positions, implying more staff roles and less line authority than executive positions held by men. Also, dean positions occupied by women remain largely gender stereotyped in the twenty schools.

One avenue for increasing representation of women in executive ranks appears to be increasing the total number of executive positions. While this may not sound like an ideal solution, our analysis suggests this can be a way to open up opportunity for women. The findings also show that representation of women in top university ranks may be part of a larger problem embedded in the operating context of the institution. That "Bottom 10" schools are likely to be public, possibly land grants, in smaller cities, and with core programs in technology implies a broader range of issues to be addressed to counteract entrenched behavior and attitudes. Given that public universities and especially land grant institutions are charged with advancing opportunity for the citizenry, aggressive attention to lead a path for progress for both men and women should be part of the fundamental mission of these institutions. Clearly they have important work ahead.

Future research needs to probe further into the process details by which women are advanced into visible leadership positions with both authority and resources to help transform their institutions. Examining possible differences in these processes between schools with religious or private affiliations versus public schools may be fruitful. Another line of inquiry would be mapping the power structures of institutions to see where women cluster in the overall hierarchy and networks. Ultimately, we need more understanding of the mechanisms through which progress is made or impeded in order to provide pragmatic specific advice for advancing women in our academic institutions.

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