

Reaching Critical Mass: Women in Faculty and Administrative Roles

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Abstract

Faculty concerns over gender inequities surfaced in 2005–2006 at Franklin & Marshall College after new policies relating to childbirth and adoption and tenure clock stoppage were instituted two years prior. These structural changes were empowering and gave women faculty a sense that other meaningful changes were achievable, leading to renewed conversation among the faculty on the issue. This led to my appointment as Special Assistant to the President and Provost for Women and Family Issues. In this role, I spent twelve months gathering data and working with the Fair Practices Committee to assess all aspects of women (faculty and professional staff) in the institution. My research indicates that structural change, such as meaningful childbirth and adoption policies, tenure clock adjustments, and so on may be powerful recruiting and retaining tools, but accompanying attitudinal changes are necessary for their ongoing usefulness. Using focus groups and confidential surveys, I observed that individuals in focus groups expressed end-member viewpoints, which were strongly tempered by the survey data. The small groups were valuable in pointing out areas of individual concern, but the survey results indicated that misconceptions and perpetuated myths were not borne out by confidential responses. This was an effective process of re-orienting faculty culture and significantly reduced faculty concerns over perceptions of gender inequity. Critical mass is not necessarily the same as gender parity (equal numbers), but it should lead to gender equity (just or fair circumstances). When the number of women in a given situation reaches what has been referred to as “critical mass”, issues of isolation, tokenism, and paucity of role models are significantly reduced or eliminated. Having a critical mass of women in the institution ensured that the original concerns were taken seriously and were thoughtfully addressed.

Introduction

In Chemistry and Physics, critical mass is defined as the smallest amount of a fissionable material that will sustain a nuclear chain reaction, or a condition causing an abrupt change in a quality or material property. In recent literature on underrepresented group status, critical mass is used to describe a minimum number of individuals with certain characteristics that can cause significant change or improvement in a given situation. In other words, when there is a critical mass of women, people of color, sexual orientation, or any other characteristic that differentiates them from the majority, a positive change of status occurs for the whole underrepresented group. The focus here is on the role of women in the academy, so the discussion will be confined to critical mass in terms of number and roles of women in higher education, but the concepts may, in some cases, translate to other traditionally underrepresented groups as well.

Critical mass is not necessarily the same as gender parity (equal numbers), but it should lead to gender equity (just or fair circumstances). When the number of women in a given

situation reaches this critical mass, commonly thought of as some percentage of the total number of faculty and/or administrators, issues of isolation, tokenism, and role model paucity are significantly reduced. Has a critical mass of women in higher education been achieved, and, if so, are there tangible outcomes?

Faculty-Administrative Link in Achieving Critical Mass

Achieving critical mass, whatever absolute value that may be, is important for achieving diversity throughout the institutional hierarchy. This diversity may be expressed in two broad areas: (1) the faculty, and (2) the administration. These pools of individuals are linked together in that many/most of an institution's administrators may be derived from the faculty pool, and many may return to it.^{1 2} As supported by a 2008 study by the American Council on Education, efforts to shape a diverse pool of candidates for top-level administrative positions should begin with faculty recruitment.³ So in institutions where administrators rotate out of the faculty, that is tenured professors spend three years as an assistant or associate dean, and then return to their academic department, a high number of women professors deepens the pool for potential deans.

Writer Audrey Williams June describes the pipeline to college and university presidencies as beginning with the faculty pool. In this model, recruiting and retaining women faculty has a direct bearing on whether the administration may achieve critical mass in terms of women in positions that have a direct bearing on faculty, such as deans, provosts, chancellors and presidents. There is, of course, a lag time between hiring a woman in a tenure-track position, and her successful career trajectory to the point where she is ready to assume an administrative role. Following a traditional timeline of approximately seven years to tenure, and another six or seven to promotion to full professor, a woman faculty member may only be poised to move into the administration after fifteen years or so at the institution. It is, therefore, essential to ensure that gender bias or discrimination does not reduce the potential pool at the very beginning of the process. Affirmative Action or Diversity officers at an institution have an important role to play in ensuring that the playing field is level and open to all applicants right from the start. June notes that there is a "downstream problem" in terms of building a cohort of minority faculty to fill administrative posts, but that women as a group make up 45% of senior administrators in U.S. college and university campuses.⁴

Assuming that care is taken to ensure hiring equity, are academic institutions building strong faculty pools that reflect the number of women obtaining Ph.D.s (or the equivalent terminal degree) in their disciplines? Recent data shows that women who are U.S. citizens earned

¹ Audrey Williams June, "Pipeline to Presidencies Carries Lots of Women, Few Members of Minority Groups," *The Chronicle of Higher Education* 54 (February 15, 2008), <http://chronicle.com/article/Pipeline-to-Presidencies-ca/18988/> (accessed March 10, 2010).

² Phuong Ly, "A Historical Problem," *Diverse Issues in Higher Education* (April 3, 2008), http://diverseeducation.com/artman/publish/article_10940.shtml (accessed March 9, 2010).

³ June, "Pipeline to Presidencies."

⁴ Ibid.

just over 50% (50.7%) of all doctoral degrees, compared to male U.S. citizens.⁵ Although in some disciplines, particularly engineering and computer science, the percentage of women earning Ph.D.s is still proportionally small compared to men, the number of women continues to rise. Overall, this trend of increasing numbers of women with doctoral degrees is reflected in the number of women in faculty positions. Women make up more than 40% of the professorate in the U.S.⁶ It is probably fair to say that in a general sense, women have reached critical mass in the academy, and have achieved gender parity in some fields.⁷ This is not to say that there are continuing problems; women make up a disproportionately large percent of adjunct and non-tenure-track positions, may face bias or discrimination, and carry more of the burden of family responsibilities (childcare and eldercare),^{8,9} but it is no longer uncommon to see women teaching in college and university classrooms.

So, if there is a significant pool of women faculty in U.S. higher education, are they moving into administrative positions in high enough numbers to constitute a critical mass? Data from the National Center for Education Statistics shows that, in 1976, 26% of executive, managerial, and administrative positions at four-year colleges were women; in 1989, the number had nearly doubled to 40%; and, in 1997, 46% of administrators were women.¹⁰ By 2008, over 40% of Chief Academic Officers and senior administrators in U.S. colleges and universities were women.¹¹ Today, women make up 23% of the highest academic position, that of college or university president, compared to constituting only 5% of presidents in 1975.¹² Women head institutions such as Massachusetts Institute of Technology, Harvard, Princeton, and Brown universities, and the universities of Michigan and Pennsylvania.¹³ The number of women serving as trustees for academic institutions increased from 20% to 31% between 1981 and 2007.¹⁴

Using data from hundreds of four-year colleges and universities, the Cornell Higher Education Research Institute determined that institutions with female presidents, female provosts (or academic vice presidents), and more women on boards of trustees had larger increases in the share of female faculty members than did other institutions.¹⁵ The study suggests that this impact

⁵ National Opinion Research Center at the University of Chicago, "Survey of Earned Doctorates," University of Chicago, <http://www.norc.org/projects/survey+of+earned+doctorates.htm> (accessed March 9, 2010).

⁶ Judith Glazer-Raymo, *Unfinished Agendas: New And Continuing Gender Challenges in Higher Education* (Baltimore, MD: The Johns Hopkins University Press, 2008), 5.

⁷ *Ibid.*, 1-34.

⁸ Eugenia Proctor Gerdes, "Women In Higher Education Since 1970: The More Things Change, the More They Stay the Same," *Advancing Women in Leadership Online Journal* 21 (Summer 2006), <http://www.advancingwomen.com/awl/summer2006/Gerdes.html> (accessed March 9, 2010).

⁹ Glazer-Raymo, *Unfinished Agendas*, 45-46.

¹⁰ Ana M. Martinez Aleman and Kristen A. Renn, *Women in Higher Education: An Encyclopedia* (Santa Barbara, CA: ABC-CLIO, 2002), 373-380.

¹¹ June, "Pipeline to Presidencies."

¹² Karen Branch-Brioso, "Keeping Pace, But Not Catching Up," *Diverse Issues In Higher Education* 26 (March 5, 2009) <http://diverseeducation.com/article/12351/> (accessed March 10, 2010).

¹³ Nancy C. Andrews, Sally Kornbluth, and Doug Stokke, "Women: diversity among leaders is there if you look," *Nature* 463 (2009), 608.

¹⁴ Scott Jaschik, "Gender Matters," *Inside Higher Ed* (December 16, 2009), <http://www.insidehighered.com/layout/set/print/news/2009/12/16/gender> (accessed March 10, 2010).

¹⁵ *Ibid.*

is greater at smaller institutions, probably because academic administrators may have a large role in the faculty hiring process. A recent report notes that there is a correlation between the presence of women in key positions (department chair, dean) and the success rate of hiring women in science departments.¹⁶ The authors of that report suggest that female applicants may perceive a strong positive signal when they see women in leadership roles associated with the position they are applying for.¹⁷ The Cornell center report also noted that having a critical mass of women on the board of trustees (25%) or the number of women on the board (5) made an impact on faculty hiring.¹⁸ It is more difficult to see a direct link between the gender make up of the board and faculty hiring from the candidate's perspective, but there may be an overall positive attitude supportive of hiring women faculty that emanates throughout the institution when a significant number of the board members are women.¹⁹

Structural and Attitudinal Constraints

Barriers that may limit women's success in academia may be thought of in terms of (1) structural constraints and (2) attitudes and perceptions.²⁰

(1) Structural constraints include lack of uniformly applied maternity/adoption accommodations; lack of adequate (to excellent) childcare arrangements; lack of family-friendly meeting times or other institutional practices; student course evaluation forms with an inherent bias in the questions; or entrenched traditions that make it difficult for women to fully participate in the life of the institution. Those entrenched traditions may include late afternoon or evening faculty meetings, weekend events, and/or department retreats that have a significant negative impact on family time. Such arrangements may have been successful when most academic households had a stay-at-home spouse, but that model is no longer the norm, and family time or work/life balance concerns are a high priority for most faculty members today.^{21 22}

(2) Institutional attitudes and perceptions may be powerful barriers as well. For example, institutional perceptions that men receive higher scores on student teaching evaluation forms than women faculty do, or that hiring women in faculty positions means more work for the department when the woman becomes pregnant, or that men are paid higher salaries than women at comparable rank may have repercussions for an institution. Some of these examples may be based on fact, but they often are a reflection of long-held perceptions that perpetuate stereotypes and reinforce negative attitudes.²³

¹⁶ Ibid.

¹⁷ Ibid.

¹⁸ Ibid.

¹⁹ Ibid.

²⁰ Gerdes, "Women in Higher Education Since 1970."

²¹ Gerdes, "Women in Higher Education Since 1970."

²² Mary Ann Mason, "How the 'Snow-Woman Effect' Slows Women's Progress," *The Chronicle of Higher Education* (September 16, 2009), <http://chronicle.com/article/How-the-Snow-Woman-Effect/48377/> (accessed March 10, 2010).

²³ Branch-Brioso, "Keeping Pace."

A crucial question, therefore, is does having a critical mass of female faculty and administrators matter to an institution? Does having significant numbers of women in leadership roles within an academic institution improve conditions for women working in that institution? Intuitively our first answer is likely to be yes, and recent data supports this supposition, at least in terms of faculty hiring.^{24 25} The work I was involved in at Franklin & Marshall College indicates that having a critical mass of female faculty and administrators helped create a climate where women felt encouraged and empowered to make positive structural and attitudinal changes.

Case Study: Franklin & Marshall College

My research indicates that having a critical mass of women faculty and administrators at an institution has a bearing on both structural and attitudinal barriers. Structural change, such as meaningful childbirth and adoption policies, tenure clock adjustments, and changes in meeting times may be powerful recruiting and retention tools, but accompanying attitudinal changes are necessary for their ongoing usefulness. Change must occur in tandem, or be closely linked, for the structural changes to have a meaningful effect on institutional climate and culture. Although it is not easy to institute structural changes in academic institutions, it may be even more difficult to change attitudes and perceptions. The case study presented below offers one way of supporting structural change with a relatively short-term and effective method of altering attitudes across the campus.

In summer 2005, the then-provost (male) and associate dean (female) decided to formalize the college's long-standing, *ad hoc* way of dealing with maternity and adoption issues for female faculty. Prior to this time, some women faculty met with their associate dean or the provost and negotiated a reduced teaching load plan. Other women faculty, usually those pre-tenure, told their department chairperson, but rarely received any accommodation in teaching duties. This inequity gradually came out in casual conversations around campus and led to confusion and even resentment. Clearly it was time to codify a policy and apply it fairly to all faculty. I was asked to work with the provost and dean to craft a policy appropriate to our institution that would fit within our financial resources and would be flexible enough to apply equitably to disparate faculty temperaments and situations. I was glad to participate because I have been interested in women's recruitment and retention in the natural sciences for many years and had published on this topic previously.

Crafting the policy required taking a careful look at what other institutions were doing in this area, recalling specific examples from our own institution, and coordinating our efforts with the human resources department to be sure we were going to end up with a policy that was fair, humane, and legal. The policy we created is available to any member of the faculty, male or female, if they declare that they are the primary caregiver for the infant or adoptee under age five. A reallocation of duties, rather than a leave of absence, at full pay, is how we approached the issue of an infant's highly irregular schedule and the desire by most parents to spend a

²⁴ Gerdes, "Women in Higher Education Since 1970."

²⁵ Jaschik, "Gender Matters."

significant amount of time with their newborn or newly adopted child. By reallocation of duties we mean that the person using the policy will accomplish a designated series of tasks or duties, often things that a department needs to have done but no one regularly has time to do, for example, organizing their department's visual images collection, or re-writing the introductory lab manual, or building the bulk of an external review document. The faculty member may be able to accomplish such tasks from home, or on a flexible schedule. This arrangement helps the department, keeps the faculty member fully engaged with the institution, and gives the parent significant time with their new arrival.

This policy formed the basis of a significant structural change in our institution. The policy is clearly stated in the Faculty Handbook, is on the college's human resources website, and is included in the discussion of benefits with each job candidate. Implementation of the policy has made a significant difference in the lives of faculty members who have taken advantage of it. Simply having the policy in place has improved faculty attitudes about childbirth and adoption by bringing the topic out into the open. It is now much easier for faculty to talk about family-related issues with their department chair and/or associate dean because the policy serves as a way to legitimately open that conversation, a conversation that was in the past exceedingly awkward and uncomfortable.

Accompanying this change is the option to extend the tenure clock by one year per childbirth or adoption (up to two times within the probationary period). This second structural change has also been employed by faculty who have found it very helpful in managing a young family during the pre-tenure years. The clock extension is a rationale way to address the short term needs of young children within the long-term perspective of a faculty member's career. One cannot change the time it takes to nurture an infant, but there is no real reason for a six year probationary period in academia, as opposed to a seven or eight year period, except that we have traditionally held it to six years.

Interestingly, once this policy was in place, faculty interest, or anxiety, about gender issues surfaced in new ways. There was a sense that previously unspoken topics could now be discussed, and perceptions were voiced that had hitherto been silent. To address these concerns, the president (male) and new provost (female) asked me to spend a year studying topics relating to women and family issues in the role of their special assistant. I worked with an existing faculty and professional staff committee (Fair Practices Committee) in this role. I hosted small group discussions (focus groups) on specific topics:

- ((1) Women Faculty: Ms. or Professor?— student evaluations, disrespect in the classroom, grade challenges, caretaking roles;
- (2) Early Career: working towards tenure, getting established professionally;
- (3) Mid-Career: glass ceilings in professional societies, opportunities on national boards and panels, professional development, leadership roles, creating time for ourselves;
- (4) Later Career: balancing College service with research and scholarship, eldercare;
- (5) What does it mean to be a family-friendly institution? What is being done elsewhere, what does F&M do, how could we be doing better?)

I then compiled responses and reactions from faculty and staff members (maintaining their anonymity). The points of view expressed in the focus groups indicated sometimes serious misperceptions about institutional policies or practices and highlighted some individual difficulties with students (e.g. faculty believing that student teaching evaluations were somehow organized in a way that emphasized negative comments; women feeling threatened by male students over grade issues; women having trouble maintaining a calm learning environment in their classrooms due to unruly students; and the like).

I hosted focus groups for professional staff as well. The concerns voiced by female professional staff tended to be concrete and specific, but were not particularly difficult to solve once the concern was voiced in a safe setting. For example, in one focus group it became clear that adding even one hour of flexibility to the starting and ending times for the work day could significantly alleviate a number of childcare-related problems. For some women, coming to work a half-hour later would mean they could get their children to school without having to pay a sitter for that time gap, or getting home an hour earlier would mean they could meet the school bus and not have to make alternative childcare arrangements. The director of human resources and I worked with professional staff supervisors to develop a flex-time policy that would accommodate such situations, and this made a significant improvement in the lives of some members of the staff (predominantly women). This structural change was very gratifying to me personally. To accomplish it, we needed to first provide a setting where professional staff could feel safe from retribution if they shared their concerns, then some time and effort to develop a reasonable strategy for change, and then conversations with supervisors to bring everyone on board with the new policy. The new policy was announced and discussed with professional staff at one of their regular meetings. The college president introduced the topic and gave it his full support, and it was clear that the director of human resources (female) was also completely supportive of the new arrangement. Together, their public support meant that professional staff felt empowered and comfortable asking their supervisors to give them a new starting or ending time for their work day.

Addressing faculty attitudes required a deeper level of time and effort. Entrenched views are never easy to change, and anecdotal evidence from the focus groups had highlighted some serious misconceptions and brought out some significant individual problems for a few faculty. Some misconceptions were easy to dispel. For example, some faculty thought that an administrator (dean or provost) organized the student evaluation forms in such a way that the most negative responses were on the top of the stack as they were mailed out to faculty, implying that this administrator had read the forms and was trying to demoralize the faculty member. In fact, a survey service compiles the data randomly for each individual and a secretary restacks the papers into a pile without ever reading any of them. Once I explained this process, it was demystified and the misconception problem disappeared.

Other issues were more challenging to address. Many faculty were convinced that there was a large disparity in the salaries between men and women of equal rank. Similarly, there was a sense that women were not earning tenure at the same rate as men, that they were not getting

promoted to full professor at the rate as their male colleagues, and that they were not achieving our “above expectation” rating as frequently as men.

A task force was set up to look into these perceptions. The college used an existing committee, The Fair Practices Committee, consisting of faculty, professional staff, the Director of human resources, and myself. We were given institutional data back over a ten-year period and found that for salaries, adjusted for length of employment, there was no difference between men and women. We did have to point out that more men had been teaching at the college for a longer time than women, so, in raw numbers, men were earning more money, but that for junior faculty, there was no gender difference in their pay. For each of the other topics of concern listed above, there were no statistically significant gender differences, but taken in total, there was a trend towards slightly less successful career trajectories for our women faculty. These findings formed the basis of a series of recommendations made to the administration to help address this imbalance. The recommendations included offering childcare support for women to attend professional meetings, providing additional support from the Provost’s office for mid-career women faculty members, and ensuring that the childbirth and adoption policy is clearly understood and used when appropriate.

Our findings and recommendations had to be presented to the entire faculty in an unbiased manner that would give them credibility and ensure that they would be taken seriously. Since I was a member of the faculty and not an administrator at that time, and had the other members of the Fair Practices Committee working with me, we could confidently present our findings to the faculty at an all-college faculty meeting. This open forum gave our findings credibility and allowed us to answer questions in a collective setting. I believe that presenting the data in this manner quickly dispelled most of the gross misconceptions that had been based on people’s limited access to institutional information. It became clear that there was little basis for the rumors that had long circulated about faculty salaries. We did not gloss over the other areas of concern but presented the data and our recommendations, welcoming other suggestions as well.

Other attitudes were more challenging to address. For example, there was a sense that women consistently received lower scores on the student teaching evaluation forms than did male faculty. We asked the Registrar to compile data from the forms that took account of the professor’s gender and of the sex of the student filling in the evaluation. This was only partially useful because not all students noted their gender by checking the appropriate box on the form. Our findings were not particularly conclusive one way or another using the evaluations themselves.

Therefore, to collect additional information, we constructed an anonymous web-based survey that went out to all faculty and professional staff. We publicized it ahead of time so that we would maximize participation and response numbers. Eighty percent of the faculty surveys were completed, giving us results we felt confident in as representative of the majority of our colleagues’ opinions and perceptions. Interestingly, the majority of the survey respondents did not perceive many of the misconceptions expressed in the focus groups as problems. This

suggests that our focus group participants represent end-member perspectives. The individuals who chose to come to the focus group conversations are likely to be those who hold a strong opinion on the topic and are willing to spend an hour talking about it. It is important to bear this in mind when gathering information from volunteer focus group sessions.

The survey data did indicate that there was a slight perception among both male and female faculty that male students judged female professors more harshly on student evaluation forms than they did male professors. No other concerns or problems had statistical significance based on the confidential responses. We recently re-administered the survey and are currently processing the new responses. Preliminary interpretation indicates that perceptions have further changed to the point where there is little or no sense of gender inequity in matters pertaining to faculty and professional staff.

The yearlong process of open dialog with faculty and professional staff, data collection and analysis, and presentation of results at faculty meetings and professional staff meetings was an effective process of re-orienting institutional culture. The process and the results significantly reduced faculty concerns over perceptions of gender inequity and produced changes for professional staff that improved their work situation. As an institution, we continue to value the work of the special assistant and have retained the position. A member of the faculty applies for the position and is granted one course release per year.

Conclusion

So did having a critical mass of women in the institution make a difference in this situation? I believe that it did because it ensured that the original concerns were taken seriously and were thoughtfully addressed. Instead of a sense that there were only a few isolated voices agitating about unimportant issues, the presence of a critical mass of women in the institution gave the concerns legitimacy and a sense that a broad spectrum of the institution's population was involved. The powerful combination of a faculty and professional staff committee, led by a person whose time was dedicated to the project, with the clear support of the provost and president, created a synergy that changed attitudes and perceptions and also facilitated structural changes. This data-driven, rational, and proactive approach meant that a potentially divisive and difficult topic, rife with myths and misconceptions, was dealt with across the institution in a manner that allowed for all points of view to be expressed, summarized, and addressed, while maintaining individual confidentiality. A potentially difficult situation was averted, and gender-related aspects of the institution were improved in the process.

Tierney and Bensimon found that junior faculty women who were in institutions with a critical mass of female colleagues had more a positive professional experience than their colleagues at colleges or universities where women were a very small percentage of the faculty.²⁶ Having more women reduced the sense of tokenism and heightened support for family and

²⁶ William G. Tierney and Estela Mara Bensimon, *Promotion and Tenure: Community and Socialization in Academe* (Albany, NY: State University of New York Press, 1996), 77-102.

work/life balance issues.²⁷ These topics, and others that may have been traditionally viewed as “women’s issues,” were no longer trivialized or marginalized as belonging to an insignificant minority when an institution attained a critical mass of women faculty and/or administrators.²⁸ Our experience at Franklin & Marshall College supports these findings. Sometimes change only occurs because “the time was right,” but I believe that, in our situation, the time was right because the number of women on campus had reached a high enough level, or attained that critical mass, when women could no longer be ignored or marginalized.

As a retired dean of the college said when she was reflecting on institutional changes since 1969 when the college went coeducational, “Are these changes [to the campus culture] the result of coeducation, as some suggest, the humanizing of the campus? ... I have never believed that either sex is solely responsible for effecting change. ... the College is a better place because women and men, coming frequently from different perspectives, have worked together to make it so.”²⁹ In the case of coeducation, a critical mass of female students was needed to change the institution at one level; now a critical mass of women faculty and administrators is driving change and improvement at the next level.

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²⁷ Gerdes, “Women in Higher Education Since 1970.”

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