



# Examining Faculty Awards for Gender Equity and Evolving Values

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**BACKGROUND:** Awards given to medical school faculty are one important mechanism for recognizing what is valued in academic medicine. There have been concerns expressed about the gender distribution of awards, and there is also a growing appreciation for the evolving accomplishments and talents that define academic excellence in the 21st century and that should be considered worthy of award recognition.

**OBJECTIVE:** Examine faculty awards at our institution for gender equity and evolving values.

**METHODS:** Recipient data were collected on awards from 1996 to 2007 inclusively at the University of Pennsylvania School of Medicine (SOM). Descriptions of each award also were collected. The female-to-male ratio of award recipients over the time span was reviewed for changes and trends. The title and text of each award announcement were reviewed to determine if the award represented a traditional or a newer concept of excellence in academic medicine.

**MAIN RESULTS:** There were 21 annual awards given to a total of 59 clinical award recipients, 60 research award recipients, and 154 teaching award recipients. Women received 28% of research awards, 29% of teaching awards and 10% of clinical awards. Gender distribution of total awards was similar to that of SOM full-time faculty except in the clinical awards category. Only one award reflected a shift in the culture of individual achievement to one of collaboration and team performance.

**CONCLUSION:** Examining both the recipients and content of awards is important to assure they reflect the current composition of diverse faculty and the evolving ideals of leadership and excellence in academic medicine.

**KEY WORDS:** faculty awards; gender equity; female-to-male ratio; leadership; excellence.

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## INTRODUCTION

Awards given to medical school faculty are one important mechanism for recognizing the accomplishments and talents valued by academic medicine. Awards not only confer prestige, but are a critical component of a successful dossier for promotion and tenure, thereby having a compounded effect on the career of the recipient. Additionally, in academic medicine, where peer review is the ultimate bar by which success is defined, the public and visible recognition by one's peers is one of the most meaningful acknowledgements a faculty member can have and sends a powerful message about what faculty members within an academic institution consider important.

As efforts have increased to address gender equity in medicine and science, concerns have surfaced about the gender distribution of awards, at both the institutional and national level.<sup>1-6</sup> The RAISE project, sponsored by the Society for Women's Health Research, is currently gathering data and analyzing the number of men and women who have received distinguished awards since 1981.<sup>1</sup> They determined that women have received 21% of awards in medicine and 17% of awards in science, technology, engineering, and mathematics (STEM).<sup>1</sup> They also found a striking increase in the number of "women only" awards over the past ten years, with as many as one-third of the STEM awards given by programs reserved for women.<sup>7</sup> This may be one response to the need to ensure that existing awards reflect the current talents and achievements of a more diverse faculty. Recently, expert committees and leaders have recommended increasing efforts to nominate women for awards and including this as an important part of a comprehensive plan for addressing gender bias and maximizing the potential of women in science.<sup>2,6,8</sup>

Beyond the impact on an individual career, awards also serve to reinforce or redefine the culture of an institution, and of academic medicine as a whole, by publicly and explicitly defining the meaning of excellence in accomplishments and leadership. There is reason to believe that the culture of medicine is undergoing significant change and that we are in the midst of evolving concepts of what it means to make

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outstanding contributions. Many leaders, representing both the research and clinical enterprises, are calling for fundamental changes in our approach to academic medicine with a shift from a culture of autonomy and individual achievement to one of collaboration and team performance.<sup>9-13</sup> Darrell Kirch, in his 2007 AAMC President's Address, eloquently outlined this concept and highlighted the shift in culture and values by contrasting the "code words" that represent the traditional and the new culture in academic medicine (Table 1).<sup>9,14</sup> He specifically recommended that an important tool in building this culture is a redesign of our rewards systems so that they emphasize group contributions as much as personal achievements.

## Objective

Our aim in this study was to critically examine the awards given at our institution, both for the gender distribution of the recipients, and for the qualitative accomplishments and leadership skills that these awards recognize.

## METHODS

We collected recipient data on awards between 1996 and 2007 inclusively at the University of Pennsylvania (UPenn) School of Medicine (SOM). In addition to the recipient's name and gender, we obtained award descriptions and text of award announcements, and classified each award as clinical, research or teaching. The sole mentorship award was categorized as a teaching award. We excluded any awards that were given on a one-time basis and the one gender-based award that was established to recognize leadership in women's advancement.

We reviewed the female-to-male ratio of award recipients over the 12 years of data collection for changes and trends. The title and text of each award announcement were reviewed to determine whether the award represented traditional or newer culture concepts of excellence and leadership in medicine. In order to define what is meant by traditional and newer concepts of excellence, we examined the characteristics identified in the 2007 AAMC President's Address: "Culture and the Courage to Change". The traditional concept of excellence was described by the following words: *individualistic, autonomous, scholarly, expert-centered, competitive, focused, high-achieving, and hierarchical*. The newer concept of excellence was described with these words: *collaborative, transparent, outcomes-focused, mutually accountable, team-based, service-oriented, and patient-centered*.<sup>9</sup>

## RESULTS

After exclusions, there were a total of 21 awards: five clinical awards, six research awards, and ten teaching awards. While

almost all of the awards were given annually throughout the study period, not every award was given every year and, occasionally, a single award was given to two individuals. Therefore, over the 12-year period, there were a total of 59 clinical award recipients, 60 research award recipients and 154 teaching award recipients (Table 2).

Women received 28% of research awards and 29% of teaching awards. However, they received 10% of the clinical awards (Table 2). Available data showed that the proportion of full-time female faculty at our institution rose from 24% in 1999 to 30% in 2007.

With a single exception, the language describing the awards at our institution reflected traditional academic medicine values: outstanding individual achievement in research, clinical practice, and teaching. There was one award, a "health-system champion" award, that recognized a "physician who has contributed significantly toward the clinical integration of the health system". This award has been made 11 times, 9 times to men and twice to women (18%). This was the only award containing language emphasizing effort toward accomplishments that reflect team building and mutual accountability.

## Discussion

Awards to faculty over twelve years at the SOM were placed into three categories recognizing excellence in our core missions of research, teaching, and clinical care. We found that for research and teaching, the proportion of women receiving these awards was consistent with the proportion of women on the faculty. For the clinical awards, however, there was a significant discrepancy. Only 10% of the clinical awards were granted to women, in contrast to the 24-30% of women who made up the faculty over the period of 1999-2007. This discrepancy is even more pronounced given the fact that 58-65% of all women faculty at the SOM were in one of the two clinically oriented tracks<sup>15</sup> throughout the study period (in more recent years, women have been on the clinical tracks in the higher proportion), compared with 49-54% of men faculty.

There are several possible explanations for the gender disparity in clinical awards. For example, certain disciplines, especially fields known to have a large number of women, might be less represented in the total of 273 award recipients. However, we found that while 24 of the total 28 departments had one or more faculty members who received an award, the departments with the greatest number of award winners were medicine (69), pediatrics (47) and psychiatry (29), accounting for 56% of all the award recipients. These same three departments were the three with the greatest number of women faculty accounting for between 45 and 49 percent of the total number of women faculty in the SOM between 1999 (the first year we have reliable gender data by department) and 2007.

Part-time faculty appointments might also account for under-representation of women for clinical awards, especially if women were more likely to have part-time appointments. We used data from our Faculty Affairs office to determine how many faculty members had taken advantage of the SOM's "reduction in duties" policy that allows faculty, with the approval of the chair of the department, to work part-time for up to 6 years. From 1999 to 2007, there were a total of 30 faculty members on the two clinically oriented tracks who took advantage of this policy and, of these, 17 were women and 13

**Table 1. Transforming the Culture of Academic Medicine Adapted from Kirch 2007**

From a tradition of...	To an emergence of...
Individualism	Collaboration
Autonomy	Transparency
Expert-centeredness	Community-centeredness
Competition	Shared accountability
Hierarchy	Teams

Table 2. Awards by Gender and Category

Category of award	Clinical	Research	Teaching	Total number of awards
Total Number of awards	59	60	154	273
Number of women receiving awards	6 (10.2%)	17 (28.3%)	44 (28.6%)	67 (24.5%)
Number of men receiving awards	53 (89.8%)	43 (71.7%)	110 (71.4%)	206 (75.5%)

were men. It seems unlikely that this difference would explain the smaller number of clinical awards given to women. In addition, we might expect this and other confounders to be equally likely to result in a lower proportion of women recipients of research and teaching awards, which was not the case.

Additionally, it is possible that some awards are given based on years of service. We were unable to determine if this was the case, but given that there were several awards given to junior faculty and these were also given more often to men than women, it appears unlikely to be a major determinant of award distribution by gender. As mentioned above, it would also seem that if years of service were a significant confounder, it would have similarly caused a decreased proportion of women receiving the research and teaching awards, which we did not find. Regardless, the barrier to recognition in the clinical awards may be related to barriers affecting the rank distribution of women faculty in the two standing faculty tracks at the SOM: In 2006–7, 33% of all women in the tenure track were full professors, while in the clinician–educator track only 16% had achieved that rank; for men the percentages were 52% and 30% respectively.<sup>15</sup> At our institution both men and women are less represented at the full professor rank in the more clinically oriented track, but women are disproportionately more affected.

Finally, there exists the possibility that men are over-represented in clinical awards because of greater contributions. If this is the case, then assuming the culture supports equal contribution, gender equity in award receipt should not be forced. However, it is important to be certain that the culture allows women to make equal contributions. For example, there is research indicating that women face both constraints on their decision making and leadership styles<sup>25</sup> and potentially differing support from nurses,<sup>26</sup> both of which could contribute to lesser clinical contributions.

We speculate that an important contributing factor to the observed award discrepancies by gender may be the difficulty in defining objective measures of clinical excellence. In research careers, publications and grant awards provide reasonably objective criteria of success. For educational excellence, teaching evaluations, curricular development, and quality of syllabi are moderately objective standards for judging talent. For clinical distinction, however, the lack of easily quantifiable measures of excellence may result in a greater impact from unconscious bias in the process of determining these awards.<sup>3</sup> When we reviewed the clinical award descriptions, they were based on criteria that reflected excellence but were either vague or difficult to objectively

measure such as: “strives for highest quality of practice”, “maintains a commitment to patients that goes beyond the norm”, “provides cutting edge services to patients and colleagues”. Carnes et al. have pointed out that whenever there are ambiguity of performance criteria in a selection process for a position that is held primarily by men, the stage is set for evaluators to engage in stereotypic assumptions that may subconsciously favor men as leaders.<sup>3</sup> Multiple studies in the social psychology literature provide evidence for this phenomenon and suggest that explicit and predetermined criteria can mitigate the activation of unconscious bias.<sup>16–19</sup> The difficulty of defining excellence in clinical patient care and in clinician–educator careers has been acknowledged by many and continues to be a challenge.<sup>20–23</sup> In one study of 114 department of medicine chairs in the United States and Canada, the four measures felt to be most important in assessing clinical skills were also reported as not being of high quality. The need for improved quality measures was emphasized as critical for the timely promotion and academic success of clinician–educators.<sup>20,24</sup>

In reviewing the descriptions of the University of Pennsylvania SOM awards, we found only one that used language associated with the talents that have been emphasized more recently by many as key leadership skills of the 21st century.<sup>9</sup> Similar to many other awards conferred in academic medicine today, the University of Pennsylvania SOM awards tend to emphasize individual achievement and the rigorously independent and competitive approach to academic excellence that have characterized the culture of academic medicine over the past 40 years.<sup>25</sup> Career recognition in the biosciences generally has been identified as following a “tournament model” where rewards accrue through intense competition<sup>27</sup>. Recently there has been significant discussion about the need to foster a more collaborative culture where high performance team building and mutual accountability are the newly appreciated skills to recognize. In his remarks made at the AAMC 2007 national meeting and also discussed in an interview with *Academic Physician & Scientist*, Darryl Kirch, President and CEO of the AAMC, spoke of his view that “many of our misalignments have grown out of our highly individualistic, competitive culture and it will require us to move into a culture that is much more oriented toward collaboration and group problem solving to really deal with the challenges we face today.”<sup>9,28</sup>

In a similar point of view, Carr et al. argue that while academic medicine has been quite effective at hiring and promoting the best “soloists” available, this culture has not always been effective at turning them into teams.<sup>29</sup> They state that academic medicine must move beyond “intellectual Darwinism” where intense competition amplifies small differences in productivity into large differences in rewards, into a greater community orientation where information-sharing and team-building are rewarded.<sup>29</sup> It is likely that we need to foster and reward both traditional and newer leadership skills for academic medicine to succeed in the future. The NIH Pioneer Award Program and the NIH focus on “Research Teams of the Future” both reflect the national emphasis on newer skills and achievements.<sup>30</sup> The awards process is another avenue to foster a culture shift and should entail the creation of new awards highlighting the language and talents valued by this “new” culture.

There are limitations to our study that should be noted. Our review of faculty awards was conducted at a single institution where a specific culture and value system exists. This culture

will not be identical to that of other institutions. It is possible that other institutions with their own unique histories, mission priorities, promotion criteria, probationary policies, and leadership, might find different outcomes after examining their awards. Yet, we suggest that the process of review would be beneficial, and could help to clarify the incentives that contribute to the organizational value system. In addition, we acknowledge the subjective process of determining if awards reflected the “new” versus the “traditional” cultural values of academic medicine. It is possible that others reading the same award descriptions might come to a different conclusion about the talents and skills being recognized.

In summary, faculty awards are a window into the values and culture of an institution. Examining both the recipients and the content of awards is important to assure that these vehicles of recognition reflect the current composition of a more diverse faculty as well as the evolving ideals of leadership and excellence in academic medicine. We encourage medical schools to systematically review their award recipients to ensure that all faculty are represented and that processes are evaluated to minimize unintended and unconscious bias. We also encourage medical schools to examine the content of their awards to ensure recognition of the diversity of talents and achievements that are critical to the future of academic medicine.

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