

Why Do Faculty Leave? Reasons for Attrition of Women and Minority Faculty from a Medical School: Four-Year Results

Karen L. Cropsey, Psy.D.,¹ Saba W. Masho, M.D., M.P.H., Dr.PH.,² Rita Shiang, Ph.D.,² Veronica Sikka, M.H.A., M.P.H.,² Susan G. Kornstein, M.D.,² Carol L. Hampton, M.M.S.,² and the Committee on the Status of Women and Minorities, Virginia Commonwealth University School of Medicine, Medical College of Virginia Campus

Abstract

Purpose: Faculty attrition, particularly among female and minority faculty, is a serious problem in academic medical settings. The reasons why faculty in academic medical settings choose to leave their employment are not well understood. Further, it is not clear if the reasons why women and minority faculty leave differ from those of other groups.

Methods: One hundred sixty-six medical school faculty who left the School of Medicine (SOM) between July 1, 2001, and June 30, 2005, completed a survey about their reasons for leaving.

Results: The three most common overall reasons for leaving the institution included career/professional advancement (29.8%), low salary (25.5%), and chairman/departmental leadership issues (22.4%). The ranking of these reasons varied slightly across racial and gender groups, with women and minority faculty also citing personal reasons for leaving. Women and minority faculty were at lower academic ranks at the time they left the SOM compared with male and majority groups. Although salary differences were not present at the time of initial hire, sex was a significant predictor of lower salary at the start of the new position. Opportunity for advancement and the rate of promotion were significantly different between women and men. Job characteristics prior to leaving that were rated most poorly were protected time for teaching and research, communication across the campus, and patient parking. Harassment and discrimination were reported by a small number of those surveyed, particularly women and minority faculty.

Conclusions: The majority of reasons for faculty attrition are amenable to change. Retaining high-quality faculty in medical settings may justify the costs of faculty development and retention efforts.

Introduction

WOMEN MAKE UP APPROXIMATELY half of all individuals in college and professional jobs, yet they continue to remain underrepresented in positions of leadership.¹ This is particularly true in academic medicine, where women have been entering medical school at higher rates than are reflected in faculty rank.² In particular, the Association of the American Medical Colleges' (AAMC) Increasing Women's Leadership Project Implementation Committee compared statistics from 1995 to 2001 on the advancement of women in academic medicine.³ From 1995 to 2001, full-time women faculty in medical schools increased only from 25% to 28%,

even though women comprised close to 45% of all medical students. In addition, the proportion of women who were full professors over that time frame increased from 10% to 12%. When comparing men and women faculty in a cohort analysis over 11 years, a higher percentage of men (83%) was promoted to associate or full professor compared with only 59% of women (23% of men and 5% of women became full professors). Specialties, such as internal medicine, surgery, and the surgery subspecialties, have the lowest percentage of women at the higher academic ranks. Further, the tenured status among women actually declined during this time frame, from 15% to 14%. In 2001, women comprised only about 8% of all department chairs. Finally, attrition from

¹University of Alabama at Birmingham, Birmingham, Alabama.

²Virginia Commonwealth University, Richmond, Virginia.

medical centers is higher for women at 9.1% compared with 7.7% for men.

The statistics for minority faculty, particularly minority women faculty, are even more disappointing. Although the number of women faculty has almost doubled over the past 20 years, the proportion of minority women faculty has increased only from 4% to 6%. Moreover, this modest growth in minority women faculty has been primarily the result of disproportionate increases at traditionally black medical schools and is not reflective of most academic medical centers.⁴ Some subspecialties (e.g., family medicine) have more women and minorities represented in their faculty, but these groups still remain underrepresented in senior faculty positions even within these departments.⁵ Overall, studies indicate that minority faculty are less likely to be promoted to associate or full professor compared with white faculty, even when controlling for possible confounders, such as years on faculty and productivity.^{6,7} Not surprisingly, underrepresented minority faculty report being more dissatisfied with their careers and are more likely to report wanting to leave academic medicine within 5 years compared to white faculty.⁸

Losing faculty, particularly minority and women faculty, in academic medicine is a serious concern. The cost of faculty attrition has been estimated to account for 5% of the annual academic medical center budget.⁹ A lack of mentoring for junior faculty has been identified as a main cause for attrition from academic medicine, particularly among women and minority faculty.¹⁰ Although most division and departmental chairs view mentoring as essential for career development of junior faculty, most do not have a systematic mechanism in place to provide mentors for their faculty. Several studies have shown that only approximately half of junior faculty report having a faculty mentor.^{6,10} In one Department of Medicine, a survey of the women faculty revealed a number of gender-based career obstacles and their effect on attrition.¹¹ In that study, women faculty reported difficulties in problem identification, leadership, and education of faculty, as well as interventions to improve faculty development, mentoring, and rewards and to reduce isolation and structural career impediments. When certain interventions were put in place, retention and promotion of women faculty increased by 550% over 5 years. These interventions included reducing salary inequities, increasing the number of qualified women faculty to advanced faculty ranks, providing mentorship of junior faculty, educating faculty about gender discrimination, and increasing networking of faculty across and within departments.¹¹

Several recommendations have been made to increase retention of women and minority faculty. The first step is to survey faculty who leave their positions or candidates who decline faculty positions. Therefore, the current study was undertaken by the Virginia Commonwealth University School of Medicine's (VCU SOM) Committee on the Status of Women and Minorities to better understand the reasons for women and minority faculty attrition from this medical school at a large southeastern academic medical center.

Materials and Methods

Data collection

Institutional Review Board approval was obtained for this protocol. All ex-faculty members (including full-time, part-

time, clinical, basic science, and administrative) who left the VCU SOM between July 1, 2001, and June 30, 2005, were recruited to participate in the study. Names, date of separation, faculty rank, date of birth, primary department, tenure status, and last known addresses of potential participants were provided by the university's Human Resource Department. Research assistants attempted to verify last known address through internet search engines and medical organizations, and they generated a mailing list of potential participants. During the 4 years of the study, 388 faculty separated from the SOM. After accounting for unusable addresses ($n = 31$), faculty who were still at the institution ($n = 22$), summer students ($n = 4$), death ($n = 2$), and other ineligibility criteria ($n = 2$), 327 eligible participants were identified (84.3% of the original sample). Participants who left the SOM between July 1, 2001, and June 30, 2004, were surveyed in the fall of 2004. A year later, a fourth year of faculty separations was collected (July 1, 2004, through June 30, 2005).

A survey was administered by the VCU Survey and Evaluation Research Laboratory (SERL), an agency that is independent from the SOM, using mail survey methodology, with all responses sent to SERL. All potential participants first received a prenotification postcard indicating that a survey would be mailed to them. One week later, participants were mailed a hard copy of the survey with a postage-paid return envelope. Nonresponders were mailed a reminder postcard approximately 10 days after the survey mailing. A second mailing to nonresponders was done approximately 1 week after sending the reminder postcard, and a follow-up phone call was attempted approximately 3 weeks later. For faculty who left during the last year of data collection, an additional mailing was done, as the second mailing occurred during the Thanksgiving holiday. In addition, in order to enhance the response rate for the fourth year of data, a web-based option for survey completion was offered. Respondents opting for the web-based survey completion went to a secured URL and, at the entry screen, entered their code from their mail survey and completed the electronic version of the survey. All data transferred from the respondent's computer to the VCU secure server was encrypted using Secure Sockets Layer technology (128 SSL), which meets federal security standards for data transmission. SERL staff monitored responses, and when surveys were submitted via the web, the mailing database was marked so that the respondent received no further correspondences. The data were merged with the mail survey data entry database at the end of the data collection period.

To allow for the mailings to nonrespondents, the surveys were coded with a unique identification number that was linked to individuals in the password-protected mailing database. Upon survey completion, mailroom personnel indicated in the mailing database that the respondent had returned his or her survey. The respondent's linking variable was removed from the mailing database at the time the survey was received. The survey was given to the data entry staff, who entered the survey responses into a password-protected database that was used for data analysis purposes.

Statistical analysis

The data were analyzed using the Statistical Package for Social Sciences (SPSS), version 15 (Chicago, IL). Descriptive

statistics were calculated to describe the demographics of the sample. Quantitative data examining gender and racial differences on the questions of interest (e.g., faculty rank, difference in salary from time of initial employment to separation) were analyzed using chi-square or ANOVA procedures, as appropriate. Multiple linear regression was used to determine predictors of salary level when the participant started at the SOM, left the SOM, and began a new position. Qualitative data about reasons for leaving were coded and categorized for themes and then analyzed using chi-square comparisons between racial and gender groups.

Participants

Of the 327 eligible participants identified, 166 participants completed the survey (50.8% response rate). Response rates for the individual years varied from a high of 57.1% for faculty who left in 2004 to a low of 40.7% for faculty who left in 2003 ($p = 0.003$). Survey completers were compared with noncompleters, and no significant differences were found between the groups with regard to sex, race, age, academic rank at the time of separation, or primary department.

The majority of participants who completed the survey were male (67.3%), Caucasian (77.8%), and married (81.9%), with an average age of 49.0 years ($SD = 11.4$ years). About 14.4% of participants were at the instructor rank at the time of their separation, 38.1% were assistant professors, 25.6% were associate professors, and 21.9% were full professors. Significantly more women were at the rank of instructor or assistant professor (60.4% vs. 52.7%), whereas more men were at the rank of full professor (28.2% vs. 7.5%) at their time of separation ($p = 0.007$). Similarly, significantly more nonwhite than white faculty were at the instructor/assistant professor level (74.3% vs. 48.8%, $p = 0.026$) at the time they left the SOM. The majority of participants had a medical degree (M.D. or D.O., 69.0%), 20.6% had a Ph.D., 8.4% had a master's or bachelor's degree, and 1.9% had both an M.D. and a Ph.D. The median time at VCU was 8 years (range

1–45 years). Women were at VCU for a median of 6.5 years (range 1–45 years), and men were at VCU for a median of 10 years (range: 1–43 years). Participants left the SOM to work in another academic medical setting (42.8%), private practice (22.3%), a nonteaching hospital (9.0%), industry (6.6%), or another setting/no response (10.3%); 9.0% retired.

Results

Reasons for leaving

Table 1 shows the most common reasons participants gave for leaving the institution. The three most common reasons overall included career/professional advancement (29.8%), low salary (25.5%), and chairman/departmental leadership issues (22.4%). For women, the most common reasons for leaving were chairman/departmental leadership issues (30.8%), career/professional advancement (29.8%), low salary (25.0%), and personal reasons (25.0%). For men, the top three reasons were career/professional advancement (30.2%), low salary (26.4%), and lack of faculty development/mentoring (19.8%). Men were significantly more likely than women to report leaving for retirement, whereas women were more likely than men to report leaving because of chairman/departmental leadership issues and personal issues.

In terms of race, whites cited the most common reasons for leaving as career/professional advancement (29.3%), low salary (25.2%), and chairman/departmental leadership issues (21.1%). For nonwhites, the most common reasons included career/professional advancement (32.4%), low salary (29.4%), and personal reasons (29.4%). Nonwhites were significantly more likely than whites to report leaving for personal reasons.

Ratings for job characteristics

Respondents were asked to evaluate the quality of a range of job characteristics during the time they were SOM faculty. Table 2 presents gender and racial differences among the per-

TABLE 1. PERCENT OF RESPONDENTS REPORTING REASONS FOR FACULTY ATTRITION, BY SEX ($N = 158$) AND RACE ($N = 157$)

Reason for leaving	Total	Sex		Chi-square	Race		Chi-square
		Male ($n = 107$)	Female ($n = 52$)		White ($n = 123$)	Non-white ($n = 35$)	
Career/professional advancement	29.7	0.2	28.8	0.1	29.3	32.4	0.1
Low salary	25.5	26.4	25.0	0.1	25.2	29.4	0.2
Chair/department leadership	22.4	17.9	30.8	3.3*	21.1	26.5	0.4
Faculty development/mentoring	20.6	19.8	23.1	0.2	19.5	26.5	0.8
Personal/family reasons	16.4	13.2	25.0	3.4**	13.8	29.4	4.5*
Retirement	13.9	18.9	5.8	4.8*	16.3	8.8	1.2
Institutional leadership	12.1	13.2	11.5	0.1	8.9	17.6	2.1
Workload	10.9	8.5	15.4	1.7	8.9	17.6	2.1
Space/physical environment	9.1	11.3	3.8	2.4	8.1	11.8	0.4
Lost position/funding	8.5	6.6	13.5	0.2	8.9	5.9	0.3
Location/area of country	2.4	2.8	1.9	0.1	1.6	5.9	1.9

** $p < 0.10$; * $p < 0.05$.

TABLE 2. PERCENT OF RESPONDENTS RATING JOB CHARACTERISTICS AS GOOD TO EXCELLENT, BY SEX ($N = 159$) AND RACE ($N = 158$)

Job characteristics	Total	Sex		Chi-square	Race		Chi-square
		Male (n = 107)	Female (n = 52)		White (n = 123)	Non-white (n = 35)	
Salary and benefits							
Salary	34.8	30.8	40.0	1.3	37.0	23.5	2.1
Leave time	70.3	65.0	79.2	3.1 [†]	69.0	70.6	0.0
Insurance	77.3	77.0	76.6	0.0	78.8	69.7	1.2
Retirement	67.9	64.4	72.9	1.1	67.5	67.6	0.0
Employee assistance program	54.1	46.5	70.6	2.8 [†]	60.0	40.0	2.1
Tuition reimbursement	71.4	61.8	92.3	4.2*	73.5	61.5	0.6
Child care	68.9	67.9	66.7	0.0	74.2	45.5	3.0 [†]
Promotion and advancement							
Opportunity for advancement	29.7	36.6	14.9	7.3**	31.9	19.4	1.9
Rate of promotion	35.8	42.0	22.2	4.2*	39.6	24.0	2.1
Annual evaluations	46.6	47.9	45.7	0.1	48.6	43.3	0.3
Physical space							
Teaching space	43.1	44.4	41.7	0.1	39.8	57.6	3.3 [†]
Research space	32.5	34.1	24.1	1.0	30.6	34.8	0.2
Clinical space	41.7	38.8	43.9	0.3	37.4	51.7	1.9
Office space	37.2	38.4	32.0	0.6	33.6	46.9	1.9
Teaching equipment	51.9	53.3	51.3	0.1	50.5	58.6	0.6
Research equipment	40.8	36.1	52.0	1.9	38.7	45.5	0.3
Clinical equipment	58.0	58.1	53.8	0.2	52.9	66.7	1.6
Faculty parking	46.8	47.5	42.6	0.3	46.5	45.5	0.0
Patient parking	21.4	12.7	34.1	7.8**	17.8	27.6	1.3
Cooperation and communication							
Cooperation within departments	50.6	54.5	42.0	2.1	50.4	51.5	0.0
Cooperation across departments	30.1	24.8	37.5	2.6	30.2	25.0	0.3
Communication within departments	39.6	42.2	34.0	0.9	38.7	43.8	0.3
Communication across campus	21.2	18.4	26.1	1.1	20.7	21.9	0.0
Workload and other job characteristics							
Evaluation of chairman	54.5	58.8	46.2	2.2	53.3	57.6	0.2
Distribution of work	28.8	27.7	29.2	0.0	27.4	32.3	0.3
Overall workload	39.1	39.0	34.7	0.3	39.3	32.3	0.5
Protected time for teaching	24.3	22.0	27.9	0.6	21.2	34.5	2.2
Protected time for research	22.7	19.5	29.0	1.2	18.9	34.8	2.7 [†]
Collaboration	44.9	44.6	46.0	0.0	46.6	40.6	0.4
Mentoring	31.1	30.5	32.7	0.1	33.0	25.8	0.6
Consulting permission	56.8	55.1	66.0	0.9	63.8	40.0	3.6 [†]
Support for committee work	29.0	25.9	36.6	1.5	28.0	34.6	0.4
Administrative support	36.8	34.7	38.3	0.2	33.6	45.2	1.4
Information technology support	45.1	48.0	39.6	0.9	38.4	66.7	8.2**
Support for balancing work and persona life							
University	41.9	35.9	59.4	5.1*	42.4	44.0	0.1
School of Medicine	40.3	34.1	60.7	6.2*	41.0	41.4	0.0
Department	53.9	52.8	58.7	0.5	53.2	60.6	0.6
Division	59.1	59.0	61.9	0.1	58.5	66.7	0.6
Chair	54.2	54.5	57.4	0.1	52.7	66.7	2.0
Colleagues	70.3	71.3	70.0	0.1	70.7	73.5	0.1

[†] $p < 0.10$; * $p < 0.05$; ** $p < 0.01$.

centage of respondents who rated a specific job characteristic as good or excellent. Overall, the majority of respondents rated the benefits of their job as good or excellent; however, only a third rated their salary as good or excellent. Similarly,

only about a third of respondents rated their opportunity for advancement and rate of promotion as good or excellent, whereas about half rated their annual evaluation as good or excellent. Physical space, equipment, and parking for pa-

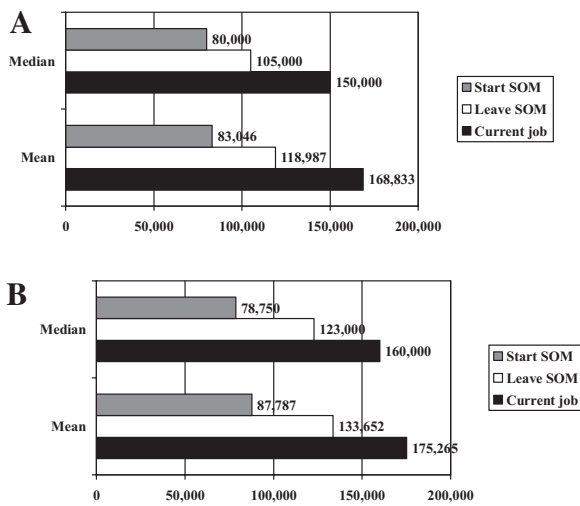


FIG. 1(A) Salary for full-time respondents at the time of starting at SOM, leaving SOM, and starting new position ($n = 126$). **(B)** Salary for full-time respondents who remained in academic medicine at the time of starting at SOM, leaving SOM, and starting new position ($n = 57$).

tients were generally not rated as good or excellent by the majority of respondents. Although cooperation within departments was rated as good or excellent by about half of respondents, only about a third of respondents gave these ratings for cooperation across departments and for communication both within departments and across campus. Generally, workload (both workload distribution and overall workload), mentoring, and protected time for teaching or research were rated as good to excellent by only a quarter of the respondents, and collaboration by less than half (45%). A little over half of respondents (54%) rated their previous chairman as good to excellent. Women were significantly less likely to evaluate their opportunity for advancement and rate of promotion as good to excellent compared with their male counterparts. Men were significantly less likely to rate leave time, employee assistance program, and tuition reimbursement as good or excellent compared with women. Whites were significantly more likely than to rate their access to child care as good to excellent but were less likely to rate teaching space and protected time for research as good or excellent.

Salary

Respondents were asked about their salary when they first started at the SOM (as faculty), when they left the SOM, and when they started at their new job. Figure 1A shows the unadjusted median and mean salaries for all three time points among all participants who remained in full-time employment. Respondents reported a median salary of \$80,000 at the time of starting at the SOM, \$105,000 at the time they left the SOM, and \$150,000 at the start of their new position. The median salaries for individuals who moved to another academic medical center were the following: \$78,750 at the start of SOM, \$123,000 at the time they left SOM, and \$160,000 at the start of their new position.

Three multiple regression equations were calculated to examine predictors of salary at the three time points of starting as SOM faculty, leaving the SOM, and starting the new position. The following predictors were entered into the equation: age, type of degree, primary department of appointment at SOM, academic rank, years at SOM, full-time or part-time status, sex, and race. Table 3 shows the results of the regression equations. Regression for salary at the time of starting at the SOM was significant and accounted for approximately 27.8% of the variance ($p < 0.001$). Significant independent predictors of initial SOM salary were primary department appointment, academic rank, and number of years at the SOM. Similarly, the regression for salary at the time of leaving the SOM was significant and accounted for 33.7% of the variance ($p < 0.001$); significant independent predictors of salary at that time included academic rank and primary department appointment. Finally, the regression equation for salary at the new job was significant and accounted for approximately 26.1% of the variance ($p < 0.001$); significant independent predictors of salary at this point included primary department appointment, academic rank, and sex (Table 3).

Harassment or discrimination

Faculty were asked if they experienced any of the following types of harassment or discrimination: sexual harassment, racial discrimination, sexual/gender discrimination, discrimination due to credentials/degree, or limited professional opportunities due to credentials/degree. Overall, 13 (7.8%) individuals reported experiencing sexual harassment during their tenure in the SOM. Of these 13 individuals, 12 were women (92.3%, $p < 0.001$). No significant differences

TABLE 3. REGRESSION MODELS FOR SALARY AT TIME OF STARTING AT SOM, LEAVING SOM, AND STARTING AT NEW JOB

Predictors	Start SOM salary		Leave SOM salary		New job salary	
	Beta	SE	Beta	SE	Beta	SE
Age	-0.1	459.8	-0.1	567.0	-0.2	1178.5
Degree	-0.1	6830.1	-0.1	8443.7	0.1	14791.8
Primary department	0.3***	1407.9	0.4***	1719.2	0.2**	2952.6
Academic rank	0.3**	4979.8	0.5***	6128.2	0.5***	12191.6
Years at SOM	-0.4***	342.4	0.0	424.4	-0.1	785.0
Full-time or part-time	0.0	2711.4	0.1	3379.0	0.1	10745.0
Sex	-0.06	8215.5	0.1	10026.0	0.3***	14521.4
Race	0.00	9490.0	-0.0	11126.1	-0.1	19042.0
Adjusted R ²	0.3 ($n = 135$)		0.4 ($n = 139$)		0.3 ($n = 111$)	

** $p < 0.01$; *** $p < 0.001$.

were found between racial groups experiencing sexual harassment. For the 13 cases of sexual harassment, 3 people reported the harassment to leadership, and in only 1 case was any action taken to rectify the situation. Similarly, 13 individuals reported experiencing racial discrimination. Of the 13, 8 (61.5%) were nonwhite faculty ($p < 0.001$). No significant differences were found by gender with respect to experiences of racial discrimination. A total of 27 (16.3%) individuals reported experiencing gender discrimination, of whom 22 (81.5%) were women ($p < 0.001$). No significant differences were found between racial groups with respect to gender discrimination. Whereas 17 (10.2%) individuals reported feeling that they were negatively perceived by peers because of their degree or credentials, no race or sex differences were found. However, 23 individuals (13.9%) reported that they experienced limited professional opportunities because of their degree or credentials, with women ($n = 15$; 65.2%) being significantly more likely to report this than men ($p = 0.001$). No differences in career opportunities because of degree or credentials were found between racial groups.

Discussion

Faculty attrition, particularly for minority and women faculty in academic medicine, is a serious problem. Although women make up nearly half of the medical students, they continue to remain underrepresented in faculty positions, particularly leadership and advanced faculty positions, within schools of medicine.¹ Furthermore, women and minority faculty leave academic medicine at the same rate or higher rate as their white or male counterparts, impacting the pool of minority and women faculty in these institutions. Several studies have suggested that faculty attrition is amenable to interventions.^{11,12} The current study revealed that the majority of the study participants left the institution to work at another academic medical setting for reasons that are amenable to interventions and could have been avoided.

Overall, the top three reasons for faculty attrition in this study were career/professional advancement, low salary, and chairman/departmental leadership issues. However, the most common reasons for leaving the institution differed slightly when the data were stratified by sex and race. The most common reasons for women included chairman/departmental leadership issues, professional advancement, low salary, and personal reasons. On the other hand, men left the institutions because of issues related to career and professional advancement, low salary, and lack of faculty development/mentoring. With the exception of retirement, all other factors were not statistically significant between men and women. However, it is essential to consider these factors when designing faculty retention interventions targeting women and minorities. Given the rising costs of faculty turnover, it seems more profitable for an institution to invest in faculty retention endeavors as opposed to more costly recruitment efforts.

Interestingly, we found that reasons for leaving among nonwhite minorities were similar to those of women, specifically professional advancement, low salary, and personal reasons. These reasons for attrition among minority faculty are consistent with the literature. Overall, studies indicate that minority faculty are less likely to be promoted to associate professor or full professor compared with white fac-

ulty, even when controlling for possible confounders, such as years as a faculty member and productivity.^{6,7} Underrepresented minority faculty report being more dissatisfied with their careers and are more likely to report wanting to leave academic medicine in the next 5 years, compared with white faculty.⁸

Cohen¹³ provides three possible reasons for this trend that may give insight into areas of improvement needed in American medical colleges. First, minority faculty, by virtue of their small numbers in a given medical school, are disadvantaged by comparative isolation within the academic community. Second, minority faculty feel disproportionately obliged to serve as mentors, to participate in time-consuming committees, and to engage in community service activities. Finally, minority faculty view attainment of senior faculty rank as inaccessible and similar to other complex social enterprises (e.g., big business), suggesting that academic medicine is not immune to the glass ceiling phenomenon.¹⁴ Considering that women also spend a significant portion of their time in mentoring and are less likely to serve in leadership positions, these reasons may also apply to women faculty in general.

Our study also showed that women were significantly less likely than their male counterparts to evaluate their opportunity for advancement and rate of promotion as good to excellent. A recent meta-analysis by Sambunjak et al.¹⁵ on the value of mentoring in academic medicine found that women tend to have more difficulty finding mentors than do their male colleagues. Mentoring was found to have important influence on personal growth, career development, and research productivity (i.e., grant success and publication). In a cross-sectional study of 24 randomly selected medical schools, Ash et al.¹⁶ found that only 47% of women, compared with 66% of men ($p < 0.001$), were full professors with 15–19 years of seniority. Female medical school faculty neither advanced as rapidly nor were compensated as well as professionally similar male colleagues, even after accounting for professional characteristics and achievements, such as total career publications, years of seniority, hours worked per week, department type, minority status, medical vs. non-medical final degree, and school.¹⁶ Women continue to represent a minority of authors of original research and guest editorials among several prominent medical journals.¹⁷

Salary inequity is one of the major contributing factors to faculty departure. Our study showed that women were significantly more likely to be hired at a lower salary than their male counterparts when accepting a new position at another academic institution but not at their initial hiring at our SOM. It is possible that women were less likely to negotiate salary effectively or left because of personal reasons and accepted modest offers at their new institutions. Women may also be accepting part-time positions, resulting in lower salaries, although our study only compared men and women who were working full-time and then took another full-time position at another institution. The Bureau of Labor Statistics¹⁸ reported that women physicians' earnings as a percentage of men physicians' earnings fell by 12.1% in 2001–2002 alone. Since the year 2000, there was a decline in women's salaries until 2005. Furthermore, in comparing the mid-1980s to 2005, progress has actually decreased in attempts to equalize male and female physician salaries. Previous studies have determined that there are differences between men and women

and between minorities and nonminorities in terms of faculty rank and salary. The costs of turnover are a nonvalue-added element in any university's budget, highlighting the need to improve retention. Although an accurate estimate of costs associated with faculty turnover in an academic medical center has yet to be determined, Waldman et al.⁹ have estimated that these costs could be as high as 5% of the annual budget.

Finally, a small but significant proportion of women and minority faculty reported harassment or discrimination during their tenure in the SOM. Women were more likely to report sexual harassment and gender discrimination, and minority faculty were more likely to report racial discrimination. In most cases, these incidents were not reported to leadership, and among the few cases that were reported, in only one case was an attempt made by administration to change the situation. It is unknown from our survey how these incidents of harassment or discrimination may have impacted faculty decisions to leave the SOM. A recent survey of medical students in 14 U.S. medical schools showed high rates of gender discrimination and sexual harassment reported by both male and female medical students, although female medical students reported more incidents and believed it was more of a problem across all medical settings and specialties than did male medical students.¹⁹ More research is needed to better understand these incidents of harassment and discrimination in the academic medical setting.

A question raised by our study results is whether or not some of the faculty departures from the institution may have been sought by department chairs. We were not able to determine underlying chair/administrative motivations; however, efforts by department leaders to work to retain faculty and support their professional advancement and other areas of satisfaction may be more cost-effective than incurring the high costs of recruitment and the associated expenses to establish clinical practice and research laboratories that turnover brings. It is also possible that faculty attrition limited to those who are less productive may be desirable and even beneficial to the institution in the long run. However, such data were not available to examine this issue.

The findings of this study were presented to the Vice President for Health Sciences and Chief Executive Officer of the Health System, the Dean of the School of Medicine, and the Department Chairs. In addition, a seminar open to all faculty was conducted. The SOM leadership has implemented some interventions and is considering additional ones to improve faculty retention. Follow-up studies can be performed after interventions are in place to determine their impact on faculty retention.

To our knowledge, this study is the first to investigate and report reasons for faculty leaving in an SOM setting using multiyear data. The strengths of the study include the high response rate and the use of mail survey to ask these sensitive questions. Although this study has several strengths in exploring an understudied area, it also has some limitations, the first being that the data were self-reported, which may present a potential for bias. A faculty member who was encouraged to leave because of incompetence or other reasons is not likely to indicate the true reason for departure. In addition, because the study was conducted at one medical school, the findings may not be generalizable to other institutions. Data on specialty were not available; however, de-

partment of employment was used as a proxy to control for specialty. In addition, analyses were conducted by department rather than by specialty, as the number of respondents in certain subspecialties was too low for interpretation. Although salary and subspecialty may vary within departments, controlling for department as a proxy for specialty may provide a relatively adjusted estimate. More research in this area, particularly involving multiple institutions or a representative sample of academic medical centers, would be important in further understanding the reason for continued attrition and lack of parity for women and minority faculty in these settings.

Conclusions

This study showed that career/professional advancement, low salary, and chairman/departmental leadership issues are leading reasons for faculty attrition. In addition, there were differences in salary between male and female participants, especially at their new jobs, suggesting that women may not have negotiated effectively or may have taken a less than ideal position for other benefits (e.g., flexibility, more time with family). Importantly, most of the main reasons cited for leaving the institution are avoidable and amenable to intervention, given leadership initiatives and appropriate allocation of resources and education for such interventions. If institutions provide more opportunities for professional advancement, training, and mentorship and address salary and infrastructure issues in a systematic way, rates of attrition may be reduced. More faculty could be retained, and costs for recruitment could be contained.

Disclaimer Statement

No competing financial interests exist.

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Address reprint requests to:

Karen Cropsey, Psy.D

Associate Professor, Department of Psychiatry

University of Alabama at Birmingham School of Medicine

401 Beacon Parkway West

Birmingham, AL 35209

E-mail: kcropsey@uab.edu