### ORIGINAL RESEARCH

## A Matter of Priorities? Exploring the Persistent Gender Pay Gap in Hospital Medicine

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**BACKGROUND:** Gender earnings disparities among physicians exist even after considering differences in specialty, part-time status, and practice type. Little is known about the role of job satisfaction priorities on earnings differences.

**OBJECTIVE:** To examine gender differences in work characteristics and job satisfaction priorities, and their relationship with gender earnings disparities among hospitalists.

DESIGN: Observational cross-sectional survey study.

PARTICIPANTS: US hospitalists in 2010.

**MEASUREMENTS:** Self-reported income, work characteristics, and priorities among job satisfaction domains.

**RESULTS:** On average, women compared to men hospitalists were younger, less likely to be leaders, worked fewer

Hospitalists are a growing workforce numbering over 40,000 physicians, one-third of whom are women.<sup>1</sup> Flexibility of work schedules and control over personal time have been the traditional selling points of the specialty.<sup>2</sup> Multiple studies of physician work life reveal growing physician dissatisfaction and a high prevalence of burnout.3 To mitigate burnout risk, leaders in hospital medicine recognize the importance of creating a sustainable profession that offers both job and career satisfaction as well as work-life balance and, importantly, fairness within the work environment.<sup>4</sup> Although success in some of these endeavors has been realized sporadically, sustaining work-life balance and fairness in the specialty remains a work in progress, whereas evidence of high job attrition and pay inequities remain.<sup>5,6</sup>

Pay inequity for women relative to men continues to be pervasive in medicine, including among early-career physicians, researchers, and various specialists.<sup>6–13</sup> The earnings gap seems to persist for physicians, even as

2015 Society of Hospital Medicine DOI 10.1002/jhm.2400 Published online in Wiley Online Library (Wileyonlinelibrary.com). full-time equivalents, worked more nights, reported fewer daily billable encounters, more were pediatricians, worked in university settings, worked in the Western United States, and were divorced. More hospitalists of both genders prioritized optimal workload among the satisfaction domains. However, substantial pay ranked second in prevalence by men and fourth by women. Women hospitalists earned \$14,581 less than their male peers in an analysis adjusting for these differences.

**CONCLUSIONS:** The gender earnings gap persists among hospitalists. A portion of the disparity is explained by the fewer women hospitalists compared to men who prioritize pay. *Journal of Hospital Medicine* 2015;10:486–490. © 2015 Society of Hospital Medicine

federal efforts such as the Fair Pay Act of 2013 and the Paycheck Fairness Act of 2014 aim to end wage discrimination.<sup>11,14</sup> Differences in specialty, part-time status, and practice type do not mitigate the disparity.<sup>8,10,15</sup> Additional explanations have been proposed to explain the variability, including gender differences in negotiating skills, lack of opportunities to join networks of influence within organizations, and implicit or explicit bias and discrimination.<sup>12,16–20</sup>

The earnings gap is also a consequence of what is commonly called the glass ceiling.<sup>18,19</sup> Most agree that obstacles to fair advancement of women include absence of collaborative environments and role models who have successfully achieved work-life balance.<sup>17,20–22</sup> Somewhat surprisingly, women leaders in medicine seem to suffer greater income disparity than nonleaders; this income gap is prevalent among leaders in other elite professions as well.<sup>7,23</sup> It is unknown whether women physicians' emphasis on work-life balance, seen repeatedly in surveys, explains any of the pay disparity.<sup>24</sup> Little research to date has examined whether work-life priorities of women in hospital medicine differ from men.

In this study, we sought to examine differences in job priorities between men and women hospitalists. In particular, we examine the relative prioritization of substantial pay to job satisfaction. We also examined gender differences in work patterns and earnings to explore potential sources of the persistent gender earnings gap.

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### METHODS

We analyzed data from the 2009-2010 Hospital Medicine Physician Worklife Survey, the design of which is detailed elsewhere.<sup>4</sup> Briefly, a 118-item survey was administered by mail to a stratified sample of hospitalists from the Society of Hospital Medicine database and 3 large multisite hospitalist groups. A single survev item asked respondents to identify up to 4 out of 12 most important domains to their satisfaction with a hospitalist job. The domains were distilled from focus groups of nationally representative hospitalists as described previously,<sup>4</sup> and the survey item allowed up to one-third of these domains to be identified as respondents' personal priorities. The list included: optimal variety of tasks, optimal workload, substantial pay, collegiality with other physicians, recognition by leaders, rewarding relationships with patients, satisfaction with nurses, optimal autonomy, control over personal time, fairness within organization, ample availability of resources to do job, and organizational climate of trust and belonging. We tabulated and ranked the frequency with which respondents selected each satisfaction domain by gender. Due to the nonstandard format of the survey item, we a priori decided to analyze only responses that were completed as instructed.

We also used demographic data including detailed work characteristics, clinical and nonclinical workload, total pretax earnings in 2009 as a hospitalist, and self-identification as leader of their hospital medicine group. Respondent characteristics were tabulated and gender differences were tested using the t test, rank sum test, and the Fischer exact test as appropriate. We also listed the number of nonrespondents for each item. In estimating gender differences in earnings, we opted to use multiple-imputation techniques to more conservatively account for greater variance inherent in the presence of missing data. Consistent with existing guidelines,<sup>25</sup> we demonstrated that item responses were not missing monotonically by visually inspecting patterns of nonresponse. We further demonstrated that data were missing at random by showing that response patterns of completed survey items did not predict whether or not a given variable response was missing using logistic regression models. We found no significant differences between respondents with complete and missing data. We verified that appropriate regression models for each variable on every other variable converged. We used Stata 13.1 (StataCorp, College Station, TX) to perform multiple imputations using chain equations (mi impute chain) to create 10 imputed tables for 7 normally distributed continuous variables using the ordinary least squares method, 3 non-normally distributed variables using the predictive mean matching method, 2 nonordinal categorical variables using the multinomial logit method, and 1 binary variable using the logit method.<sup>26,27</sup> Gender, pediatric specialty status, region of practice, and

whether or not respondents prioritized substantial pay for job satisfaction were used as regular variables without missing data points.

Differences in earnings were assessed using a multivariate ordinary linear regression model applied to the imputed datasets fitted by forward selection of explanatory variables using P < 0.20 in bivariate analysis for inclusion and manual backward elimination of all statistically nonsignificant variables. We tested the significance of the women × leader interaction term in the final parsimonious model. We used the usual significance threshold of P < 0.05 for inferences. Our analysis of publicly available anonymous data was exempt from IRB review.

### RESULTS

Of the 816 survey respondents (response rate 25.6%), 40 either omitted the item soliciting work priorities or completed it incorrectly. Data from the remaining 776 respondents were used for the present analysis. Respondent characteristics are tabulated in Table 1. The characteristics of hospitalists by age, gender, specialty, practice model, and practice region were representative of US hospitalists from other surveys.<sup>28</sup>

Several gender differences were seen in the characteristics of hospitalists and their work (Table 1). Women compared to men hospitalists were less likely to be leaders, more likely to be pediatricians, work in university settings, and practice in Western states. Women compared to men, on average, were younger by 3 years, worked fewer full-time equivalents (FTEs), worked a greater percentage of nights, and reported fewer billable encounters per shift. They were also more likely to be divorced or separated.

Job satisfaction priorities differed for women and men hospitalists. Table 2 lists job satisfaction domains in descending order of the frequency prioritized by men. The largest proportion of women and men prioritized optimal workload. However, although substantial pay was prioritized next most frequently by men, more women prioritized collegiality and control over personal time than substantial pay.

Key differences in individual characteristics, work patterns, and indicating substantial pay as a priority were associated with self-reported total earnings in 2009 from respondents' work as a hospitalist. As shown in Table 3, the inclusion of detailed productivity measures such as FTE, days of monthly clinical work, and estimated number of daily billable encounters yielded a model that explained 33% of variance in earnings. After adjusting for significant covariates including pediatric specialty, practice model, geography, and amount and type of clinical work, the estimated underpayment of women compared to men was \$14,581. Hospitalists who prioritized substantial pay earned \$10,771 more than those who did not. The female x leader interaction term testing the hypothesis that gender disparity is greater among

# **TABLE 1.** Differences in Characteristics and WorkPatterns of Women Compared to Men Hospitalists

	Women	Men	P Value	No. of Missing Responses
No.	263	513		0
Role, n (%)	203	515	<0.01	0
Frontline hospitalist	201 (76)	337 (66)	<0.01	0
Hospitalist leader	53 (24)	176 (34)		
Age, y, mean (SD)	42 (8)	45 (9)	<0.01	67
Years in current job, mean (SD)	5 (4)	6 (5)	0.07	14
Specialty, n (%)	- ( )	- (-)	< 0.01	0
Internal medicine	160 (61)	369 (72)		
Pediatrics	56 (21)	57 (11)		
Other	39 (15)	47 (9)		
Family medicine	8 (3)	40 (8)		
Practice model, n (%)			0.02	19
Hospital employed	110 (43)	227 (46)		
Multispecialty group	44 (17)	68 (14)		
University/medical school	47 (18)	58 (12)		
Multistate group	27 (11)	73 (15)		
Local hospitalist group	22 (8)	65 (13)		
Other	7 (3)	9 (2)		
Practice region, n (%)			0.14	0
Southeast	56 (21)	151 (29)		
Midwest	58 (22)	106 (21)		
Northeast	54 (21)	96 (19)		
Southwest	44 (17)	83 (16)		
West	51 (19)	77 (15)	0.04	10
Full-time equivalents, n (%)	40 (10)	00 (10)	<0.01	42
<100%	46 (18)	60 (12)		
100% >100%	202 (81)	402 (83)		
Days per month doing clinical work if FTE 100%, median	2 (1) 15 (14–18)	22 (5) 16 (14–20)	0.12	11
(IQR)				
Hours per day doing clinical work,	11 (9–12)	11 (9–12)	0.67	30
median (IQR)	(* )	(- )		
Consecutive days doing clinical work, median (IQR)	7 (5–7)	7 (5–7)	0.94	17
Percentage of work at night, median (IQR)	15 (5–30)	15 (5–25)	0.45	16
Percentage of night work in hos- pital if working nights, median (IQR)	100 (5–100)	100 (10–100)	0.12	8
Hours per month doing nonclinical work, median (IQR)	12 (5–40)	15 (5–40)	0.77	26
Estimated daily billable encoun- ters, mean (IQR)	14 (11–16)	15 (12–18)	0.01	54
Total earnings in fiscal year 2009, median US\$1,000 (IQR)	185 (150–210)	202 (180–240)	<0.01	56
Marriage/domestic partnership status, n (%)			0.15	43
Married/currently in DP	197 (80)	421 (86)		
Never married/never in DP	26 (11)	42 (9)		
Divorced or separated	18 (7)	20 (4)		
Other	4 (2)	5 (1)		
Dependent children under 7 years			0.22	42
old living in home, n (%)				
0	136 (55)	265 (54)		
1	47 (19)	92 (19)		
2	52 (21)	87 (18)		
<u>≥</u> 3	12 (5)	43 (9)		

NOTE: Abbreviations: DP, domestic partnership; FTE, full-time equivalent; IQR, interquartile range; SD, standard deviation.

# **TABLE 2.** Percentage of Women and Men Who Indi-cated That a Domain Was One of Up to Four MostImportant Factors to Her/His Job Satisfaction

	Women, %	Rank	Men, %	Rank
Optimal workload	59	1	59	1
Substantial pay	41	4	50	2
Control over personal time	44	3	41	3
Collegiality with physicians	47	2	38	4
Rewarding relationships with patients	35	5	34	5
Organizational climate of trust and belonging	27	7	33	6
Ample availability of resources to do job	24	9	27	7
Optimal autonomy	26	8	24	8
Fairness within organization	15	10	23	9
Optimal variety of tasks	29	6	22	10
Recognition by leaders	11	12	10	11
Satisfaction with nurses	12	11	7	12

**TABLE 3.** Ordinary Linear Regression Model Incorporating Multiple Imputation Estimates to Examine Adjusted Gender Differences in Hospitalists' Self-Reported Earnings in 2009 US Dollars

1	0	
	Differences in Salary, 2009 US\$ (95% CI)	P Value
Women	-14,581 (-23,074 to -6,089)	<0.01
Leader	21,997 (13,313 to 30,682)	< 0.01
Prioritized substantial pay	10,771 (2,651 to 18,891)	< 0.01
Pediatric specialty	-31,126 (-43,007 to -19,244)	< 0.01
Practice model		
Hospital employed	REF	
Multispecialty group	-1,922 (-13,891 to 10,047)	0.75
University/medical school	-33,503 (-46,336 to -20,671)	< 0.01
Multistate group	6,505 (-72,69 to 20,279)	0.35
Local hospitalist group	9,330 (-4,352 to 23,012)	0.18
Other	-17,364 (-45,741 to 11,012)	0.23
Practice region		
Southeast	REF	
Midwest	1,225 (-10,595 to 13,044)	0.84
Northeast	-15,712 (-28,182 to -3,242)	0.01
Southwest	-722 (-13,545 to 12,101)	0.91
West	5,251 (-7,383 to 17,885)	0.41
FTE	1,021 (762 to 1,279)	< 0.01
Days per month doing clinical v	vork 1,209 (443 to 1,975)	< 0.01
Estimated daily billable encoun	ters 608 (20 to 1,196)	0.04

NOTE: Abbreviations: CI, confidence interval; FTE, full-time equivalent.

leaders than frontline hospitalists was not statistically significant (-\$16,720, P = 0.087) and excluded from the final model.

### DISCUSSION

In a national stratified sample of US hospitalists, we found gender differences in job satisfaction priorities and hospitalist work characteristics. We also confirmed the persistence of a substantial gender earnings disparity. Lower earnings among women compared to men hospitalists were present in our data after controlling for age, pediatric specialty, practice model, geography, type of clinical work, and productivity measures. The gender earnings disparity noted in 1999<sup>6</sup> persists, although it appears to have decreased, possibly indicating progress toward equity. We showed that women hospitalists' relative tendency not to prioritize pay explains a significant portion of the residual income gap.

Hoff examined hospitalist earnings in a large national survey of hospitalists in 1999. Our cohorts differed in age and experience (both lower in the Hoff estimated \$24,000 (\$124,266 study). An vs. \$148,132) earnings gap between women and men was greater than our estimate of \$14,581 following an interval of 10 years. Although survey items differed, both studies found that women were less interested in pay than men when considering a hospitalist job. Hoff also found that work setting and attitudes about pay and lifestyle were significantly related to earnings. We extended the previous analyses of gender differences in job satisfaction priorities, work, and demographic characteristics to explain the earnings gap and understand how it may be remedied.

When considering job satisfaction, we found that more men than women prioritized substantial pay and that prioritization of substantial pay was directly related to higher earnings. Therefore, fewer women prioritizing pay partly explains women's lower earnings. Reasons for why fewer women prioritize pay were not assessed in this study but may include factors like being part of 2-income households and competing commitments.<sup>29</sup> Priorities may even be influenced by empirically observed gender differences in discussions of financial matters, governed by cultural norms. Such norms may implicitly sanction employers to offer women less pay than men for the same or similar work. Women may disadvantage themselves by negotiating less or less well than men for higher starting and promotion salaries. They may be perceived more negatively than men when they do negotiate pay, leading to unintended negative consequences such as loss of social networks, decreased likability, and even loss of job offers.<sup>29-32</sup>

More women prioritized optimal variety of tasks (6th most prevalent among women and 10th among men). Women who highly rate optimal variety of tasks as a job satisfier may choose positions in which they teach, perform research, and participate in hospital committees and quality-improvement work, but offer lower pay. Yet hours per month doing nonclinical work was not significantly different between men and women, nor associated with earnings differences in our earnings models. Understanding whether women selfselect into hospitalist jobs with like-minded colleagues to achieve complementary fit or end up supplementing their skills with hospitalists with different priorities may inform strategies to reduce the gender income disparity.<sup>5</sup> Unlike disparities between various hospital medicine groups, systematic disparities within practices risk generating low levels of organizational fairness and burnout among employees.

Not surprisingly, productivity was positively associated with earnings but did not fully account for the gender earnings gap. Our data demonstrated that women, on average, were associated with work characteristics that expectedly generate less compensation. For example, women were younger, more often part time, academic, pediatric, less often leaders, and reported fewer billable encounters compared to men. These differences account for some of the earnings gap between men and women, but these factors were controlled for in the earnings model. In addition, our analysis may have underestimated the gap by not incorporating loss of fringe benefits from part-time status and not comprehensively counting incentive pay associated with high productivity. Other work patterns more commonly associated with women suggest an imbalance in reimbursement. More women than men work nights that are often compensated at higher rates than daytime work, yet their average pay was less, suggesting that compensation for night work may need to be adjusted to reflect its unique burdens and responsibilities.33

Although the gender pay gap was not more extreme among leaders compared to frontline hospitalists in our data, the trend, nonetheless, underscores an important consideration. Whereas clinical work is paid for in mostly measurable ways, pay for leadership may be influenced by intangible factors such as reputation, negotiation, and confidence that may disadvantage women relative to men.<sup>7,19,23,34–36</sup> Efforts to overcome implicit gender bias should be most effective when we consciously couple fair promotion of women to leadership with fair compensation commensurate with their male peers.<sup>21</sup>

Our data are vulnerable to nonresponse bias.<sup>1,4,5</sup> Post hoc analyses demonstrated that distributions of age, gender, practice model and region of our respondents were similar to other nationally representative cohorts of hospitalists. Consequently, we believe our data can make valid estimates about a nationally representative sample of hospitalists. However, we acknowledge several additional weaknesses of selfreported data, including recall bias and accuracy of productivity figures, which were rounded to variable significant digits by respondents. Earnings analysis using this data was intended to be exploratory, but the findings echoed analyses using more authoritative data sources.<sup>11</sup> Still, we made inferences conservatively by adopting multiple imputation techniques for dealing with nonresponse surveys in adherence to established reporting guidelines.<sup>25</sup> We also note several limitations relevant to multiple imputations. The greater prevalence of missing data for survey items soliciting earnings and the number of billable encounters suggest they were not truly missing at random as assumed. However, we showed that missingness is unrelated to the variables under study, justifying use of the technique. The wider measures of variance

derived from multiple imputations make us vulnerable to not detecting associations that may exist.

The gender earnings gap found in hospital medicine echoes the gap found in multiple medical specialties, including but not limited to pediatrics, academic medicine, gastroenterology, and plastic surgery.7-9,11-13,37 Hospital medicine employment models and practice patterns have important structural differences compared to previously studied populations that could mitigate factors contributing to women physicians' lower earnings. However, despite well-defined working hours, lack of control over the number of patient encounters per day and high prevalence of hospitalemployed practice models, the gender earnings gap persists. We showed that lower prioritization for pay may reflect the self-selection of women into lower paying jobs. Unmeasured factors, including implicit bias and differences in negotiations, social networks and mentoring opportunities<sup>38,39</sup> may also contribute to pay differences between men and women hospitalists. As hospital medicine tackles gender inequities and other disparities, strategies to assess and address fair physician compensation must be on the table.

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