# Characteristics, Satisfaction, and Engagement of Part-Time Faculty at U.S. Medical Schools 

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## Abstract

## Purpose

To describe the demographics of part-time faculty at U.S. medical schools and to examine their satisfaction with and perceptions of their workplace.

## Method

Faculty from 14 Liaison Committee on Medical Education-accredited U.S. medical schools participated in the 2011-2012 Faculty Forward Engagement Survey. The authors calculated descriptive statistics of part-time faculty respondents and used ANOVA and $t$ test analyses to assess significant differences between and among demographic groups.

## Results

The survey yielded an overall response rate of $62 \%(9,600 / 15,490)$. Of the part-time faculty respondents, most had appointments in clinical departments (634/674; 94\%) and were female (415/674; 62\%). Just over 80\% (384/474) reported a full-time equivalent of 0.5 or higher. The majority of parttime faculty respondents reported satisfaction with their department and medical school as a place to work (372/496 [75\%] and 325/492 [66\%]); approximately half agreed that their institution had clear expectations for part-time faculty (210/456; 46\%) and provided the resources they needed (232/457; 51\%). Significant
differences existed between part- and full-time faculty respondents regarding perceptions of growth opportunities and compensation and benefits, with part-time faculty respondents feeling less satisfied in these areas.

## Conclusions

As institutions work to improve the satisfaction of full-time faculty, they should do the same for part-time faculty. Understanding why faculty choose parttime work is important in encouraging the recruitment and retention of the most talented faculty. The findings of this study indicate multiple opportunities to improve the satisfaction and engagement of part-time faculty.

Part-time faculty work in all fields of academic medicine and are an important part of the medical school workforce. Estimates suggest that roughly 21,200 part-time clinical faculty and 1,950 part-time basic science faculty worked at the 126 U.S. medical schools accredited by the Liaison Committee on Medical Education (LCME) in 2011. ${ }^{1}$ These numbers likely will remain stable as up to $13 \%$ of graduating U.S. medical students report an intent to work part-time upon completion of their medical training and over $75 \%$ report that work-life balance played a role in determining their specialty choice. ${ }^{2}$ Further, since 1997, physicians' self-reported work hours have declined by more than $7 \%$, with the largest decreases in physicians under the age of $45 .^{3}$

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Leaders in the corporate arena have long recognized the need to adapt the workplace, career paths, and work schedules to meet the needs of the current workforce with the goal of retaining key talent. Some academic health centers offer flexible work schedules, for example, as a mechanism to retain promising faculty and to ensure a high-quality workforce, especially in light of impending physician shortages. ${ }^{4,5}$ Clinical department chairs report satisfaction with their part-time faculty, noting that the arrangement allows them to retain talented physicians who otherwise might not participate in the academic workforce. ${ }^{6}$

Research indicates that job satisfaction is one of the benefits of part-time employment for physicians and links job satisfaction and increased organizational performance and faculty retention. ${ }^{7-9}$ In higher education, broadly, part-time faculty constitute approximately $44 \%$ of the faculty workforce, ${ }^{10}$ and parttime status is often associated with dissatisfaction and little opportunity for advancement. ${ }^{11}$ However, although parttime employment in academic medicine
may have the potential to disrupt continuity of patient care, some research suggests that part-time physicians and their patients are equally or more satisfied than their full-time counterparts and their patients. ${ }^{12}$ Further, in some specialties, productivity per clinical hour has been higher for part-time faculty than full-time faculty, and the quality of their work has been similar. ${ }^{13}$

Despite these benefits, within academic health centers, the academic advancement, ${ }^{14}$ compensation, ${ }^{15,16}$ and faculty development ${ }^{17}$ of part-time faculty have presented challenges for department chairs. As the complexity of academic careers has increased, faculty tracks have become more varied to accommodate institutional missions and faculty career paths and opportunities, ${ }^{18}$ yet many institutions have not defined these policies and processes for their parttime faculty.

At a time when accommodating and supporting large numbers of part-time faculty may yield high-functioning health care teams and high-quality care for patients, ${ }^{19}$ we sought to understand the
circumstances surrounding part-time work in academic medicine. In this study, we explored the current state of part-time work for faculty across departments in academic medicine and examined who these faculty are, what their satisfaction and engagement is, and what perceptions of the workplace they have.

## Method

Full- and part-time faculty at 14 LCME-accredited U.S. medical schools completed the 2011-2012 Faculty Forward Engagement Survey administered by the Association of American Medical Colleges (AAMC). These 14 institutions self-selected to participate in this voluntary survey as part of the Faculty Forward initiative (www.aamc.org/facultyforward). The distribution of full- and part-time faculty at the participating institutions was representative of that at all LCMEaccredited U.S. medical schools. While the AAMC administered the survey, each participating institution provided faculty contact information. The AAMC's human subjects research protection program and affiliated independent review board (the American Institutes for Research, Washington, DC) approved the collection and use of the data.

The survey instrument was developed and tested in 2008-2009 by experts in survey research, organizational science, and academic medicine. Literature reviews, faculty focus groups, and cognitive interviews were used to inform its development. ${ }^{16}$ Between the survey's first full administration in 2009 and its second in 2011, the instrument was refined on the basis of psychometric analyses to enhance its content and construct validity. The instrument includes questions that assess satisfaction with the workplace and the factors related to satisfaction and engagement, such as mission alignment, role requirements, collegiality and collaboration, performance management, promotion and tenure, and governance, among other areas.

As part of the 2011-2012 administration of the survey, respondents identified by their institutions as part-time responded to a unique series of questions about their full-time equivalent (FTE) status, their reasons for choosing part-time status, and their arrangement with their institution. The survey data presented here reflect
responses to these items by part-time faculty respondents only. We do, however, make comparisons between this group and full-time faculty respondents with regard to overall satisfaction.

Recognizing that the label "part-time faculty" varies across institutions, we did not define this term for the participating medical schools. Instead, we encouraged the medical schools to use their individual definitions in determining which faculty to include. The survey, however, asked respondents about their FTE (defined by their individual contracts) using a scale of 0.1 to 0.9 . For portions of our analysis, we divided part-time faculty respondents into three groups based on their FTE (i.e., $\leq 0.4$, $0.5-0.7, \geq 0.8$ ), to examine potential differences in the workplace perceptions of part-time faculty by level of effort.

We report descriptive summary statistics for levels of satisfaction and agreement on survey items and ANOVA and $t$ test analyses to assess significant differences between and among demographic groups on the collapsed Likert-like scale items
(e.g., [1] dissatisfied/[2] very dissatisfied, [3] neither satisfied nor dissatisfied, and [4] satisfied/[5] very satisfied). We performed all analyses using SPSS Version 19 (IBM, Armonk, New York).

## Results

Of the 1,728 part-time faculty invited to participate, 674 ( $39 \%$ ) responded. Of the 13,762 full-time faculty, 8,926 (65\%) responded. Combined, the survey yielded an overall response rate of $62 \%$ (9,600/15,490) (see Table 1).

## Demographics and reasons for part-time status

The majority of respondents who reported part-time status had appointments in clinical departments (634/674 [94\%]; see Table 2). Of those, one-quarter had appointments in primary care departments (160/634; $25 \%$ ), which is greater than the percentage of their full-time counterparts in primary care departments ( $945 / 8,926$; $11 \%)$. Further, the majority of parttime faculty respondents were female (415/674; 62\%) and reported a

## Table 1

Organizational and Faculty Characteristics of the 14U.S. Medical Schools That Participated in the Faculty Forward Engagement Survey Versus Those of All U.S. Medical Schools Accredited by the Liaison Committee on Medical Education, 2011


Medical school ownership type and relationship to parent university ${ }^{\text {c }}$

| No. (\%) of private medical schools (all types) | $5(35.7)$ | 51 (40.5) |
| :---: | :---: | :---: |
| No. (\%) of public medical schools, part of a university | 8 (57.1) | 52 (41.3) |
| No. (\%) of public freestanding medical schools (in state system, health sciences university, or federal government consortium) | 1 (7.1) | 23 (18.3) |


| Faculty ${ }^{\text {d }}$ |  |  |
| :---: | :---: | :---: |
| No. (\%) of full-time basic science faculty | 1,833 (12.3) | 17,637 (12.3) |
| No. (\%) of full-time clinical faculty | 13,059 (87.7) | 126,041 (87.7) |
| Average no. of full-time basic science and clinical faculty | 1,146 | 1,140 |

[^1]Table 2
Demographic Characteristics of the Respondents to the Faculty Forward Engagement Survey, 2011

| Characteristic | Department type |  | Gender |  | Race |  | Self-reported rank ${ }^{\text {a }}$ |  | Specialty |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Basic science | Clinical | Male | Female | Majority | Minority | Senior | Junior | PC | NPC |
| Status |  |  |  |  |  |  |  |  |  |  |
| Full-time ( $n=8,926$ ) | 1,211 | 7,715 | 5,701 | 3,225 | 8,217 | 708 | 4,856 | 3,382 | 945 | 6,770 |
| Part-time ( $n=674$ ) | 40 | 634 | 259 | 415 | 632 | 42 | 300 | 289 | 160 | 474 |
| Part-time, excluding retirees ( $n=498$ ) | 27 | 471 | 157 | 341 | 463 | 35 | 194 | 238 | 129 | 342 |
| FTE of part-time faculty |  |  |  |  |  |  |  |  |  |  |
| $\leq 0.4(\mathrm{n}=90)$ | 6 | 84 | 62 | 28 | 86 | 4 | 42 | 38 | 16 | 68 |
| $0.5-0.7(n=251)$ | 13 | 238 | 77 | 174 | 241 | 10 | 115 | 115 | 67 | 171 |
| $\geq 0.8(\mathrm{n}=133)$ | 3 | 130 | 30 | 103 | 119 | 14 | 59 | 65 | 38 | 92 |
| FTE of part-time faculty (excluding retirees) |  |  |  |  |  |  |  |  |  |  |
| $\leq 0.4(n=66)$ | 6 | 60 | 41 | 25 | 62 | 4 | 26 | 32 | 14 | 46 |
| $0.5-0.7(n=205)$ | 6 | 199 | 40 | 165 | 195 | 10 | 75 | 109 | 63 | 136 |
| $\geq 0.8(n=122)$ | 3 | 119 | 25 | 97 | 108 | 14 | 52 | 61 | 34 | 85 |

Abbreviations: PC indicates primary care specialty; NPC, non-primary-care specialty; FTE, full-time equivalent.
asenior rank indicates full professor; junior rank, assistant or associate professor.
nonminority race (632/674; 94\%). Parttime faculty respondents were as likely to hold a junior (assistant professor) faculty rank as a senior (associate or full professor) faculty rank (289/674 [43\%] versus 300/674 [45\%]). Of those parttime faculty respondents who reported their FTE (474/674; 70\%), just over $80 \%$ (384/474) had an FTE of 0.5 or higher.

Respondents who identified their reasons for working part-time (601/674; 89\%) did so in a "check all that apply"-formatted question (see Figure 1). They selected an average of two reasons for working part-time (range: one to eight). The most
frequently selected reasons were "lifestyle choice/greater work-life balance" and "dependent children/childcare." Given that retiring faculty often are part-time but for markedly different reasons than others (e.g., they are phasing out of their career instead of making lifestyle choices or balancing priorities), we removed the part-time faculty respondents who self-identified as retirees (103/601; 17\%). Among the remaining 498 part-time faculty respondents, the most frequently selected responses remained "lifestyle choice/greater work-life balance" and "dependent children/childcare" (see Figure 1).

After removing the self-identified retirees, we noticed changes in the demographic trends. The majority of the nonretiree part-time faculty respondents who reported their FTE were women (287/393; $73 \%$ ). Those with appointments of 0.4 FTE or less were mostly men (41/66; $62 \%$ ), and those with appointments of 0.5 FTE or more were mostly women (263/327; 80\%). Additionally, without the retirees, the sample included slightly more junior faculty ( $238 / 432$; 55\%) than senior faculty.

We also examined reasons for working part-time by rank and gender (junior



Figure 1 Reasons for working part-time among U.S. medical school faculty, according to responses to the Faculty Forward Engagement Survey, 2011-2012. Respondents identified their reasons for working part-time in a "check all that apply"-formatted question. Panel A includes responses from all part-time faculty respondents and Panel B from part-time faculty respondents, excluding those who self-identified as retirees.
men, junior women, senior men, and senior women) to assess anecdotal perceptions of part-time faculty. Results indicated that male respondents regardless of rank most often worked part-time to accommodate their work at another practice site or in another professional position (data not shown). Female respondents overwhelmingly worked part-time to provide care for dependent children. Few respondents of either gender or rank chose to work parttime for health-related reasons, but many chose to do so for lifestyle reasons.

## Satisfaction and engagement

The majority of part-time faculty respondents reported satisfaction with their department and medical school as a place to work ( $372 / 496$ [75\%] and 325/492 [66\%], respectively), which is consistent with their full-time faculty counterparts' perceptions (see Table 3). Approximately half of respondents agreed that their institutions had clear expectations for part-time faculty (210/456; 46\%) and provided them with the resources they needed (232/457; $51 \%$ ) (see Table 3). Significant differences existed between full- and part-time faculty respondents regarding their perceptions of growth opportunities and of compensation and benefits, with part-time faculty respondents feeling less satisfied in these areas ( $P<.05$, mean comparisons of full-time [3.55] versus part-time faculty respondents [3.41] regarding growth opportunities; and full-time [3.54] versus part-time faculty respondents [3.41] regarding compensation and benefits; data not reported in the tables).

Part-time female faculty reported greater satisfaction with their medical school as a place to work than their male counterparts ( $P=.018$; data not shown). Table 4 includes $t$ test comparisons by gender within rank among parttime faculty respondents. Among junior faculty respondents, significant differences existed regarding perceptions of the part-time arrangement, with junior women being more satisfied than junior men ( $P=.019$ ); and regarding one's ability to manage workload, with junior women being less satisfied than junior men ( $P<.001$ ). Regardless of FTE status, gender, or rank, respondents were more satisfied with their supervisor's support than with any other workplace
factor. Finally, we found statistically significant differences when comparing respondents' satisfaction with their ability to manage workload-those with $\leq 0.4$ FTE status reported greater satisfaction, and those with $\geq 0.8$ FTE status reported less satisfaction ( $P=.032$ ). However, we found that faculty with $\leq 0.4$ FTE status reported less satisfaction with their ability to return to a full-time position than did those with $\geq 0.8$ FTE ( $P=.044$, see Table 4).

Whereas 75\% (372/496) of part-time faculty respondents were satisfied with their current arrangement, fewer agreed that their institution had clear expectations for part-time faculty ( $\leq 0.4$ FTE: 26/65 [40\%]; 0.5-0.7 FTE: 94/204 [46\%]; $\geq 0.8$ FTE: 57/121 [47\%]) or that their institution provided the necessary resources for part-time faculty ( $\leq 0.4$ FTE: 27/66 [41\%]; 0.5-0.7 FTE: 107/204 [52\%]; $\geq 0.8$ FTE: 63/122 [52\%]).

## Discussion

Our findings enrich the limited and sometimes-conflicting literature on part-time faculty in academic medicine. As recommended by Linzer and colleagues, ${ }^{20}$ we explored how and why part-time faculty are engaged in academic medicine. In defining categories of parttime faculty (i.e., $\leq .0 .4,0.5-0.7, \geq 0.8$ FTE), we did not define their part-time status based on hours worked but by FTE, which should reflect effort rather than time spent because the definition of fulltime in terms of time spent at work varies widely in academic medicine. ${ }^{21}$

We found that most part-time faculty worked at least 0.5 FTE. We also found a predominance of female part-time faculty, which is not surprising given the proportion of respondents who indicated that their reason for part-time status was child and family duties, roles that disproportionately fall to women in our society. ${ }^{22}$ Our findings, however, contrast with those of a 1993 survey of part-time faculty in medicine departments ${ }^{23}$ in which $63 \%$ of the sample were men. The authors noted that the majority of men used the balance of their time to staff outside practices, whereas women reported working an average of 35 hours per week and devoted the balance of their time to child rearing. In our study, the only less-than-full-time percent-of-effort
category in which the number of men exceeded that of women was in the lowest FTE category ( $\leq 0.4$ ).

Understanding the differences in the reasons women and men choose parttime work in an academic setting is important as we seek to encourage the recruitment and retention of the most talented faculty. Our findings that men primarily work part-time to accommodate other professional obligations and women to provide care for dependents suggest that female faculty often work part-time during periods of intense child rearing or family responsibility and, during these periods, devote their whole professional effort to their academic position. We expect, then, that these faculty will increase their professional percent effort as their children become more independent. Participating in ongoing career advancement and professional development programs during these years could improve faculty retention and allow them to return to full-time effort at a higher level of functioning than if they did not participate in such programs during this period of part-time employment. Conversely, male faculty whose primary professional effort is not their faculty position but instead another position may be less interested in academic professional development. Thus, understanding the rationale for an individual's part-time status and her or his future potential will help target faculty development resources among part-time faculty.

The literature in academic medicine and other fields increasingly is addressing the issue of creating career paths that meet the needs of a new generation of workers. ${ }^{24-26}$ Efforts to customize individuals' career paths recognize the needs and desires of today's workforce, which includes more women, who typically have nonlinear careers; more men seeking a change in work demands particularly late in their career; and changing family structures, which must accommodate the needs of two adults in the professional workforce. ${ }^{25}$ One innovative concept is that of the career lattice, rather than the career ladder, that supports horizontal as well as vertical movement along the institutional hierarchy over the course of a career. ${ }^{25}$ This model allows for career-spanning
Table 3
Part-time Faculty Respondents' Satisfaction/Dissatisfaction and Agreement/Disagreement With Characteristics of Their Department and Medical School According to Results
From the Faculty Forward Engagement Survey, 2011

| Survey item and response |  | All faculty, no. (\%) |  | Part-time faculty by gender, no. (\%) ${ }^{\text {a }}$ |  | Part-time faculty by rank, no. (\%) ${ }^{\text {a }}$ |  | Part-time faculty by FTE, no. (\%) ${ }^{\text {a }}$ |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Full-time ${ }^{\text {b }}$ | Part-time, excluding retirees | Male | Female | Senior | Junior | $\leq 0.4$ | 0.5-0.7 | $\geq 0.8$ |
| Satisfaction with department | Satisfied | 6,069 (73.3) | 372 (75.0) | 112 (71.3) | 260 (76.7) | 134 (69.4) | 190 (80.2) | 50 (75.8) | 152 (74.9) | 96 (78.7) |
|  | Neither | 1,177(14.2) | 75 (15.1) | 24 (15.3) | 51 (15.0) | 34 (17.6) | 30 (12.7) | 8 (12.1) | 31 (15.3) | 14 (11.5) |
|  | Dissatisfied | 1,029 (12.4) | 49 (9.9) | 21 (13.4) | 28 (8.3) | 25 (12.9) | 17 (7.2) | 8 (12.1) | 19 (9.4) | 12 (9.8) |
| Satisfaction with medical school | Satisfied | 5,365 (65.2) | 325 (66.1) | 95 (61.3) | 230 (68.3) | 120 (62.8) | 160 (67.5) | 38 (59.4) | 136 (67.3) | 80 (66.1) |
|  | Neither | 2,023 (24.6) | 129 (26.2) | 41 (26.5) | 88 (26.1) | $49(25.7)$ | $66(27.8)$ | $18(28.1)$ | 54 (26.7) | 30 (24.8) |
|  | Dissatisfied | 846 (10.3) | 38 (7.7) | 19 (12.3) | 19 (5.6) | 22 (11.5) | 11 (4.6) | 8 (12.5) | 12 (5.9) | 11 (9.1) |
| Institution has clear expectations for parttime faculty | Agree | N/A | 210 (46.1) | 76 (54.3) | 134 (42.4) | 79 (45.4) | 100 (43.7) | 26 (40.0) | 94 (46.1) | 57 (47.1) |
|  | Neither | N/A | 124 (27.2) | $34(26.2)$ | 90 (28.5) | 45 (25.9) | 68 (29.7) | 20 (30.8) | 50 (24.5) | 32 (26.4) |
|  | Disagree | N/A | 122 (26.8) | 30 (21.4) | 92 (29.1) | 50 (28.7) | 61 (26.7) | 19 (29.2) | 60 (29.4) | 32 (26.4) |
| Institution provides necessary resources for part-time faculty | Agree | N/A | 232 (50.8) | 83 (58.9) | 149 (47.2) | 86 (48.9) | 111 (48.7) | 27 (40.9) | 107 (52.7) | 63 (51.6) |
|  | Neither | N/A | 122 (26.7) | 30 (21.3) | 92 (29.1) | 46 (26.1) | 64 (28.1) | 20 (30.3) | 52 (25.6) | 34 (27.9) |
|  | Disagree | N/A | 103 (22.5) | 28 (19.9) | 75 (23.7) | 44 (25.0) | 53 (23.2) | 19 (28.8) | 44 (21.7) | 25 (20.5) |
| Supervisor is supportive of my part-time arrangement | Agree | N/A | 371 (81.4) | 115 (81.6) | 256 (81.3) | 139 (79.0) | 184 (81.1) | 52 (78.8) | 162 (79.8) | 105 (86.8) |
|  | Neither | N/A | 58 (12.7) | 15 (10.6) | 43 (13.6) | 23 (13.1) | 33 (14.5) | 8 (12.1) | 28 (13.8) | 13 (10.7) |
|  | Disagree | N/A | 27 (5.9) | 11 (7.8) | 16 (5.1) | 14 (7.9) | 10 (4.4) | 6 (9.1) | 13 (6.4) | 3 (2.5) |
| Satisfaction with current part-time arrangement | Satisfied | N/A | 372 (75.1) | 102 (73.4) | 236 (75.9) | 122 (70.1) | 176 (78.2) | 48 (73.8) | 157 (78.9) | 85 (71.4) |
|  | Neither | N/A | 64 (14.2) | 14 (10.1) | 50 (16.1) | 31 (17.8) | 28 (12.4) | 7 (10.8) | 24 (12.1) | 23 (19.3) |
|  | Dissatisfied | N/A | 48 (10.7) | 23 (16.5) | 25 (8.0) | 21 (9.3) | 21 (9.3) | 10 (15.4) | 18 (9.0) | 11 (9.2) |
| Satisfaction with ability to meet department or division needs | Satisfied | N/A | 315 (69.4) | 101 (73.7) | 214 (67.5) | 116 (67.4) | 162 (70.7) | 46 (69.7) | 135 (66.8) | 87 (71.9) |
|  | Neither | N/A | $78(17.2)$ | 19 (13.9) | 59 (18.6) | 33 (19.2) | 36 (15.7) | 11 (16.7) | 42 (20.8) | 15 (12.4) |
|  | Dissatisfied | N/A | 61 (13.4) | 17 (12.4) | 44 (13.9) | 23 (13.4) | 31 (13.5) | 9 (13.6) | 25 (12.4) | 19 (15.7) |
| Satisfaction with ability to fulfill job responsibilities | Satisfied | N/A | 291 (64.5) | 96 (70.1) | 195 (62.1) | 111 (64.9) | 146 (64.3) | 44 (68.8) | 126 (62.4) | 75 (63.0) |
|  | Neither | N/A | 75 (16.6) | 18 (13.1) | 57 (18.1) | $29(17.0)$ | 38 (16.7) | $7(10.9)$ | 36 (17.8) | 22 (18.5) |
|  | Dissatisfied | N/A | 85 (18.8) | 23 (16.8) | 62 (23.9) | 31 (18.1) | 43 (18.9) | 13 (20.3) | 40 (19.8) | 22 (18.5) |
| Satisfaction with opportunities for advancement | Satisfied | N/A | 224 (48.9) | 70 (50.0) | 154 (48.4) | 84 (47.7) | 120 (52.4) | 30 (45.5) | 98 (48.0) | 56 (45.9) |
|  | Neither | N/A | 137 (29.9) | 38 (27.1) | 99 (31.1) | 53 (30.1) | 62 (27.1) | 19 (28.8) | 61 (29.9) | 38 (31.1) |
|  | Dissatisfied | N/A | $97(21.2)$ | 32 (22.9) | 65 (20.4) | $39(22.2)$ | 47 (20.5) | 17 (25.8) | 45 (22.1) | $28(23.0)$ |
| Satisfaction with ability to manage workload | Satisfied | N/A | 270 (59.5) | 93 (67.9) | 177 (55.8) | 104 (59.1) | 134 (59.6) | 45 (68.2) | 115 (57.2) | 69 (57.0) |
|  | Neither | N/A | 93 (20.5) | 25 (18.2) | $68(21.5)$ | 40 (22.7) | 44 (19.6) | 14 (21.2) | 42 (20.9) | 23 (19.0) |
|  | Dissatisfied | N/A | 91 (20) | 19 (13.9) | 72 (22.7) | 32 (18.2) | 47 (20.9) | $7(10.6)$ | $44(21.9)$ | 29 (24.0) |

Table 3
(Continued)


[^2]adjustments in workload and schedule with corresponding adjustments in organizational role and pace of professional advancement. Academic health centers will benefit if they are able to recruit and retain these faculty members who desire a nontraditional professional path, support and development throughout their careers, and allowances for graceful movements within a lattice of professional obligations and opportunities.

We also analyzed our findings across specialties and departments. Our results indicate that a greater percentage of part-time faculty are part of primary care departments than their full-time counterparts, which likely is because these departments more easily can accommodate part-time status and because more women, who are more likely to be part-time, typically work in primary care. We posit that it may be possible to learn best practices from the departments and specialties with the highest percentage of part-time faculty to extend such opportunities across specialties. A 2006 study comparing the productivity of parttime and full-time academic radiologists found higher productivity in the parttime faculty ${ }^{27}$; however, they did not study procedural competence. Another issue for the technical and procedural specialties that may serve as a potential barrier to part-time status is the culture of the specialty (e.g., call expectations and operating room availability).

Regarding the satisfaction and engagement of part-time faculty, we found that overall satisfaction levels are comparable to those of full-time faculty. This finding is encouraging and suggests that these faculty are engaged in their institutions. We do not argue that part-time work is better or worse than full-time work, but instead we suggest that a more nuanced understanding of the areas in which satisfaction differs between these two groups is needed. With this information, administrators can create policies and work environments that maximize the satisfaction of part-time faculty-given their importance in the academic medicine workforce-much as they do for their full-time faculty.

Such efforts to improve satisfaction should be targeted to specific areas, as we discovered through our analysis. For example, we noted that, as the work effort of part-time faculty increased toward
Table 4
Part-time Faculty Respondents' Mean Satisfaction/Dissatisfaction and Agreement/Disagreement With Characteristics of Their Department and Medical School According to Results From the Faculty Forward Engagement Survey, 2011

| Survey item | $\leq 0.4 \mathrm{FTE}$ |  | 0.5-0.7 FTE |  | $\geq 0.8 \mathrm{FTE}$ |  | AnOVA | Sig. | Senior men |  |  | Senior women |  |  | t test | Sig. | Junior men |  |  | Junior women |  |  | $t$ test | sig. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Mean | SD | Mean | SD | Mean | SD |  |  | No. | Mean | SD | No. | Mean | SD |  |  | No. | Mean | SD | No. | Mean | SD |  |  |
| Satisfaction or dissatisfaction with department as a place to work | 3.89 | 1.03 | 3.89 | 0.92 | 3.93 | 0.90 | 0.09 | . 92 | 77 | 3.73 | 1.06 | 116 | 3.83 | 0.96 | 1.88 | . 17 | 58 | 4.02 | 1.02 | 179 | 4.01 | 0.83 | 3.22 | . 07 |
| Satisfaction or dissatisfaction with medical school as a place to work | 3.64 | 1.01 | 3.72 | 0.79 | 3.69 | 0.84 | 0.23 | . 79 | 77 | 3.58 | 1.00 | 114 | 3.69 | 0.84 | 5.69 | $02^{\text {b }}$ | 57 | 3.65 | 0.95 | 180 | 3.81 | 0.76 | 4.60 | . $03{ }^{\text {b }}$ |
| Agreement or disagreement that institution has clear expectations for part-time faculty | 3.09 | 1.10 | 3.17 | 0.96 | 3.20 | 0.96 | 0.25 | . 78 | 67 | 3.39 | 1.00 | 107 | 3.04 | 0.99 | 0.05 | . 82 | 53 | 3.42 | 1.08 | 176 | 3.11 | 0.95 | 2.01 | .16 |
| Agreement or disagreement that institution provides necessary resources for part-time faculty | 3.11 | 1.05 | 3.33 | 0.96 | 3.34 | 0.90 | 1.54 | . 21 | 68 | 3.29 | 1.07 | 108 | 3.23 | 0.99 | 0.91 | . 34 | 53 | 3.57 | 0.97 | 175 | 3.19 | 0.98 | 0.16 | . 69 |
| Agreement or disagreement that supervisor is supportive of part-time arrangement | 4.02 | 1.05 | 4.00 | 0.88 | 4.17 | 0.75 | 1.43 | . 24 | 68 | 3.90 | 1.02 | 108 | 4.05 | 0.84 | 3.13 | . 08 | 53 | 4.17 | 0.83 | 174 | 4.05 | 0.87 | 0.01 | . 93 |
| Satisfaction or dissatisfaction with current part-time arrangement | 3.82 | 1.10 | 3.92 | 0.88 | 3.79 | 0.86 | 0.92 | . 40 | 66 | 3.77 | 1.03 | 108 | 3.78 | 0.88 | 1.67 | . 20 | 53 | 3.75 | 1.09 | 172 | 3.94 | 0.83 | 5.54 | $02^{\text {b }}$ |
| Satisfaction or dissatisfaction with ability to meet department or division needs | 3.70 | 1.07 | 3.66 | 0.88 | 3.69 | 0.89 | 0.05 | . 96 | 64 | 3.73 | 0.96 | 108 | 3.62 | 0.86 | 0.02 | 89 | 53 | 3.81 | 0.92 | 176 | 3.68 | 0.89 | 0.98 | . 32 |
| Satisfaction or dissatisfaction with ability to fulfill job responsibilities | 3.69 | 1.15 | 3.52 | 0.94 | 3.54 | 0.96 | 0.70 | . 50 | 64 | 3.67 | 1.01 | 107 | 3.55 | 0.91 | 0.24 | . 63 | 53 | 3.70 | 1.07 | 174 | 3.54 | 0.97 | 0.11 | . 74 |
| Satisfaction or dissatisfaction with opportunities for advancement ${ }^{\text {a }}$ | 3.24 | 1.20 | 3.30 | 0.99 | 3.30 | 1.07 | 0.08 | . 93 | 67 | 3.28 | 1.20 | 109 | 3.38 | 1.04 | 1.79 | . 18 | 53 | 3.53 | 1.07 | 176 | 3.32 | 1.00 | 0.14 | . 71 |
| Satisfaction or dissatisfaction with ability to manage workload | 3.76 | 0.93 | 3.44 | 0.97 | 3.38 | 1.01 | 3.47 | $03^{6}$ | 67 | 3.58 | 1.03 | 109 | 3.47 | 0.95 | 0.31 | . 58 | 50 | 3.80 | 0.78 | 175 | 3.39 | 1.00 | 14.11 | .001 ${ }^{\text {c }}$ | Agreement or disagreement that

institution provides
institution provides for
part-time faculty

| Survey item | $\leq 0.4$ FTE | 0.5-0.7 FIE | $\geq 0.8 \mathrm{FTE}$ | ANOVA | Sig. | Senior men |  |  | Senior women |  |  | t test | Sig. | Junior men |  |  | Junior women |  |  | $t$ test | Sig. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Mean SD | Mean SD | Mean SD |  |  | No. | Mean | SD | No. | Mean | SD |  |  | No. | Mean | SD | No. | Mean | SD |  |  |
| Satisfaction or dissatisfaction with department as a place to work | 3.891 .03 | 3.890 .92 | 3.930 .90 | 0.09 | . 92 | 77 | 3.73 | 1.06 | 116 | 3.83 | 0.96 | 1.88 | . 17 | 58 | 4.02 | 1.02 | 179 | 4.01 | 0.83 | 3.22 | . 07 |
| Satisfaction or dissatisfaction with medical school as a place to work | 3.641 .01 | 3.720 .79 | 3.690 .84 | 0.23 | . 79 | 77 | 3.58 | 1.00 | 114 | 3.69 | 0.84 | 5.69 | $.02^{\text {b }}$ | 57 | 3.65 | 0.95 | 180 | 3.81 | 0.76 | 4.60 | .03 ${ }^{\text {b }}$ |
| Agreement or disagreement that institution has clear expectations for part-time faculty | 3.091 .10 | 3.170 .96 | 3.200 .96 | 0.25 | . 78 | 67 | 3.39 | 1.00 | 107 | 3.04 | 0.99 | 0.05 | . 82 | 53 | 3.42 | 1.08 | 176 | 3.11 | 0.95 | 2.01 | . 16 |
| Agreement or disagreement that institution provides necessary resources for part-time faculty | 3.111 .05 | 3.330 .96 | 3.340 .90 | 1.54 | . 21 | 68 | 3.29 | 1.07 | 108 | 3.23 | 0.99 | 0.91 | . 34 | 53 | 3.57 | 0.97 | 175 | 3.19 | 0.98 | 0.16 | .69 |
| Agreement or disagreement that supervisor is supportive of part-time arrangement | 4.021 .05 | $4.00 \quad 0.88$ | 4.170 .75 | 1.43 | . 24 | 68 | 3.90 | 1.02 | 108 | 4.05 | 0.84 | 3.13 | . 08 | 53 | 4.17 | 0.83 | 174 | 4.05 | 0.87 | 0.01 | . 93 |
| Satisfaction or dissatisfaction with current part-time arrangement | 3.821 .10 | 3.920 .88 | 3.790 .86 | 0.92 | 40 | 66 | 3.77 | 1.03 | 108 | 3.78 | 0.88 | 1.67 | . 20 | 53 | 3.75 | 1.09 | 172 | 3.94 | 0.83 | 5.54 | $02{ }^{\text {b }}$ |
| Satisfaction or dissatisfaction with ability to meet department or division needs | 3.701 .07 | 3.660 .88 | 3.690 .89 | 0.05 | . 96 | 64 | 3.73 | 0.96 | 108 | 3.62 | 0.86 | 0.02 | . 89 | 53 | 3.81 | 0.92 | 176 | 3.68 | 0.89 | 0.98 | . 32 |
| Satisfaction or dissatisfaction with ability to fulfill job responsibilities | 3.691 .15 | 3.520 .94 | 3.540 .96 | 0.70 | . 50 | 64 | 3.67 | 1.01 | 107 |  | 0.91 | 0.24 | . 63 | 53 | 3.70 | 1.07 | 174 | 3.54 | 0.97 | 0.11 | . 74 |
| Satisfaction or dissatisfaction with opportunities for advancement ${ }^{\text {a }}$ | 3.241 .20 | $3.30 \quad 0.99$ | $3.30 \quad 1.07$ | 0.08 | . 93 | 67 | 3.28 | 1.20 | 109 | 3.38 | 1.04 | 1.79 | . 18 | 53 | 3.53 | 1.07 | 176 | 3.32 | 1.00 | 0.14 | . 71 |
| Satisfaction or dissatisfaction with ability to manage workload | 3.760 .93 | 3.440 .97 | 3.381 .01 | 3.47 | . $03^{\text {b }}$ | 67 | 3.58 | 1.03 | 109 | 3.47 | 0.95 | 0.31 | . 58 | 50 | 3.80 | 0.78 | 175 | 3.39 | 1.00 | 14.11 | .001 ${ }^{\circ}$ |

to manage workload

 bSignificant difference using a rejection level of $P \leq .05$.
'Significant difference using a rejection level of $P \leq .001$
full-time, satisfaction decreased in several domains, including the ability to manage workload and the ability to protect time for other activities. Clear expectations and boundaries around responsibilities may prevent this decline in satisfaction. Similarly, individuals who worked at least half-time had the greatest satisfaction with their department and their medical school and the most satisfaction with their perceived ability to return to fulltime work if desired. This result may be because faculty who spend more time in their department and school become more invested and perceive a greater investment by their department.

Gender differences that emerged in levels of satisfaction may have implications for institutions. Overall, part-time women in our study were more satisfied with their medical school than their male counterparts. Junior women were less satisfied than junior men with regard to their ability to manage their workload, which again may be a reason for working part-time. Men working in another setting may set boundaries regarding workload, but women who are part-time for childcare reasons may feel responsible for more involvement and continued contributions because the work represents their full professional effort. ${ }^{24}$

Further, as work effort increases, parttime status may become less obvious to colleagues, which may decrease the strain reported by part-time faculty who note feeling devalued by fellow faculty and administrators. ${ }^{28}$ Likely, the threshold for adequate engagement varies by the individual and his or her institutional context. Proactive measures to align faculty and institutional expectations are especially important among the subset of part-time faculty who are at an increased risk for dissatisfaction. Further, reconceptualizing part-time work on the basis of organizational strengths, deficits, and needs may address some of the challenges in part-time appointments. ${ }^{29}$ As institutions work to improve faculty satisfaction for their full-time faculty, we posit that they should do the same for their part-time faculty, to ensure the retention and recruitment of highquality faculty in both full- and parttime positions.

Our finding of a discordance between part-time faculty members' satisfaction with their current arrangement and
their sense that the institution has clear expectations for part-time faculty are consistent with previous research on the perceptions of part-time U.S. medical school faculty. ${ }^{28}$ Creating a culture of value and productivity for parttime faculty, including the alignment of expectations between individuals and institutions and improving communication, can serve both the faculty member and the institution.

Our study has a number of limitations.
First, data represent responses from the 14 participating medical schools. Although these schools are representative of all schools across a number of dimensions, they do not reflect the population of U.S. medical schools, so generalizations are limited. Next, the part-time faculty in our study are primarily from clinical departments. As such, our ability to draw conclusions about part-time basic science faculty also is restricted. Nonresponse bias indicated that the distribution of respondents differed slightly from the expected distribution, with fewer part-time faculty and slightly more basic science faculty responding than expected.

Future research should thoroughly examine differences in workplace engagement and satisfaction between full-time and part-time faculty. With the new generation of millennials joining academic medicine and an increasing number of baby boomer physicians not yet ready to retire, we may see changes in the motivation, proportions, and characteristics of part-time faculty over time. In addition, we did not ask how many faculty would like to work part-time but are unable to do so for a variety of reasons (either individual or institutional). Future analyses that compare the differences in satisfaction and engagement between full- and part-time faculty may advance our understanding of the differences in their experiences and highlight modifiable aspects of the individual-institutional relationship.

These findings suggest that an institution's ongoing investment in the career of part-time faculty whose full professional effort is devoted to their faculty appointment may reap the benefits of retaining valuable employees while ensuring their ongoing professional
development during periods of their career when the work-life balance scale is tipped toward nonprofessional activities. In addition, the creation of transparent policies for part-time faculty is imperative to allow fair and equitable treatment of both part-time faculty and their full-time colleagues.

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[^1]:    ${ }^{\text {a }}$ The 14 participating medical schools include Sidney Kimmel Medical College of Thomas Jefferson University; Johns Hopkins School of Medicine Radiology Department; Loyola University Stritch School of Medicine; Medical College of Wisconsin; UMDNJ-New Jersey Medical School; University of California Irvine School of Medicine; UCLA David Geffen School of Medicine; University of Florida College of Medicine; University of Mississippi School of Medicine; University of Missouri-Columbia School of Medicine; University of New Mexico Health Sciences Center; University of North Carolina School of Medicine; University of Oklahoma College of Medicine; and University of Rochester School of Medicine and Dentistry.
    ${ }^{\text {b }}$ Faculty data from the Association of American Medical Colleges (AAMC) Medical School Profile System. Number of full-time faculty reflects information from the AAMC Faculty Roster as verified and updated by medical schools for the purposes of reporting to the Liaison Committee on Medical Education. Available at https:// services.aamc.org/mspsreports/index.cfm.
    'For more information on organizational characteristics, see https://services.aamc.org/ocd/index.cfm.
    ${ }^{\text {d }}$ Reflects the number of full-time faculty for 13 of the participating institutions, as only the Radiology Department participated from Johns Hopkins School of Medicine.

[^2]:    Note: Instances in which counts do not add up to the total for the entire sample reflect nonresponses (missing data points).
    ${ }^{\text {b }}$ bull-time faculty respondents did not see the survey items about part-time work.

