Satisfaction, Salaries, and Sustainability: Results of a National Survey of Pediatric Program Directors

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ABSTRACT

OBJECTIVE: Describe the career and work environment of pediatric program directors (PDs) and associated factors, including salary disparities and long-term career plans.

METHODS: A national, anonymous, electronic survey was sent to all categorical residency PD members of the Association of Pediatric Program Directors. Surveys assessed PD demographics, characteristics of the residency program and PD positions (including salary), and measures of satisfaction. Chi-square and Fisher's exact tests were used to analyze results.

RESULTS: A total of 149 PDs (74%) responded. Significantly more men earned $250,000 or more annually (26.9% vs 6.1% of women), and gender remained a significant independent predictor of salary after controlling for age, academic rank, and subspecialty. Satisfaction was high for most measures, although 20% or more reported low satisfaction with pay (38.9%), administrative workload (32.1%), managing accreditation and expectations of the Accreditation Council for Graduate Medical Education (31.9%), resources (27.9%), work/life balance (24.1%), and being valued by administration (20.0%). Only 34.3% saw the PD position as an end goal, and 29.5% stated they would be in their current position in 5 years. Satisfaction with the PD career, with faculty relationships, with resident performance, and with administrative workload was associated with plans to remain.

CONCLUSIONS: Most pediatric program directors did not view the position of PD as their long-term career goal, and many identified administrative duties and work/life balance as contributing to significant dissatisfaction. Without changes to address these issues, PD turnover may be high, with potential negative implications for the success of training programs.

KEYWORDS: pediatric program director; workforce

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WHAT'S NEW?

Program directors coordinate and sustain residency education for the next generation of providers. This study provides valuable information on factors associated with salaries and career plans and may allow for enrichment of the role for enhanced outcomes.

THE 210 PEDIATRIC residency programs in the United States accredited by the Accreditation Council for Graduate Medical Education (ACGME)[1] are responsible for the training of over 8500 active pediatric resident trainees (Association of American Medical Colleges Electronic Residency Application Service).[2] Pediatric program directors (PDs) play a significant role in all aspects of resident education, including documentation and measurement of training program outcomes, trainee competence, and ongoing accreditation of training programs. In addition, PDs are responsible for attesting to the competence of a graduating pediatric resident and, when necessary, remediating or dismissing residents who fail to meet minimal standards.[3,4]

Program directors typically provide direct patient care in addition to their administrative duties. These duties, and accompanying stressors, may detract from PD job satisfaction and contribute to PD turnover. Program directors in other specialties suffer high rates of burnout.[5−8] PDs may routinely spend more of their time on administrative duties—40% or more—than they do providing clinical care,[9] resulting in substantial stress. In one survey, a third of respondents were considering or actively seeking to leave their PD position; in another, 22% of the PDs surveyed stated that it was likely or extremely likely that they would leave the role within 2 years.[8,10] Very little is known about satisfaction and retention of US pediatric PDs. This study undertakes an initial snapshot of the nation's leaders in pediatric residency education, describing

their career and work environment, their view of their role as a PD, their plans to stay in that role, and associated factors.

METHODS

All categorical pediatric PDs who were active members of the Association of Pediatric Program Directors (APPD) as of July 2016 were eligible to participate. We worked with the APPD to distribute the survey while maintaining the anonymity of the respondents; APPD sent a link to the survey to its list of active pediatric PDs, encompassing essentially 99% of the training programs. Two additional reminder e-mails were distributed by the APPD.

We designed the survey (see Appendix online) after a review of the literature and in consultation with the Research Subcommittee of the APPD; many items were selected to be comparable to other published work (eg, Beasley et al[8]). The first section focused on academic status (current position, years in role, academic rank, whether the PD is on a tenure track, and the clinical division). The second section assessed demographics (age, gender, race/ethnicity, geographic region, and number of residents). The third section assessed salary support (number of raises or increases in the past 5 years, reasons for increases, current salary, and time allotted to program direction). The final section assessed whether the respondents viewed their position as an end goal or a stepping stone, whether they believed they will be in their position in 5 years, and satisfaction with a variety of factors. Satisfaction was measured on a scale from 1 (not at all satisfied) to 5 (extremely satisfied). Respondents rated their satisfaction with 1) being valued by their administration; 2) career as a residency program director; 3) relationship with faculty; 4) resident performance in their program; 5) being valued by their department and faculty; 6) role in patient care; 7) administrative workload; 8) pay; 9) resources; 10) role as an educator; 11) relationship with residents; 12) work/life balance; 13) managing accreditation and ACGME expectations; and 14) relationship with their chair.

Data were collected from July to September 2016. Surveys were completed electronically using a commercial web platform (SurveyMonkey). Analysis began with computation of frequency distributions for all items. Some variables were collapsed to eliminate small cell sizes and provide greater statistical power. These included salary, which was measured with 11 categories ranging from less than $75,000 to more than $300,000 at $25,000 intervals. We collapsed salary into 4 categories: $149,000 or less, $150,000−$199,000, $200,000−$249,000, and $250,000 or more. The 5-point satisfaction scale was collapsed to 3 categories by combining "not at all satisfied" with "very little satisfied" and combining "very satisfied" with "extremely satisfied." Bivariate associations for continuous variables were assessed with *t*-tests, using the Cochran and Cox approximation to calculate *P* values in situations of unequal variance. Associations between categorical variables were tested using chi-square analyses; where expected cell sizes were below 5, we used Fisher's exact test. All analyses were conducted using SAS 9.4 software for PCs (SAS Institute, Cary, NC). The study was approved by the Brown University Institutional Review Board.

RESULTS

A total of 201 PDs were eligible to participate and were e-mailed a link to the survey. Of these, 149 responded, yielding a response rate of 74%. Slightly more than half were under age 50 (57.5%), and just over half were female (55.0%). The majority (77%) were white, with relatively few identifying as Asian (11.5%), African American (4.7%), or Latino (4.0%). These numbers are comparable to the racial and ethnic distribution of all academic pediatricians in the United States[11]; however, the overall US population is 13% African American and 18% Latino, indicating that these groups are under-represented in our sample as well as among pediatricians in general.[12] Respondents worked in every region of the United States; the geographic distribution did not significantly differ from the distribution of all accredited US pediatric residency programs, with the largest groups being in the Southeast (22.3%) and Midwest (19.6). Half (49.7%) had been in the role of program director for 5 years or less. Fewer than 1 in 5 (18.7%) had achieved the academic rank of professor; most were at the rank of associate professor (52.5%). Even fewer reported that they were on a tenure track (14.6%).

The time allocated to program direction in respondents' job descriptions ranged from less than 10% to 91%−100%; most (64.9%) reported that 41%−60% of their time was allocated for PD duties. Salaries ranged from $125,000−$149,000 per year to over $300,000 per year; 70.5% reported a salary between $150,000 and $249,000. Nineteen percent reported that they had not received any raise or cost-of-living adjustment in the past 5 years; another 25% had only received one. Thirty-four percent viewed the PD position as an end goal, 15% said it was a stepping stone, and 50% were not sure. Almost half were not sure if they would be in their current position in 5 years, 29% reported they would be, and 25% said they would not.

Statistically significant differences in salary were found by age, gender, academic rank, and clinical appointment. Salary increased with age; those 50 years or older made up 78.3% of those in the highest category of $250,000 or more per year ($P = .0058$). Men reported higher salaries than women, as 3.6 times as many men made $250,000 or more per year ($P = .0042$). Sixty-five percent of the program directors in the Association of American Medical Colleges' high-demand specialties[13] (allergy/immunology, critical care/pediatric intensive care unit, emergency medicine, and neonatology) reported income in the highest categories ($P = .0006$). Programs with more than 20 combined pediatric residents (eg, pediatrics/emergency medicine) were under-represented in the highest income

Table 1. Sample Descriptive Statistics and Associations with Reported Annual Salary

	Total* (N = 149)	≤ $149,000 (n = 21)	$150,000–$199,000 (n = 60)	$200,000–$249,000 (n = 45)	≥ $250,000 (n = 23)	*P* Value†
Age, % (n)						.0058
30–39 y	14.9 (22)	23.8 (5)	21.7 (13)	6.8 (3)	4.3 (1)	
40–49 y	42.6 (63)	47.6 (10)	50.0 (30)	43.2 (19)	17.4 (4)	
50–59 y	25.0 (37)	14.3 (3)	18.3 (11)	29.6 (13)	43.5 (10)	
≥ 60 y	18.2 (26)	14.3 (3)	10.0 (6)	20.4 (9)	34.8 (8)	
Race/ethnicity, % (n)						.2138
Black/African American	4.8 (7)	0	3.4 (2)	11.6 (5)	0	
Asian	11.7 (17)	5.0 (1)	16.9 (10)	11.6 (5)	4.3 (1)	
White	79.3 (115)	95.0 (19)	74.6 (44)	69.8 (30)	95.7 (22)	
Hispanic/Latino	4.1 (6)	0	5.1 (3)	7.0 (3)	0	
Gender, % (n)						.0042
Female	55.0 (82)	66.7 (14)	63.3 (38)	55.6 (25)	21.7 (5)	
Male	45.0 (67)	33.3 (7)	36.7 (22)	44.4 (20)	78.3 (18)	
Academic rank, % (n)						.0020
Assistant professor	28.8 (40)	42.9 (9)	31.0 (18)	28.2 (11)	9.5 (2)	
Associate professor	52.5 (73)	47.6 (10)	62.1 (36)	46.1 (18)	42.9 (9)	
Professor	18.7 (26)	9.5 (2)	6.9 (4)	25.6 (10)	47.6 (10)	
Tenure track, % (n)						.6614
No	85.4 (111)	94.7 (18)	84.9 (45)	83.8 (31)	80.9 (17)	
Yes	14.6 (19)	5.3 (1)	15.1 (8)	16.2 (6)	19.0 (4)	
Clinical appointment, % (n)‡						.0006
Primary care	68.3 (95)	73.7 (14)	77.2 (44)	63.4 (26)	50.0 (11)	
Specialty care	15.1 (21)	10.5 (2)	51.0 (12)	12.2 (5)	9.1 (2)	
High-demand specialty care	16.5 (23)	15.8 (3)	1.7 (1)	24.4 (10)	40.9 (9)	
Years in program director role, % (n)						.1761
≤ 2 y	22.8 (34)	28.6 (6)	25.0 (15)	15.6 (7)	26.1 (6)	
2.1–5 y	27.5 (41)	23.8 (5)	35.0 (21)	31.1 (14)	4.3 (1)	
5.1–10 y	23.5 (35)	19.0 (4)	20.0 (12)	24.4 (11)	34.8 (8)	
> 10 y	26.2 (39)	28.6 (6)	20.0 (12)	28.9 (13)	34.8 (8)	
Number of categorical pediatric residents, % (n)						.4547
< 30	25.0 (37)	38.1 (8)	25.0 (15)	24.4 (11)	13.6 (3)	
30–60	47.3 (70)	28.6 (6)	51.7 (31)	51.1 (23)	45.4 (10)	
61–90	22.3 (33)	28.6 (6)	20.0 (12)	20.0 (9)	27.3 (6)	
> 90	5.4 (8)	4.8 (1)	3.3 (2)	4.4 (2)	13.6 (3)	
Number of combined residents (eg, medicine-pediatrics, triple board, pediatric emergency medicine), % (n)						.0302
0	40.9 (61)	14.3 (3)	45.0 (27)	55.6 (25)	26.1 (6)	
1–20	40.9 (61)	57.1 (12)	36.7 (22)	33.3 (15)	52.2 (12)	
> 20	18.1 (27)	28.6 (6)	18.3 (11)	11.1 (5)	21.7 (5)	
Percent time allocated to program direction in job description, % (n)						.5198
≤ 50%	45.6 (68)	61.9 (13)	50.0 (30)	37.8 (17)	34.8 (8)	
51–70%	30.9 (46)	23.8 (5)	30.0 (18)	33.3 (15)	34.8 (8)	
71–100%	23.5 (35)	14.3 (3)	20.0 (12)	28.9 (13)	30.4 (7)	
View of current program director position, % (n)						.1569
End goal	34.3 (47)	41.2 (7)	26.3 (15)	39.5 (17)	40.0 (8)	
Stepping stone	15.3 (21)	17.6 (3)	8.8 (5)	20.9 (9)	20.0 (4)	
Not sure	50.4 (69)	41.2 (7)	64.9 (37)	39.5 (17)	40.0 (8)	
Will be in current position 5 years from now, % (n)						.5657
No	25.2 (35)	18.7 (3)	22.8 (13)	29.6 (13)	27.3 (6)	
Yes	29.5 (41)	43.7 (7)	22.8 (13)	29.6 (13)	36.4 (8)	
Don't know	45.3 (63)	37.5 (6)	54.4 (31)	40.9 (18)	36.4 (8)	

*Totals for some variables may not add up to 149 due to missing data.

†For analyses including cells with expected values below 5, the *P* value was calculated using Fisher's exact test.

‡The primary care category includes general pediatrics, adolescent medicine, and hospitalist medicine. Specialty care includes behavior and development, child abuse, endocrinology/metabolism, hematology/oncology, infectious disease, nephrology, neurology, and rheumatology. High-demand specialty care includes allergy/immunology, critical care/pediatric intensive care unit, emergency medicine, and neonatology.

categories (32.8% vs 81.7% of those with no combined residents and 85.5% of those with 1 to 20 residents; $P = .0302$) (Table 1).

Additional analyses explored associations with salary and gender. In bivariate analyses, gender was not significantly associated with the type of clinical appointment, number of raises, being on the tenure track, or years in the PD role. Significant associations were found for age, race, and academic rank. Women were younger and more likely to identify as black or Latina, and 9.2% of women had achieved the rank of full professor compared to 30.2% of men. We conducted two-way analyses of variance to test the association of gender and race after controlling for all measures with a significant bivariate association with either variable. Race and academic rank failed to achieve statistical significance in these models. Gender remained a significant independent predictor of salary when controlling for age, type of clinical appointment (primary care, specialty care, or high-demand specialty care), and number of combined residents (Table 2).

A majority of program directors were "very or extremely satisfied" with their relationship with residents (78.6%), role as an educator (74.3%), relationship with their chair (68.2%), feeling valued by faculty (59.3%), career as a residency PD (65.0%), residents' performance (63.3%), role in patient care (61.6%), and relationship with faculty (65.3%). In 6 areas, 20% or more of respondents were "not at all or very little satisfied": pay (38.9%), administrative workload (32.1%), managing accreditation and ACGME expectations (31.9%), resources (27.8%), work/life balance (24.1%), and being valued by administration (20.0%) (Table 3).

Those who saw the PD role as an end goal rated their satisfaction higher on many measures, including satisfaction with their career as a PD, with resident performance, with feeling valued by their department and faculty, with their role in patient care, with administrative workload, with their role as an educator, with their relationship with residents, and with work/life balance, although in most cases these differences failed to achieve statistical significance. Only two variables were found to be significantly associated: those who saw the role as an end goal had been in the PD role almost twice as long as those who saw it as a stepping stone or were not sure (10.4 years vs 5.6 years; $P = .0001$), and a greater proportion were highly satisfied with their relationship with faculty (76.7% vs 60.6%; $P = .0391$). In examining associations with respondents believing they will be in the PD position in 5 years, we did not identify a strong or significant difference in length of time in the PD role. However, we did see a similar pattern of results for the satisfaction measures. On almost every item, a greater proportion of those who said they would be in the position in 5 years reported their satisfaction to be very or extremely high. These differences achieved statistical significance for 4 variables: satisfaction with their career as a residency program director (82.5% vs 59.2%; $P = .0173$), satisfaction with their relationship with faculty (80.5% vs 59.2%; $P = .0300$), satisfaction with resident performance (75.0% vs 58.8%; $P = .0408$), and satisfaction with their administrative workload (30.0% vs 12.2%; $P = .0355$) (Table 3).

DISCUSSION

High-quality medical care is predicated upon the ongoing education of highly competent and thoroughly trained physicians. PDs implement and assess the outcomes of this training; their breadth of knowledge and managerial skills require a learning curve that has been described as "steep," requiring several years to develop and master.[9] Hence, longevity in the position of PD may contribute to the quality of program outcomes and resident performance. Our finding that fewer than a third of pediatric program directors were confident they would still be in that position in 5 years is concerning and suggests that action is necessary to support and encourage PD longevity and satisfaction with their career and work environments. Stability and retention of faculty have been identified by the Association of American Medical Colleges as key elements of optimal residency programs[14]; retention of program directors must be considered a critical aspect of this. Without changes to enhance PD satisfaction and reduce burdens, resident training may suffer. Program directors at higher risk of burnout rate themselves significantly lower in effectiveness,[10] and some authors have hypothesized that PDs may not stay in their position long enough to achieve maximum effectiveness in addressing their programs' needs.[8]

This study is the first to document significant disparities in pay between male and female residency program directors in pediatrics, although such gender gaps in medicine as in other areas are not novel. Willett and colleagues[15] found that female PDs in internal medicine were paid significantly less than their male colleagues.

Table 2. Unbalanced ANOVA for Two-Way Design to Test Multivariate Associations with Salary

	Type III Sum of Squares	Degrees of Freedom	Mean Square	*F*	*P* Value
Gender	5.134	1	5.134	8.53	.0042
Race/ethnicity	2.862	3	0.954	1.59	.1969
Age	7.506	3	2.502	4.16	.0078
Academic rank	3.374	2	1.687	2.80	.0649
Clinical appointment	10.645	2	5.322	8.84	.0003
Number of non-categorical residents in program	5.708	2	2.854	4.74	.0105

Table 3. Bivariate Associations with Seeing Program Director Career as End Goal and Believing You Will Be in the Role in 5 Years*

	Total Sample (N = 149)†	Current Position Is End Goal‡			Will Be in Position in 5 Years§		
		No	Yes	*P* Value	No	Yes	*P* Value
Mean (SD) years in PD role		5.6 (4.53)	10.4 (6.97)	.0001	7.8 (6.16)	6.6 (5.91)	.3307
Satisfaction: valued by administration, % (n)				.3186			.2083
Not at all or very little satisfied	20.0 (28)	19.1 (17)	21.3 (10)		23.5 (23)	10.0 (4)	
Satisfied	31.4 (44)	36.0 (32)	23.4 (11)		29.6 (29)	35.0 (14)	
Very or extremely satisfied	48.6 (68)	44.9 (40)	55.3 (26)		46.9 (46)	55.0 (22)	
Satisfaction: career as residency program director, % (n)				.1435			.0173
Not at all or very little satisfied	5.7 (8)	5.6 (5)	4.3 (2)		7.1 (7)	0.0 (0)	
Satisfied	29.3 (41)	34.8 (31)	19.2 (9)		33.7 (33)	17.5 (7)	
Very or extremely satisfied	65.0 (91)	59.6 (53)	76.6 (36)		59.2 (58)	82.5 (33)	
Satisfaction: relationship with faculty, % (n)				.0391			.0300
Not at all or very little satisfied	5.0 (7)	3.3 (3)	6.4 (3)		7.1 (7)	0.0 (0)	
Satisfied	29.8 (42)	36.7 (33)	17.0 (8)		33.7 (33)	19.5 (8)	
Very or extremely satisfied	65.3 (92)	60.0 (54)	76.6 (36)		59.2 (58)	80.5 (33)	
Satisfaction: resident performance in program, % (n)				.7167			.0408
Not at all or very little satisfied	7.9 (11)	9.1 (8)	6.4 (3)		11.3 (11)	0.0 (0)	
Satisfied	28.8 (40)	30.7 (27)	25.5 (12)		29.9 (29)	25.0 (10)	
Very or extremely satisfied	63.3 (88)	60.2 (53)	68.1 (32)		58.8 (57)	75.0 (87)	
Satisfaction: valued by department/faculty, % (n)				.8771			.1432
Not at all or very little satisfied	13.6 (19)	13.5 (12)	12.8 (6)		17.5 (17)	4.9 (2)	
Satisfied	27.1 (38)	29.2 (26)	25.5 (12)		24.7 (24)	29.3 (12)	
Very or extremely satisfied	59.3 (83)	57.3 (51)	61.7 (29)		57.7 (56)	65.9 (27)	
Satisfaction: role in patient care, % (n)				.3660			.8037
Not at all or very little satisfied	10.1 (14)	8.0 (7)	13.0 (6)		8.3 (8)	10.0 (4)	
Satisfied	28.3 (39)	31.8 (28)	21.7 (10)		30.2 (29)	25.0 (10)	
Very or extremely satisfied	61.6 (85)	60.2 (53)	65.2 (30)		61.5 (59)	65.0 (26)	
Satisfaction: administrative workload, % (n)				.0600			.0355
Not at all or very little satisfied	32.1 (45)	37.1 (33)	21.3 (10)		34.7 (34)	22.5 (9)	
Satisfied	50.7 (71)	50.6 (45)	53.2 (25)		53.1 (52)	47.5 (19)	
Very or extremely satisfied	17.1 (24)	12.4 (11)	25.5 (12)		12.2 (12)	30.0 (12)	
Satisfaction: pay, % (n)				.1356			.8367
Not at all or very little satisfied	38.9 (54)	36.4 (32)	42.6 (20)		38.1 (37)	42.5 (17)	
Satisfied	33.8 (47)	30.7 (27)	40.4 (19)		35.1 (34)	30.0 (12)	
Very or extremely satisfied	27.3 (38)	33.0 (29)	17.0 (8)		26.8 (26)	27.5 (11)	
Satisfaction: resources, % (n)				.9182			.4596
Not at all or very little satisfied	27.9 (39)	26.7 (24)	29.8 (14)		30.6 (30)	22.0 (9)	
Satisfied	42.1 (59)	43.3 (39)	42.6 (20)		41.8 (41)	41.5 (17)	
Very or extremely satisfied	30.0 (42)	30.0 (27)	27.7 (13)		27.6 (27)	36.6 (15)	
Satisfaction: role as educator, % (n)				.5172			.0777
Not at all or very little satisfied	4.3 (6)	3.4 (3)	4.3 (2)		5.1 (5)	0.0 (0)	
Satisfied	21.4 (30)	23.6 (21)	14.9 (7)		25.5 (25)	12.5 (5)	
Very or extremely satisfied	74.3 (104)	73.0 (65)	80.9 (38)		69.4 (68)	87.5 (35)	
Satisfaction: relationship with residents, % (n)				.1876			>.99
Not at all or very little satisfied	4.3 (6)	2.3 (2)	6.4 (3)		4.1 (4)	4.9 (2)	
Satisfied	17.1 (24)	20.2 (18)	10.6 (5)		17.5 (17)	17.1 (7)	
Very or extremely satisfied	78.6 (110)	77.5 (69)	83.0 (39)		78.4 (76)	78.1 (32)	
Satisfaction: work/life balance, % (n)				.1065			.2156
Not at all or very little satisfied	24.1 (34)	27.8 (25)	17.0 (8)		27.6 (27)	14.6 (6)	
Satisfied	44.7 (63)	46.7 (42)	40.4 (19)		43.9 (43)	46.3 (19)	
Very or extremely satisfied	31.2 (44)	25.6 (23)	42.6 (20)		28.6 (28)	39.0 (16)	
Satisfaction: managing accreditation and ACGME expectations, % (n)				.9897			.2138
Not at all or very little satisfied	31.9 (45)	31.1 (28)	31.2 (15)		34.7 (34)	22.0 (9)	
Satisfied	44.7 (63)	44.4 (40)	44.7 (21)		44.9 (44)	46.3 (19)	
Very or extremely satisfied	23.4 (33)	24.4 (22)	23.4 (11)		20.4 (20)	31.7 (13)	
Satisfaction: relationship with chair, % (n)				.5344			>.99
Not at all or very little satisfied	11.1 (15)	9.3 (8)	15.2 (7)		10.6 (10)	10.3 (4)	
Satisfied	20.7 (28)	22.1 (19)	17.4 (8)		21.3 (20)	20.5 (8)	
Very or extremely satisfied	68.2 (92)	68.6 (59)	67.4 (31)		68.1 (64)	69.2 (27)	

ACGME indicates Accreditation Council for Graduate Medical Education.

*All satisfaction variables were tested using chi-square analyses. For analyses including cell sizes of 5 or less, Fisher's exact test was used.

†Sample size varies slightly for individual questions due to some questions that were left blank; 12 participants did not report whether their current position is an end goal, and 10 did not answer the question regarding whether they would still be in their position in 5 years.

‡Comparison of those who said their current program director position was an end goal to those who said it was a stepping stone or that they were not sure.

§Comparison of those who said they believed they will be in their current position 5 years from now to those who said they would not be or did not know.

These disparities are present from the earliest stages of physicians' careers, with starting salaries for men leaving residency being almost $17,000 higher than those for women; furthermore, pay disparities may be increasing.[16] Gender-based disparities can impact retention, continuity of medical training program leadership, and stability in the training provided.[17] The American College of Physicians recently issued a position paper with recommendations to achieve gender equity in salary and other areas.[18] Their conclusions are consistent with our own, in that additional attention and advocacy are required to change the culture in academic medicine and eliminate gender-based disparities.

Although the majority of respondents in our study reported feeling at least moderately satisfied with most of the issues measured, a substantial minority was highly dissatisfied with several important aspects of their roles; the pattern suggests a sense of feeling overburdened and undervalued. Perceived burdens of administrative workload relative to resources, the absence of appropriate financial or academic incentives, and the growth of regulatory and documentation requirements and diminished work/life balance are all likely contributors to PD dissatisfaction and career dropout. All are possible areas of focus for the pediatric educational community moving forward.

We identified a substantial lack of diversity in the ranks of American PDs, as the numbers do not reflect current racial diversity in the country and among the families that pediatricians serve. Our data are consistent with the survey of pediatric department chairs by Mendoza et al[19] which found that 80% of PDs and 70% of residents were non-Hispanic whites. The medical educational community should continue to emphasize equity, opportunity, and the enhancement of diversity in the medical workplace as a matter of active duty, self-evaluation, and quality improvement.

Our study had some weaknesses. All data were self-report and therefore subject to bias; we collected our data anonymously to limit this bias. Although three-quarters of the country's PDs participated, we have no way of knowing if those who chose not to participate differ in some way from those who participated. Nonetheless, our response rate was high and compares favorably with other PD surveys.[6,20–22] There was substantial range in the length of time respondents reported serving as PDs; looking at a cross-section of PDs who are at very different points in their careers could limit the generalizability of some results. Others have found, however, that controlling for longevity in the PD role in multivariate analyses had a very small impact on PD turnover,[8] consistent with our finding that duration in the PD role was not associated with plans to remain in the position for 5 years.

Pediatric training programs can contribute clinical capacity, quality, and general morale to the broader clinical and academic mission of many departments. Our data suggest that a substantial proportion of pediatric program directors may be overburdened or may choose to move on to alternative options in their personal career pathways. Future study and ongoing reassessment of success and satisfaction of educational faculty can contribute to retention of experienced and high-quality faculty and program directors.

SUPPLEMENTARY DATA

Supplementary data related to this article can be found online at https://10.1016/j.acap.2018.09.015.

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