

Graduating Med-Peds Residents' Interest in Part-Time Employment

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Funded by the American Academy of Pediatrics.

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Received for publication July 27, 2010; accepted February 24, 2011.

ABSTRACT

OBJECTIVE: As part-time work is becoming more popular among the primary care specialties, we examined the demographic descriptors of med-peds residents seeking and finding part-time employment upon completion of residency training.

METHODS: As part of the 2006 annual American Academy of Pediatrics (AAP) Graduating Med-Peds Residents Survey, we surveyed the graduating residents of all med-peds programs about their interest in and plans for part-time employment. A total of 199 (60%) of the residents responded.

RESULTS: Of the resident respondents applying for nonfellowship jobs, 19% sought part-time positions and 10% actually accepted a part-time position. Female residents were significantly more likely than male residents to apply for part-time jobs (26% vs 7%, $P = .034$). Sixty percent of female residents immediately seeking work and 58% of those going on to fellow-

ship reported an interest in arranging a part-time or reduced-hours position at some point in the next 5 years.

CONCLUSIONS: Part-time employment among med-peds residents applying for nonfellowship positions after graduation is similar to the current incidence of part-time employment in other fields of primary care. A much higher percentage of med-peds residents are interested in arranging part-time work within 5 years after graduation. This strong interest in part-time work has many implications for the primary care workforce.

KEYWORDS: physicians; women; primary health care; professional practice; workforce

ACADEMIC PEDIATRICS 2011;11:369–374

WHAT'S NEW

Part-time employment, although still rare, is increasing, particularly among women and those in primary care specialties. This trend has implications for the Med-Peds workforce: shortages of personnel may need to be anticipated.

MEDICINE HAS CHANGED dramatically over the past few decades. According to the 2005 US Physician Worklife Study, 13% of medical doctors worked less than full-time, with 20% of pediatricians, 12% of general internists, and 10% of family practitioners in part-time practice.¹ One of the primary reasons for the significant number of part-time physicians appears to be the increasing number of women in the physician workforce. In 1980, 12% of physicians were women, compared with 23% in 1998.² In 2003, the number of female medical school applicants surpassed male applicants for the first time; thus, we can expect the percentage of female physicians to continue rising. In fact, nearly 41% of all physicians training in Accreditation

Council for Graduate Medical Education–accredited programs in 2003–2004 were women.³ As the proportion of women pediatricians has increased, so has the percentage of pediatricians working part time. In 1993, 11% of pediatricians were in part-time practice, compared with 15% in 2000, 20% in 2003, and 23% in 2006.^{2,4}

With a large percentage of physicians working part time, it is important to examine how part-time physicians are viewed by their supervisors, colleagues, and patients. Part-time work is not currently universally accepted, but it seems to be gaining acceptance.⁵ In fact, in one study, more advantages than disadvantages were cited by the chairs of academic departments for having part-time faculty, with advantages including “keeping talented people in the workforce,” “leveraging financial resources,” and taking advantage of the “skills of part-time faculty.”⁶ Although 59% of pediatric faculty members in one study believe that part-time faculty members are less committed to their careers than their full-time peers, 69% believe that part-time faculty should be eligible for all academic tracks.⁷ In addition, patients of part-time doctors, when

compared with patients in the care of full-time doctors, are as satisfied, if not more satisfied, with the care they receive.⁸⁻¹¹ One study of part-time physicians found that these physicians generate 62% more relative value units per clinical hour than full-time physicians,⁸ have higher rates of recommended cancer screening and diabetes endpoints than full-time physicians,¹¹ and are more satisfied with their time and note less stress than full-time physicians.^{1,9,12,13}

Internal medicine-pediatrics (med-peds) has not been as well studied as other fields with regard to part-time practice. Because 55% of med-peds graduates enter primary care,¹⁴ their interest in part-time work will affect primary care most substantially. According to best available published data, med-peds graduates represent approximately 9% of the internal medicine residency graduates entering primary care¹⁴⁻¹⁷ and approximately 7% of the pediatrics residency graduates entering primary care.^{14,15,17} Although the recent study by Cull and colleagues showed that 38% of graduating categorical pediatric residents sought and 21% accepted part-time employment,¹⁸ it is unclear whether med-peds residents have similarly high levels of interest in part-time work or whether their interest in part-time work is lower, more like that of internal medicine physicians or family physicians.¹ In this study, we examined the plans of med-peds residents for part-time work after the completion of their training and their reasons and barriers for seeking such employment opportunities.

METHODS

This study uses data from the American Academy of Pediatrics (AAP) 2006 Graduating Med-Peds Resident Survey. This annual national survey of graduating med-peds residents from all US residency programs was initiated in May 2003 and was approved by the AAP institutional review board. Residents were identified from an AAP database of graduating residents. The survey was sent to all graduating med-peds residents. Graduating residents were contacted up to 4 times by mail and up to 4 times by e-mail, for up to 8 contacts.

SURVEY DESIGN

The survey included core questions on residents' demographics, training experiences, satisfaction with training, career intentions, job search, and new job. The 2006 Graduating Med-Peds Resident Survey also included a set of questions focused on part-time work. There were 3 primary measures of part-time work that we examined: seeking part-time work, obtaining part-time work, and future interest in part-time work. Respondents were asked, "Did you seek any part-time or reduced-hours positions in your job search?" Those residents responding "yes" were defined as seeking part-time employment. For the obtaining part-time measure, residents were asked, "Is your new job a full-time or a part-time/reduced-hours position?" and residents responding "part time" rather than "full time" or "no job at this time" were indicated. The measure of future interest was based on the question, "What is the

probability that you would be interested in arranging a part-time or reduced-hours position at some time in the next 5 years?" with response options of 0%, 20%, 40%, 60%, 80%, and 100%. Residents indicating a greater than 60% probability were considered to have a future interest in part-time work. In addition to the 3 primary measures of part-time work, residents were also asked, "Which of the following factors would you consider to be important barriers to seeking a part-time or reduced-hours position? (Mark all that apply)" and "How would you use your extra time if you were to arrange a part-time or reduced-hours position? (Mark all that apply)."

DATA ANALYSIS

Residents were divided into 2 groups for data analysis: job seekers and fellowship/delayed job seekers. Residents who were actively seeking nonfellowship positions were included in the group of job seekers, and our analyses focused primarily on them. The remaining residents, who were starting a subspecialty fellowship, becoming chief residents, or delaying their job search for other reasons, were included in the fellowship/delayed job seekers group, and only limited analyses were conducted for this group.

Frequencies or means were computed for various survey questions. Comparisons between residents were made on the basis of several characteristics including gender, age, medical school location (international medical graduates or US medical graduates), US underrepresented minority race or ethnicity (residents who were Hispanic, black, or Native American US medical graduates), marital status, parental status, having a mentor, program size, and educational debt. Chi-square tests for categorical variables and *t* tests for continuous variables were used to examine specific relationships between variables. Because of concern for small sample sizes for some analyses, the Yates correction was applied to 2 × 2 chi-square tests. The number of cases for each analysis varied slightly on the basis of the number of missing cases for each variable. Denominators for the questions are presented throughout to show this variation. A *P* value of .05 or less was considered significant for all inferential analyses.

RESULTS

RESPONSE RATE

Of the 330 graduating med-peds residents from 87 different training programs contacted, 199 (60%) from 78 training programs (90%) responded. Survey respondents were compared to nonrespondents by age and gender in order to assess nonresponse bias, but respondents did not differ significantly by age (respondent mean age = 32.1 vs nonrespondent mean age = 31.5, *P* = .189) or gender (female respondents = 117 of 199, 59%, vs female nonrespondents = 65 of 128, 51%, *P* = .172).

Among the respondents, a total of 107 residents (54%) from 56 different training programs applied for nonfellowship positions and were included in the job-seeking group. There were a total of 92 residents (46%) who fell into the fellowship/delayed job-seeking group for whom limited

analyses were conducted. A total of 49 residents were starting fellowships, 18 were completing chief years, and the remaining 25 residents were delaying their job search for other reasons.

PROFILE OF JOB SEEKERS

Sixty-two percent of the job seekers were women (66 of 107), 8% were international medical graduates (9 of 107), and 10% were US underrepresented minorities (11 of 106). The mean age of the job seekers was 32 years, with an average program size of 6 residents per class. The average amount of educational debt, including spouse/partner debt, was \$138,676. Two-thirds of the residents were married (70 of 107), 17% to another physician (18 of 107). Almost 4 in 10 had children. Most reported that they had a mentor who provided career advice (81 of 102).

SEEKING AND OBTAINING PART-TIME JOBS

Overall, 19% (20 of 107) of job seekers sought a part-time position, and 10% (11 of 107) obtained one. Of the characteristics examined to identify predictors of part-time work among job seekers (Table 1), only gender was statistically significant. Women were more likely than men to both seek and obtain a part-time position (Figure); 26% (17 of 66) of women sought a part-time posi-

tion compared to just 7% (3 of 41) of men ($P = .034$). Fifteen percent of women (10 of 66) obtained a part-time position, versus only 2% of men (1 of 41), $P = .035$. Part-time positions that residents accepted were much more likely to be located in the same city or area as the residency (9 of 11, 82%) compared to full-time positions (22 of 58, 38%) ($P = .019$).

FUTURE INTEREST IN PART-TIME POSITIONS

Female job seekers were also more likely than male job seekers to have a future interest in part-time work (Figure). Sixty percent (37 of 62) of female job seekers said that there was a more than 60% probability that they would be interested in arranging a part-time position in the next 5 years, while 7% (3 of 41) of male job seekers said this ($P < .001$). Most of the male job seekers (29 of 41, 71%) said that there is a 0% probability that they will seek a part-time position in the next 5 years.

USE OF EXTRA TIME

Women were significantly more likely than men to say that if they were to arrange a part-time position, they would use the extra time to address family needs related to children, spouse, and parents, as well as pursue recreational activities and prepare for board-certifying exams (Table 2).

Table 1. Predictors of Seeking Part-Time Jobs Among Residents Applying for Nonfellowship Positions (n = 107)

Predictive Characteristic	N	Sought Part-Time Position, n (%)	P Value
Gender			
Female	66	17 (26%)	.034
Male	41	3 (7%)	
Age			
31 years and younger	60	12 (20%)	.867
32 years and older	42	7 (17%)	
International medical graduate			
Yes	9	0 (0%)	.291
No	98	20 (20%)	
US medical graduate-underrepresented minority			
Yes	11	4 (36%)	.246
No	95	16 (17%)	
Program size			
Less than 6 residents per class	48	11 (23%)	.498
6 or more residents per class	57	9 (16%)	
Had mentor who provided career advice			
Yes	81	17 (21%)	.703
No	21	3 (14%)	
Marital status			
Spouse/partner is a physician	18	5 (28%)	.346
Spouse/partner is not a physician	52	7 (14%)	
Single	37	8 (22%)	
Has children			
Yes	41	5 (12%)	.254
No	65	15 (23%)	
Educational debt (including that of spouse/partner)			
Less than \$120,000	45	11 (24%)	.313
\$120,000 or more	61	9 (15%)	
Applied for jobs in more than 1 state			
Yes	40	8 (20%)	.990
No	67	12 (18%)	
Applied for jobs in more than 1 city/area			
Yes	60	9 (15%)	.392
No	47	11 (23%)	

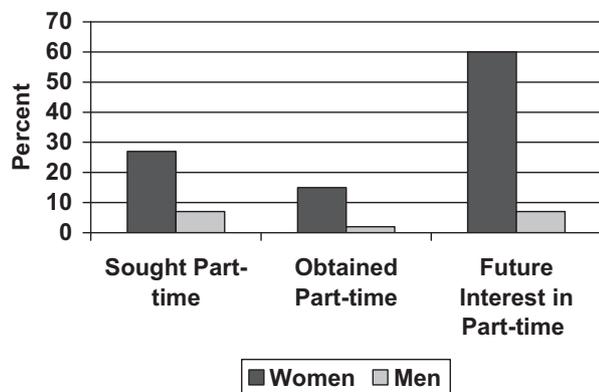


Figure. Residents seeking, obtaining, and reporting future interest in part-time jobs by gender ($n = 107$).

BARRIERS TO SEEKING A PART-TIME OR REDUCED-HOURS POSITION

Male job seekers most frequently reported loss of income as a barrier to seeking a part-time or reduced-hours position. This was the most commonly cited barrier for female job seekers as well, but far fewer women cited this as a barrier (45 of 66, 68%) than did the men (37 of 41, 90%) ($P = .009$). Men were also more likely than women to report that they would personally miss working full time (13 of 41, 32%, vs 9 of 66, 14%, $P = .025$). Although men were slightly more likely to cite a loss or reduction in benefits such as health insurance as a barrier to part-time work, women were slightly more likely to have concerns about the impact of part-time work on the practice's workload and stability. However, these differences were not significant (Table 3).

ATTITUDES ABOUT PART-TIME WORK WITHIN FELLOWSHIP/DELAYED JOB-SEEKING SUBGROUP

The questions about interest in future part-time work and about barriers to part-time work were also answered by those residents who were in the fellowship/delayed job seeker group ($N = 92$). Among this group, 38% (31 of 82) of the residents overall and 61% (27 of 44) of the female residents indicated that there was at least a 60% probability that they would seek a part-time position in the next 5 years. Of the residents planning for fellowship ($N = 49$), 58% (15 of 26) of the women reported at least a 60% probability of seeking part-time work in the next 5 years. None of the male residents planning for fellowship

reported this. The pattern of top barriers to part-time work reported by this subgroup was similar to those reported by the main group of job-seeking residents. They included loss of income (57 of 92, 62%), loss or reduction in benefits such as health insurance (47 of 92, 51%), and loan repayment obligations (41 of 92, 45%). These barriers were all reported slightly less often than the main group. The one barrier that was more likely to be reported by the fellowship/delayed seeking subgroup was a lack of part-time opportunities available (32 of 92, 35%).

DISCUSSION

In this study, we surveyed graduating med-peds residents to examine their interest in part-time work, their plans to take a part-time job, and the factors that influence their decisions.

Ten percent of med-peds graduates who were seeking jobs accepted part-time positions. This is on par with other fields of primary care, with 10% of family medicine doctors and 12% of internists in part-time practice. This percentage is half the percentage of pediatricians who work part time (20%)^{1,2,4} and is smaller perhaps in part because of the different proportions of women in pediatrics and med-peds residencies (in 2003, 65% of pediatric residency graduates were women, compared to 44% of med-peds graduates).¹ Our study confirms that women not going on to fellowship are significantly more likely than their male counterparts to seek part-time work (26% vs 7%).

Despite only 10% of job-seeking residents taking a part-time job, almost twice this number (19%) sought part-time work. These numbers are roughly half the percentages reported in the recently published study of plans for graduating pediatrics residents, with 21% of pediatric residents accepting and 38% seeking part-time employment.¹⁸ Again, these differences are likely in part the result of the larger percentage of women in pediatrics. It does not entirely explain the difference, though, because the percentage of med-peds women seeking part-time work (26%) was lower than that found for categorical pediatrics women (45%), and the number of med-peds men (7%) was lower than that for categorical pediatrics men (15%).¹⁴ Other possible explanations for the lower rate of med-peds graduates taking a part-time position than pediatrics graduates include: 1) fewer part-time options for med-peds employment, 2) a stronger precedent for part-time

Table 2. How Graduating Med-Peds Residents Entering Part-Time Nonfellowship Positions Would Use Extra Time ($N = 107$)

Activity	All ($n = 107$)	Men ($n = 41$)	Women ($n = 66$)
Address family needs related to children	45%	24%	58%**
Pursue recreational activities	45%	22%	59%***
Prepare for board-certifying exams	36%	22%	45%*
Address family needs related to spouse	35%	20%	44%*
Address family needs related to parents	16%	2%	24%**
Pursue other professional/business activities	14%	7%	18%
Return to school for a MPH	13%	10%	15%

* $P < .05$.

** $P < .01$.

*** $P < .001$.

Table 3. Perceived Barriers to Seeking a Part-Time Position for Graduating Med-Peds Residents Seeking Nonfellowship Positions (N = 107)

Perceived Barrier	All (n = 107)	Men (n = 41)	Women (n = 66)
Loss of income	77%	90%	68%*
Loss or reduction in benefits, such as health insurance	69%	76%	65%
Loan repayment obligations	53%	54%	53%
Limit future professional success (practice/academic)	30%	34%	27%
Concern for impact on practice (workload/stability)	27%	22%	30%
Not many part-time opportunities available	21%	24%	20%
Would personally miss working full time	21%	32%	14%*
Concern for negative reaction from coworkers	14%	12%	15%
Service obligation	12%	12%	12%

**P* < .05.

work in pediatrics as compared to internal medicine, 3) a greater perceived need by dually trained physicians to work full time to keep current in both specialties, and 4) a selection bias for physicians who have an additional year of training to be more focused on career.

Probably the most surprising finding in our study is that 60% of the women immediately seeking work and 58% of the women headed to fellowship indicated that there is a greater than 60% probability that they would be interested in part-time work during the next 5 years. This information raises the question as to whether female residents are considering temporary part-time work, perhaps during childbearing years, versus a more permanent part-time position. It also raises the question as to whether physicians trained in categorical internal medicine, pediatrics, or family medicine residencies have similar interest.

Although med-peds female physicians represent a relatively small percentage of the primary care workforce, the information gained from our study gives us further insight into the likely upcoming shortage of primary care physicians. Especially concerning is adequacy of care for adults as a result of a growing and aging population and an increased trend for subspecialization among graduates of internal medicine residencies. The percentage of internal medicine residents going on to fellowship increased from 52% in 1995 to 62% in 2005.¹⁹ Furthermore, in a study of fourth-year medical students at 11 medical schools in 2007, only 2% expressed interest in general internal medicine.²⁰ Although the percentage of pediatrics residents choosing to subspecialize is also rising, the percentages are not as grim, with an increase from 27% in 1995 to 42% in 2005.¹⁹ One study estimates that there will be deficits of 35 000 to 44 000 adult-care generalists in 2025, but that care for children will be adequate.¹⁹ The new information from our study suggests that shortages may be even greater than previously thought, especially if graduates of other fields of primary care also are planning to work part time in the future. The issue of how to address the inadequate supply of primary care doctors is currently an area of debate facing the United States.

Reduction of hours by med-peds physicians in subspecialty departments will be less noticeable globally, as they are few in number and spread across many fields. However the reduction of hours by a single subspecialist in a given department will likely have a huge impact on

the department, as there are typically smaller groups of physicians to absorb the increased patient load.

Having children, having a physician spouse, and having a high degree of educational debt did not contribute to a med-peds resident's decision whether or not to seek a part-time job. The former 2 factors were found to be independent predictors to part-time work in the recently published pediatric study,¹⁸ which could either indicate differing priorities among med-peds graduating residents or an inability to detect these factors because of our smaller sample size. In a study of graduating pediatrics and med-peds residents by Chamberlain and colleagues, there was no significant difference in the degree of educational debt between the 2 groups (mean debt was \$94 200 and \$97 727, respectively).¹⁴

The limitations of this study include the age of the data and the sample size. However, regarding the sample size, the fact that a similar percentage of our study respondents chose part-time work compared to recent studies in family medicine and internal medicine¹ gives us reason to think that med-peds physicians are more similar to these primary care physicians than to pediatricians with regard to part-time practice, at least currently. The real issue, however, is that many more med-peds physicians are considering part-time work for the future, giving us further insight into the severity of the probable upcoming shortage of primary care physicians.

In conclusion, this is the first study looking at the option for part-time work among med-peds physicians. Similar to other primary care specialties, our results confirm that many med-peds graduates are seeking and accepting part-time work, but also show that many more are considering part-time work for the future. As women continue to be a large presence in the medical field and as part-time physicians continue to perform well, it is likely that the number of physicians seeking and accepting part-time work at some point in their careers will continue to grow. The reduction in clinical hours of a larger group of physicians could contribute to the problem of shortages in primary care that need to be anticipated.

REFERENCES

1. McMurray JE, Heiligers PJ, Shugerman RP, et al. Part-time medical practice: where is it headed? *Am J Med.* 2005;118:87-92.
2. Cull WL, Mulvey HJ, O'Connor KG, et al. Pediatricians working part-time: past, present, and future. *Pediatrics.* 2002;109:1015-1020.

3. Brotherton SE, Rockey PH, Etzel SI. US graduate medical education, 2003–2004. *JAMA*. 2004;292:1032–1037.
4. Cull WL, O'Connor KG, Olson LM. Part-time work among pediatricians expands. *Pediatrics*. 2010;125:152–157.
5. Lugtenberg M, Heiligers PJ, de Jong JD, Hingstman L. Internal medicine specialists' attitudes towards working part-time: a comparison between 1996 and 2004. *BMC Health Serv Res*. 2006;6:126.
6. Socolar RR, Kelman LS. Part-time faculty in academic pediatrics, medicine, family medicine, and surgery: the views of the chairs. *Ambul Pediatr*. 2002;2:406–413.
7. Kahn JA, Degen SJ, Mansour ME, et al. Pediatric faculty members' attitudes about part-time faculty positions and policies to support part-time faculty: a study at one medical center. *Acad Med*. 2005;80:931–939.
8. Fairchild DG, McLoughlin KS, Gharib S, et al. Productivity, quality, and patient satisfaction: comparison of part-time and full-time primary care physicians. *J Gen Intern Med*. 2001;16:663–667.
9. Mehaber HF, Levine RB, Manwell LB, et al. Part-time physicians...prevalent, connected, and satisfied. *J Gen Intern Med*. 2008;23:300–303.
10. Murray A, Safran DG, Rogers WH, et al. Part-time physicians. Physician workload and patient-based assessments of primary care performance. *Arch Fam Med*. 2000;9:327–332.
11. Parkerton PH, Wagner EH, Smith DG, Straley HL. Effect of part-time practice on patient outcomes. *J Gen Intern Med*. 2003;18:717–724.
12. American Academy of Pediatrics. Survey: balancing work, family no easy task for pediatricians. *AAP News*. 2004;25:296.
13. Carr PL, Gareis KC, Barnett RC. Characteristics and outcomes for women physicians who work reduced hours. *J Womens Health (Larchmt)*. 2003;12:399–405.
14. Chamberlain JK, Cull WL, Melgar T, et al. The effect of dual training in internal medicine and pediatrics on the career path and job search experience of pediatric graduates. *J Pediatr*. 2007;151:419–424.
15. Fortuna RJ, Ting DY, Kaelber DC, Simon SR. Characteristics of medicine-pediatrics practices: results from the National Ambulatory Medical Care Survey. *Acad Med*. 2009;84:396–401.
16. American College of Physicians. *Workforce Issues in Health Care Reform: Assessing the Present and Preparing for the Future*. March 24, 2010. Available at: http://www.acponline.org/advocacy/where_we_stand/workforce/workforce_issues.pdf. Accessed October 27, 2010.
17. National Resident Matching Program. *Results and Data: 2010 Main Residency Match*. Updated April 2010. Available at: <http://www.nrmp.org/data/resultsanddata2010.pdf>. Accessed October 27, 2010.
18. Cull WL, Caspary GL, Olson LM. Many pediatric residents seek and obtain part-time positions. *Pediatrics*. 2008;121:276–281.
19. Colwill JM, Cultice JM, Kruse RL. Will generalist physician supply meet demands of an increasing and aging population? *Health Aff (Millwood)*. 2008;27:w232–w241.
20. Hauer KE, Durning SJ, Kernan WN, et al. Factors associated with medical students' career choices regarding internal medicine. *JAMA*. 2008;300:1154–1164.