New Pediatricians: First Jobs and Future Workplace Goals
Gary L. Freed, MD, MPHa,b,c, Gail A. McGuinness, MDd, Lauren M. Moran, BA+; Laura Spera, MS, MCSa,b, Linda A. Althouse, PhDd

abstract

BACKGROUND AND OBJECTIVES: Concern is often expressed about the satisfaction of new physicians and the potential match of their workplace goals with available positions. We studied the interface of desired professional activities with actual initial positions.

METHODS: Survey study of all general pediatricians taking the 2012 General Pediatrics Certifying Examination.

RESULTS: Of the 5210 who sat for the General Pediatrics Certifying Examination, 5163 (>99%) completed the survey. Of the total respondents, 45% self-identified as general pediatricians (N = 2327). Of those who completed training <2 years ago (N = 1365), most were currently engaged in clinical care (87%; N = 1190). The most important factor, cited most frequently by both men and women, in the choice of their first job was lifestyle and spousal or family considerations. Most (83%; N = 977) reported that the allocation of time for specific duties in their current position was consistent with their goals, with no differences between men and women. Most had no desire for inpatient activity.

CONCLUSIONS: Despite concerns about young general pediatricians being able to find positions that meet their career goals, most were in jobs that approximated their desired allocation of professional time and focus of clinical work.

WHAT’S KNOWN ON THIS SUBJECT: Concern exists about the ability of new general pediatricians to find jobs that match their career goals.

WHAT THIS STUDY ADDS: A large majority of new pediatricians secure positions consistent with their career goals and desired responsibilities.
Concern is often expressed about the satisfaction of new physicians in the workforce and the potential mismatch of their workplace goals with available positions and desired work arrangements. Understanding the primary goals and motivations for newly trained general pediatricians to seek specific positions, and both their immediate and long-term work aspirations, can assist in planning to ensure that educational programs prepare these pediatricians for their work. Furthermore, identification of these motivations and plans will reveal the presence of or potential for a mismatch between the desires of the workforce and the existing organization and structure of available positions in the private, public, and academic sectors.

General pediatricians make up the largest proportion of practicing pediatricians in the United States, with approximately 40% to 50% of new residency graduates entering this field of practice each year. Given an increasingly mobile society and the growth of 2-profession families, the duties and responsibilities these physicians desire in their first job after residency may be different from what they plan to seek later in their careers. This consideration is important in assessing the potential future workforce. Additionally, the unique gender distribution in pediatrics makes it imperative that the field focus on whether available positions align with the overall goals and career aspirations of both women and men.

Job and career satisfaction may be based on a wide variety of parameters. In this study of general pediatricians conducted at the time they sit for their General Pediatrics Certifying Examination (GPCE), we distinguish between their patient care responsibilities and their nonpatient care roles to explore the compatibility of their desired professional activities with their actual initial positions. We also identify the desired responsibilities and roles they anticipate for their later careers.

**METHODS**

**Survey Instrument and Sample**

In collaboration with the American Board of Pediatrics (ABP) Research Advisory Committee, the research team developed a structured questionnaire designed to be completed in ≈10 minutes. The survey focuses on exploring trends associated with career choice, career paths, time spent in professional activities, and practice characteristics of generalists and subspecialists at the time of certifying examinations.

Since October 2012, the ABP has administered the survey as an addendum to the GPCE to all people who complete the examination.

**Data Analysis**

In April 2014 the research team received the deidentified 2012 GPCE survey data from the ABP in Microsoft Excel (Microsoft Corporation, Redmond, WA) format. Frequency distributions were calculated for all survey items for the group of respondents identified as practicing general pediatricians out of training for <2 years. Univariate statistics were calculated for ratio scale survey items related to time spent in professional activities. Next, we generated χ² statistics based on cross-tabulation frequencies to examine the relationship of the survey items to gender (male versus female).

A P < .05 was considered statistically significant.

**RESULTS**

Of the 5210 people who sat for the GPCE in 2012, 5163 (>99%) completed the survey. Of these, 45% (N = 2327) were currently practicing as general pediatricians (Table 1). Responses to some items on the questionnaire differed between men and women and are noted below where those differences are statistically significant.

Of the 2327 general pediatricians taking the GPCE, most were out of residency for either <1 year (41%; N = 956) or from 1 to 2 years (18%; N = 409). However, 28% completed their training >5 years previously. Of the respondents completing training <2 years ago (N = 1365), most were engaged in direct or consultative pediatric clinical care (87%; N = 1190). However, >1 in 10 were not. The remainder of the analyses presented in this study were conducted on those 1190 respondents.

The most important factor in the choice of the first position after residency, cited most frequently by both female and male general pediatricians, was lifestyle and spousal or family considerations (69% vs 55%; P < .0001). Financial considerations were chosen by a much smaller proportion and by more men than women (Table 2).

**TABLE 1 Which of the Following Best Describes Your Current Position? (N = 5163)**

<table>
<thead>
<tr>
<th>Position</th>
<th>% (N)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chief resident</td>
<td>6 (328)</td>
</tr>
<tr>
<td>Practicing as a general pediatrician</td>
<td>45 (2327)</td>
</tr>
<tr>
<td>Training in a pediatric subspecialty or nonpediatric specialty</td>
<td>25 (1284)</td>
</tr>
<tr>
<td>Practicing as a pediatric subspecialist or nonpediatric specialist</td>
<td>5 (282)</td>
</tr>
<tr>
<td>Training in a hospitalist fellowship program</td>
<td>2 (103)</td>
</tr>
<tr>
<td>Practicing as a hospitalist</td>
<td>9 (450)</td>
</tr>
<tr>
<td>Training in a health services research or general academic fellowship</td>
<td>1 (44)</td>
</tr>
<tr>
<td>Other</td>
<td>7 (344)</td>
</tr>
</tbody>
</table>
Satisfaction With Current Position and Duties

When asked about the proportion of actual time spent in specific tasks undertaken in their current position, the median response for direct or consultative inpatient or outpatient care (including billing and charting) was 90%, with 5% in medical education and 1% administrative tasks. The remainder of time (4%) was divided between research and other duties. Most respondents (83%; \( N = 977 \)) reported that this allocation of time was approximately what they wanted in their current position, with no differences between men and women.

The 17% \( (N = 200) \) whose time allocation in their current position was not what they wanted reported they would like to spend a median of 70% of time in patient care (including billing and charting), 15% medical education, 5% administration, 5% research, and the remainder in other activities.

Median responses about specific patient care responsibilities in their current job showed that 90% of time was spent in general outpatient care and 5% in inpatient care for patients \( \leq 21 \) years of age. The remainder of time was spent in general outpatient and inpatient care of those \( \geq 21 \) years of age. Fewer than half reported any inpatient care responsibilities. Of those with inpatient responsibilities, almost all (\( >90\% \)) devoted \(<20\%\) of their time to inpatient care. Most respondents (89%; \( N = 1039 \)) reported that this allocation of patient care responsibilities was approximately what they wanted in their current position, with no differences between men and women.

The 11% \( (N = 134) \) whose specific patient care responsibilities in their current job were not what they wanted reported they would like to spend a median of 20% of their time in inpatient care.

Expected Duration of Employment and Research Plans

Expected duration of employment in their current position did not vary between men and women, with the greatest proportion expecting to be in their current job for either \( >1 \) to \( \leq 5 \) years (34%; \( N = 403 \)) or \( >5 \) years (33%; \( N = 390 \)). Men and women also did not differ in whether they planned to conduct any research during their careers (Table 3). Few expected to have research become a major part of their careers.

Practice Affiliations, Characteristics, and Work Patterns

Most general pediatrician respondents (74%; \( N = 860 \)) did not hold academic appointments. Among those who did, they were divided between full-time faculty (9%; \( N = 101 \)), part-time faculty (6%; \( N = 71 \)), and adjunct, volunteer, or courtesy faculty (11%; \( N = 134 \)). Respondents were most likely to be working in private practices (40%; \( N = 473 \)), community or non–university affiliated hospitals (18%; \( N = 208 \)), federal, state, or local government settings (13%; \( N = 151 \)), or university or academic centers (12%; \( N = 143 \)). Of those working in private practice or managed care, women were more likely than men to have no ownership role in their practice.
A greater proportion of women than men planned to work part-time at some point in the next 5 years (Table 4). Women were more likely than men to be employed part-time. Of those working part-time, a greater proportion of men than women expected to begin working full-time in the next 5 years, but the difference was not statistically significant (Table 5). The number of hours worked each week was variable for both part- and full-time pediatricians. More than 1 in 7 (16%; N = 29) who reported working part-time stated they worked ≥40 hours per week (Table 6).

**DISCUSSION**

Among the most important findings from this study is that for general pediatricians sitting for their initial certifying examination, a majority reported that the most important factor in choosing their first job was lifestyle and spousal or family considerations. Although this response was more common among women, it was still endorsed by more than half of men.

Although debt at the end of training is often cited as playing a significant role in career decisions, only 9% of these general pediatricians reported it as the most important factor in choosing their first position after completing training. Potential long-term earnings was chosen by only 2% as the most important factor in initial job selection.

Although 41% of these general pediatricians had completed residency training within the past year, more than one-quarter had completed their training >5 years ago. This finding suggests that a significant number of pediatricians are practicing for several years without having achieved board certification. Previous studies have found that some health plans but fewer hospitals are willing to credential or allow privileges to non-board certified pediatricians.

The increasing proportion of pediatricians who work part-time is an important trend in the professional workforce. Our findings about rates of part-time employment vary somewhat from other recently published data. This difference may be a result of the lower response rates of other studies creating a potential response bias regarding part-time employment or of our focus on those who had completed training within the last 2 years. We found a smaller proportion of both men and women working part-time and larger proportional differences between the genders in this regard, with 20% of women and 3% of men in our sample currently working part-time.

Furthermore, our work builds on previous studies of graduating pediatric residents’ intentions to work part-time by providing data on their experiences once they enter the workforce. Because the definition of part-time and full-time positions is highly variable, the actual amount of time worked by part-time pediatricians has heretofore been unknown or

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**TABLE 4** Practice Characteristics and Full-Time Work Intentions

<table>
<thead>
<tr>
<th>Practice type (N = 585)</th>
<th>Overall (N = 585),% (N)</th>
<th>Female (N = 446),% (N)</th>
<th>Male (N = 139),% (N)</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Solo practitioner</strong></td>
<td>4 (21)</td>
<td>3 (14)</td>
<td>5 (7)</td>
<td>.57</td>
</tr>
<tr>
<td><strong>General pediatrics group</strong></td>
<td>75 (436)</td>
<td>76 (338)</td>
<td>71 (98)</td>
<td></td>
</tr>
<tr>
<td><strong>Multispecialty group</strong></td>
<td>17 (102)</td>
<td>17 (75)</td>
<td>19 (27)</td>
<td></td>
</tr>
<tr>
<td><strong>Other</strong></td>
<td>4 (26)</td>
<td>4 (19)</td>
<td>5 (7)</td>
<td></td>
</tr>
</tbody>
</table>

**TABLE 5** Full-Time Work Status

<table>
<thead>
<tr>
<th>Employed full or part time (N = 1163)</th>
<th>Overall (N = 1163),% (N)</th>
<th>Female (N = 871),% (N)</th>
<th>Male (N = 292),% (N)</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full time</td>
<td>84 (978)</td>
<td>80 (694)</td>
<td>97 (284)</td>
<td>&lt;.0001</td>
</tr>
<tr>
<td>Part time</td>
<td>16 (185)</td>
<td>20 (177)</td>
<td>5 (8)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Do you intend to return to or begin working full time during the next 5 y? (N = 185)</th>
<th>Overall (N = 185),% (N)</th>
<th>Female (N = 177),% (N)</th>
<th>Male (N = 8),% (N)</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>56 (103)</td>
<td>55 (97)</td>
<td>75 (6)</td>
<td>.36*</td>
</tr>
<tr>
<td>No</td>
<td>27 (50)</td>
<td>27 (48)</td>
<td>25 (2)</td>
<td></td>
</tr>
<tr>
<td>Unsure</td>
<td>17 (32)</td>
<td>18 (32)</td>
<td>0 (0)</td>
<td></td>
</tr>
</tbody>
</table>

*p50% of the cells have expected counts less than 5. Chi-Square may not be a valid test.*
Concern about part-time employment has been raised with regard to whether such work is perceived as meaningful and not viewed as less valuable. A potential concern of many who want to work part-time is that they may be paid less but actually work as much as or almost as much as many full-time colleagues. Our study found that 16% of those who reported working part-time actually work >40 hours per week and work more hours than some who report full-time employment. One significant concern about part-time physicians is that many may work more hours than intended, resulting in full-time work for part-time pay. Because of the unique nature of patient care and the commitment of pediatricians to families and their children, some may spend more time with patients, either in person, on the phone, or in coordinating care. Pediatricians and their employers need to pay special attention to this issue to prevent significant dissatisfaction with part-time work and the workplace as a whole. Because so many more women work part-time than men, this issue is especially important for gender fairness and equity in pediatrics.

Although others have found that general pediatricians were able to find jobs at the completion of training, our study sought to determine whether initial positions were consistent with their career goals and intentions with regard to both professional tasks and patient care responsibilities. This information is important for ensuring that a new generation of pediatricians has the potential for job and career satisfaction as the roles of general pediatricians are changing with regard to the mix of inpatient and outpatient care. We found that most (>80%) had success in this regard. Differences between men and women general pediatricians in this study were limited mainly to the greater proportion of women who work part time or who plan to do so in the future. Of special interest is the finding that women in general pediatrics were just as unlikely as men (3%) to plan to pursue careers focused on research. Understanding and appreciating both the similarities and the differences in work patterns between genders of pediatricians will become increasingly important to efforts to ensure an adequate workforce now and in the future.

The ABP has instituted a longitudinal tracking program to follow the careers of board applicants and diplomats. From this effort, in time, data will be available to track the work patterns for both men and women over the course of their careers to reveal when pediatricians work part-time and how the number of hours worked per week varies over time.

An important limitation of this study is our inability to determine the type of inpatient activity desired by the 11% of respondents who wanted to provide additional inpatient care. This could have been the care of ill inpatients or the care of newborn infants.

**CONCLUSIONS**

Despite concerns about young pediatricians being able to find positions that meet their career goals, most general pediatricians sitting for their GPCE were in jobs that at least approximated their desired allocation of professional time and their desired focus of clinical work. The aim for an almost exclusive focus by these general pediatricians on outpatient care an important trend for the profession. Potential implications exist both for the training needs of general pediatricians now and in the future and for the future of inpatient care.

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**REFERENCES**


7. Freed GL, Dunham KM, Jones MD Jr, McGuinness GA, Althouse L; Research

THE REAL CHAMPIONS: I am a terrible chess player. Occasionally I will play a game against a computer chess program, but even if I set the program to “beginner” level, I lose routinely. While it is not surprising that I would lose to a chess program, it turns out that the best human chess players in the world also lose to chess programs. As reported in The Wall Street Journal (Essay: January 9, 2015), the top human chess player in the world has a rating of 2862 on the Elo rating system that measures chess performance. A score of 2600 or better indicates a contender for the World Championship. The best chess programs most likely have scores over 3200. Nobody knows for sure, because the best human players no longer play the chess programs – as they are unlikely to have any success at all. The gap is so large between humans and programs that the best human player in the world may only win one game in 20.

So, while a world championship was played in a grand hall in Sochi last November and the winner crowned one of the greatest players ever, a different type of championship – the seventh Thoresen Chess Engines Competition – was being played in a small apartment in a suburb of Stockholm. The finals pitted “Stockfish” (an open source collaborative project) against “Komodo” (a commercial product developed by a chess grandmaster and a game programmer). Playing around the clock on high speed servers, Komodo won by a score of 7-4 with 53 draws. The event only drew about 130,000 online spectators, but the games were no less fascinating than the games of their human counterparts. As for me, I do not think I will go against Stockfish or Komodo and will stick to the occasional game against my smartphone.

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