

Lifestyle Factors and Primary Care Specialty Selection: Comparing 2012–2013 Graduating and Matriculating Medical Students' Thoughts on Specialty Lifestyle

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Abstract

Purpose

To compare how first-year (MS1) and fourth-year students (MS4) ascribe importance to lifestyle domains and specialty characteristics in specialty selection, and compare students' ratings with their primary care (PC) interest.

Method

In March 2013, MS4s from 11 U.S. MD-granting medical schools were surveyed. Using a five-point Likert-type scale (1 = not important at all; 5 = extremely important), respondents rated the importance of 5 lifestyle domains and 21 specialty selection characteristics. One-way analysis of variance was used to assess differences by

PC interest among MS4s. Using logistic regression, ratings from MS4s were compared with prior analyses of ratings by MS1s who matriculated to the same 11 schools in 2012.

Results

The response rate was 57% (965/1,701). MS4s, as compared with MS1s, rated as more important to good lifestyle: time off (4.3 versus 4.0), schedule control (4.2 versus 3.9), and financial compensation (3.4 versus 3.2). More MS4s than MS1s selected "time-off" (262/906 [30%] versus 136/969 [14%]) and "control of work schedule" (169/906 [19%] versus 146/969

[15%]) as the *most* important lifestyle domains. In both classes, PC interest was associated with higher ratings of working with the underserved and lower ratings of prestige and salary.

Conclusions

In the 2012–2013 academic year, matriculating students and graduating students had similar perceptions of lifestyle and specialty characteristics associated with PC interest. Graduating students placed more importance on schedule control and time off than matriculating students. Specialties should consider addressing a perceived lack of schedule control or inadequate time off to attract students.

Many medical specialties are experiencing widely publicized workforce shortages.^{1–5} The shortage of primary care (PC) physicians is particularly concerning as more individuals become eligible for care under the Affordable Care Act. PC is an essential component of an effective health care system^{6,7}; a shortage threatens the quality and accessibility of health care in the United States. The Association of American Medical Colleges (AAMC) responded to this concern by calling for increased medical school enrollment and the formation of new medical schools.⁸ These efforts do not guarantee, however, that trainees will practice PC.⁹

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On the contrary, the number of students matching into PC has increased slowly,¹⁰ and the future supply of PC physicians is uncertain.^{8,11} It has been difficult to grow the PC workforce because students are increasingly opting to pursue specialty training instead of careers in PC.^{4,12}

Medical students select specialties on the basis of a multitude of factors including personal values, experiences before and during medical school, and the characteristics of the specialty.^{13–15} The extensive literature on specialty choice consists primarily of retrospective analyses of the factors associated with fourth-year medical students' career choices.^{2,15–18} Few studies have evaluated how the medical training environment influences this decision by comparing how medical students at different stages of training think about specialties. Moreover, the two studies that performed such comparisons examined students who completed training in 1983 and 2003.^{19,20} Since then, cultural, political,

and demographic shifts have changed the health care landscape; furthermore, the perspective and priorities of the Millennial generation may contribute to different career goals of current medical students.²¹ As such, a study comparing how matriculating and graduating medical students consider specialty selection could provide valuable insight into current attitudes about specialty choice.

Students' perception of specialty lifestyle is an important factor in specialty choice, as students are increasingly interested in pursuing so-called controllable lifestyle specialties instead of PC.^{2,22–25} Specialty lifestyle is a topic of discussion that pervades all aspects of medical training from premedical to graduate medical education. As a result, students' specialty decisions may be influenced by perceptions of specialty lifestyle developed before matriculating to medical school. Previous studies have found that a student's definition of

a good specialty lifestyle consists of five domains: enjoying work, enjoying the work environment, financial compensation, schedule control, and time off.^{18,26} In October 2013, we published results to a 2012 survey of what first-year students' perceive as the most important determinants of a good lifestyle. Students rated enjoying work as most important and schedule control and work environment as highly important, whereas financial compensation was rated less important.²⁶

Graduating students' perceptions of lifestyle and specialty are likely formed by medical training, though how training influences these perceptions remains unknown. In this study, we surveyed fourth-year students about what they perceive as important to a good lifestyle, and we compare the results with those of the 2012 first-year student survey. We hypothesized that as students gain professional experiences during medical school, they change their perceptions of how lifestyle interacts with work practices. We compare first- and fourth-year students' ratings of which lifestyle domains are important to having a good lifestyle, and their ratings of which different specialty characteristics are important when choosing their specialty. We also posit that comparing these two groups will indirectly shed light on how the four-year medical training process affects students' specialty decisions.

Method

This multi-institutional study is part of InSPIRE (Investigating Specialty Preferences In tRainEes), a project intended to evaluate how medical students' perceptions of lifestyle relate to specialty interest over the course of training.²⁶

Participant selection and sampling frame

This cross-sectional study surveyed all fourth-year medical students at 11 participating schools: the Warren Alpert Medical School of Brown University; Jefferson Medical College of Thomas Jefferson University; Medical University of South Carolina; Northeast Ohio Medical University; Uniformed Services University of the Health Sciences (USU); University of California, San Francisco School of Medicine; University of Chicago

Pritzker School of Medicine; University of Colorado School of Medicine; University of Miami Miller School of Medicine; University of Washington School of Medicine; and Yale School of Medicine. As described in our 2013 study, these schools were selected for diversity in geography, ownership, and National Institutes of Health,²⁷ U.S. News and World Report,²⁸ and social mission rankings.²⁹ The institutional review board at each site either approved the study or determined it exempt prior to student participation.

Data collection

Within the six weeks following the National Residency Matching Program's 2013 Main Residency Match in March, 1,701 fourth-year medical students at participating schools were invited to complete an online survey about specialty selection. A link was provided to a Web-based questionnaire hosted on surveymonkey.com,³⁰ and the survey remained open for six weeks. Two reminders were sent. A raffle incentive was used at all institutions, except at USU because of school regulations.

Questionnaire development and content

The 31-item questionnaire was originally used in our 2013 study of first-year medical students who matriculated in fall 2012 at the same 11 institutions.²⁶ We modified the language of this survey for fourth-year medical students (see Supplemental Digital Appendix 1 at <http://links.lww.com/ACADMED/A232>). We have described our process for developing the questionnaire in the 2013 study, and for context we provide the explanation and definitions below.

The survey consisted of several sections. The first section asked students to indicate their first specialty choice regardless of ultimate match outcome. To better categorize levels of interest in certain specialties, students were also asked to select three additional specialties they had considered and to identify three specialties they had considered the least. Students were then asked about exposure to their first specialty choice prior to entering medical school. The second section related to lifestyle. Students were asked to provide a free-text definition of a "good lifestyle." Then, they rated the importance of five domains of a good lifestyle ("financial compensation," "having control of work schedule," "having enough time off work,"

"enjoying the work environment," and "enjoying the type of work I am doing") using a five-point Likert-type scale (1 = not important at all to 5 = extremely important). We based these domains on student-described themes (schedule control, off-time, financial considerations, and work life) identified in a qualitative analysis of what characterizes "a good physician lifestyle."¹⁸ Next, students rated characteristics frequently considered when selecting a specialty using the same five-point scale. We identified 21 such specialty characteristics that had been used in prior studies to evaluate how fourth-year students select their specialty.^{2,18,22,23,31} Finally, students were queried about their demographic, educational, and financial history. Students were asked to indicate their level of debt, intent to participate in a loan repayment program, and exposure to volunteer work, research, and the health care field through employment and/or personal experience.

Using previously established definitions,^{6,12} we classified family medicine, general internal medicine, and pediatrics as PC. We grouped all participants into one of five PC interest categories based on their specialty considerations: *PC-first* students selected PC as their first specialty choice; *PC-second* students selected PC as an additional specialty they considered; *PC-mixed* students selected one of the three PC specialties as a first or second choice and another of the three PC specialties as a least likely choice; *PC-least* students selected PC as a specialty they considered least; and *No opinion* students did not select PC in any category (Table 1).

We compared the five PC interest categories using either chi-square or one-way analysis of variance (ANOVA), and conducted post hoc testing using the Bonferroni multiple comparison test. We determined significance as $P \leq .05$ (after adjustment for multiple comparisons in post hoc testing) and classified our calculated effect sizes.³²

Comparison to first-year students

Finally, we compared survey results from the 2013 graduating fourth-year medical students with those of first-year medical students who matriculated to the same 11 schools at the beginning of the 2012–2013 academic year. This group of first-year students completed a similar survey

Table 1

Primary Care (PC) Interest of First- and Fourth-Year Medical Students at 11 MD-Granting Medical Schools Surveyed in 2012 and 2013, Respectively

PC grouping ^a	Class of students	
	First-year students, no. (%) (n = 1,021)	Fourth-year students, no. (%) (n = 965)
PC-first	223 (22%)	296 (31%) ^b
PC-second	275 (27%)	165 (17%) ^b
No opinion	227 (22%)	206 (21%)
Mixed	83 (8%)	117 (12%) ^b
PC-least	212 (21%)	181 (19%)

^aPC-first students selected PC as the most likely specialty; PC-second students selected PC as an additional specialty but not as the most likely specialty; PC-mixed students selected a primary care specialty as a first or second choice as well as a least likely choice; PC-least students selected PC as a least likely specialty; and no opinion students did not select PC in any category.

^bStatistically significant difference between percentages of first-year and fourth-year students; $P \leq .01$ compared with first-year, χ^2 .

within four months of matriculation. Question stems were worded differently to be appropriate for the surveyed group (e.g., first-year students were asked, "If you had to choose today, what specialty would be your first choice?" while fourth-year students were asked, "What residency was your first choice in the match?"), but all answer choices were the same. Similar to fourth-year students, first-year students had six weeks to complete the survey and received two reminders prior to the survey closing. A raffle to incentivize participation was also used at all institutions except USU. In this study, we compared first-year students' ratings of lifestyle domains and specialty characteristics²⁶ with those of the fourth-year students using logistic regression and interaction. We used STATA, version 11.2 (STATA Corporation, College Station, Texas) to conduct all analyses.

Results

Of the 1,701 eligible fourth-year students, 965 (57%) completed the questionnaire. Not all students answered all questions, resulting in a range of denominators (889–965) for some questions. We found that the demographics of our survey population did not significantly differ from those of the 2013 Graduate Student Questionnaire³³ or the surveyed first-year student cohort²⁶ (Table 2).

Importance of lifestyle domains and specialty characteristics to fourth-year students

When asked to rate the overall importance of the five lifestyle domains to having a good physician lifestyle,

fourth-year students rated "enjoying the type of work" highest in importance (mean 4.6 [standard deviation 0.7]), whereas they rated "financial compensation" lowest (3.4 [0.9]). When asked to select the *single* most important domain to having a good lifestyle, 41% (373/906) of respondents chose "enjoying the type of work," 29% (262/906) selected "having enough time off work," 19% (169/906) chose "having control of work schedule," 9% (83/906) chose "enjoying the work environment," and 2% (19/906) chose "financial compensation" (Table 3).

Of these five domains, "financial compensation" and "enjoying the type of work" differed significantly by PC preference among fourth-year students (ANOVA $P < .05$ and Bonferroni multiple comparison test $P < .05$). The mean importance of "financial compensation" was rated lower by PC-first than by PC-least students (3.1 [0.9] versus 3.8 [0.9], respectively; effect size 0.71), and the mean importance of "enjoying the type of work" was rated higher by PC-first compared with PC-least students (4.7 [0.6] versus 4.4 [0.08], respectively; effect size 0.35). The other three lifestyle domains did not significantly differ by PC interest among fourth-year students ($P > .05$).

Twenty-one characteristics considered during specialty selection were rated on a Likert-type scale from "not important at all" (1) to "extremely important" (5) (Table 4). We grouped ratings into three categories and considered characteristics

with mean ratings of 4.0 or higher to be "most important"; those with mean ratings less than 3.0 were considered to be "less important," and all others were considered to be "moderately important." Characteristics that were rated by fourth-year students as "most important" included "being satisfied with the job" (4.6 [0.6]), "having an enjoyable work day" (4.5 [0.7]), "having a balance between work life and personal life" (4.4 [0.8]), "intellectual stimulation of work" (4.3 [0.8]), "having time to spend with family" (4.3 [0.9]), "collegiality of coworkers" (4.2 [0.8]), and "having time for myself outside of work" (4.1 [0.9]). Characteristics rated by fourth-year students as less important were "how often I would work on weekends" (2.9 [1.1]), "how often I would take overnight call" (2.9 [1.2]), "having a low stress work day" (2.8 [1.1]), "how often I would work a night shift" (2.7 [1.1]), "research opportunities" (2.5 [1.3]), "perceived prestige of the field" (2.4 [1.1]), and "availability of practice locations in rural locations" (2.0 [1.2]).

Fourth-year PC-first students rated 3 of the 21 specialty characteristics differently than fourth-year PC-least students; effect sizes ranged from medium to large (ANOVA $P < .05$ and Bonferroni multiple comparison test $P < .05$). "Opportunities to work with underserved populations" was rated higher by PC-first students (3.6 [1.2]) than PC-least students (2.2 [1.2]) (effect size 1.04). PC-first students, compared with PC-least students, rated as less important: "average salary earned by attending physicians in the specialty" (2.5 [1.0] versus 3.5 [0.9], respectively; effect size 0.97) and "perceived prestige of the field" (2.1 [1.0] versus 2.8 [1.1], respectively; effect size 0.64).

Comparing first-year and fourth-year students

Fourth-year students had a similar survey response rate to first-year students (965/1,701 [57%] versus 1,021/1,704 [60%], respectively). More fourth-year students (296/965 [31%]) selected PC as their first choice specialty than first-year students (223/1,021 [22%]), and there were fewer fourth-year students in the PC-second group (165/965 [17%] versus 275/1,021 [27%]) (Table 1). Fourth-year students rated the overall importance of "enjoying the type of work" and "enjoying the work environment" slightly lower than first-year students (effect sizes

Table 2

Demographics of Surveyed Fourth-Year Medical Students at 11 MD-Granting Medical Schools in 2013, as Compared With First-Year Medical Students at the Same Schools Surveyed in 2012 and National Graduate Student Questionnaire Data

Demographic category	Surveyed fourth-year students, no. (%) ^a	% From national graduation data ^b	Surveyed first-year students, no. (%) ^{a,c}
Female	472/910 (52)	49.4	501/975 (51)
Time after college before matriculation ≤ 1 year	579/905 (64)	Not reported	578/975 (59)
Age at graduation < 30 years	724/909 (80)	84.7	774/975 (79) ^d
No premedical education debt	594/889 (67)	64.4	621/945 (66)
No parent physician	726/906 (80)	Not reported	753/978 (77)

^aNot all students answered all survey questions, resulting in varying denominators across questions.

^bOnly percentages available. Data are from the results of the Association of American Medical Colleges' 2013 Graduate Student Questionnaire.³³

^cData are from a 2013 study by Clinite et al.²⁶

^dRepresents first-year students' age at matriculation: < 26 years.

0.27 and 0.17, respectively) (Table 3). "Time off work," "schedule control," and "financial compensation" were rated as more important by fourth-year students, although the effect sizes were small (0.35, 0.32, and 0.17, respectively). A higher percentage of fourth-year students compared with first-year students selected "having enough time off" (262/906 [30%] versus 136/969 [14%], $P < .001$) and "having control of work schedule" (169/906 [19%] versus 146/969 [15%], $P = .05$) as the *single*

most important characteristic to having a good lifestyle, whereas fewer fourth-year students than first-year students selected "enjoying the type of work" as most important (373/906 [41%] versus 586/969 [61%], $P < .001$).

Compared with the ratings of first-year students, seven specialty characteristics were rated differently by fourth-year students, although the effect size of these differences was small (t test, $P < .001$). Fourth-year students, compared with

first-year students, rated the following as less important: "Family time" (4.3 [0.9] versus 4.5 [0.7], respectively), "opportunities to work with the underserved" (3.0 [1.3] versus 3.2 [1.2]), "overnight call" (2.9 [1.2] versus 3.2 [1.0]), "weekend work" (2.8 [1.1] versus 3.2 [1.0]), and "night-shift work" (2.7 [1.1] versus 3.2 [1.0]) "Collegiality of coworkers" and "teaching opportunities" were rated as more important by fourth-year students than by first-year students (4.2 [0.8] versus 3.9 [0.9] and 3.4 [1.2] versus 3.0 [1.1], respectively). In both classes, PC interest was associated with higher ratings of importance in working with the underserved and lower ratings of prestige and attending salary. However, the strength of these trends did not differ between the classes.

Discussion

We found that matriculating and graduating medical students consider the same factors to be important to a "good physician lifestyle." Both groups of students stated that enjoying the type of work was important, but fewer graduating fourth-year students rated this as the *most* important to having a good lifestyle. In contrast, more graduating students than matriculating students rated schedule control and time off as *most* important; indeed, a previous study has demonstrated that schedule control and time off are major determinants of how fourth-year students define lifestyle.¹⁸ It may be that as students experience training in a clinical environment, their work schedules become less predictable; consequently, time off and schedule control may become more important. Similarly, their perceptions of lifestyle may be influenced by the attitudes and actions of residents, attendings, and peers within their community of practice, and therefore, according to community of practice theory, they may learn and develop professionally through their social relationships rather than through simple acquisition of knowledge.³⁴ Accordingly, as learners strive to become a part of a physician community and increase their professional role through clinical training, their views of physician lifestyle and the medical profession may be most influenced by their supervisors during training; therefore, enjoying work may become secondary to time off and schedule control as students see residents and attendings handle the demands of

Table 3

Comparison of First- and Fourth-Year Medical Students' Selections of Most Important Lifestyle Domain, As Well As Their Average Overall Ratings of How Important Lifestyle Domains Are to Lifestyle

Lifestyle domain	Students ranking most important domain, no. (%)		Importance overall, ^a mean (standard deviation)		Effect size
	First-year students (n = 969) ^b	Fourth-year students (n = 906)	First-year students (n = 969) ^b	Fourth-year students (n = 906)	
Enjoying type of work I am doing	586 (61)	373 (41) ^c	4.8 (0.6)	4.6 (0.7) ^c	0.27
Having enough time off work	136 (14)	262 (29) ^c	4.0 (0.9)	4.3 (0.8) ^c	0.35
Having control of work schedule	146 (15)	169 (19) ^d	3.9 (0.8)	4.2 (0.8) ^c	0.32
Enjoying work environment	88 (9)	83 (9)	4.6 (0.7)	4.5 (0.7)	0.17
Financial compensation	13 (1)	19 (2)	3.2 (0.9)	3.4 (0.9) ^c	0.17

^aImportance scale: 1 = not important at all, 2 = slightly important, 3 = moderately important, 4 = quite important, and 5 = extremely important.

^bData are from a 2013 study by Clinite et al.²⁶

^c $P \leq .01$ compared with first-year medical students, t test or χ^2 .

^d $P = .05$ compared with first-year medical students, t test.

Table 4

Categorization of Specialty Selection Characteristics by Importance to Fourth-Year Medical Students at 11 MD-Granting Medical Schools, 2013

Specialty selection characteristics ^a	Importance overall, mean (standard deviation) ^b
Rated as most important	
Being satisfied with the job	4.6 (0.6)
Having an enjoyable work day	4.5 (0.7)
Having a balance between work life and personal life	4.4 (0.8)
Intellectual stimulation of the work I am doing	4.3 (0.8)
Having time to spend with family	4.3 (0.9)
Collegiality of coworkers	4.2 (0.8)
Having time for myself outside of work	4.1 (0.9)
Rated as moderately important	
Being able to have a flexible schedule	3.5 (1.0)
Having predictable work hours	3.5 (1.1)
Teaching opportunities	3.4 (1.2)
Leaving work at a predictable time every day	3.2 (1.1)
Opportunities to work with underserved populations	3.0 (1.3)
Availability of large practice locations in large, urban centers	3.0 (1.3)
Average salary earned by attending in the specialty	3.0 (1.1)
Rated as less important	
How often I would work weekends	2.9 (1.1)
How often I would take overnight call	2.9 (1.2)
Having a low stress work day	2.8 (1.1)
How often I would work a night shift	2.7 (1.1)
Research opportunities	2.5 (1.3)
Perceived prestige of the field	2.4 (1.1)
Availability of practice locations in rural areas	2.0 (1.2)

^aCategorization of importance: Most important rated ≥ 4.0 , moderately important rated ≥ 3.0 , less important rated < 3.0 .

^bImportance scale: "Not important at all" = 1, "Slightly important" = 2, "Moderately important" = 3, "Quite important" = 4, "Extremely important" = 5.

clinical practice. Finally, students may associate certain specialties with an increased likelihood of burnout,³⁵ or they may themselves experience burnout^{36,37} as a result of the training environment, thus leading them to perceive schedule control and time off as most important to a good lifestyle.

Both first- and fourth-year medical students rated specialty characteristics similarly, and the associated effect sizes of the few rated differently were small. Interestingly, the overall ordering of specialty characteristics was consistent between the two groups of students with little divergence. For both, job satisfaction and work-life balance were among the highest-rated specialty characteristics, followed by work logistics such as overnight and weekend call, whereas money and prestige were rated of lower

importance. One major difference is that fourth-year students rated work logistics as less important than did first-year students. It is possible that things like overnight work and weekend call are foreign to first-year students and therefore seem more important; however, once students experience them they become much less so. Another difference is that fourth-year students rated teaching opportunities as more important. Although social desirability bias may contribute to these results, students' deviations in the ordering of specialty characteristics is heartening, suggesting that career motivations of Millennial medical students at the end of training go beyond the mantra of more money for less work.

Students who were most interested in PC valued specialty characteristics and lifestyle domains similarly regardless

of year in school; the strength of these associations did not differ between classes. Our data suggest that the association between social consciousness and PC interest is maintained throughout training. In both groups, interest in PC correlated with higher ratings of importance of working with the underserved. Conversely, interest in PC was inversely correlated with the importance of prestige and attending salary. These findings are supported by prior work that links social consciousness and demographic factors, such as gender, ethnicity, and rural background, with students' decisions to pursue PC.¹⁵

Finally, more fourth-year students were interested in PC than first-year students. We cannot conclusively determine the reason for this difference because our study compares two different cohorts of students. However, the higher number of PC-first students among fourth-year students may provide preliminary evidence that some aspects of medical training may influence a subset of students who are undecided about PC to ultimately pursue PC. The Match is also a competitive process that likely influences specialty choice. Some specialties require higher academic achievement to Match, and this may preclude some students from pursuing more competitive specialties. Some students therefore may opt to pursue a less competitive PC specialty to ensure a successful residency match, rather than their most desired specialty. Following the first-year students longitudinally will help distinguish these factors.

Our results should be considered in the context of the following limitations. First, the sampling frame did not include international or osteopathic medical schools; given the diversity of schools and the large sample size in our study, these results are likely generalizable to all U.S. MD-seeking students. Furthermore, our sample closely matched most aspects of the national reference group (Table 2). Second, standard survey biases, such as nonresponse bias and social desirability bias, may have influenced respondents.³⁷ Still, the response rate of 57% was reasonable, and missing data were few. Additionally, the survey was anonymous, encouraging honest responses. Third, it is possible that students interpreted survey questions differently than we intended. For example, students may have answered

questions based on inferences about others' perceptions of lifestyle, rather than their personal beliefs. Fourth, we did not analyze our data by individual schools, and school culture is known to influence specialty decisions.³⁸ Analyses by school characteristics are warranted because students from different schools may have different attitudes toward career selection. USU in particular is an anomaly among medical schools, given students' military obligation and low debt. USU students' ideas about specialty choice may not be generalizable beyond their student population. If significant institutional differences in culture exist, our proposed solutions may not apply equally. Finally, differences between first-year students and graduating students may be the result of a cohort effect rather than from changes in the conceptualization of lifestyle that occur during medical school training.

Our findings have implications for expanding the PC workforce and suggest directions for future investigation. First, we recommend further evaluation of how the training environment influences PC choice. Such investigation may provide insight into ways to enhance the desirability of a PC career. Because meaningful work is more important than money or prestige to those interested in PC, efforts to improve the PC practice environment may address the high burnout rate associated with PC specialties.³⁵

Furthermore, we believe that the PC pipeline should continue to be developed. Prior research has demonstrated that students who are female, underrepresented in medicine, and/or come from a rural background are more likely to pursue PC.³⁹⁻⁴¹ Our study corroborates that intent to work with underserved populations may be a way for medical school admission committees to screen for intent to pursue PC careers. This latter finding also supports the reasons behind the AAMC's Admissions Initiative's holistic review project, which helps medical school admission committees select applicants for nonacademic qualities.⁴²⁻⁴⁴

Our findings can also be used to inform changes to specialty practice. All students value a balance between schedule control, protecting time off, and enjoying work. Even though schedule control was important to graduating students, we

found that they did not rate working nights, weekends, or taking evening call as important to specialty selection. This suggests that working during these times does not necessarily detract from a desirable lifestyle if schedule control or protected time off is maintained. It may be that some specialties should aim to address a perceived lack of schedule control or inadequate time off as a means to attract students.

Finally, the difference we observed in PC interest between first- and fourth-year students supports the finding of Erikson et al³⁸ that the training environment influences PC interest. Nonetheless, the number of fourth-year students interested in PC is still low given the projected needs of the PC workforce. Efforts to grow the PC workforce must focus on those students who are truly undecided, but still might consider a PC career.

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