

ASCP Fellowship & Job Market Surveys

A REPORT ON THE 2013

RISE, FISE, FISHE, NPISE, PISE and TMISE Surveys

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INTRODUCTION

ASCP Fellowship & Job Market Surveys: A Report on the 2013 RISE, FISE, FISHE, NPISE, PISE, and TMISE Surveys

By Henry M. Rinder, MD, FASCP, Karen Frank, MD, PhD,
and Jay Wagner, MBA, MLS(ASCP)CM

ASCP responds to the interests and needs of residents, fellows, and program directors by directing an annual survey on fellowships and the job market for pathologists in training, including both residents and fellows.

The surveys are conducted as part of the Resident In-Service Examination (RISE) and the Fellow Forensic In-Service Examination (FISE), the Fellow In-Service Hematopathology Examination (FISHE), Fellow Neuropathology In-Service Examination (NPISE), Fellow Pediatric Pathology In-Service Examination (PISE), and the Fellow Transfusion Medicine In-Service Exam

(TMISE). These data are compiled by ASCP to provide information useful to all pathology trainees, residency and fellowship program directors, and prospective employers.

A total of 2,506 individuals participated in the Spring 2013 RISE, including 2,482 residents (669 PGY-1, 636 PGY-2, 626 PGY-3, and 551 PGY-4) and 24 individuals who cited training status as other than PGY 1-4, e.g., fellows.

Some 85 percent of residents are in AP/CP training, while 11 percent and 4 percent are in AP only and CP only tracks respectively. For PGY-3/4 trainees, 66 percent have U.S. medical degrees, compared with 58 percent for PGY-1/2 residents.

A total of 283 fellows participated in the five Spring 2013 Fellowship In-Service Examinations



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APPLYING FOR PATHOLOGY FELLOWSHIPS

As part of the 2013 RISE, 1191 PGY-3/4 residents were surveyed about their experience in the fellowship process and residents' attitudes toward fellowship training.

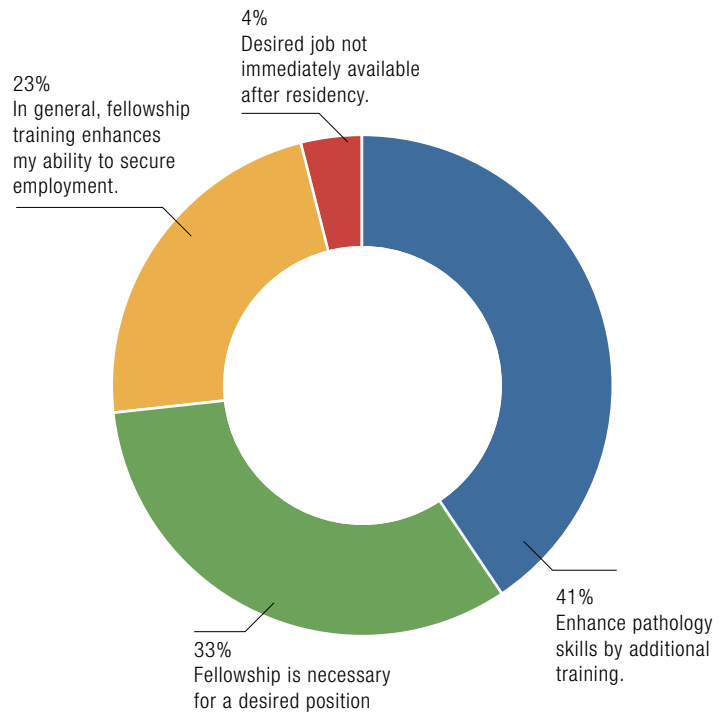
From the 2013 survey, the fellowships that PGY-3/4 residents have already applied for or intend to apply for are listed in order of preference:

- Surgical Pathology
- Hematopathology
- Cytopathology
- Gastrointestinal/Hepatic Pathology
- Dermatopathology
- Forensic Pathology
- Blood Banking/Transfusion Medicine
- Breast Pathology
- Molecular Genetic Pathology
- Genitourinary Pathology
- Molecular Pathology
- Gynecologic Pathology
- Pediatric Pathology
- Neuropathology

Principal Reason for Pursuing a Fellowship (All residents)

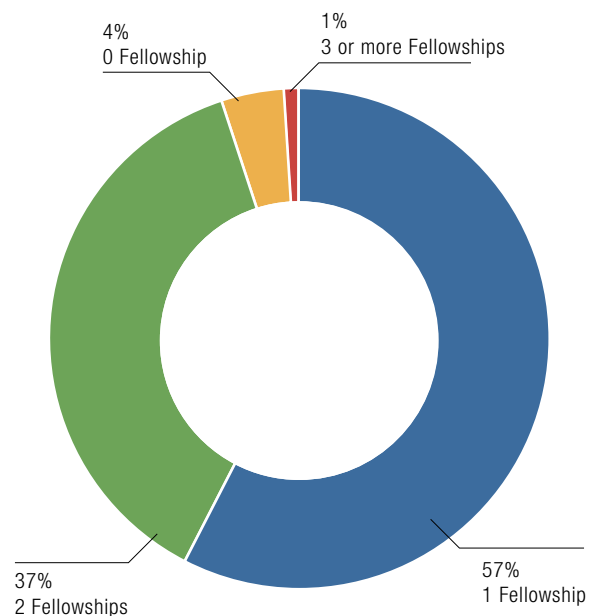
About 40 percent of residents cited enhancement of their pathology skills as the main reason for pursuing a fellowship, while one-third were planning their career in pathology to be based on their fellowship specialty. The third group of residents chose a fellowship to enhance their employability, and only a small number of residents chose a fellowship because of job unavailability.

The vast majority of residents finalized their fellowship plans during their PGY-3 year, while much smaller numbers made their decisions earlier in their training; still, 5 percent did not decide on fellowship pathways until their fourth year of residency training.

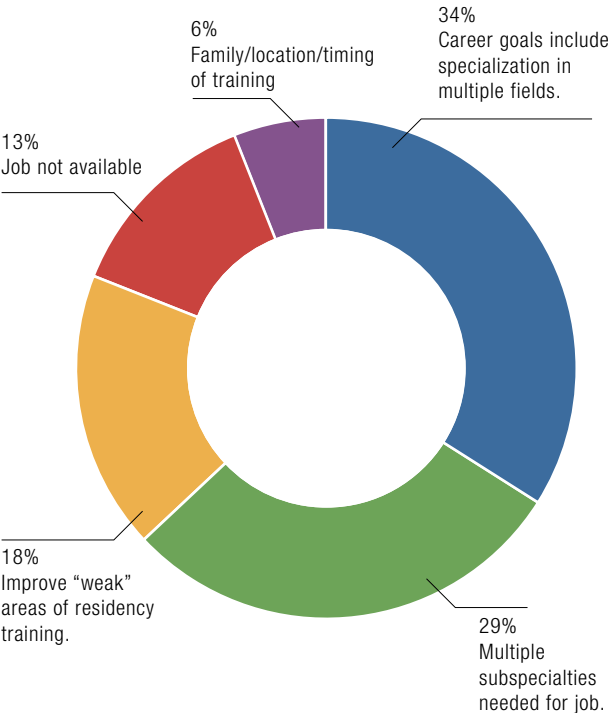


Number of Fellowships Intended to Complete (All Residents)

The desire for multiple fellowships continues with 37 percent of residents reporting interest in doing two or more fellowships.

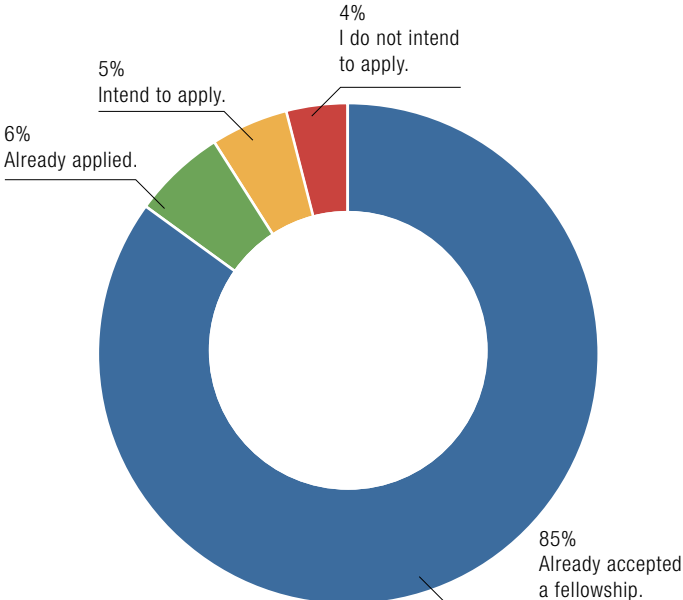


Reasons for Pursuing Multiple Fellowships (All residents)



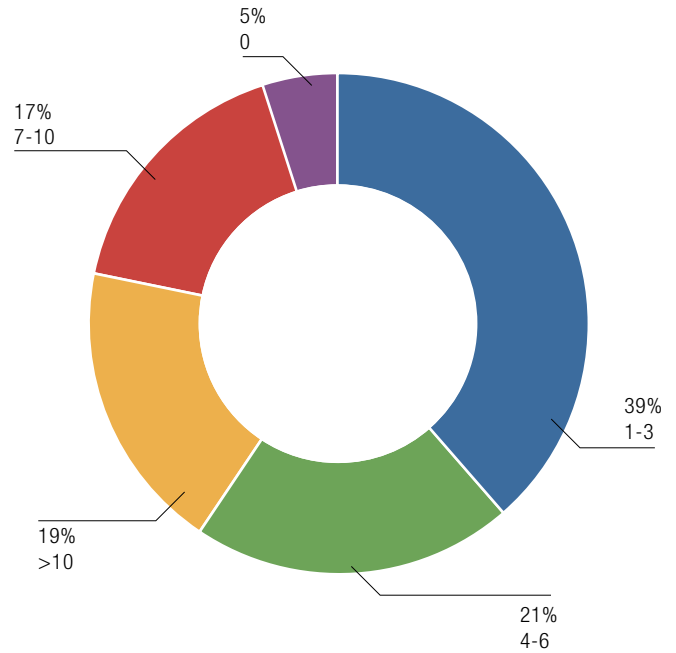
Specialization in several fields as a career goal declined dramatically (54 percent to 34 percent) compared with 2012, and the pursuit of multiple fellowships is now most important for correcting residency training gaps and securing jobs in a competitive market (from 26 percent to 47 percent in combination) compared to 2012.

Current Interest in Applying for a Fellowship (PGY-3/4 residents only)



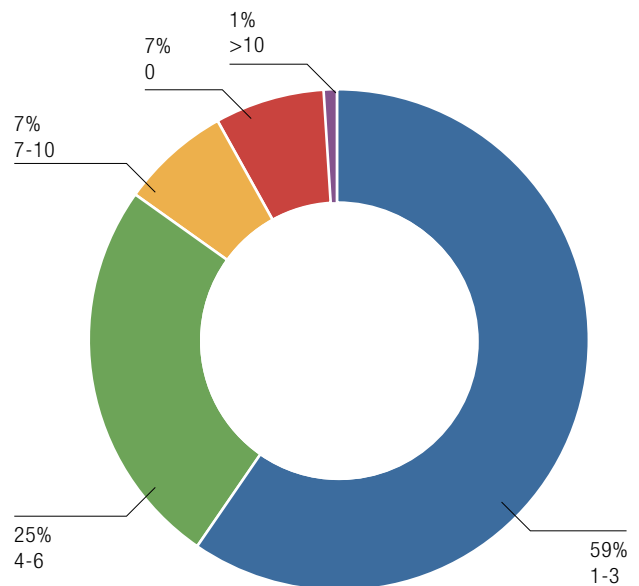
To how many fellowship programs did you formally apply? (PGY-3/4 residents only)

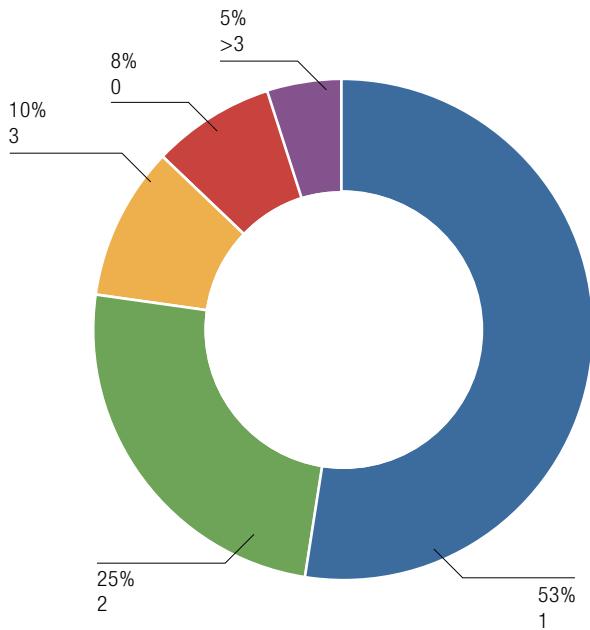
The majority of residents apply for at least four fellowship positions.



Number of Fellowship Interviews Received (PGY-3/4 residents only)

Only a small number of residents interview for more than four to six fellowship positions.



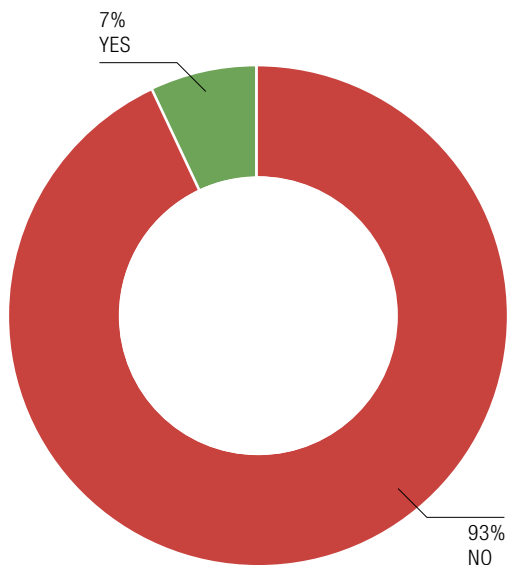


Number of Fellowship Offers Received (PGY-3/4 residents only)

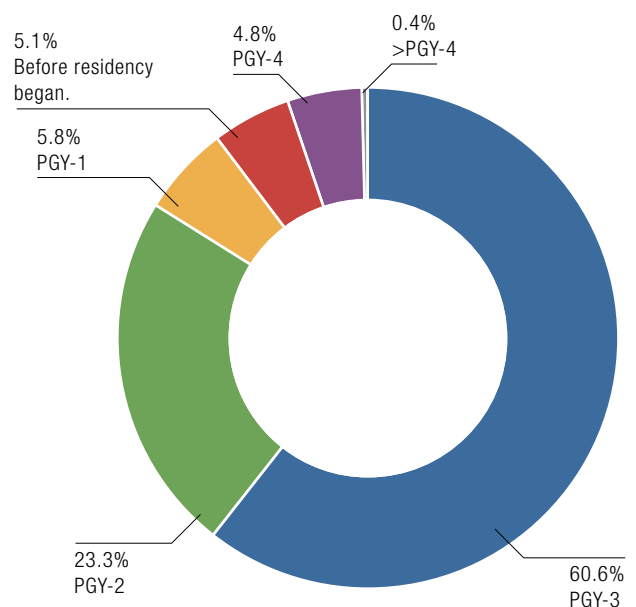
The reported results for fellowship offers in 2013 were remarkably similar to previous years. Slightly more than half of residents received a single fellowship offer; only 8 percent did not receive any offers, a slight overestimate since a small percent did not apply to fellowships. About 40 percent of residents had positive responses from two or more fellowship programs, suggesting that there is competition among fellowship programs for strong applicants.

Did you accept more than one offer? (PGY-3/4 residents only)

A minority of residents continue to accept and then subsequently decline a fellowship offer.



In what PGY-year did you finalize your choice of fellowship? (All residents)



Conclusions

Fellowship training in pathology is sought after by 95 percent of residents; more than one-third of residents plan on multiple fellowships. Enhancing job opportunities and filling training gaps in combination outweighed specialization considerations in choosing to pursue two or more fellowships.

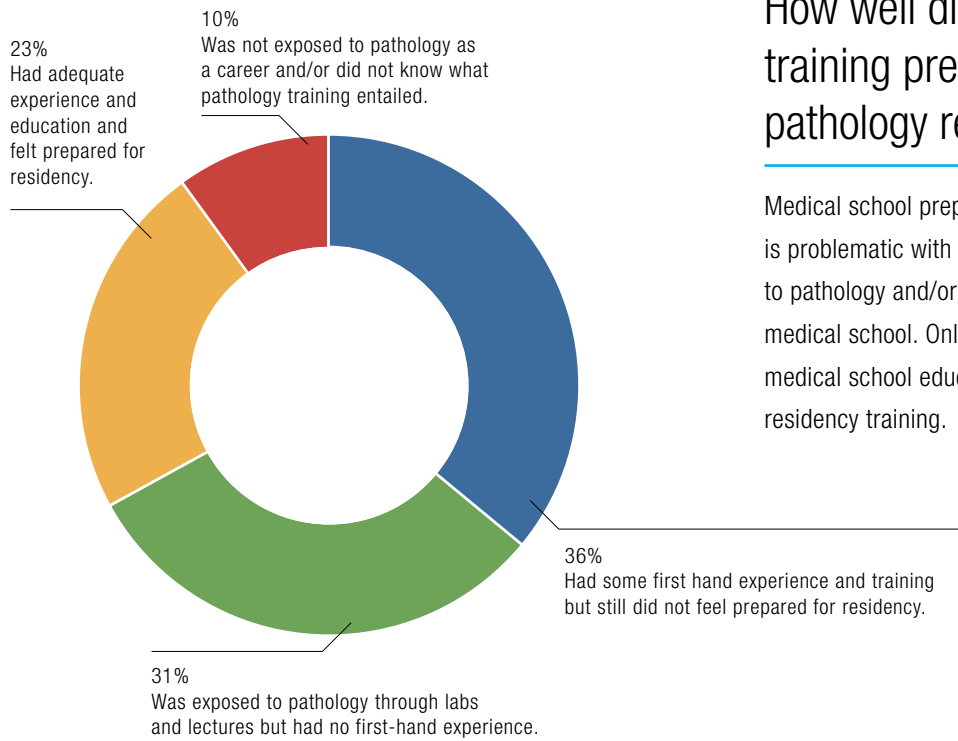
- As in 2012, decisions on fellowship specialties were mostly made during the PGY-2 and PGY-3 training years.
- The majority of PGY-3/4 residents received only a single fellowship offer; about 40 percent received multiple offers. Less than 8 percent had not yet received a fellowship offer, suggesting that only a small number of residents are not finding fellowship opportunities.
- Surgical pathology remains the top fellowship choice; cytopathology, and hematopathology continue to trade for the No. 2 fellowship spot, while GI/hepatic pathology, dermatopathology, and a new entry, forensic pathology, round out the top six fellowship specialties.



PREPARATION FOR RESIDENCY AND FOR INDEPENDENT WORK

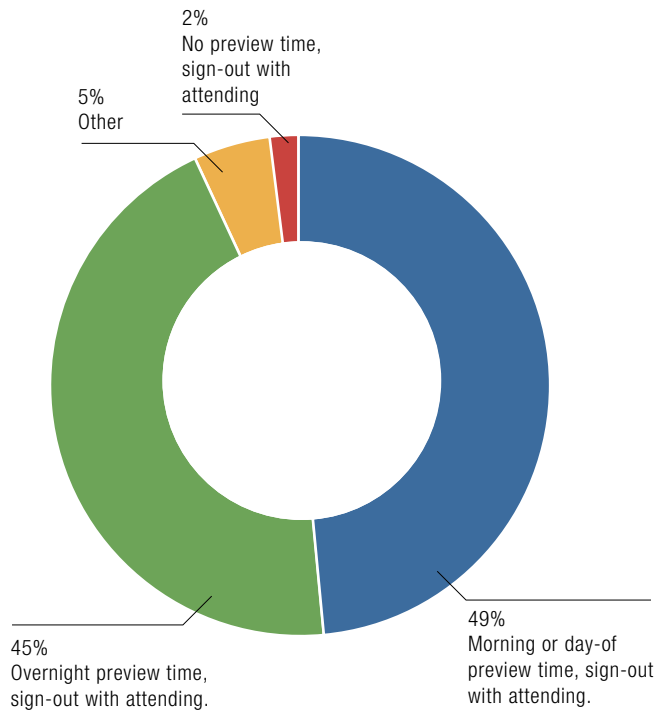
The ASCP Resident Council responded to requests from residents interested in learning about national trends regarding medical education prior to residency and sign-out procedure.

How well did your medical school training prepare you for your pathology residency? (All residents)



Medical school preparation for pathology residency training is problematic with 41 percent of residents citing no exposure to pathology and/or no first-hand pathology experience during medical school. Only one-quarter of residents felt that their medical school education left them prepared for pathology residency training.

What type of sign-out experience does your program have? (All residents)

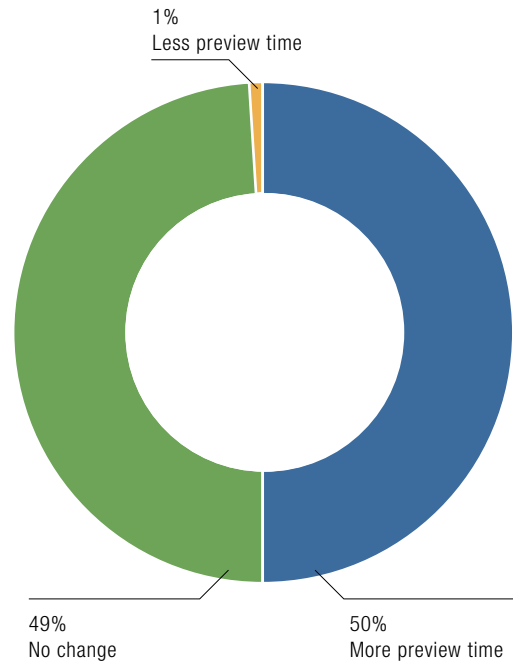


Sign-out experience did not differ significantly from 2012.



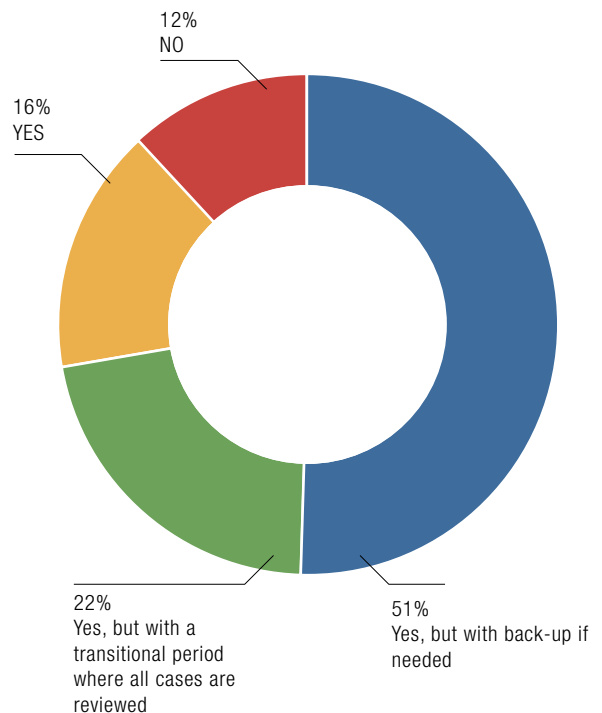
Do you believe that your sign-out experience would benefit from: (All residents)

Again, sentiment for more sign-out has not changed from 2012.



Do you anticipate feeling ready to sign-out general pathology cases upon graduation from residency? (All residents)

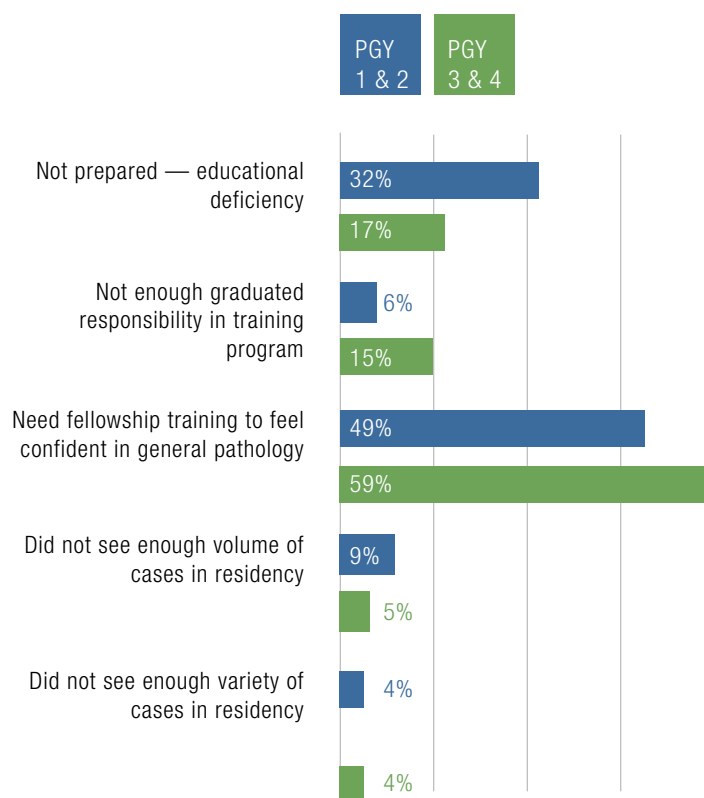
Only one-sixth of senior residents are ready for general sign-out.



Residents at every training level felt that they would not be independent at graduation, but the reasons for this changed with time-in-training (as noted in the following table).

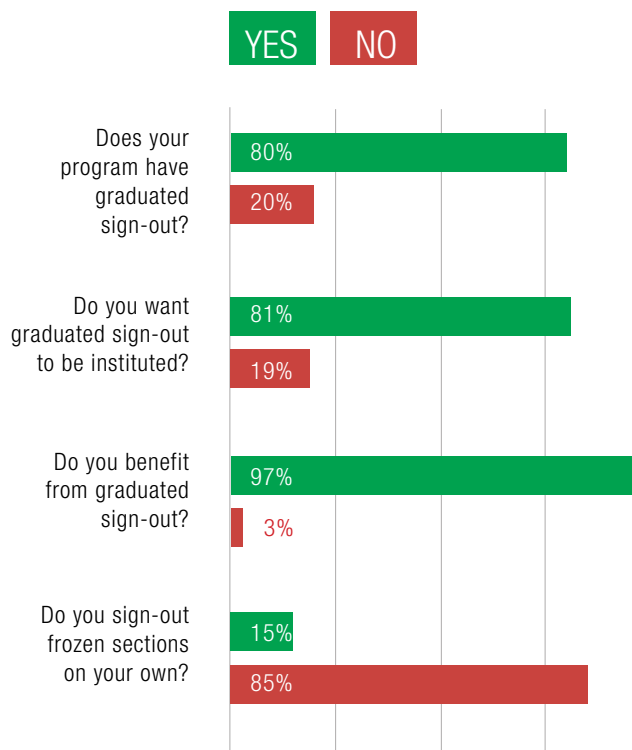


Why don't you anticipate feeling ready to sign-out cases upon graduation from residency? (PGY-1/2 and PGY-3/4)



Preview time was about equally split between morning/day-of sign-out versus overnight, and there is a small but persistent percentage of residents citing no preview time at all. Similarly, residents overall were equally split between needing more preview time versus no change in the current amount of previewing. Training status influenced the desire for more preview time but perhaps not as much as might be expected; 53 percent of PGY-1/2 cited a benefit from more preview time versus 47 percent of PGY- 3/4. Interestingly, time in training also demonstrated a sobering effect upon resident expectations for independence; 27 percent of PGY-1 (but only 10 percent of PGY-3/4) residents felt that they would be ready for general pathology sign-out upon graduation. With time-in-training, senior residents generally felt a greater need for backup or a transition period to independent sign-out.

Graduated sign-out experience (All residents)



For residents who did not feel that they would be ready for general pathology sign-out at graduation, reasons for this deficiency changed over time. PGY-1 trainees were similarly concerned about both educational deficiencies (37 percent) and needing fellowship training (42 percent) to become adept at sign-out. By third or fourth year year of residency, these cited reasons had changed to 17 percent and 59 percent, respectively. In addition, a lack of graduated responsibility emerged as a significant reason for deficiency, with the percent more than doubling from PGY-1/2 to PGY-3/4. As an example, 85 percent of residents do not sign-out frozen sections on their own.

Nearly 100 percent of the residents who experience graduated sign-out feel that they benefit from completely working up the case on their own, independently writing the report, and then having the attending do a final review. However, one-fifth of residents at every level of training consistently note that there is no form of graduated sign-out during their residency; 80 percent of such residents would like graduated sign-out to be instituted.

Conclusions

- Pathology residents overwhelmingly felt that their medical school education had not adequately prepared them for residency.
 - Similar to 2012, nearly all residents have overnight or morning/day-of preview time, and about half would benefit from more preview time.
 - Only one-sixth of all residents anticipate that they would be able to independently sign out general pathology at the time of graduation. A similar but lesser subset would not feel competent even with a transition or backup period.
 - Increasing educational experience and embracing graduated responsibility are readily available changes that pathology programs could use to enhance resident confidence in their general pathology skills.
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APPLYING FOR PATHOLOGY JOBS IMMEDIATELY AFTER RESIDENCY

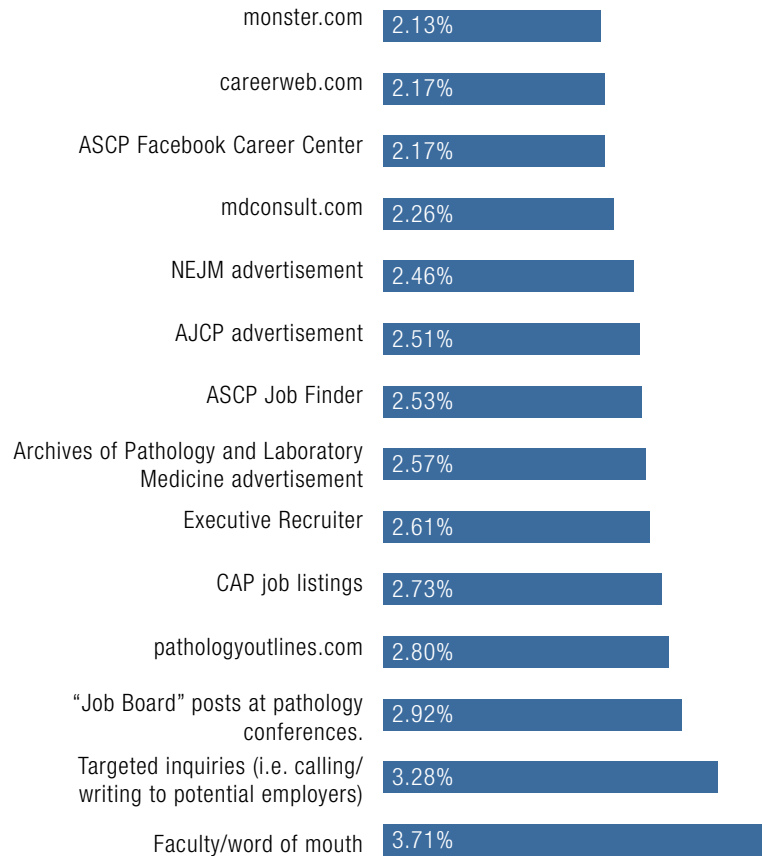
Although relatively few pathology residents opt to go directly from training into the job market, both the ASCP Resident Council and the RISE Committee deem it critical to survey residents in this situation and report relevant information for future trainees.

Number of Jobs Formally Applied For

In 2013, only 52 PGY-3 and PGY-4 residents noted that they were seriously considering entering the job market, and only 16 actually applied for a specific job. Fourteen of these applied for between one to three jobs, and all received interviews. The majority of job opportunities were full-time in Community Group practice.

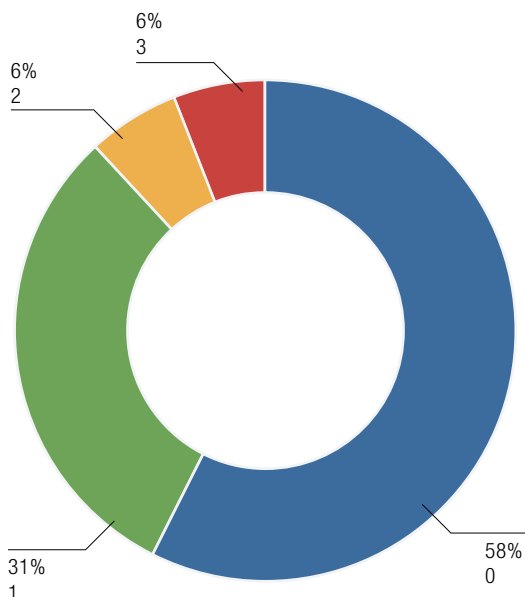
Helpful Employment Resources

Residents learned of jobs through a variety of venues but, as noted previously, hearing of jobs from faculty and by word-of-mouth is always the most important resource for the job search. Rounding out the top three best venues were (2) contacting potential employers directly and (3) job boards at conferences (Scale for related chart: 5=extremely important, 4=somewhat important, 3=minor importance, 2=not important, and 1=not a consideration).

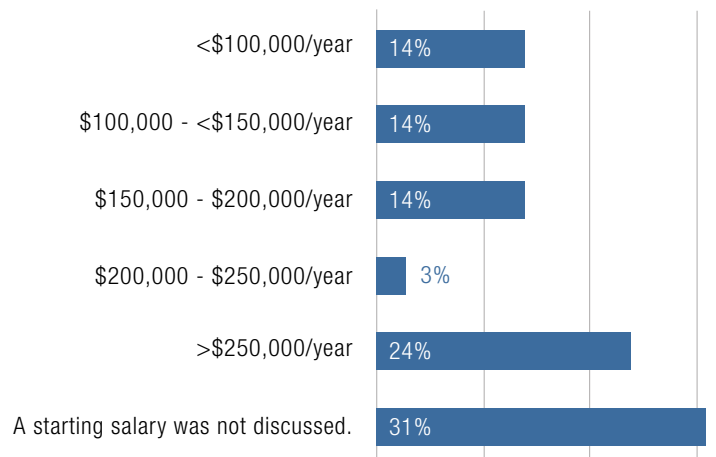


Number Of Job Offers Per Resident

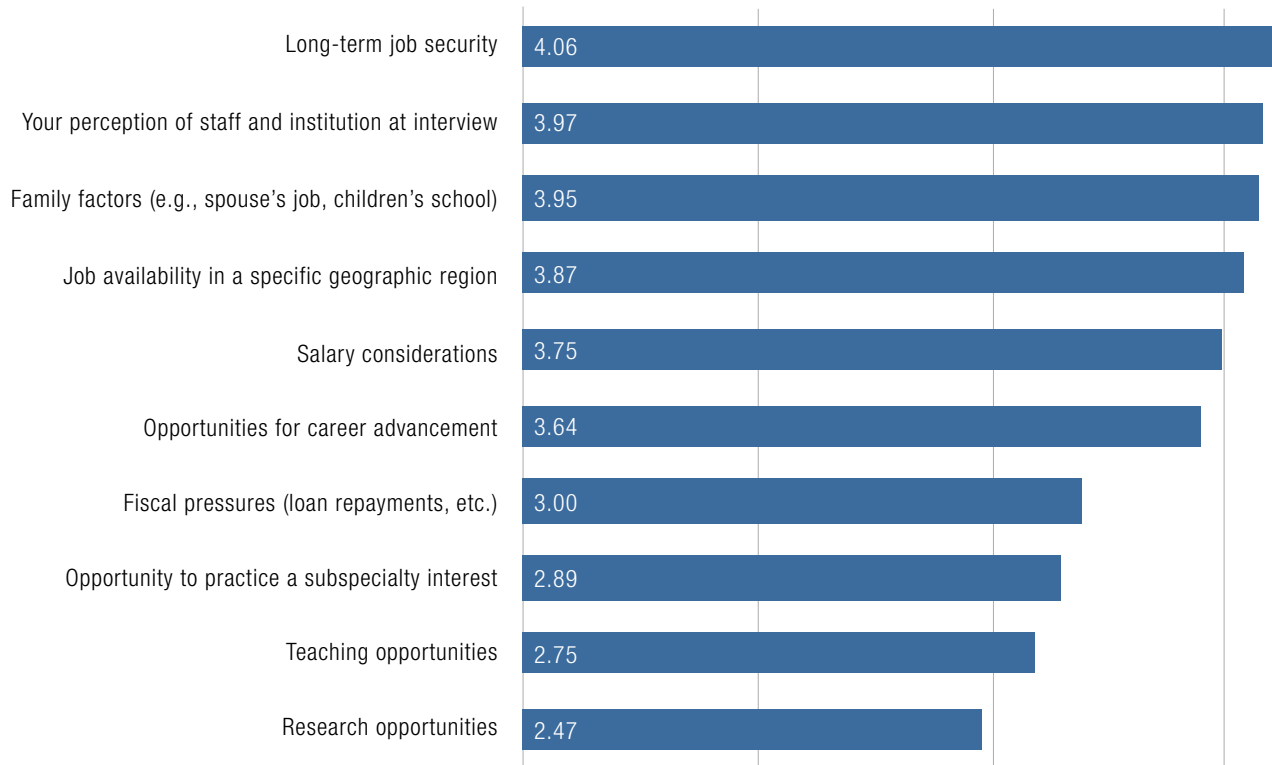
Of the 52 residents who considered job opportunities, 22 did receive job offers, and most only had a single offer. Only one-third of offers were at their training program. Six job offers were unsolicited.



Salary Range for Residents Who Accepted a Job Offer Coming Out of Their Own Residency Program



Factors in Job Choices

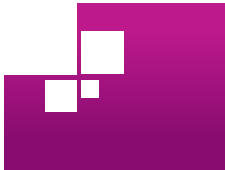


Residents who found employment were asked to rank factors in their job choice. Long-term security and the working environment remained at the top of the list, similar to 2012, while family and geographic considerations were close behind as next most important.

Conclusions

- The number of PGY-3/4 residents who formally considered job openings in 2013 has declined precipitously, from 139 in 2012 to 52. Only 40 percent of residents considering jobs actually applied for and/or received offers.
- In the 2013 survey, one-third of the residents who were actively seeking jobs received offers to become an attending pathologist at their current training program.

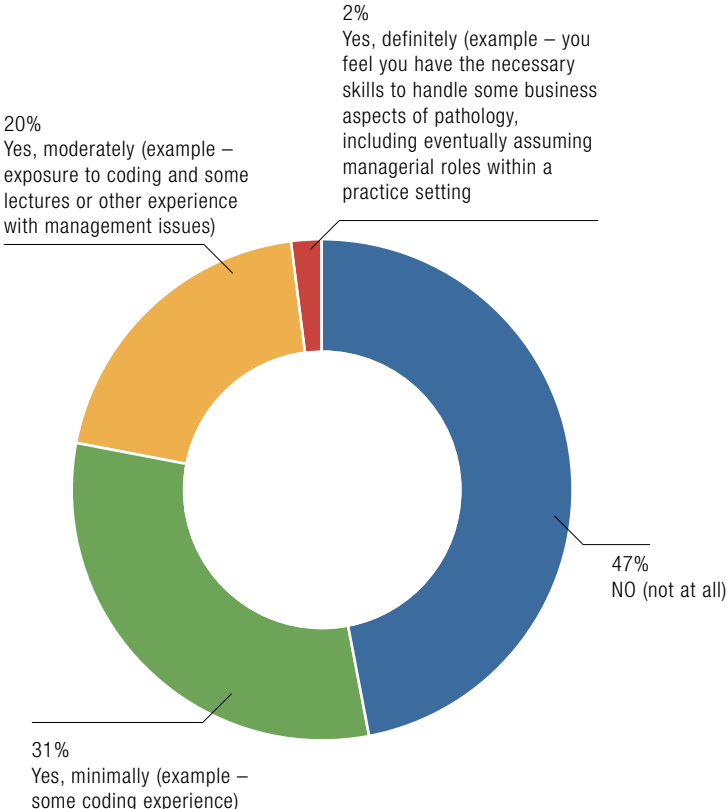
RESIDENT PERCEPTIONS ON TRAINING AND HEALTH CARE



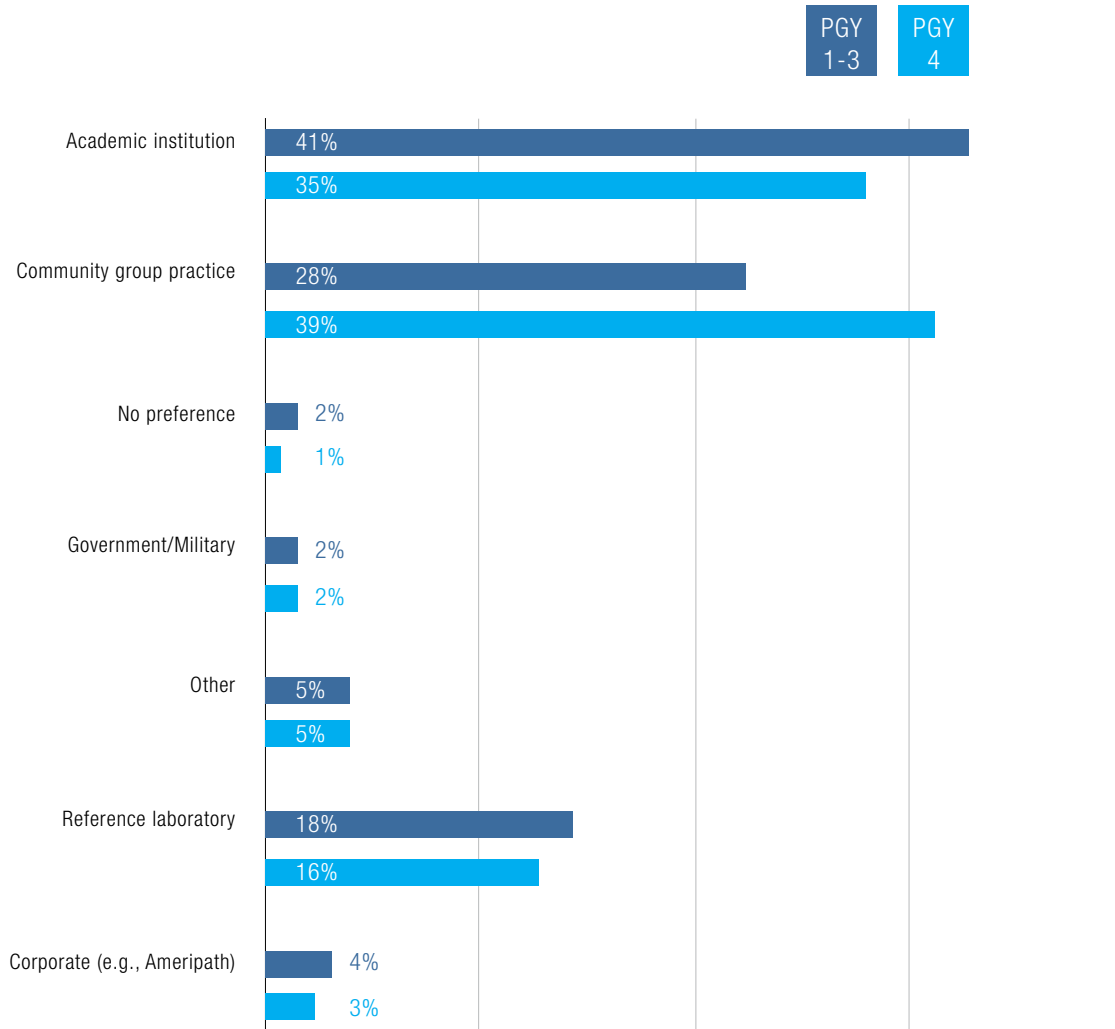
Although the resident comfort level with the business aspects of pathology increases somewhat during training (two-thirds of PGY-1 trainees answered “No” to this question), only about half of PGY-4 individuals say that they are minimally to moderately prepared for pathology business (see following chart). Nearly half of all residents have had no experience or lectures on coding and management, and almost none feel that they have even minimal business or managerial skills. Yet, as noted in the following chart, the largest percentage of graduating PGY-4 residents seek positions within community group practice, a setting where such skills are important for success.

Do you feel prepared for the “business aspects of pathology” (PGY-4 residents)

Very few senior residents have a comfort level with pathology business/management.



What type of practice environment do you plan to seek or are currently seeking? (PGY 1-3 vs. PGY-4)

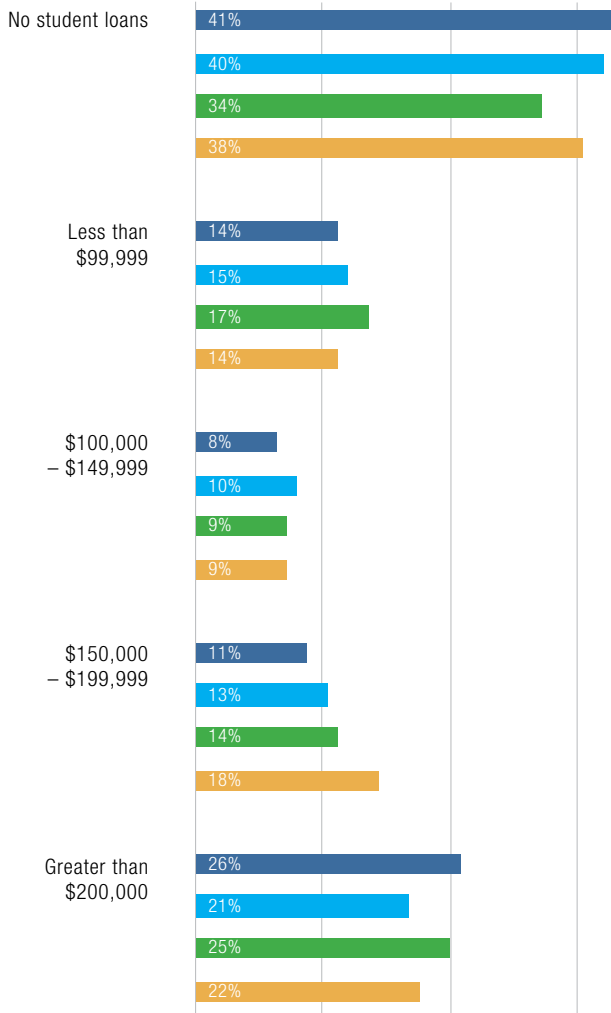


Interestingly, PGY-1, PGY-2, and PGY-3 trainees consistently ranked academic positions as their preference by a margin of >10 percent over community practice, but PGY-4 residents who were about to graduate reversed that trend, possibly because of medical school debt (see following two charts).

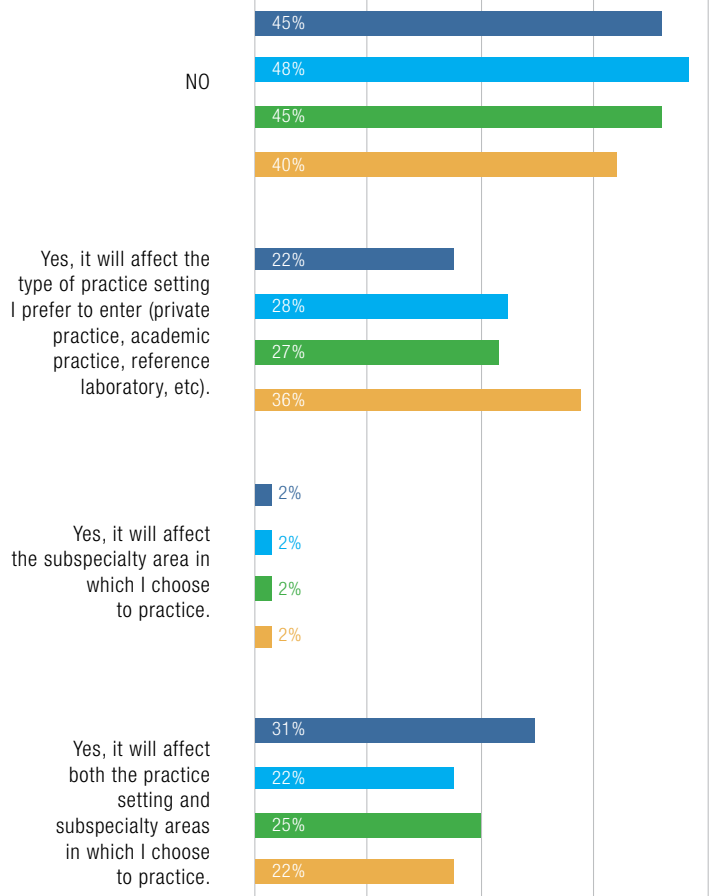
More than 90 percent of all residents would like to have a centralized database of employment opportunities in both private and academic fields and with information on the types of pathologists employed.

Student Loans

What was/is your general range of student loans when you exited medical school?



Has or will your amount of student debt influence your job choice?



Nearly 40 percent of pathology residents have no student loans at the time of medical school graduation; the distribution of this group between U.S. and non-U.S. schools was not examined. A similar percentage have more than \$150,000 in debt, and one-quarter of all residents have more than \$200,000 in debt. For residents who had student loans, the largest group (45 percent overall) felt that debt would not affect their choice

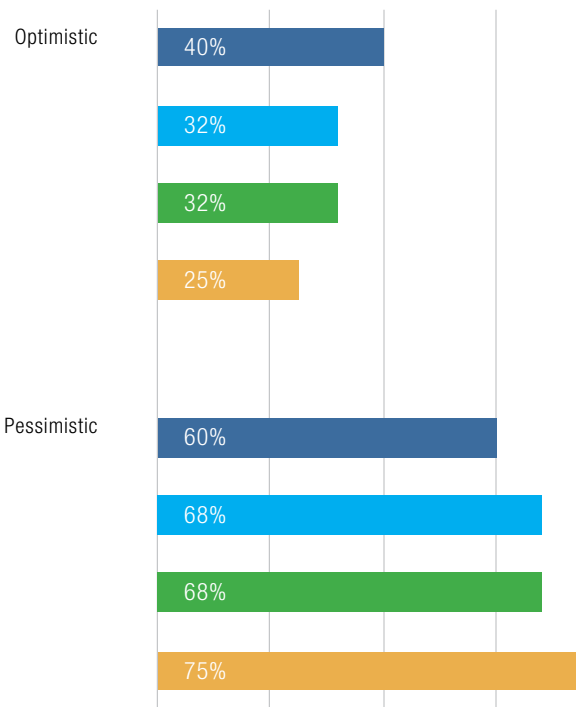
of practice jobs. However, with more time in training, a larger percent of residents said that the amount of student debt would affect their decision as to practice setting, increasing from 22 percent of PGY-1's to 36 percent of PGY-4's. Interestingly, debt does not clearly affect the type of subspecialty practice sought by trainees.



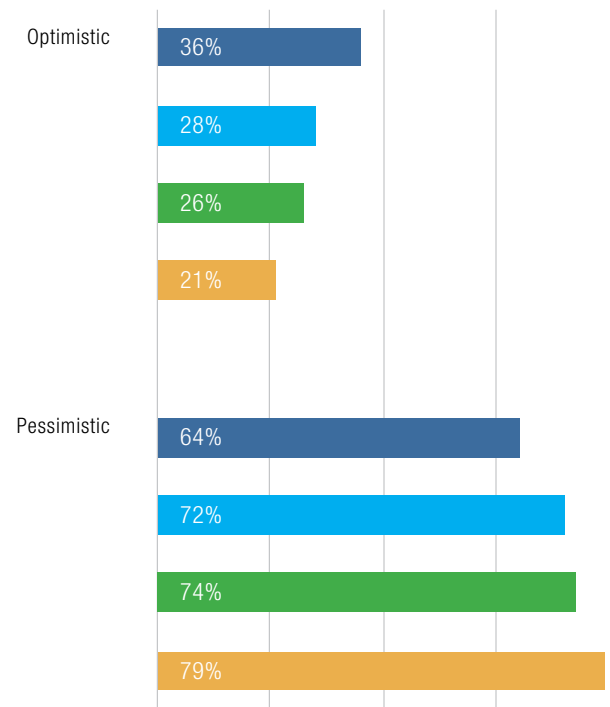
Resident Feelings About U.S. Healthcare in General



Given the current economic/ political environment, what is your general feeling about the future of the healthcare system in United States?



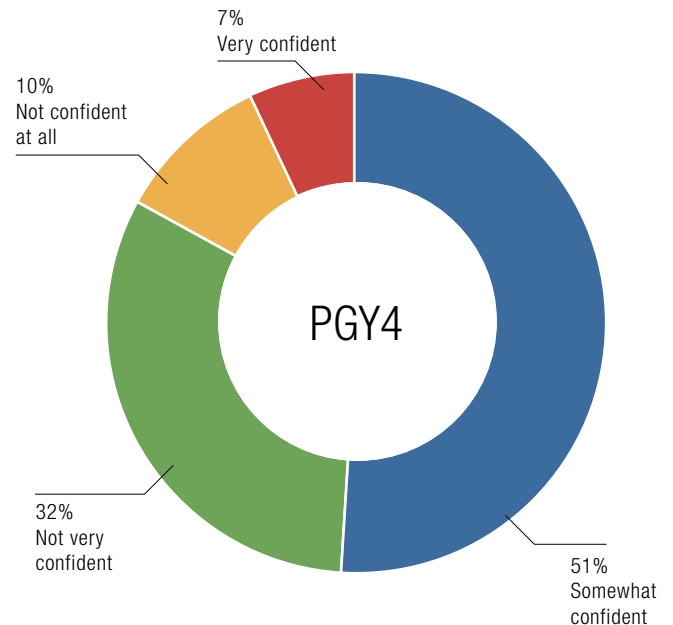
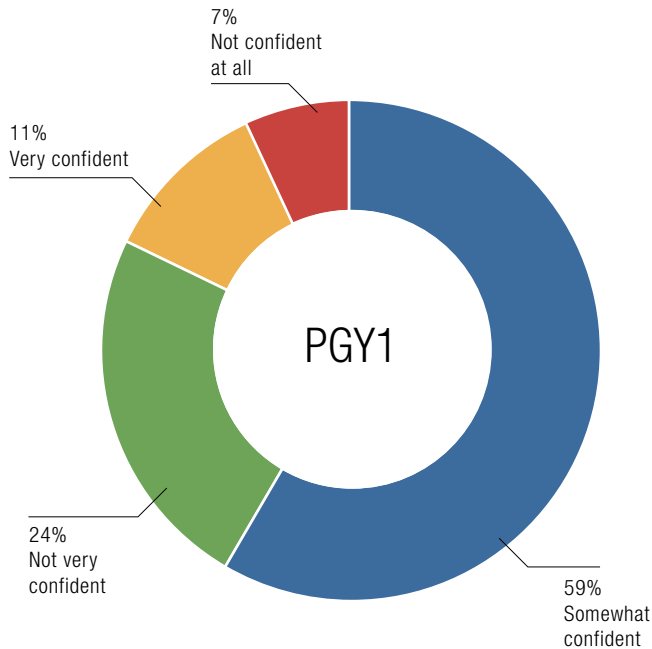
Also considering the current economic/political situation, what is your general feeling regarding future compensation for those practicing pathology in the United States?



More than 90 percent of residents surveyed plan to live and practice in the United States nearly two-thirds of those residents overall are pessimistic about the future of United States health care in general and pathology practice compensation in particular. The majority of PGY-1 residents are pessimistic, and that

percentile increases with time in training. As noted in the following chart, 70 percent of PGY-1 trainees are somewhat-to-very confident that they can find their desired pathology job position, that number declining to 58 percent for PGY-4 residents.

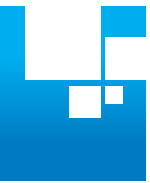
How confident are you about finding the pathology job you desire?



Conclusions

- Very few residents are seriously considering jobs right out of pathology training. Of this small subset, less than half receive offers, perhaps because most are not formally applying. Most jobs for this very small subset of residents appear to be in community practice.
- Although residents are clearly interested in community practice, residency training in the business and management aspects of practice is lacking, both in terms of structured teaching and experience. A centralized database of employment opportunities for pathology would be highly desirable.
- Medical school debt is significant for many residents and may play some role in their choice of practice (i.e., community versus academic) but not in choosing a subspecialty of pathology practice.





APPLYING FOR PATHOLOGY JOBS AFTER FELLOWSHIP

ASCP offered five Fellowship in-service examinations for the Spring of 2013, the Fellow Forensic In-Service Examination (FISE), the Fellow In-Service Hematopathology Examination (FISHE), the Fellow Neuropathology In-Service Examination (NPISE), the Fellow Pediatric Pathology in-Service Examination (PISE), and the Fellow Transfusion Medicine In-Service Exam (TMISE). Fellow in-service examinations were taken by 283 individuals; post-exam surveys offered the chance to query fellows in Forensics (n=35), Hematopathology (n=140), Neuropathology (n=44), Pediatric Pathology (n=13), and Transfusion Medicine (n=51) about their experience entering the job market and any plans for additional specialty training.

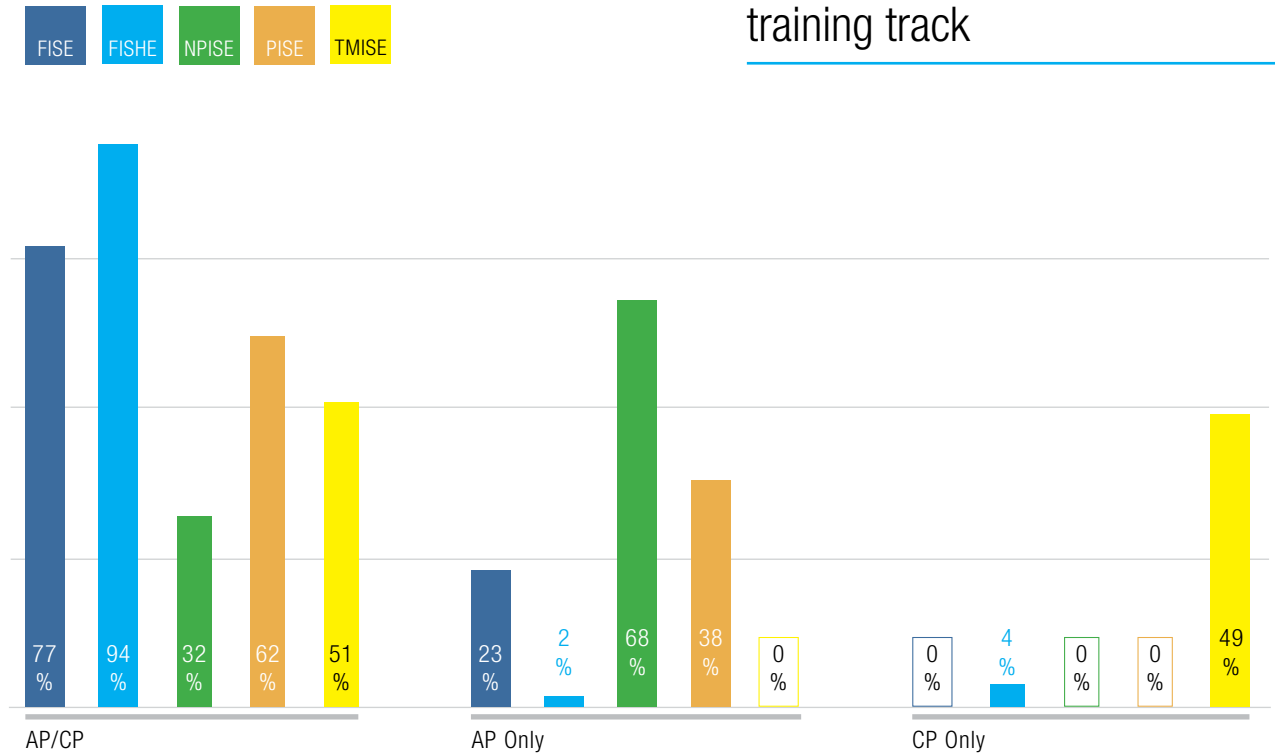
About 60 percent of all fellows surveyed are currently in university public hospital training programs, with another quarter in university private hospital settings; the remainder is split between community, military, and other teaching hospitals or practices. About half of fellows in hematopathology, neuropathology and pediatric pathology received their undergraduate medical training in the United States, whereas 75 to 80 percent of transfusion medicine and forensics fellows were U.S.-educated.

More than two-thirds of surveyed fellows are already diplomates of the American Board of Pathology, with the vast majority certified in AP/CP. Between 25 to 40 percent of forensics, neuropathology, and pediatric pathology are certified in AP only, while 40 percent of transfusion medicine fellows are boarded only in CP.

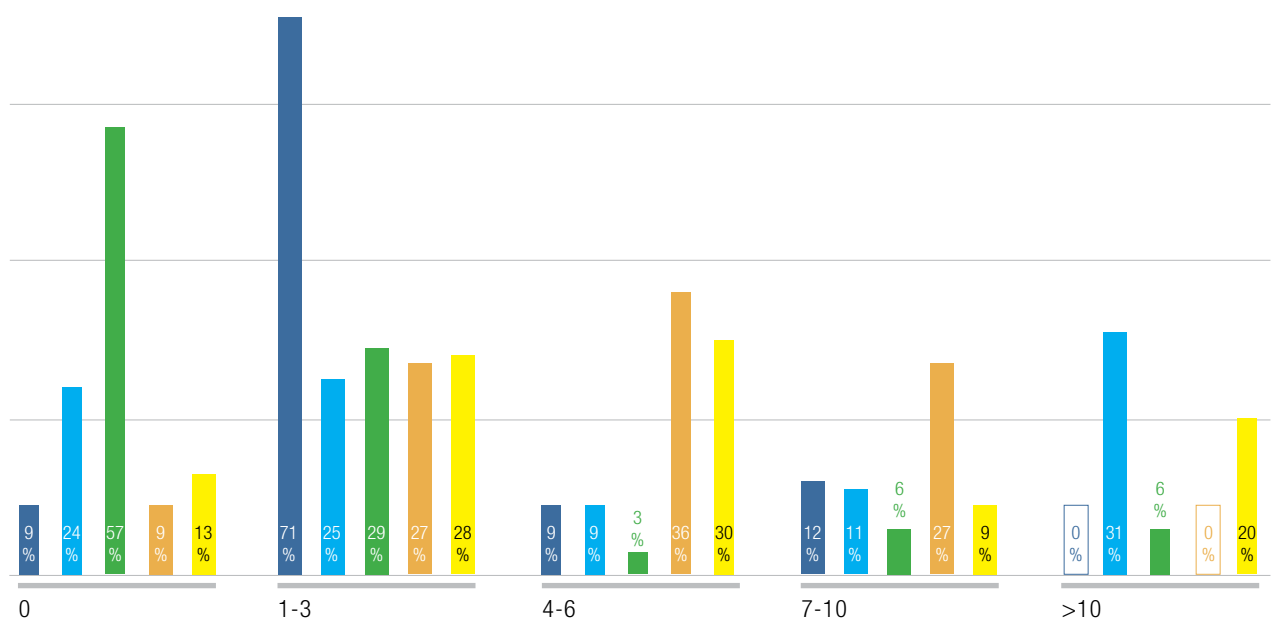


The majority of fellows in Forensics, Hematopathology, and Pediatric Pathology came from a background of AP/CP residency training; as expected, about half of Neuropathology and Transfusion Medicine fellows did their residency training in AP-only and CP-only tracks, respectively.

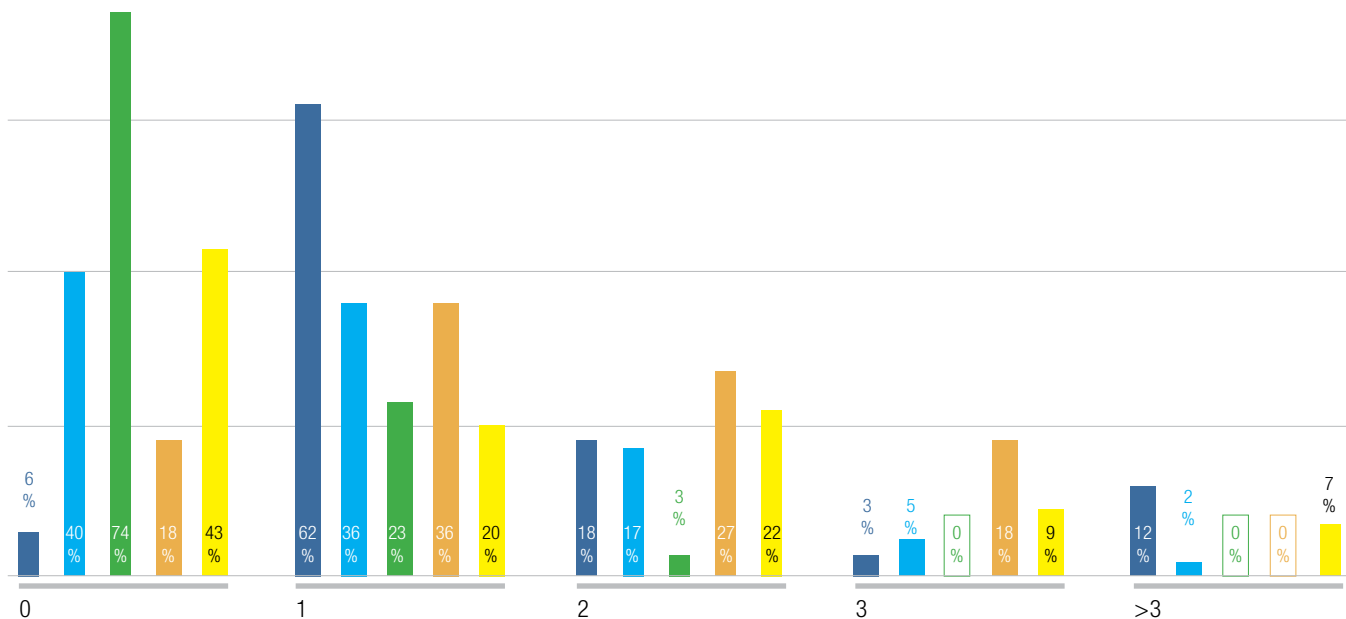
Indicate your residency training track



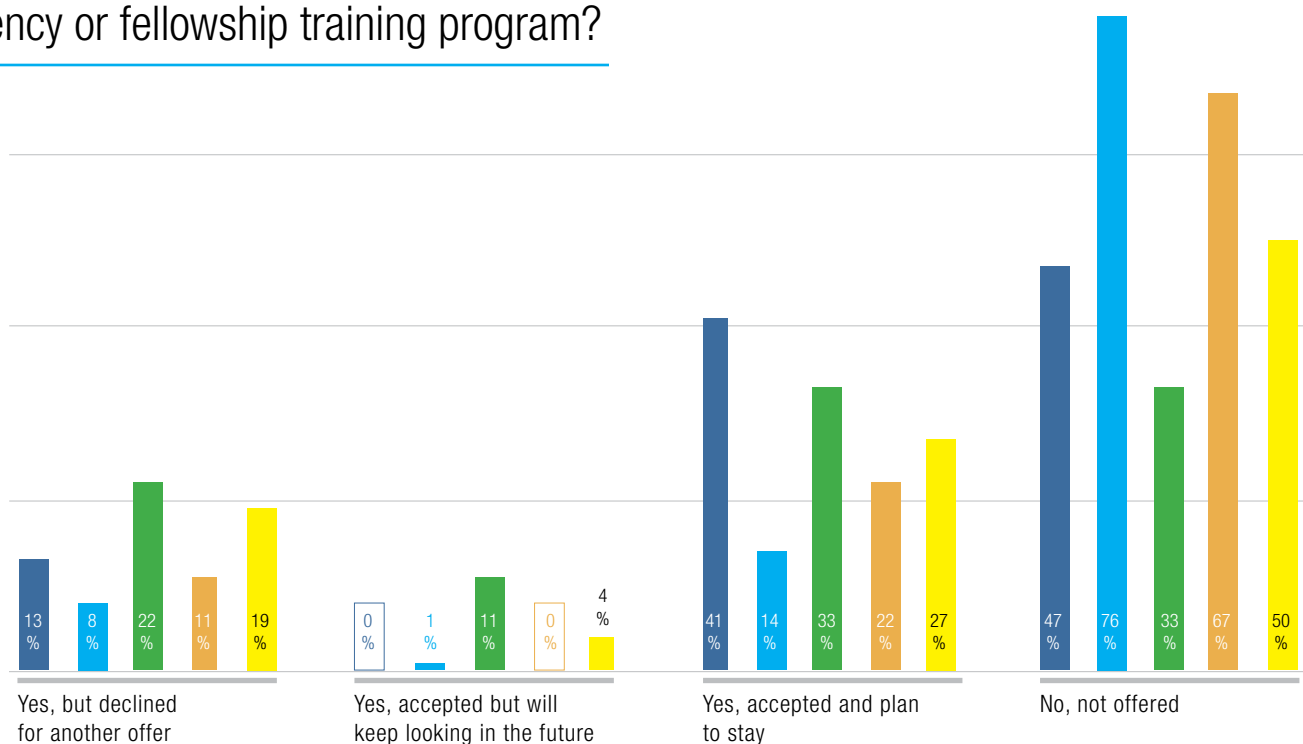
If you eventually plan to seek a job, for how many jobs did you formally apply?



How many job offers did you receive?



Did you receive a job offer at your own residency or fellowship training program?

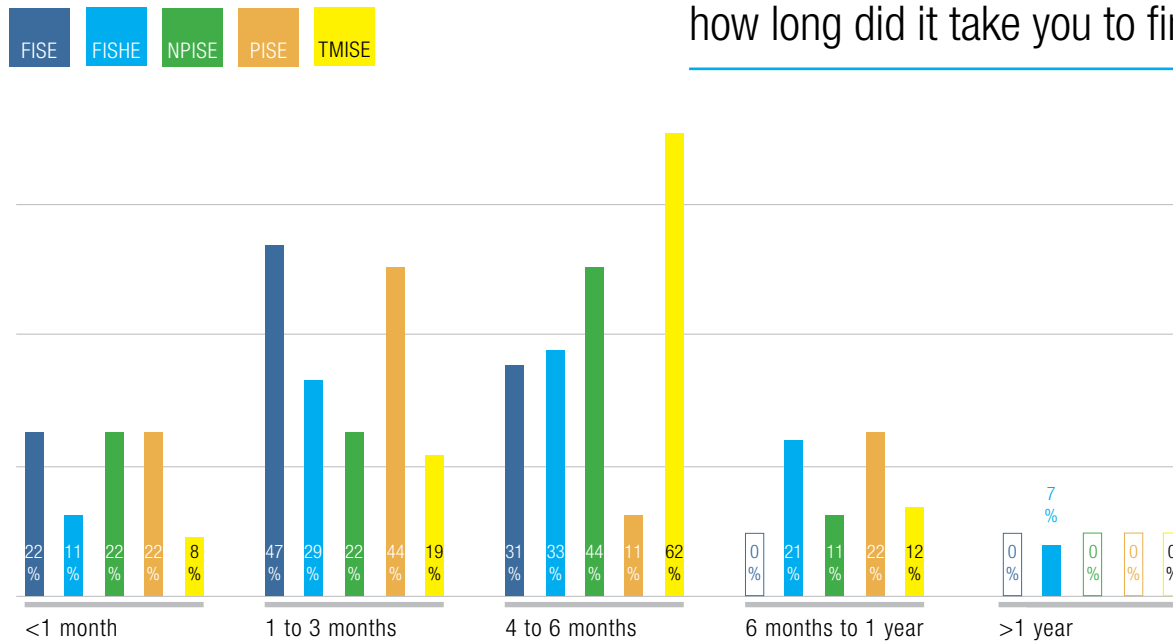


Although the majority of fellows in all five specialties applied for modest numbers (< seven) of employment positions, more than one-fourth of hematopathology, pediatric pathology, and transfusion medicine fellows had seven or more applications. Most fellows interviewed for one to three positions. In 2012, 40 percent of neuropathology and pediatric pathology fellows did not receive job offers; neuropathology fellows continued to struggle, with nearly three-quarters not receiving job offers in the 2013 survey. Both transfusion medicine and hematopathology demonstrated a high number (40 percent or more) of fellows who did not receive jobs offers in 2013.

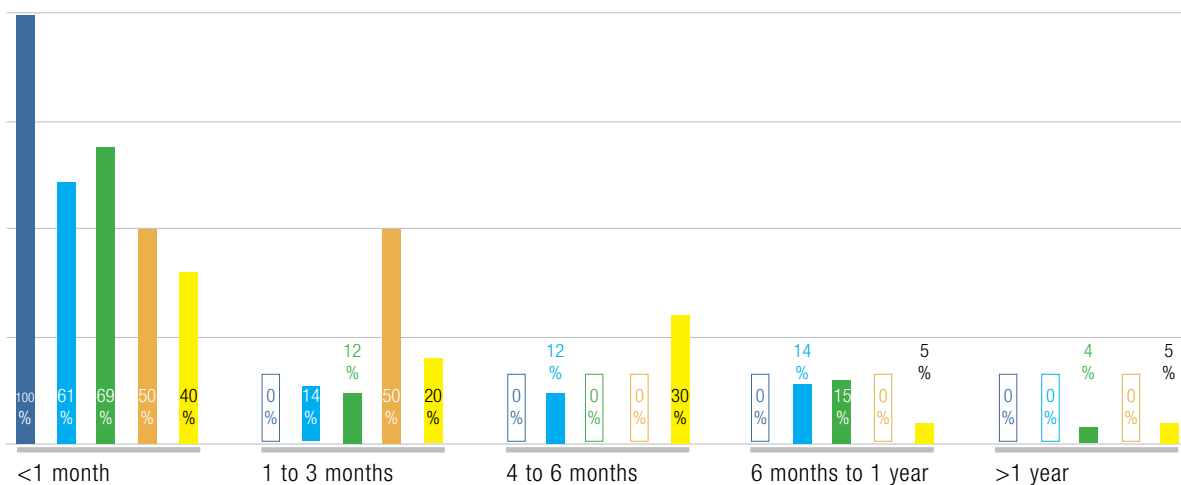
Most forensic and neuropathology fellows received only a single job offer, but a large percentage (40 to 65 percent) of Transfusion Medicine, Hematopathology, and Pediatric fellows received at least two job offers.

The majority of fellows who did find jobs did so within six months. Only Hematopathology fellows had to continue searching for more than a year before receiving an offer.

For fellows who received job offers, how long did it take you to find a job?



For fellows who have applied for but not found jobs as yet, how long have you been looking?



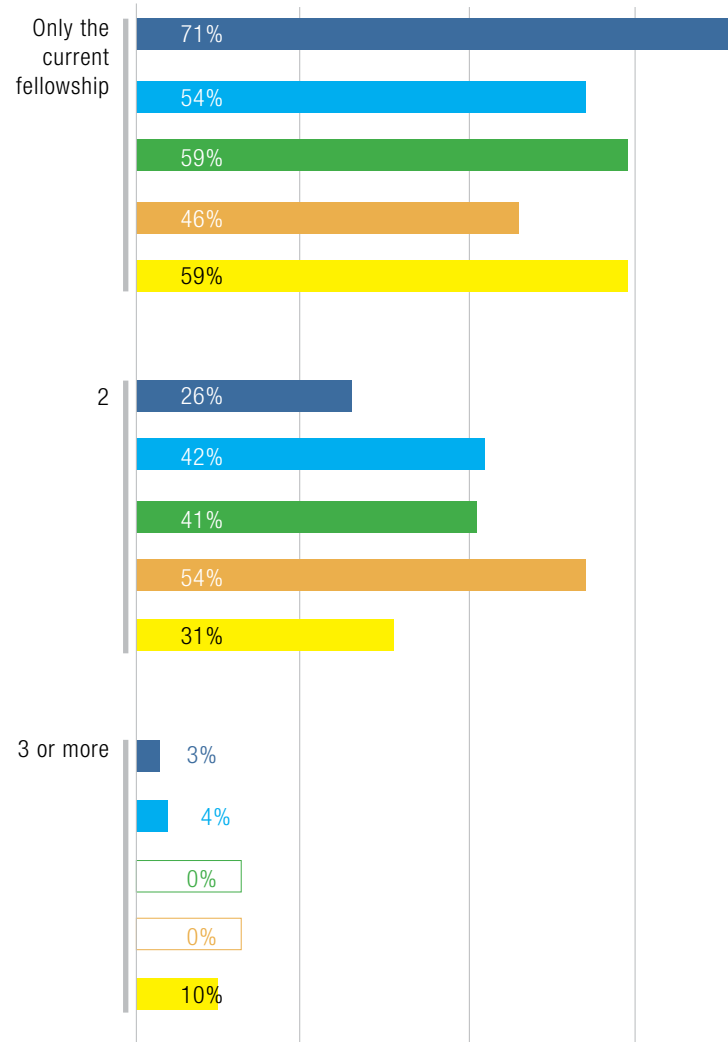
ADDITIONAL SUBSPECIALTY FELLOWSHIPS

We asked current fellows the following:

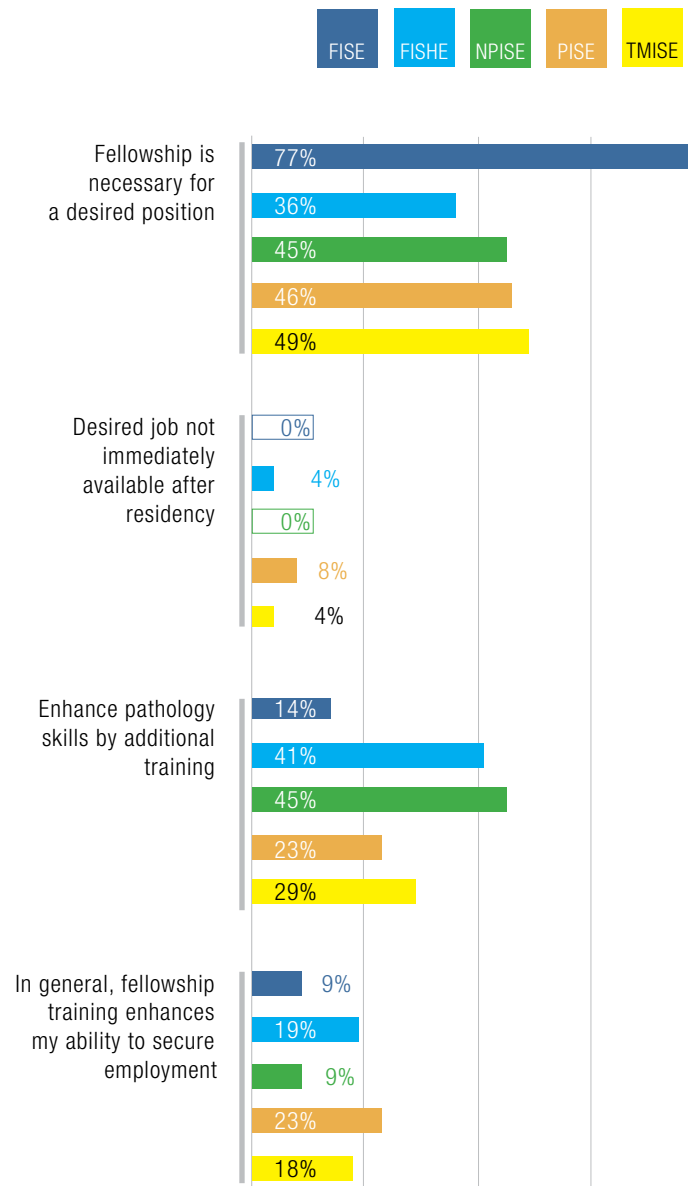
“Are you going to do an additional fellowship in a subspecialty other than your current fellowship?”

Between 29 to 54 percent of fellows are planning to complete an additional fellowship besides the one they had just finished (see the following chart). Overall, 42 percent of all fellows surveyed plan to complete two or more fellowships, consistent with surveys of residents from the 2013 RISE and similar to 2012 fellowship survey results.

Total Number of Fellowships Planned



Indicate your principal reason for pursuing fellowship training.

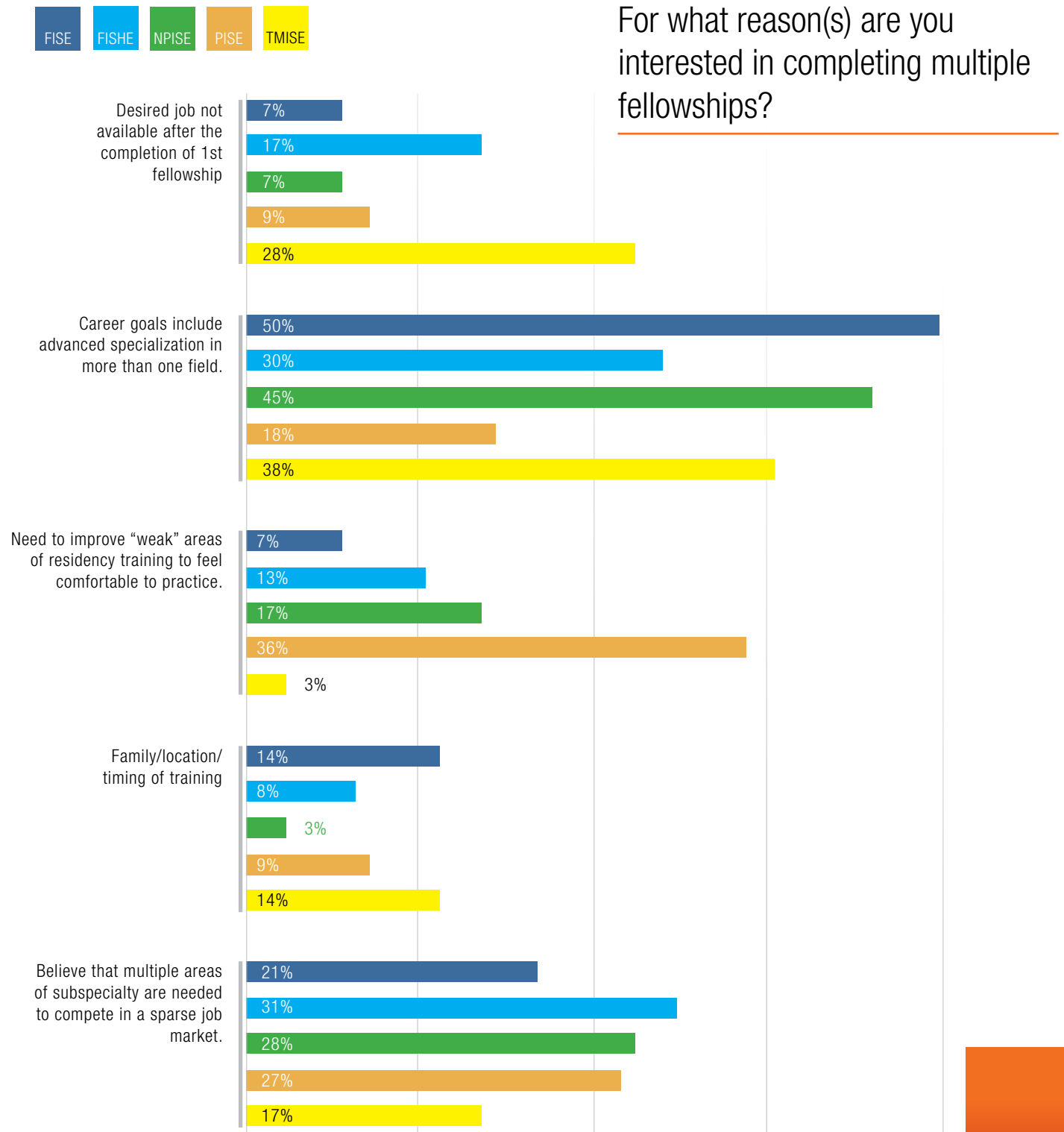


As in 2012, only forensic fellows had a vast majority of respondents cite fellowship training as a necessity for their desired employment.

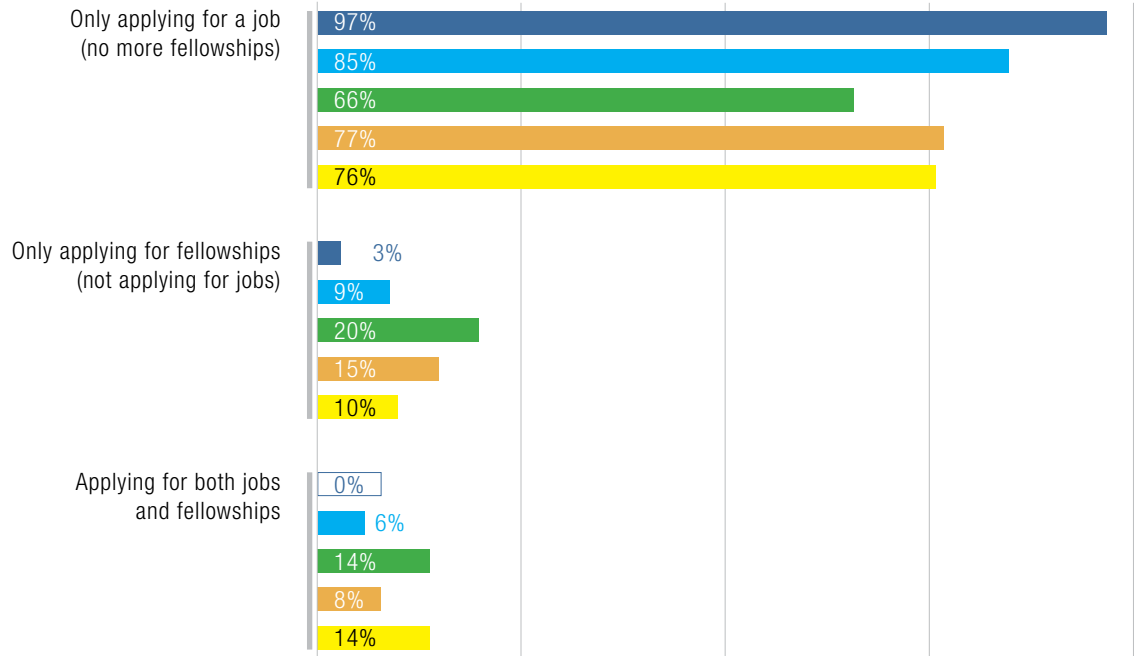
For all other fellows, necessity for employment and enhancement of skills were the top two reasons with roughly similar percentages.

Except for pediatrics, enhanced specialization in more than one field of pathology was the number one reason for completing multiple

fellowships (see following graph). Competition in the job market was another important motivator. Fifty-nine of the fellows (20 percent of the total) had already completed a separate fellowship at the time of this survey; nearly half of these were in surgical pathology. Another 37 have already accepted a fellowship for the 2013–14 academic year, so that 33 percent of all fellows are currently set for at least two fellowships.

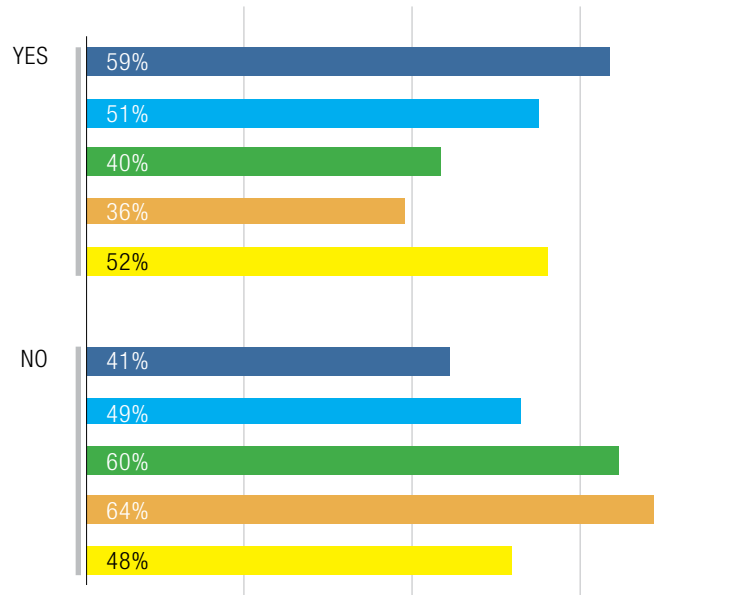


What are your current plans: Applying for Fellowship and/or Job?

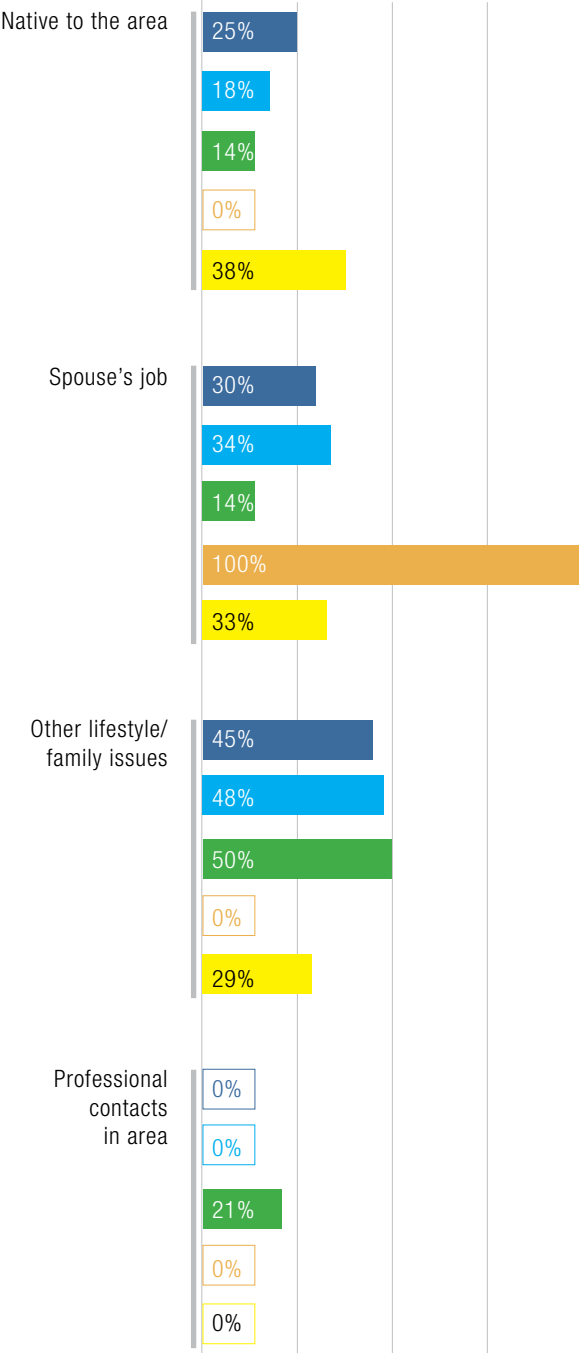


Geography was modestly important in job selection; the reasons for geographic restriction varied among: family (especially spousal employment), lifestyle, and being native to the area (see graph below). About 10 percent of fellows restrict their job search based on their visa status.

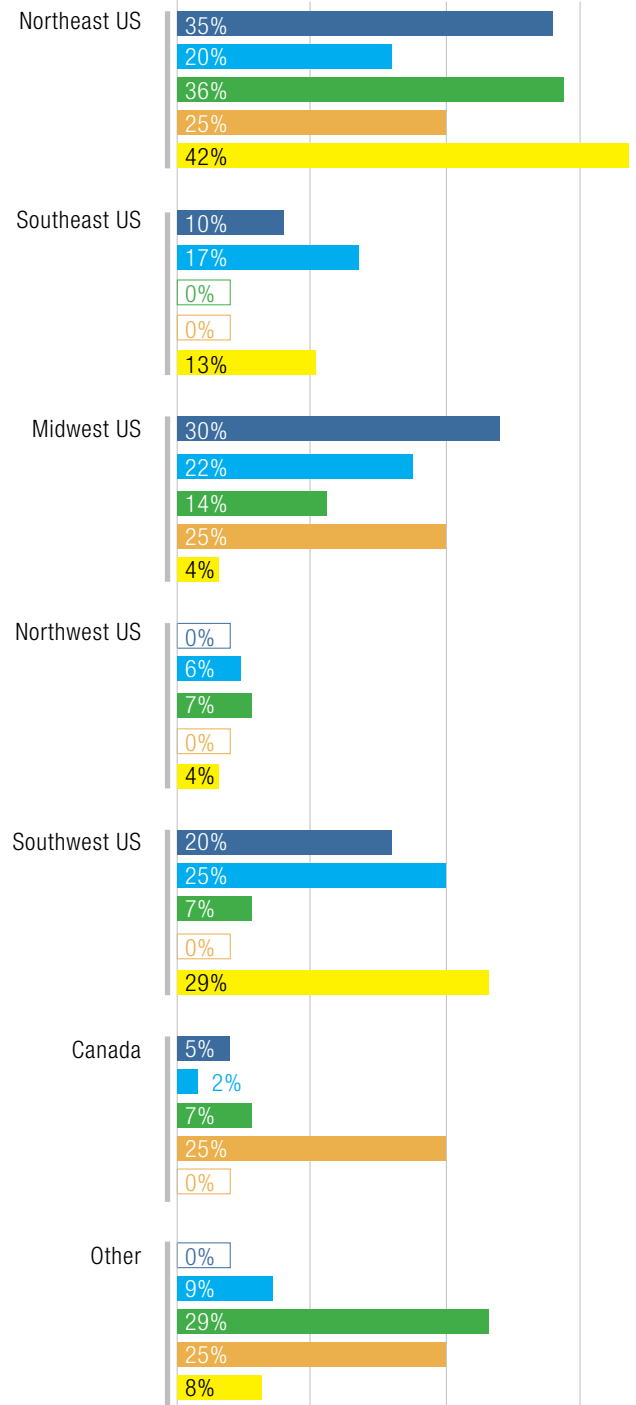
Did you restrict your job search to a specific geographic region?



Indicate your principal reason for such a restriction.



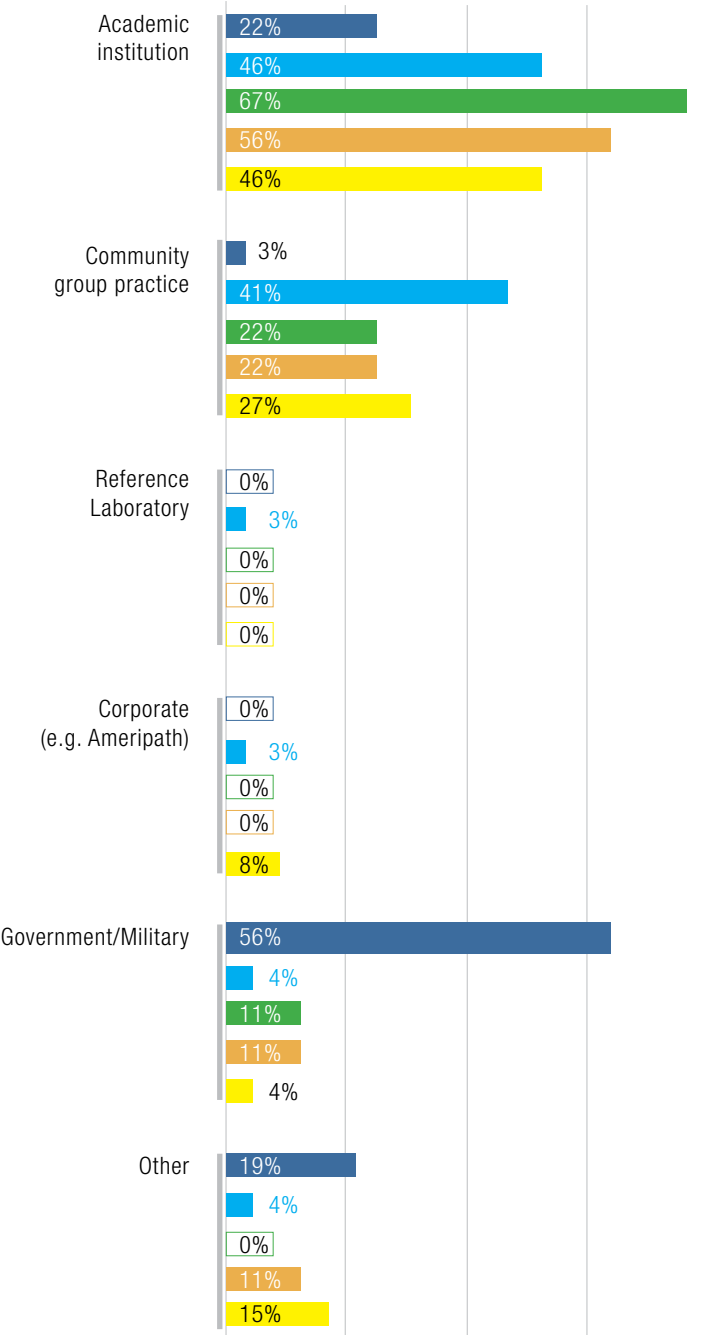
Indicate the area to which you restricted your job search.



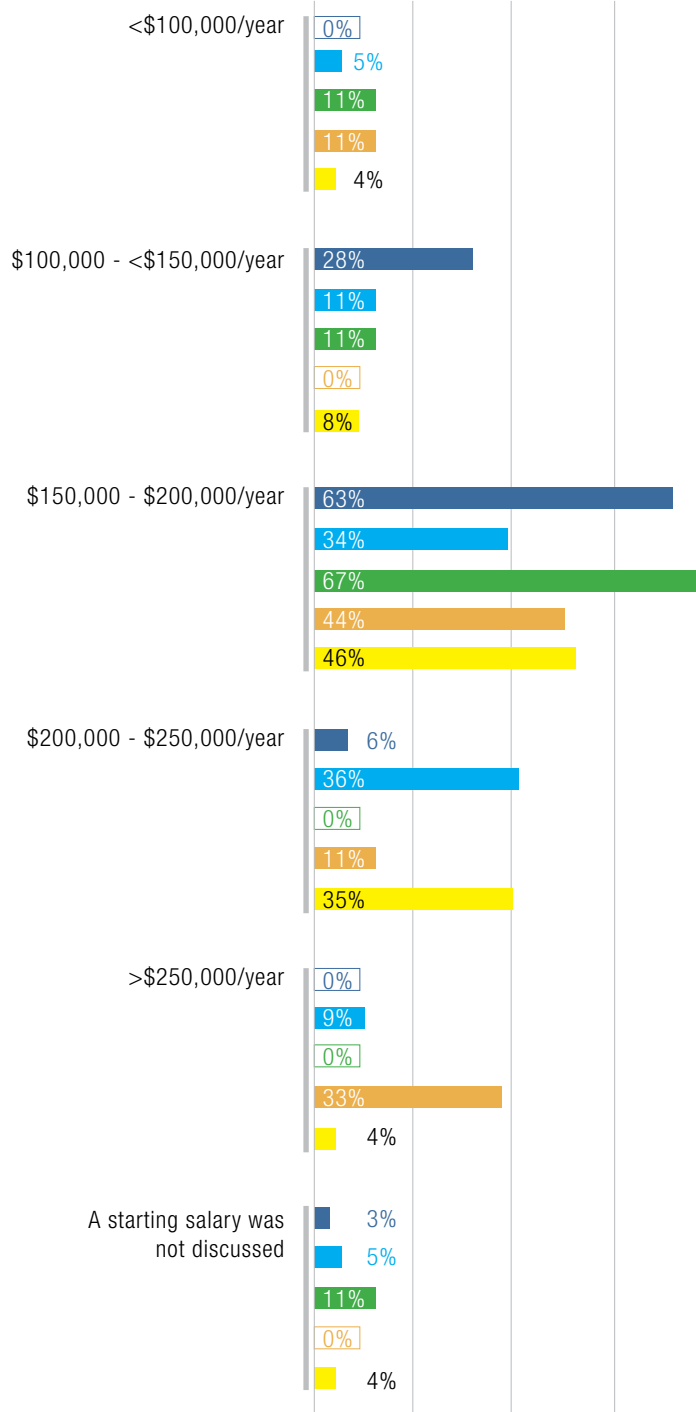
Except for forensics, academic and community jobs make up the majority of positions accepted. Between 70 to 100 percent of positions were as salaried employees; only hematopathology (28 percent) and transfusion medicine (15 percent) fellows accepted significant numbers of partner/partner track jobs. Only a handful (5 percent) of all jobs were part-time positions.



How would you best describe your employer?



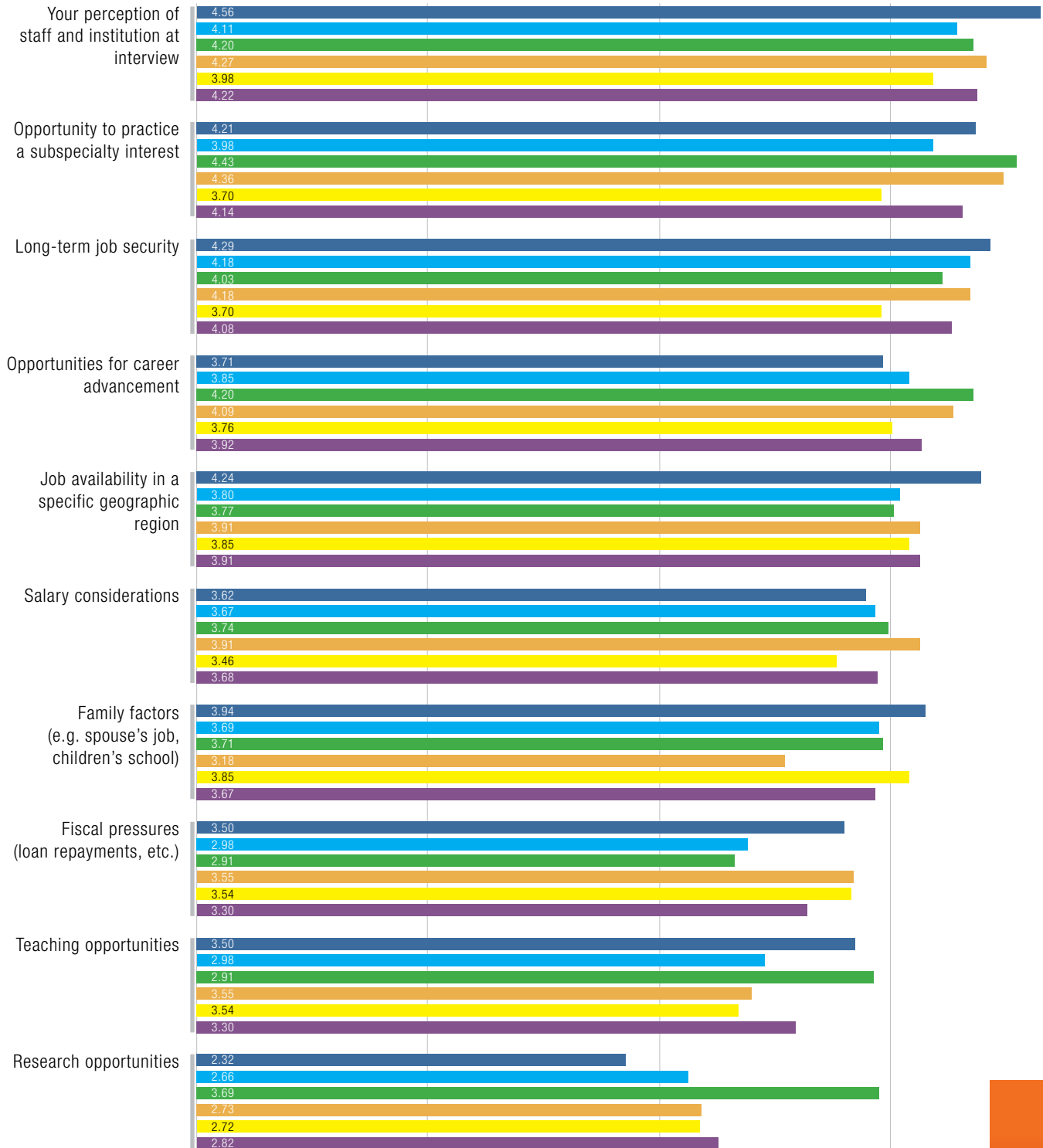
Annual Starting Salary Offered



Starting annual salaries ranged widely among fellowship groups (see following chart). Very few forensic neuropathology fellows reported starting annual salaries of \$200,000 or more. Less than 5 percent of fellows overall did not discuss a salary as part of a job offer.



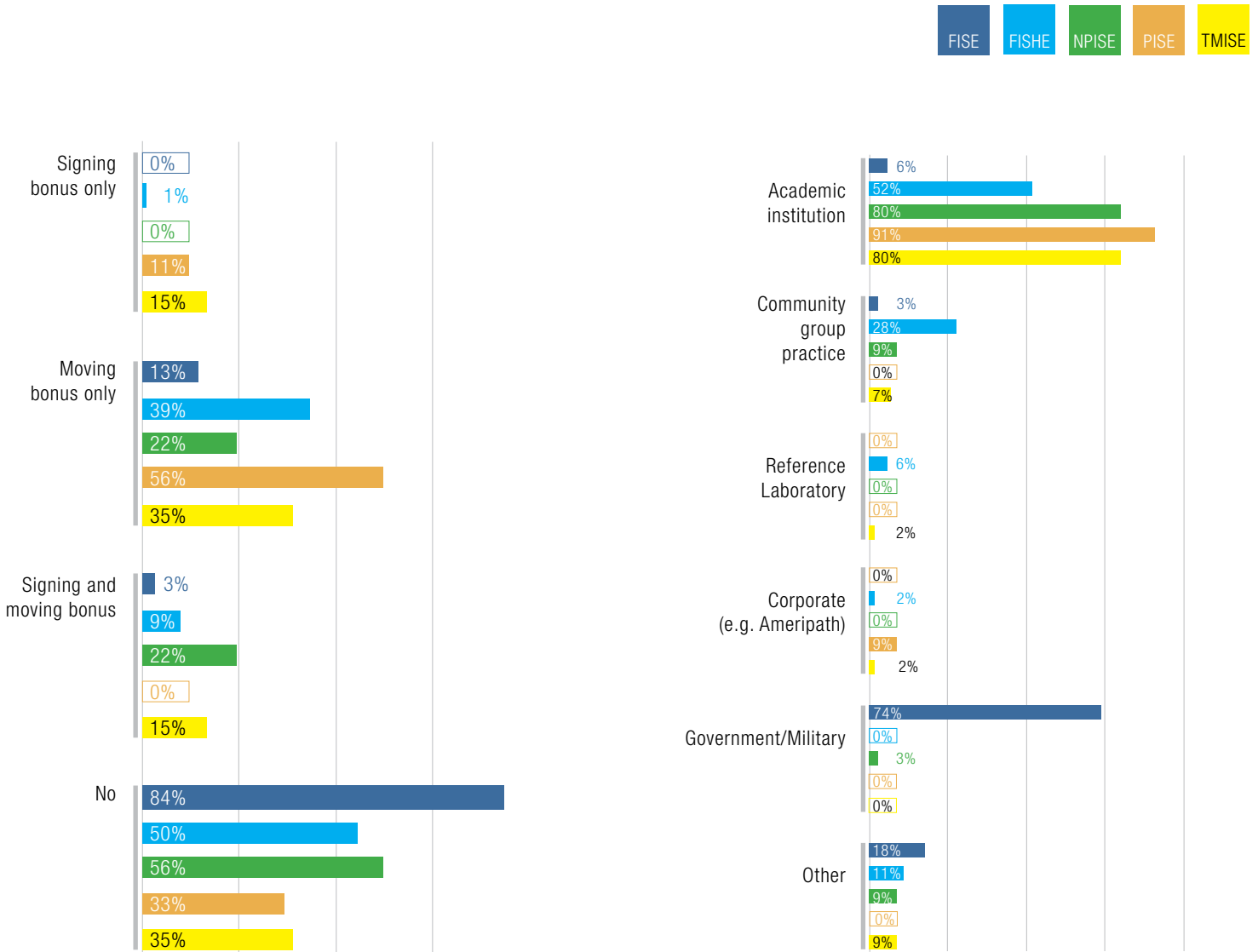
Reasons For Specific Job Selection In Order of Importance



The majority of pathology fellows do not receive a signing and/or moving bonus for their new job.

Did you receive a bonus?

Based on your experience, where are most available specialty pathology positions at this time?

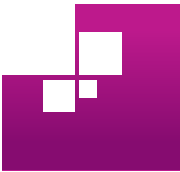


The majority of forensic fellows have consistently found jobs with governmental entities, which may be one reason why they were not offered higher starting salaries. The vast majority of neuropathology, pediatric pathology, and transfusion medicine jobs are in the academic sector. Faculty contacts, targeted inquiries, job boards at meetings, and pathology outlines.com were the most important sources of job opportunities.

Conclusions

About 40 percent of fellows confirmed plans to complete additional fellowship training, defined as two or more pathology fellowships before entering the job market. For those fellows who were seeking jobs, most (except Hematopathology) applied for a modest number of available positions (<six opportunities). A significant percentage of all fellows have not found jobs at the time of this survey.

FELLOWS SURVEYED ABOUT ANTICIPATED JOB RESPONSIBILITIES

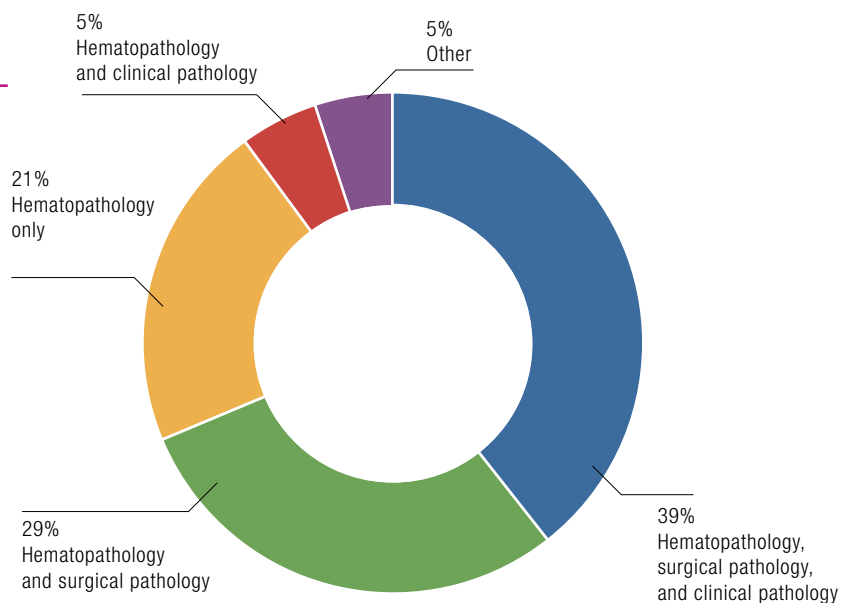


Fellows were surveyed about their anticipated job responsibilities. 100 percent of fellows who were completing training in forensics were entering positions with primary forensic pathology responsibilities. Similarly, two-thirds of pediatric pathology fellows and more than half of transfusion medicine fellows expected that their workload would be limited to their pathology fellowship specialty.

By contrast, fellows completing their training in hematopathology expected to be handling additional non-specialty responsibilities, with the largest group anticipating both specialty practice plus aspects of anatomic and clinical pathology practice. Nearly 80 percent of neuropathology fellows expected their job responsibilities to be combined neuropathology and surgical pathology.

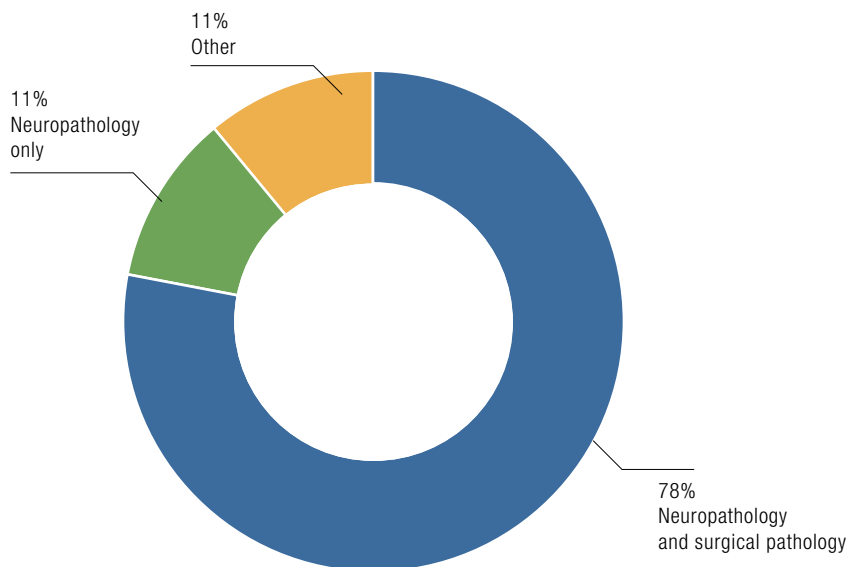
Hematopathology:

What types of cases will make up the majority of your workload?



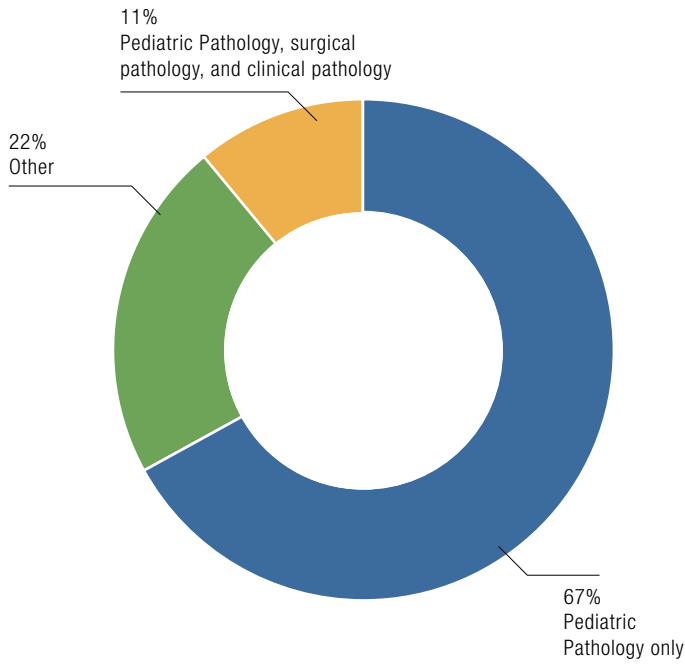
Neuropathology:

What types of cases will make up the majority of your workload?



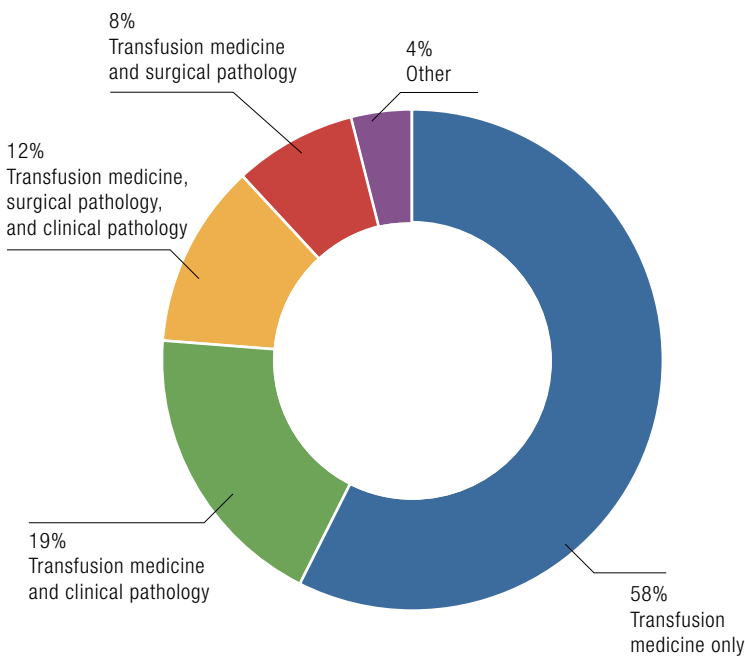
Pediatric Pathology:

What types of cases will make up the majority of your workload?



Transfusion Medicine:

What types of cases will make up the majority of your workload?



Conclusions

- The job situation for pathology fellows is mixed; most receive one or more offers, but a substantial minority is not finding employment right away. This latter circumstance may weigh on fellows' decisions to pursue additional fellowship training. Most fellows receive a job offer within the first six months, but some need up to a year for a positive response.
- There is some disparity in starting salaries for fellows coming out of training, possibly related to both specialty and range of responsibilities. Fellows coming from forensics, pediatric pathology, and transfusion medicine largely expect that their job responsibilities will mirror their fellowship specialty. Most fellows completing their training in neuropathology or hematopathology anticipate positions that encompass an additional general pathology workload, with the latter including clinical pathology.

ACKNOWLEDGEMENTS

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