

2019 NEPHROLOGY FELLOW HIGHLIGHTS SURVEY REPORT

Stephen M. Sozio, MD, MHS, MEHP, Principal Investigator,
Johns Hopkins University School of Medicine

Kurtis Pivert, ASN Data Science Officer

With the ASN Data Subcommittee:

Suzanne Boyle, MD, MSCE

Lili Chan, MD, MS

Kelsea McDyre, MS

Ali Mehdi, MD

Sayna Norouzi, MD

Shamir Tuchman, MD, MPH

Joshua Waitzman, MD, PhD

Motivation for Surveying Fellows In Training

Since 2014, the American Society of Nephrology (ASN) has invited current adult and pediatric nephrology fellows to participate in the annual Nephrology Fellow Survey to quantify the incoming physician workforce (especially fellows' race and ethnicity), capture leading job market indicators, and collate fellows' perceptions of their training and the specialty. This year, 50.2% of the 988 current nephrology fellows participated; seven nonresponding participants were censored yielding 491 participants (net response rate 49.7%)—413 adult and 78 pediatric fellows. The survey and ASN's concurrent workforce research will help inform the Society's efforts to foster the next generation of kidney health professionals and build the nephrology pipeline.

Who Responded?

Participating fellows were generally in their early 30s (median age 33 years) and married/partnered, with adult fellows more likely to be male (66.2%), international medical graduates (IMGs) (64.5%), and of Asian or Pacific Islander race (41.9%), and pediatric fellows female (79.5%), US medical graduates (USMGs, 67.9%), and white (64.9%). Proportions of African American respondents were not nationally representative (currently 13.4%), but a higher proportion of Hispanic/Latina(o) physicians in adult fellowships was observed (10.2% vs. 2.6% for pediatrics; $p = 0.05059$, X^2 test for independence). The vast majority of respondents were in clinical nephrology training (88% adults, 90% pediatrics) with research and medicine–pediatrics the next most commonly reported among adults and pediatric respondents, respectively (7.8% for both).

What Are Fellows' Future Plans?

Half of participating fellows (54.6%) were continuing their fellowship, 31.2% were entering practice, and 10.6% (52 fellows) undergoing further subspecialty training, with transplant (26) and joint nephrology–critical care (10 fellows) most commonly reported. Overall, respondents anticipated focusing exclusively on nephrology (41.3%) post-fellowship, although 50 participants were planning to practice another specialty either in combination with (40) or without (10 fellows) nephrology. Only 5 participants planned to work exclusively in non-nephrology hospital medicine.

How Much Educational Debt Are Fellows Carrying?

USMG respondents were carrying a substantial debt burden—median educational debt \$225,000 versus \$0 for IMGs. Regardless of fellowship, median educational debt for women participants (adult fellows, \$125,000; pediatric, \$130,000) was greater than that reported by men (adult fellows, \$65,500; pediatric, \$103,000) (Figure 1).

Where Were Respondents Located?

Many fellows were training in the Northeast and South Census regions (Figure 2), with the geographic distribution of participants (red points) similar to their internal medicine/pediatrics residency locations when overlaid with the map showing the density of fellows' residencies by state (choropleth). Perceived job opportunities near training institutions are a consideration when assessing graduate medical education options, but only 43% of adult fellows and 33% of pediatric fellows anticipated staying in the same state, and just 32% and 22%, respectively, in the same city for their first post-fellowship job.

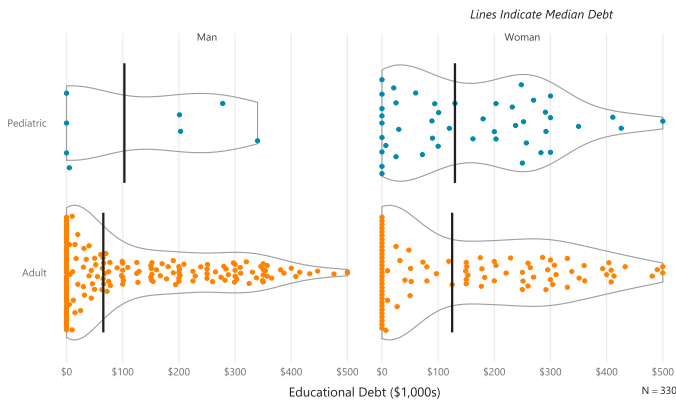


FIGURE 1: DEBT—GENDER IDENTITY AND FELLOWSHIP TYPE

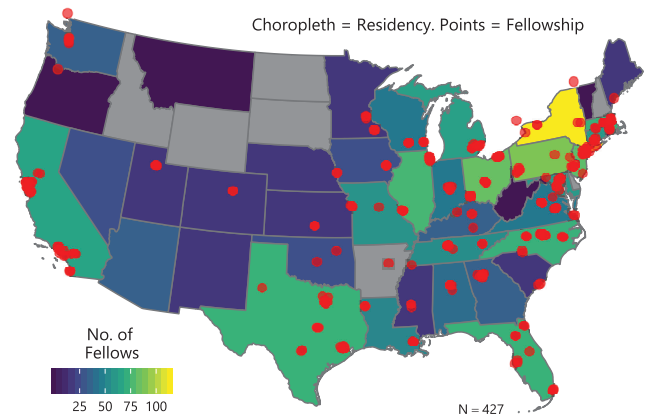


FIGURE 2: OVERLAY OF RESIDENCY AND FELLOWSHIP LOCATION

Would Fellows Recommend Nephrology?

As a whole, a majority of respondents would recommend the specialty to medical students (80%), which was reflected overall in the subgroups (Figure 3). However, perceptions of local job opportunities may be contributing to these recommendations. There was a statistically significant difference in recommending nephrology between those respondents who perceived “Far Too Few” or “Too Few” local job opportunities and those who indicated an “Appropriate”, “Too Many”, or “Far Too Many” number ($p = 0.000327$, X^2 test for independence). Since the survey's inception, an increasing proportion of IMGs—and respondents overall—are recommending the specialty, while the proportion of USMGs recommending nephrology has remained flat.

Did Fellows Participate in ASN Programs for Students and Fellows?

Thirty-two percent of survey participants (157) had participated in at least one ASN program to increase interest in nephrology careers, with ASN Kidney STARS and the Karen L. Campbell, PhD, Travel Support Program most commonly reported (Figure 4).

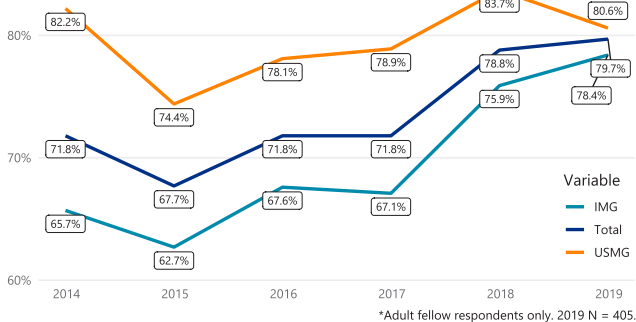


FIGURE 3: TRENDS—RECOMMEND NEPHROLOGY

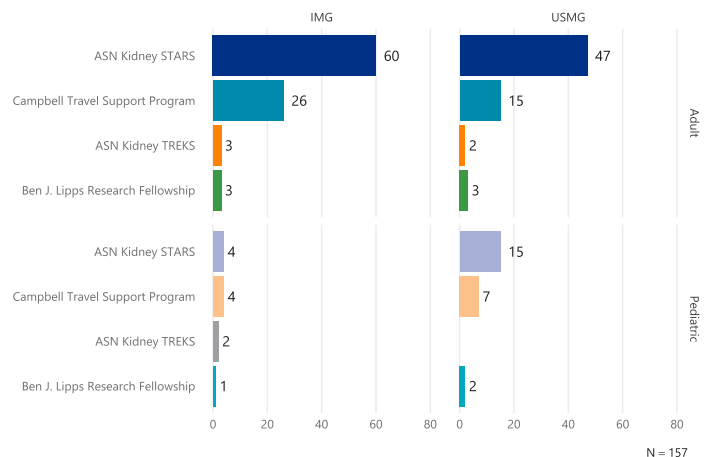


FIGURE 4: ASN PROGRAM PARTICIPATION

How Do Fellows Perceive the Local And National Job Market?

Aggregated perspectives of local employment opportunities were generally negative, with 64.3% indicating there were “Too Few” or “Far Too Few” jobs within 50 miles of their fellowship program, although impressions of the national employment marketplace were more favorable (56.4% indicated an “Appropriate” number of jobs overall). IMG and USMG fellows have perceived an improving job market locally and nationally (Figure 5). However, USMG fellows’ impressions of the national employment market soured slightly in 2019, with 7.7% indicating there were “Far too few” jobs.

What is Most Important to Fellows When Considering Employment Offers?

Weekend call frequency, employment in a desired geographic location, and overnight call frequency were the most important consideration when fellows assessed job opportunities, while overall compensation trailed in 11th place overall (Figure 6). Women and men both shared these top three factors, but women were more interested in employment opportunities for their spouse/partner, while men highly ranked workday length and proximity to their family ($p = 0.03377$, X^2 test for independence). IMGs and USMGs differed on visa requirements ($p = 2.71e^{-11}$), and pediatric fellows top ranked factors—desired location, partner/spouse employment, and potential mentors—significantly differed that those for adults ($p = 0.00829$).

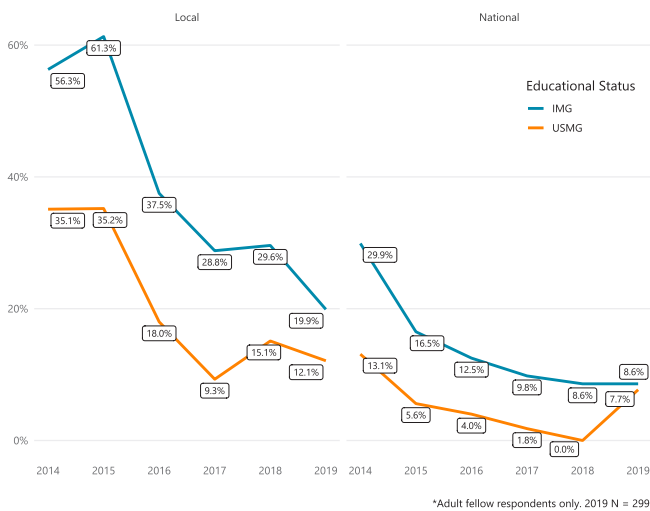


FIGURE 5: LOCAL AND NATIONAL JOB MARKET PERCEPTION TRENDS

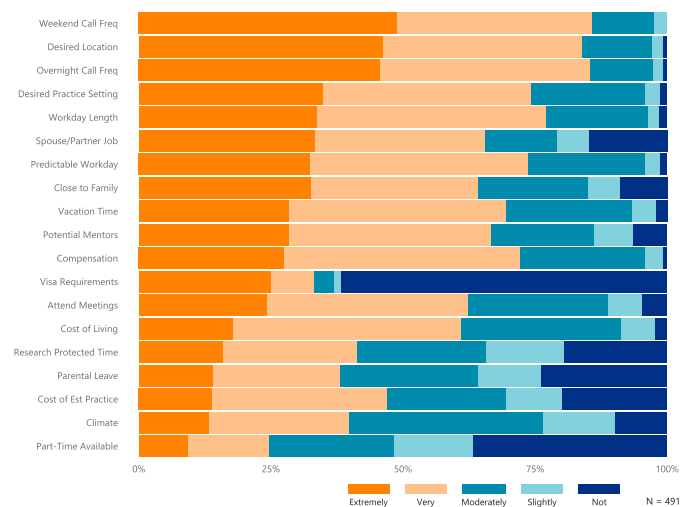


FIGURE 6: EMPLOYMENT INFLUENTIAL FACTORS

Nephrology Job Market—Experiences and Perspectives

Of the 491 participants, 213 adult fellows (52%) and 29 pediatric fellows (37%) had completed the requisite years of training for board eligibility and were queried about job search experiences and first post-fellowship job characteristics.

One hundred sixty-seven had begun their search for a nephrology and 44 initiated a search for non-nephrology post-fellowship employment. The top non-nephrology job sought was hospital medicine (15 participants). Overall, 125 (52%) of respondents had received advice about their job search and negotiating their first contract (46% of adult and 97% of pediatric fellows). While a quarter of both IMG and USMG fellows entered into positions without going through the application process, 36.4% of IMG and 44.4% of USMG pediatric fellows applied ≥ 10 and 5 jobs, respectively. Yet between 11.8% and 26.9% of job seekers failed to receive a job offer.

Of the fellows looking for a position, 81% of adult and 87% of pediatric fellows had accepted a nephrology job. Of those looking outside the specialty, 49% of the 39 adult participants had found positions.

What Was the Median Base Starting Salary (Before Incentives)?

2019 nephrology fellow survey participants reported a median base salary (before incentives) of \$190,000.

Male respondents' median base salary (\$200,000) was higher than that reported by women respondents (\$175,000) (Figure 7). IMG participants demonstrated a slightly higher median base salary (\$195,000 before incentives) than graduating USMG fellows (\$180,000).



FIGURE 7: BASE SALARY—EDUCATIONAL STATUS AND GENDER IDENTITY

Pediatric fellows reported a median base salary (before incentives) of \$150,000 compared with \$199,000 for adult nephrologists. Female participants also reported lower median base salaries regardless of educational status (IMGs, \$181,000; USMGs, \$168,000).

What Were the Characteristics of Respondents First Post-Fellowship Position?

Of those respondents with a signed contract most were entering clinical practice (99 adult and 15 participants) followed by research (nine and six fellows). Four adults indicated they were practicing hospital medicine in a non-nephrology position. Adult fellows most commonly reported starting a primarily clinical nephrology position in a non-academic hospital (52 participants), pediatric fellows in a university-affiliated medical center (15).

Disclaimer

The findings of this summary and full report (available at www.asn-online.org/workforce) are solely those of the authors and do not reflect the views of the Johns Hopkins University School of Medicine (JHUSOM) or the ASN Alliance for Kidney Health. Please provide your comments and feedback on this report to workforce@asn-online.org.