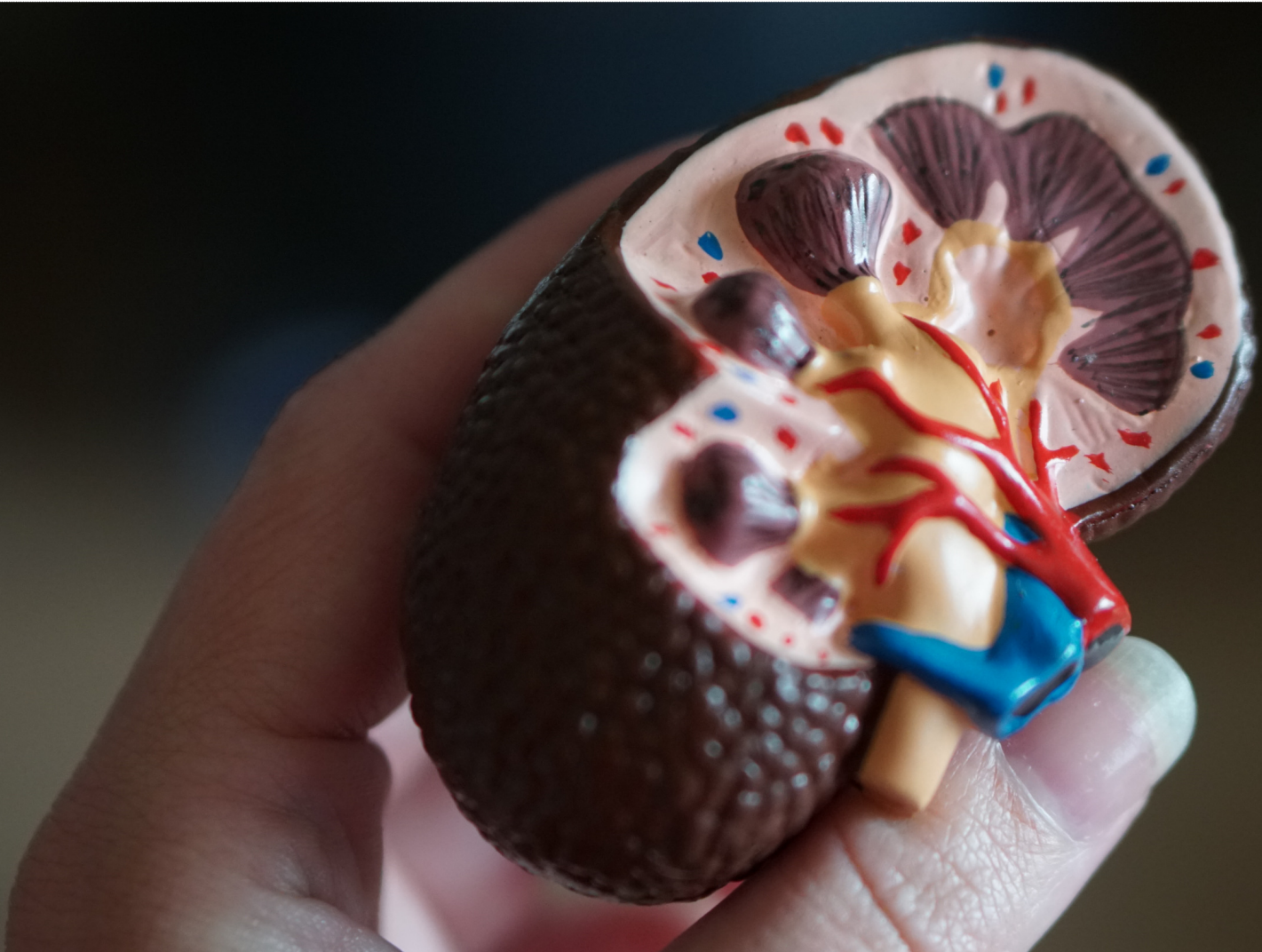


2023 ASN Nephrology Fellow Survey

ASN Data Subcommittee
September 27, 2023



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At a Glance

- ASN’s Nephrology Fellow Survey measures longitudinal trends in future nephrologist demographics and post-fellowship employment. In 2023—the survey’s 10th year—47% of adult and pediatric nephrology fellows participated (450 of 954 current fellows).
- An increasing number of fellows were pursuing nephrology–critical care medicine (CCM) fellowships. Nineteen respondents (5%) were in currently training in joint nephrology–CCM programs and 15 (4%) planned to enter a nephrology–intensivist fellowship next year.
- Call frequency was rated the most important factor when weighing an employment offer, with both weekend call and overnight call frequency considered extremely important by more than half of respondents (55% and 54%, respectively).
- Adult fellows entering practice reported a median starting base compensation of \$231,000 (IQR \$44,000), up 5% from 2022 (see [V. Focus on the Pediatric Workforce](#) for data on pediatric nephrologists).
- A majority of fellows were entering private practice (77 respondents) but they reported the lowest median compensation (\$221,000) with fellows at non-academic hospitals reporting the highest (median \$282,000; 21 respondents), followed by government (\$238,000; 4), and academic hospitals (\$226,000; 40).
- Only 5 respondents were starting practice in hospital medicine, either as an internist (3 respondents) or nephrohospitalist (2). Fellows had accepted jobs in 41 states and the District of Columbia, with 13% entering practice in rural and/or underserved states.
- Nine out of 10 fellows would recommend nephrology to medical students and residents, including 96% of US medical graduates (USMGs) and 89% of IMGs. This strong endorsement came despite respondents’ substantial educational debt burden. USMGs reported median debt of \$236,000 and IMGs, \$60,000.



I. Inflow—The Future Workforce

Forty-seven percent of current nephrology fellows (450 of 954) responded to the 10th ASN Nephrology Fellow Survey, including 49% of adult (400 of 821) and 38% of pediatric fellows (50 of 133) training in the United States and Puerto Rico (Table 1). Overall, 250 (56%) respondents identified as men, 190 (42%) as women, and 1 (0.2%) as non-binary, with a median age of 33 years. The majority of fellow respondents were Asian or White (42% each), 13% were of Hispanic/Latina/Latino ethnicity, 9% identified as Black or African American, and 1% as American Indian/Alaskan Native.

Table 1: Respondent Demographics*

Characteristic	Adult (N=400)	Pediatric (N=41)	Adult/Pediatrics (N=9)
Educational Status			
USMG	148 (37%)	28 (68%)	8 (89%)
IMG	252 (63%)	13 (32%)	1 (11%)
Years of Training Completed			
1	176 (44%)	10 (24%)	2 (22%)
2	215 (54%)	14 (34%)	3 (33%)
3	7 (2%)	17 (41%)	2 (22%)
4 or more	2 (0%)	—	2 (22%)
Gender Identity			
Man	237 (59%)	10 (24%)	3 (33%)
Woman	155 (39%)	31 (76%)	4 (44%)
Gender non-binary	1 (0%)	—	—
Prefer not to answer	6 (2%)	—	2 (22%)
Citizenship Status			
U.S. citizen	230 (57%)	27 (66%)	9 (100%)
Permanent resident	35 (9%)	6 (15%)	—
H-1, H-2, or H-3 visa (temporary worker)	37 (9%)	1 (2%)	—
J-1 or J-2 visa (exchange visitor)	93 (23%)	6 (15%)	—
Other visa (Please specify your "other" visa type)	2 (0%)	1 (2%)	—
Prefer not to answer	3 (1%)	—	—



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Characteristic	Adult (N=400)	Pediatric (N=41)	Adult/Pediatrics (N=9)
Hispanic/Latina/Latino	48 (12%)	8 (20%)	2 (22%)
Prefer not to answer	10 (3%)	—	2 (22%)
Race†			
American Indian or Alaska Native	3 (1%)	2 (5%)	0 (0%)
<i>Asian Total</i>	<i>179 (44%)</i>	<i>8 (18%)</i>	<i>2 (22%)</i>
–East Asian	21 (5%)	4 (9%)	1 (11%)
–South Asian	143 (35%)	4 (9%)	1 (11%)
–Southeast Asian	15 (4%)	0 (0%)	0 (0%)
Black or African American	39 (10%)	1 (2%)	0 (0%)
Pacific Islander	1 (0%)	0 (0%)	0 (0%)
Prefer not to answer	31 (8%)	4 (9%)	2 (22%)
White	156 (38%)	29 (66%)	5 (56%)
Census Region			
Northeast	124 (32%)	13 (32%)	1 (11%)
South	120 (31%)	11 (28%)	1 (11%)
North Central	81 (21%)	8 (20%)	3 (33%)
West	64 (16%)	8 (20%)	4 (44%)

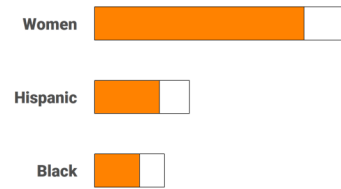
*—=not available.

†Respondents could choose more than one race.

Total responses by fellowship: Adult=409, Pediatrics=44, Adult/Pediatrics=9.



Similar to internal medicine and other medical subspecialties (<https://doi.org/10.1001/jamanetworkopen.2019.20482>), respondent demographics did not align with the U.S. population, 50% of whom are female, 19% of Hispanic/Latina/Latino ethnicity, and 14% Black or African American race (see sidebar). The adult fellow cohort was generally representative of adult nephrology fellows overall according to the most recent [Data Resource Book](#) released by the Accreditation Council for Graduate Medical Education (ACMGE) for academic year 2021–2022 (see tables below), although White respondents were overrepresented. However, pediatric respondents demonstrated more variance in educational status, race, and ethnicity compared to ACGME data.



Adult Fellows		
Variable	ASN Survey	ACGME*
Mean Age (Years)	34	34
IMGs	63%	66%
Women	39%	37%
Asian	44%	46%
Hispanic/Latina/Latino	12%	10%
Black or African American	10%	7%
White	38%	28%

*Adult nephrology fellows reported in ACGME Data Resource Book Academic Year 2021-2022.

Pediatric Fellows		
Variable	ASN Survey	ACGME*
Mean Age (Years)	34	33
IMGs	32%	27%
Women	76%	74%
Asian	18%	29%
Hispanic/Latina/Latino	20%	8%
Black or African American	2%	4%
White	66%	50%

*Pediatric nephrology fellows reported in ACGME Data Resource Book Academic Year 2021-2022.



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Nearly all respondents were training at an academic/university-based center (95%). Although a majority (59%) completed medical school outside the U.S., just 22% were training on a J-1 visa and 9% on H-1b visa (Figure 1). Twenty-seven participants (6%) had not completed a U.S. residency. Twelve percent were DOs, and nearly a third were training in the Northeast with 57 respondents in New York, 36 in Pennsylvania, and 22 in Massachusetts (Figure 2).

Figure 1: Respondent Citizenship Status

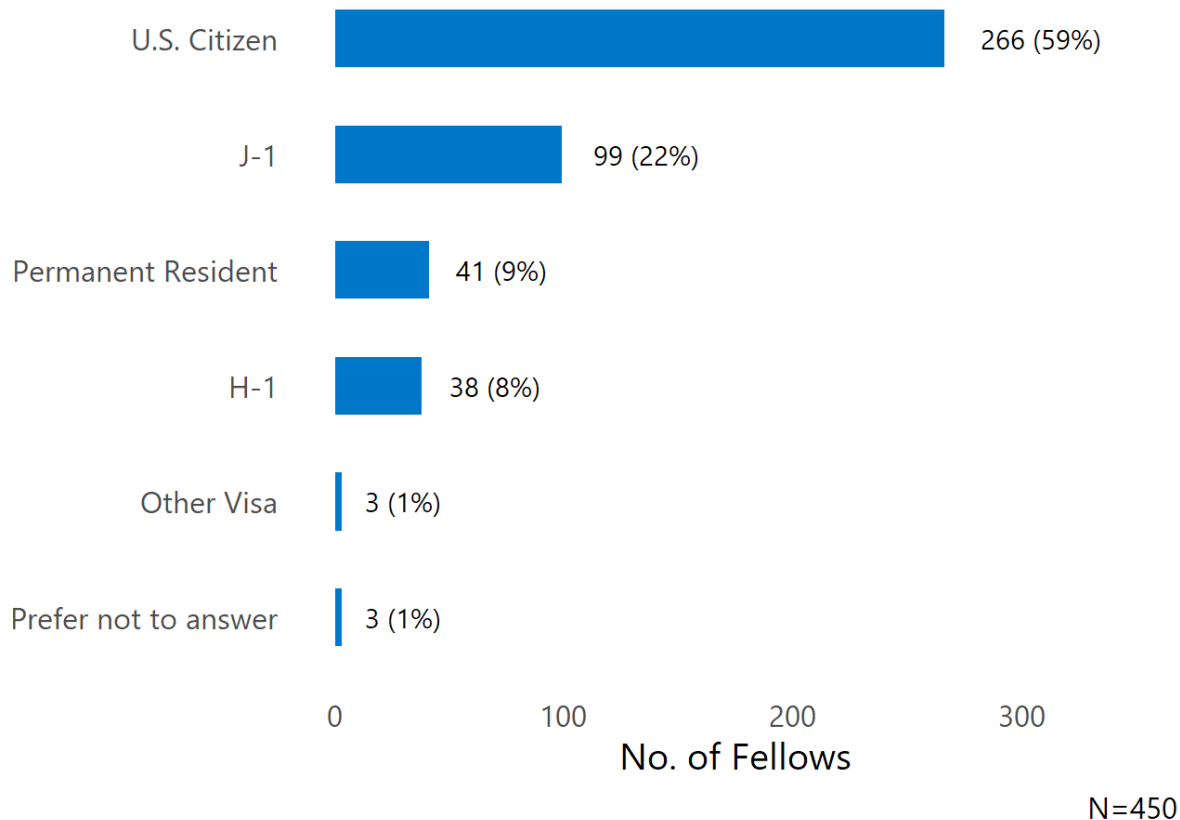
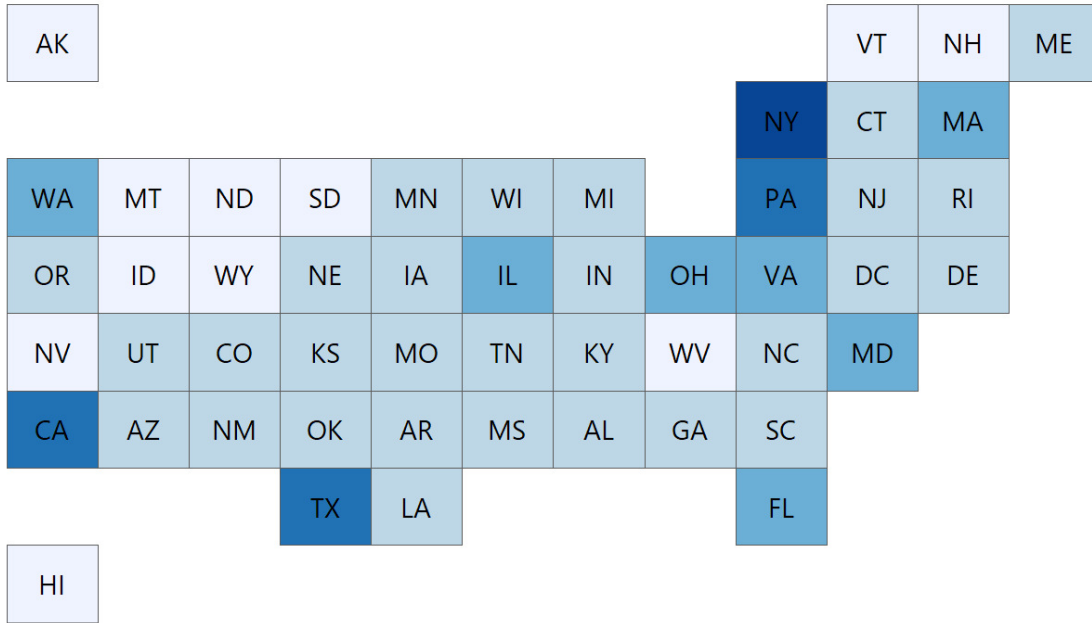


Figure 2: Respondents' Fellowship Location



No. of Fellows 0 1-10 10-22 22-40 40-57

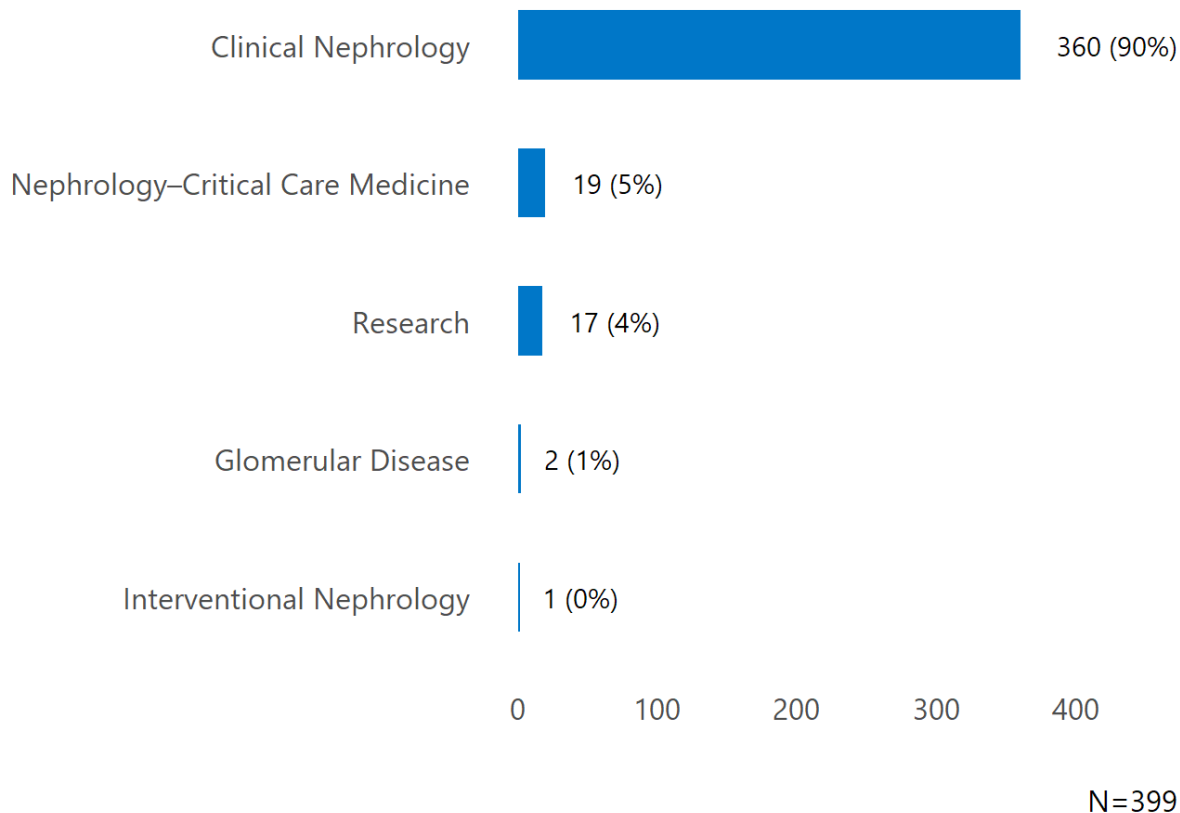
N=438



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The vast majority of adult respondents were in clinical nephrology fellowships, but an increasing percentage were training in a joint nephrology–critical care medicine (19 fellows [4.8%]) (Figure 3). Note, transplant nephrology fellows may not have been fully represented in the survey frame due to the sampling method used.

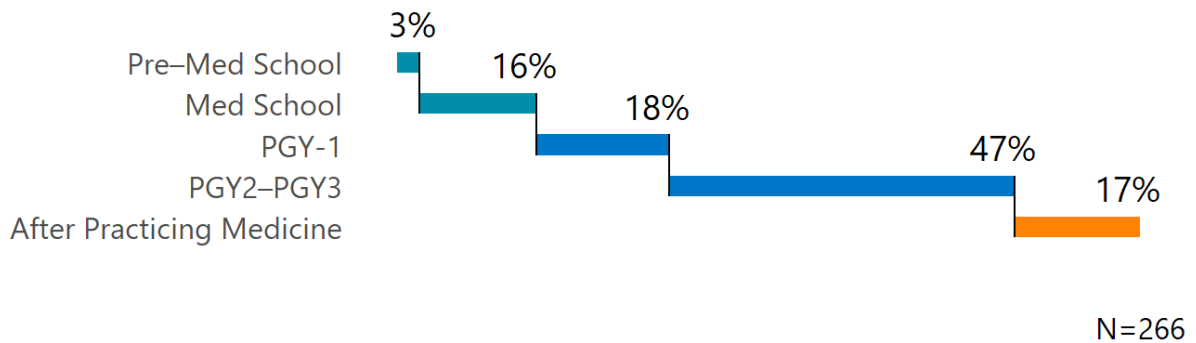
Figure 3: Current Fellowship—Adult Fellows



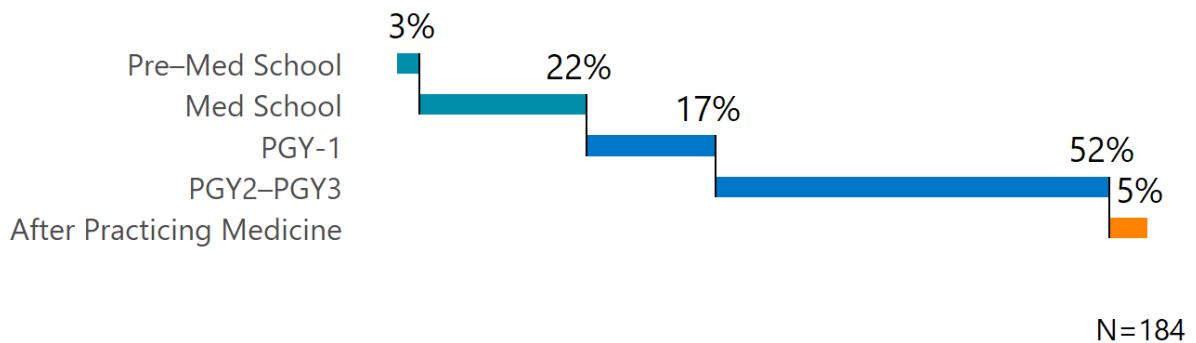
The second and third years of residency continues to be the period when most fellows choose to pursue nephrology (Figure 4). However, a substantial proportion (12% overall; IMGs, 17%; USMGs, 5%) choose the subspecialty after practicing independently in another field, ranging between 12% to 16% of all adult and pediatric fellows since 2019. This represents a population of fellows with a set of experiences that are unique from brand-new internal medicine residency graduates.

Figure 4: When Fellows Chose Nephrology

IMG Fellows



USMG Fellows



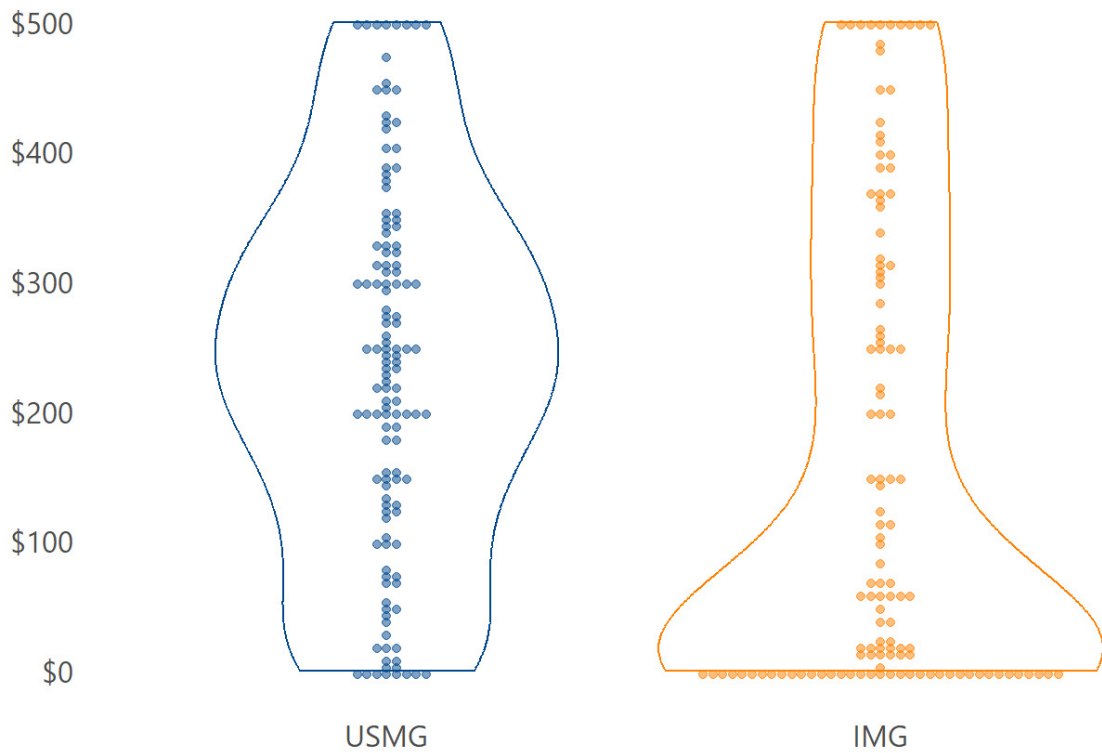
Fifty-three fellows were past Kidney STARS participants and 5, Kidney TREKS alumni (Table 2). USMGs continued to carry a substantial educational debt burden (median \$236,000) compared to IMGs (median \$60,000) (Figure 5).



Table 2: ASN Program Participation

ASN Program	Description	N (%)
Kidney STARS	Free Kidney Week Registration & Networking Opportunities	53 (12%)
Campbell Fellows	Travel Support Program for Fellows	38 (8%)
Kidney TREKS	1-week Research Course Retreat & Long-Term Mentorship Program	5 (1%)
Lipps Research Fellowship	Research Fellowships Funding Fellows Conducting Original, Meritorious Research Projects	3 (1%)

Figure 5: Educational Debt by Medical School Location



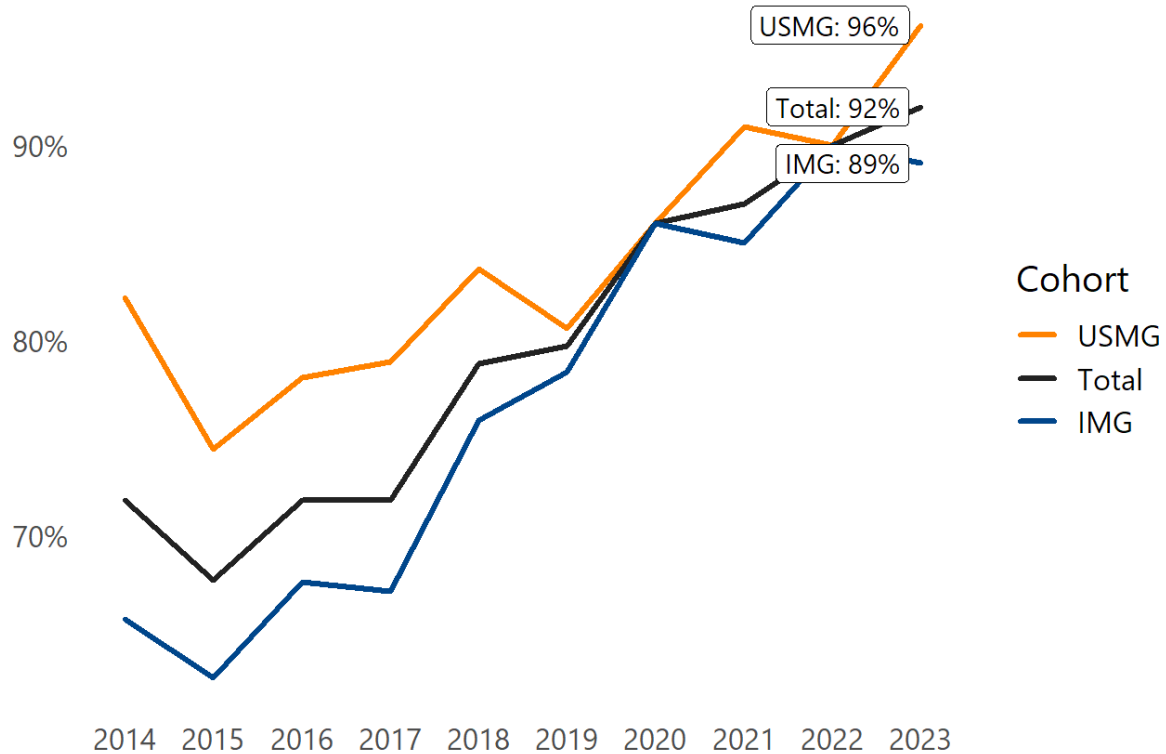
N=252



Recommend Nephrology

This year’s survey saw the greatest percentage of fellow participants recommending nephrology—92%—including 96% of USMGs and 89% of IMGs (Figure 6).

Figure 6: Percent Respondents Recommending Nephrology



N=450 (2023)

Asked why they would or would not recommend nephrology, respondents echoed similar themes from previous surveys, although this year’s nephrology–pro respondents also pointed to a robust job market while nephrology–con respondents emphasized a disconnect between effort and pay. Select representative quotes from both groups are provided below.

Perspectives—Recommend Nephrology

The challenge of the physiology, the mentorship, the close relationships with patients, the reliance on a strong internal medicine skillset and importance in a wide range of pathophysiology, the opportunities for research and discovery in the field.

I developed an interest in nephrology because of my interest in math and physics, but chose the field because my father developed kidney disease and had an amazing relationship with his nephrologist. You have the ability to really connect with your patients and develop this long-term



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care relationship with them. I love that you see your patients often and get to share both good times and bad times with them. Witnessing ESRD patients undergo transplantation is one of the most gratifying situations in this field.

Nephrology offers job security, a broad scope of practice, intellectual stimulation, multidisciplinary collaboration, long-term patient relationships, and research opportunities. With a high demand for nephrologists and the complexity of kidney diseases, it's a rewarding field for medical students seeking a fulfilling career in healthcare.

Nephrology is a field with lot of future potential and diminishing supply of physicians. If a med student or resident has an interest in the specialty, I'd certainly advise pursuing it. Nephrologists practice can be very flexible depending on individual goals and one can achieve a great work life balance while still earning competitive remuneration.

I will say there is a little bit of hesitation in the recommendation because I think burnout in this field is a huge issue, but I love the field because it's interesting medicine, and you are involved in every aspect of patient care.

Perspectives—Would Not Recommend Nephrology

Although I love Nephrology and I do think I made the right choice, overall Nephrology is underappreciated, undercompensated and overworked as a field and overall I do not recommend it for most students unless there is a very strong and unique interest in the kidney physiology and patients with renal disease.

The compensation is not adequate for the amount of work we are doing. Night calls and week-end calls make it less appealing as well.

Pediatric nephrologists are grossly underpaid, it is an emotionally challenging field and it seems that because the workforce is scarce, our workload will increase in the coming years.

The future reimbursement will continue to be poor, we are giving away intervention and dialysis to others, it is just a matter of time when we will have given away our unique skills.

Lifestyle is difficult and reimbursement is low when you account for the effort required. Medicare reimbursements also continued to be cut which makes it difficult to care for those who need it and still be financially viable. As interesting as the field can be, it's difficult for most to sacrifice both income and quality of life. Many can give up one or the other but not both.

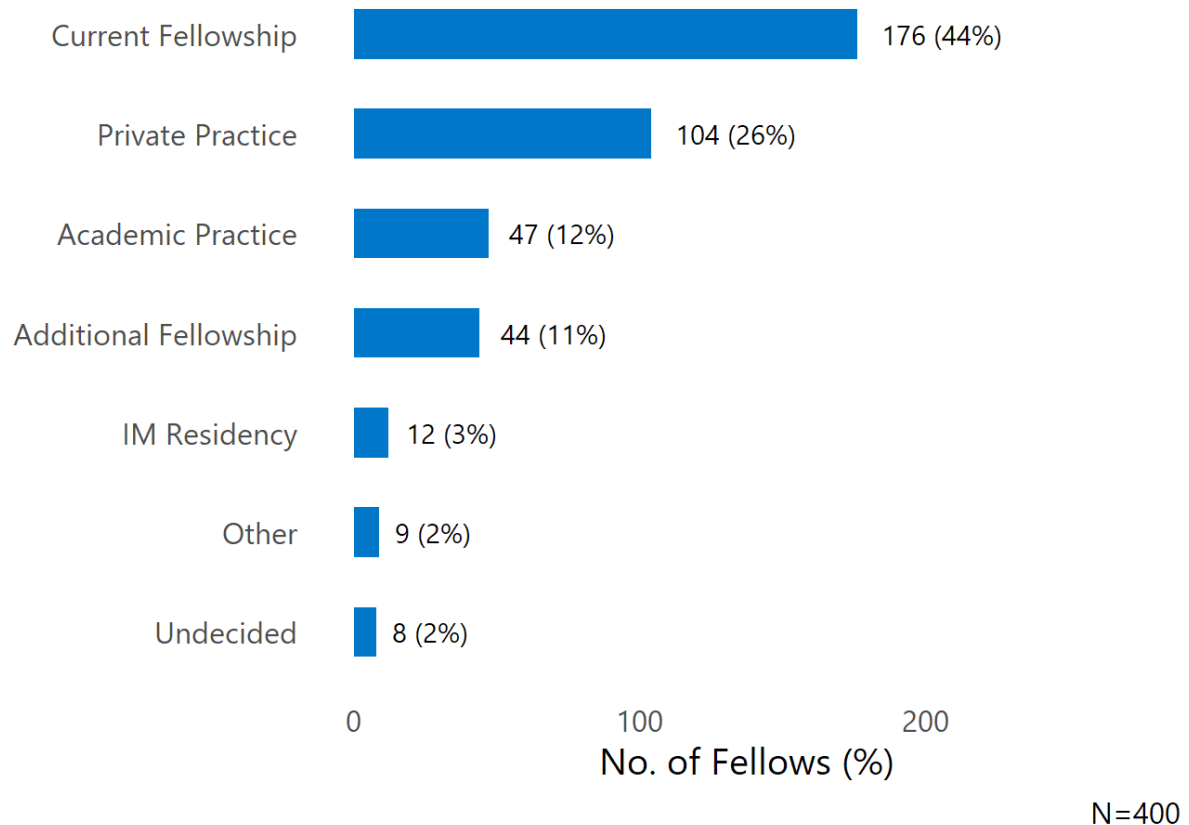


II. Future Plans

This Section Reports **ADULT** Fellow Responses Only

Among respondents who were graduating from training, twice as many were planning to enter private practice (49%) than academic practice (21%) ([Figure 7](#)). Twelve fellows were entering internal medicine residency, most likely after having already completed residency in their home countries before fellowship. Of the 45 respondents pursuing additional training, planned fellowships included transplant (18 fellows), nephrology-CCM (15), glomerulonephritis (4), interventional nephrology (3), research (2), and home dialysis and hypertension (1 fellow each).

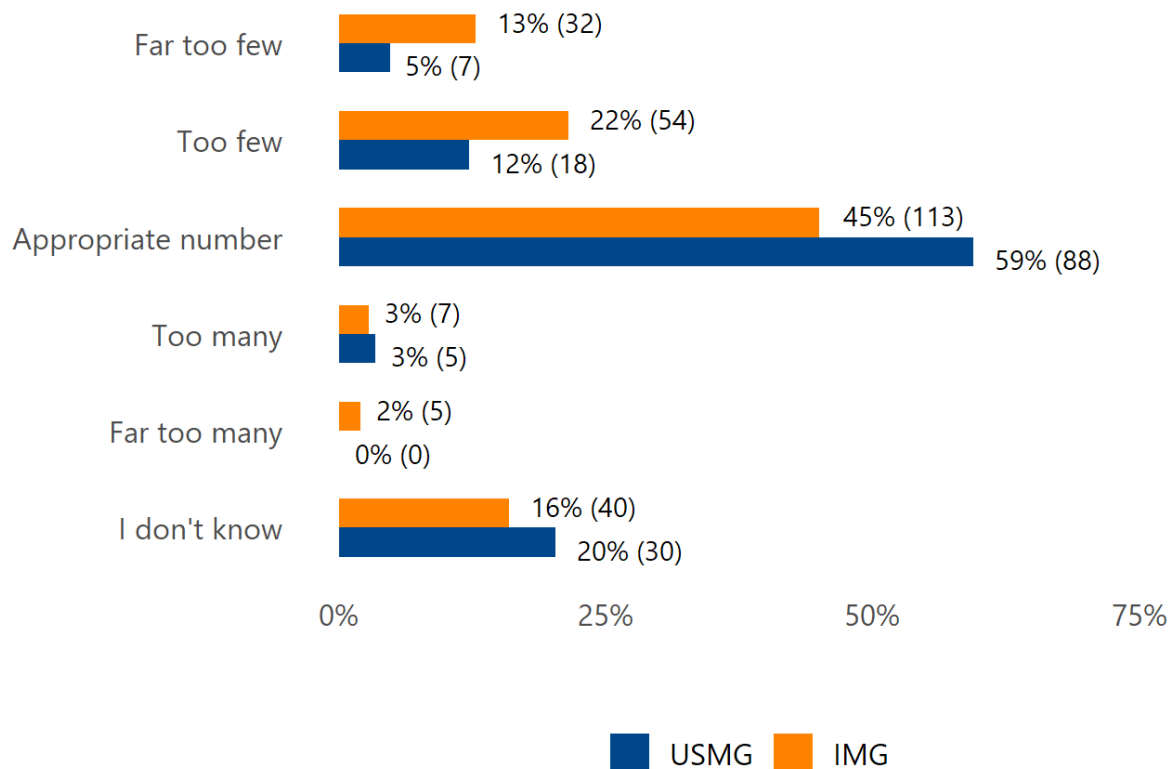
Figure 7: Plans Upon Completion of 2022–2023 Training Year



Job Market Perspectives

A majority of USMG and IMG fellows saw an appropriate number of both local (within 50 miles of their training site) and national employment opportunities, but their perspectives continue to diverge by locale. More USMGs (59%) saw an appropriate number of jobs locally than IMGs (45%), with a third of IMGs (34%) saying there were too few/far too few local jobs (Figure 8). Nationally, the perspectives flipped with 54% of IMGs perceiving appropriate national opportunities, compared with 49% of USMGs (Figure 9).

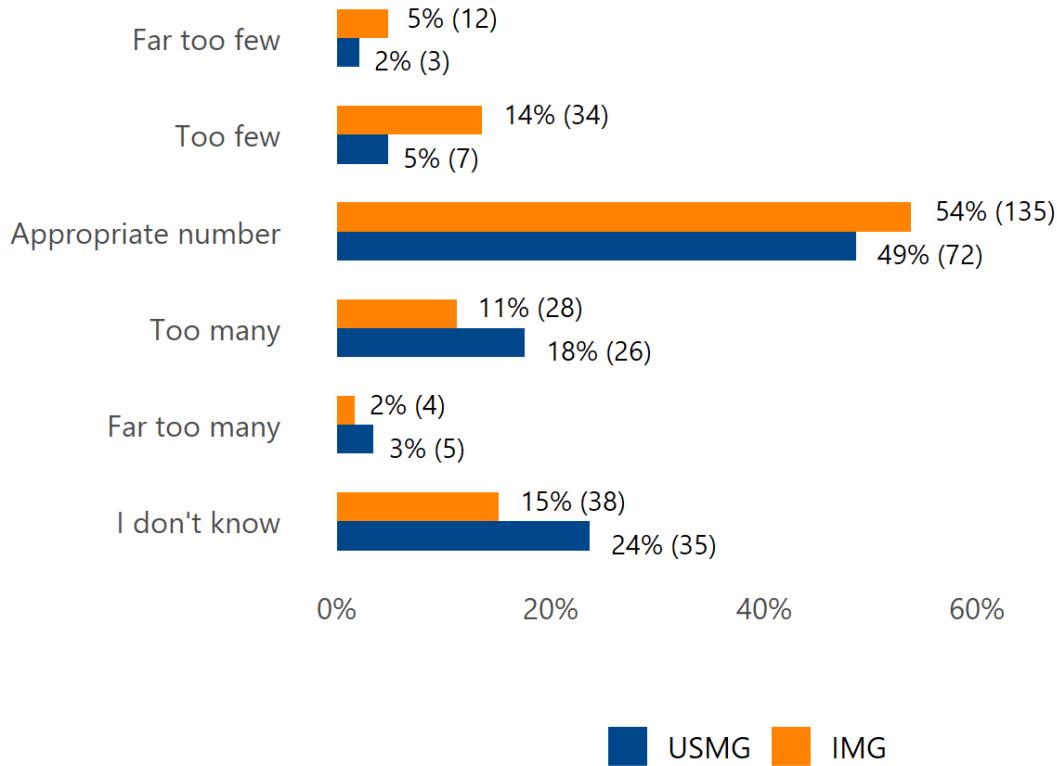
Figure 8: Local Job Market Assessments



N=399



Figure 9: National Job Market Assessments



N=399

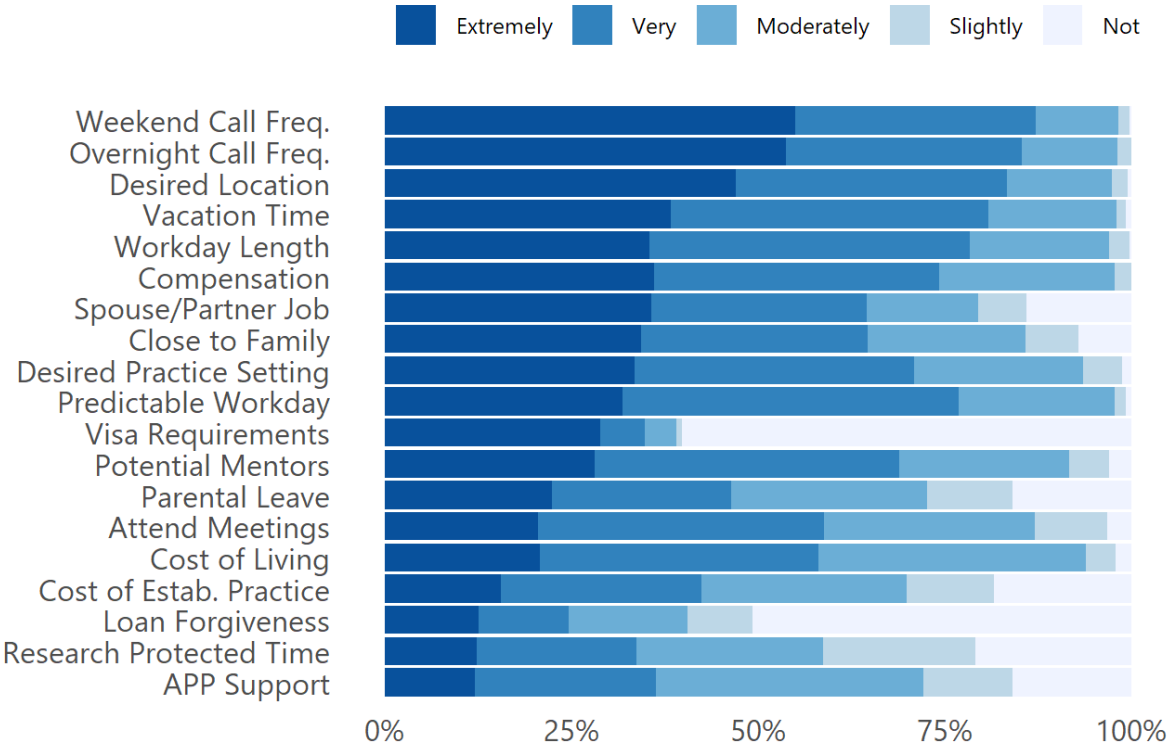
Important Job Factors

Among the 398 adult fellows who responded to the question measuring the importance of certain aspects of potential job offers:

- Frequency of weekend call and overnight call were rated “Extremely Important” by half of the respondents (55% and 54%, respectively; [Figure 10](#)).
- Both weekend call frequency (USMG: 69 respondents [1st]; IMG: 141 respondents [1st]) and overnight call frequency (USMG: 66 [3rd]; IMG: 135 [2nd]) were among the top three factors rated “Extremely Important” for both USMGs and IMGs. For USMGs, a job in a desired location was the remaining top-rated factor (68 respondents, [2nd]), while for IMGs vacation time rounded out the top three (109 respondents [3rd]). Jobs that met visa requirements were the 5th-highest factor rated extremely important for IMG respondents.
- Top three factors rated “Extremely Important” by both women and men were the exact same—weekend call frequency, overnight call frequency, and a job in a desired location.



Figure 10: Important Factors When Evaluating Job Opportunities



N=398



III. Fellow Job Search Experiences

This Section Reports **ADULT** Fellow Responses Only

Sixty-seven percent of adult trainees who had completed ≥ 2 years of accredited training (150 of 224 respondents) had initiated or completed their search for post-fellowship employment at the time of survey. Clinical nephrology positions were the most commonly sought (143 respondents) with medical education a distant second (22 respondents; see sidebar).

Job searchers applied for a median 4 positions (USMG, median 3.5; IMG, 5), and received a median 3 offers of employment (USMG, median 3; IMG, 4). Female and male respondents reported similar numbers of applications (median 4) and job offers (median 3). Eighty-four percent of graduating adult respondents (140 fellows, see [IV. Entering Practice](#)) had accepted a position, 8% (14) had not been offered a job, and 8% (13 fellows) had received a job offer but were still searching for another position.

Similar to 2022, 29% of job seekers experienced difficulty in finding a position they considered satisfactory—37% of IMGs (33 fellows) and 17% of USMGs (10 fellows). Inadequate compensation and inability to find positions in a desired location and practice setting were again the top-cited reasons for the difficulty for both IMG and USMG respondents ([Table 3](#)).

Positions Sought	
Job Type	N
Clinical Nephrology	143
Medical Education	22
Hospitalist—Nephrology	13
Nephrology—Research	8
Hospitalist	4
Clinical Nephrology combined with Non-nephrology Specialty	2
Non-nephrology—Other Clinical Specialty	2
Industry	1



Table 3: Reasons Cited for Difficulty in Finding a Satisfactory Nephrology Position*

Reason for Difficulty	IMG	USMG
Unable to Find a Job:		
Offering adequate salary/compensation	23 (70%)	6 (60%)
In a desired location	21 (64%)	7 (70%)
In a desired practice setting (e.g., hospital, group practice)	14 (42%)	5 (50%)
That met visa status requirements	13 (39%)	1 (10%)
Offering employment opportunities for spouse/partner	2 (6%)	0 (0%)
Other (Please specify)	2 (6%)	1 (10%)

*N=43



IV. Entering Practice

This Section Reports **ADULT** Fellow Responses Only

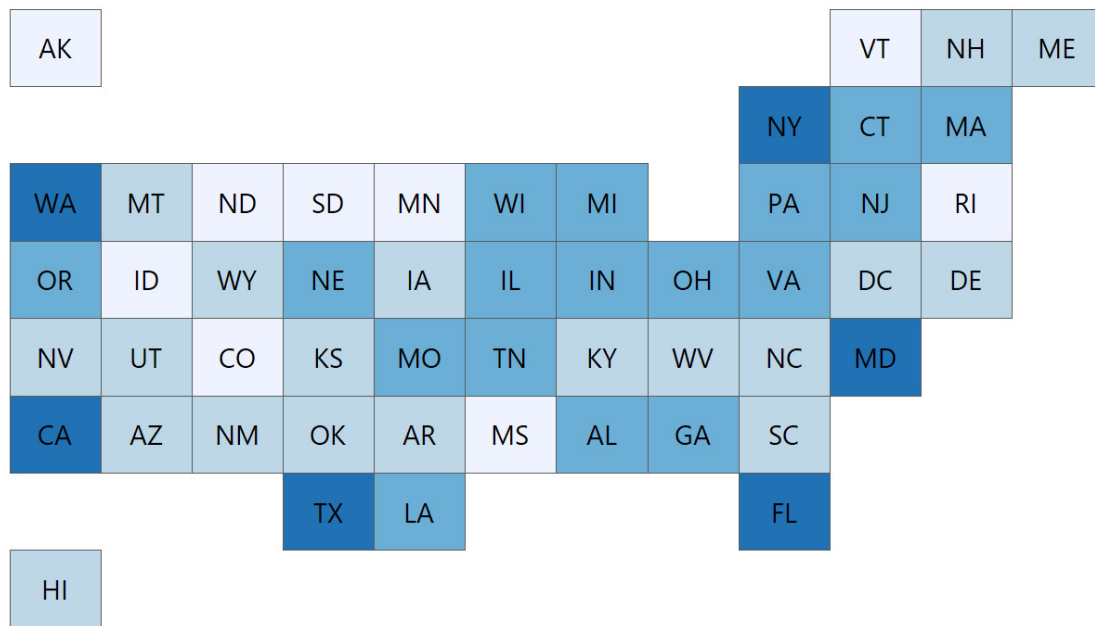
Of 139 adult respondents entering practice (and the 13 fellows who received an offer but remained uncommitted at survey time) California (8 fellows), Texas (8), and Florida (7) were top destinations ([Figure 11](#)). However, this year fellows were also starting positions in rural or underserved states, including Montana (1 fellow) and Wyoming (1), with 11% practicing in a small city and 6% in a rural area. Yet most first post-fellowship positions were still situated in large cities (65%) or suburban locations (11%). Ninety-two percent (141 respondents) were focused on clinical nephrology ([Figure 12](#)), with only 5 fellows practicing hospital medicine either as an internist (3) or dedicated nephro-hospitalist (2). Half of the respondents entering the workforce (80 fellows) were starting in private practice and 30% (44) in an academic hospital system ([Figure 13](#)). Outpatient CKD clinic (95%), and dialysis modalities were the most common responsibilities anticipated by fellows in their first post-graduation position (see sidebar table First Post-Fellowship Position—Responsibilities). Procedures (kidney biopsy, 12%; dialysis catheter placement, 8%) and overall interventional nephrology (3%) were the least-reported anticipated responsibilities.

First Post-Fellowship Position—Responsibilities*	
Responsibilities	N (%)
Outpatient—CKD	142 (95%)
Outpatient—In-center HD	134 (89%)
CRRT	124 (83%)
PD	121 (81%)
Home HD	98 (65%)
Outpatient—Other	83 (55%)
Education	62 (41%)
Dialysis Medical Director	47 (31%)
Apheresis	36 (24%)
Outpatient—Transplant	35 (23%)
Joint Venture—Dialysis	28 (19%)
POCUS	25 (17%)
Clinical research	23 (15%)
Kidney biopsy	18 (12%)
Dialysis catheter placement	12 (8%)
Interventional nephrology	5 (3%)
Other	2 (1%)
Basic science research	0 (0%)
Translational research	0 (0%)

*N=150



Figure 11: First Post-Fellowship Position—State



No. of Fellows 0 1-2 2-5 5-8

N=127



Figure 12: First Position Focus

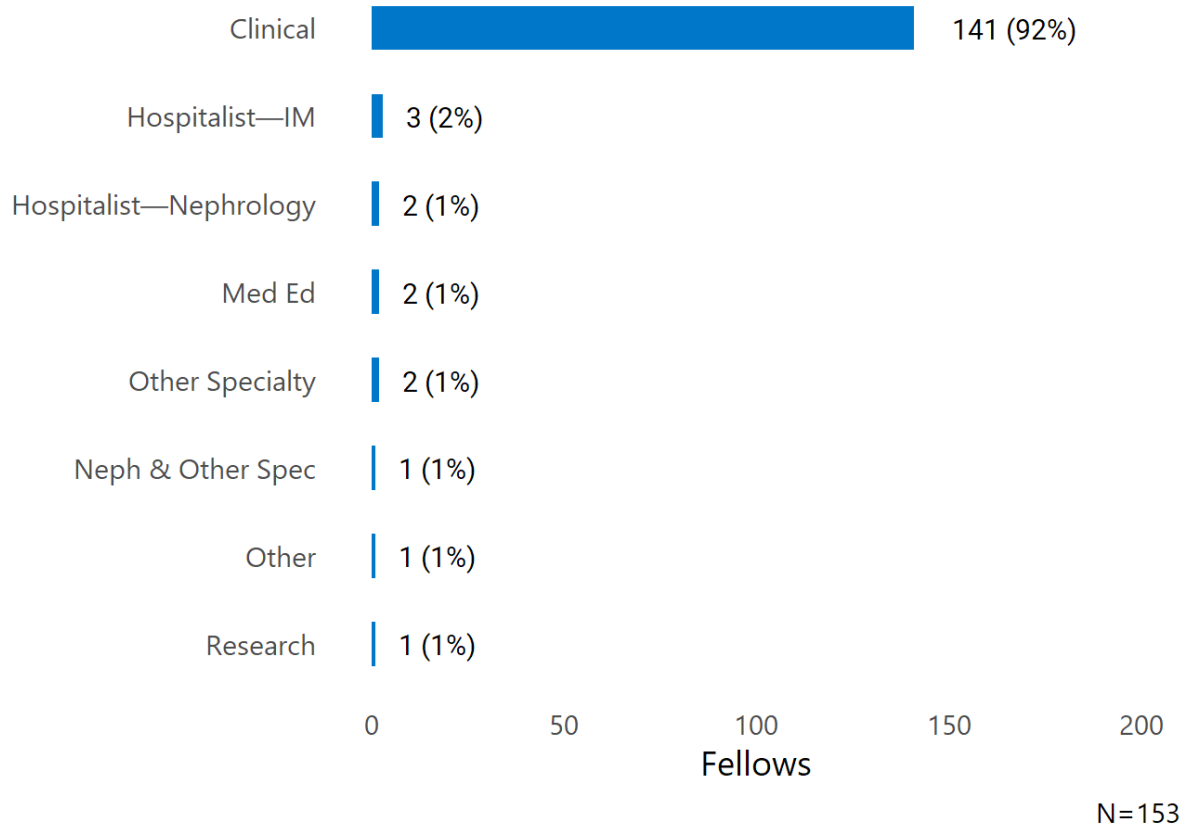
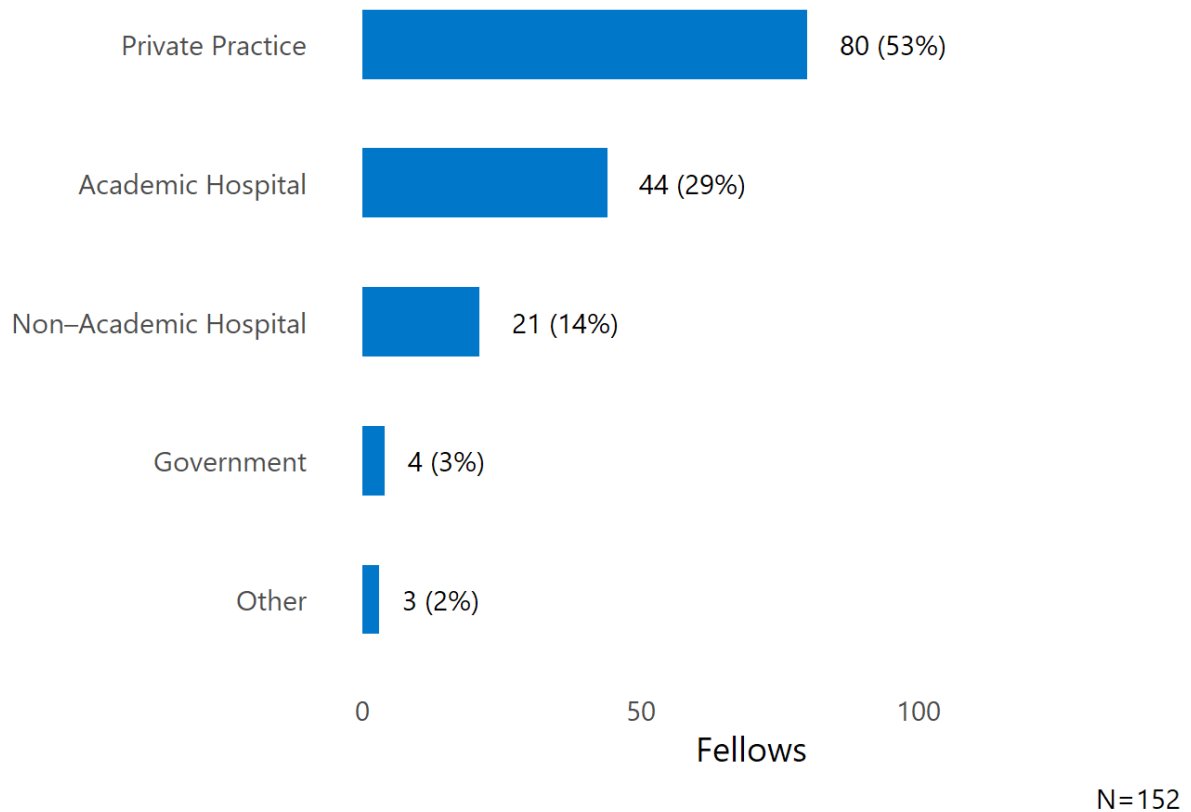


Figure 13: First Position Employer



Compensation and Incentives

Median base starting salary rose 5% to \$231,000 in 2023. Differences in starting compensation by gender were similar to 2022 (women, median \$229,000; men, \$230,500; [Figure 14](#)) but variation by medical school location narrowed over last year (IMGs, median \$240,000; USMGs, \$225,000; [Figure 15](#)). Excluding 3 fellows working in other employment settings, fellows working for non-academic hospitals reported the highest median starting base salary (\$282,000, IQR \$72,000; 21 respondents) followed by those in government (median \$238,000, IQR \$12,500; 4), academic hospitals (\$230,000, IQR \$39,000; 41), and private practice (\$222,000, IQR \$47,000; 79 respondents) ([Figure 16](#)). Although the survey frame was designed to be representative of all fellows in training, it is possible that those who responded differed substantively.



Figure 14: Base Salary—Gender

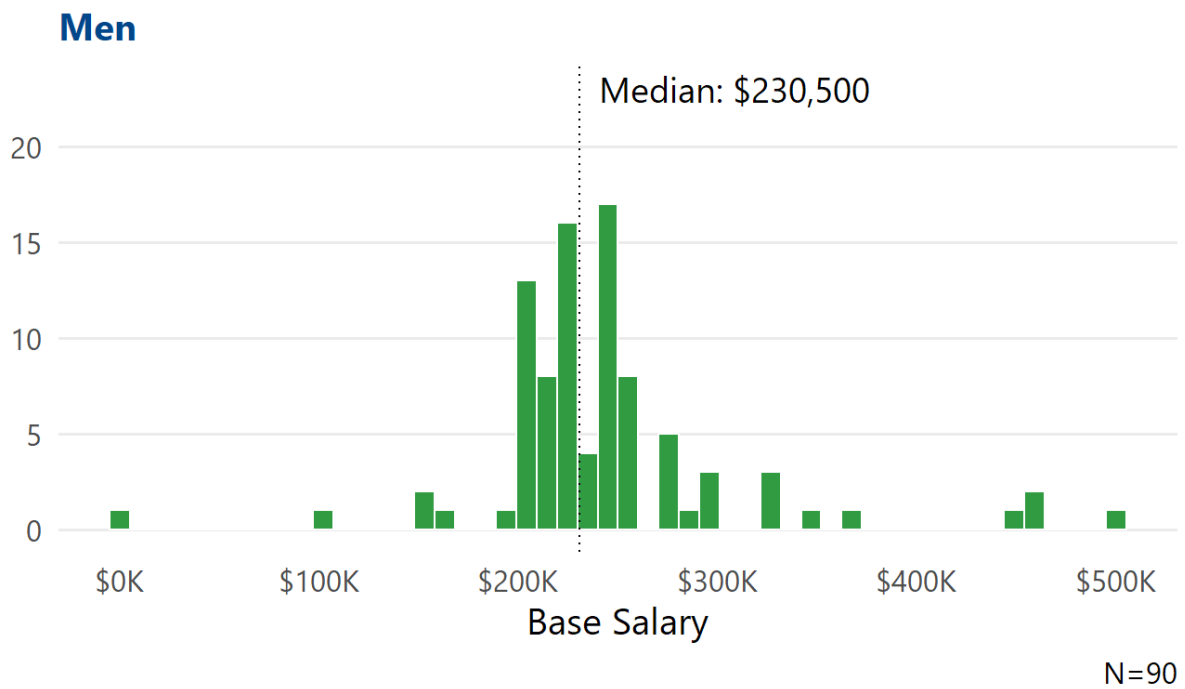
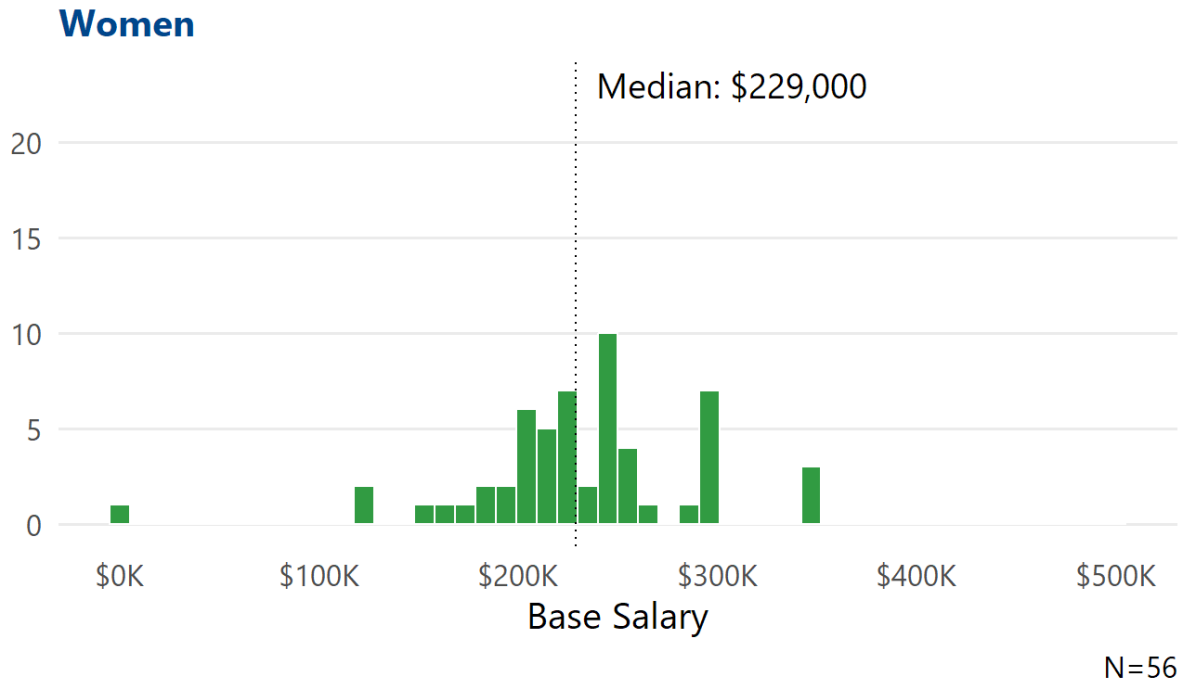


Figure 15: Base Salary—Medical School

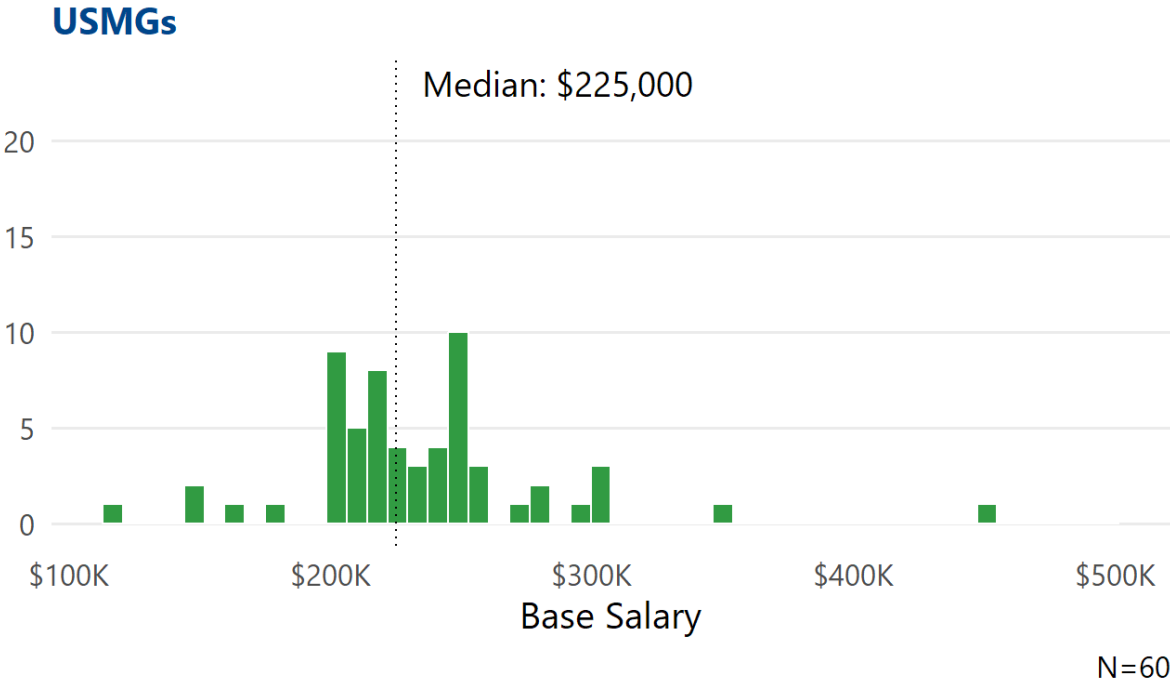
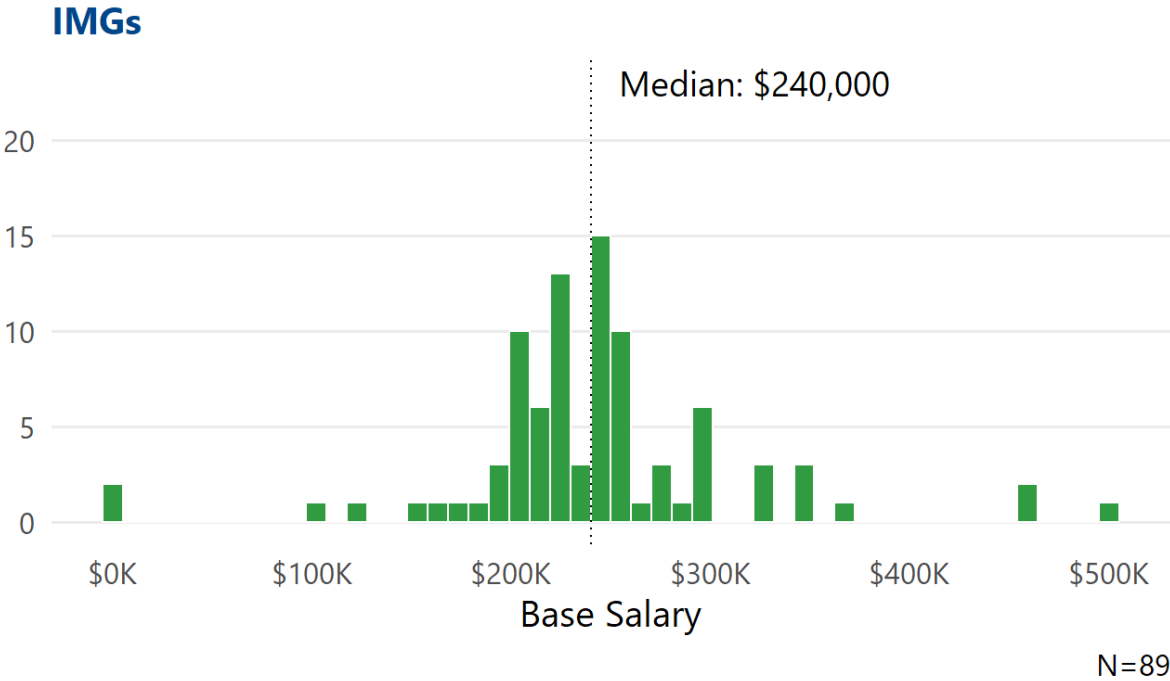


Figure 16: Base Salary by Employer



Most starting positions were at 1 full-time equivalent (FTE; 83%, 113 fellows), with 5 respondents (4%) at 0.9 FTE. Beyond base compensation, nearly all respondents with an employment offer (149 fellows) received at least one incentive (detailed in [Table 4](#)), with malpractice insurance (64%), income guarantees (55%), support for MOC/CME (52%), and a sign-on bonus (42%) most commonly reported. Seventeen-percent of IMG respondents (25 fellows) received a J-1 visa waiver and another 17% (25) H-1 visa sponsorship. Of note, this year 19% of respondents anticipated receiving quality-metric bonuses. Fifty-percent of respondents who received incentives indicated they were “Extremely/Very Important” in choosing to accept a job ([Figure 17](#)). Unlike base salary, gender differences in incentive pay were marked with men reporting a median \$22,500 versus median \$10,000 for women ([Figure 18](#)) but less so for medical school location (IMG, median \$19,500; USMG, \$20,000; [Figure 19](#)).

Table 4: Incentives Received*

Incentive	N (%)
Malpractice Insurance	95 (64%)
Income guarantees	82 (55%)
Support for maintenance of certification and continuing medical education	78 (52%)
Sign-on bonus	62 (42%)
Relocation allowances	62 (42%)
Career development opportunities	48 (32%)
Flexible schedule	33 (22%)
Quality-Metric Bonus Payments	28 (19%)
H-1 visa sponsorship	25 (17%)
J-1 visa waiver	25 (17%)
On Call/Moonlighting Payments	14 (9%)
On-call payments	13 (9%)
Educational loan repayment	11 (7%)
Protected time for research/research "start-up" package	10 (7%)
Real estate venture	7 (5%)
Spouse/partner job transition assistance	7 (5%)
Other (Please specify)	7 (5%)

*N= 149



Figure 17: Importance of Incentives

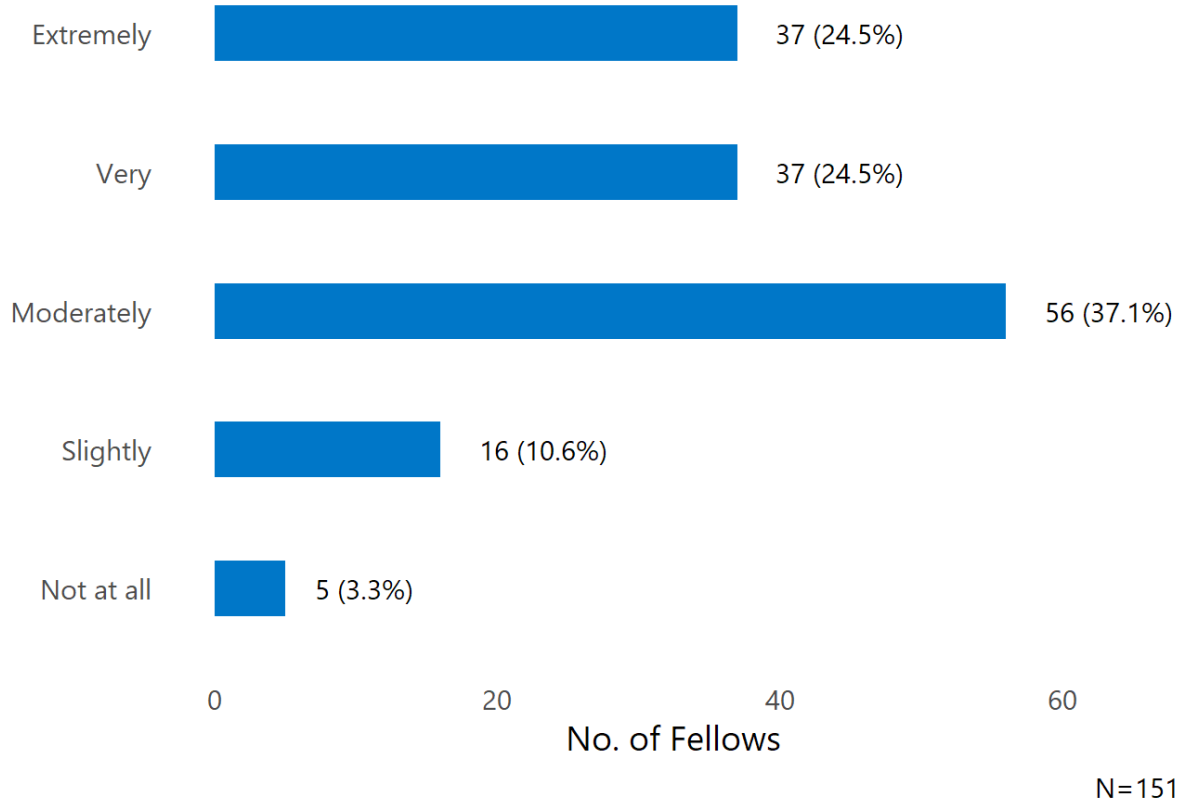


Figure 18: Incentive Pay—Gender

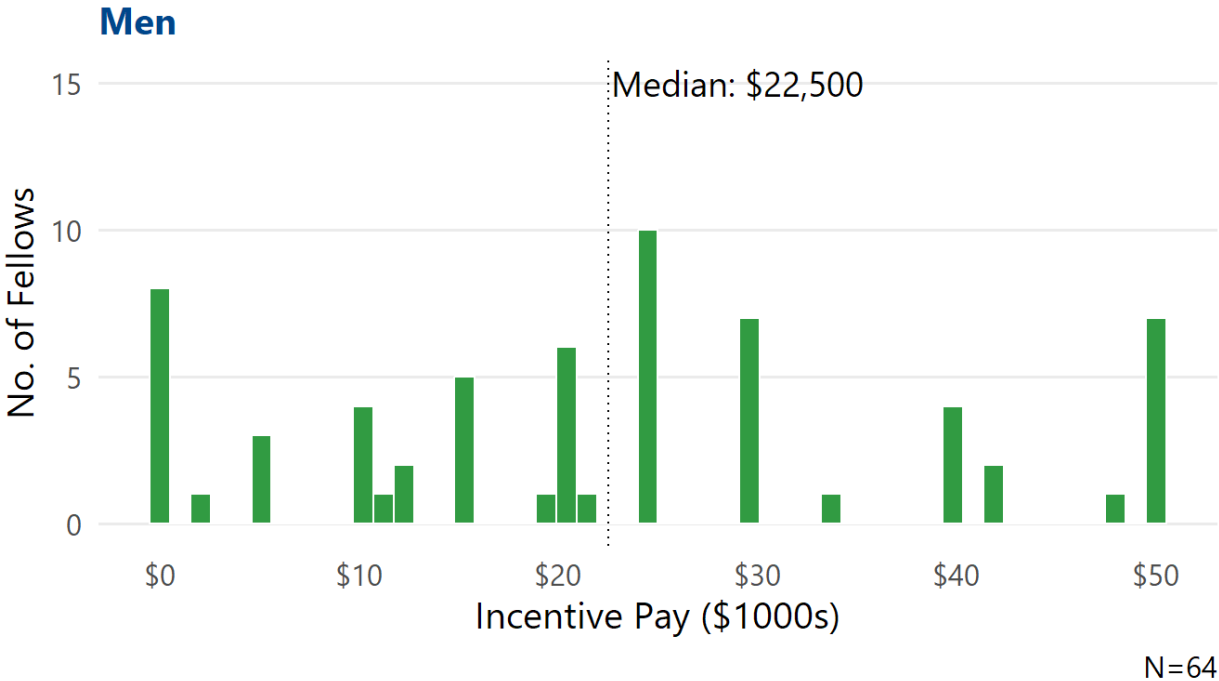
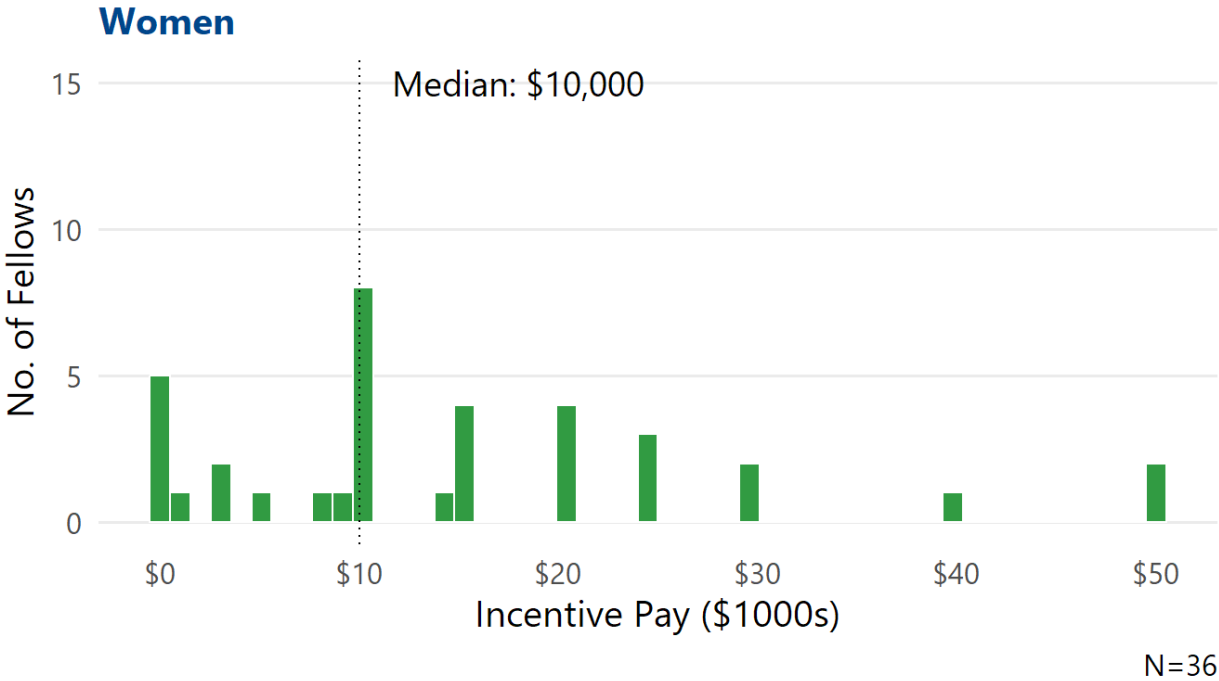
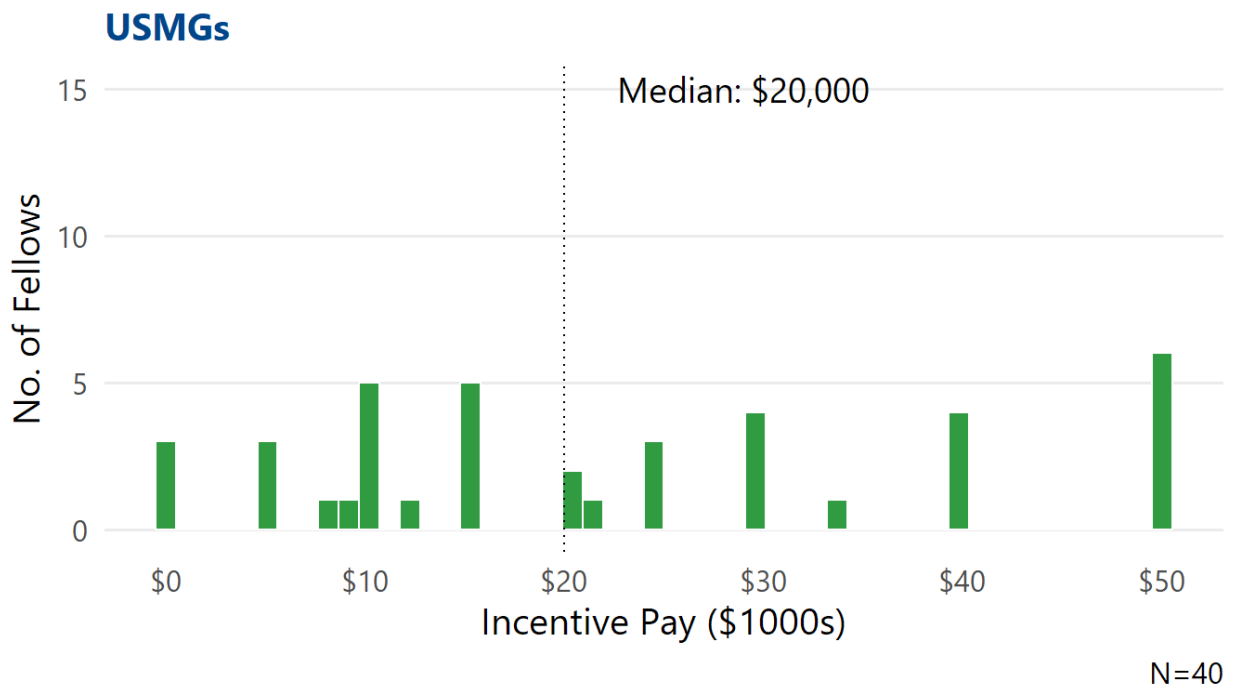
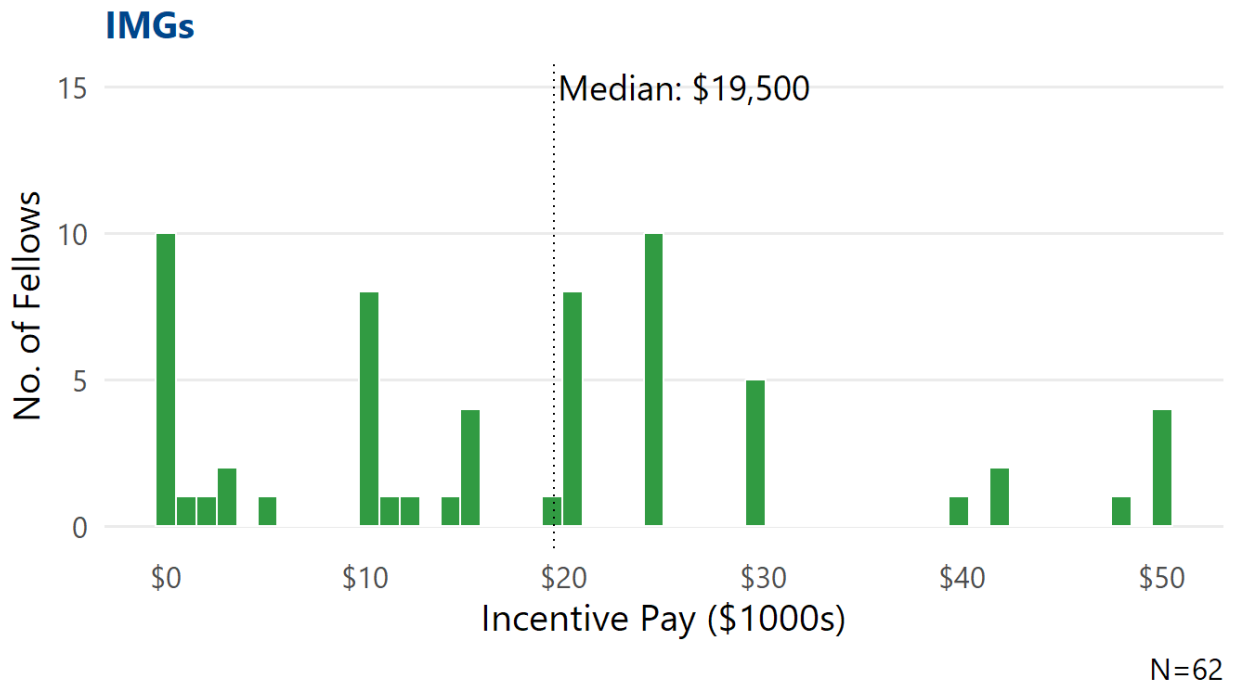


Figure 19: Incentive Pay—Medical School



V. Focus on the Pediatric Workforce

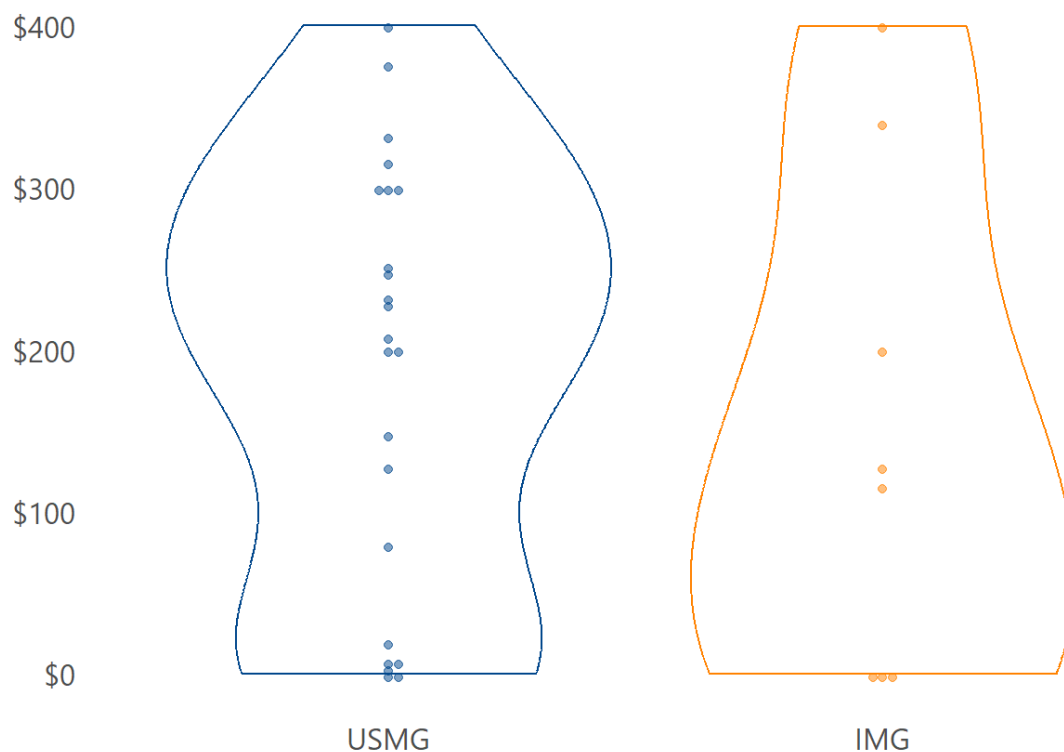
This Section Reports **PEDIATRIC** Fellow Responses Only, Including Adult/Pediatric Fellows

Demographics

As noted in [Table 1](#), 41 pediatric and 9 adult/pediatric nephrology fellows responded in 2023 (38% response), with the majority of fellows USMGs (72%), women (70%), U.S. citizens (72%), White (68%), and non-Hispanic/Latina/Latino (80%). Educational debt levels were similar to those for adult nephrology fellows—median \$200,000 for pediatric fellows and \$198,000 for adult/pediatric fellows. Debt based on medical school location was also similar to adult fellows, with median debt for USMGs \$205,000 and IMGs \$120,000 ([Figure 20](#)).

Given the substantial debt levels reported by pediatric respondents, 16 fellows (32%) planned to apply for loan mitigation at either the Public Service Loan Forgiveness Program, ASN Loan Mitigation Program, or NIH Loan Repayment Program, and two fellows had already received loan mitigation (two fellows were not aware of loan mitigation programs).

Figure 20: Educational Debt—Pediatric Respondents



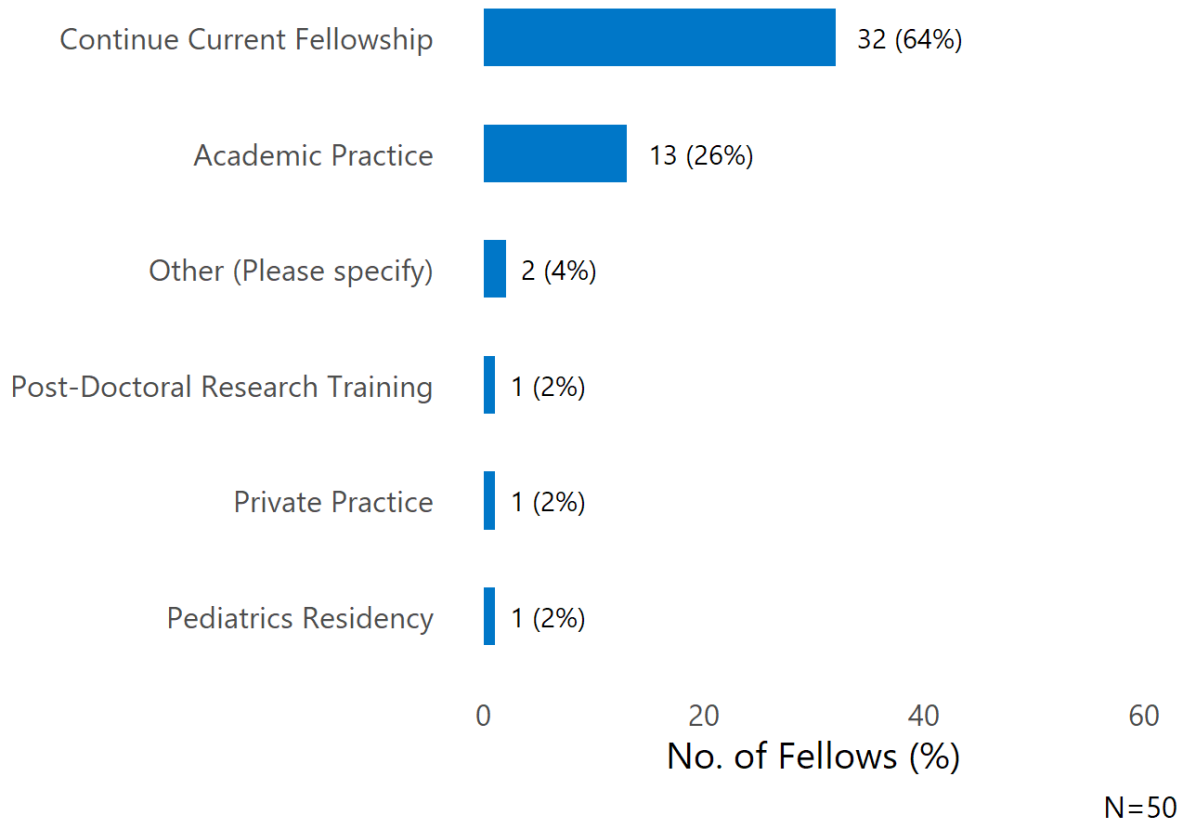
N=31



Future Plans

Most pediatric respondents were continuing their fellowship (64%) and 26% were entering academic practice. One fellow was entering a general pediatrics residency to qualify for board certification ([Figure 21](#)).

Figure 21: Plans Upon Completion of 2022–2023 Training Year



Pediatric fellows were specifically queried about plans to pursue part-time employment in their first post-fellowship position. Only 14% of respondents (7 fellows) were planning to look for part-time positions after fellowship, with most (66%, 33 fellows) not considering it and 20% undecided (10 fellows). Of the top reasons to prefer part-time employment, improved work-life balance was the most common (38.5% of respondents) followed by anticipated unmanageable workload (30.8%), whereas work-life balance (40%) and serving as a family caregiver (35%) were the top reasons to consider it (see tables below).



2023 ASN Nephrology Fellow Survey

Reasons to PREFER Part-Time	N	Percent	Reasons to CONSIDER Part-Time	N	Percent
Improve Work-Life Balance	5	38.5%	Improve Work-Life Balance	8	40%
Anticipated Unmanageable Workload	4	30.8%	To Serve as a Family Caregiver	7	35%
To Serve as a Family Caregiver	3	23.1%	Personal Health Issue	2	10%
To Focus on Another Opportunity	1	7.7%	Anticipated Unmanageable Workload	1	5%
			Emotional Stress	1	5%
			To Focus on Another Opportunity	1	5%

Pediatric Nephrology Job Market Perspectives

Although the majority of USMG and IMG fellows perceived an appropriate number of local ([Figure 22](#)) and national ([Figure 23](#)) job opportunities, there was more pessimistic local assessments (31% of USMGs and 43% of IMGs thought there were too few/far too few local opportunities) and varied opinions about both markets.



Figure 22: Local Pediatric Nephrology Job Market Assessments

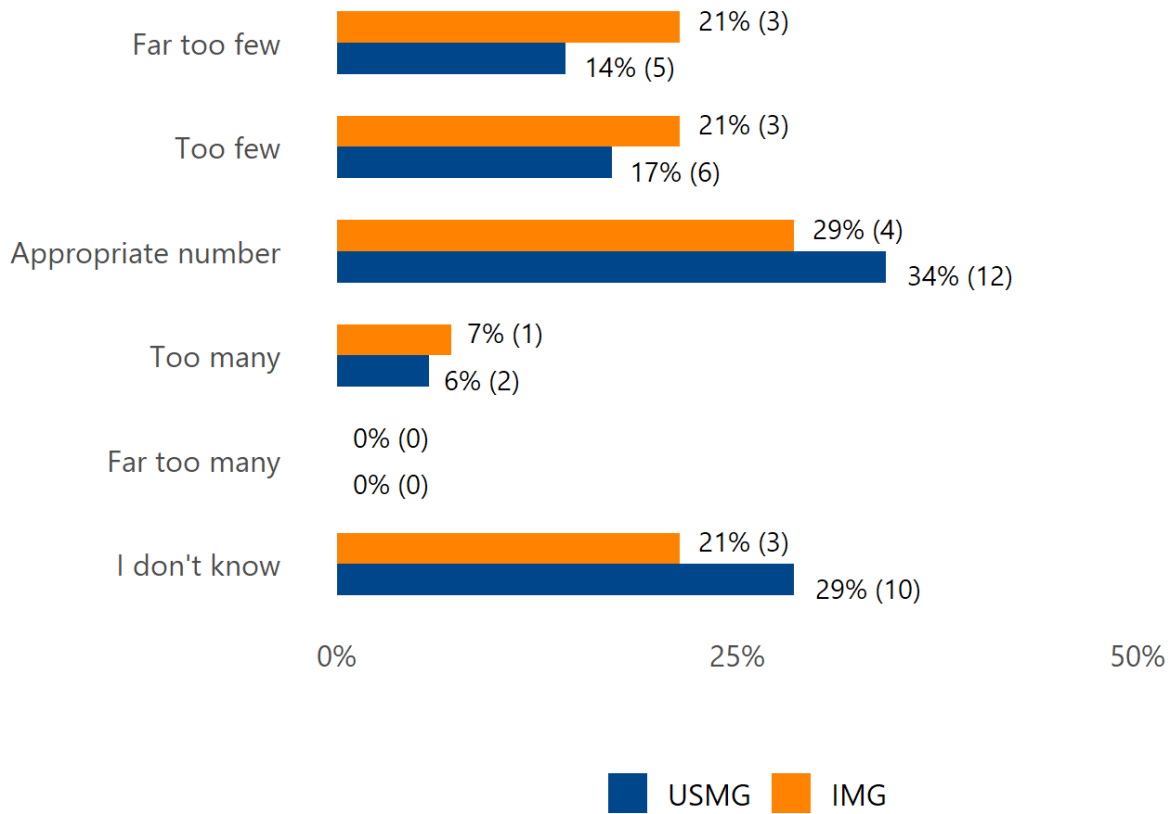
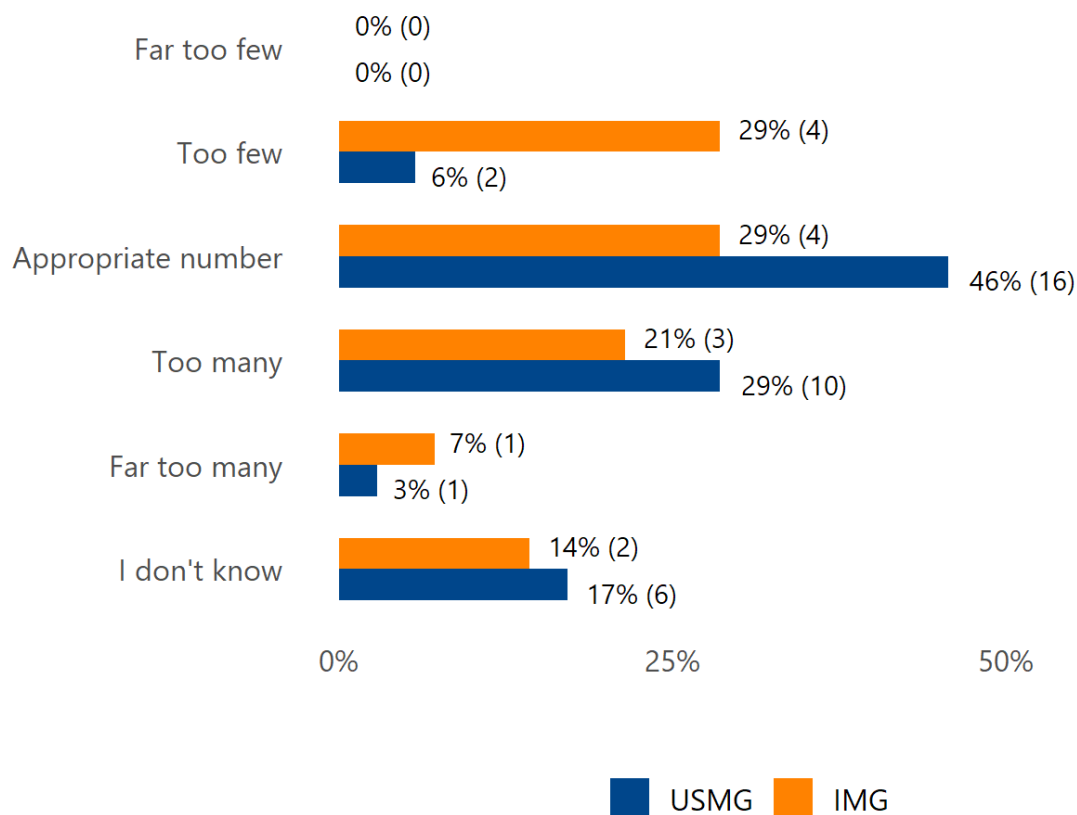


Figure 23: National Pediatric Nephrology Job Market Assessments



Pediatric Job Search Experiences

Fifteen pediatric fellows had started the job search process and most were looking for clinical nephrology positions (14) (see sidebar). Twelve respondents had accepted an offer, 2 had not been offered a job at survey time, and 1 had received an offer but were still looking. Three had experienced difficulty finding a position they considered satisfactory, primarily due to a lack of positions with adequate salary, and in a desired location and practice setting. Pediatric respondents had submitted a median 4 job applications and received 2 job offers overall, with men applying for more jobs (4.5 vs median 3 for women) and receiving more offers (median 3 vs median 2 for women).

Job Type	N
Pediatric Nephrology	14
Research	3
Industry	2
Clinical Neph & Other Specialty	1
General Pediatrics	1



Entering Pediatric Nephrology Practice

All 13 pediatric nephrology fellows were focused on clinical practice in their first post-fellowship job. Outpatient clinics in CKD and other specialties along with dialysis modalities were the top anticipated responsibilities in respondents' first position (see sidebar).

Responsibilities	N (%)*
Outpatient clinic—CKD	12 (150%)
Outpatient clinic—Other Specialty (e.g., GN, stones, hypertension)	12 (150%)
PD	11 (138%)
CRRT	11 (138%)
Outpatient In-Center Hemodialysis	10 (125%)
Education	10 (125%)
Kidney biopsy	9 (112%)
Outpatient clinic—Transplant	7 (88%)
Apheresis	7 (88%)
Clinical research	7 (88%)
Home HD	2 (25%)
POCUS	2 (25%)
Dialysis catheter placement	1 (12%)
Translational research	1 (12%)

*N=13



2023 ASN Nephrology Fellow Survey

Texas (3 respondents) and California (2 respondents) were the top states for pediatric respondents first position, with Colorado, Florida, Hawaii, Massachusetts, Michigan, New York, and Pennsylvania reported by 1 each. Most starting pediatric nephrologists were entering practice in large cities (85%, 11 fellow respondents), with 1 each in a small city and suburban area. This was unsurprising since most (83%, 10 respondents) were joining academic/university-based health systems, with the remaining two respondents (17%) at non-academic health systems.

Median starting salary was \$171,000 (IQR \$45,000) (due to the small number of responses, aggregates based on fellow sex and medical school location are not provided; [Figure 24](#)). Maintenance of certification/continuing medical education support and malpractice insurance were the most common employment incentives ([Table 5](#)), yet unlike for adult fellows, they had little bearing on pediatric fellows' choice to accept a job offer ([Figure 25](#)).

Figure 24: Base Salary

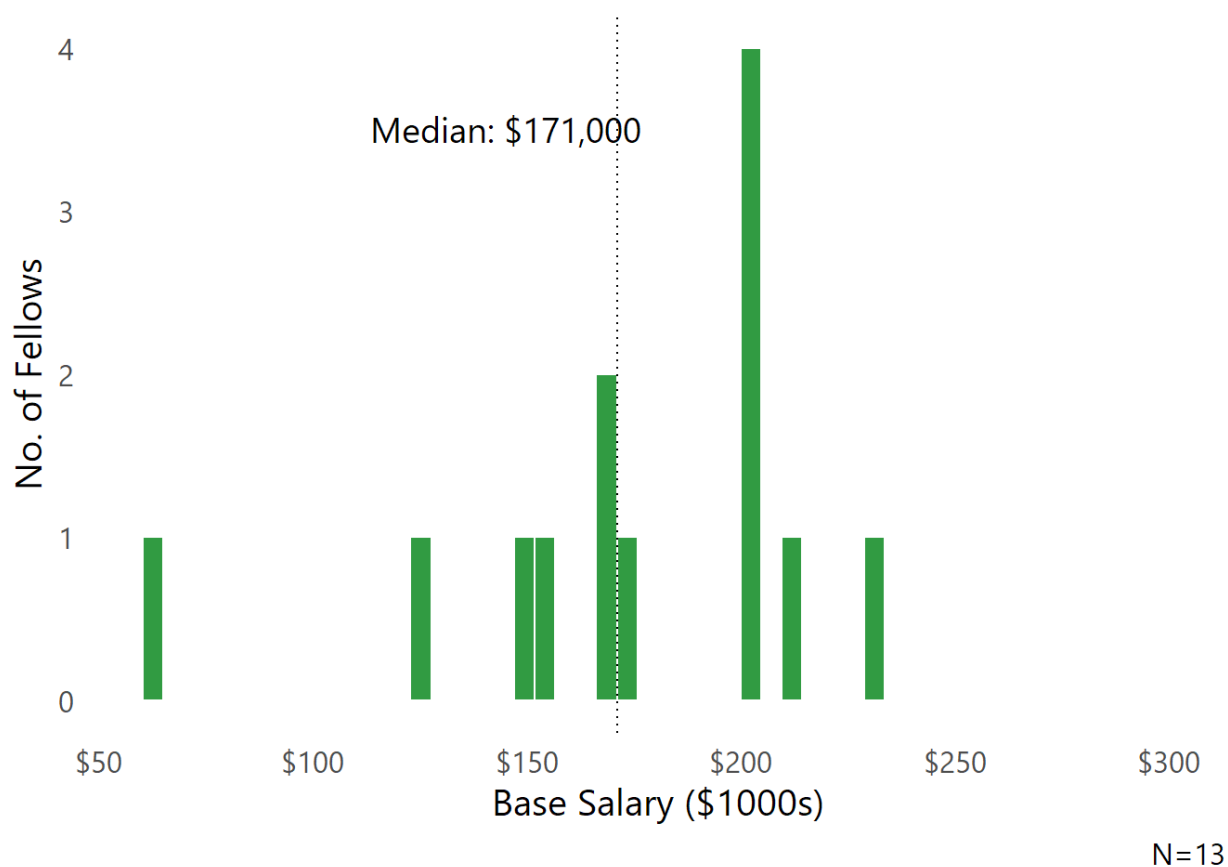


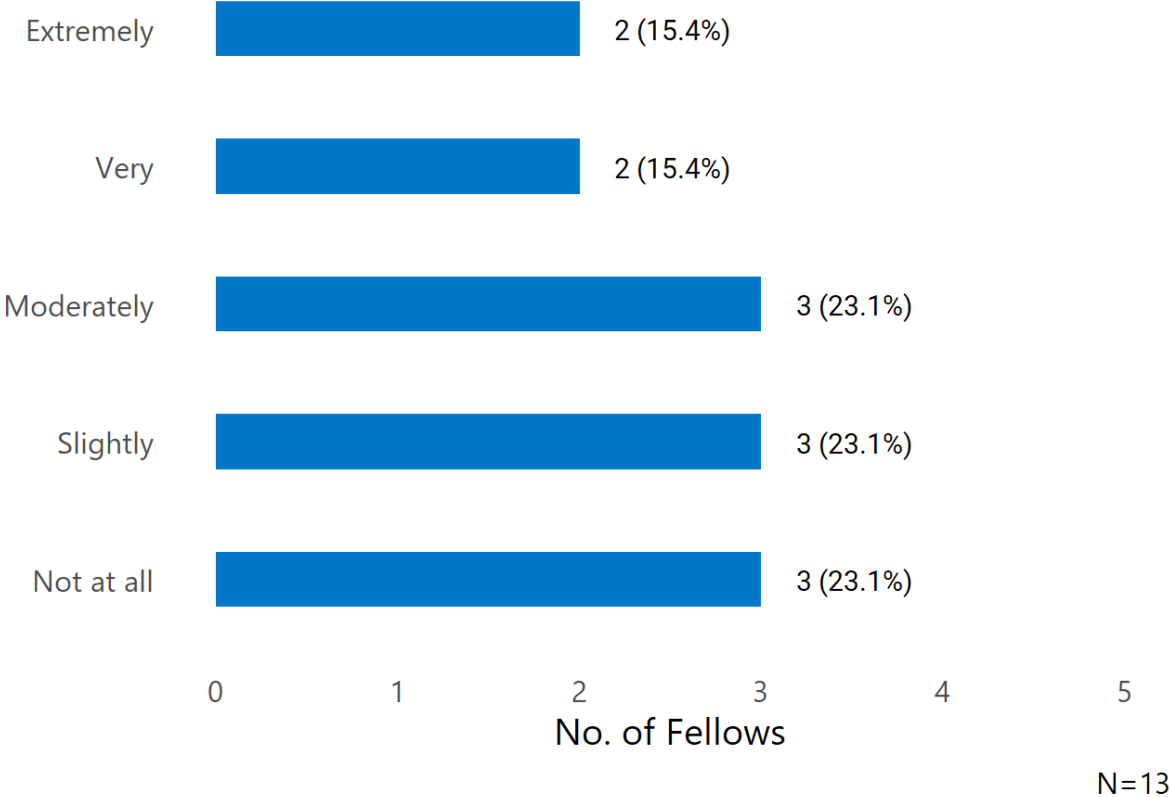
Table 5: Incentives Received*

Incentive	N (%)*
Support for maintenance of certification and continuing medical education	10 (77%)
Malpractice Insurance	8 (62%)
Sign-on bonus	6 (46%)
Career development opportunities	6 (46%)
Income guarantees	3 (23%)
Relocation allowances	3 (23%)
Flexible schedule	3 (23%)
Quality-Metric Bonus Payments	3 (23%)
On Call/Moonlighting Payments	2 (15%)
H-1 visa sponsorship	1 (8%)
Real estate venture	1 (8%)
On-call payments	1 (8%)
Spouse/partner job transition assistance	1 (8%)
Protected time for research/research "start-up" package	1 (8%)
Other (Please specify)	1 (8%)
J-1 visa waiver	0 (0%)
Educational loan repayment	0 (0%)

*N= 13



Figure 25: Importance of Incentives



Methods

Who were surveyed?

The 2023 ASN Nephrology Fellow Survey was distributed to a survey frame of 954 adult, pediatric, and adult/pediatric nephrology fellows drawn from the ASN (821 adult fellows) and American Society for Pediatric Nephrology (133 fellows) member databases. The survey received a 47% response rate, with participation from 400 adult, 41 pediatric, and 9 adult/pediatric fellows in training.

How was the survey constructed?

The survey instrument comprised:

- Longitudinal questions drawn from the original 2014 survey focusing on job search experiences, perceptions of the specialty, practice patterns, and demographics
- Questions developed by the ASN Data Subcommittee to assess adult nephrology fellows' experiences and preferences about current required procedural competencies for board certification, including number performed and self-assessed competence.

The final instrument was piloted by ASN Data Subcommittee members and distributed via Qualtrics.

When was the survey conducted?

Invitation emails were sent to adult fellows on May 3 and the survey closed on May 20, 2022. Pediatric fellows received a survey invitation on May 9, and their survey portion closed May 27. Participating fellows were eligible to win one of 10 complimentary one-year ASN memberships or one of two complimentary BRCU registrations.

How were responses analyzed?

The ASN Nephrology Fellow Survey was reviewed and approved by the Johns Hopkins University School of Medicine Institutional Research Board (Study # 00205206). Data obtained from 2021 responses were analyzed using R (R Core Team [2021]. R: A language and environment for statistical computing. R Foundation for Statistical Computing, Vienna, Austria.).

Why does ASN survey nephrology fellows in training?

Since 2014, ASN has conducted an annual fellow survey to understand:

- The composition of the incoming workforce, including race, ethnicity, and gender
- Motivating factors for choosing the specialty to tailor approaches to sustain interest in nephrology
- Potential gaps in nephrology education
- Demand for nephrologists in the U.S.

