

2024 ASN Nephrology Fellow Survey Report

ASN Data Subcommittee
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ASN Data Science

Information and Outreach
ASN Alliance for Kidney Health

ASN 2024 Nephrology Fellow Survey Report

ASN Data Subcommittee

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At a Glance

- 2024 marked the 11th iteration of ASN's annual Nephrology Fellow Survey. Of the 962 current adult, pediatric, and adult/pediatric nephrology fellows in training, 447 participated (46% response rate). (See [V. Pediatric Nephrology Fellows] for details on pediatric nephrology fellow responses.)
- Nine out of 10 fellows (91%) would recommend medical students and residents pursue nephrology (IMGs, 88%; USMGs, 94%).
- Lifestyle factors—call frequency, desired practice location, and vacation time—continued to be highly valued by fellows when considering job offers. For the first time since 2021 compensation was among the top five overall factors rated “extremely important.”
- Of the 189 adult fellows completing fellowship, 34 (18%) were seeking additional training, mainly in nephrology–critical care medicine (CCM, 14 fellows) and transplant nephrology (12).
- Only about one-third of participating international medical graduates (IMGs, 37%) perceived an appropriate number of employment opportunities within a 50-mile radius of their training institution, compared with half of United States medical graduates (USMGs, 53%).
- Adult fellows received multiple employment offers (median 3 offers) and were starting their first post-fellowship positions across 39 different states and the District of Columbia, with half (50%) entering private practice.
- Median base starting salary was \$240,000 (interquartile range [IQR] \$64,000), up 4% from the 2023 survey. There were narrow differences between men (median \$240,000) and women (\$238,500).
- A dedicated transplant nephrology fellow survey instrument was introduced this year, with 9 transplant fellows participating (50% response). Post-fellowship, 3 of the 9 respondents were entering a solely transplant nephrology position, 5 were starting a combined transplant/general nephrology position, and 1 was entering general clinical nephrology. Median base starting salary for this group of respondents was \$250,000 (IQR \$86,000)(see [VI. Transplant Nephrology Fellows]).

I. First Look at the Pipeline—Incoming Workforce Demographics

In 2024, 46% of current adult, pediatric, and adult/pediatric nephrology fellows (447 of 962) participated in the 11th ASN Nephrology Fellow Survey (Table 1). Compared with data from the Accreditation Council for Graduate Medical Education (ACGME) Data Resource Book for 2022–2023, the respondents' demographics were generally similar to their source population excepting there were fewer IMG and more White adult respondents, and fewer Asian and more Hispanic/Latina/Latino and White pediatric respondents (Table 2A and 2B). Among USMG participants, most were allopathic medical school graduates (70%) although there were slightly more adult osteopathic fellows (34%).

Table 1: Respondent Demographics (Part 1)*

Characteristic	Adult (N=393)	Pediatrics (N=45) [†]	Adult/ Pediatrics (N=9) [†]
<i>Educational Status</i>			
USMG	169 (43%)	33 (73%)	—
IMG	224 (57%)	12 (27%)	—
<i>Years of Training Completed</i>			
1	190 (48%)	14 (31%)	2 (22%)
2	194 (49%)	13 (29%)	4 (44%)
3	7 (2%)	18 (40%)	2 (22%)
4 or more	2 (1%)	—	1 (11%)
<i>Gender Identity</i>			
Man	231 (59%)	16 (36%)	—
Woman	156 (40%)	29 (64%)	—
Genderqueer	1 (0%)	—	—
Prefer not to answer	5 (1%)	—	—

*Percentages may be reported as 0% and/or not total to 100% due to rounding.

[†]— = not recorded.

[‡]Multiple values were censored due to small number of respondents.

Table 1: Respondent Demographics (Part 2)*

Characteristic	Adult (N=393)	Pediatrics (N=45) [†]	Adult/ Pediatrics (N=9) [†]
Citizenship Status			
U.S. citizen	234 (60%)	34 (77%)	9 (100%)
Permanent resident	32 (8%)	2 (5%)	—
H-1, H-2, or H-3 visa (temporary worker)	33 (8%)	2 (5%)	—
J-1 or J-2 visa (exchange visitor)	89 (23%)	4 (9%)	—
Other	1 (0%)	2 (5%)	—
Prefer not to answer	2 (1%)	—	—
Ethnicity			
Hispanic/Latina/Latino	45 (12%)	7 (16%)	—
Prefer not to answer	13 (3%)	—	—
Race			
American Indian or Alaska Native	3 (1%)	1 (2%)	—
Asian Total	179 (44%)	8 (18%)	—
-East Asian	33 (8%)	4 (9%)	—
-South Asian	133 (33%)	9 (19%)	—
-Southeast Asian	20 (5%)	2 (4%)	—
Black or African American	37 (9%)	3 (6%)	—
Pacific Islander	0 (0%)	0 (0%)	—
Prefer not to answer	39 (10%)	2 (4%)	—
White	139 (34%)	26 (55%)	—
Census Division			
New England	44 (12%)	3 (7%)	—
Mid Atlantic	85 (22%)	8 (18%)	2 (22%)
East North Central	42 (11%)	9 (20%)	4 (44%)
West North Central	27 (7%)	3 (7%)	—
South Atlantic	54 (14%)	7 (16%)	—
East South Central	18 (5%)	2 (5%)	—
West South Central	37 (10%)	4 (9%)	1 (11%)
Mountain	13 (3%)	—	1 (11%)
Pacific	58 (15%)	8 (18%)	1 (11%)

*Percentages may be reported as 0% and/or not total to 100% due to rounding.

[†]— = not recorded.

[‡]Multiple values were censored due to small number of respondents.

Table 2A: Adult Respondent Demographics vs. ACGME Data

Adult Fellows		
Variable	ASN Survey	ACGME*
Mean PGY-4 Age	33	34
IMGs	57%	63%
Women	40%	39%
Asian	44%	45%
Hispanic/Latina/Latino	12%	10%
Black or African American	9%	8%
White	34%	26%

*Adult nephrology fellows reported in ACGME Data Resource Book Academic Year 2022-2023.

Table 2B: Pediatric Respondent Demographics vs. ACGME Data

Pediatric Fellows		
Variable	ASN Survey	ACGME*
Mean PGY-4 Age	34	33
IMGs	27%	25%
Women	73%	69%
Asian	18%	28%
Hispanic/Latina/Latino	16%	11%
Black or African American	6%	5%
White	55%	47%

*Pediatric nephrology fellows reported in ACGME Data Resource Book Academic Year 2022-2023.

In aggregate the majority of respondents were U.S. citizens (62%), but one-fifth (21%) were training on J-1 visas (Figure 1). While nearly all adult fellows were in general nephrology training, 12% were enrolled in subspecialty programs-CCM (19 fellows), research (16), interventional (3), and home dialysis (1) (Figure 2). More USMG fellows were focused on nephrology earlier in their educational continuum (30% in pre-med/medical school) while 15% of IMGs came to nephrology after practicing medicine independently (Figure 3). Seventeen-percent of respondents had participated in Kidney STARS and 8% were Campbell Fellows (Table 3). USMG participants carried five times the educational debt load as IMGs (median \$250,000 and \$47,000, respectively) (Figure 4).

Figure 1: Citizenship Status

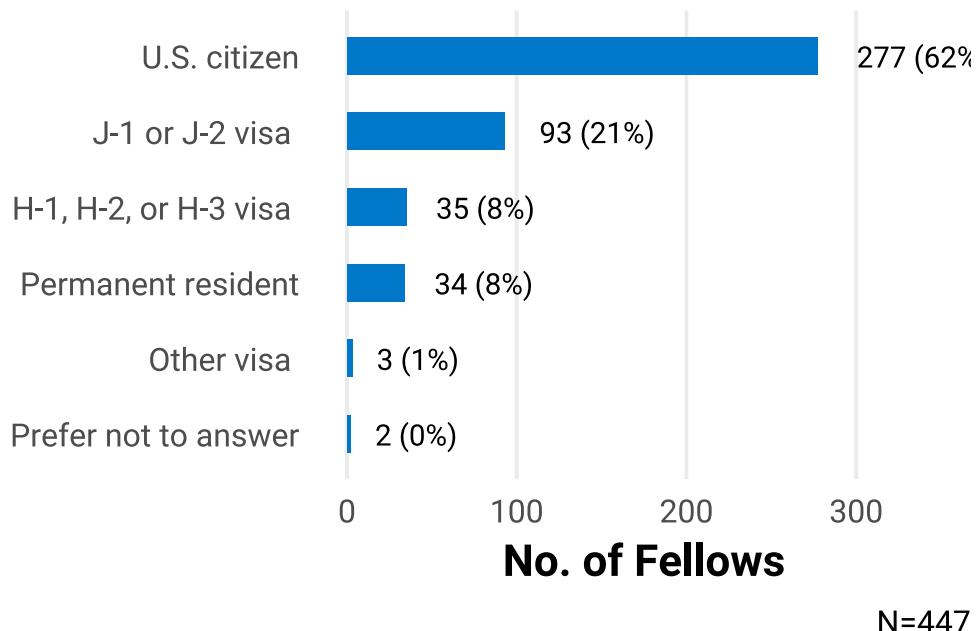


Figure 2: Current Adult Fellowship Type

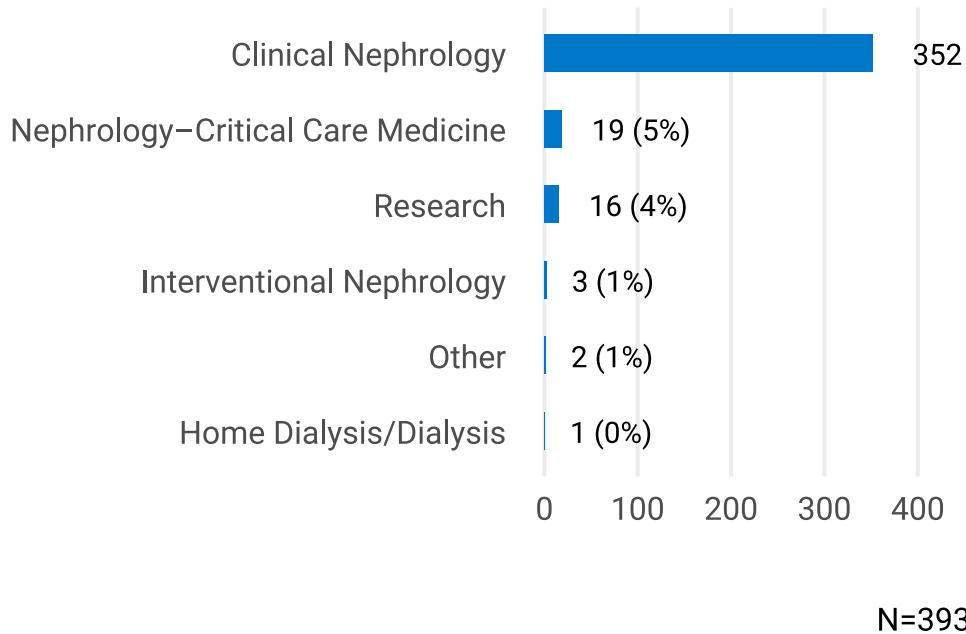


Figure 3: Choosing Nephrology

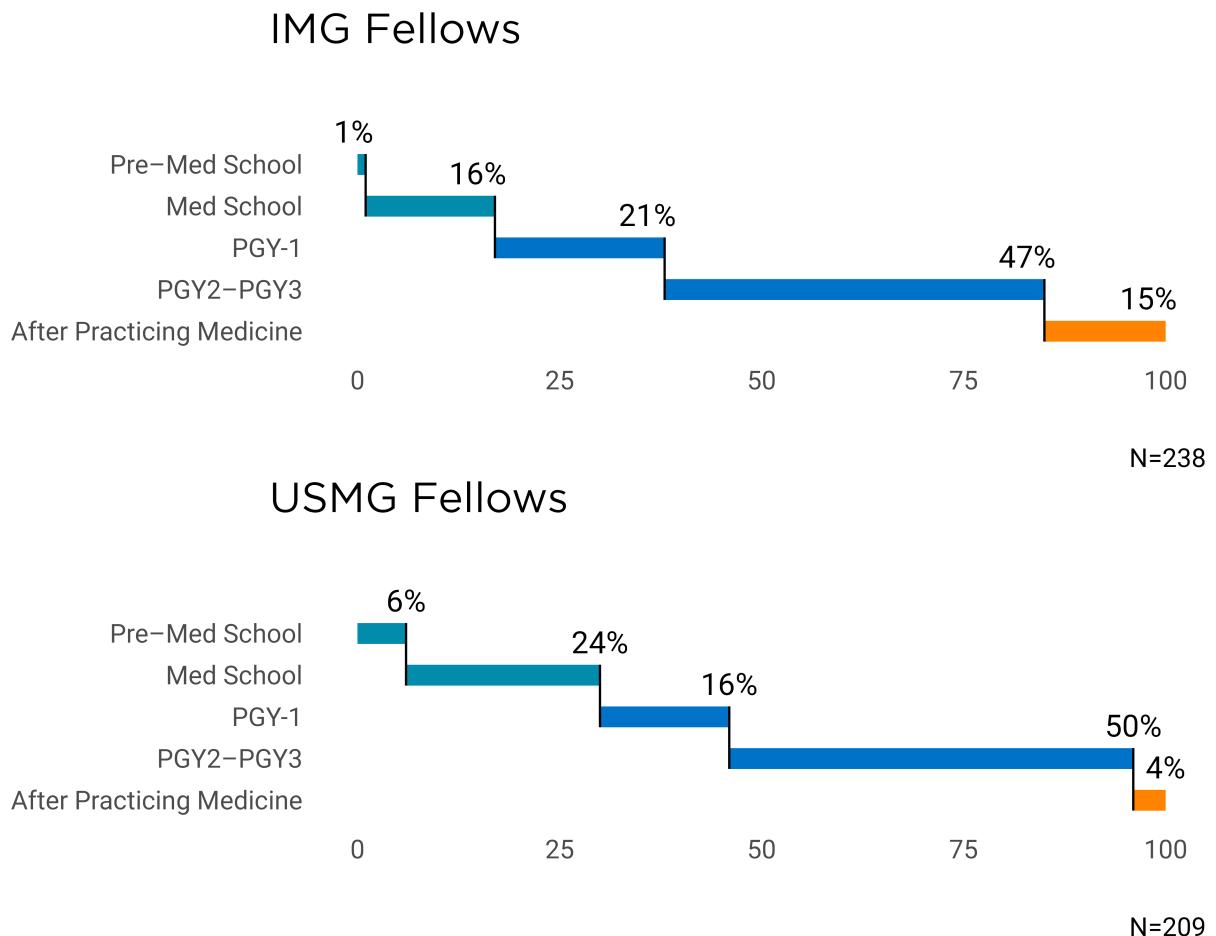
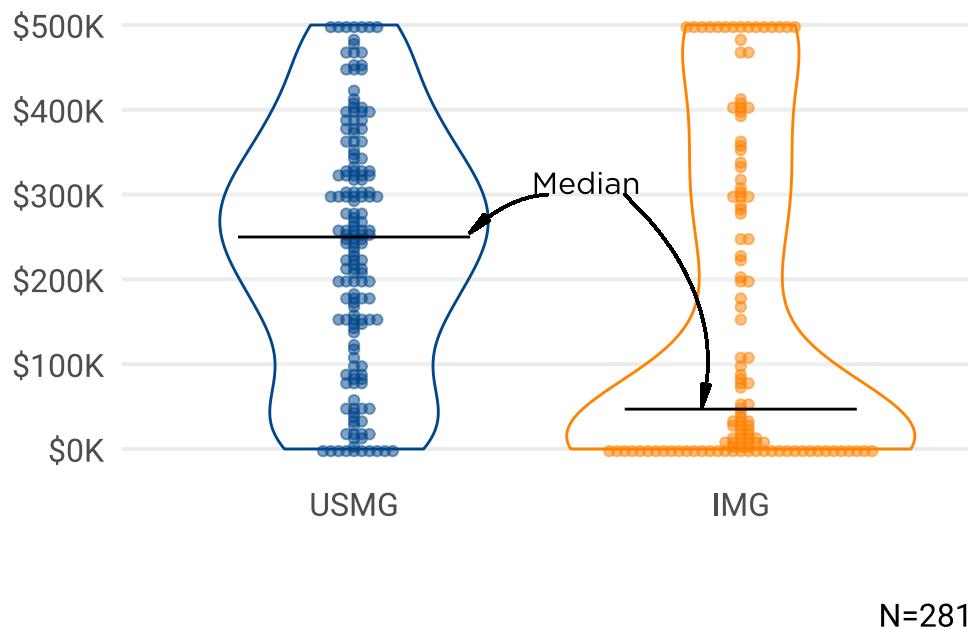


Table 3: ASN Program Participation

ASN Program	Description	N (%)*
Kidney STARS	Free Kidney Week Registration & Networking Opportunities	74 (17%)
Campbell Fellows	Travel Support Program for Fellows	36 (8%)
Kidney TREKS	1-week Research Course Retreat & Long-Term Mentorship Program	9 (2%)
Lipps Research Fellowship	Research Fellowships Funding Fellows Conducting Original, Meritorious Research Projects	4 (1%)

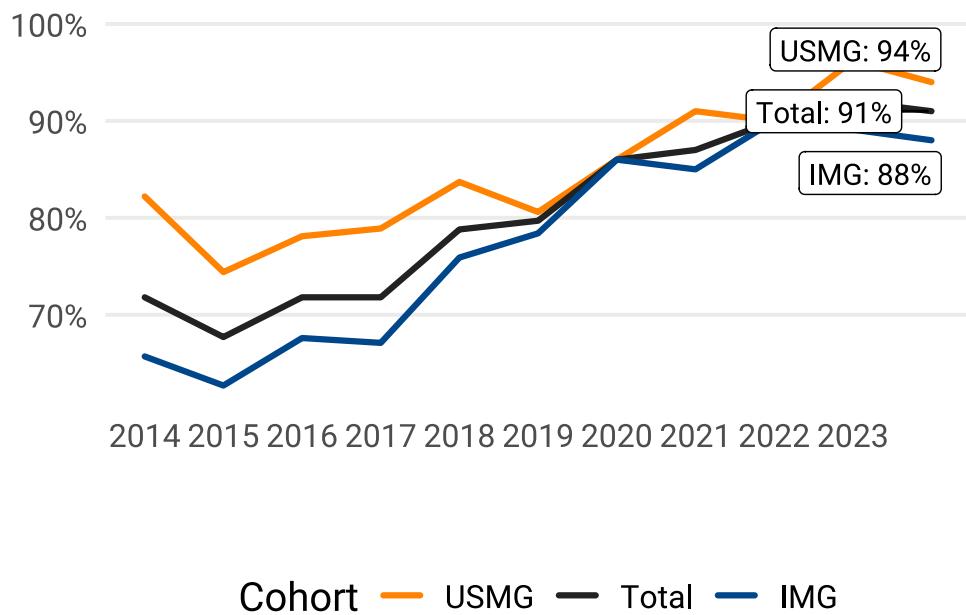
*N=447

Figure 4: Educational Debt by Medical School Location



Nine of 10 nephrology fellow respondents would recommend the specialty to medical students and residents (Figure 5). This year, fellow participants not recommending nephrology were nearly unanimous in citing compensation as the main reason, along with a poor work-life balance (Perspectives—Not Recommend). Those that would recommend the specialty indicated they valued the diversity of the field, the complex physiology, and longitudinal patient relationships (Perspectives—Would Recommend).

Figure 5: Percent Respondents Recommending Nephrology



Perspectives—Would Recommend Nephrology

There are many ways you can practice nephrology, like preventative medicine for CKD prevention if you like to practice in community and you can peruse critical care nephrology if you like to practice in hospital. You can practice as general nephrologist to take care of CKD pts or the specialist clinic if you would like to go for specific training like Glomerular disease or home dialysis. Nephrology has a lot to offer if you want to take care of patients in different ways.

For me, I cannot understand why someone would choose something other than nephrology. Each day I get to go to work and unravel the mystery of an acid base, electrolyte, tubular or vascular disorder leaves me quite fulfilled. We get to offer a dialysis that either bridges the gap to transplant or allows extension of life to give people more time with their loved ones. I am truly thankful everyday I get to study ion channels and practice in this wonderful specialty and hope to do so for many years to come.

It is a special type of medicine we get to practice. We get to form close connections with our patients and follow them throughout life. ESKD is one of the few diseases where a therapy option (transplant) can provide a profoundly positive transformation, and it is an incredible privilege to go through the highs and lows with your patients and their families.

Nephrology is such a fascinating field of medicine. To take care of a patient with kidney disease is to take care of the patient as a whole, integrating well the complex physiology of the human body. It also offers the field of kidney transplantation, the first solid organ to be transplanted, but yet so much in the field is needing to advance the science.

Perspectives—Would Not Recommend Nephrology

Would only pursue if there's genuine interest and passion as the compensation and recognition do not correspond with the effort and time spent in education and caring for the vulnerable and complex patient population.

Lifestyle and financial compensation do not match the extra effort of going through fellowship.

Lifestyle, job options and compensation take away the joy of practicing as a general nephrologist. Private practice appears to be functional only with superficial rounding and doing bare minimum instead of them investing more time to figure out underlying etiology or adequate workup in a lot of cases. Aware since I'm actually interviewing and options look bleak.

Demanding specialty, low starting salary compared to other fellowships. Even if you like nephrology, the culture now is that if you match in nephrology most likely you were not good to match in any other specialties.

II. Future Plans

This Section Reports ADULT Fellow Responses Only

Half of the participating adult nephrology fellows (204) were continuing their current fellowship (Figure 6). Of those graduating, 88 were entering private practice, 48 academic practice, and 34 pursuing additional training in CCM (14), transplant (12), onconephrology (2), glomerular disease (2), interventional nephrology (1), and palliative care (1). All but 4 adult respondents planned to enter their first post-fellowship job in the U.S., with 43% planning to remain in the same state, and 32% in the same city/region as their training institution (Figure 7).

Figure 6: Future Plans

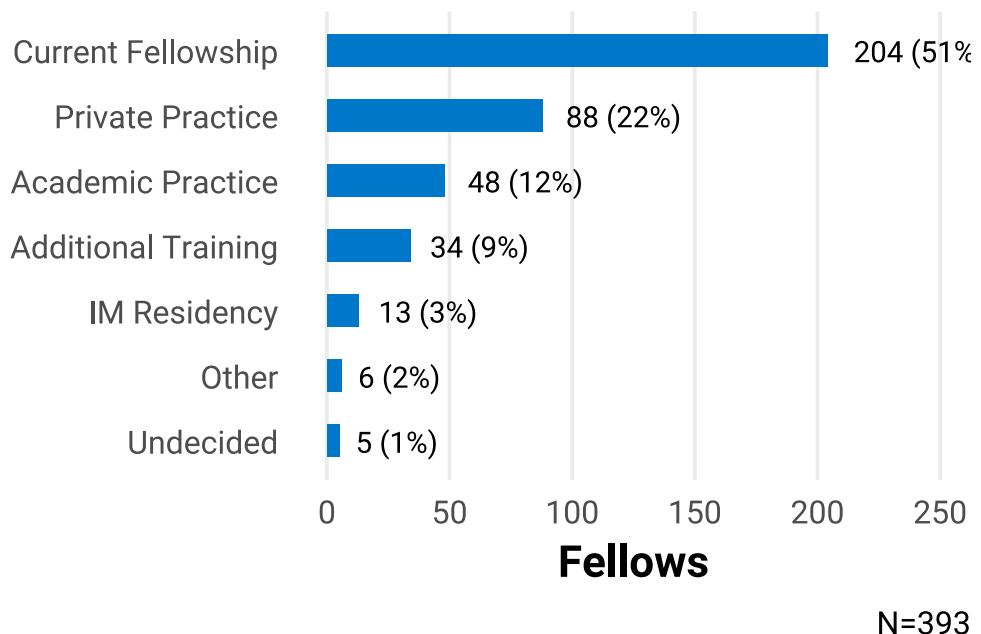
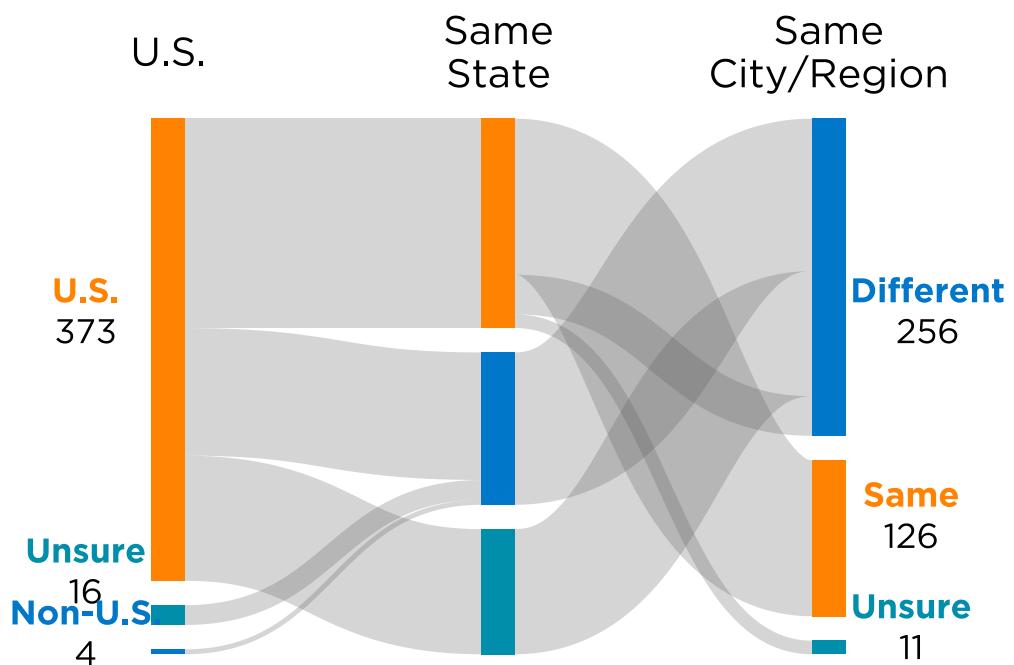


Figure 7: Planned Post-Fellowship Job Location



Job Market Perspectives

Although subjective, fellows' perceptions of nephrology employment opportunities are a leading indicator of the strength of the local (within 50 miles of their training program) and national nephrology job market. IMGs were overall pessimistic about the availability of jobs locally, with 37% assessing an appropriate number of positions and 37% saying there were "Far too few"/"Too few" (Figure 8). Nationwide, nearly half of both IMG (46%) and USMG (50%) participants perceived an appropriate number of opportunities even though one-fifth of IMGs still saw "Far too few"/"Too few" jobs (Figure 9).

Figure 8: Local Job Market Perspectives

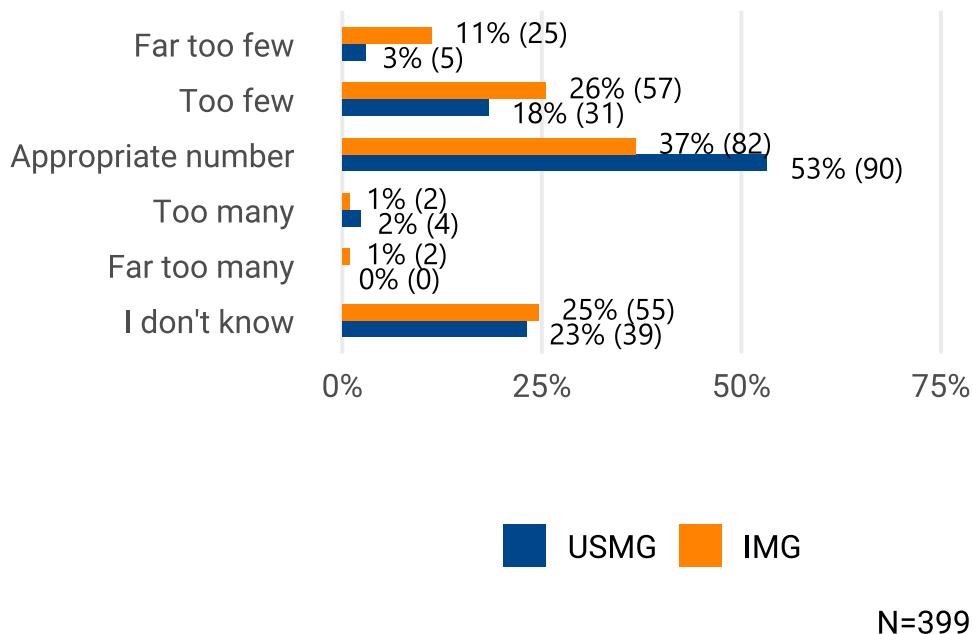
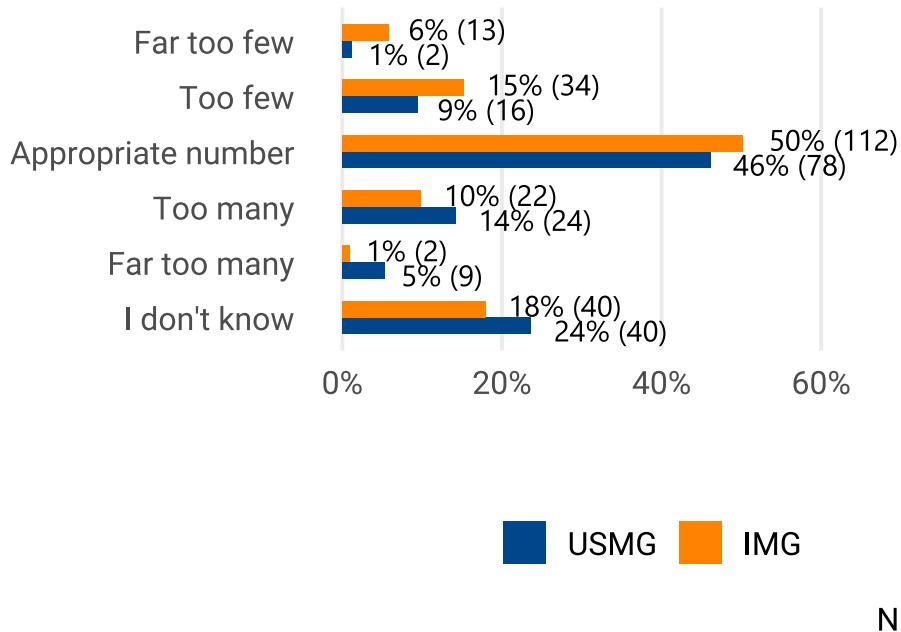


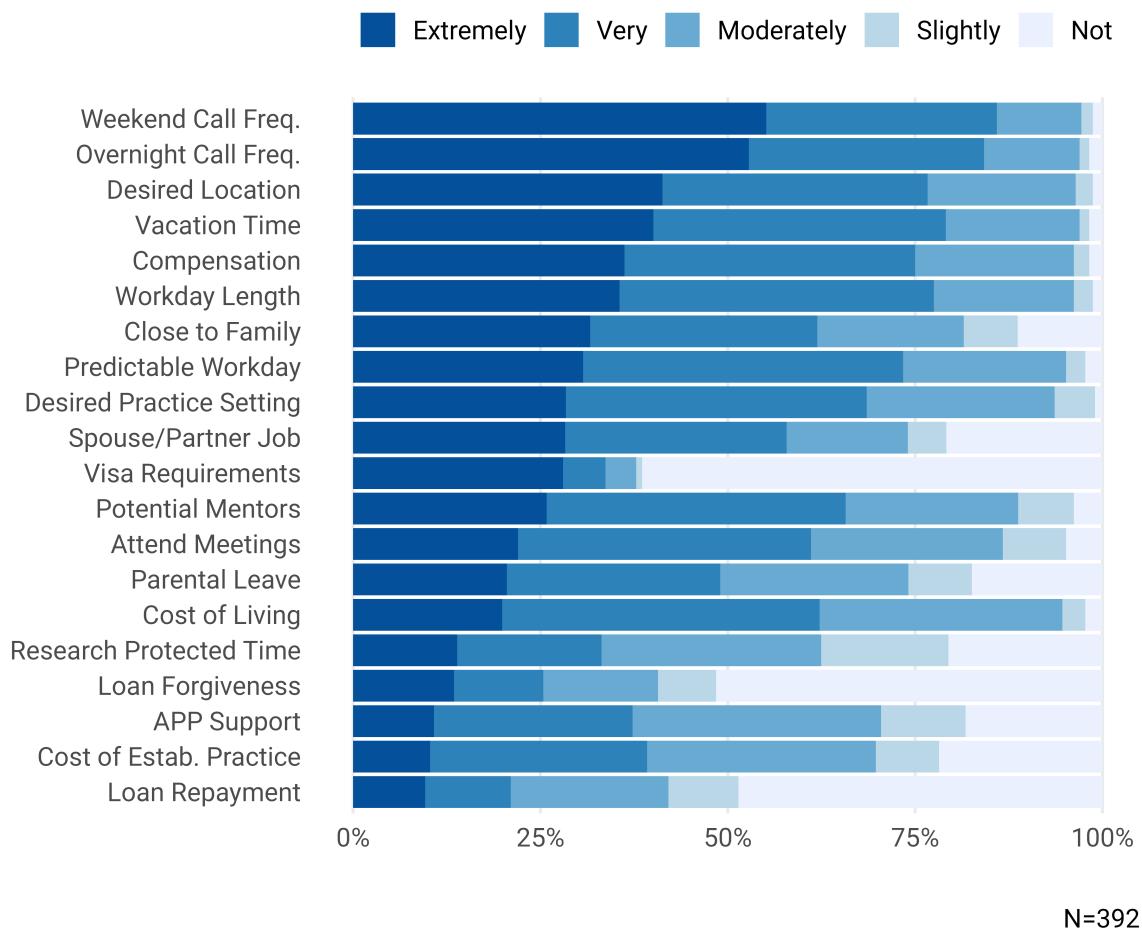
Figure 9: National Job Market Perspectives



Important Factors

Lifestyle aspects of employment—call frequency, a job in a desired location, and vacation time—continue to top the list of factors fellow value when evaluating job offers (Figure 10). Yet this year, compensation cracked the top 5 overall (and top 5 for IMGs) for the first time since the 2021 survey.

Figure 10: Important Factors



III. Fellow Job Search Experiences

This Section Reports ADULT Fellow Responses Only

At survey time (see Methods) 147 adult fellows had initiated their job search, mainly focused on clinical nephrology positions (126 fellows) (Table 4). Eighteen were searching for a nephro-hospitalist position and 6 a general hospital medicine position. One-third (29%) experienced difficulty in finding a position they considered satisfactory, with a lack of jobs in a desired location most cited by both IMGs and USMGs (Table 5).

Table 4: Positions Sought

Job Type	N (%)*
Clinical Nephrology	126 (86%)
Hospitalist—Nephrology	18 (12%)
Medical Education	16 (11%)
Nephrology—Research	6 (4%)
Hospitalist	6 (4%)
Dual Nephrology/Other Specialty	4 (3%)
Other Specialty	2 (1%)
Interventional Nephrology	2 (1%)
Primary care	1 (1%)
Industry	1 (1%)

*N=147

Table 5: Reasons Cited for Difficulty in Finding a Nephrology Position*

Reason for Difficulty	IMG (N=33)	USMG (N=11)
In a desired location	21 (64%)	11 (100%)
Offering adequate salary/compensation	20 (61%)	9 (82%)
That met visa status requirements	16 (48%)	0 (0%)
In a desired practice setting (e.g., hospital, group practice)	14 (42%)	8 (73%)
Offering employment opportunities for spouse/partner	7 (21%)	0 (0%)
Other	5 (15%)	1 (9%)

*N=50

IV. Entering Practice

This Section Reports ADULT Fellow Responses Only

Adult fellow respondents had applied for a median of 5 positions and received a median 3 employment offers. One-hundred-forty-eight adult fellows had been offered a position and had either accepted (132) or were continuing their search (16). Half were entering private practice (67 fellows), with 42 starting in academic hospitals, 19 in non-academic hospitals, and 5 in government (Figure 11). Nearly 9 in 10 fellows (87%) were entering clinical nephrology positions (Figure 12) where they would be responsible for CKD, in-center hemodialysis, CRRT, and PD (all $\geq 75\%$ of respondents) (Table 6).

Figure 11: First Position Employer

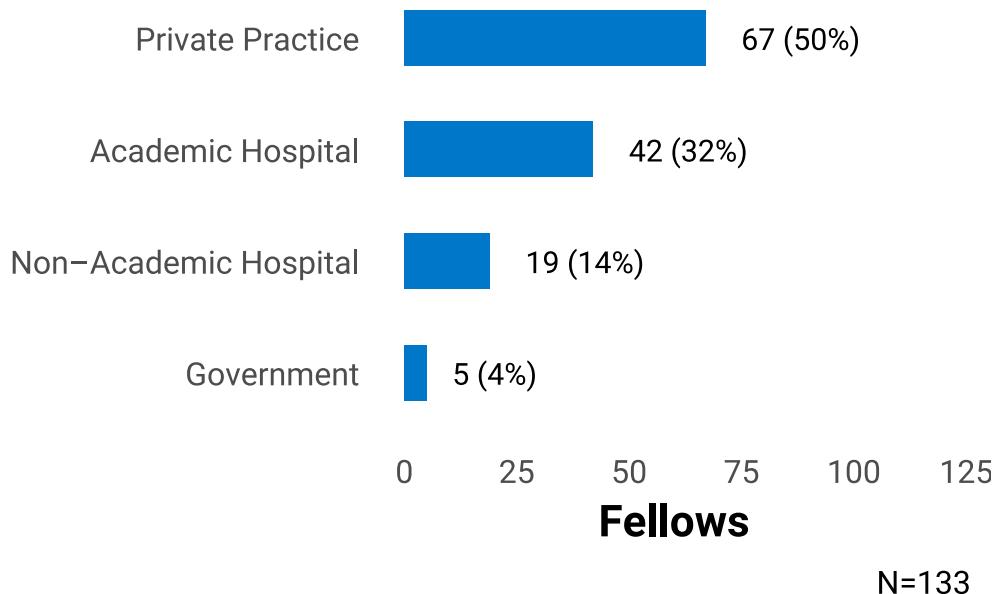


Figure 12: First Position Focus

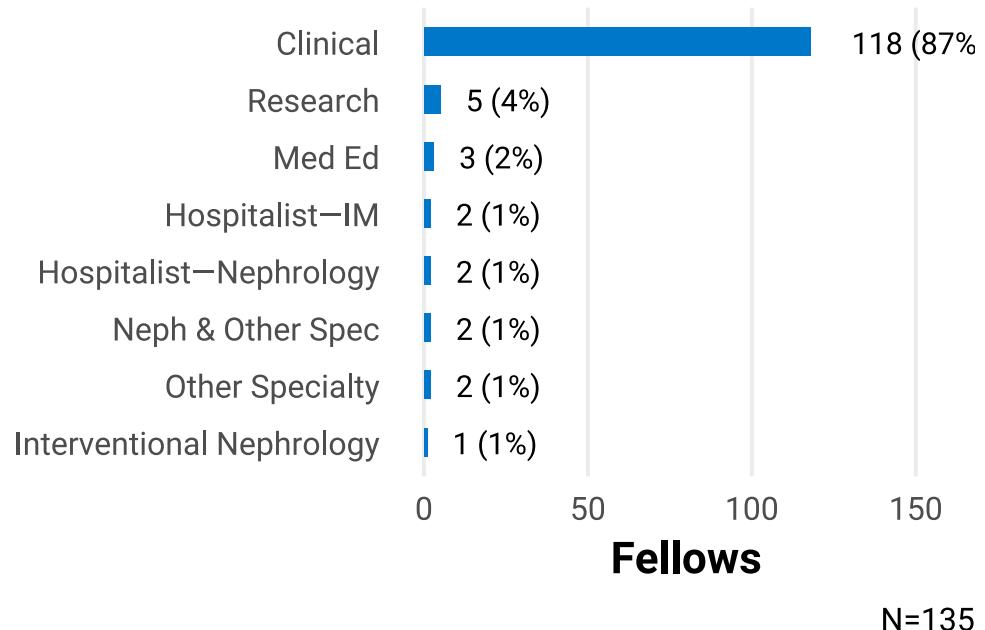


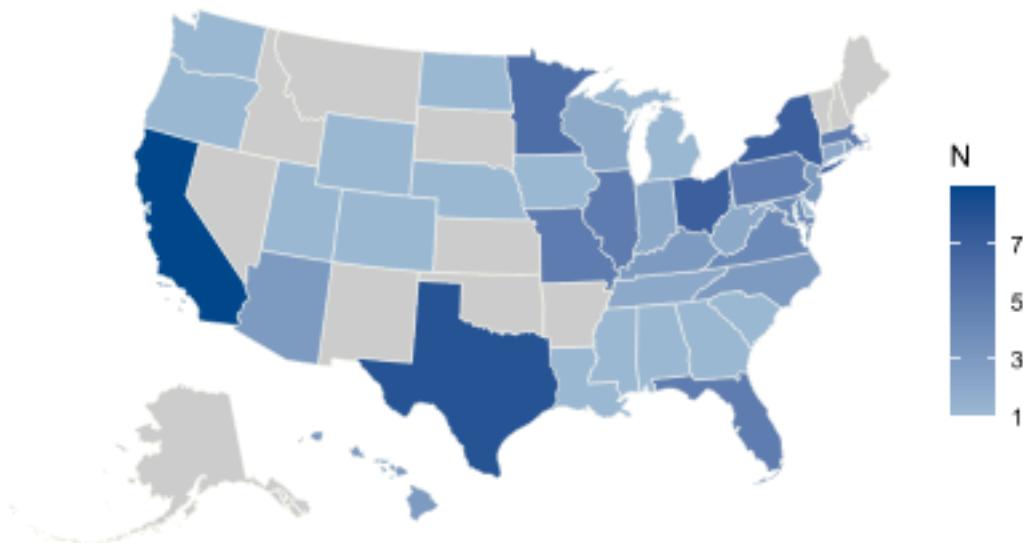
Table 6: Responsibilities in Practice

Responsibility	N (%)*
Outpatient—CKD	120 (90%)
Outpatient—In-center HD	117 (87%)
CRRT	106 (79%)
PD	102 (76%)
Home HD	86 (64%)
Outpatient—Other	82 (61%)
Education	62 (46%)
Dialysis Medical Director	49 (37%)
Apheresis	39 (29%)
Outpatient—Transplant	33 (25%)
Joint Venture—Dialysis	32 (24%)
POCUS	23 (17%)
Dialysis catheter placement	17 (13%)
Clinical research	17 (13%)
Kidney biopsy	12 (9%)
Interventional nephrology	8 (6%)
Basic science research	4 (3%)
Other	4 (3%)
Translational research	2 (1%)

*N=134

Adult nephrologists were starting practice in 39 different states and the District of Columbia (Figure 13). Most (62%, 83 respondents) were starting in a large city, followed by suburban areas (17%, 22), small city (14%, 19), and rural practice (17%, 9 fellows).

Figure 13: Location of First Post-Fellowship Positions



Overall median base salary for respondents' first post-fellowship position was \$240,000 (IQR \$64,000), a 4% increase from the 2023 survey. Variation between women (Figure 14A) and men (Figure 14B) narrowed to \$1,500, although IMGs (Figure 15A) continued to report higher starting salaries than USMGs (Figure 15B). Excluding three respondents who were practicing in other settings, fellows starting in non-academic hospitals had the highest median starting salaries (\$320,000, IQR \$98,800; 18 fellows), followed by private practice (\$235,000, IQR \$36,500; 63), academic hospitals (\$223,000, IQR \$53,500; 40), and government (\$212,000, IQR \$37,000; 4 fellows) (Figure 16).

Figure 14A: Base Salary—Women

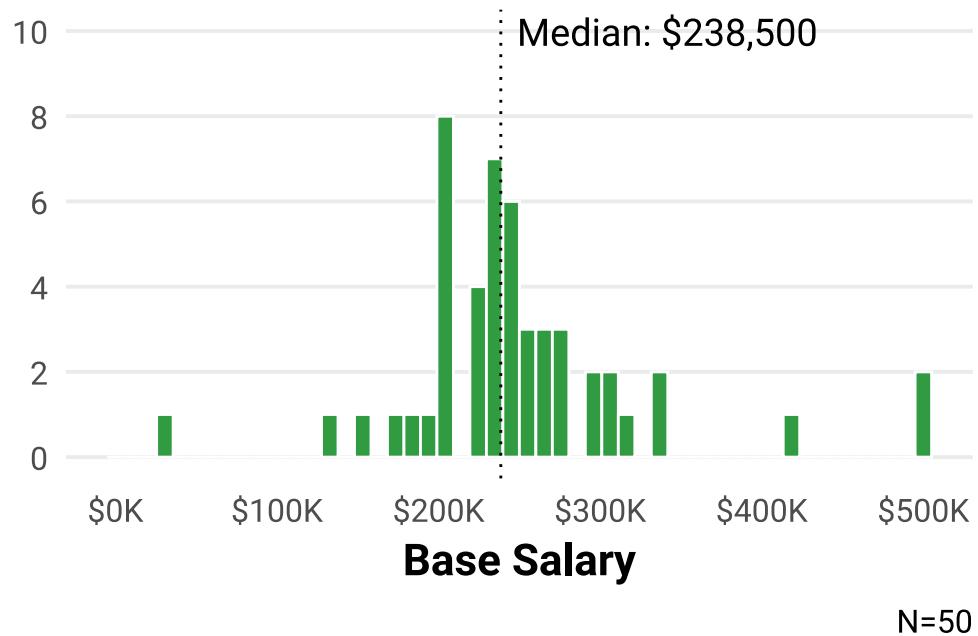


Figure 15A: Base Salary—IMGs

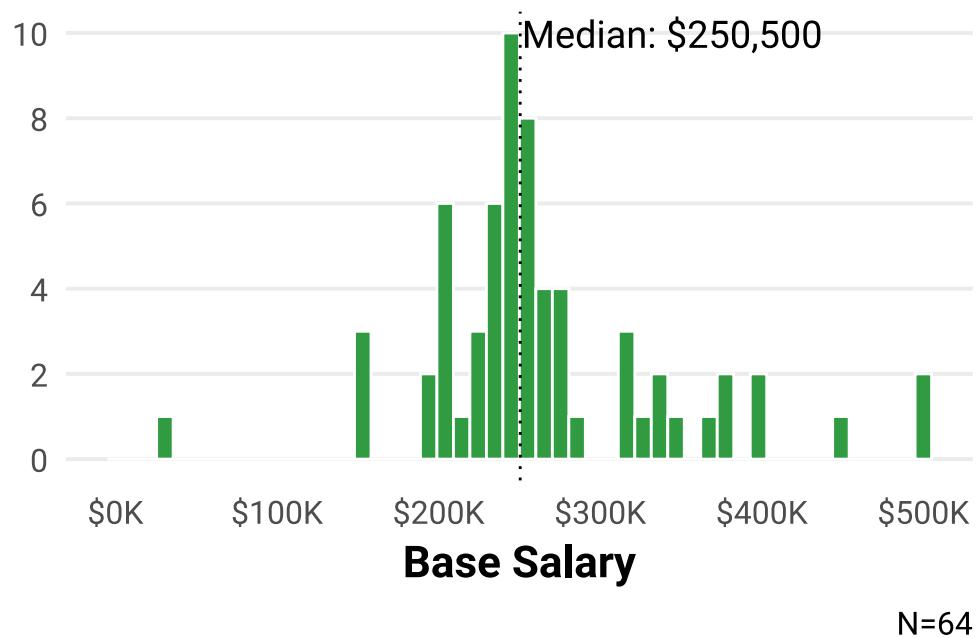


Figure 15B: Base Salary—USMGs

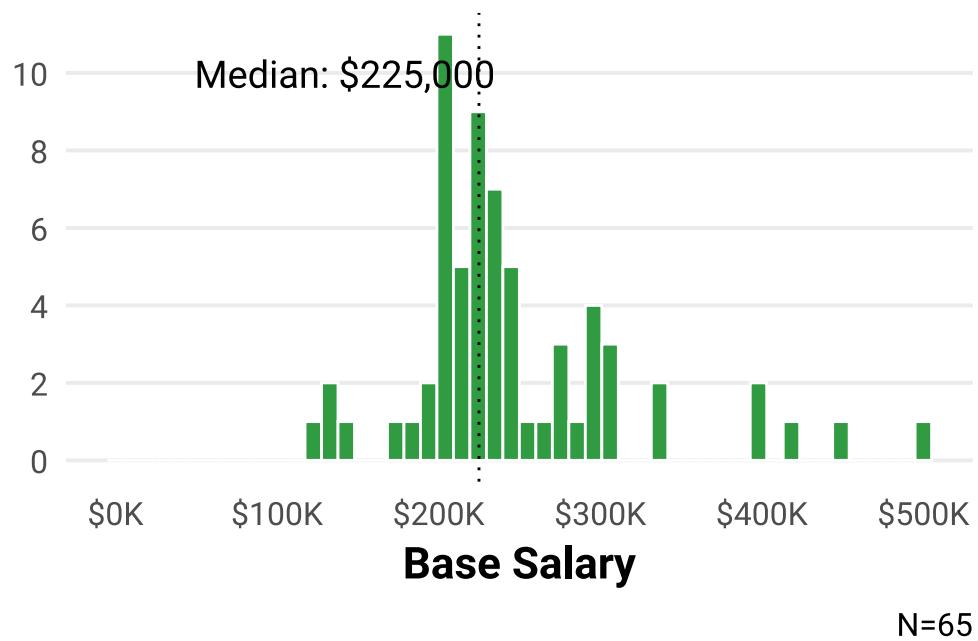
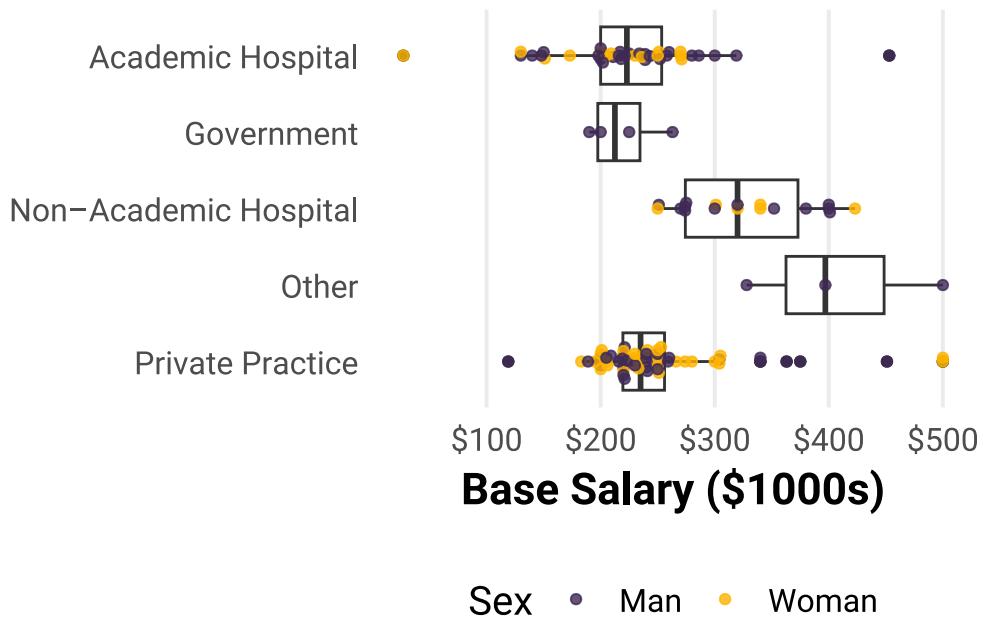


Figure 16: Base Salary—Employer



Malpractice insurance, income guarantees, MOC and CME support, and a signing bonus were the top four incentives fellows reported receiving again this year (Table 7). Nearly half (48%) indicated that incentives received were “Very”/“Extremely” important in choosing their position (Figure 17). Overall median bonus/incentive pay was \$20,000 (43 fellows) with wide variations based on sex (Figures 18A and 18B) and medical school location (Figures 19A and 19B).

Table 7: Incentives Received

Incentive	N (%) [*]
Malpractice Insurance	79 (60%)
Income guarantees	59 (45%)
MOC/CME	57 (44%)
Sign-on bonus	56 (43%)
Relocation allowances	48 (37%)
Flexible schedule	42 (32%)
Career development opportunities	39 (30%)
Quality-Metric Bonus Payments	23 (18%)
J-1 visa waiver	19 (15%)
H-1 visa sponsorship	13 (10%)
Loan repayment	10 (8%)
On Call/Moonlighting Payments	9 (7%)
Spouse/partner job transition assistance	7 (5%)
Protected time for research/research “start-up” package	7 (5%)
On-call payments	6 (5%)
Real estate venture	5 (4%)
Other	5 (4%)

*N=131

Figure 17: Importance of Incentives

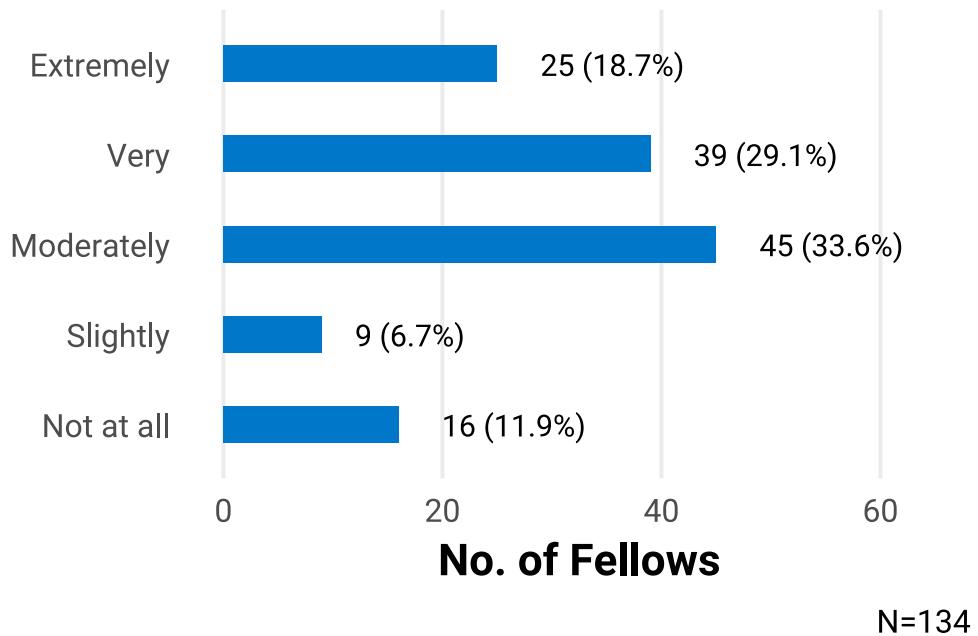


Figure 18A: Incentive Pay—Women

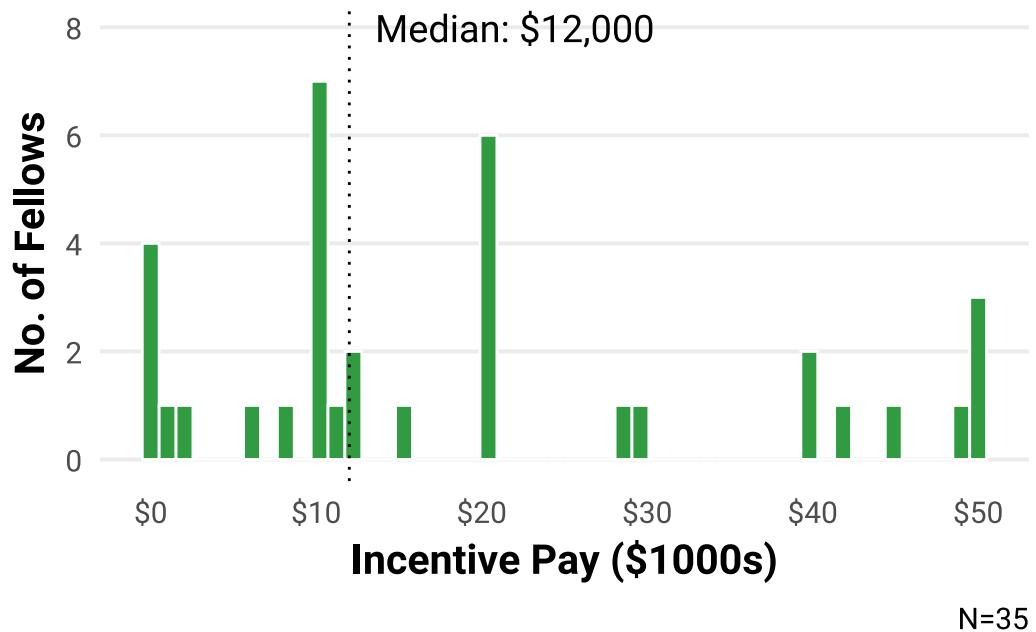


Figure 18B: Incentive Pay—Men

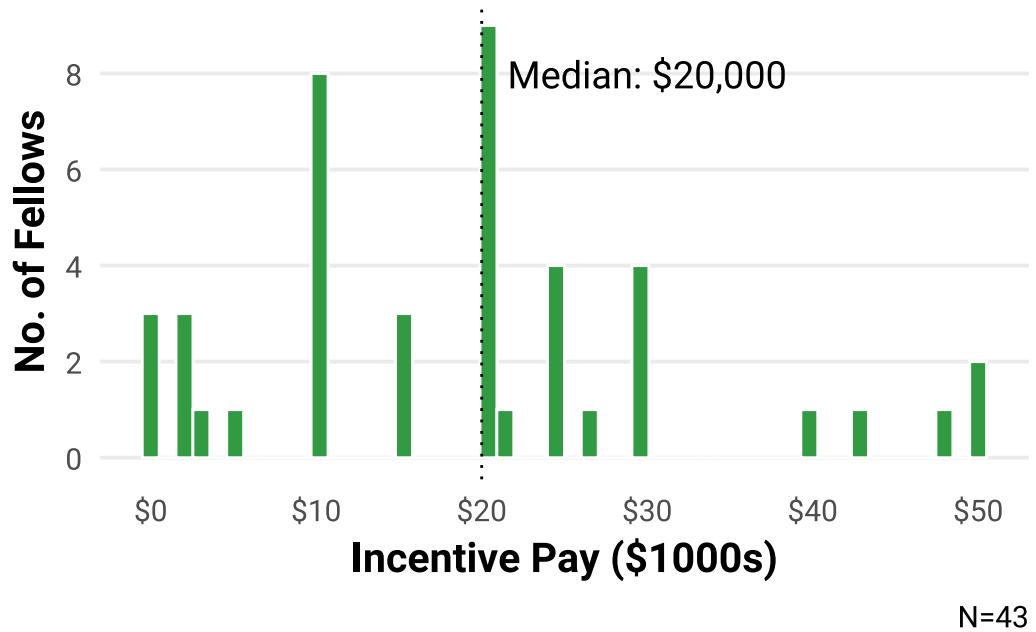


Figure 19A: Incentive Pay—IMGs

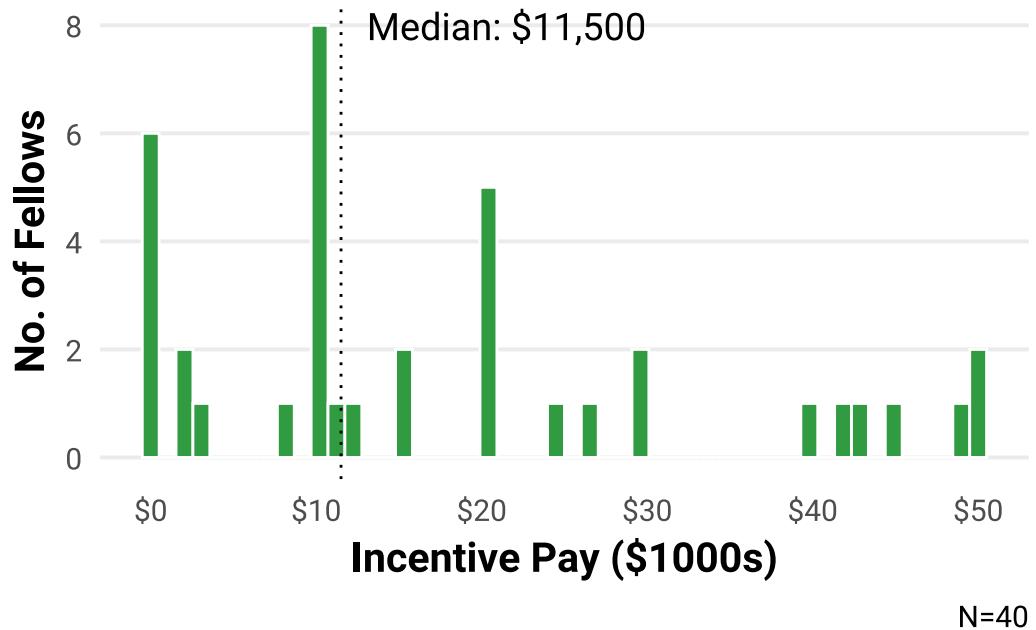
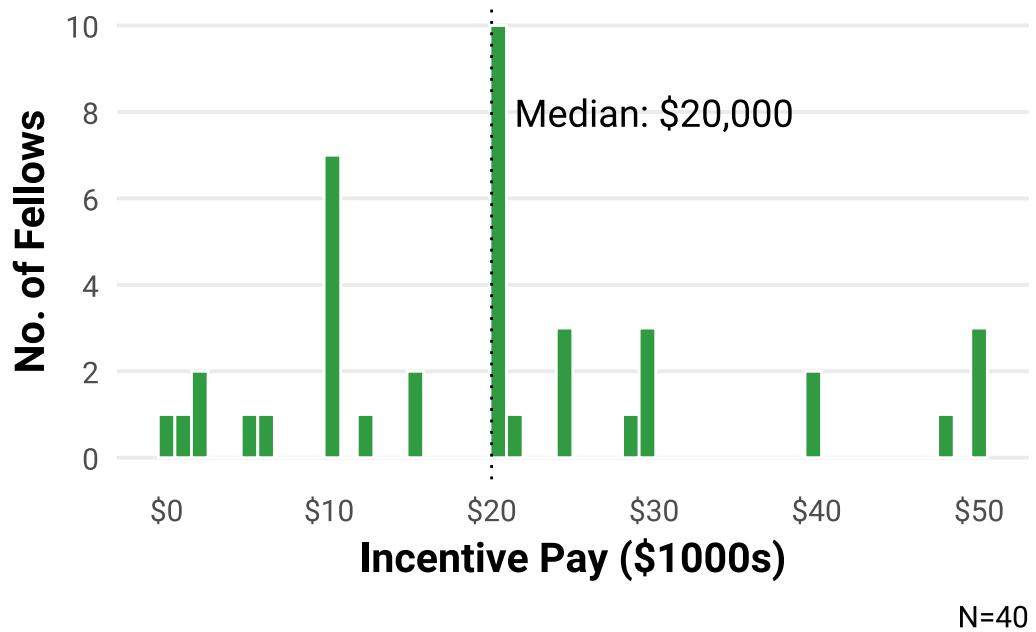
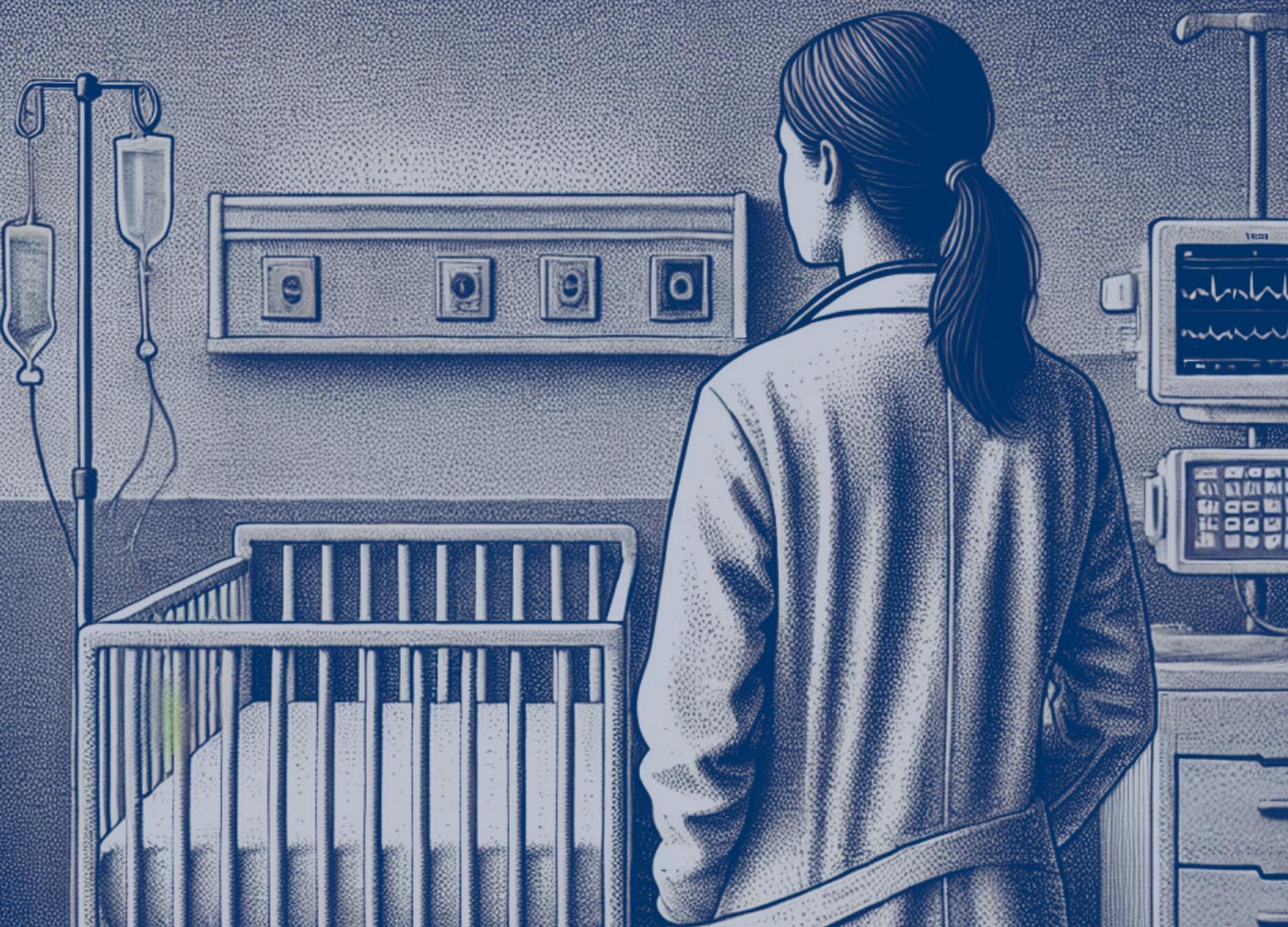


Figure 19B: Incentive Pay—USMGs





Pediatric Nephrology Fellows

V. Pediatric Nephrology Fellows

This Section Reports PEDIATRIC Responses Only

V.1 Pediatric and Adult/Pediatric Fellow Demographics

This year 45 of 93 current pediatric fellows (48%) and 9 adult/pediatric fellows participated in the survey. Most pediatric fellow participants were USMGs (73%), women (64%), U.S. Citizens (77%), and non-Hispanic Whites (55%; see Table 1). Compared with the most recent ACMGE data on pediatric fellows, there were slightly more White and Hispanic/Latina/Latino and fewer Asian respondents (Table 2). USMG pediatric respondents were mainly graduates of allopathic medical schools (85%, 34 fellows).

V.2 Educational Debt and Choosing Nephrology

Both pediatric and adult/pediatric participants reported carrying a higher debt burden than adult respondents. Median debt was \$246,000 for pediatric and \$333,000 for adult/pediatric fellows versus \$199,000 for adult fellows. Similar to the adult cohort, a majority of pediatric fellows chose nephrology during their PGY-2 and PGY-3 years of residency (57% vs. 47% for adults), although there were more respondents who were directed to nephrology during their pre-med/medical school training (27% vs. 22% for adults). Except for one respondent, nearly every pediatric and adult/pediatric fellow participant would recommend the specialty to medical students and pediatric residents (98%, 52 fellows, vs. 90%, 353 adult fellows).

Respondents indicated the variety of practice, longitudinal patient relationships, and strong job market as reasons to recommend pediatric nephrology. The sole respondent not recommending pediatric nephrology indicated compensation as the reason not to pursue the subspecialty.

Perspectives—Would Recommend Pediatric Nephrology

It is a special type of medicine we get to practice. We get to form close connections with our patients and follow them throughout life. ESKD is one of the few diseases where a therapy option (transplant) can provide a profoundly positive transformation, and it is an incredible privilege to go through the highs and lows with your patients and their families.

I think pediatric nephrology really offers so much. You can practice inpatient, outpatient, and in the ICUs. You get to build continuity and still practice some primary care. You can also stay as general or sub-sub specialized as you want to. Also, the job market is very friendly.

Recommend only if there is interest in the subject. And once there is interest, I would encourage the field due to good work life balance for the most part (although depending on current decreasing workforce that seems a little impending), the op-

portunity to work in multiple settings (inpatient outpatient). And the global nature of the department in general is very appealing for someone who is interested in global involvement

Diverse patient care environment (as what you want changes over time you have flexibility), wonderful mentors in the field, high acuity potential.

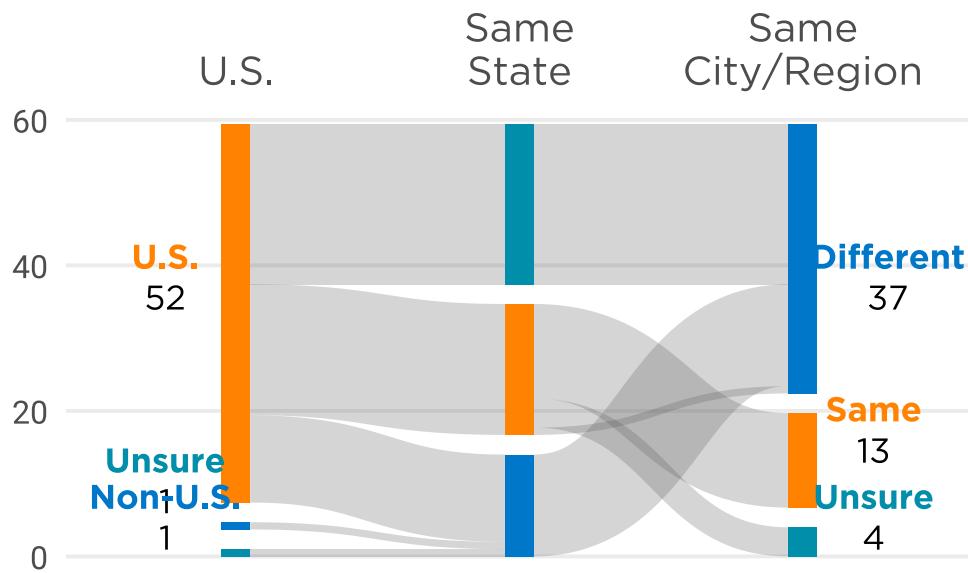
Clinically, I enjoy the longitudinal relationships with patients and their families. Academically, I enjoy my personal research related aspects of the field, and teaching students/residents about renal physiology in ways they can directly see in their patients (electrolyte repletion/changes, medication side effects, AKI, etc.)"

V.3 Future Plans

Two-thirds of respondents (67%, 36 fellows) were continuing their current fellowship, with 12 respondents entering academic practice (22%), 2 pursuing additional training (4%), and 1 participant (2%) each entering private practice, pediatrics residency, and undecided at survey time.

All but 2 pediatric respondents planned to remain in the U.S. for their first position, with a lower percentage anticipating remaining in the same state (33%) and city/region (24%) as their current fellowship than adult participants (43% and 32%, respectively) (Figure 20).

Figure 20: Planned Post-Fellowship Job Location



V.4 Job Market Perceptions

Pediatric fellow respondents perceived a soft local job market with only 48% of USMGs and 21% of IMGs indicating an appropriate number of opportunities within 50 miles of their fellowship institution (Figure 21). This could partially explain the lower percentage of pediatric fellows anticipating practicing in the same state and city/region (Figure 20). Nationally, respondents were more optimistic with 36% of IMGs and 40% of USMGs indicating an appropriate number of jobs and 14% and 35%, respectively, perceiving too many open positions (Figure 22).

Figure 21: Local Pediatric Job Market Perspectives

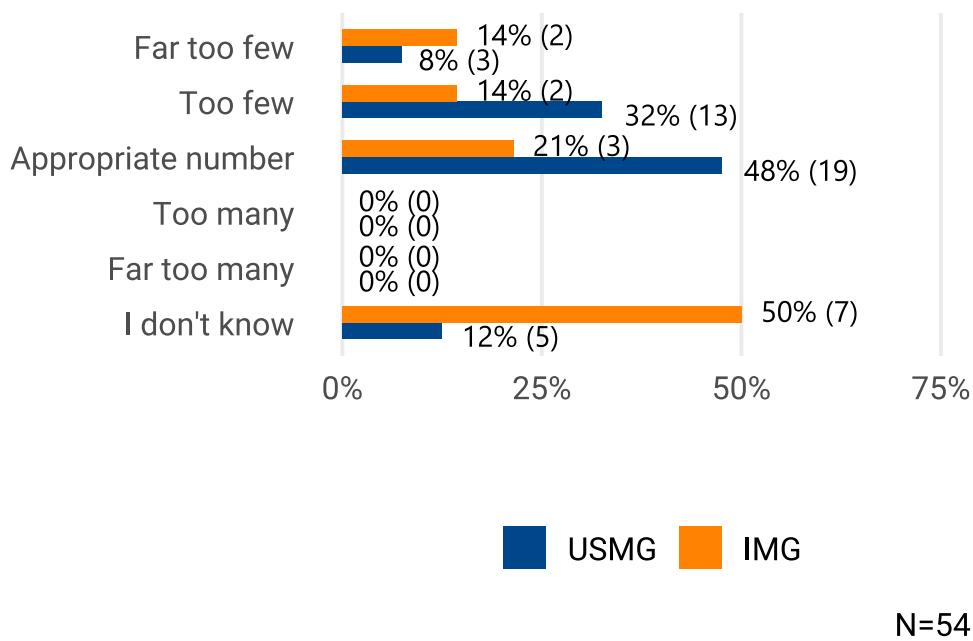
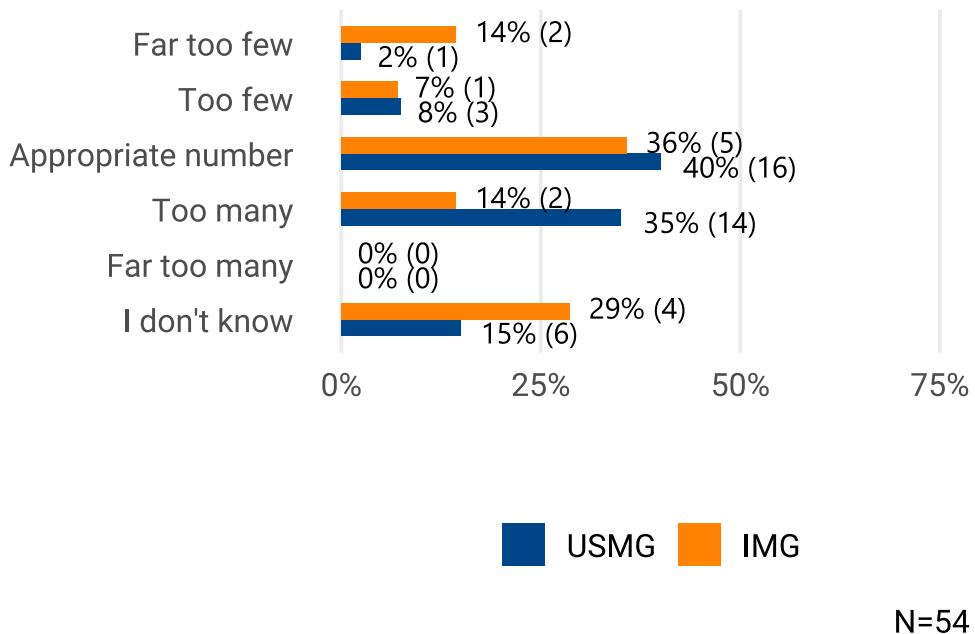


Figure 22: National Pediatric Job Market Perspectives



V.5 Entering Practice

Sixteen participants had started their job search, with 13 pursuing clinical positions, 2 research positions, and 1 fellow looking for a job in medical education. Pediatric respondents applied for a median 4 positions and received a median 2.5 job offers. At survey time, 12 had accepted positions, 1 had received an offer but was still searching, and 3 had not received any employment offers. Unlike adult fellows, no pediatric respondents had difficulty finding a position they considered satisfactory.

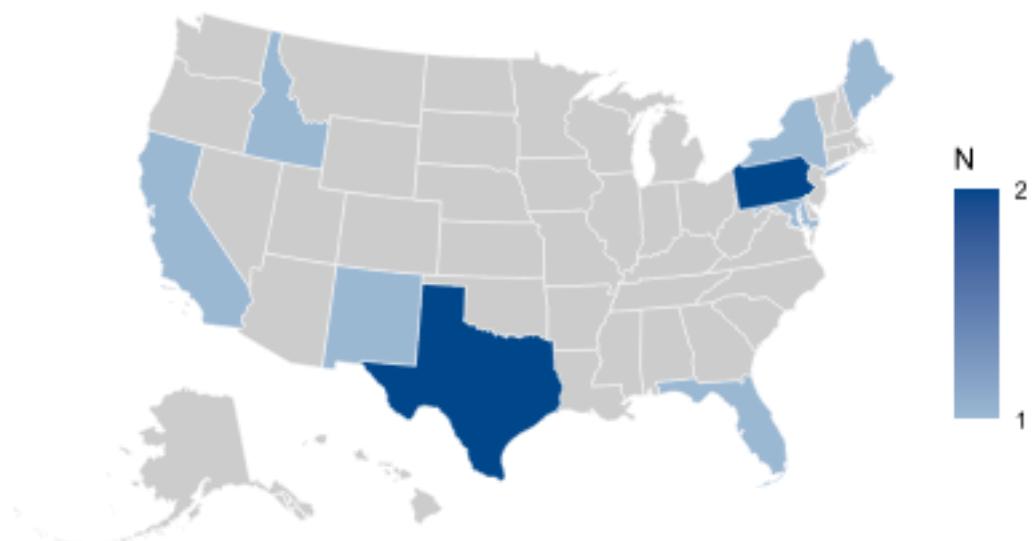
Of those who accepted a position, 11 fellows were starting in clinical nephrology and 2 were in research positions. A majority (85%, 11 fellows) were employed by a university-based hospital, and 2 were working in a non-academic health system. Respondents entering pediatric nephrology practice were anticipating responsibilities for dialysis modalities (PD, CRRT, in-center HD), and outpatient CKD and specialty clinics (Table 8).

Table 8: Responsibilities in Practice

Responsibility	N (%)*
PD	13 (100%)
CRRT	13 (100%)
Outpatient—CKD	12 (92%)
Outpatient—Other	12 (92%)
Outpatient—In-center HD	10 (77%)
Kidney biopsy	9 (69%)
Education	9 (69%)
Outpatient—Transplant	8 (62%)
Apheresis	7 (54%)
Clinical research	7 (54%)
Home HD	2 (15%)
POCUS	1 (8%)
Dialysis Medical Director	1 (8%)
Basic science research	1 (8%)
Translational research	1 (8%)

*N=13

Pediatric fellow respondents were starting positions in 10 states (Figure 23), with the most entering practice in urban areas (large city, 12 fellows; small city; 1 fellow).

Figure 23: Location of First Post-Fellowship Positions

Base median starting salary was \$190,000 (Figure 24). Eight fellows (62%) also received incentive income ranging from \$1,000 to \$50,000 (median \$13,000). Other incentives reported included support for MOC/CME (77%) and malpractice insurance (69%) (Table 9). Half (53%) of pediatric fellow respondents indicated incentives were "Very Important"/"Extremely Important" in choosing their first position. Although most respondents were starting in full-time positions, 4 indicated they were <1 FTE.

Figure 24: Base Salary—Pediatric Fellows

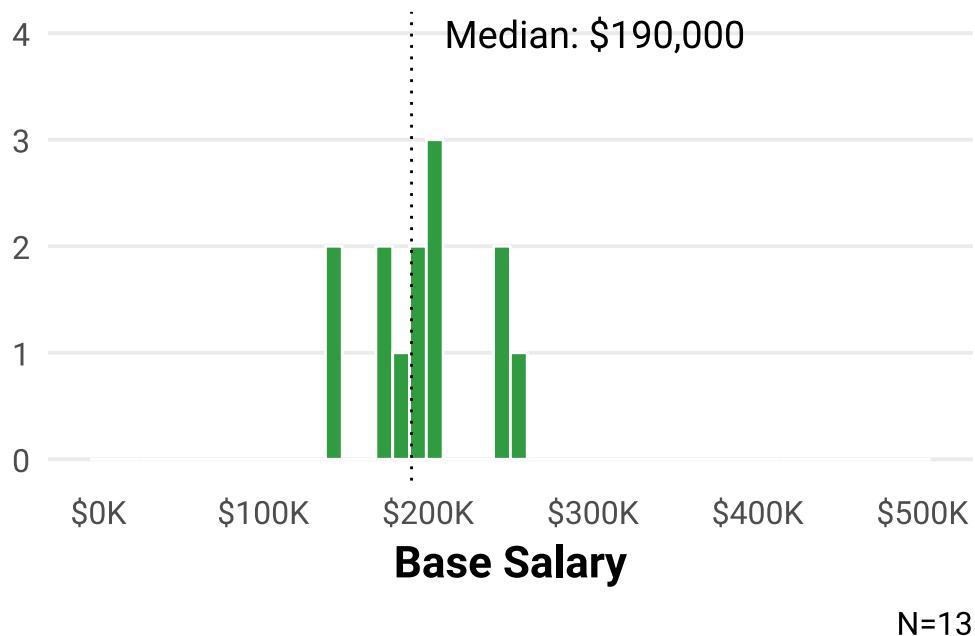
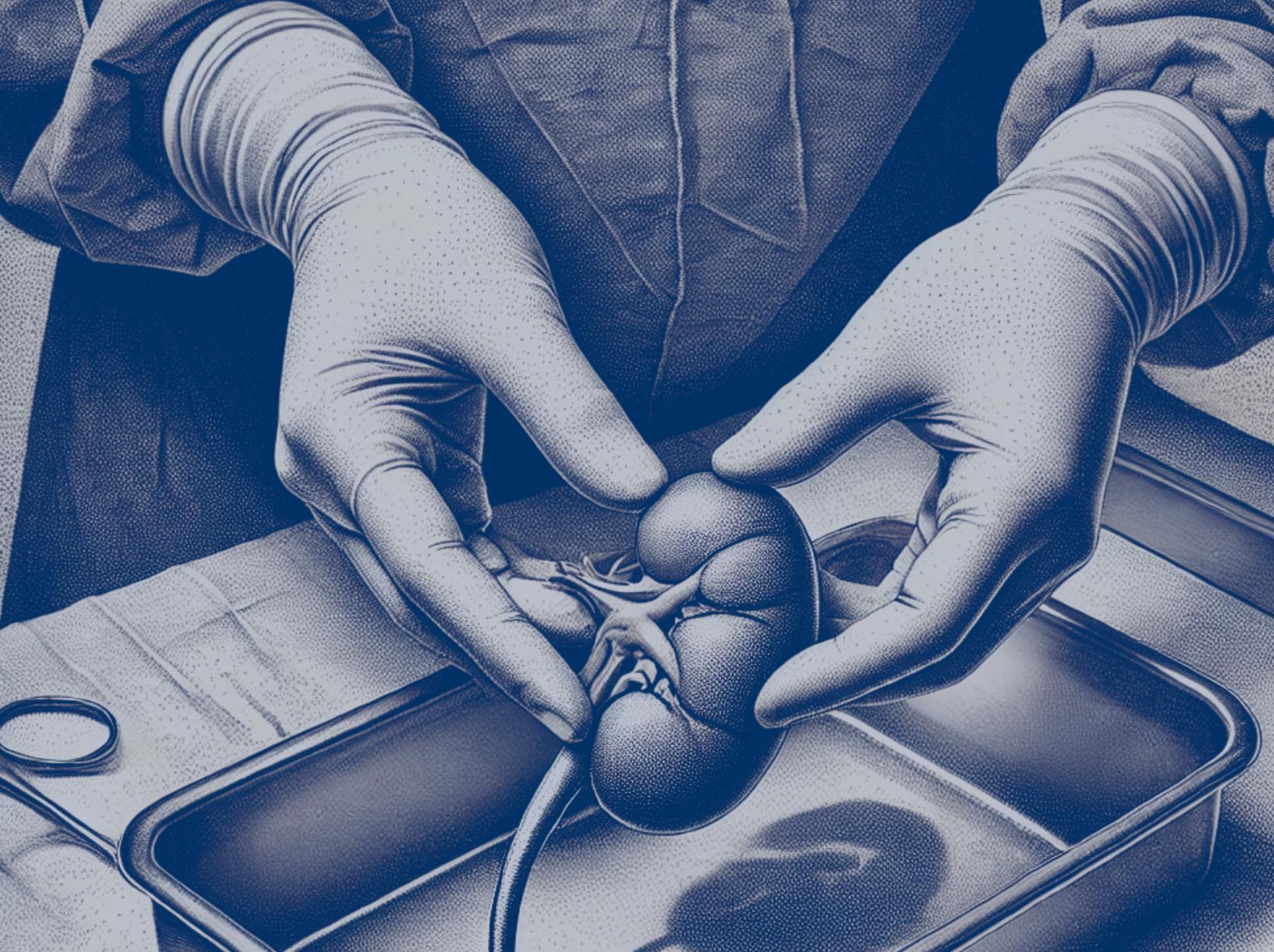


Table 9: Incentives Received

Incentive	N (%) [*]
MOC/CME	10 (77%)
Malpractice Insurance	9 (69%)
Sign-on bonus	8 (62%)
Career development opportunities	8 (62%)
Relocation allowances	6 (46%)
On-call payments	5 (38%)
Quality-Metric Bonus Payments	5 (38%)
Income guarantees	4 (31%)
Protected time for research/research "start-up" package	3 (23%)
Spouse/partner job transition assistance	2 (15%)
Flexible schedule	2 (15%)
Other	1 (8%)

*N=13



Transplant Nephrology Fellows

VI. Transplant Nephrology Fellows

This Section Reports TRANSPLANT Fellow Responses Only

VI.1 Transplant Fellow Demographics

Recognizing that the 2019 Advancing American Kidney Health (AAKH) executive order called for "...[increased] access to kidney transplants..." a separate ASN Transplant Nephrology Fellow Survey was developed to better understand transplant trainees and the job market for transplant nephrologists. Current transplant fellows were identified by querying training program directors for the 64 accredited transplant nephrology fellowship programs, who identified 18 transplant fellows, 9 of whom participated (50% response). (Not all transplant fellowships responded.)

A slight majority of participating transplant fellows were IMGs, women, and training on J-1 visas (5 fellows, 56% for each variable). Two respondents identified as Hispanic/Latina/Latino (22%), with one-third White, one-third South Asian, and 11% each identified as Black/African American and Southeast Asian (1 preferred not to answer).

VI.2 Choosing Transplant Nephrology

Five decided to subspecialize in transplant during fellowship, 2 during their intern year, and 2 during their 2nd or 3rd years of residency. Two-thirds were attracted to the science and allure of transplant nephrology, with 4 wanting to work in an academic center post-fellowship, and 1 motivated by their own personal experience as a transplant recipient (Table 10).

Table 10: Motivations to Pursue Transplant Nephrology

Factor	N
Science and allure of transplant nephrology	6
Desire to work at an academic center post-fellowship	4
Positive experience with rotation or research in transplant	4
Inspired by mentor	3
Family reasons	1
Visa reasons	1
Expectation for a better salary post-fellowship	1
Expectation for a better lifestyle post-fellowship	1
Transplant recipient	1

*N=9

Six of the 9 participating fellows were very satisfied with their choice to pursue transplant, and all 9 would recommend the subspecialty. Among the reasons to recommend transplant nephrology:

Ability to combine patient care with exciting and interesting science.

Nephrology is moving towards xenotransplantation and eventually all nephrologists will require transplant training.

It's a combination of so many different fields including immunology, pathology, infectious disease, etc. No patient is the same.

Despite lower salary and complex patient population, the kidney transplant patient-physician journey, from pre-transplant evaluation to life with a functioning graft is very gratifying. However, salary and work life balance should improve.

Respondents indicated that transplant could be made more attractive by improving educational curriculum and making the fellowship standardized (2 fellows), improving compensation (2) and lifestyle/work-life balance (2), attaining ACGME accreditation (1), and increasing visa sponsorship opportunities (1).

VI.3 Job Search Experiences and First Positions

All participants were searching for employment either in solely transplant nephrology (5), transplant nephrology combined with general nephrology (5), or general clinical nephrology (1). Every participant had accepted an employment offer, although 3 experienced difficulty finding a position they considered satisfactory because of visa requirements (2), lack of positions in a desired location (1) or practice setting (1), or inadequate salary (1).

In their first post-fellowship position, one-third were focused solely on transplant nephrology (3 fellows), with 5 entering combined transplant/general nephrology practice, and 1 starting a general clinical nephrology position. Five respondents were starting in an academic hospital/health system, 2 in a non-academic/independent transplant center, and 2 in private practice. Eight out of 9 were preparing to oversee outpatient transplant clinics with 1 starting as a transplant center director (Table 11).

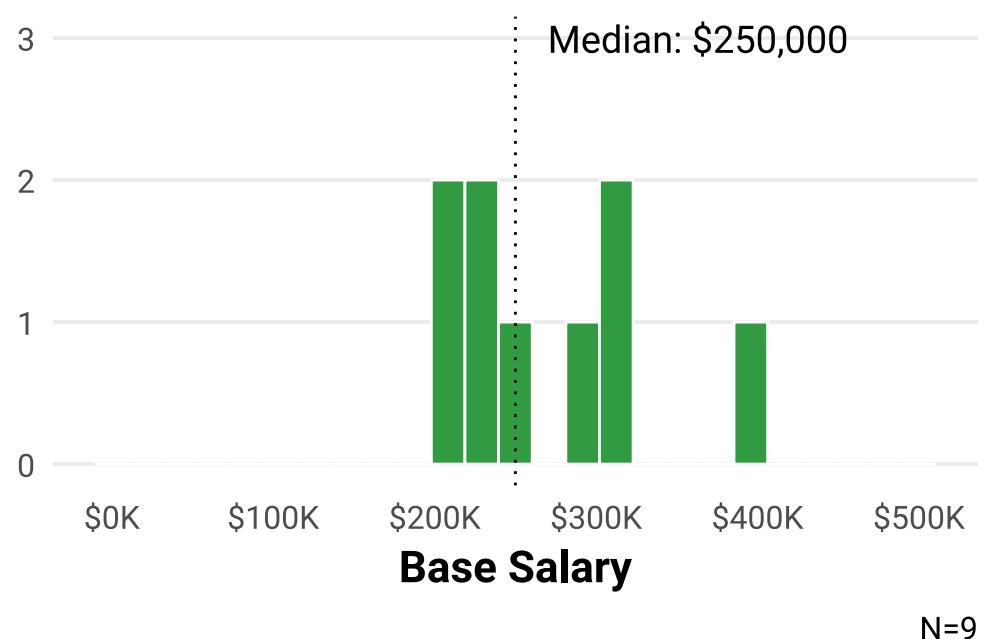
Table 11: Transplant Nephrology Fellows: First Post-Fellowship Employment Responsibilities

Responsibility	N (%)*
Outpatient—Transplant	8 (100%)
CRRT	6 (75%)
Outpatient—In-center HD	5 (62%)
Outpatient—CKD	5 (62%)
Education	5 (62%)
Living Donor Transplant Program	4 (50%)
PD	4 (50%)
Clinical research	4 (50%)
Home HD	3 (38%)
Outpatient—Other	3 (38%)
Kidney biopsy	2 (25%)
Apheresis	2 (25%)
Other	2 (25%)
Transplant Center Director	1 (12%)
Dialysis Medical Director	1 (12%)
Translational research	1 (12%)

*N=9

Transplant fellow participants reported a median base salary of \$250,000 (IQR \$86,000) (Figure 25).

Figure 25: Base Salary—Transplant Nephrology Fellows



Methods

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.

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 nephrology fellows' training experiences and perceptions of the specialty.

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

Who were surveyed?

The 2024 ASN Nephrology Fellow Survey was distributed to a survey frame of 962 adult, pediatric, and adult/pediatric nephrology fellows drawn from the ASN (869 adult fellows) and American Society for Pediatric Nephrology (93 fellows) member databases. The survey received a 46% response rate, with participation from 393 adult, 45 pediatric, and 9 adult/pediatric fellows in training.

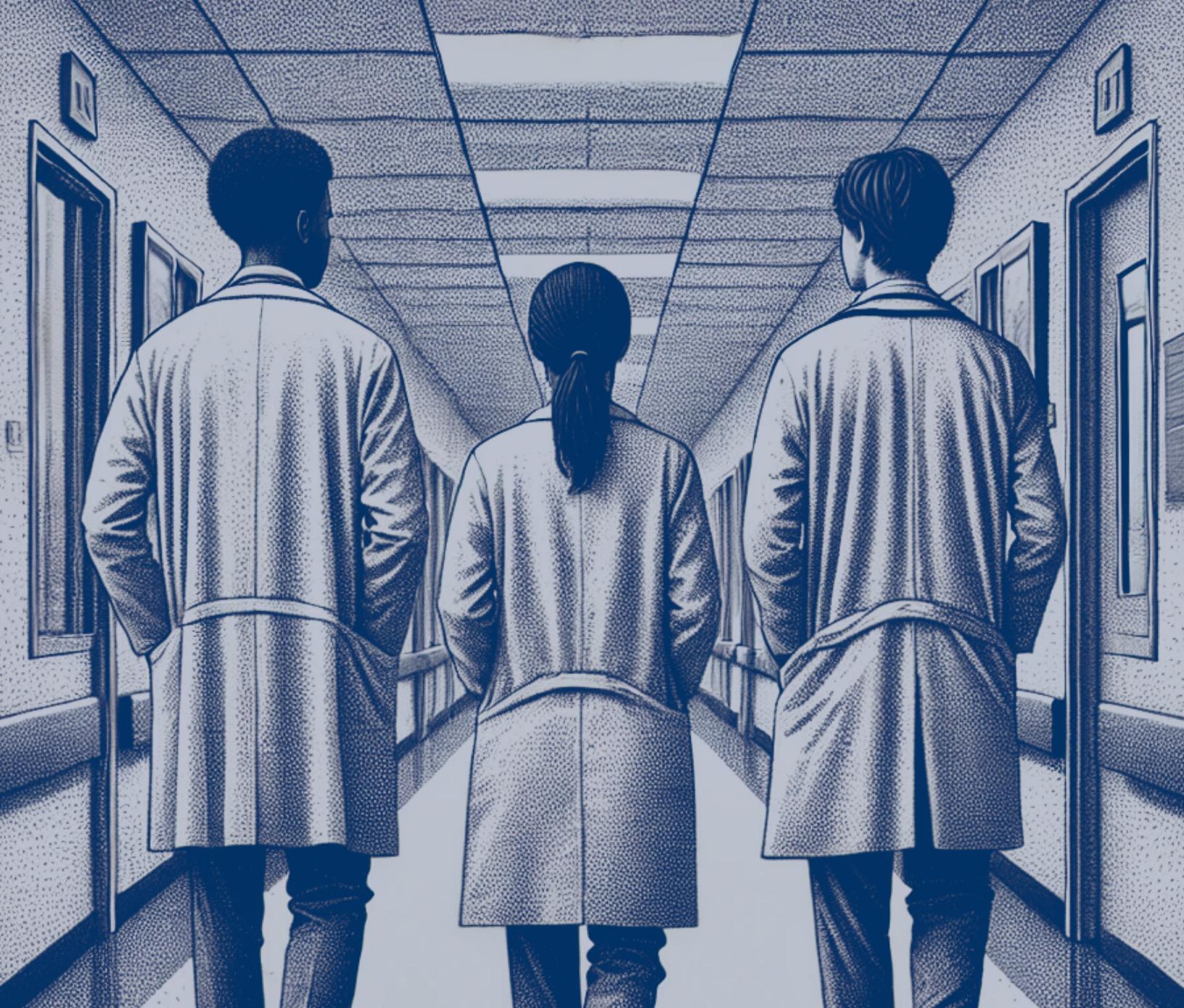
A separate Transplant Fellow Survey was developed for transplant nephrology fellows and distributed to 18 transplant fellows provided by current transplant fellowship TPDs. Of these, 9 participated (50% response rate).

When was the survey conducted?

Invitation emails were sent to adult fellows on April 30 (May 7 for the Transplant Fellow Survey) and the survey closed on May 22, 2024. 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 2024 responses were analyzed using R (R Core Team (2024). *R: A Language and Environment for Statistical Computing*. R Foundation for Statistical Computing, Vienna, Austria. <https://www.R-project.org/>).



 ASN DATA