

## REPORT HIGHLIGHTS

# Survey of 2018 Nephrology Fellows

Prepared for:

**The American Society of Nephrology**

by

**George Washington University Health Workforce Institute**

**Leo Quigley, MPH**  
George Washington  
University Health  
Workforce Institute and  
School of Nursing

**Edward Salsberg,  
MPA, FAAN**  
George Washington  
University Health  
Workforce Institute and  
School of Nursing

**Ashté Collins, MD**  
George Washington  
University School of  
Medicine

## Preface

Physicians in training represent the future practitioners in their field and provide a picture of the future supply. The experience of those completing their training and about to embark on their careers is also an indicator of physician demand in their specialty. For these reasons, the George Washington University Health Workforce Institute (GW-HWI) research team and the American Society of Nephrology (ASN) have conducted an annual online survey of current nephrology fellows and trainees beginning in 2014 to obtain data on demographic and educational background, educational debt, career plans, job search experiences, and factors influencing job opportunities and choices.

In 2018, the survey tool—slightly modified from 2014 and subsequent years—was distributed to 1329 ASN Fellow/Trainee members (to whom ASN offers free membership) in May and June 2018. Four hundred and seven (407) fellows or trainees provided informed consent and responded to the survey questions for an overall response rate of 30.6% (this analysis excludes pediatric nephrology fellows unless otherwise stated). Among the assumed 844 fellows in their first and second year of Accreditation Council for Graduate Medical Education (ACGME)-accredited training programs, we received responses from 349 fellows (41.4% response rate). (2018 ACGME data was not available at the time this report was written; comparisons are made with 2017 ACGME data instead.) The response rate for second-year fellows was 41.7% (183 of 439) providing a good picture of the job market faced by new nephrologists. (The basic nephrology fellowship is 2 years, but many stay on for an additional year(s) for subspecialty training or research.)

This report presents demographic information for respondents in all years of fellowship and training, as well as job market experiences and fellows' plans for those completing their second year of fellowship or beyond. It also presents data on job offers accepted by nephrology fellows and their assessments of the overall state of the specialty and job market. For all of the statistical tests presented, we considered probability values <0.05 to be statistically significant.

## Key Findings

### Overview

The three overarching themes that emerge from the 2018 survey and analysis of the trends over the past 4 years are similar to those identified in 2017:

- the job market for new nephrologists has continued a trend of steady improvement and increasing salaries for US medical graduates (USMGs) and international medical graduates (IMGs);
- the job market for USMGs was significantly better than for IMGs, who continue to represent a majority of the trainees; and
- lifestyle concerns remain important to fellows and may be discouraging applicants to the specialty.

### An Improving Job Market with Continued Challenge for IMGs

Responses to a number of questions indicated the importance of lifestyle factors to fellows, both during training and for practice after training.

- Among nephrology fellows who had searched for a job, perceptions of local nephrology job opportunities maintained the improvement of recent years compared to earlier years for both USMGs and IMGs. The percent of USMGs who indicated “no jobs” or “very few jobs” in the national job market dropped from 13.1% in 2014 to 0% in 2018, and from 35.1% to 8.6% for the local job market. The only disappointment was an increase in the number of USMGs who indicated “no jobs” or “very few jobs” in the local job market from the 9.3% of 2017 to 15.1% in 2018, though this was still lower than in all years prior to 2017.
- While the view of the market was far more negative for IMGs than for USMGs, the improvement for IMGs was also impressive with the percentage responding “no jobs” or “very few jobs” dropping from 29.9% in 2014 to 9.8% in 2018 for the national job market, and from 56.3% to 29.6% for the local job market.

## Percentage of Nephrology Fellows Responding “No Jobs” or “Very Few Jobs”

	USMGs					IMGs				
	2014	2015	2016	2017	2018	2014	2015	2016	2017	2018
Local	35.1%	35.2%	18.0%	9.3%	15.1%	56.3%	61.3%	37.5%	28.8%	29.6%
National	13.1%	5.6%	4.0%	1.8%	0%	29.9%	16.5%	12.5%	9.8%	8.6%

- Fewer than two in five respondents (38.0%) who had searched for jobs reported having difficulty finding a satisfactory position compared to 45.6% in 2017. There was a statistically significant difference between IMG and USMG fellows’ reports of difficulty finding a position ( $p=0.001$ ): 49.4% of IMGs reported having difficulty finding a position they were satisfied with, an improvement over the 55.4% of 2017 and the 70.0% of 2016. 21.1% of USMGs reported having difficulty compared to 28.8% in 2016.
- Overall, the percentage of respondents indicating that they had changed their plans because of limited nephrology job opportunities continued its decline, from 42.9% in 2015 and 32.7% in 2017 to 28.9% in 2018. While both USMGs and IMGs were less likely to report changing their plans in 2017 than in prior years, their likelihood of changing plans was significantly different: only 12.3% of USMGs reported that they had to change plans, while 41.0% of IMGs reported changing plans ( $p<0.001$ ). This difference likely reflects more limited job opportunities that meet visa requirements allowing IMGs to practice in the US.
- Fellows’ anticipated salaries in 2018 were higher than in previous years; the median anticipated salary for all demographic groups (by IMG status and sex) was between \$180,000 and \$189,999, except for male IMGs, where the median was between \$190,000 and \$199,999. The mean anticipated salary was \$198,000, compared to \$187,000 in 2017.
- USMGs were more likely than IMGs to report being “Very satisfied” with their salary and compensation (34.7% vs. 21.3%) but the difference was not statistically significant.
- When asked to identify the incentives they had received for accepting their primary job offers, respondents were most likely to report receiving the following:
  - Income guarantees (46.9%)
  - Support for MOC and CME (40.7%)
  - Career development opportunities (38.1%)
  - Relocation allowances (38.1%)
  - Sign-on bonus (27.4%)

## Lifestyle Concerns

Responses to a number of questions indicated the importance of lifestyle factors to fellows, both during training and for practice after training.

- Respondents in their second year of fellowship or beyond rated the following factors as “very important” or “important” in their job selection:
  - Frequency of overnight calls (94.7% very important or important)
  - Frequency of weekend duties (93.9%)
  - Length of each workday (91.7%)
  - Salary/compensation (90.9%)
  - Job/practice in desired practice setting (89.8%)
  - Job/practice in desired location (88.5%)

This may reflect the nature of much of nephrology practice today and may be of concern to both nephrology fellows and residents who do not select the specialty

## Other Findings

### Recommending the Specialty

Despite their mixed assessments of the nephrology job market, a majority (78.8%) of fellows indicated they would recommend nephrology to current medical students and residents, a notable improvement over previous years. However, IMGs were significantly less likely than USMGs to report that they would recommend the specialty to others (75.9% vs. 83.7%, respectively).

### Would Recommend Nephrology to Medical Students and Residents

	2014	2015	2016	2017	2018
USMGs	82.2%	74.4%	78.1%	78.9%	83.7%
IMGs	65.7%	62.7%	67.6%	67.1%	75.9%
Total	71.8%	67.7%	71.8%	71.8%	78.8%

- Fellows who said they would recommend nephrology to medical students and residents cited many of the same factors mentioned by 2015, 2016 and 2017 respondents as reasons for their positive assessments: the intellectual challenge/interest of the field, variety of activities, and long-term patient relationships.

## Practice Setting

Among respondents who had already accepted job offers, the largest group (48.3%) reported that they planned to work in nephrology group practices. Another 28.4% reported that they planned to work in academic nephrology practices, 9.5% said they planned to work in hospitals and 6.9% in multispecialty academic practices. Other settings included multispecialty group practices (3.4%) and 2-person partnerships (3.4%). No 2018 respondents reported going to work in solo practice.

## Practice in Underserved Areas

➤ As in previous years, IMGs appear to be making an important contribution to care in underserved areas with 11 IMGs (17.2%) indicating an obligation to work in a federally designated Health Professional Shortage Area (HPSA). This apparently reflects the need to practice in an underserved area, such as under the Conrad 30 program, in order to remain in the US.

## The Job Market

- When asked an open-ended question regarding the types of jobs they perceived to be more and less available, newly graduating fellows mentioned several types of jobs that were **more easily available** according to their experience:
  - Private practice jobs
  - Jobs in remote, rural or undesirable areas
  - Jobs in solo or small practices/communities
  - Jobs in general nephrology rather than transplant nephrology
- They reported several types of jobs that were **less easily available**:
  - Academic jobs
  - Jobs in metro areas or other preferred geographic areas
  - Jobs that meet visa requirements for IMGs

## Compensation

As in 2017, there were some statistically significant differences between mean anticipated incomes between different practice settings.

### Base Salary by Practice Setting of Primary Nephrology Job

Practice setting of primary nephrology job	Total	USMG	IMG	Female	Male
	Mean primary job base salary (No.)				
Solo practice	N/A (0)	N/A (0)	N/A (0)	N/A (0)	N/A (0)
Partnership (2 people)	\$230,000 (4)	NR	NR	NR	NR
Group practice (exclusively nephrology)	\$197,600 (53)	\$190,700 (21)	\$202,200 (32)	\$202,500 (16)	\$195,500 (37)
Group practice (multi-specialty)	\$285,000 (3)	NR	NR	NR	N/A (0)
Academic practice (exclusively nephrology)	\$179,800 (31)	\$170,600 (16)	\$189,700 (15)	\$174,200 (13)	\$183,900 (18)
Academic practice (multi-specialty)	\$167,900 (7)	\$141,000 (5)	NR	NR	\$167,000 (5)
Hospital	\$240,000 (10)	\$262,500 (4)	\$225,000 (6)	NR	\$232,500 (8)
<b>Totals</b>	<b>\$198,100 (108)</b>	<b>\$188,500 (49)</b>	<b>\$206,200 (59)</b>	<b>\$199,600 (37)</b>	<b>\$197,400 (71)</b>

NR – Not reportable, too few responses.

Salaries differed by population density of the geographical area of practice, with the highest average incomes in rural areas (\$269,300) and small cities (\$200,700), and lower incomes in suburban (\$188,900), large city areas other than inner city (\$196,400), and inner city (\$190,300) areas. The difference between rural salaries and all others was statistically significant ( $p < .001$ ). It appears rural communities need to offer nephrologists considerably more compensation than they can get in larger cities and suburban areas in order to recruit them.

### Base Salary by Population Density of Primary Nephrology Job Location

Population Density	Total	USMG	IMG
	Mean primary job base salary (No.)		
Inner city	\$190,300 (40)	\$187,200 (18)	\$192,700 (22)
Other area within major city	\$196,400 (29)	\$189,000 (15)	\$204,300 (14)
Suburban	\$188,900 (18)	\$179,400 (9)	\$198,300 (9)
Small city (pop. less than 50,000)	\$200,700 (14)	\$159,000 (5)	\$223,900 (9)
Rural	\$269,300 (7)	\$310,000 (2)	\$253,000 (5)
<b>Total</b>	<b>\$198,100 (108)</b>	<b>\$188,500 (49)</b>	<b>\$206,200 (59)</b>

### Exhibit 33: Consideration Given to a Career Outside Nephrology

Did you seriously consider pursuing a career in another area of medicine before you decided on nephrology?	USMG	IMG	Total
	Percent (N)		
No, I did not seriously consider any other specialties	25.5% (36)	41.4% (98)	35.4% (134)
Yes, I was also considering other specialty or specialties	62.4% (88)	49.4% (117)	54.2% (205)
Yes, I was also considering staying in general practice (internal medicine or pediatrics)	12.1% (17)	9.3% (22)	10.3% (39)
<b>Total</b>	<b>100% (141)</b>	<b>100% (237)</b>	<b>100% (378)</b>

The majority of respondents (64.5%) had seriously considered another specialty before deciding to pursue nephrology. In the 171 written responses, the most frequently mentioned alternative specialties were pulmonary and critical care (30.4% of 191 total specialty mentions), cardiology (25.1%) and hematology/oncology (10.5%). Gastroenterology, endocrinology, infectious diseases, hospital medicine and rheumatology (in decreasing order of frequency) were also mentioned. IMGs were significantly less likely than USMGs to have considered another specialty before deciding on nephrology (41.4% vs. 25.5%,  $p < .01$ , effect size=0.33).

### Exhibit 34: Level of Preparedness for General Nephrology Practice\*

Rate your current level of preparedness for entering independent general nephrology practice	USMG	IMG	Total
	Percent (N)		
Not prepared	2.4% (2)	2.2% (3)	2.3% (5)
Minimally prepared	0.0% (0)	5.1% (7)	3.2% (7)
Moderately prepared	53.6% (45)	42% (58)	46.4% (103)
Fully prepared	44.0% (37)	50.7% (70)	48.2% (107)
<b>Total</b>	<b>100% (84)</b>	<b>100% (138)</b>	<b>100% (222)</b>
*Including only 2nd-year fellows and beyond.			

The vast majority of respondents (94.6%) in their second year and beyond rated their level of preparedness for general nephrology practice as “fully prepared” or “moderately prepared”, though less than half felt “fully prepared”. While only 5.3% felt either “minimally prepared” or “not prepared”, this is still of concern. More IMGs than USMGs felt “fully prepared” (50.7% vs. 44.0%) but the difference was not significant.



*The views and findings in this report reflect the work of the GW Health Workforce Institute (GW-HWI) and do not necessarily reflect the views of ASN or GW University. The GW-HWI and ASN welcome comments and feedback on this report. Please send your comments to [workforce@asn-online.org](mailto:workforce@asn-online.org).*