

Career Expectations and Preferences of Urology Residency Applicants



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OBJECTIVE METHODS

To survey the characteristics, career goals, and practice preferences of current urology applicants. An anonymous survey was emailed to applicants pursuing a residency position at the University of Florida for the 2017-2018 academic year Urology Match. The survey included questions on demographics, motivating factors to pursue urology, plans for fellowship training, and anticipated and desired practice patterns.

RESULTS

A total of 151 of 295 applicants completed the survey, mean age $26.9 \pm SD 2.3$. Males had a higher interest in academics/research, cancer, men's health, and minimally invasive surgery technology. Females had a higher interest in public health, surgery, and mixture of surgical and medical management. A total of 64.1% planned on completing a fellowship. Males had a higher interest in urologic oncology and endourology. Females had a higher interest in female pelvic medicine and reconstructive surgery, andrology and sexual medicine, and pediatric urology. A total of 76.9% anticipated having an academic affiliation, 68.9% working in an urban setting, and 98% working full-time, with no difference based on gender. For desired quality of life after residency, maximum number of hours considered acceptable was 51-60 (36.4%) and 61-70 (35.1%). Regarding an acceptable call schedule, most considered 2-4 nights per month reasonable. Most felt an acceptable starting salary was \$250,000-\$400,000 and \$200,001-\$350,000 for private practice and academic urology, respectively.

CONCLUSION

Current urology applicants desire to work in academics, urban settings, and pursue subspecialty fellowship training. What they consider acceptable work hours, call schedule, and financial compensation appear compatible with the current practice of urology. UROLOGY 123: 44–52, 2019. © 2018 Elsevier Inc.

Urology is a dynamic field of study with a diverse patient population and it has recently been well documented that the demand for urologic health care in the United States is on the rise.¹ This is likely related to several factors including the rapid expansion of the elderly population in the United States and the rising incidence and prevalence of chronic urologic conditions that are largely diseases of the elderly.^{2,3} Despite this forecast for an unprecedented rise in the need for urological care, there is concern that the urology workforce will fall short of meeting that demand. The supply of urologic surgeons per capita in the United States has declined more than most other surgical specialties, excluding general and thoracic surgery.¹ Predictions from the US Department of Health and Human Services forecast urology as the medical specialty with the greatest increase in need by 2020, estimating that 16,000 urologists will be required by 2020 compared to the 12,500 urologists currently in practice.⁴ There will be an estimated urologist shortage of 32% by

2030, primarily due to attrition of older physicians.⁵ Furthermore, there is a disparity in the geographic distribution of the urologic workforce, as most urologists practice in urban rather than rural areas. About 10% of practicing urologists in the United States maintain their primary location in nonmetropolitan areas and those that do are more likely to be older. The gender composition of the urologic workforce is also changing with a rising influx of women into a traditionally male-dominated specialty.⁶ Additional changes on the horizon include the expanding role of advanced care practitioners and the implementation of telemedicine.^{1,7}

Given the everchanging landscape of the specialty and the predicted urologic workforce shortage, it is important to understand the motivations, career expectations, and workplace preferences of contemporary urology residency applicants. The current day urology applicant typically was born between 1980 and 2000 and can be termed a millennial. Millennials are perceived to have generational differences from their predecessors, the silent generation (1925-1945), baby boomers (1946-1964), and Generation X (1965-1980). Millennials have been shaped by the expansion of information technology, enhanced social networking, and connected global culture. Sometimes

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millennials are labeled as impatient, distracted, overly socialized, and entitled, but they can also be characterized as deeply empowered, collaborative, and innovative.⁸ The objective of our study was to survey the characteristics and career goals of those currently pursuing urology residency. The characterization of this group may aid those in leadership in urology and other health policy makers in ensuring that adequate access to urologic care will exist for the patient population in need of such services.

METHODS

Institutional review board exemption was obtained for this study as it was deemed to be of minimal risk with its anonymous nature. A voluntary and anonymous invitation to an online survey was emailed to 295 applicants who submitted an application for a residency position at the University of Florida for the 2017-2018 academic year Urology Match. The survey was sent via unique email on October 13, 2017 with additional reminders sent to nonrespondents at days 3, 7, and 14 after the initial email. The survey was completed electronically using a web-based survey (Qualtrics, Provo, UT). The survey included 25 response items with questions on demographics, motivating factors to pursue urology, expectations regarding their career after residency training, and plans for subspecialty fellowship training. Specific questions regarding work hours, call schedules, anticipated and acceptable salaries were also asked to canvas desired quality-of-life and practice patterns. Participants' demographics and survey item responses were reported as mean and proportions for continuous and categorical variables, respectively. The survey items responses were compared between males and females using Fisher exact test. All significance tests were 2-sided, with a *P* value < .05 considered statistically significant. Statistical analyses were performed using Statistical Analysis Software (SAS) version 9.4 (SAS Institute Inc, Cary, NC).

RESULTS

One hundred and fifty-one of 295 applicants completed the survey (51.2% response rate; 27.1% females and 72.9% males). The mean age was 26.9 ± SD 2.3 (females 26 ± 1.6; males 27.1 ± 2.5). Most decided to pursue a career in urology in the third year of medical school (60%) followed by their preclinical years during medical school (24%). The majority cited their interest in the combination of surgery and medicine (52.3%), followed by interest in minimally invasive surgery and technology (13.9%) as the greatest motivating factors to pursue urology (Table 1). Males had a significantly higher interest in academics and research, cancer, men's health, and minimally invasive surgical technology. Females had a higher interest in public health, surgery, and mixture of surgery and medical management (Fig. 1). The common alternative specialties considered were another surgical specialty (47%), internal medicine (14.6%), and obstetrics and gynecology (OB-GYN; 9.9%). The greatest drawback to pursuing urology was the competitive application process (66.9%) followed by long work hours (17.9%; Table 1). After residency training, 64.1% planned on completing a fellowship with the most common urologic subspecialties being urologic oncology (46.6%) followed by endourology (15.5%). There was a significantly higher interest in urologic oncology and

endourology among males whereas females demonstrated a greater interest in female pelvic medicine and reconstructive surgery, andrology and sexual medicine, and pediatric urology (Fig. 2). The most frequently cited reasons for pursuing subspecialty fellowship were desire to pursue an academic career (44.0%) and increased marketability for employment (23.3%; Table 1). The majority (62.9%) did not plan on pursuing an additional degree but of the minority who were interested, the most common were M.B.A. (20.2%), M.P.H. (6.2%), and Ph.D. (2.3%).

Regarding practice patterns, the majority anticipated having an academic affiliation. Most wanted to work in an urban setting (68.9%) and almost all planned to work full-time (98.0%). For their desired quality of life after residency, the maximum number of hours considered acceptable was 51-60 (36.4%) and 61-70 (35.1%). Regarding an acceptable call schedule, most considered 2-4 nights per month reasonable. The preferred weekly work schedule was clinic with 1-2 operative days (50.3%) and clinic with 3 or more operative days (49.7%). None preferred to have clinic without operative days. There were no differences based on gender for desired practice patterns. After medical school, 27% anticipated educational debt to be \$200,000-\$300,000, and 11.3% anticipated it to be more than \$300,000. In consideration of an acceptable starting salary for academic and private practice there was no difference between males and females (Table 2).

DISCUSSION

Workforce planning, or the art of understanding the needs of employees and how those needs align with the objectives of an organization, is often regarded by chief executive officers and chief human resource officers as a top priority in planning.⁹ Studies have analyzed and characterized the current urologic workforce and expected trends to come among this group, particularly in the setting of an aging population and an associated increase in the burden of urologic disease.¹⁻⁵ It is also crucial to have an understanding of those that will 1 day comprise the urologic workforce to facilitate applicable workforce planning.

Our study queried the career expectations and desires of current urology residency applicants to better understand the incoming workforce. A majority in our survey felt that they would probably or definitely pursue fellowship training (64.3%) which is similar to findings from the recent survey by Lebastchi et al that reported 69.1% among current urology applicants.¹⁰ Although only 38% of practicing urologists have completed fellowship training as of 2017, this is increased from 35.9% in 2015.⁴ Our results are therefore concordant with the rising interest in fellowship training. Furthermore, 57.1% of male and 63.5% of female practicing urologists under 45 years of age have completed a fellowship, indicating urologists in younger age groups are more likely to have completed a fellowship.⁴ The most commonly cited reasons for interest in fellowship training were a desire to pursue a career in academia and increased marketability for future employers with no difference based on gender. This increasing interest is even more pronounced in general surgery, where up to 80% of trainees plan on doing a fellowship.¹¹

Table 1. Factors that motivated applicants to pursue urology and their plans for fellowship and/or any additional degrees

Question	Responses (N = 153)	
	Female n (%)	Male n (%)
When did you decide to pursue residency training in urology?		<i>P</i> = .1730
Before medical school	1 (2.44)	9 (8.26)
During preclinical years of medical school	6 (14.63)	30 (27.52)
During 3rd year of medical school	29 (70.73)	61 (55.96)
During 4th year of medical school	5 (12.20)	9 (8.26)
What is the most important reason you are pursuing a career in urology?		<i>P</i> = .0332
Interest in surgery	12 (29.27)	11 (10.00)
Mix of surgery and medical management	23 (56.10)	56 (50.91)
Opportunities for global health	0 (0)	0 (0)
Research opportunities	0 (0)	1 (0.91)
Interest in men's health	0 (0)	8 (7.27)
Interest in minimally invasive/surgical technology	4 (9.76)	17 (15.45)
Interest in cancer	0 (0)	7 (6.36)
Interest in public health aspects	1 (2.44)	1 (0.91)
Academic/future research	0 (0)	6 (5.45)
Other	0 (0)	3 (2.73)
What other specialty did you consider besides urology?		<i>P</i> = .0584
Internal medicine	4 (9.76)	18 (16.36)
Pediatrics	2 (4.88)	2 (1.82)
Obstetrics and gynecology	10 (24.39)	5 (4.55)
Psychiatry	0 (0)	1 (0.91)
General Surgery or other surgical subspecialty	18 (43.90)	53 (48.18)
Family medicine	0 (0)	0 (0)
Emergency medicine	1 (2.44)	6 (5.45)
Anesthesiology	1 (2.44)	8 (7.27)
Radiology	0 (0)	3 (2.73)
Pathology	0 (0)	0 (0)
Other	2 (4.88)	7 (6.36)
No other specialty was considered	3 (7.32)	7 (6.36)
The most significant drawback to a career in urology is		<i>P</i> = .6237
Long hours	10 (24.39)	17 (15.45)
Salary and reimbursement	0 (0)	1 (0.91)
Litigation	1 (2.44)	1 (0.91)
Lack of research opportunity	0 (0)	1 (0.91)
Limited sites of practice	0 (0)	2 (1.82)
Years of training	1 (2.44)	5 (4.55)
Application process is very competitive	28 (68.29)	73 (66.36)
Other	1 (2.44)	10 (9.09)
Do you plan to complete a fellowship after residency?		<i>P</i> = .5431
Definitely yes	8 (19.51)	24 (21.82)
Probably yes	21 (51.22)	44 (40.00)
Might or might not	12 (29.27)	38 (34.55)
Probably not	0 (0)	4 (3.64)
Definitely not	0 (0)	0 (0)
Which fellowship?		<i>P</i> = .0003
Andrology and sexual medicine	8 (20.00)	13 (12.04)
Pediatric Urology	6 (15.00)	6 (5.56)
Urologic Oncology	12 (30.00)	56 (51.85)
Endourology	4 (10.00)	19 (17.59)
Female pelvic medicine and reconstructive surgery	6 (15.00)	0 (0)
Reconstructive urology	4 (10.00)	12 (11.11)
I am not considering a fellowship	0 (0)	2 (1.85)
What is the most important reason for considering a fellowship?		<i>P</i> = .6867
Desire to pursue an academic career	15 (36.59)	51 (46.79)
Increased marketability for employment/options	13 (31.71)	28 (25.69)
May not receive enough specialty training during residency	7 (17.07)	17 (15.60)
Fellowship papers and research endeavors		
Other	0 (0)	2 (1.83)
	6 (14.63)	11 (10.09)
Do you plan to obtain an additional degree during or after residency?		<i>P</i> = .4313
Yes	3 (7.32)	15 (13.64)
No	29 (70.73)	66 (60.00)

Continued

Table 1. Continued

Question	Responses (N = 153)	
	Female n (%)	Male n (%)
Undecided	9 (21.95)	29 (26.36)
If yes, what degree?	<i>P</i> = .8097	
MPH	2 (6.06)	6 (6.25)
PhD	1 (3.03)	2 (2.08)
MBA	5 (15.15)	21 (21.88)
MHA	1 (3.03)	2 (2.08)
JD	0 (0)	0 (0)
Other	0 (0)	4 (4.17)
I am not considering additional degrees	24 (72.73)	61 (63.54)

Interestingly, a predominant motivator among the general surgery graduates cited is the need for fellowship training to obtain the adequate skill-set. It is unclear if this is a consequence of fewer cases being performed during the 80-hour work week, need to perform more technically complex procedures compared to the past, diminution of independent operating time during residency, general lack of overall confidence sometimes attributed to the millennial generation, or a combination of all factors.¹¹ Nevertheless, the rising interest in subspecialty fellowship is undeniable and may further compound the workforce shortage as most trainees are 36 years of age or older at the completion of training and urologists tend to plan for full retirement between the ages of 60-65 years.⁴

The discrepancy between the majority of respondents planning to pursue fellowship and current practicing urologists is likely multifactorial. Applicants may be providing answers they perceive as desirable. There may also be transformation due to clinical and personal life experiences as they progress through training and the perceptions of an individual as a urology applicant may change significantly compared to when they are a graduating chief resident. Lebastchi et al found that 74.9% of urology residency applicants had student loans, but 66.8% stated that the length of the residency did not matter and 87% perceived the urology job market to be good or very good.¹⁰ Nonetheless, it cannot be ignored that many urology residents are responsible for a significant burden of

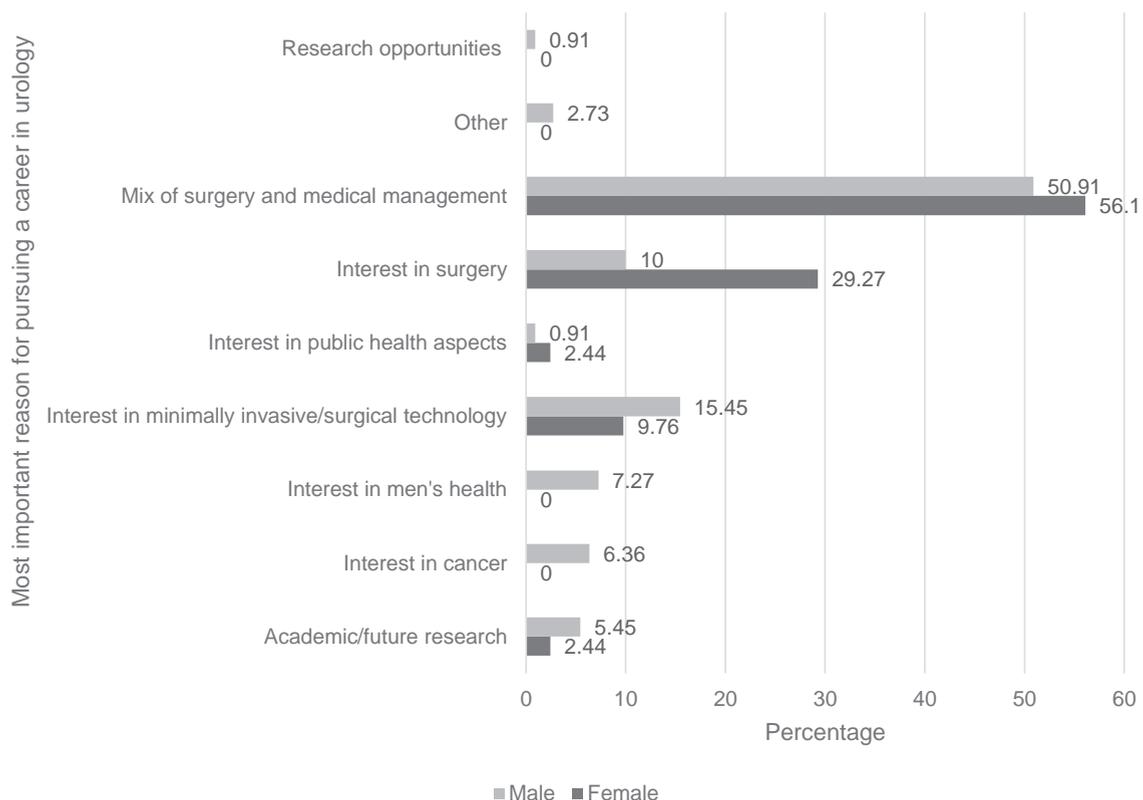


Figure 1. Biggest motivating factor to pursue a career in urology.

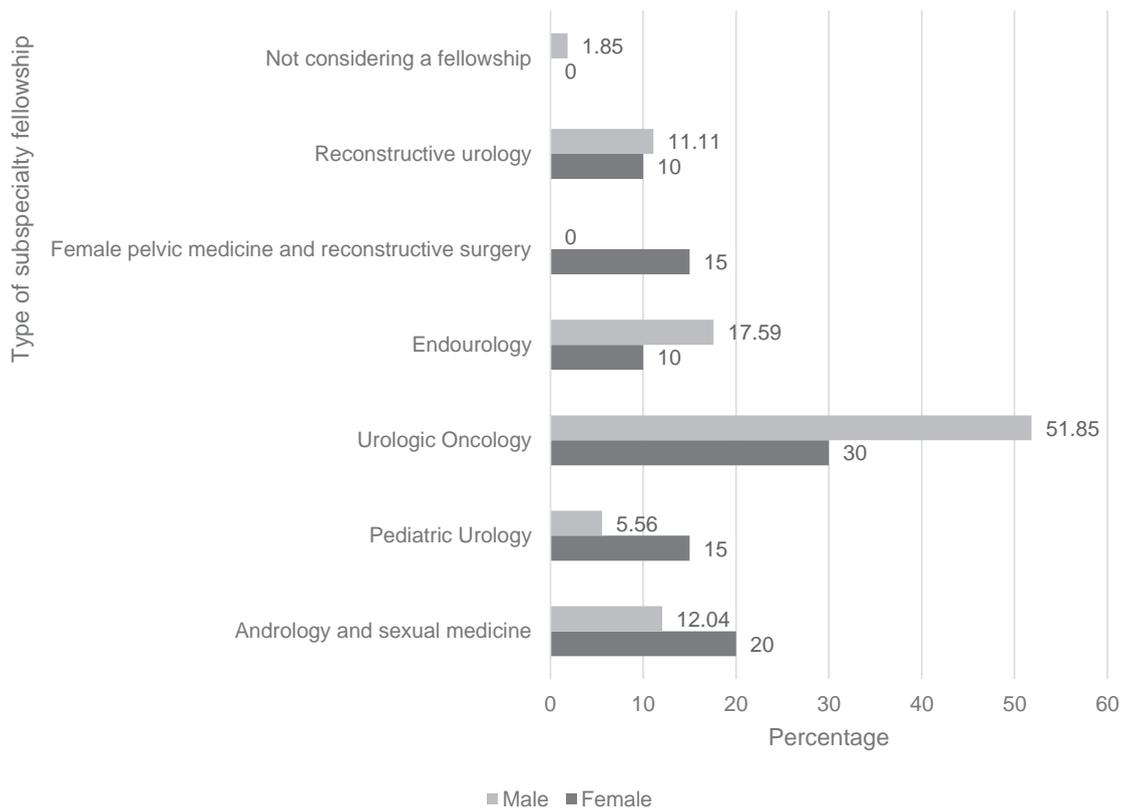


Figure 2. Most desired urology subspecialty fellowship.

Table 2. Anticipated and desired practice patterns as a urologist after training

Question	Responses (N = 153)	
	Female n (%)	Male n (%)
What is the practice pattern you anticipate to have after residency or training?	<i>P</i> = .8878	
Academic generalist	1 (2.44)	3 (2.73)
Academic sub specialist	19 (46.34)	48 (43.64)
Hospital employed practice	1 (2.44)	9 (8.18)
Independent Private practice (group)	4 (9.76)	13 (11.82)
Private practice with an academic affiliation	15 (36.59)	34 (30.91)
Other	1 (2.44)	3 (2.73)
Upon completion of training do you plan to work in an urban or rural location?	<i>P</i> = .1185	
Urban	32 (78.05)	72 (65.45)
Rural	0 (0)	9 (8.18)
Undecided	9 (21.95)	38 (26.36)
Would you plan to volunteer your services to international healthcare organizations?	<i>P</i> = .4679	
Yes	30 (73.17)	77 (70.00)
No	2 (4.88)	13 (11.82)
Undecided	9 (21.95)	20 (18.18)
When training is completed, how much do you plan to work?	<i>P</i> = 0.4370	
Full-time	40 (97.56)	108 (98.18)
Part-time	1 (2.44)	2 (1.82)
What do you anticipate your average weekly hours worked will be when training is completed?	<i>P</i> = .2561	
40 or less	2 (4.88)	1 (0.91)
41-50	6 (14.63)	12 (10.91)
51-60	22 (53.66)	52 (47.27)
61-70	8 (19.51)	37 (33.64)
More than 70	3 (7.32)	8 (7.27)

Continued

Table 2. Continued

Question	Responses (N = 153)	
	Female n (%)	Male n (%)
For the quality of life you anticipate on having after residency training is completed, what is the maximum number of hours per week at work you would consider reasonable?		
40 or less	0 (0)	1 (0.91)
41-50	12 (29.27)	19 (17.27)
51-60	15 (36.59)	40 (36.36)
61-70	10 (24.39)	43 (39.09)
More than 70	4 (9.76)	7 (6.36)
What is your preference for your weekly work schedule?		
Mostly clinic based with minor clinic procedures	0 (0)	0 (0)
Clinic with 1 to 2 operative days per week	24 (58.54)	52 (47.27)
Some clinic with 3 or more operative days per week	17 (41.46)	58 (52.73)
When your training is done what do you think is an acceptable call schedule?		
Several nights per week	1 (2.44)	4 (3.64)
Around 1 night per week	18 (43.90)	46 (41.82)
Around 2-3 nights per month	20 (48.78)	53 (48.18)
Around 1 night per month	2 (4.88)	6 (5.45)
No call	0 (0)	1 (0.91)
When you finish medical school, your educational debt will be?		
Less than \$50,000	15 (36.59)	32 (29.36)
\$50,001-100,000	3 (7.32)	2 (1.83)
\$100,001-150,000	1 (2.44)	15 (13.76)
\$150,001-200,000	8 (19.51)	16 (14.68)
\$200,001-300,000	10 (24.39)	31 (28.44)
More than \$300,001	4 (9.76)	13 (11.93)
What do you think is an acceptable starting salary is for a private practice urologist?		
\$100,001-150,000	0 (0)	0 (0)
\$150,001-200,000	2 (4.88)	2 (1.82)
\$200,001-250,000	3 (7.32)	4 (3.64)
\$250,001-300,000	9 (21.95)	24 (21.82)
\$300,001-\$350,000	13 (31.71)	32 (29.09)
\$350,001-\$400,000	10 (24.39)	28 (25.45)
More than \$400,001	4 (9.76)	20 (18.18)
What do you think is an acceptable starting salary for a urologist in academic practice?		
\$100,001-150,000	1 (2.44)	1 (0.91)
\$150,001-200,000	4 (9.76)	3 (2.73)
\$200,001-250,000	9 (21.95)	20 (18.18)
\$250,001-300,000	8 (19.51)	28 (25.45)
\$300,001-\$350,000	12 (29.27)	40 (36.36)
\$350,001-\$400,000	5 (12.20)	9 (8.18)
More than \$400,001	2 (4.88)	9 (8.18)

educational debt which may take greater priority as they progress in their career. In our survey, 54% reported an anticipated educational debt of \$200,000-\$300,000 at the time of medical school graduation and there was no difference based on gender.

We also found that the practice preferences of those pursuing urology lean more toward an urban setting. This correlates with data published by Odisho et al who analyzed the urologic workforce and noted that urologists in the United States were less likely to be found in nonmetropolitan and rural counties and that urologists younger than 45 years of age were also less likely to be located in nonmetropolitan and rural counties.¹² Geographic location of a program has been shown to be an influential factor among residency applicants and how they form their

rank lists.¹⁰ Therefore it is understandable that geographic preference among practicing physicians is common. States such as New Hampshire, New York, and Massachusetts have the highest urologist-to-population ratio (5.30, 4.94, and 4.88, respectively) vs North Dakota, Utah, and Nevada having the least (2.77, 2.67, and 2.40, respectively). This disparity is further magnified as 62.2% of US counties have 0 urologists, highlighting the contraction of the workforce to metropolitan locations.⁴ Ultimately it is the collective responsibility of the government, professional organizations, and the urology residency programs to train urologists for all settings.

It has been shown that contemporary urology applicants have a good understanding of the urology job market.¹² With the educational debt burden that urology

applicants face, our survey queried what applicants perceive as acceptable salary ranges for a practicing urologist. Most respondents felt that an acceptable starting salary for a private practice urologist ranged from \$250,000 to \$400,000 (Table 2). With regards to academic practice, most respondents felt the acceptable starting salary ranged from \$200,001 to \$350,000 (Table 2). There was no difference with regards to gender. The reported median take home pay for urologists related to clinical activities in 2017 was \$350,000 with 36% of practicing urologists taking home more than \$400,000.⁴ Therefore, contemporary urology applicants not only have accurate expectations for starting compensation but our data suggest they also feel that it is appropriate.

Regarding work hours, most respondents expected to work 51-60 hours per week which is in line with the average of 51.6 hours reported by practicing urologists in 2017.⁴ With regards to their anticipated quality of life, 36.4% of respondents felt a maximum of 51-60 hours was acceptable and 35.1% felt a maximum of 61-70 hours was acceptable, with no difference based on gender. Regarding an acceptable call schedule, most considered 2-4 nights per month reasonable. Current practicing urologists however report a higher night call volume with 38.8% of self-employed urologists taking 5-8 nights per month. This is higher than urologists employed by others, with 25.6% taking 5-8 nights per month and 26.8% taking 1-4 nights per months.⁴ This very preliminary data would suggest that current urology applicants would be able to achieve their anticipated quality of life based on the average work hours of today's practicing urologists in specific practice settings. A point of future interest would be if these contrasting desires translate into changes to on call coverage once the current generation of practicing millennial urologists progress into positions of leadership. Almost all urology applicants (98%) in our survey intended to work full-time, but interestingly, 62% of practicing urologists feel urology lends itself to part-time practice.⁴ In a survey of 200 physicians under 35 by the American Medical Association, 92% said it was important to strike a balance between work and personal and family life, although only 65% felt that they had achieved it.¹³ It is believed that the millennial generation of physicians has more expectations about work hours, flexibility, benefits, and the importance of work-life balance, labeled as the "wanting all" generation.¹⁴

Another recent trend is the exponential rise in the number of women pursuing urology. A study by Spencer et al in 2016 analyzed the expanding female urologic workforce and noted that practicing female urologists were more likely to be younger, fellowship trained, and work in academia compared to males.⁶ Interestingly, in our survey more males indicated academics and research as the most important reason for pursuing a career in urology compared to females. There was no difference between males and females with regard to having the desire to pursue a fellowship; however, more females were interested in female pelvic medicine and reconstructive surgery, pediatric urology, and andrology and sexual

medicine. Our findings contrast with recent census data released by the AUA, as current female urologists are more likely to work in academic centers compared to their male counterparts (34.4% vs 24.3%).⁴ The discrepancy may be due to our small sample size with only 27% of our respondents being females as well as the timing of survey administration in the applicant cycle.

A study done in medical students pursuing OB-GYN showed that their anticipated practice patterns and settings also did not match the population needs of women in the United States.¹⁵ Contemporary OB-GYN applicants had high educational debt and disproportionately planned on pursuing fellowship, international work, careers in academic medicine, and work in urban centers. This is similar to our findings which show that there is an increasing interest in subspecialty fellowship training and a contraction of those working in rural settings, ultimately leading to a mismatch between the needs of patients and anticipated career tracks of aspiring urologists.

Our study has several strengths. We included all applicants to our institution, and as such gathered data from the interviewed pool as well as the noninterviewed pool, allowing us to obtain data from a larger number of applicants and not limit our study to only those deemed competitive enough to interview. The web-based survey that was used to collect data also prevented duplication of responders. Our response rate was over 50%, which was not as high as a recent survey of contemporary urology applicants with a response rate of 73.9% but still a very good response rate.¹⁴

There are several limitations to our study. The biggest limitation is that only applicants to a single institution Urology Residency Program received an invitation to the online survey. The attitudes of this applicant group to a single residency program may not depict US urology applicants in general. Applicants often consider geographic region when applying to residency, and therefore our data may have a disproportionate overrepresentation of those pursuing training in the Southeastern United States. However, given the competitive nature of obtaining a urology residency position it is not surprising that our institution received 295 applications, which likely represents a large sum of the total applicants in the United States. In the 2017 Urology Residency Match, 422 applicants submitted a list and of those only 385 applicants were ranked by urology residency programs. Therefore, we feel that our results, although gathered from a single institution, may not have as limited generalizability. Our institution is an academic, tertiary referral center and the majority of current urology faculty has subspecialty fellowship training. This may have biased our results as applicants pursuing training at an academic center may be more inclined to pursue subspecialty and academic practice. Over the past 5 years, the rate of fellowship pursuit in our institution's Urology Department was 61.5% which correlates with the national average. Although we placed emphasis on the anonymous nature of the survey, participants may have had a bias to provide answers that they

assumed would be perceived as favorable. Furthermore, the survey was also administered during the application period and although it was an anonymous survey their responses may reflect a desire to please a prospective residency program. In addition, classical designations of academic and private practice urology are in a state of evolution and they are not exclusive of each other. This fluidity and overlap may not have been understood by applicants with little exposure to the practice of urology and have influenced their responses.

Future urologists have projected career tracks focusing on academics, subspecialty fellowship, practicing in urban settings, and decreased night call that may not align with the urological needs of our aging population. An interdisciplinary approach with general practitioners along with optimizing advanced care practitioners may help lessen the strain on the workforce shortage. Telemedicine is also another potential tool to improve efficiency and accessibility however it is currently only utilized by a minority of urologists (8.5%) and there are technical, regulatory, and culture barriers hindering its widespread embracement.¹⁶ Further compounding the shortfall in the workforce are challenges urology graduate medical education faces including lack of funding, work hour restrictions, and adopting new techniques to properly teach the millennial generation.

CONCLUSION

Current urology applicants belong to the millennial generation and they desire to work in academics, pursue subspecialty fellowship training, and work in an urban setting. What contemporary urology applicants consider acceptable regarding work hours, call schedule, and financial compensation appear to be generally compatible with the current practice of urology. It is important to be aware of the desires and expectations of future urologists and take those into consideration when making comprehensive and creative efforts to address the anticipated urologic workforce shortage.

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EDITORIAL COMMENT



The authors present a thought-provoking snapshot in time examining the attitudes and expectations of current generation urology applicants to a single residency training program. Several aspects of the study stand out to me. First, the high percentage of candidates who express a desire to pursue a career in academic medicine, with nearly half of the surveyed candidates interested in pursuing an academic career with nearly another 35% interested in having an academic affiliation associated with a private practice position. Recent AUA survey data cited in the study indicates that 34.4% of females and 24.3% of male practicing urologist work in academics. Therefore, it appears that interest in academics may wane during residency and it would be very interesting to resurvey this group at the completion of residency to determine if this pattern persists. My own observations have been that external forces such as debt burden as well as spousal and family pressures are often a factor that pulls trainees away from an academic career and pursuing fellowship training. With future workforce shortages in urology predicted, it will put additional pressure on academic medical centers to make employment attractive to graduating trainees.

The second aspect that intrigues me is the candidate's perspective of reasonable oncall commitments. Surveyed candidates most commonly reported that two to four nights per month was reasonable, yet this is lower than the call night volume for self-employed urologists which is about five to eight nights per month. While historically being oncall at high frequency may have been considered “part of the job”, this perception is changing as reflected by

the candidate's response. As the current millennial generation begins to permeate important leadership and decision-making positions in the future, I expect a paradigm shift may occur in how urologists practice. How exactly this will be shaped I am not certain, but I would not be surprised if it included greater shift work, night float, and increased paid oncall services.

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