Journal of Orthopaedic Experience & Innovation
Clinical, Economic, and Innovative Orthopaedic Experience

Antes, Andrew W, Victoria K Ierulli, Lisa K Cannada, and Mary K Mulcahey. 2023. "Factors Influencing the Decision to Pursue Multiple Fellowships Following Graduation from Orthopaedic Surgery Residency." *Journal of Orthopaedic Experience & Innovation* 4 (1). https://doi.org/10.60118/001c.68316.

Research Article

Factors Influencing the Decision to Pursue Multiple Fellowships Following Graduation from Orthopaedic Surgery Residency

Andrew W Antes, MD[1][a], Victoria K Ierulli[2][b], Lisa K Cannada, MD[3][c], Mary K Mulcahey, MD[2][d]

[1] Family Medicine, Dignity Health, [2] Orthopaedic Surgery, Tulane University, [3] Orthopaedic Surgery, Novant Health Charlotte Orthopedic Hospital

Keywords: residency, orthopaedic, surgery, education, multiple, training, specialty, surgeon, resident, residents, surgeons

https://doi.org/10.60118/001c.68316

---

a Andrew Antes is, at the time of publication, a family medicine resident who spent many years researching various specialties of medicine prior to graduating from Tulane Medical School with his masters in anatomy and doctorate in medicine. Since graduating he continues to seek out multiple areas of research including tropical medicine, academic advancement, and orthopaedic surgery.

Visit Dr. Antes's Website

Connect with Dr. Antes on LinkedIn

Visit the Open Payments Data Page for Dr. Antes

Conflicts of Interest Statement for Dr. Antes

b Victoria Ierulli is Dr. Mulcahey's research assistant. She has prior experience with conducting research, data analysis, and manuscript development and revisions. Victoria will be starting medical school in 2023.

Conflicts of Interest Statement for Victoria Ierulli

c Dr. Lisa Cannada is an Orthopaedic Trauma Surgeon from Jacksonville, FL working for Novant Health Fracture Clinic and the Hughston Clinic. She is the clerkship Director for Orthopaedic Surgery and being appointed Director of Faculty Development. Lisa completed a 3-year term on the American Academy of Orthopaedic Surgeons BOD in 2018 as the first female Chair of the Board of Specialty Societies. She is a member of the Orthopaedic Trauma Association and she served on the OTA Board of Directors from 2011-2014 and was active in numerous committees, including chair of the Fellowship Match committee and developing the match process for fellows in all disciplines of orthopaedic surgery as we currently know it. She developed the Young Practitioners Forum- this program provides leadership to residents, fellows, and young practitioners regarding transition into a fellowship and practice setting. In addition, she initiated the Women in Trauma breakfast. She currently serves on the Education Committee and Practice Management Committee and Diversity Committee. She served as editor for the popular core curriculum Lecture Series for Residents just released.

Dr. Cannada has been active in the AAOS for several years, beginning initially as a Leadership Fellow. She has served on numerous committees for the academy including the Resident Candidate and Fellow subcommittee, and chairman of the Membership committee and the BOS Match Oversight Committee. She was the editor of OKU 11. She is currently on the Trauma Program committee and the Leadership Institute. She also served as a president of the Ruth Jackson Orthopaedic Society in 2011, served on its BOD and was active in numerous committees. She edited and produced both editions (2009 and 2014) of the RJOS "Guide for Women in Orthopaedic Surgery" and released the "Guide for Medical Students in Orthopaedic Surgery" in July 2020. She is currently back on the BOD and Development Committee Chair. Lisa is Chair of the Mid America Orthopaedic Association Education Committee and serves on its BOD. She also is Co-Chair of the Research Committee

Visit Dr. Cannada's Website

Visit the Open Payments Data Page for Dr. Cannada

Conflicts of Interest Statement for Dr. Cannada

d Dr. Mulcahey is a Board Certified orthopaedic surgeon specializing in shoulder and knee surgery and sports medicine. She is a New Hampshire native, who received her Bachelor of Arts in Biochemistry from Dartmouth College and her Doctor of Medicine from the University of Rochester School of Medicine. She completed her orthopaedic residency at Brown University, followed by a fellowship in Orthopaedic Trauma at the same institution. Dr. Mulcahey then went on to do a fellowship in sports medicine at San Diego Arthroscopy and Sports Medicine.

Dr. Mary Mulcahey joined the faculty in the Department of Orthopaedic Surgery at Tulane in April 2017, as the Director of Tulane's Women's Sports Medicine Program. In that role, Dr. Mulcahey has been instrumental in the design, development, and leadership of a comprehensive approach to the care of active women. Dr. Mulcahey is currently President of the Ruth Jackson Orthopaedic Society. Additionally, she is serving on the AANA Board of Directors, the AOSSM education committee, the AJSM Electronic Media Editorial Board, and she was selected for the AOSSM Traveling Fellowship to Europe in April 2022. Dr. Mulcahey is the team physician for Tulane's Women's Indoor and Beach Volleyball teams, the Big Easy Rollergirls, New Orleans Women's Rugby (the Halfmoons), as well as several local all girls' high schools.

Visit Dr. Mulcahey's Website

Visit the Open Payments Data Page for Dr. Mulcahey

Conflicts of Interest Statement for Dr. Mulcahey

Journal of Orthopaedic Experience & Innovation
Vol. 4, Issue 1, 2023

Among practicing orthopaedic surgeons, the population that self-identify as generalists has been declining for the past three decades, while sub-specialization has become more prevalent. As more residents are pursuing fellowship training, some elect to complete multiple fellowships, but due to a lack of research, there is a lack of insight into the reasons behind these decisions. The purpose of this study was to determine factors influencing the decision of orthopaedic surgery residents to pursue more than one fellowship following graduation from residency. An anonymous survey was distributed via email to all PGY-4 and PGY-5 orthopaedic surgery residents who had matched into one or more fellowships in the spring of 2021 and 2022. Responses were analyzed to determine the prevalence of different specialties, reasons for pursuing fellowship, and among those pursuing more than one fellowship, the reasons they chose to do so. 259 responses were collected from residents entering a fellowship, with 74 (28.6%) entering fellowships in the Midwest, 54 (20.8%) in the Southwest, 51 (19.7%) in the Northeast, 42 (16.2%) in the Southwest, and 32 (12.4%) in the West. 19 (7.3%) respondents reported matching into two or more fellowships. Among the fellowships pursued, sports medicine was most popular with 10 (52.6%) respondents; followed by shoulder/elbow (5; 26.3%). Out of all 259 respondents, 252 (97.3%) indicated their fellowship choices were based on interest, and 192 (74.1%) were also affected by marketability. Mentorship played a role for 173 (66.8%) and training in an area of deficiency was important for 149 (57.5%). Among those pursuing multiple fellowships, many combinations seem to have been made to decrease the time to breaking even on the financial investment involved in pursuing fellowships after residency. Most orthopaedic surgery residents elect to pursue fellowship training due to personal interest in the field, as well as to increase their marketability, and shorten the time to breaking even in comparison to the loss of compensation required for pursuing fellowship. Our results indicate that residents pursuing multiple fellowships are those interested in less marketable specialties, who then pursue a second fellowship with higher returns on investment, such as completing fellowships in pediatrics and sports medicine.

INTRODUCTION

In the past three decades, the field of orthopaedic surgery has seen a well-documented increase in sub-specialization among practicing surgeons (Horst et al. 2015). A survey from the American Academy of Orthopaedic Surgeons (AAOS) found that in 1990, practicing orthopaedic surgeons who self-identified as generalists accounted for 44.2% of orthopaedic surgeons. However, the 2018 AAOS survey found that this group declined by almost two-thirds to 15% (Gaskill et al. 2009; Cherf 2019). Concurrently, the percentage of fellowship-trained American Board of Orthopaedic Surgery (ABOS) Part II applicants increased from 76% in 2003 to 90% in 2013. A 2020 study on the return on investment of single fellowships found that spine surgery, adult reconstruction, and sports medicine offer a positive return on investment, while other fellowships such as hand surgery, pediatrics, and foot and ankle surgery had a negative return (Mead et al. 2020). Increasing medical school tuition and cost of living have left more residents in larger amounts of debt over the past several decades, and it seems likely that this trend would leave the average resident more likely to base decisions on their likelihood to see a return on their investment of time and finances. In addition, it has been suggested that the fellowship application process itself, requiring significant amounts of time and finances, places additional burdens on applicants resulting in an increased time until residents can expect to see a positive financial return (Wilson et al. 2021). As the number of orthopaedic surgeons seeking a fellowship after residency has increased, there is also a growing sub-group made up of an estimated 4.5% of practicing orthopaedic surgeons who plan to pursue a second fellowship for reasons such as interest, marketability, surgical skill development, employment, and mentorship (Depasse et al. 2018). There are several fellowships which are commonly done in combination, including pediatrics and sports medicine, sports medicine and shoulder/elbow, and hand and shoulder/elbow (Shlykov and Hosseinzadeh 2021). Naturally, residents interested in areas less likely to have a desirable return on investment (ROI) ratio, or even a low chance to ever break even, may seek out specialization in areas with shorter times or greater ratios of ROI. While this may explain more financially-driven decisions, it does not address decisions made by interest, drive to fill a perceived gap in care, or desire to train others. In short, while viewing the changing landscape of orthopaedics through a business lens may explain some decisions made by residents, it is not the full picture, and despite the increasing prevalence of orthopaedic surgeons pursuing multiple fellowships, the costs, benefits, and motivations of pursuing a second fellowship are still unclear (Gaskill et al. 2009). The purpose

of this study was to determine factors influencing the decision of orthopaedic surgery residents to pursue more than one fellowship following graduation from residency.

METHODS

This study was approved by the institutional review board (IRB) at the senior author's institution. Using Qualtrics, an anonymous 17-question multiple-choice survey was designed to collect demographic information such as gender identity, race, age range, and geographic location, fellowship information such as type of fellowship, motivating factors behind pursuing a fellowship, and any secondary programs applied to, as well as application information such as match rank, number of interviews attended, and time spent preparing for each fellowship application. This anonymous electronic survey was distributed to orthopaedic surgery residency program directors via email with a request to share the survey with all post-graduation year (PGY) 4 and 5 orthopaedic surgery residents at their institution. It is during the PGY-4 that a resident applies for fellowship and, in general, there is a single match date for all subspecialties other than hand. PGY-5 residents were included to capture the residents who applied to two fellowships. The survey was distributed in late April 2021 and left open for a 6-week period, with a reminder sent at two and four weeks, then again in April 2022, once again for a 6-week period with a reminder sent at two and four weeks. This survey collected responses from residents who had matched into one or more fellowships in either 2021 or 2022, asking for their interests and reasons for pursuing the areas they did, as well as the reasons residents pursuing multiple fellowships chose to do so. The results were analyzed using Excel and Microsoft Statistical Package for the Social Sciences (SPSS).

RESULTS

DEMOGRAPHICS

Among the 259 responding orthopaedic surgery residents, 202 (78.0%) self-identified as male, 52 (20.1%) self-identified as female, and the remaining 5 (1.9%) declined to specify. Multiple other sex identifiers including non-binary, transgender male, transgender female, and other were offered as options but no residents selected these options. Ten (3.9%) residents identified as LGBTQ+, while 241 (93.1%) did not, and the remaining 8 (3.1%) declined to specify. When asked about their racial identity and heritage, 1 (.3%) identified as an Asian without any Latino, Hispanic, or Spanish heritage, 5 (1.9%) identified as white without any Latino, Hispanic, or Spanish heritage, and the remaining 253 preferred not to provide any answer. In terms of age, the two most represented groups were those between 31 and 35 years (176; 68.0%), and those between 25 and 30 years (60; 23.2%). Seventy-four (28.6%) residents reported entering fellowships in the Midwest, followed by 54 (20.8%) in the Southeast, 51 (19.7%) in the Northeast, 42 (16.2%) in the Southwest, and 32 (12.4%) in the West.

REASONS FOR PURSUING FELLOWSHIP TRAINING

252 (97.3%) residents indicated that they were pursuing fellowship training because of an interest in a specific subspecialty, while 192 (74.1%) elected to complete a fellowship for improved marketability. Mentorship also played a role for 173 (66.8%) residents, and 149 (57.5%) wanted to seek additional training in areas of deficiency. Among the 19 (7.3%) residents participating in two orthopaedic fellowships, 18 (94.7%) indicated that they were motivated by interest and 17 (89.5%) sought increased marketability. Eleven (52.6%) respondents wanted to pursue two fellowships to gain additional training in an area of deficiency, while 7 (36.8%) cited mentorship as a motivating factor.

INTERVIEWS AND MATCHING RANK

101 of 259 (39.0%) residents participated in 11 to 15 interviews for their first (or only) fellowship, while 81 (31.3%) attended 16 to 20 interviews. 91 (45%) male residents participated in 11-15 interviews, while 23 (44.2%) female residents interviewed at 16-20 programs. Notably, there were roughly four times as many male residents responding to this survey as there were female, yet very similar proportions of each group were represented in the most common response. For a full breakdown of resident interview counts compared to their sex, please see Table 3.

Among the 19 orthopaedic surgery residents pursuing two fellowships, 13 (68.4%) reported they attended fewer interviews for their second fellowship, while 5 (26.3%) attended the same number, and only 1 (5.3%) attended more interviews than for their first fellowship. When asked to compare the match ranks for these 19 applicants' first and second fellowships only 17 applicants responded. Of these 17, 8 (47.1%) matched to the same ranked program as their first fellowship, 5 (29.4%) matched higher for their second fellowship, and 4 (24.0%) matched lower than for their first fellowship (Table 3).

FELLOWSHIP MATCH RESULTS

Of 259 responding residents who had matched into a fellowship, 19 (7.3%) reported matching into a second fellowship to be pursued immediately following the first. Ten fellowship options were listed in our survey, with an option to add your own if it did not fall within the purview of one of the ten options. These options were trauma, hand, shoulder/elbow, joints/adult reconstruction, oncology, pediatrics, spine, hip preservation, sports medicine, and foot/ankle. Among the 19 residents who pursued multiple fellowships, the most common combination was shoulder/elbow and sports medicine fellowships (3; 15.8%). It is notable that one of the three residents pursuing this combination also reported a total adult reconstruction fellowship for a total of three fellowships to be completed sequentially. Several other popular combinations emerged, including pediatrics and sports medicine, trauma and sports medicine, trauma and joints/adult reconstruction, and hip preservation and sports medicine (2 each; 10.5%). Within these more popular combinations, it is notable that

Table 1. Residents and where they will be attending fellowships in each geographic region in the United States.

Region	Residents	States Included
Northeast	51	ME, VT, NH, MA, RI, CT, NJ, PA, NY
Southeast	54	AR, LA, MS, AL, GA, FL, TN, KY, WV, DC, VA, MD, DE, NC, SC, Puerto Rico
Midwest	74	ND, SD, NE, KS, MN, IA, MO, WI, IL, MI, IN, OH
Southwest	42	OK, TX, NM, AZ
West	32	CA, HI, AK, WA, OR, NV, UT, CO, WY, MT, ID

Table 2. Residents' responses when asked their gender identity and whether they self-identify as a member of the LGBTQIA+ community.

		Do you self-identify as an LGBTQIA individual?			
		Total	Yes	No	Prefer not to say
With which gender do you most identify? - Selected Choice	Total Count (All)	256.0	10.0	241.0	5.0
	Male	201.0	3.0	196.0	2.0
		78.5%	30.0%	81.3%	40.0%
	Female	52.0	7.0	45.0	0.0
		20.3%	70.0%	18.7%	0.0%
	Transgender Male	0.0	0.0	0.0	0.0
		0.0%	0.0%	0.0%	0.0%
	Transgender Female	0.0	0.0	0.0	0.0
		0.0%	0.0%	0.0%	0.0%
	Gender binary non-conforming	0.0	0.0	0.0	0.0
		0.0%	0.0%	0.0%	0.0%
	Prefer not to say	3.0	0.0	0.0	3.0
		1.2%	0.0%	0.0%	60.0%
	Other (please specify)	0.0	0.0	0.0	0.0
		0.0%	0.0%	0.0%	0.0%

Table 3. Residents pursuing one or two fellowships, and the reasons they report making their respective decisions

	First Fellowship		Second Fellowship	
Total	240		19	
Interest in Subspecialty	236	98%	18	95%
Additional Training	141	59%	10	53%
Marketability	181	75%	17	89%
Mentorship	167	70%	7	37%

sports medicine was present in five of six, (83.3%) while trauma was present in two of six, (33.3%) suggesting that these two fellowship areas are perceived by applicants as particularly open to further sub-specialization. Also of note, among the 19 respondents pursuing multiple fellowships, everyone had chosen a double fellowship except for a single resident who triple matched into shoulder/elbow, joints/adult reconstruction, and sports medicine fellowships.

240 (92.7%) of the 259 responding residents used the formal match process (SF Match or NRMP) for a single fellowship. Among the 19 residents who pursued multiple fellowships, 10 (52.6%) used the formal match for both fellowships. The only reported use of non-traditional methods other than the SF Match or NRMP such as the scramble or

Table 4. Residents number of interviews attended compared to which sex they identify as.

		With which sex do you most identify?			
		Total	Male	Female	Prefer not to say
How many interviews (virtual or in person) did you attend?	Total Count (All)	259.0	202.0	52.0	5.0
	<5	4.0	4.0	0.0	0.0
		1.6%	2.0%	0.0%	0.0%
	6-10	39.0	30.0	8.0	3.0
		15.2%	14.9%	15.4%	60.0%
	11-15	101.0	91.0	10.0	0.0
		39.3%	45.0%	19.2%	0.0%
	16-20	81.0	56.0	23.0	2.0
		31.5%	27.7%	44.2%	40.0%
	More than 20	32.0	21.0	11.0	0.0
		12.5%	10.4%	21.2%	0.0%

Table 5. Residents pursuing multiple fellowships responses for how they ranked their first and second programs

How high did you rank the first program you matched to?	Did you rank your second program higher compared to your first match?			
	Total	Yes	No	Same
Total Count (All)	17.0	5.0	4.0	8.0
#1 or #2	11.0	1.0	3.0	7.0
Percent #1 or #2	64.7%	20.0%	75.0%	87.5%
#3-#5	3.0	1.0	1.0	1.0
Percent #3-#5	17.6%	20.0%	25.0%	12.5%
#6-#9	2.0	2.0	0.0	0.0
Percent #6-#9	11.8%	40.0%	0.0%	0.0%
#10+	1.0	1.0	0.0	0.0
Percent #10+	5.9%	20.0%	0.0%	0.0%

military match were nine residents all pursuing multiple fellowships. Among these nine, five used SF Match or NRMP for one but not the other fellowship, and the other four did not use SF Match or NRMP for either fellowship. One of these four residents reported that they were offered one of their two fellowship positions by word of mouth.

Eighty-four (32.4%) residents claimed no connection to the fellowship where they matched, while 97 (37.5%) reported having received specific recommendations to pursue their eventual matched program from a faculty member or other mentor. Forty-three (16.6%) residents matched into programs that had previously matched other residents from their residency program, 18 (6.9%) respondents reported meeting with a faculty member prior to matching, and 16 (6.2%) reported miscellaneous connections (e.g. personally knowing a fellow already in the program, looking for programs near their spouse's work, or matching to their home program).

DISCUSSION

For decades, there has been a trend among American orthopaedic surgeons towards increased specialization. While this has been measured over time and is expected to progress, the reasons more residents are deciding to seek out fellowship training, and in some cases multiple fellowships, are still poorly understood. The purpose of this study was to determine factors influencing the decision of orthopaedic surgery residents to pursue more than one fellowship following graduation from residency. The first significant finding was that 7.3% of all responding residents stated they had matched to multiple fellowships, representing a more than 150% increase from a 2018 estimate. Residents almost unanimously agreed interest in the area of study was important to their choice of fellowship, regardless of whether they chose one or multiple. However, while 70% of residents seeking one fellowship also sought men-

torship from their program, only 37% of residents seeking multiple fellowships agreed. Our results also showed that women seem to attend more interviews, as the only residents who attended 5 or fewer interviews were men, and the largest proportion of men (45.0%) attended 11-15 interviews, with a similar proportion of responding women (44.2%) attending 16-20.

Joints/adult reconstruction, sports medicine, and trauma were, in descending order, the most common fellowships for residents pursuing only a single fellowship. Of note, spine, joints/adult reconstruction, sports medicine, and trauma all have been shown to have positive or neutral return on investment within a decade, and these four specialties were the top four choices among all 259 residents that responded to our survey (Mead et al. 2020).

Among the residents pursuing multiple fellowships, fellowship choices were still similarly impacted by interest and wanting additional training, but compared to residents seeking single fellowship, the importance of marketability increased while the importance of mentorship was markedly decreased. Additionally, a pattern emerged where many residents appeared to have chosen combinations of programs consisting of one popular area and one less popular area. For example, the most common combination of specialties among these 19 residents was sports medicine, which was the second most common fellowship overall, combined with shoulder/elbow, which was 6th out of the 10 fellowship options given. This pattern of combining popular programs with less popular programs continued, as other popular combinations included sports medicine with pediatrics (7th of 10) and hip preservation (10th of 10). As pursuing a single fellowship after residency carries a significant cost in terms of lost compensation (Gaskill et al. 2009; Wera et al. 2018) it seems reasonable that residents interested in areas perceived as less marketable are more likely to pair their choice with a more marketable fellowship to improve their career options.

When discussing the financial and time investments required to pursue fellowship training, it is important to consider the time investment by residents during the application process. In the past, most applicants have submitted over 15 applications depending on year and type of fellowship being pursued, with higher number of applications for sports medicine, joints/adult reconstruction/oncology applicants (Wera et al. 2018; Cannada et al. 2015). It is important to note that the residents in this study were applying during the 2021 and 2022 application cycles, in which all interviews were performed virtually, reducing financial strain and interruption to residency training (Peebles et al. 2021; Clark et al. 2022). Therefore, residents had less of a time or financial burden to attend interviews. Despite the lower barriers to apply and the increasing number of applicants pursuing multiple fellowships (Clark et al. 2022), application numbers between their first and subsequent specialties decreased, as 13 (68.4%) residents submitted fewer applications, 5 (26.3%) submitted the same number of applications, and 1 (5.3%) applied to more programs for their second fellowship than their first. It seems likely this decrease reflects the resident's focus on the "first" fellowship, with additional training with a second fellowship being desired but not the priority.

There are several limitations to this study. First, only 19 (7.3%) of the 259 responding residents pursued multiple fellowships after graduation from residency. Given this small sample size, it is possible that our analysis of the data obtained is not representative of all residents electing to pursue more than one fellowship. By surveying residents who had already matched into fellowships, we did not obtain any information from residents who chose to apply but did not match, potentially excluding important information on the decision-making process behind pursuing fellowship. Further research into the reasons residents initiate the application process may be able to further explore the reasons residents decide to pursue fellowship as they near the end of their training. While it was not the focus of this study, there is also a significant gap in collected information regarding resident demographics, as 253 (98.0%) preferred to not provide any information of their racial identity or heritage. This means that any patterns among certain groups went unrecognized, as identifying data in this area was largely not collected. There are also limitations inherent to a survey-based study such as collecting information only from those who choose to respond, options being limited to the options prepared by the study team, and limited context behind each answer. While we provided free-text boxes on subjective questions for residents who did not see an answer they felt fit them, it is possible residents may have preferred to simply click a bubble that best represented their answer rather than write out a more accurate response.

CONCLUSION

Most orthopaedic surgery residents elect to pursue fellowship training due to personal interest in the field, as well as to increase their marketability, and shorten the time to breaking even in comparison to the loss of compensation required for pursuing fellowship. Residents pursuing multiple fellowships are those interested in less marketable specialties, who then pursue a second fellowship with higher returns on investment, such as completing fellowships in pediatrics and sports medicine.

ABOUT THE AUTHORS

Andrew Antes is, at the time of publication, a family medicine resident who spent many years researching various specialties of medicine prior to graduating from Tulane Medical School with his masters in anatomy and doctorate in medicine. Since graduating he continues to seek out multiple areas of research including tropical medicine, academic advancement, and orthopaedic surgery.
Visit Dr. Antes Website
Connect with Dr. Antes on LinkedIn
Conflicts of Interest Statement for Dr. Antes

Victoria Ierulli is Dr. Mulcahey's research assistant. She has prior experience with conducting research, data analysis, and manuscript development and revisions. Victoria will be starting medical school in 2023.
Visit Victoria Ierulli's Website
Conflicts of Interest Statement for Victoria Ierulli

Dr. Lisa Cannada is an Orthopaedic Trauma Surgeon from Jacksonville, FL working for Novant Health Fracture Clinic and the Hughston Clinic. She is the clerkship Director for Orthopaedic Surgery and being appointed Director of Faculty Development. Lisa completed a 3-year term on the American Academy of Orthopaedic Surgeons BOD in 2018 as the first female Chair of the Board of Specialty Societies. She is a member of the Orthopaedic Trauma Association and she served on the OTA Board of Directors from 2011-2014 and was active in numerous committees, including chair of the Fellowship Match committee and developing the match process for fellows in all disciplines of orthopaedic surgery as we currently know it. She developed the Young Practitioners Forum- this program provides leadership to residents, fellows, and young practitioners regarding transition into a fellowship and practice setting. In addition, she initiated the Women in Trauma breakfast. She currently serves on the Education Committee and Practice Management Committee and Diversity Committee. She served as editor for the popular core curriculum Lecture Series for Residents just released.

Dr. Cannada has been active in the AAOS for several years, beginning initially as a Leadership Fellow. She has served on numerous committees for the academy including the Resident Candidate and Fellow subcommittee, and chairman of the Membership committee and the BOS Match Oversight Committee. She was the editor of OKU 11. She is currently on the Trauma Program committee and the Leadership Institute. She also served as a president of the Ruth Jackson Orthopaedic Society in 2011, served on its BOD and was active in numerous committees. She edited and produced both editions (2009 and 2014) of the RJOS "Guide for Women in Orthopaedic Surgery" and released the "Guide for Medical Students in Orthopaedic Surgery" in July 2020. She is currently back on the BOD and Development Committee Chair.

Lisa is Chair of the Mid America Orthopaedic Association Education Committee and serves on its BOD. She also is Co-Chair of the Research Committee
Visit Dr. Cannada's Website
Visit the Open Payments Data Page for Dr. Cannada
Conflicts of Interest Statement for Dr. Cannada

Dr. Mulcahey is a Board Certified orthopaedic surgeon specializing in shoulder and knee surgery and sports medicine. She is a New Hampshire native, who received her Bachelor of Arts in Biochemistry from Dartmouth College and her Doctor of Medicine from the University of Rochester School of Medicine. She completed her orthopaedic residency at Brown University, followed by a fellowship in Orthopaedic Trauma at the same institution. Dr. Mulcahey then went on to do a fellowship in sports medicine at San Diego Arthroscopy and Sports Medicine.

Dr. Mary Mulcahey joined the faculty in the Department of Orthopaedic Surgery at Tulane in April 2017, as the Director of Tulane's Women's Sports Medicine Program. In that role, Dr. Mulcahey has been instrumental in the design, development, and leadership of a comprehensive approach to the care of active women. Dr. Mulcahey is currently President of the Ruth Jackson Orthopaedic Society. Additionally, she is serving on the AANA Board of Directors, the AOSSM education committee, the AJSM Electronic Media Editorial Board, and she was selected for the AOSSM Traveling Fellowship to Europe in April 2022. Dr. Mulcahey is the team physician for Tulane's Women's Indoor and Beach Volleyball teams, the Big Easy Rollergirls, New Or-

leans Women's Rugby (the Halfmoons), as well as several local all girls' high schools.
Visit Dr. Mulcahey's Website
Visit the Open Payments Data Page for Dr. Mulcahey
Conflicts of Interest Statement for Dr. Mulcahey

Submitted: December 23, 2022 EDT, Accepted: January 25, 2023 EDT

REFERENCES

Cannada, Lisa K., Scott J. Luhmann, Serena S. Hu, and Robert H. Quinn. 2015. "The Fellowship Match Process: The History and a Report of the Current Experience." *Journal of Bone and Joint Surgery* 97 (1): e3. https://doi.org/10.2106/jbjs.m.01251.

Cherf, J. 2019. "A Snapshot of U.S. Orthopaedic Surgeons: Results from the 2018 OPUS Survey." *AAOS Now*, September.

Clark, Sean C., Matthew J. Kraeutler, Eric C. McCarty, and Mary K. Mulcahey. 2022. "Virtual Interviews for Sports Medicine Fellowship Positions Save Time and Money but Don't Replace In-Person Meetings." *Arthroscopy, Sports Medicine, and Rehabilitation* 4 (2): e607–15. https://doi.org/10.1016/j.asmr.2021.11.023.

Depasse, J. Mason, Alan H. Daniels, Wesley Durand, Brandon Kingrey, John Prodromo, and Mary K. Mulcahey. 2018. "Completion of Multiple Fellowships by Orthopedic Surgeons: Analysis of the American Board of Orthopaedic Surgery Certification Database." *Orthopedics* 41 (1): 33–37. https://doi.org/10.3928/01477447-20171106-05.

Gaskill, T., C. Cook, J. Nunley, and R.C. Mather. 2009. "The Financial Impact of Orthopaedic Fellowship Training." *JBJS* 91 (7): 1814–21.

Horst, P., K. Choo, N. Bharucha, and T. Vail. 2015. "Graduates of Orthopaedic Residency Training Are Increasingly Subspecialized: A Review of the American Board of Orthopaedic Surgery Part II Database." *JBJS* 97 (10): 869–75.

Mead, M., T. Atkinson, A. Srivastava, and N. Walter. 2020. "The Return on Investment of Orthopaedic Fellowship Training: A Ten-Year Update." *J Am Acad Orthop Surg* 28 (12): 524–31.

Peebles, Liam A., Matthew J. Kraeutler, Brian R. Waterman, Seth L. Sherman, and Mary K. Mulcahey. 2021. "The Impact of COVID-19 on the Orthopaedic Sports Medicine Fellowship Application Process." *Arthroscopy, Sports Medicine, and Rehabilitation* 3 (4): e1237–41. https://doi.org/10.1016/j.asmr.2021.04.002.

Shlykov, Maksim A., and Pooya Hosseinzadeh. 2021. "Pediatric Orthopedics: Is One Fellowship Enough?" *Orthopedic Clinics of North America* 52 (2): 133–36. https://doi.org/10.1016/j.ocl.2020.12.007.

Wera, Glenn D., Sarah Eisinger, Hazel Oreluk, and Lisa K. Cannada. 2018. "Trends in the Orthopaedic Surgery Fellowship Match 2013 to 2017." *JAAOS: Global Research and Reviews* 2 (12): e080. https://doi.org/10.5435/jaaosglobal-d-18-00080.

Wilson, J., A. Schwartz, K. Farley, and G. Erens. 2021. "The Cost of Getting in: Is It Time for Change in the Adult Reconstruction Fellowship Application Process?" *Arthroplasty Today* 8:278–82.