Characteristics of Surgeons Leaving Academic Orthopaedics: 2016 to 2022

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INTRODUCTION:

Traditionally, autonomy, ancillary compensation, and flexibility of practice hours attracted physicians to private practice. However, rising costs, expanding complexities of managing a business, and corporate buyouts may deter physicians from leaving academic medicine. As the medical landscape continues to change, the future of how and where physicians will be employed remains uncertain. To better understand the recent trends, this study investigates the retainment of academic orthopaedic surgeons from 2016 to 2022.

METHODS:

Data on all orthopaedic surgery faculty associated with programs accredited by the Accreditation Council for Graduate Medical Education (ACGME) in the United States were collected. Subspecialties were divided into 11 categories: Adult Reconstruction, Hand & Upper Extremity, Foot & Ankle, Pediatrics, Upper Extremity Reconstruction, Sports Medicine, Spine, Trauma, Musculoskeletal Oncology, None (generalist), and Other. H-index was gathered from Scopus and additional data on average years practiced (AYP), number of publications, and number of citations were also collected. Comparisons were made between current data collected in 2022 to data collected in the same manner in 2016. Faculty that were both in the 2016 and 2022 data were identified to have “stayed” in academic medicine whereas those only found in the 2016 data were classified as having “left”.

RESULTS:

There were 2879 faculty members in 2016 and 2726 in 2022. Of the 2879 in 2016, 1847 (64%) stayed from 2016 to 2022, and 1042 (36%) were not in the 2022 database – left academia. Among those who stayed: 1626 were male (88%), 221 were female (12%), mean h-index 11.46 ± 0.29, AYP 16.22 ± 0.26, mean publications 43.45 ± 1.57, and mean citations was 1029 ± 51.78.

Among those who left academia: 866 were male (83%), 176 female (17%), mean h-index 11.38 ± 0.35, AYP 20.95 ± 0.65, mean publications 43.52 ± 1.35, and mean citations was 1069.2 ± 33.12. Compared with this group, those who stayed in academia had lower AYP ($p = 0.0018$) and proportionally more often female ($p = 0.0027$).

Rates of retainment in academia within each subspecialty were: 62% Adult Reconstruction, 63% 63% Hand & Upper Extremity, 63% Foot & Ankle, 63% Pediatrics, 65% Upper Extremity Reconstruction, 65% Sports Medicine, 66% Spine, 67% Trauma, 74% Musculoskeletal Oncology, 49% None, and 61% Other. The total retainment rate within academic medicine was 64%.

A lower proportion of orthopaedic surgeons without fellowship training stayed in academia ($p < .001$), and a higher proportion of Musculoskeletal Oncologists stayed in academia ($p = .0151$).

DISCUSSION AND CONCLUSION: Between 2016 and 2022, 64% of academic orthopaedic surgeons remained in academia. Across metrics of research productivity (H-index, number of publications, number of citations), there were no significant differences between surgeons who stayed or left academia. Those who left academics were more likely to be female, more senior in terms of years of practice, and have no subspecialty fellowship training. Those who stayed were more likely to be male, have fewer years in practice, and have trained in musculoskeletal oncology.

Table 1: Orthopaedic surgeons who were retained in academia vs. those who left academia

	Retained (Mean ± SEM)	Left Academia (Mean ± SEM)
Total	64%	36%
Percent Female **	11.97%	16.89%
Years In Practice **	16.77 ± 0.76	20.95 ± 0.65
H-index	11.46 ± 0.29	11.38 ± 0.35
Number of Publications	43.45 ± 1.57	43.52 ± 1.35
Number of Citations	1029 ± 51.78	1069.2 ± 33.12

** p < 0.01

Table 2: Proportions of orthopaedic surgeons who were retained in academia by fellowship training

Fellowship	Percent retained
None *	49%
Other	61%
Adult reconstructive	62%
Hand and Upper Extremity	63%
Foot and Ankle	63%
Pediatric	63%
UE Reconstruction	65%
SM	65%
Spine	66%
Trauma	67%
Musculoskeletal Oncology ***	74%

* p < 0.05
*** p < 0.001