

Insights into the Gender Gap Among NIH-Funded Surgeon-Scientists

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Background

Otolaryngology surgeon-scientists are essential for advancing otolaryngology, yet only 0.2% identifying research as their primary focus. Women remain underrepresented and face unique challenges, including disparities in academic rank, funding, and publications. Understanding these disparities is vital to fostering a diverse and robust workforce.

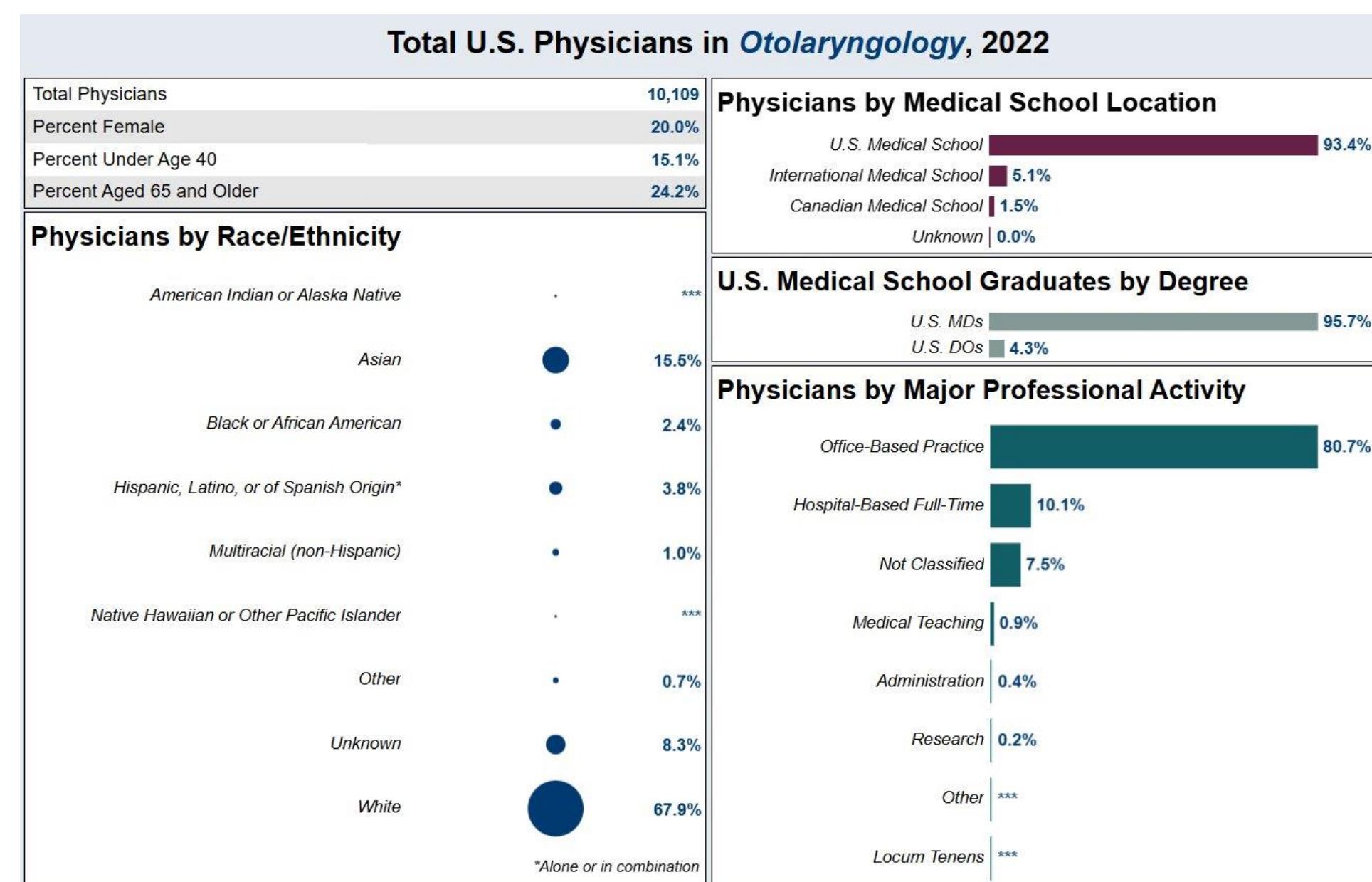


Figure 1 AAMC 2022 Report: Otolaryngology workforce

Methods

We identified NIH-funded OHNS faculty as of September 2024 using the NIH RePORTER database. We examined time to initial R01-equivalent funding and grant diversity by degree types (MD, PhD, or dual-degree). A survey was administered to the MD faculty to evaluate their training experiences, research productivity, and funding mechanisms.

	Female	Male	p
Sex (Female) n(%)	15 (31.9%)	32 (68.1%)	
Degree Type n(%)			p = 1.000
MD	9 (60.0%)	18 (56.2%)	
MD/PhD	4 (26.7%)	10 (31.2%)	
MD/MPH	2 (13.3%)	3 (9.4%)	
MD/MS	0 (0.0%)	1 (3.1%)	
Academic Rank n(%)			p = 0.901
Professor	9 (60.0%)	21 (65.6%)	
Associate Professor	4 (26.7%)	8 (25.0%)	
Assistant Professor	2 (13.3%)	3 (9.4%)	
Subspecialty n(%)			p = 0.549
General	1 (6.7%)	2 (6.2%)	
FPRS	0 (0.0%)	1 (3.1%)	
Rhinology/Skull Base	1 (6.7%)	3 (9.4%)	
Head and Neck	4 (26.7%)	3 (9.4%)	
Laryngology	3 (20.0%)	3 (9.4%)	
Otology/Neurotology	5 (33.3%)	18 (56.2%)	
Sleep Medicine	1 (6.7%)	1 (3.1%)	
Pediatrics	0 (0.0%)	0 (0.0%)	
Multiple Specialties	0 (0.0%)	1 (3.1%)	
Other	0 (0.0%)	0 (0.0%)	
Race n(%)			p = 0.291
Asian	4 (26.7%)	8 (25.0%)	
White	8 (53.3%)	22 (68.8%)	
Black	1 (6.7%)	0 (0.0%)	
Multiracial	1 (6.7%)	0 (0.0%)	
Prefer not to answer	1 (6.7%)	2 (6.2%)	
Ethnicity n(%)			p = 1.000
Non-Hispanic	0 (0.0%)	1 (3.1%)	
Hispanic	15 (100.0%)	31 (96.9%)	
First-generation n(%)			p = 0.508
9 (60.0%)	23 (71.9%)		

Table 1. Demographics, training characteristics, and career development factors of NIH-funded otolaryngology surgeon-scientists by sex. Percentages with Fisher's exact test p-values.

References

[1] Kosaraju N, Keating DP, Kim GS, Moore LS, Stankovic KM. Promoting Surgeon-Scientists in Otolaryngology-Head and Neck Surgery—From Bench to Bedside. *JAMA Otolaryngology-Head & Neck Surgery* 2023; 149:1140

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Results

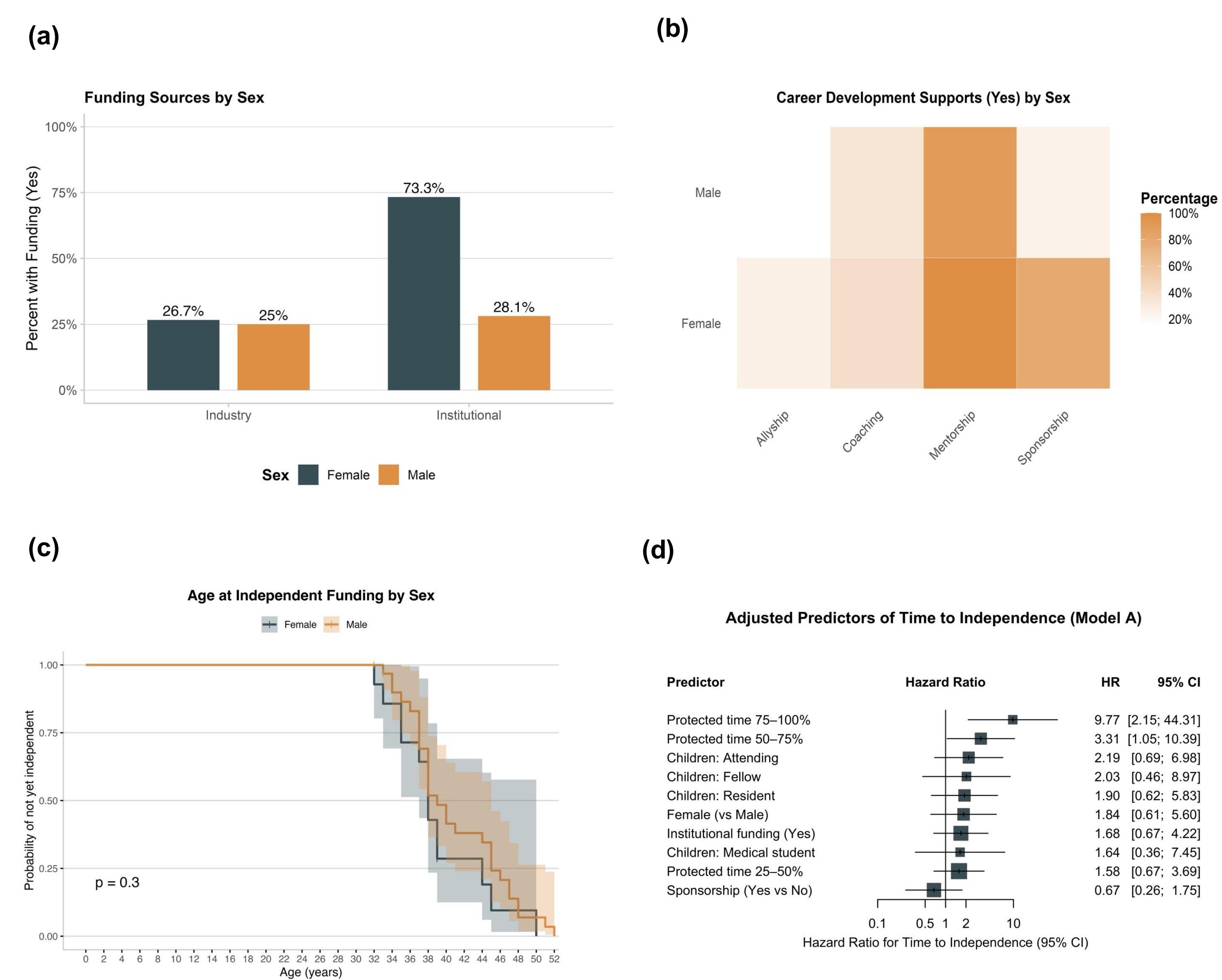


Figure 2 Survey responses analysis of NIH-funded otolaryngologists: (a) funding sources by sex, (b) career development supports, (c) Kaplan-Meier curves of age at independent funding, (d) adjusted predictors of time to independence (Cox regression).

Conclusion

This study highlights persistent gender disparities in research productivity, family timing, and career development supports among otolaryngology surgeon-scientists. Women achieve similar ranks and funding ages as men but remain underrepresented and rely more heavily on institutional support. Protected research time emerged as a key predictor of independence, underscoring the need for policies that ensure equitable funding, mentorship, and protected time to foster a diverse, sustainable workforce.