

Matriculants Vs. Unmatched: Differences in Research Quality Among Plastic Surgery Applicants With and Without a Home Program

Christiane How-Volkman¹, Brian Sangalang², Maheen F. Akhter³, Payton K. Grande³, Nataly Montano Vargas⁴, Yash A. Mehta², Aditya S. Gunturi⁵, Bhavana Thota⁶, Max L. Silverstein³, Paige Fox, MD, PhD, FACS³, Rahim Nazerali, MD, MHS, FACS³



Introduction

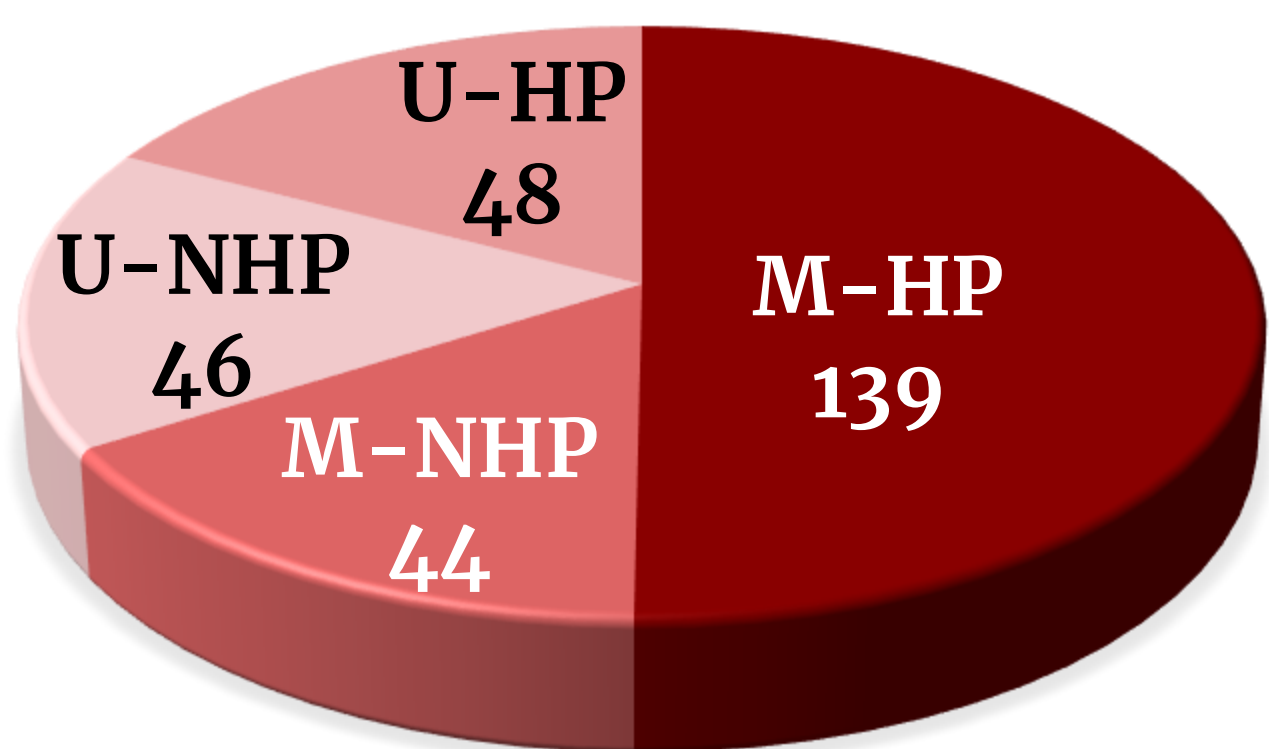
- Integrated plastic surgery has declining match rates, from 62% to 59% last year
- Competitive applicants boast academic honors, exceptional board scores, and high productivity in research
- No data characterizing applicants’ research: some higher quality than others?
- AIM:** To delineate differentiating factors in research quantity and quality between matched and unmatched applicants.

Methods

- 2023 PRS applicants to a single program were stratified by individuals’ match outcomes and home program status.
- Subjects queried via PubMed for author h-index, number of first-author publications, journal impact factor, and type of article.
- One-way ANOVA, Tukey HSD post-hoc test. Outliers excluded per Interquartile Method.

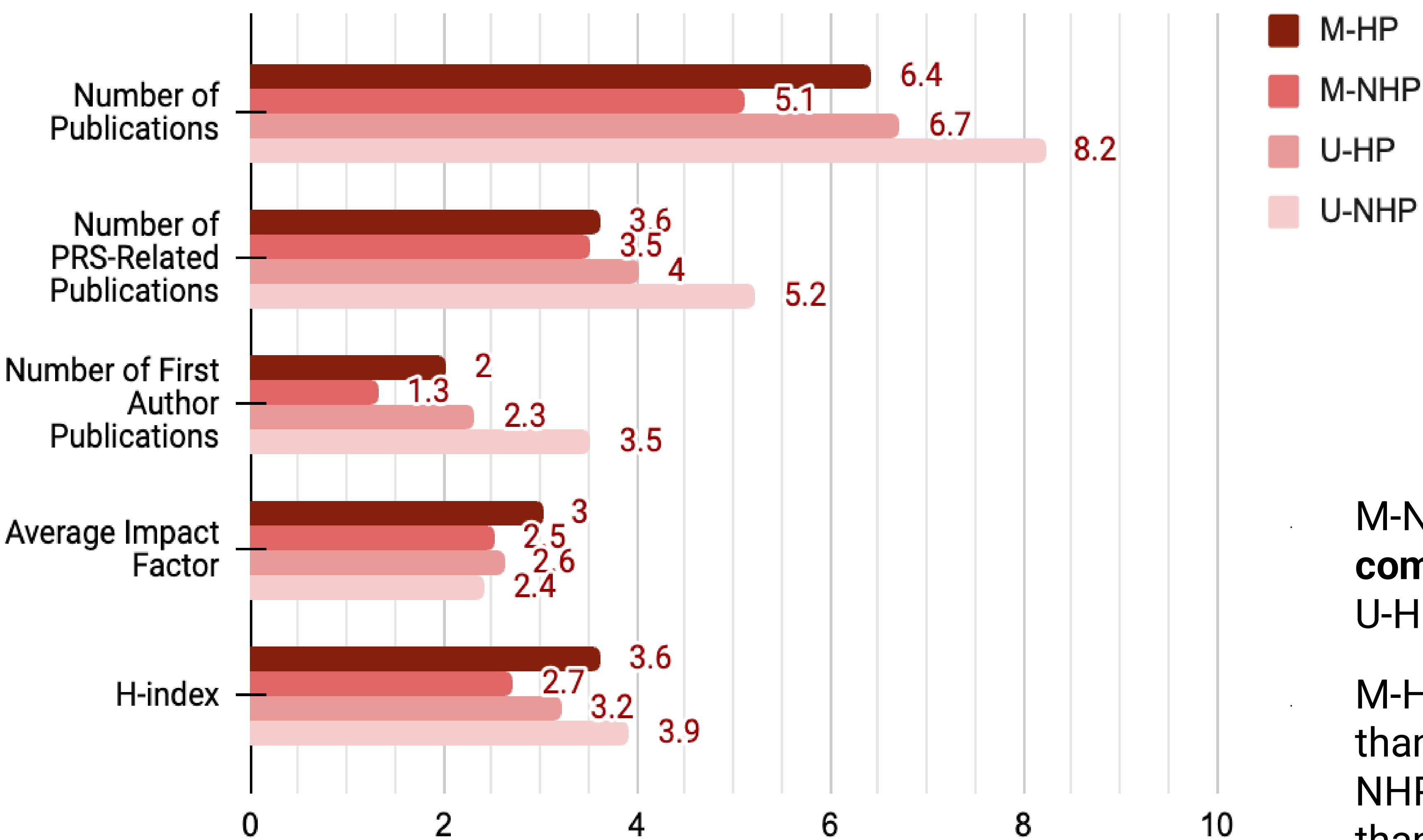
1. California Northstate University College of Medicine, Elk Grove, CA, United States.
2. University of California, Riverside School of Medicine, Riverside, CA, United States.
3. Division of Plastic & Reconstructive Surgery, Department of Surgery, Stanford University School of Medicine, Stanford, CA, United States.
4. Stanford University School of Medicine, Stanford, CA, United States.
5. University of Rochester School of Medicine and Dentistry, Rochester, NY, United States.
6. Thomas Jefferson University Sidney Kimmel Medical College, Philadelphia, PA, United States.

Results



- Of 309 applicants, 277 were identified and stratified into matched (M, 66.1%), unmatched (U, 33.9%), home program (HP, 67.5%), and no home program (NHP, 32.5%) categories.

Research Quantity and Quality Across PRS Applicants

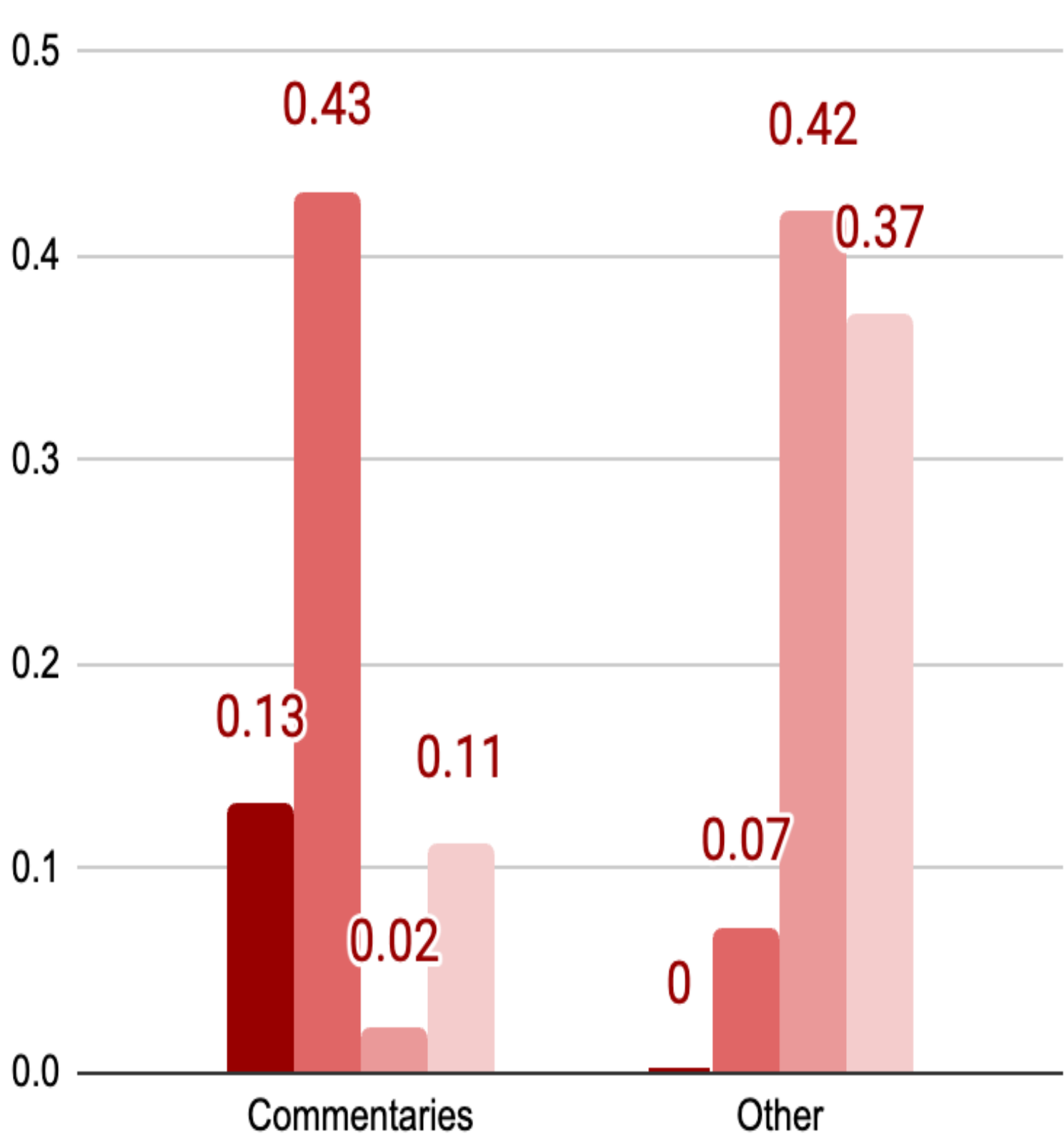


Applicants with a **HP** demonstrated a match rate of **74.3%**, while **NHP** applicants matched far less at **48.9%**.

Total publications, PRS-related publications, average impact factor, and h-index **did not vary significantly** across groups ($p=0.33$, $p=0.49$, $p=0.10$, $p=0.36$).

Significant difference in first-author publications between M-NHP and U-NHP applicants ($p=0.046$).

Article Types Differed Across Applicants



M-NHP applicants had 4 times more **commentaries** than M-HP ($p=0.02$) and U-HP ($p=0.01$).

M-HP had fewer **“other”** publications than both U groups ($p<0.01$), and M-NHP had fewer **“other”** publications than U-HP applicants ($p=0.03$).

Conclusions

- Matched applicants had more commentary articles, while unmatched students more commonly had unconventional publications.
- Overall minimal differences in number and quality of publications between matched vs. unmatched and HP vs. NHP applicants.