## Gender and ethnic representation of incoming Mohs micrographic surgery fellows in the United States: A look into fellowship diversity

*To the Editor:* The US population is becoming increasingly diverse, and it has been estimated that no single ethnic or racial group will contribute to majority of the population by 2043.<sup>1</sup> Although dermatology has been one of the least-diverse specialties in medicine, there is paucity of research on diversity trends in different dermatology subspecialties, including Mohs micrographic surgery, in the United States.<sup>2</sup> The purpose of this study was to characterize gender and ethnic trends of incoming Mohs micrographic surgery fellowship classes in the United States over a 10-year period from 2011 to 2020.

Demographic information of incoming Mohs micrographic surgery fellows was retrieved from the Graduate Medical Education census published in the *Journal of the American Medical Association.*<sup>3</sup> Information regarding gender and ethnic representation was collected from 2011 to 2020, and these data were then subsequently analyzed.

Overall, men and women represented an average of 52.2% and 47.8%, respectively, of the incoming fellows during this 10-year interval (Fig 1). The distribution of different ethnicities during this time was as follows: 76.7% Whites, 16.2% Asians, 3.7% Hispanics, 2.0% Blacks, 0.3% Native Hawaiian or Pacific Islanders, 0.0% American Indian or Alaska Natives, 0.8% multiracial groups, and 3.9% other or unknown identities (Fig 2). The average yearly rate of change for the various gender and ethnic backgrounds were as follows: -0.76% for men, +0.76% for women, +1.01% for Whites, -0.46% for Asians, -0.5% for Hispanics, -0.77% for Blacks, -0.05% for Native Hawaiian or Pacific Islander, 0.0% for American Indian or Alaska Natives, +0.59% for multiracial groups, and -0.02% for other or unknown identities.

Over the last decade, the proportion of women matriculating into US Mohs micrographic surgery fellowships has been similar to the female US population, which has been estimated at 50.8% per the 2020 US census.<sup>4</sup> Our analysis revealed that the proportion of women entering these fellowships has been slowly increasing at an average rate of 0.76% per year. Interestingly, the proportion of incoming Black and Hispanic fellows has steadily decreased over the last decade, reaching their lowest points (0.0%) in the 2017-2018 and 2018-2019 match cycles, respectively. Although Blacks and Hispanics represent 13.4% and 18.5% of the US population, respectively, this proportion is not reflected in the incoming fellowship classes. Our analysis also revealed that there were

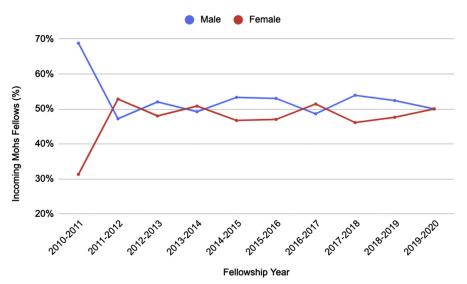
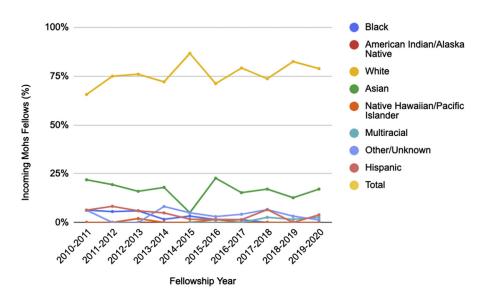


Fig 1. Incoming male and female US Mohs micrographic surgery fellows from 2011 to 2020.

<sup>© 2021</sup> by the American Academy of Dermatology, Inc. Published by Elsevier Inc. This is an open access article under the CC BY-NC-ND license (http://creativecommons.org/licenses/by-nc-nd/4.0/).



**Fig 2.** Ethnic representation of incoming US Mohs micrographic surgery fellows from 2011 to 2020.

only 2 academic years (2012-2013 and 2015-2016) in which Native Hawaiian or Pacific Islander individuals matriculated into Mohs micrographic surgery fellowships.

The study limitations include lack of data collection for the multiracial category from 2010 to 2014 and the notion that some applicants may identify with ethnicities that others would not identify. The lack of diversity within the incoming Mohs fellows might have been a direct result of the lack of diversity in general dermatology, which might have led to the less-diverse fellowship applications. More work is needed to determine the trend of different ethnic proportions that complete medical school and dermatology residency in order to elucidate where the bottleneck in terms of diversity is significant. Future studies should also investigate how to increase diversity in both general dermatology residency and Mohs micrographic surgery fellowship programs in order to create a workforce that can best serve the changing US population.

- Rafey Rehman, BS,<sup>a</sup> Mustafa Azam, BS,<sup>a</sup> Sheema Rehman, BS,<sup>b</sup> Harleen Arora, MD,<sup>c</sup> and Laurie Kohen, MD<sup>c</sup>
- From the Oakland University William Beaumont School of Medicine, Rochester,<sup>a</sup> Michigan State University College of Osteopathic Medicine, East

Lansing,<sup>b</sup> and Department of Dermatology, Henry Ford Hospital, Detroit, Michigan.<sup>c</sup>

Funding sources: None.

IRB approval status: Not applicable.

- Correspondence to: Laurie Kohen, MD, Department of Dermatology, Henry Ford Hospital, 3031 W. Grand Blvd, Detroit, MI 48202
- *E-mail: lkoben1@bfbs.org*

## **Conflicts of interest**

None disclosed.

## REFERENCES

- Office UCBPI. U.S. Census Bureau projections show a slower growing, older, more diverse nation a half century from now-population-newsroom-U.S. Census Bureau. Accessed October 10, 2021. https://www.census.gov/newsroom/ releases/archives/population/cb12-243.html
- Deville C, Hwang WT, Burgos R, Chapman CH, Both S, Thomas CR. Diversity in graduate medical education in the United States by race, ethnicity, and sex, 2012. JAMA Intern Med. 2015;175(10):1706-1708.
- 3. Brotherton SE, Etzel SI. Graduate medical education, 2019-2020. JAMA. 2020;324(12):1230-1250.
- U.S. Census Bureau. QuickFacts: United States. Accessed October 10, 2021. https://www.census.gov/quickfacts/fact/ table/US/PST045219

https://doi.org/10.1016/j.jdin.2021.10.004