

# The Evolution of Racial and Ethnic Diversity in Plastic Surgery Residency Programs

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*Disclosures:* None

**Background:** Increasing the diversity of U.S. physicians may help improve patient communication and mitigate healthcare disparities. However, plastic surgeons remain predominately Caucasian while the U.S. population increases in diversity. This study analyzes temporal racial trends in plastic surgery residency relative to other surgical specialties.

**Methods:** Graduate Medical Education reports published by the *Journal of the American Medical Association* were analyzed for percentages of African-Americans, Hispanics, and Asians in U.S. surgical residency programs (1995 – 2014). Percentages were compared between integrated and independent plastic surgery residents (2008 – 2014) and the composite was compared with other surgical disciplines. Percentages of minority groups were compared between plastic surgery residents, U.S. medical school graduates, U.S. college students, and the U.S. population. Temporal trends were analyzed with chi square goodness of fit tests.

**Results:** Since 1995, African Americans increased 1.2 fold ( $p = 0.129$ ), Hispanics 1.7 fold ( $p < 0.001$ ), and Asians 2.9 fold ( $p < 0.001$ ) in plastic surgery residency. In 2014, independent programs had more African Americans (5.7% vs 2.1%,  $p = 0.004$ ) than integrated programs with similar Hispanics (9.4% vs 7.0%,  $p = 0.218$ ) and Asians (24.7% vs 19.7%,  $p = 0.076$ ). Regarding African-Americans, plastic surgery had less representation than obstetrics & gynecology and surgery ( $p < 0.05$ ) and similar representation with other surgical specialties. Among Hispanics, plastic surgery had greater representation than orthopaedics, otolaryngology, and ophthalmology

( $p < 0.05$ ) with similar representation to other surgical specialties. Among Asians, plastic surgery had greater representation than orthopaedics and obstetrics & gynecology ( $p < 0.05$ ), but less representation than ophthalmology ( $p < 0.05$ ). Relative to the U.S. population, plastic surgery had 4-5 times the percentage of Asians, 0.9-1 times Caucasians, 0.2-0.5 times Hispanics, and 0.2-0.4 African Americans. A bottle-neck effect was seen for Hispanics and African-Americans from U.S. colleges, medical schools, and residency programs.

**Conclusions:** Hispanics and African-Americans are under-represented in plastic surgery relative to the U.S. population and the pipeline of medical graduates. Interventions are needed to attract minorities to plastic surgery residency.