Analysis of the Microsurgery Fellowship Match: 2019-2022 Update

J. Reed McGraw, BS1, Babak J. Mehrara, MD2, Alex K. Wong, MD3, Stephen J. Kovach, III, MD1, Evan Matros, MD, MPH, MMSc2, Said C. Azoury, MD1

1Division of Plastic Surgery, Department of Surgery, Hospital of the University of Pennsylvania, Philadelphia, PA
2Division of Plastic and Reconstructive Surgery, Memorial Sloan Kettering Cancer Center, New York, NY
3Division of Plastic Surgery, City of Hope National Medical Center, Duarte, CA

Introduction

- Recent analysis of the microsurgery fellowship match in 2018 demonstrated a significant increase in competition for available positions.1
- Growing number of opportunities in the field of microsurgery in recent years, potentially increasing competition, including advances in:
  - Limb salvage
  - Lymphedema
  - Gender-affirming surgery
  - Breast reconstruction
- We hypothesize that the landscape for the microsurgery fellowship match has become increasingly competitive for both applicants and programs over the previous five years

Objectives

- To compare two periods of microsurgery fellowship match data to evaluate current trends in applicant and program selectivity and competitiveness
- To evaluate the impact of in-service examination scores on the microsurgery fellowship match process

Methods

- Retrospective review of de-identified microsurgery fellowship match data for years 2014 to 2022
- De-identified match data were obtained from the San Francisco (SF) Match with approval by the American Society for Reconstructive Microsurgery (ASRM)
- Data stratified into two time periods:
  - 2016 – 2018
  - 2019 – 2022
- Parameters included:
  - Program fill rates
  - Position fill rates
  - Match rates
  - Plastic surgery in-service examination percentile
- Pearson’s Chi-square and t-tests were utilized

Results

Figure 1: There was a rise in the overall number of positions offered and programs participating from 2014-22. There was a decrease in the number of applicants per position from 2016-18 to 2019-22 [1.3 (52 to 40) vs 1.1 (50 to 47), p=.45].

Figure 2: Microsurgery program fill rate by year. 2022 saw the lowest position fill rate on record (75.4%, 40 of 53 spots).

Figure 3: Yearly match rates. 2018 saw the lowest match rate, at 67.3%. There was a significant increase in the match rates from 2016-18 to 2019-22 (67.8% vs. 80.2%, p=.007).

Table 1. Microsurgery fellowship match applicant and program statistics, 2016-2022

<table>
<thead>
<tr>
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<th>Applicant Data</th>
<th>Program Data</th>
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<tbody>
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<td>Applicant Data</td>
<td>Overall, Mean (SD)</td>
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</tr>
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<td>Applicant registrations</td>
<td>67.8 (6.7)</td>
<td>66.7 (7.1)</td>
</tr>
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<td>Number of rank lists submitted</td>
<td>51.0 (2.6)</td>
<td>51.7 (2.5)</td>
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<td>Matched total</td>
<td>38.1 (3.2)</td>
<td>35.0 (1.0)</td>
</tr>
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<td>Unmatched total</td>
<td>13.9 (4.4)</td>
<td>12.0 (7.0)</td>
</tr>
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<td>Percent matching</td>
<td>74.8 (7.0)</td>
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Table 1: Program and applicant registration and match data for the overall cohort, 2016-2018, and 2019-22.

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Conclusions

The period from 2019-2022 has seen a rise in the number of microsurgery fellowship training programs with a decline in the number of applicants. Accordingly, there has been an increased match rate for prospective applicants. The growing availability of positions may have exceeded demand, and several training programs have been left with unfilled positions.