How Competitive is the Match?

Mona M. Signer
President and CEO
November 13, 2016
Main Residency Match
PGY-1 Positions Offered and Filled

6,015 More Positions Since 2007

All In Policy

+ 567 PGY-1 positions over 2015

Offered  Filled  Filled US Seniors
Active Applicants
162 More Seniors, 571 More Active Applicants

7,532 More Applicants Since 2007

All In Policy

Others DOs IMGs US IMGs Prior US Grads US Seniors
PGY-1 Matches by Applicant Type
Change Since 2007
PGY-1 Match Rates by Applicant Type

Overall 2016 Match Rate: 75.6%
Average Length of U.S. Seniors’ ROLs
Matched and Unmatched Applicants

<table>
<thead>
<tr>
<th>Year</th>
<th>Matched</th>
<th>Unmatched</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>5.62</td>
<td>6</td>
</tr>
<tr>
<td>2008</td>
<td>8.9</td>
<td>6</td>
</tr>
<tr>
<td>2009</td>
<td>8.9</td>
<td>6</td>
</tr>
<tr>
<td>2010</td>
<td>10.62</td>
<td>7</td>
</tr>
<tr>
<td>2011</td>
<td>11.97</td>
<td>7.11</td>
</tr>
<tr>
<td>2012</td>
<td>11.97</td>
<td>7.11</td>
</tr>
<tr>
<td>2013</td>
<td>11.97</td>
<td>7.11</td>
</tr>
<tr>
<td>2014</td>
<td>11.97</td>
<td>7.11</td>
</tr>
<tr>
<td>2015</td>
<td>11.97</td>
<td>7.11</td>
</tr>
<tr>
<td>2016</td>
<td>11.97</td>
<td>7.11</td>
</tr>
</tbody>
</table>
Match Rates By Preferred Specialty
Most Seniors Match!

Source: Charting Outcomes in the Match

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Unmatched Seniors, PGY-1 Positions in SOAP

More Unmatched Seniors than PGY-1 Positions = 4 Years

U.S. Seniors With ROLs Unmatched to PGY-1 Positions

PGY-1 Positions in SOAP
Preferences of Unmatched Seniors
Available SOAP Positions

- Orthopaedic Surgery: 169
- General Surgery: 116
- Emergency Medicine: 102
- Psychiatry: 83
- Family Medicine: 73
- Obstetrics-Gynecology: 71
- Internal Medicine (C & M): 93
- Neurological Surgery: 51
- Pediatrics: 48
- Otolaryngology: 28
- Dermatology: 24
- Plastic Surgery: 22
- Neurology: 16
- Anesthesiology: 15
- Physical Medicine & Rehab: 14
- Internal Medicine (PGY-1 Only): 9
- Internal Medicine-Pediatrics: 9
- Pathology: 9
- Surgery-Preliminary (PGY-1 Only): 9
- Vascular Surgery: 9
- Radiology-Diagnostic: 7
- Radiation Oncology: 6
- Transitional Year: 5
- Thoracic Surgery: 5
- Child Neurology: 3
- Other: 3

Available Positions vs Preferred Specialty
SOAP Positions
Accepted by Applicant & Position Type

2,199

US Seniors

387

989 applicants accepted 1,022 positions

US Grads

192

USIMGs

30

DOs

13

IMGs

45

None Accepted
PGY-1 Only
PGY-2 Only
Categorical
PGY-1 & PGY-2

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U.S. Allopathic Seniors in SOAP 2012 - 2016

*Presentations before 2015 included only seniors with a certified ROL who did not have any position at the conclusion of SOAP, regardless of whether they participated in SOAP. This presentation includes all SOAP-participating seniors who did not have any position at the conclusion of SOAP.
Getting the Interview
Average Percentage Applications Rejected

<table>
<thead>
<tr>
<th>Specialty</th>
<th>2014</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Family Medicine</td>
<td>68%</td>
<td>66%</td>
</tr>
<tr>
<td>General Surgery</td>
<td>62%</td>
<td>60%</td>
</tr>
<tr>
<td>Internal Medicine Categorical</td>
<td>61%</td>
<td>61%</td>
</tr>
<tr>
<td>Psychiatry</td>
<td>54%</td>
<td>61%</td>
</tr>
<tr>
<td>Pediatrics</td>
<td>53%</td>
<td>58%</td>
</tr>
<tr>
<td>Pathology-Anatomic and Clinical</td>
<td>56%</td>
<td>56%</td>
</tr>
<tr>
<td>Obstetrics and Gynecology</td>
<td>52%</td>
<td>53%</td>
</tr>
<tr>
<td>Average for all specialties</td>
<td>50%</td>
<td>50%</td>
</tr>
<tr>
<td>Child Neurology</td>
<td>49%</td>
<td>52%</td>
</tr>
<tr>
<td>Neurology</td>
<td>48%</td>
<td>48%</td>
</tr>
<tr>
<td>Internal Medicine/Pediatrics</td>
<td>48%</td>
<td>48%</td>
</tr>
<tr>
<td>Anesthesiology</td>
<td>47%</td>
<td>47%</td>
</tr>
<tr>
<td>Orthopaedic Surgery</td>
<td>46%</td>
<td>49%</td>
</tr>
<tr>
<td>Physical Medicine and Rehabilitation</td>
<td>45%</td>
<td>49%</td>
</tr>
<tr>
<td>Emergency Medicine</td>
<td>41%</td>
<td>39%</td>
</tr>
<tr>
<td>Neurological Surgery</td>
<td>40%</td>
<td>40%</td>
</tr>
<tr>
<td>Radiology-Diagnostic</td>
<td>39%</td>
<td>39%</td>
</tr>
<tr>
<td>Thoracic Surgery</td>
<td>36%</td>
<td>37%</td>
</tr>
<tr>
<td>Dermatology</td>
<td>33%</td>
<td>33%</td>
</tr>
<tr>
<td>Otolaryngology</td>
<td>31%</td>
<td>31%</td>
</tr>
<tr>
<td>Plastic Surgery</td>
<td>29%</td>
<td>29%</td>
</tr>
<tr>
<td>Vascular Surgery</td>
<td>27%</td>
<td>32%</td>
</tr>
<tr>
<td>Radiation Oncology</td>
<td>26%</td>
<td>26%</td>
</tr>
</tbody>
</table>
Percentage of Programs Citing Each Factor in Interview Selection

- USMLE Step 1/COMLEX Level 1 score
- Letters of recommendation in the specialty
- Medical Student Performance Evaluation
- USMLE Step 2 CK/COMLEX Level 2 CE score
- Grades in required clerkships
- Personal Statement
- Class ranking/quartile
- Perceived commitment to specialty
- Any failed attempt in USMLE/COMLEX
- Grades in clerkship in desired specialty
- Evidence of professionalism and ethics
- Personal prior knowledge of the applicant
- Leadership qualities
- Audition elective/rotation within your department
- Consistency of grades
- Passing USMLE Step 2 CS/COMLEX Level 2 PE
- Alpha Omega Alpha (AOA) membership
- Perceived interest in program
- Other life experience
- Lack of gaps in medical education
- Awards or special honors in clinical clerkships
- Graduate of highly-regarded U.S. medical school
- Awards/honors in clerkship in desired specialty
- Volunteer/extracurricular experiences
- Applicant flagged with Match violation by NRMP

Source: NRMP Program Director Survey

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Programs’ Use of the MSPE in Interview Selection

<table>
<thead>
<tr>
<th>Specialty</th>
<th>2014</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Child Neurology</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Radiation Oncology</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Internal Medicine/Pediatrics</td>
<td>97%</td>
<td>93%</td>
</tr>
<tr>
<td>Psychiatry</td>
<td>93%</td>
<td>94%</td>
</tr>
<tr>
<td>Dermatology</td>
<td>91%</td>
<td>91%</td>
</tr>
<tr>
<td>Radiology-Diagnostic</td>
<td>90%</td>
<td>90%</td>
</tr>
<tr>
<td>Internal Medicine Categorical</td>
<td>88%</td>
<td>88%</td>
</tr>
<tr>
<td>Physical Medicine and Rehabilitation</td>
<td>90%</td>
<td>90%</td>
</tr>
<tr>
<td>Neurology</td>
<td>85%</td>
<td>86%</td>
</tr>
<tr>
<td>Pathology-Anatomic and Clinical</td>
<td>84%</td>
<td>84%</td>
</tr>
<tr>
<td>Anesthesiology</td>
<td>87%</td>
<td>86%</td>
</tr>
<tr>
<td>Average for all specialties</td>
<td>84%</td>
<td>84%</td>
</tr>
<tr>
<td>Pediatrics</td>
<td>83%</td>
<td>83%</td>
</tr>
<tr>
<td>Thoracic Surgery</td>
<td>83%</td>
<td>83%</td>
</tr>
<tr>
<td>Obstetrics and Gynecology</td>
<td>76%</td>
<td>81%</td>
</tr>
<tr>
<td>Family Medicine</td>
<td>81%</td>
<td>90%</td>
</tr>
<tr>
<td>Emergency Medicine</td>
<td>79%</td>
<td>91%</td>
</tr>
<tr>
<td>General Surgery</td>
<td>75%</td>
<td>79%</td>
</tr>
<tr>
<td>Neurological Surgery</td>
<td>73%</td>
<td>81%</td>
</tr>
<tr>
<td>Orthopaedic Surgery</td>
<td>73%</td>
<td>76%</td>
</tr>
<tr>
<td>Vascular Surgery</td>
<td>70%</td>
<td>71%</td>
</tr>
<tr>
<td>Otolaryngology</td>
<td>74%</td>
<td>70%</td>
</tr>
<tr>
<td>Plastic Surgery</td>
<td>63%</td>
<td>70%</td>
</tr>
</tbody>
</table>

Source: NRMP Program Director Survey

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Percentage of Programs Using USMLE Step 1 Scores for Interview Selection

Scores Required?

- Yes, pass only: 31% (2014), 32% (2016)
- Yes, target score: 68% (2014), 67% (2016)
- No: 1% (2014)

Consider applicants who fail 1st attempt?

- Never: 26% (2014), 30% (2016)
- Seldom: 63% (2014), 59% (2016)
- Often: 11% (2014), 11% (2016)

Source: NRMP Program Director Survey
Step 1 Scores Are Rising By Preferred Specialty

Source: NRMP Data Warehouse and AAMC Data Warehouse.

Source: Charting Outcomes in the Match
Percentage of Programs Using USMLE Step 2 CK Scores for Interview Selection

Scores Required?

<table>
<thead>
<tr>
<th></th>
<th>Yes, pass only</th>
<th>Yes, target score</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>31</td>
<td>50</td>
<td>19</td>
</tr>
<tr>
<td>2016</td>
<td>34</td>
<td>49</td>
<td>17</td>
</tr>
</tbody>
</table>

Consider applicants who fail 1st attempt?

<table>
<thead>
<tr>
<th></th>
<th>Never</th>
<th>Seldom</th>
<th>Often</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>35</td>
<td>58</td>
<td>6</td>
</tr>
<tr>
<td>2016</td>
<td>35</td>
<td>57</td>
<td>8</td>
</tr>
</tbody>
</table>

Source: NRMP Program Director Survey

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Step 2 CK Scores Are Rising
By Preferred Specialty

Source: NRMP Data Warehouse and AAMC Data Warehouse.
Factors in Ranking Applicants
It’s All About the Interview: 2016

It's All About the Interview: 2016

<table>
<thead>
<tr>
<th>Factor</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interpersonal skills</td>
<td>95%</td>
</tr>
<tr>
<td>Interactions with faculty during interview</td>
<td>95%</td>
</tr>
<tr>
<td>Interactions with housetaff during interview</td>
<td>90%</td>
</tr>
<tr>
<td>Feedback from current residents</td>
<td>86%</td>
</tr>
<tr>
<td>USMLE Step 1/Comlex Level 1</td>
<td>78%</td>
</tr>
<tr>
<td>Recommendation letters in specialty</td>
<td>73%</td>
</tr>
<tr>
<td>USMLE Step 2 CK/Comlex Level 2</td>
<td>72%</td>
</tr>
<tr>
<td>MSPE</td>
<td>68%</td>
</tr>
<tr>
<td>Perceived commitment to specialty</td>
<td>67%</td>
</tr>
<tr>
<td>Evidence of professionalism</td>
<td>67%</td>
</tr>
<tr>
<td>Perceived interest in program</td>
<td>64%</td>
</tr>
<tr>
<td>Personal prior knowledge of applicant</td>
<td>60%</td>
</tr>
<tr>
<td>Leadership qualities</td>
<td>59%</td>
</tr>
<tr>
<td>Class rank</td>
<td>58%</td>
</tr>
<tr>
<td>Audition rotation within department</td>
<td>58%</td>
</tr>
<tr>
<td>Personal statement</td>
<td>57%</td>
</tr>
<tr>
<td>Grades in required clerkships</td>
<td>57%</td>
</tr>
</tbody>
</table>

Source: NRMP Program Director Survey

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Factors in Ranking Applicants
It’s All About the Interview, cont’d

Source: NRMP Program Director Survey

- Passing USMLE Step 2 CS/Comlex Level 2: 53%
- Grades in clerkship in desired specialty: 50%
- Any failed USMLE/COMLEX: 47%
- Consistency of grades: 47%
- Alpha Omega Alpha: 46%
- Other life experiences: 46%
- Graduate of highly-regarded U.S. allopathic...: 41%
- Lack of gaps in medical education: 41%
- Volunteer/extracurricular experiences: 40%
- Awards/honors in clinical clerkships: 38%
- Awards/honors in clinical clerkships in desired...: 36%
- Gold Humanism Honor Society membership: 34%
- Involvement in research: 32%
- NRMP Match violation: 28%
- Visa status: 26%
- Interest in academic career: 25%
- Second interview/visit: 22%
- Awards/honors in basic sciences: 21%
- Fluency in patient-spoken language: 21%
- Away rotation in your specialty: 20%
- USMLE Step 3/COMLEX Level 3 score: 19%
- Other post-interview contact: 18%
Average Ranks Per Position
Filled and Unfilled Programs
How Competitive is the Match?

- 9,600 more PGY-1 positions than active seniors in the Match
- No change in U.S. seniors’ PGY-1 match rate
  - No change in match rate by preferred specialty
  - 1,130 seniors unmatched to PGY-1 positions
  - 615 seniors with no position post-SOAP
- 2,400 DOs & 6,600 IMGs matched to PGY-1 positions
- No change in total number of unmatched applicants in 2016
- No change in percentage of applications rejected
- USMLE Step scores are rising
- ROLs are getting longer
How do we help students target their applications?
Do you agree that*....

![Bar chart showing responses to various statements regarding residency applications.](chart)

- Not enough PGY-1 positions
- Programs rely too much on Step 1
- MSPE should follow a standard format
- Applicants need more program-specific information
- Applicants need program-specific information about matched applicants

*Respondents who agree or strongly agree

Source: NRMP Residency Application Survey

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Share Program-Specific Information?

- Step 1 "cut score" Mean Step 1 score of applicants offered interviews
- Mean Step 1 score of matched applicants
- Mean Step 2 score of matched applicants
- Number of applicants ranked prior year

Programs willing to share information  Schools would find information beneficial

Source: NRMP Residency Application Survey
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Limit Number of ERAS Applications?

*Respondents who agree or strongly agree

Source: NRMP Residency Application Survey

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Transition to Residency: Conversations Across the Medical Education Continuum

May 4-6, 2017

www.nrmpconference.org

- Anna Quindlen: Health Care in an Information Age
- Dr. Daniel Goleman: Emotionally Intelligent Healthcare in Medical Education
- Dr. Kenneth Shine: Sustaining the Medical Education Enterprise

Deadline for Breakout Session Proposals: November 30
Transition to Residency: Conversations Across the Medical Education Continuum
May 4-6, 2017

Broad Themes:

- **Goodness of Fit**: exploring the role of medical schools and residency programs in addressing application overload
- **Matching Process**: using Match data to understand and inform workforce planning
- **Unmatched Applicants**: examining outcomes and considering alternatives to clinical medicine
- **Innovations in Medical Education**: evaluating the flexibility of the Match in supporting competency-based curricula
- **Single Accreditation System**