

# Charting Outcomes in the Match

## International Medical Graduates

**Characteristics of Applicants Who Matched to Their Preferred Specialty in the 2013 Main Residency Match**

**1st Edition**

**Prepared by:**

National Resident Matching Program  
and Educational Commission for Foreign Medical Graduates

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# Introduction

## Overview

*Charting Outcomes in the Match for IMGs* is a collaborative publication of the National Resident Matching Program® (NRMP®) and the Educational Commission for Foreign Medical Graduates (ECFMG®). The report focuses on characteristics specific to students and graduates of international medical schools (IMGs) and is derived from the original *Charting Outcomes in the Match*, a biennial report published by the NRMP and the Association of American Medical Colleges that describes the characteristics of U.S. allopathic senior students and independent applicants\* who matched to their preferred specialties in the Main Residency Match®.

ECFMG and its organizational members define an international medical graduate (IMG) as a physician who received his/her basic medical degree or qualification from a medical school located outside the United States and Canada. The location of the medical school, not the citizenship of the physician, determines whether the graduate is an IMG. Thus, U.S. citizens who graduate from medical schools outside the United States and Canada are considered IMGs. Non-U.S. citizens who graduate from medical schools in the United States and Canada are not considered IMGs.

## ECFMG Certification

International medical graduates must be certified by ECFMG prior to entering accredited residency programs in the United States. Since 2004, to obtain an ECFMG certificate a candidate must (1) document the completion of all requirements for, and receipt of, the final medical diploma, and (2) pass the United States Medical Licensing Examination (USMLE) Step 1 (Basic Science), Step 2 CK (Clinical Knowledge), and Step 2 CS (Clinical Skills). Historically, to achieve ECFMG certification, other examination requirements were in effect.<sup>1</sup> Detailed information on ECFMG certification requirements can be found at: <http://www.ecfm.org>.

USMLE Step 1 (Basic Science) assesses whether the candidate can understand and can apply important concepts of the sciences basic to the practice of medicine, with special emphasis on principles and mechanisms underlying health, disease, and modes of therapy. USMLE Step 2 CK (Clinical Knowledge) assesses whether the candidate can apply medical knowledge, skills, and understanding of clinical science essential for the provision of patient care under supervision and includes emphasis on health promotion and disease prevention. USMLE Step 2 CS (Clinical Skills) uses standardized patients to test medical students and graduates on their ability to gather information from patients, perform physical examinations, and communicate their findings to patients and colleagues. Detailed information on the USMLE can be found at: <http://www.usmle.org>.

### *ECFMG Clinical Skills Assessment (CSA)*

In July of 1998, ECFMG introduced the Clinical Skills Assessment (CSA®), a performance test designed to evaluate the clinical skills (e.g., history taking, physical examination, interpersonal skills) of IMGs. The specific purpose of the CSA was to ensure that international medical graduates (IMGs) could demonstrate clinical skills at a level comparable to that of graduating fourth-year U.S. medical students. In 2004, the USMLE introduced Step 2 CS (clinical skills), a similar performance-based examination for U.S. medical students and graduates. At this point, the CSA was discontinued and all IMGs were required to take and pass Step 2 CS to achieve certification.

## Charting Outcomes for IMGs

*Charting Outcomes in the Match for IMGs* utilizes a different set of measures from the original *Charting Outcomes in the Match*. Although some applicant characteristics such as number of contiguous ranks, number of specialties ranked, and USMLE scores are included in both reports, other characteristics relevant only to IMGs are added to this report: certification examination attempts, number of months since ECFMG certification, English spoken as a native language, citizenship at birth, country of medical school, and number of years since graduation from medical school.

\*Independent applicants include previous graduates of U.S. medical schools, students and graduates of U.S. osteopathic medical schools, U.S. citizen IMGs, non-U.S. citizen IMGs, students and graduates of Canadian medical schools, and graduates of Fifth Pathway programs

<sup>1</sup> The Educational Commission for Foreign Medical Graduates (2000). A History: 1956-2000. Educational Commission for Foreign Medical Graduates, Philadelphia, PA

## Introduction (Continued)

### Methods

Data from the 2013 Main Residency Match, including applicant type, specialties ranked, number of contiguous ranks, and Match results, were obtained from the NRMP Data Warehouse. ECFMG provided characteristics of the 2013 IMG applicants, namely scores and attempts at USMLE or equivalent historical examinations (i.e., Step 1 or equivalent, Step 2 CK or equivalent, and Step 2 CS/ or ECFMG CSA), date of ECFMG certification, year of graduation, English spoken as a native language, and country of medical school. Data from the two sources were matched using unique identifiers.

Ten measures are incorporated in the report for specialty-specific analysis. Each measure is explained separately in the “All Specialties” section. Twelve specialties with 100 or more IMG applicants in the 2013 Main Residency Match are studied individually: Anesthesiology, Emergency Medicine, Family Medicine, Internal Medicine, Neurology, Obstetrics and Gynecology, Pathology, Pediatrics, Physical Medicine and Rehabilitation, Psychiatry, Radiology, and General Surgery.

For purposes of this report, *match success* is defined as a match to the specialty of the applicant’s first-ranked program because that is assumed to be the specialty of choice. Because preliminary programs provide only one or two years of prerequisite training for entry into advanced specialty training, applicants who ranked a preliminary program first are considered not to have a preferred specialty. *Lack of match success* includes matching to another specialty as well as failure to match at all. No distinction was made based on whether applicants matched to their first, second, third, or lower program choice. Applicants who obtained positions in the Match Week Supplemental Offer and Acceptance Program® (SOAP®) were not included in the analyses.

Probability analysis is performed on the number of contiguous ranks, Step 1 scores and Step 1 (or equivalent examination) attempts, Step 2 CK scores and Step 2 CK (or equivalent examination) attempts, and combined Step 2 CS/ECFMG CSA attempts. For each of those measures, probability of matching to a preferred specialty is calculated separately using logistic regression.

### Summary

Some general observations apply to all of the specialties in this report. IMG applicants who are successful in matching to their preferred specialty are more likely to:

- rank more programs within their preferred specialty
- have higher USMLE scores
- have fewer attempts at ECFMG certification examinations
- be U.S. citizens
- speak English as a native language
- have obtained ECFMG certification closer to the Match year (2013)
- have graduated from medical school closer to the Match year (2013)

Although some other measures appear to be related to match success, the relationships were not consistent enough to draw broad conclusions across specialties. In addition, the data sources used for this report do not include other important applicant factors such as course evaluations, reference letters, and the Medical Student Performance Evaluation. Despite the fairly strong relationship between USMLE Step scores and match success, the distributions of scores show that program directors consider other qualifications, and high USMLE scores are not a guarantee of success. Even in the most competitive specialties, a few individuals with higher scores are not successful. Neither is a lower score a bar to success. Program directors and applicants will find the tables and charts for the specialties of their particular interest later in this report.

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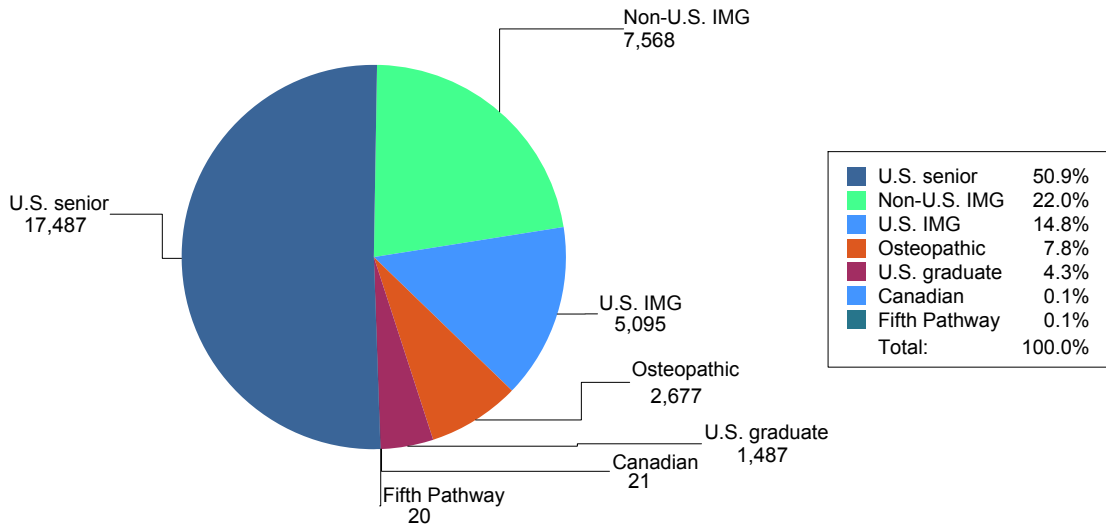
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## **Tables and Charts for All Specialties**

**Chart  
1**

**Active Applicants in the 2013 Main Residency Match  
by Applicant Type**



Source: NRMP Data Warehouse

In 2013, 34,355 medical students and graduates participated in the Main Residency Match and submitted certified rank order lists. Half of the applicants (50.9%) were senior students from U.S. allopathic schools. Together, IMGs accounted for more than one third (36.8%) of the applicant pool, including 7,568 non-U.S. citizen IMGs and 5,095 U.S. citizen IMGs.

**Table 1** Number of IMG Applicants and Positions in the 2013 Main Residency Match by Preferred Specialty\*

| Preferred Specialty                  | Total Positions Offered | Total Number of Applicants | Number of Applicants Per Position | U.S. IMG |             | Non-U.S. IMG |             |
|--------------------------------------|-------------------------|----------------------------|-----------------------------------|----------|-------------|--------------|-------------|
|                                      |                         |                            |                                   | Matched  | Not Matched | Matched      | Not Matched |
| Anesthesiology                       | 1,653                   | 1,846                      | 1.1                               | 95       | 65          | 78           | 85          |
| Emergency Medicine                   | 1,744                   | 2,219                      | 1.3                               | 53       | 137         | 31           | 53          |
| Family Medicine                      | 3,037                   | 4,096                      | 1.3                               | 531      | 702         | 293          | 616         |
| Internal Medicine                    | 6,612                   | 9,193                      | 1.4                               | 841      | 753         | 1,690        | 1,856       |
| Neurology                            | 692                     | 844                        | 1.2                               | 59       | 44          | 148          | 149         |
| Obstetrics and Gynecology            | 1,237                   | 1,613                      | 1.3                               | 78       | 99          | 62           | 120         |
| Pathology                            | 583                     | 797                        | 1.4                               | 46       | 69          | 151          | 136         |
| Pediatrics                           | 2,699                   | 3,258                      | 1.2                               | 196      | 151         | 278          | 382         |
| Physical Medicine and Rehabilitation | 397                     | 548                        | 1.4                               | 40       | 43          | 21           | 26          |
| Psychiatry                           | 1,362                   | 1,921                      | 1.4                               | 203      | 256         | 163          | 277         |
| Radiology-Diagnostic                 | 1,143                   | 1,254                      | 1.1                               | 55       | 47          | 66           | 63          |
| Surgery-General                      | 1,185                   | 1,872                      | 1.6                               | 119      | 123         | 158          | 150         |

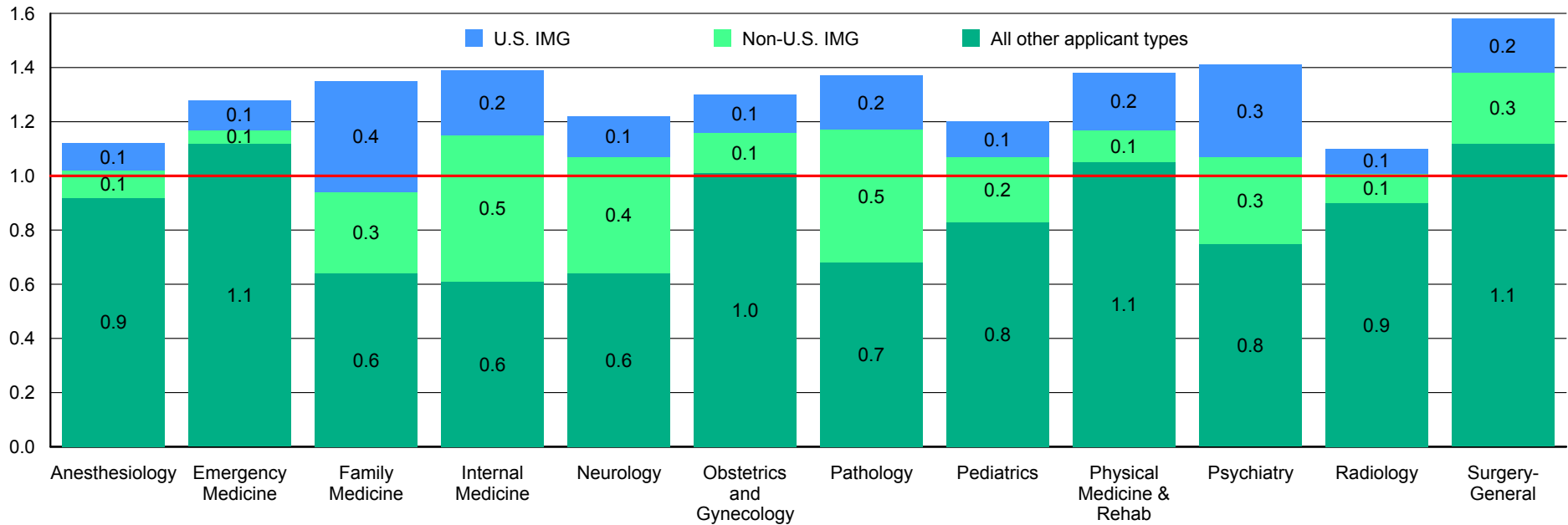
\*Preferred specialty is the specialty ranked first on an applicant's rank order list, excluding preliminary programs in specialties except Transitional Year.  
 Note: For those specialties where both exist, PGY-1 and PGY-2 positions have been combined.  
 Only specialties with 100 or more IMG applicants are included

Source: NRMP Data Warehouse.

Table 1 provides a summary of applicants and positions for selected specialties. In calculating Total Number of Applicants and Number of Applicants Per Position, all applicant types are considered. For example, 1,846 applicants preferred Anesthesiology (or ranked an Anesthesiology position first), including 160 U.S. IMGs (95 matched and 65 not matched to Anesthesiology) and 163 non-U.S. IMGs (78 matched and 85 not matched to Anesthesiology). For each of the 1,653 Anesthesiology positions there were 1.1 applicants who preferred the specialty. Only those specialties with 100 or more IMG applicants are included in this table.



**Chart 2** Ratio - Applicants Ranking Specialty First / Available Positions  
by Preferred Specialty

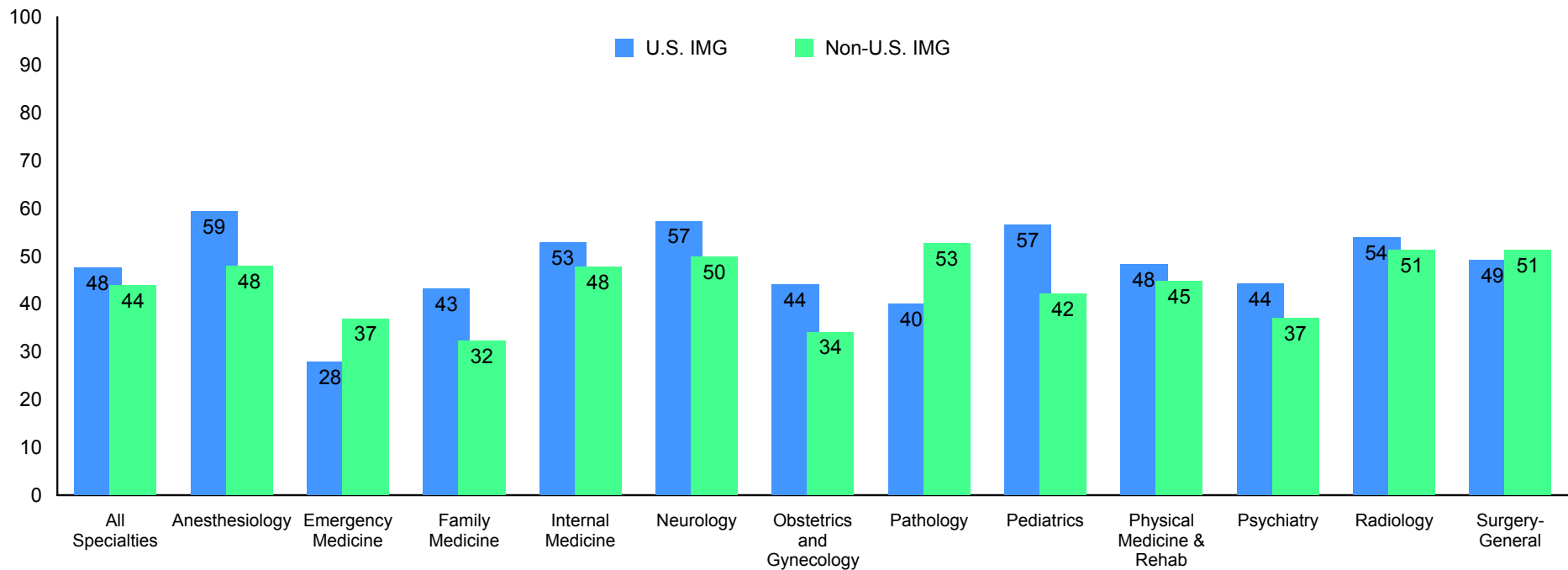


Source: NRMP Data Warehouse

Chart 2 shows the ratios of applicants preferring each specialty to available positions in that specialty for U.S. IMGs, non-U.S. IMGs, and all other applicant types. The red line marks where the number of preferred applicants equals the number of available positions. For all specialties displayed in the chart, there were more applicants preferring each specialty than there were positions. Overall, General Surgery has the highest ratio of applicants per position; however, the highest ratios for U.S. IMGs are found in Family Medicine and Psychiatry, and for non-U.S. IMGs, in Internal Medicine, Pathology, and Neurology.

**Chart  
3**

**Match Rates**  
*Percent Matched by Preferred Specialty and IMG Applicant Type*



Source: NRMP Data Warehouse

Chart 3 shows the percentages of U.S. IMG and non-U.S. IMG applicants who matched to their preferred specialty. Overall, 48 percent of U.S. IMGs matched to their preferred specialty, ranging from 59 percent (Anesthesiology) to 28 percent (Emergency Medicine). For non-U.S. IMGs, the overall match rate was 44 percent, ranging from 53 percent (Pathology) to 32 percent (Family Medicine). In general, non-U.S. IMG applicants are less successful in matching to their preferred specialty than are U.S. IMGs.

**Table  
2****Summary Statistics  
All Specialties Combined**

| Measure   | U.S. IMG             |                        | Non-U.S. IMG         |                        |
|---|----------------------|------------------------|----------------------|------------------------|
|   | Matched<br>(n=2,369) | Unmatched<br>(n=2,604) | Matched<br>(n=3,219) | Unmatched<br>(n=4,111) |
| 1. Mean number of contiguous ranks                    | 7                    | 3                      | 6                    | 3                      |
| 2. Mean number of distinct specialties ranked         | 1.4                  | 1.6                    | 1.3                  | 1.5                    |
| 3. Mean USMLE Step 1 score                            | 217                  | 204                    | 227                  | 213                    |
| 4. Mean USMLE Step 1 attempts*                        | 1.2                  | 1.7                    | 1.1                  | 1.2                    |
| 5. Mean USMLE Step 2 CK score                         | 224                  | 209                    | 233                  | 218                    |
| 6. Mean USMLE Step 2 CK attempts**                    | 1.1                  | 1.6                    | 1.0                  | 1.2                    |
| 7. Mean USMLE Step 2 CS or ECFMG CSA attempts         | 1.1                  | 1.4                    | 1.1                  | 1.3                    |
| 8. Mean number of months since ECFMG certification    | 8                    | 26                     | 16                   | 26                     |
| 9. Mean number of years since graduation              | 1.7                  | 5.7                    | 4.7                  | 7.5                    |
| 10. Percentage who speak English as a native language | 76                   | 56                     | 24                   | 18                     |

Sources. NRMP Data Warehouse and ECFMG

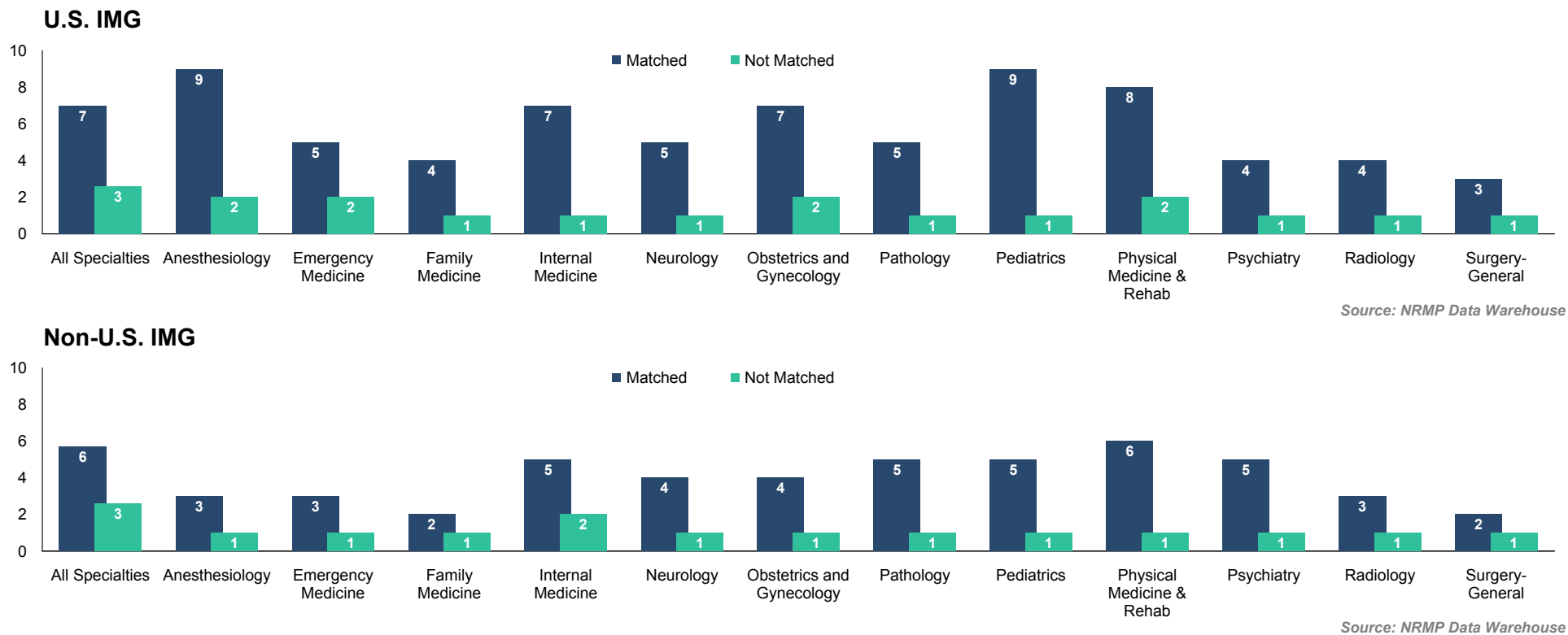
\*USMLE Step 1 or equivalent examination

\*\*USMLE Step 2 CK or equivalent examination

Table 2 provides summary statistics by IMG applicant type and match outcome on the 10 measures presented in this report. Data on each of these measures are displayed graphically by preferred specialty on the following pages.

To be eligible for ECFMG certification and participation in the Main Residency Match, IMGs must satisfy the medical science requirement (USMLE Step 1 and Step 2 CK or equivalent exam) and clinical skills requirement (Step 2 CS or CSA). As a result, there were almost no missing values for USMLE exam scores and number of attempts.

**Chart 4** Median Number of Contiguous Ranks by Preferred Specialty, IMG Applicant Type, and Match Status



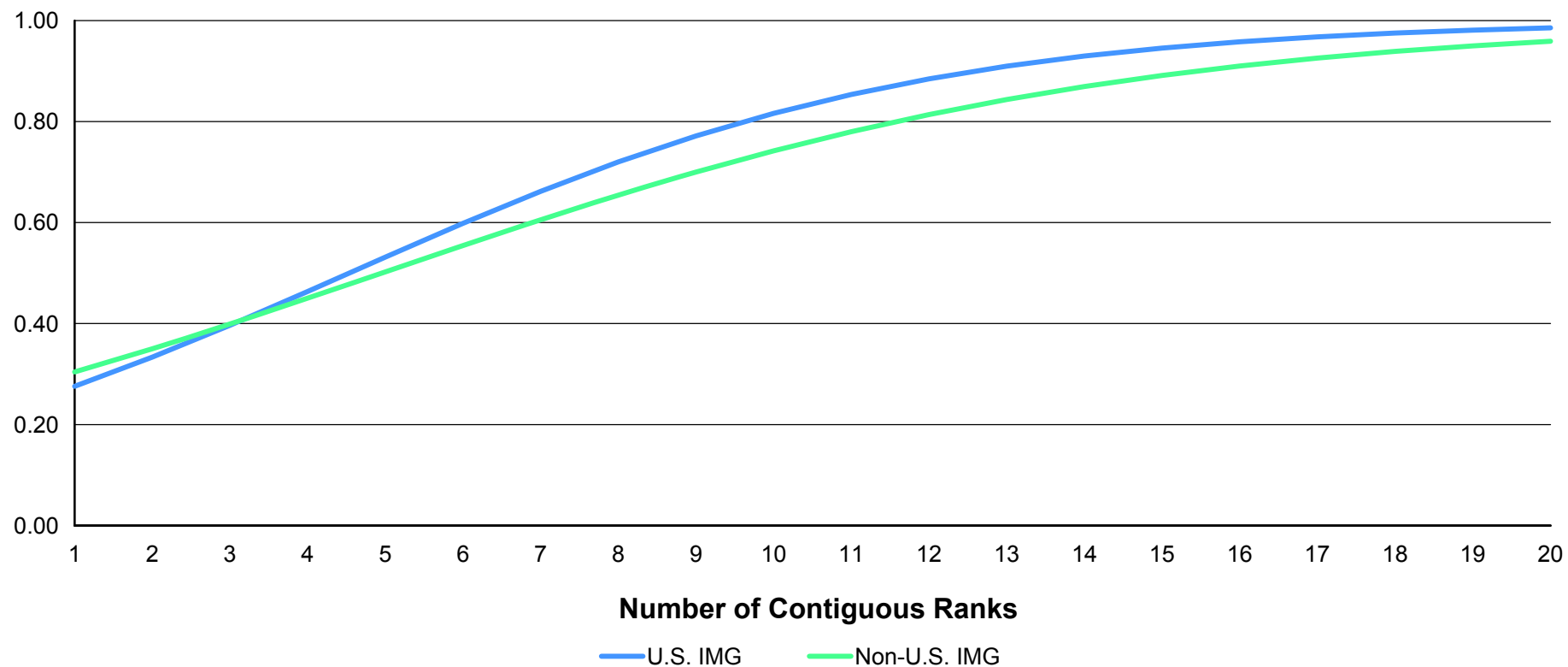
In general, applicants are more likely to be successful if they rank more programs in their desired specialty. The number of contiguous ranks is the number of programs ranked in the first-choice specialty before a program in another specialty appears on the applicant's rank order list.

Chart 4 provides the median number of contiguous ranks for U.S. IMG and non-U.S. IMG applicants who matched and did not match to their preferred specialty. Both panels show some variation across the specialties for IMG applicants. For all specialties, U.S. IMGs who matched to their preferred specialty had median contiguous rank lists that were longer than U.S. IMGs who did not match. A similar pattern can be found for non-U.S. IMG applicants, although their lists are somewhat shorter than those submitted by U.S. IMGs. Non-U.S. IMGs who matched also had longer contiguous lists compared with those who did not match to their preferred specialty.

The principal message of these graphs is that applicants with longer rank order lists in their preferred specialty are more successful than those with shorter ones. The NRMP has been recommending longer lists for many years, but some applicants apparently do not heed the advice. Others may have shorter lists because they found only a few programs willing to entertain their applications or because they could not afford a large number of interview trips.

**Graph  
1**

**Probability of Matching to Preferred Specialty by Number of Contiguous Ranks  
by IMG Applicant Type**



Source: NRMP Data Warehouse

A simple logistic regression is used to calculate the probability of matching to a preferred specialty for different lengths of contiguous ranks. Graph 1 displays the probability curves for U.S. IMG and non-U.S. IMG applicants. This graph confirms the message in Chart 4 that the more programs ranked in the preferred specialty, the higher the probability of matching. For the same number of contiguous ranks, the probability is only slightly higher for U.S. IMGs than for non-U.S. IMGs.

**Chart 5** Mean Number of Different Specialties Ranked by Preferred Specialty, IMG Applicant Type, and Match Status

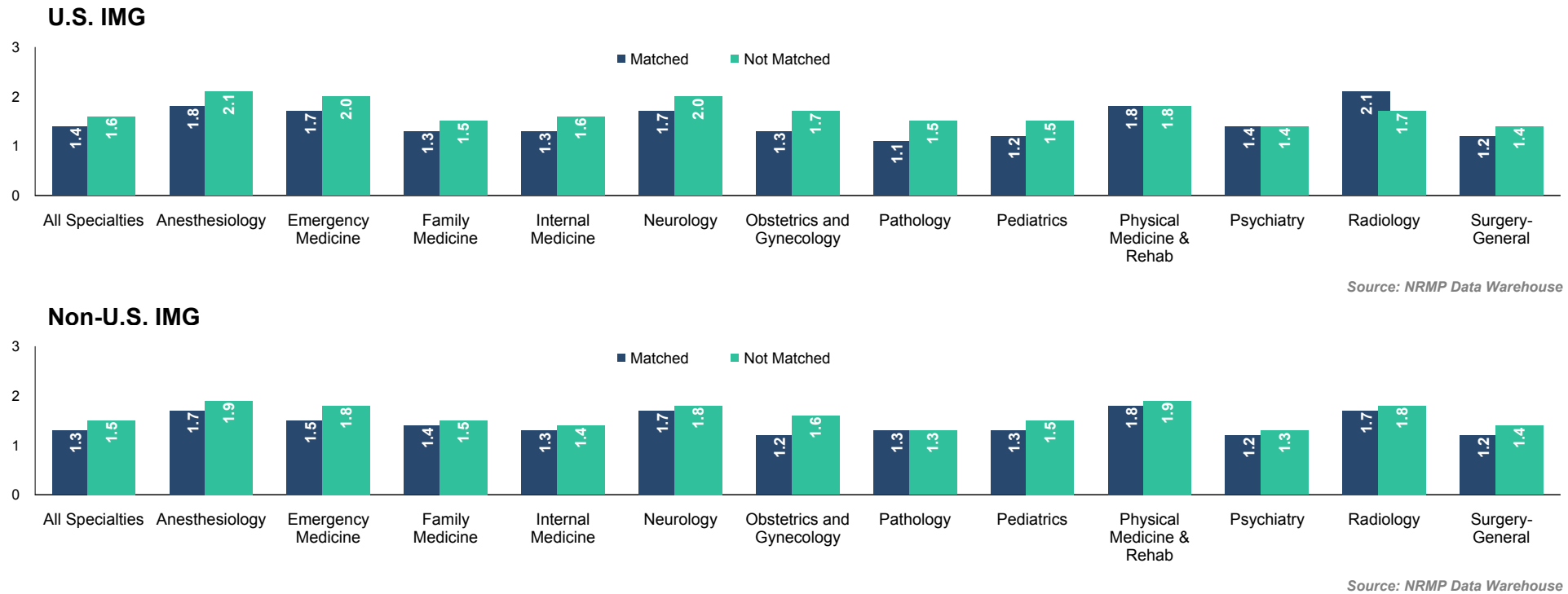
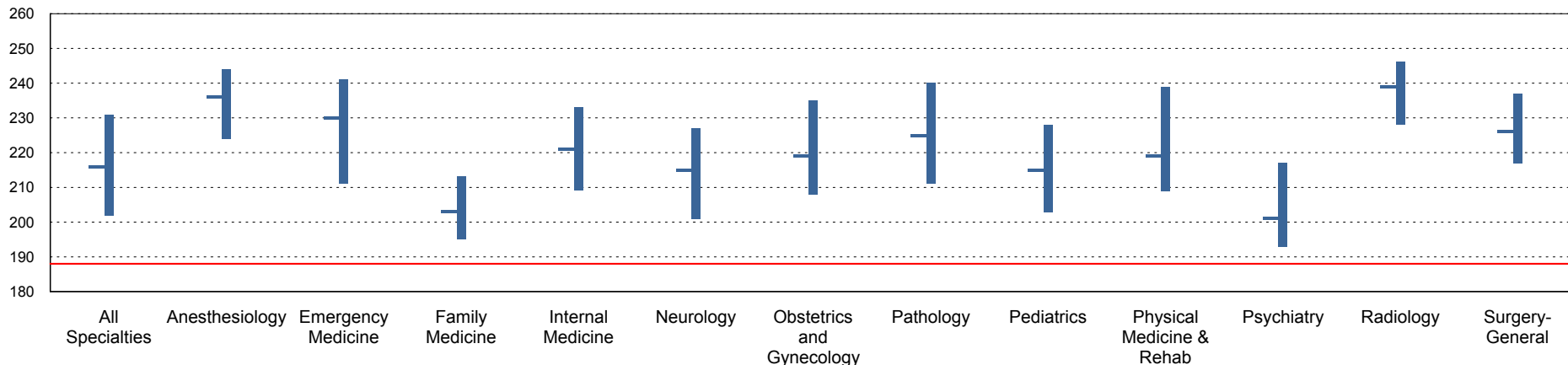


Chart 5 displays the average number of different specialties ranked by IMG applicant type, preferred specialty, and match outcome. With the exception of those who preferred Radiology and PM&R, U.S. IMGs who matched to their preferred specialty ranked fewer specialties than those who did not match to their preferred specialty. In all specialties, matched non-U.S. IMG applicants ranked fewer specialties than those who did not match.

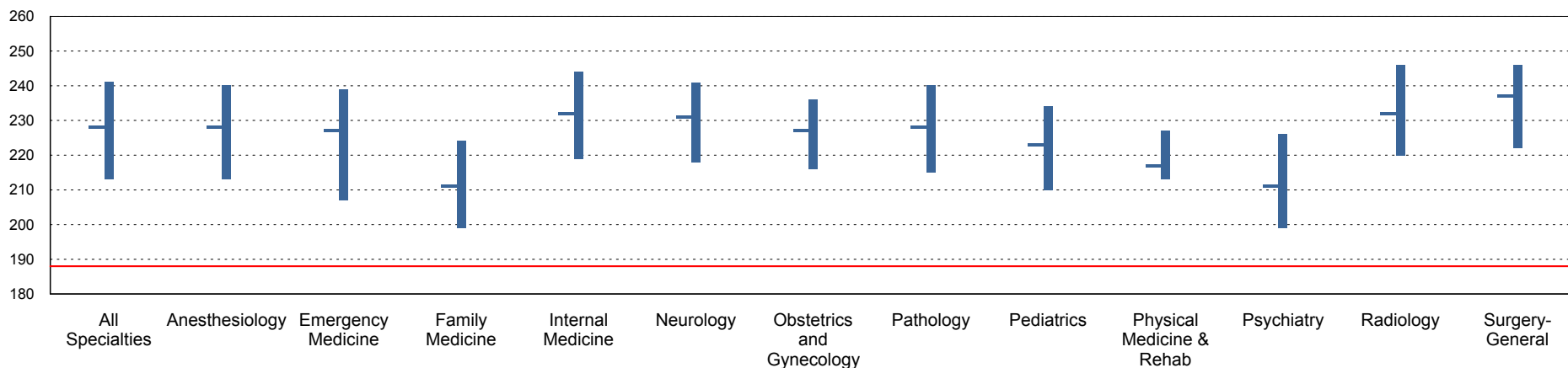
**Chart 6** USMLE Step 1 Scores of Matched Applicants by Preferred Specialty and IMG Applicant Type

**U.S. IMG**



Sources: NRMP Data Warehouse and ECFMG

**Non-U.S. IMG**

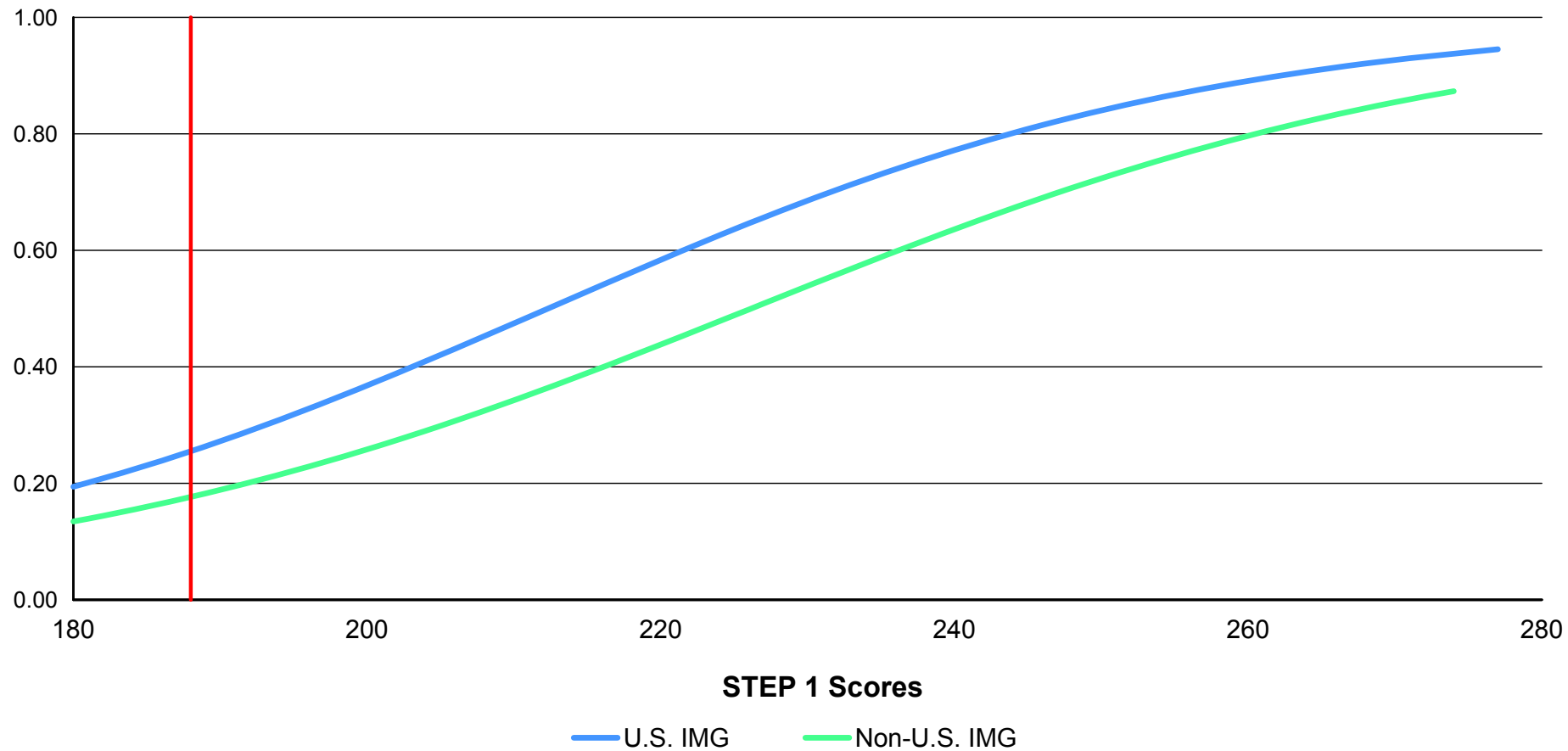


Sources: NRMP Data Warehouse and ECFMG

USMLE Step 1 scores are a measure of an applicant’s understanding of important basic science concepts and the ability to apply that knowledge to the practice of medicine. Although such knowledge is only one facet of applicant qualifications considered by program directors in their selection process, it is one that is comparable across applicants and available during the interview season and prior to the NRMP’s ranking deadline. Overall, matched U.S. IMG applicants have a mean USMLE Step 1 score of 217 (s.d. = 18) and matched non-U.S. IMG applicants have a mean score of 227 (s.d. = 19), both well above the minimum passing score of 188 since 2010 (marked by the red line in the charts). Chart 6 displays the Step 1 scores for matched U.S. IMGs and non-U.S. IMGs by specialty. The horizontal bars are the median values for successful applicants and the vertical lines show the interquartile ranges (between the 25th and 75th percentile). Scores generally are higher for the

**Graph  
2**

**Probability of Matching to Preferred Specialty by USMLE Step 1 Score  
by IMG Applicant Type**

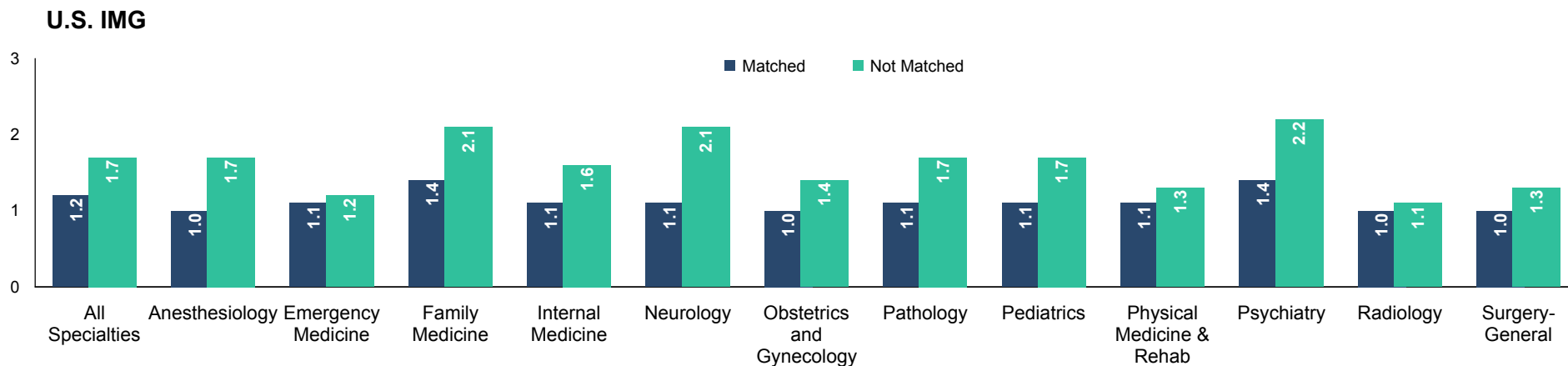


Sources: NRMP Data Warehouse and ECFMG

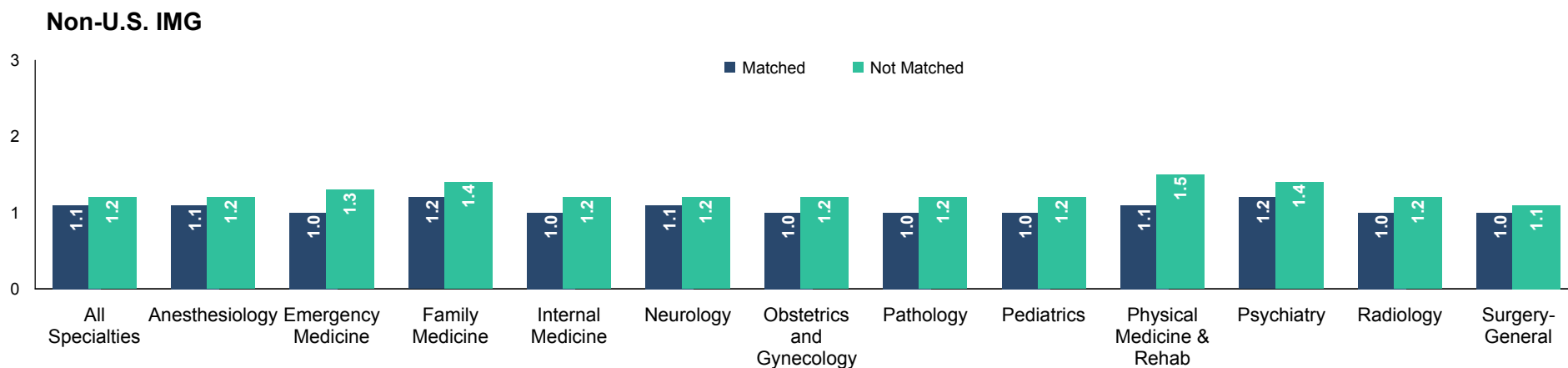
The USMLE Step 1 score is one of the most important criteria that residency programs use in evaluating candidates. A simple logistic regression is used to calculate the probability of matching to a preferred specialty by USMLE Step 1 scores. Graph 2 shows that for the same Step 1 score, U.S. IMGs have a better chance of matching to a preferred specialty than do non-U.S. IMGs. The red line marks the passing score of 188 since 2010. All applicants with Step 1 scores below 188 took the test before January 1, 2010.



**Chart 7** Mean Number of USMLE Step 1 Attempts\* by Preferred Specialty and IMG Applicant Type



Sources: NRMP Data Warehouse and ECFMG



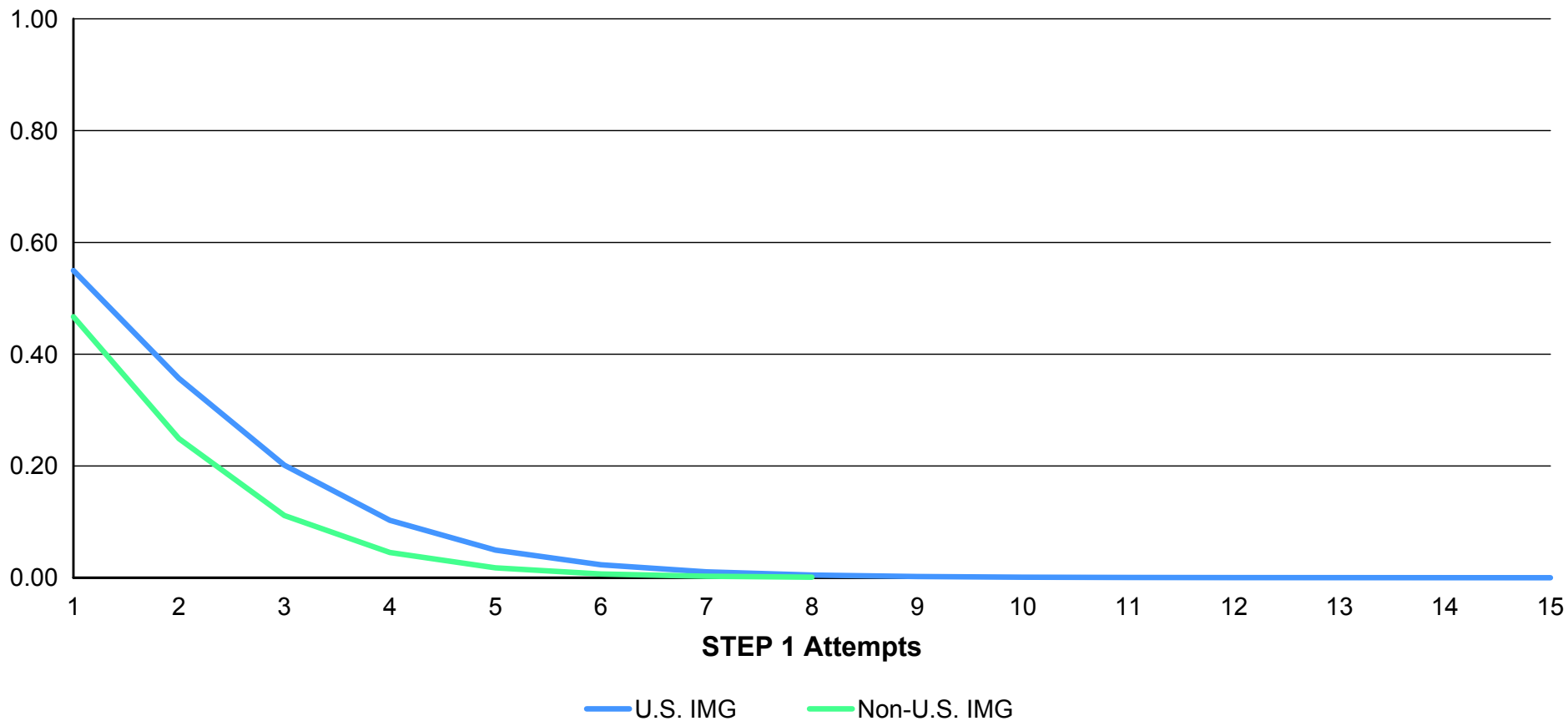
Sources: NRMP Data Warehouse and ECFMG

The number of attempts at USMLE Step 1 (or historical equivalent) was tallied for each IMG applicant. Chart 7 compares the mean number of attempts for matched and unmatched U.S. IMGs and non-U.S. IMGs. Across specialties, matched U.S. IMG and matched non-U.S. IMG applicants made fewer attempts than those who did not match. For U.S. IMGs, the difference in mean number of attempts between matched and unmatched applicants is generally larger than that of the non-U.S. IMGs.

\*USMLE Step 1 or equivalent examination

**Graph  
3**

**Probability of Matching to Preferred Specialty by Step 1 Attempts\*  
by IMG Applicant Type**



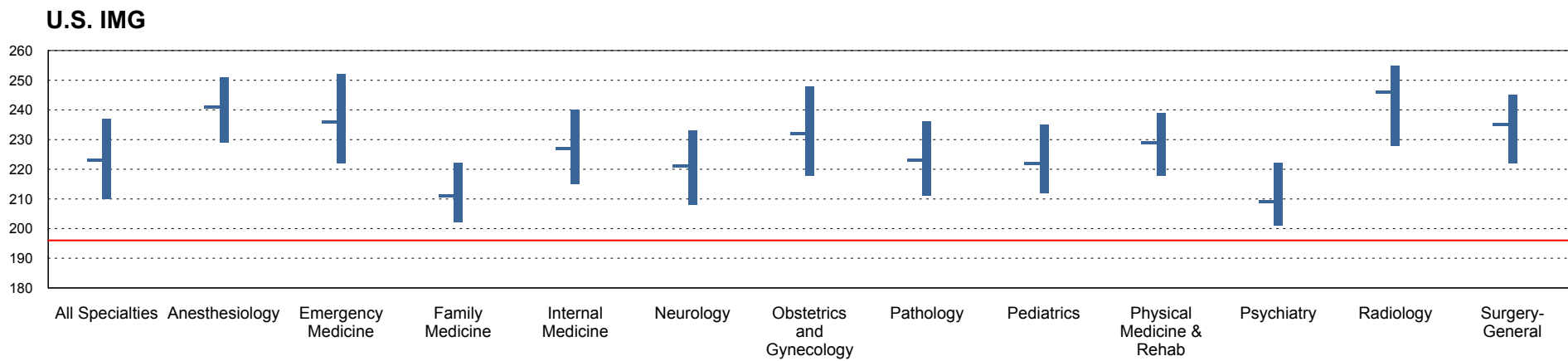
Sources: NRMP Data Warehouse and ECFMG

Probabilities of matching to a preferred specialty also are calculated for Step 1 attempts using a simple logistic regression. Graph 3 displays the probability curves for U.S. IMG and non-U.S. IMG applicants, and shows an inverse association between the number of Step 1 attempts and the probability of matching to a preferred specialty. Although some applicants did match after taking the exam five or six times, applicants should be aware that medical licensure boards in some states impose limits on the number of attempts taken.

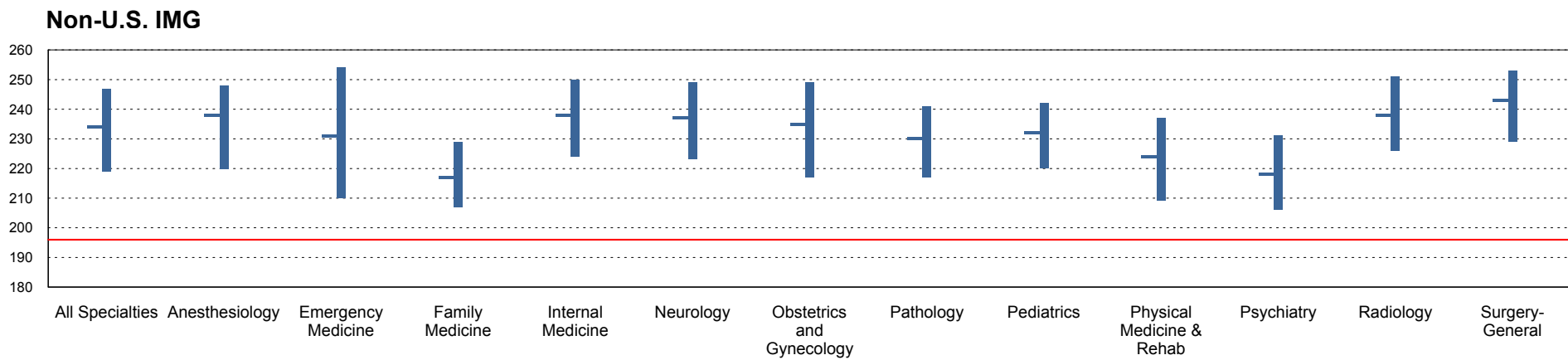
\*USMLE Step 1 or equivalent examination

**Chart  
8**

**USMLE Step 2 CK (Clinical Knowledge) Scores of Matched Applicants  
by Preferred Specialty and IMG Applicant Type**



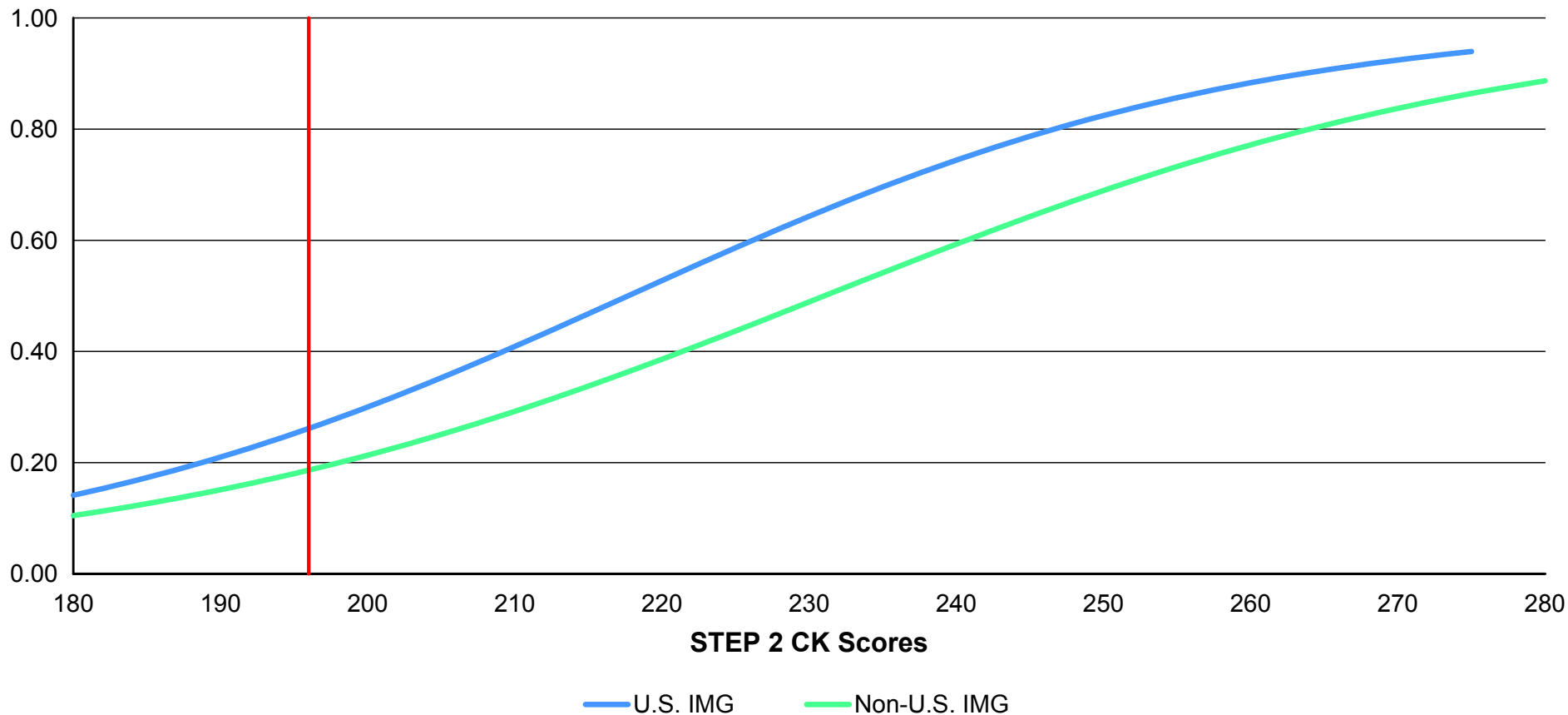
Sources: NRMP Data Warehouse and ECFMG.



Sources: NRMP Data Warehouse and ECFMG.

USMLE Step 2 scores are a measure of an applicant's ability to apply the medical knowledge, skills, and understanding of clinical science essential for providing patient care. Overall, U.S. IMG applicants had mean USMLE Step 2 CK scores of 224 (s.d. = 19) and non-U.S. IMG applicants had mean scores of 233 (s.d. = 19), both well above the 2012 minimum passing score of 196 (marked by the red lines in the chart). Chart 8 shows the Step 2 CK scores for U.S. IMGs and non-U.S. IMG applicants who matched to their preferred specialty. The horizontal bars are the median values for successful applicants and the vertical lines show the interquartile ranges. As was the case for Step 1 scores, the more competitive specialties have higher average Step 2 CK scores. The interquartile ranges are generally larger for non-U.S. IMGs, especially for Emergency Medicine.

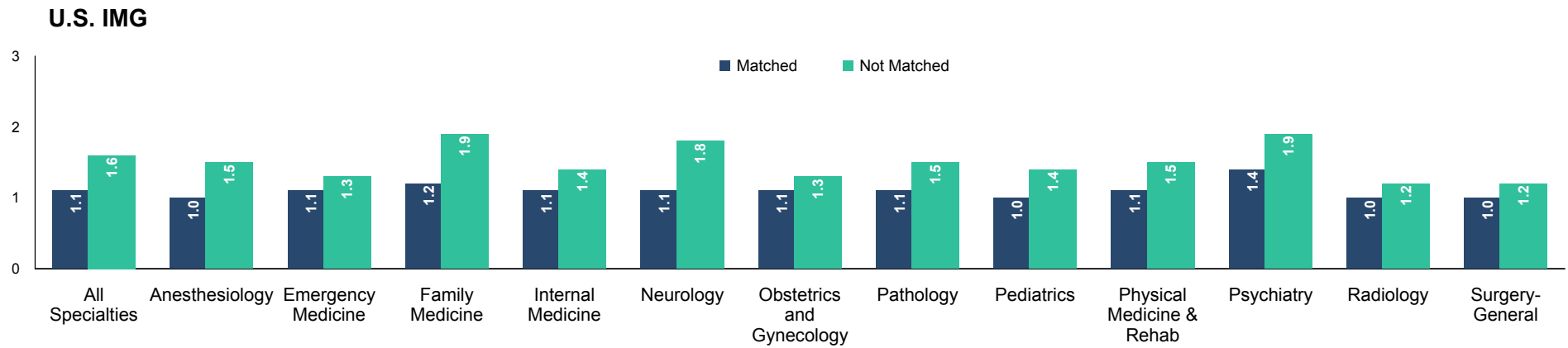
**Graph 4** Probability of Matching to Preferred Specialty by USMLE Step 2 CK (Clinical Knowledge) Score by IMG Applicant Type



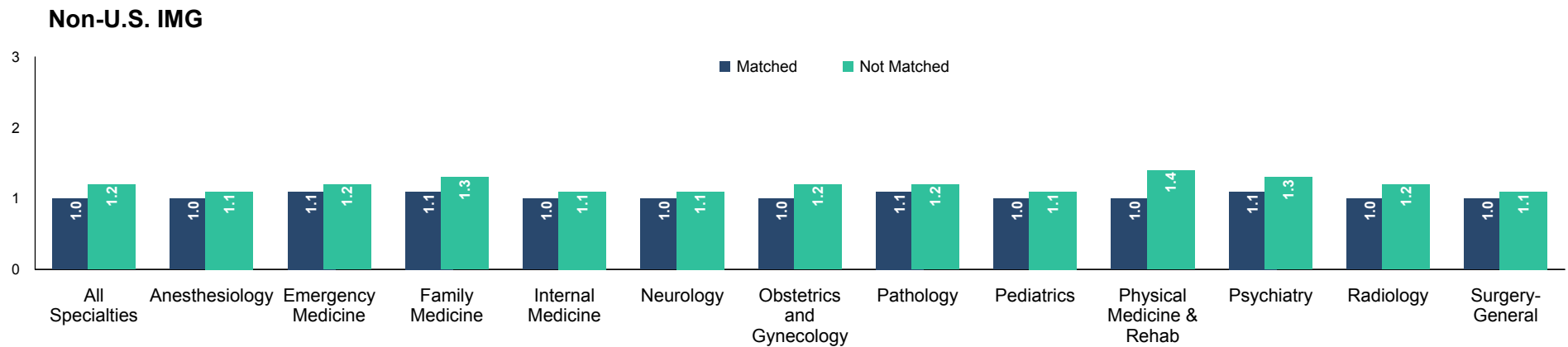
Sources: NRMP Data Warehouse and ECFMG

Probabilities of matching to a preferred specialty also are calculated for scores on Step 2 CK. Graph 4 presents the probability curves for U.S. IMG and non-U.S. IMG applicants. The red line marks the passing score of 196 in 2012. All applicants with Step 2 CK score below 196 took the test before May 17, 2012, when USMLE announced the plan to raise the passing score from 189 to 196.

**Chart 9** Mean Number of USMLE Step 2 CK (Clinical Knowledge) Attempts\* by Preferred Specialty, IMG Applicant Type, and Match Status



Sources: NRMP Data Warehouse and ECFMG



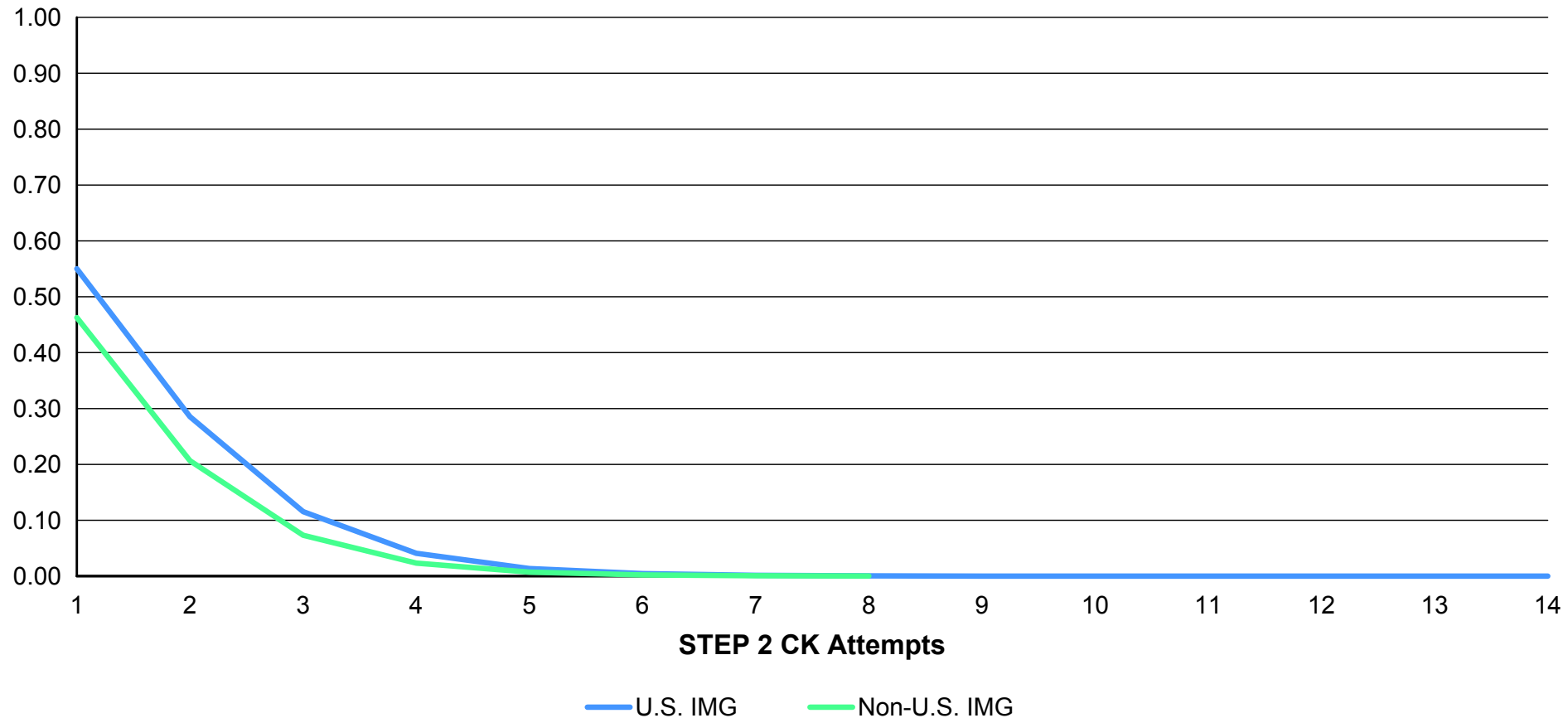
Sources: NRMP Data Warehouse and ECFMG

Chart 9 compares the mean number of attempts at Step 2 CK or equivalent historical exams for matched and unmatched U.S. IMGs and non-U.S. IMGs. Across specialties, matched U.S. IMG and matched non-U.S. IMG applicants made fewer attempts than those who did not match. In addition, the difference is generally larger among U.S. IMGs.

\*USMLE Step 2 CK or equivalent examination

**Graph  
5**

**Probability of Matching to Preferred Specialty by USMLE Step 2 CK (Clinical Knowledge) Attempts\*  
by IMG Applicant Type, and Match Status**



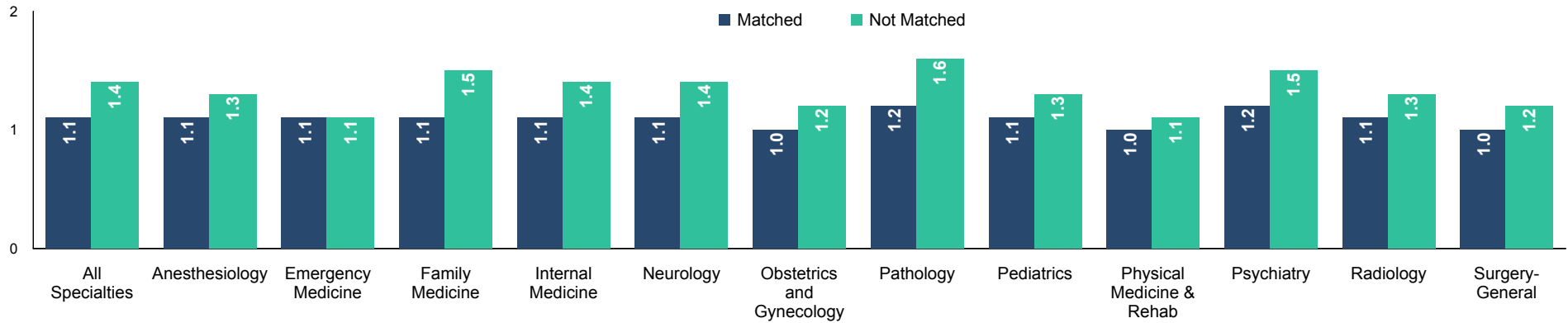
Sources: NRMP Data Warehouse and ECFMG

Probabilities of matching to a preferred specialty are calculated for attempts at Step 2 CK or equivalent historical exams using a simple logistic regression. Graph 5 compares the probabilities of matching for different numbers of attempts. Similar to the Step 1 attempts, this graph shows that the more times the exams are attempted, the lower the probability of obtaining a position in a preferred specialty.

\*USMLE Step 2 CK or equivalent examination

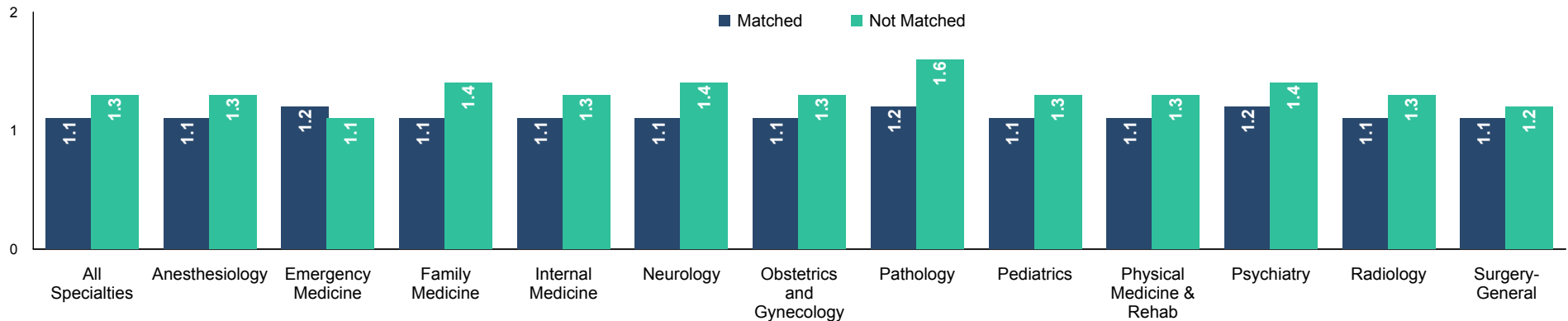
**Chart 10** Mean Number Attempts at of USMLE Step 2 CS (Clinical Skills) or ECFMG CSA (Clinical Skills Assessment) by Preferred Specialty, IMG Applicant Type, and Match Status

**U.S. IMG**



Sources: NRMP Data Warehouse and ECFMG.

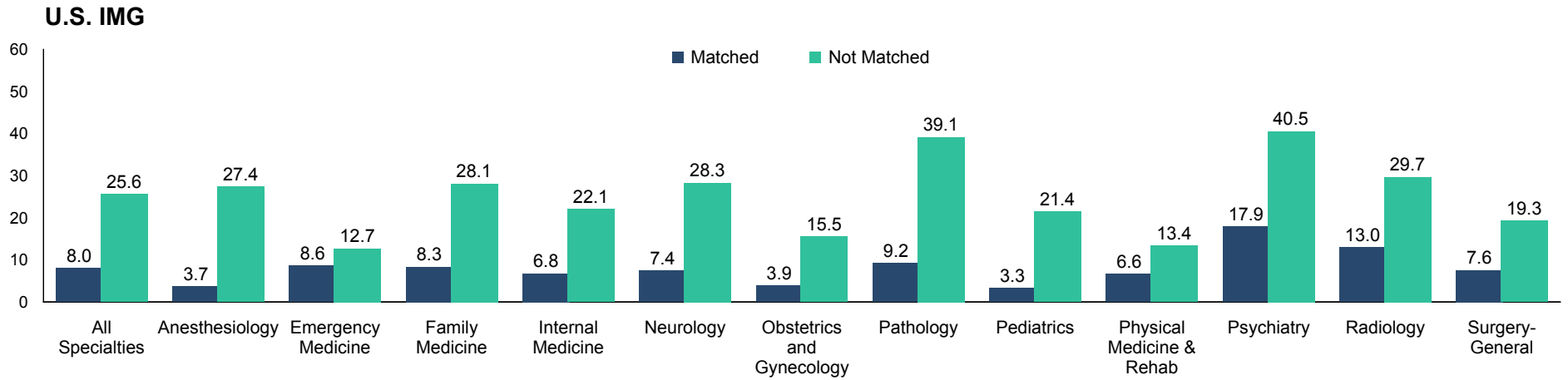
**Non-U.S. IMG**



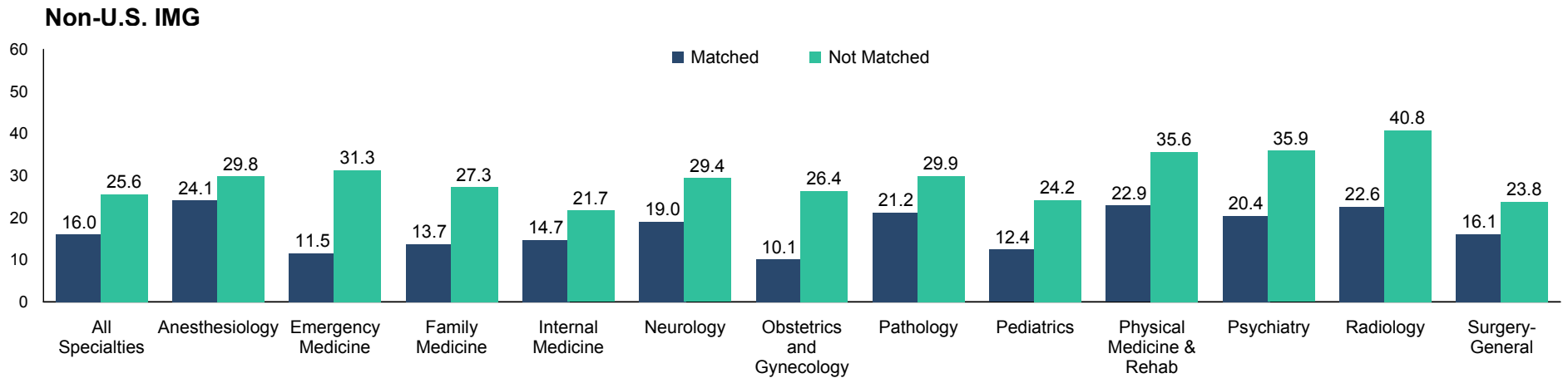
Sources: NRMP Data Warehouse and ECFMG.

Passing USMLE Step 2 CS is a requirement for ECFMG certification. Because USMLE reports only pass/fail status on this exam, only the number of attempts at the exam is studied. Chart 10 compares the mean number of attempts at Step 2 CS or equivalent exams for matched and unmatched U.S. IMGs and non-U.S. IMGs. There are limited variations among the specialties. For all specialties except Emergency Medicine, matched U.S. IMG and matched non-U.S. IMG applicants made fewer attempts than those who did not match.

**Chart 11** Mean Number of Months after ECFMG Certification by Preferred Specialty, IMG Applicant Type, and Match Status



Source: NRMP Data Warehouse and ECFMG

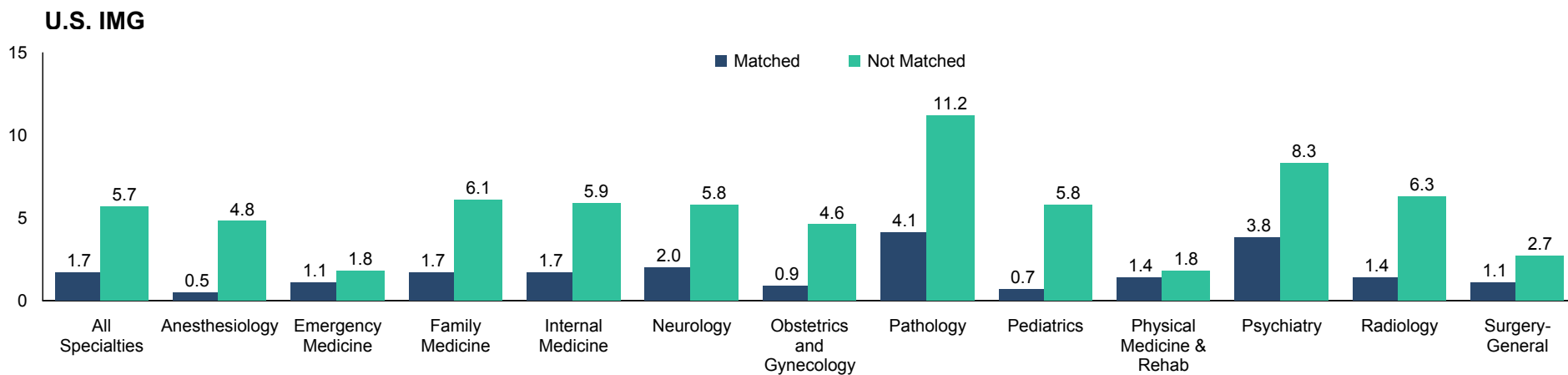


Source: NRMP Data Warehouse and ECFMG

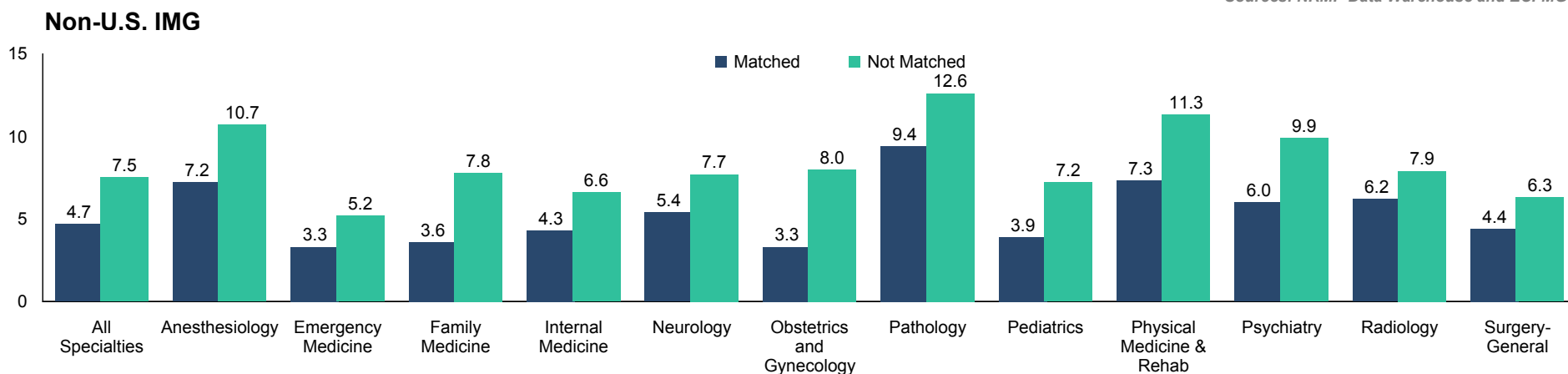
Chart 11 demonstrates the mean number of months after the applicants obtained ECFMG certification, calculated as the number of months between the date of ECFMG certification and March 1, 2013. There are some variations among the specialties and between the two types of IMG applicants, but no obvious specialty-specific pattern exists. Generally, matched applicants of both applicant types obtained ECFMG certification later than those who did not match to their preferred specialty. The difference is more notable among U.S. IMG applicants, averaging almost 18 month between the matched and unmatched applicants.



**Chart 12** Mean Number of Years After Graduation by Preferred Specialty, IMG Applicant Type, and Match Status



Sources: NRMP Data Warehouse and ECFMG



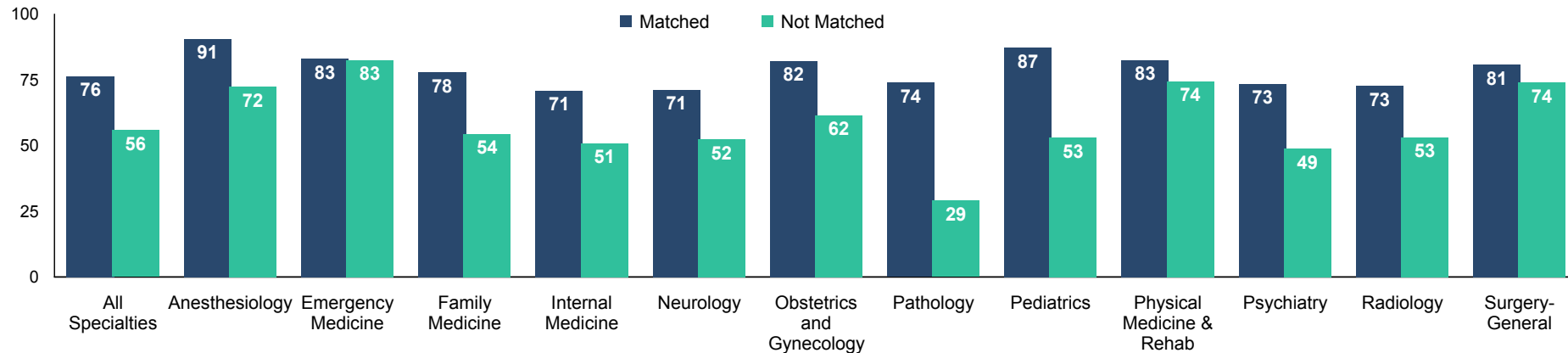
Sources: NRMP Data Warehouse and ECFMG

The number of years after graduation is calculated as the difference between the year of graduation and 2013. Chart 12 shows the mean number of years after graduation for matched and unmatched U.S. IMG and non-U.S. IMG applicants. In general, matched applicants of both applicant types graduated later than those who did not match to their preferred specialty. U.S. IMG applicants showed a larger difference of about 6 years for all specialties than the 3-year difference for non-U.S. IMGs. In addition, the average non-U.S. IMGs graduated earlier than their U.S. IMG counterparts.

**Chart 13**

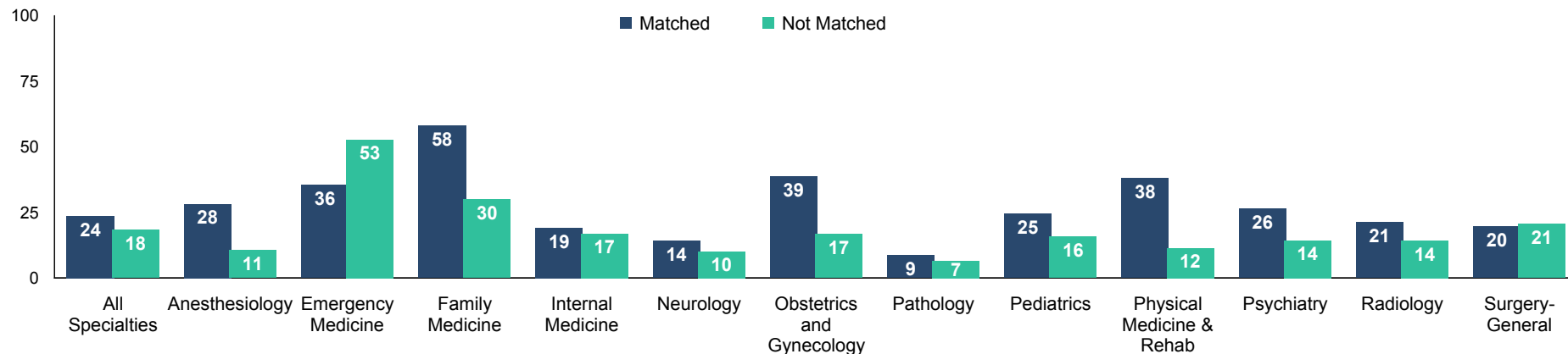
**Percentage of IMG Applicants whose Native Language is English\* by Preferred Specialty, IMG Applicant Type, and Match Status**

**U.S. IMG**



Source: NRMP Data Warehouse and ECFMG

**Non-U.S. IMG**



Source: NRMP Data Warehouse and ECFMG

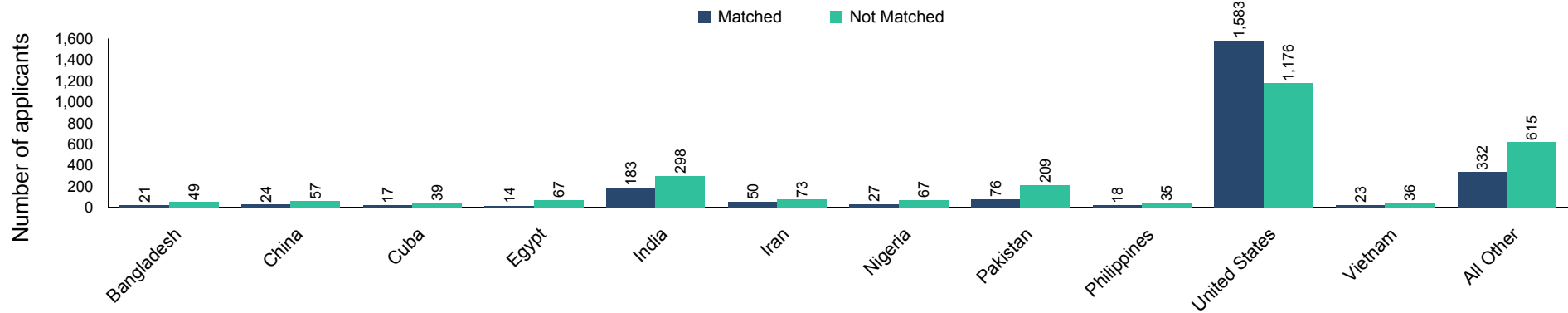
Chart 13 summarizes the percentage of applicants by applicant type whose native language is English and who were matched or not matched to their preferred specialties. Not surprisingly, more U.S. IMGs speak English as their native language. In most specialties, a larger percentage of matched applicants speak English as their native language.

\* Native language as English is self-reported

# Chart 14

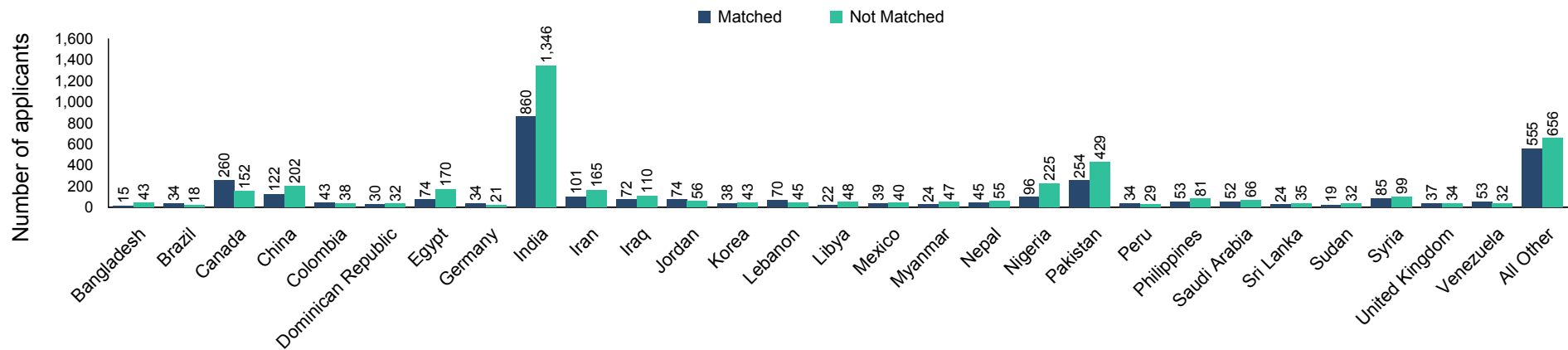
## IMG Applicants' Citizenship at Birth by IMG Applicant Type and Match Status

### U.S. IMG



Source: NRMP Data Warehouse and ECFMG

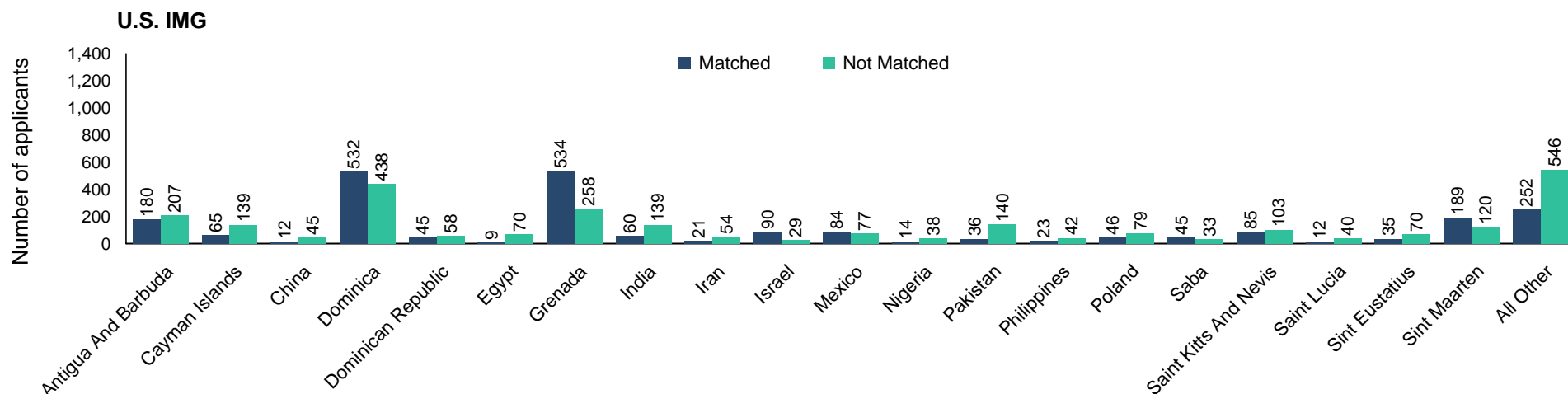
### Non-U.S. IMG



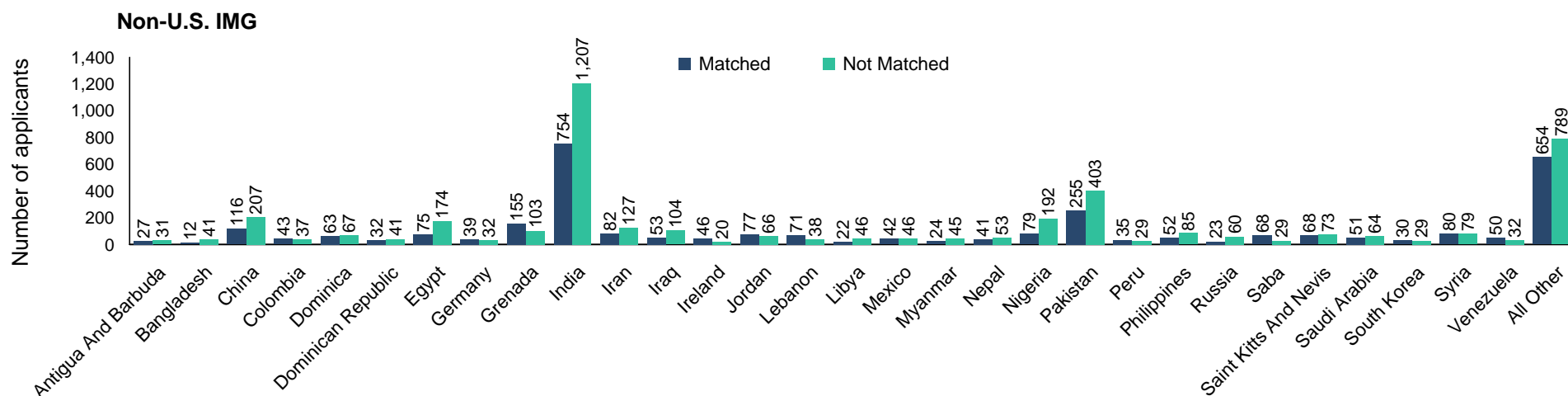
Source: NRMP Data Warehouse and ECFMG

Applicants' citizenship at birth is presented in Chart 14. Only countries with at least 50 U.S. IMG applicants or non-U.S. IMG applicants are included. Not counting United States, India contributed the highest number of IMGs to the Match, followed by Pakistan. Other countries with more than 100 applicants in a category include Canada, Nigeria, China, Iran, Iraq, and Egypt. This chart is not presented in specialty-specific analysis.

**Chart 15** Country of Medical School by IMG Applicant Type and Match Status



Source: NRMP Data Warehouse and ECFMG



Source: NRMP Data Warehouse and ECFMG

Match status by country of medical school for U.S. IMG and non-U.S. IMG applicants is presented in Chart 15. Only countries with at least 50 U.S. IMG applicants or non-U.S. IMG applicants are reported. Most U.S. IMGs were trained in the Caribbean countries such as Dominica, Grenada, Antigua and Barbuda, and Sint Maarten. A large number of non-U.S. IMGs were trained in India and Pakistan. Medical schools in Nigeria, China, and Egypt also contributed many physicians to U.S. residency programs.

---



## **Tables and Charts for Selected Specialties**

**AN**

**Anesthesiology**

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| Measure   | U.S. IMG          |                     | Non-U.S. IMG      |                     |
|---|-------------------|---------------------|-------------------|---------------------|
|   | Matched<br>(n=95) | Unmatched<br>(n=65) | Matched<br>(n=78) | Unmatched<br>(n=85) |
| 1. Mean number of contiguous ranks                    | 9                 | 3                   | 4                 | 3                   |
| 2. Mean number of distinct specialties ranked         | 1.8               | 2.1                 | 1.7               | 1.9                 |
| 3. Mean USMLE Step 1 score                            | 234               | 210                 | 226               | 219                 |
| 4. Mean USMLE Step 1 attempts*                        | 1.0               | 1.7                 | 1.1               | 1.2                 |
| 5. Mean USMLE Step 2 CK score                         | 239               | 212                 | 234               | 221                 |
| 6. Mean USMLE Step 2 CK attempts**                    | 1.0               | 1.5                 | 1.0               | 1.1                 |
| 7. Mean USMLE Step 2 CS or ECFMG CSA attempts         | 1.1               | 1.3                 | 1.1               | 1.3                 |
| 8. Mean number of months since ECFMG certification    | 4                 | 27                  | 24                | 30                  |
| 9. Mean number of years since graduation              | 0.5               | 4.8                 | 7.2               | 10.7                |
| 10. Percentage who speak English as a native language | 91                | 72                  | 28                | 11                  |

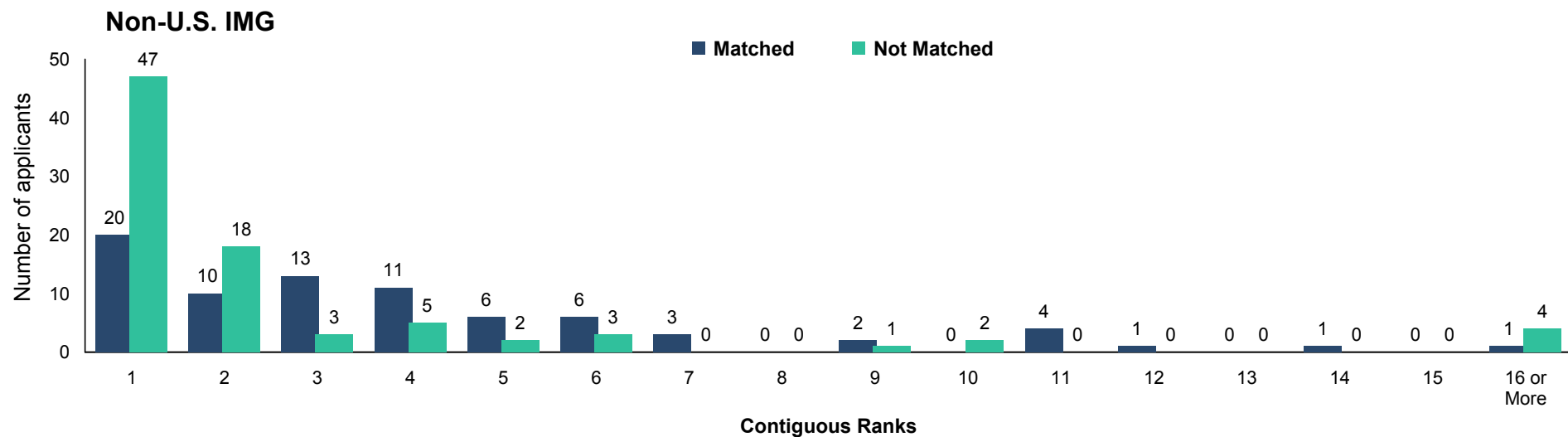
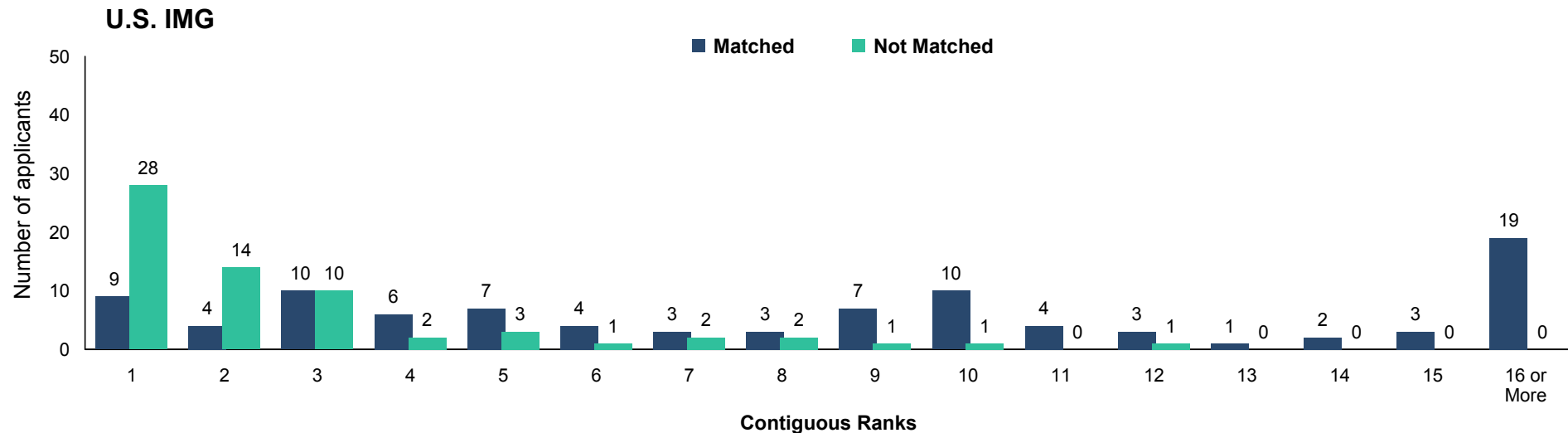
Sources: NRMP Data Warehouse and ECFMG

\*USMLE Step 1 or equivalent examination

\*\*USMLE Step 2 CK or equivalent examination

**Chart AN-1**

**Number of Contiguous Ranks Within Preferred Specialty  
Anesthesiology**



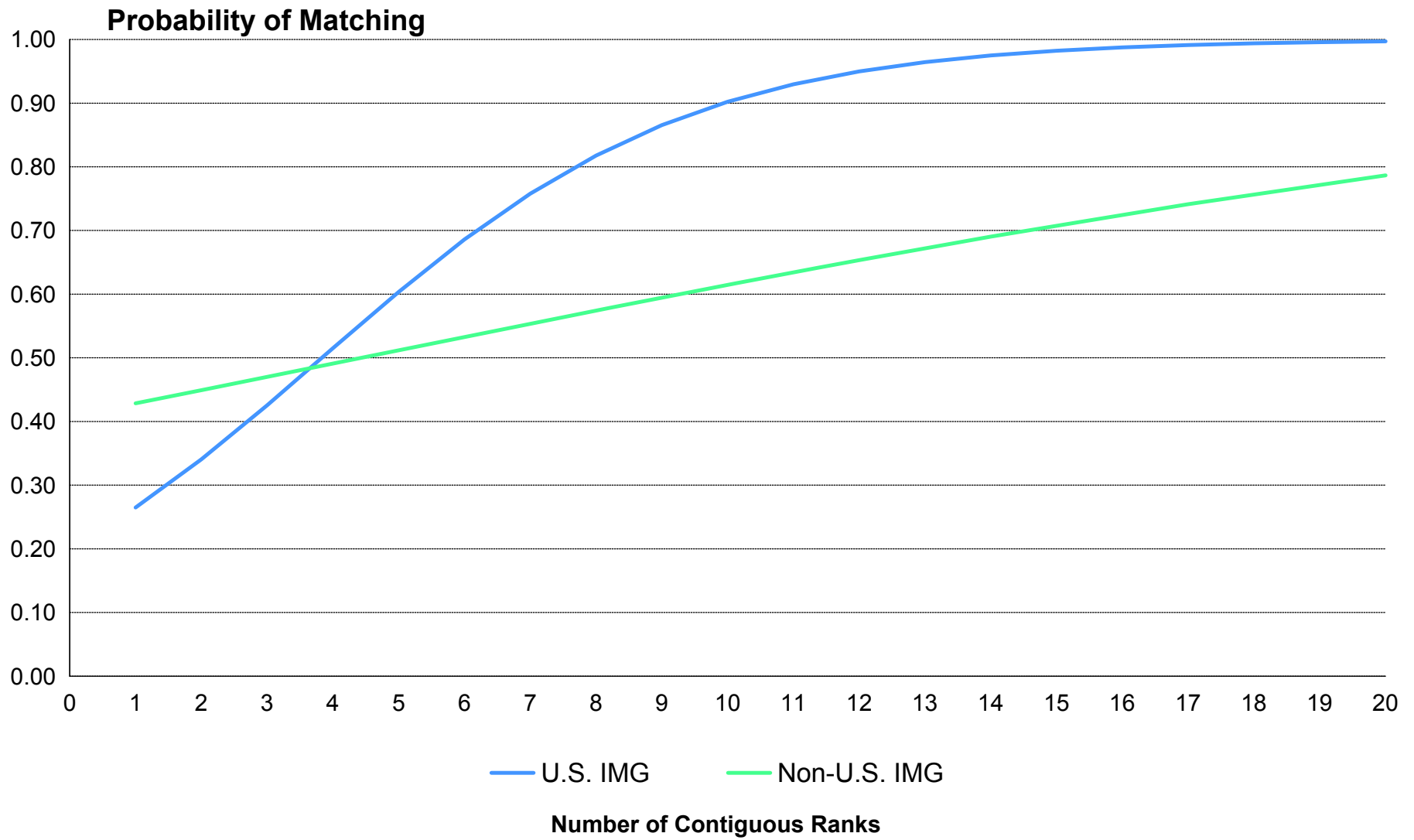
Source: NRMP Data Warehouse

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**Graph  
AN-1**

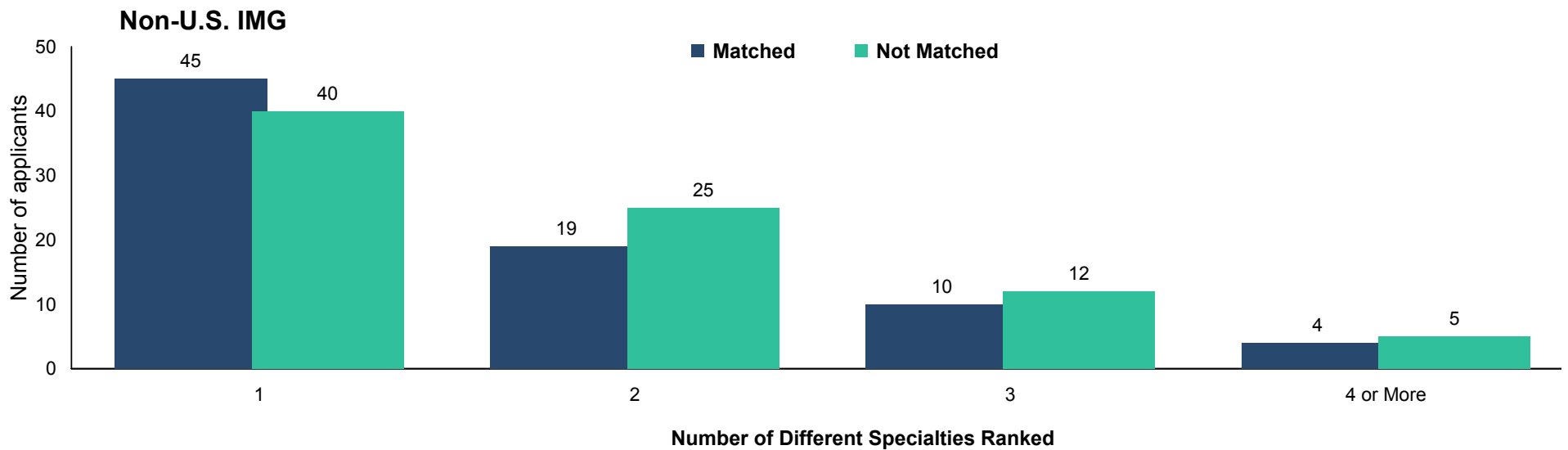
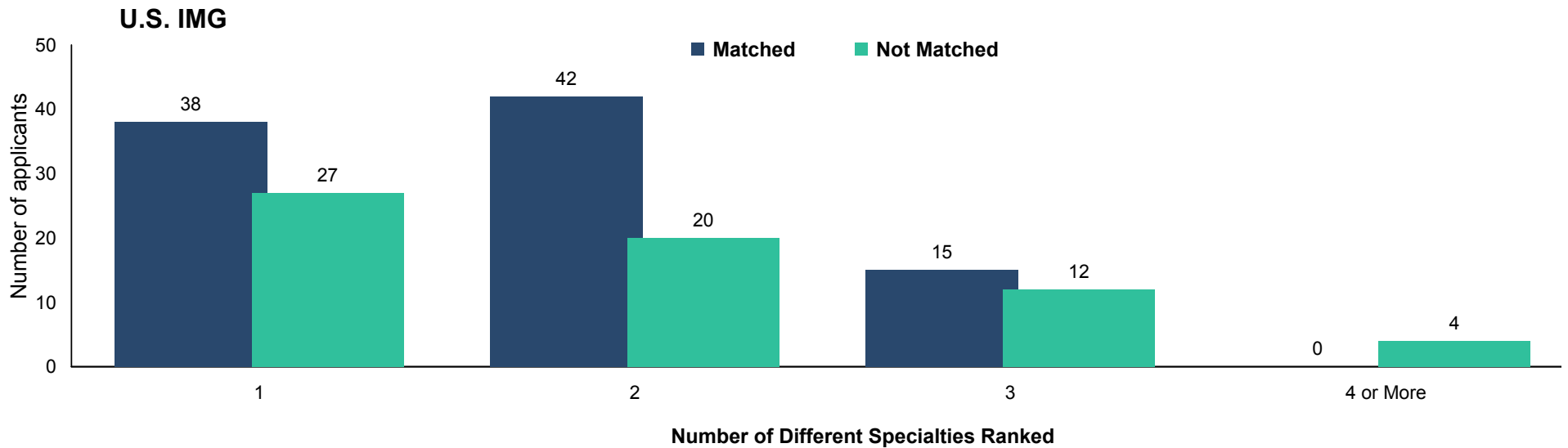
**Probability of Matching to Preferred Specialty by Number of Contiguous Ranks**  
*Anesthesiology*



Source: NRMP Data Warehouse.

**Chart  
AN-2**

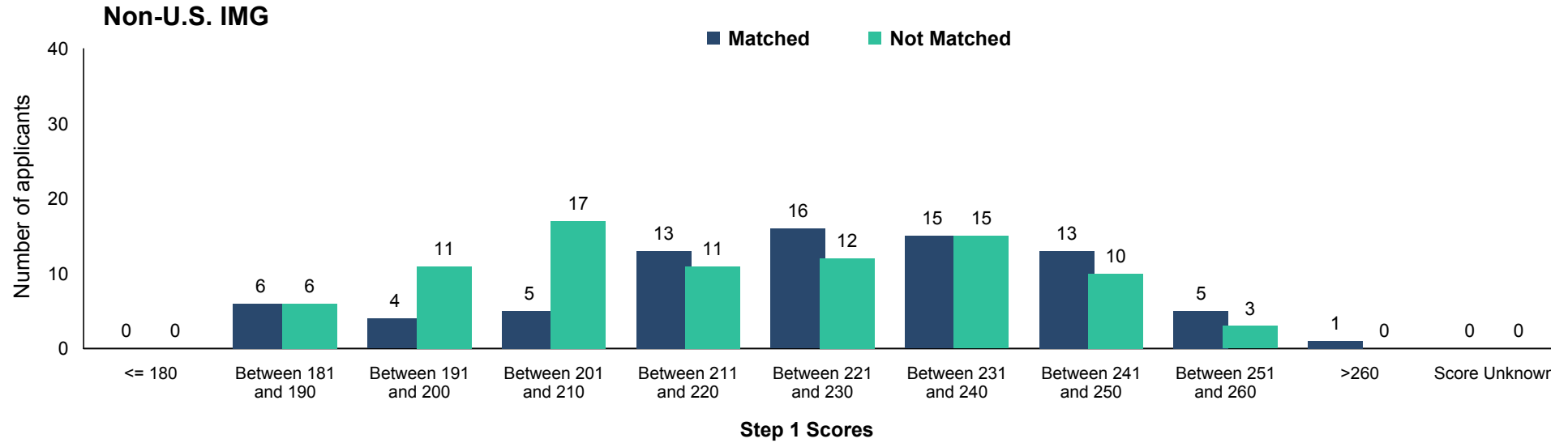
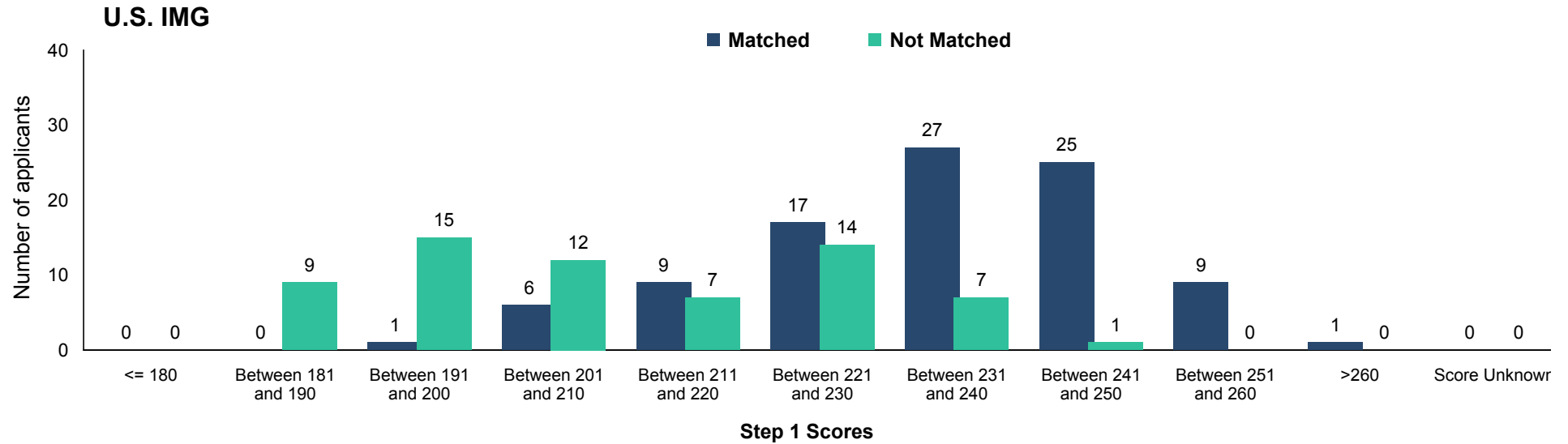
**Number of Applicants Ranking Different Specialties  
Anesthesiology**



Source: NRMP Data Warehouse

**Chart  
AN-3**

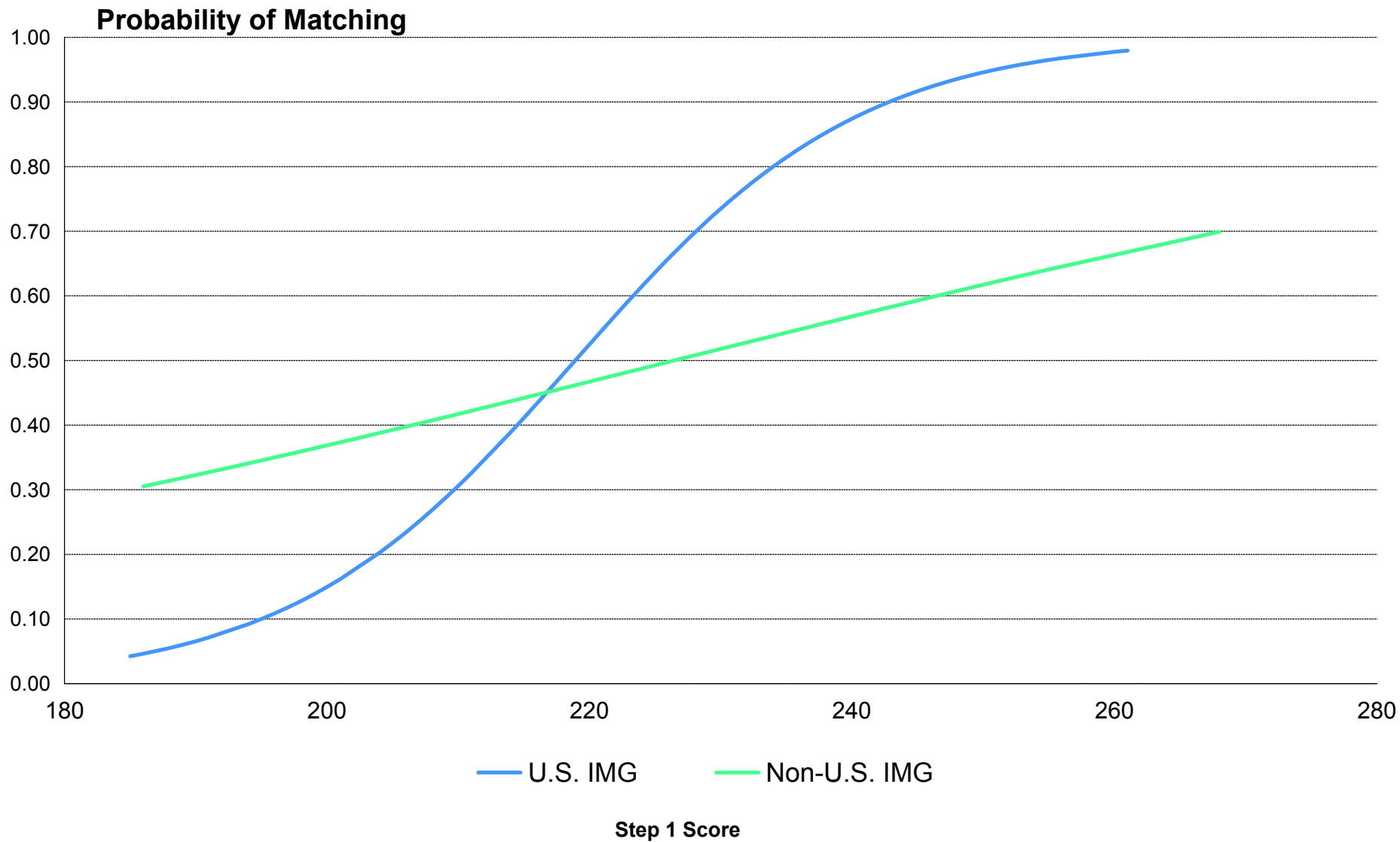
**USMLE Step 1 Scores  
Anesthesiology**



Source: NRMP Data Warehouse and ECFMG.

**Graph  
AN-2**

**Probability of Matching to Preferred Specialty by USMLE Step 1 Score**  
*Anesthesiology*

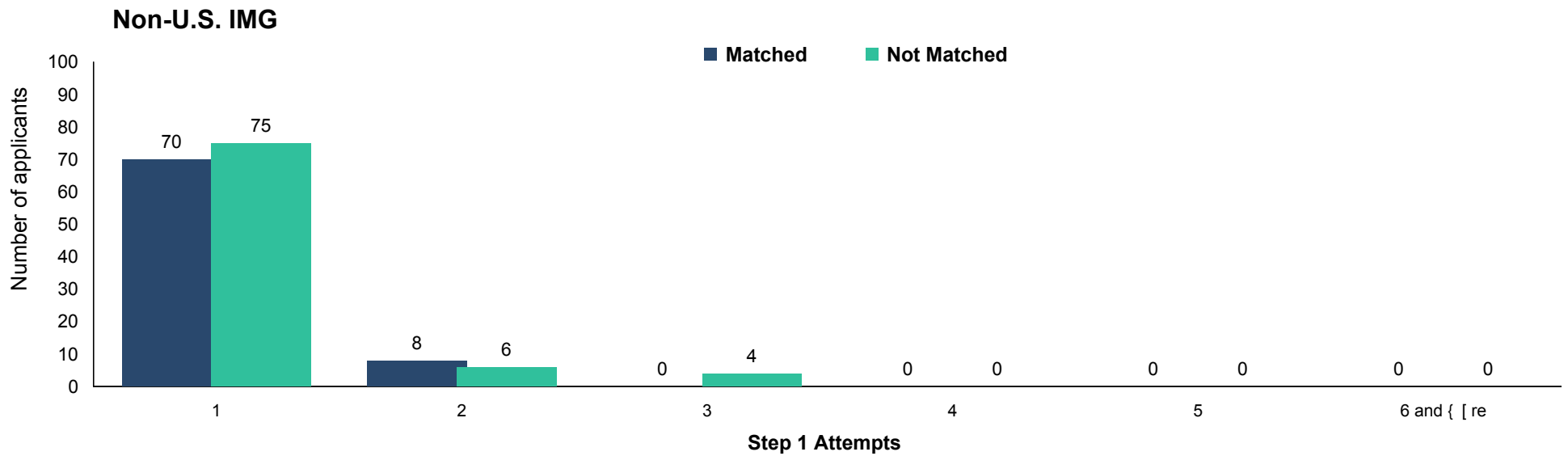
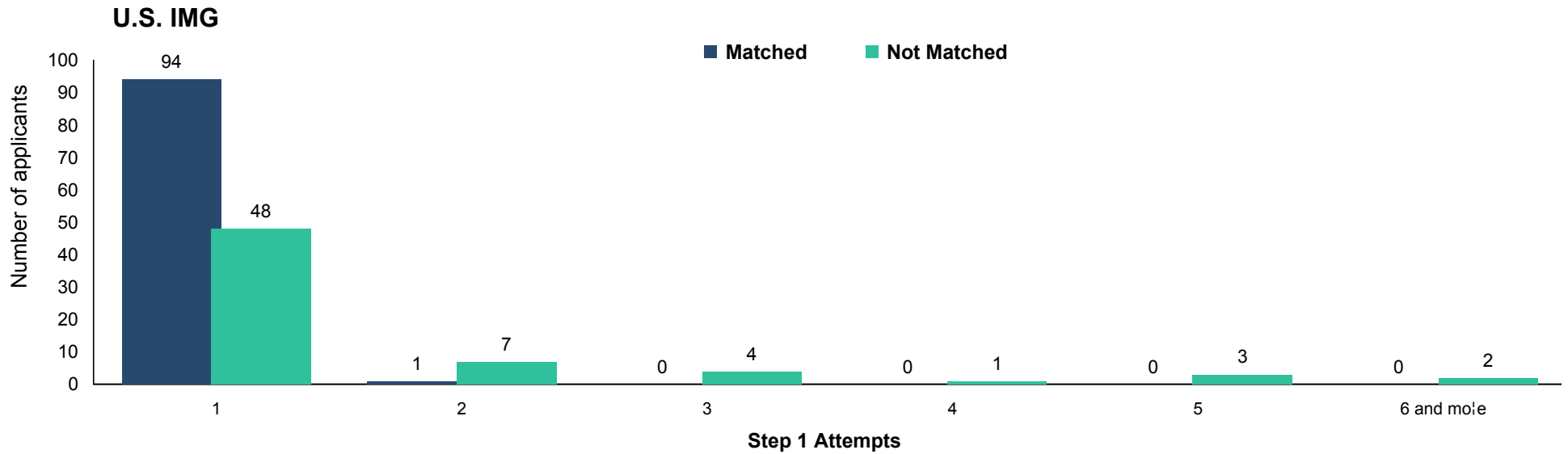


Source: NRMP Data Warehouse and ECFMG.

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**Chart  
AN-4**

**USMLE Step 1 Attempts\*  
Anesthesiology**

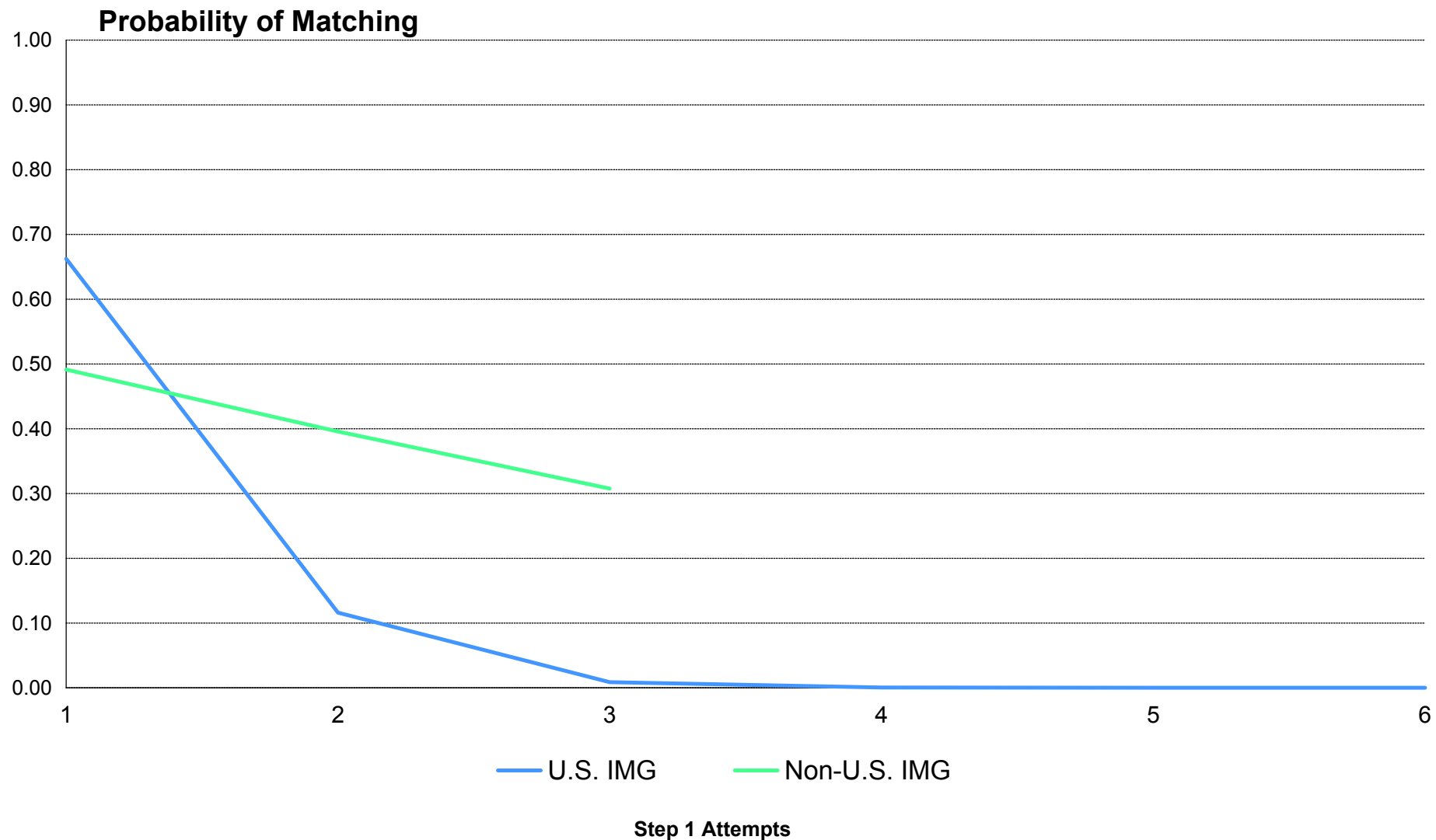


Source: NRMP Data Warehouse and ECFMG.

\*USMLE Step 1 or equivalent examination

**Graph  
AN-3**

**Probability of Matching to Preferred Specialty by Number of Step 1 Attempts\***  
*Anesthesiology*

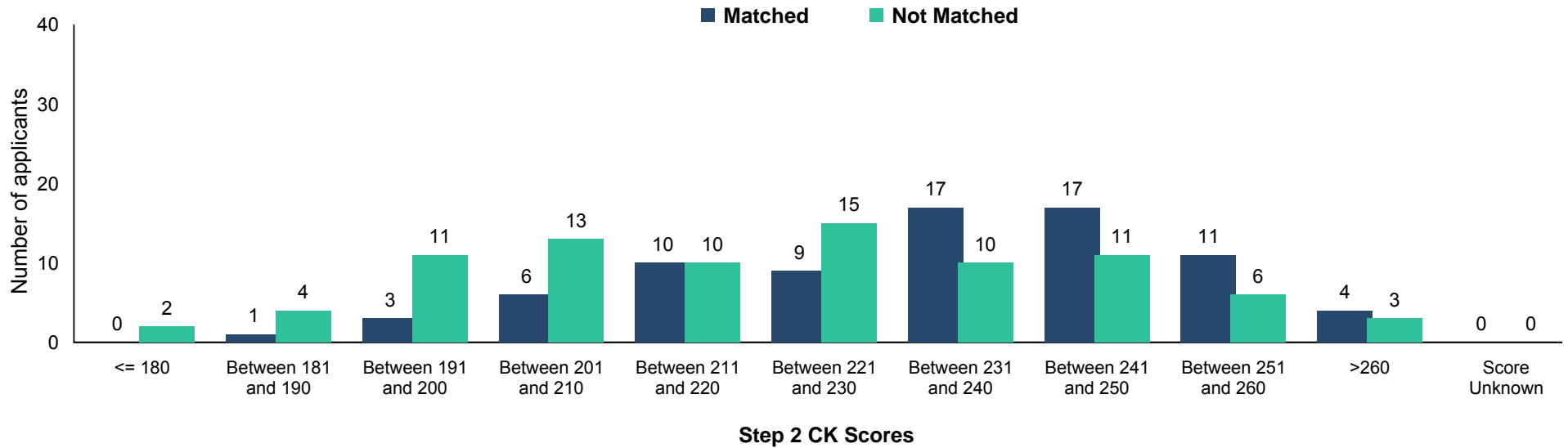
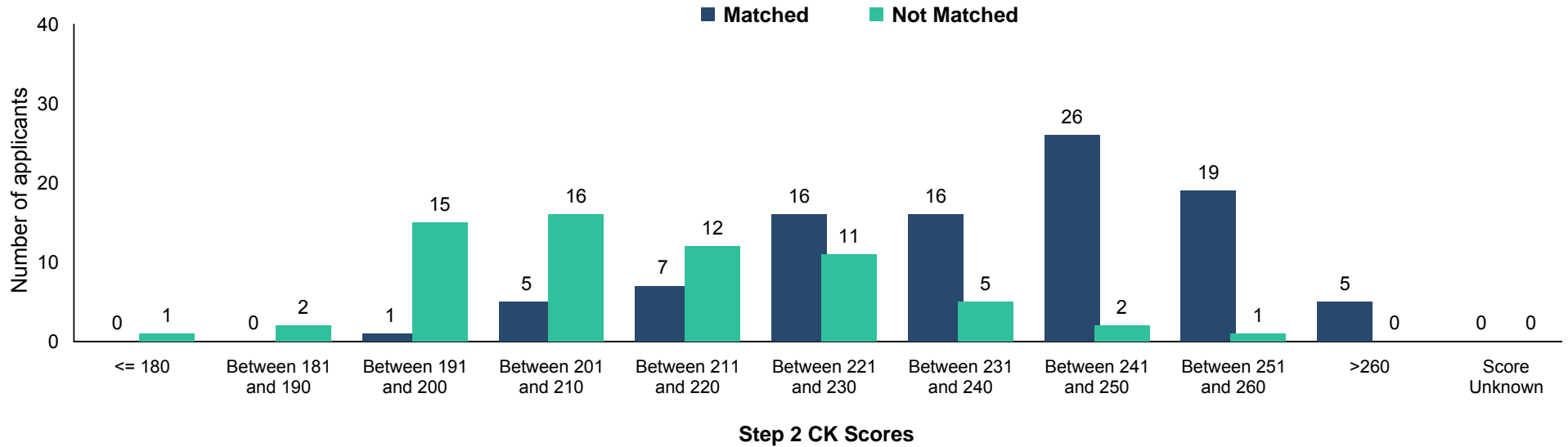


Source: NRMP Data Warehouse and ECFMG.

\*USMLE Step 1 or equivalent examination

**Chart  
AN-5**

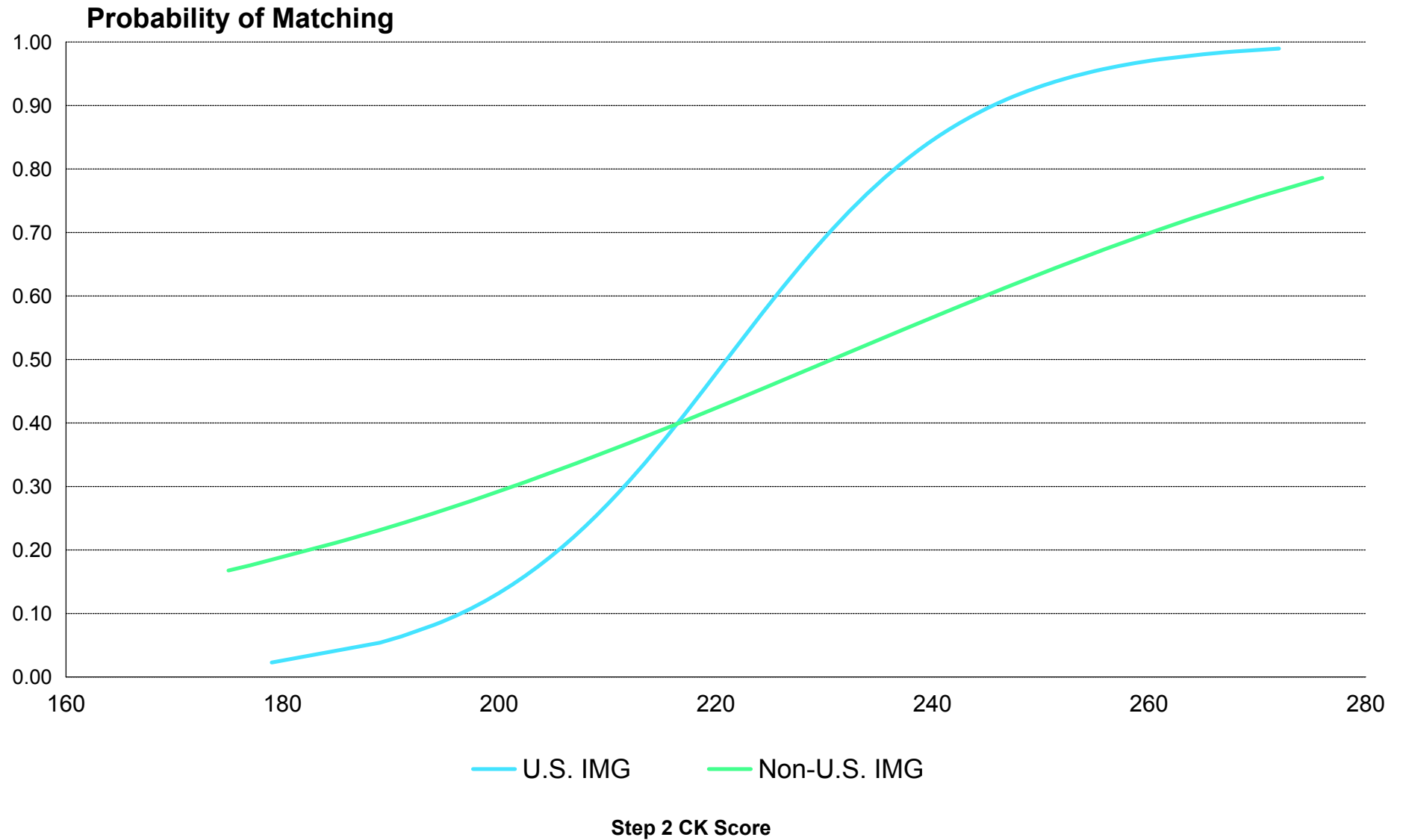
**USMLE Step 2 CK (Clinical Knowledge) Scores  
Anesthesiology**



Source: NRMP Data Warehouse and ECFMG.

**Graph  
AN-4**

**Probability of Matching to Preferred Specialty by USMLE Step 2 CK (Clinical Knowledge) Score**  
*Anesthesiology*



Source: NRMP Data Warehouse and ECFMG.

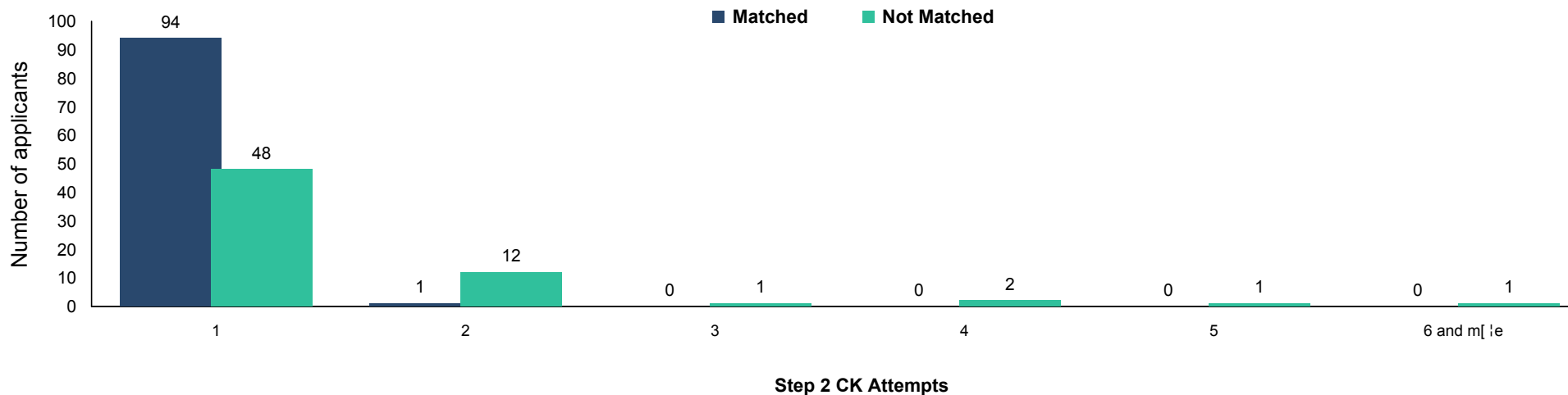
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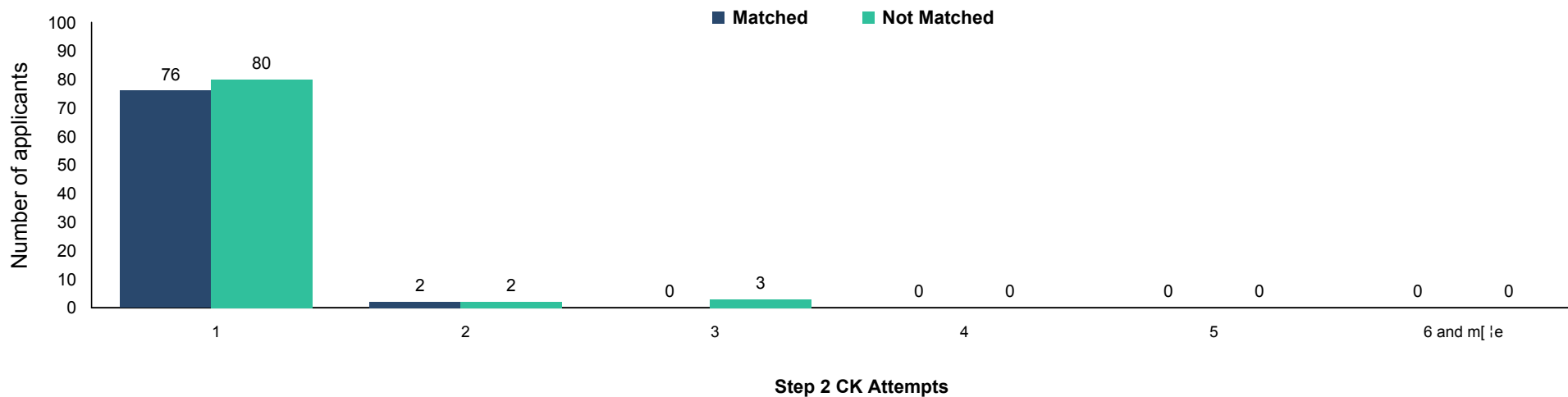
**Chart  
AN-6**

**USMLE Step 2 CK (Clinical Knowledge) Attempts\*  
Anesthesiology**

**U.S. IMG**



**Non-U.S. IMG**

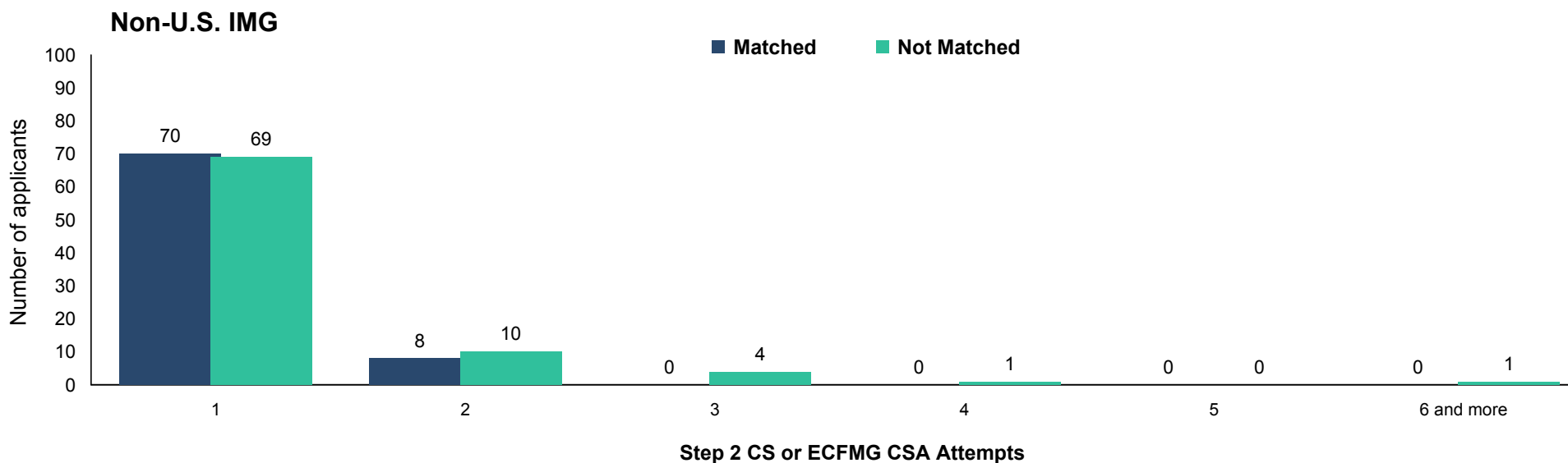
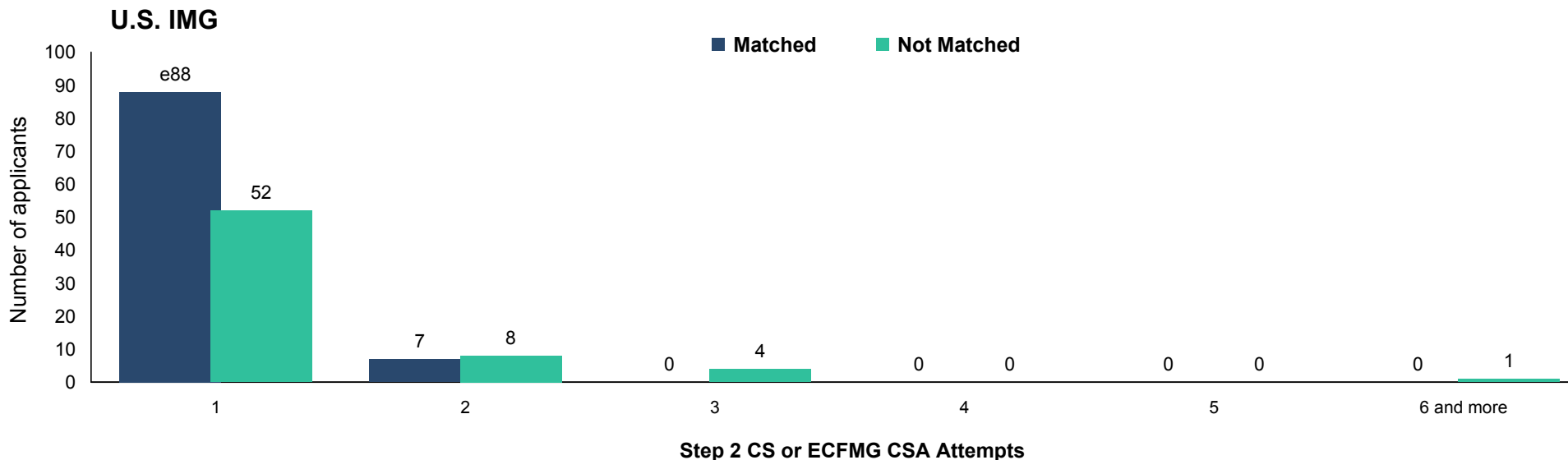


Source: NRMP Data Warehouse and ECFMG.

\*USMLE Step 2 CK or equivalent examination

**Chart  
AN-7**

**Attempts at USMLE Step 2 CS (Clinical Skills) or ECFMG CSA (Clinical Skills Assessment)  
Anesthesiology**

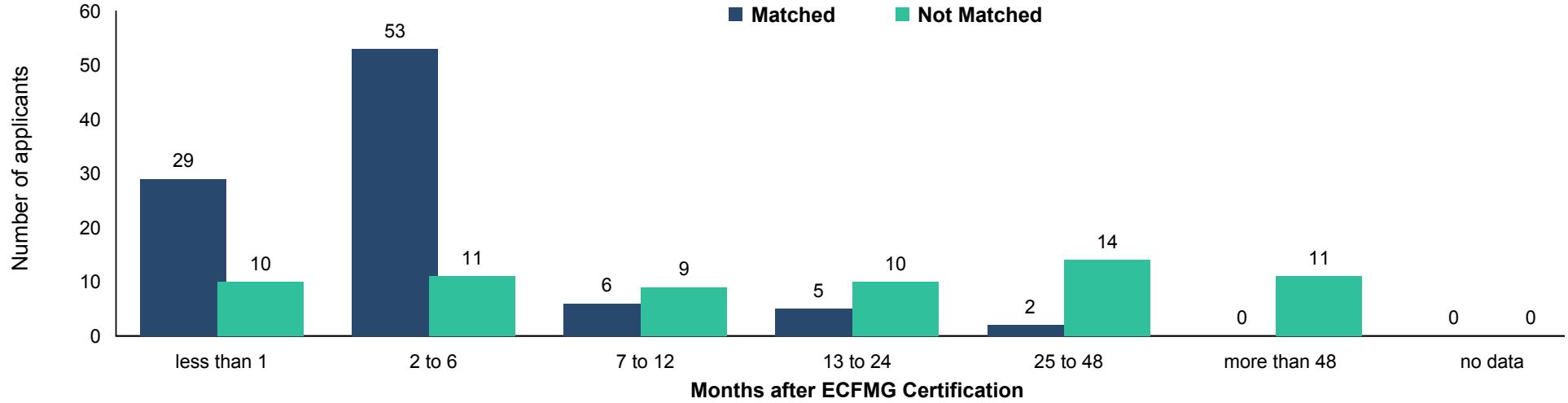


Source: NRMP Data Warehouse and ECFMG.

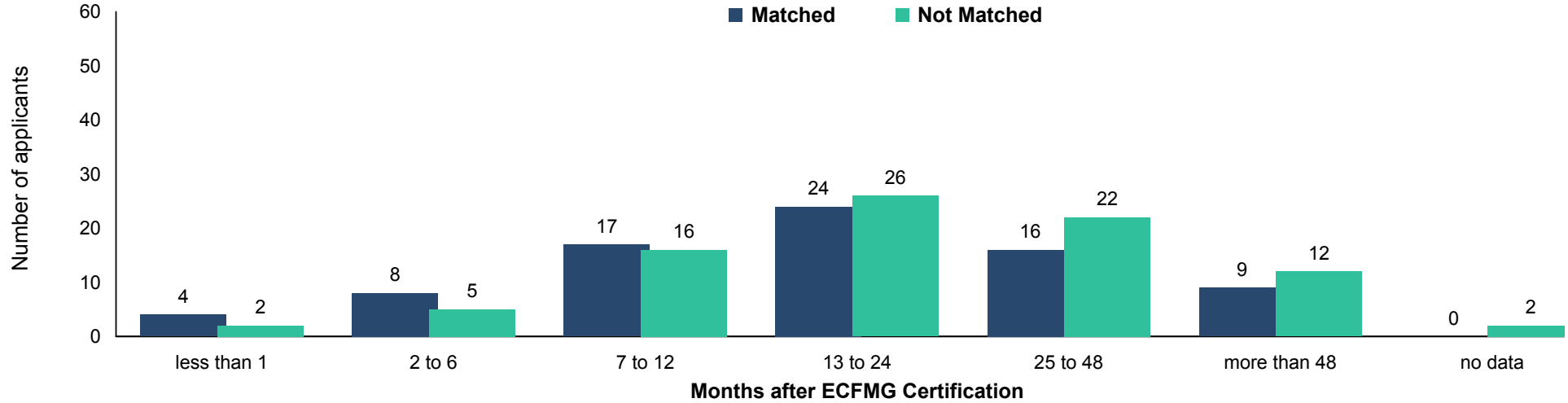
**Chart  
AN-8**

**Number of Months After ECFMG Certification  
Anesthesiology**

**U.S. IMG**



**Non-U.S. IMG**

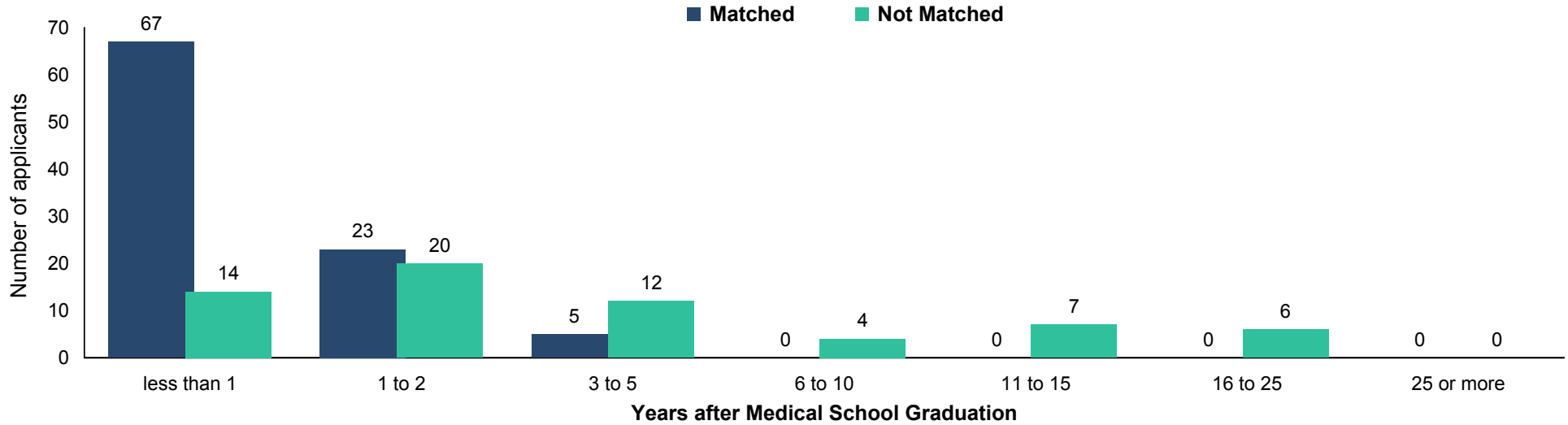


Source: NRMP Data Warehouse and ECFMG

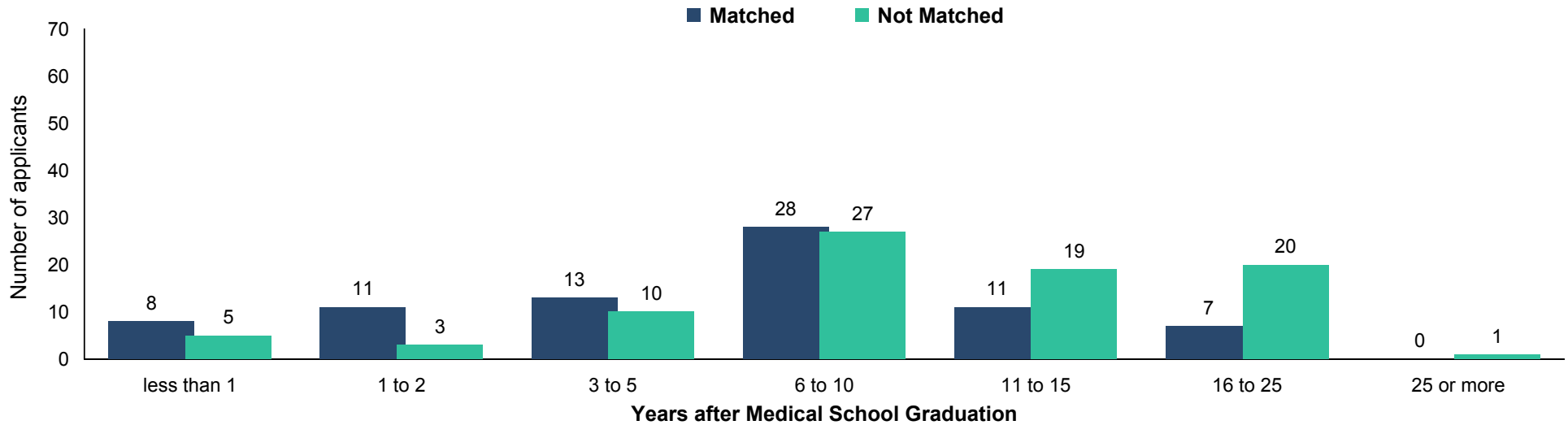
**Chart  
AN-9**

**Number of Years After Medical School Graduation  
Anesthesiology**

**U.S. IMG**



**Non-U.S. IMG**



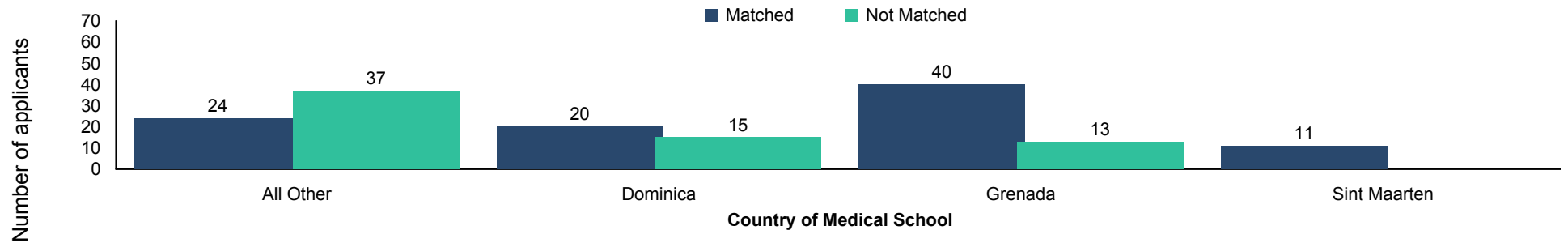
Source: NRMP Data Warehouse and ECFMG

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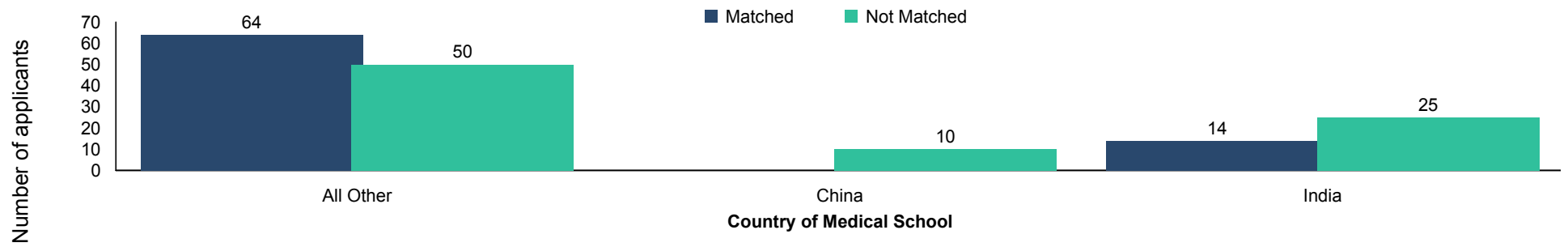
**Chart  
AN-10**

**Country of Medical School  
Anesthesiology**

**U.S. IMG**



**Non-U.S. IMG**



Source: NRMP Data Warehouse and ECFMG

Note: A country is included if it has 10 or more applicants for each category

**EM**

**Emergency Medicine**

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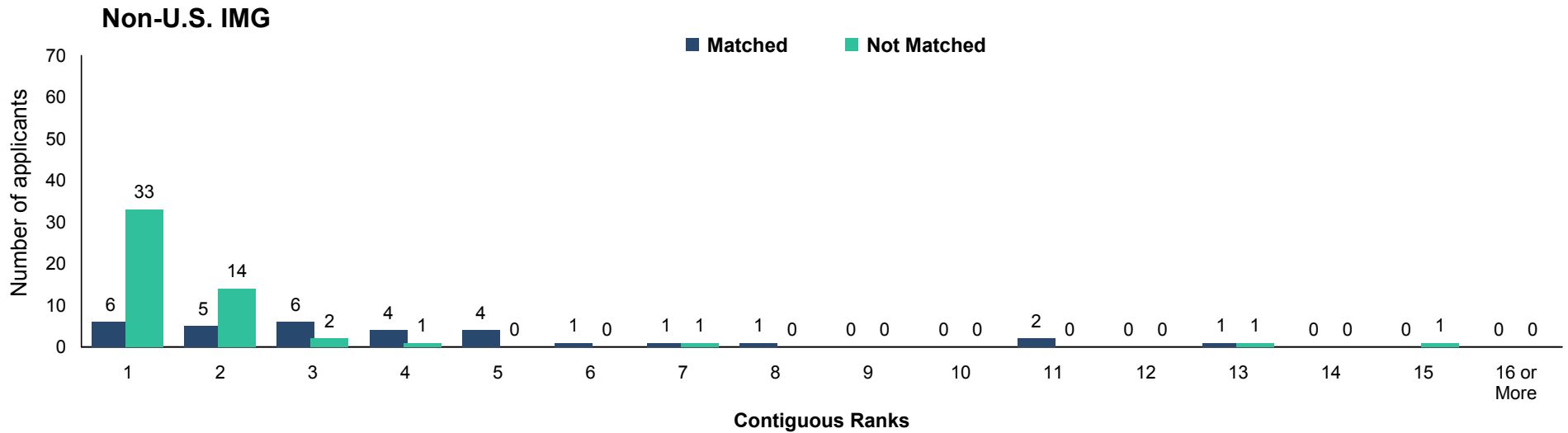
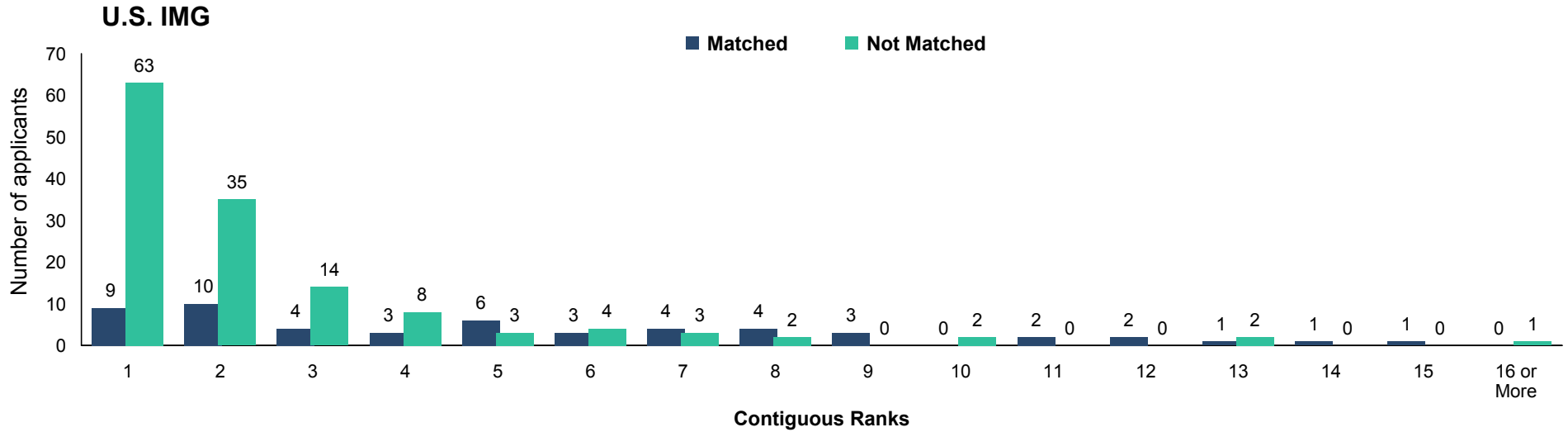
| Measure   | U.S. IMG          |                      | Non-U.S. IMG      |                     |
|---|-------------------|----------------------|-------------------|---------------------|
|   | Matched<br>(n=53) | Unmatched<br>(n=137) | Matched<br>(n=31) | Unmatched<br>(n=53) |
| 1. Mean number of contiguous ranks                    | 5                 | 3                    | 4                 | 2                   |
| 2. Mean number of distinct specialties ranked         | 1.7               | 2.0                  | 1.5               | 1.8                 |
| 3. Mean USMLE Step 1 score                            | 225               | 215                  | 226               | 217                 |
| 4. Mean USMLE Step 1 attempts*                        | 1.1               | 1.2                  | 1.0               | 1.3                 |
| 5. Mean USMLE Step 2 CK score                         | 235               | 223                  | 231               | 220                 |
| 6. Mean USMLE Step 2 CK attempts**                    | 1.1               | 1.3                  | 1.1               | 1.2                 |
| 7. Mean USMLE Step 2 CS or ECFMG CSA attempts         | 1.1               | 1.1                  | 1.2               | 1.1                 |
| 8. Mean number of months since ECFMG certification    | 9                 | 13                   | 12                | 31                  |
| 9. Mean number of years since graduation              | 1.1               | 1.8                  | 3.3               | 5.2                 |
| 10. Percentage who speak English as a native language | 83                | 83                   | 36                | 53                  |

Sources: NRMP Data Warehouse and ECFMG

\*USMLE Step 1 or equivalent examination

\*\*USMLE Step 2 CK or equivalent examination

## Number of Contiguous Ranks Within Preferred Specialty *Emergency Medicine*

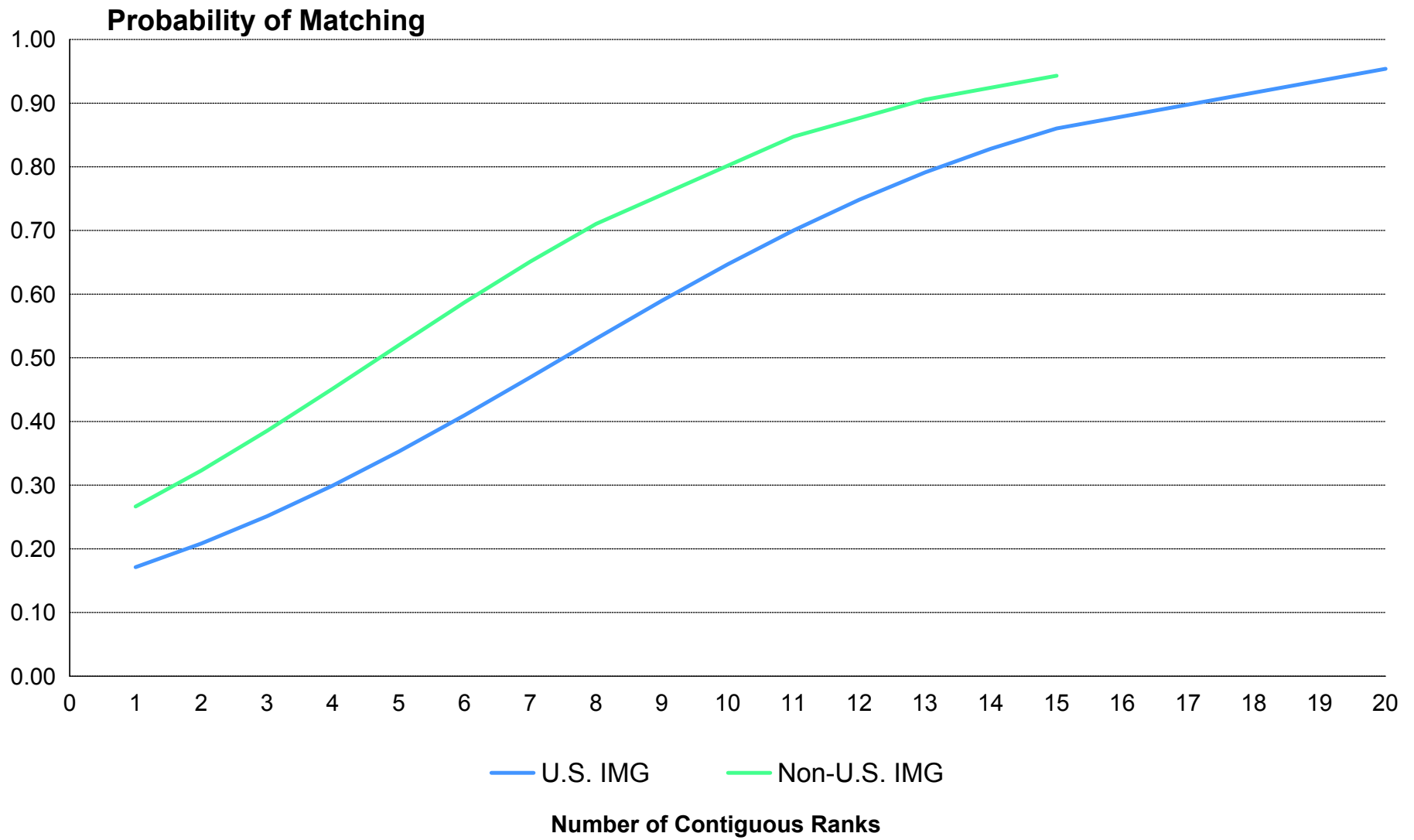


Source: NRMP Data Warehouse



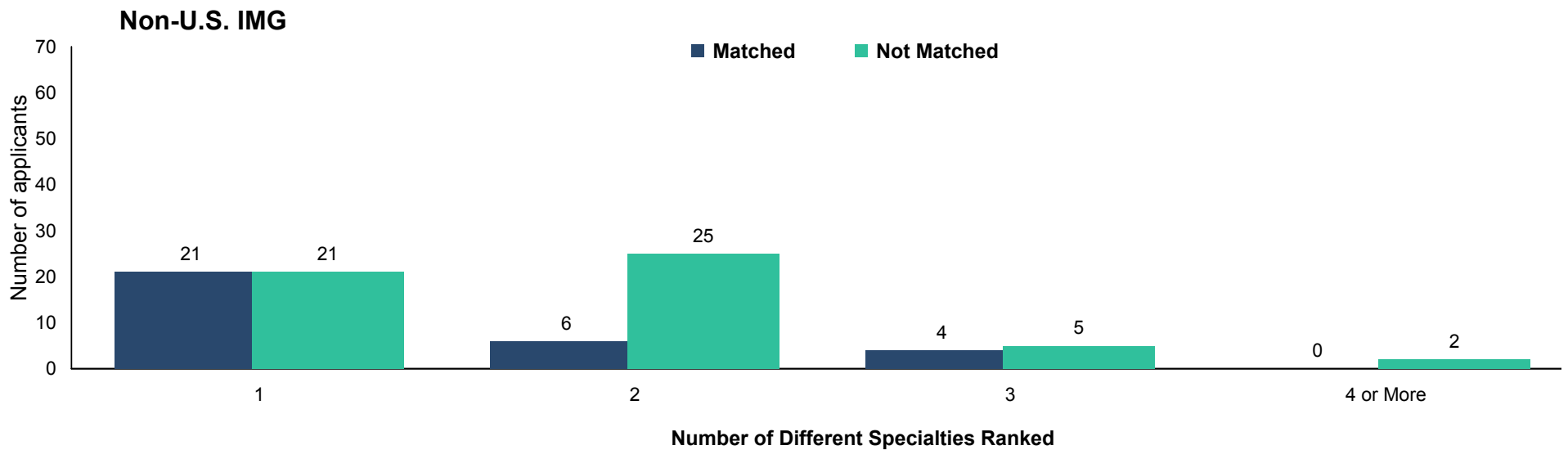
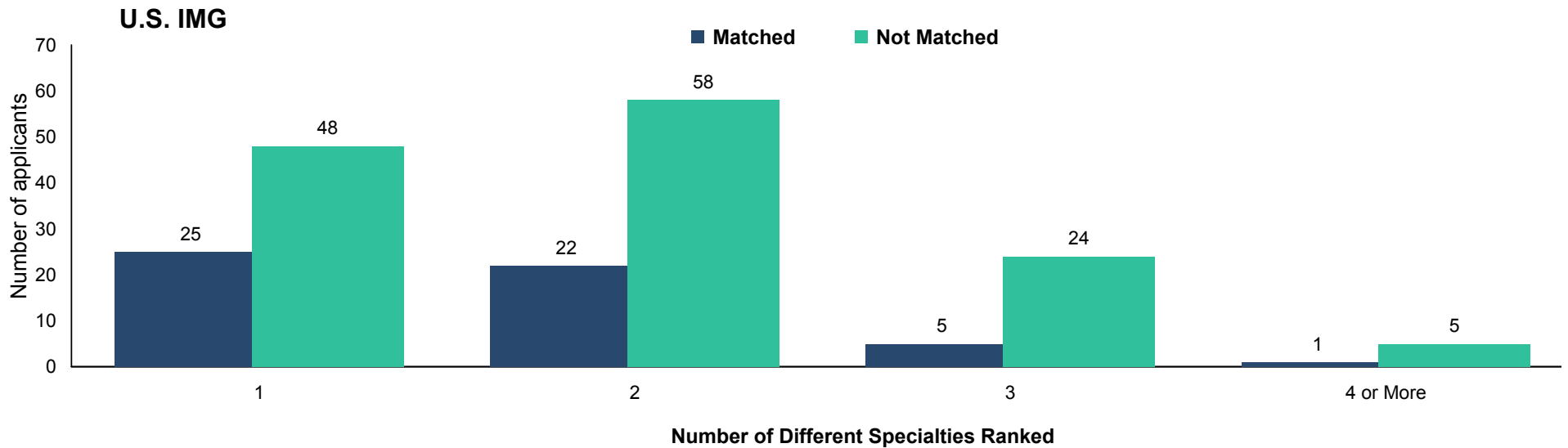
**Graph  
EM-1**

**Probability of Matching to Preferred Specialty by Number of Contiguous Ranks**  
*Emergency Medicine*



Source: NRMP Data Warehouse.

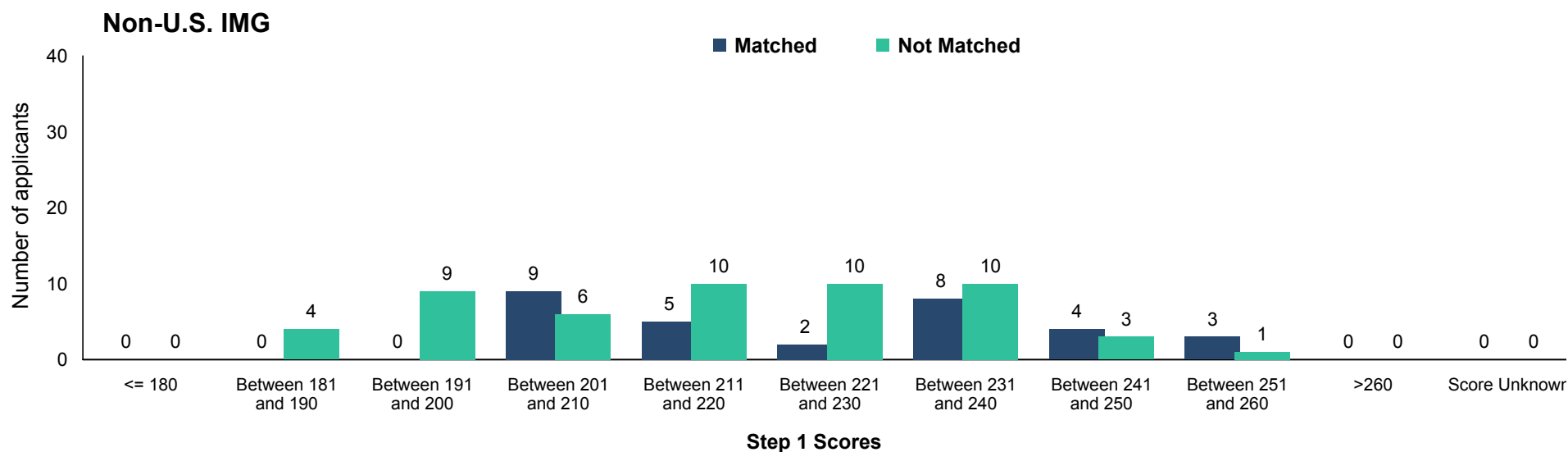
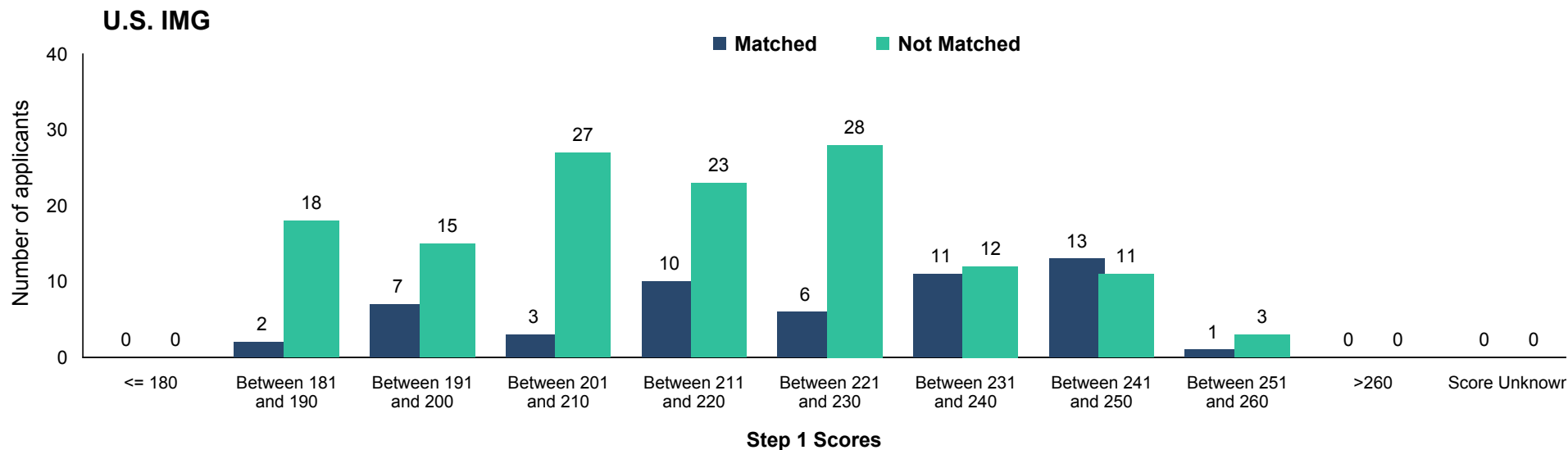
**Number of Applicants Ranking Different Specialties  
Emergency Medicine**



Source: NRMP Data Warehouse

**Chart  
EM-3**

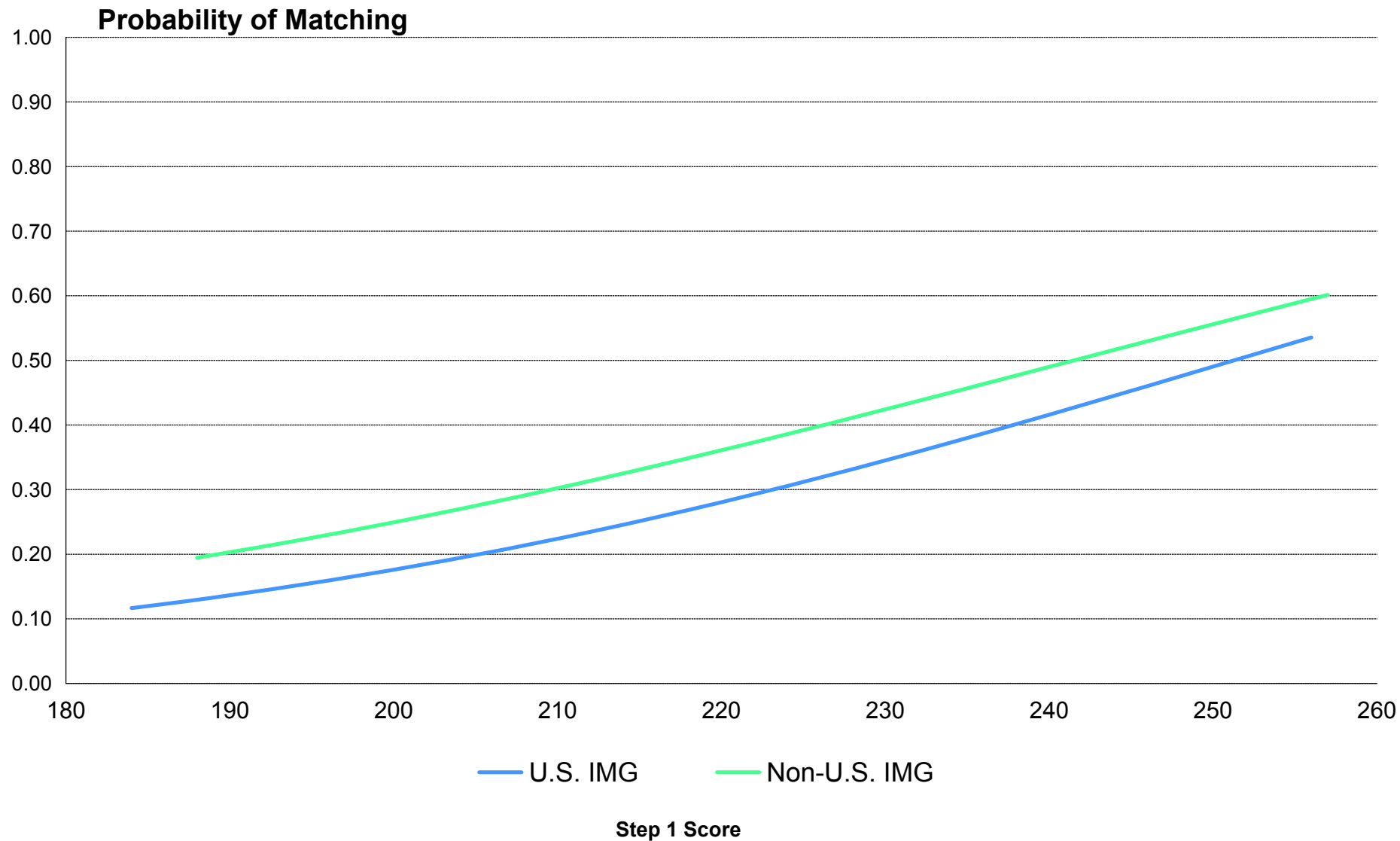
**USMLE Step 1 Scores  
Emergency Medicine**



Source: NRMP Data Warehouse and ECFMG.

**Graph  
EM-2**

**Probability of Matching to Preferred Specialty by USMLE Step 1 Score**  
*Emergency Medicine*

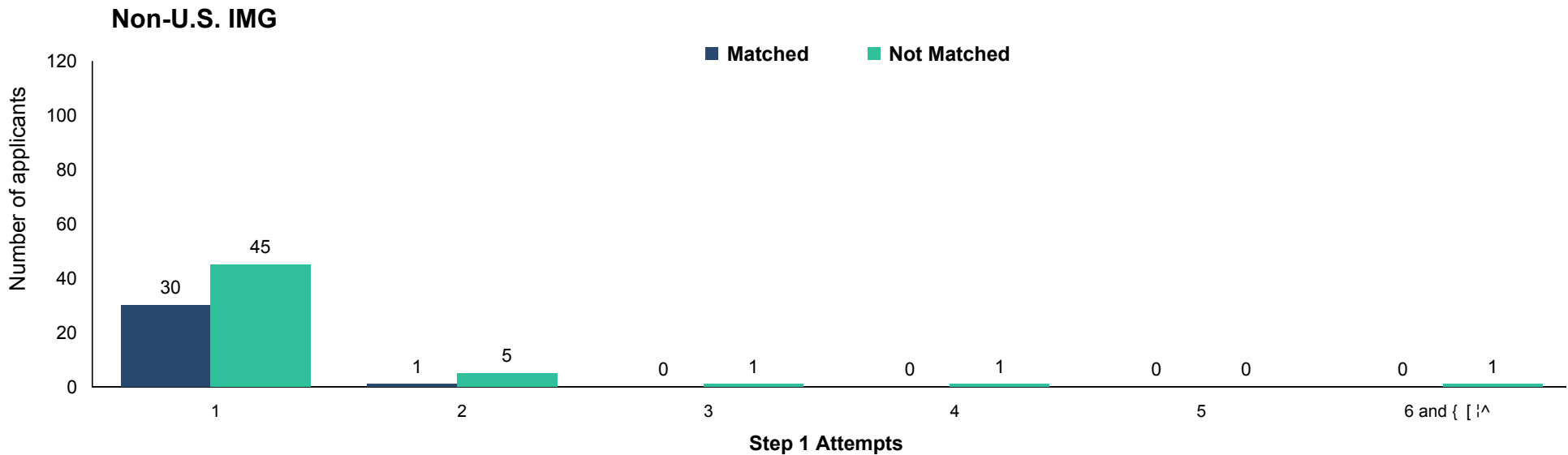
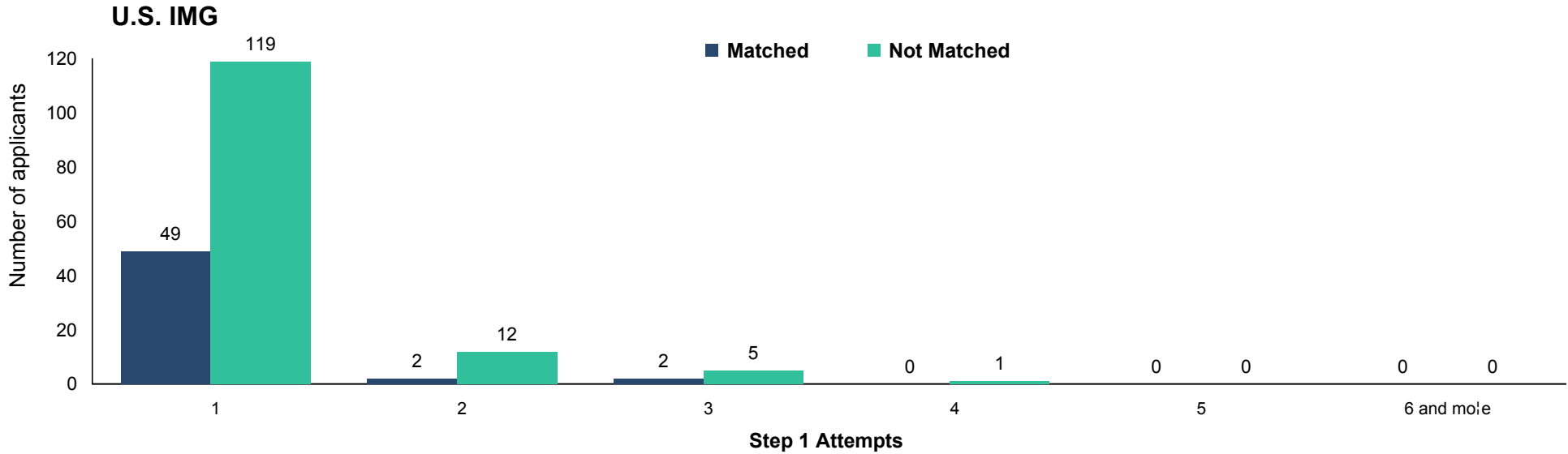


Source: NRMP Data Warehouse and ECFMG.

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**Chart  
EM-4**

**USMLE Step 1 Attempts\*  
Emergency Medicine**

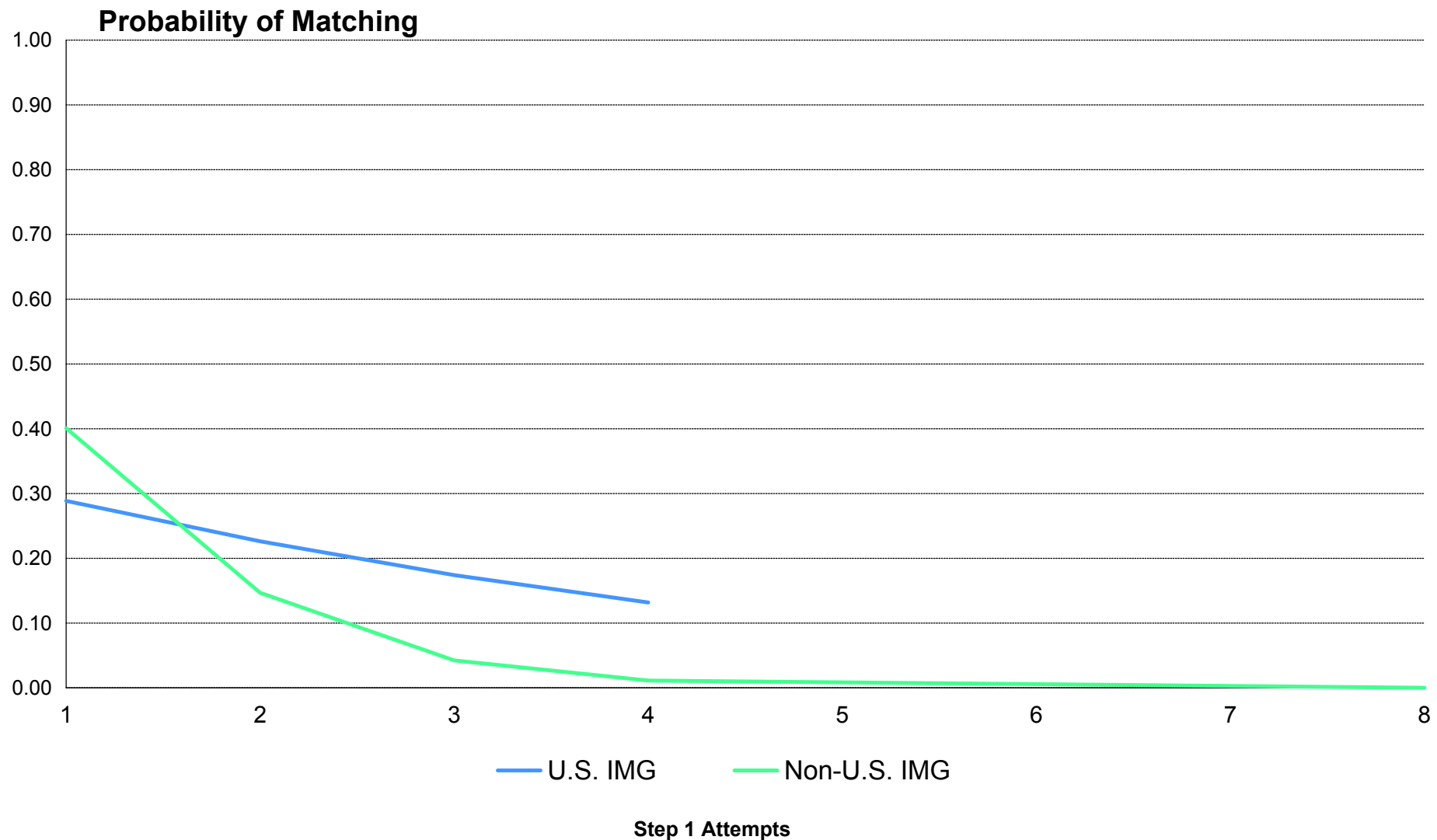


Source: NRMP Data Warehouse and ECFMG.

\*USMLE Step 1 or equivalent examination

**Graph  
EM-3**

**Probability of Matching to Preferred Specialty by Number of Step 1 Attempts\***  
*Emergency Medicine*

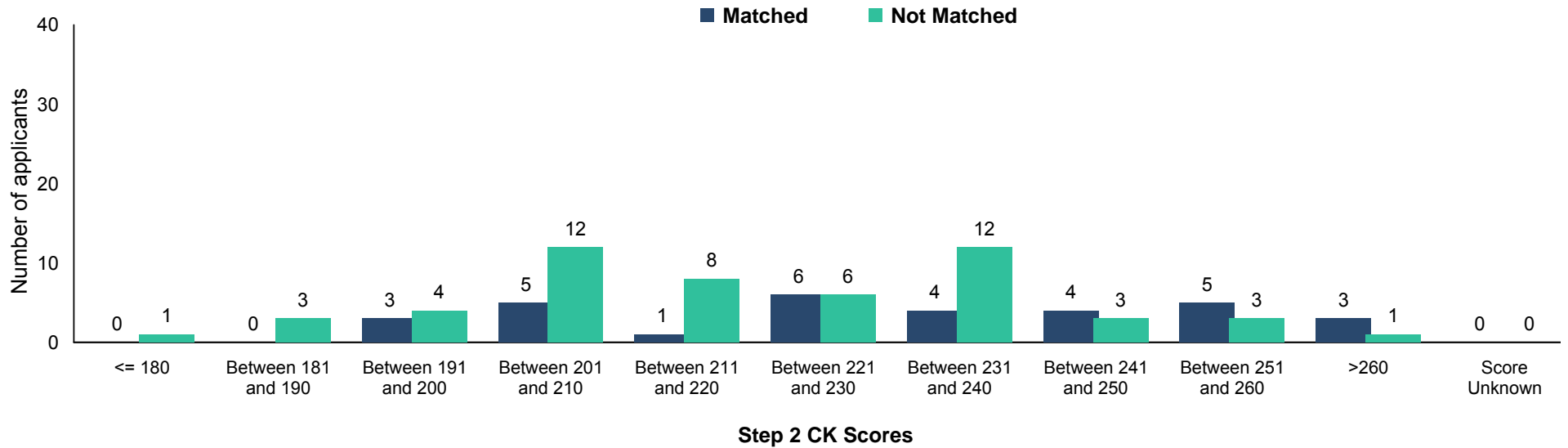
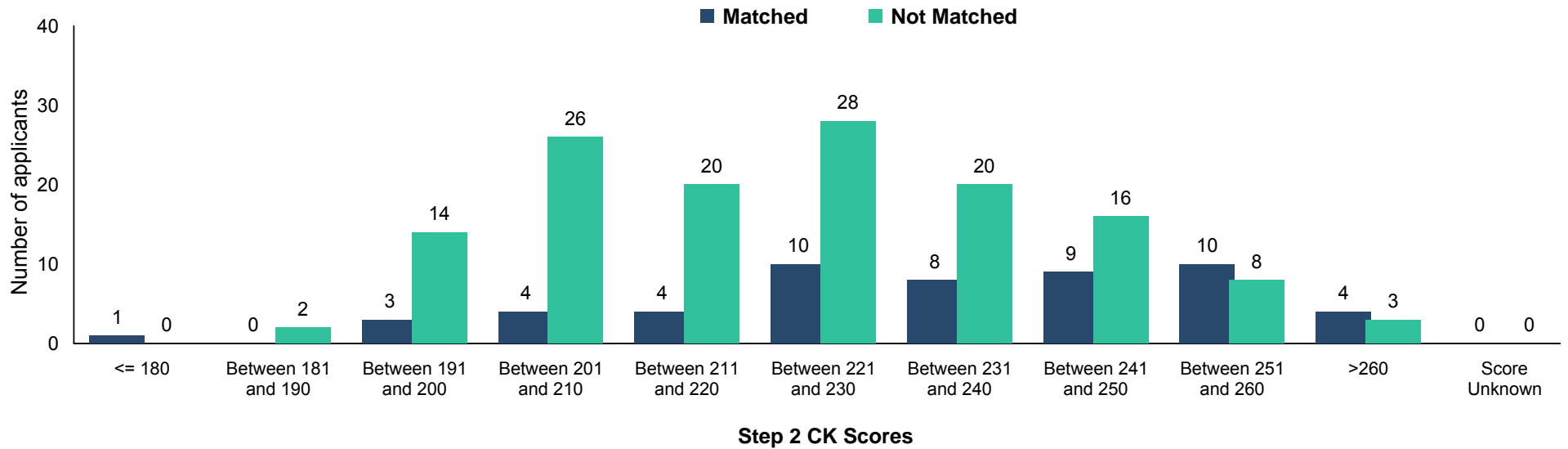


Source: NRMP Data Warehouse and ECFMG.

\*USMLE Step 1 or equivalent examination

**Chart  
EM-5**

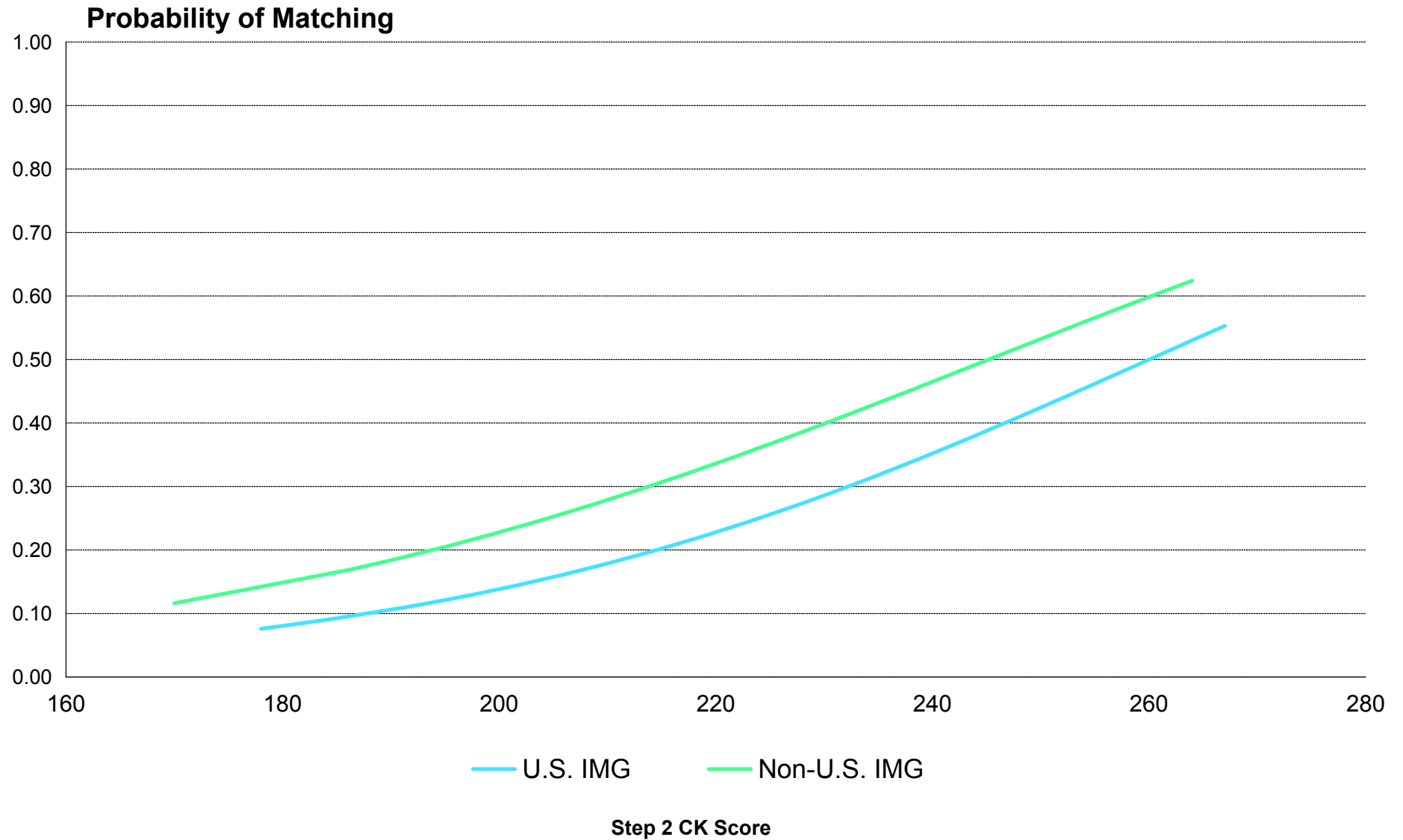
**USMLE Step 2 CK (Clinical Knowledge) Scores  
Emergency Medicine**



Source: NRMP Data Warehouse and ECFMG.

**Graph  
EM-4**

**Probability of Matching to Preferred Specialty by USMLE Step 2 CK (Clinical Knowledge) Score**  
*Emergency Medicine*



Source: NRMP Data Warehouse and ECFMG.

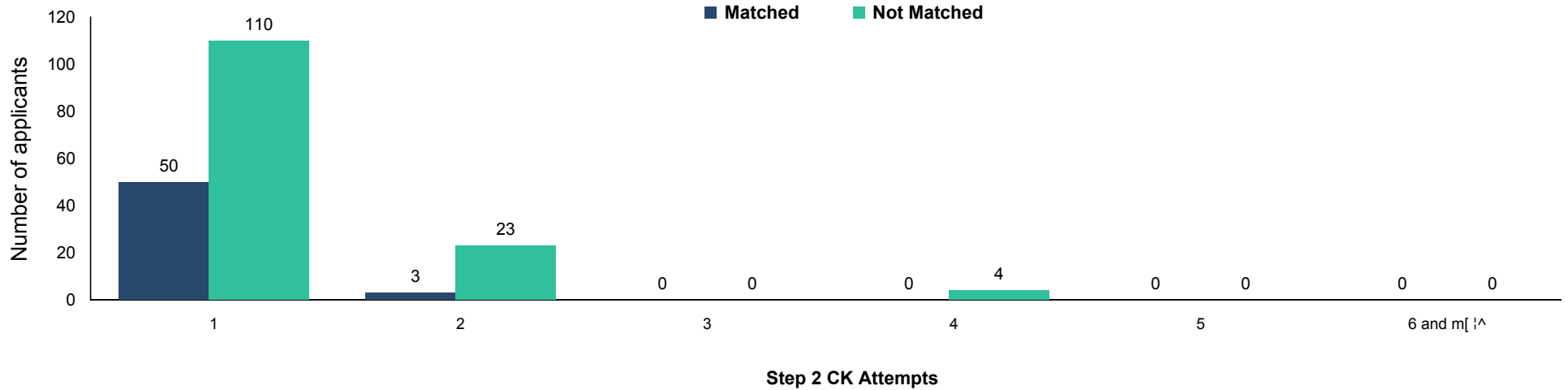
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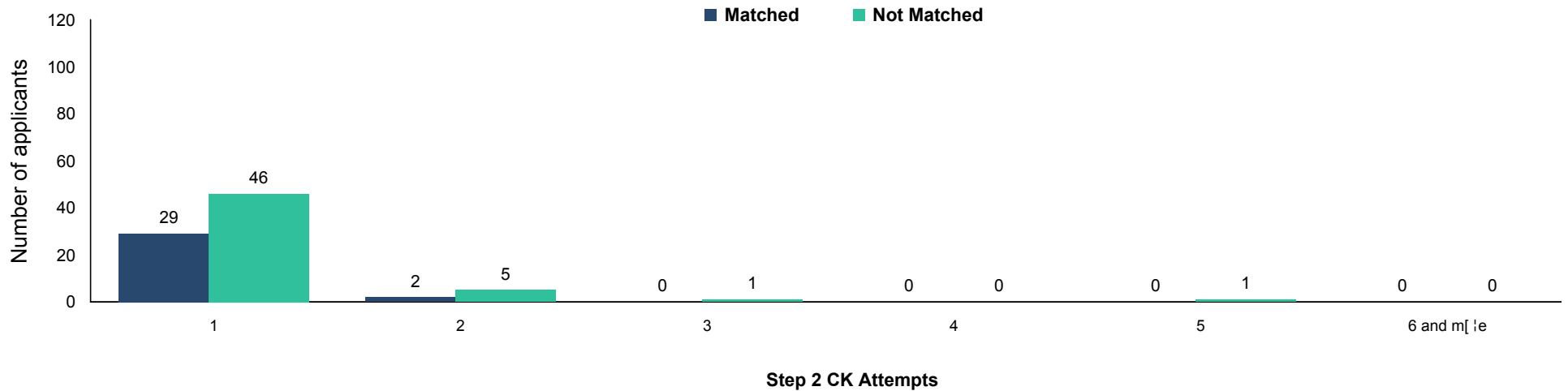
**Chart  
EM-6**

**USMLE Step 2 CK (Clinical Knowledge) Attempts\*  
Emergency Medicine**

**U.S. IMG**



**Non-U.S. IMG**

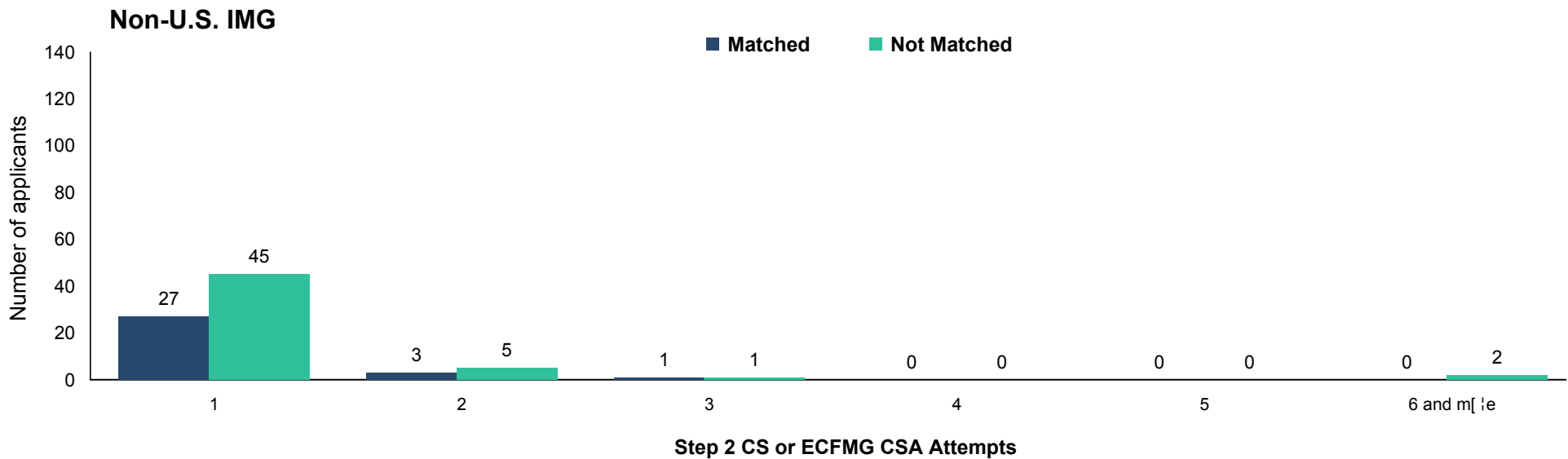
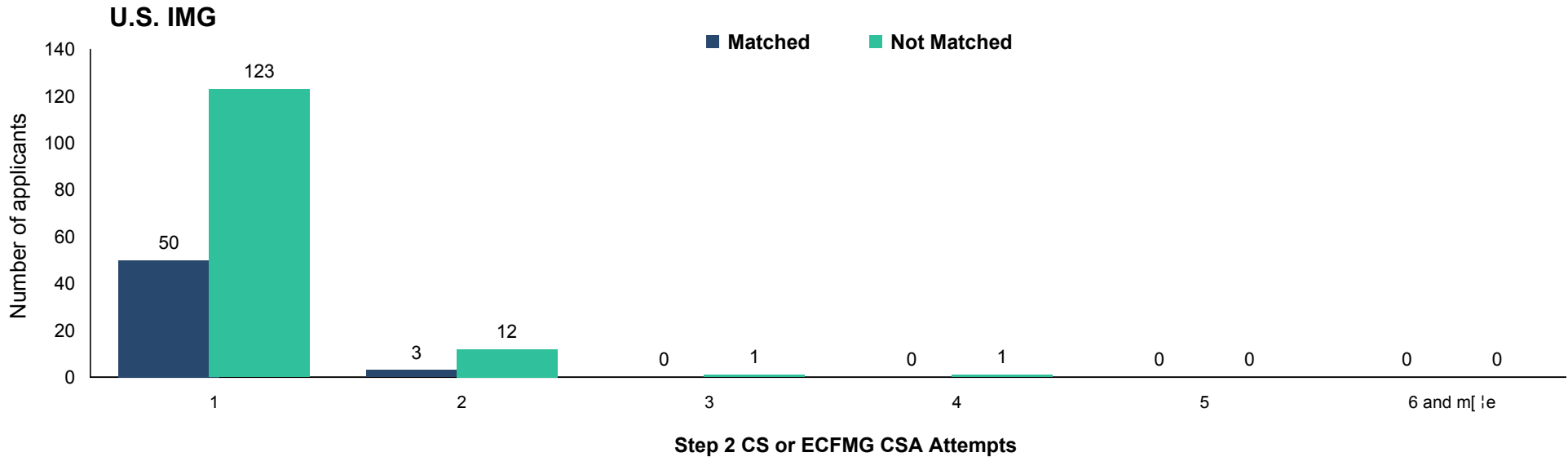


Source: NRMP Data Warehouse and ECFMG.

\*USMLE Step 2 CK or equivalent examination

**Chart  
EM-7**

**Attempts at USMLE Step 2 CS (Clinical Skills) or ECFMG CSA (Clinical Skills Assessment)  
Emergency Medicine**

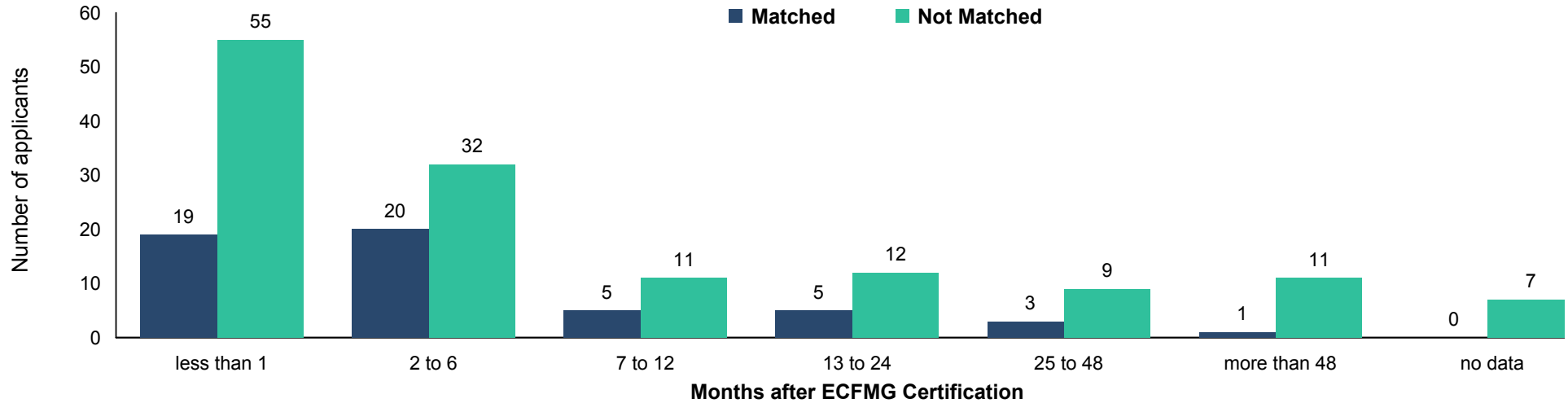


Source: NRMP Data Warehouse and ECFMG.

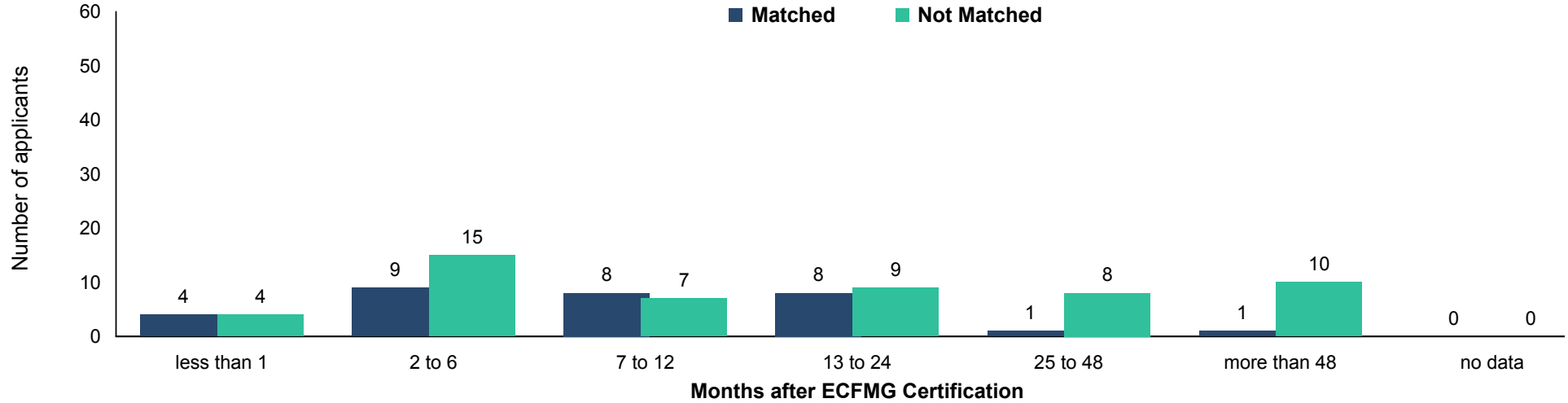
**Chart  
EM-8**

**Number of Months After ECFMG Certification  
Emergency Medicine**

**U.S. IMG**



**Non-U.S. IMG**

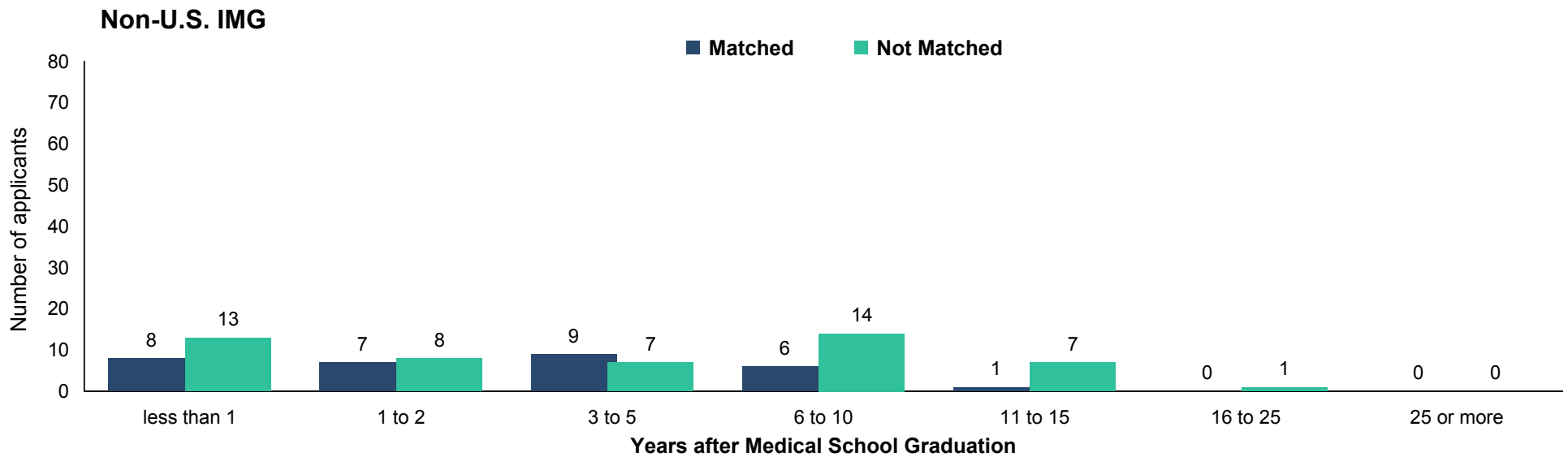
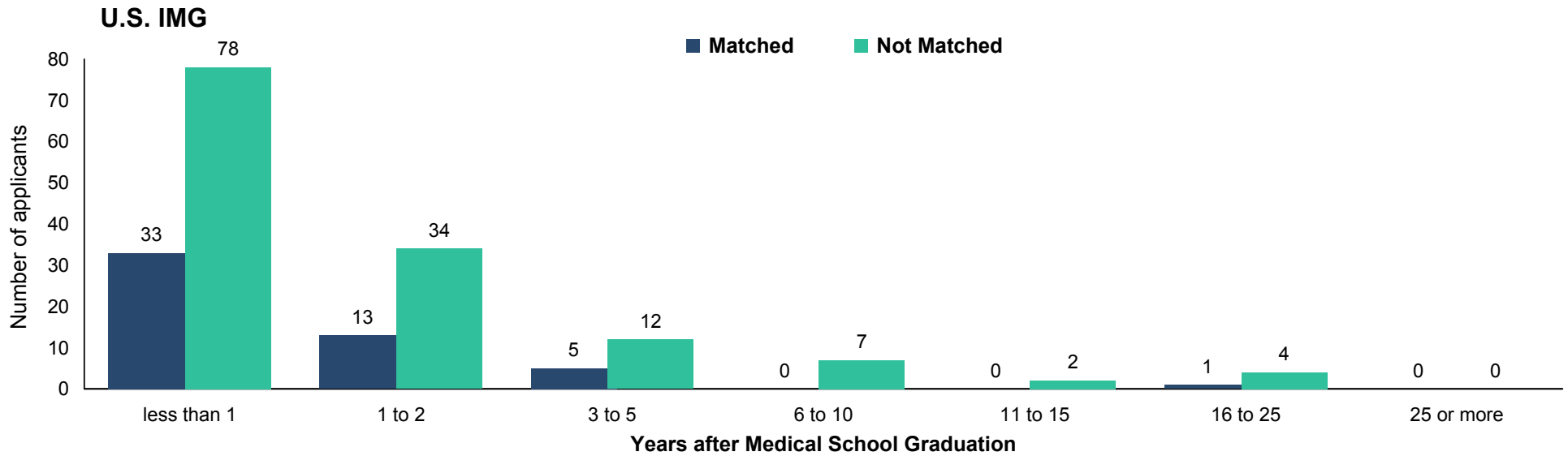


Source: NRMP Data Warehouse and ECFMG

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**Chart  
EM-9**

**Number of Years After Medical School Graduation  
Emergency Medicine**



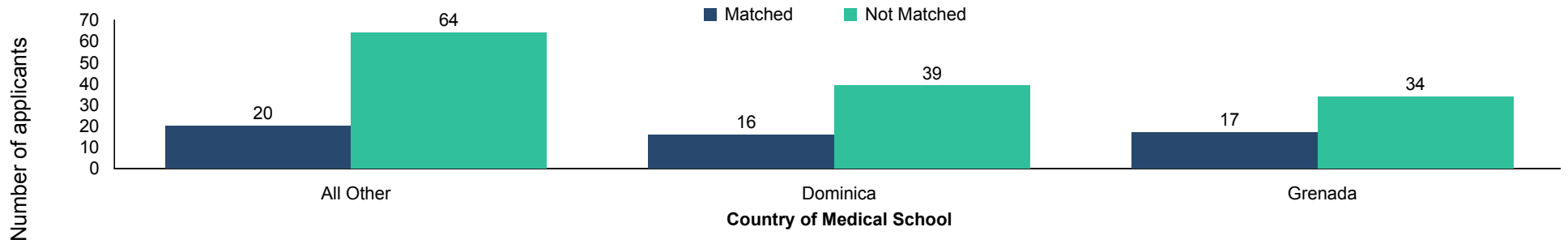
Source: NRMP Data Warehouse and ECFMG

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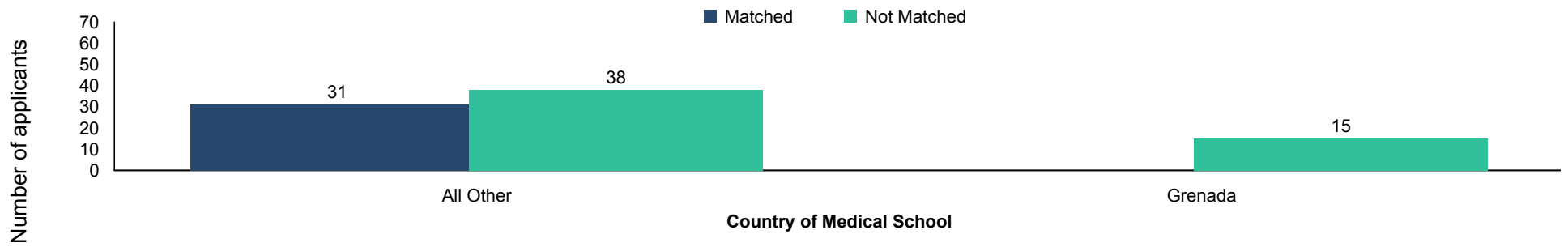
**Chart  
EM-10**

**Country of Medical School  
Emergency Medicine**

**U.S. IMG**



**Non-U.S. IMG**



Source: NRMP Data Warehouse and ECFMG

Note: A country is included if it has 10 or more applicants for each category

**FM**

**Family Medicine**

---

| Measure   | U.S. IMG           |                      | Non-U.S. IMG       |                      |
|---|--------------------|----------------------|--------------------|----------------------|
|   | Matched<br>(n=531) | Unmatched<br>(n=702) | Matched<br>(n=293) | Unmatched<br>(n=616) |
| 1. Mean number of contiguous ranks                    | 6                  | 3                    | 4                  | 3                    |
| 2. Mean number of distinct specialties ranked         | 1.3                | 1.5                  | 1.4                | 1.5                  |
| 3. Mean USMLE Step 1 score                            | 206                | 198                  | 213                | 204                  |
| 4. Mean USMLE Step 1 attempts*                        | 1.4                | 2.1                  | 1.2                | 1.4                  |
| 5. Mean USMLE Step 2 CK score                         | 213                | 203                  | 219                | 210                  |
| 6. Mean USMLE Step 2 CK attempts**                    | 1.2                | 1.9                  | 1.1                | 1.3                  |
| 7. Mean USMLE Step 2 CS or ECFMG CSA attempts         | 1.1                | 1.5                  | 1.1                | 1.4                  |
| 8. Mean number of months since ECFMG certification    | 8                  | 28                   | 14                 | 27                   |
| 9. Mean number of years since graduation              | 1.7                | 6.1                  | 3.6                | 7.8                  |
| 10. Percentage who speak English as a native language | 78                 | 54                   | 58                 | 30                   |

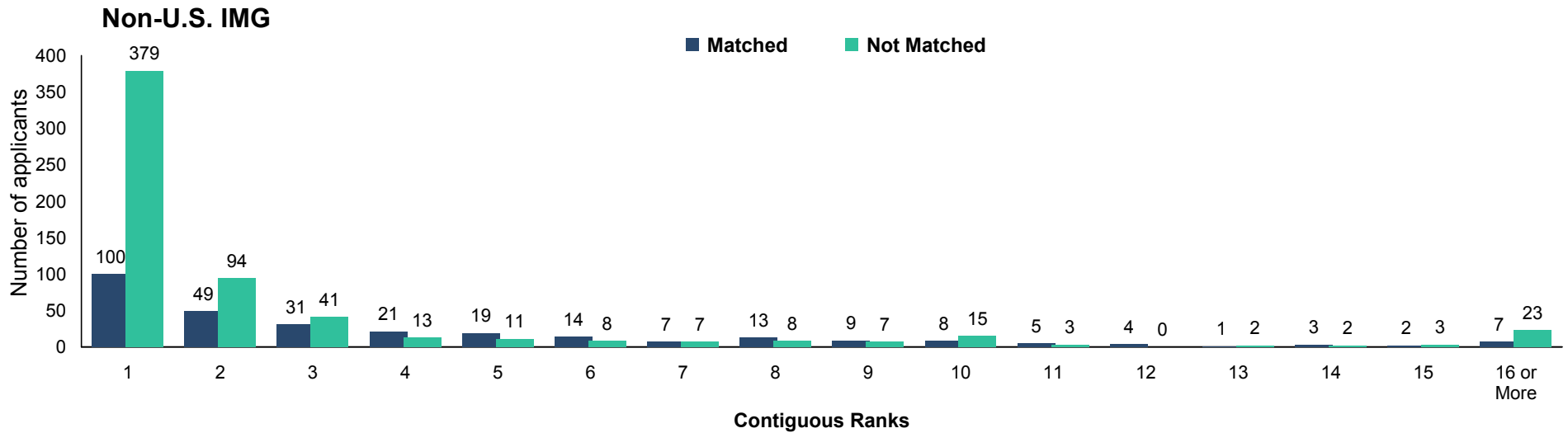
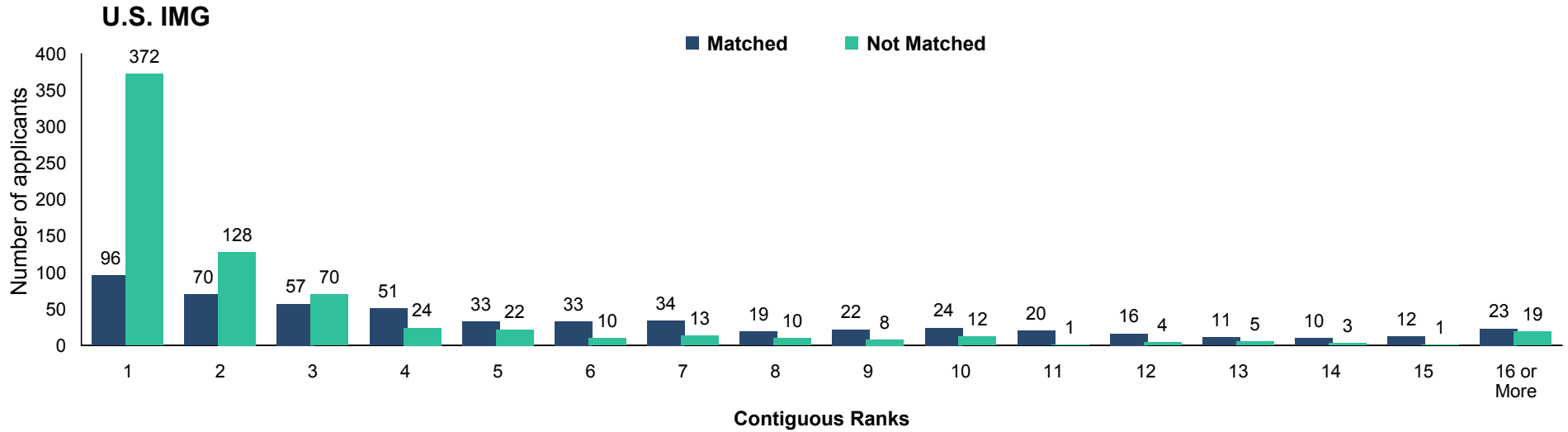
Sources: NRMP Data Warehouse and ECFMG

\*USMLE Step 1 or equivalent examination

\*\*USMLE Step 2 CK or equivalent examination

**Chart  
FM-1**

**Number of Contiguous Ranks Within Preferred Specialty  
Family Medicine**

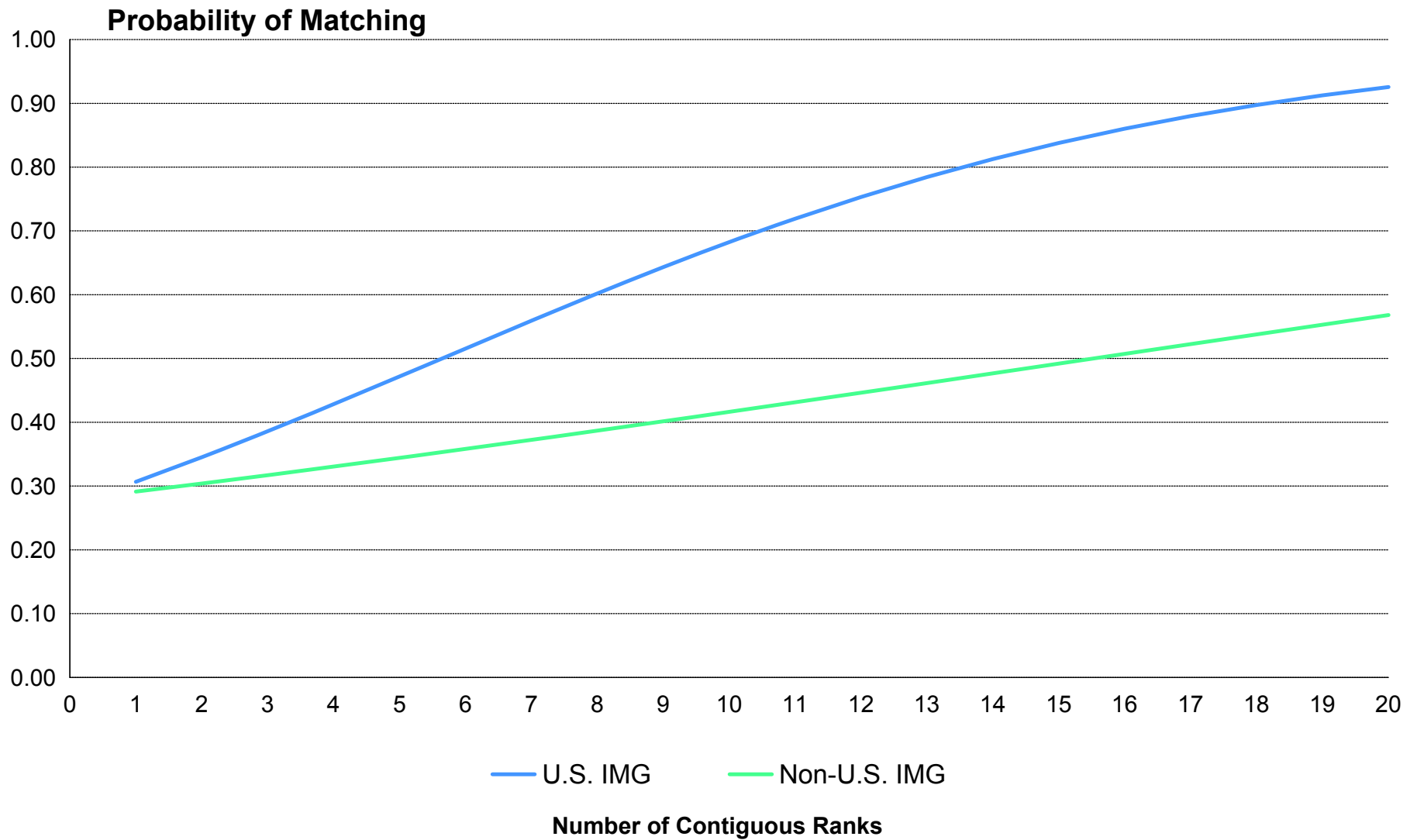


Source: NRMP Data Warehouse

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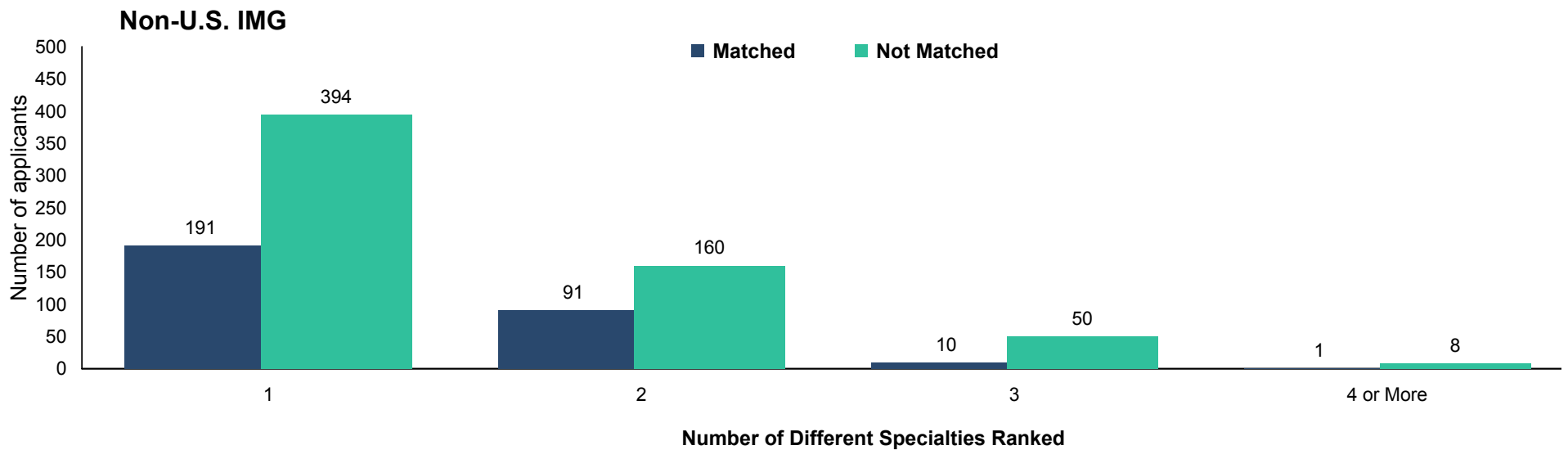
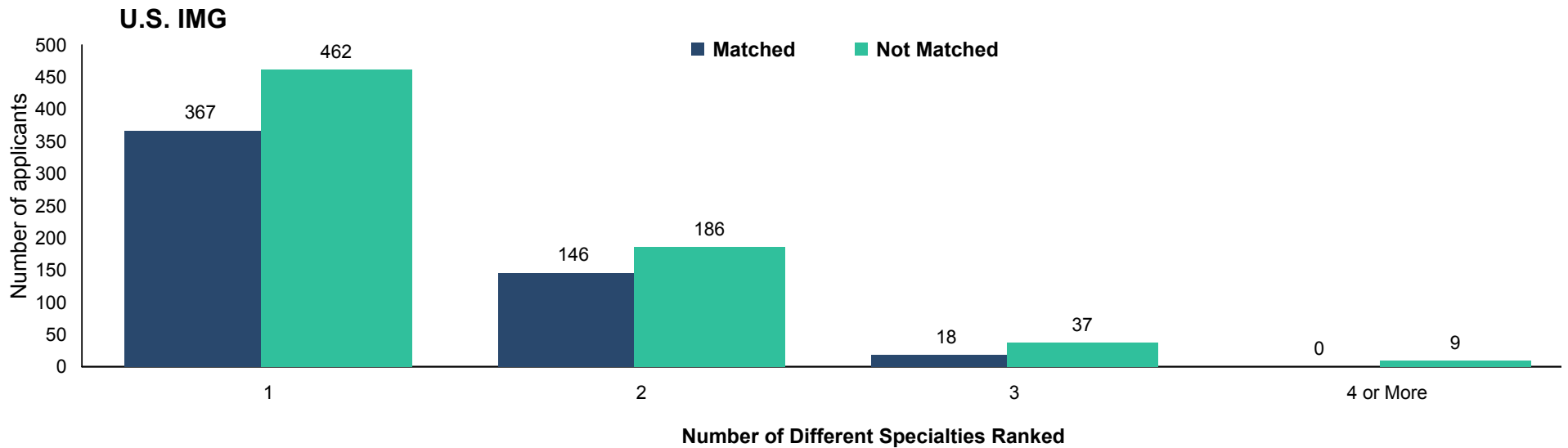
## Probability of Matching to Preferred Specialty by Number of Contiguous Ranks *Family Medicine*



Source: NRMP Data Warehouse.

**Chart  
FM-2**

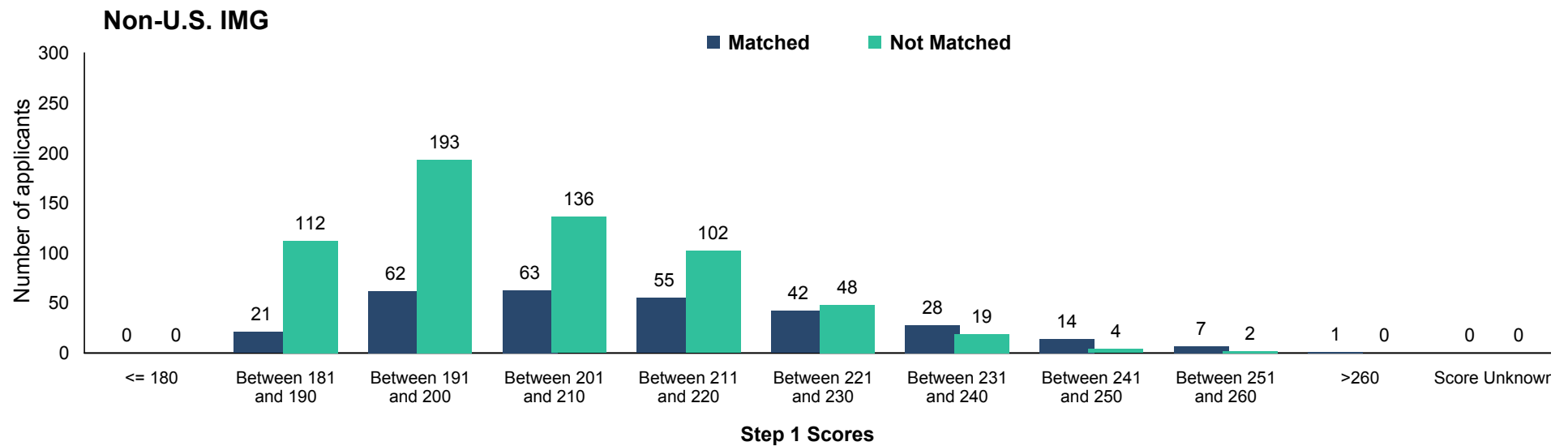
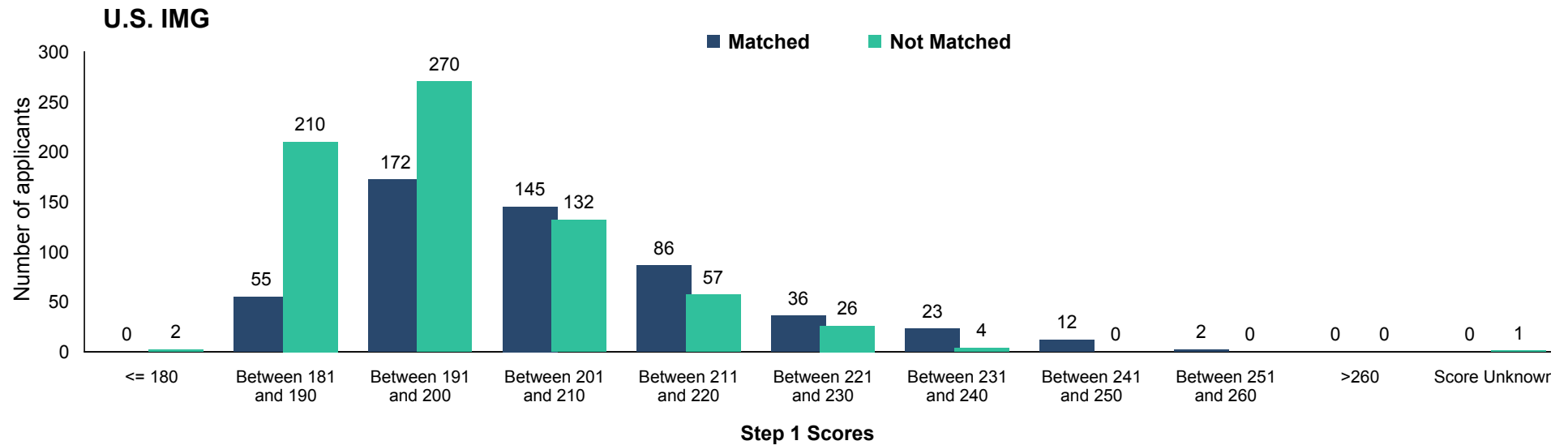
**Number of Applicants Ranking Different Specialties  
Family Medicine**



Source: NRMP Data Warehouse

**Chart  
FM-3**

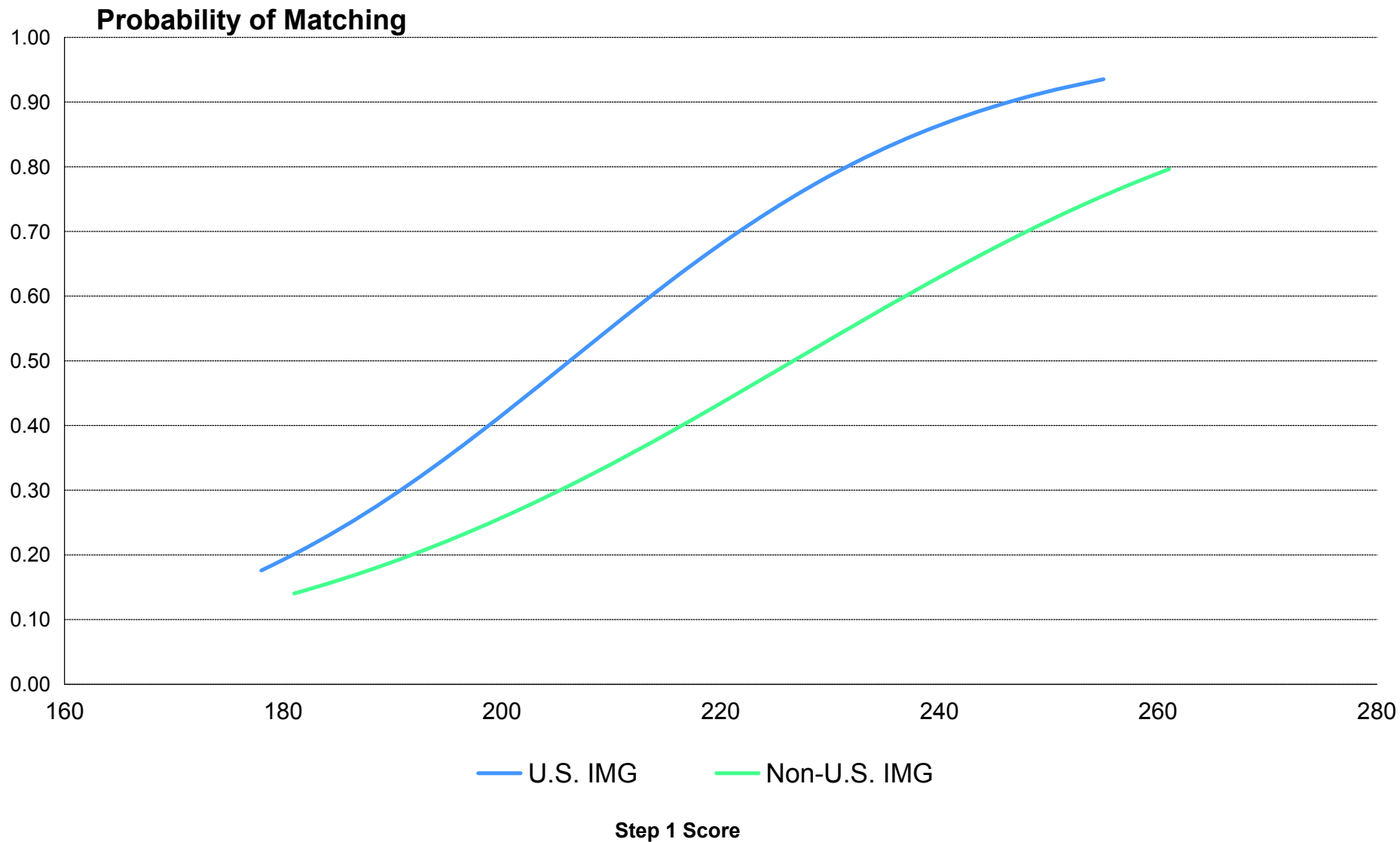
**USMLE Step 1 Scores  
Family Medicine**



Source: NRMP Data Warehouse and ECFMG.

# Probability of Matching to Preferred Specialty by USMLE Step 1 Score

## Family Medicine

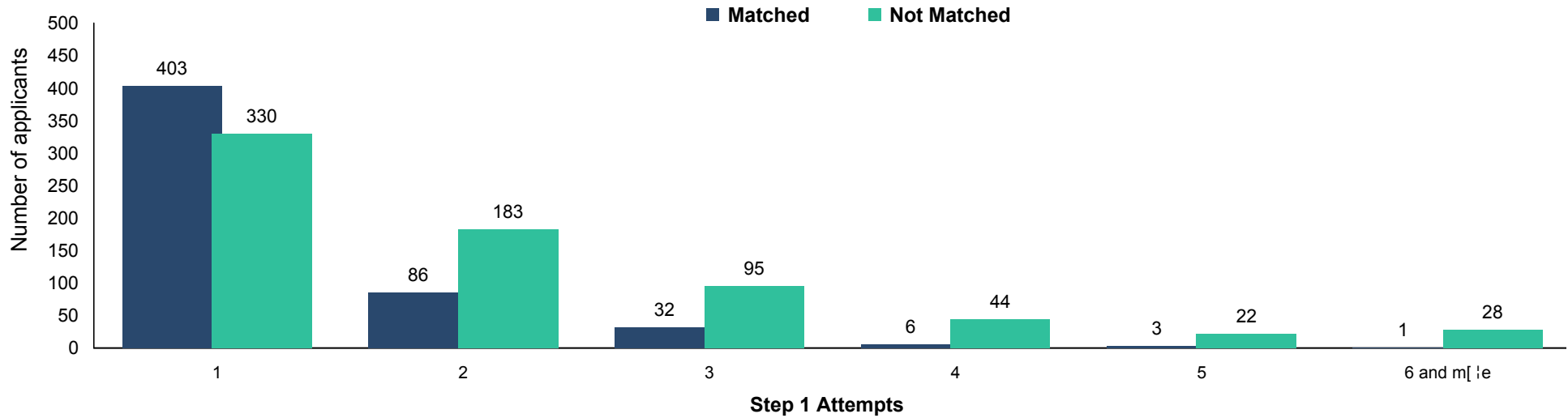


Source: NRMP Data Warehouse and ECFMG.

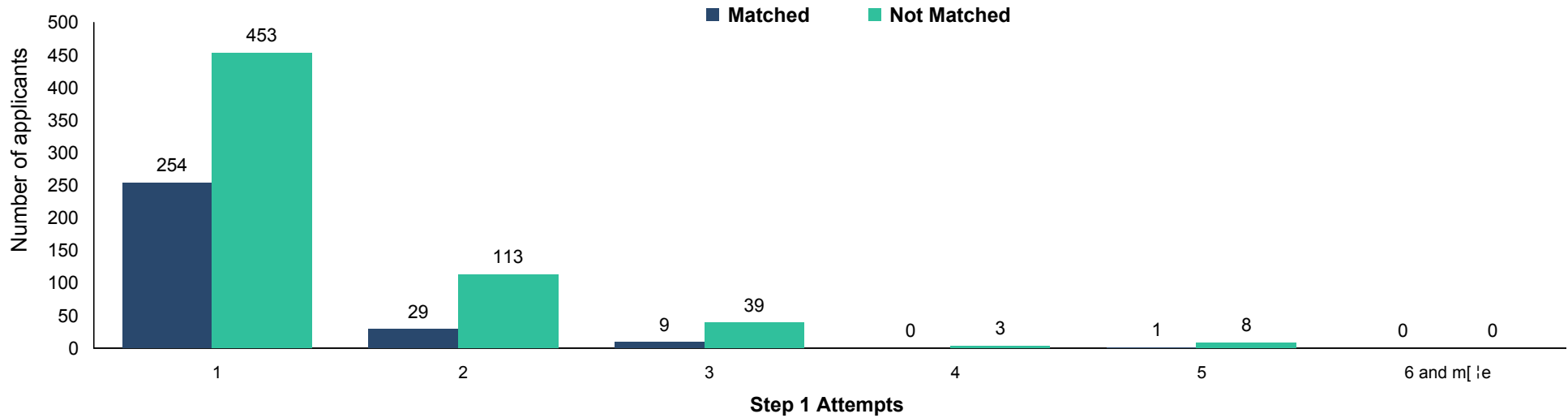
**Chart  
FM-4**

**USMLE Step 1 Attempts\*  
Family Medicine**

**U.S. IMG**



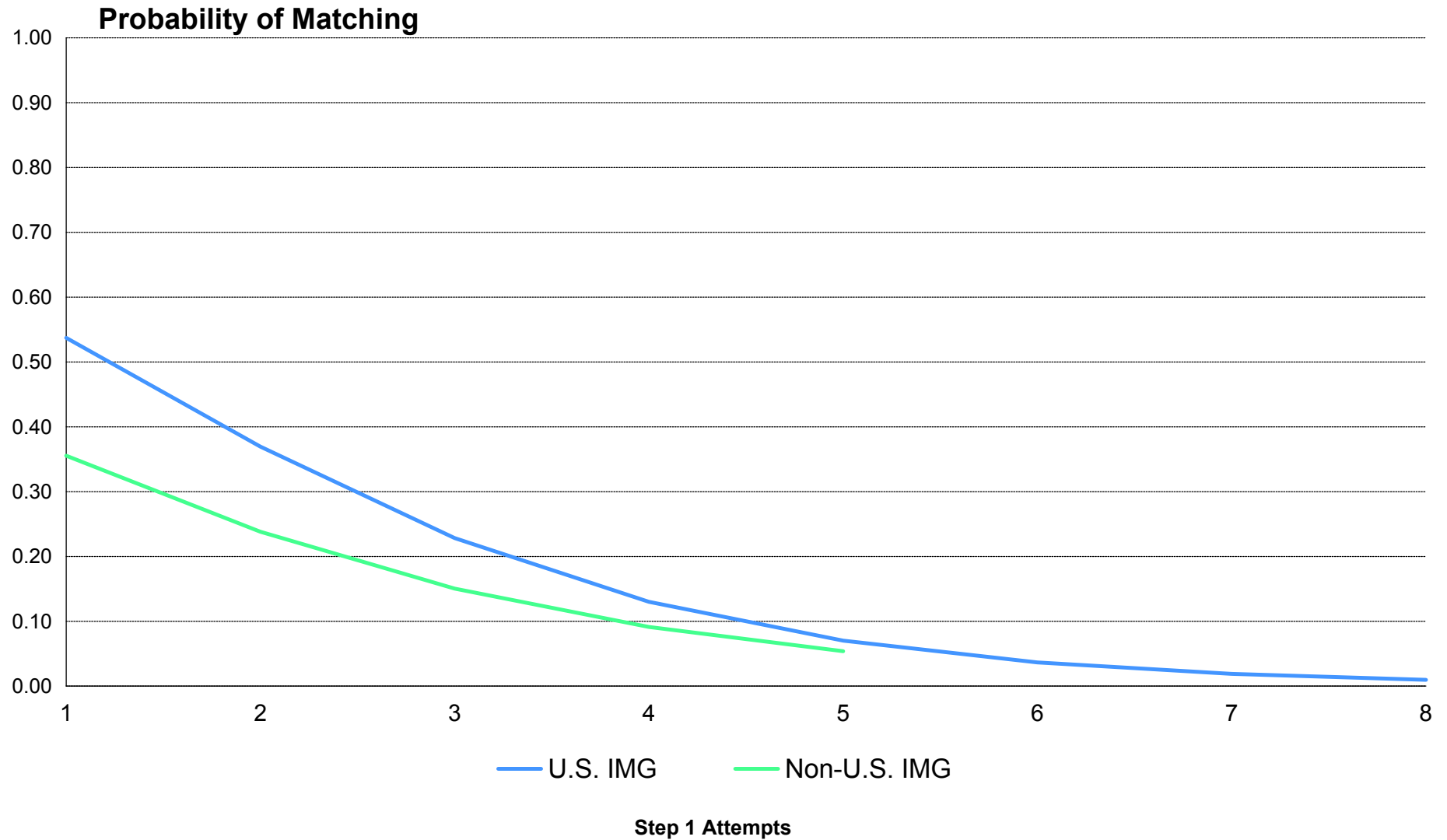
**Non-U.S. IMG**



Source: NRMP Data Warehouse and ECFMG.

\*USMLE Step 1 or equivalent examination

# Probability of Matching to Preferred Specialty by Number of Step 1 Attempts\* *Family Medicine*

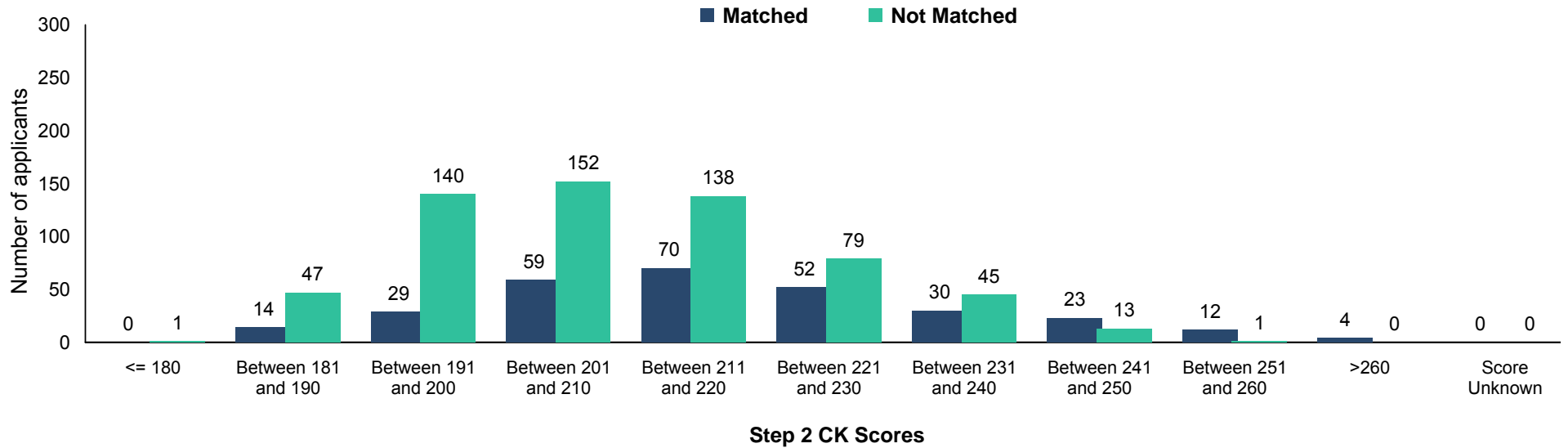
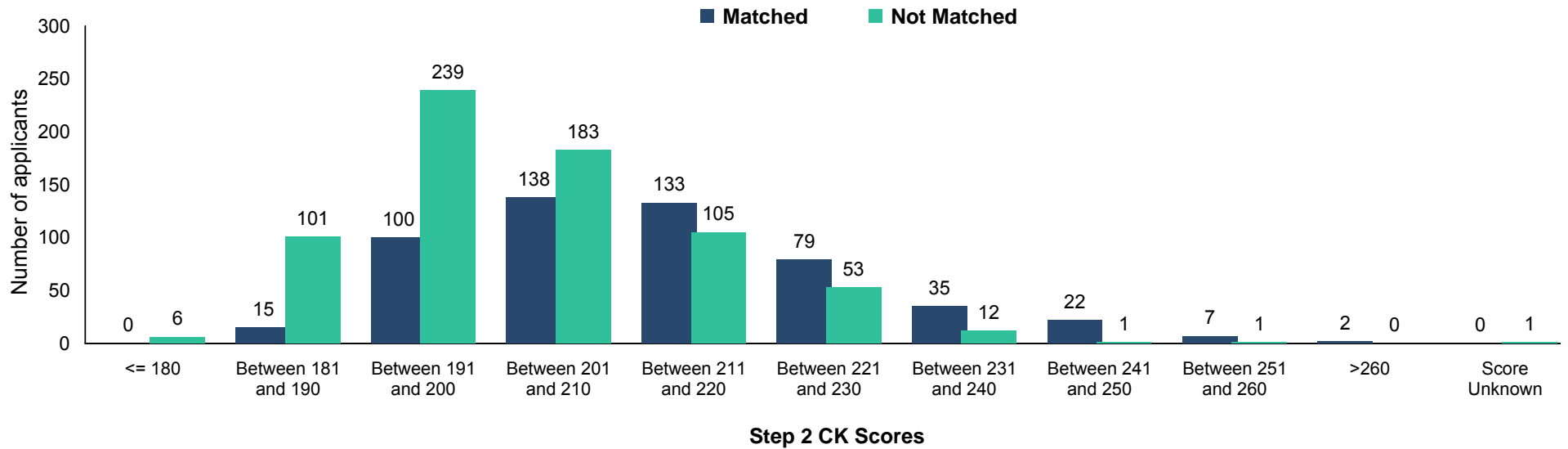


Source: NRMP Data Warehouse and ECFMG.

\*USMLE Step 1 or equivalent examination

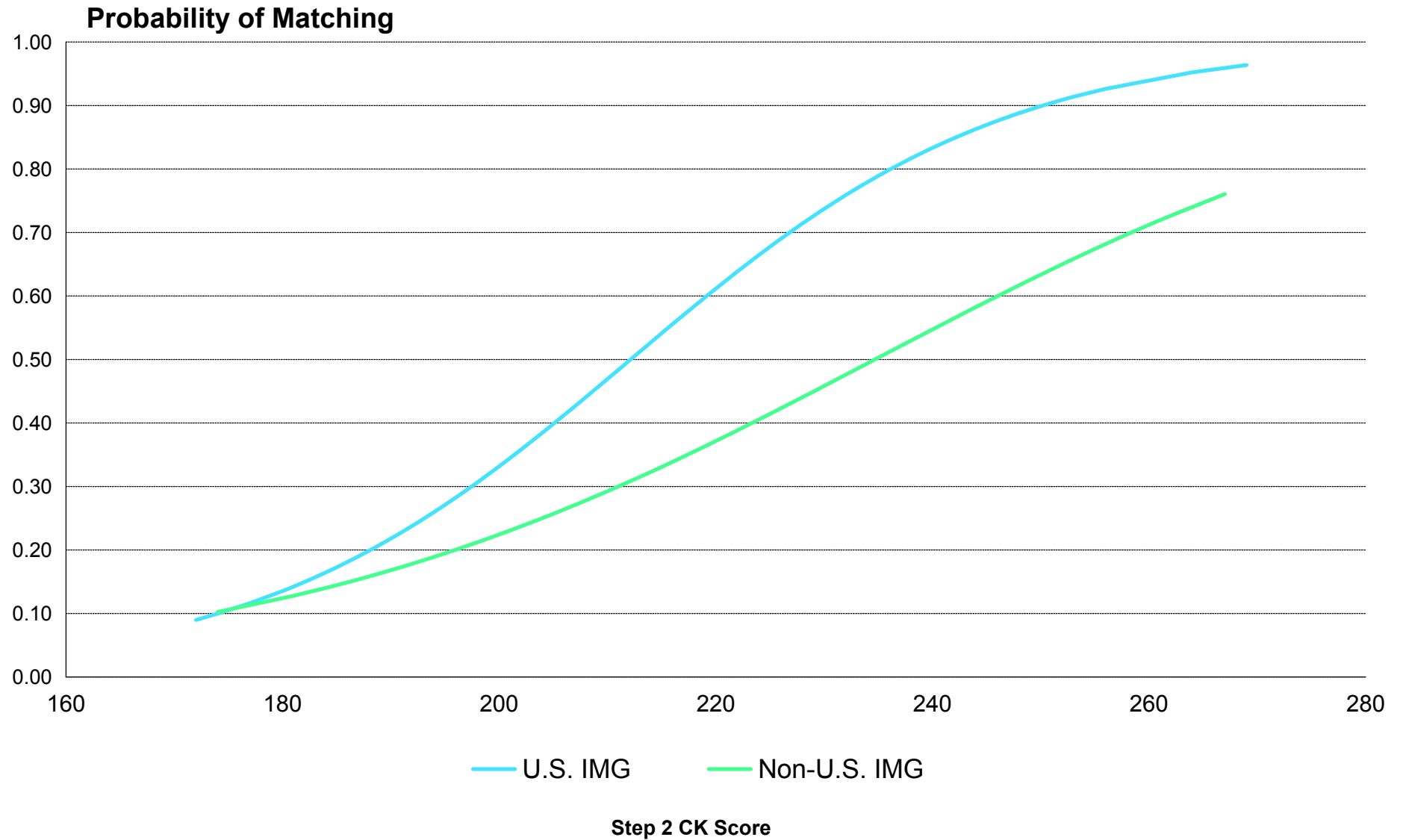
**Chart  
FM-5**

**USMLE Step 2 CK (Clinical Knowledge) Scores  
Family Medicine**



Source: NRMP Data Warehouse and ECFMG.

# Probability of Matching to Preferred Specialty by USMLE Step 2 CK (Clinical Knowledge) Score *Family Medicine*

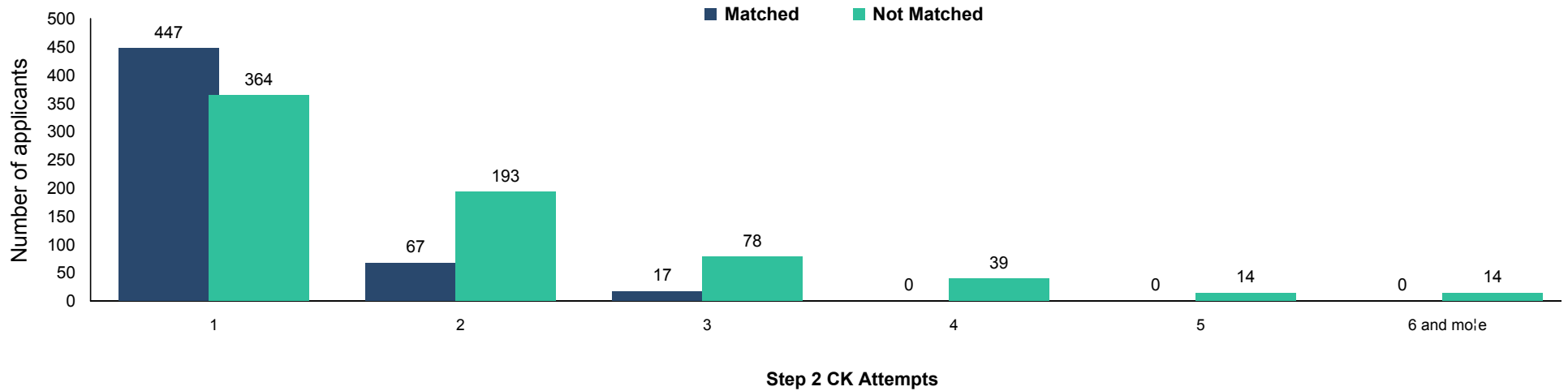


Source: NRMP Data Warehouse and ECFMG.

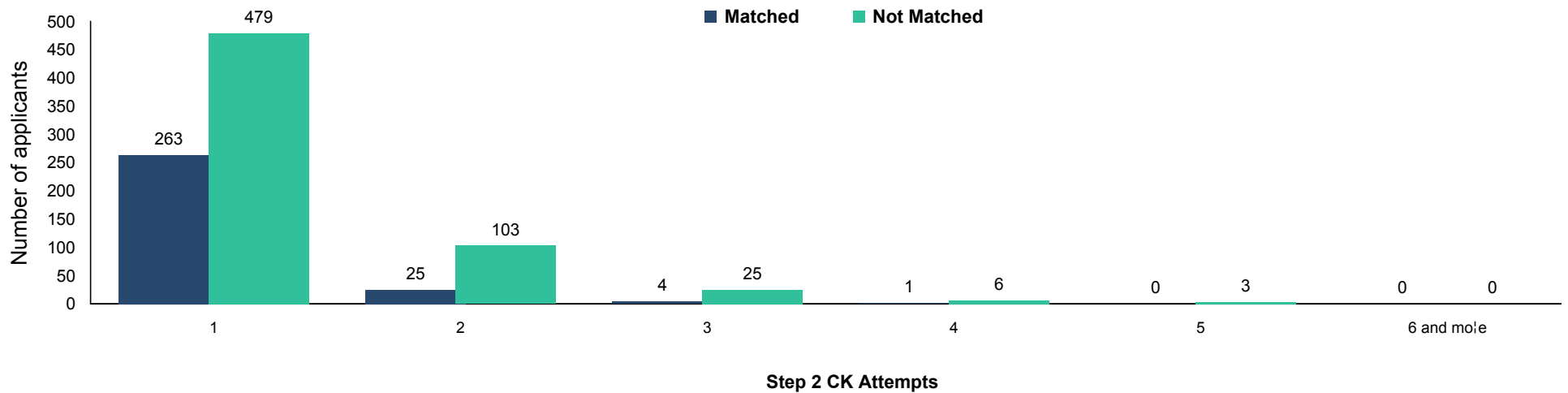


**USMLE Step 2 CK (Clinical Knowledge) Attempts\*  
Family Medicine**

**U.S. IMG**



**Non-U.S. IMG**

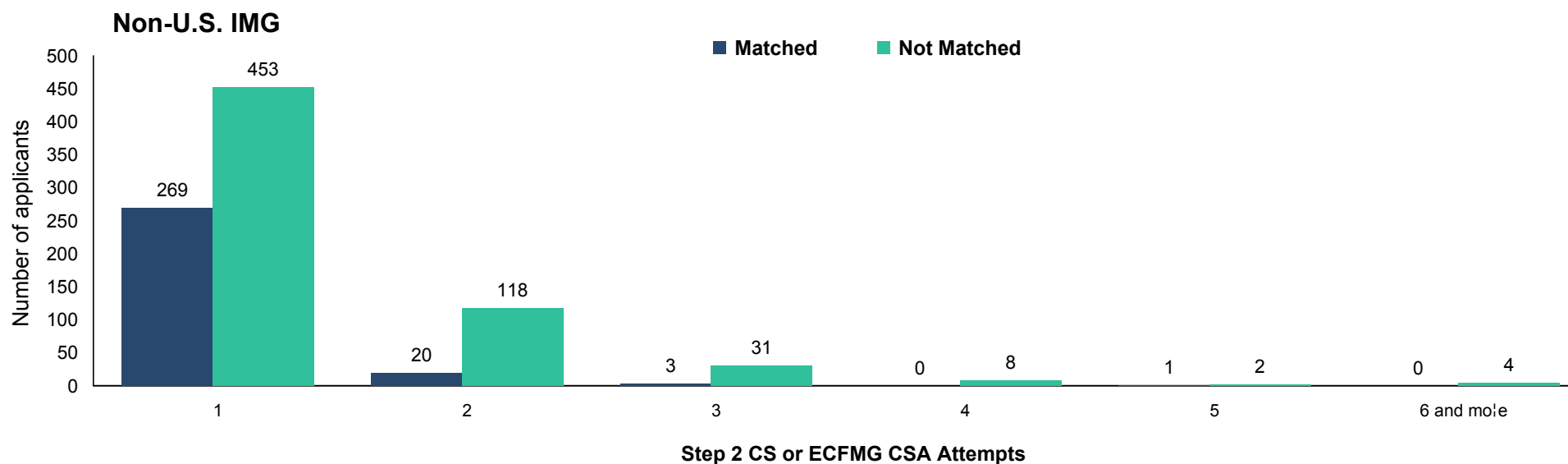
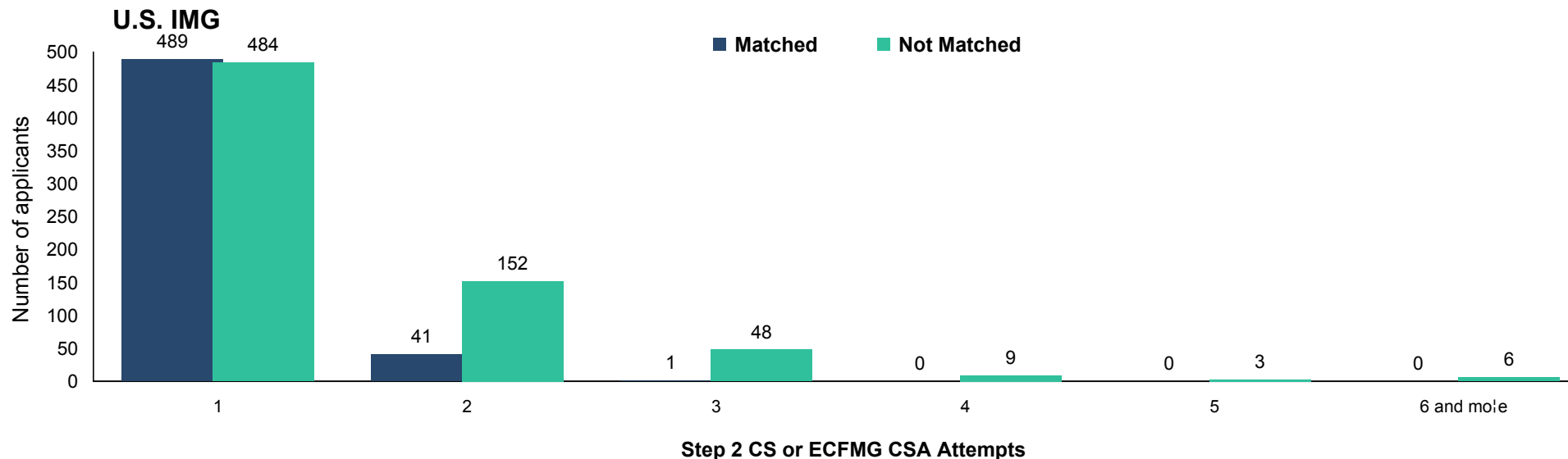


Source: NRMP Data Warehouse and ECFMG.

\*USMLE Step 2 CK or equivalent examination

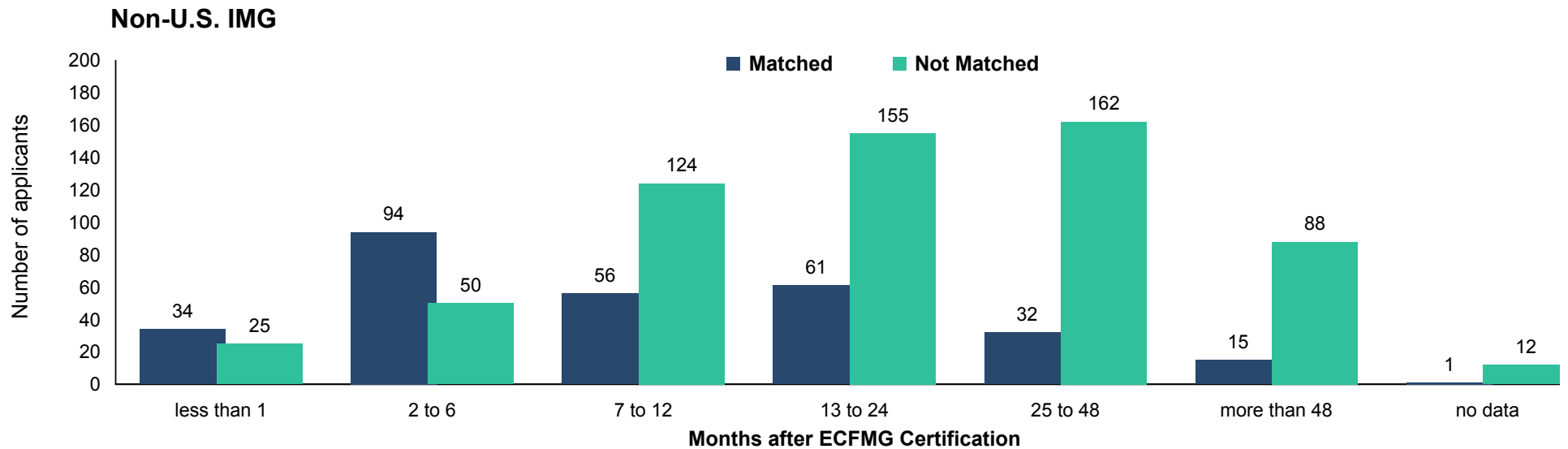
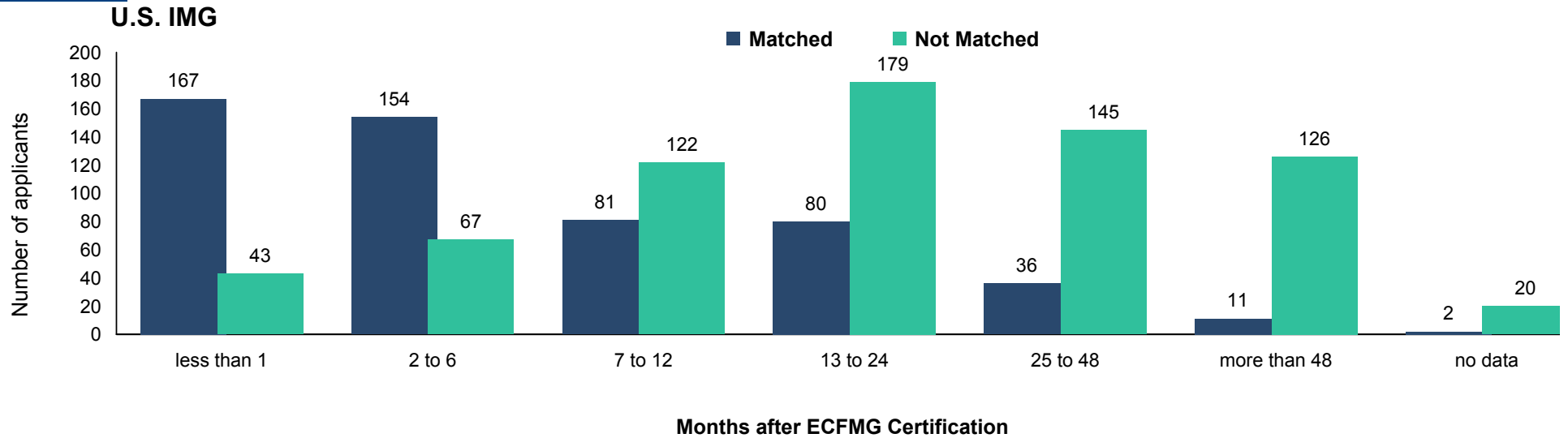
**Chart  
FM-7**

**Attempts at USMLE Step 2 CS (Clinical Skills) or ECFMG CSA (Clinical Skills Assessment)  
Family Medicine**



Source: NRMP Data Warehouse and ECFMG.

**Number of Months After ECFMG Certification  
Family Medicine**

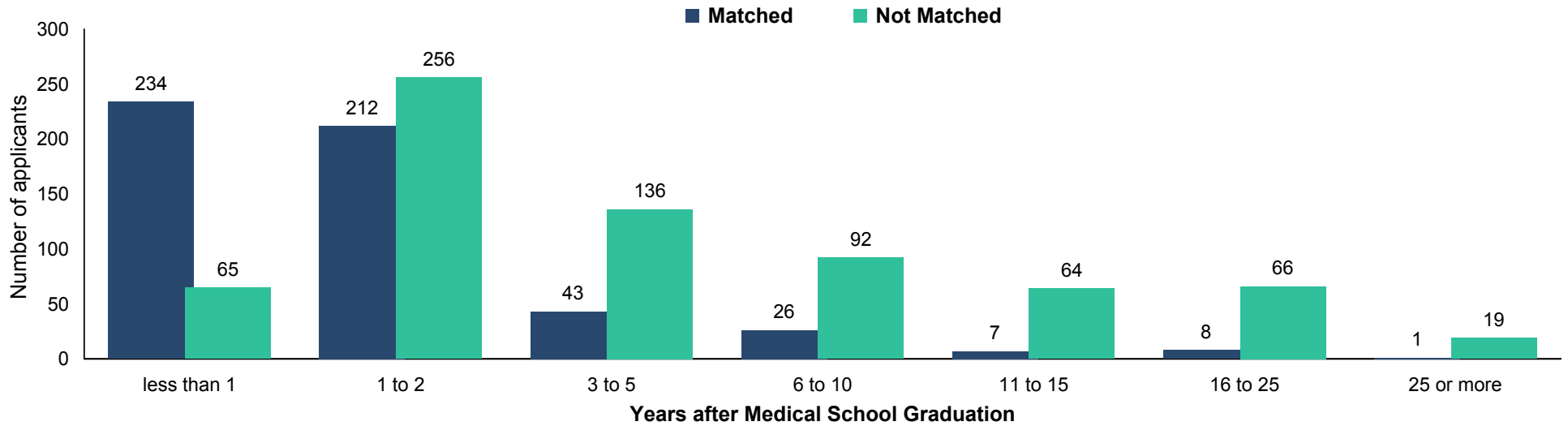


Source: NRMP Data Warehouse and ECFMG

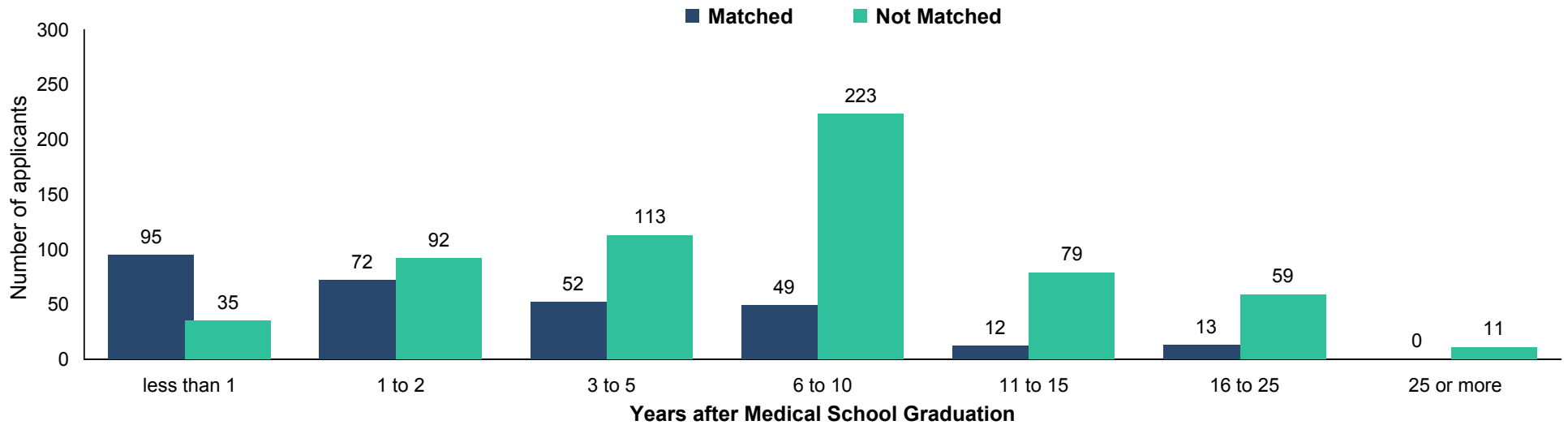
**Chart  
FM-9**

**Number of Years After Medical School Graduation  
Family Medicine**

**U.S. IMG**



**Non-U.S. IMG**



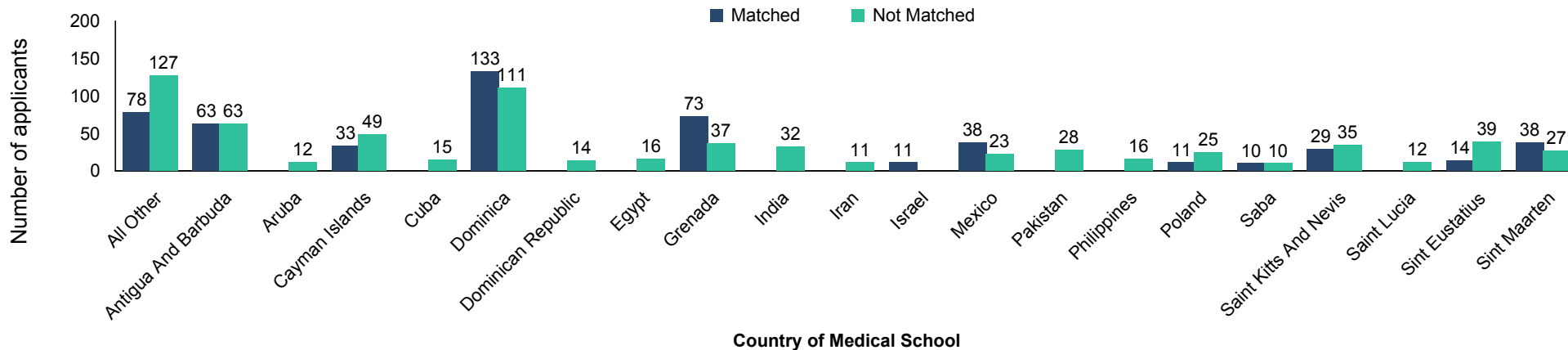
Source: NRMP Data Warehouse and ECFMG

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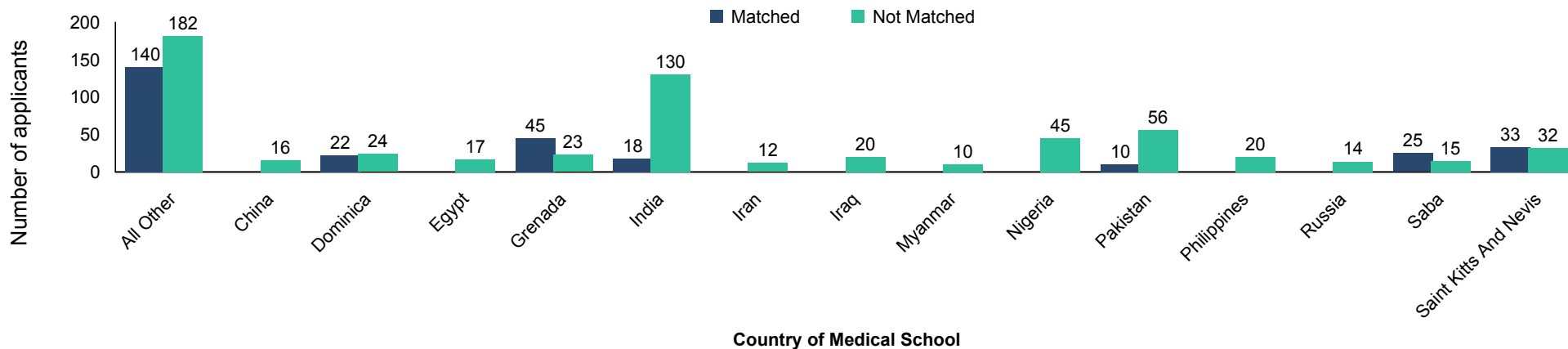
**Chart  
FM-10**

**Country of Medical School  
Family Medicine**

**U.S. IMG**



**Non-U.S. IMG**



Source: NRMP Data Warehouse and ECFMG

Note: A country is included if it has 10 or more applicants for each category

**IM**

**Internal Medicine**

---

| Measure   | U.S. IMG           |                      | Non-U.S. IMG         |                        |
|---|--------------------|----------------------|----------------------|------------------------|
|   | Matched<br>(n=841) | Unmatched<br>(n=753) | Matched<br>(n=1,690) | Unmatched<br>(n=1,856) |
| 1. Mean number of contiguous ranks                    | 8                  | 3                    | 7                    | 3                      |
| 2. Mean number of distinct specialties ranked         | 1.3                | 1.6                  | 1.3                  | 1.4                    |
| 3. Mean USMLE Step 1 score                            | 221                | 205                  | 231                  | 217                    |
| 4. Mean USMLE Step 1 attempts*                        | 1.1                | 1.6                  | 1.0                  | 1.2                    |
| 5. Mean USMLE Step 2 CK score                         | 228                | 210                  | 236                  | 221                    |
| 6. Mean USMLE Step 2 CK attempts**                    | 1.1                | 1.4                  | 1.0                  | 1.1                    |
| 7. Mean USMLE Step 2 CS or ECFMG CSA attempts         | 1.1                | 1.4                  | 1.1                  | 1.3                    |
| 8. Mean number of months since ECFMG certification    | 7                  | 22                   | 15                   | 22                     |
| 9. Mean number of years since graduation              | 1.7                | 5.9                  | 4.3                  | 6.6                    |
| 10. Percentage who speak English as a native language | 71                 | 51                   | 19                   | 17                     |

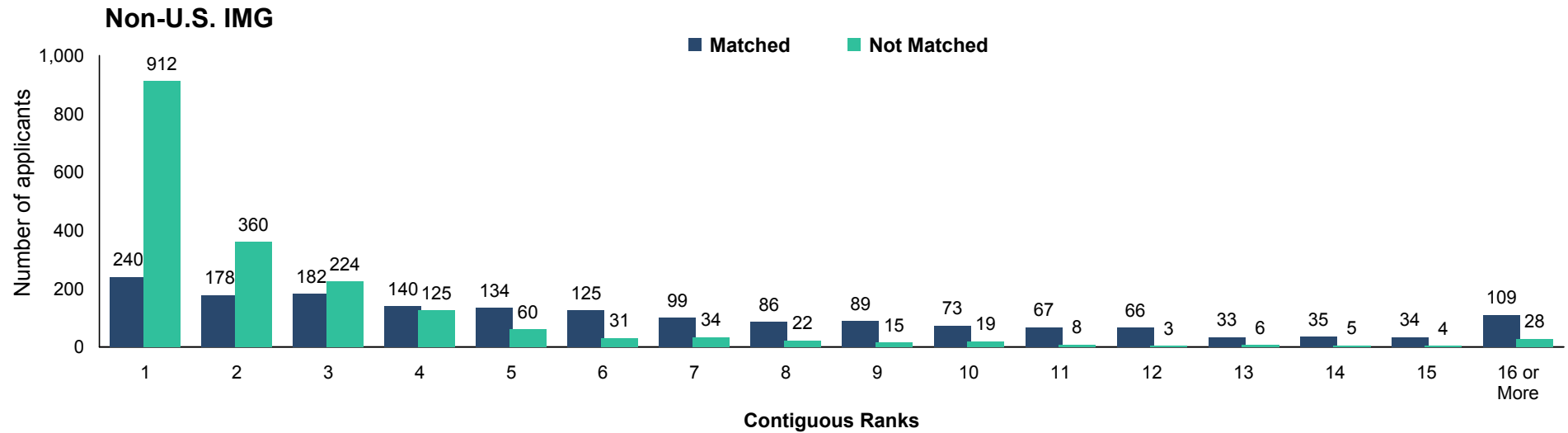
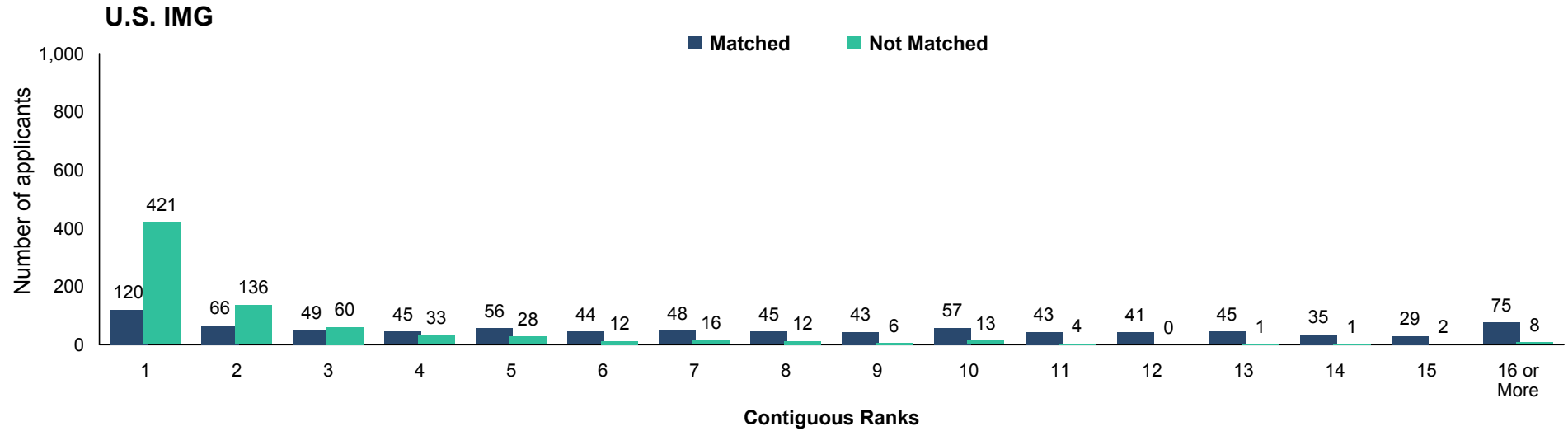
Sources: NRMP Data Warehouse and ECFMG

\*USMLE Step 1 or equivalent examination

\*\*USMLE Step 2 CK or equivalent examination

**Chart  
IM-1**

**Number of Contiguous Ranks Within Preferred Specialty  
Internal Medicine**



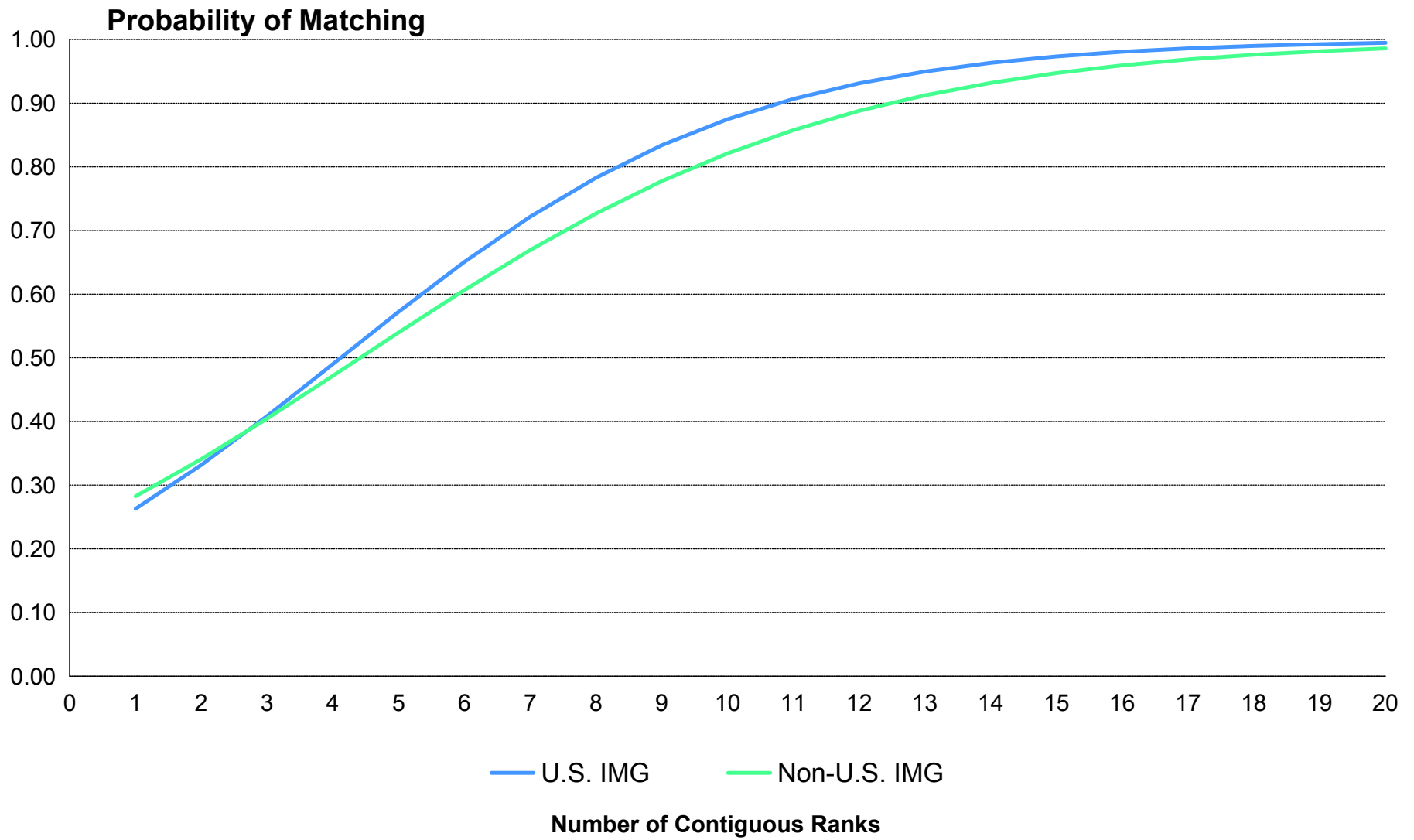
Source: NRMP Data Warehouse

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**Graph  
IM-1**

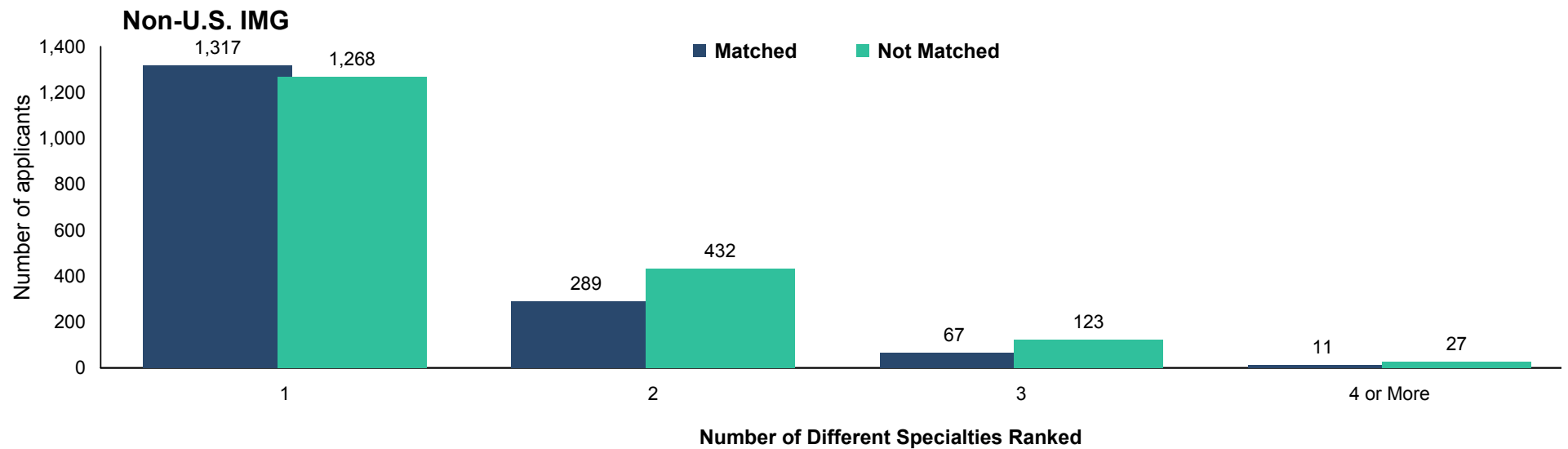
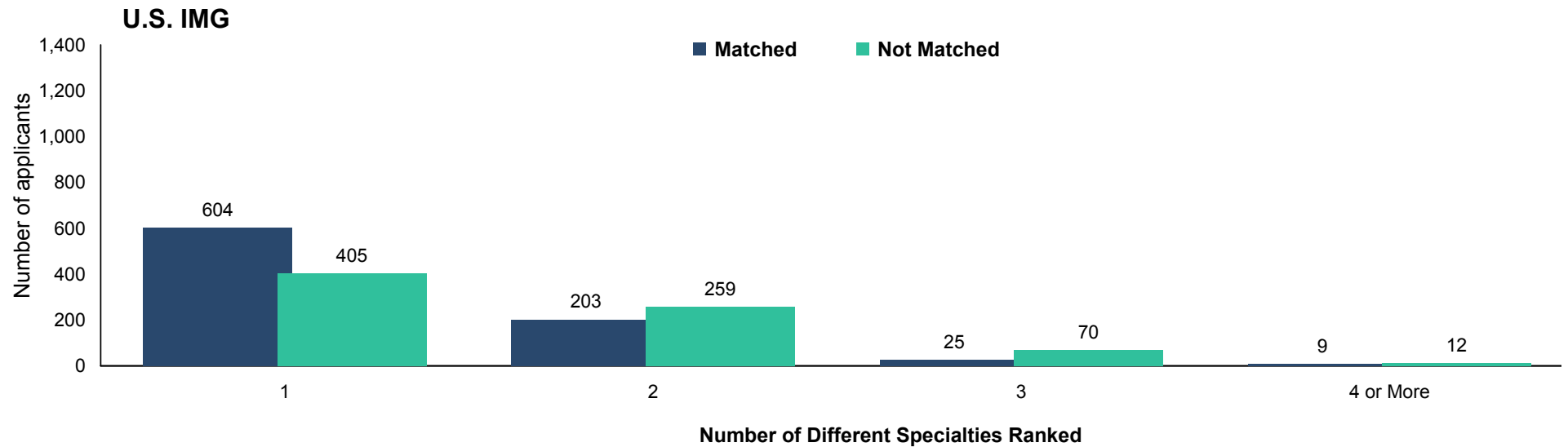
**Probability of Matching to Preferred Specialty by Number of Contiguous Ranks**  
*Internal Medicine*



Source: NRMP Data Warehouse.

**Chart  
IM-2**

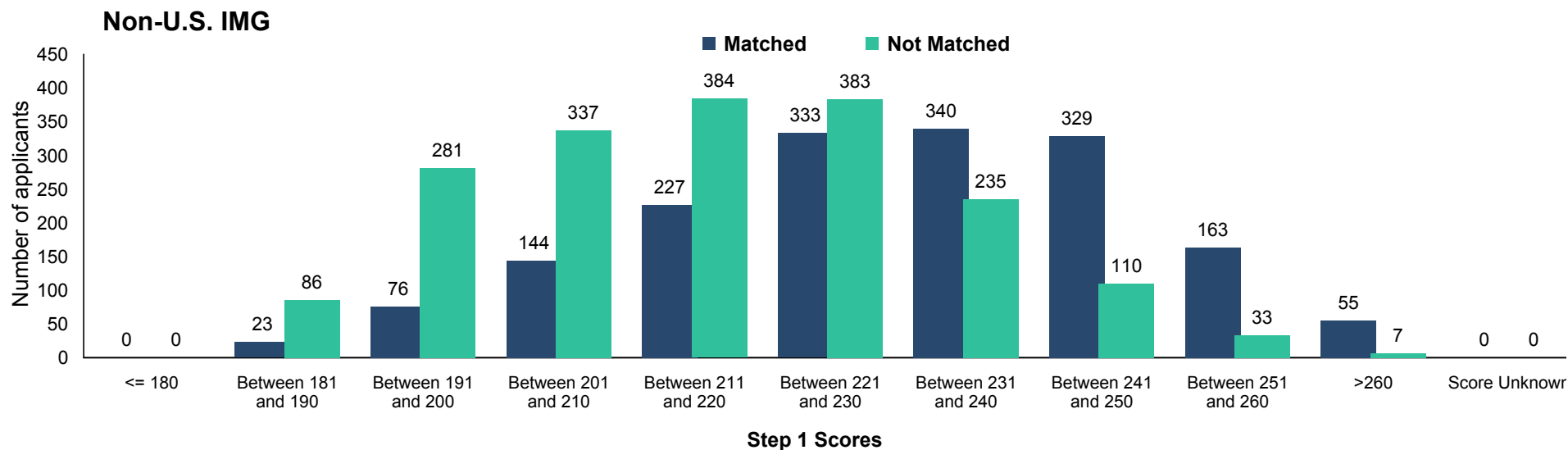
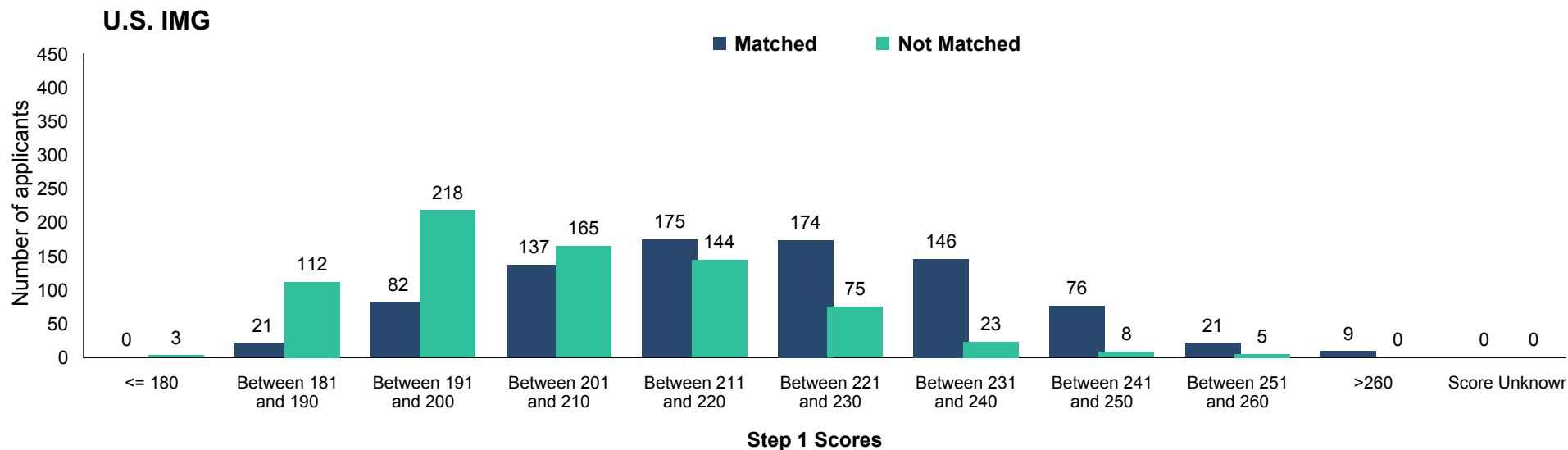
**Number of Applicants Ranking Different Specialties  
Internal Medicine**



Source: NRMP Data Warehouse

**Chart  
IM-3**

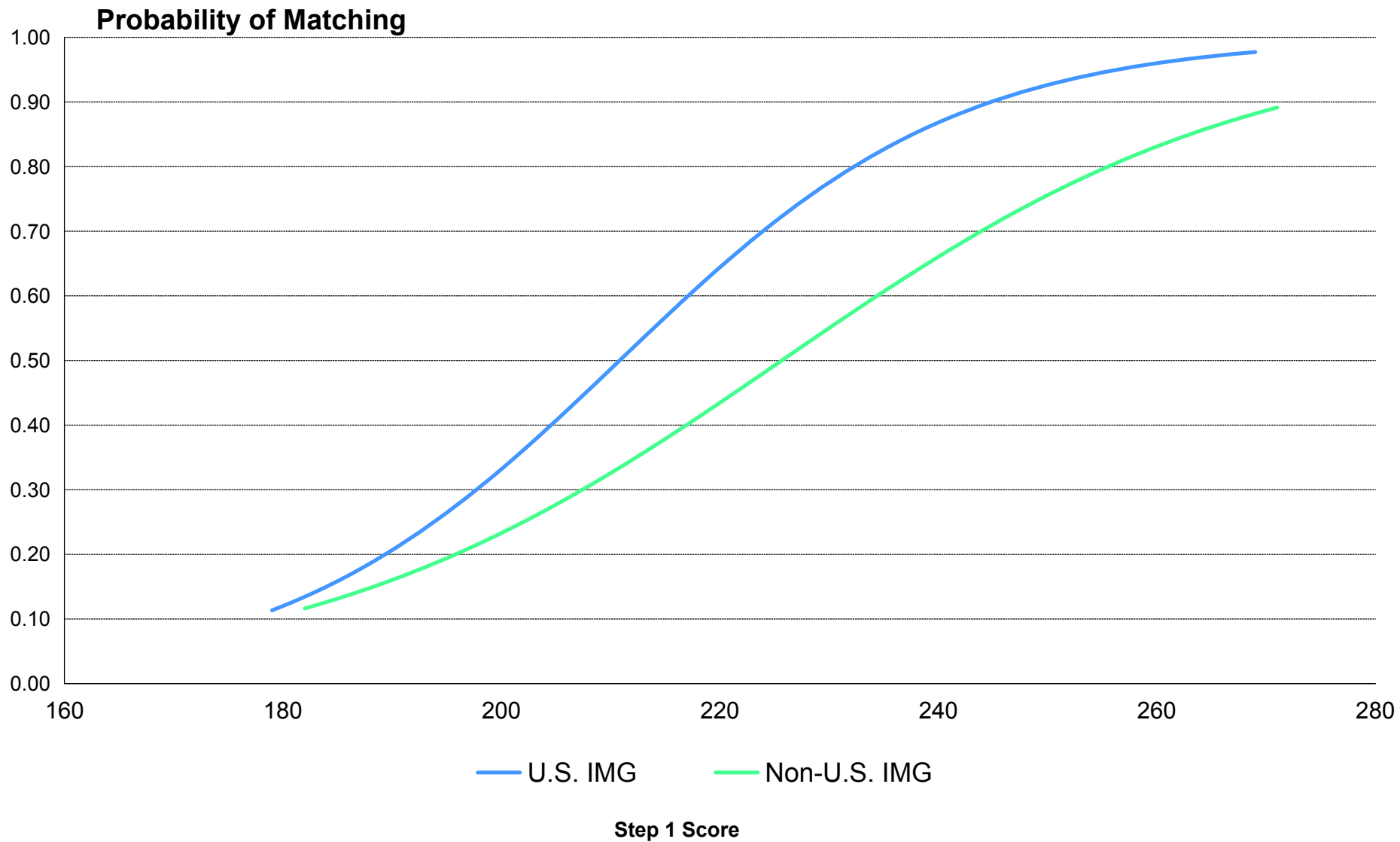
**USMLE Step 1 Scores  
Internal Medicine**



Source: NRMP Data Warehouse and ECFMG.

# Probability of Matching to Preferred Specialty by USMLE Step 1 Score

## Internal Medicine

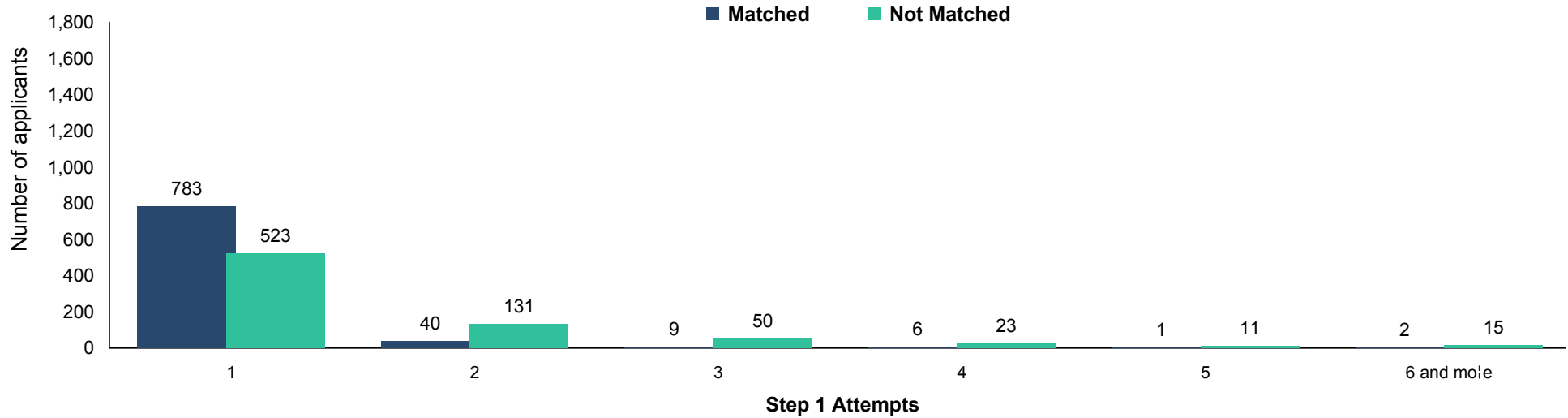


Source: NRMP Data Warehouse and ECFMG.

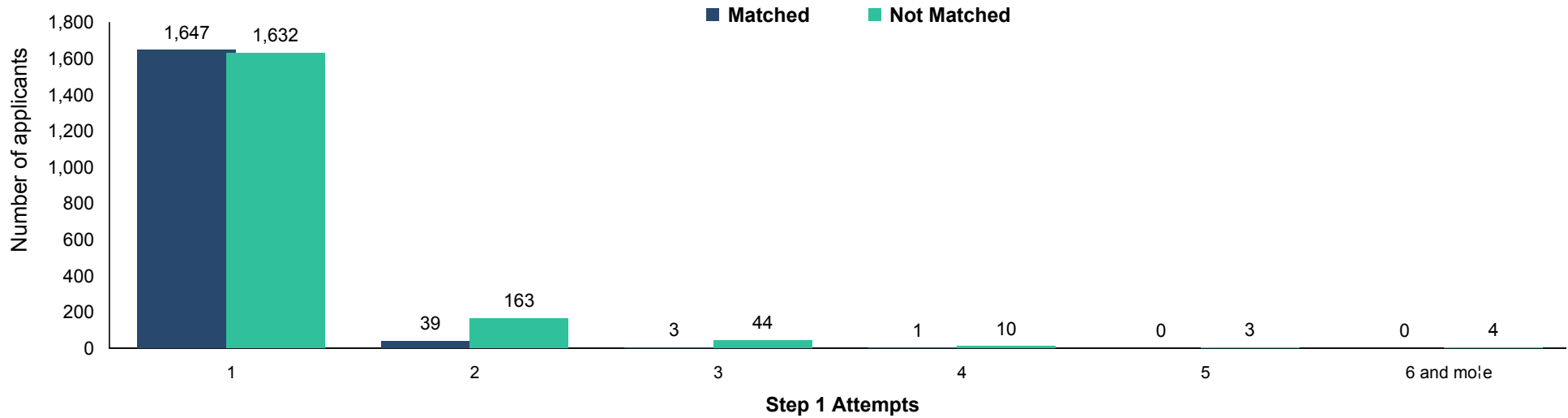
**Chart  
IM-4**

**USMLE Step 1 Attempts\*  
Internal Medicine**

**U.S. IMG**



**Non-U.S. IMG**

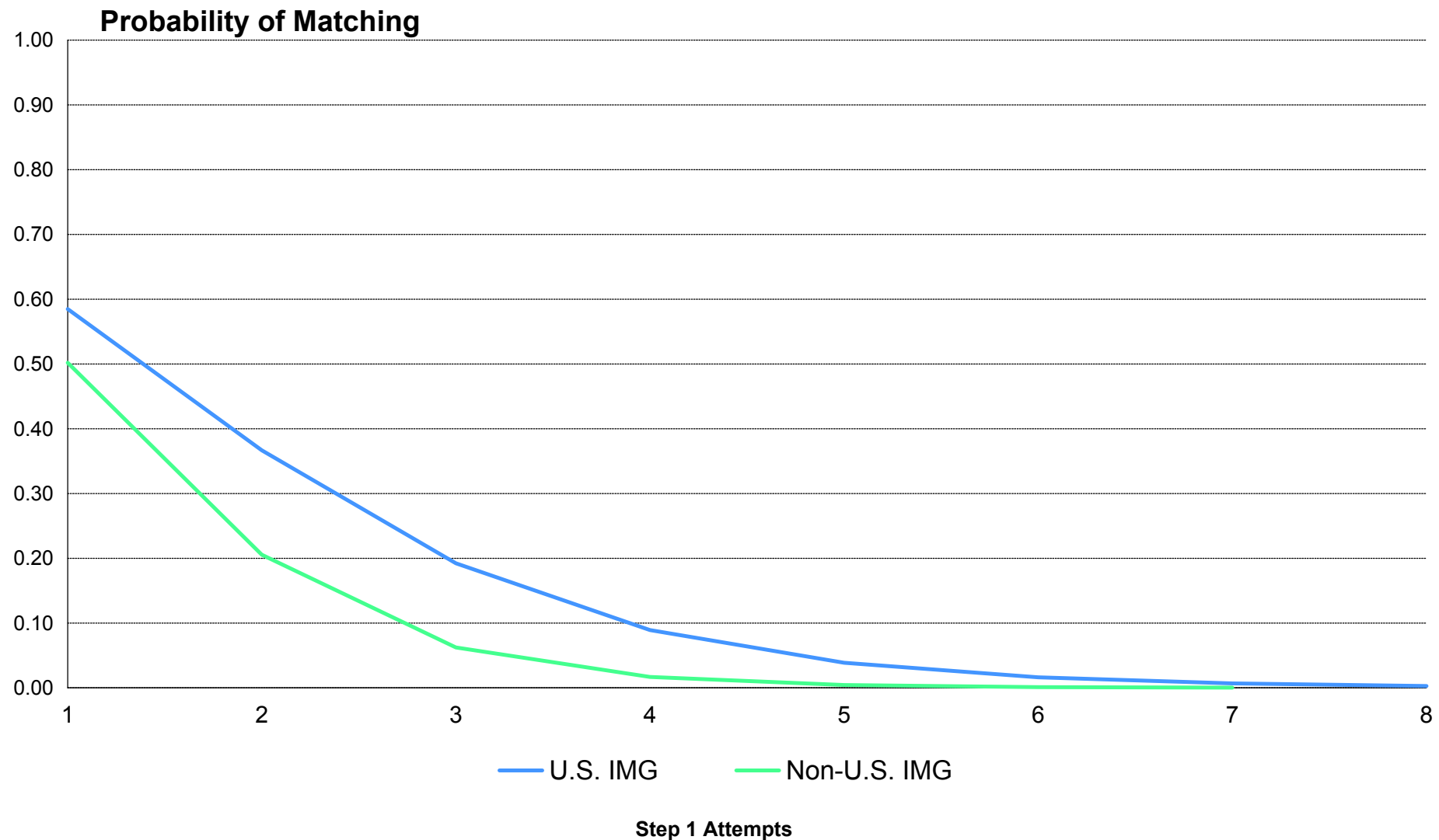


Source: NRMP Data Warehouse and ECFMG.

\*USMLE Step 1 or equivalent examination

**Graph  
IM-3**

**Probability of Matching to Preferred Specialty by Number of Step 1 Attempts\***  
*Internal Medicine*

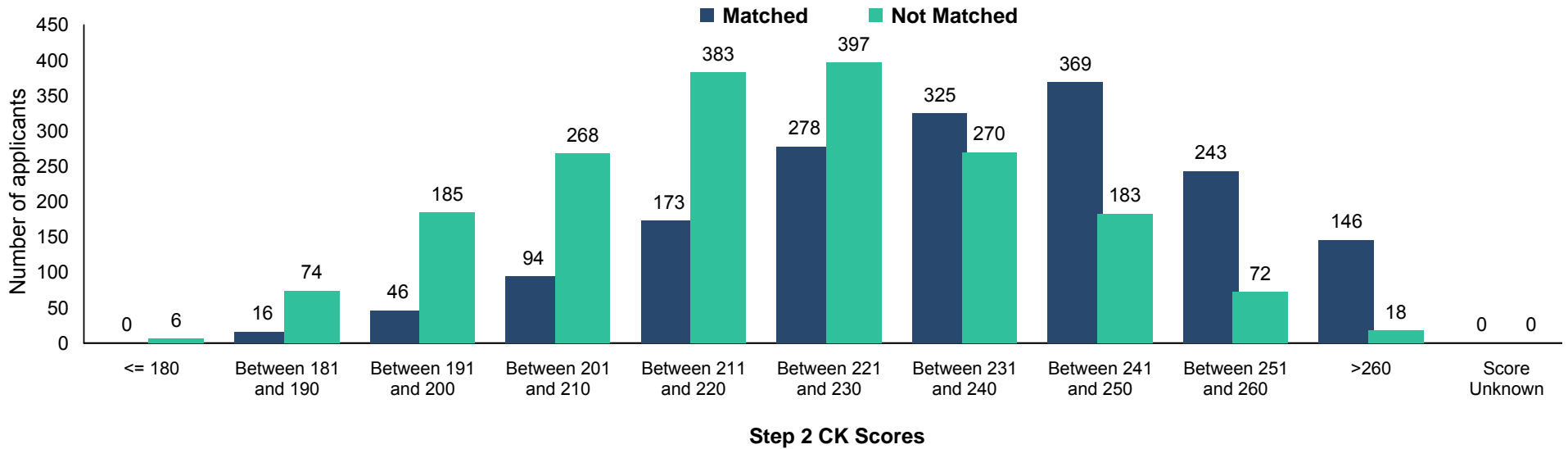
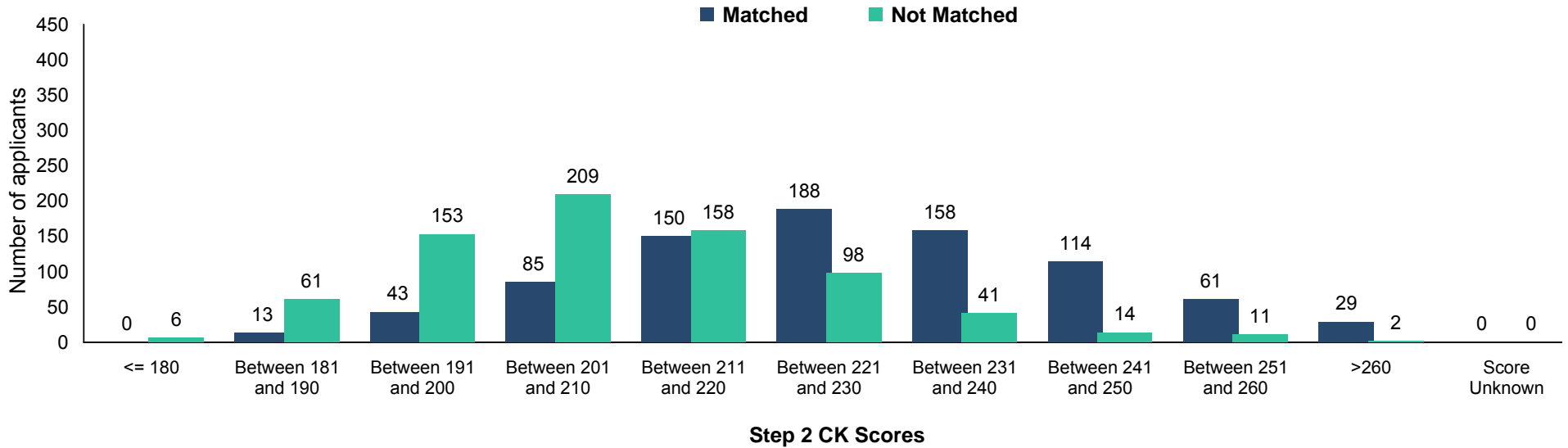


Source: NRMP Data Warehouse and ECFMG.

\*USMLE Step 1 or equivalent examination

**Chart  
IM-5**

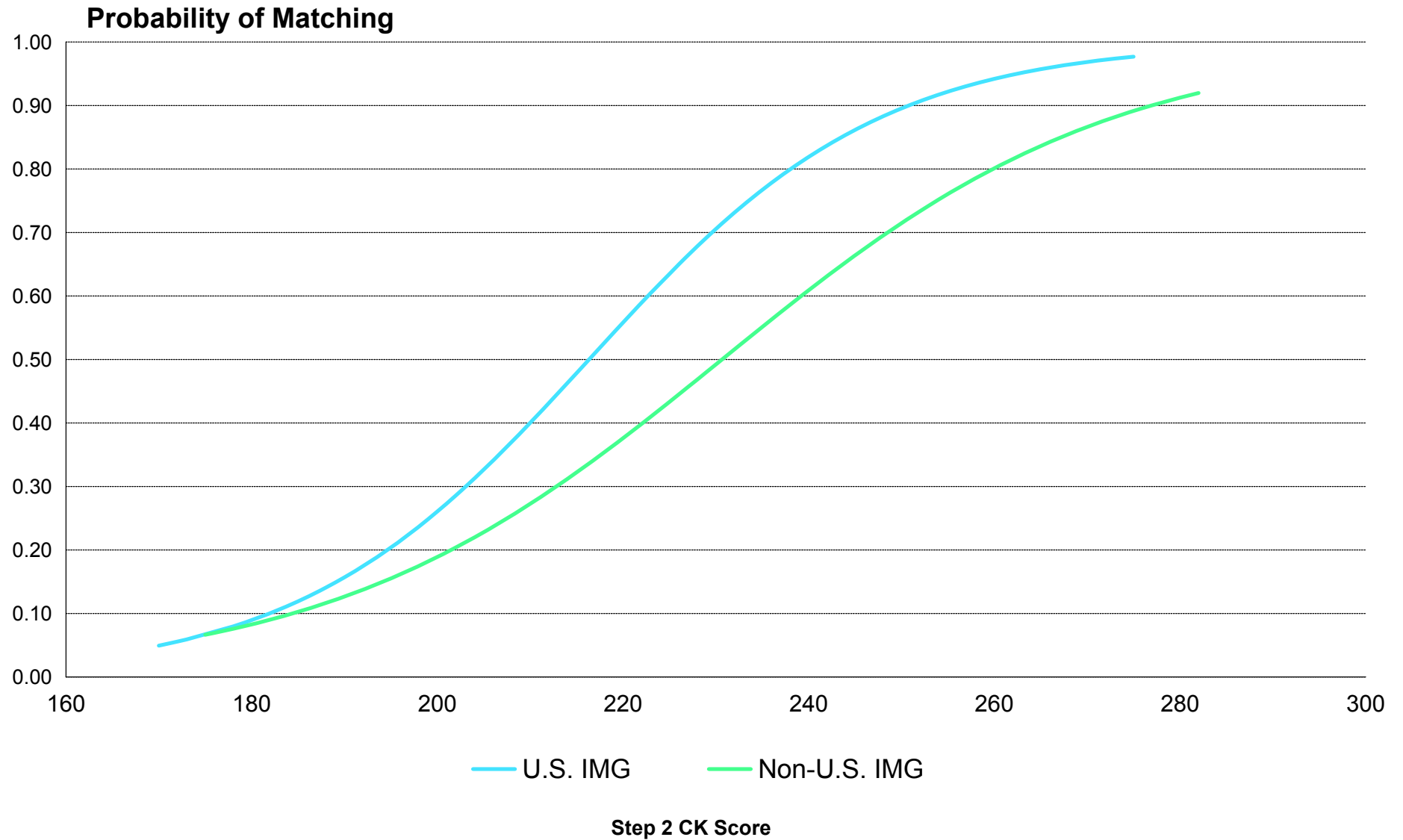
**USMLE Step 2 CK (Clinical Knowledge) Scores  
Internal Medicine**



Source: NRMP Data Warehouse and ECFMG.

**Graph  
IM-4**

**Probability of Matching to Preferred Specialty by USMLE Step 2 CK (Clinical Knowledge) Score**  
*Internal Medicine*



Source: NRMP Data Warehouse and ECFMG.

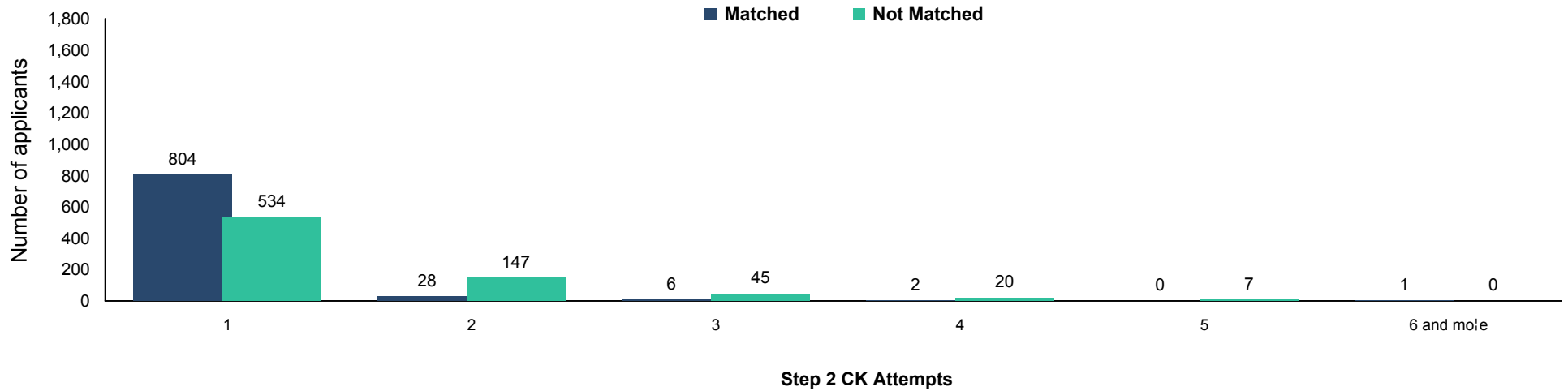
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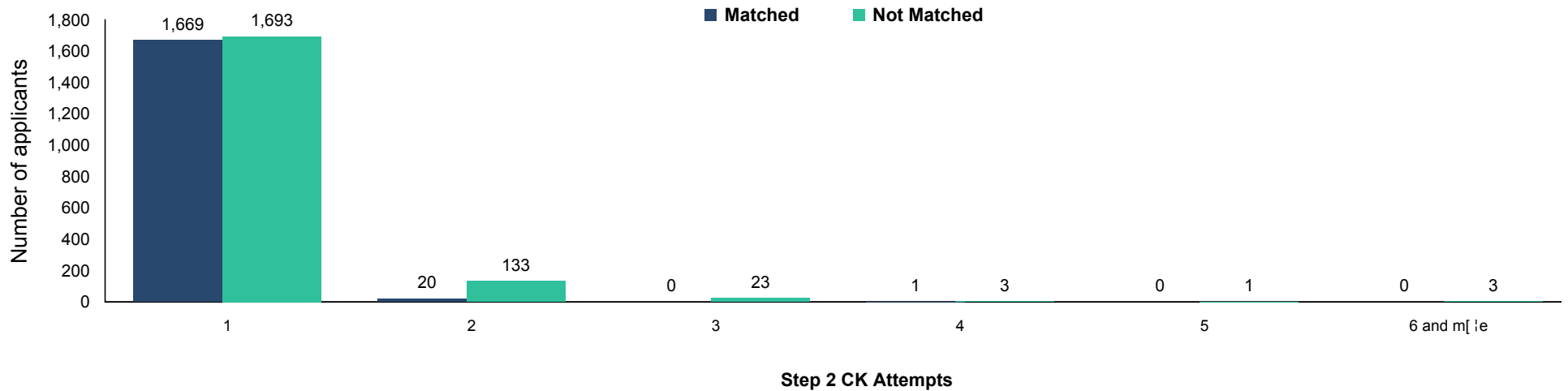
**Chart  
IM-6**

**USMLE Step 2 CK (Clinical Knowledge) Attempts\*  
Internal Medicine**

**U.S. IMG**



**Non-U.S. IMG**

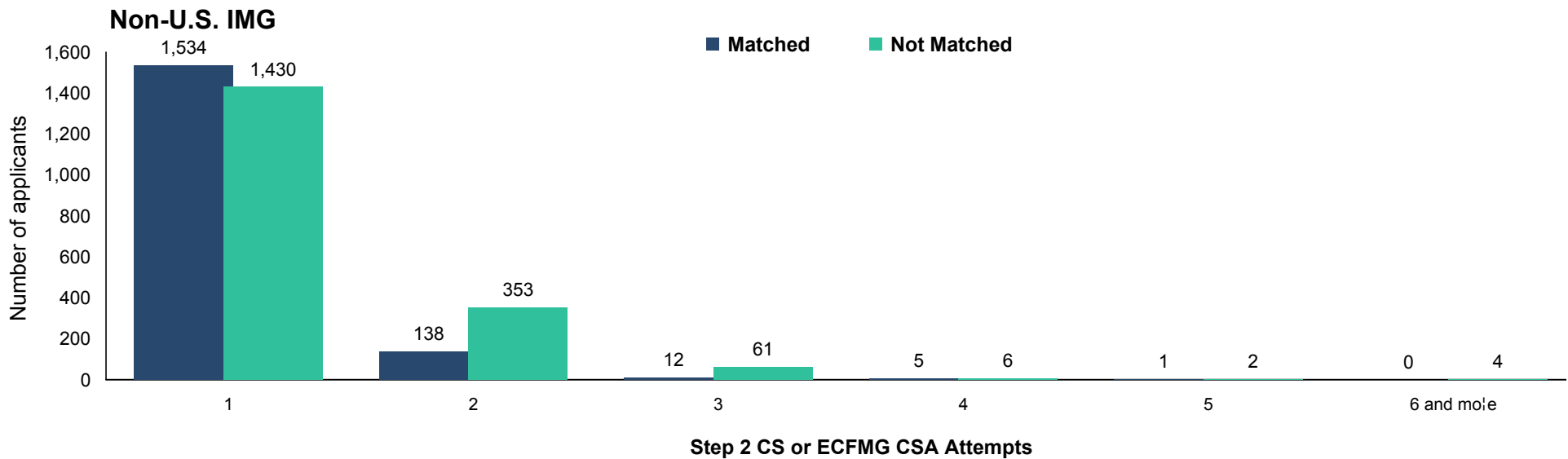
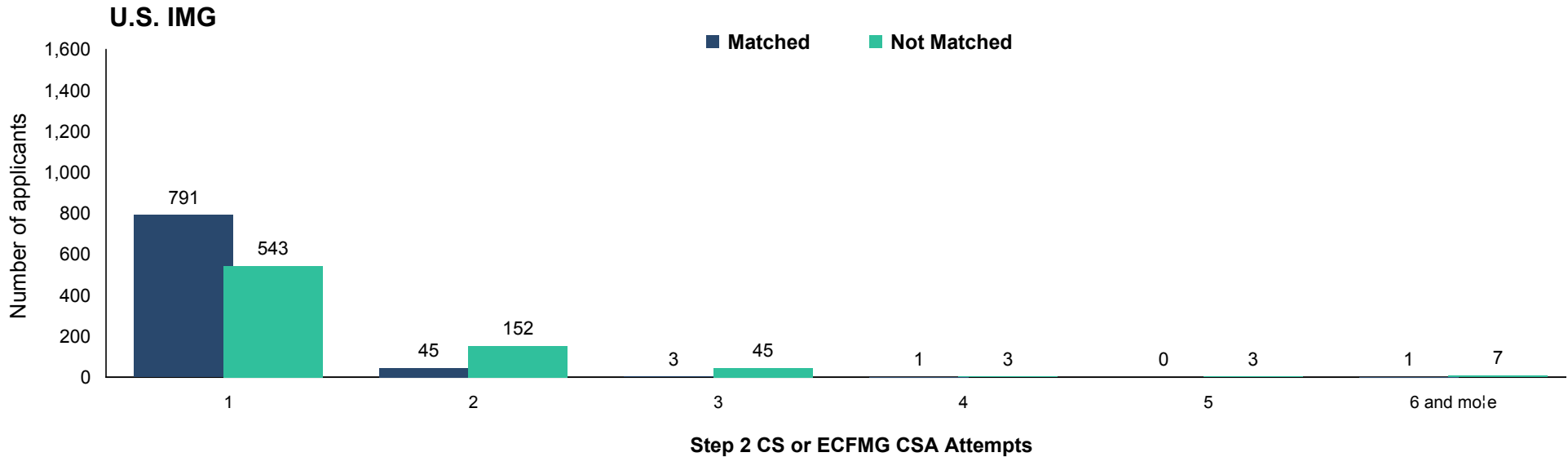


Source: NRMP Data Warehouse and ECFMG.

\*USMLE Step 2 CK or equivalent examination

**Chart  
IM-7**

**Attempts at USMLE Step 2 CS (Clinical Skills) or ECFMG CSA (Clinical Skills Assessment)  
Internal Medicine**

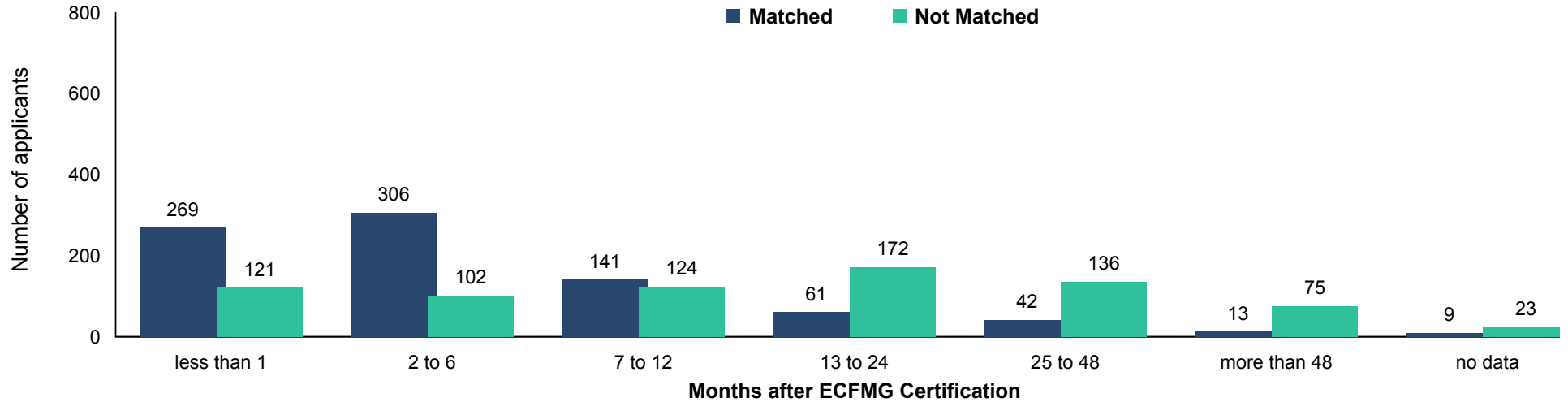


Source: NRMP Data Warehouse and ECFMG.

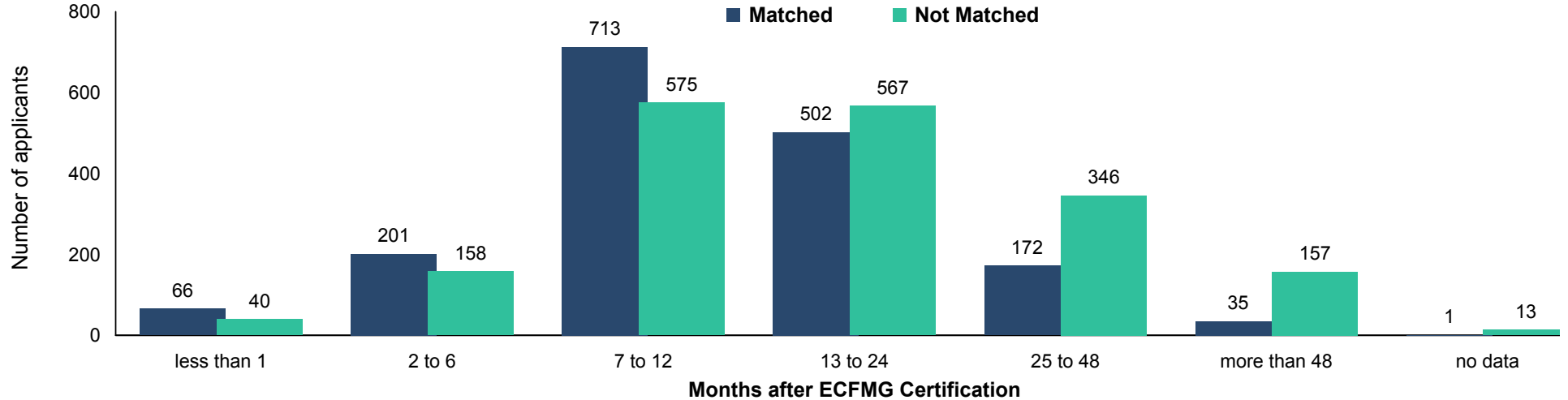
**Chart  
IM-8**

**Number of Months After ECFMG Certification  
Internal Medicine**

**U.S. IMG**



**Non-U.S. IMG**

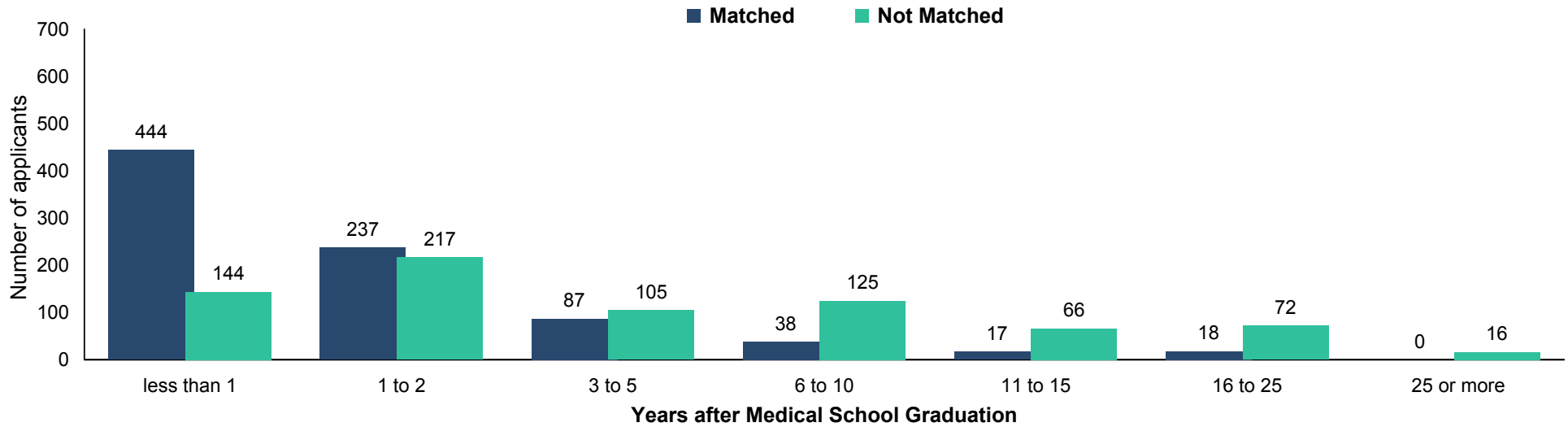


Source: NRMP Data Warehouse and ECFMG

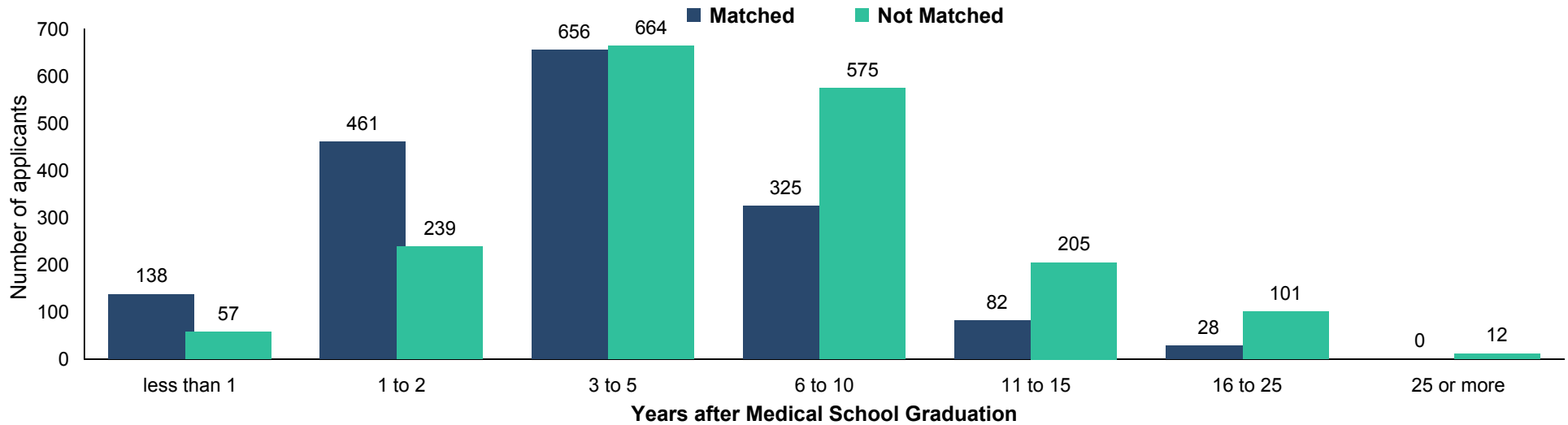
**Chart  
IM-9**

**Number of Years After Medical School Graduation  
Internal Medicine**

**U.S. IMG**



**Non-U.S. IMG**



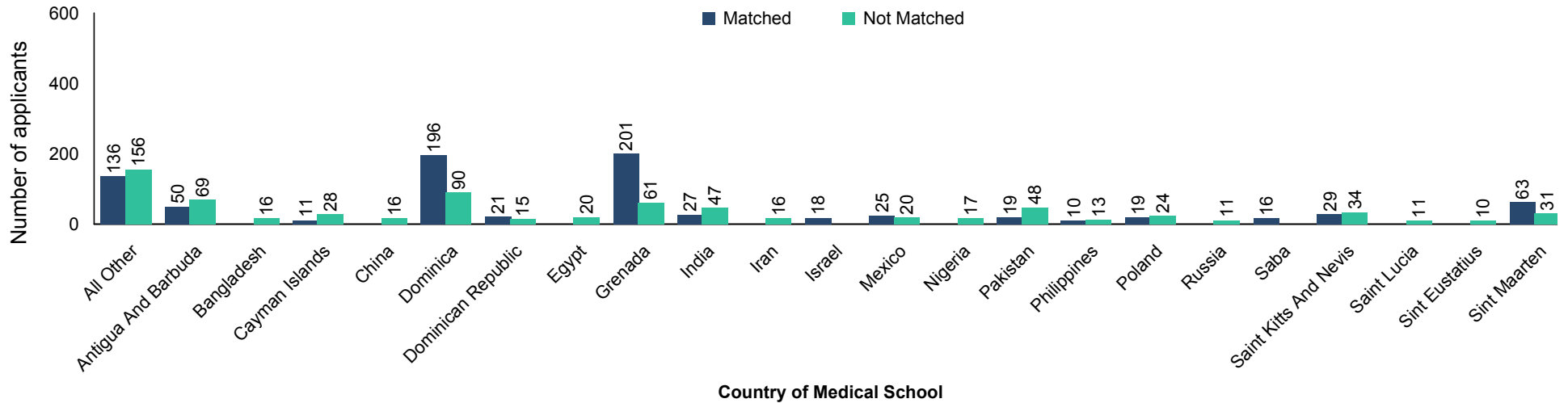
Source: NRMP Data Warehouse and ECFMG

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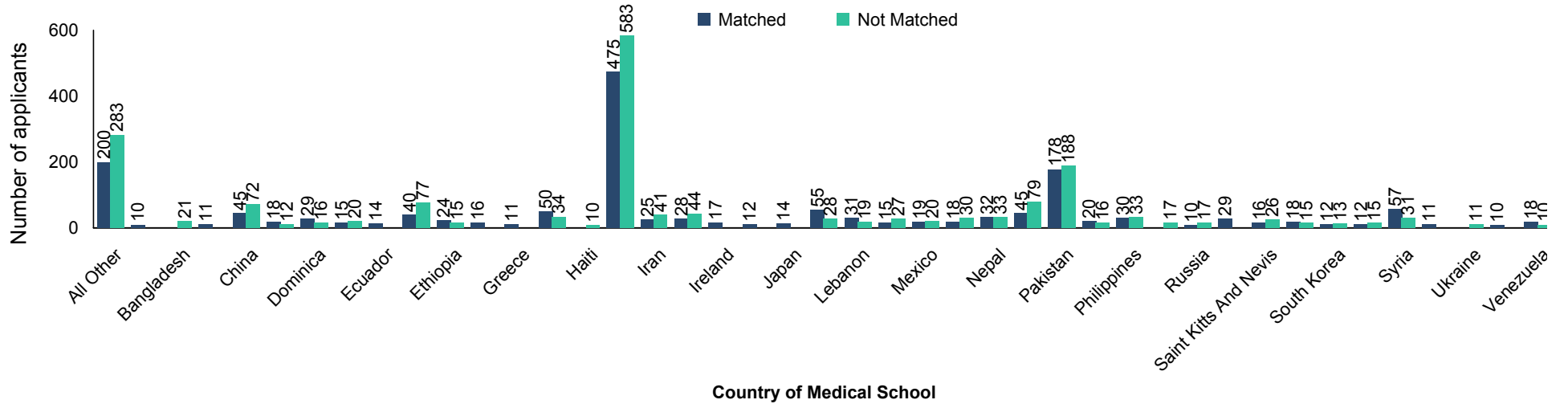
**Chart  
IM-10**

**Country of Medical School  
Internal Medicine**

**U.S. IMG**



**Non-U.S. IMG**



Source: NRMP Data Warehouse and ECFMG

Note: A country is included if it has 10 or more applicants for each category

**N**

**Neurology**

---

**Table N-1** **Summary Statistics**  
**Neurology**

| Measure   | U.S. IMG          |                     | Non-U.S. IMG       |                      |
|---|-------------------|---------------------|--------------------|----------------------|
|   | Matched<br>(n=59) | Unmatched<br>(n=44) | Matched<br>(n=148) | Unmatched<br>(n=149) |
| 1. Mean number of contiguous ranks                    | 7                 | 2                   | 6                  | 2                    |
| 2. Mean number of distinct specialties ranked         | 1.7               | 2.0                 | 1.7                | 1.8                  |
| 3. Mean USMLE Step 1 score                            | 216               | 203                 | 230                | 214                  |
| 4. Mean USMLE Step 1 attempts*                        | 1.1               | 2.1                 | 1.1                | 1.2                  |
| 5. Mean USMLE Step 2 CK score                         | 222               | 206                 | 236                | 217                  |
| 6. Mean USMLE Step 2 CK attempts**                    | 1.1               | 1.8                 | 1.0                | 1.1                  |
| 7. Mean USMLE Step 2 CS or ECFMG CSA attempts         | 1.1               | 1.4                 | 1.1                | 1.4                  |
| 8. Mean number of months since ECFMG certification    | 7                 | 28                  | 19                 | 29                   |
| 9. Mean number of years since graduation              | 2.0               | 5.8                 | 5.4                | 7.7                  |
| 10. Percentage who speak English as a native language | 71                | 52                  | 14                 | 10                   |

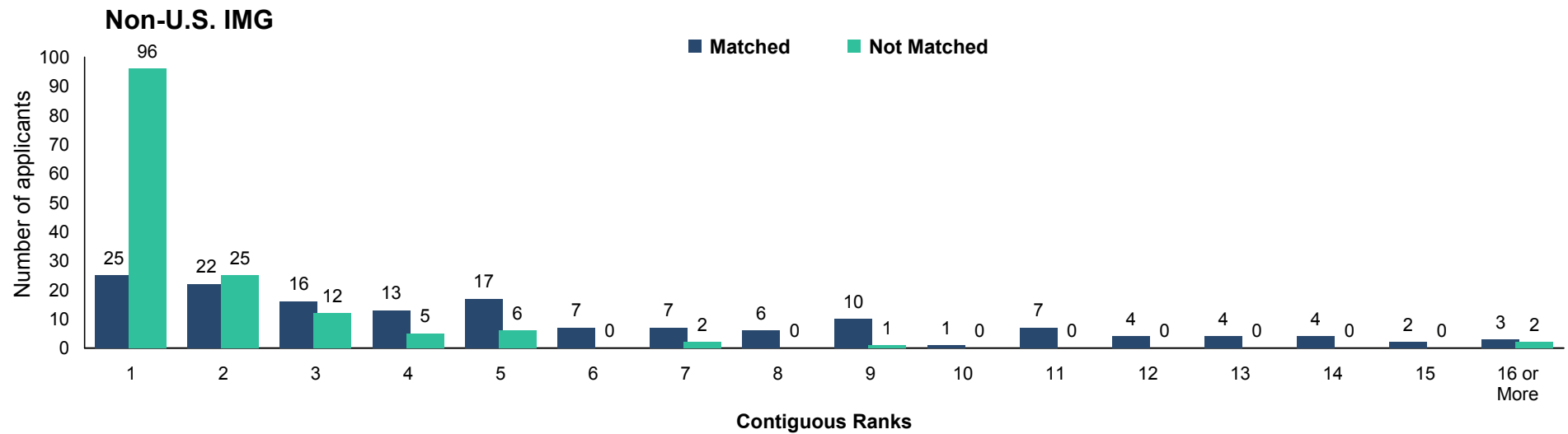
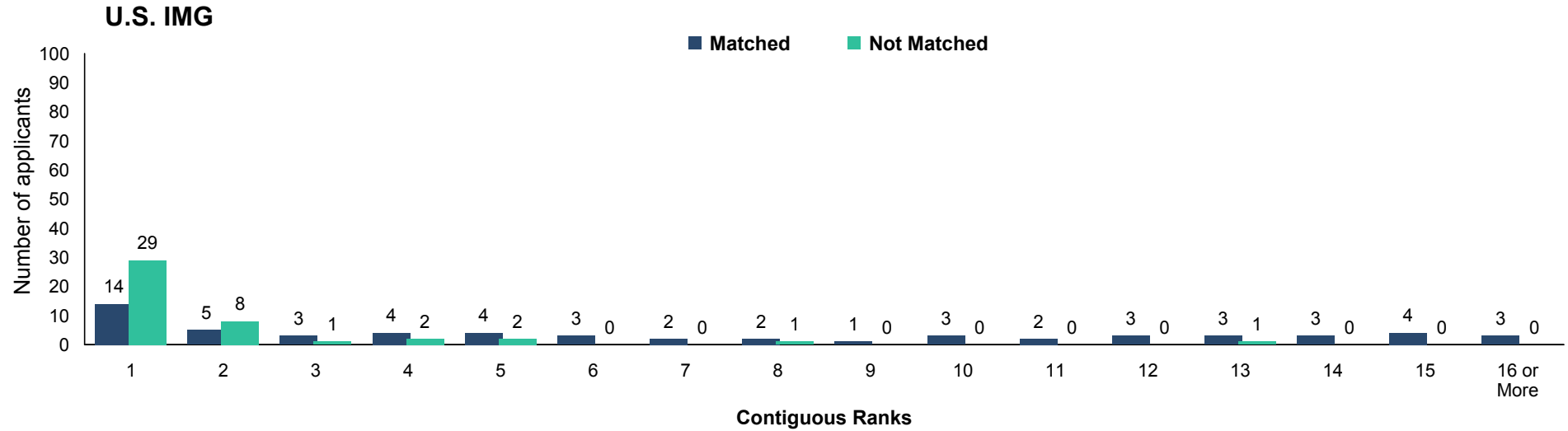
Sources: NRMP Data Warehouse and ECFMG

\*USMLE Step 1 or equivalent examination

\*\*USMLE Step 2 CK or equivalent examination

**Chart  
N-1**

**Number of Contiguous Ranks Within Preferred Specialty  
Neurology**



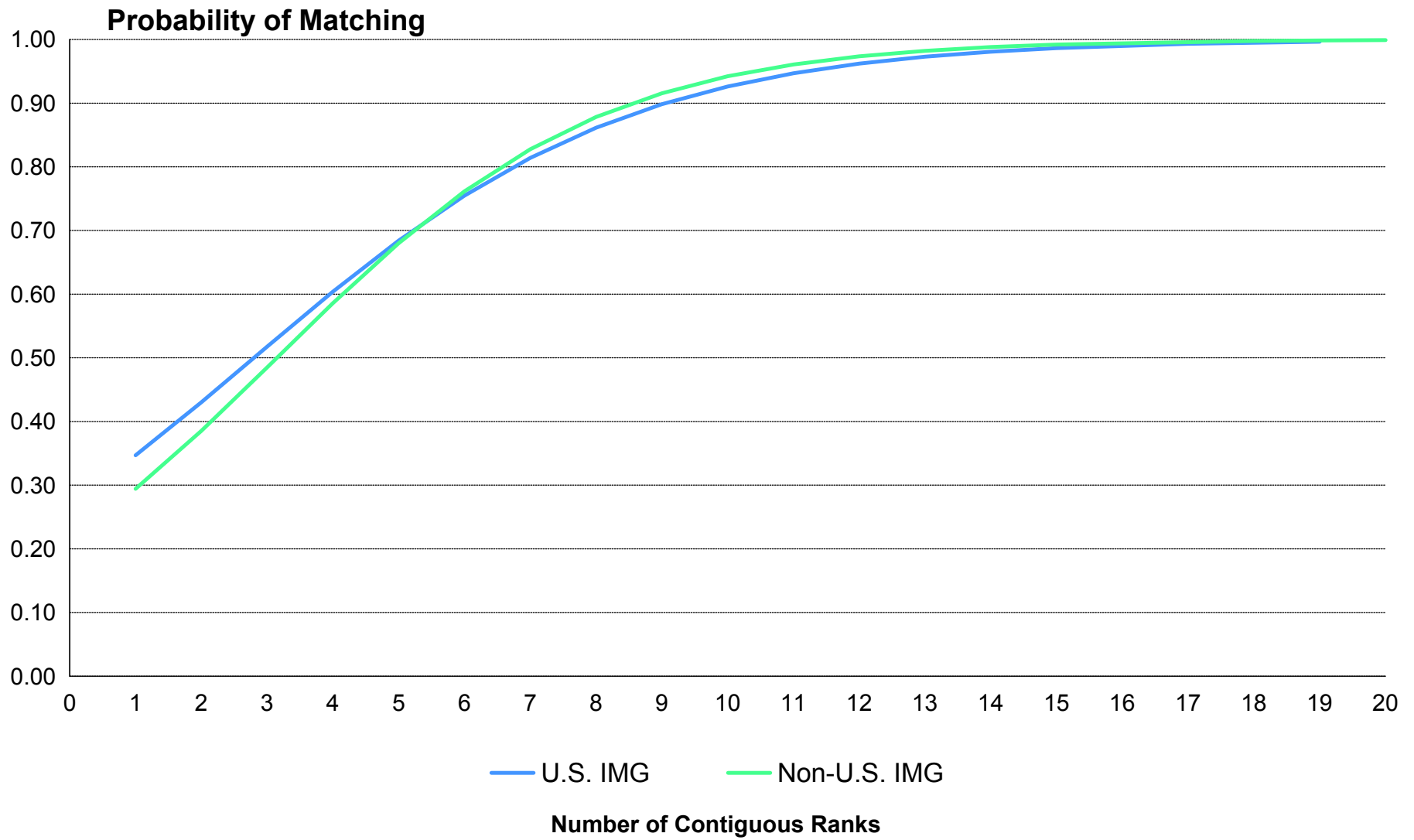
Source: NRMP Data Warehouse

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**Graph  
N-1**

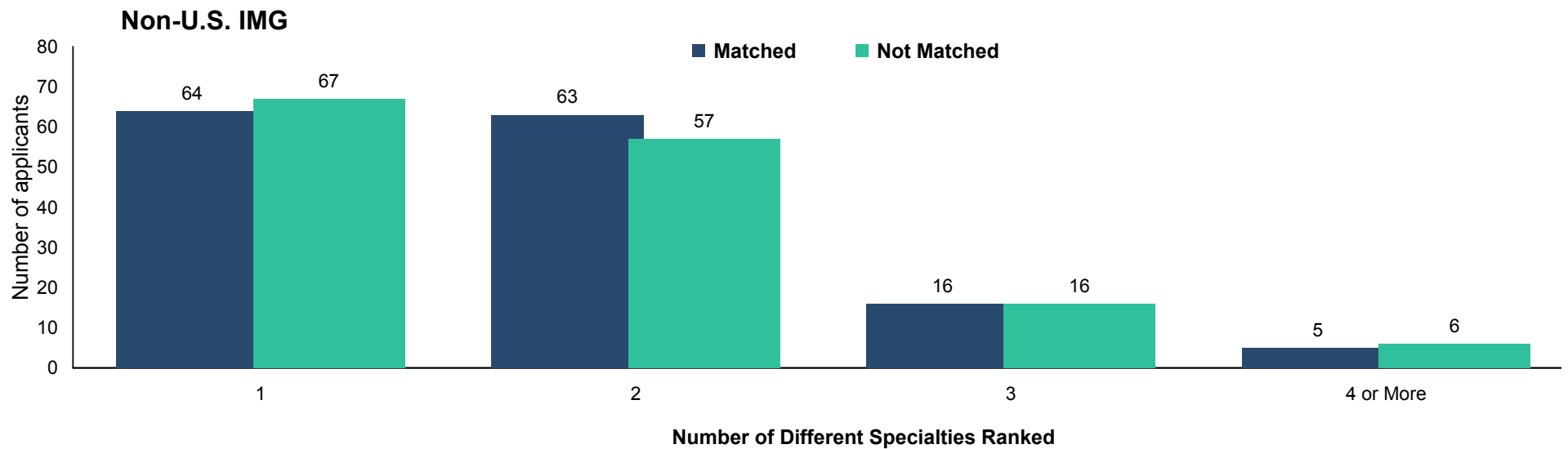
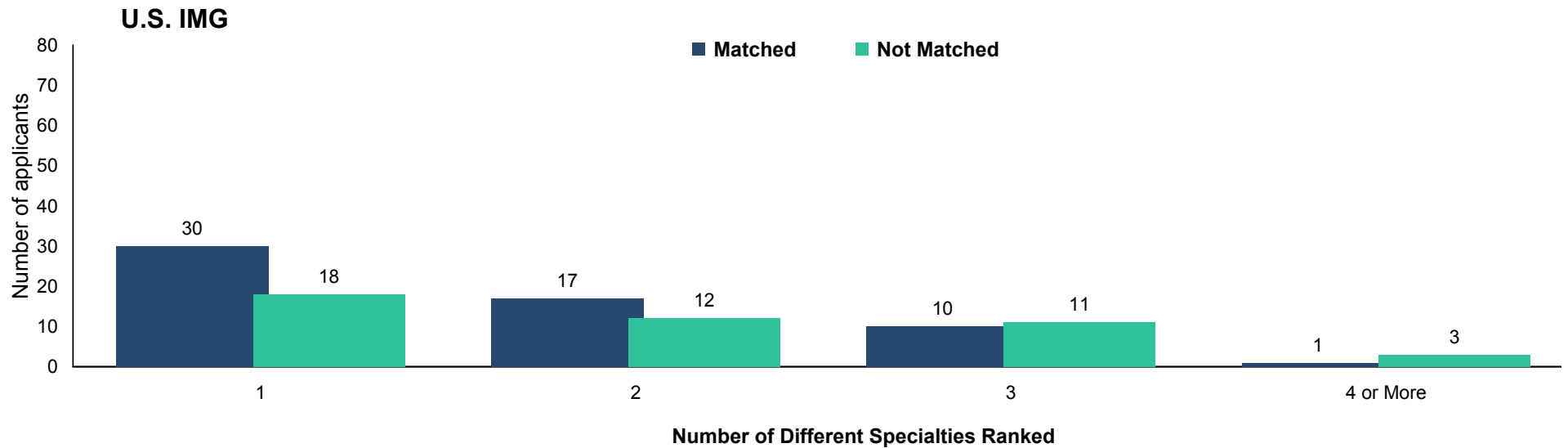
**Probability of Matching to Preferred Specialty by Number of Contiguous Ranks**  
*Neurology*



Source: NRMP Data Warehouse.

**Chart  
N-2**

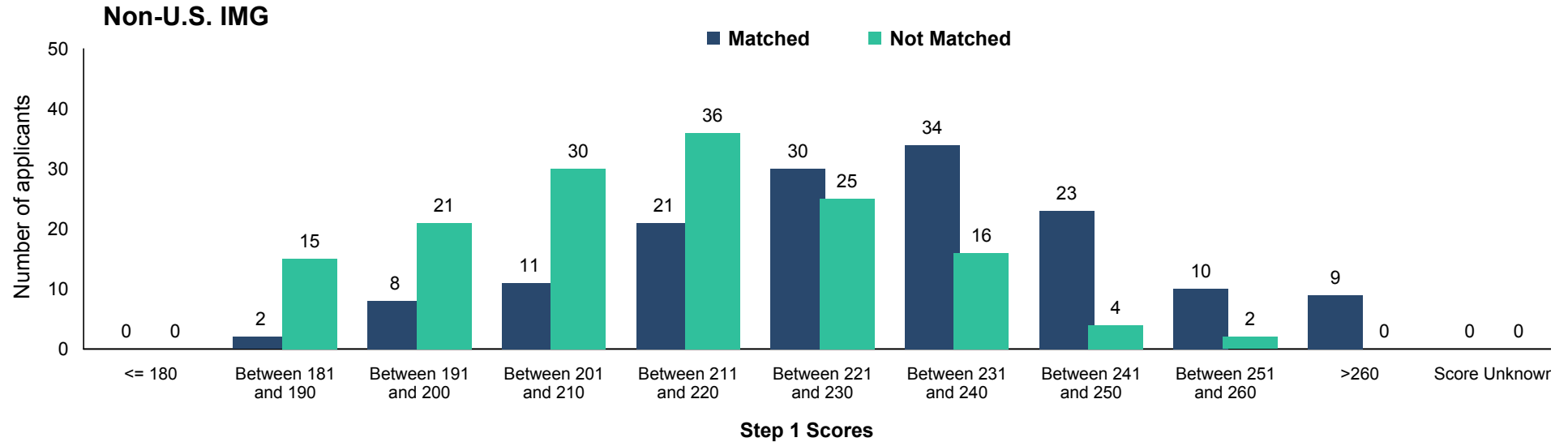
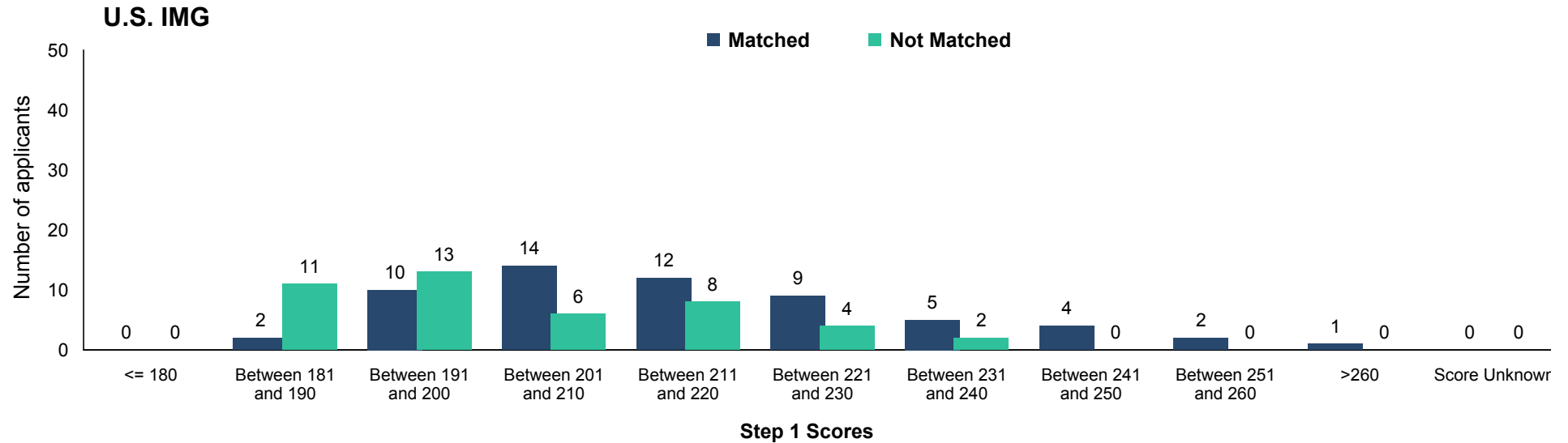
**Number of Applicants Ranking Different Specialties  
Neurology**



Source: NRMP Data Warehouse

**Chart  
N-3**

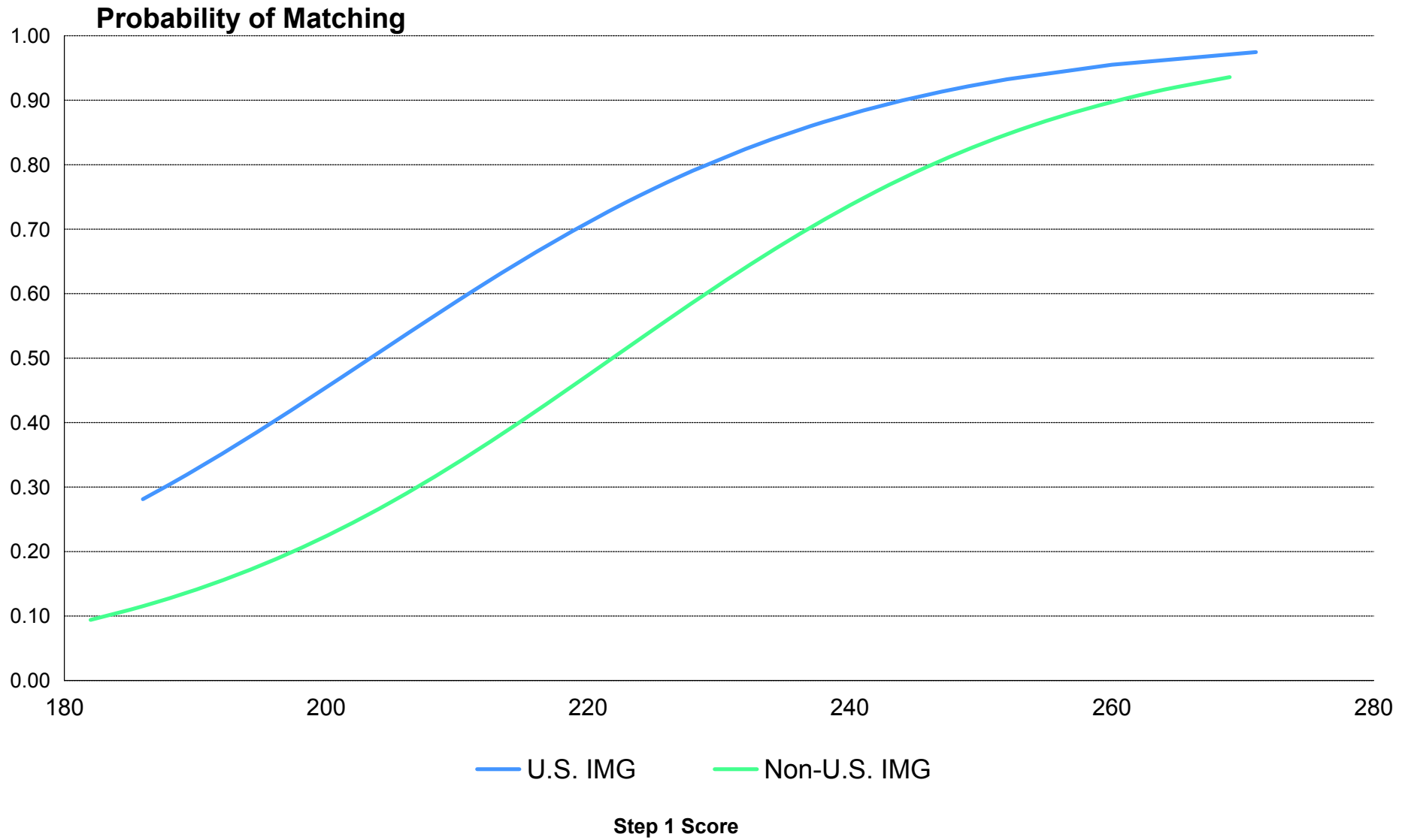
**USMLE Step 1 Scores  
Neurology**



Source: NRMP Data Warehouse and ECFMG.

**Graph  
N-2**

**Probability of Matching to Preferred Specialty by USMLE Step 1 Score**  
*Neurology*



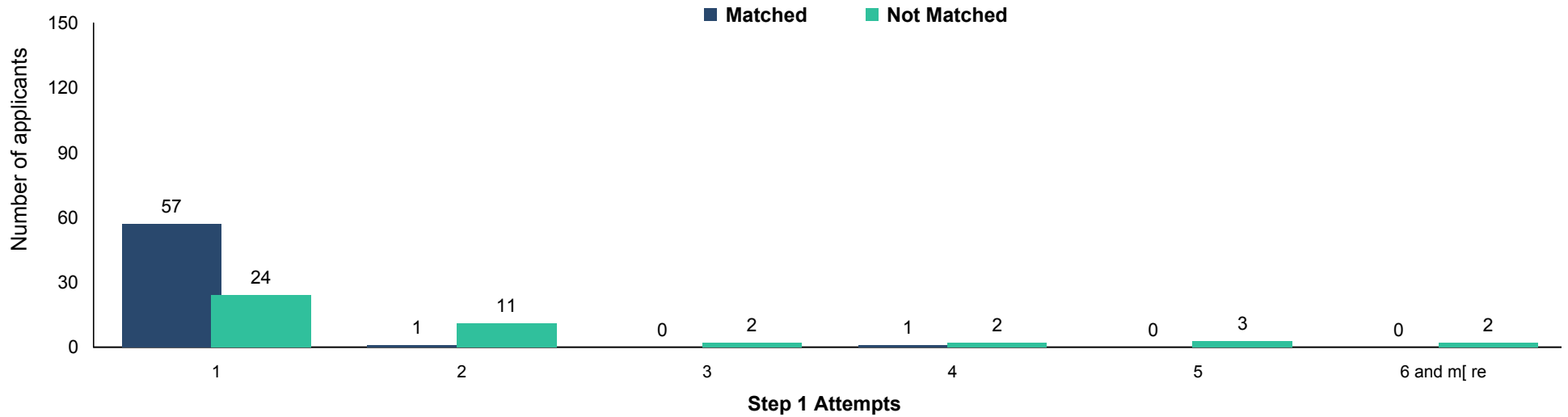
Source: NRMP Data Warehouse and ECFMG.

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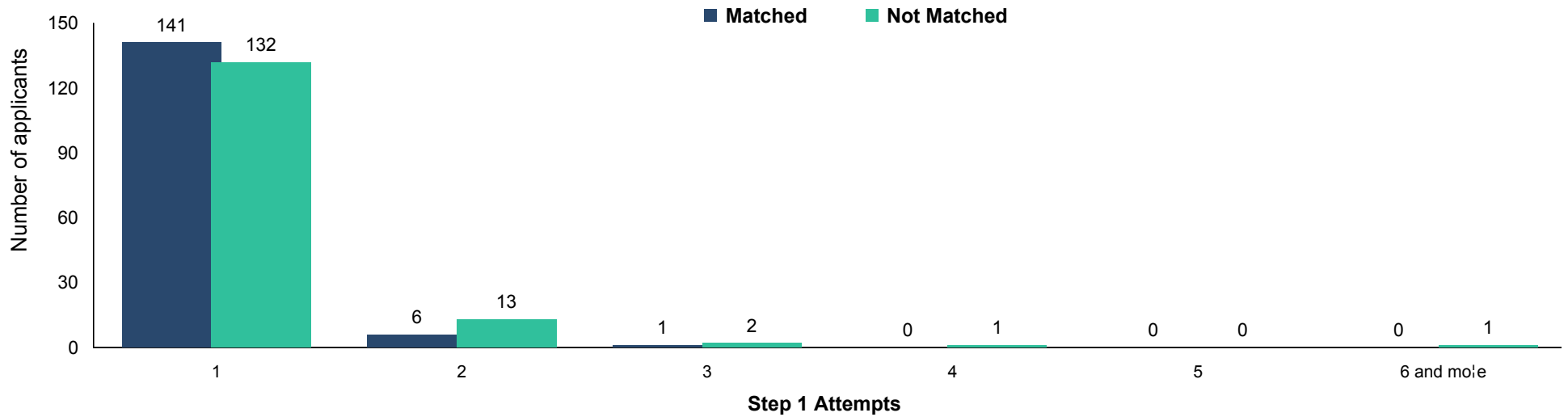
**Chart  
N-4**

**USMLE Step 1 Attempts\*  
Neurology**

**U.S. IMG**



**Non-U.S. IMG**

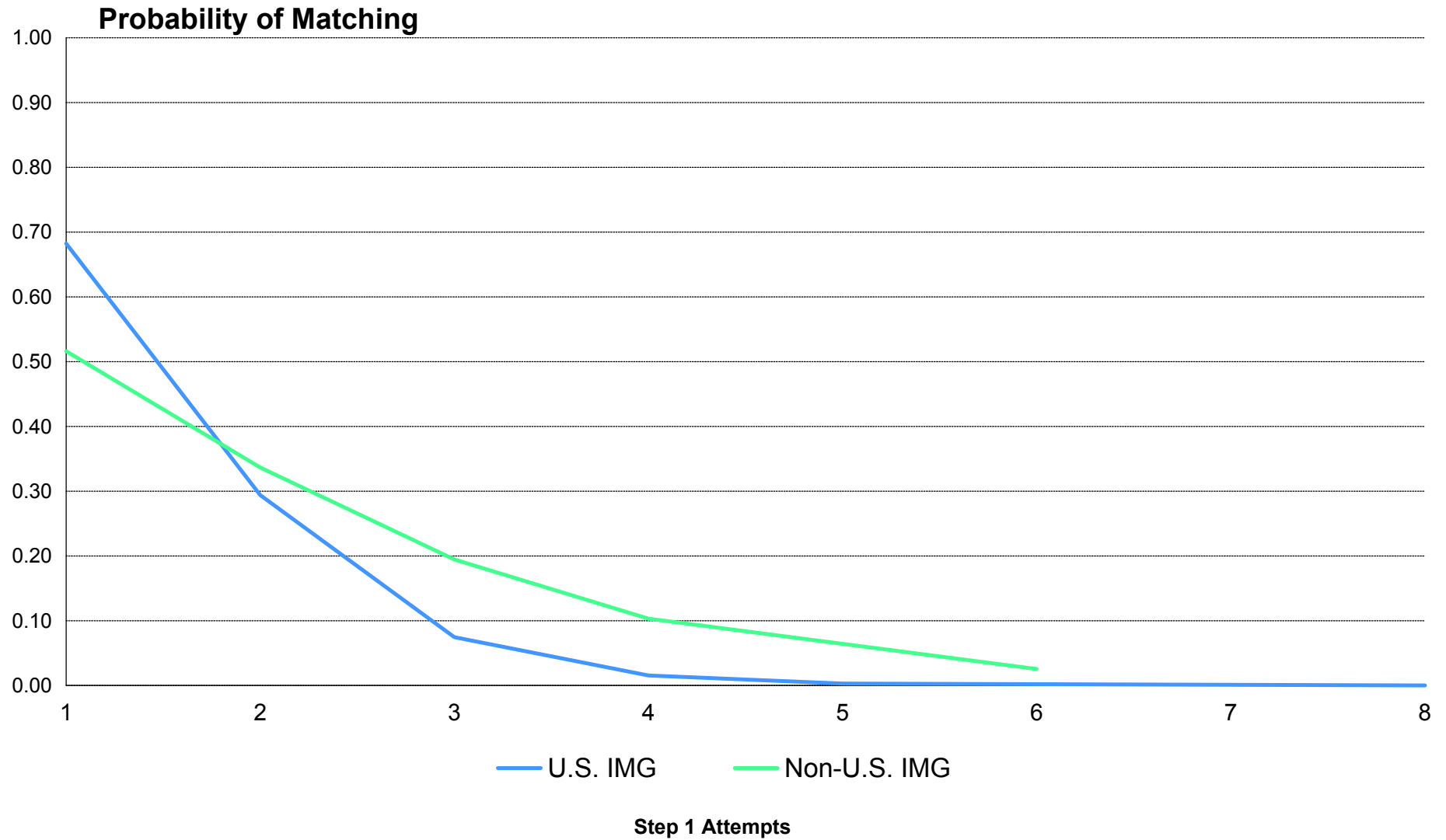


Source: NRMP Data Warehouse and ECFMG.

\*USMLE Step 1 or equivalent examination

**Graph  
N-3**

**Probability of Matching to Preferred Specialty by Number of Step 1 Attempts\***  
*Neurology*

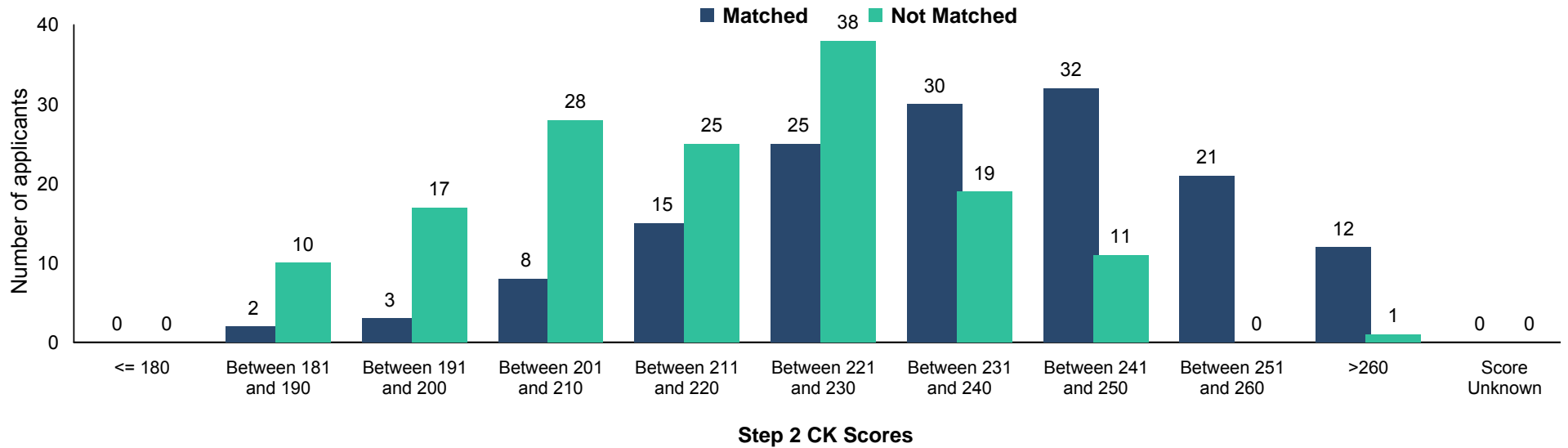
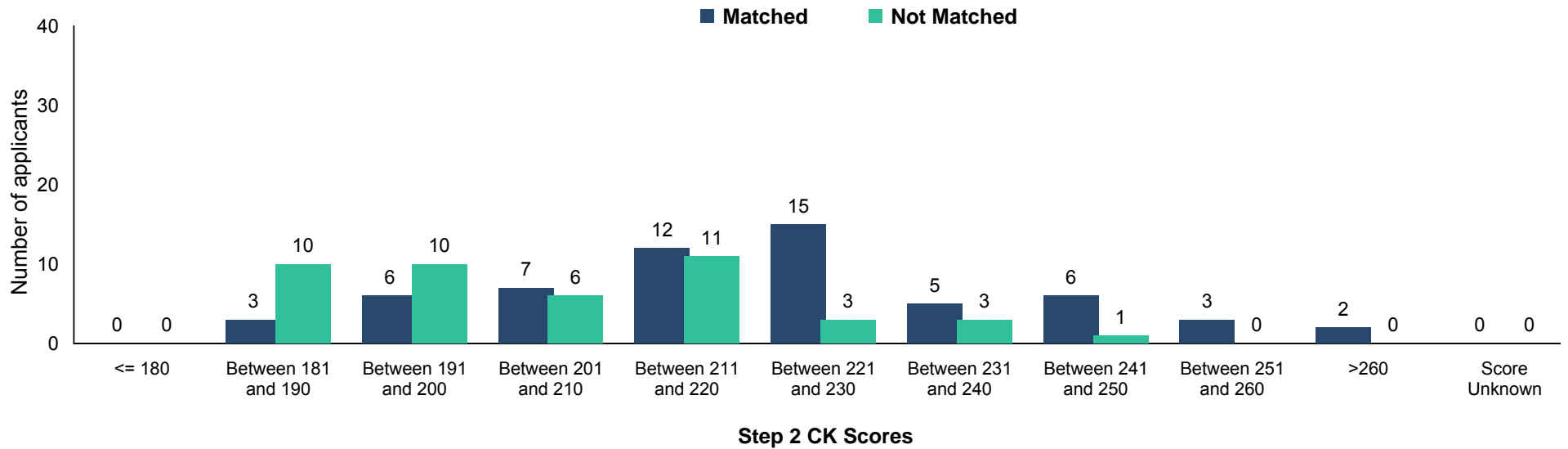


Source: NRMP Data Warehouse and ECFMG.

\*USMLE Step 1 or equivalent examination

**Chart  
N-5**

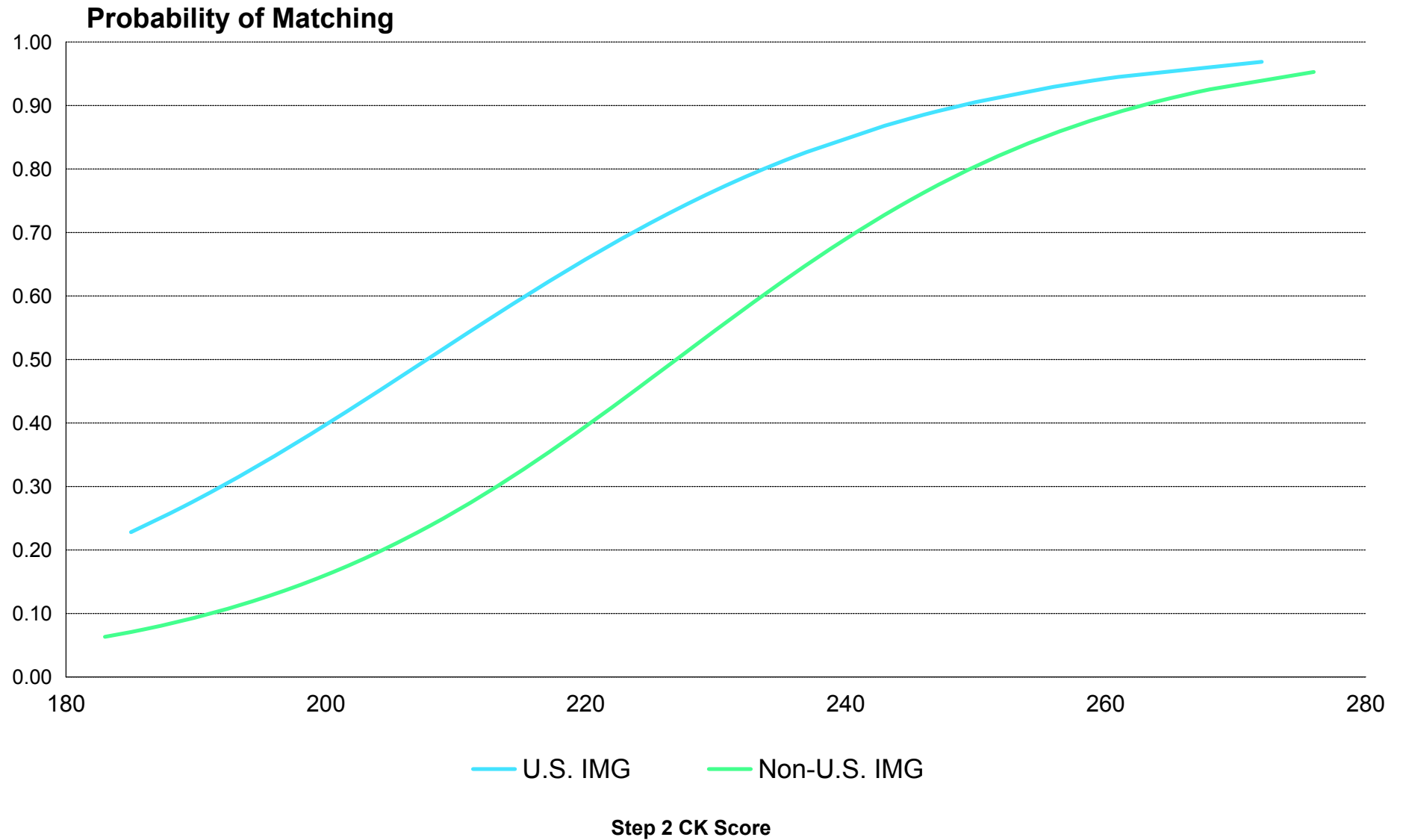
**USMLE Step 2 CK (Clinical Knowledge) Scores  
Neurology**



Source: NRMP Data Warehouse and ECFMG.

**Graph  
N-4**

**Probability of Matching to Preferred Specialty by USMLE Step 2 CK (Clinical Knowledge) Score**  
*Neurology*



Source: NRMP Data Warehouse and ECFMG.

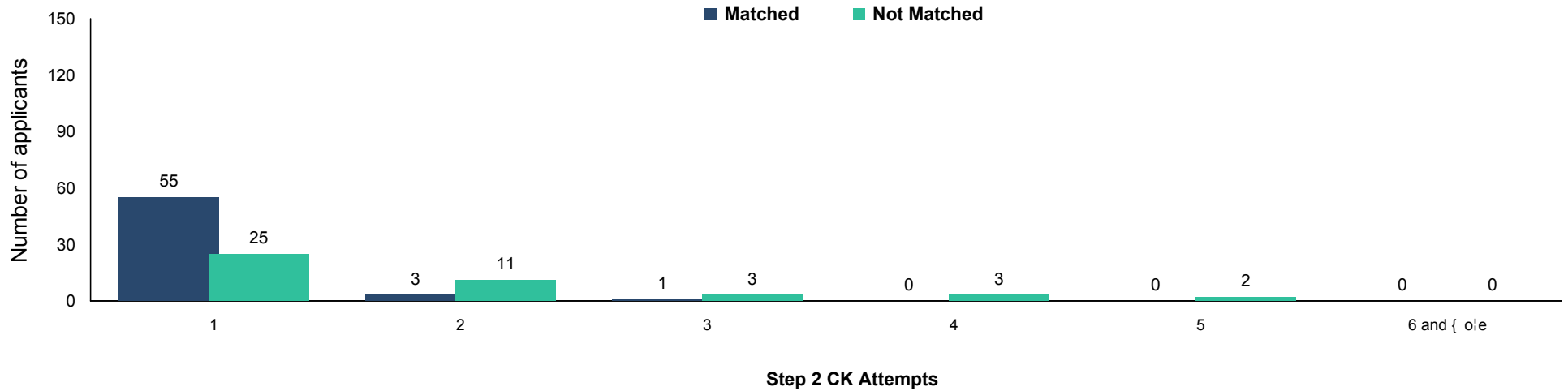
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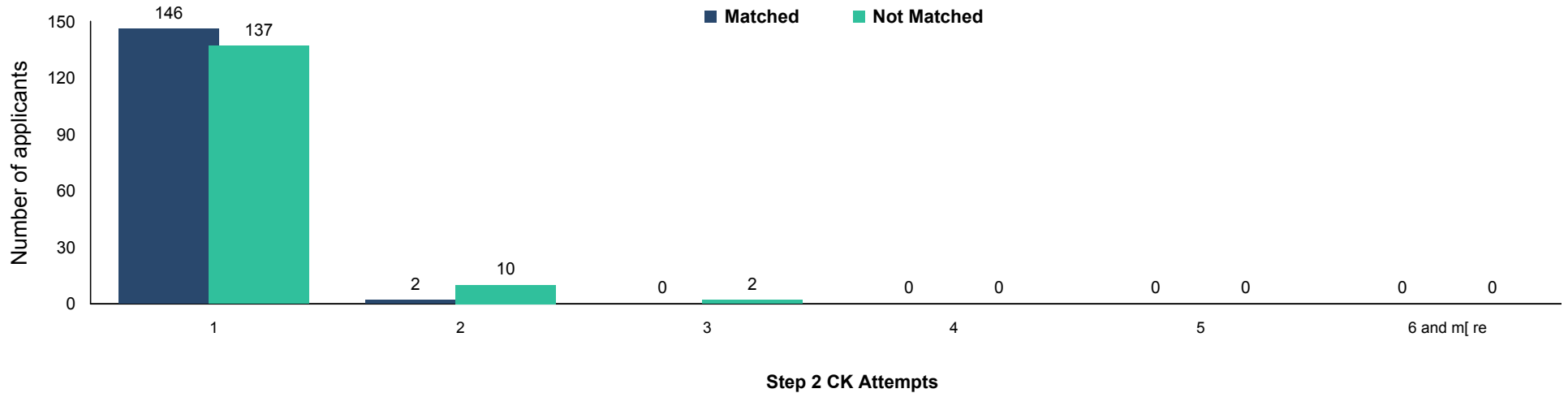
**Chart  
N-6**

**USMLE Step 2 CK (Clinical Knowledge) Attempts\*  
Neurology**

**U.S. IMG**



**Non-U.S. IMG**

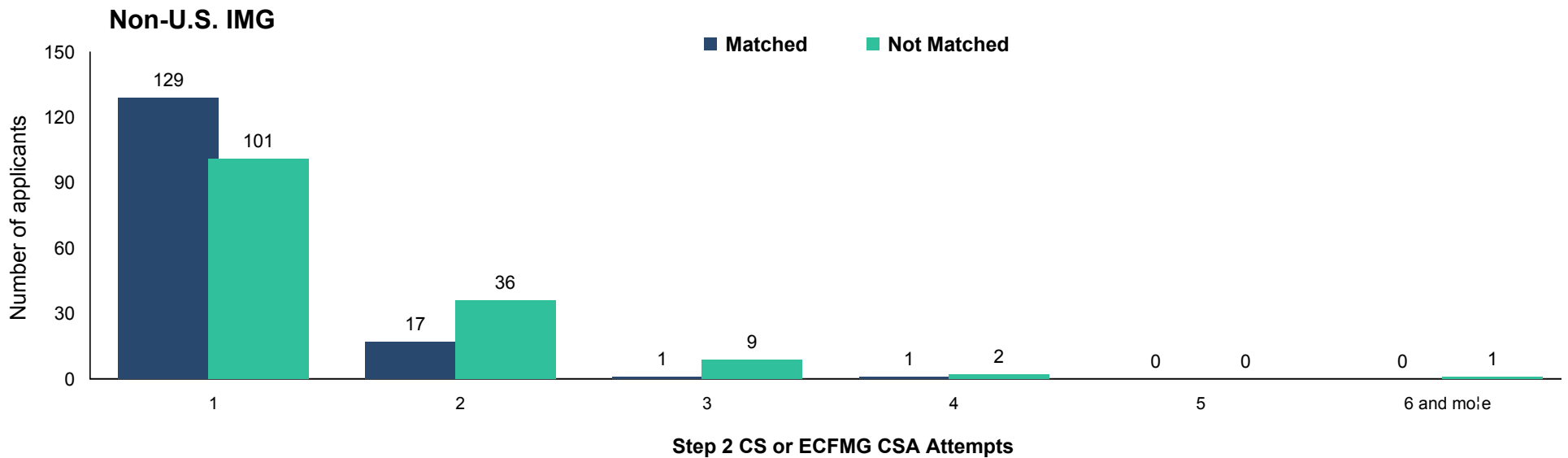
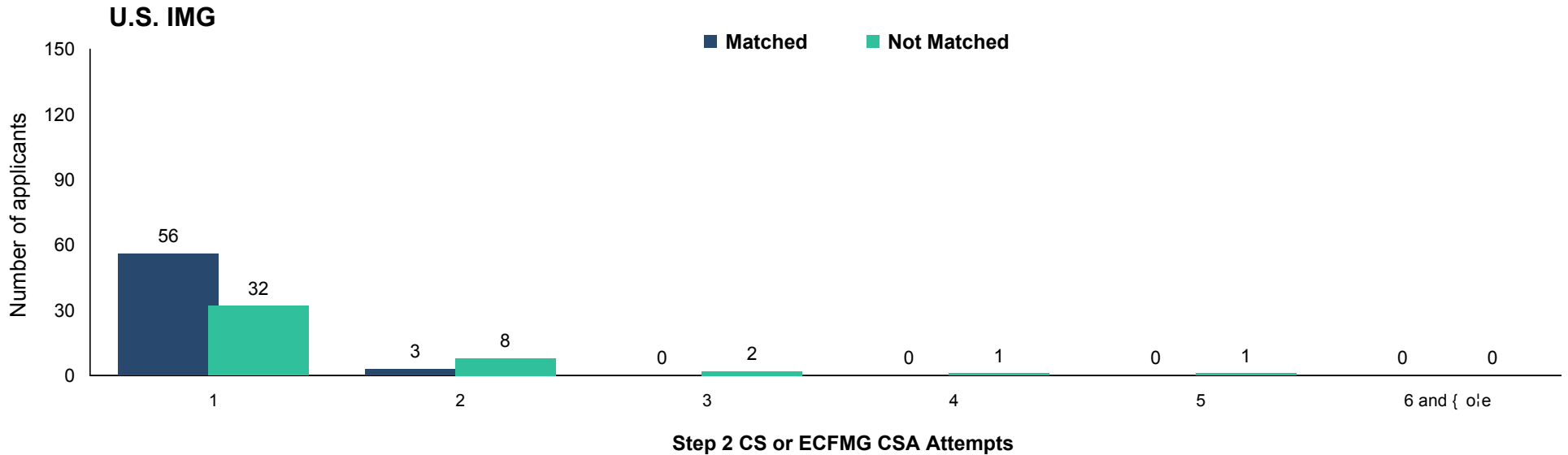


Source: NRMP Data Warehouse and ECFMG.

\*USMLE Step 2 CK or equivalent examination

**Chart  
N-7**

**Attempts at USMLE Step 2 CS (Clinical Skills) or ECFMG CSA (Clinical Skills Assessment)  
Neurology**

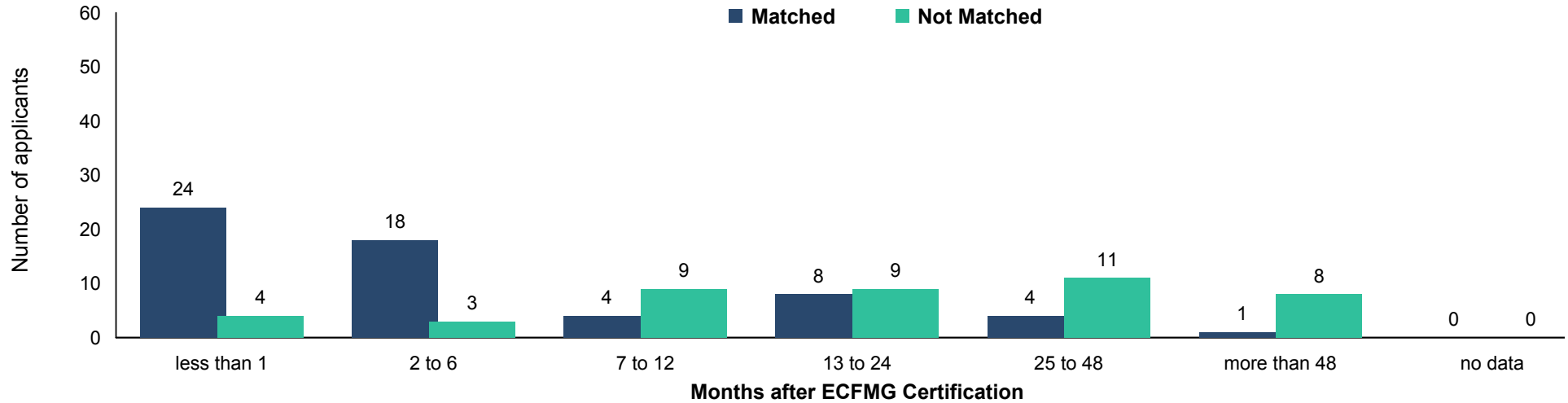


Source: NRMP Data Warehouse and ECFMG.

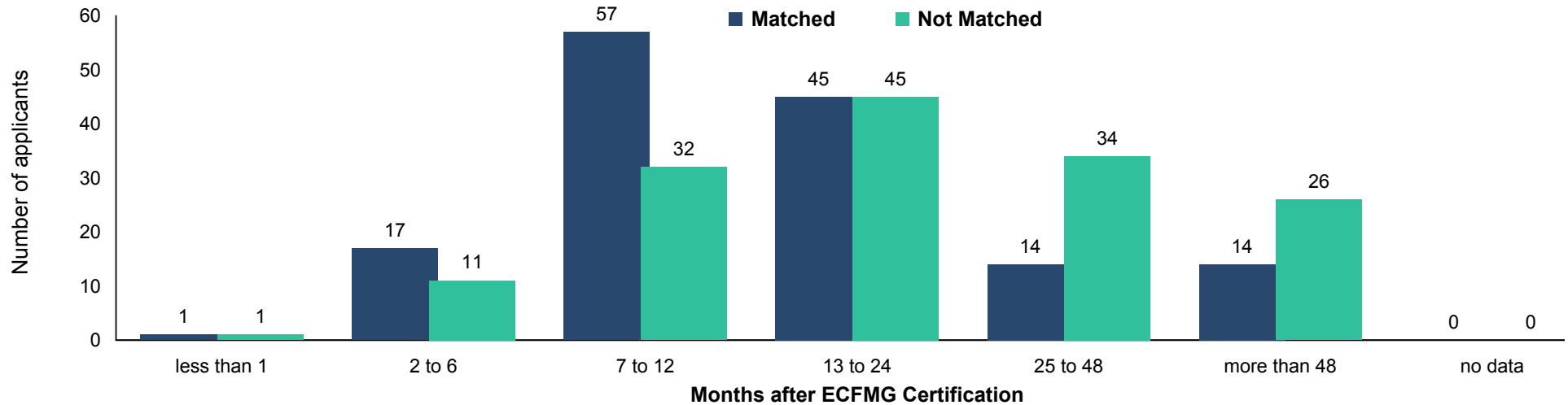
**Chart  
N-8**

**Number of Months After ECFMG Certification  
Neurology**

**U.S. IMG**



**Non-U.S. IMG**

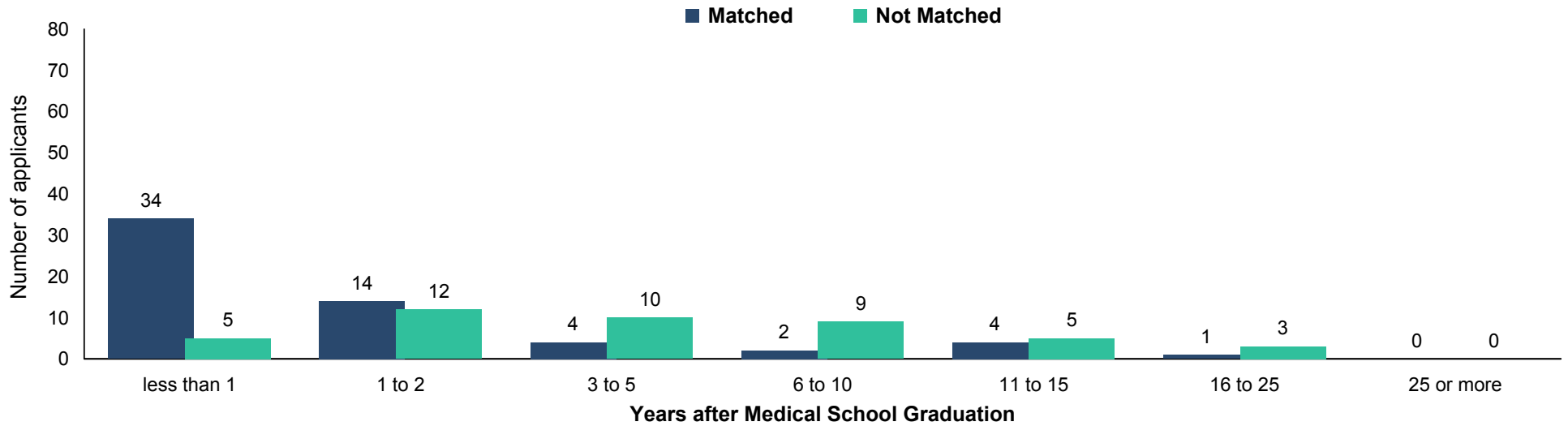


Source: NRMP Data Warehouse and ECFMG

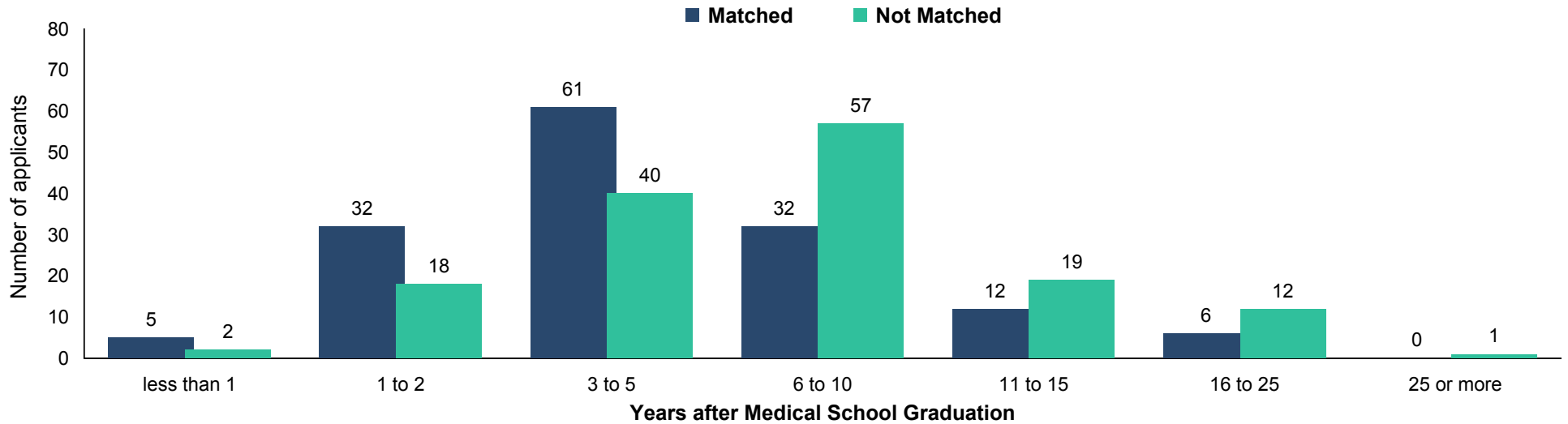
**Chart  
N-9**

**Number of Years After Medical School Graduation  
Neurology**

**U.S. IMG**



**Non-U.S. IMG**



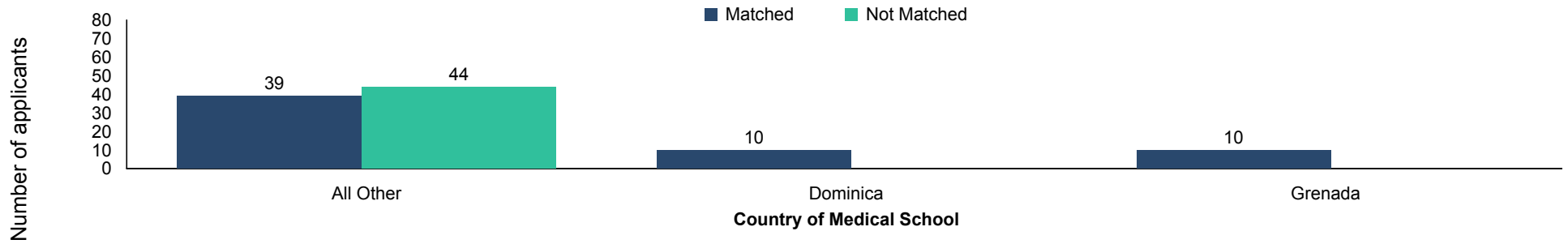
Source: NRMP Data Warehouse and ECFMG

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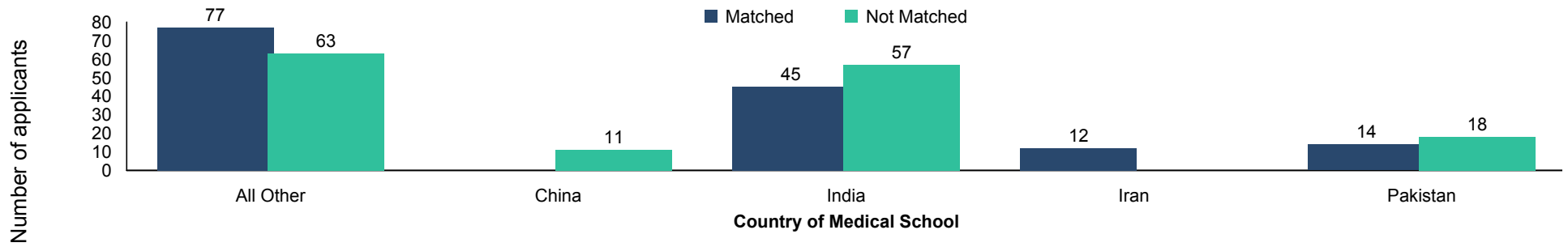
**Chart  
N-10**

**Country of Medical School  
Neurology**

**U.S. IMG**



**Non-U.S. IMG**



Source: NRMP Data Warehouse and ECFMG

Note: A country is included if it has 10 or more applicants for each category

**OB**

**Obstetrics and Gynecology**

---

| Measure   | U.S. IMG          |                     | Non-U.S. IMG      |                      |
|---|-------------------|---------------------|-------------------|----------------------|
|   | Matched<br>(n=78) | Unmatched<br>(n=99) | Matched<br>(n=62) | Unmatched<br>(n=120) |
| 1. Mean number of contiguous ranks                    | 8                 | 3                   | 5                 | 3                    |
| 2. Mean number of distinct specialties ranked         | 1.3               | 1.7                 | 1.2               | 1.6                  |
| 3. Mean USMLE Step 1 score                            | 221               | 207                 | 226               | 215                  |
| 4. Mean USMLE Step 1 attempts*                        | 1.0               | 1.4                 | 1.0               | 1.2                  |
| 5. Mean USMLE Step 2 CK score                         | 232               | 213                 | 234               | 221                  |
| 6. Mean USMLE Step 2 CK attempts**                    | 1.1               | 1.3                 | 1.0               | 1.2                  |
| 7. Mean USMLE Step 2 CS or ECFMG CSA attempts         | 1.0               | 1.2                 | 1.1               | 1.3                  |
| 8. Mean number of months since ECFMG certification    | 4                 | 16                  | 10                | 26                   |
| 9. Mean number of years since graduation              | 0.9               | 4.6                 | 3.3               | 8.0                  |
| 10. Percentage who speak English as a native language | 82                | 62                  | 39                | 17                   |

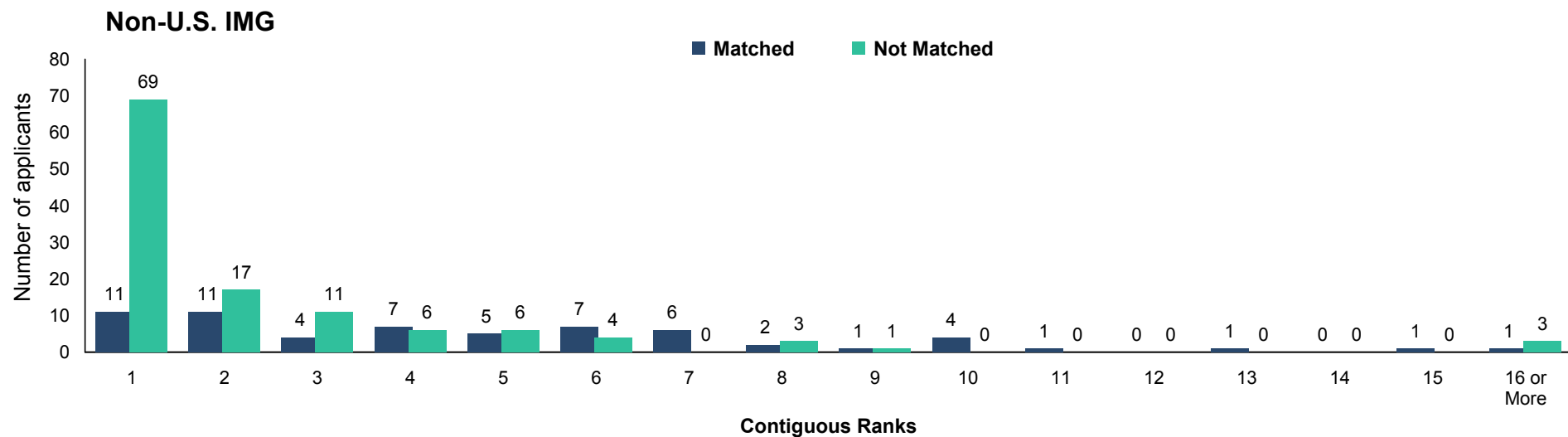
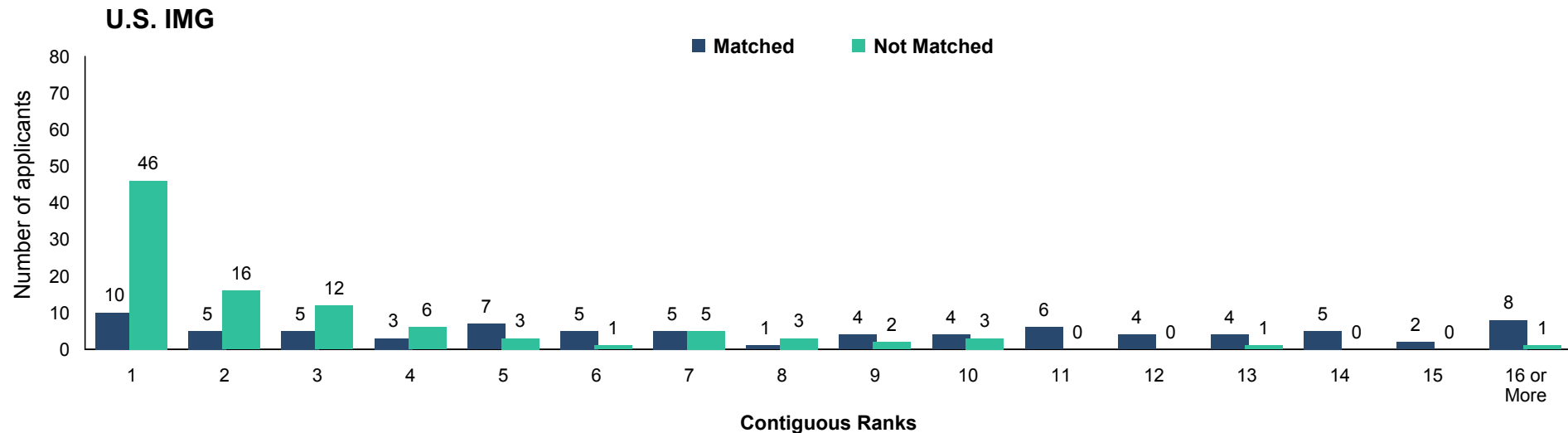
Sources: NRMP Data Warehouse and ECFMG

\*USMLE Step 1 or equivalent examination

\*\*USMLE Step 2 CK or equivalent examination

**Chart  
OB-1**

**Number of Contiguous Ranks Within Preferred Specialty  
Obstetrics and Gynecology**

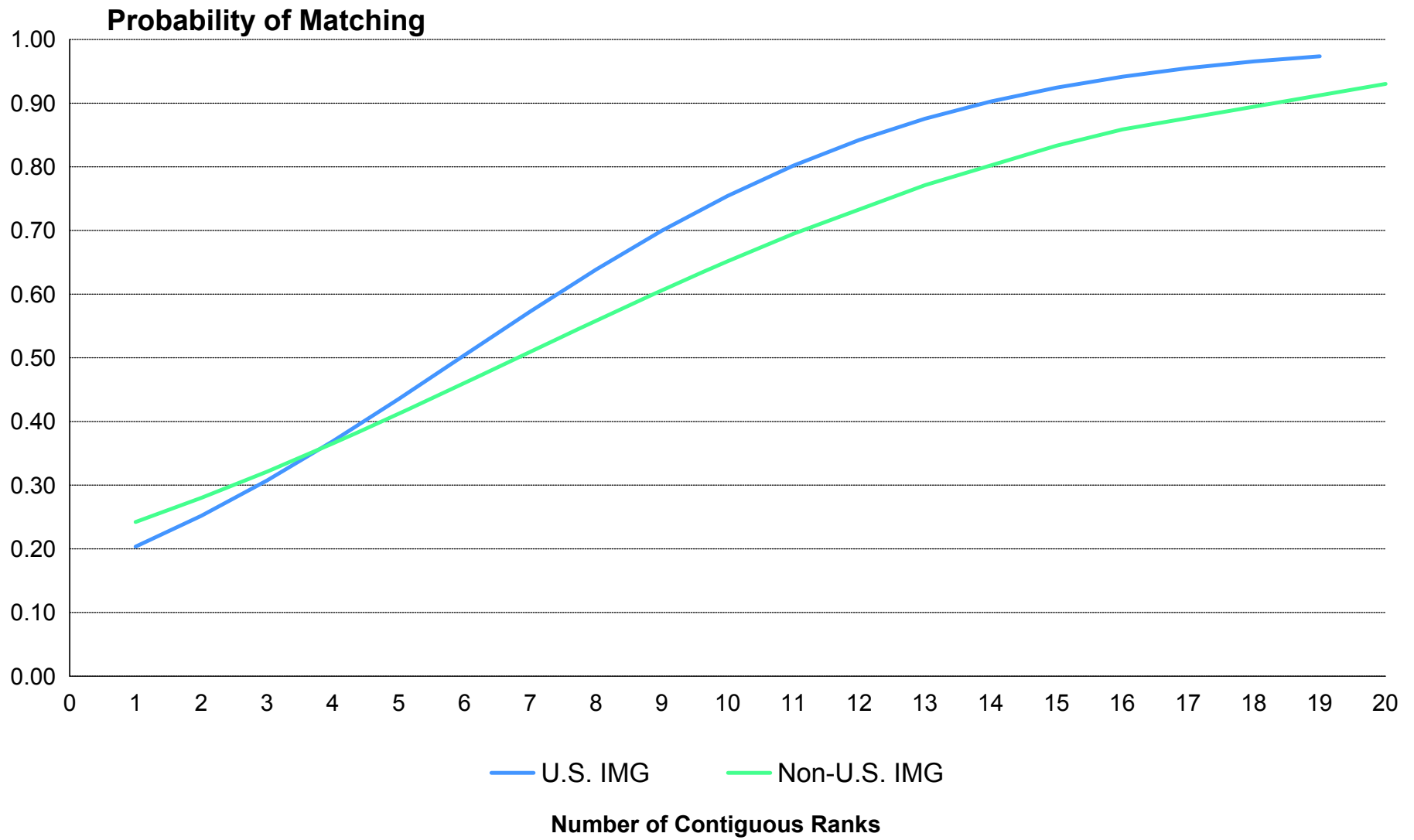


Source: NRMP Data Warehouse



**Graph  
OB-1**

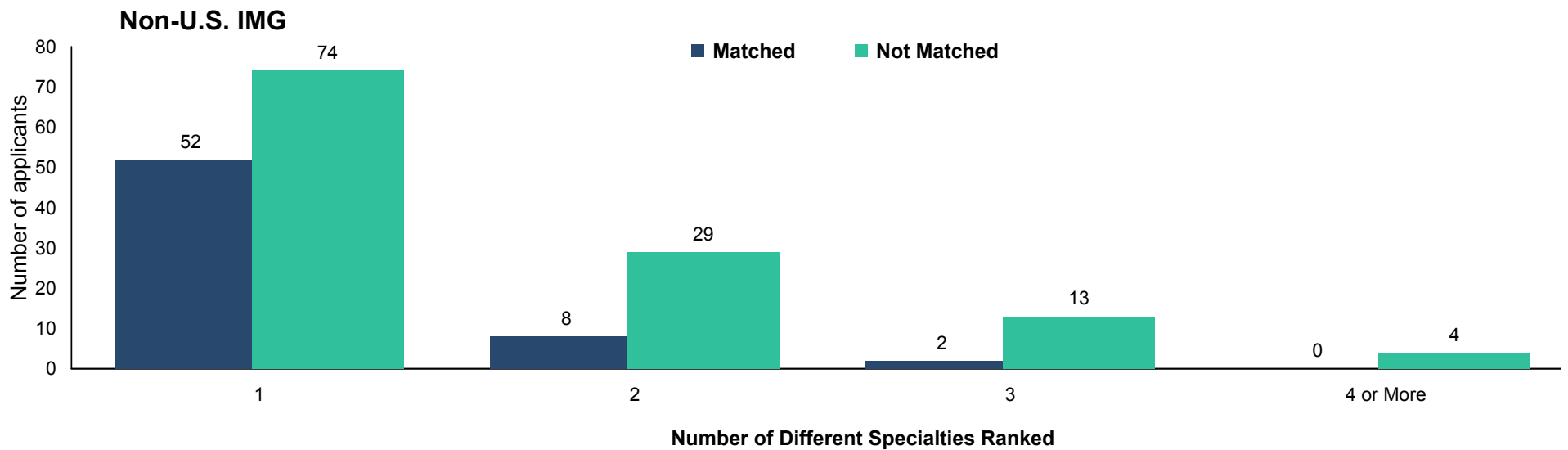
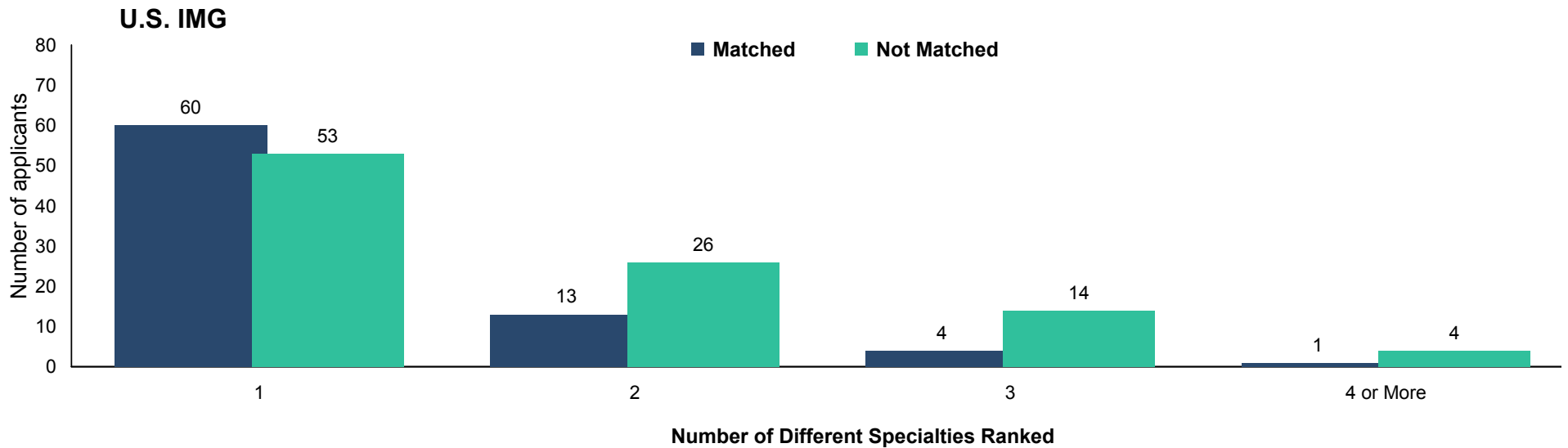
**Probability of Matching to Preferred Specialty by Number of Contiguous Ranks**  
*Obstetrics and Gynecology*



Source: NRMP Data Warehouse.

**Chart  
OB-2**

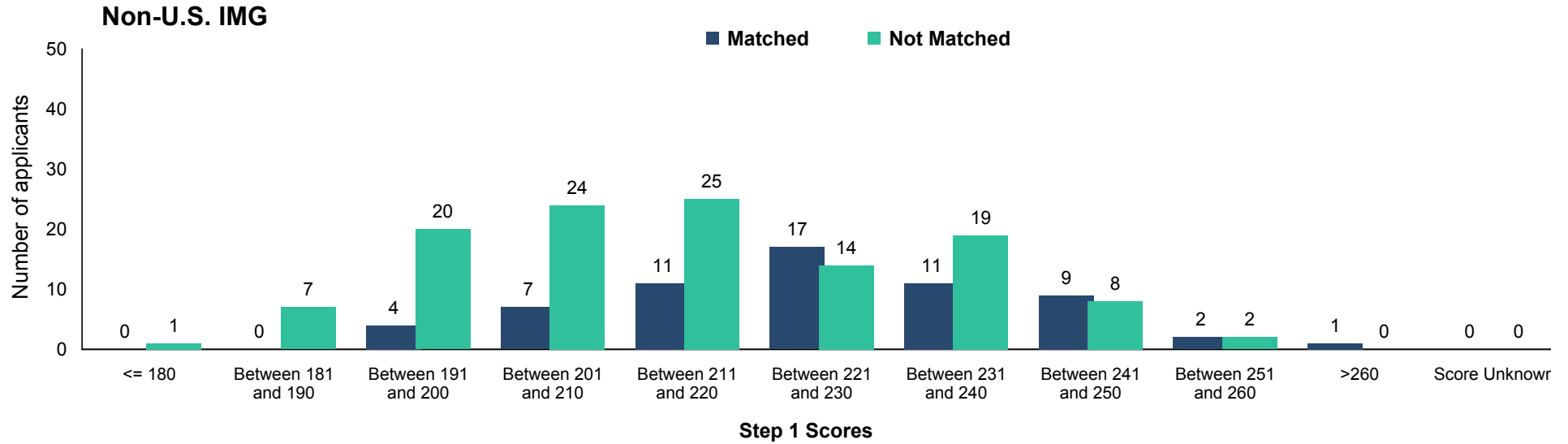
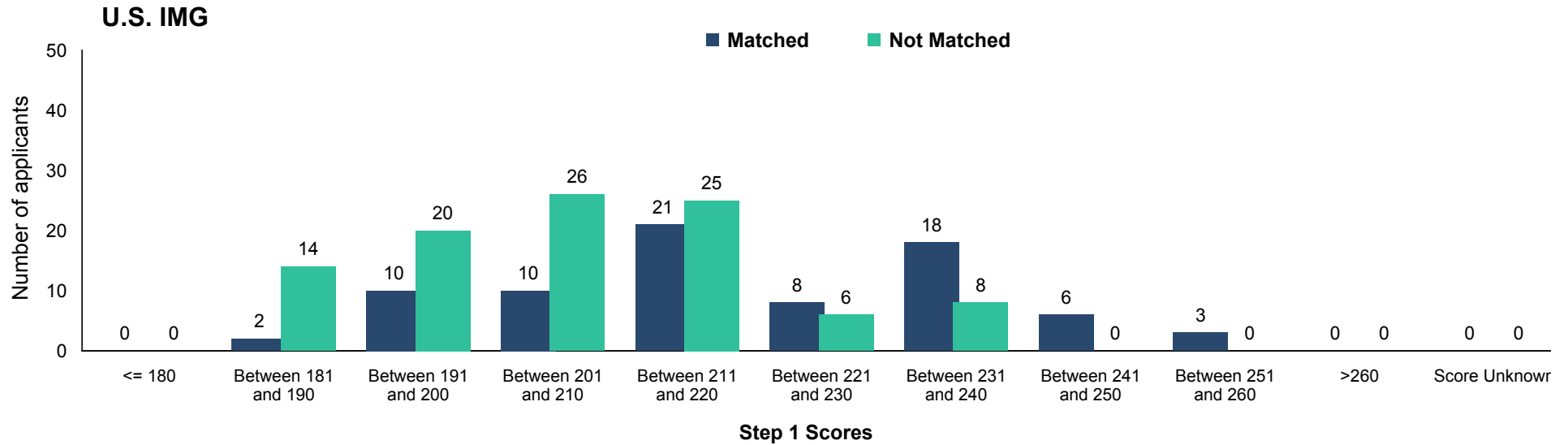
**Number of Applicants Ranking Different Specialties  
Obstetrics and Gynecology**



Source: NRMP Data Warehouse

**Chart  
OB-3**

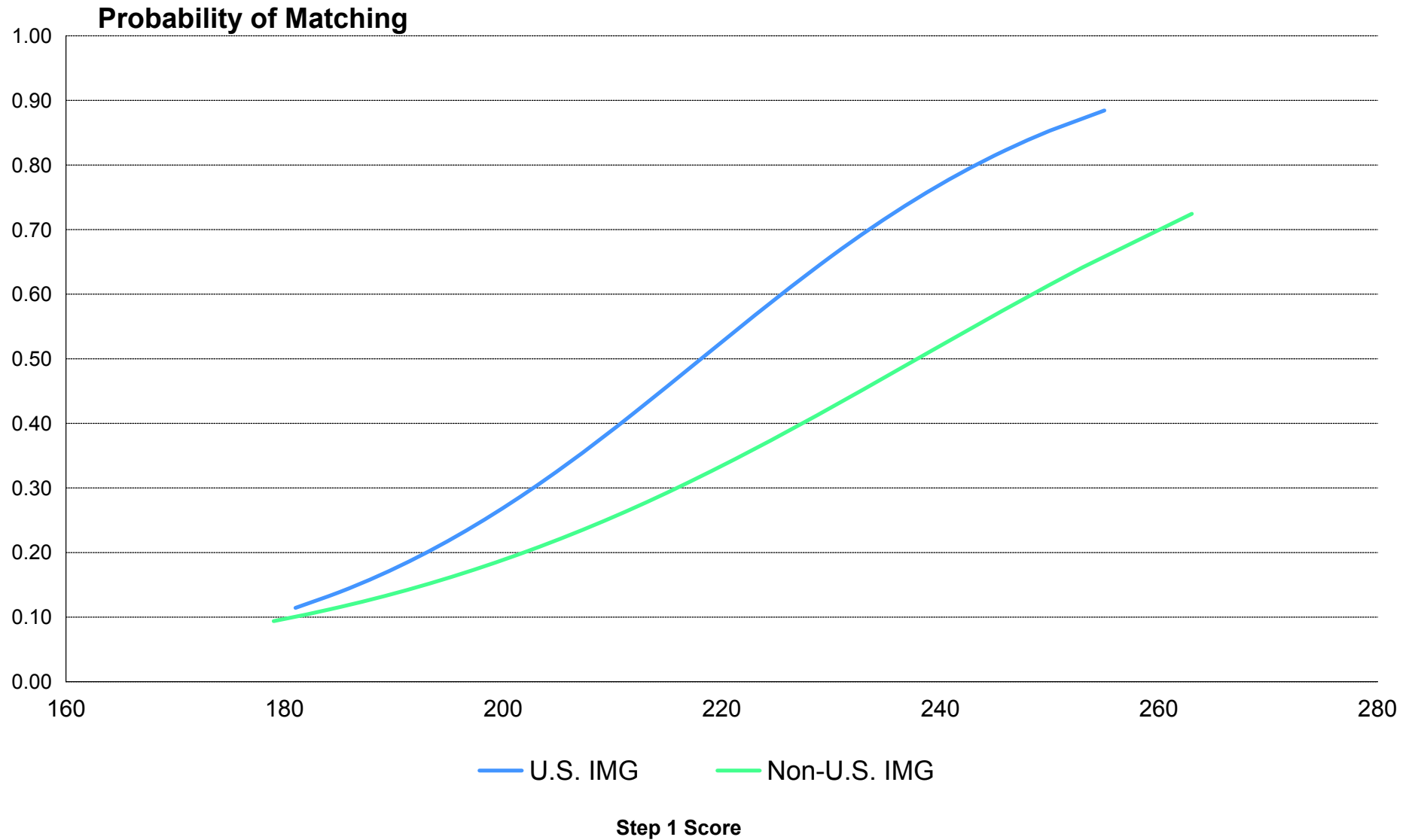
**USMLE Step 1 Scores  
Obstetrics and Gynecology**



Source: NRMP Data Warehouse and ECFMG.

**Graph  
OB-2**

**Probability of Matching to Preferred Specialty by USMLE Step 1 Score**  
*Obstetrics and Gynecology*



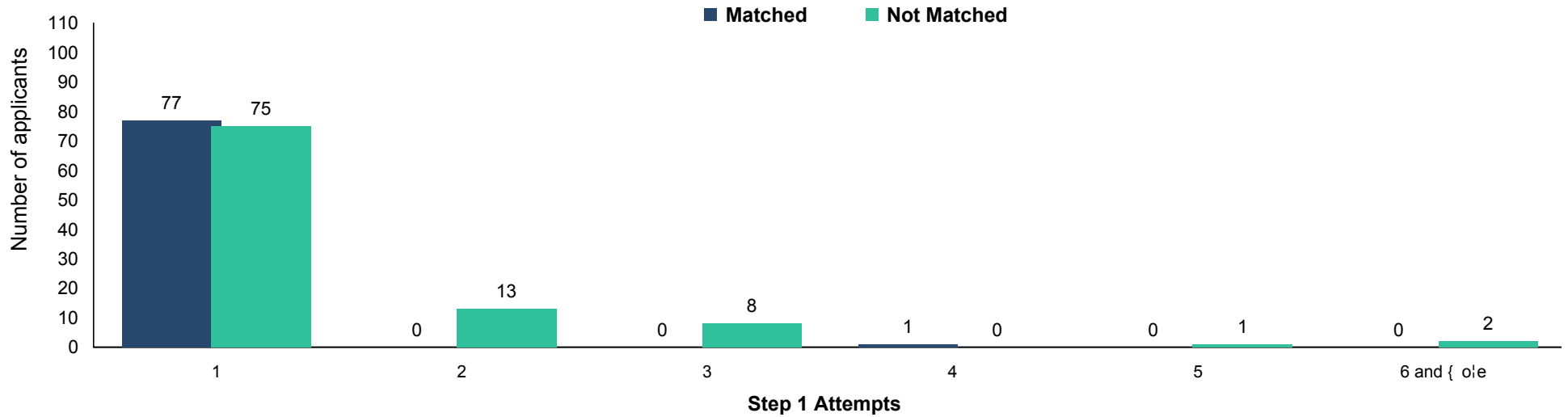
Source: NRMP Data Warehouse and ECFMG.

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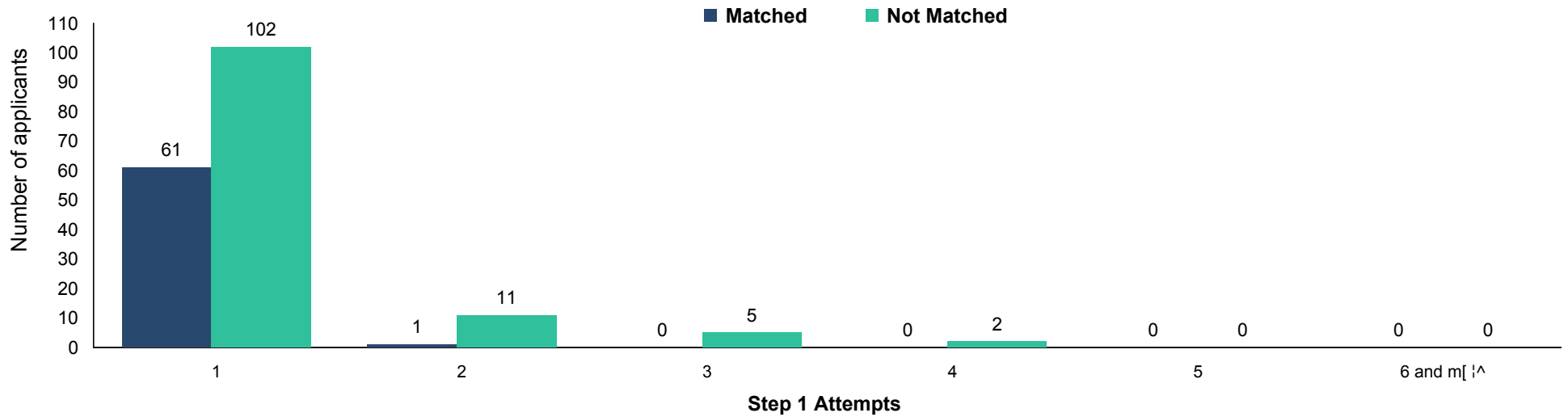
**Chart  
OB-4**

**USMLE Step 1 Attempts\*  
Obstetrics and Gynecology**

**U.S. IMG**



**Non-U.S. IMG**

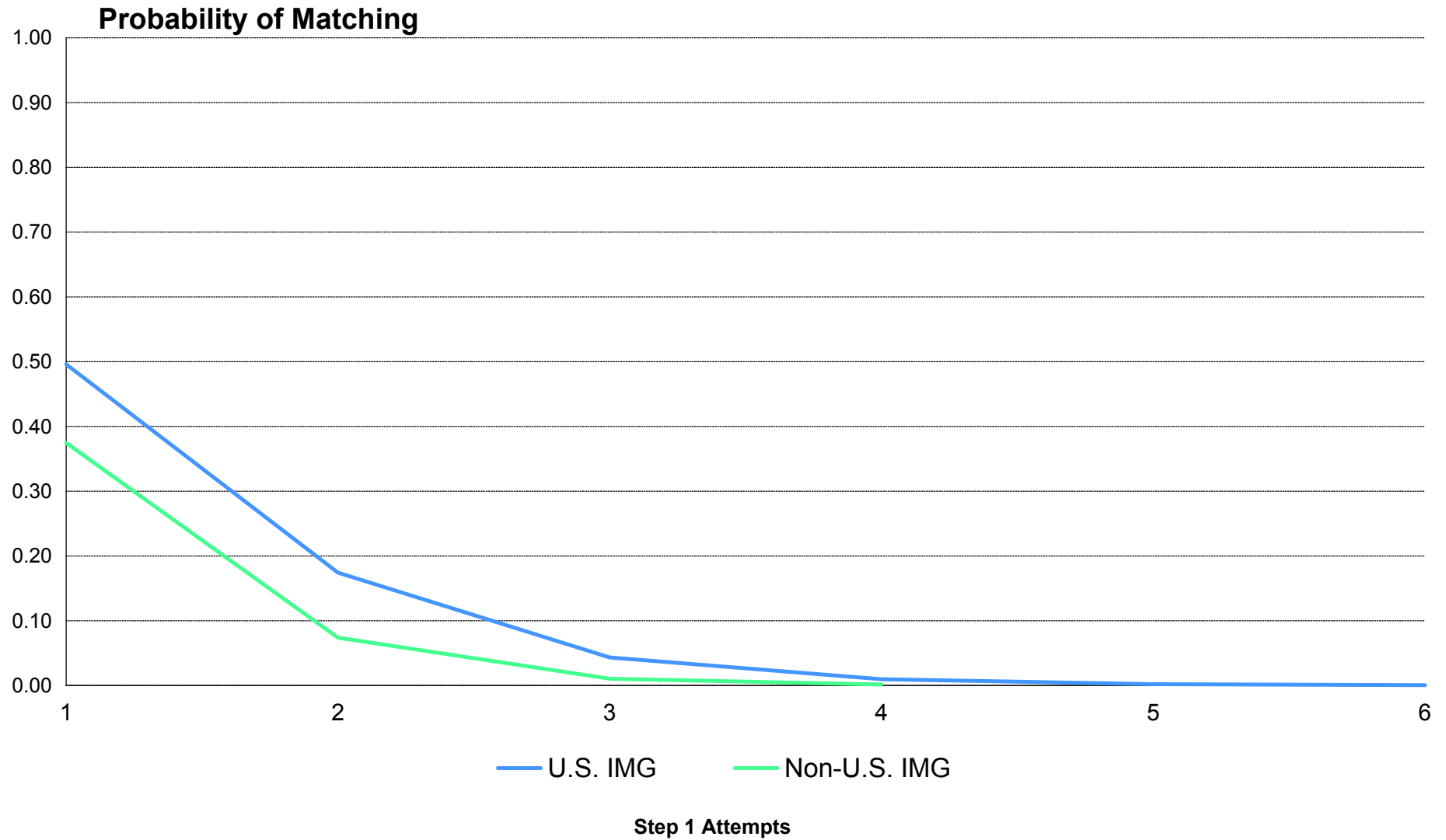


Source: NRMP Data Warehouse and ECFMG.

\*USMLE Step 1 or equivalent examination

**Graph  
OB-3**

**Probability of Matching to Preferred Specialty by Number of Step 1 Attempts\***  
*Obstetrics and Gynecology*

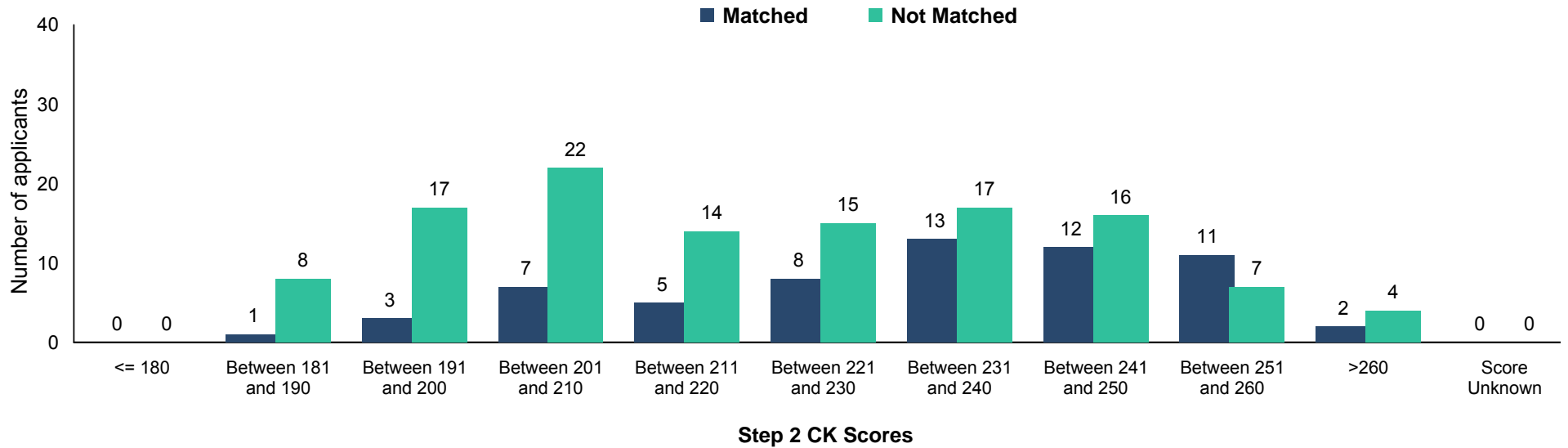
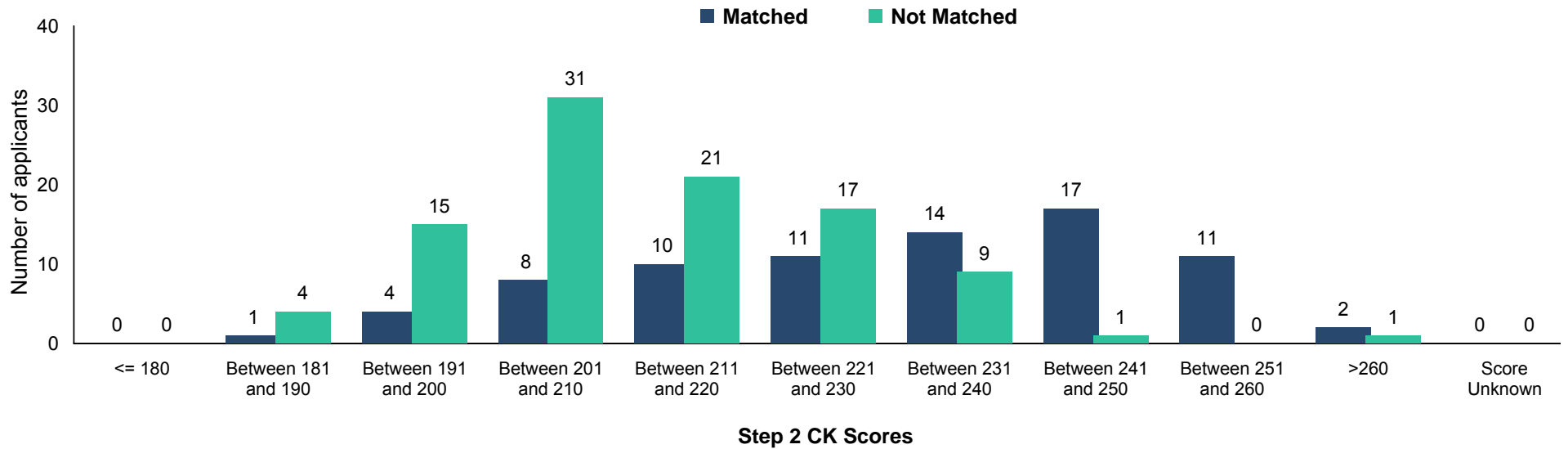


Source: NRMP Data Warehouse and ECFMG.

\*USMLE Step 1 or equivalent examination

**Chart  
OB-5**

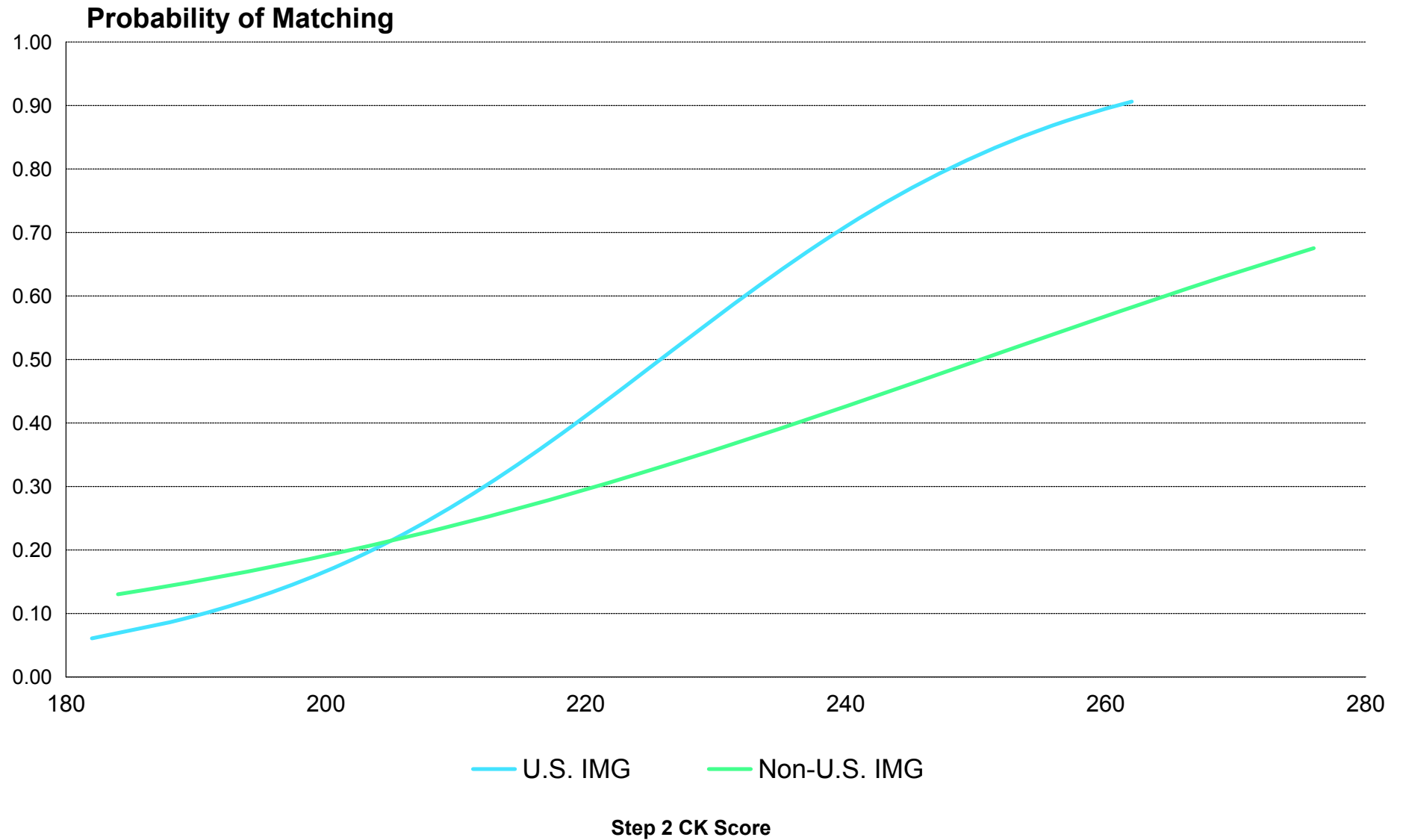
**USMLE Step 2 CK (Clinical Knowledge) Scores  
Obstetrics and Gynecology**



Source: NRMP Data Warehouse and ECFMG.

**Graph  
OB-4**

**Probability of Matching to Preferred Specialty by USMLE Step 2 CK (Clinical Knowledge) Score**  
*Obstetrics and Gynecology*



Source: NRMP Data Warehouse and ECFMG.

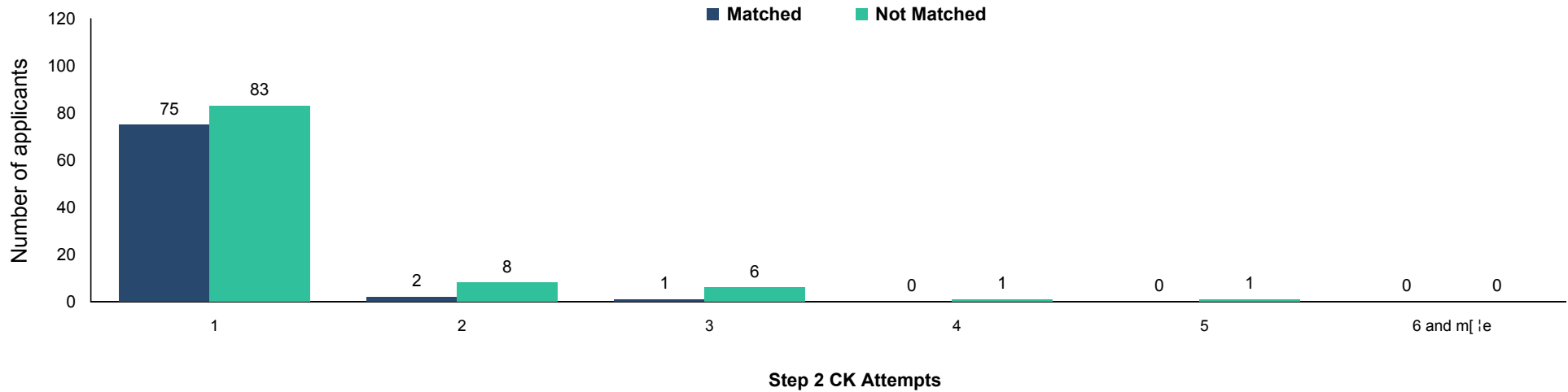
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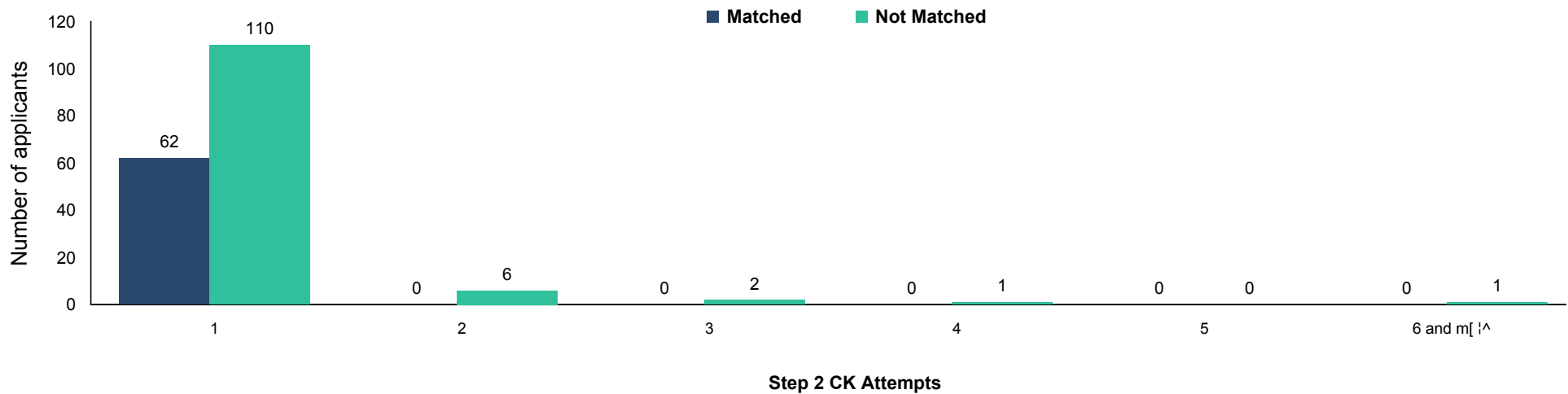
**Chart  
OB-6**

**USMLE Step 2 CK (Clinical Knowledge) Attempts\*  
Obstetrics and Gynecology**

**U.S. IMG**



**Non-U.S. IMG**

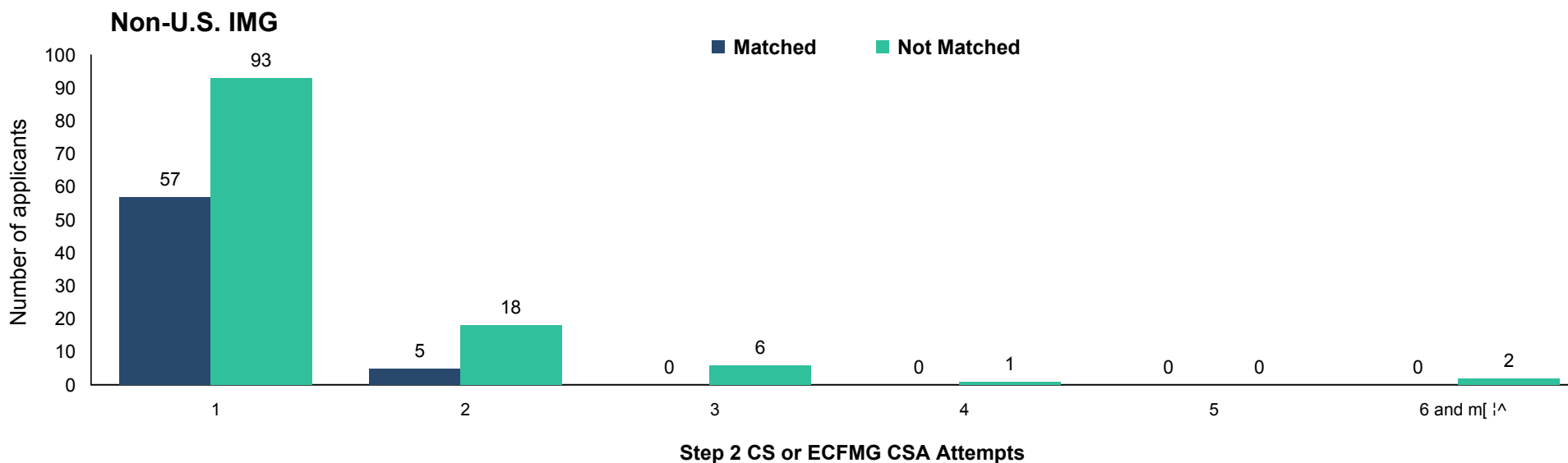
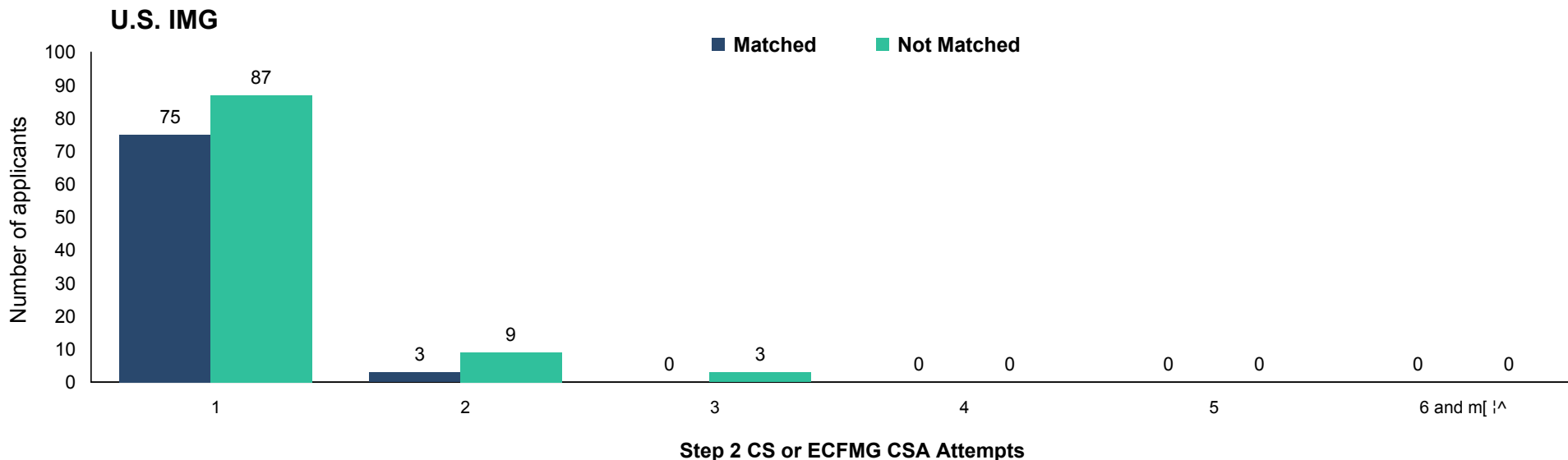


Source: NRMP Data Warehouse and ECFMG.

\*USMLE Step 2 CK or equivalent examination

**Chart  
OB-7**

**Attempts at USMLE Step 2 CS (Clinical Skills) or ECFMG CSA (Clinical Skills Assessment)  
Obstetrics and Gynecology**

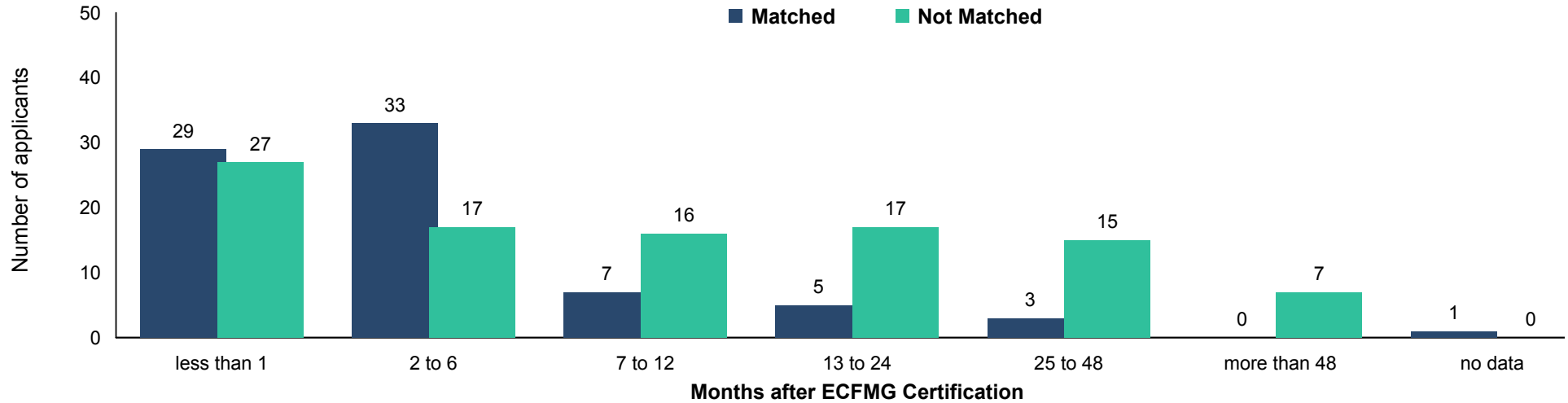


Source: NRMP Data Warehouse and ECFMG.

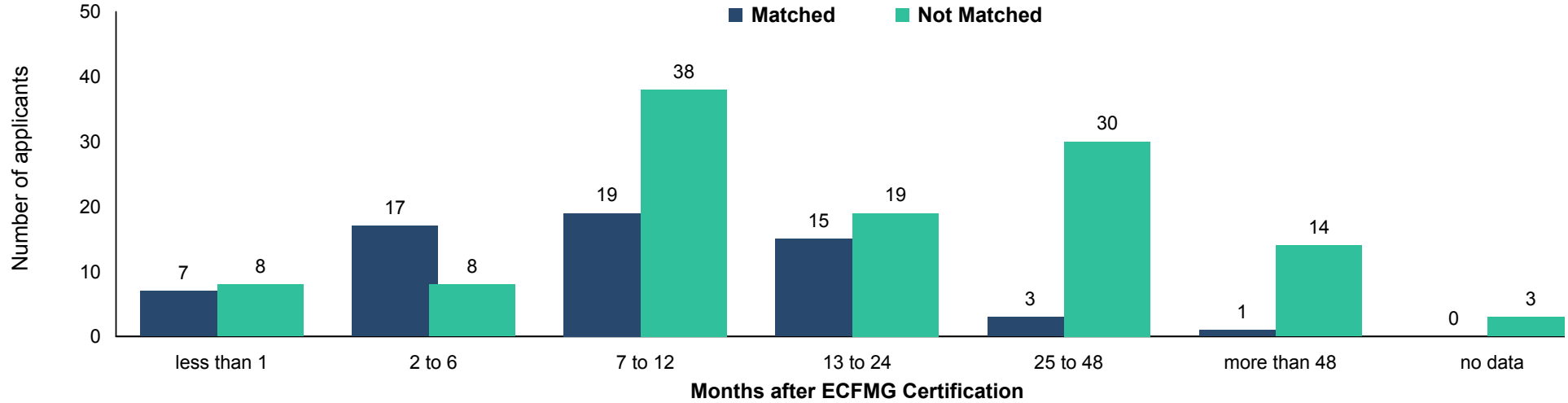
**Chart  
OB-8**

**Number of Months After ECFMG Certification  
Obstetrics and Gynecology**

**U.S. IMG**



**Non-U.S. IMG**

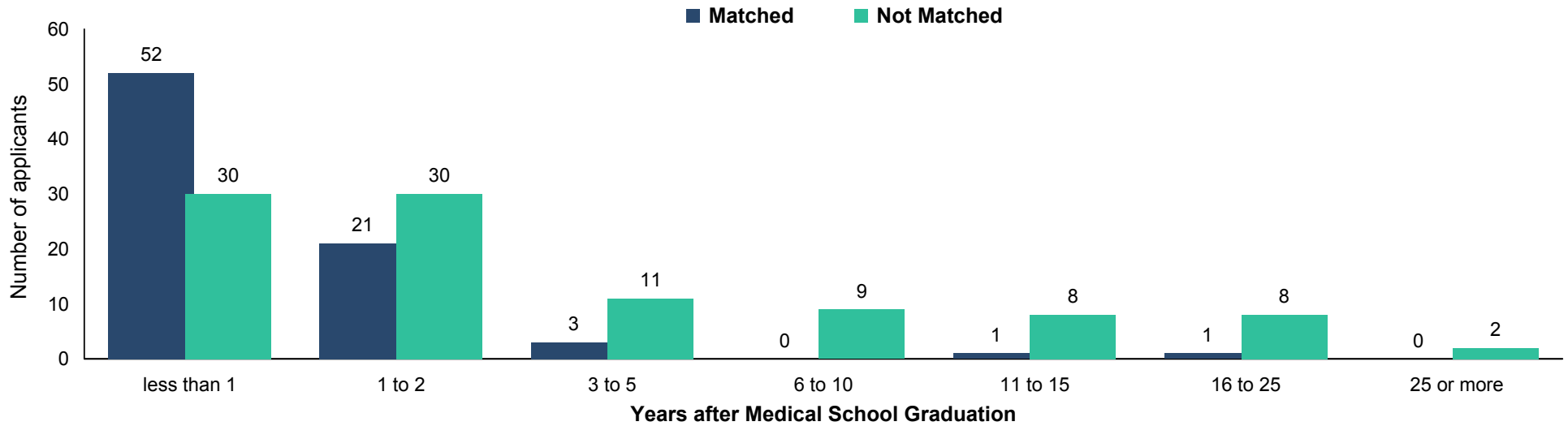


Source: NRMP Data Warehouse and ECFMG

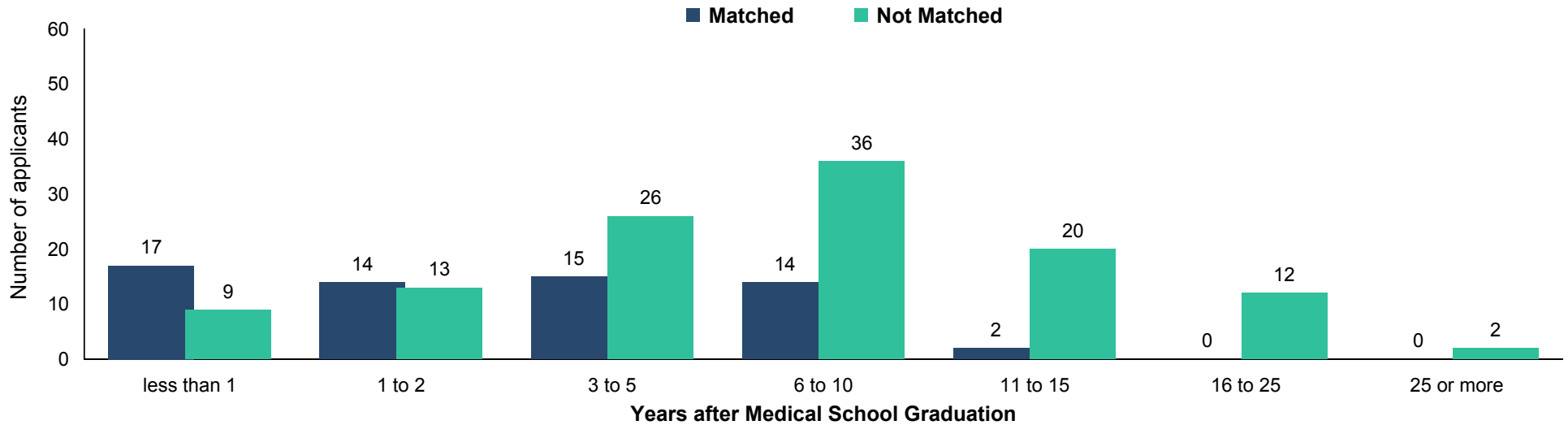
**Chart  
OB-9**

**Number of Years After Medical School Graduation  
Obstetrics and Gynecology**

**U.S. IMG**



**Non-U.S. IMG**



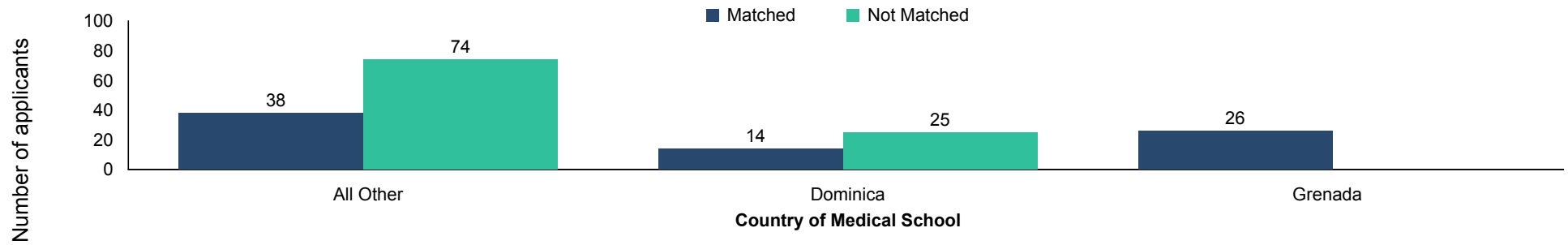
Source: NRMP Data Warehouse and ECFMG

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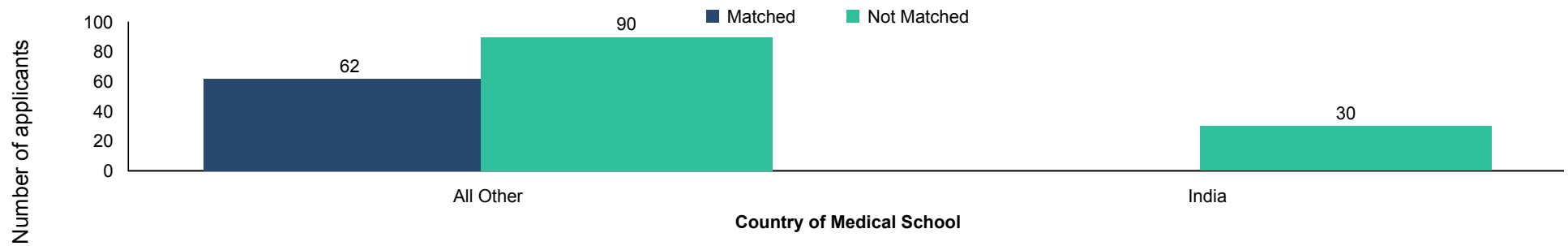
**Chart  
OB-10**

**Country of Medical School  
Obstetrics and Gynecology**

**U.S. IMG**



**Non-U.S. IMG**



Source: NRMP Data Warehouse and ECFMG

Note: A country is included if it has 10 or more applicants for each category

**PTH**

**Pathology**

---

| Measure   | U.S. IMG          |                     | Non-U.S. IMG       |                      |
|---|-------------------|---------------------|--------------------|----------------------|
|   | Matched<br>(n=46) | Unmatched<br>(n=69) | Matched<br>(n=151) | Unmatched<br>(n=136) |
| 1. Mean number of contiguous ranks                    | 8                 | 3                   | 6                  | 3                    |
| 2. Mean number of distinct specialties ranked         | 1.1               | 1.5                 | 1.3                | 1.3                  |
| 3. Mean USMLE Step 1 score                            | 224               | 204                 | 226                | 214                  |
| 4. Mean USMLE Step 1 attempts*                        | 1.1               | 1.7                 | 1.0                | 1.2                  |
| 5. Mean USMLE Step 2 CK score                         | 226               | 205                 | 228                | 216                  |
| 6. Mean USMLE Step 2 CK attempts**                    | 1.1               | 1.5                 | 1.1                | 1.2                  |
| 7. Mean USMLE Step 2 CS or ECFMG CSA attempts         | 1.2               | 1.6                 | 1.2                | 1.6                  |
| 8. Mean number of months since ECFMG certification    | 9                 | 39                  | 21                 | 30                   |
| 9. Mean number of years since graduation              | 4.1               | 11.2                | 9.4                | 12.6                 |
| 10. Percentage who speak English as a native language | 74                | 29                  | 9                  | 7                    |

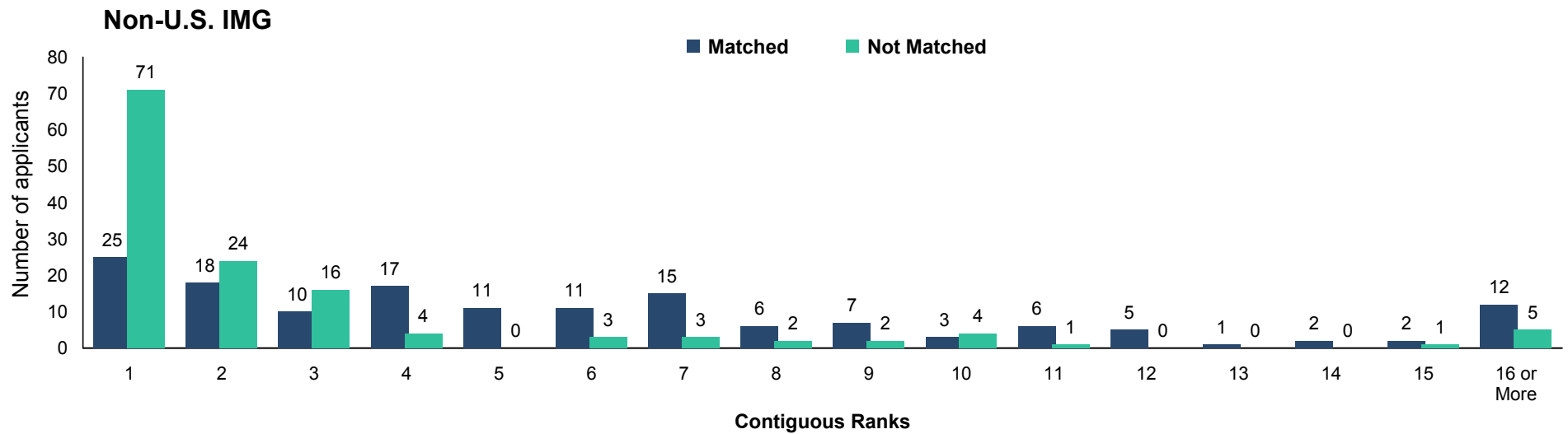
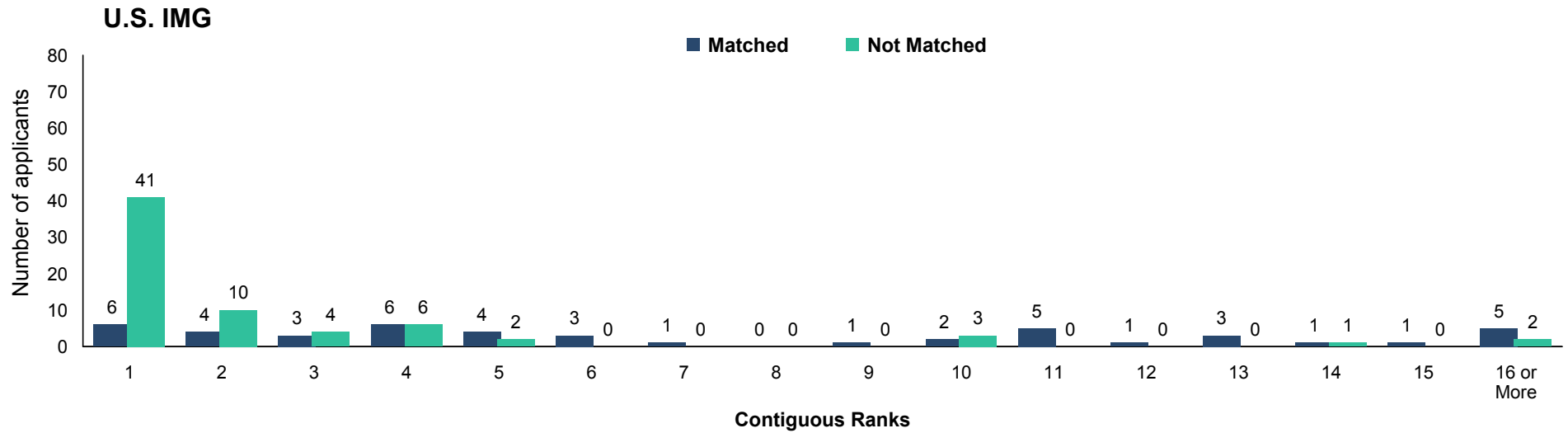
Sources: NRMP Data Warehouse and ECFMG

\*USMLE Step 1 or equivalent examination

\*\*USMLE Step 2 CK or equivalent examination

**Chart  
PTH-1**

**Number of Contiguous Ranks Within Preferred Specialty  
Pathology**



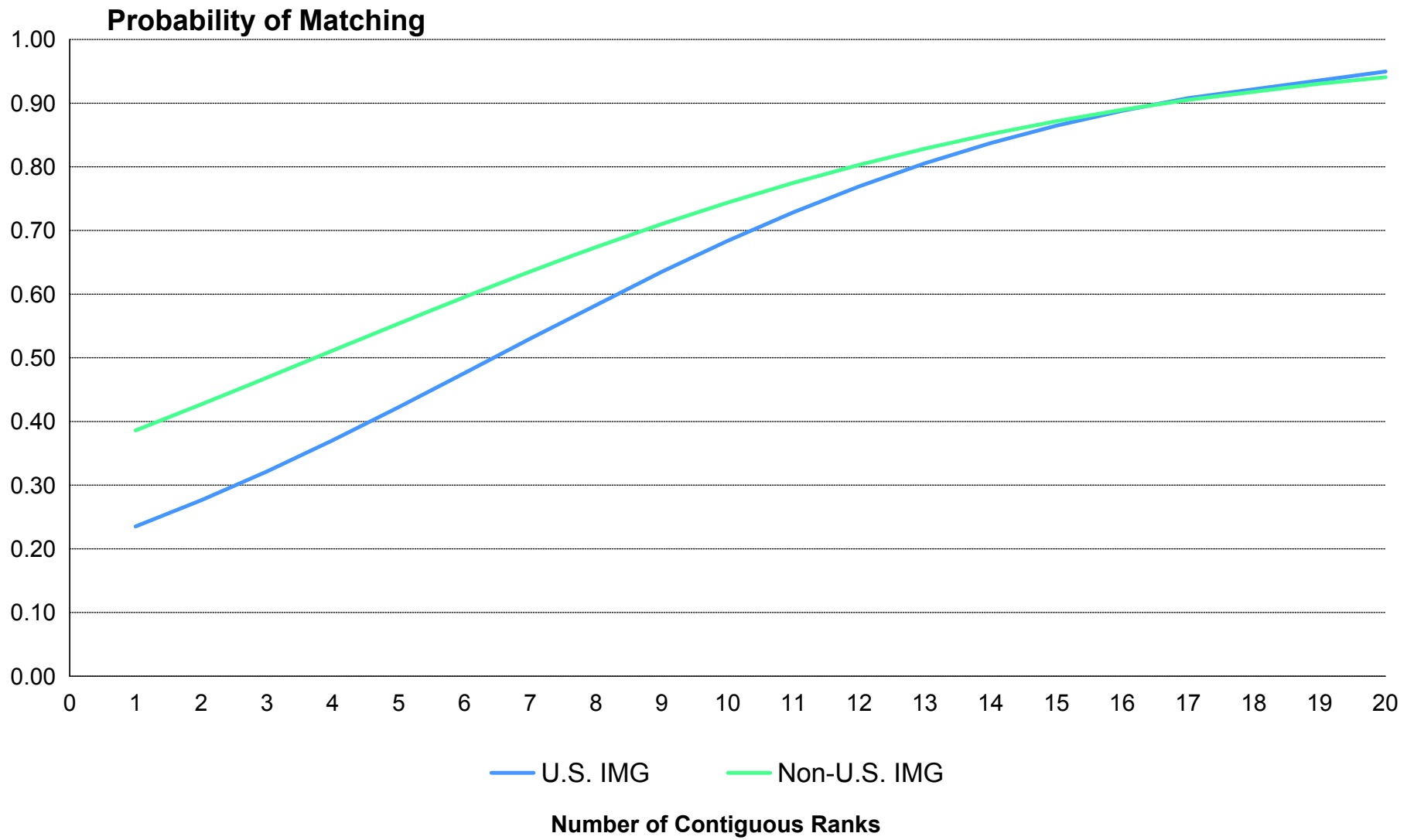
Source: NRMP Data Warehouse

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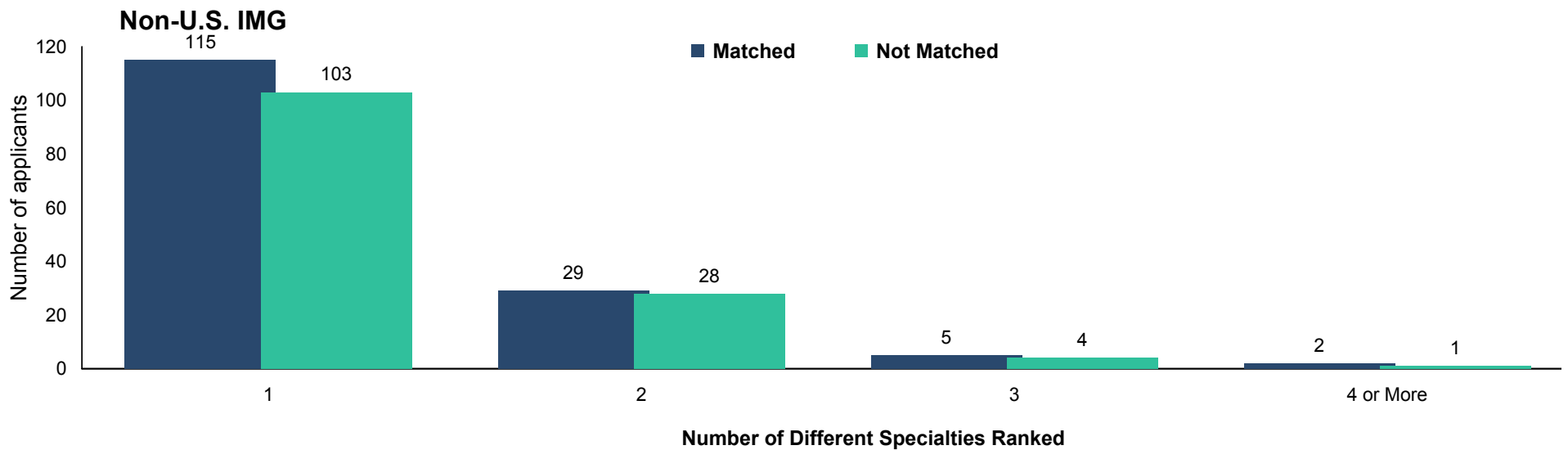
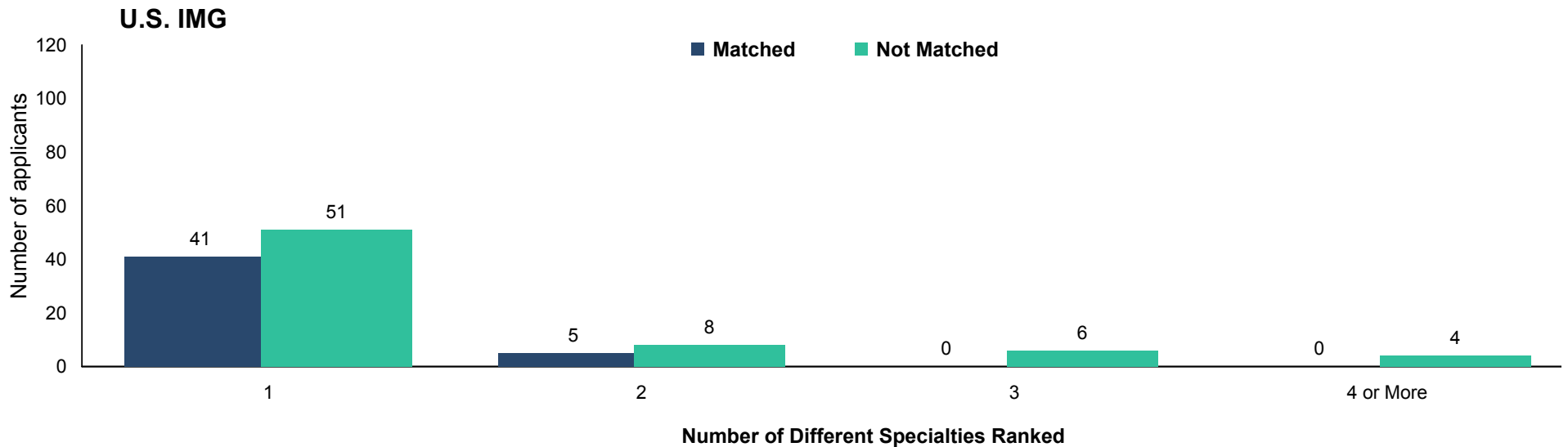
# Probability of Matching to Preferred Specialty by Number of Contiguous Ranks

*Pathology*



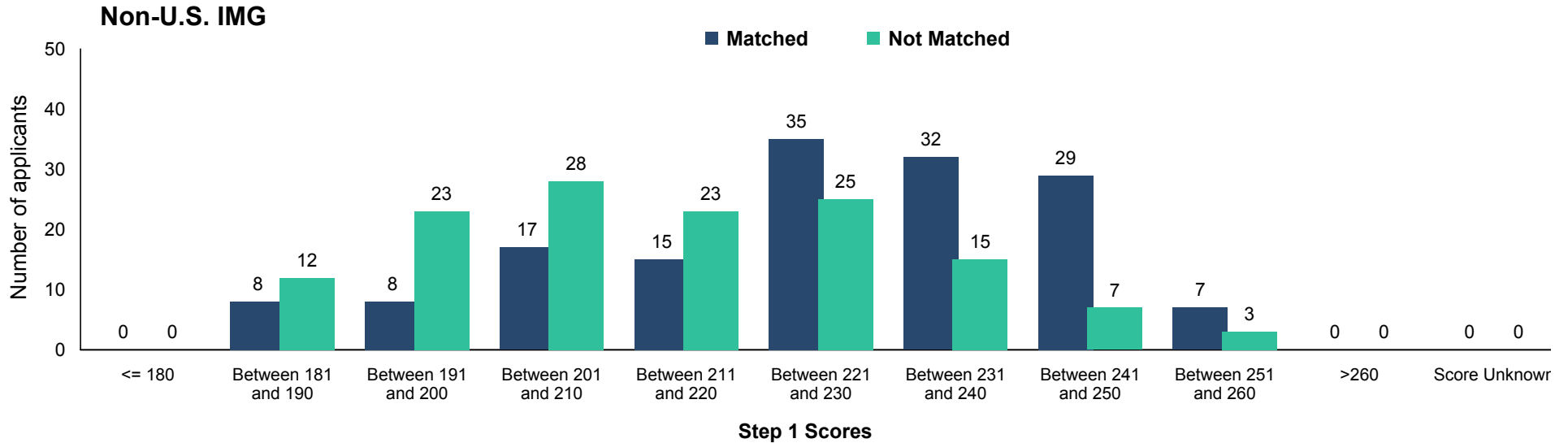
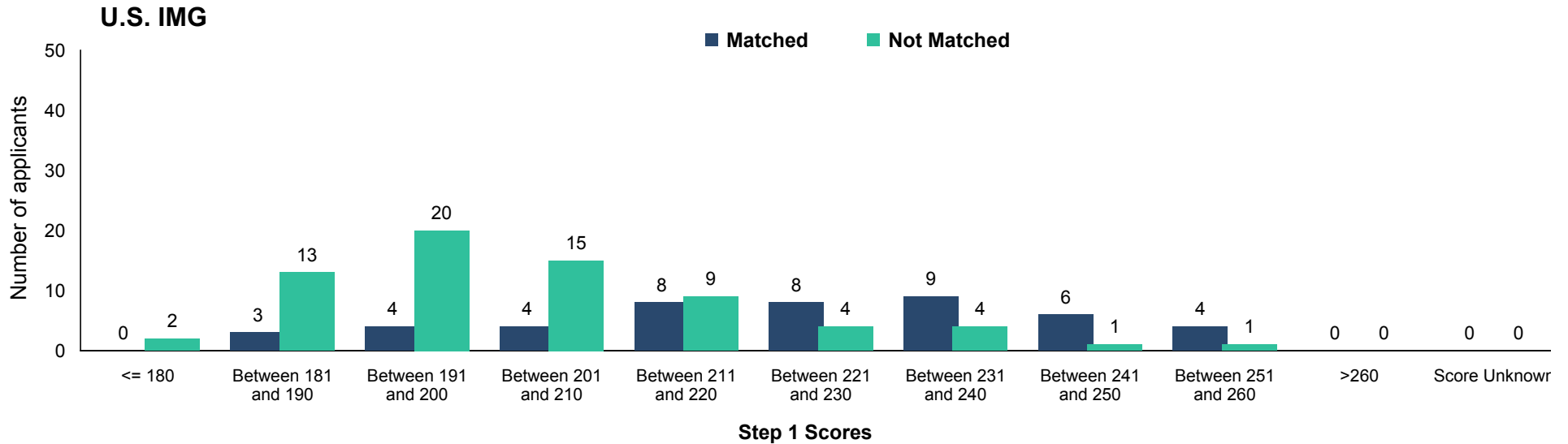
Source: NRMP Data Warehouse.

**Number of Applicants Ranking Different Specialties**  
*Pathology*



Source: NRMP Data Warehouse

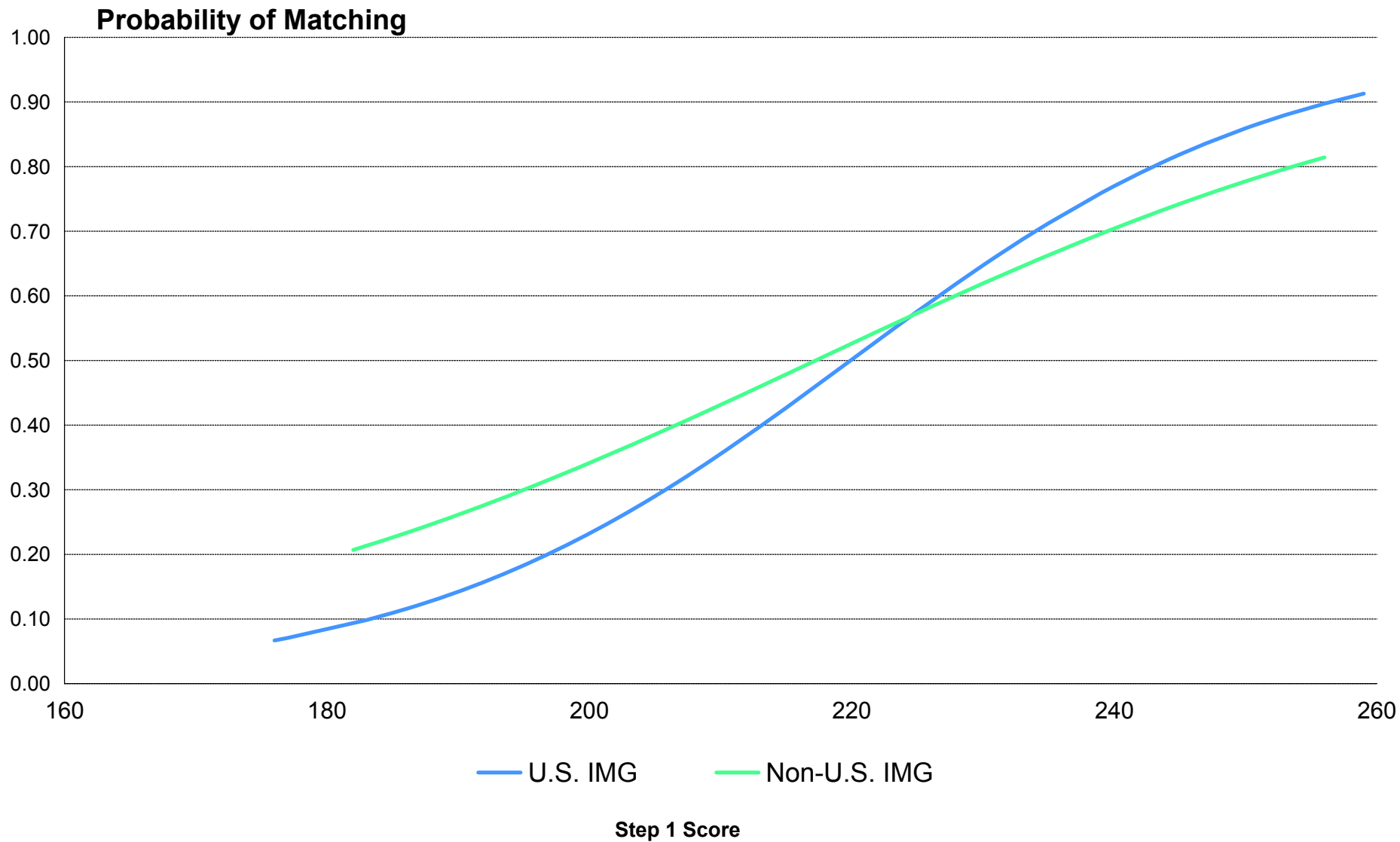
**USMLE Step 1 Scores  
Pathology**



Source: NRMP Data Warehouse and ECFMG.

# Probability of Matching to Preferred Specialty by USMLE Step 1 Score

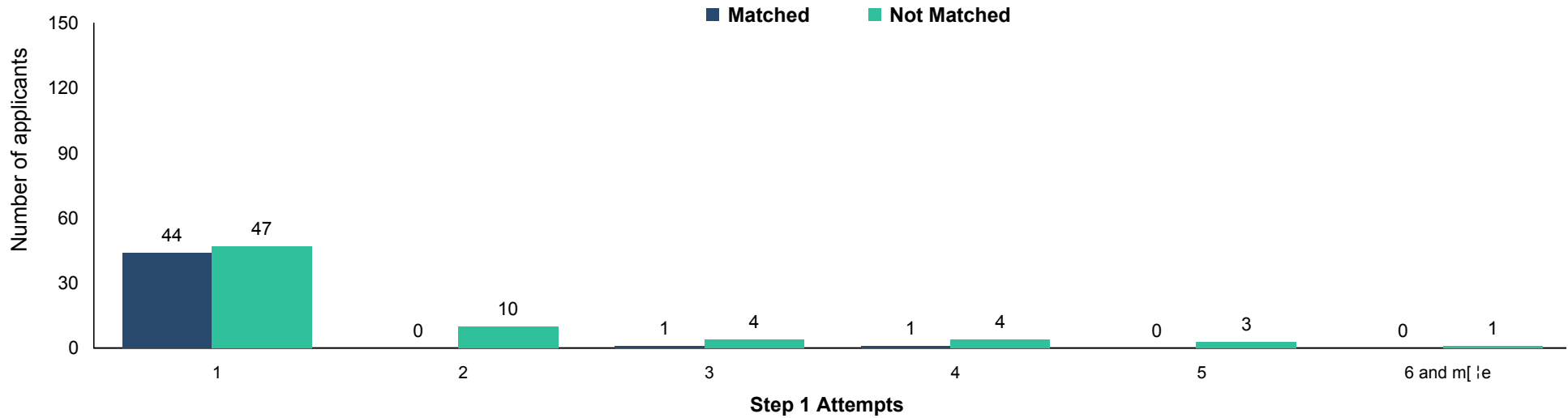
*Pathology-Anatomic and Clinical*



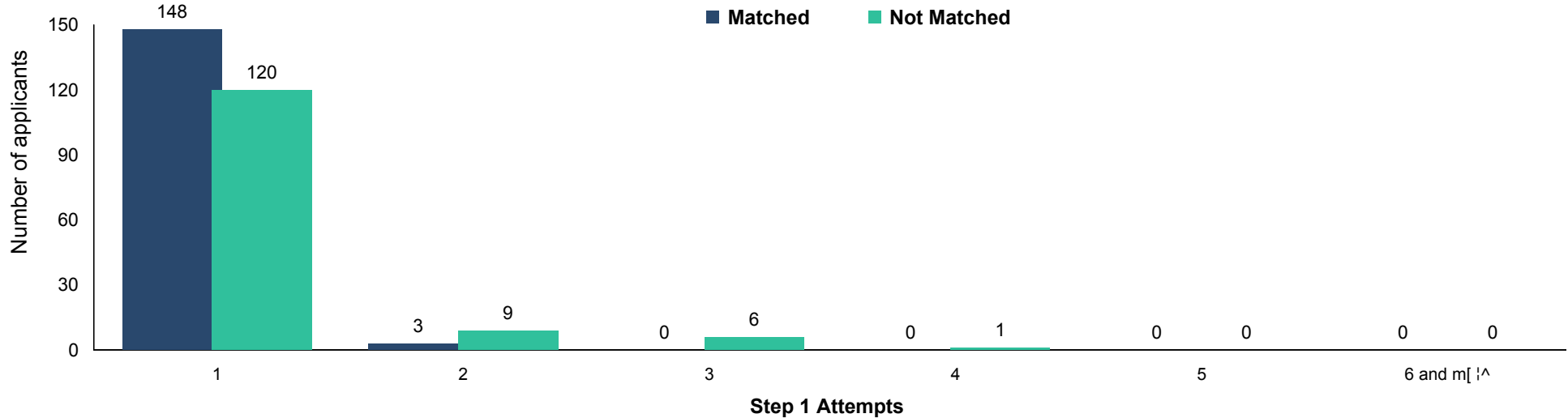
Source: NRMP Data Warehouse and ECFMG.

**USMLE Step 1 Attempts\*  
Pathologm**

**U.S. IMG**



**Non-U.S. IMG**

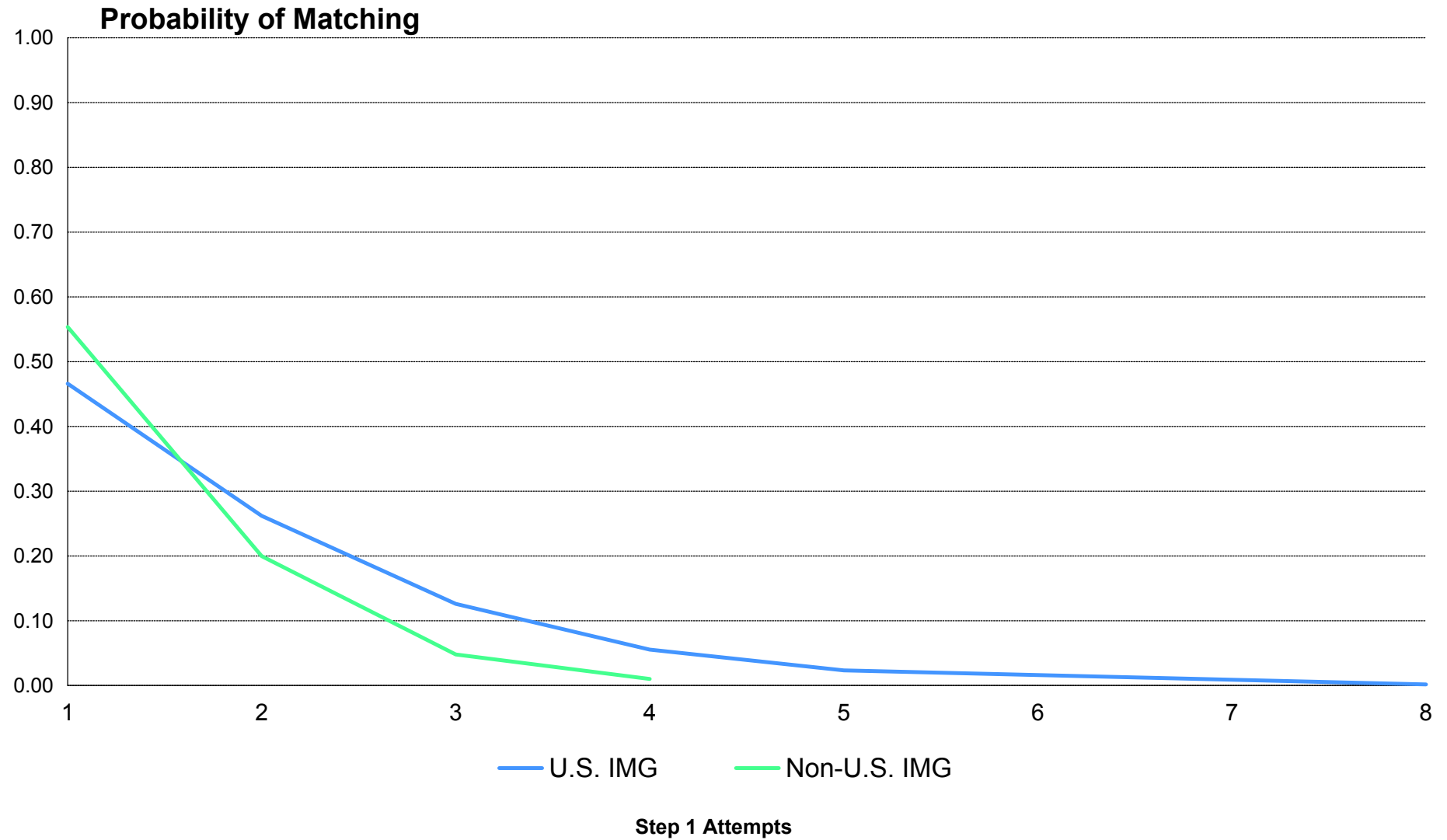


Source: NRMP Data Warehouse and ECFMG.

\*USMLE Step 1 or equivalent examination

# Probability of Matching to Preferred Specialty by Number of Step 1 Attempts\*

*Pathologm*

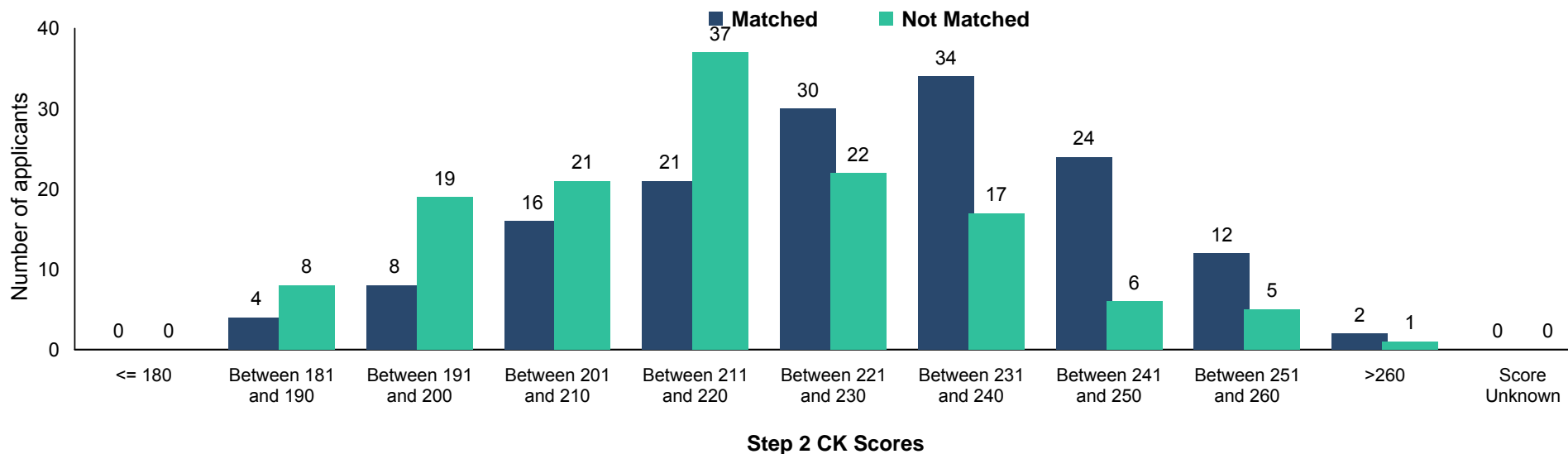
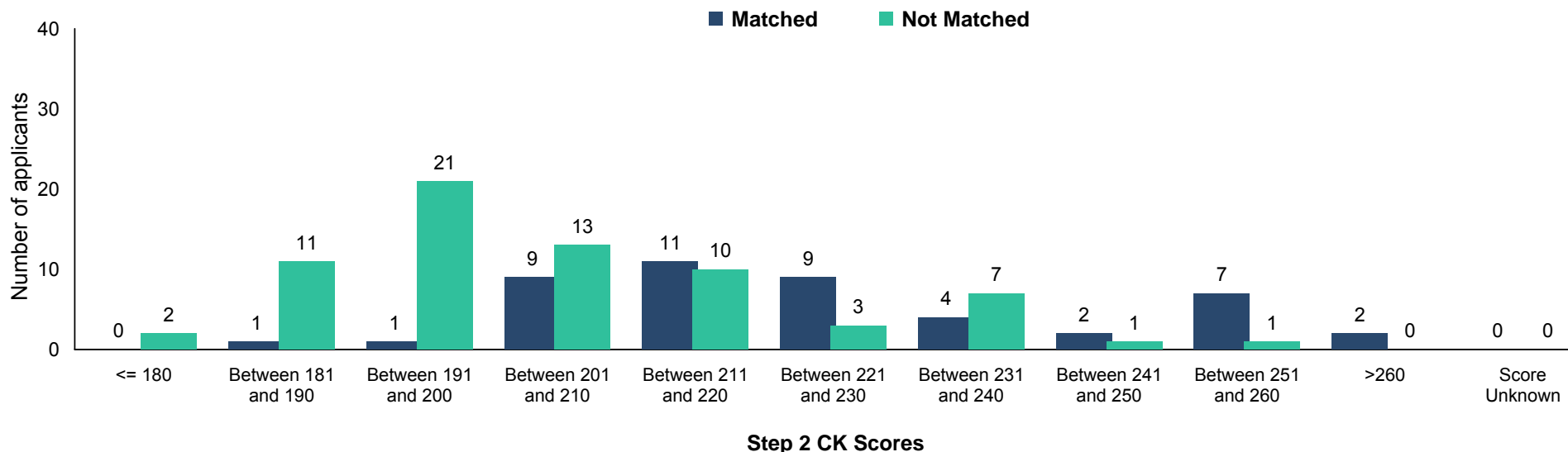


Source: NRMP Data Warehouse and ECFMG.

\*USMLE Step 1 or equivalent examination

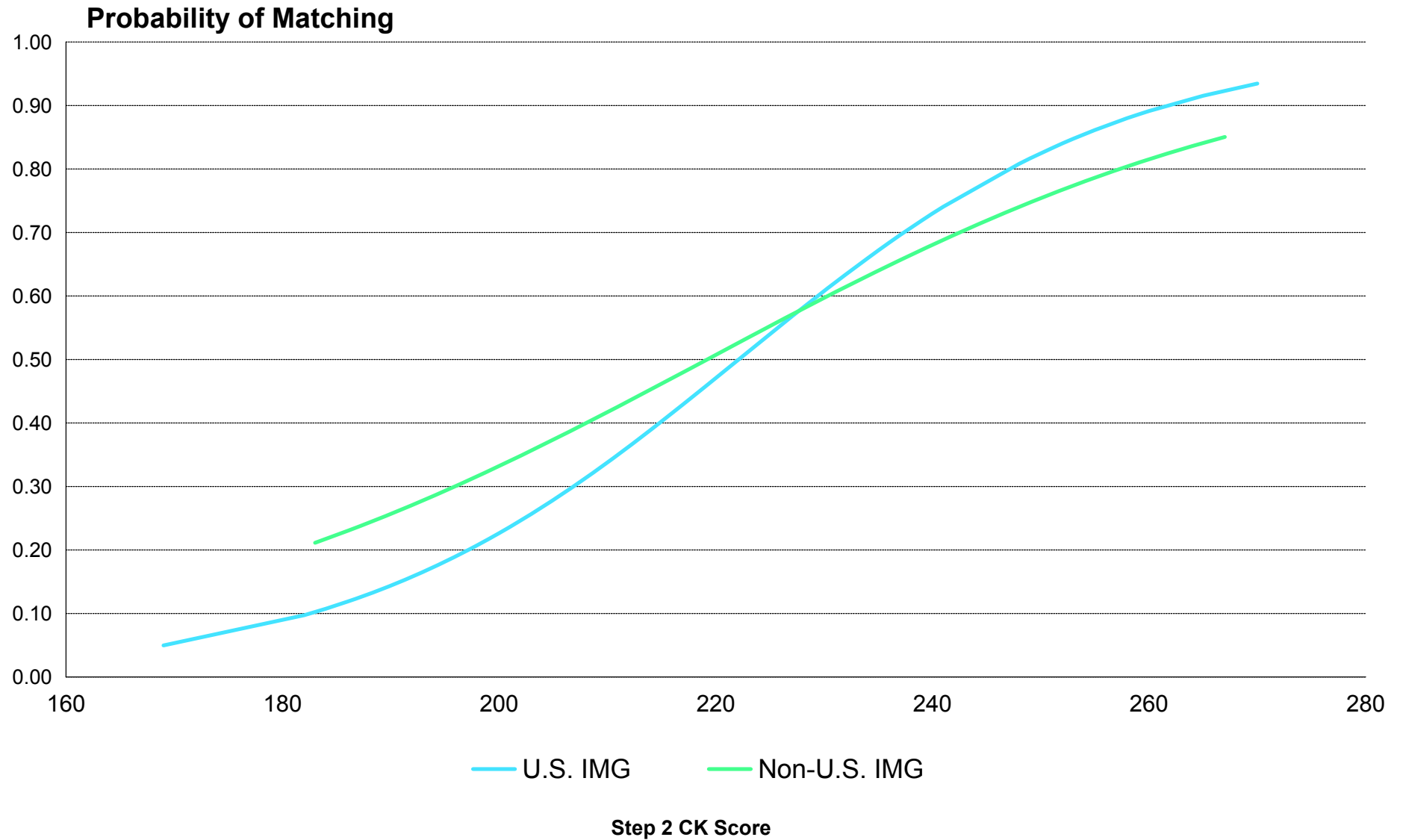
**Chart  
PTH-5**

**USMLE Step 2 CK (Clinical Knowledge) Scores**  
*Pathology-Anatomic and Clinical*



Source: NRMP Data Warehouse and ECFMG.

# Probability of Matching to Preferred Specialty by USMLE Step 2 CK (Clinical Knowledge) Score *Pathology*

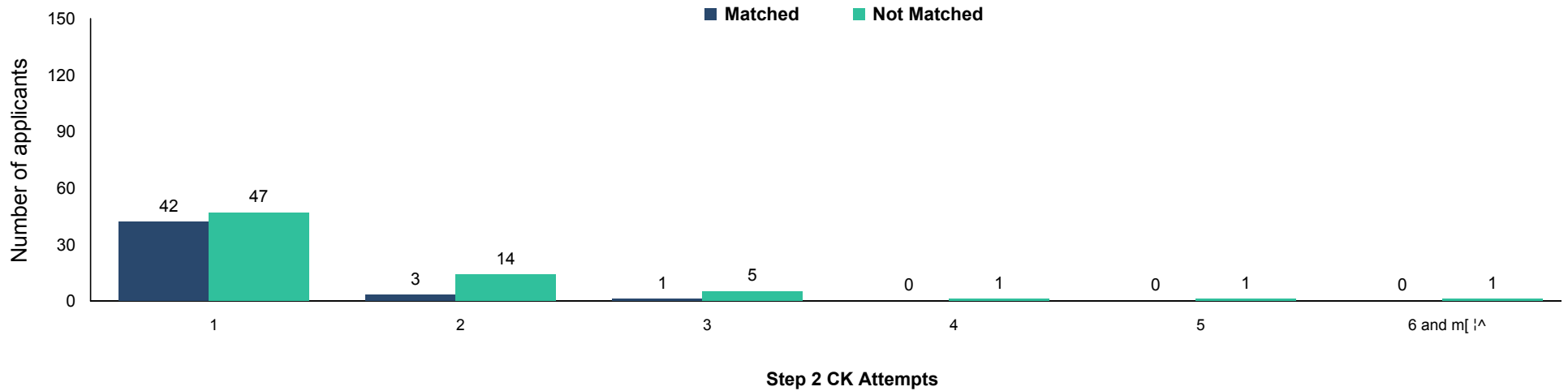


Source: NRMP Data Warehouse and ECFMG.

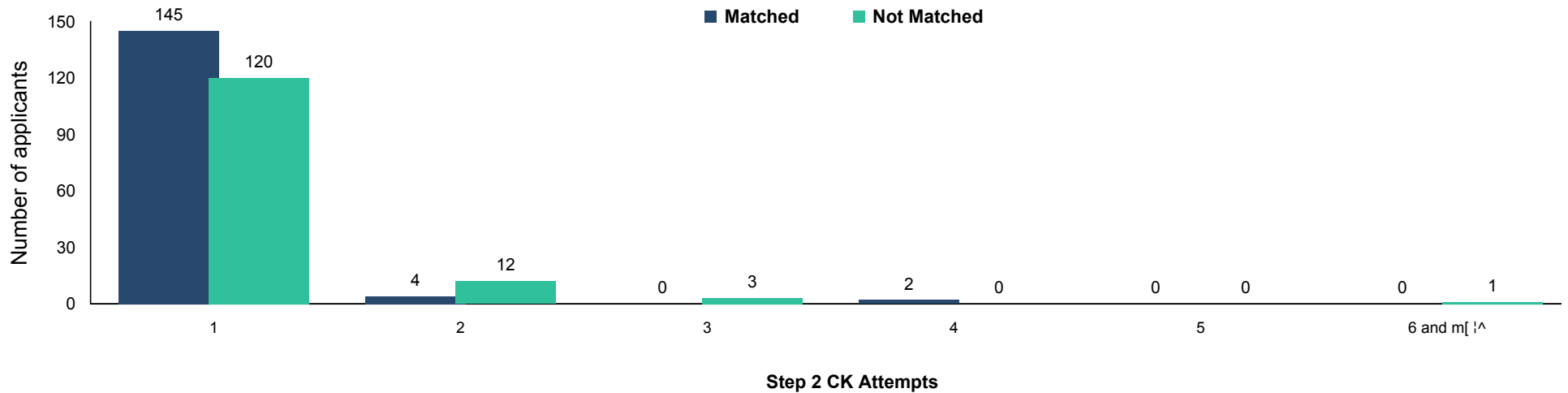


**USMLE Step 2 CK (Clinical Knowledge) Attempts\***  
*Pathology*

**U.S. IMG**



**Non-U.S. IMG**

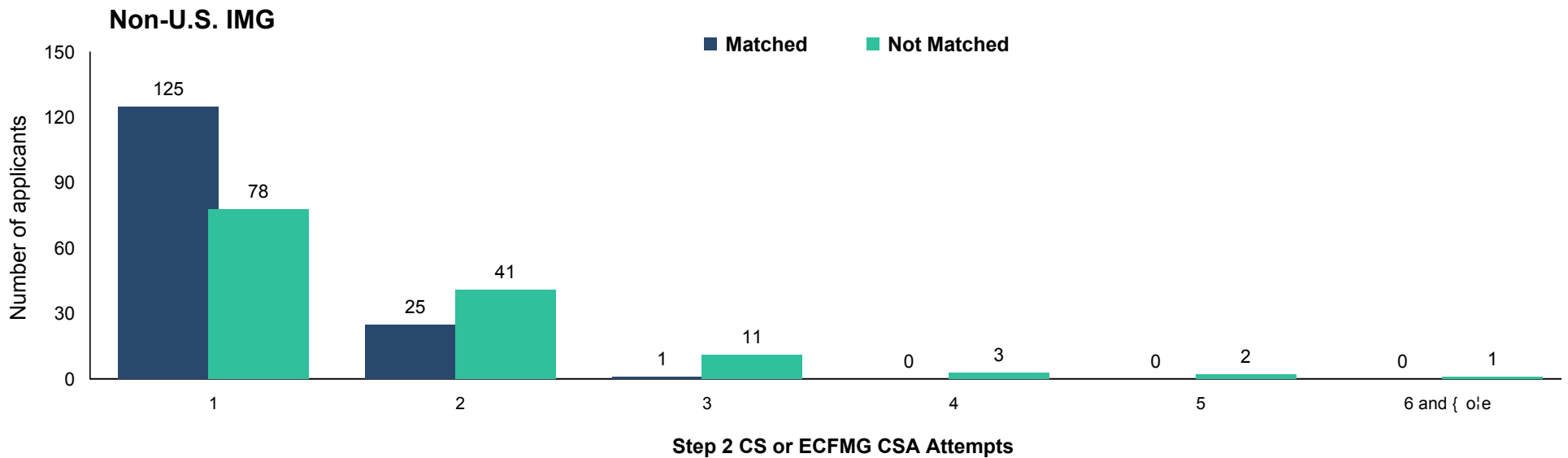
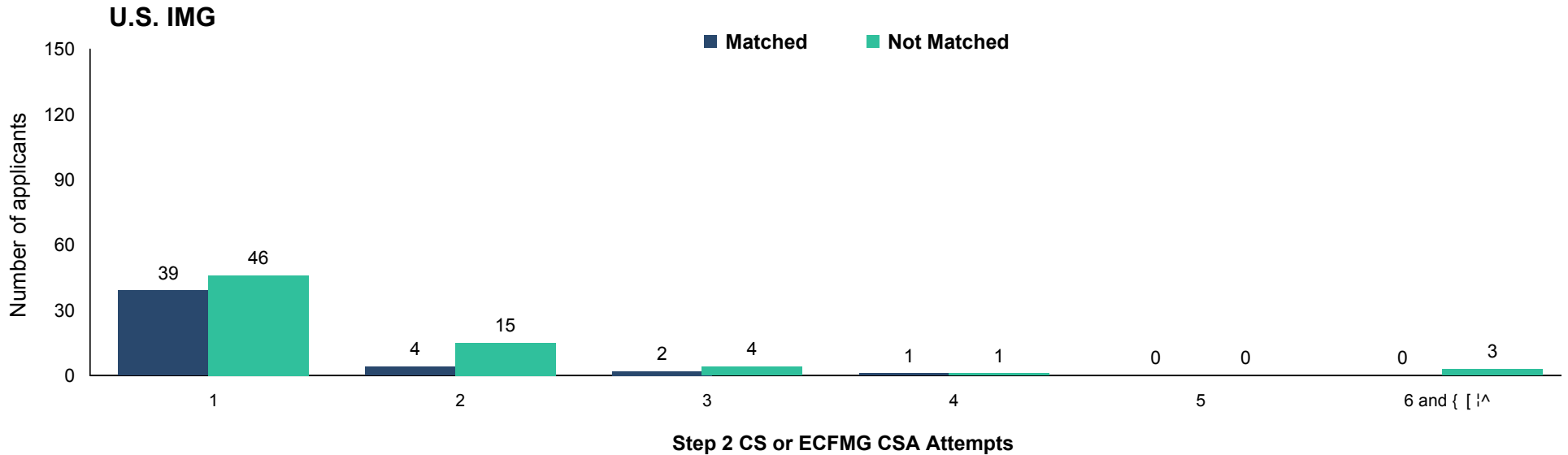


Source: NRMP Data Warehouse and ECFMG.

\*USMLE Step 2 CK or equivalent examination

**Chart  
PTH-7**

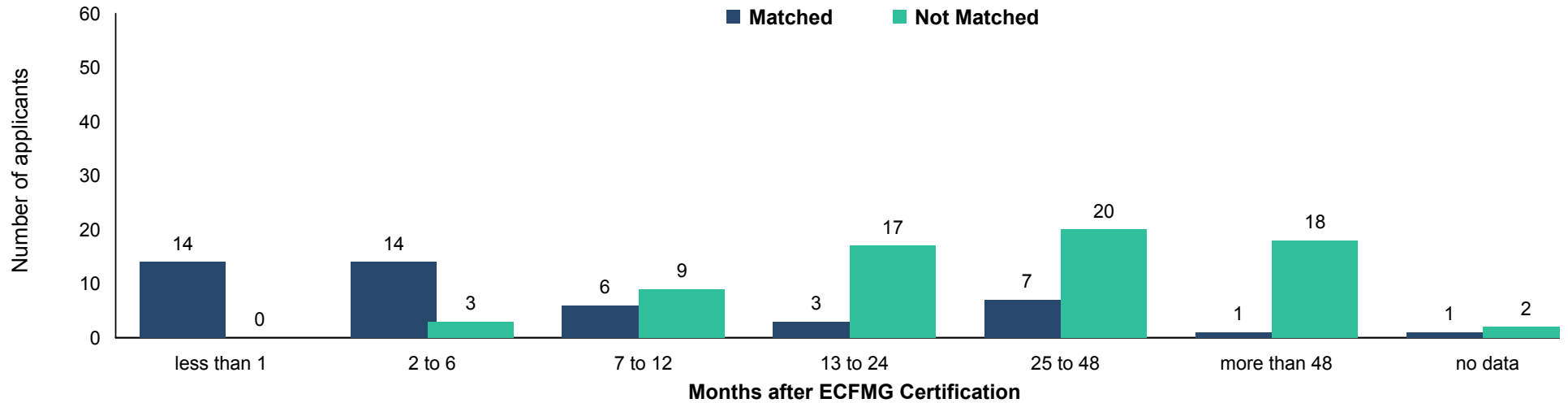
**Attempts at USMLE Step 2 CS (Clinical Skills) or ECFMG CSA (Clinical Skills Assessment)  
Pathology**



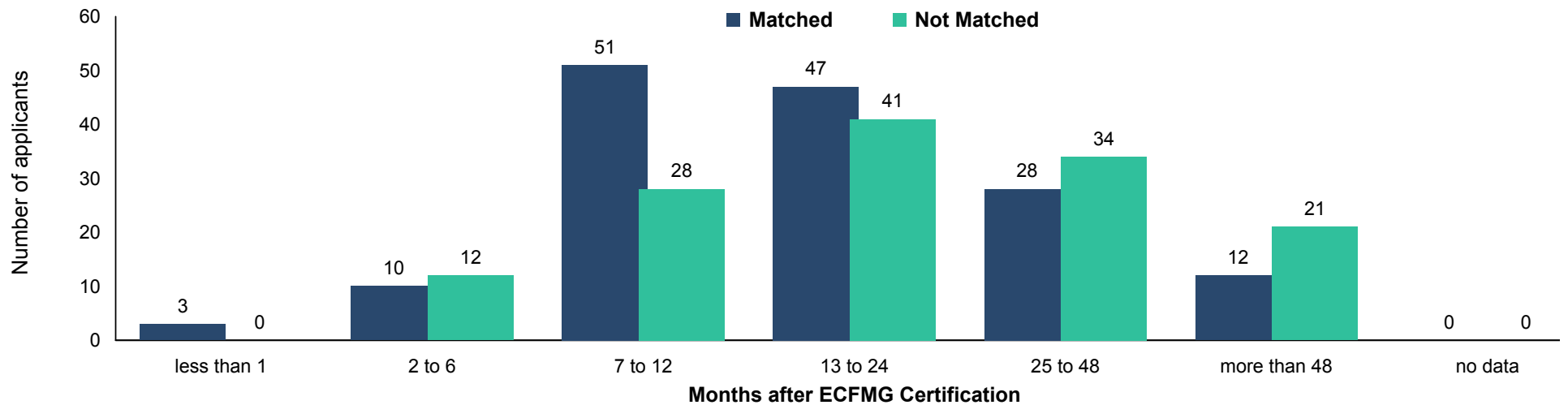
Source: NRMP Data Warehouse and ECFMG.

**Number of Months After ECFMG Certification  
Pathology**

**U.S. IMG**



**Non-U.S. IMG**

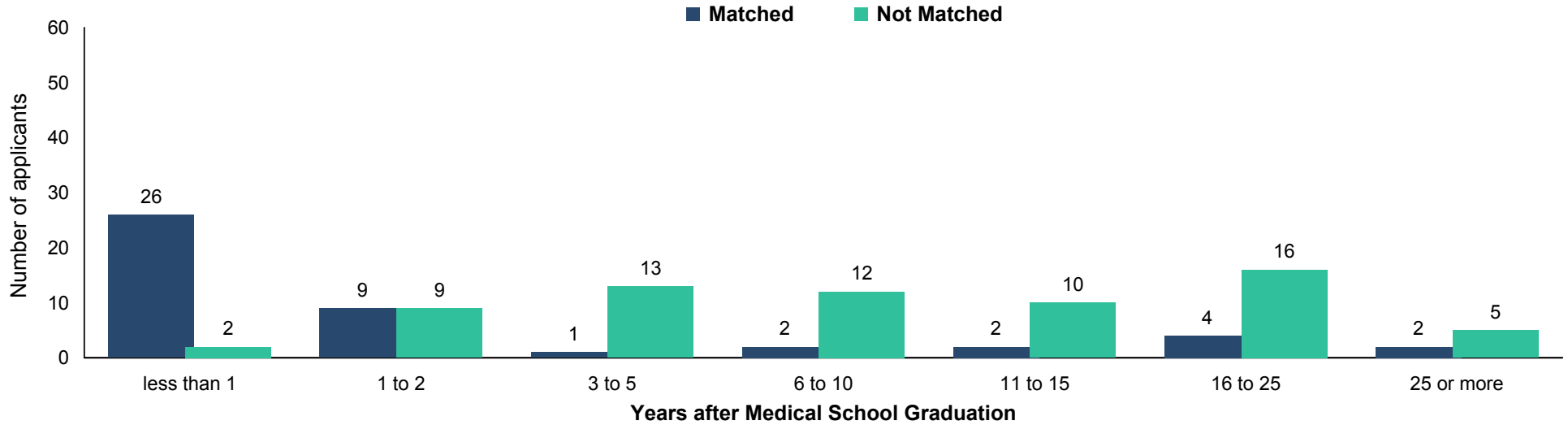


Source: NRMP Data Warehouse and ECFMG

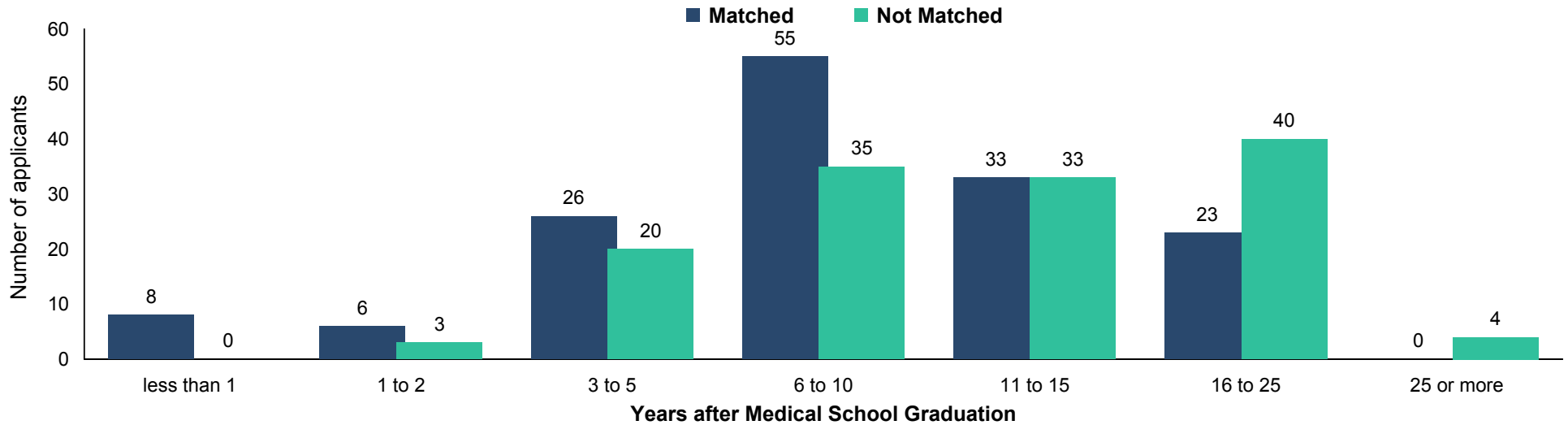
**Chart  
PTH-9**

**Number of Years After Medical School Graduation  
Pathology**

**U.S. IMG**



**Non-U.S. IMG**

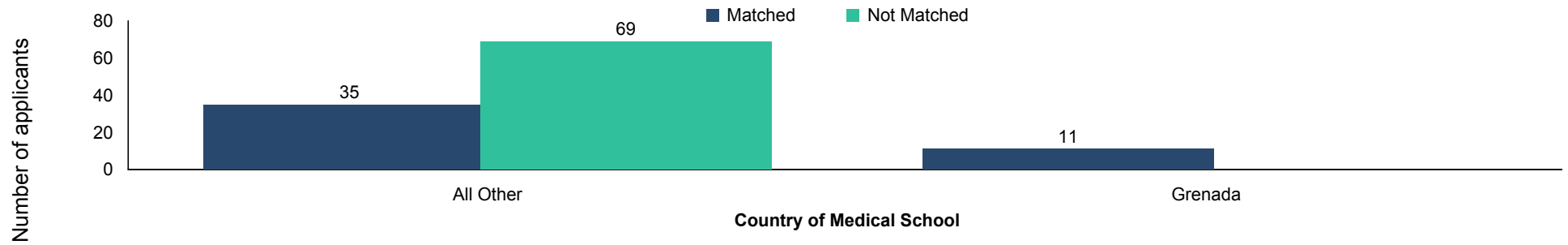


Source: NRMP Data Warehouse and ECFMG

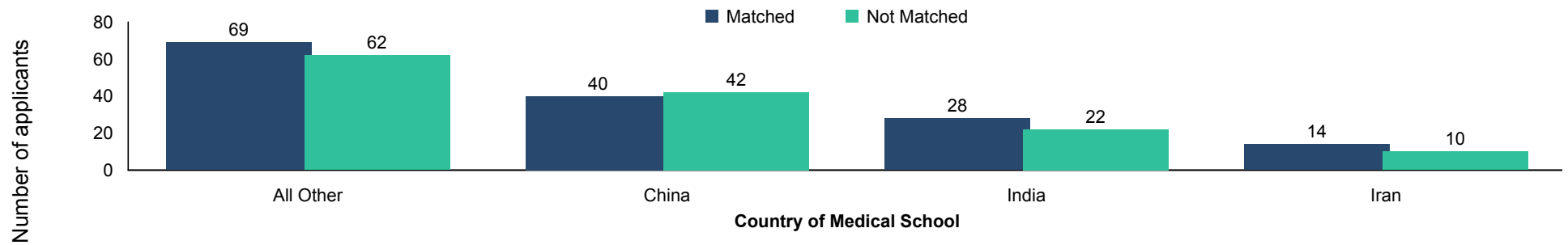
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**Country of Medical School  
Pathology**

**U.S. IMG**



**Non-U.S. IMG**



Source: NRMP Data Warehouse and ECFMG

Note: A country is included if it has 10 or more applicants for each category

**PD**

**Pediatrics**

---

| Measure   | U.S. IMG           |                      | Non-U.S. IMG       |                      |
|---|--------------------|----------------------|--------------------|----------------------|
|   | Matched<br>(n=196) | Unmatched<br>(n=151) | Matched<br>(n=278) | Unmatched<br>(n=382) |
| 1. Mean number of contiguous ranks                    | 9                  | 2                    | 6                  | 2                    |
| 2. Mean number of distinct specialties ranked         | 1.2                | 1.5                  | 1.3                | 1.5                  |
| 3. Mean USMLE Step 1 score                            | 216                | 201                  | 223                | 211                  |
| 4. Mean USMLE Step 1 attempts*                        | 1.1                | 1.7                  | 1.0                | 1.2                  |
| 5. Mean USMLE Step 2 CK score                         | 224                | 208                  | 231                | 217                  |
| 6. Mean USMLE Step 2 CK attempts**                    | 1.0                | 1.4                  | 1.0                | 1.1                  |
| 7. Mean USMLE Step 2 CS or ECFMG CSA attempts         | 1.1                | 1.3                  | 1.1                | 1.3                  |
| 8. Mean number of months since ECFMG certification    | 3                  | 21                   | 12                 | 24                   |
| 9. Mean number of years since graduation              | 0.7                | 5.8                  | 3.9                | 7.2                  |
| 10. Percentage who speak English as a native language | 87                 | 53                   | 25                 | 16                   |

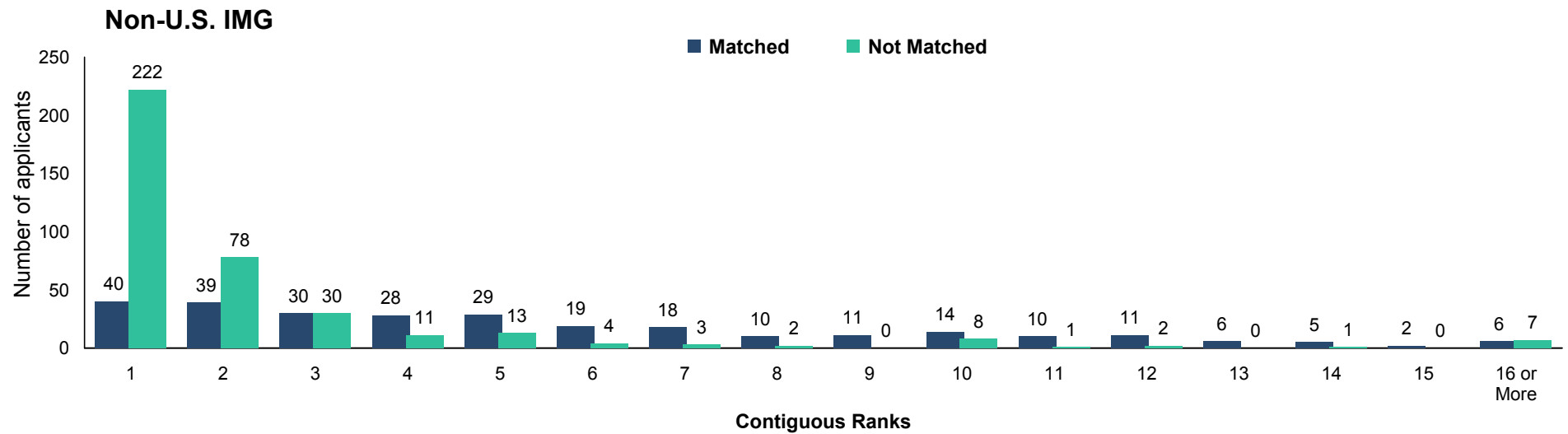
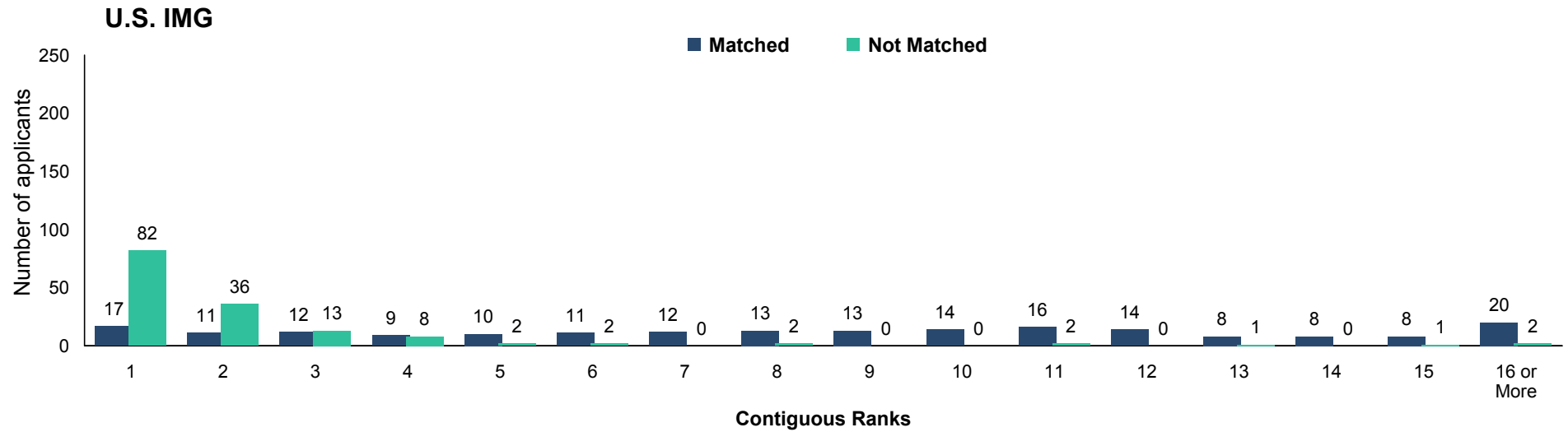
Sources: NRMP Data Warehouse and ECFMG

\*USMLE Step 1 or equivalent examination

\*\*USMLE Step 2 CK or equivalent examination

**Chart  
PD-1**

**Number of Contiguous Ranks Within Preferred Specialty  
*Pediatrics***



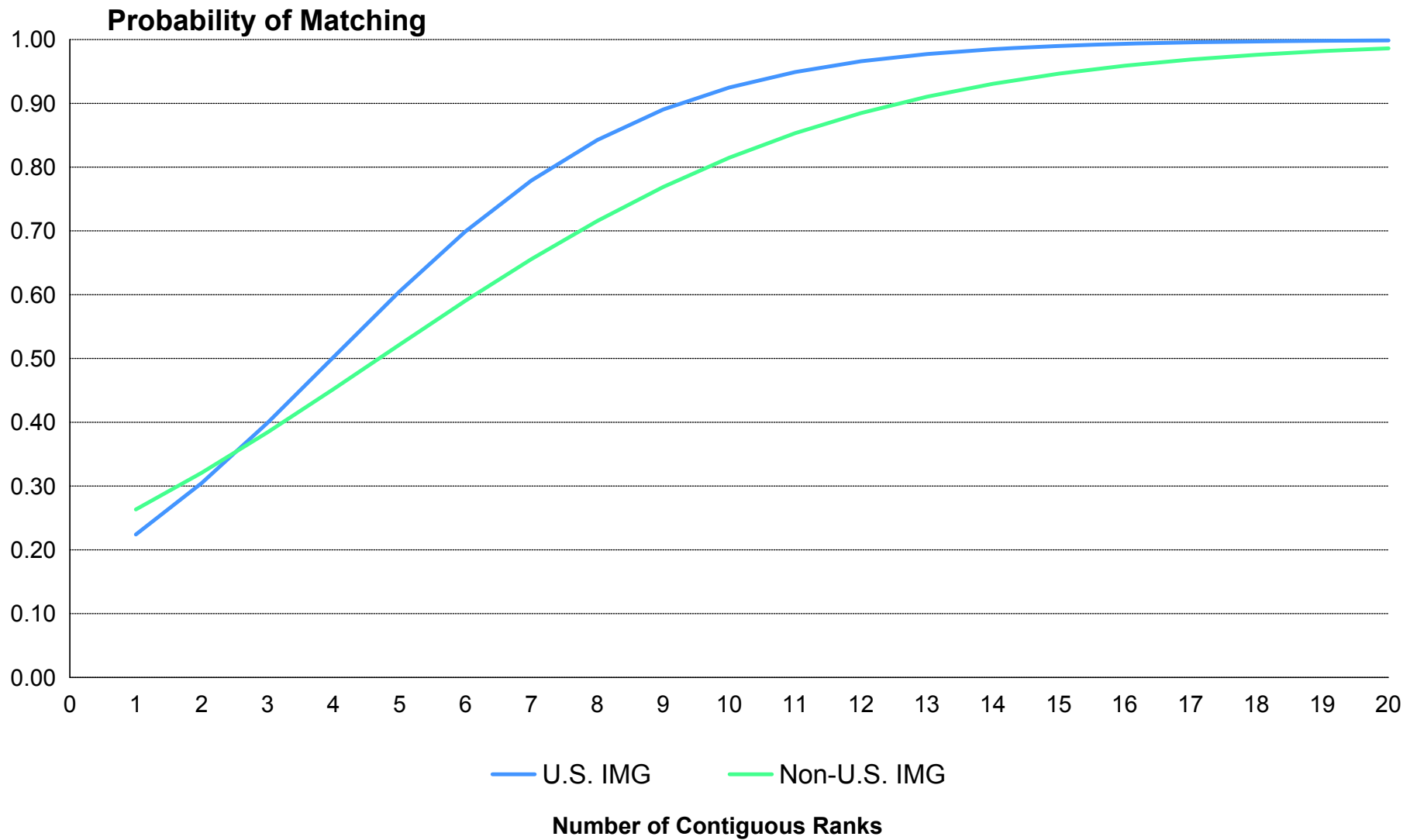
Source: NRMP Data Warehouse

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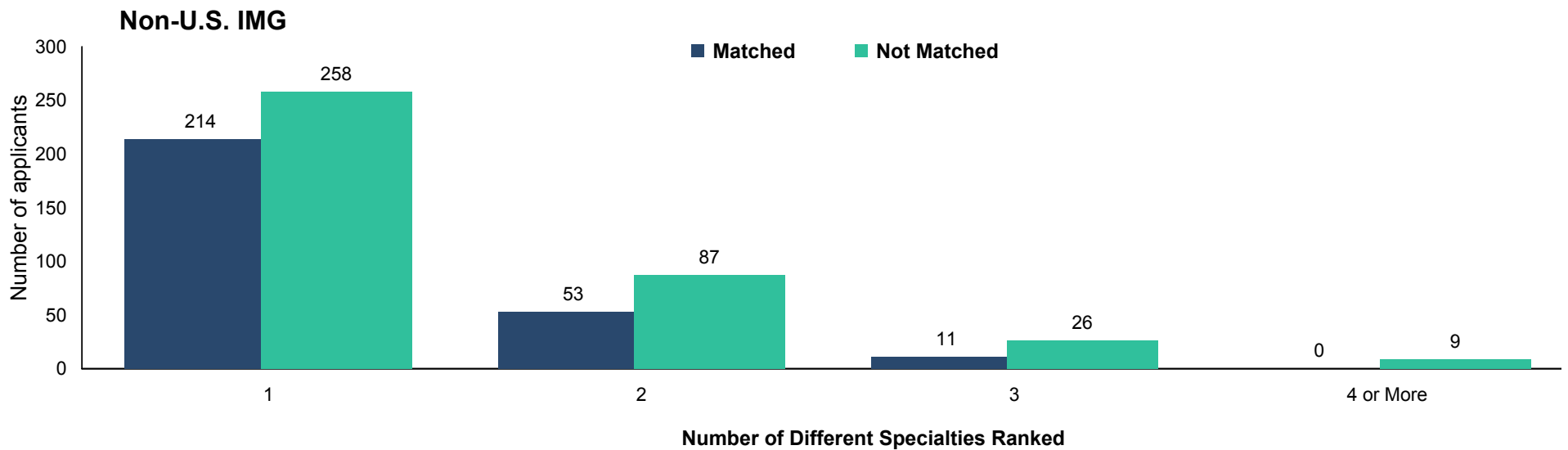
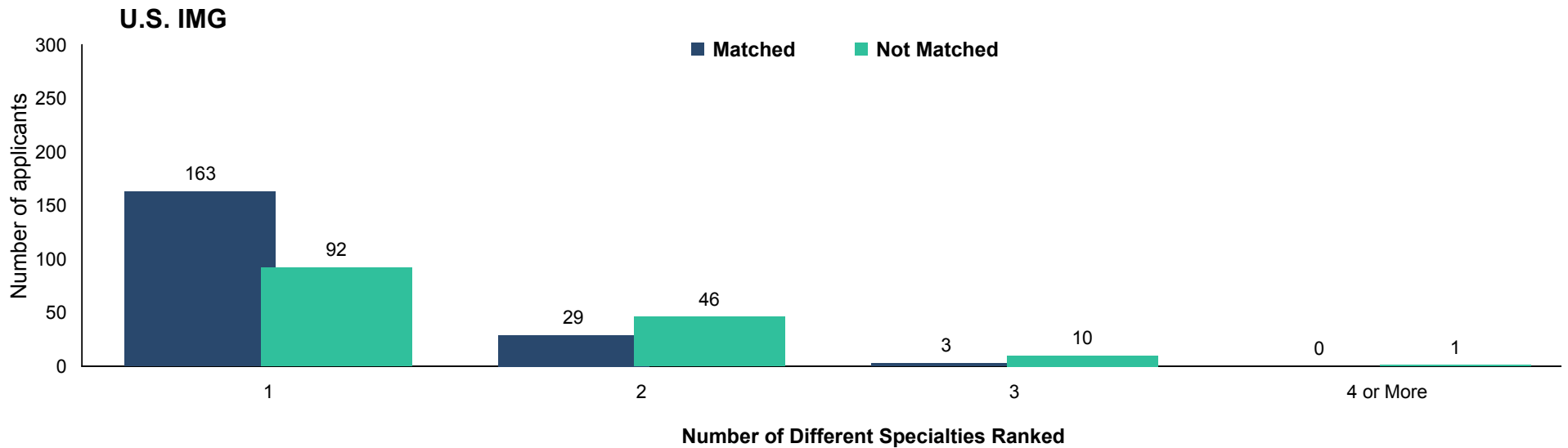
**Graph  
PD-1**

**Probability of Matching to Preferred Specialty by Number of Contiguous Ranks**  
*Pediatrics*



Source: NRMP Data Warehouse.

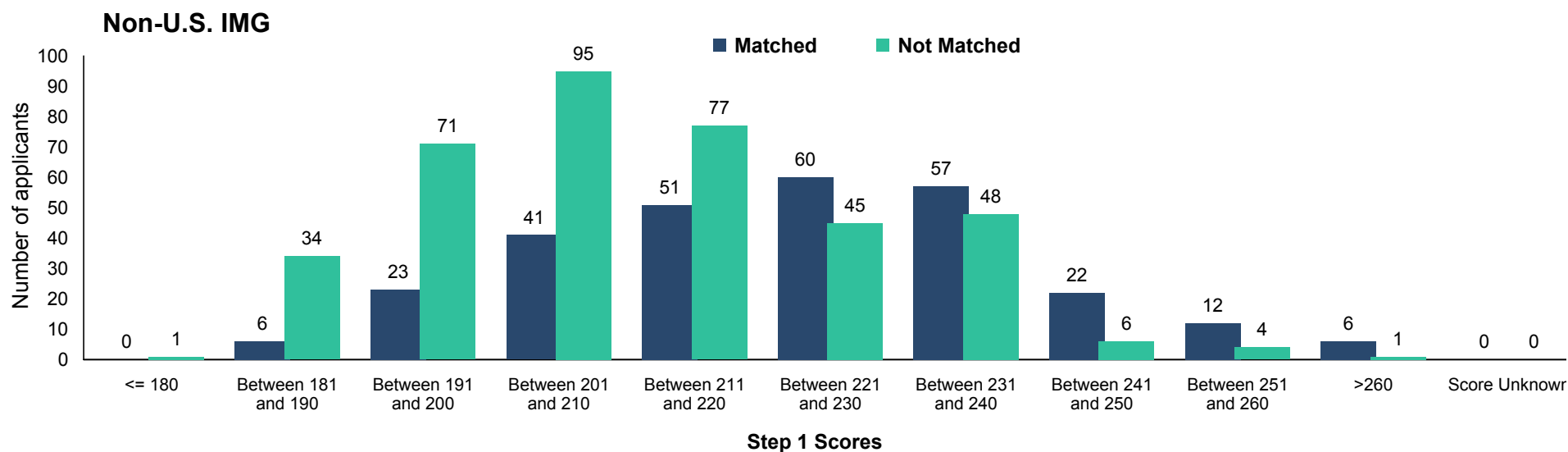
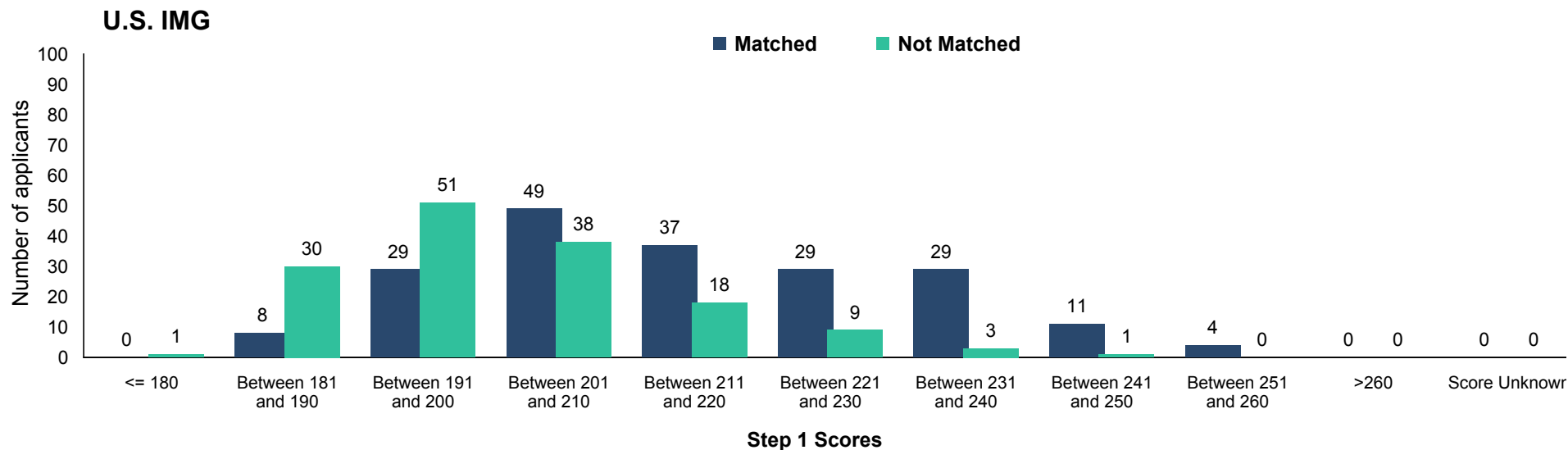
**Number of Applicants Ranking Different Specialties  
*Pediatrics***



Source: NRMP Data Warehouse

**Chart  
PD-3**

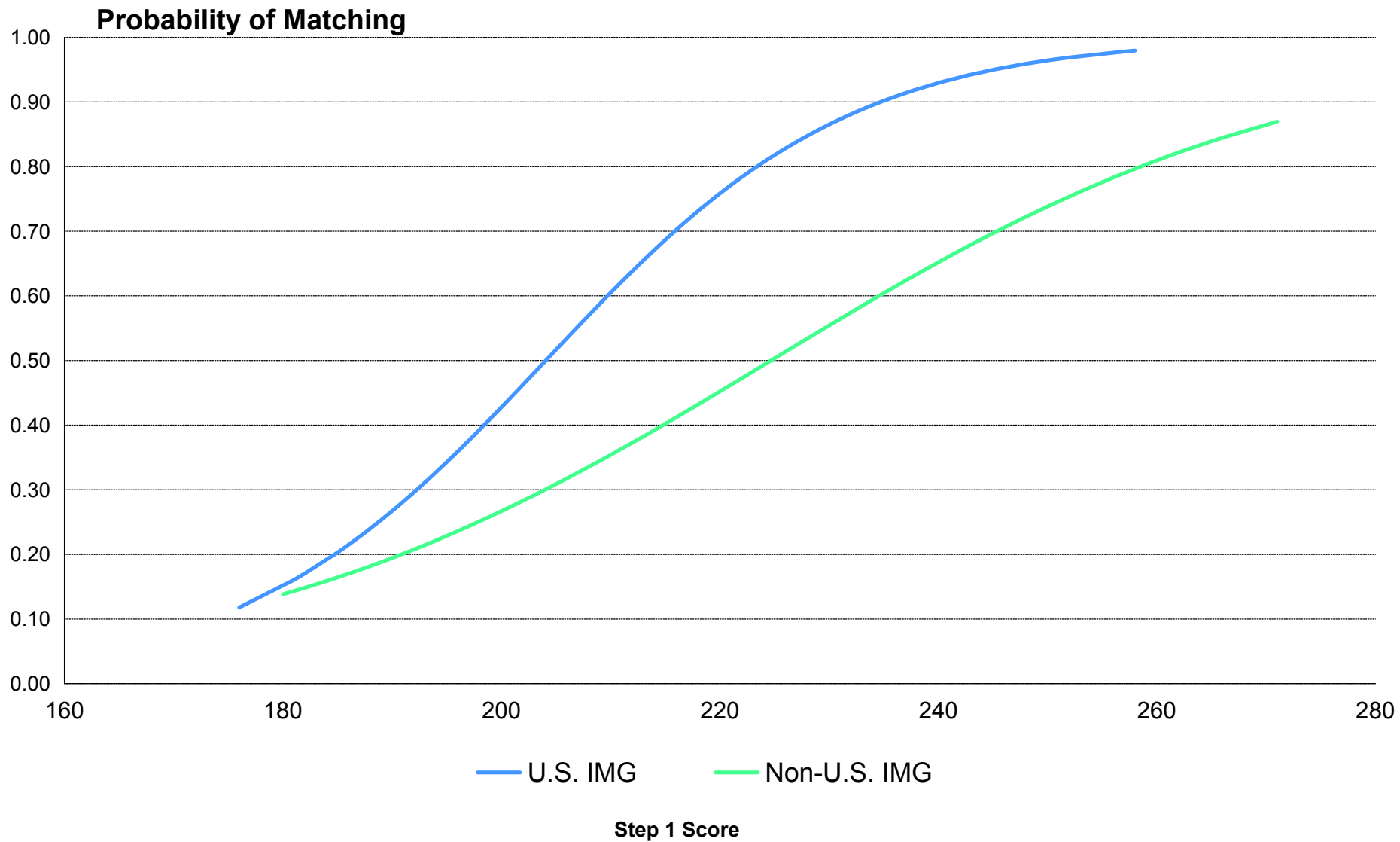
**USMLE Step 1 Scores  
Pediatrics**



Source: NRMP Data Warehouse and ECFMG.

# Probability of Matching to Preferred Specialty by USMLE Step 1 Score

## Pediatrics

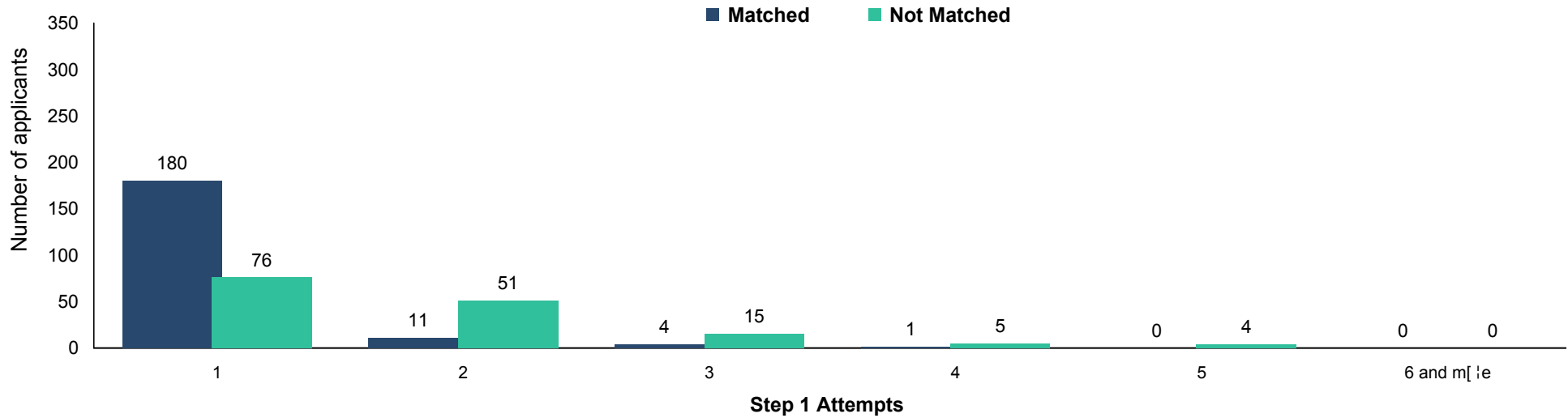


Source: NRMP Data Warehouse and ECFMG.

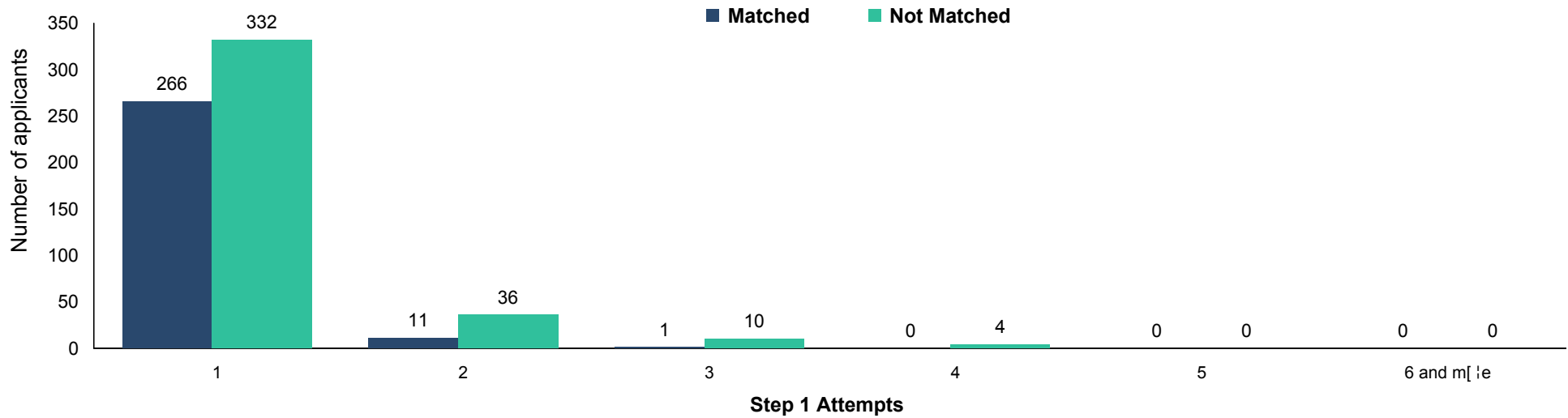
**Chart  
PD-4**

**USMLE Step 1 Attempts\*  
Pediatrics**

**U.S. IMG**



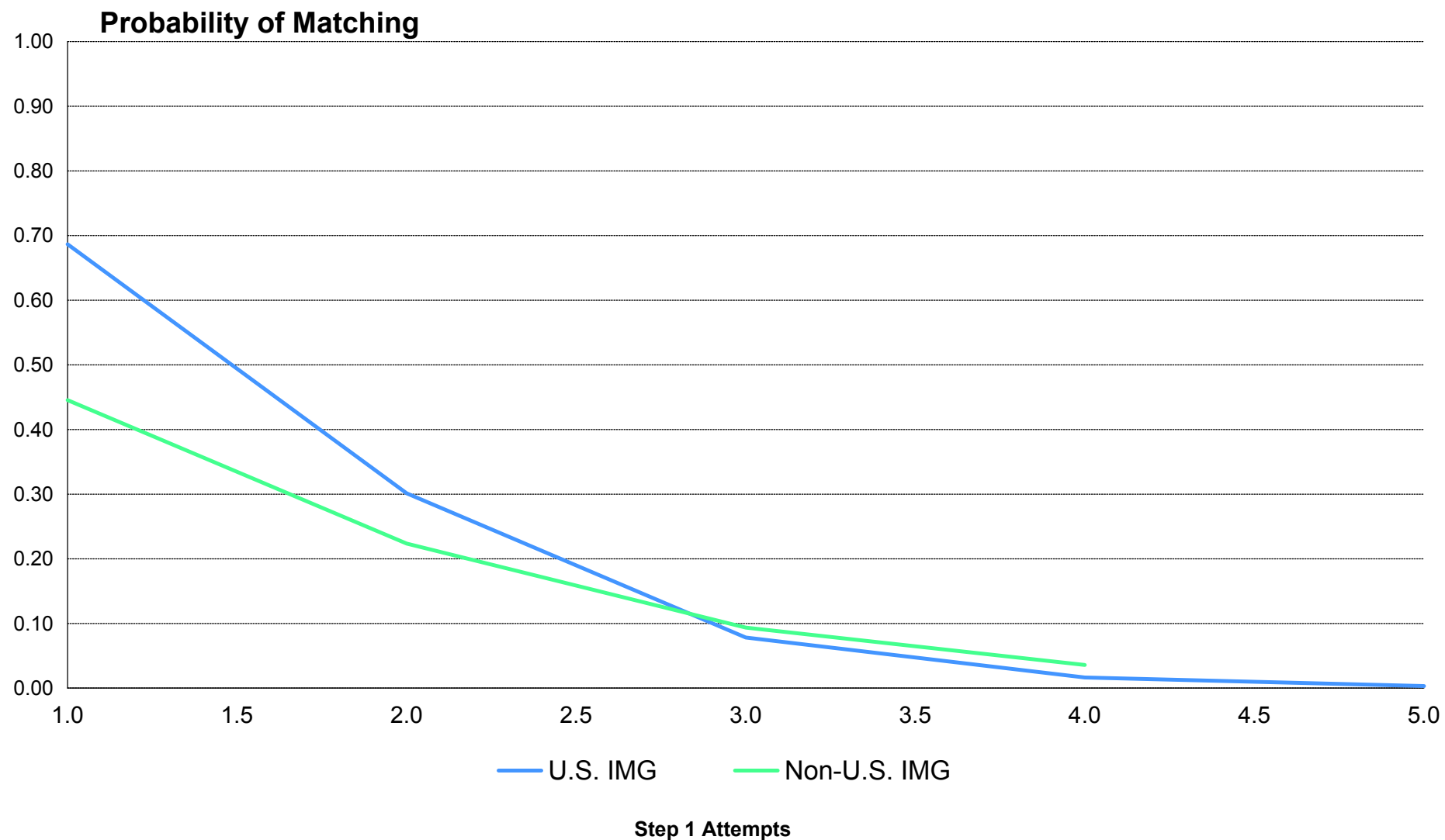
**Non-U.S. IMG**



Source: NRMP Data Warehouse and ECFMG.

\*USMLE Step 1 or equivalent examination

**Probability of Matching to Preferred Specialty by Number of Step 1 Attempts\***  
*Pediatrics*

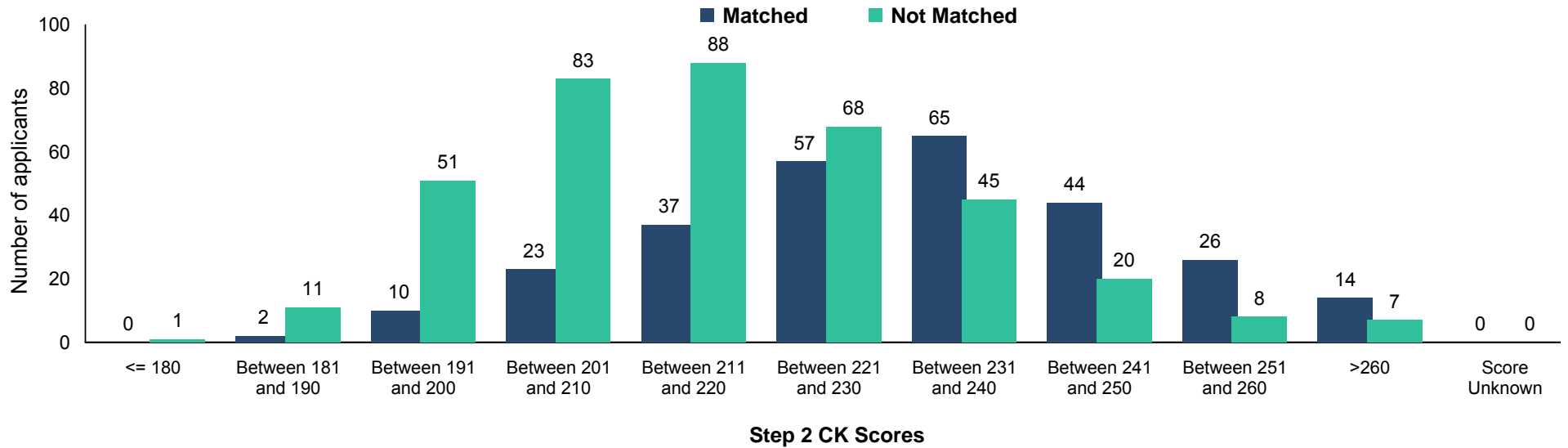
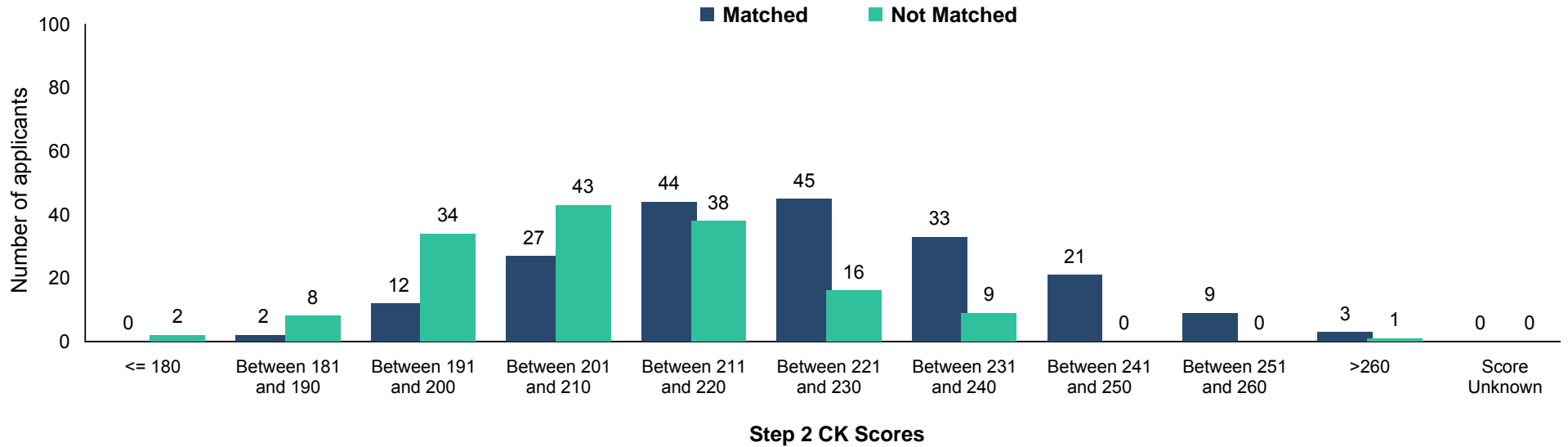


Source: NRMP Data Warehouse and ECFMG.

\*USMLE Step 1 or equivalent examination

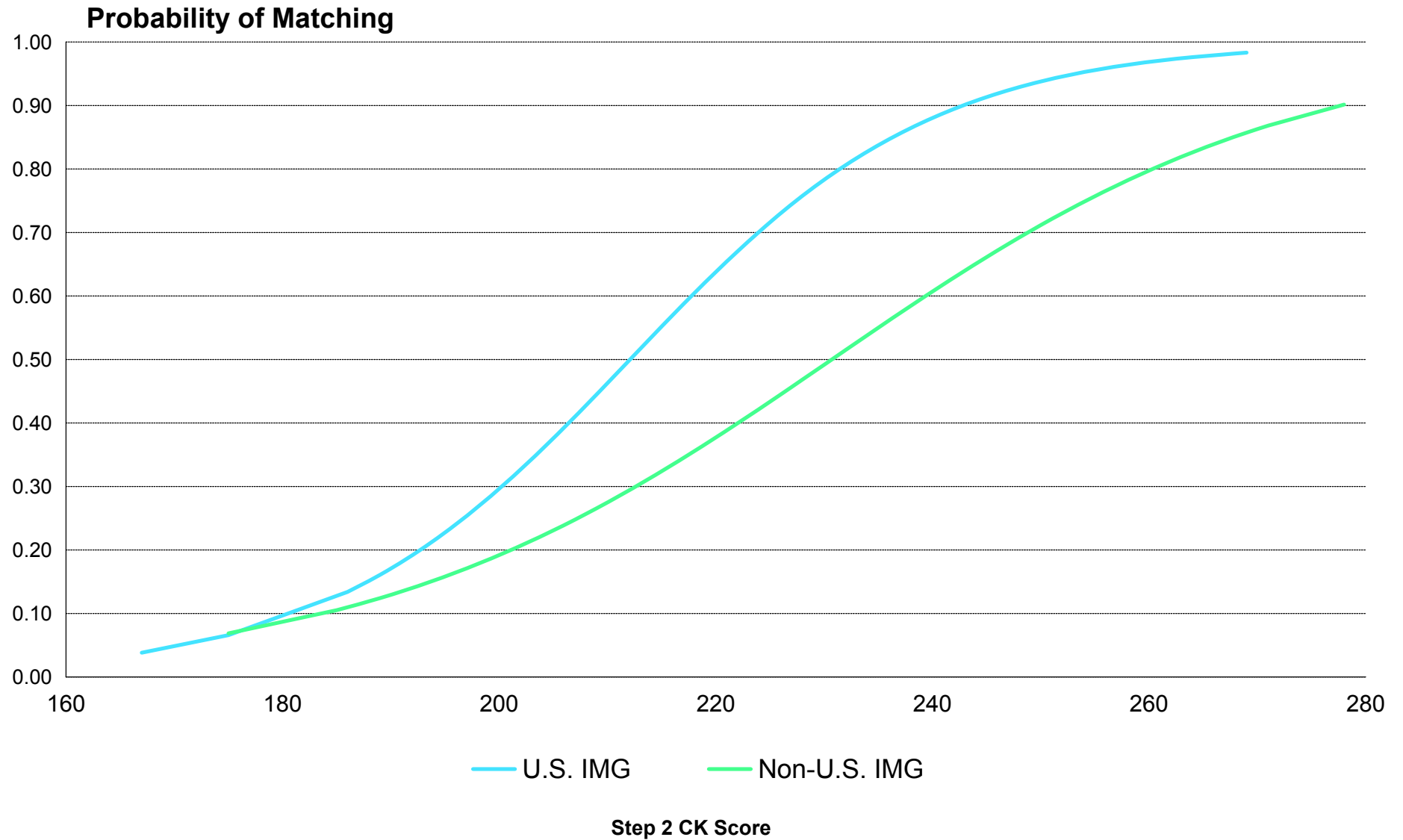
**Chart  
PD-5**

**USMLE Step 2 CK (Clinical Knowledge) Scores  
Pediatrics**



Source: NRMP Data Warehouse and ECFMG.

# Probability of Matching to Preferred Specialty by USMLE Step 2 CK (Clinical Knowledge) Score *Pediatrics*

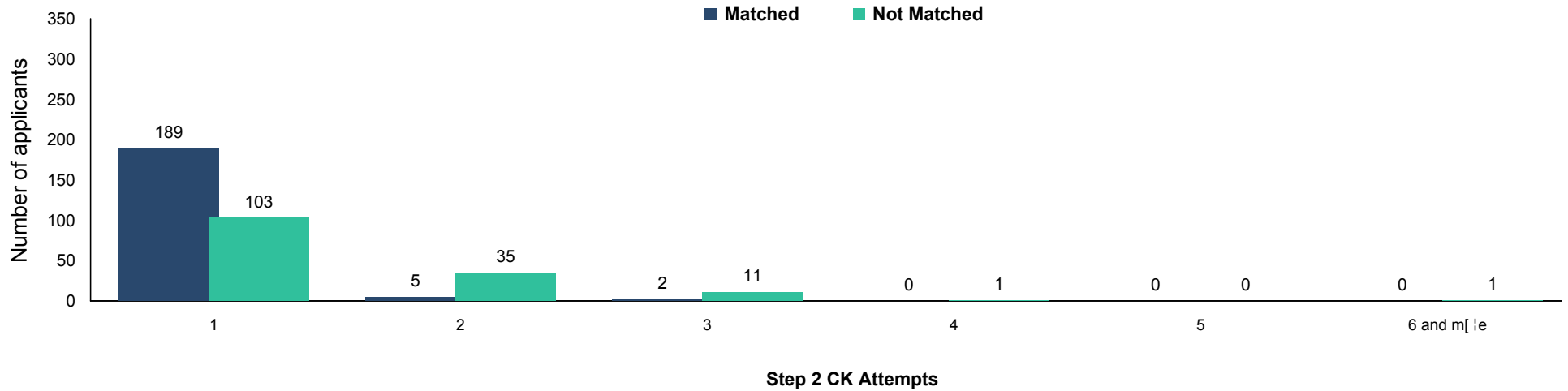


Source: NRMP Data Warehouse and ECFMG.

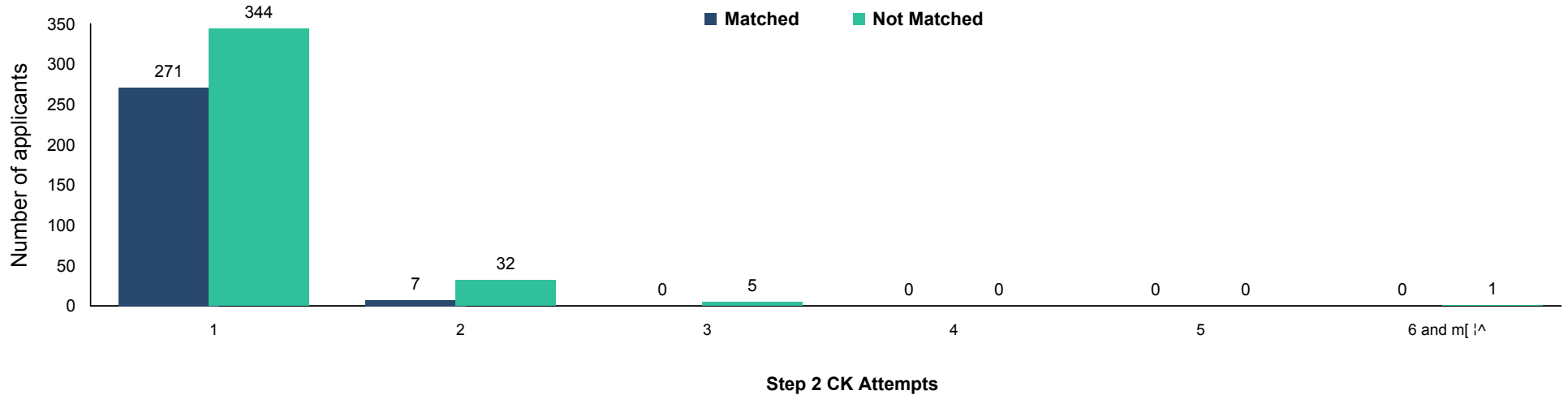


**USMLE Step 2 CK (Clinical Knowledge) Attempts\*  
Pediatrics**

**U.S. IMG**



**Non-U.S. IMG**

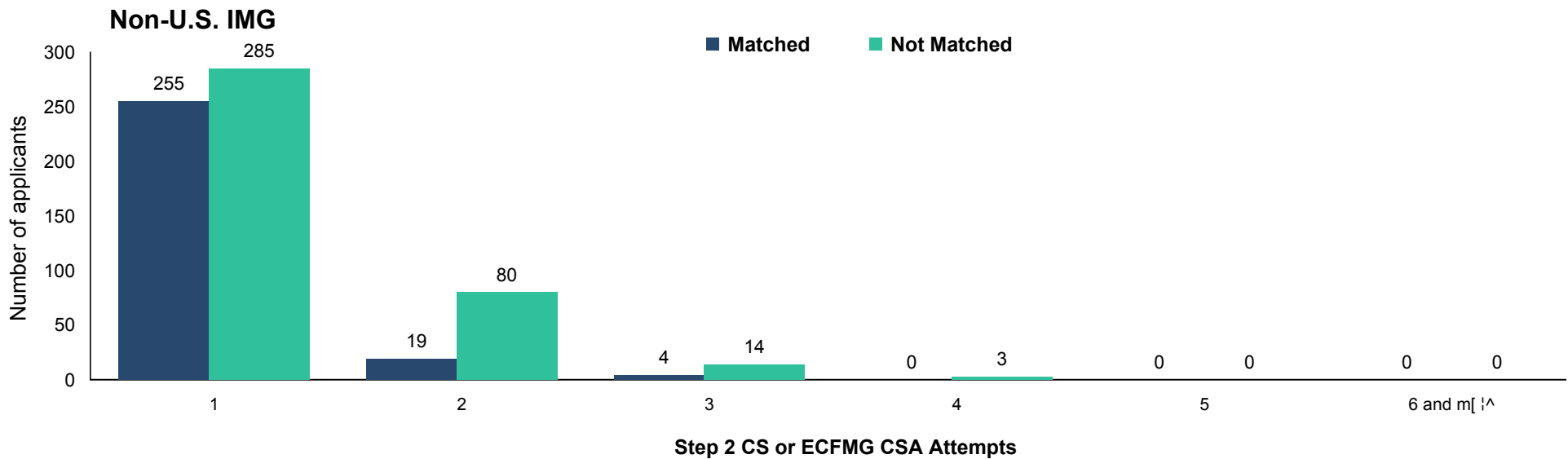
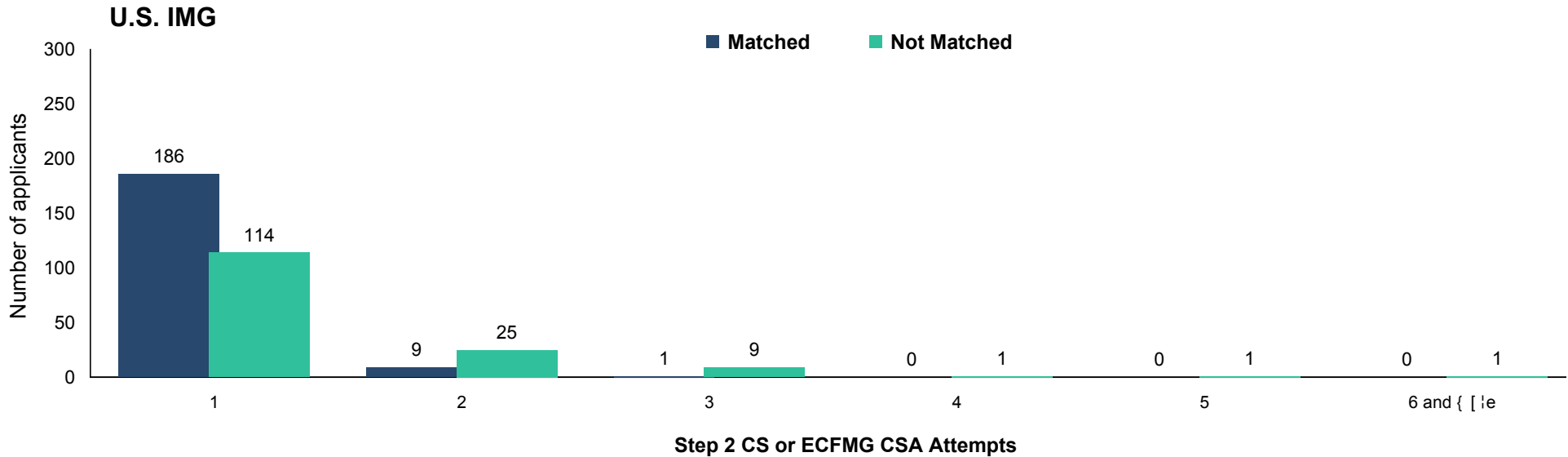


Source: NRMP Data Warehouse and ECFMG.

\*USMLE Step 2 CK or equivalent examination

**Chart  
PD-7**

**Attempts at USMLE Step 2 CS (Clinical Skills) or ECFMG CSA (Clinical Skills Assessment)  
Pediatrics**

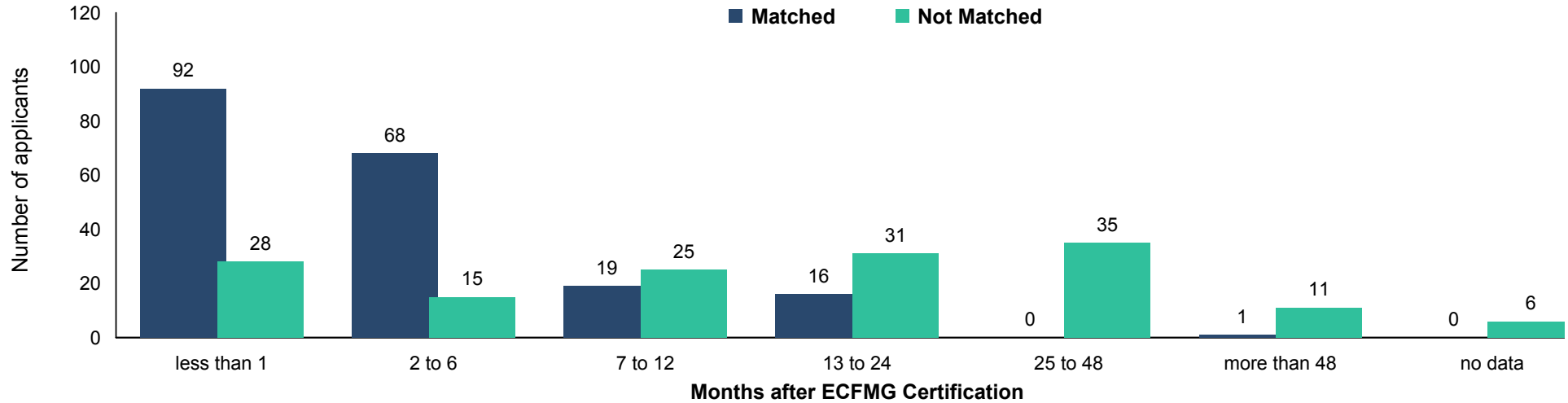


Source: NRMP Data Warehouse and ECFMG.

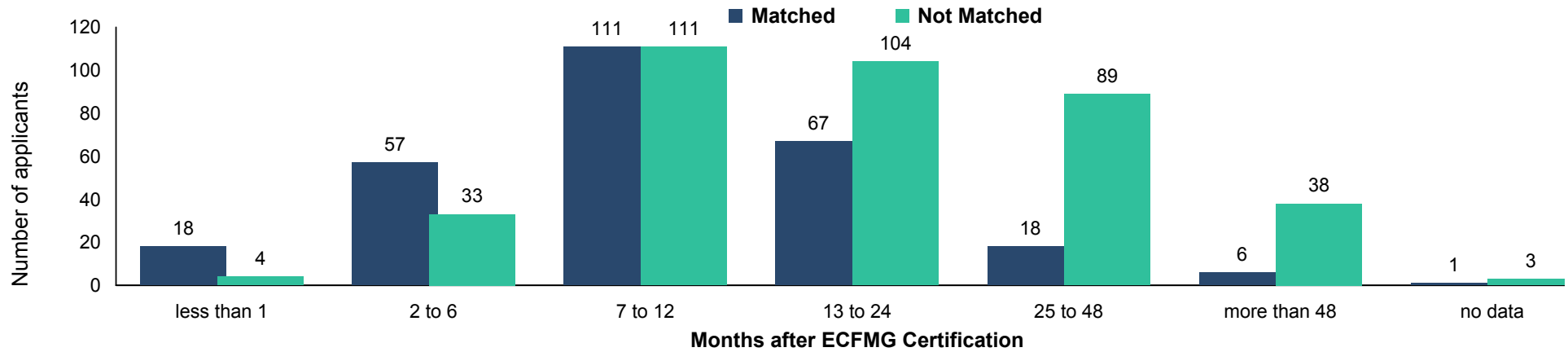
**Chart  
PD-8**

**Number of Months After ECFMG Certification  
Pediatrics**

**U.S. IMG**



**Non-U.S. IMG**

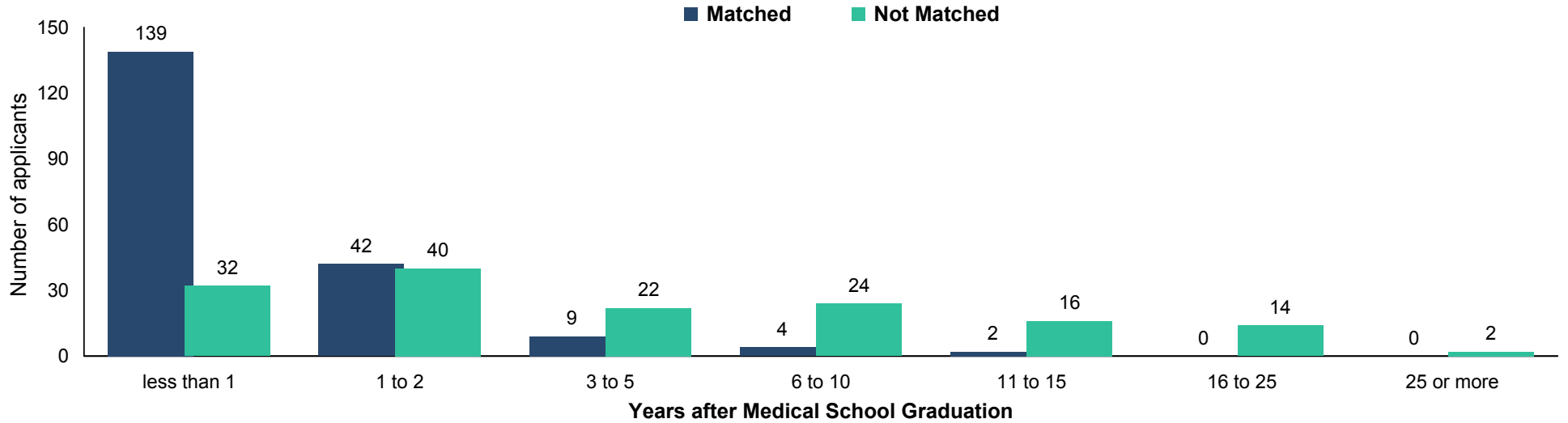


Source: NRMP Data Warehouse and ECFMG

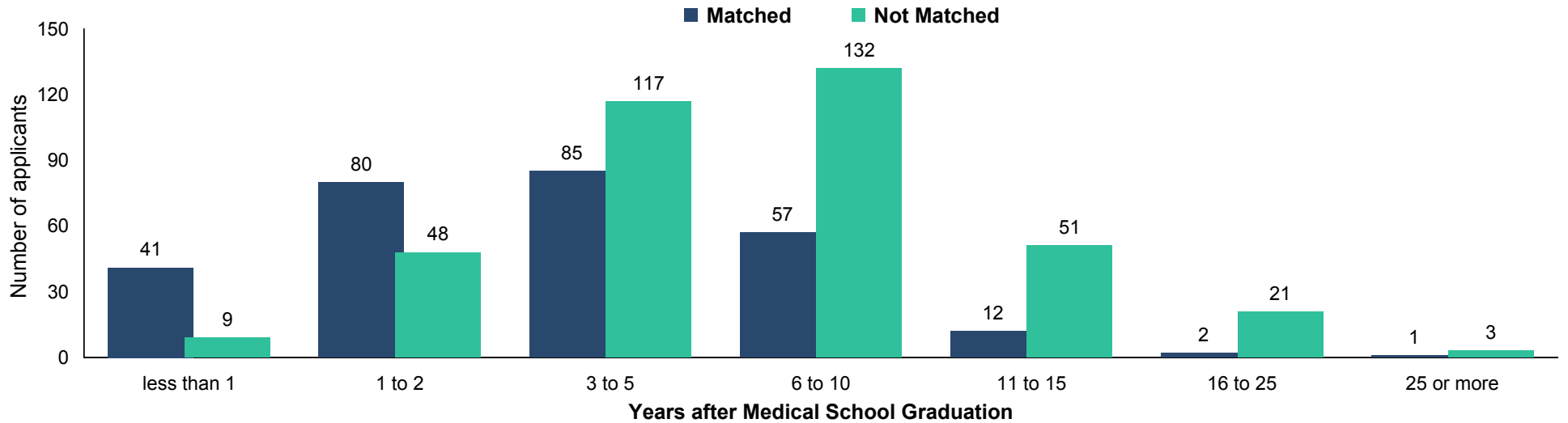
**Chart  
PD-9**

**Number of Years After Medical School Graduation  
Pediatrics**

**U.S. IMG**



**Non-U.S. IMG**

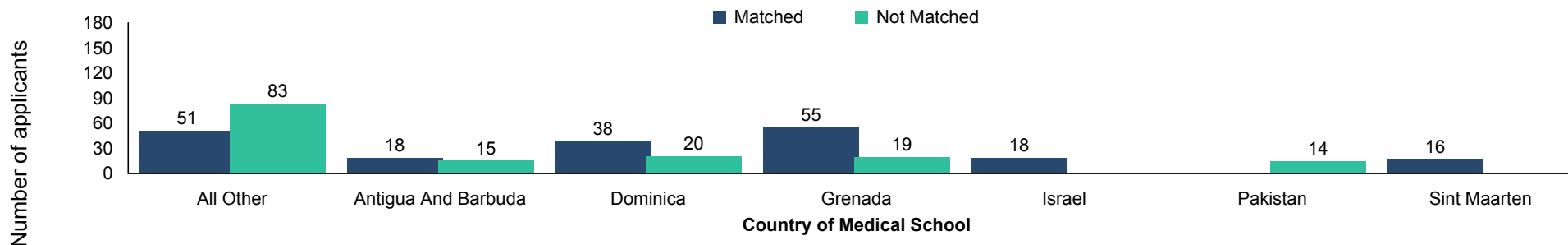


Source: NRMP Data Warehouse and ECFMG

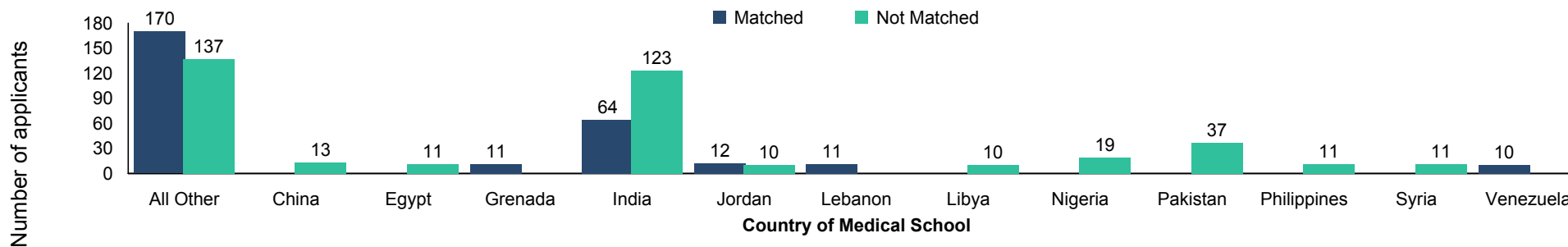
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**Country of Medical School  
Pediatrics**

**U.S. IMG**



**Non-U.S. IMG**



Source: NRMP Data Warehouse and ECFMG

Note: A country is included if it has 10 or more applicants for each category

**PM**

**Physical Medicine and Rehabilitation**

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| Measure   | U.S. IMG          |                     | Non-U.S. IMG      |                     |
|---|-------------------|---------------------|-------------------|---------------------|
|   | Matched<br>(n=40) | Unmatched<br>(n=43) | Matched<br>(n=21) | Unmatched<br>(n=26) |
| 1. Mean number of contiguous ranks                    | 8                 | 3                   | 5                 | 2                   |
| 2. Mean number of distinct specialties ranked         | 1.8               | 1.8                 | 1.8               | 1.9                 |
| 3. Mean USMLE Step 1 score                            | 223               | 207                 | 220               | 211                 |
| 4. Mean USMLE Step 1 attempts*                        | 1.1               | 1.3                 | 1.1               | 1.5                 |
| 5. Mean USMLE Step 2 CK score                         | 231               | 212                 | 225               | 210                 |
| 6. Mean USMLE Step 2 CK attempts**                    | 1.1               | 1.5                 | 1.0               | 1.4                 |
| 7. Mean USMLE Step 2 CS or ECFMG CSA attempts         | 1.0               | 1.1                 | 1.1               | 1.3                 |
| 8. Mean number of months since ECFMG certification    | 7                 | 13                  | 23                | 36                  |
| 9. Mean number of years since graduation              | 1.4               | 1.8                 | 7.3               | 11.3                |
| 10. Percentage who speak English as a native language | 83                | 74                  | 38                | 12                  |

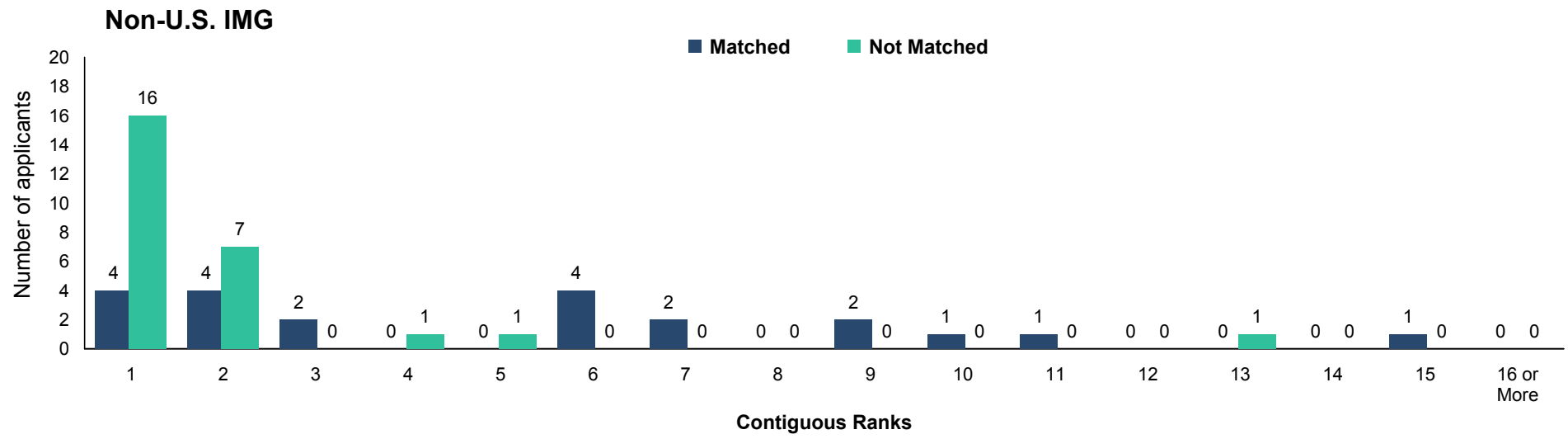
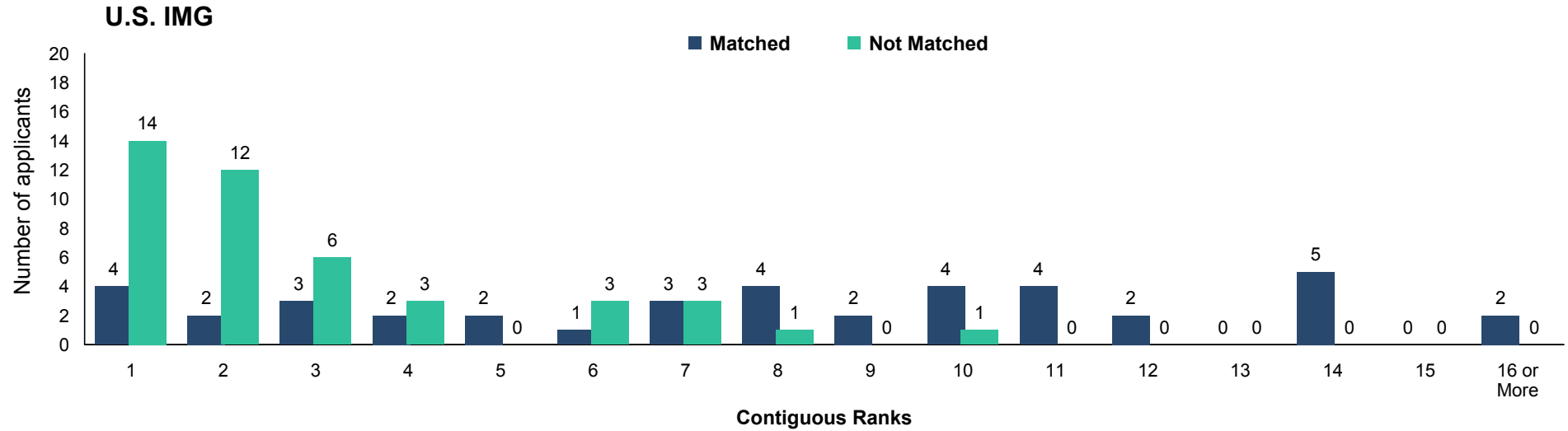
Sources: NRMP Data Warehouse and ECFMG

\*USMLE Step 1 or equivalent examination

\*\*USMLE Step 2 CK or equivalent examination

**Chart  
PM-1**

**Number of Contiguous Ranks Within Preferred Specialty  
*Physical Medicine and Rehabilitation***



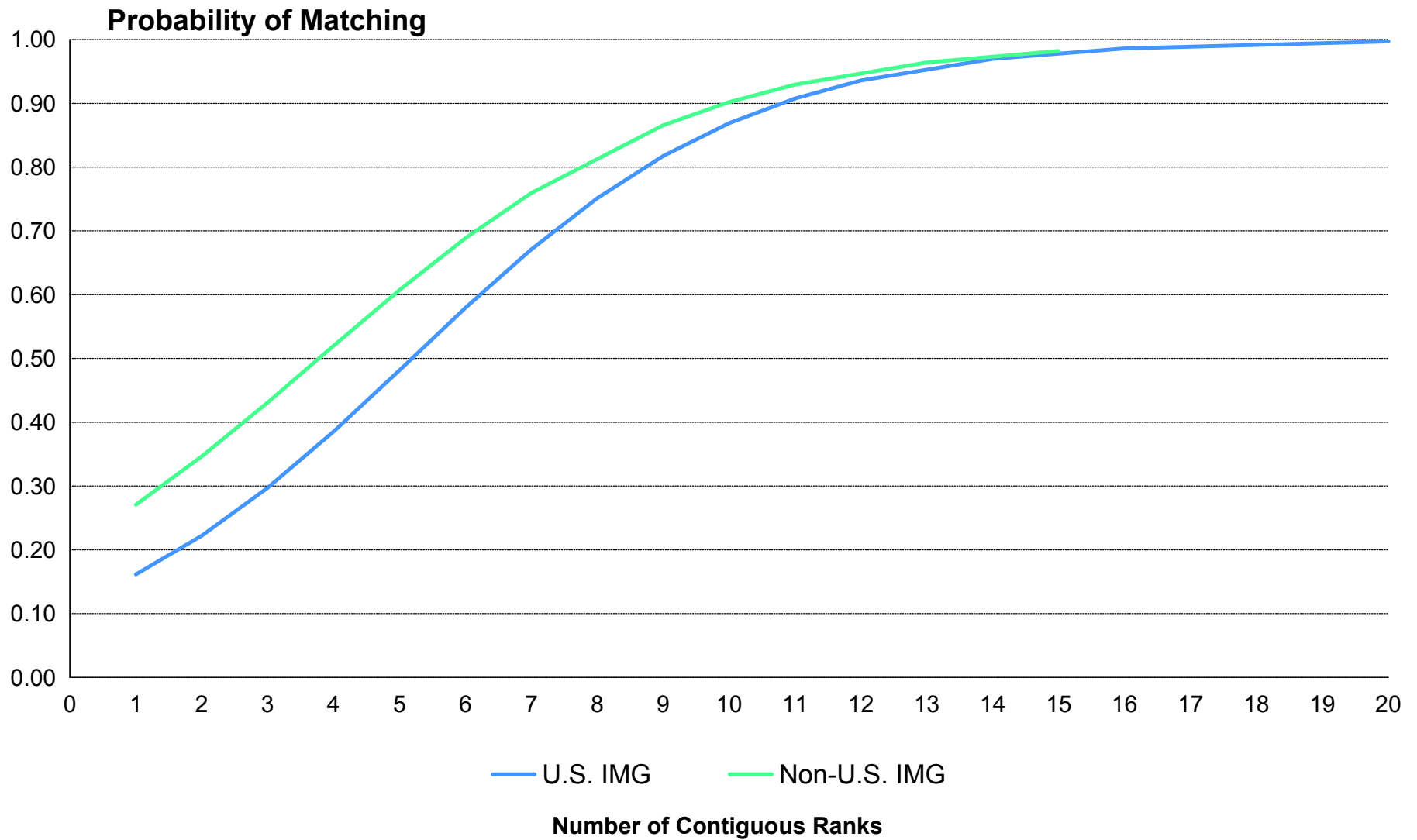
Source: NRMP Data Warehouse

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**Graph  
PM-1**

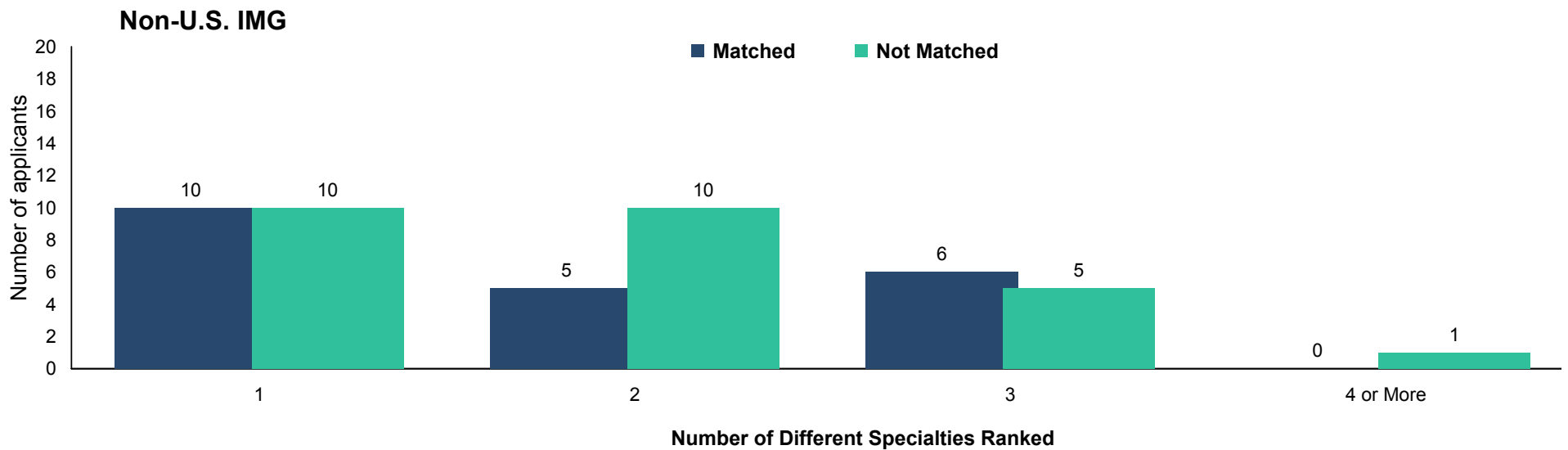
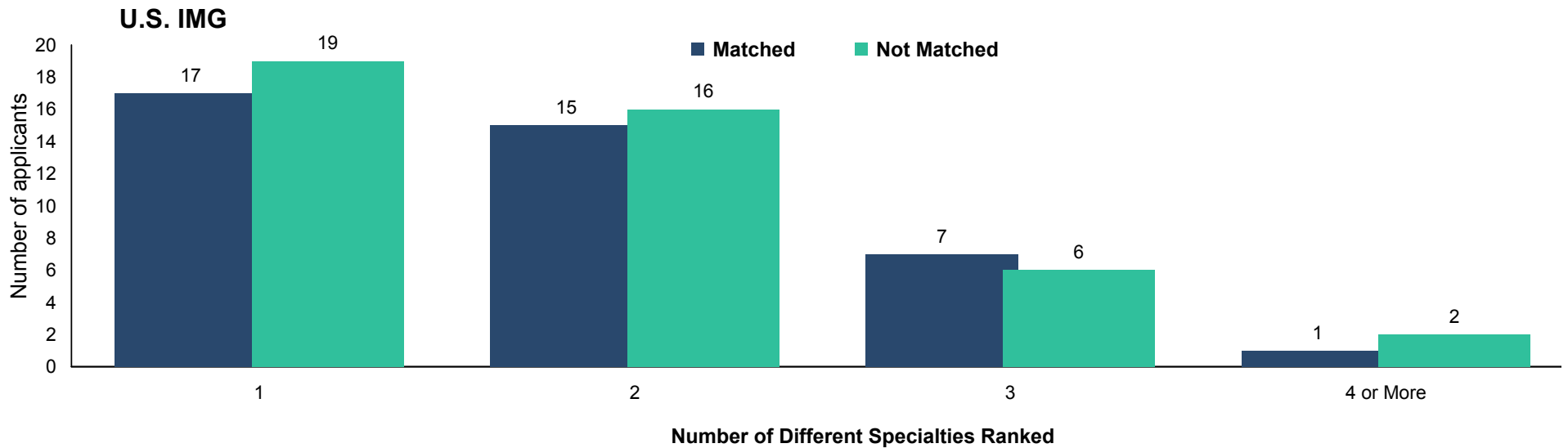
**Probability of Matching to Preferred Specialty by Number of Contiguous Ranks**  
*Physical Medicine and Rehabilitation*



Source: NRMP Data Warehouse.

**Chart  
PM-2**

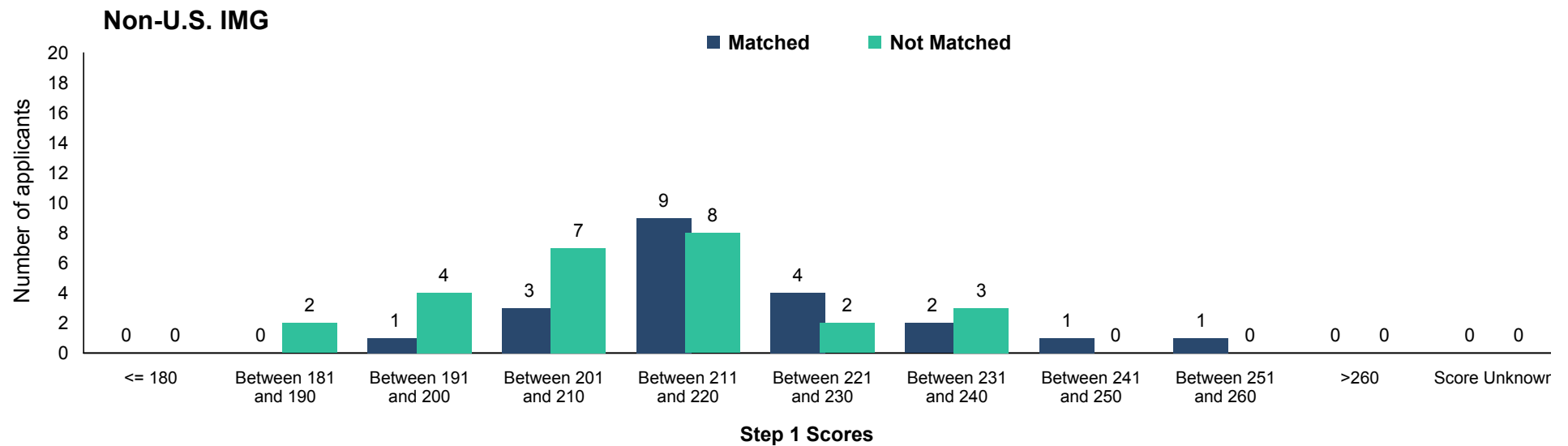
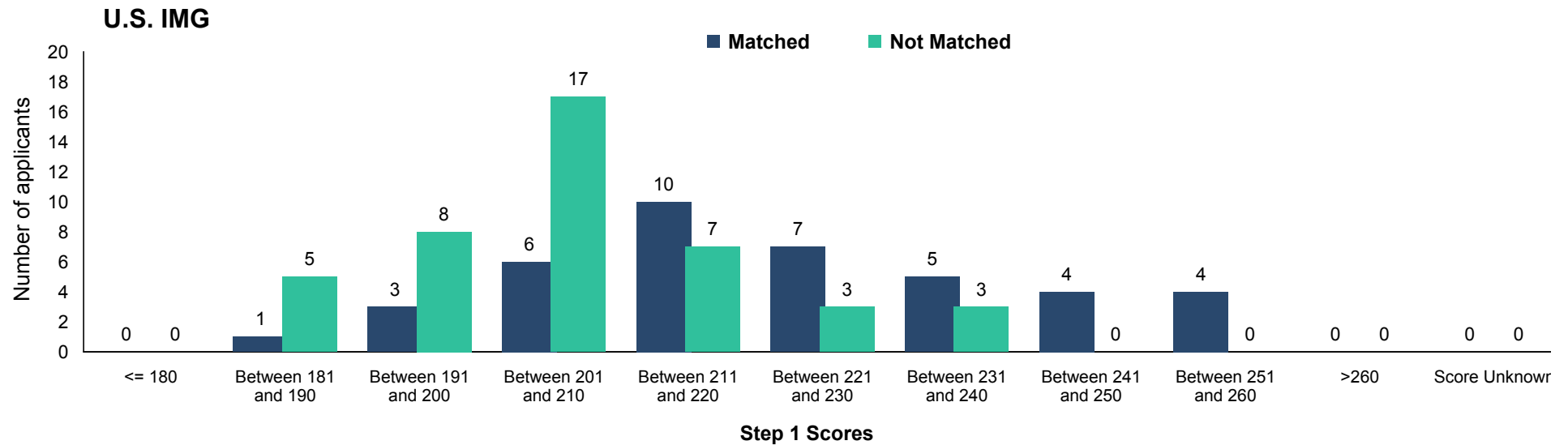
**Number of Applicants Ranking Different Specialties**  
*Physical Medicine and Rehabilitation*



Source: NRMP Data Warehouse

**Chart  
PM-3**

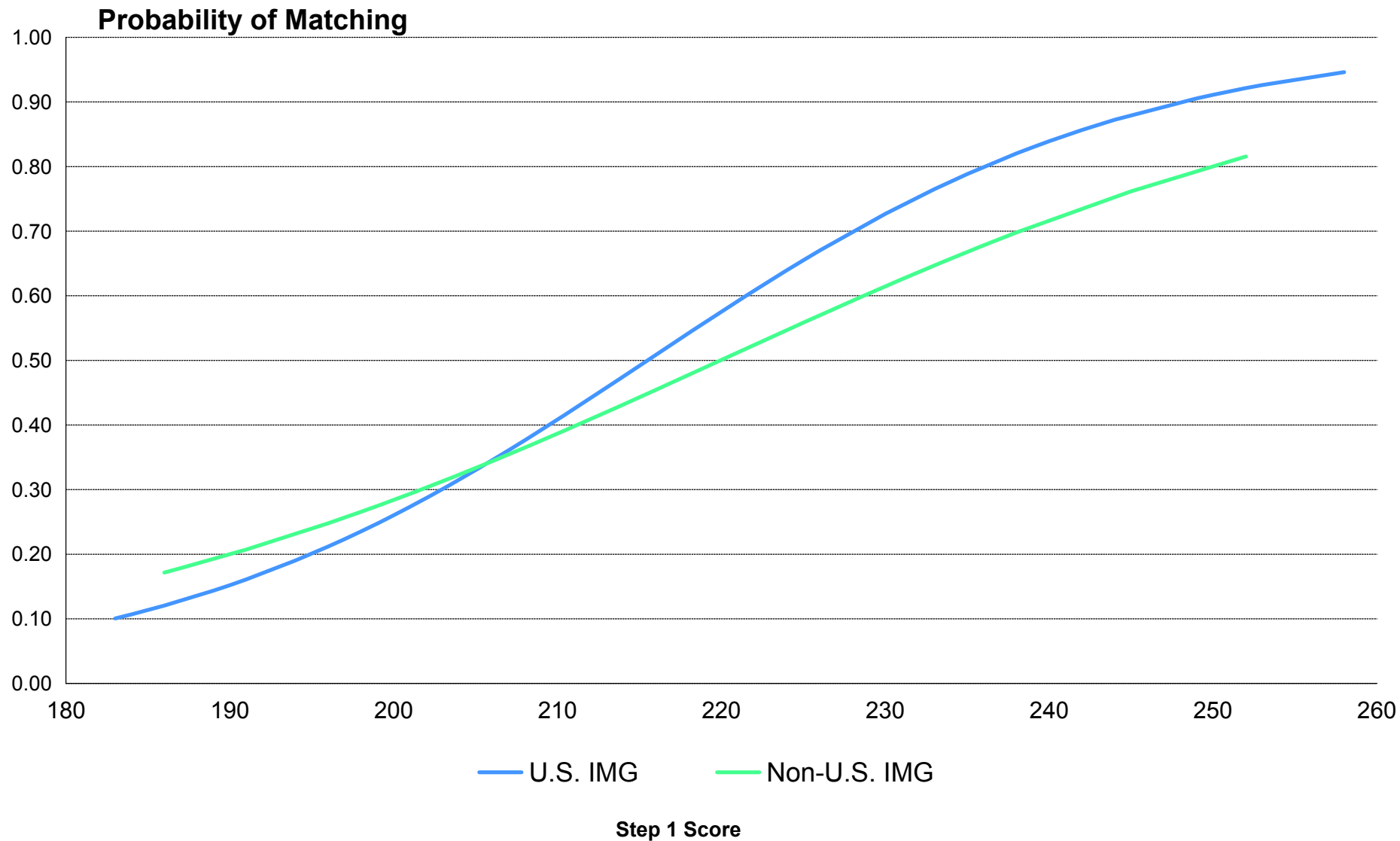
**USMLE Step 1 Scores  
Physical Medicine and Rehabilitation**



Source: NRMP Data Warehouse and ECFMG.

**Graph  
PM-2**

**Probability of Matching to Preferred Specialty by USMLE Step 1 Score**  
*Physical Medicine and Rehabilitation*

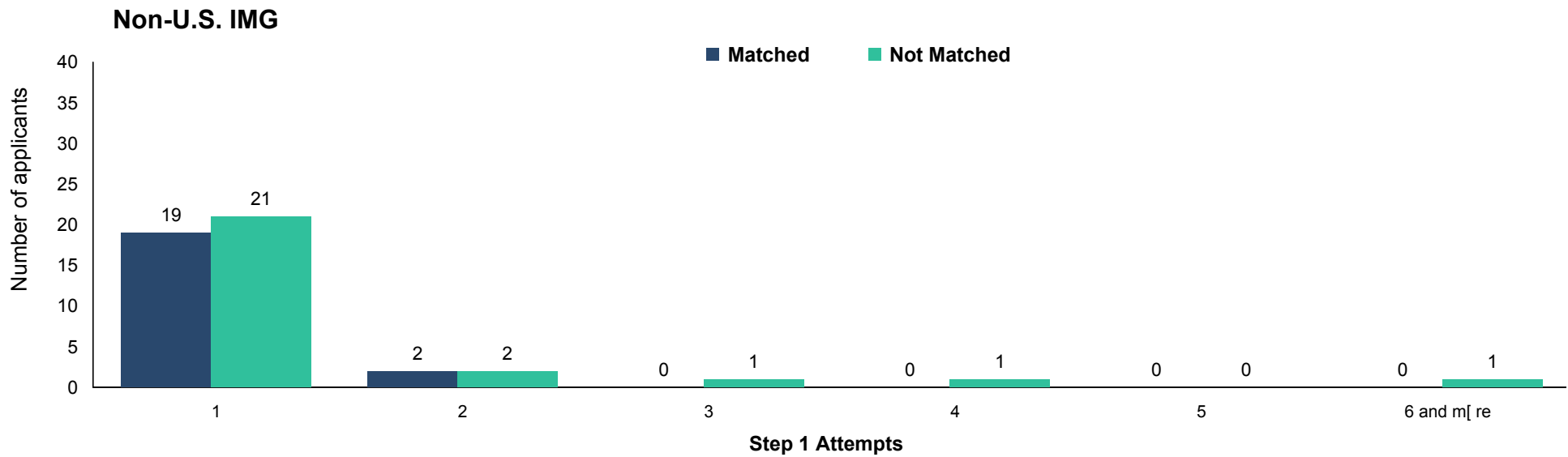
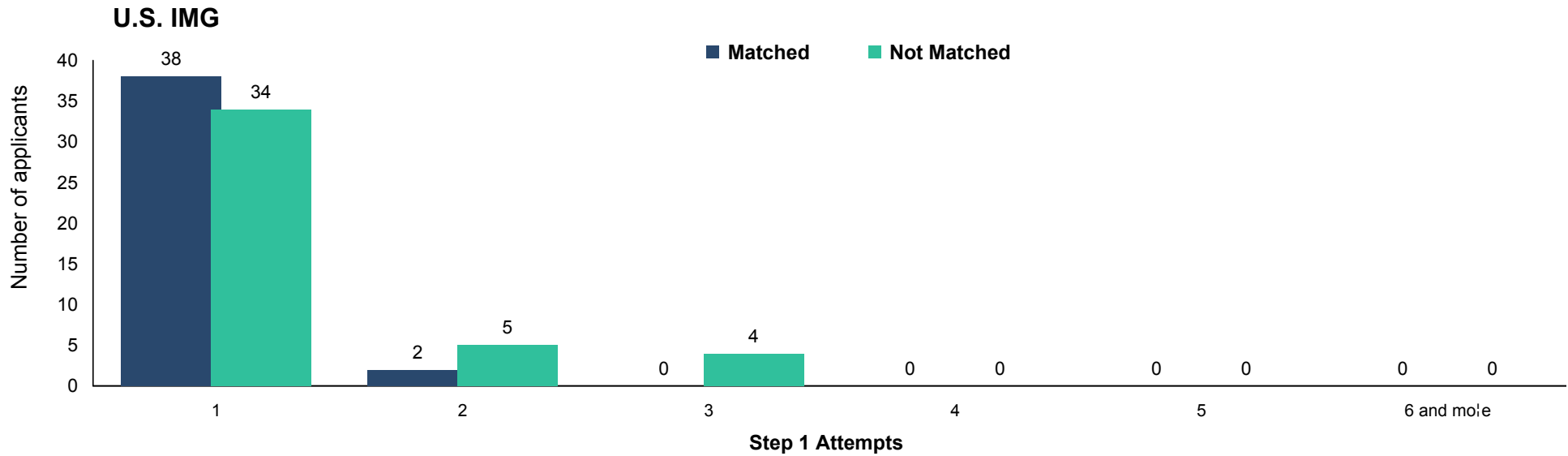


Source: NRMP Data Warehouse and ECFMG.

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**Chart  
PM-4**

**USMLE Step 1 Attempts\***  
*Physical Medicine and Rehabilitation*

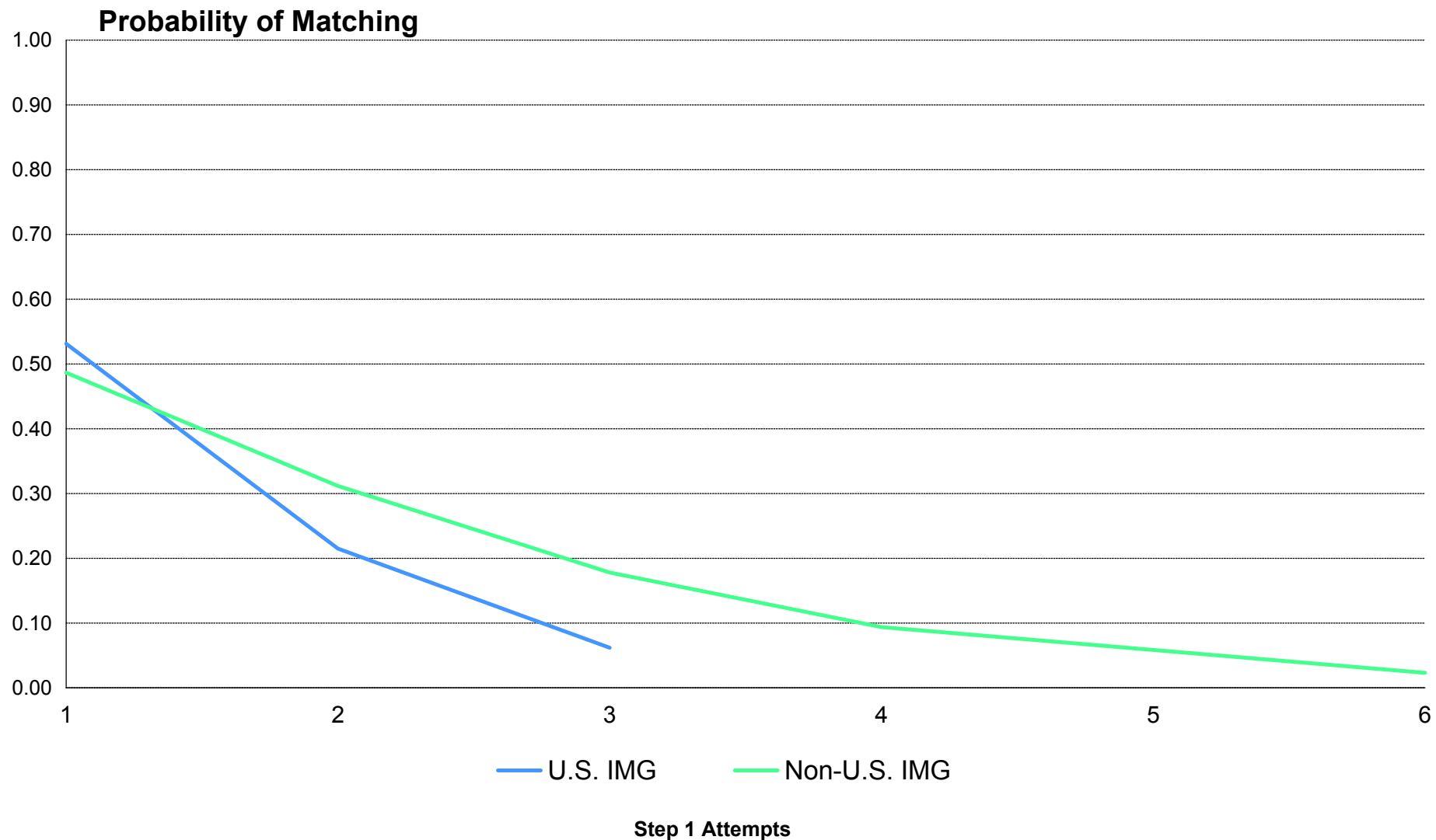


Source: NRMP Data Warehouse and ECFMG.

\*USMLE Step 1 or equivalent examination

**Graph  
PM-3**

**Probability of Matching to Preferred Specialty by Number of Step 1 Attempts\***  
*Physical Medicine and Rehabilitation*

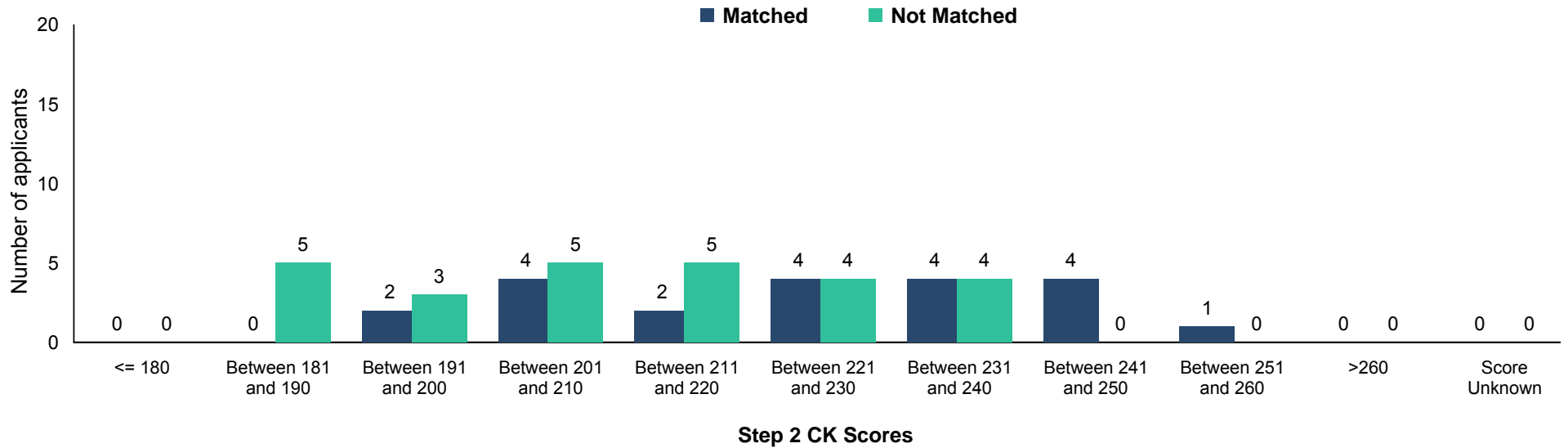
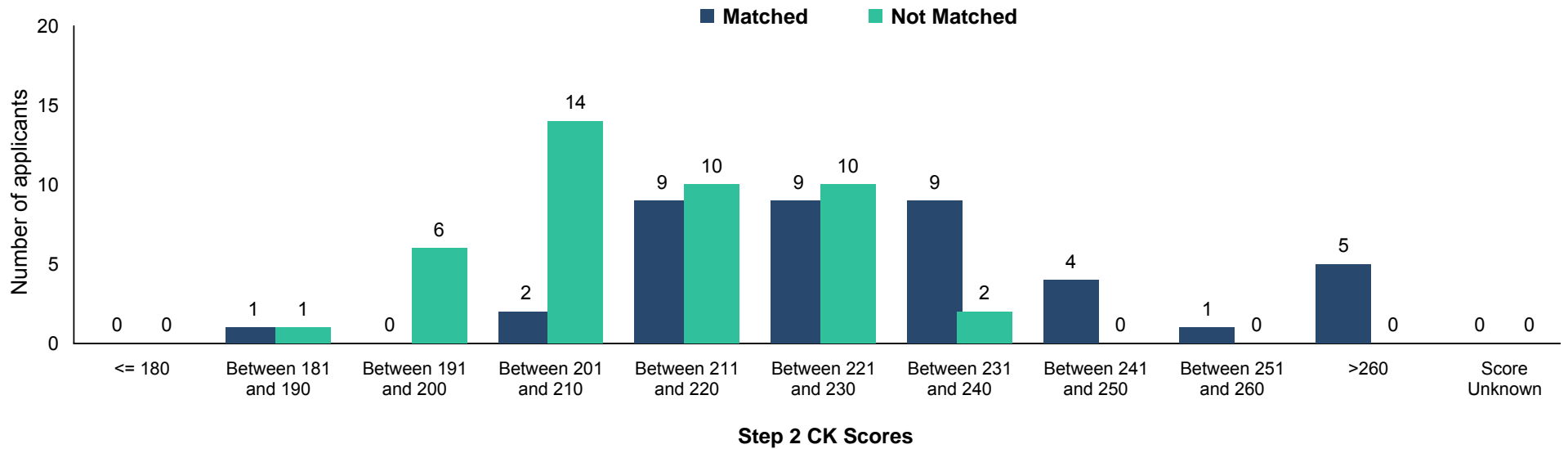


Source: NRMP Data Warehouse and ECFMG.

\*USMLE Step 1 or equivalent examination

**Chart  
PM-5**

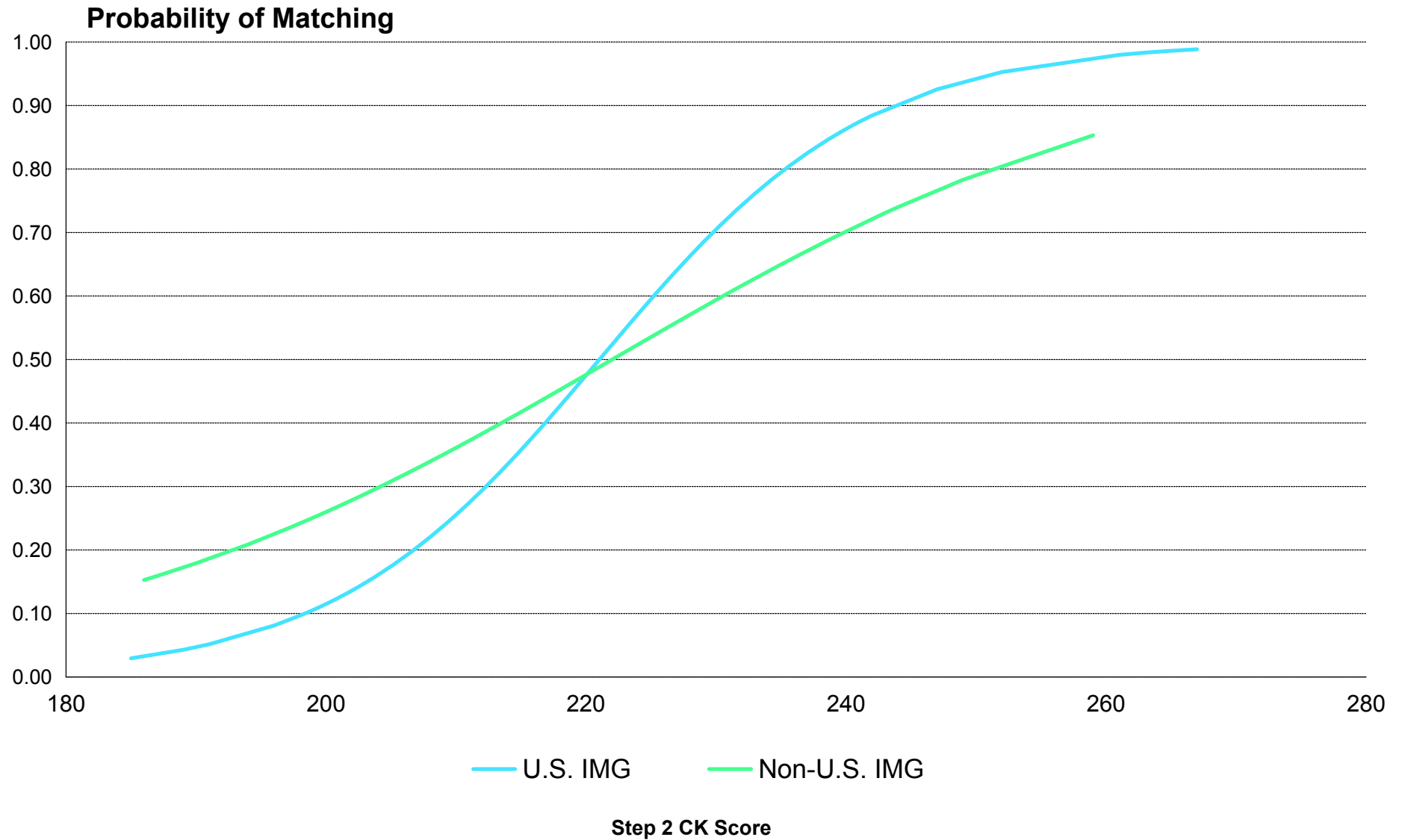
**USMLE Step 2 CK (Clinical Knowledge) Scores  
Physical Medicine and Rehabilitation**



Source: NRMP Data Warehouse and ECFMG.

# Probability of Matching to Preferred Specialty by USMLE Step 2 CK (Clinical Knowledge) Score

## Physical Medicine and Rehabilitation



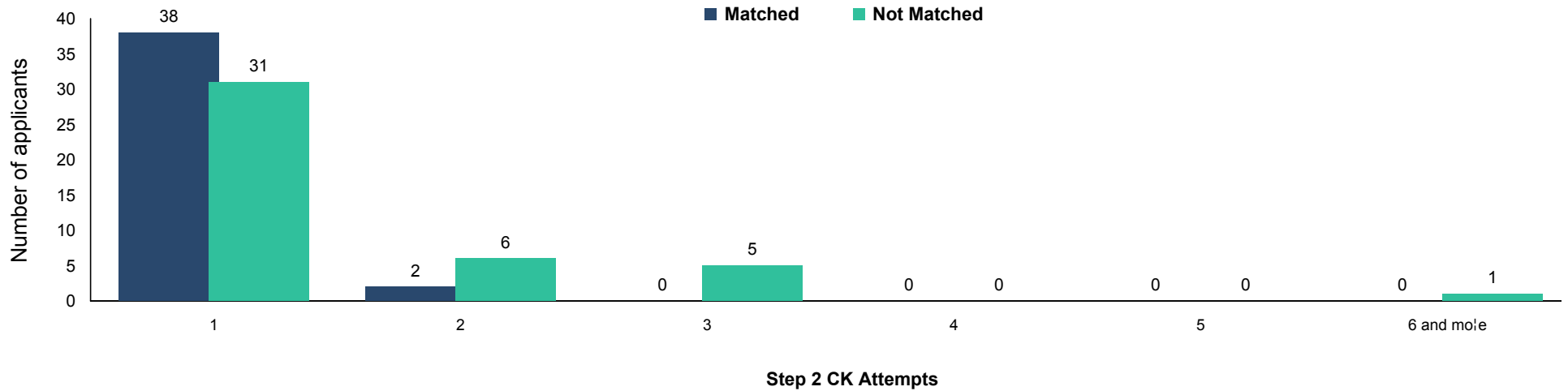
Source: NRMP Data Warehouse and ECFMG.



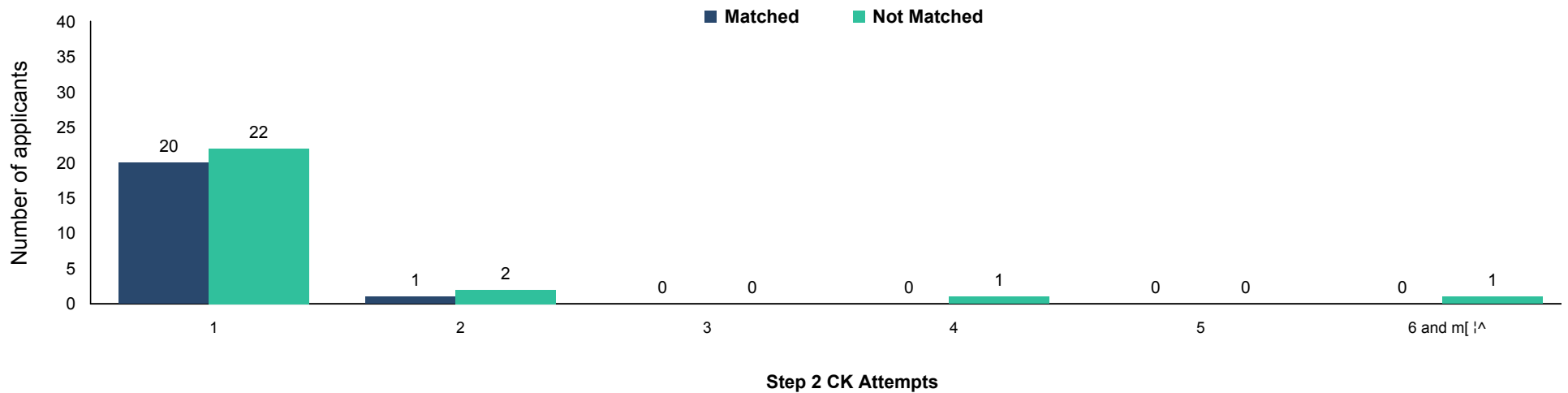
**Chart  
PM-6**

**USMLE Step 2 CK (Clinical Knowledge) Attempts\***  
*Physical Medicine and Rehabilitation*

**U.S. IMG**



**Non-U.S. IMG**

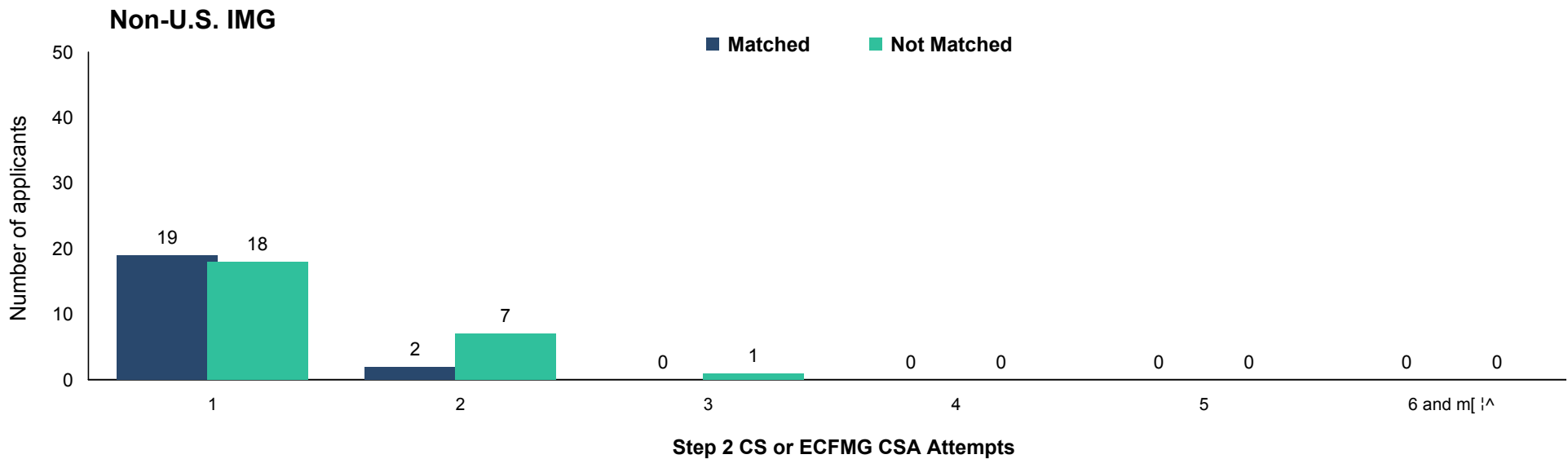
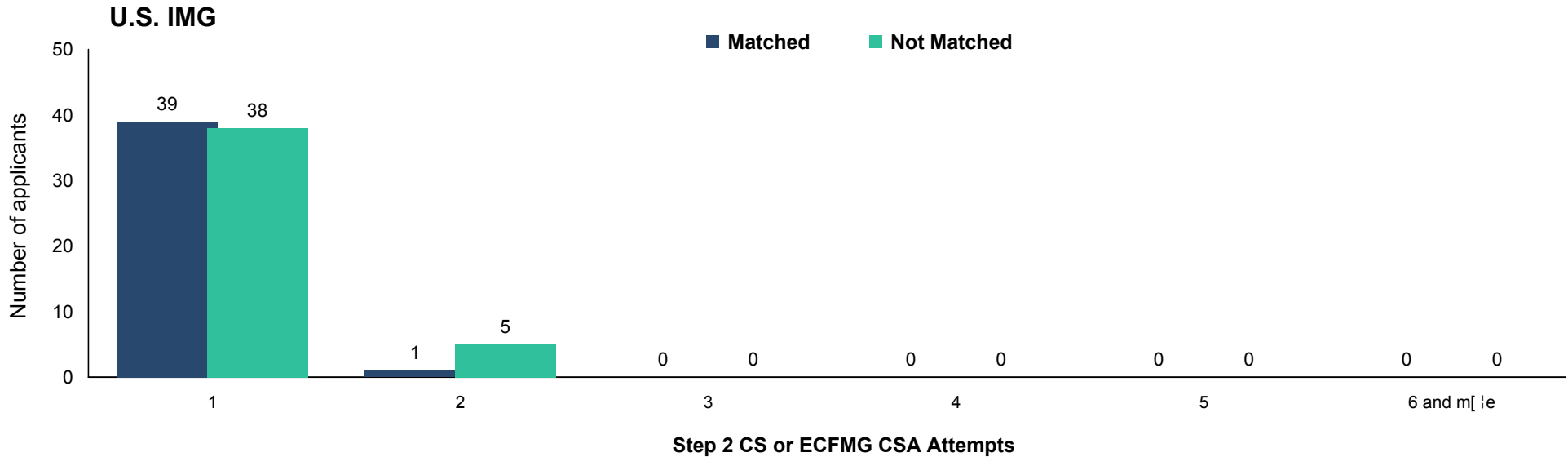


Source: NRMP Data Warehouse and ECFMG.

\*USMLE Step 2 CK or equivalent examination

**Chart  
PM-7**

**Attempts at USMLE Step 2 CS (Clinical Skills) or ECFMG CSA (Clinical Skills Assessment)  
Physical Medicine and Rehabilitation**

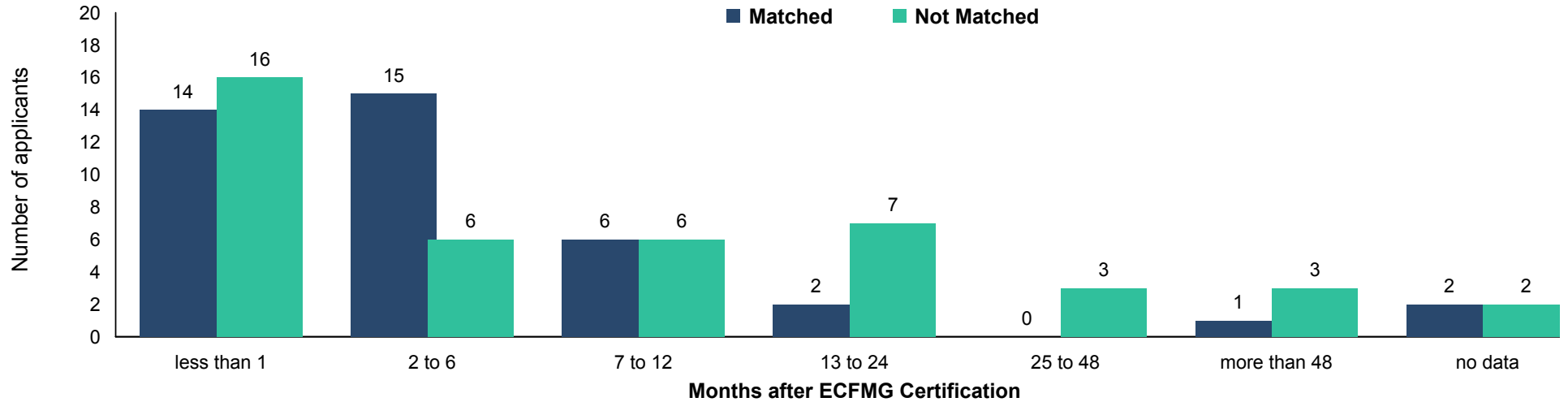


Source: NRMP Data Warehouse and ECFMG.

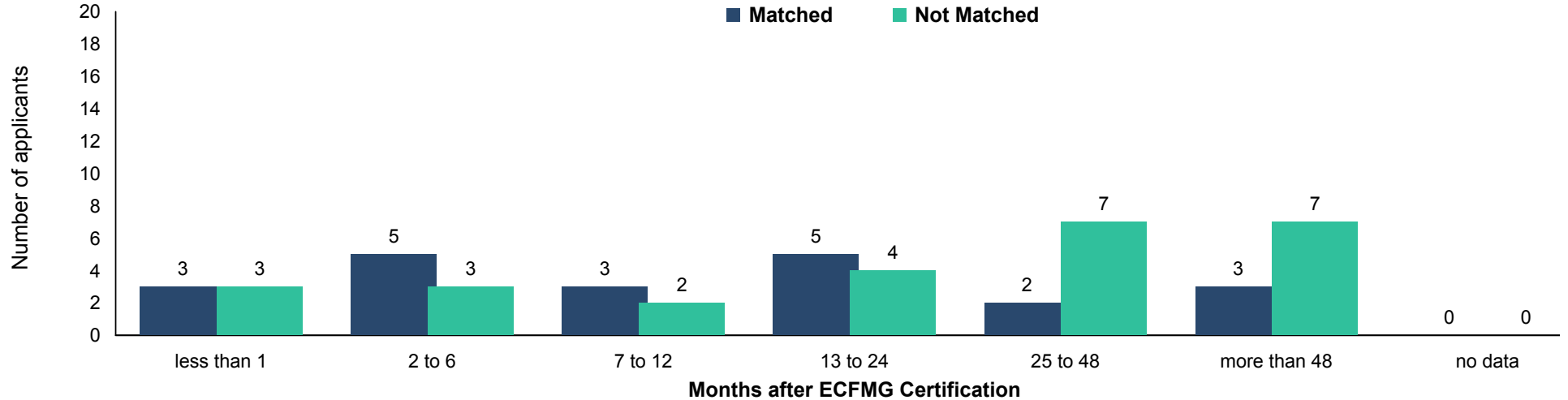
**Chart  
PM-8**

**Number of Months After ECFMG Certification  
Physical Medicine and Rehabilitation**

**U.S. IMG**



**Non-U.S. IMG**

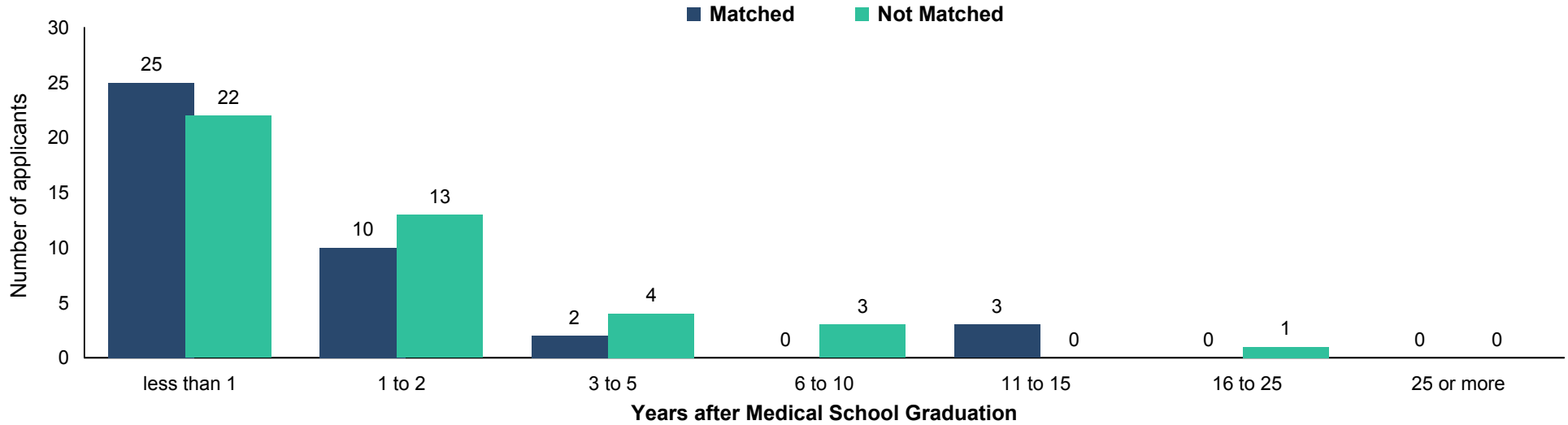


Source: NRMP Data Warehouse and ECFMG

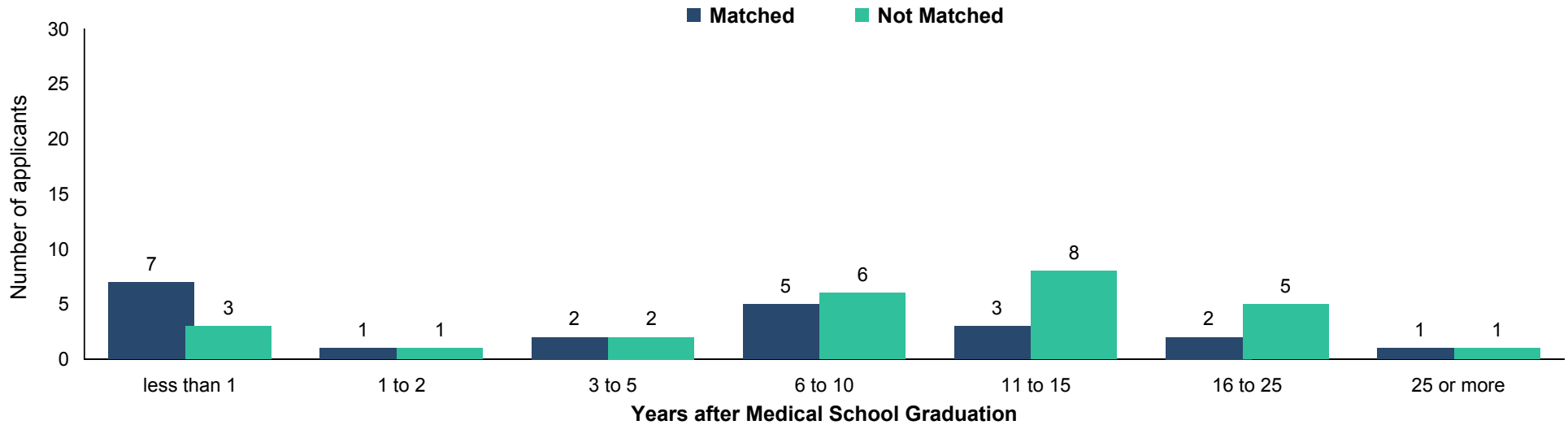
**Chart  
PM-9**

**Number of Years After Medical School Graduation**  
*Physical Medicine and Rehabilitation*

**U.S. IMG**



**Non-U.S. IMG**



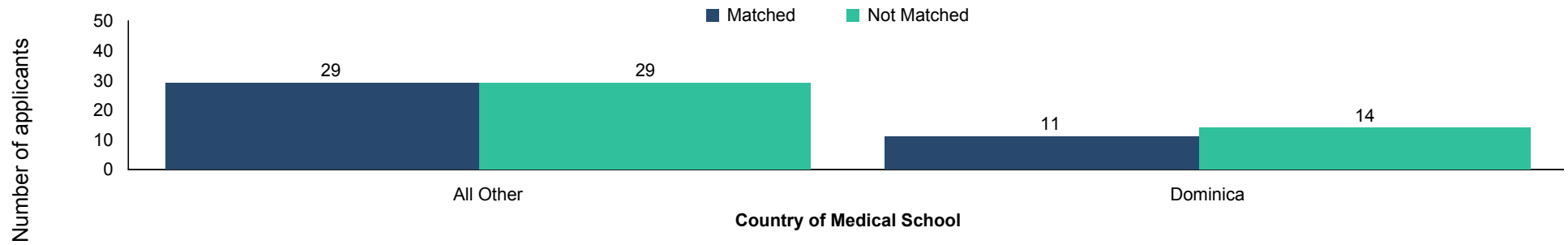
Source: NRMP Data Warehouse and ECFMG

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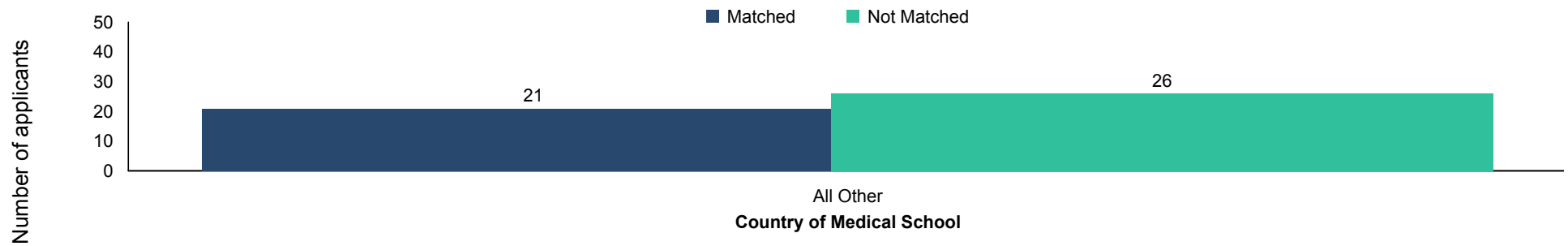
**Chart  
PM-10**

**Country of Medical School**  
*Physical Medicine and Rehabilitation*

**U.S. IMG**



**Non-U.S. IMG**



Source: NRMP Data Warehouse and ECFMG

Note: A country is included if it has 10 or more applicants for each category

**P**

**Psychiatry**

---

| Measure   | U.S. IMG           |                      | Non-U.S. IMG       |                      |
|---|--------------------|----------------------|--------------------|----------------------|
|   | Matched<br>(n=203) | Unmatched<br>(n=256) | Matched<br>(n=163) | Unmatched<br>(n=277) |
| 1. Mean number of contiguous ranks                    | 6                  | 2                    | 5                  | 2                    |
| 2. Mean number of distinct specialties ranked         | 1.4                | 1.4                  | 1.2                | 1.3                  |
| 3. Mean USMLE Step 1 score                            | 205                | 198                  | 214                | 205                  |
| 4. Mean USMLE Step 1 attempts*                        | 1.4                | 2.2                  | 1.2                | 1.4                  |
| 5. Mean USMLE Step 2 CK score                         | 211                | 202                  | 219                | 208                  |
| 6. Mean USMLE Step 2 CK attempts**                    | 1.4                | 1.9                  | 1.1                | 1.3                  |
| 7. Mean USMLE Step 2 CS or ECFMG CSA attempts         | 1.2                | 1.5                  | 1.2                | 1.4                  |
| 8. Mean number of months since ECFMG certification    | 18                 | 41                   | 20                 | 36                   |
| 9. Mean number of years since graduation              | 3.8                | 8.3                  | 6.0                | 9.9                  |
| 10. Percentage who speak English as a native language | 73                 | 49                   | 26                 | 14                   |

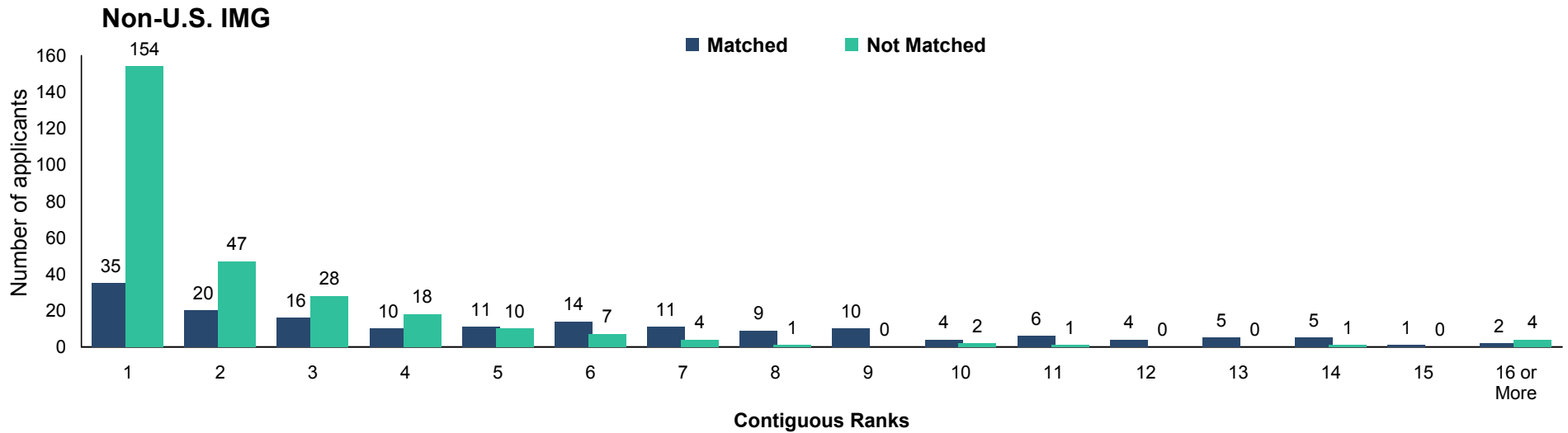
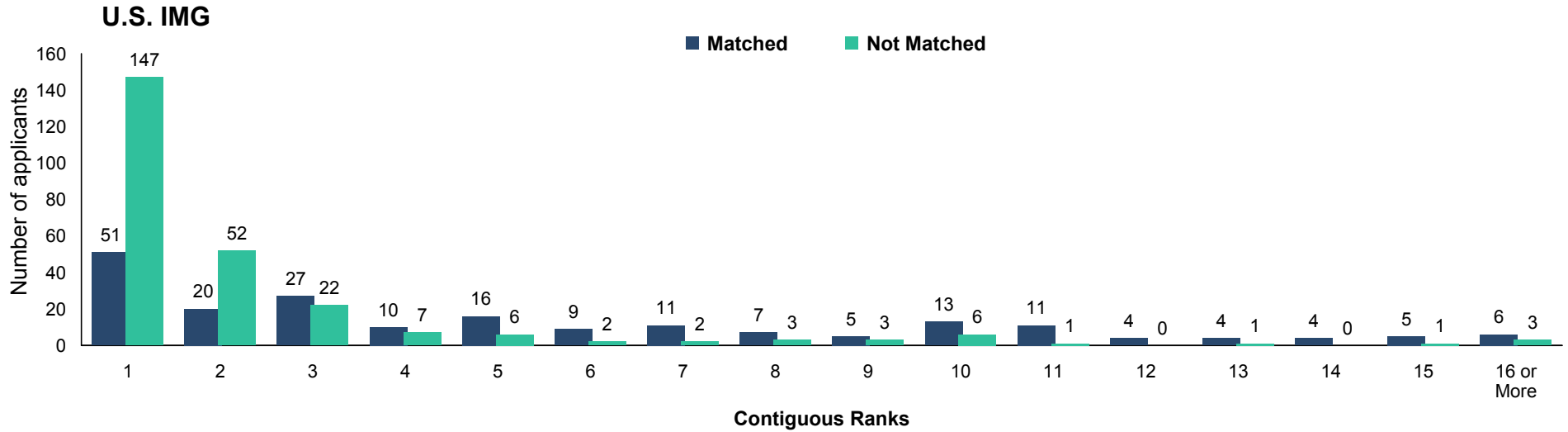
Sources: NRMP Data Warehouse and ECFMG

\*USMLE Step 1 or equivalent examination

\*\*USMLE Step 2 CK or equivalent examination

**Chart  
P-1**

**Number of Contiguous Ranks Within Preferred Specialty  
Psychiatry**

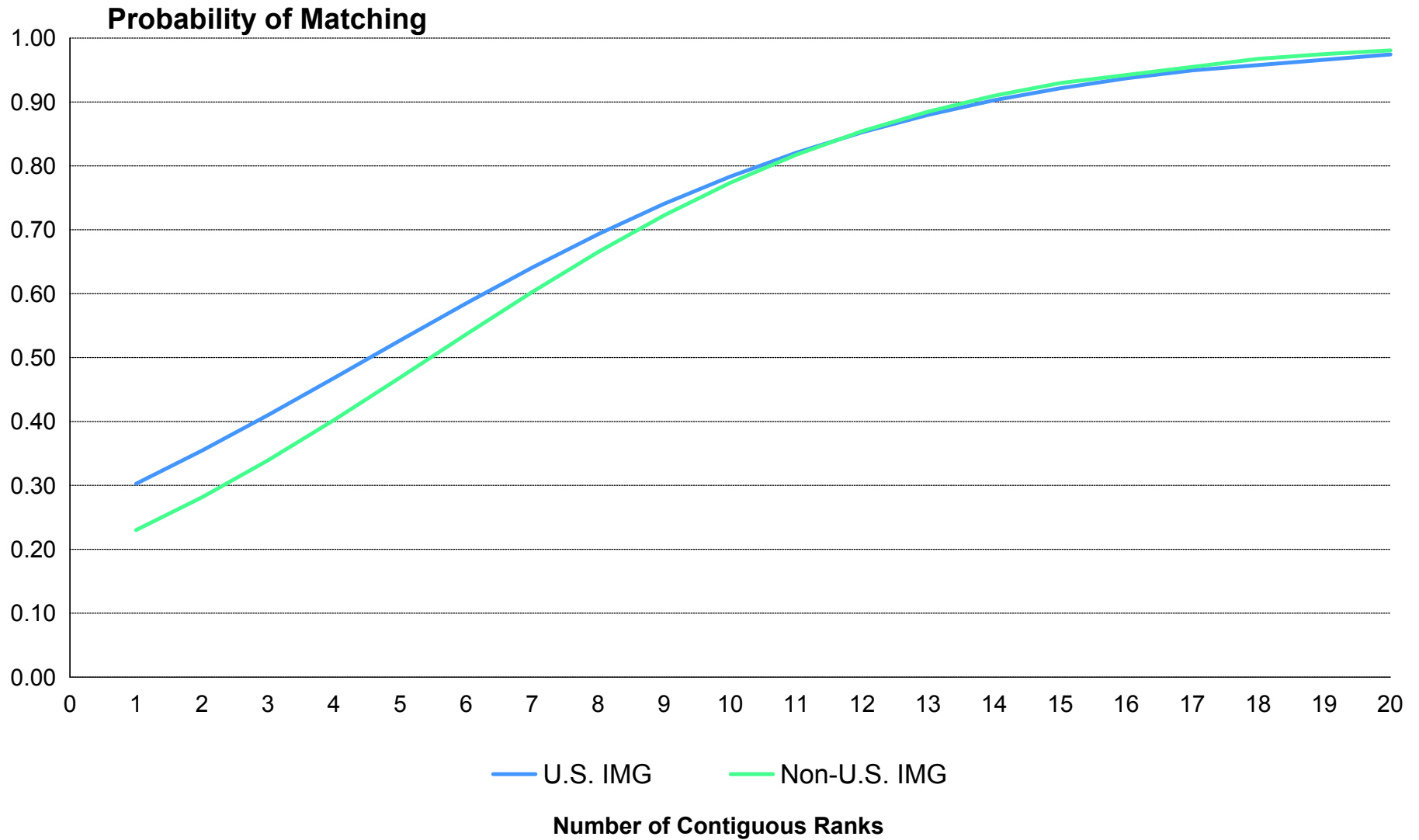


Source: NRMP Data Warehouse



**Graph  
P-1**

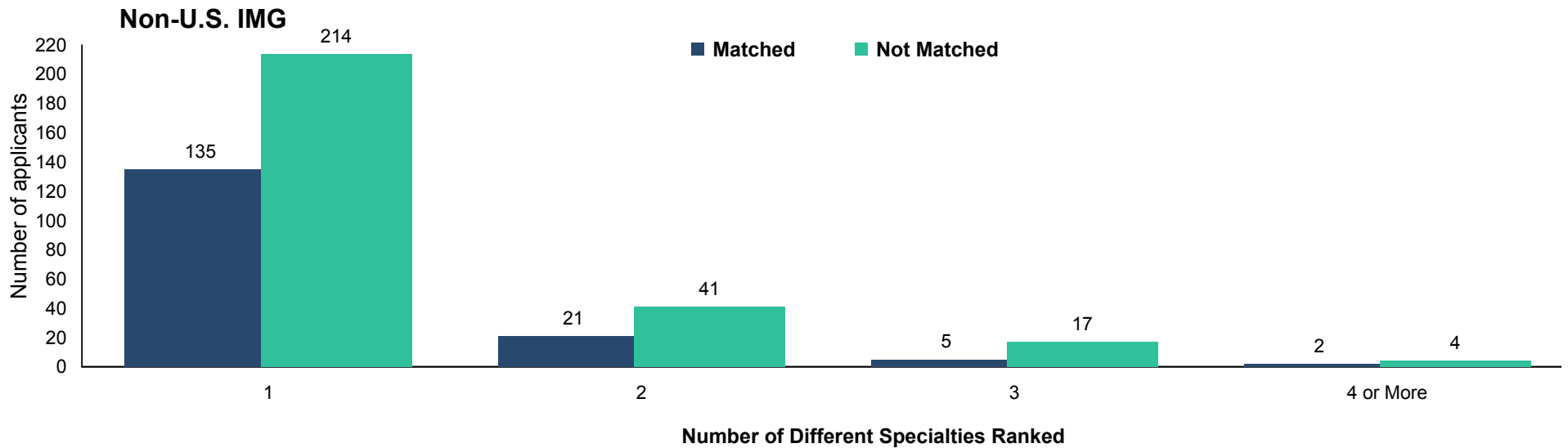
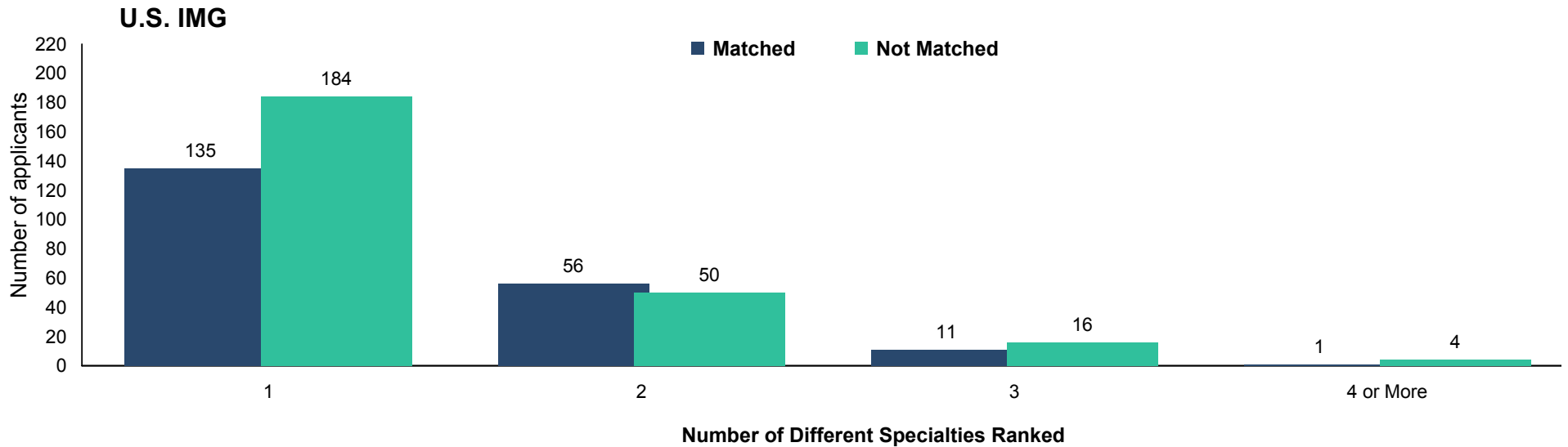
**Probability of Matching to Preferred Specialty by Number of Contiguous Ranks**  
*Psychiatry*



Source: NRMP Data Warehouse.

**Chart  
P-2**

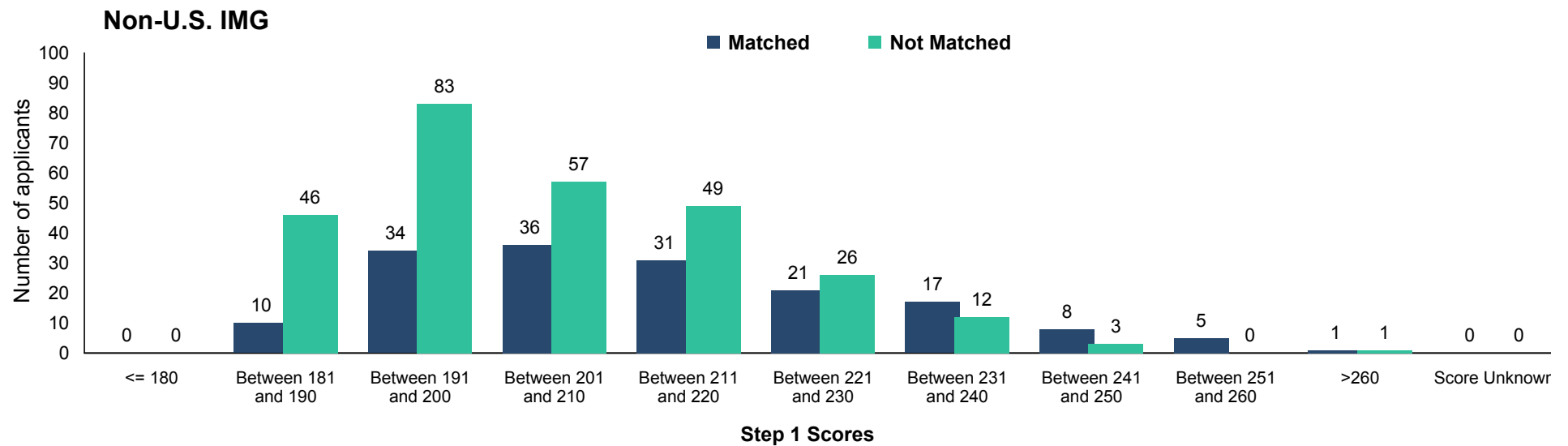
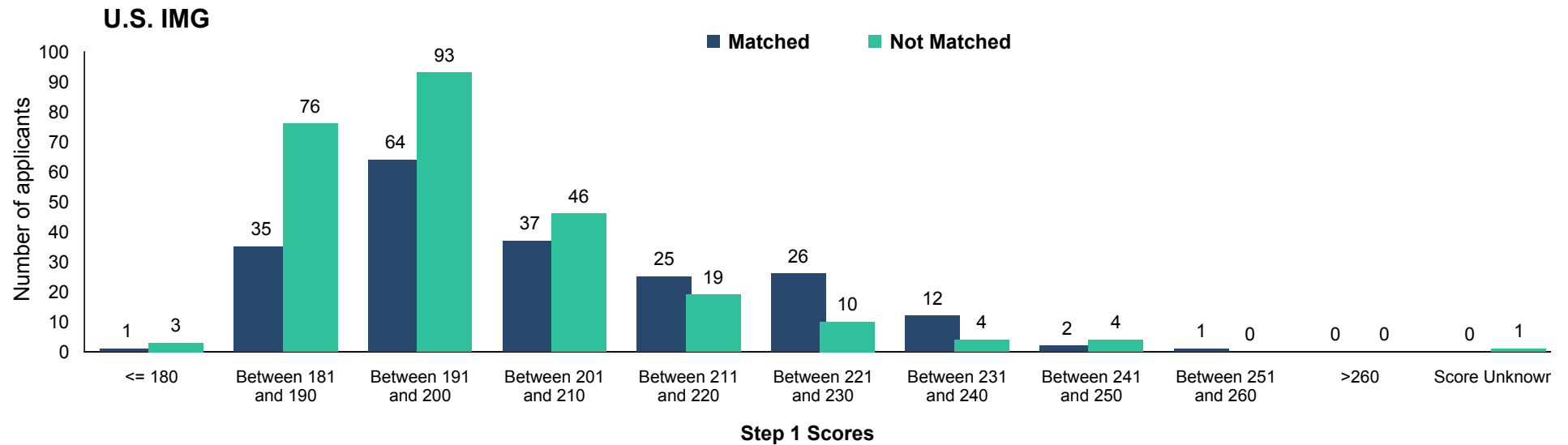
**Number of Applicants Ranking Different Specialties  
Psychiatry**



Source: NRMP Data Warehouse

**Chart  
P-3**

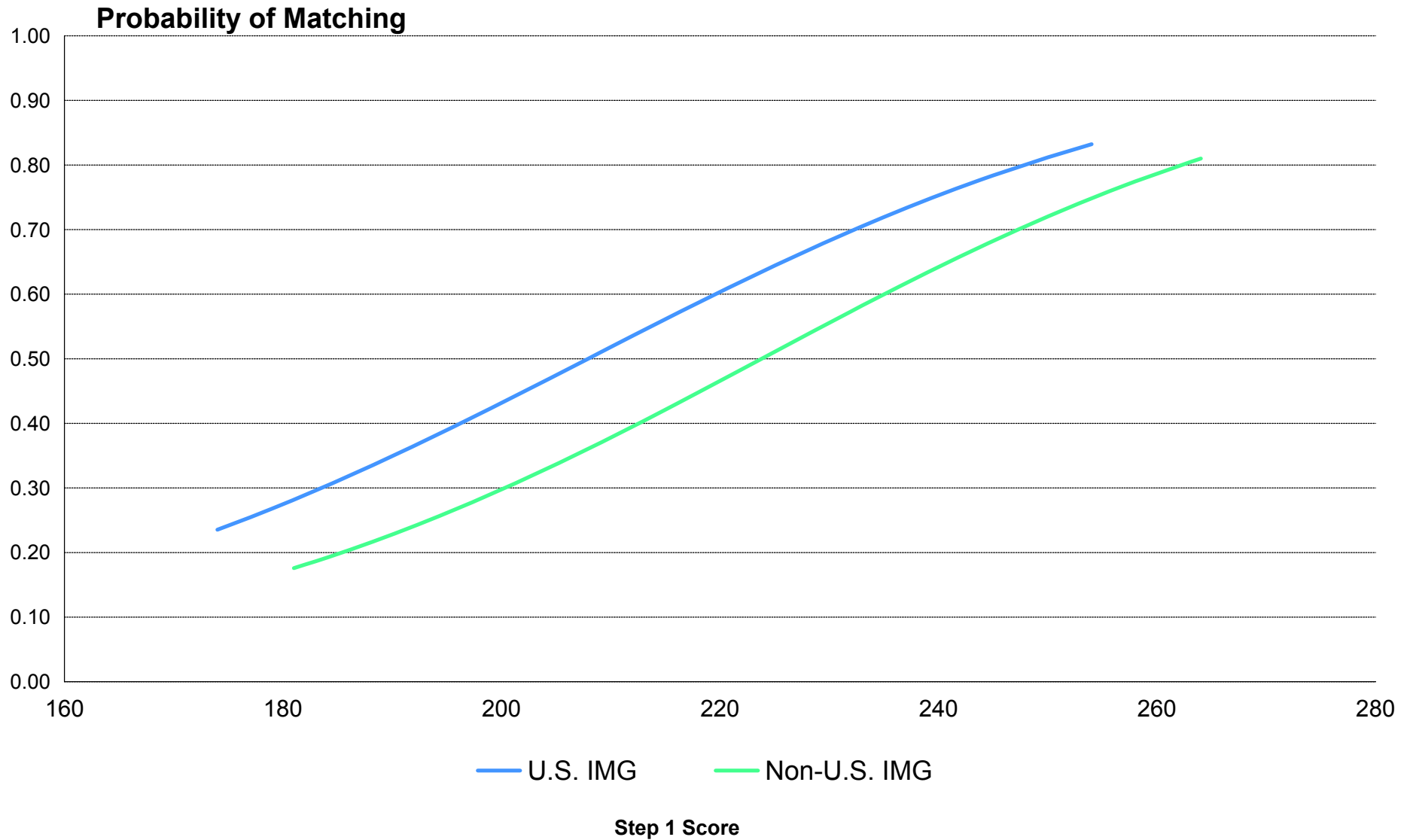
**USMLE Step 1 Scores  
Psychiatry**



Source: NRMP Data Warehouse and ECFMG.

**Graph  
P-2**

**Probability of Matching to Preferred Specialty by USMLE Step 1 Score**  
*Psychiatry*



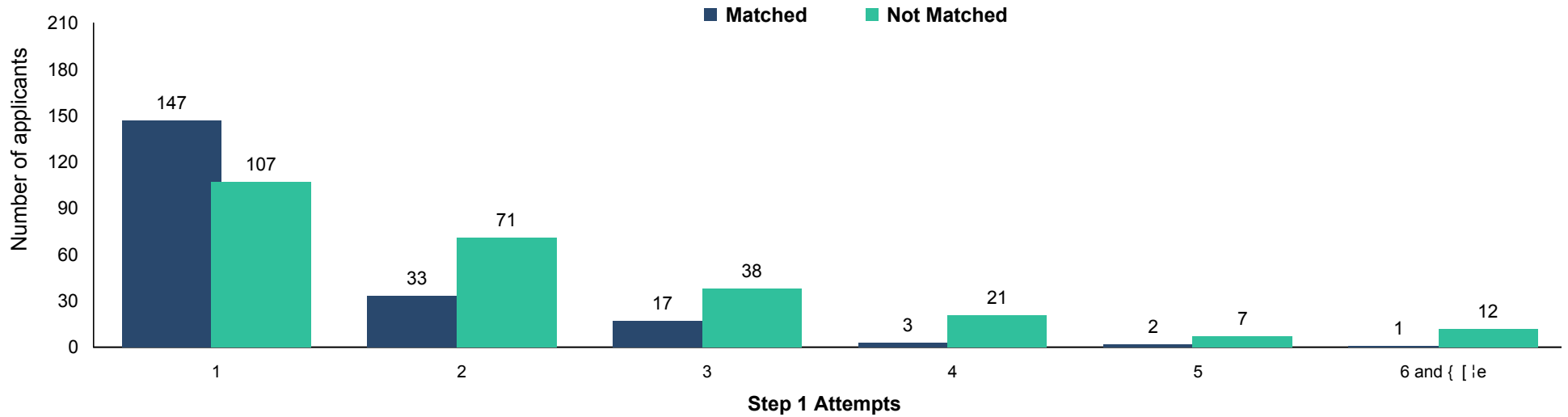
Source: NRMP Data Warehouse and ECFMG.

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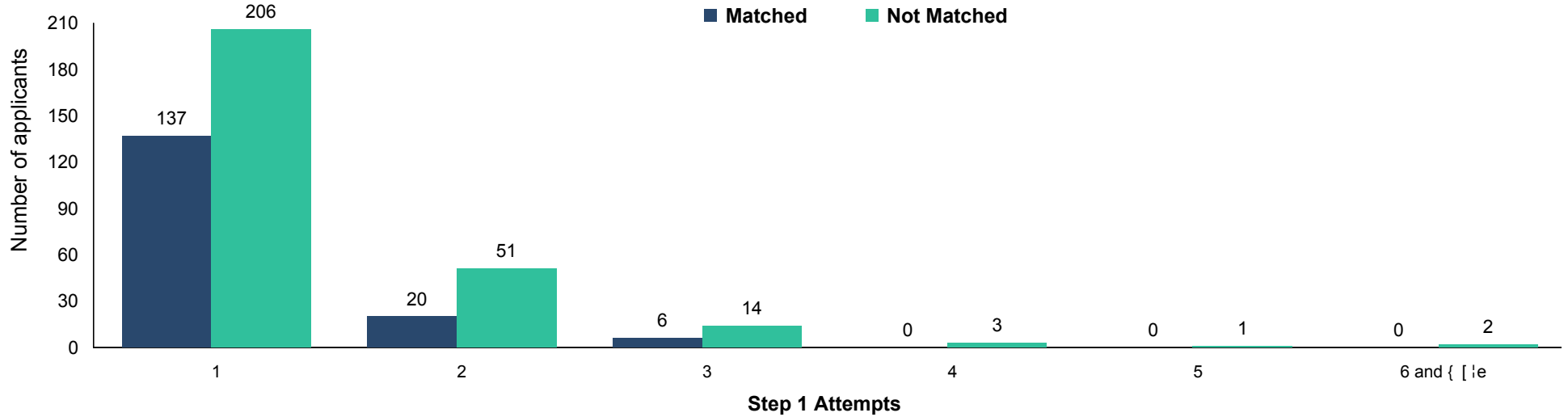
**Chart  
P-4**

**USMLE Step 1 Attempts\*  
Psychiatry**

**U.S. IMG**



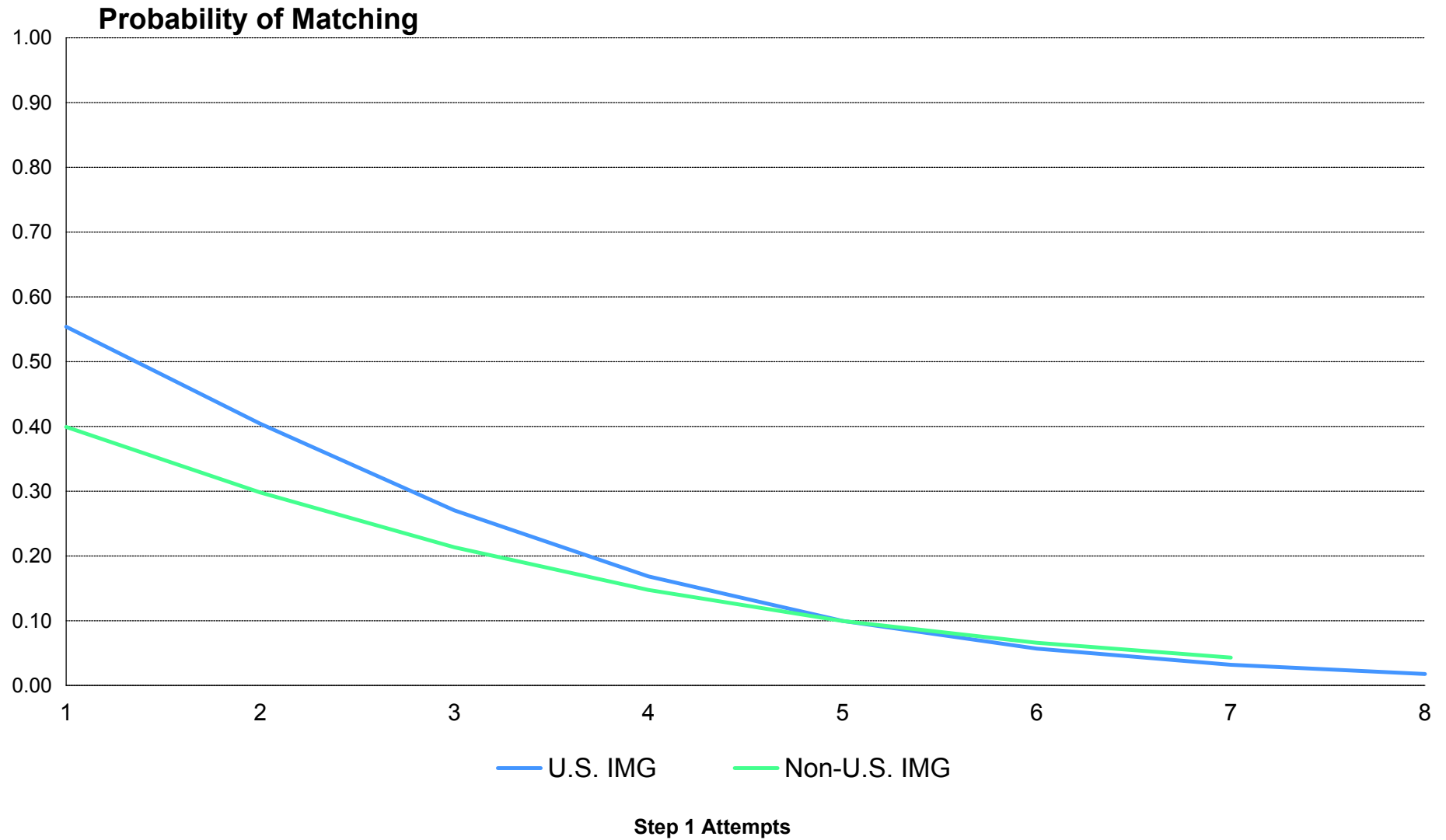
**Non-U.S. IMG**



Source: NRMP Data Warehouse and ECFMG.

\*USMLE Step 1 or equivalent examination

# Probability of Matching to Preferred Specialty by Number of Step 1 Attempts\* *Psychiatry*

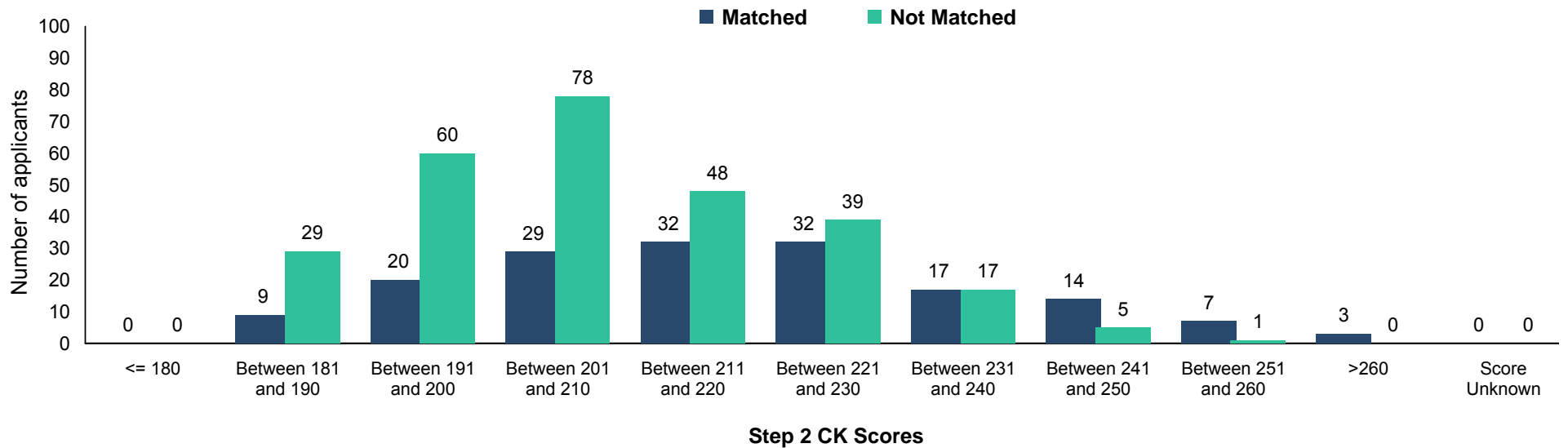
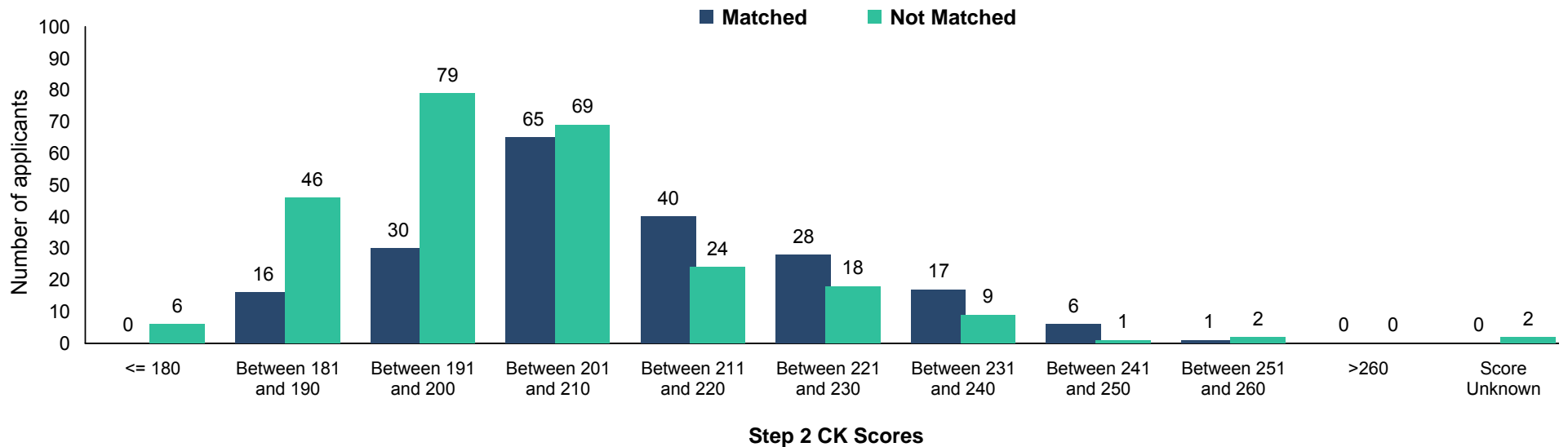


Source: NRMP Data Warehouse and ECFMG.

\*USMLE Step 1 or equivalent examination

**Chart  
P-5**

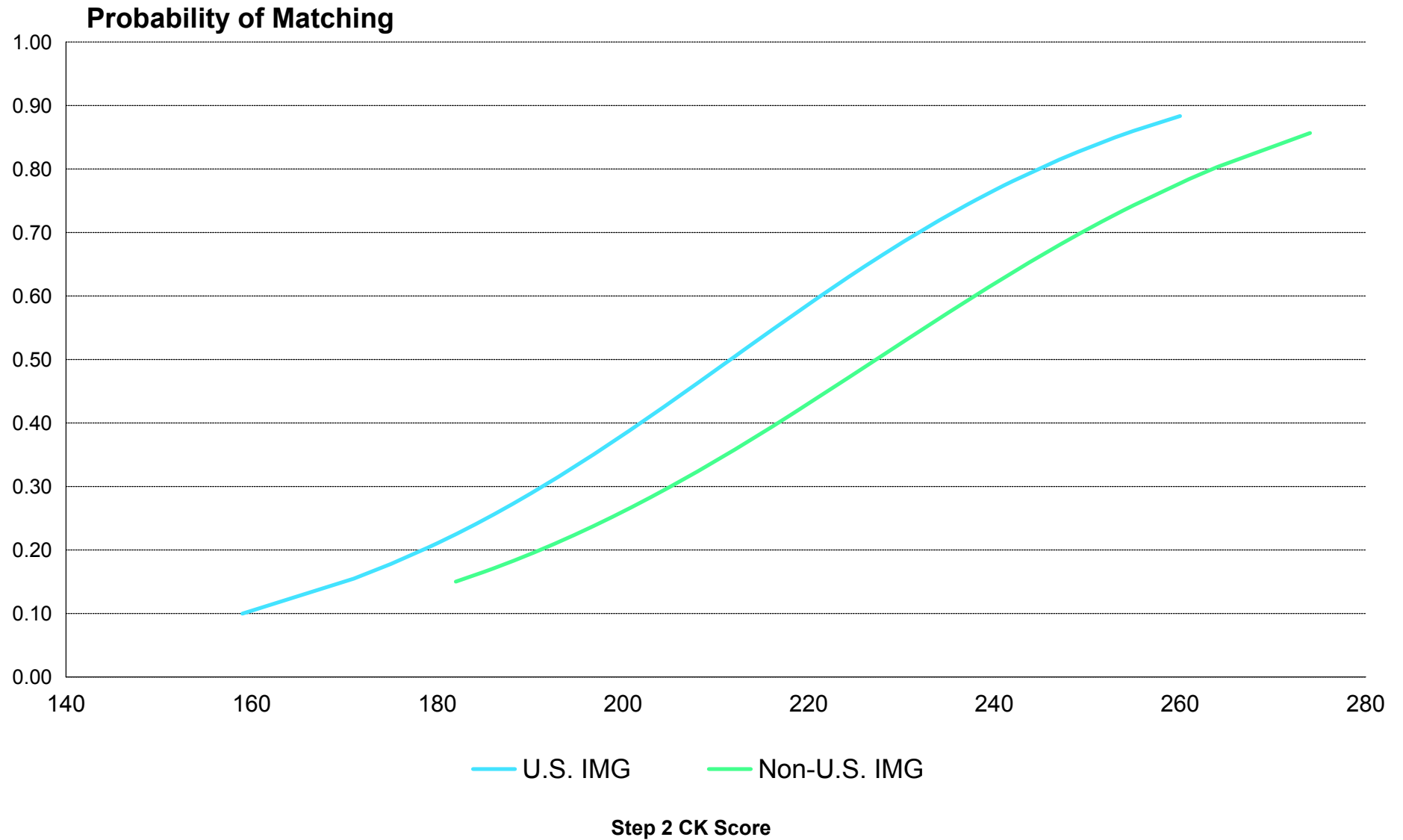
**USMLE Step 2 CK (Clinical Knowledge) Scores  
Psychiatry**



Source: NRMP Data Warehouse and ECFMG.

**Graph  
P-4**

**Probability of Matching to Preferred Specialty by USMLE Step 2 CK (Clinical Knowledge) Score  
Psychiatry**



Source: NRMP Data Warehouse and ECFMG.

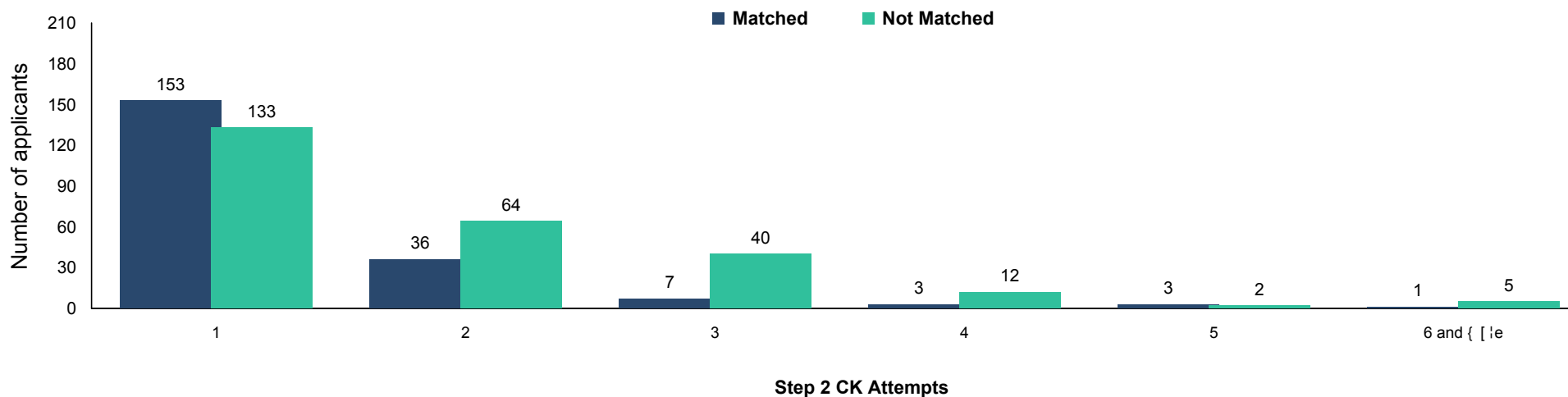
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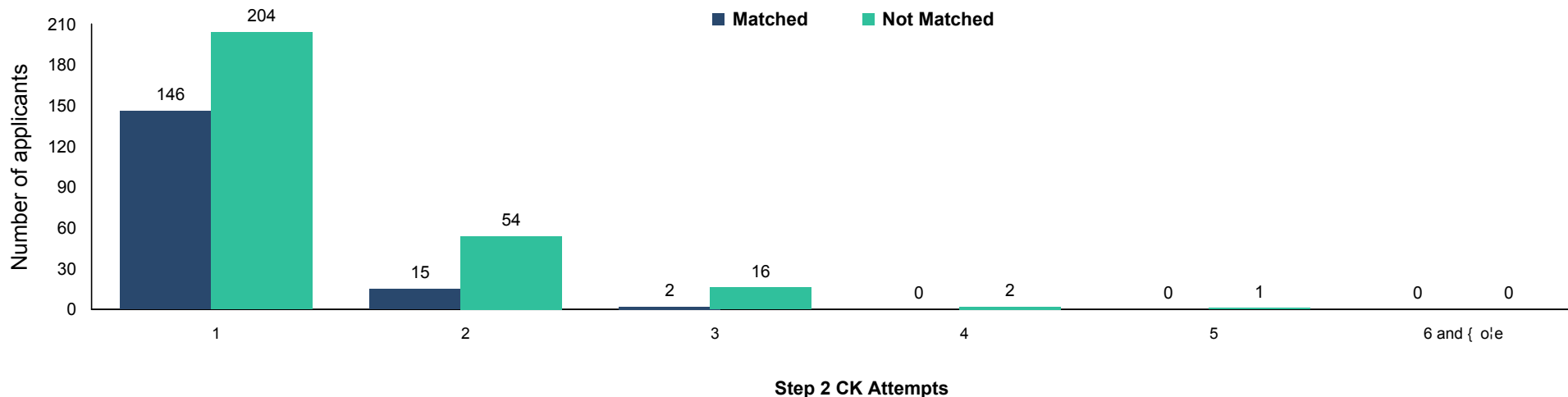
**Chart  
P-6**

**USMLE Step 2 CK (Clinical Knowledge) Attempts\*  
Psychiatry**

**U.S. IMG**



**Non-U.S. IMG**

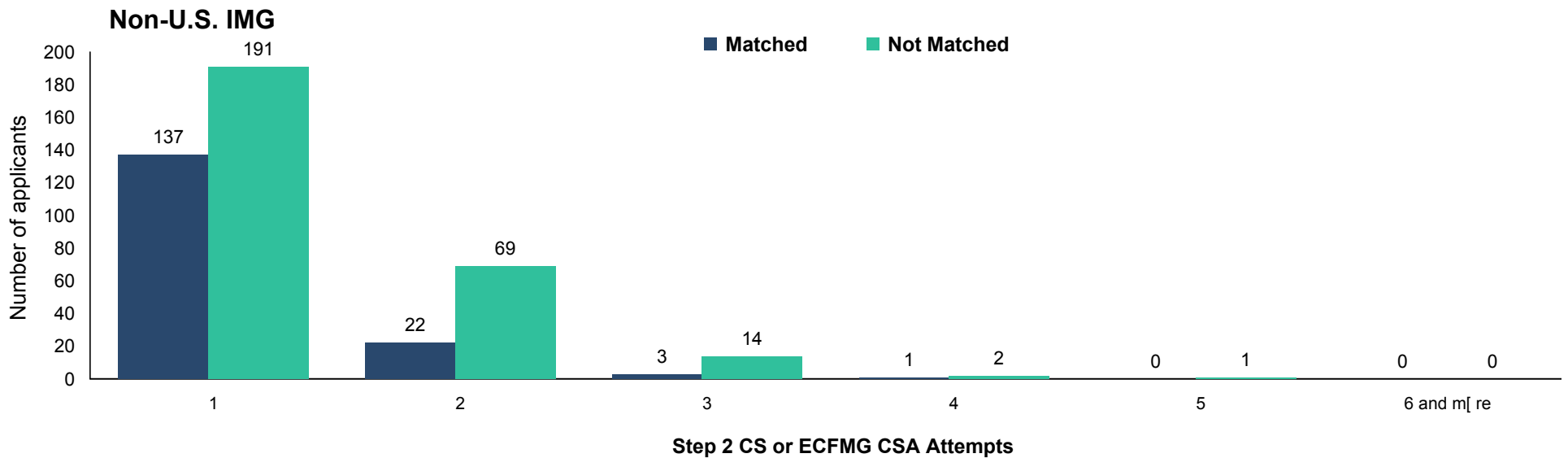
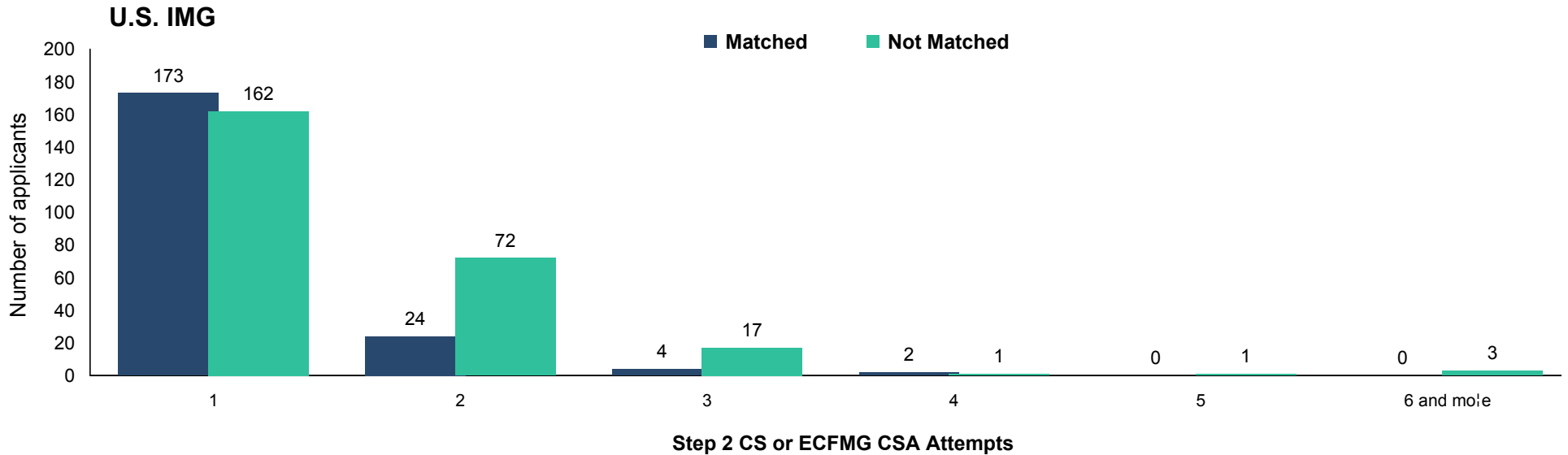


Source: NRMP Data Warehouse and ECFMG.

\*USMLE Step 2 CK or equivalent examination

**Chart  
P-7**

**Attempts at USMLE Step 2 CS (Clinical Skills) or ECFMG CSA (Clinical Skills Assessment)  
Psychiatry**

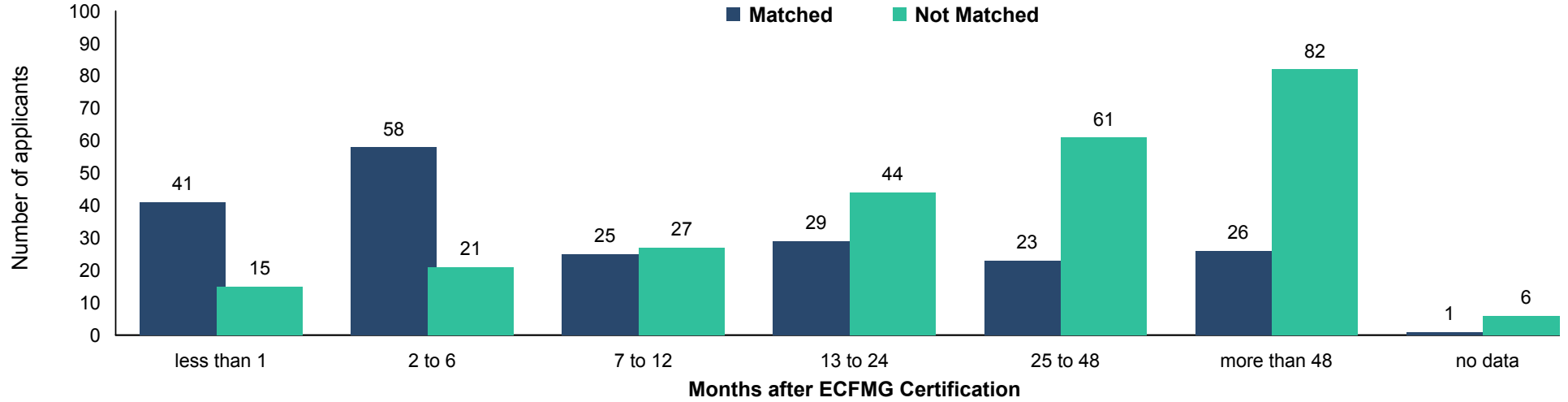


Source: NRMP Data Warehouse and ECFMG.

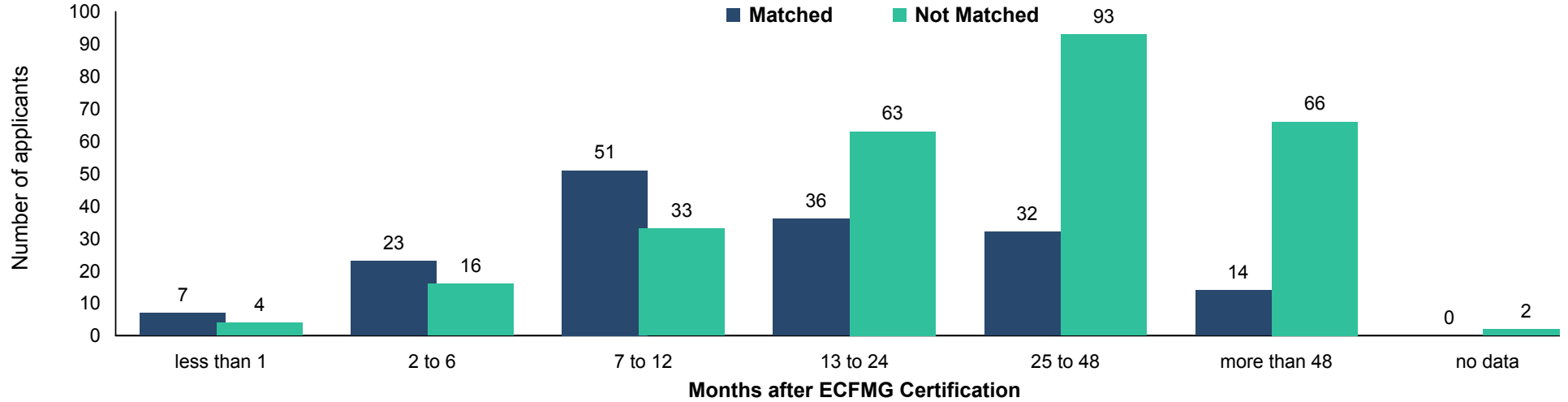
**Chart  
P-8**

**Number of Months After ECFMG Certification  
Psychiatry**

**U.S. IMG**



**Non-U.S. IMG**

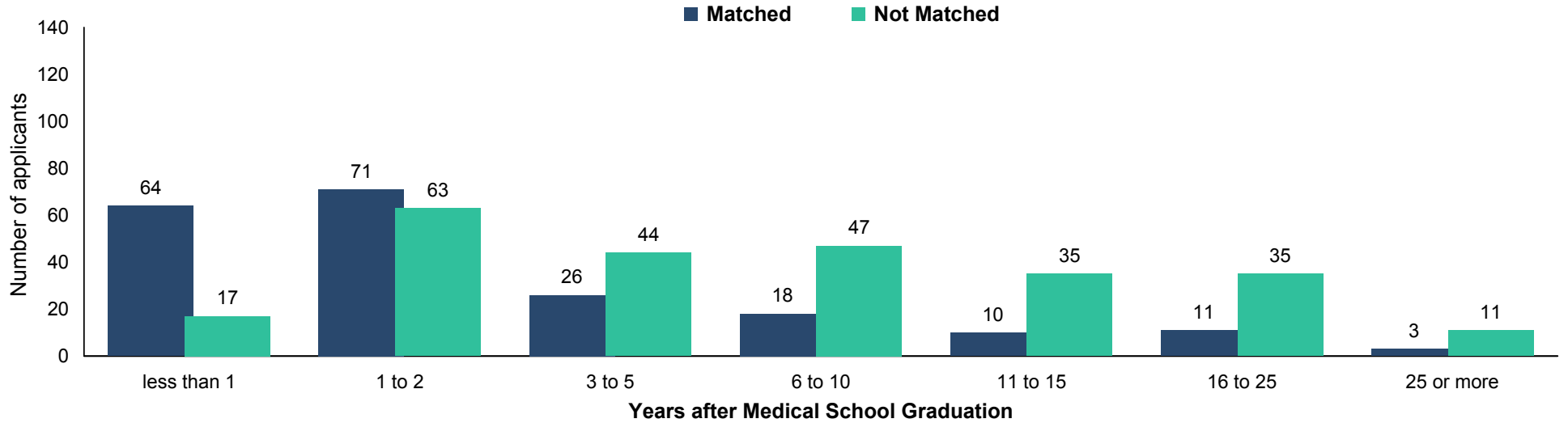


Source: NRMP Data Warehouse and ECFMG

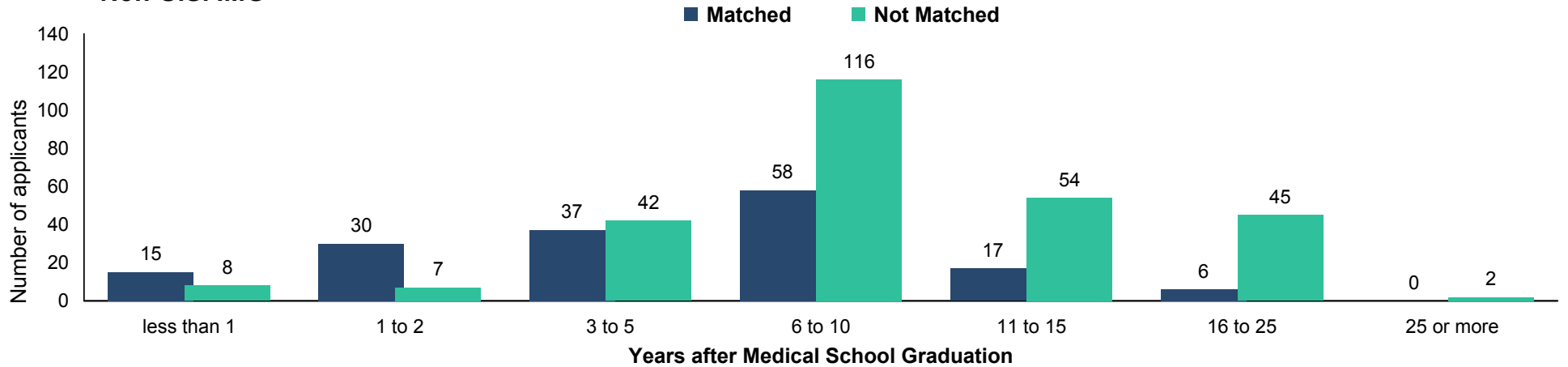
**Chart  
P-9**

**Number of Years After Medical School Graduation  
Psychiatry**

**U.S. IMG**



**Non-U.S. IMG**



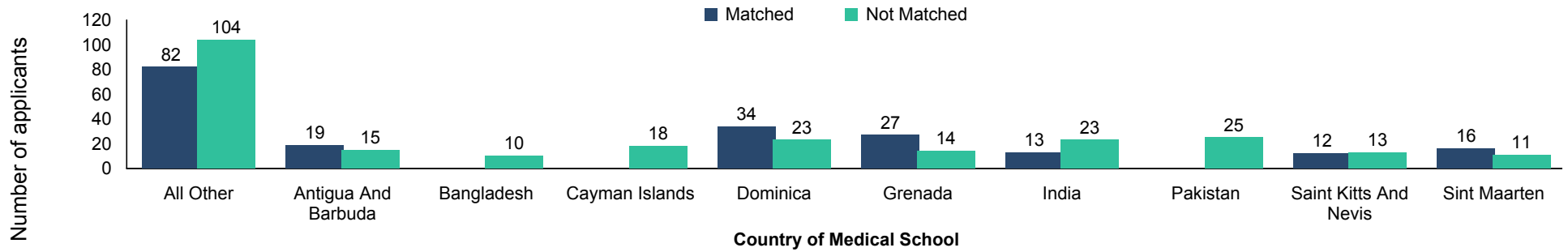
Source: NRMP Data Warehouse and ECFMG

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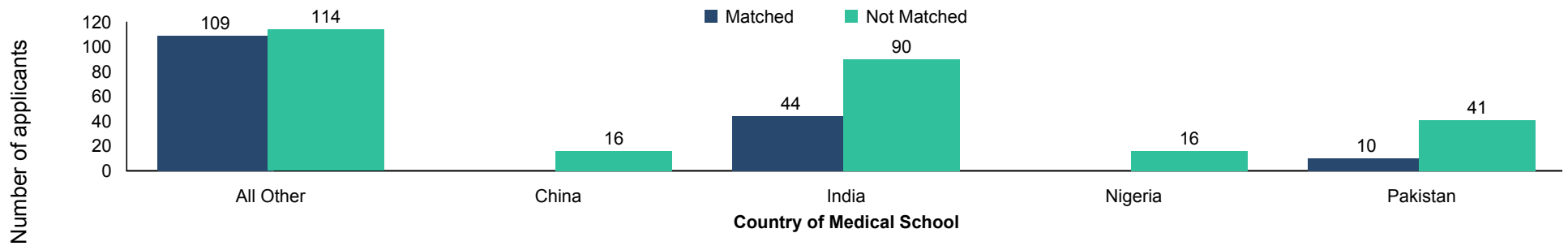
**Chart  
P-10**

**Country of Medical School  
Psychiatry**

**U.S. IMG**



**Non-U.S. IMG**



Source: NRMP Data Warehouse and ECFMG

Note: A country is included if it has 10 or more applicants for each category

**DR**

**Radiology-Diagnostic**

---

**Table DR-1** **Summary Statistics**  
**Radiology-Diagnostic**

| Measure   | U.S. IMG          |                     | Non-U.S. IMG      |                     |
|---|-------------------|---------------------|-------------------|---------------------|
|   | Matched<br>(n=55) | Unmatched<br>(n=47) | Matched<br>(n=66) | Unmatched<br>(n=63) |
| 1. Mean number of contiguous ranks                    | 6                 | 3                   | 4                 | 3                   |
| 2. Mean number of distinct specialties ranked         | 2.1               | 1.7                 | 1.7               | 1.8                 |
| 3. Mean USMLE Step 1 score                            | 237               | 223                 | 232               | 219                 |
| 4. Mean USMLE Step 1 attempts*                        | 1.0               | 1.1                 | 1.0               | 1.2                 |
| 5. Mean USMLE Step 2 CK score                         | 241               | 223                 | 238               | 220                 |
| 6. Mean USMLE Step 2 CK attempts**                    | 1.0               | 1.2                 | 1.0               | 1.2                 |
| 7. Mean USMLE Step 2 CS or ECFMG CSA attempts         | 1.1               | 1.3                 | 1.1               | 1.3                 |
| 8. Mean number of months since ECFMG certification    | 13                | 30                  | 23                | 41                  |
| 9. Mean number of years since graduation              | 1.4               | 6.3                 | 6.2               | 7.9                 |
| 10. Percentage who speak English as a native language | 73                | 53                  | 21                | 14                  |

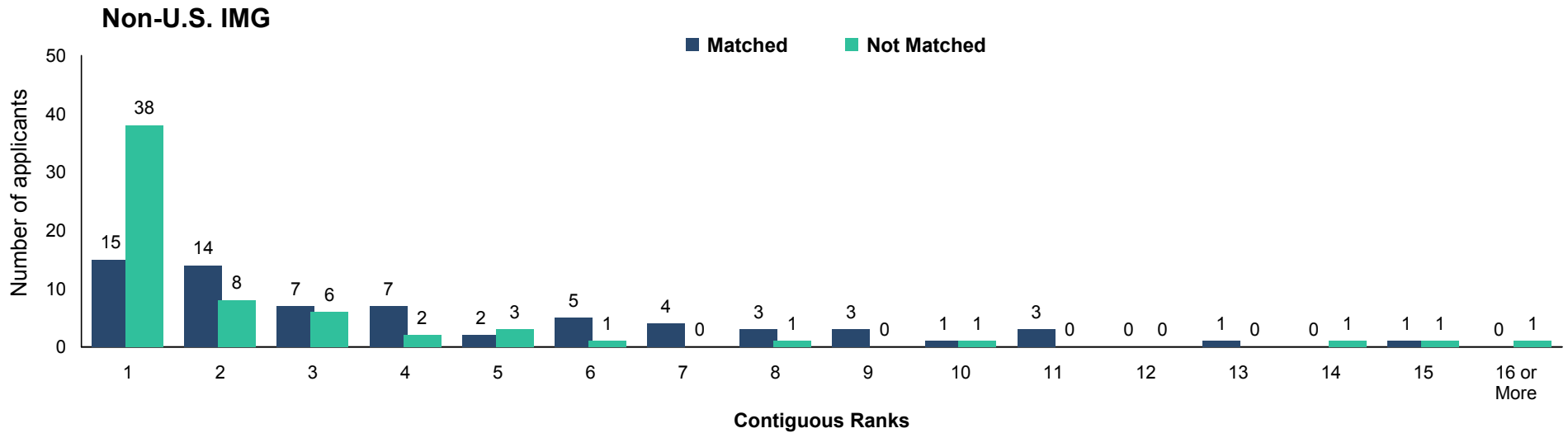
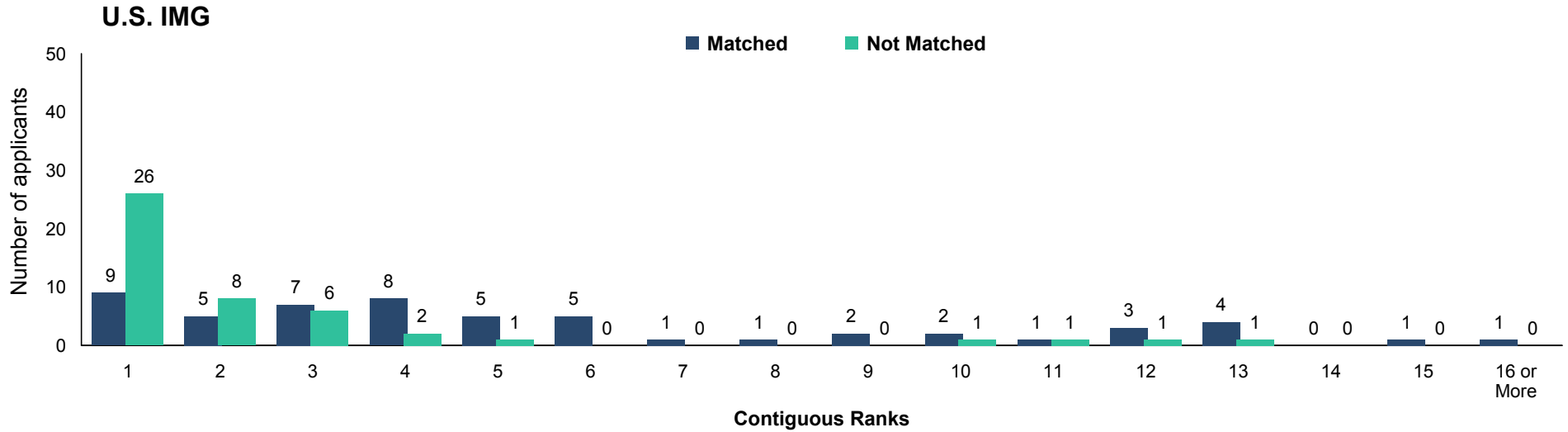
Sources: NRMP Data Warehouse and ECFMG

\*USMLE Step 1 or equivalent examination

\*\*USMLE Step 2 CK or equivalent examination

**Chart  
DR-1**

**Number of Contiguous Ranks Within Preferred Specialty  
Radiology-Diagnostic**



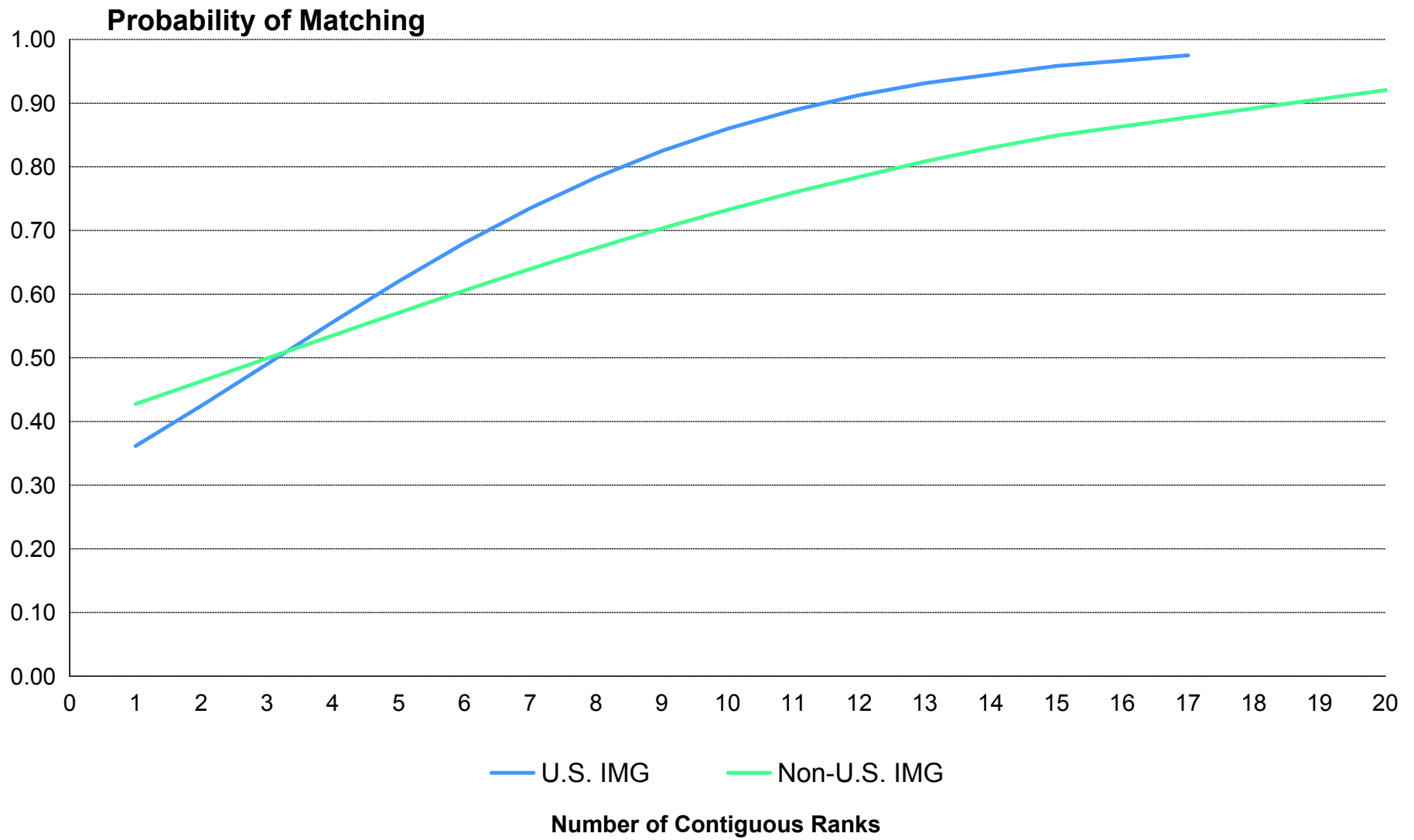
Source: NRMP Data Warehouse

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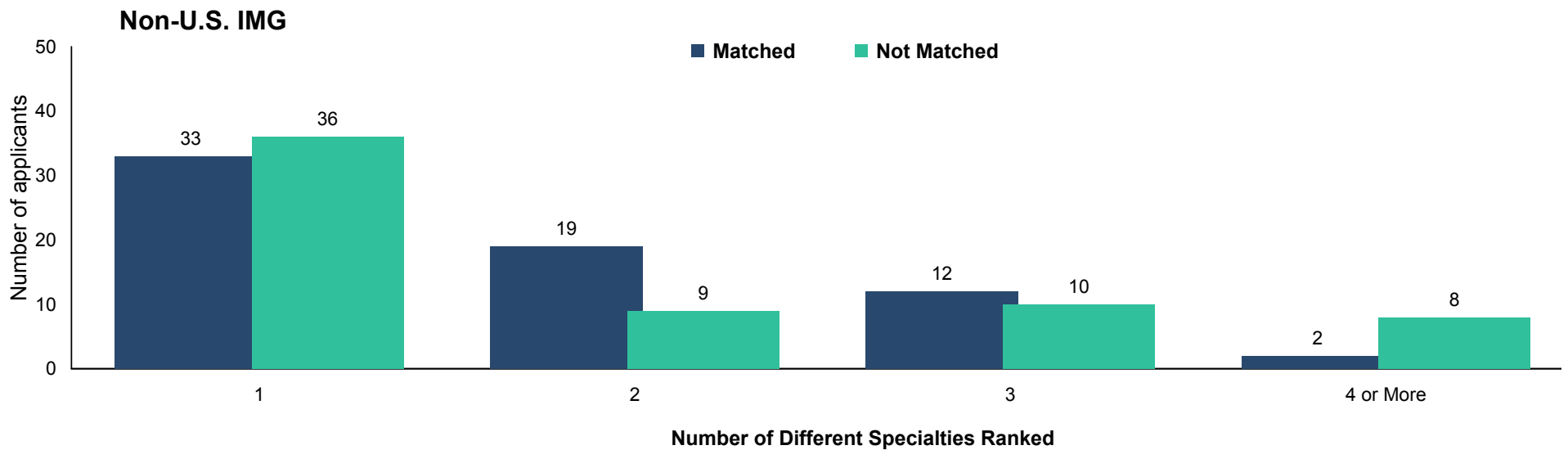
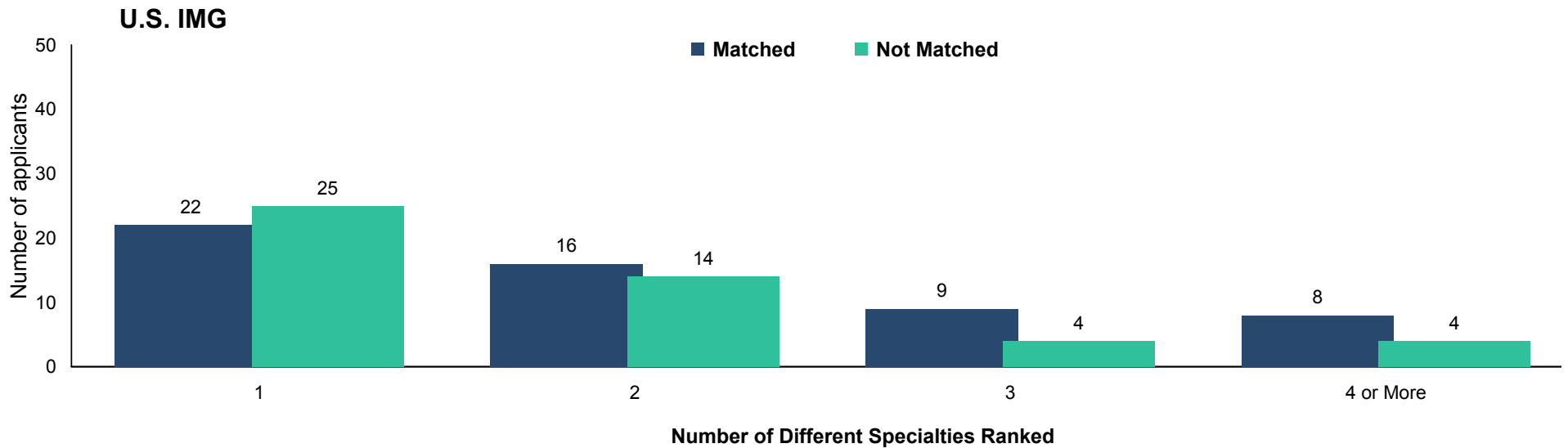
**Graph  
DR-1**

**Probability of Matching to Preferred Specialty by Number of Contiguous Ranks**  
*Radiology-Diagnostic*



Source: NRMP Data Warehouse.

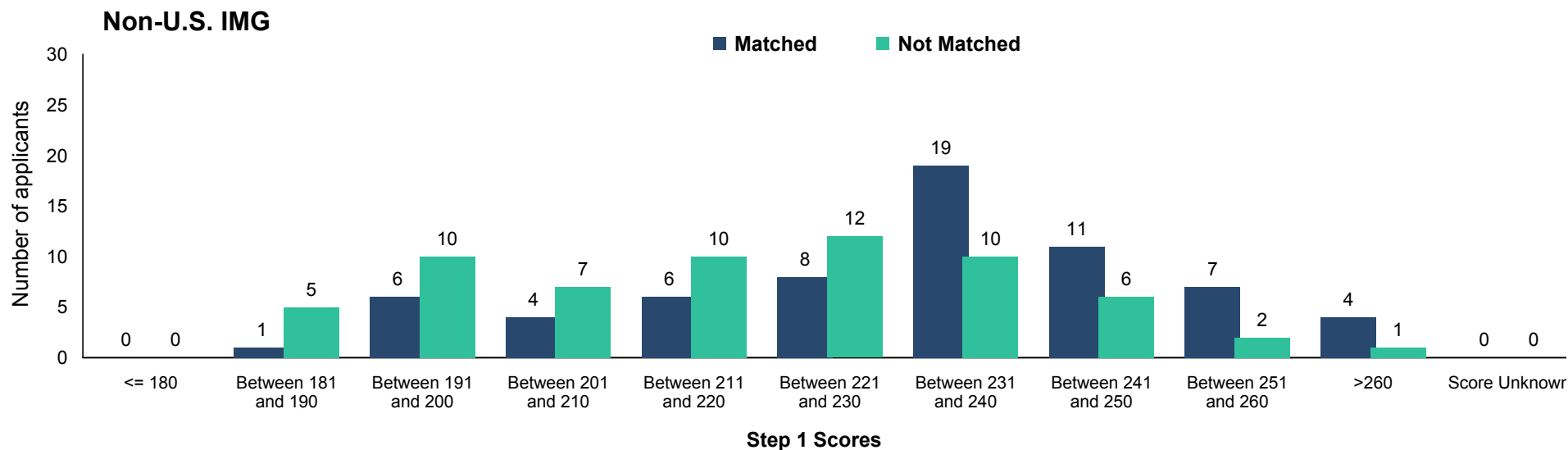
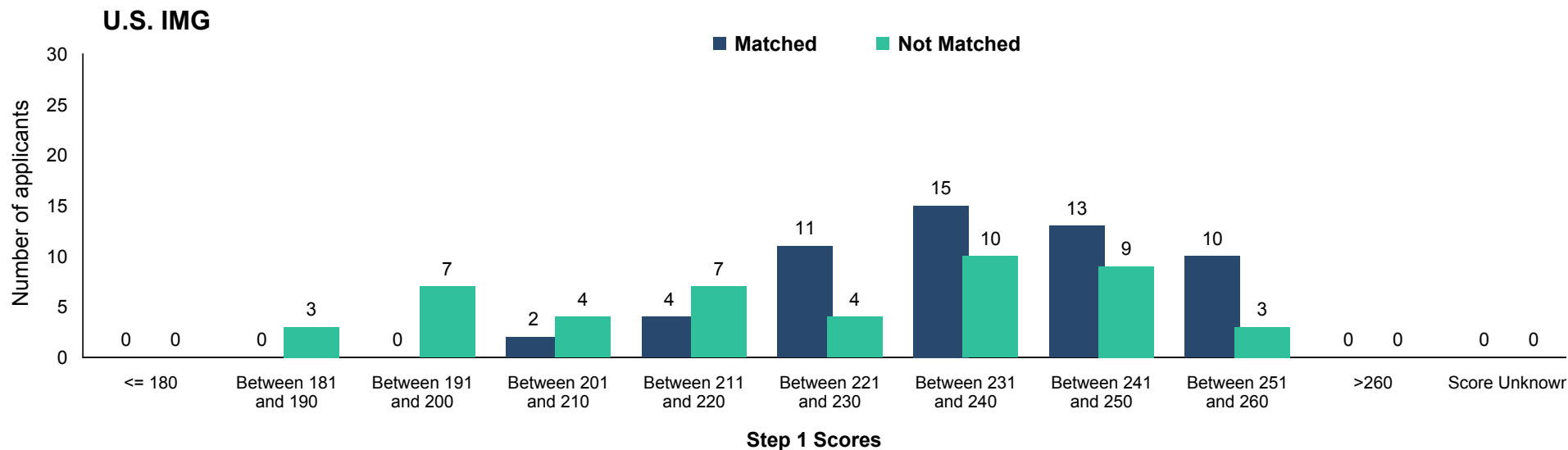
**Number of Applicants Ranking Different Specialties**  
*Radiology-Diagnostic*



Source: NRMP Data Warehouse

**Chart  
DR-3**

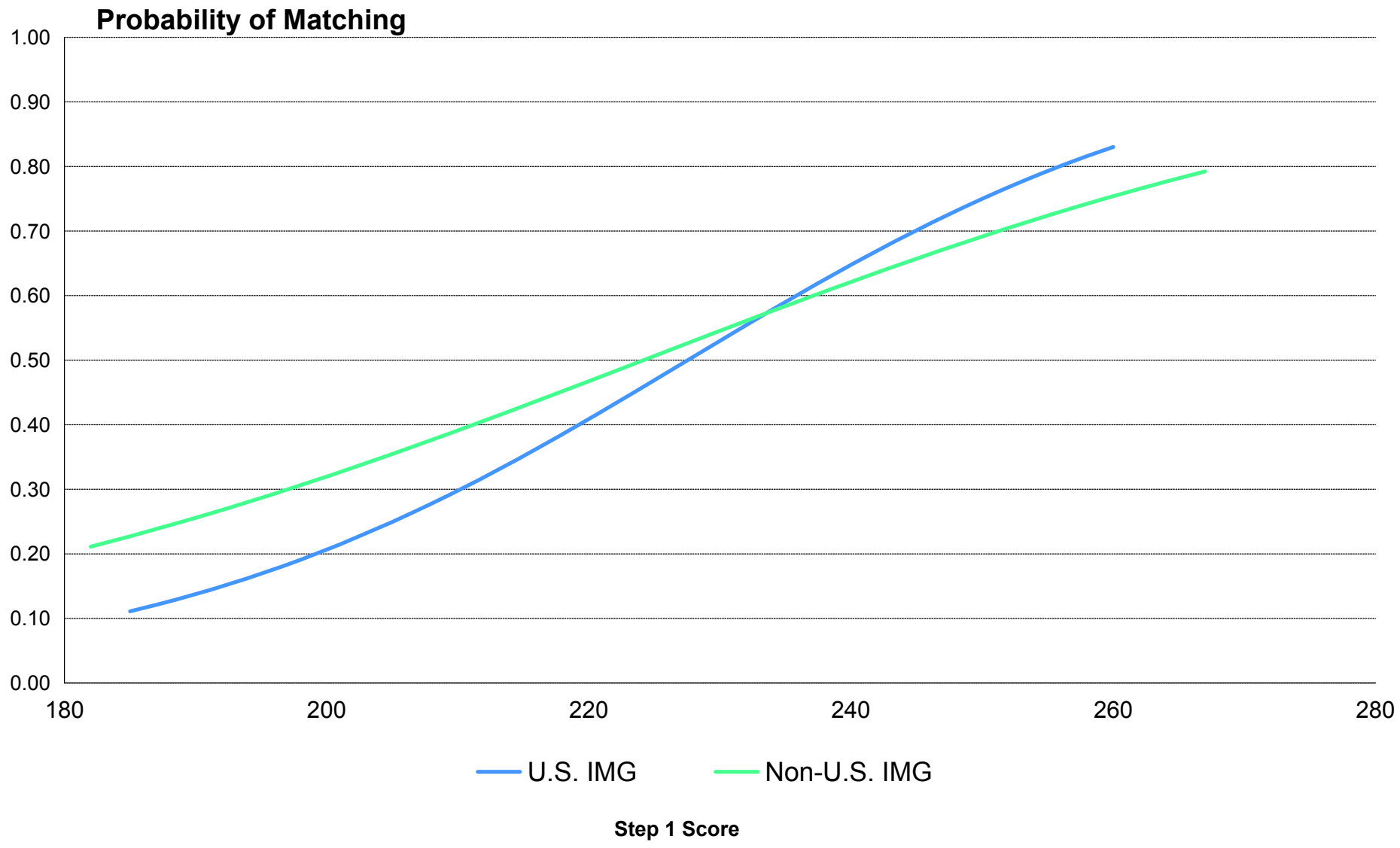
**USMLE Step 1 Scores  
Radiology-Diagnostic**



Source: NRMP Data Warehouse and ECFMG.

**Graph  
DR-2**

**Probability of Matching to Preferred Specialty by USMLE Step 1 Score**  
*Radiology-Diagnostic*



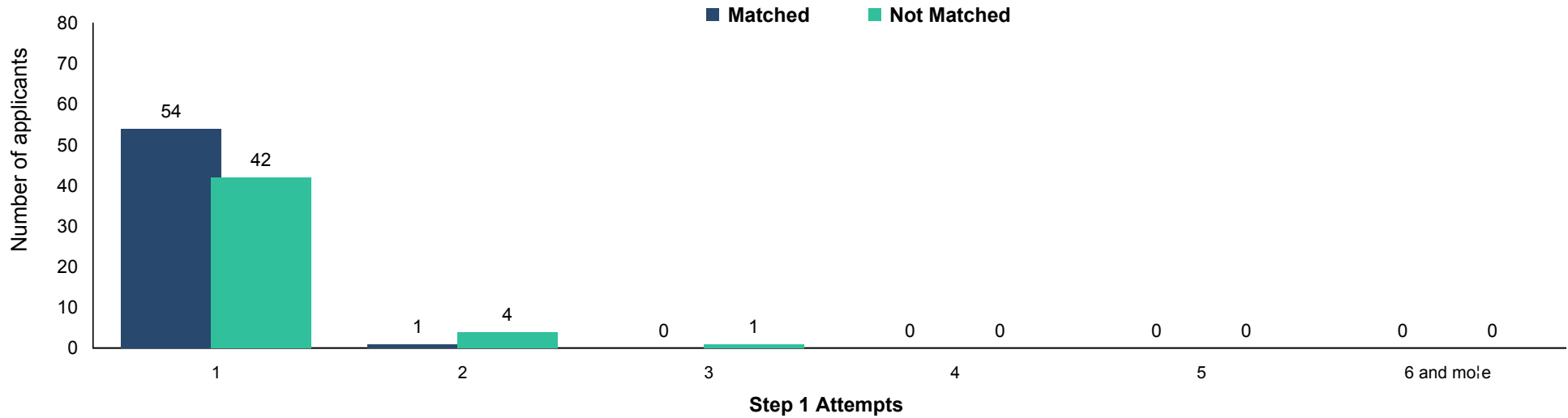
Source: NRMP Data Warehouse and ECFMG.

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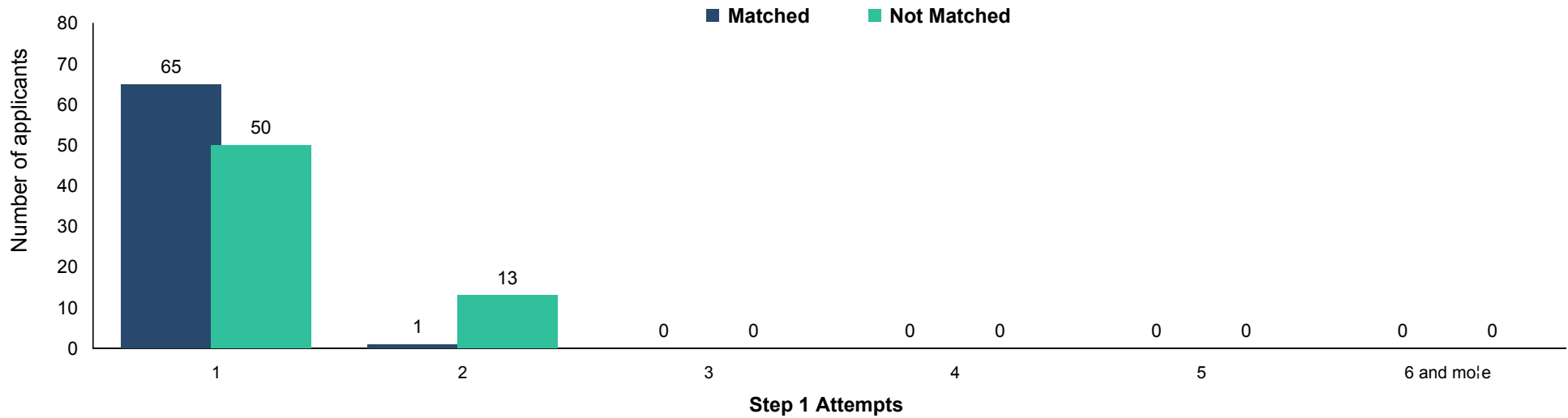
**Chart  
DR-4**

**USMLE Step 1 Attempts\*  
Radiology-Diagnostic**

**U.S. IMG**



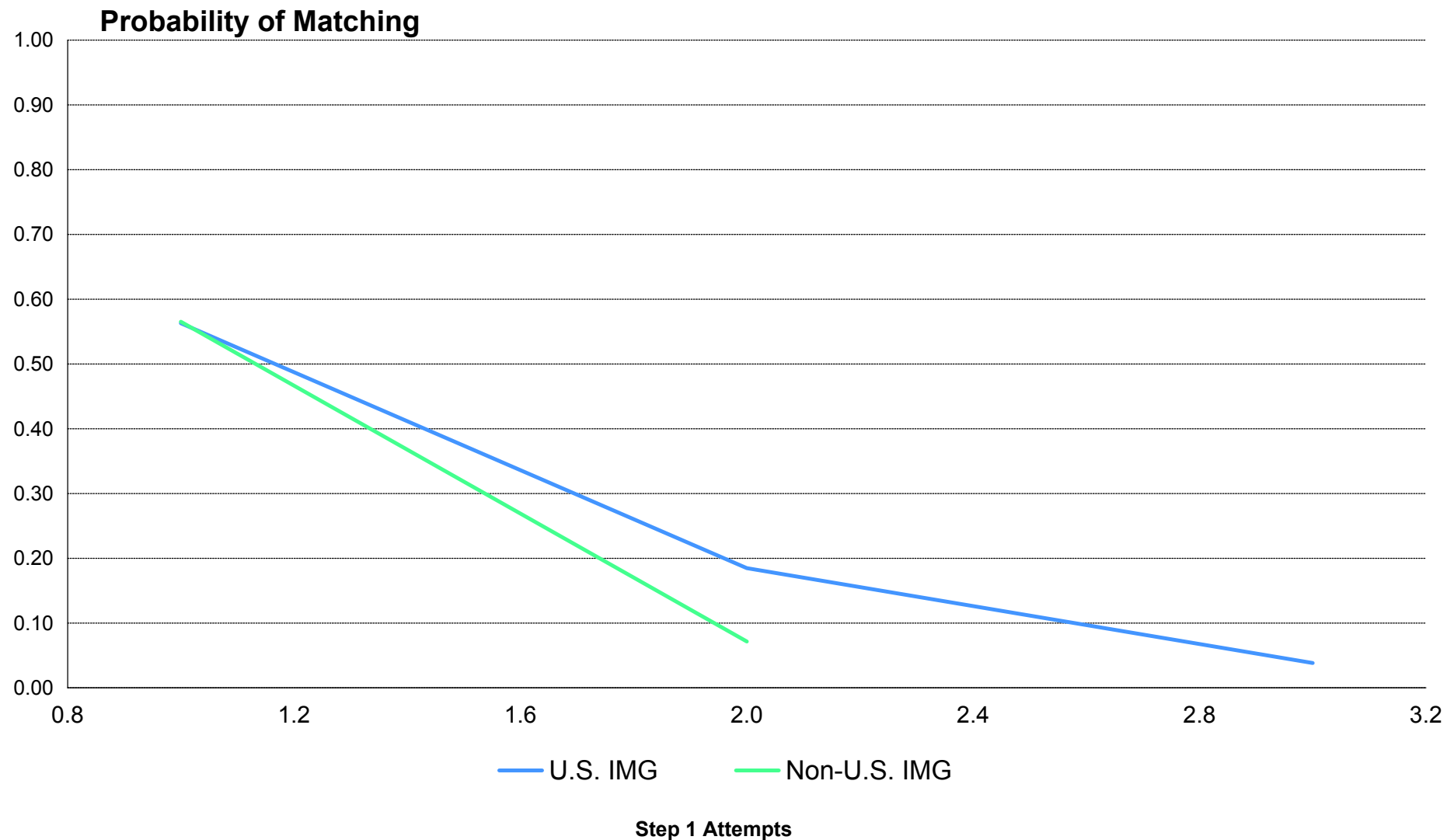
**Non-U.S. IMG**



Source: NRMP Data Warehouse and ECFMG.

\*USMLE Step 1 or equivalent examination

# Probability of Matching to Preferred Specialty by Number of Step 1 Attempts\* Radiology-Diagnostic

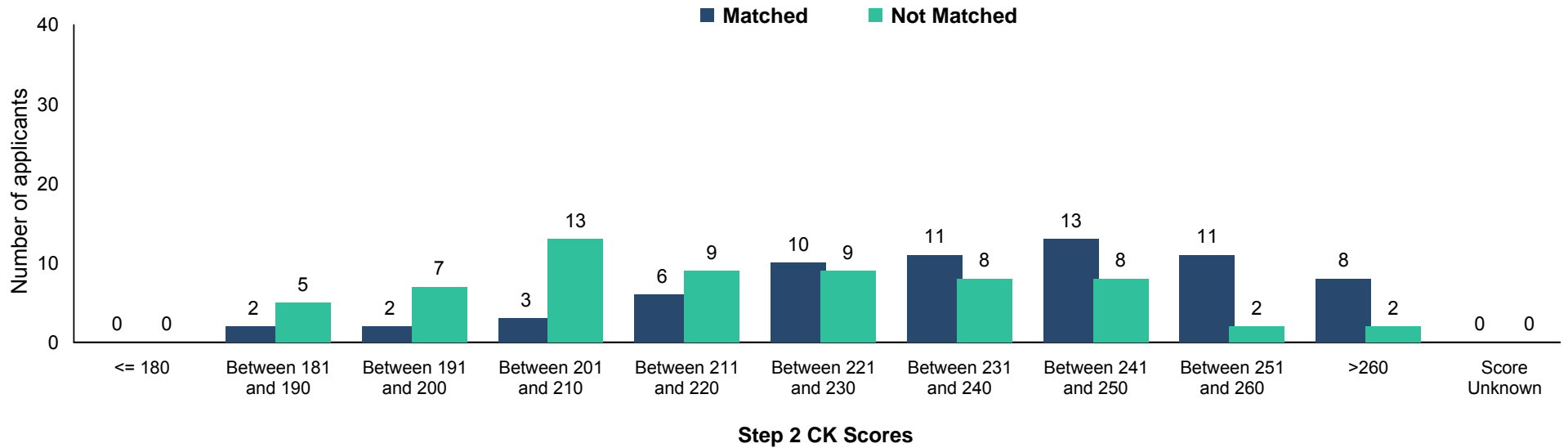
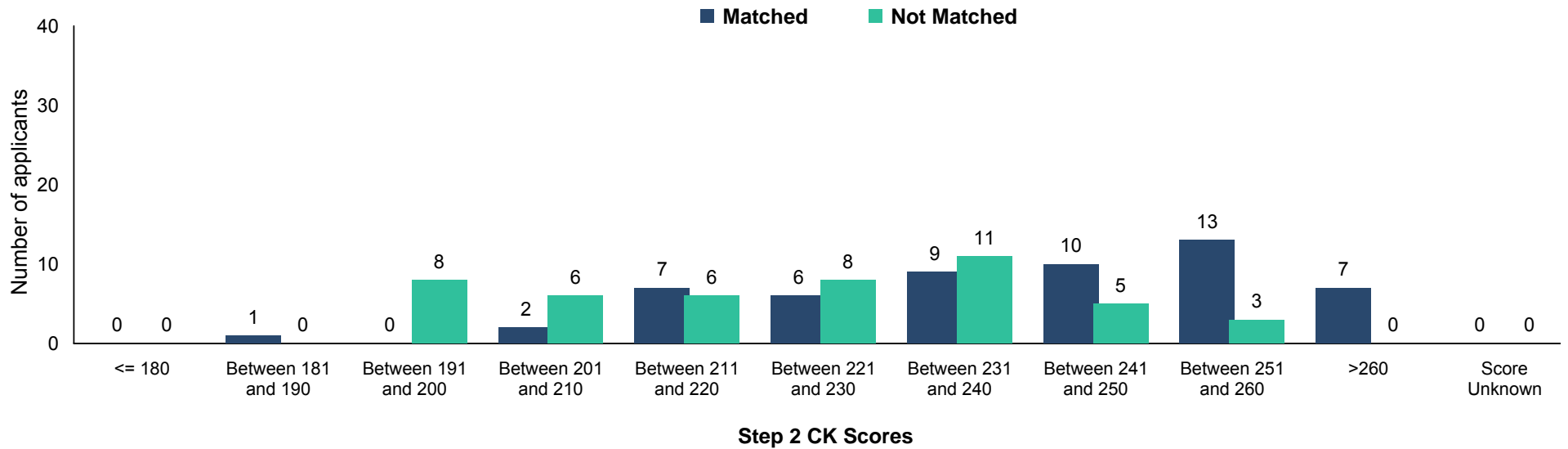


Source: NRMP Data Warehouse and ECFMG.

\*USMLE Step 1 or equivalent examination

**Chart  
DR-5**

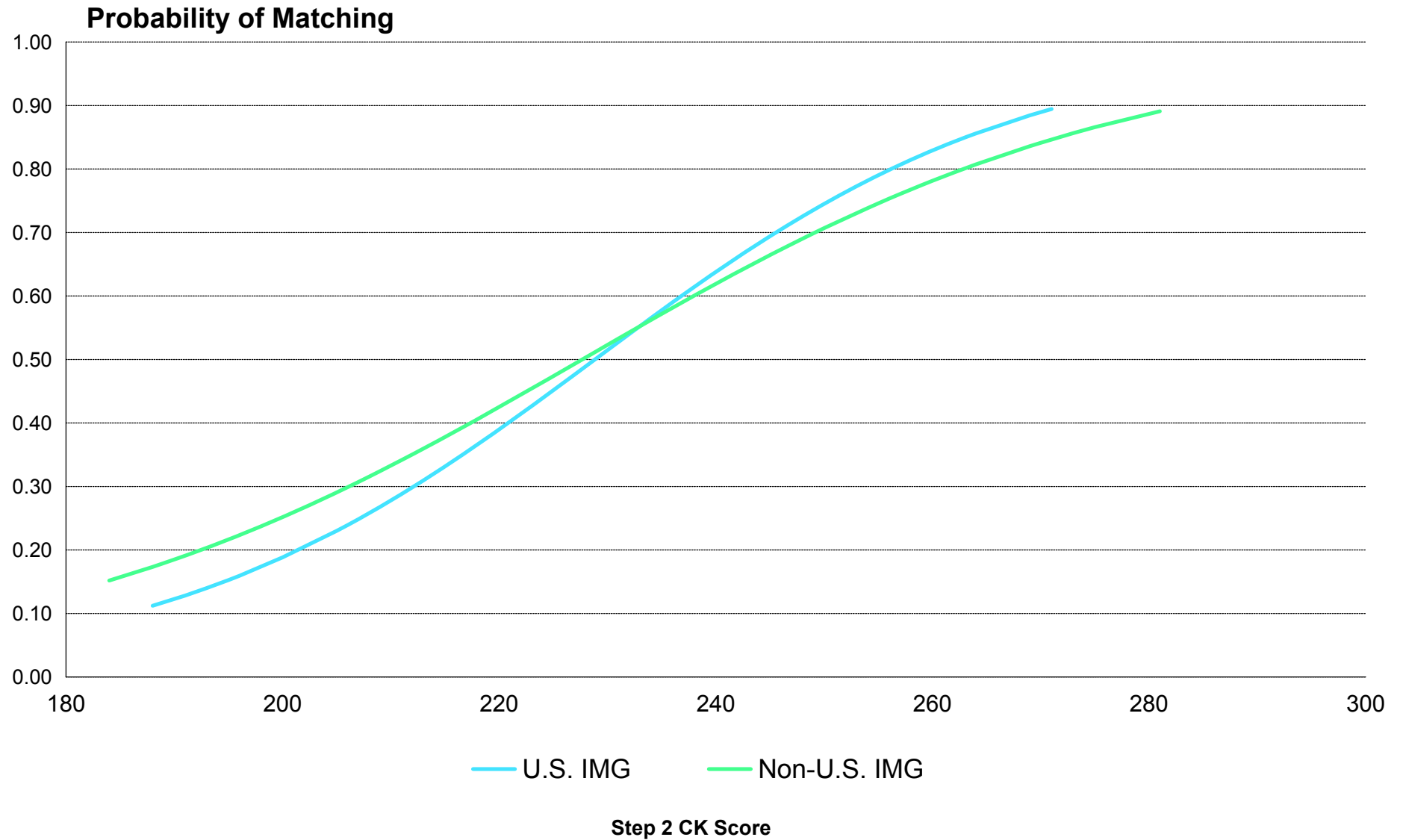
**USMLE Step 2 CK (Clinical Knowledge) Scores  
Radiology-Diagnostic**



Source: NRMP Data Warehouse and ECFMG.

**Graph  
DR-4**

**Probability of Matching to Preferred Specialty by USMLE Step 2 CK (Clinical Knowledge) Score**  
*Radiology-Diagnostic*



Source: NRMP Data Warehouse and ECFMG.

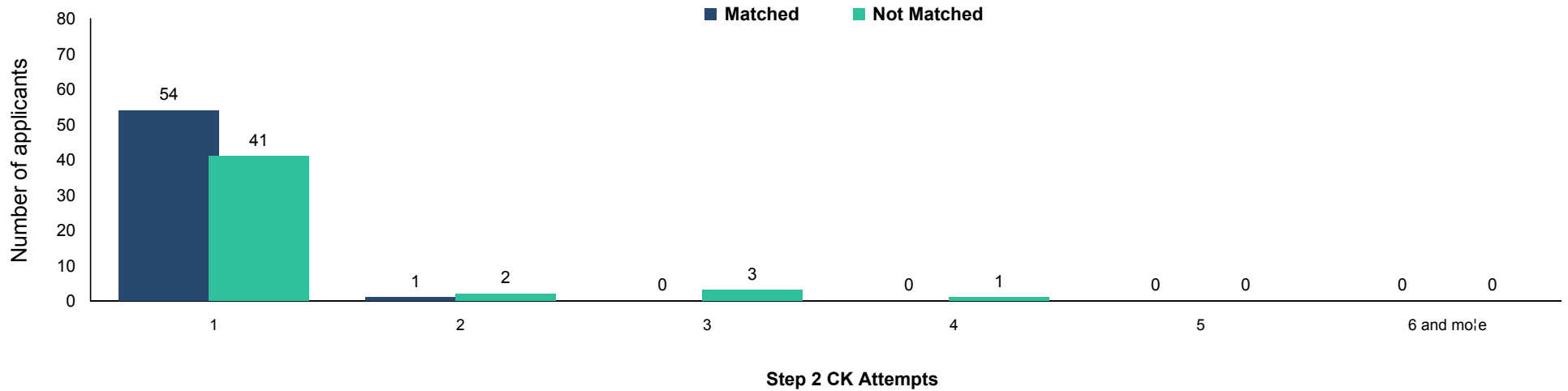
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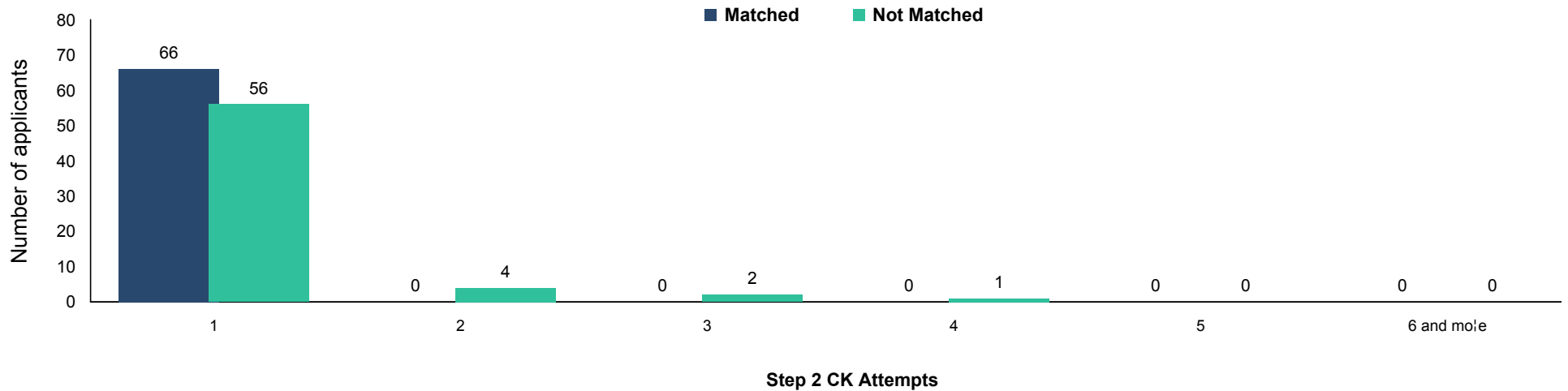
**Chart  
DR-6**

**USMLE Step 2 CK (Clinical Knowledge) Attempts\***  
*Radiology-Diagnostic*

**U.S. IMG**



**Non-U.S. IMG**

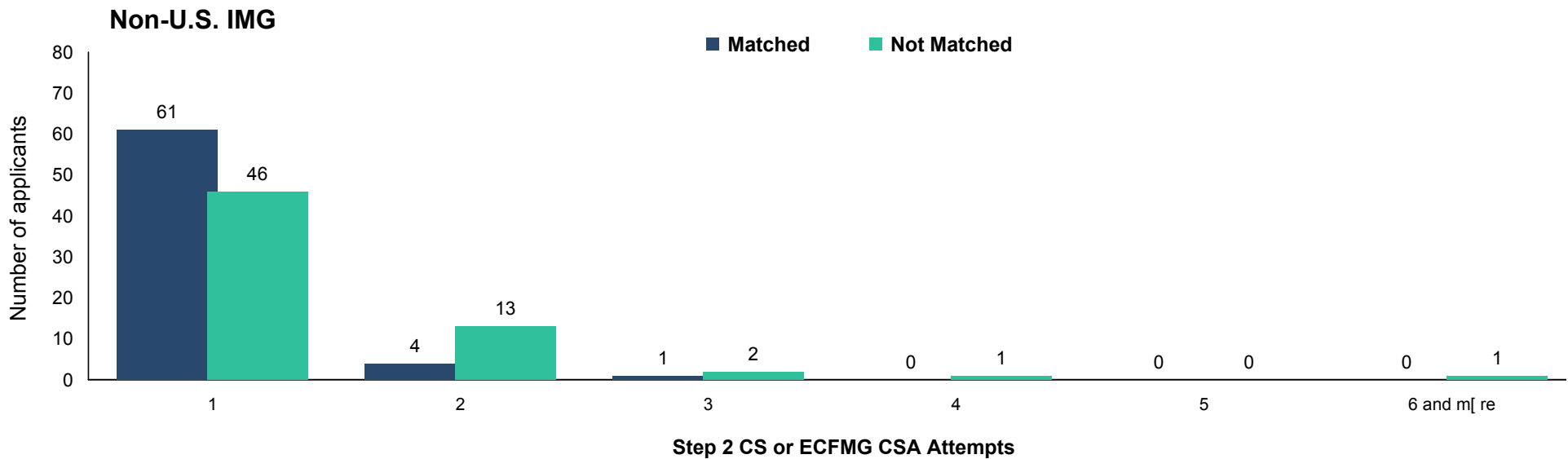
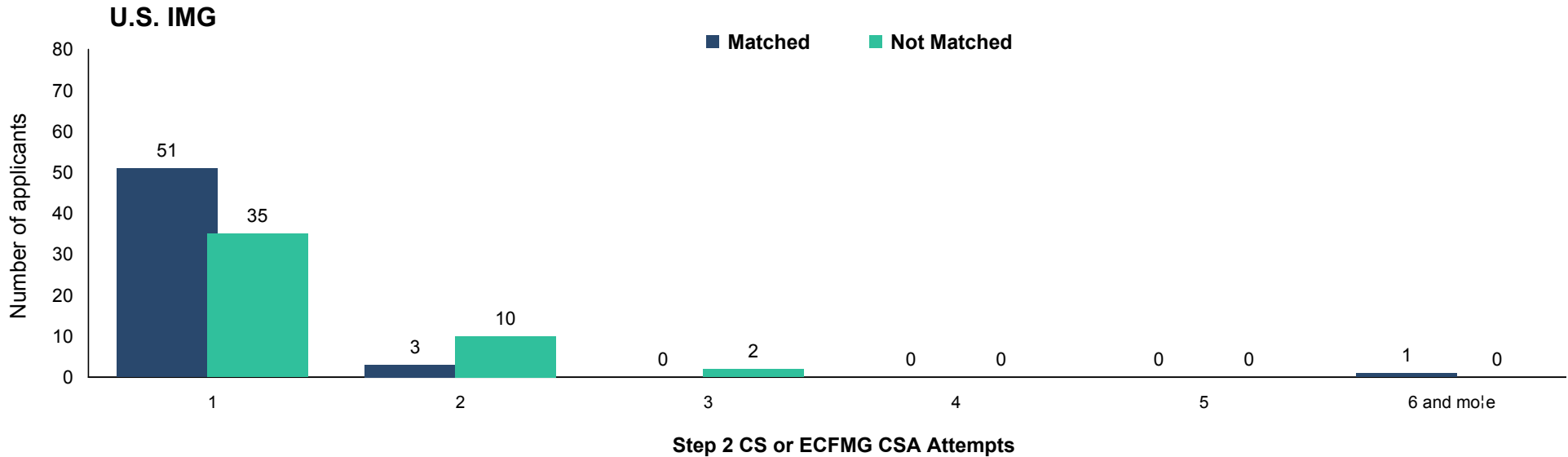


Source: NRMP Data Warehouse and ECFMG.

\*USMLE Step 2 CK or equivalent examination

**Chart  
DR-7**

**Attempts at USMLE Step 2 CS (Clinical Skills) or ECFMG CSA (Clinical Skills Assessment)  
Radiology-Diagnostic**

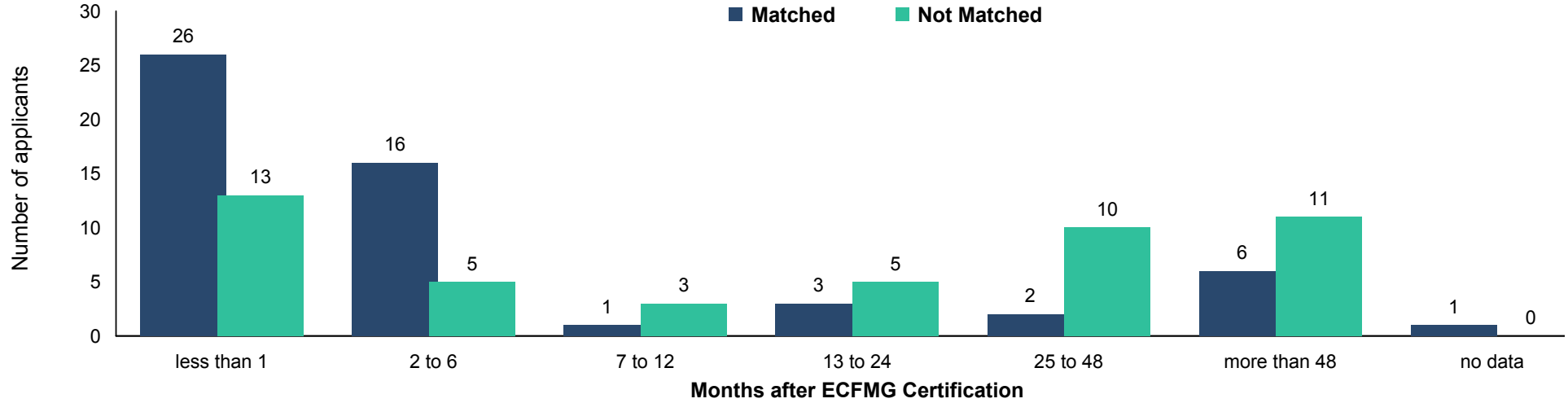


Source: NRMP Data Warehouse and ECFMG.

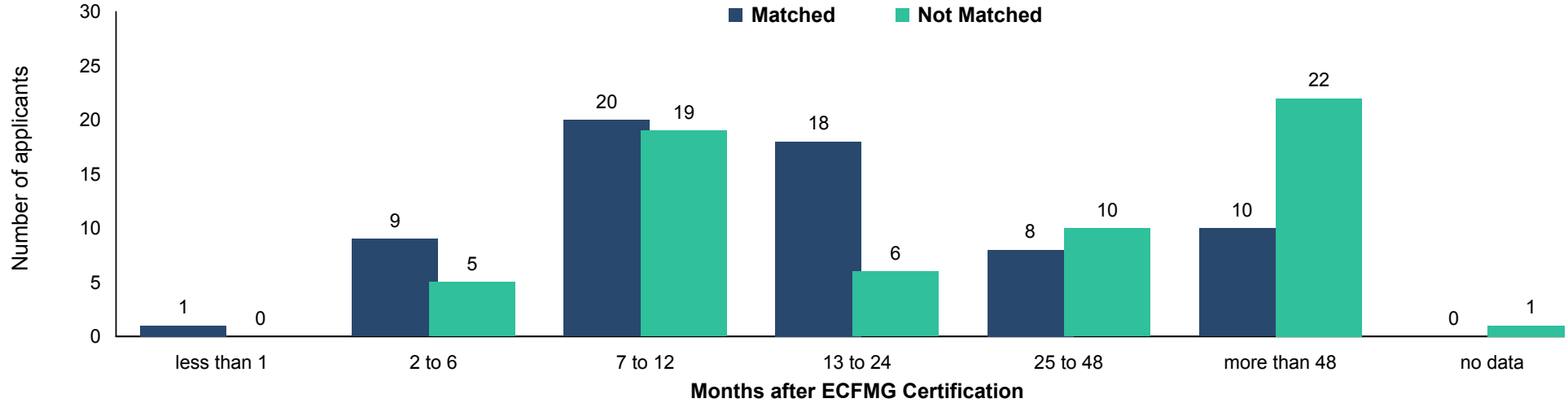
**Chart  
DR-8**

**Number of Months After ECFMG Certification  
Radiology-Diagnostic**

**U.S. IMG**



**Non-U.S. IMG**

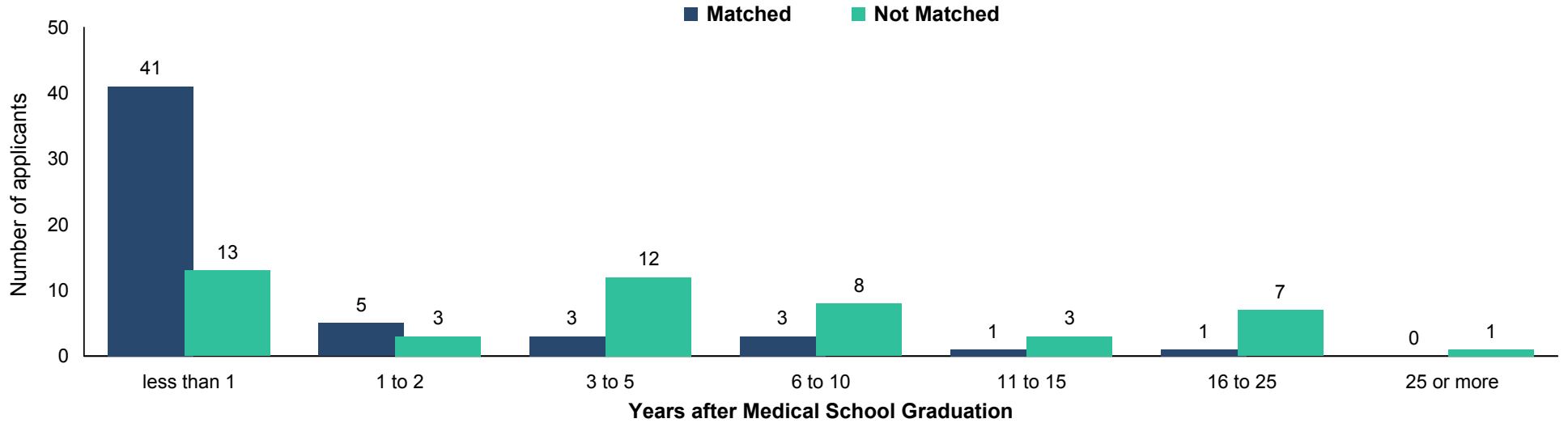


Source: NRMP Data Warehouse and ECFMG

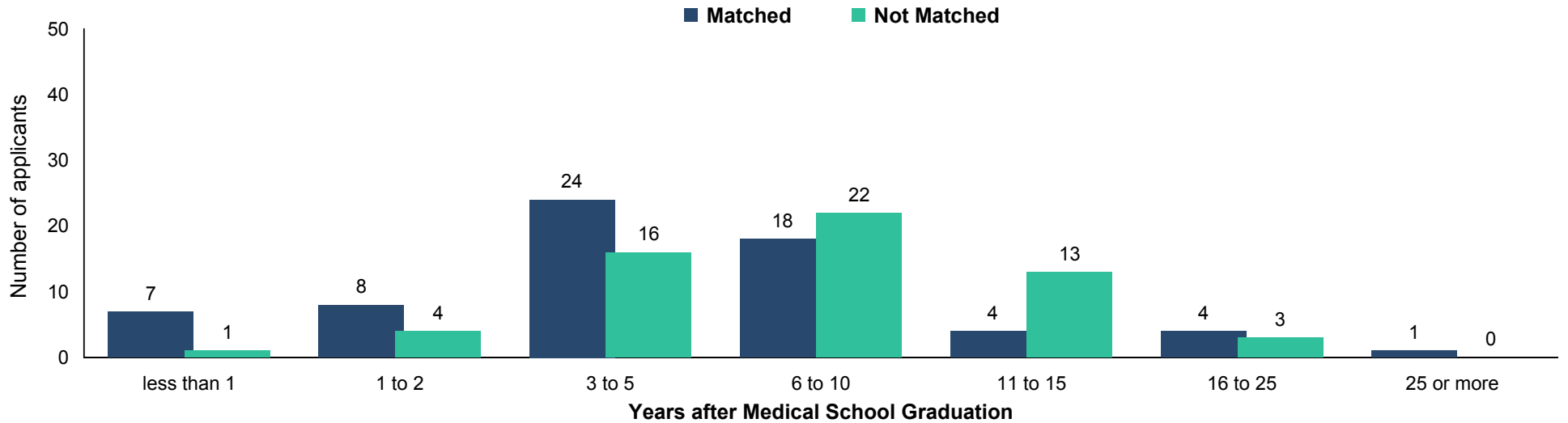
**Chart  
DR-9**

**Number of Years After Medical School Graduation  
Radiology-Diagnostic**

**U.S. IMG**



**Non-U.S. IMG**

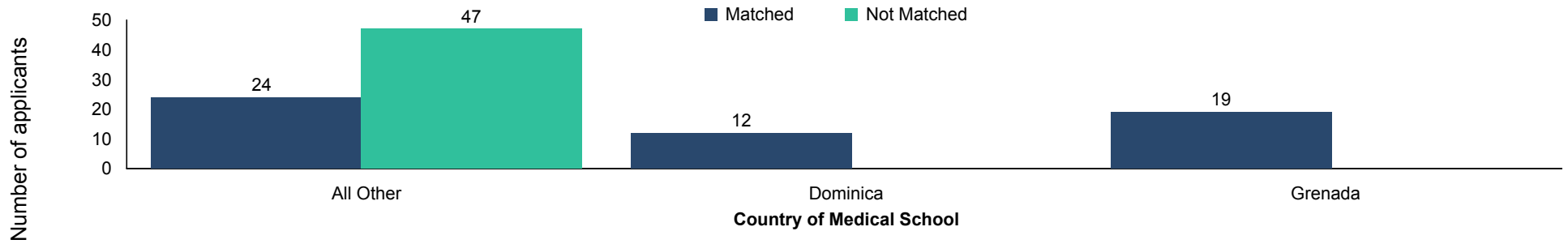


Source: NRMP Data Warehouse and ECFMG

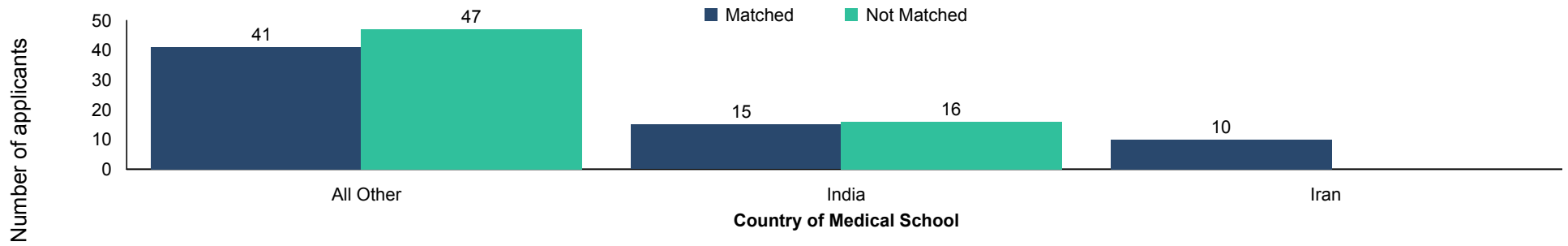
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**Country of Medical School  
Radiology-Diagnostic**

**U.S. IMG**



**Non-U.S. IMG**



Source: NRMP Data Warehouse and ECFMG

Note: A country is included if it has 10 or more applicants for each category

**GS**

**Surgery-General**

---

**Table** **Summary Statistics**  
**GS-1** ***Surgery-General***

| Measure   | U.S. IMG           |                      | Non-U.S. IMG       |                      |
|---|--------------------|----------------------|--------------------|----------------------|
|   | Matched<br>(n=119) | Unmatched<br>(n=123) | Matched<br>(n=158) | Unmatched<br>(n=150) |
| 1. Mean number of contiguous ranks                    | 4                  | 2                    | 3                  | 3                    |
| 2. Mean number of distinct specialties ranked         | 1.2                | 1.4                  | 1.2                | 1.4                  |
| 3. Mean USMLE Step 1 score                            | 227                | 216                  | 233                | 221                  |
| 4. Mean USMLE Step 1 attempts*                        | 1.0                | 1.3                  | 1.0                | 1.1                  |
| 5. Mean USMLE Step 2 CK score                         | 234                | 216                  | 240                | 224                  |
| 6. Mean USMLE Step 2 CK attempts**                    | 1.0                | 1.2                  | 1.0                | 1.1                  |
| 7. Mean USMLE Step 2 CS or ECFMG CSA attempts         | 1.0                | 1.2                  | 1.1                | 1.2                  |
| 8. Mean number of months since ECFMG certification    | 8                  | 19                   | 16                 | 24                   |
| 9. Mean number of years since graduation              | 1.1                | 2.7                  | 4.4                | 6.3                  |
| 10. Percentage who speak English as a native language | 81                 | 74                   | 20                 | 21                   |

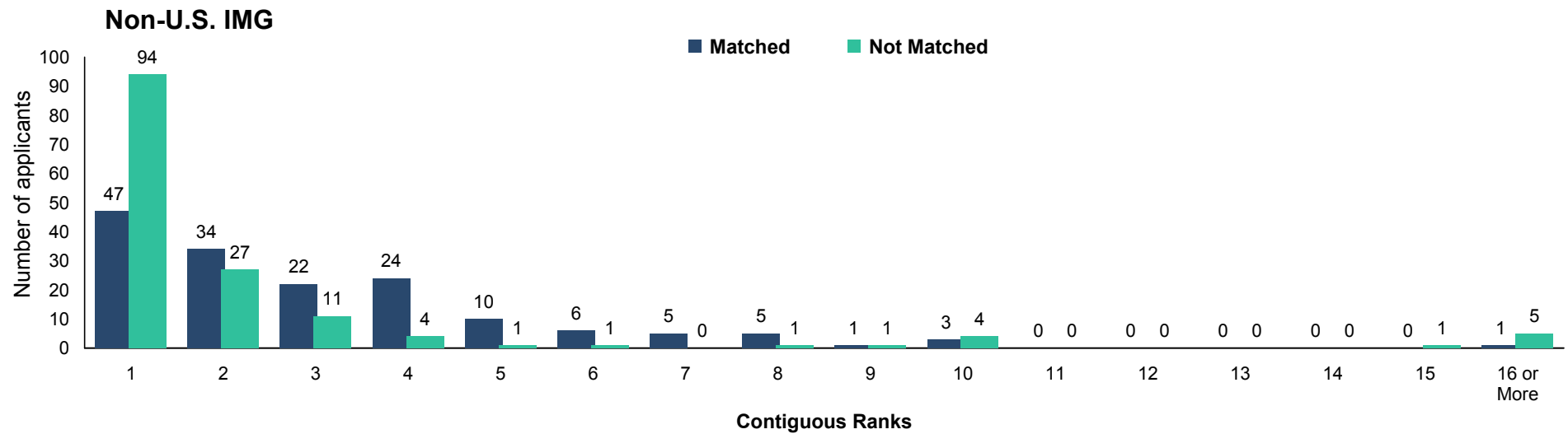
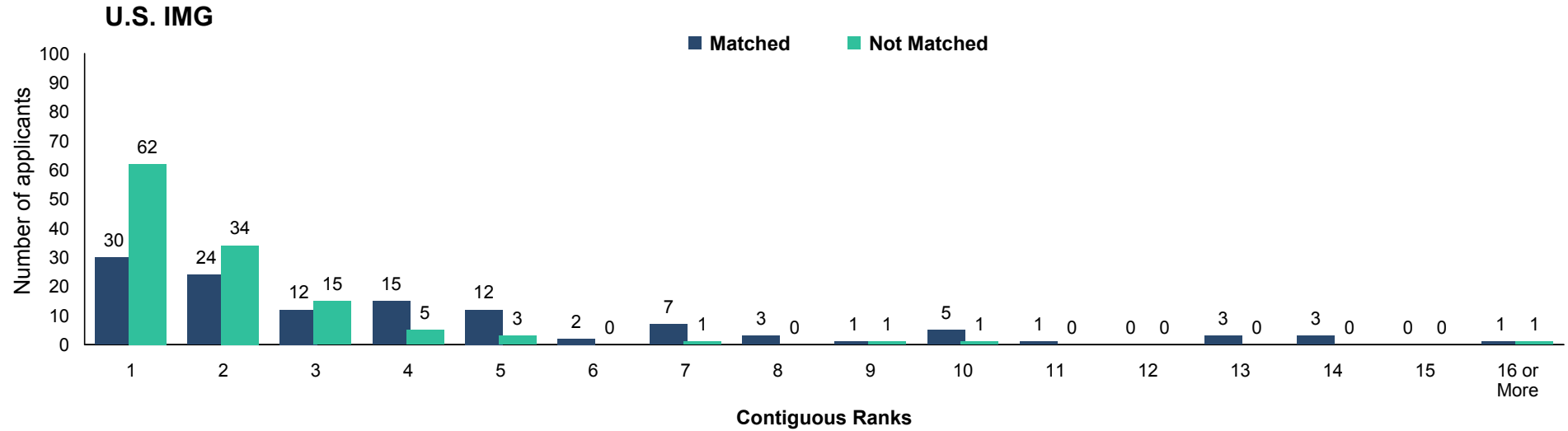
Sources: NRMP Data Warehouse and ECFMG

\*USMLE Step 1 or equivalent examination

\*\*USMLE Step 2 CK or equivalent examination

**Chart  
GS-1**

**Number of Contiguous Ranks Within Preferred Specialty  
Surgery-General**

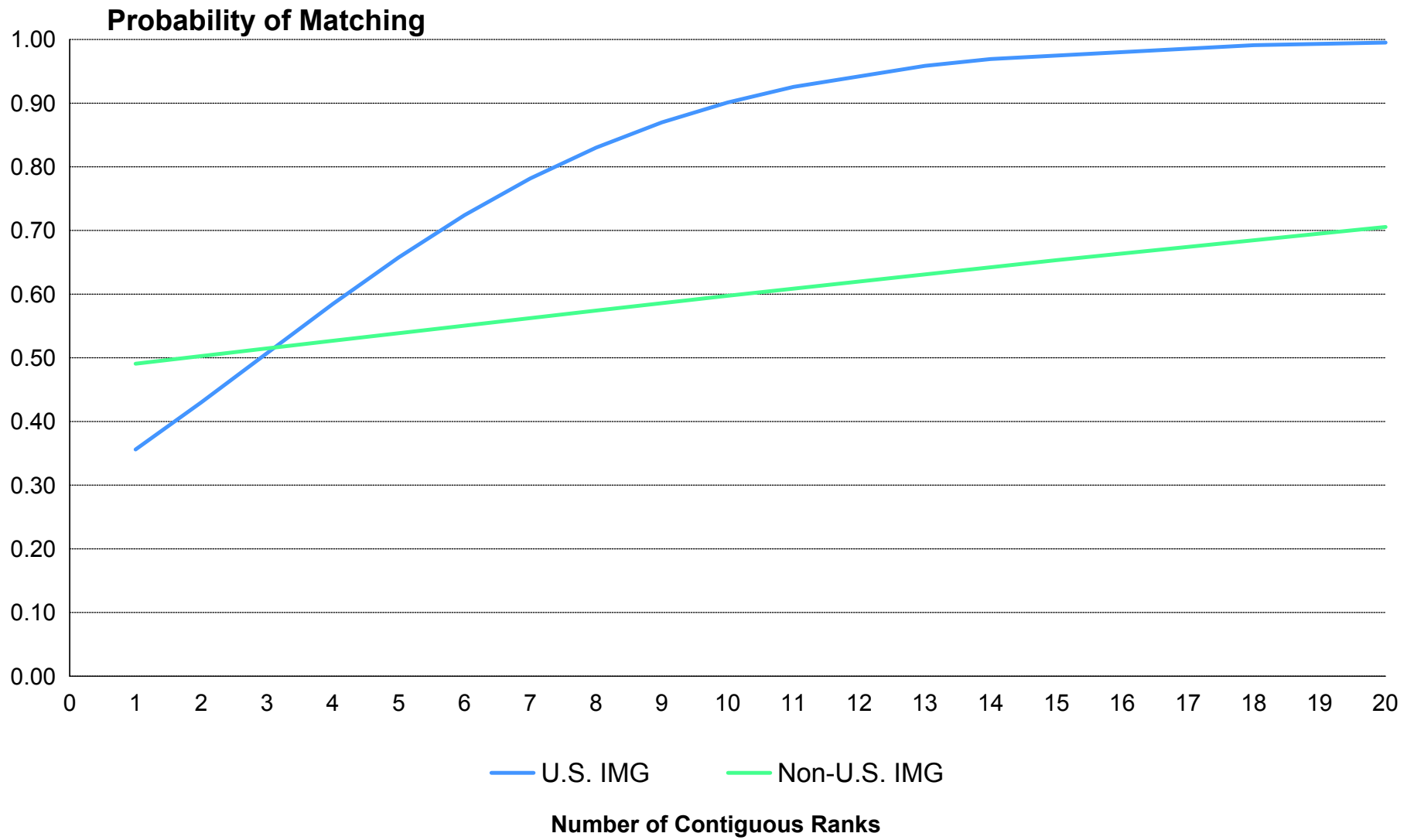


Source: NRMP Data Warehouse



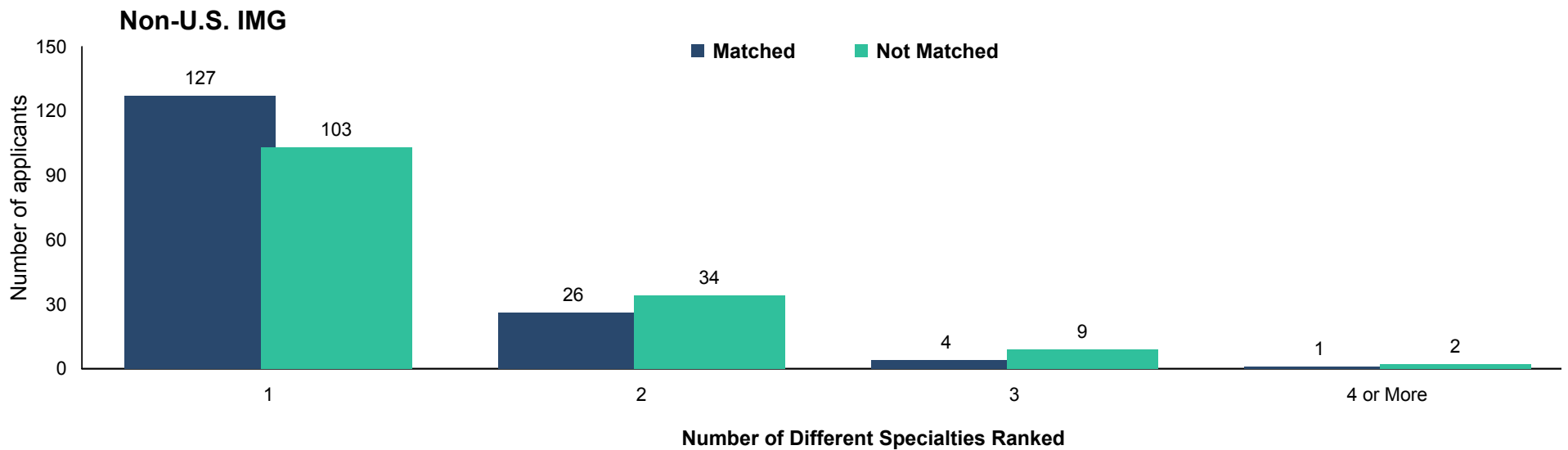
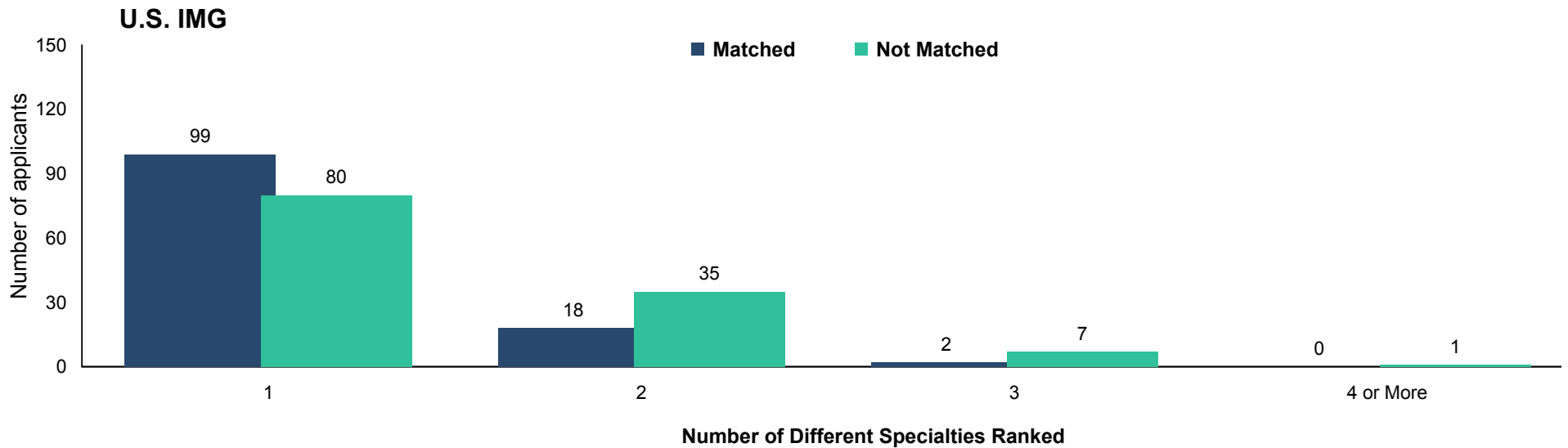
**Graph  
GS-1**

**Probability of Matching to Preferred Specialty by Number of Contiguous Ranks**  
*Surgery-General*



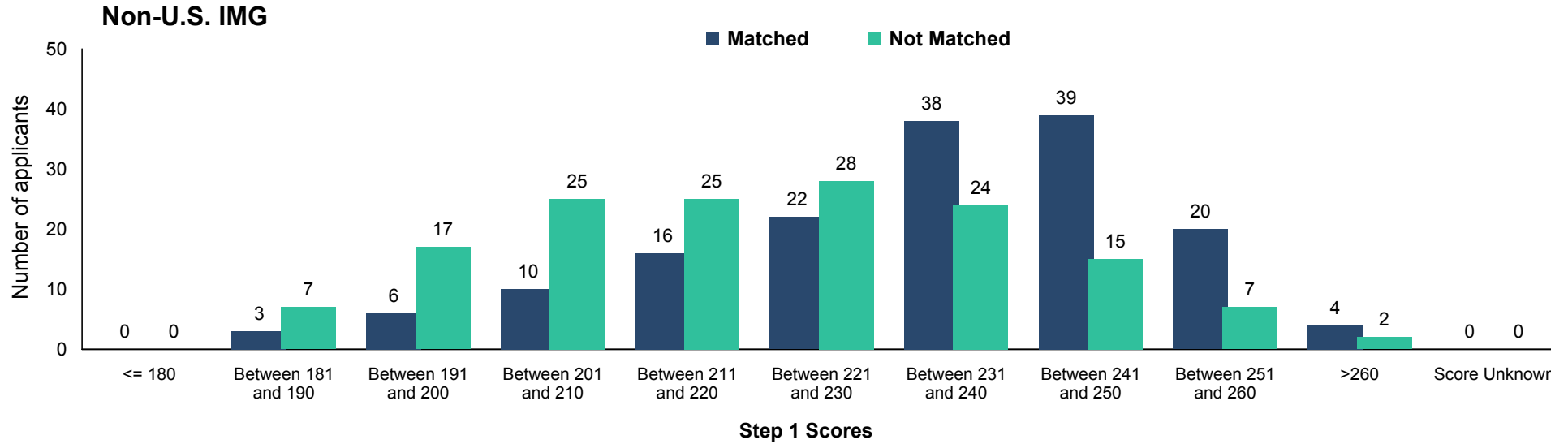
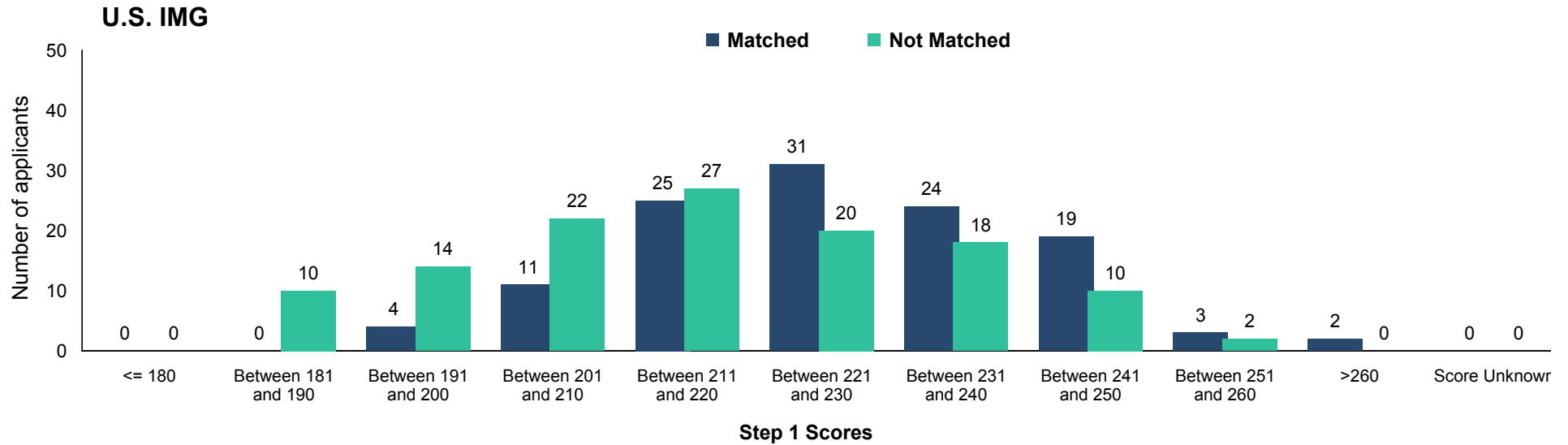
Source: NRMP Data Warehouse.

**Number of Applicants Ranking Different Specialties  
*Surgery-General***



Source: NRMP Data Warehouse

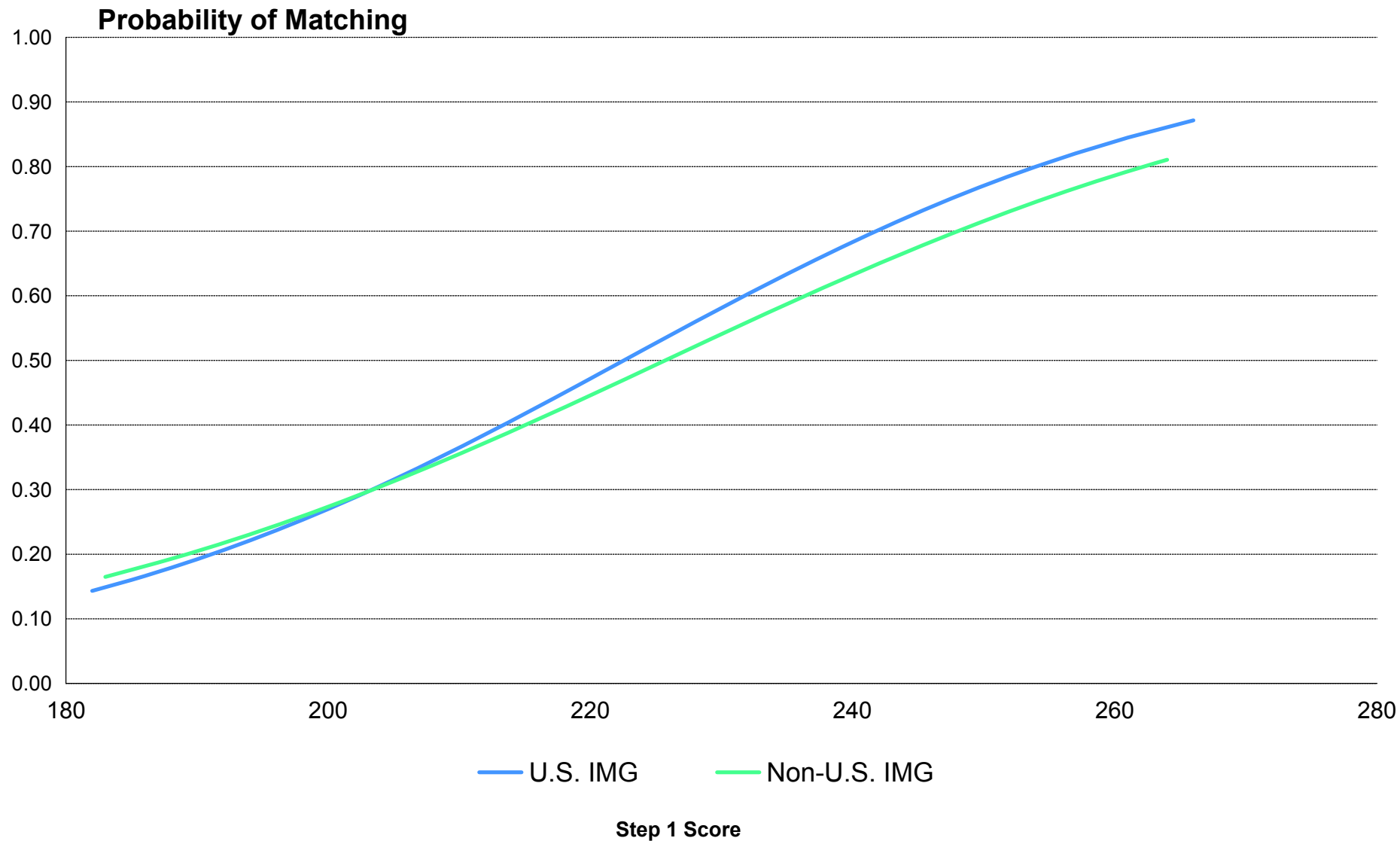
**USMLE Step 1 Scores  
Surgery-General**



Source: NRMP Data Warehouse and ECFMG.

**Graph  
GS-2**

**Probability of Matching to Preferred Specialty by USMLE Step 1 Score**  
*Surgery-General*



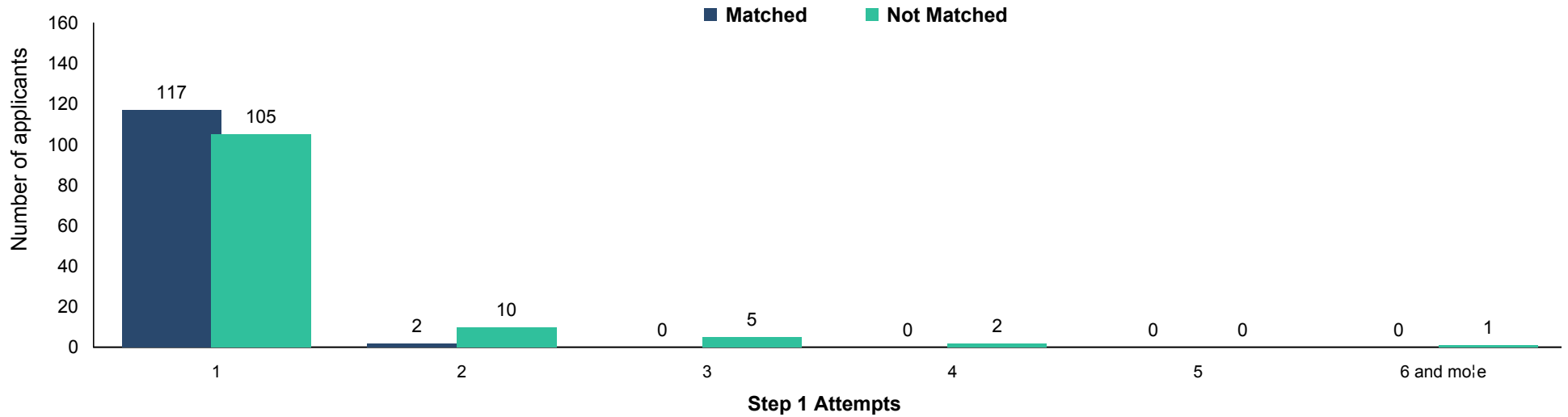
Source: NRMP Data Warehouse and ECFMG.

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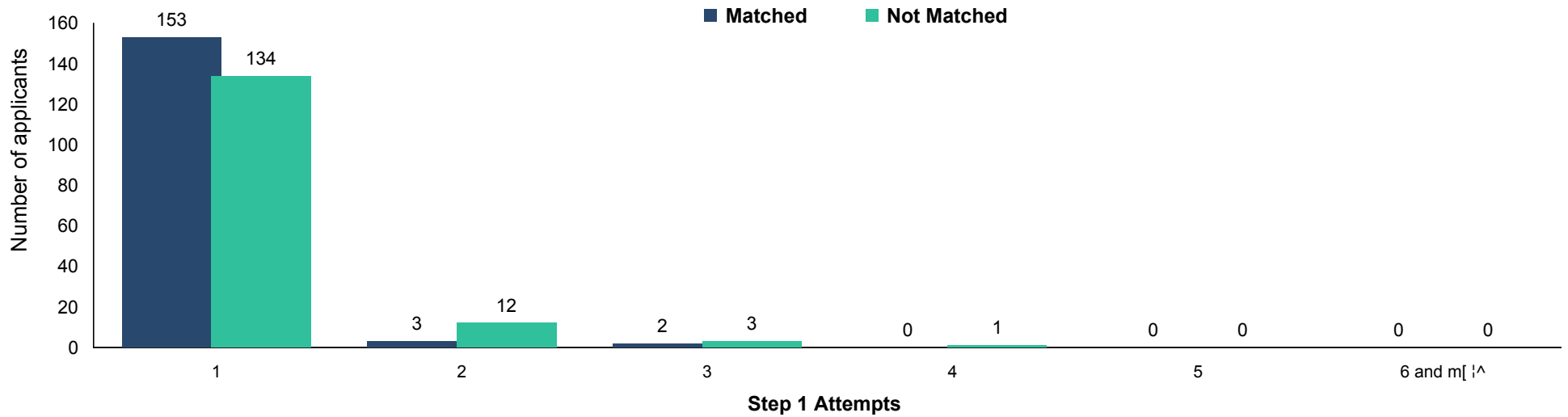
**Chart  
GS-4**

**USMLE Step 1 Attempts\*  
Surgery-General**

**U.S. IMG**



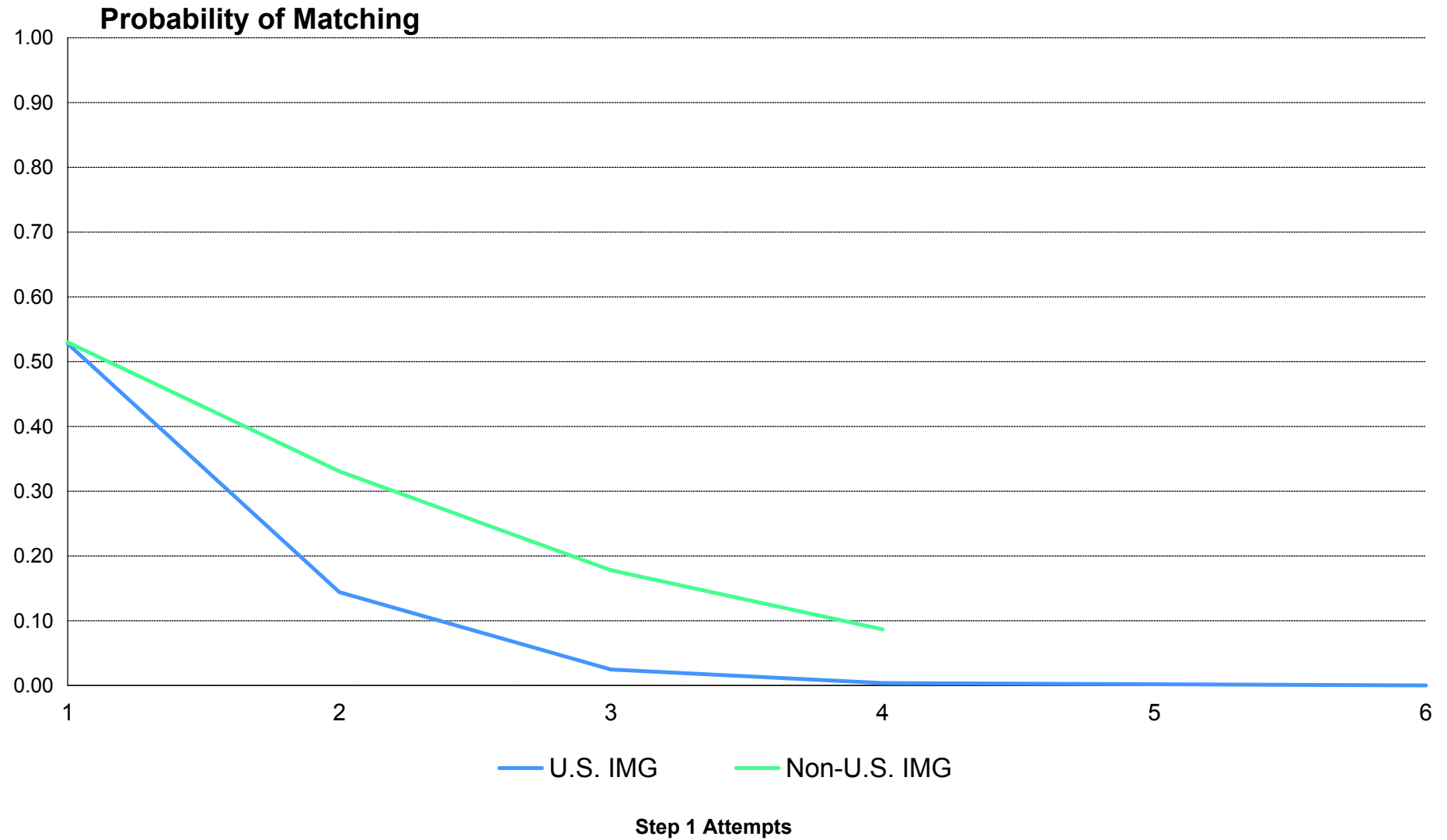
**Non-U.S. IMG**



Source: NRMP Data Warehouse and ECFMG.

\*USMLE Step 1 or equivalent examination

# Probability of Matching to Preferred Specialty by Number of Step 1 Attempts\* *Surgery-General*

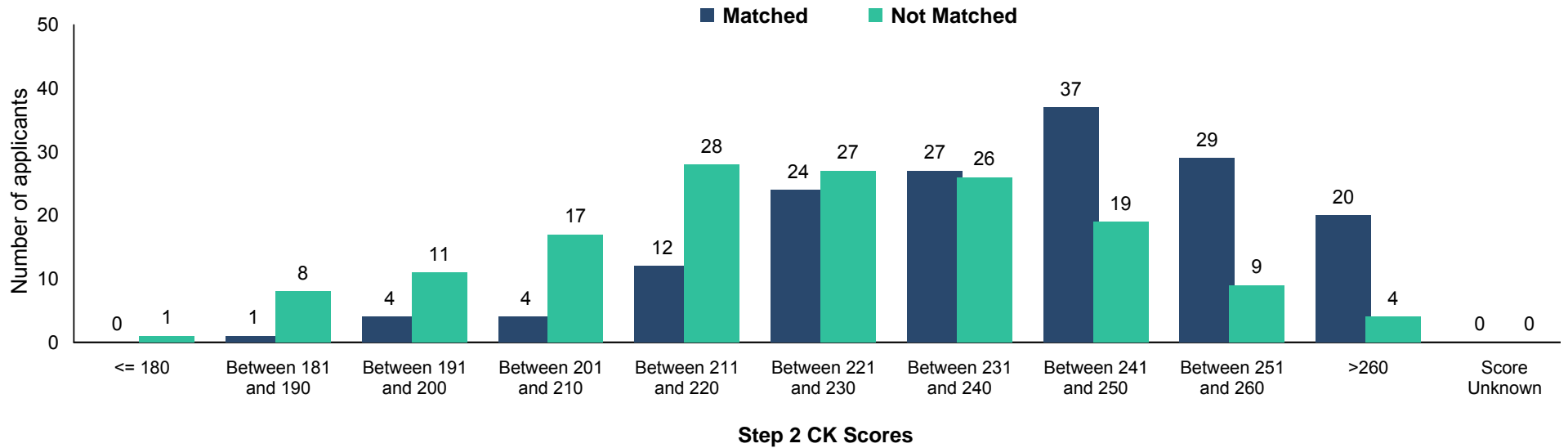
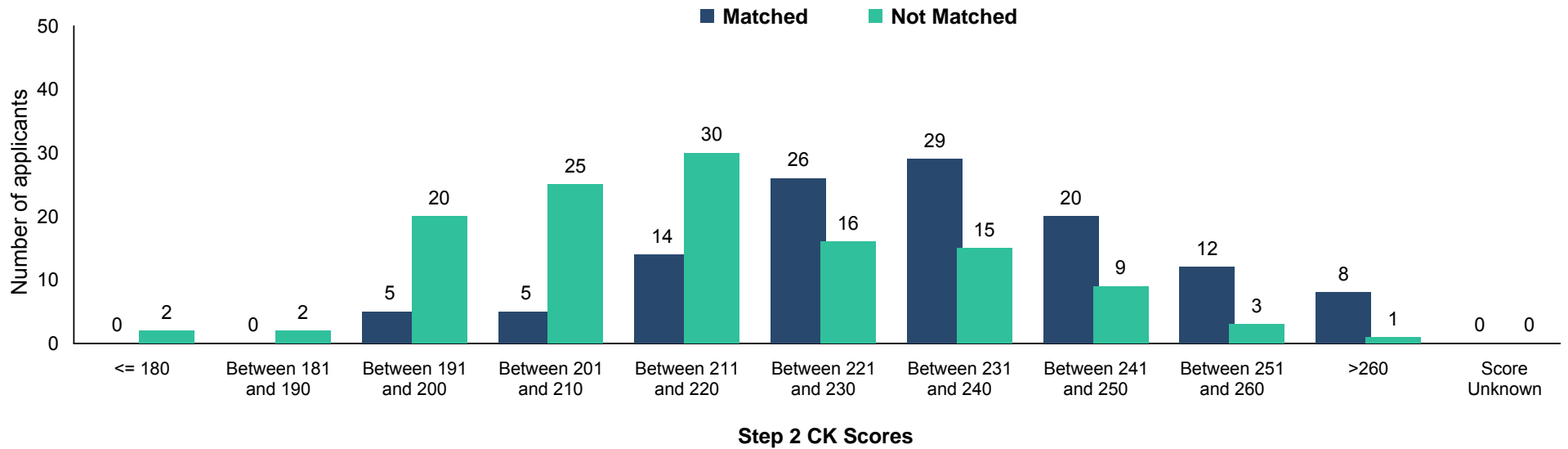


Source: NRMP Data Warehouse and ECFMG.

\*USMLE Step 1 or equivalent examination

**Chart  
GS-5**

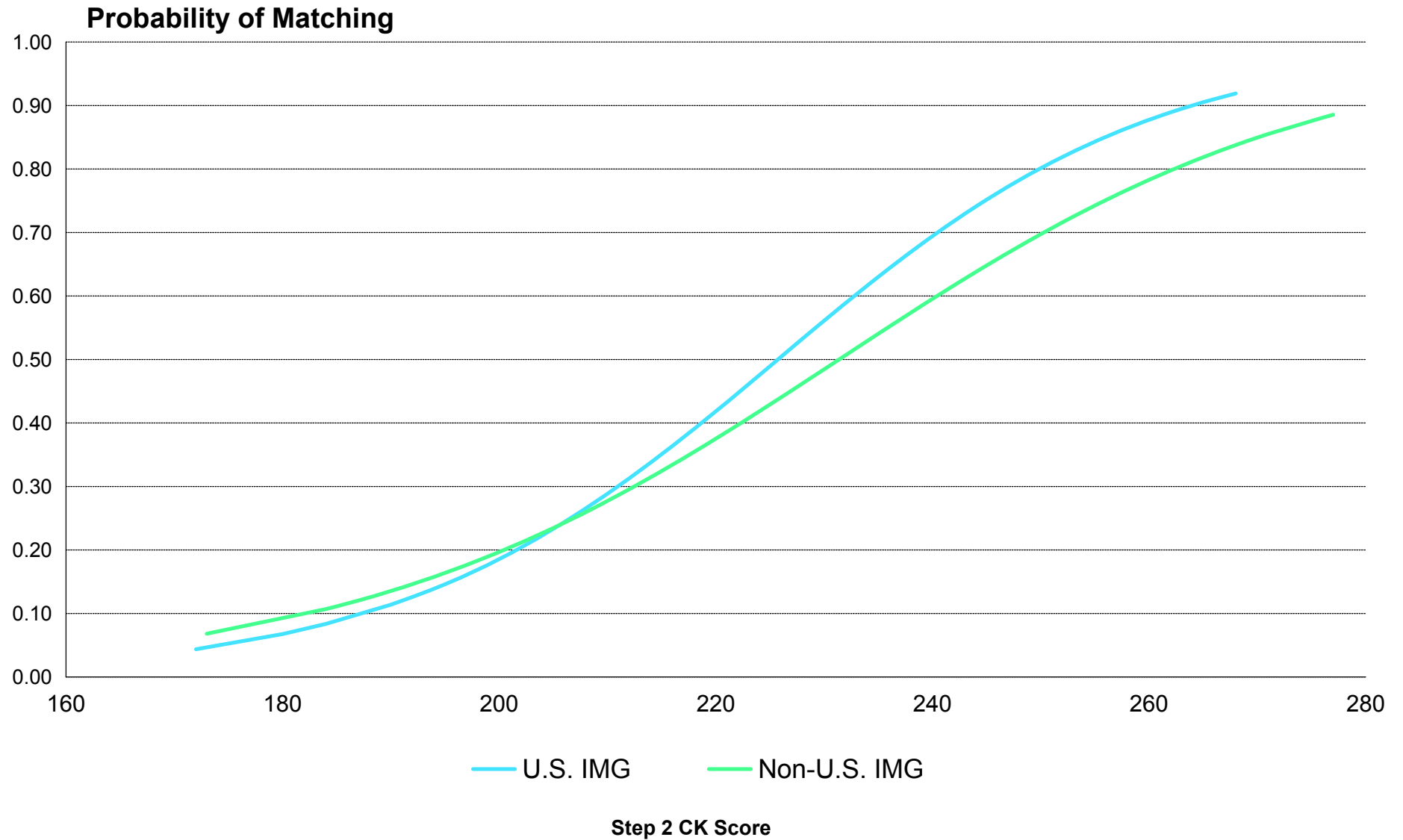
**USMLE Step 2 CK (Clinical Knowledge) Scores  
Surgery-General**



Source: NRMP Data Warehouse and ECFMG.

**Graph  
GS-4**

**Probability of Matching to Preferred Specialty by USMLE Step 2 CK (Clinical Knowledge) Score**  
*Surgery-General*



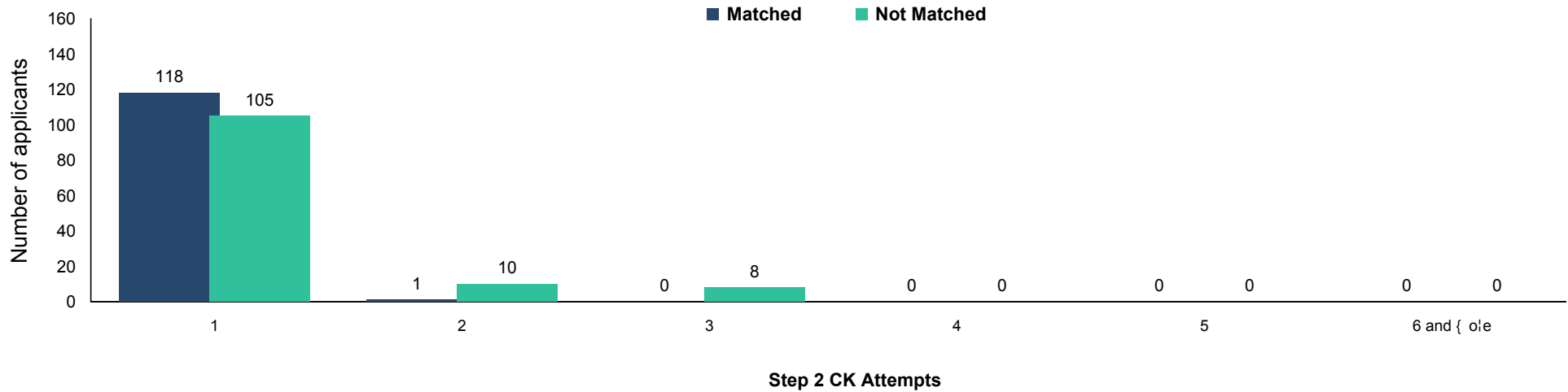
Source: NRMP Data Warehouse and ECFMG.

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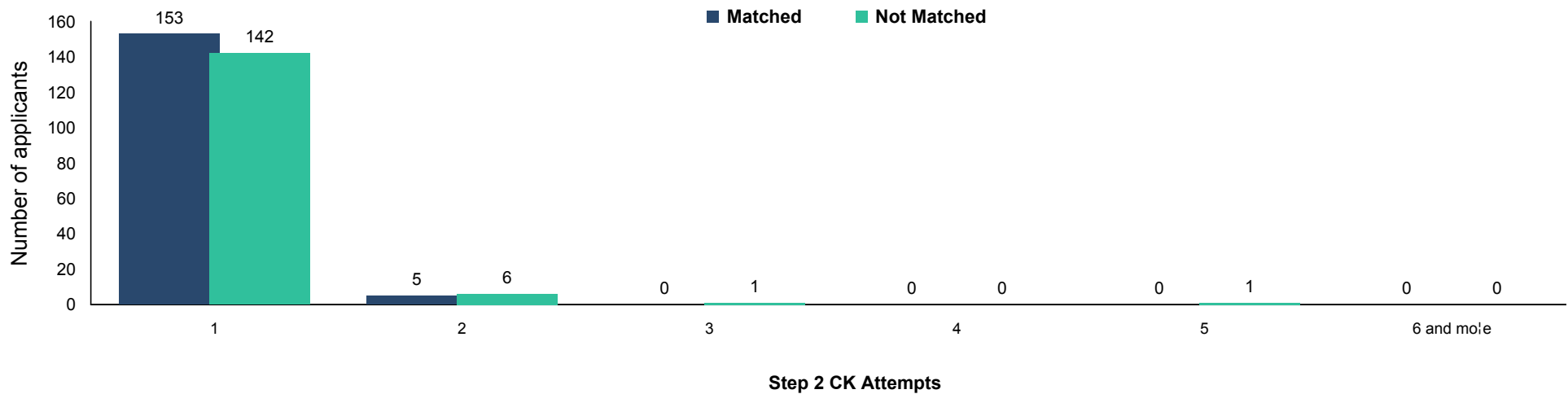


**USMLE Step 2 CK (Clinical Knowledge) Attempts\***  
*Surgery-General*

**U.S. IMG**



**Non-U.S. IMG**

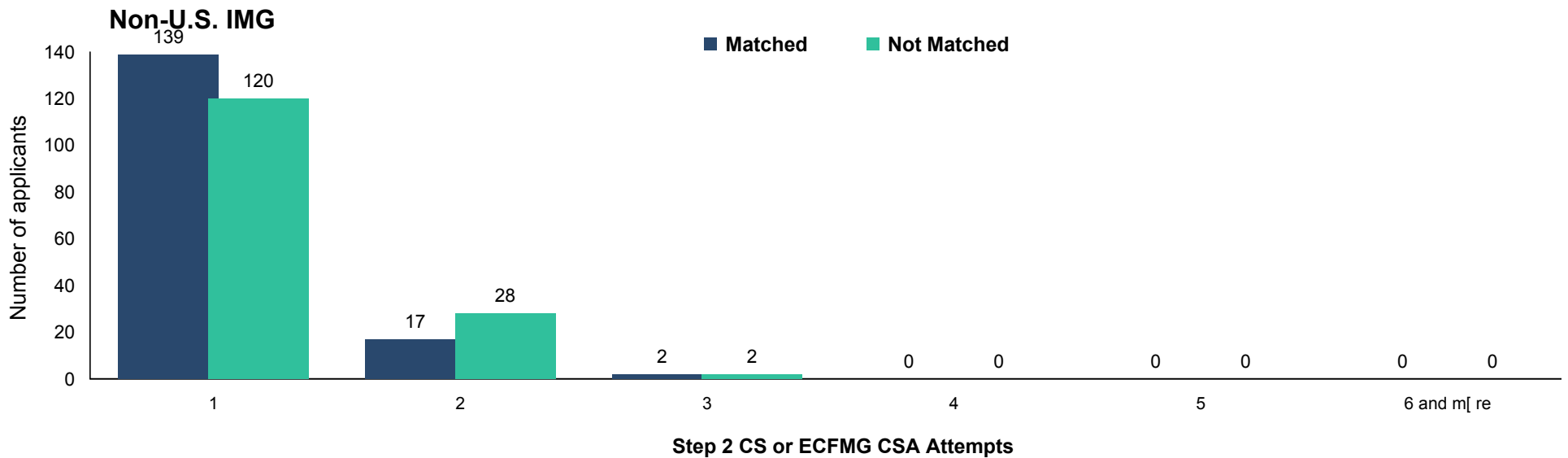
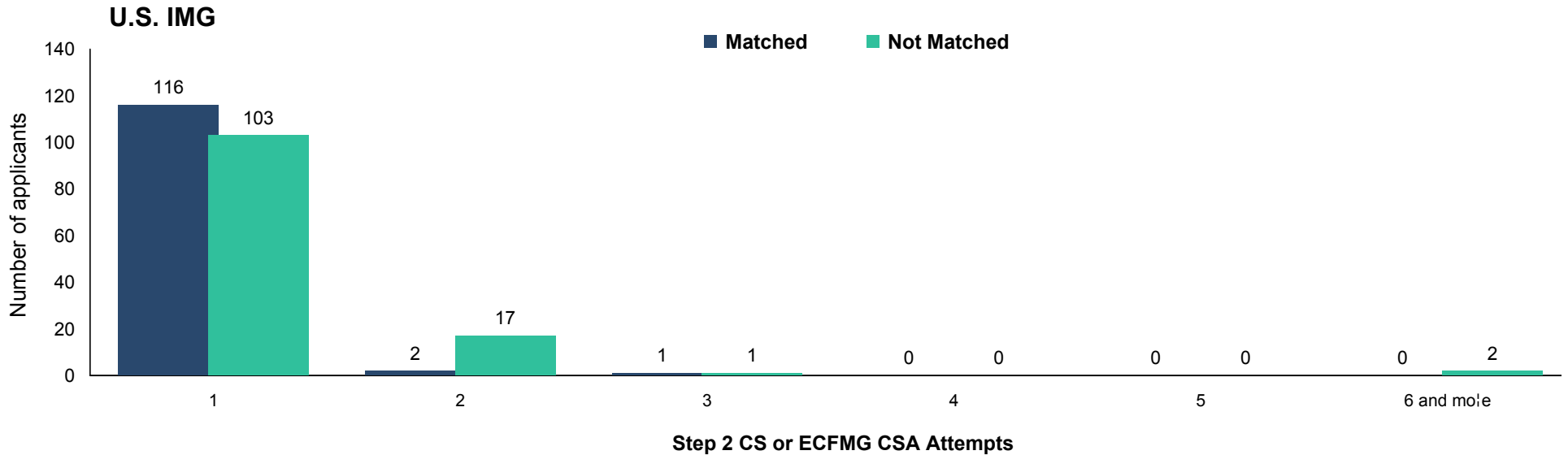


Source: NRMP Data Warehouse and ECFMG.

\*USMLE Step 2 CK or equivalent examination

**Chart  
GS-7**

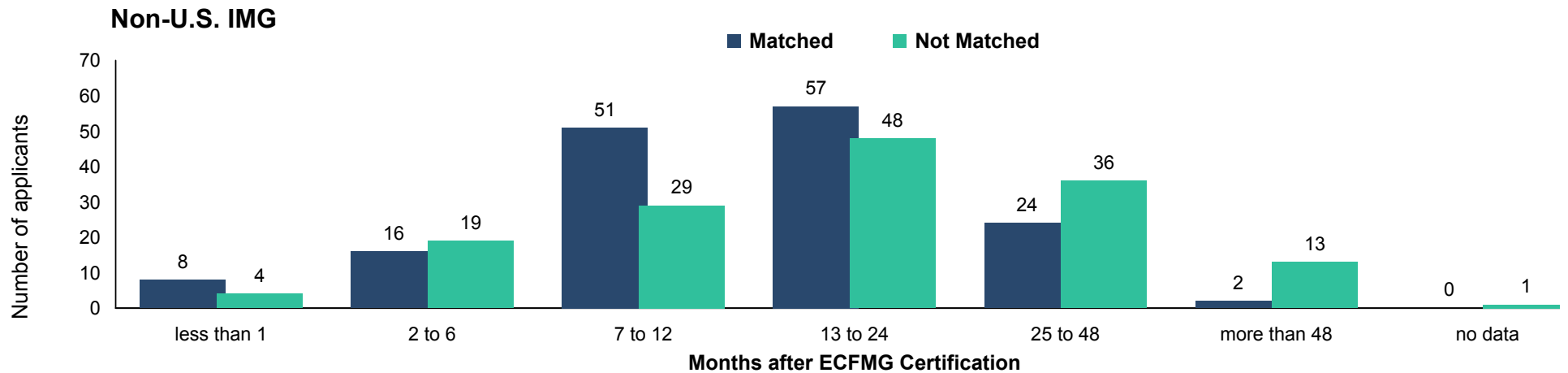
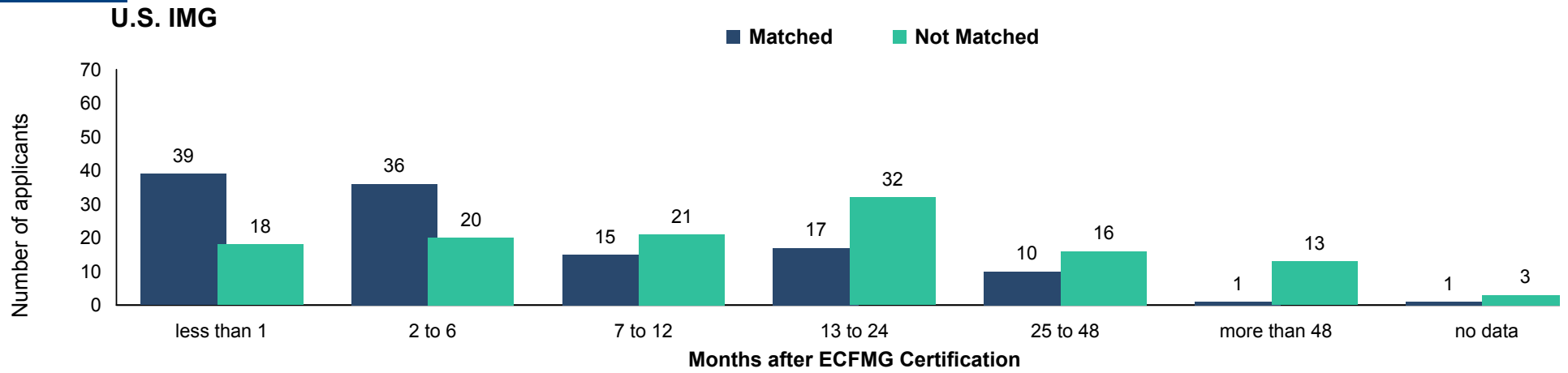
**Attempts at USMLE Step 2 CS (Clinical Skills) or ECFMG CSA (Clinical Skills Assessment)  
Surgery-General**



Source: NRMP Data Warehouse and ECFMG.

**Chart  
GS-8**

**Number of Months After ECFMG Certification  
Surgery-General**

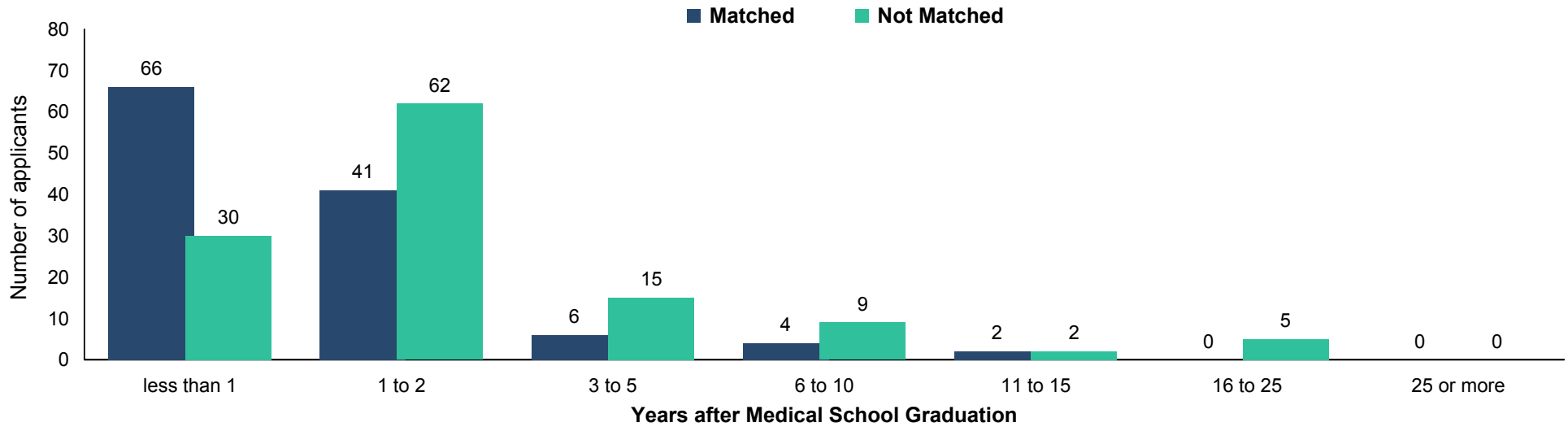


Source: NRMP Data Warehouse and ECFMG

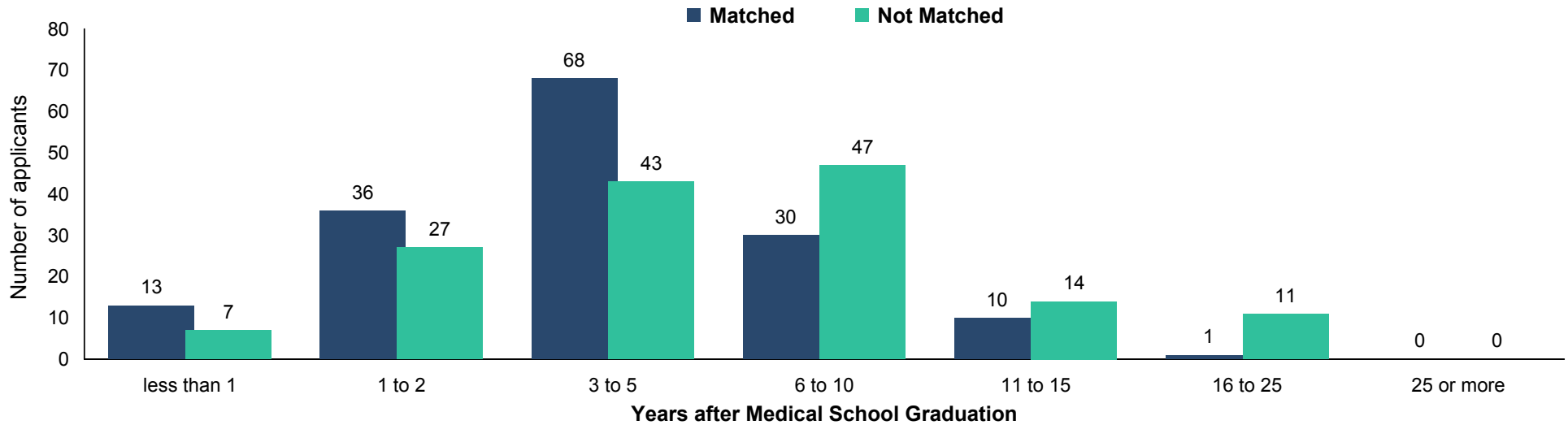
**Chart  
GS-9**

**Number of Years After Medical School Graduation  
Surgery-General**

**U.S. IMG**



**Non-U.S. IMG**

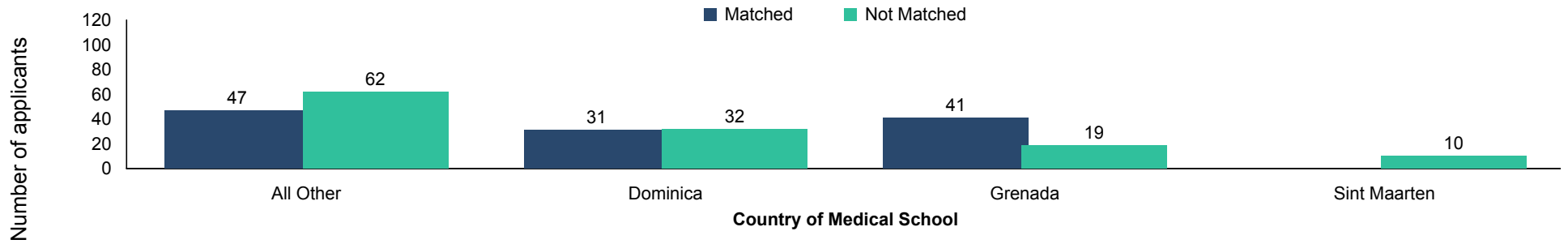


Source: NRMP Data Warehouse and ECFMG

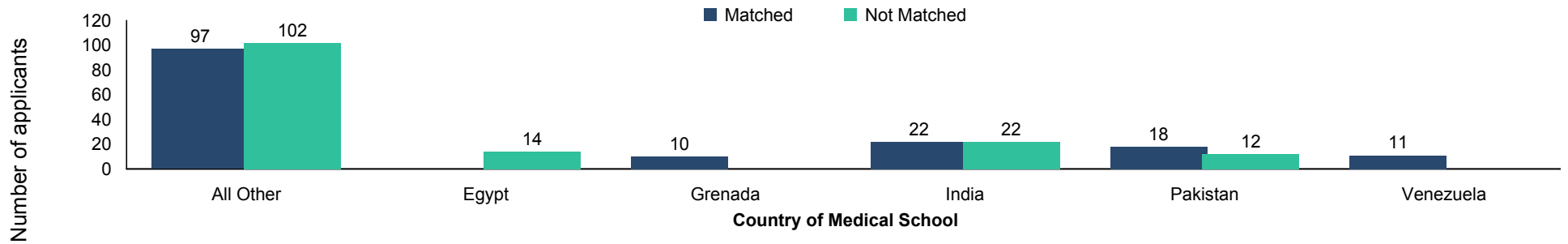
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**Country of Medical School  
Surgery-General**

**U.S. IMG**



**Non-U.S. IMG**



Source: NRMP Data Warehouse and ECFMG

Note: A country is included if it has 10 or more applicants for each category