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

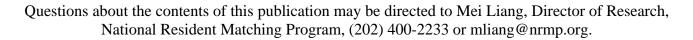
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Introduction

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.¹ Detailed information on ECFMG certification requirements can be found at: http://www.ecfmg.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

¹ 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)

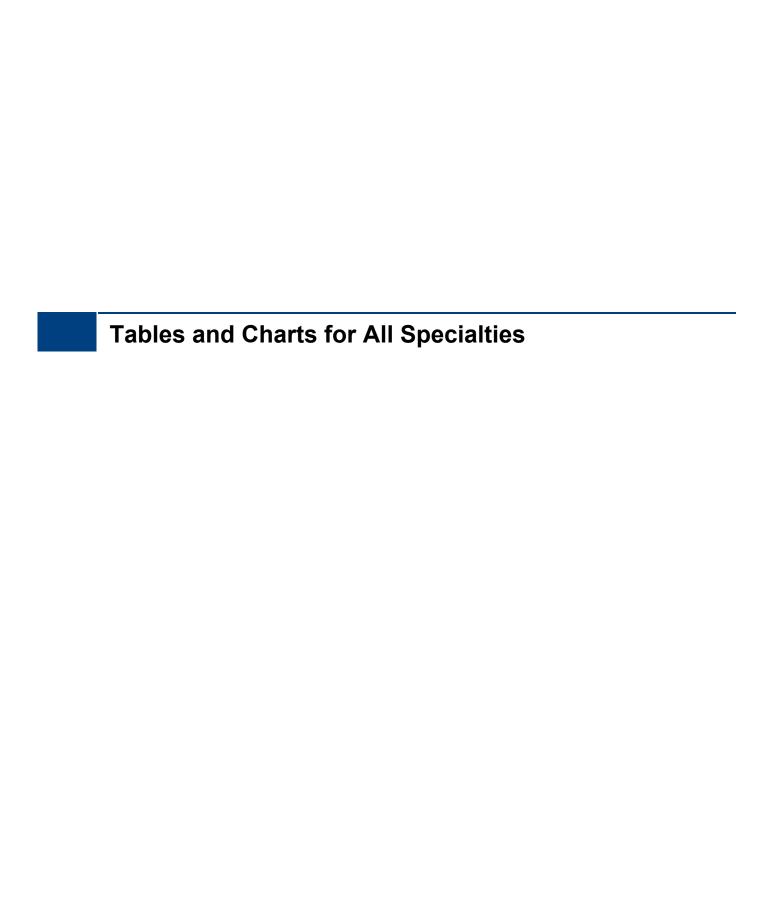
Although some other measures appear to be related to match success, the relationships were not consistent enough to draw broad conclusions across specialties. In addition, the data sources used for this report do not include other important applicant factors such as course evaluations, reference letters, 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.

For questions, comments or more information, please contact:

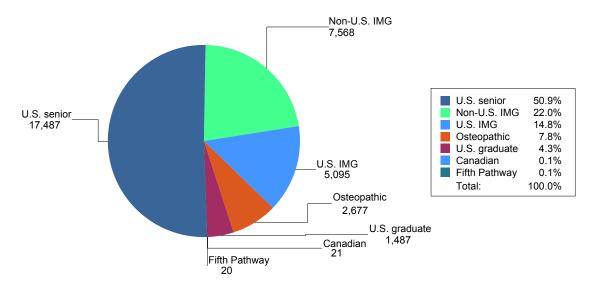
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Active Applicants in the 2014 Main Residency Match by Applicant Type



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.



Number of IMG Applicants and Positions in the 2014 Main Residency Match by Preferred Specialty*

	Total Positions Offered	Total Number of Applicants	1.1.	U.S. IMG		Non-U.S. IMG	
Preferred Specialty				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.

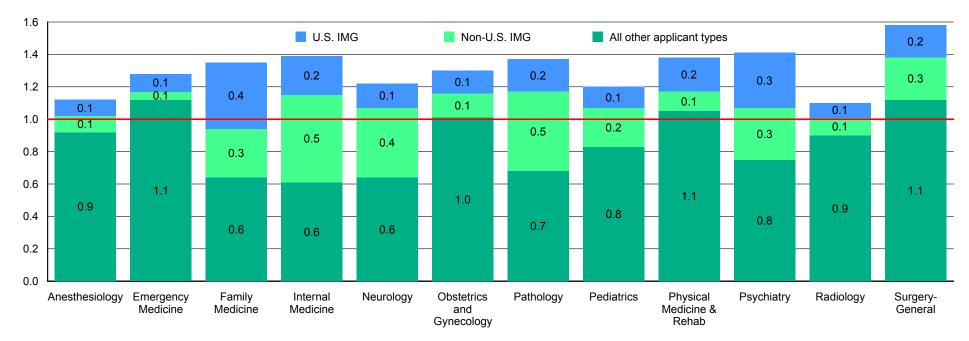
Only specialties with 100 or more IMG applicants are included

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.



Ratio - Applicants Ranking Specialty First / Available Positions by Preferred Specialty



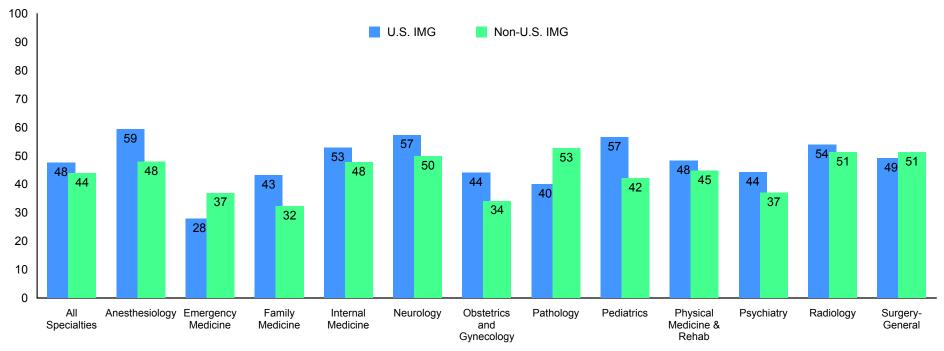
Source: NRMP Data Warehouse

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.



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.

	U.S. IMG		Non-U.S. IMG		
Measure	Matched (n=2,369)	Unmatched (n=2,604)	Matched (n=3,219)	Unmatched (n=4,111)	
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	

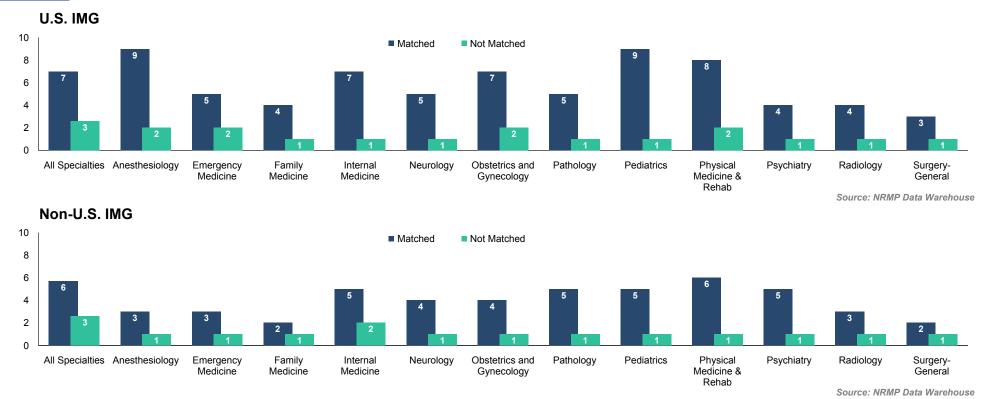
Sources. NRMP Data Warehouse and ECFMG *USMLE Step 1 or equivalent examination **USMLE Step 2 CK or equivalent examination

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.



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



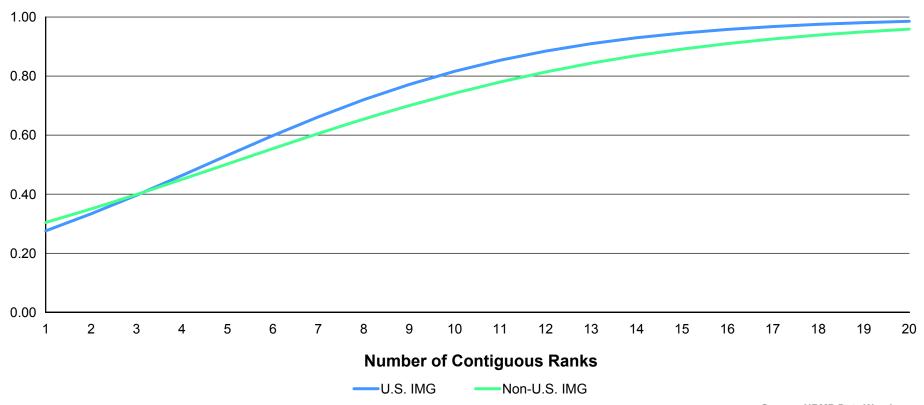
In general, applicants are more likely to be successful if they rank more programs in their desired specialty. The number of contiguous ranks is the number of programs ranked in the first-choice specialty before a program in another specialty appears on the applicant's rank order list.

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.



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

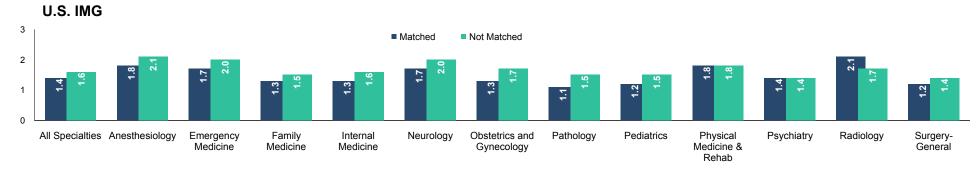


Source: NRMP Data Warehouse

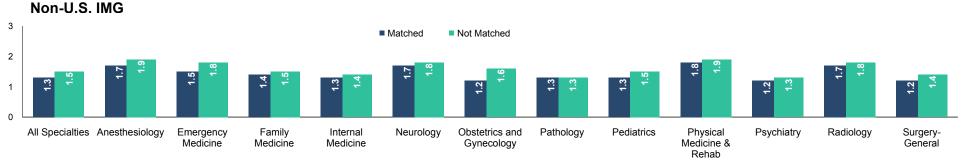
A simple logistic regression is used to calculate the probability of matching to a preferred specialty for different lengths of contiguous ranks. Graph 1 displays the probability curves for U.S. IMG and non-U.S. IMG applicants. This graph confirms the message in Chart 4 that the more programs ranked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



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



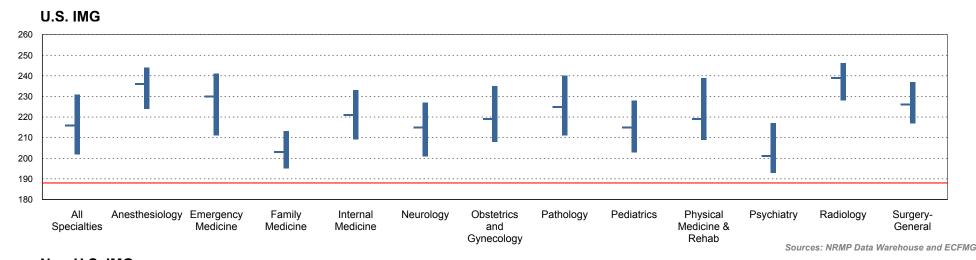
Source: NRMP Data Warehouse

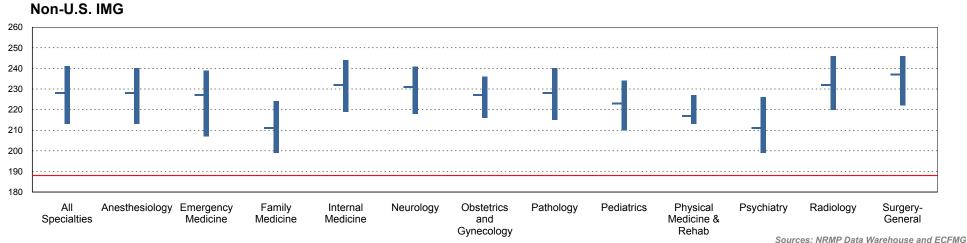


Source: NRMP Data Warehouse

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.

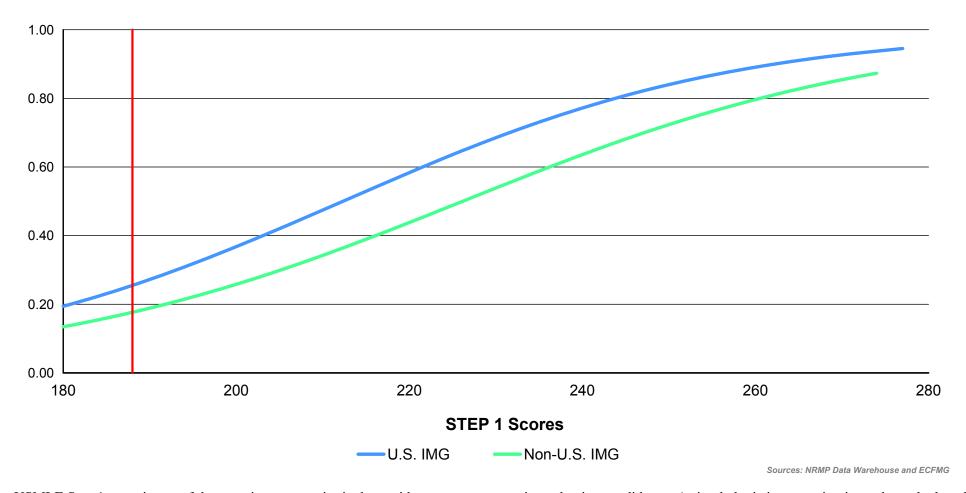
USMLE Step 1 Scores of Matched Applicants *by Preferred Specialty and IMG Applicant Type*





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

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

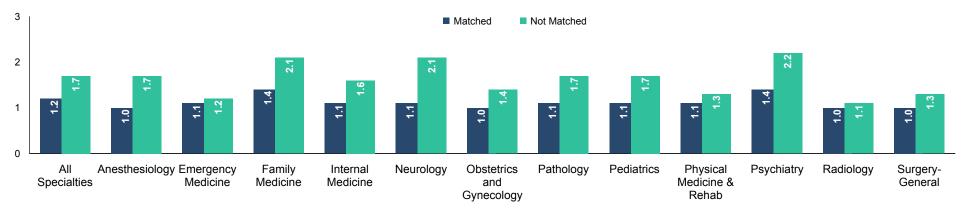


The USMLE Step 1 score is one of the most important criteria that residency programs use in evaluating candidates. A simple logistic regression is used to calculate the probability of matching to a preferred specialty by USMLE Step 1 scores. Graph 2 shows that for the same Step 1 score, U.S. IMGs have 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.

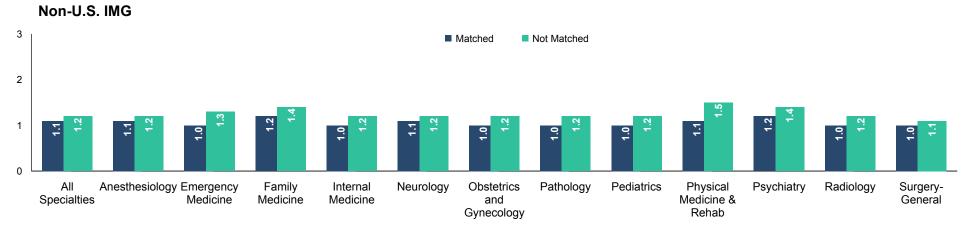


Mean Number of USMLE Step 1 Attempts* by Preferred Specialty and IMG Applicant Type





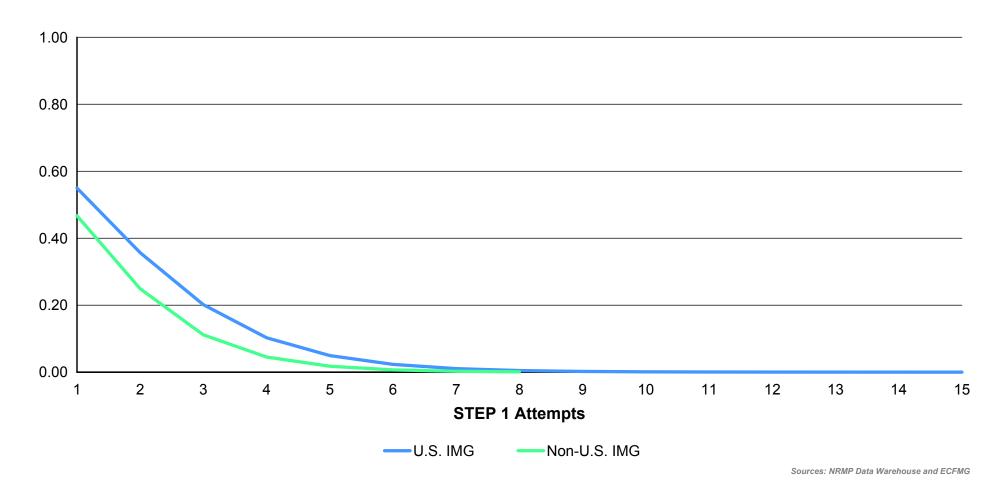
Sources: NRMP Data Warehouse and ECFMG



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.

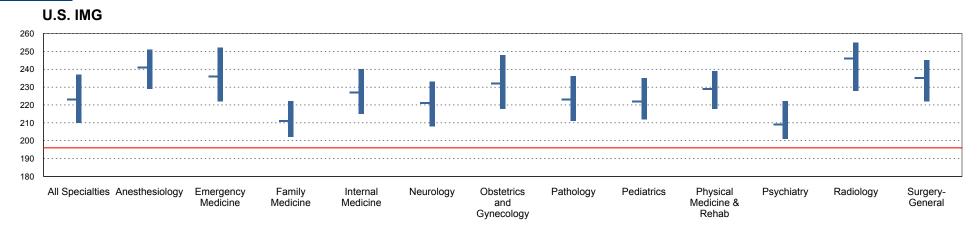
Probability of Matching to Preferred Specialty by Step 1 Attempts* by IMG Applicant Type



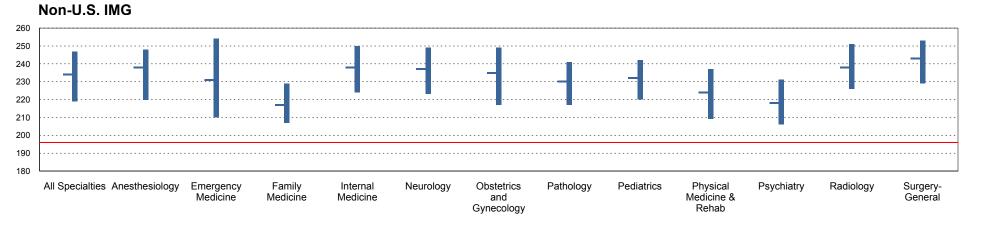
Probabilities of matching to a preferred specialty also are calculated for Step 1 attempts using a simple logistic regression. Graph 3 displays the probability curves for U.S. IMG and non-U.S. IMG applicants, and shows an inverse association between the number of Step 1 attempts and the probability of 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

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



Sources: NRMP Data Warehouse and ECFMG

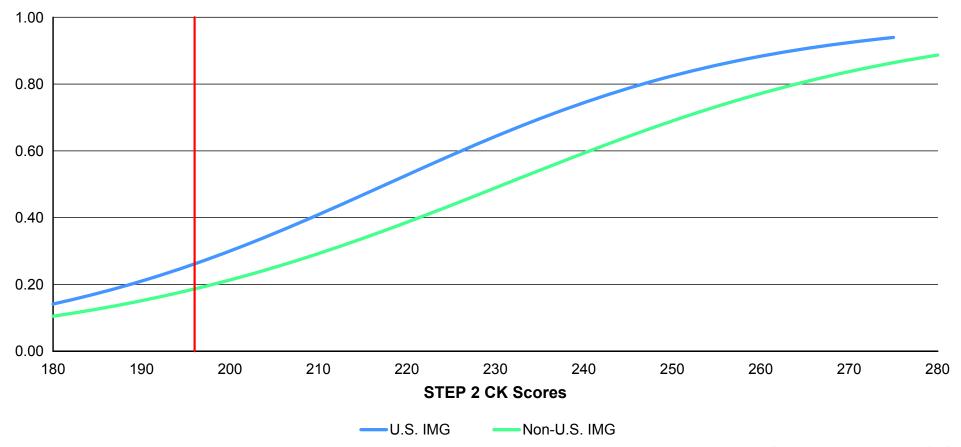


Sources: NRMP Data Warehouse and ECFMG.

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.



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

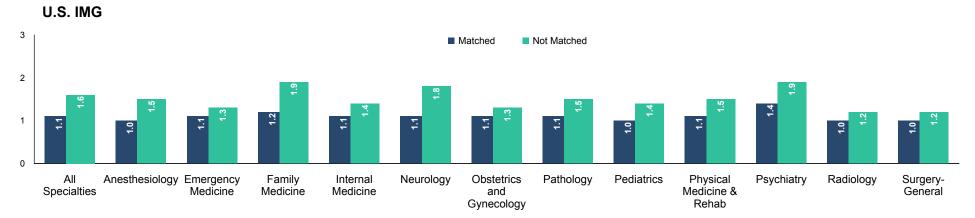


Sources: NRMP Data Warehouse and ECFMG

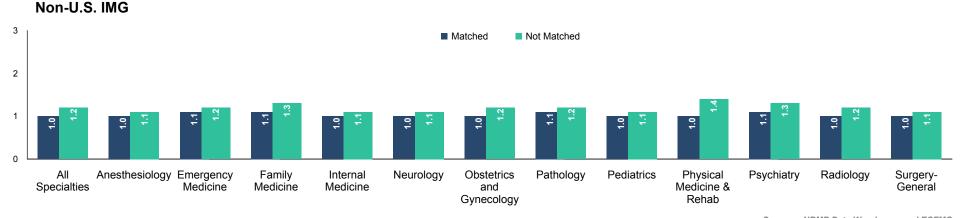
Probabilities of matching to a preferred specialty also are calculated for scores on Step 2 CK. Graph 4 presents the probability curves for U.S. IMG and non-U.S. IMG applicants. The red line marks the passing score of 196 in 2012. All applicants with Step 2 CK score below 196 took the test before May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



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

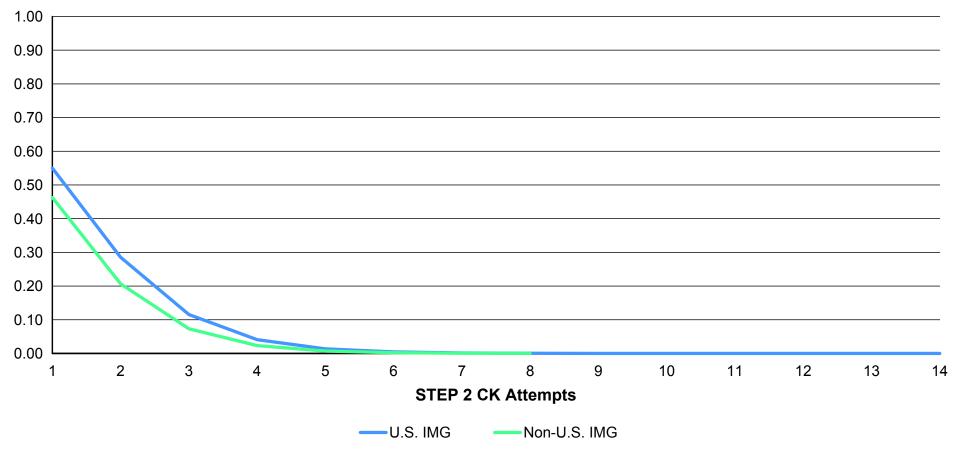


Sources: NRMP Data Warehouse and ECFMG

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.



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

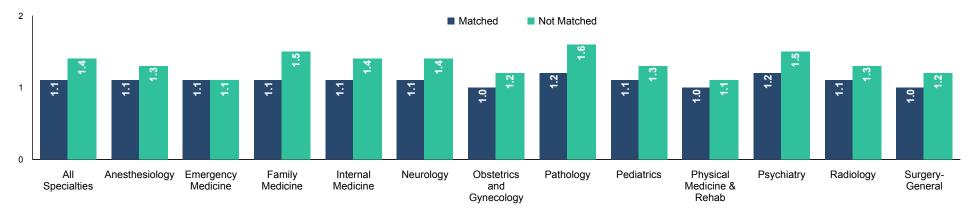
Probabilities of matching to a preferred specialty are calculated for attempts at Step 2 CK or equivalent historical exams using a simple logistic regression. Graph 5 compares the probabilities of matching for different numbers of attempts. Similar to the Step 1 attempts, this graph shows that the more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



Mean Number Attempts at of USMLE Step 2 CS (Clinical Skills) or ECFMG CSA (Clinical Skills Assessment)

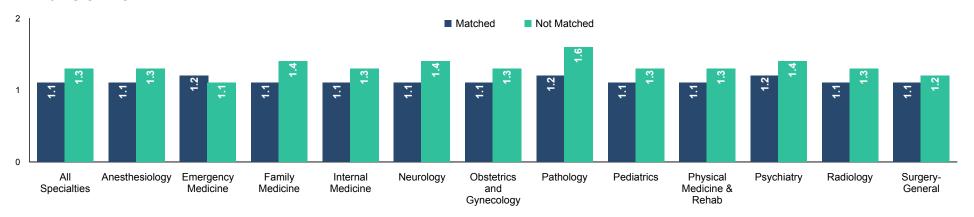
by Preferred Specialty, IMG Applicant Type, and Match Status

U.S. IMG



Sources: NRMP Data Warehouse and ECFMG.

Non-U.S. IMG

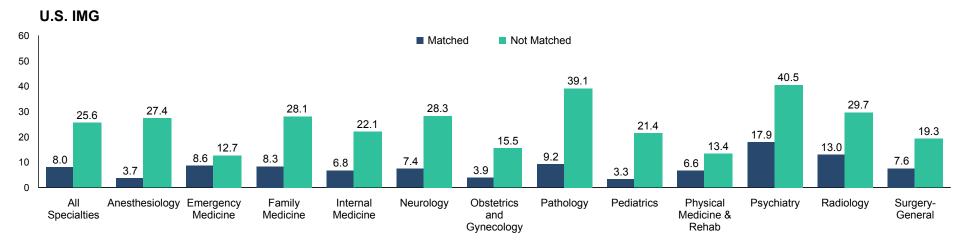


Sources: NRMP Data Warehouse and ECFMG.

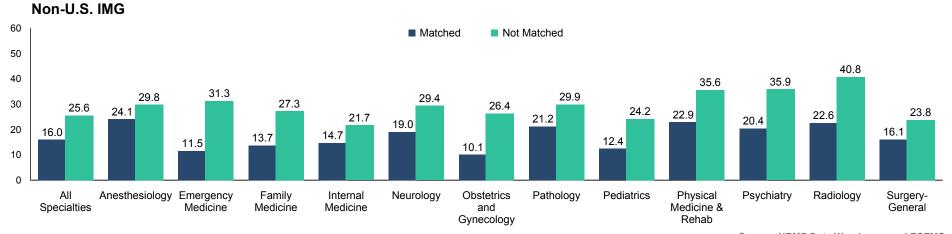
Passing USMLE Step 2 CS is a requirement for ECFMG certification. Because USMLE reports only pass/fail status on this exam, only the number of attempts at the exam is studied. Chart 10 compares the mean number of attempts at Step 2 CS or equivalent exams for matched and unmatched U.S. IMGs and non-U.S. 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.



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



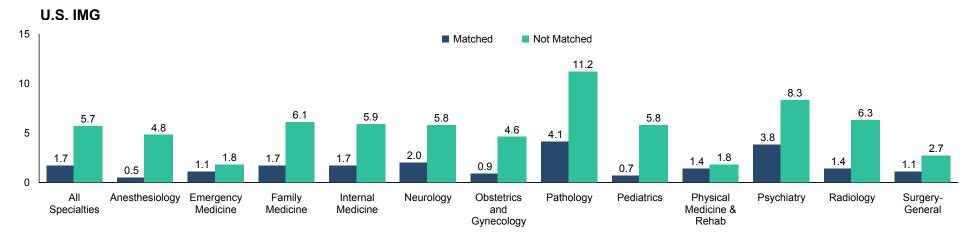
Source: NRMP Data Warehouse and ECFMG



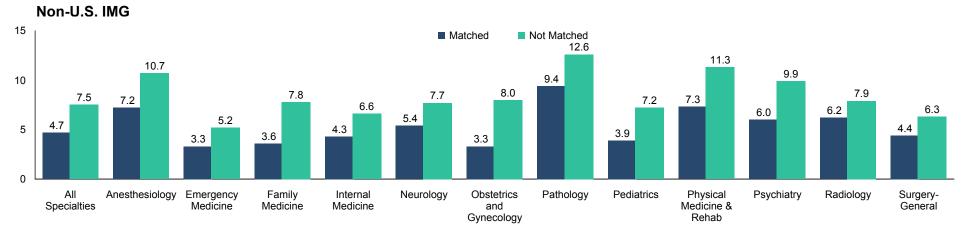
Source: NRMP Data Warehouse and ECFMG

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.

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



Sources: NRMP Data Warehouse and ECFMG



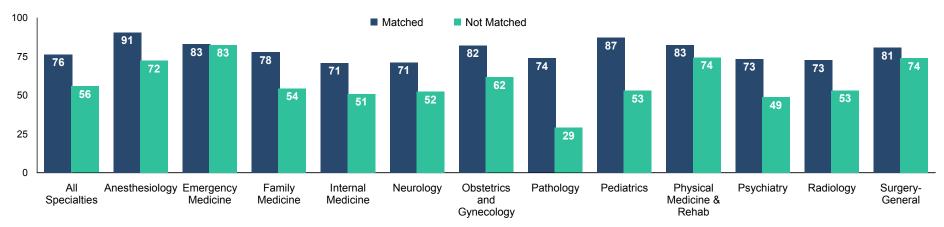
Sources: NRMP Data Warehouse and ECFMG

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.

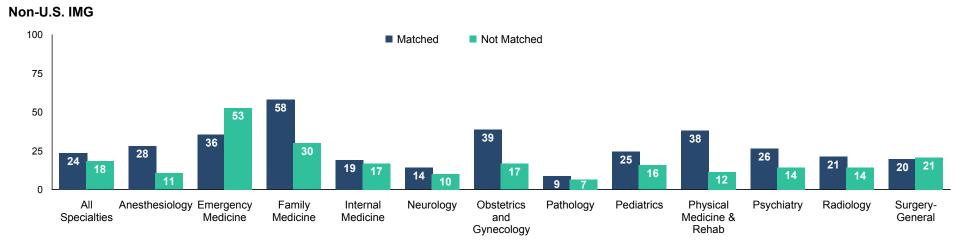


Percentage of IMG Applicants whose Native Language is English* by Preferred Specialty, IMG Applicant Type, and Match Status





Source: NRMP Data Warehouse and ECFMG



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 languate as English is self-reported



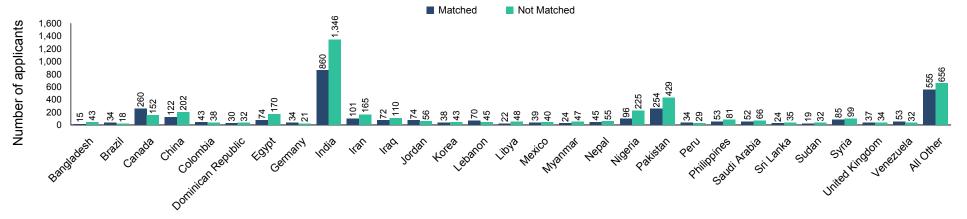
IMG Applicants' Citizenship at Birth by IMG Applicant Type and Match Status





Source: NRMP Data Warehouse and ECFMG

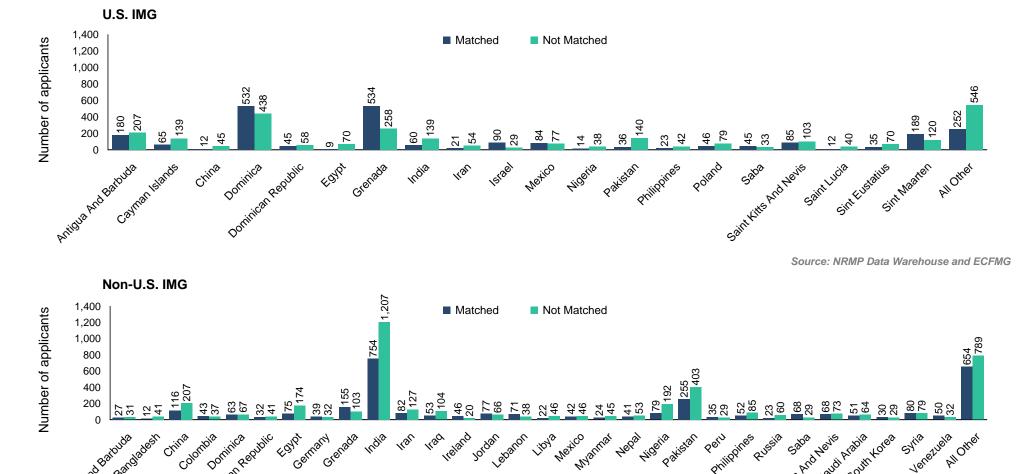




Source: NRMP Data Warehouse and ECFMG

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.

Country of Medical School by IMG Applicant Type and Match Status



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.



Anesthesiology

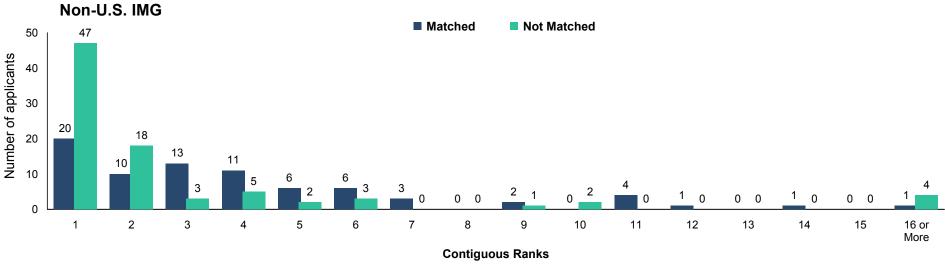
		U.S. IMG		Non-U.S. IMG	
Me	Measure		Unmatched (n=65)	Matched (n=78)	Unmatched (n=85)
1.	Mean number of contiguous ranks	9	3	4	3
2.	Mean number of distinct specialties ranked	1.8	2.1	1.7	1.9
3.	Mean USMLE Step 1 score	234	210	226	219
4.	Mean USMLE Step 1 attempts*	1.0	1.7	1.1	1.2
5.	Mean USMLE Step 2 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

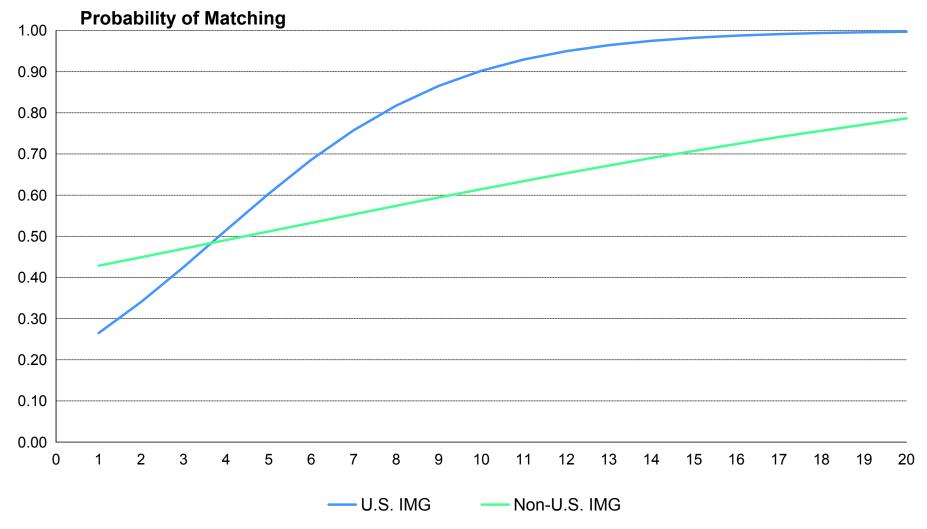
Number of Contiguous Ranks Within Preferred Specialty Anesthesiology







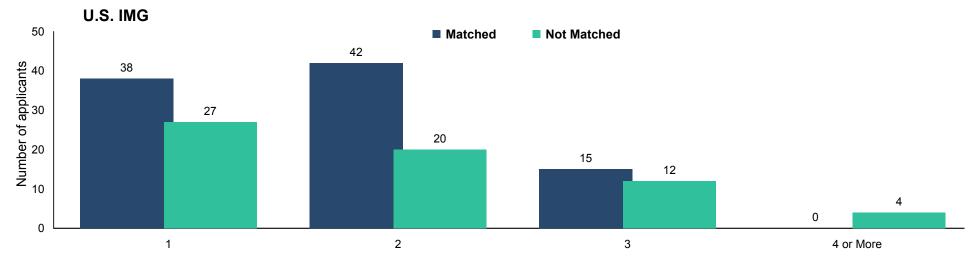
Probability of Matching to Preferred Specialty by Number of Contiguous Ranks Anesthesiology



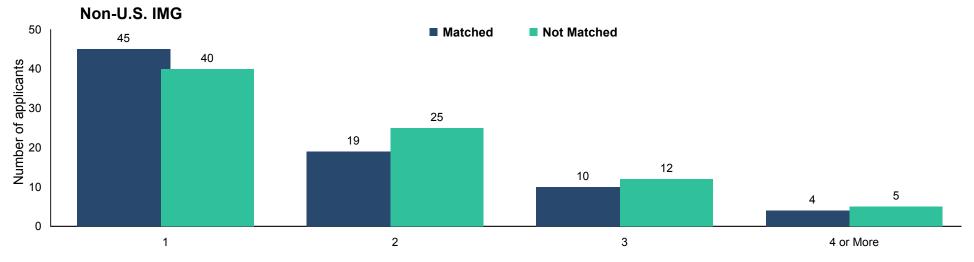
Number of Contiguous Ranks



Number of Applicants Ranking Different Specialties Anesthesiology



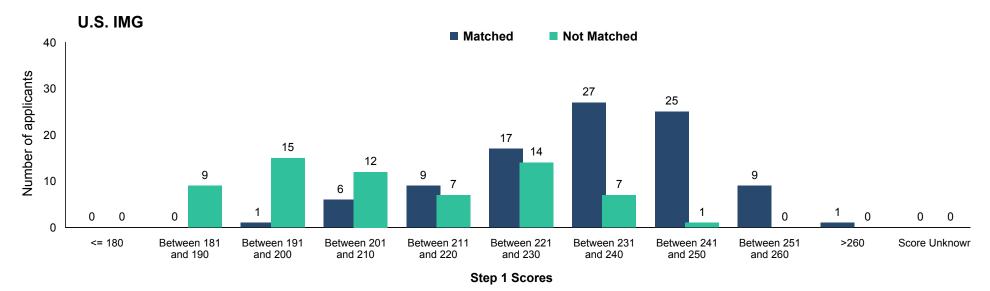


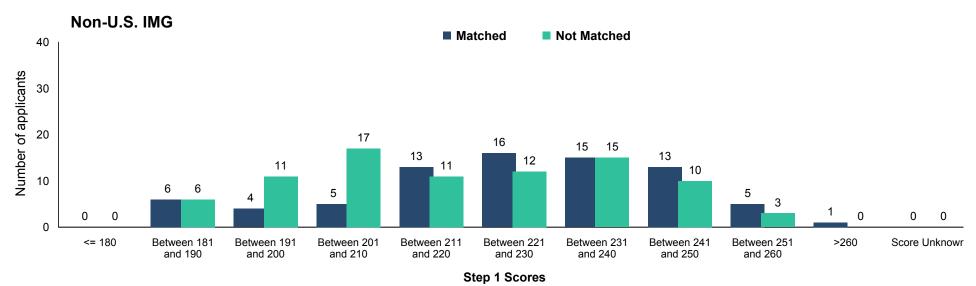


Number of Different Specialties Ranked

Source: NRMP Data Warehouse

Chart USMLE Step 1 Scores Anesthesiology

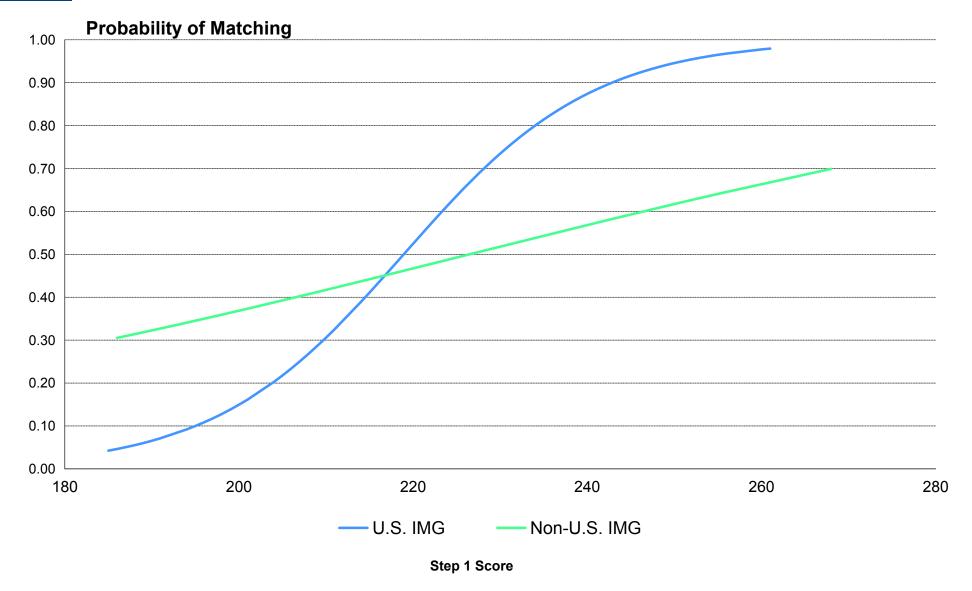




Source: NRMP Data Warehouse and ECFMG.



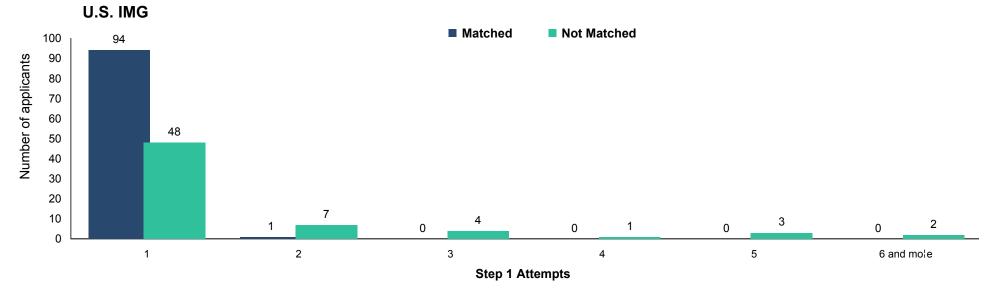
Probability of Matching to Preferred Specialty by USMLE Step 1 Score Anesthesiology

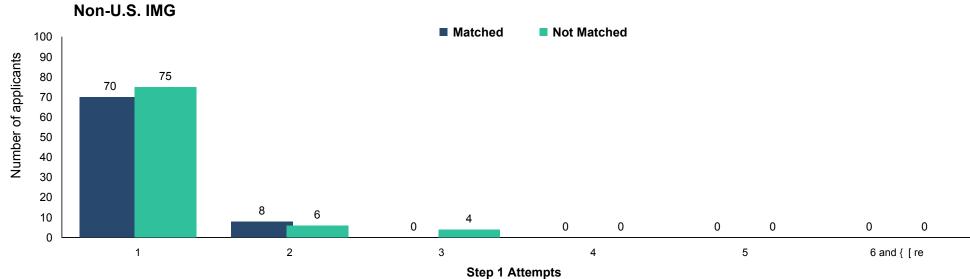


Source: NRMP Data Warehouse and ECFMG.



USMLE Step 1 Attempts* *Anesthesiology*



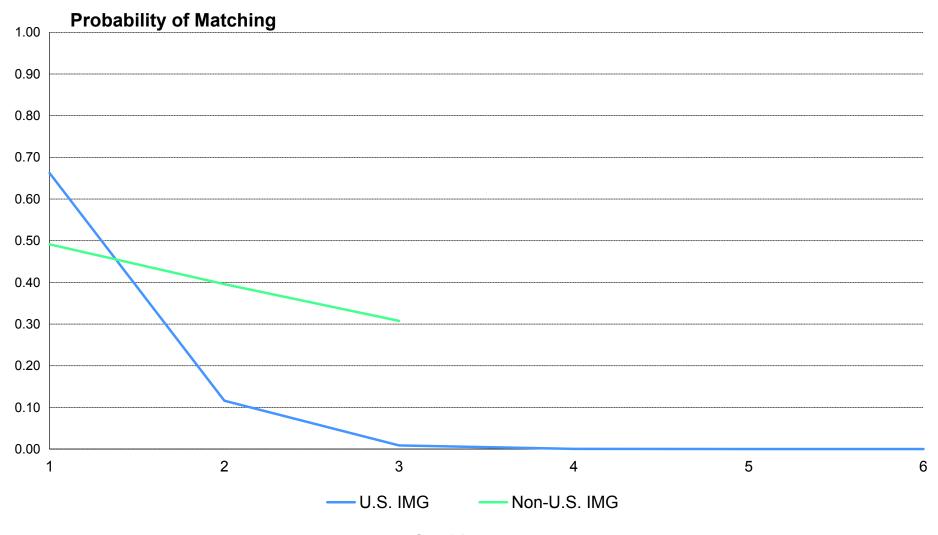


Source: NRMP Data Warehouse and ECFMG.

*USMLE Step 1 or equivalent examination



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

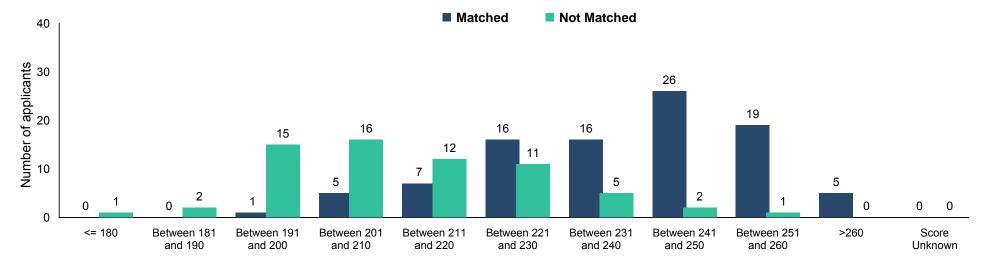


Step 1 Attempts

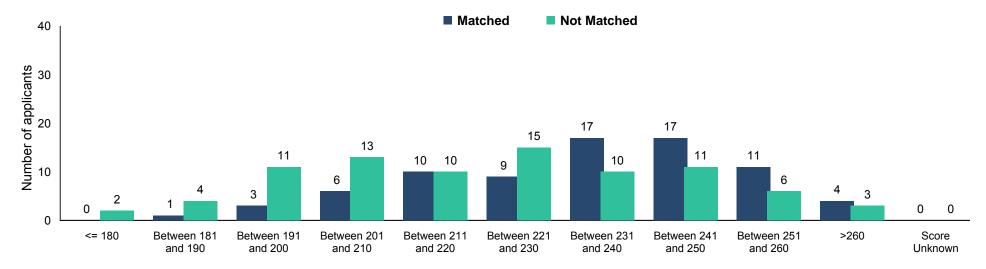
Source: NRMP Data Warehouse and ECFMG.

*USMLE Step 1 or equivalent examination

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



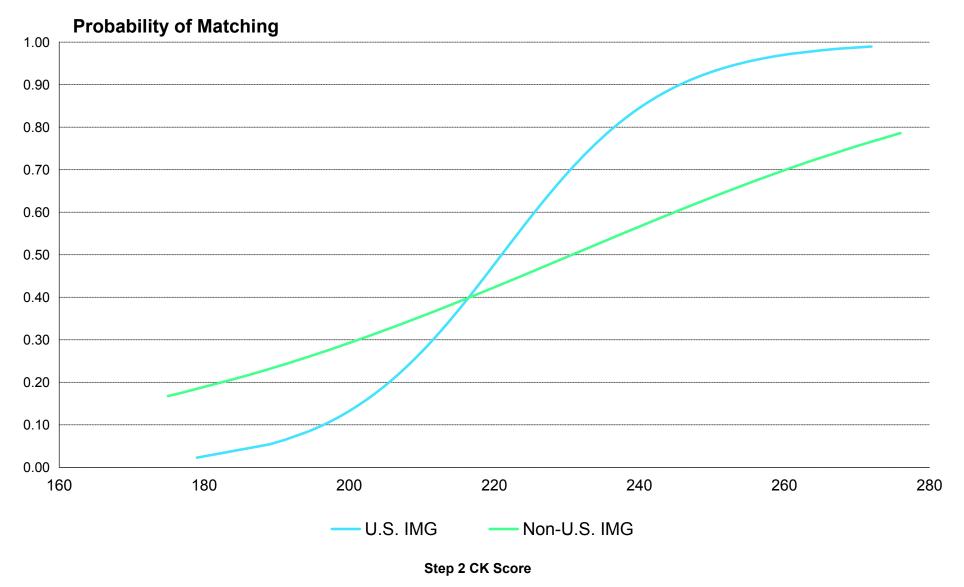
Step 2 CK Scores



Step 2 CK Scores

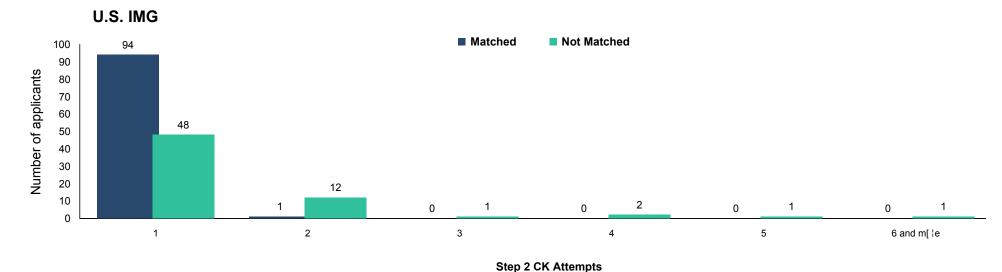


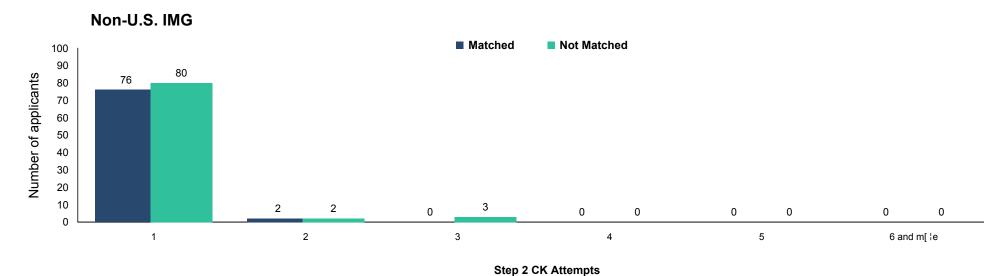
Probability of Matching to Preferred Specialty by USMLE Step 2 CK (Clinical Knowledge) Score Anesthesiology





USMLE Step 2 CK (Clinical Knowledge) Attempts* Anesthesiology



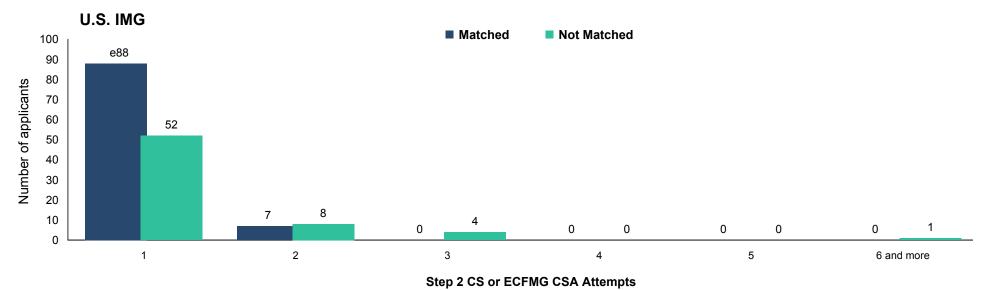


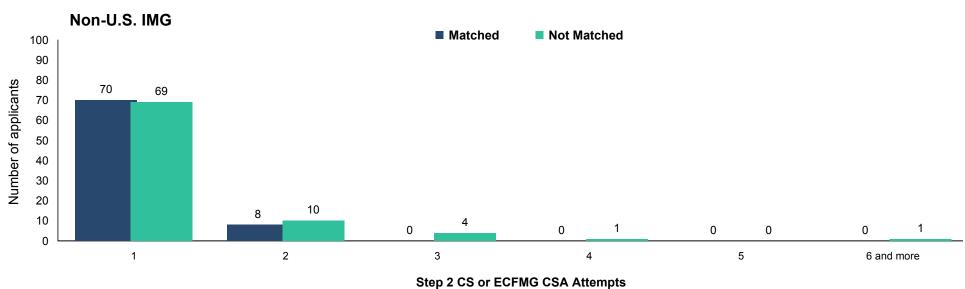
Source: NRMP Data Warehouse and ECFMG.

*USMLE Step 2 CK or equivalent examination



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

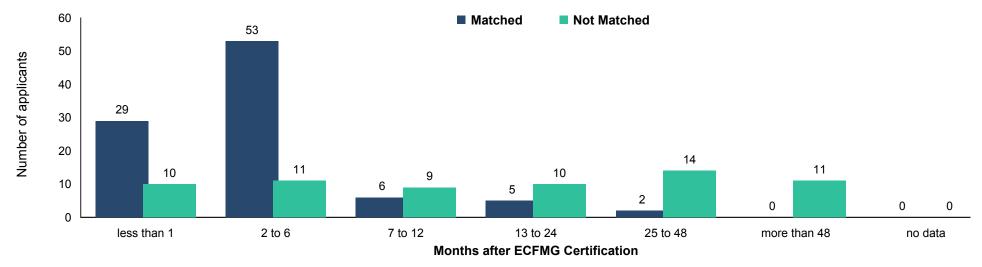




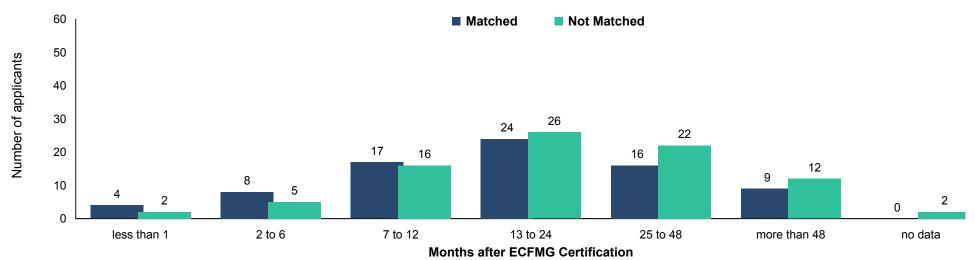


Number of Months After ECFMG Certification Anesthesiology



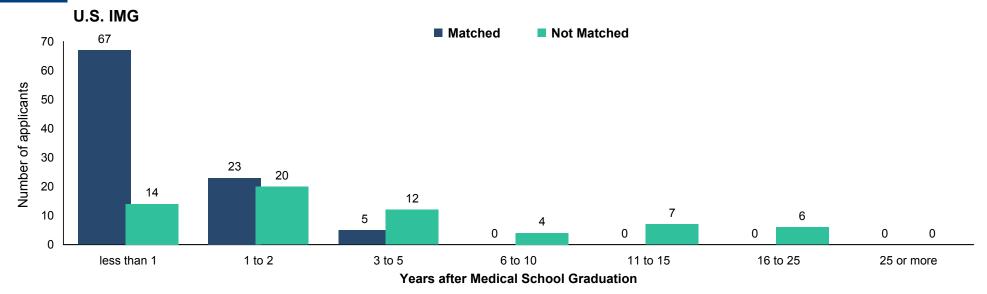


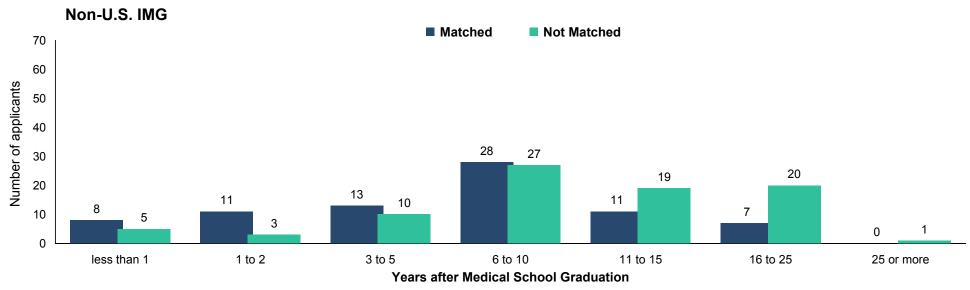






Number of Years After Medical School Graduation Anesthesiology

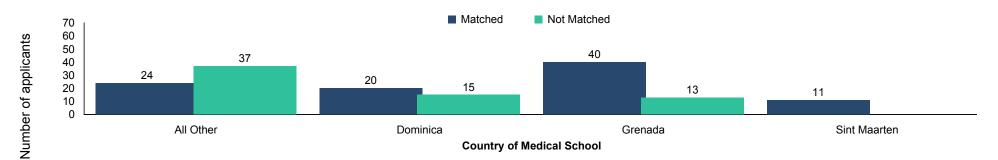


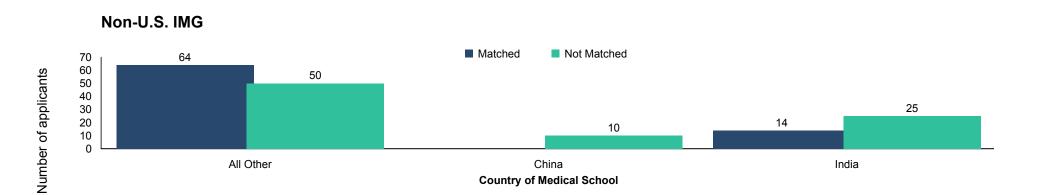




Country of Medical School Anesthesiology

U.S. IMG





Source: NRMP Data Warehouse and ECFMG

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

Emergency Medicine

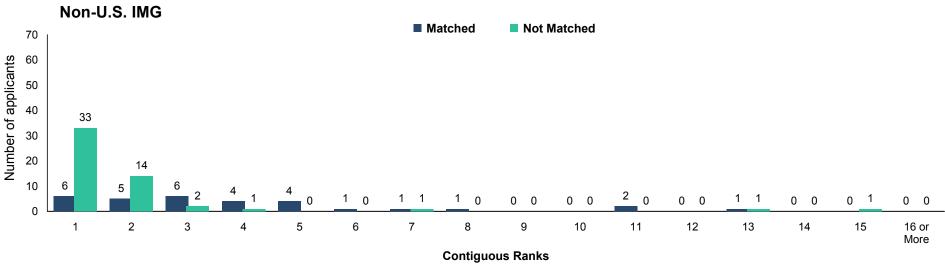
	U.S. IMG		Non-U.S. IMG	
Measure	Matched (n=53)	Unmatched (n=137)	Matched (n=31)	Unmatched (n=53)
Mean number of contiguous ranks	5	3	4	2
2. Mean number of distinct specialties ranked	1.7	2.0	1.5	1.8
3. Mean USMLE Step 1 score	225	215	226	217
4. Mean USMLE Step 1 attempts*	1.1	1.2	1.0	1.3
5. Mean USMLE 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



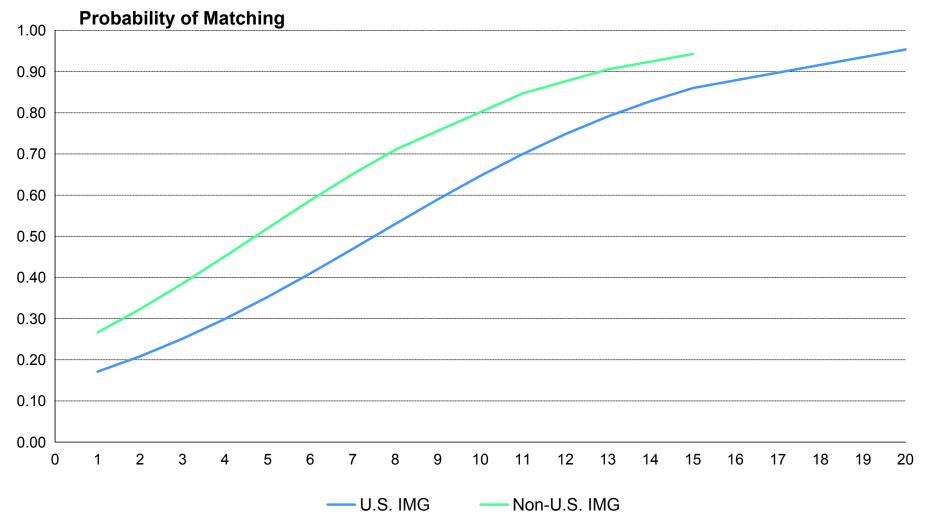
Number of Contiguous Ranks Within Preferred Specialty Emergency Medicine







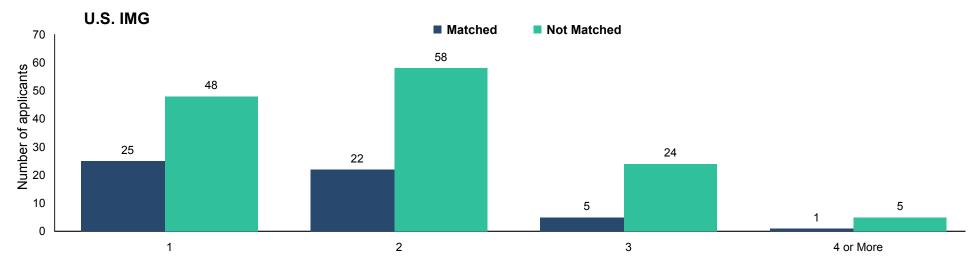
Probability of Matching to Preferred Specialty by Number of Contiguous Ranks Emergency Medicine



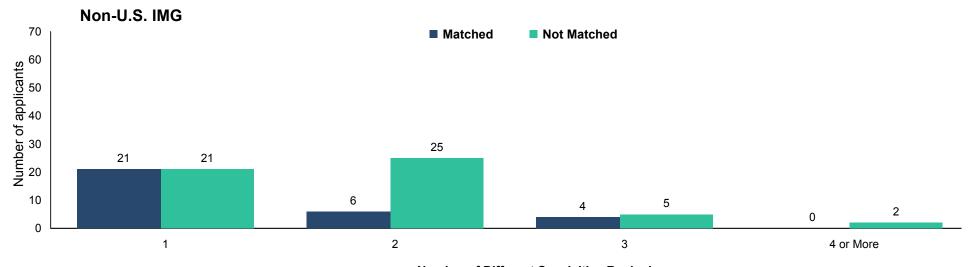
Number of Contiguous Ranks



Number of Applicants Ranking Different Specialties Emergency Medicine



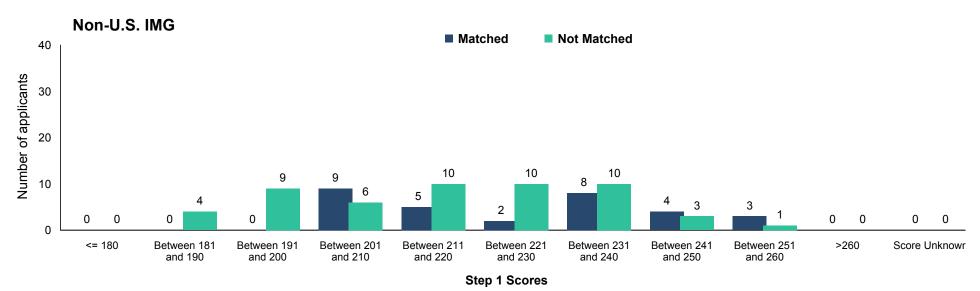
Number of Different Specialties Ranked



Number of Different Specialties Ranked

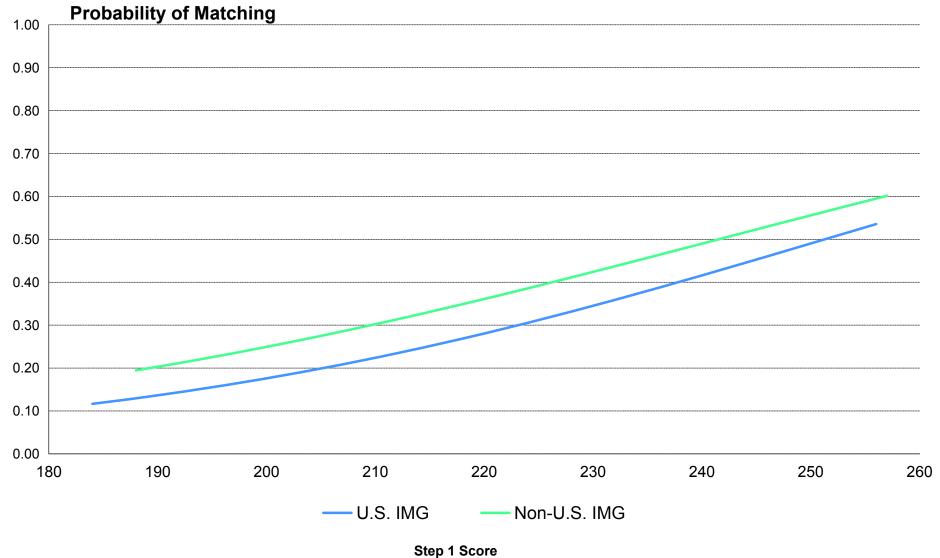
Chart USMLE Step 1 Scores Emergency Medicine



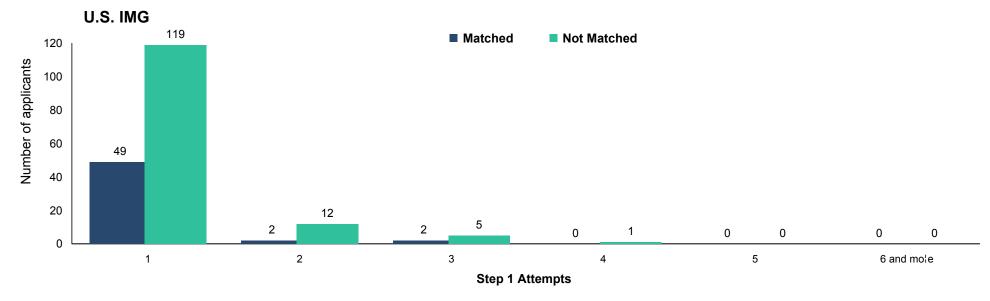


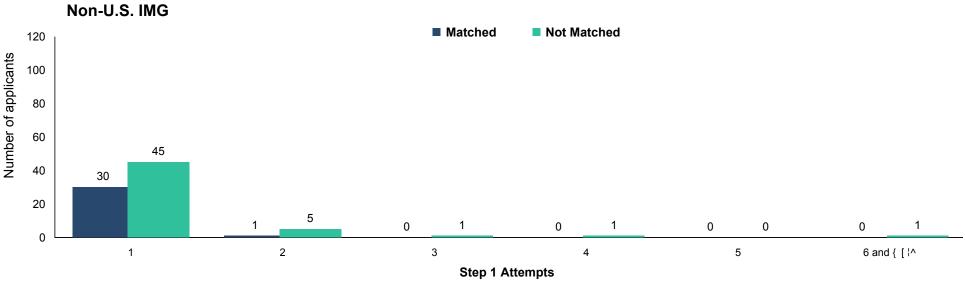


Probability of Matching to Preferred Specialty by USMLE Step 1 Score **Emergency Medicine**



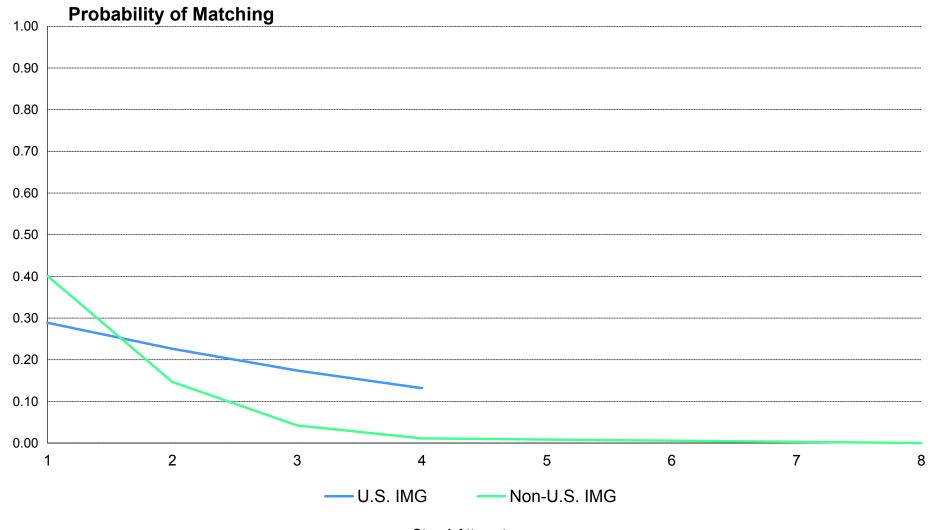








Probability of Matching to Preferred Specialty by Number of Step 1 Attempts* Emergency Medicine

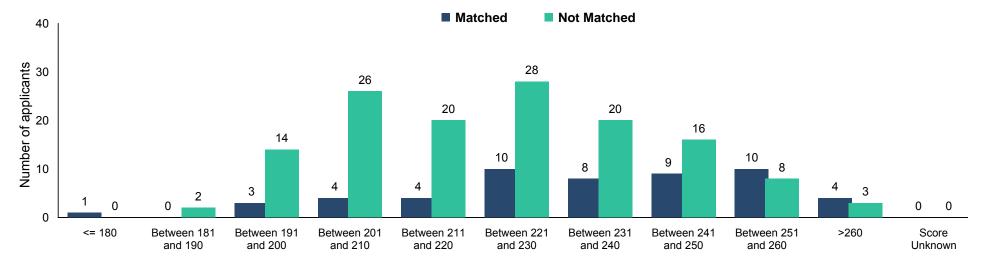


Step 1 Attempts

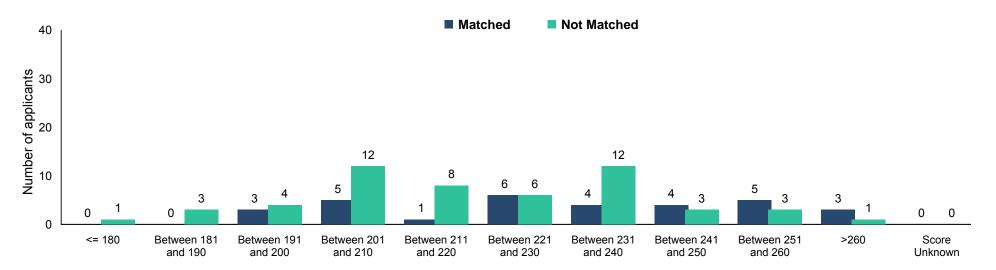
Source: NRMP Data Warehouse and ECFMG.

*USMLE Step 1 or equivalent examination

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



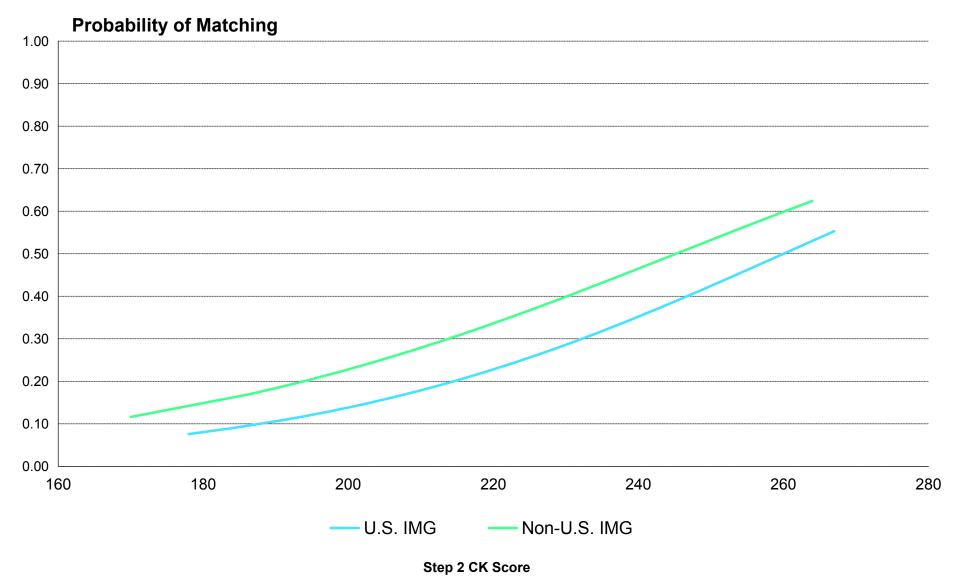
Step 2 CK Scores



Step 2 CK Scores



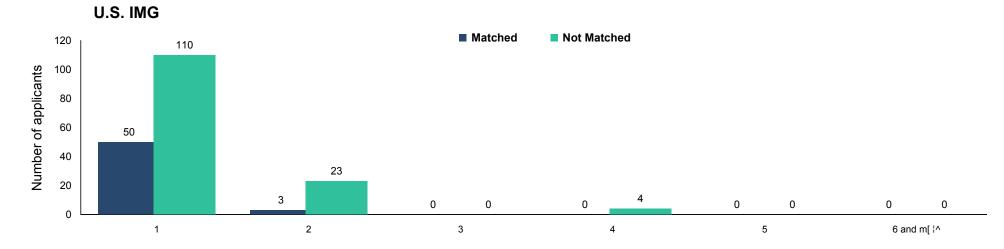
Probability of Matching to Preferred Specialty by USMLE Step 2 CK (Clinical Knowledge) Score Emergency Medicine

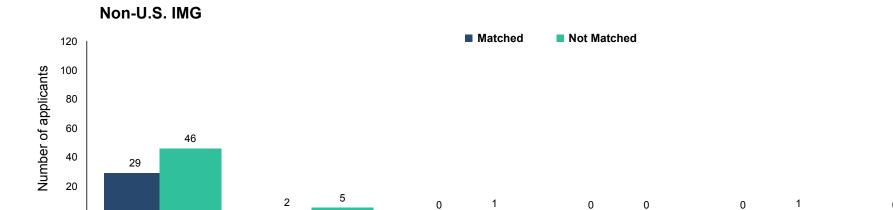




USMLE Step 2 CK (Clinical Knowledge) Attempts* Emergency Medicine

2





3

Step 2 CK Attempts

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4

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0

5

Step 2 CK Attempts

Source: NRMP Data Warehouse and ECFMG.

0

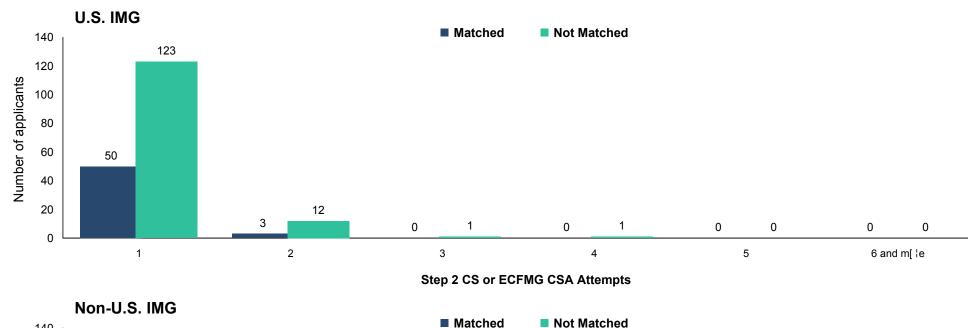
*USMLE Step 2 CK or equivalent examination

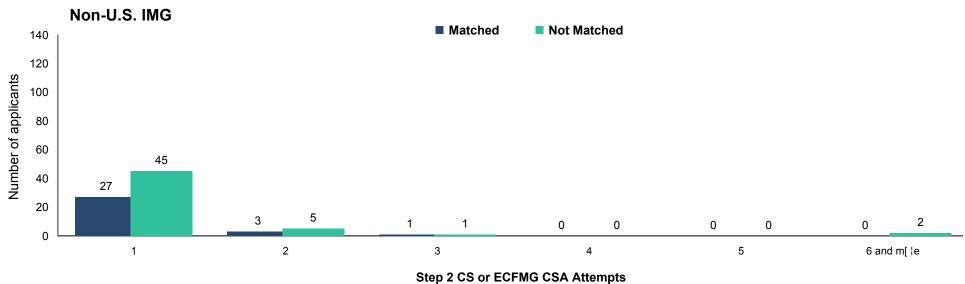
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Attempts at USMLE Step 2 CS (Clinical Skills) or ECFMG CSA (Clinical Skills Assessment) Emergency Medicine

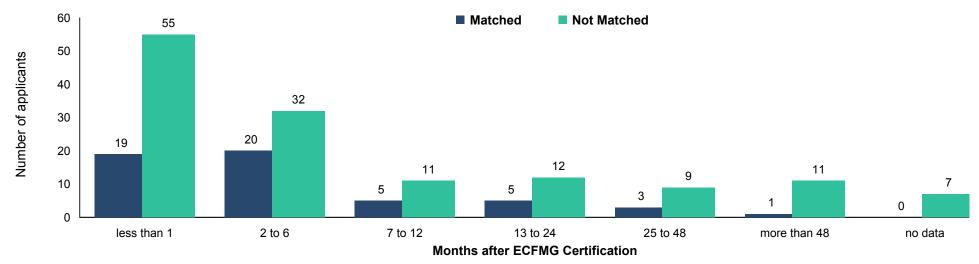




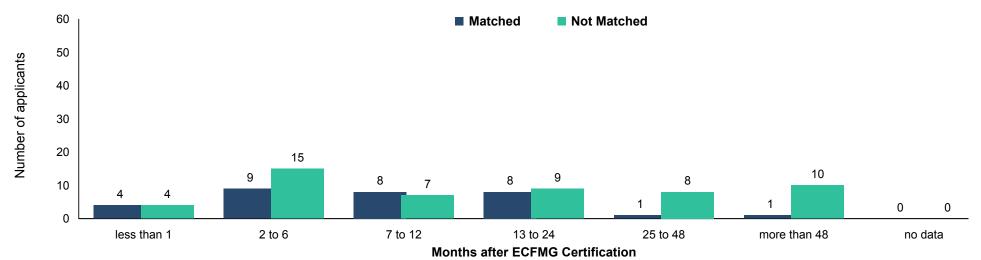


Number of Months After ECFMG Certification Emergency Medicine



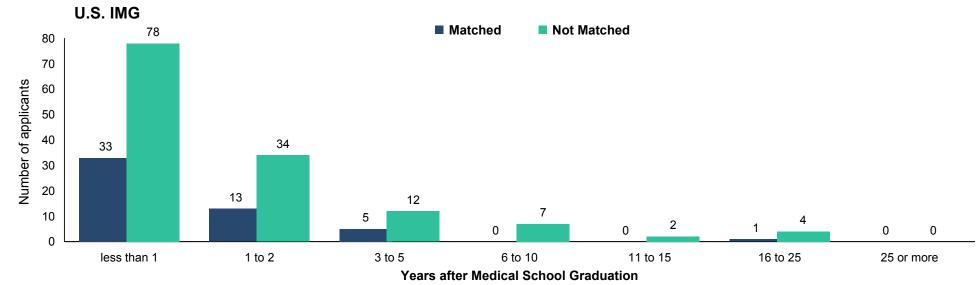


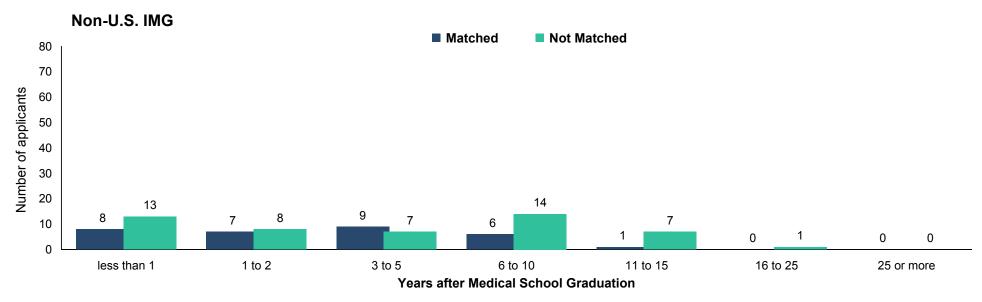






Number of Years After Medical School Graduation Emergency Medicine



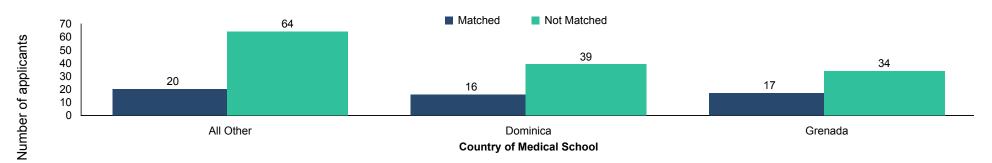




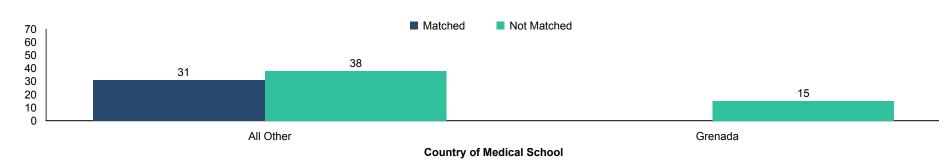
Number of applicants

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

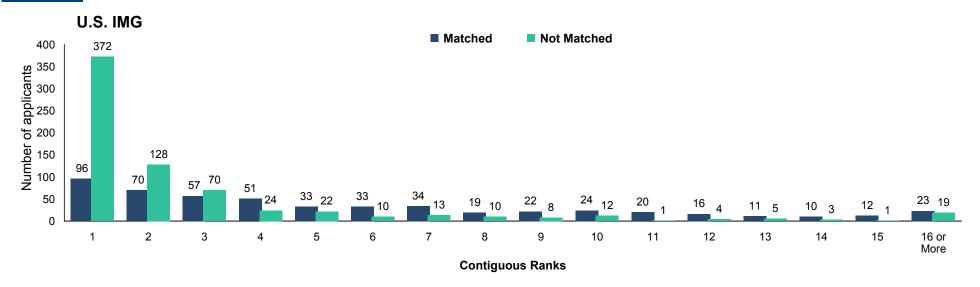
Family Medicine

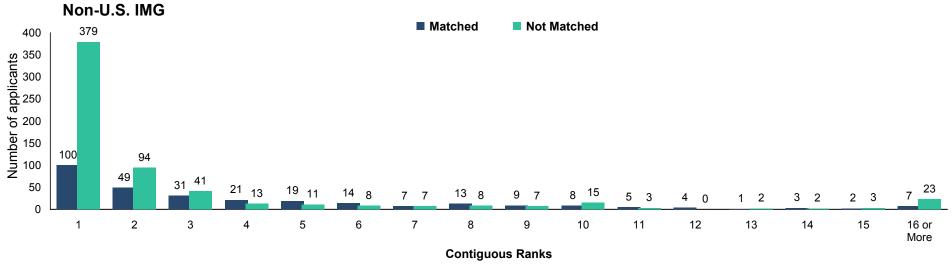
		U.S. IMG		Non-U.S. IMG	
Measure		Matched (n=531)	Unmatched (n=702)	Matched (n=293)	Unmatched (n=616)
1.	Mean number of contiguous ranks	6	3	4	3
2.	Mean number of distinct specialties ranked	1.3	1.5	1.4	1.5
3.	Mean USMLE Step 1 score	206	198	213	204
4.	Mean USMLE Step 1 attempts*	1.4	2.1	1.2	1.4
5.	Mean 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



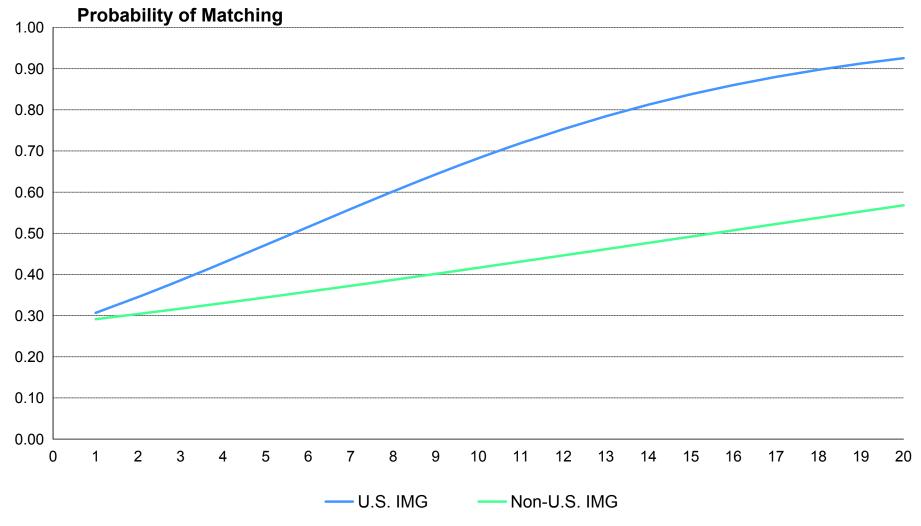
Number of Contiguous Ranks Within Preferred Specialty *Family Medicine*







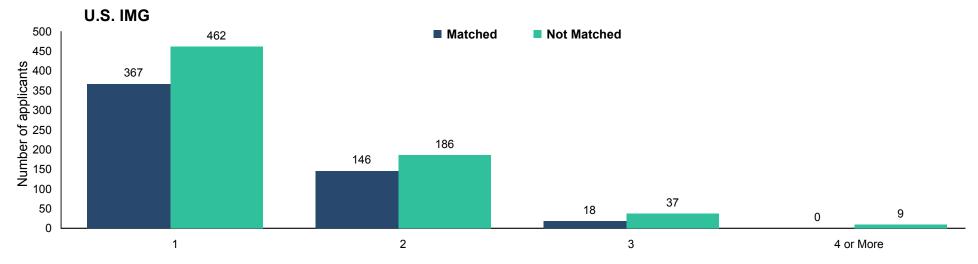
Probability of Matching to Preferred Specialty by Number of Contiguous Ranks *Family Medicine*

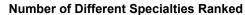


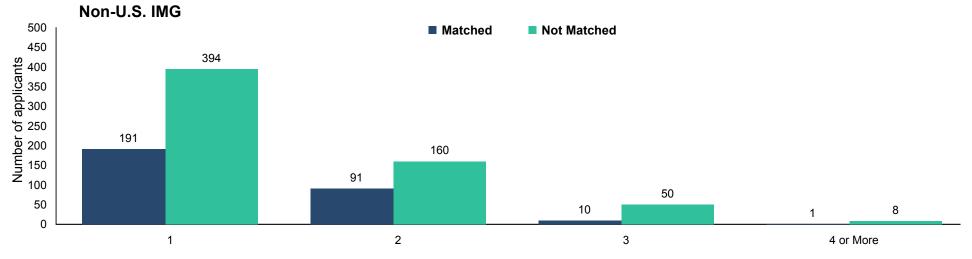
Number of Contiguous Ranks



Number of Applicants Ranking Different Specialties *Family Medicine*



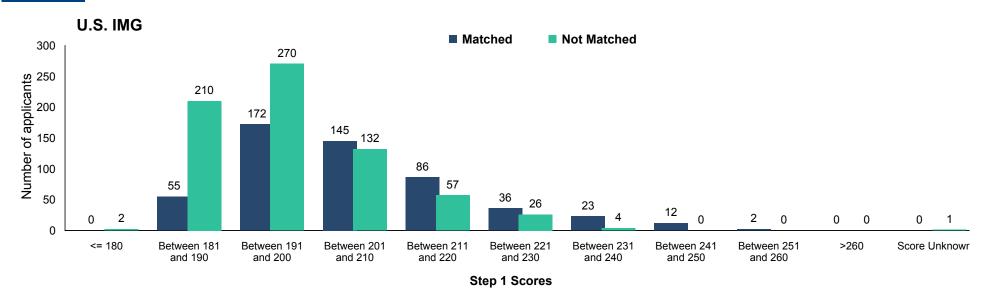


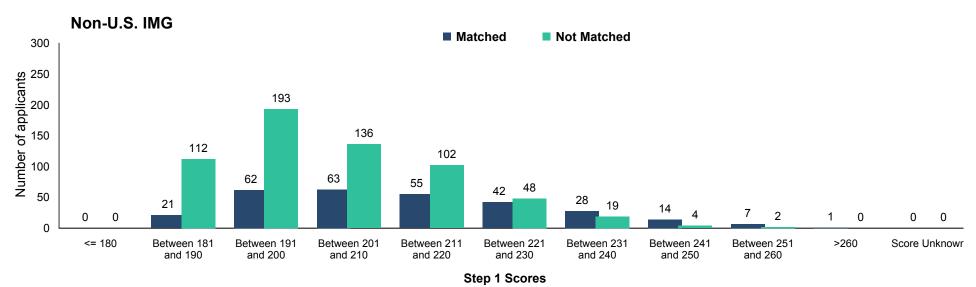


Number of Different Specialties Ranked

Source: NRMP Data Warehouse

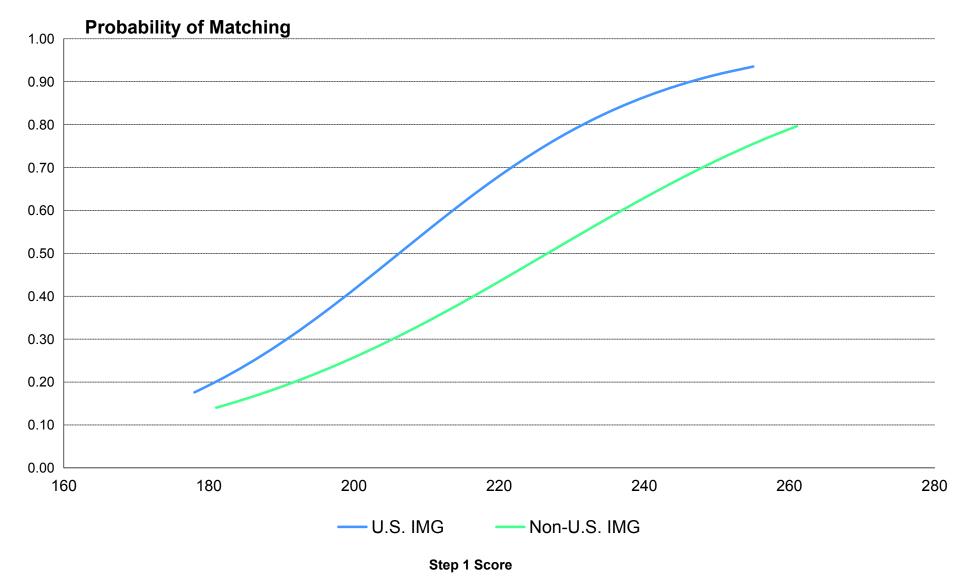
Chart USMLE Step 1 Scores Family Medicine





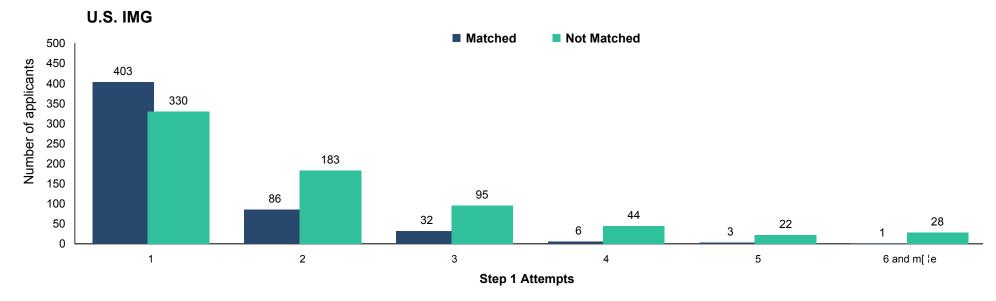


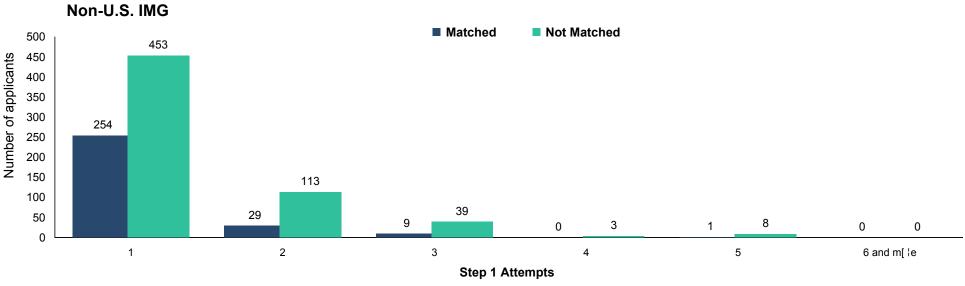
Probability of Matching to Preferred Specialty by USMLE Step 1 Score Family Medicine





USMLE Step 1 Attempts* *Family Medicine*



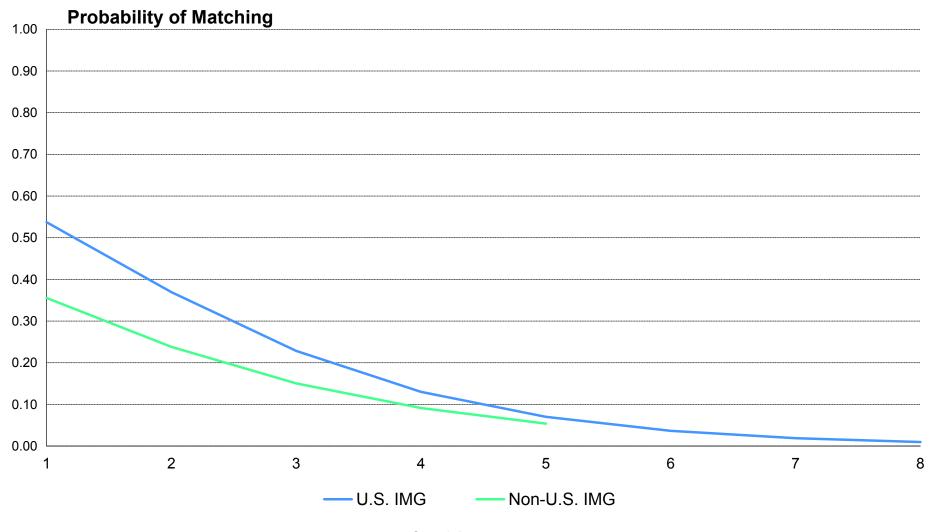


Source: NRMP Data Warehouse and ECFMG.

*USMLE Step 1 or equivalent examination



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

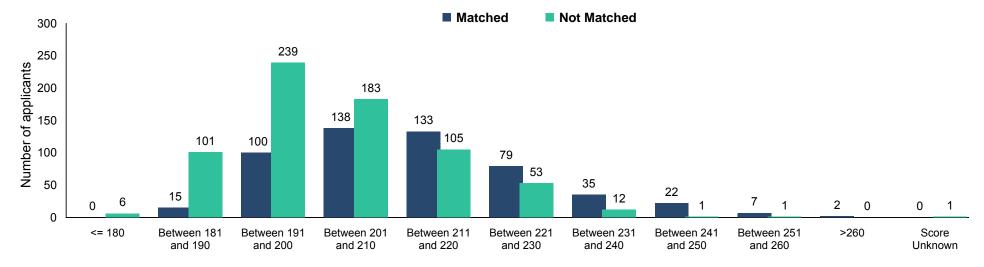


Step 1 Attempts

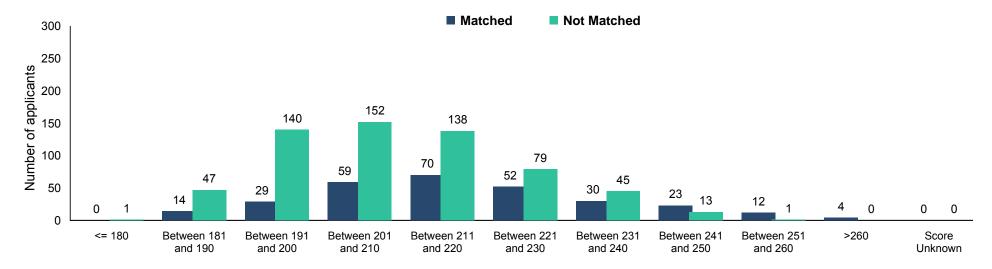
Source: NRMP Data Warehouse and ECFMG.

*USMLE Step 1 or equivalent examination

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



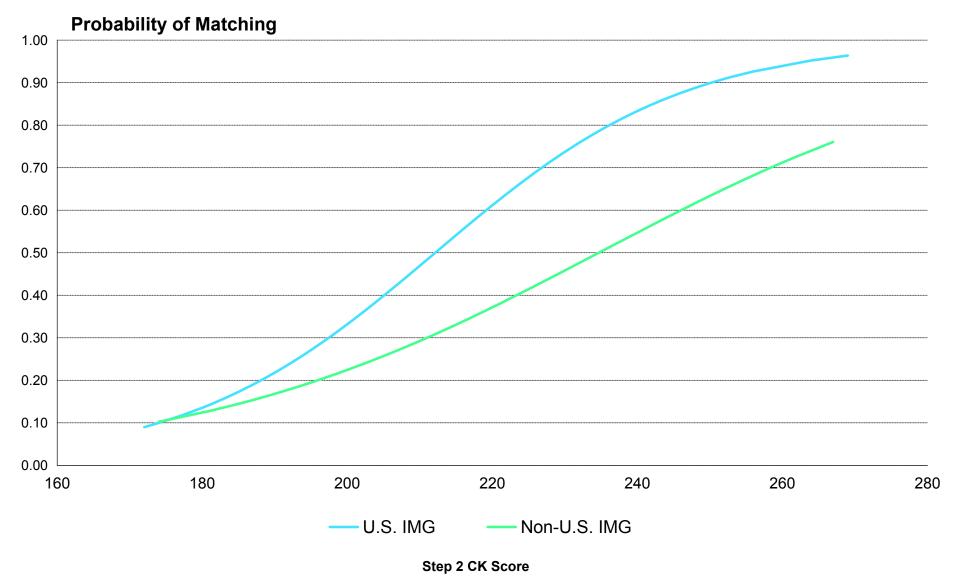
Step 2 CK Scores



Step 2 CK Scores

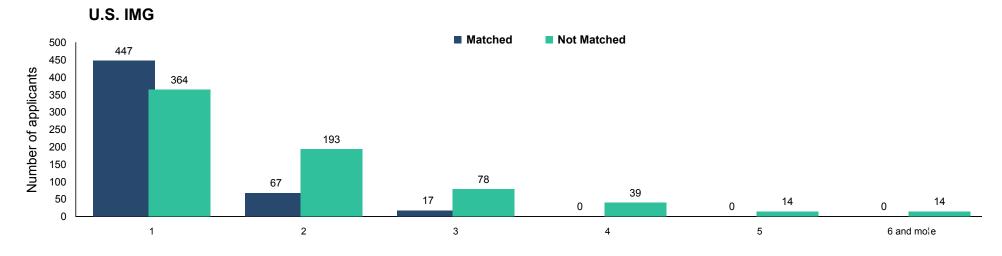


Probability of Matching to Preferred Specialty by USMLE Step 2 CK (Clinical Knowledge) Score Family Medicine

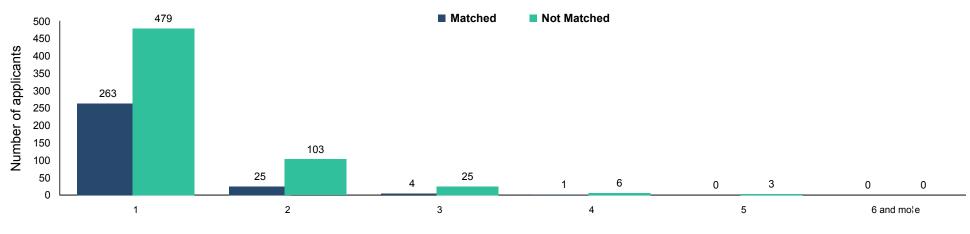




USMLE Step 2 CK (Clinical Knowledge) Attempts* *Family Medicine*







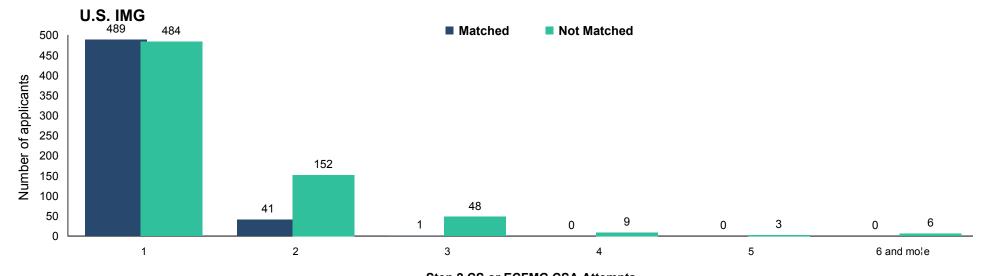
Source: NRMP Data Warehouse and ECFMG.

*USMLE Step 2 CK or equivalent examination

Step 2 CK Attempts



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





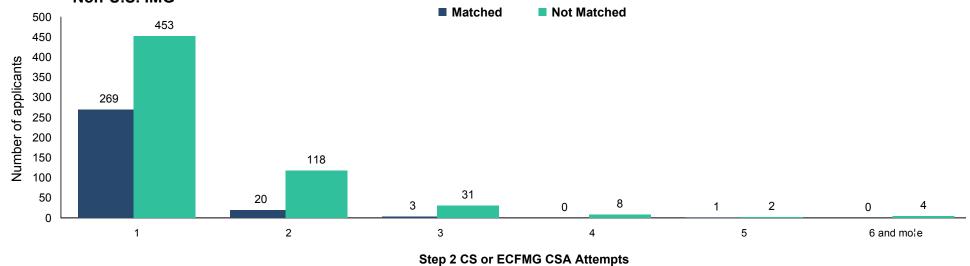
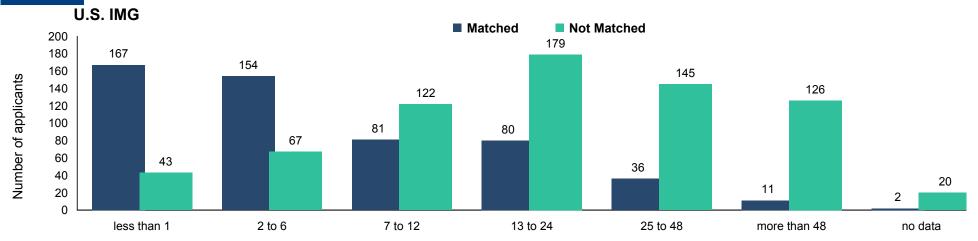
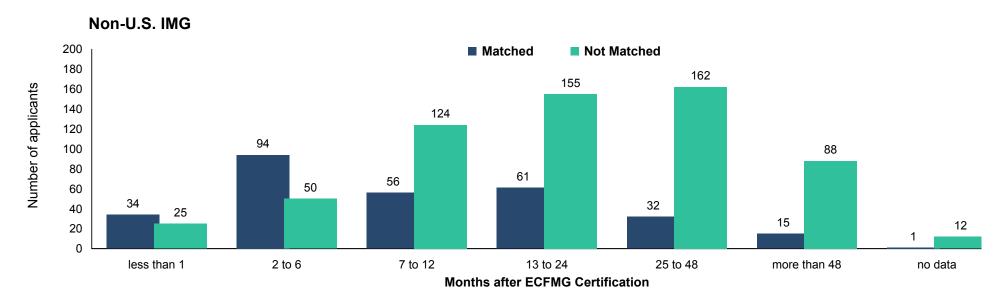


Chart FM-8

Number of Months After ECFMG Certification Family Medicine

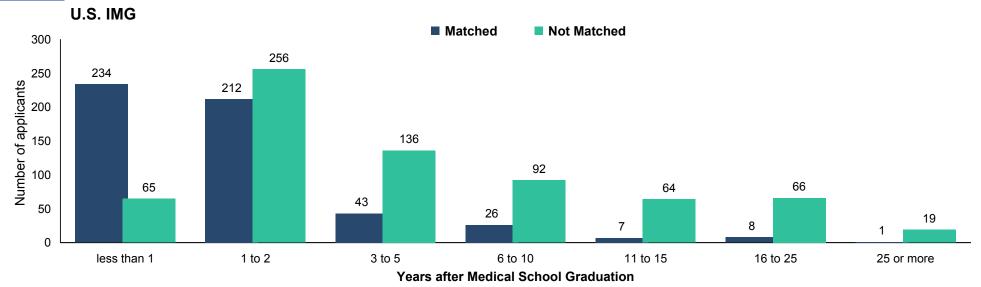


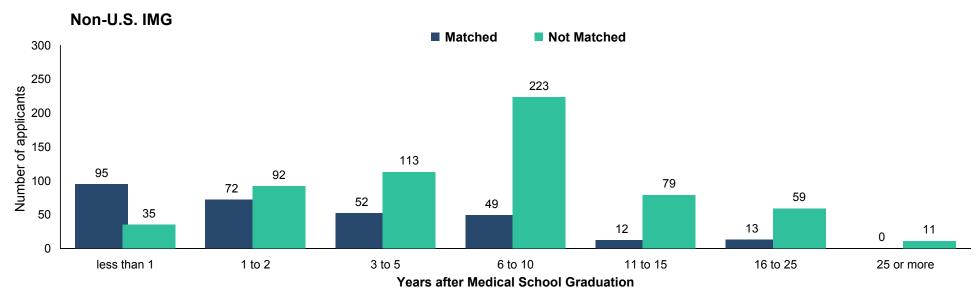
Months after ECFMG Certification





Number of Years After Medical School Graduation Family Medicine

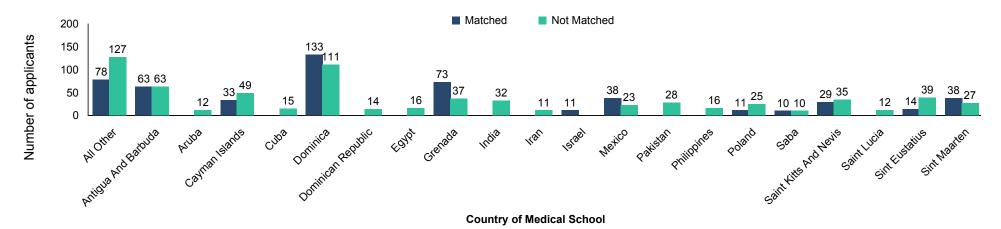




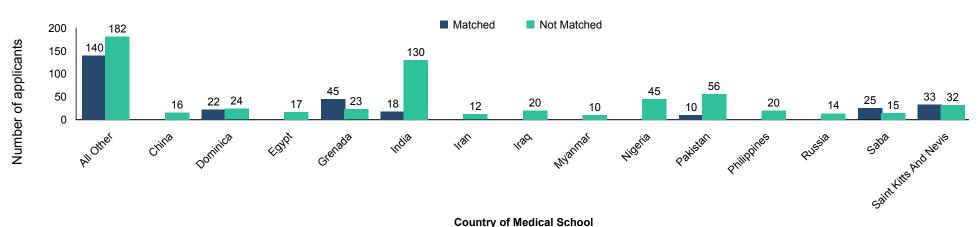


Country of Medical School Family Medicine

U.S. IMG







Source: NRMP Data Warehouse and ECFMG

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

Internal Medicine

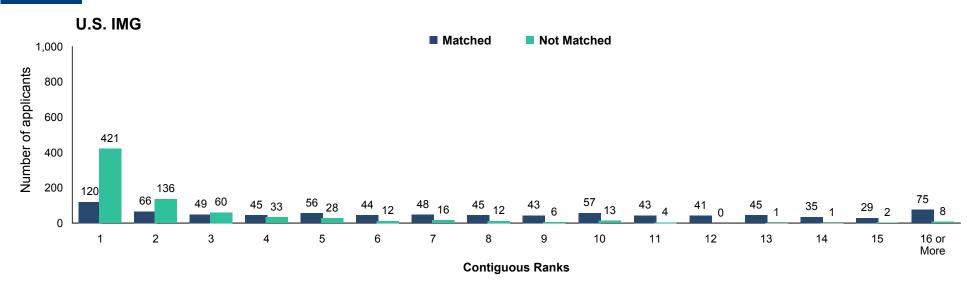
Table Summary Statistics Internal Medicine

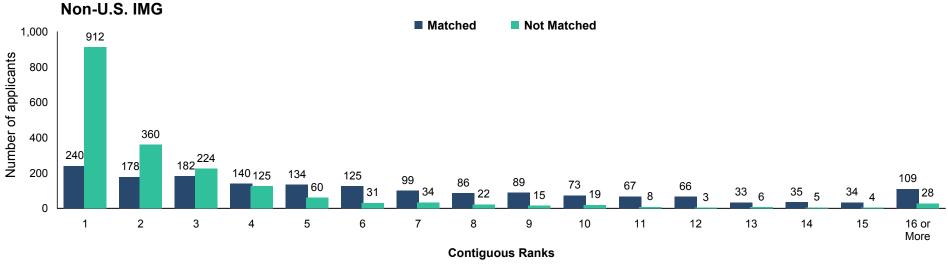
	U.S. IMG		Non-U.S. IMG	
Measure	Matched (n=841)	Unmatched (n=753)	Matched (n=1,690)	Unmatched (n=1,856)
Mean number of contiguous ranks	8	3	7	3
2. Mean number of distinct specialties ranked	1.3	1.6	1.3	1.4
3. Mean USMLE Step 1 score	221	205	231	217
4. Mean USMLE Step 1 attempts*	1.1	1.6	1.0	1.2
5. Mean 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

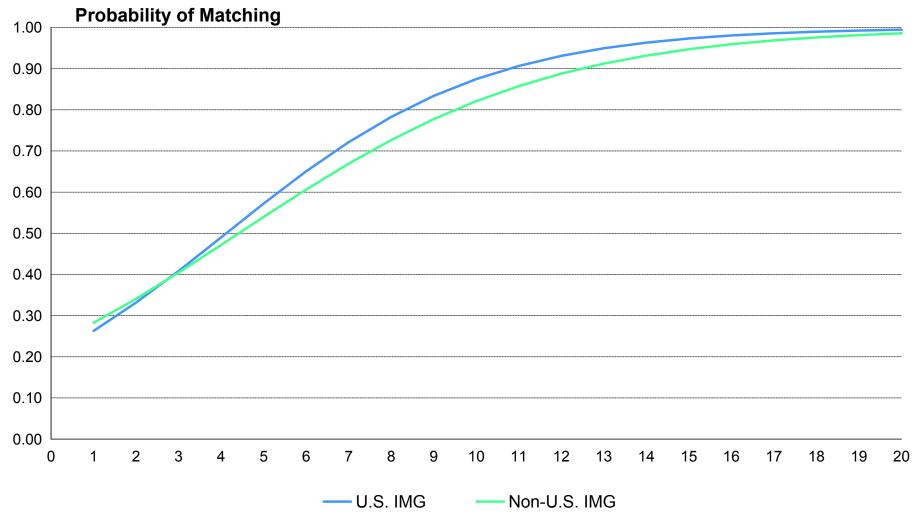
Number of Contiguous Ranks Within Preferred Specialty *Internal Medicine*







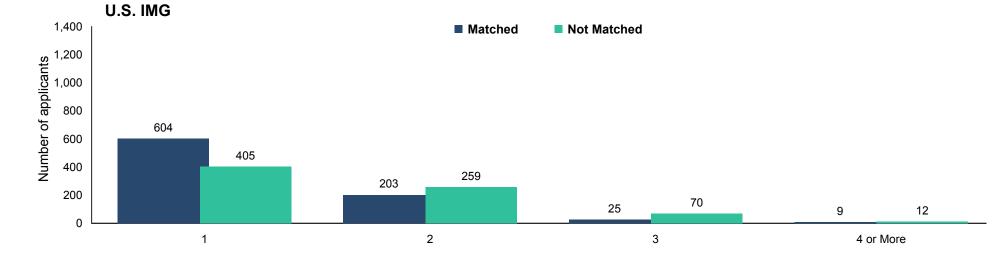
Probability of Matching to Preferred Specialty by Number of Contiguous Ranks *Internal Medicine*



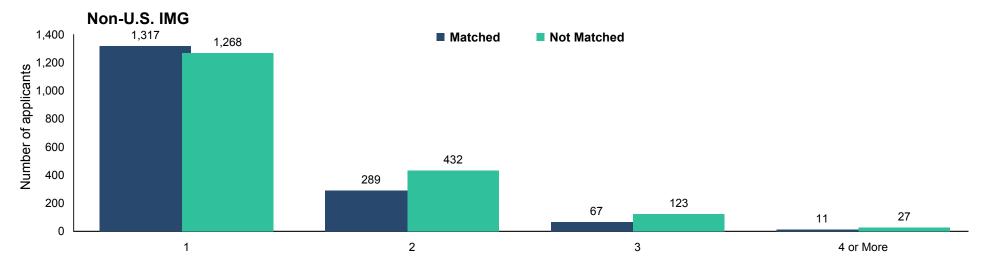
Number of Contiguous Ranks



Number of Applicants Ranking Different Specialties *Internal Medicine*



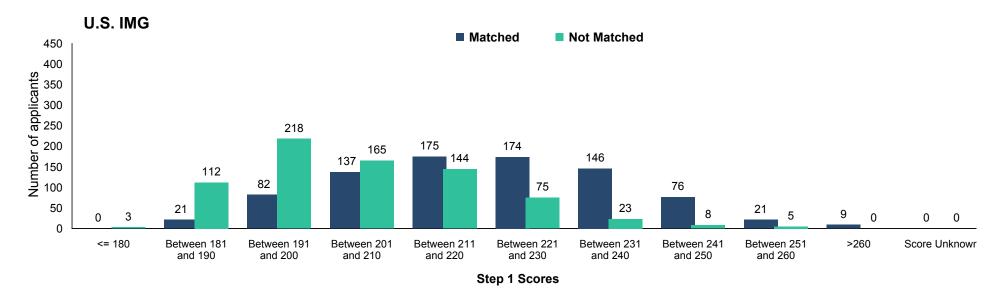
Number of Different Specialties Ranked

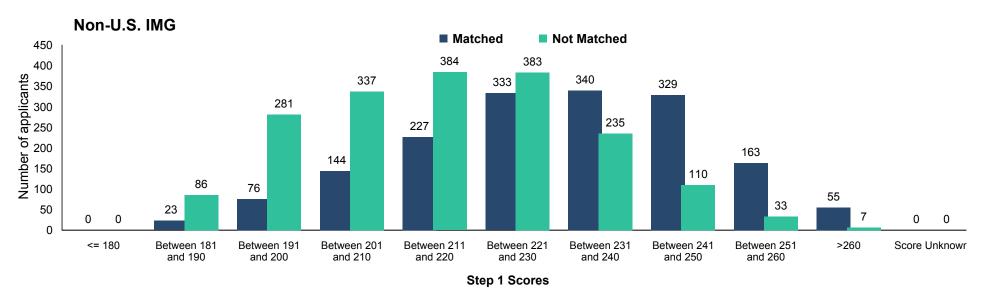


Number of Different Specialties Ranked

Source: NRMP Data Warehouse

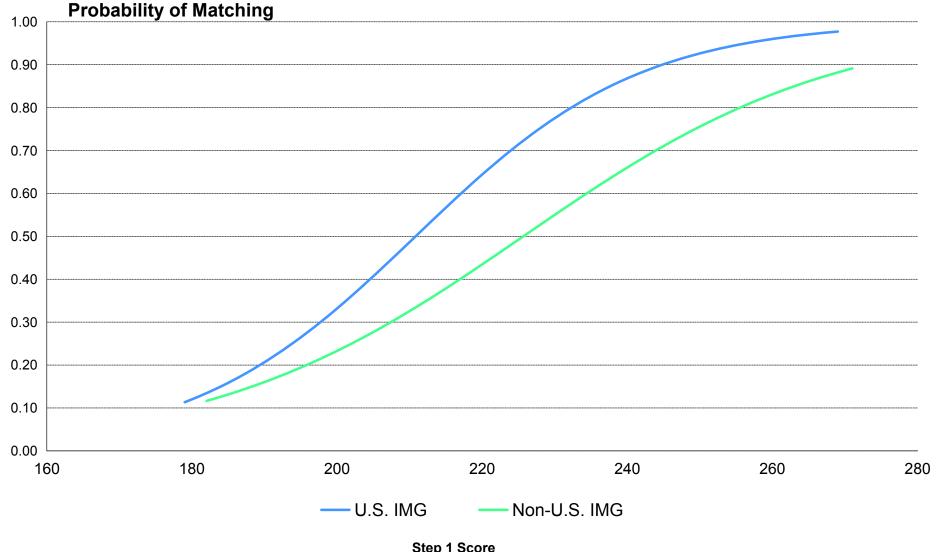
Chart USMLE Step 1 Scores Internal Medicine





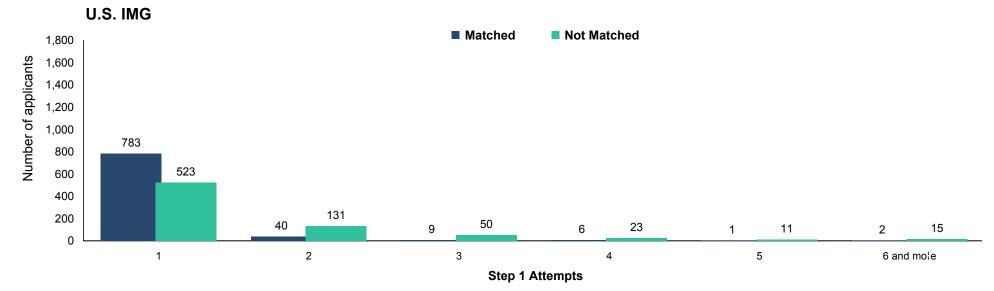


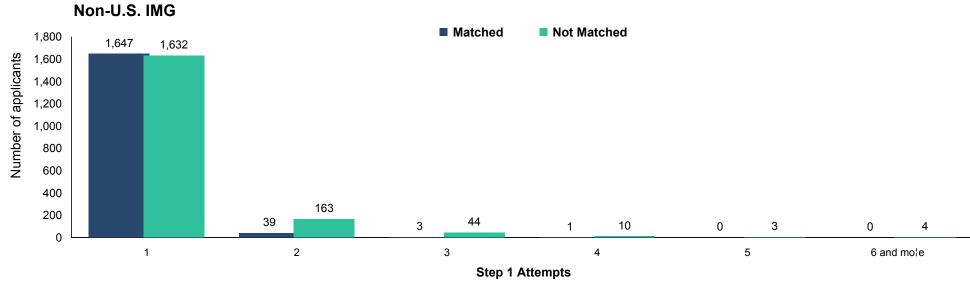
Probability of Matching to Preferred Specialty by USMLE Step 1 Score Internal Medicine



Step 1 Score





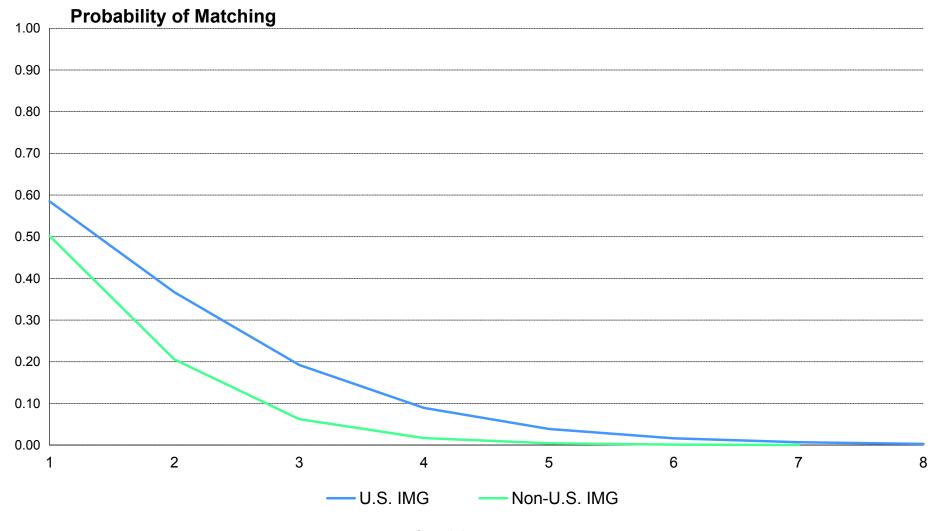


Source: NRMP Data Warehouse and ECFMG.

*USMLE Step 1 or equivalent examination



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

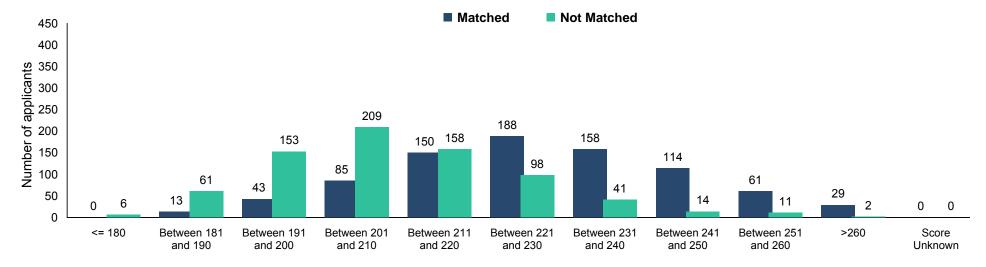


Step 1 Attempts

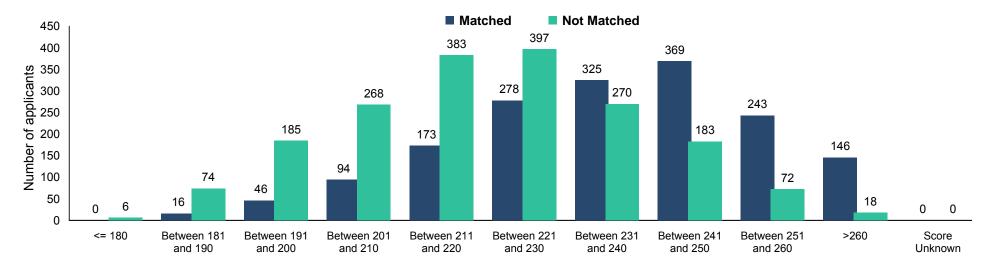
Source: NRMP Data Warehouse and ECFMG.

*USMLE Step 1 or equivalent examination

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



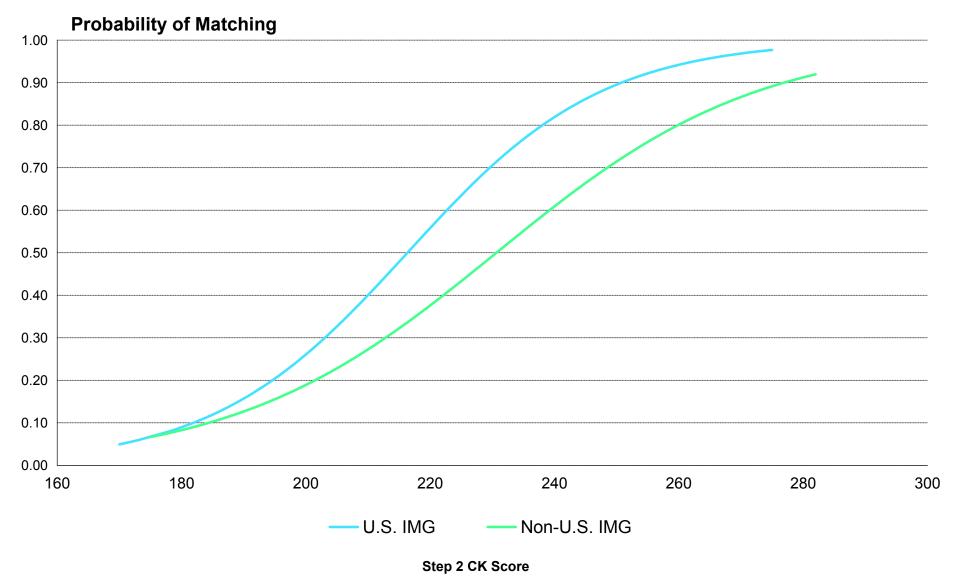
Step 2 CK Scores



Step 2 CK Scores



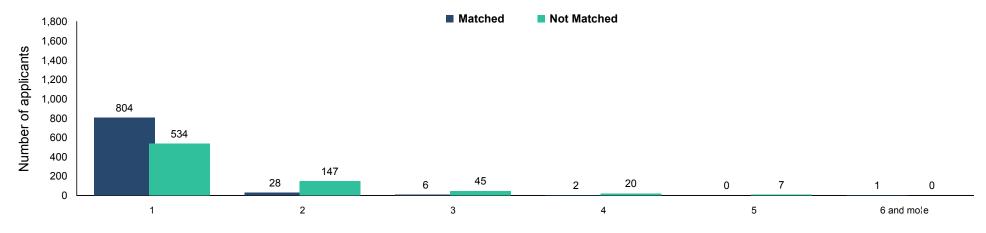
Probability of Matching to Preferred Specialty by USMLE Step 2 CK (Clinical Knowledge) Score Internal Medicine



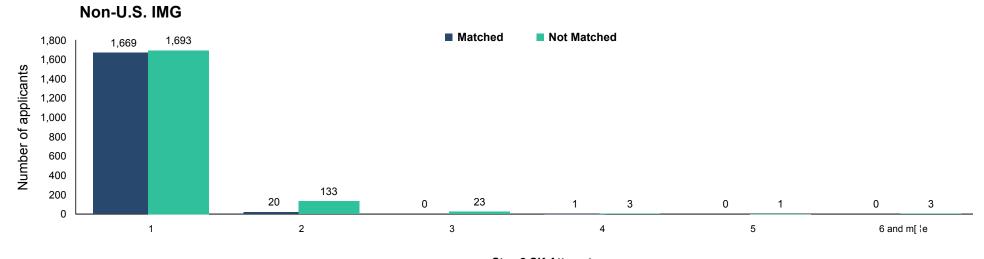


USMLE Step 2 CK (Clinical Knowledge) Attempts* *Internal Medicine*





Step 2 CK Attempts

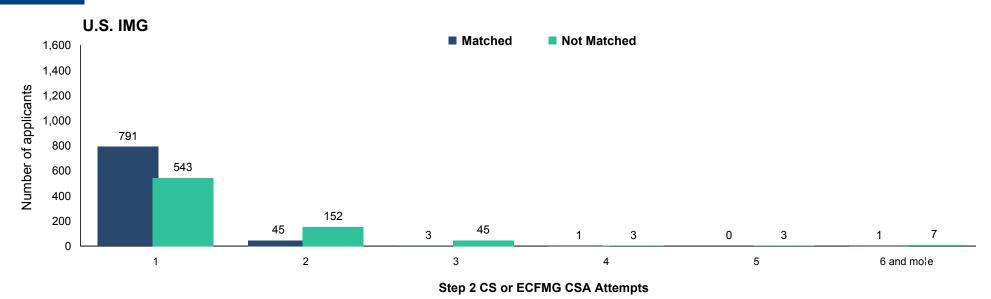


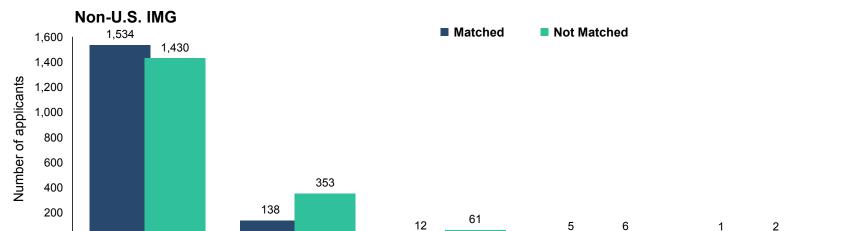
Step 2 CK Attempts

Source: NRMP Data Warehouse and ECFMG.

*USMLE Step 2 CK or equivalent examination

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





3

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Source: NRMP Data Warehouse and ECFMG.

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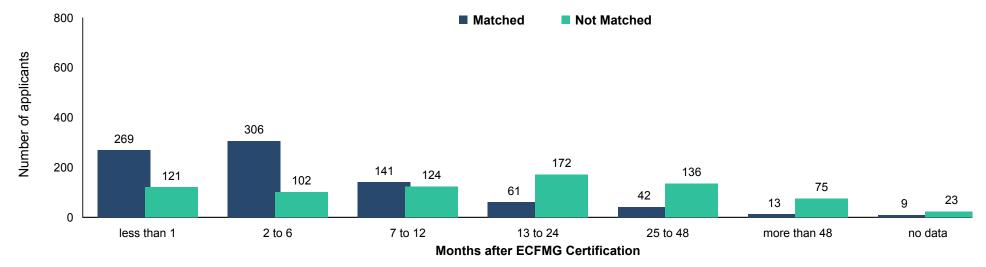
Step 2 CS or ECFMG CSA Attempts

4

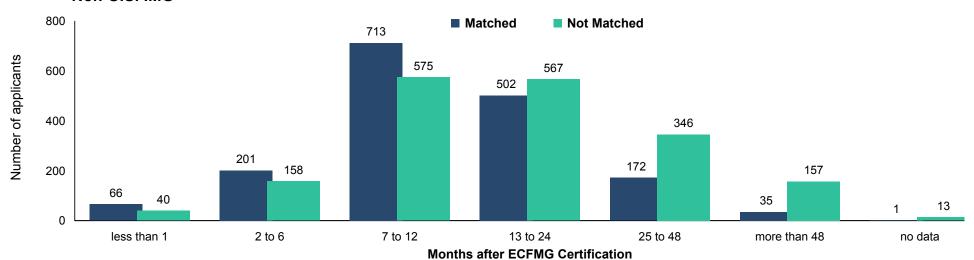


Number of Months After ECFMG Certification *Internal Medicine*



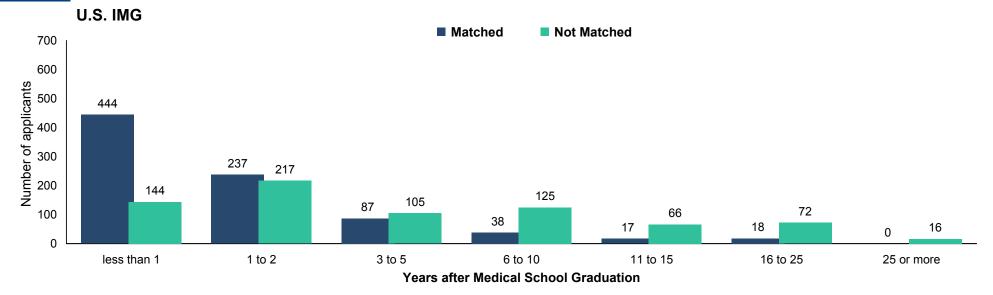


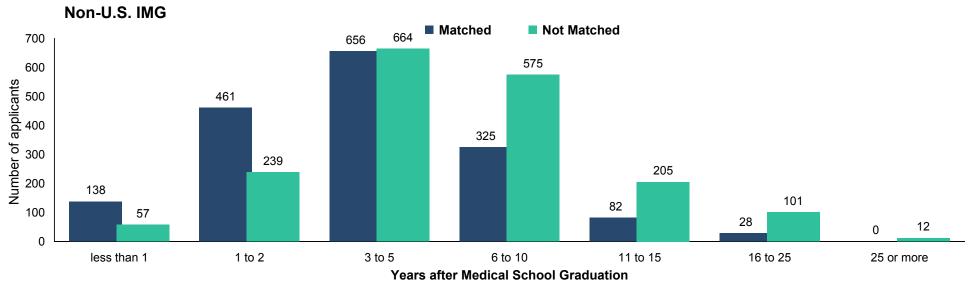






Number of Years After Medical School Graduation *Internal Medicine*

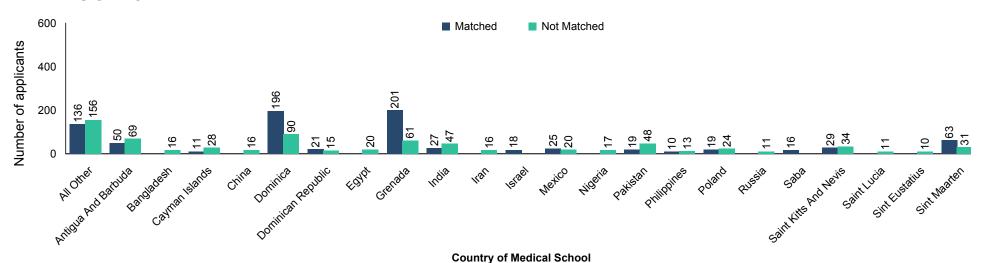




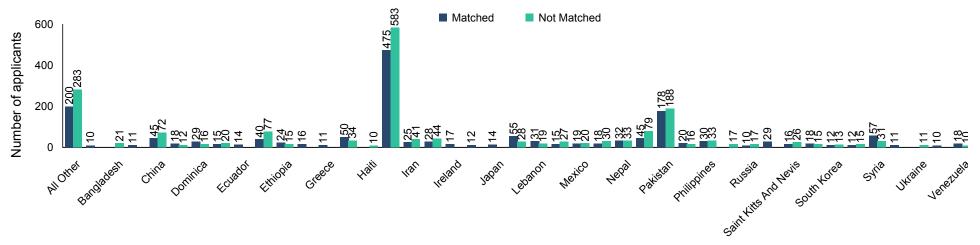


Country of Medical School Internal Medicine





Non-U.S. IMG



Country of Medical School

Source: NRMP Data Warehouse and ECFMG

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

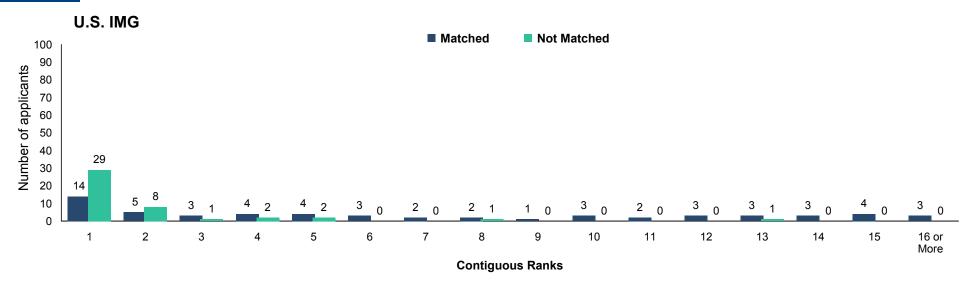
Table Summary Statistics Neurology

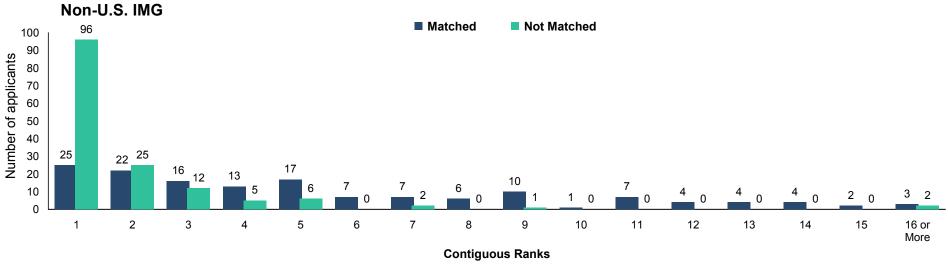
		U.S. IMG		Non-U.S. IMG	
Me	easure	Matched (n=59)	Unmatched (n=44)	Matched (n=148)	Unmatched (n=149)
1.	Mean number of contiguous ranks	7	2	6	2
2.	Mean number of distinct specialties ranked	1.7	2.0	1.7	1.8
3.	Mean USMLE Step 1 score	216	203	230	214
4.	Mean USMLE Step 1 attempts*	1.1	2.1	1.1	1.2
5.	Mean 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



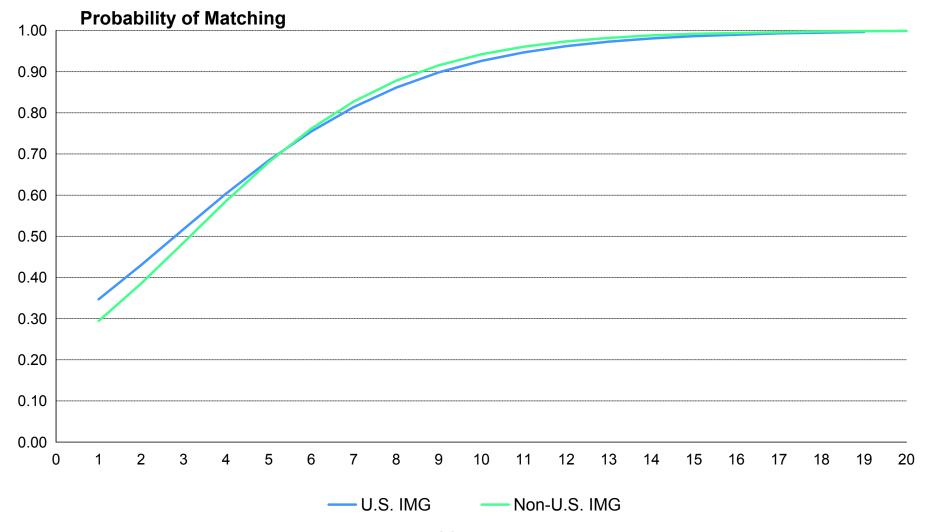
Number of Contiguous Ranks Within Preferred Specialty Neurology







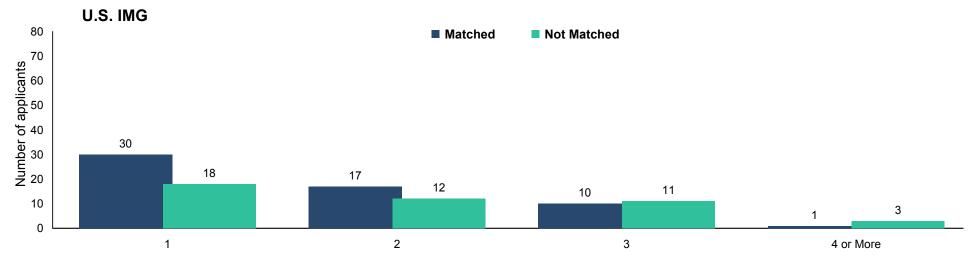
Probability of Matching to Preferred Specialty by Number of Contiguous Ranks *Neurology*



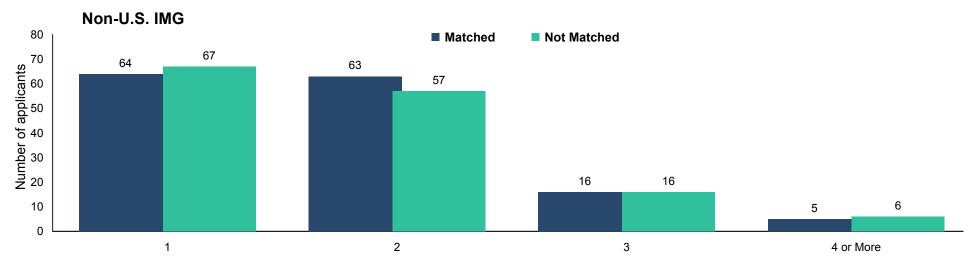
Number of Contiguous Ranks



Number of Applicants Ranking Different Specialties Neurology



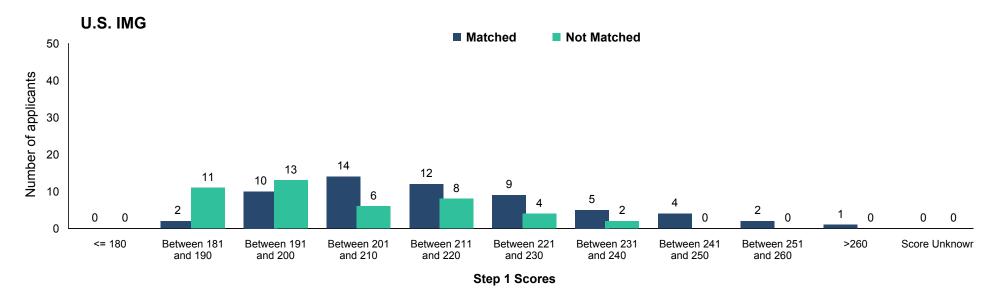


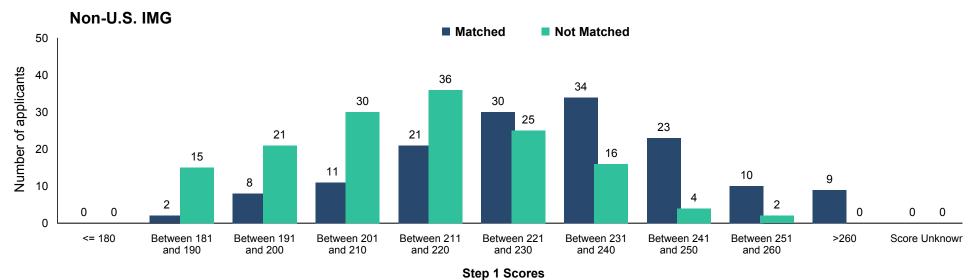


Number of Different Specialties Ranked

Source: NRMP Data Warehouse

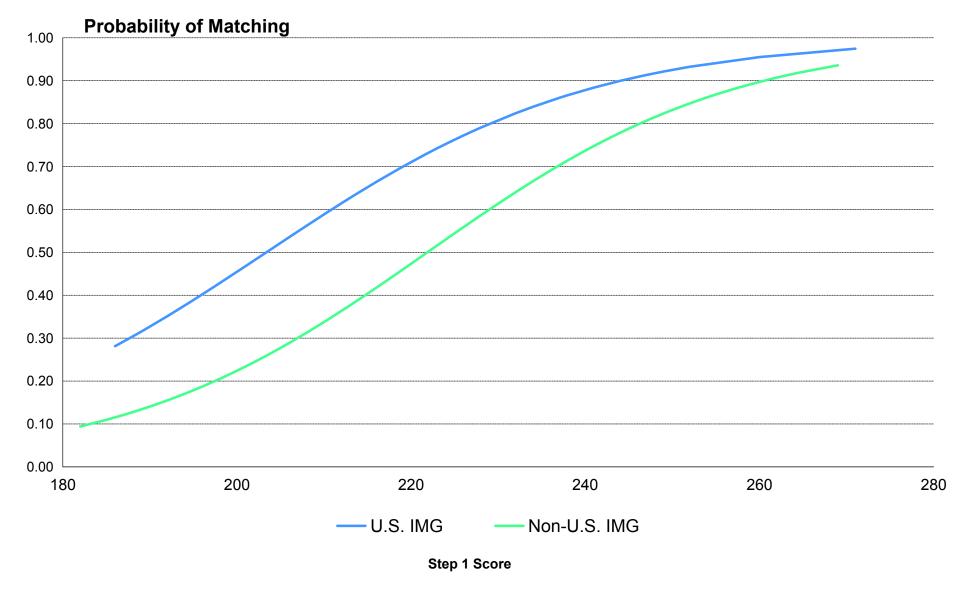
Chart N-3 USMLE Step 1 Scores Neurology



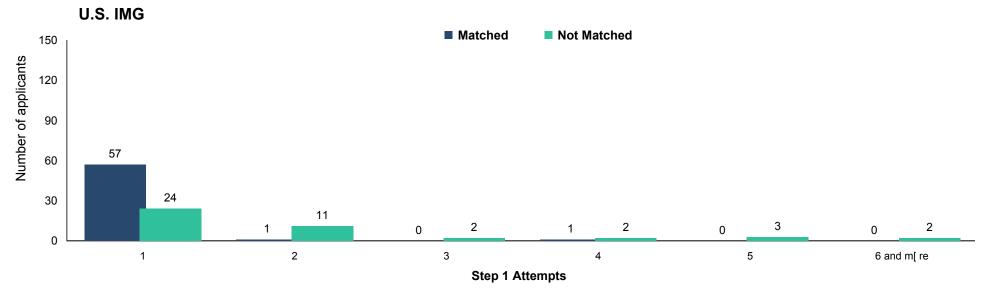


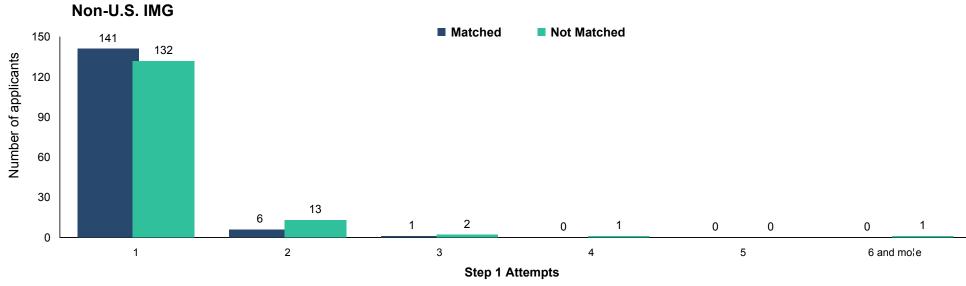


Probability of Matching to Preferred Specialty by USMLE Step 1 Score *Neurology*



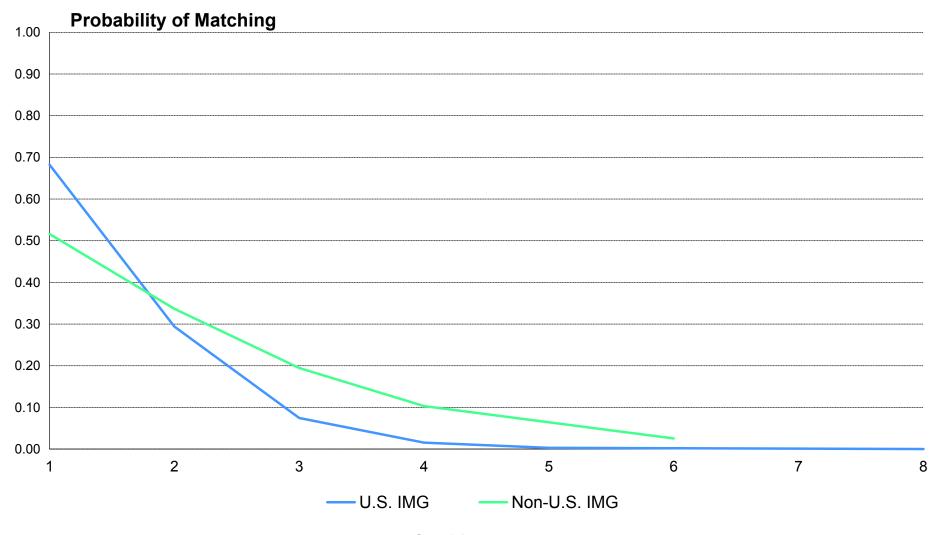








Probability of Matching to Preferred Specialty by Number of Step 1 Attempts* *Neurology*

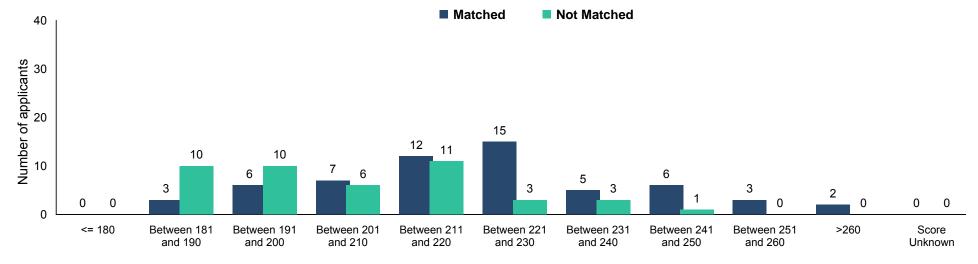


Step 1 Attempts

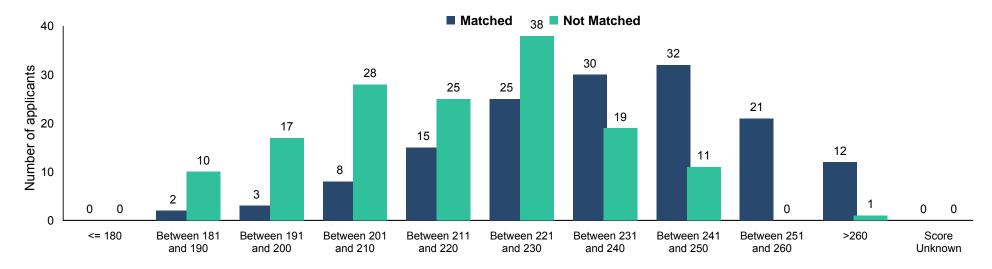
Source: NRMP Data Warehouse and ECFMG.

*USMLE Step 1 or equivalent examination

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



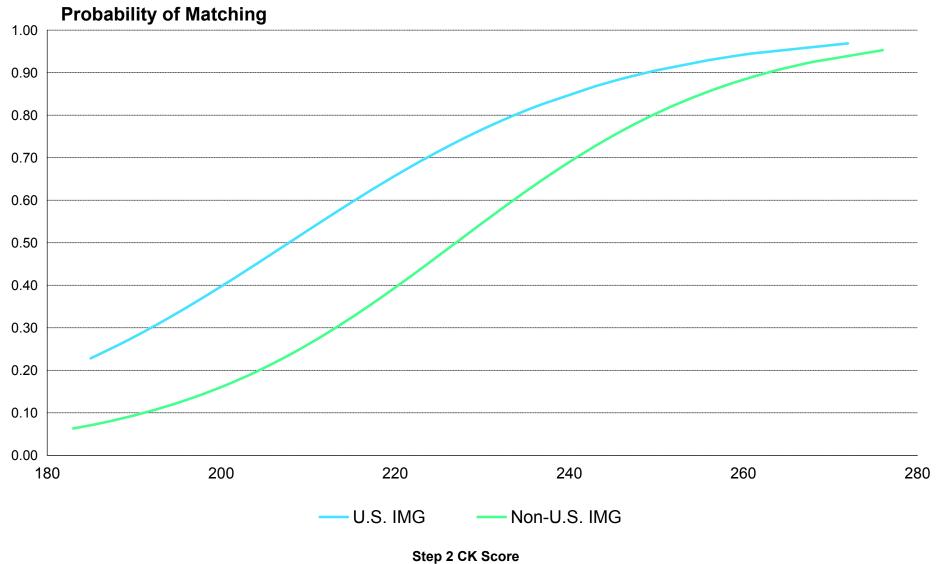
Step 2 CK Scores



Step 2 CK Scores



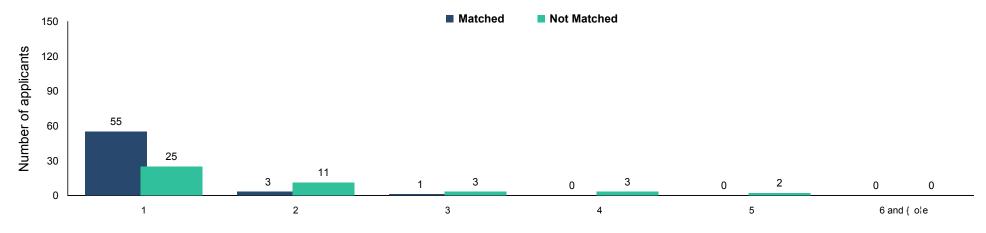
Probability of Matching to Preferred Specialty by USMLE Step 2 CK (Clinical Knowledge) Score Neurology



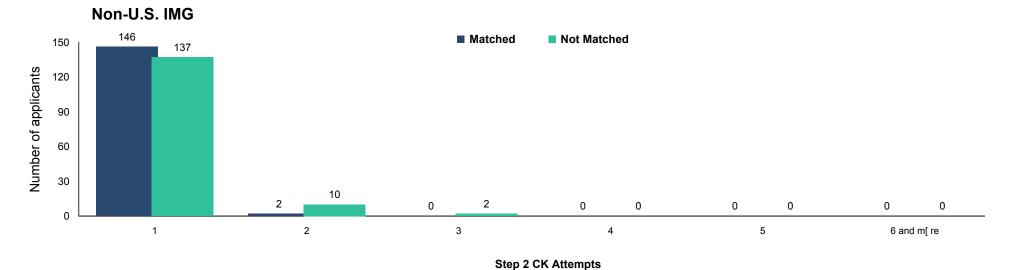


USMLE Step 2 CK (Clinical Knowledge) Attempts* *Neurology*





Step 2 CK Attempts

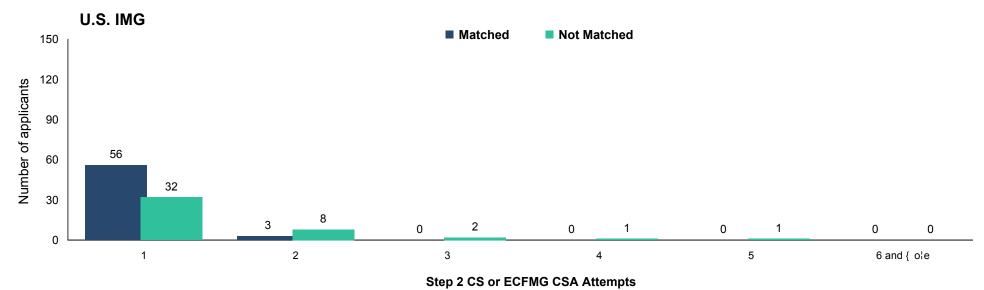


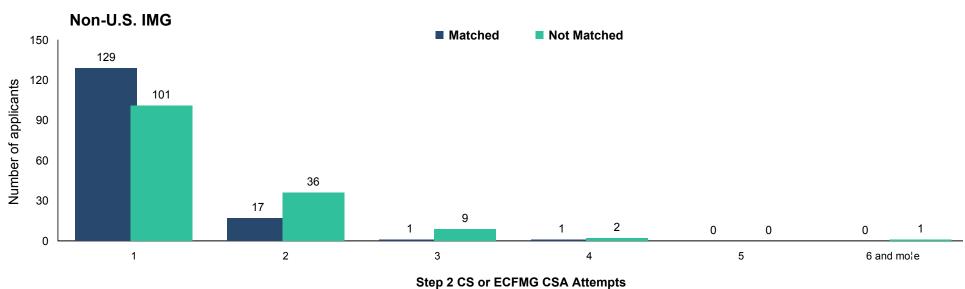
Source: NRMP Data Warehouse and ECFMG.

*USMLE Step 2 CK or equivalent examination



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

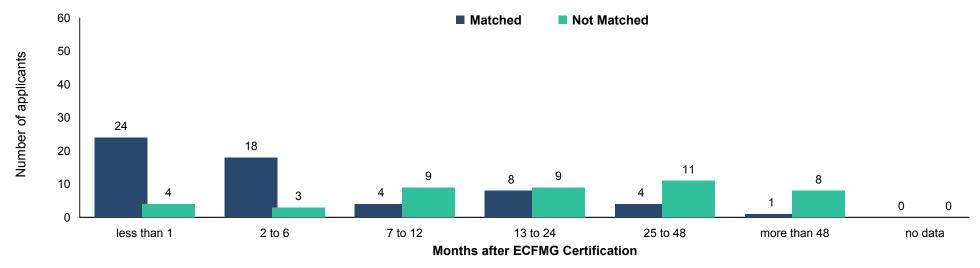




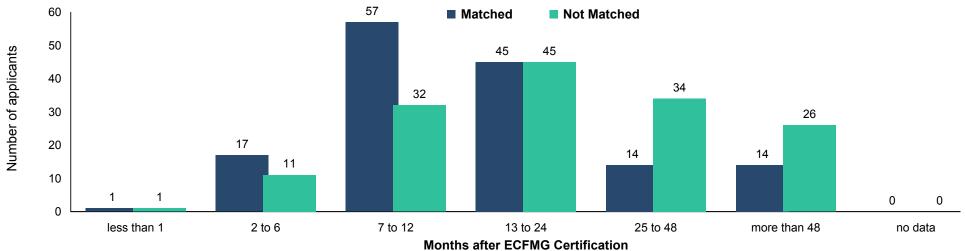


Number of Months After ECFMG Certification Neurology



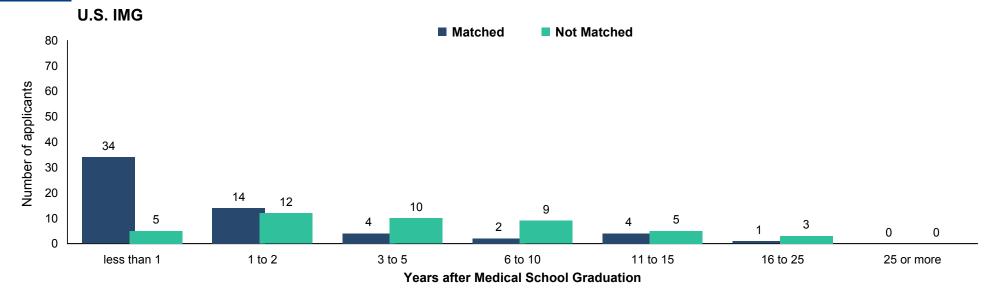


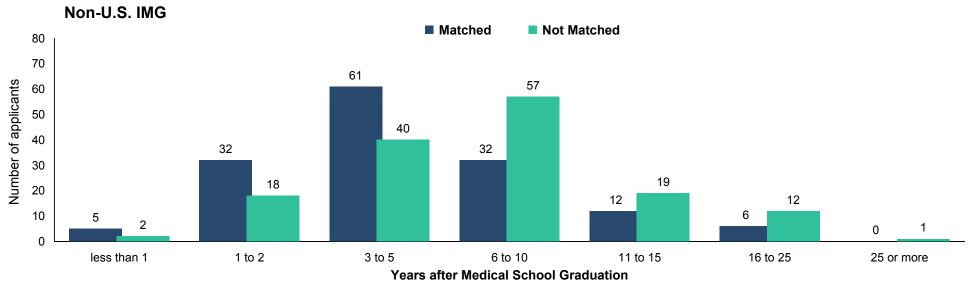






Number of Years After Medical School Graduation Neurology

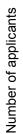


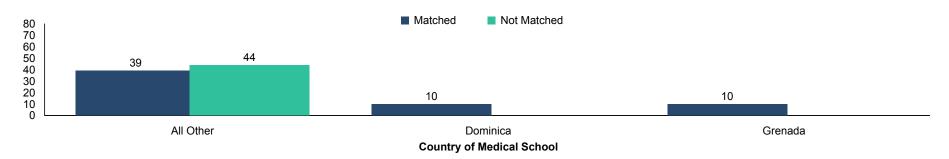




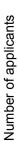
Country of Medical School Neurology

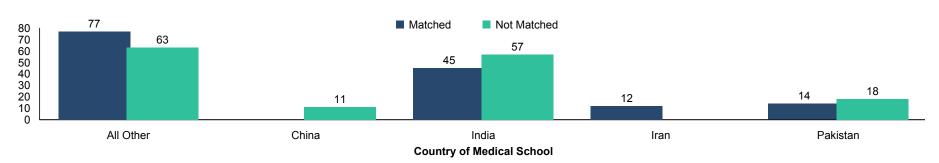
U.S. IMG





Non-U.S. IMG







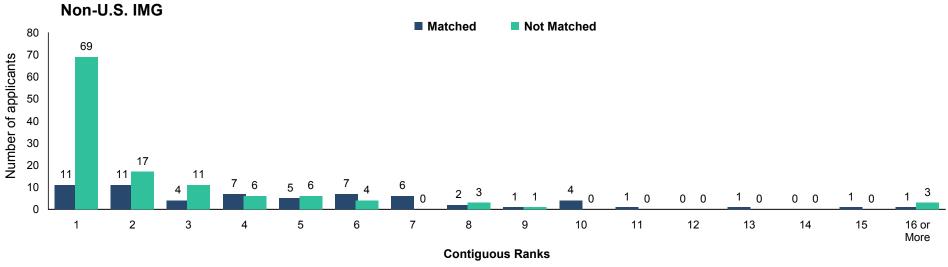
	U.S. IMG		Non-U.S. IMG	
Measure	Matched (n=78)	Unmatched (n=99)	Matched (n=62)	Unmatched (n=120)
Mean number of contiguous ranks	8	3	5	3
2. Mean number of distinct specialties ranked	1.3	1.7	1.2	1.6
3. Mean USMLE Step 1 score	221	207	226	215
4. Mean USMLE Step 1 attempts*	1.0	1.4	1.0	1.2
5. Mean USMLE 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

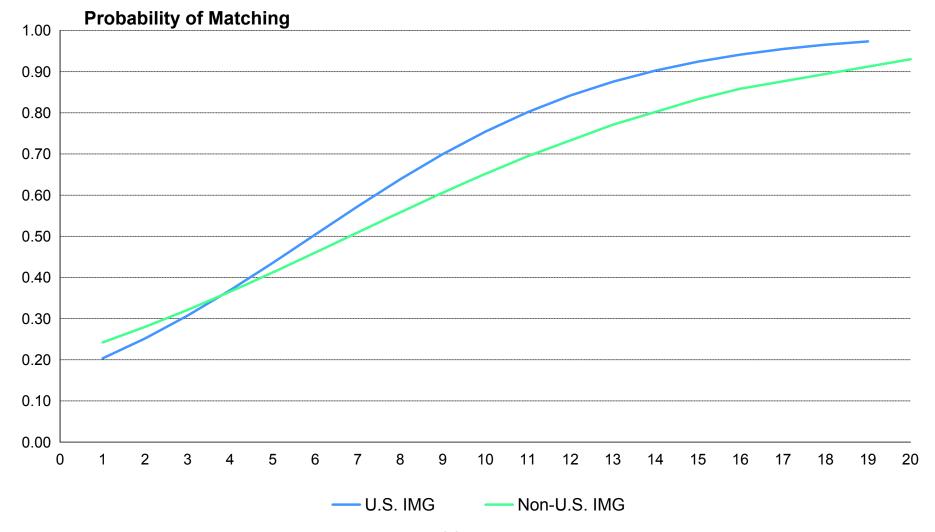
Number of Contiguous Ranks Within Preferred Specialty Obstetrics and Gynecology







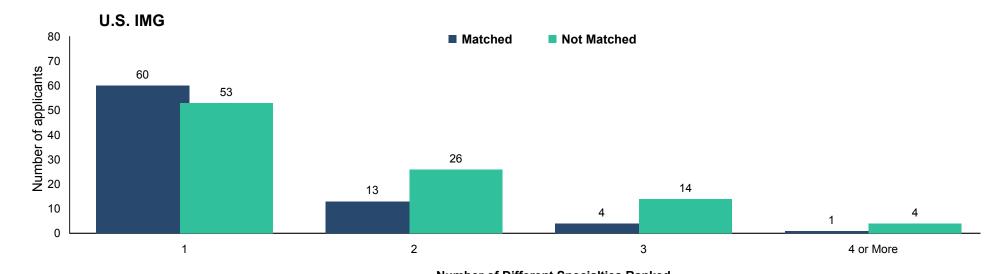
Probability of Matching to Preferred Specialty by Number of Contiguous Ranks Obstetrics and Gynecology

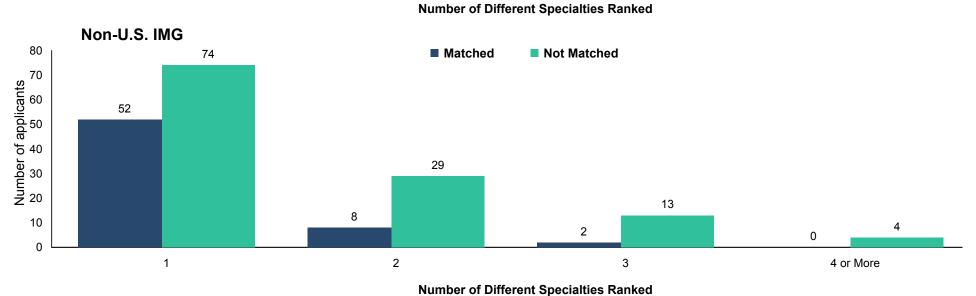


Number of Contiguous Ranks



Number of Applicants Ranking Different Specialties Obstetrics and Gynecology

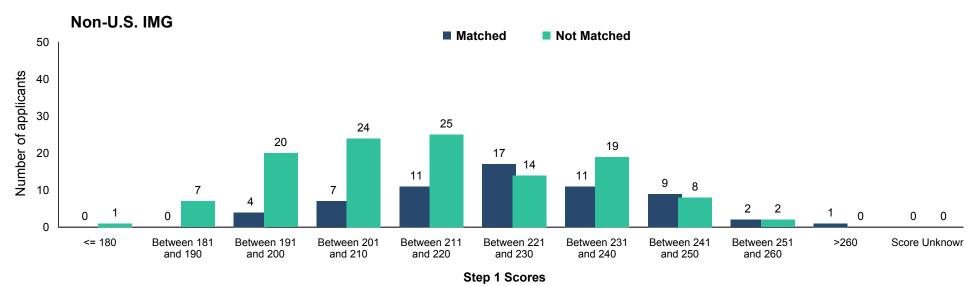




Source: NRMP Data Warehouse

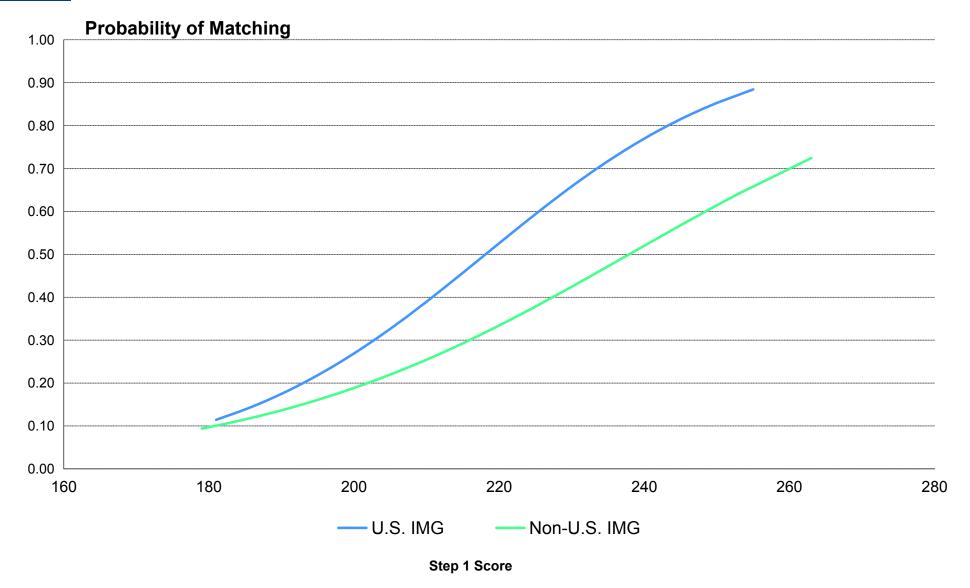
Chart OB-3 USMLE Step 1 Scores Obstetrics and Gynecology





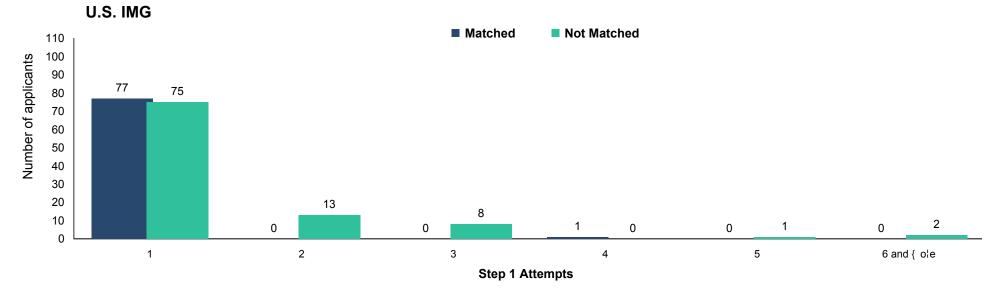


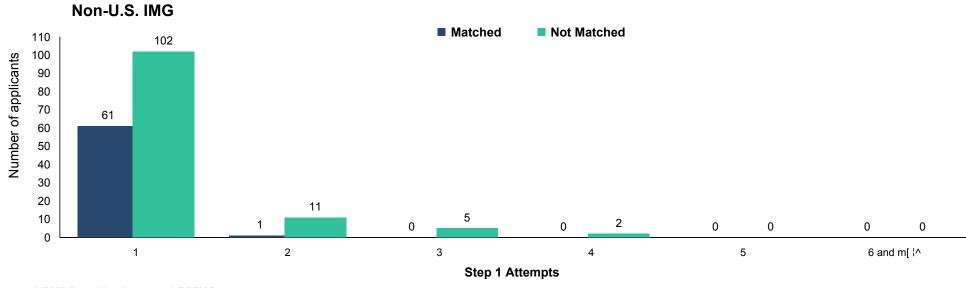
Probability of Matching to Preferred Specialty by USMLE Step 1 Score Obstetrics and Gynecology





USMLE Step 1 Attempts* *Obstetrics and Gynecology*



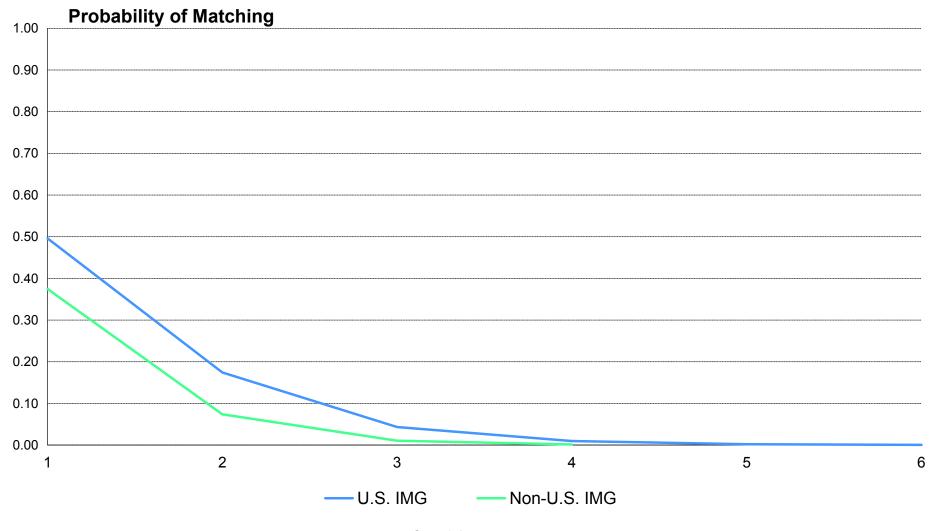


Source: NRMP Data Warehouse and ECFMG.

*USMLE Step 1 or equivalent examination



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

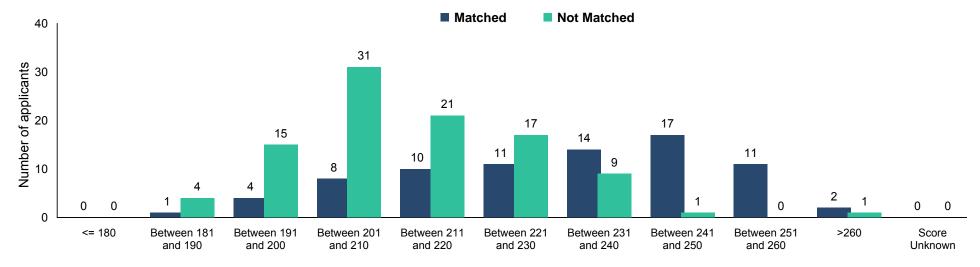


Step 1 Attempts

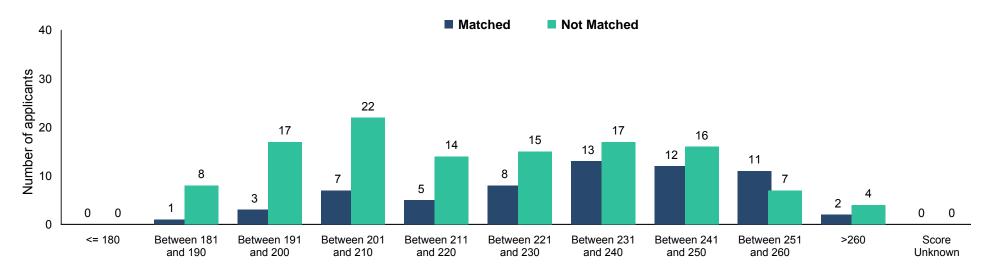
Source: NRMP Data Warehouse and ECFMG.

*USMLE Step 1 or equivalent examination

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



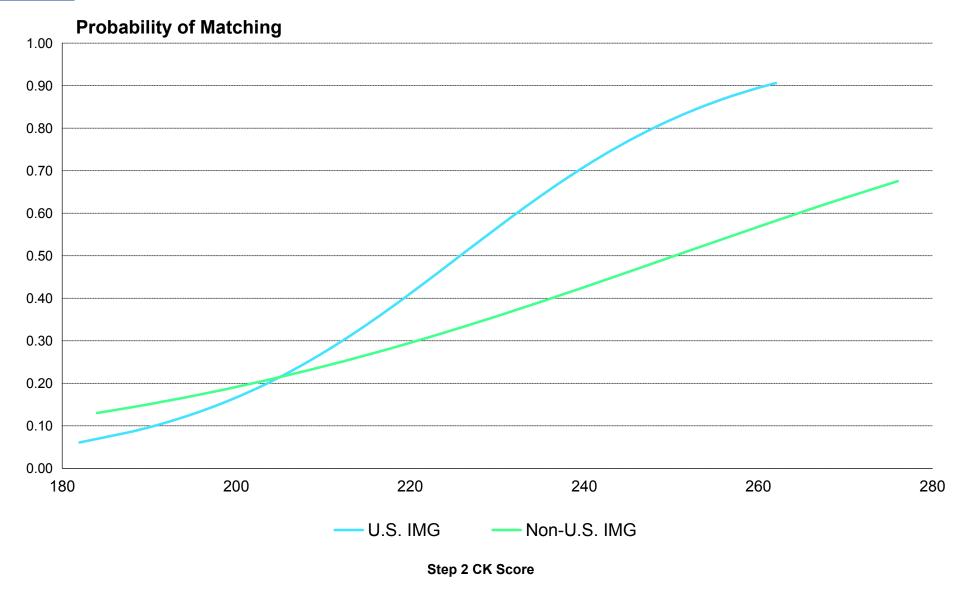
Step 2 CK Scores



Step 2 CK Scores

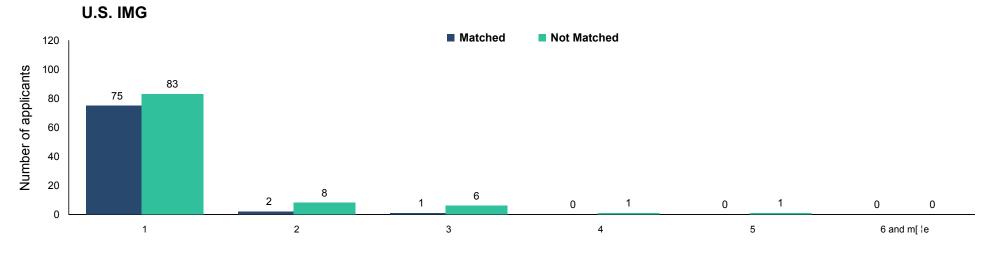


Probability of Matching to Preferred Specialty by USMLE Step 2 CK (Clinical Knowledge) Score Obstetrics and Gynecology

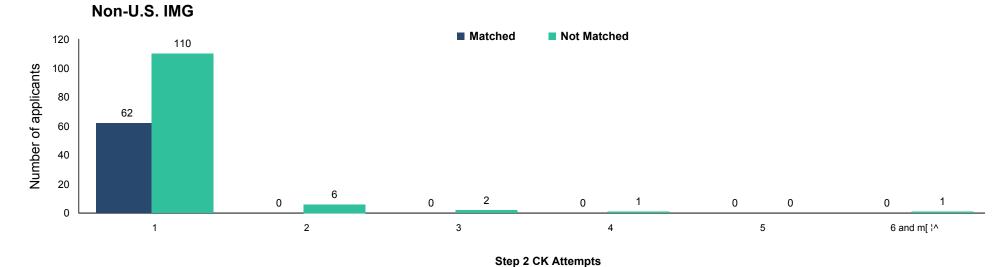




USMLE Step 2 CK (Clinical Knowledge) Attempts* Obstetrics and Gynecology





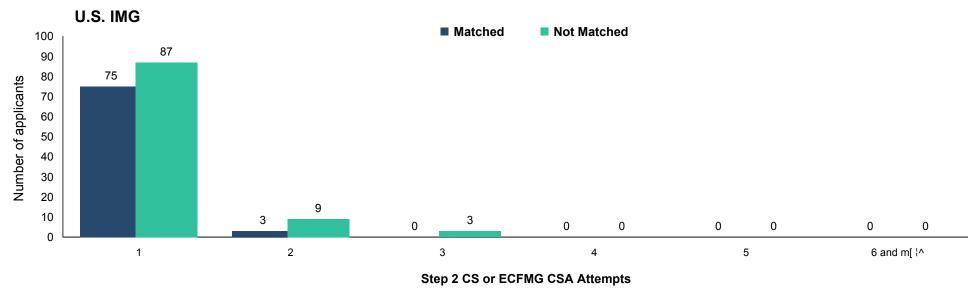


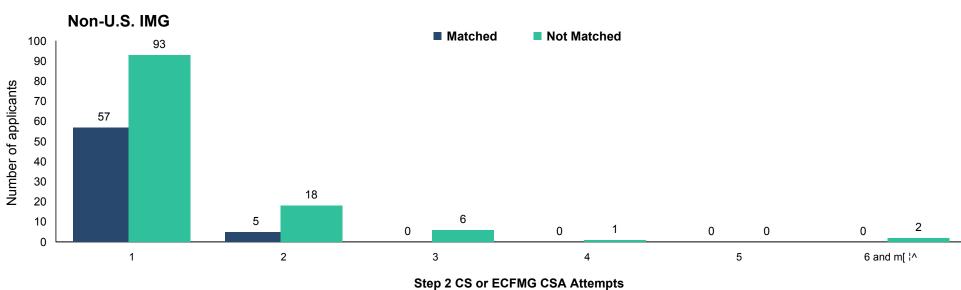
Source: NRMP Data Warehouse and ECFMG.

*USMLE Step 2 CK or equivalent examination



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

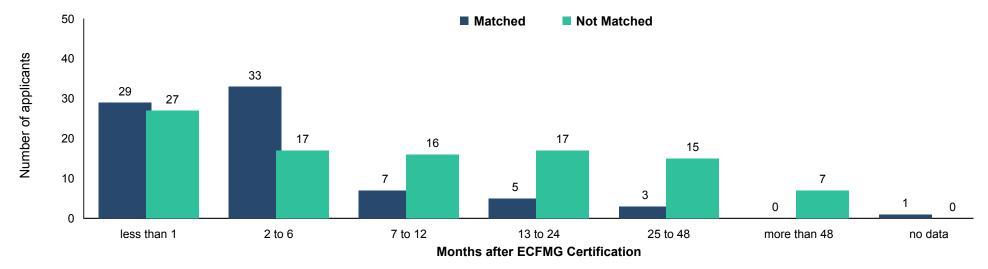




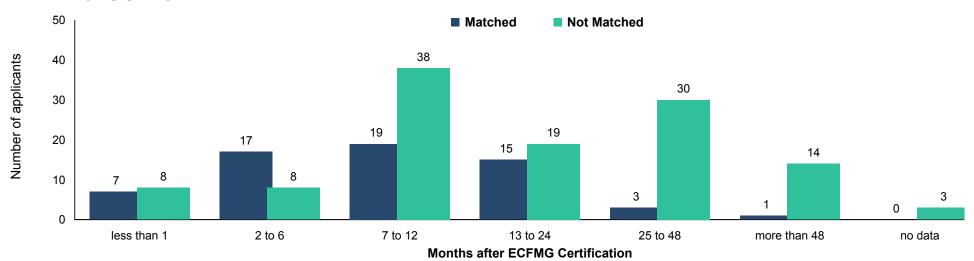


Number of Months After ECFMG Certification Obstetrics and Gynecology

U.S. IMG

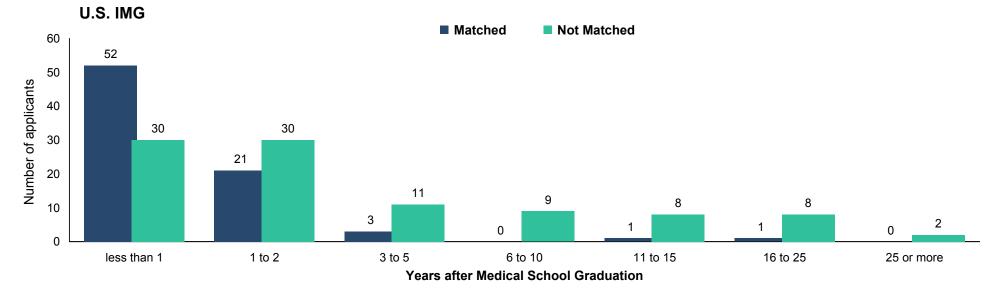


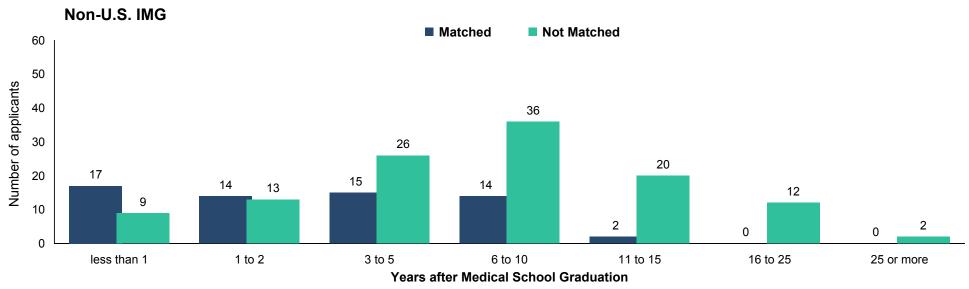






Number of Years After Medical School Graduation Obstetrics and Gynecology



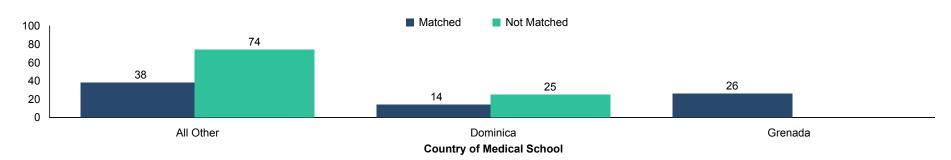




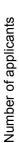
Country of Medical School Obstetrics and Gynecology

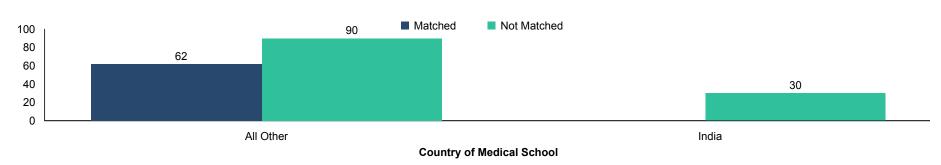
U.S. IMG





Non-U.S. IMG





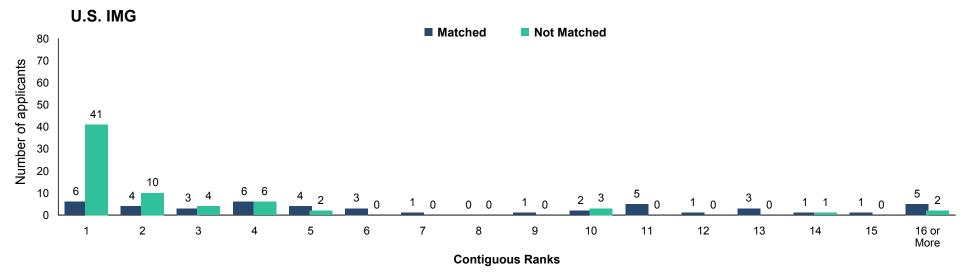
Pathology

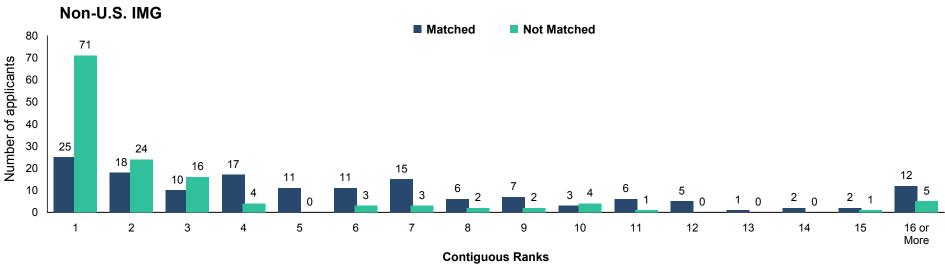
	U.S. IMG		Non-U.S. IMG	
Measure	Matched (n=46)	Unmatched (n=69)	Matched (n=151)	Unmatched (n=136)
Mean number of contiguous ranks	8	3	6	3
2. Mean number of distinct specialties ranked	1.1	1.5	1.3	1.3
3. Mean USMLE Step 1 score	224	204	226	214
4. Mean USMLE Step 1 attempts*	1.1	1.7	1.0	1.2
5. Mean USMLE 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



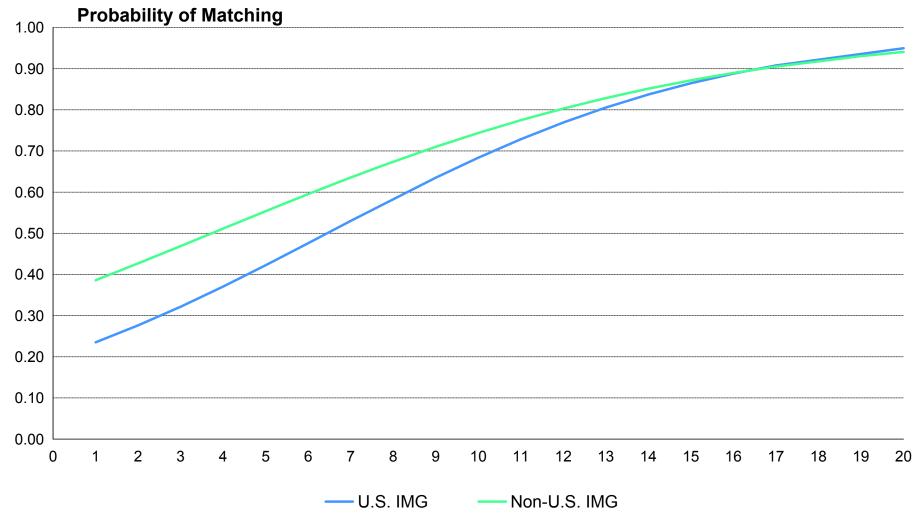
Number of Contiguous Ranks Within Preferred Specialty Pathology







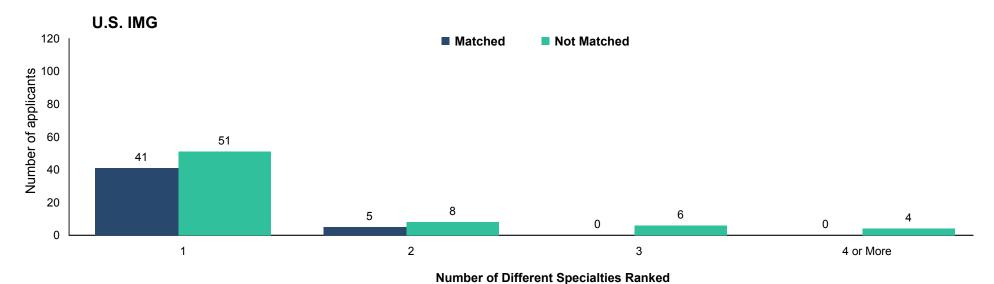
Probability of Matching to Preferred Specialty by Number of Contiguous Ranks *Pathology*

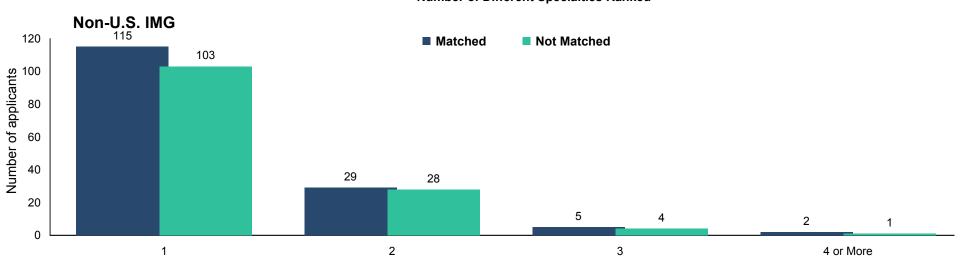


Number of Contiguous Ranks



Number of Applicants Ranking Different Specialties Pathology

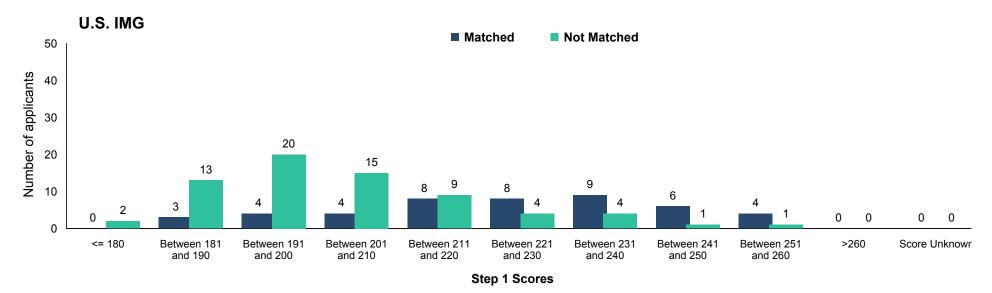


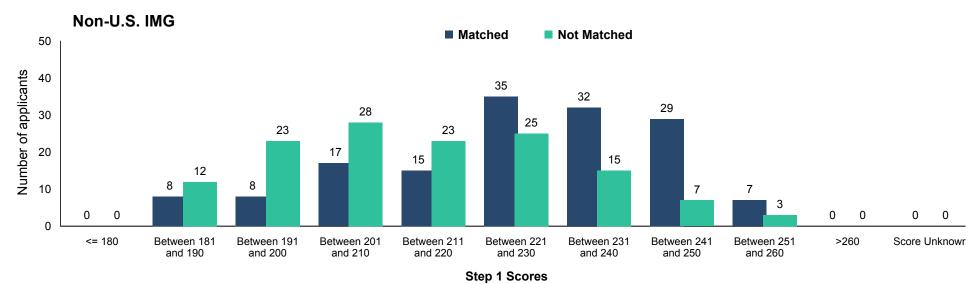


Source: NRMP Data Warehouse

Number of Different Specialties Ranked

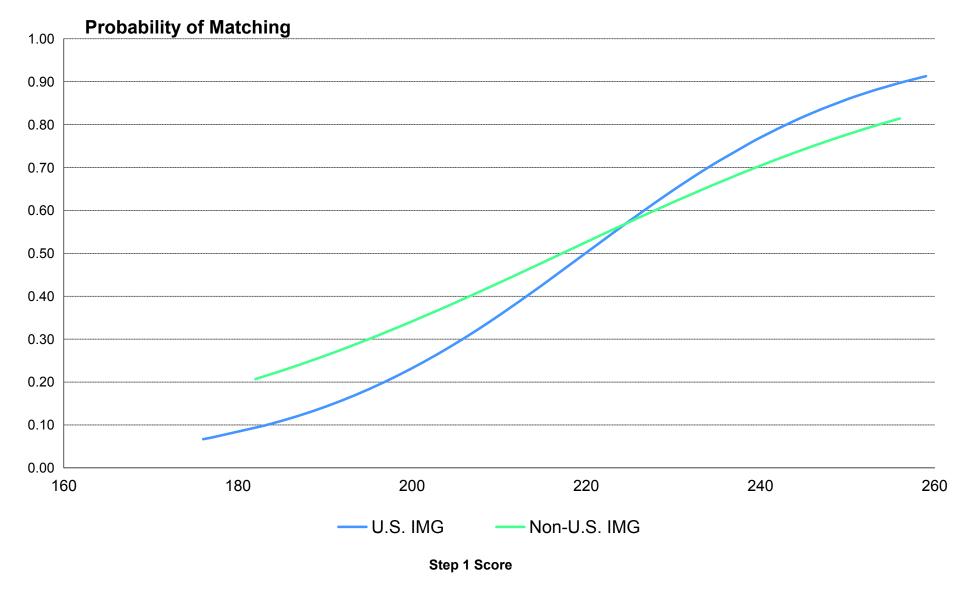
Chart PTH-3 USMLE Step 1 Scores Pathology



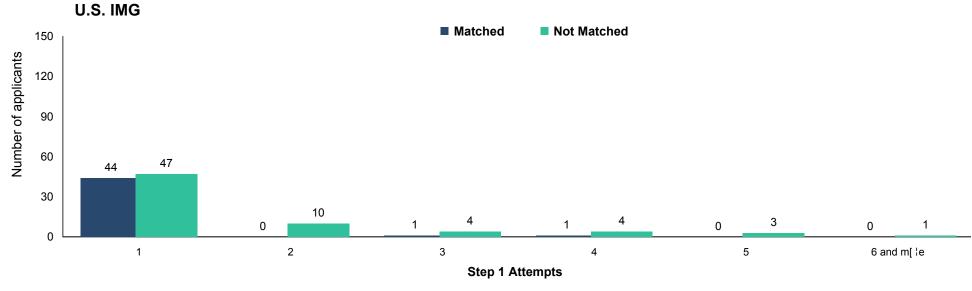


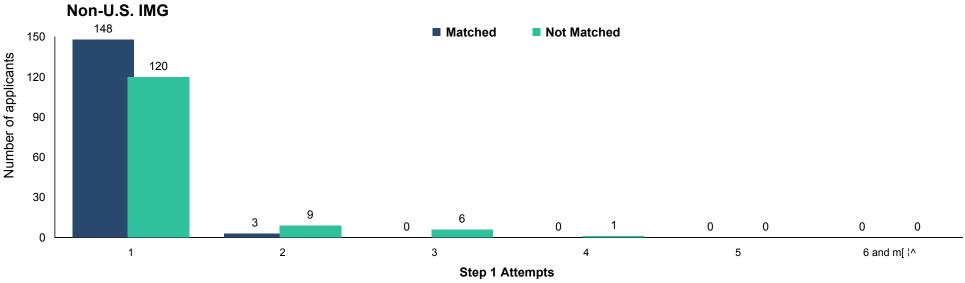


Probability of Matching to Preferred Specialty by USMLE Step 1 Score Pathology-Anatomic and Clinical







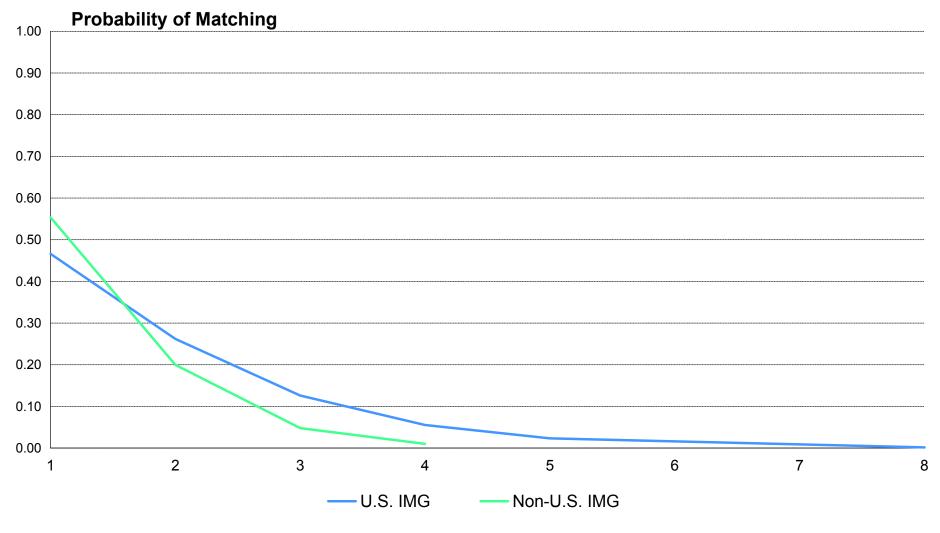


Source: NRMP Data Warehouse and ECFMG.

*USMLE Step 1 or equivalent examination



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

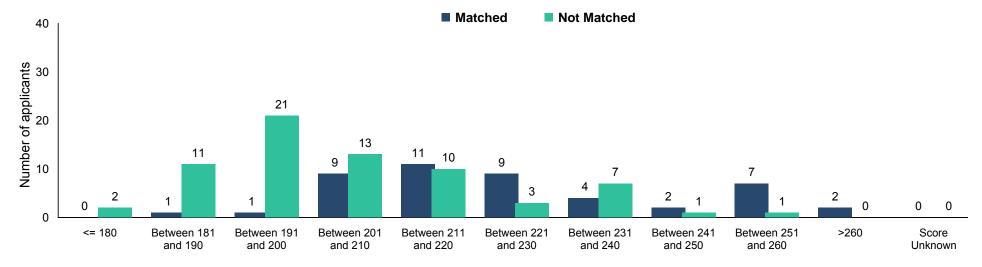


Step 1 Attempts

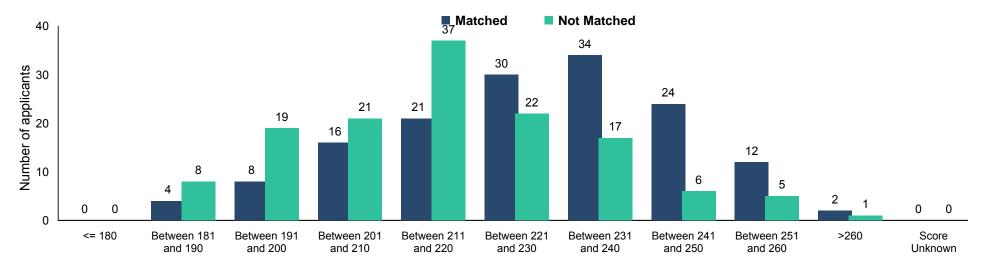
Source: NRMP Data Warehouse and ECFMG.

*USMLE Step 1 or equivalent examination

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



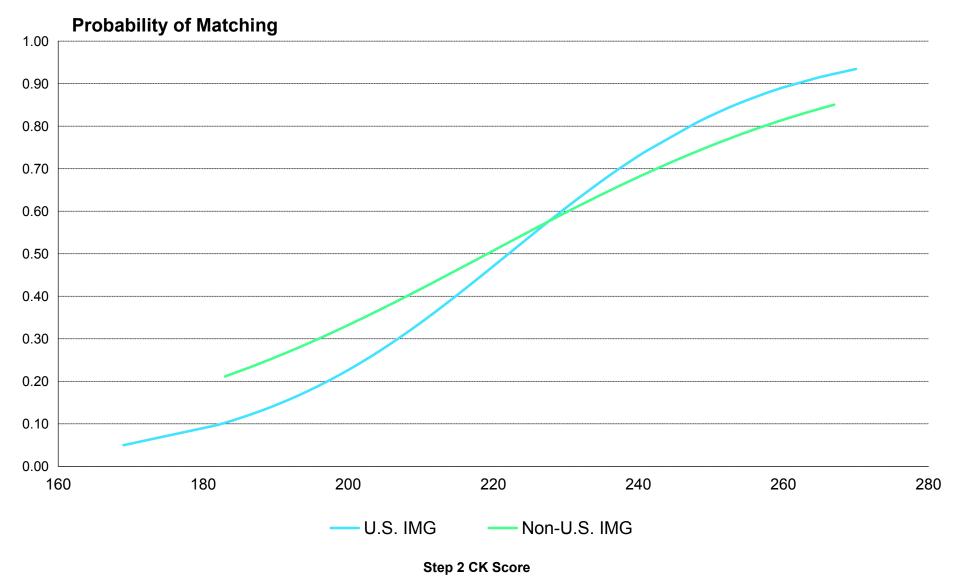
Step 2 CK Scores



Step 2 CK Scores



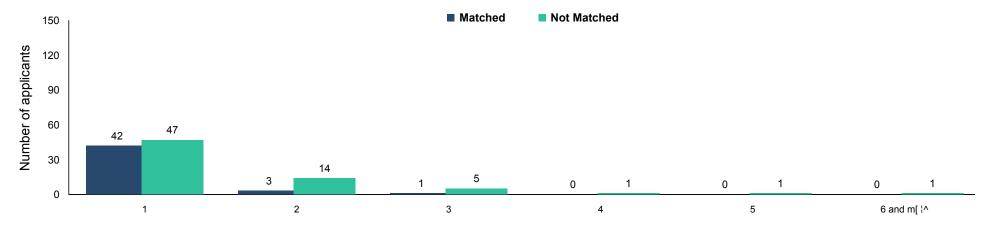
Probability of Matching to Preferred Specialty by USMLE Step 2 CK (Clinical Knowledge) Score Pathology



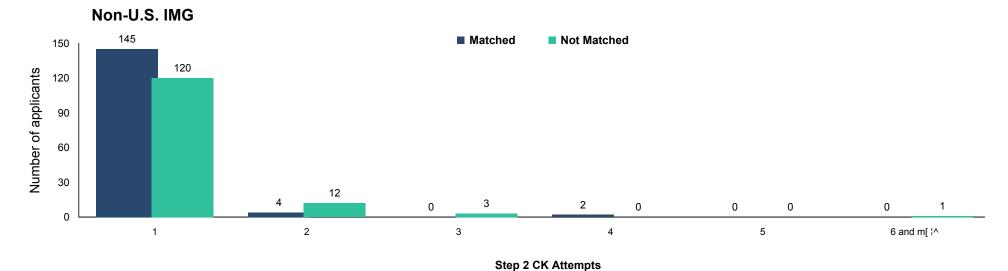


USMLE Step 2 CK (Clinical Knowledge) Attempts* *Pathology*





Step 2 CK Attempts

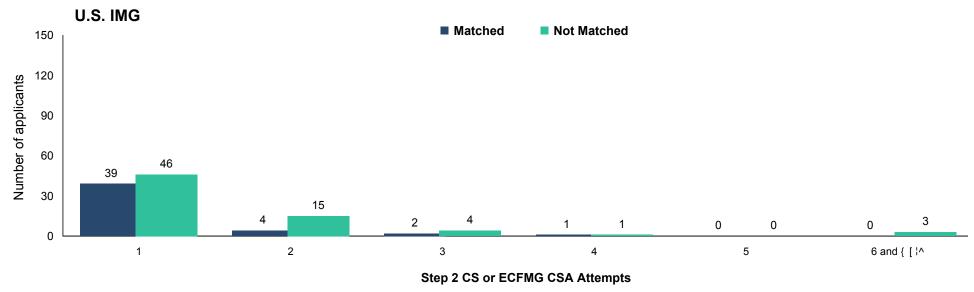


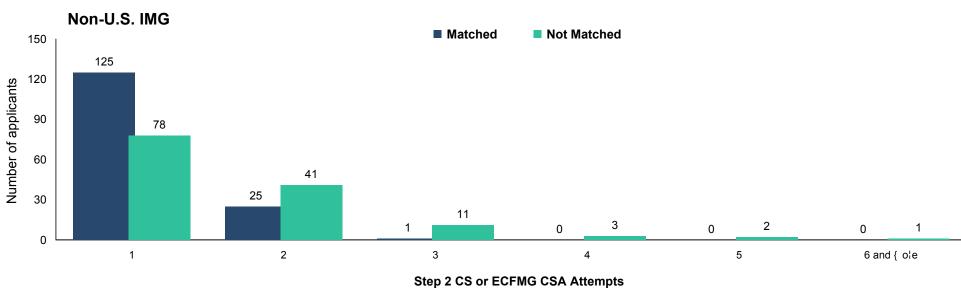
Source: NRMP Data Warehouse and ECFMG.

*USMLE Step 2 CK or equivalent examination



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

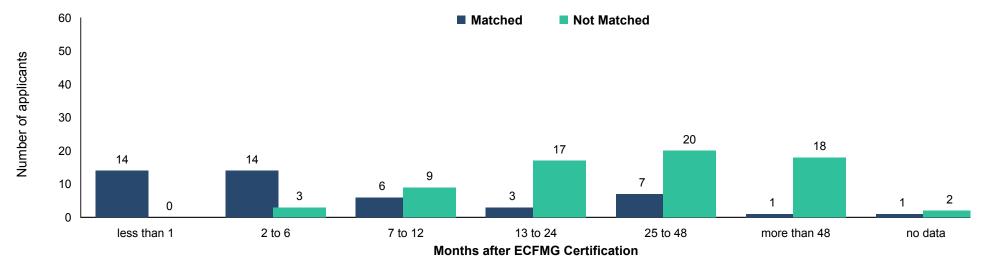




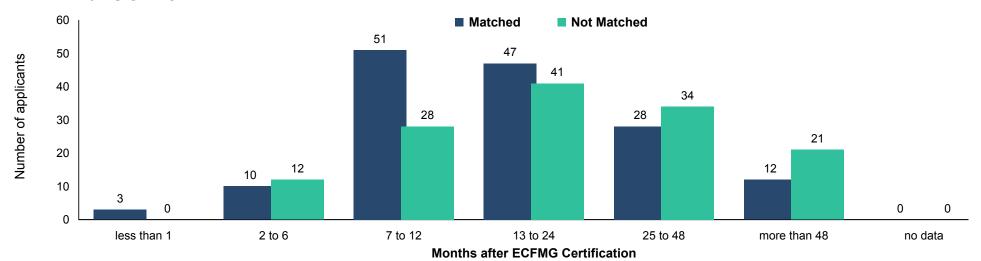


Number of Months After ECFMG Certification Pathology



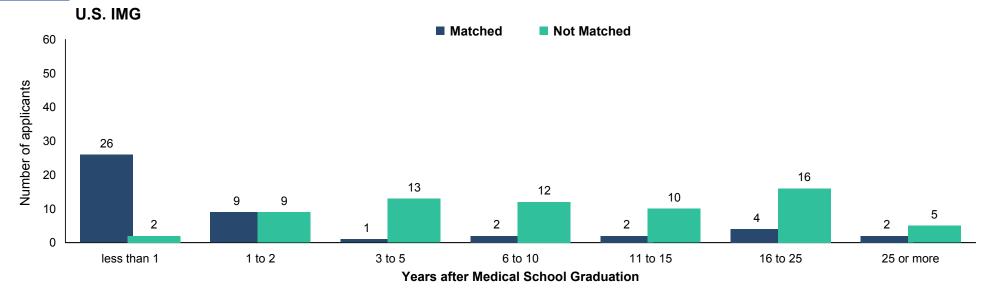


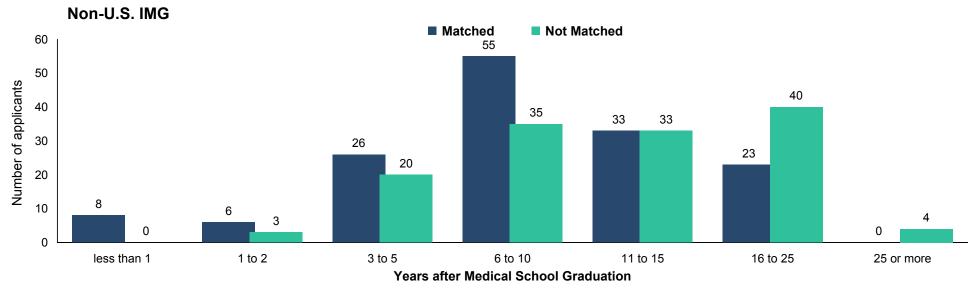






Number of Years After Medical School Graduation Pathology



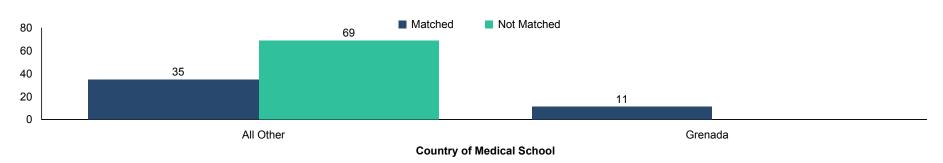




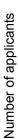
Country of Medical School Pathology

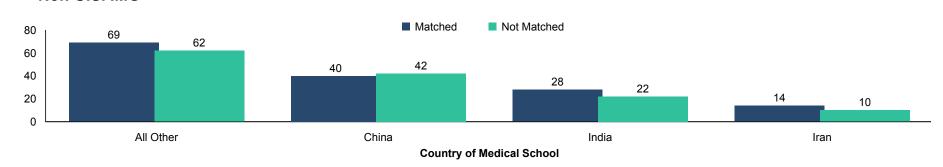
U.S. IMG











Pediatrics

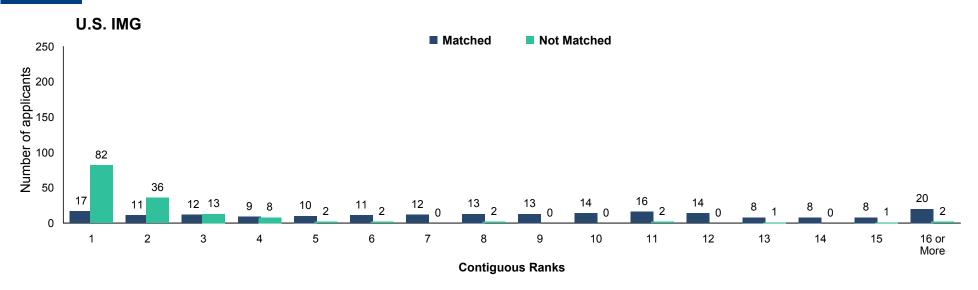
Table Summary Statistics PD-1 Pediatrics

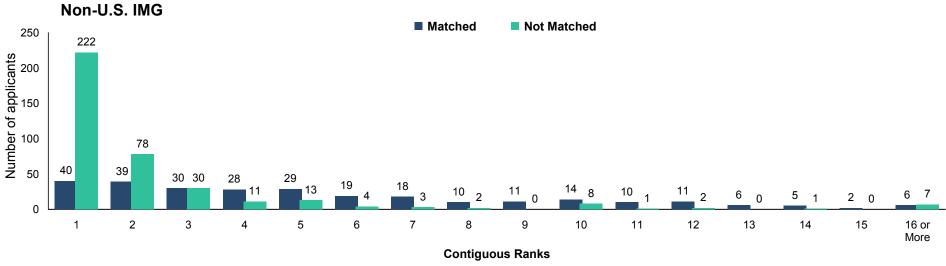
	U.S. IMG		Non-U.S. IMG	
Measure	Matched (n=196)	Unmatched (n=151)	Matched (n=278)	Unmatched (n=382)
Mean number of contiguous ranks	9	2	6	2
2. Mean number of distinct specialties ranked	1.2	1.5	1.3	1.5
3. Mean USMLE Step 1 score	216	201	223	211
4. Mean USMLE Step 1 attempts*	1.1	1.7	1.0	1.2
5. Mean USMLE 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

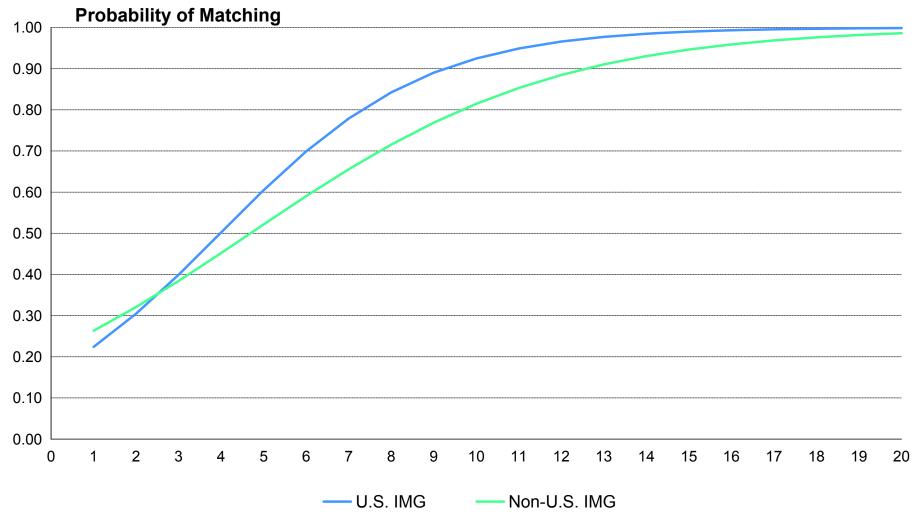
Number of Contiguous Ranks Within Preferred Specialty *Pediatrics*







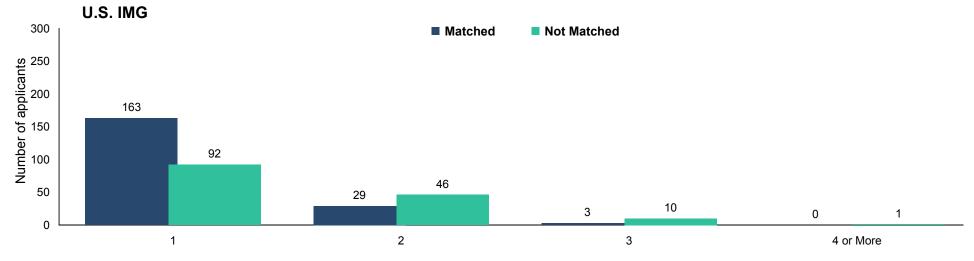
Probability of Matching to Preferred Specialty by Number of Contiguous Ranks *Pediatrics*



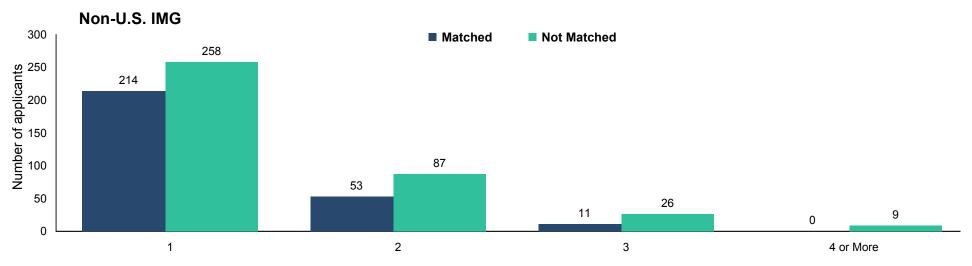
Number of Contiguous Ranks



Number of Applicants Ranking Different Specialties Pediatrics



Number of Different Specialties Ranked

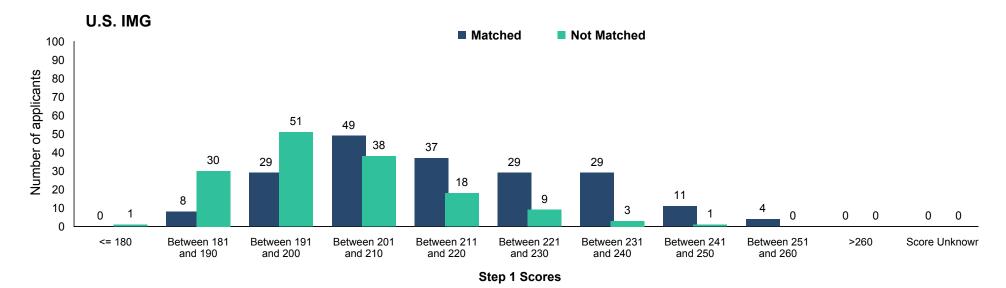


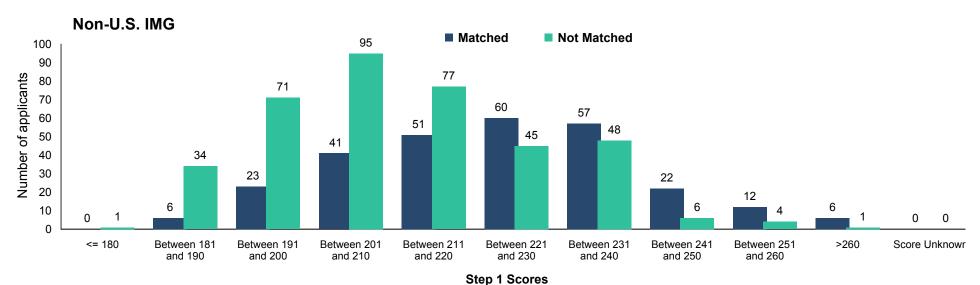
Number of Different Specialties Ranked

Source: NRMP Data Warehouse

Chart USMLE S Pediatrics

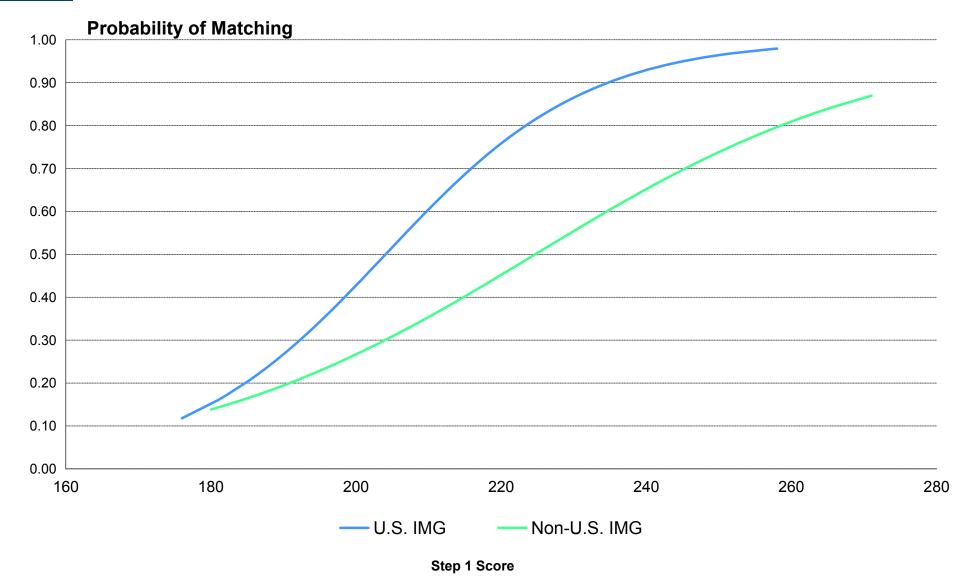
USMLE Step 1 Scores *Pediatrics*



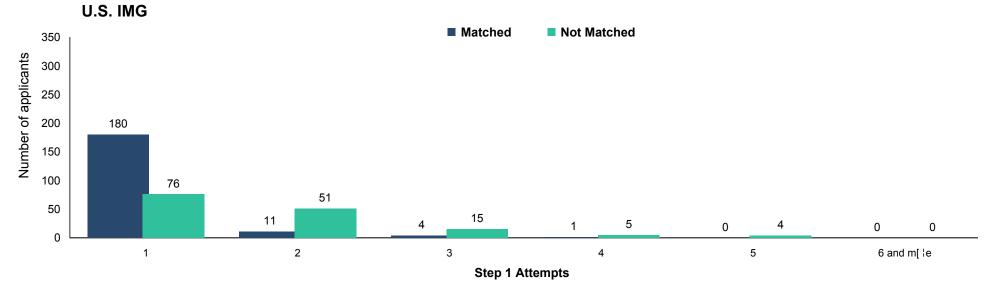


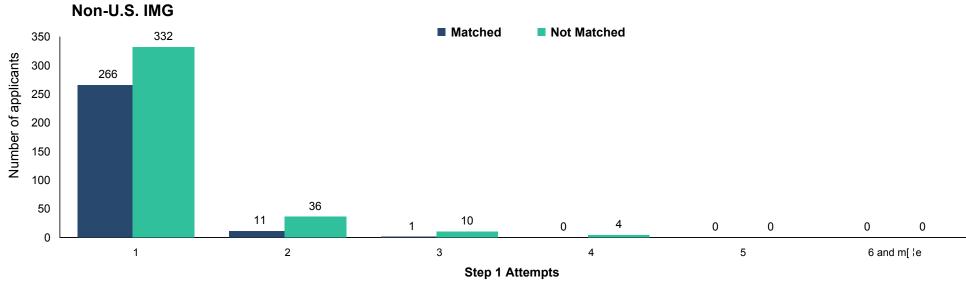


Probability of Matching to Preferred Specialty by USMLE Step 1 Score *Pediatrics*





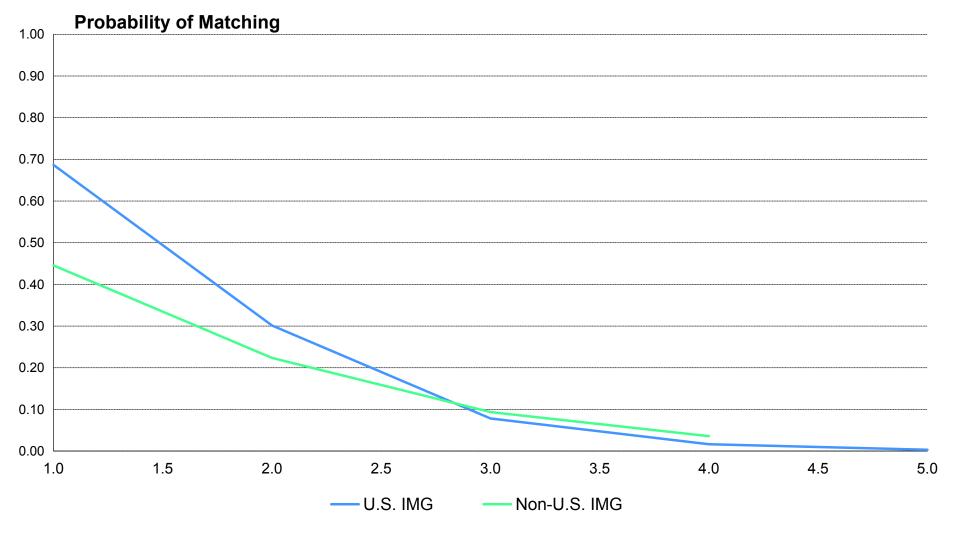




143



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

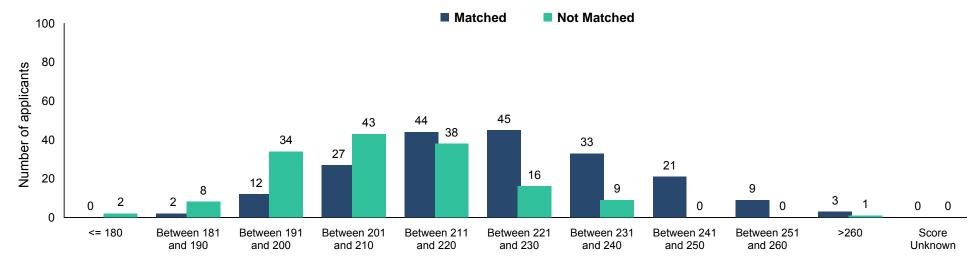


Step 1 Attempts

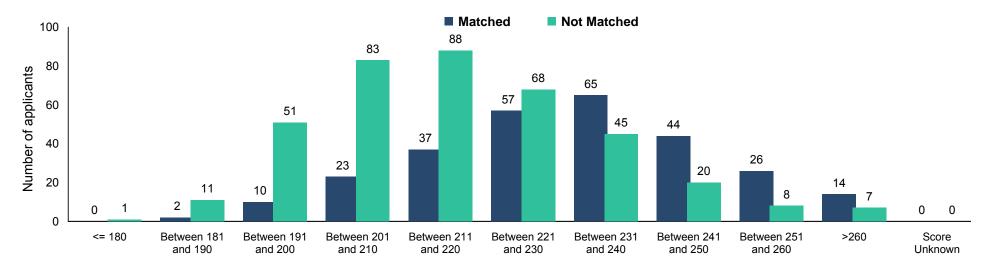
Source: NRMP Data Warehouse and ECFMG.

*USMLE Step 1 or equivalent examination

USMLE Step 2 CK (Clinical Knowledge) Scores Pediatrics



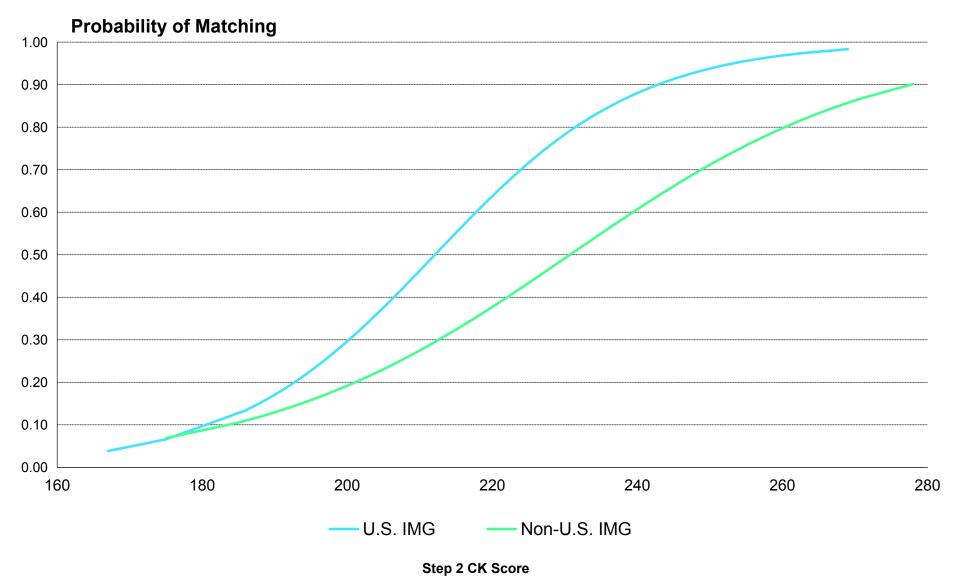
Step 2 CK Scores



Step 2 CK Scores



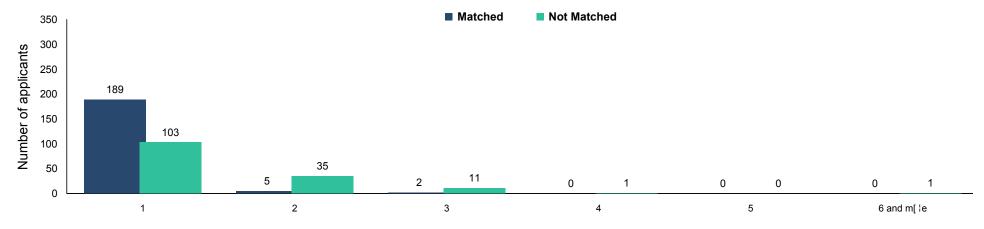
Probability of Matching to Preferred Specialty by USMLE Step 2 CK (Clinical Knowledge) Score *Pediatrics*



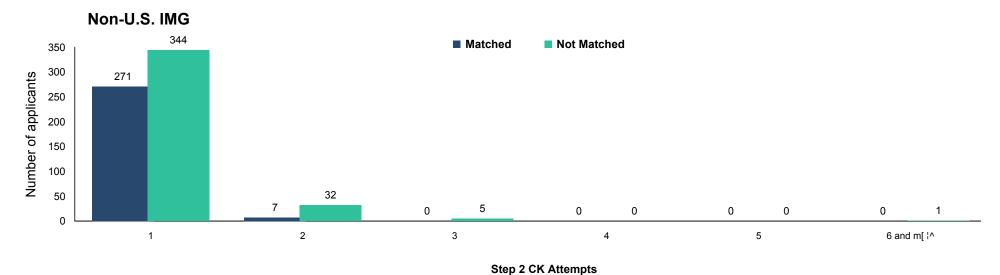


USMLE Step 2 CK (Clinical Knowledge) Attempts* *Pediatrics*





Step 2 CK Attempts

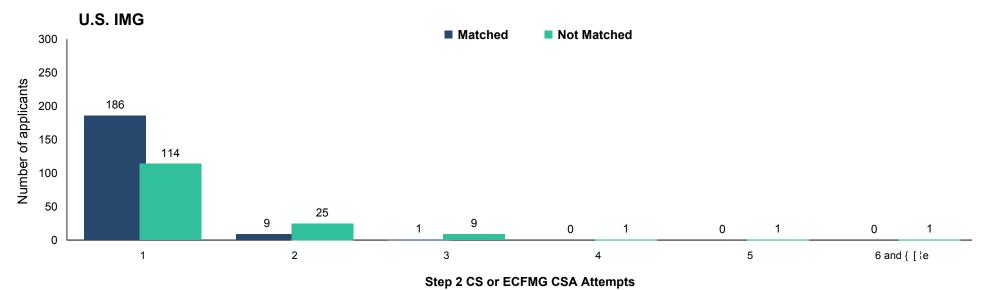


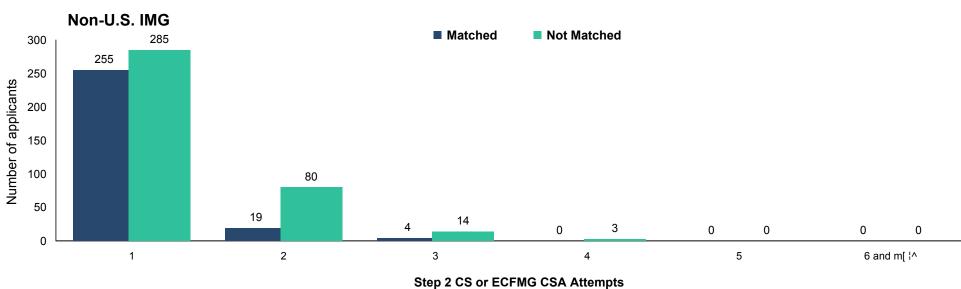
Source: NRMP Data Warehouse and ECFMG.

*USMLE Step 2 CK or equivalent examination



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

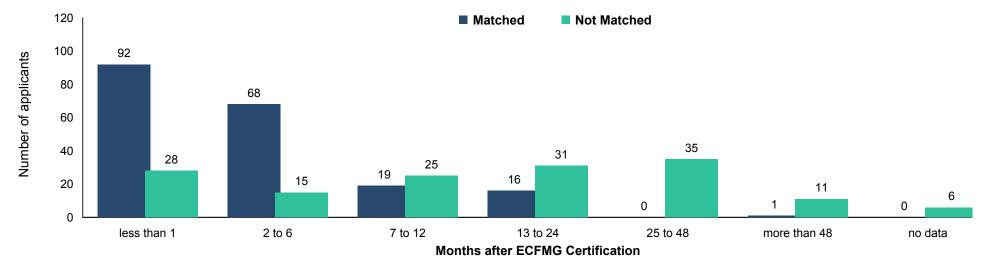


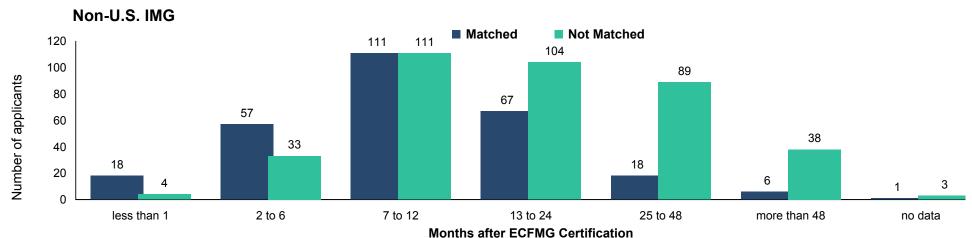




Number of Months After ECFMG Certification Pediatrics

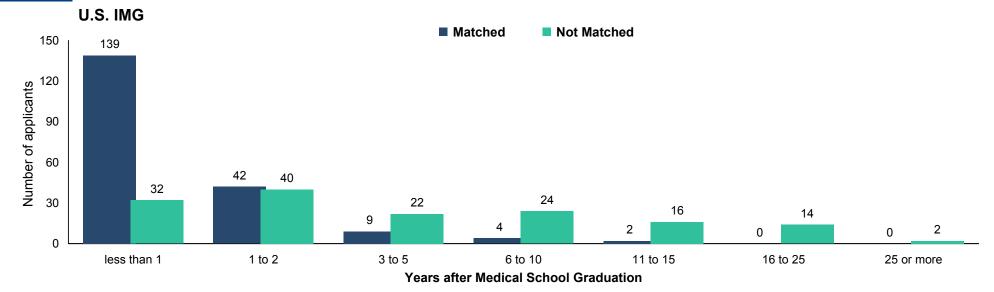


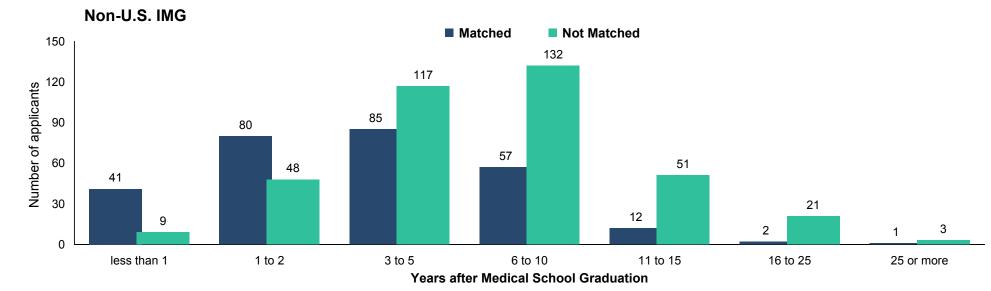






Number of Years After Medical School Graduation *Pediatrics*



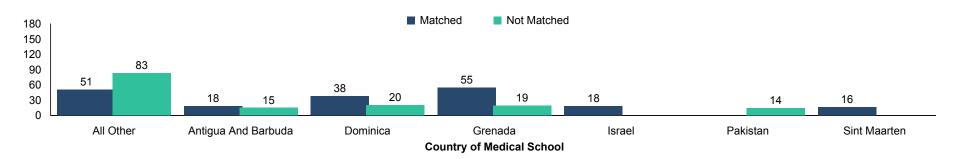




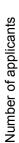
Country of Medical School Pediatrics

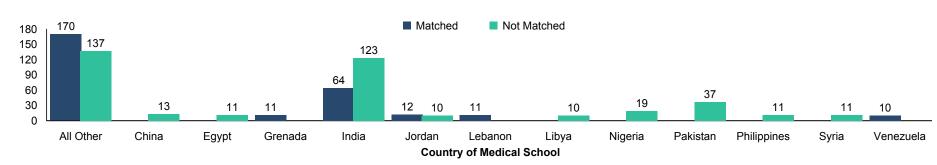
U.S. IMG





Non-U.S. IMG







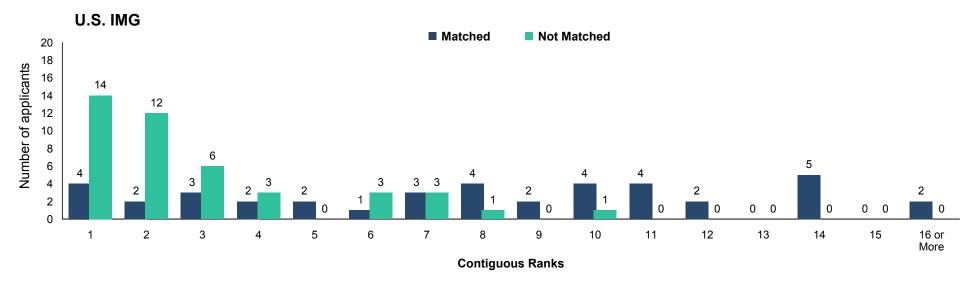
Physical Medicine and Rehabilitation

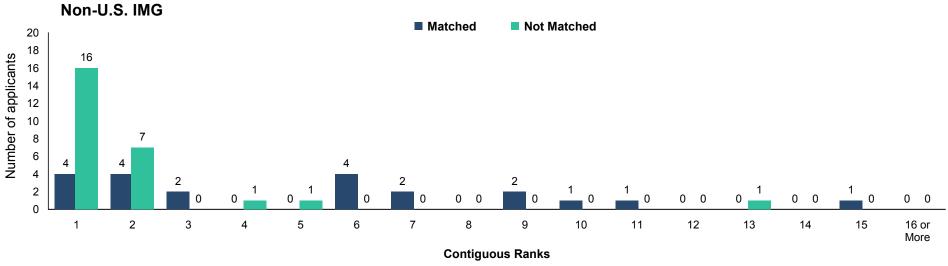
	U.S. IMG		Non-U.S. IMG	
Measure	Matched (n=40)	Unmatched (n=43)	Matched (n=21)	Unmatched (n=26)
Mean number of contiguous ranks	8	3	5	2
2. Mean number of distinct specialties ranked	1.8	1.8	1.8	1.9
3. Mean USMLE Step 1 score	223	207	220	211
4. Mean USMLE Step 1 attempts*	1.1	1.3	1.1	1.5
5. Mean USMLE 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

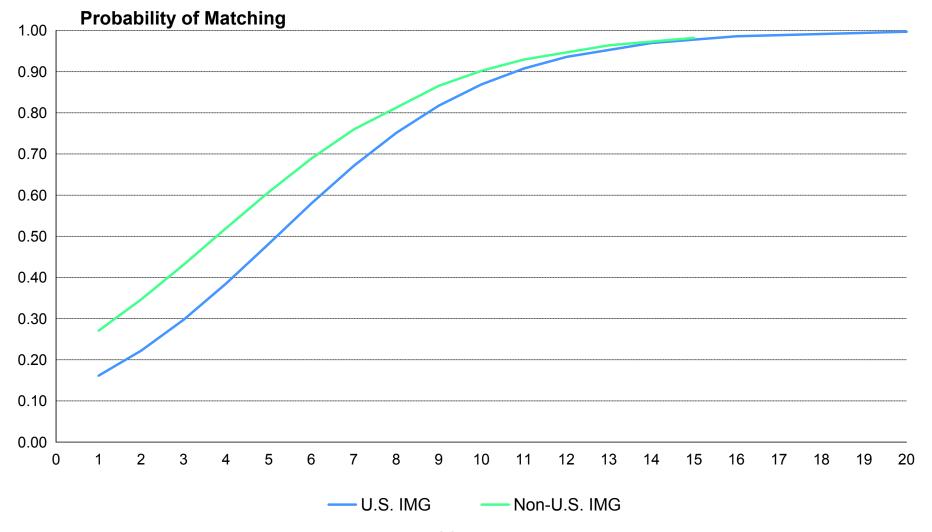
Number of Contiguous Ranks Within Preferred Specialty Physical Medicine and Rehabilitation







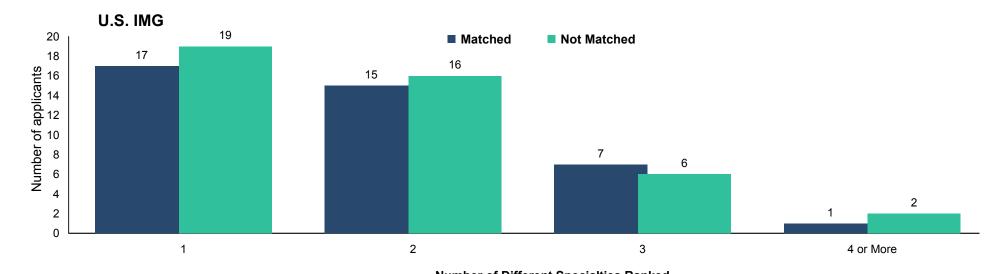
Probability of Matching to Preferred Specialty by Number of Contiguous Ranks *Physical Medicine and Rehabilitation*



Number of Contiguous Ranks



Number of Applicants Ranking Different Specialties Physical Medicine and Rehabilitation

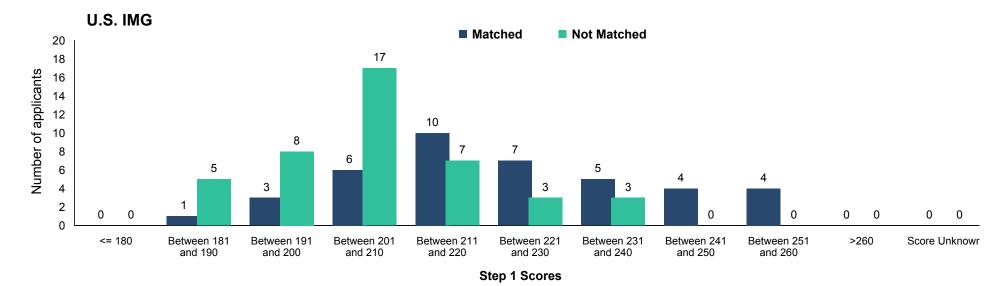




Source: NRMP Data Warehouse

Chart PM-3

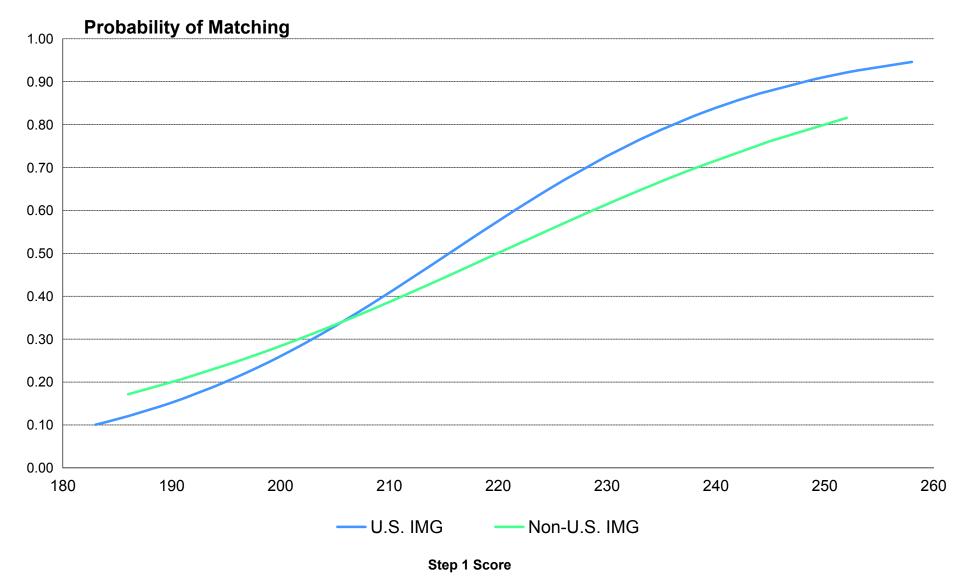
USMLE Step 1 Scores Physical Medicine and Rehabilitation





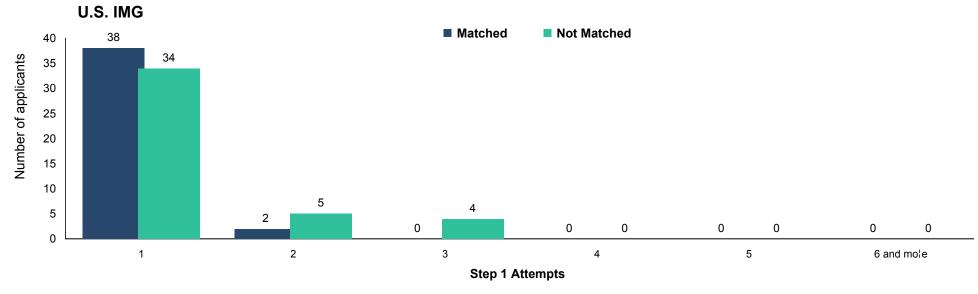


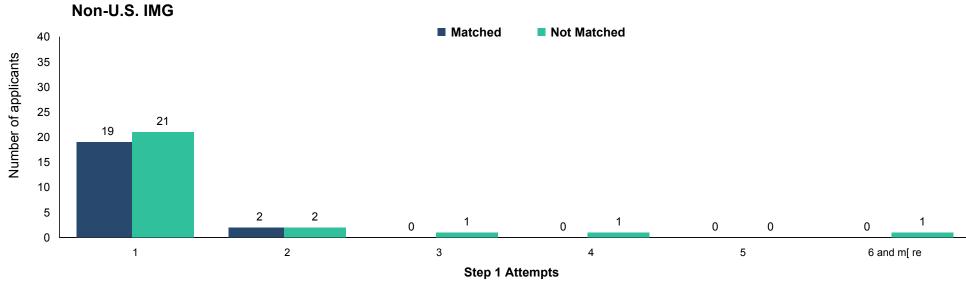
Probability of Matching to Preferred Specialty by USMLE Step 1 Score Physical Medicine and Rehabilitation





USMLE Step 1 Attempts* Physical Medicine and Rehabilitation



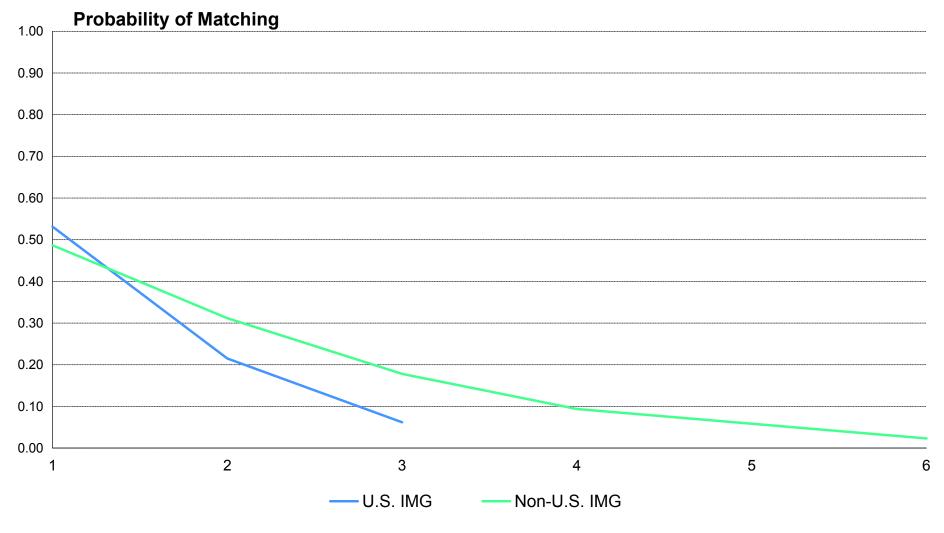


Source: NRMP Data Warehouse and ECFMG.

*USMLE Step 1 or equivalent examination



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

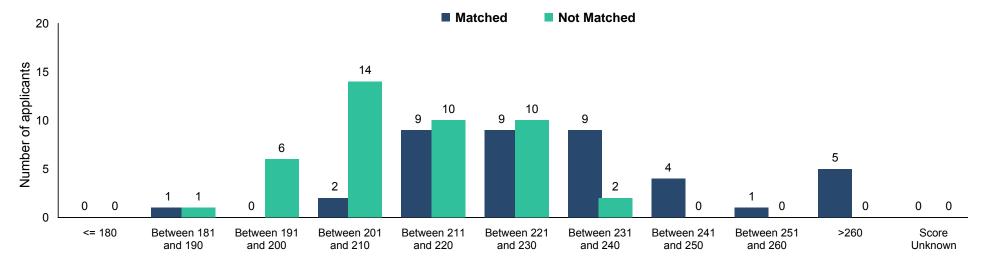


Step 1 Attempts

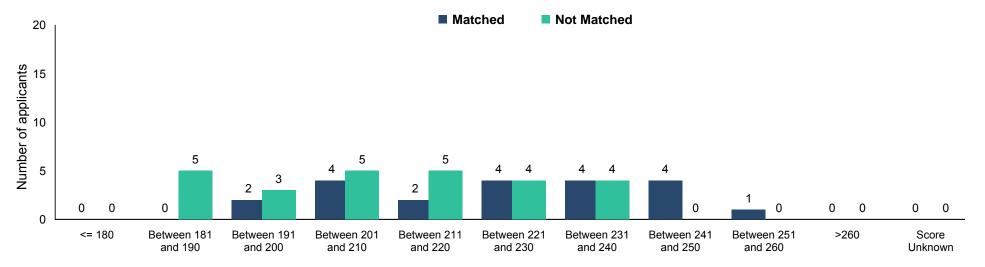
Source: NRMP Data Warehouse and ECFMG.

*USMLE Step 1 or equivalent examination

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



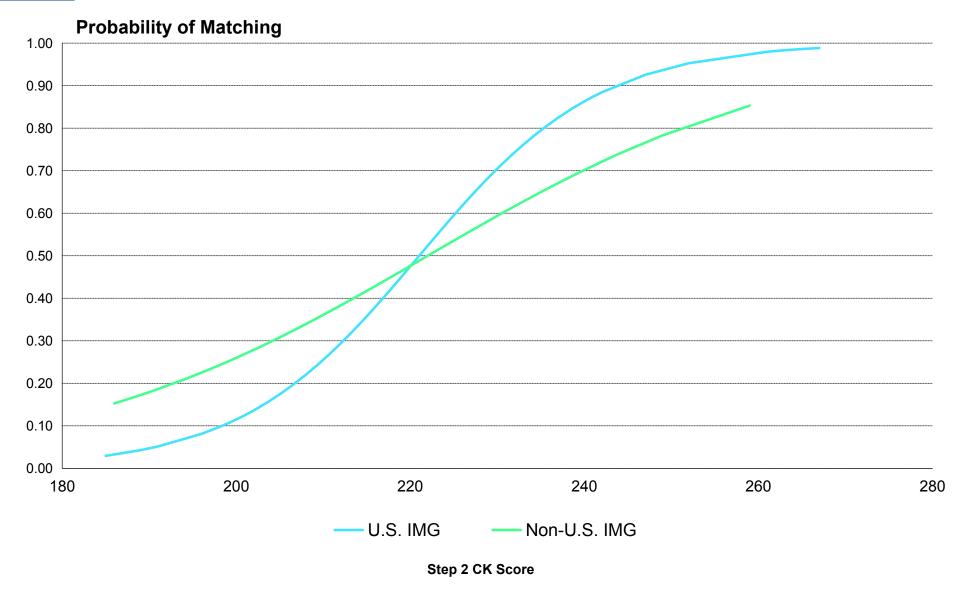
Step 2 CK Scores



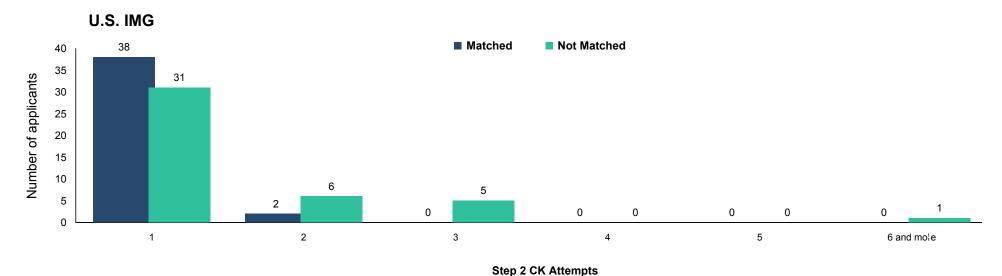
Step 2 CK Scores

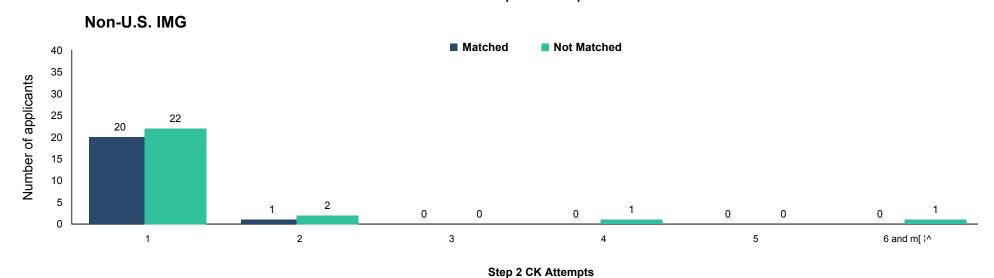


Probability of Matching to Preferred Specialty by USMLE Step 2 CK (Clinical Knowledge) Score Physical Medicine and Rehabilitation



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

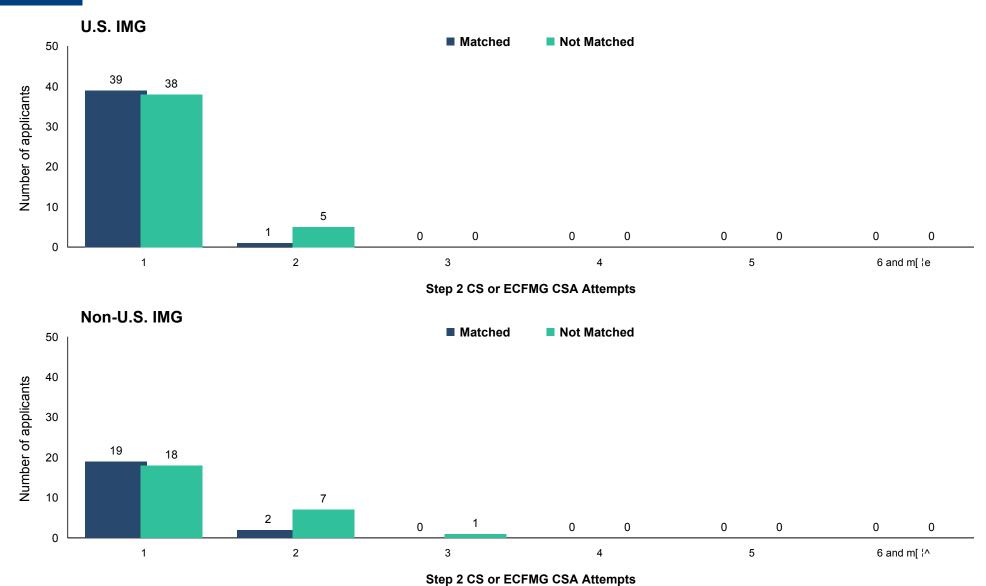




Source: NRMP Data Warehouse and ECFMG.

*USMLE Step 2 CK or equivalent examination

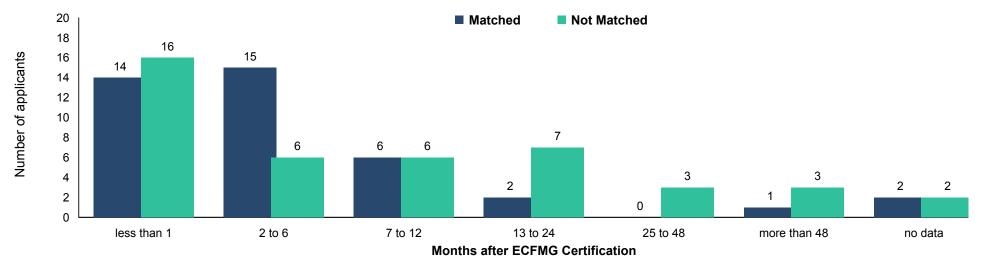
Attempts at USMLE Step 2 CS (Clinical Skills) or ECFMG CSA (Clinical Skills Assessment) Physical Medicine and Rehabilitation



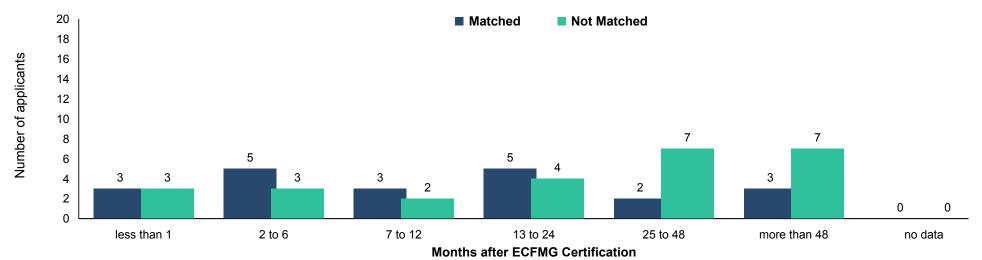


Number of Months After ECFMG Certification Physical Medicine and Rehabilitation



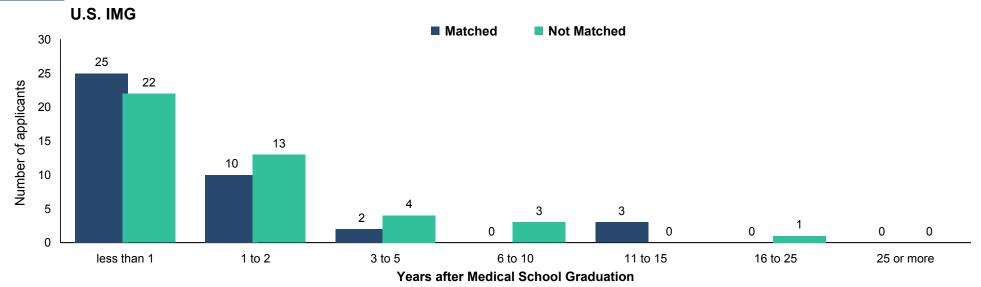


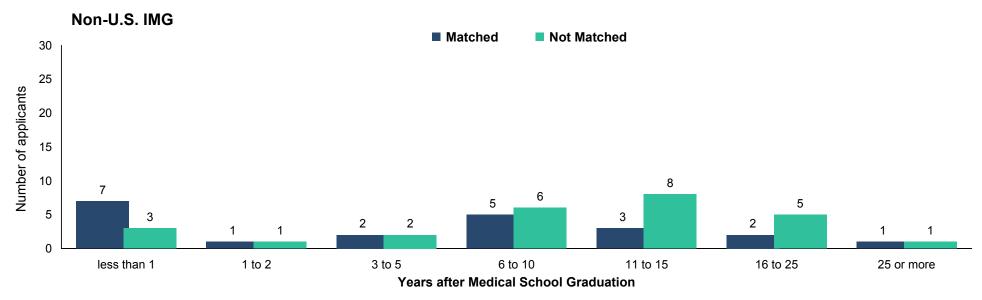






Number of Years After Medical School Graduation Physical Medicine and Rehabilitation



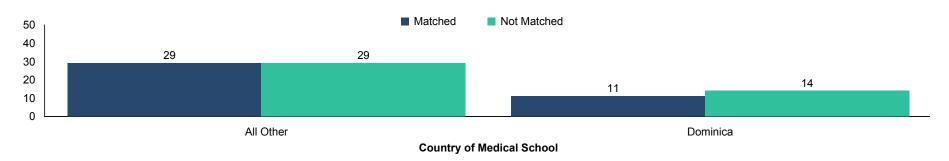




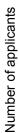
Country of Medical School Physical Medicine and Rehabilitation

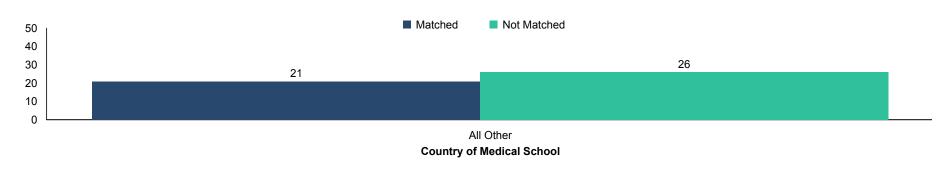
U.S. IMG





Non-U.S. IMG



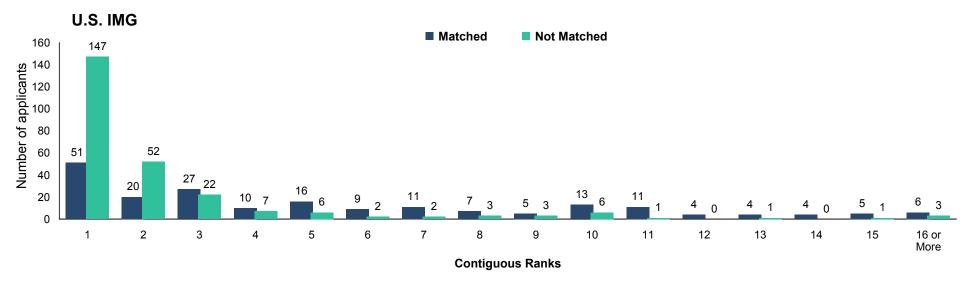


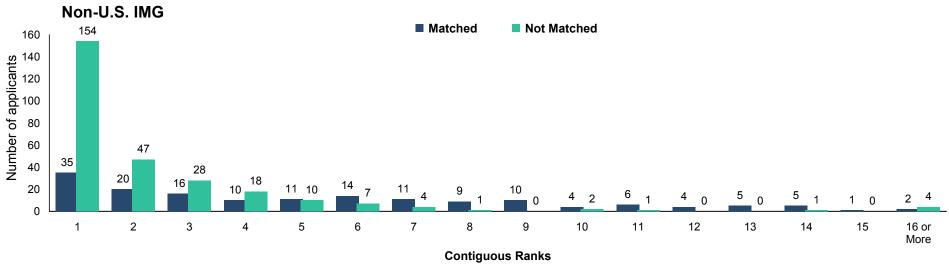
	U.S. IMG		Non-U.S. IMG	
Measure	Matched (n=203)	Unmatched (n=256)	Matched (n=163)	Unmatched (n=277)
Mean number of contiguous ranks	6	2	5	2
2. Mean number of distinct specialties ranked	1.4	1.4	1.2	1.3
3. Mean USMLE Step 1 score	205	198	214	205
4. Mean USMLE Step 1 attempts*	1.4	2.2	1.2	1.4
5. Mean USMLE 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



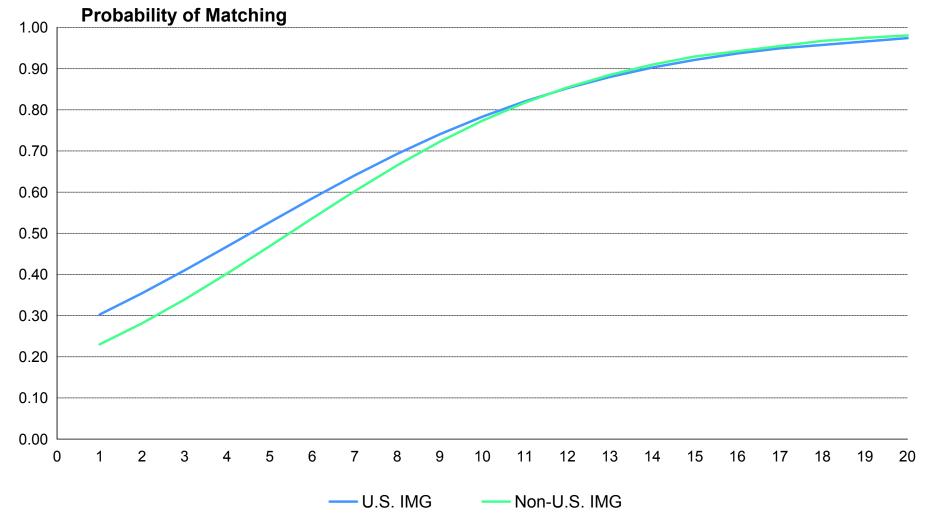
Number of Contiguous Ranks Within Preferred Specialty *Psychiatry*







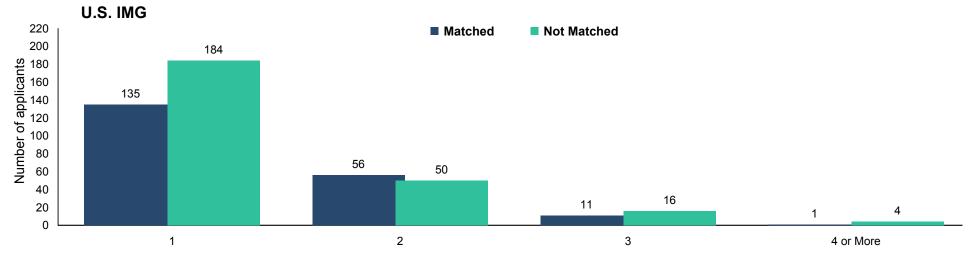
Probability of Matching to Preferred Specialty by Number of Contiguous Ranks *Psychiatry*

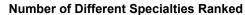


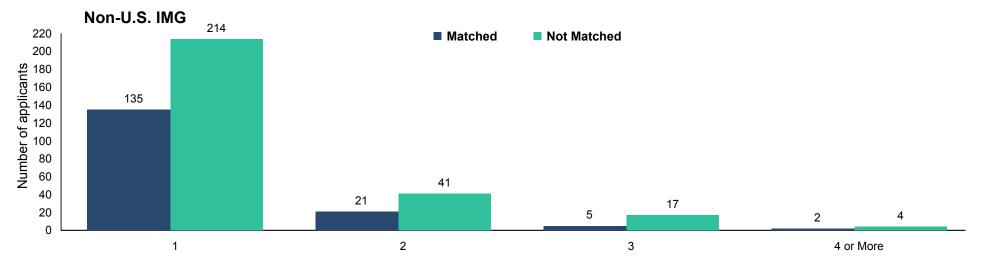
Number of Contiguous Ranks



Number of Applicants Ranking Different Specialties Psychiatry





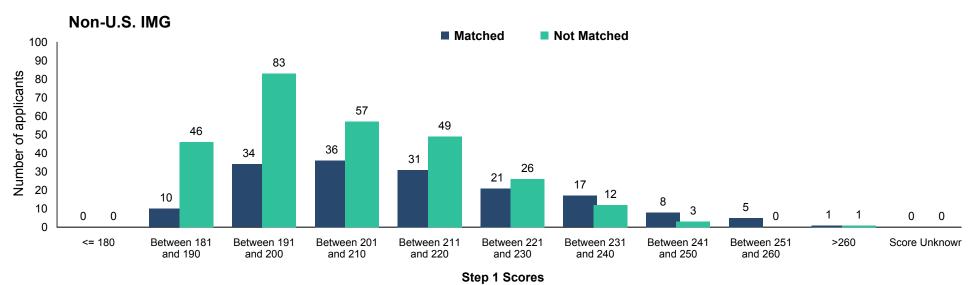


Number of Different Specialties Ranked

Source: NRMP Data Warehouse

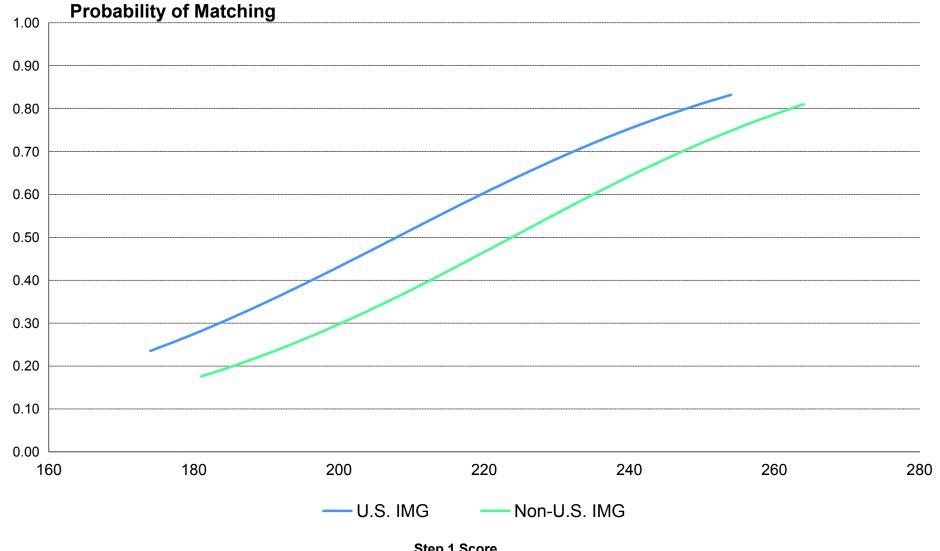






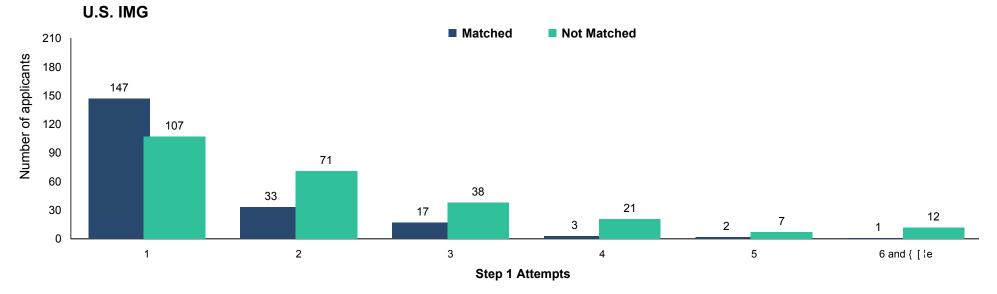


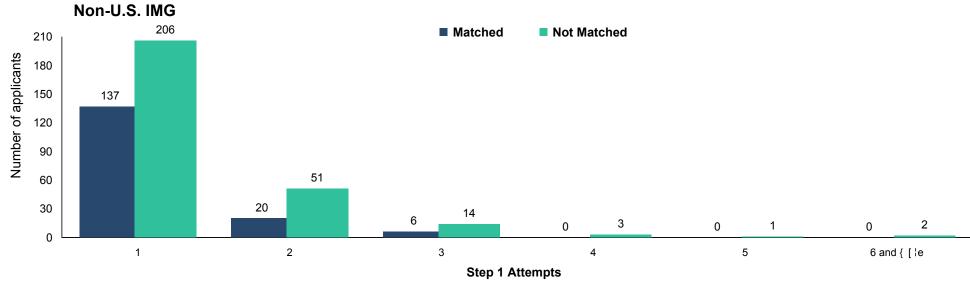
Probability of Matching to Preferred Specialty by USMLE Step 1 Score Psychiatry



Step 1 Score

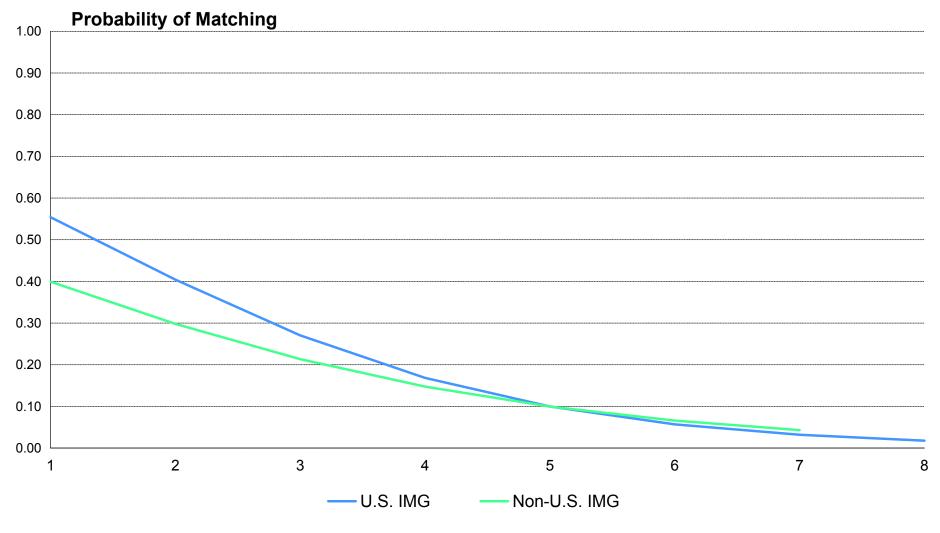








Probability of Matching to Preferred Specialty by Number of Step 1 Attempts* *Psychiatry*

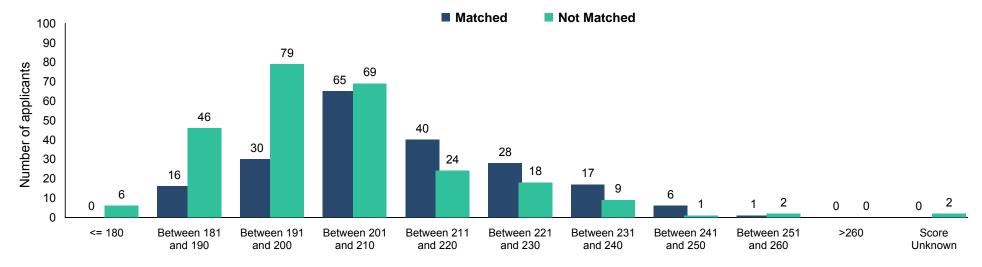


Step 1 Attempts

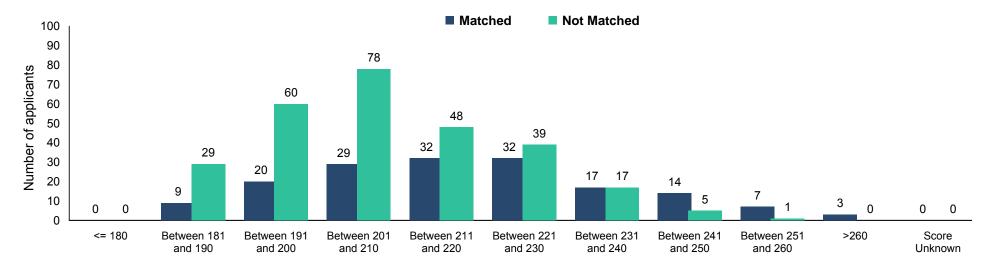
Source: NRMP Data Warehouse and ECFMG.

*USMLE Step 1 or equivalent examination

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



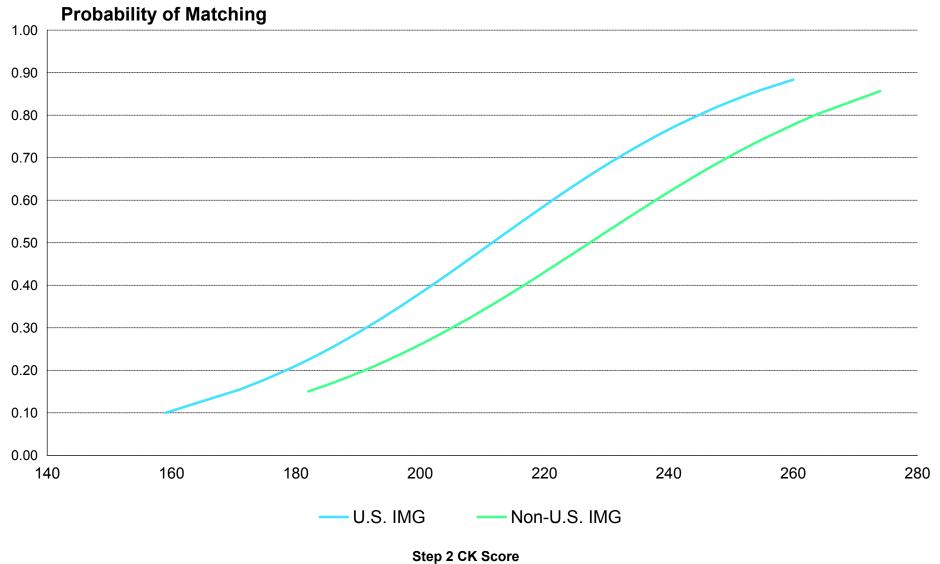
Step 2 CK Scores



Step 2 CK Scores

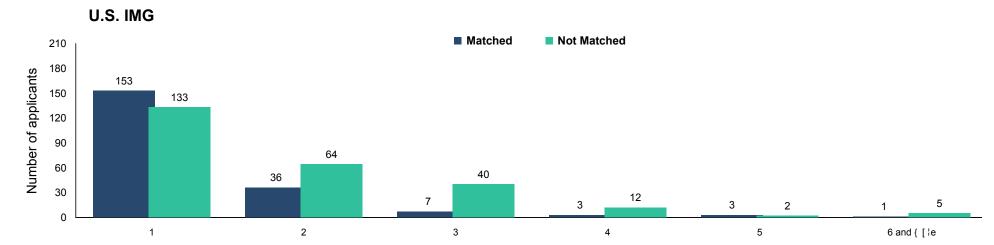


Probability of Matching to Preferred Specialty by USMLE Step 2 CK (Clinical Knowledge) Score **Psychiatry**

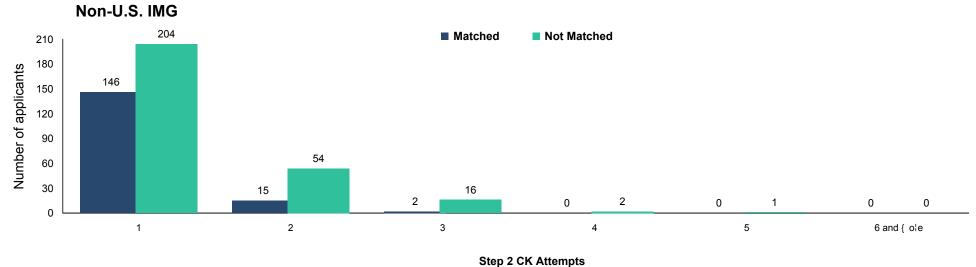




USMLE Step 2 CK (Clinical Knowledge) Attempts* *Psychiatry*





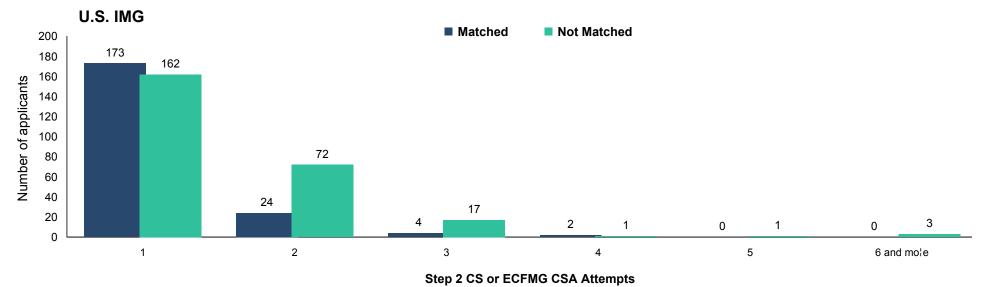


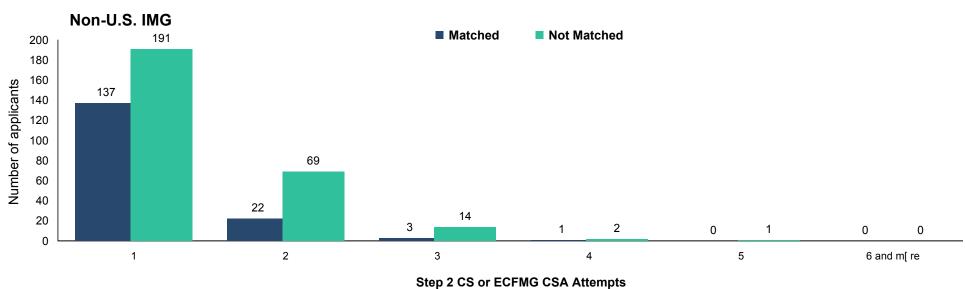
Source: NRMP Data Warehouse and ECFMG.

*USMLE Step 2 CK or equivalent examination



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

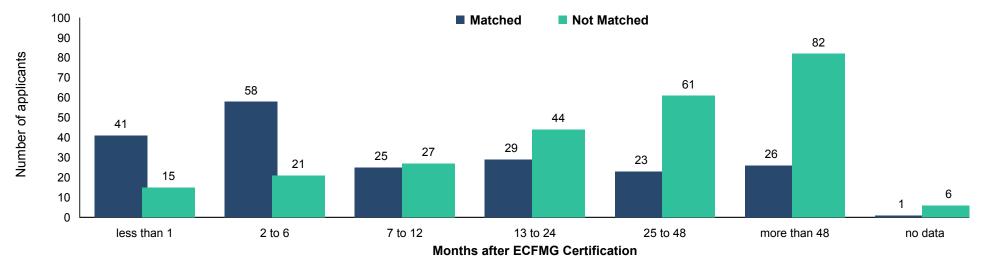




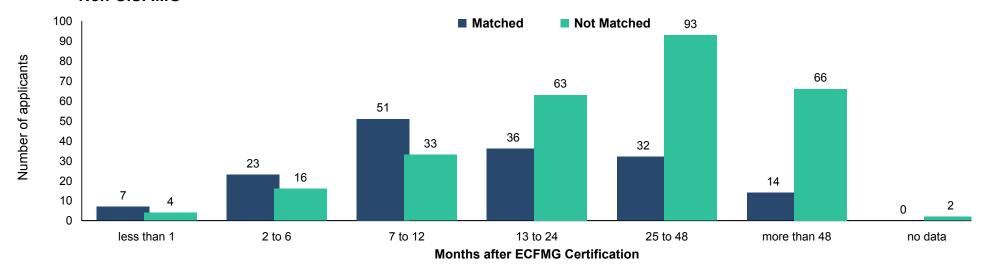


Number of Months After ECFMG Certification Psychiatry



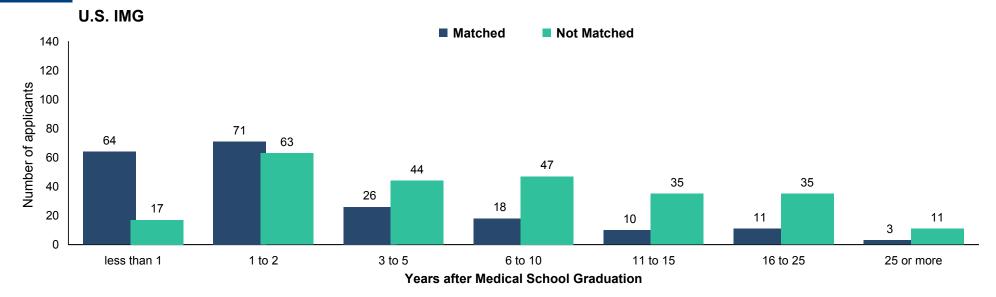


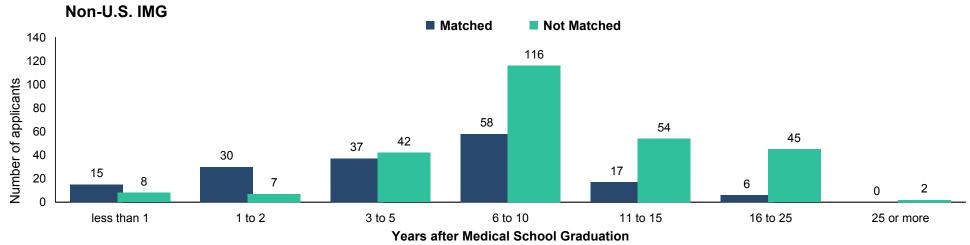






Number of Years After Medical School Graduation Psychiatry

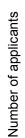


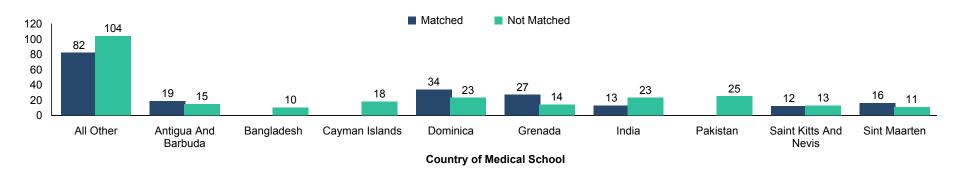




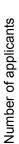
Country of Medical School Psychiatry

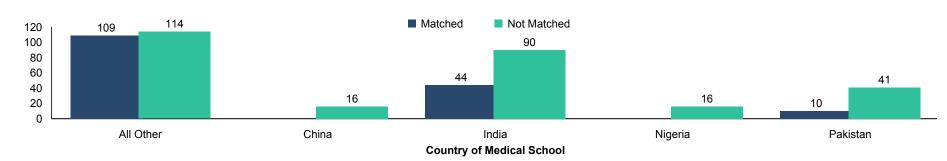
U.S. IMG





Non-U.S. IMG





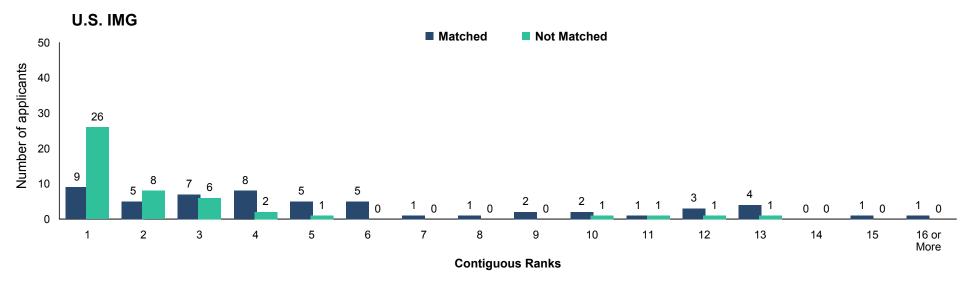
Radiology-Diagnostic

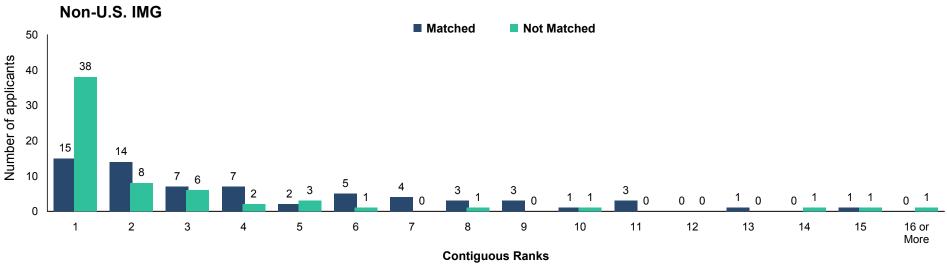
	U.S. IMG		Non-U.S. IMG	
Measure	Matched (n=55)	Unmatched (n=47)	Matched (n=66)	Unmatched (n=63)
Mean number of contiguous ranks	6	3	4	3
2. Mean number of distinct specialties ranked	2.1	1.7	1.7	1.8
3. Mean USMLE Step 1 score	237	223	232	219
4. Mean USMLE Step 1 attempts*	1.0	1.1	1.0	1.2
5. Mean USMLE 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

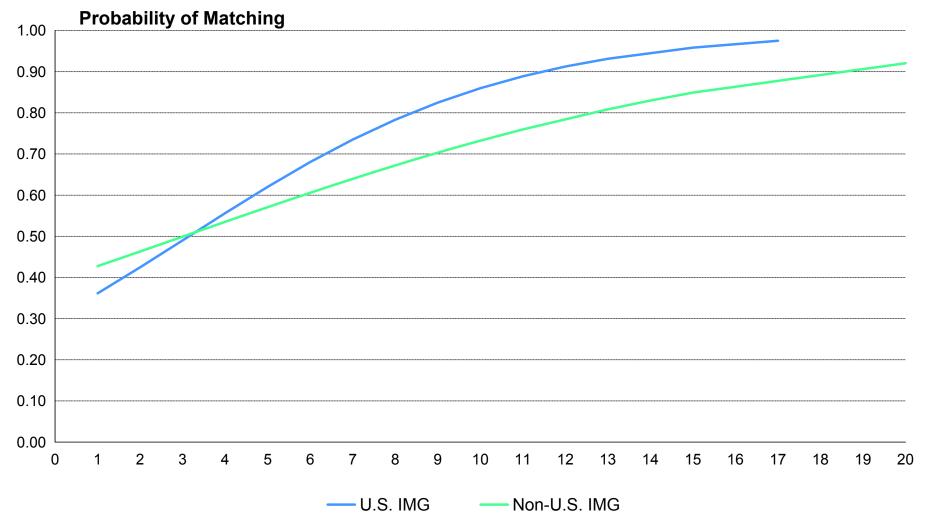
Number of Contiguous Ranks Within Preferred Specialty Radiology-Diagnostic







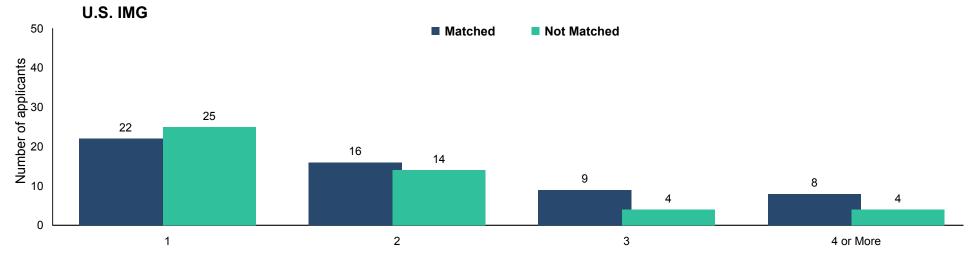
Probability of Matching to Preferred Specialty by Number of Contiguous Ranks Radiology-Diagnostic



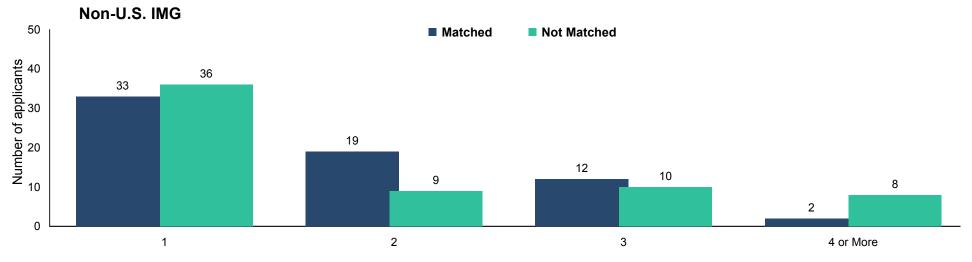
Number of Contiguous Ranks



Number of Applicants Ranking Different Specialties Radiology-Diagnostic



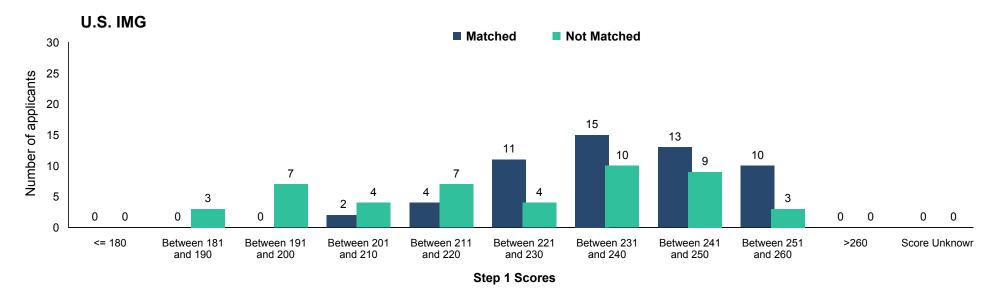


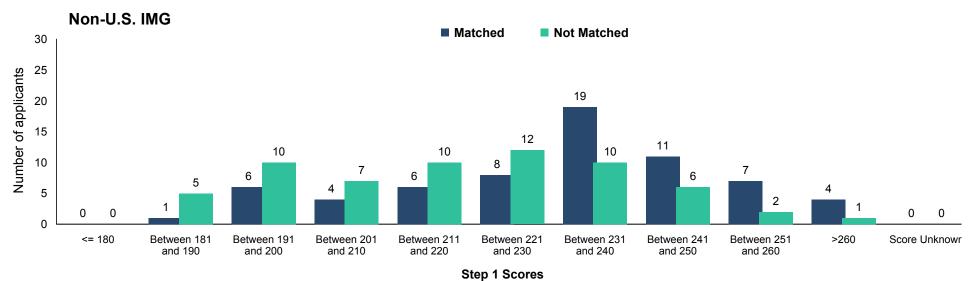


Number of Different Specialties Ranked

Source: NRMP Data Warehouse

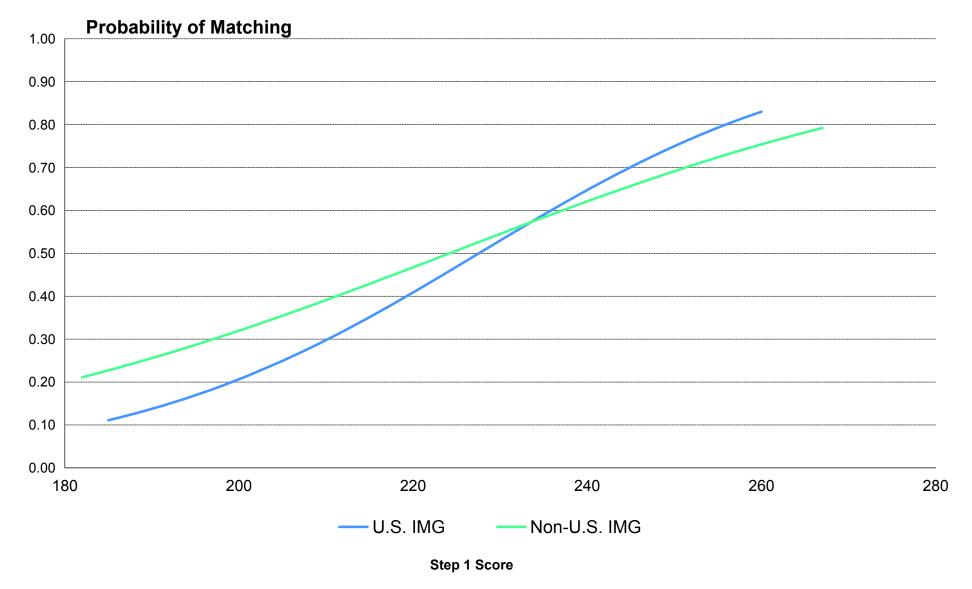
Chart USMLE Step 1 Scores Radiology-Diagnostic





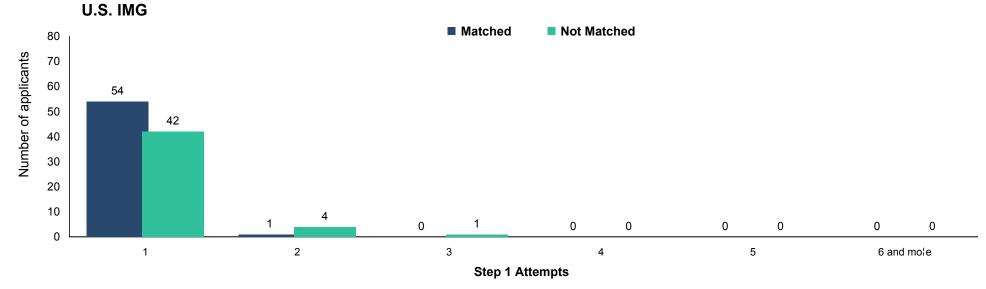


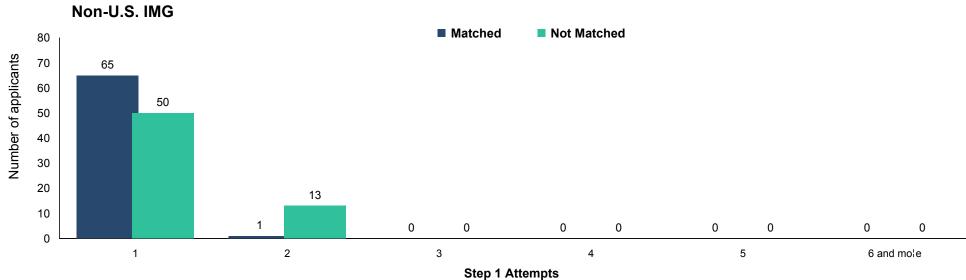
Probability of Matching to Preferred Specialty by USMLE Step 1 Score Radiology-Diagnostic





USMLE Step 1 Attempts* *Radiology-Diagnostic*



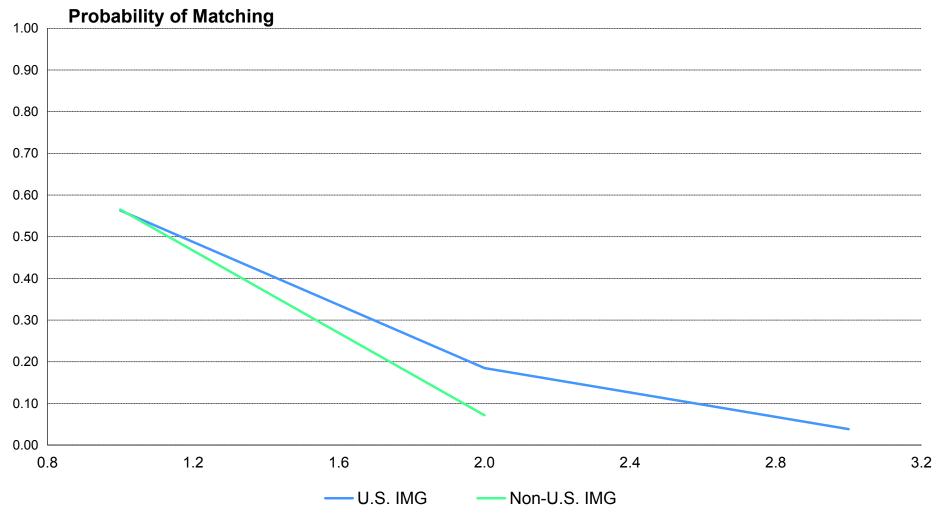


Source: NRMP Data Warehouse and ECFMG.

*USMLE Step 1 or equivalent examination



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

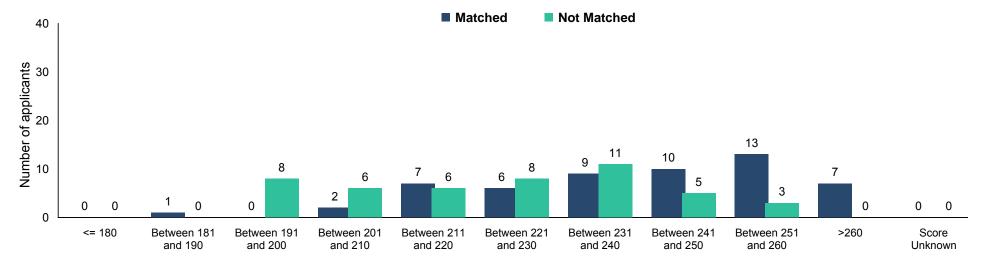


Step 1 Attempts

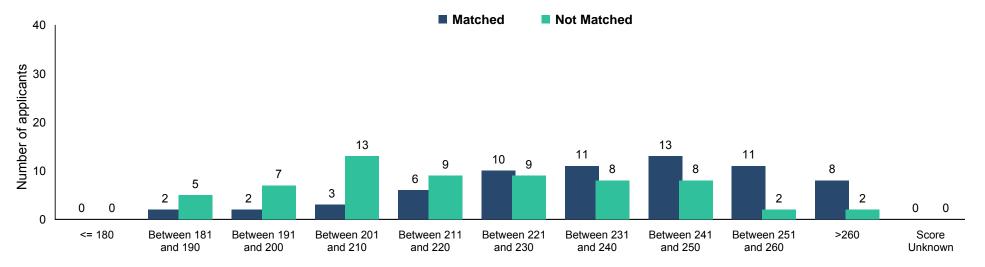
Source: NRMP Data Warehouse and ECFMG.

*USMLE Step 1 or equivalent examination

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



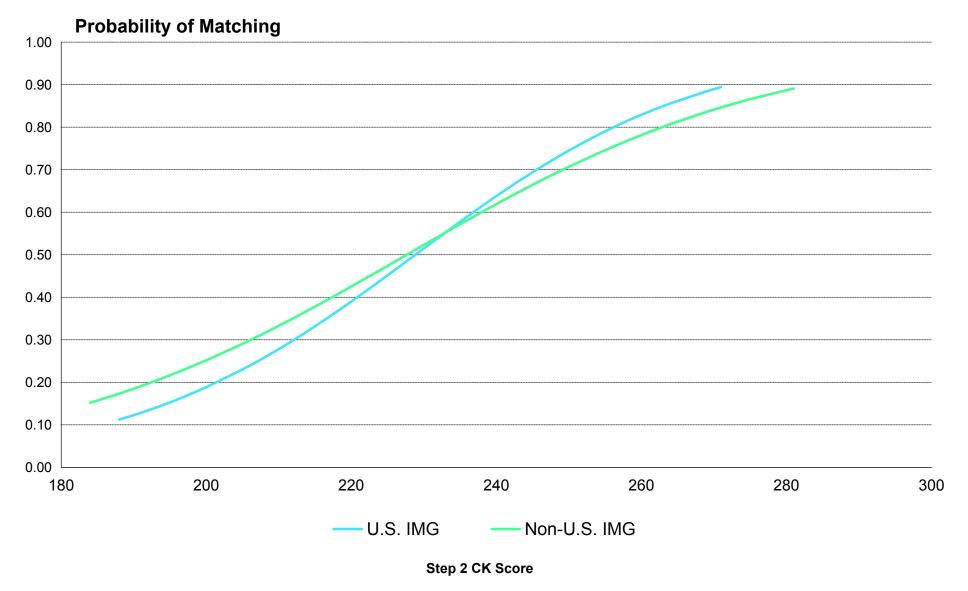
Step 2 CK Scores



Step 2 CK Scores

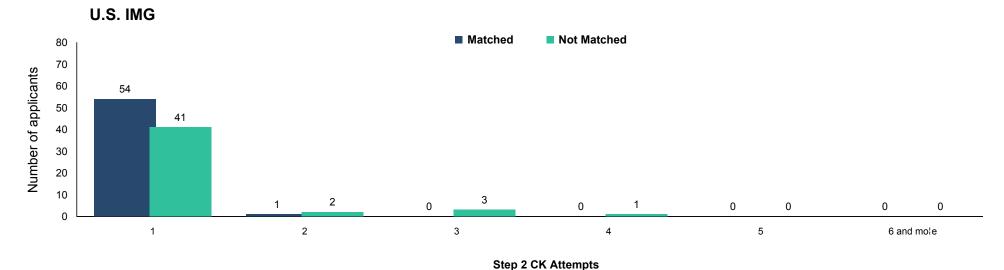


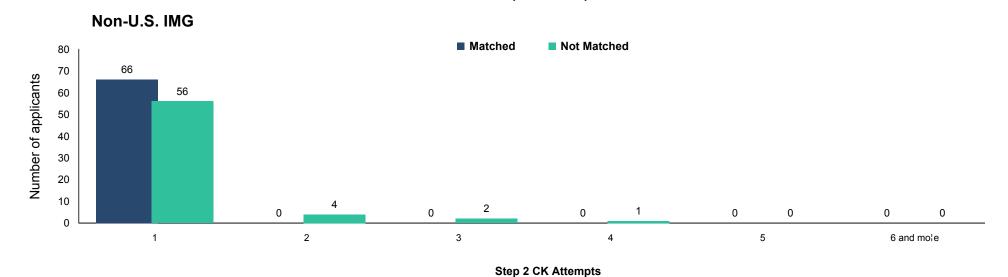
Probability of Matching to Preferred Specialty by USMLE Step 2 CK (Clinical Knowledge) Score Radiology-Diagnostic





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

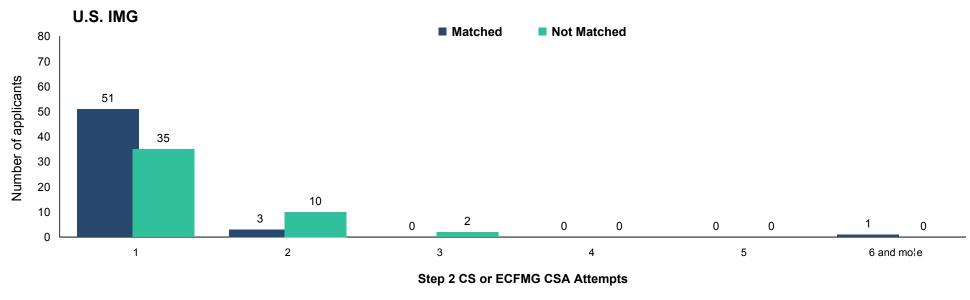


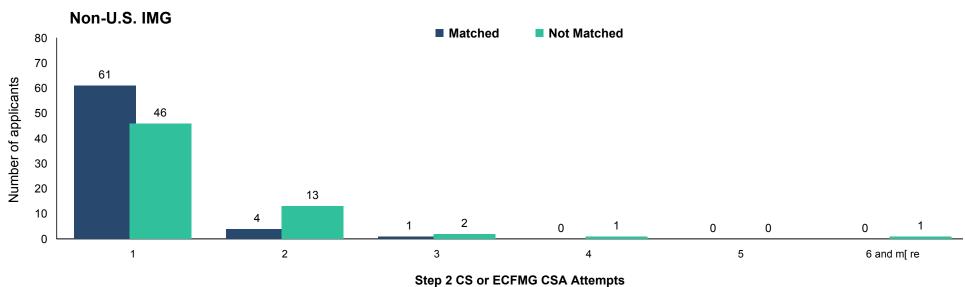


Source: NRMP Data Warehouse and ECFMG.

*USMLE Step 2 CK or equivalent examination

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

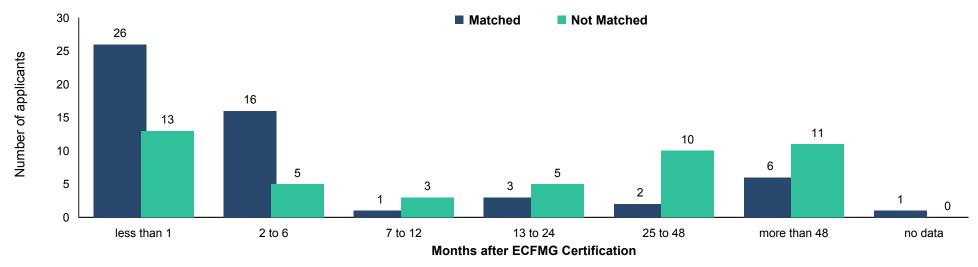




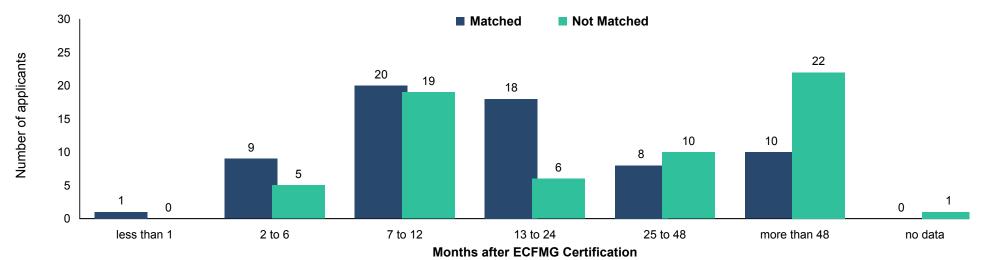


Number of Months After ECFMG Certification Radiology-Diagnostic



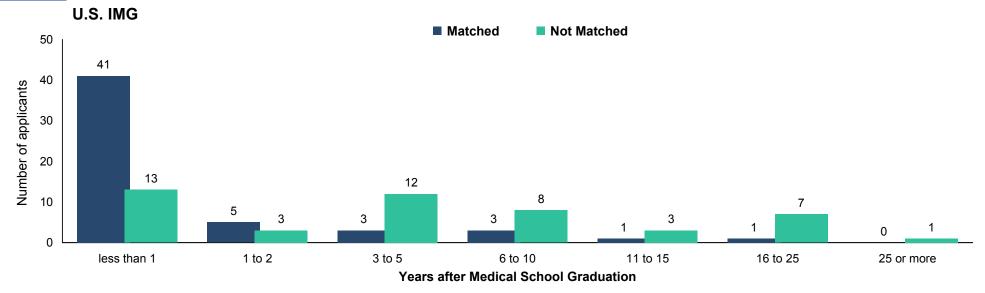


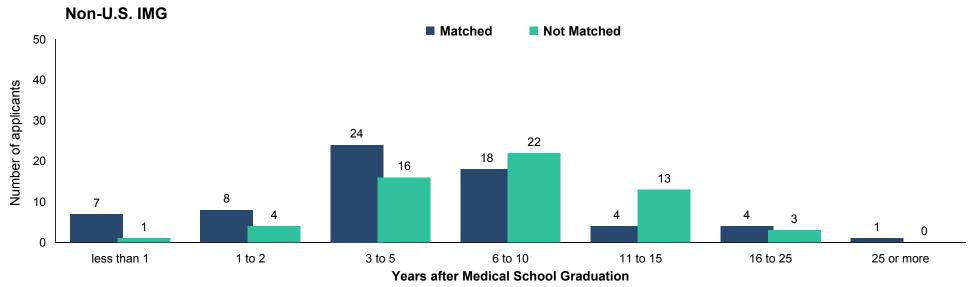






Number of Years After Medical School Graduation Radiology-Diagnostic



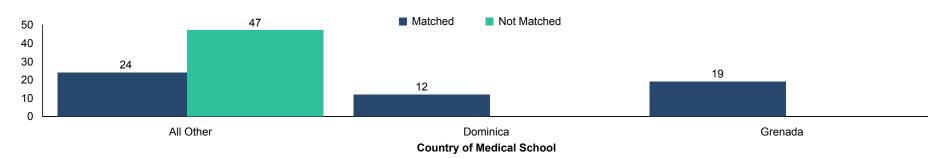




Country of Medical School Radiology-Diagnostic

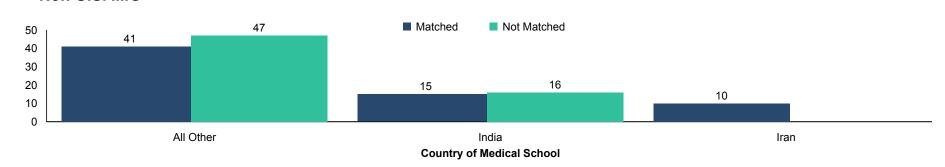
U.S. IMG





Non-U.S. IMG



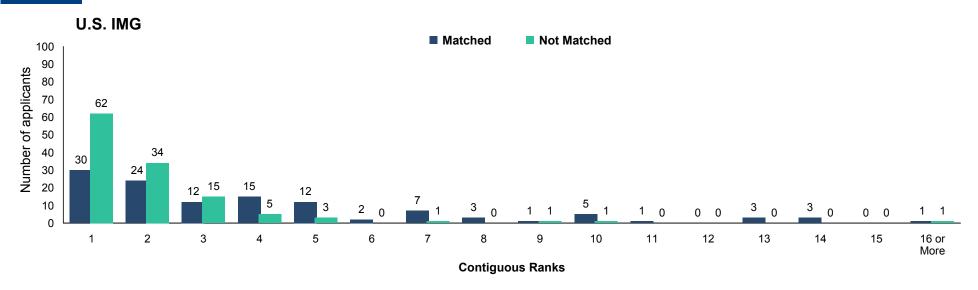


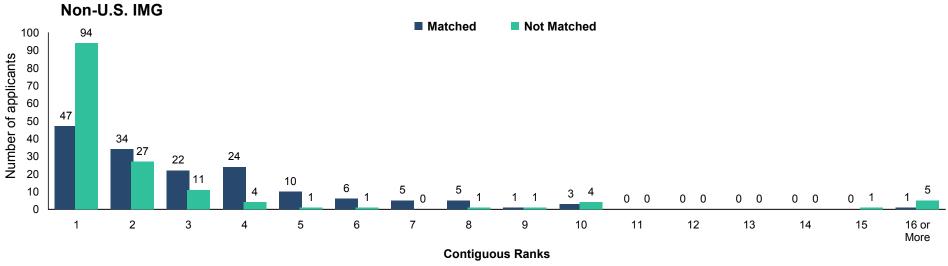
	U.S. IMG		Non-U.S. IMG	
Measure	Matched (n=119)	Unmatched (n=123)	Matched (n=158)	Unmatched (n=150)
Mean number of contiguous ranks	4	2	3	3
2. Mean number of distinct specialties ranked	1.2	1.4	1.2	1.4
3. Mean USMLE Step 1 score	227	216	233	221
4. Mean USMLE Step 1 attempts*	1.0	1.3	1.0	1.1
5. Mean USMLE 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

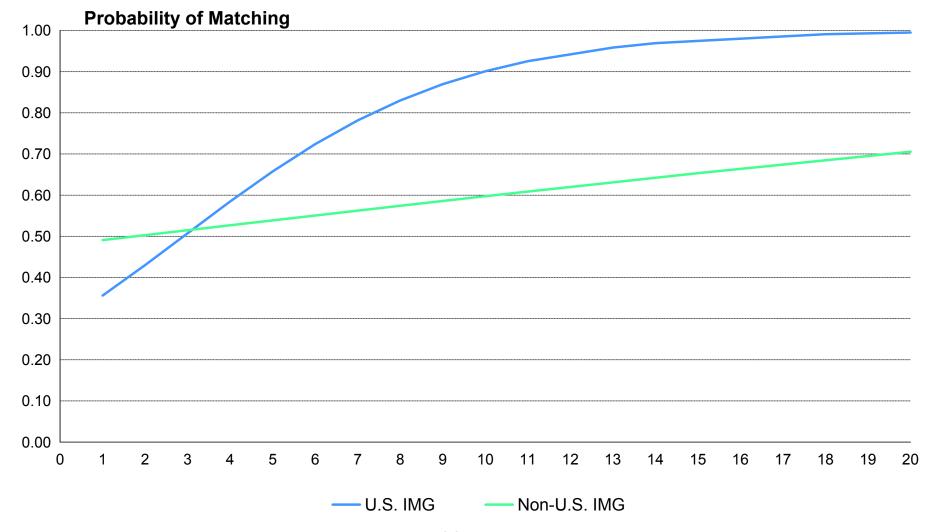
Number of Contiguous Ranks Within Preferred Specialty Surgery-General







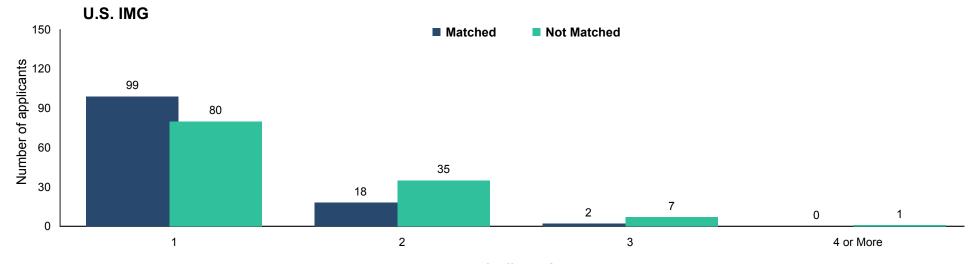
Probability of Matching to Preferred Specialty by Number of Contiguous Ranks Surgery-General



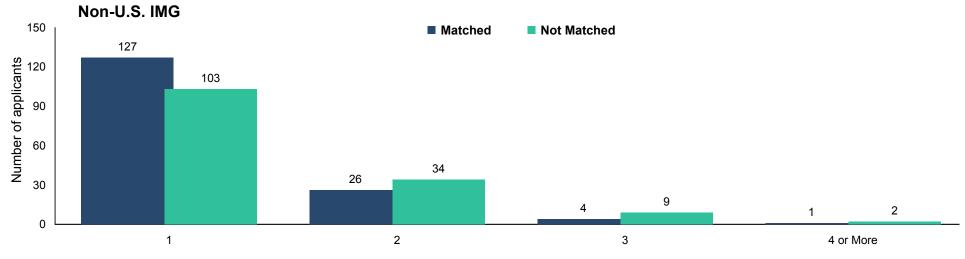
Number of Contiguous Ranks



Number of Applicants Ranking Different Specialties Surgery-General



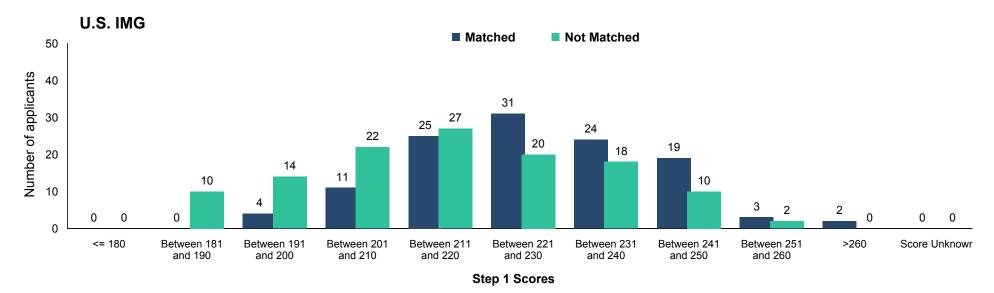


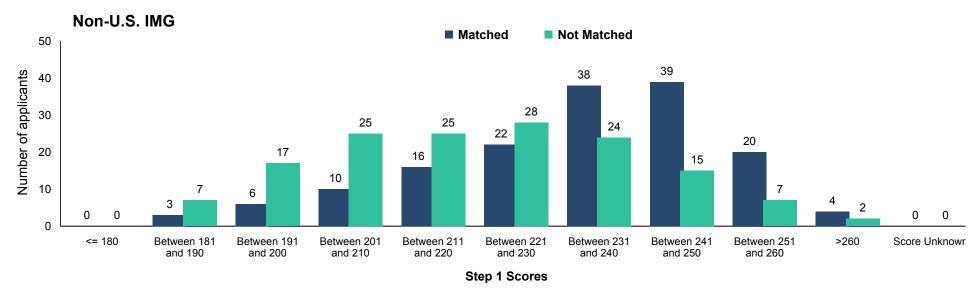


Number of Different Specialties Ranked

Source: NRMP Data Warehouse

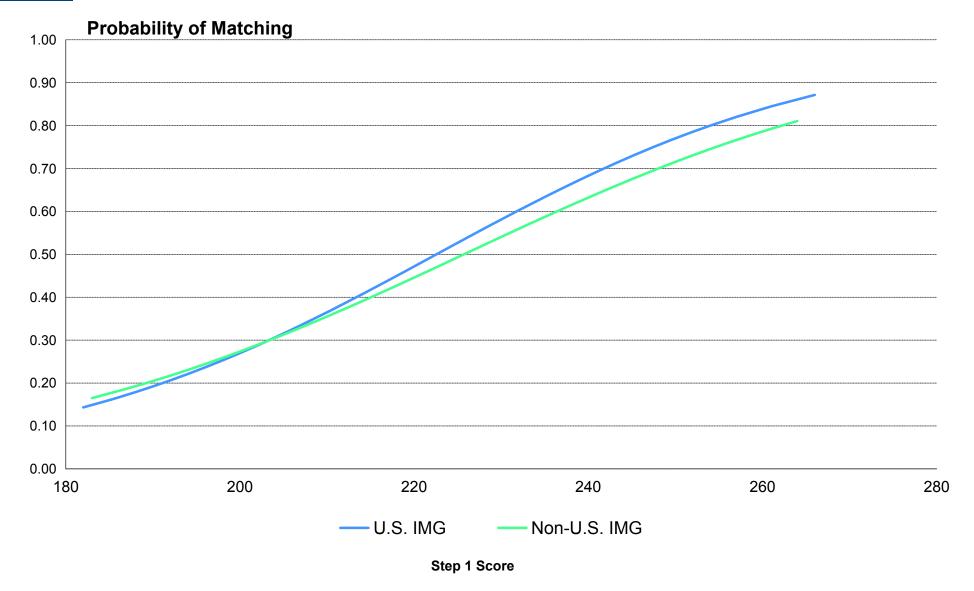
Chart USMLE Step 1 Scores Surgery-General



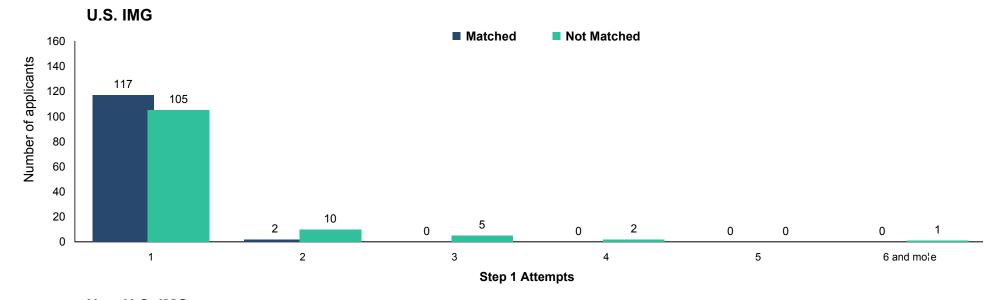


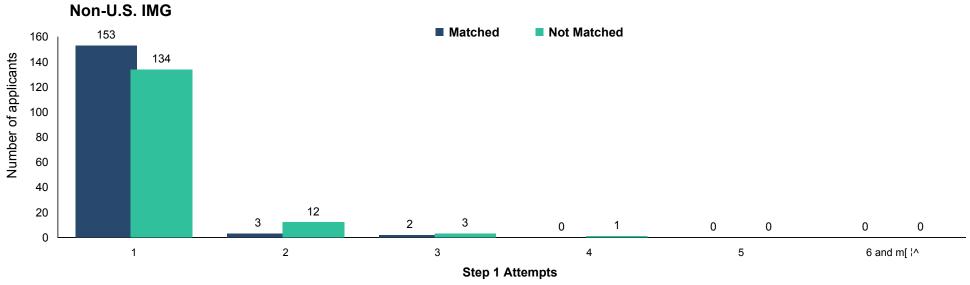


Probability of Matching to Preferred Specialty by USMLE Step 1 Score Surgery-General



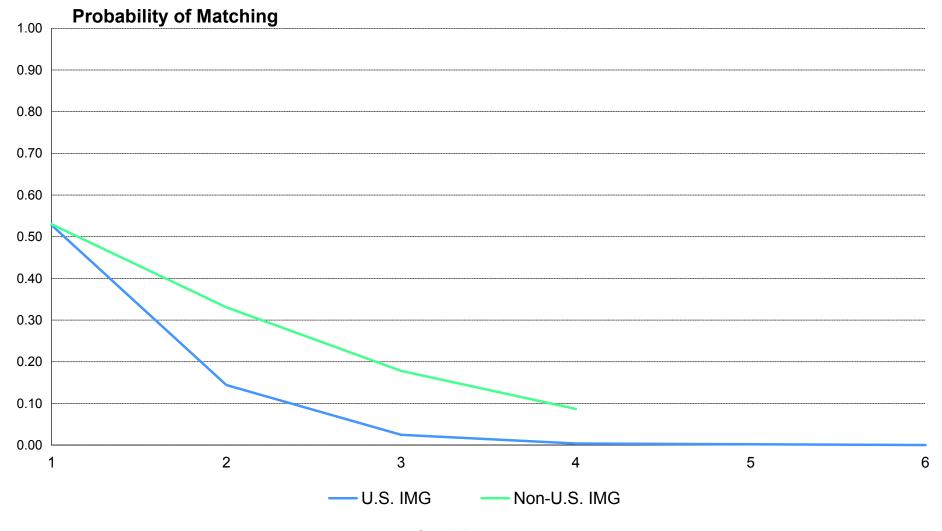








Probability of Matching to Preferred Specialty by Number of Step 1 Attempts* Surgery-General

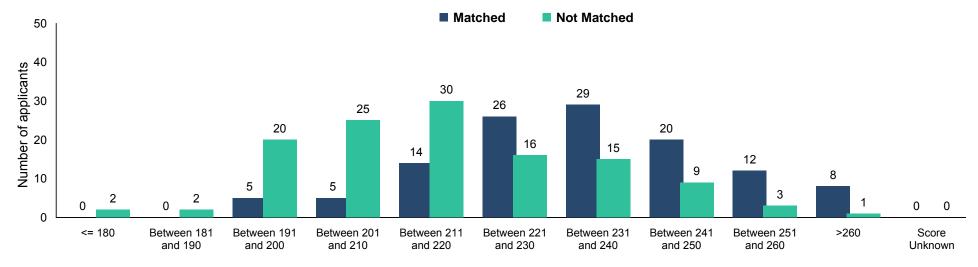


Step 1 Attempts

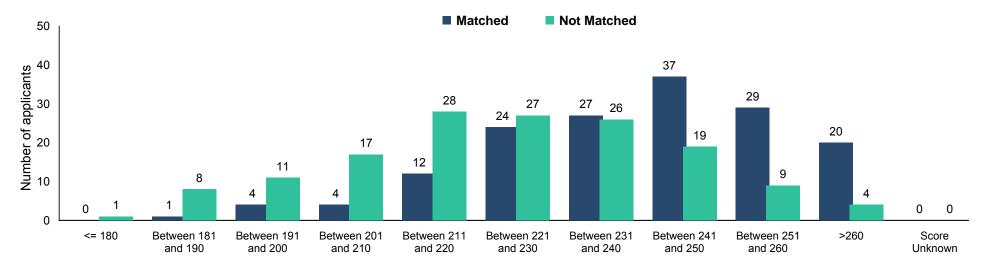
Source: NRMP Data Warehouse and ECFMG.

*USMLE Step 1 or equivalent examination

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



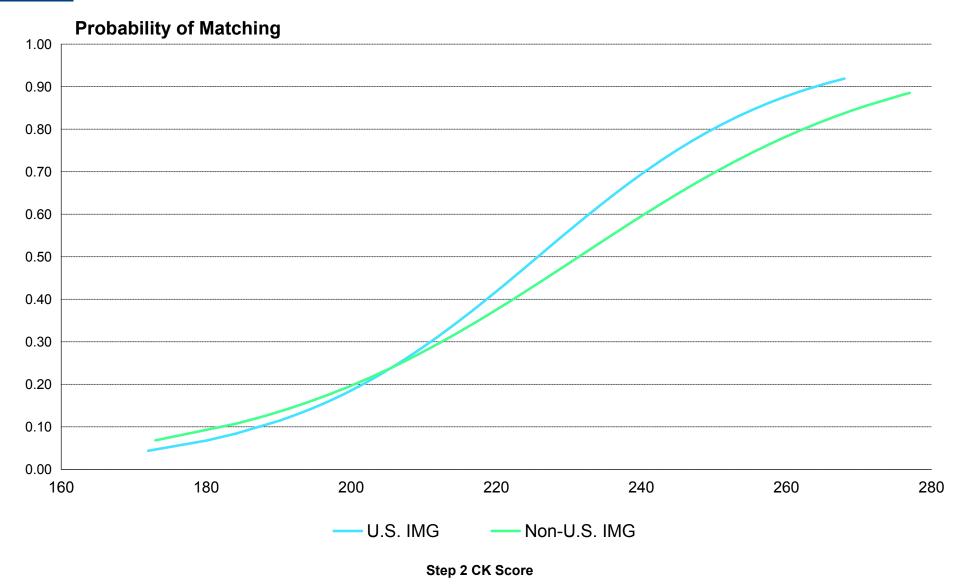
Step 2 CK Scores



Step 2 CK Scores

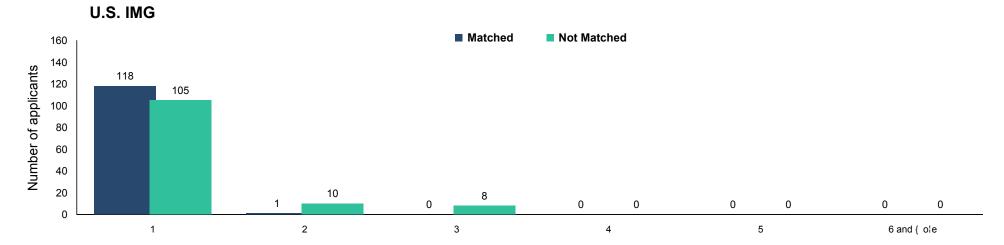


Probability of Matching to Preferred Specialty by USMLE Step 2 CK (Clinical Knowledge) Score Surgery-General

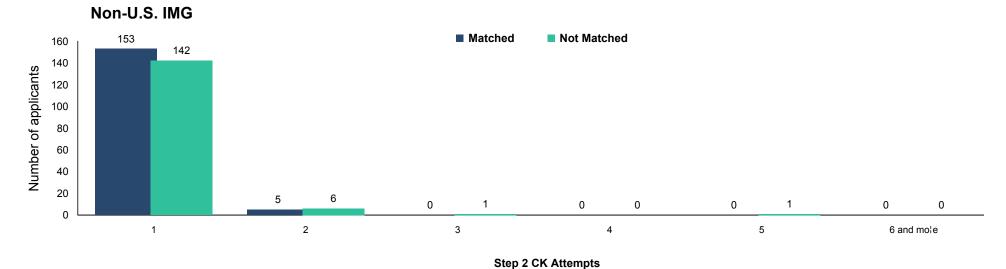




USMLE Step 2 CK (Clinical Knowledge) Attempts* *Surgery-General*





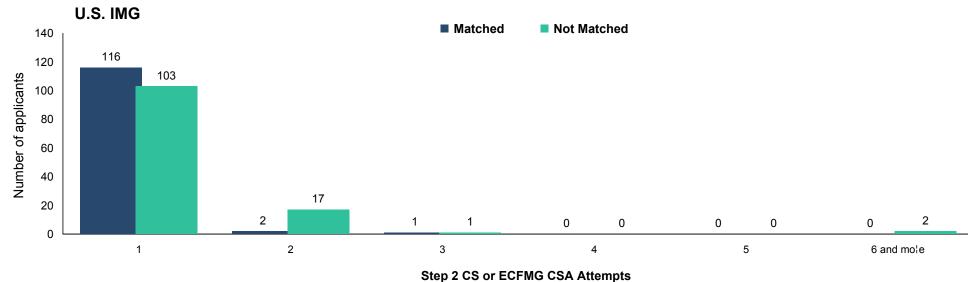


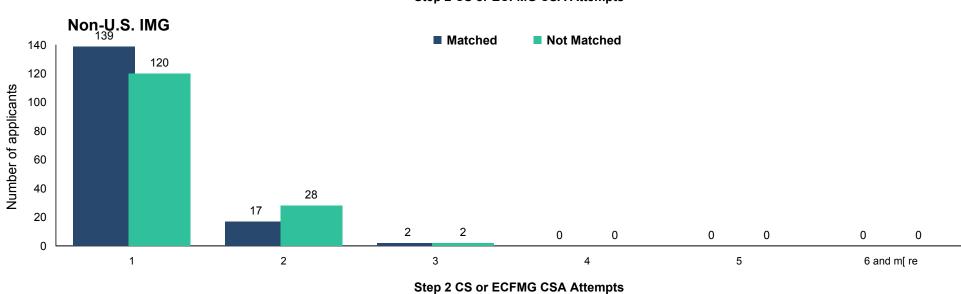
Source: NRMP Data Warehouse and ECFMG.

*USMLE Step 2 CK or equivalent examination



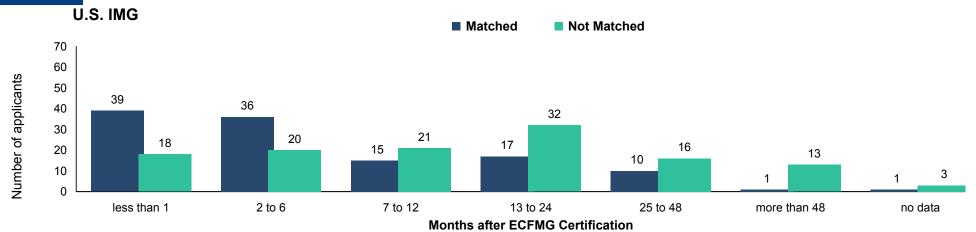
Attempts at USMLE Step 2 CS (Clinical Skills) or ECFMG CSA (Clinical Skills Assessment) Surgery-General

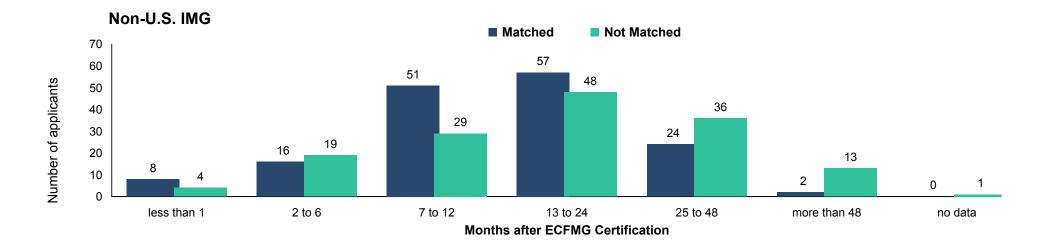






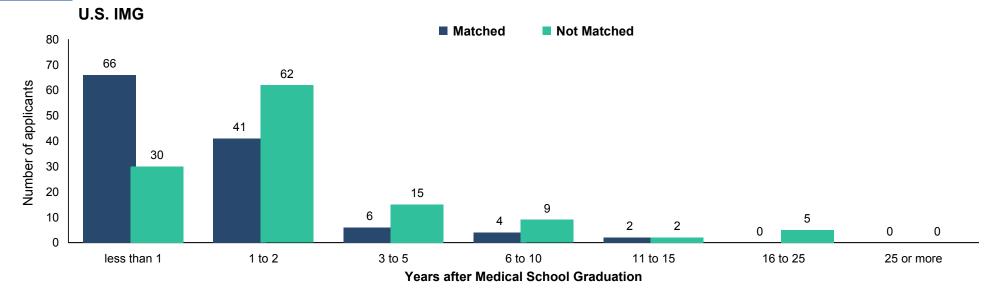
Number of Months After ECFMG Certification Surgery-General

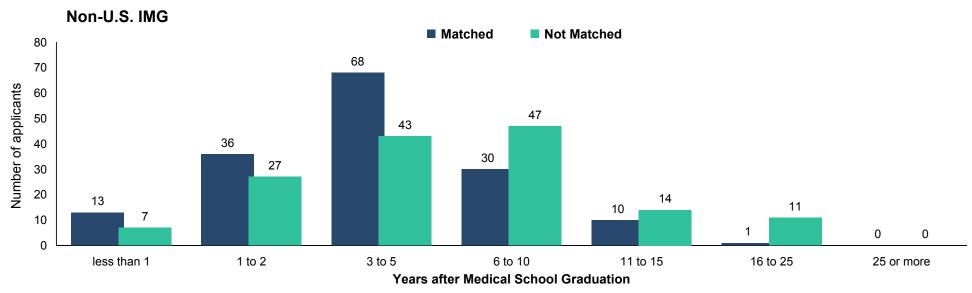






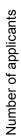
Number of Years After Medical School Graduation Surgery-General

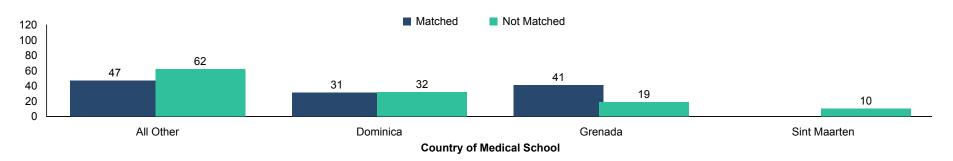




Country of Medical School Surgery-General

U.S. IMG





Non-U.S. IMG



