Charting Outcomes in the Match for International Medical Graduates

Characteristics of International Medical Graduates Who Matched to Their Preferred Specialty in the 2016 Main Residency Match

2nd Edition

Prepared by:
National Resident Matching Program
www.nrmp.org

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2016 Introduction

Background

The first edition of *Charting Outcomes in the Match* was published in August 2006 to document how applicant qualifications affect success in the Main Residency Match®. The report was published biennially between 2007 and 2011 and was a collaboration of the National Resident Matching Program® (NRMP®) and the Association of American Medical Colleges® (AAMC®). Match outcome data from the NRMP were combined with applicant characteristics from the AAMC's Electronic Residency Application Service (ERAS®) and United States Medical Licensing Examination (USMLE®) scores from the AAMC data warehouse. In 2013, NRMP collaborated with the Educational Commission for Foreign Medical Graduates (ECFMG®) and produced the first edition of *Charting Outcomes in the Match for International Medical Graduates*. This is the second NRMP report to examine the characteristics of U.S. citizen and non-U.S. citizen students and graduates of international medical schools, but it is not a collaboration with ECFMG. USMLE and other applicant characteristic data in this report were collected through the Professional Profile section NRMP added to its Match registration process starting with the 2014 Main Residency Match.

With the exception of the 2013 report, prior versions of *Charting Outcomes in the Match* have examined the Match success of only two applicant groups: senior students from U.S. allopathic medical schools and independent applicants. Independent applicants included all applicant types other than U.S. seniors: previous graduates of U.S. allopathic medical schools, students/graduates of osteopathic medical schools, students/graduates of Fifth Pathway programs, students/graduates of Canadian medical schools, and U.S. citizen and non-U.S. citizen students/graduates of international medical schools. Because independent applicants are a heterogeneous group, a decision was made this year to report data separately for U.S. allopathic medical school seniors, students/graduates of osteopathic medical schools, U.S. citizen students/graduates of international medical schools, and non-U.S. citizen students/graduates of international medical schools.

Definition of International Medical Graduate (IMG)

An international medical graduate (IMG) is a physician who received a 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, individuals who are U.S. citizens when they graduate from an international medical school are U.S. IMGs, and individuals who are not U.S. citizens at the time of medical school graduation are non-U.S. IMGs even if they later become U.S. citizens. Non-U.S. citizens who graduate from medical schools in the United States and Canada are not IMGs.

Data

Match success, specialty preference, and ranking information were collected through the Main Residency Match. Other applicant characteristics, including USMLE Step 1 and Step 2 CK scores, academic degrees, publications, and research, work and volunteer experiences, were self-reported through the Professional Profile section of the NRMP's Applicant Registration Form for the Match. To complete the form, applicants were asked to answer the questions as they did in their ERAS Common Application Form (CAF). Completion of the form was optional, and applicants who completed the form could consent or decline to participate in NRMP research. Data collection using the self-reported Professional Profile section was granted exemption by the American Institutes for Research (AIR) Institutional Review Board (IRB).

A total of 12,783 IMG applicants (5,323 U.S. IMGs and 7,460 non-U.S. IMGs) submitted certified rank order lists in the 2016 Main Residency Match. After excluding the 13.6 percent of U.S. IMGs and 11.7 non-U.S. IMGs who did not give consent to participate in NRMP research, 11,045 IMG applicants (4,456 U.S. IMGs and 6,589 non-U.S. IMGs) were included in the final dataset. Missing data were found in Step 1 scores (13.3% missing for U.S. IMGs and 8.5% missing for non-U.S. IMGs), Step 2 CK scores (15.0% and 9.0%), number of research experiences (25.8% and 24.4%), number of abstracts, presentations, and publications (28.4% and 24.9%), number of work experiences (23.0% and 16.2%), number of volunteer experiences (23.9% and 21.0%), Ph.D. degree (15.3% and 11.7%), and other graduate degree (15.0% and 11.9%).

Methods

Over the years, new specialties have been added to *Charting Outcomes*, including Otolaryngology and Neurology in 2007, Neurological Surgery in 2009, and Child Neurology and Vascular Surgery in 2014. Transitional Year programs were excluded beginning with the 2011 report because they are not viewed as a specialty choice. This report includes specialties that offered at least 50 positions in the 2016 Main Residency Match.

Introduction (continued)

Ten measures are incorporated in this report: number of contiguous ranks in the preferred specialty, number of specialties ranked, USMLE Step 1 and Step 2 CK scores, numbers of research, work, and volunteer experiences, number of abstracts, presentations, and publications, and Ph.D. and other graduate degrees. In addition, the probability of matching to a preferred specialty is calculated based on USMLE Step 1 scores and contiguous ranks. Probability analyses were performed using a simple logistic regression model on IMGs who participated in the Match in 2014, 2015, and 2016. The 2013 *Charting Outcomes in the Match for International Medical Graduates* incorporated characteristics provided by ECFMG that are not included in this report: attempts at USMLE, number of months after ECFMG certification, number of years since graduation, and English spoken as a native language.

It is important to note that for purposes of this report, Match success is defined as a match to the specialty of the applicant's first-ranked program, or "preferred specialty," because that is assumed to be the specialty of choice. Lack of success includes matching to another specialty as well as failure to match at all. No distinction was made based on whether applicants matched to the first, second, third, or last choice program.

Summary

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

- Rank more programs within their preferred specialty
- Have higher USMLE Step 1 and Step 2 CK scores
- Be U.S. citizens

Although other measures seem to be related to Match success for some specialties, the relationships are 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 School Performance Evaluation (MSPE).

Despite the fairly strong relationship between USMLE Step scores and Match success, the distributions of scores show that program directors consider other qualifications. A high score is not a guarantee of success, and a lower score is not a bar to success. Even in the most competitive specialties a few individuals with higher scores are not successful. In the less competitive specialties, IMGs with scores slightly above passing also were able to match to their preferred specialties.

The data in this report support the following straightforward advice one should give to an applicant:

- Rank all of the programs you really want, without regard to your estimate of your chances with those programs.
- Include a mix of both highly competitive and less competitive programs within your preferred specialty.
- Include all of the programs on your list where the program has expressed an interest in you and where you would accept a position.
- If you are applying to a competitive specialty and you want to have a residency position in the event you are unsuccessful in matching to a program in your preferred specialty, also rank your most preferred programs in an alternate specialty.
- Include all of your qualifications in your application, but know that you do not have to have the highest USMLE scores, have publications, or have participated in research projects to match successfully.

Program directors and applicants will find the tables and charts for the specialty of their particular interest later in this report.

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Tables and Charts for All Specialties

Chart 1 Active Applicants in the 2016 Main Residency Match
by Applicant Type

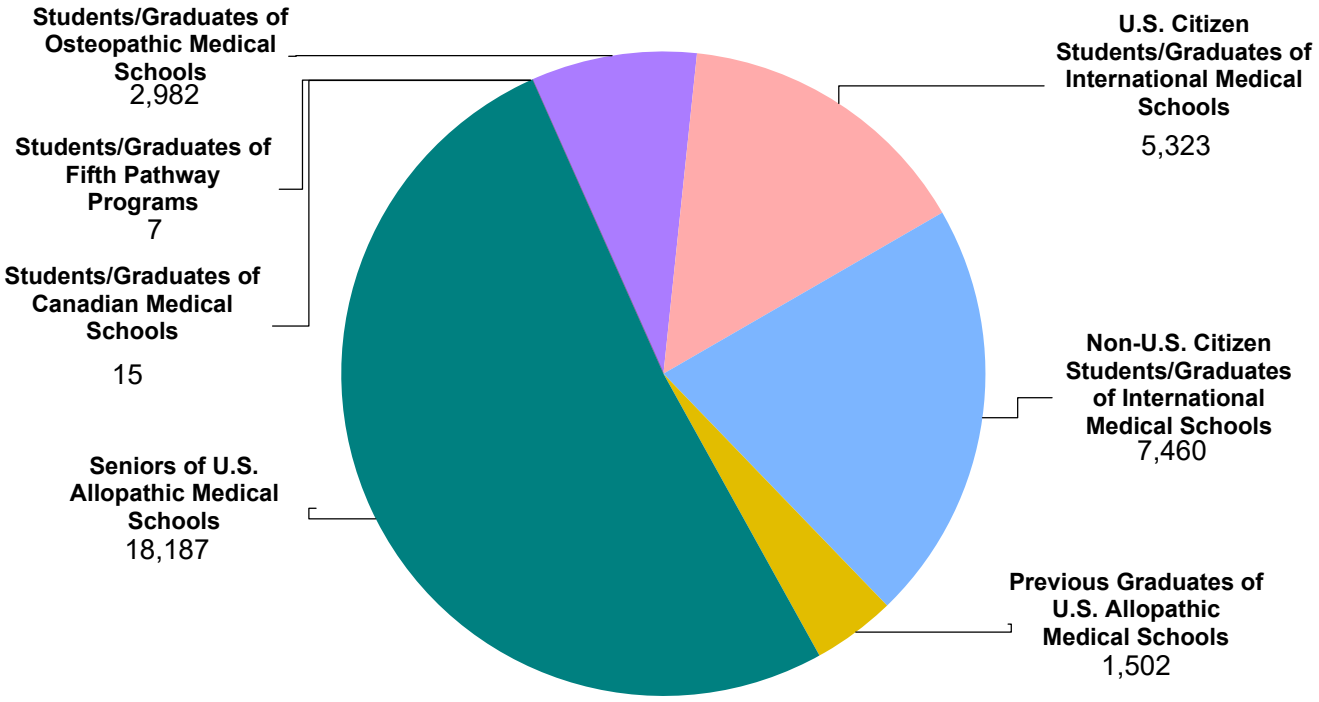


Chart 1 shows the number of active applicants (applicants who submitted rank order lists of programs) by applicant type in the 2016 Main Residency Match. A total of 35,476 active applicants participated in the 2016 Main Residency Match. Non-U.S. citizen students and graduates of international medical schools constituted 21.0 percent of all applicants in the Match, the second largest group after U.S. allopathic medical seniors. U.S. citizen student/graduates of international medical schools accounted for 15.0 percent of the applicant pool.

Table 1 Number of Applicants and Positions in the 2016 Main Residency Match *by Preferred Specialty**

Preferred Specialty	Total Positions Offered	Total Number of All Applicants	Number of All Applicants Per Position	U.S. IMGs			Non-U.S. IMGs		
				Matched	Not Matched	Total	Matched	Not Matched	Total
Anesthesiology	1,696	1,771	1.04	122	48	170	87	82	169
Child Neurology	170	170	1.00	7	7	14	20	17	37
Dermatology	440	614	1.40	8	14	22	10	11	21
Diagnostic Radiology	1,168	1,220	1.04	76	42	118	101	76	177
Emergency Medicine	1,895	2,270	1.20	84	97	181	21	52	73
Family Medicine	3,238	4,139	1.28	596	631	1,227	315	520	835
General Surgery	1,241	1,845	1.49	73	152	225	55	208	263
Internal Medicine	7,352	9,857	1.34	967	911	1,878	1,967	1,732	3,699
Internal Medicine/Pediatrics	386	460	1.19	16	12	28	6	19	25
Neurological Surgery	216	342	1.58	3	5	8	8	40	48
Neurology	770	985	1.28	42	52	94	170	164	334
Obstetrics and Gynecology	1,265	1,606	1.27	64	91	155	45	106	151
Orthopaedic Surgery	717	1,034	1.44	6	21	27	8	17	25
Otolaryngology	304	358	1.18	3	2	5	8	8	16
Pathology	579	755	1.30	49	50	99	157	135	292
Pediatrics	2,768	3,234	1.17	202	167	369	242	280	522
Physical Medicine and Rehabilitation	414	538	1.30	33	44	77	11	24	35
Plastic Surgery	152	206	1.36	3	2	5	3	6	9
Psychiatry	1,386	2,134	1.54	144	302	446	120	298	418
Radiation Oncology	186	218	1.17	1	3	4	3	4	7
Vascular Surgery	56	107	1.91	0	9	9	4	17	21

* Preferred specialty is the specialty ranked first on an applicant's rank order list, excluding preliminary programs in specialties.
Source: NRMP Data Warehouse.

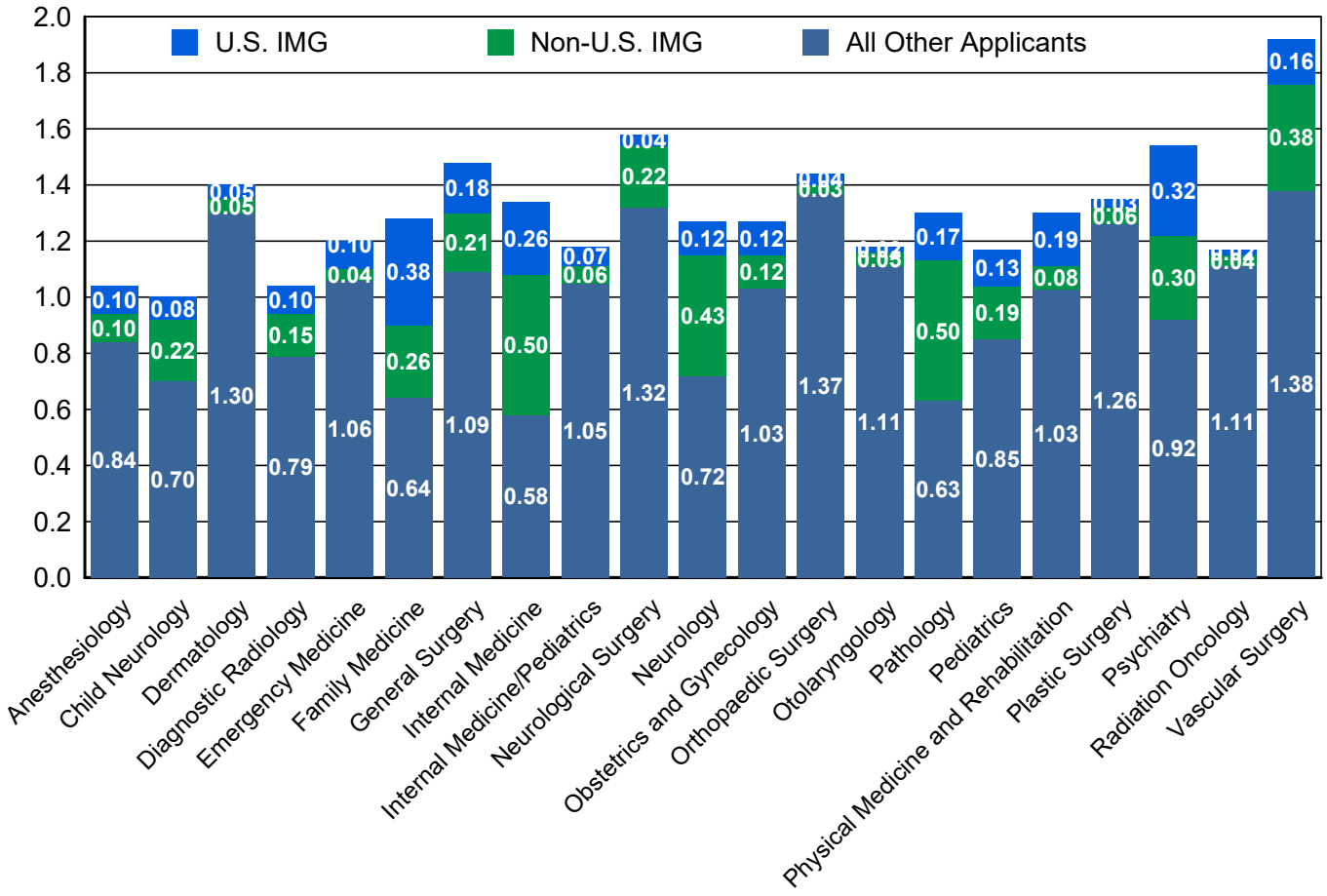
Table 1 provides a summary of the numbers of applicants and positions for selected specialties. For example, a total of 1,771 applicants preferred Anesthesiology (or ranked an Anesthesiology position first), among whom 170 were U.S. IMGs (122 matched and 48 not matched to Anesthesiology) and 169 non-U.S. IMGs (87 matched and 82 not matched to Anesthesiology). For each of the 1,696 Anesthesiology positions there were 1.04 applicants who preferred the specialty.

Only those specialties that offered 50 or more positions are included in this table. For specialties offering both PGY-1 and PGY-2 positions (including Physician (R) positions), all position types have been combined.

Chart 2

Ratio of International Medical Graduates Ranking Specialty First / Available Positions

by Preferred Specialty



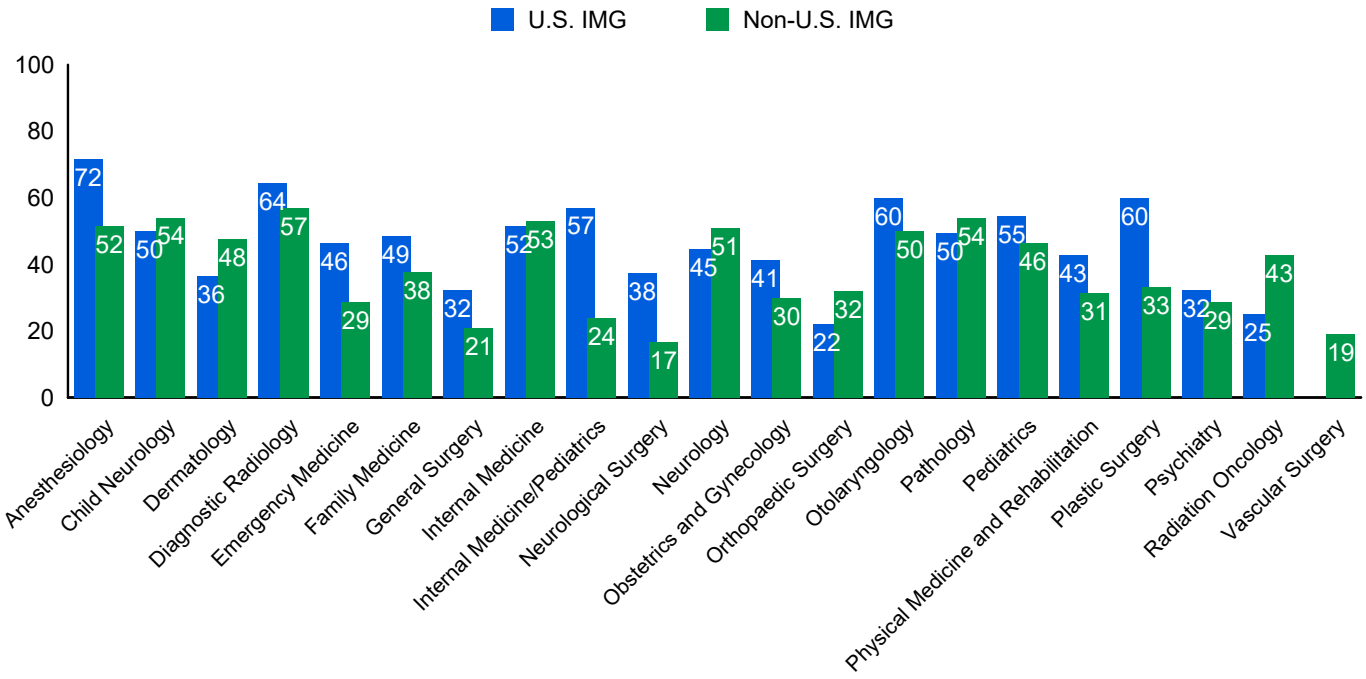
Source: NRMP Data Warehouse

Chart 2 shows the ratios of all applicants to available positions in each specialty. For all specialties displayed in the chart, the number of applicants preferring each specialty was equal to or more than the number of available positions. For all applicants, Vascular Surgery had the highest ratio of applicants per position; however, the highest ratios for U.S. IMGs were in Family Medicine and Psychiatry, and for non-U.S. IMGs in Internal Medicine and Pathology.

Chart 3

Match Rates of International Medical Graduates

Percent Matched by Preferred Specialty and IMG Applicant Type



Source: NRMP Data Warehouse

Chart 3 shows the percentages of U.S. IMGs and non-U.S. IMGs who matched to their preferred specialty. Overall, 48.4 percent of U.S. IMGs matched to their preferred specialty, ranging from a high of 71.8 percent in Anesthesiology to a low of 22.2 percent in Orthopaedic Surgery. For non-U.S. IMGs, the overall match rate was 46.8 percent, ranging from a high of 57.1 percent in Diagnostic Radiology to a low of 16.7 percent in Neurological Surgery. Match rates were higher for U.S. IMGs than non-U.S. IMGs for all specialties except Child Neurology, Dermatology, Internal Medicine, Neurology, Orthopaedic Surgery, Pathology, Radiation Oncology, and Vascular Surgery. No U.S. IMG matched in Vascular Surgery.

Table 2 Summary Statistics
All Specialties Combined

Measure	U.S. IMGs		Non-U.S. IMGs	
	Matched (n=2,180)	Unmatched (n=2,248)	Matched (n=3,056)	Unmatched (n=3,525)
1. Mean number of contiguous ranks	7.4	2.5	6.3	2.6
2. Mean number of distinct specialties ranked	1.4	1.6	1.3	1.4
3. Mean USMLE Step 1 score	225	211	234	220
4. Mean USMLE Step 2 score	233	219	239	226
5. Mean number of research experiences	1.8	2.6	2.2	2.2
6. Mean number of abstracts, presentations, and publications	2.8	3.4	6.1	6.4
7. Mean number of work experiences	3.8	4.9	5.3	5.5
8. Mean number of volunteer experiences	4.1	3.8	3.5	3.4
9. Percentage who have a Ph.D. degree	1.1	1.9	3.8	4.5
10. Percentage who have another graduate degree	20.4	27.8	21.5	27.2

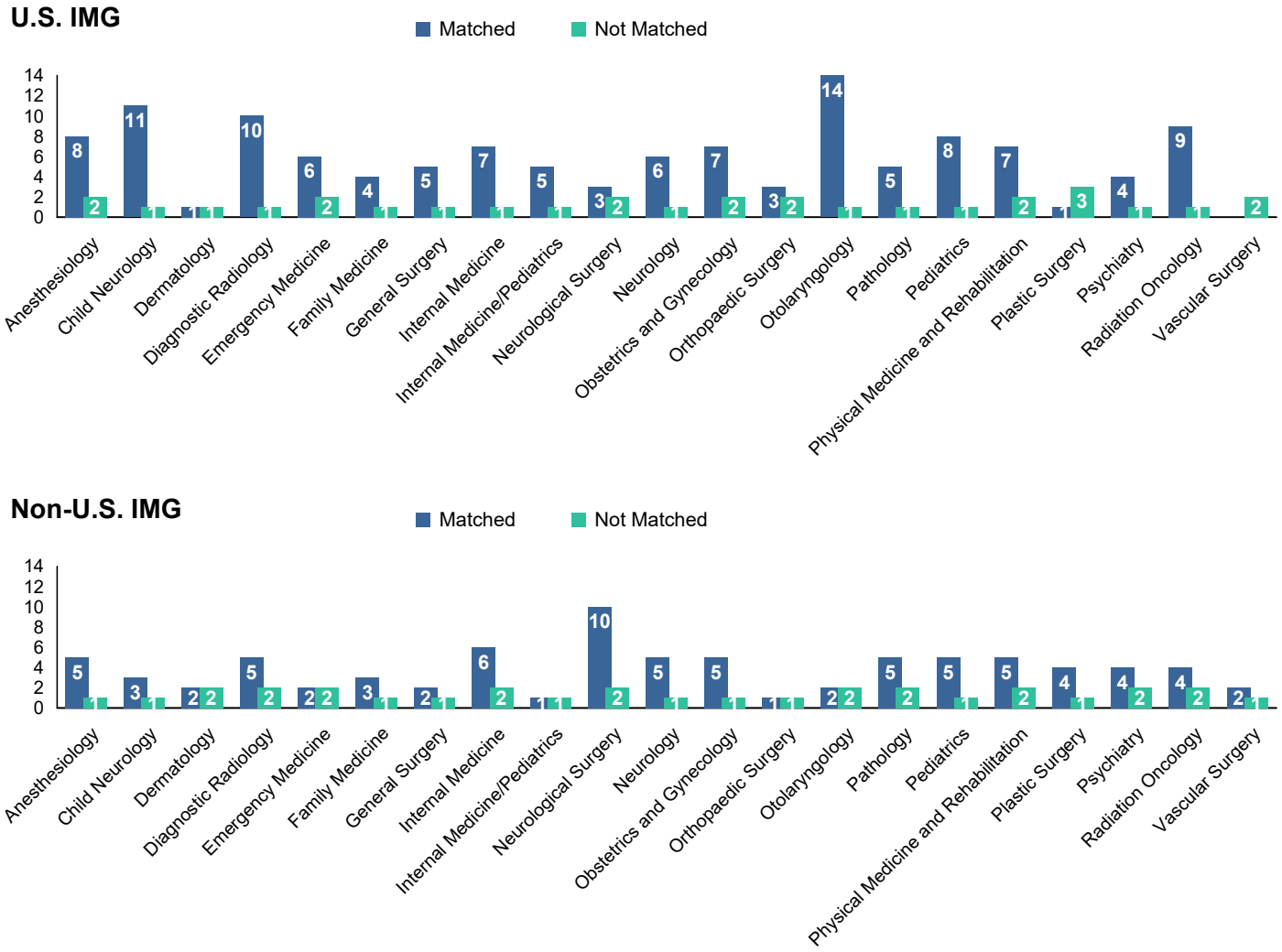
Source. NRMP Data Warehouse

Table 2 provides summary statistics for all specialties by IMG 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. Only IMGs who gave consent to use their information in research are included in this table and the rest of the report.

Chart 4

Median Number of Contiguous Ranks of International Medical Graduates

by Preferred Specialty, IMG Applicant Type, and Match Status



Source: NRMP Data Warehouse

In general, applicants are more likely to be successful if they rank more programs in their desired specialty. To quantify this aspect of applicant behavior, we tallied the number of programs ranked in the first-choice specialty before a program in another specialty appeared on the applicant's rank order list (contiguous ranks).

Chart 4 displays the median number of contiguous ranks by preferred specialty for U.S. IMGs and non-U.S. IMGs who matched and did not match to their preferred specialty. Both applicant types show variation across specialties. For almost all specialties, U.S. IMGs who matched to their preferred specialty had median contiguous rank lists that were longer than those of U.S. IMGs who did not match. The same pattern can be found for non-U.S. IMGs, although the lists of matched non-U.S. IMGs were in many cases shorter than those submitted by U.S. IMGs. Non-U.S. IMGs who matched also had longer contiguous lists compared with non-U.S. IMGs who did not match to their preferred specialty.

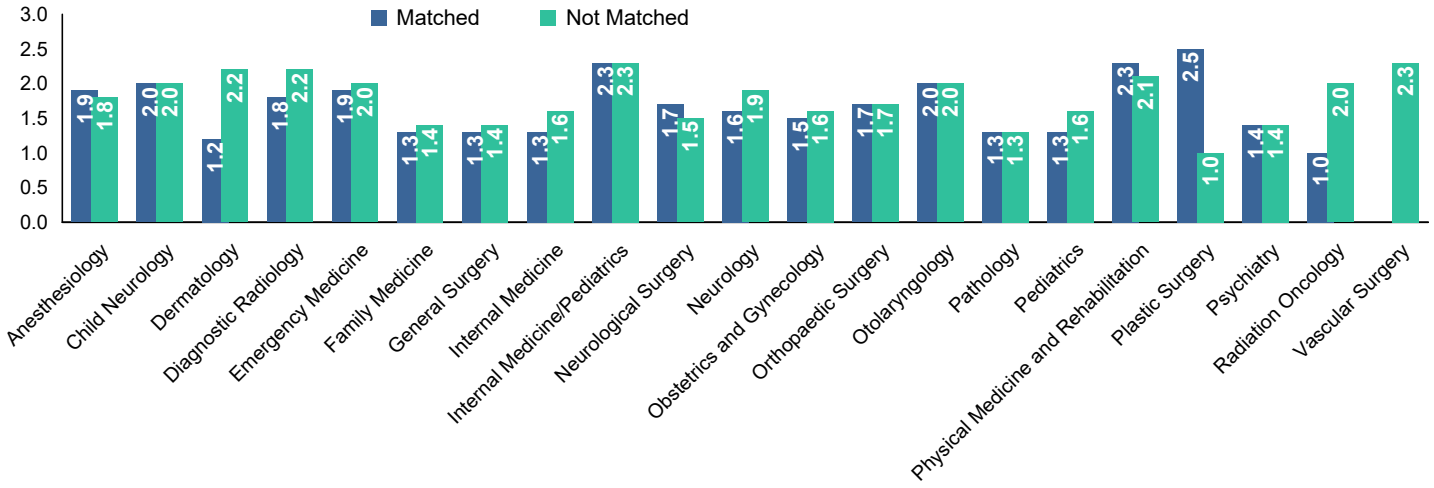
The principal message of these graphs is that applicants with longer rank order lists are more successful than those with shorter rank order lists. The NRMP has been recommending longer lists for many years, but some applicants apparently do not heed the advice. Applicants who submit shorter rank order lists may do so because they find only a few programs willing to entertain their applications or because they cannot afford a large number of interview trips.

Chart 5

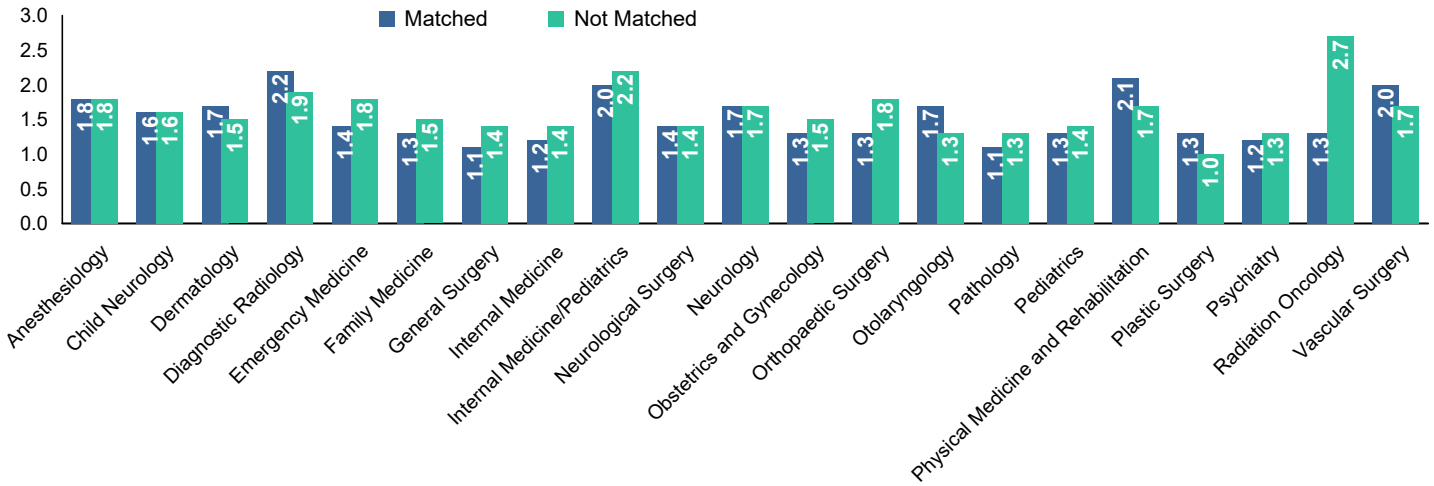
Mean Number of Different Specialties Ranked by International Medical Graduates

by Preferred Specialty, IMG Applicant Type, and Match Status

U.S. IMG



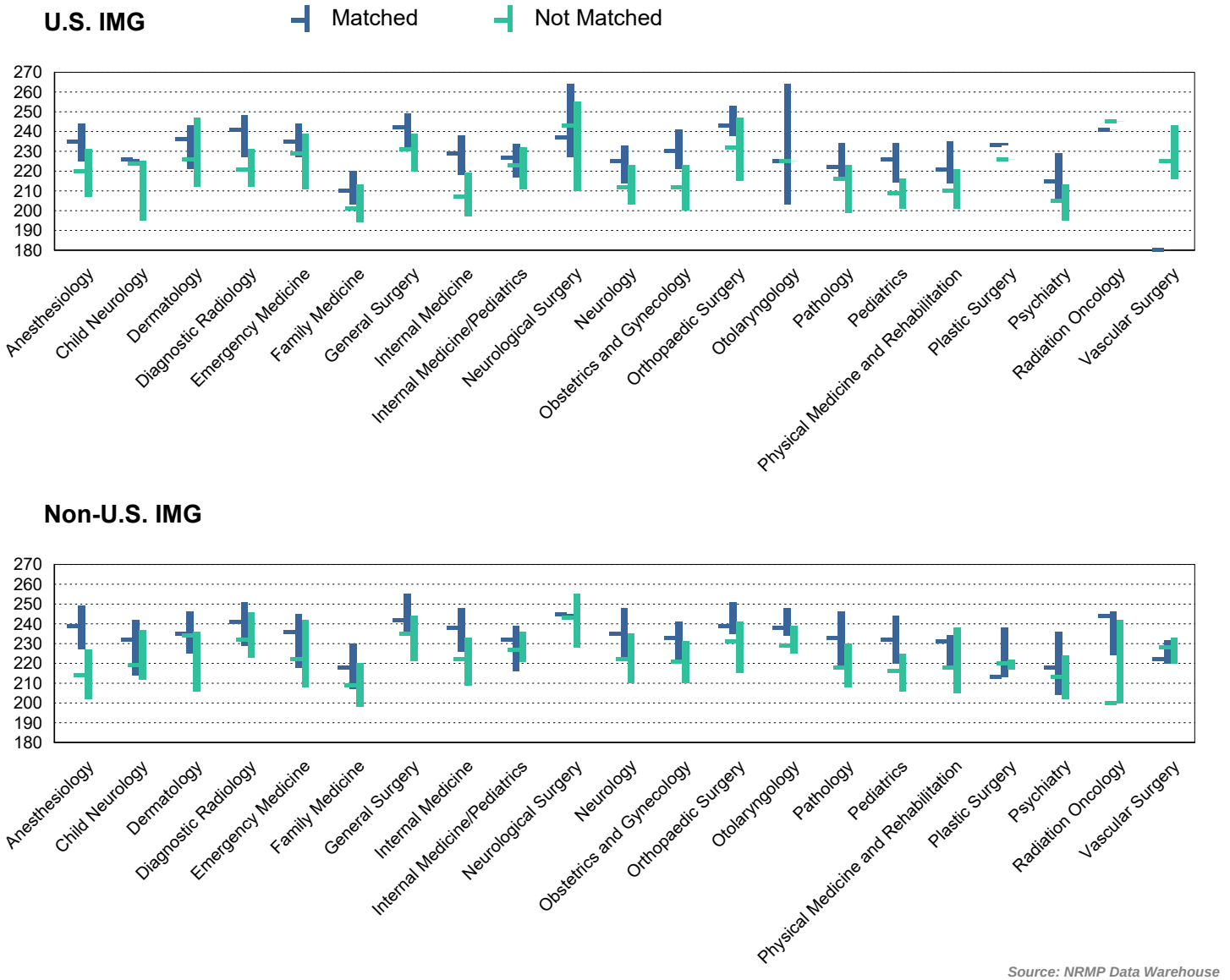
Non-U.S. IMG



Source: NRMP Data Warehouse

Some applicants are interested in a single specialty while others consider two or more. Chart 5 displays the average number of different specialties ranked by IMG applicant type, preferred specialty, and Match outcome. The numbers of specialties ranked by IMGs who matched or did not match to their preferred specialty were close with a few exceptions such as Dermatology, Plastic Surgery, and Radiation Oncology for U.S. IMGs, and Radiation Oncology for non-U.S. IMGs.

Chart 6 USMLE Step 1 Scores of International Medical Graduates
by Preferred Specialty, Match Status, and IMG Applicant Type



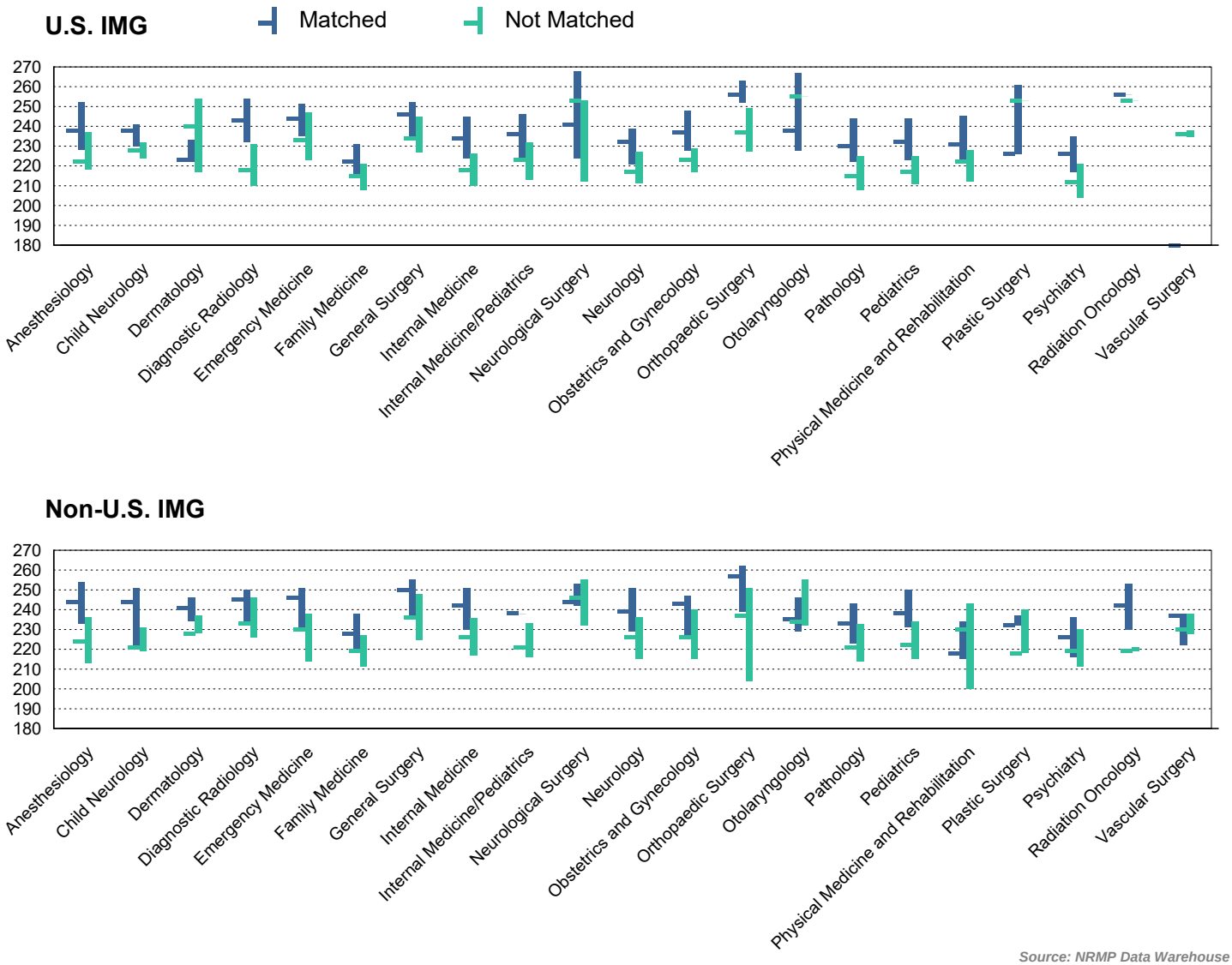
Source: NRMP Data Warehouse

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, a Step 1 score is the only qualification that is universally available for all applicants during the interview season and prior to the NRMP's ranking deadline. Overall, matched U.S. IMGs had *mean* USMLE Step 1 scores of 224.5 (s.d. = 17.0) and matched non-U.S. IMGs had *mean* USMLE Step 1 scores of 233.8 (s.d. = 17.1), both well above the 2016 minimum passing score of 192. Step 1 scores were available for 87 percent of U.S. IMGs and 92 percent of non-U.S. IMGs who gave consent to research.

Chart 6 displays the Step 1 scores by specialty for matched and unmatched U.S. IMGs (top panel) and non-U.S. IMGs (bottom panel). The horizontal bars are the *median* values for successful applicants and the vertical lines show the interquartile ranges (IQR, the range of scores for applicants excluding the top and bottom quarters of the distribution). Specialties with too few data points lack the vertical bar. Across all specialties except Dermatology and Radiation Oncology, the IQR of U.S. IMGs who matched to their preferred specialty was higher than the IQR of those who did not match. The same trend was found among non-U.S. IMGs for all specialties except Neurological Surgery, PM&R, and Vascular Surgery.

Chart 7 USMLE Step 2 CK Scores of International Medical Graduates

by Preferred Specialty, Match Status, and IMG Applicant Type



Source: NRMP Data Warehouse

USMLE Step 2 CK 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, matched U.S. IMGs had *mean* USMLE Step 2 CK scores of 232.6 (s.d. = 15.0) and matched non-U.S. IMGs had *mean* USMLE Step 2 CK scores of 238.8 (s.d. = 15.6), both well above the 2016 minimum passing score of 209. Step 2 CK scores were available for 85 percent of U.S. IMGs and 91 percent of non-U.S. IMGs who gave consent to research.

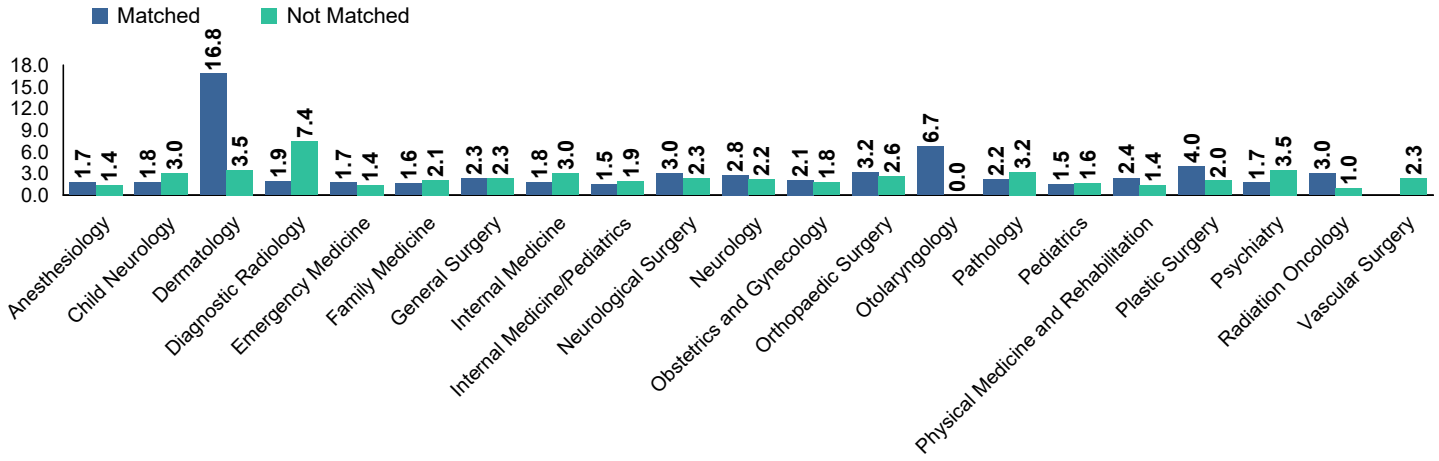
Chart 7 shows the Step 2 CK scores for U.S. IMGs (top panel) and non-U.S. IMGs (bottom panel) who did and did not match to their preferred specialty. The horizontal bars are the *median* values for successful applicants and the vertical lines show the interquartile ranges. Specialties with too few data points lack the vertical bar. As was the case for Step 1 scores, in most specialties, U.S. IMGs who matched to their preferred specialties had higher scores than U.S. IMGs who did not match to their preferred specialties. The same trend was seen among non-U.S. IMGs. The exceptions are Dermatology for U.S. IMGs and Neurological Surgery, Otolaryngology, PM&R, and Plastic Surgery for non-U.S. IMGs.

Chart 8

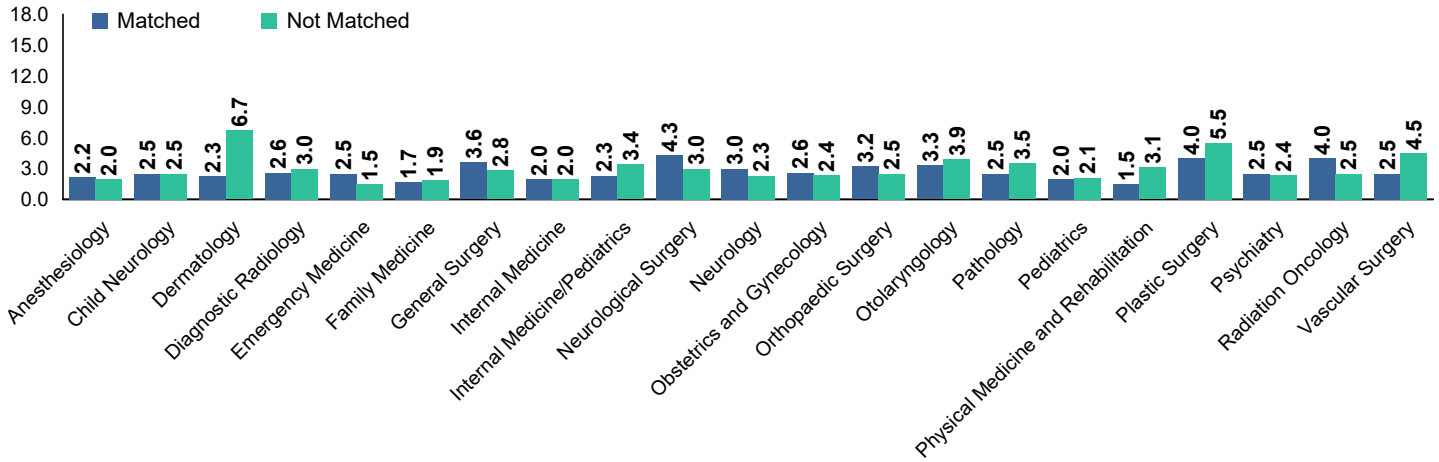
Mean Number of Research Experiences of International Medical Graduates

by Preferred Specialty, Match Status, and IMG Applicant Type

U.S. IMG



Non-U.S. IMG



Source: NRMP Data Warehouse

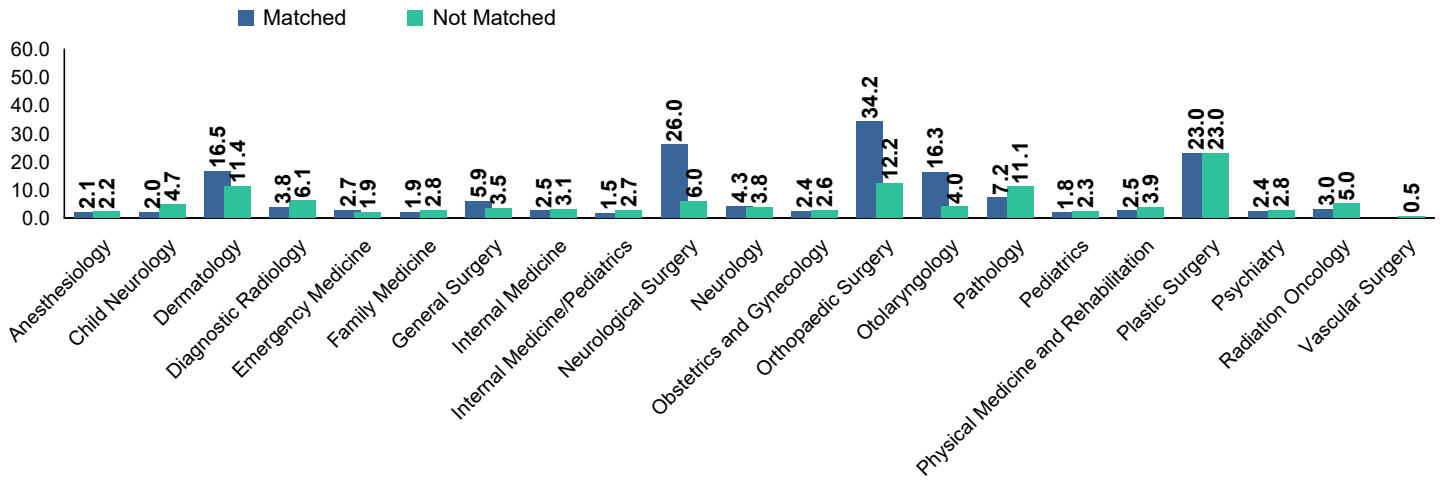
Applicants were asked to report the number of research experiences they entered in their Electronic Residency Application Service (ERAS) applications. The experiences are not verified or evaluated and quality may vary greatly. Chart 8 shows the average number of research experiences by IMG applicant type, preferred specialty, and Match outcome. U.S. IMGs averaged 2.2 research experiences, with 57.7 percent reporting at least one research experience. Non-U.S. IMGs also averaged 2.2 research experiences, with 65.0 percent reporting at least one research experience. Across all specialties, there is no consistent pattern between matched and unmatched applicants in either IMG group based on the number of research experiences.

Chart 9

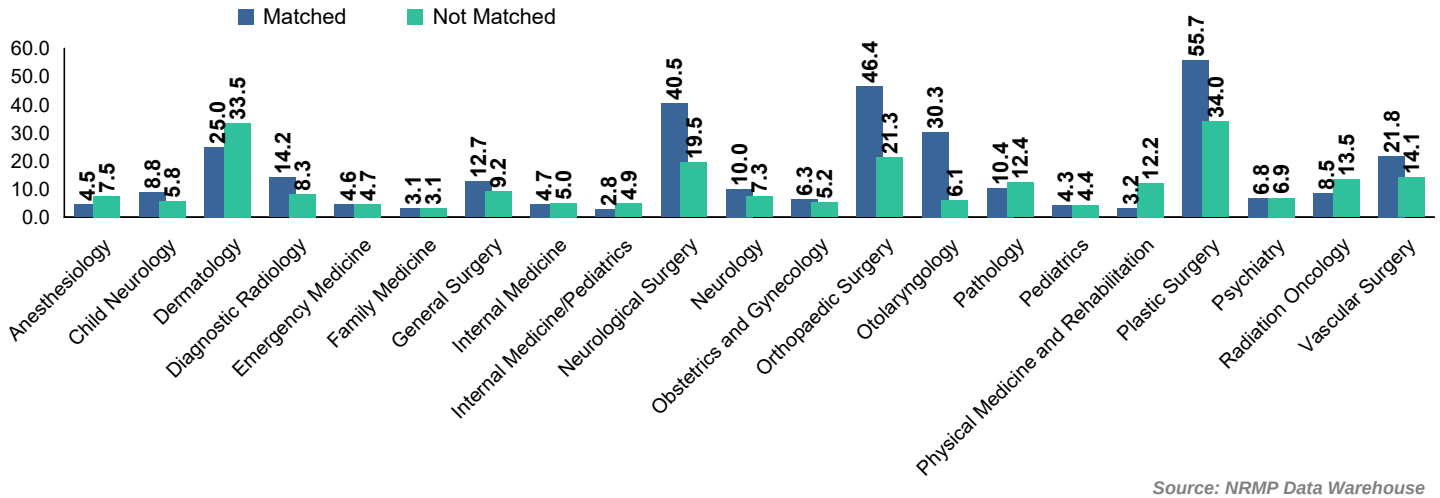
Mean Number of Abstracts, Presentations, and Publications of International Medical Graduates

by Preferred Specialty, Match Status, and IMG Applicant Type

U.S. IMG



Non-U.S. IMG



Source: NRMP Data Warehouse

Applicants were asked to list the number of abstracts, presentations, and publications they reported in their ERAS applications. This information is self-reported and may include peer-reviewed articles, abstracts, poster sessions, and invited national or regional presentations. Some residency programs may independently verify and even review publications for applicants in whom they have an interest, but most probably do not.

Many applicants report abstracts, presentations, or publications, sometimes dozens or even hundreds. In the individual specialty sections, we distinguish between no publications, 1 to 5 publications, and more than 5 publications. Chart 9 shows the average number of publications by IMG applicant type, preferred specialty, and Match outcome.

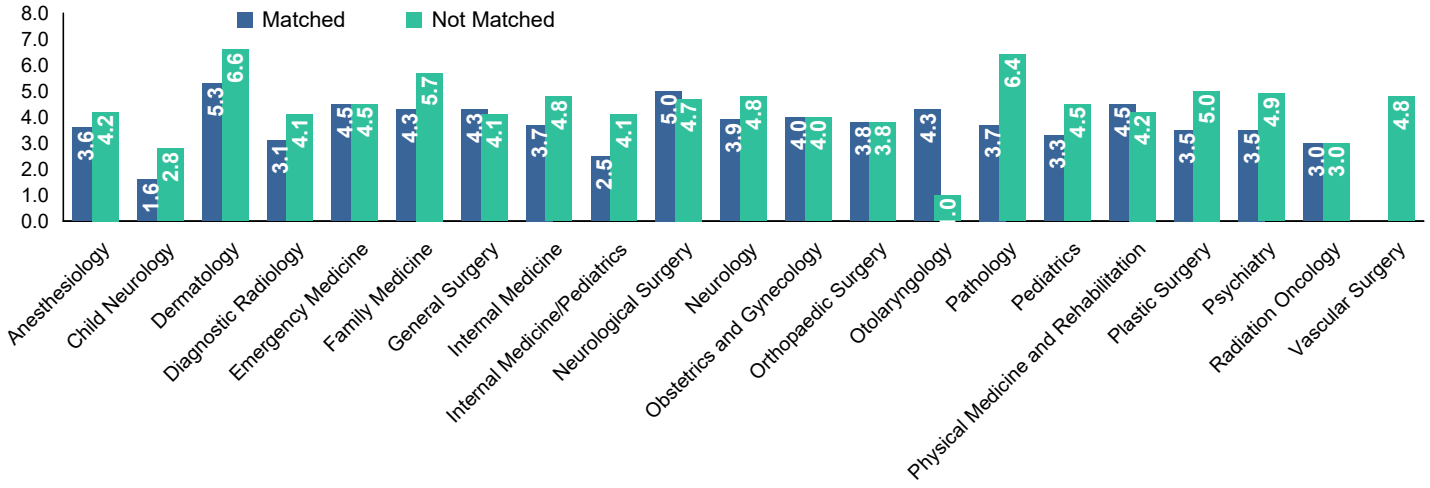
Less than half of U.S. IMGs (45.6%) reported at least one publication, with an average of 3.1 publications per applicant. Non-U.S. IMGs reported an average of 6.3 publications with 60.2 percent reporting at least one publication. Large numbers of publications can be found in Dermatology and certain surgical specialties such as Neurosurgery, Orthopaedic Surgery, Otolaryngology, and Plastic Surgery. In those specialties, matched IMGs generally had more publications than IMGs who did not match in their preferred specialty. In other specialties, however, there is no distinctive pattern among U.S. IMGs and non-U.S. IMGs based on the number of abstracts, presentations, and publications. On average, non-U.S. IMGs reported more publications than U.S. IMGs.

Chart 10

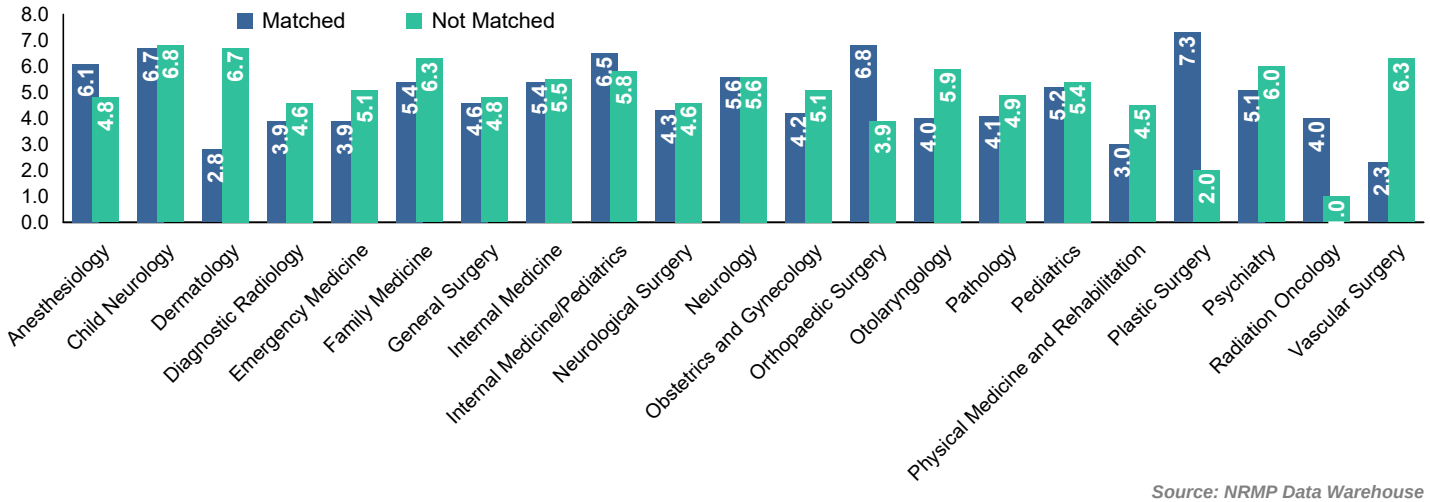
Mean Number of Work Experiences of International Medical Graduates

by Preferred Specialty, Match Status, and IMG Applicant Type

U.S. IMG



Non-U.S. IMG

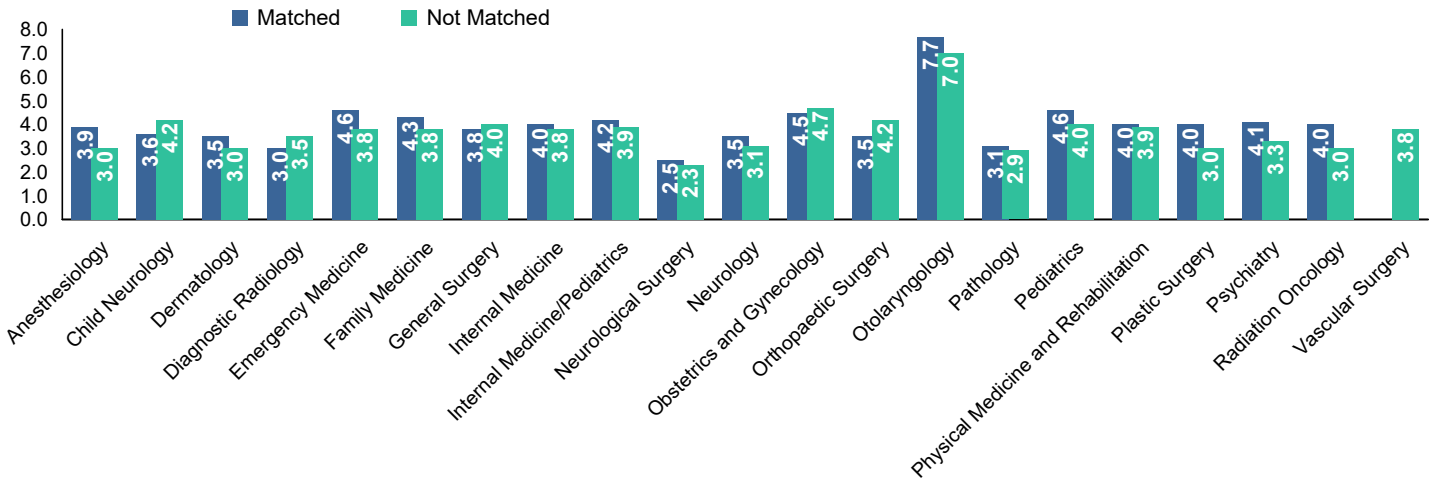


Source: NRMP Data Warehouse

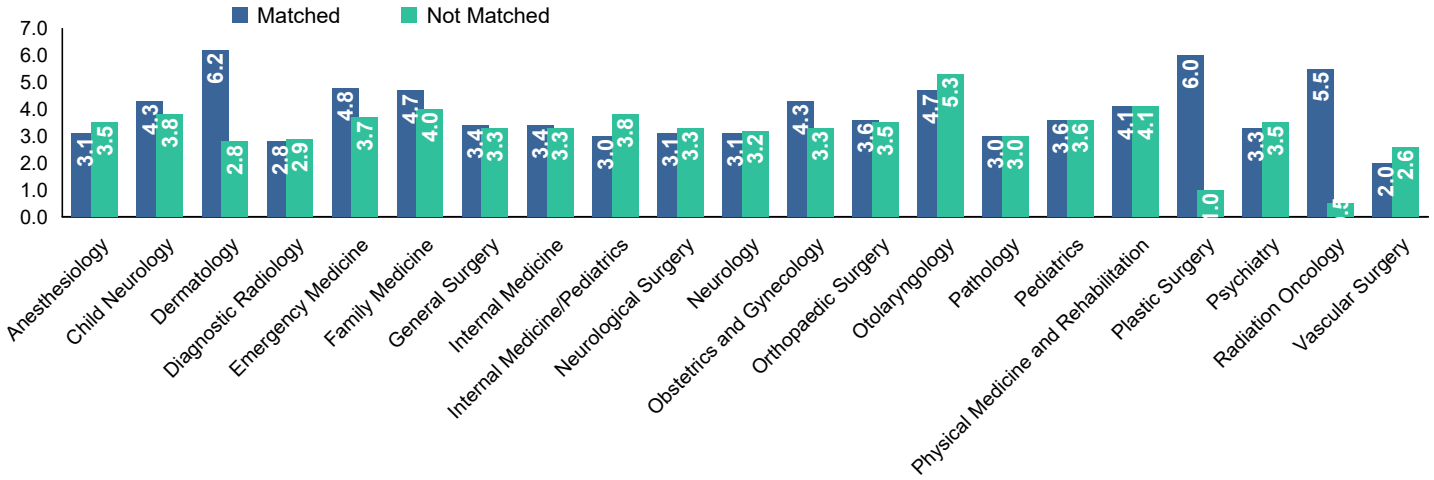
Applicants were asked to list the number of work experiences they reported in their ERAS application. Chart 10 shows the average number of work experiences by IMG applicant type, preferred specialty, and Match outcome. With a few exceptions, such as Otolaryngology for U.S. IMGs and Anesthesiology, Internal Medicine/Pediatrics, Orthopaedic Surgery, and Plastic Surgery for non-U.S. IMGs, matched IMGs had fewer or similar numbers of work experiences compared to IMGs who did not match in their preferred specialty. Across all specialties, non-U.S. IMGs averaged slightly more work experiences than U.S. IMGs (5.4 versus 4.4). A larger proportion of non-U.S. IMGs (81.9% versus 72.7%) reported at least one work experience.

Chart 11 Mean Number of Volunteer Experiences of International Medical Graduates

U.S. IMG



Non-U.S. IMG



Source: NRMP Data Warehouse

Applicants were asked to list the number of volunteer experiences they reported in their ERAS applications. Chart 11 provides the average number of volunteer experiences by IMG applicant type, preferred specialty, and Match outcome. In most specialties, matched IMGs in both groups had more volunteer experiences. Most noticeable are Dermatology, Plastic Surgery, and Radiation Oncology for non-U.S. IMGs.

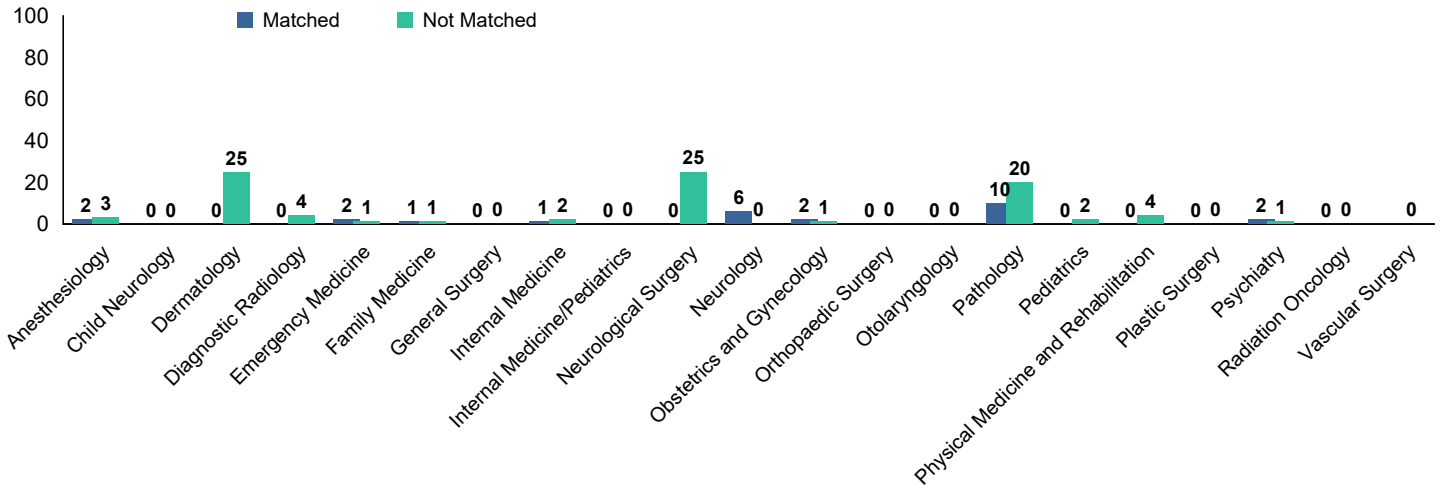
Overall, U.S. IMGs averaged 3.9 volunteer experiences and non-U.S. IMGs averaged 3.4 volunteer experiences. In addition, 72.5 percent and 73.7 percent of U.S. IMGs and non-U.S. IMGs reported at least one volunteer experience.

Chart 12

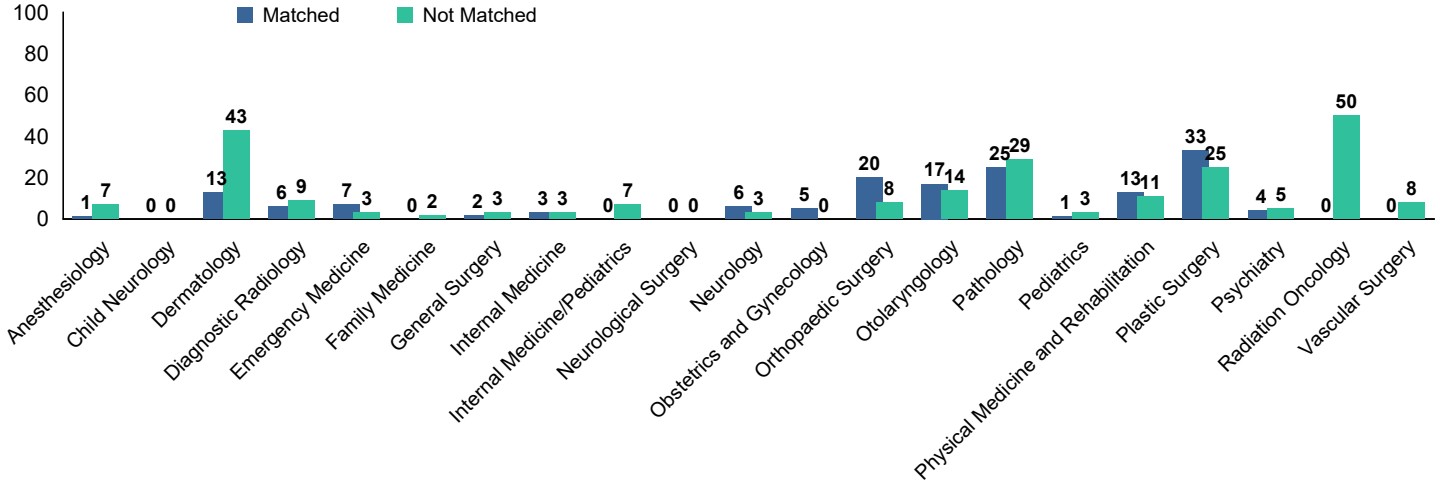
Percentage of International Medical Graduates Who Have a Ph.D. Degree

by Preferred Specialty, Match Status, and IMG Applicant Type

U.S. IMG



Non-U.S. IMG



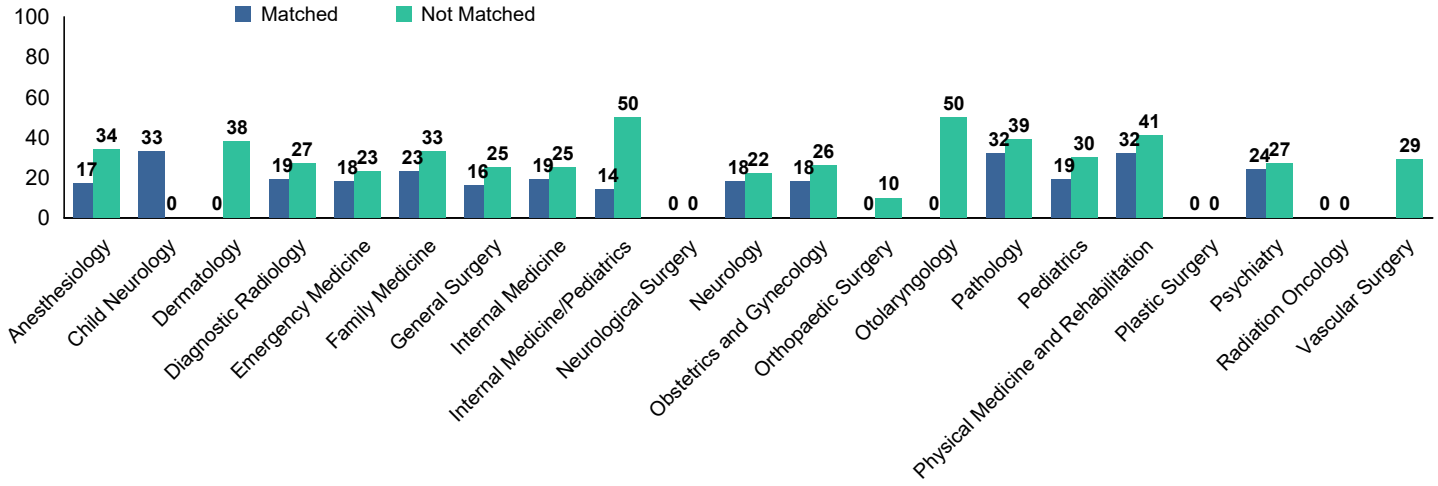
Source: NRMP Data Warehouse

Chart 12 shows by preferred specialty, match status and IMG applicant type the percentage of IMGs who have a Ph.D. degree. A larger proportion of non U.S. IMGs reported Ph.D. degrees compared to U.S. IMGs. Although the percentages of Ph.D. degree holders are high in some surgical specialties, the numbers of IMGs preferring those specialties are too small to draw meaningful conclusions.

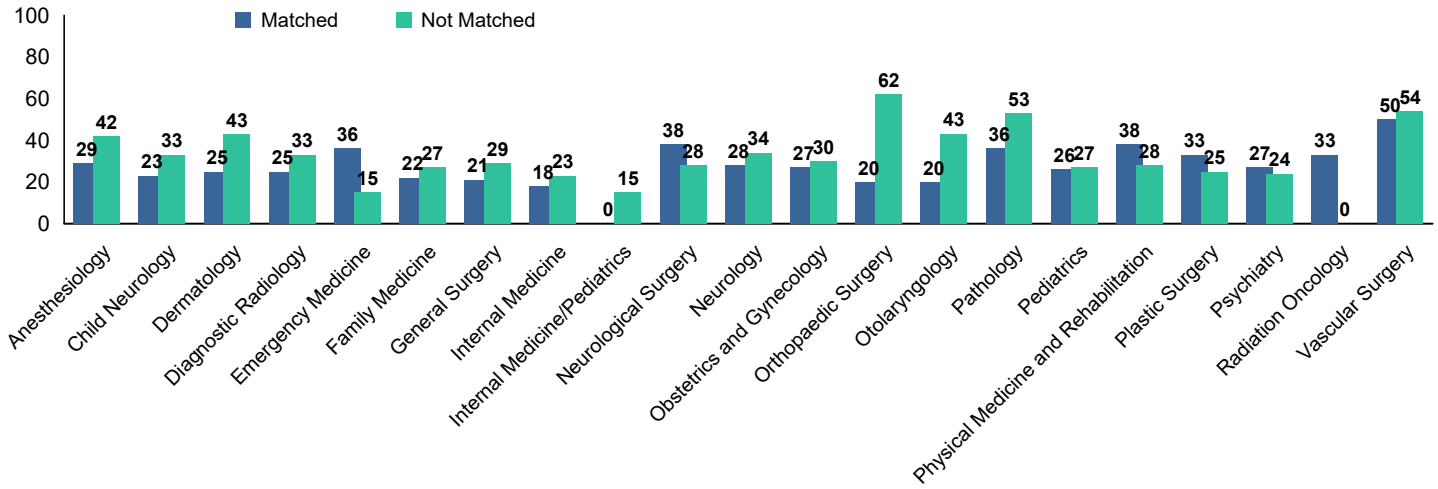
Chart 13 Percentage of International Medical Graduates Who Have Another Graduate Degree

by Preferred Specialty, Match Status, and IMG Applicant Type

U.S. IMG



Non-U.S. IMG



Source: NRMP Data Warehouse

Chart 13 shows by preferred specialty, match status and IMG applicant type the percentage of IMGs who have a graduate degrees other than a Ph.D. For all specialties but Child Neurology, a larger proportion of U.S. IMGs who did not match to their preferred specialty reported a graduate degree than did their matched counterparts. Among non-U.S. IMGs, there was no discernable trend.

AN Anesthesiology

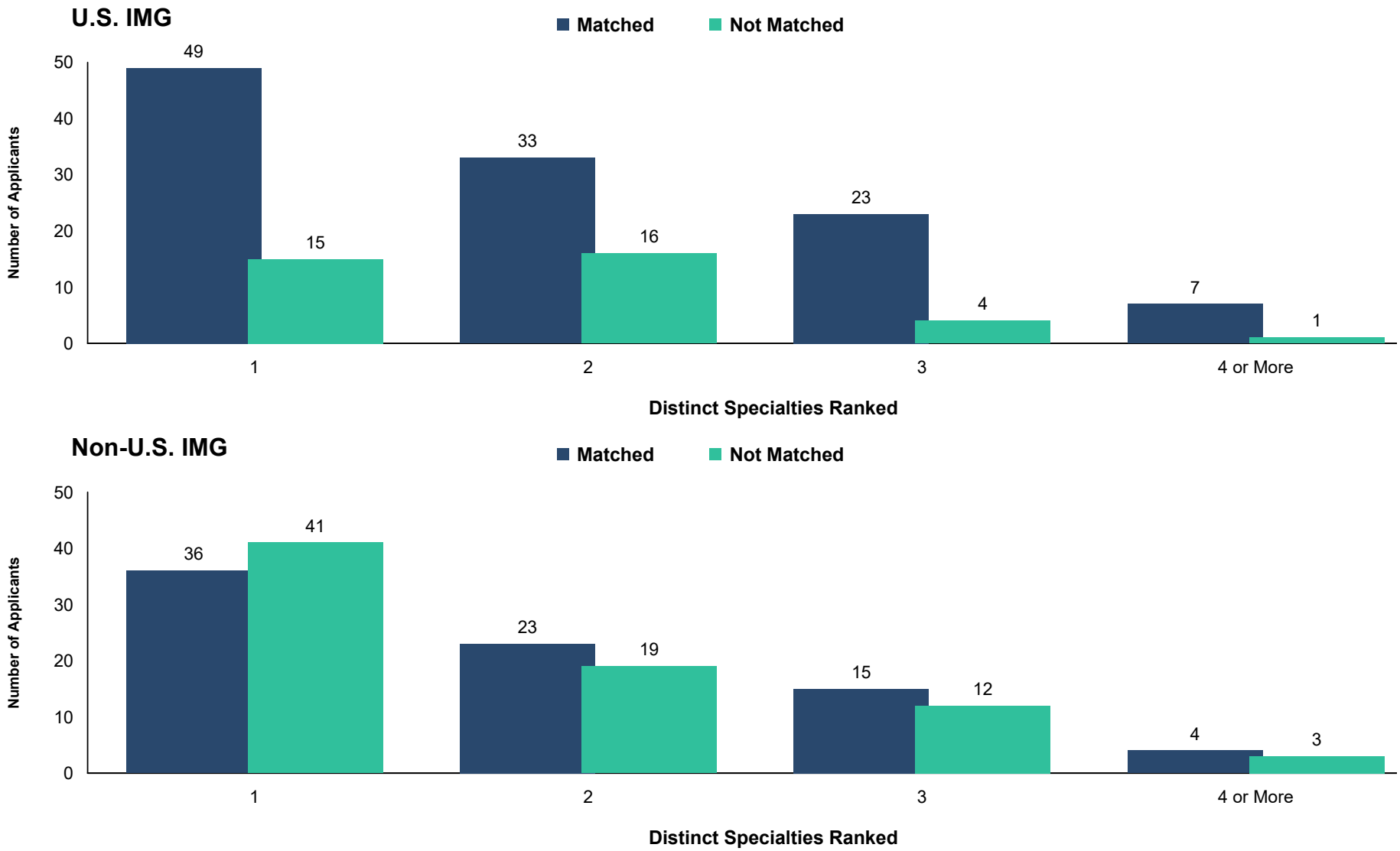
Table AN-1 **Summary Statistics**
Anesthesiology

Measure	U.S. IMGs		Non-U.S. IMGs	
	Matched (n=114)	Unmatched (n=37)	Matched (n=78)	Unmatched (n=77)
1. Mean number of contiguous ranks	9.9	3.5	6.0	3.2
2. Mean number of distinct specialties ranked	1.9	1.8	1.8	1.8
3. Mean USMLE Step 1 score	235	219	237	215
4. Mean USMLE Step 2 score	239	226	242	222
5. Mean number of research experiences	1.7	1.4	2.2	2.0
6. Mean number of abstracts, presentations, and publications	2.1	2.2	4.5	7.5
7. Mean number of work experiences	3.6	4.2	6.1	4.8
8. Mean number of volunteer experiences	3.9	3.0	3.1	3.5
9. Percentage who have a Ph.D. degree	2.0	3.1	1.4	7.2
10. Percentage who have another graduate degree	17.2	34.3	28.6	42.0

Note: Only applicants who gave consent to use their information in research are included.
Source. NRMP Data Warehouse

Chart AN-1

Number of Distinct Specialties Ranked by International Medical Graduates

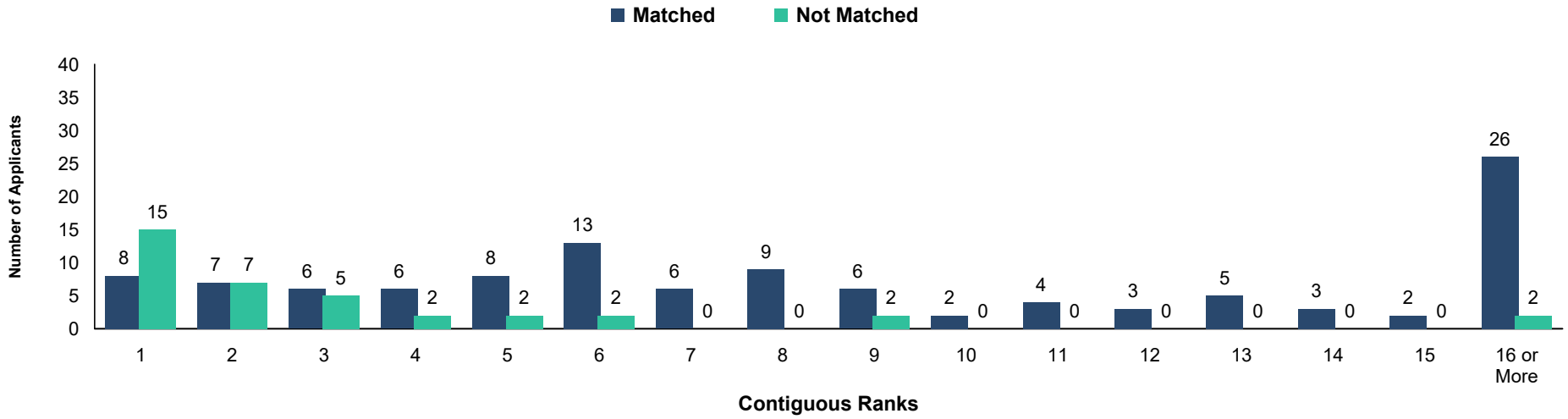


Source: NRMP Data Warehouse

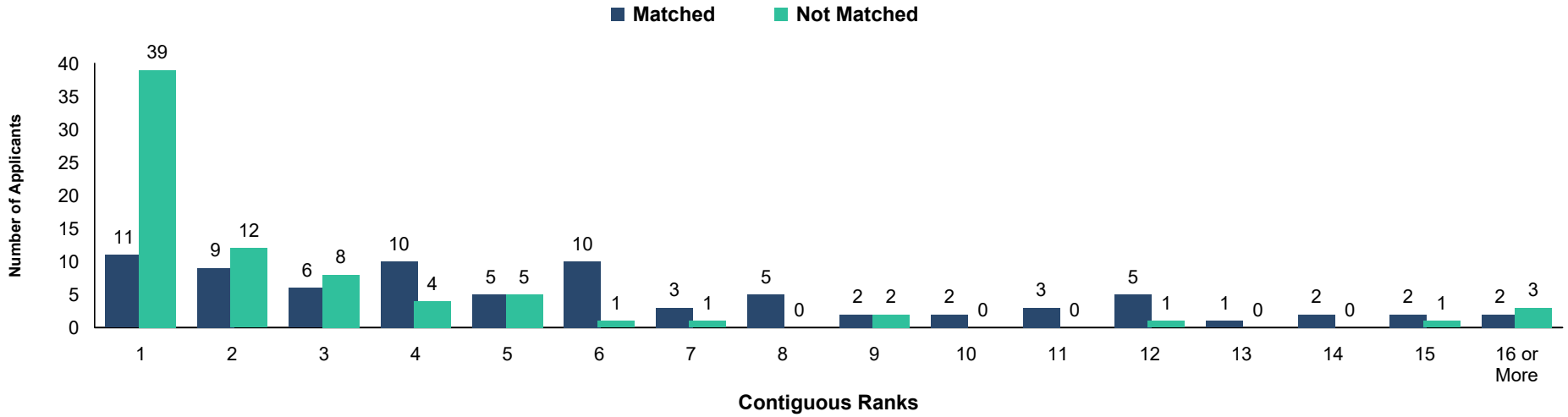
Chart AN-2

Number of Contiguous Ranks of International Medical Graduates

U.S. IMG



Non-U.S. IMG

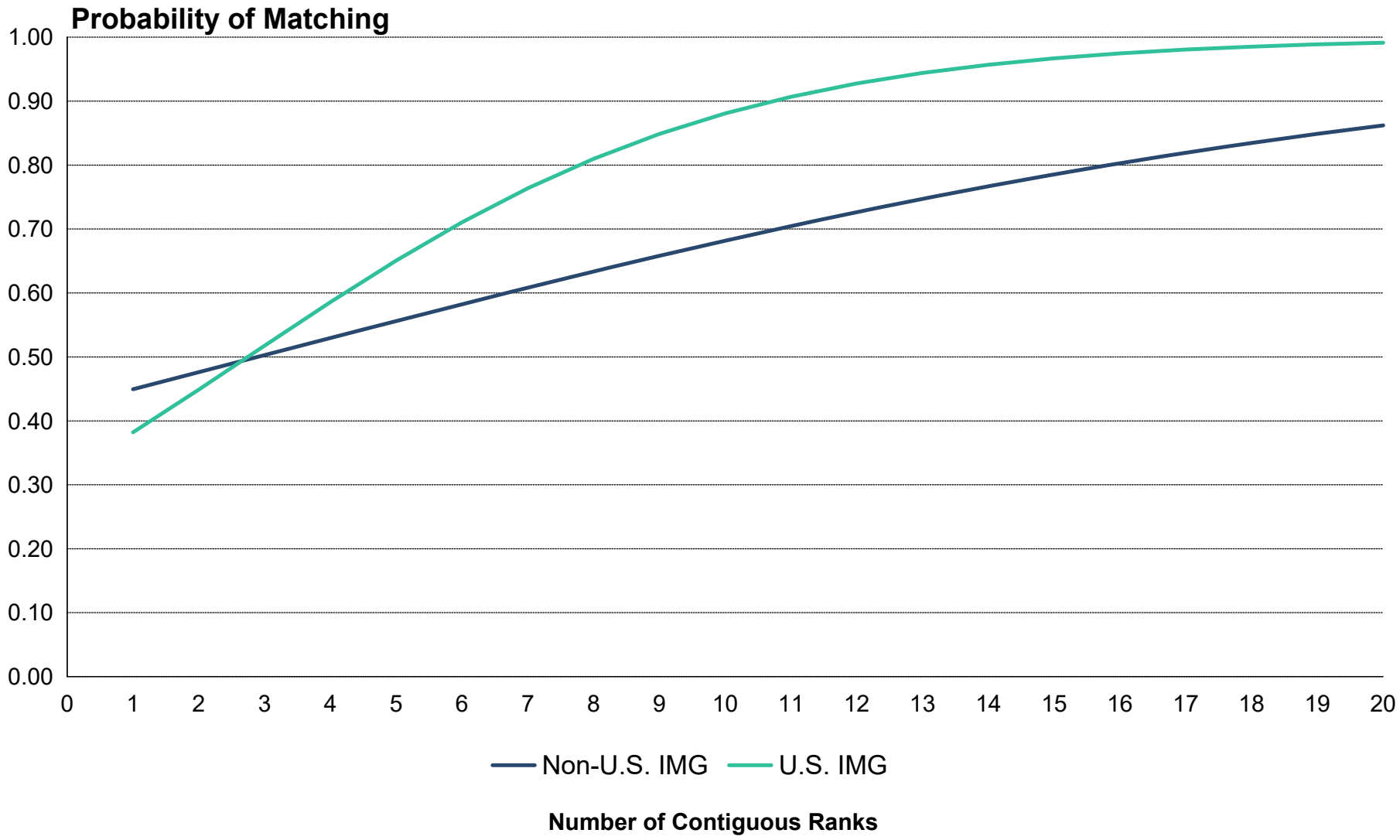


Source: NRMP Data Warehouse

Graph AN-1

Probability of International Medical Graduates Matching to Preferred Specialty by Number of Contiguous Ranks

Anesthesiology



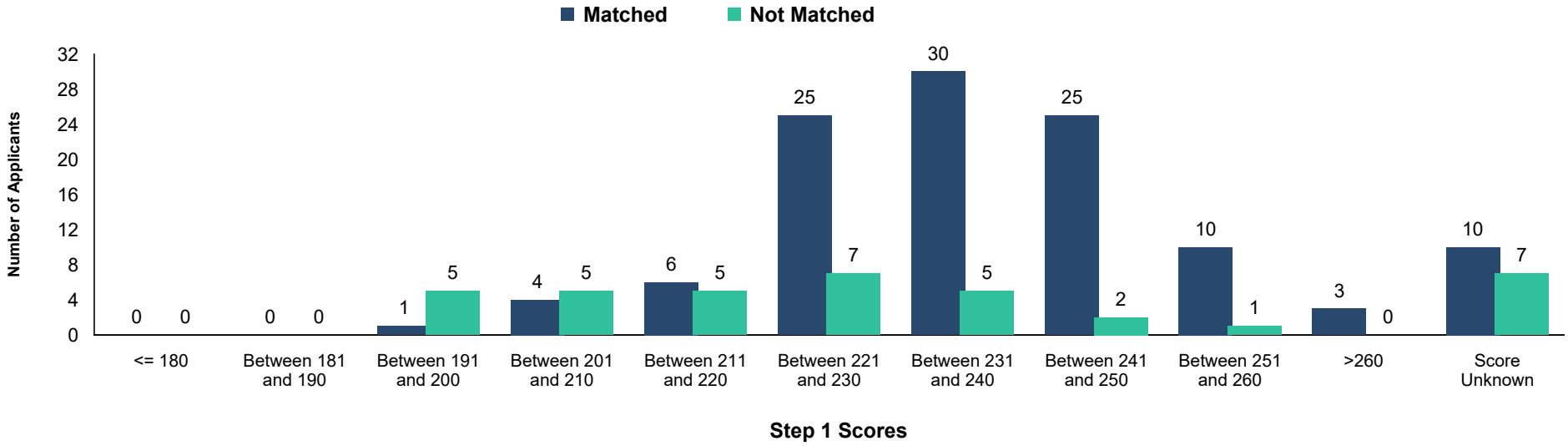
Source: NRMP Data Warehouse. Note: Probabilities calculated based on 2014-2016 applicants

Chart AN-3

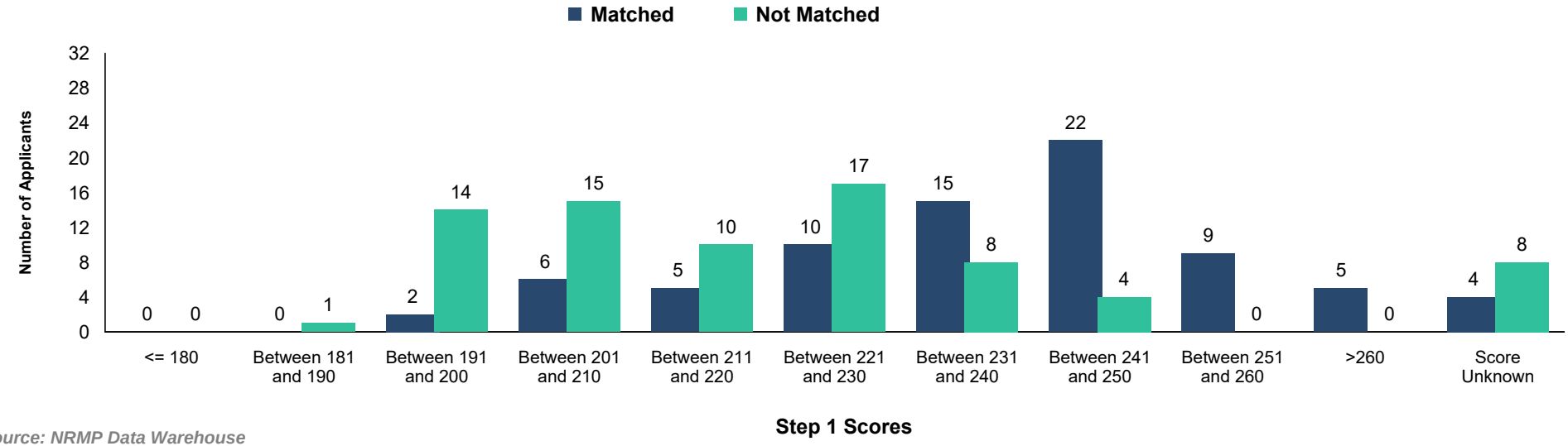
USMLE Step 1 Scores of International Medical Graduates

Anesthesiology

U.S. IMG



Non-U.S. IMG

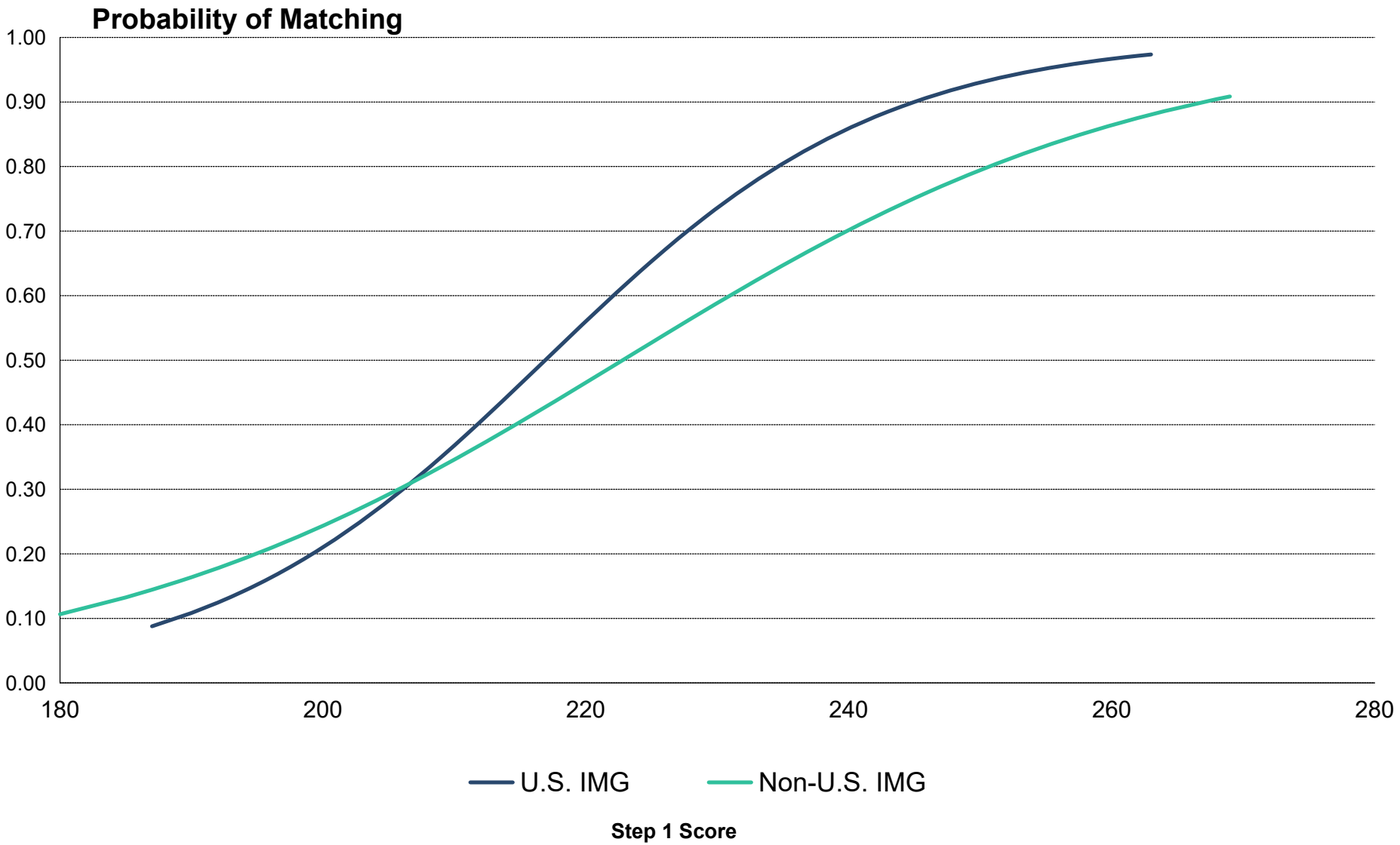


Source: NRMP Data Warehouse

Graph AN-2

Probability of International Medical Graduates Matching to Preferred Specialty by USMLE Step 1 Score

Anesthesiology

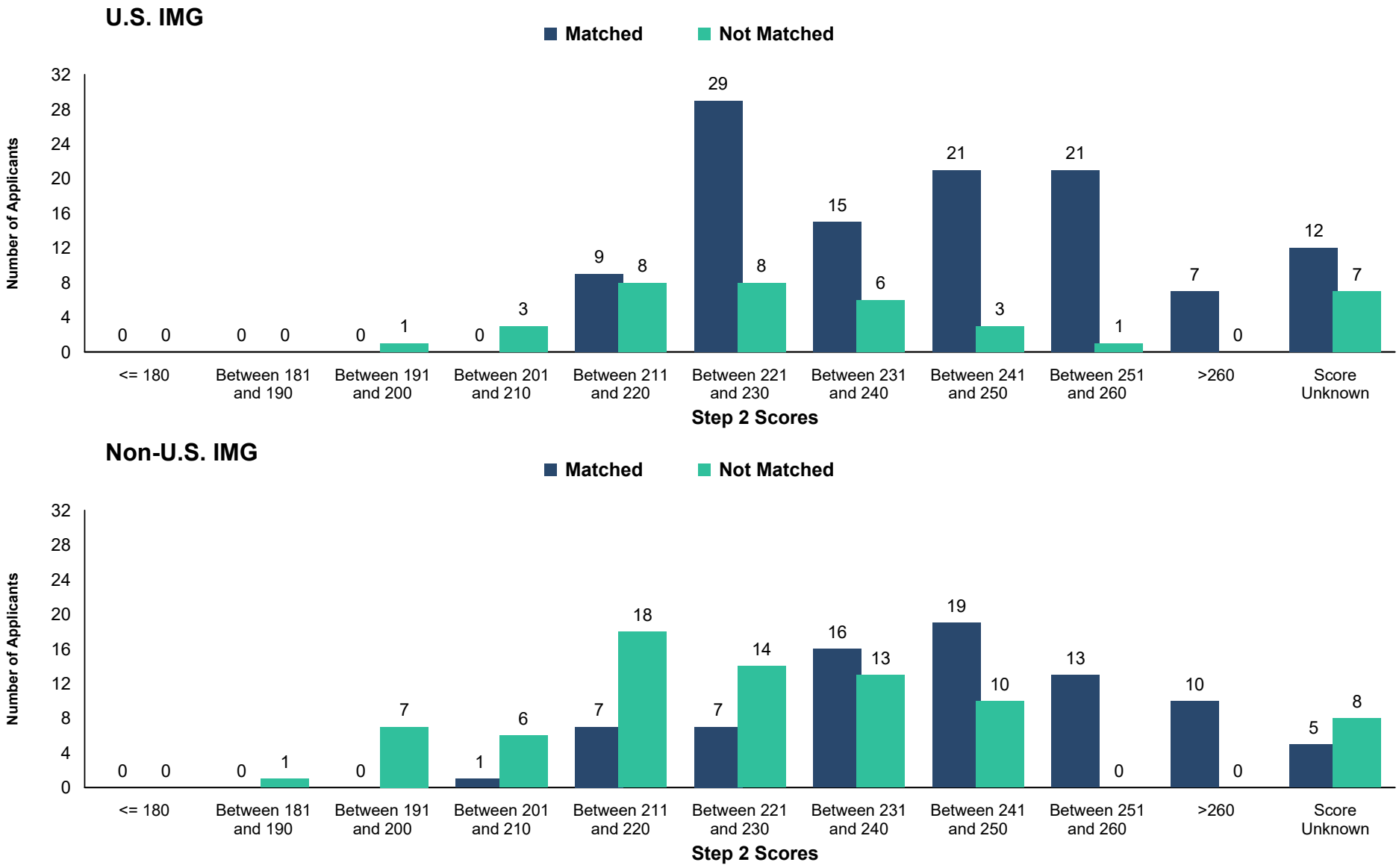


Source: NRMP Data Warehouse. Note: Probabilities calculated based on 2014-2016 applicants.

Chart AN-4

USMLE Step 2 CK Scores of International Medical Graduates

Anesthesiology

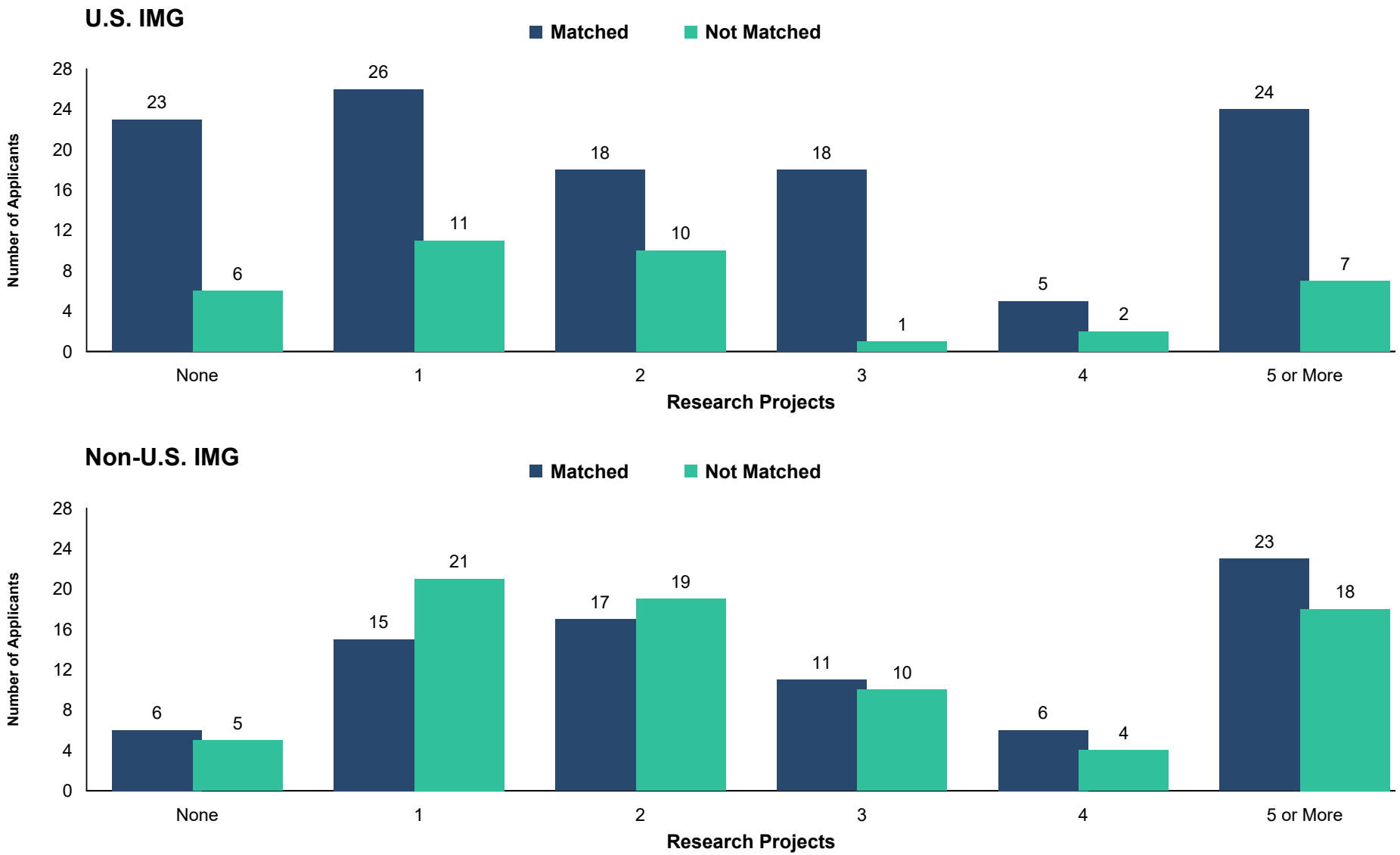


Source: NRMP Data Warehouse

Chart AN-5

Number of Research Projects of International Medical Graduates

Anesthesiology

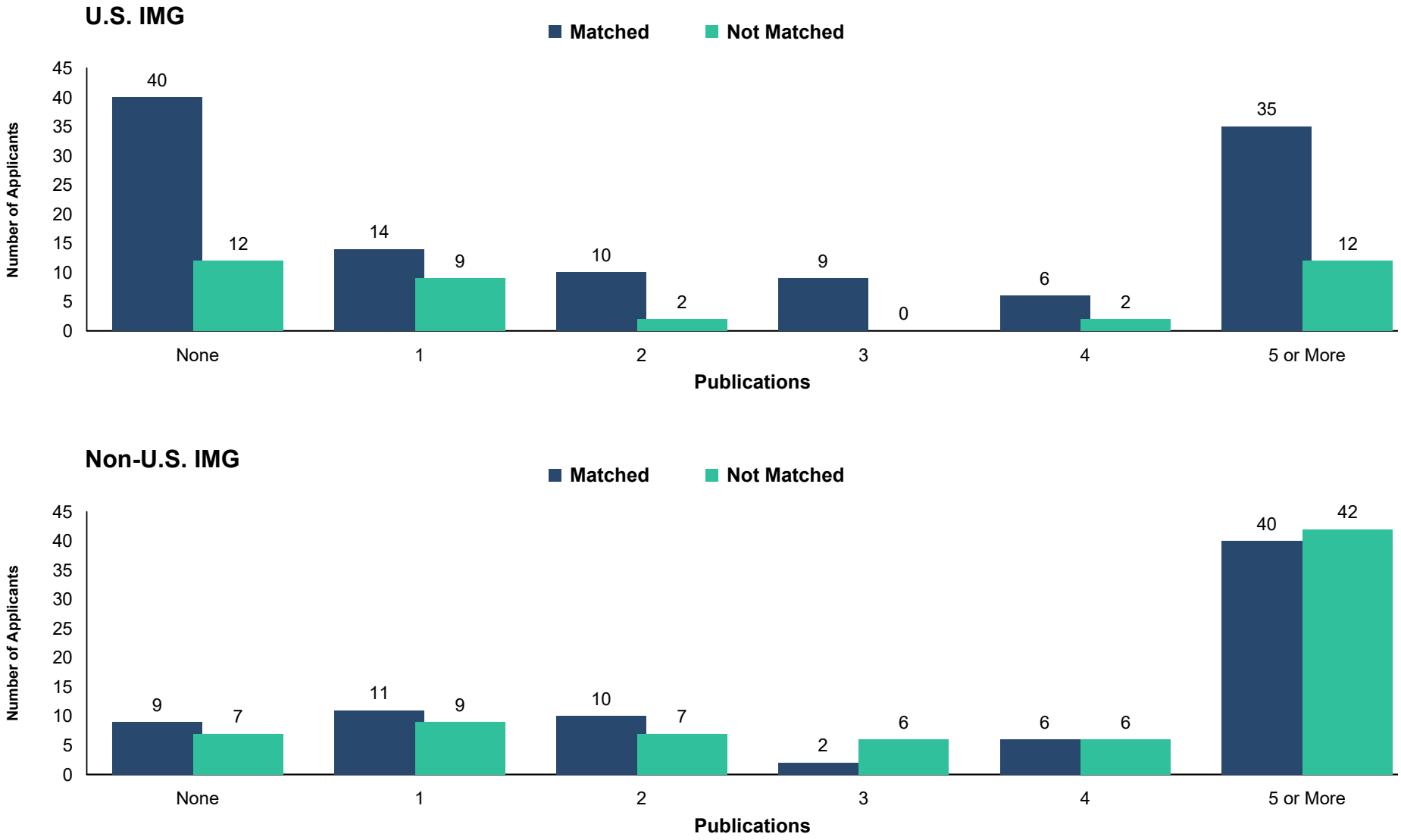


Source: NRMP Data Warehouse

Chart AN-6

Number of Abstracts, Presentations, and Publications of International Medical Graduates

Anesthesiology

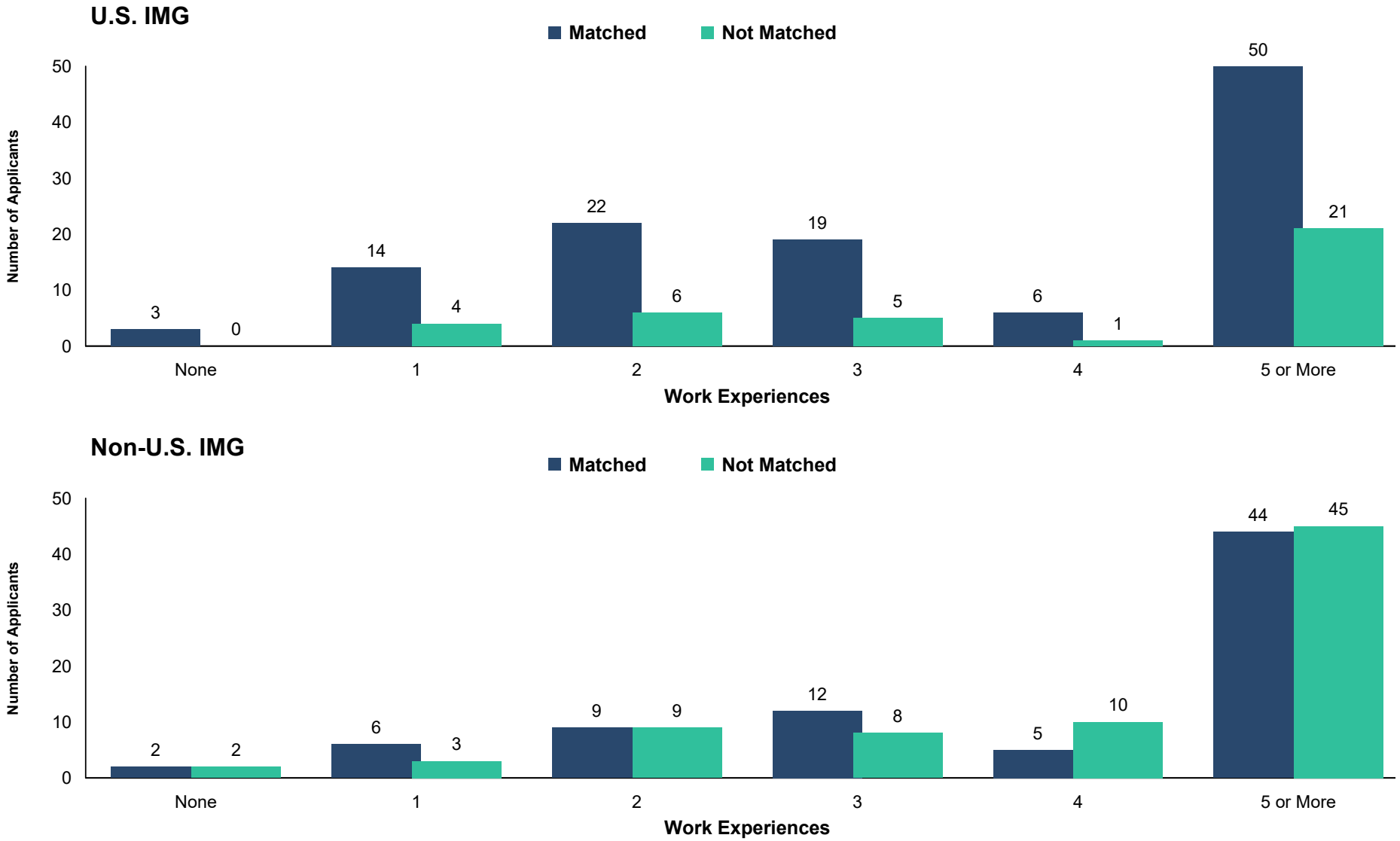


Source: NRMP Data Warehouse

Chart AN-7

Number of Work Experiences of International Medical Graduates

Anesthesiology

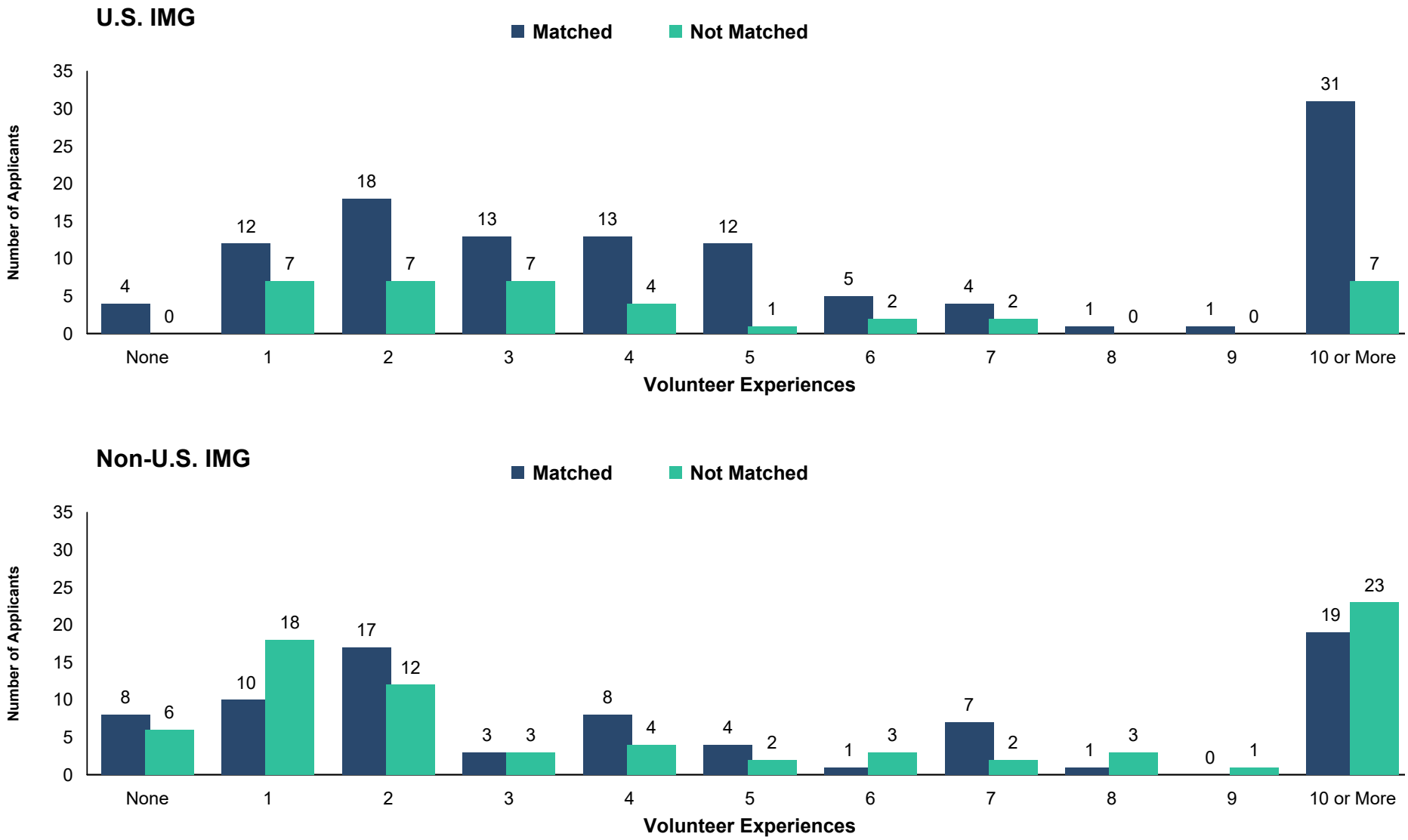


Source: NRMP Data Warehouse

Chart AN-8

Number of Volunteer Experiences of International Medical Graduates

Anesthesiology



Source: NRMP Data Warehouse

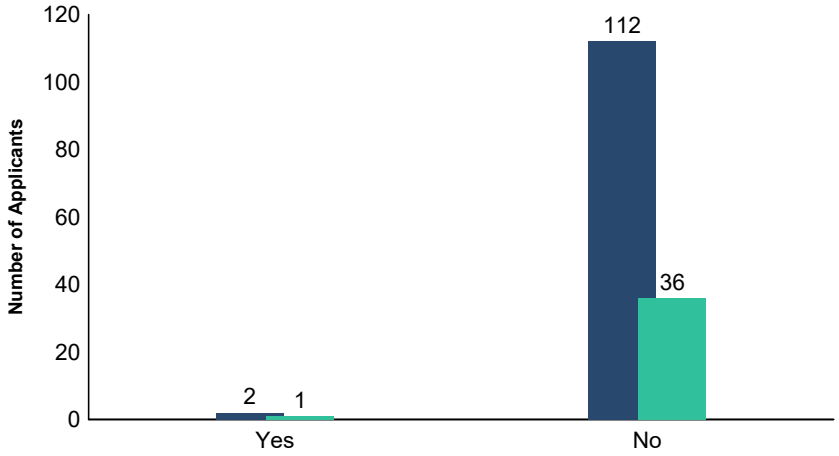
Chart AN-9

Other Characteristics of International Medical Graduates

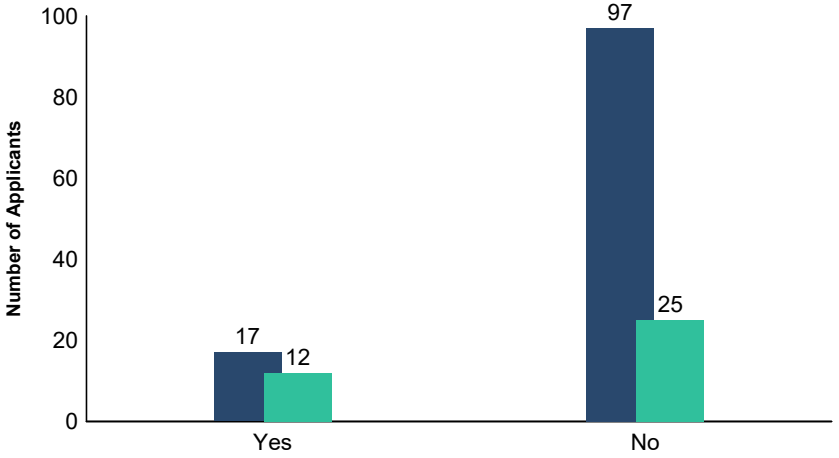
Anesthesiology

U.S. IMG

Ph.D. Degree

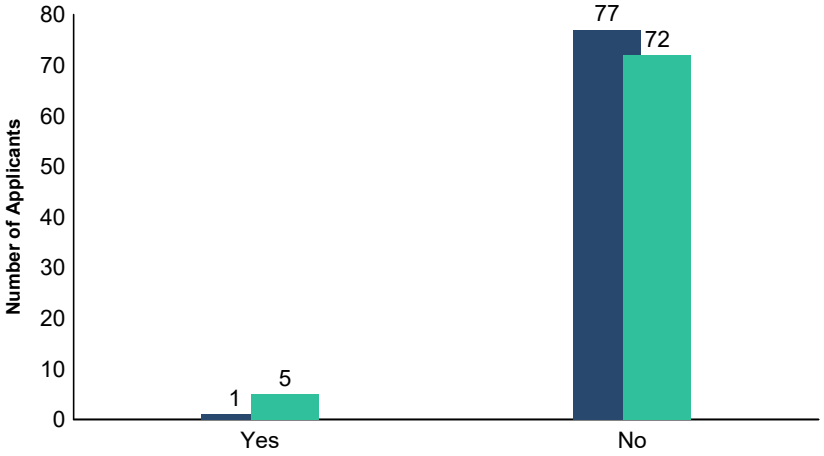


Other Graduate Degree

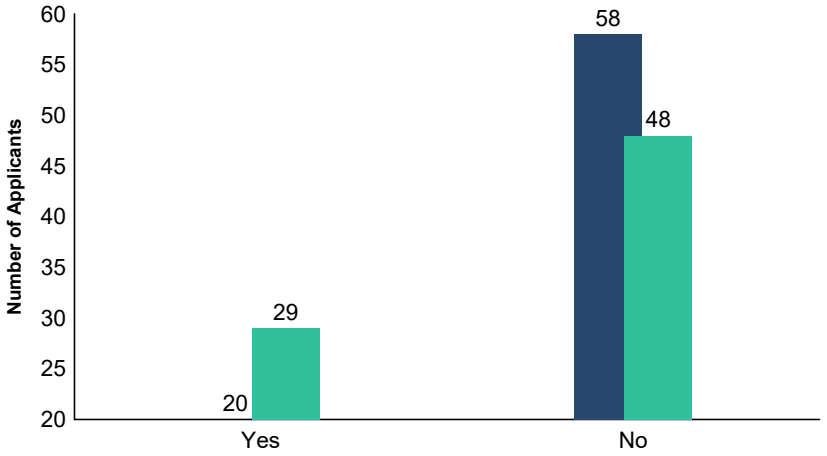


Non-U.S. IMG

Ph.D. Degree



Other Graduate Degree



Source: NRMP Data Warehouse

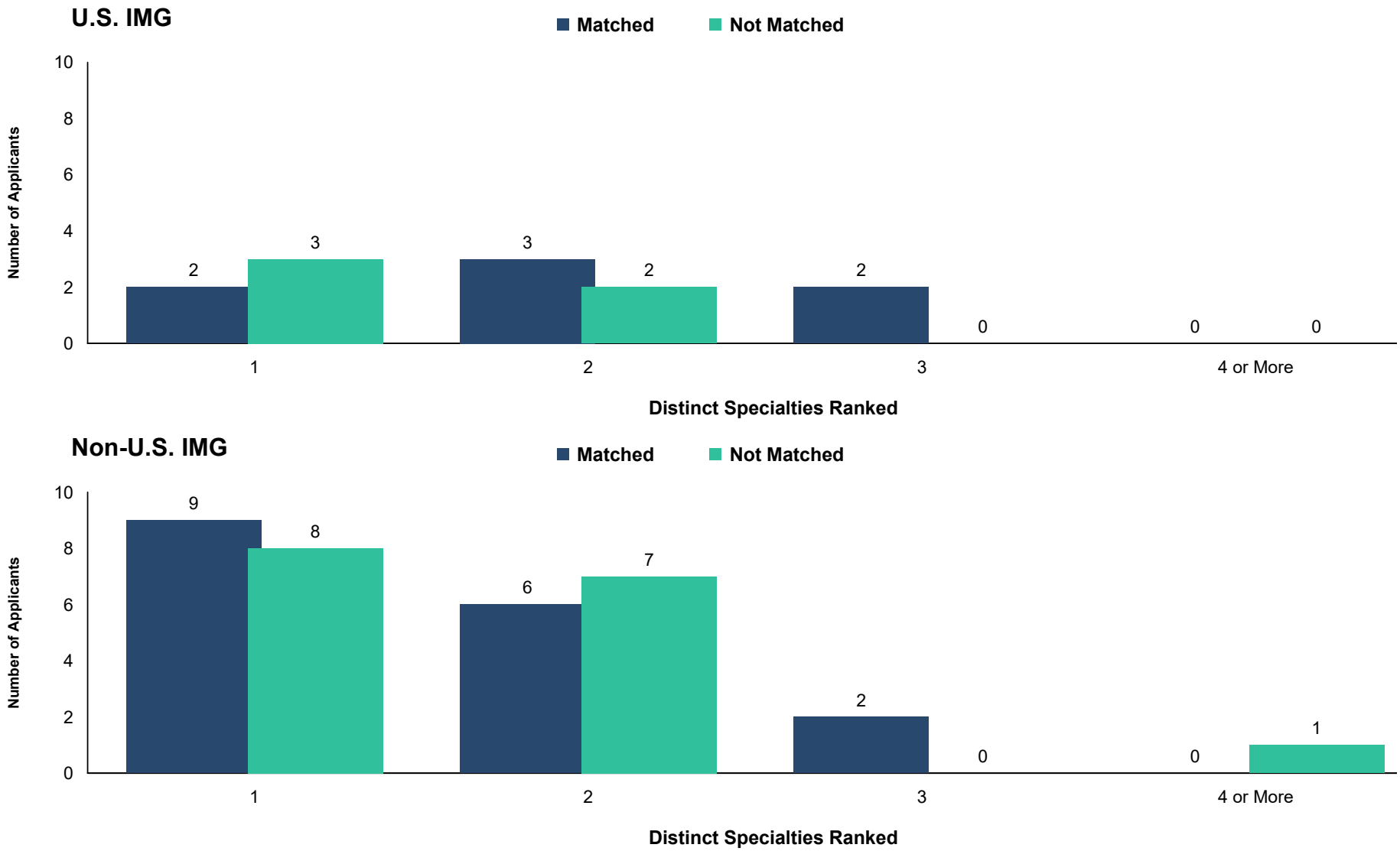
CN Child Neurology

Table CN-1 Summary Statistics
Child Neurology

Measure	U.S. IMGs		Non-U.S. IMGs	
	Matched (n=7)	Unmatched (n=6)	Matched (n=17)	Unmatched (n=16)
1. Mean number of contiguous ranks	7.9	2.2	4.4	1.8
2. Mean number of distinct specialties ranked	2.0	2.0	1.6	1.6
3. Mean USMLE Step 1 score	223	213	230	223
4. Mean USMLE Step 2 score	236	224	238	224
5. Mean number of research experiences	1.8	3.0	2.5	2.5
6. Mean number of abstracts, presentations, and publications	2.0	4.7	8.8	5.8
7. Mean number of work experiences	1.6	2.8	6.7	6.8
8. Mean number of volunteer experiences	3.6	4.2	4.3	3.8
9. Percentage who have a Ph.D. degree	0.0	0.0	0.0	0.0
10. Percentage who have another graduate degree	33.3	0.0	23.1	33.3

Note: Only applicants who gave consent to use their information in research are included.
Source. NRMP Data Warehouse

Chart CN-1 Number of Distinct Specialties Ranked by International Medical Graduates

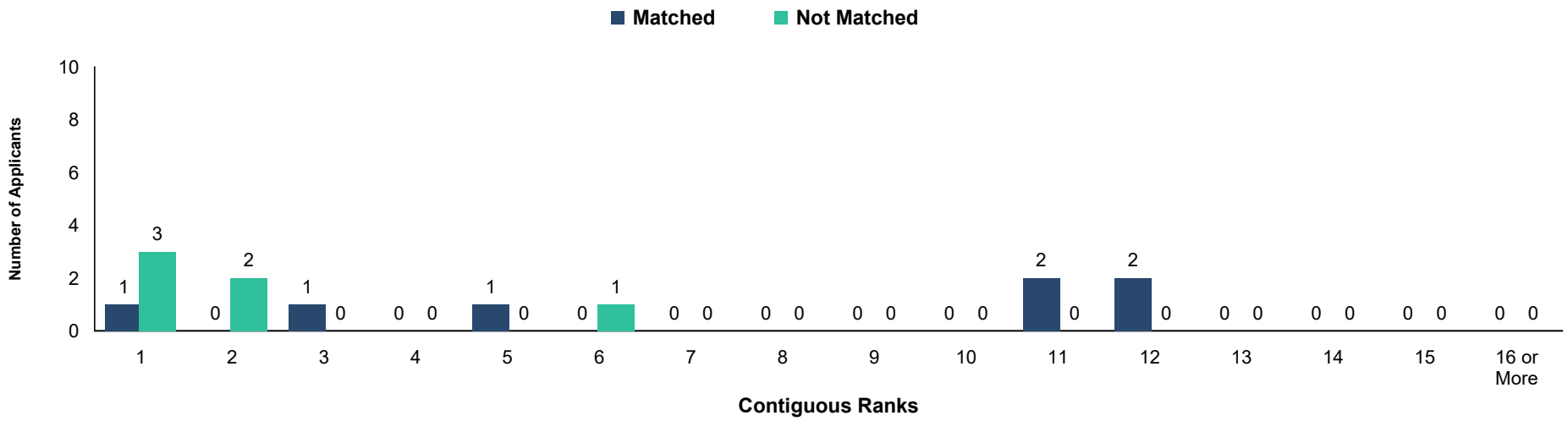


Source: NRMP Data Warehouse

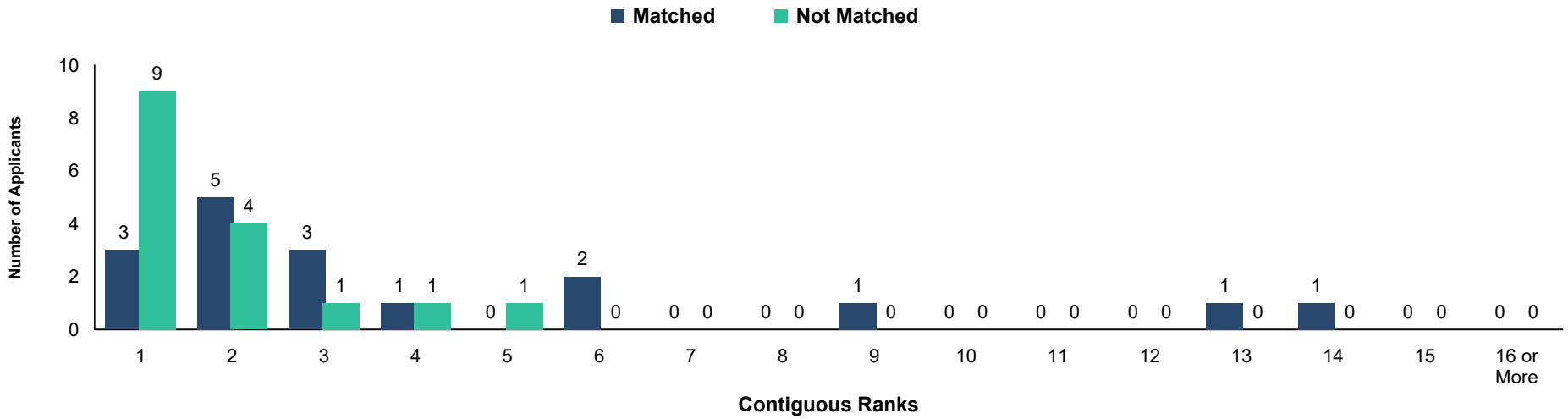
Chart CN-2

Number of Contiguous Ranks of International Medical Graduates

U.S. IMG



Non-U.S. IMG

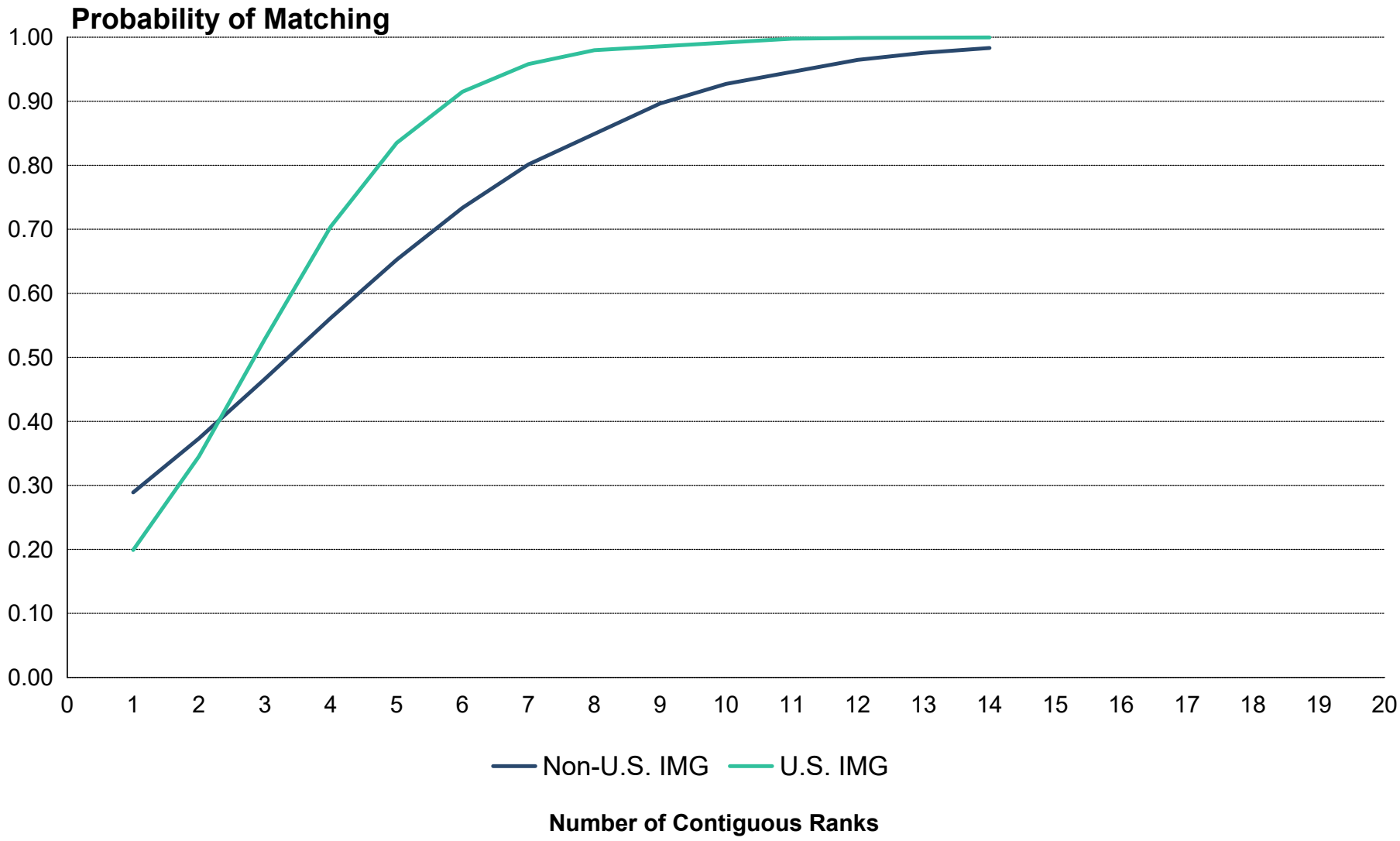


Source: NRMP Data Warehouse

Graph CN-1

Probability of International Medical Graduates Matching to Preferred Specialty by Number of Contiguous Ranks

Child Neurology



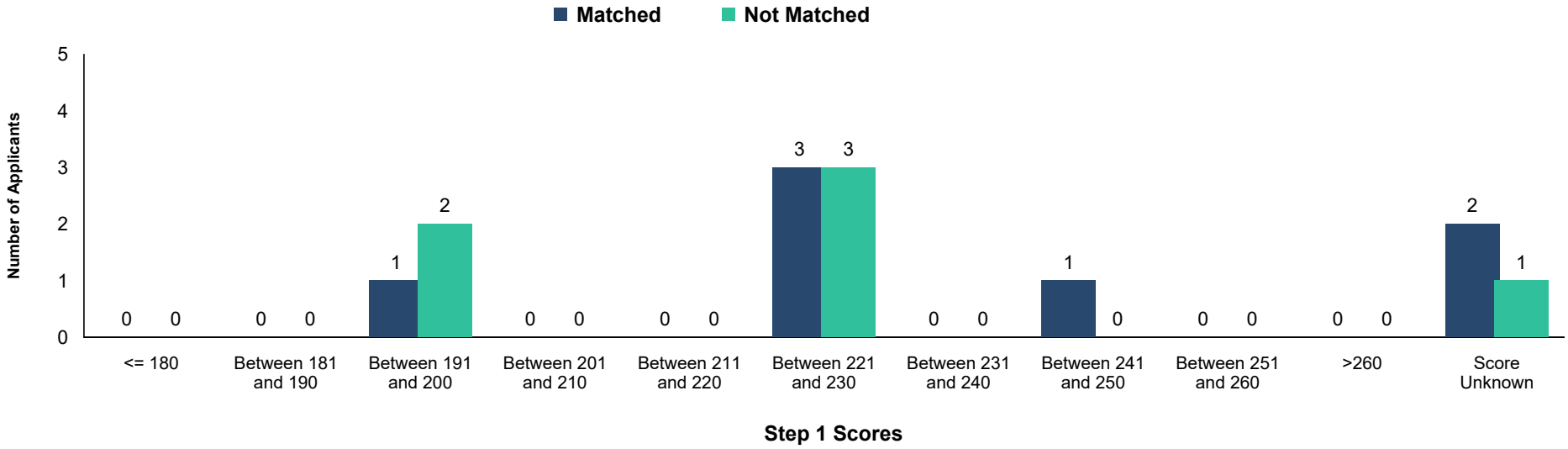
Source: NRMP Data Warehouse. Note: Probabilities calculated based on 2014-2016 applicants

Chart CN-3

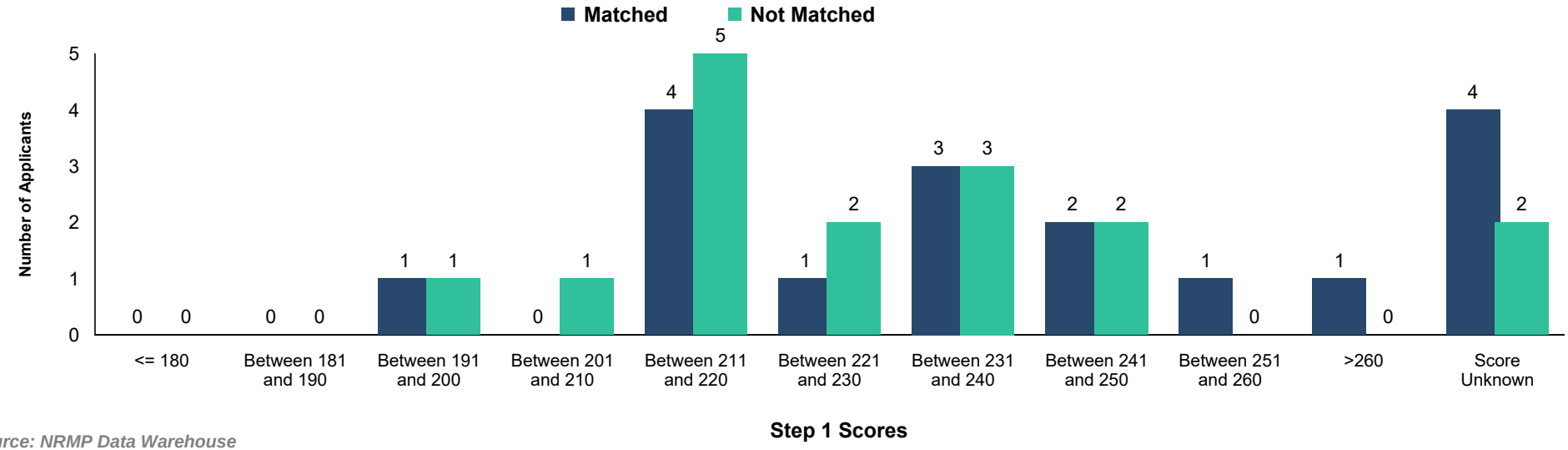
USMLE Step 1 Scores of International Medical Graduates

Child Neurology

U.S. IMG



Non-U.S. IMG

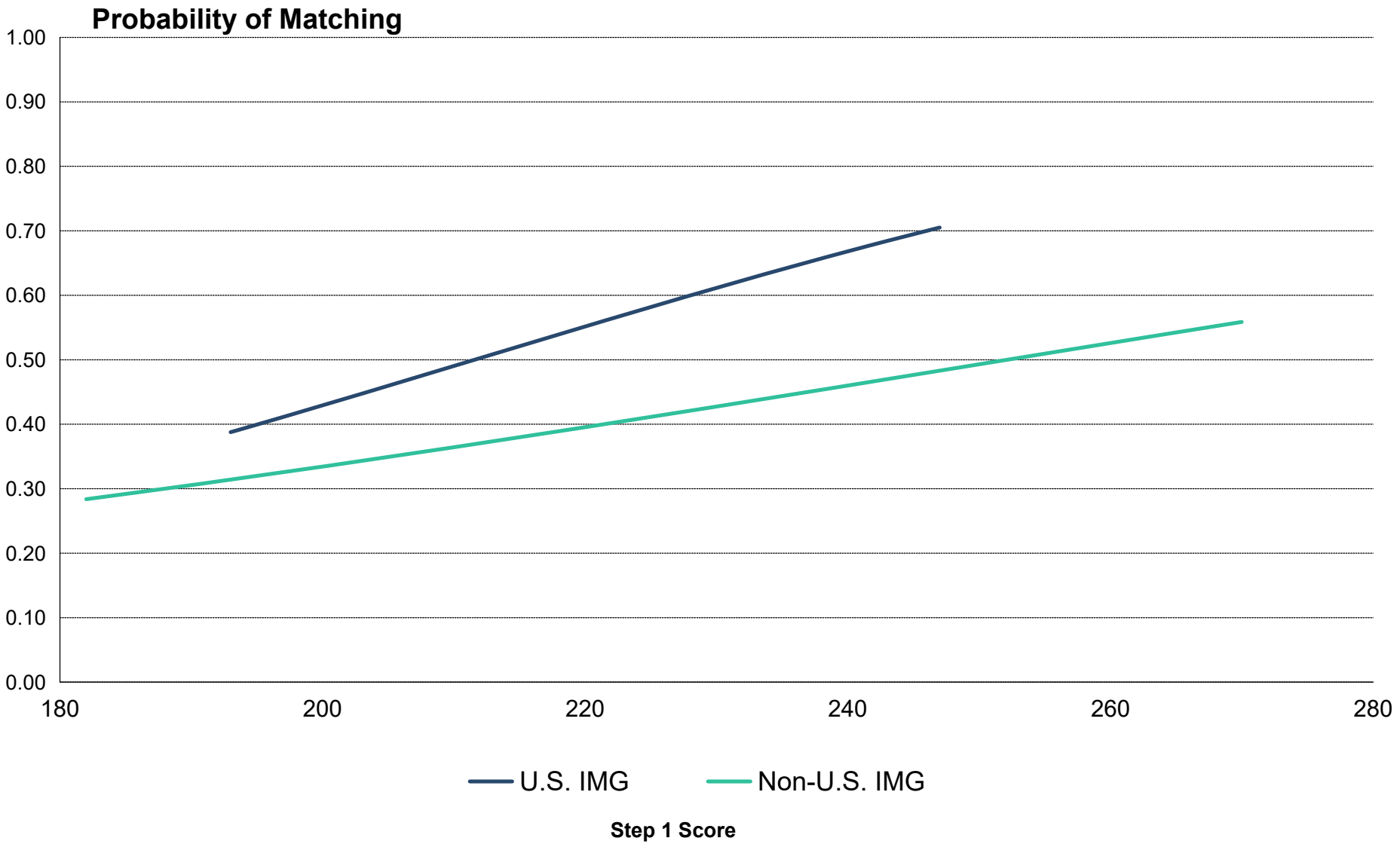


Source: NRMP Data Warehouse

Graph CN-2

Probability of International Medical Graduates Matching to Preferred Specialty by USMLE Step 1 Score

Child Neurology

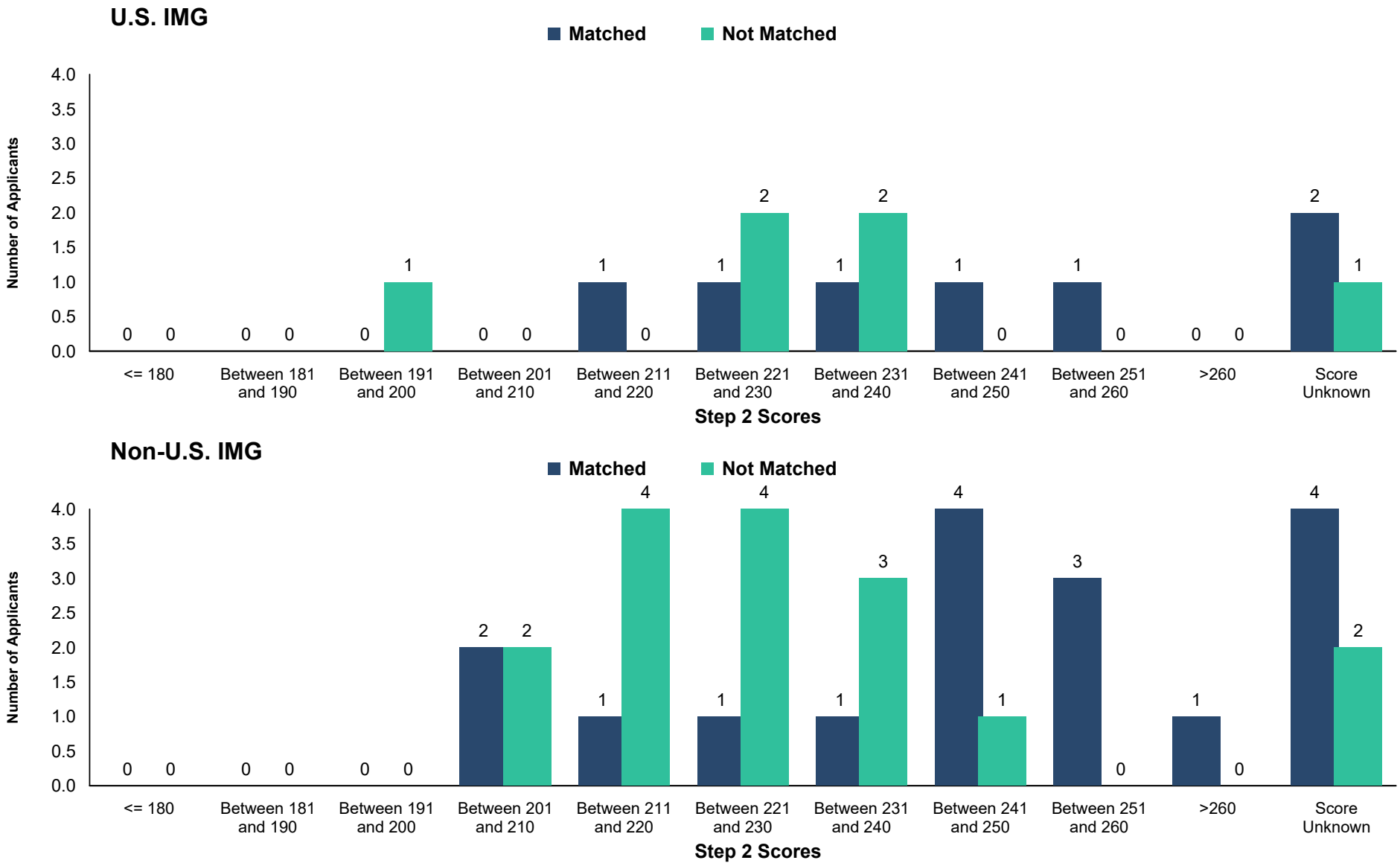


Source: NRMP Data Warehouse. Note: Probabilities calculated based on 2014-2016 applicants.

Chart CN-4

USMLE Step 2 CK Scores of International Medical Graduates

Child Neurology

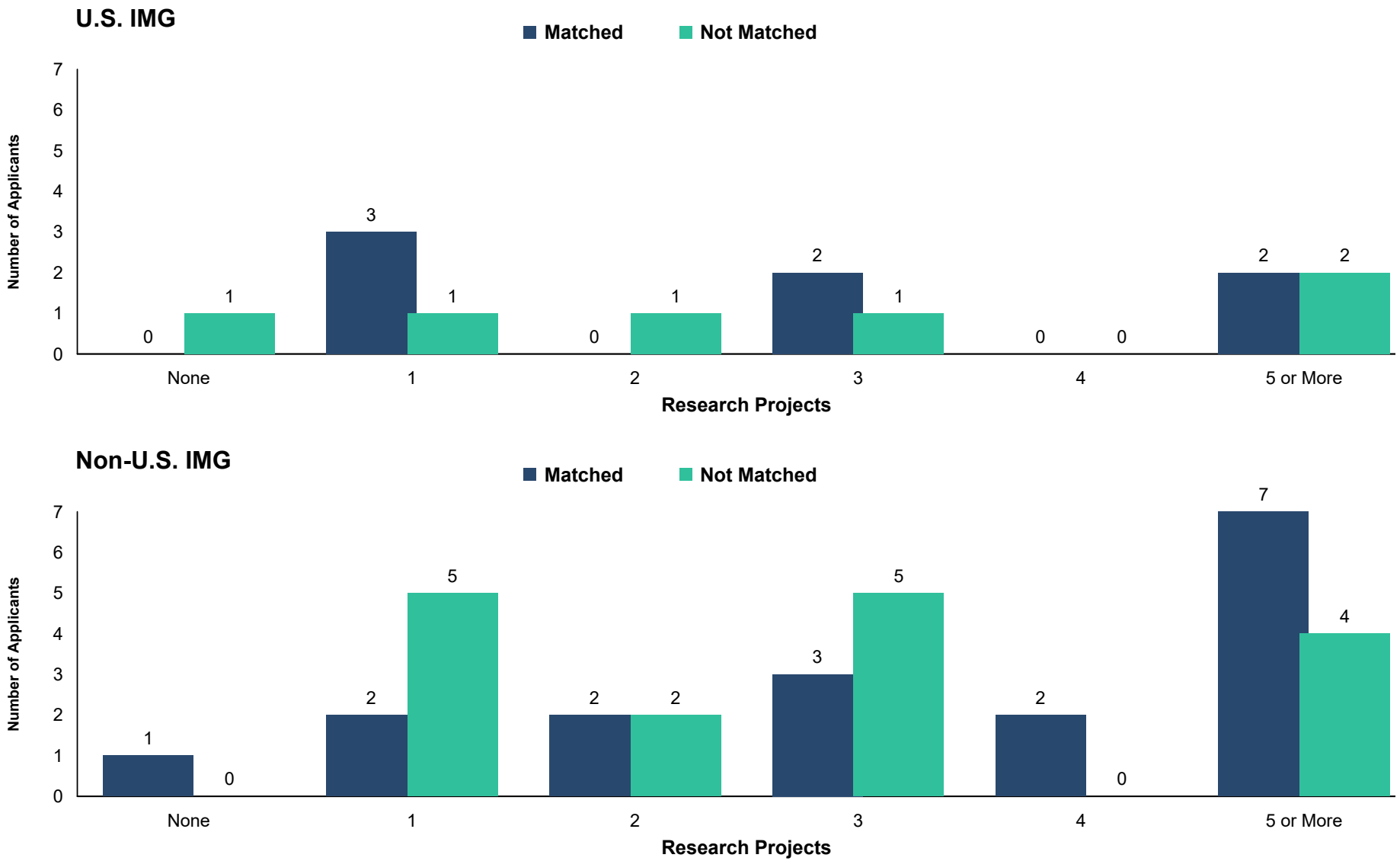


Source: NRMP Data Warehouse

Chart CN-5

Number of Research Projects of International Medical Graduates

Child Neurology

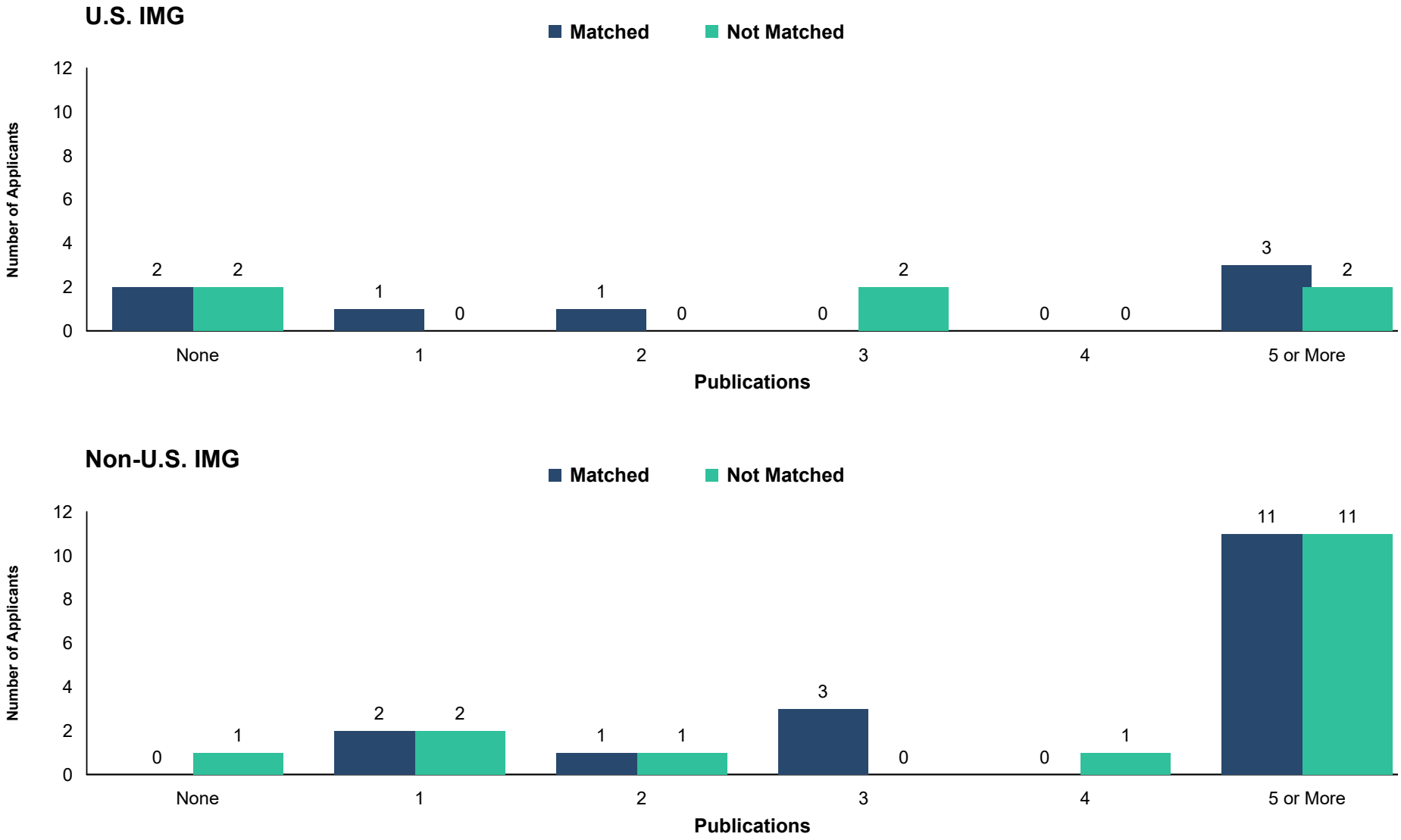


Source: NRMP Data Warehouse

Chart CN-6

Number of Abstracts, Presentations, and Publications of International Medical Graduates

Child Neurology

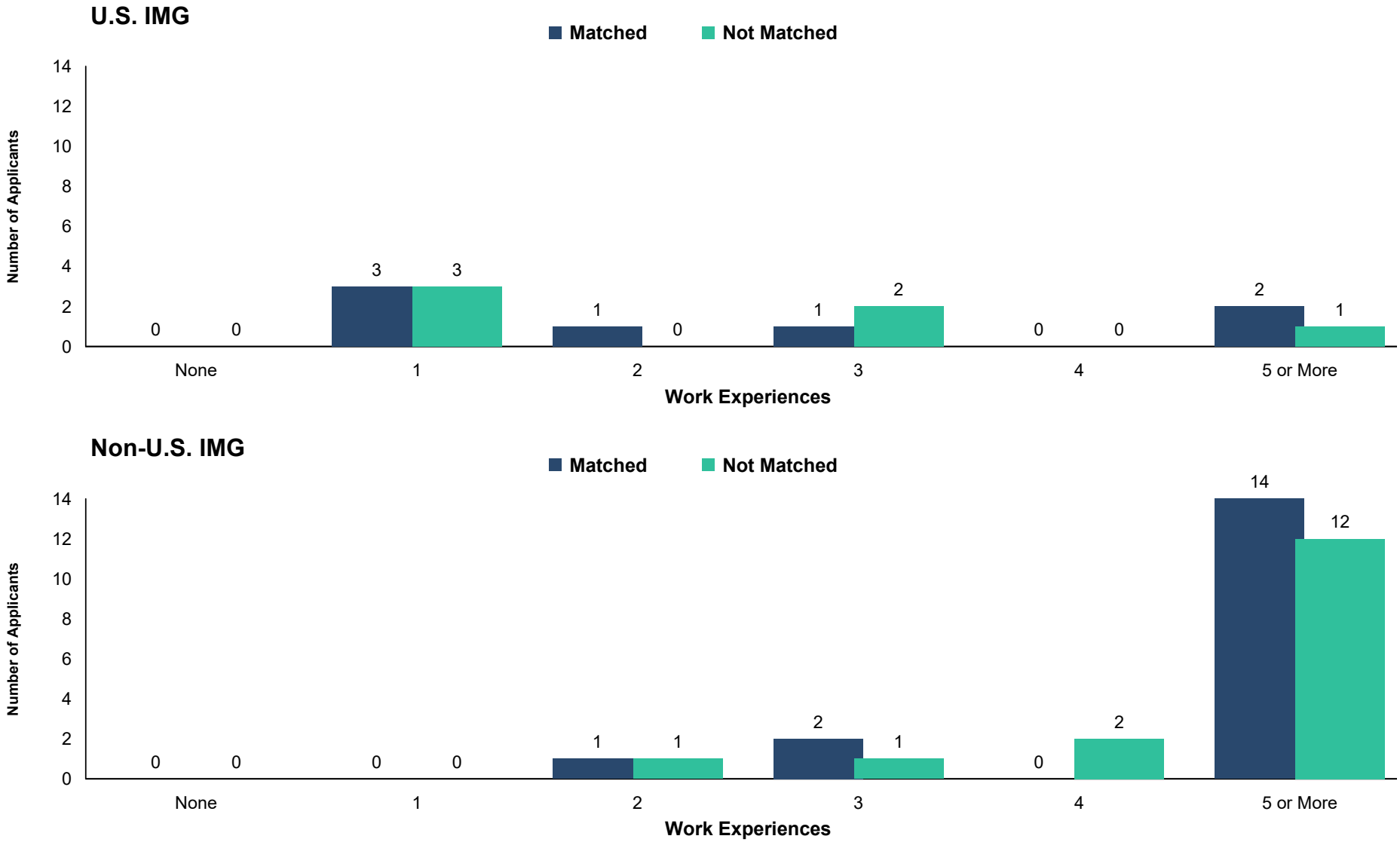


Source: NRMP Data Warehouse

Chart CN-7

Number of Work Experiences of International Medical Graduates

Child Neurology

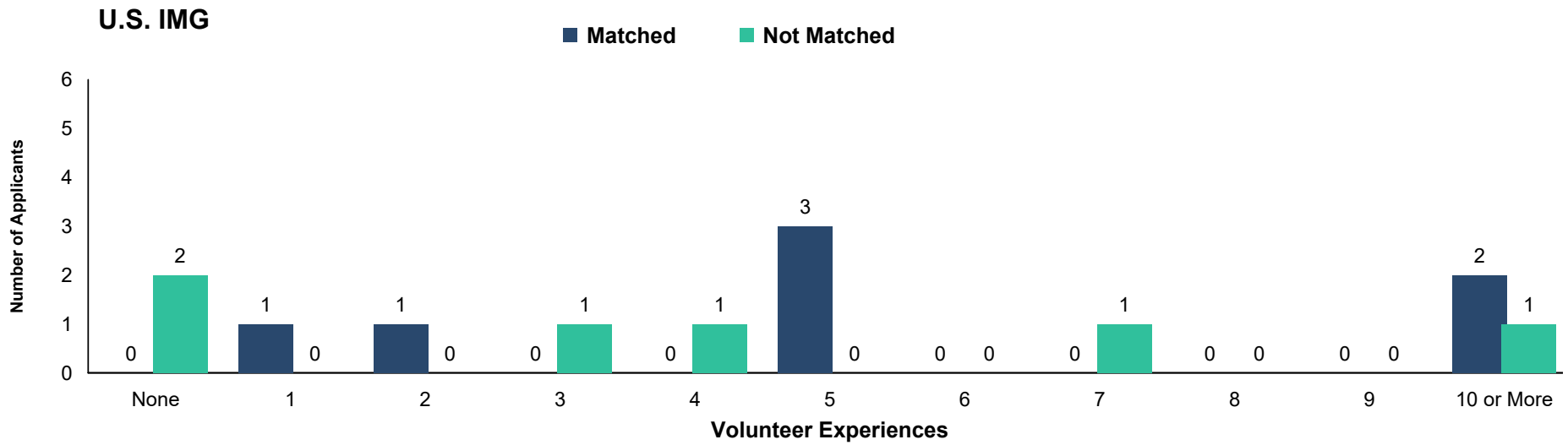


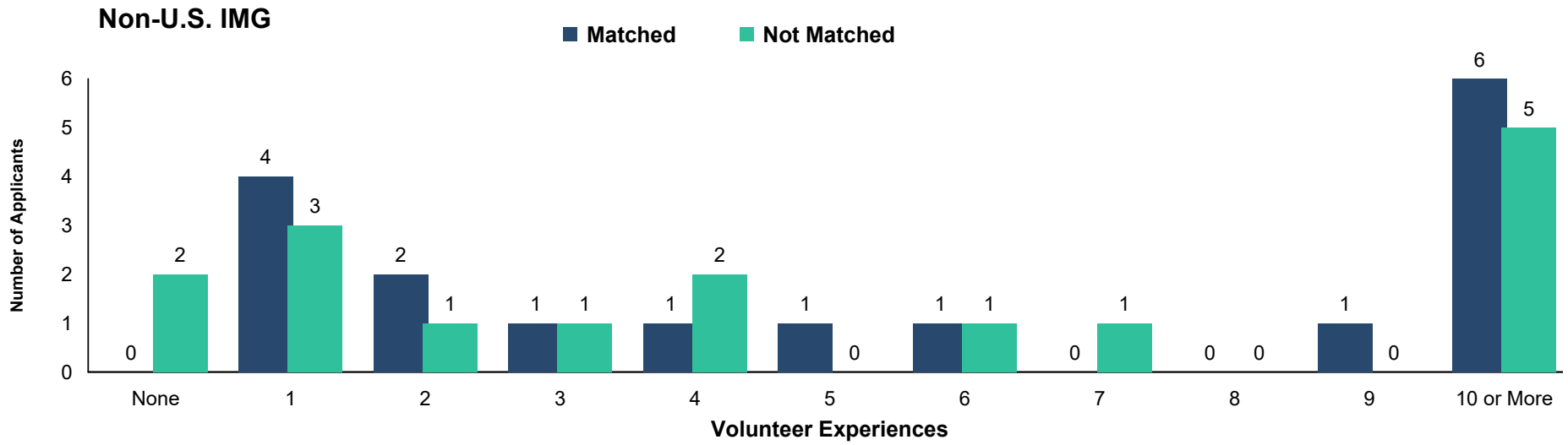
Source: NRMP Data Warehouse

Chart CN-8

Number of Volunteer Experiences of International Medical Graduates

Child Neurology



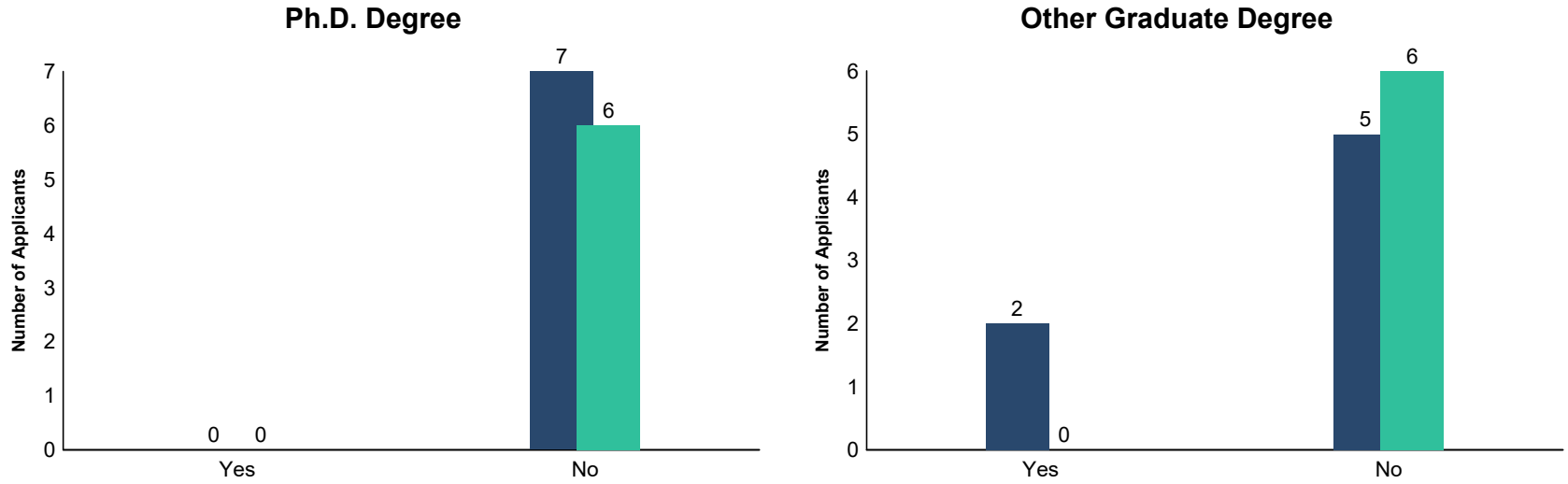


Source: NRMP Data Warehouse

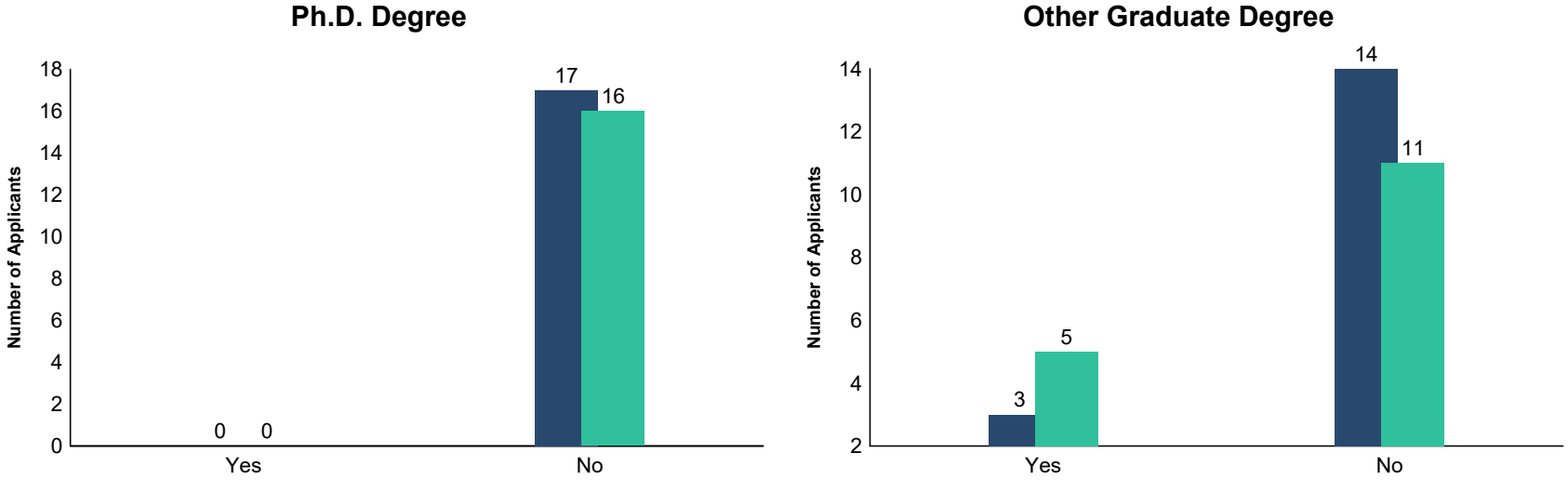
Chart CN-9 Other Characteristics of International Medical Graduates

Child Neurology

U.S. IMG



Non-U.S. IMG



Source: NRMP Data Warehouse

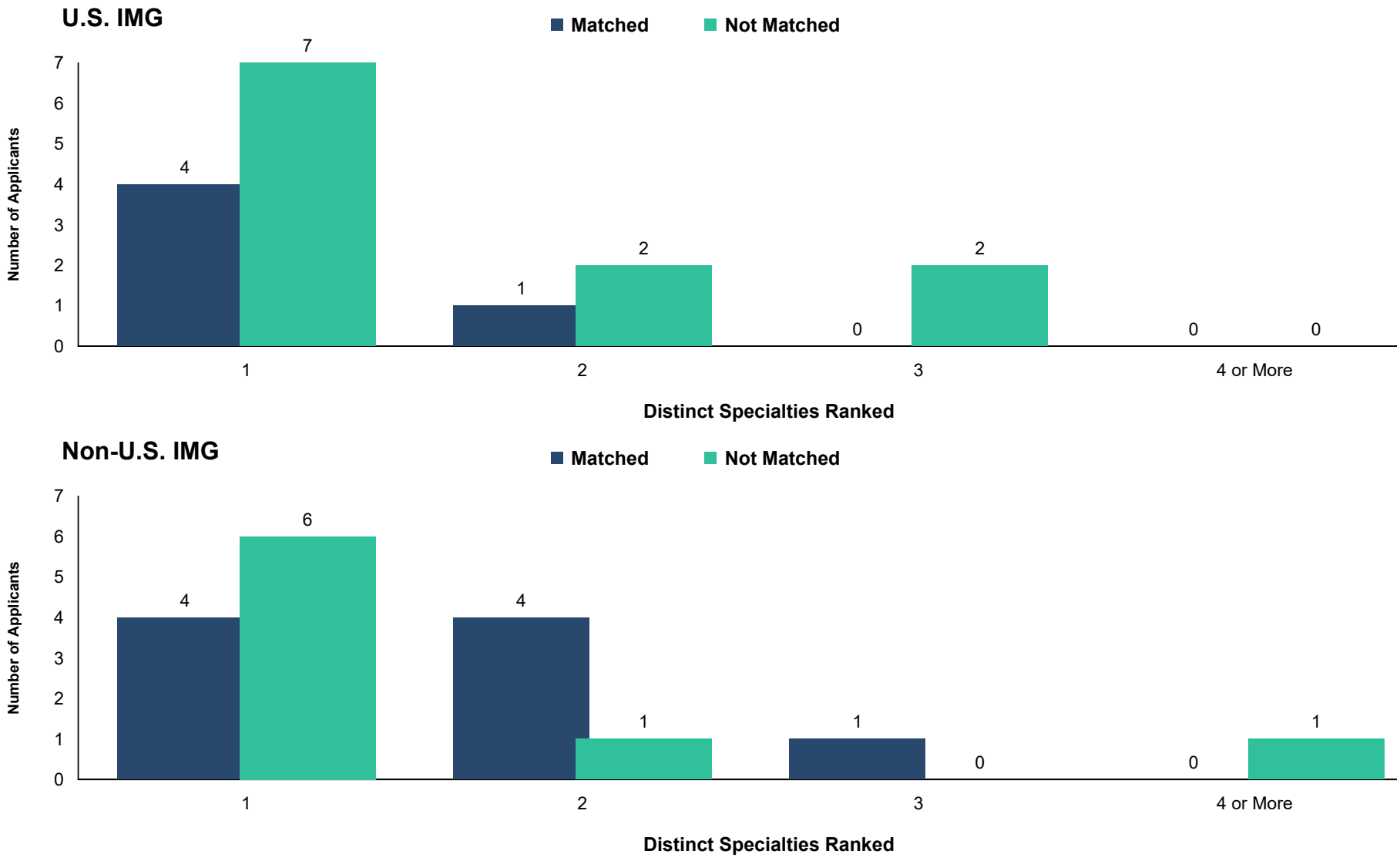
DM Dermatology

Table DM-1 Summary Statistics
Dermatology

Measure	U.S. IMGs		Non-U.S. IMGs	
	Matched (n=5)	Unmatched (n=12)	Matched (n=9)	Unmatched (n=8)
1. Mean number of contiguous ranks	2.6	1.4	2.1	3.6
2. Mean number of distinct specialties ranked	1.2	2.2	1.7	1.5
3. Mean USMLE Step 1 score	236	226	238	227
4. Mean USMLE Step 2 score	232	236	242	233
5. Mean number of research experiences	16.8	3.5	2.3	6.7
6. Mean number of abstracts, presentations, and publications	16.5	11.4	25.0	33.5
7. Mean number of work experiences	5.3	6.6	2.8	6.7
8. Mean number of volunteer experiences	3.5	3.0	6.2	2.8
9. Percentage who have a Ph.D. degree	0.0	25.0	12.5	42.9
10. Percentage who have another graduate degree	0.0	37.5	25.0	42.9

Note: Only applicants who gave consent to use their information in research are included.
Source. NRMP Data Warehouse

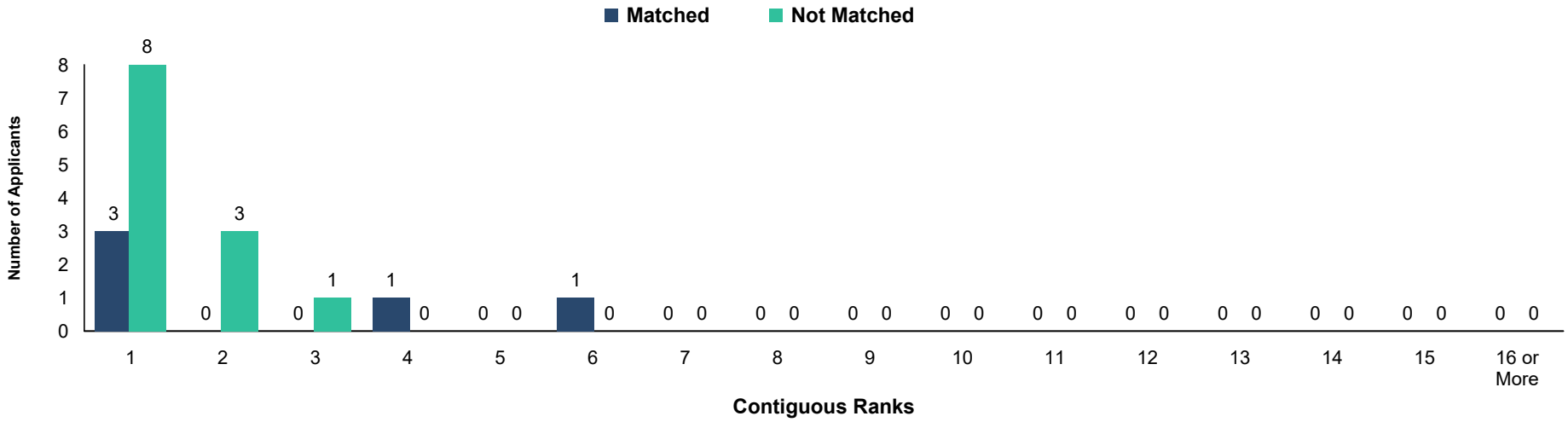
Chart DM-1 Number of Distinct Specialties Ranked by International Medical Graduates



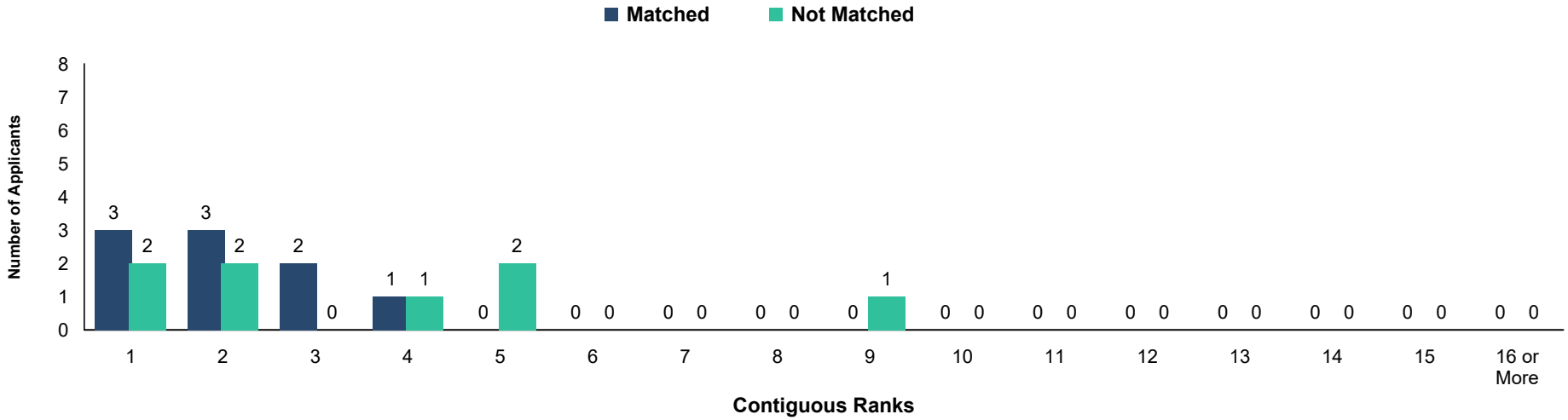
Source: NRMP Data Warehouse

Chart DM-2 Number of Contiguous Ranks of International Medical Graduates

U.S. IMG



Non-U.S. IMG

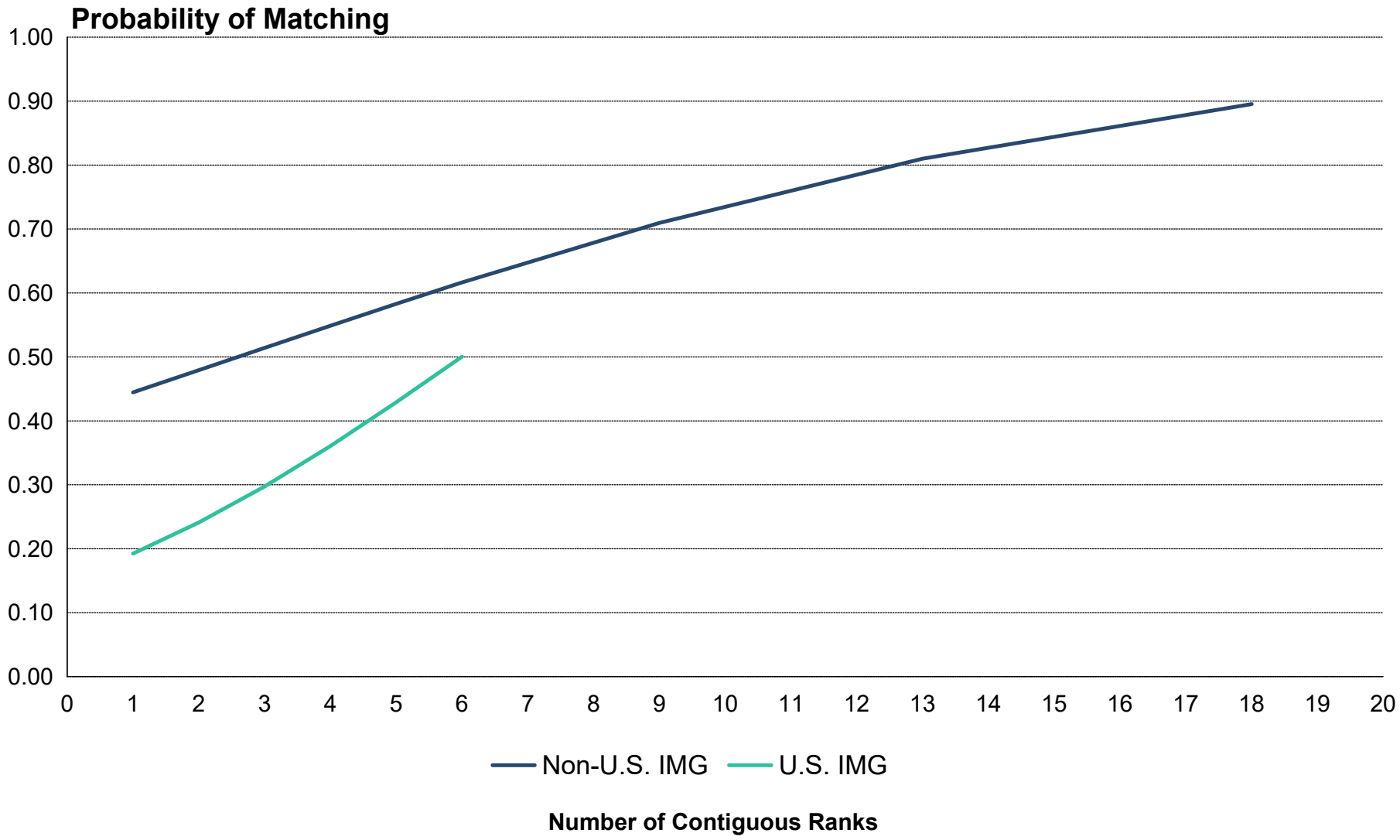


Source: NRMP Data Warehouse

Graph DM-1

Probability of International Medical Graduates Matching to Preferred Specialty by Number of Contiguous Ranks

Dermatology



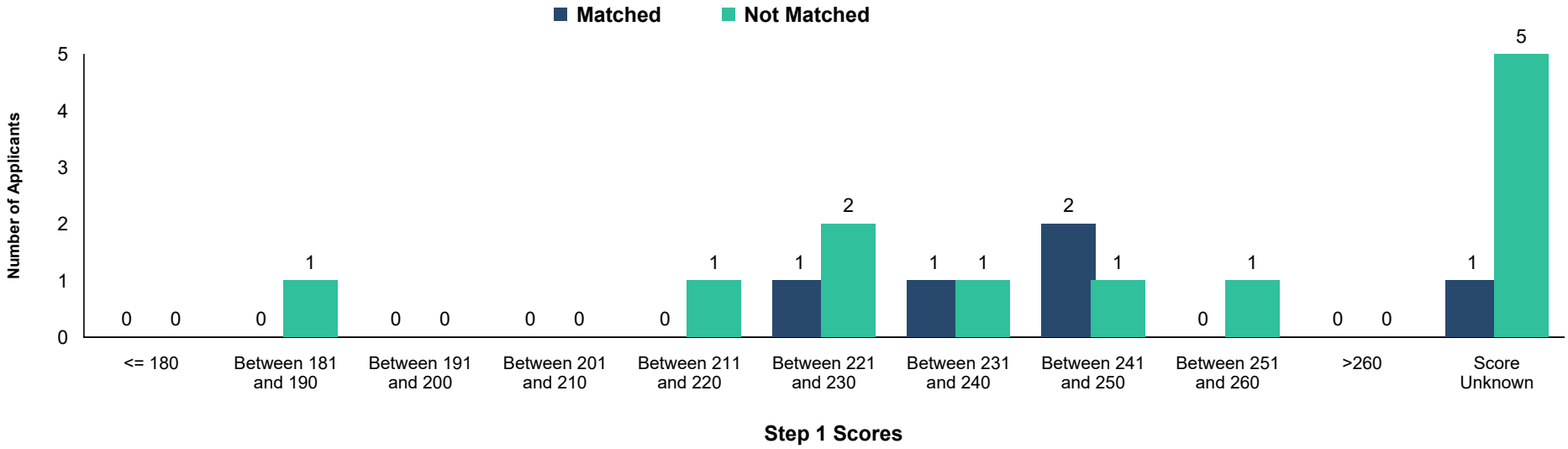
Source: NRMP Data Warehouse. Note: Probabilities calculated based on 2014-2016 applicants

Chart DM-3

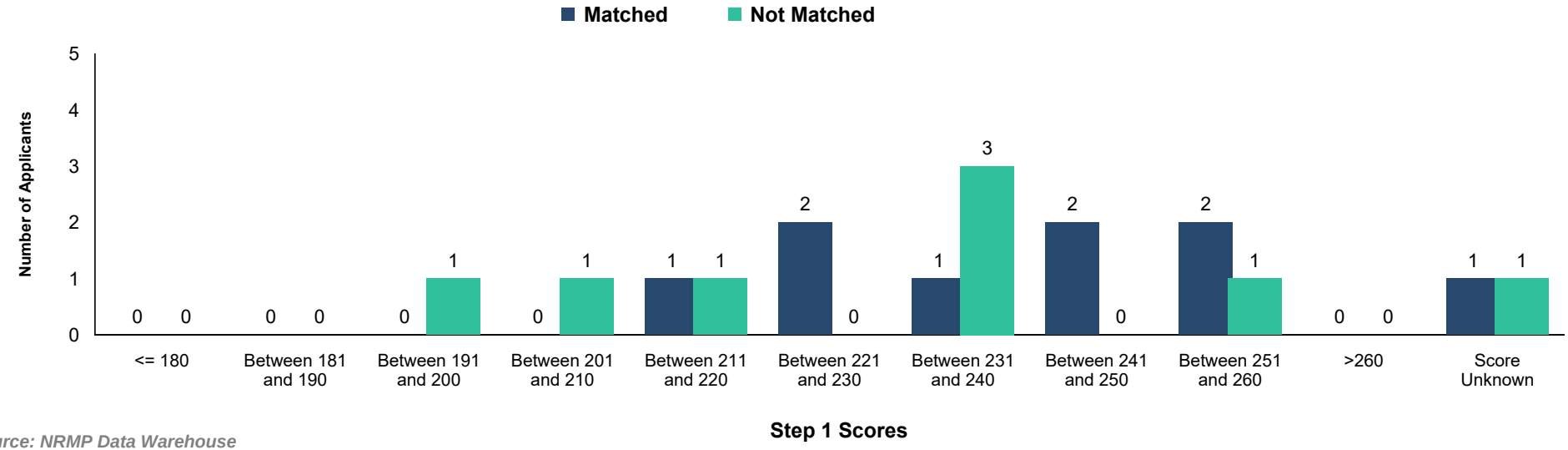
USMLE Step 1 Scores of International Medical Graduates

Dermatology

U.S. IMG



Non-U.S. IMG

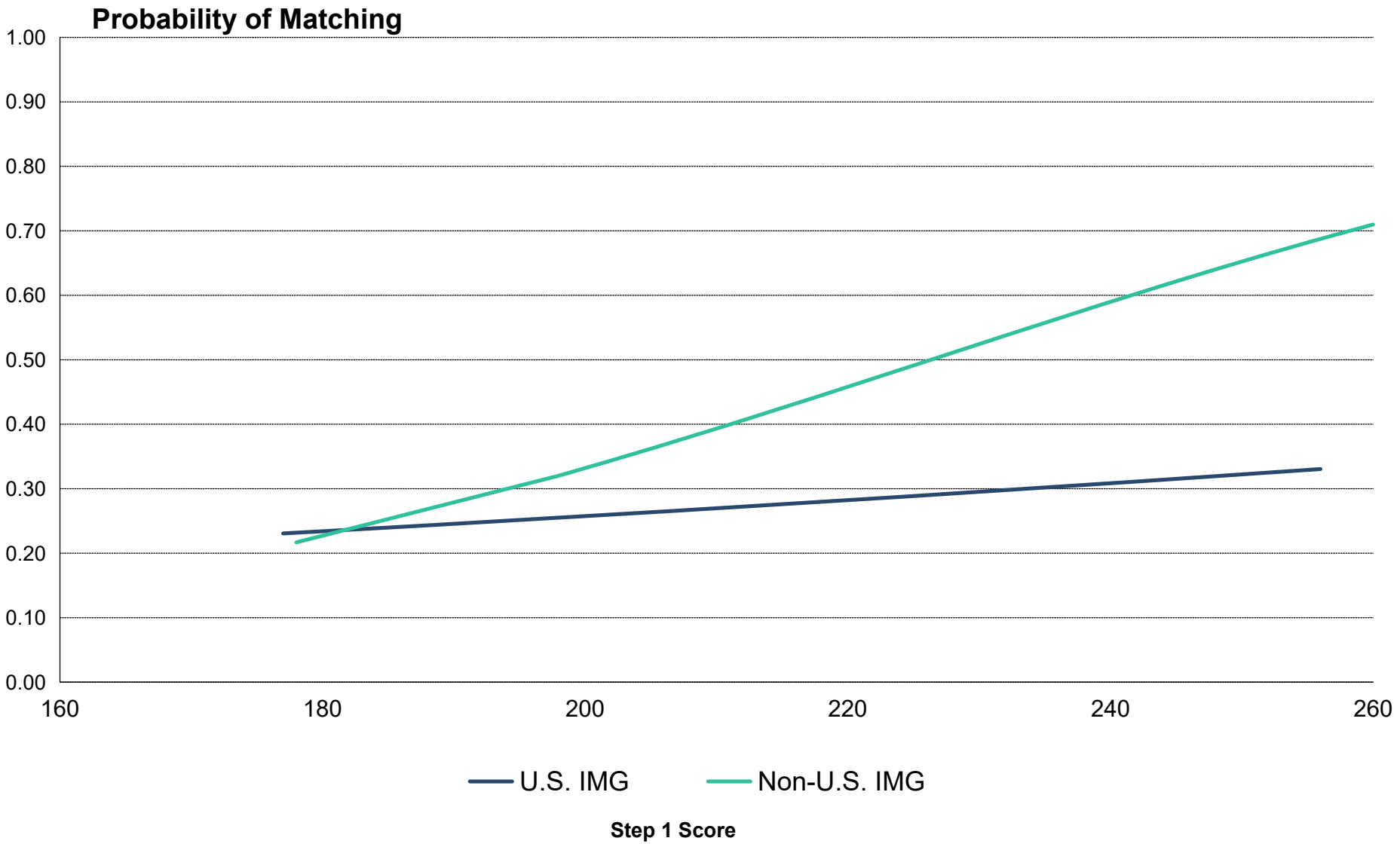


Source: NRMP Data Warehouse

Graph DM-2

Probability of International Medical Graduates Matching to Preferred Specialty by USMLE Step 1 Score

Dermatology

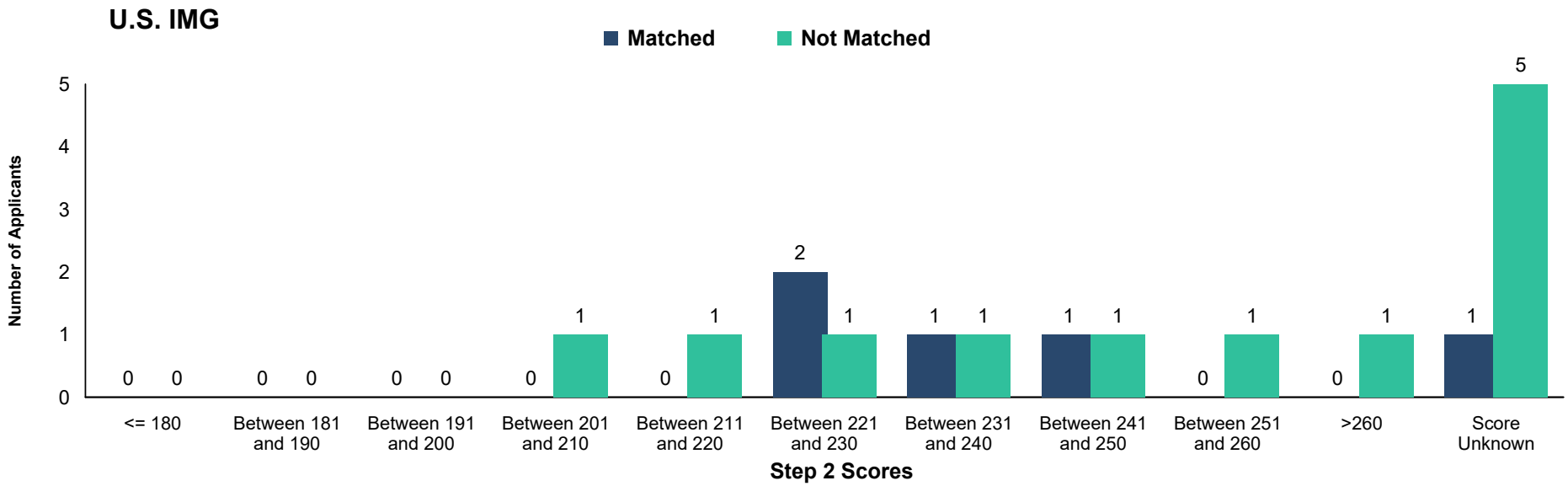


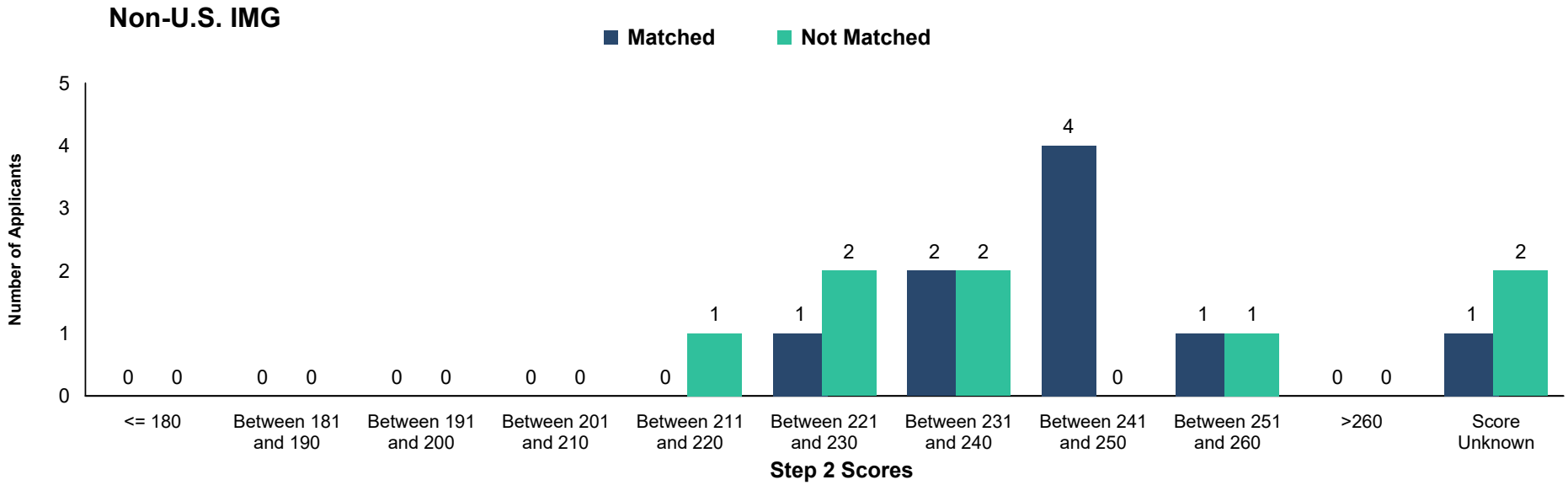
Source: NRMP Data Warehouse. Note: Probabilities calculated based on 2014-2016 applicants.

Chart DM-4

USMLE Step 2 CK Scores of International Medical Graduates

Dermatology



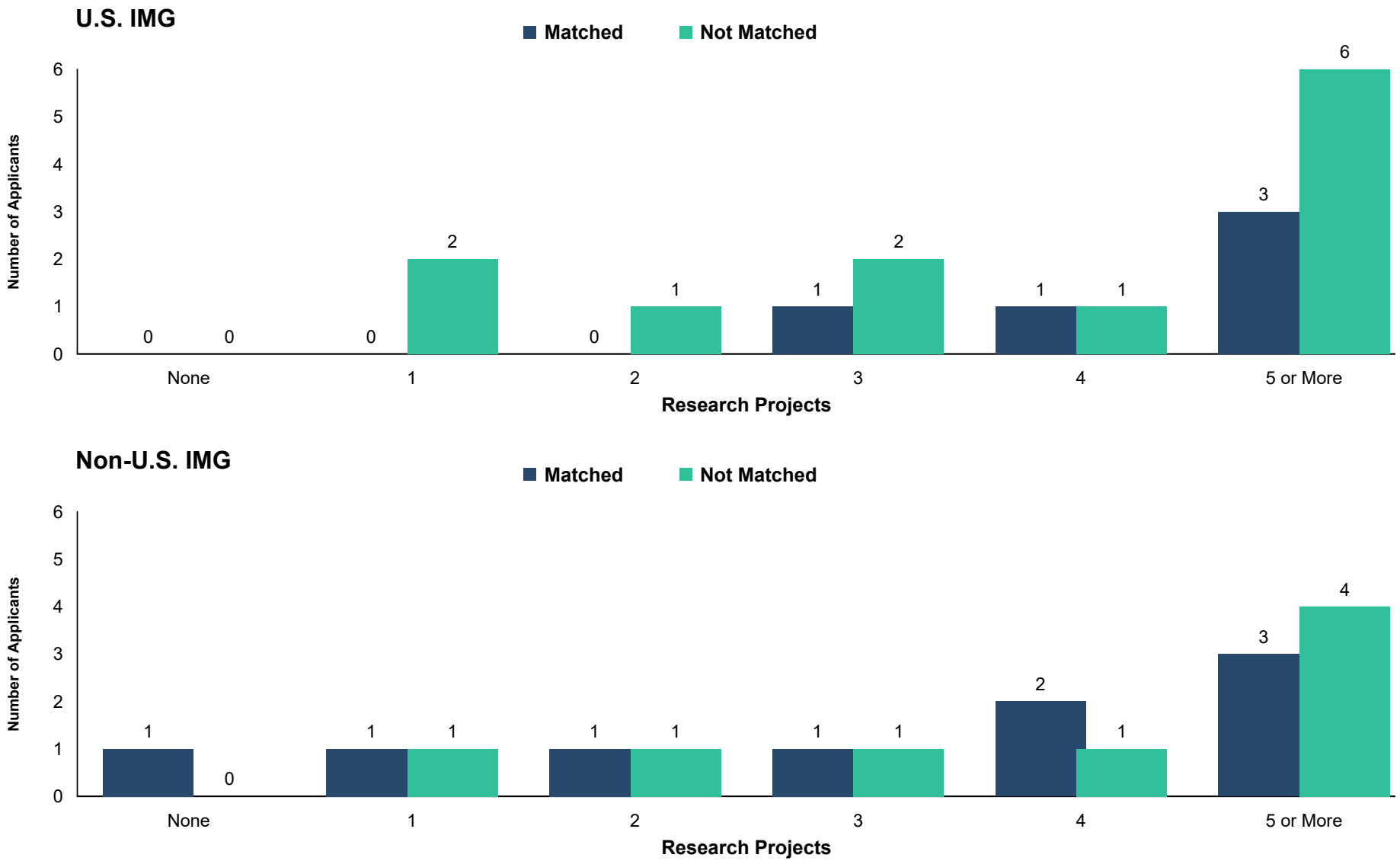


Source: NRMP Data Warehouse

Chart DM-5

Number of Research Projects of International Medical Graduates

Dermatology

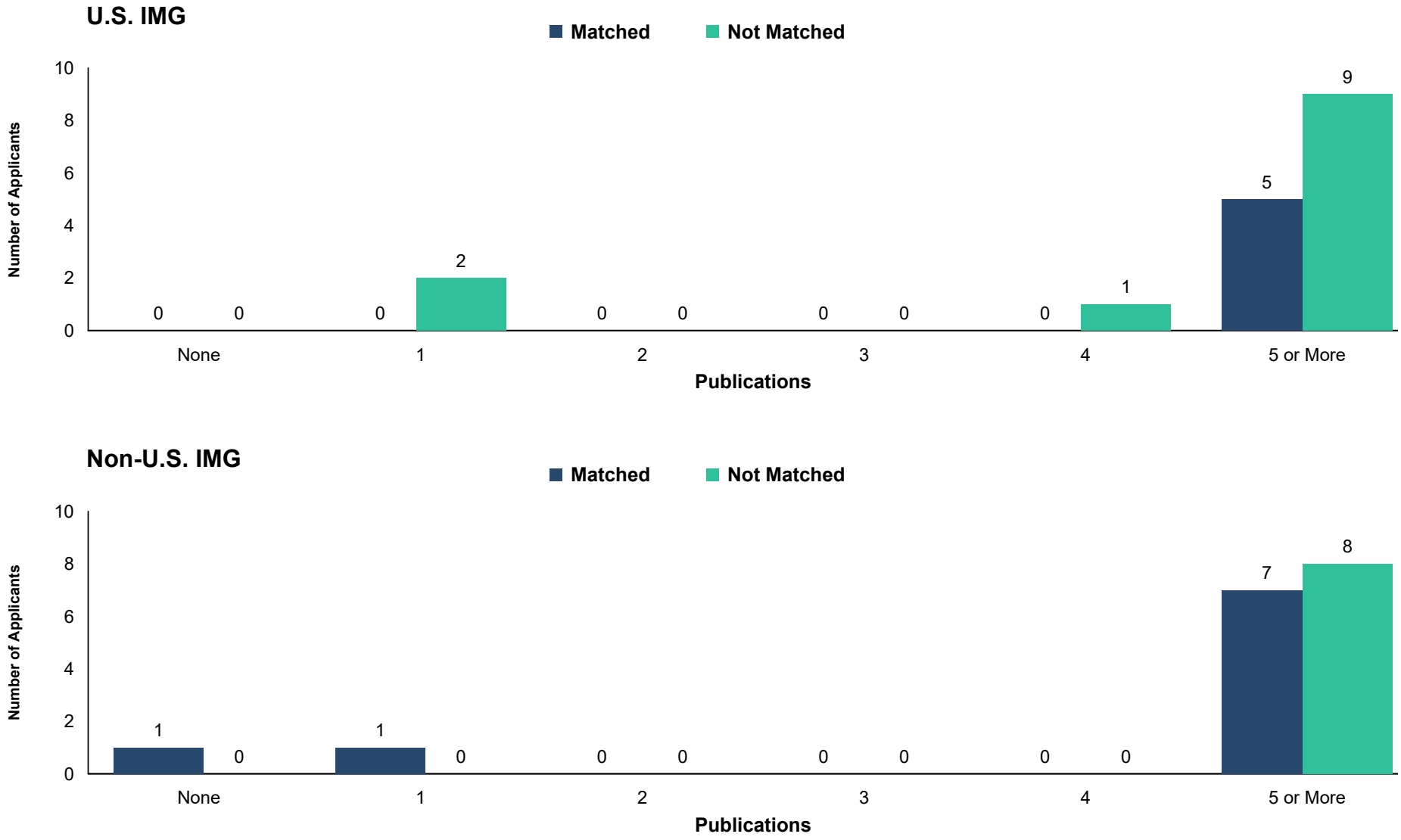


Source: NRMP Data Warehouse

Chart DM-6

Number of Abstracts, Presentations, and Publications of International Medical Graduates

Dermatology

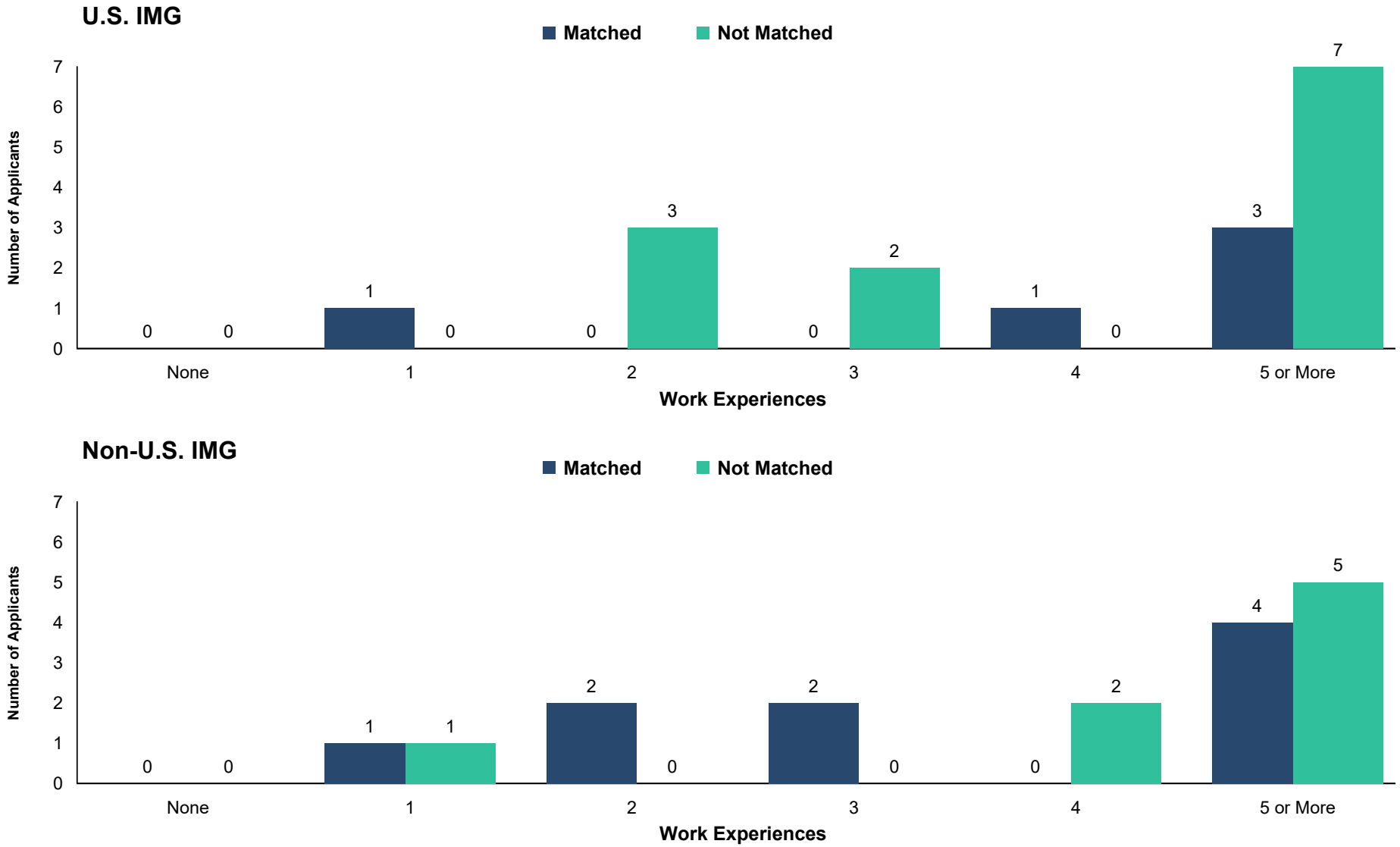


Source: NRMP Data Warehouse

Chart DM-7

Number of Work Experiences of International Medical Graduates

Dermatology

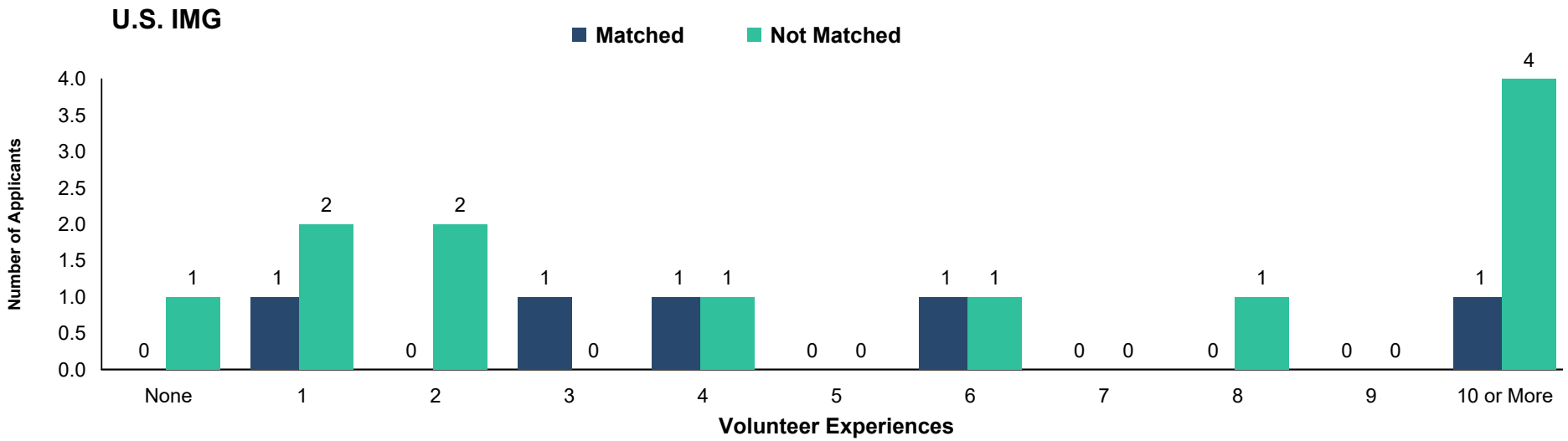


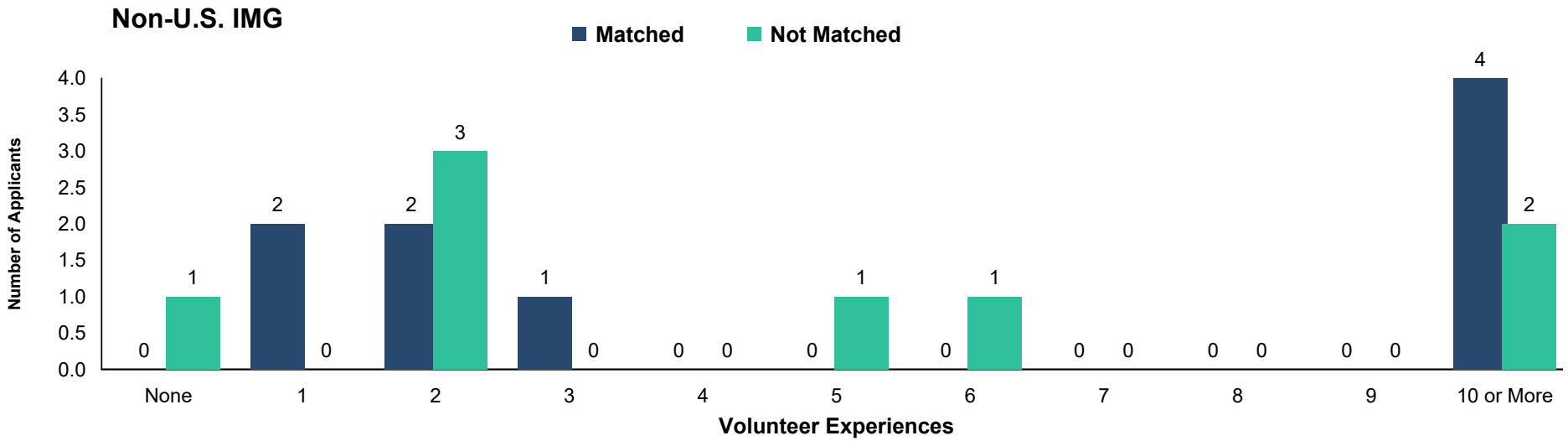
Source: NRMP Data Warehouse

Chart DM-8

Number of Volunteer Experiences of International Medical Graduates

Dermatology



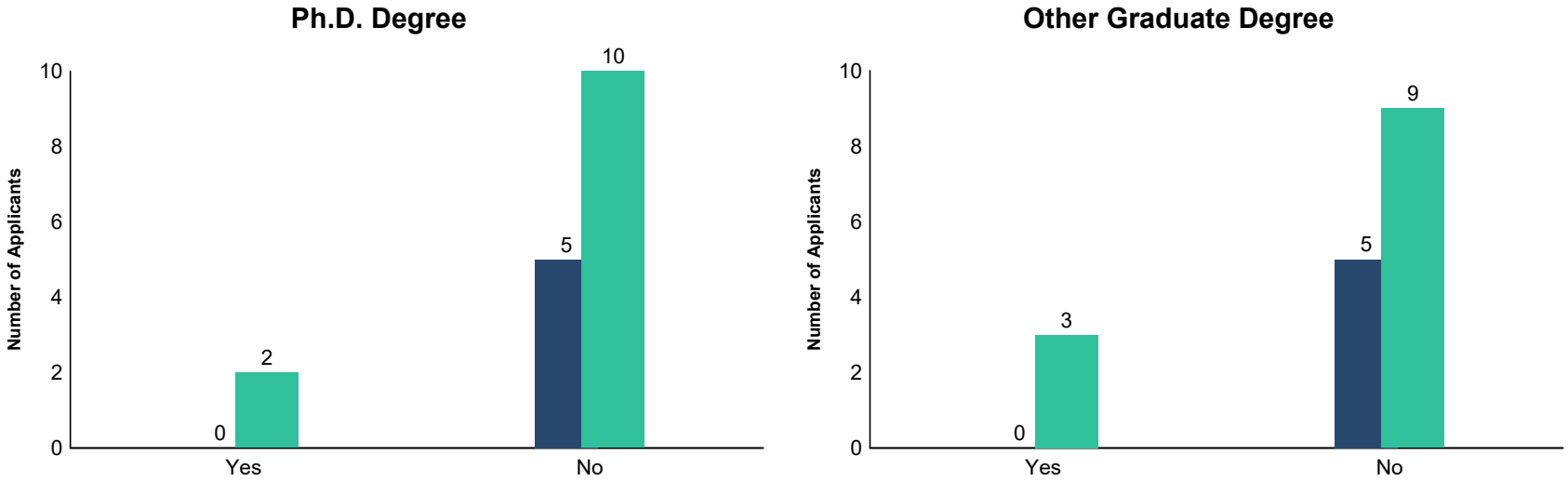


Source: NRMP Data Warehouse

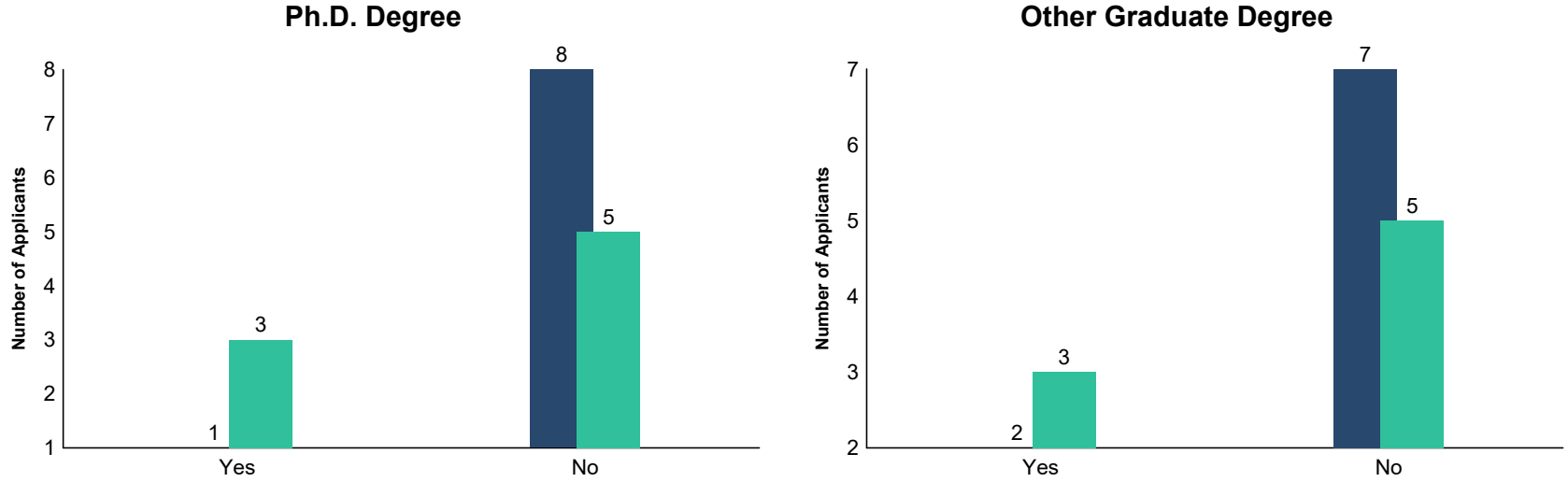
Chart DM-9 Other Characteristics of International Medical Graduates

Dermatology

U.S. IMG



Non-U.S. IMG



Source: NRMP Data Warehouse

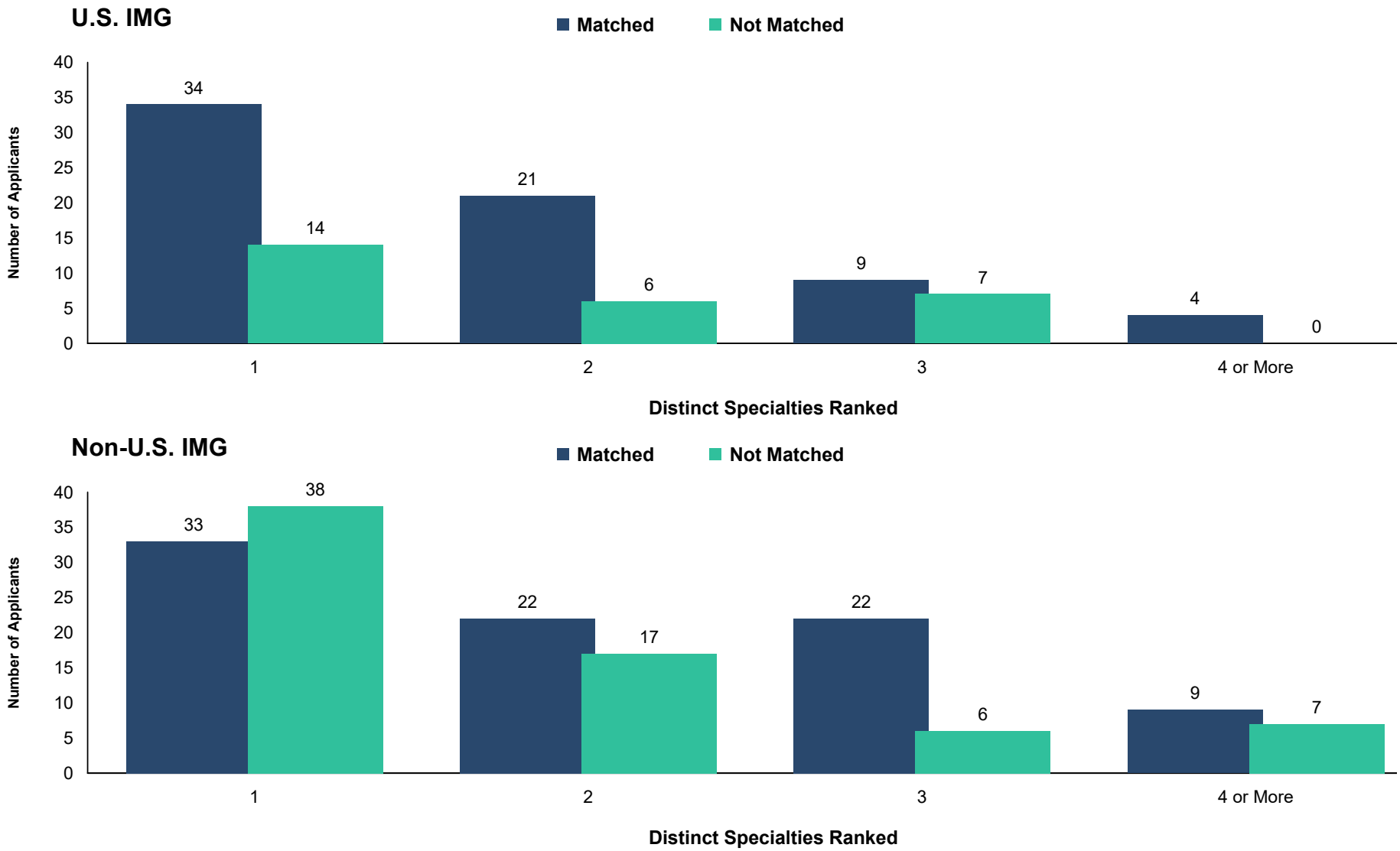
DR Diagnostic Radiology

Table DR-1 Summary Statistics
Diagnostic Radiology

Measure	U.S. IMGs		Non-U.S. IMGs	
	Matched (n=69)	Unmatched (n=31)	Matched (n=89)	Unmatched (n=71)
1. Mean number of contiguous ranks	10.1	2.4	5.9	2.3
2. Mean number of distinct specialties ranked	1.8	2.2	2.2	1.9
3. Mean USMLE Step 1 score	238	222	239	233
4. Mean USMLE Step 2 score	242	222	242	236
5. Mean number of research experiences	1.9	7.4	2.6	3.0
6. Mean number of abstracts, presentations, and publications	3.8	6.1	14.2	8.3
7. Mean number of work experiences	3.1	4.1	3.9	4.6
8. Mean number of volunteer experiences	3.0	3.5	2.8	2.9
9. Percentage who have a Ph.D. degree	0.0	4.3	6.3	8.6
10. Percentage who have another graduate degree	19.0	27.3	25.0	32.8

Note: Only applicants who gave consent to use their information in research are included.
Source. NRMP Data Warehouse

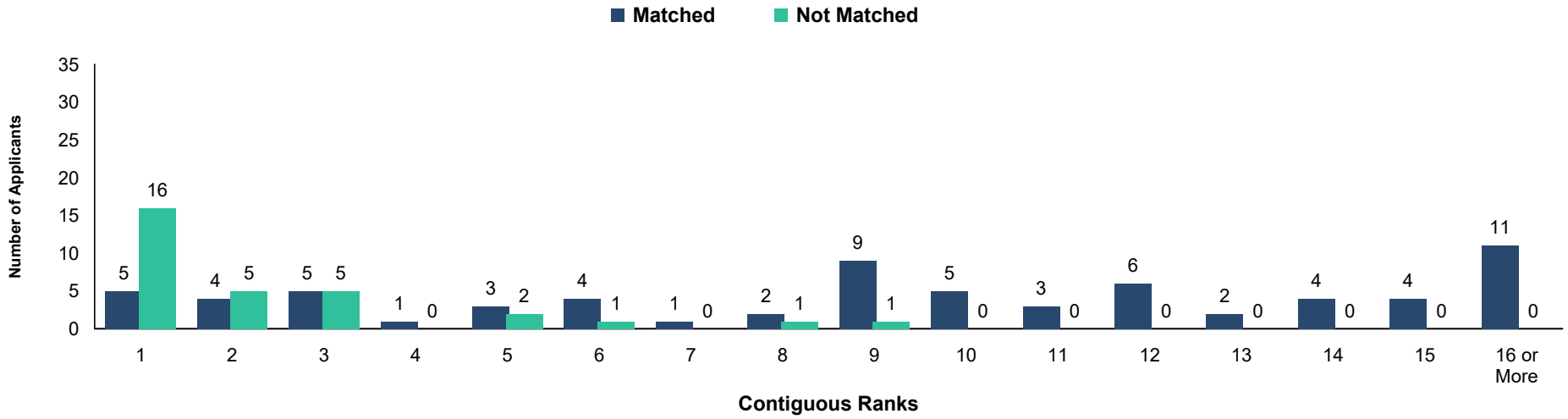
Chart DR-1 Number of Distinct Specialties Ranked by International Medical Graduates



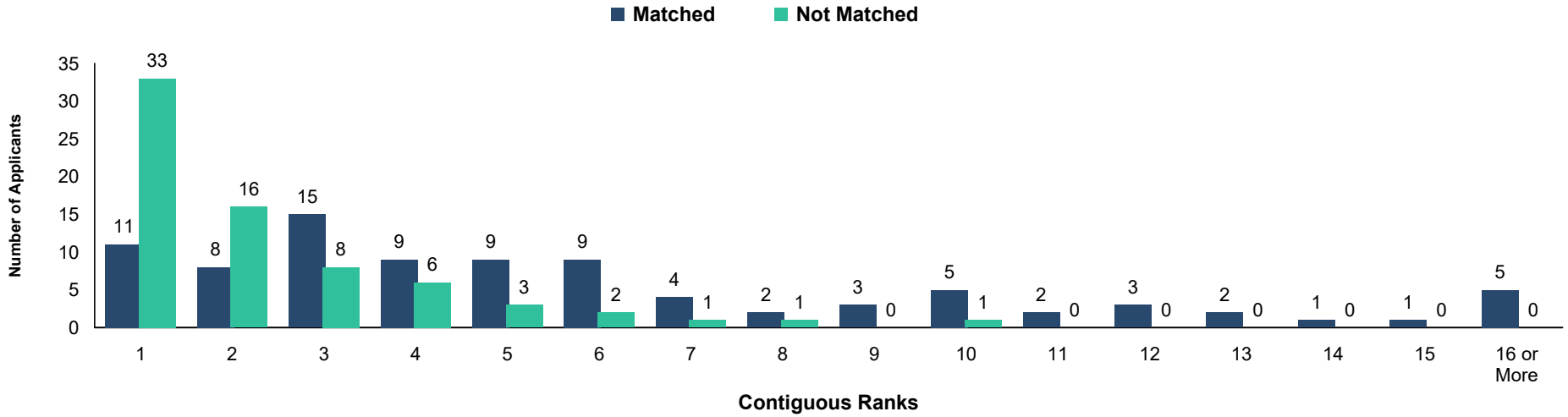
Source: NRMP Data Warehouse

Chart DR-2 Number of Contiguous Ranks of International Medical Graduates

U.S. IMG



Non-U.S. IMG

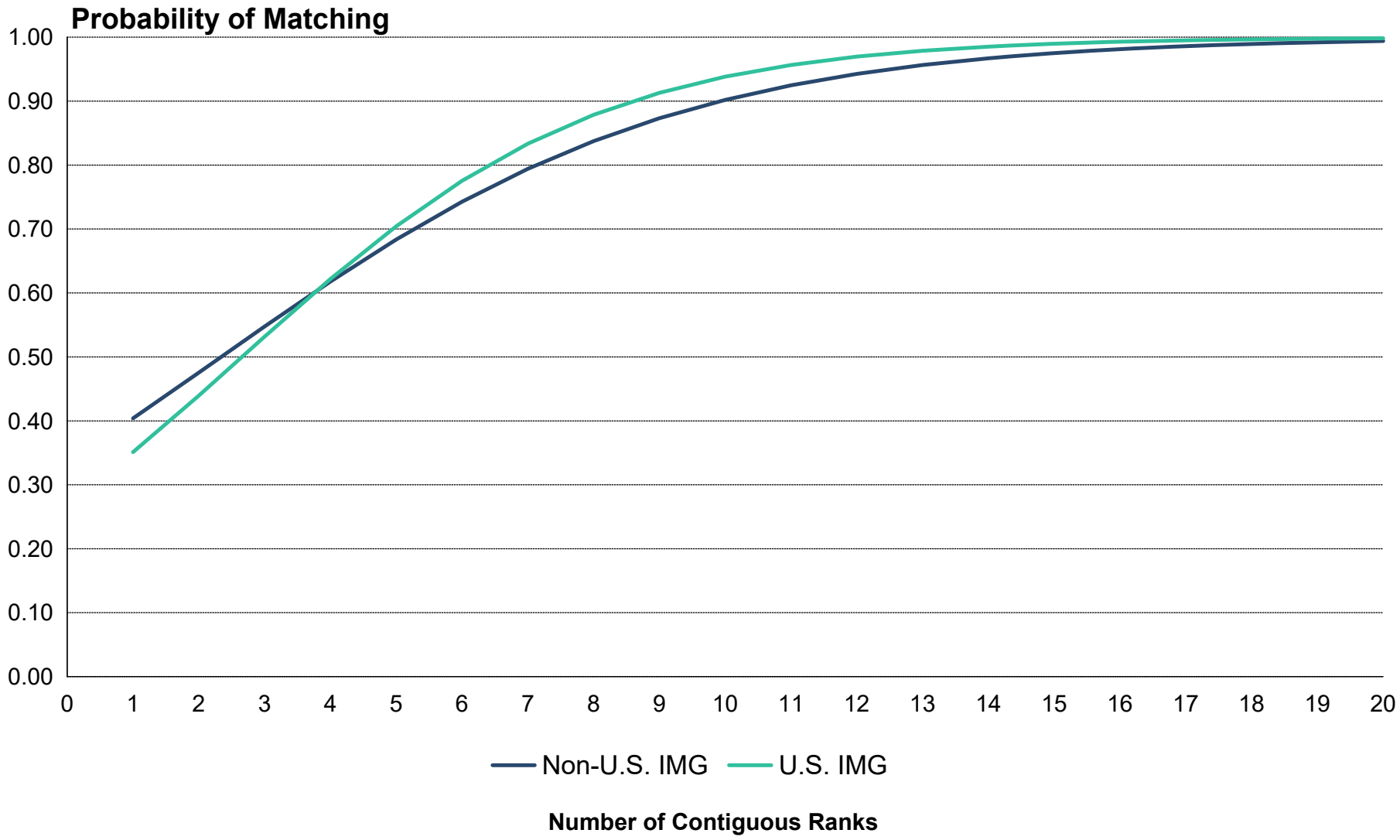


Source: NRMP Data Warehouse

Graph DR-1

Probability of International Medical Graduates Matching to Preferred Specialty by Number of Contiguous Ranks

Diagnostic Radiology

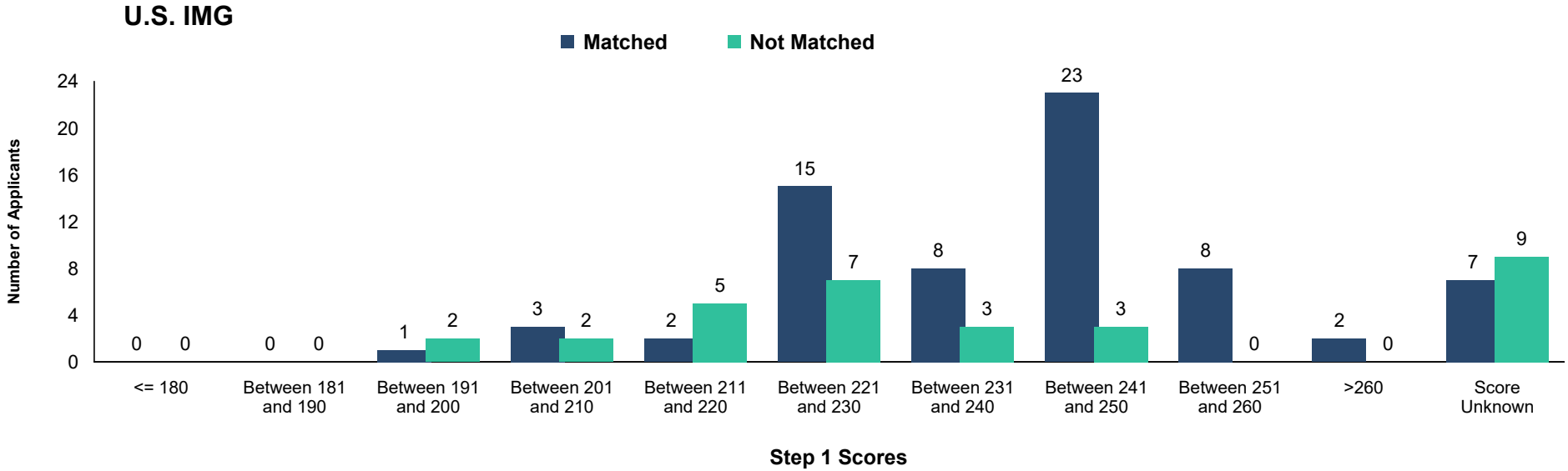


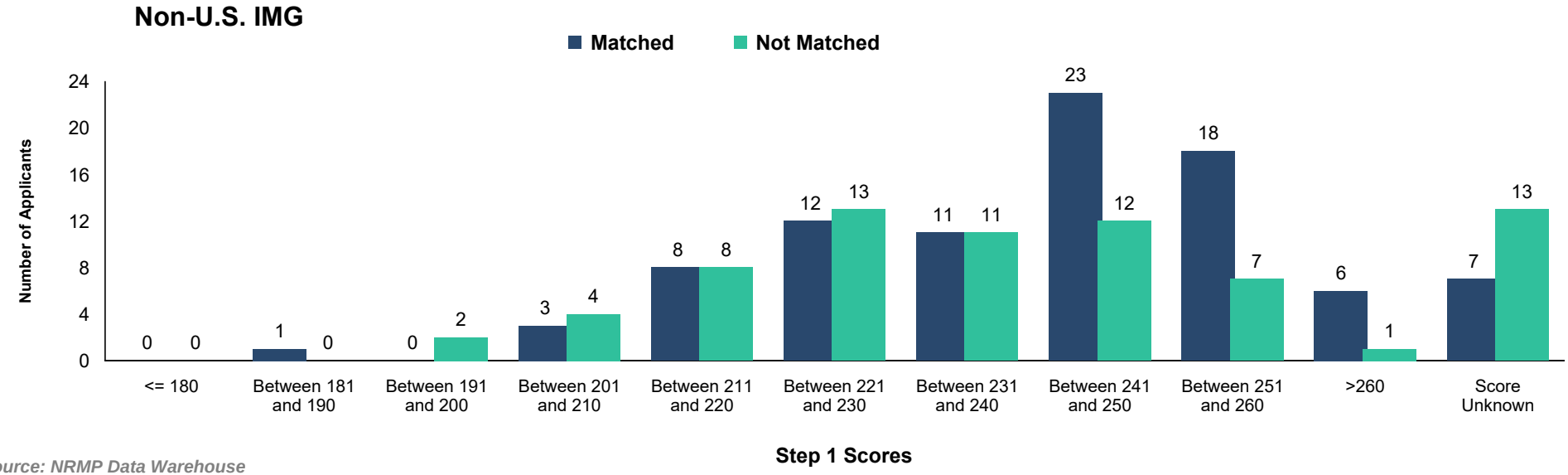
Source: NRMP Data Warehouse. Note: Probabilities calculated based on 2014-2016 applicants

Chart DR-3

USMLE Step 1 Scores of International Medical Graduates

Diagnostic Radiology



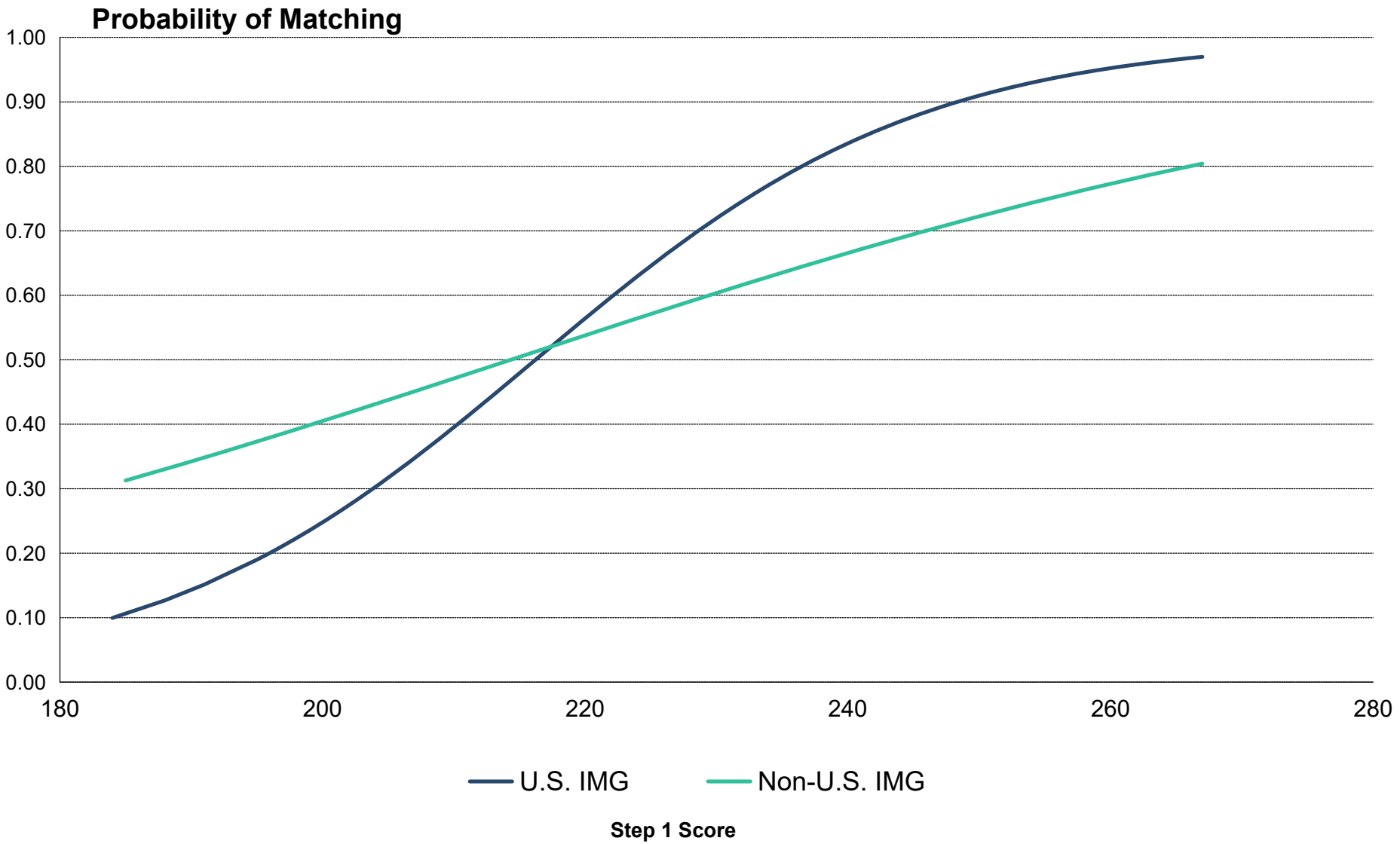


Source: NRMP Data Warehouse

Graph DR-2

Probability of International Medical Graduates Matching to Preferred Specialty by USMLE Step 1 Score

Diagnostic Radiology



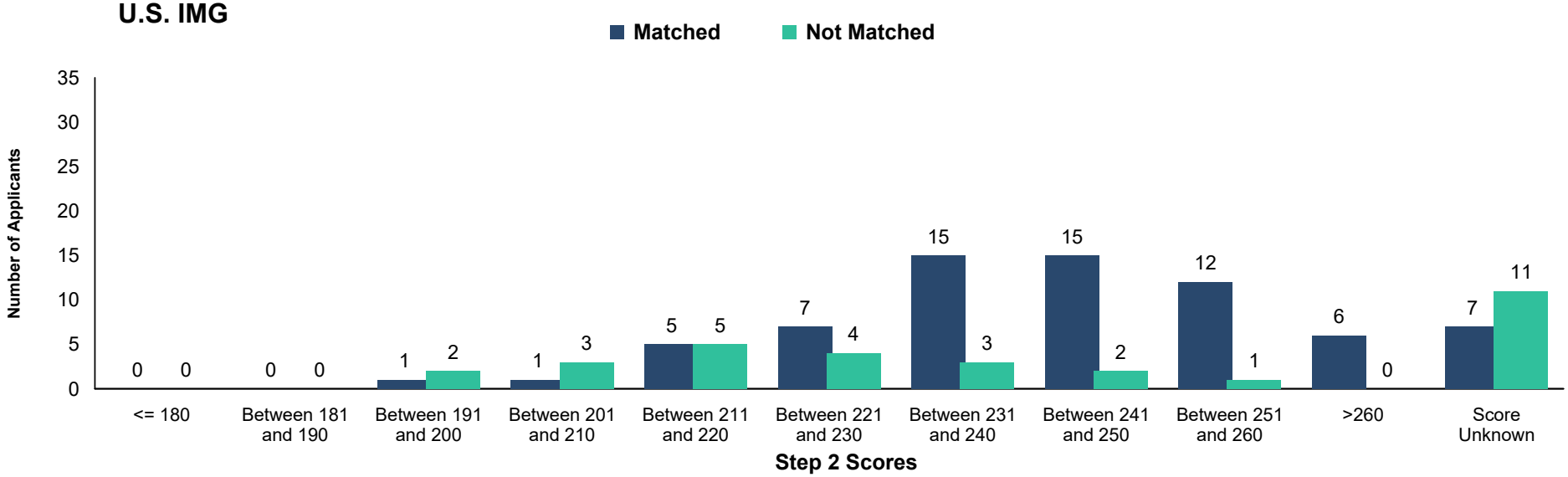
Source: NRMP Data Warehouse. Note: Probabilities calculated based on 2014-2016 applicants.

Chart DR-4

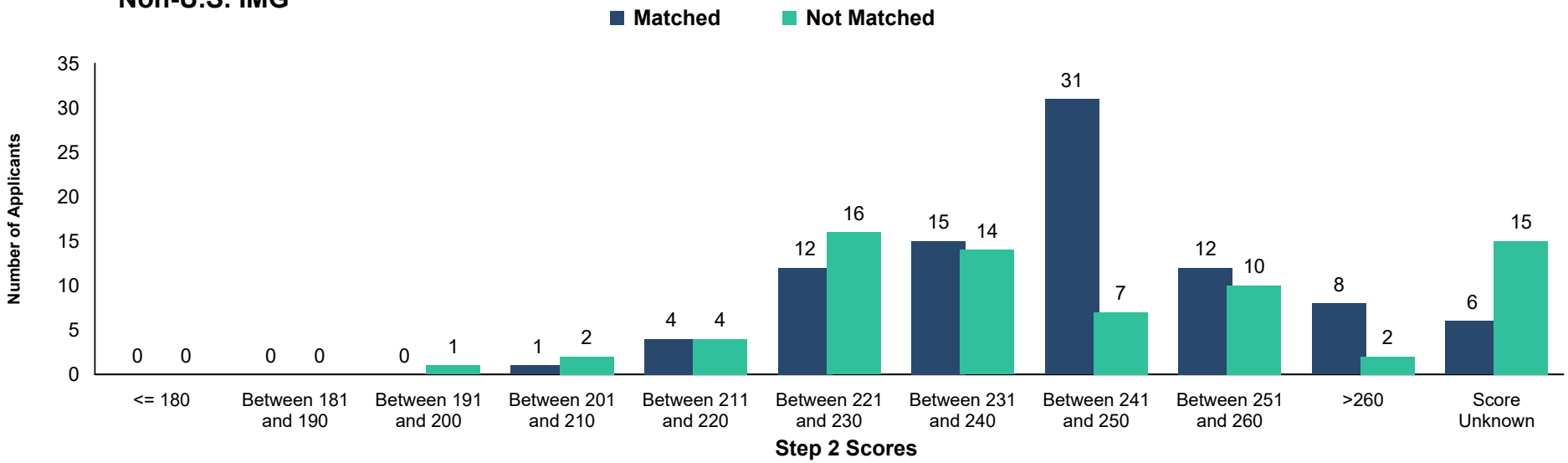
USMLE Step 2 CK Scores of International Medical Graduates

Diagnostic Radiology

U.S. IMG



Non-U.S. IMG

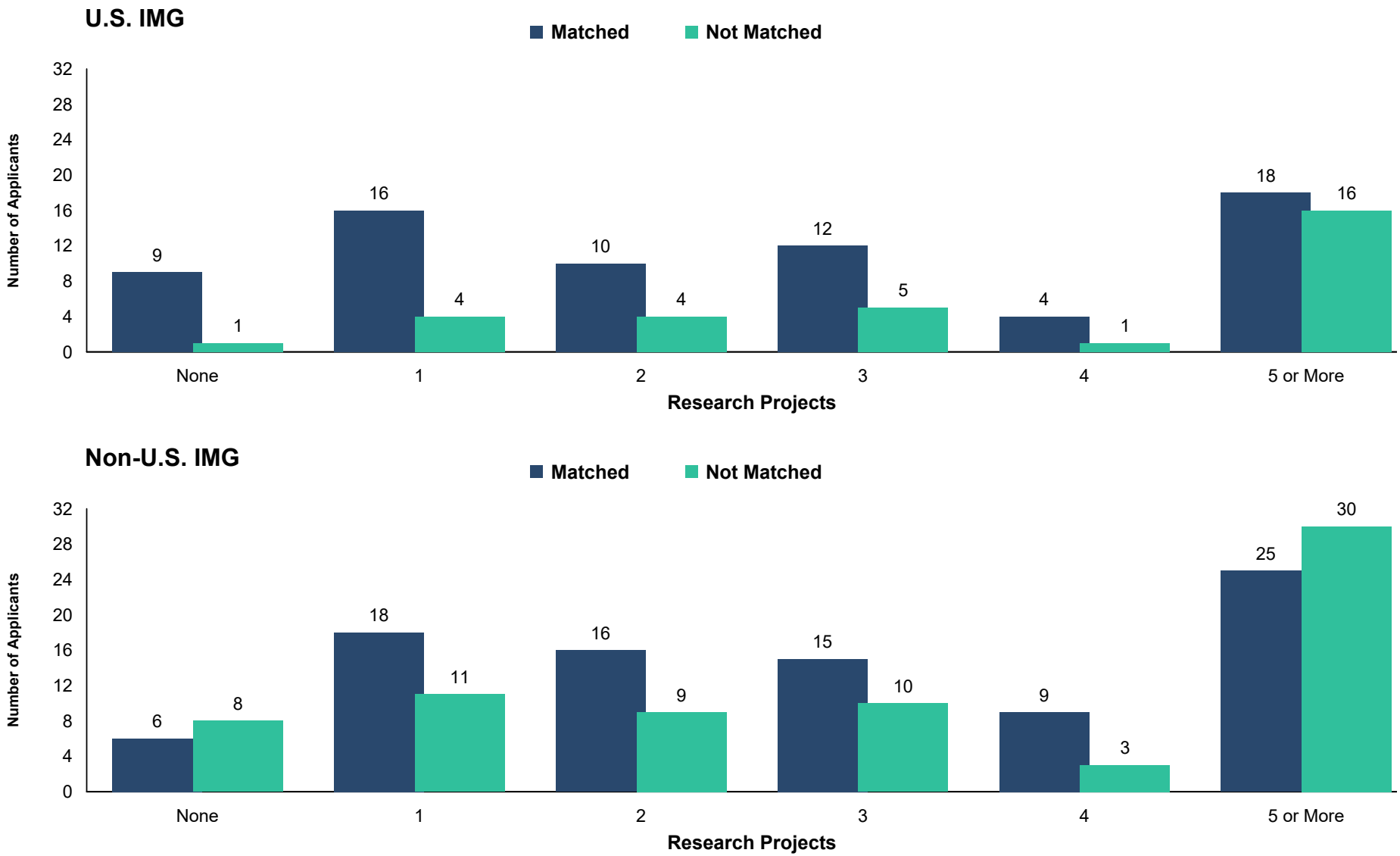


Source: NRMP Data Warehouse

Chart DR-5

Number of Research Projects of International Medical Graduates

Diagnostic Radiology

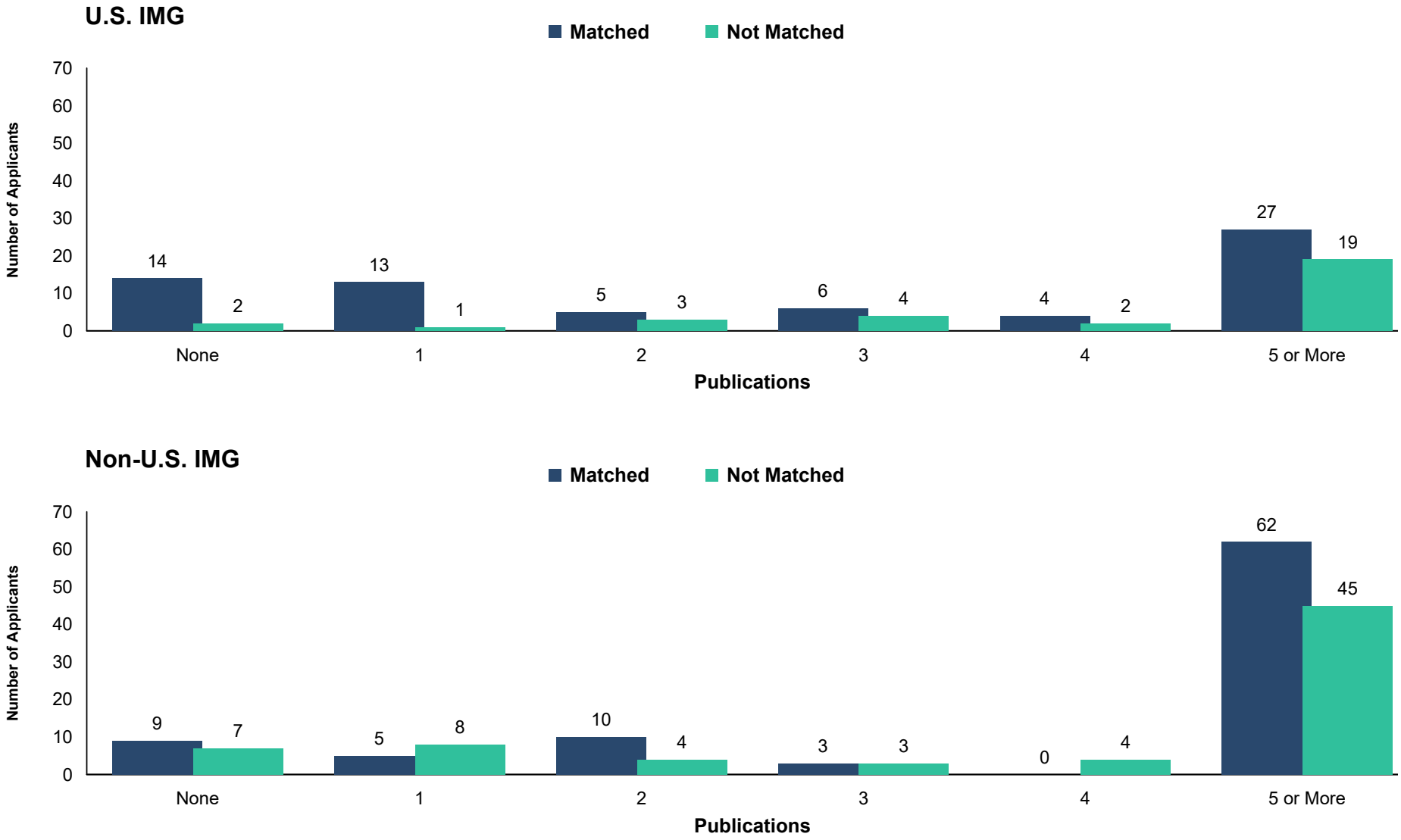


Source: NRMP Data Warehouse

Chart DR-6

Number of Abstracts, Presentations, and Publications of International Medical Graduates

Diagnostic Radiology

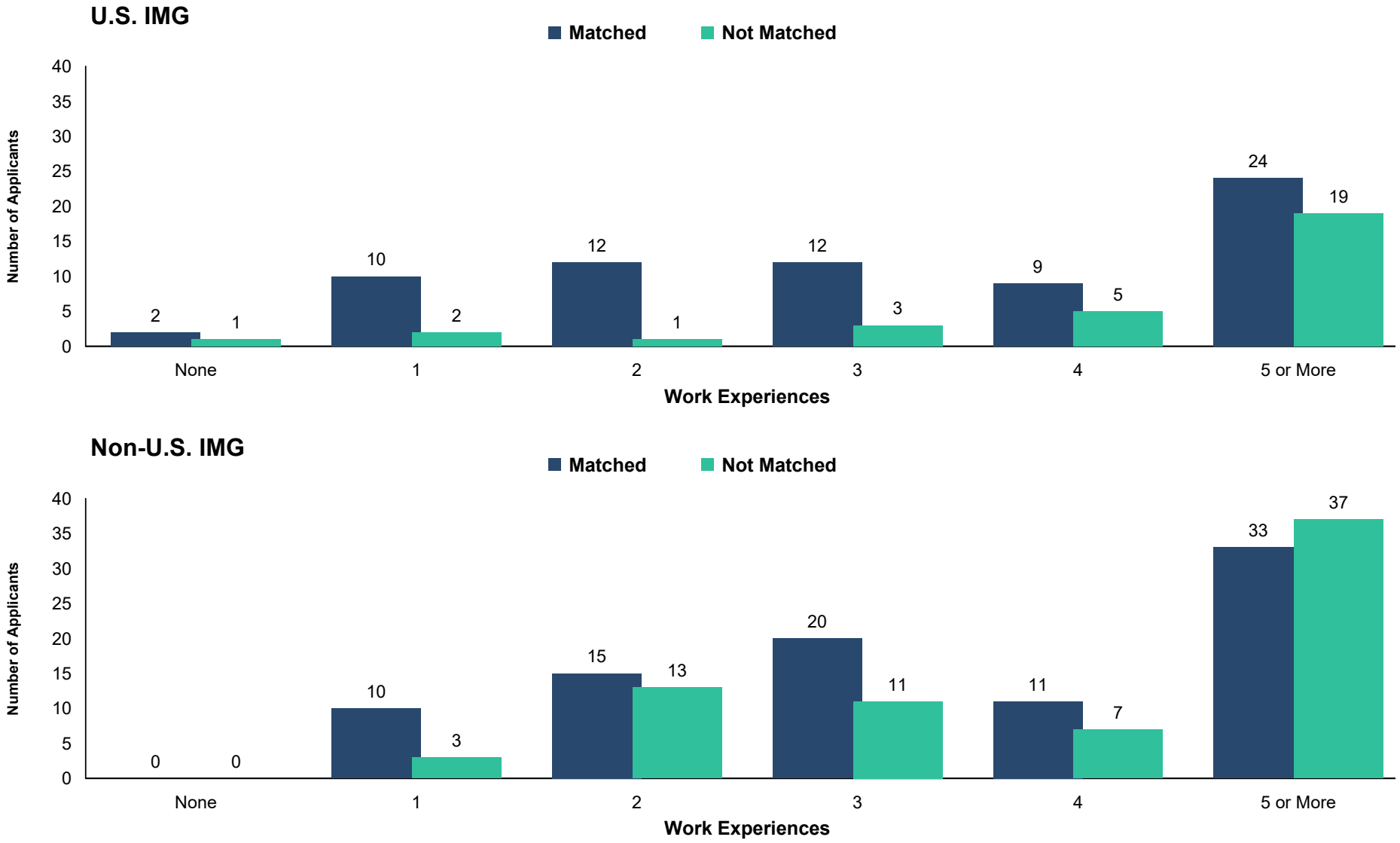


Source: NRMP Data Warehouse

Chart DR-7

Number of Work Experiences of International Medical Graduates

Diagnostic Radiology

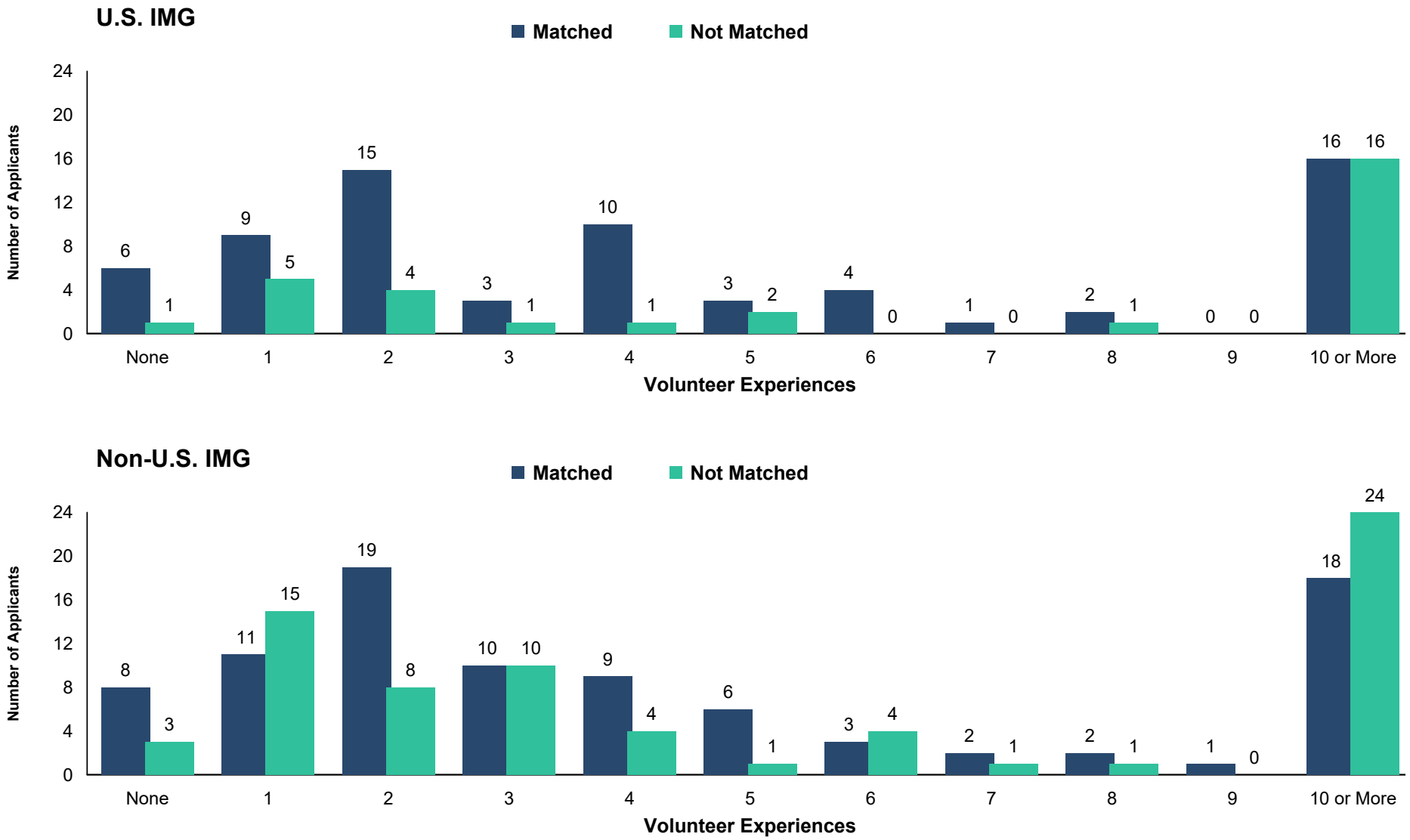


Source: NRMP Data Warehouse

Chart DR-8

Number of Volunteer Experiences of International Medical Graduates

Diagnostic Radiology



Source: NRMP Data Warehouse

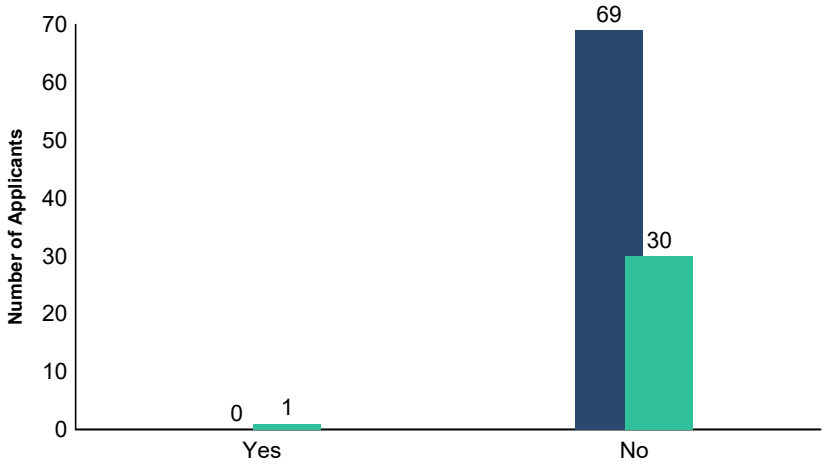
Chart DR-9

Other Characteristics of International Medical Graduates

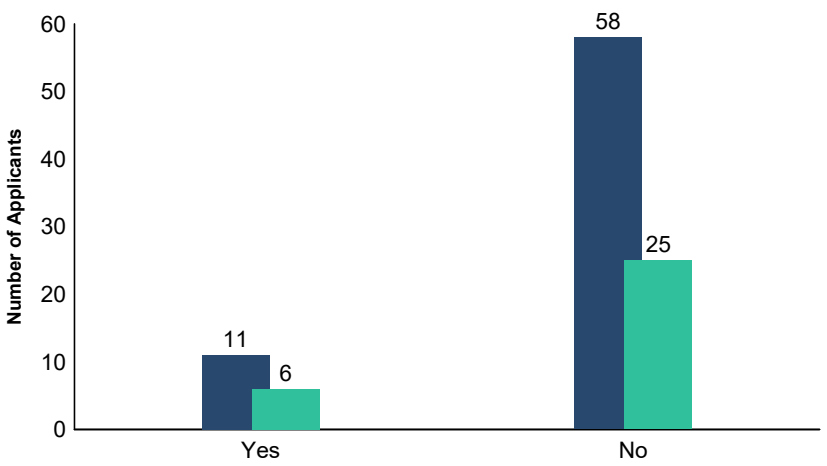
Diagnostic Radiology

U.S. IMG

Ph.D. Degree

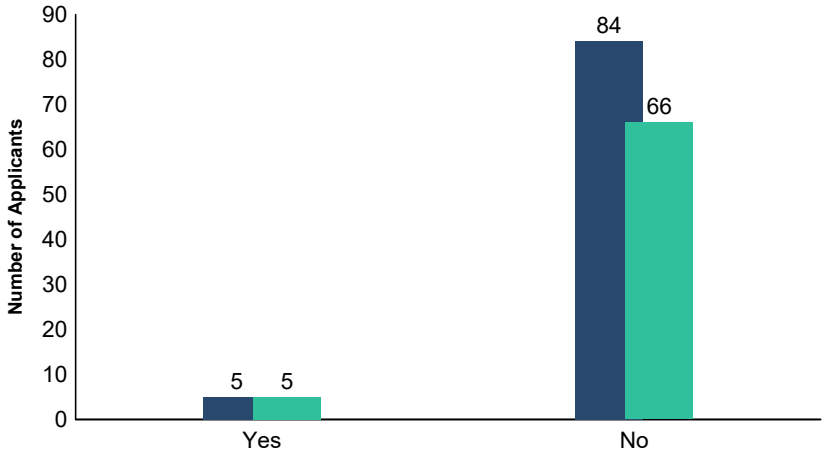


Other Graduate Degree

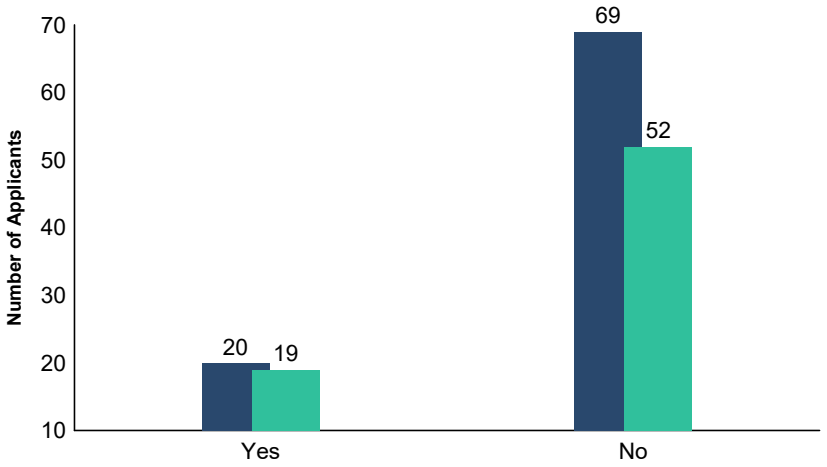


Non-U.S. IMG

Ph.D. Degree



Other Graduate Degree



Source: NRMP Data Warehouse

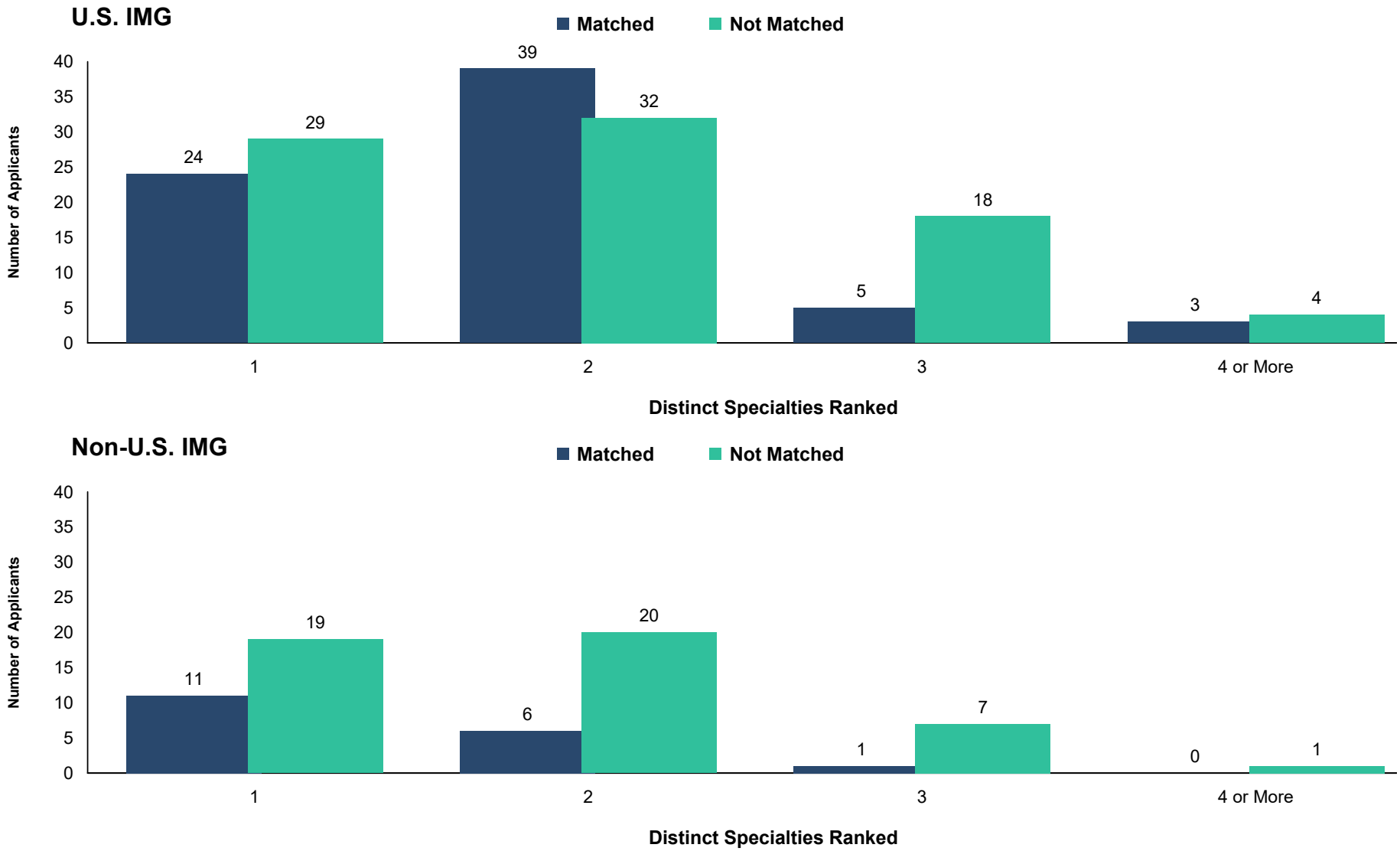
EM Emergency Medicine

Table EM-1 Summary Statistics
Emergency Medicine

Measure	U.S. IMGs		Non-U.S. IMGs	
	Matched (n=72)	Unmatched (n=85)	Matched (n=18)	Unmatched (n=47)
1. Mean number of contiguous ranks	6.2	2.4	4.1	2.9
2. Mean number of distinct specialties ranked	1.9	2.0	1.4	1.8
3. Mean USMLE Step 1 score	235	226	231	224
4. Mean USMLE Step 2 score	242	233	242	228
5. Mean number of research experiences	1.7	1.4	2.5	1.5
6. Mean number of abstracts, presentations, and publications	2.7	1.9	4.6	4.7
7. Mean number of work experiences	4.5	4.5	3.9	5.1
8. Mean number of volunteer experiences	4.6	3.8	4.8	3.7
9. Percentage who have a Ph.D. degree	1.7	1.4	7.1	2.5
10. Percentage who have another graduate degree	17.7	23.2	35.7	15.0

Note: Only applicants who gave consent to use their information in research are included.
Source. NRMP Data Warehouse

Chart EM-1 Number of Distinct Specialties Ranked by International Medical Graduates

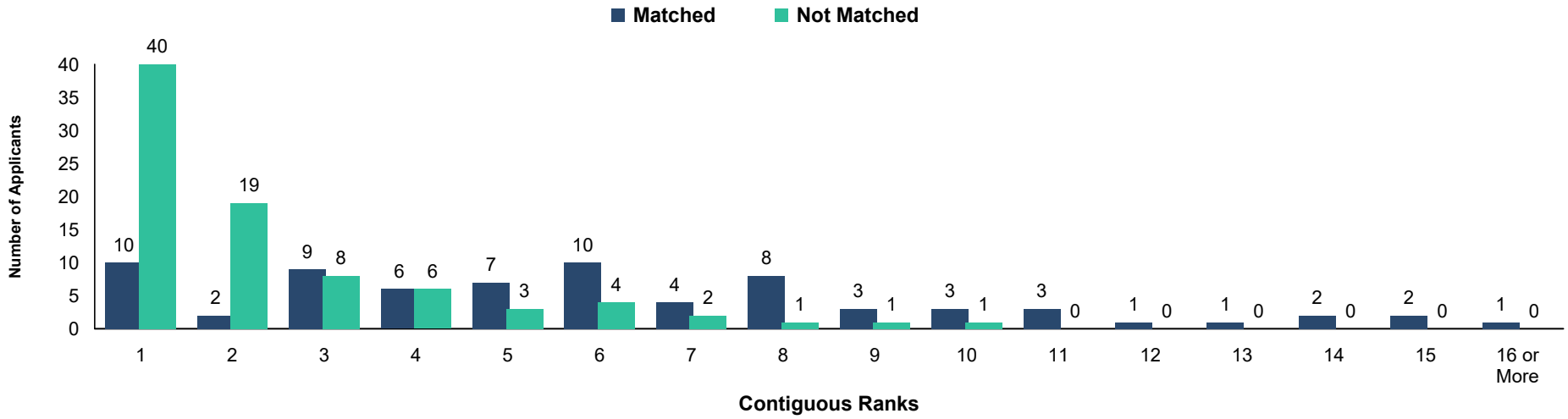


Source: NRMP Data Warehouse

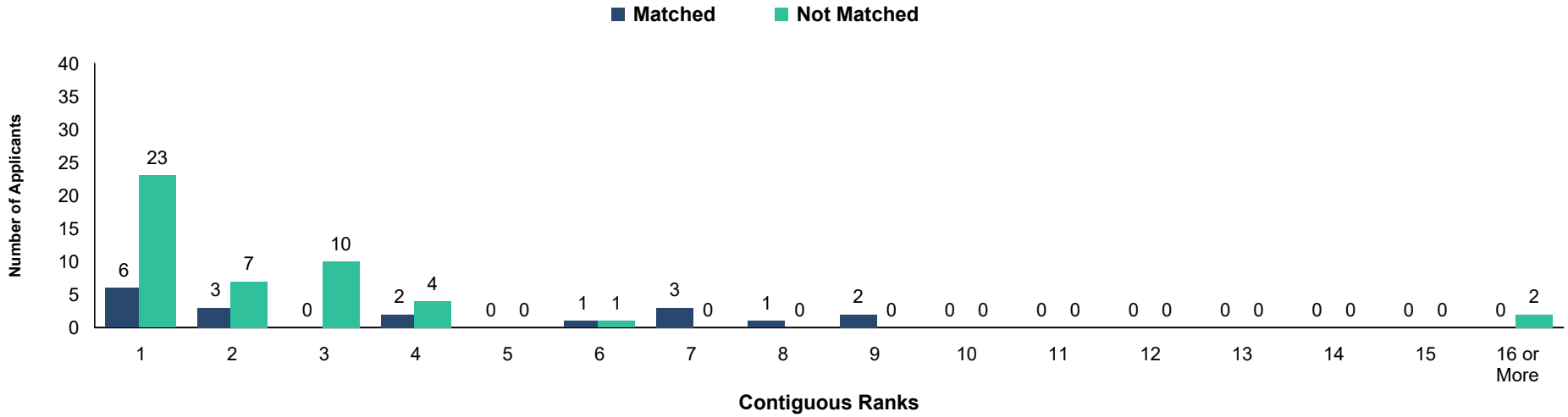
Chart EM-2

Number of Contiguous Ranks of International Medical Graduates

U.S. IMG



Non-U.S. IMG

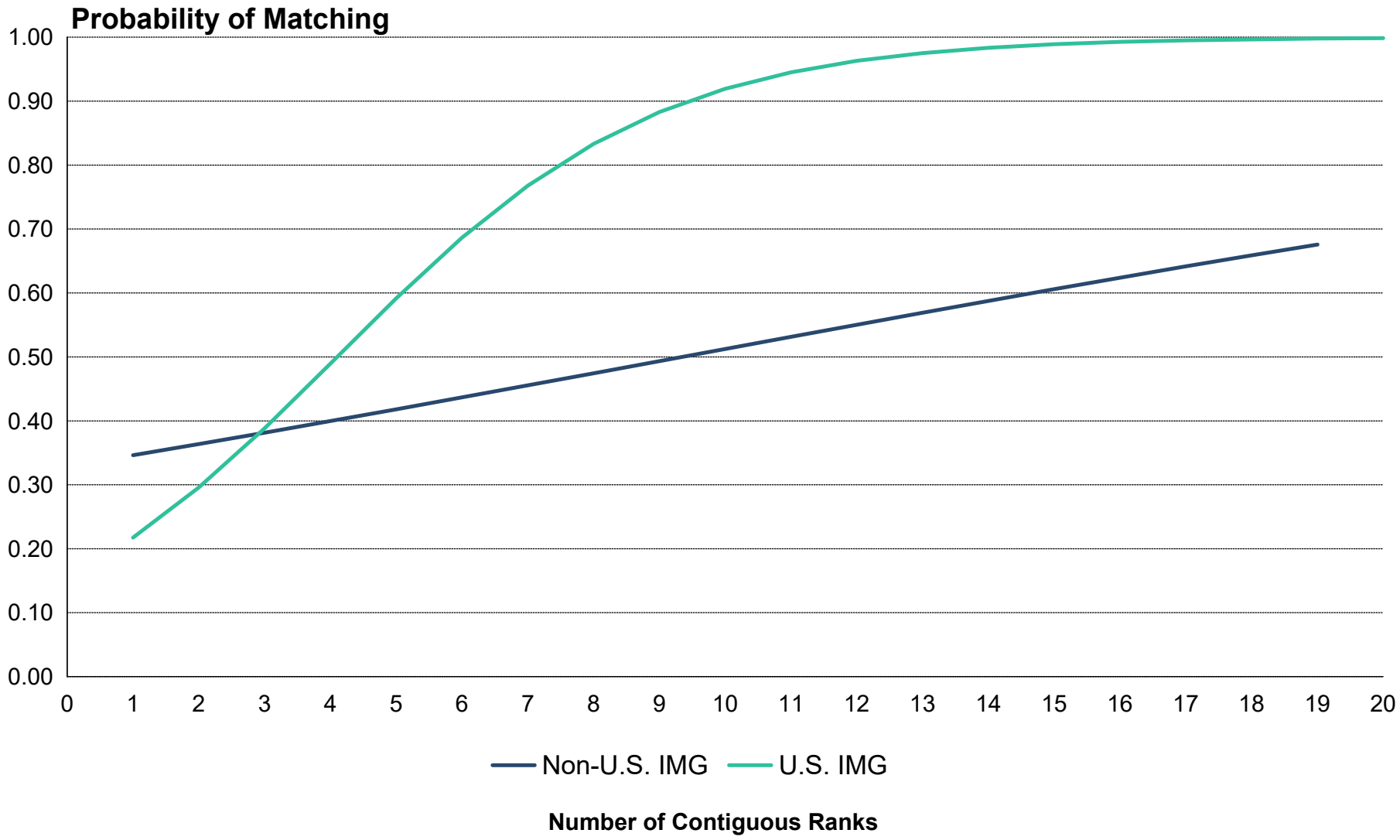


Source: NRMP Data Warehouse

Graph EM-1

Probability of International Medical Graduates Matching to Preferred Specialty by Number of Contiguous Ranks

Emergency Medicine



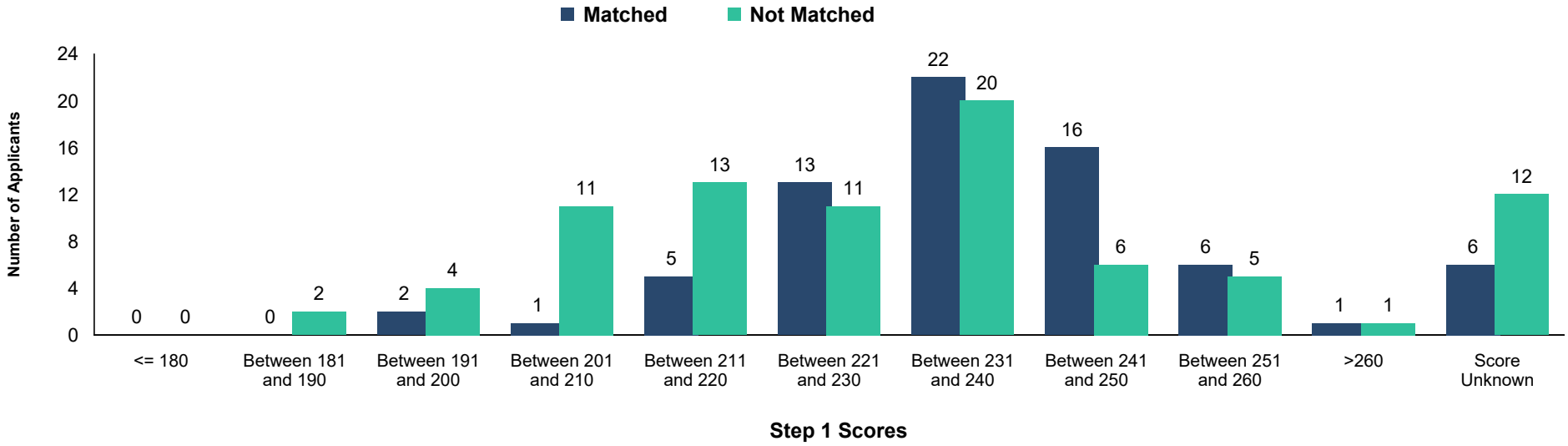
Source: NRMP Data Warehouse. Note: Probabilities calculated based on 2014-2016 applicants

Chart EM-3

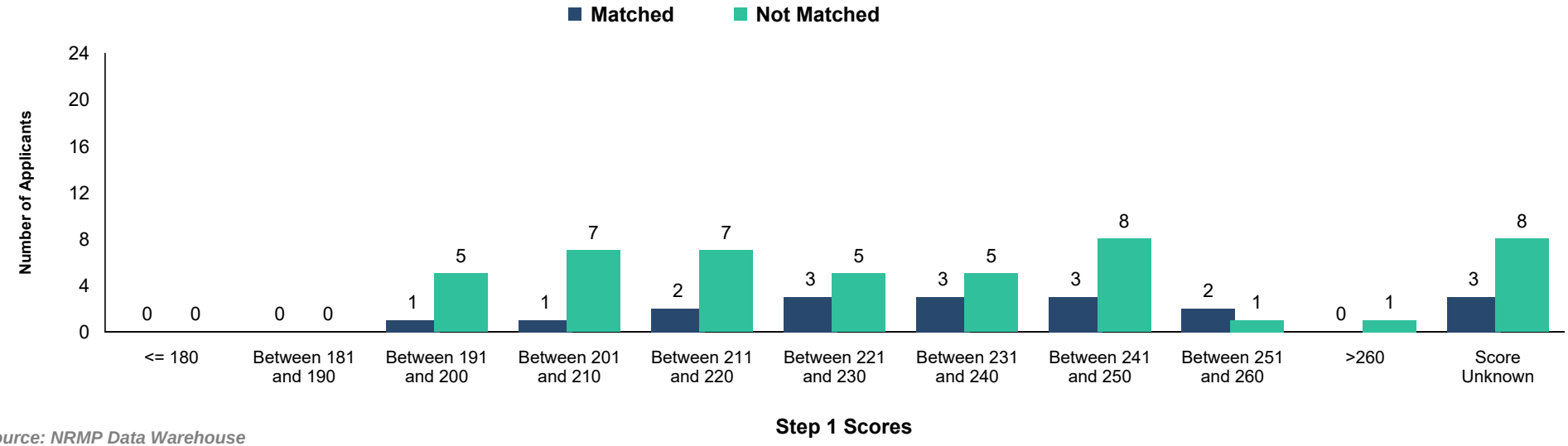
USMLE Step 1 Scores of International Medical Graduates

Emergency Medicine

U.S. IMG



Non-U.S. IMG

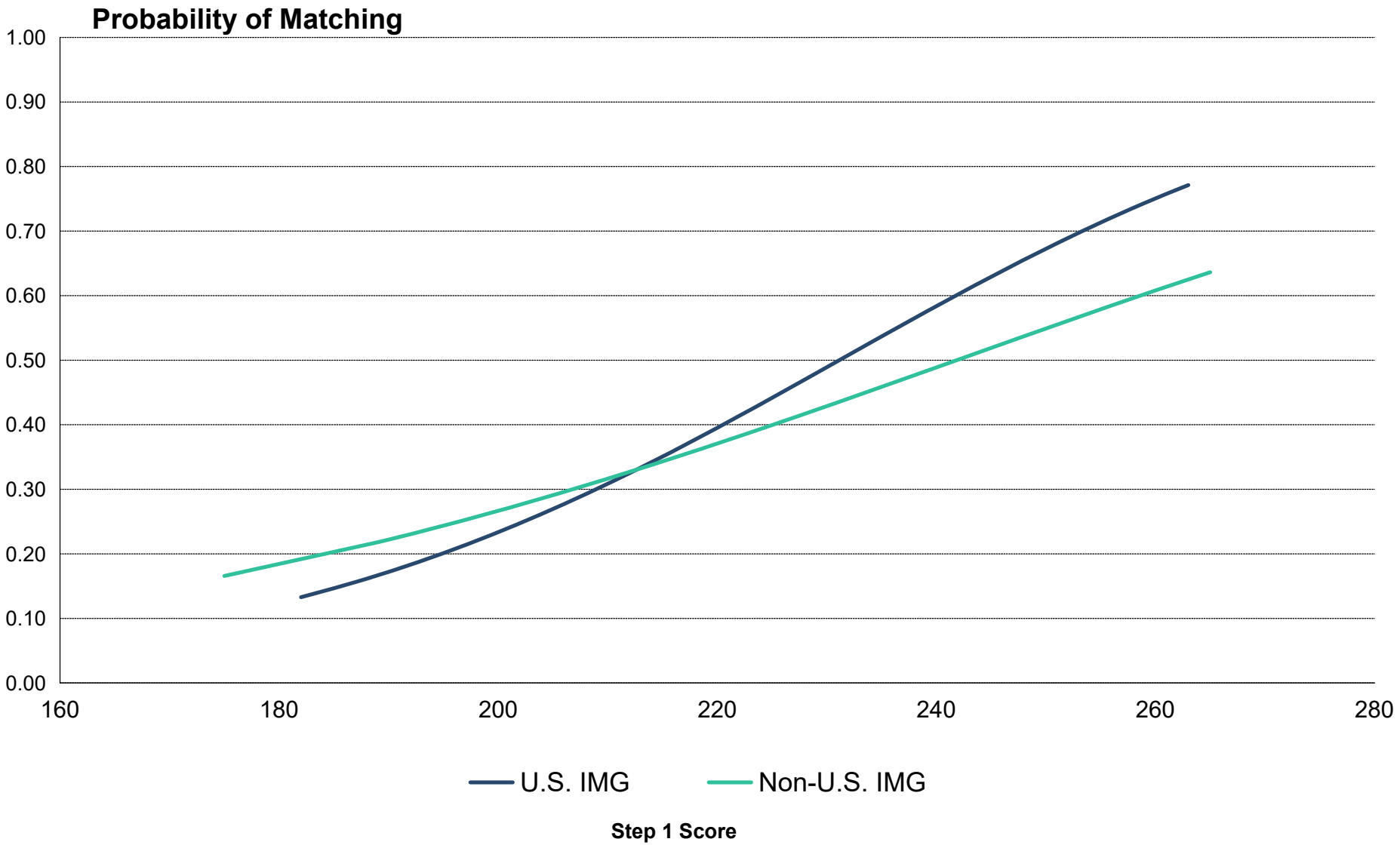


Source: NRMP Data Warehouse

Graph EM-2

Probability of International Medical Graduates Matching to Preferred Specialty by USMLE Step 1 Score

Emergency Medicine

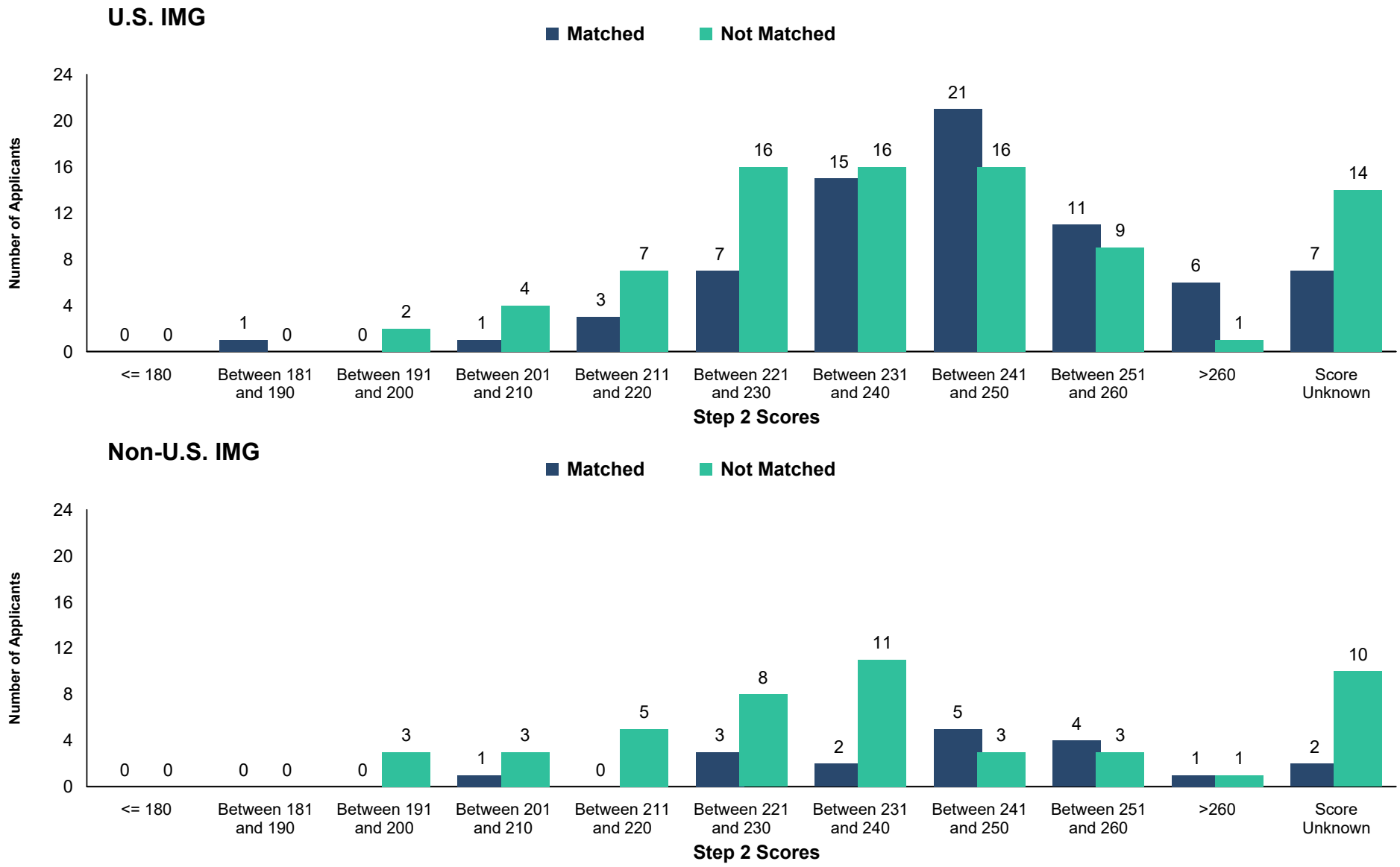


Source: NRMP Data Warehouse. Note: Probabilities calculated based on 2014-2016 applicants.

Chart EM-4

USMLE Step 2 CK Scores of International Medical Graduates

Emergency Medicine

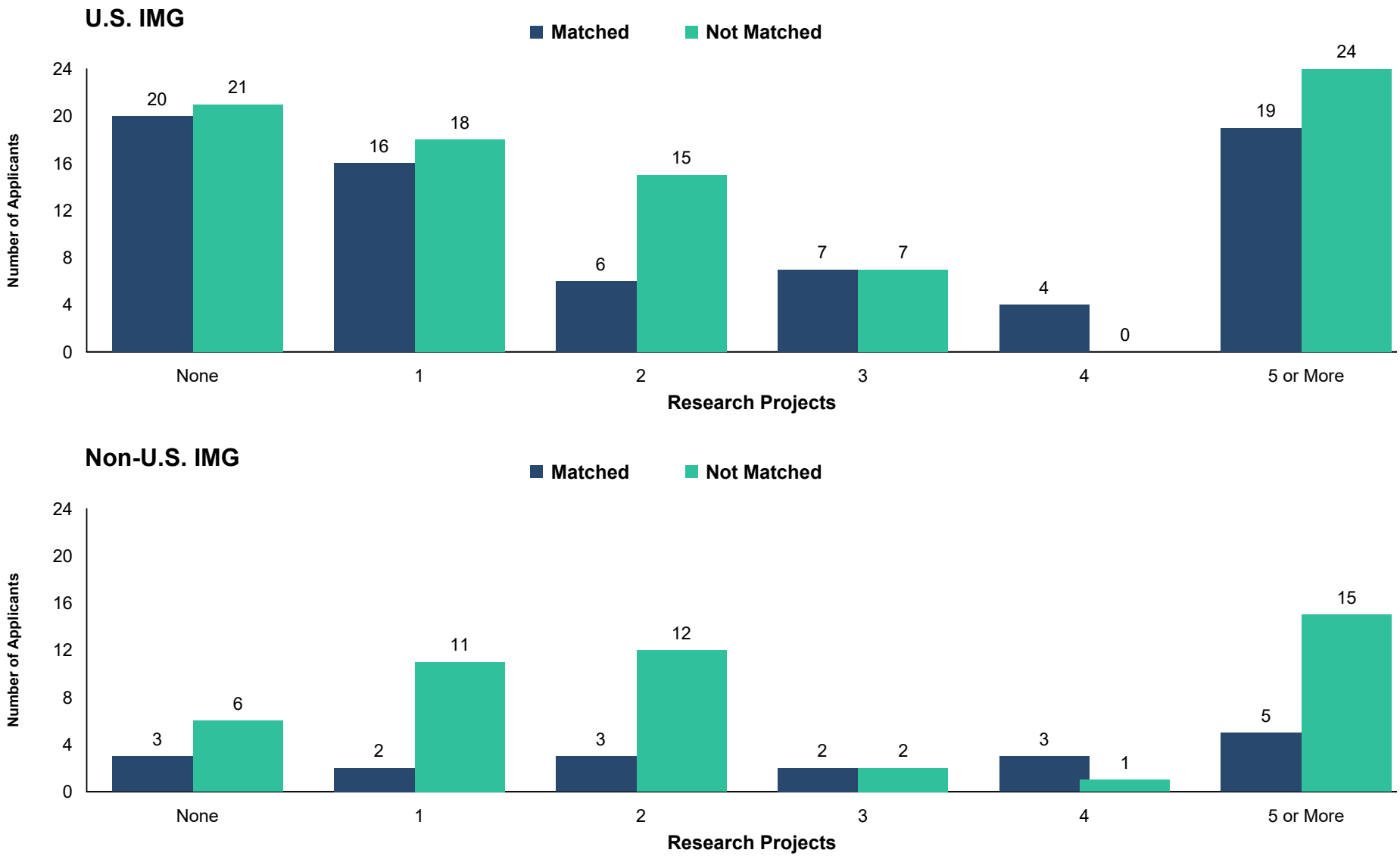


Source: NRMP Data Warehouse

Chart EM-5

Number of Research Projects of International Medical Graduates

Emergency Medicine

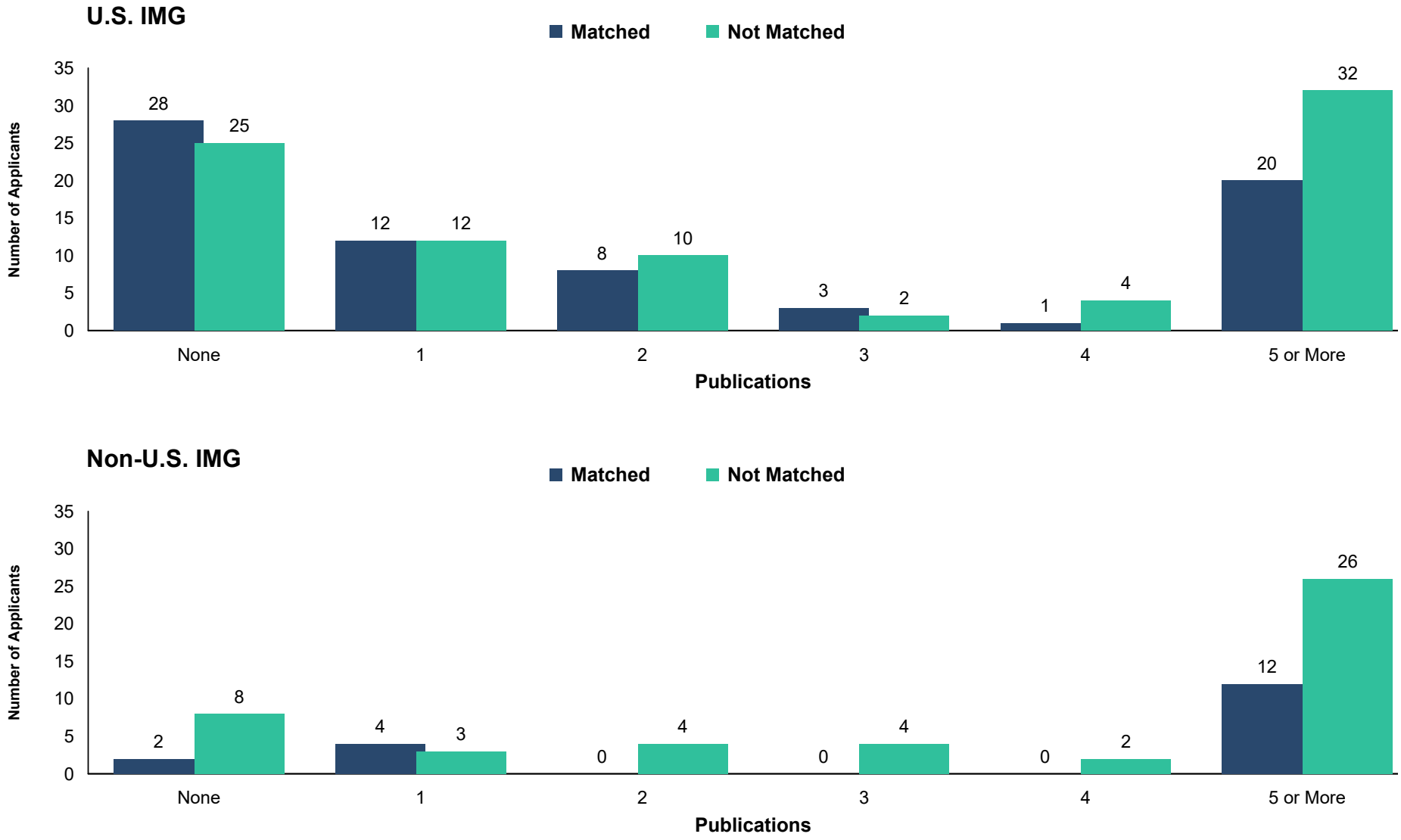


Source: NRMP Data Warehouse

Chart EM-6

Number of Abstracts, Presentations, and Publications of International Medical Graduates

Emergency Medicine

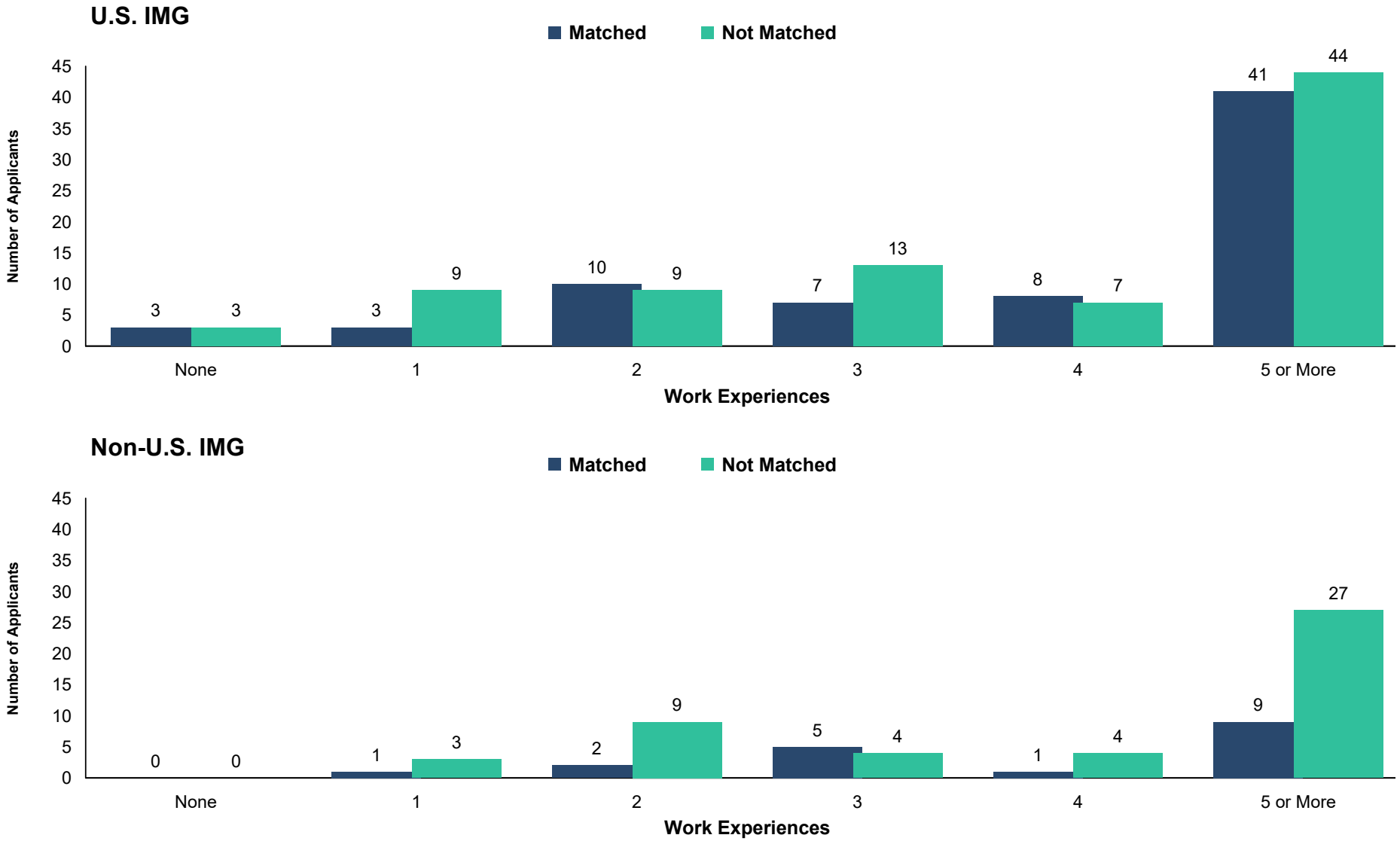


Source: NRMP Data Warehouse

Chart EM-7

Number of Work Experiences of International Medical Graduates

Emergency Medicine

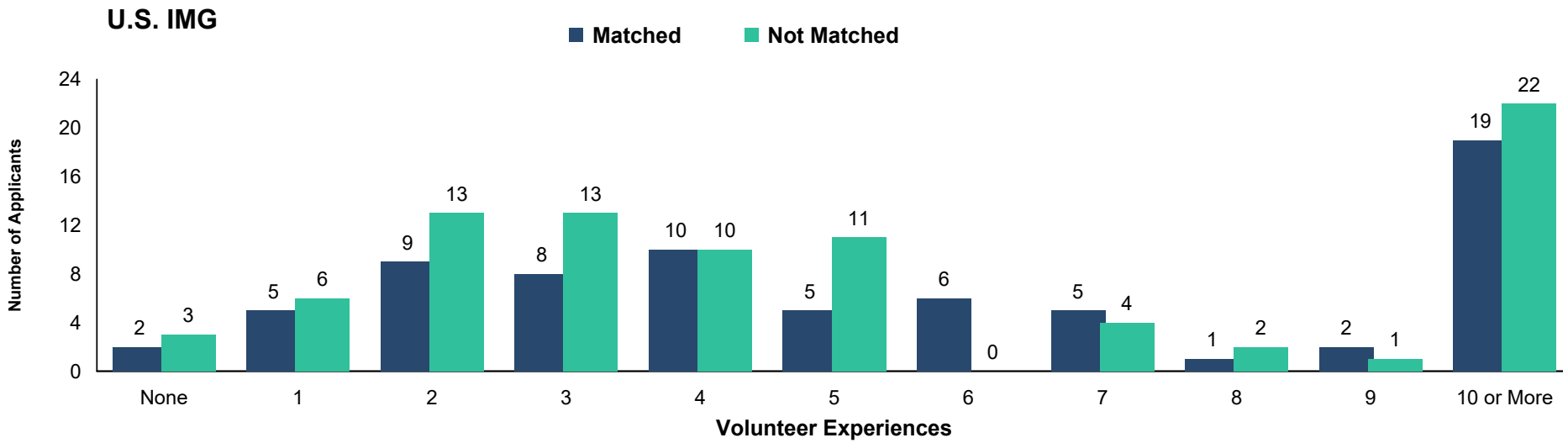


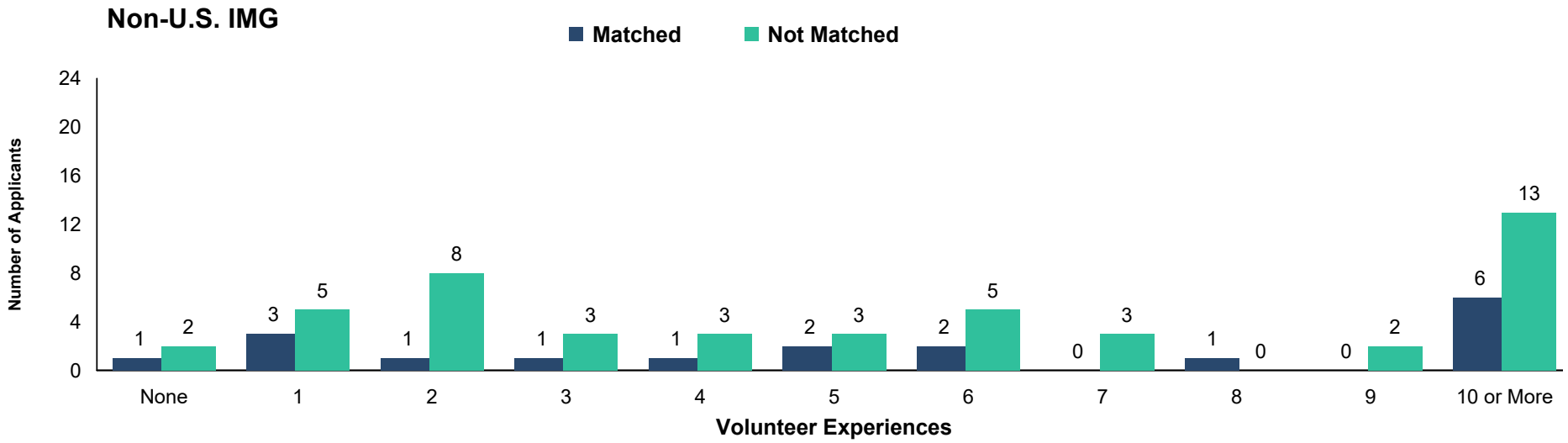
Source: NRMP Data Warehouse

Chart EM-8

Number of Volunteer Experiences of International Medical Graduates

Emergency Medicine





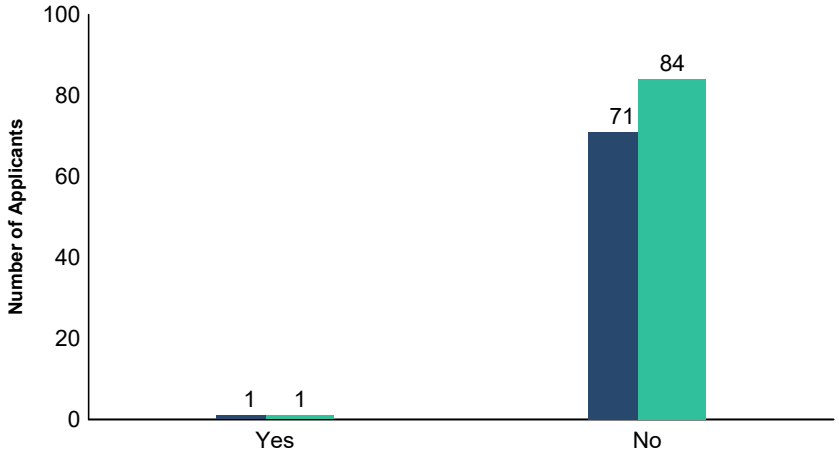
Source: NRMP Data Warehouse

Chart EM-9 Other Characteristics of International Medical Graduates

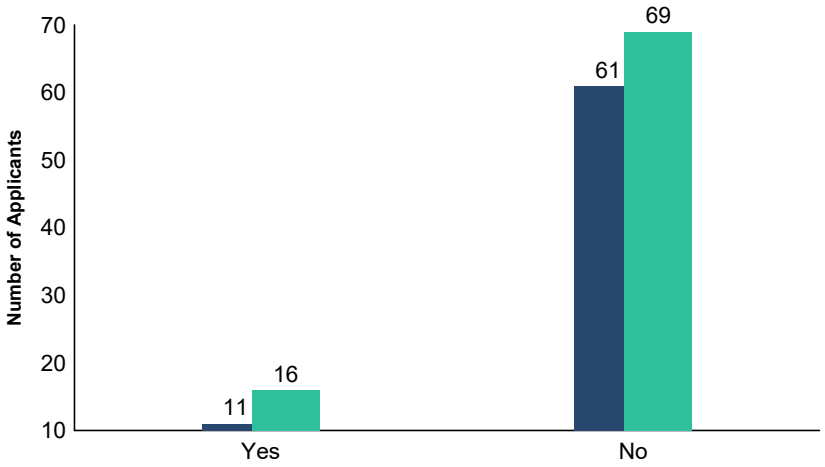
Emergency Medicine

U.S. IMG

Ph.D. Degree

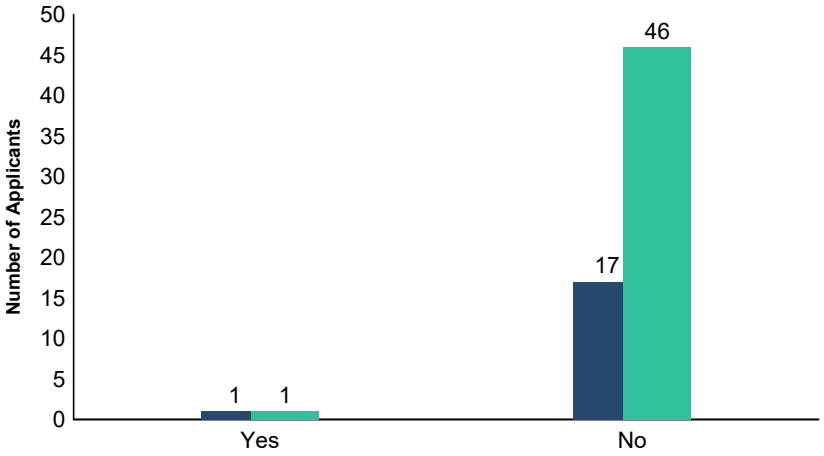


Other Graduate Degree

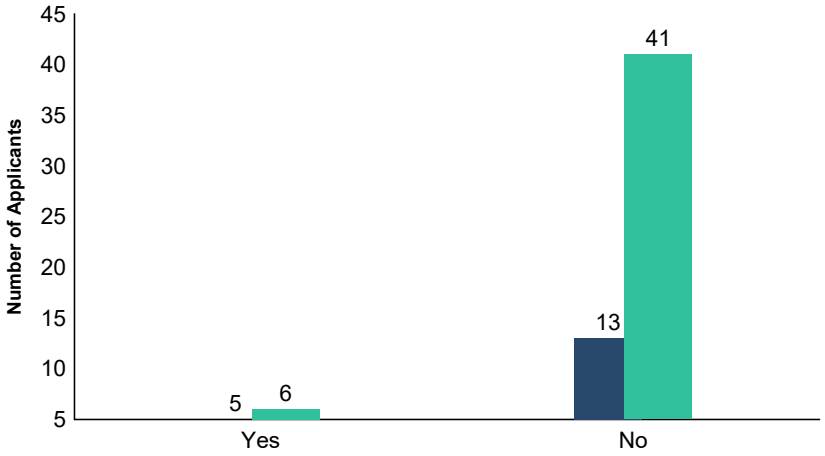


Non-U.S. IMG

Ph.D. Degree



Other Graduate Degree



Source: NRMP Data Warehouse

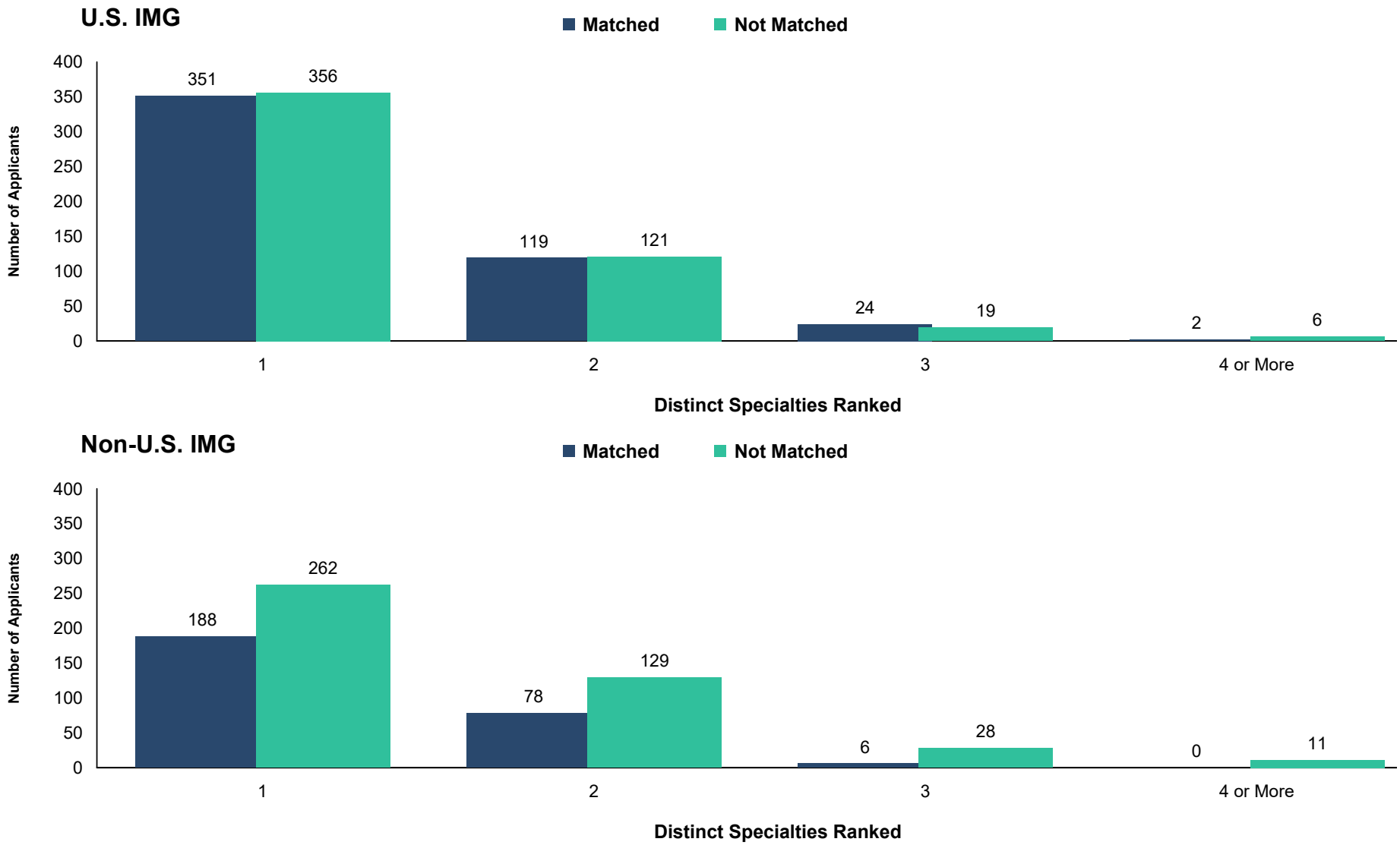
FM Family Medicine

Table FM-1 Summary Statistics
Family Medicine

Measure	U.S. IMGs		Non-U.S. IMGs	
	Matched (n=496)	Unmatched (n=504)	Matched (n=272)	Unmatched (n=431)
1. Mean number of contiguous ranks	5.9	3.0	4.6	3.2
2. Mean number of distinct specialties ranked	1.3	1.4	1.3	1.5
3. Mean USMLE Step 1 score	212	204	219	210
4. Mean USMLE Step 2 score	224	214	229	219
5. Mean number of research experiences	1.6	2.1	1.7	1.9
6. Mean number of abstracts, presentations, and publications	1.9	2.8	3.1	3.1
7. Mean number of work experiences	4.3	5.7	5.4	6.3
8. Mean number of volunteer experiences	4.3	3.8	4.7	4.0
9. Percentage who have a Ph.D. degree	0.9	1.5	0.0	2.2
10. Percentage who have another graduate degree	23.4	33.5	21.8	26.6

Note: Only applicants who gave consent to use their information in research are included.
Source. NRMP Data Warehouse

Chart FM-1 Number of Distinct Specialties Ranked by International Medical Graduates

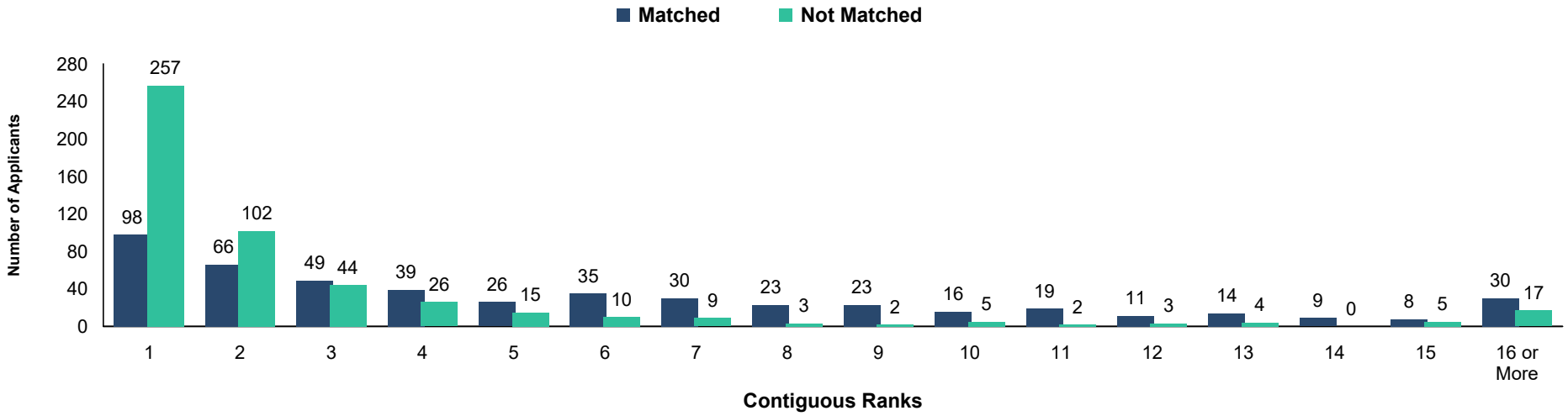


Source: NRMP Data Warehouse

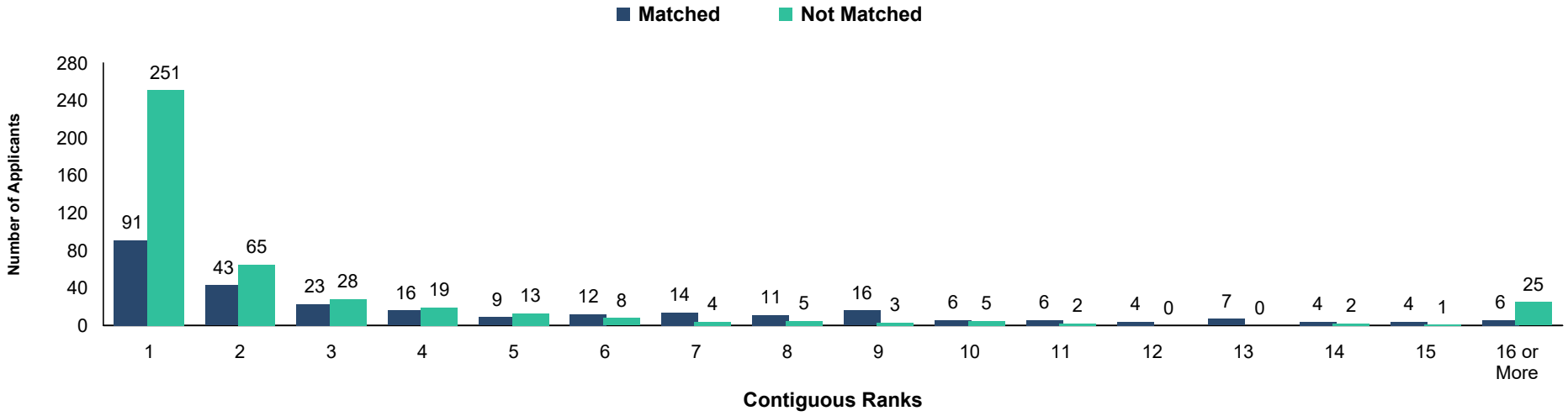
Chart FM-2

Number of Contiguous Ranks of International Medical Graduates

U.S. IMG



Non-U.S. IMG

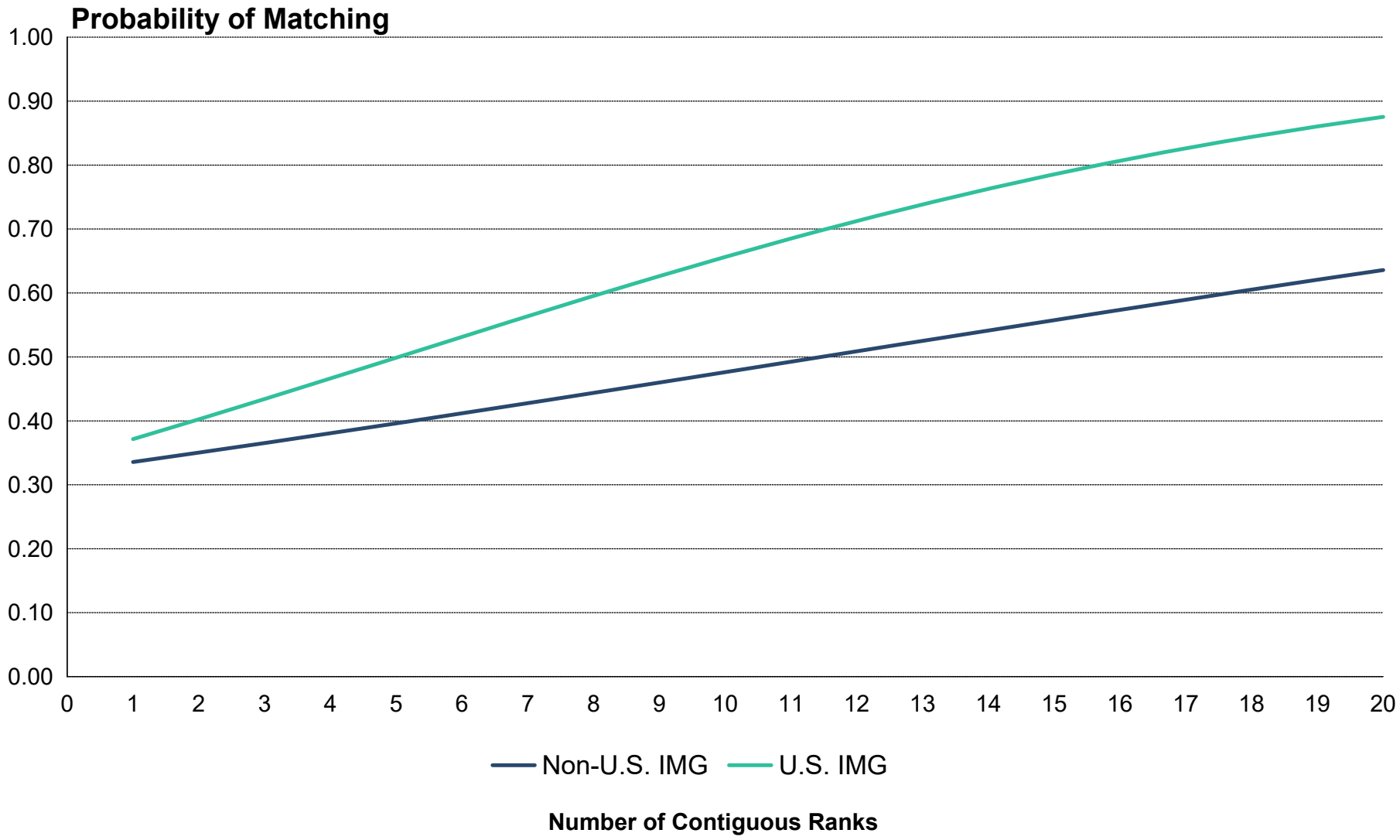


Source: NRMP Data Warehouse

Graph FM-1

Probability of International Medical Graduates Matching to Preferred Specialty by Number of Contiguous Ranks

Family Medicine

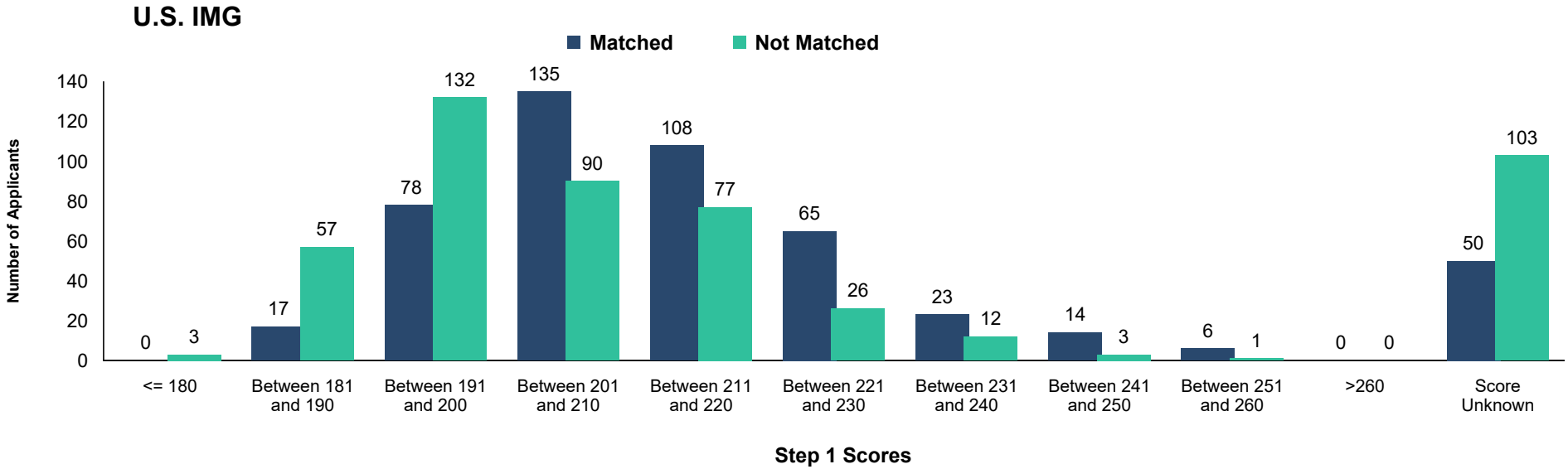


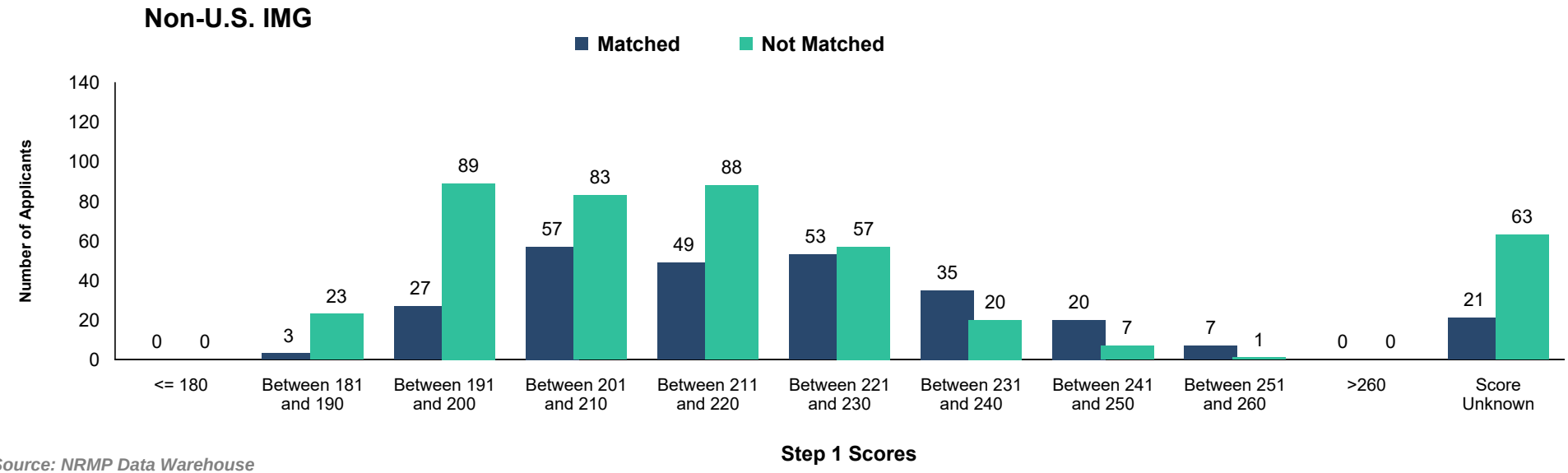
Source: NRMP Data Warehouse. Note: Probabilities calculated based on 2014-2016 applicants

Chart FM-3

USMLE Step 1 Scores of International Medical Graduates

Family Medicine



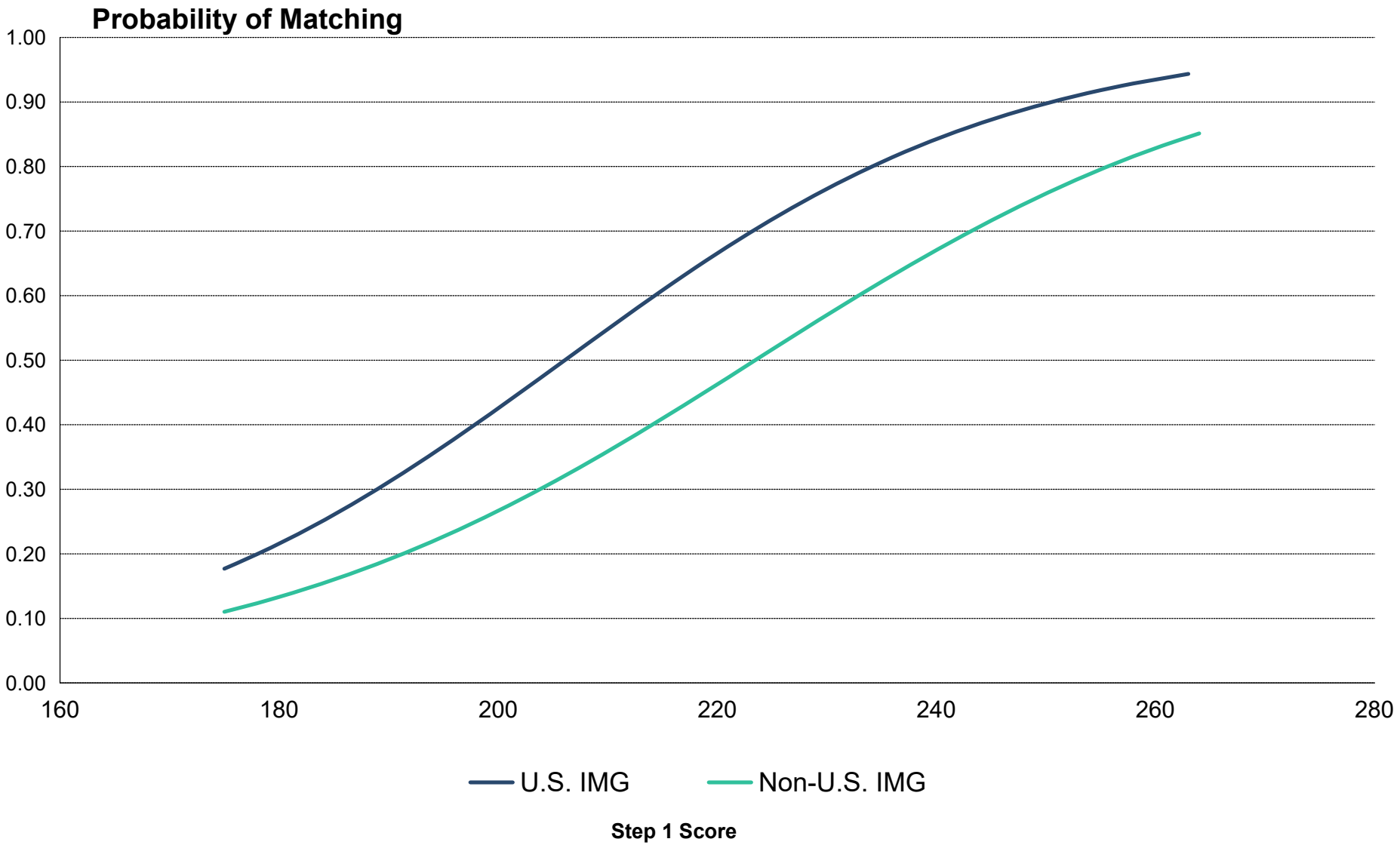


Source: NRMP Data Warehouse

Graph FM-2

Probability of International Medical Graduates Matching to Preferred Specialty by USMLE Step 1 Score

Family Medicine

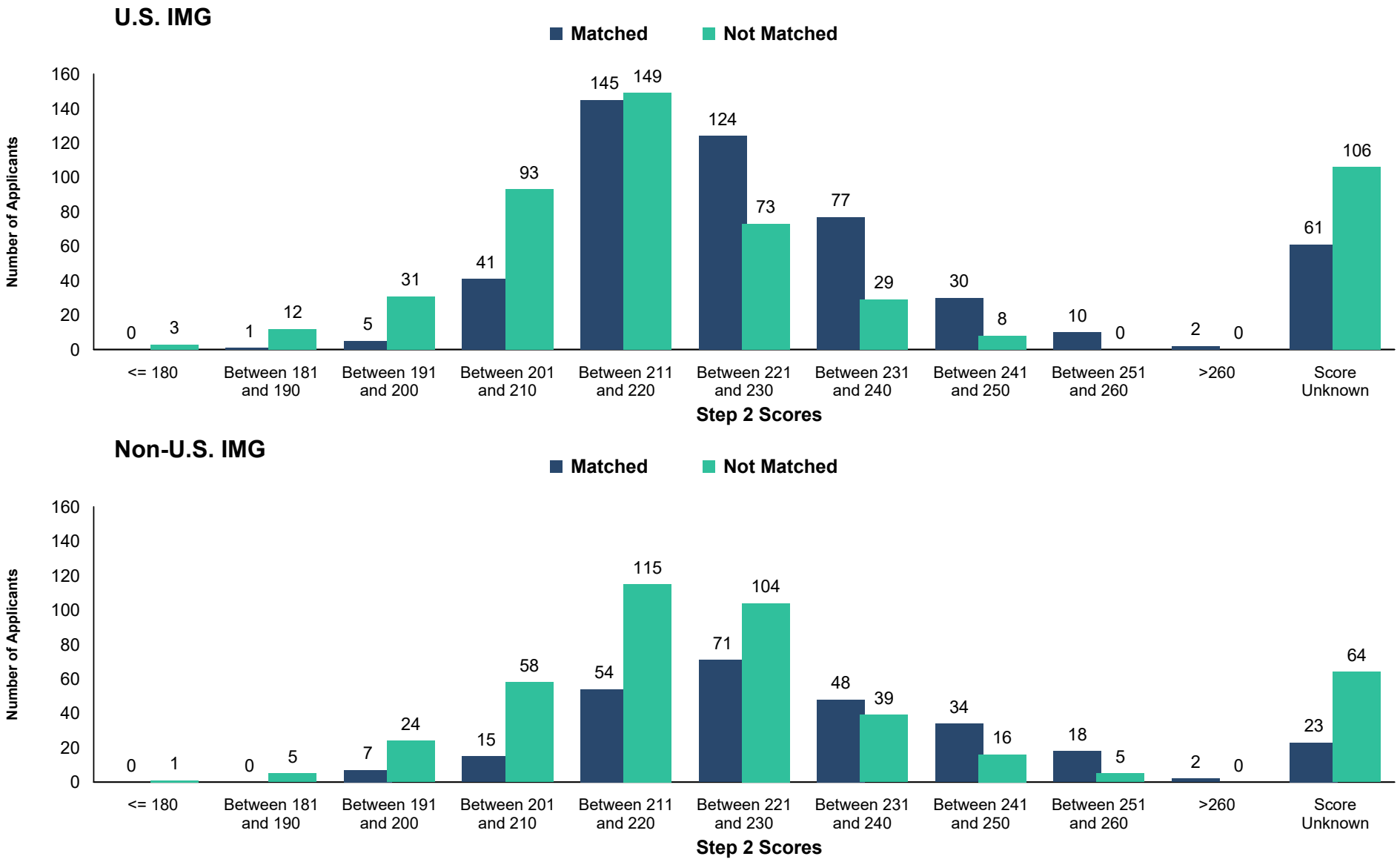


Source: NRMP Data Warehouse. Note: Probabilities calculated based on 2014-2016 applicants.

Chart FM-4

USMLE Step 2 CK Scores of International Medical Graduates

Family Medicine

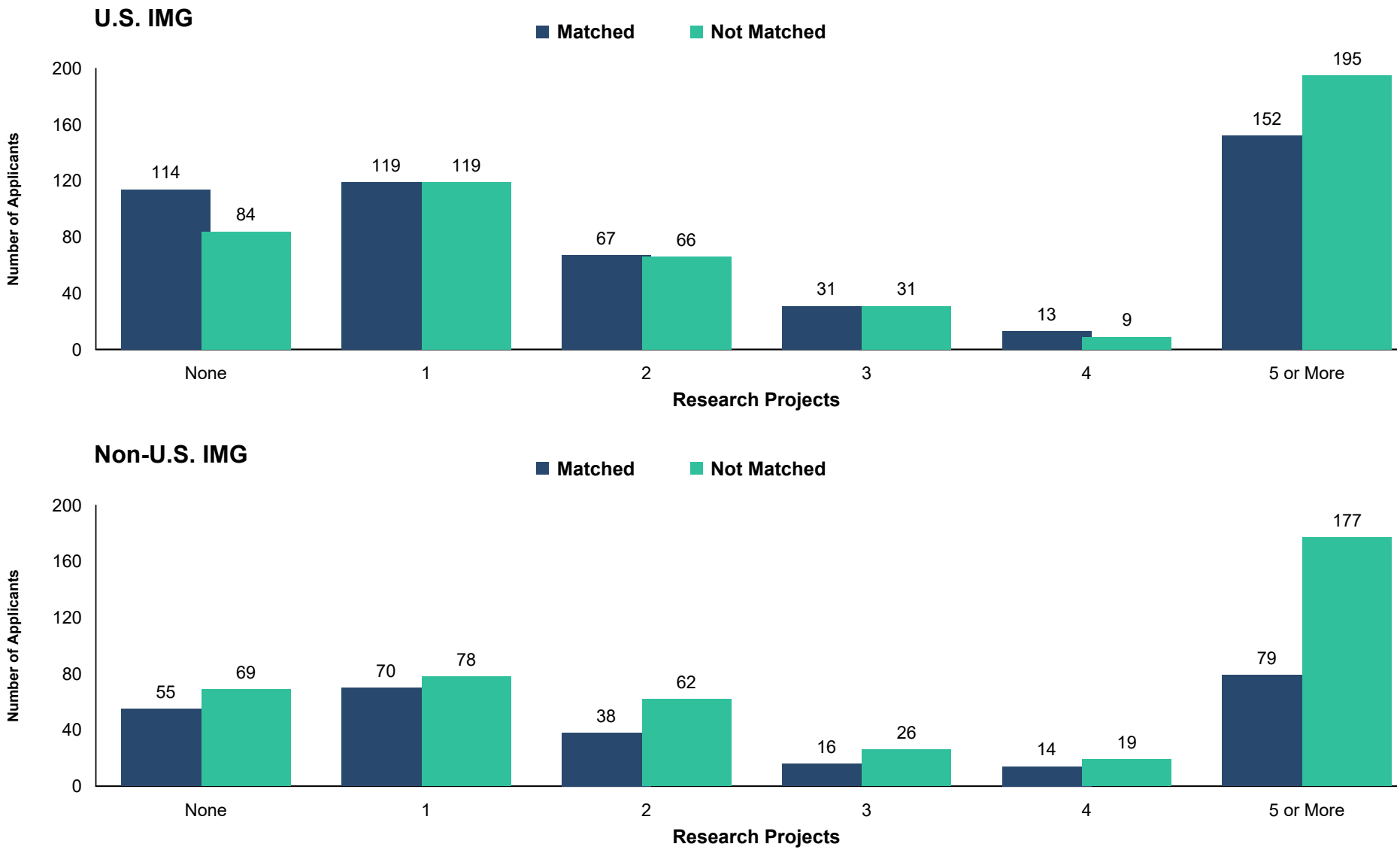


Source: NRMP Data Warehouse

Chart FM-5

Number of Research Projects of International Medical Graduates

Family Medicine

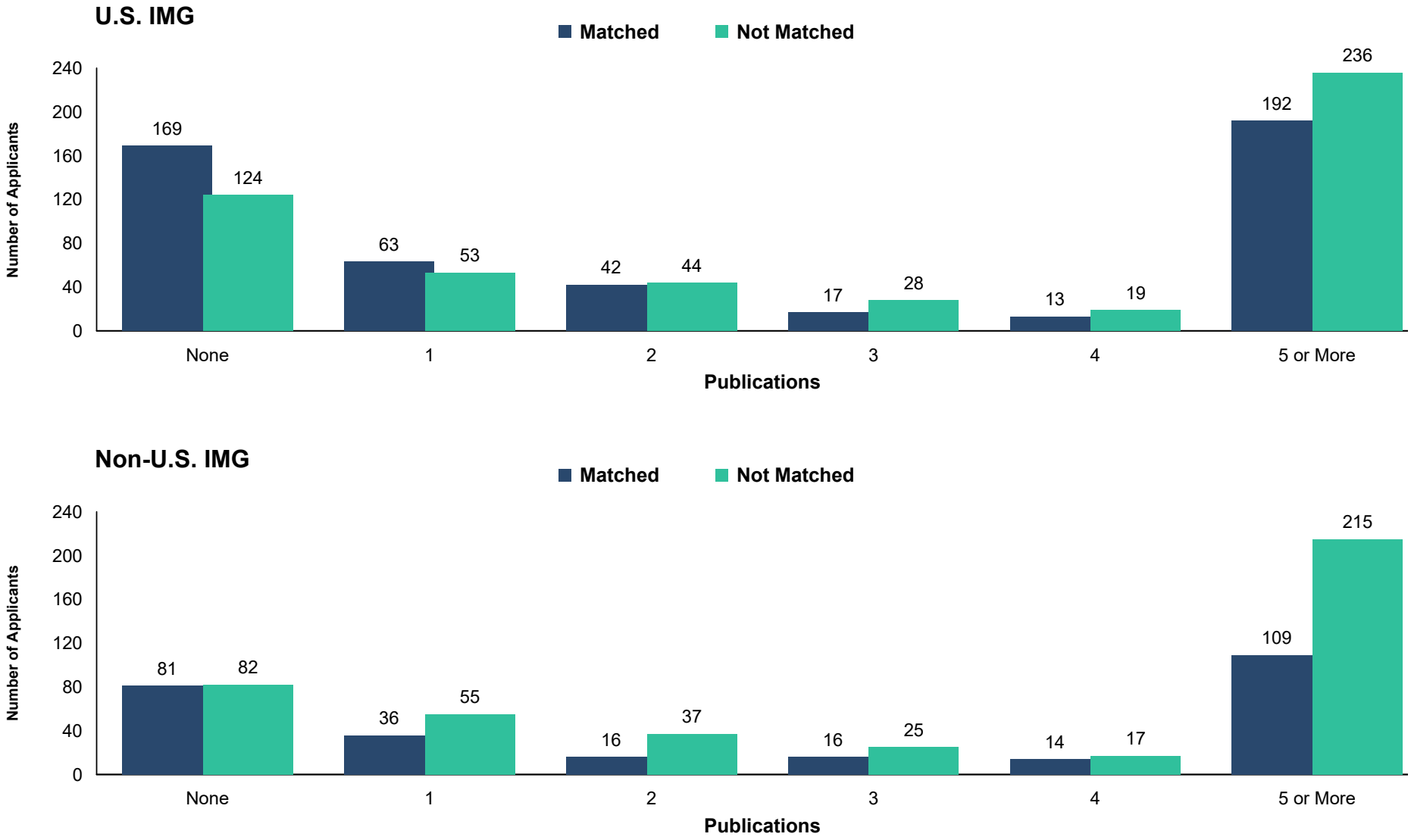


Source: NRMP Data Warehouse

Chart FM-6

Number of Abstracts, Presentations, and Publications of International Medical Graduates

Family Medicine

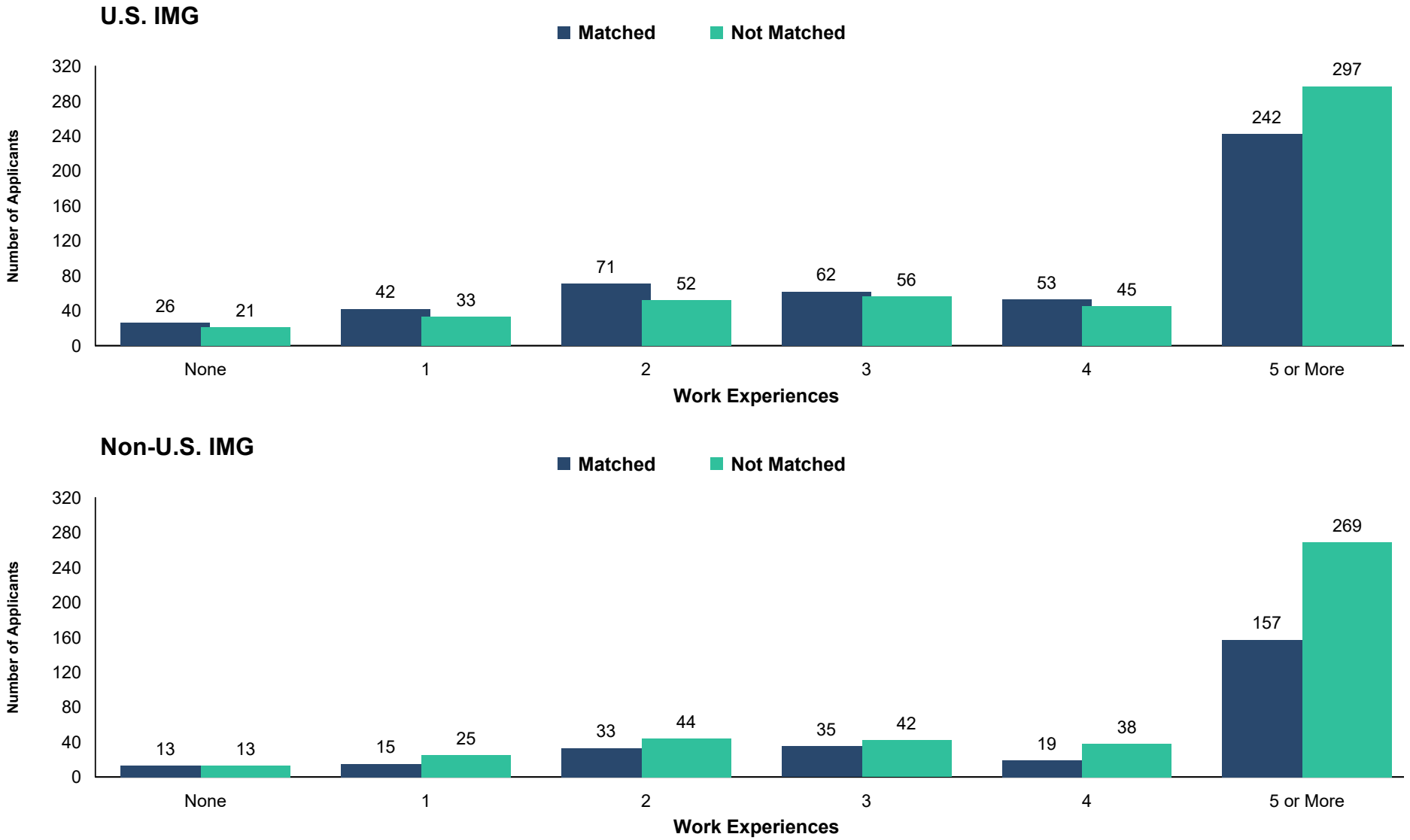


Source: NRMP Data Warehouse

Chart FM-7

Number of Work Experiences of International Medical Graduates

Family Medicine

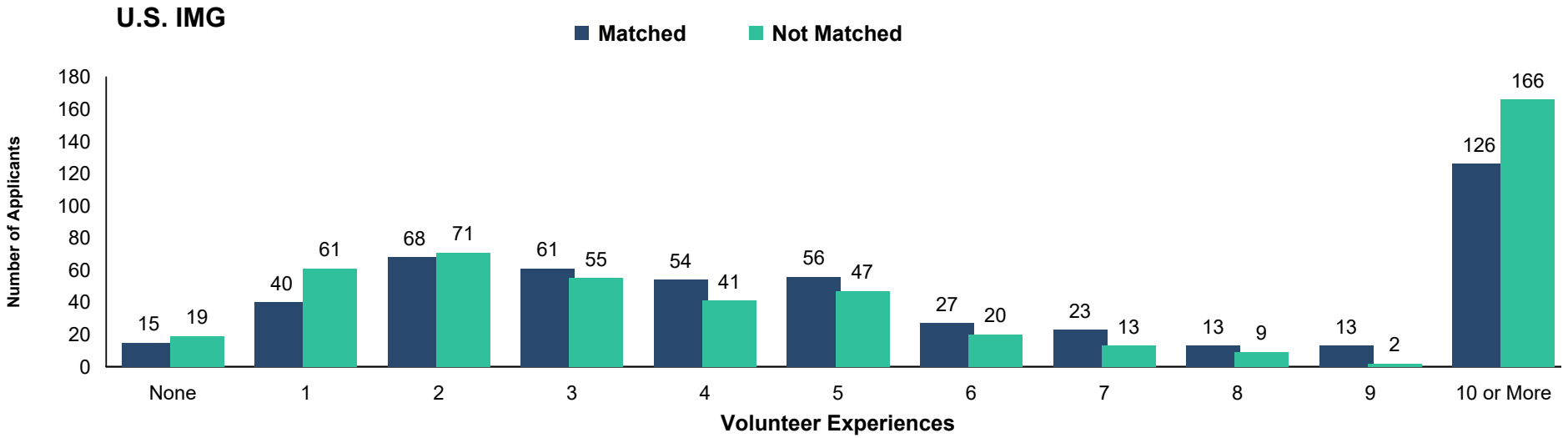


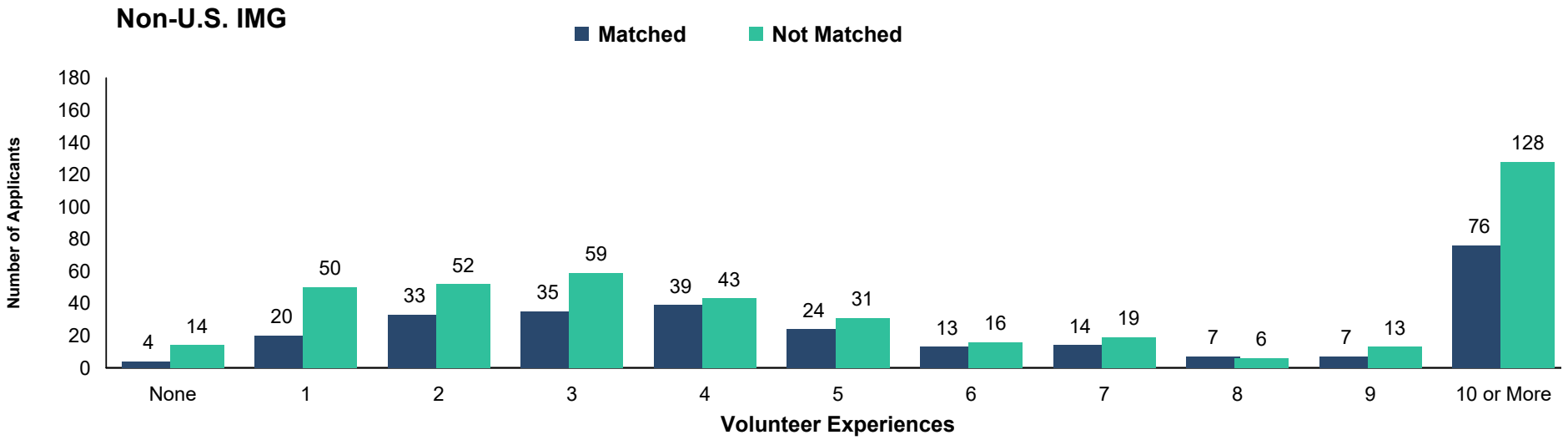
Source: NRMP Data Warehouse

Chart FM-8

Number of Volunteer Experiences of International Medical Graduates

Family Medicine





Source: NRMP Data Warehouse

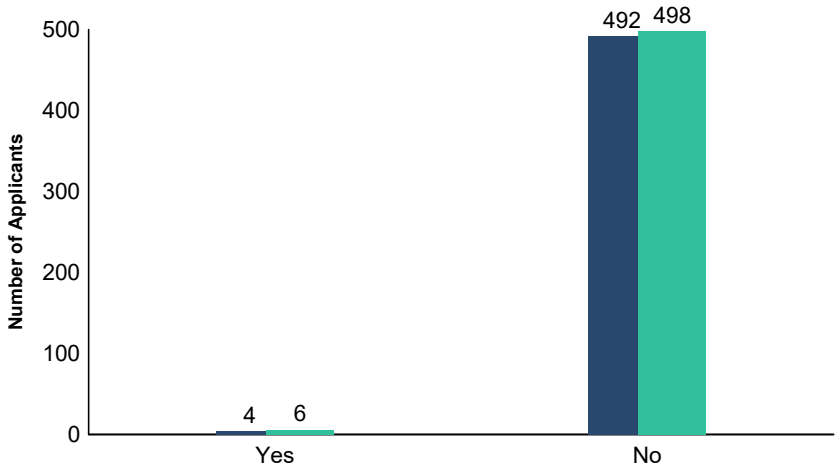
Chart FM-9

Other Characteristics of International Medical Graduates

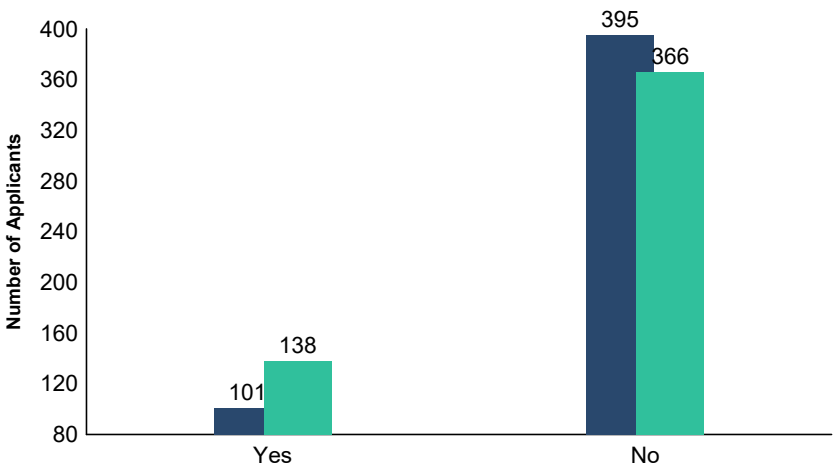
Family Medicine

U.S. IMG

Ph.D. Degree

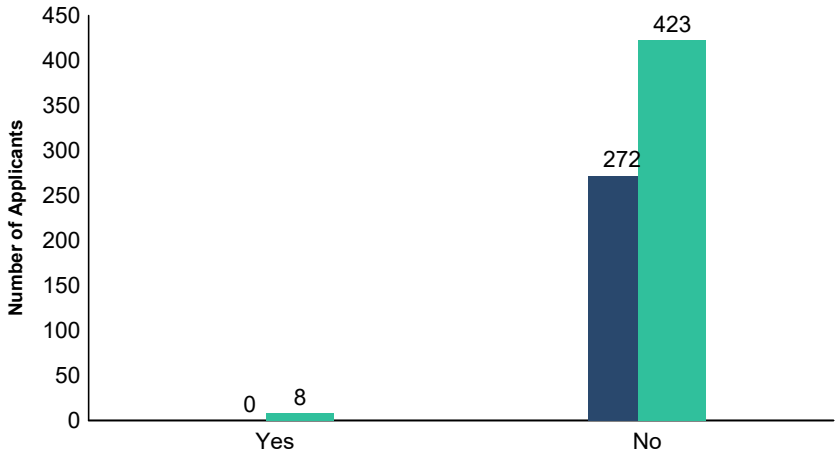


Other Graduate Degree

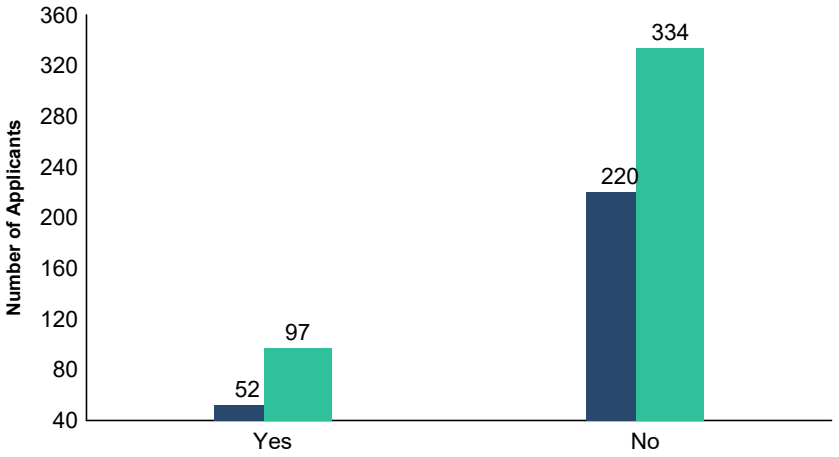


Non-U.S. IMG

Ph.D. Degree



Other Graduate Degree



Source: NRMP Data Warehouse

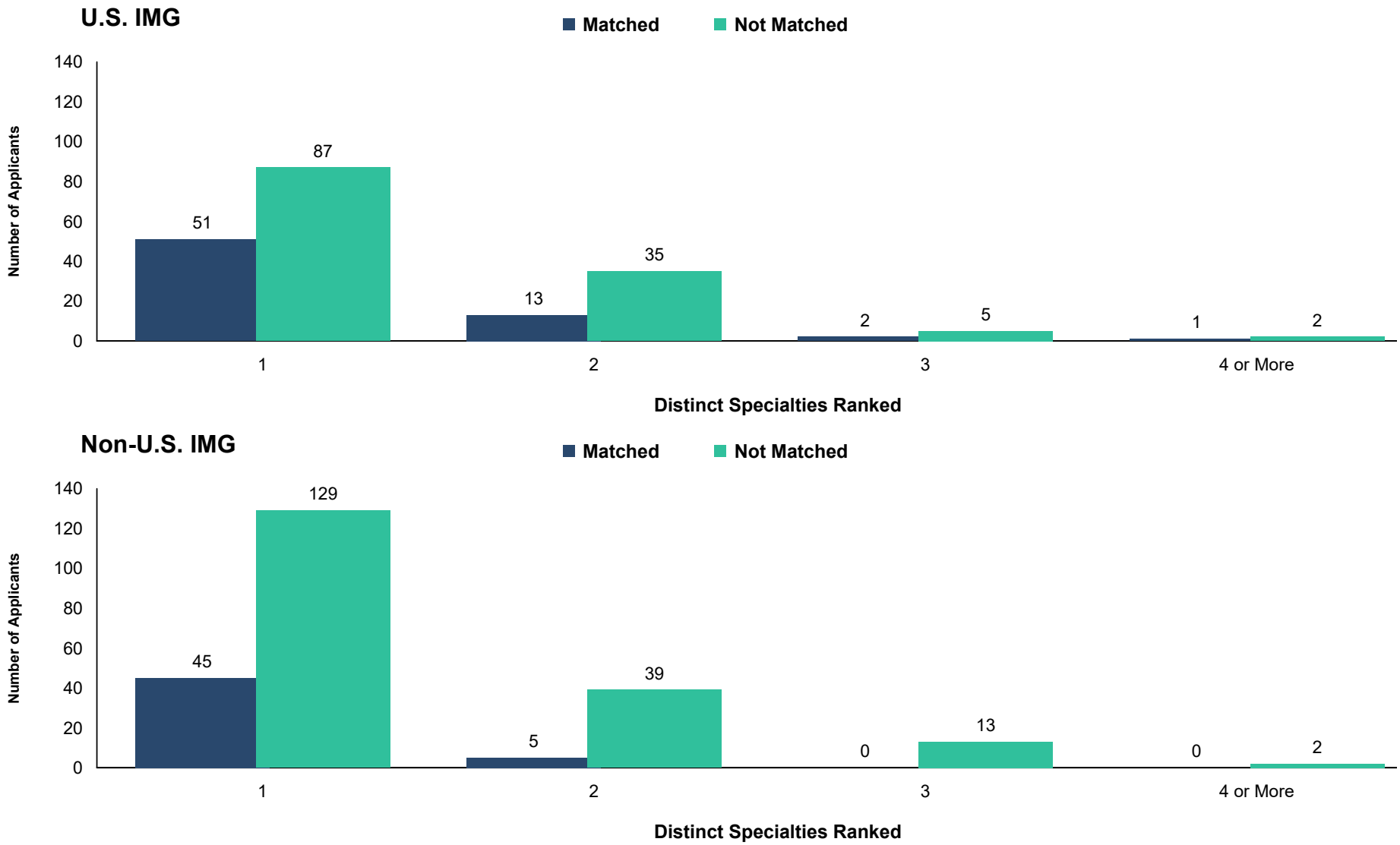
GS General Surgery

Table GS-1 Summary Statistics
General Surgery

Measure	U.S. IMGs		Non-U.S. IMGs	
	Matched (n=67)	Unmatched (n=129)	Matched (n=50)	Unmatched (n=183)
1. Mean number of contiguous ranks	5.9	2.3	3.6	2.2
2. Mean number of distinct specialties ranked	1.3	1.4	1.1	1.4
3. Mean USMLE Step 1 score	239	228	242	232
4. Mean USMLE Step 2 score	243	234	245	236
5. Mean number of research experiences	2.3	2.3	3.6	2.8
6. Mean number of abstracts, presentations, and publications	5.9	3.5	12.7	9.2
7. Mean number of work experiences	4.3	4.1	4.6	4.8
8. Mean number of volunteer experiences	3.8	4.0	3.4	3.3
9. Percentage who have a Ph.D. degree	0.0	0.0	2.3	2.6
10. Percentage who have another graduate degree	15.8	24.5	20.9	29.1

Note: Only applicants who gave consent to use their information in research are included.
Source. NRMP Data Warehouse

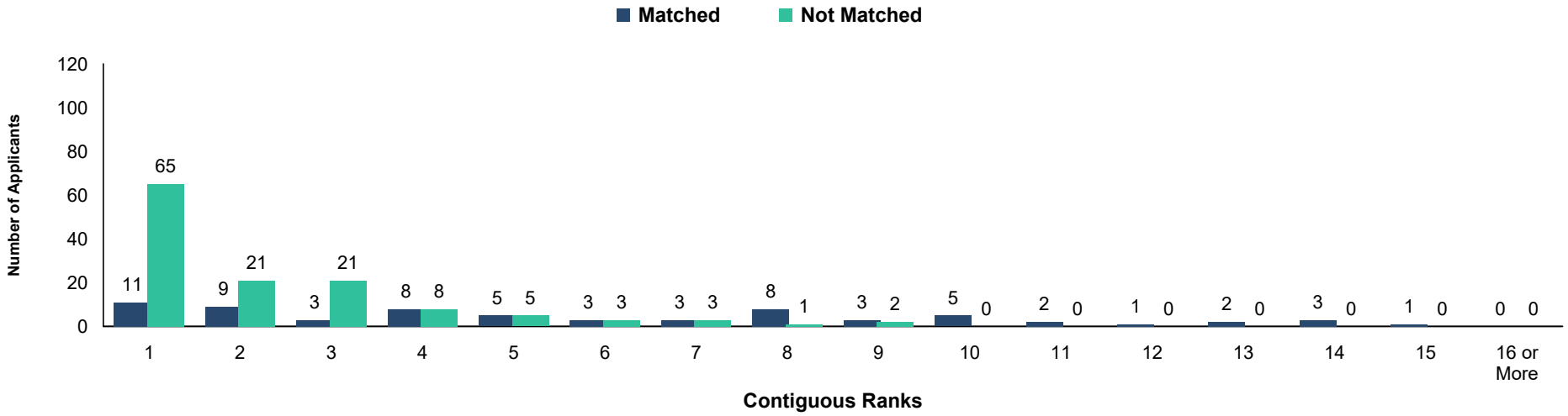
Chart GS-1 Number of Distinct Specialties Ranked by International Medical Graduates



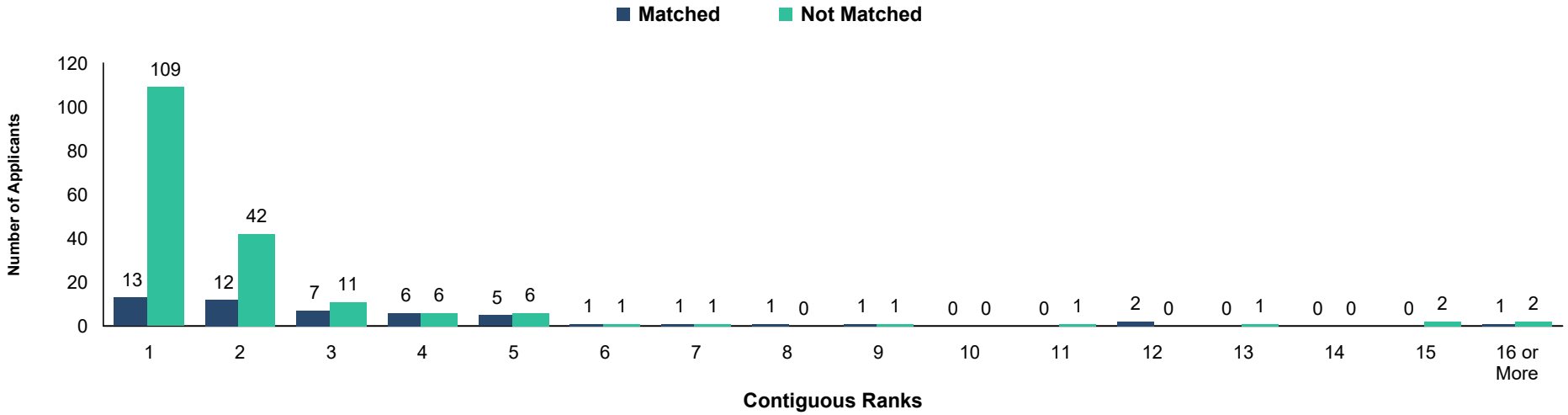
Source: NRMP Data Warehouse

Chart GS-2 Number of Contiguous Ranks of International Medical Graduates

U.S. IMG



Non-U.S. IMG

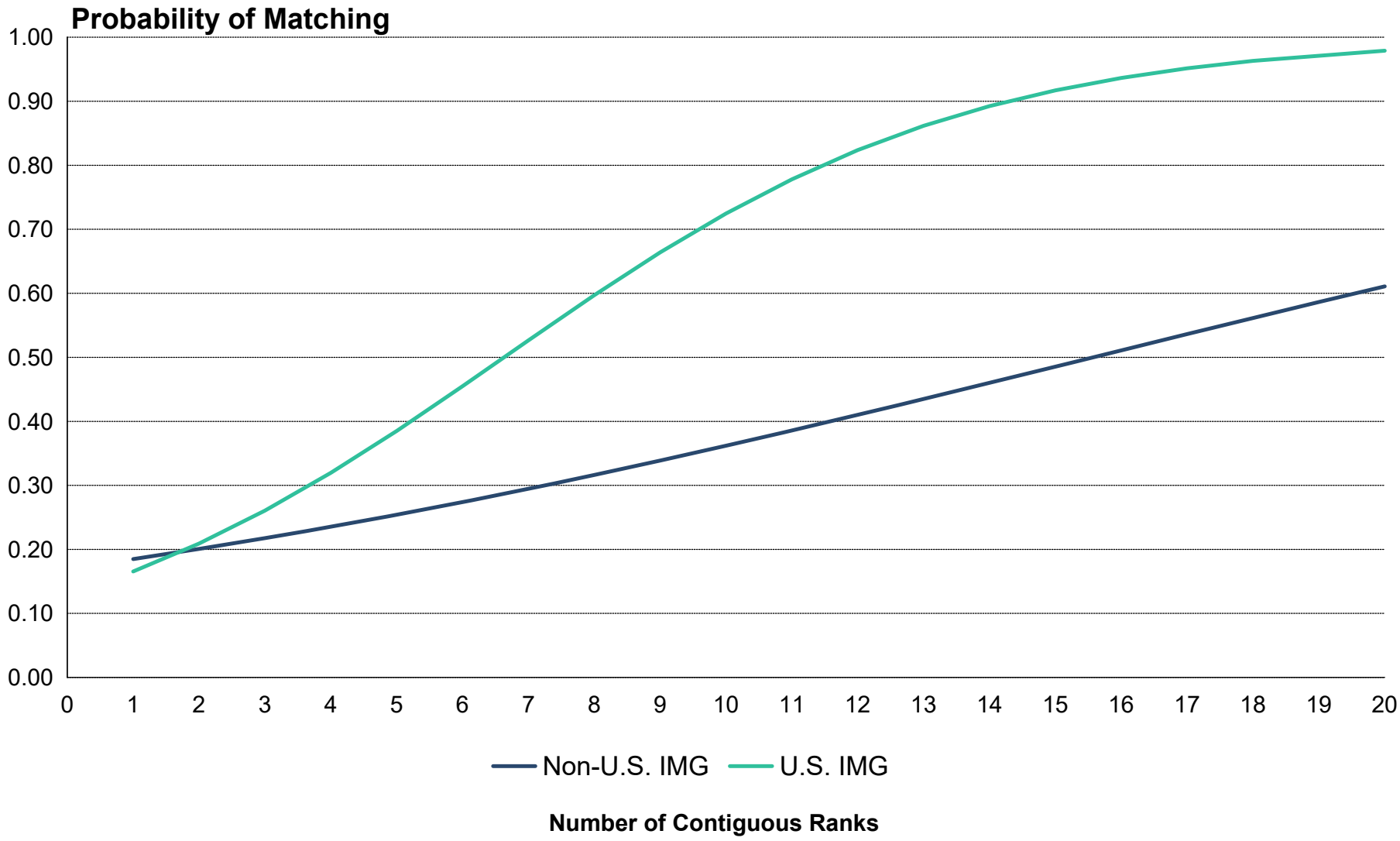


Source: NRMP Data Warehouse

Graph GS-1

Probability of International Medical Graduates Matching to Preferred Specialty by Number of Contiguous Ranks

General Surgery

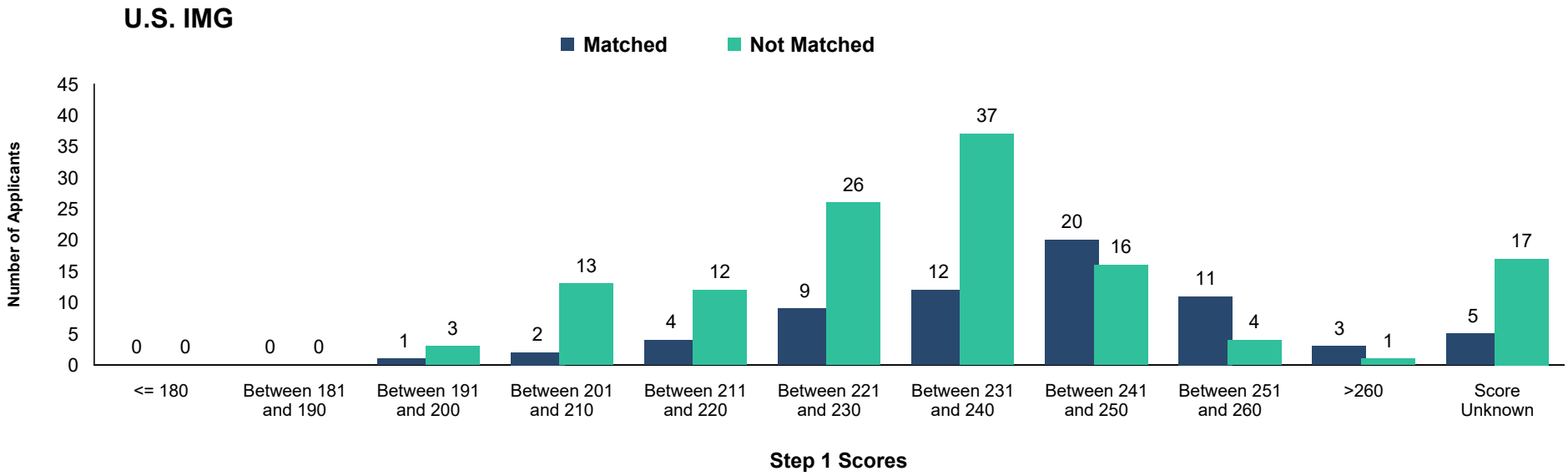


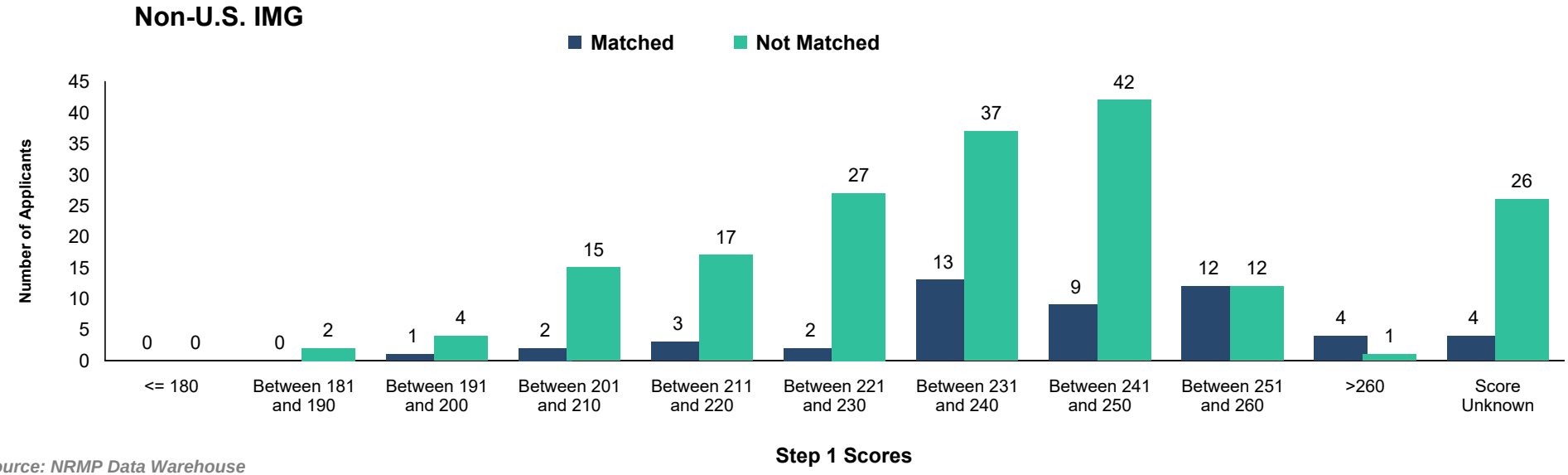
Source: NRMP Data Warehouse. Note: Probabilities calculated based on 2014-2016 applicants

Chart GS-3

USMLE Step 1 Scores of International Medical Graduates

General Surgery



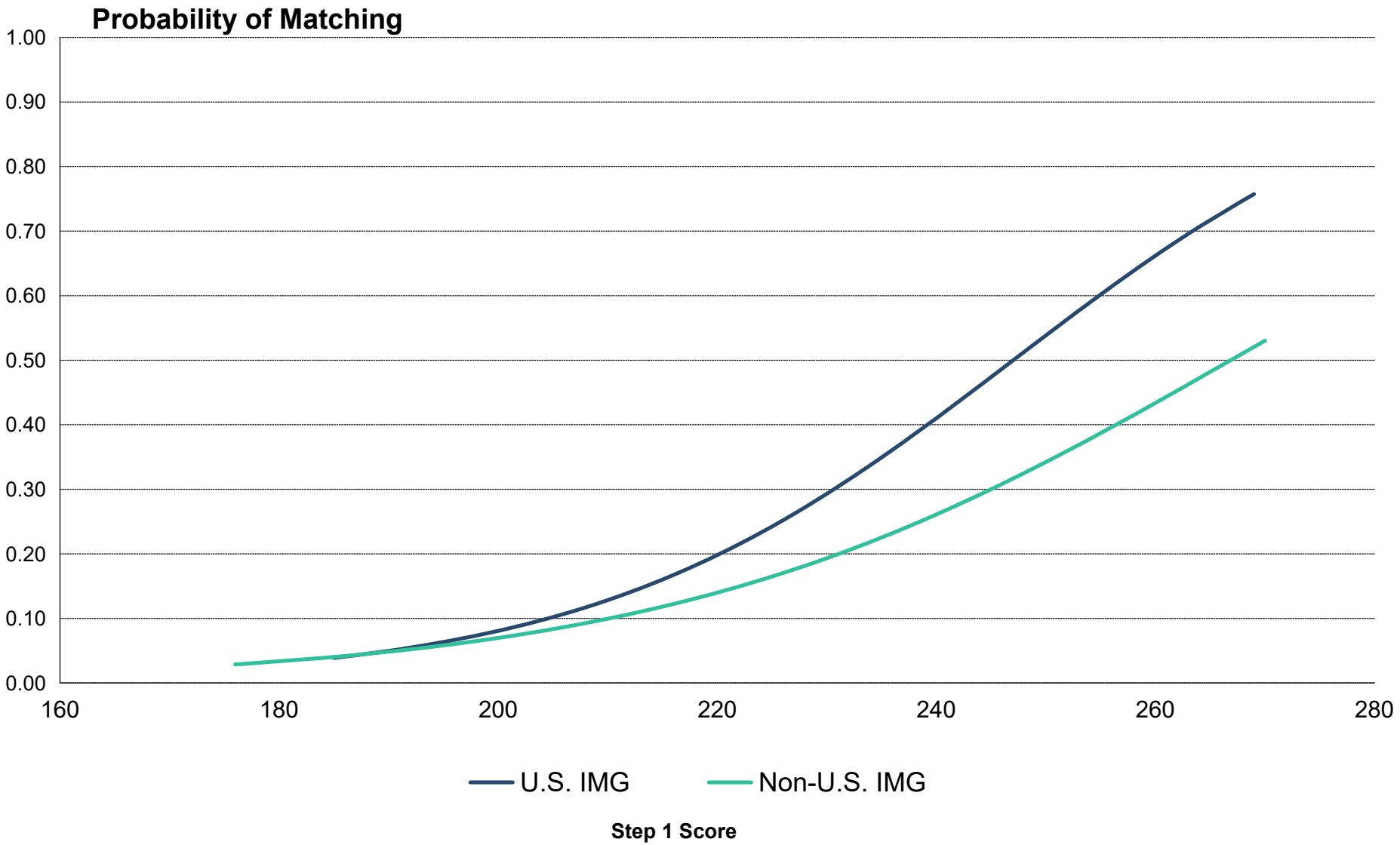


Source: NRMP Data Warehouse

Graph GS-2

Probability of International Medical Graduates Matching to Preferred Specialty by USMLE Step 1 Score

General Surgery

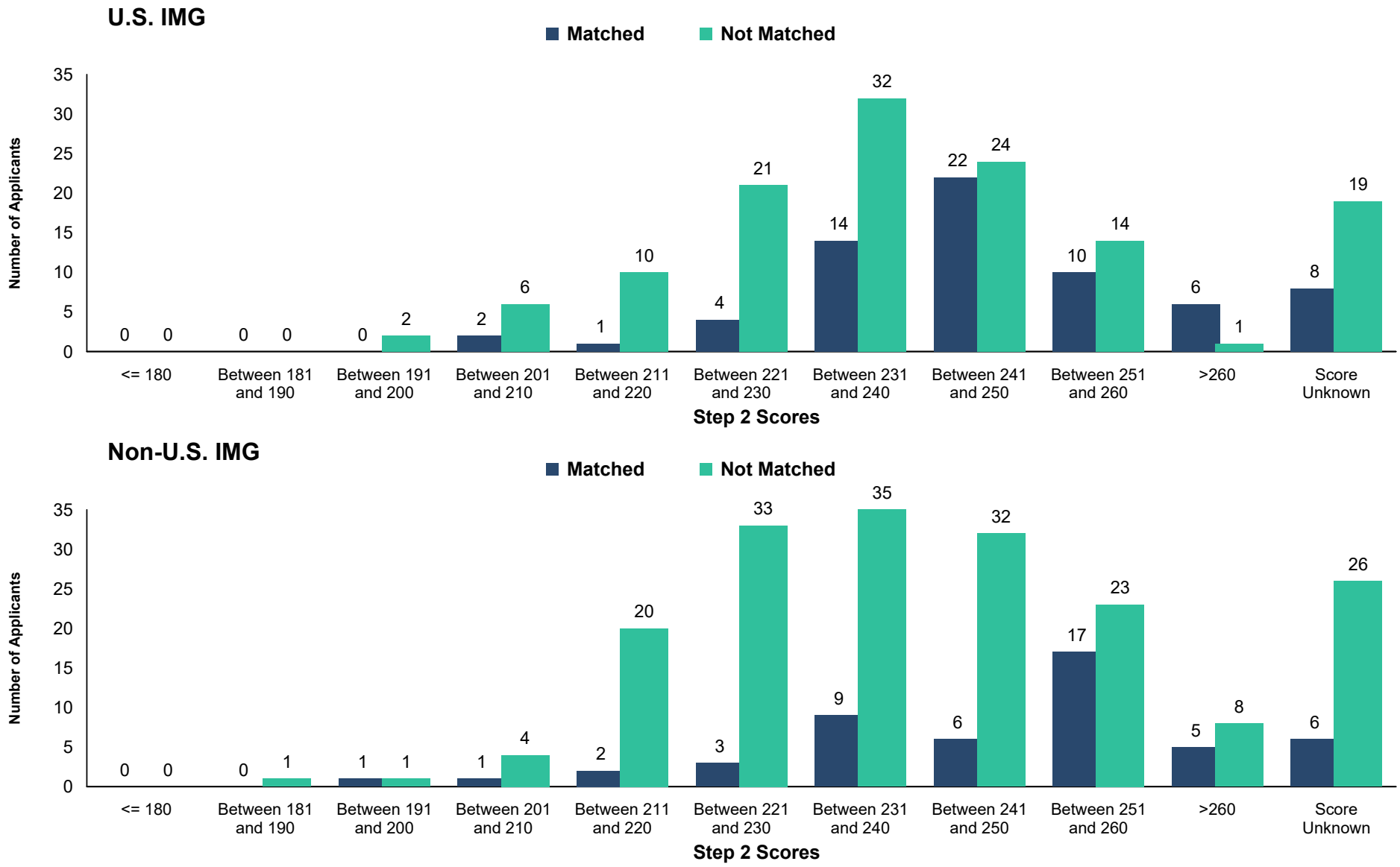


Source: NRMP Data Warehouse. Note: Probabilities calculated based on 2014-2016 applicants.

Chart GS-4

USMLE Step 2 CK Scores of International Medical Graduates

General Surgery

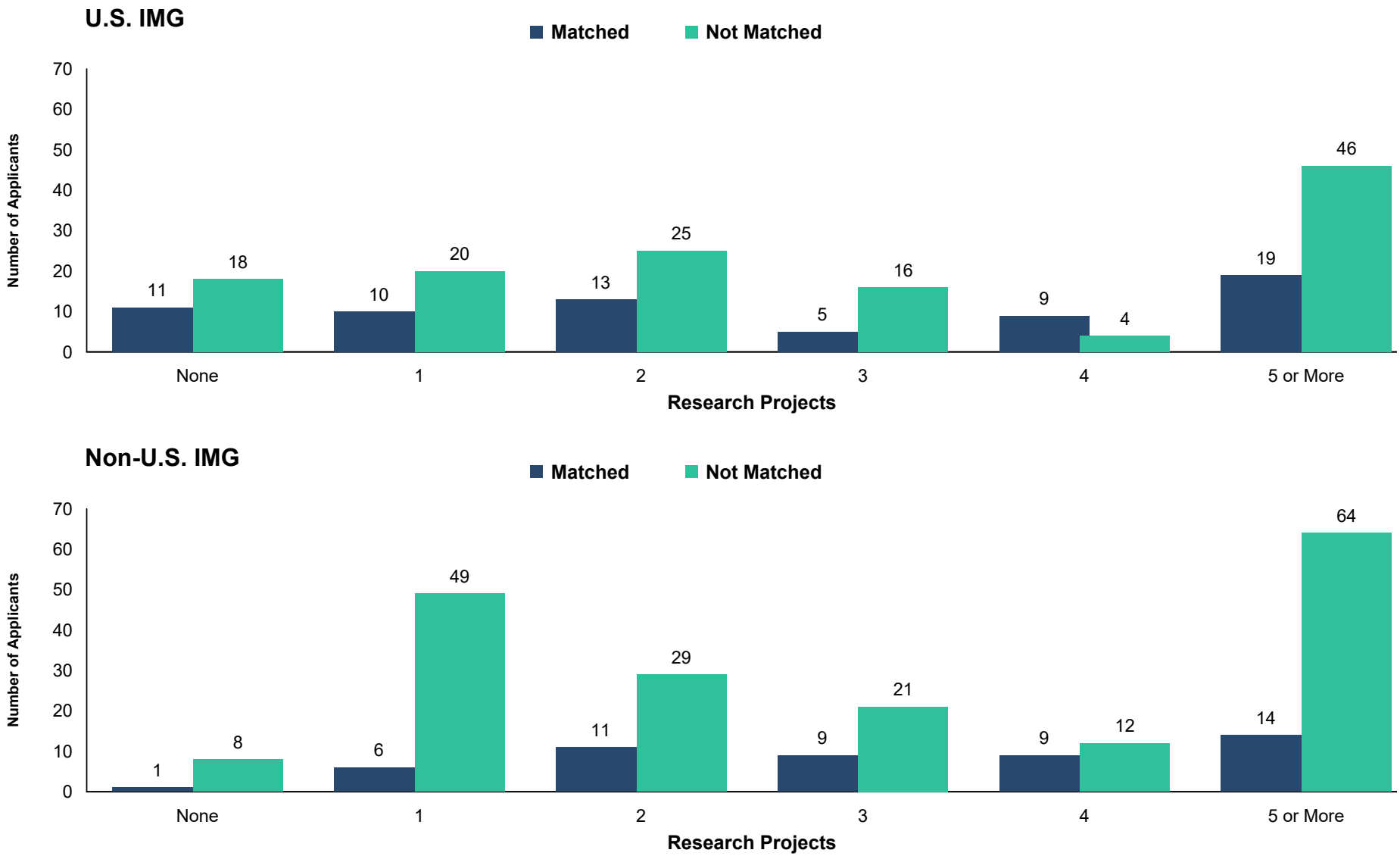


Source: NRMP Data Warehouse

Chart GS-5

Number of Research Projects of International Medical Graduates

General Surgery

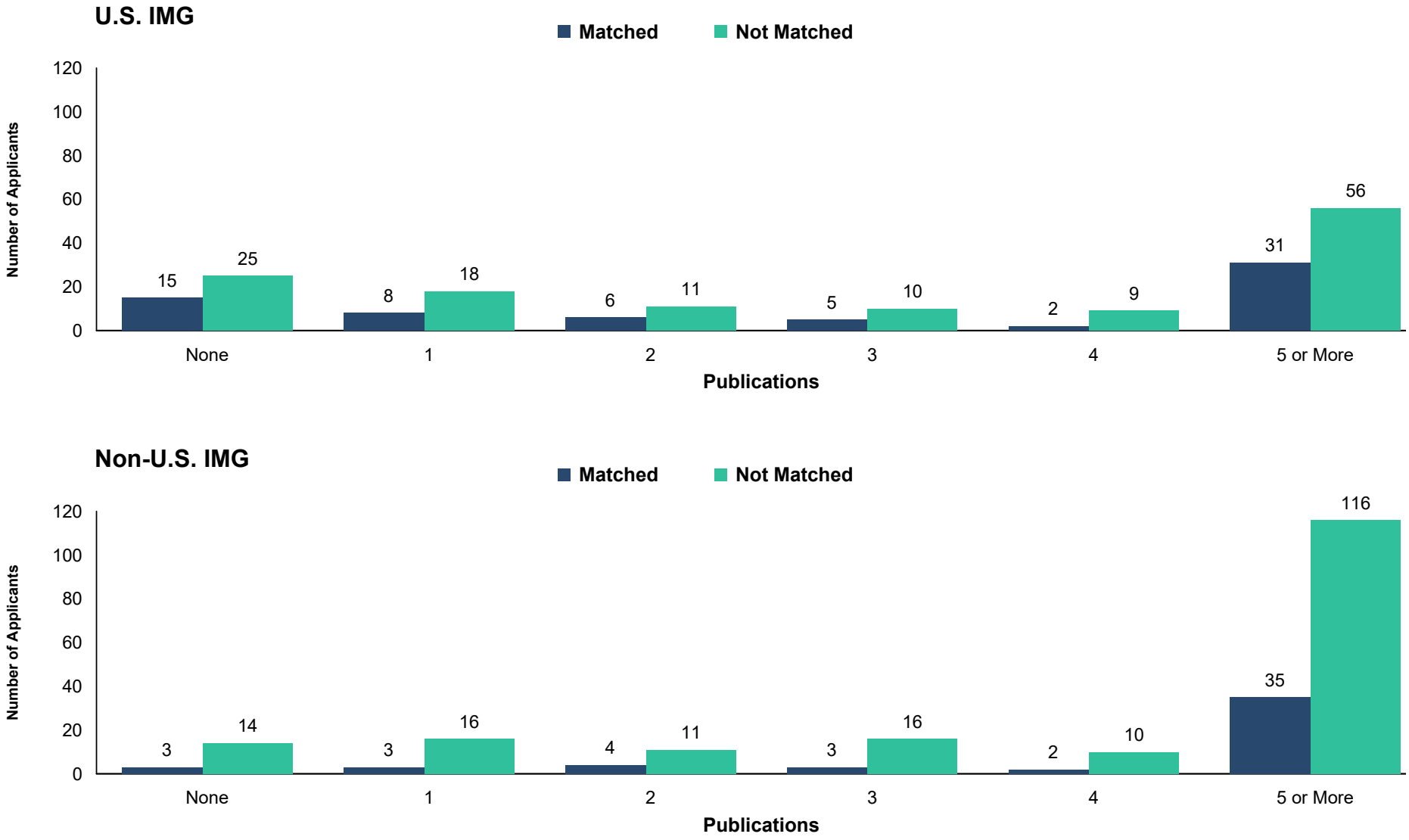


Source: NRMP Data Warehouse

Chart GS-6

Number of Abstracts, Presentations, and Publications of International Medical Graduates

General Surgery

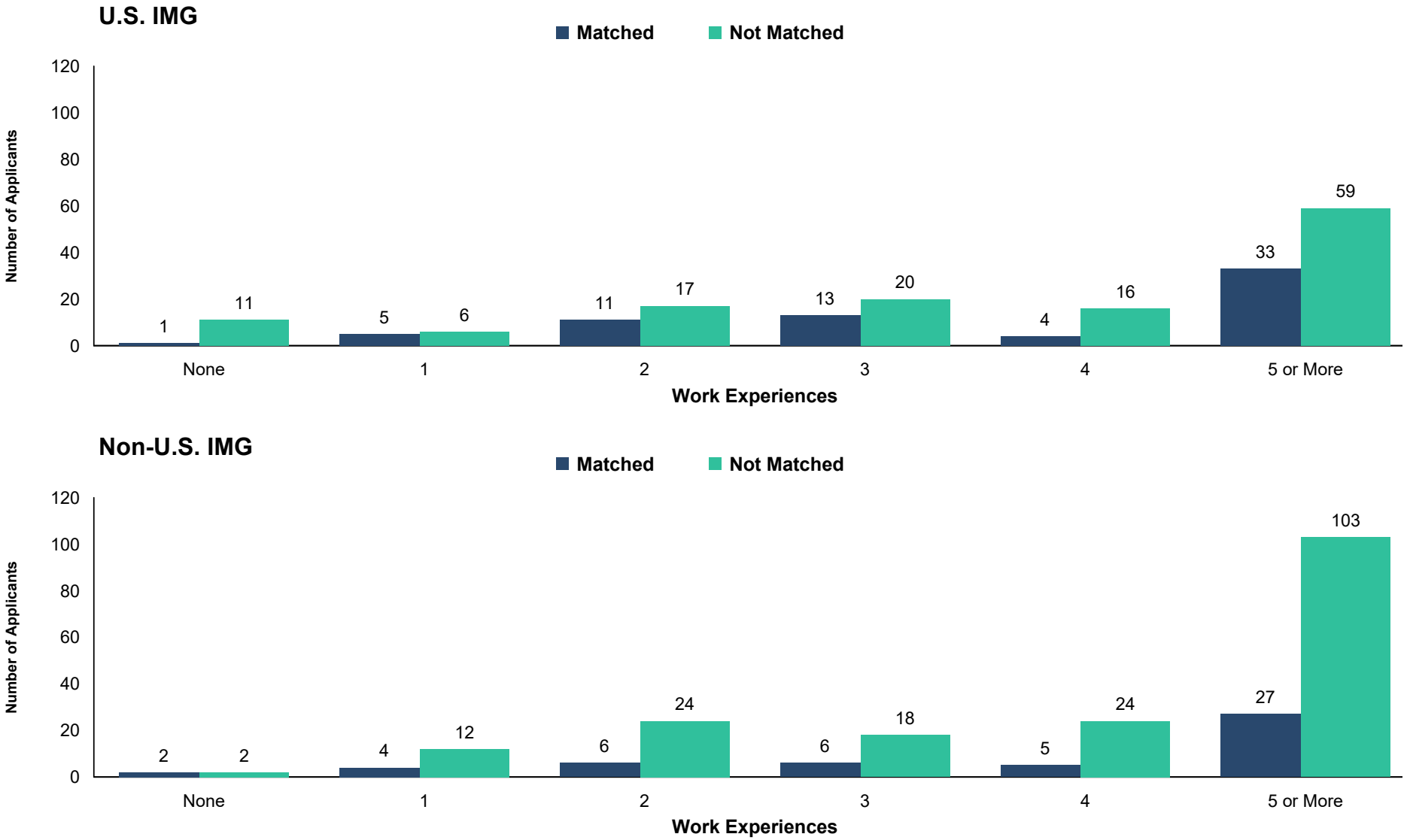


Source: NRMP Data Warehouse

Chart GS-7

Number of Work Experiences of International Medical Graduates

General Surgery

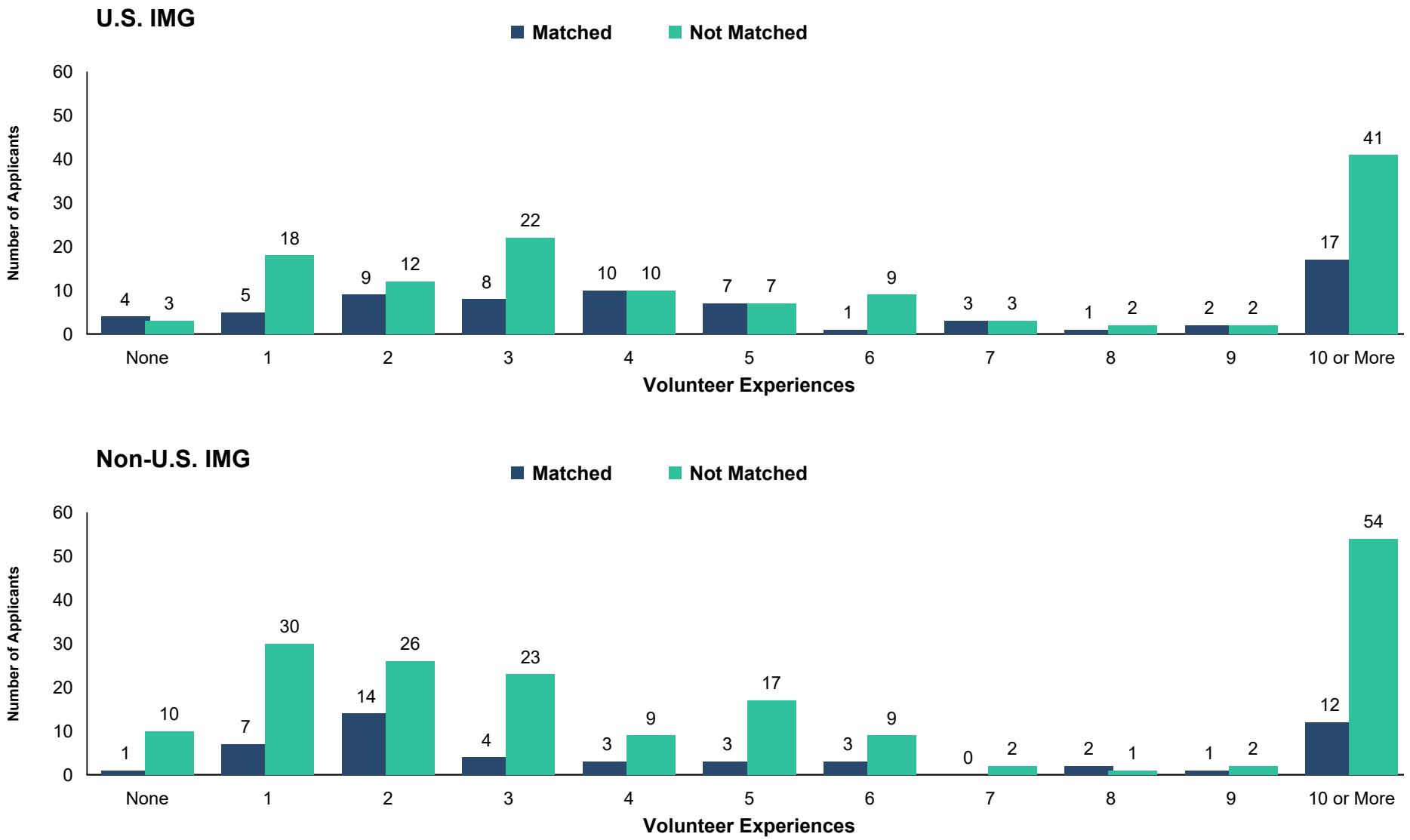


Source: NRMP Data Warehouse

Chart GS-8

Number of Volunteer Experiences of International Medical Graduates

General Surgery



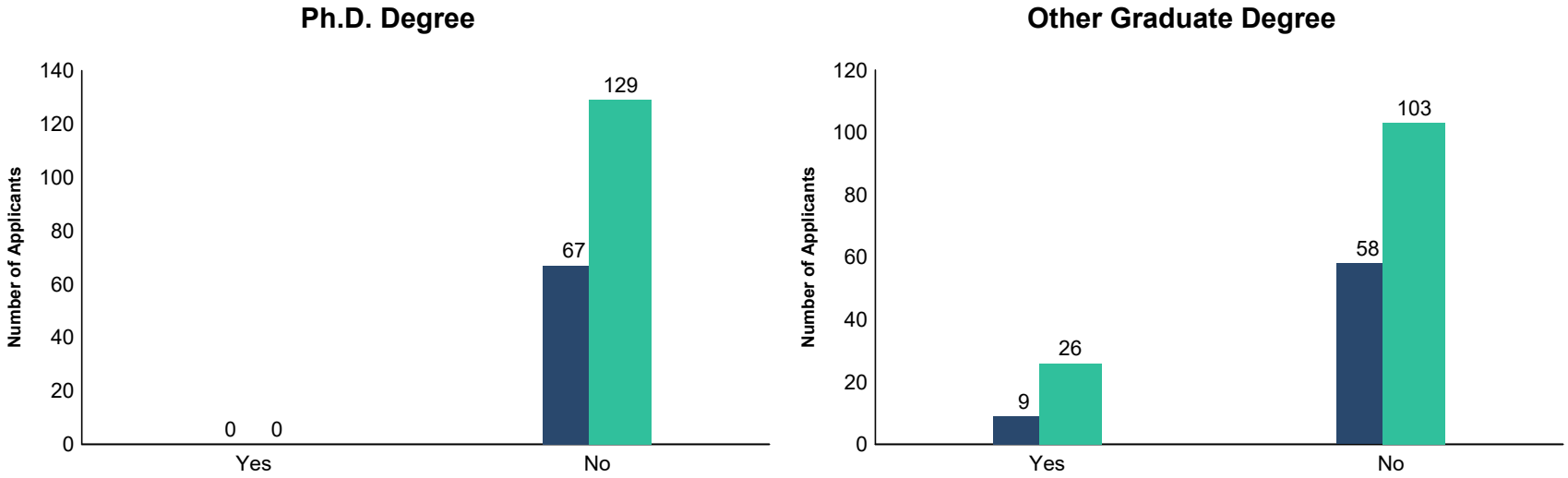
Source: NRMP Data Warehouse

Chart GS-9

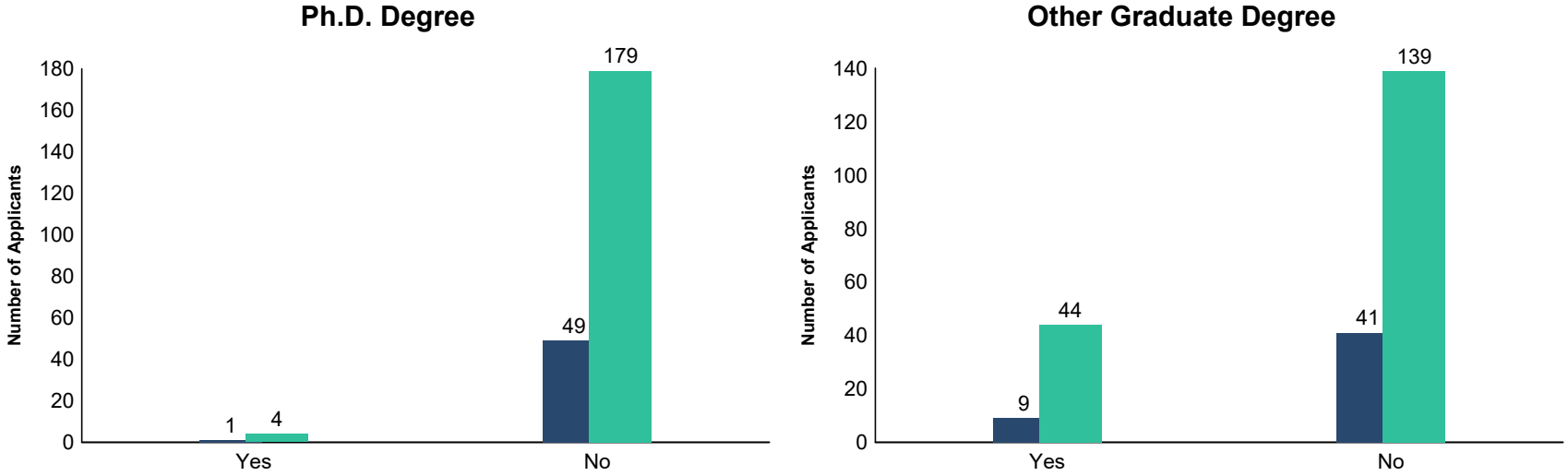
Other Characteristics of International Medical Graduates

General Surgery

U.S. IMG



Non-U.S. IMG



Source: NRMP Data Warehouse

IM Internal Medicine

Table IM-1 Summary Statistics
Internal Medicine

Measure	U.S. IMGs		Non-U.S. IMGs	
	Matched (n=854)	Unmatched (n=728)	Matched (n=1,810)	Unmatched (n=1,499)
1. Mean number of contiguous ranks	8.2	2.2	7.0	2.6
2. Mean number of distinct specialties ranked	1.3	1.6	1.2	1.4
3. Mean USMLE Step 1 score	228	209	236	222
4. Mean USMLE Step 2 score	234	218	241	226
5. Mean number of research experiences	1.8	3.0	2.0	2.0
6. Mean number of abstracts, presentations, and publications	2.5	3.1	4.7	5.0
7. Mean number of work experiences	3.7	4.8	5.4	5.5
8. Mean number of volunteer experiences	4.0	3.8	3.4	3.3
9. Percentage who have a Ph.D. degree	0.5	1.7	2.6	3.3
10. Percentage who have another graduate degree	19.3	24.7	17.9	22.8

Note: Only applicants who gave consent to use their information in research are included.
Source. NRMP Data Warehouse

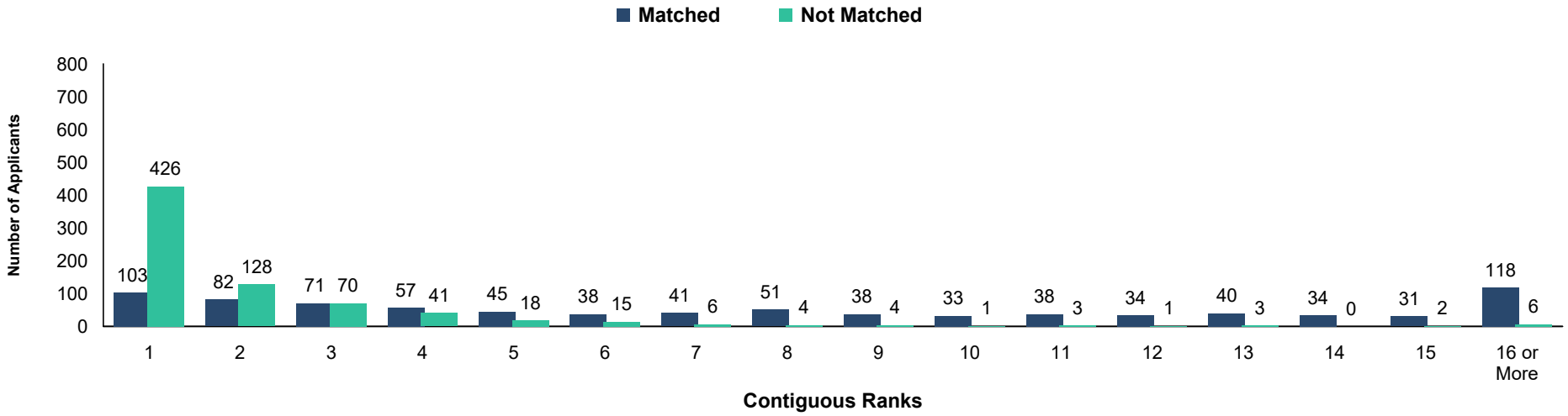
Chart IM-1 Number of Distinct Specialties Ranked by International Medical Graduates

Source: NRMP Data Warehouse

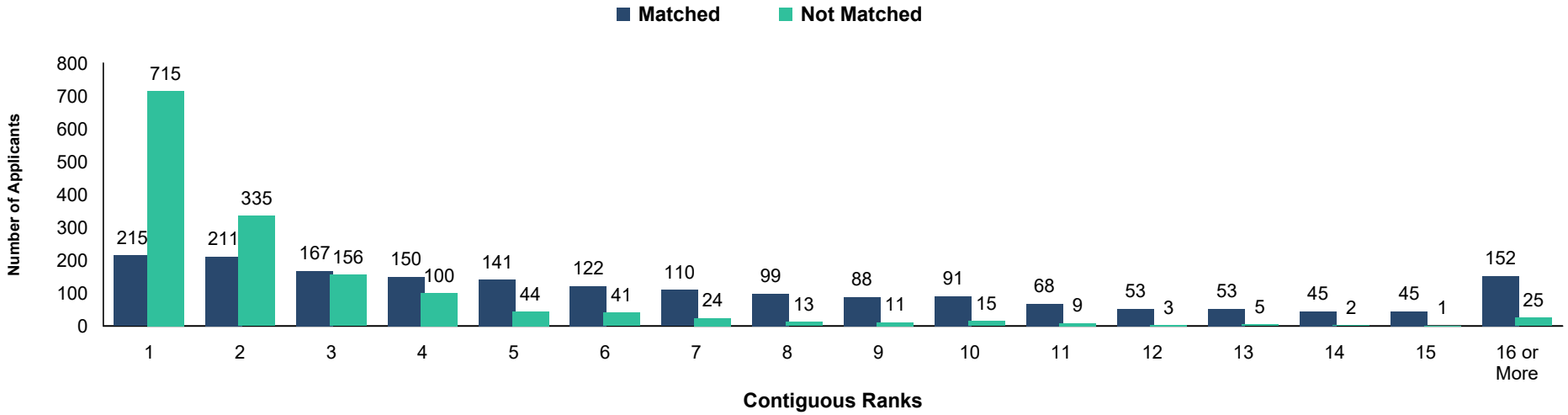
Chart IM-2

Number of Contiguous Ranks of International Medical Graduates

U.S. IMG



Non-U.S. IMG

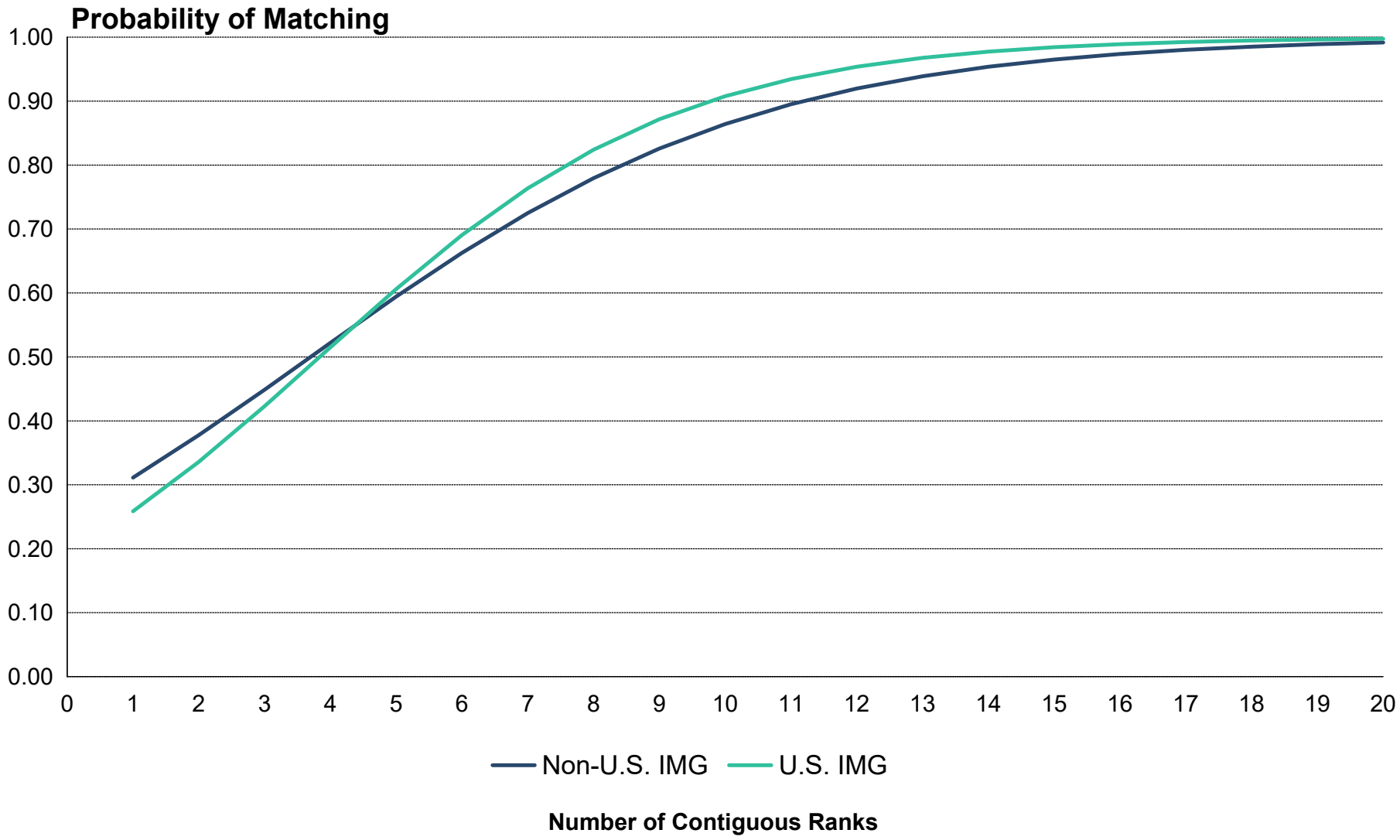


Source: NRMP Data Warehouse

Graph IM-1

Probability of International Medical Graduates Matching to Preferred Specialty by Number of Contiguous Ranks

Internal Medicine



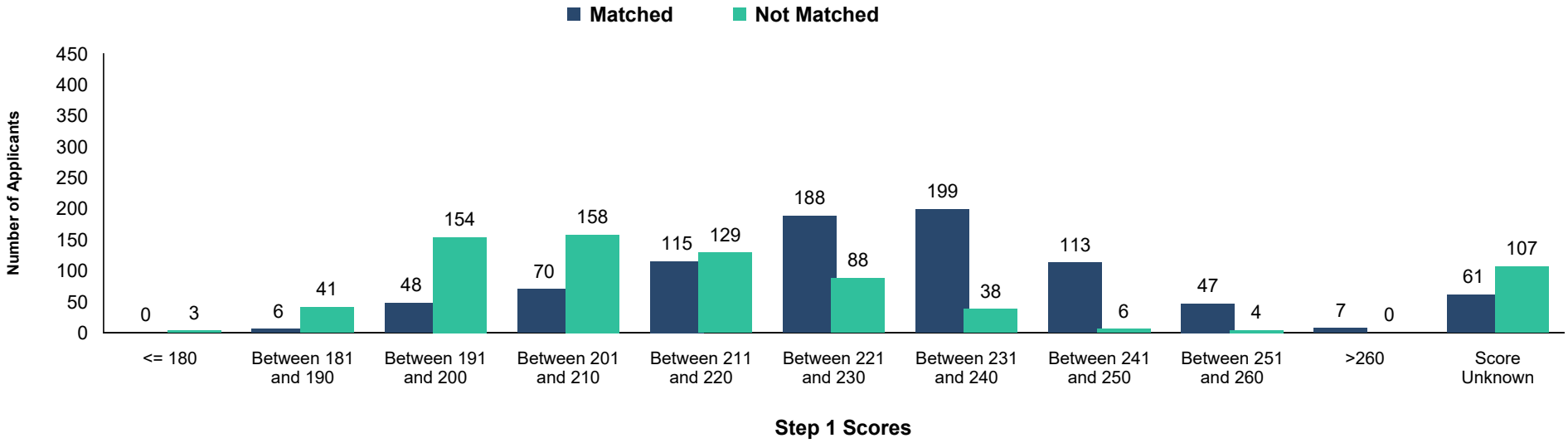
Source: NRMP Data Warehouse. Note: Probabilities calculated based on 2014-2016 applicants

Chart IM-3

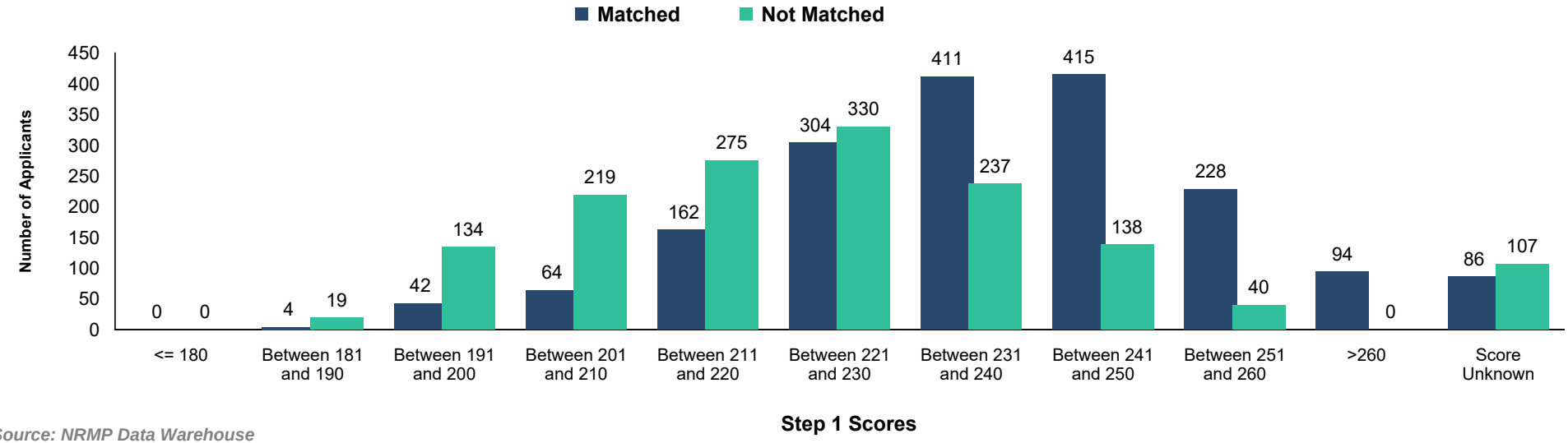
USMLE Step 1 Scores of International Medical Graduates

Internal Medicine

U.S. IMG



Non-U.S. IMG

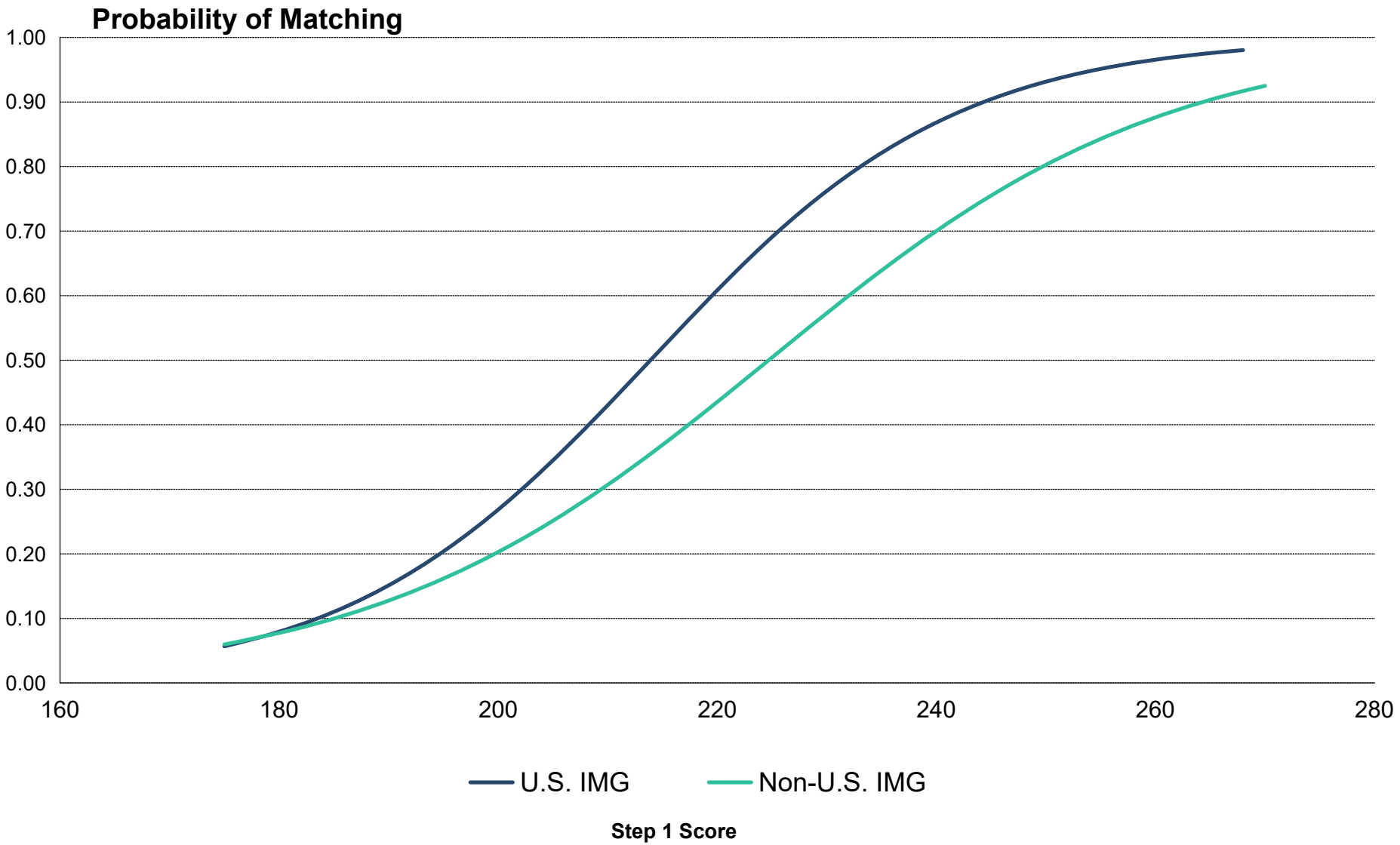


Source: NRMP Data Warehouse

Graph IM-2

Probability of International Medical Graduates Matching to Preferred Specialty by USMLE Step 1 Score

Internal Medicine

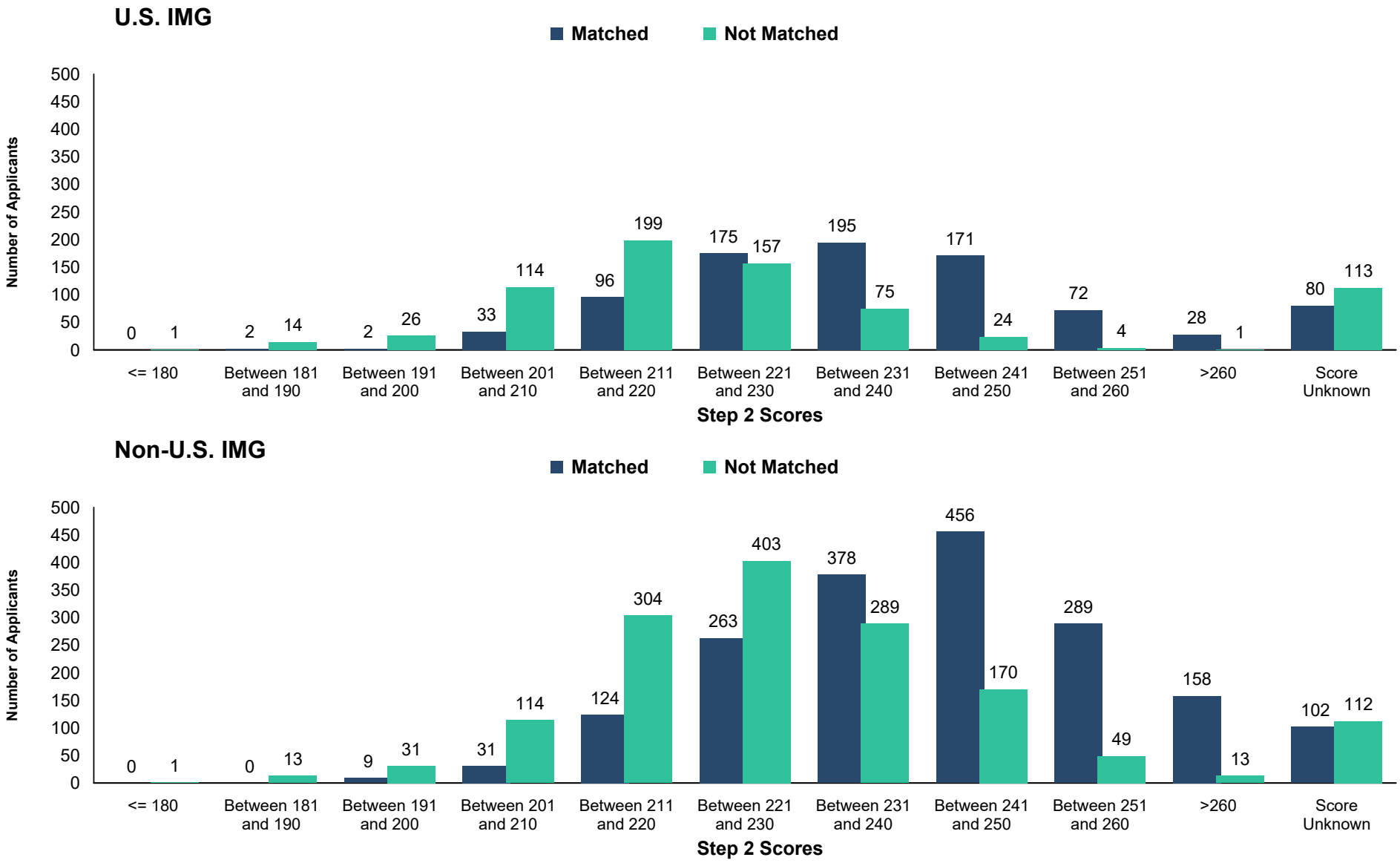


Source: NRMP Data Warehouse. Note: Probabilities calculated based on 2014-2016 applicants.

Chart IM-4

USMLE Step 2 CK Scores of International Medical Graduates

Internal Medicine

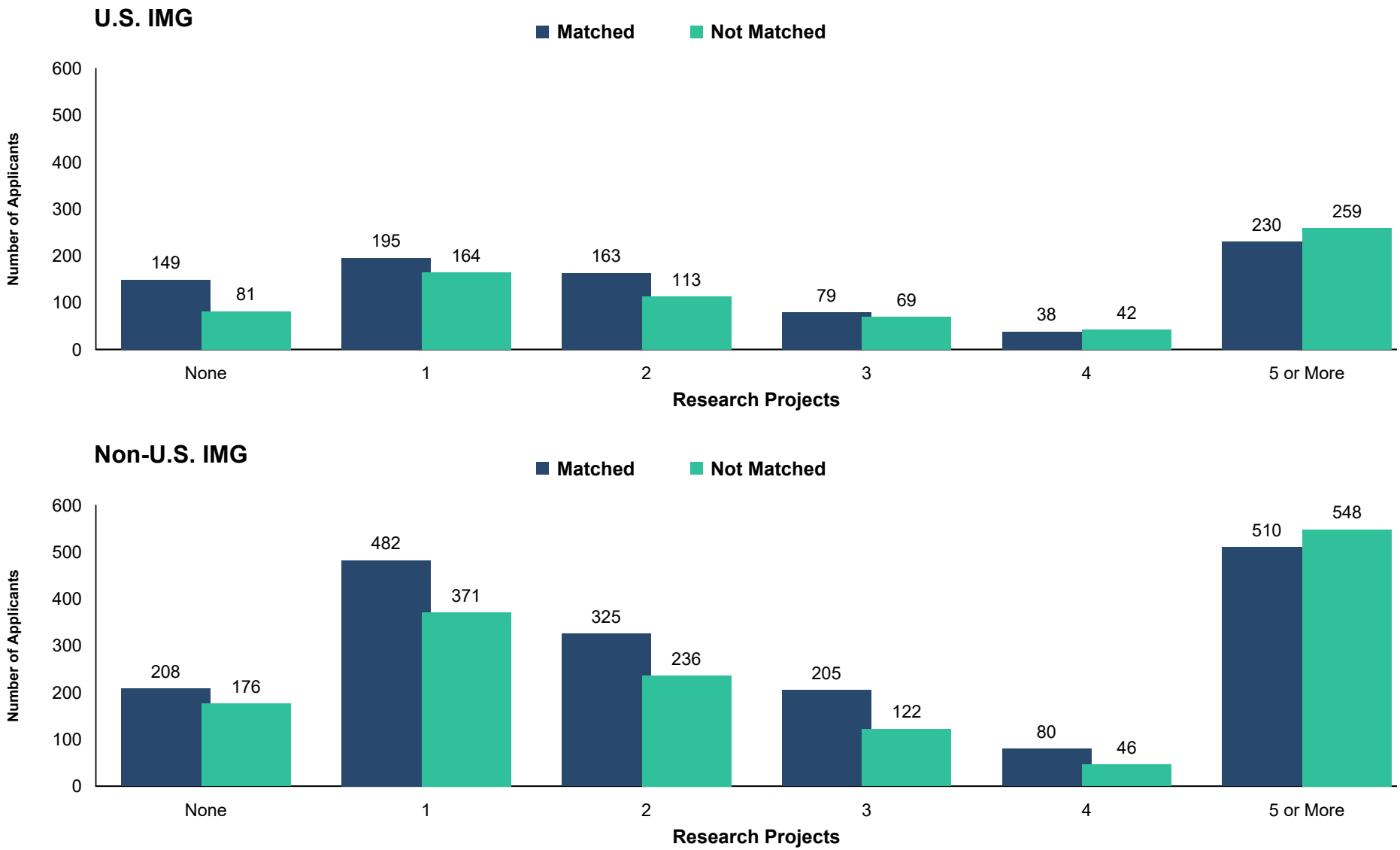


Source: NRMP Data Warehouse

Chart IM-5

Number of Research Projects of International Medical Graduates

Internal Medicine

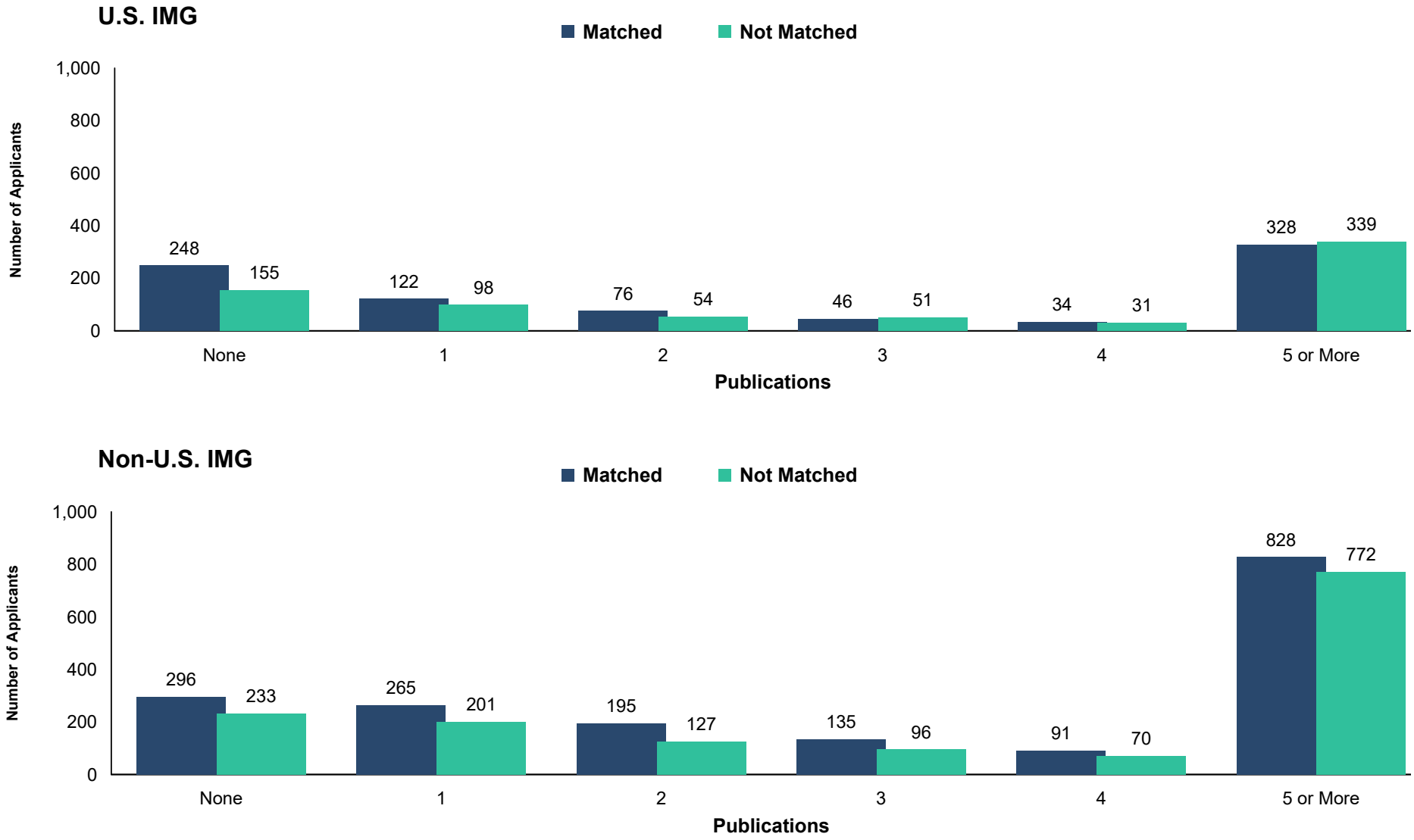


Source: NRMP Data Warehouse

Chart IM-6

Number of Abstracts, Presentations, and Publications of International Medical Graduates

Internal Medicine

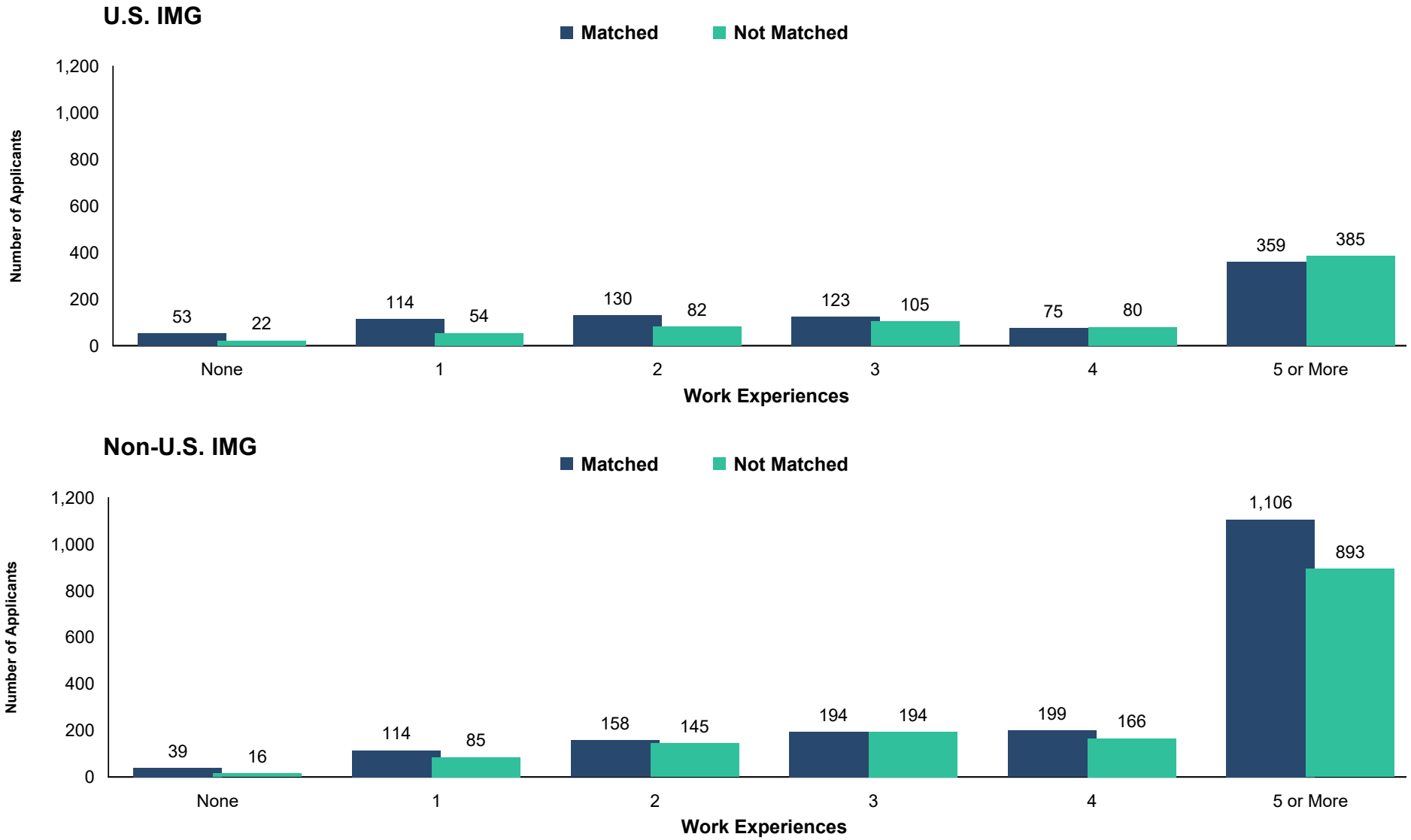


Source: NRMP Data Warehouse

Chart IM-7

Number of Work Experiences of International Medical Graduates

Internal Medicine

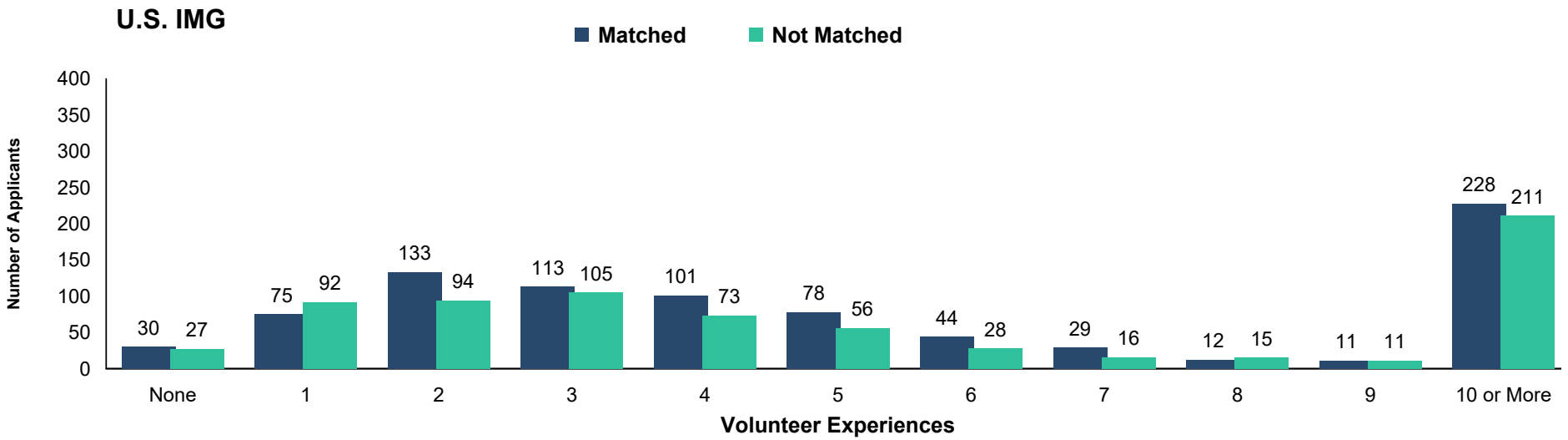


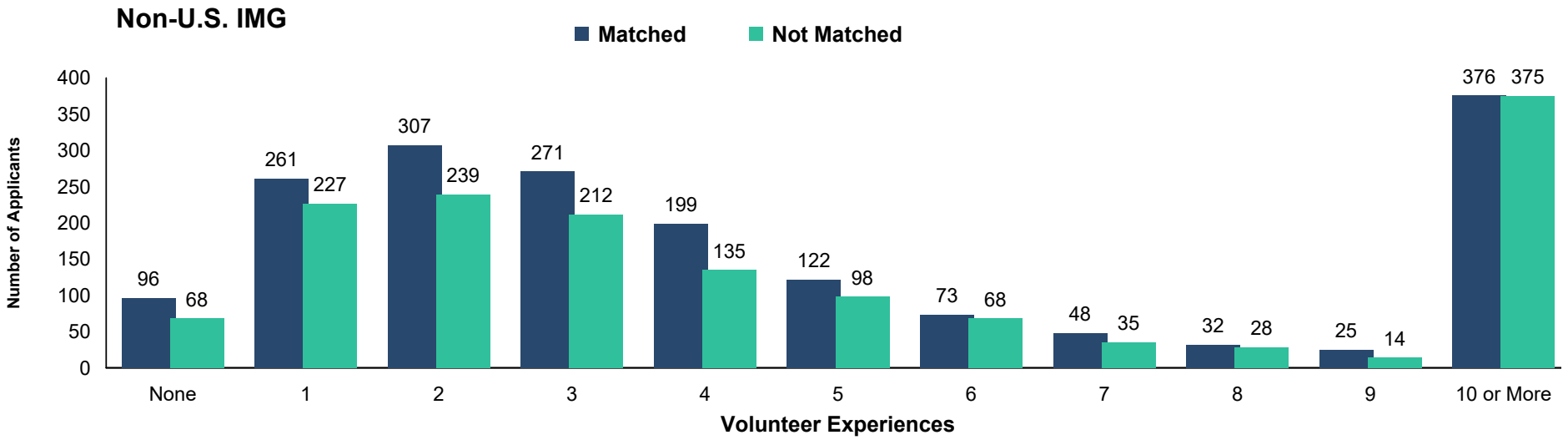
Source: NRMP Data Warehouse

Chart IM-8

Number of Volunteer Experiences of International Medical Graduates

Internal Medicine





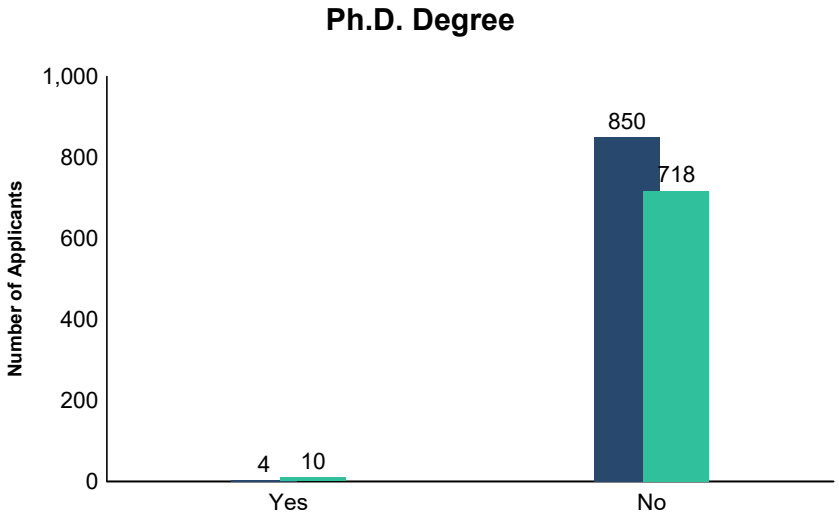
Source: NRMP Data Warehouse

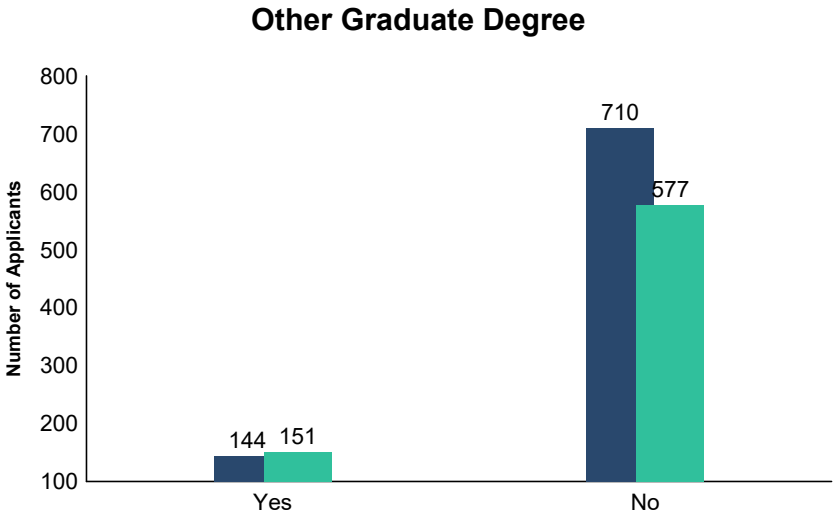
Chart IM-9

Other Characteristics of International Medical Graduates

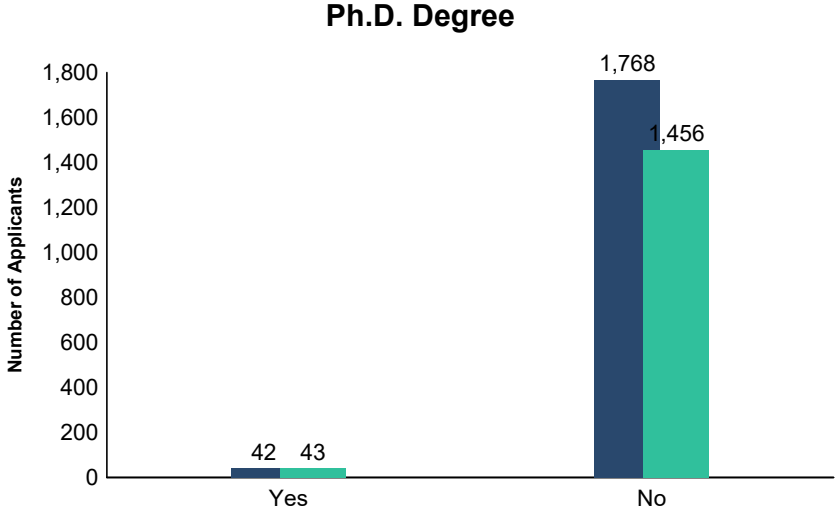
Internal Medicine

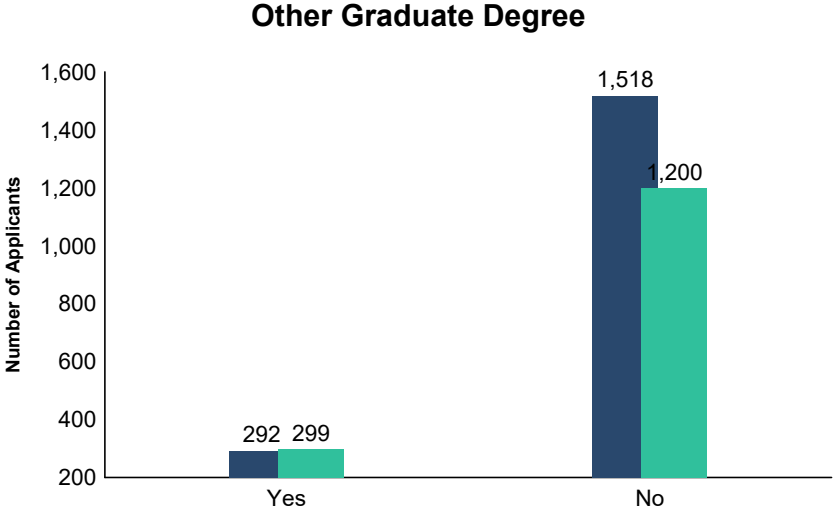
U.S. IMG





Non-U.S. IMG





Source: NRMP Data Warehouse

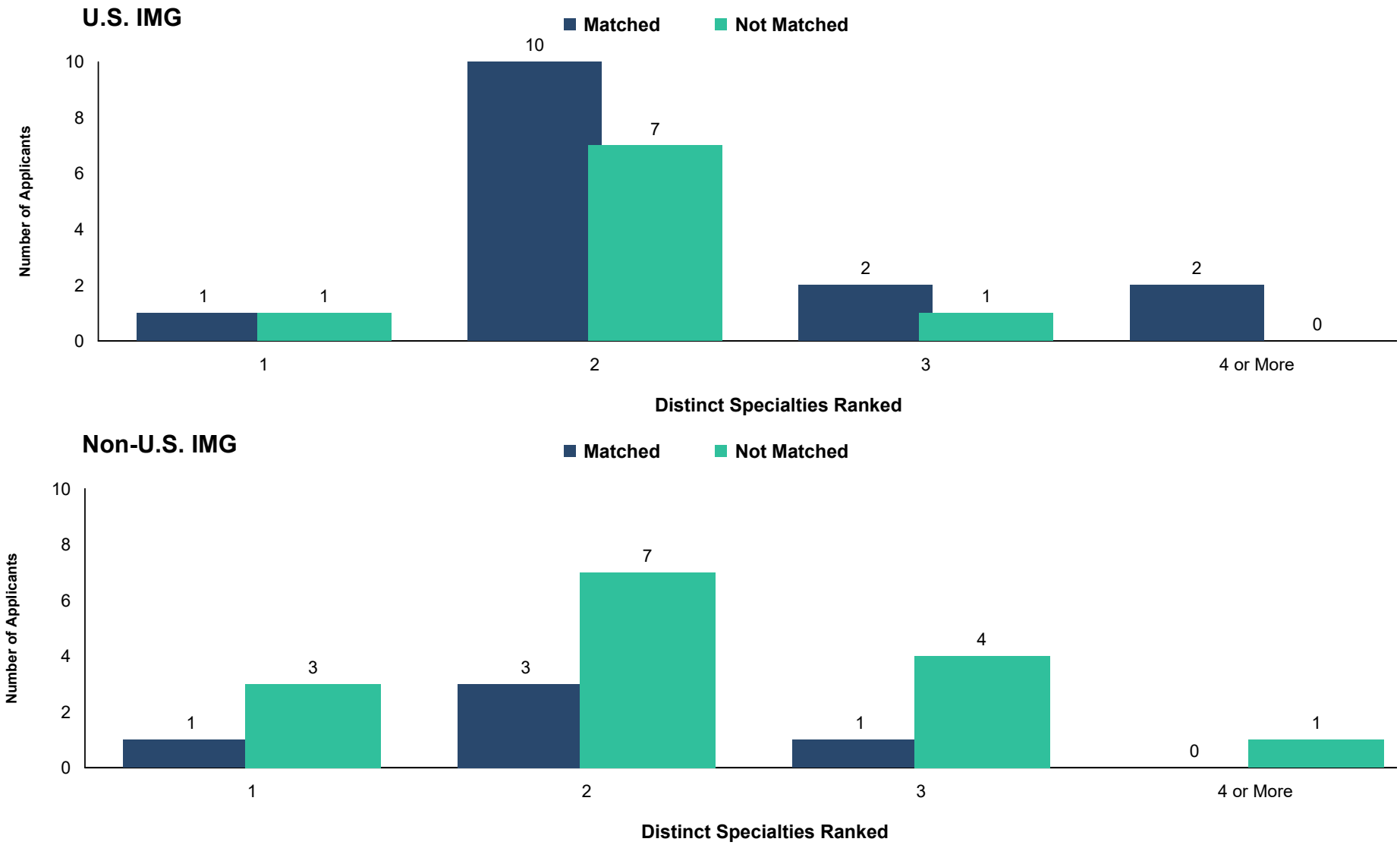
IP Internal Medicine/Pediatrics

Table IP-1 Summary Statistics
Internal Medicine/Pediatrics

Measure	U.S. IMGs		Non-U.S. IMGs	
	Matched (n=15)	Unmatched (n=10)	Matched (n=5)	Unmatched (n=15)
1. Mean number of contiguous ranks	4.6	1.6	1.6	1.3
2. Mean number of distinct specialties ranked	2.3	2.3	2.0	2.2
3. Mean USMLE Step 1 score	227	223	229	228
4. Mean USMLE Step 2 score	237	226	238	225
5. Mean number of research experiences	1.5	1.9	2.3	3.4
6. Mean number of abstracts, presentations, and publications	1.5	2.7	2.8	4.9
7. Mean number of work experiences	2.5	4.1	6.5	5.8
8. Mean number of volunteer experiences	4.2	3.9	3.0	3.8
9. Percentage who have a Ph.D. degree	0.0	0.0	0.0	7.1
10. Percentage who have another graduate degree	14.3	50.0	0.0	15.4

Note: Only applicants who gave consent to use their information in research are included.
Source. NRMP Data Warehouse

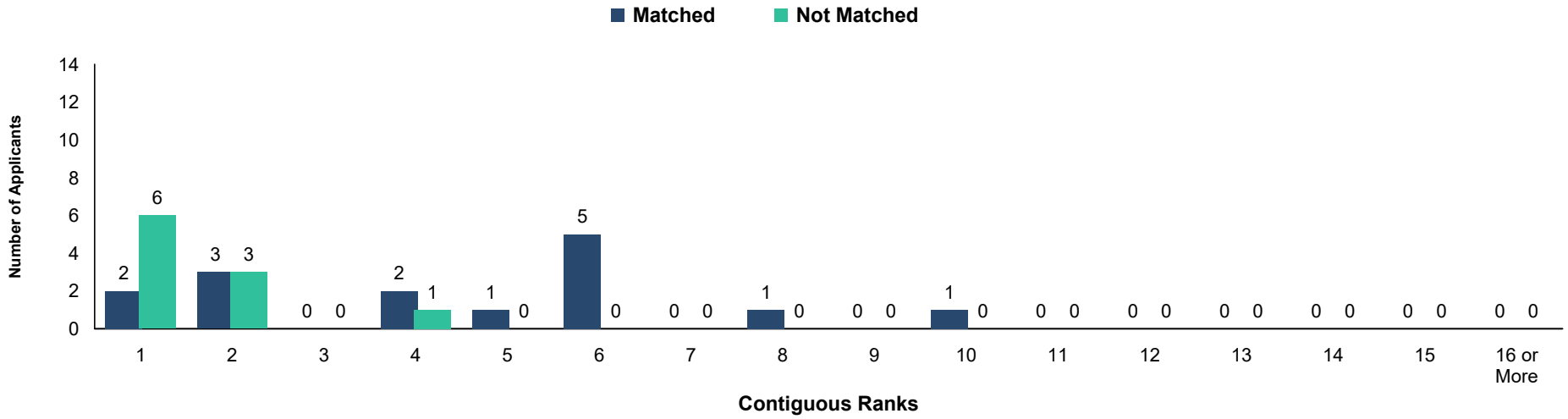
Chart IP-1 Number of Distinct Specialties Ranked by International Medical Graduates



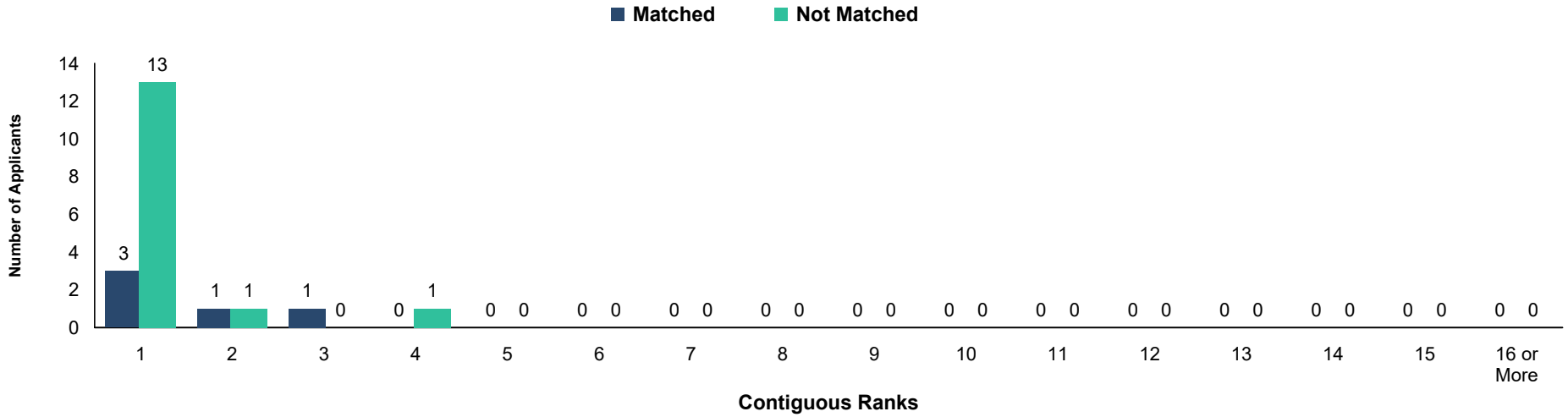
Source: NRMP Data Warehouse

Chart IP-2 Number of Contiguous Ranks of International Medical Graduates

U.S. IMG



Non-U.S. IMG

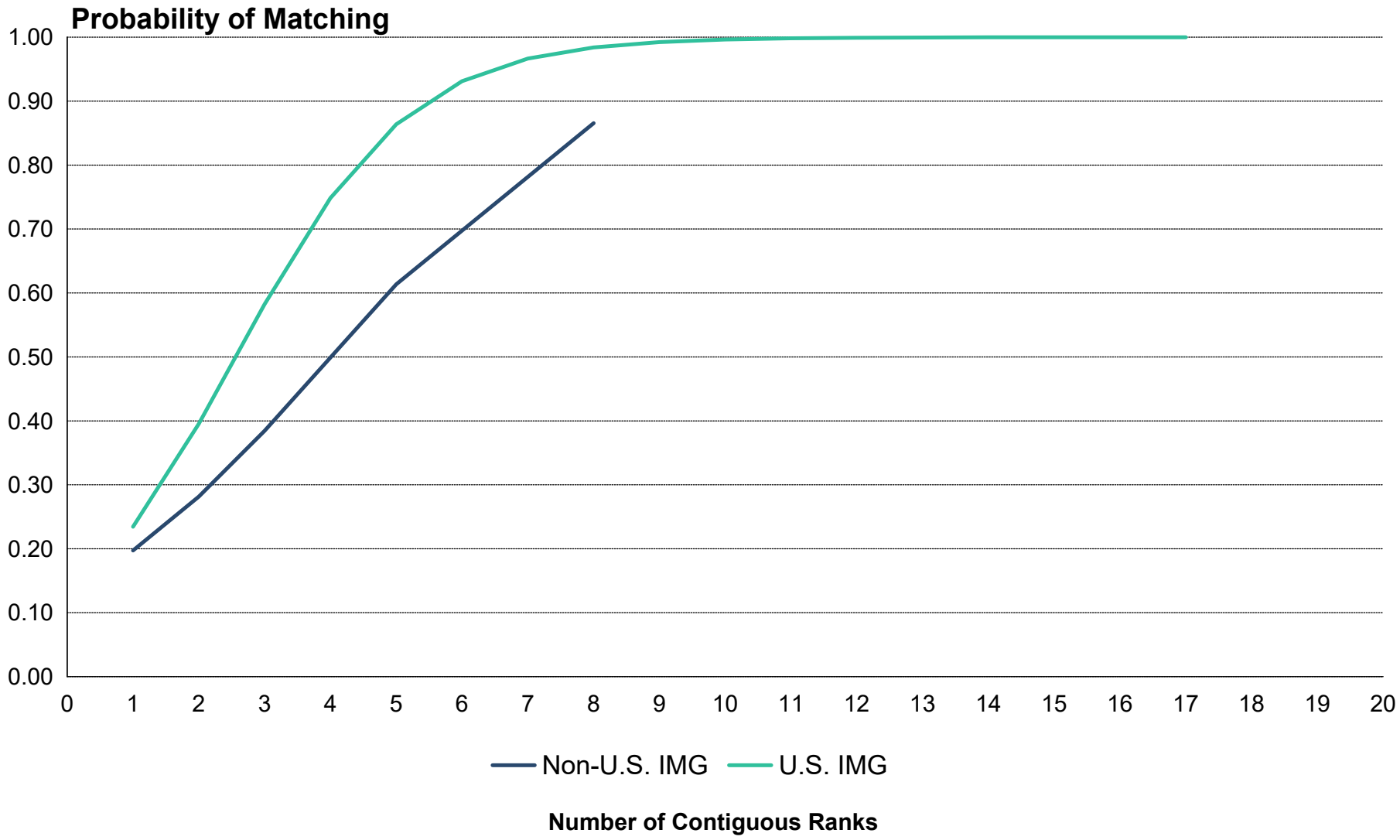


Source: NRMP Data Warehouse

Graph IP-1

Probability of International Medical Graduates Matching to Preferred Specialty by Number of Contiguous Ranks

Internal Medicine/Pediatrics



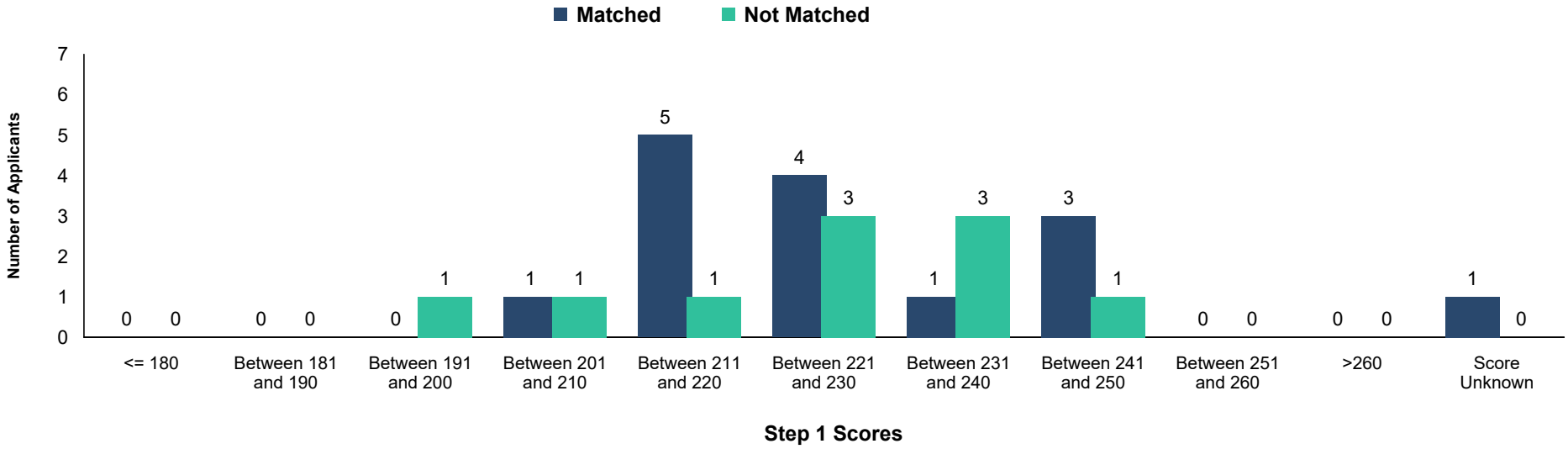
Source: NRMP Data Warehouse. Note: Probabilities calculated based on 2014-2016 applicants

Chart IP-3

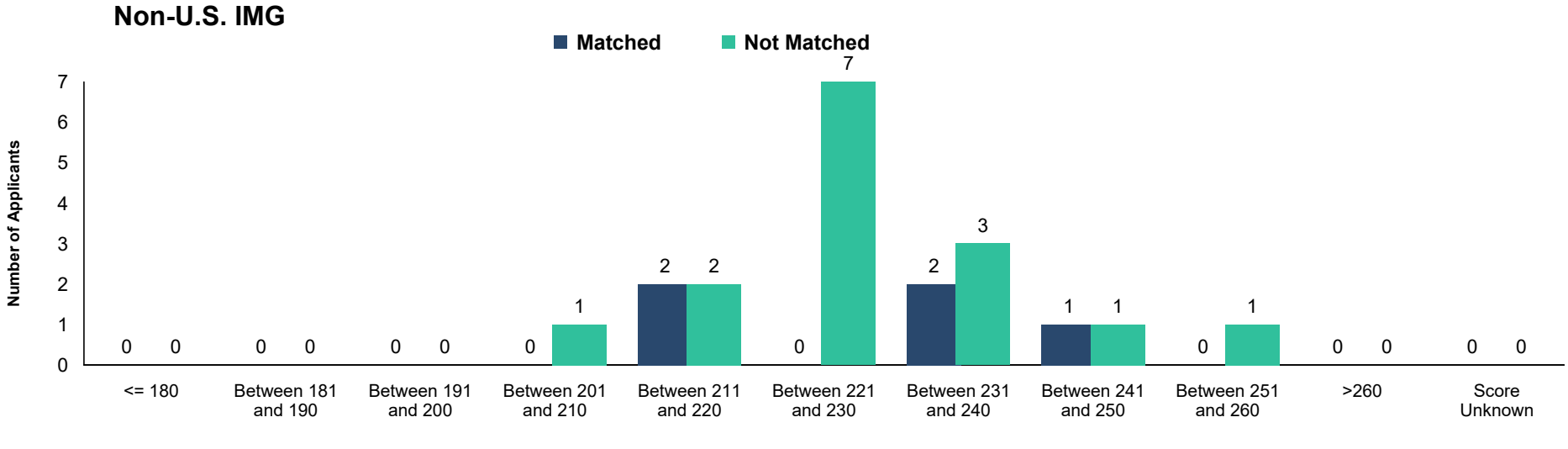
USMLE Step 1 Scores of International Medical Graduates

Internal Medicine/Pediatrics

U.S. IMG



Non-U.S. IMG

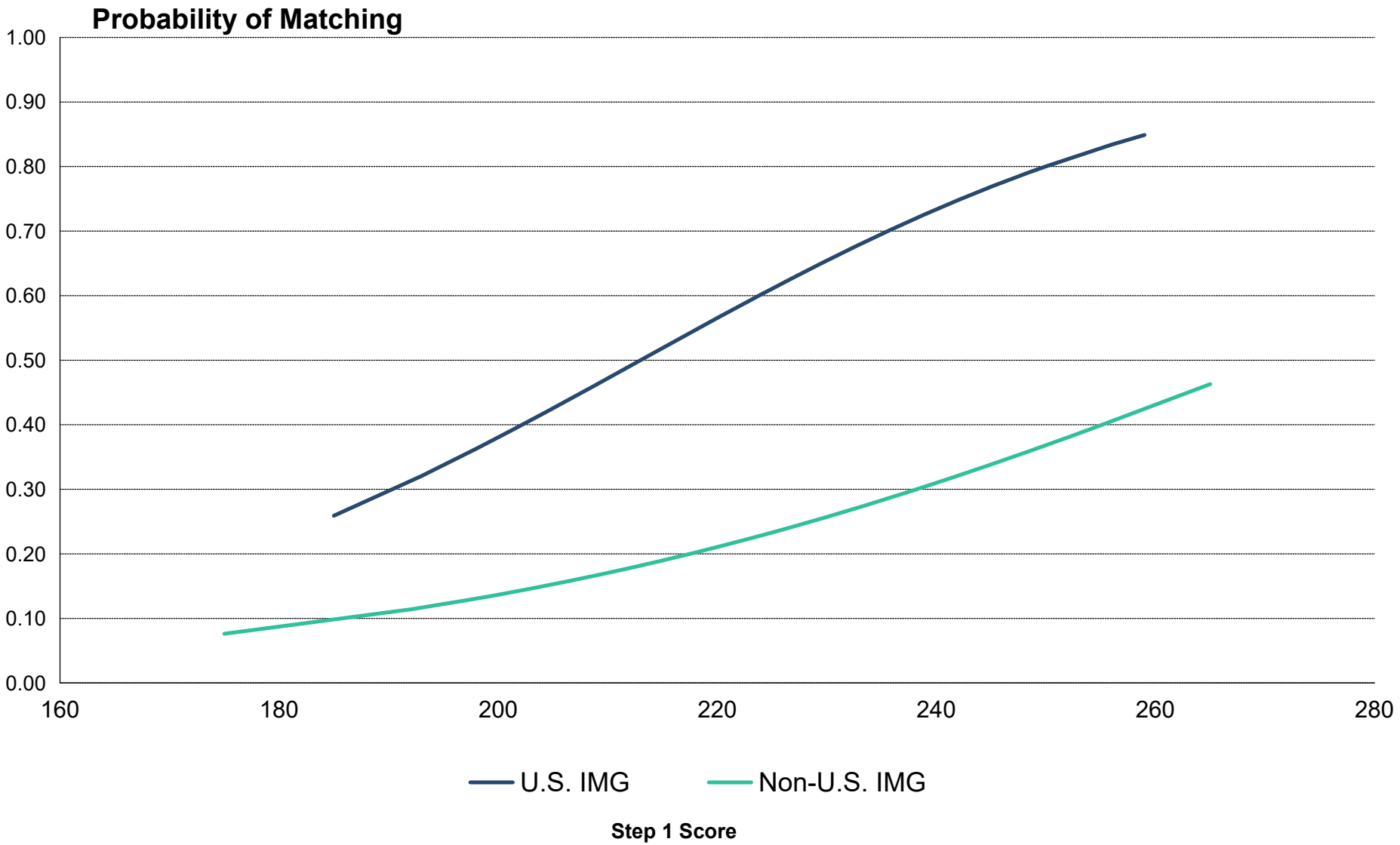


Source: NRMP Data Warehouse

Graph IP-2

Probability of International Medical Graduates Matching to Preferred Specialty by USMLE Step 1 Score

Internal Medicine/Pediatrics

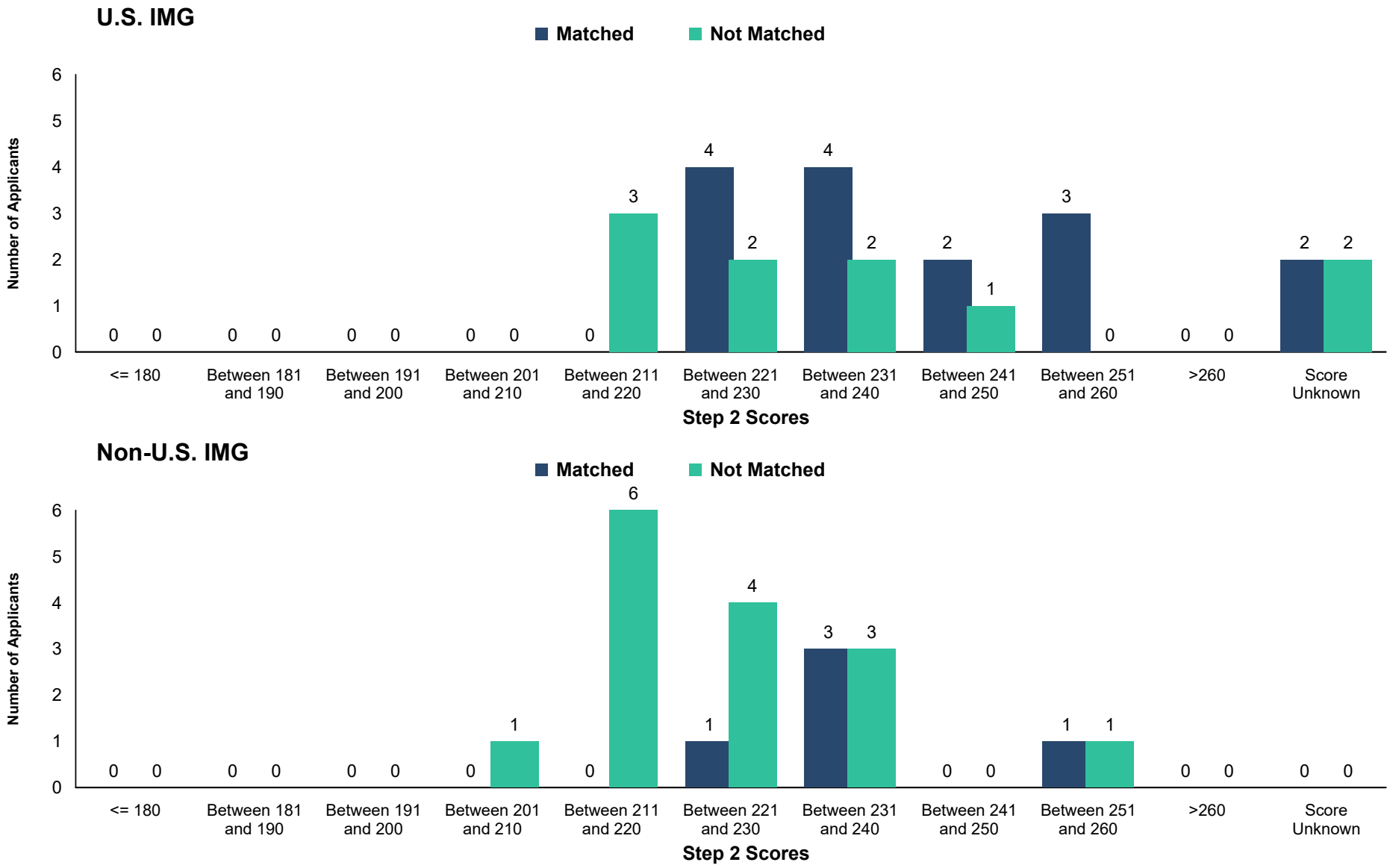


Source: NRMP Data Warehouse. Note: Probabilities calculated based on 2014-2016 applicants.

Chart IP-4

USMLE Step 2 CK Scores of International Medical Graduates

Internal Medicine/Pediatrics

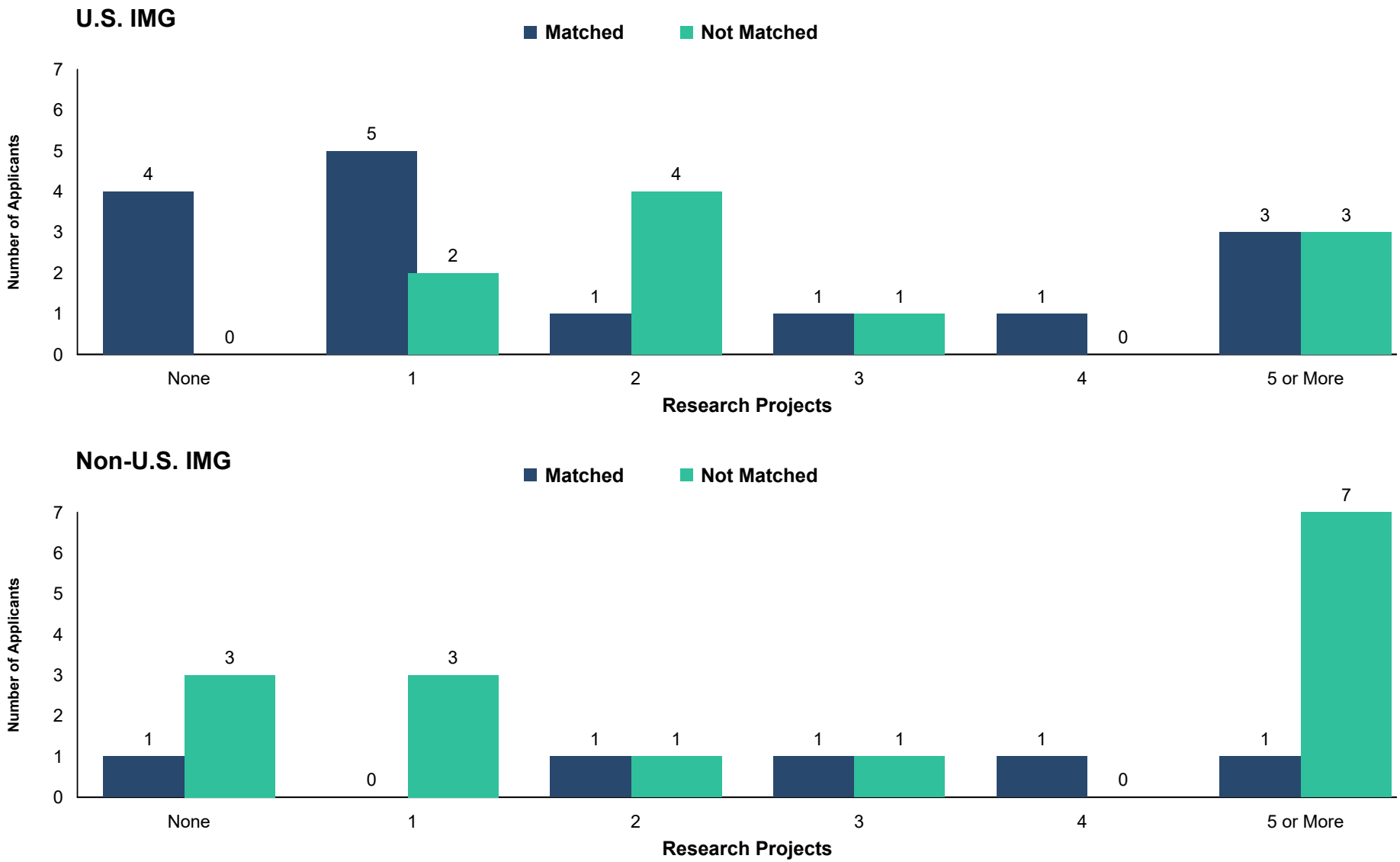


Source: NRMP Data Warehouse

Chart IP-5

Number of Research Projects of International Medical Graduates

Internal Medicine/Pediatrics

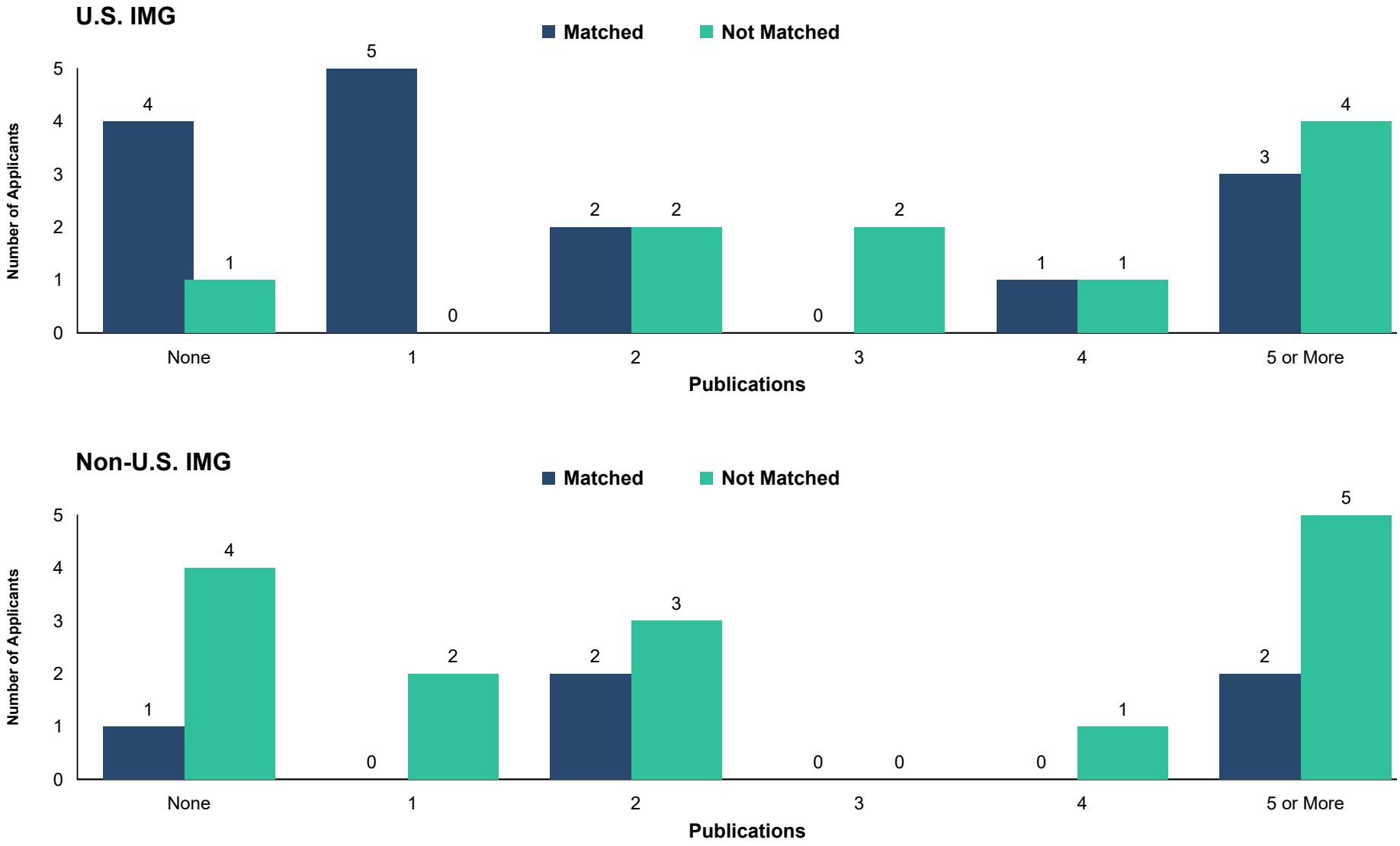


Source: NRMP Data Warehouse

Chart IP-6

Number of Abstracts, Presentations, and Publications of International Medical Graduates

Internal Medicine/Pediatrics

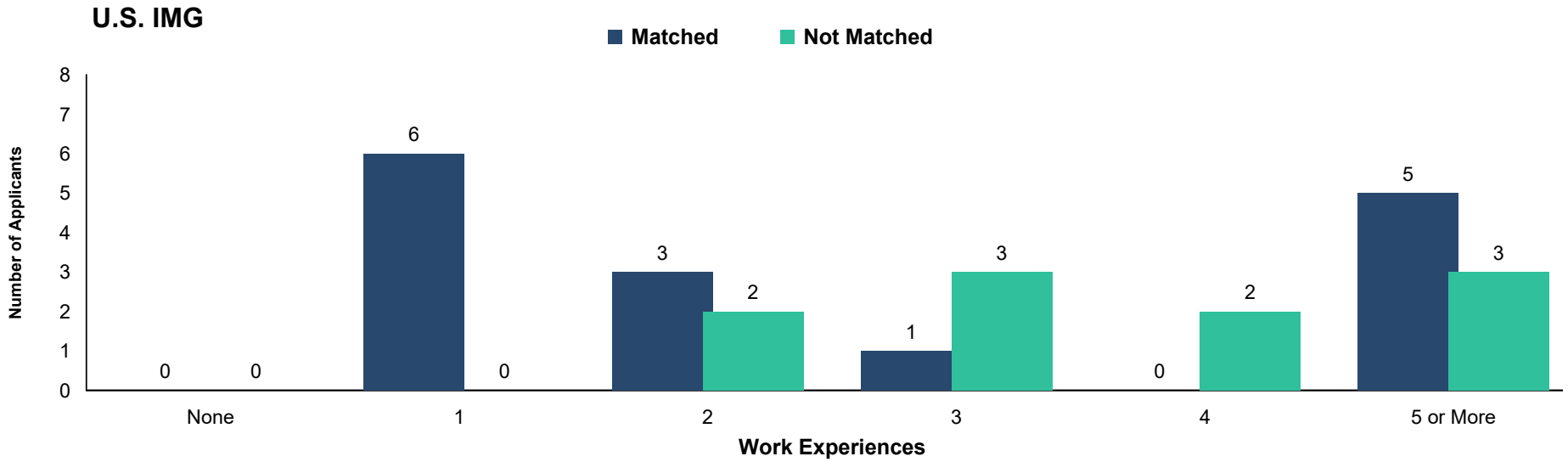


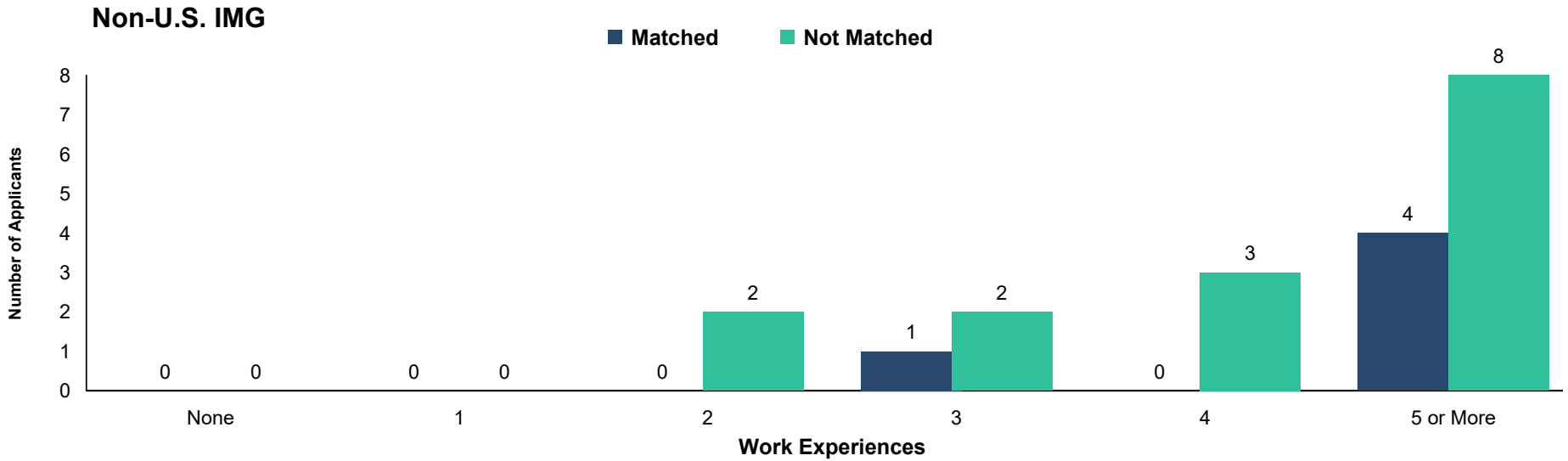
Source: NRMP Data Warehouse

Chart IP-7

Number of Work Experiences of International Medical Graduates

Internal Medicine/Pediatrics



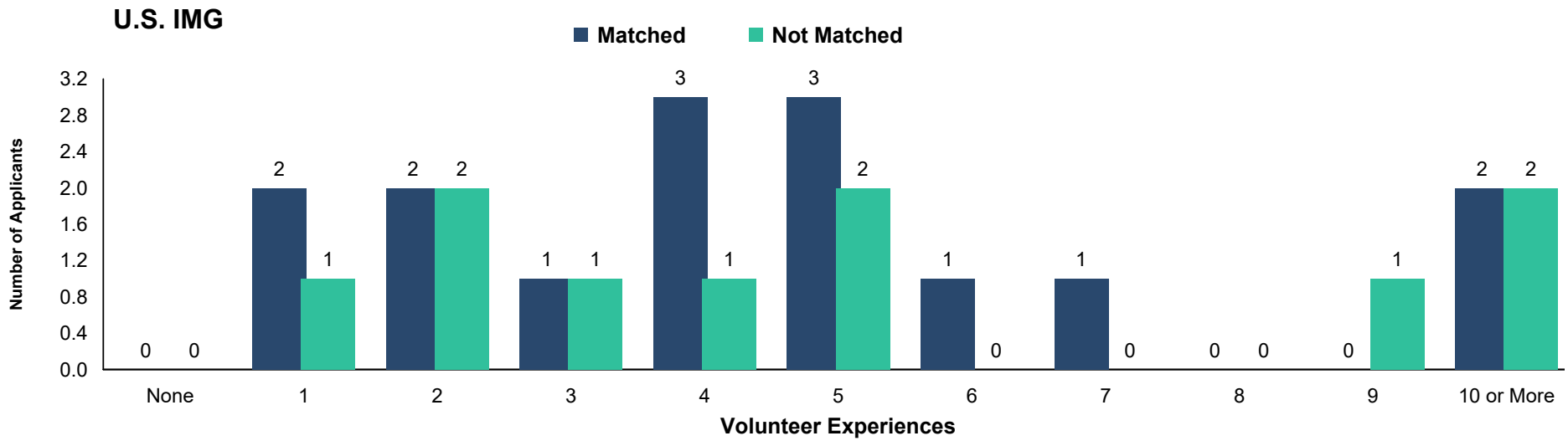


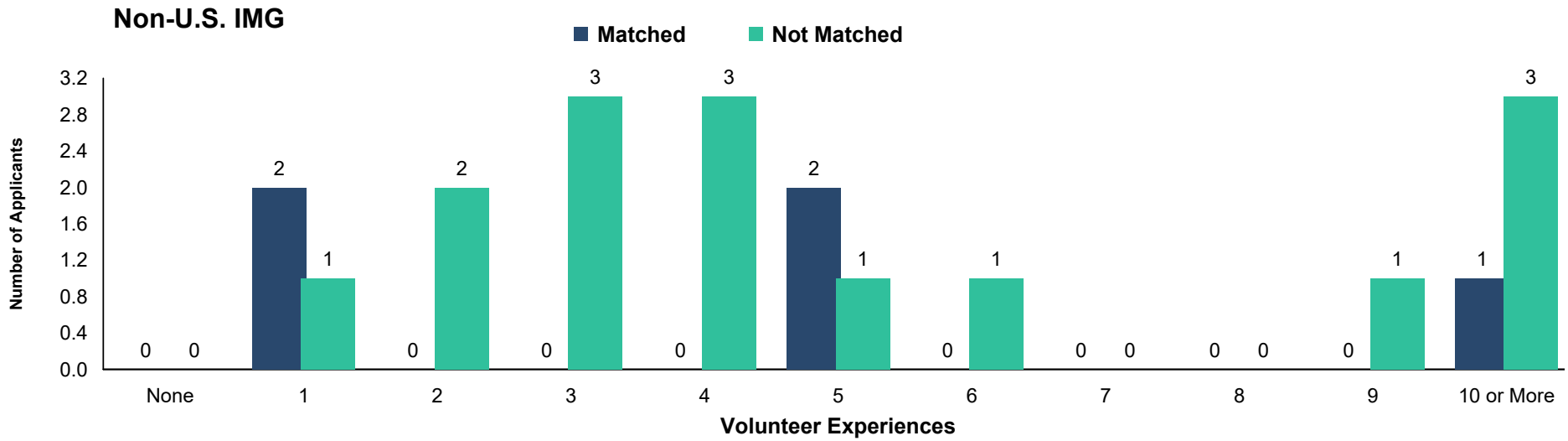
Source: NRMP Data Warehouse

Chart IP-8

Number of Volunteer Experiences of International Medical Graduates

Internal Medicine/Pediatrics





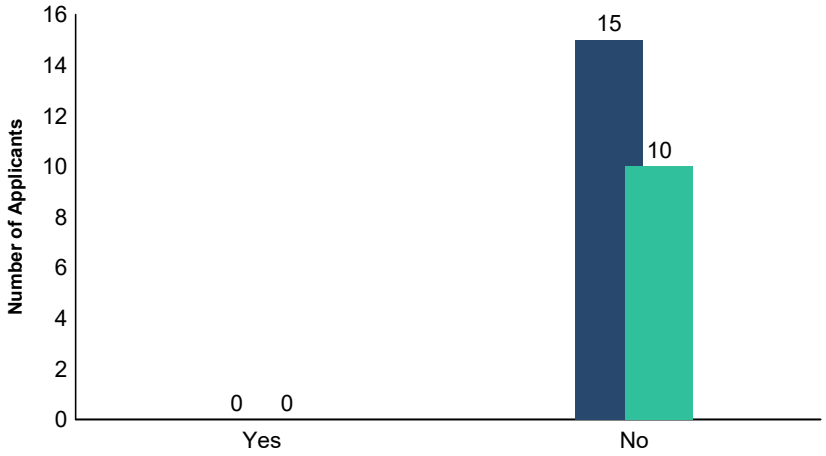
Source: NRMP Data Warehouse

Chart IP-9 Other Characteristics of International Medical Graduates

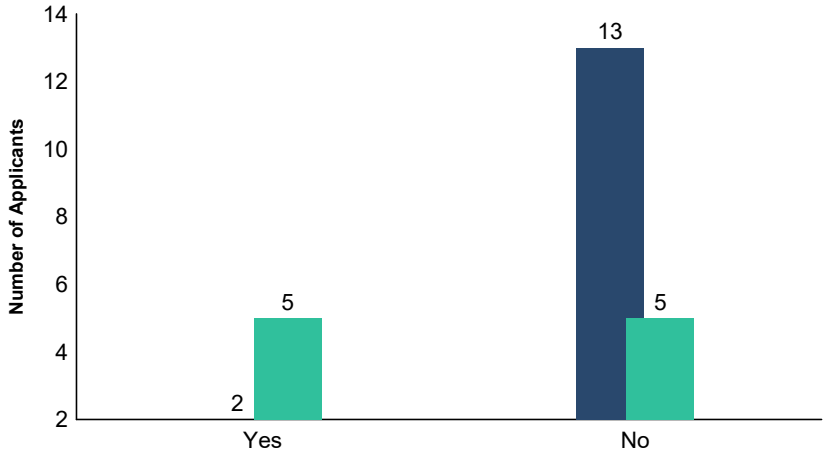
Internal Medicine/Pediatrics

U.S. IMG

Ph.D. Degree

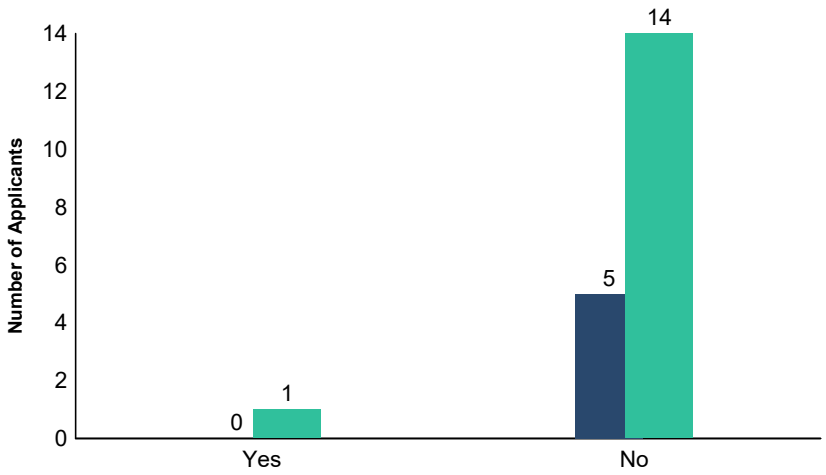


Other Graduate Degree

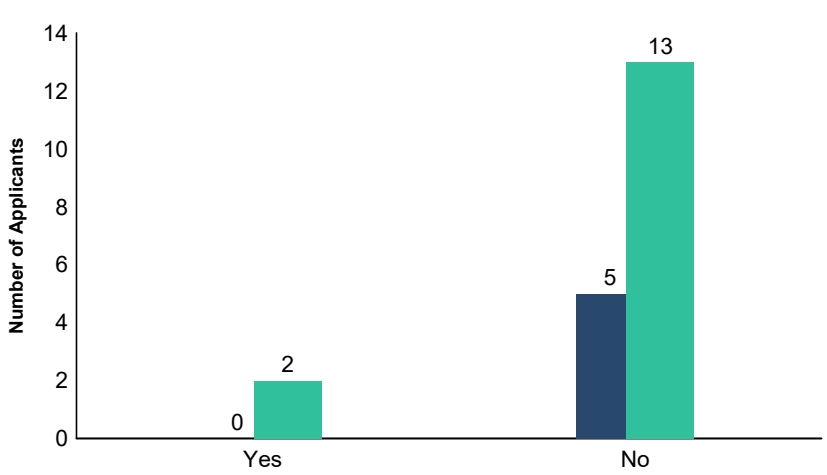


Non-U.S. IMG

Ph.D. Degree



Other Graduate Degree



Source: NRMP Data Warehouse

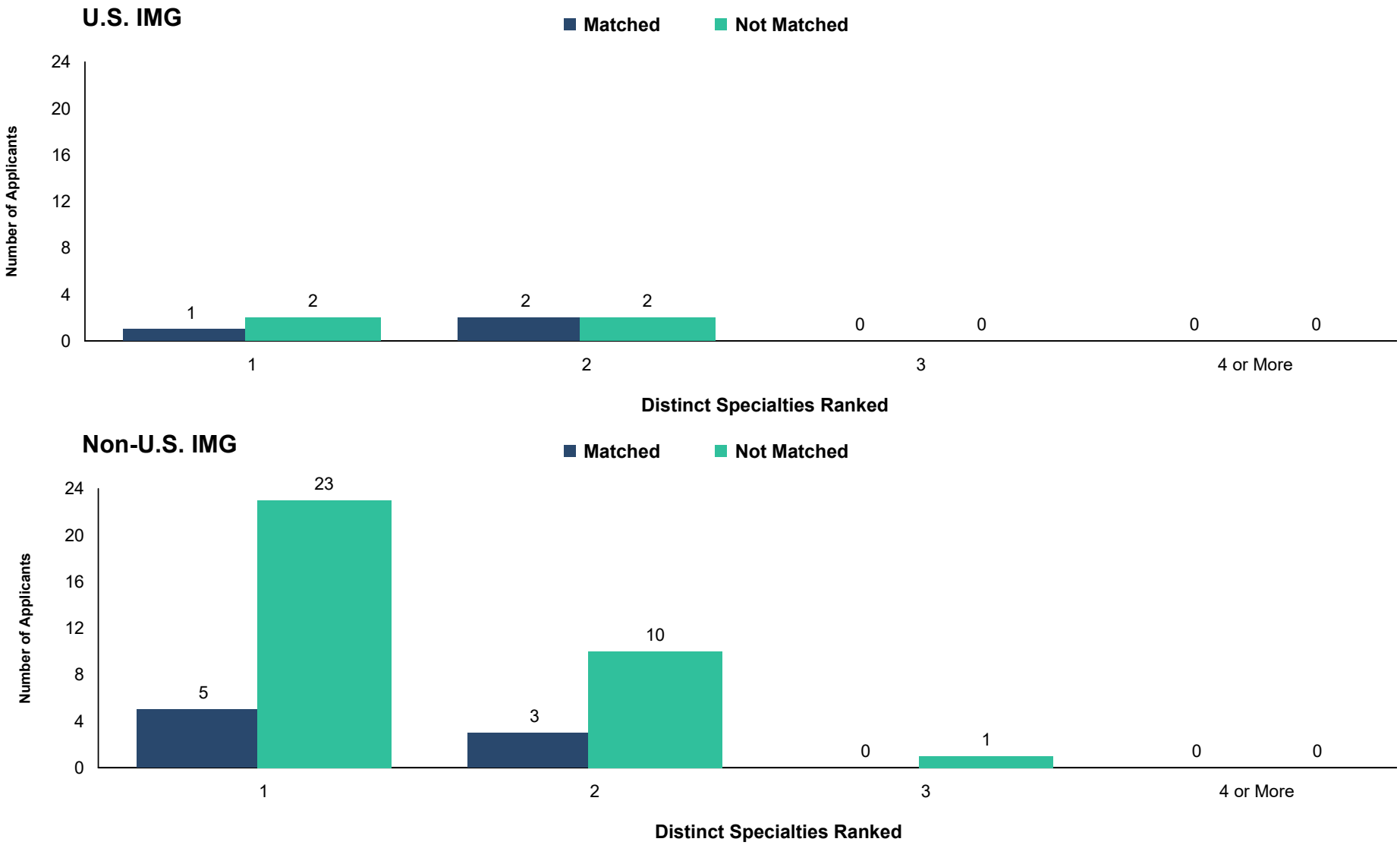
NS Neurological Surgery

Table NS-1 Summary Statistics
Neurological Surgery

Measure	U.S. IMGs		Non-U.S. IMGs	
	Matched (n=3)	Unmatched (n=4)	Matched (n=8)	Unmatched (n=34)
1. Mean number of contiguous ranks	4.7	4.0	10.0	5.1
2. Mean number of distinct specialties ranked	1.7	1.5	1.4	1.4
3. Mean USMLE Step 1 score	243	236	245	242
4. Mean USMLE Step 2 score	244	239	248	243
5. Mean number of research experiences	3.0	2.3	4.3	3.0
6. Mean number of abstracts, presentations, and publications	26.0	6.0	40.5	19.5
7. Mean number of work experiences	5.0	4.7	4.3	4.6
8. Mean number of volunteer experiences	2.5	2.3	3.1	3.3
9. Percentage who have a Ph.D. degree	0.0	25.0	0.0	0.0
10. Percentage who have another graduate degree	0.0	0.0	37.5	28.1

Note: Only applicants who gave consent to use their information in research are included.
Source. NRMP Data Warehouse

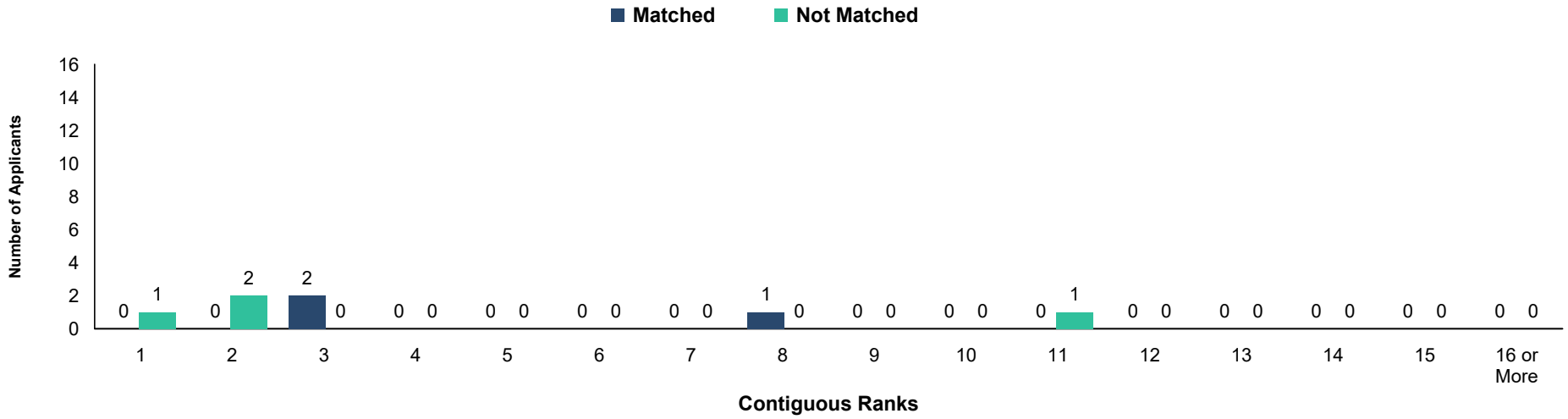
Chart NS-1 Number of Distinct Specialties Ranked by International Medical Graduates



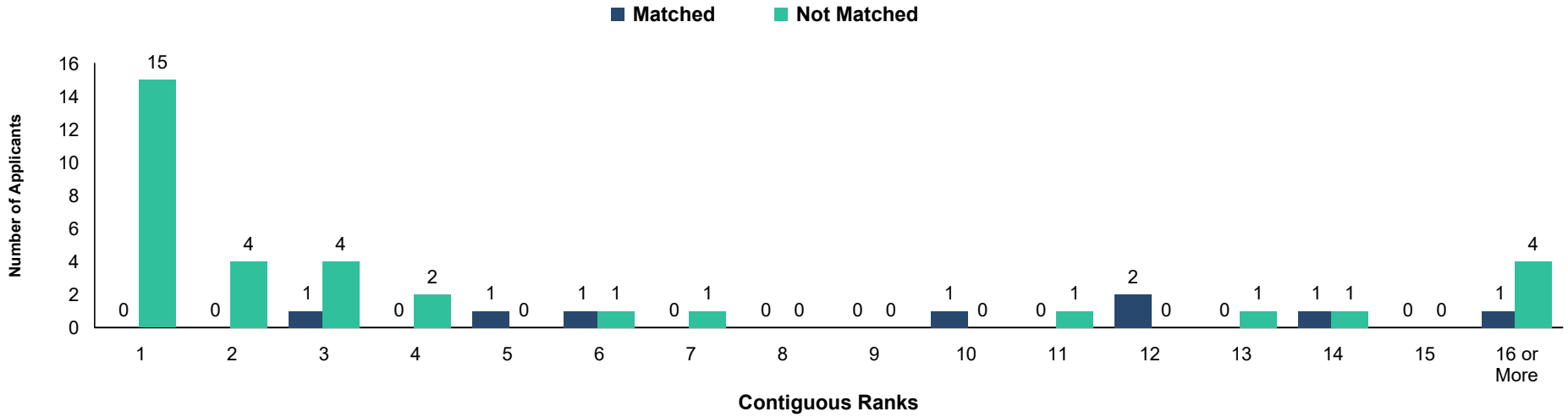
Source: NRMP Data Warehouse

Chart NS-2 Number of Contiguous Ranks of International Medical Graduates

U.S. IMG



Non-U.S. IMG

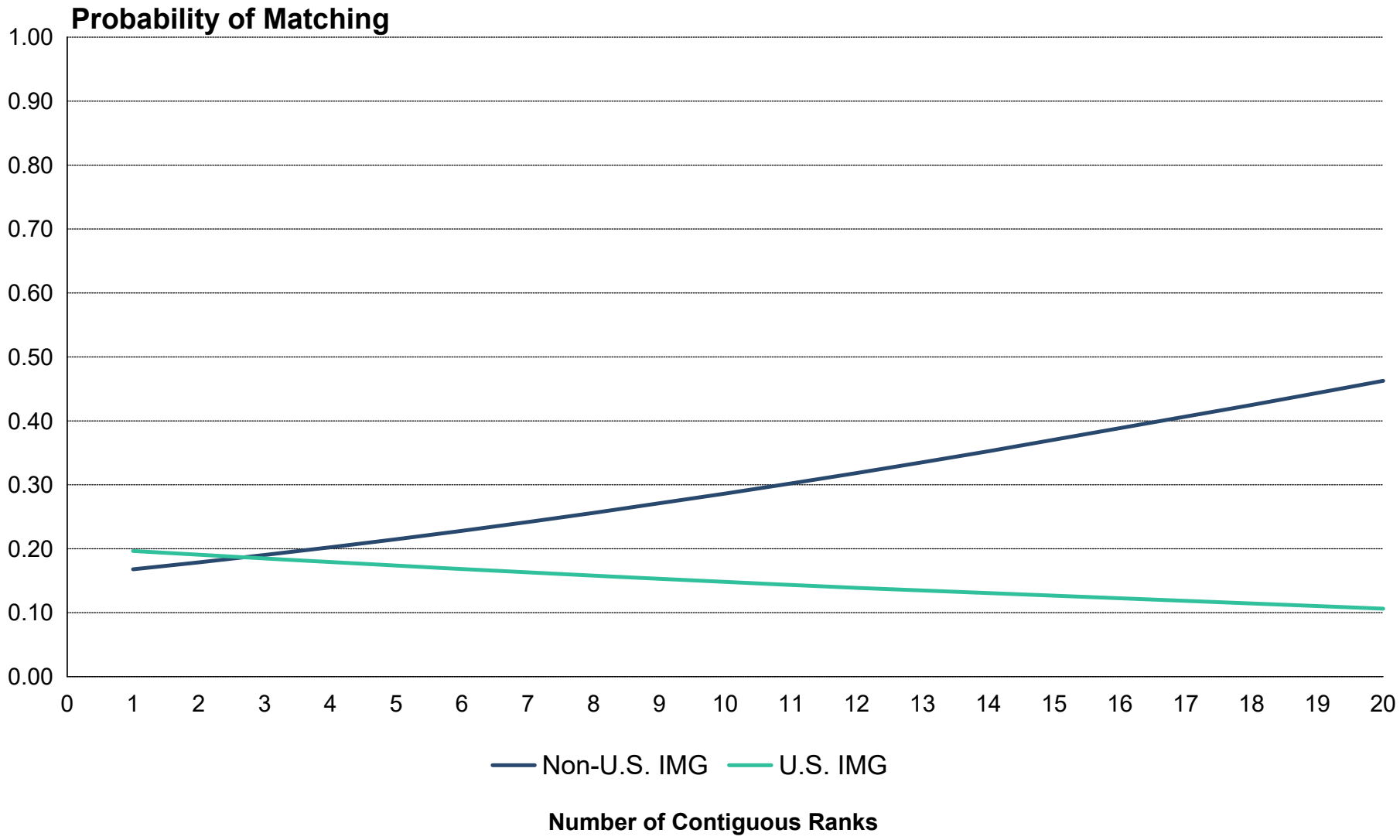


Source: NRMP Data Warehouse

Graph NS-1

Probability of International Medical Graduates Matching to Preferred Specialty by Number of Contiguous Ranks

Neurological Surgery



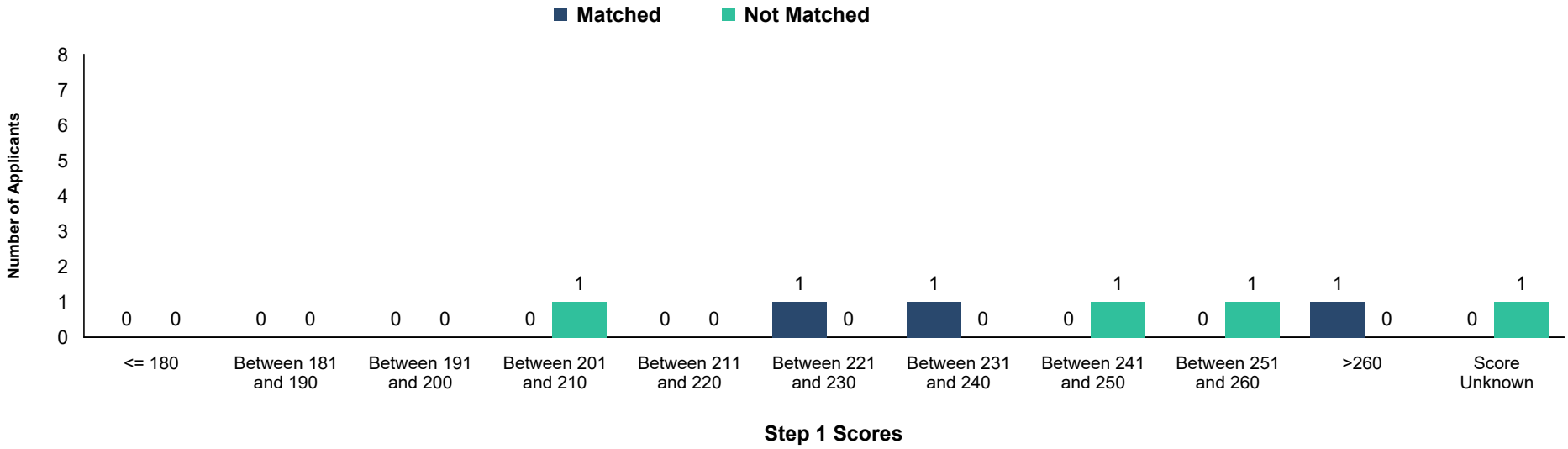
Source: NRMP Data Warehouse. Note: Probabilities calculated based on 2014-2016 applicants

Chart NS-3

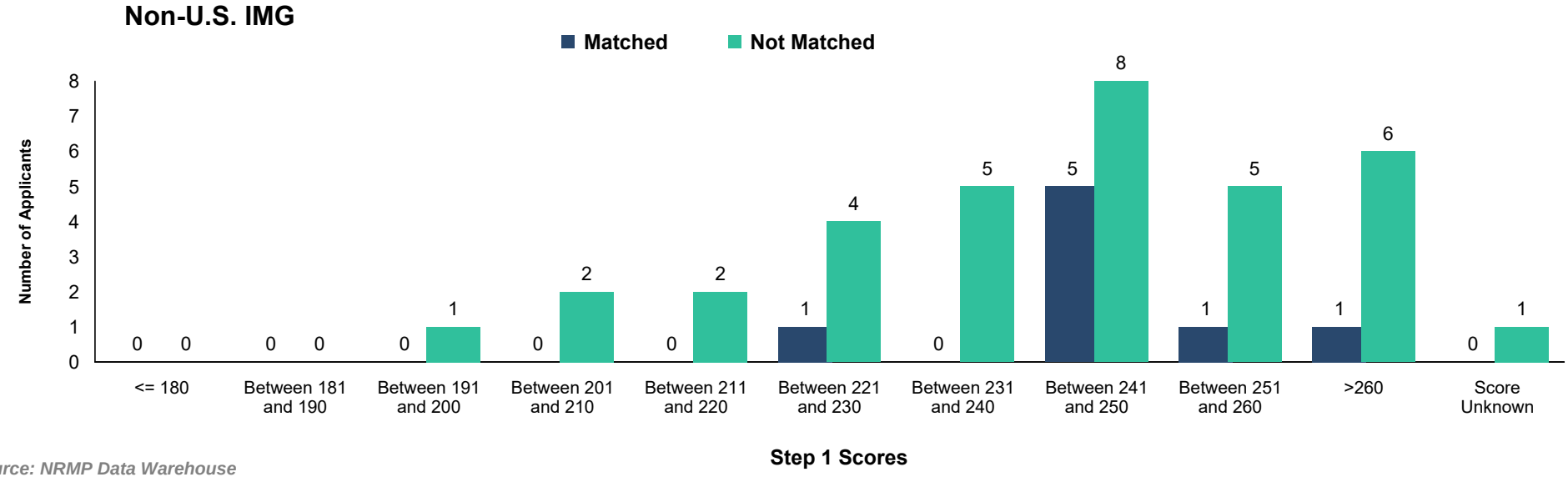
USMLE Step 1 Scores of International Medical Graduates

Neurological Surgery

U.S. IMG



Non-U.S. IMG

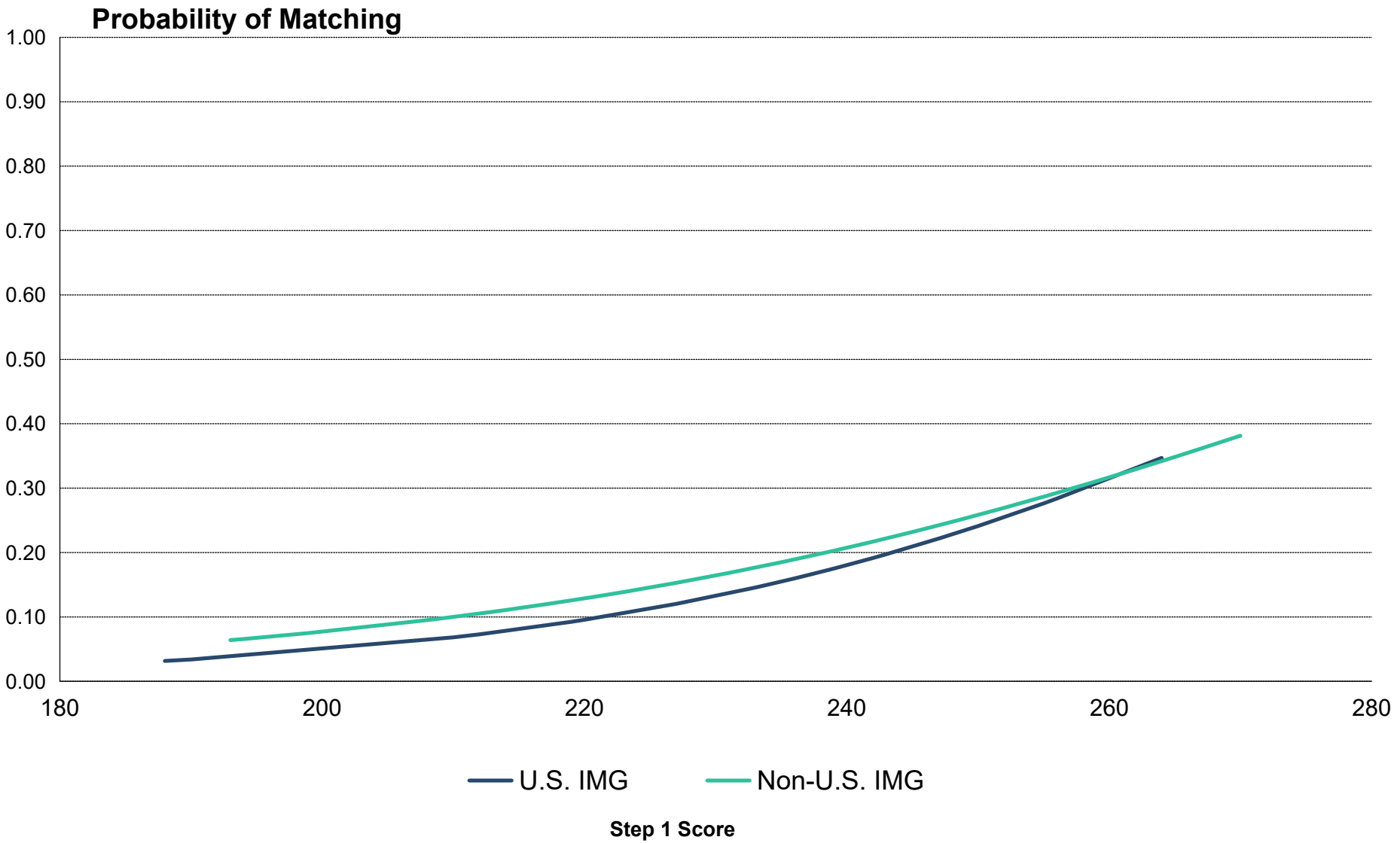


Source: NRMP Data Warehouse

Graph NS-2

Probability of International Medical Graduates Matching to Preferred Specialty by USMLE Step 1 Score

Neurological Surgery



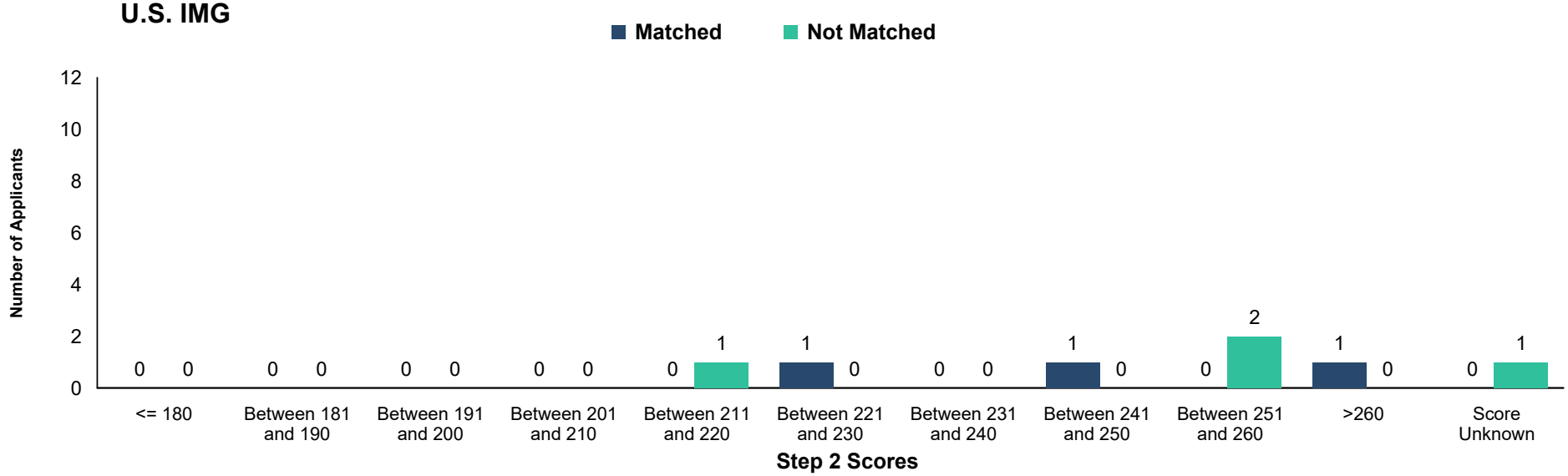
Source: NRMP Data Warehouse. Note: Probabilities calculated based on 2014-2016 applicants.

Chart NS-4

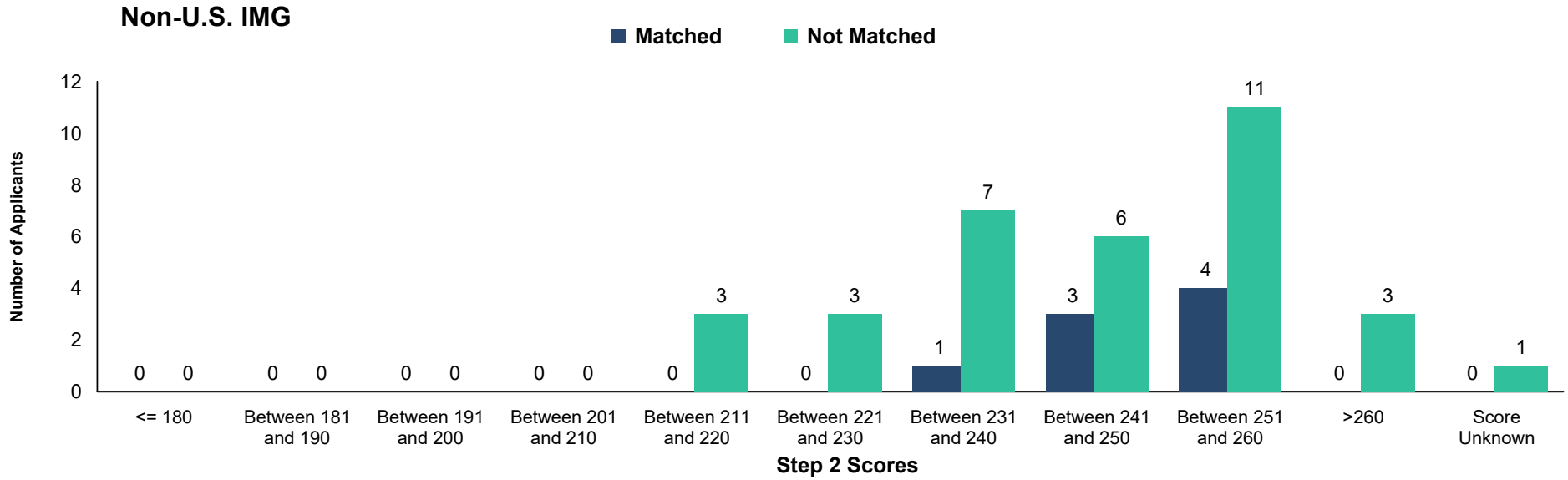
USMLE Step 2 CK Scores of International Medical Graduates

Neurological Surgery

U.S. IMG



Non-U.S. IMG

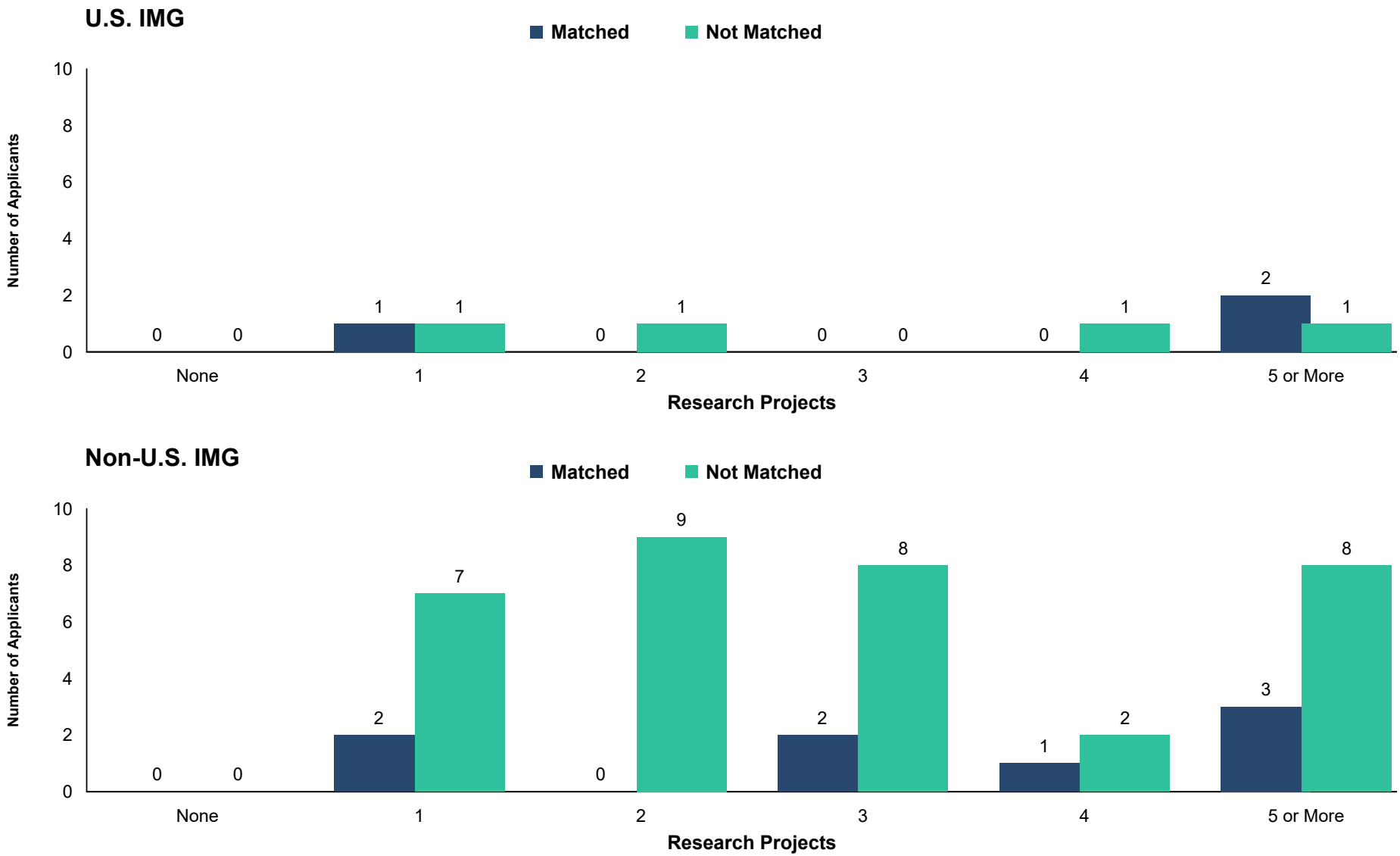


Source: NRMP Data Warehouse

Chart NS-5

Number of Research Projects of International Medical Graduates

Neurological Surgery

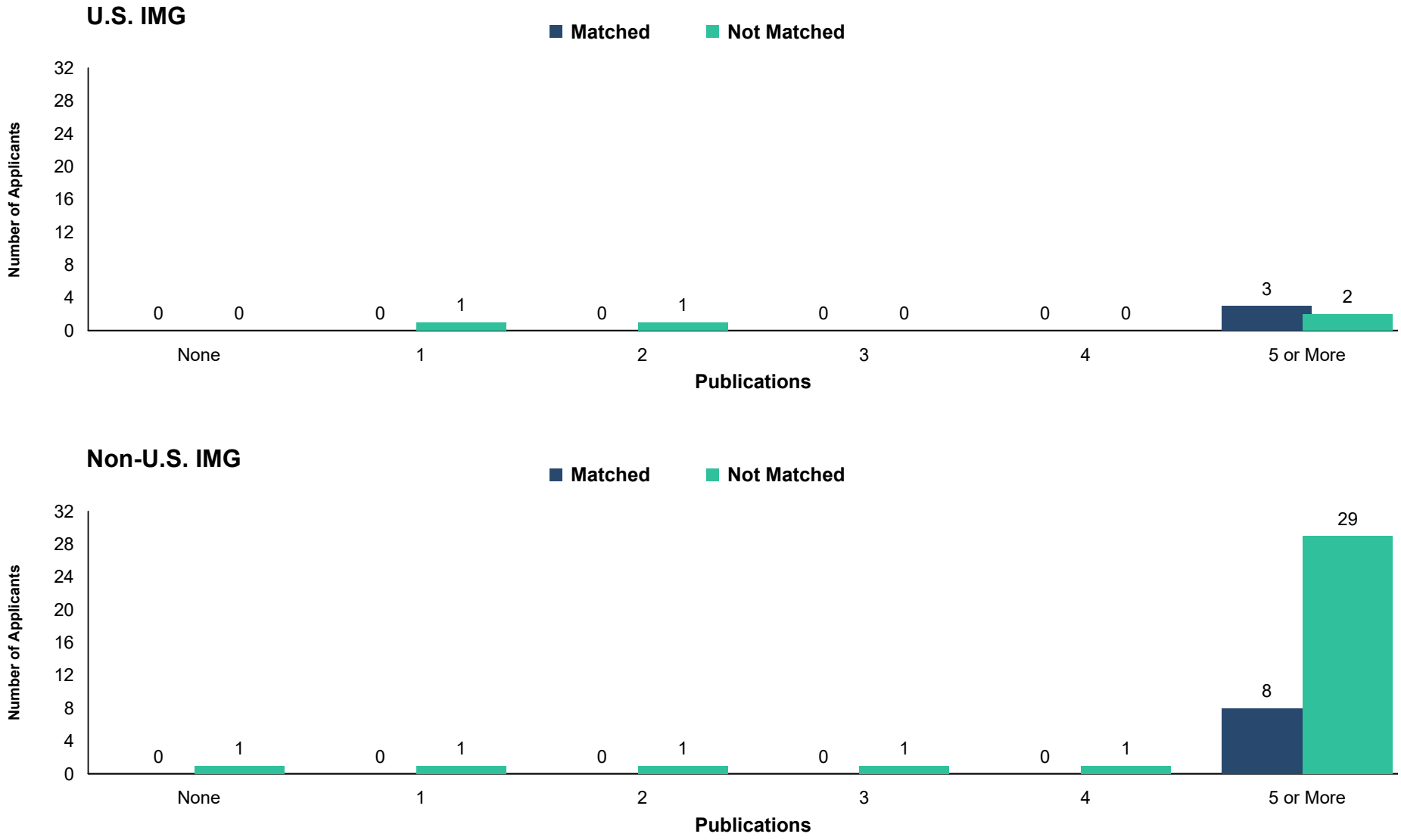


Source: NRMP Data Warehouse

Chart NS-6

Number of Abstracts, Presentations, and Publications of International Medical Graduates

Neurological Surgery

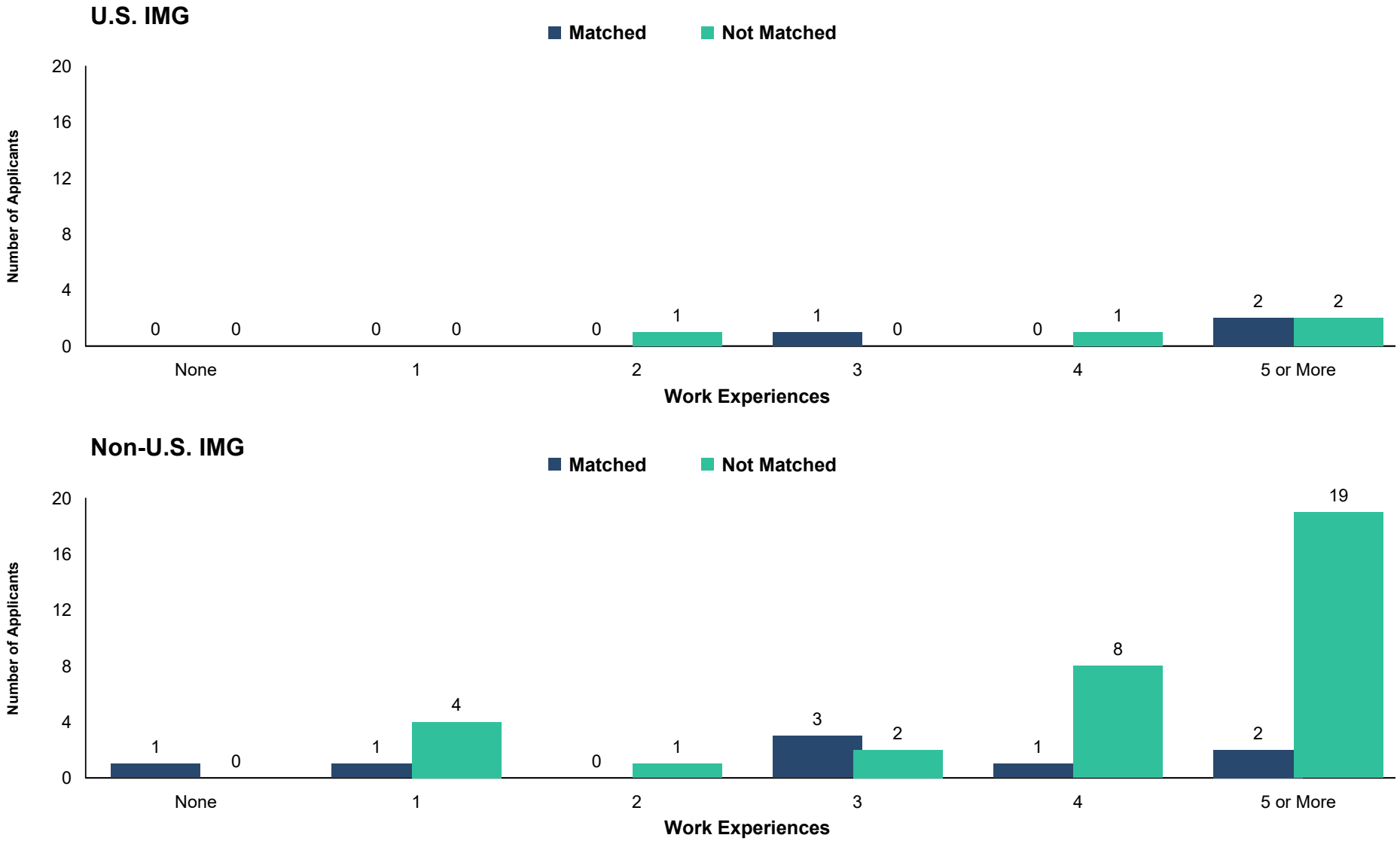


Source: NRMP Data Warehouse

Chart NS-7

Number of Work Experiences of International Medical Graduates

Neurological Surgery

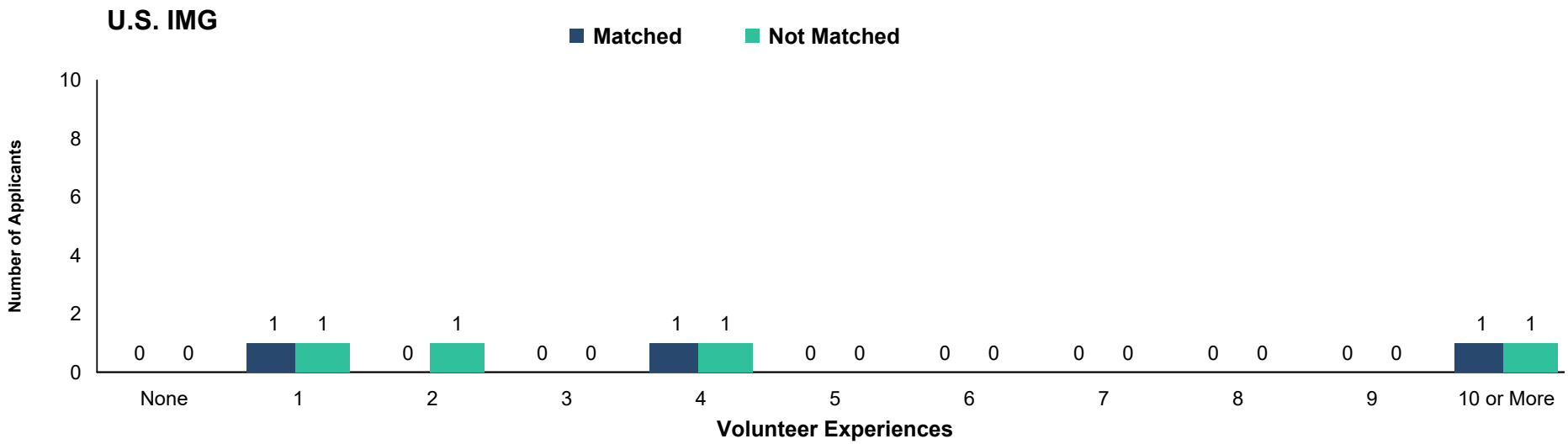


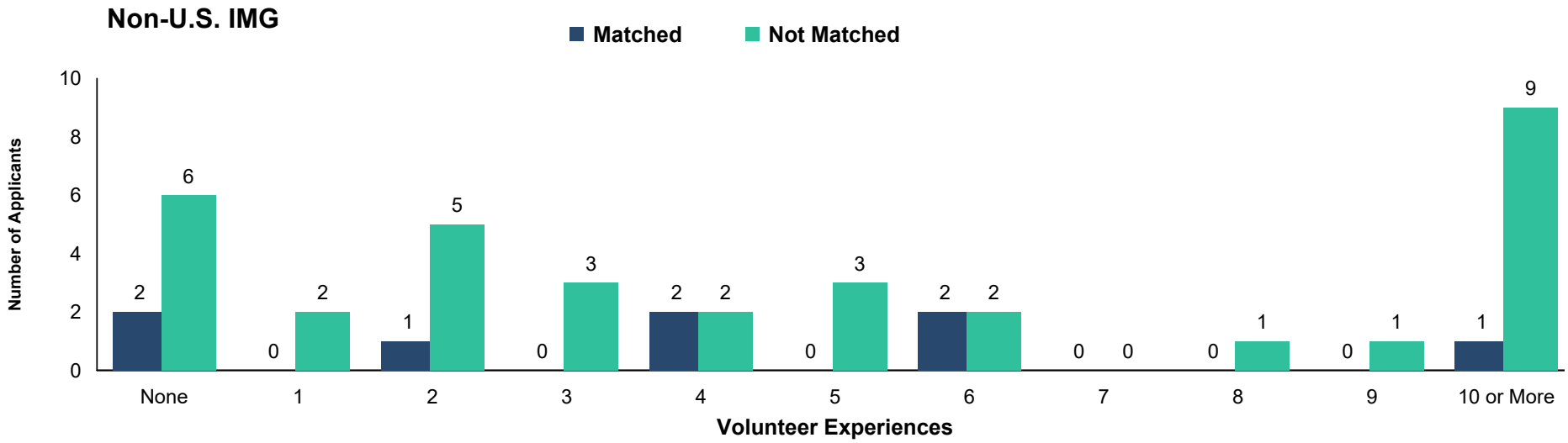
Source: NRMP Data Warehouse

Chart NS-8

Number of Volunteer Experiences of International Medical Graduates

Neurological Surgery





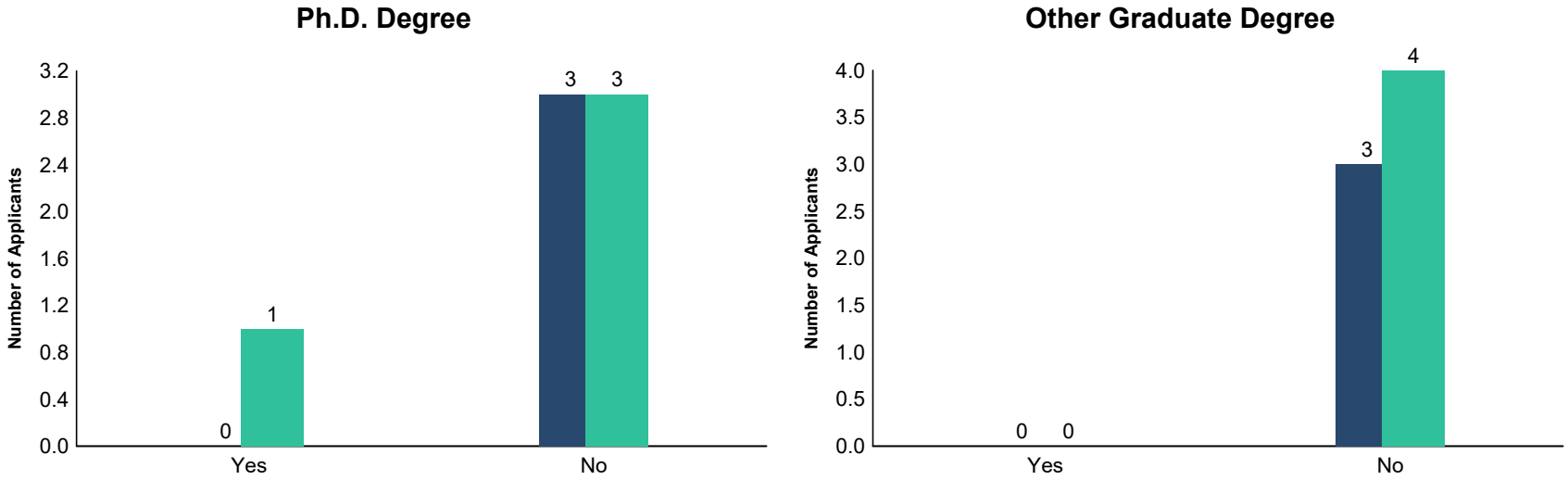
Source: NRMP Data Warehouse

Chart NS-9

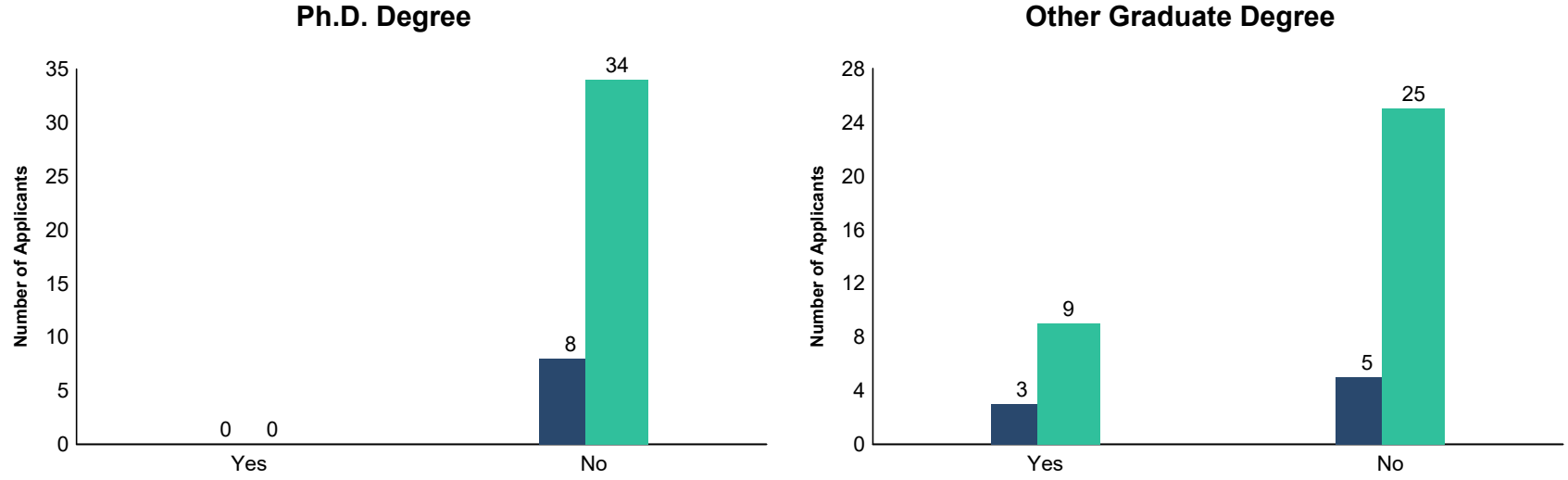
Other Characteristics of International Medical Graduates

Neurological Surgery

U.S. IMG



Non-U.S. IMG



Source: NRMP Data Warehouse

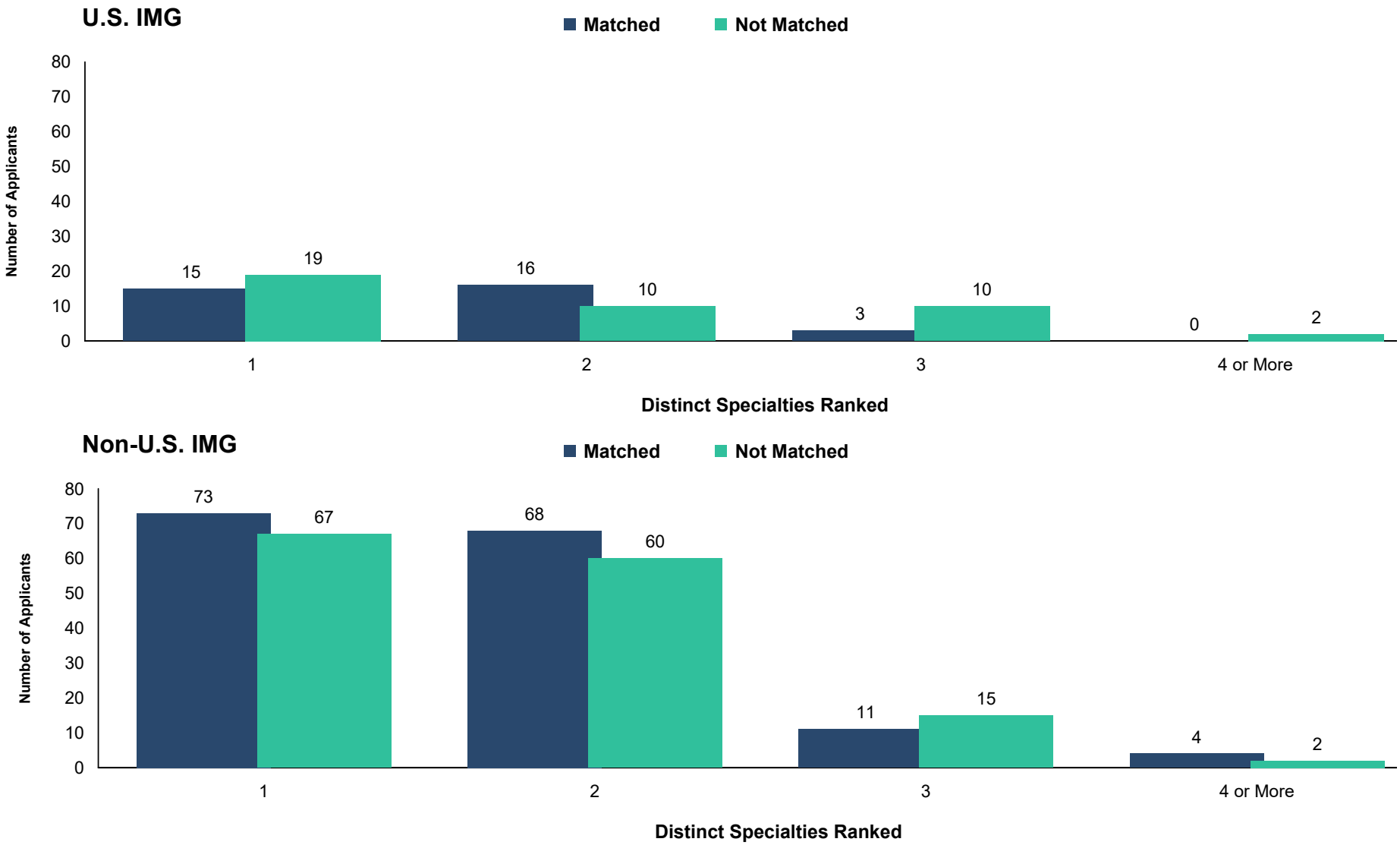
N Neurology

Table N-1 Summary Statistics
Neurology

Measure	U.S. IMGs		Non-U.S. IMGs	
	Matched (n=34)	Unmatched (n=41)	Matched (n=156)	Unmatched (n=145)
1. Mean number of contiguous ranks	6.4	2.3	6.4	2.0
2. Mean number of distinct specialties ranked	1.6	1.9	1.7	1.7
3. Mean USMLE Step 1 score	224	214	234	221
4. Mean USMLE Step 2 score	230	218	238	226
5. Mean number of research experiences	2.8	2.2	3.0	2.3
6. Mean number of abstracts, presentations, and publications	4.3	3.8	10.0	7.3
7. Mean number of work experiences	3.9	4.8	5.6	5.6
8. Mean number of volunteer experiences	3.5	3.1	3.1	3.2
9. Percentage who have a Ph.D. degree	5.9	0.0	5.6	3.2
10. Percentage who have another graduate degree	18.2	22.2	27.5	33.9

Note: Only applicants who gave consent to use their information in research are included.
Source. NRMP Data Warehouse

Chart N-1 Number of Distinct Specialties Ranked by International Medical Graduates

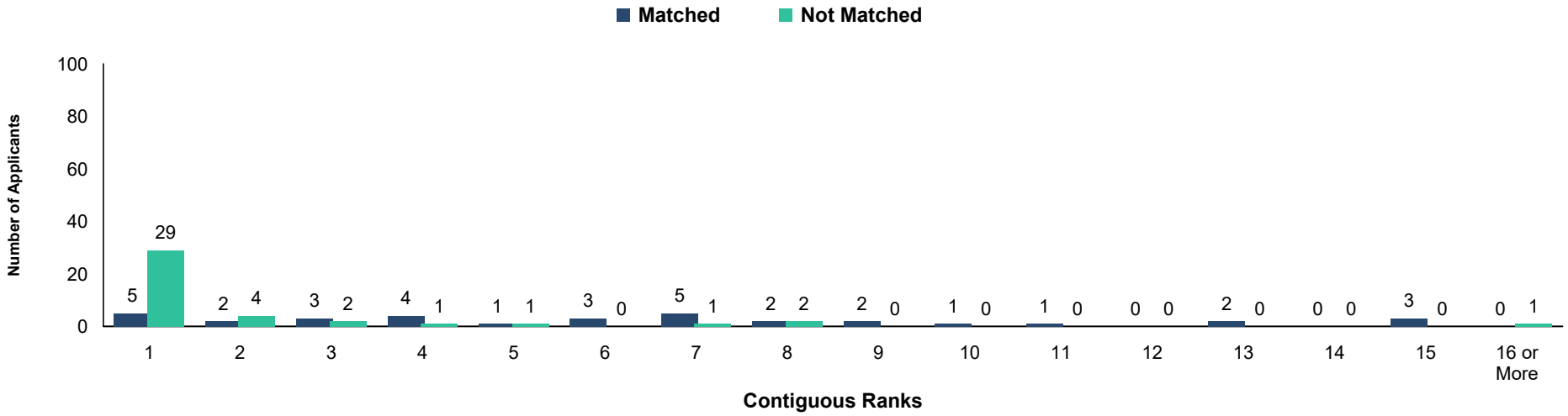


Source: NRMP Data Warehouse

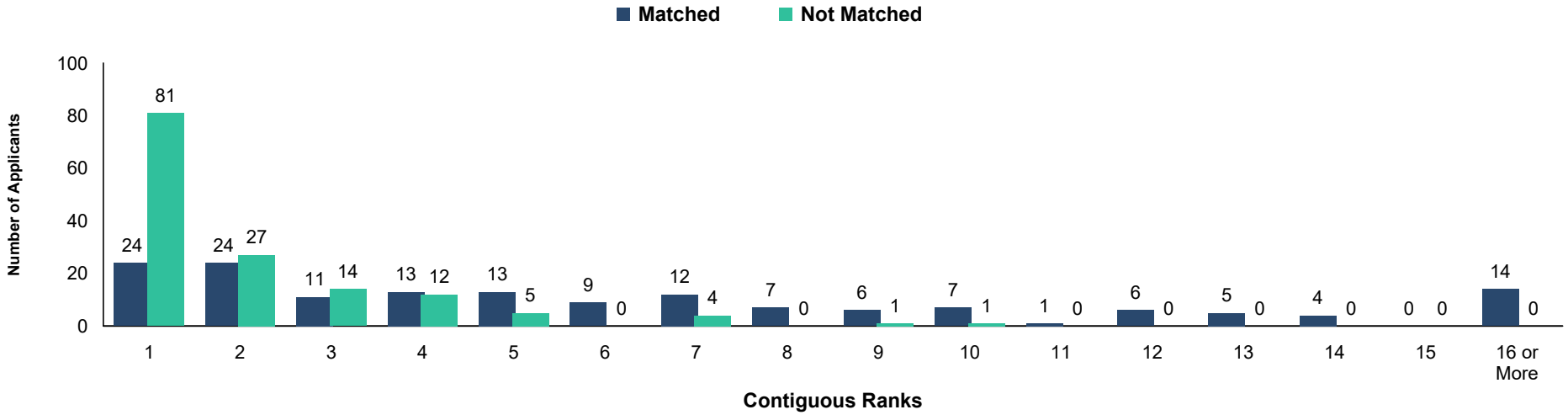
Chart N-2

Number of Contiguous Ranks of International Medical Graduates

U.S. IMG



Non-U.S. IMG

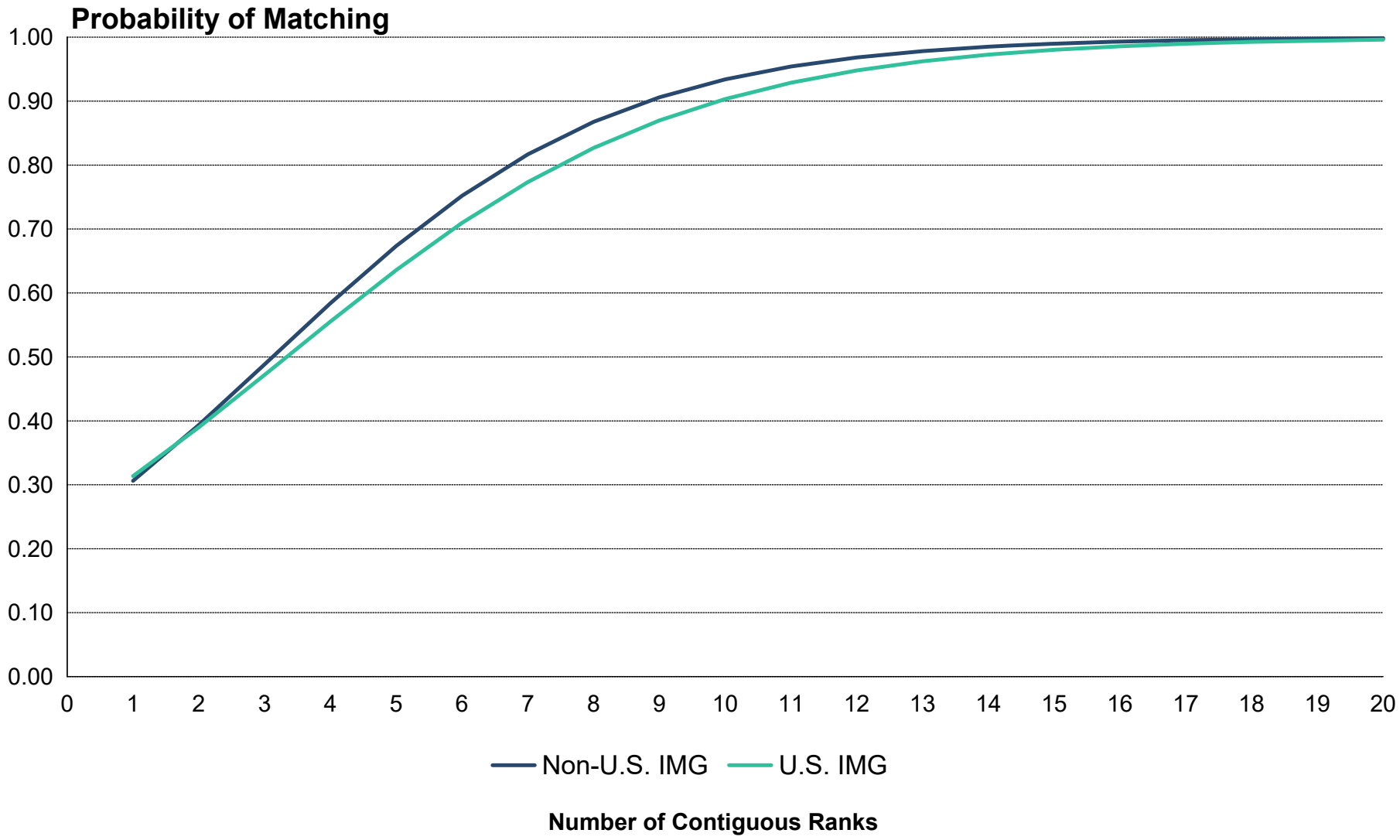


Source: NRMP Data Warehouse

Graph N-1

Probability of International Medical Graduates Matching to Preferred Specialty by Number of Contiguous Ranks

Neurology



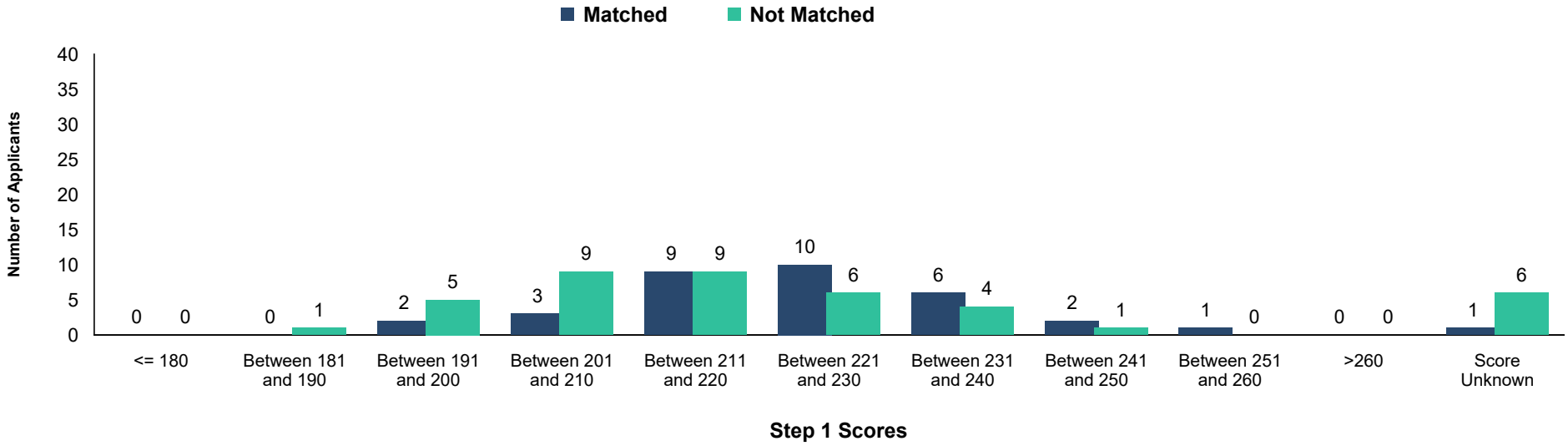
Source: NRMP Data Warehouse. Note: Probabilities calculated based on 2014-2016 applicants

Chart N-3

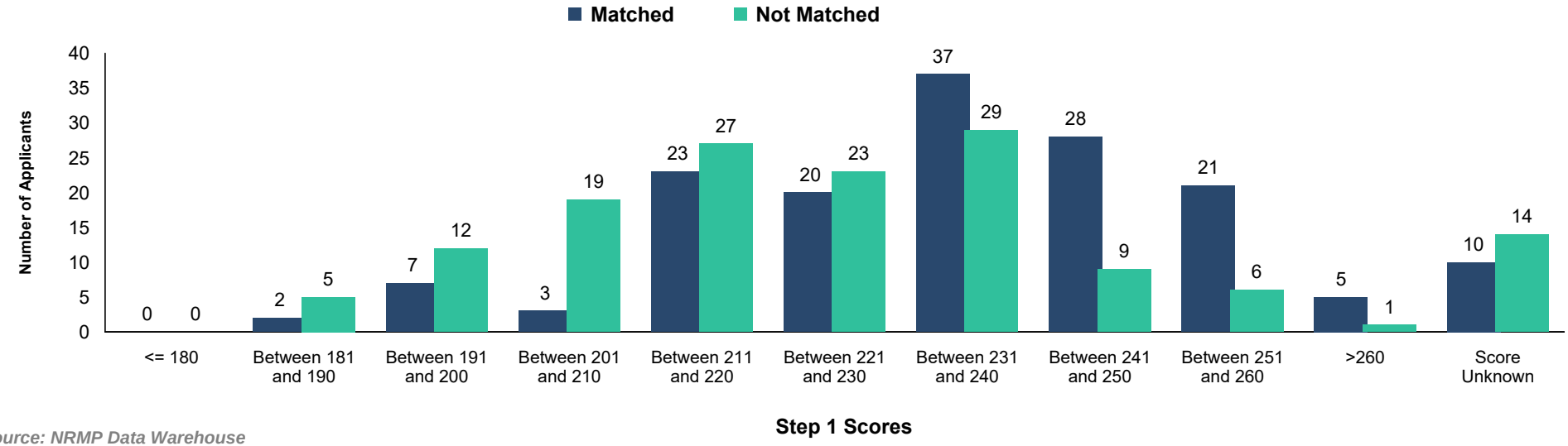
USMLE Step 1 Scores of International Medical Graduates

Neurology

U.S. IMG



Non-U.S. IMG

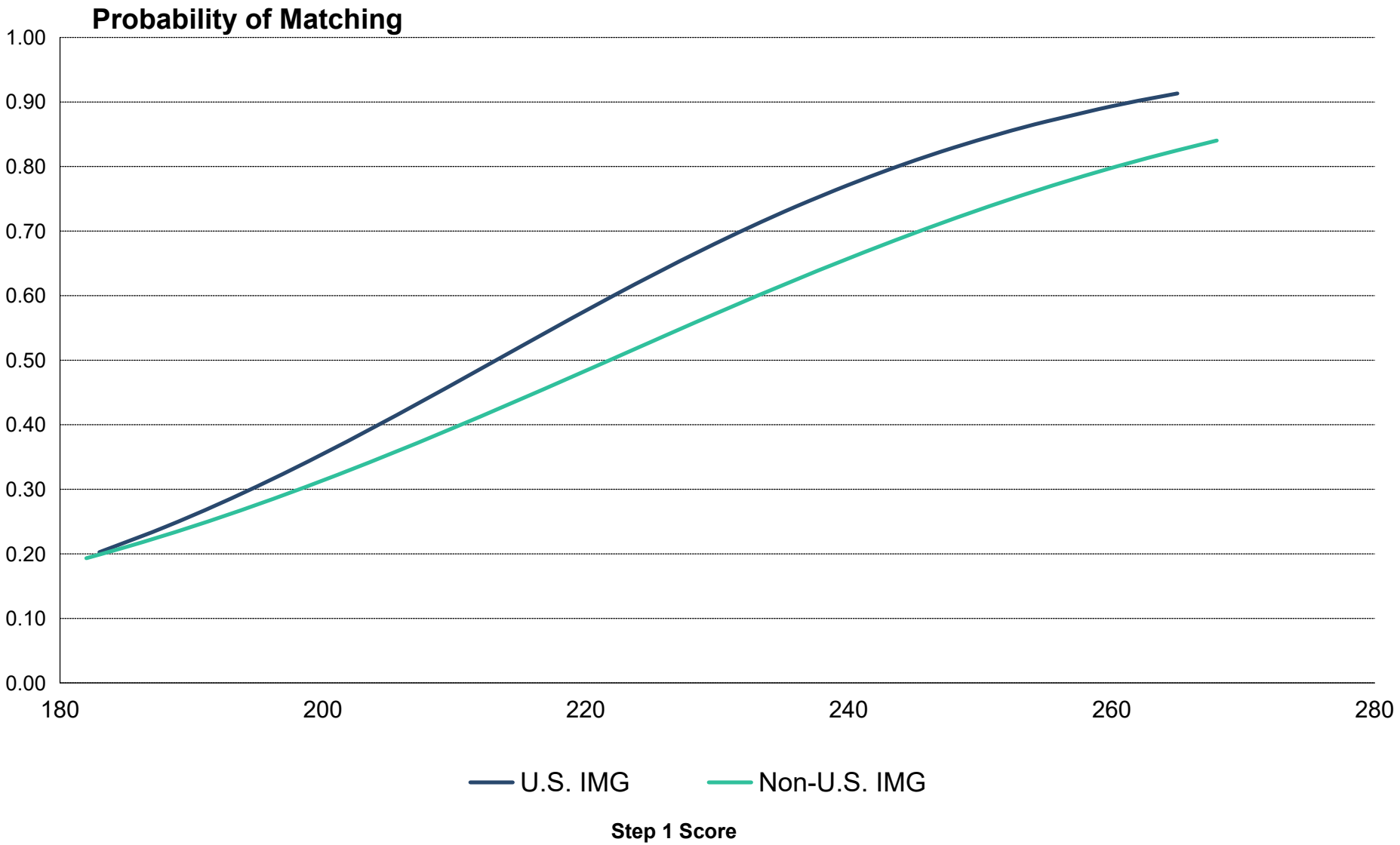


Source: NRMP Data Warehouse

Graph N-2

Probability of International Medical Graduates Matching to Preferred Specialty by USMLE Step 1 Score

Neurology

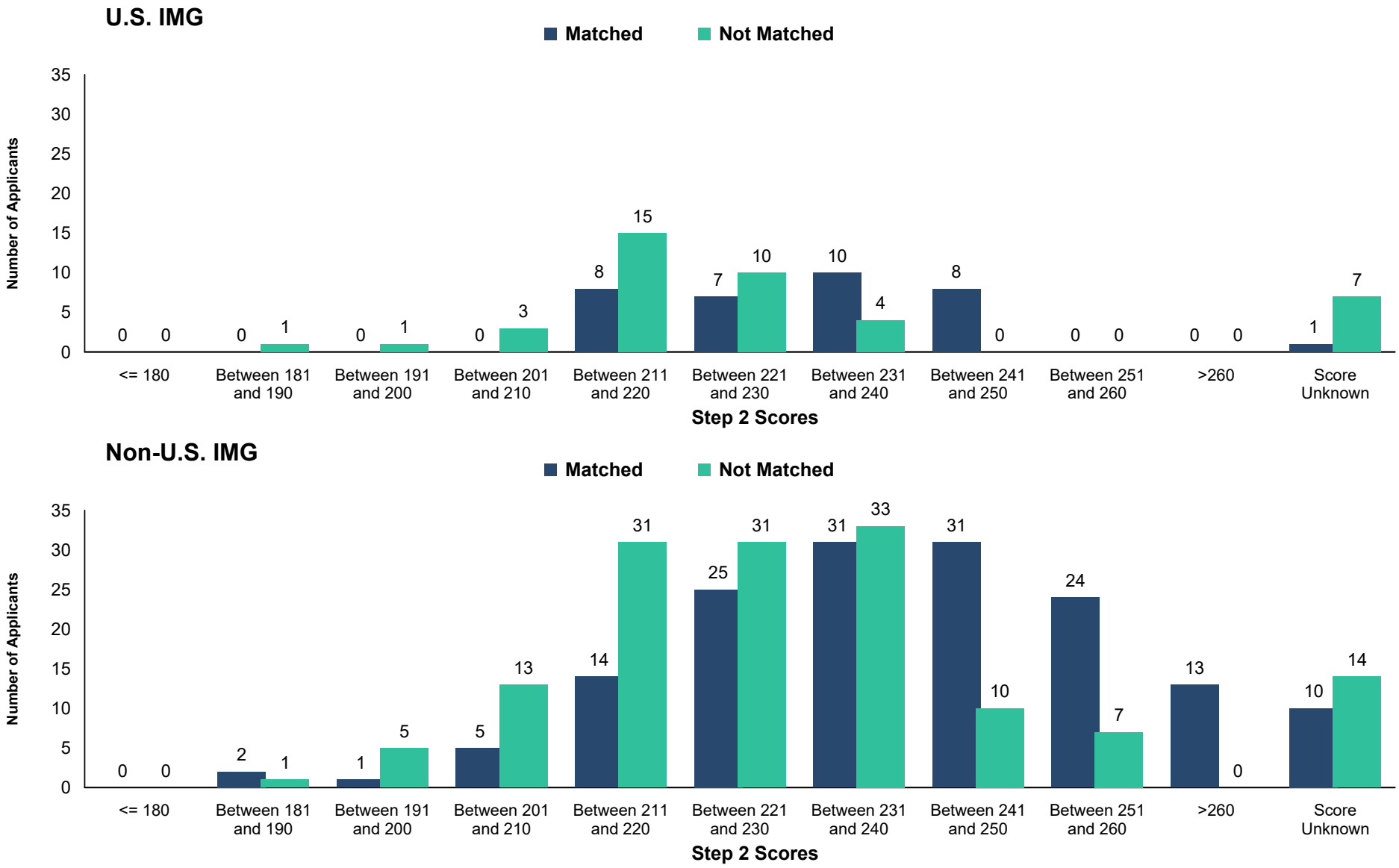


Source: NRMP Data Warehouse. Note: Probabilities calculated based on 2014-2016 applicants.

Chart N-4

USMLE Step 2 CK Scores of International Medical Graduates

Neurology

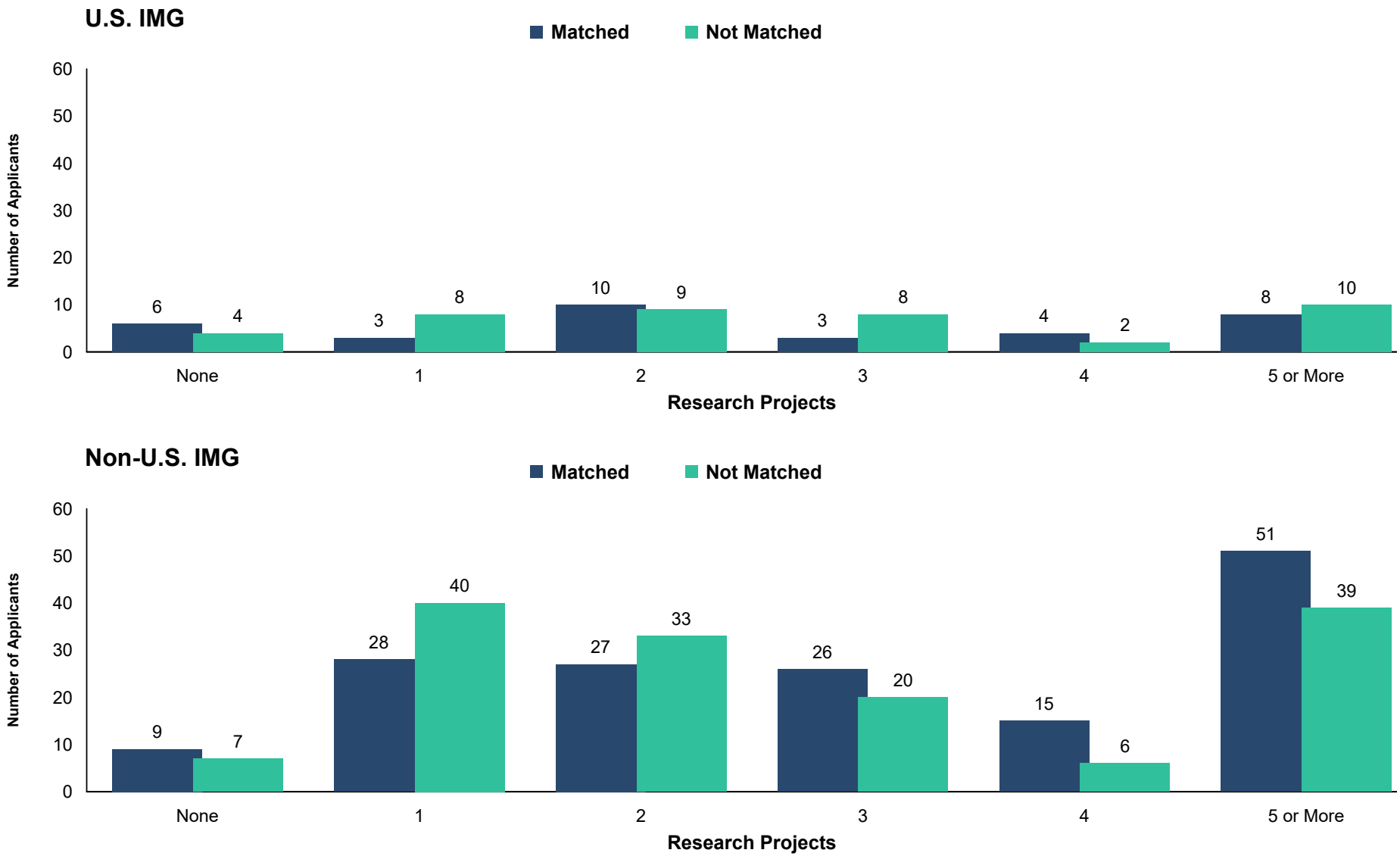


Source: NRMP Data Warehouse

Chart N-5

Number of Research Projects of International Medical Graduates

Neurology

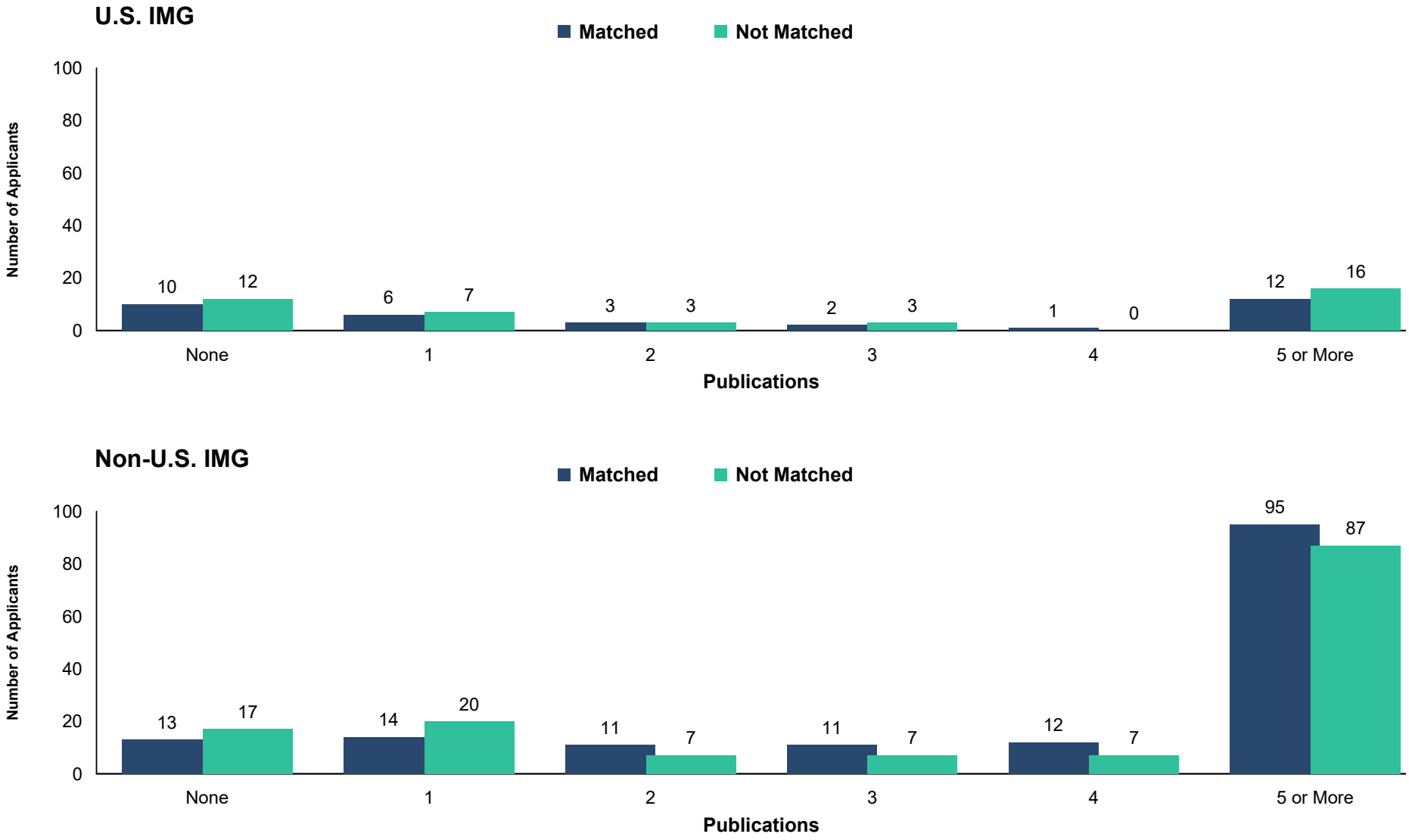


Source: NRMP Data Warehouse

Chart N-6

Number of Abstracts, Presentations, and Publications of International Medical Graduates

Neurology

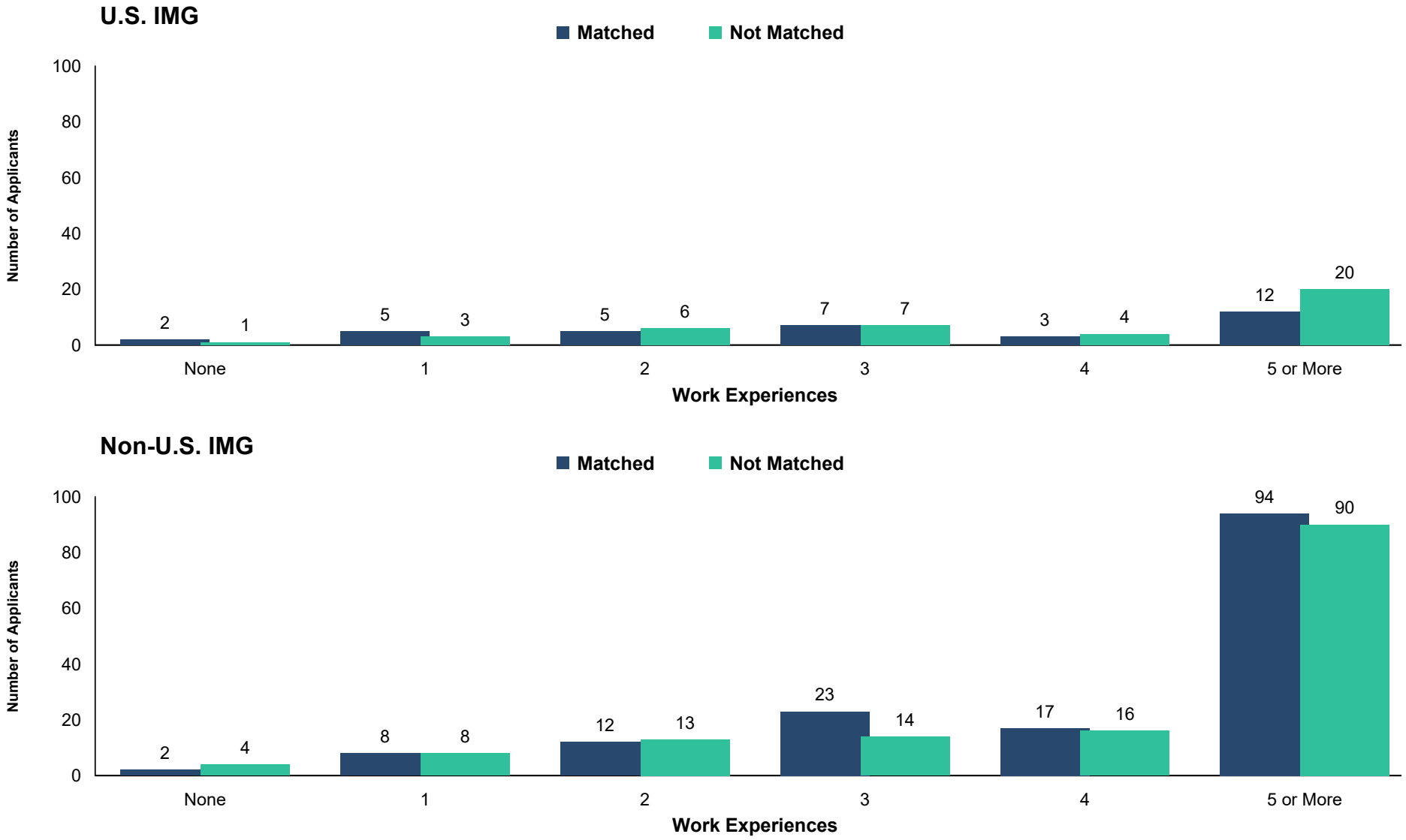


Source: NRMP Data Warehouse

Chart N-7

Number of Work Experiences of International Medical Graduates

Neurology

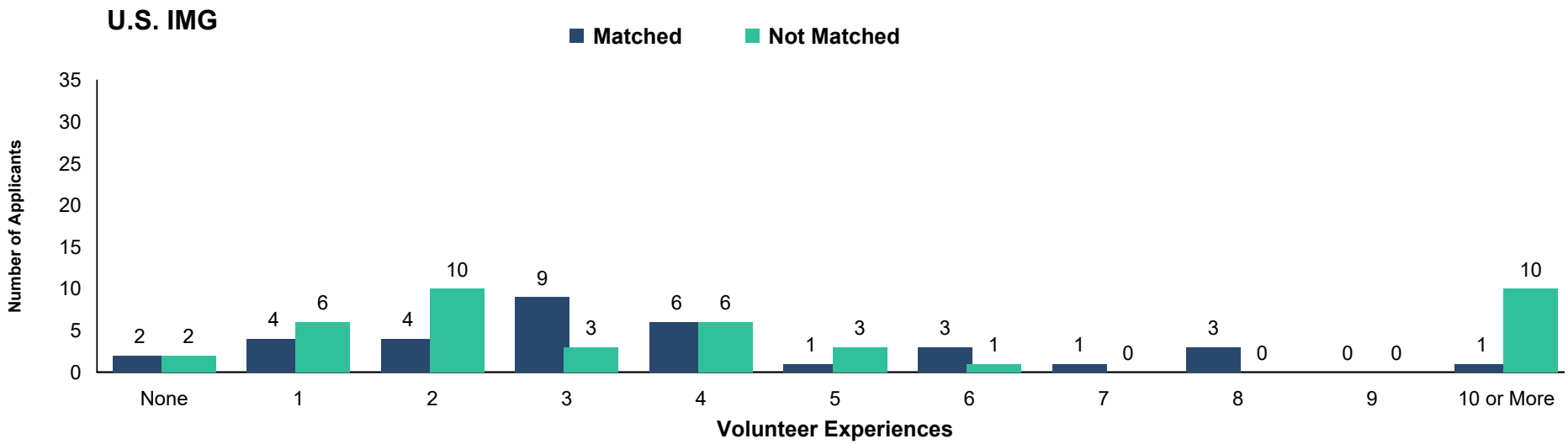


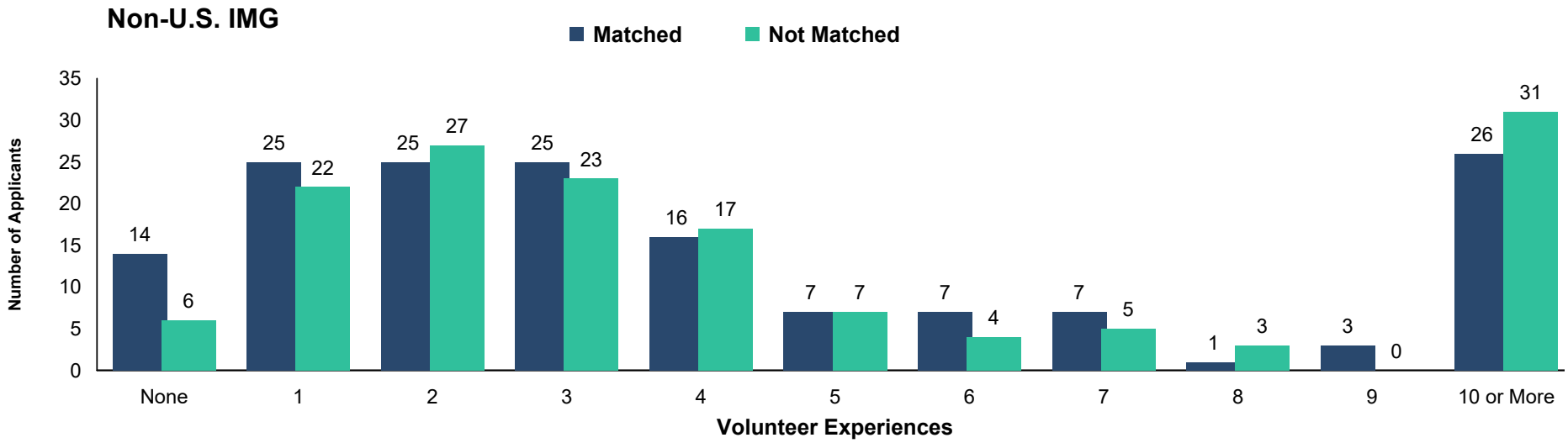
Source: NRMP Data Warehouse

Chart N-8

Number of Volunteer Experiences of International Medical Graduates

Neurology





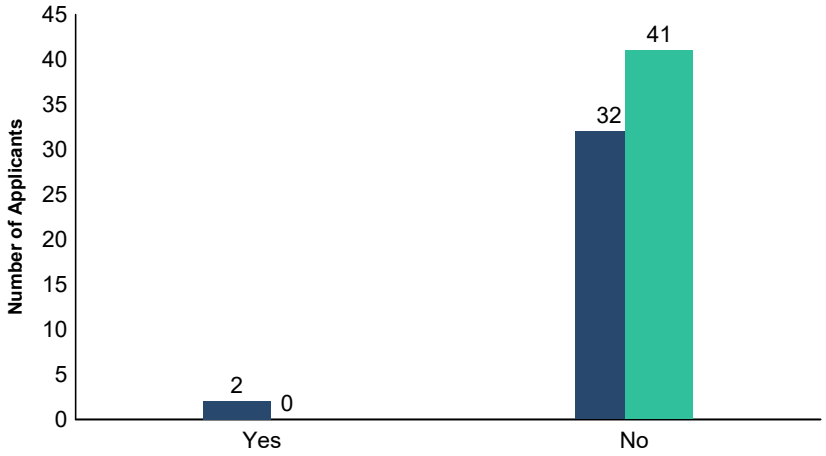
Source: NRMP Data Warehouse

Chart N-9 Other Characteristics of International Medical Graduates

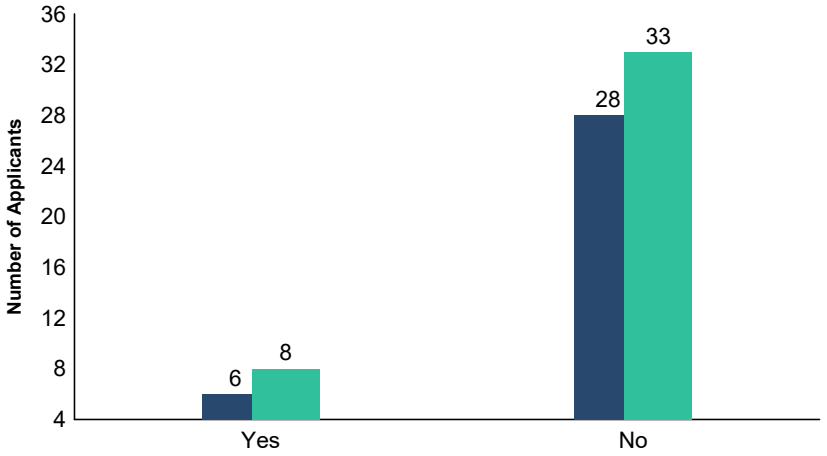
Neurology

U.S. IMG

Ph.D. Degree

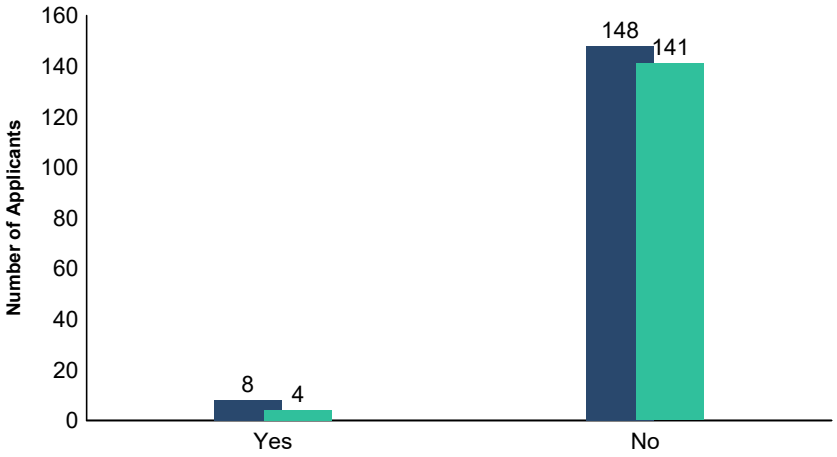


Other Graduate Degree

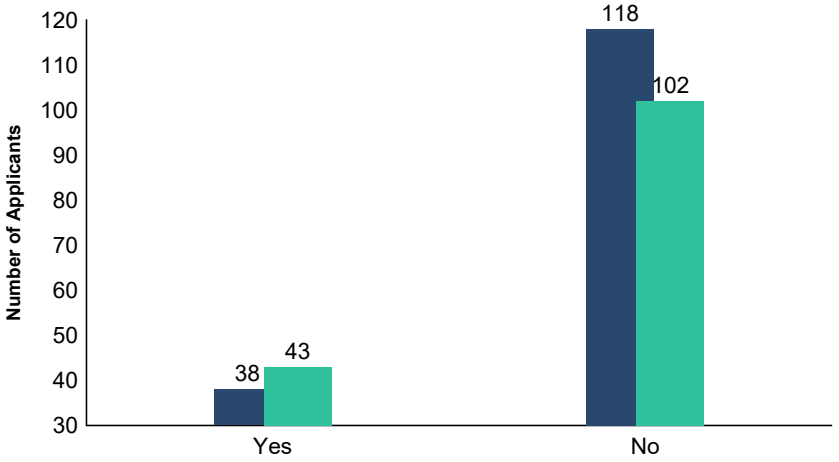


Non-U.S. IMG

Ph.D. Degree



Other Graduate Degree



Source: NRMP Data Warehouse

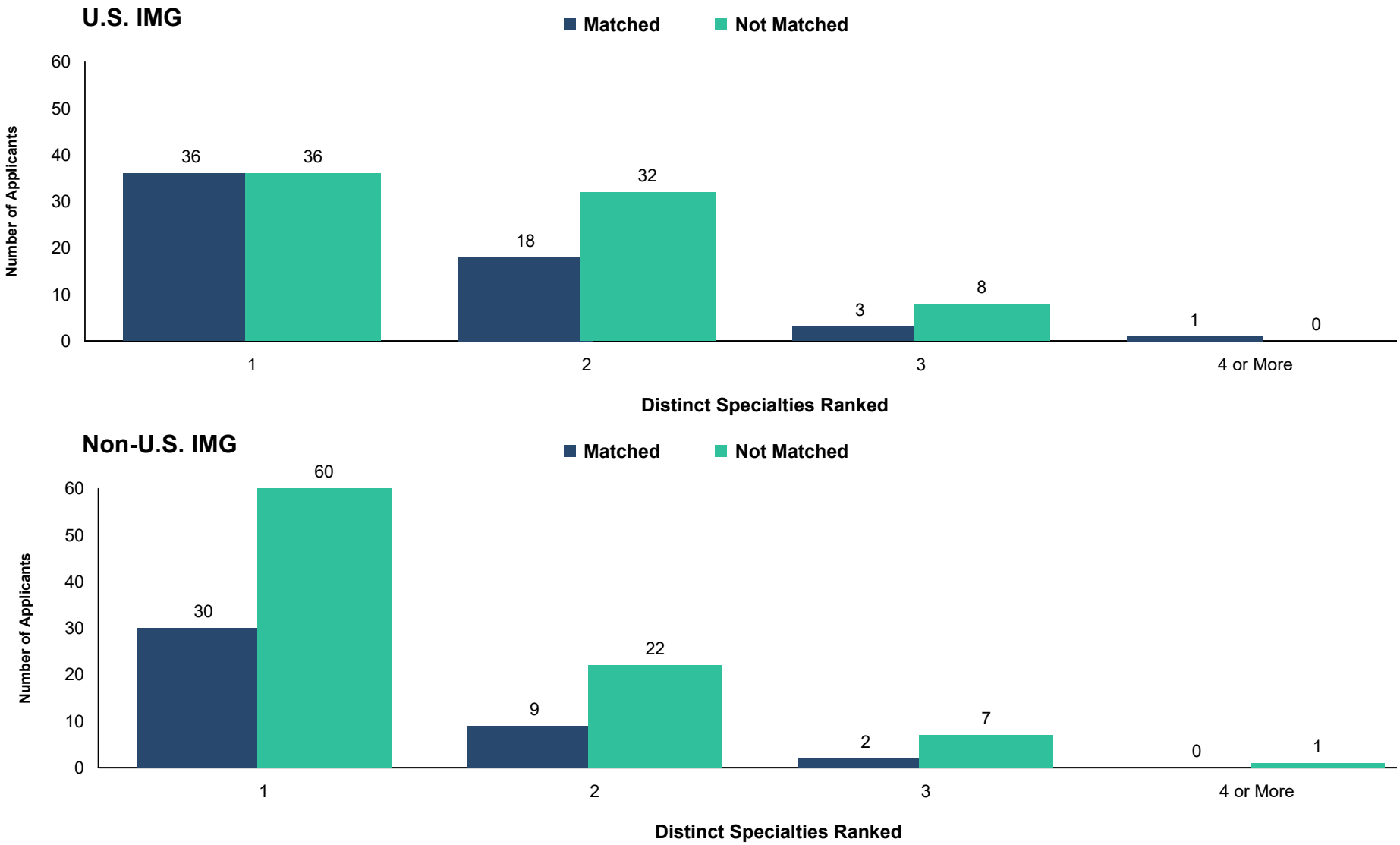
OB Obstetrics and Gynecology

Table OB-1 Summary Statistics
Obstetrics and Gynecology

Measure	U.S. IMGs		Non-U.S. IMGs	
	Matched (n=58)	Unmatched (n=76)	Matched (n=41)	Unmatched (n=92)
1. Mean number of contiguous ranks	8.9	2.7	4.5	2.6
2. Mean number of distinct specialties ranked	1.5	1.6	1.3	1.5
3. Mean USMLE Step 1 score	231	212	230	221
4. Mean USMLE Step 2 score	238	224	238	227
5. Mean number of research experiences	2.1	1.8	2.6	2.4
6. Mean number of abstracts, presentations, and publications	2.4	2.6	6.3	5.2
7. Mean number of work experiences	4.0	4.0	4.2	5.1
8. Mean number of volunteer experiences	4.5	4.7	4.3	3.3
9. Percentage who have a Ph.D. degree	2.0	1.4	5.3	0.0
10. Percentage who have another graduate degree	18.0	25.7	27.0	30.1

Note: Only applicants who gave consent to use their information in research are included.
Source. NRMP Data Warehouse

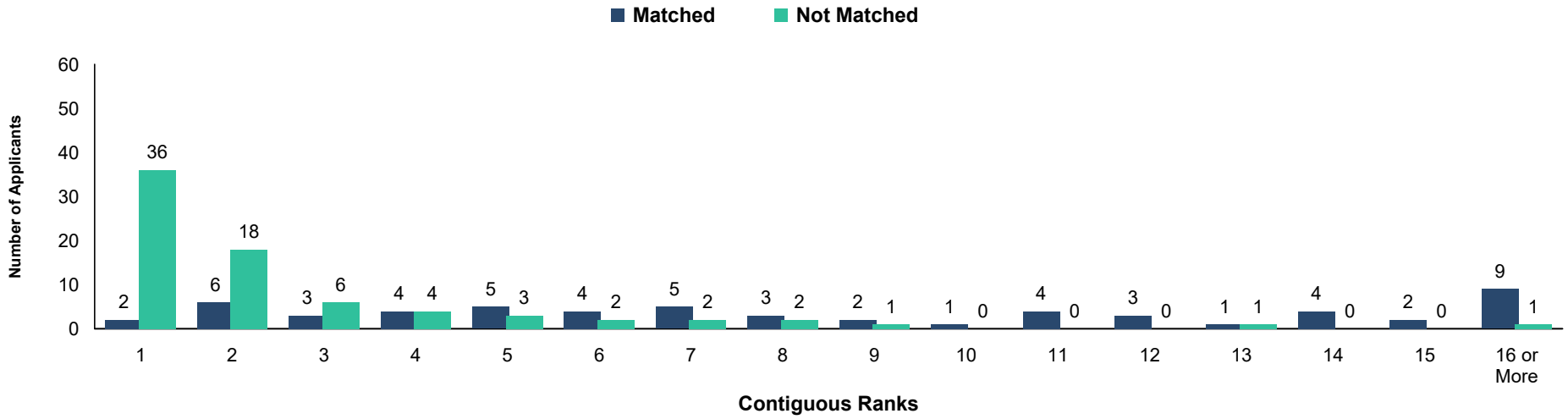
Chart OB-1 Number of Distinct Specialties Ranked by International Medical Graduates



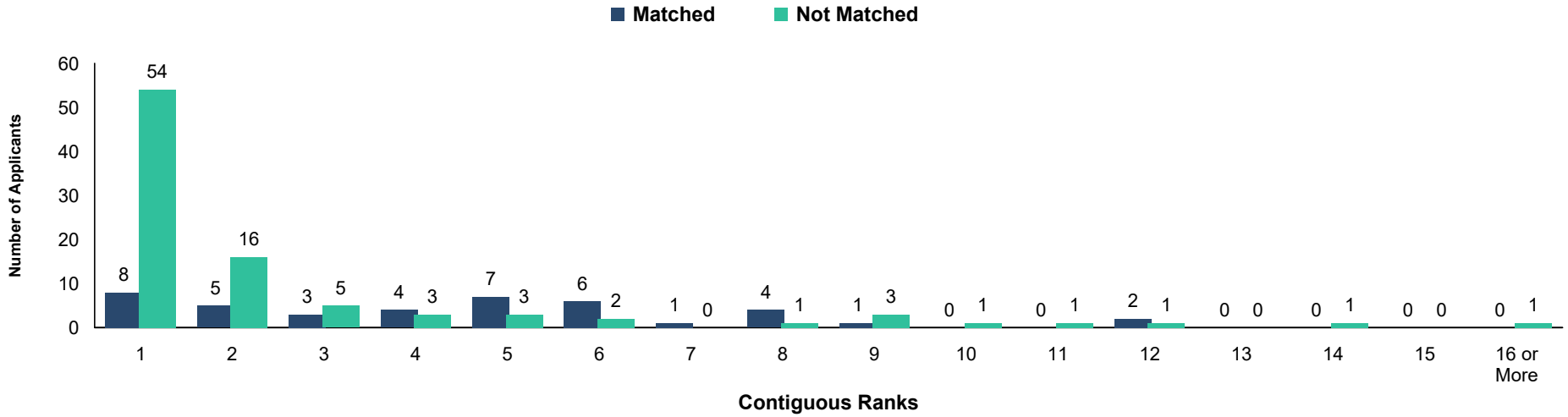
Source: NRMP Data Warehouse

Chart OB-2 Number of Contiguous Ranks of International Medical Graduates

U.S. IMG



Non-U.S. IMG

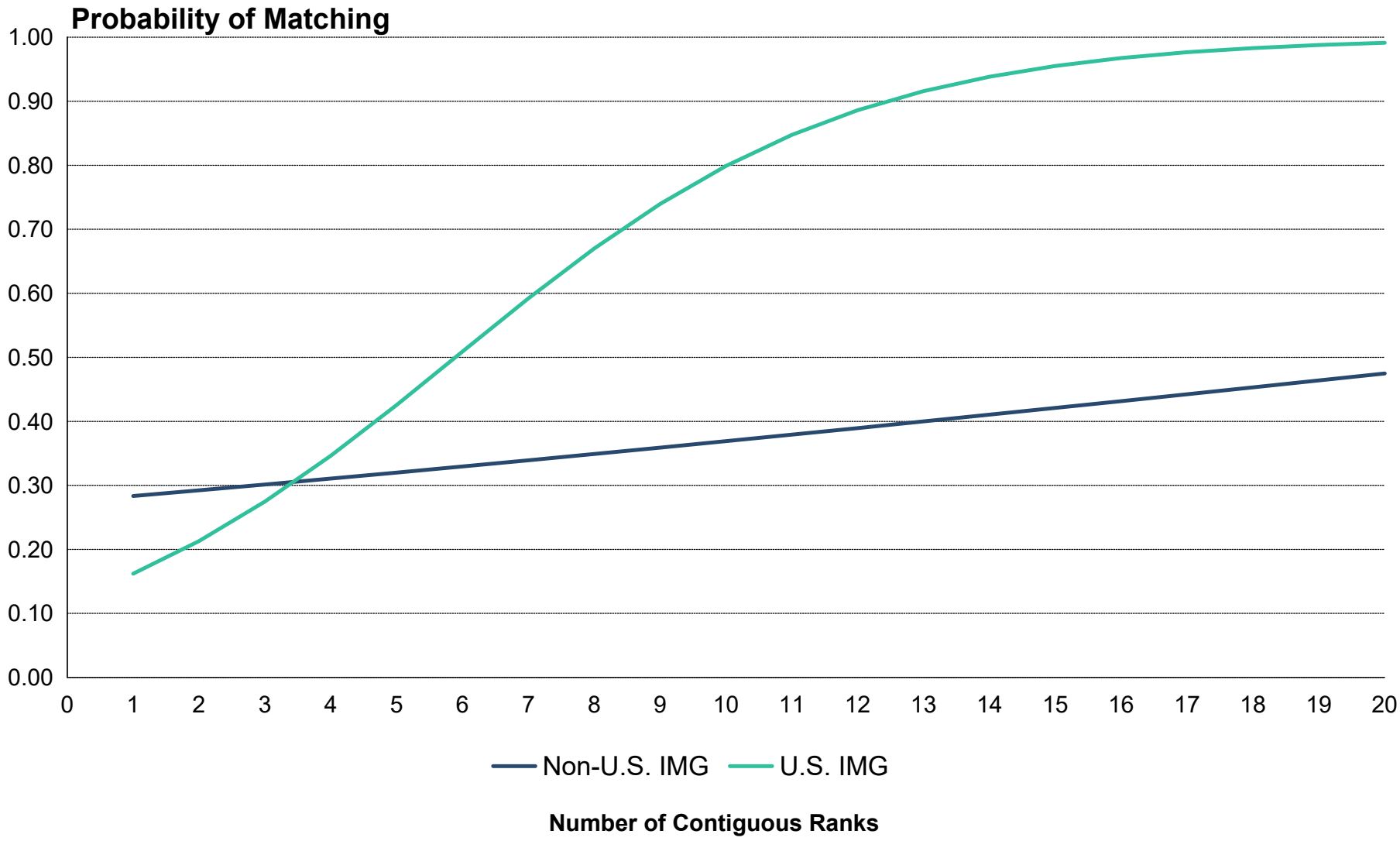


Source: NRMP Data Warehouse

Graph OB-1

Probability of International Medical Graduates Matching to Preferred Specialty by Number of Contiguous Ranks

Obstetrics and Gynecology

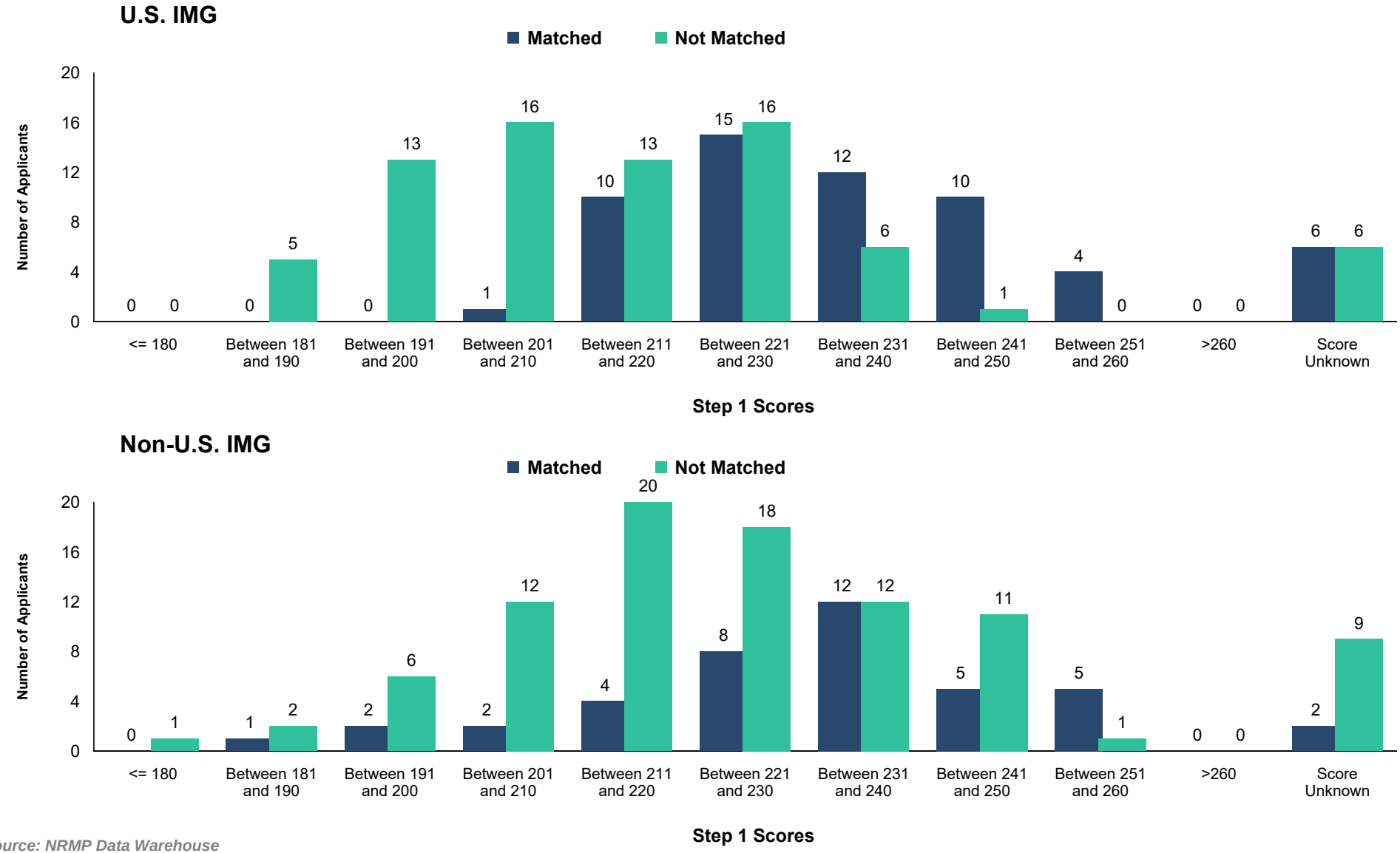


Source: NRMP Data Warehouse. Note: Probabilities calculated based on 2014-2016 applicants

Chart OB-3

USMLE Step 1 Scores of International Medical Graduates

Obstetrics and Gynecology

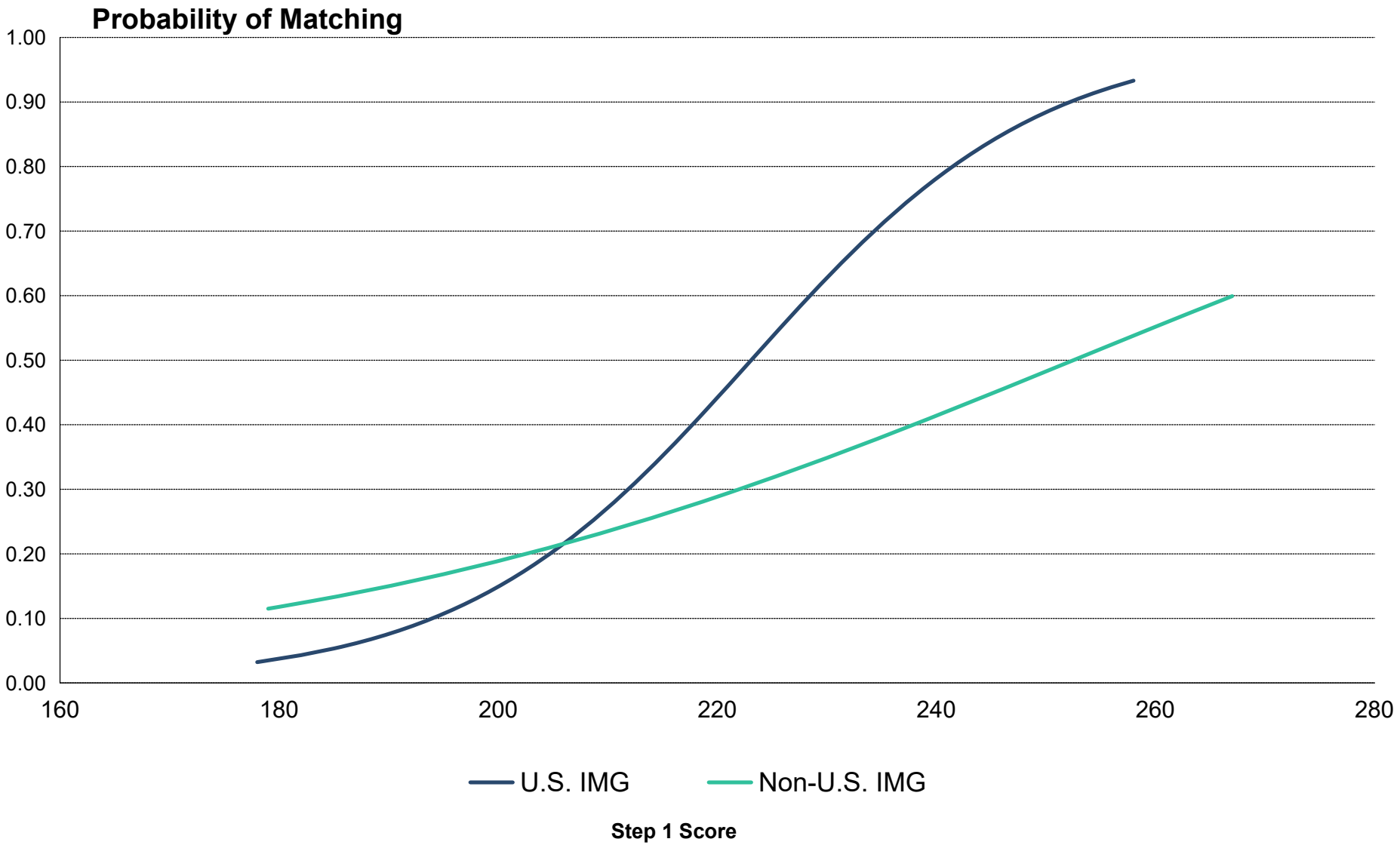


Source: NRMP Data Warehouse

Graph OB-2

Probability of International Medical Graduates Matching to Preferred Specialty by USMLE Step 1 Score

Obstetrics and Gynecology

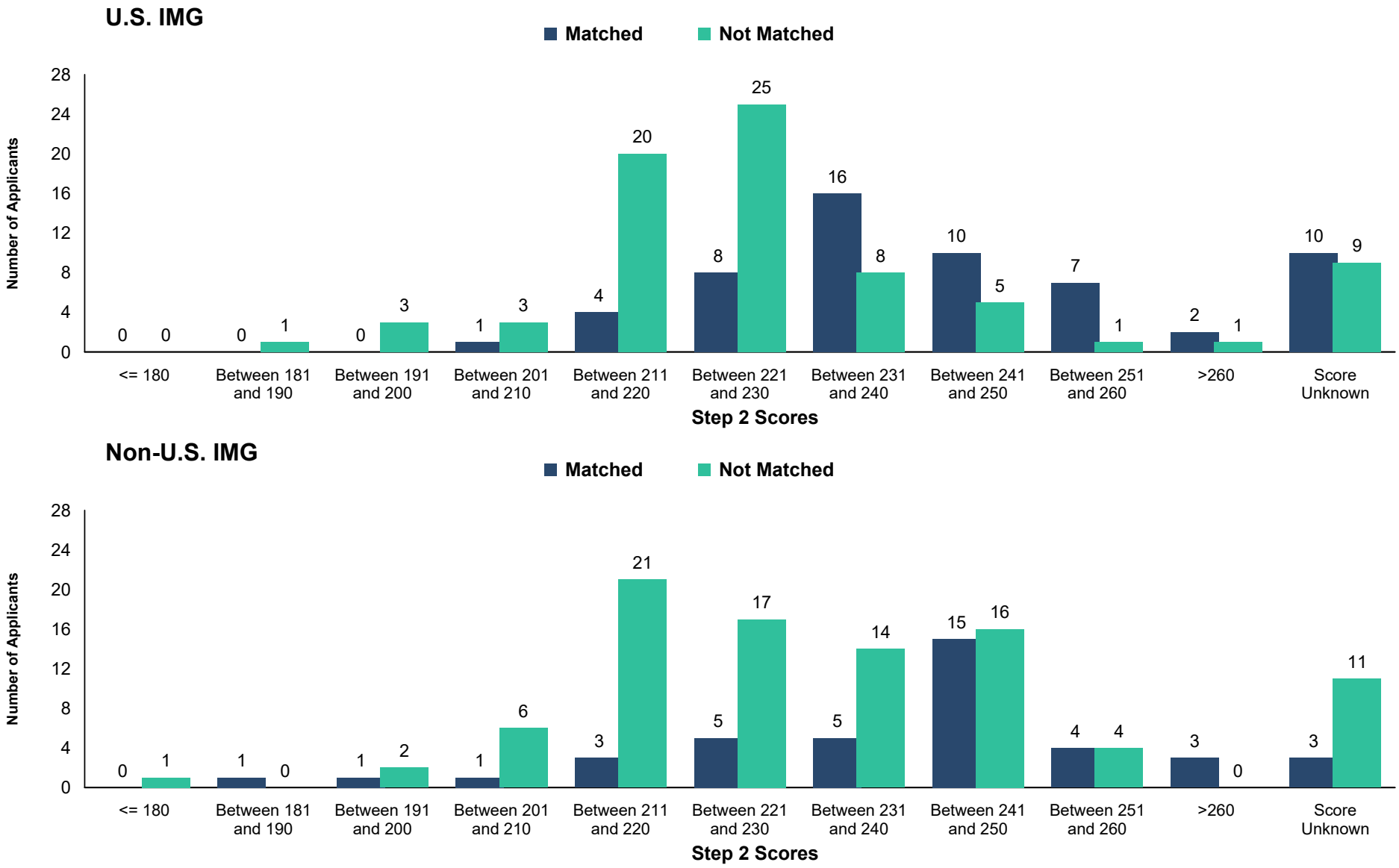


Source: NRMP Data Warehouse. Note: Probabilities calculated based on 2014-2016 applicants.

Chart OB-4

USMLE Step 2 CK Scores of International Medical Graduates

Obstetrics and Gynecology

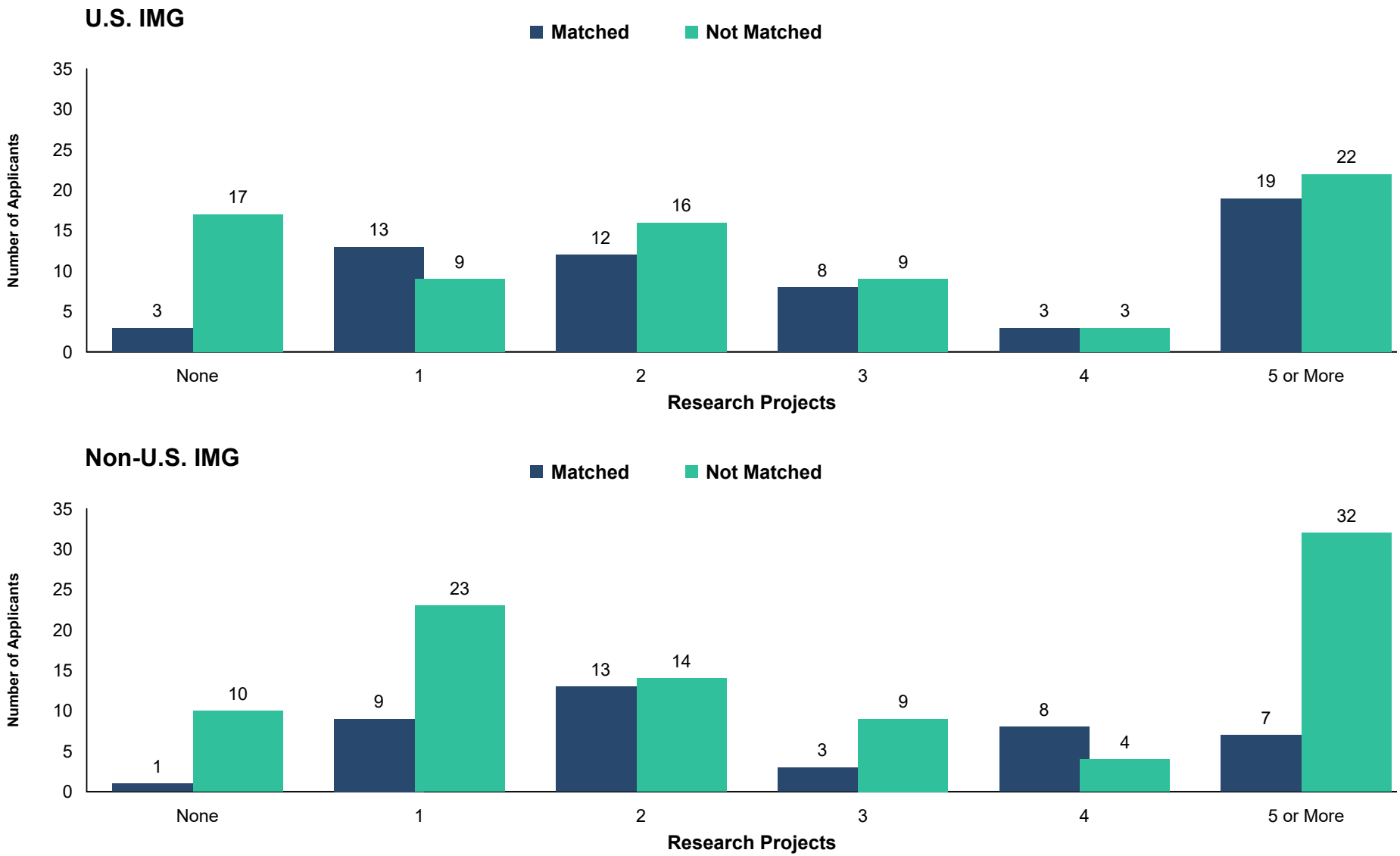


Source: NRMP Data Warehouse

Chart OB-5

Number of Research Projects of International Medical Graduates

Obstetrics and Gynecology

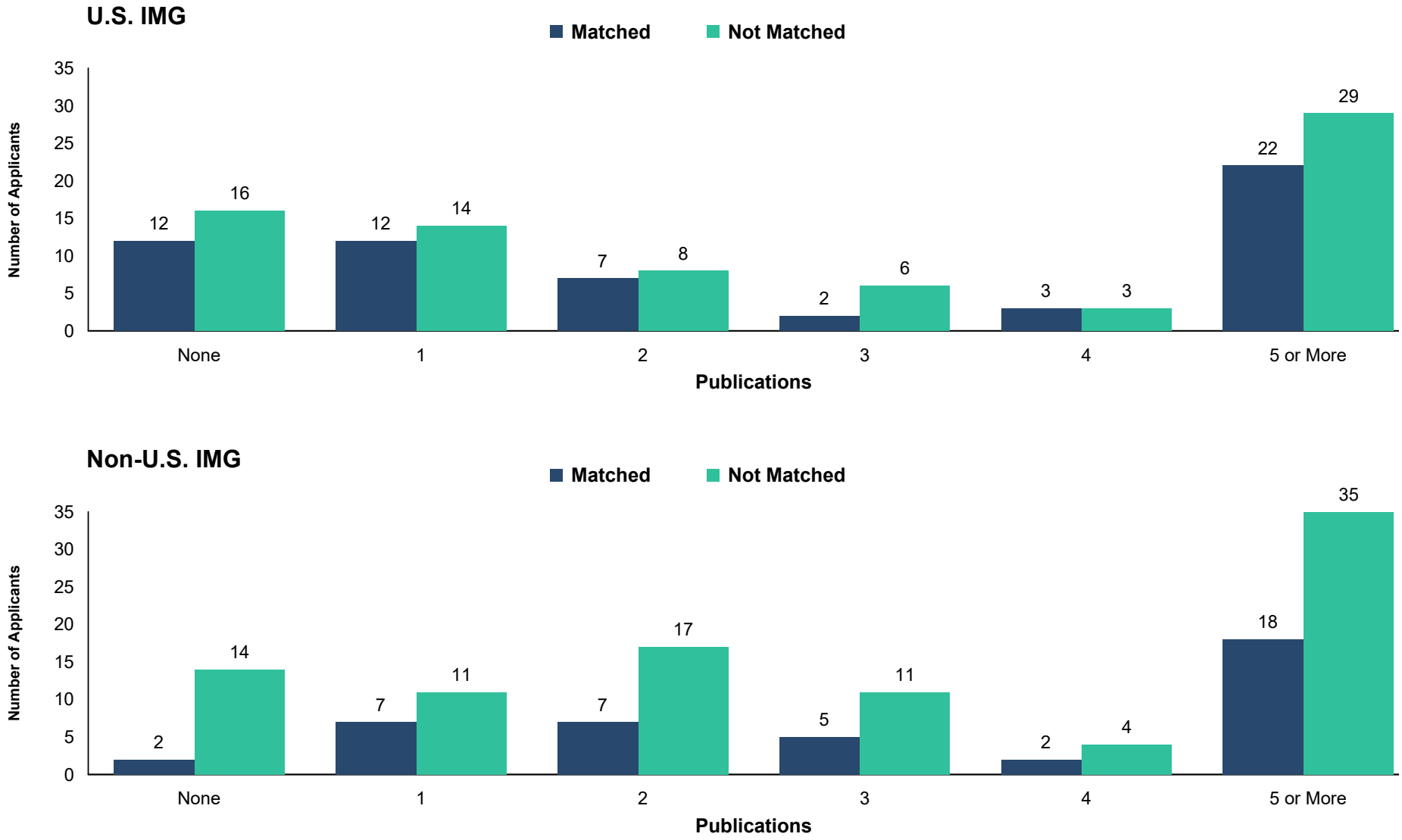


Source: NRMP Data Warehouse

Chart OB-6

Number of Abstracts, Presentations, and Publications of International Medical Graduates

Obstetrics and Gynecology

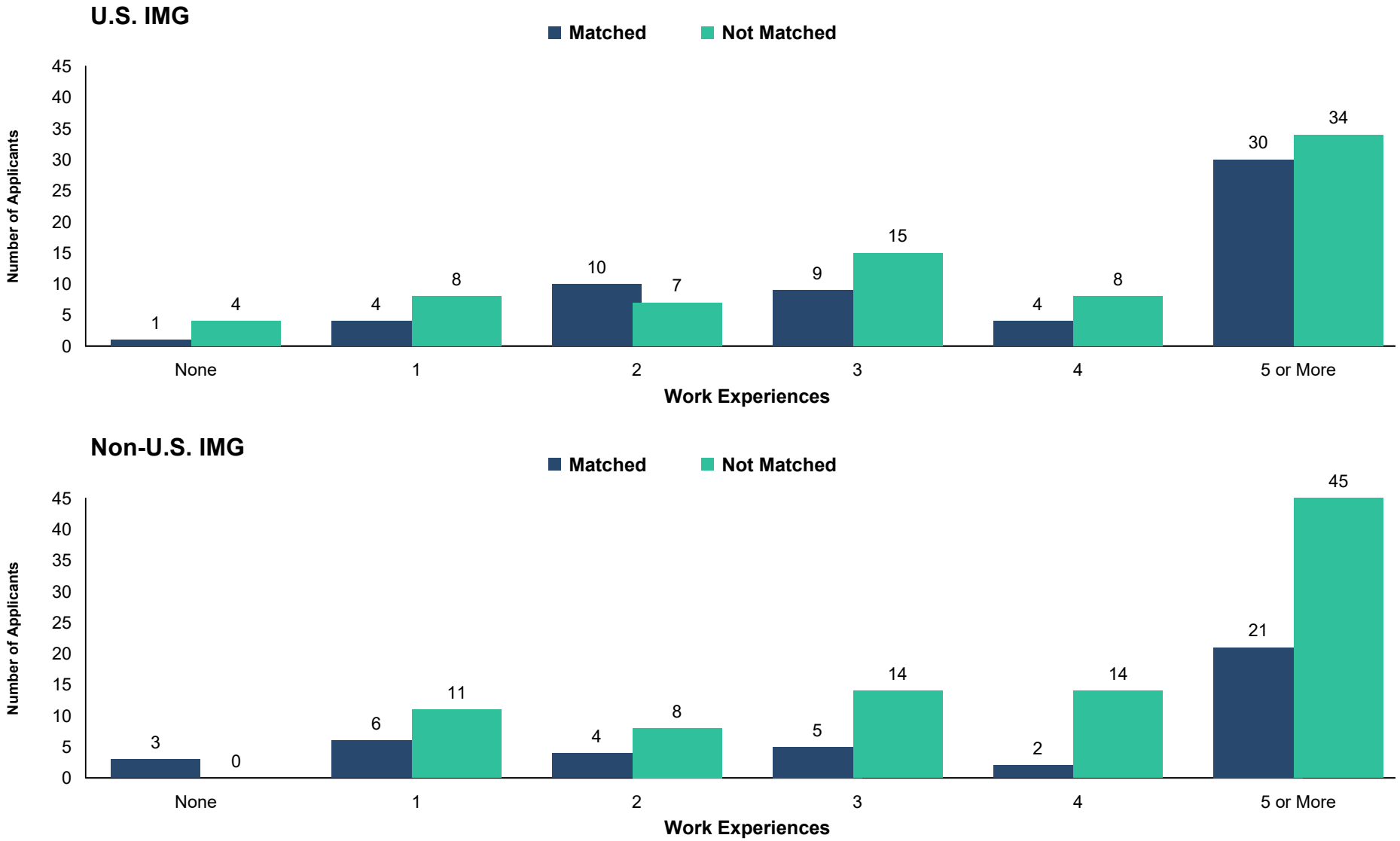


Source: NRMP Data Warehouse

Chart OB-7

Number of Work Experiences of International Medical Graduates

Obstetrics and Gynecology

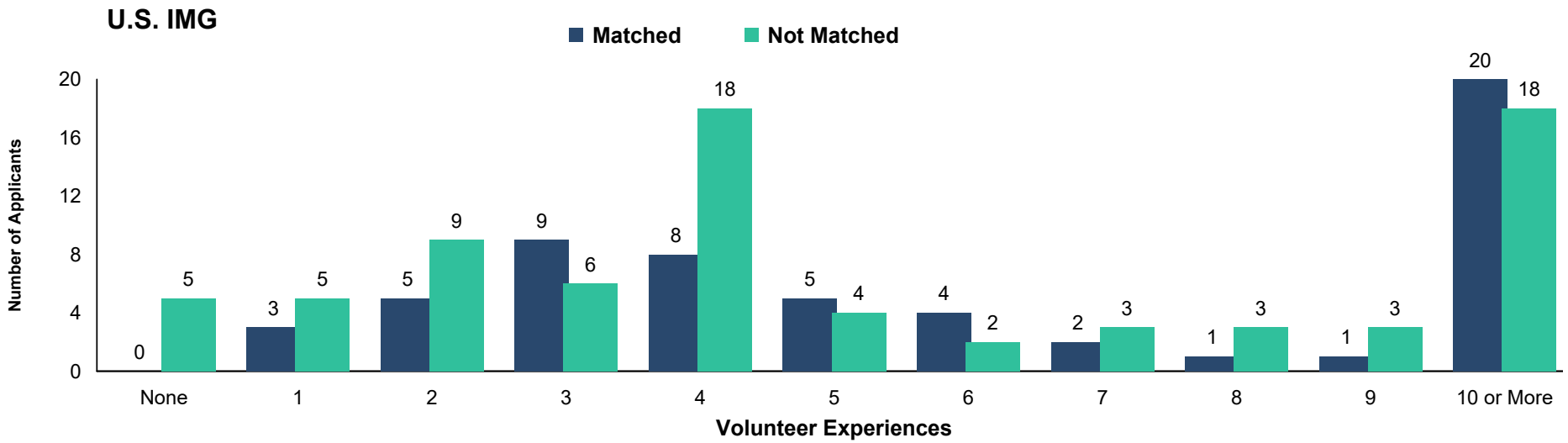


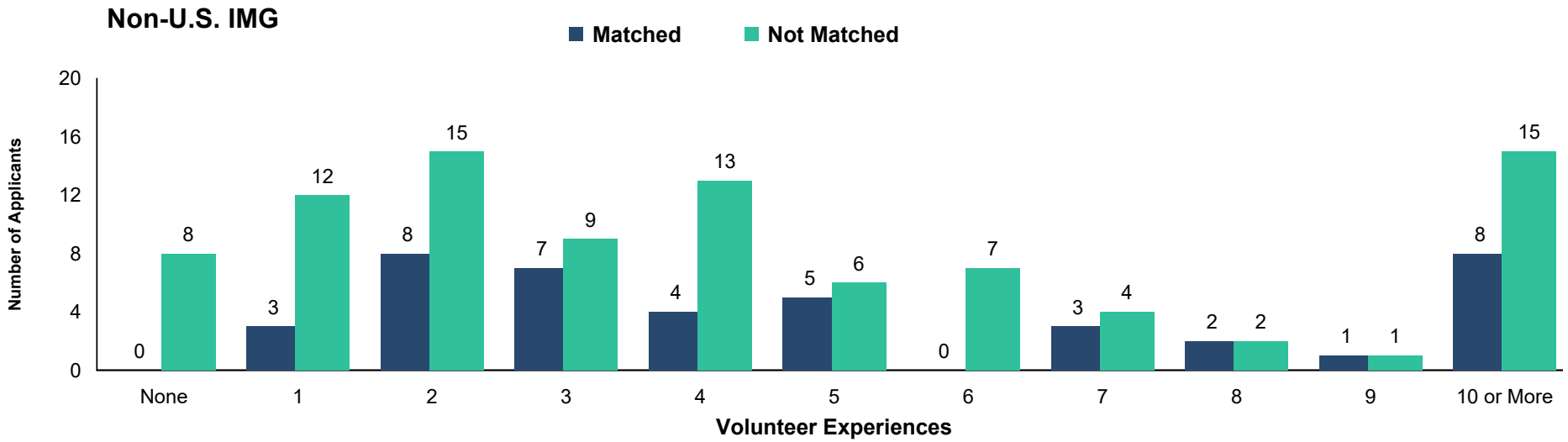
Source: NRMP Data Warehouse

Chart OB-8

Number of Volunteer Experiences of International Medical Graduates

Obstetrics and Gynecology





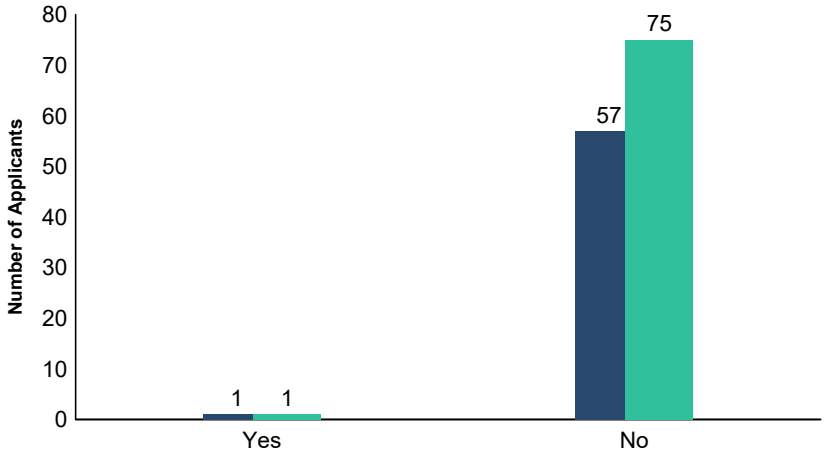
Source: NRMP Data Warehouse

Chart OB-9 Other Characteristics of International Medical Graduates

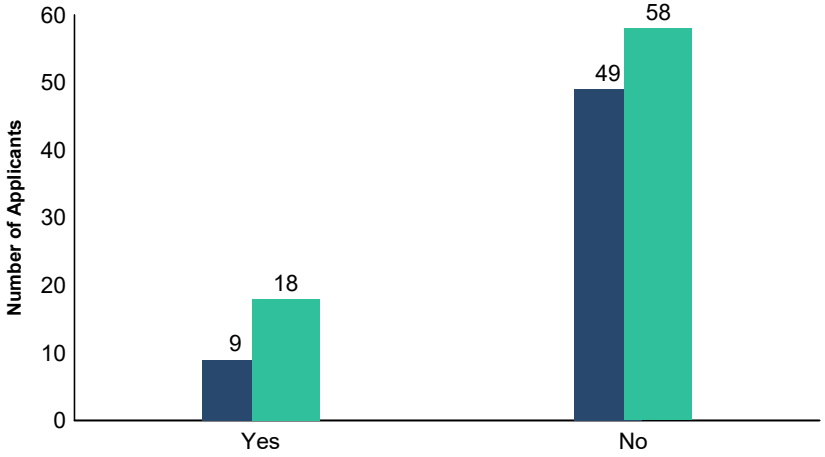
Obstetrics and Gynecology

U.S. IMG

Ph.D. Degree

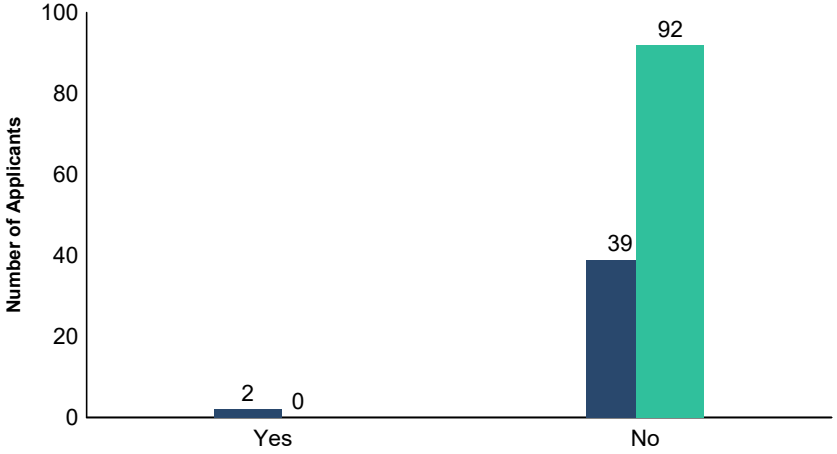


Other Graduate Degree

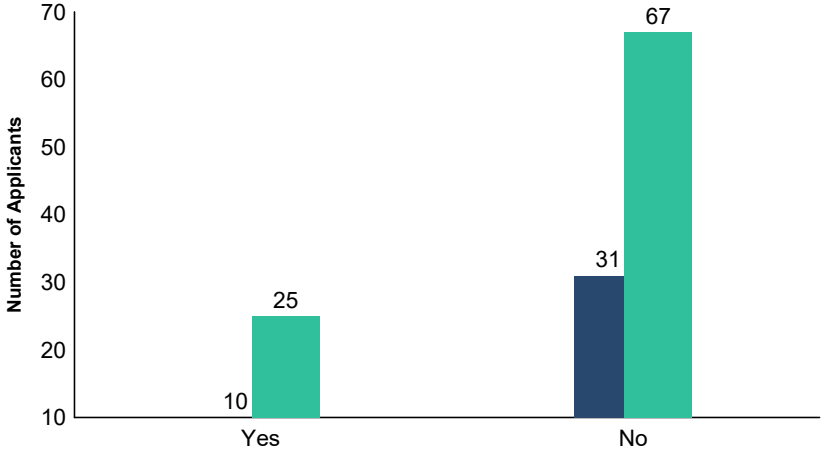


Non-U.S. IMG

Ph.D. Degree



Other Graduate Degree



Source: NRMP Data Warehouse

ORS Orthopaedic Surgery

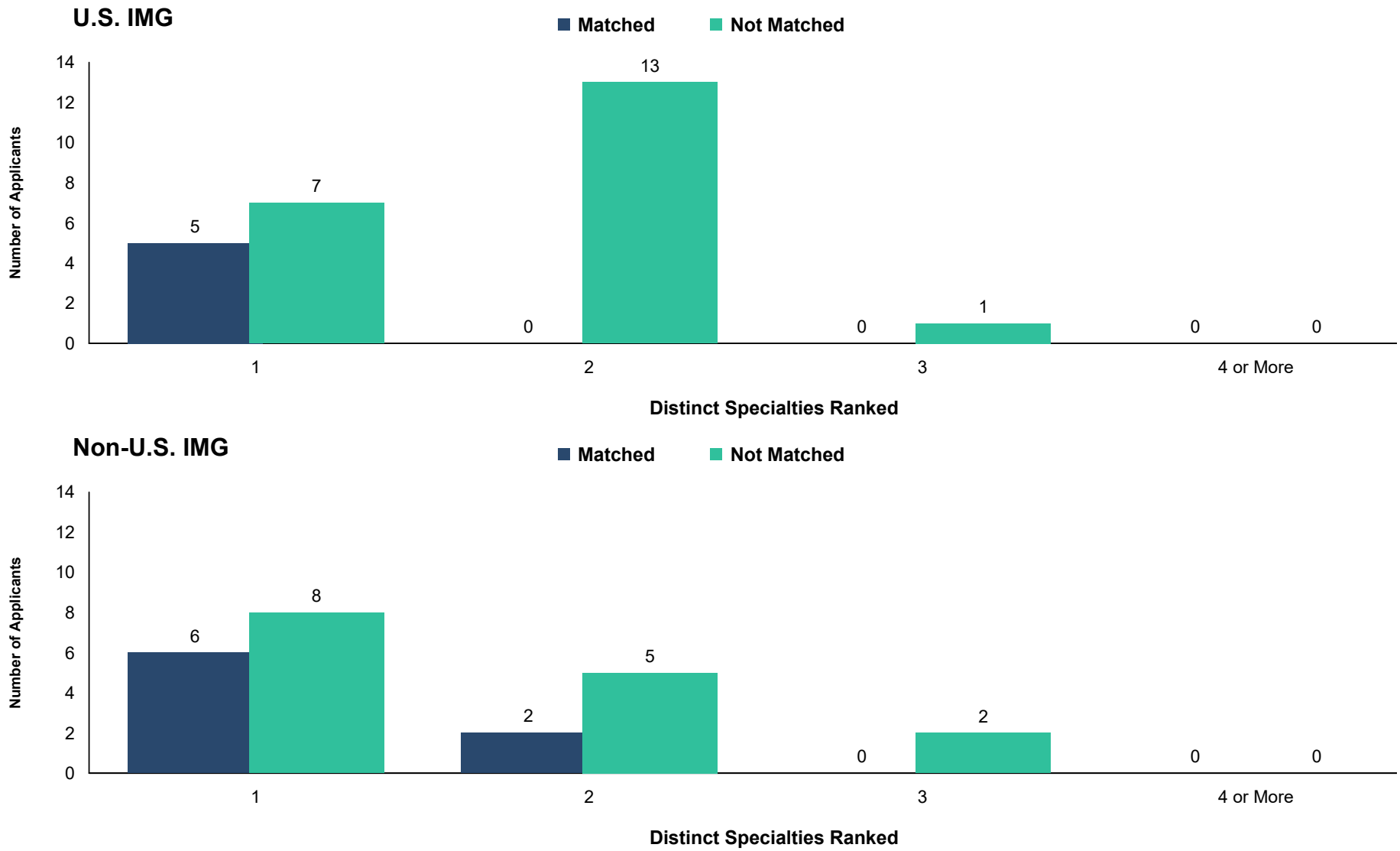
Table ORS-1 Summary Statistics
Orthopaedic Surgery

Measure	U.S. IMGs		Non-U.S. IMGs	
	Matched (n=6)	Unmatched (n=21)	Matched (n=8)	Unmatched (n=16)
1. Mean number of contiguous ranks	3.5	3.5	2.4	4.6
2. Mean number of distinct specialties ranked	1.7	1.7	1.3	1.8
3. Mean USMLE Step 1 score	245	234	237	227
4. Mean USMLE Step 2 score	257	237	248	231
5. Mean number of research experiences	3.2	2.6	3.2	2.5
6. Mean number of abstracts, presentations, and publications	34.2	12.2	46.4	21.3
7. Mean number of work experiences	3.8	3.8	6.8	3.9
8. Mean number of volunteer experiences	3.5	4.2	3.6	3.5
9. Percentage who have a Ph.D. degree	0.0	0.0	20.0	7.7
10. Percentage who have another graduate degree	0.0	10.0	20.0	61.5

Note: Only applicants who gave consent to use their information in research are included.
Source. NRMP Data Warehouse

Chart ORS-1

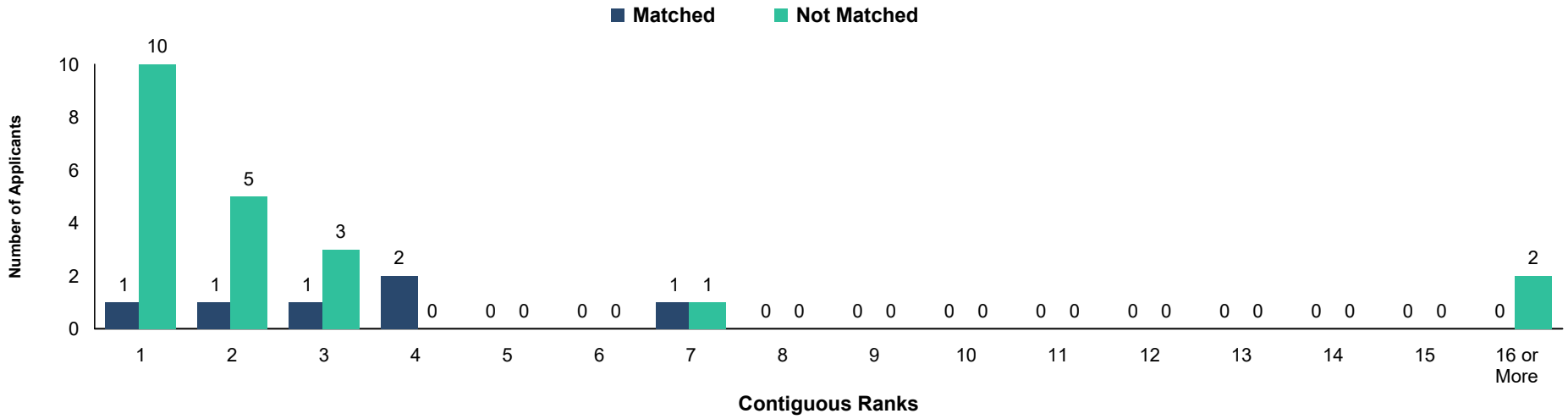
Number of Distinct Specialties Ranked by International Medical Graduates



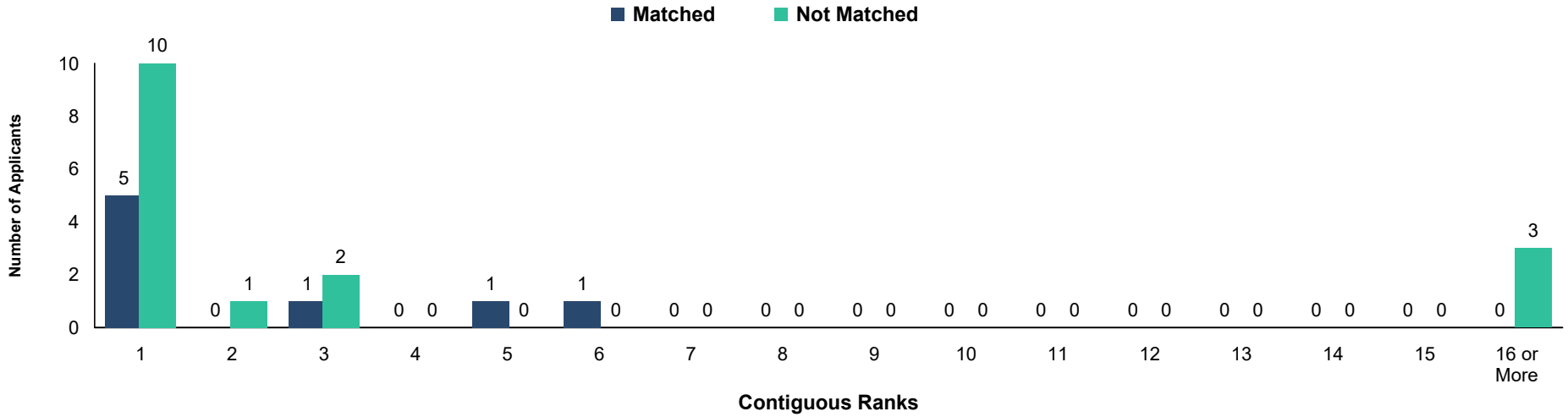
Source: NRMP Data Warehouse

Chart ORS-2 Number of Contiguous Ranks of International Medical Graduates

U.S. IMG



Non-U.S. IMG

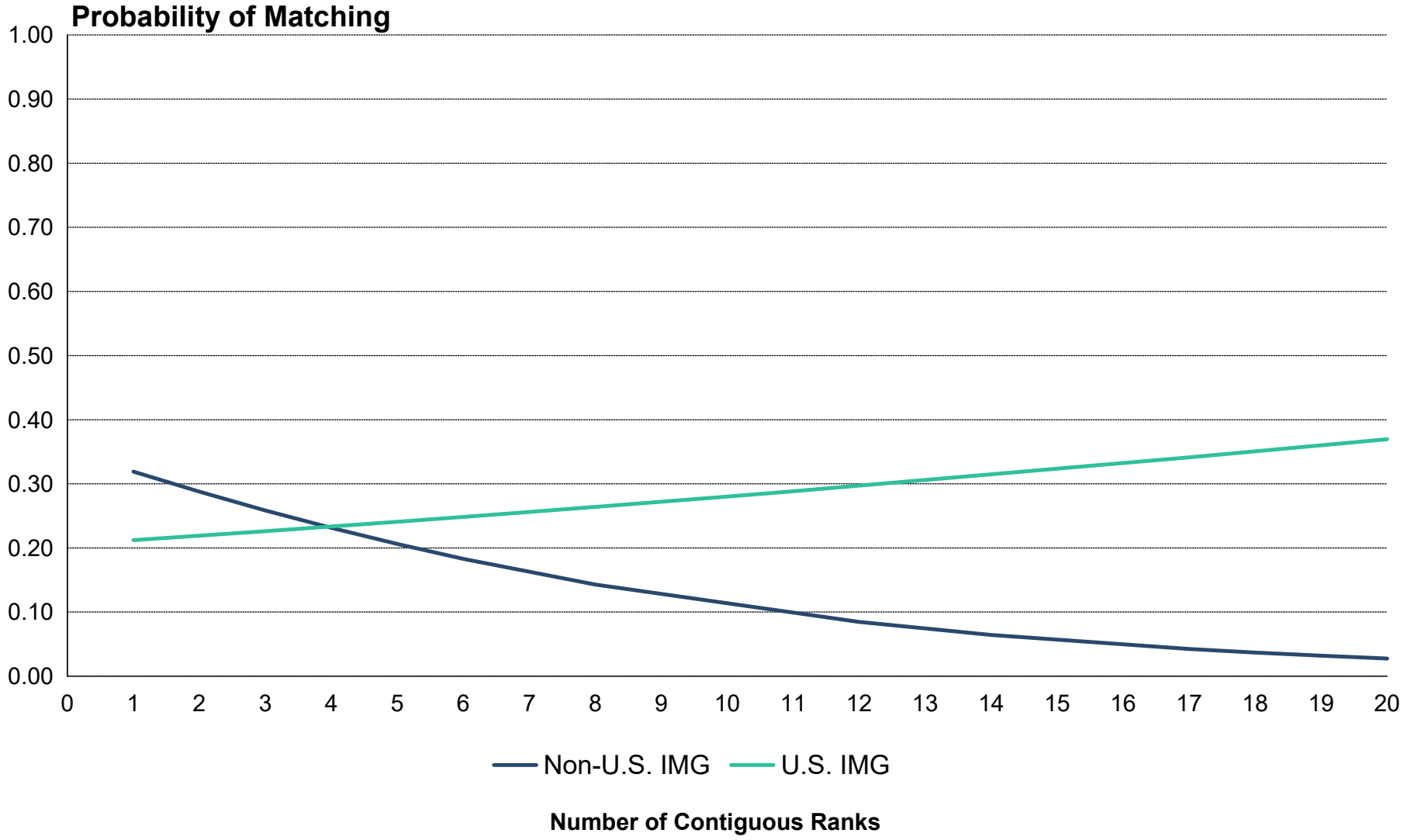


Source: NRMP Data Warehouse

Graph ORS-1

Probability of International Medical Graduates Matching to Preferred Specialty by Number of Contiguous Ranks

Orthopaedic Surgery



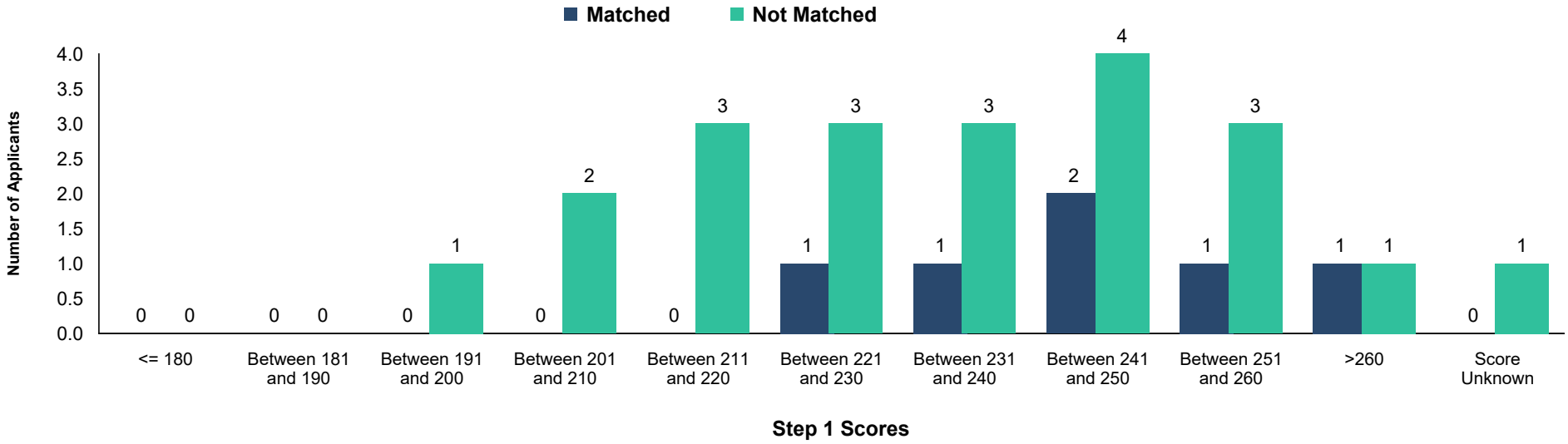
Source: NRMP Data Warehouse. Note: Probabilities calculated based on 2014-2016 applicants

Chart ORS-3

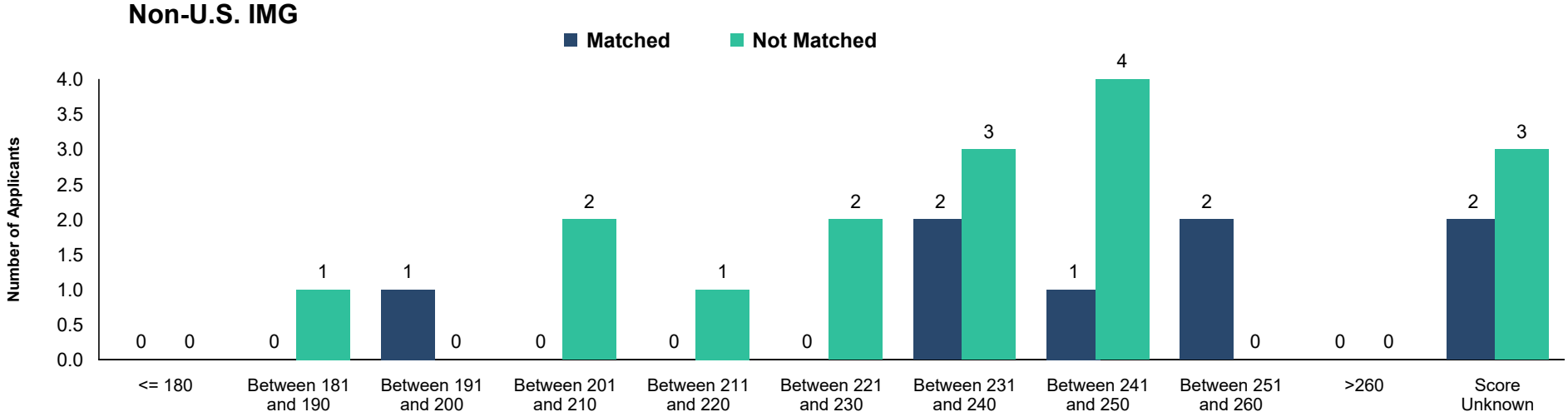
USMLE Step 1 Scores of International Medical Graduates

Orthopaedic Surgery

U.S. IMG



Non-U.S. IMG

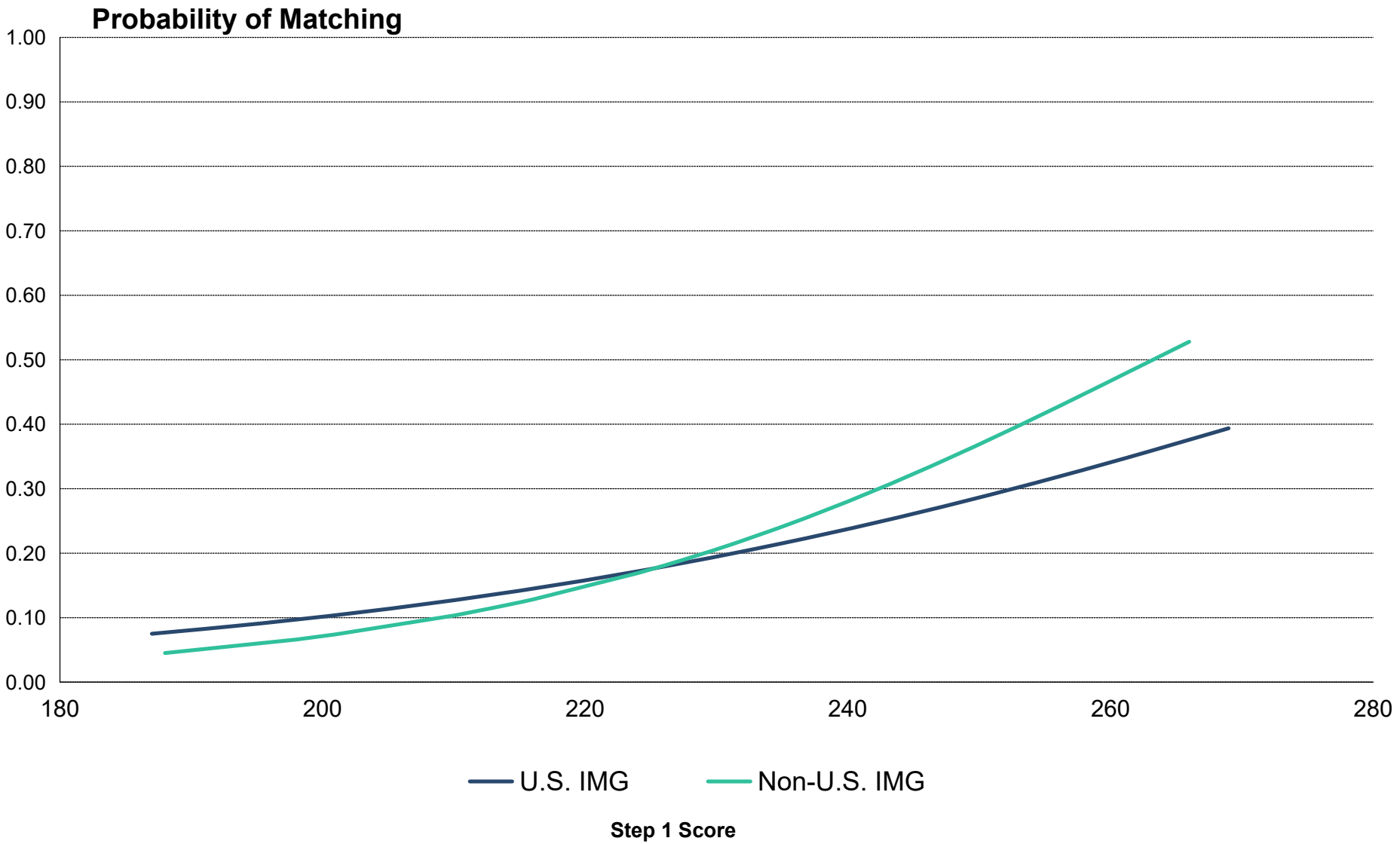


Source: NRMP Data Warehouse

Graph ORS-2

Probability of International Medical Graduates Matching to Preferred Specialty by USMLE Step 1 Score

Orthopaedic Surgery

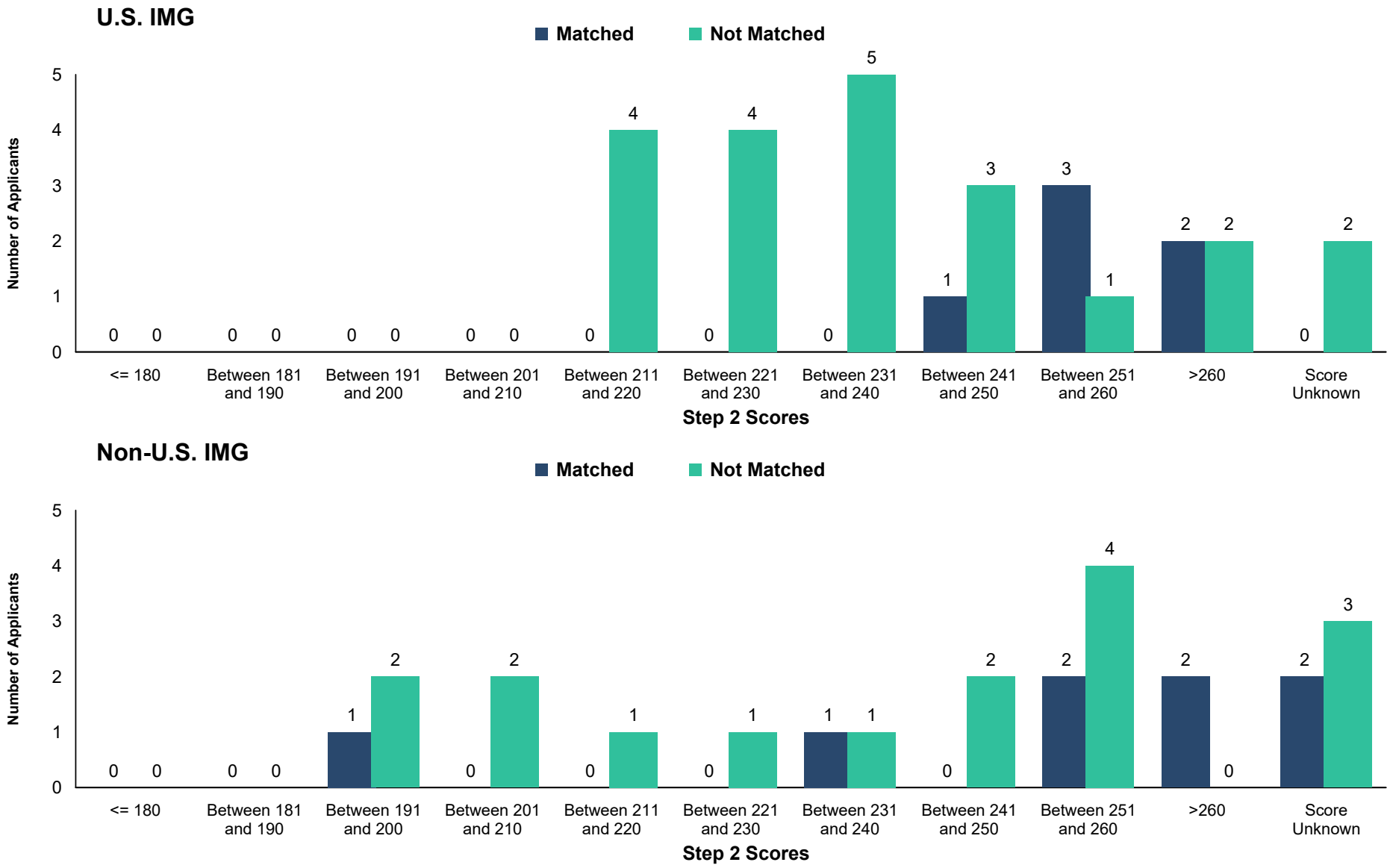


Source: NRMP Data Warehouse. Note: Probabilities calculated based on 2014-2016 applicants.

Chart ORS-4

USMLE Step 2 CK Scores of International Medical Graduates

Orthopaedic Surgery

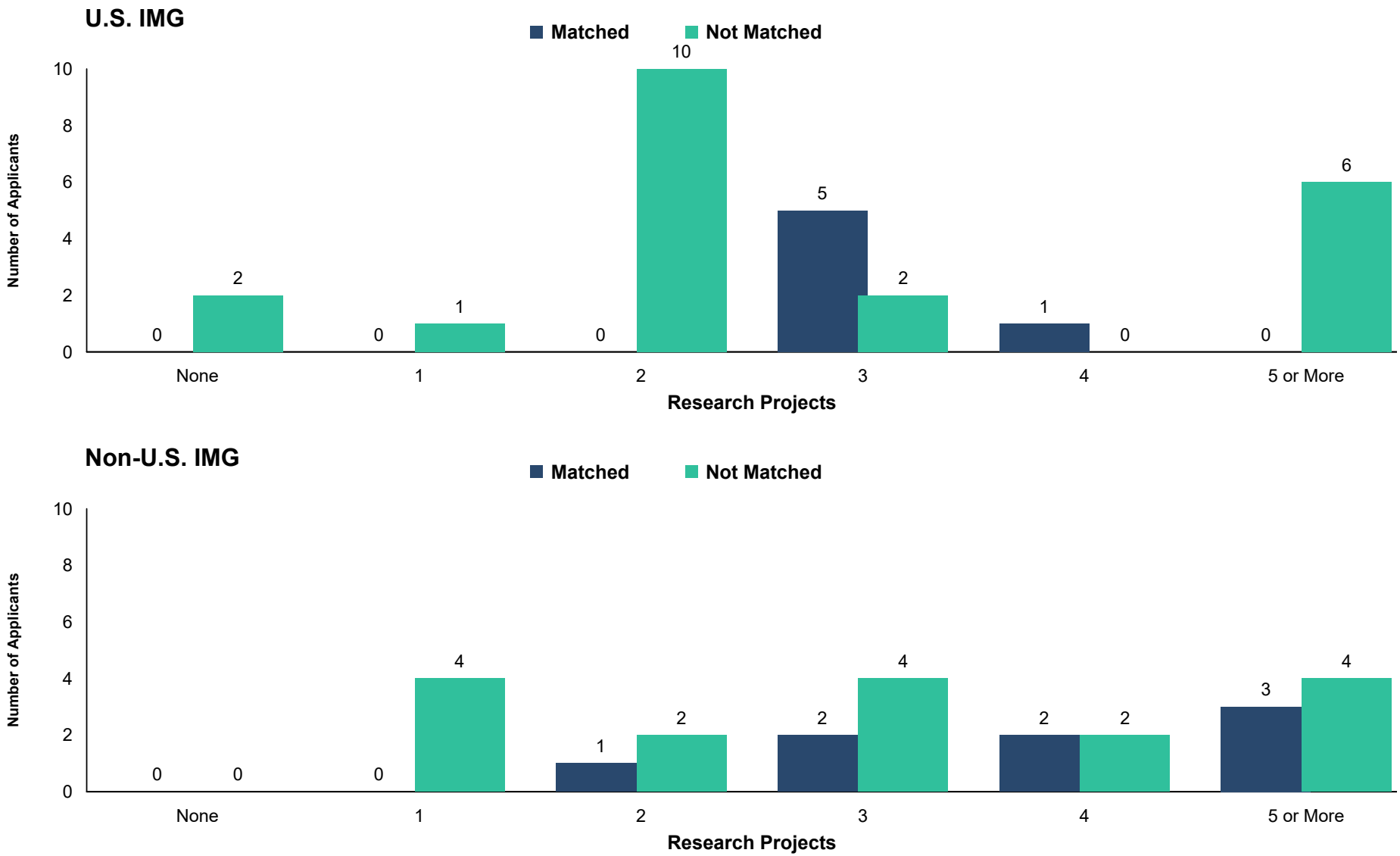


Source: NRMP Data Warehouse

Chart ORS-5

Number of Research Projects of International Medical Graduates

Orthopaedic Surgery

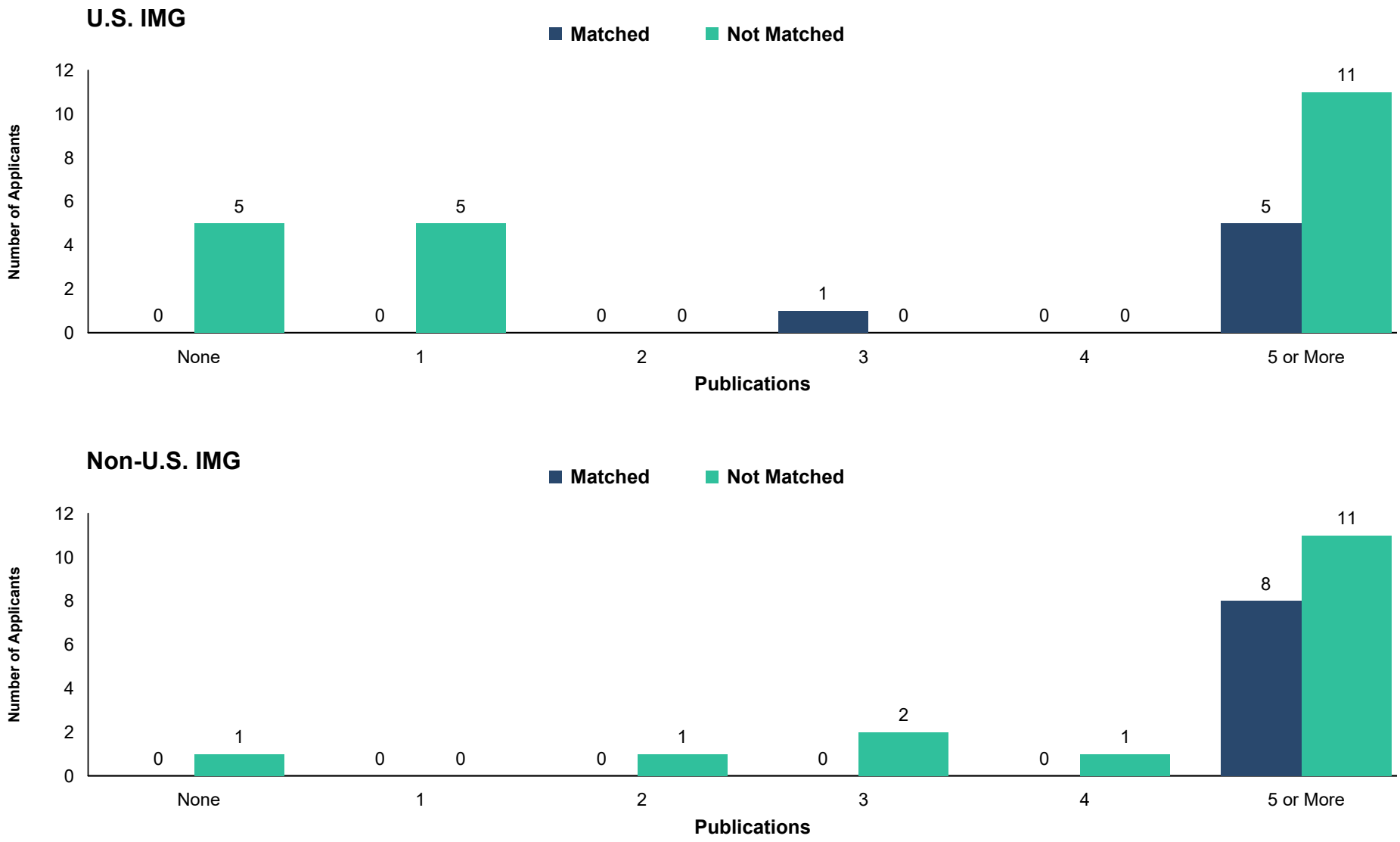


Source: NRMP Data Warehouse

Chart ORS-6

Number of Abstracts, Presentations, and Publications of International Medical Graduates

Orthopaedic Surgery

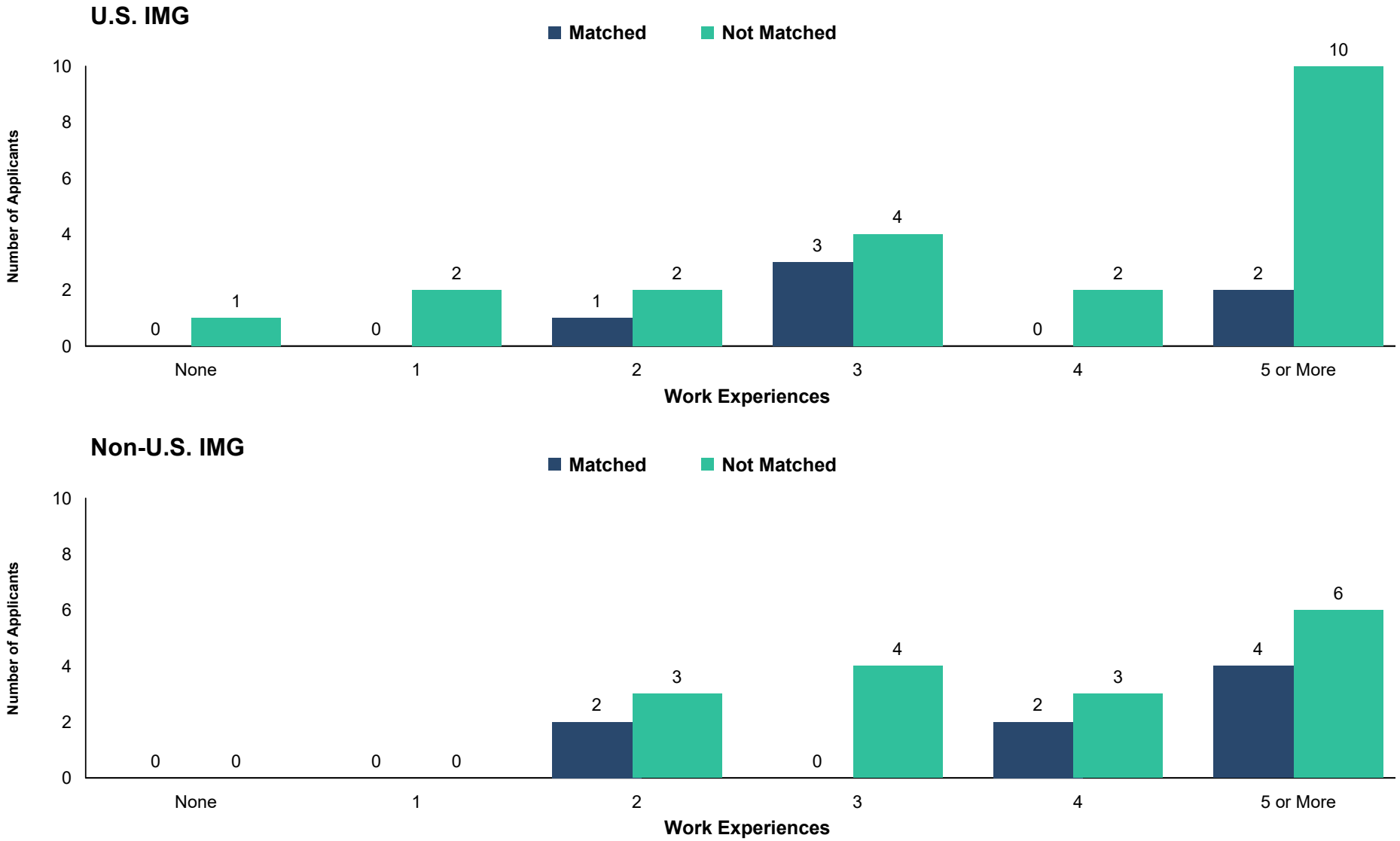


Source: NRMP Data Warehouse

Chart ORS-7

Number of Work Experiences of International Medical Graduates

Orthopaedic Surgery

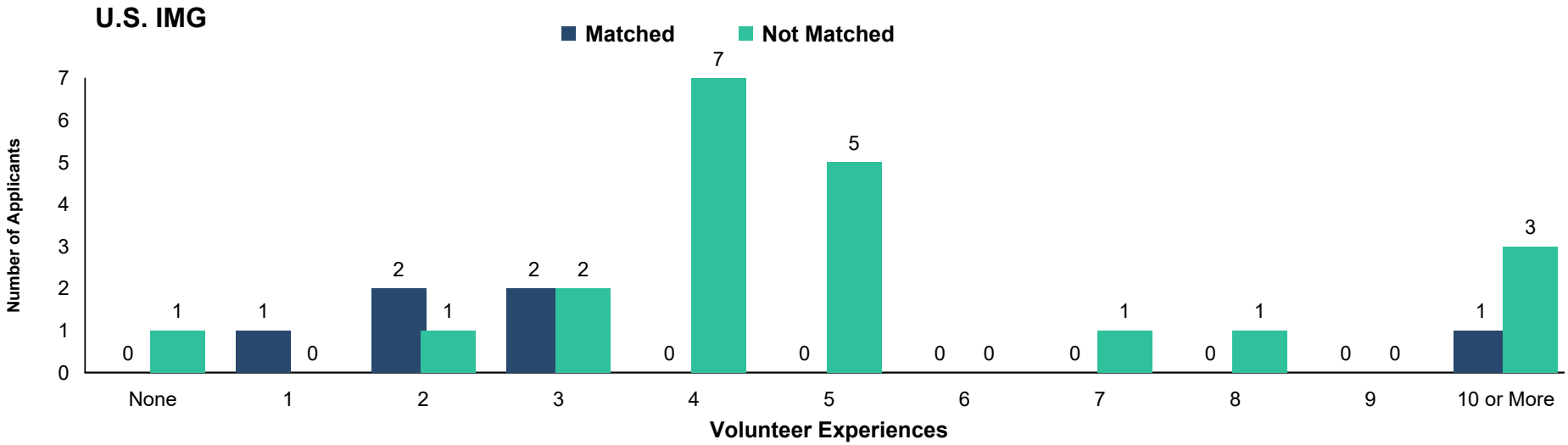


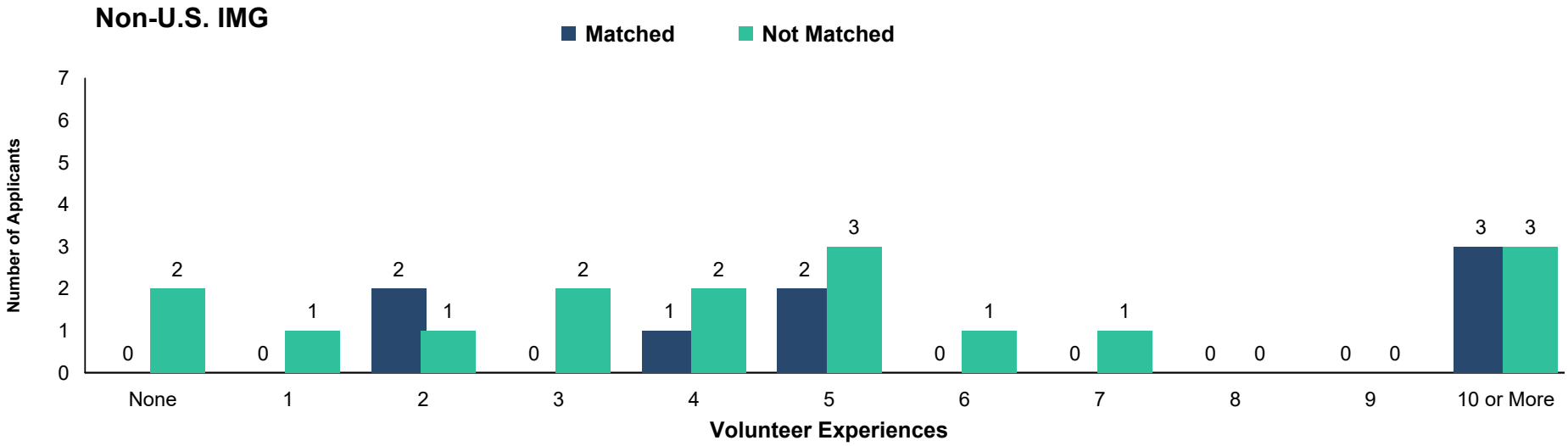
Source: NRMP Data Warehouse

Chart ORS-8

Number of Volunteer Experiences of International Medical Graduates

Orthopaedic Surgery





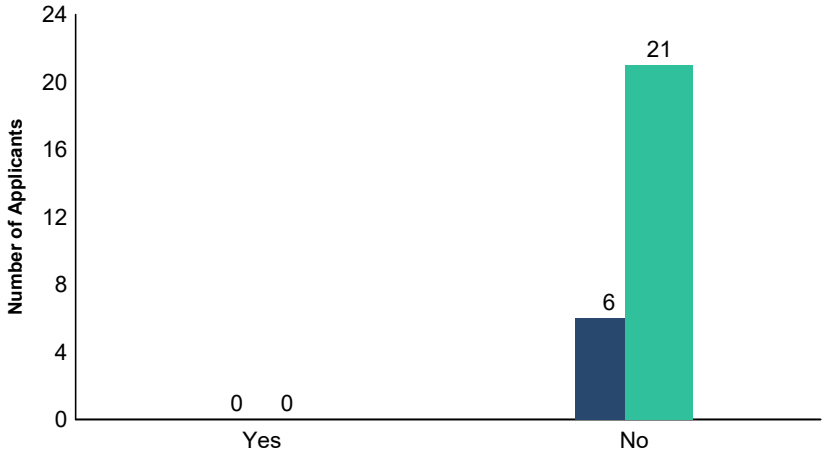
Source: NRMP Data Warehouse

Chart ORS-9 Other Characteristics of International Medical Graduates

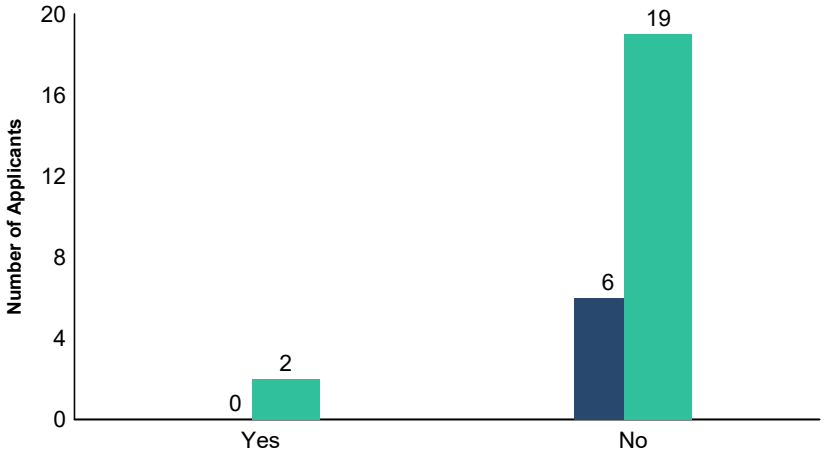
Orthopaedic Surgery

U.S. IMG

Ph.D. Degree

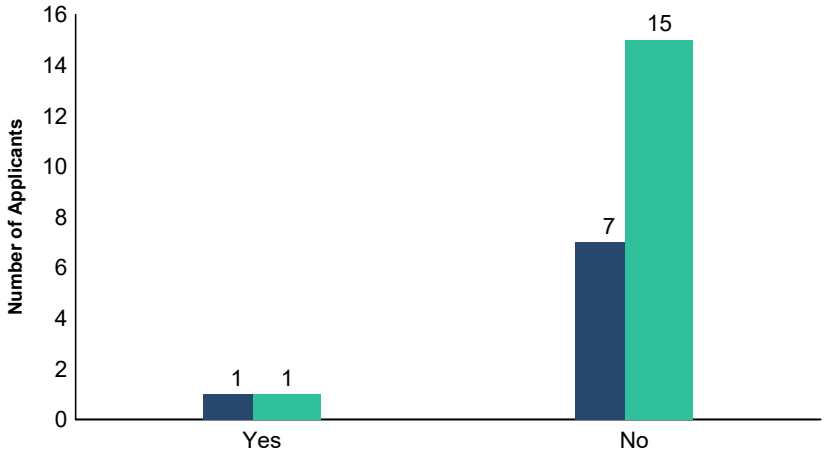


Other Graduate Degree

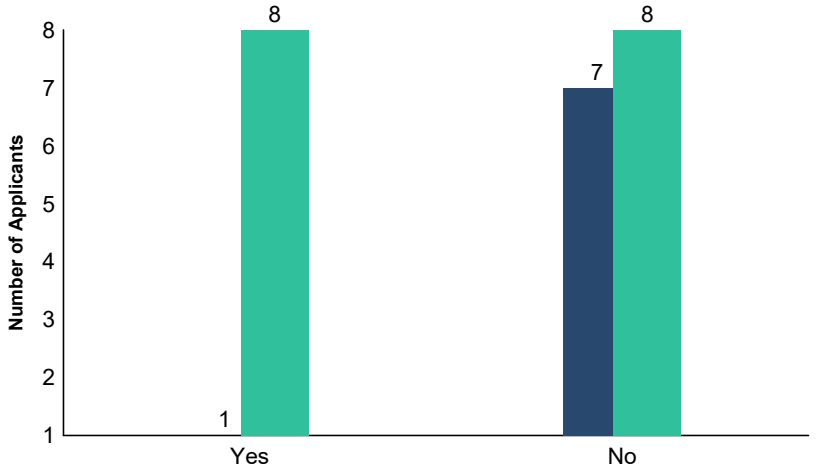


Non-U.S. IMG

Ph.D. Degree



Other Graduate Degree



Source: NRMP Data Warehouse

OTO Otolaryngology

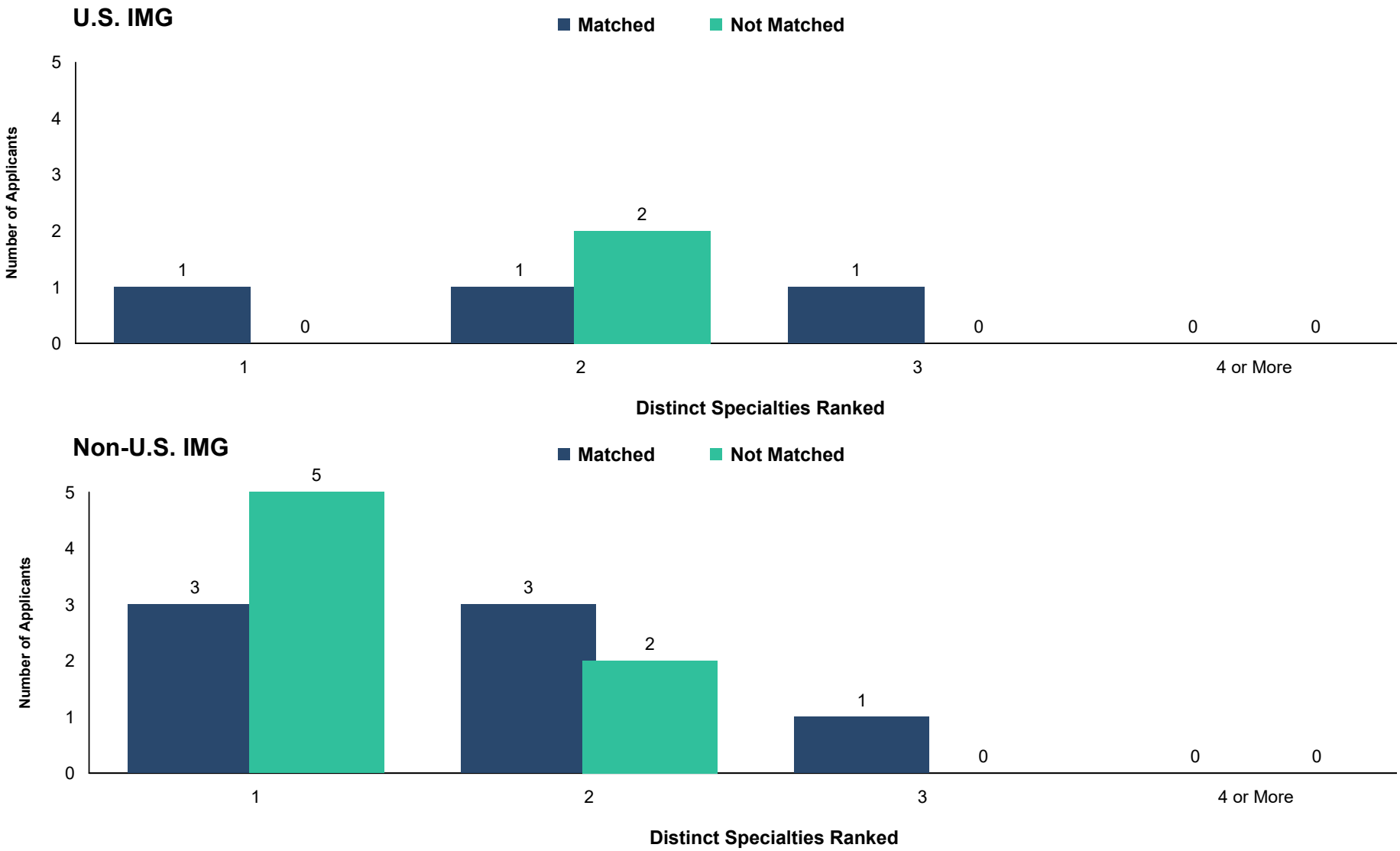
Table OTO-1 Summary Statistics
Otolaryngology

Measure	U.S. IMGs		Non-U.S. IMGs	
	Matched (n=3)	Unmatched (n=2)	Matched (n=7)	Unmatched (n=7)
1. Mean number of contiguous ranks	13.0	2.5	3.3	5.0
2. Mean number of distinct specialties ranked	2.0	2.0	1.7	1.3
3. Mean USMLE Step 1 score	231	225	241	231
4. Mean USMLE Step 2 score	244	255	240	241
5. Mean number of research experiences	6.7	0.0	3.3	3.9
6. Mean number of abstracts, presentations, and publications	16.3	4.0	30.3	6.1
7. Mean number of work experiences	4.3	1.0	4.0	5.9
8. Mean number of volunteer experiences	7.7	7.0	4.7	5.3
9. Percentage who have a Ph.D. degree	0.0	0.0	16.7	14.3
10. Percentage who have another graduate degree	0.0	50.0	20.0	42.9

Note: Only applicants who gave consent to use their information in research are included.
Source. NRMP Data Warehouse

Chart OTO-1

Number of Distinct Specialties Ranked by International Medical Graduates

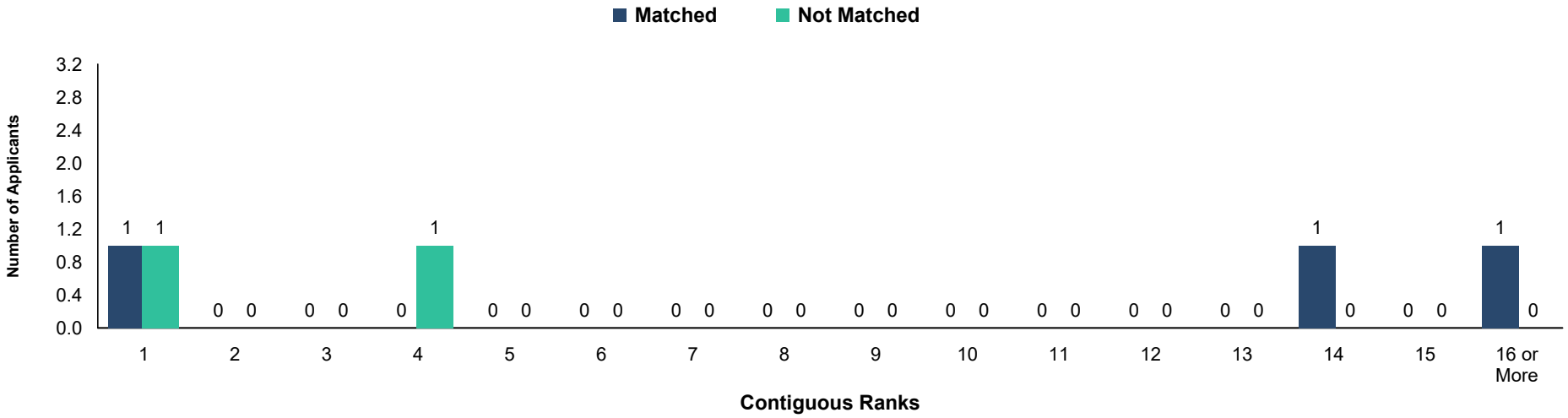


Source: NRMP Data Warehouse

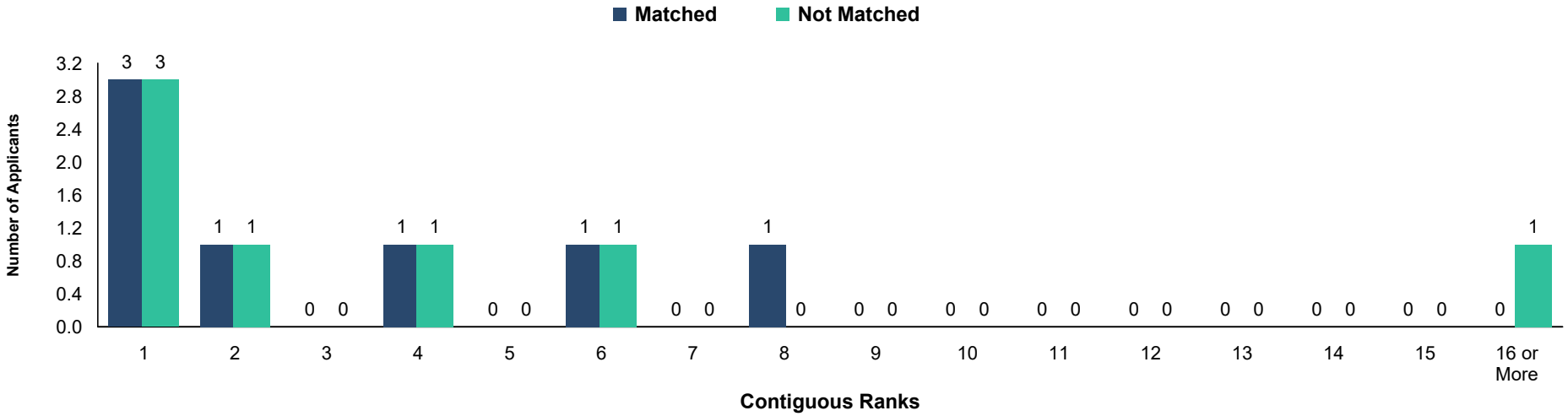
Chart OTO-2

Number of Contiguous Ranks of International Medical Graduates

U.S. IMG



Non-U.S. IMG

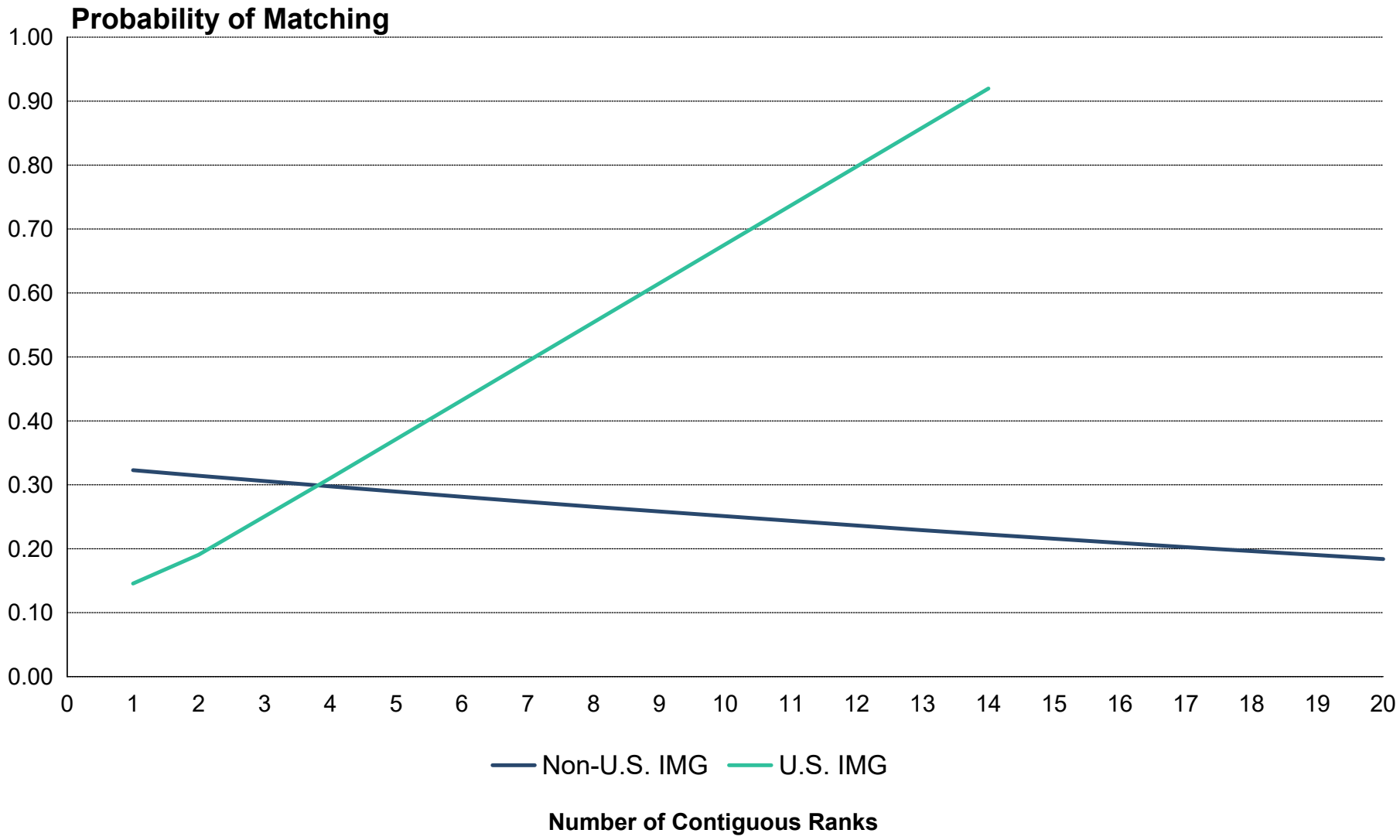


Source: NRMP Data Warehouse

Graph OTO-1

Probability of International Medical Graduates Matching to Preferred Specialty by Number of Contiguous Ranks

Otolaryngology



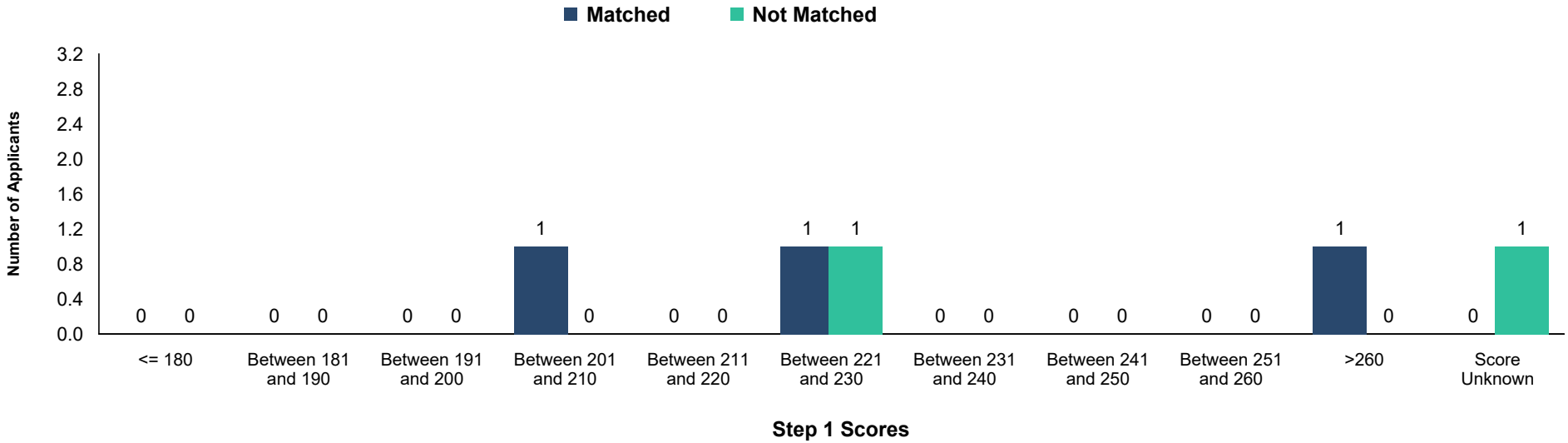
Source: NRMP Data Warehouse. Note: Probabilities calculated based on 2014-2016 applicants

Chart OTO-3

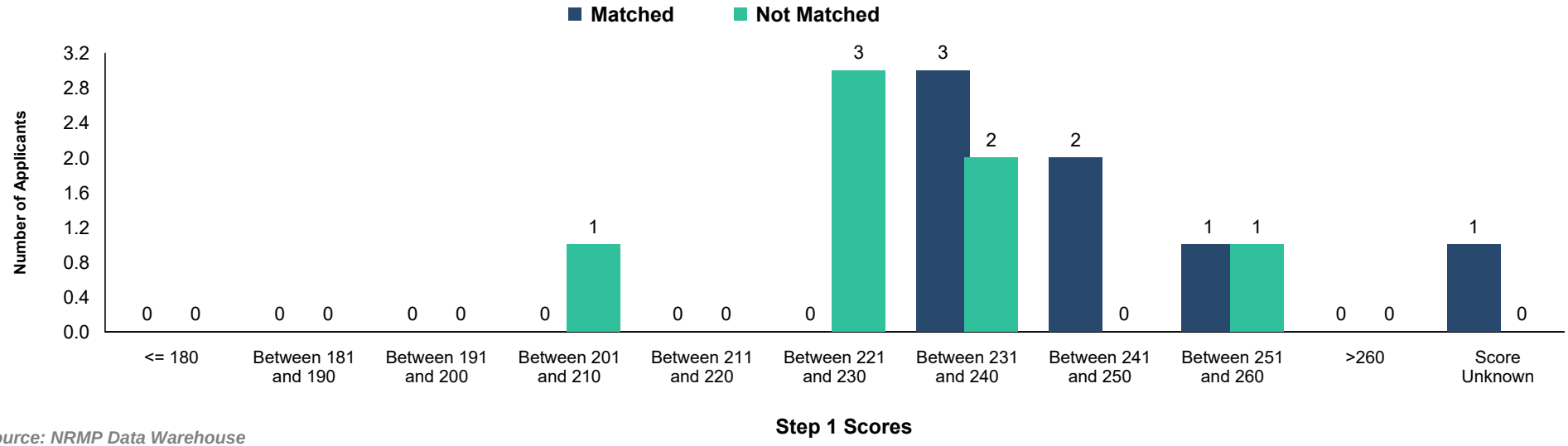
USMLE Step 1 Scores of International Medical Graduates

Otolaryngology

U.S. IMG



Non-U.S. IMG

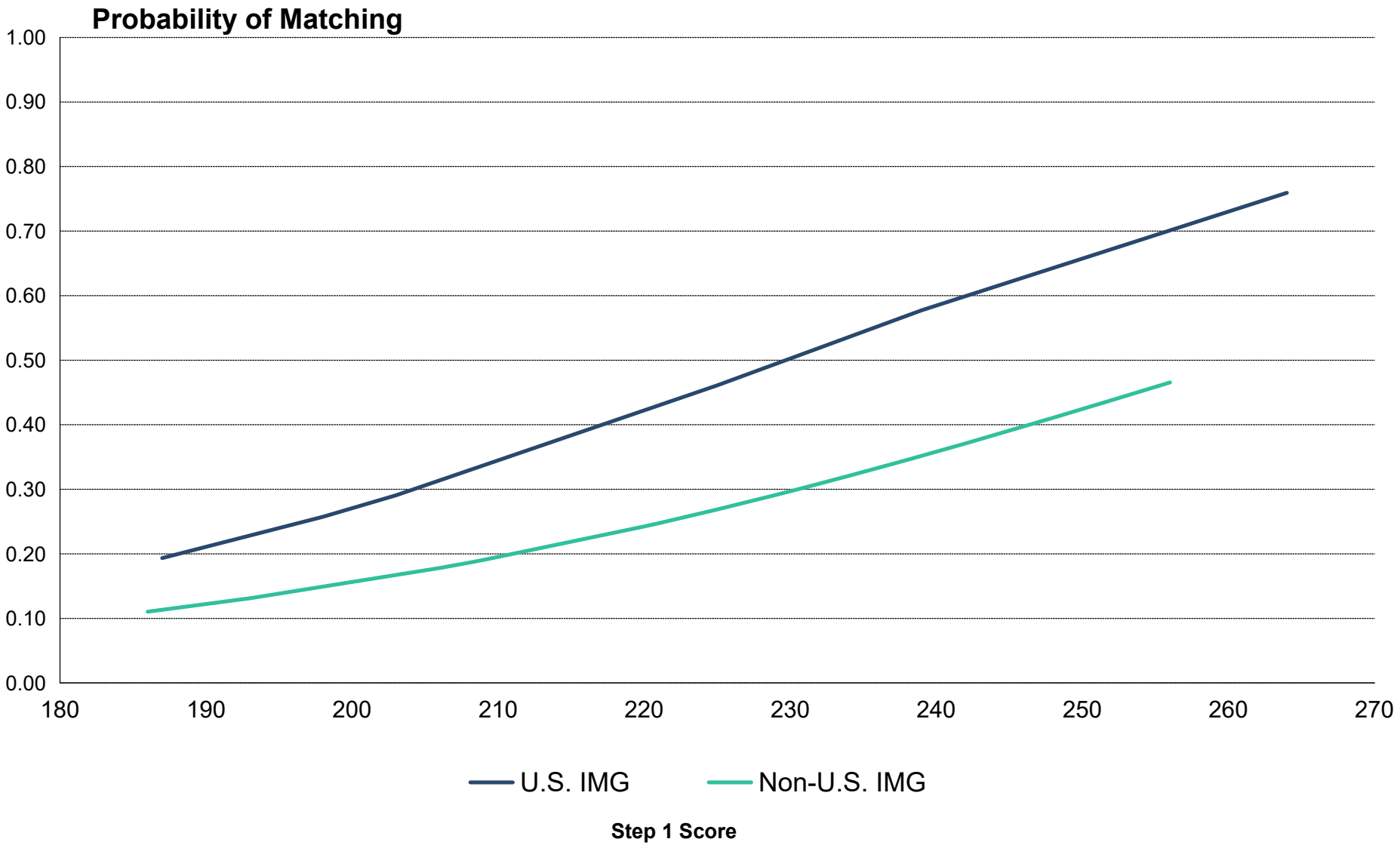


Source: NRMP Data Warehouse

Graph OTO-2

Probability of International Medical Graduates Matching to Preferred Specialty by USMLE Step 1 Score

Otolaryngology

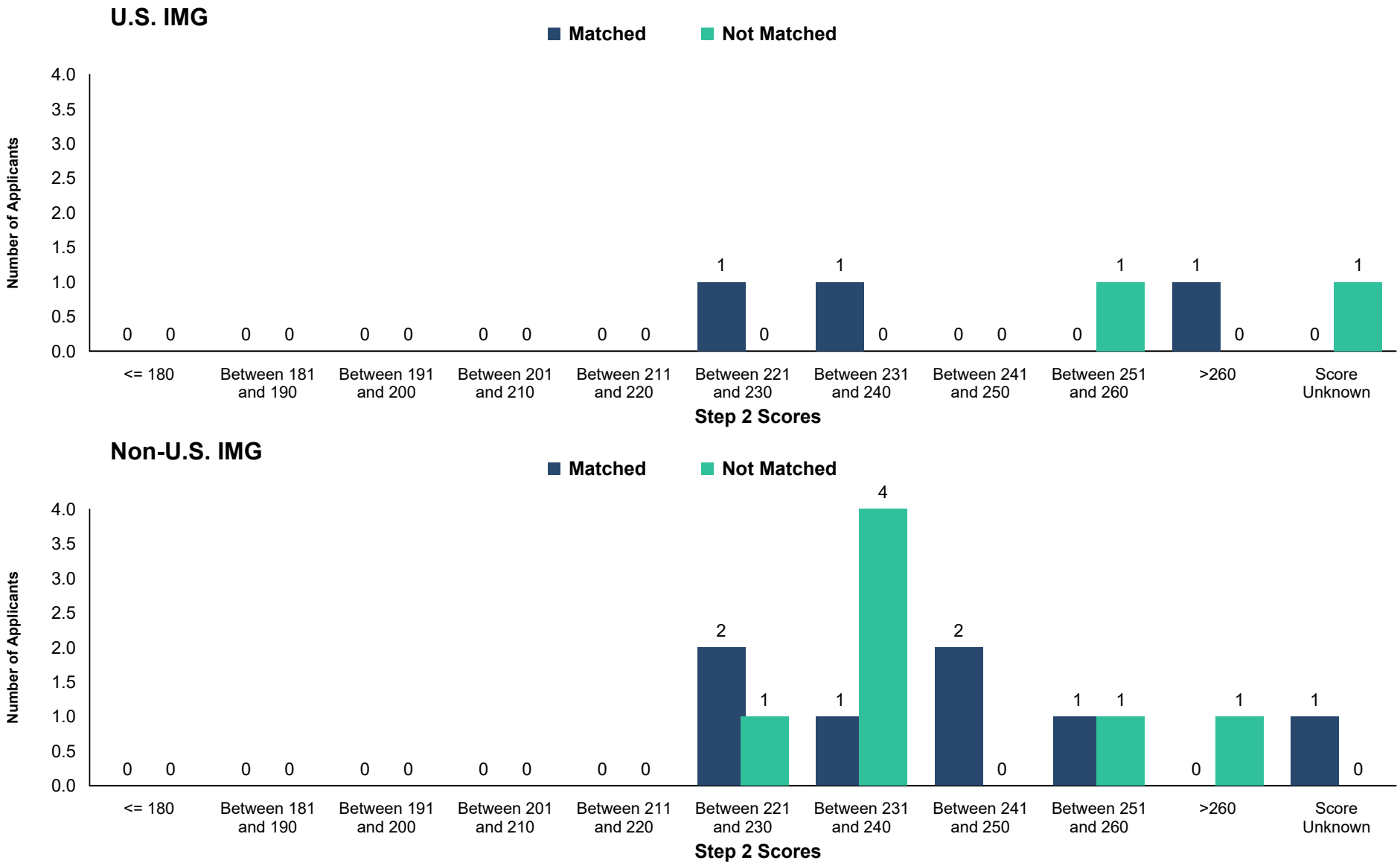


Source: NRMP Data Warehouse. Note: Probabilities calculated based on 2014-2016 applicants.

Chart OTO-4

USMLE Step 2 CK Scores of International Medical Graduates

Otolaryngology

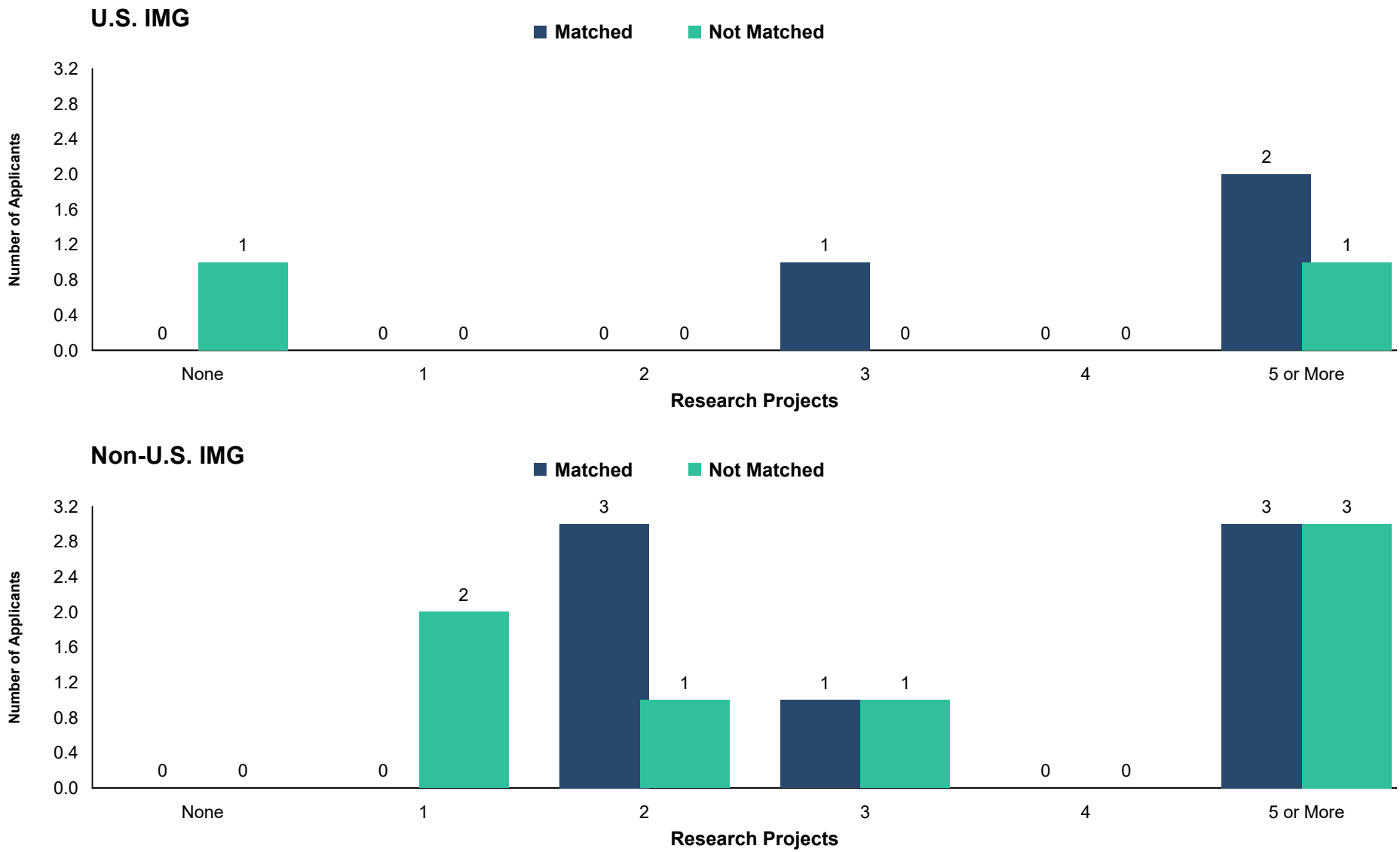


Source: NRMP Data Warehouse

Chart OTO-5

Number of Research Projects of International Medical Graduates

Otolaryngology

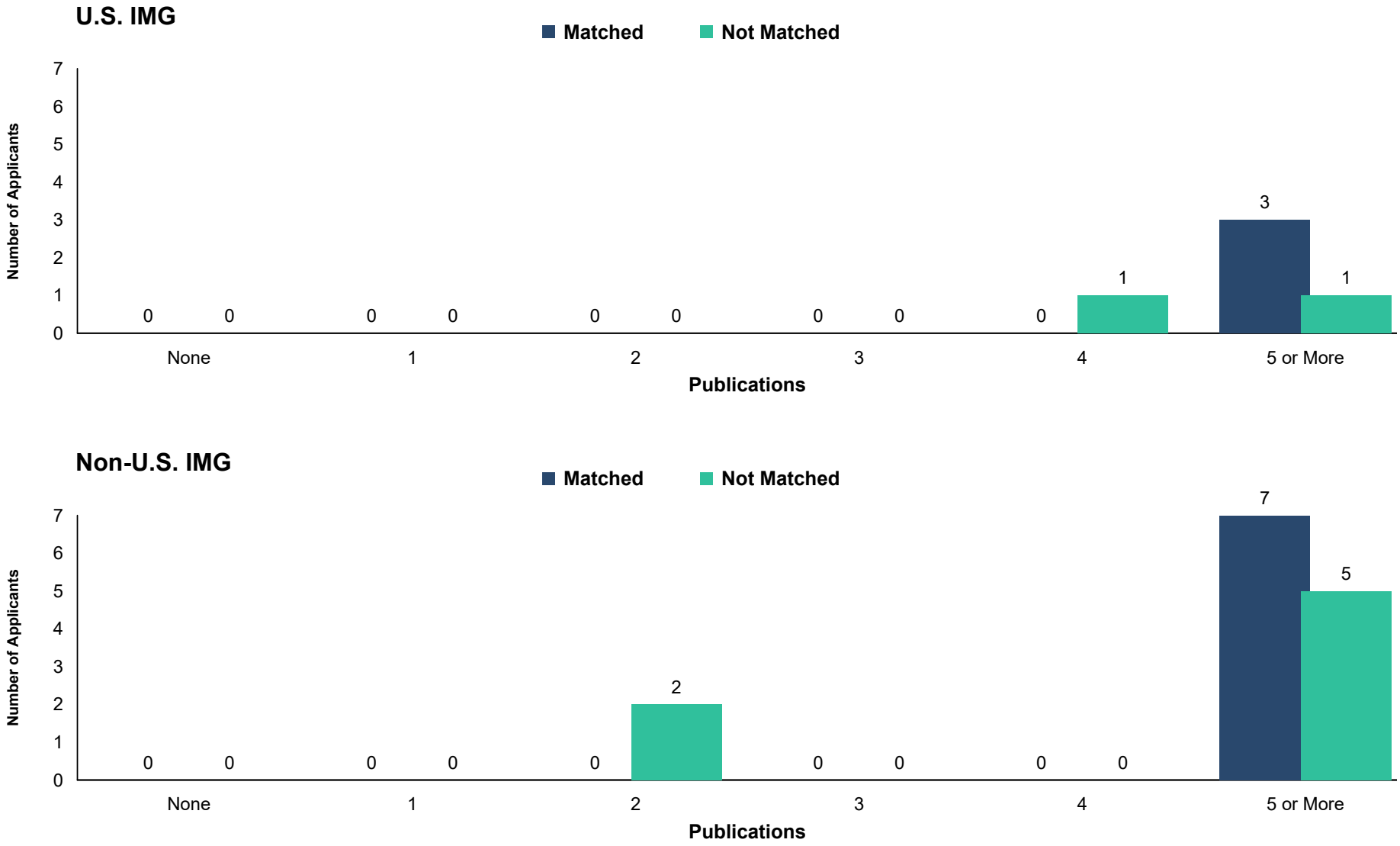


Source: NRMP Data Warehouse

Chart OTO-6

Number of Abstracts, Presentations, and Publications of International Medical Graduates

Otolaryngology

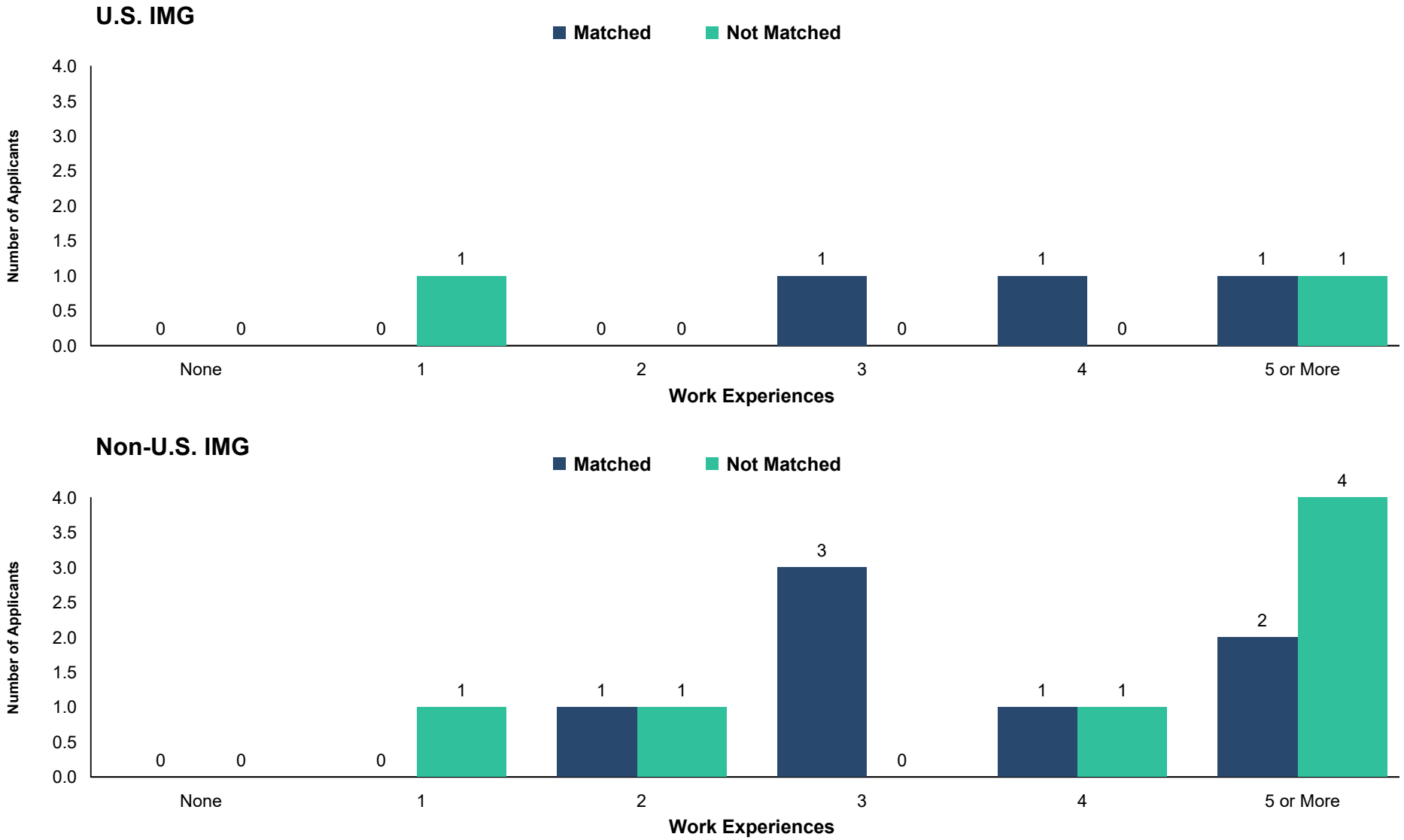


Source: NRMP Data Warehouse

Chart OTO-7

Number of Work Experiences of International Medical Graduates

Otolaryngology

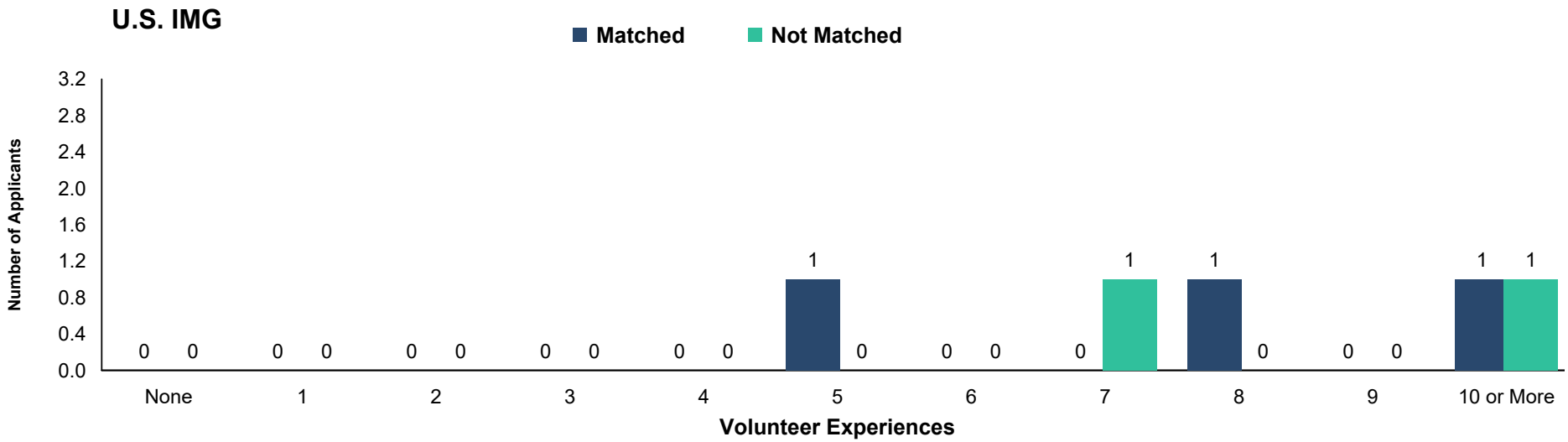


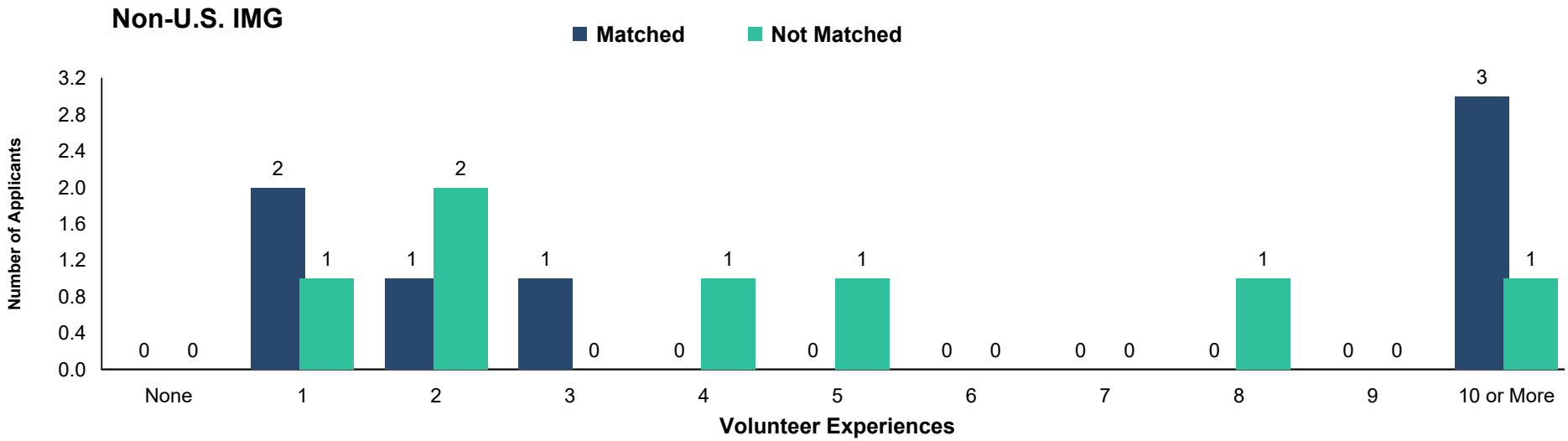
Source: NRMP Data Warehouse

Chart OTO-8

Number of Volunteer Experiences of International Medical Graduates

Otolaryngology





Source: NRMP Data Warehouse

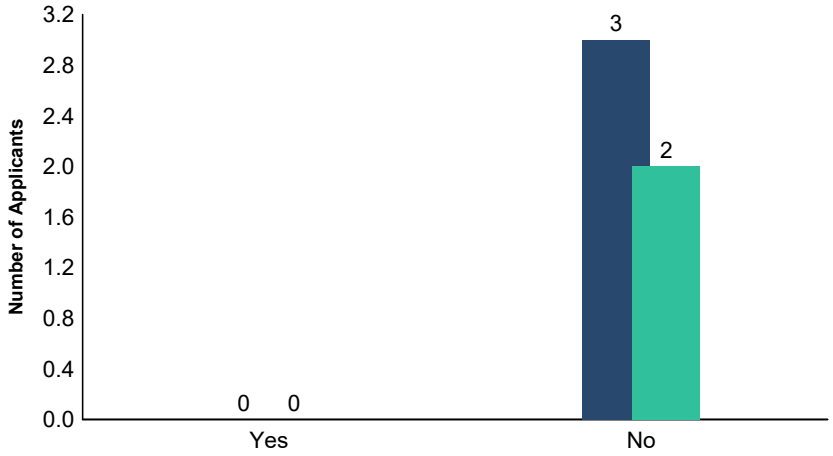
Chart OTO-9

Other Characteristics of International Medical Graduates

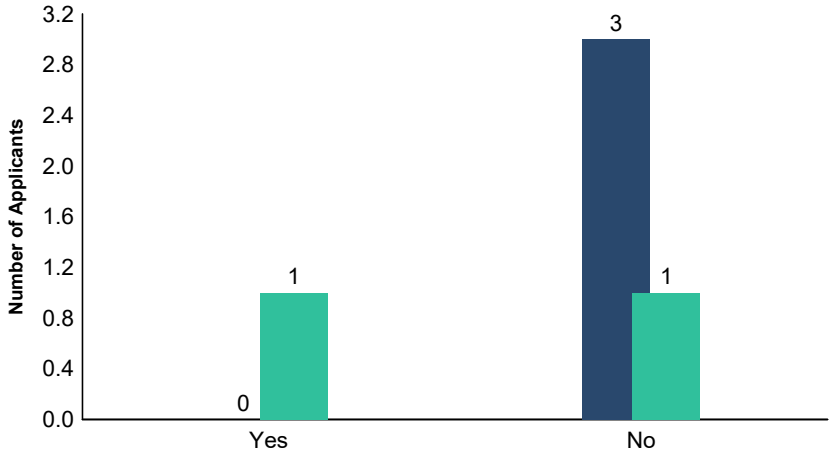
Otolaryngology

U.S. IMG

Ph.D. Degree

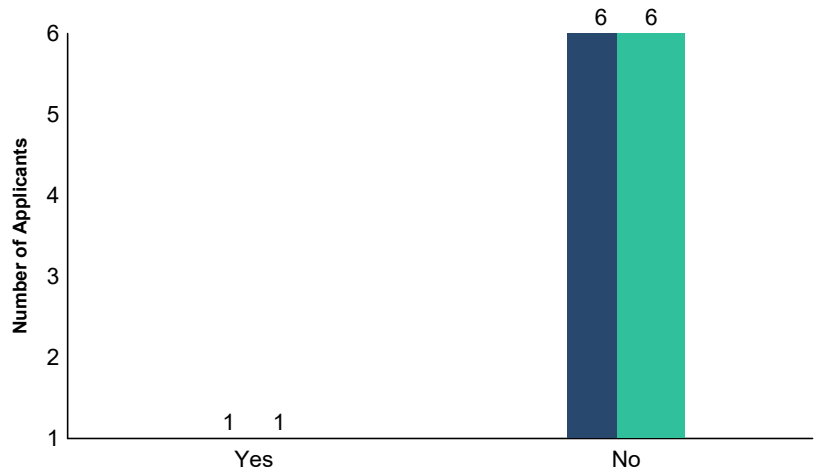


Other Graduate Degree

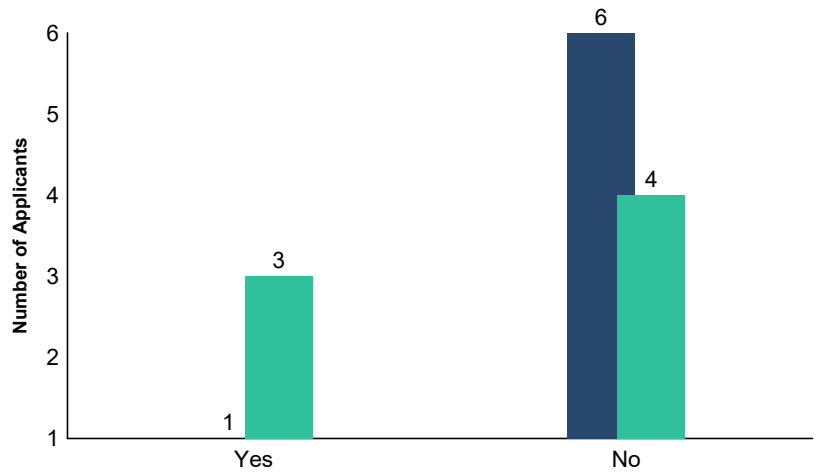


Non-U.S. IMG

Ph.D. Degree



Other Graduate Degree



Source: NRMP Data Warehouse

PTH Pathology

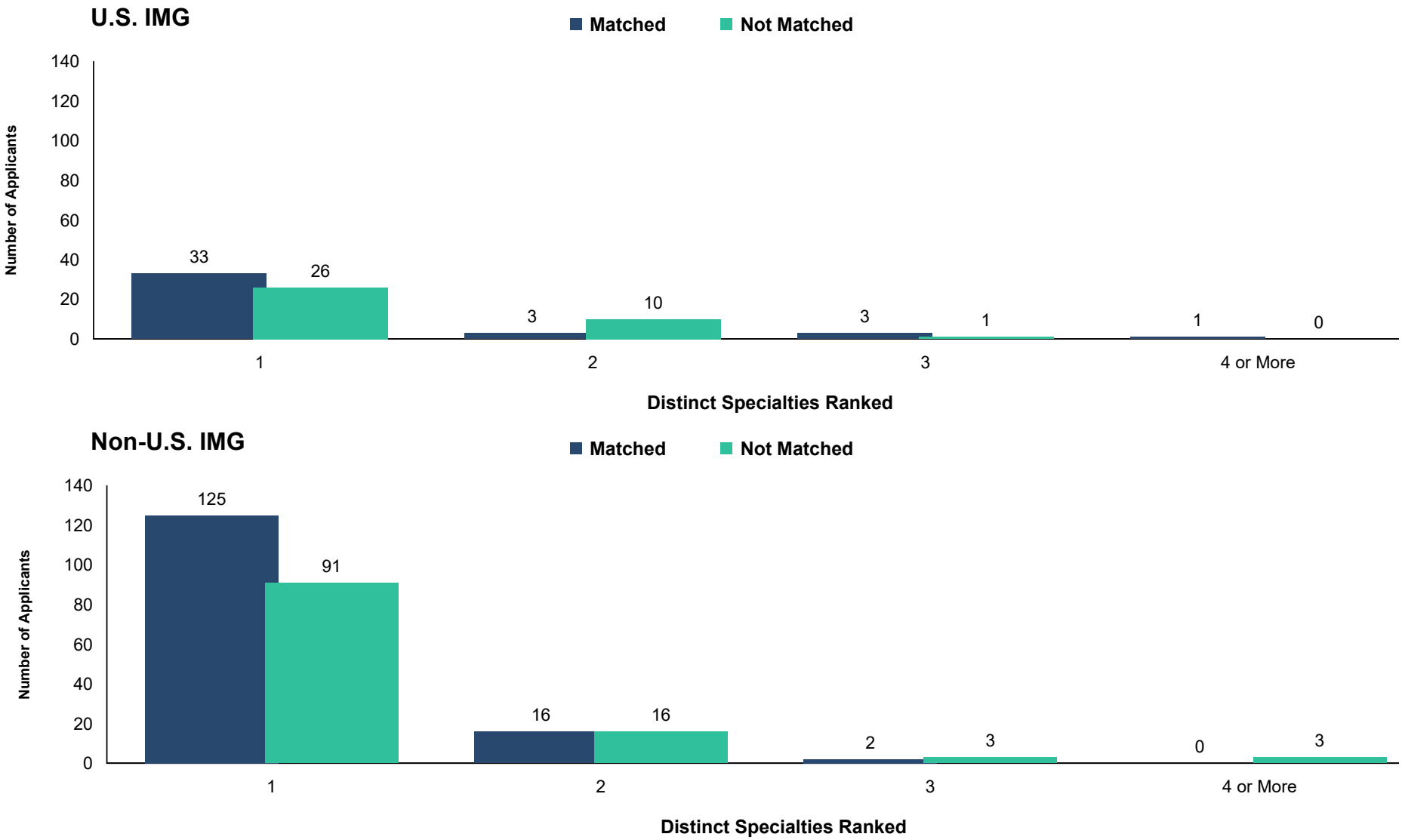
Table PTH-1 Summary Statistics
Pathology

Measure	U.S. IMGs		Non-U.S. IMGs	
	Matched (n=40)	Unmatched (n=37)	Matched (n=143)	Unmatched (n=114)
1. Mean number of contiguous ranks	7.3	2.3	6.4	3.3
2. Mean number of distinct specialties ranked	1.3	1.3	1.1	1.3
3. Mean USMLE Step 1 score	223	212	233	219
4. Mean USMLE Step 2 score	233	216	234	223
5. Mean number of research experiences	2.2	3.2	2.5	3.5
6. Mean number of abstracts, presentations, and publications	7.2	11.1	10.4	12.4
7. Mean number of work experiences	3.7	6.4	4.1	4.9
8. Mean number of volunteer experiences	3.1	2.9	3.0	3.0
9. Percentage who have a Ph.D. degree	10.3	20.0	25.2	29.0
10. Percentage who have another graduate degree	31.6	38.7	35.6	52.6

Note: Only applicants who gave consent to use their information in research are included.
Source. NRMP Data Warehouse

Chart PTH-1

Number of Distinct Specialties Ranked by International Medical Graduates

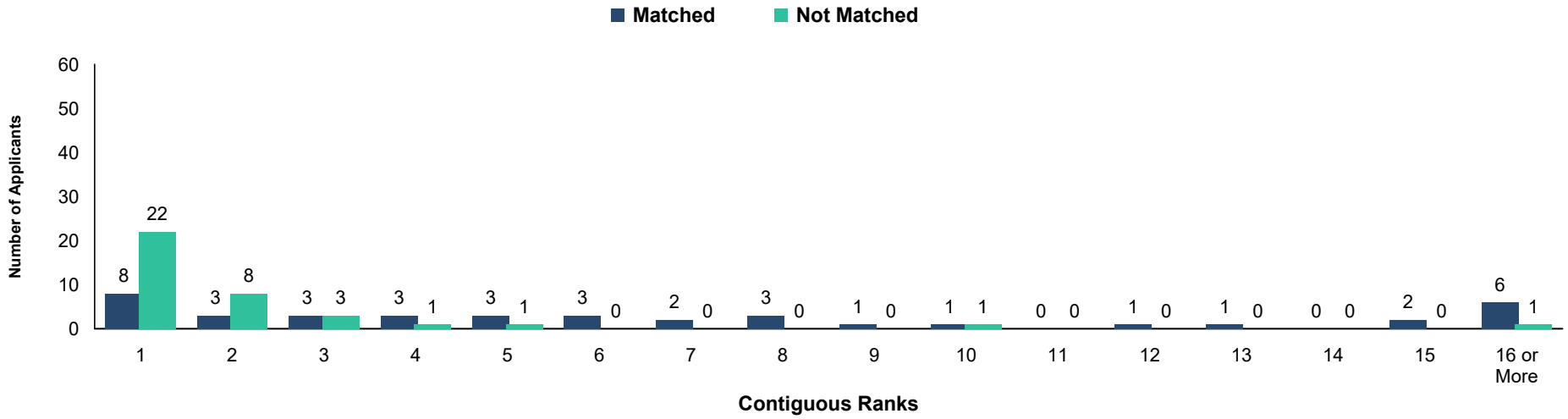


Source: NRMP Data Warehouse

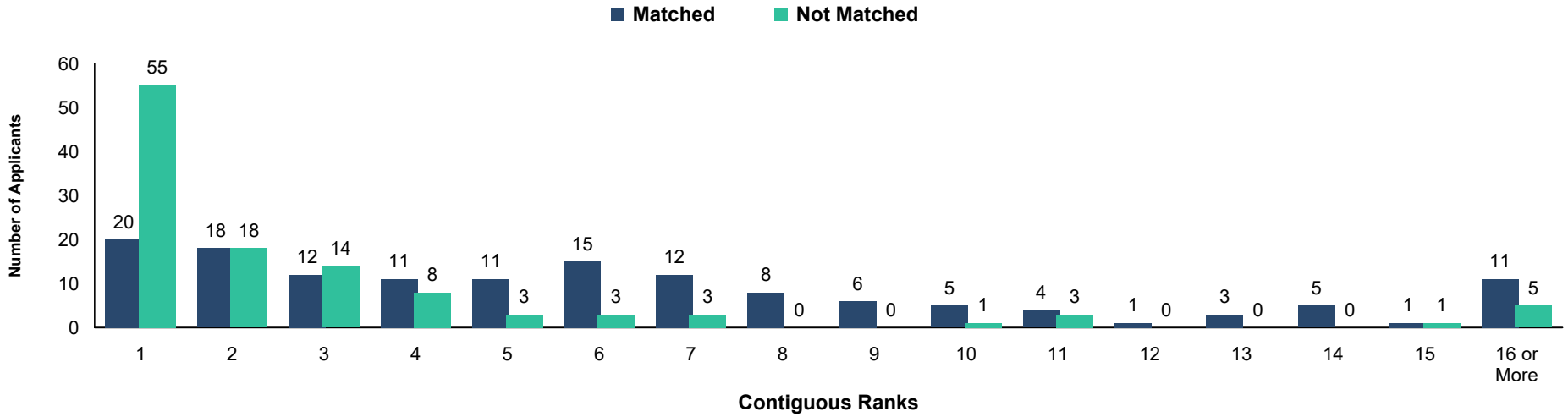
Chart PTH-2

Number of Contiguous Ranks of International Medical Graduates

U.S. IMG



Non-U.S. IMG

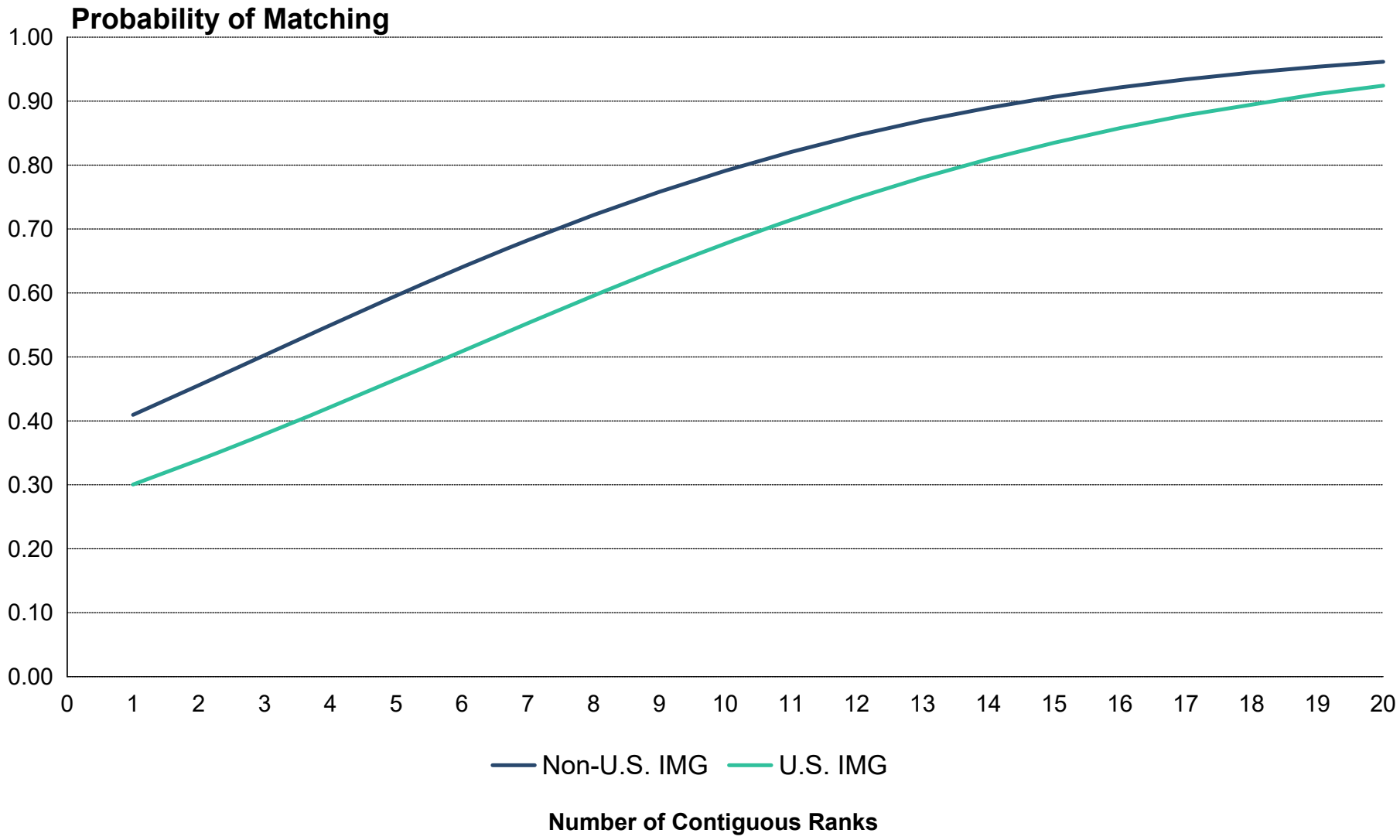


Source: NRMP Data Warehouse

Graph PTH-1

Probability of International Medical Graduates Matching to Preferred Specialty by Number of Contiguous Ranks

Pathology



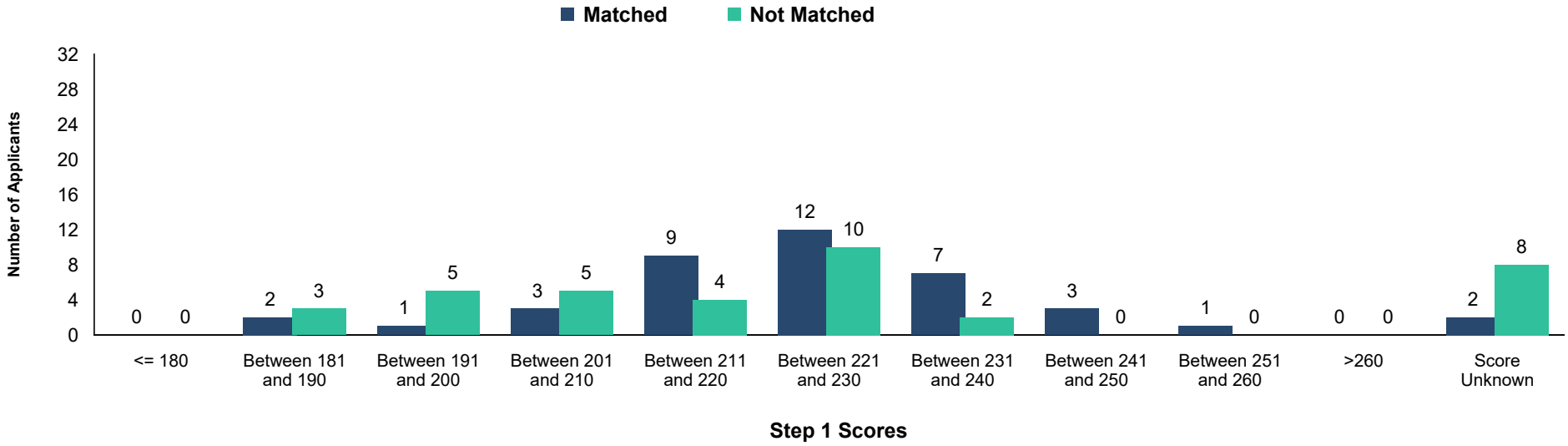
Source: NRMP Data Warehouse. Note: Probabilities calculated based on 2014-2016 applicants

Chart PTH-3

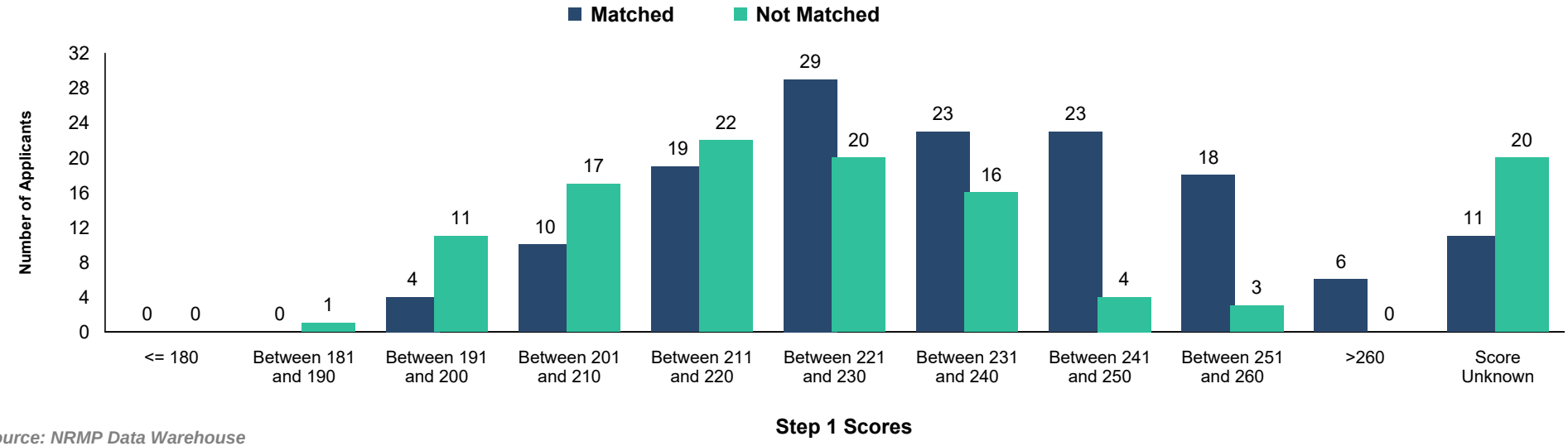
USMLE Step 1 Scores of International Medical Graduates

Pathology

U.S. IMG



Non-U.S. IMG

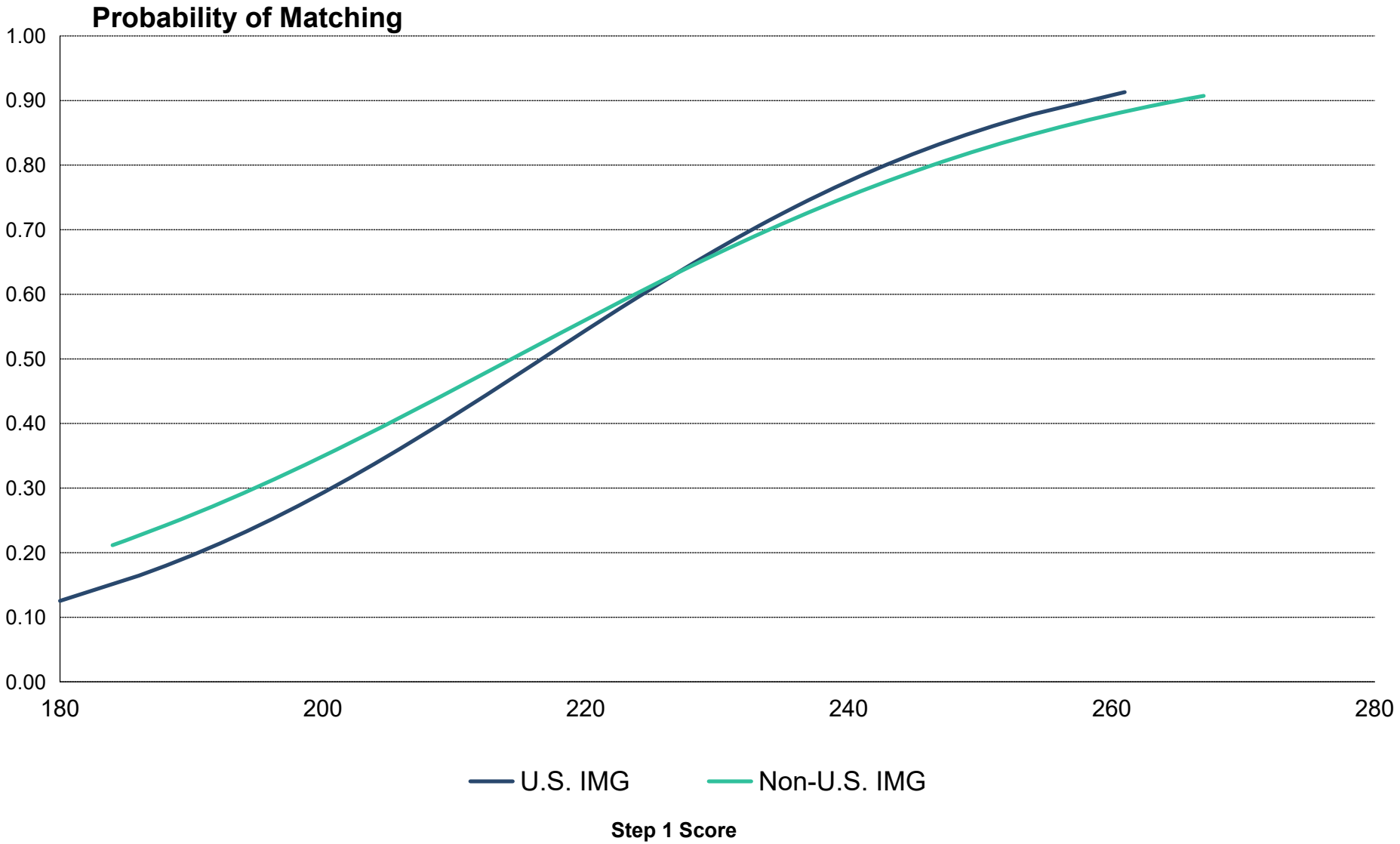


Source: NRMP Data Warehouse

Graph PTH-2

Probability of International Medical Graduates Matching to Preferred Specialty by USMLE Step 1 Score

Pathology

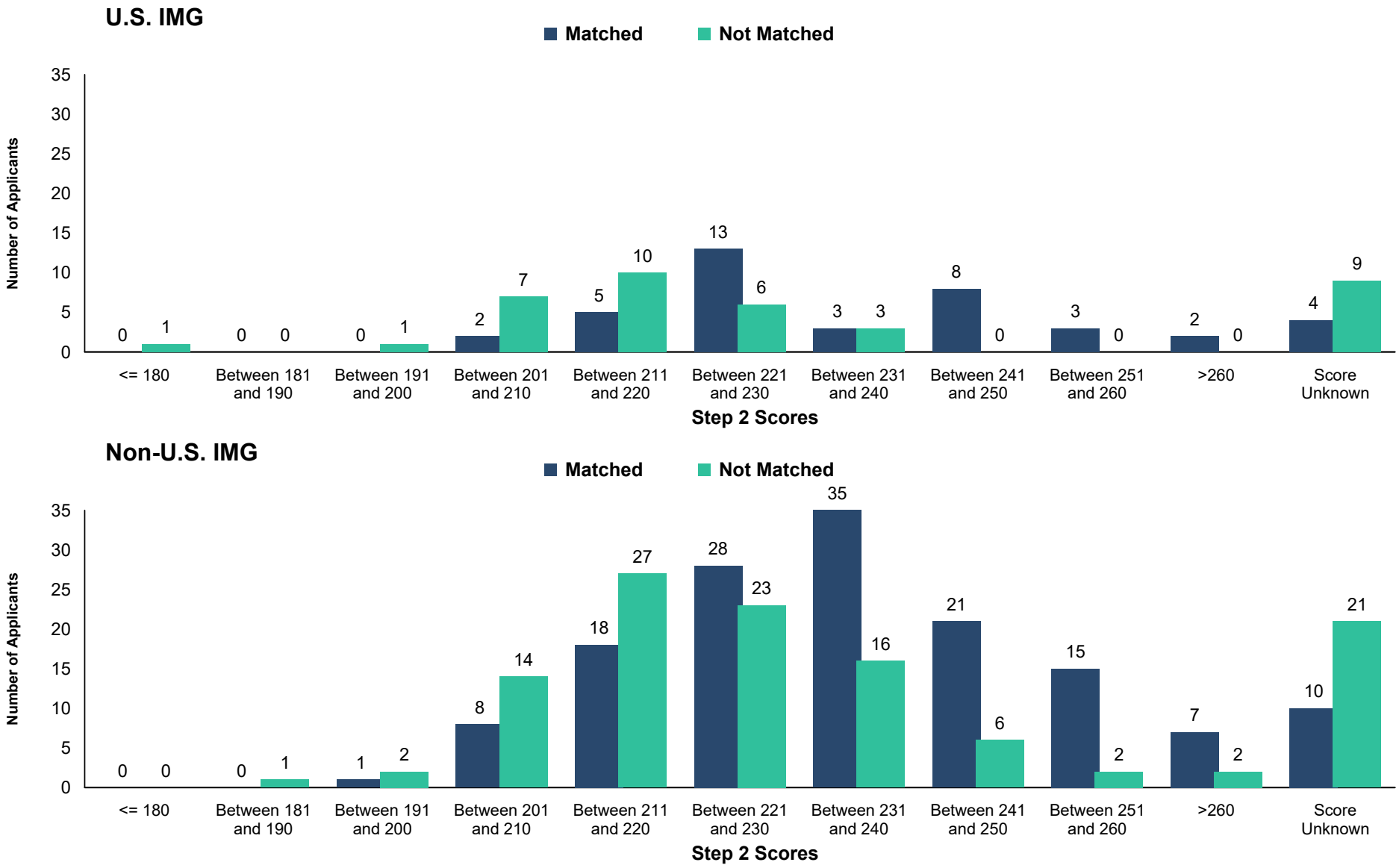


Source: NRMP Data Warehouse. Note: Probabilities calculated based on 2014-2016 applicants.

Chart PTH-4

USMLE Step 2 CK Scores of International Medical Graduates

Pathology

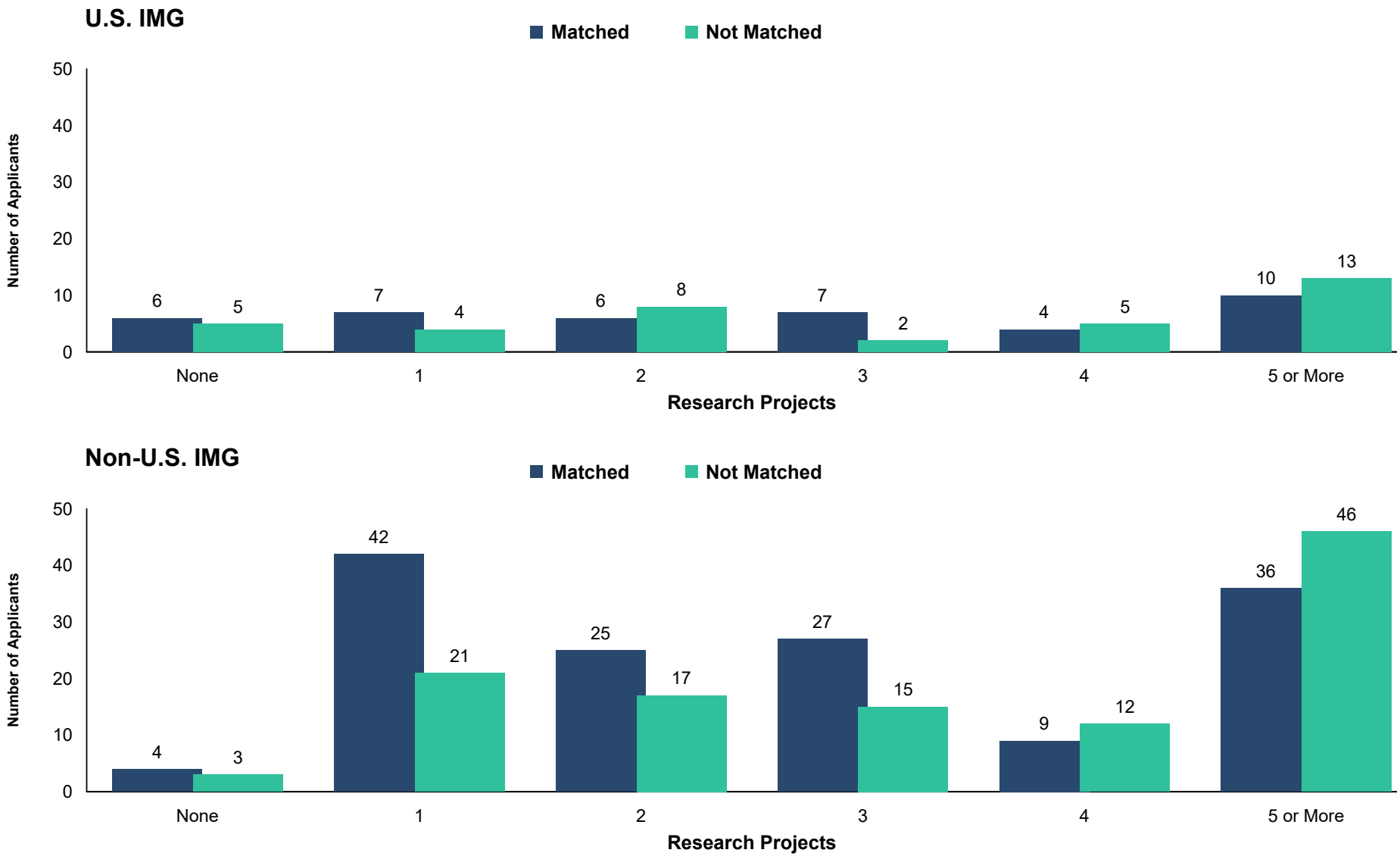


Source: NRMP Data Warehouse

Chart PTH-5

Number of Research Projects of International Medical Graduates

Pathology

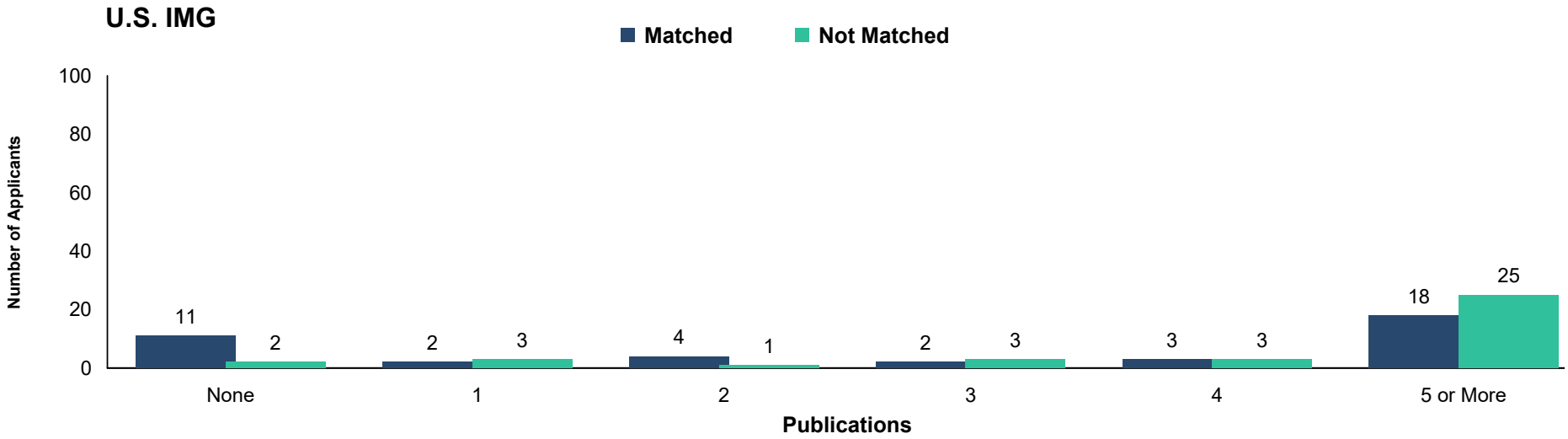


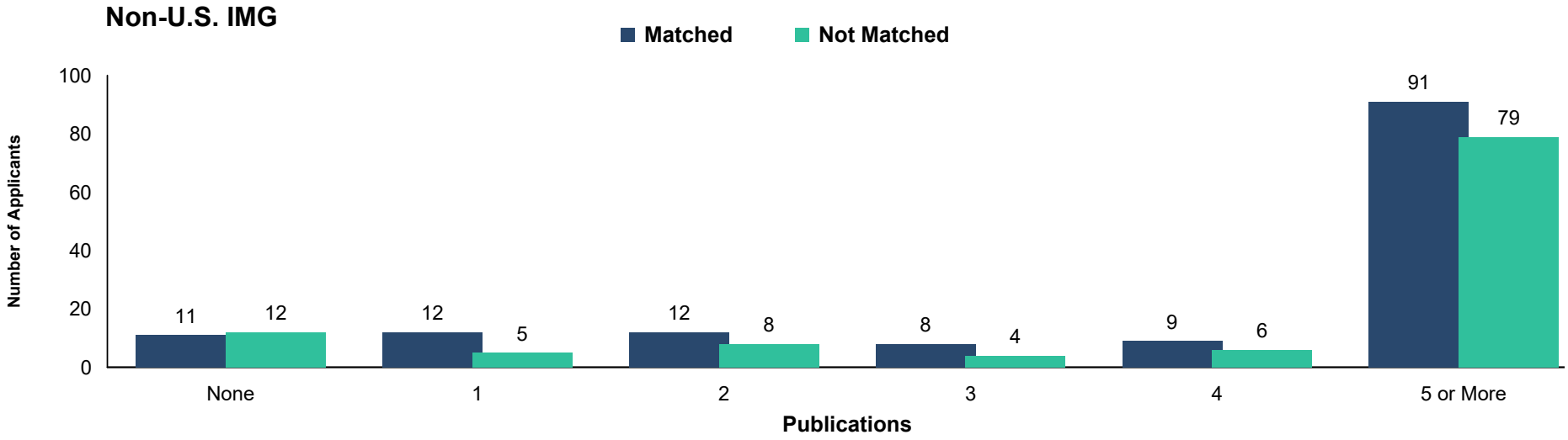
Source: NRMP Data Warehouse

Chart PTH-6

Number of Abstracts, Presentations, and Publications of International Medical Graduates

Pathology



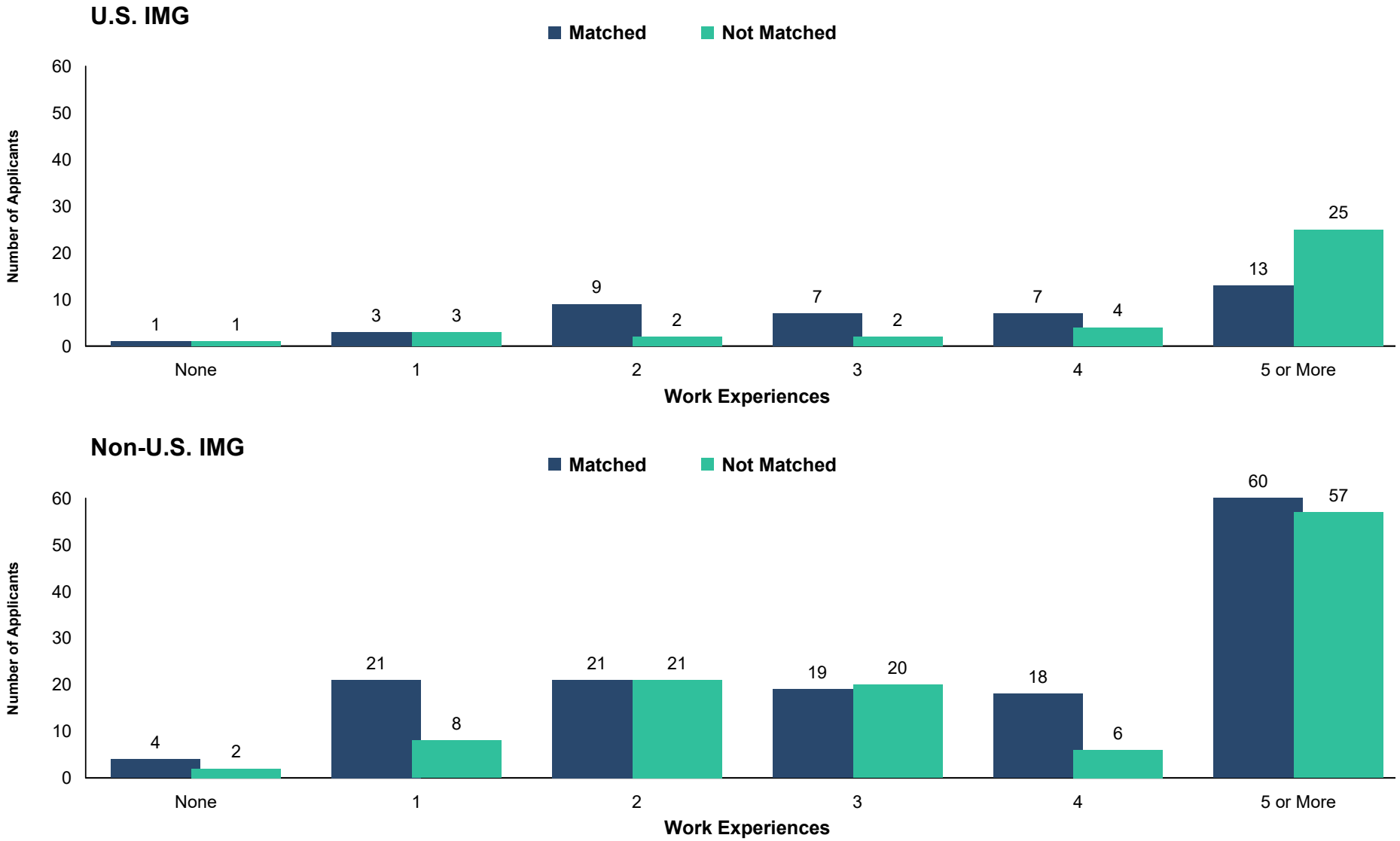


Source: NRMP Data Warehouse

Chart PTH-7

Number of Work Experiences of International Medical Graduates

Pathology

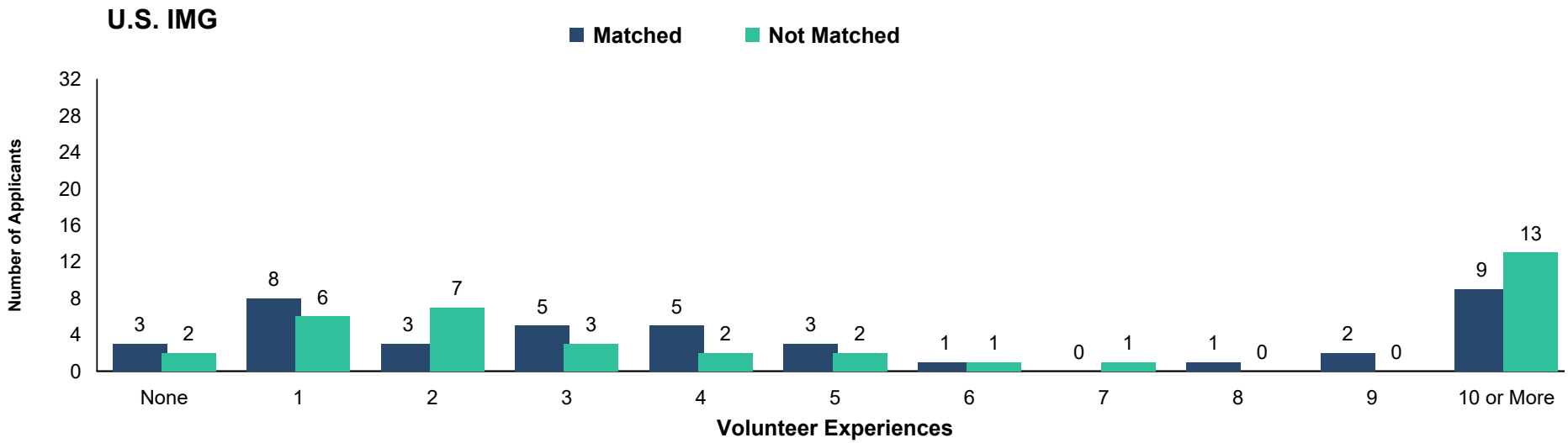


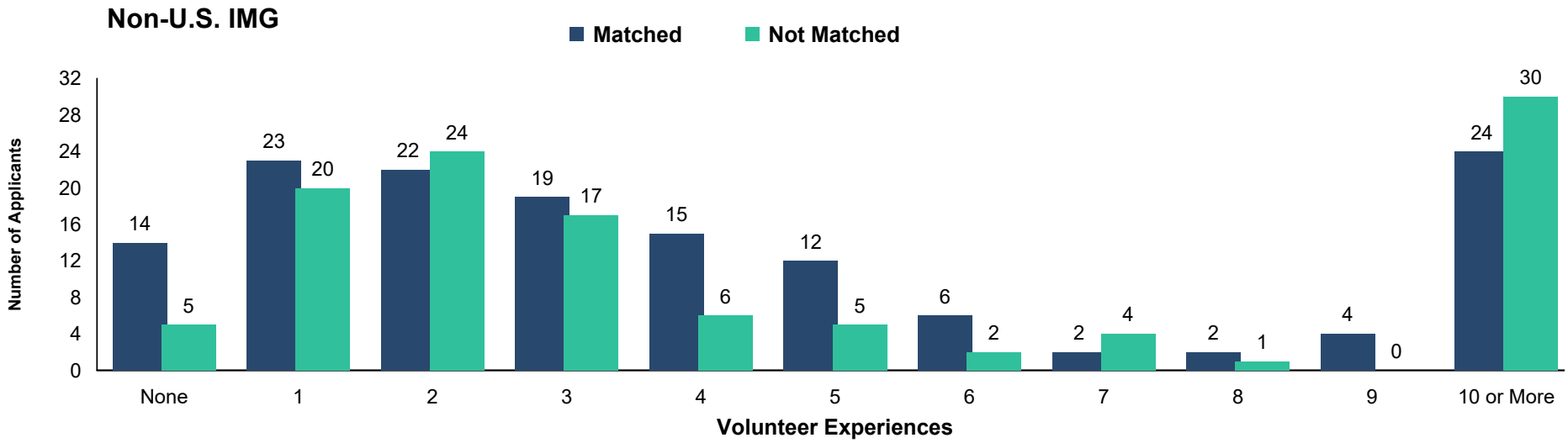
Source: NRMP Data Warehouse

Chart PTH-8

Number of Volunteer Experiences of International Medical Graduates

Pathology





Source: NRMP Data Warehouse

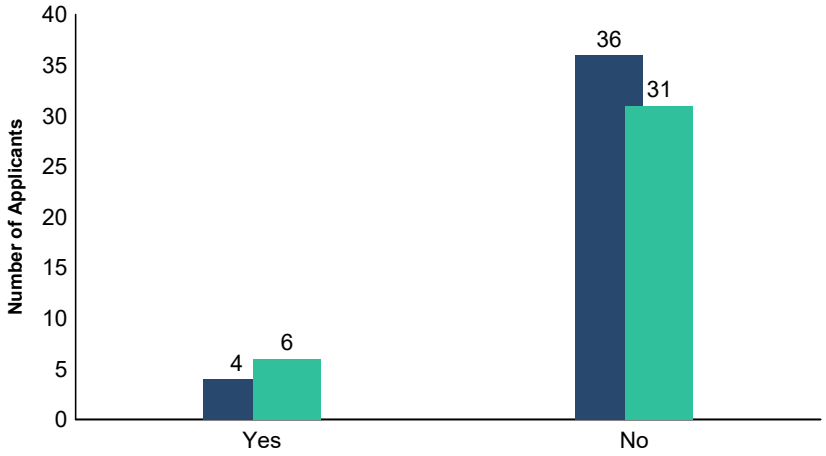
Chart PTH-9

Other Characteristics of International Medical Graduates

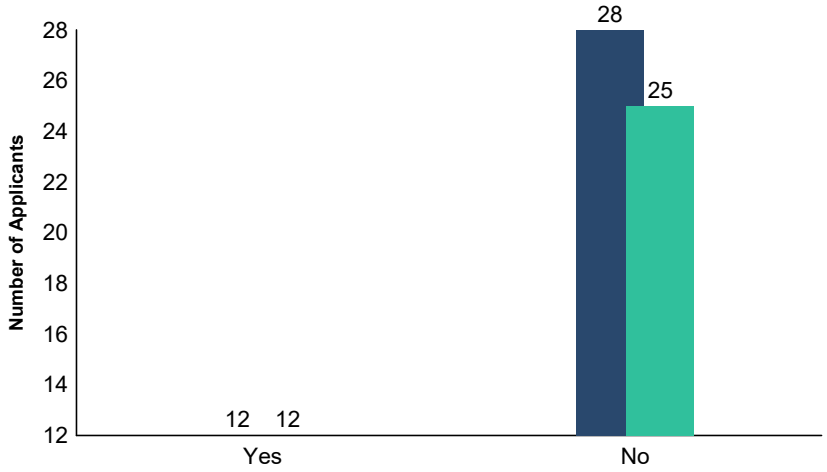
Pathology

U.S. IMG

Ph.D. Degree

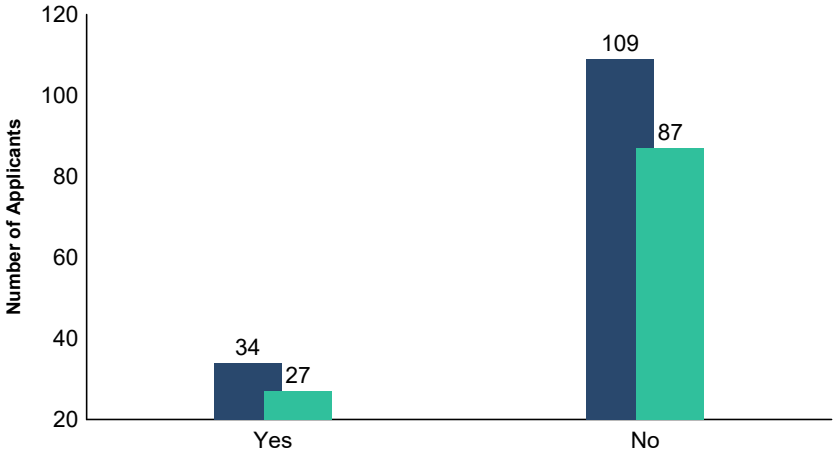


Other Graduate Degree

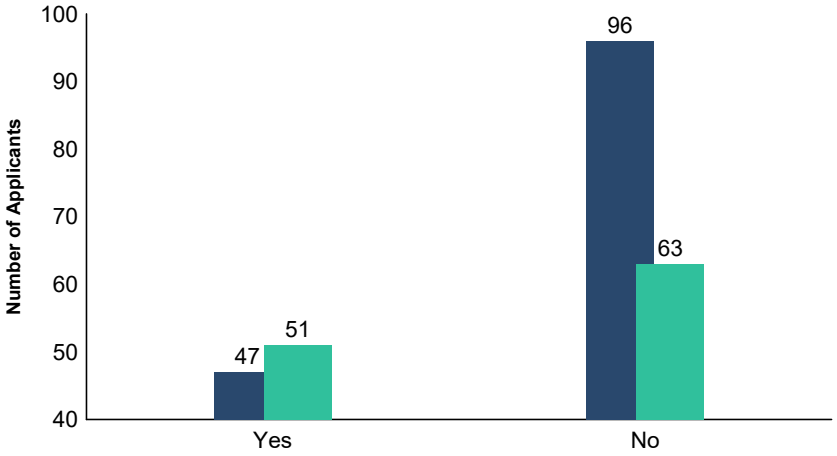


Non-U.S. IMG

Ph.D. Degree



Other Graduate Degree



Source: NRMP Data Warehouse

PD Pediatrics

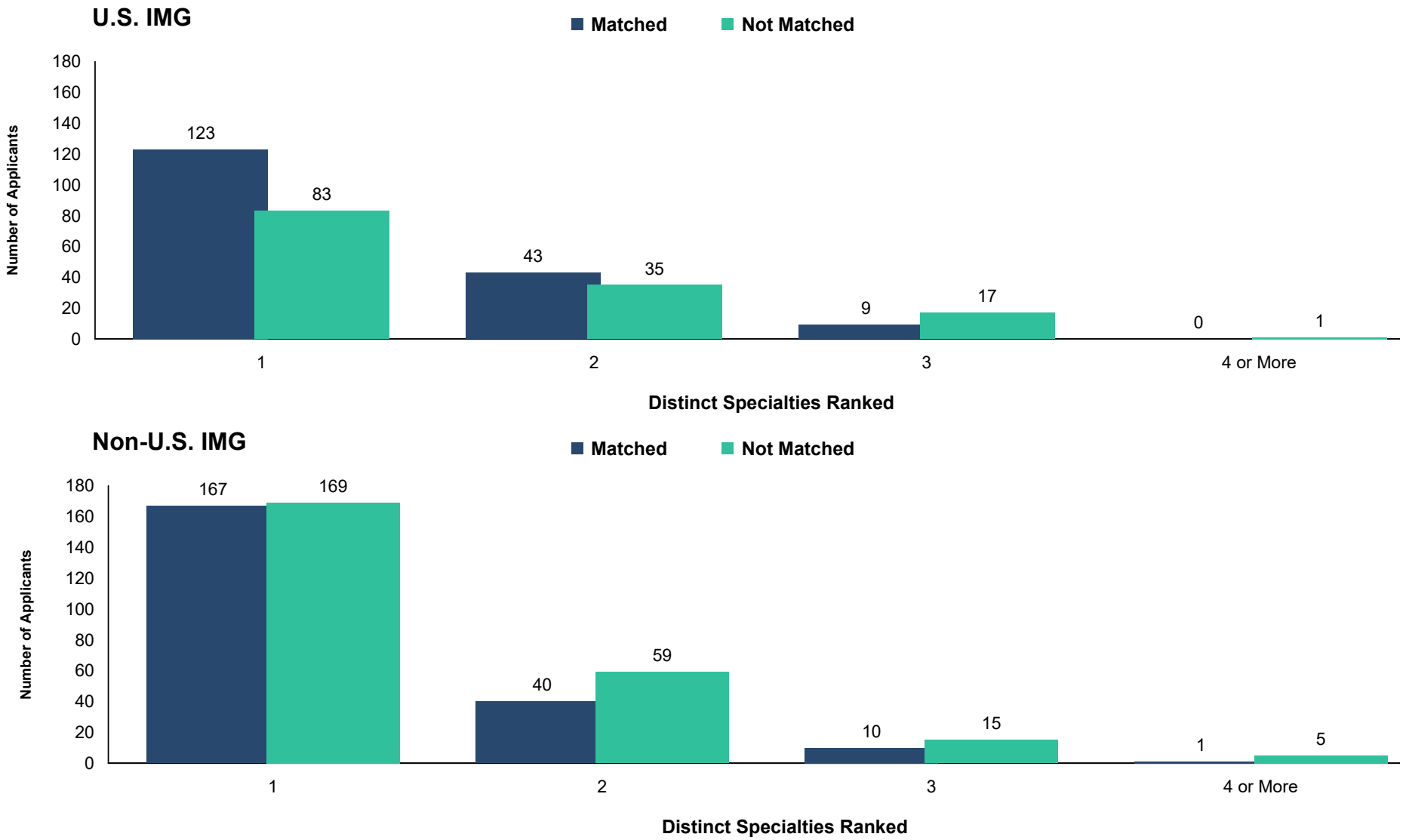
Table PD-1 Summary Statistics
Pediatrics

Measure	U.S. IMGs		Non-U.S. IMGs	
	Matched (n=175)	Unmatched (n=137)	Matched (n=218)	Unmatched (n=248)
1. Mean number of contiguous ranks	7.9	2.4	5.6	2.1
2. Mean number of distinct specialties ranked	1.3	1.6	1.3	1.4
3. Mean USMLE Step 1 score	224	210	232	216
4. Mean USMLE Step 2 score	234	219	239	223
5. Mean number of research experiences	1.5	1.6	2.0	2.1
6. Mean number of abstracts, presentations, and publications	1.8	2.3	4.3	4.4
7. Mean number of work experiences	3.3	4.5	5.2	5.4
8. Mean number of volunteer experiences	4.6	4.0	3.6	3.6
9. Percentage who have a Ph.D. degree	0.0	1.7	1.5	2.8
10. Percentage who have another graduate degree	18.9	30.2	26.4	26.9

Note: Only applicants who gave consent to use their information in research are included.
Source. NRMP Data Warehouse

Chart PD-1

Number of Distinct Specialties Ranked by International Medical Graduates

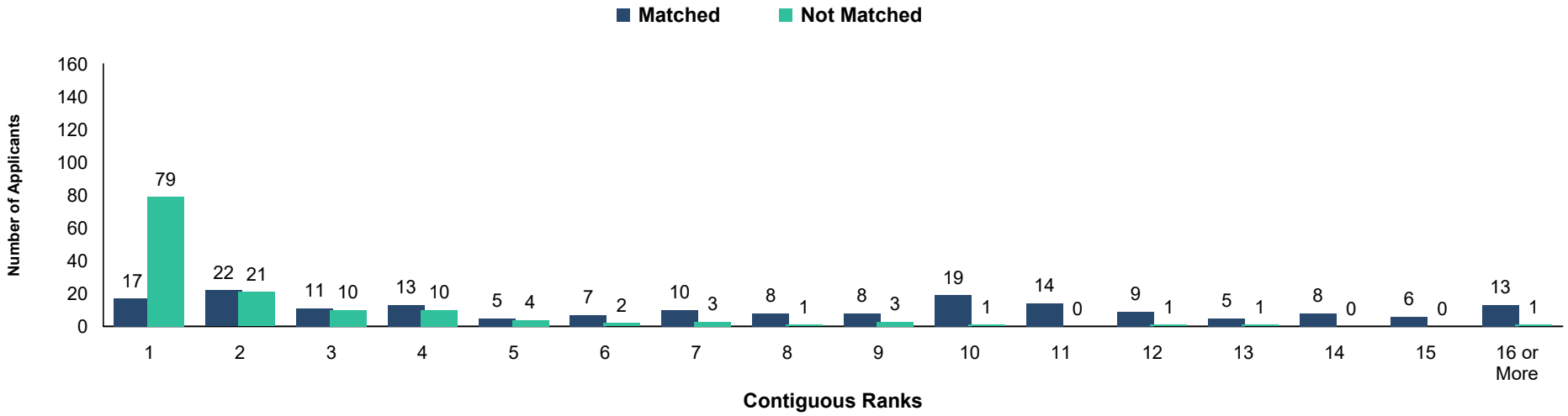


Source: NRMP Data Warehouse

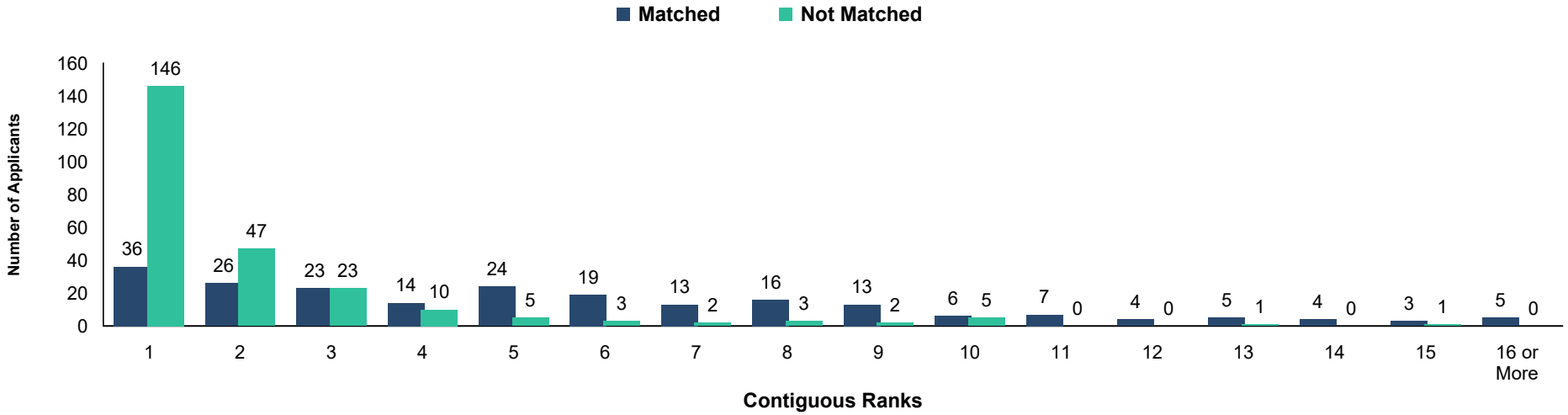
Chart PD-2

Number of Contiguous Ranks of International Medical Graduates

U.S. IMG



Non-U.S. IMG

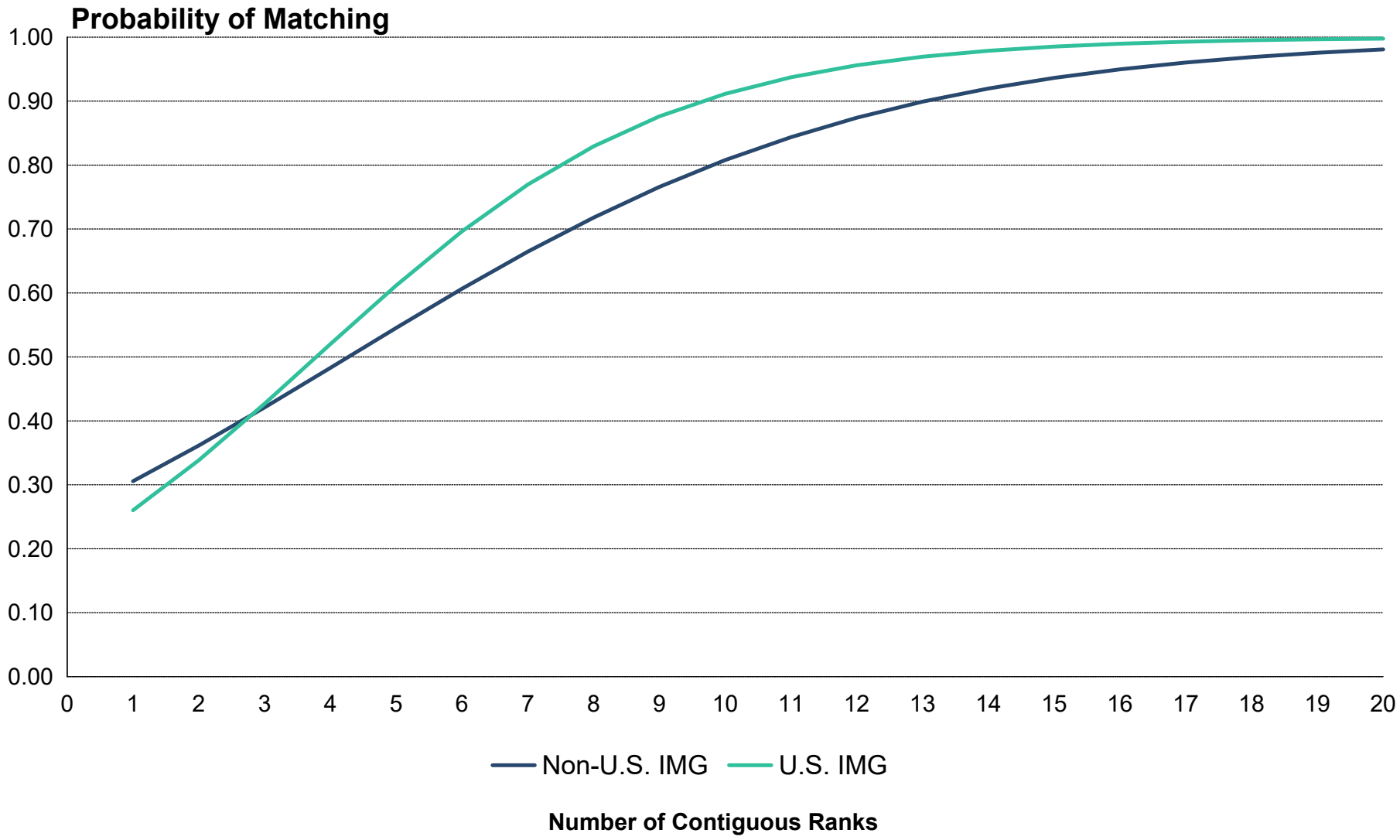


Source: NRMP Data Warehouse

Graph PD-1

Probability of International Medical Graduates Matching to Preferred Specialty by Number of Contiguous Ranks

Pediatrics



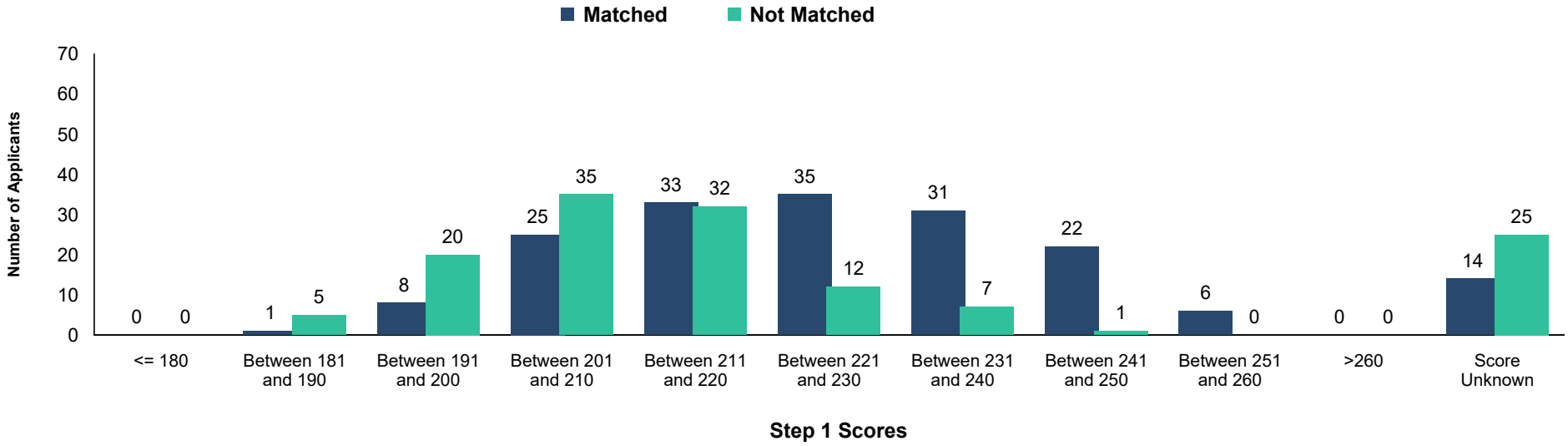
Source: NRMP Data Warehouse. Note: Probabilities calculated based on 2014-2016 applicants

Chart PD-3

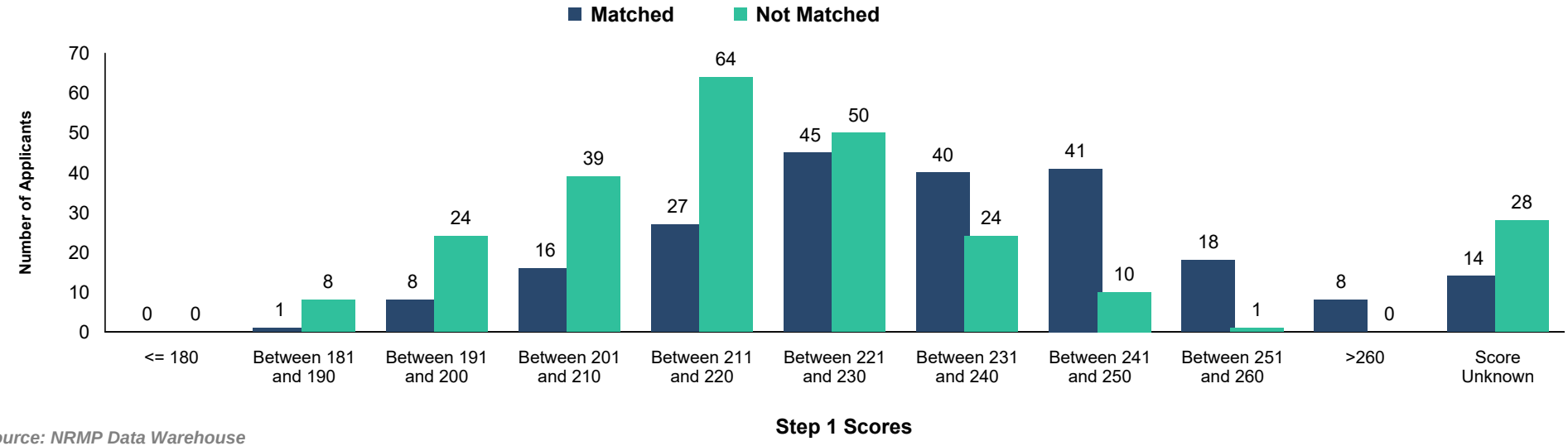
USMLE Step 1 Scores of International Medical Graduates

Pediatrics

U.S. IMG



Non-U.S. IMG

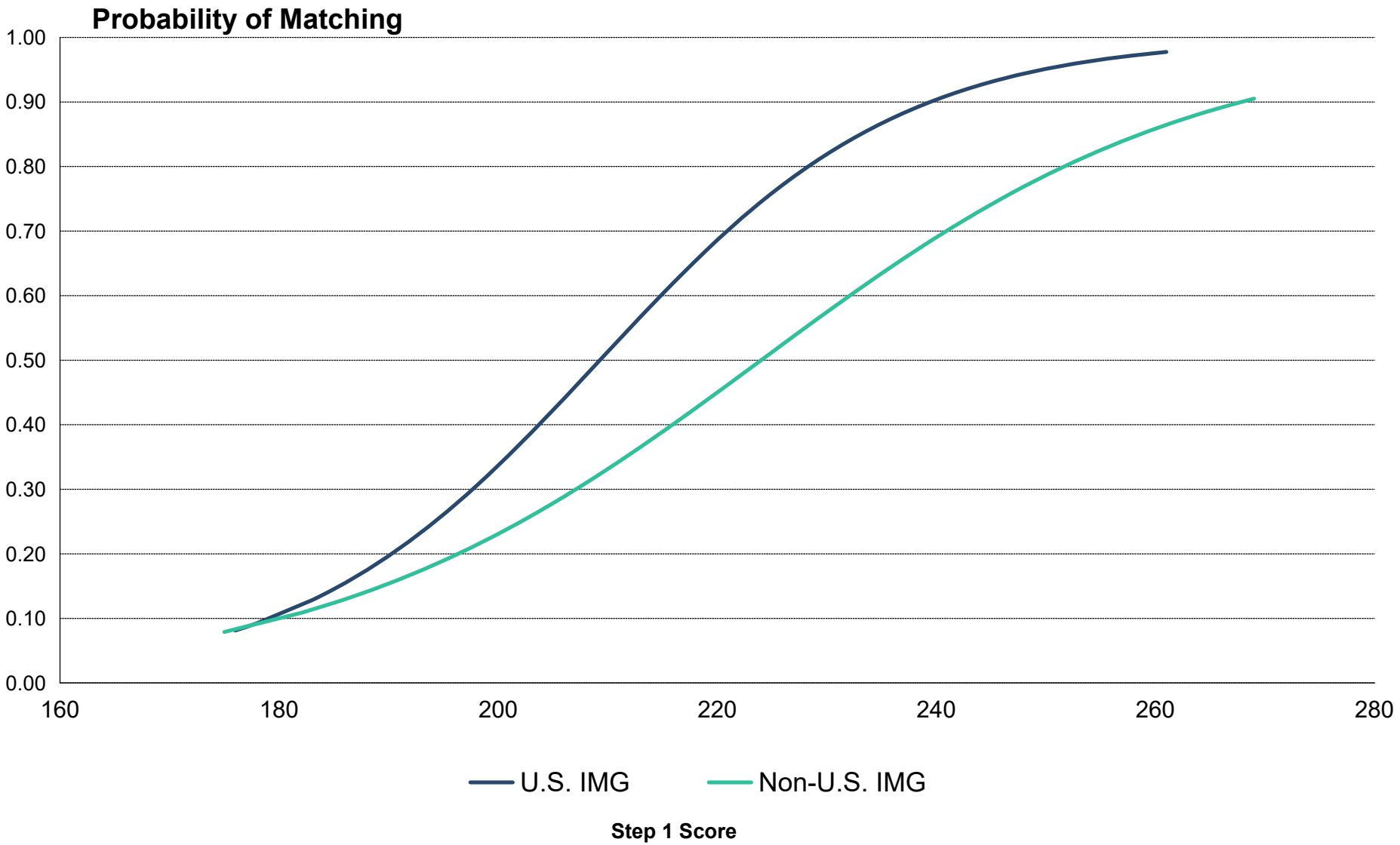


Source: NRMP Data Warehouse

Graph PD-2

Probability of International Medical Graduates Matching to Preferred Specialty by USMLE Step 1 Score

Pediatrics

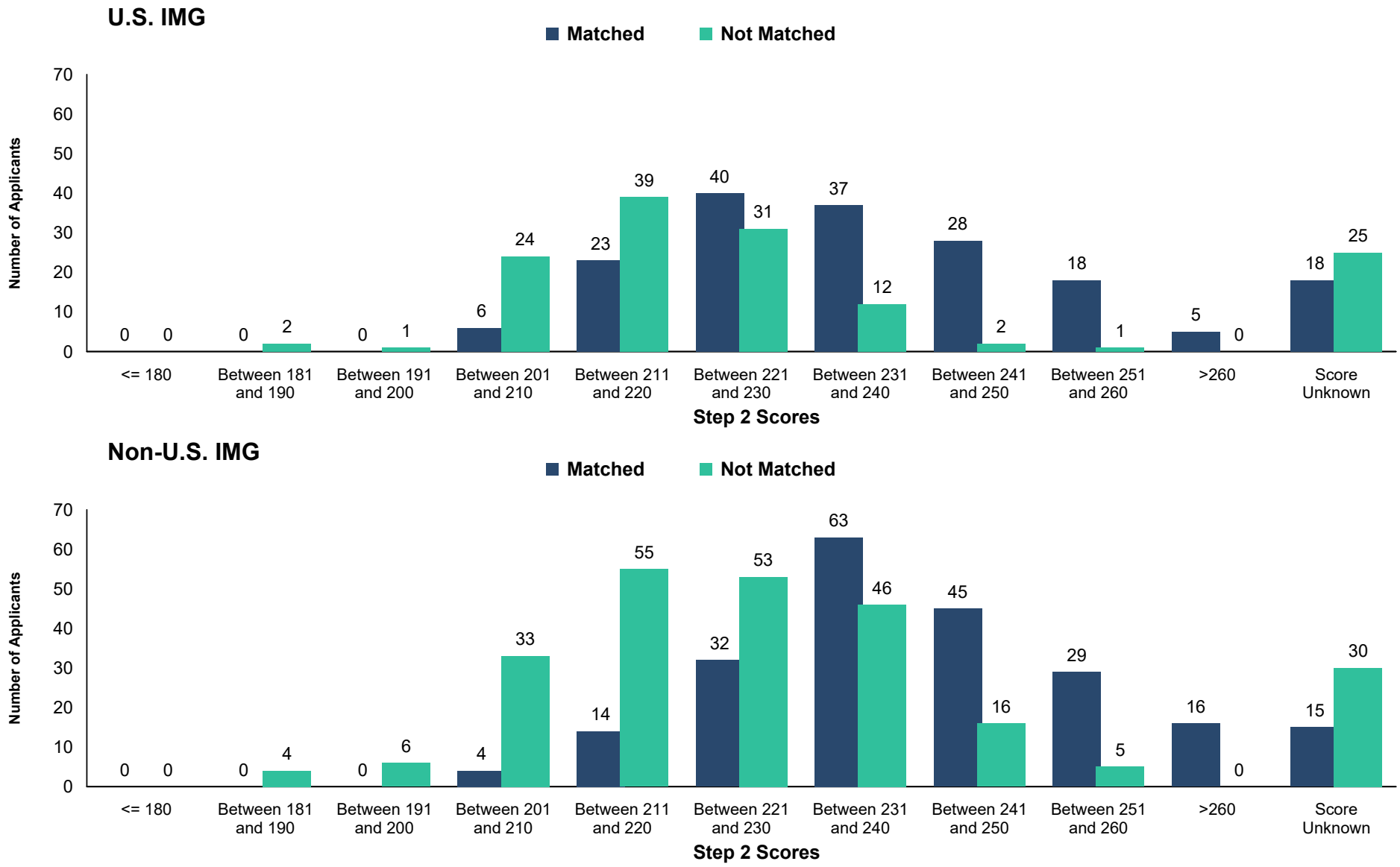


Source: NRMP Data Warehouse. Note: Probabilities calculated based on 2014-2016 applicants.

Chart PD-4

USMLE Step 2 CK Scores of International Medical Graduates

Pediatrics

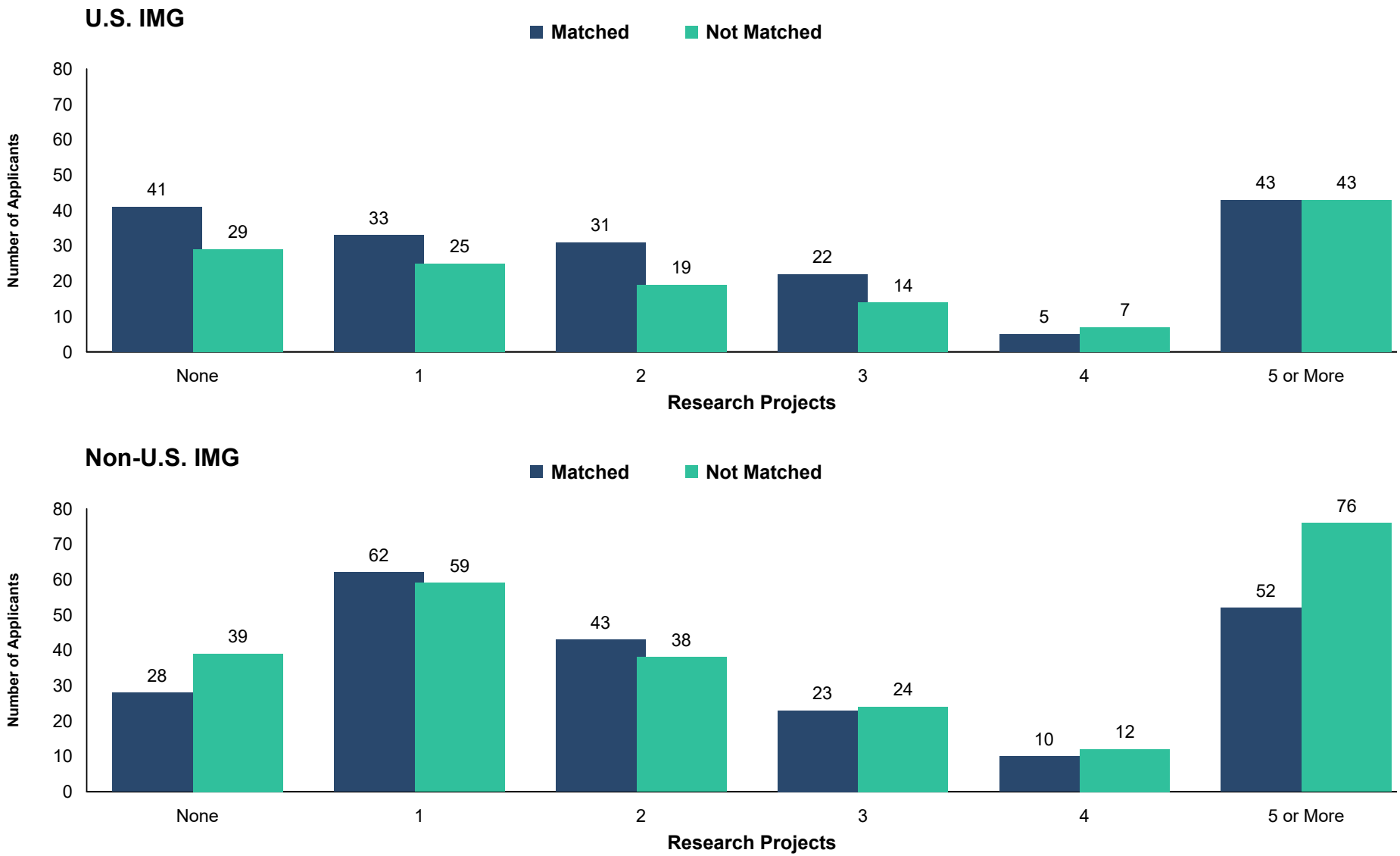


Source: NRMP Data Warehouse

Chart PD-5

Number of Research Projects of International Medical Graduates

Pediatrics

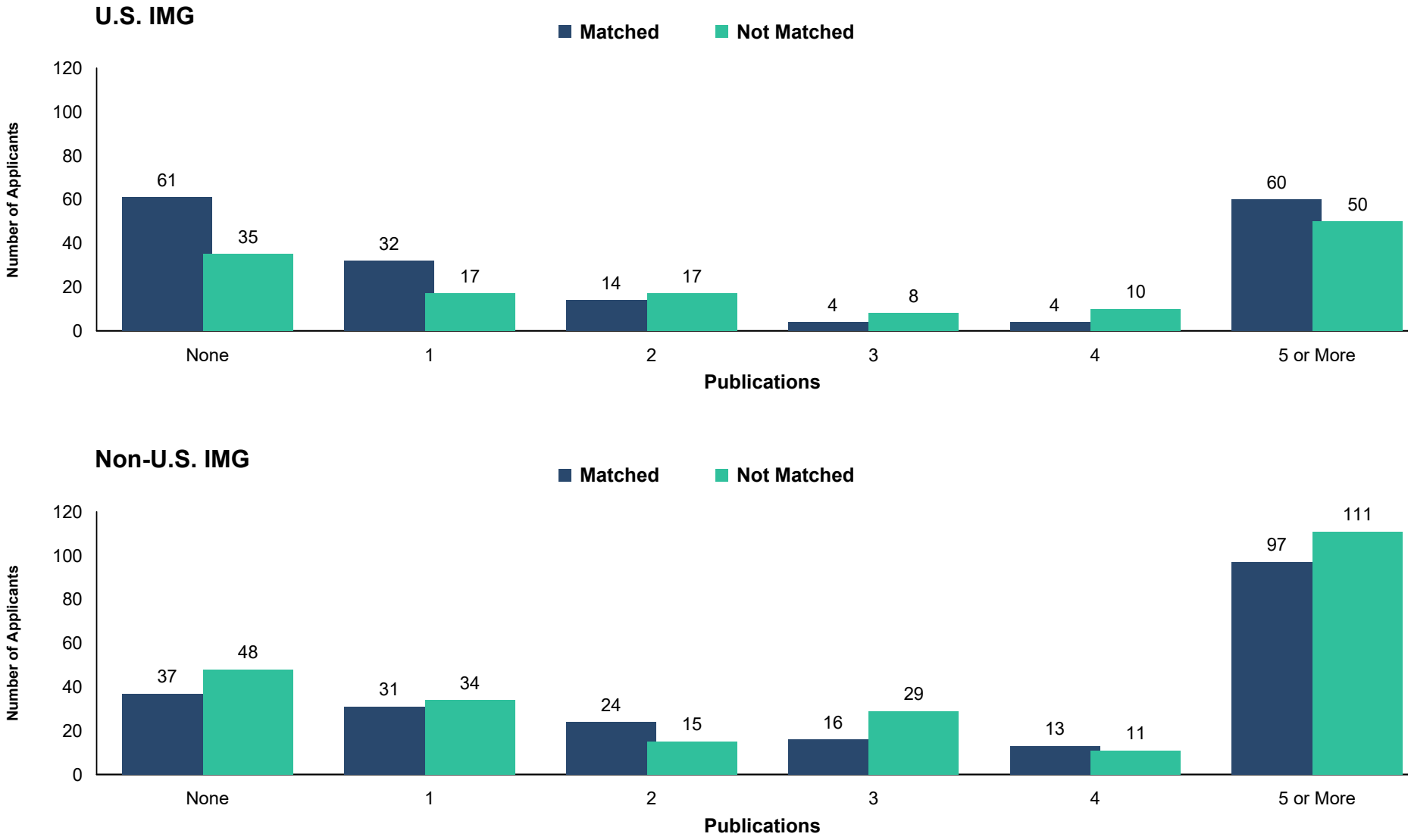


Source: NRMP Data Warehouse

Chart PD-6

Number of Abstracts, Presentations, and Publications of International Medical Graduates

Pediatrics

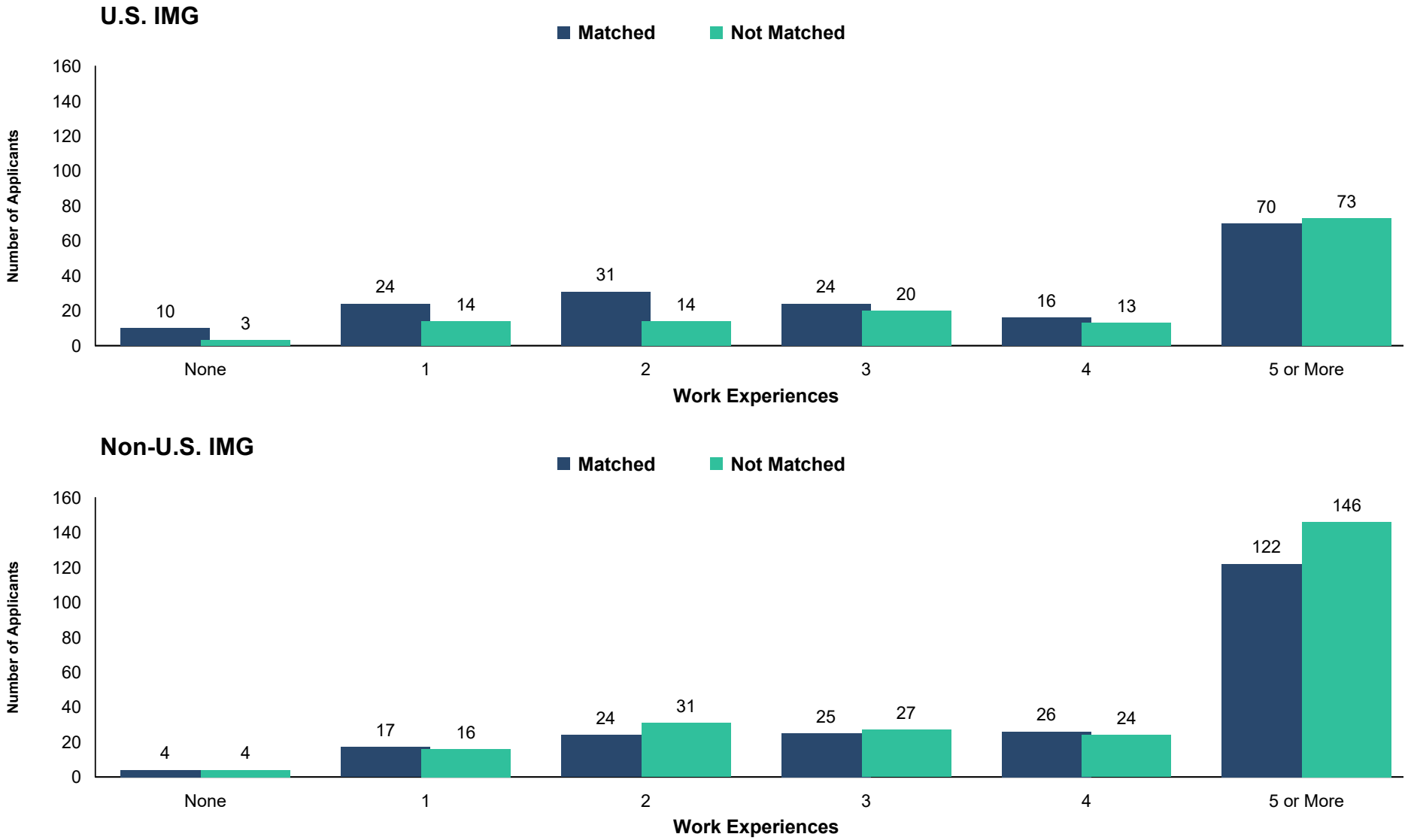


Source: NRMP Data Warehouse

Chart PD-7

Number of Work Experiences of International Medical Graduates

Pediatrics

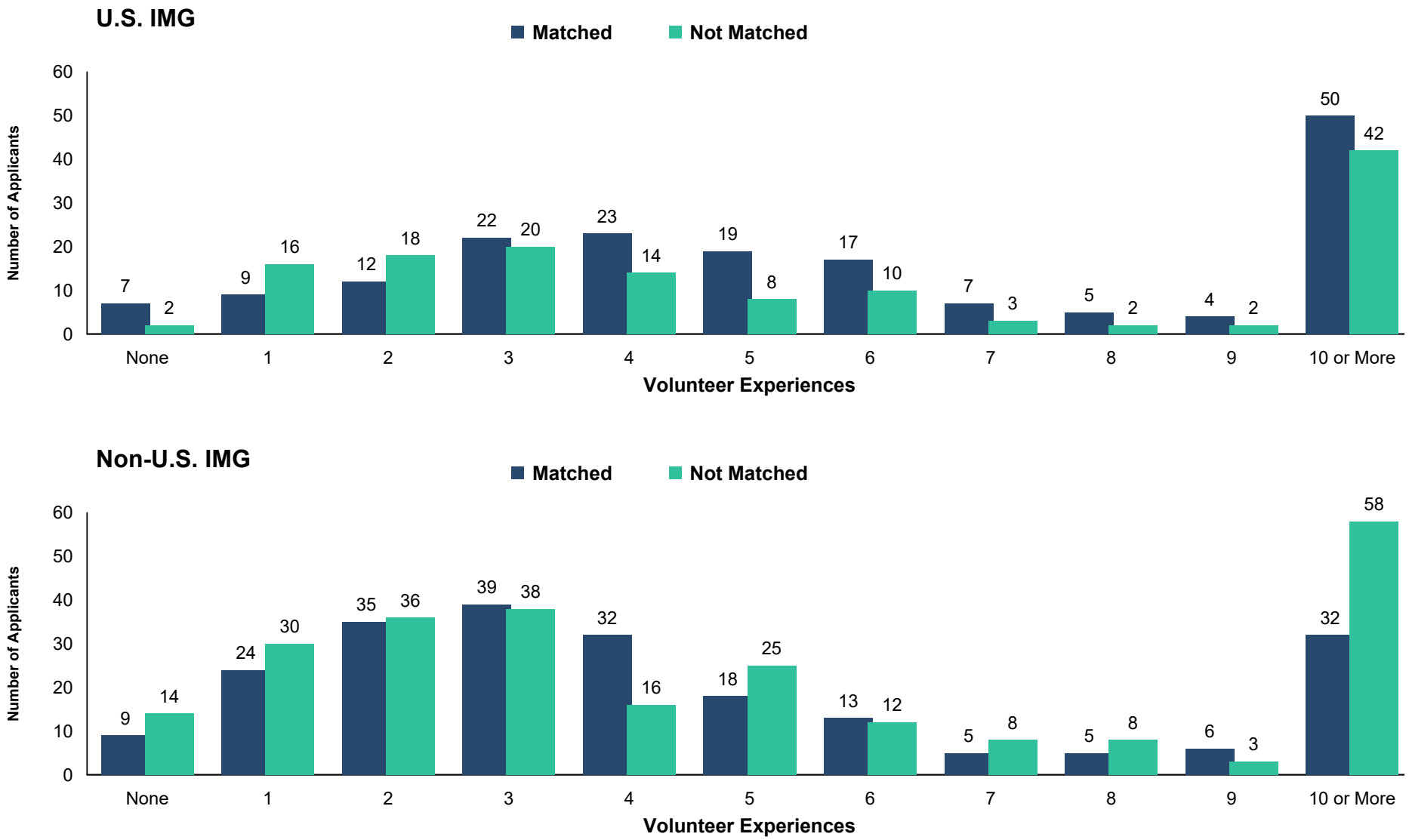


Source: NRMP Data Warehouse

Chart PD-8

Number of Volunteer Experiences of International Medical Graduates

Pediatrics



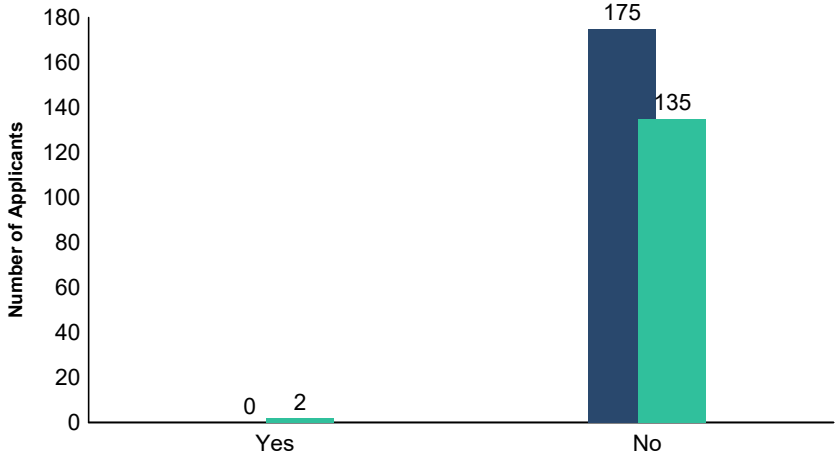
Source: NRMP Data Warehouse

Chart PD-9 Other Characteristics of International Medical Graduates

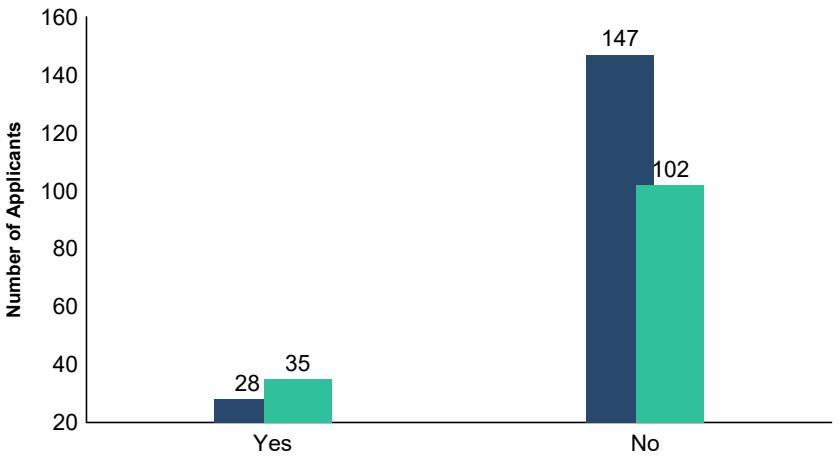
Pediatrics

U.S. IMG

Ph.D. Degree

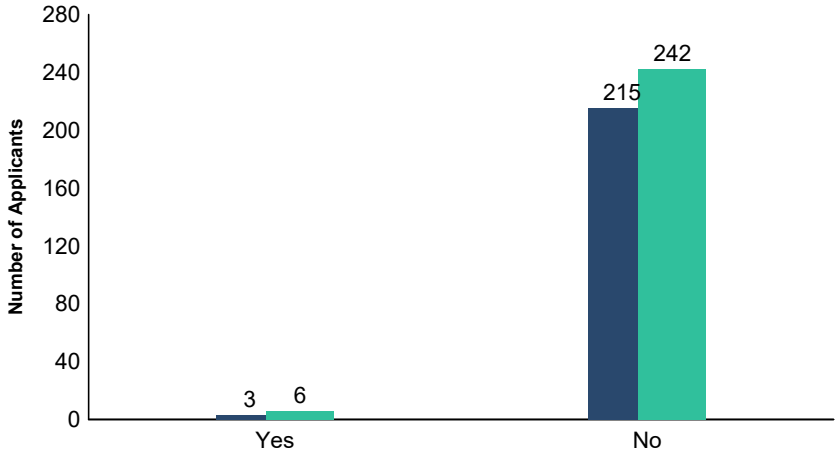


Other Graduate Degree

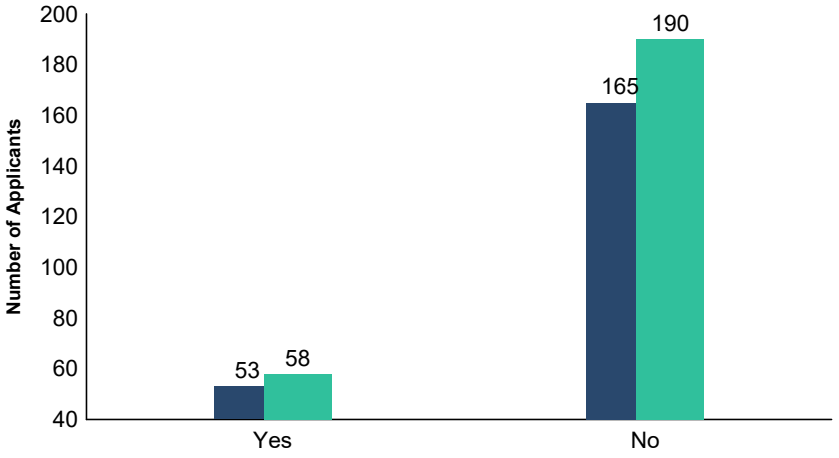


Non-U.S. IMG

Ph.D. Degree



Other Graduate Degree



Source: NRMP Data Warehouse

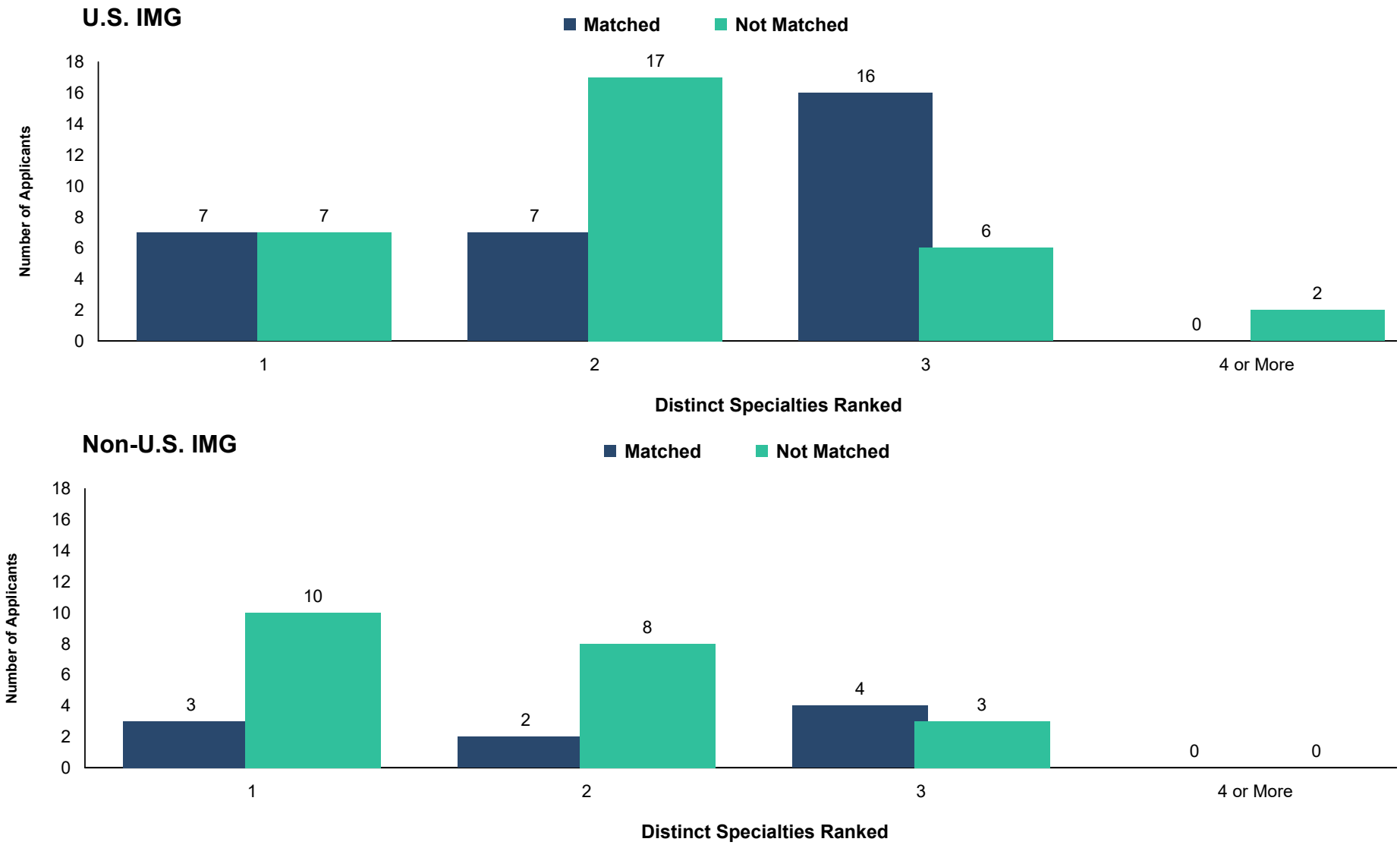
PM Physical Medicine and Rehabilitation

Table PM-1 Summary Statistics
Physical Medicine and Rehabilitation

Measure	U.S. IMGs		Non-U.S. IMGs	
	Matched (n=30)	Unmatched (n=32)	Matched (n=9)	Unmatched (n=21)
1. Mean number of contiguous ranks	7.2	2.3	4.3	2.0
2. Mean number of distinct specialties ranked	2.3	2.1	2.1	1.7
3. Mean USMLE Step 1 score	224	213	227	220
4. Mean USMLE Step 2 score	232	222	226	226
5. Mean number of research experiences	2.4	1.4	1.5	3.1
6. Mean number of abstracts, presentations, and publications	2.5	3.9	3.2	12.2
7. Mean number of work experiences	4.5	4.2	3.0	4.5
8. Mean number of volunteer experiences	4.0	3.9	4.1	4.1
9. Percentage who have a Ph.D. degree	0.0	3.7	12.5	11.1
10. Percentage who have another graduate degree	32.0	40.7	37.5	27.8

Note: Only applicants who gave consent to use their information in research are included.
Source. NRMP Data Warehouse

Chart PM-1 Number of Distinct Specialties Ranked by International Medical Graduates

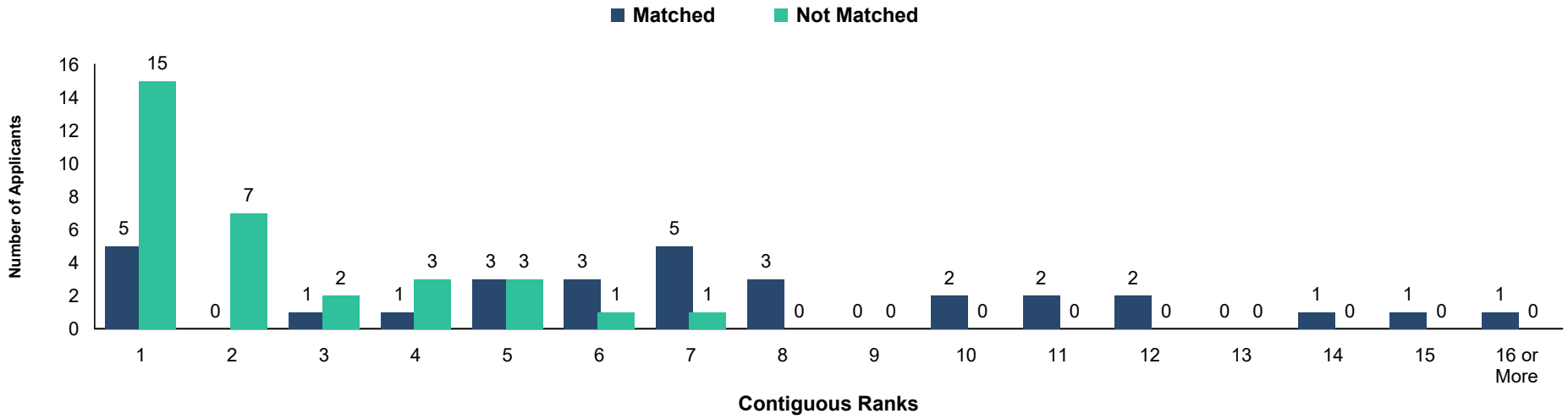


Source: NRMP Data Warehouse

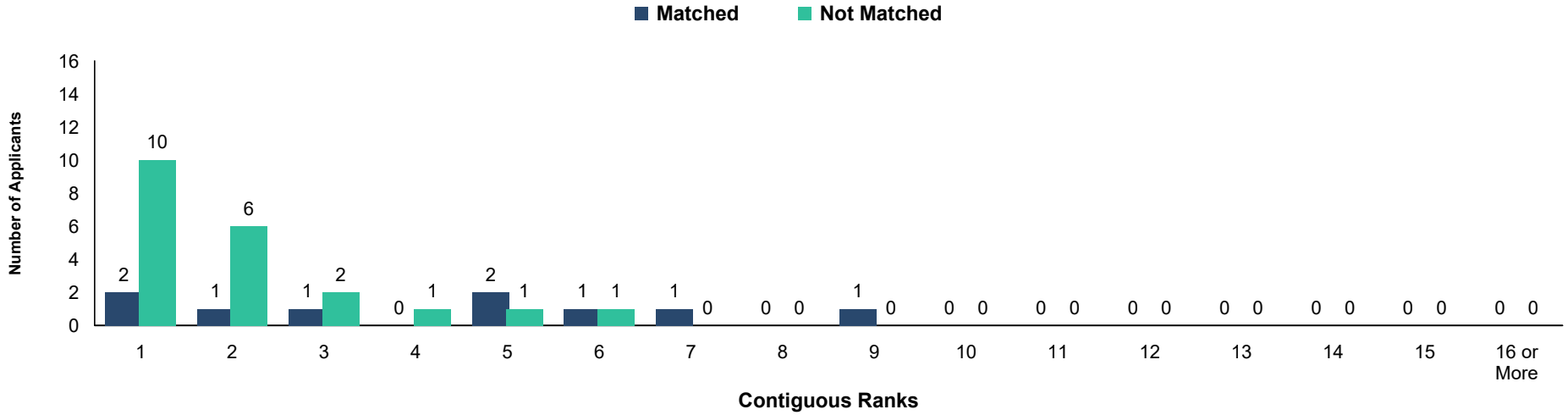
Chart PM-2

Number of Contiguous Ranks of International Medical Graduates

U.S. IMG



Non-U.S. IMG

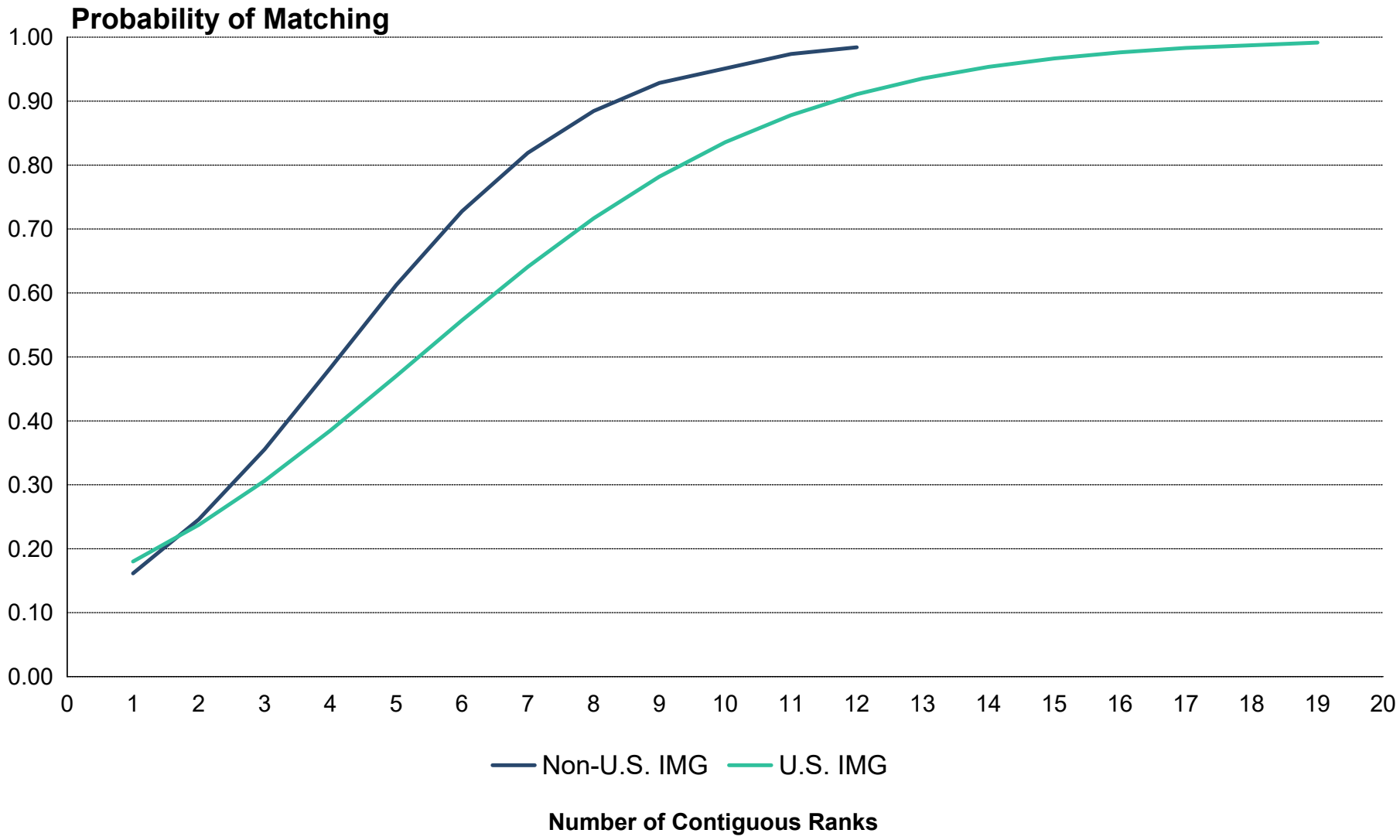


Source: NRMP Data Warehouse

Graph PM-1

Probability of International Medical Graduates Matching to Preferred Specialty by Number of Contiguous Ranks

Physical Medicine and Rehabilitation



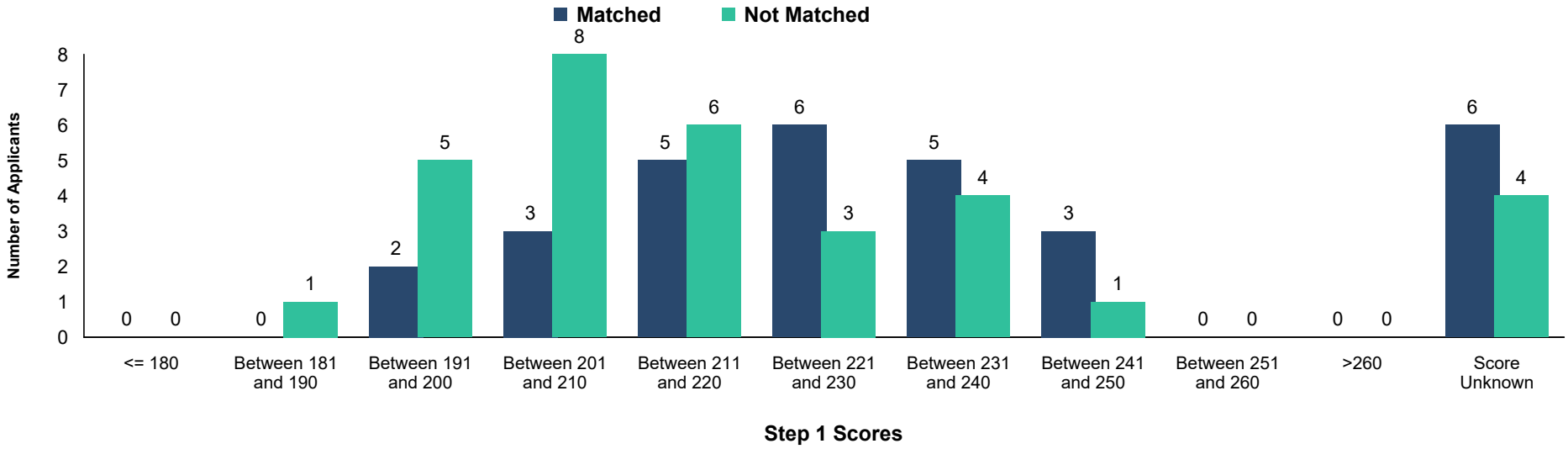
Source: NRMP Data Warehouse. Note: Probabilities calculated based on 2014-2016 applicants

Chart PM-3

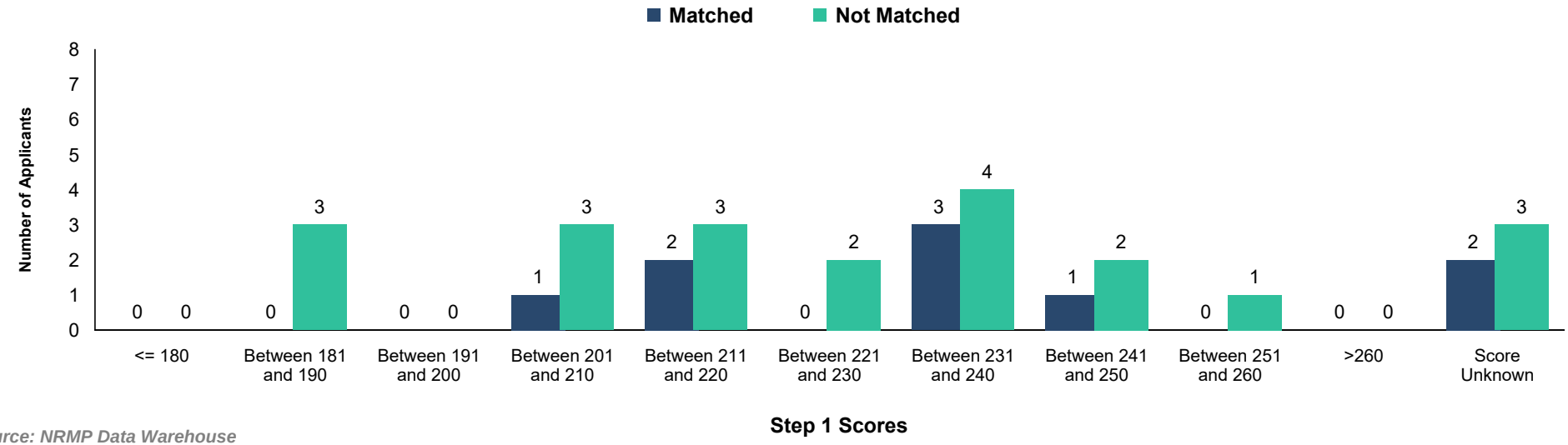
USMLE Step 1 Scores of International Medical Graduates

Physical Medicine and Rehabilitation

U.S. IMG



Non-U.S. IMG

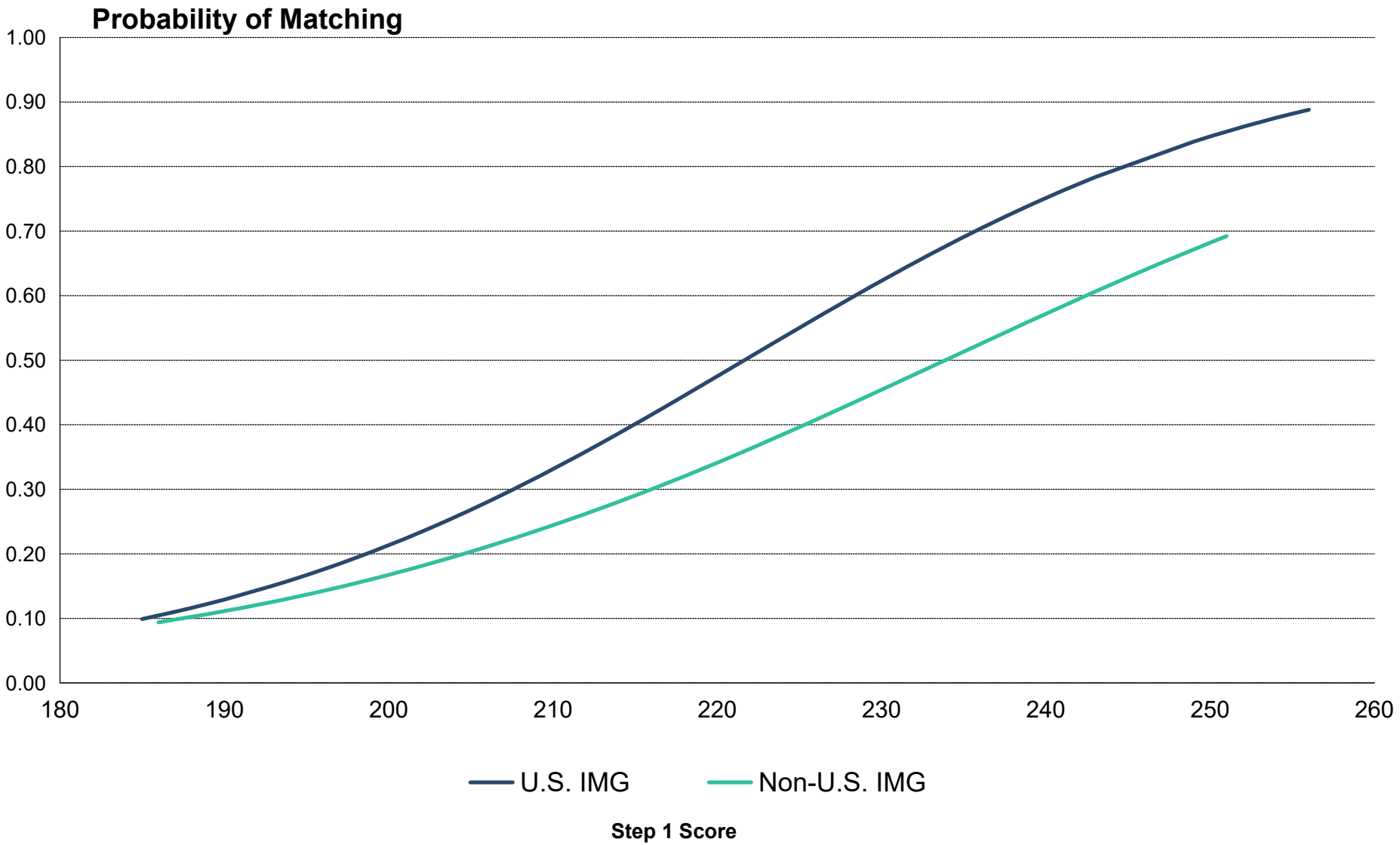


Source: NRMP Data Warehouse

Graph PM-2

Probability of International Medical Graduates Matching to Preferred Specialty by USMLE Step 1 Score

Physical Medicine and Rehabilitation

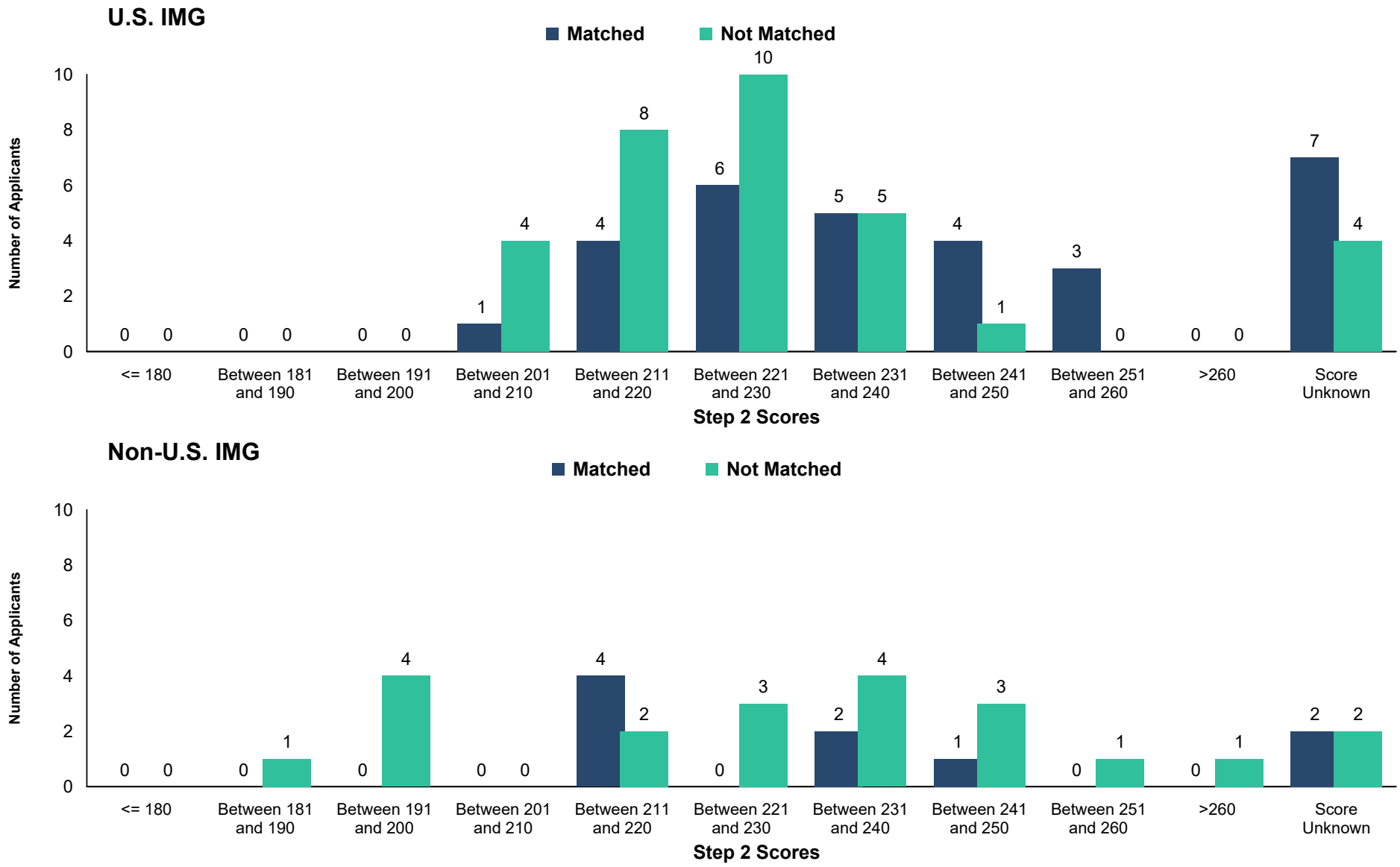


Source: NRMP Data Warehouse. Note: Probabilities calculated based on 2014-2016 applicants.

Chart PM-4

USMLE Step 2 CK Scores of International Medical Graduates

Physical Medicine and Rehabilitation

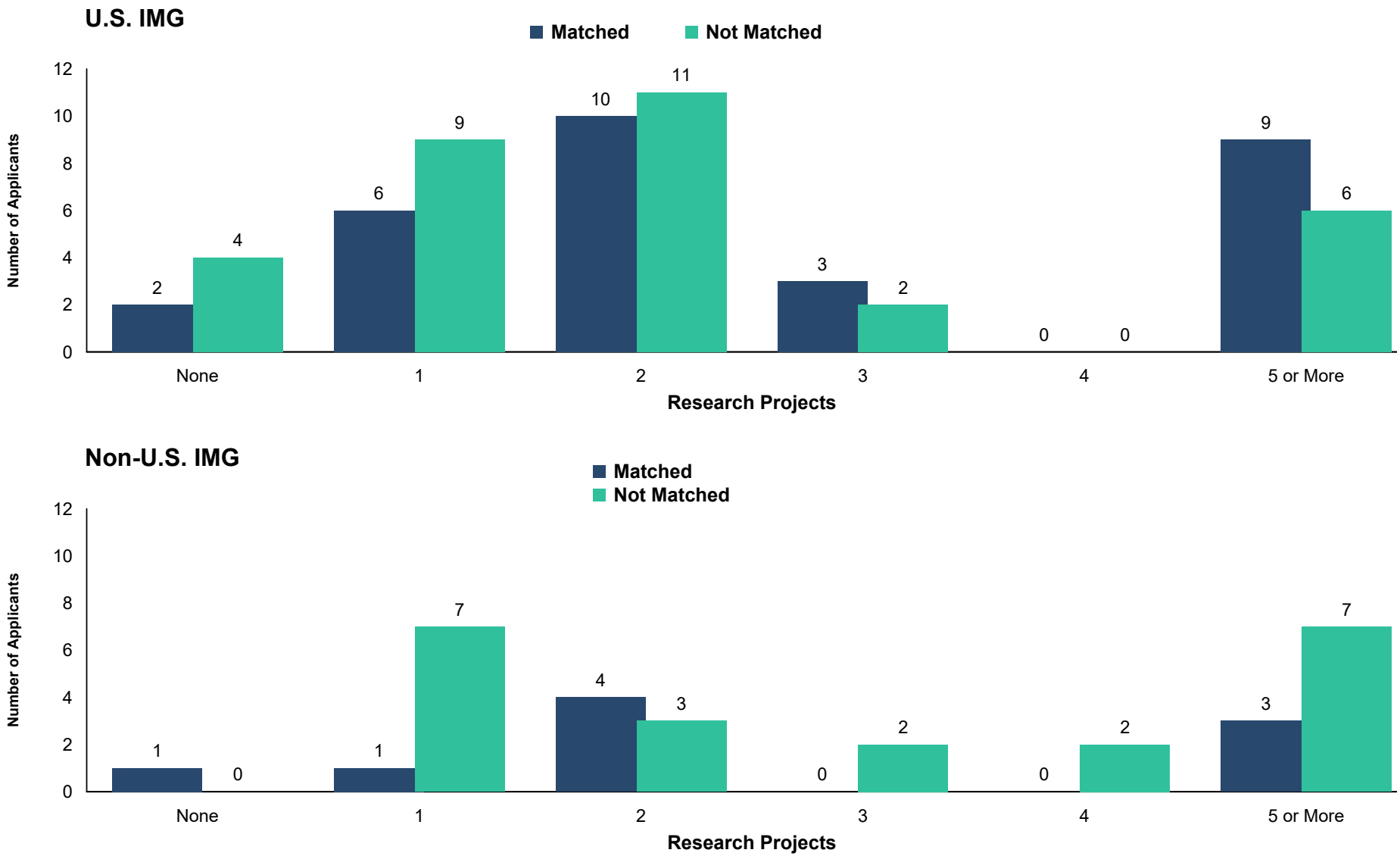


Source: NRMP Data Warehouse

Chart PM-5

Number of Research Projects of International Medical Graduates

Physical Medicine and Rehabilitation

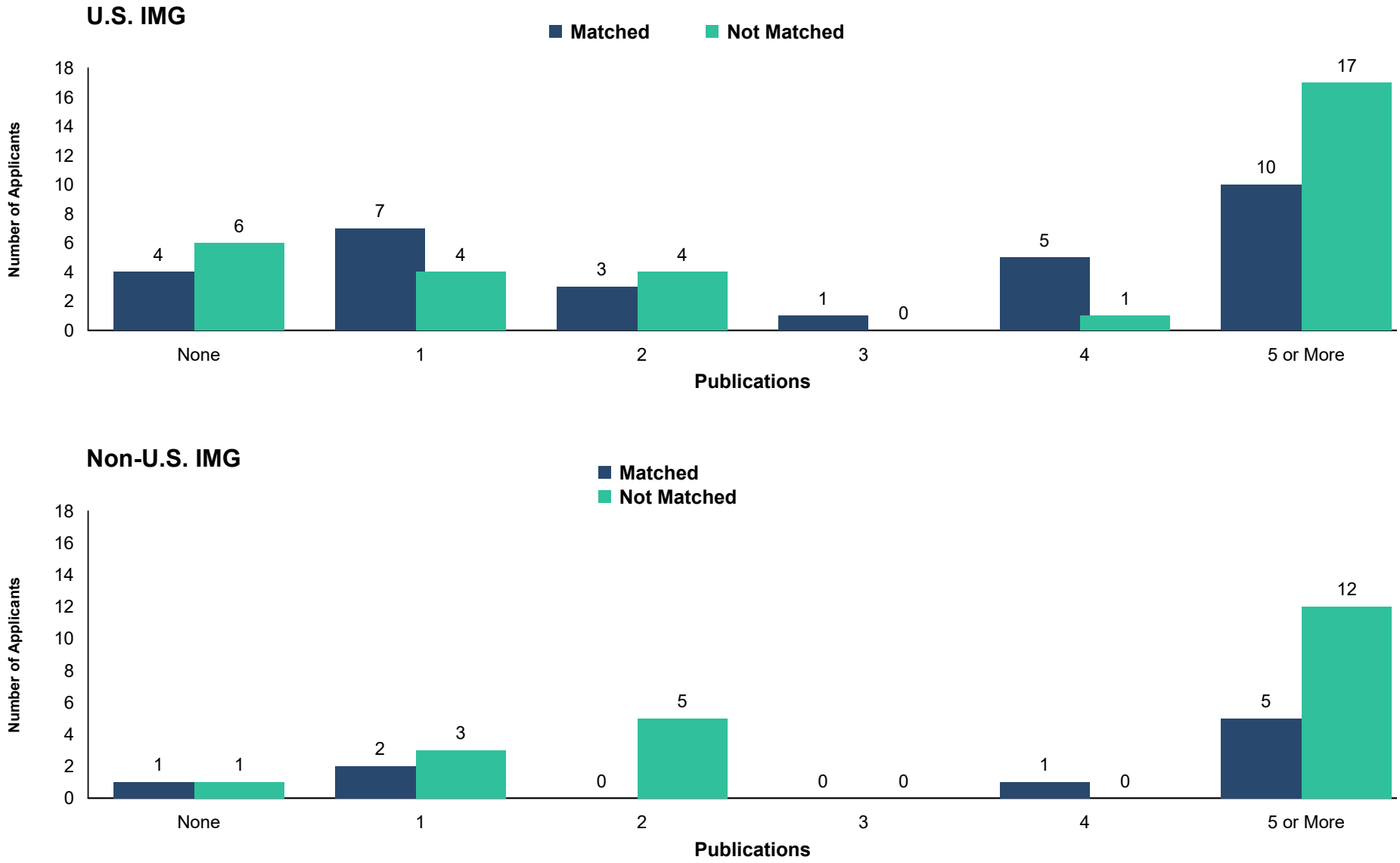


Source: NRMP Data Warehouse

Chart PM-6

Number of Abstracts, Presentations, and Publications of International Medical Graduates

Physical Medicine and Rehabilitation

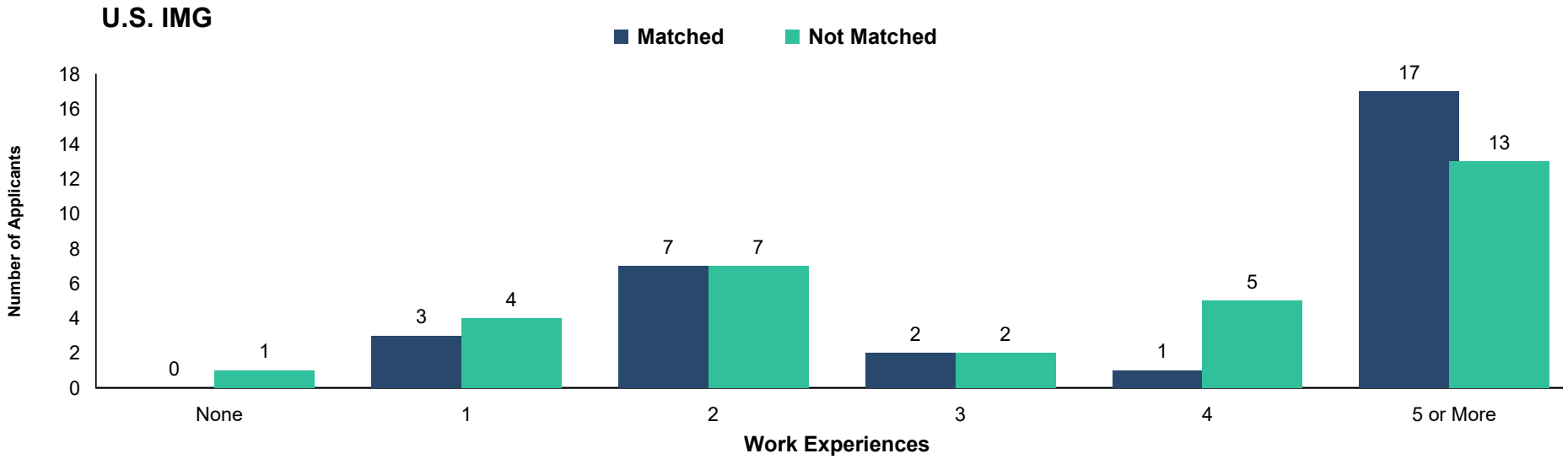


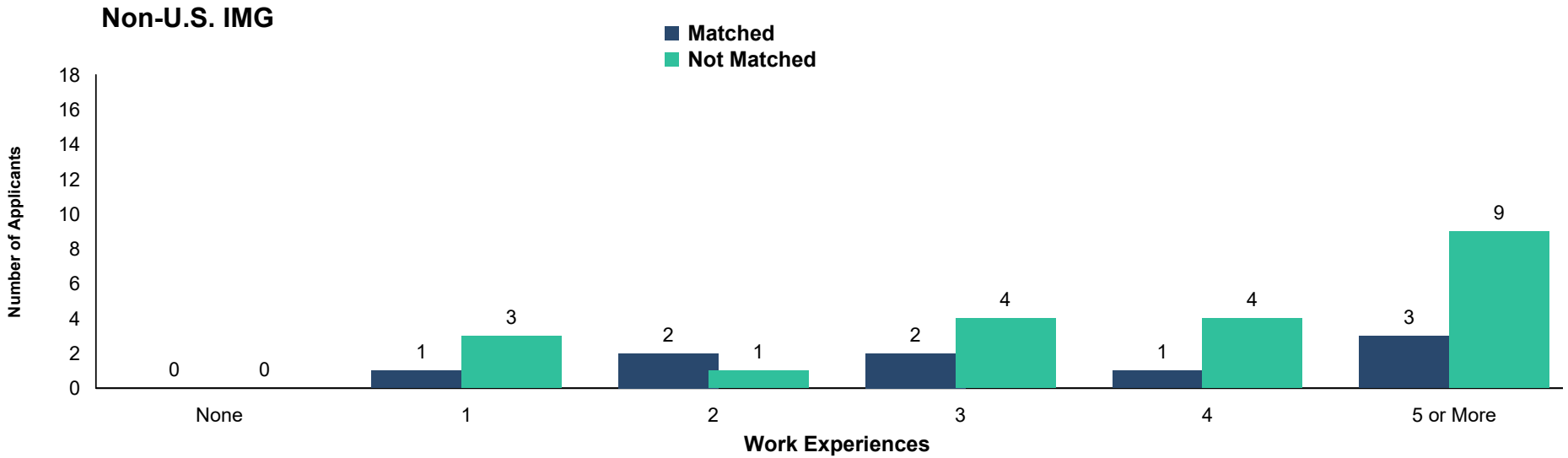
Source: NRMP Data Warehouse

Chart PM-7

Number of Work Experiences of International Medical Graduates

Physical Medicine and Rehabilitation



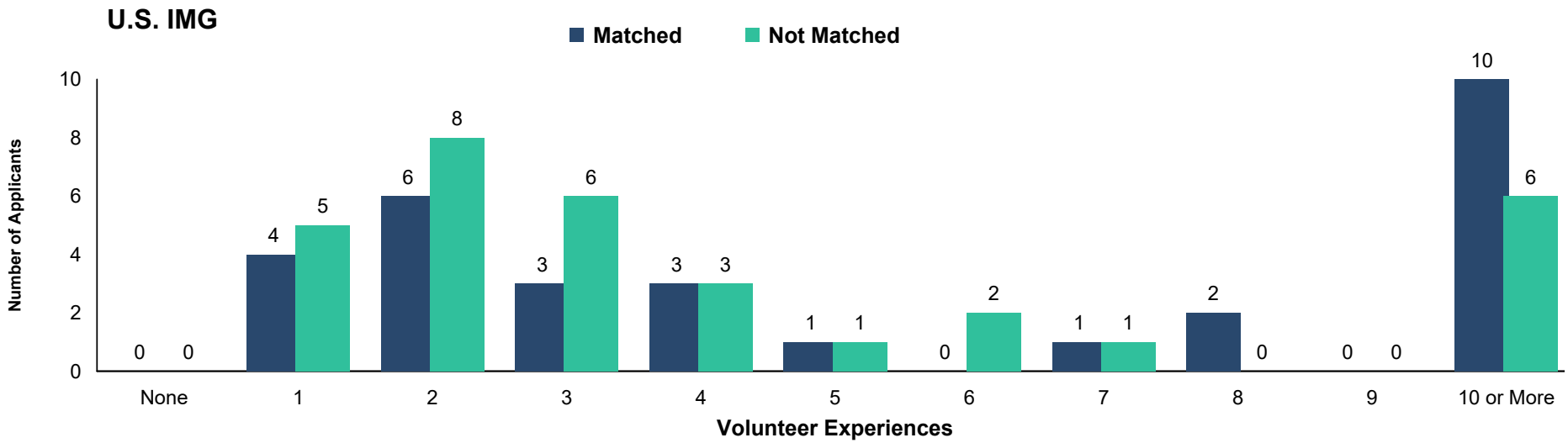


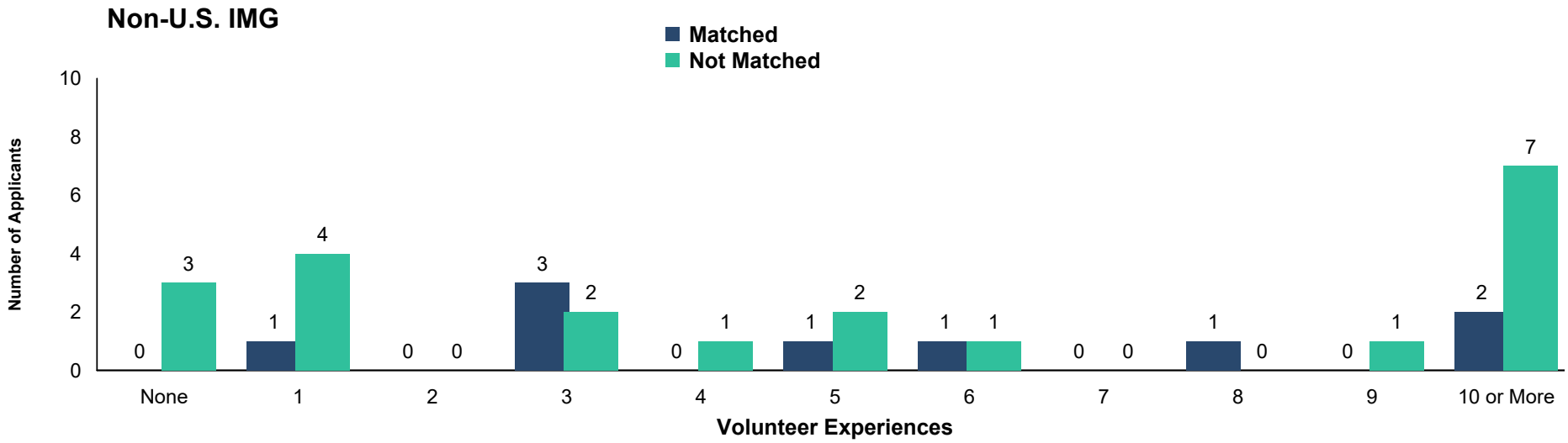
Source: NRMP Data Warehouse

Chart PM-8

Number of Volunteer Experiences of International Medical Graduates

Physical Medicine and Rehabilitation





Source: NRMP Data Warehouse

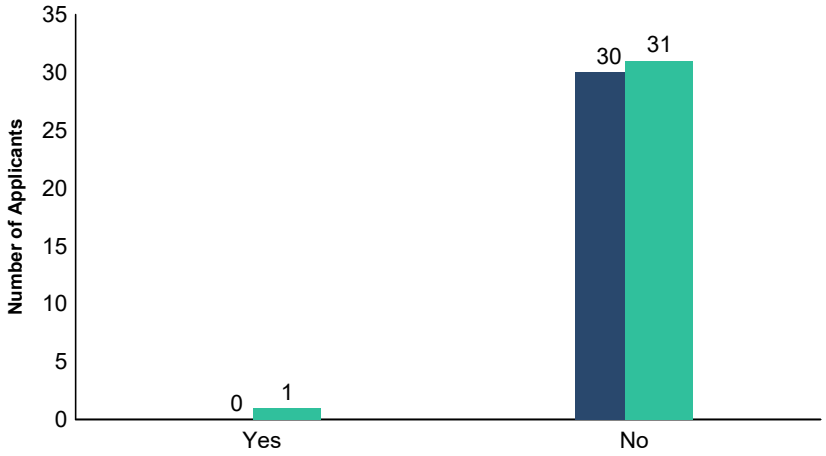
Chart PM-9

Other Characteristics of International Medical Graduates

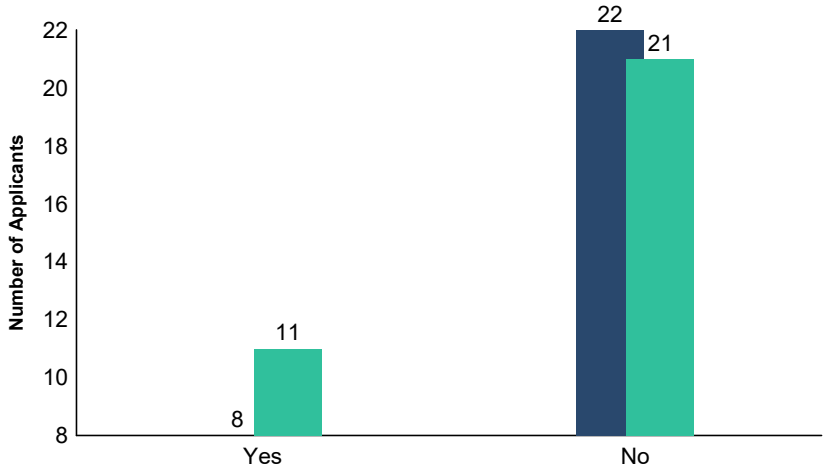
Physical Medicine and Rehabilitation

U.S. IMG

Ph.D. Degree

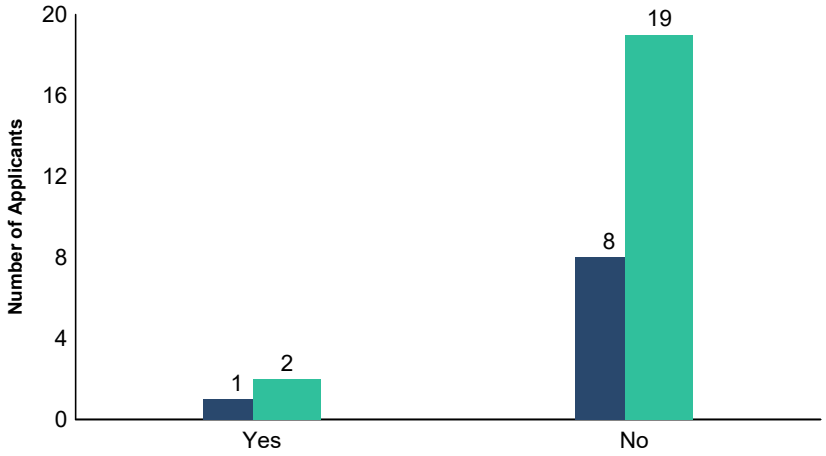


Other Graduate Degree

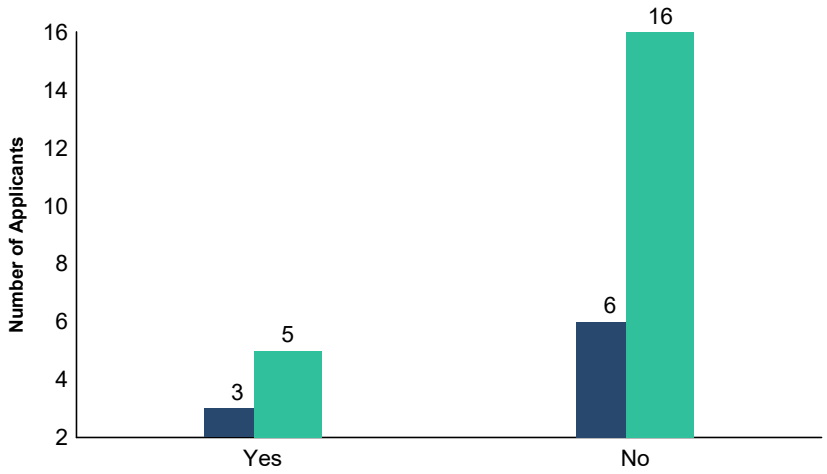


Non-U.S. IMG

Ph.D. Degree



Other Graduate Degree



Source: NRMP Data Warehouse

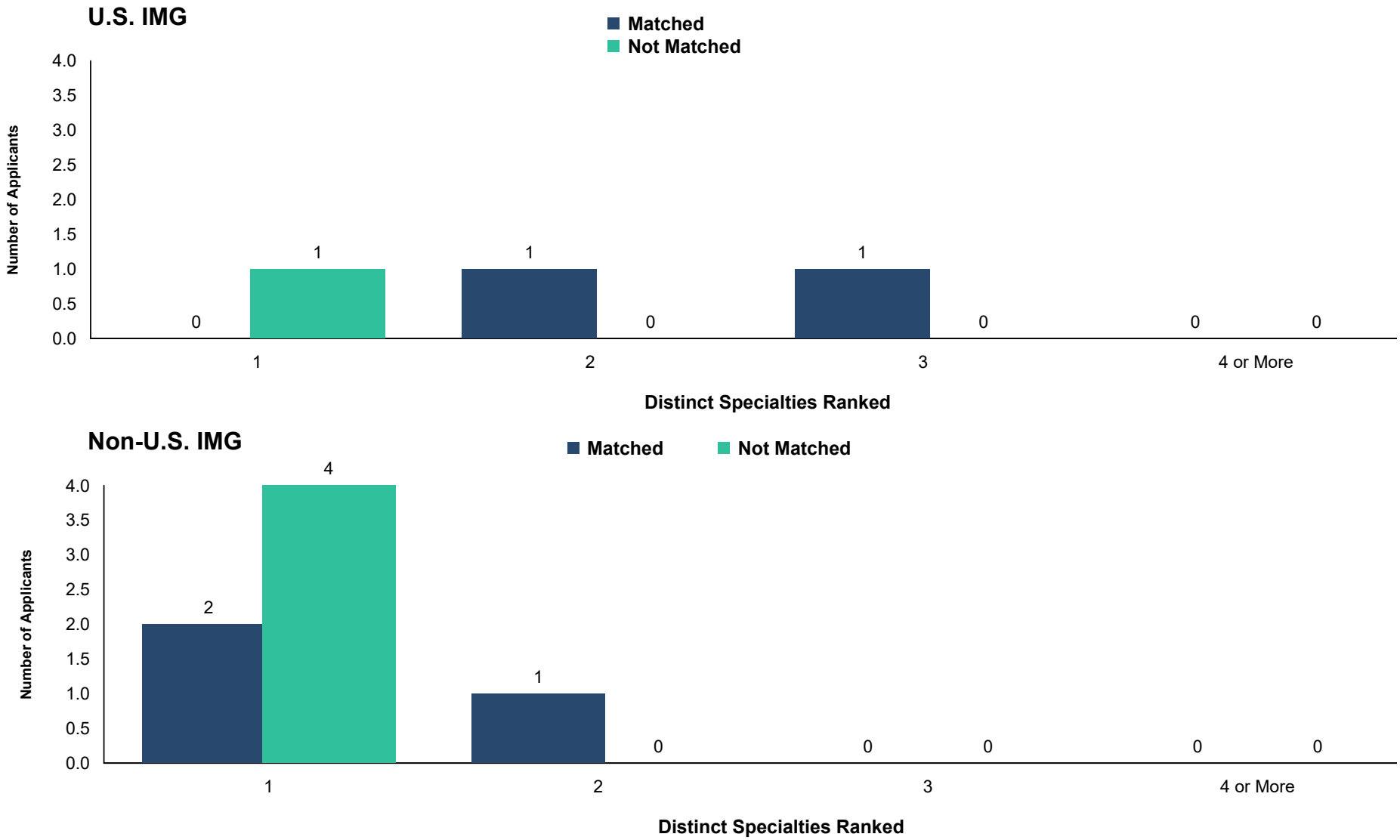
PS Plastic Surgery

Table PS-1 Summary Statistics
Plastic Surgery

Measure	U.S. IMGs		Non-U.S. IMGs	
	Matched (n=2)	Unmatched (n=1)	Matched (n=3)	Unmatched (n=4)
1. Mean number of contiguous ranks	1.0	3.0	3.3	5.8
2. Mean number of distinct specialties ranked	2.5	1.0	1.3	1.0
3. Mean USMLE Step 1 score	234	226	226	220
4. Mean USMLE Step 2 score	244	253	235	225
5. Mean number of research experiences	4.0	2.0	4.0	5.5
6. Mean number of abstracts, presentations, and publications	23.0	23.0	55.7	34.0
7. Mean number of work experiences	3.5	5.0	7.3	2.0
8. Mean number of volunteer experiences	4.0	3.0	6.0	1.0
9. Percentage who have a Ph.D. degree	0.0	0.0	33.3	25.0
10. Percentage who have another graduate degree	0.0	0.0	33.3	25.0

Note: Only applicants who gave consent to use their information in research are included.
Source. NRMP Data Warehouse

Chart PS-1 Number of Distinct Specialties Ranked by International Medical Graduates

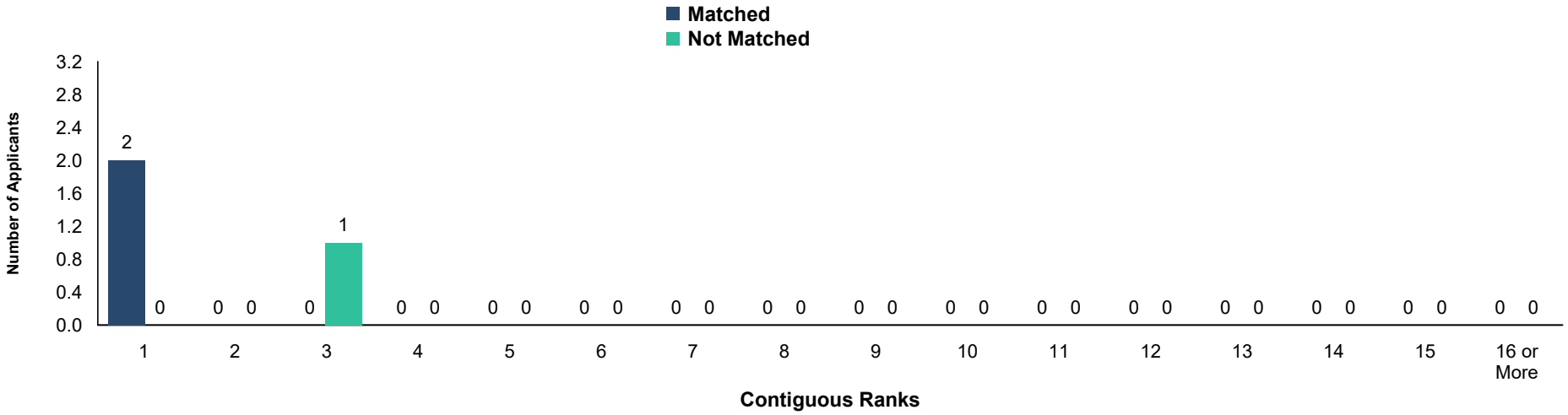


Source: NRMP Data Warehouse

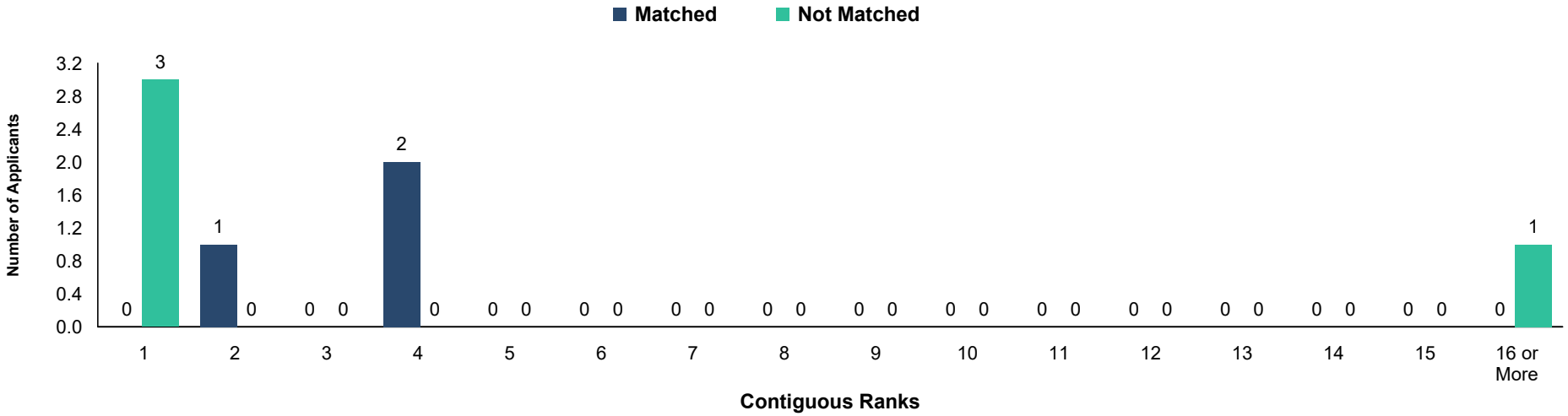
Chart PS-2

Number of Contiguous Ranks of International Medical Graduates

U.S. IMG



Non-U.S. IMG

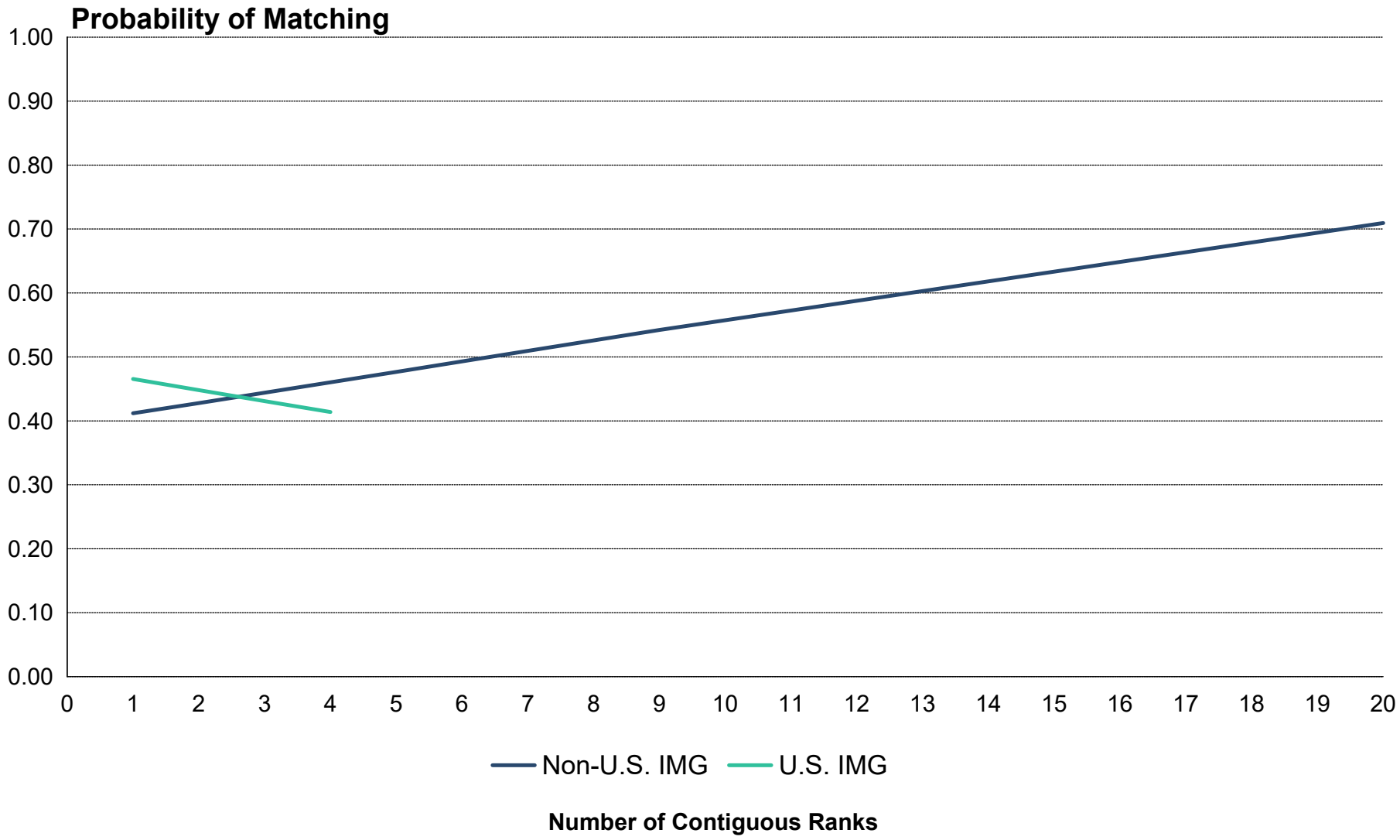


Source: NRMP Data Warehouse

Graph PS-1

Probability of International Medical Graduates Matching to Preferred Specialty by Number of Contiguous Ranks

Plastic Surgery



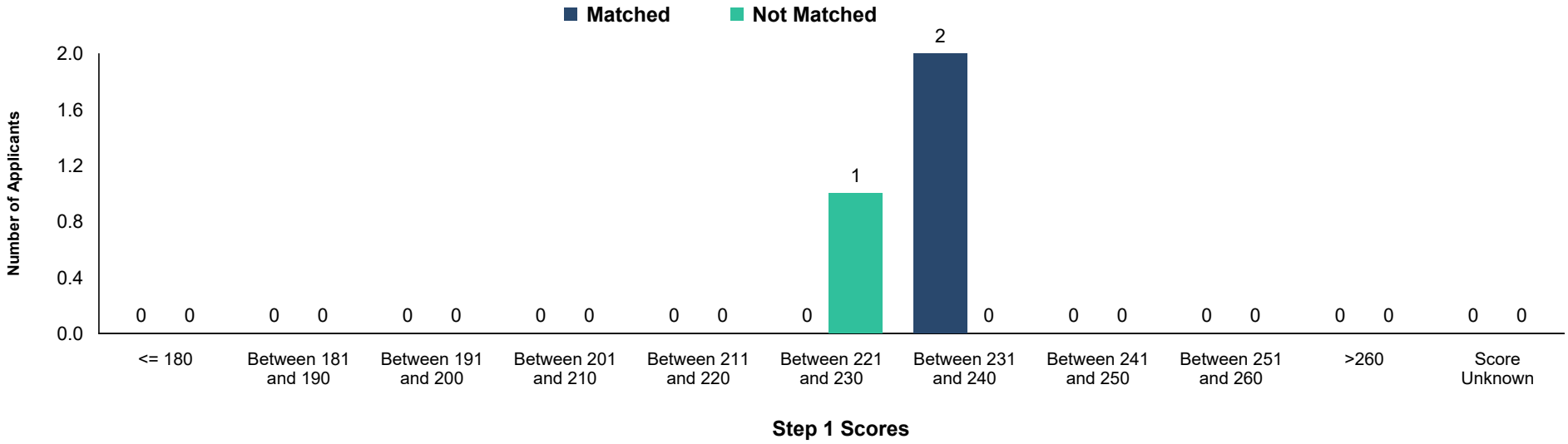
Source: NRMP Data Warehouse. Note: Probabilities calculated based on 2014-2016 applicants

Chart PS-3

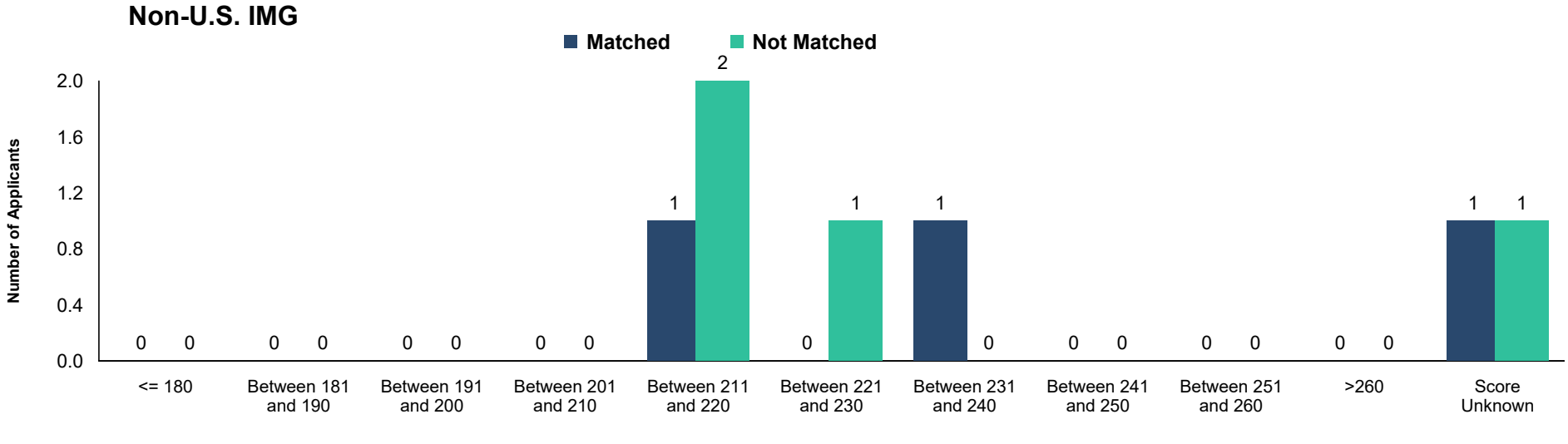
USMLE Step 1 Scores of International Medical Graduates

Plastic Surgery

U.S. IMG



Non-U.S. IMG

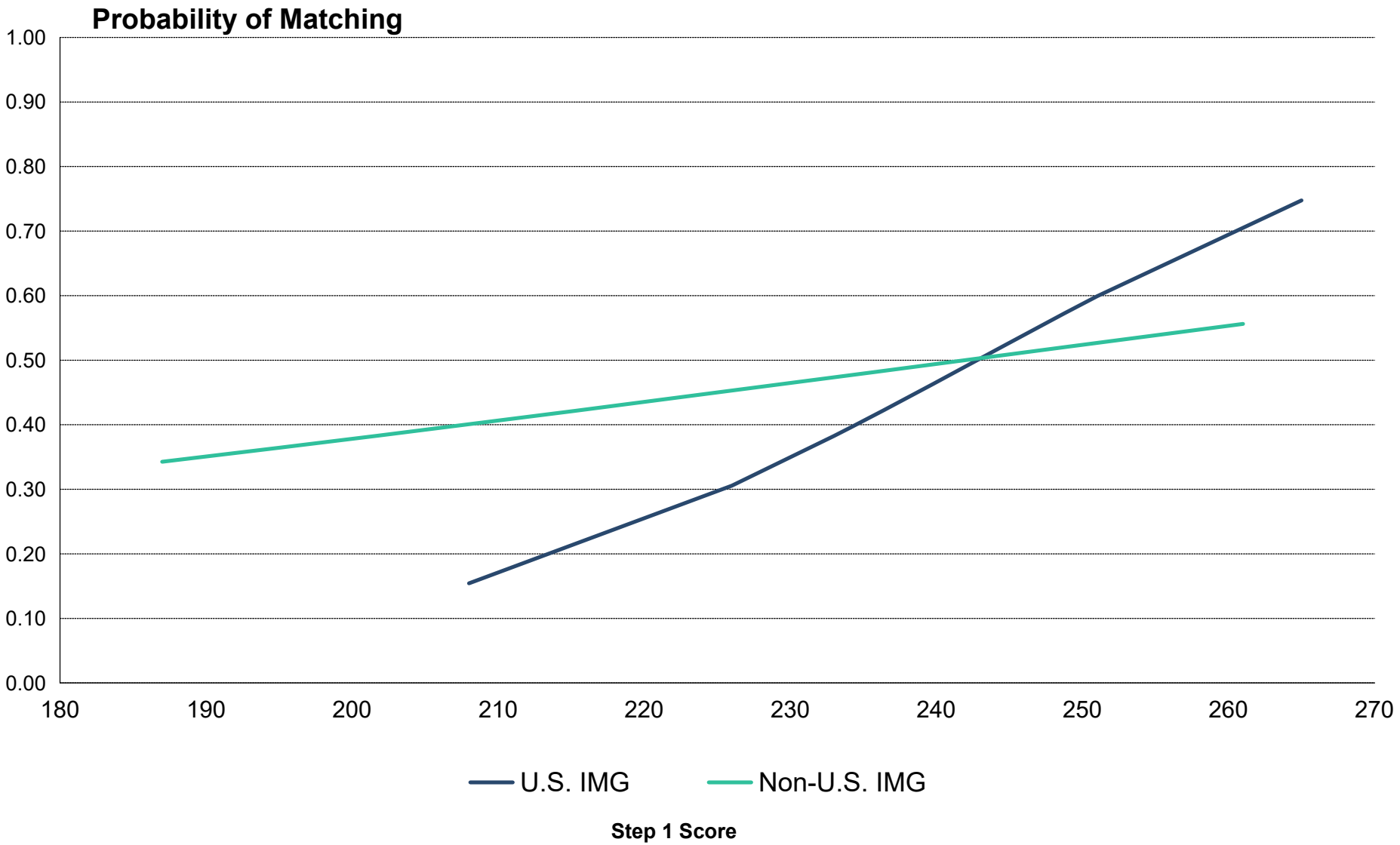


Source: NRMP Data Warehouse

Graph PS-2

Probability of International Medical Graduates Matching to Preferred Specialty by USMLE Step 1 Score

Plastic Surgery

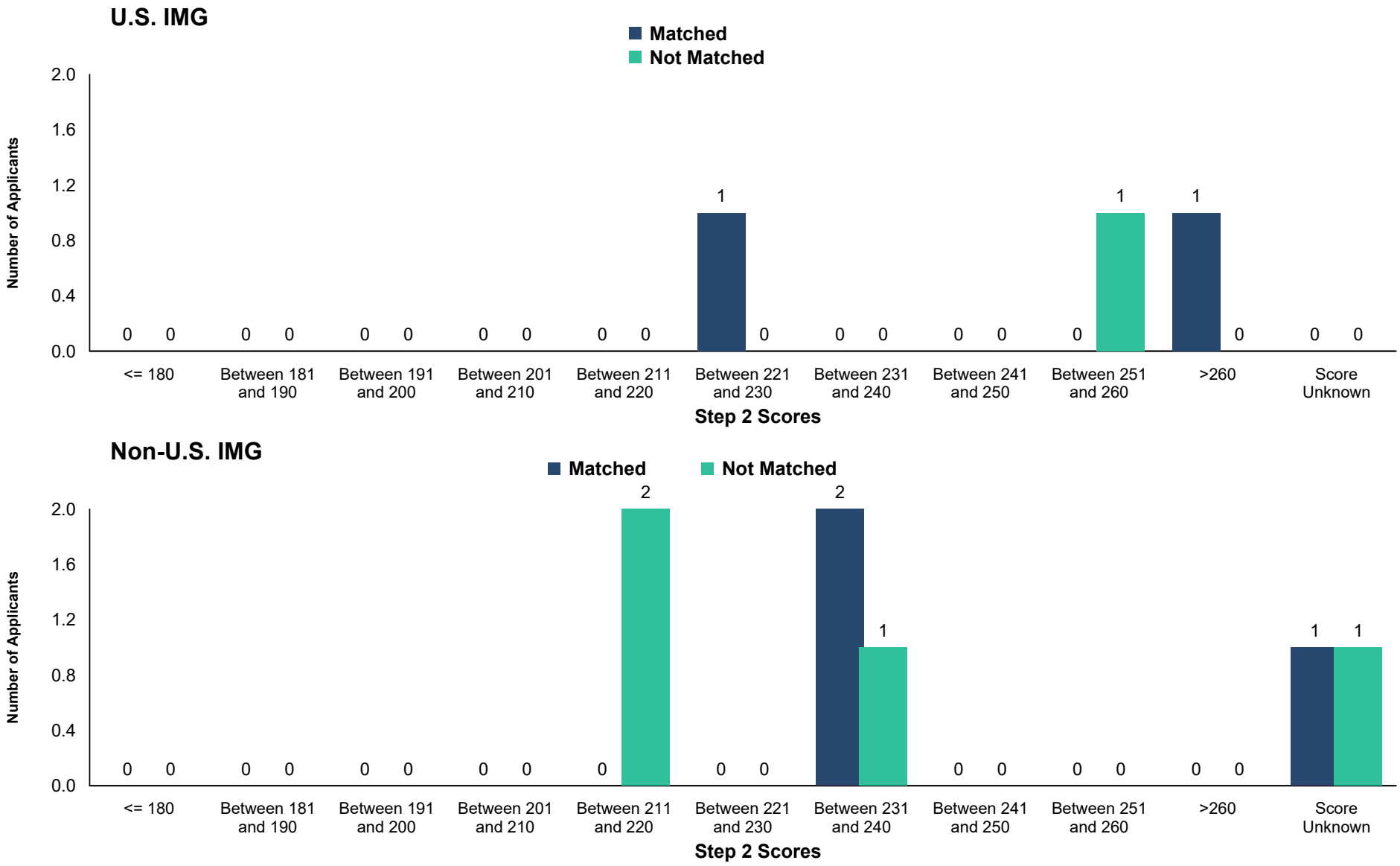


Source: NRMP Data Warehouse. Note: Probabilities calculated based on 2014-2016 applicants.

Chart PS-4

USMLE Step 2 CK Scores of International Medical Graduates

Plastic Surgery

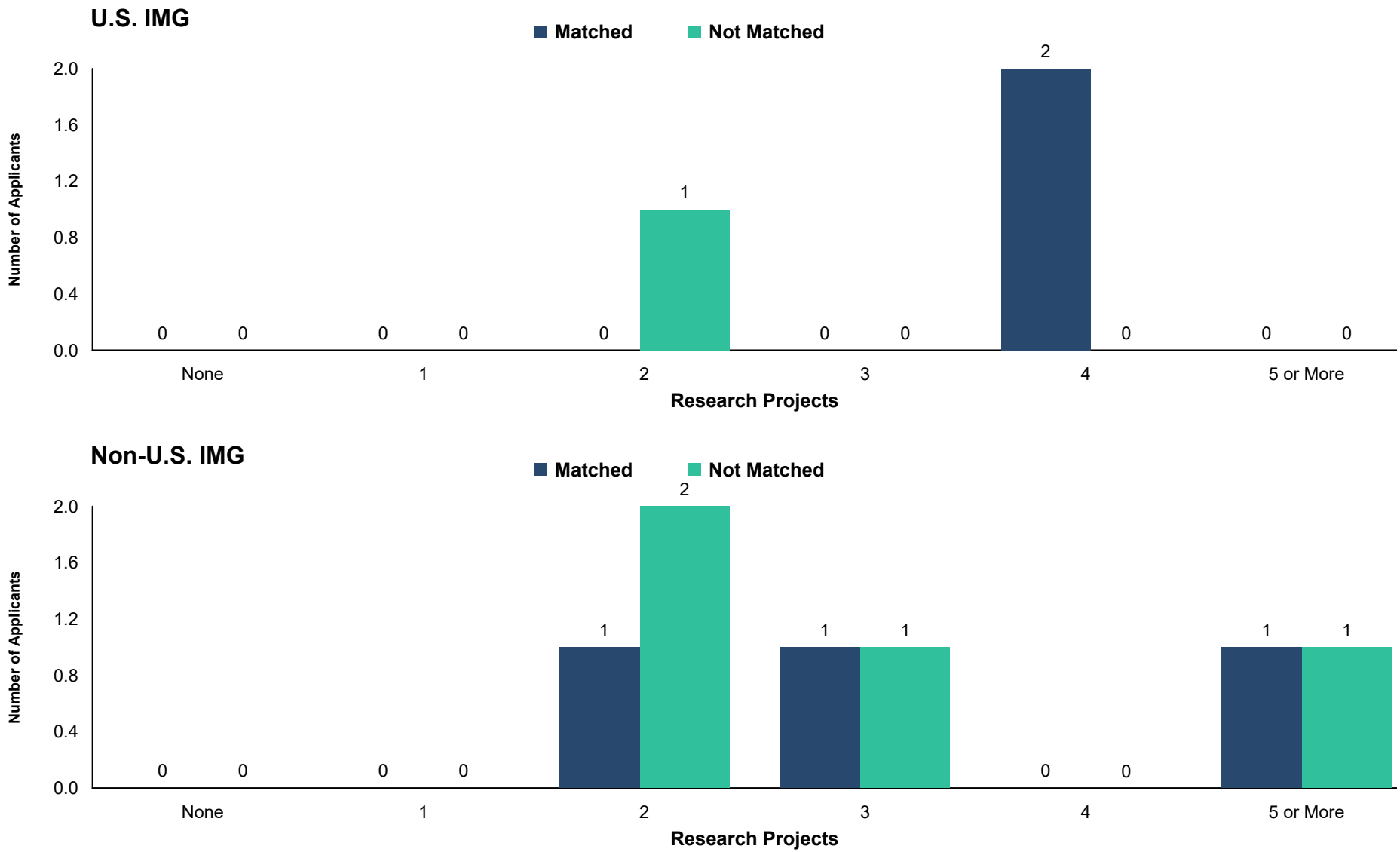


Source: NRMP Data Warehouse

Chart PS-5

Number of Research Projects of International Medical Graduates

Plastic Surgery

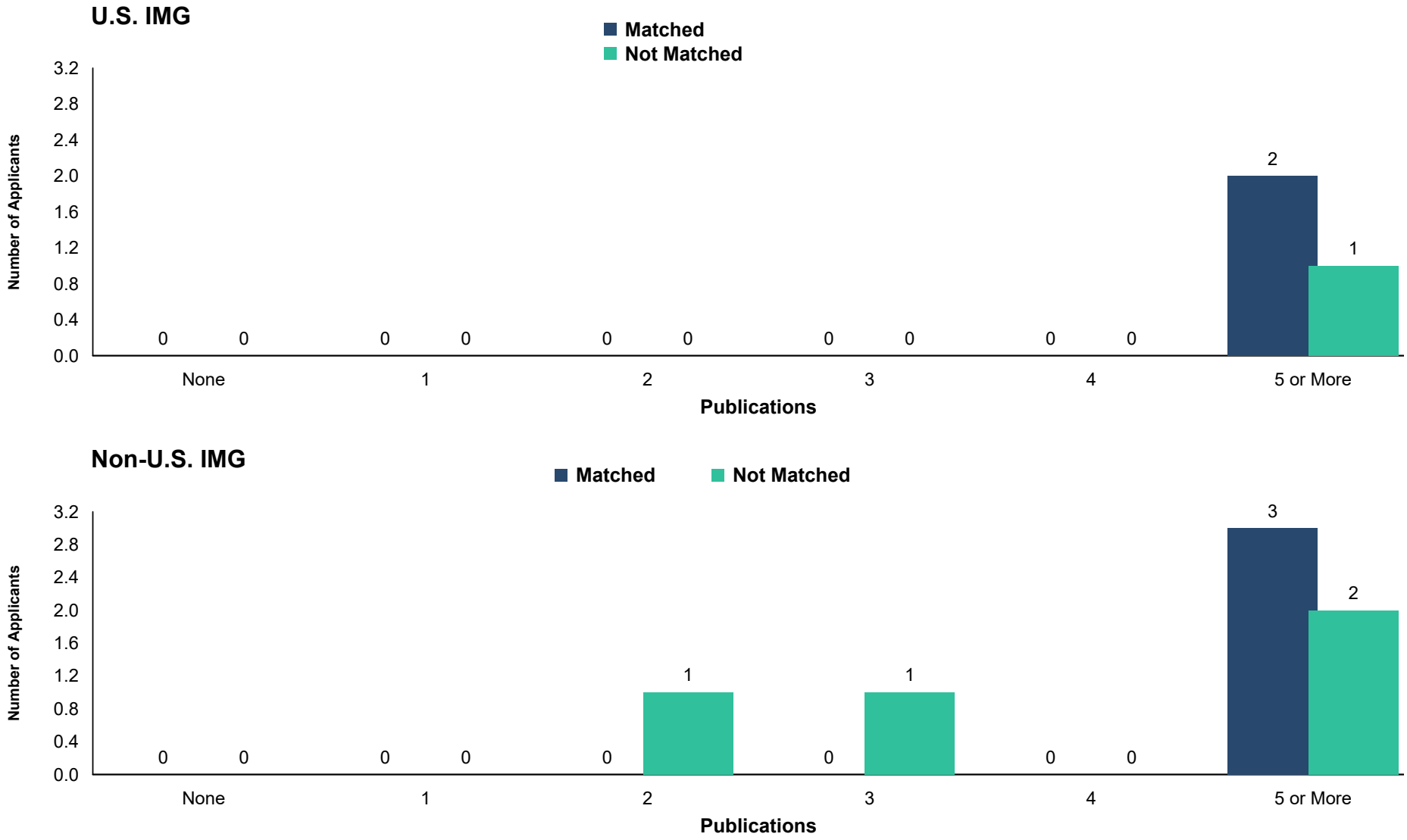


Source: NRMP Data Warehouse

Chart PS-6

Number of Abstracts, Presentations, and Publications of International Medical Graduates

Plastic Surgery

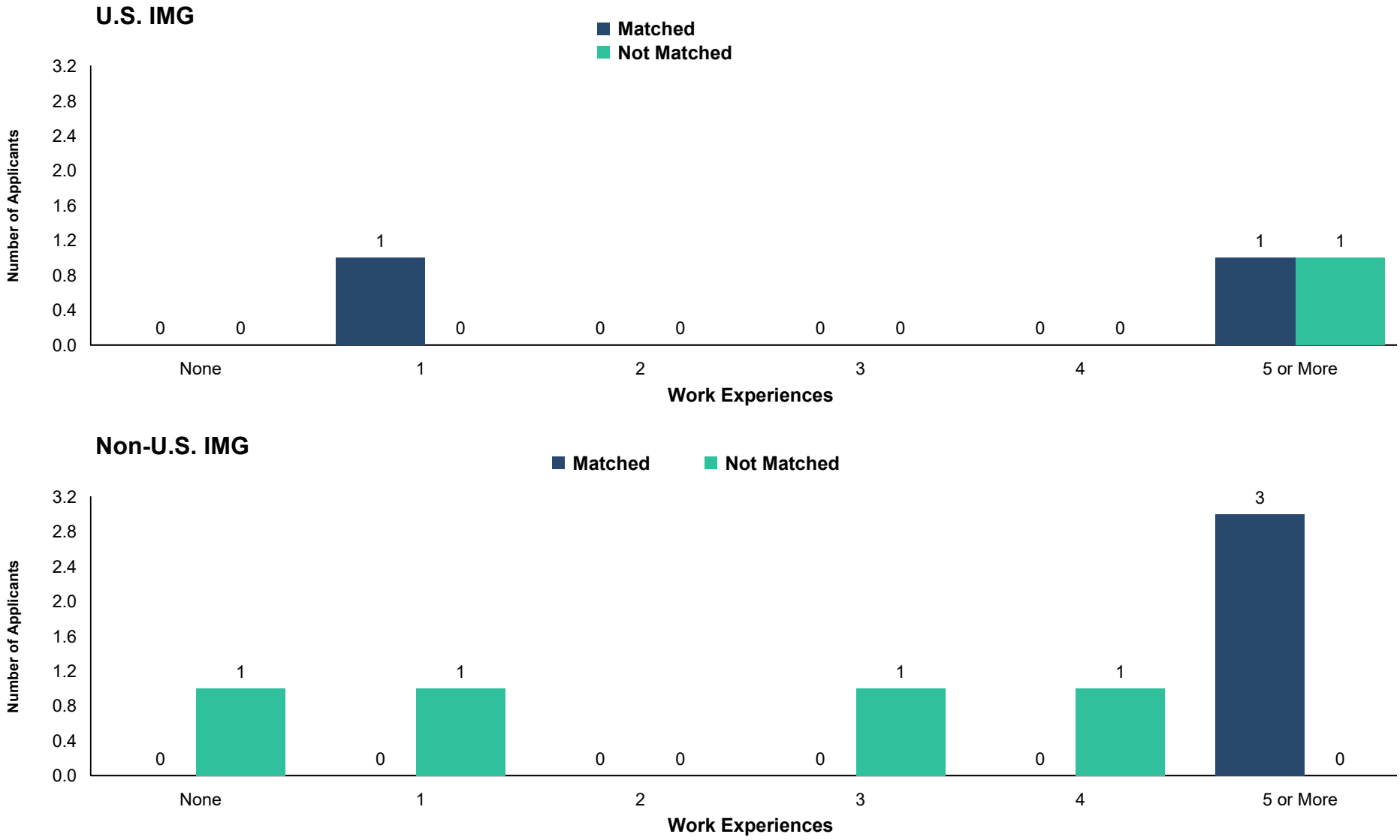


Source: NRMP Data Warehouse

Chart PS-7

Number of Work Experiences of International Medical Graduates

Plastic Surgery

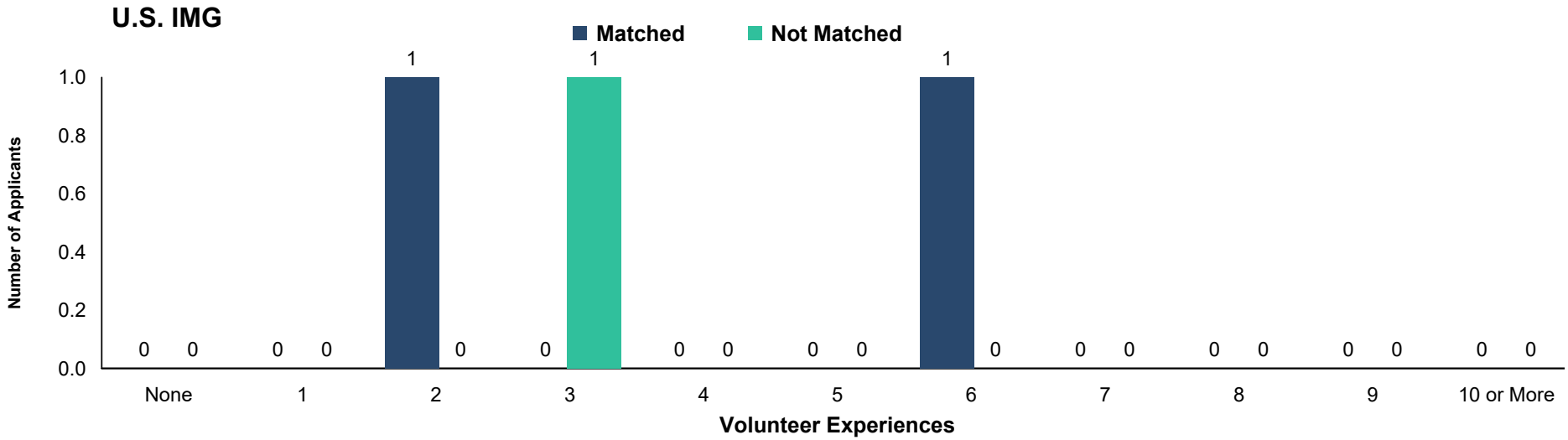


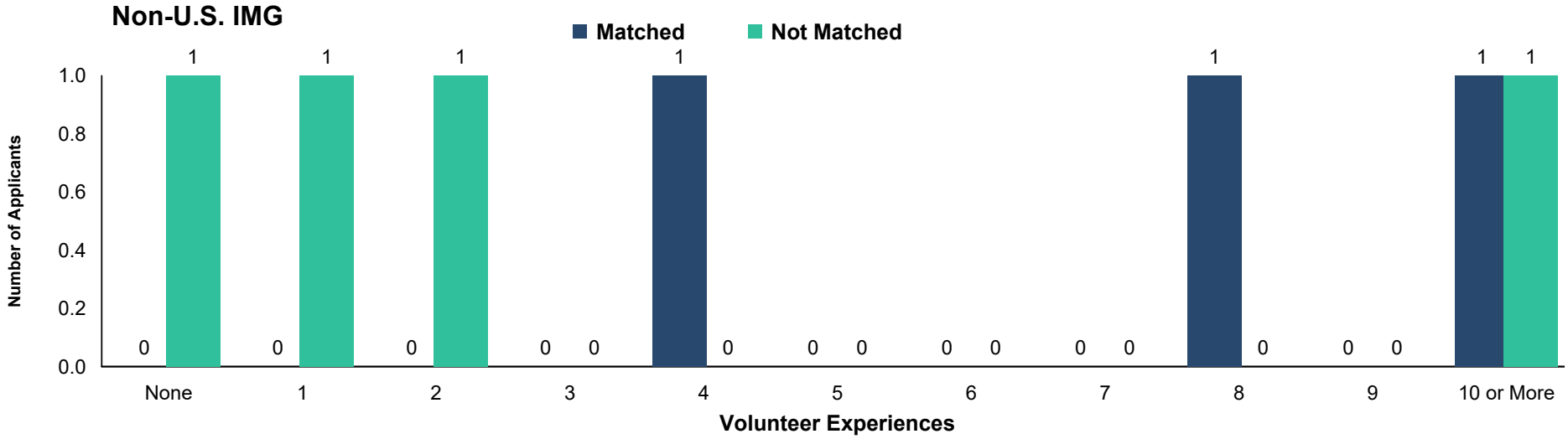
Source: NRMP Data Warehouse

Chart PS-8

Number of Volunteer Experiences of International Medical Graduates

Plastic Surgery





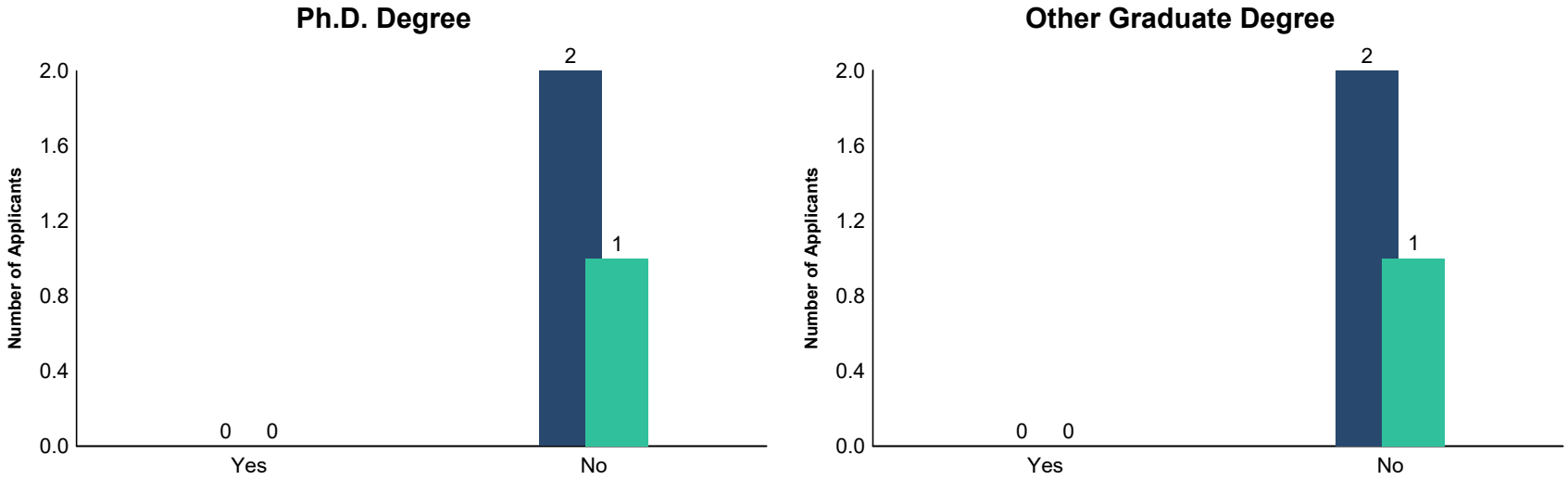
Source: NRMP Data Warehouse

Chart PS-9

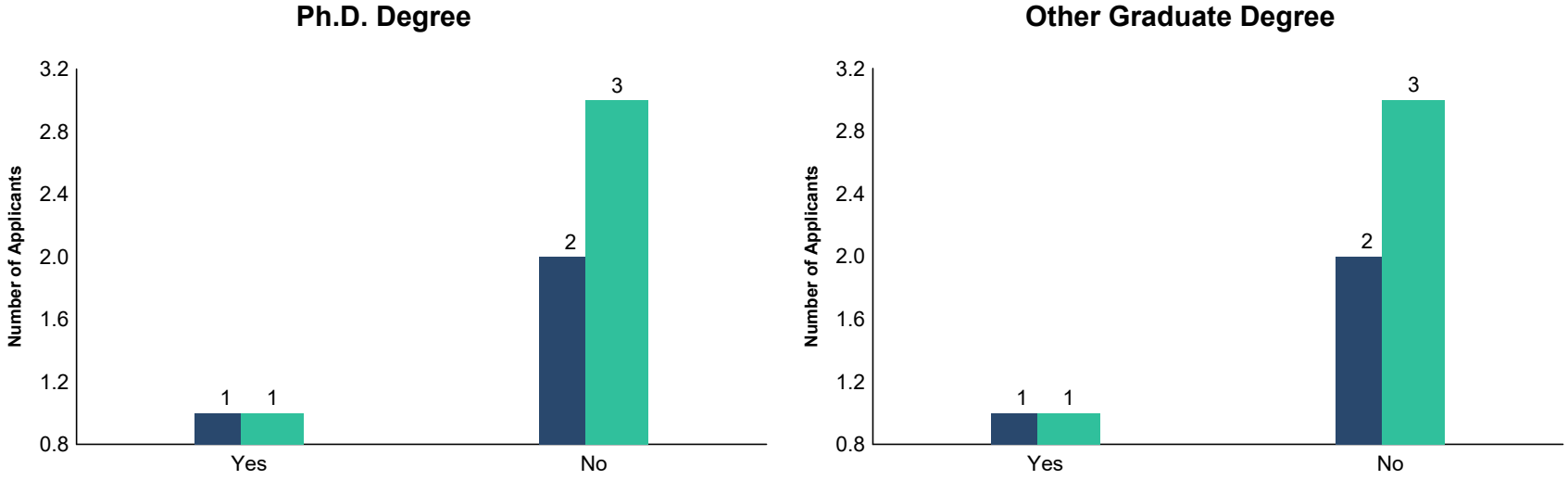
Other Characteristics of International Medical Graduates

Plastic Surgery

U.S. IMG



Non-U.S. IMG



Source: NRMP Data Warehouse

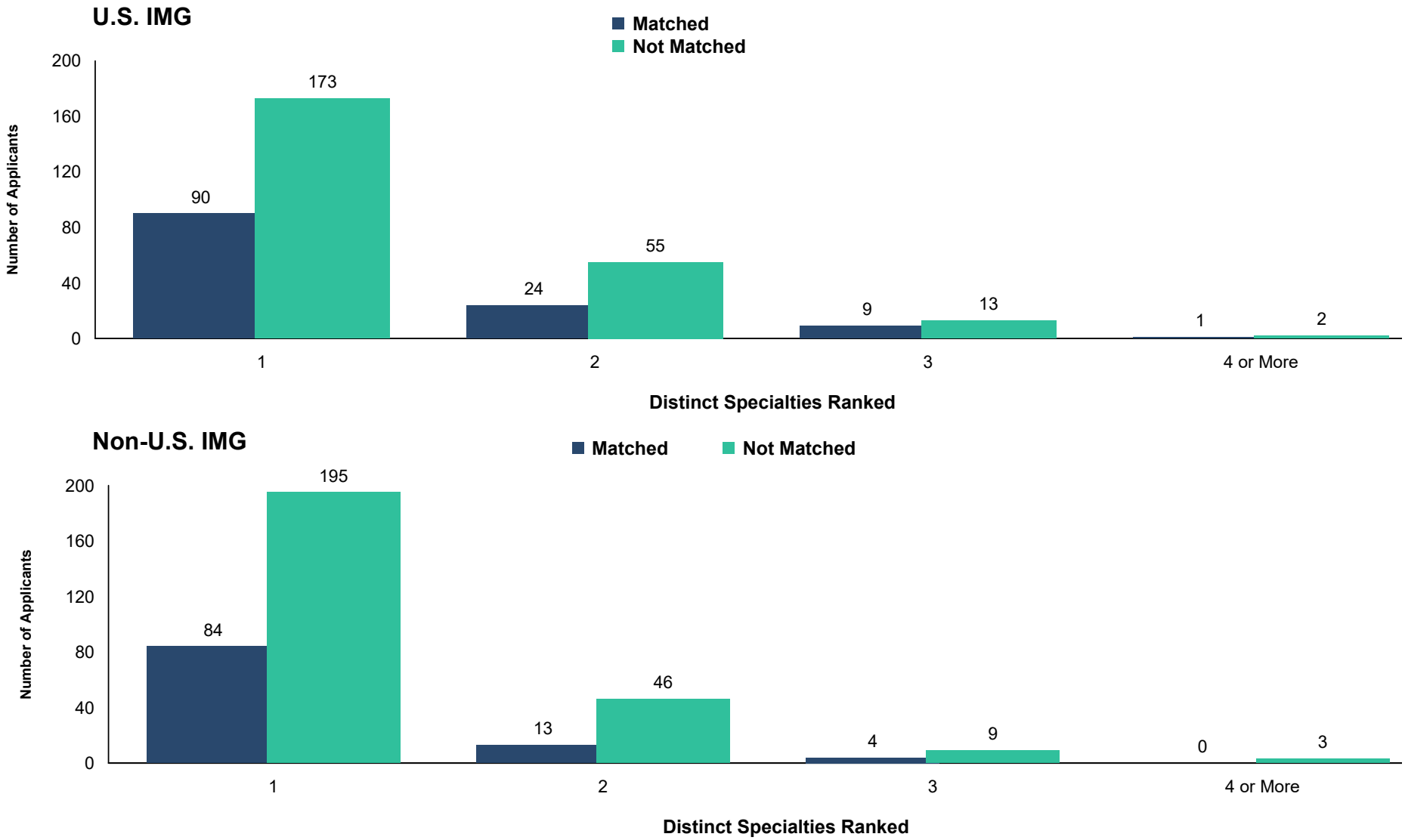
P Psychiatry

Table P-1 Summary Statistics
Psychiatry

Measure	U.S. IMGs		Non-U.S. IMGs	
	Matched (n=124)	Unmatched (n=246)	Matched (n=102)	Unmatched (n=253)
1. Mean number of contiguous ranks	5.5	2.7	5.1	2.8
2. Mean number of distinct specialties ranked	1.4	1.4	1.2	1.3
3. Mean USMLE Step 1 score	217	206	221	214
4. Mean USMLE Step 2 score	227	212	228	221
5. Mean number of research experiences	1.7	3.5	2.5	2.4
6. Mean number of abstracts, presentations, and publications	2.4	2.8	6.8	6.9
7. Mean number of work experiences	3.5	4.9	5.1	6.0
8. Mean number of volunteer experiences	4.1	3.3	3.3	3.5
9. Percentage who have a Ph.D. degree	2.0	0.5	4.4	5.0
10. Percentage who have another graduate degree	24.3	26.5	27.2	24.3

Note: Only applicants who gave consent to use their information in research are included.
Source. NRMP Data Warehouse

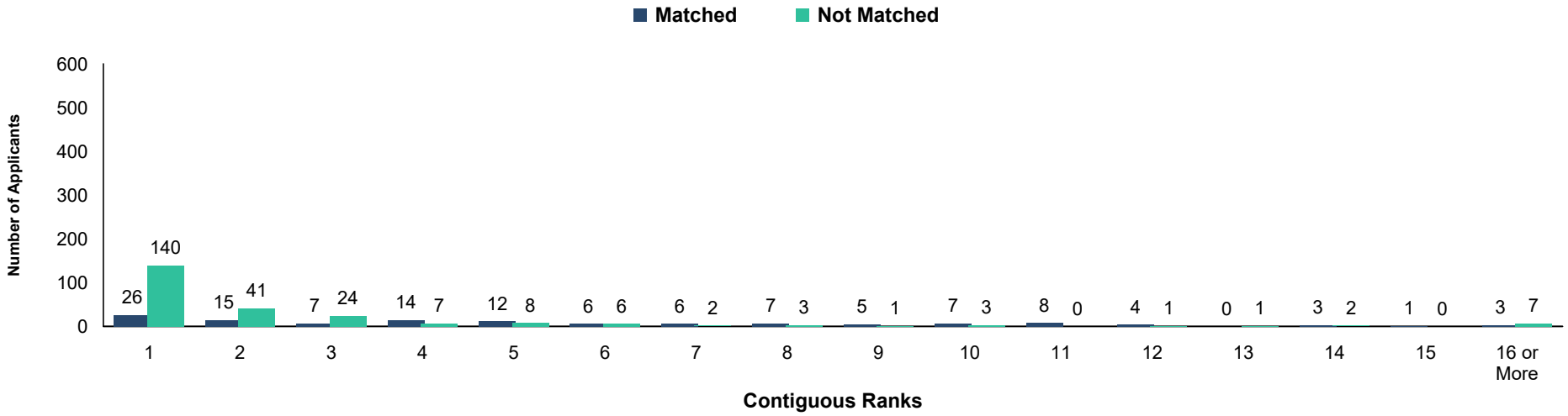
Chart P-1 Number of Distinct Specialties Ranked by International Medical Graduates



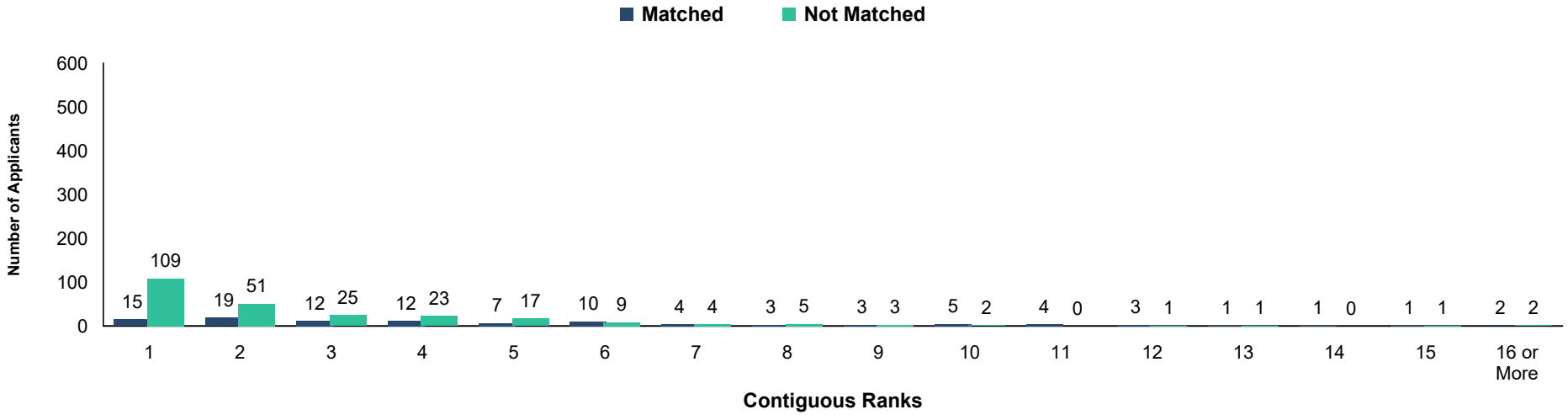
Source: NRMP Data Warehouse

Chart P-2 Number of Contiguous Ranks of International Medical Graduates

U.S. IMG



Non-U.S. IMG

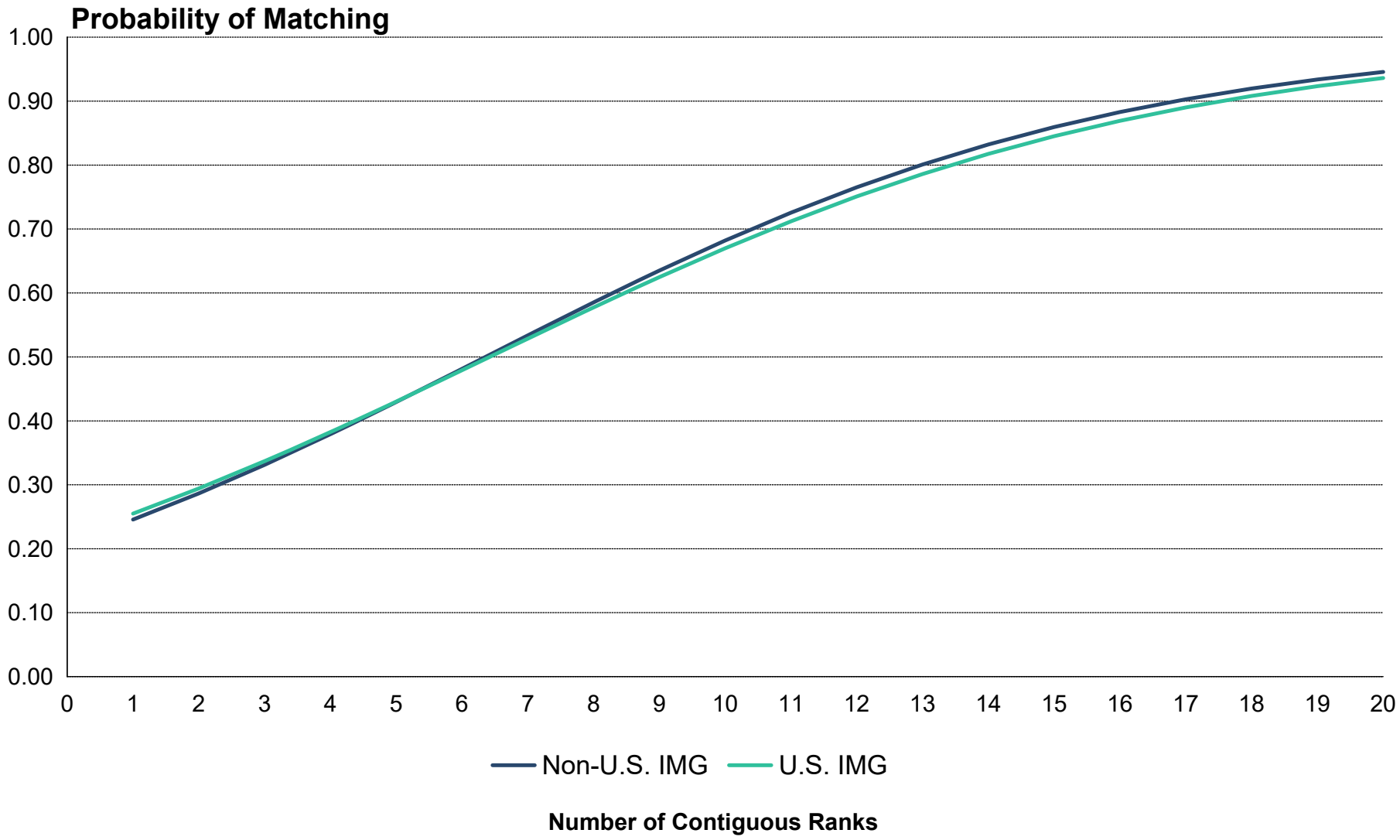


Source: NRMP Data Warehouse

Graph P-1

Probability of International Medical Graduates Matching to Preferred Specialty by Number of Contiguous Ranks

Psychiatry



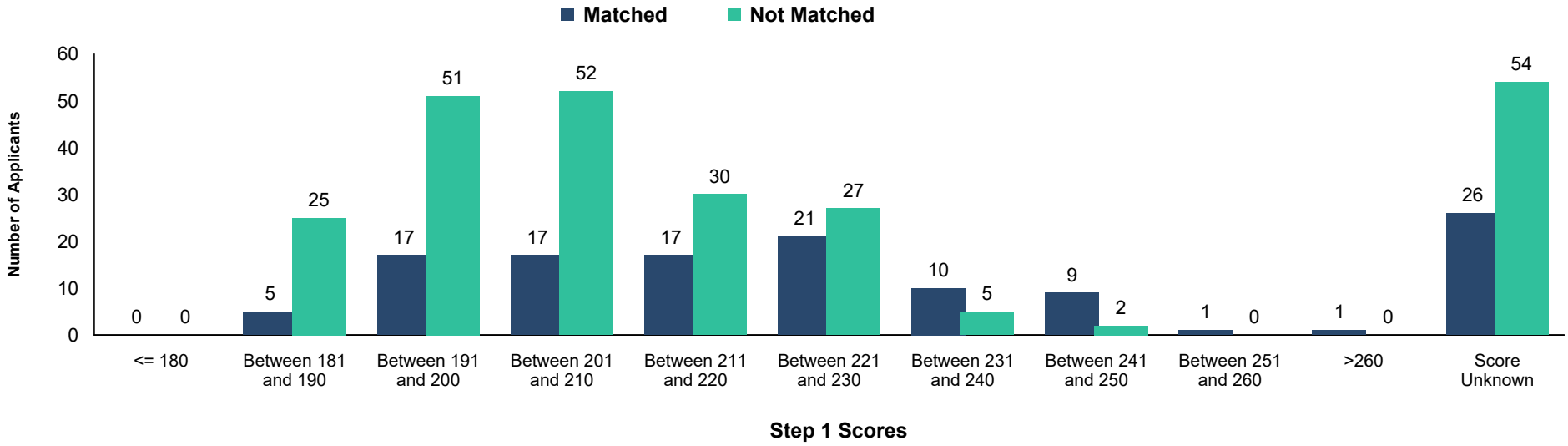
Source: NRMP Data Warehouse. Note: Probabilities calculated based on 2014-2016 applicants

Chart P-3

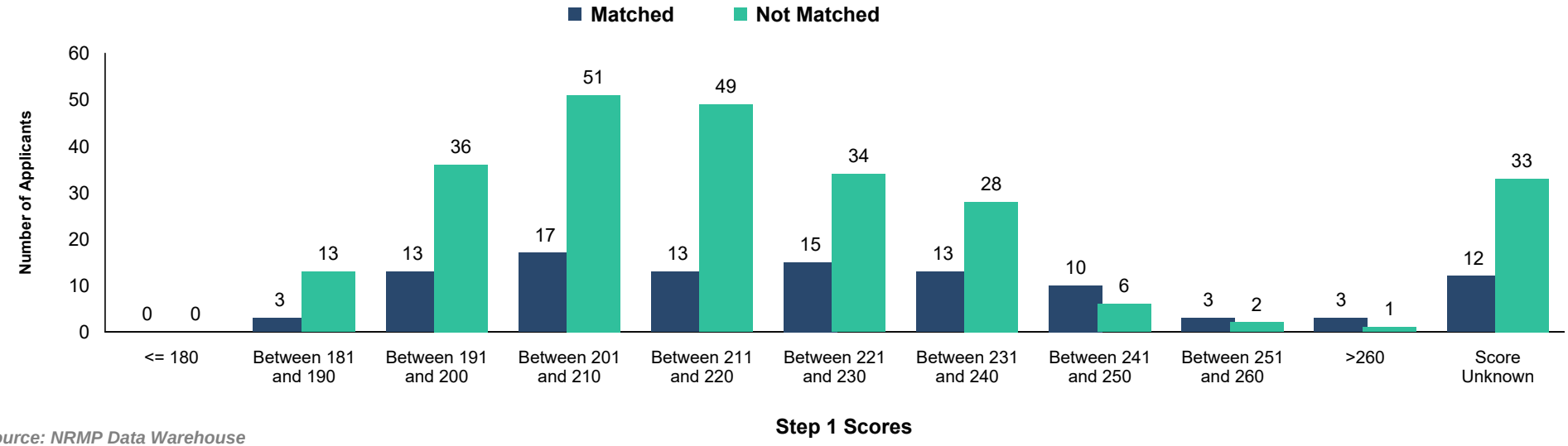
USMLE Step 1 Scores of International Medical Graduates

Psychiatry

U.S. IMG



Non-U.S. IMG

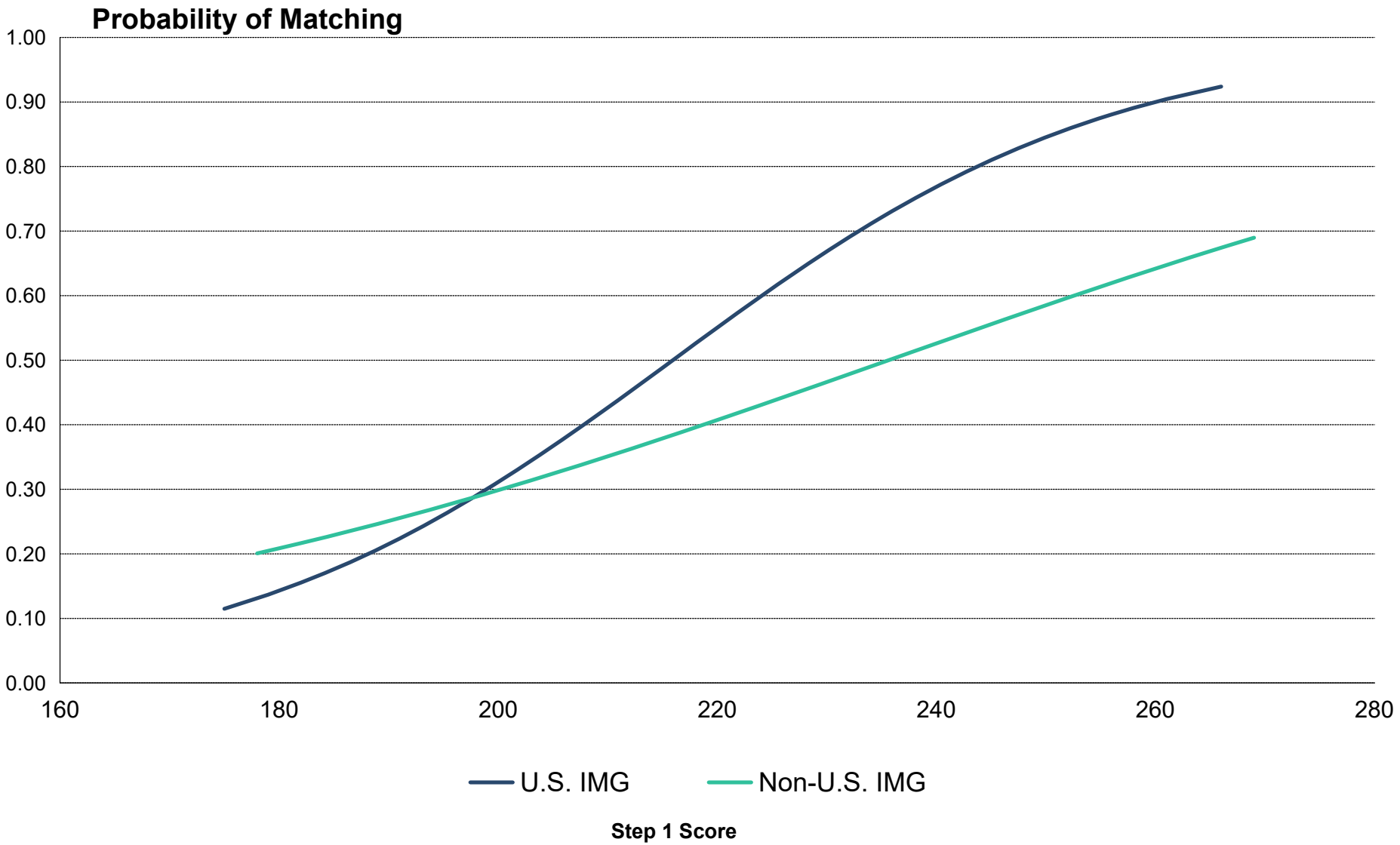


Source: NRMP Data Warehouse

Graph P-2

Probability of International Medical Graduates Matching to Preferred Specialty by USMLE Step 1 Score

Psychiatry

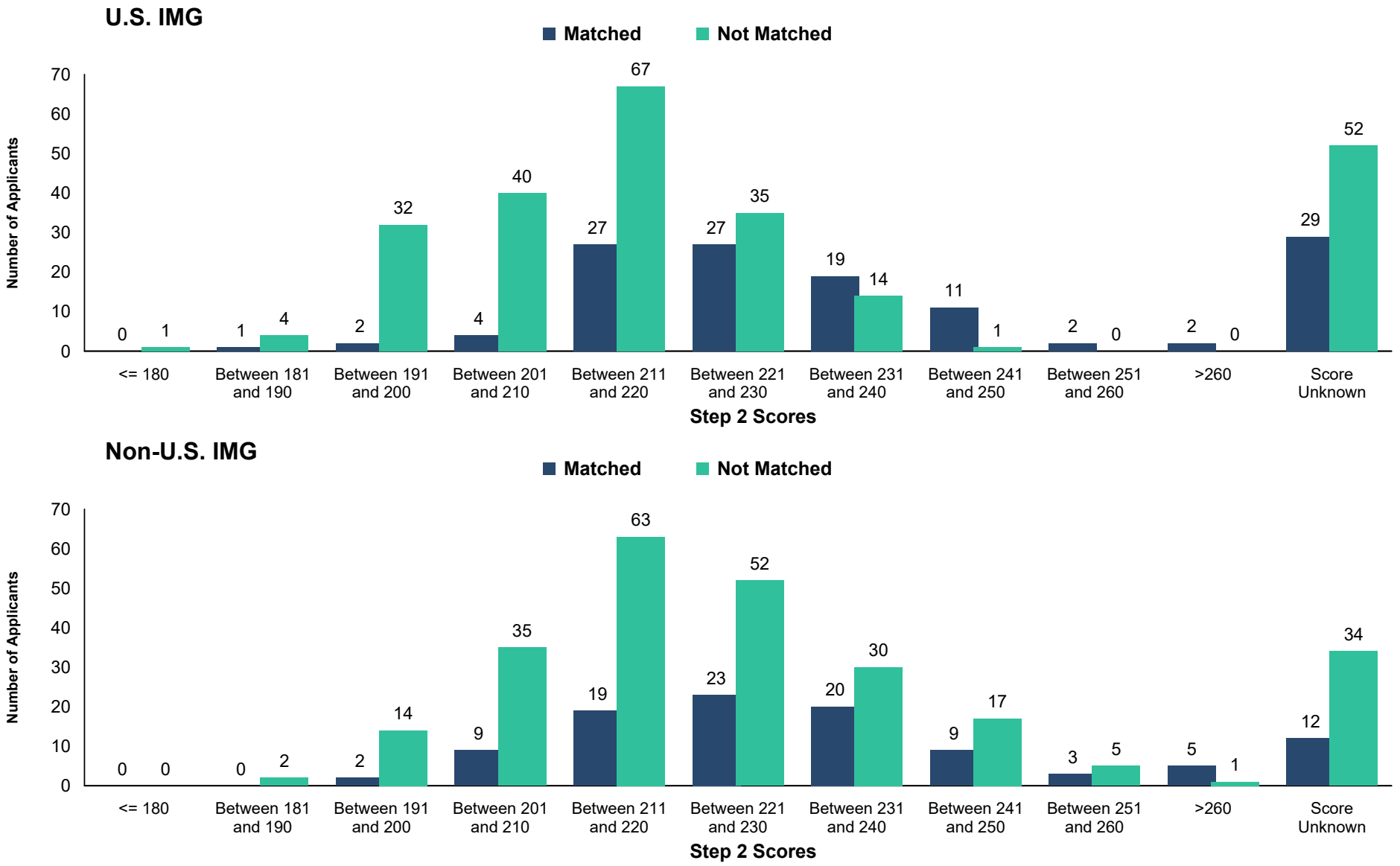


Source: NRMP Data Warehouse. Note: Probabilities calculated based on 2014-2016 applicants.

Chart P-4

USMLE Step 2 CK Scores of International Medical Graduates

Psychiatry

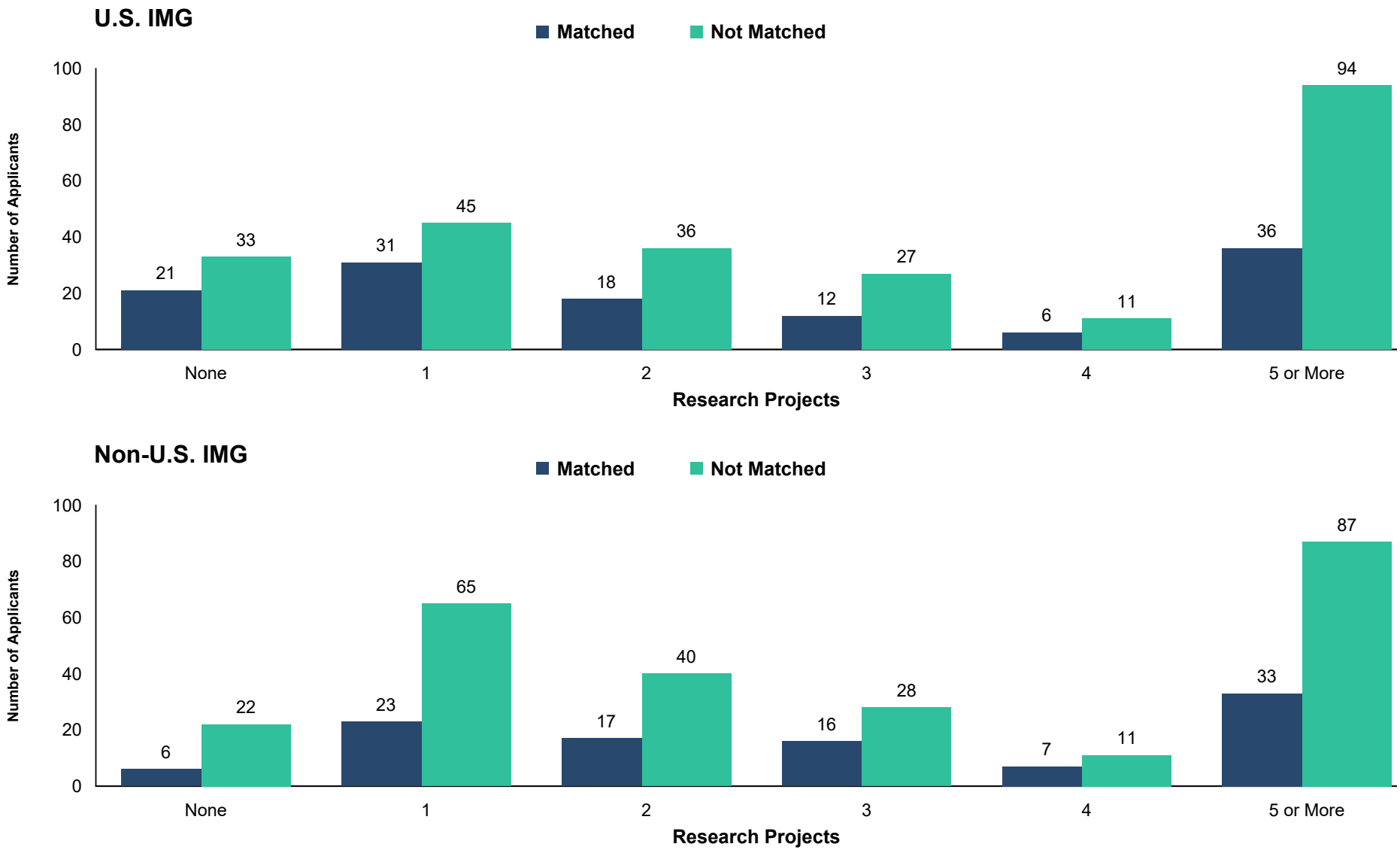


Source: NRMP Data Warehouse

Chart P-5

Number of Research Projects of International Medical Graduates

Psychiatry

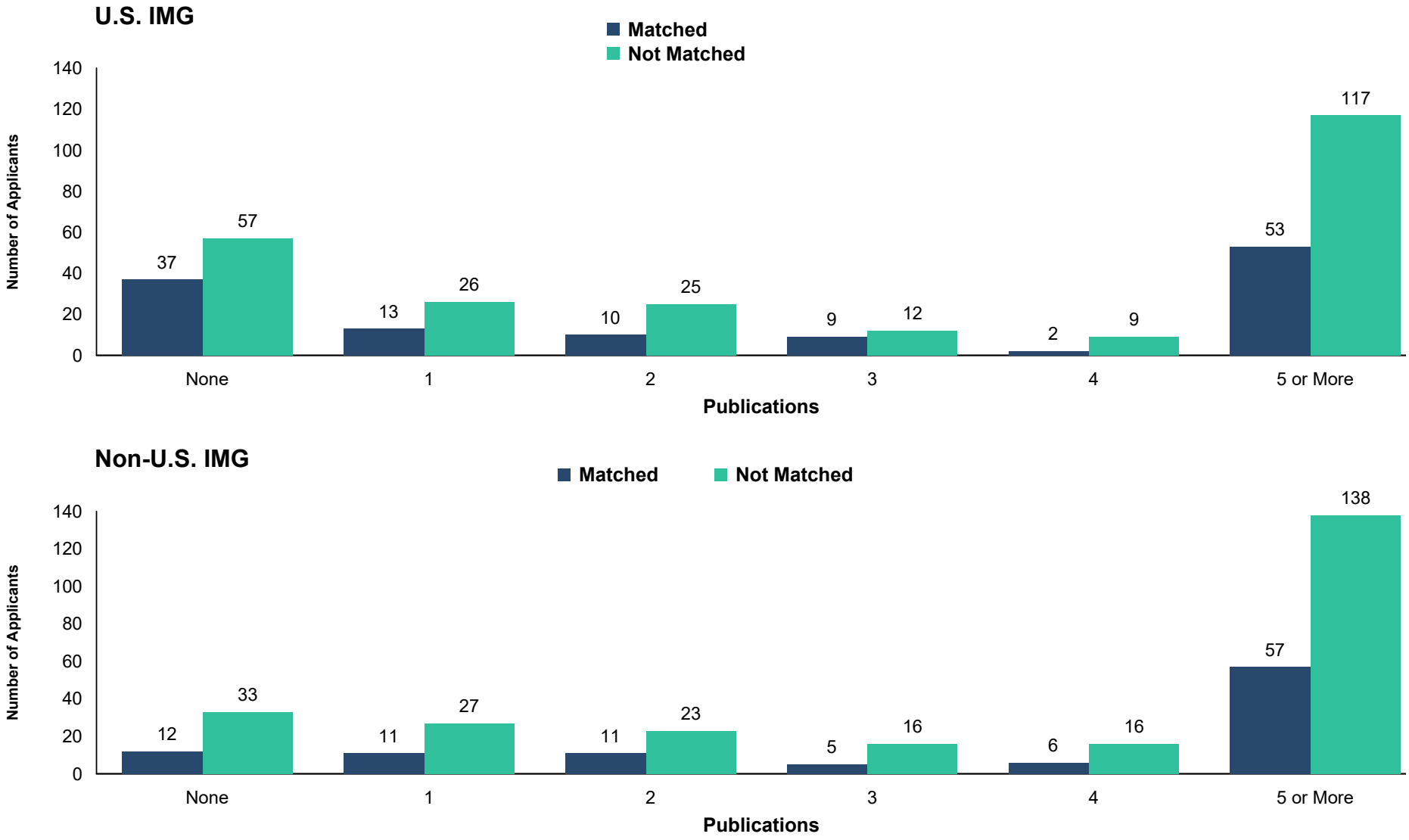


Source: NRMP Data Warehouse

Chart P-6

Number of Abstracts, Presentations, and Publications of International Medical Graduates

Psychiatry

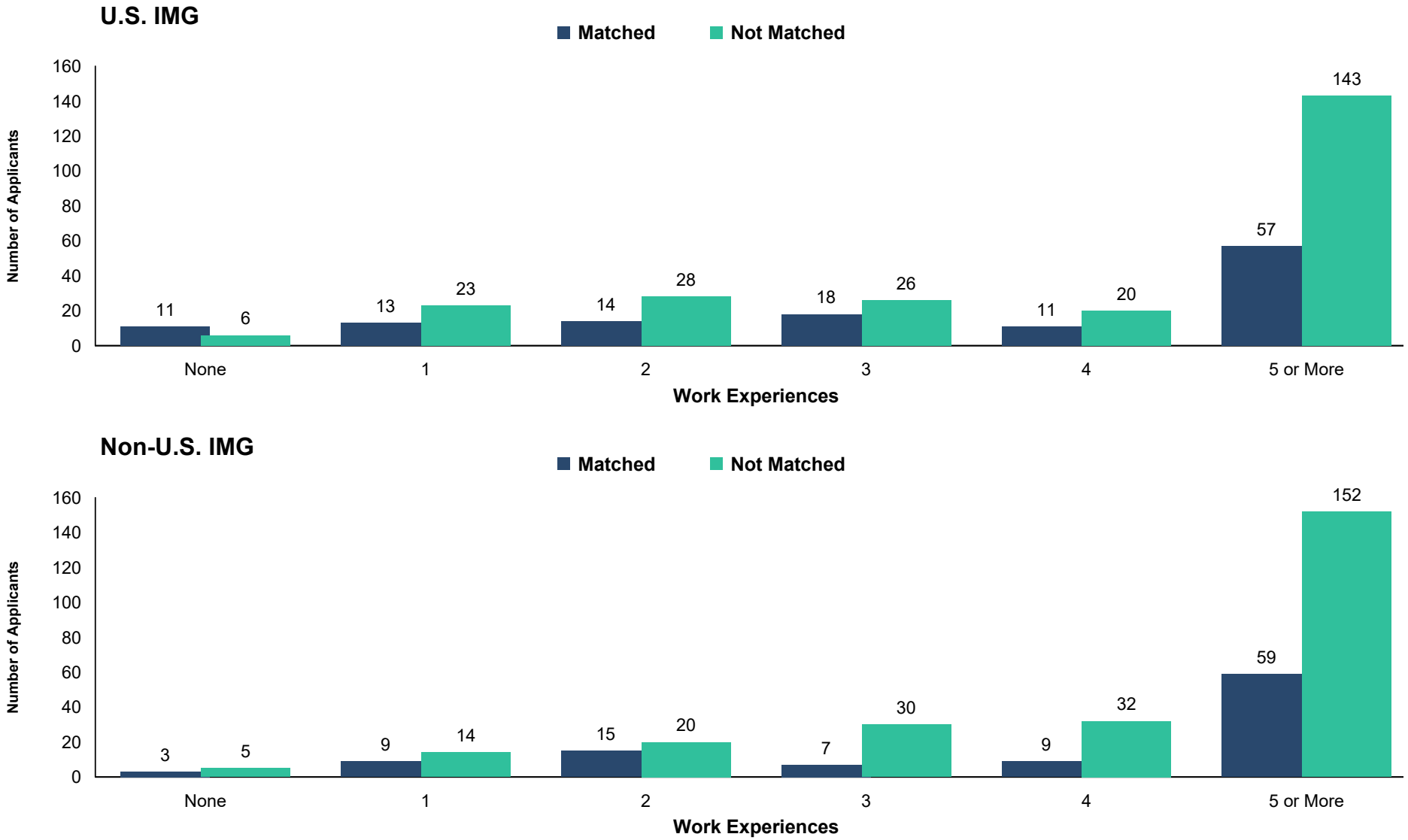


Source: NRMP Data Warehouse

Chart P-7

Number of Work Experiences of International Medical Graduates

Psychiatry

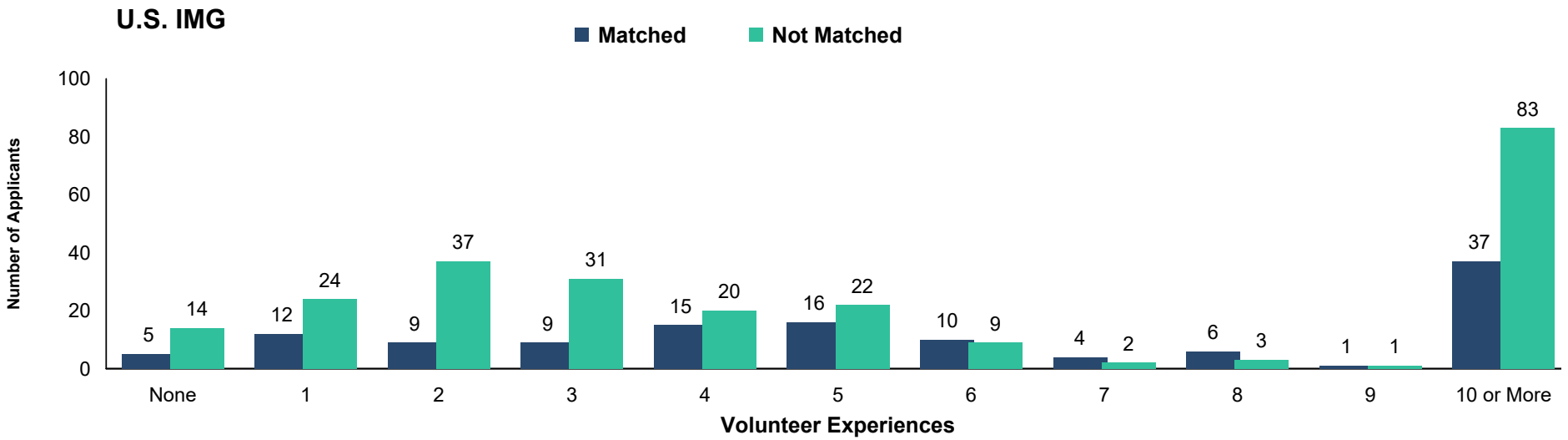


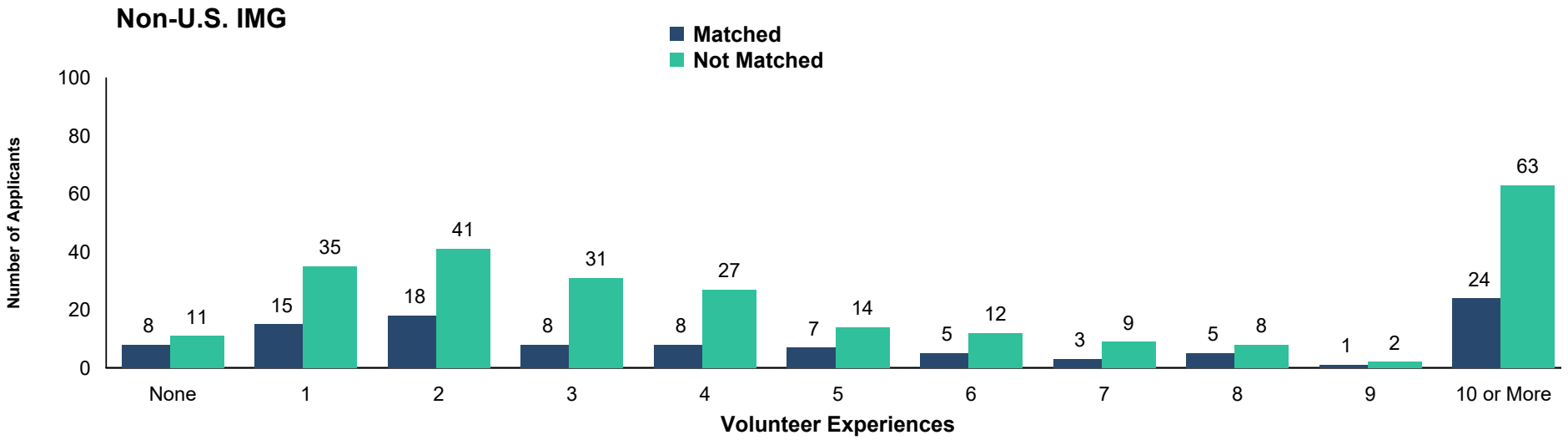
Source: NRMP Data Warehouse

Chart P-8

Number of Volunteer Experiences of International Medical Graduates

Psychiatry



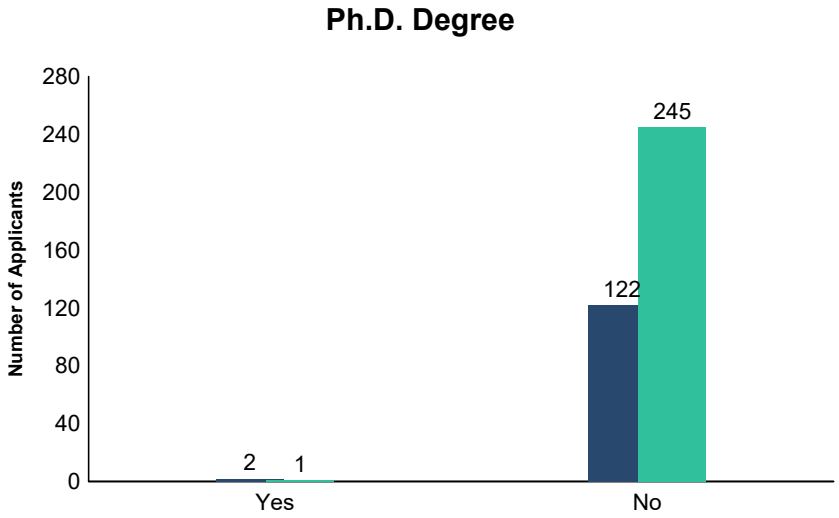


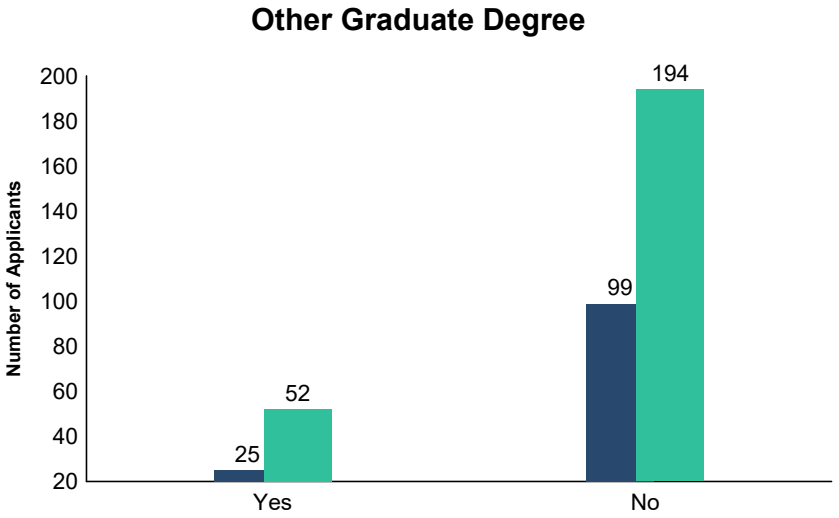
Source: NRMP Data Warehouse

Chart P-9 Other Characteristics of International Medical Graduates

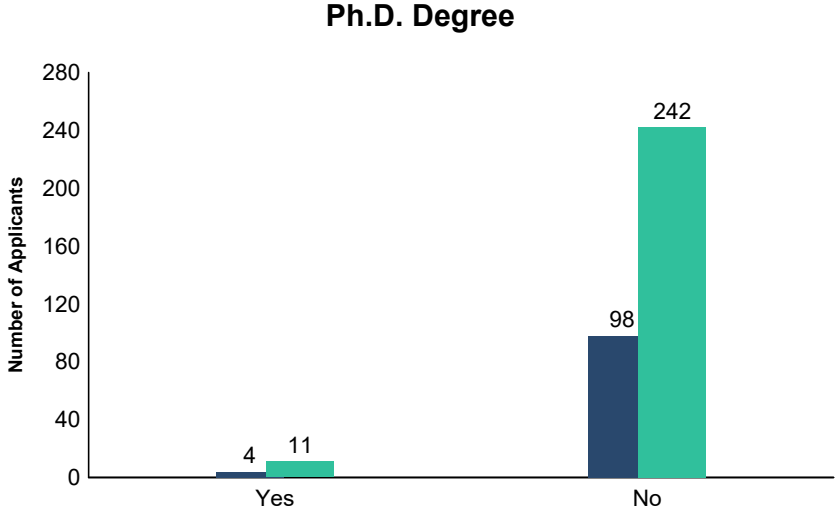
Psychiatry

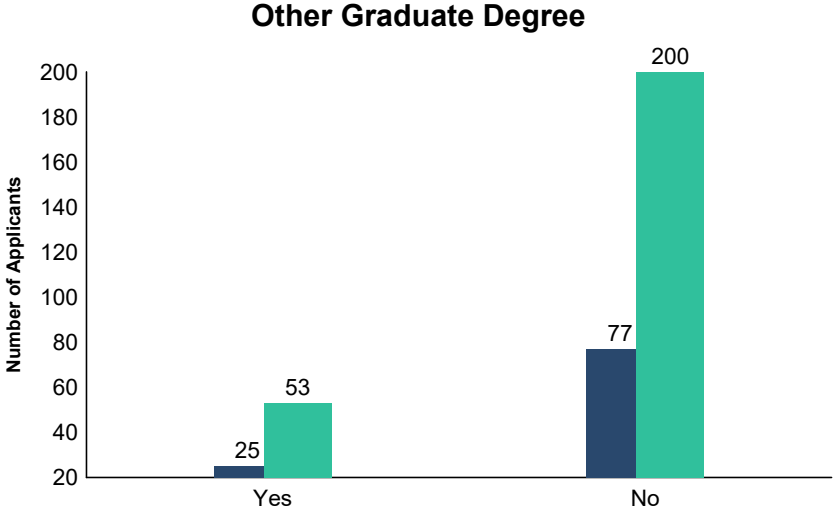
U.S. IMG





Non-U.S. IMG





Source: NRMP Data Warehouse

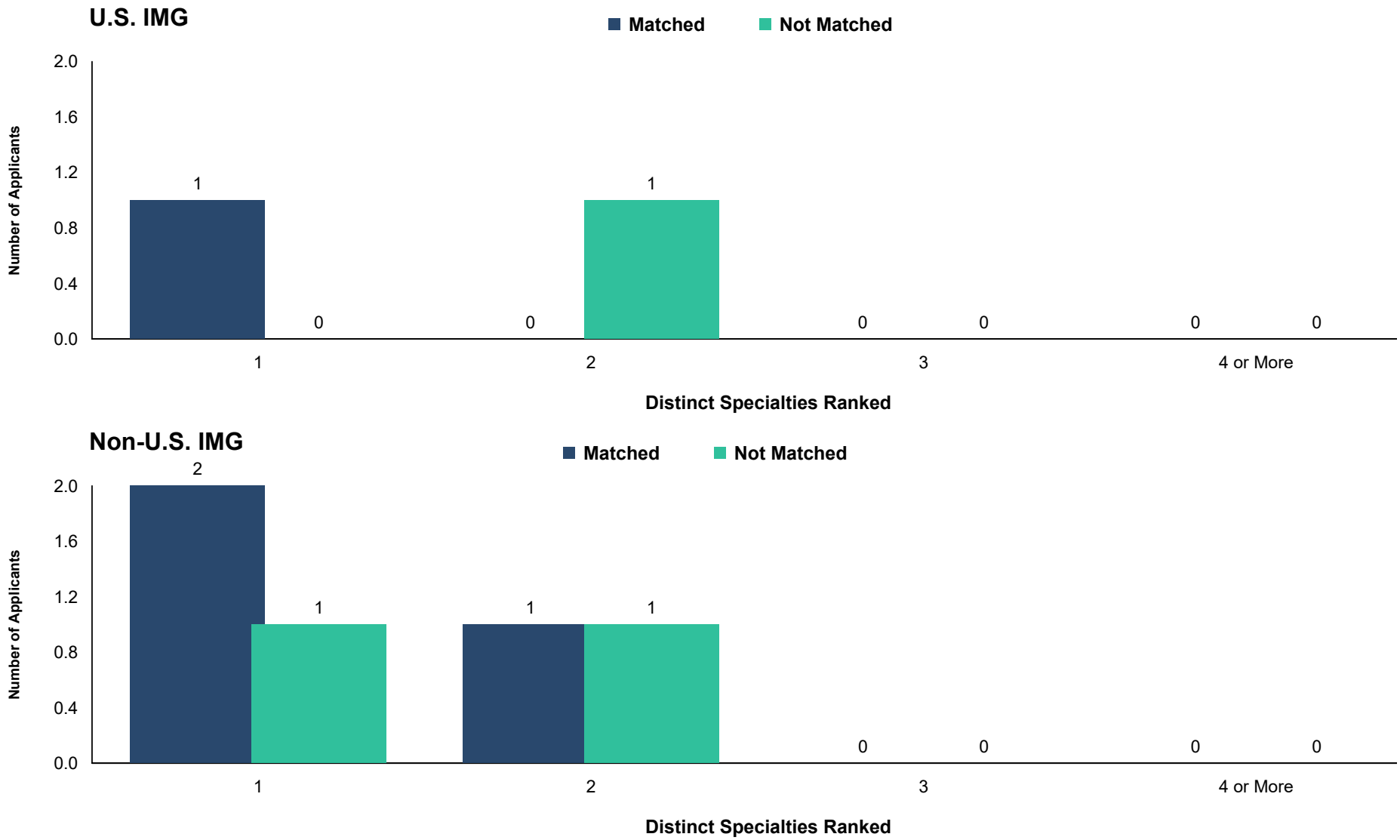
RO Radiation Oncology

Table RO-1 Summary Statistics
Radiation Oncology

Measure	U.S. IMGs		Non-U.S. IMGs	
	Matched (n=1)	Unmatched (n=1)	Matched (n=3)	Unmatched (n=3)
1. Mean number of contiguous ranks	9.0	1.0	4.3	2.3
2. Mean number of distinct specialties ranked	1.0	2.0	1.3	2.7
3. Mean USMLE Step 1 score	241	245	238	221
4. Mean USMLE Step 2 score	256	253	242	220
5. Mean number of research experiences	3.0	1.0	4.0	2.5
6. Mean number of abstracts, presentations, and publications	3.0	5.0	8.5	13.5
7. Mean number of work experiences	3.0	3.0	4.0	1.0
8. Mean number of volunteer experiences	4.0	3.0	5.5	0.5
9. Percentage who have a Ph.D. degree	0.0	0.0	0.0	50.0
10. Percentage who have another graduate degree	0.0	0.0	33.3	0.0

Note: Only applicants who gave consent to use their information in research are included.
Source. NRMP Data Warehouse

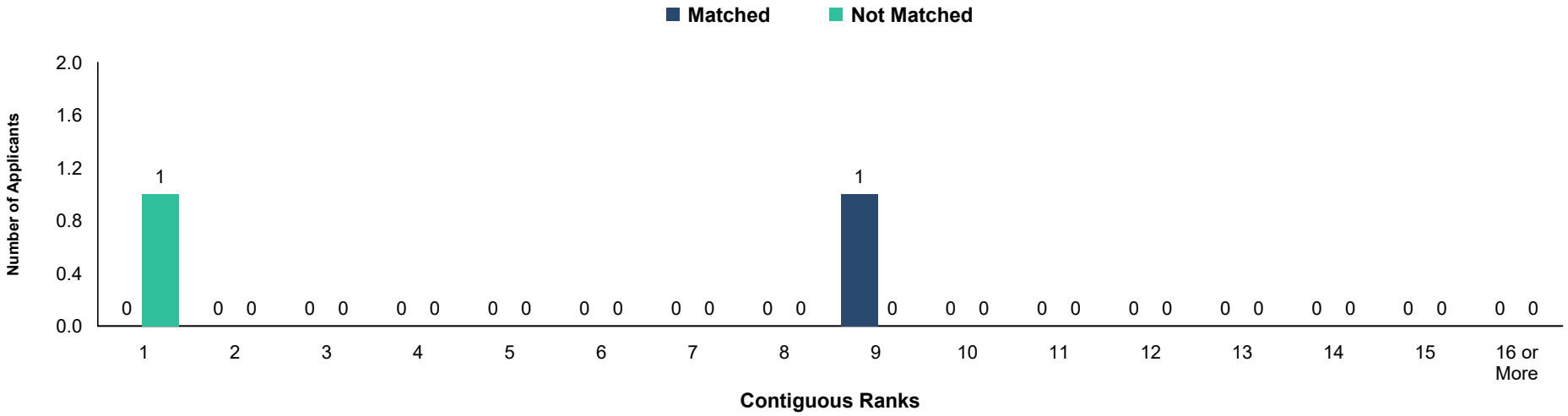
Chart RO-1 Number of Distinct Specialties Ranked by International Medical Graduates



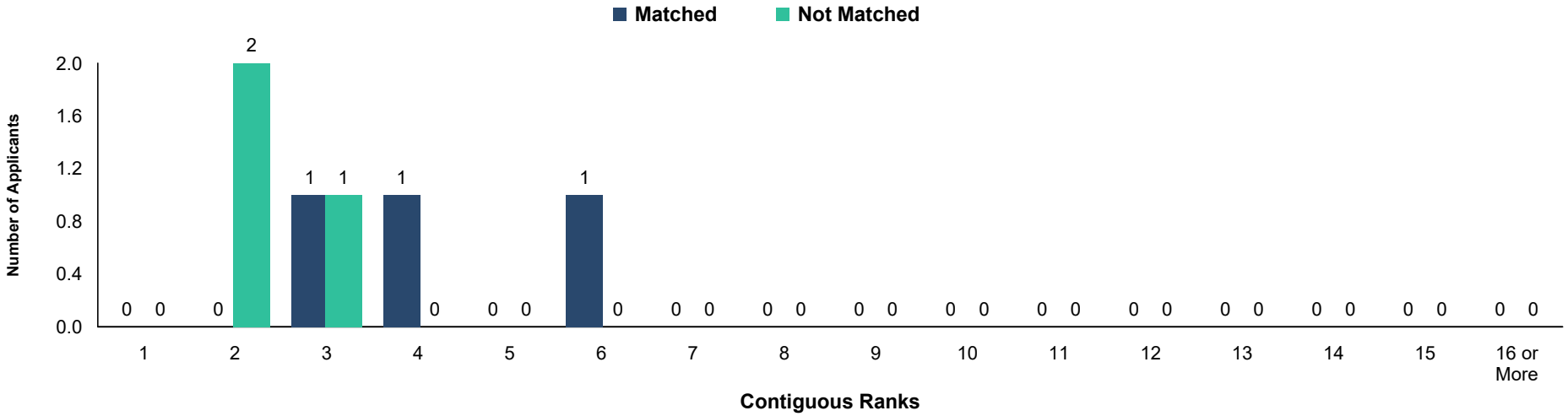
Source: NRMP Data Warehouse

Chart RO-2 Number of Contiguous Ranks of International Medical Graduates

U.S. IMG



Non-U.S. IMG

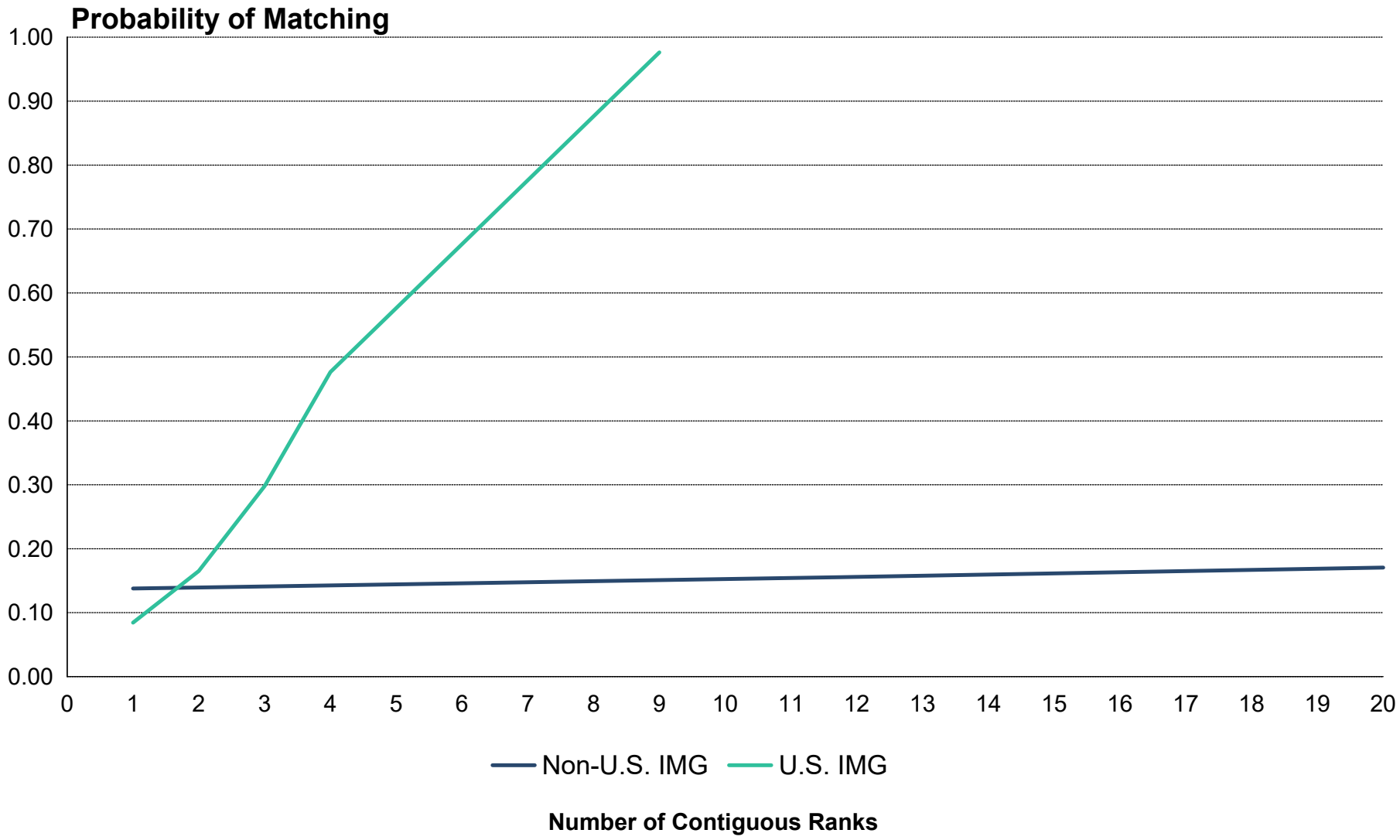


Source: NRMP Data Warehouse

Graph RO-1

Probability of International Medical Graduates Matching to Preferred Specialty by Number of Contiguous Ranks

Radiation Oncology



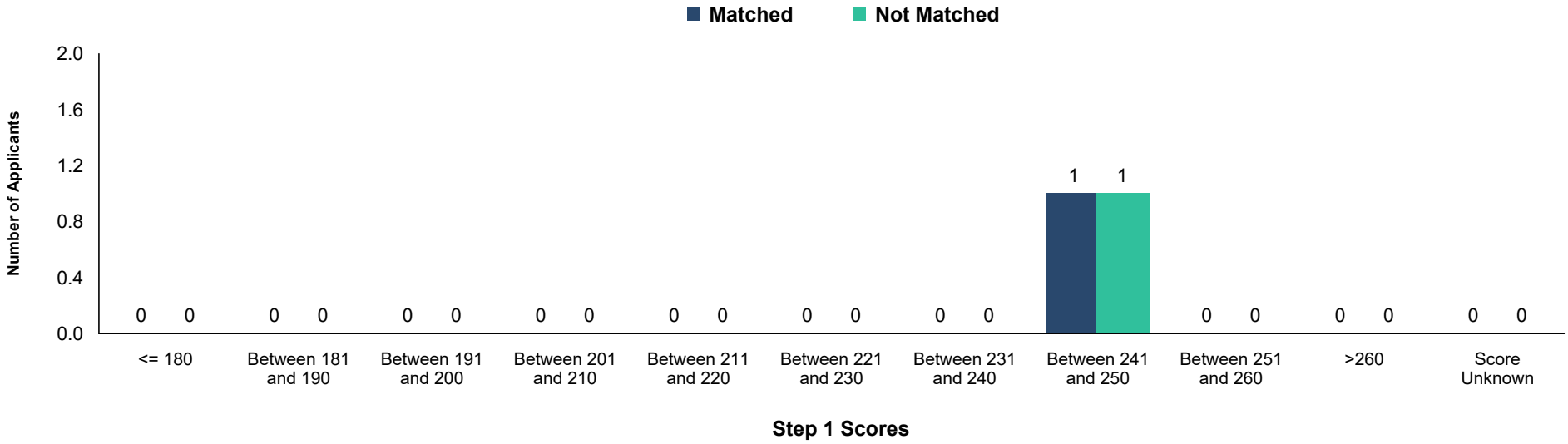
Source: NRMP Data Warehouse. Note: Probabilities calculated based on 2014-2016 applicants

Chart RO-3

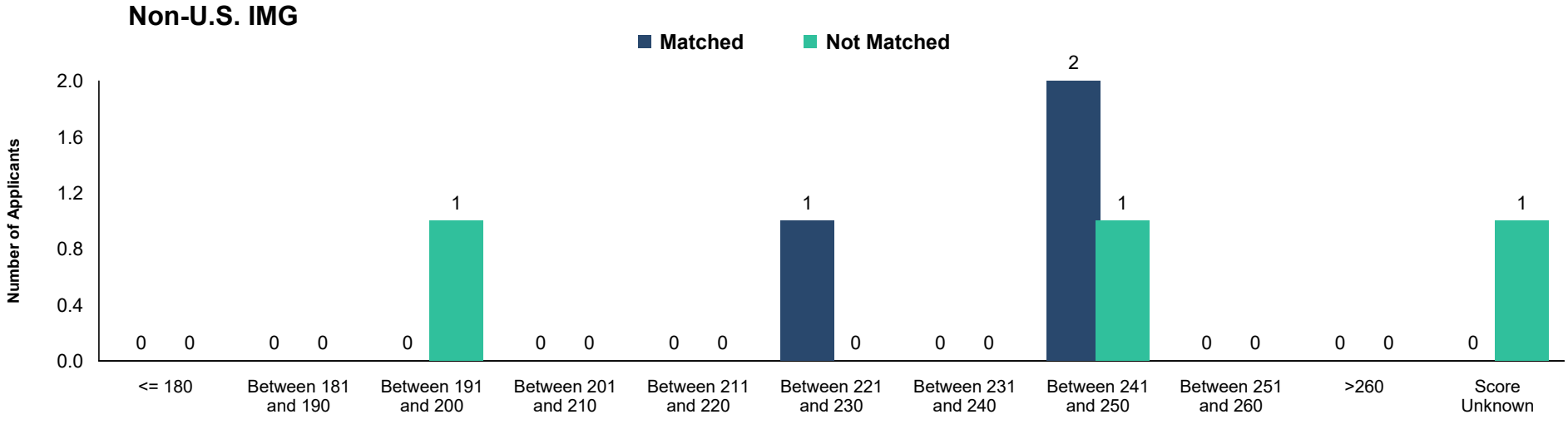
USMLE Step 1 Scores of International Medical Graduates

Radiation Oncology

U.S. IMG



Non-U.S. IMG

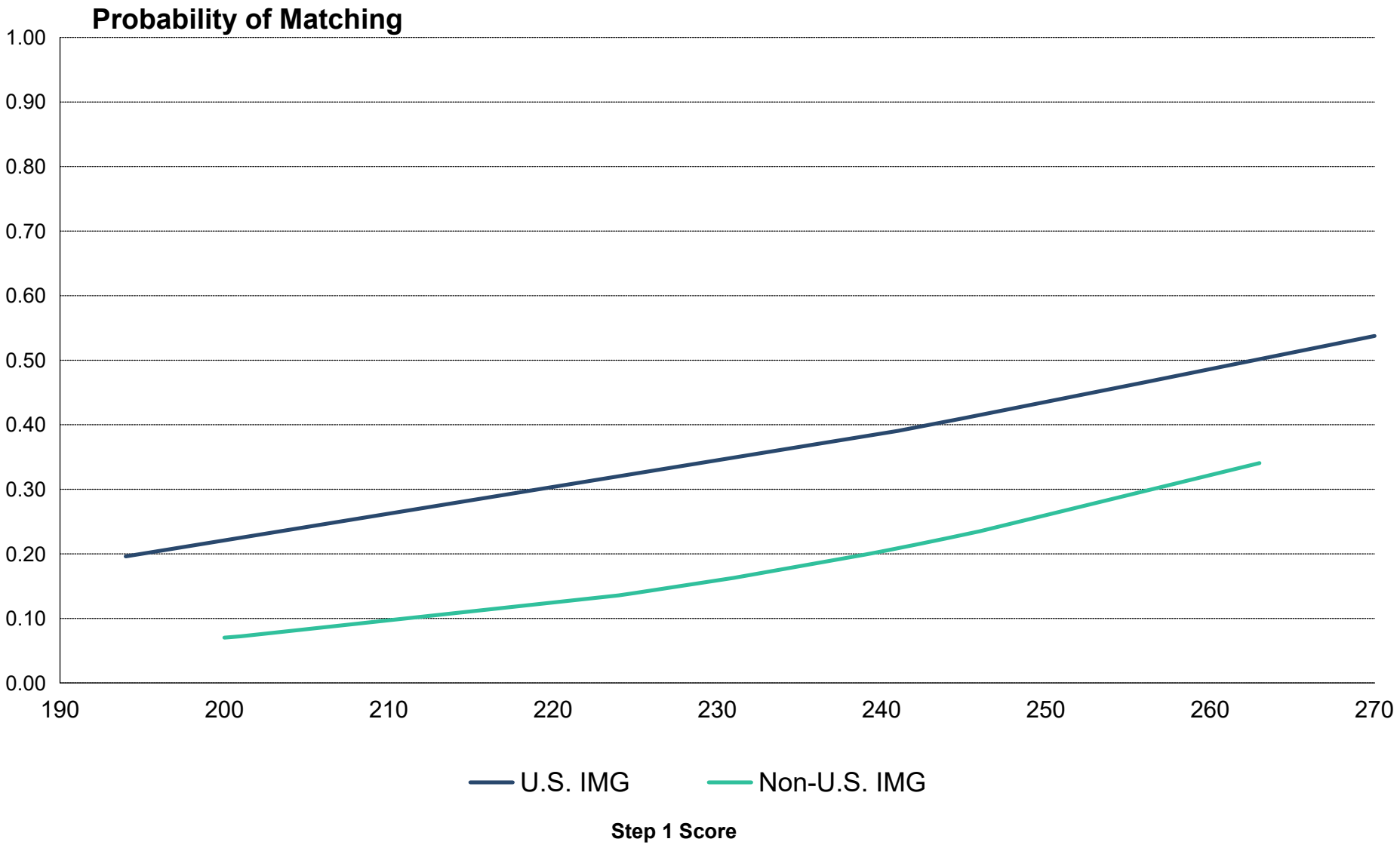


Source: NRMP Data Warehouse

Graph RO-2

Probability of International Medical Graduates Matching to Preferred Specialty by USMLE Step 1 Score

Radiation Oncology

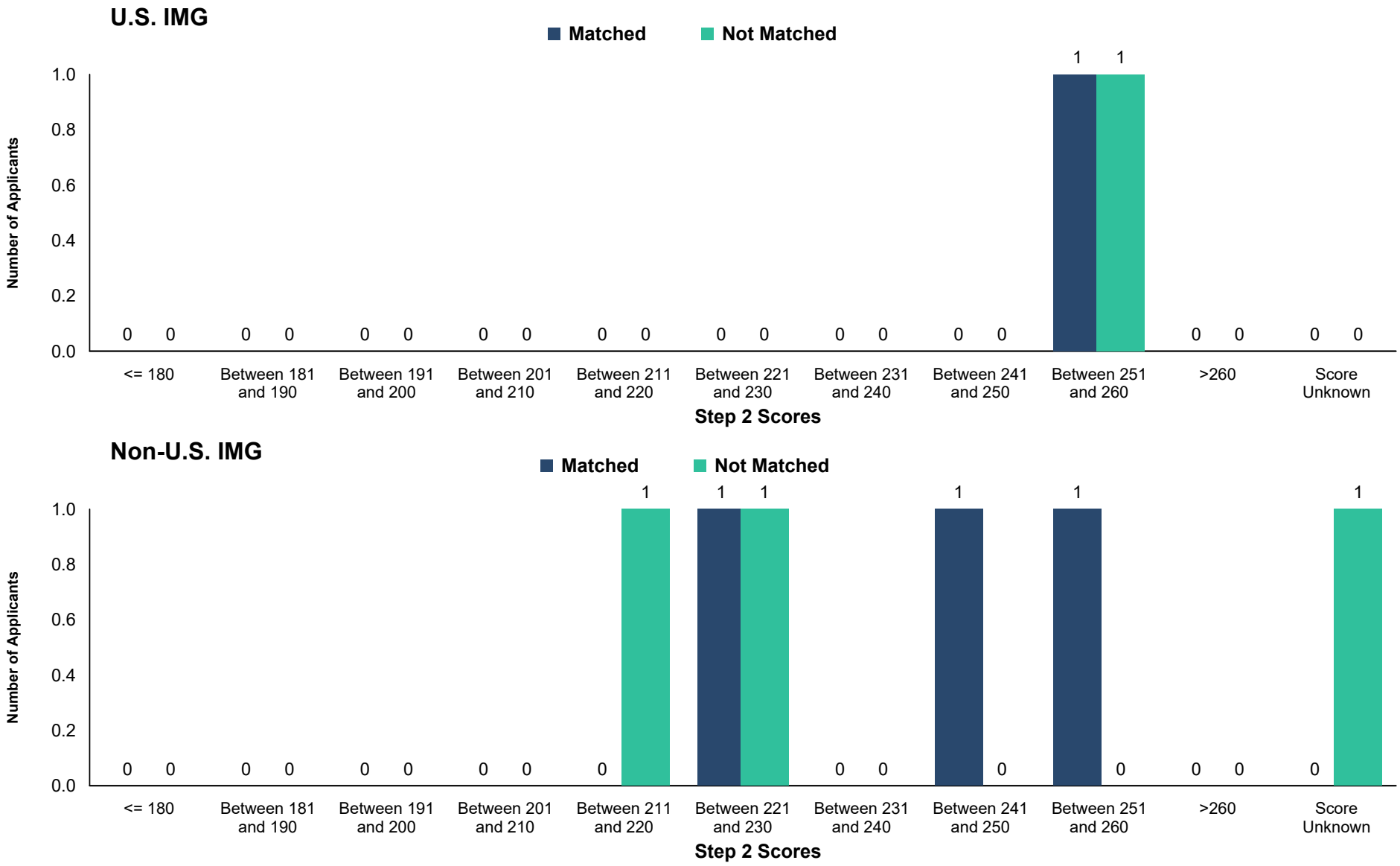


Source: NRMP Data Warehouse. Note: Probabilities calculated based on 2014-2016 applicants.

Chart RO-4

USMLE Step 2 CK Scores of International Medical Graduates

Radiation Oncology

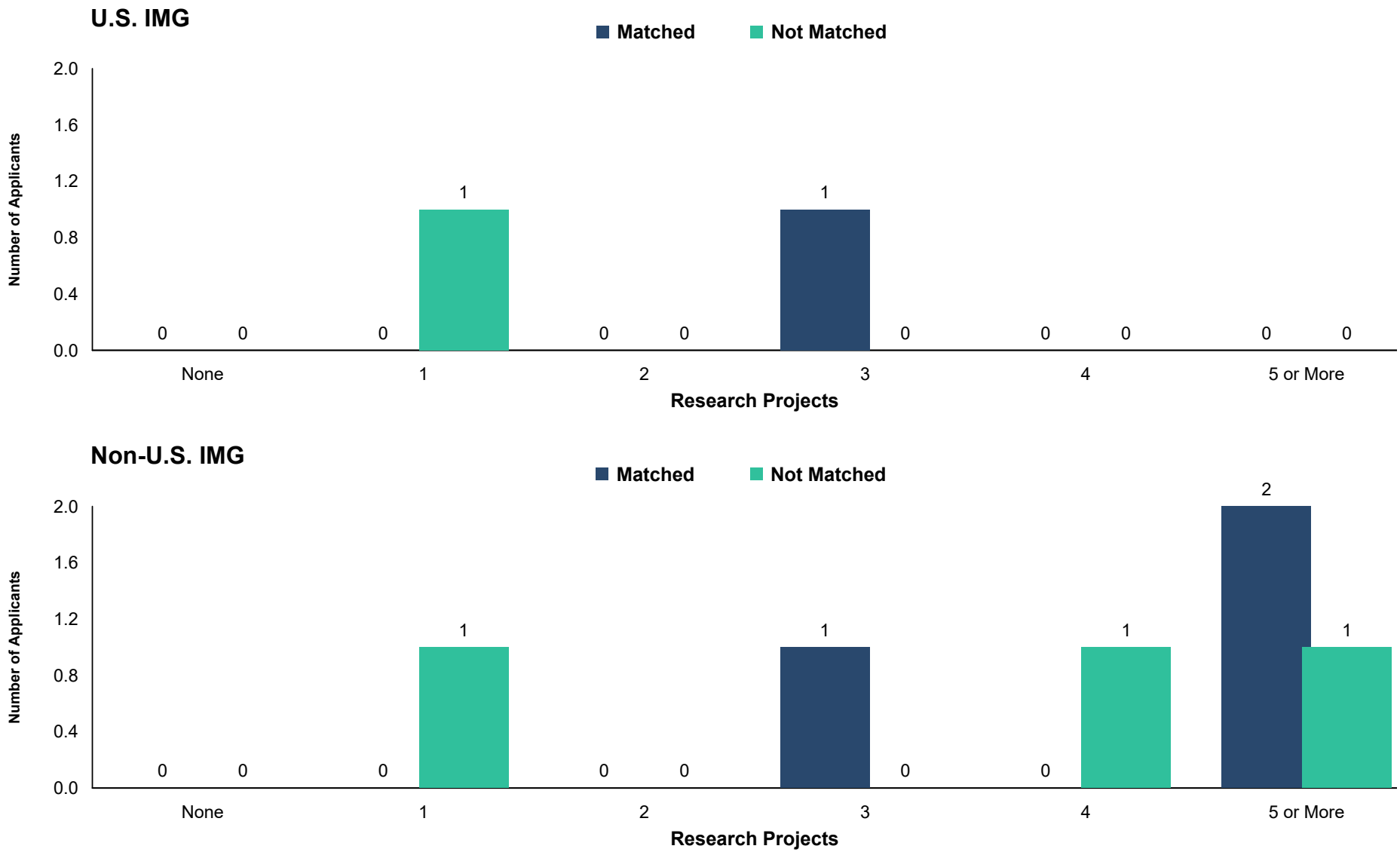


Source: NRMP Data Warehouse

Chart RO-5

Number of Research Projects of International Medical Graduates

Radiation Oncology

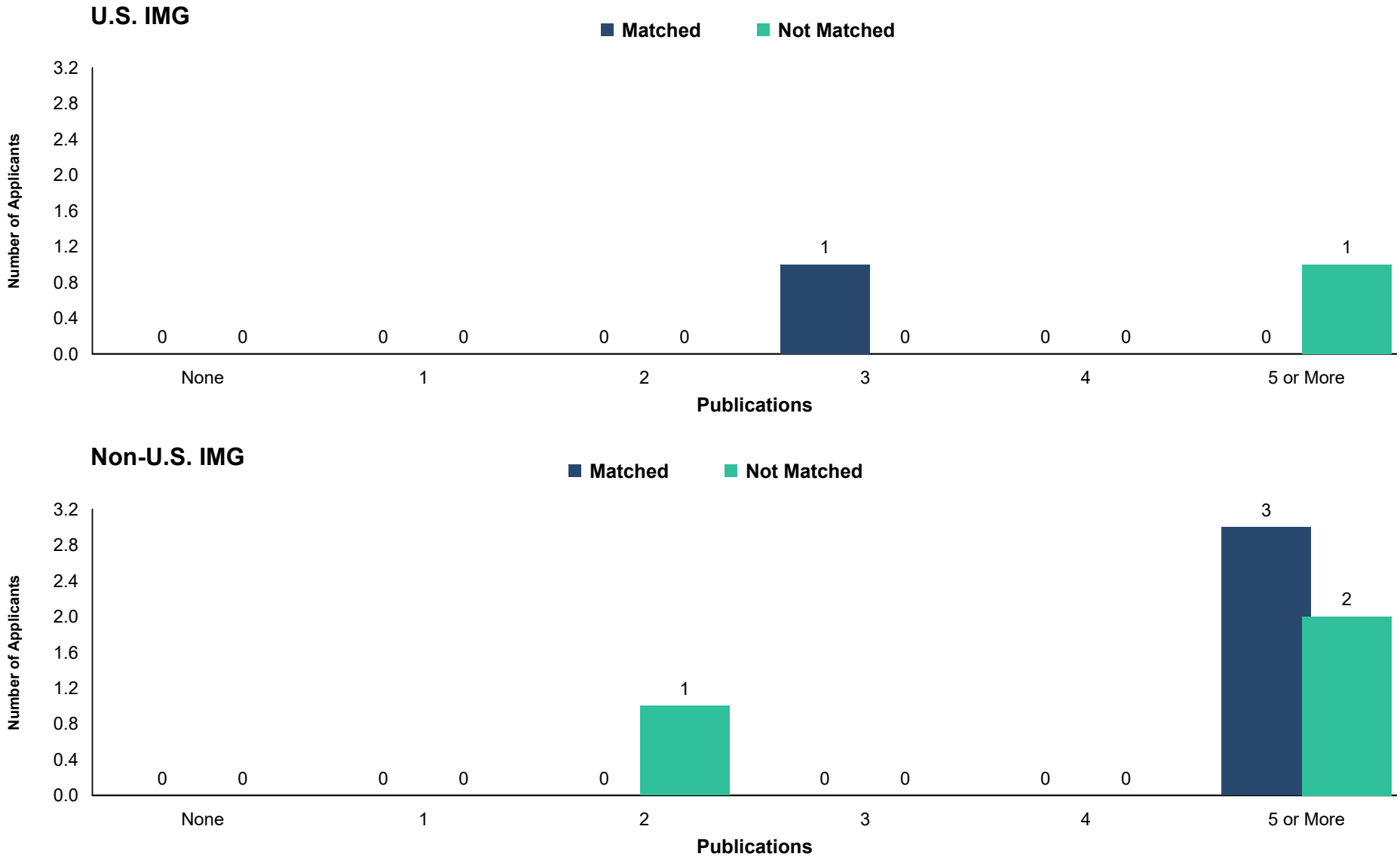


Source: NRMP Data Warehouse

Chart RO-6

Number of Abstracts, Presentations, and Publications of International Medical Graduates

Radiation Oncology

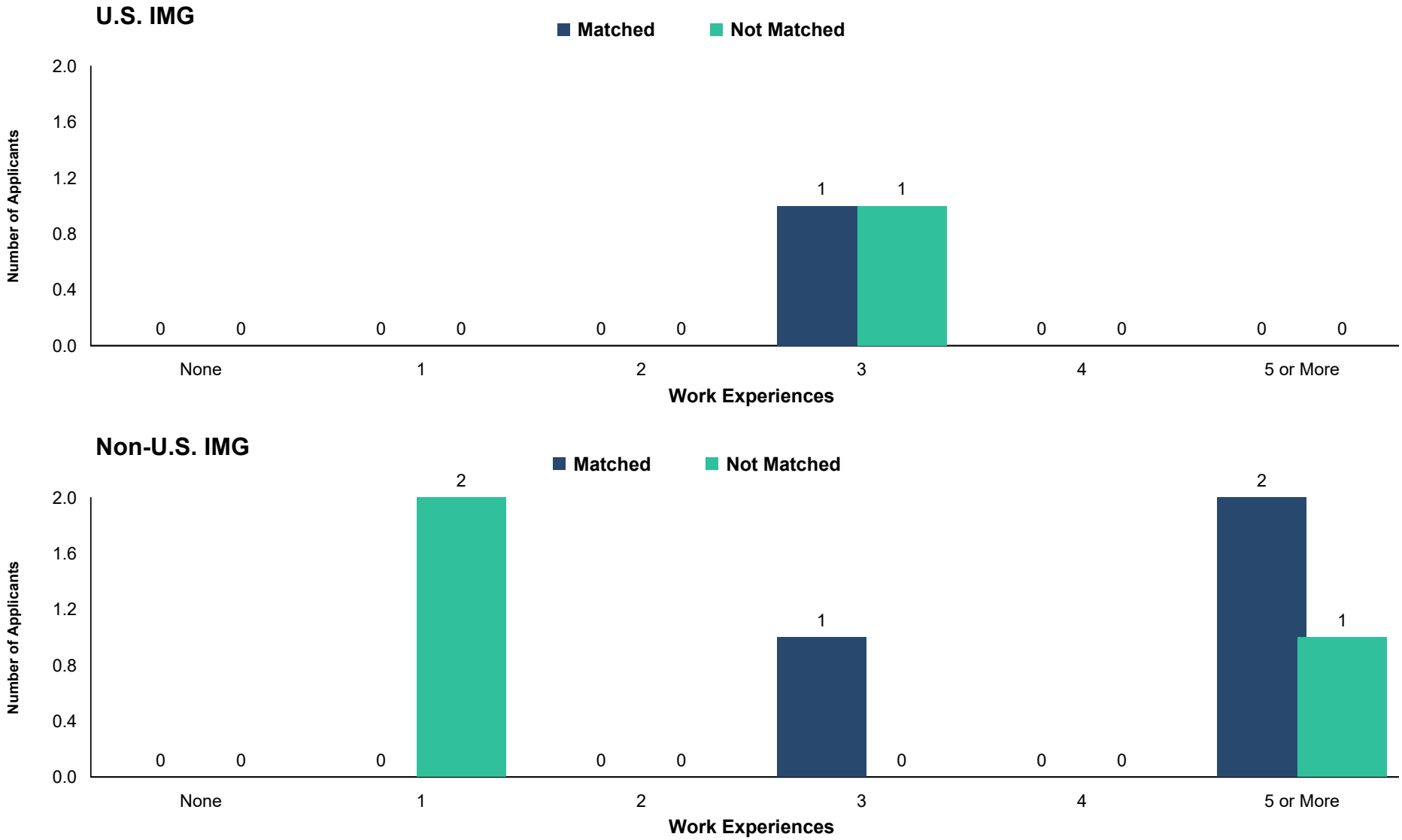


Source: NRMP Data Warehouse

Chart RO-7

Number of Work Experiences of International Medical Graduates

Radiation Oncology

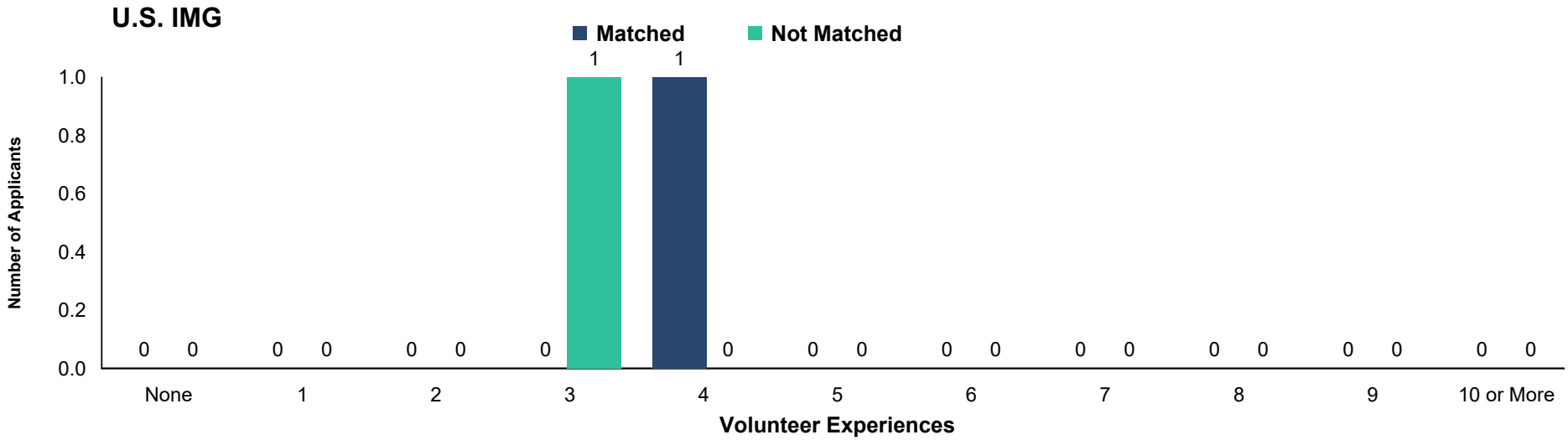


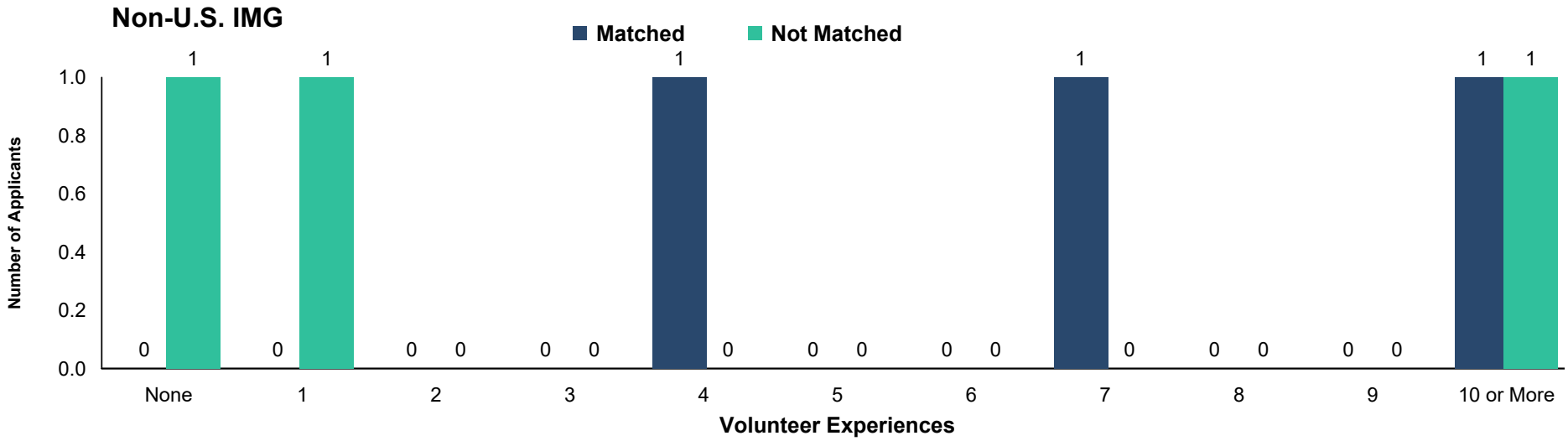
Source: NRMP Data Warehouse

Chart RO-8

Number of Volunteer Experiences of International Medical Graduates

Radiation Oncology



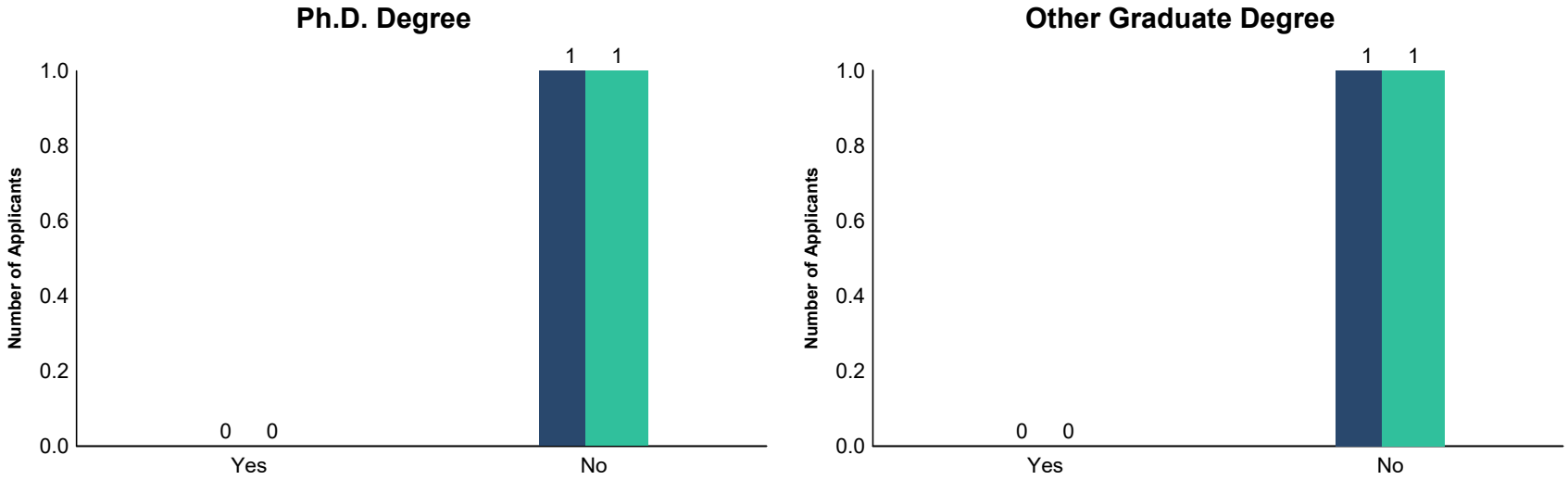


Source: NRMP Data Warehouse

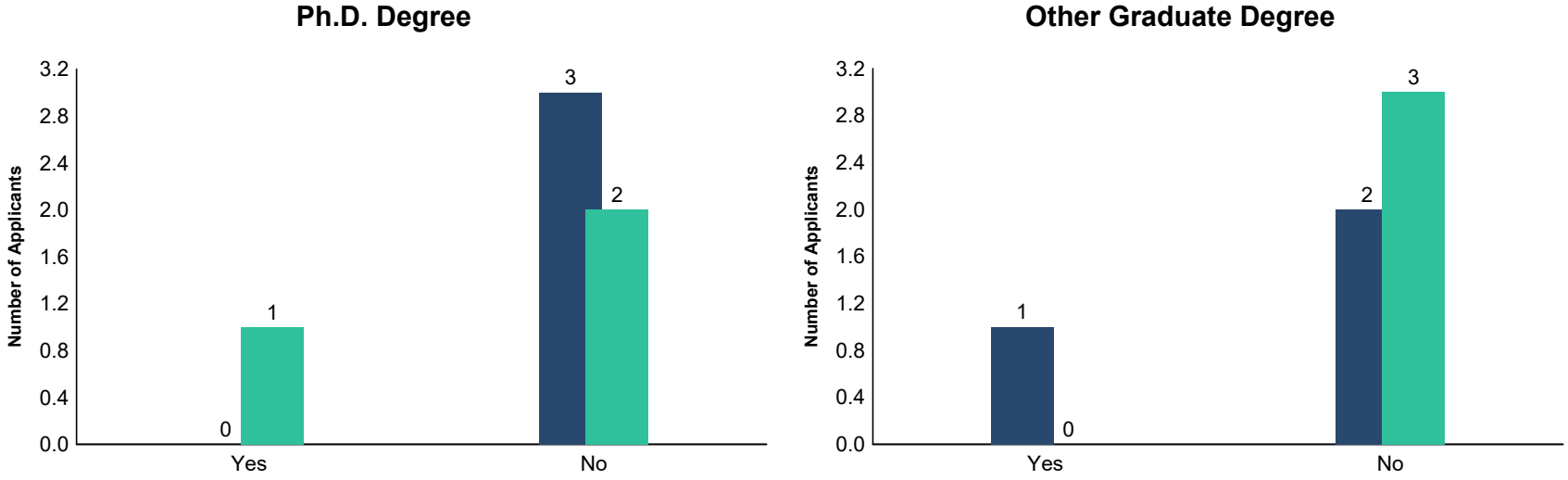
Chart RO-9 Other Characteristics of International Medical Graduates

Radiation Oncology

U.S. IMG



Non-U.S. IMG



Source: NRMP Data Warehouse

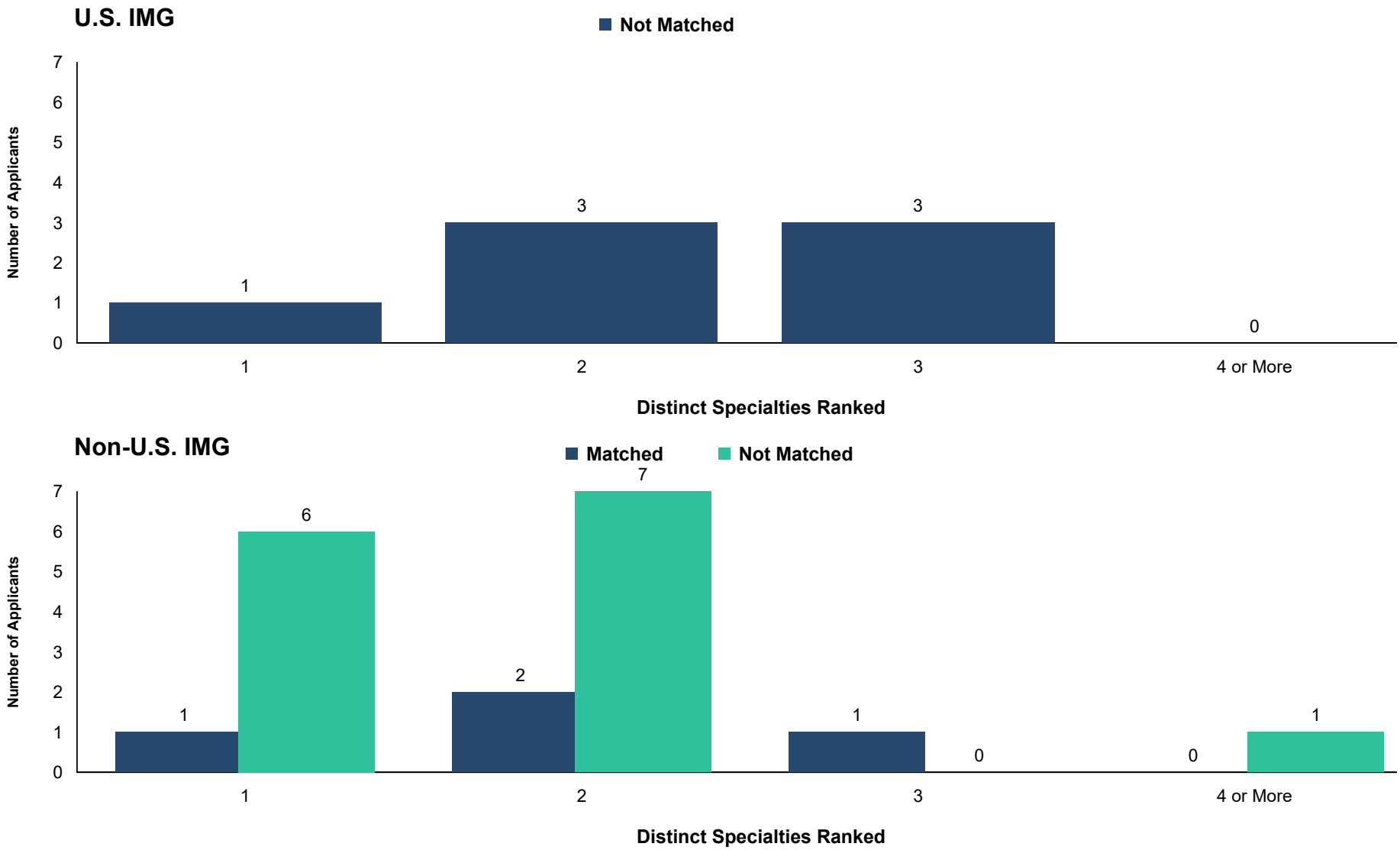
VS Vascular Surgery

Table VS-1 Summary Statistics
Vascular Surgery

Measure	U.S. IMGs		Non-U.S. IMGs	
	Matched (n=0)	Unmatched (n=7)	Matched (n=4)	Unmatched (n=14)
1. Mean number of contiguous ranks		2.7	4.8	1.9
2. Mean number of distinct specialties ranked		2.3	2.0	1.7
3. Mean USMLE Step 1 score		229	227	228
4. Mean USMLE Step 2 score		237	234	230
5. Mean number of research experiences		2.3	2.5	4.5
6. Mean number of abstracts, presentations, and publications		0.5	21.8	14.1
7. Mean number of work experiences		4.8	2.3	6.3
8. Mean number of volunteer experiences		3.8	2.0	2.6
9. Percentage who have a Ph.D. degree		0.0	0.0	7.7
10. Percentage who have another graduate degree		28.6	50.0	53.8

Note: Only applicants who gave consent to use their information in research are included.
Source. NRMP Data Warehouse

Chart VS-1 Number of Distinct Specialties Ranked by International Medical Graduates

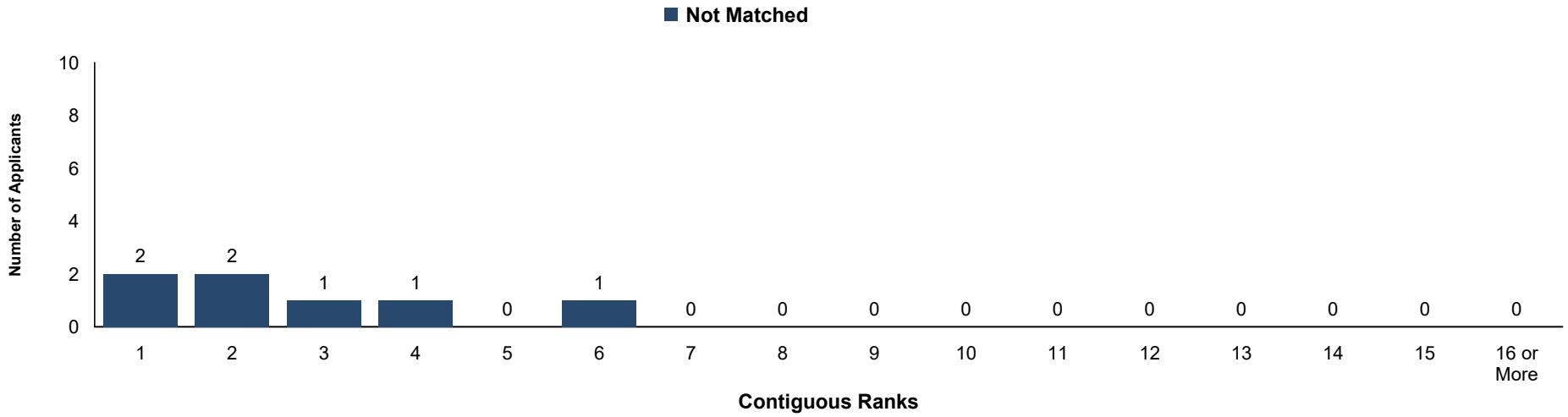


Source: NRMP Data Warehouse

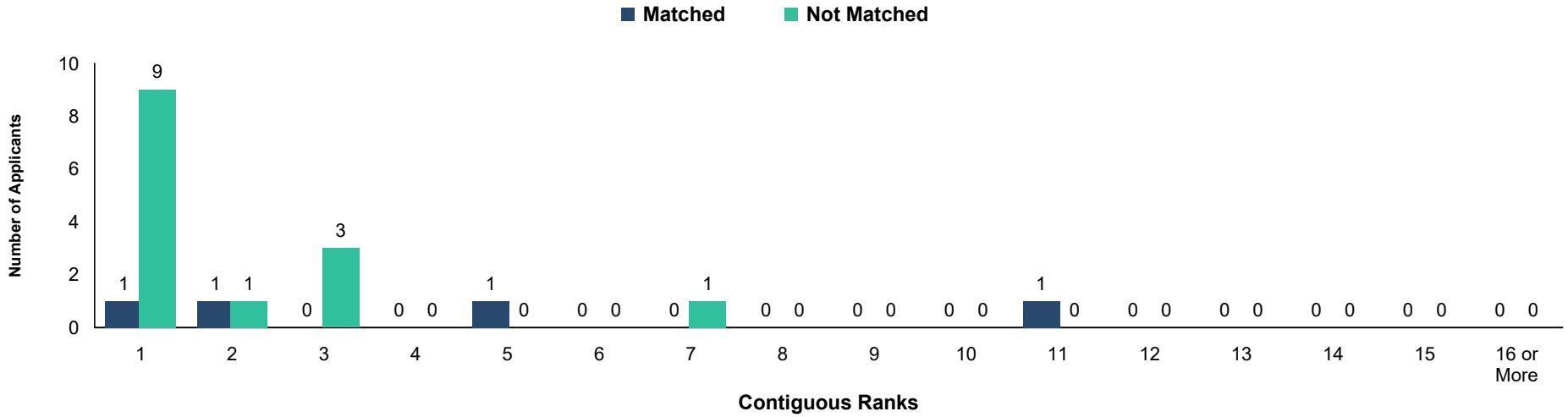
Chart VS-2

Number of Contiguous Ranks of International Medical Graduates

U.S. IMG



Non-U.S. IMG

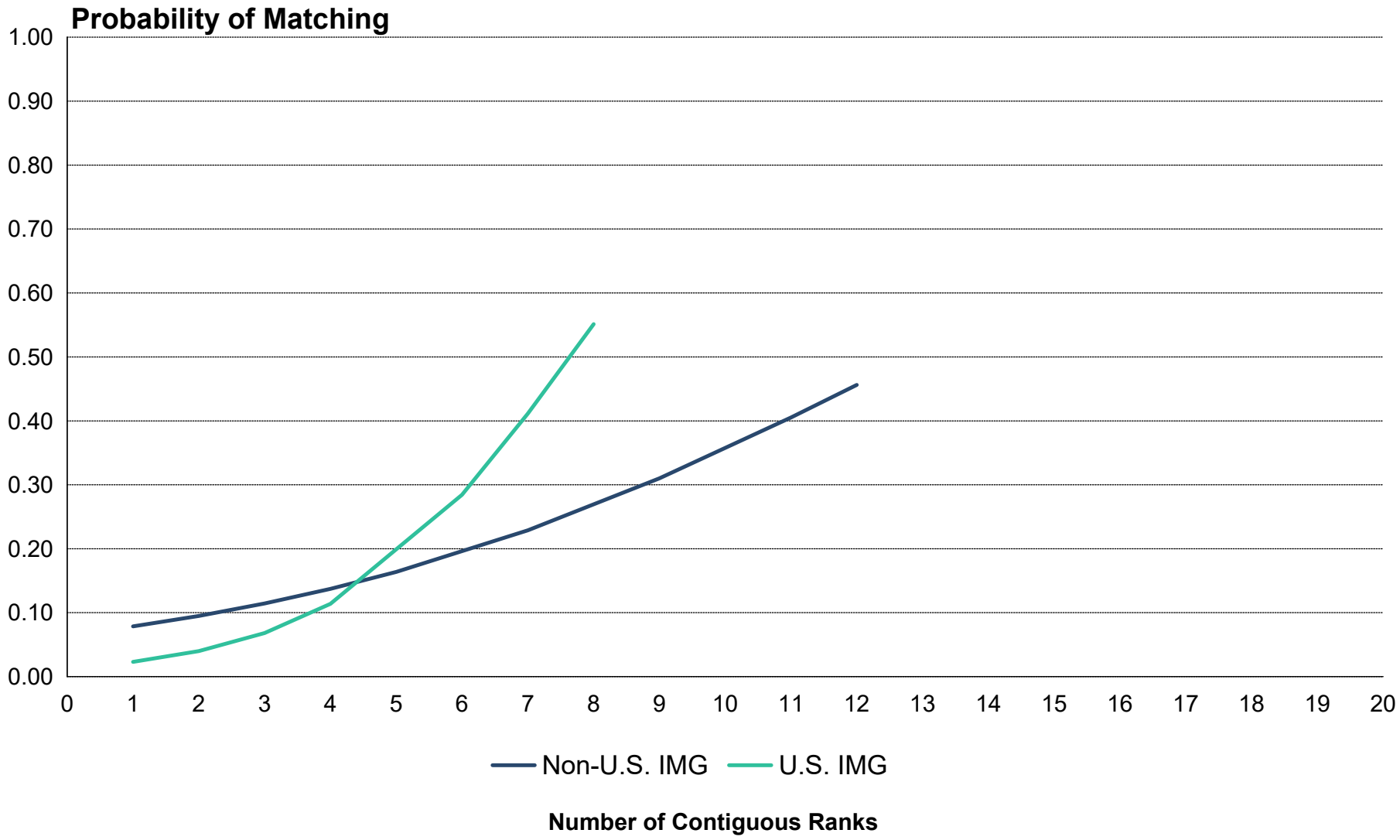


Source: NRMP Data Warehouse

Graph VS-1

Probability of International Medical Graduates Matching to Preferred Specialty by Number of Contiguous Ranks

Vascular Surgery

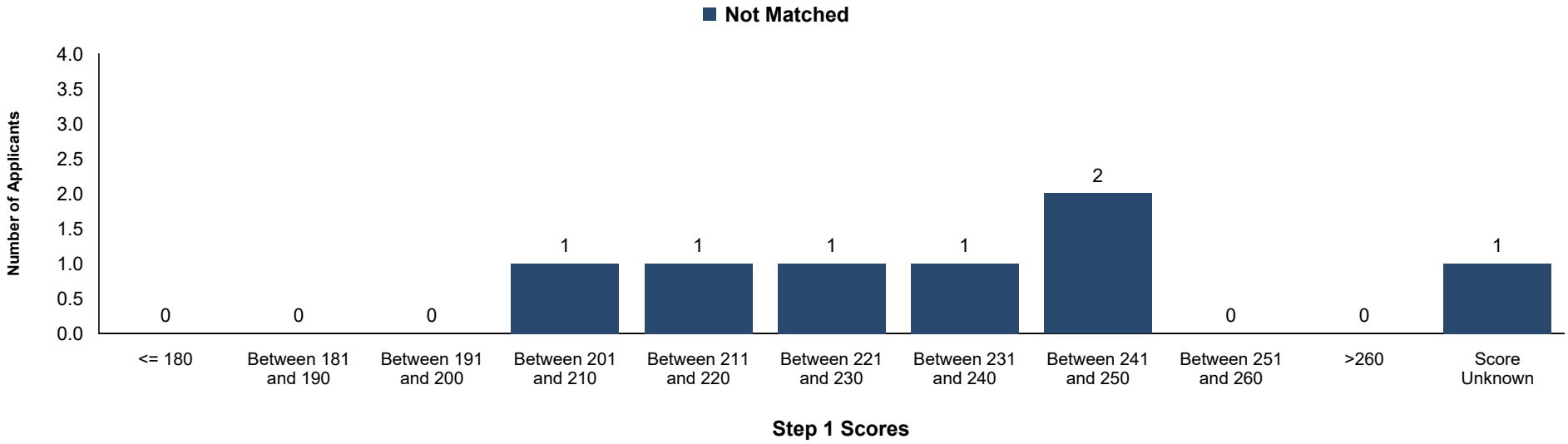


Source: NRMP Data Warehouse. Note: Probabilities calculated based on 2014-2016 applicants

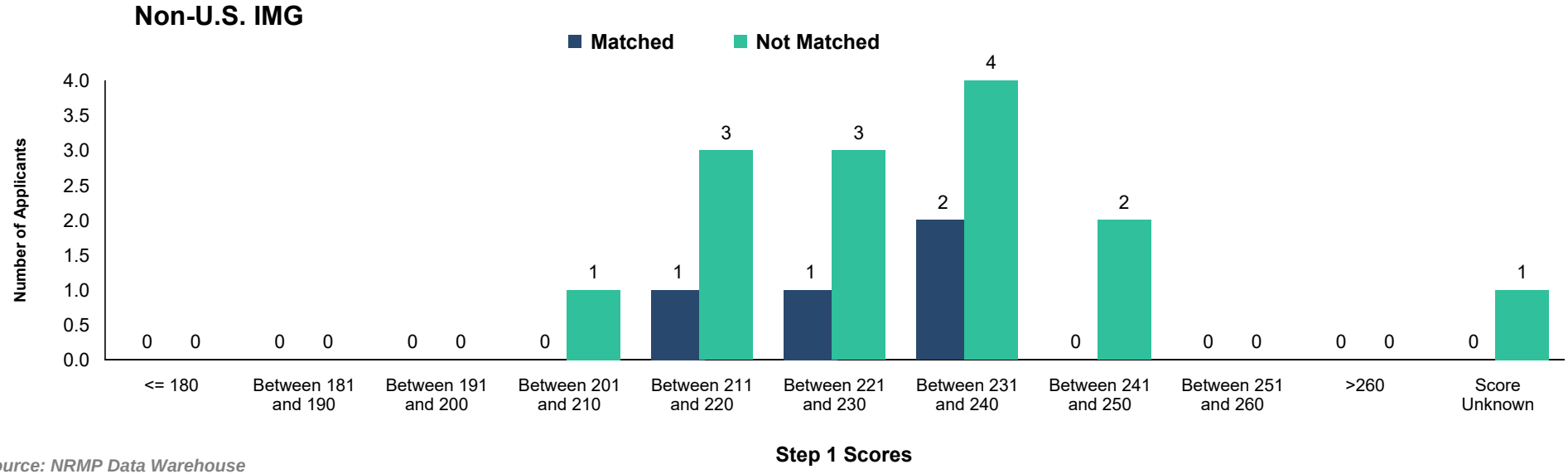
Chart VS-3 USMLE Step 1 Scores of International Medical Graduates

Vascular Surgery

U.S. IMG



Non-U.S. IMG

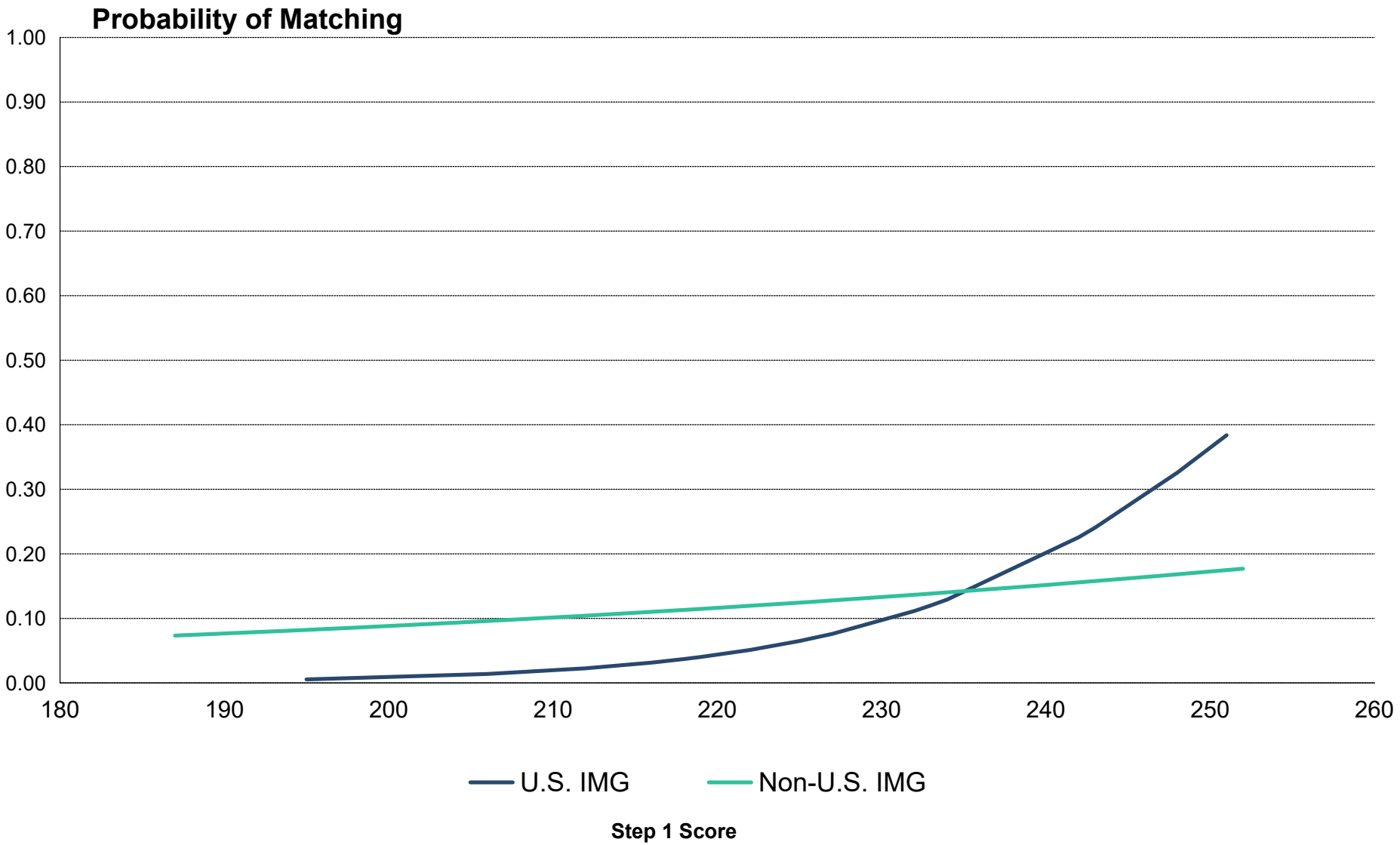


Source: NRMP Data Warehouse

Graph VS-2

Probability of International Medical Graduates Matching to Preferred Specialty by USMLE Step 1 Score

Vascular Surgery

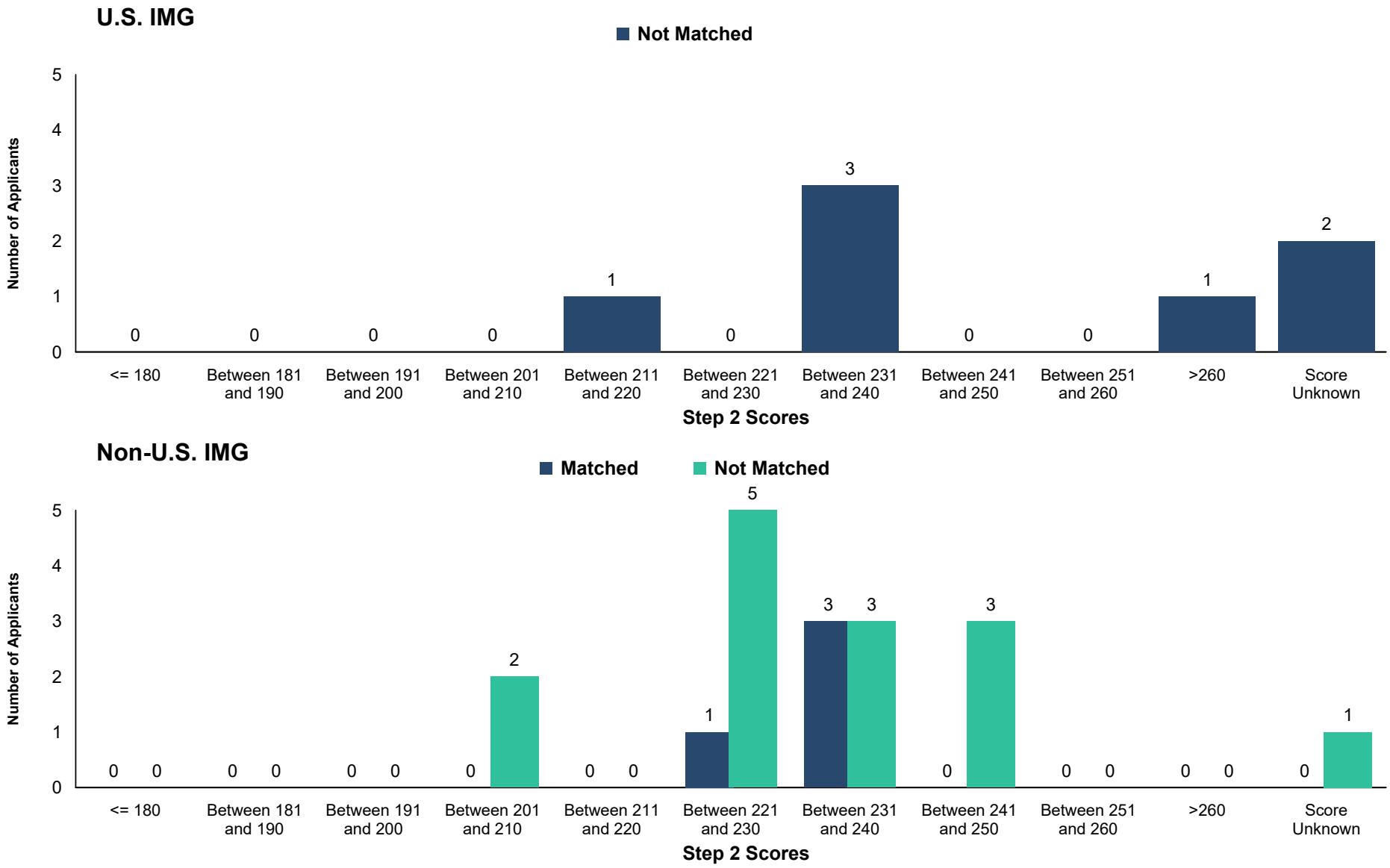


Source: NRMP Data Warehouse. Note: Probabilities calculated based on 2014-2016 applicants.

Chart VS-4

USMLE Step 2 CK Scores of International Medical Graduates

Vascular Surgery

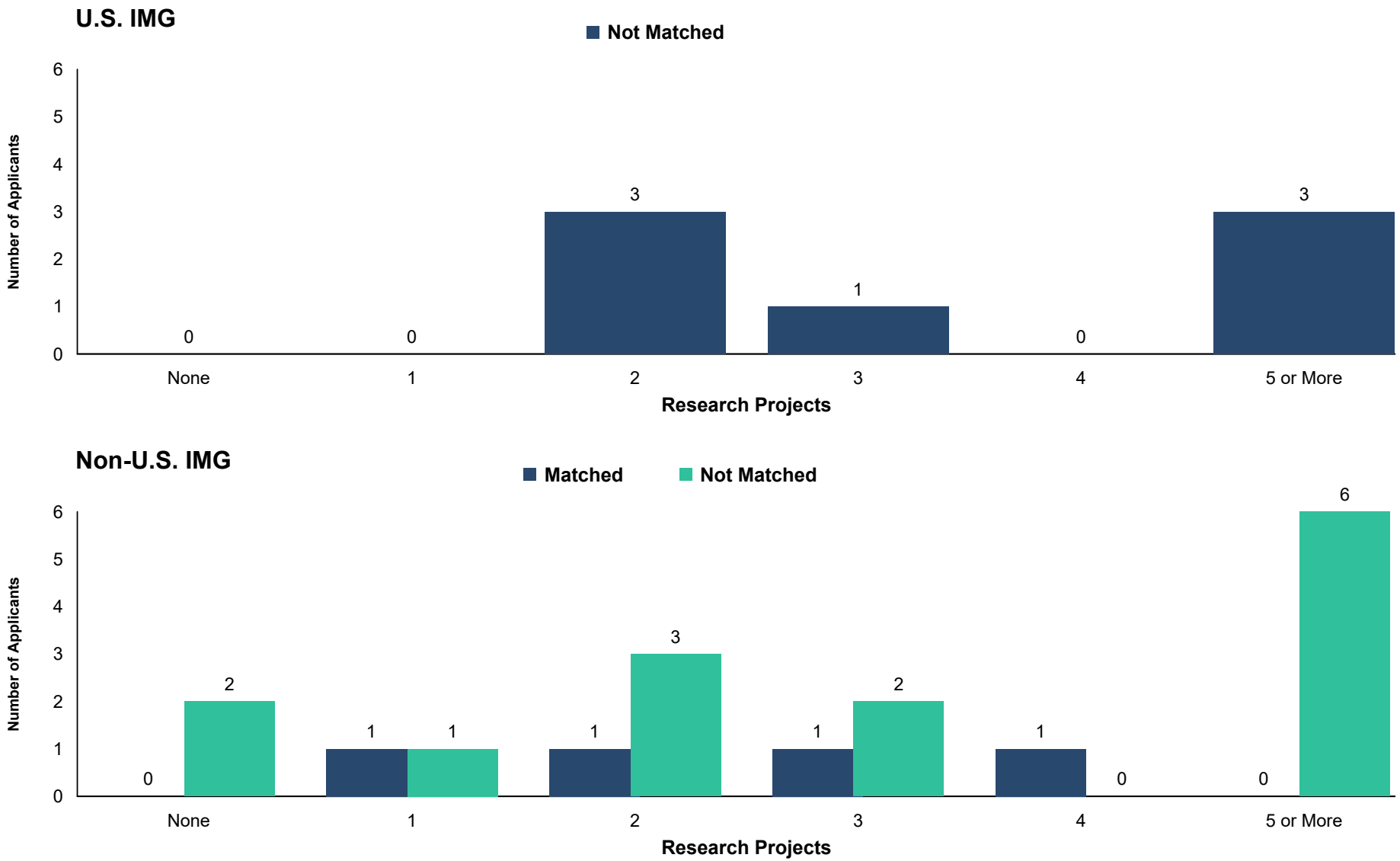


Source: NRMP Data Warehouse

Chart VS-5

Number of Research Projects of International Medical Graduates

Vascular Surgery

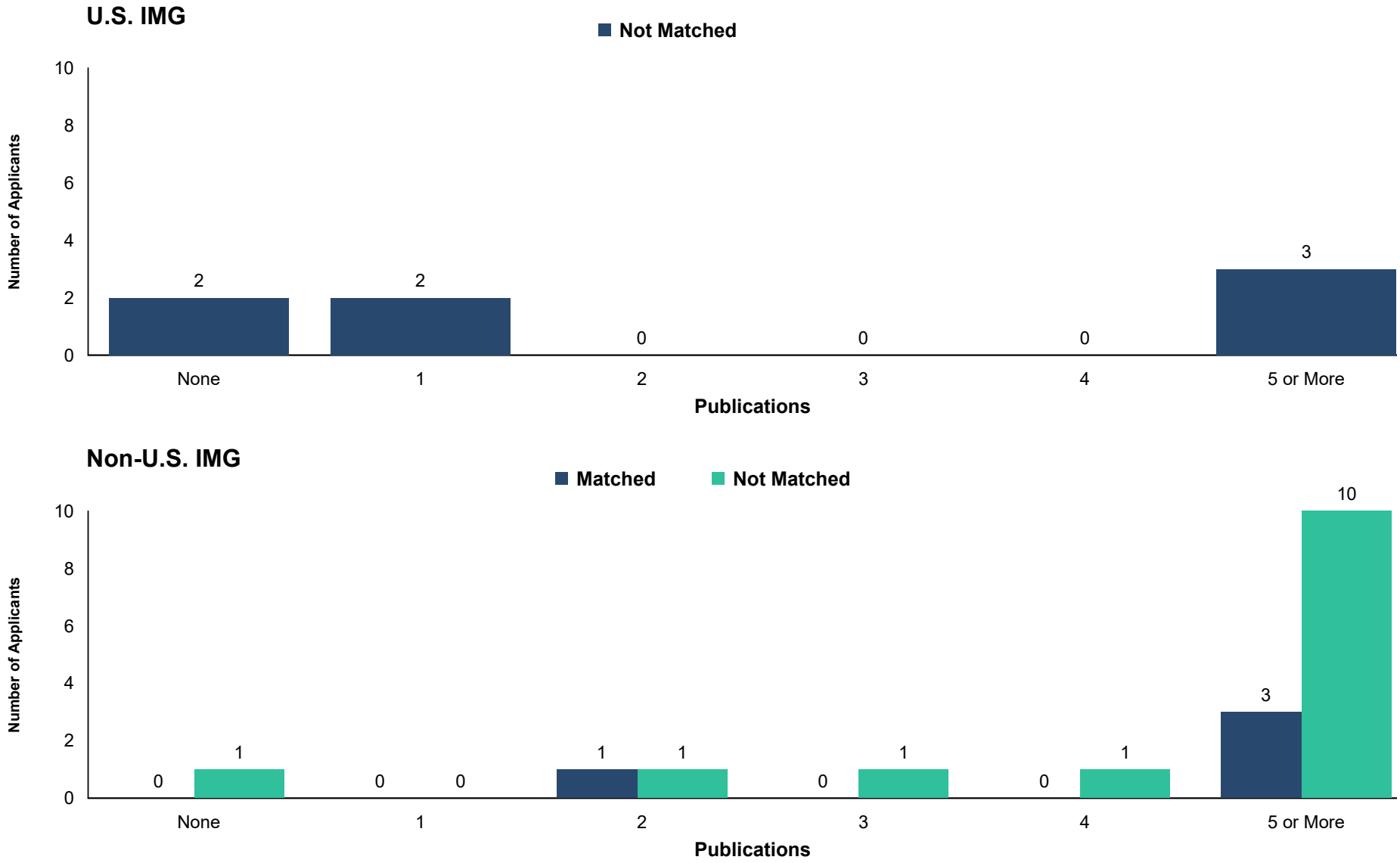


Source: NRMP Data Warehouse

Chart VS-6

Number of Abstracts, Presentations, and Publications of International Medical Graduates

Vascular Surgery

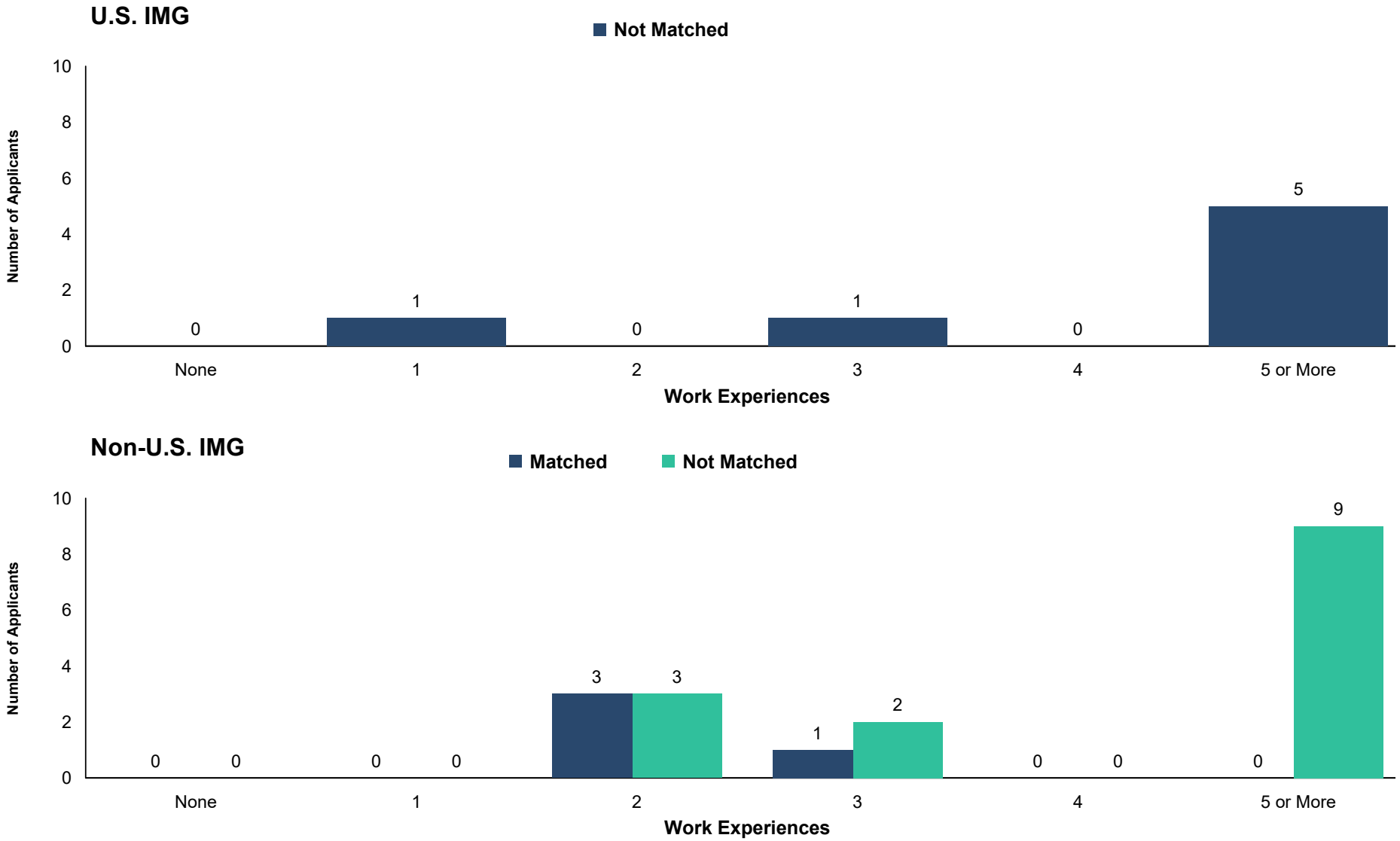


Source: NRMP Data Warehouse

Chart VS-7

Number of Work Experiences of International Medical Graduates

Vascular Surgery

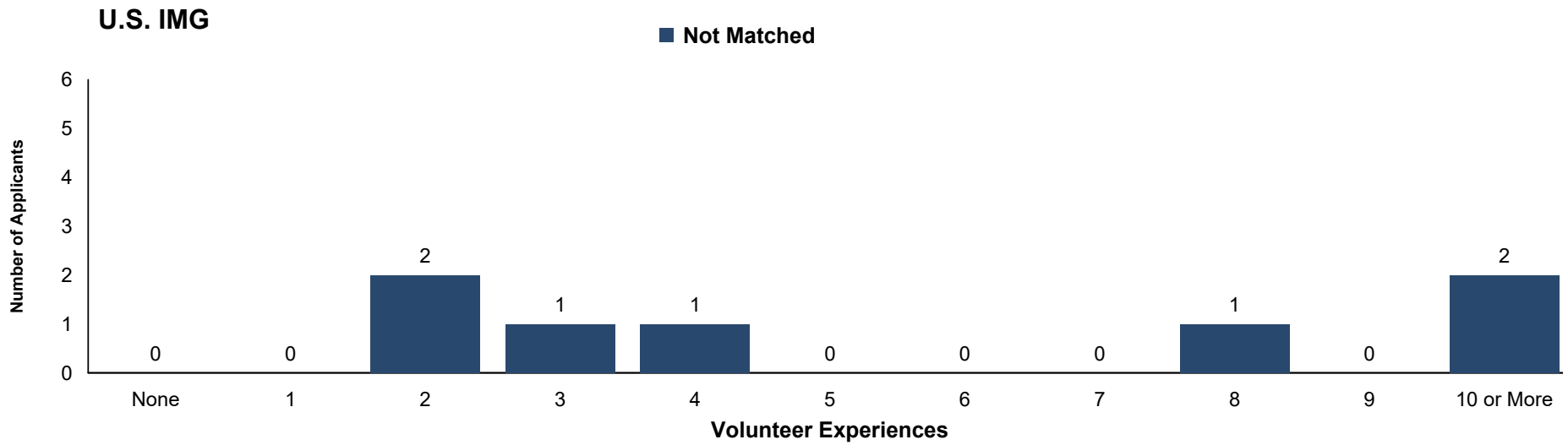


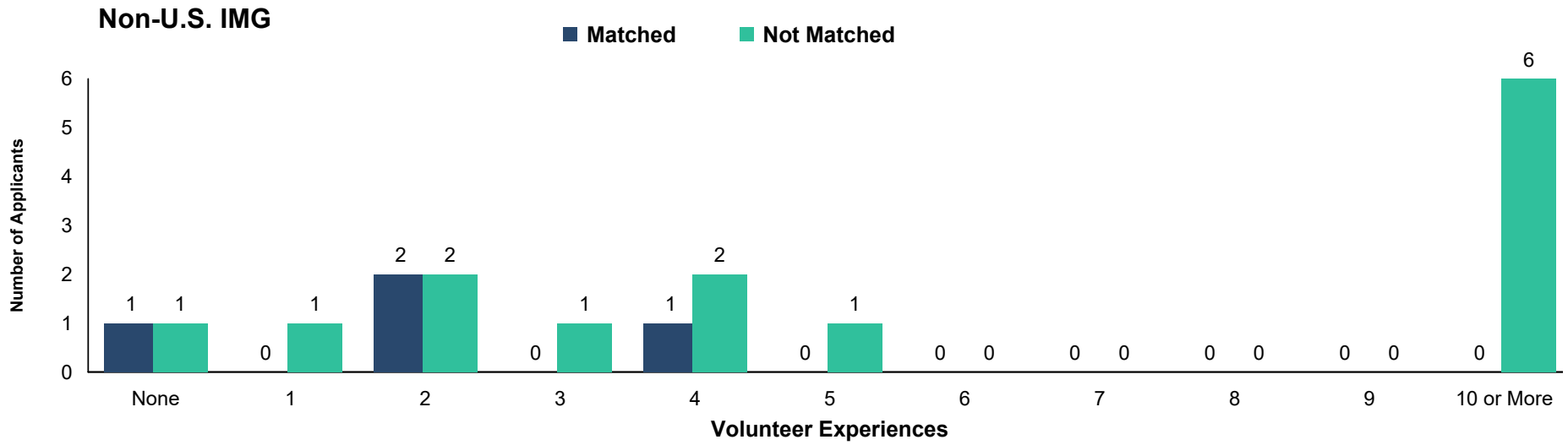
Source: NRMP Data Warehouse

Chart VS-8

Number of Volunteer Experiences of International Medical Graduates

Vascular Surgery



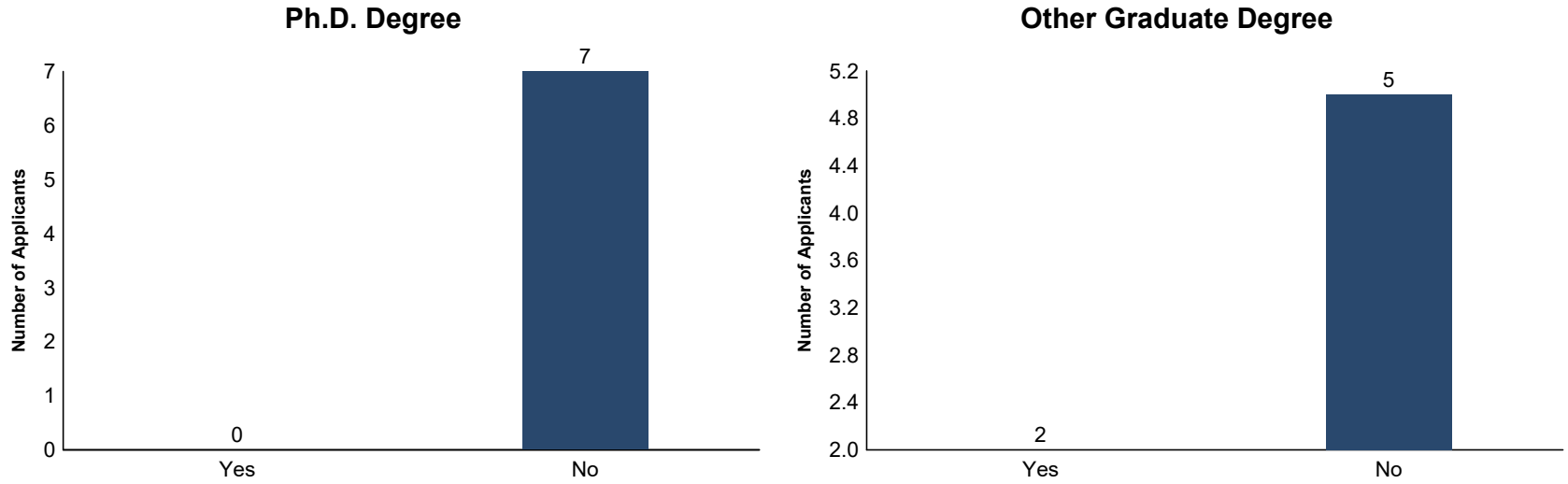


Source: NRMP Data Warehouse

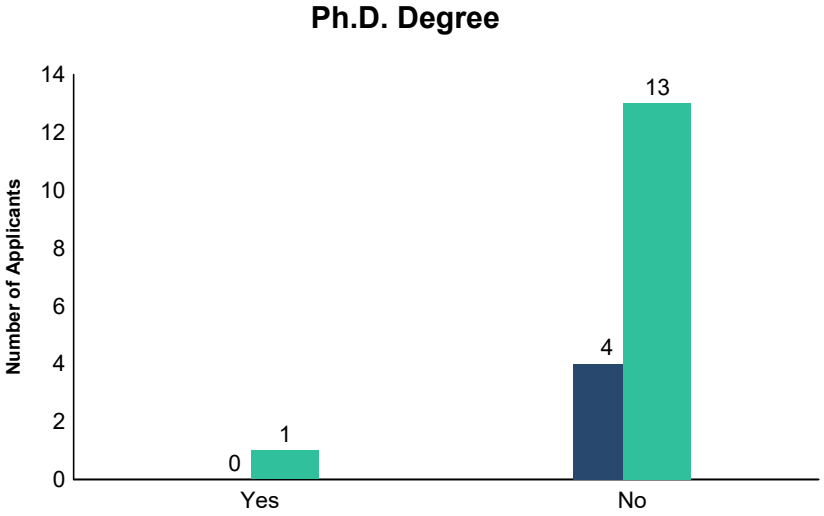
Chart VS-9 Other Characteristics of International Medical Graduates

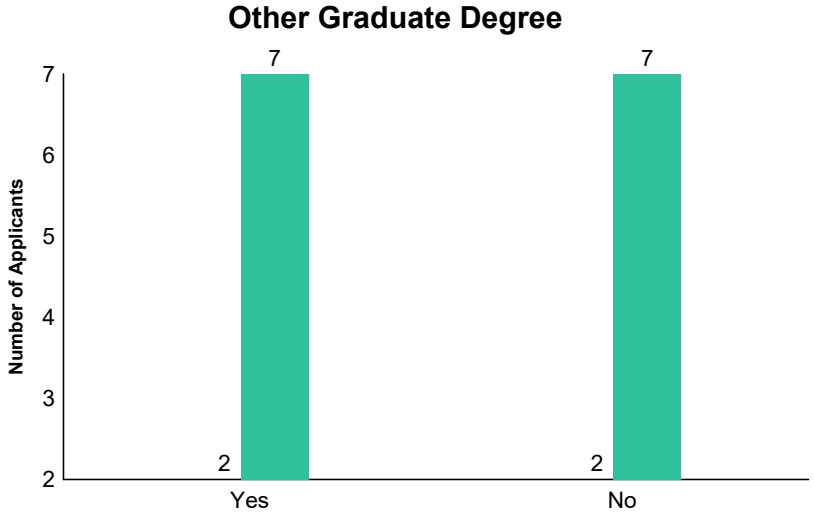
Vascular Surgery

U.S. IMG



Non-U.S. IMG





Source: NRMP Data Warehouse