Charting Outcomes in the Match: International Medical Graduates

Characteristics of International Medical Graduates Who Matched to Their Preferred Specialty in the 2018 Main Residency Match

2nd Edition

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

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2018 Table of Contents

Introduction ii

Tables and Charts for All Specialties

Chart 1. Active Applicants in the 2018 Main Residency Match 2
Table 1. Number of Applicants and Positions in the 2018 Main Residency Match 3
Chart 2. Ratio of International Medical Graduates Ranking Specialty First / Available Positions 4
Chart 3. Match Rates of International Medical Graduates 5
Table 2. Summary Statistics on International Medical Graduates 6
Chart 4. Median Number of Contiguous Ranks of International Medical Graduates 7
Chart 5. Mean Number of Different Specialties Ranked by International Medical Graduates 8
Chart 6. USMLE Step 1 Scores of International Medical Graduates 9
Chart 7. USMLE Step 2 CK Scores of International Medical Graduates 10
Chart 8. Mean Number of Research Experiences of International Medical Graduates 11
Chart 9. Mean Number of Abstracts, Presentations, and Publications of International Medical Graduates 12
Chart 10. Mean Number of Work Experiences of International Medical Graduates 13
Chart 11. Mean Number of Volunteer Experiences of International Medical Graduates 14
Chart 12. Percentage of International Medical Graduates Who Have a Ph.D. Degree 15
Chart 13. Percentage of International Medical Graduates Who Have Another Graduate Degree 16

Tables and Charts for Individual Specialties

Anesthesiology 17
Child Neurology 30
Dermatology 43
Diagnostic Radiology 56
Emergency Medicine 69
Family Medicine 82
General Surgery 95
Internal Medicine 108
Internal Medicine/Pediatrics 121
Neurological Surgery 134
Neurology 147
Obstetrics and Gynecology 160
Orthopaedic Surgery 173
Pathology 186
Pediatrics 199
Physical Medicine and Rehabilitation 212
Plastic Surgery 225
Psychiatry 238
Vascular Surgery 251

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2018 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®) to produce the first edition of *Charting Outcomes in the Match for International Medical Graduates* using some variables unique to U.S. citizen and non-U.S. citizen students and graduates of international medical schools (IMGs). In 2014, NRMP added a Professional Profile section to its Match registration process to collect USMLE scores and other applicant characteristics and those have been used to independently publish all subsequent *Charting Outcomes in the Match* reports.

With the exception of the 2013 report, all versions of *Charting Outcomes in the Match* published prior to 2016 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 in 2016 to report data separately for U.S. allopathic medical school seniors, students/graduates of osteopathic medical schools, and U.S. citizen and non-U.S. citizen students/graduates of international medical schools. In 2018, senior students of osteopathic medical schools are reported separately, and there is no report for osteopathic medical school graduates because their numbers are so small.

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, research, and 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 Chesapeake (now Advarra) Institutional Review Board (IRB).

A total of 12,142 IMG applicants (5,075 U.S. IMGs and 7,067 non-U.S. IMGs) submitted certified rank order lists in the 2018 Main Residency Match. After excluding the 14.4 percent of U.S. IMGs and 9.8 percent of non-U.S. IMGs who did not give consent to participate in NRMP research, 11,045 IMG applicants (4,344 U.S. IMGs and 6,377 non-U.S. IMGs) were included in the final dataset. Missing data were found in Step 1 scores (9.7% missing for U.S. IMGs and 6.0% for non-U.S. IMGs), Step 2 CK scores (11.0% and 6.7%), number of research experiences (21.9% and 19.4%), number of abstracts, presentations, and publications (23.7% and 19.4%), number of work experiences (18.4% and 13.0%), number of volunteer experiences (18.9% and 16.0%), Ph.D. degree (10.8% and 8.2%), and other graduate degree (10.3% and 8.0%).

Methods

Specialties that offered 50 or more positions and had at least 7 matched or unmatched applicants of either applicant type preferring the specialty in the 2018 Main Residency Match are included in this report. Although Interventional Radiology, Otolaryngology, and Radiation Oncology each offered more than 50 positions, they are excluded from the specialty-specific analyses in this report because very few IMGs preferred those specialties. Likewise, specialty-specific analyses of Child Neurology, Dermatology, Plastic Surgery, and Vascular Surgery are excluded for U.S. IMGs because of the small numbers. Transitional Year programs are excluded because they are not viewed as a specialty choice.

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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 2016, 2017, and 2018. 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 lower 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 low score is not a bar to success. Even in the most competitive specialties a few individuals with high 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

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Chart 1 Active Applicants in the 2018 Main Residency Match
by Applicant Type

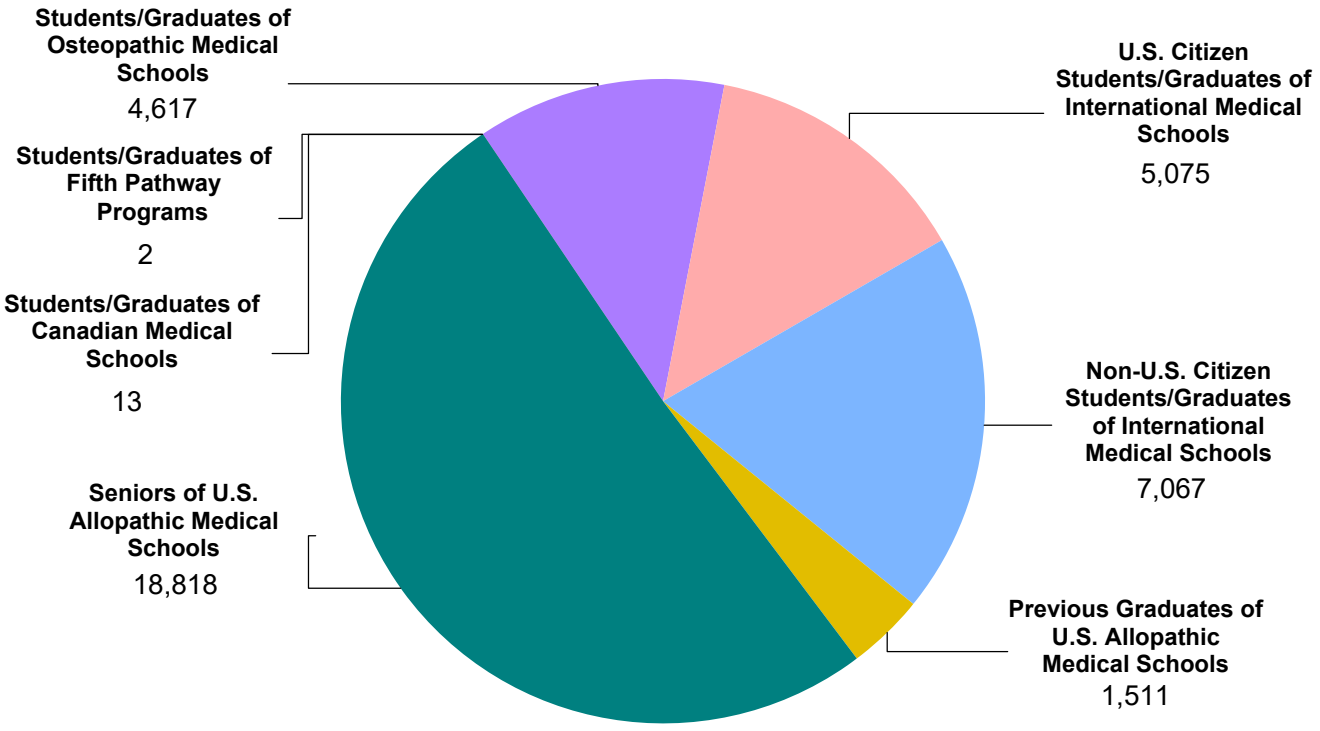

Chart 1 shows the number of active applicants (applicants who submitted rank order lists of programs) by applicant type in the 2018 Main Residency Match. A total of 37,103 active applicants participated in the 2018 Main Residency Match. Non-U.S. citizen students and graduates of international medical schools constituted 19.0 percent of all applicants in the Match, the second largest group after U.S. allopathic medical school seniors. U.S. citizen student/graduates of international medical schools accounted for 13.7 percent of the applicant pool. The numbers of Fifth Pathway (n=2) and Canadian graduates (n=13) are small.

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Table 1 Number of Applicants and Positions in the 2018 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	1,840	2,004	1.09	122	70	192	120	79	199
Child Neurology	168	166	0.99	Data not shown			19	16	35
Dermatology	472	651	1.38	Data not shown			15	18	33
Diagnostic Radiology	1,099	1,289	1.17	45	41	86	76	97	173
Emergency Medicine	2,278	2,693	1.18	77	89	166	28	40	68
Family Medicine	3,629	4,402	1.21	600	566	1,166	267	412	679
General Surgery	1,319	1,955	1.48	66	138	204	66	192	258
Internal Medicine	7,916	10,032	1.27	1,028	848	1,876	2,042	1,593	3,635
Internal Medicine/Pediatrics	382	439	1.15	14	16	30	5	23	28
Neurological Surgery	225	310	1.38	0	11	11	10	22	32
Neurology	859	1,070	1.25	65	61	126	180	155	335
Obstetrics and Gynecology	1,336	1,745	1.31	58	71	129	40	82	122
Orthopaedic Surgery	742	987	1.33	10	15	25	3	17	20
Pathology	601	692	1.15	69	44	113	162	81	243
Pediatrics	2,858	3,059	1.07	208	90	298	309	182	491
Physical Medicine and Rehabilitation	421	579	1.38	19	35	54	10	22	32
Plastic Surgery	168	222	1.32	Data not shown			3	13	16
Psychiatry	1,556	2,383	1.53	124	289	413	131	239	370
Vascular Surgery	60	77	1.28	Data not shown			4	11	15

* 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 2,004 applicants preferred Anesthesiology (or ranked an Anesthesiology position first), among whom 192 were U.S. IMGs (122 matched and 70 not matched to Anesthesiology) and 199 were non-U.S. IMGs (120 matched and 79 not matched to Anesthesiology). For each of the 1,840 Anesthesiology positions there were 1.09 applicants who preferred the specialty.

Only those specialties that offered 50 or more positions and had at least 7 matched or unmatched IMG applicants are included in this report. Very few U.S. IMGs preferred Child Neurology, Dermatology, Plastic Surgery, or Vascular Surgery. As a result, only the non-U.S. IMG data are displayed in most charts throughout this report. For specialties offering both PGY-1 and PGY-2 positions (including Physician (R) positions), all position types have been combined.

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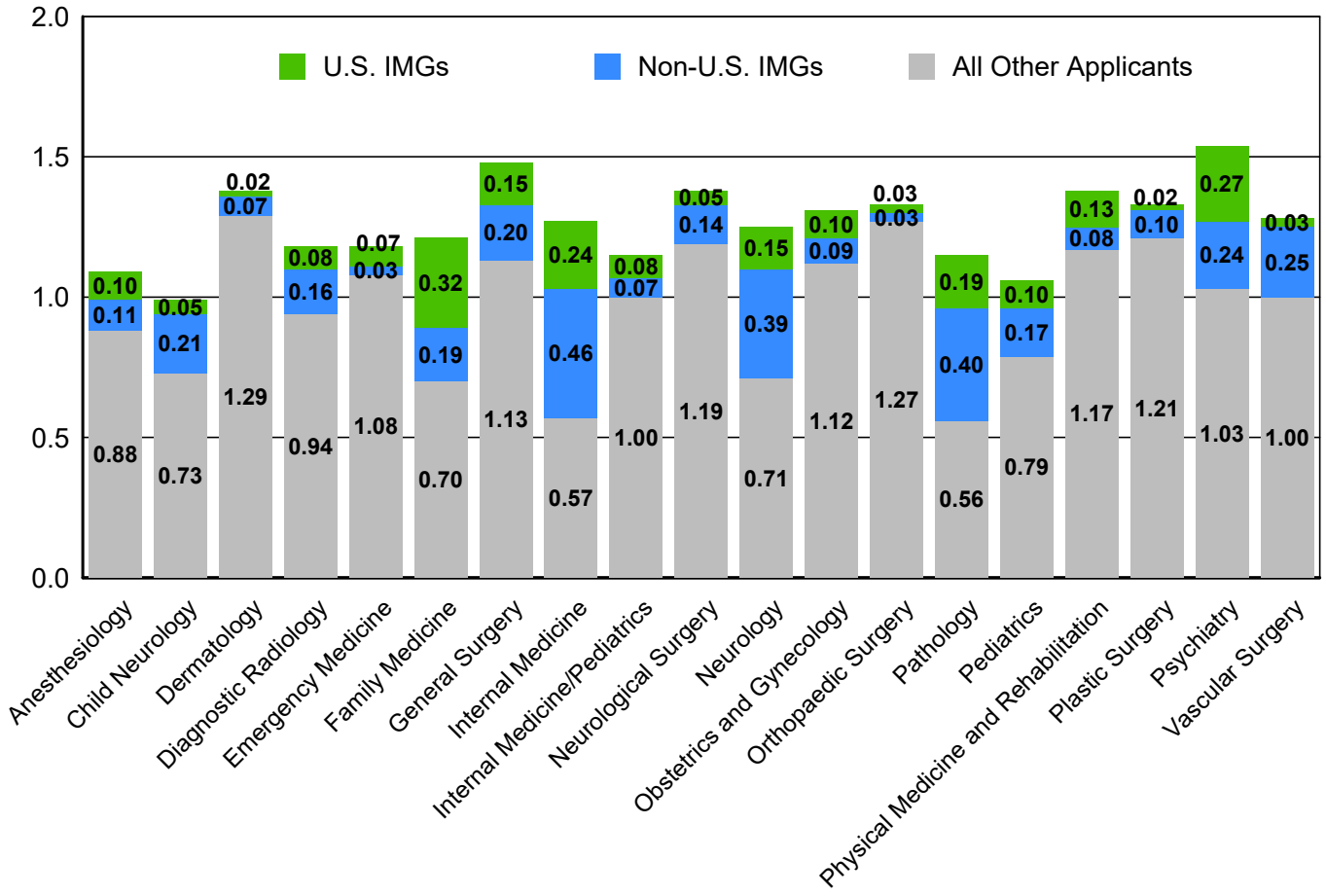
Chart 2

Ratio of International Medical Graduates Ranking Specialty First / Available Positions

by Preferred Specialty



Source: NRMP Data Warehouse

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

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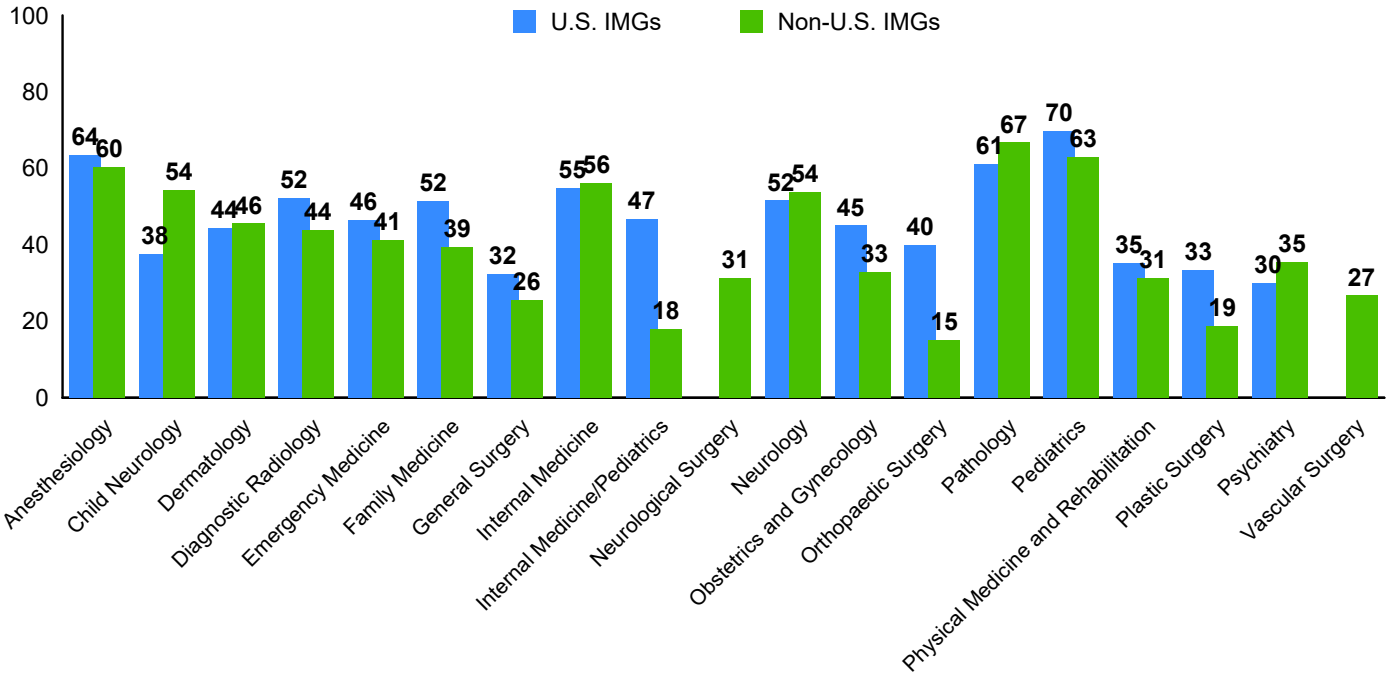
Chart 3

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, 51.2 percent of U.S. IMGs matched to their preferred specialty, ranging from a high of 69.8 percent in Pediatrics to a low of 30.0 percent in Psychiatry. For non-U.S. IMGs, the overall match rate was 51.4 percent, ranging from a high of 66.7 percent in Pathology to a low of 15.0 percent in Orthopaedic Surgery. Match rates were higher for U.S. IMGs than non-U.S. IMGs for all specialties except Child Neurology, Dermatology, Internal Medicine, Neurology, Pathology, and Psychiatry. No U.S. IMG matched in Neurological Surgery or Vascular Surgery.

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Table 2 Summary Statistics
All Specialties Combined

Measure	U.S. IMGs		Non-U.S. IMGs	
	Matched (n=2,248)	Unmatched (n=1,990)	Matched (n=3,269)	Unmatched (n=2,910)
1. Mean number of contiguous ranks	7.3	2.3	6.4	2.3
2. Mean number of distinct specialties ranked	1.5	1.5	1.3	1.4
3. Mean USMLE Step 1 score	222	212	234	221
4. Mean USMLE Step 2 score	232	222	240	228
5. Mean number of research experiences	1.7	2.5	2.3	2.7
6. Mean number of abstracts, presentations, and publications	2.5	3.4	5.9	6.2
7. Mean number of work experiences	4.0	5.0	5.4	6.1
8. Mean number of volunteer experiences	5.0	4.0	3.6	3.7
9. Percentage who have a Ph.D. degree	0.7	1.9	3.3	3.3
10. Percentage who have another graduate degree	20.9	28.0	21.1	28.2

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.

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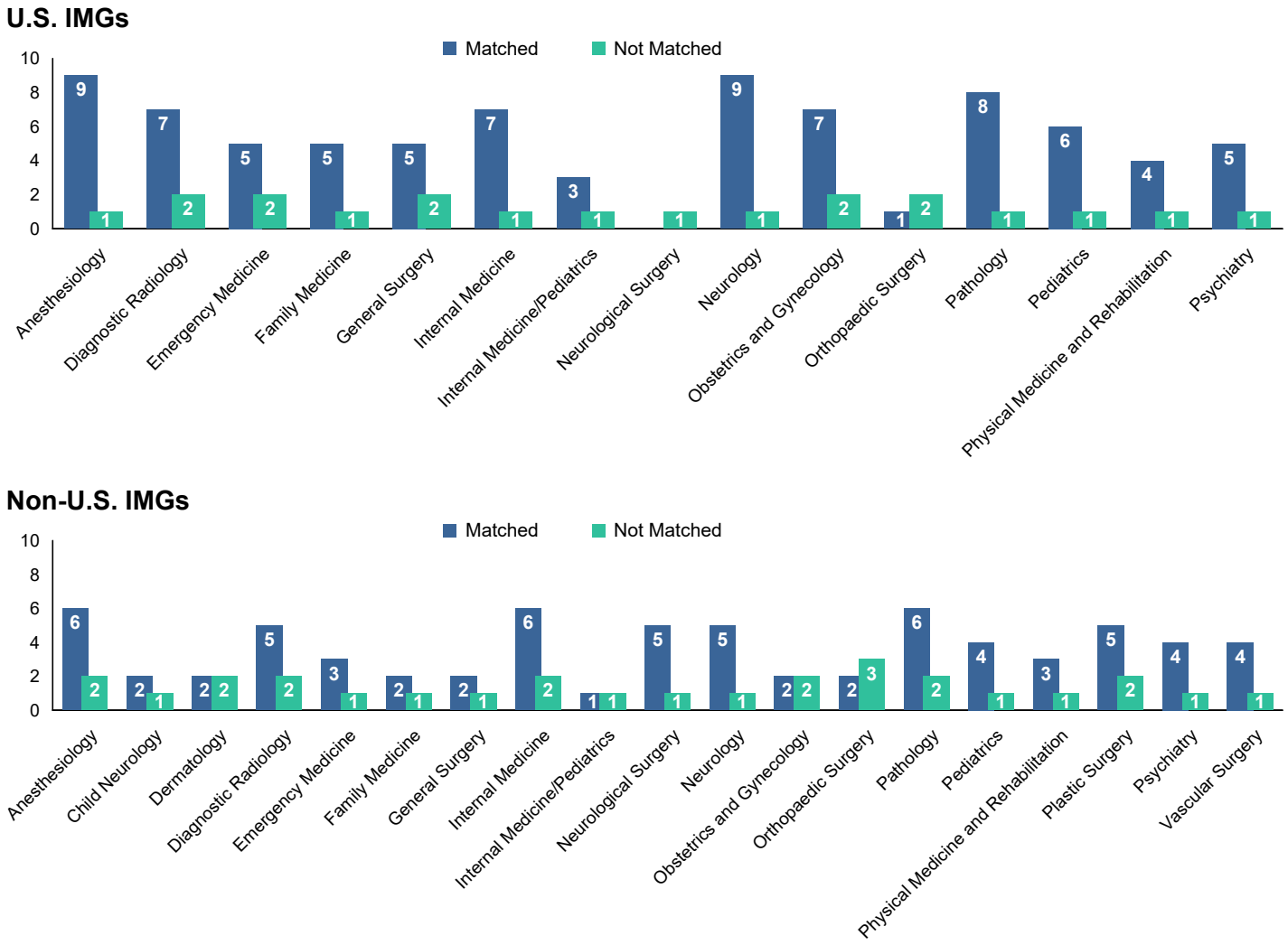
Chart 4

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.

The principal message of this chart 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.

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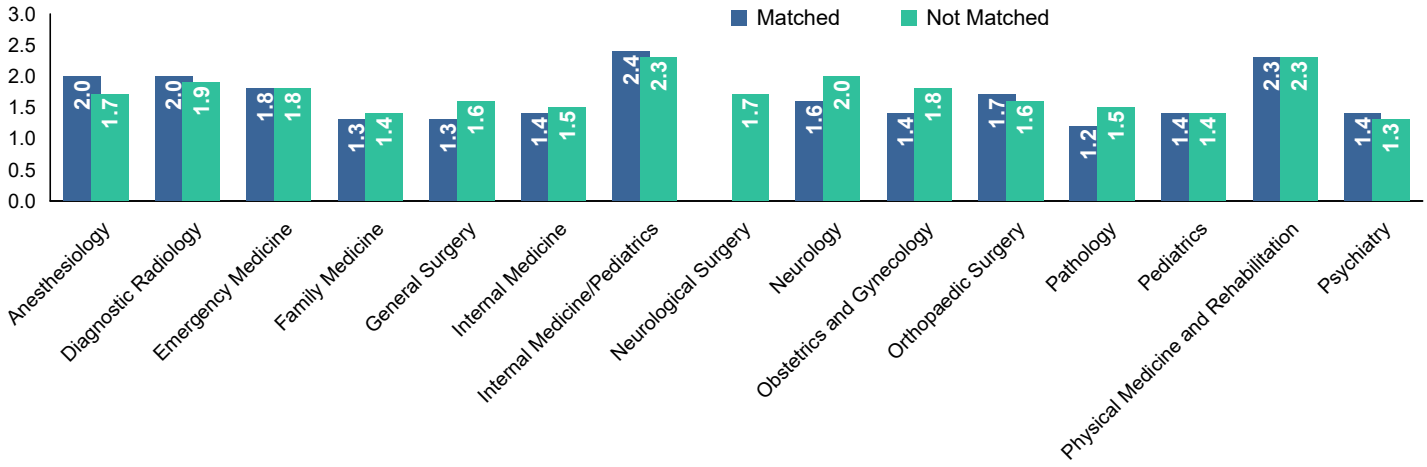
Chart 5

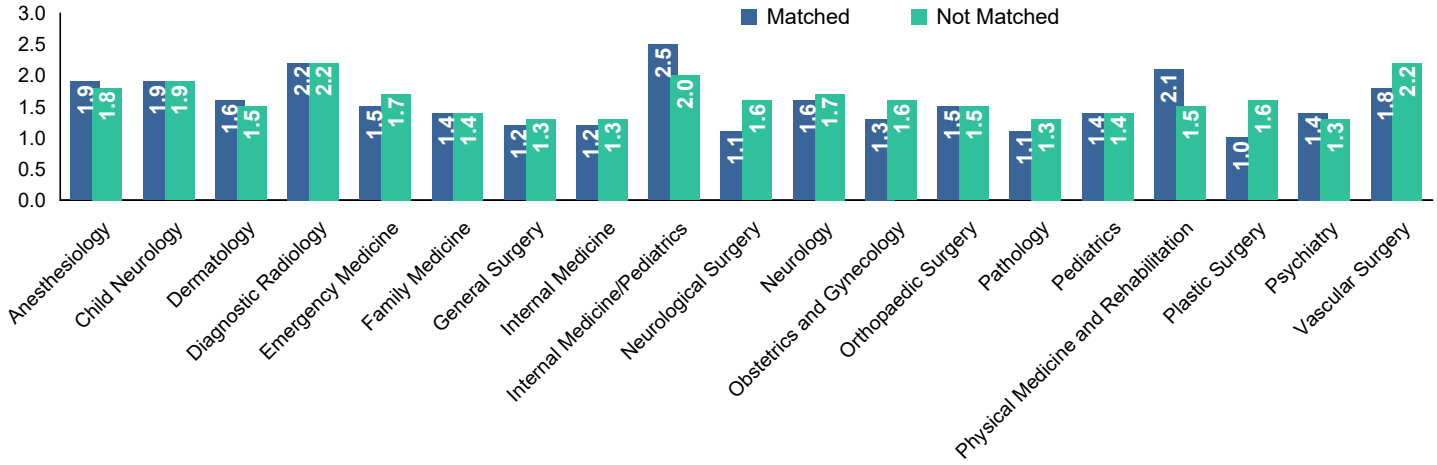
Mean Number of Different Specialties Ranked by International Medical Graduates

by Preferred Specialty, IMG Applicant Type, and Match Status

U.S. IMGs



Non-U.S. IMGs



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 similar with the exception of Neurology for U.S. IMGs and Internal Medicine/Pediatrics and Physical Mediation and Rehabilitation for non-U.S. IMGs. No U.S. IMG matched in Neurological Surgery.

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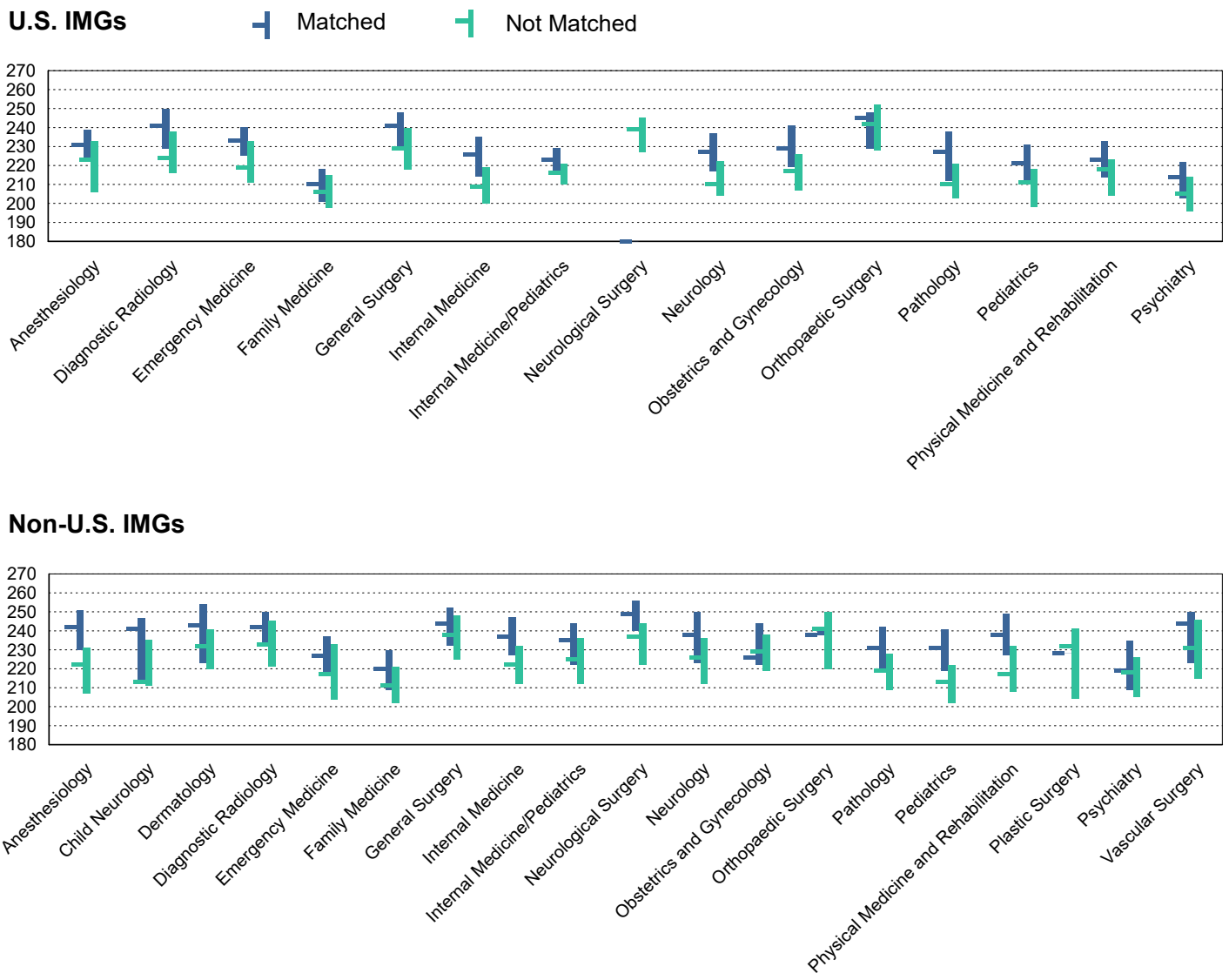
Chart 6 USMLE Step 1 Scores of International Medical Graduates
by Preferred Specialty, Match Status, and IMG Applicant Type



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 222.5 (s.d. = 16.1) and matched non-U.S. IMGs had *mean* USMLE Step 1 scores of 234.1 (s.d. = 16.4), both well above the 2018 minimum passing score of 194. Step 1 scores were available for 90 percent of U.S. IMGs and 94 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 Orthopaedic Surgery, 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 Orthopaedic Surgery and Plastic Surgery. No U.S. IMG matched in Neurological Surgery.

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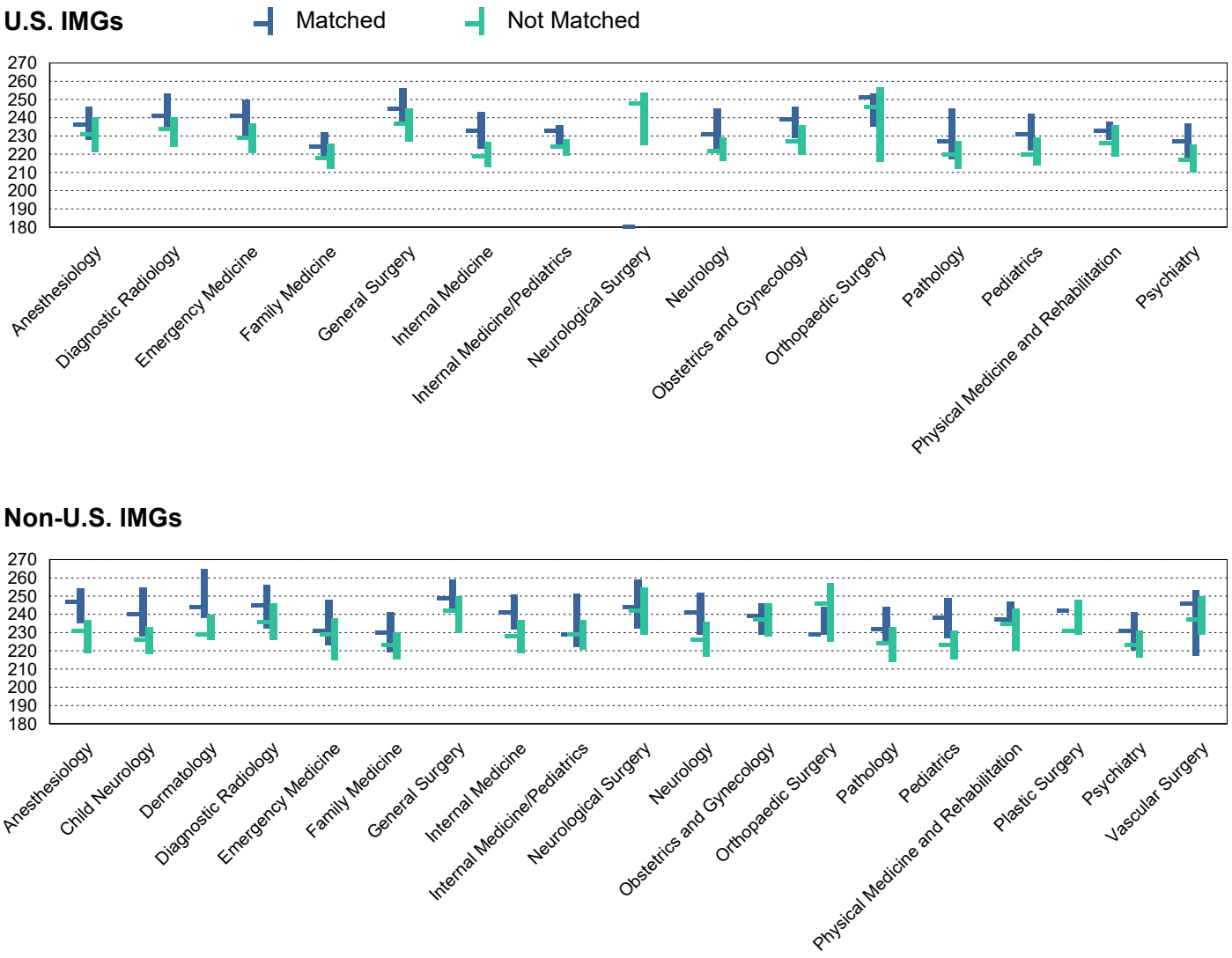
Chart 7 USMLE Step 2 CK Scores of International Medical Graduates
by Preferred Specialty, Match Status, and IMG Applicant Type



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 232.2 (s.d. = 14.2) and matched non-U.S. IMGs had *mean* USMLE Step 2 CK scores of 239.7 (s.d. = 15.0), both well above the 2018 minimum passing score of 209. Step 2 CK scores were available for 89 percent of U.S. IMGs and 93 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 - specialties for which the score ranges are *similar or higher* for unmatched applicants - are Orthopaedic Surgery for U.S. IMGs and Obstetrics and Gynecology, Orthopaedic Surgery, Plastic Surgery and Vascular Surgery for non-U.S. IMGs. No U.S. IMG matched in Neurological Surgery.

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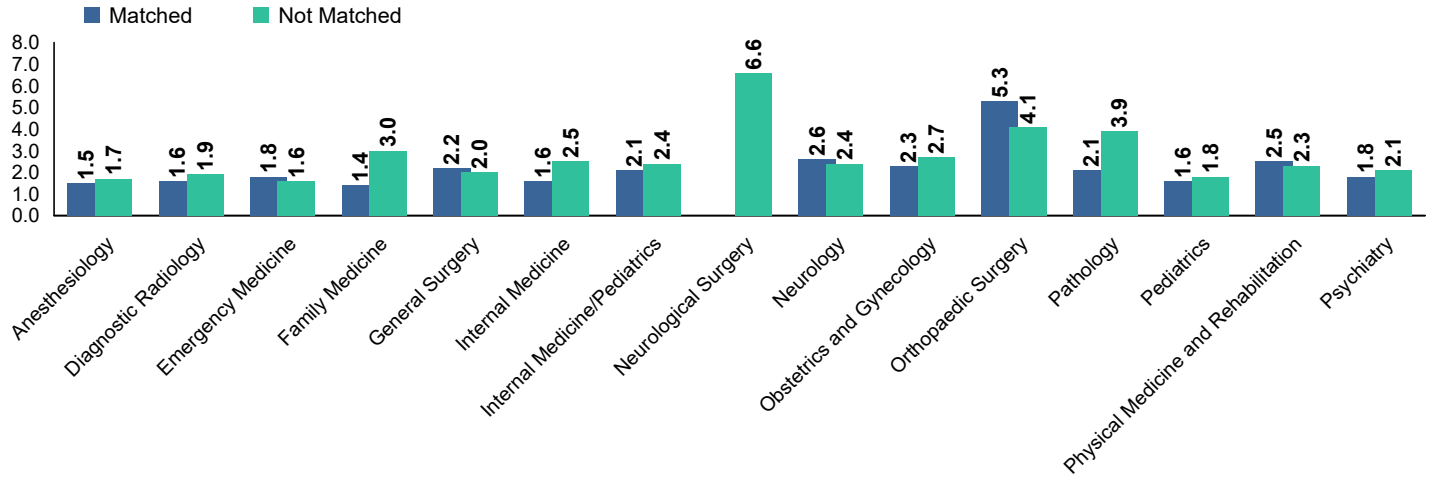
Chart 8

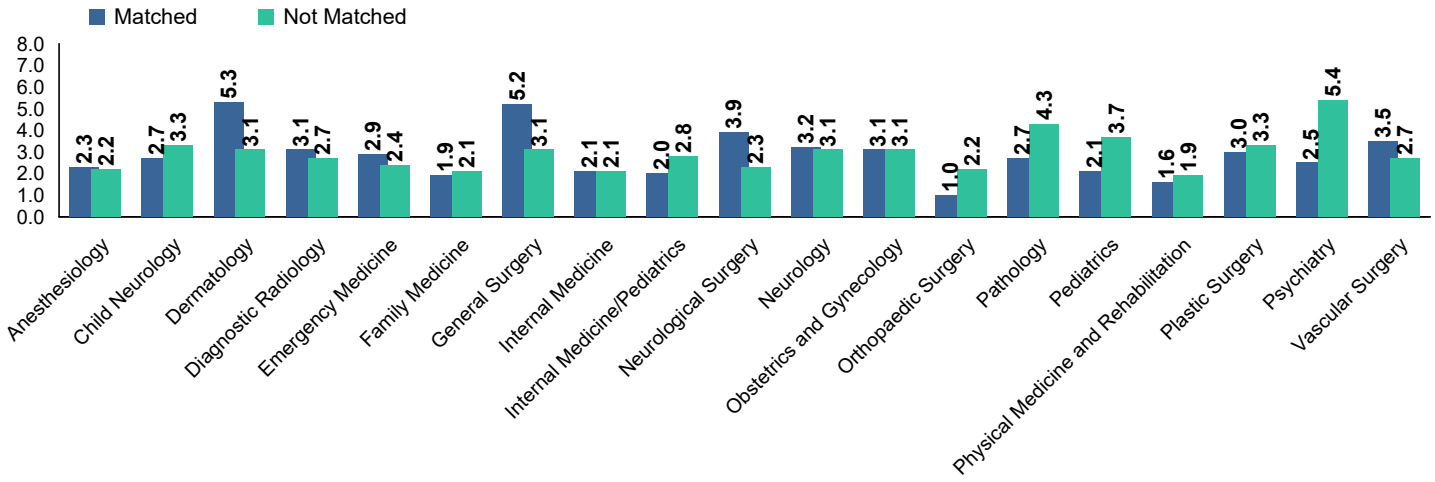
Mean Number of Research Experiences of International Medical Graduates

by Preferred Specialty, Match Status, and IMG Applicant Type

U.S. IMGs



Non-U.S. IMGs



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 2.1 research experiences, with 59.8 percent reporting at least one research experience. Non-U.S. IMGs averaged 2.5 research experiences, with 69.0 percent reporting at least one research experience. Across all specialties, there is no consistent pattern between matched and unmatched applicants for U.S. IMGs, but matched non-U.S. IMGs had more research experiences than their unmatched counterparts in competitive specialties such as Dermatology, General Surgery, and Neurological Surgery. No U.S. IMG matched in Neurological Surgery.

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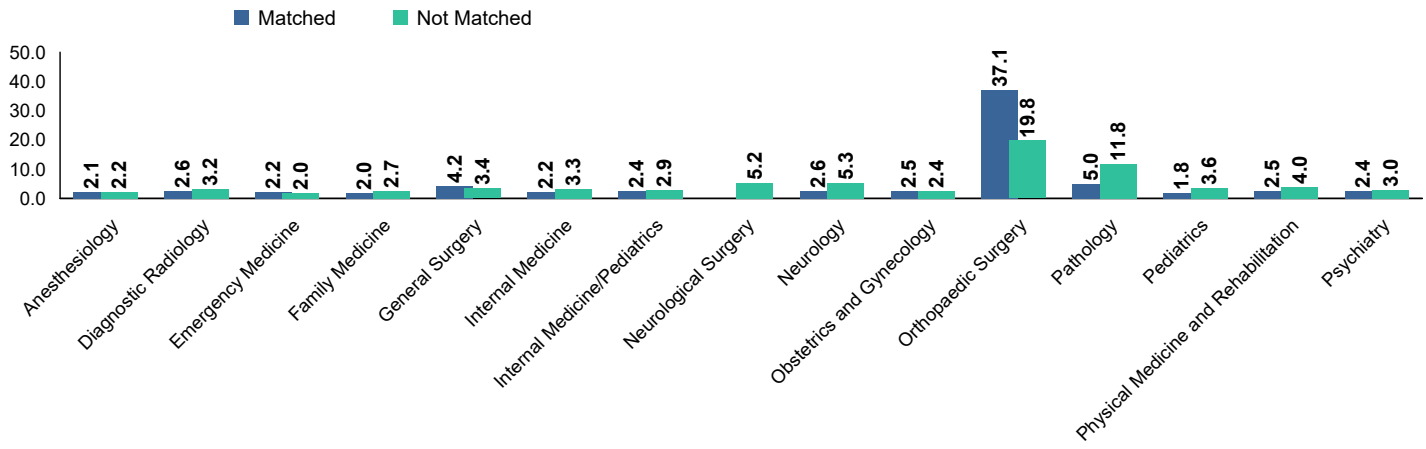
Chart 9

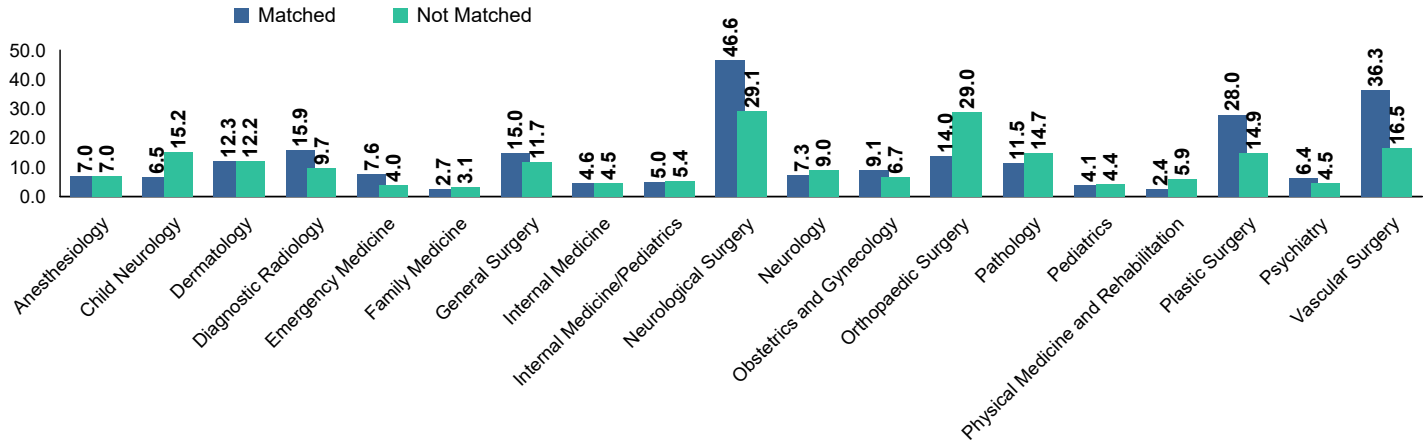
Mean Number of Abstracts, Presentations, and Publications of International Medical Graduates

by Preferred Specialty, Match Status, and IMG Applicant Type

U.S. IMGs



Non-U.S. IMGs



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 (48.3%) reported at least one publication, compared to almost two-thirds (65.0%) of non-U.S. IMGs. The average number of publications was of 2.9 for U.S. IMGs and 6.2 for non-U.S. IMGs. Large numbers of publications can be found in surgical specialties such as Orthopaedic Surgery for U.S. IMGs and Neurological Surgery, Orthopaedic Surgery, Plastic Surgery, and Vascular Surgery for non-U.S. IMGs. 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 in either applicant group.

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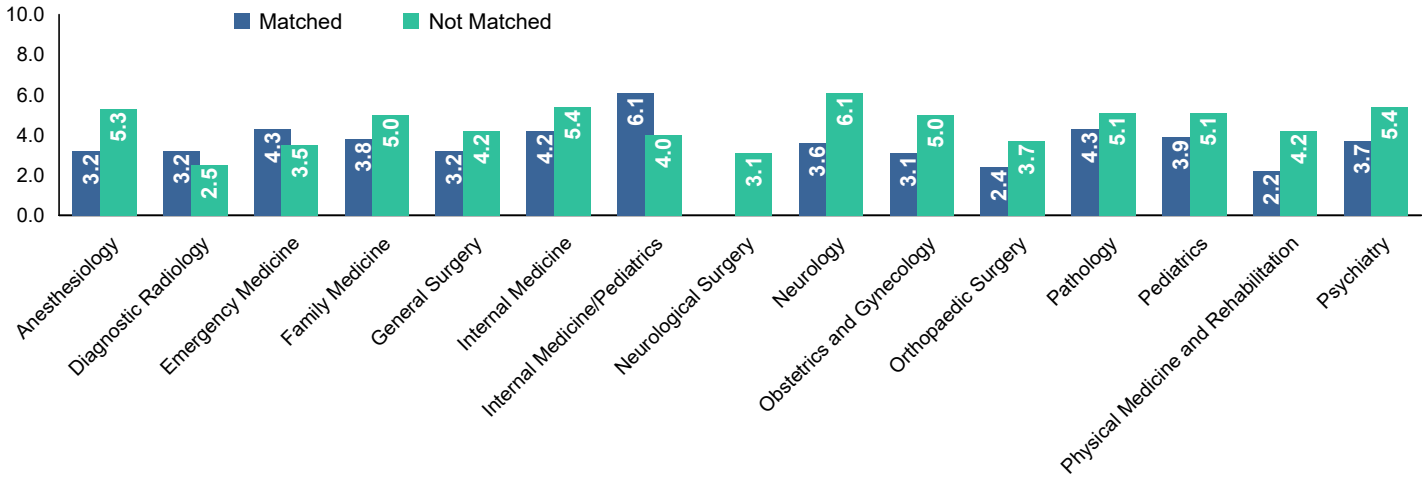
Chart 10

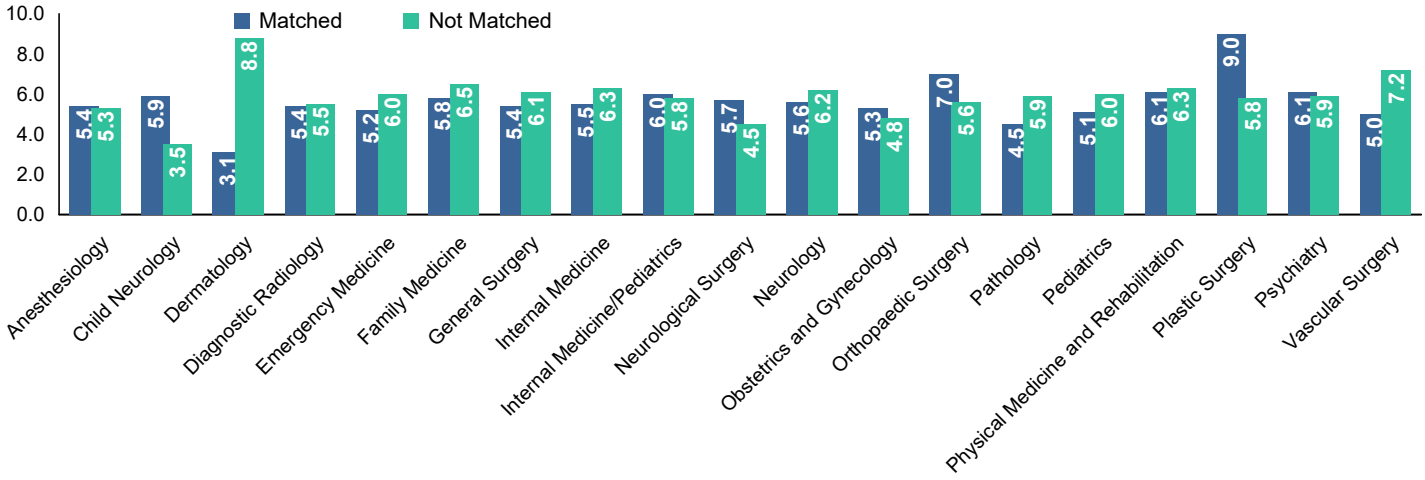
Mean Number of Work Experiences of International Medical Graduates

by Preferred Specialty, Match Status, and IMG Applicant Type

U.S. IMGs



Non-U.S. IMGs



Source: NRMP Data Warehouse

Applicants were asked to list the number of work experiences they reported in their ERAS applications. Chart 10 shows the average number of work experiences by IMG applicant type, preferred specialty, and Match outcome. Only in Diagnostic Radiology, Emergency Medicine, and Internal Medicine/Pediatrics did matched U.S. IMGs have *more* work experiences than those who did not match to their preferred specialty. The mean numbers of work experience are similar between matched and unmatched non-U.S. IMGs across all specialties with the exception of Child Neurology, Dermatology, Orthopaedic Surgery, Plastic Surgery, and Vascular Surgery. Across all specialties, non-U.S. IMGs averaged slightly more work experiences than U.S. IMGs (5.7 compared to 4.5). A larger proportion of non-U.S. IMGs (85.2% compared to 76.9% for U.S. IMGs) reported at least one work experience.

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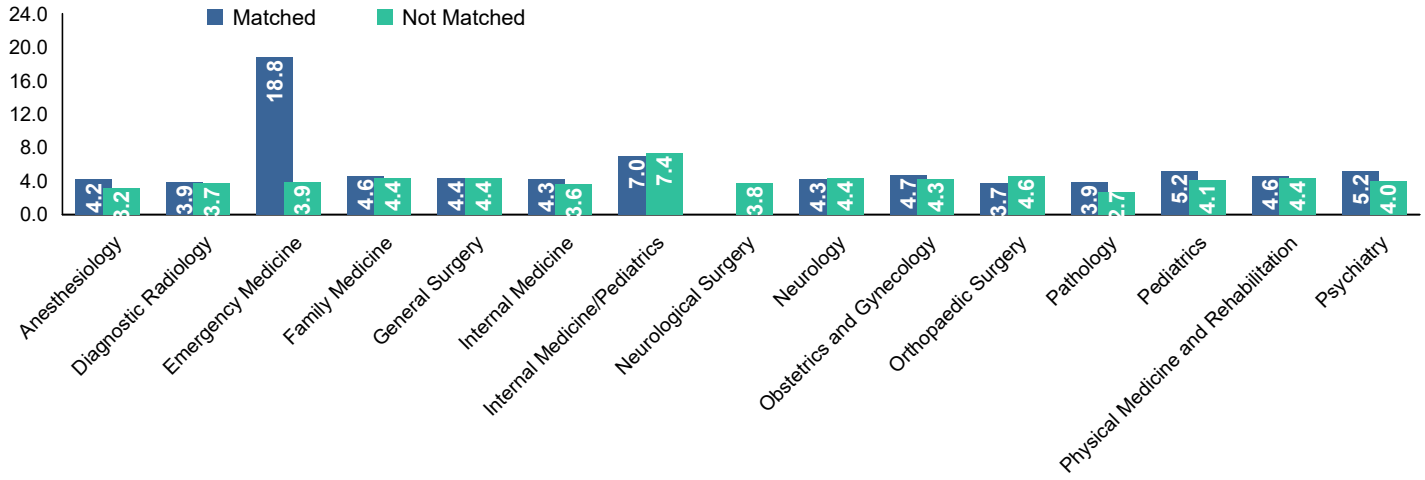
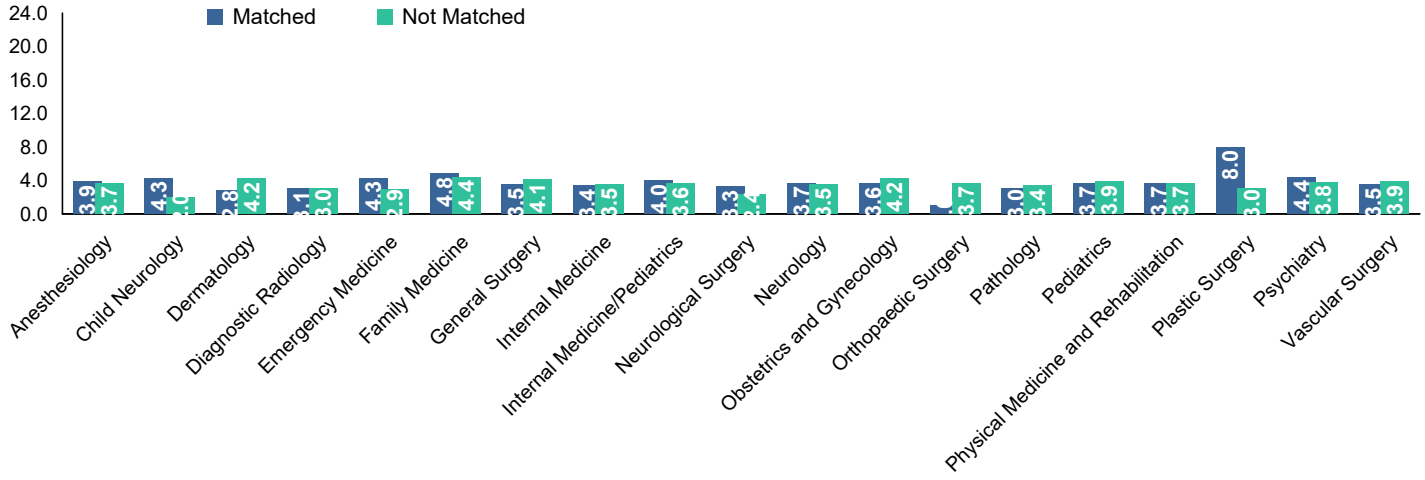
Chart 11 Mean Number of Volunteer Experiences of International Medical Graduates

U.S. IMGs



Non-U.S. IMGs



Source: NRMP Data Warehouse

Applicants were asked to list the number of volunteer experiences they reported in their ERAS applications. Chart 11 displays 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 Emergency Medicine for U.S. IMGs and Plastic Surgery for non-U.S. IMGs.

Overall, U.S. IMGs averaged 4.6 volunteer experiences and non-U.S. IMGs averaged 3.6 volunteer experiences. At least one volunteer experience was reported by 77.6 percent of U.S. IMGs and 79.1 percent of non-U.S. IMGs.

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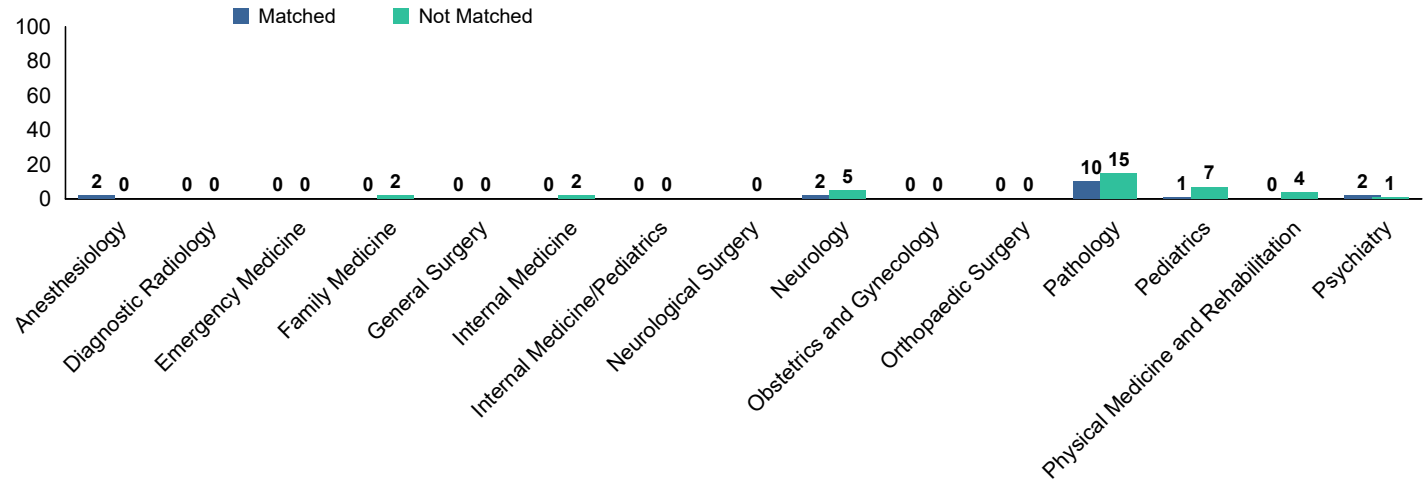
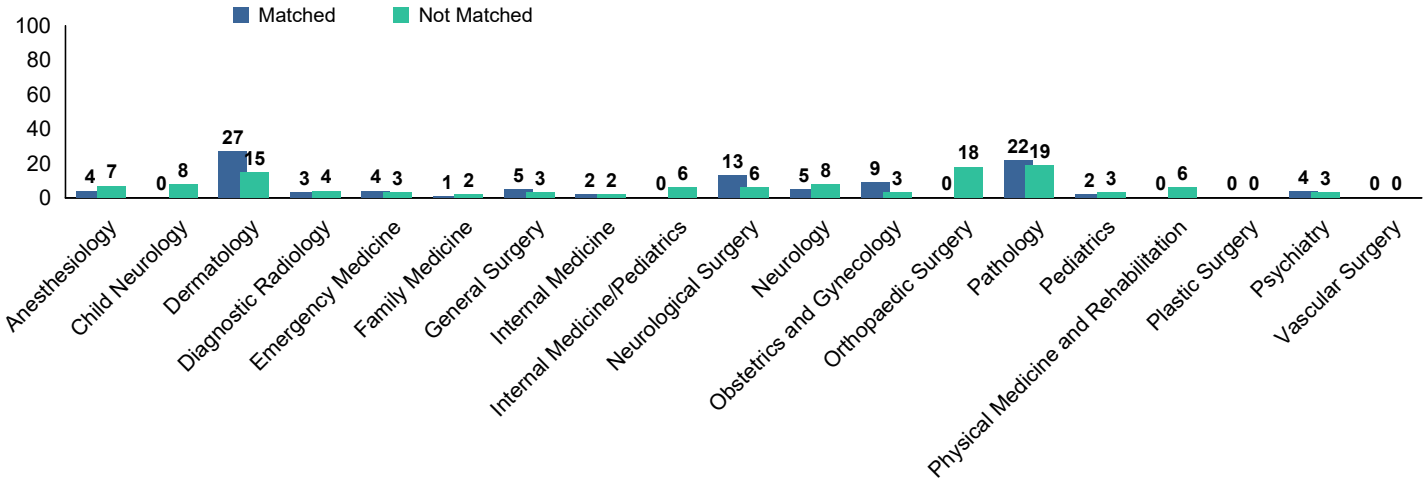
Chart 12 Percentage of International Medical Graduates Who Have a Ph.D. Degree

by Preferred Specialty, Match Status, and IMG Applicant Type

U.S. IMGs



Non-U.S. IMGs



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 (3.3%) reported Ph.D. degrees compared to U.S. IMGs (1.3%). Although the percentages of Ph.D. degree holders are higher in Pathology for U.S. IMGs and Dermatology, Neurological Surgery, and Pathology for non-U.S. IMGs, the numbers of IMGs holding Ph.D. degrees are too small to draw meaningful conclusions across specialties.

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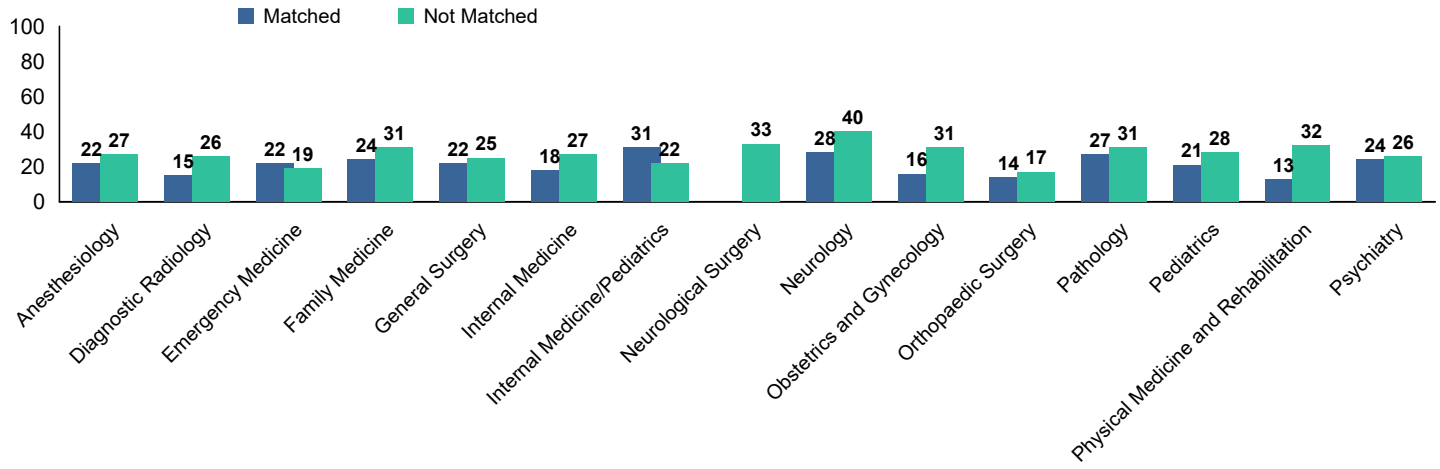
Chart 13

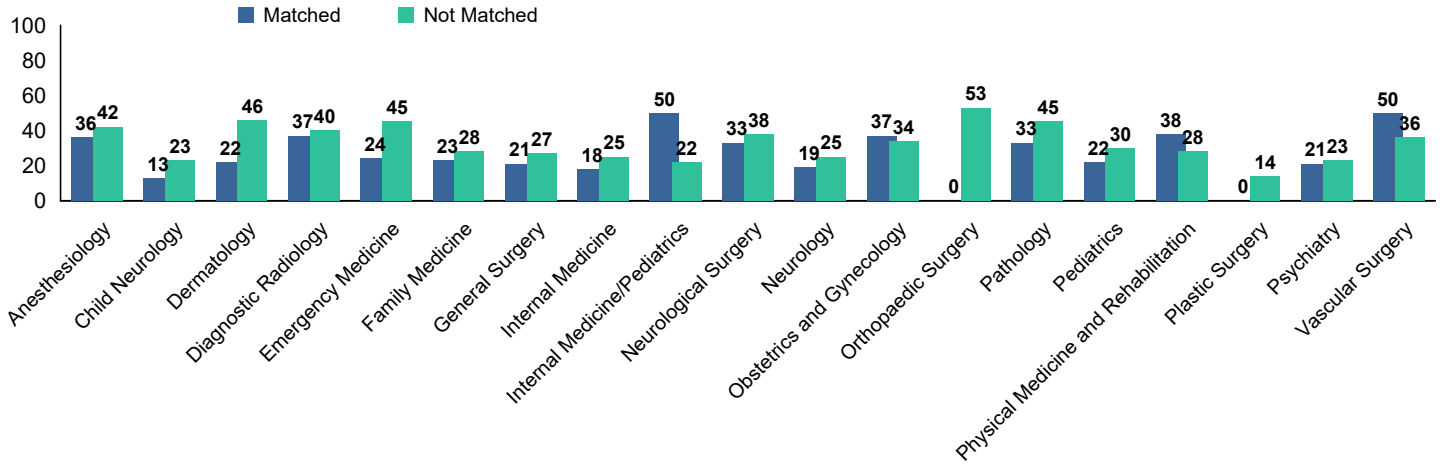
Percentage of International Medical Graduates Who Have Another Graduate Degree

by Preferred Specialty, Match Status, and IMG Applicant Type

U.S. IMGs



Non-U.S. IMGs



Source: NRMP Data Warehouse

Chart 13 shows by preferred specialty, match status and IMG applicant type the percentage of IMGs who have a graduate degree other than a Ph.D. For all specialties but Emergency Medicine and Internal Medicine/Pediatrics, a larger proportion of U.S. IMGs who did not match to their preferred specialty reported a graduate degree than did their matched counterparts. The same trend can be found among non-U.S. IMGs with the exception of Internal Medicine/Pediatrics, Obstetrics and Gynecology, Physical Medicine and Rehabilitation, and Vascular Surgery. No U.S. IMG matched in Neurological Surgery.

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AN Anesthesiology

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Table AN-1 Summary Statistics
Anesthesiology

Measure	U.S. IMGs		Non-U.S. IMGs	
	Matched (n=114)	Unmatched (n=56)	Matched (n=115)	Unmatched (n=67)
1. Mean number of contiguous ranks	10.2	2.2	6.9	2.2
2. Mean number of distinct specialties ranked	2.0	1.7	1.9	1.8
3. Mean USMLE Step 1 score	231	222	240	221
4. Mean USMLE Step 2 score	237	230	244	228
5. Mean number of research experiences	1.5	1.7	2.3	2.2
6. Mean number of abstracts, presentations, and publications	2.1	2.2	7.0	7.0
7. Mean number of work experiences	3.2	5.3	5.4	5.3
8. Mean number of volunteer experiences	4.2	3.2	3.9	3.7
9. Percentage who have a Ph.D. degree	1.8	0.0	3.6	6.8
10. Percentage who have another graduate degree	21.6	26.9	36.0	41.9

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

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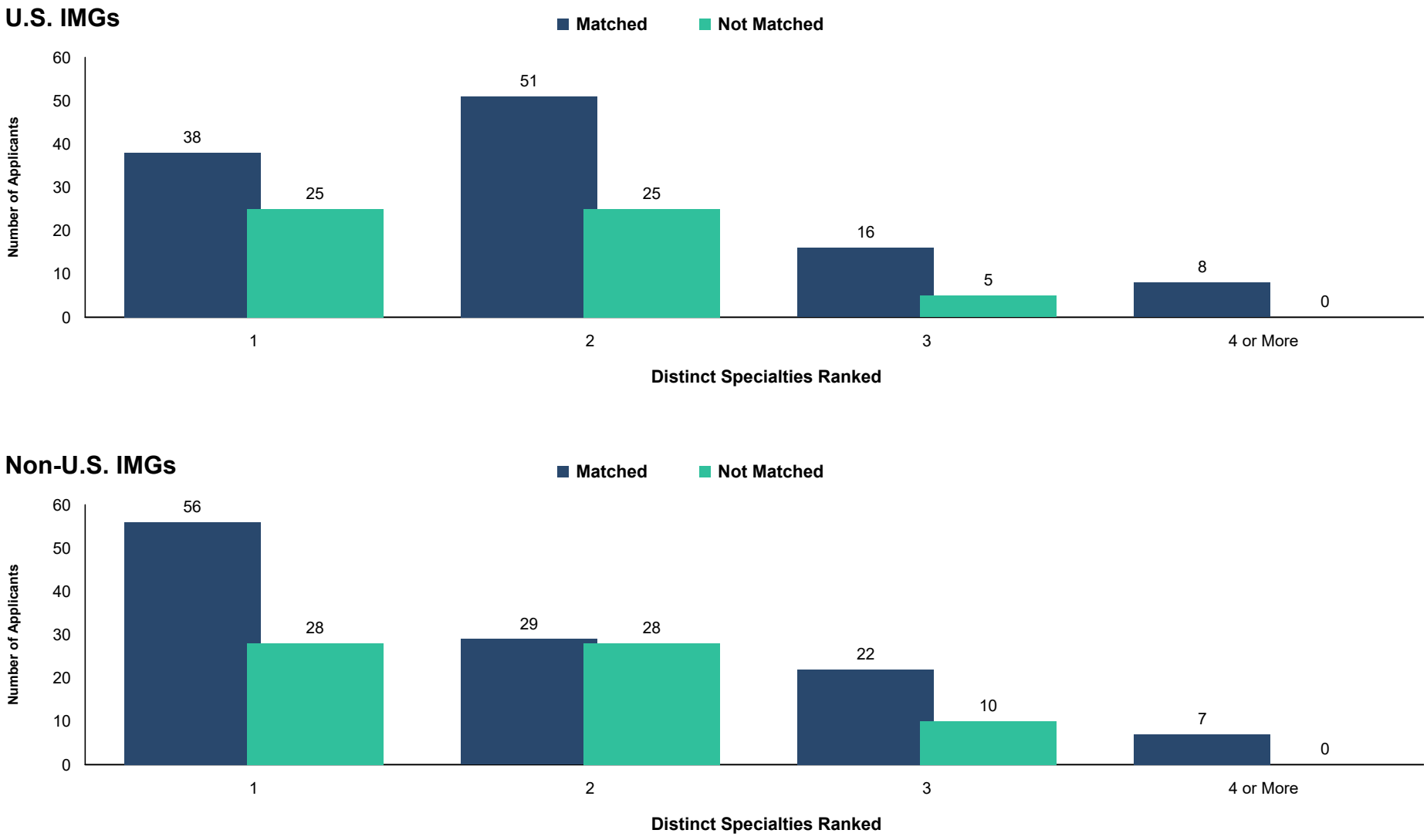
Chart AN-1 Number of Distinct Specialties Ranked by International Medical Graduates Anesthesiology



Source: NRMP Data Warehouse

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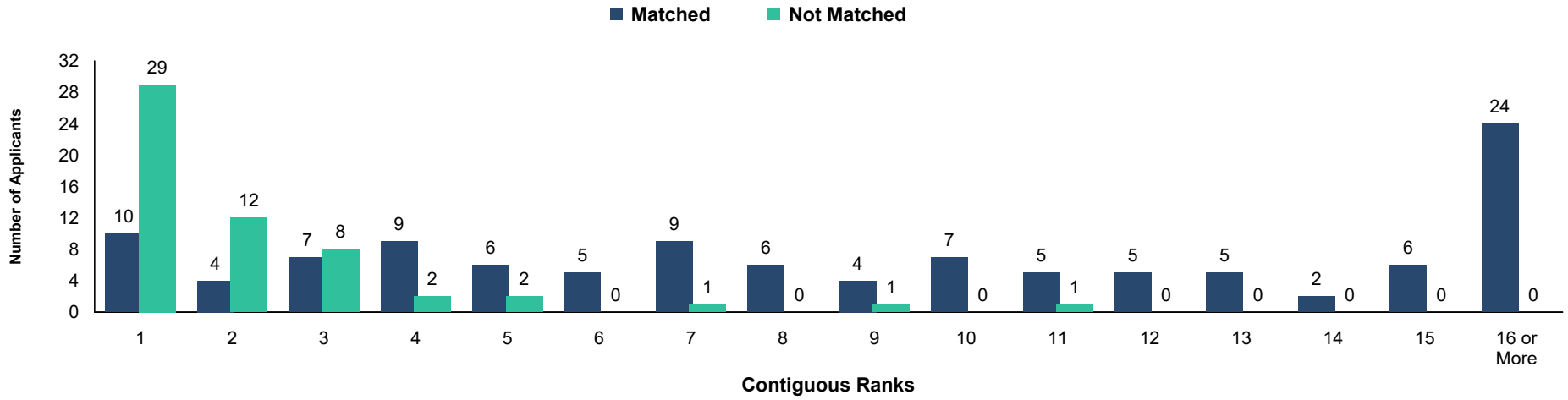
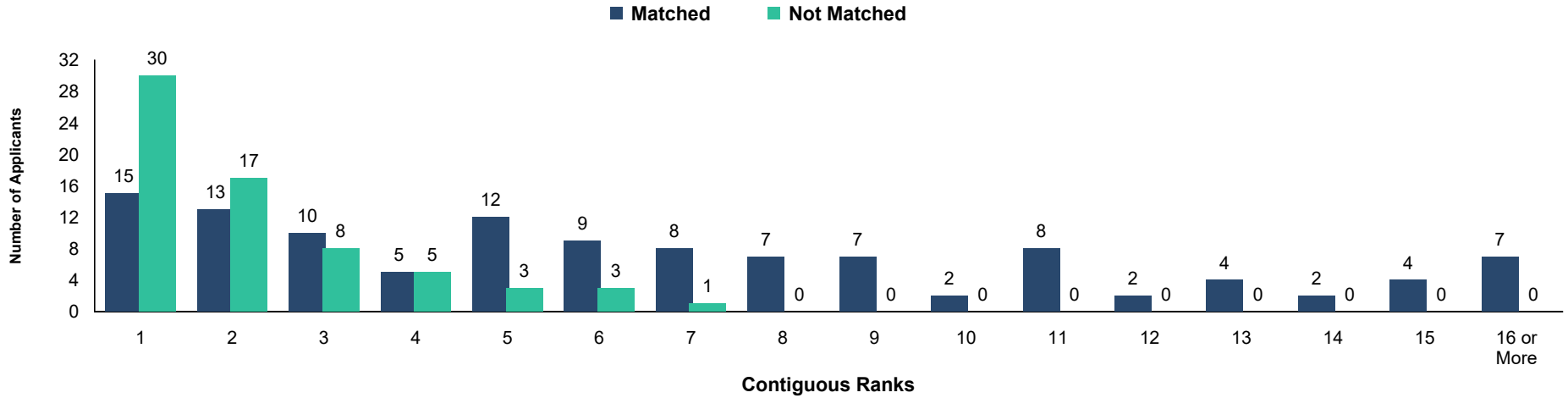
Chart AN-2 Number of Contiguous Ranks of International Medical Graduates Anesthesiology

U.S. IMGs



Non-U.S. IMGs



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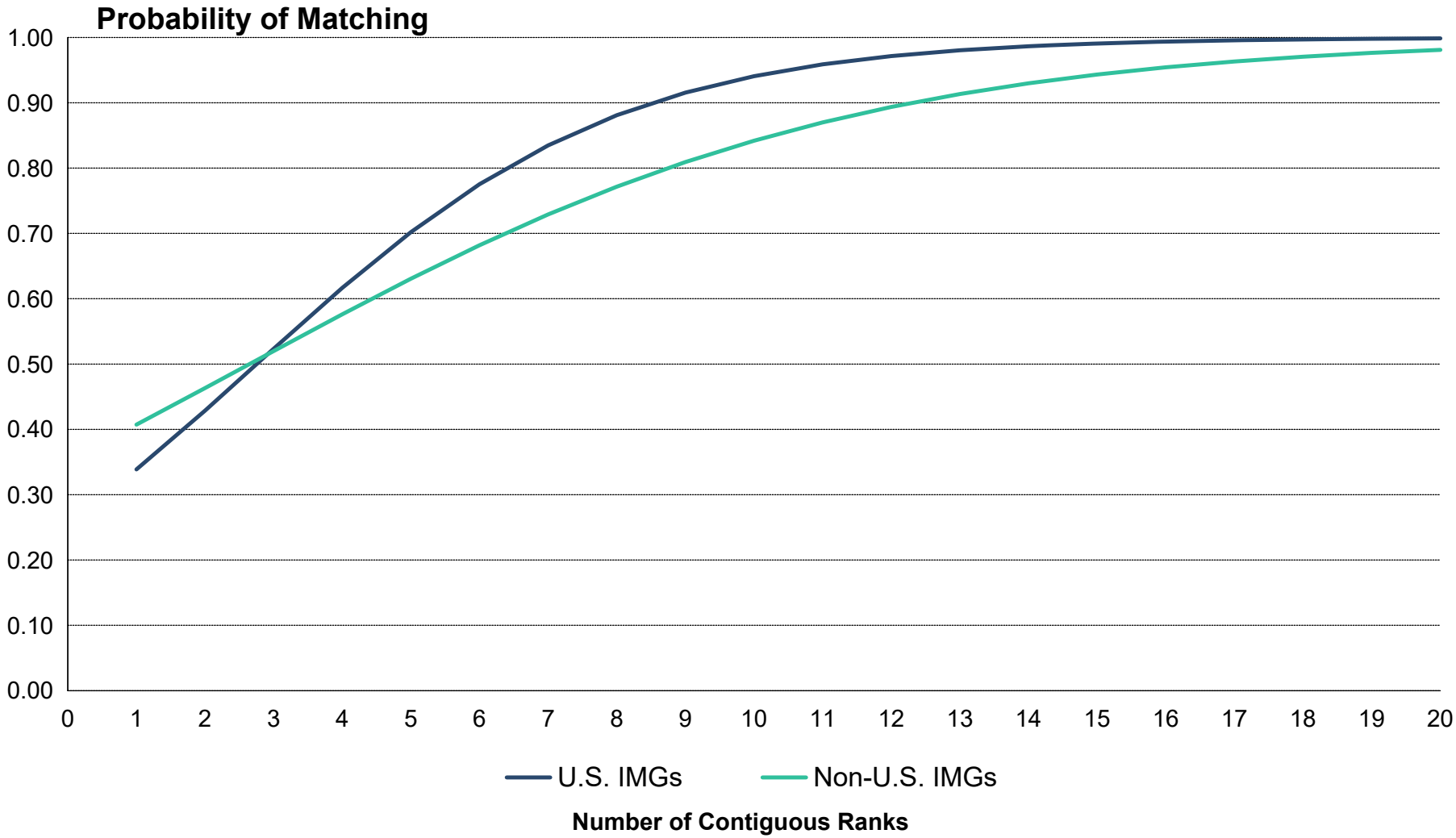
Graph AN-1

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

Anesthesiology



Source: NRMP Data Warehouse. Note: Probabilities calculated based on 2016-2018 applicants

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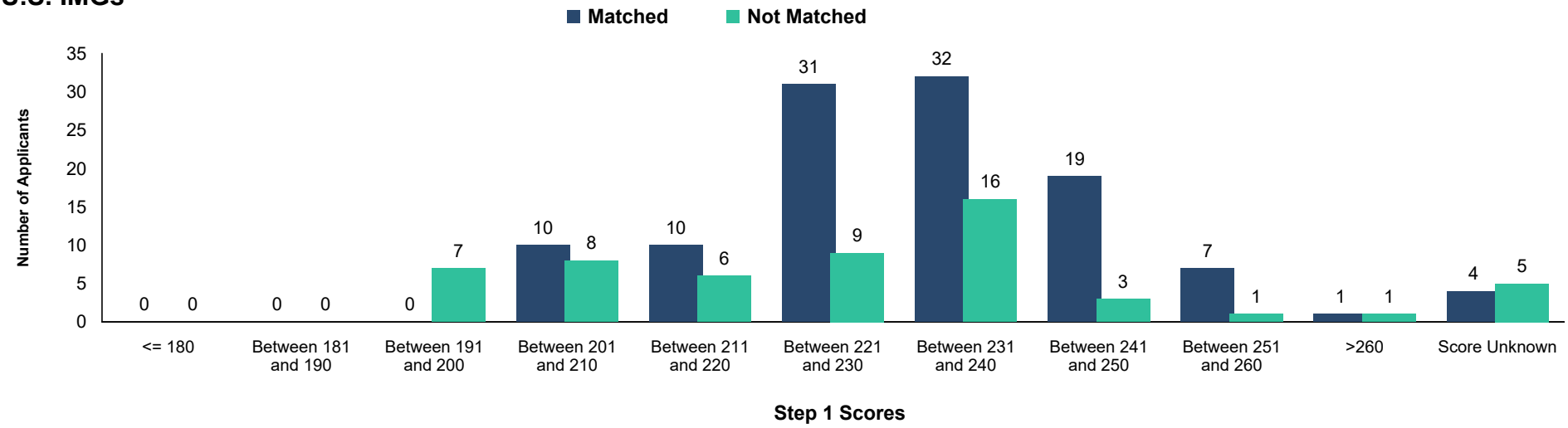
Chart AN-3

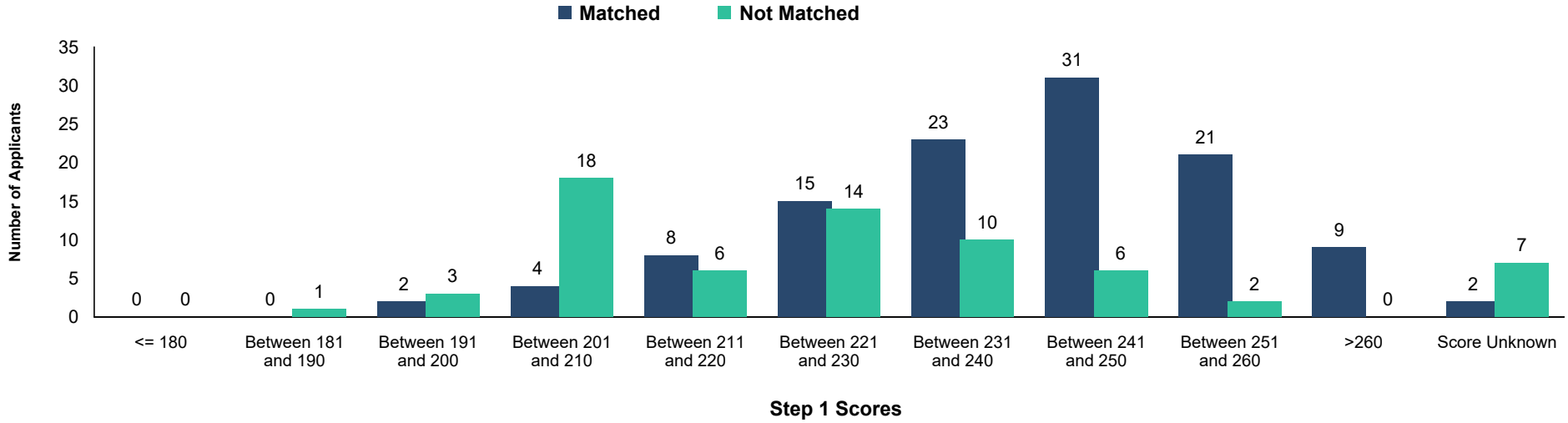
USMLE Step 1 Scores of International Medical Graduates

Anesthesiology

U.S. IMGs



Non-U.S. IMGs



Source: NRMP Data Warehouse

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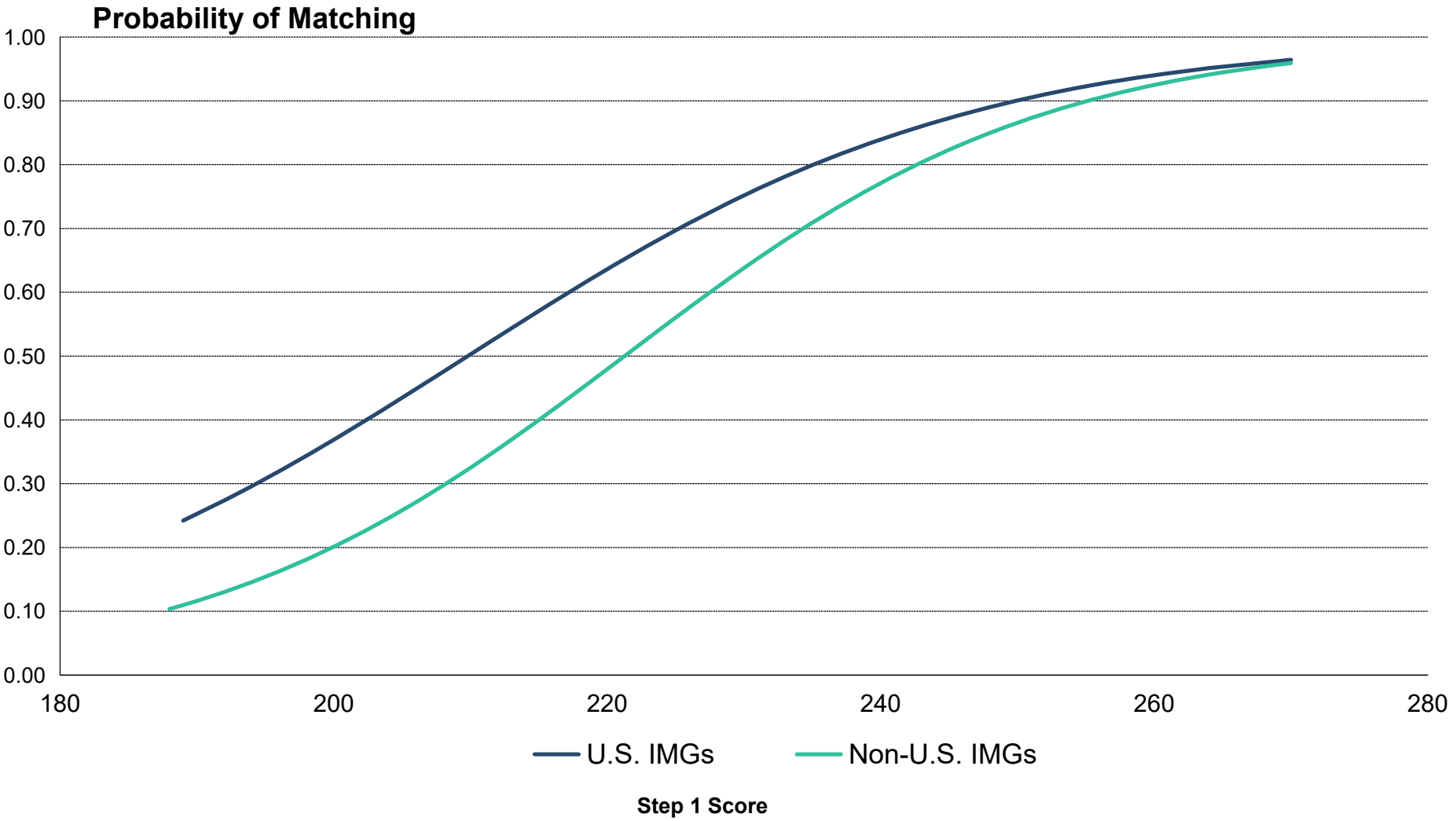
Graph AN-2

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

Anesthesiology



Source: NRMP Data Warehouse. Note: Probabilities calculated based on 2016-2018 applicants.

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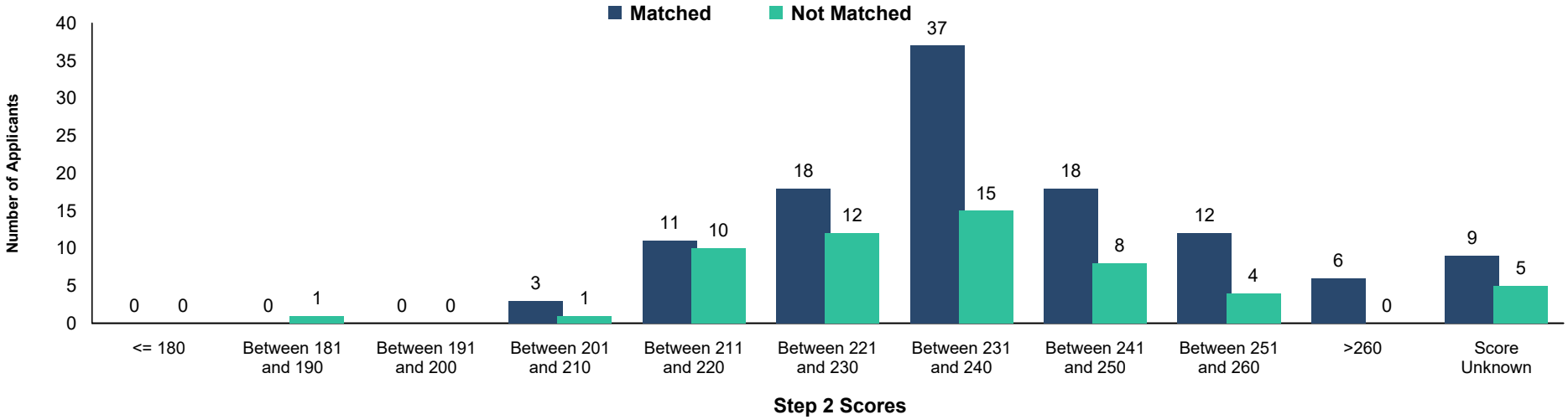
Chart AN-4

USMLE Step 2 CK Scores of International Medical Graduates

Anesthesiology

U.S. IMGs



Non-U.S. IMGs

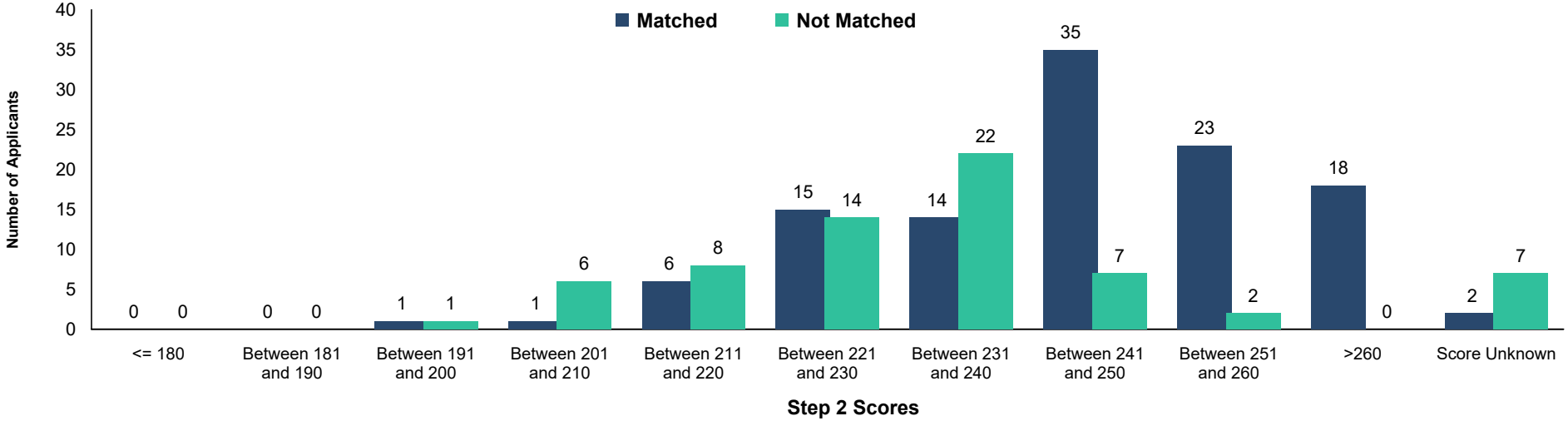


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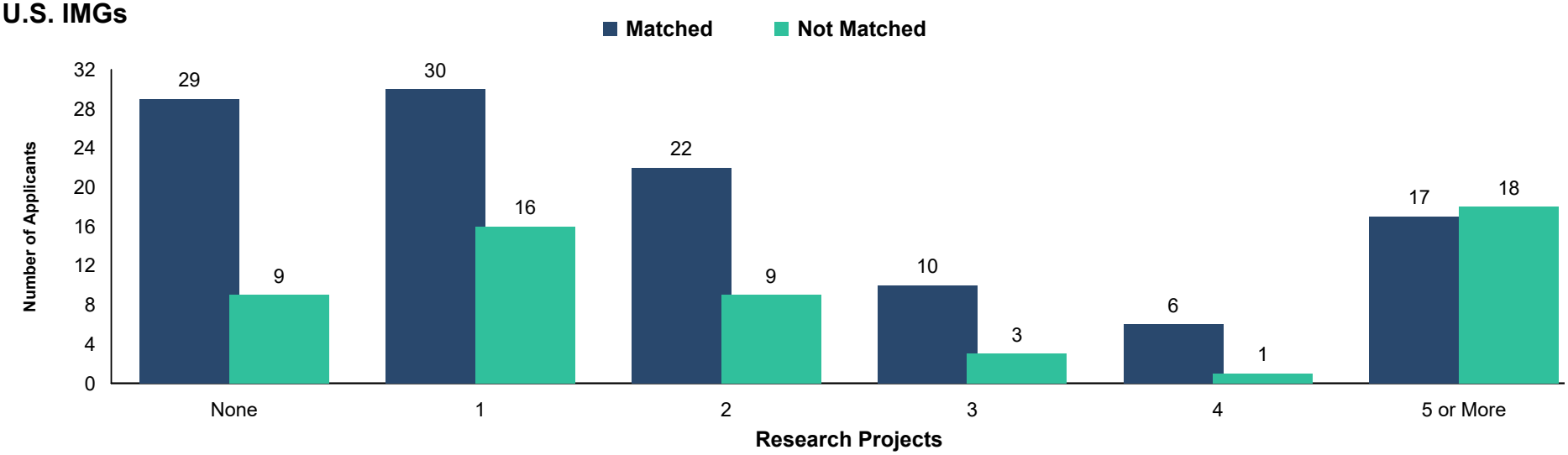
Chart AN-5

Number of Research Projects of International Medical Graduates

Anesthesiology

U.S. IMGs



Non-U.S. IMGs

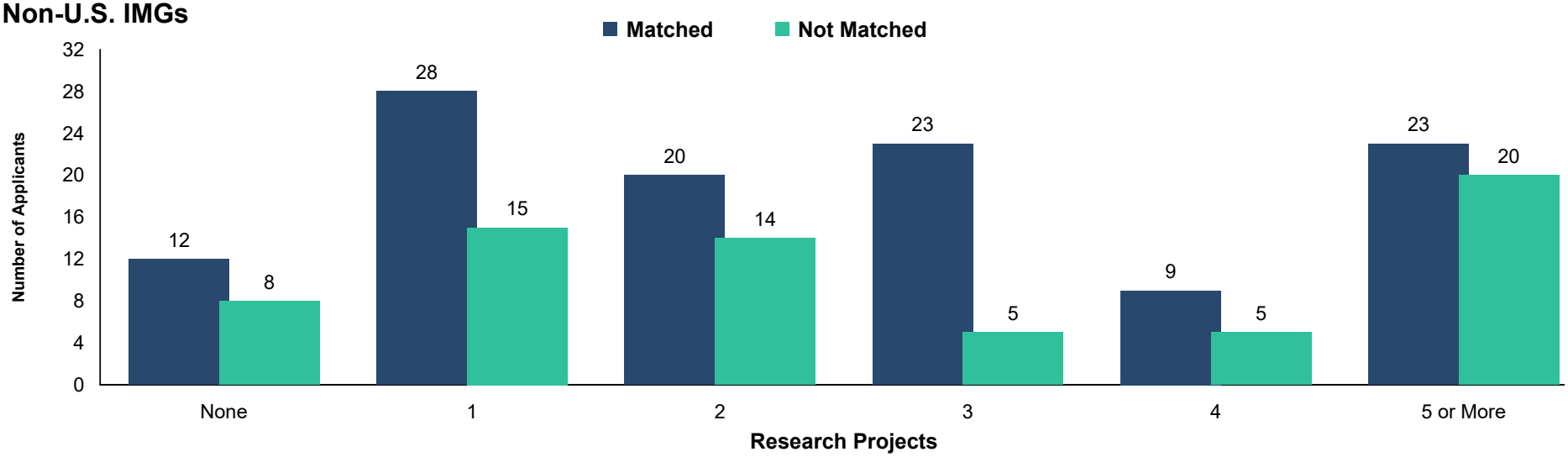


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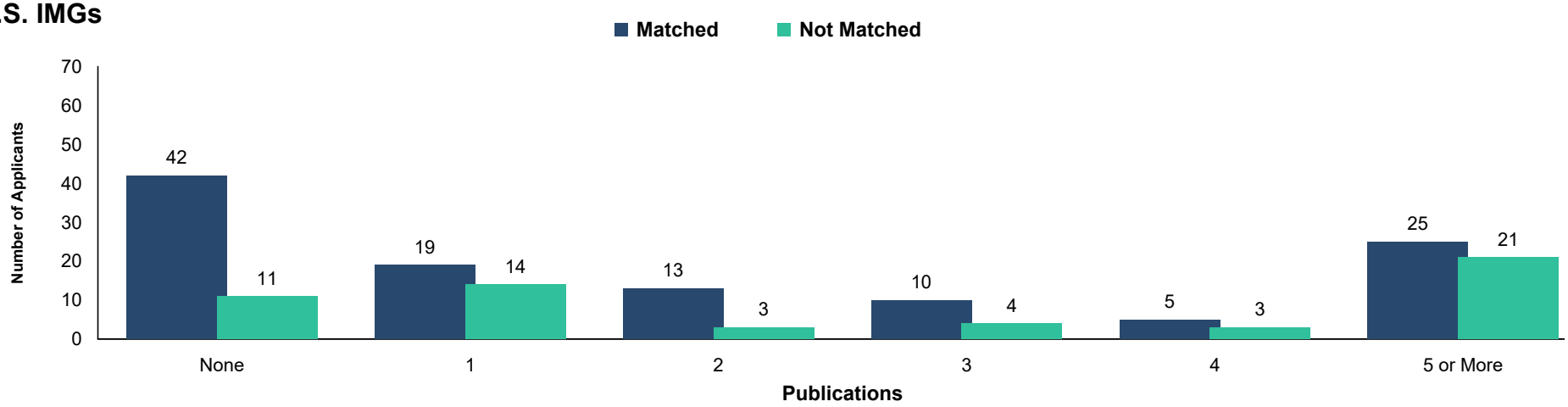
Chart AN-6

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

Anesthesiology

U.S. IMGs



Non-U.S. IMGs

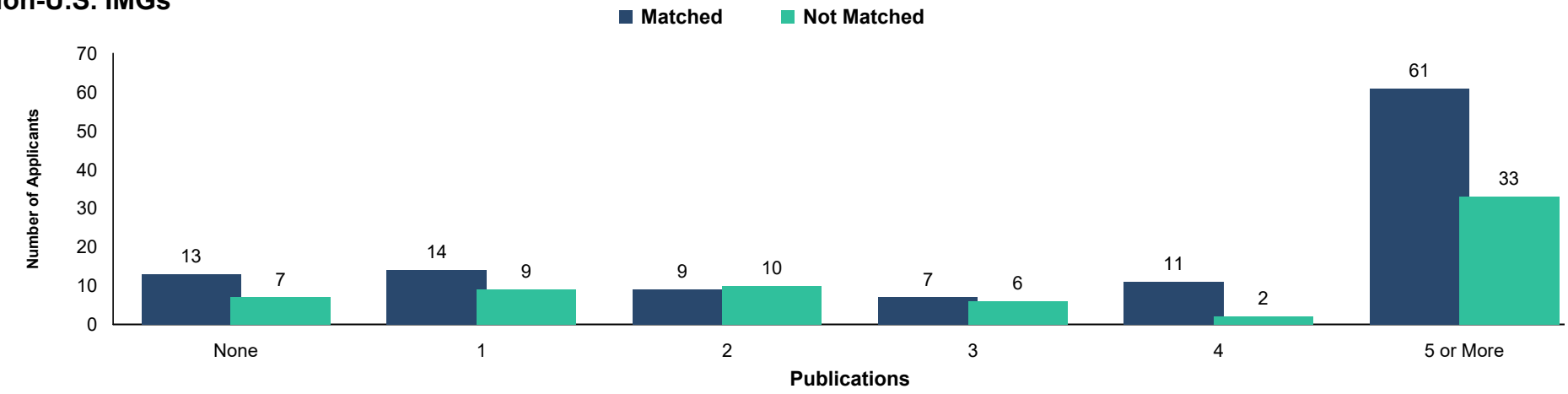


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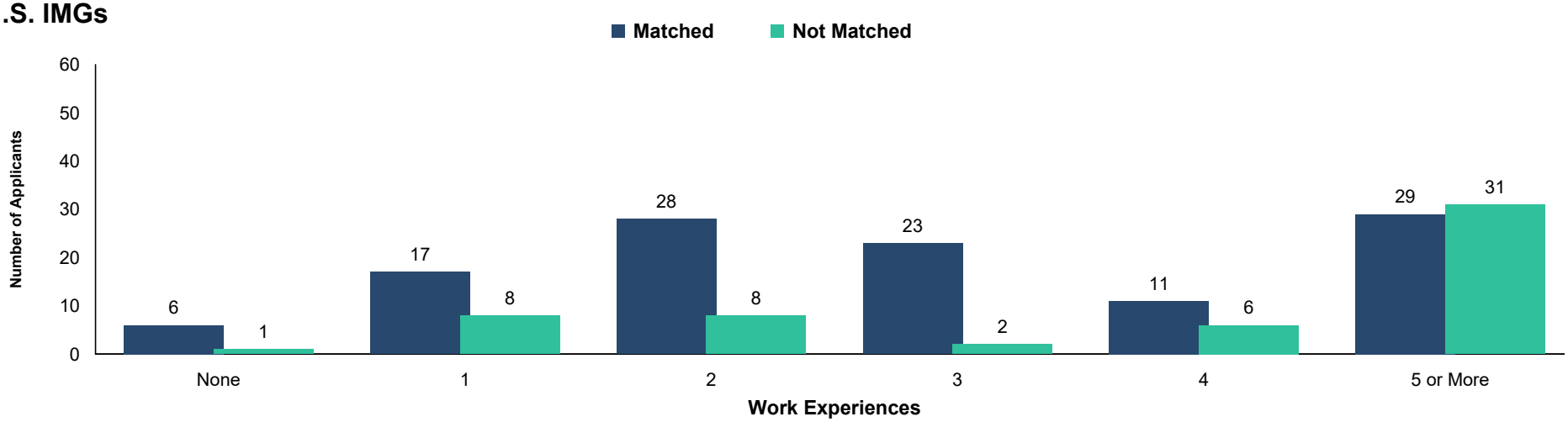
Chart AN-7

Number of Work Experiences of International Medical Graduates

Anesthesiology

U.S. IMGs



Non-U.S. IMGs

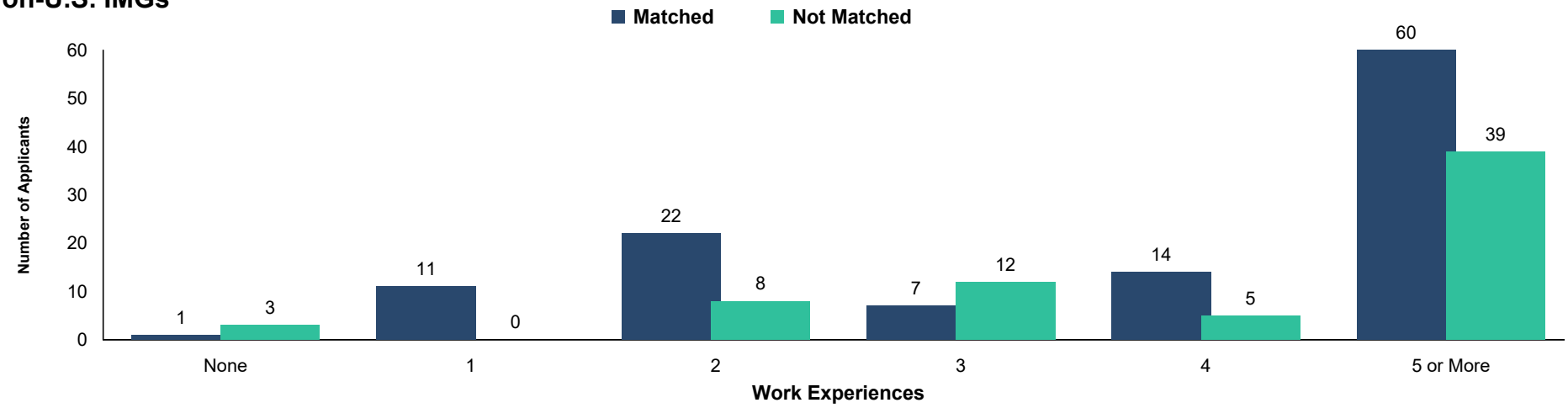


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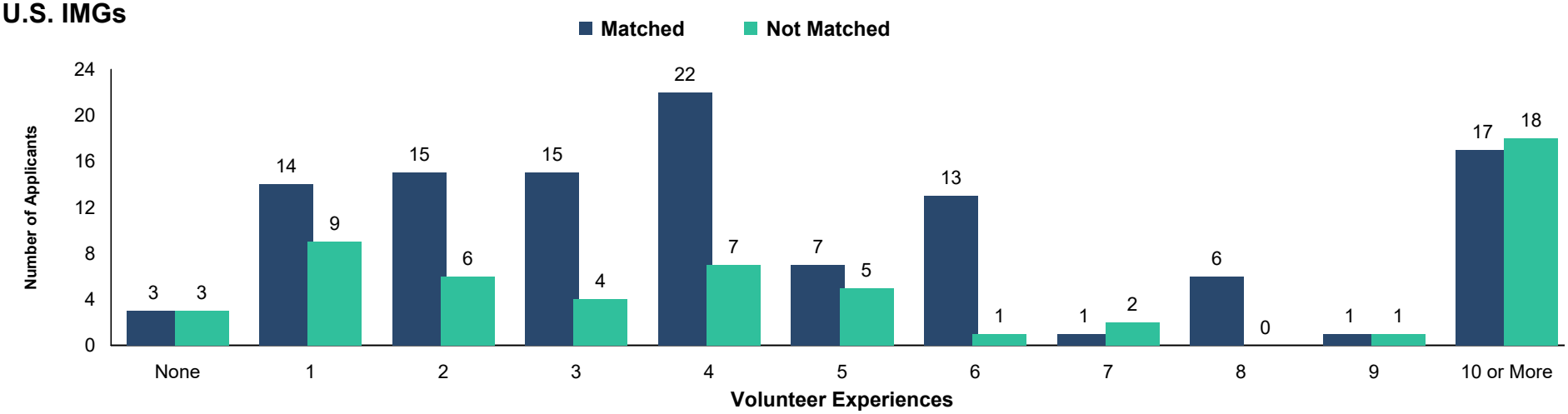
Chart AN-8

Number of Volunteer Experiences of International Medical Graduates

Anesthesiology

U.S. IMGs



Non-U.S. IMGs

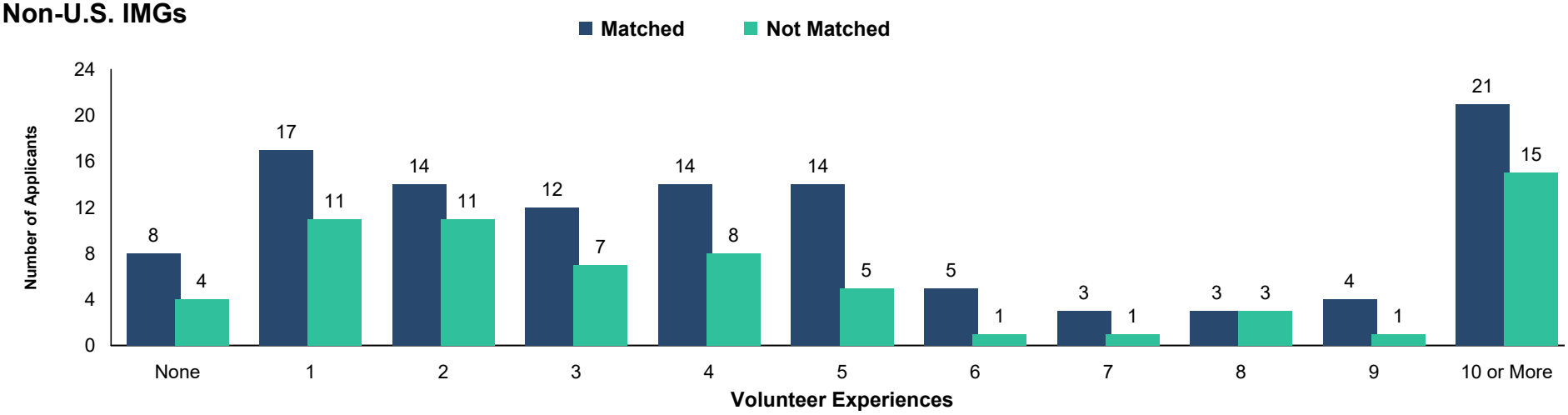


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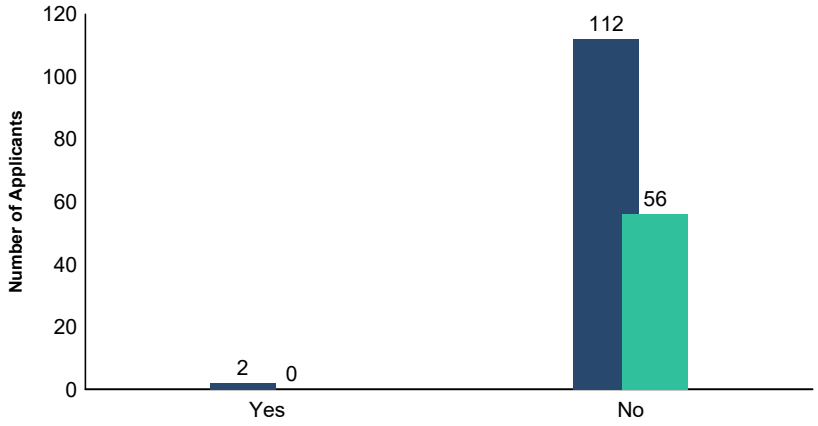
Chart AN-9 Other Characteristics of International Medical Graduates

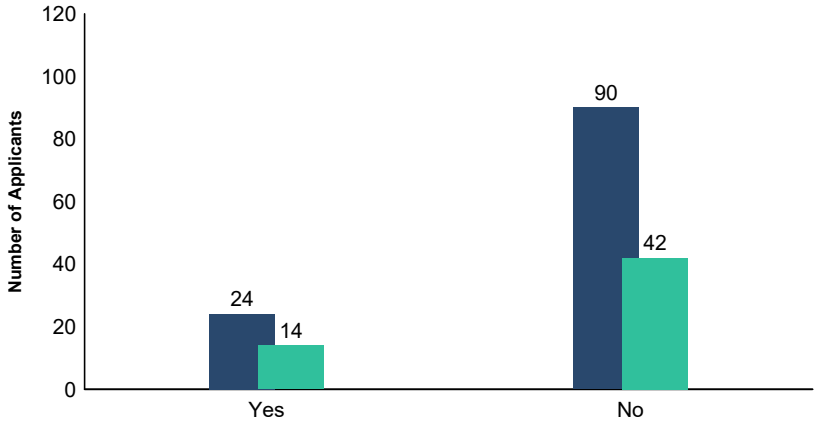
Anesthesiology

U.S. IMGs

Ph.D. Degree

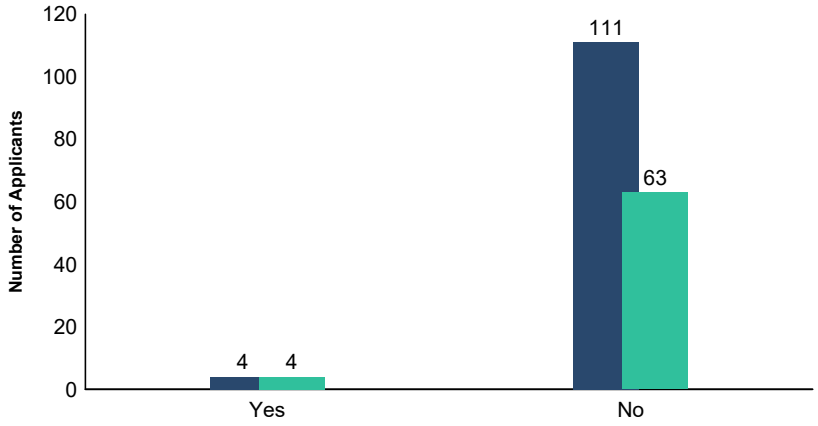


Other Graduate Degree

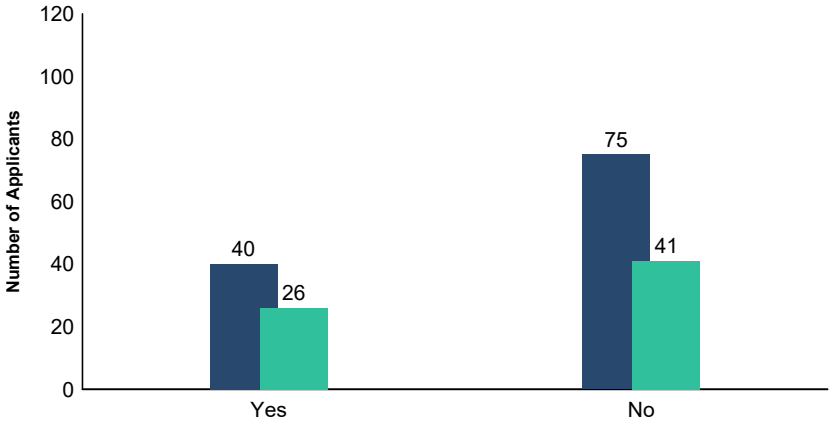


Non-U.S. IMGs

Ph.D. Degree



Other Graduate Degree



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CN Child Neurology

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Table CN-1 Summary Statistics
Child Neurology

Measure	U.S. IMGs	Non-U.S. IMGs	
	Data not shown due to the small sample size	Matched (n=18)	Unmatched (n=14)
1. Mean number of contiguous ranks		4.2	1.2
2. Mean number of distinct specialties ranked		1.9	1.9
3. Mean USMLE Step 1 score		235	221
4. Mean USMLE Step 2 score		242	227
5. Mean number of research experiences		2.7	3.3
6. Mean number of abstracts, presentations, and publications		6.5	15.2
7. Mean number of work experiences		5.9	3.5
8. Mean number of volunteer experiences		4.3	2.0
9. Percentage who have a Ph.D. degree		0.0	7.7
10. Percentage who have another graduate degree		12.5	23.1

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

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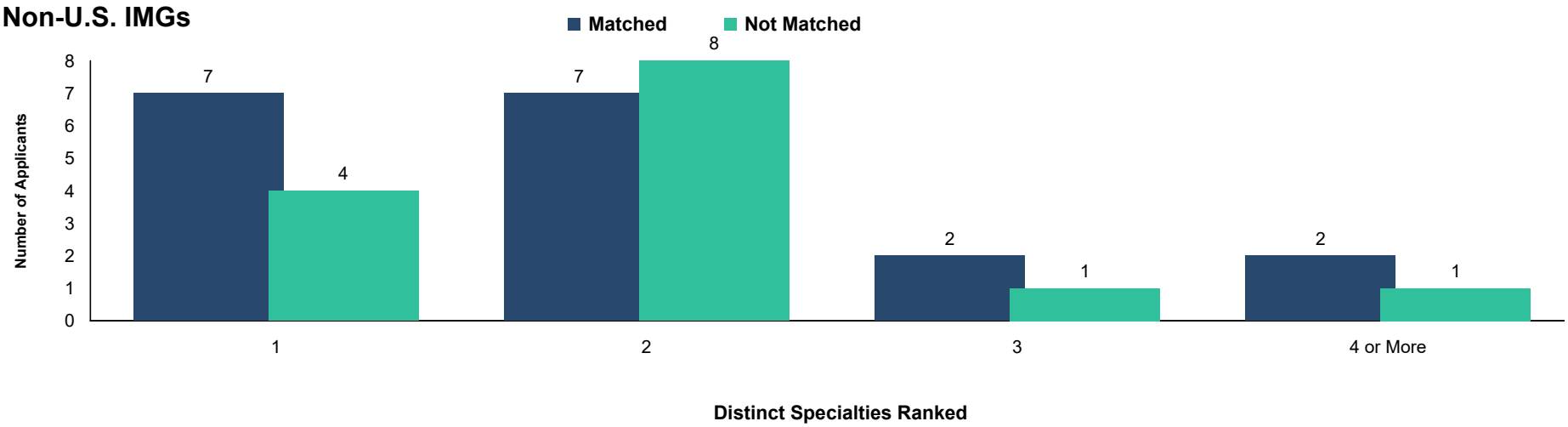
Chart CN-1

Number of Distinct Specialties Ranked by International Medical Graduates
Child Neurology



Note: Data for U.S. IMGs are not shown due to the small sample size.

Source: NRMP Data Warehouse

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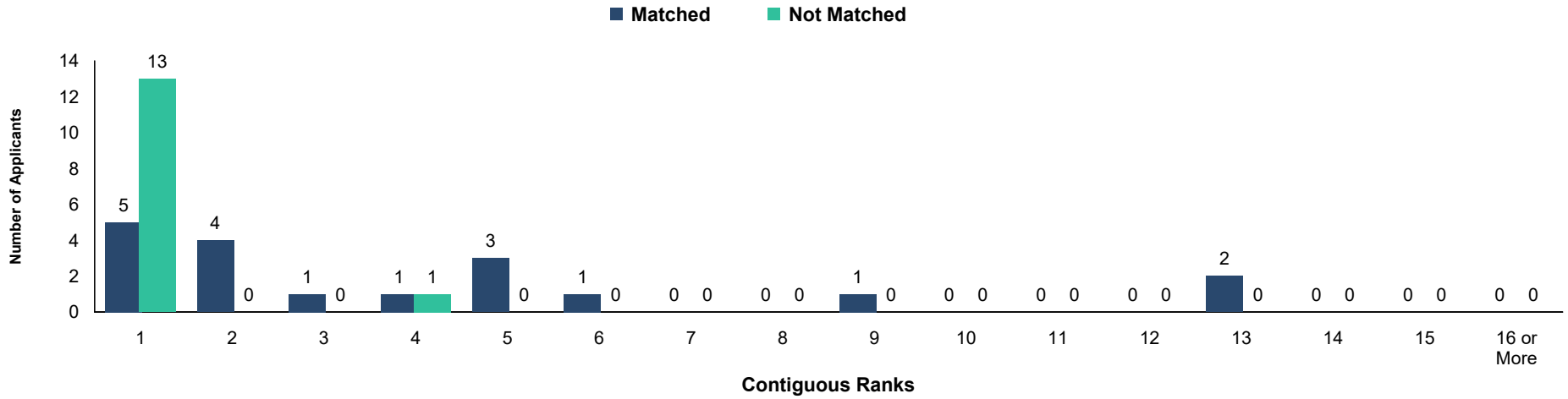
Chart CN-2 Number of Contiguous Ranks of International Medical Graduates Child Neurology

Non-U.S. IMGs



Note: Data for U.S. IMGs are not shown due to the small sample size.

Source: NRMP Data Warehouse

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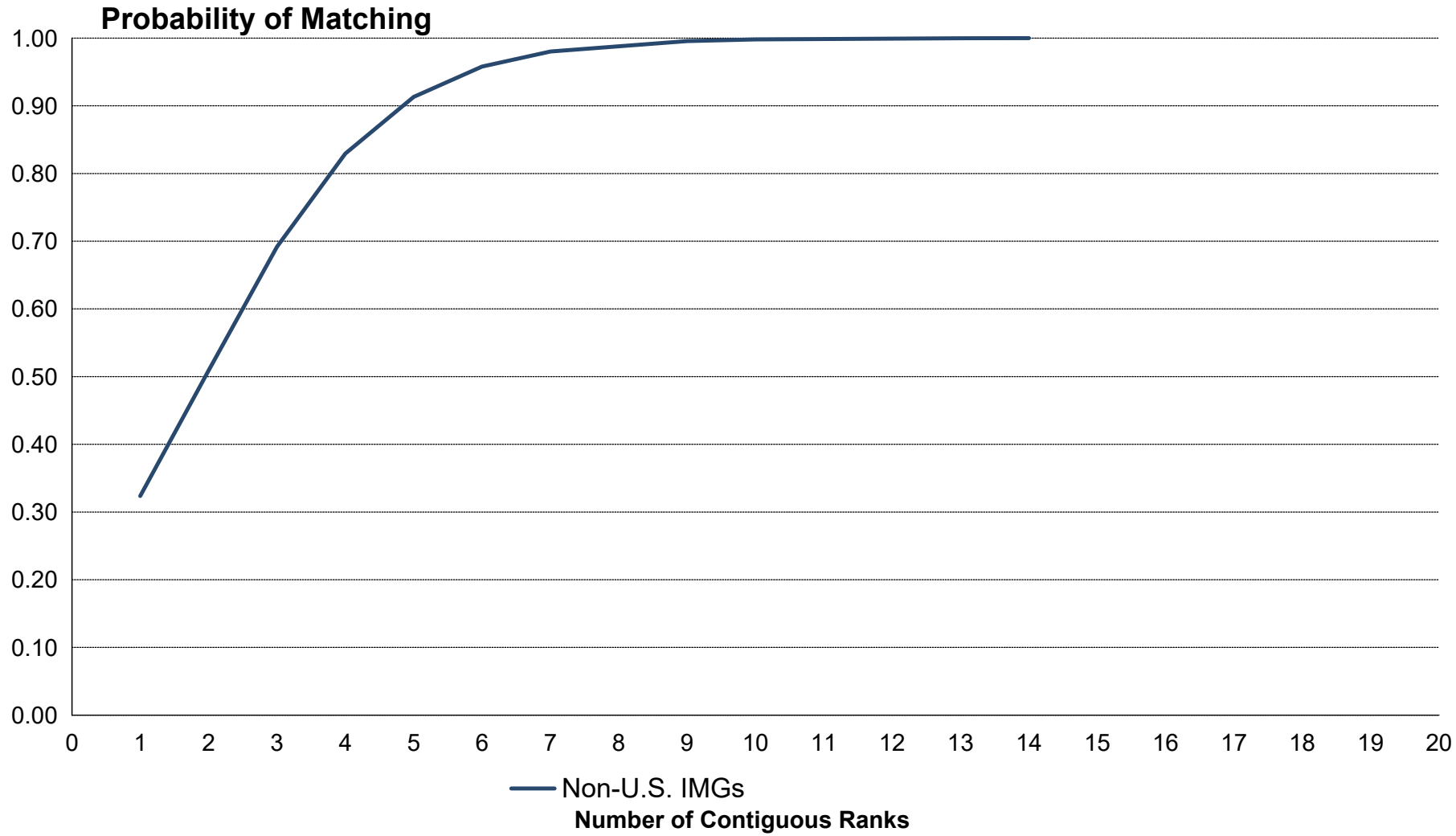
Graph CN-1

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

Child Neurology



Note: Data for U.S. IMGs are not shown due to the small sample size.

Source: NRMP Data Warehouse. Note: Probabilities calculated based on 2016-2018 applicants

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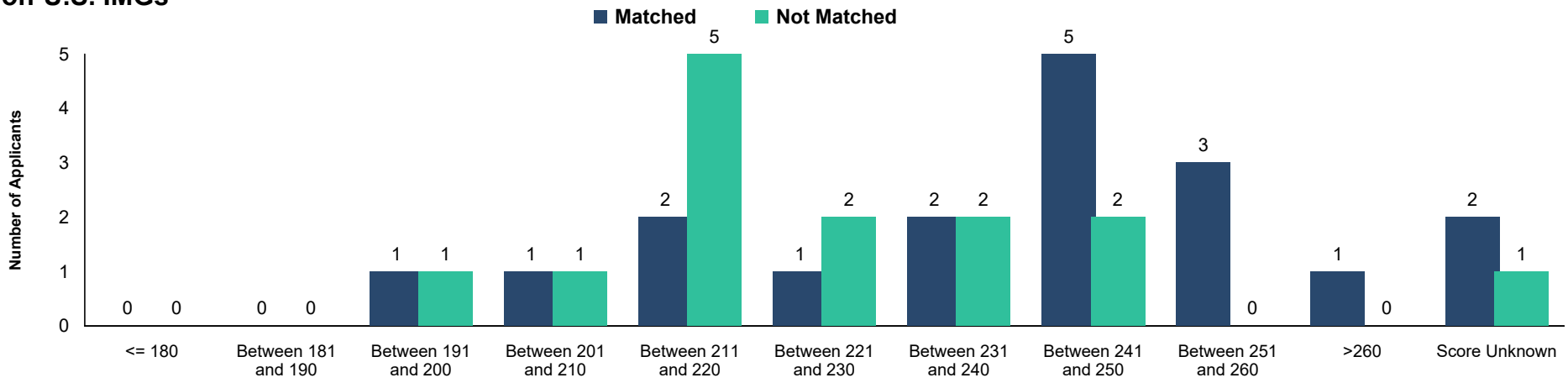
Chart CN-3

USMLE Step 1 Scores of International Medical Graduates

Child Neurology

Non-U.S. IMGs



Note: Data for U.S. IMGs are not shown due to the small sample size.

Source: NRMP Data Warehouse

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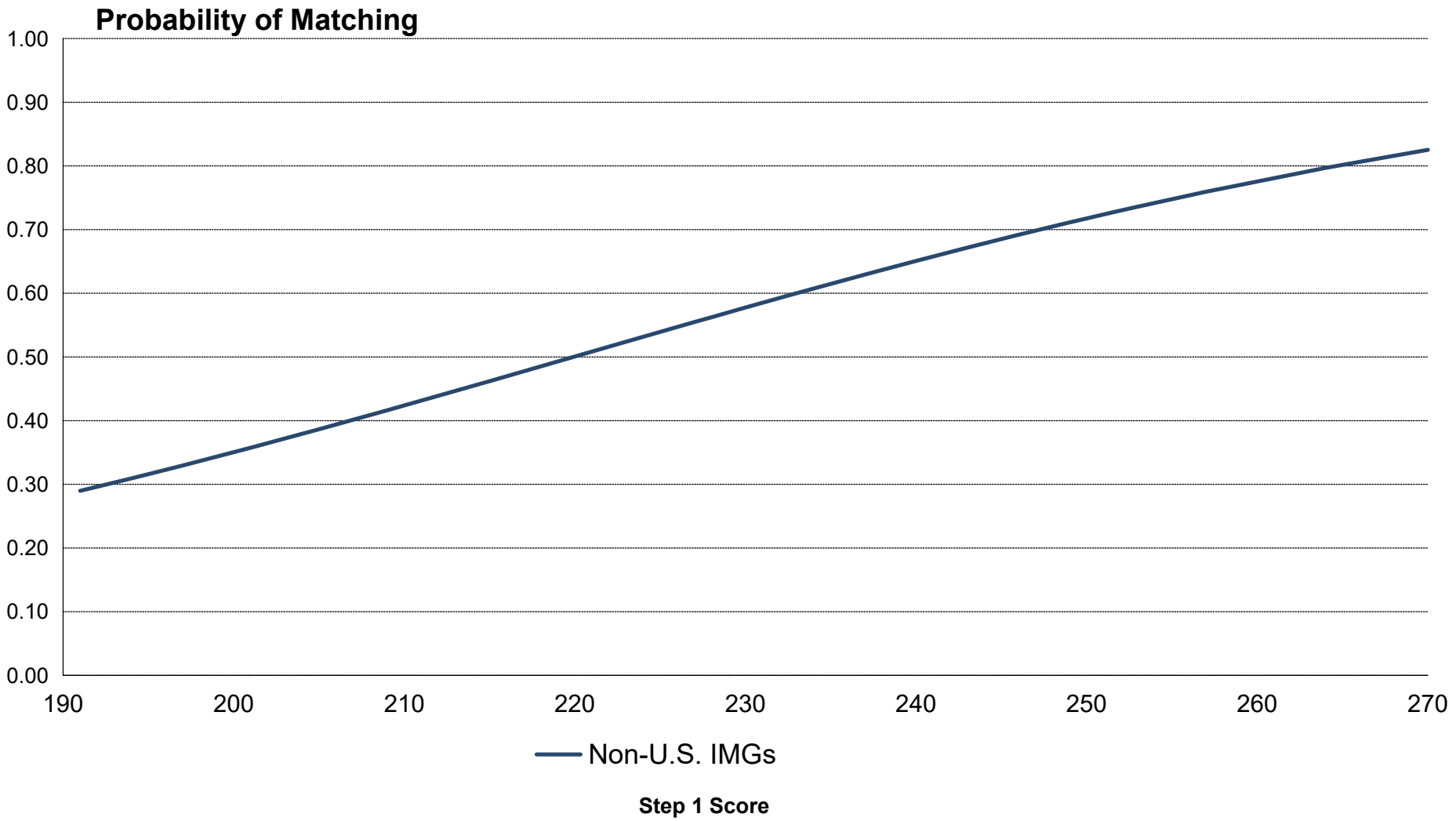
Graph CN-2

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

Child Neurology



Note: Data for U.S. IMGs are not shown due to the small sample size.

Source: NRMP Data Warehouse. Note: Probabilities calculated based on 2016-2018 applicants.

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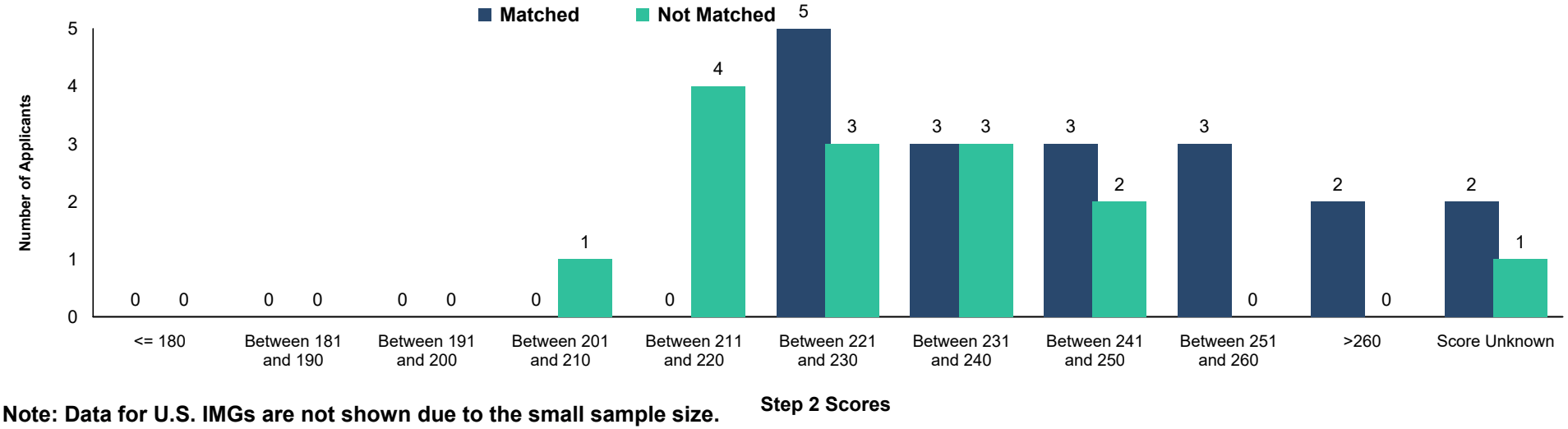
Chart CN-4

USMLE Step 2 CK Scores of International Medical Graduates

Child Neurology

Non-U.S. IMGs



Note: Data for U.S. IMGs are not shown due to the small sample size.

Source: NRMP Data Warehouse

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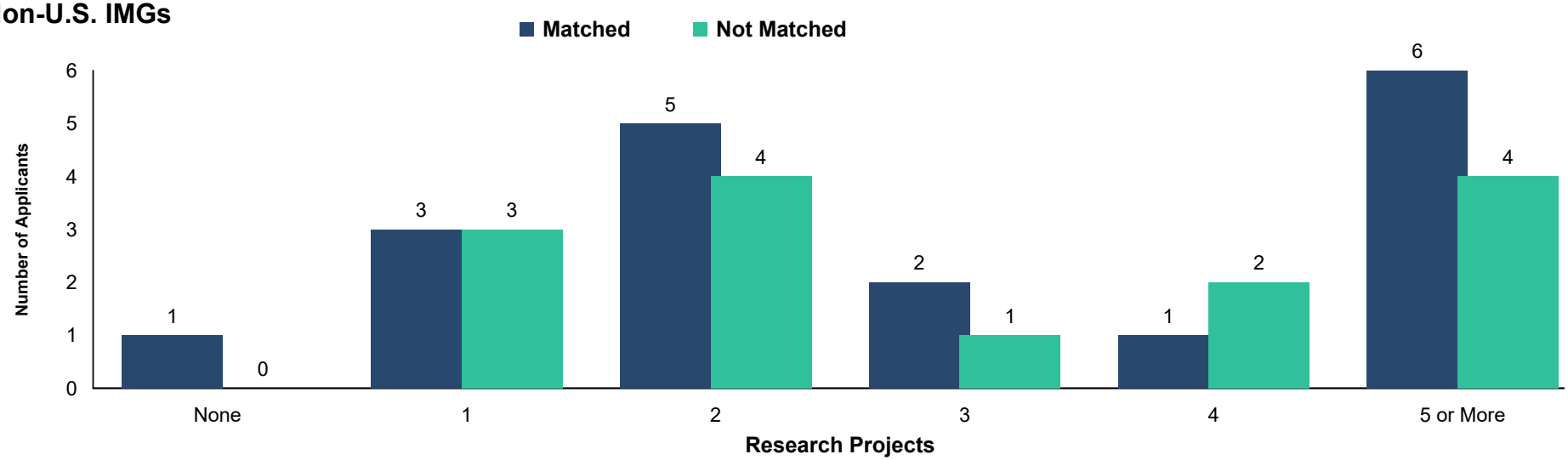
Chart CN-5

Number of Research Projects of International Medical Graduates

Child Neurology

Non-U.S. IMGs



Note: Data for U.S. IMGs are not shown due to the small sample size.

Source: NRMP Data Warehouse

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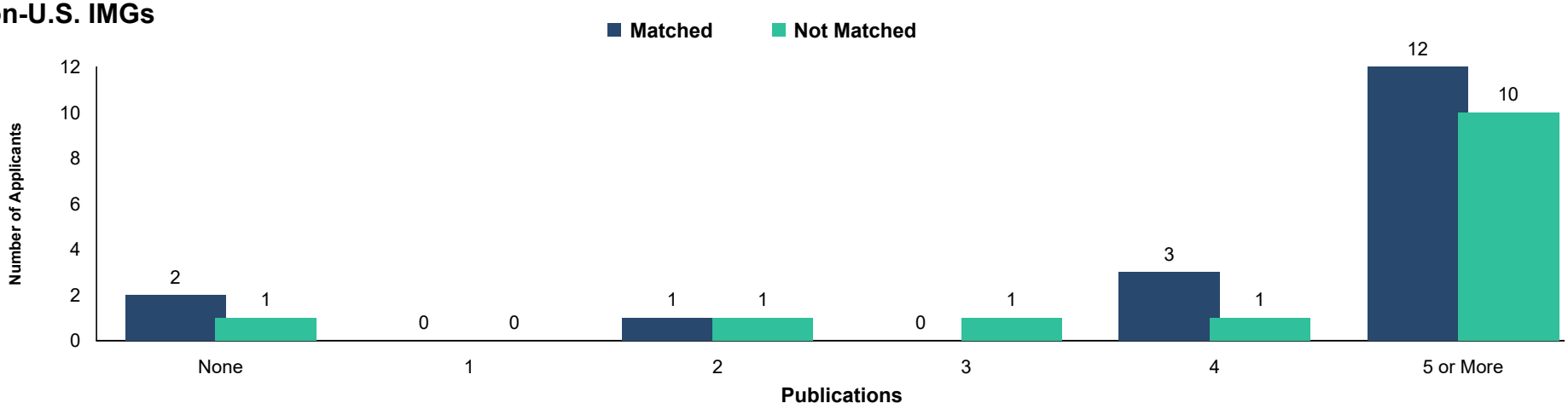
Chart CN-6

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

Child Neurology

Non-U.S. IMGs



Note: Data for U.S. IMGs are not shown due to the small sample size.

Source: NRMP Data Warehouse

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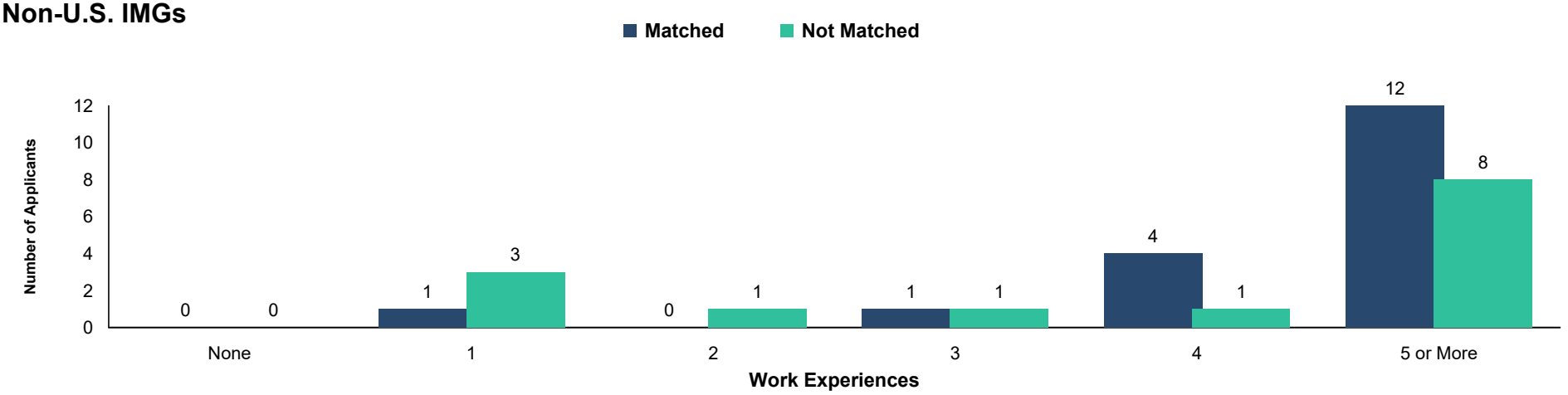
Chart CN-7

Number of Work Experiences of International Medical Graduates

Child Neurology

Non-U.S. IMGs



Note: Data for U.S. IMGs are not shown due to the small sample size.

Source: NRMP Data Warehouse

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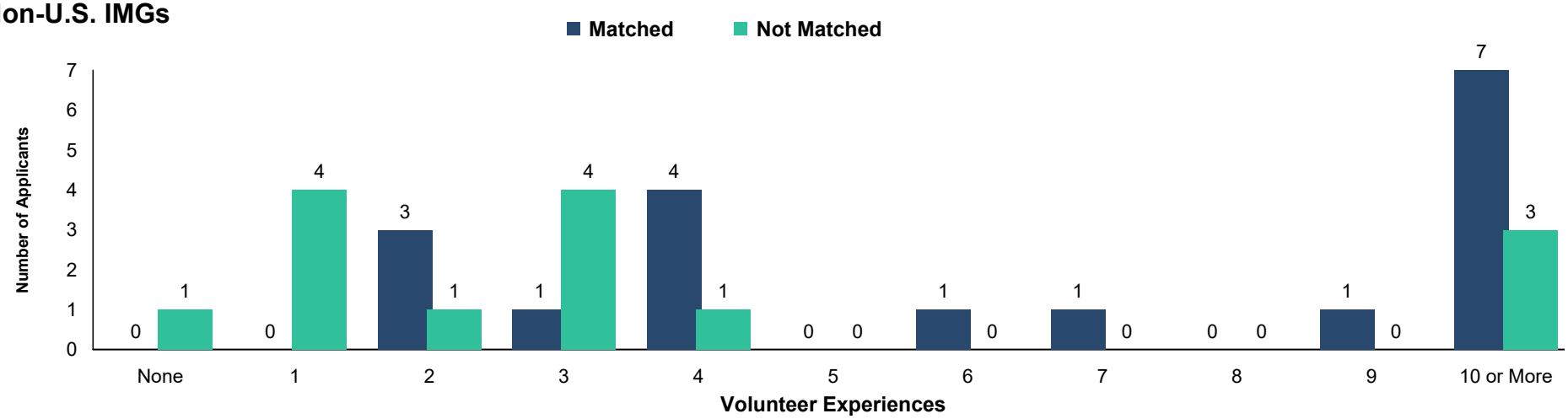
Chart CN-8

Number of Volunteer Experiences of International Medical Graduates

Child Neurology

Non-U.S. IMGs



Note: Data for U.S. IMGs are not shown due to the small sample size.

Source: NRMP Data Warehouse

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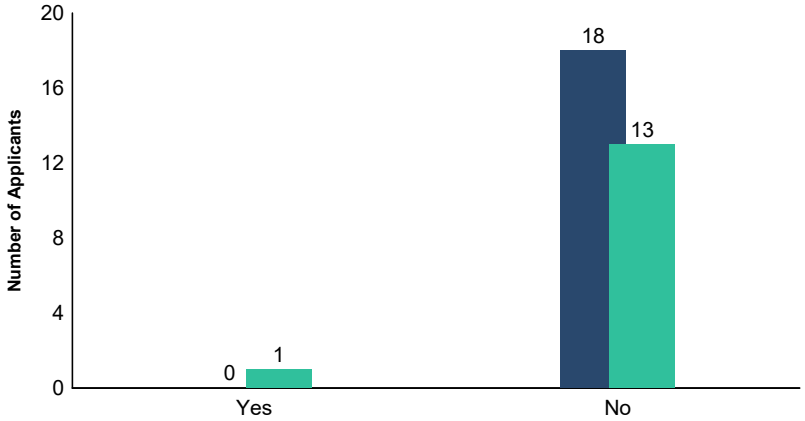
Chart CN-9 Other Characteristics of International Medical Graduates

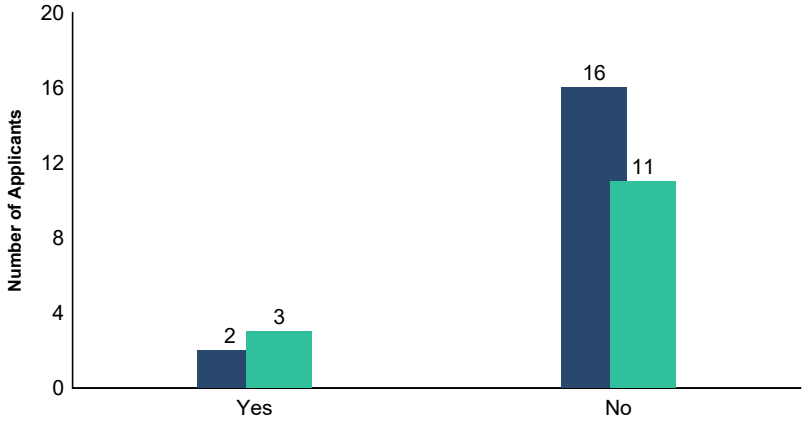
Child Neurology

Non-U.S. IMGs

Ph.D. Degree



Other Graduate Degree



Note: Data for U.S. IMGs are not shown due to the small sample size.

Source: NRMP Data Warehouse

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DM Dermatology

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Table DM-1 Summary Statistics
Dermatology

Measure	U.S. IMGs	Non-U.S. IMGs	
	Data not shown due to the small sample size	Matched (n=12)	Unmatched (n=15)
1. Mean number of contiguous ranks		3.2	5.1
2. Mean number of distinct specialties ranked		1.6	1.5
3. Mean USMLE Step 1 score		238	230
4. Mean USMLE Step 2 score		246	232
5. Mean number of research experiences		5.3	3.1
6. Mean number of abstracts, presentations, and publications		12.3	12.2
7. Mean number of work experiences		3.1	8.8
8. Mean number of volunteer experiences		2.8	4.2
9. Percentage who have a Ph.D. degree		27.3	15.4
10. Percentage who have another graduate degree		22.2	46.2

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

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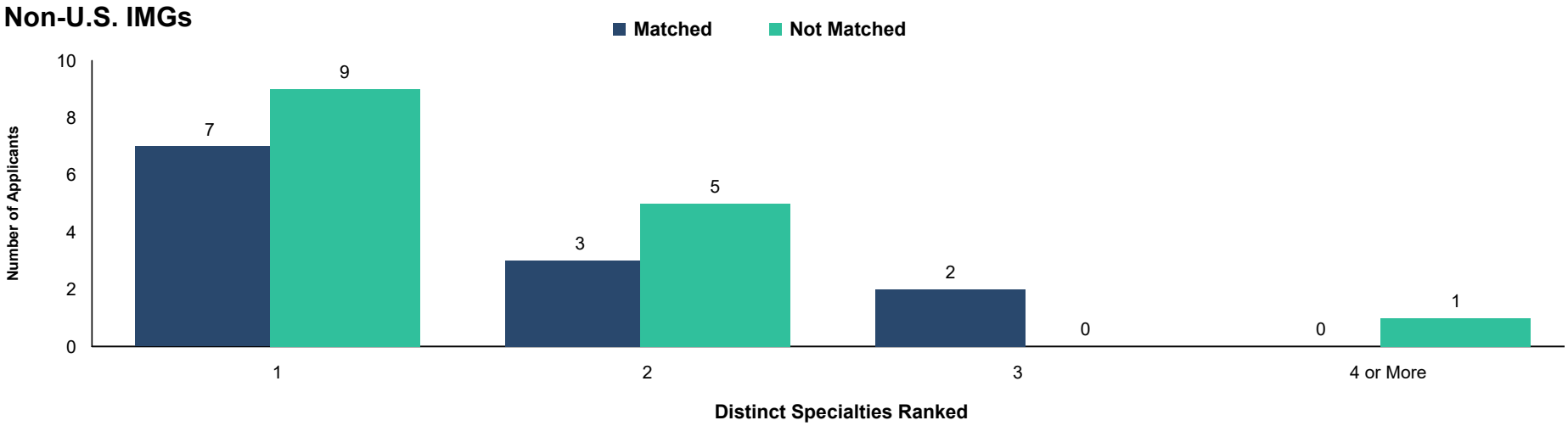
Chart DM-1 Number of Distinct Specialties Ranked by International Medical Graduates Dermatology



Note: Data for U.S. IMGs are not shown due to the small sample size.

Source: NRMP Data Warehouse

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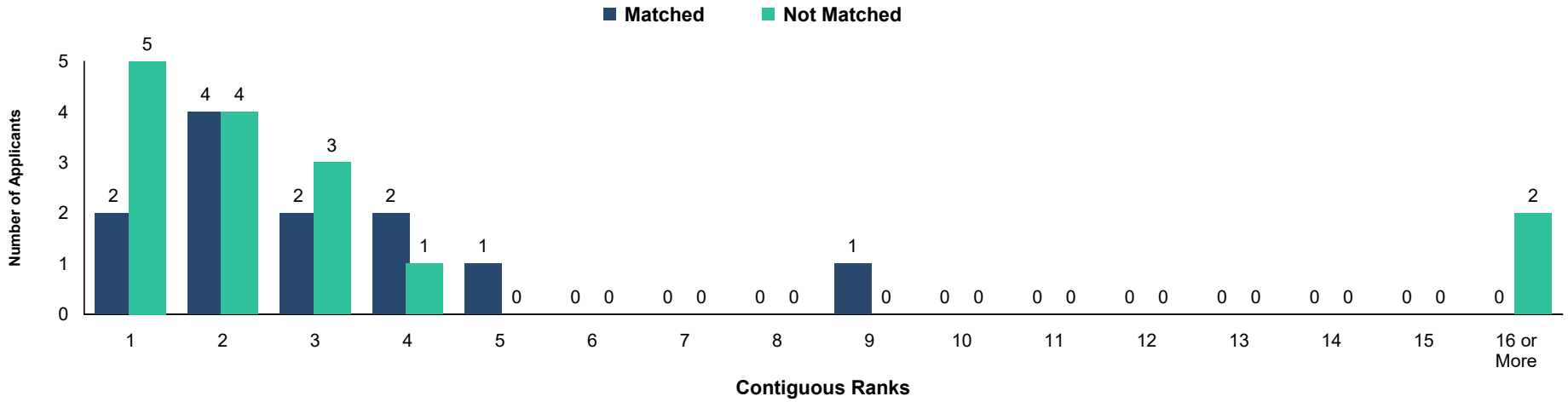
Chart DM-2 Number of Contiguous Ranks of International Medical Graduates Dermatology

Non-U.S. IMGs



Note: Data for U.S. IMGs are not shown due to the small sample size.

Source: NRMP Data Warehouse

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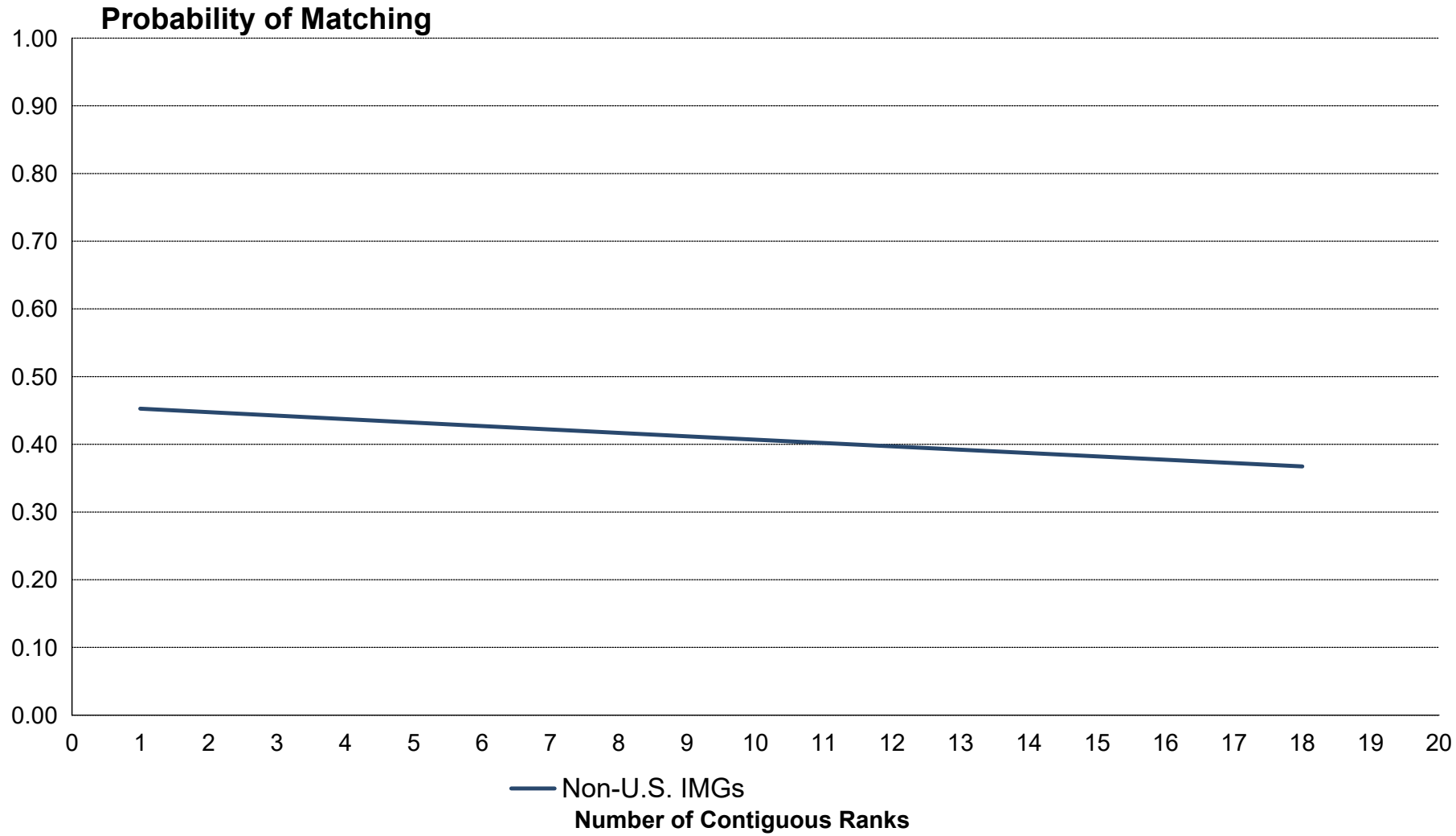
Graph DM-1

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

Dermatology



Note: Data for U.S. IMGs are not shown due to the small sample size.

Source: NRMP Data Warehouse. Note: Probabilities calculated based on 2016-2018 applicants

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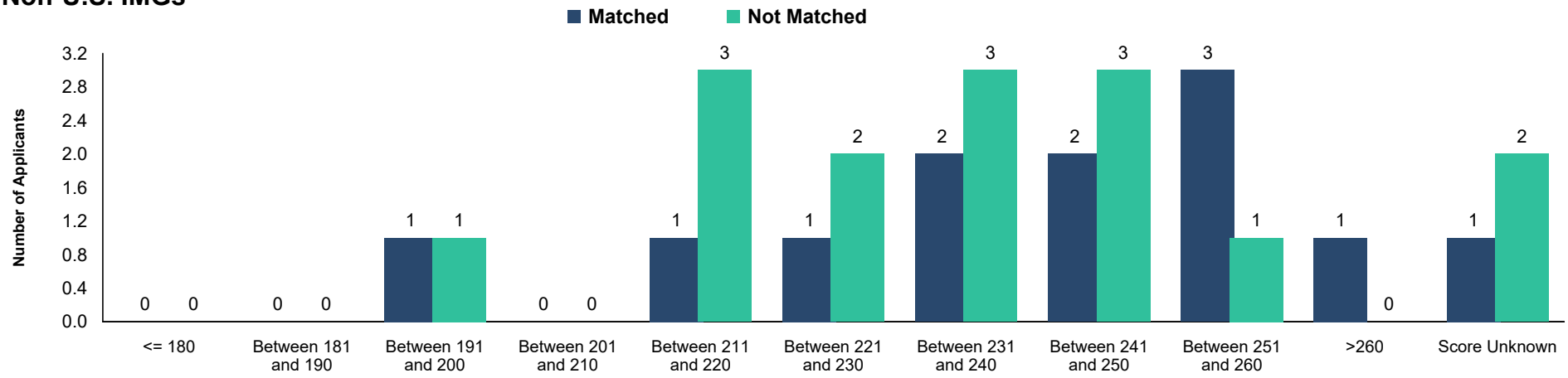
Chart DM-3 USMLE Step 1 Scores of International Medical Graduates

Dermatology

Non-U.S. IMGs



Note: Data for U.S. IMGs are not shown due to the small sample size.

Source: NRMP Data Warehouse

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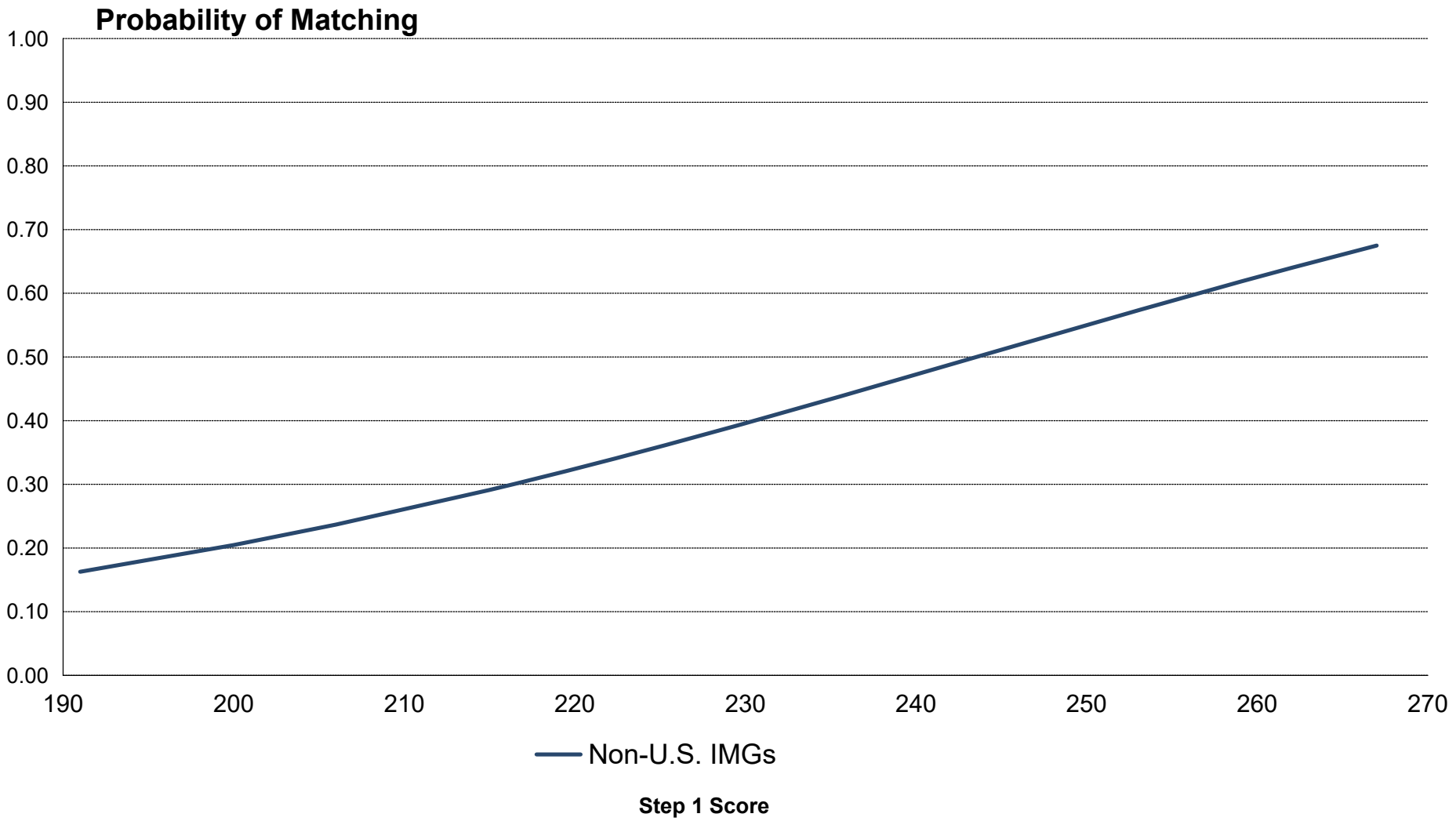
Graph DM-2

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

Dermatology



Note: Data for U.S. IMGs are not shown due to the small sample size.

Source: NRMP Data Warehouse. Note: Probabilities calculated based on 2016-2018 applicants.

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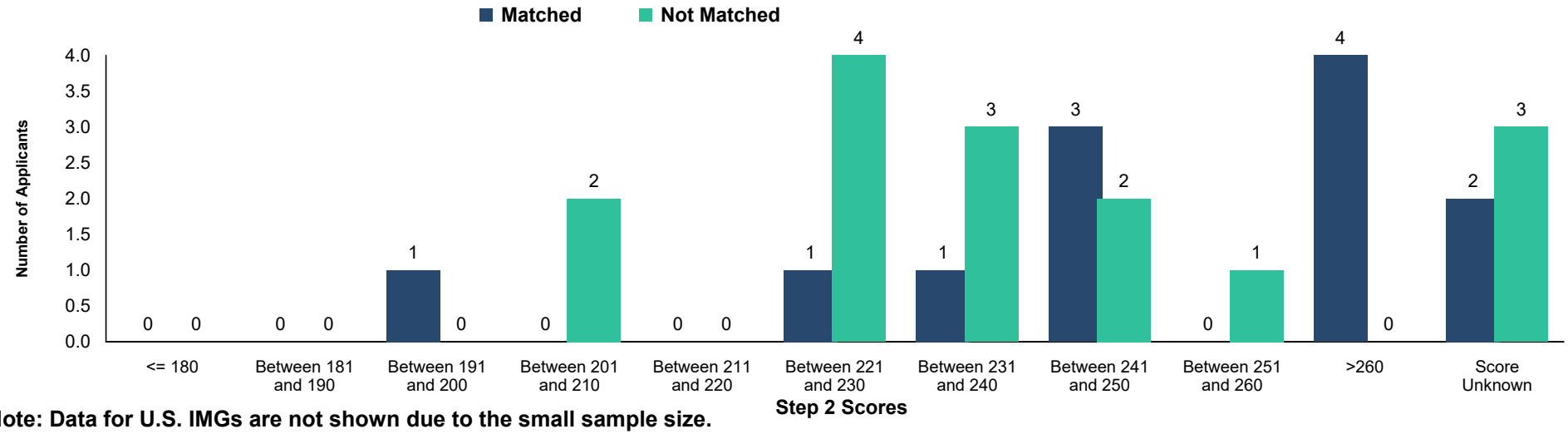
Chart DM-4 USMLE Step 2 CK Scores of International Medical Graduates

Dermatology

Non-U.S. IMGs



Note: Data for U.S. IMGs are not shown due to the small sample size.

Source: NRMP Data Warehouse

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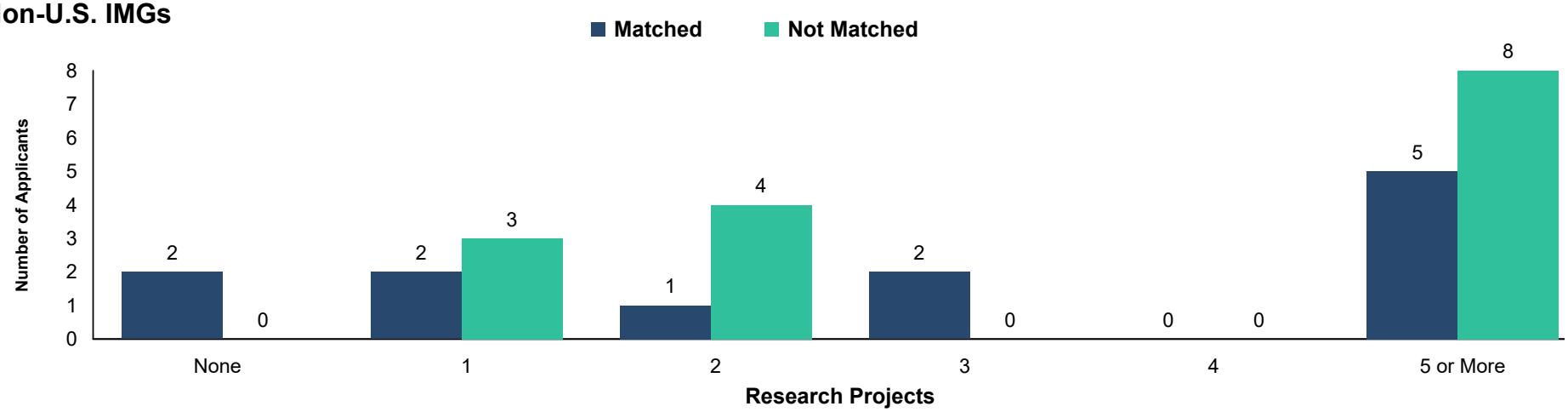
Chart DM-5

Number of Research Projects of International Medical Graduates

Dermatology

Non-U.S. IMGs



Note: Data for U.S. IMGs are not shown due to the small sample size.

Source: NRMP Data Warehouse

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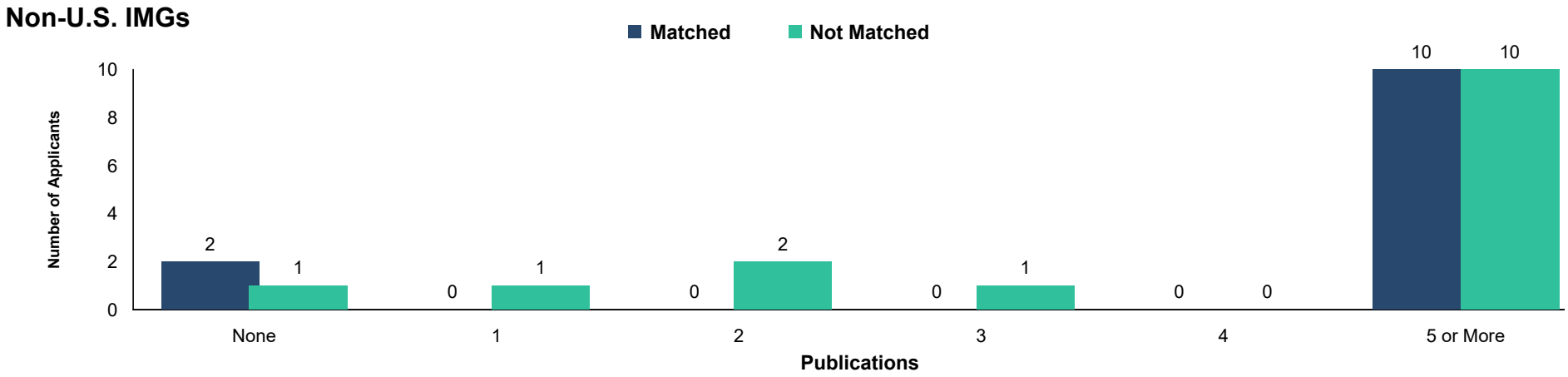
Chart DM-6

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

Dermatology



Note: Data for U.S. IMGs are not shown due to the small sample size.

Source: NRMP Data Warehouse

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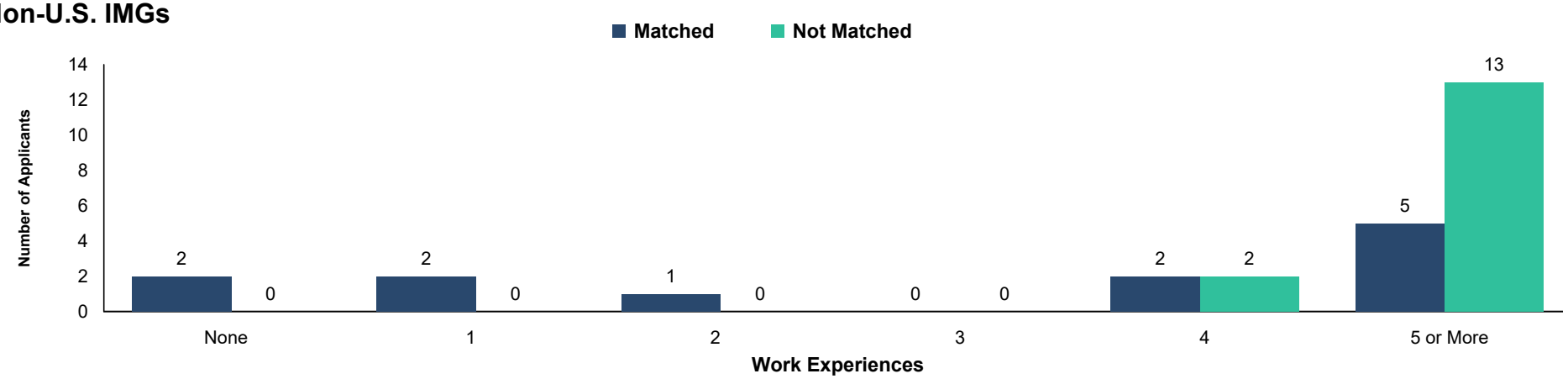
Chart DM-7

Number of Work Experiences of International Medical Graduates

Dermatology

Non-U.S. IMGs



Note: Data for U.S. IMGs are not shown due to the small sample size.

Source: NRMP Data Warehouse

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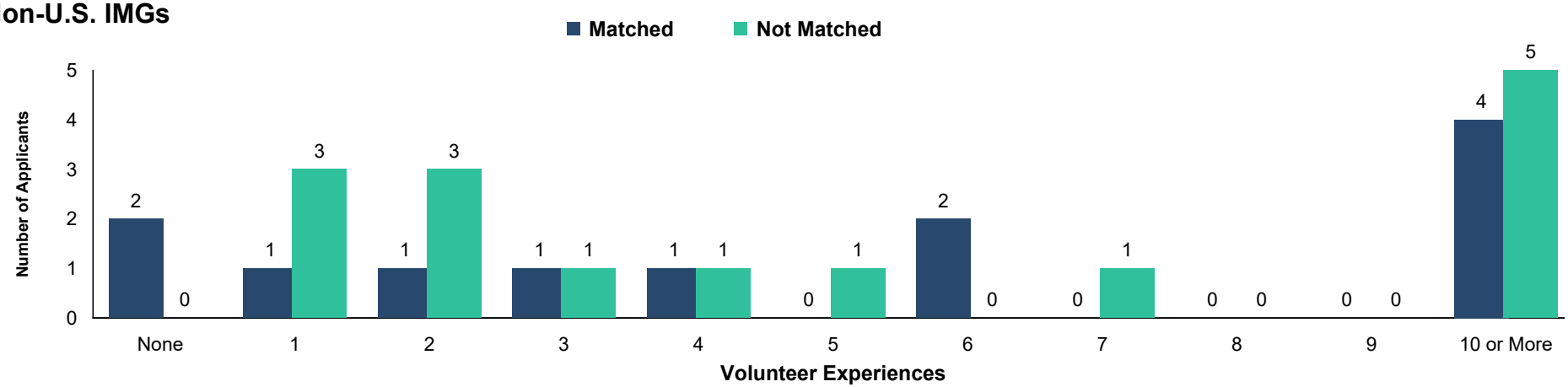
Chart DM-8

Number of Volunteer Experiences of International Medical Graduates

Dermatology

Non-U.S. IMGs



Note: Data for U.S. IMGs are not shown due to the small sample size.

Source: NRMP Data Warehouse

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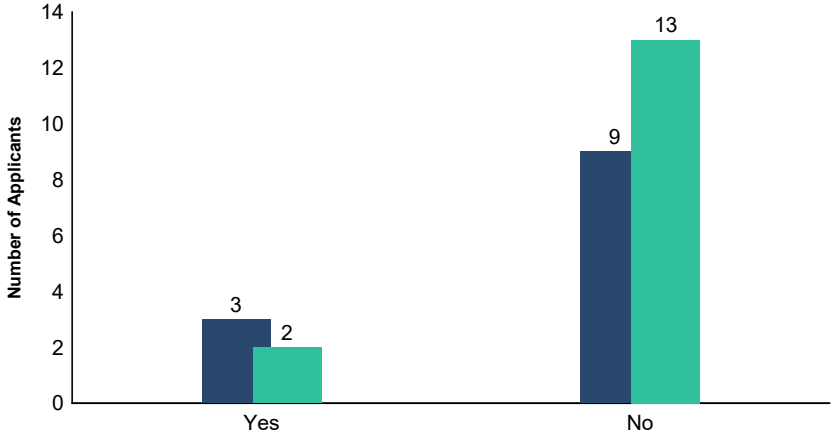
Chart DM-9

Other Characteristics of International Medical Graduates

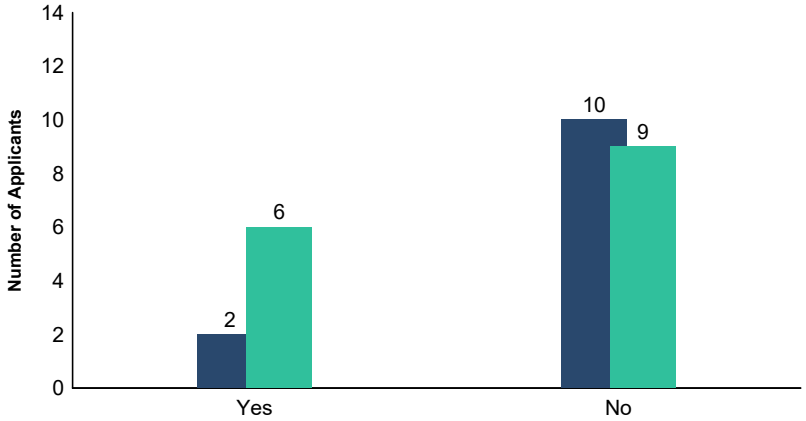
Dermatology

Non-U.S. IMGs

Ph.D. Degree



Other Graduate Degree



Note: Data for U.S. IMGs are not shown due to the small sample size.

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DR Diagnostic Radiology

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Table DR-1 Summary Statistics
Diagnostic Radiology

Measure	U.S. IMGs		Non-U.S. IMGs	
	Matched (n=40)	Unmatched (n=31)	Matched (n=69)	Unmatched (n=88)
1. Mean number of contiguous ranks	7.9	2.5	6.2	3.4
2. Mean number of distinct specialties ranked	2.0	1.9	2.2	2.2
3. Mean USMLE Step 1 score	239	226	241	232
4. Mean USMLE Step 2 score	242	233	243	236
5. Mean number of research experiences	1.6	1.9	3.1	2.7
6. Mean number of abstracts, presentations, and publications	2.6	3.2	15.9	9.7
7. Mean number of work experiences	3.2	2.5	5.4	5.5
8. Mean number of volunteer experiences	3.9	3.7	3.1	3.0
9. Percentage who have a Ph.D. degree	0.0	0.0	3.2	3.7
10. Percentage who have another graduate degree	15.0	25.9	36.5	39.5

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

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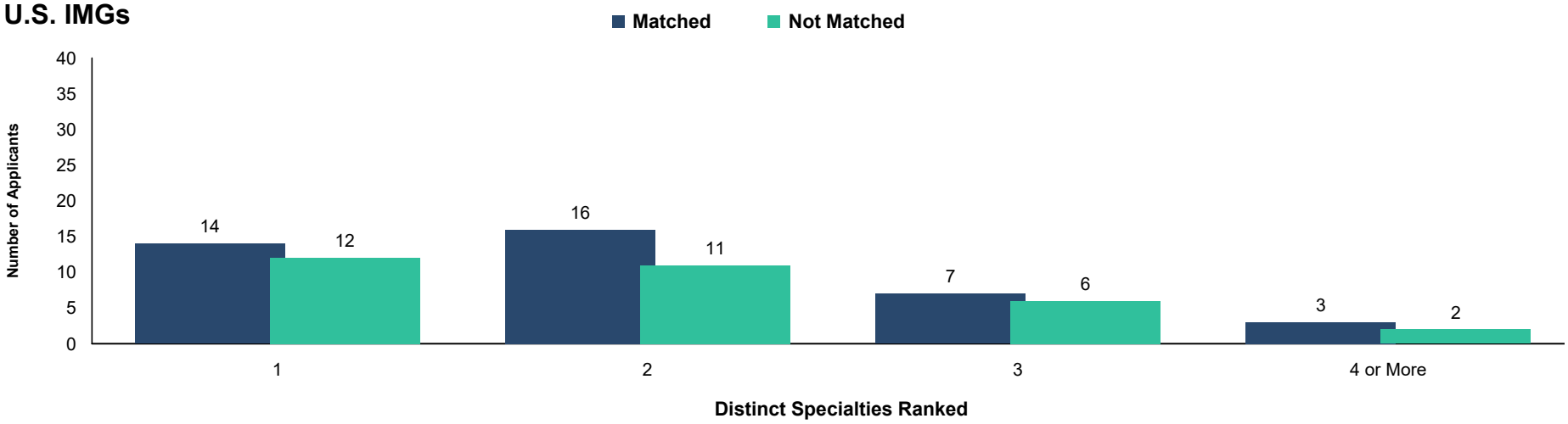
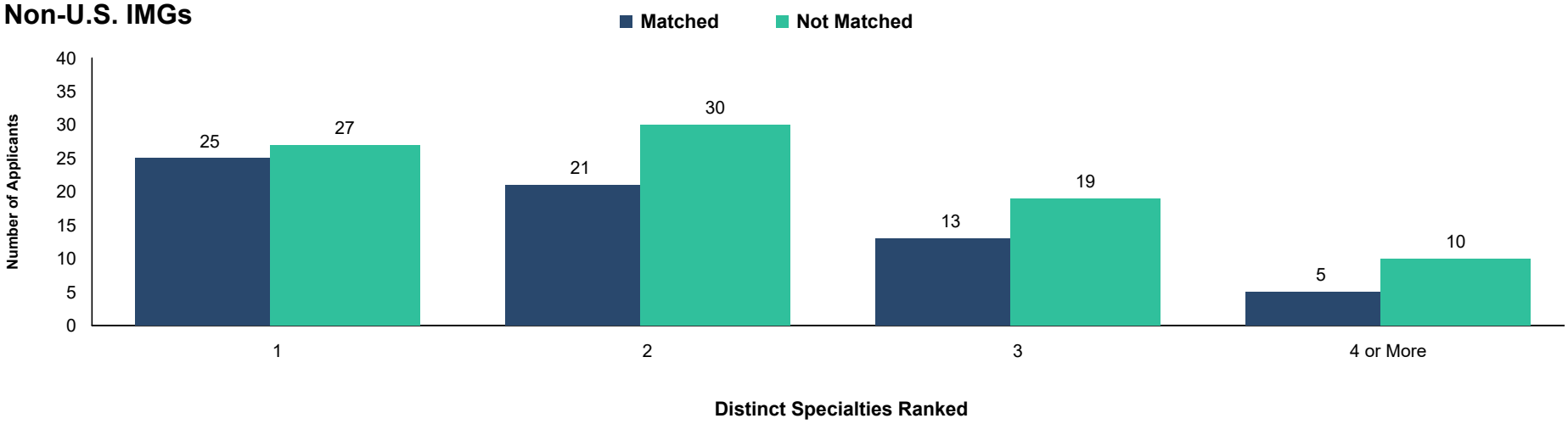
Chart DR-1
Number of Distinct Specialties Ranked by International Medical Graduates
Diagnostic Radiology

U.S. IMGs



Non-U.S. IMGs



Source: NRMP Data Warehouse

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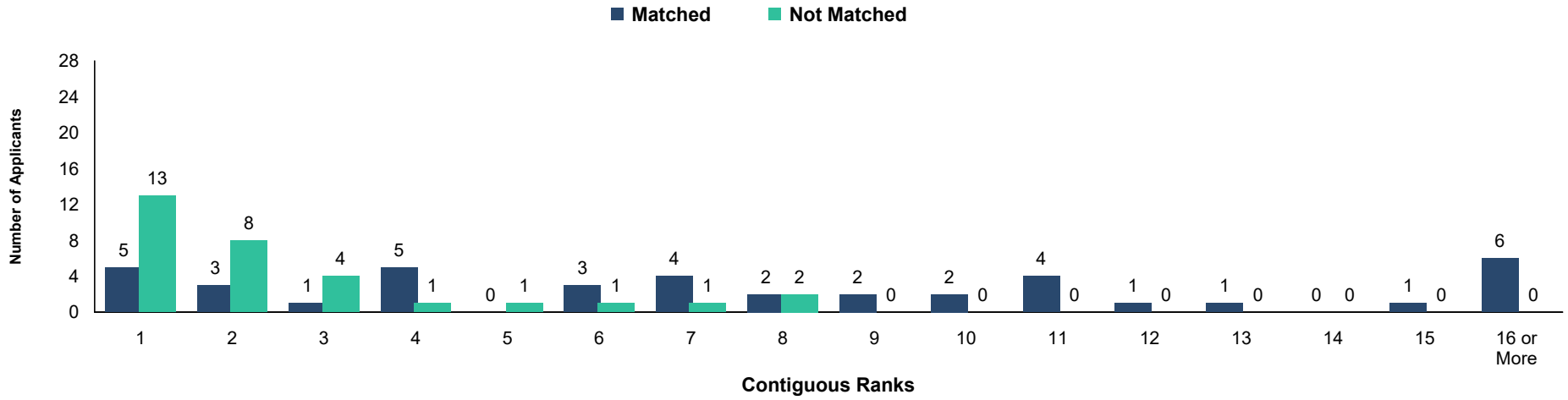
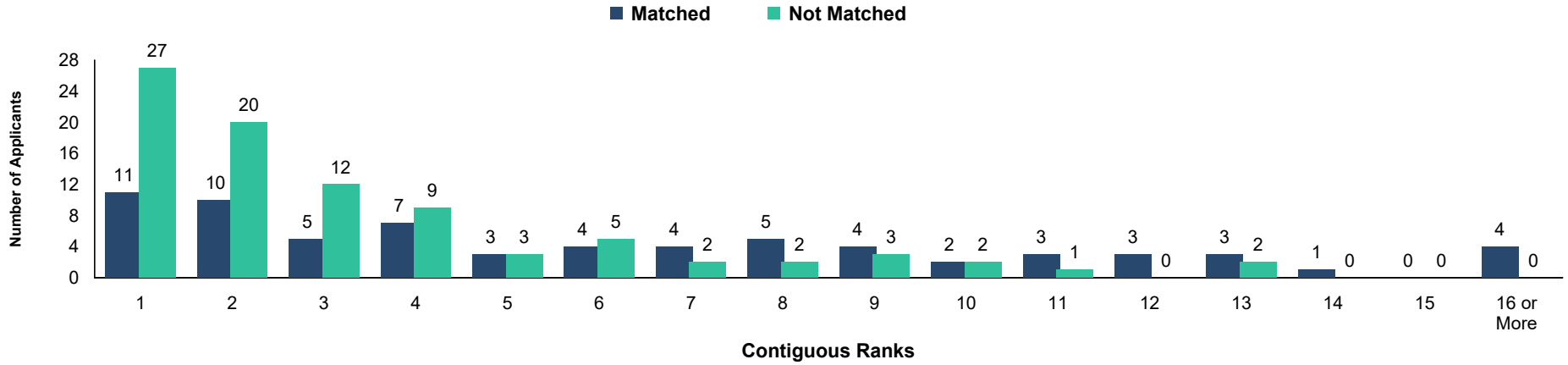
Chart DR-2 Number of Contiguous Ranks of International Medical Graduates Diagnostic Radiology

U.S. IMGs



Non-U.S. IMGs



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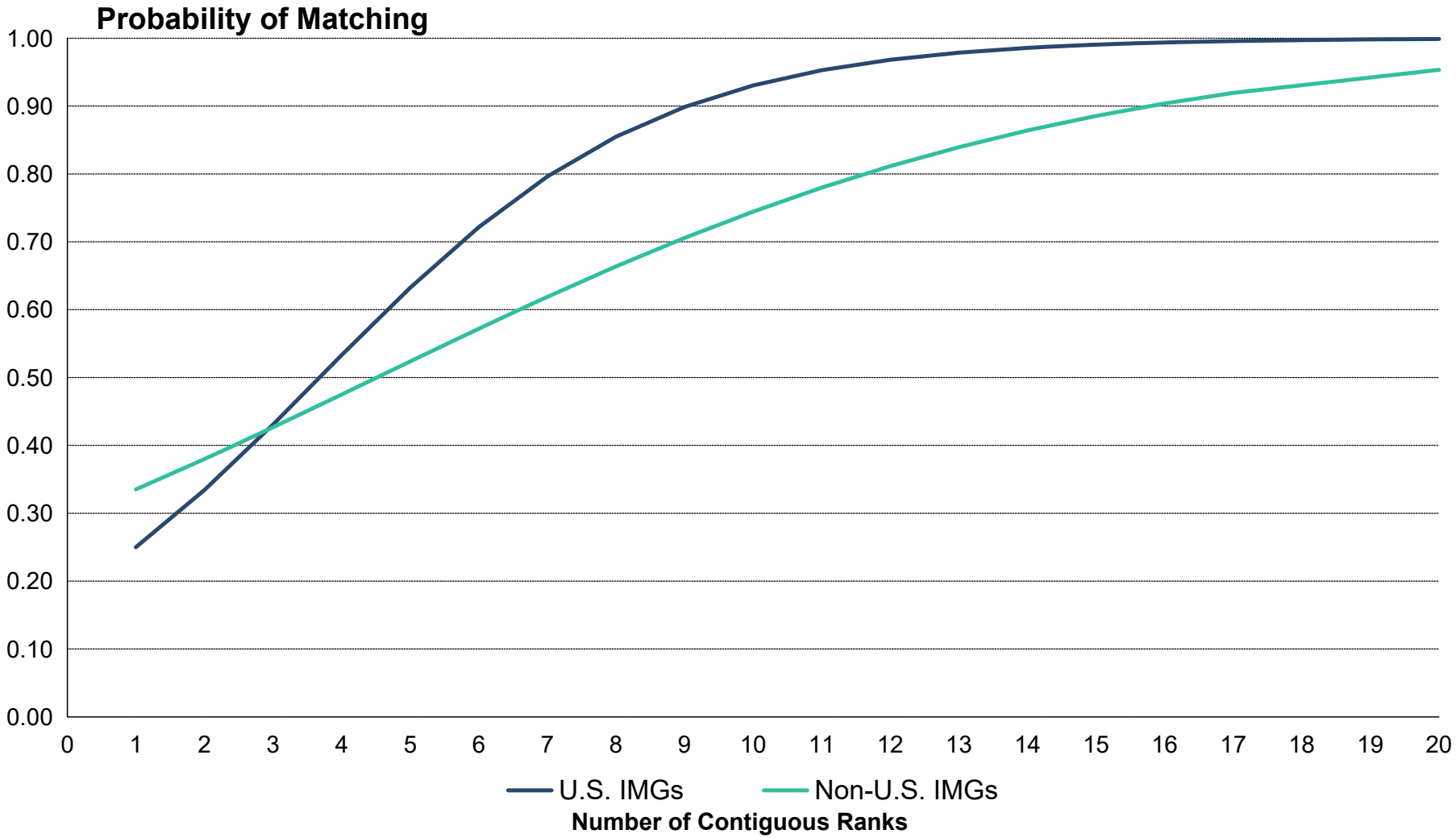
Graph DR-1

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 2016-2018 applicants

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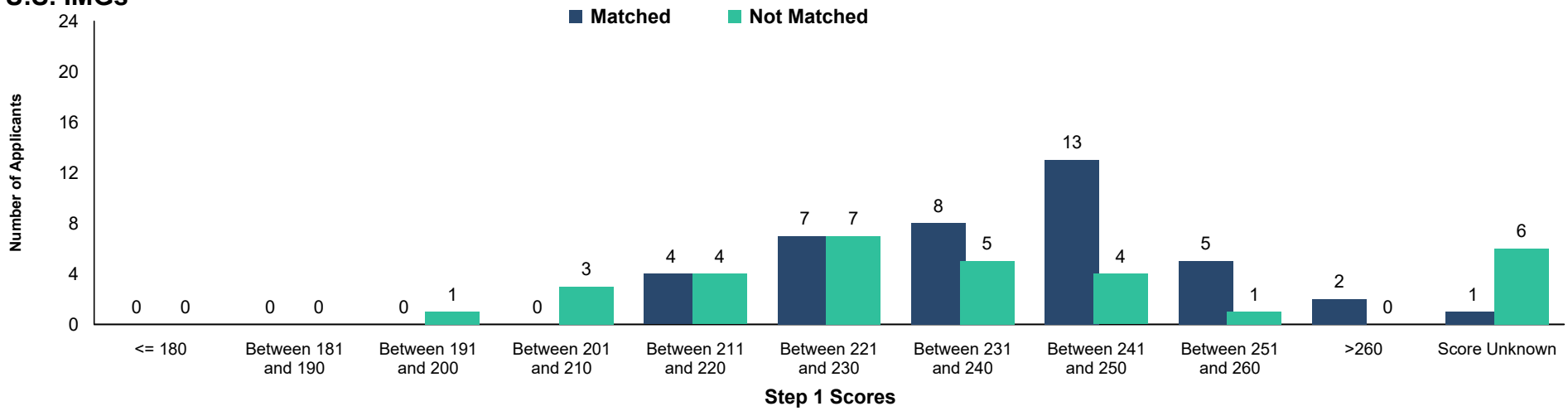
Chart DR-3

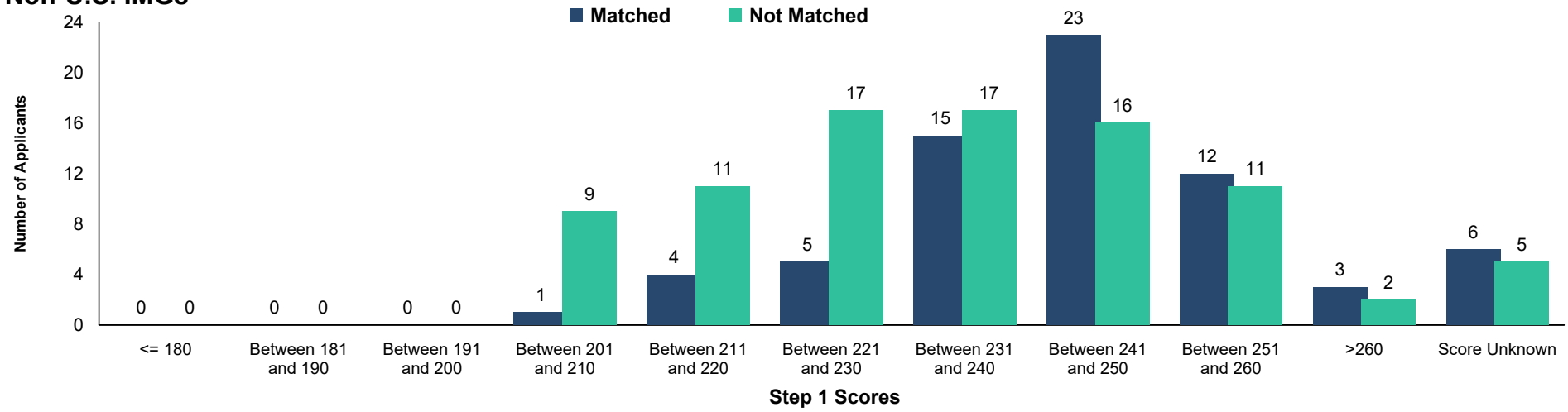
USMLE Step 1 Scores of International Medical Graduates

Diagnostic Radiology

U.S. IMGs



Non-U.S. IMGs



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Graph DR-2

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

Diagnostic Radiology

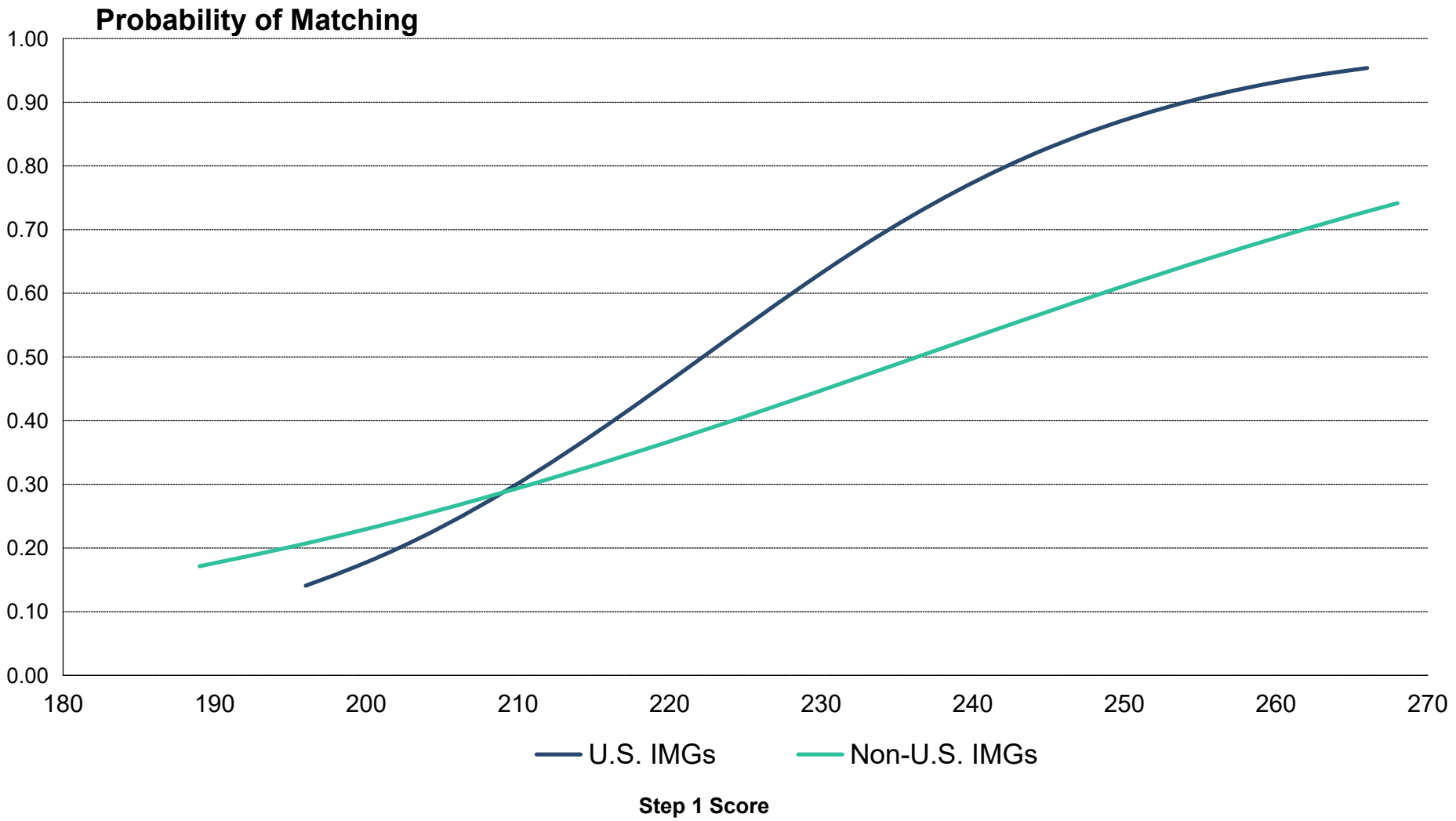

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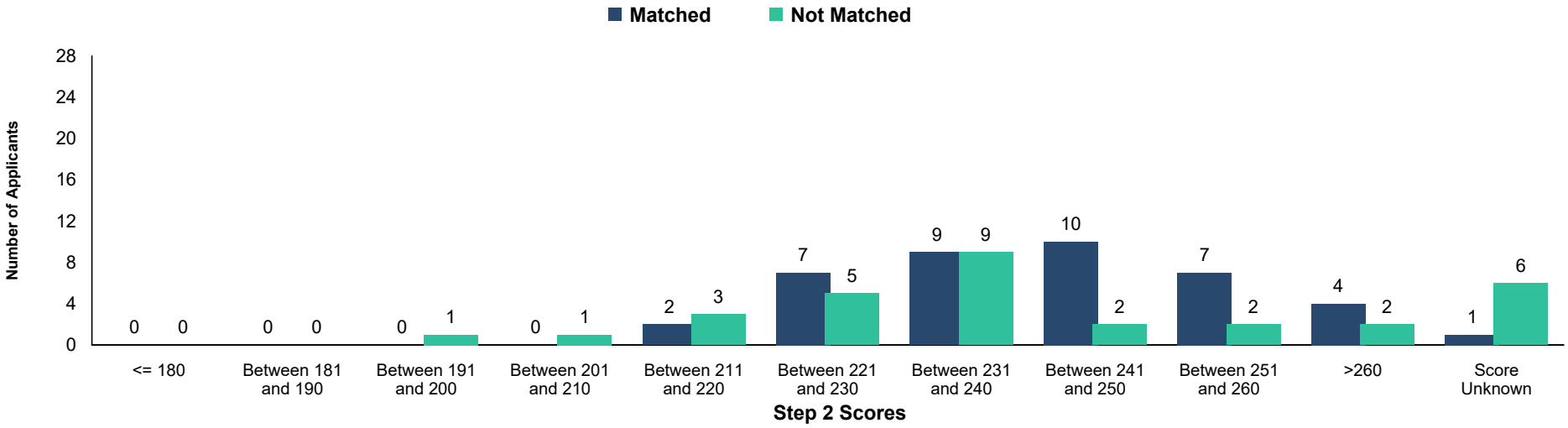
Chart DR-4

USMLE Step 2 CK Scores of International Medical Graduates

Diagnostic Radiology

U.S. IMGs



Non-U.S. IMGs

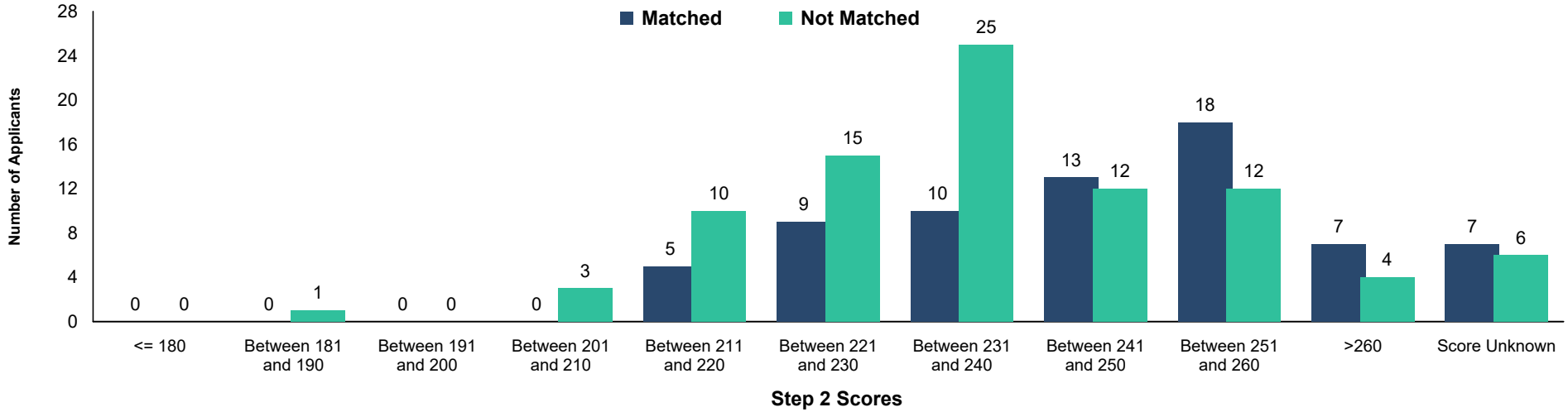


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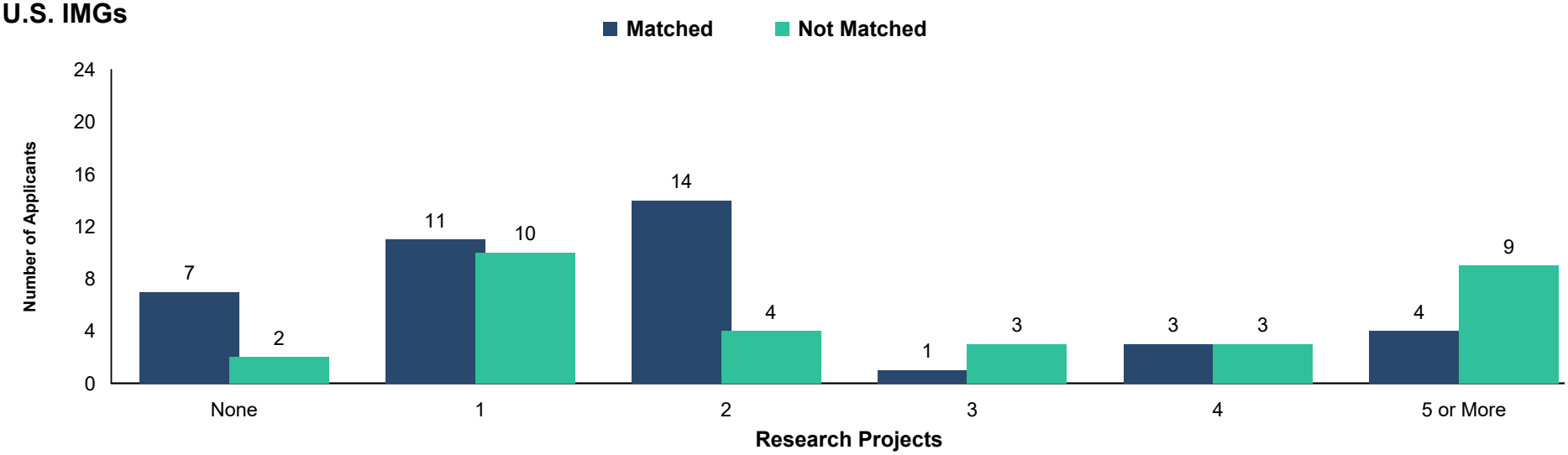
Chart DR-5

Number of Research Projects of International Medical Graduates

Diagnostic Radiology

U.S. IMGs



Non-U.S. IMGs

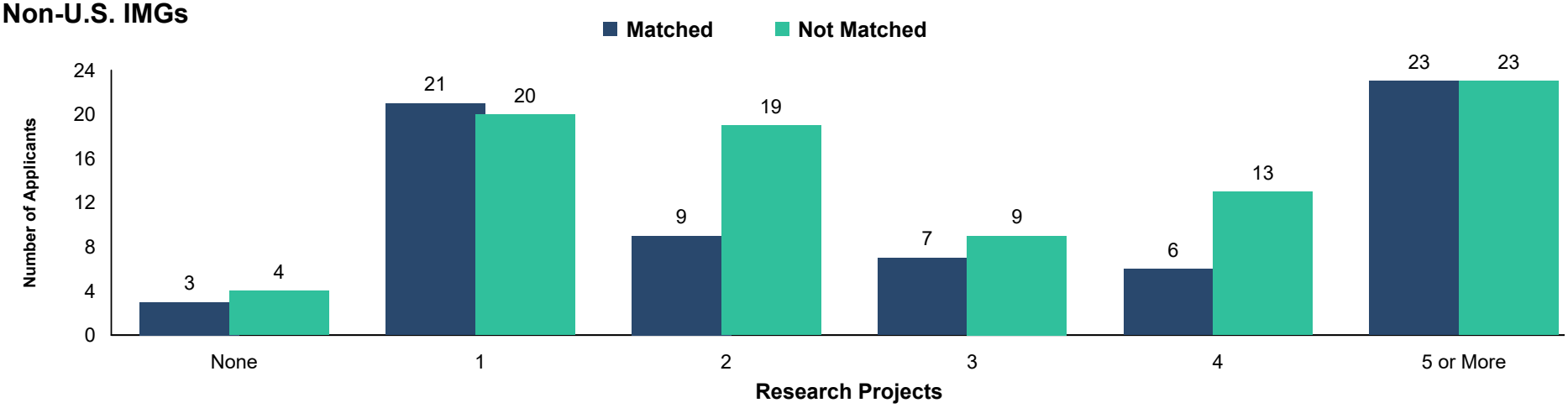


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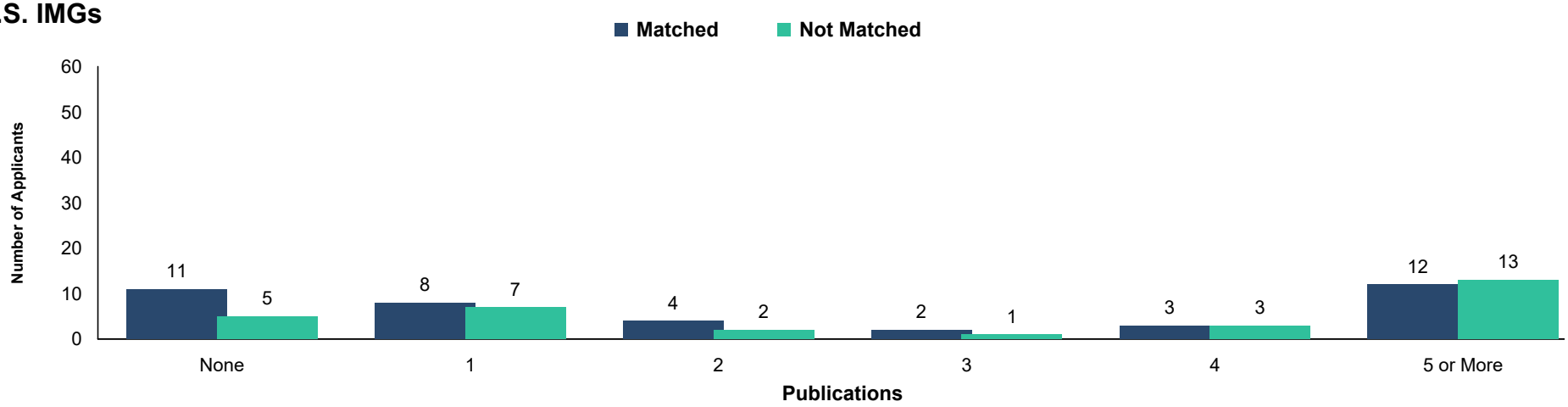
Chart DR-6

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

Diagnostic Radiology

U.S. IMGs



Non-U.S. IMGs

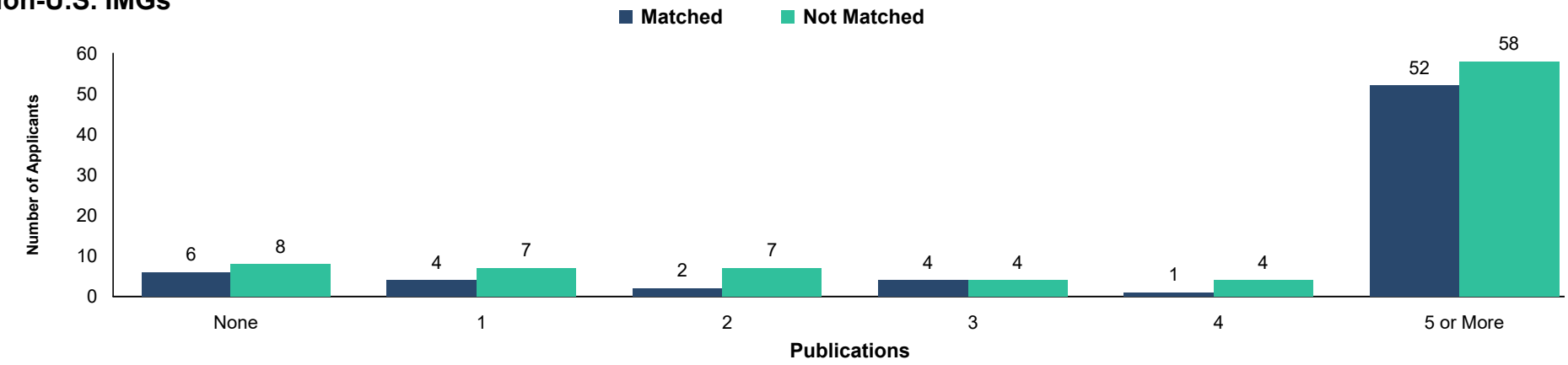


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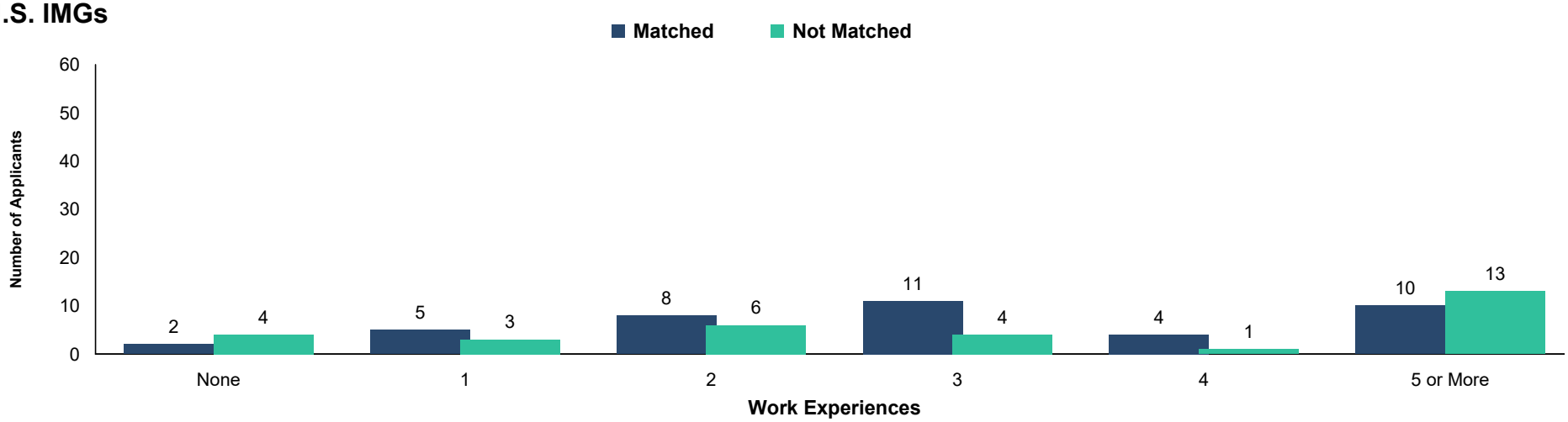
Chart DR-7

Number of Work Experiences of International Medical Graduates

Diagnostic Radiology

U.S. IMGs



Non-U.S. IMGs

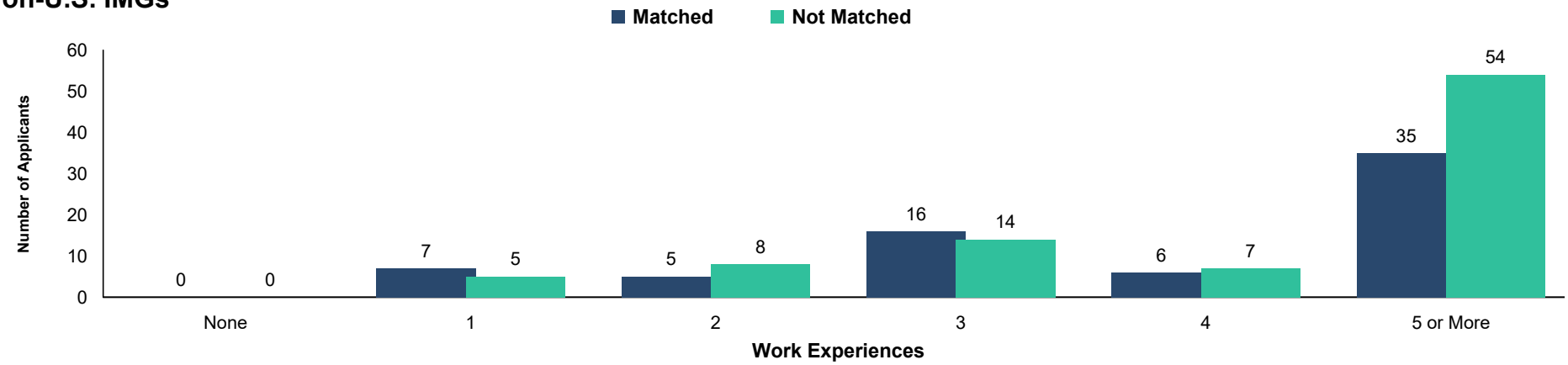


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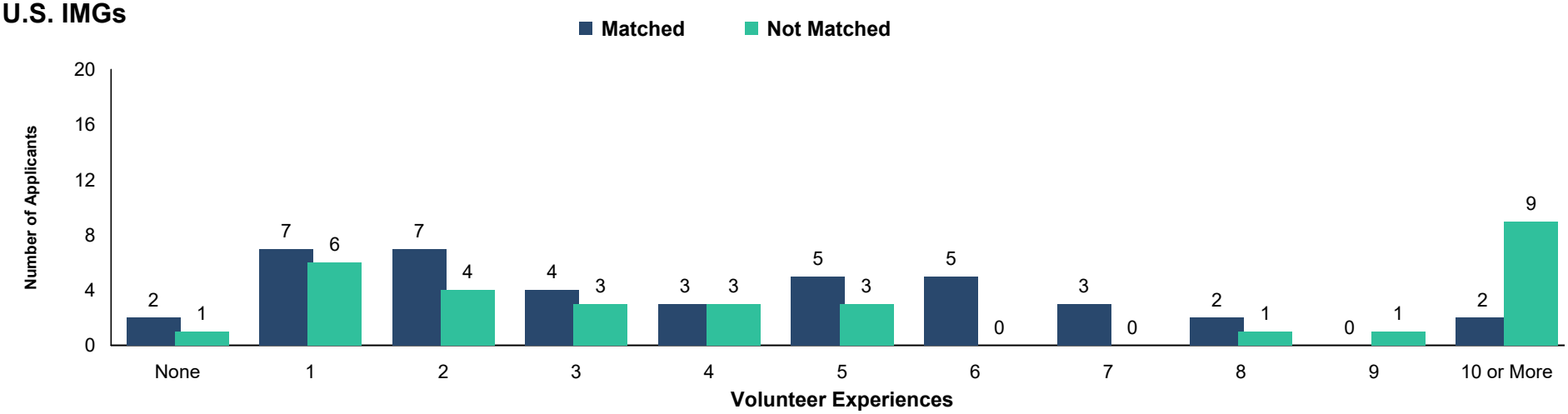
Chart DR-8

Number of Volunteer Experiences of International Medical Graduates

Diagnostic Radiology

U.S. IMGs



Non-U.S. IMGs

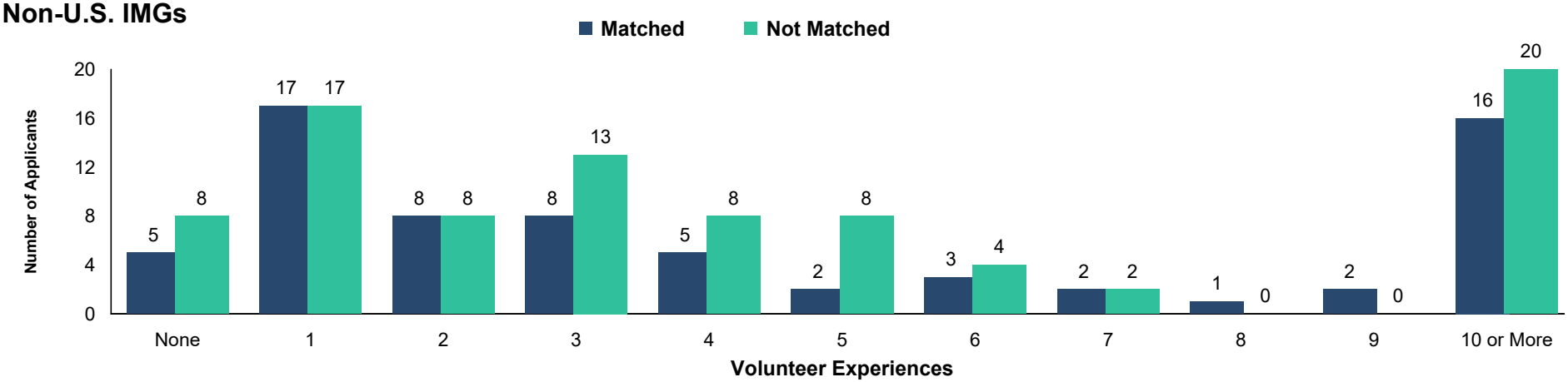


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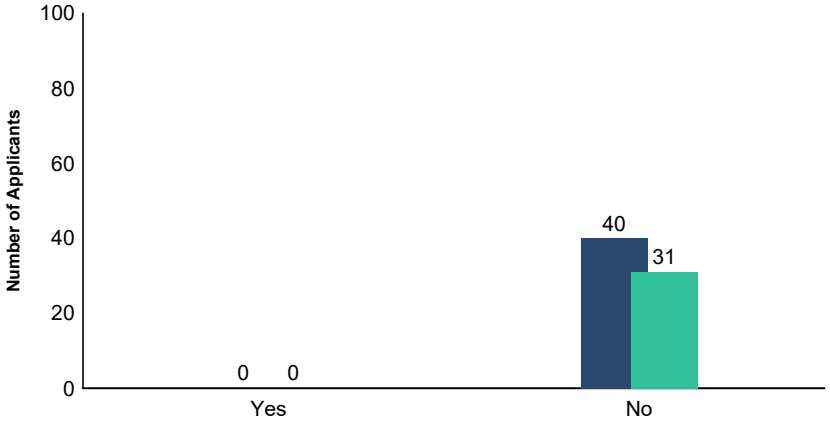
Chart DR-9 Other Characteristics of International Medical Graduates

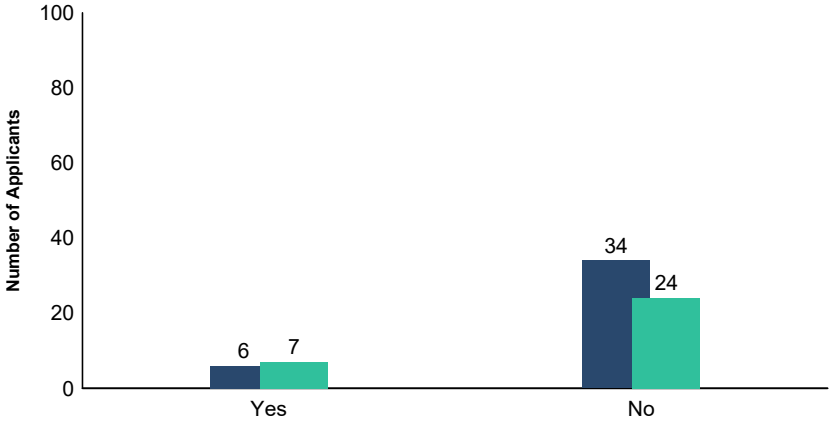
Diagnostic Radiology

U.S. IMGs

Ph.D. Degree

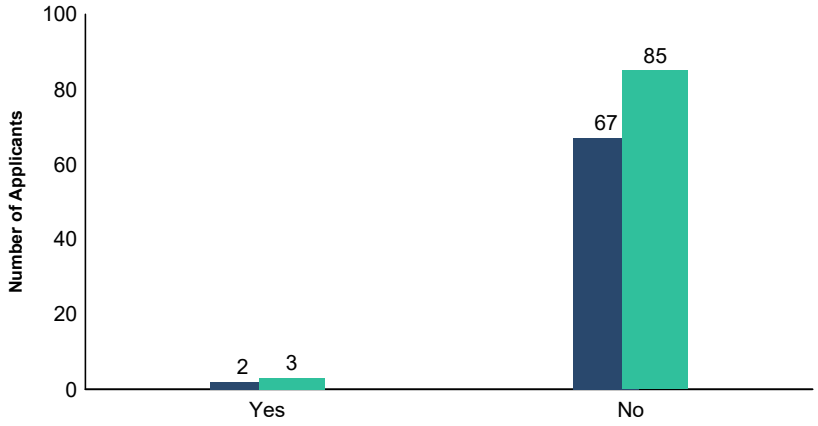


Other Graduate Degree

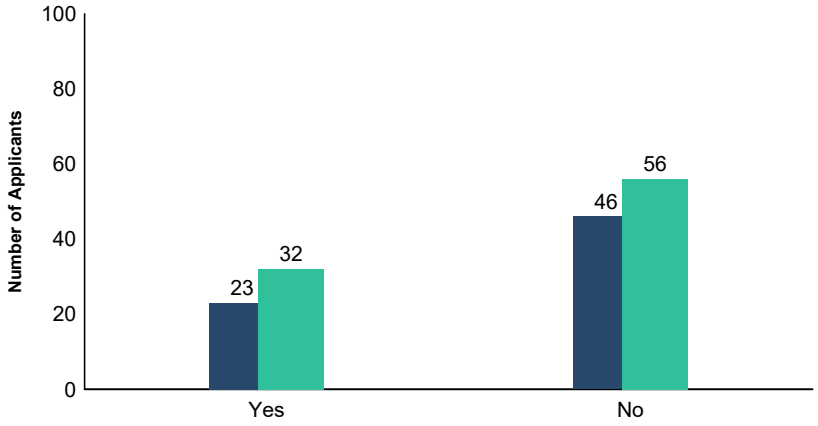


Non-U.S. IMGs

Ph.D. Degree



Other Graduate Degree



Source: NRMP Data Warehouse

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EM Emergency Medicine

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Table EM-1 Summary Statistics
Emergency Medicine

Measure	U.S. IMGs		Non-U.S. IMGs	
	Matched (n=72)	Unmatched (n=76)	Matched (n=27)	Unmatched (n=35)
1. Mean number of contiguous ranks	6.7	2.2	4.1	1.8
2. Mean number of distinct specialties ranked	1.8	1.8	1.5	1.7
3. Mean USMLE Step 1 score	232	222	229	219
4. Mean USMLE Step 2 score	241	230	234	228
5. Mean number of research experiences	1.8	1.6	2.9	2.4
6. Mean number of abstracts, presentations, and publications	2.2	2.0	7.6	4.0
7. Mean number of work experiences	4.3	3.5	5.2	6.0
8. Mean number of volunteer experiences	18.8	3.9	4.3	2.9
9. Percentage who have a Ph.D. degree	0.0	0.0	4.2	3.2
10. Percentage who have another graduate degree	21.7	19.1	24.0	45.2

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

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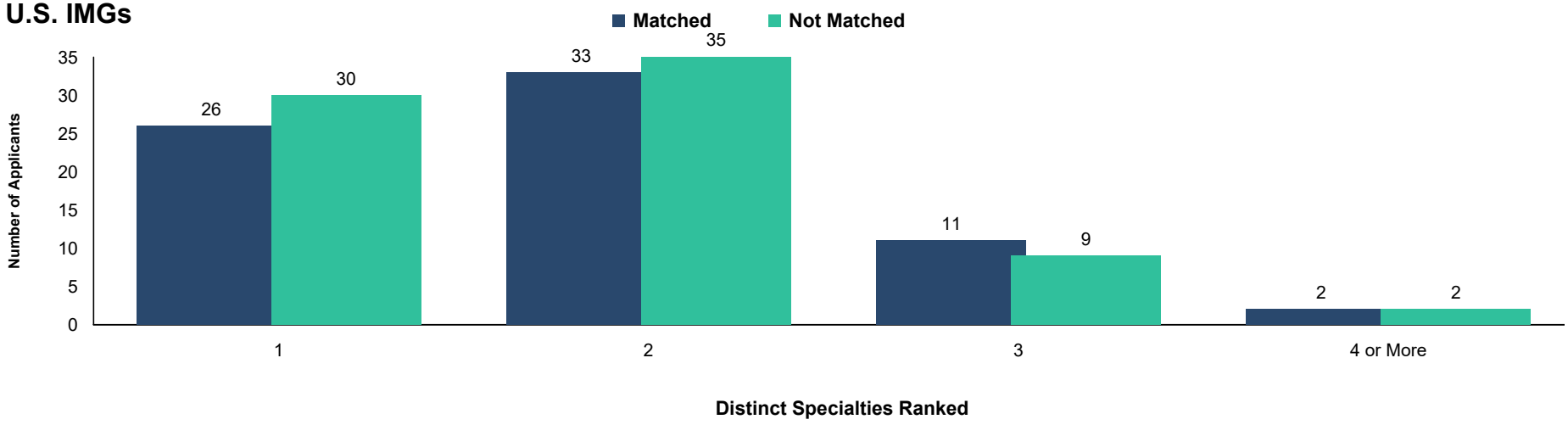
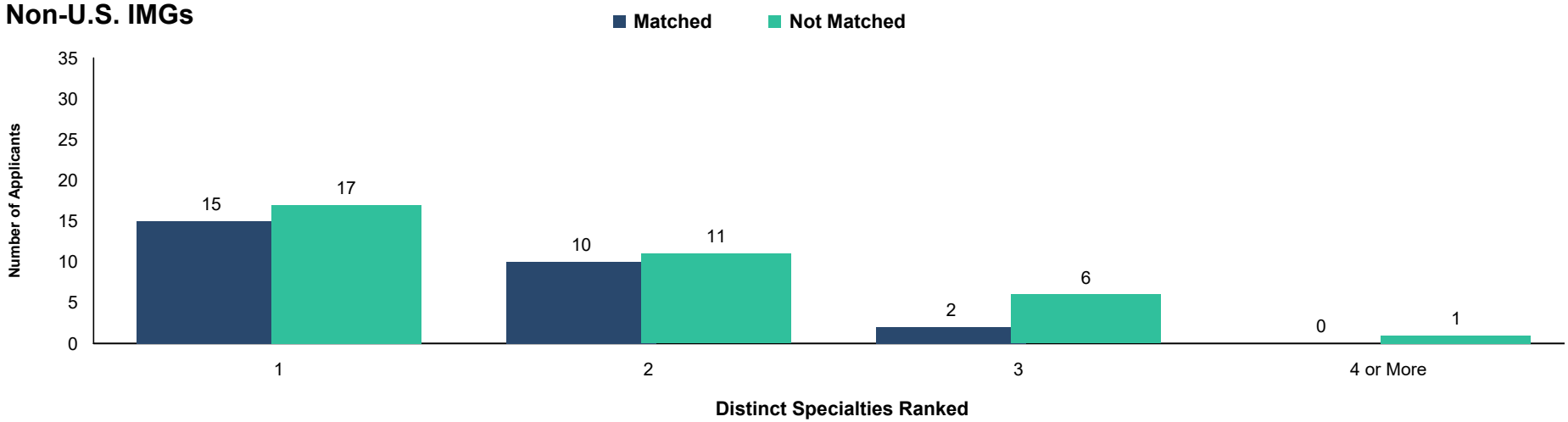
Chart EM-1

Number of Distinct Specialties Ranked by International Medical Graduates
Emergency Medicine

U.S. IMGs



Non-U.S. IMGs



Source: NRMP Data Warehouse

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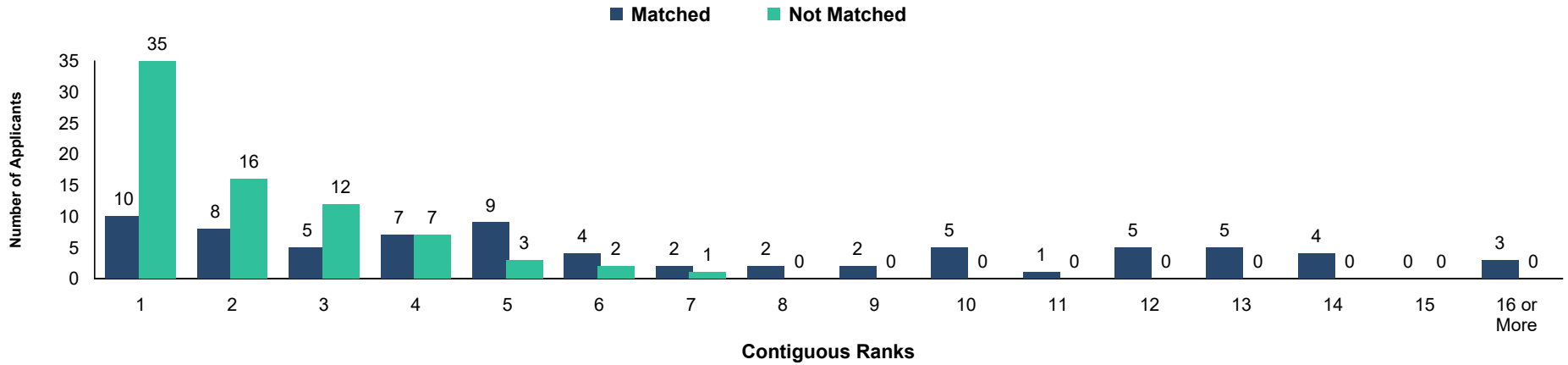
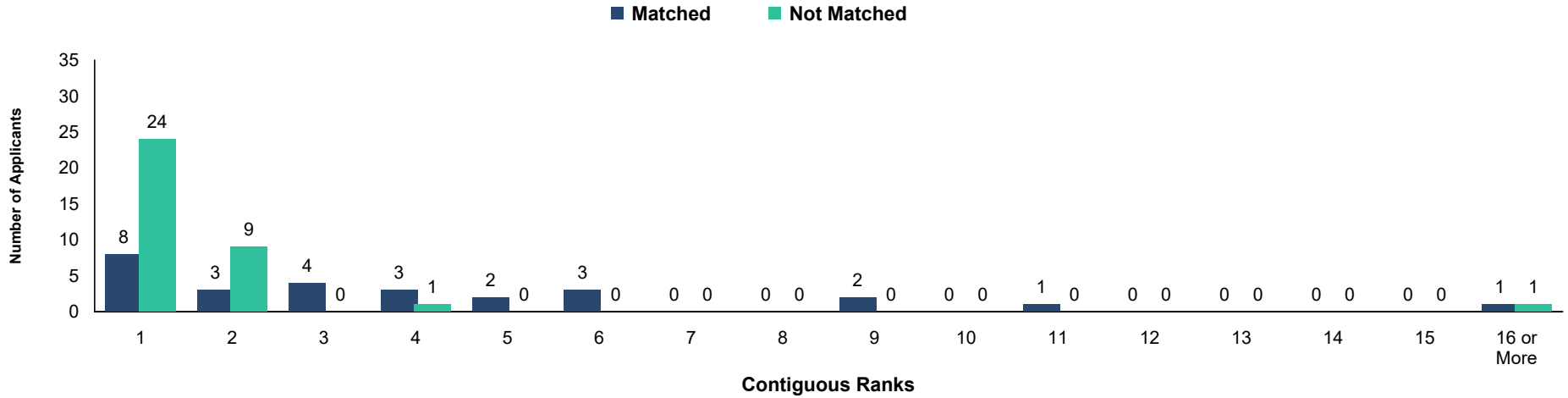
Chart EM-2 Number of Contiguous Ranks of International Medical Graduates Emergency Medicine

U.S. IMGs



Non-U.S. IMGs



Source: NRMP Data Warehouse

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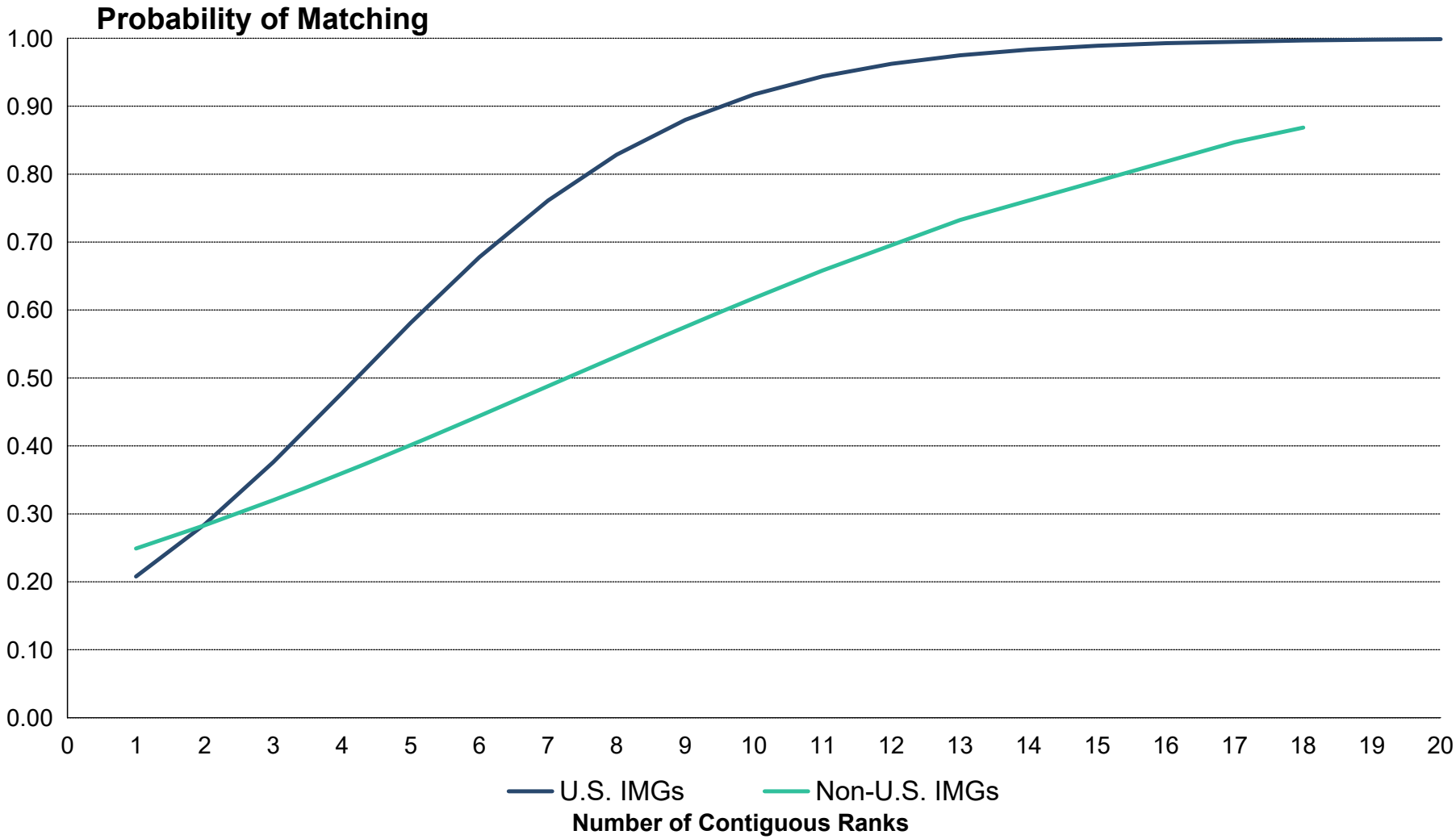
Graph EM-1

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 2016-2018 applicants

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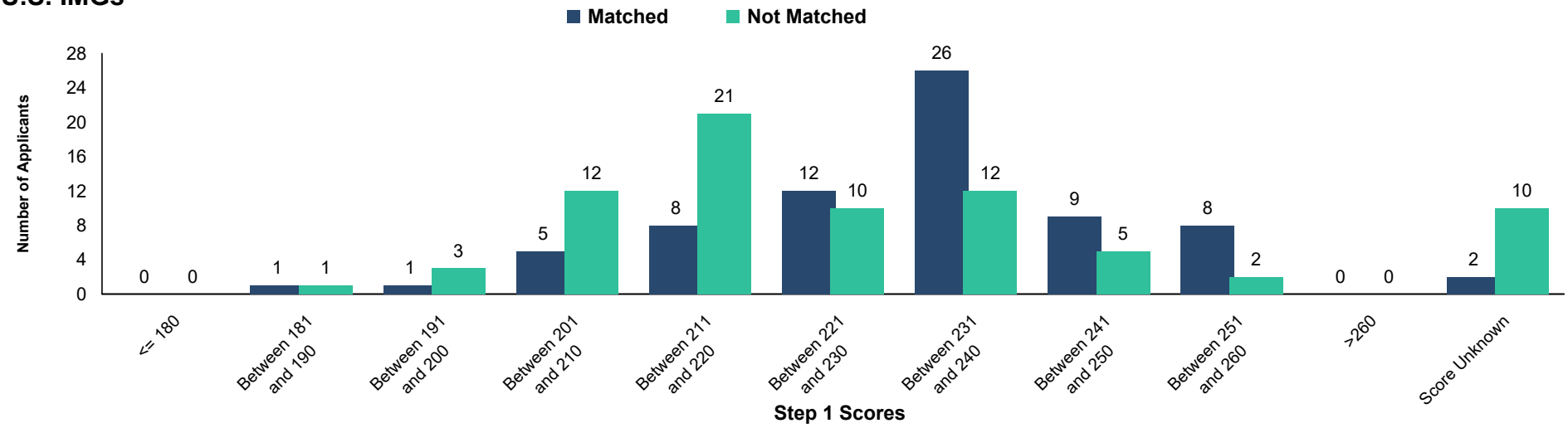
Chart EM-3

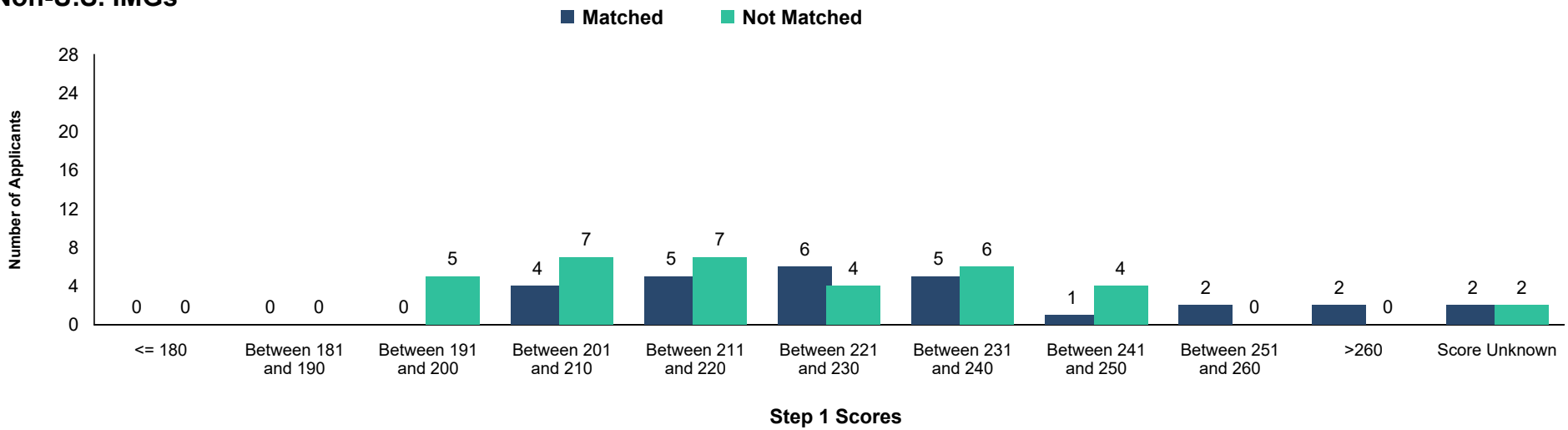
USMLE Step 1 Scores of International Medical Graduates

Emergency Medicine

U.S. IMGs



Non-U.S. IMGs



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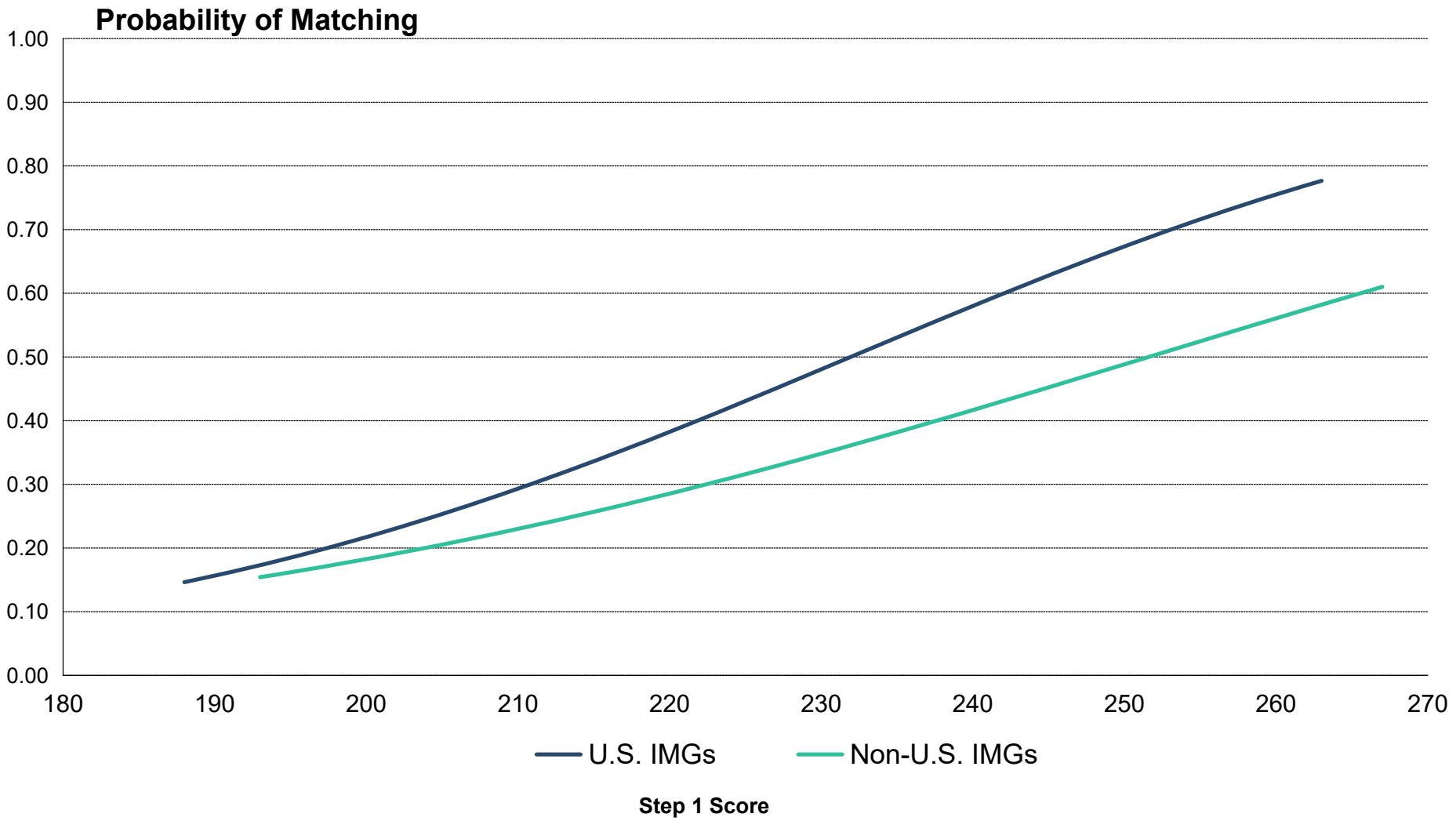
Graph EM-2

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 2016-2018 applicants.

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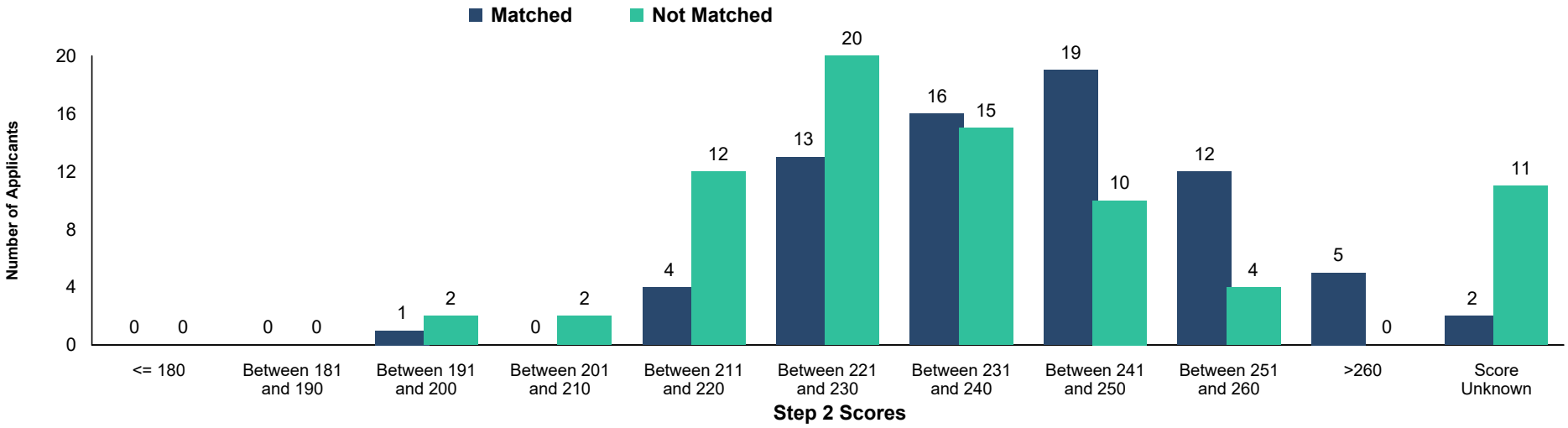
Chart EM-4

USMLE Step 2 CK Scores of International Medical Graduates

Emergency Medicine

U.S. IMGs



Non-U.S. IMGs

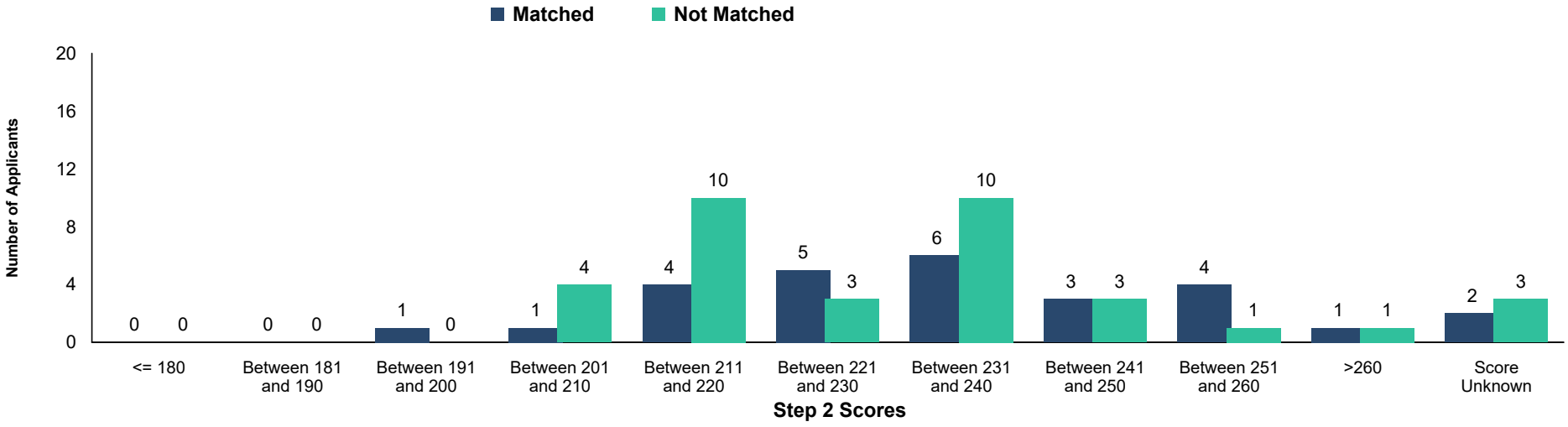


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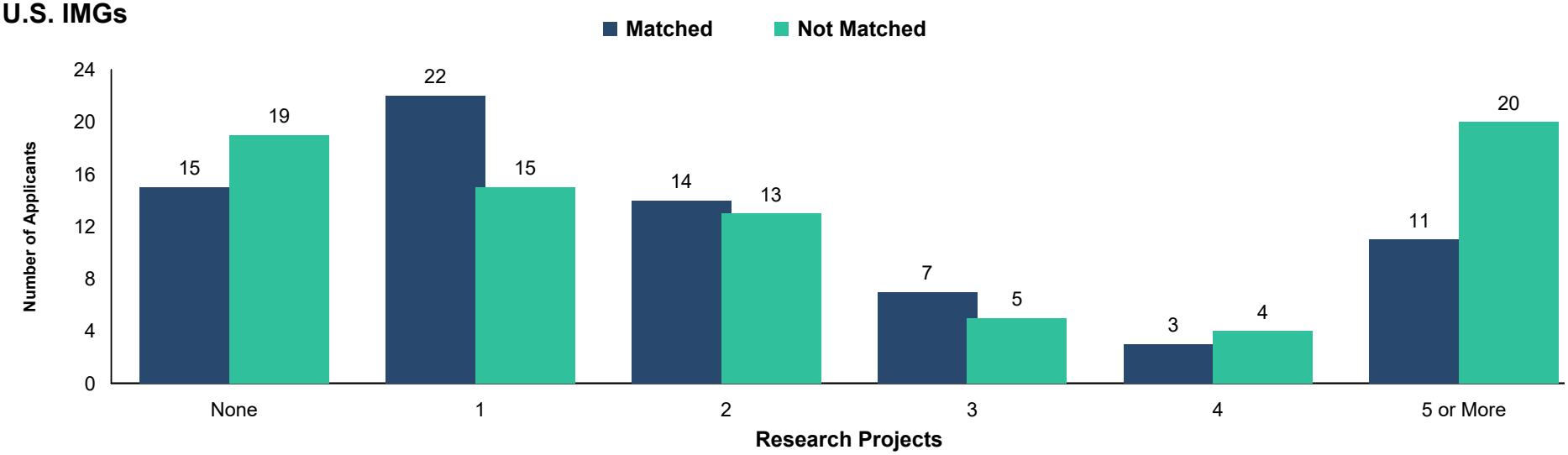
Chart EM-5

Number of Research Projects of International Medical Graduates

Emergency Medicine

U.S. IMGs



Non-U.S. IMGs

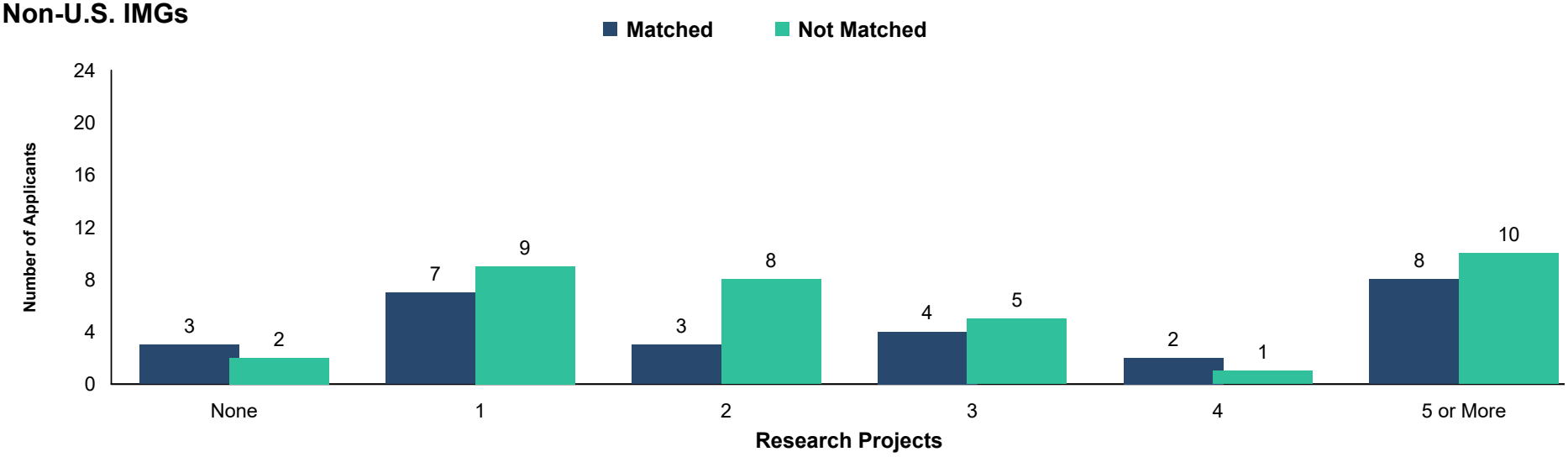


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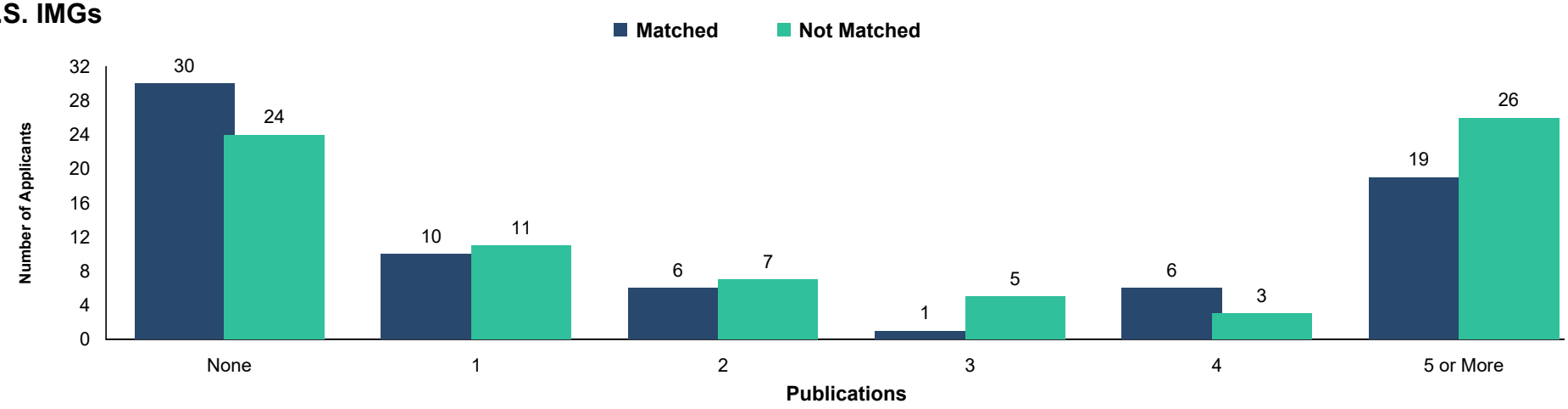
Chart EM-6

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

Emergency Medicine

U.S. IMGs



Non-U.S. IMGs

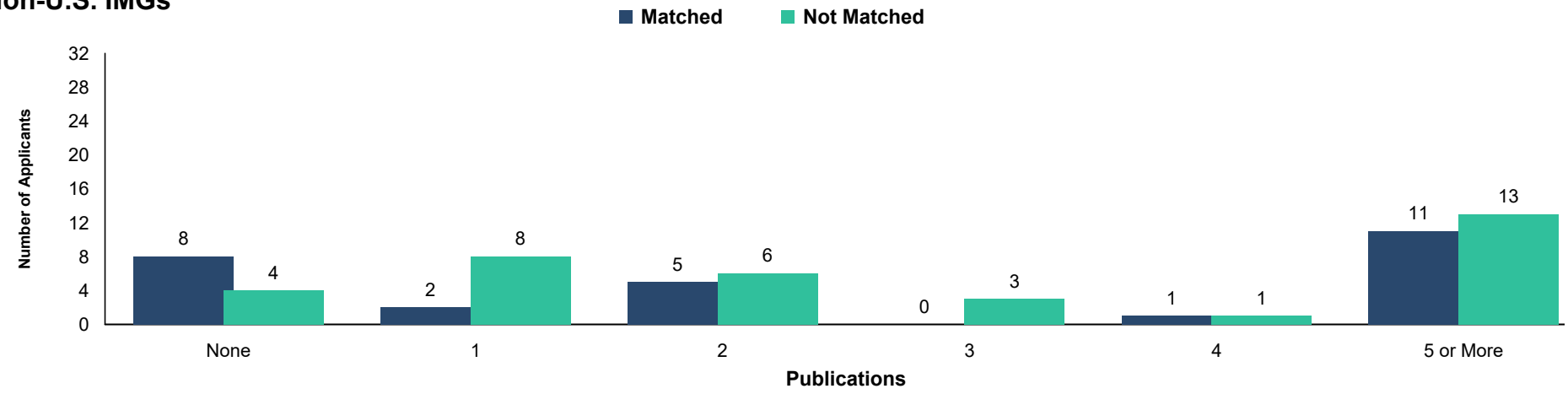


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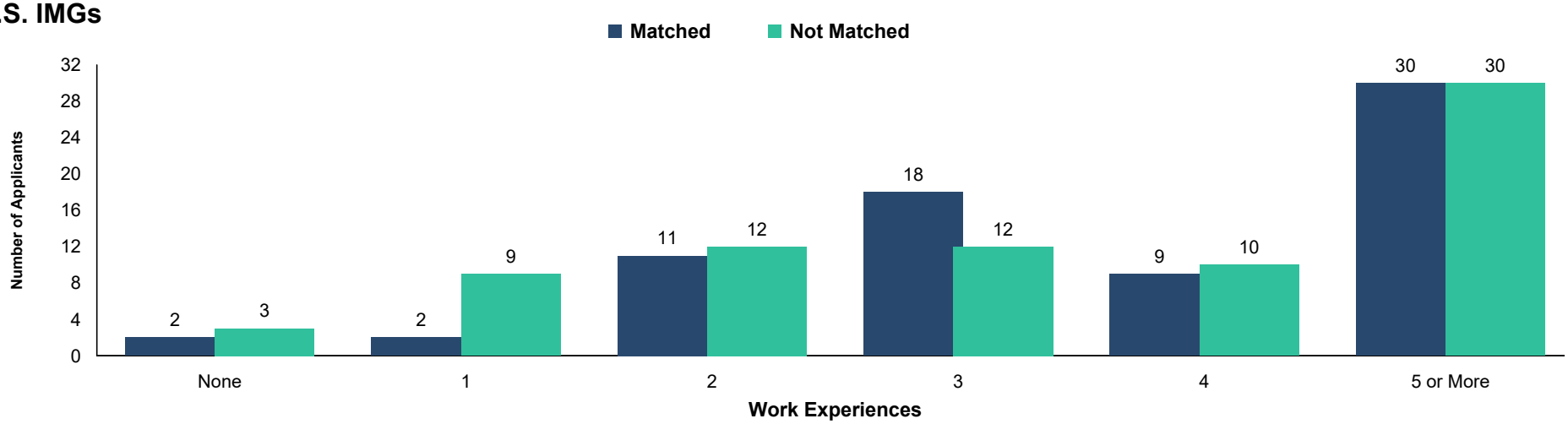
Chart EM-7

Number of Work Experiences of International Medical Graduates

Emergency Medicine

U.S. IMGs



Non-U.S. IMGs

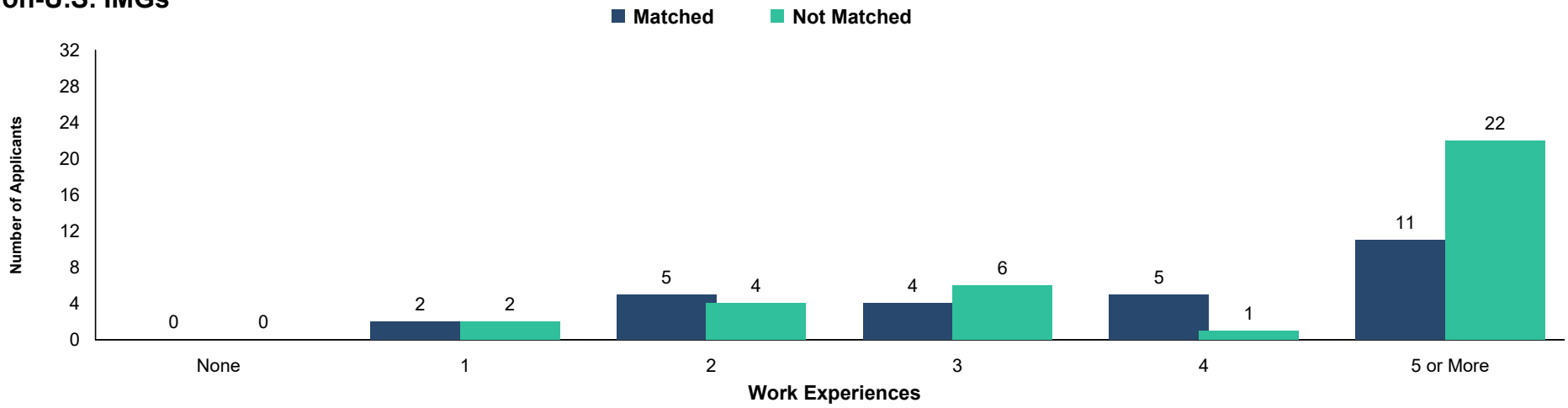


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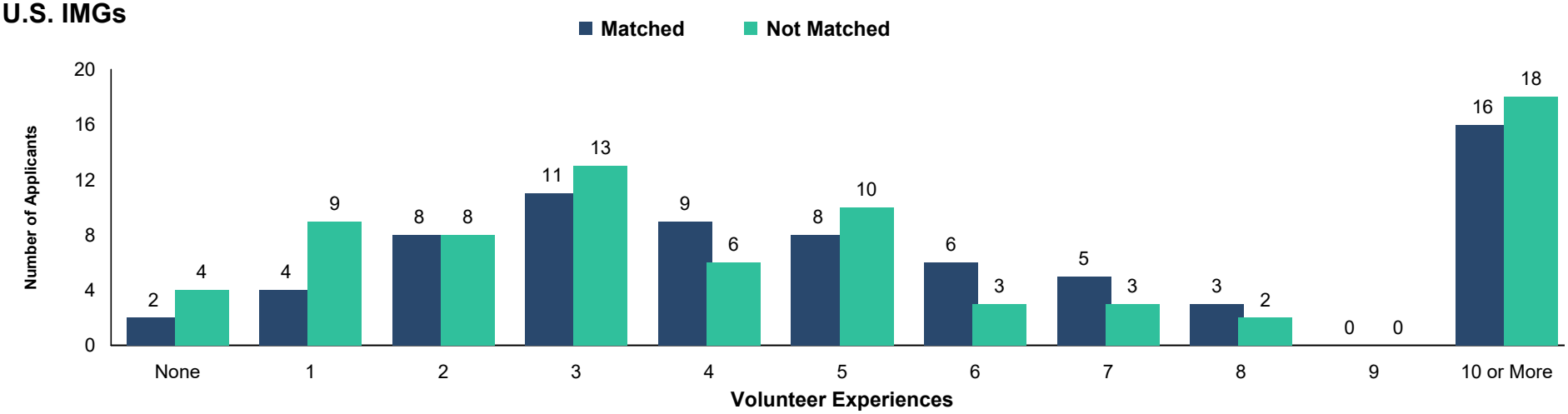
Chart EM-8

Number of Volunteer Experiences of International Medical Graduates

Emergency Medicine

U.S. IMGs



Non-U.S. IMGs

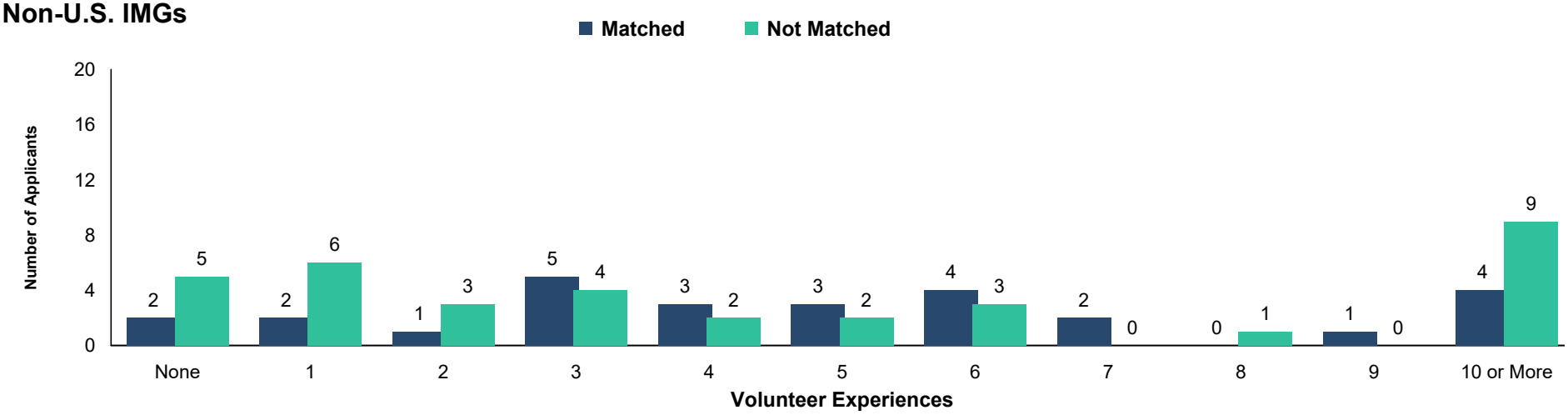


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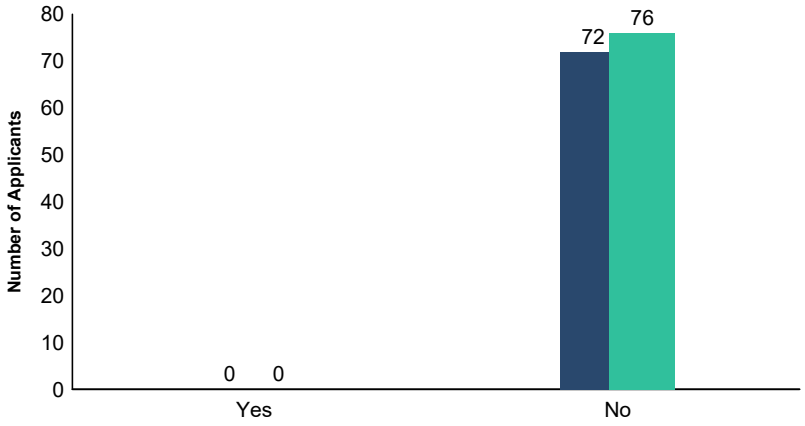
Chart EM-9 Other Characteristics of International Medical Graduates

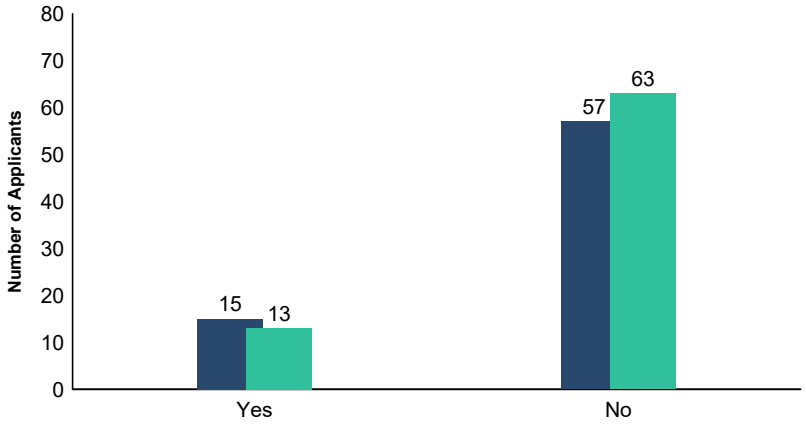
Emergency Medicine

U.S. IMGs

Ph.D. Degree

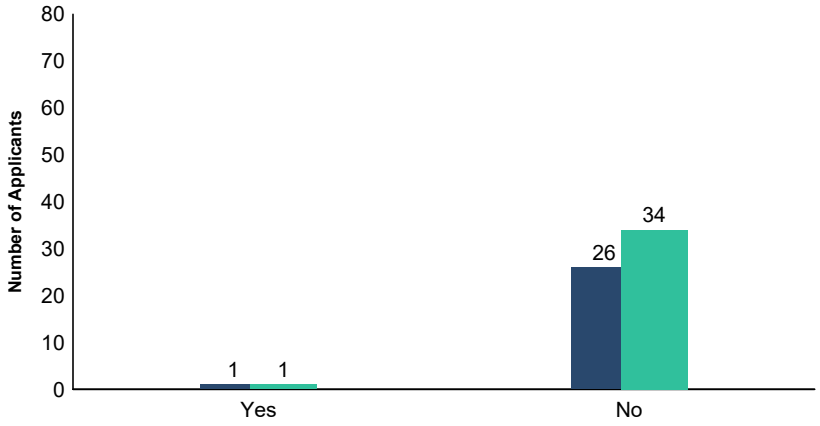


Other Graduate Degree

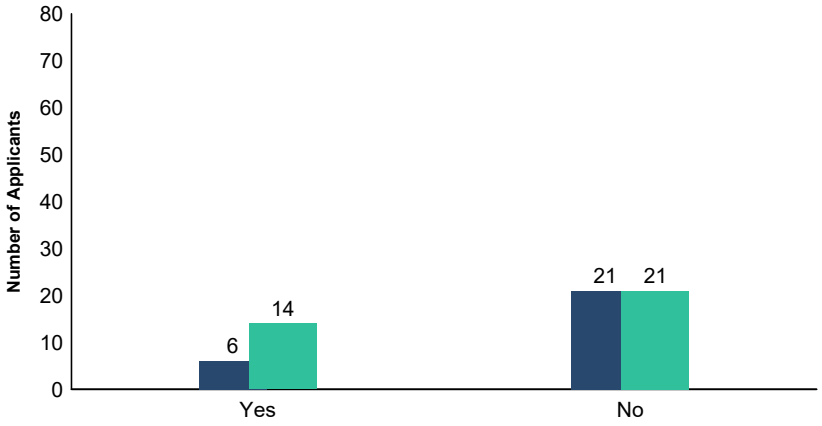


Non-U.S. IMGs

Ph.D. Degree



Other Graduate Degree



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FM Family Medicine

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Table FM-1 Summary Statistics
Family Medicine

Measure	U.S. IMGs		Non-U.S. IMGs	
	Matched (n=519)	Unmatched (n=458)	Matched (n=240)	Unmatched (n=342)
1. Mean number of contiguous ranks	6.1	2.7	3.8	1.9
2. Mean number of distinct specialties ranked	1.3	1.4	1.4	1.4
3. Mean USMLE Step 1 score	211	207	220	212
4. Mean USMLE Step 2 score	225	219	231	223
5. Mean number of research experiences	1.4	3.0	1.9	2.1
6. Mean number of abstracts, presentations, and publications	2.0	2.7	2.7	3.1
7. Mean number of work experiences	3.8	5.0	5.8	6.5
8. Mean number of volunteer experiences	4.6	4.4	4.8	4.4
9. Percentage who have a Ph.D. degree	0.0	1.8	1.3	1.9
10. Percentage who have another graduate degree	24.2	30.9	22.6	27.8

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

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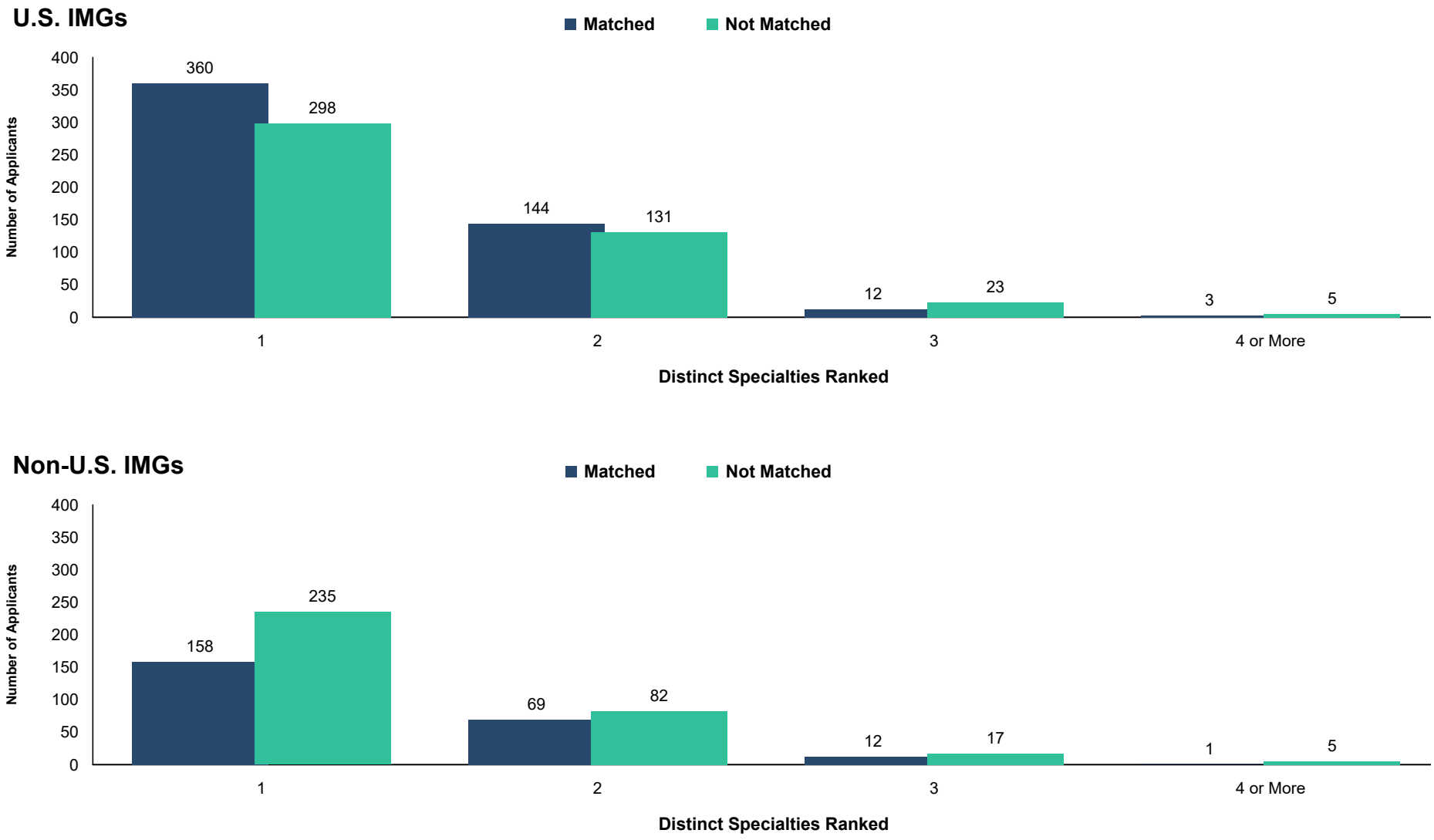
Chart FM-1
Number of Distinct Specialties Ranked by International Medical Graduates
Family Medicine



Source: NRMP Data Warehouse

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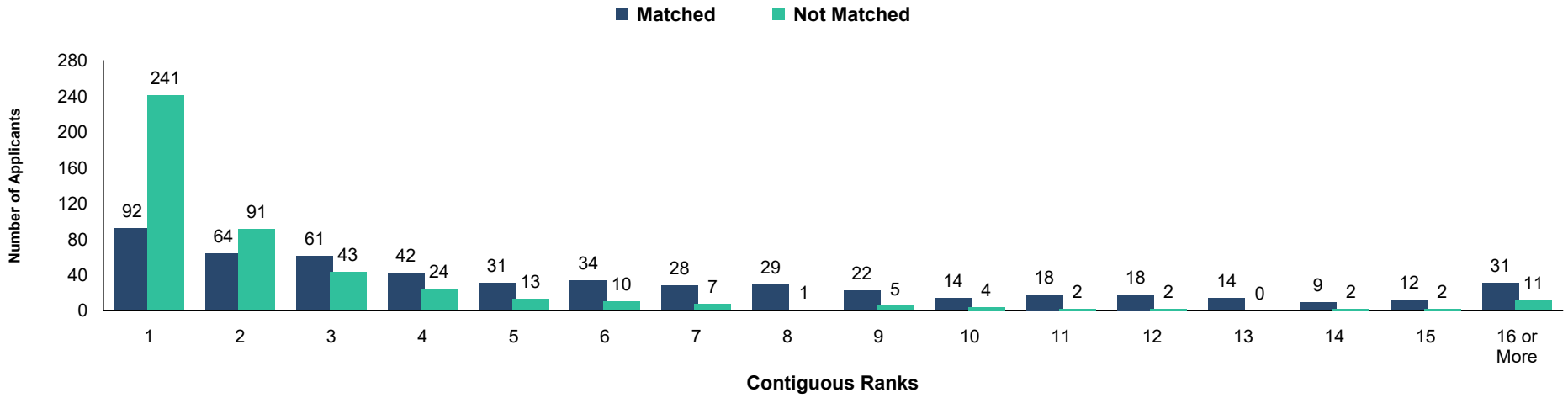
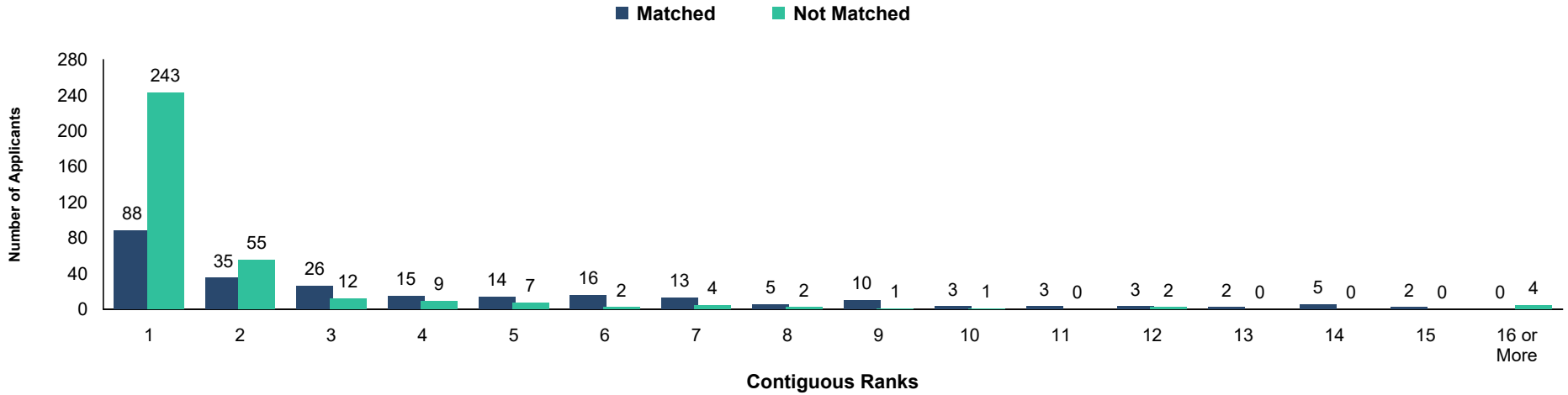
Chart FM-2 Number of Contiguous Ranks of International Medical Graduates Family Medicine

U.S. IMGs



Non-U.S. IMGs



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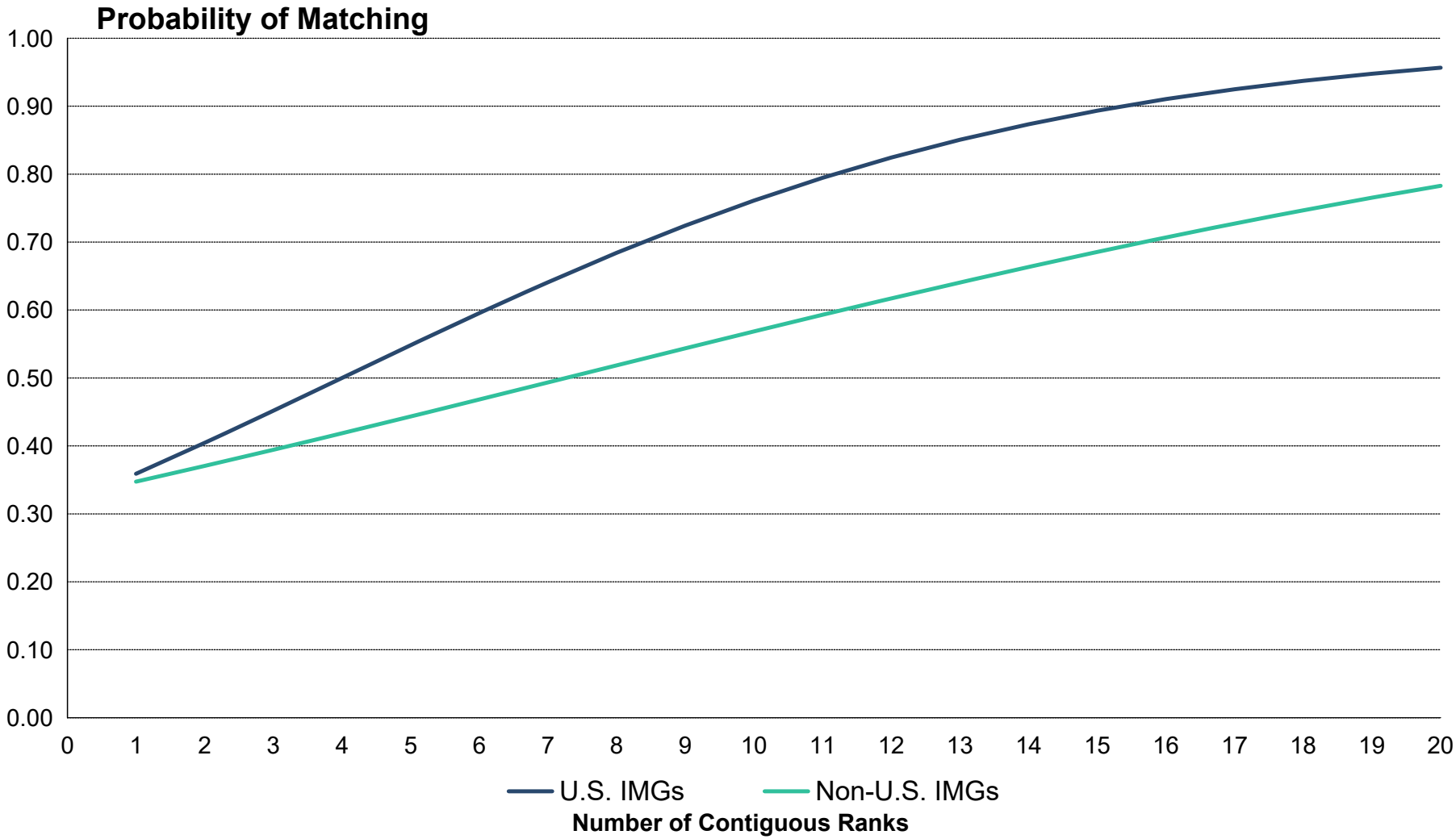
Graph FM-1

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 2016-2018 applicants

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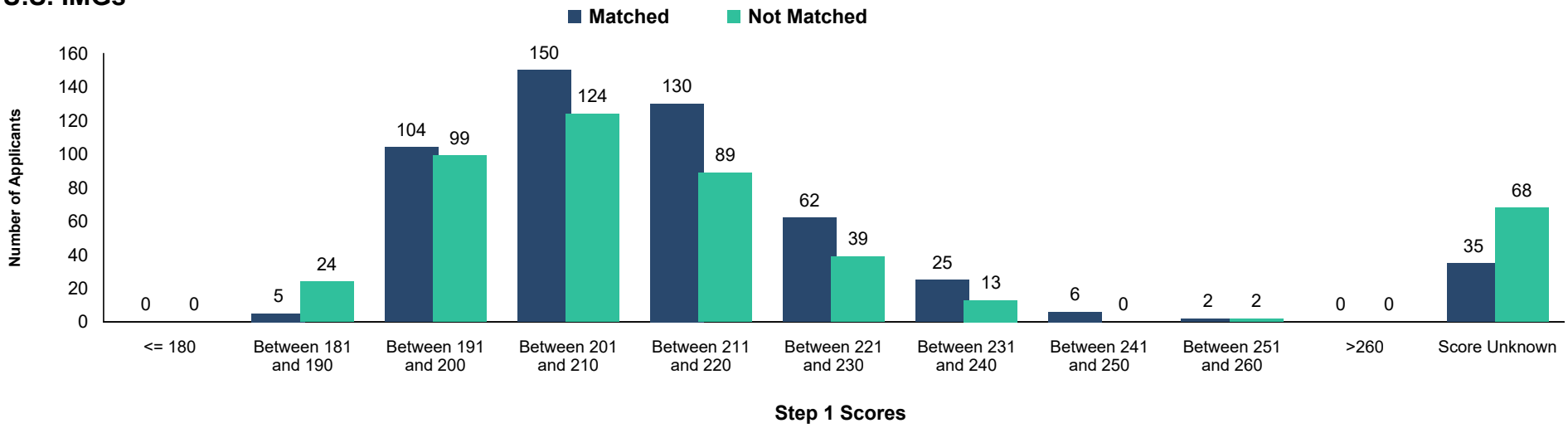
Chart FM-3

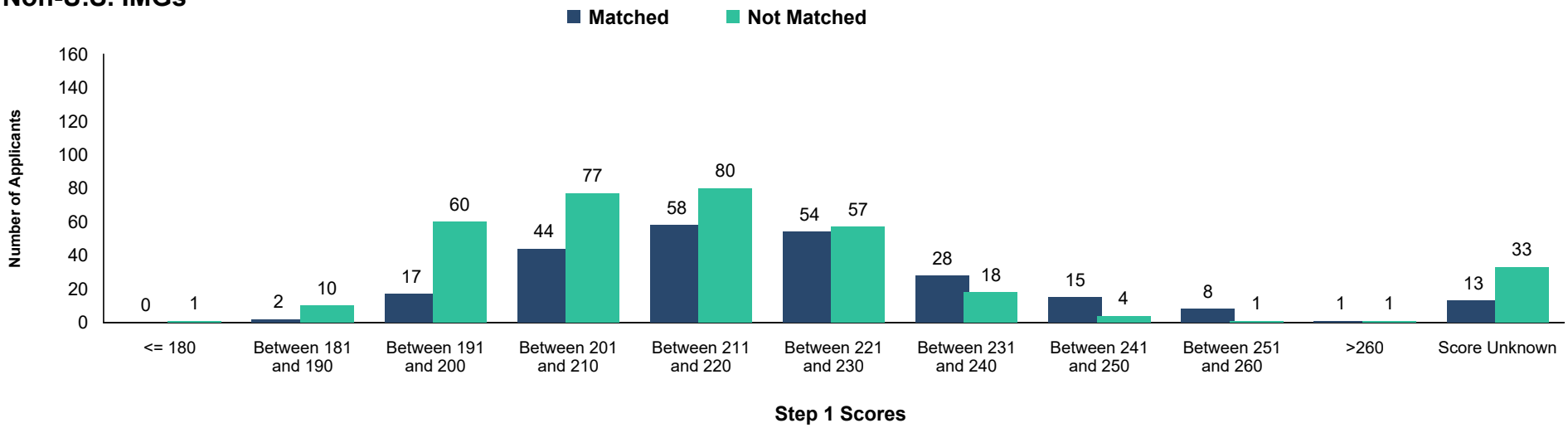
USMLE Step 1 Scores of International Medical Graduates

Family Medicine

U.S. IMGs



Non-U.S. IMGs



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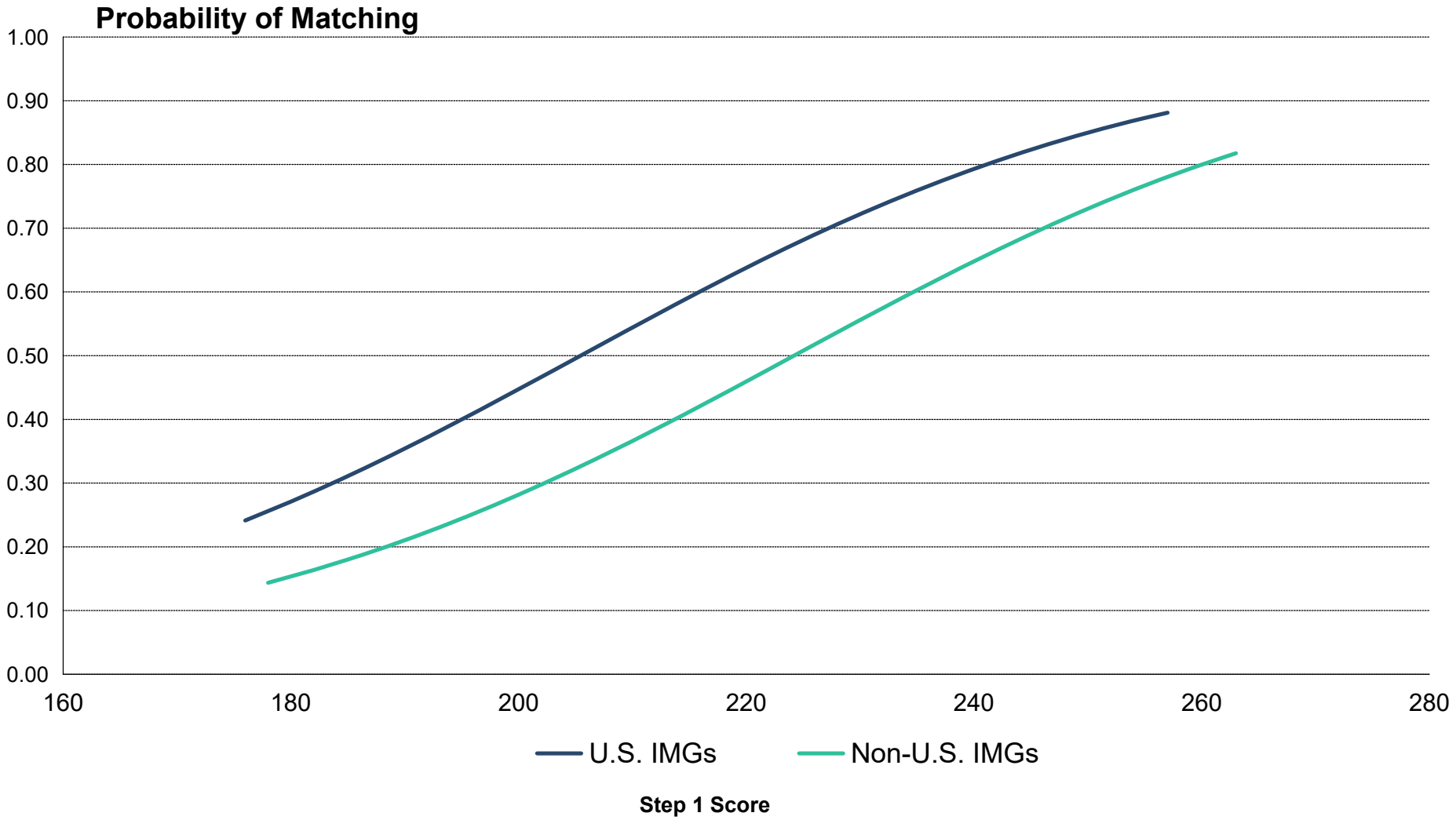
Graph FM-2

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 2016-2018 applicants.

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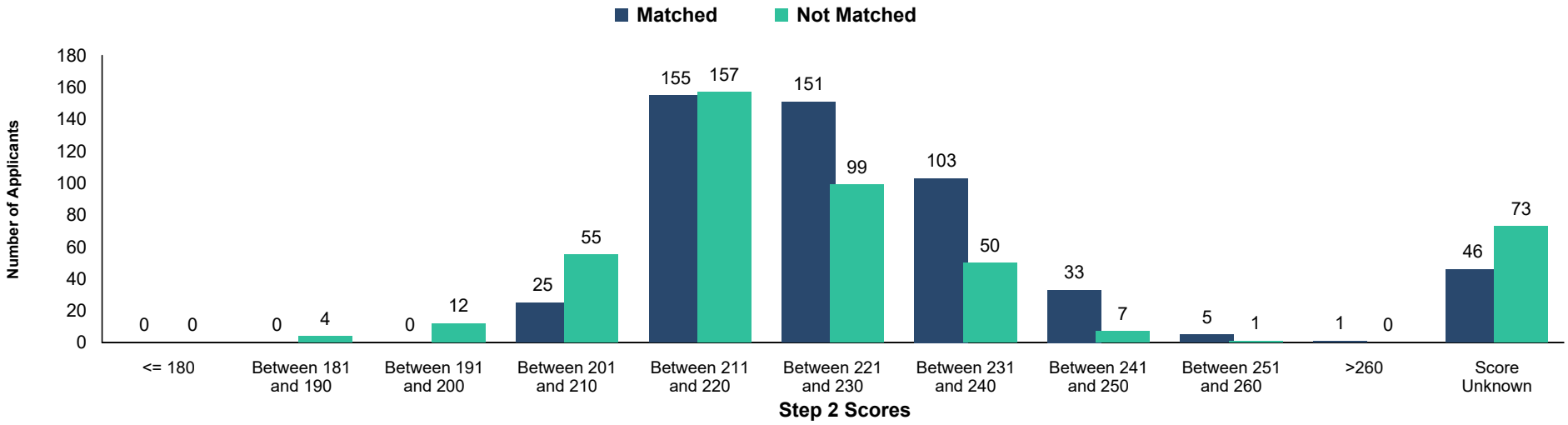
Chart FM-4

USMLE Step 2 CK Scores of International Medical Graduates

Family Medicine

U.S. IMGs



Non-U.S. IMGs

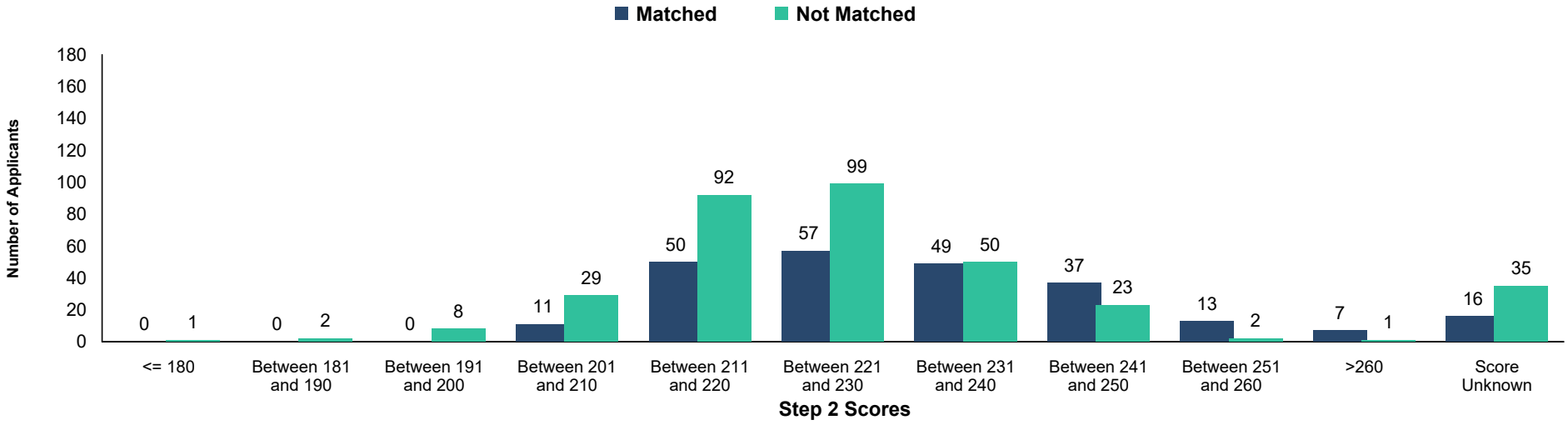


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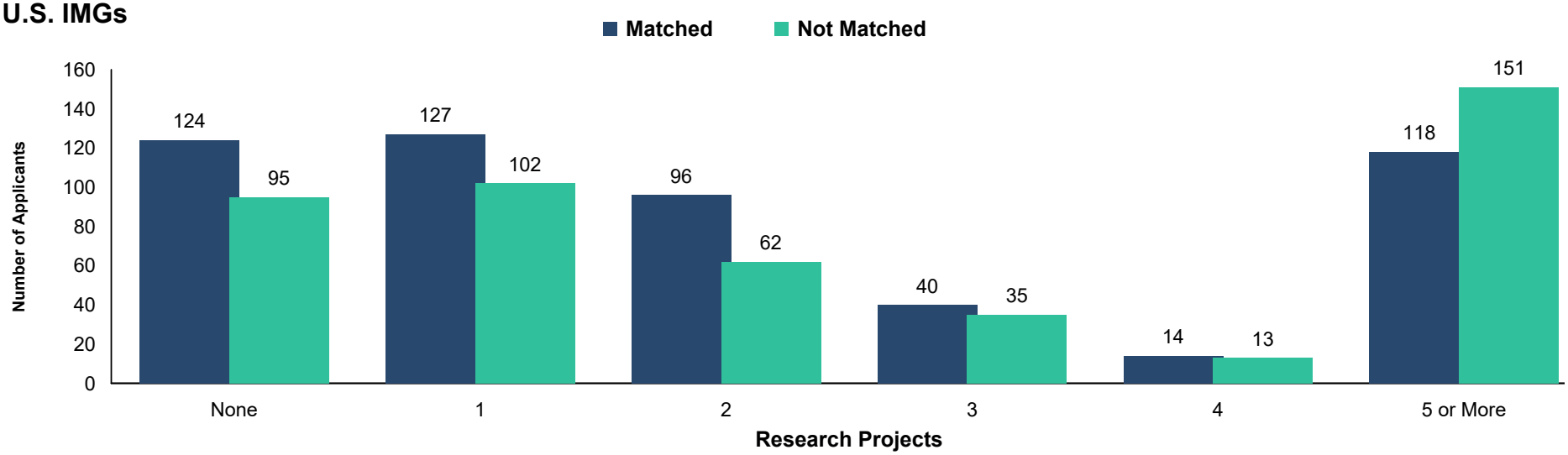
Chart FM-5

Number of Research Projects of International Medical Graduates

Family Medicine

U.S. IMGs



Non-U.S. IMGs

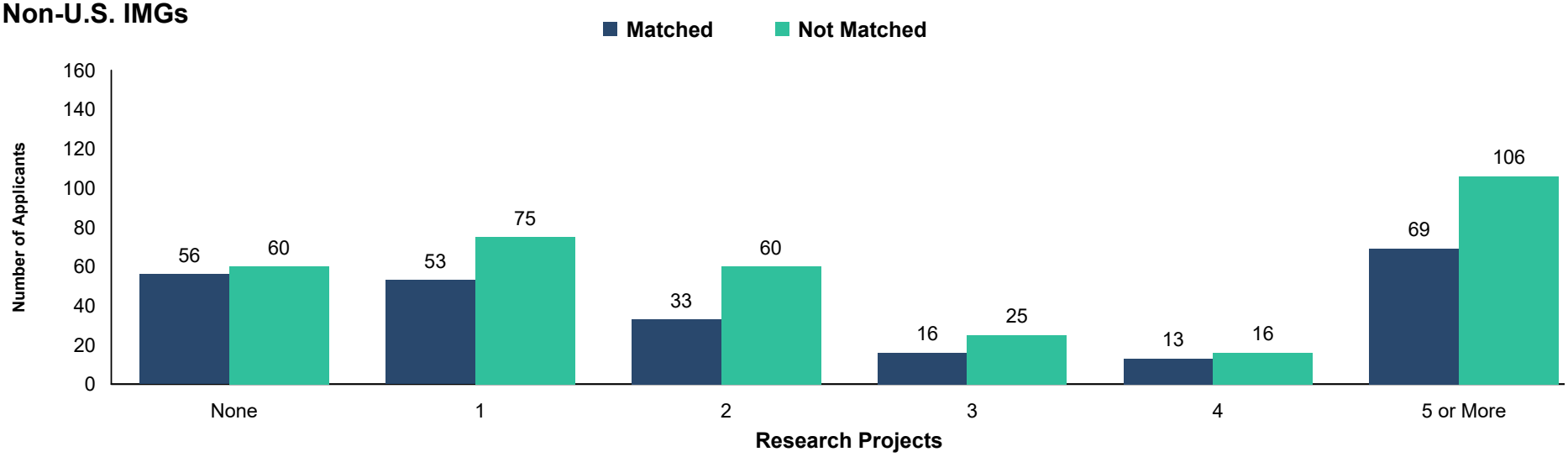


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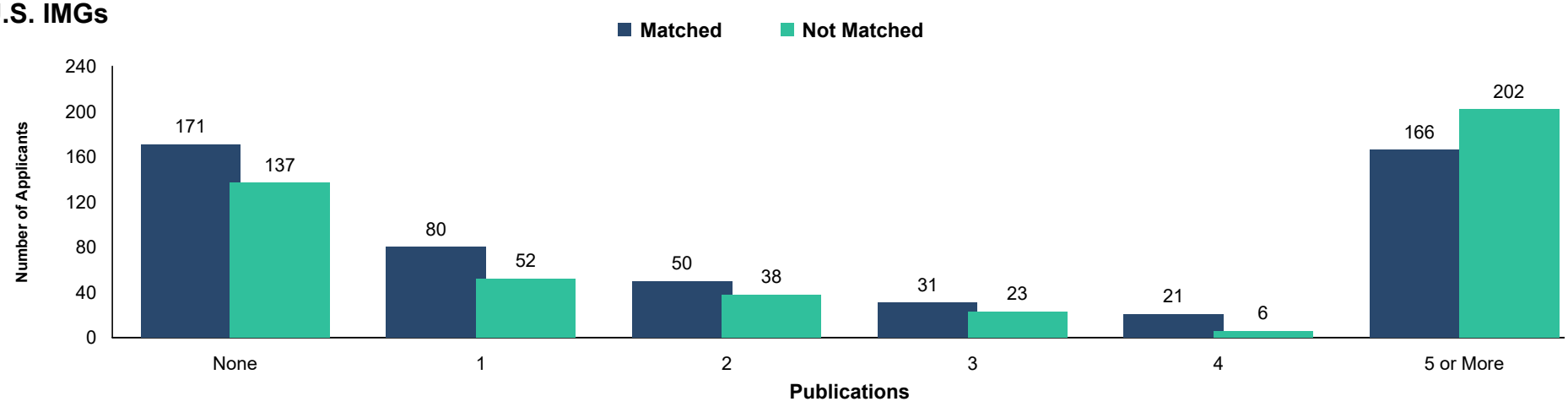
Chart FM-6

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

Family Medicine

U.S. IMGs



Non-U.S. IMGs

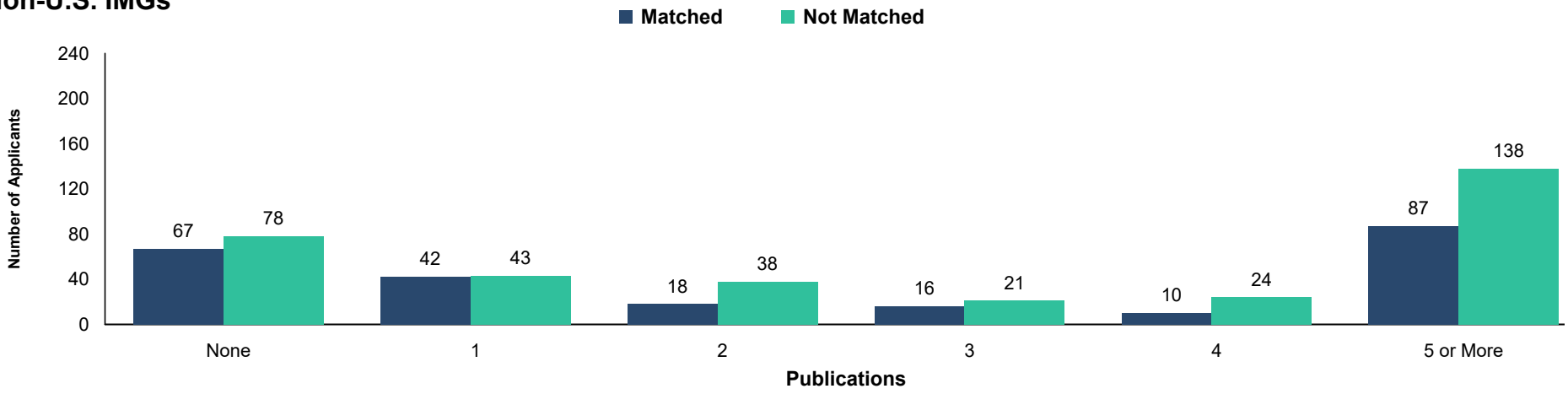


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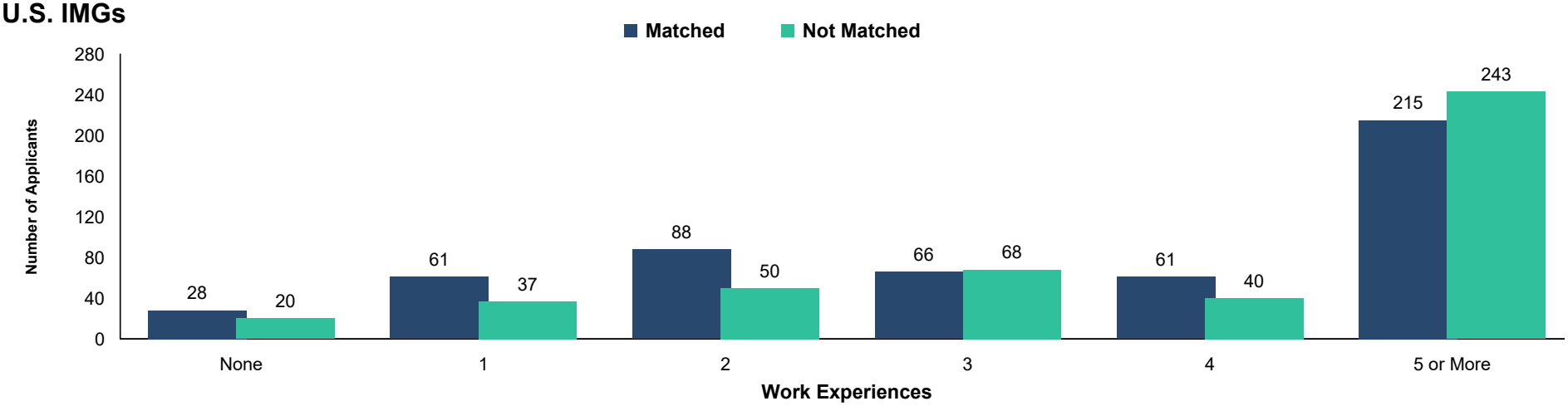
Chart FM-7

Number of Work Experiences of International Medical Graduates

Family Medicine

U.S. IMGs



Non-U.S. IMGs

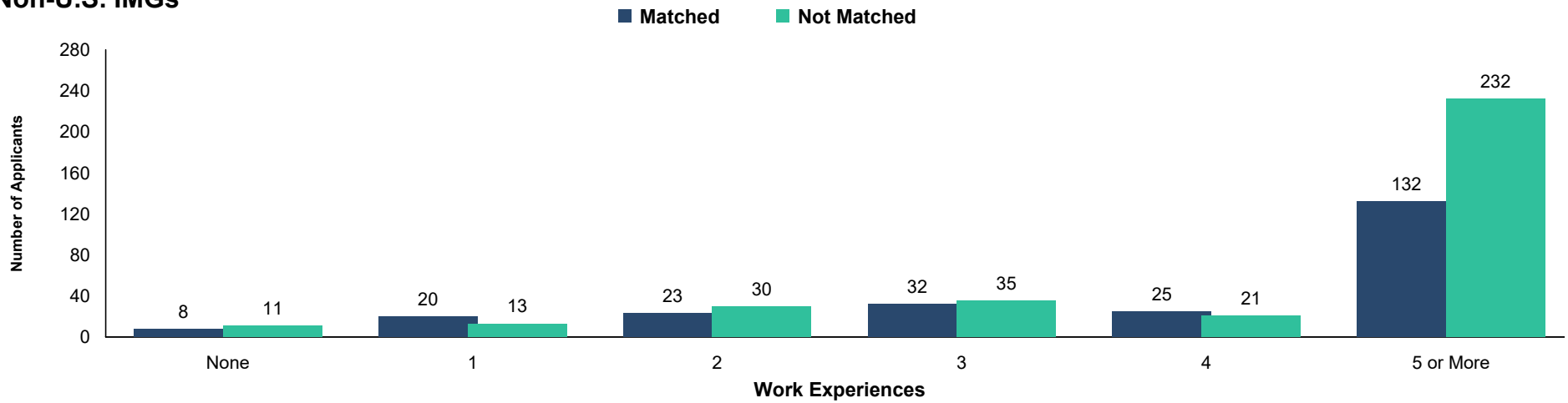


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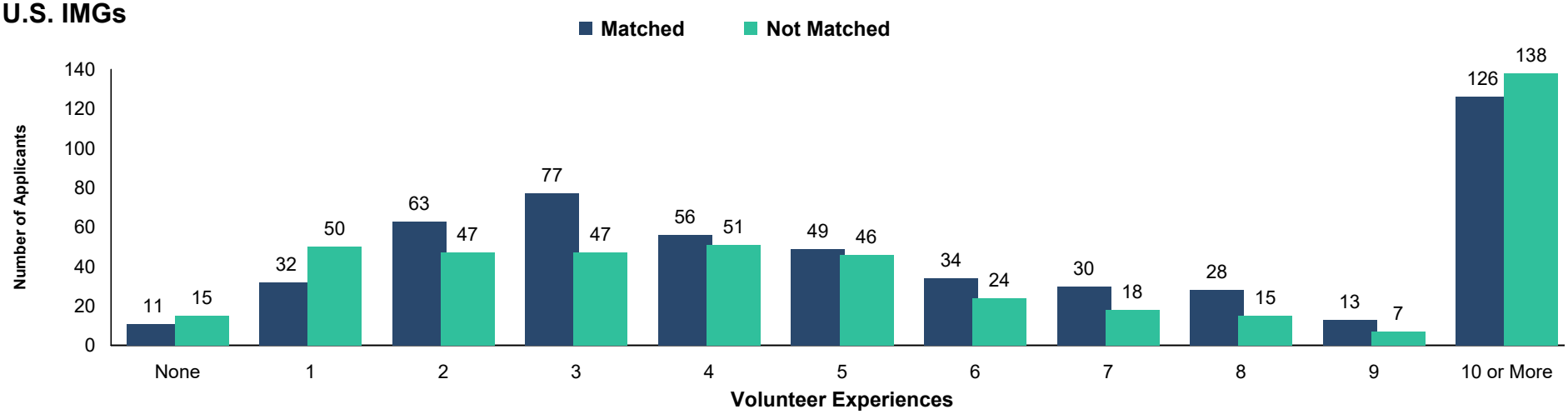
Chart FM-8

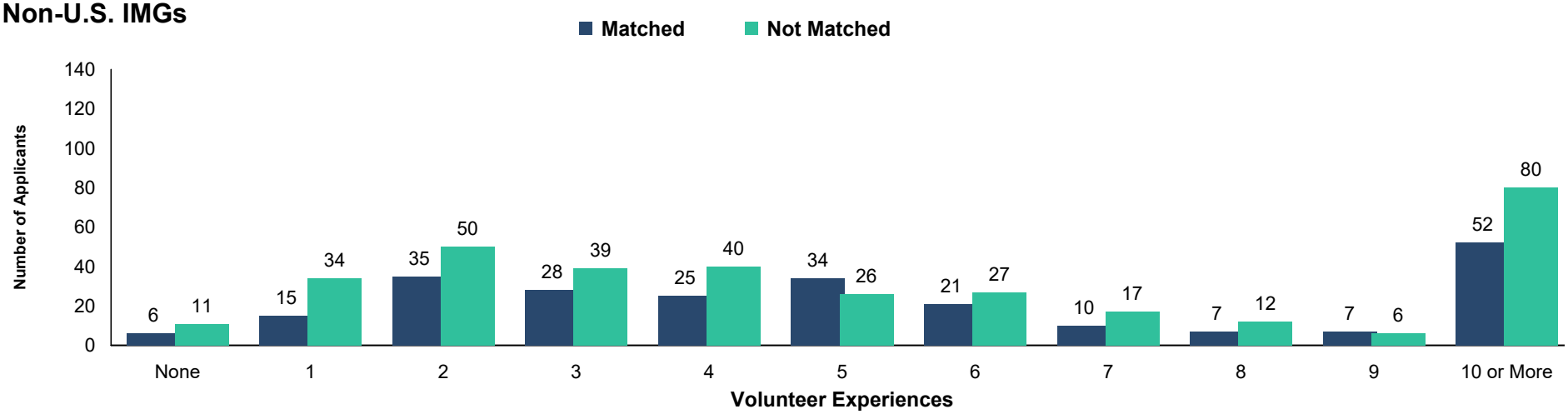
Number of Volunteer Experiences of International Medical Graduates

Family Medicine

U.S. IMGs



Non-U.S. IMGs



Source: NRMP Data Warehouse

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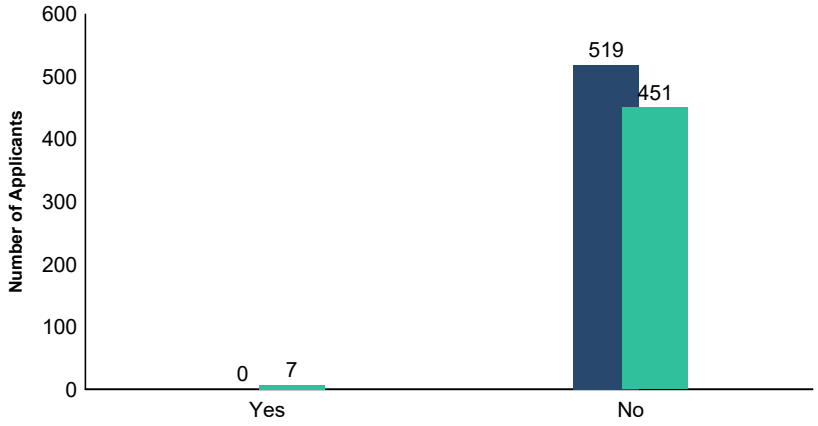
Chart FM-9 Other Characteristics of International Medical Graduates

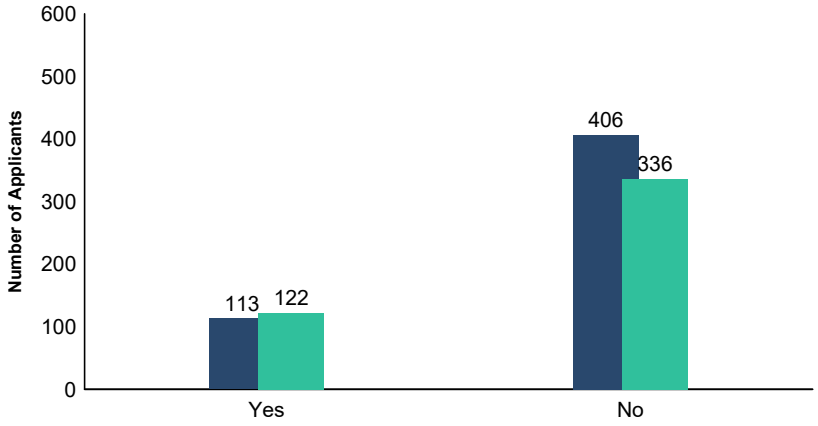
Family Medicine

U.S. IMGs

Ph.D. Degree

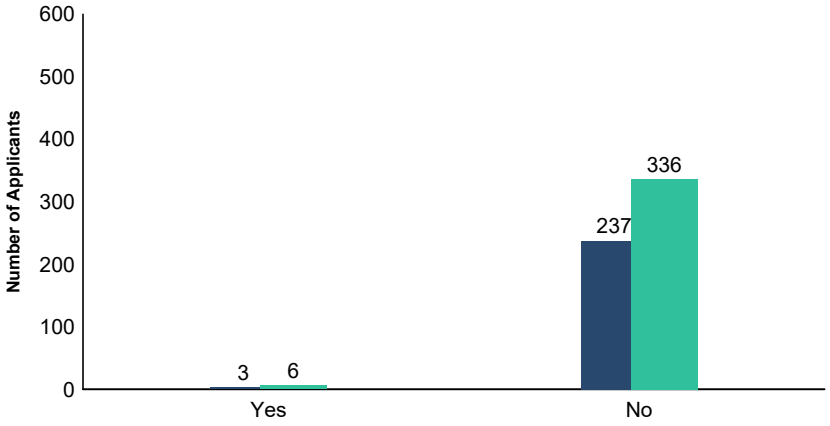


Other Graduate Degree

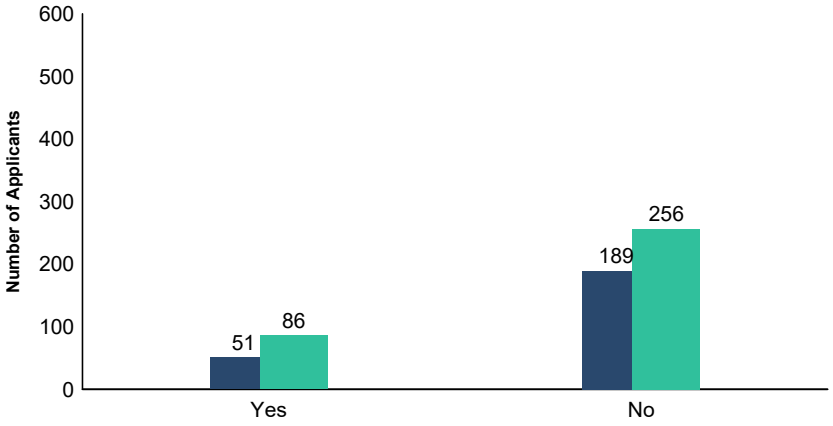


Non-U.S. IMGs

Ph.D. Degree



Other Graduate Degree



Source: NRMP Data Warehouse

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GS General Surgery

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Table GS-1 Summary Statistics
General Surgery

Measure	U.S. IMGs		Non-U.S. IMGs	
	Matched (n=61)	Unmatched (n=122)	Matched (n=62)	Unmatched (n=173)
1. Mean number of contiguous ranks	6.3	3.2	3.4	2.0
2. Mean number of distinct specialties ranked	1.3	1.6	1.2	1.3
3. Mean USMLE Step 1 score	237	228	242	236
4. Mean USMLE Step 2 score	245	236	249	240
5. Mean number of research experiences	2.2	2.0	5.2	3.1
6. Mean number of abstracts, presentations, and publications	4.2	3.4	15.0	11.7
7. Mean number of work experiences	3.2	4.2	5.4	6.1
8. Mean number of volunteer experiences	4.4	4.4	3.5	4.1
9. Percentage who have a Ph.D. degree	0.0	0.0	5.3	2.6
10. Percentage who have another graduate degree	21.8	25.2	21.1	27.1

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

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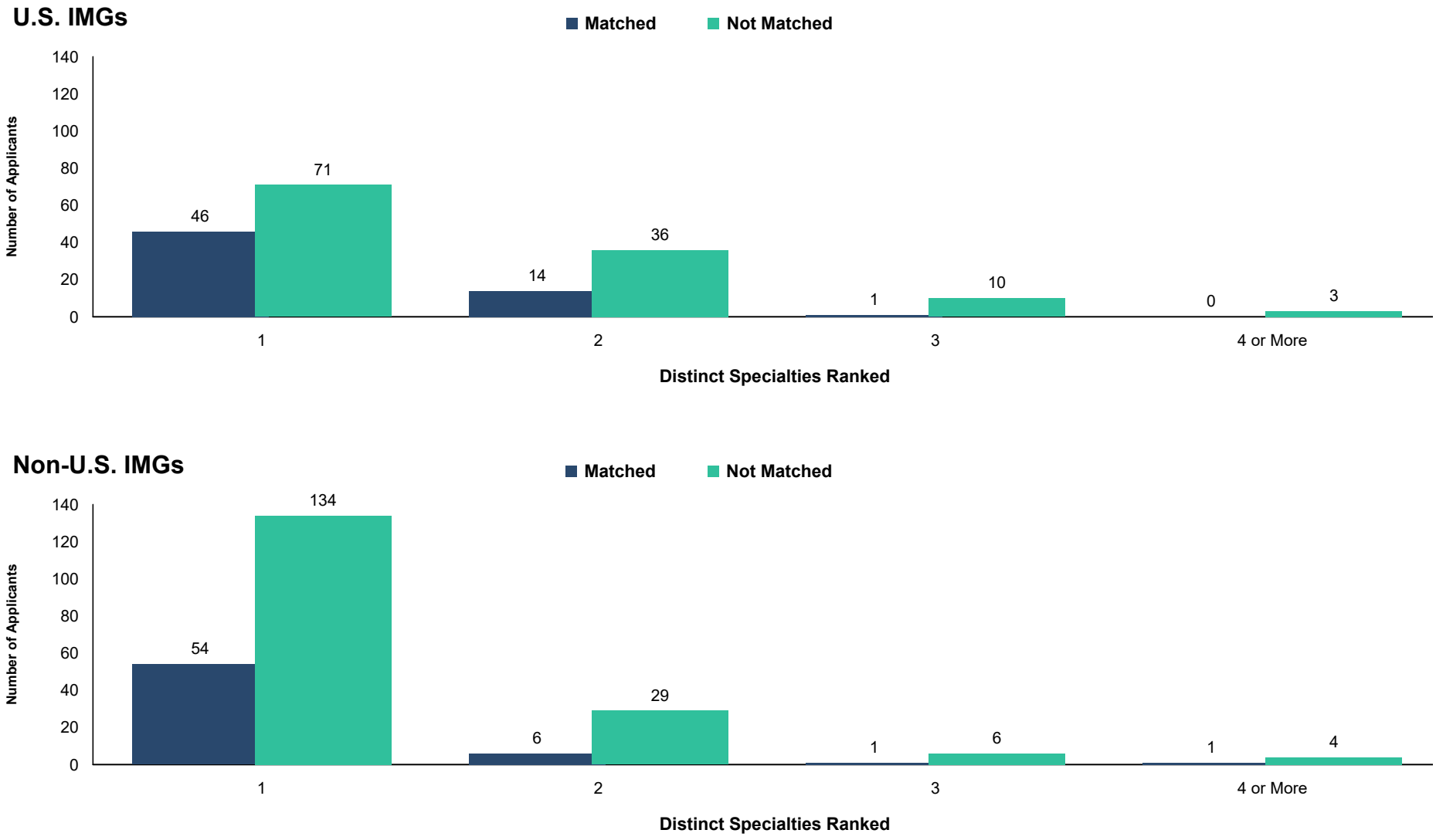
Chart GS-1 Number of Distinct Specialties Ranked by International Medical Graduates General Surgery



Source: NRMP Data Warehouse

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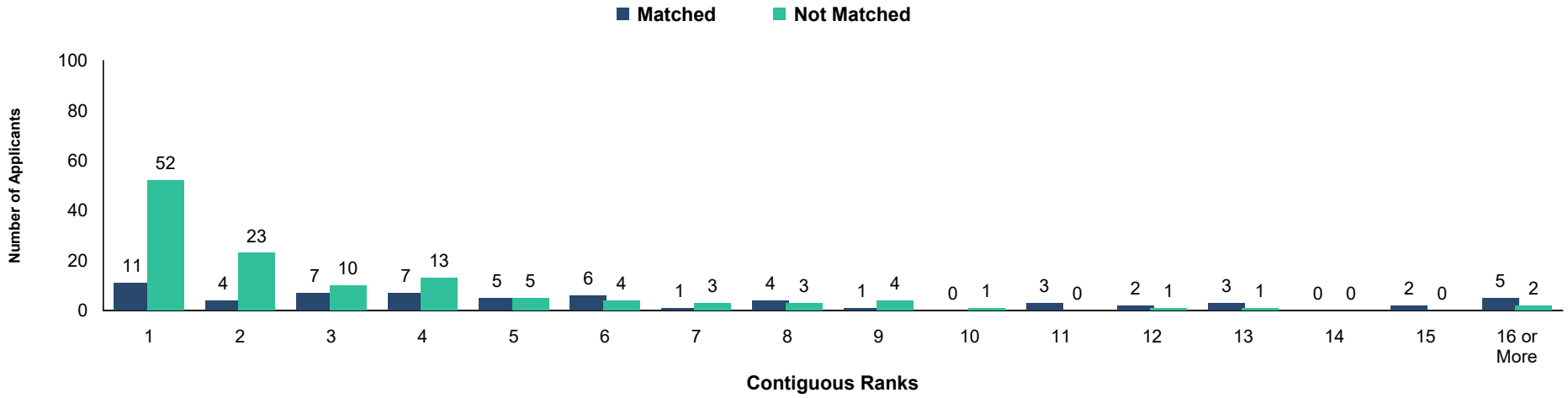
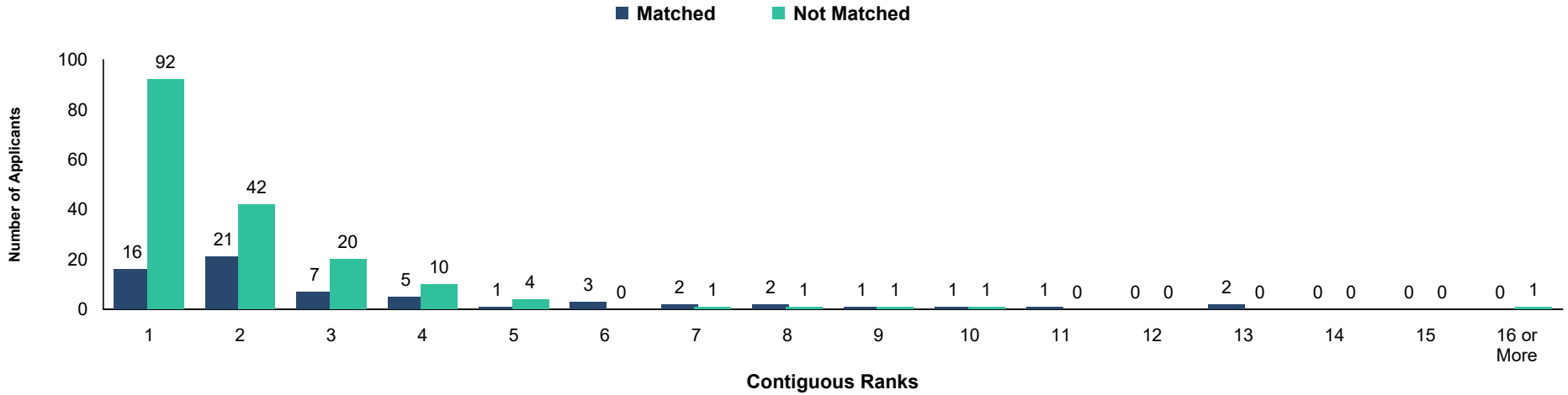
Chart GS-2 Number of Contiguous Ranks of International Medical Graduates General Surgery

U.S. IMGs



Non-U.S. IMGs



Source: NRMP Data Warehouse

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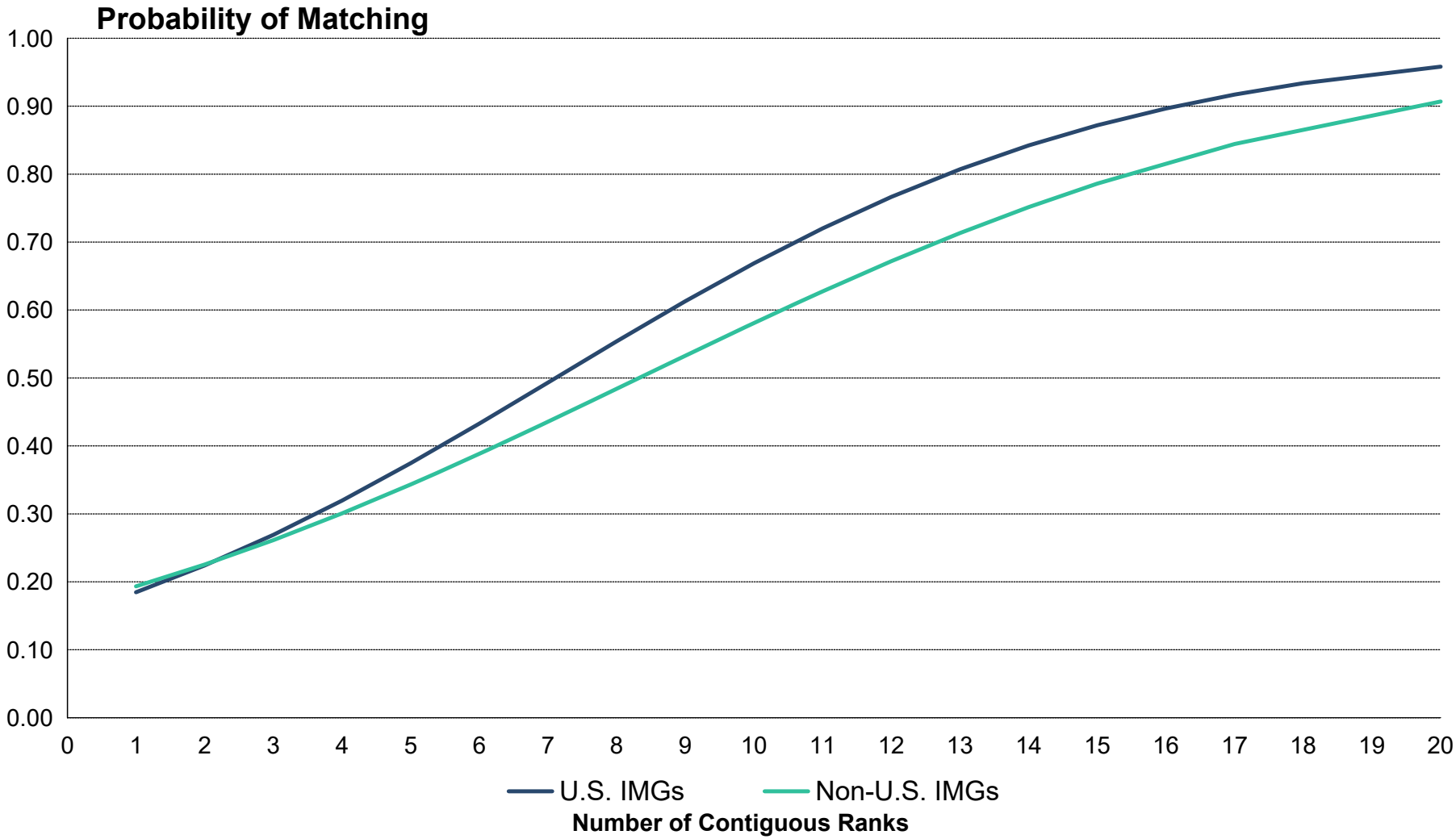
Graph GS-1

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 2016-2018 applicants

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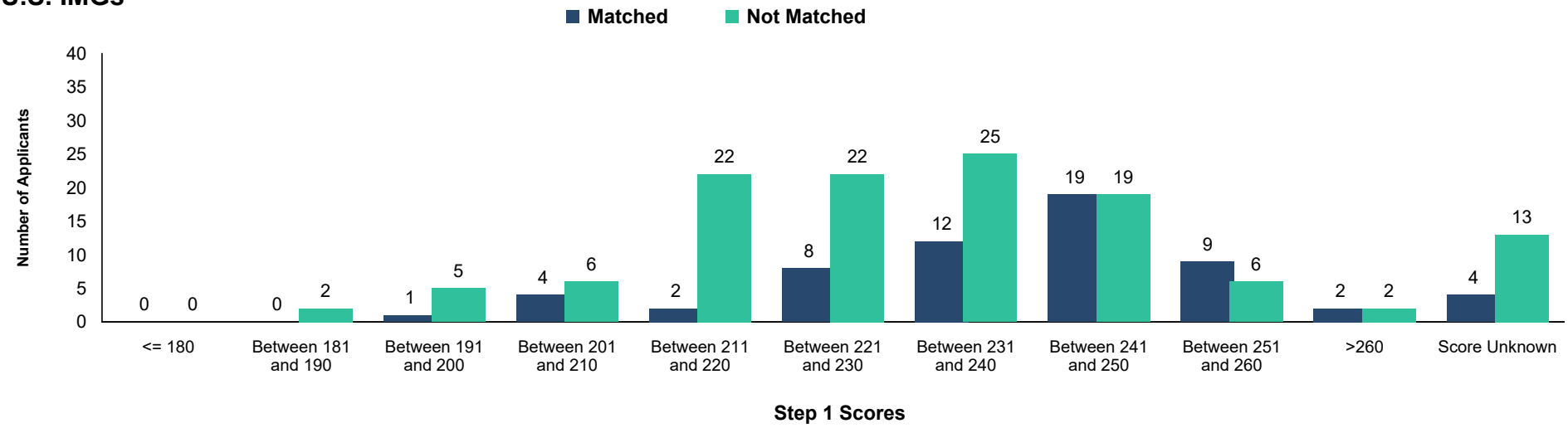
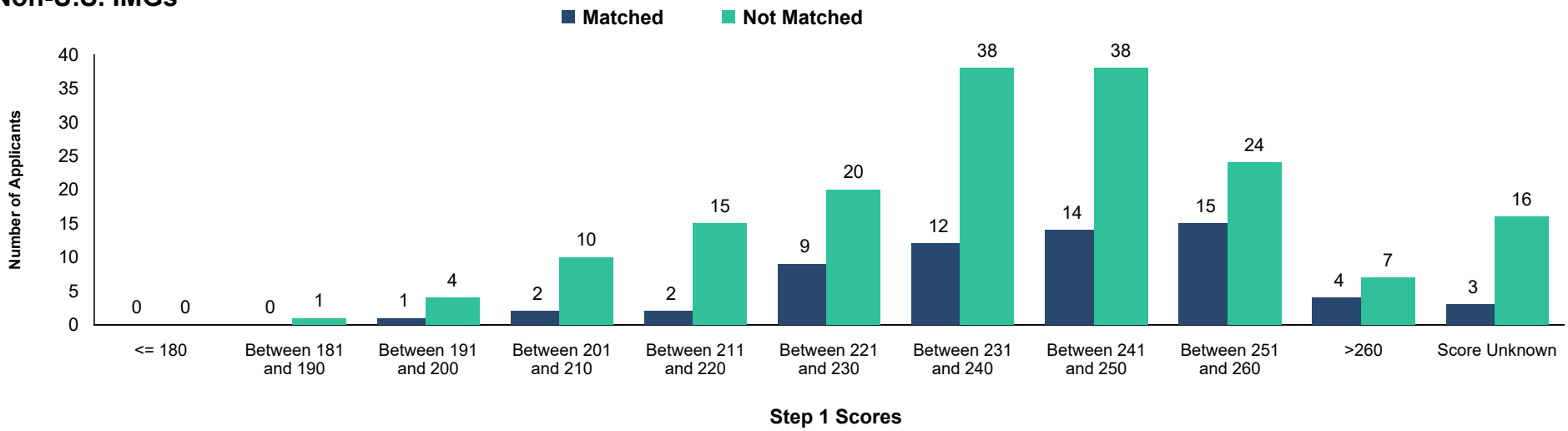
Chart GS-3 USMLE Step 1 Scores of International Medical Graduates

General Surgery

U.S. IMGs



Non-U.S. IMGs



Source: NRMP Data Warehouse

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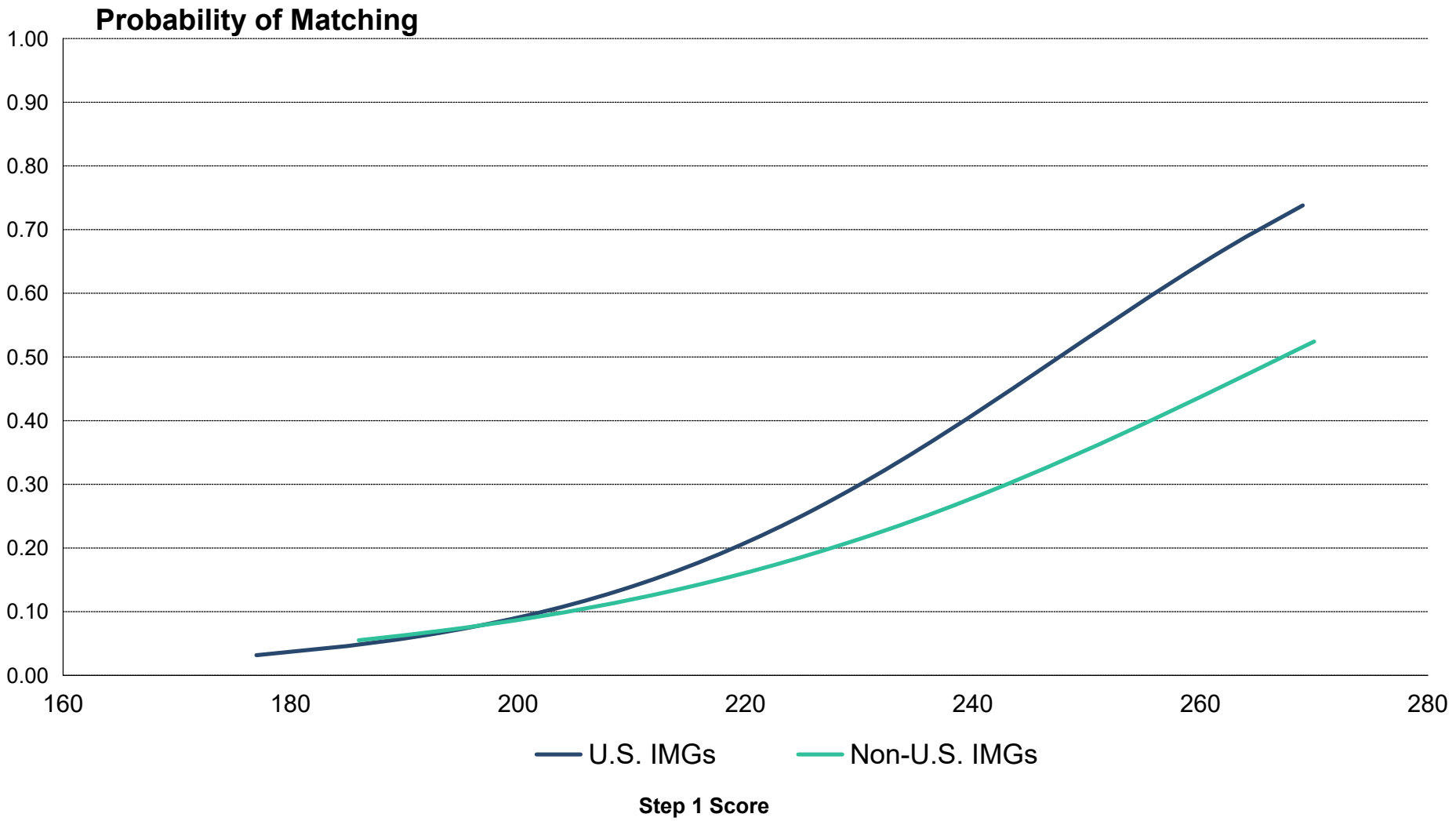
Graph GS-2

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 2016-2018 applicants.

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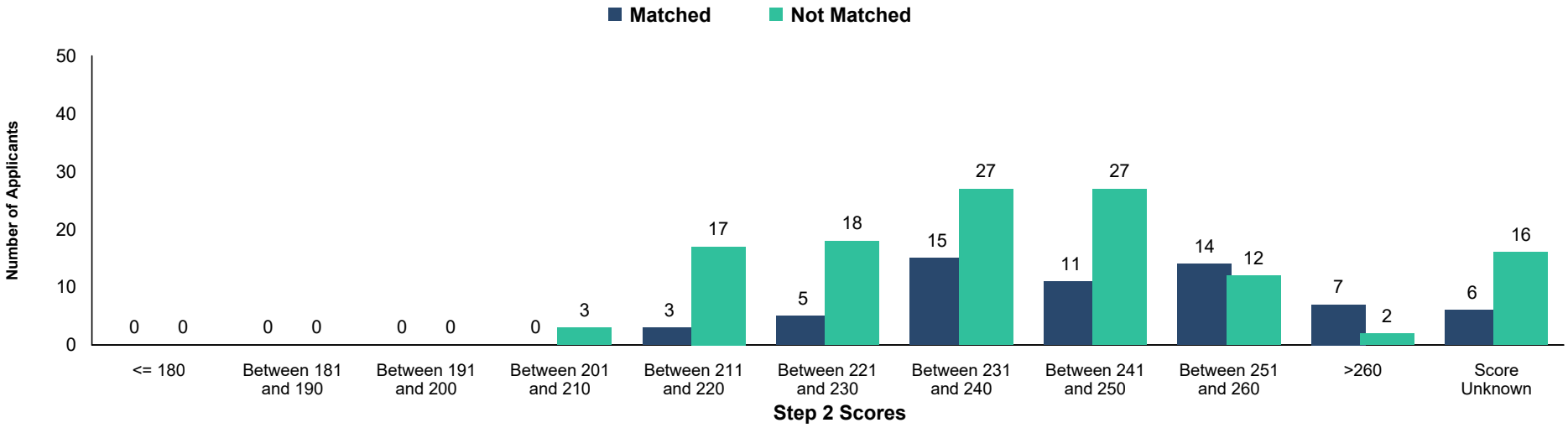
Chart GS-4

USMLE Step 2 CK Scores of International Medical Graduates

General Surgery

U.S. IMGs



Non-U.S. IMGs

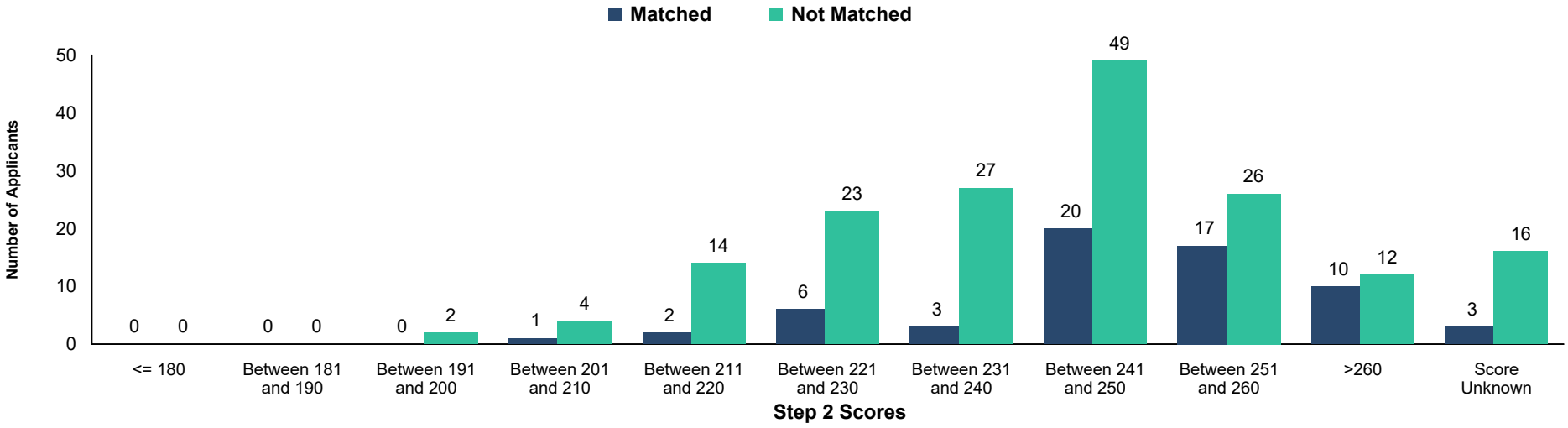


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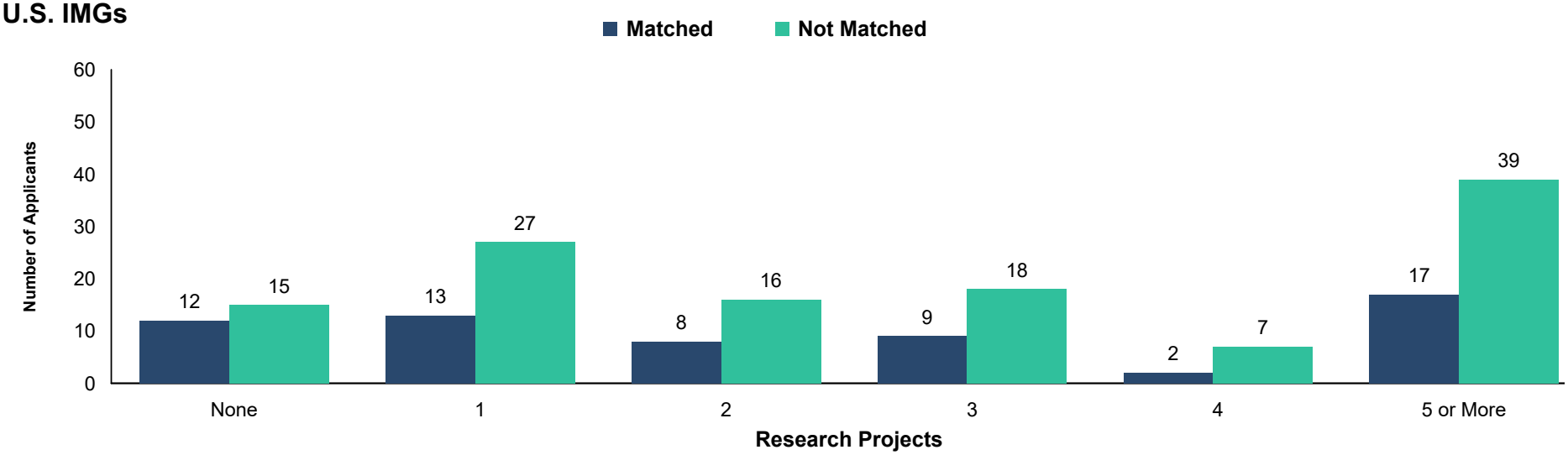
Chart GS-5

Number of Research Projects of International Medical Graduates

General Surgery

U.S. IMGs



Non-U.S. IMGs

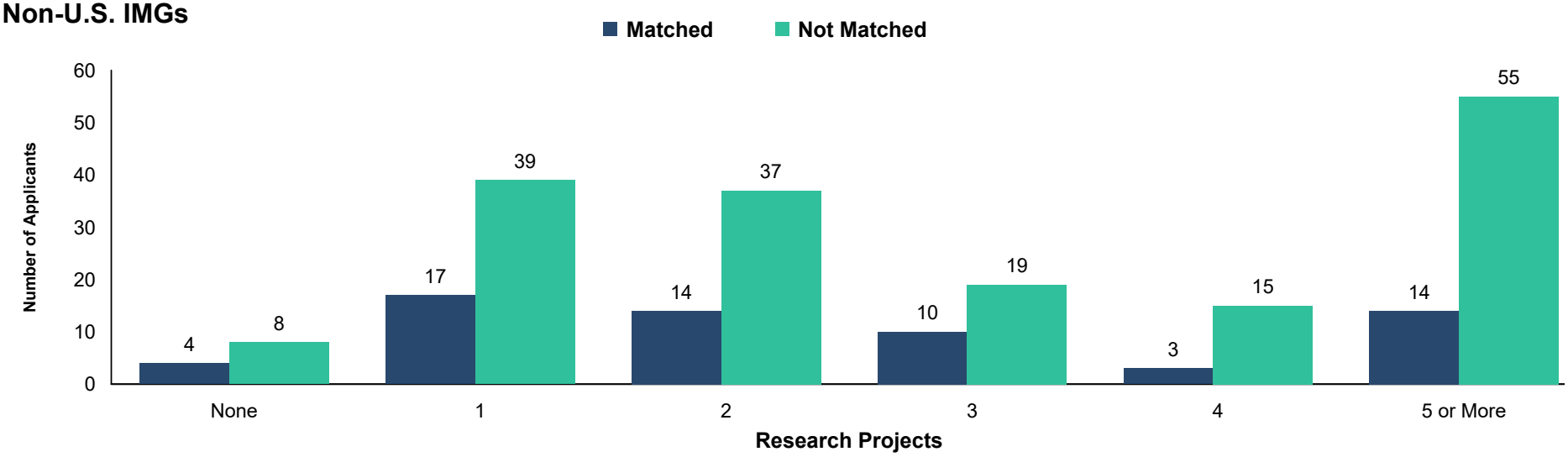


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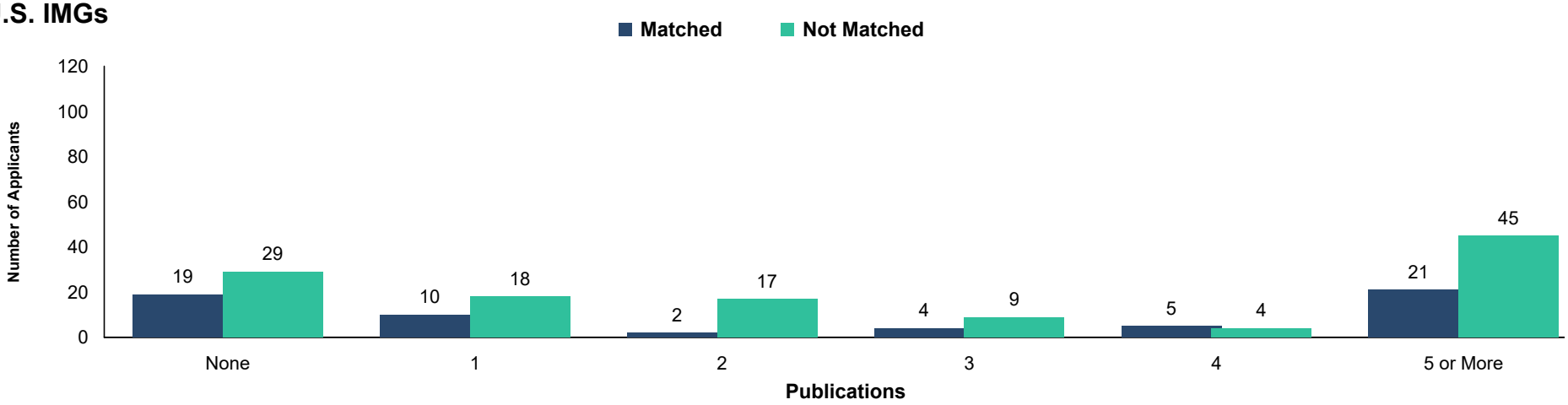
Chart GS-6

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

General Surgery

U.S. IMGs



Non-U.S. IMGs

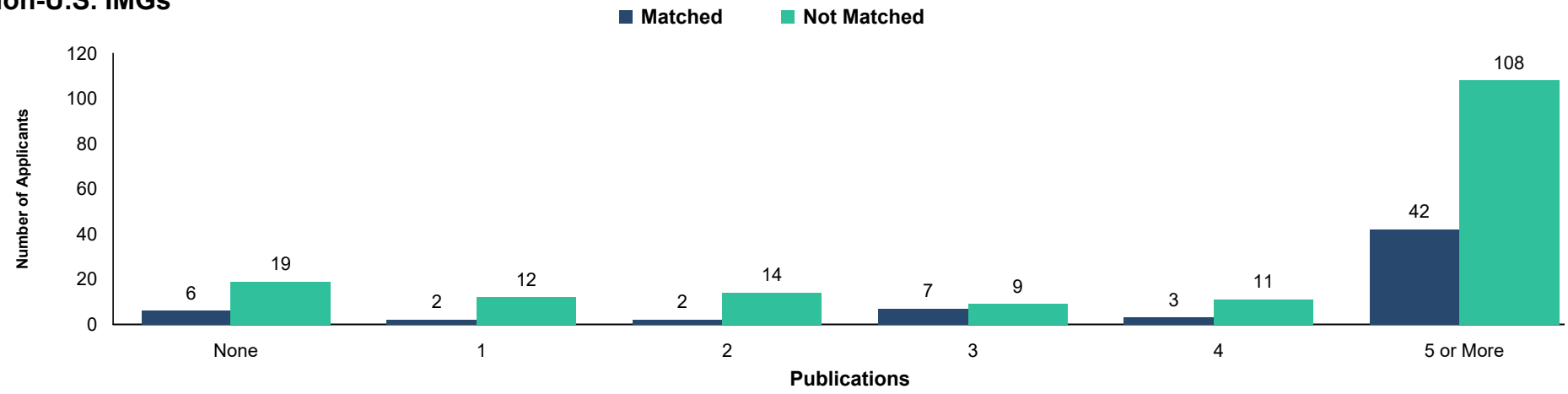


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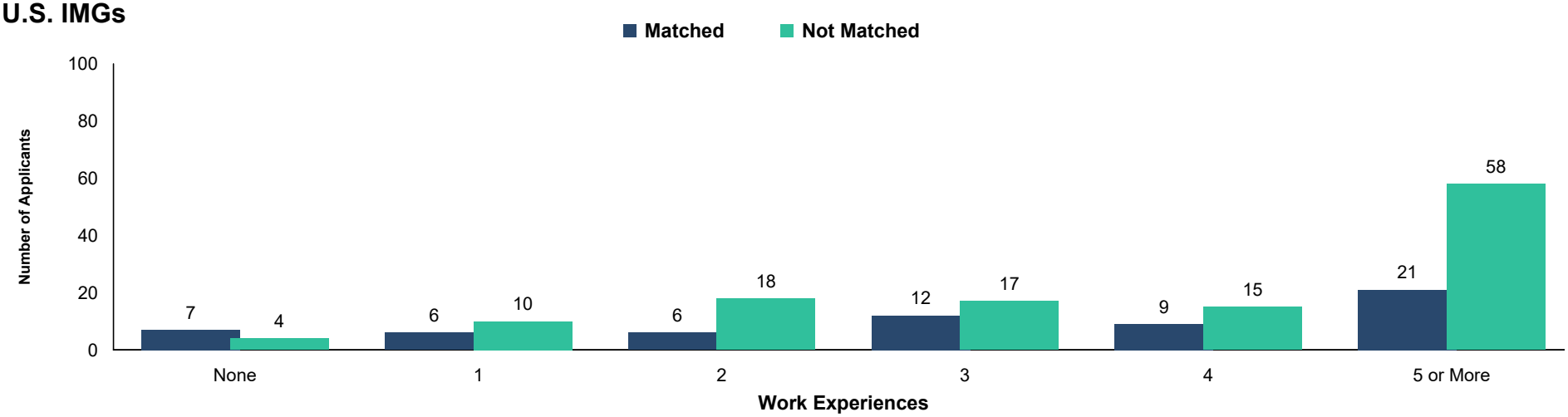
Chart GS-7

Number of Work Experiences of International Medical Graduates

General Surgery

U.S. IMGs



Non-U.S. IMGs

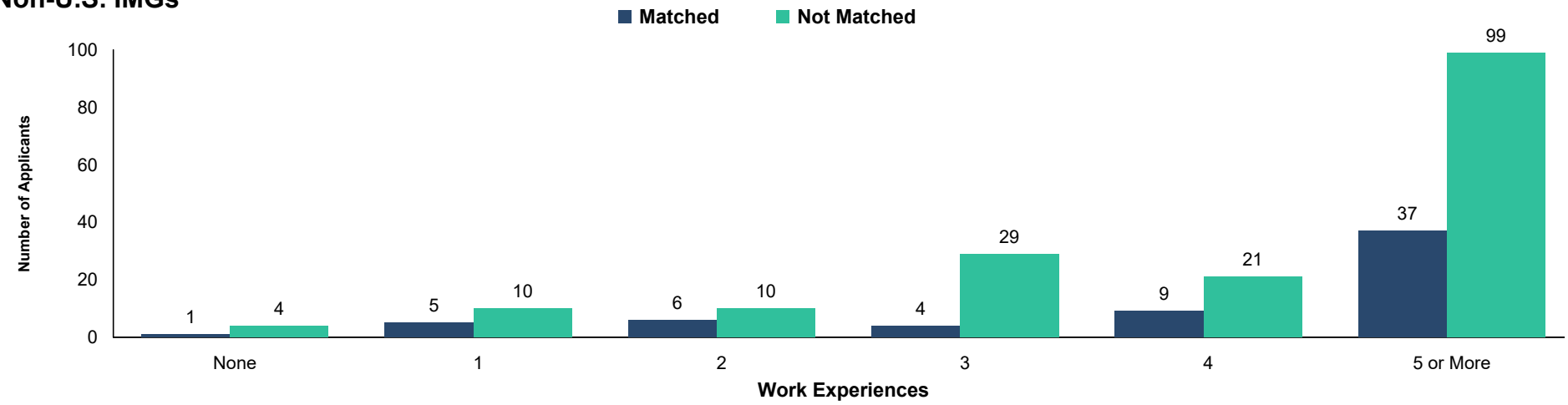


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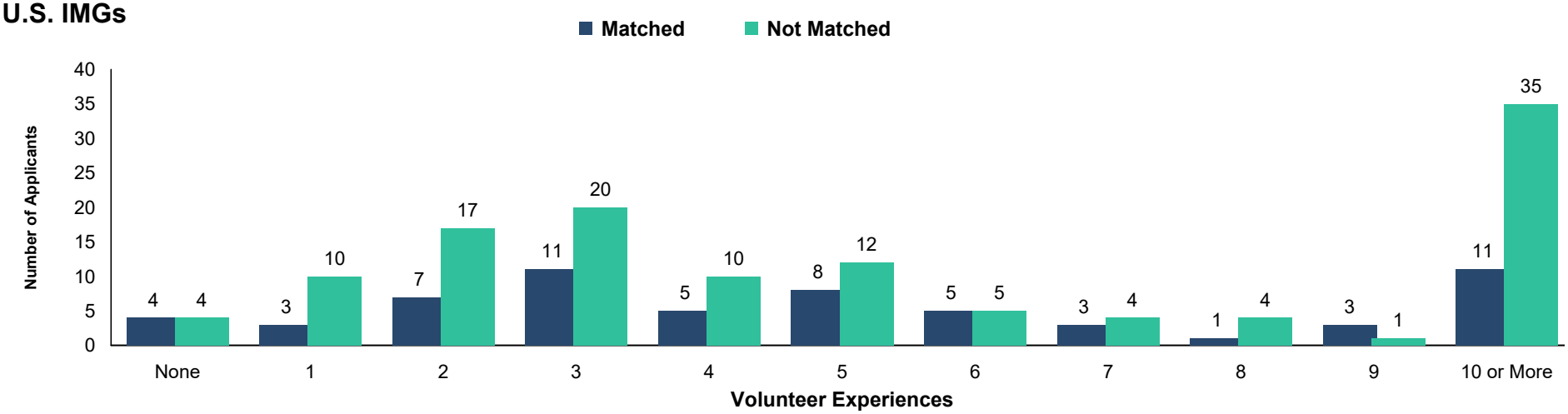
Chart GS-8

Number of Volunteer Experiences of International Medical Graduates

General Surgery

U.S. IMGs



Non-U.S. IMGs

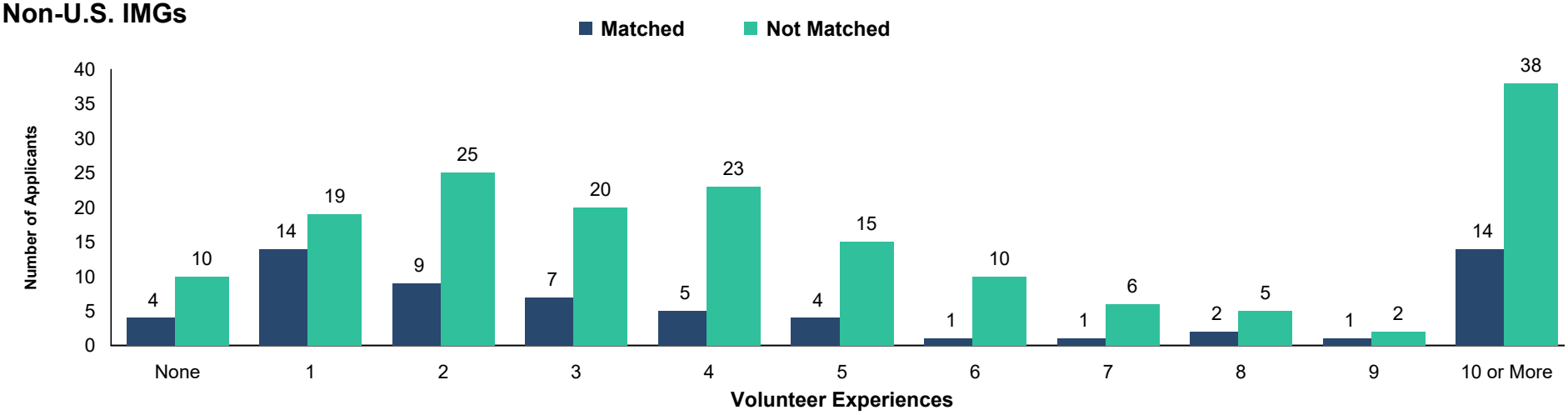


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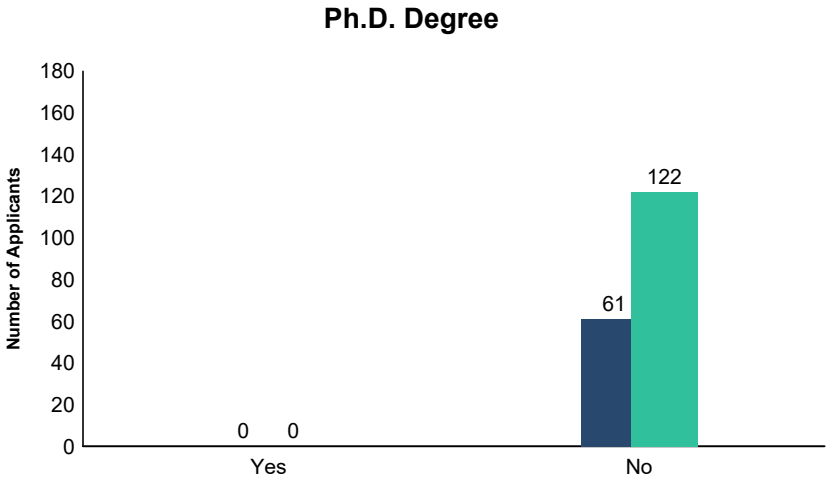
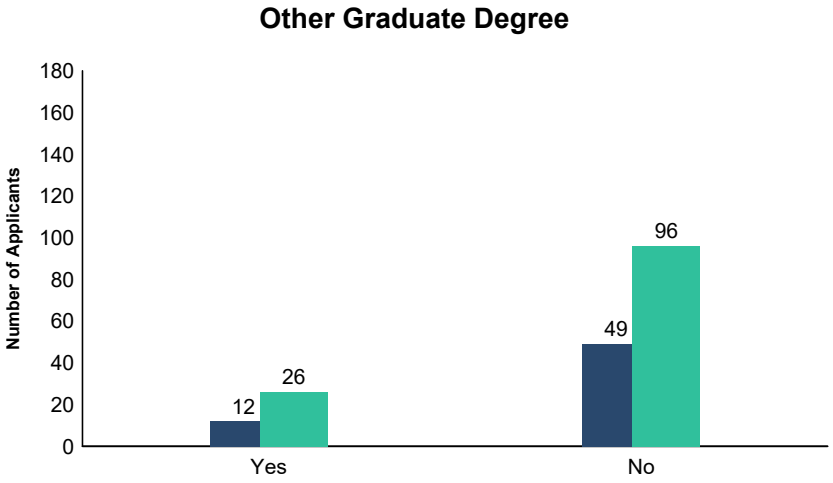
Chart GS-9 Other Characteristics of International Medical Graduates

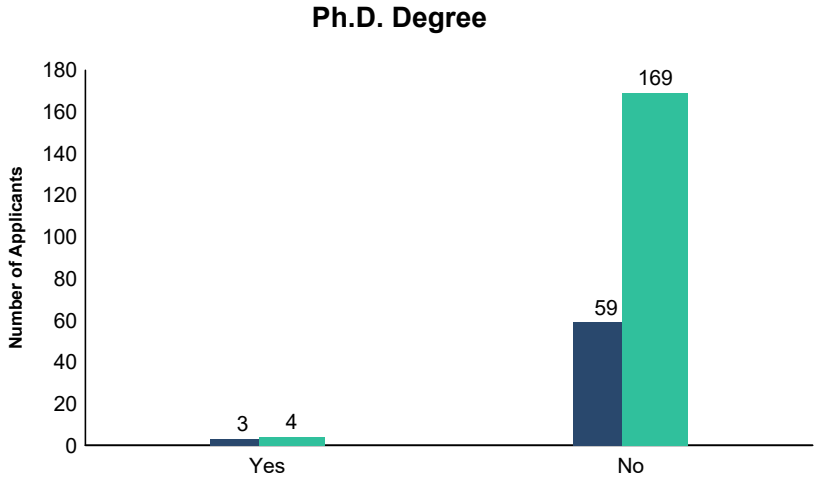
General Surgery

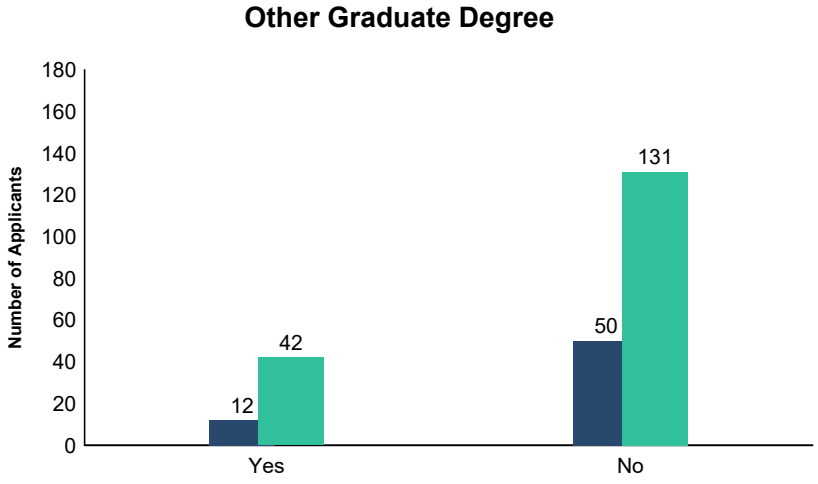
U.S. IMGs





Non-U.S. IMGs





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IM Internal Medicine

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Table IM-1 Summary Statistics
Internal Medicine

Measure	U.S. IMGs		Non-U.S. IMGs	
	Matched (n=911)	Unmatched (n=690)	Matched (n=1,917)	Unmatched (n=1,403)
1. Mean number of contiguous ranks	7.8	1.9	7.0	2.3
2. Mean number of distinct specialties ranked	1.4	1.5	1.2	1.3
3. Mean USMLE Step 1 score	225	210	236	222
4. Mean USMLE Step 2 score	234	220	241	228
5. Mean number of research experiences	1.6	2.5	2.1	2.1
6. Mean number of abstracts, presentations, and publications	2.2	3.3	4.6	4.5
7. Mean number of work experiences	4.2	5.4	5.5	6.3
8. Mean number of volunteer experiences	4.3	3.6	3.4	3.5
9. Percentage who have a Ph.D. degree	0.2	2.0	1.7	1.7
10. Percentage who have another graduate degree	18.2	26.8	17.9	25.5

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

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Chart IM-1

Number of Distinct Specialties Ranked by International Medical Graduates Internal Medicine

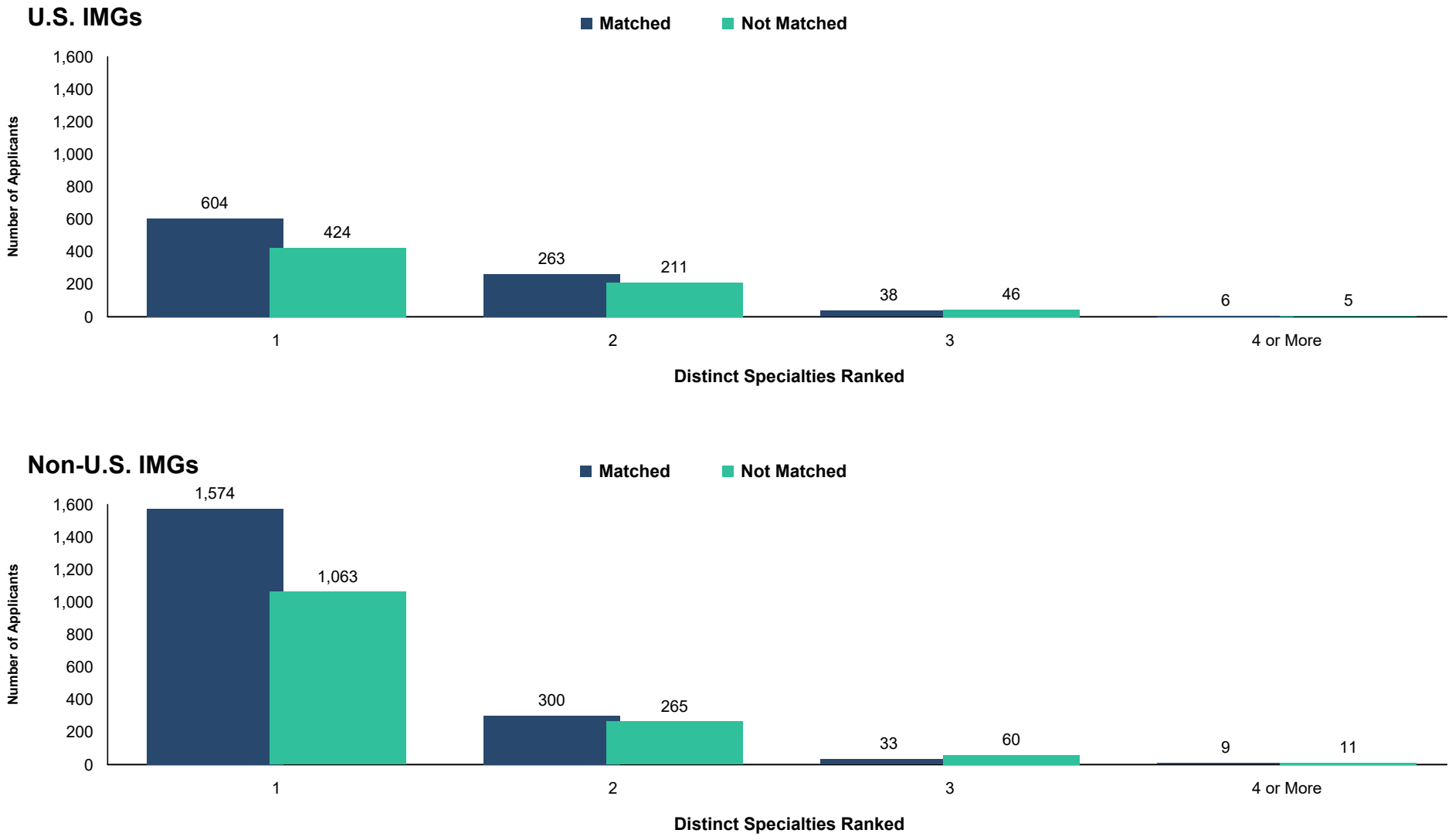

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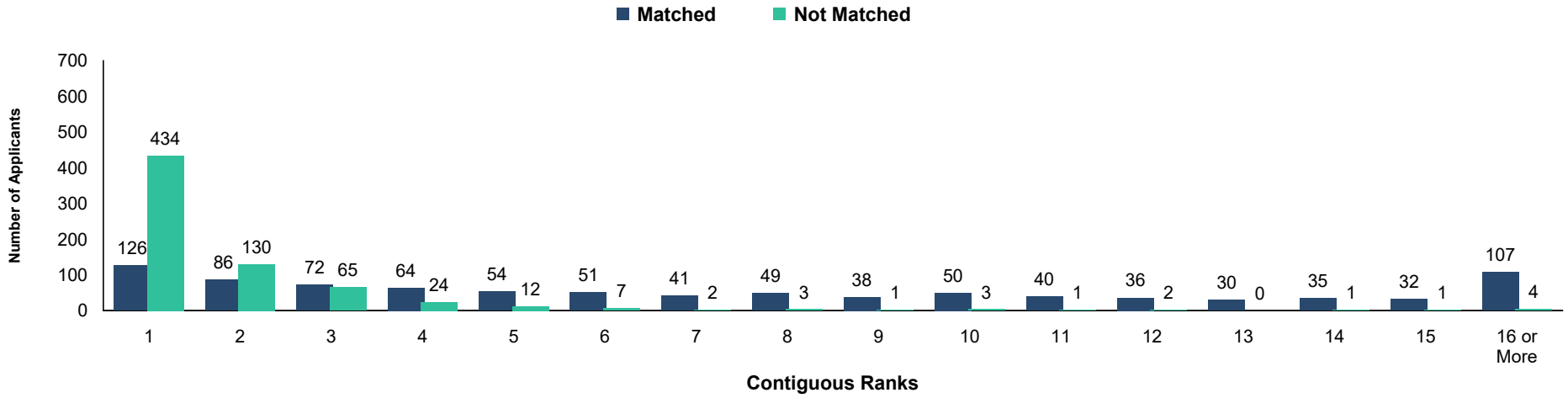
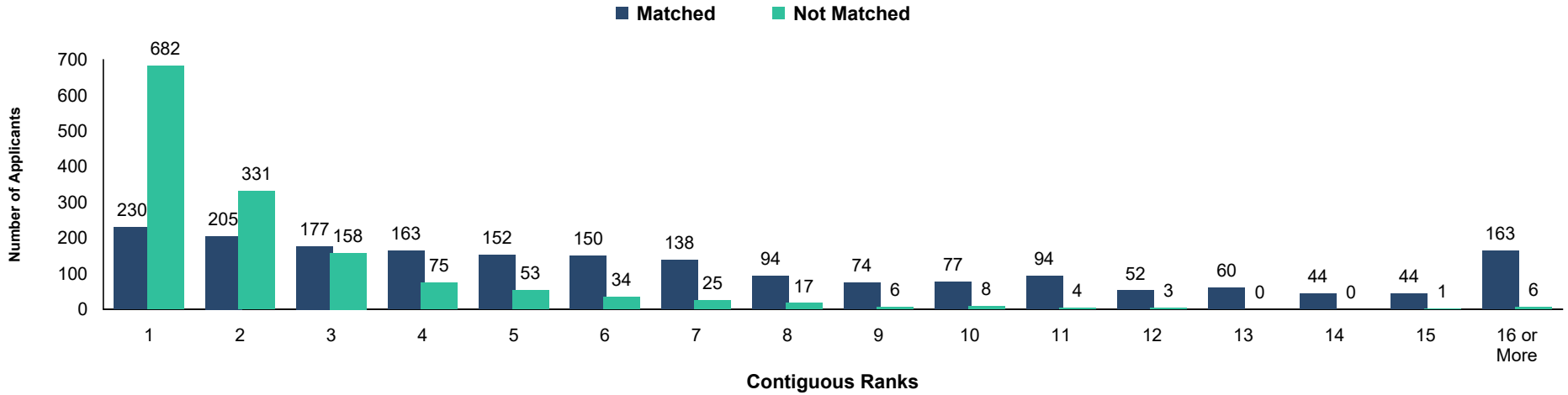
Chart IM-2 Number of Contiguous Ranks of International Medical Graduates Internal Medicine

U.S. IMGs



Non-U.S. IMGs



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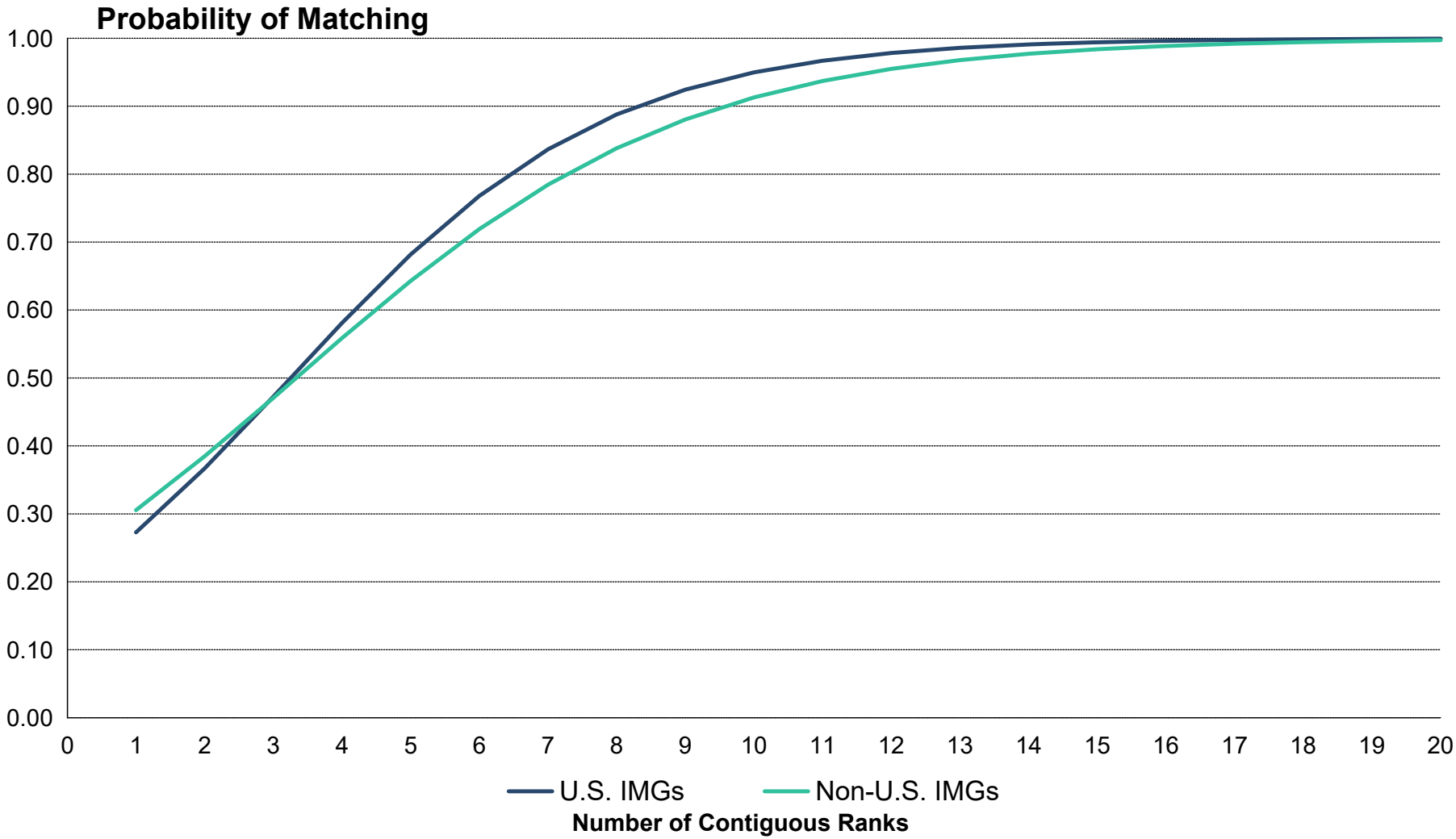
Graph IM-1

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 2016-2018 applicants

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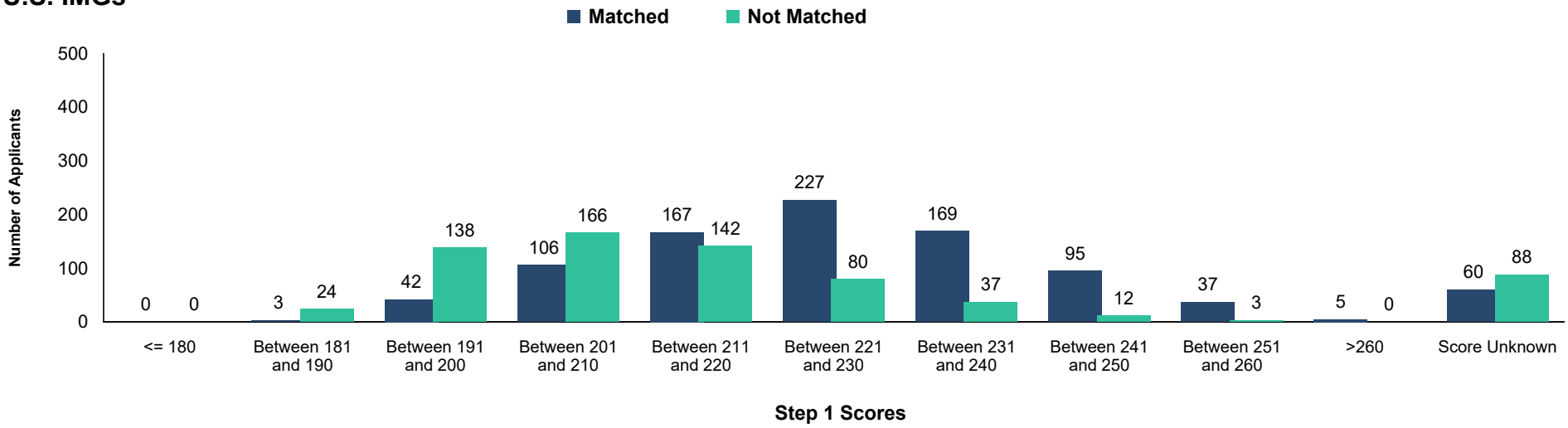
Chart IM-3

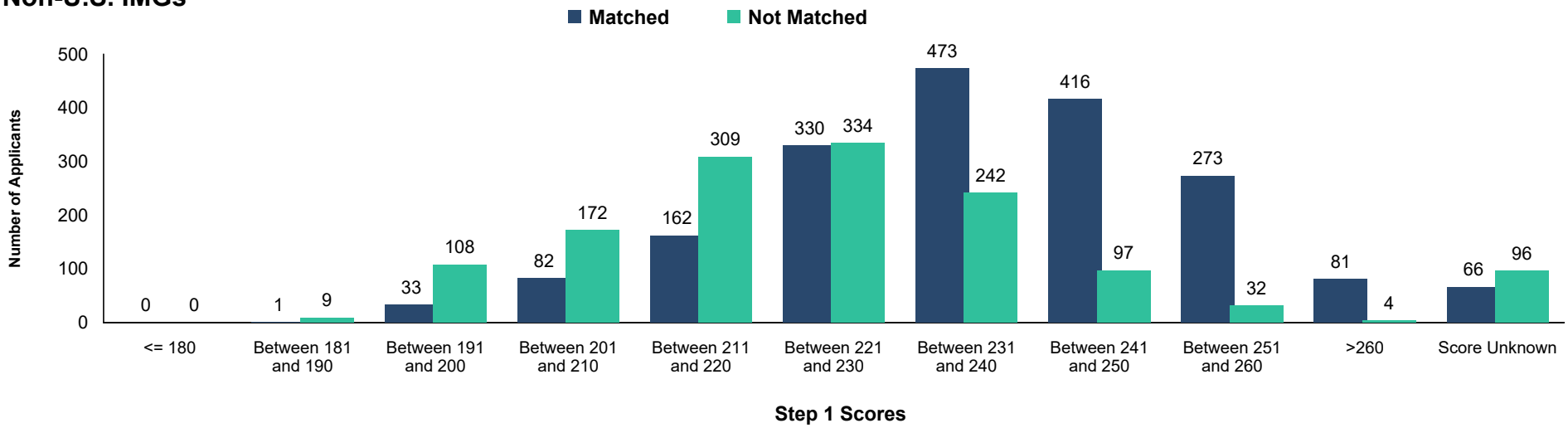
USMLE Step 1 Scores of International Medical Graduates

Internal Medicine

U.S. IMGs



Non-U.S. IMGs



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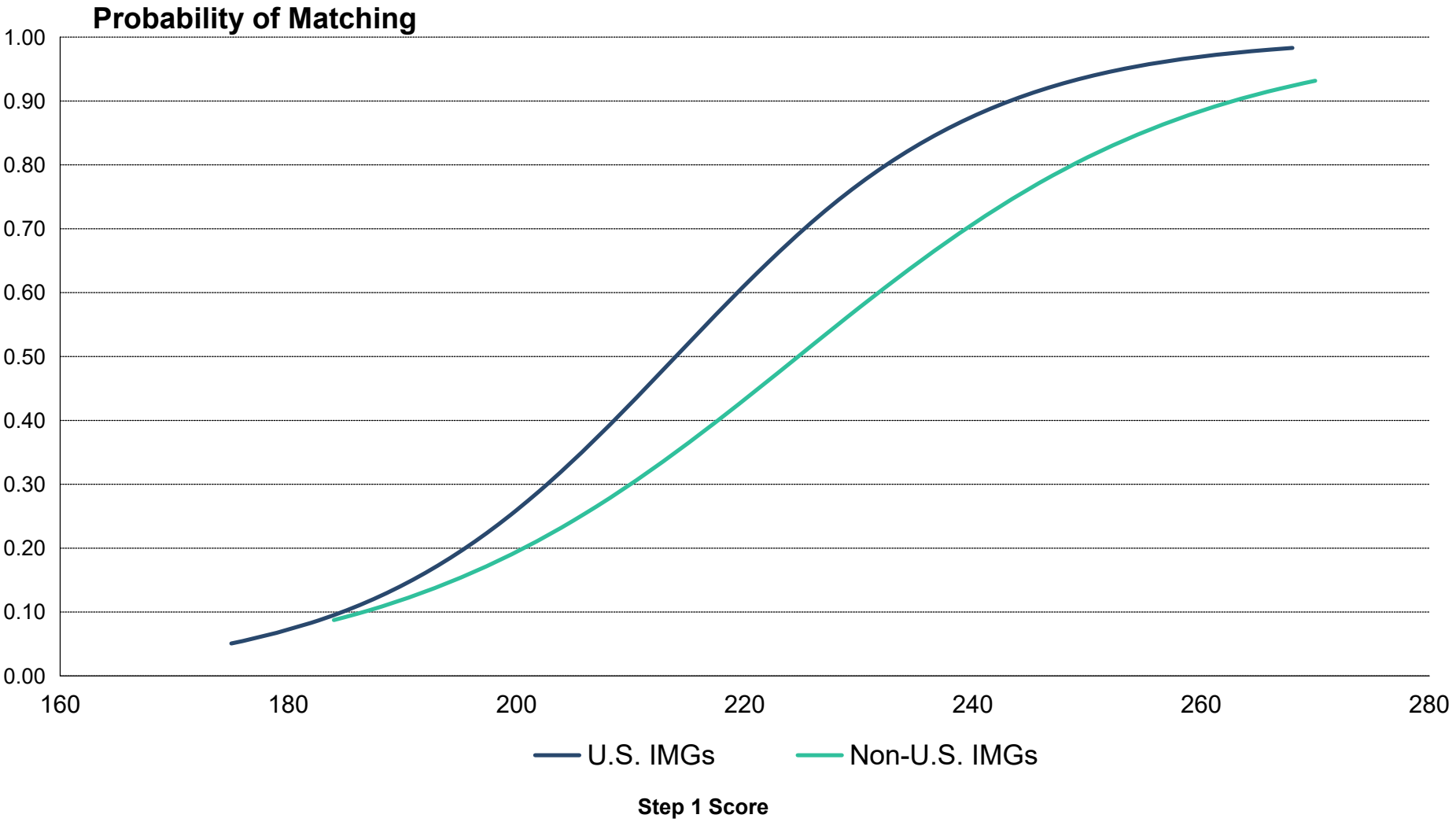
Graph IM-2

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 2016-2018 applicants.

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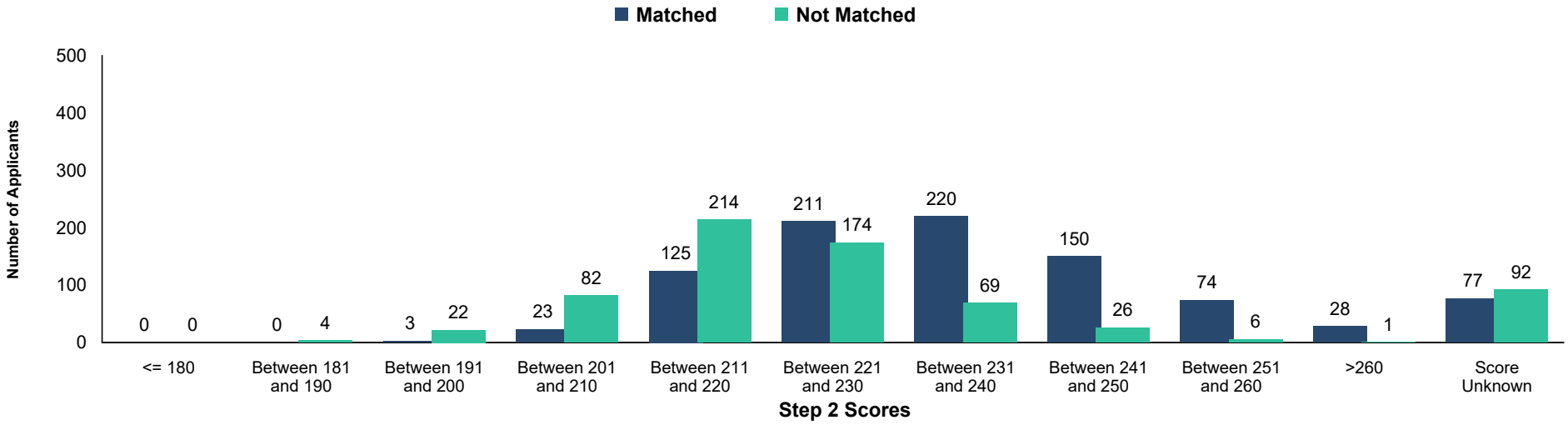
Chart IM-4

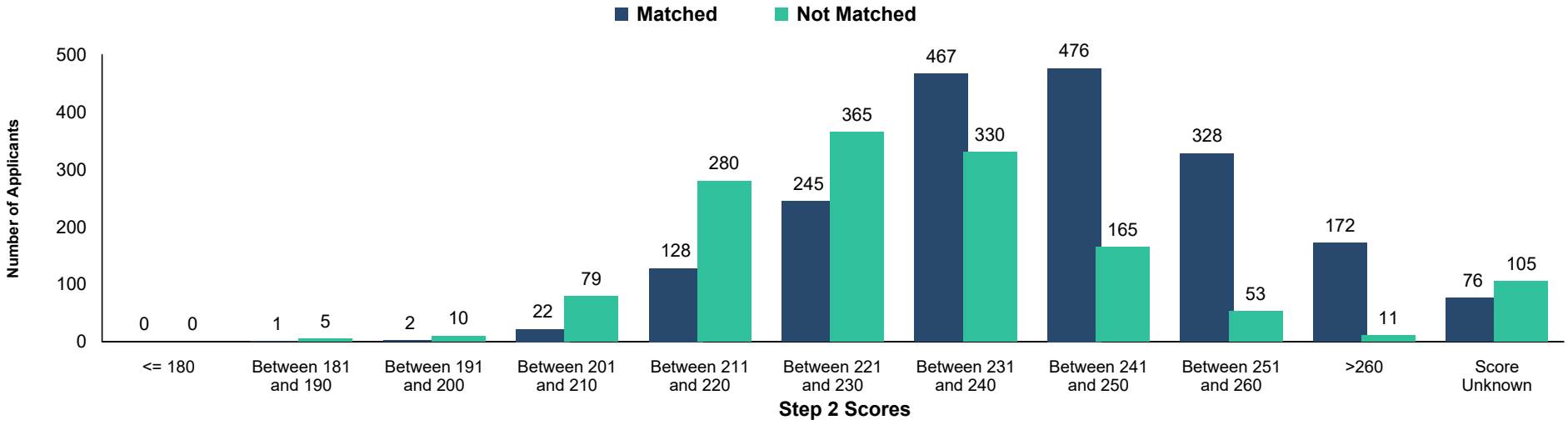
USMLE Step 2 CK Scores of International Medical Graduates

Internal Medicine

U.S. IMGs



Non-U.S. IMGs



Source: NRMP Data Warehouse

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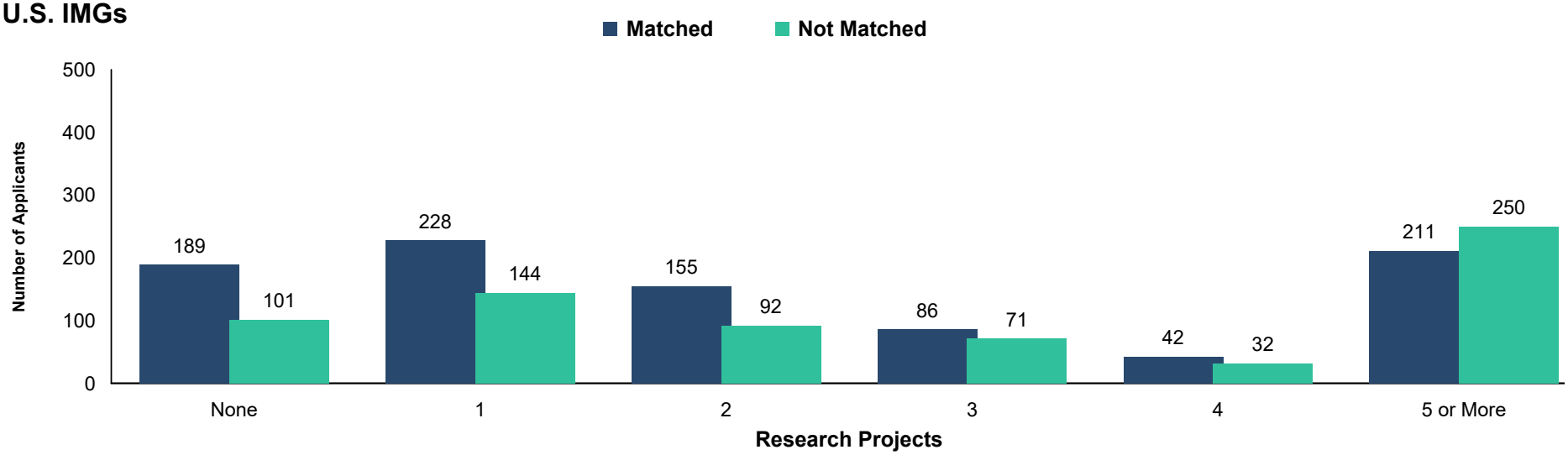
Chart IM-5

Number of Research Projects of International Medical Graduates

Internal Medicine

U.S. IMGs



Non-U.S. IMGs

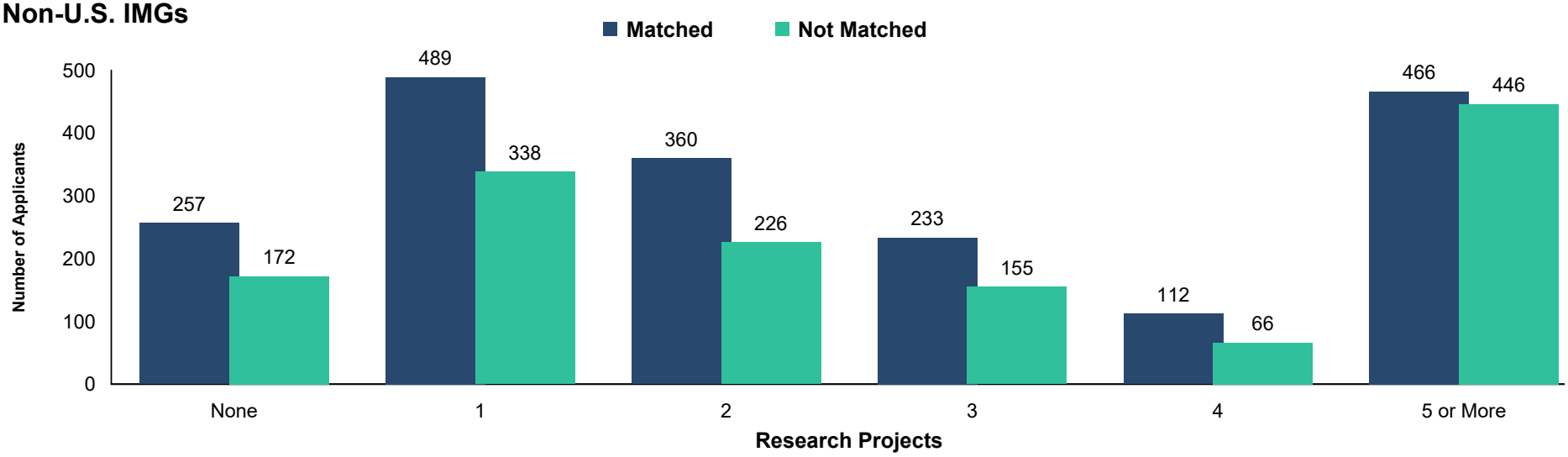


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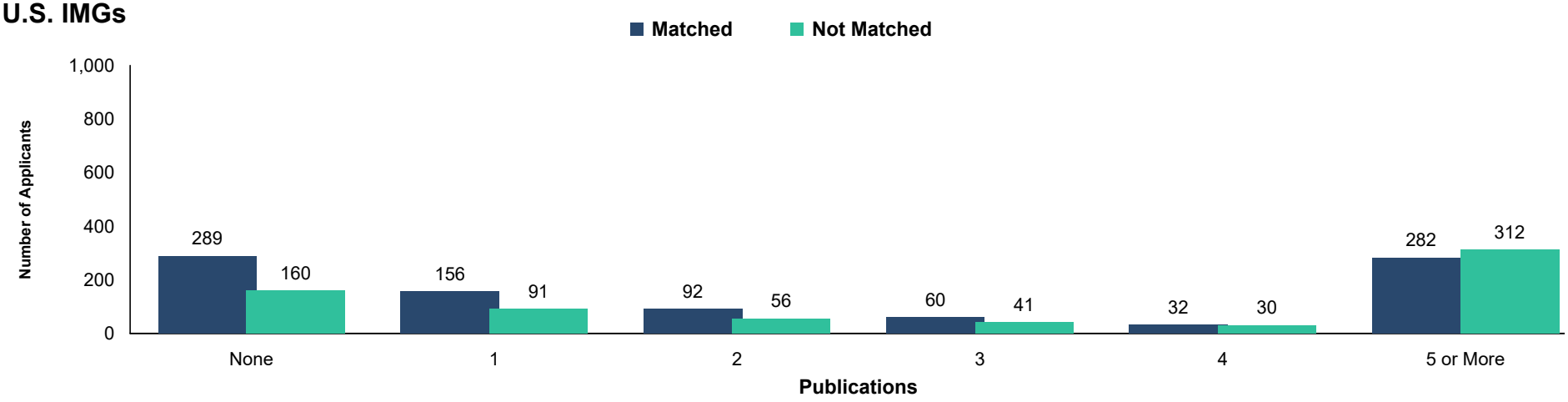
Chart IM-6

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

Internal Medicine

U.S. IMGs



Non-U.S. IMGs

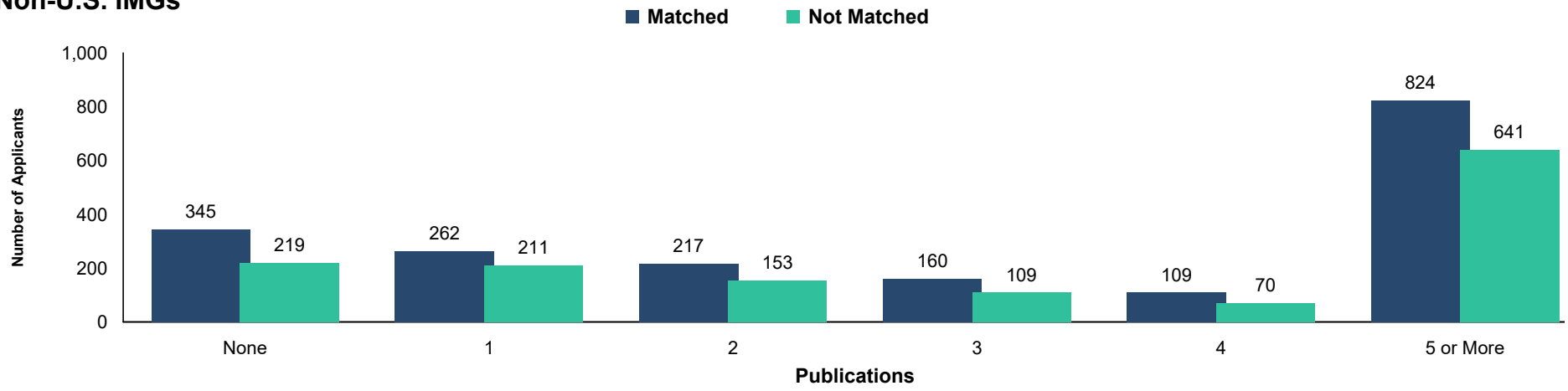


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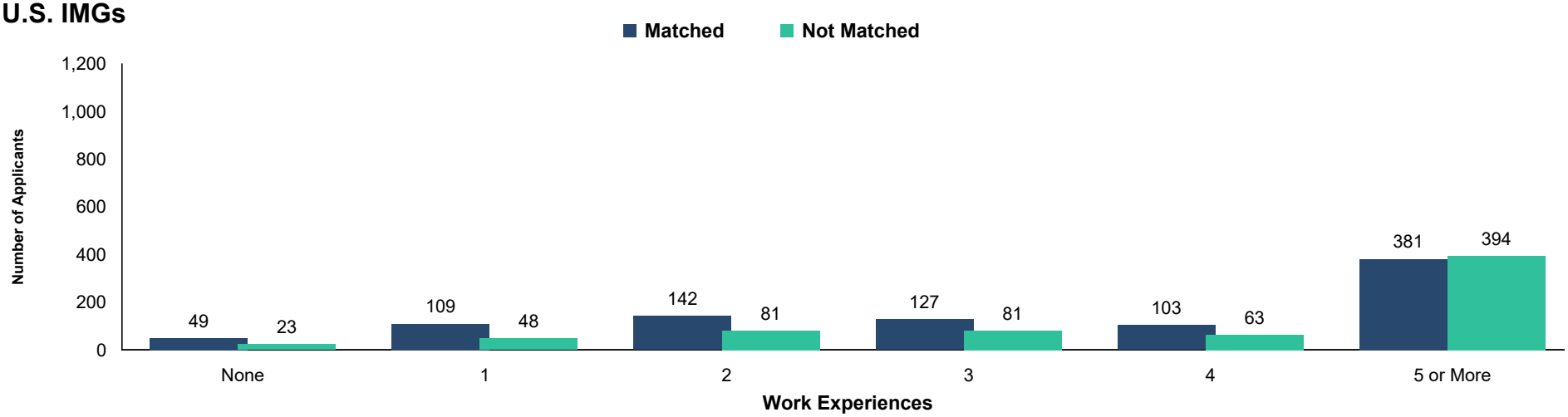
Chart IM-7

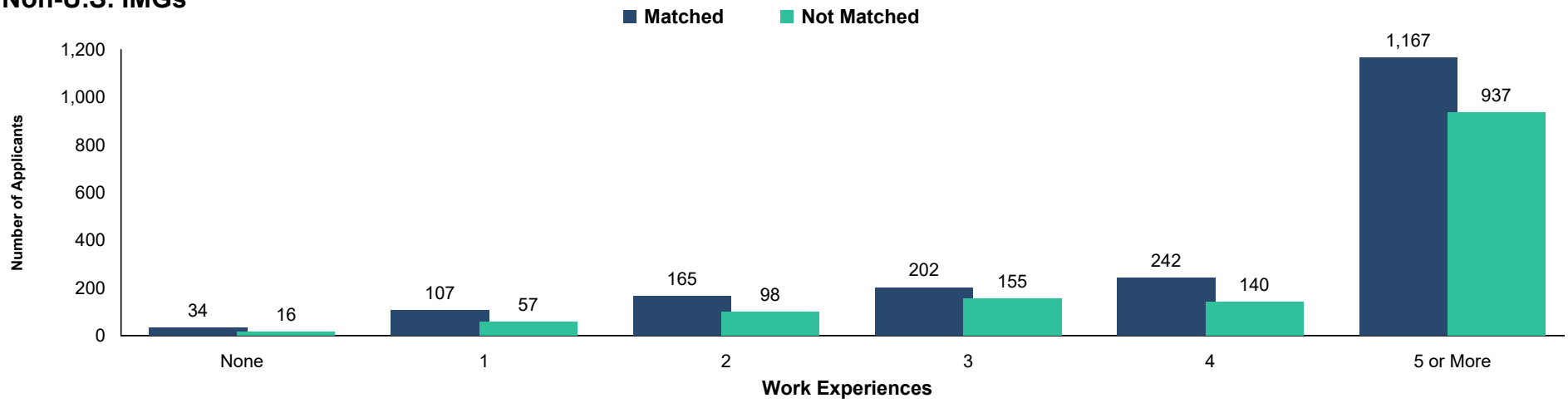
Number of Work Experiences of International Medical Graduates

Internal Medicine

U.S. IMGs



Non-U.S. IMGs



Source: NRMP Data Warehouse

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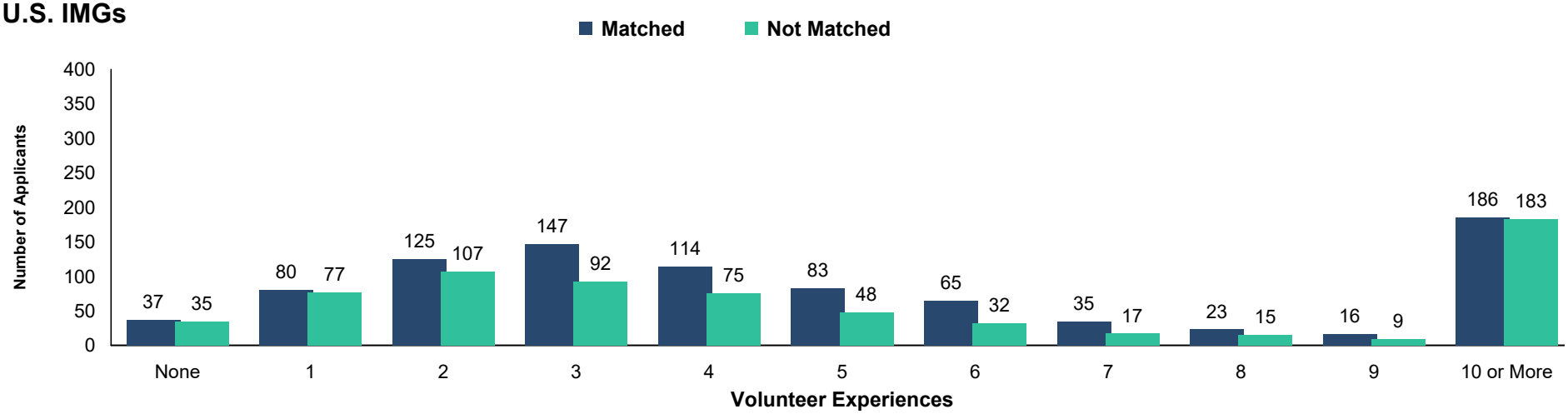
Chart IM-8

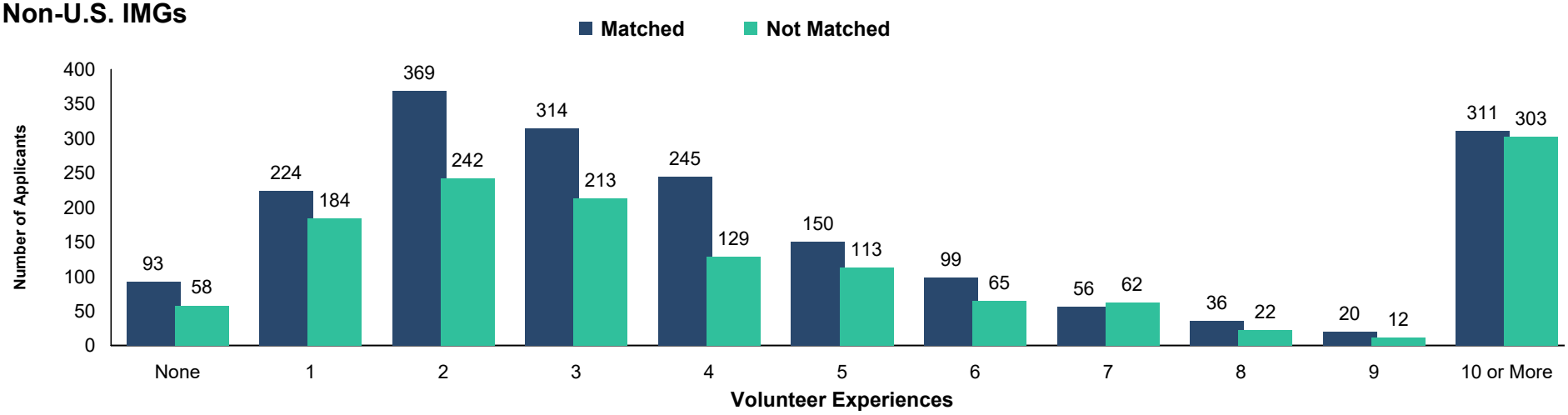
Number of Volunteer Experiences of International Medical Graduates

Internal Medicine

U.S. IMGs



Non-U.S. IMGs



Source: NRMP Data Warehouse

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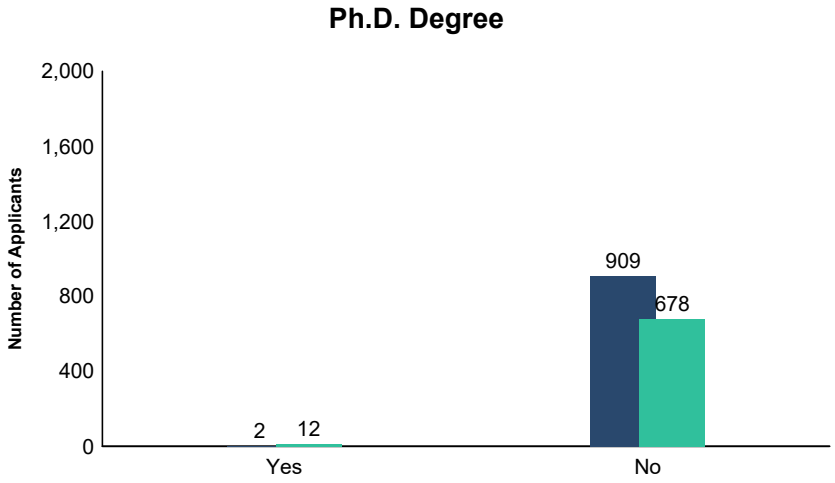
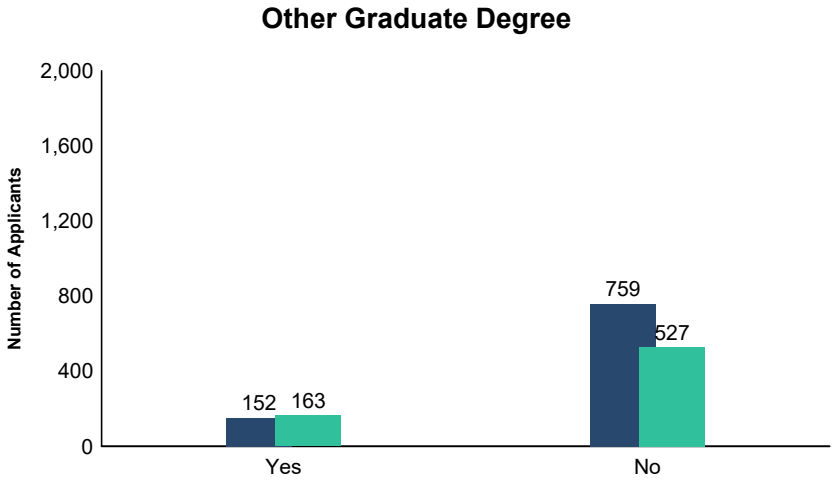
Chart IM-9 Other Characteristics of International Medical Graduates

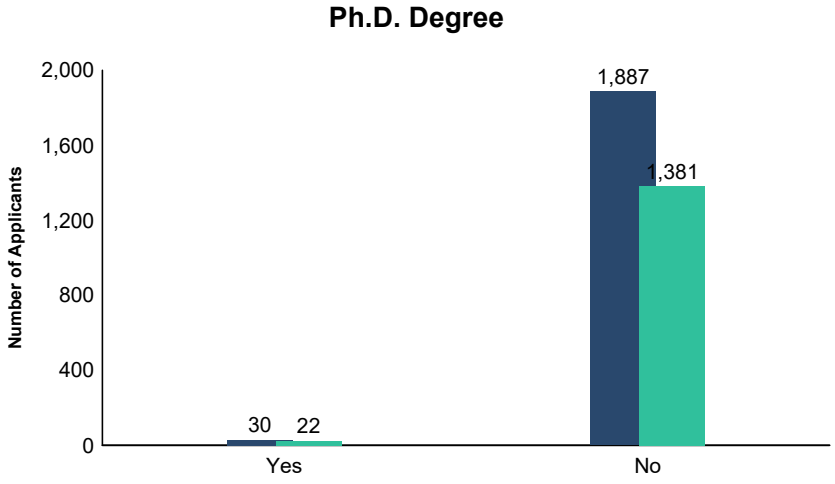
Internal Medicine

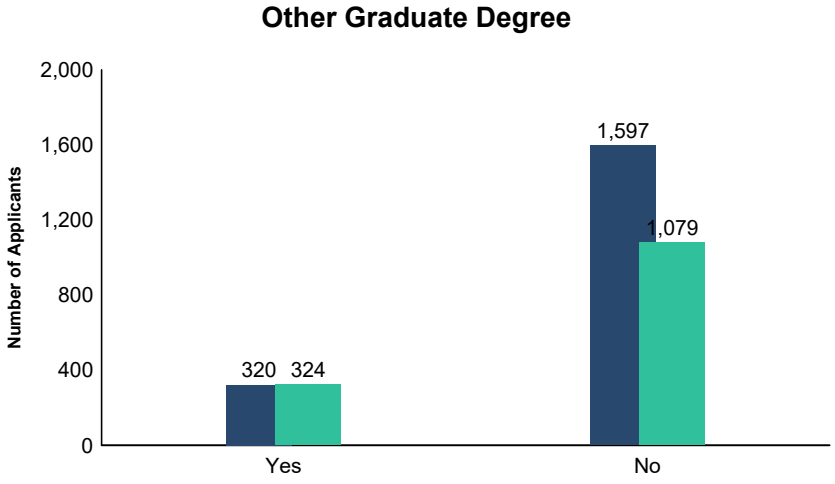
U.S. IMGs





Non-U.S. IMGs





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IP Internal Medicine/Pediatrics

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Table IP-1 Summary Statistics
Internal Medicine/Pediatrics

Measure	U.S. IMGs		Non-U.S. IMGs	
	Matched (n=14)	Unmatched (n=12)		
1. Mean number of contiguous ranks	5.1	2.3	1.0	1.0
2. Mean number of distinct specialties ranked	2.4	2.3	2.5	2.0
3. Mean USMLE Step 1 score	224	218	238	225
4. Mean USMLE Step 2 score	233	224	240	230
5. Mean number of research experiences	2.1	2.4	2.0	2.8
6. Mean number of abstracts, presentations, and publications	2.4	2.9	5.0	5.4
7. Mean number of work experiences	6.1	4.0	6.0	5.8
8. Mean number of volunteer experiences	7.0	7.4	4.0	3.6
9. Percentage who have a Ph.D. degree	0.0	0.0	0.0	5.9
10. Percentage who have another graduate degree	30.8	22.2	50.0	22.2

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

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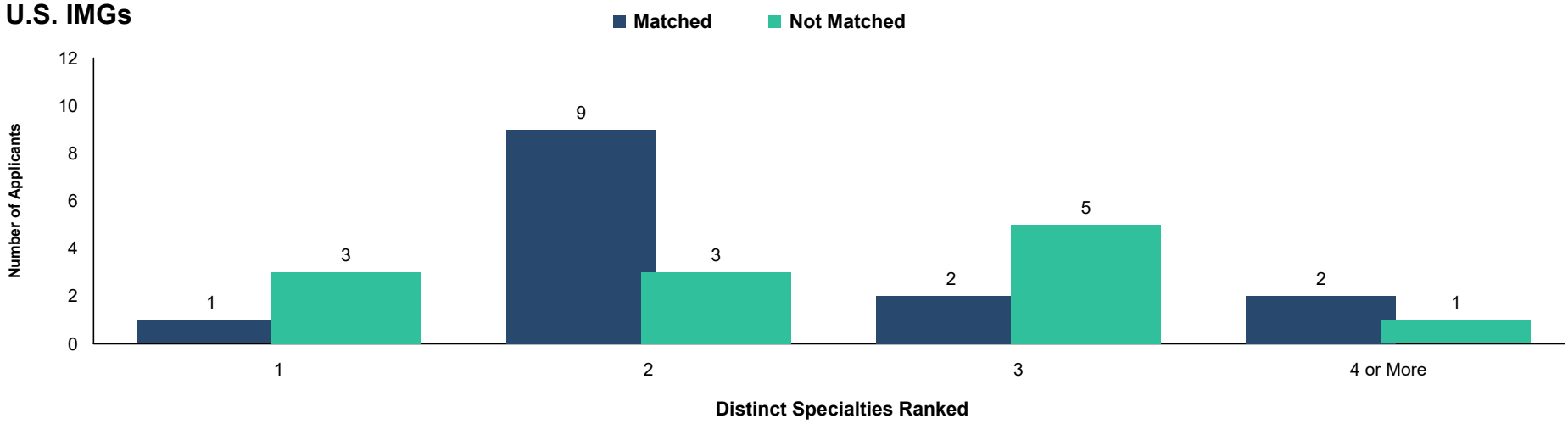
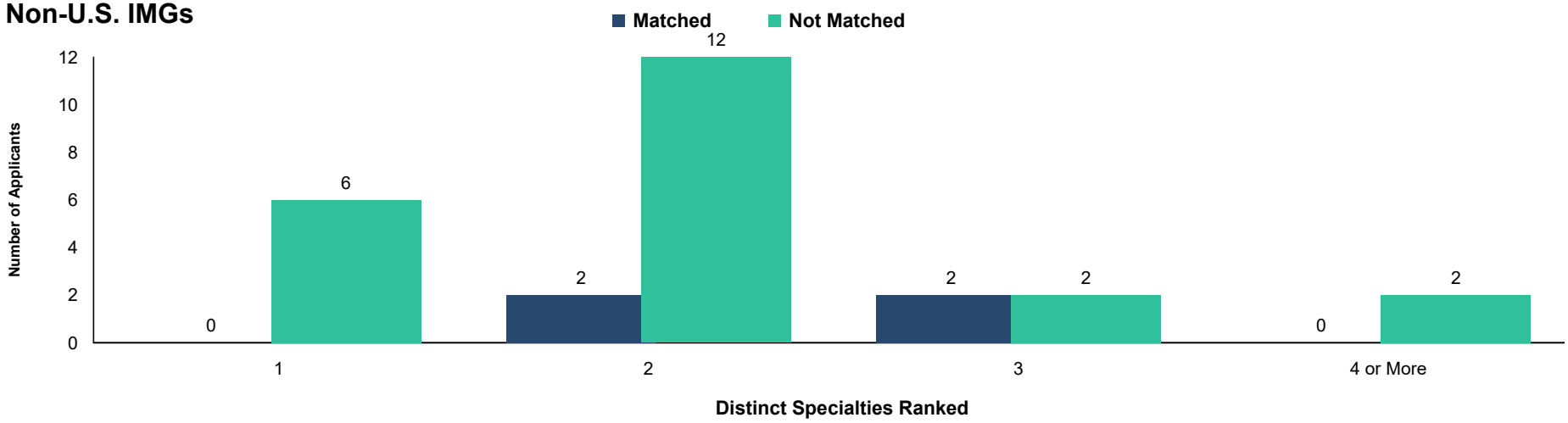
Chart IP-1

Number of Distinct Specialties Ranked by International Medical Graduates Internal Medicine/Pediatrics

U.S. IMGs



Non-U.S. IMGs



Source: NRMP Data Warehouse

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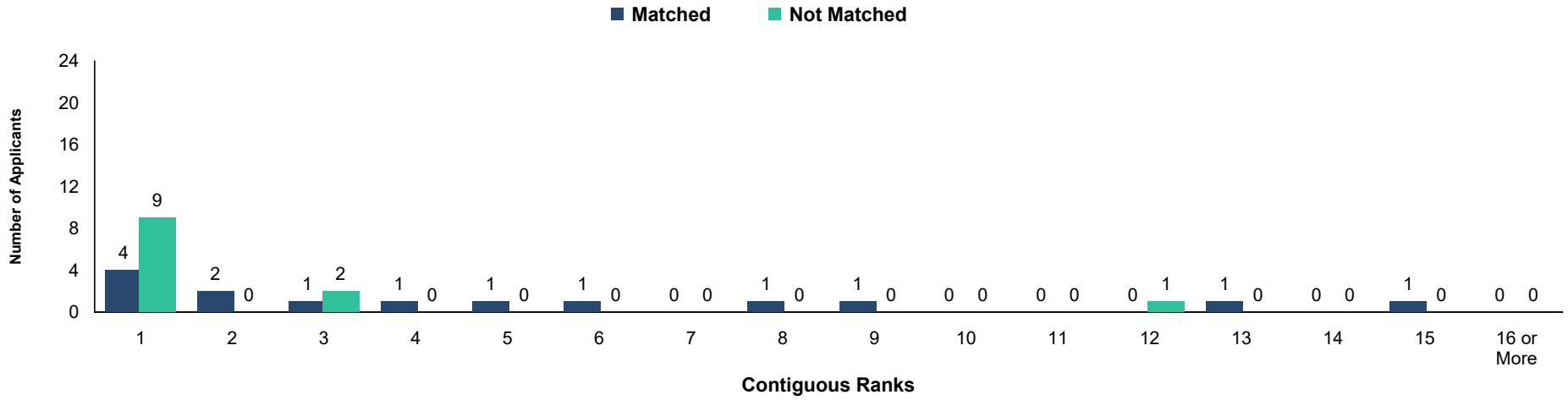
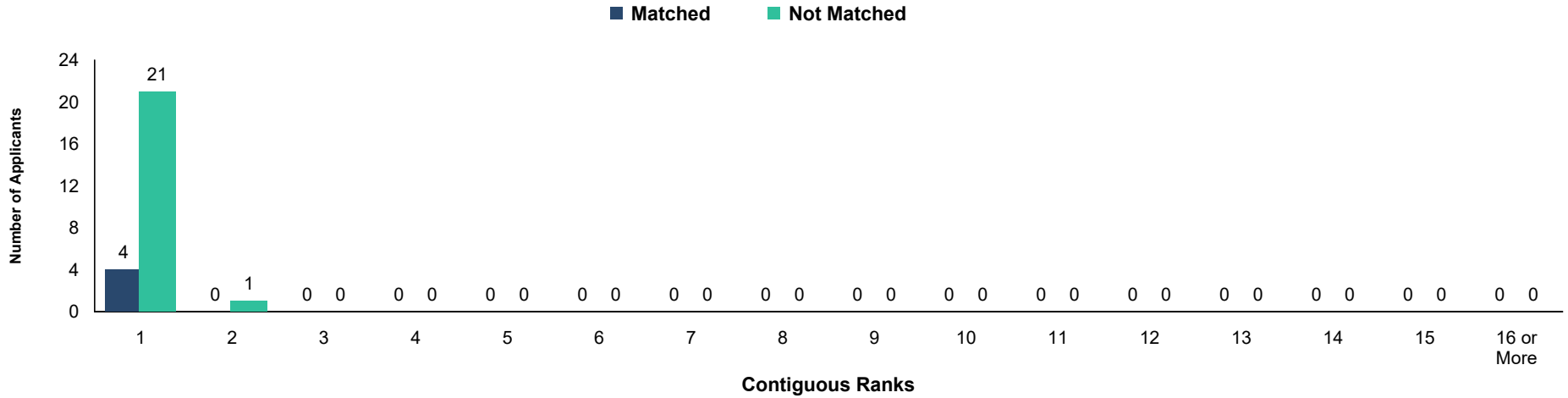
Chart IP-2 Number of Contiguous Ranks of International Medical Graduates Internal Medicine/Pediatrics

U.S. IMGs



Non-U.S. IMGs



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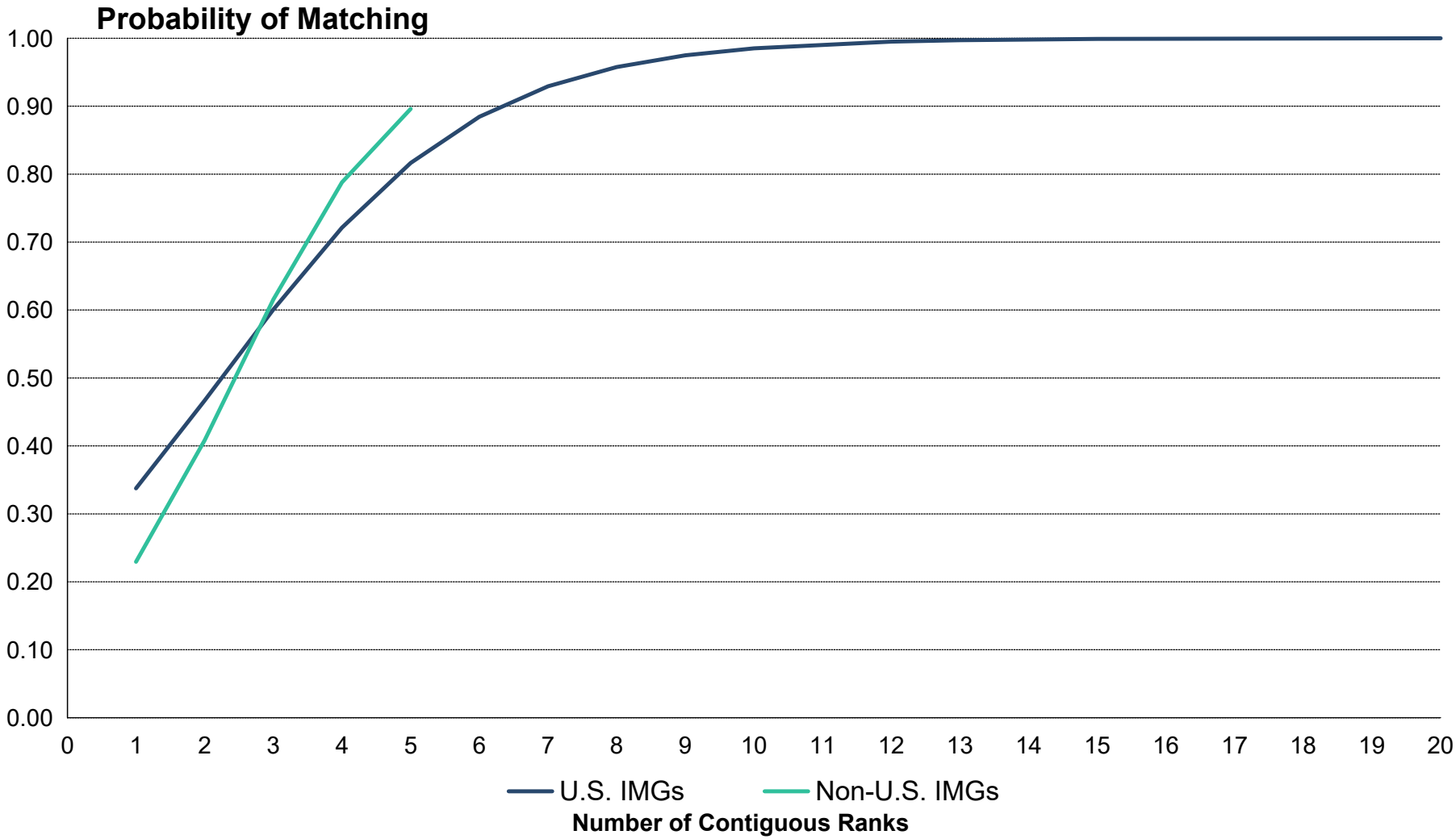
Graph IP-1

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 2016-2018 applicants

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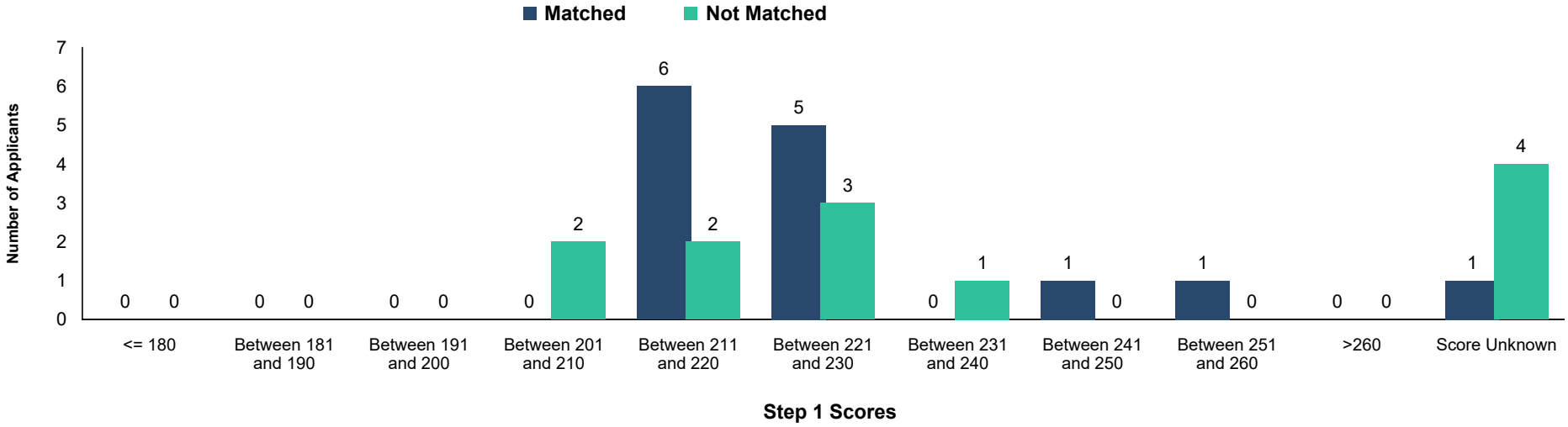
Chart IP-3

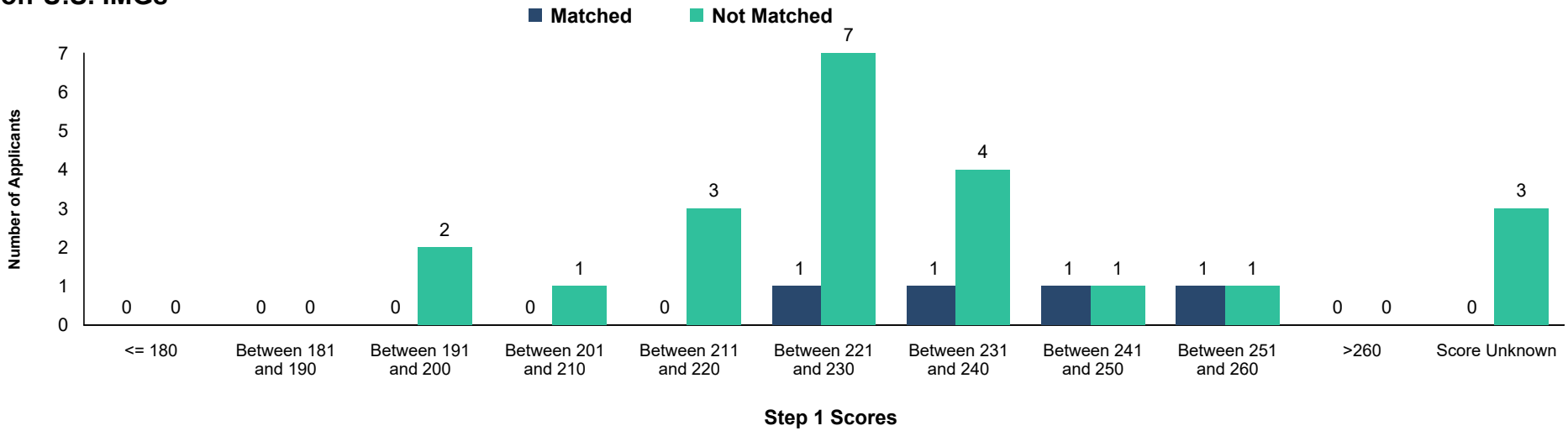
USMLE Step 1 Scores of International Medical Graduates

Internal Medicine/Pediatrics

U.S. IMGs



Non-U.S. IMGs



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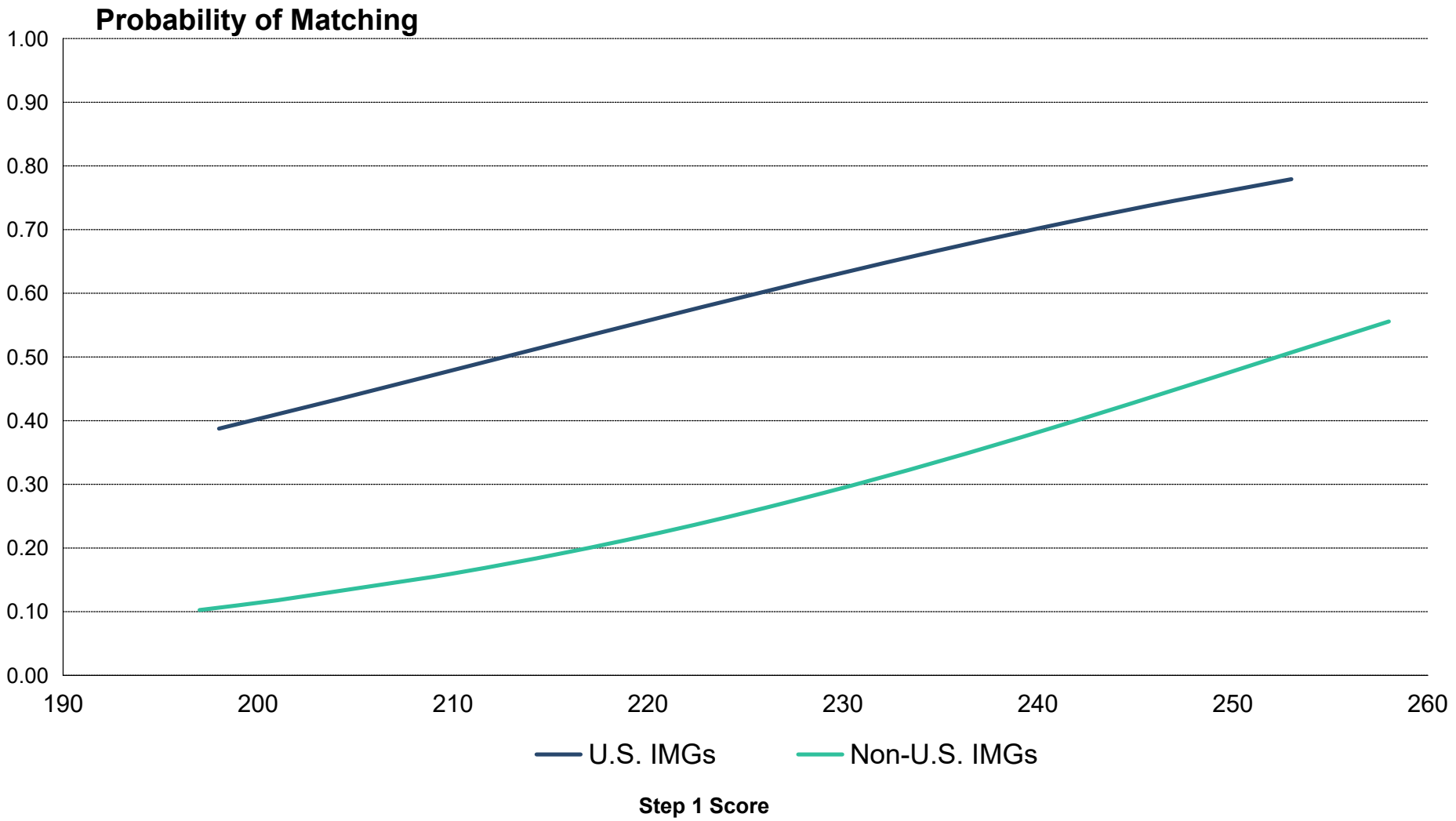
Graph IP-2

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 2016-2018 applicants.

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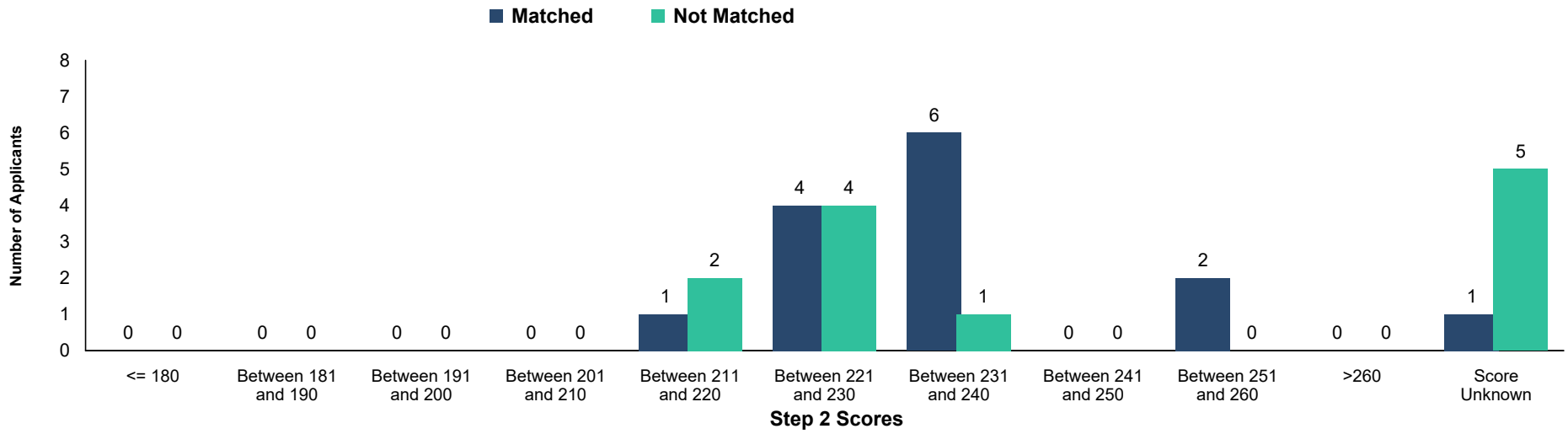
Chart IP-4

USMLE Step 2 CK Scores of International Medical Graduates

Internal Medicine/Pediatrics

U.S. IMGs



Non-U.S. IMGs

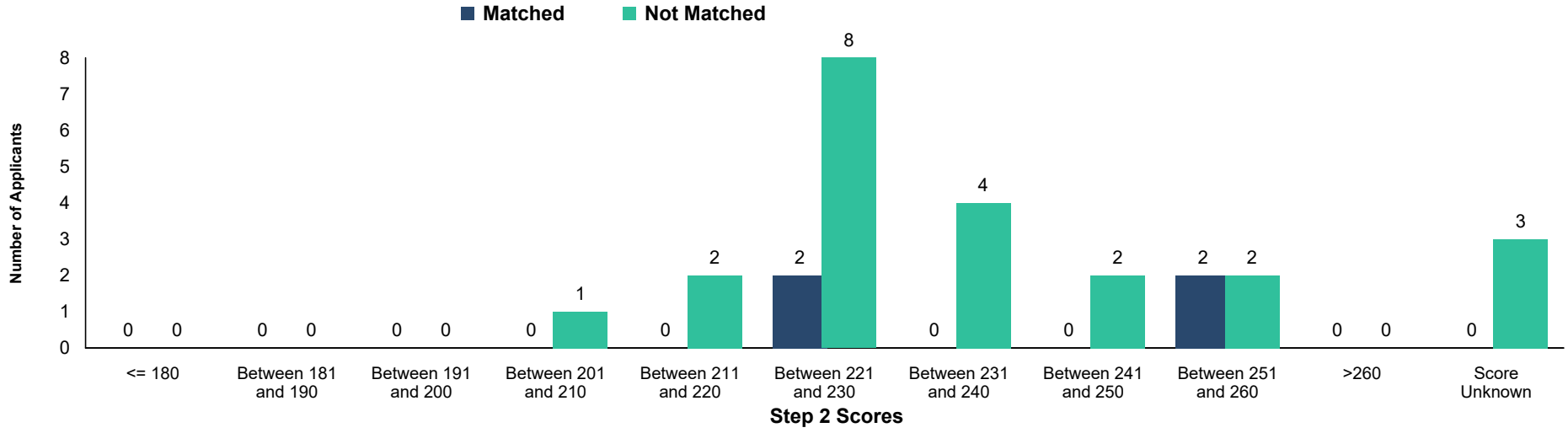


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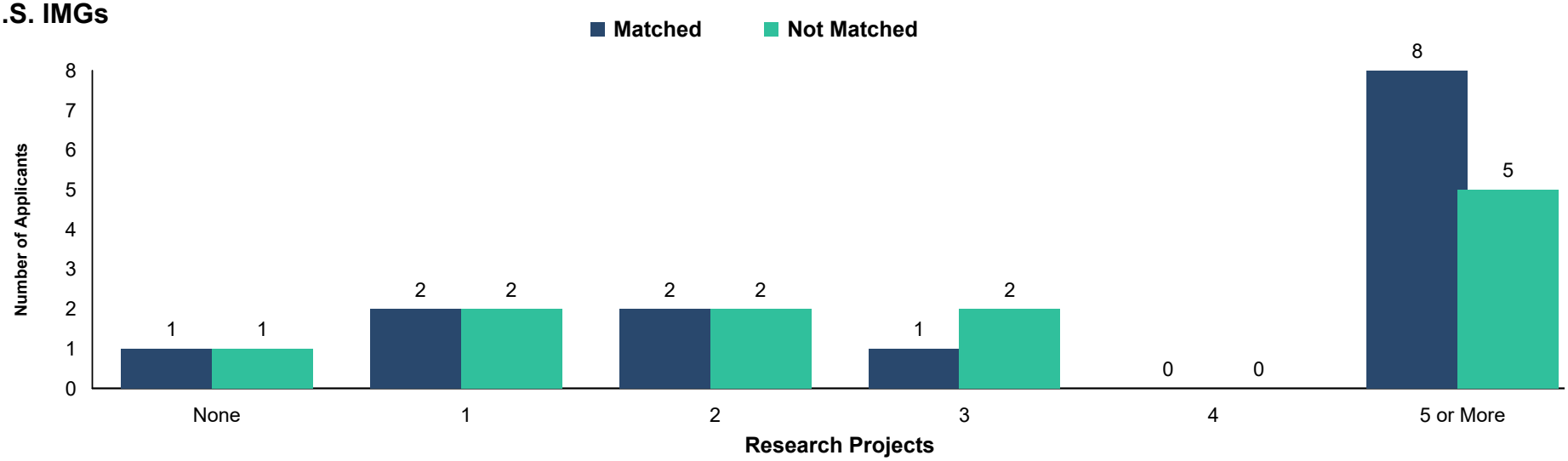
Chart IP-5

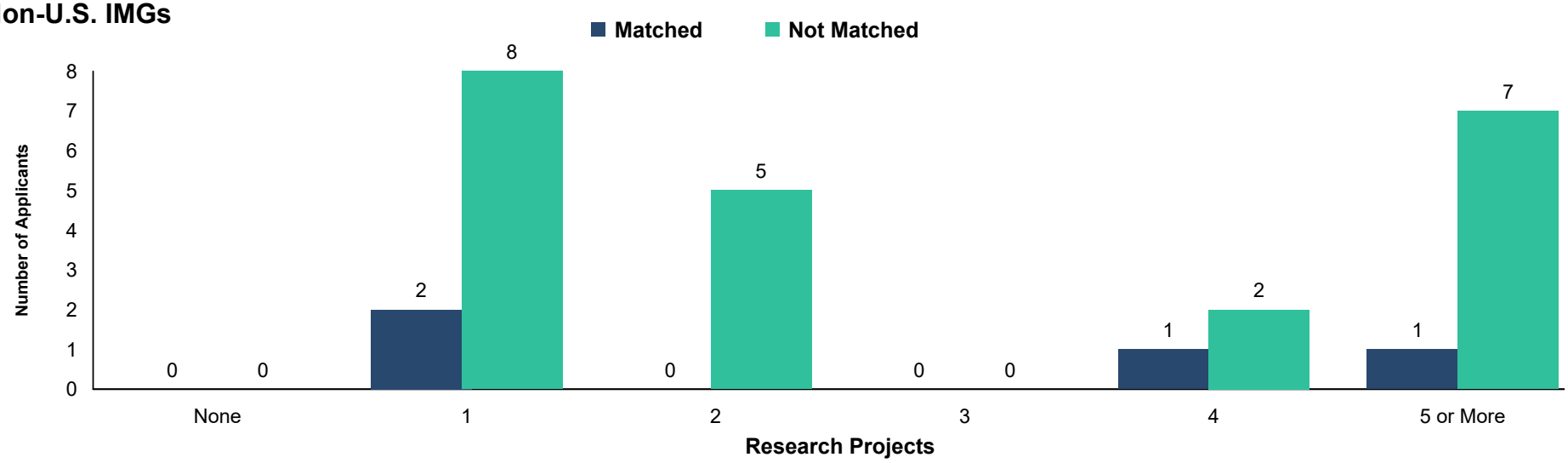
Number of Research Projects of International Medical Graduates

Internal Medicine/Pediatrics

U.S. IMGs



Non-U.S. IMGs



Source: NRMP Data Warehouse

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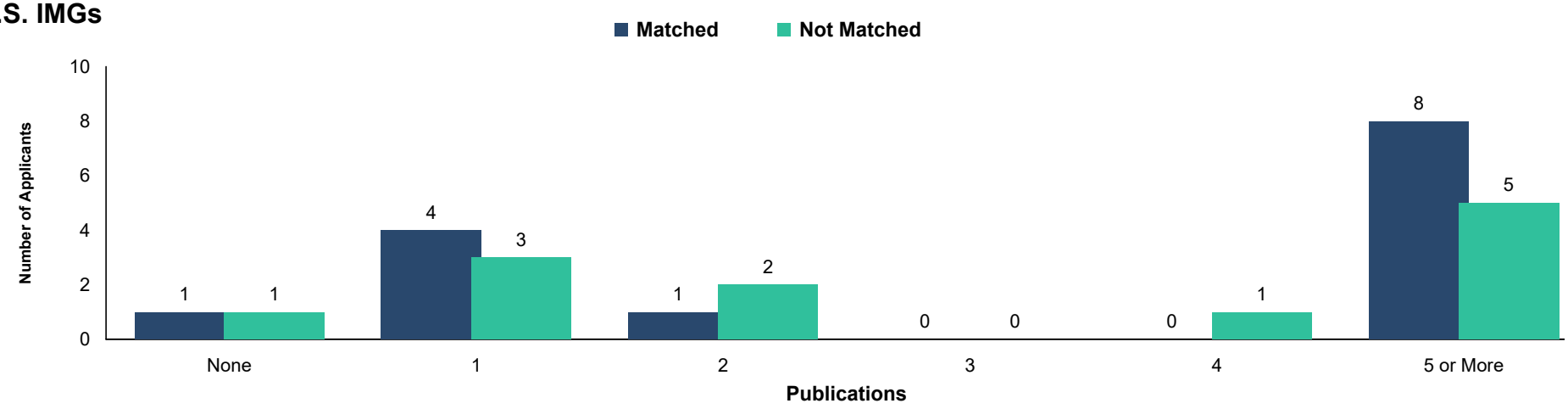
Chart IP-6

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

Internal Medicine/Pediatrics

U.S. IMGs



Non-U.S. IMGs

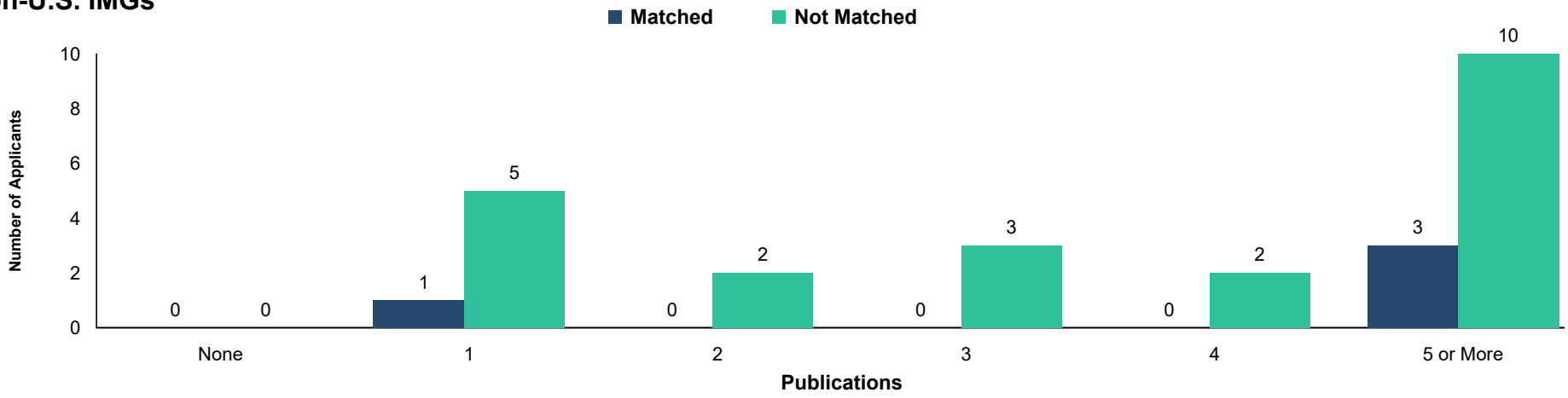


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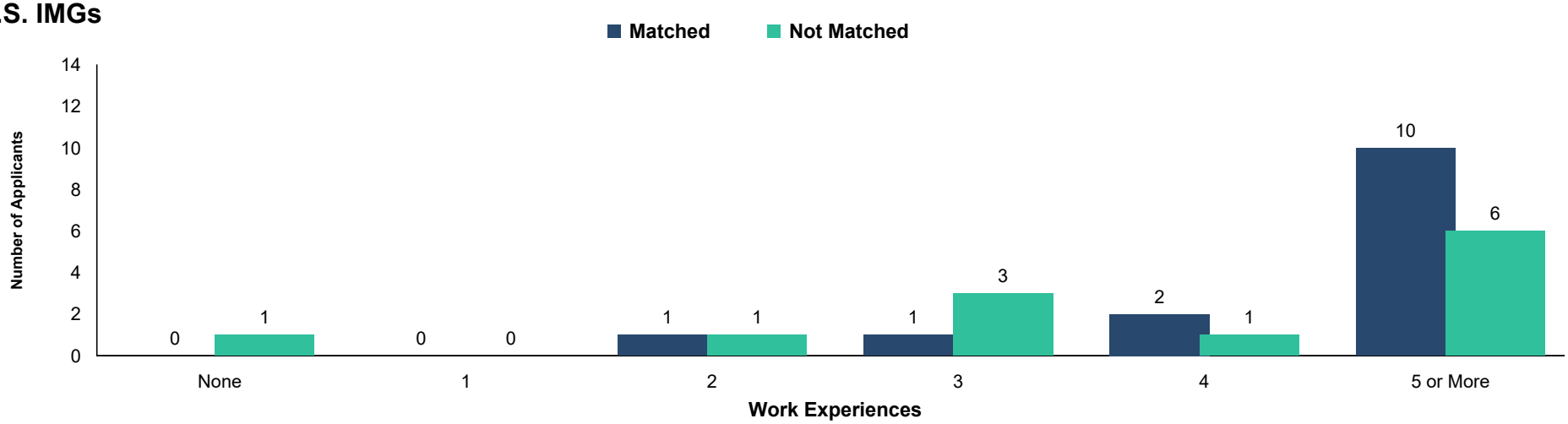
Chart IP-7

Number of Work Experiences of International Medical Graduates

Internal Medicine/Pediatrics

U.S. IMGs



Non-U.S. IMGs

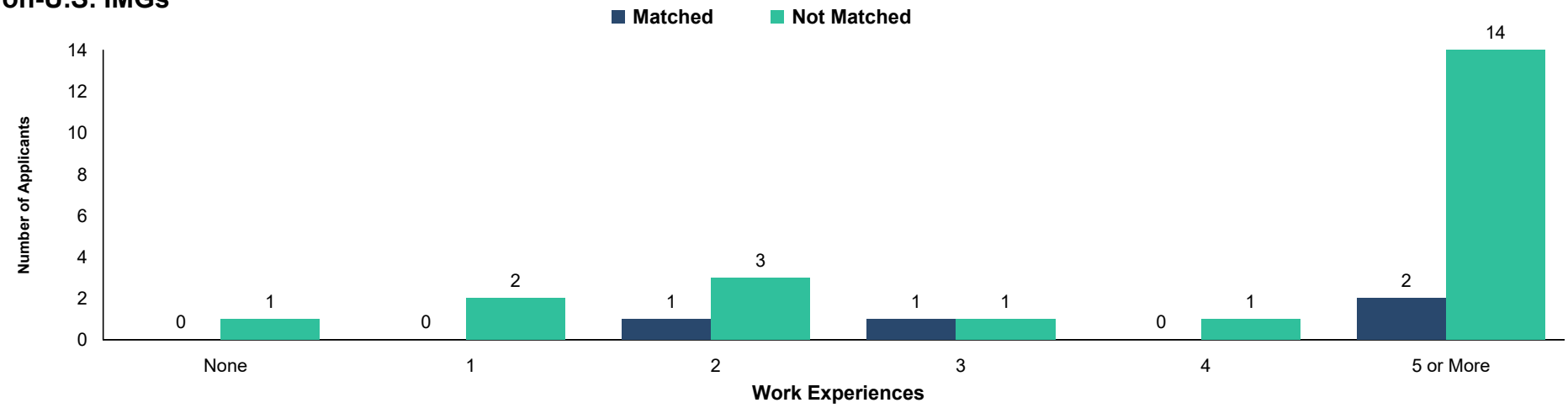


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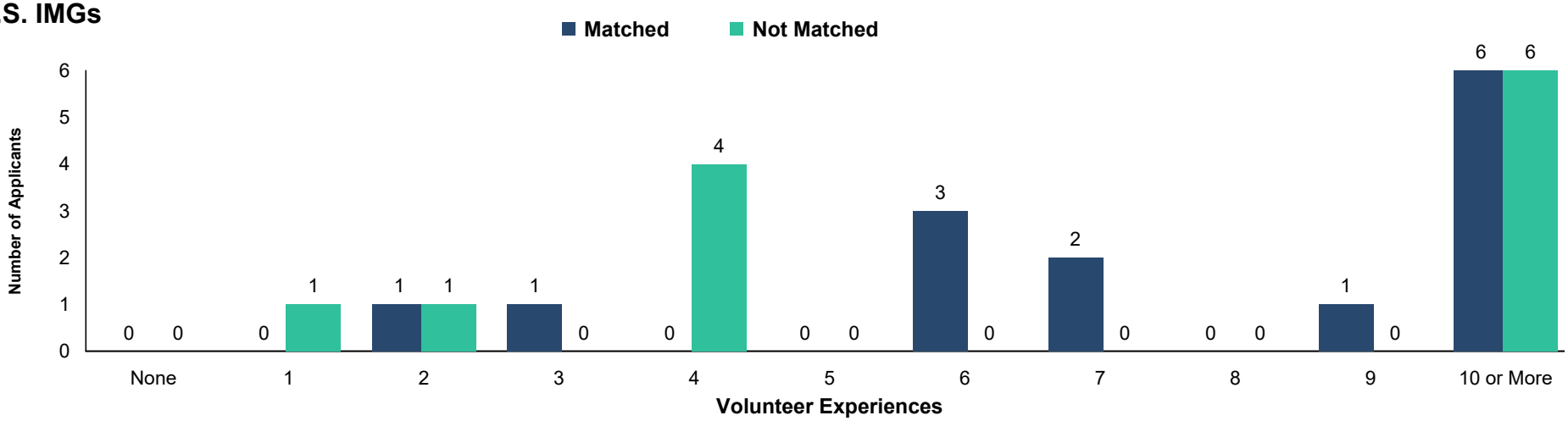
Chart IP-8

Number of Volunteer Experiences of International Medical Graduates

Internal Medicine/Pediatrics

U.S. IMGs



Non-U.S. IMGs

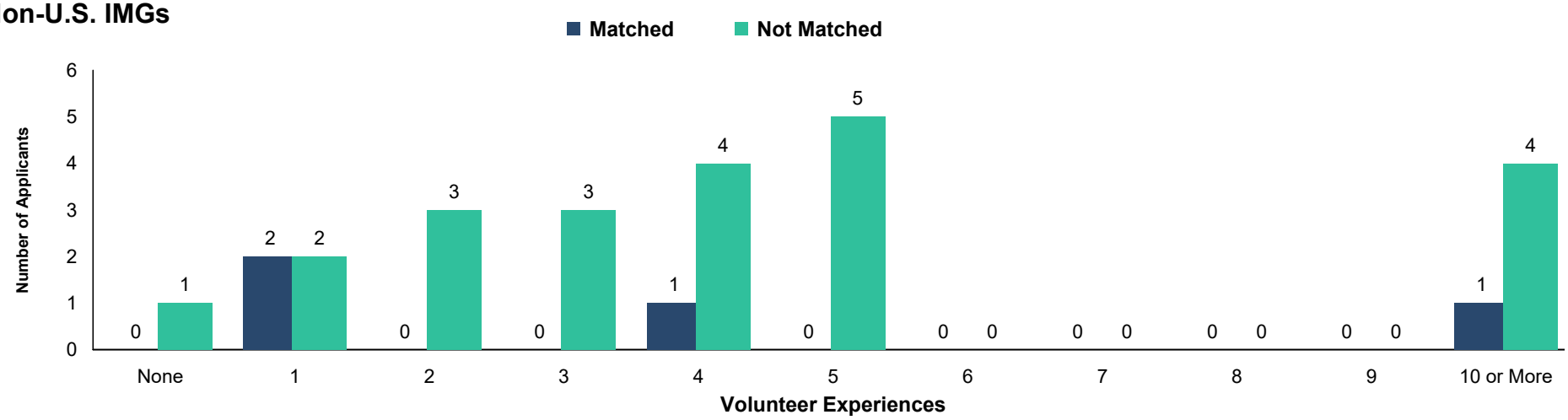


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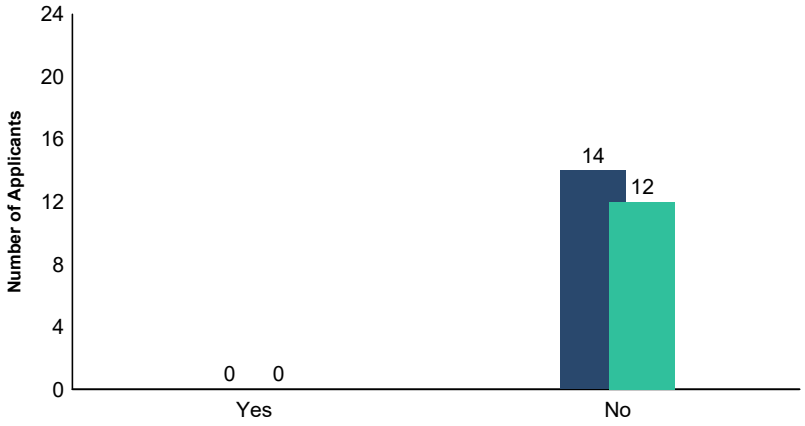
Chart IP-9 Other Characteristics of International Medical Graduates

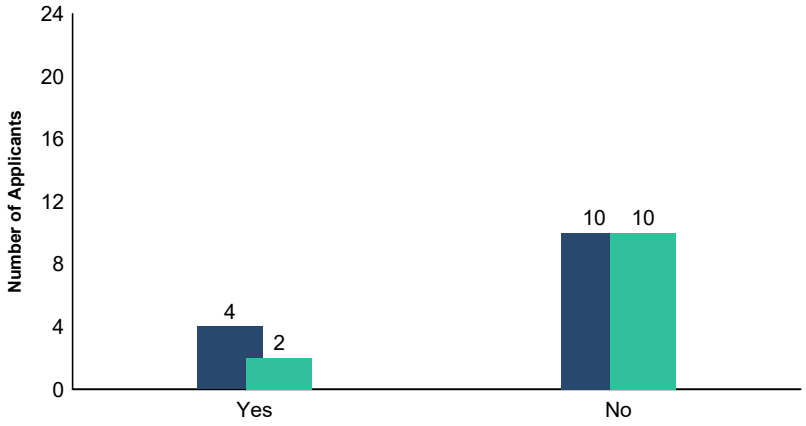
Internal Medicine/Pediatrics

U.S. IMGs

Ph.D. Degree

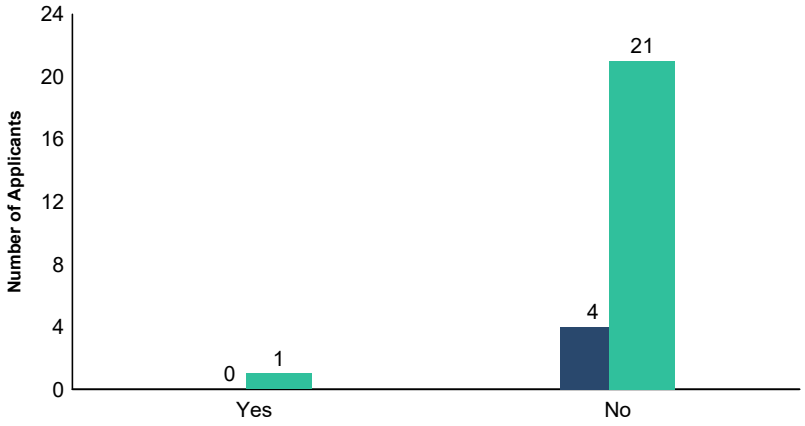


Other Graduate Degree

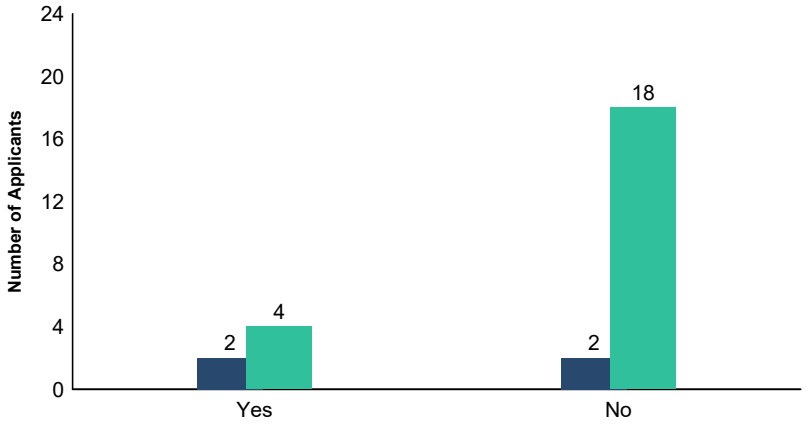


Non-U.S. IMGs

Ph.D. Degree



Other Graduate Degree



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NS Neurological Surgery

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Table NS-1 Summary Statistics
Neurological Surgery

Measure	U.S. IMGs		Non-U.S. IMGs	
	Matched (n=0)	Unmatched (n=7)	Matched (n=10)	Unmatched (n=18)
1. Mean number of contiguous ranks		2.7	7.4	3.0
2. Mean number of distinct specialties ranked		1.7	1.1	1.6
3. Mean USMLE Step 1 score		236	246	236
4. Mean USMLE Step 2 score		242	243	242
5. Mean number of research experiences		6.6	3.9	2.3
6. Mean number of abstracts, presentations, and publications		5.2	46.6	29.1
7. Mean number of work experiences		3.1	5.7	4.5
8. Mean number of volunteer experiences		3.8	3.3	2.4
9. Percentage who have a Ph.D. degree		0.0	12.5	6.3
10. Percentage who have another graduate degree		33.3	33.3	37.5

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

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

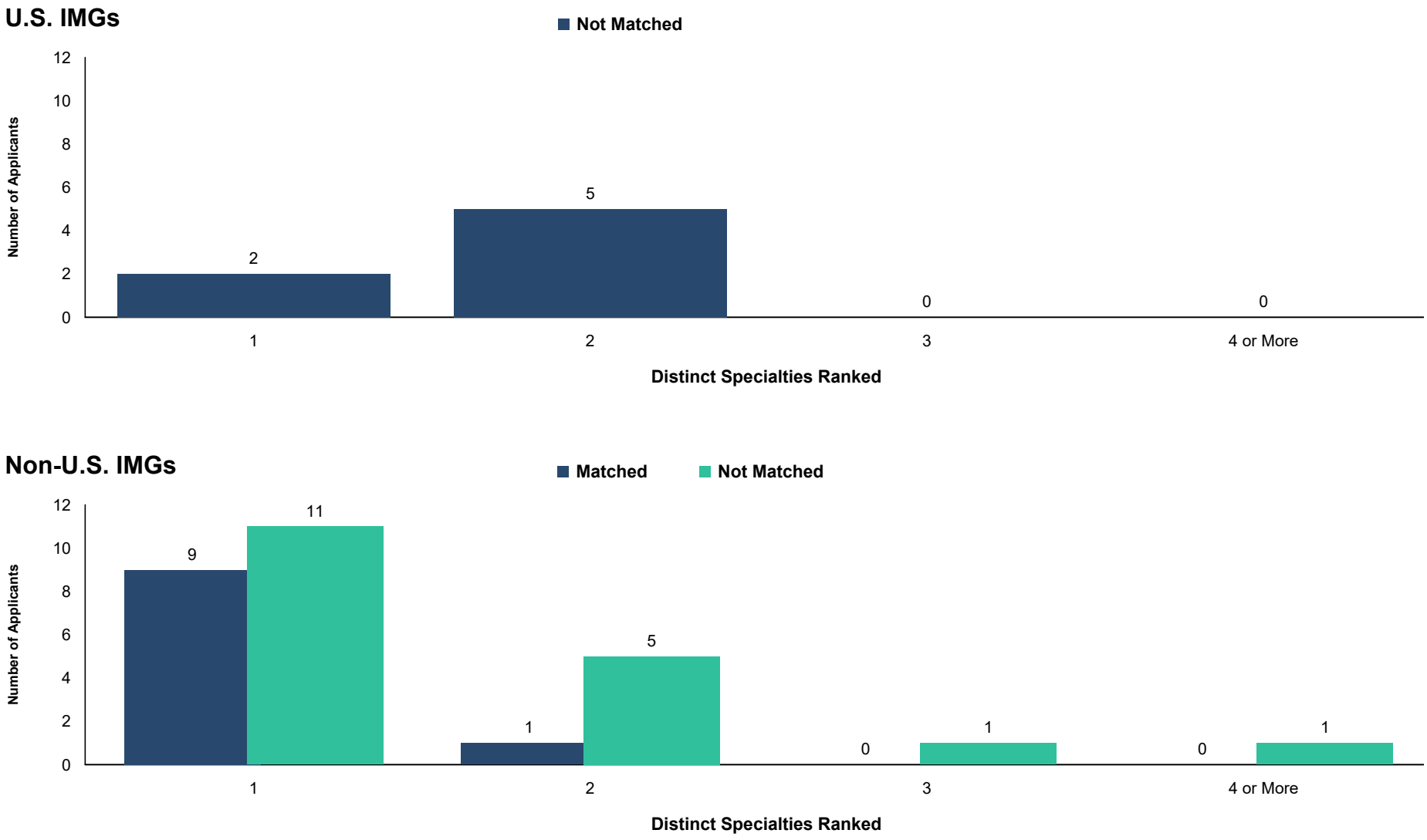

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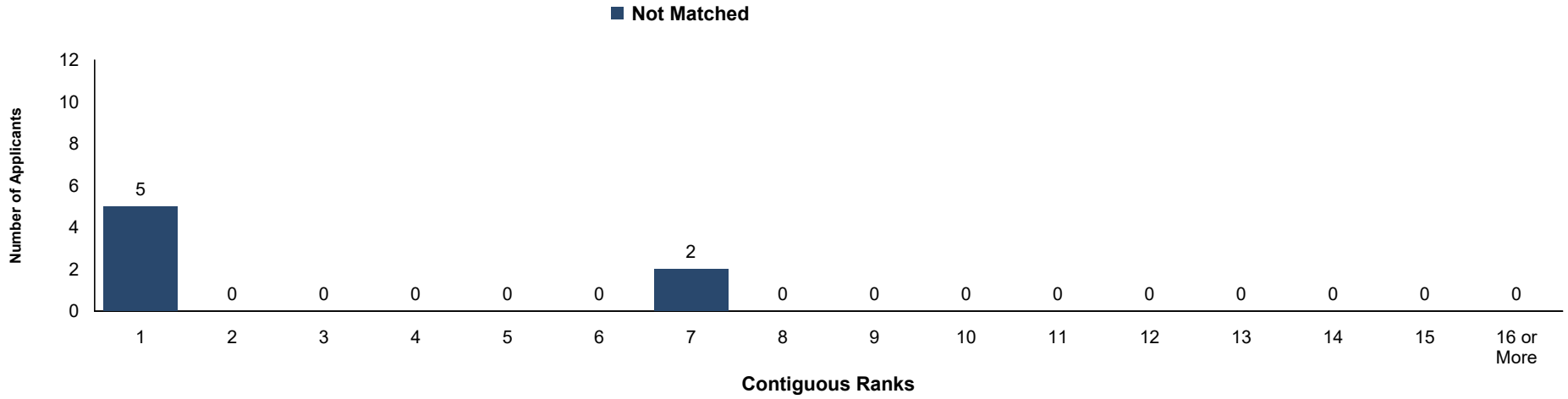
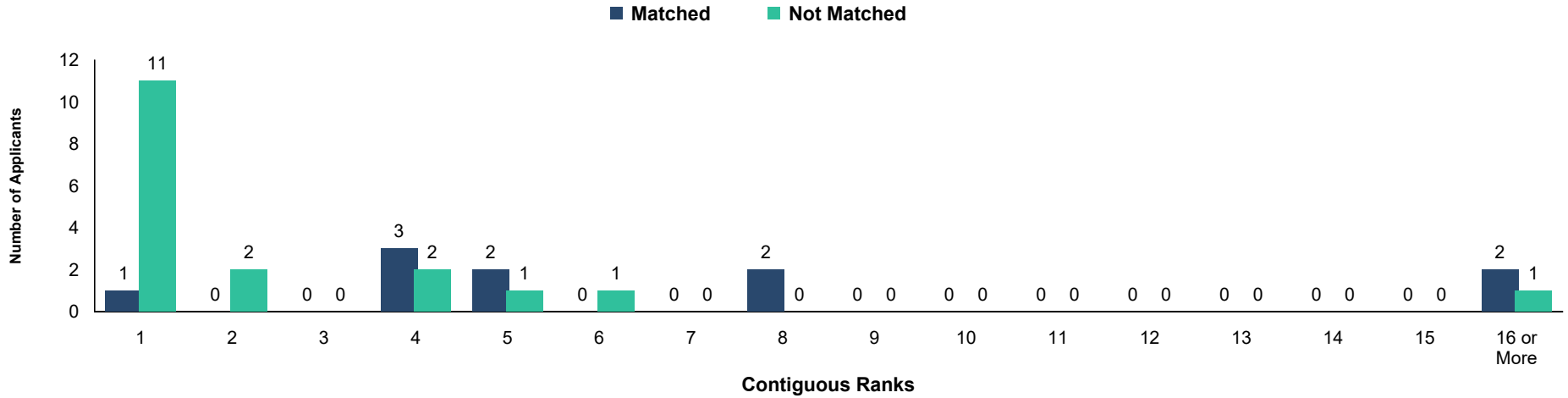
Chart NS-2 Number of Contiguous Ranks of International Medical Graduates Neurological Surgery

U.S. IMGs



Non-U.S. IMGs



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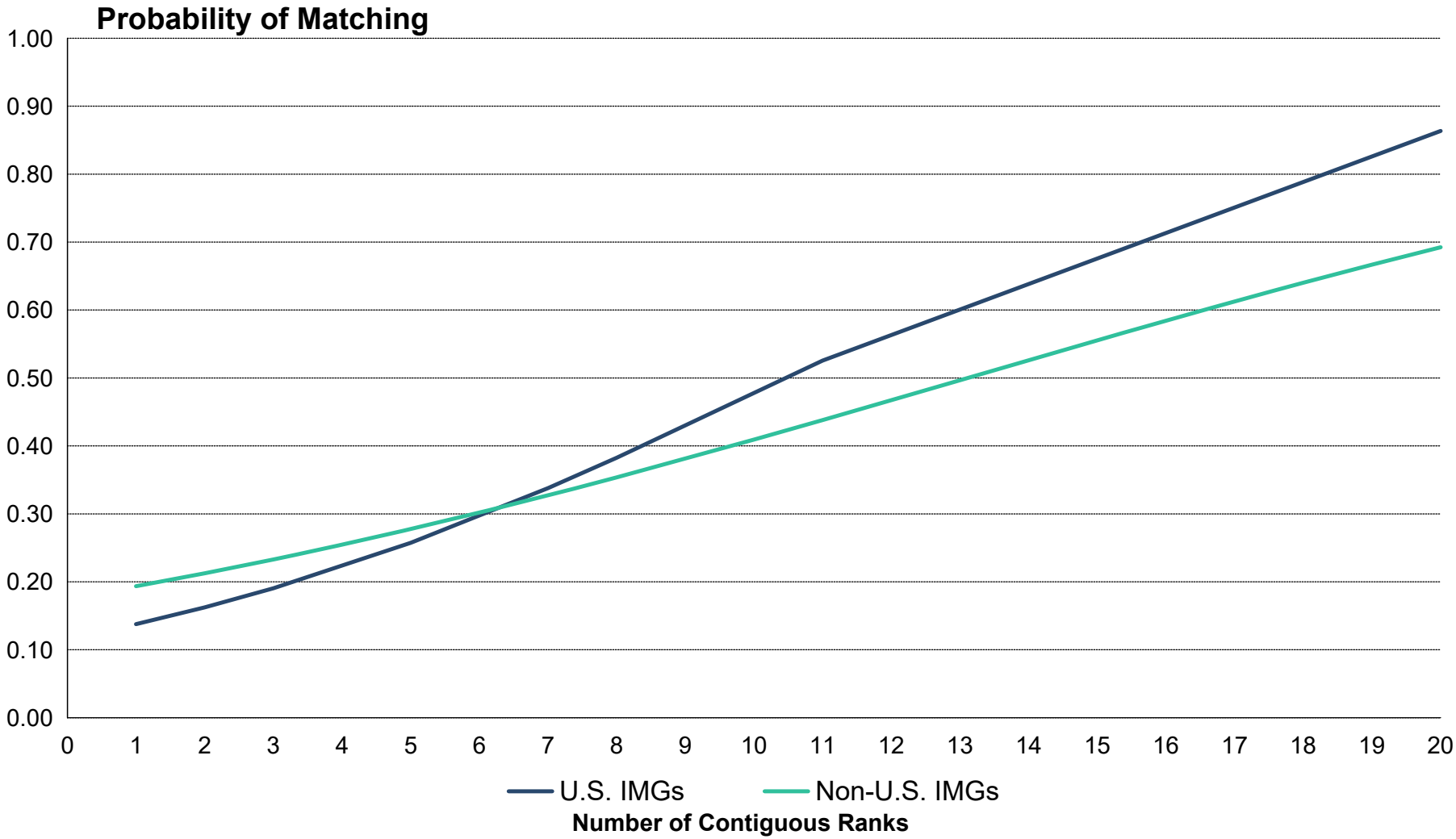
Graph NS-1

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 2016-2018 applicants

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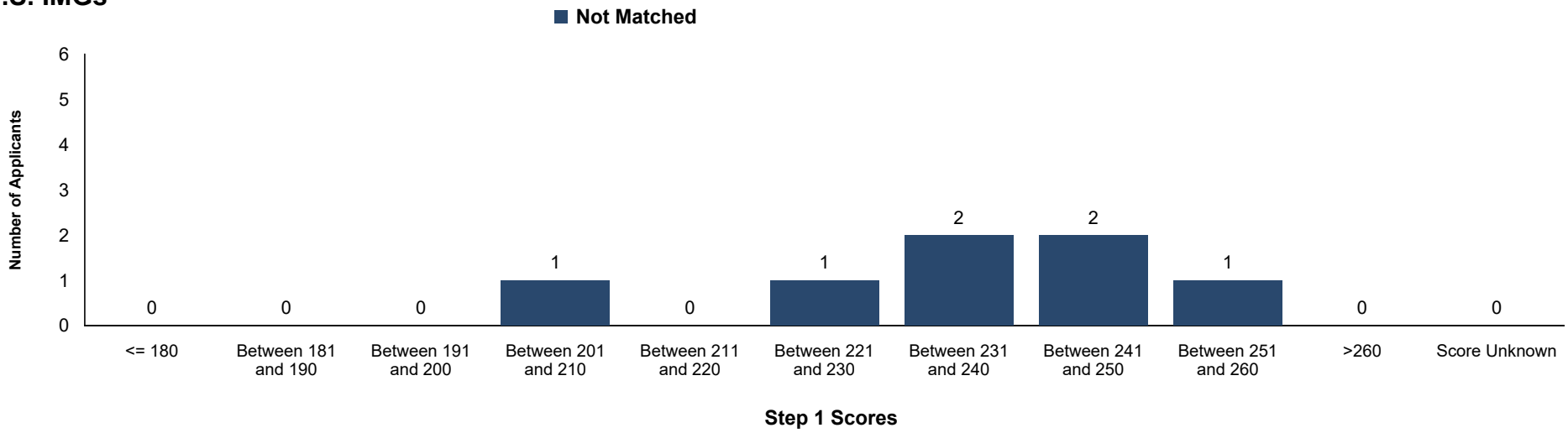
Chart NS-3

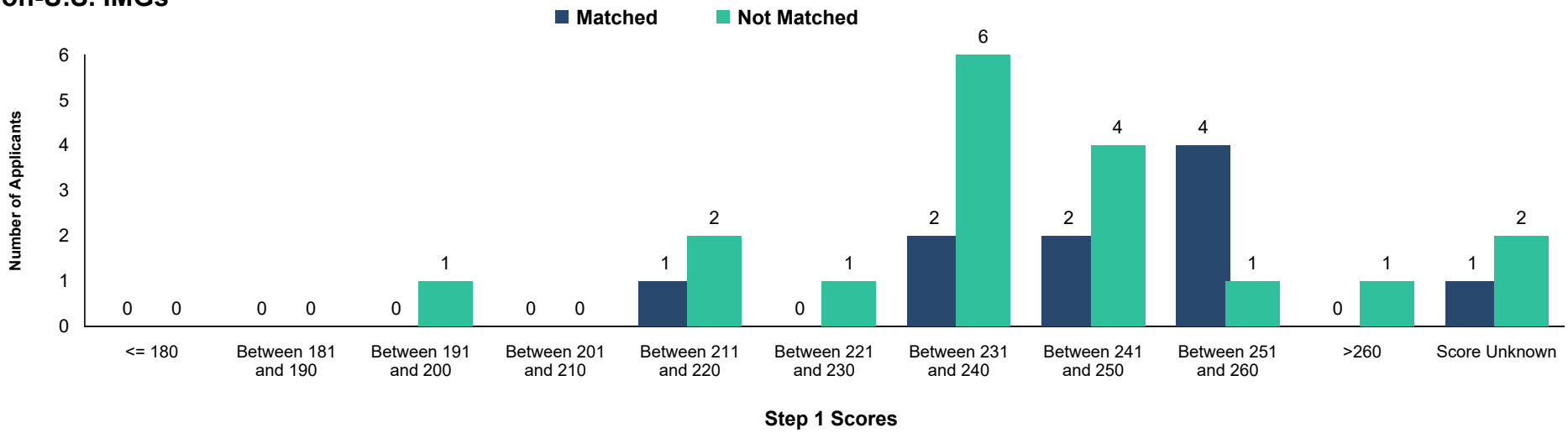
USMLE Step 1 Scores of International Medical Graduates

Neurological Surgery

U.S. IMGs



Non-U.S. IMGs



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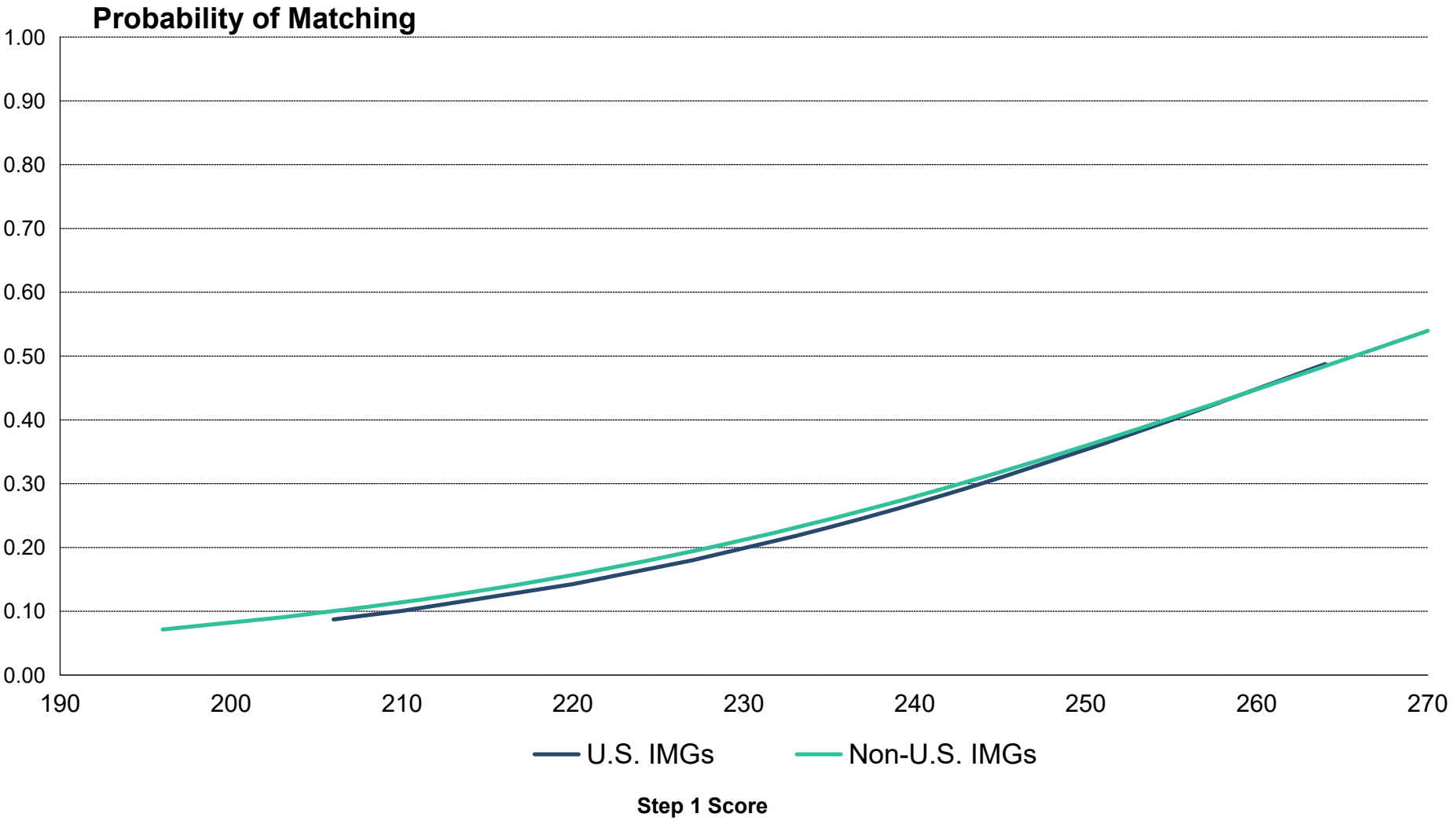
Graph NS-2

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 2016-2018 applicants.

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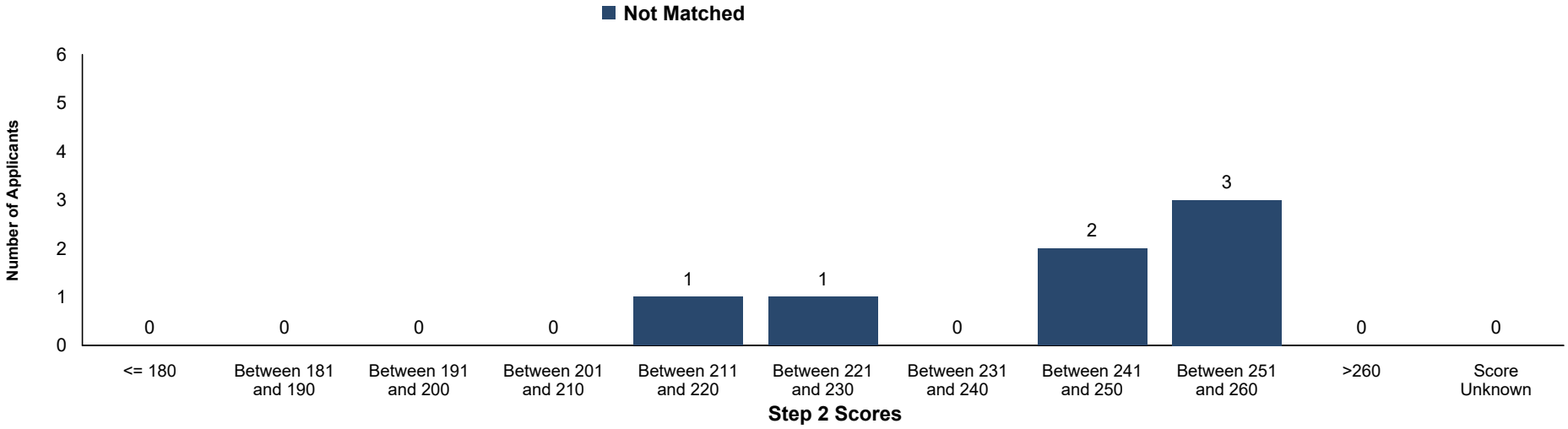
Chart NS-4

USMLE Step 2 CK Scores of International Medical Graduates

Neurological Surgery

U.S. IMGs



Non-U.S. IMGs

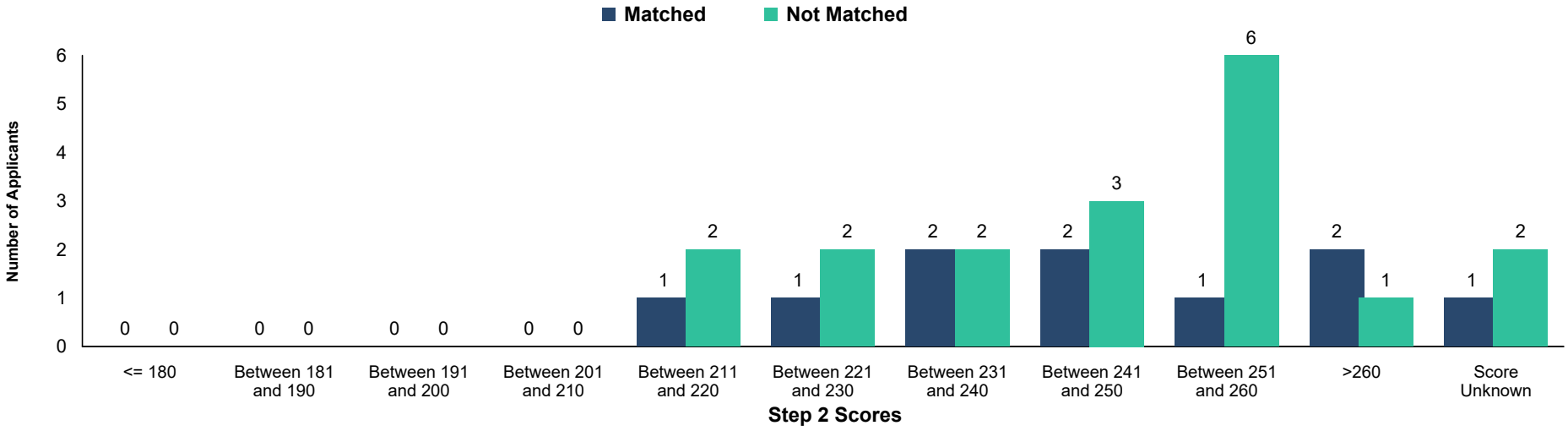


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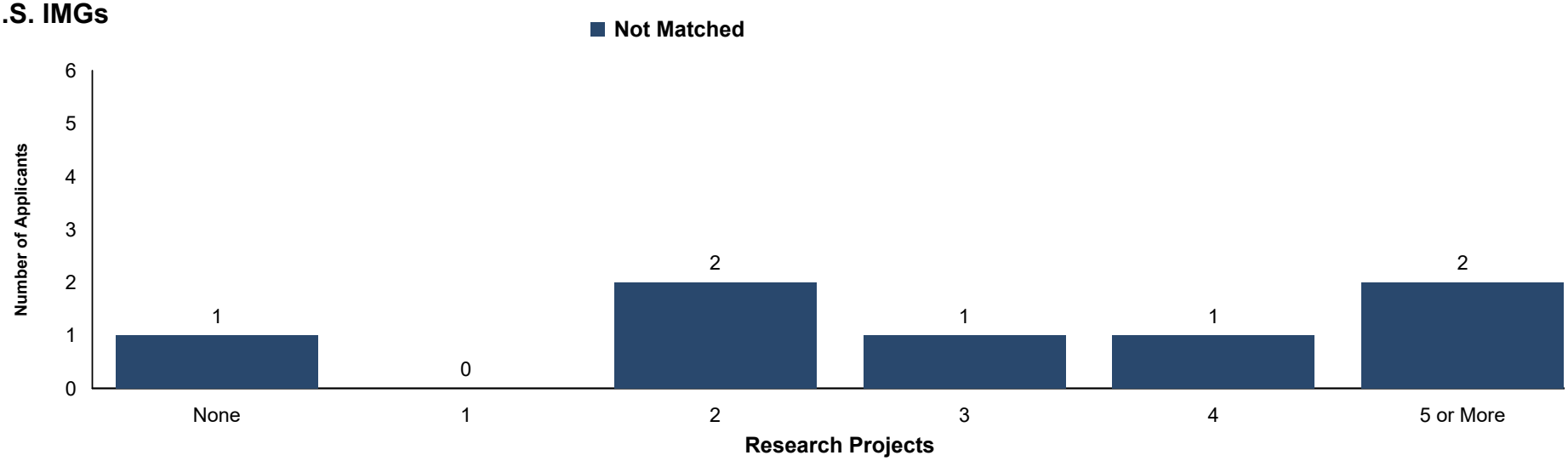
Chart NS-5

Number of Research Projects of International Medical Graduates

Neurological Surgery

U.S. IMGs



Non-U.S. IMGs

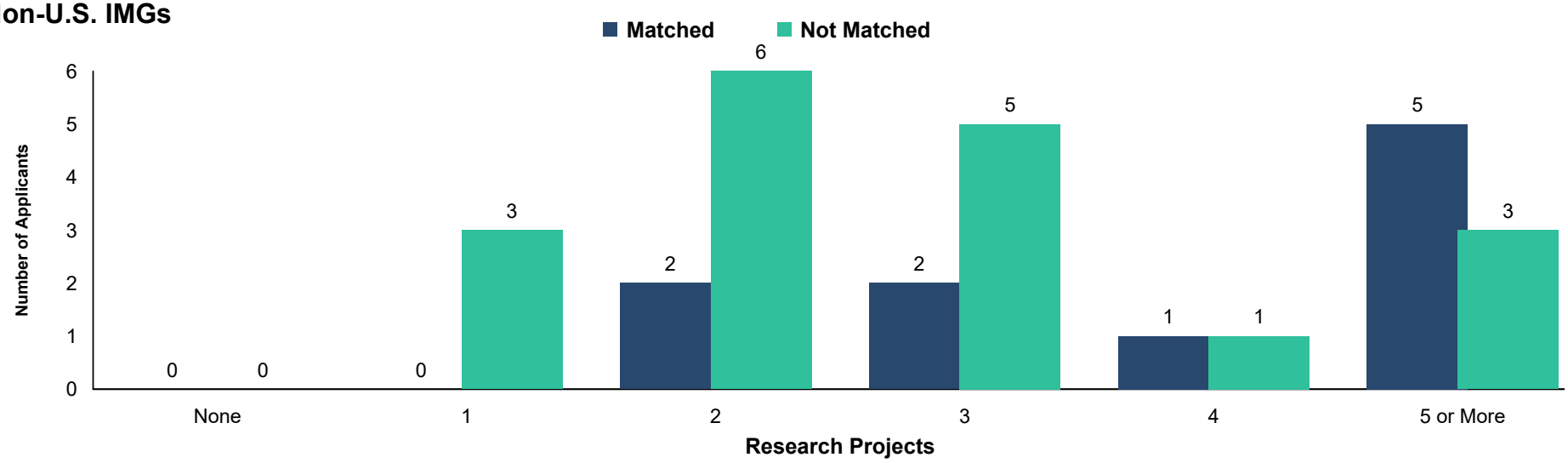


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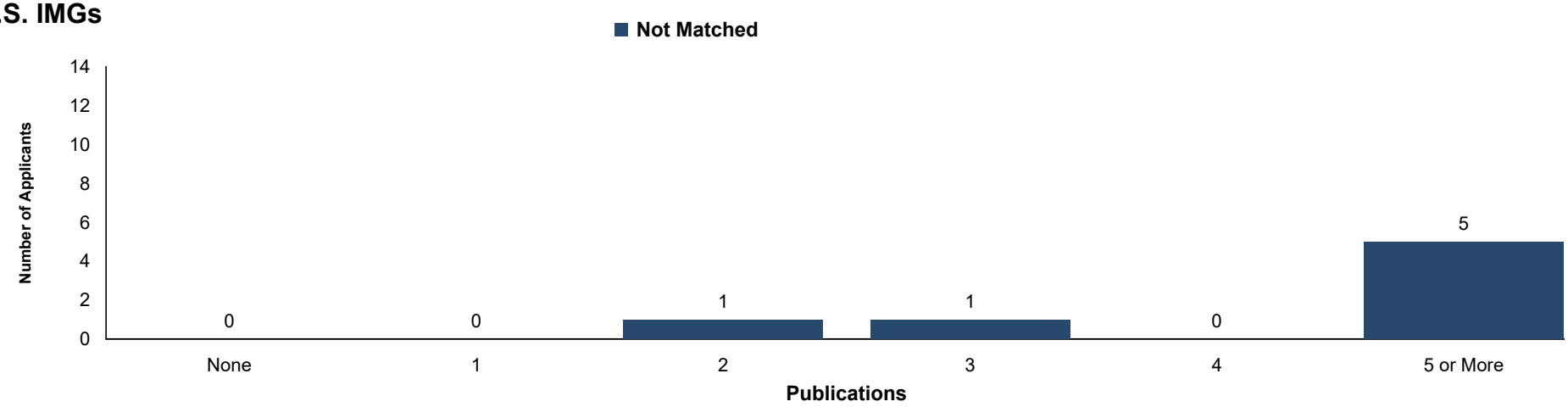
Chart NS-6

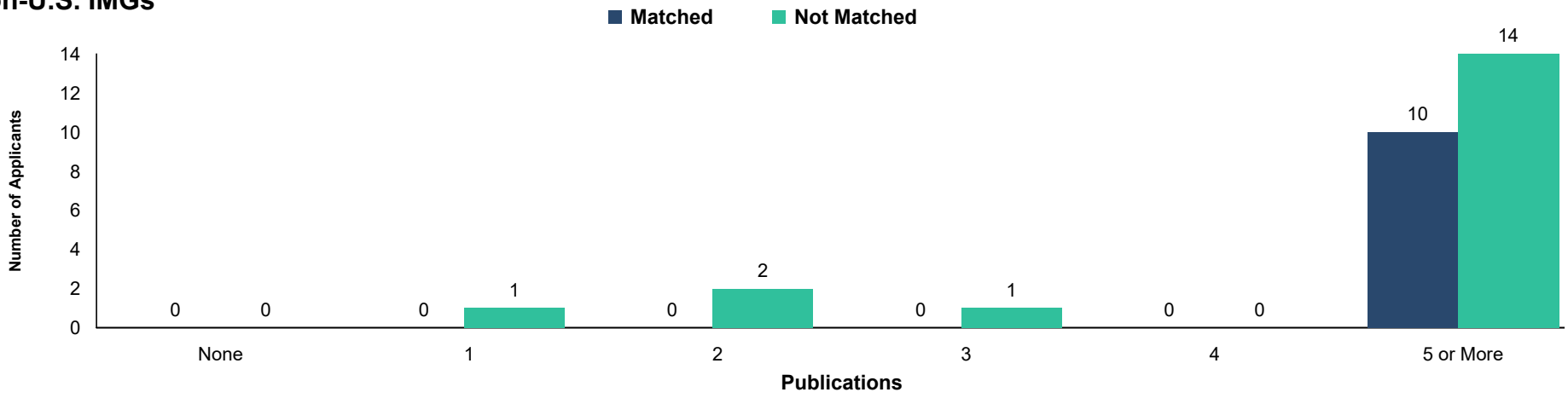
Number of Abstracts, Presentations, and Publications of International Medical Graduates

Neurological Surgery

U.S. IMGs



Non-U.S. IMGs



Source: NRMP Data Warehouse

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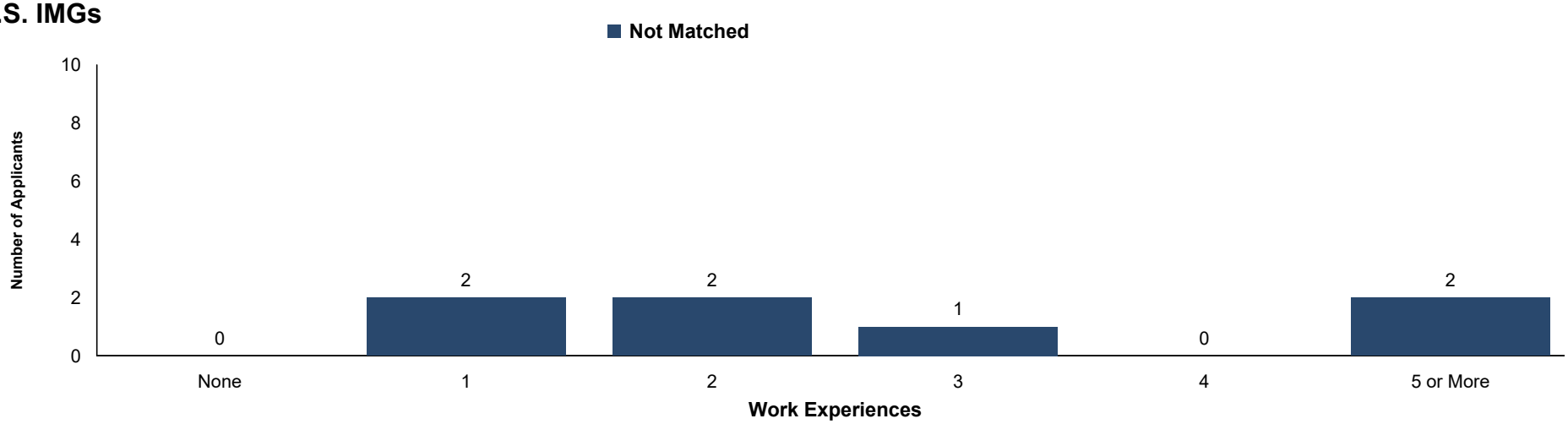
Chart NS-7

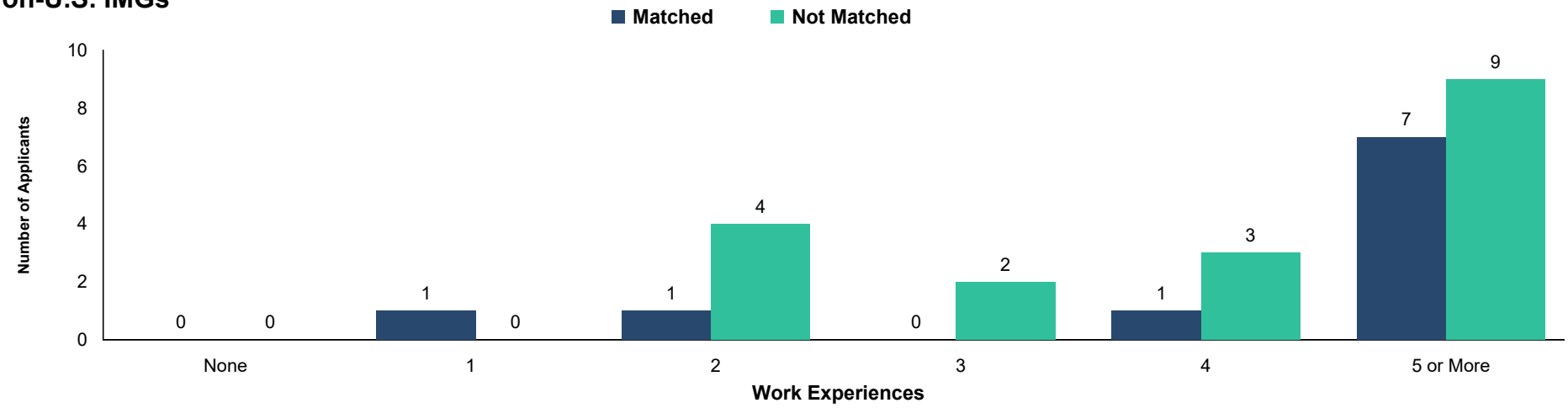
Number of Work Experiences of International Medical Graduates

Neurological Surgery

U.S. IMGs



Non-U.S. IMGs



Source: NRMP Data Warehouse

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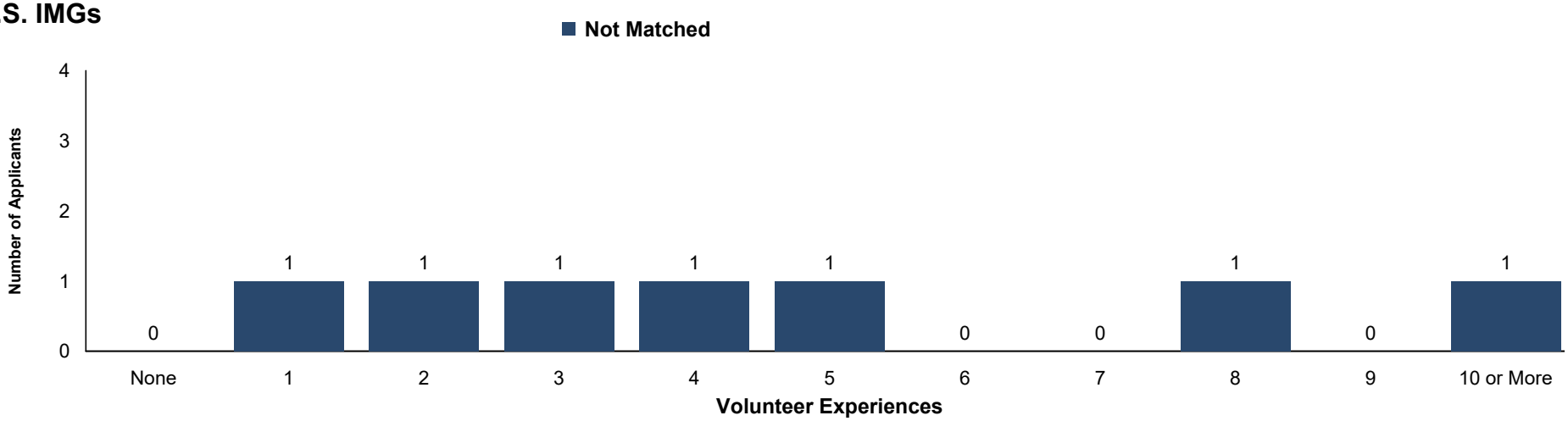
Chart NS-8

Number of Volunteer Experiences of International Medical Graduates

Neurological Surgery

U.S. IMGs



Non-U.S. IMGs

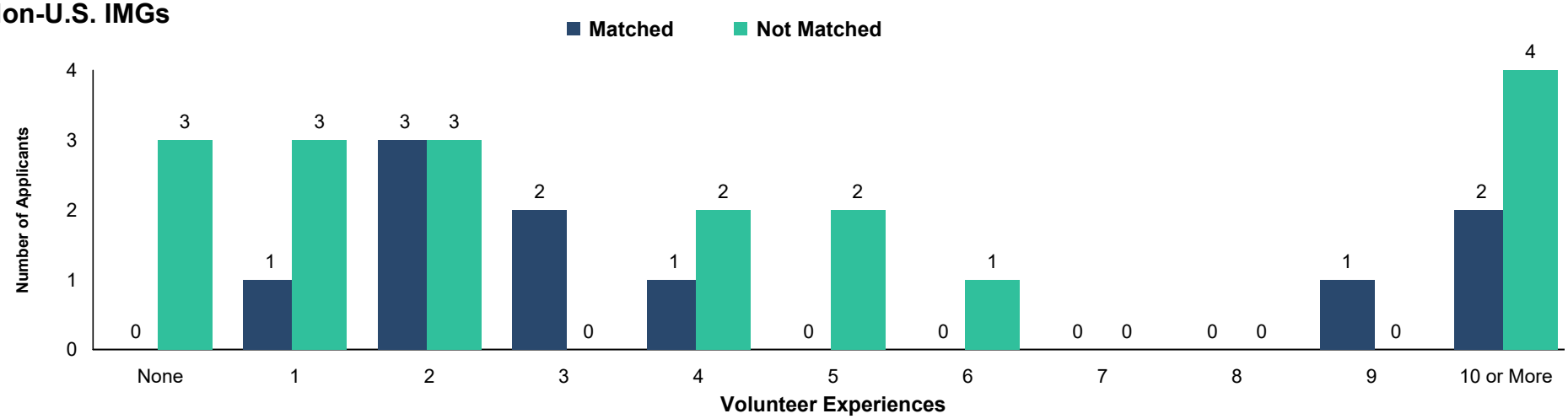


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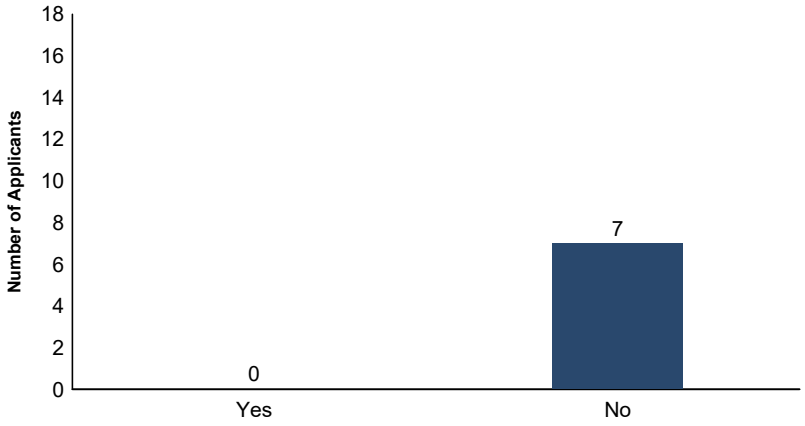
Chart NS-9 Other Characteristics of International Medical Graduates

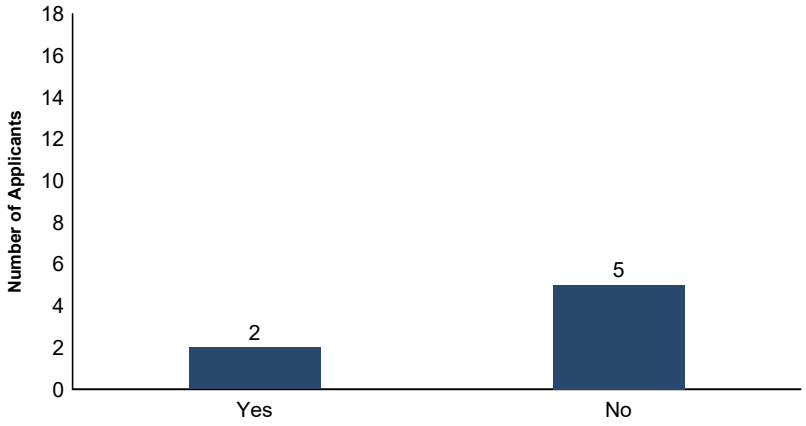
Neurological Surgery

U.S. IMGs

Ph.D. Degree

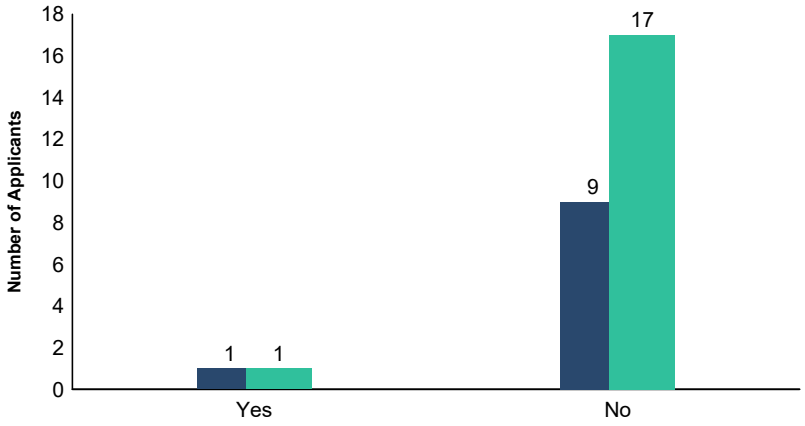


Other Graduate Degree

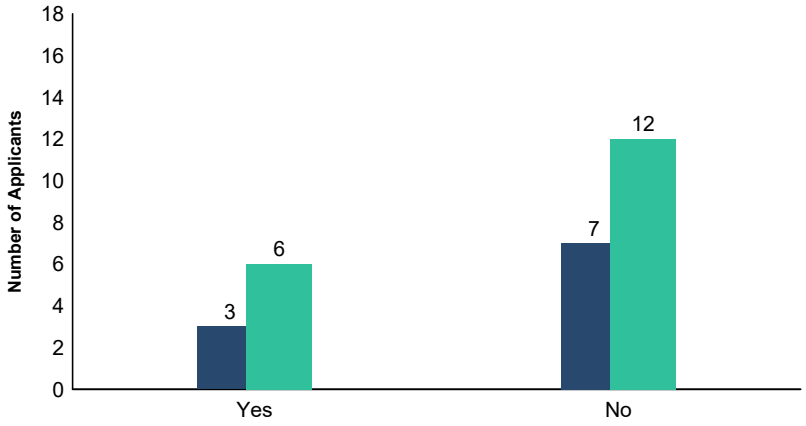


Non-U.S. IMGs

Ph.D. Degree



Other Graduate Degree



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N Neurology

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Table N-1 Summary Statistics
Neurology

Measure	U.S. IMGs		Non-U.S. IMGs	
	Matched (n=60)	Unmatched (n=48)	Matched (n=168)	Unmatched (n=130)
1. Mean number of contiguous ranks	7.8	1.8	6.7	2.4
2. Mean number of distinct specialties ranked	1.6	2.0	1.6	1.7
3. Mean USMLE Step 1 score	227	214	236	224
4. Mean USMLE Step 2 score	234	223	240	227
5. Mean number of research experiences	2.6	2.4	3.2	3.1
6. Mean number of abstracts, presentations, and publications	2.6	5.3	7.3	9.0
7. Mean number of work experiences	3.6	6.1	5.6	6.2
8. Mean number of volunteer experiences	4.3	4.4	3.7	3.5
9. Percentage who have a Ph.D. degree	1.8	4.5	4.9	7.6
10. Percentage who have another graduate degree	28.1	40.0	19.3	24.6

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

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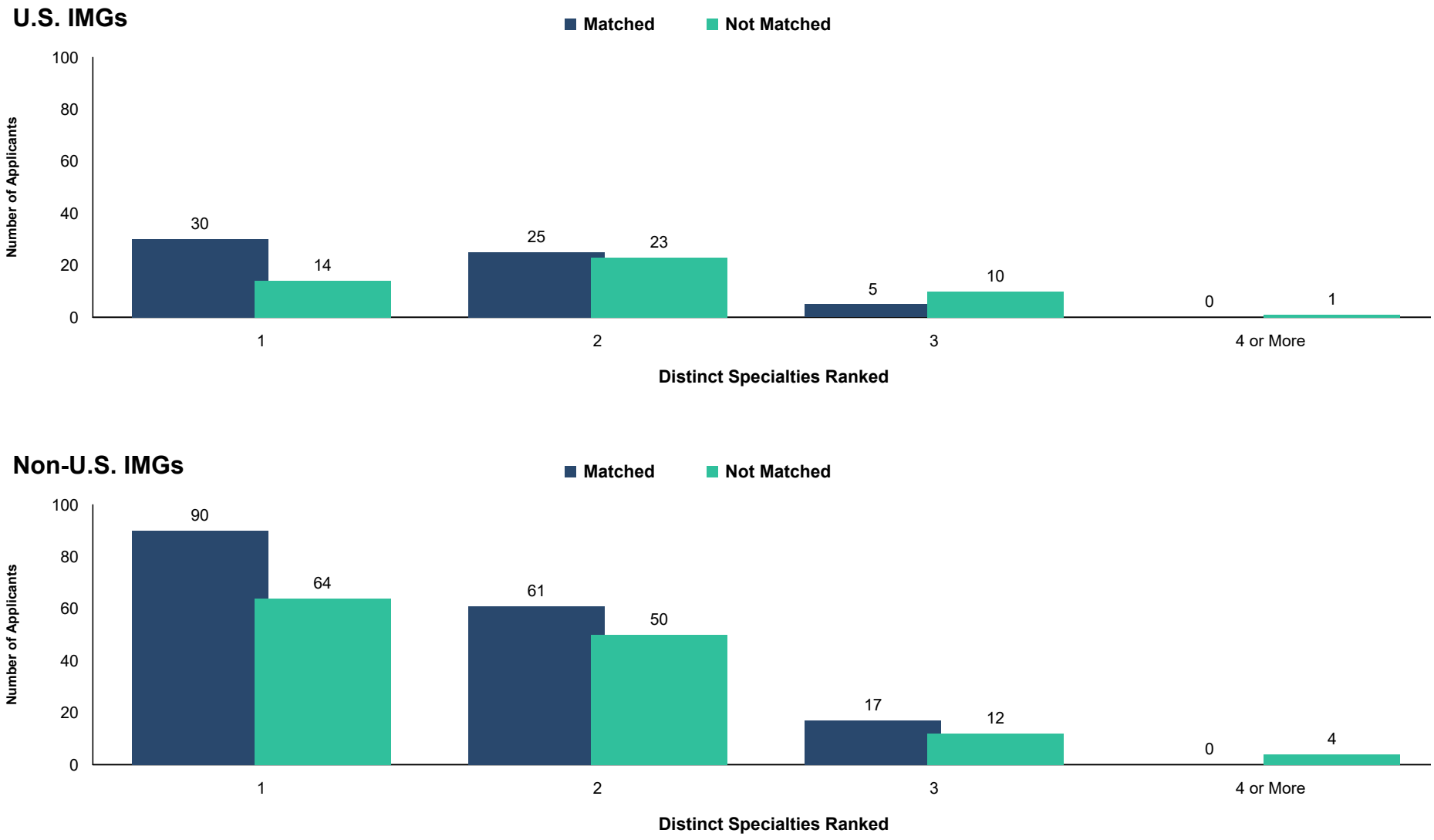
Chart N-1

Number of Distinct Specialties Ranked by International Medical Graduates
Neurology



Source: NRMP Data Warehouse

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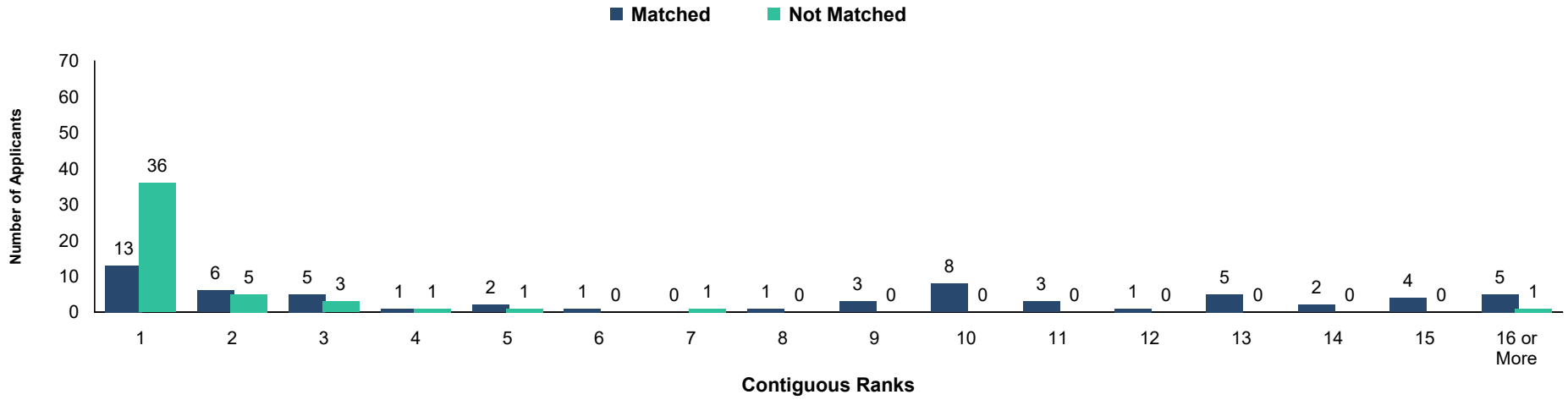
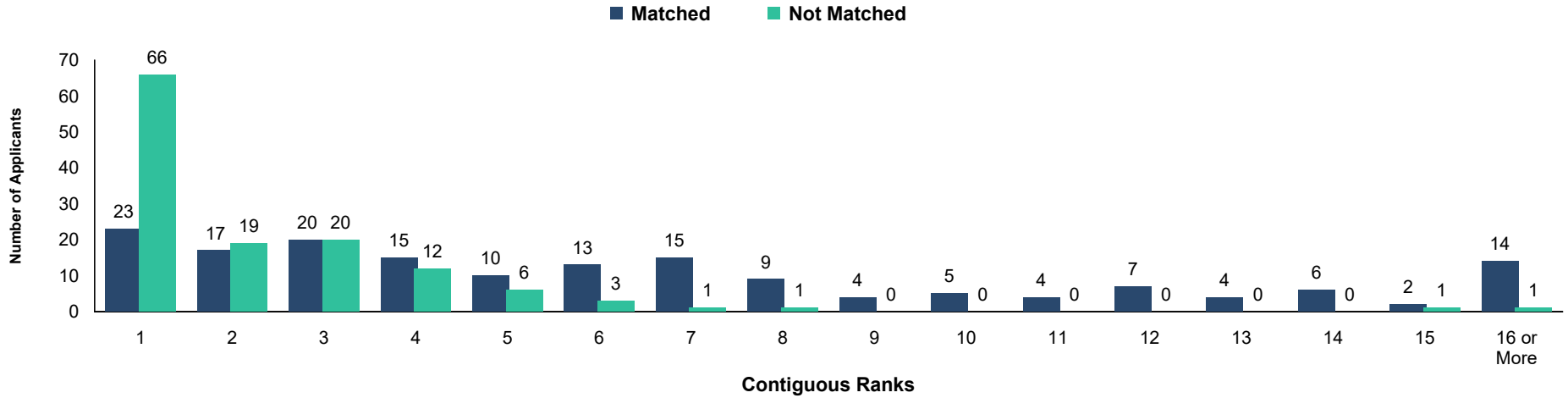
Chart N-2

Number of Contiguous Ranks of International Medical Graduates
Neurology

U.S. IMGs



Non-U.S. IMGs



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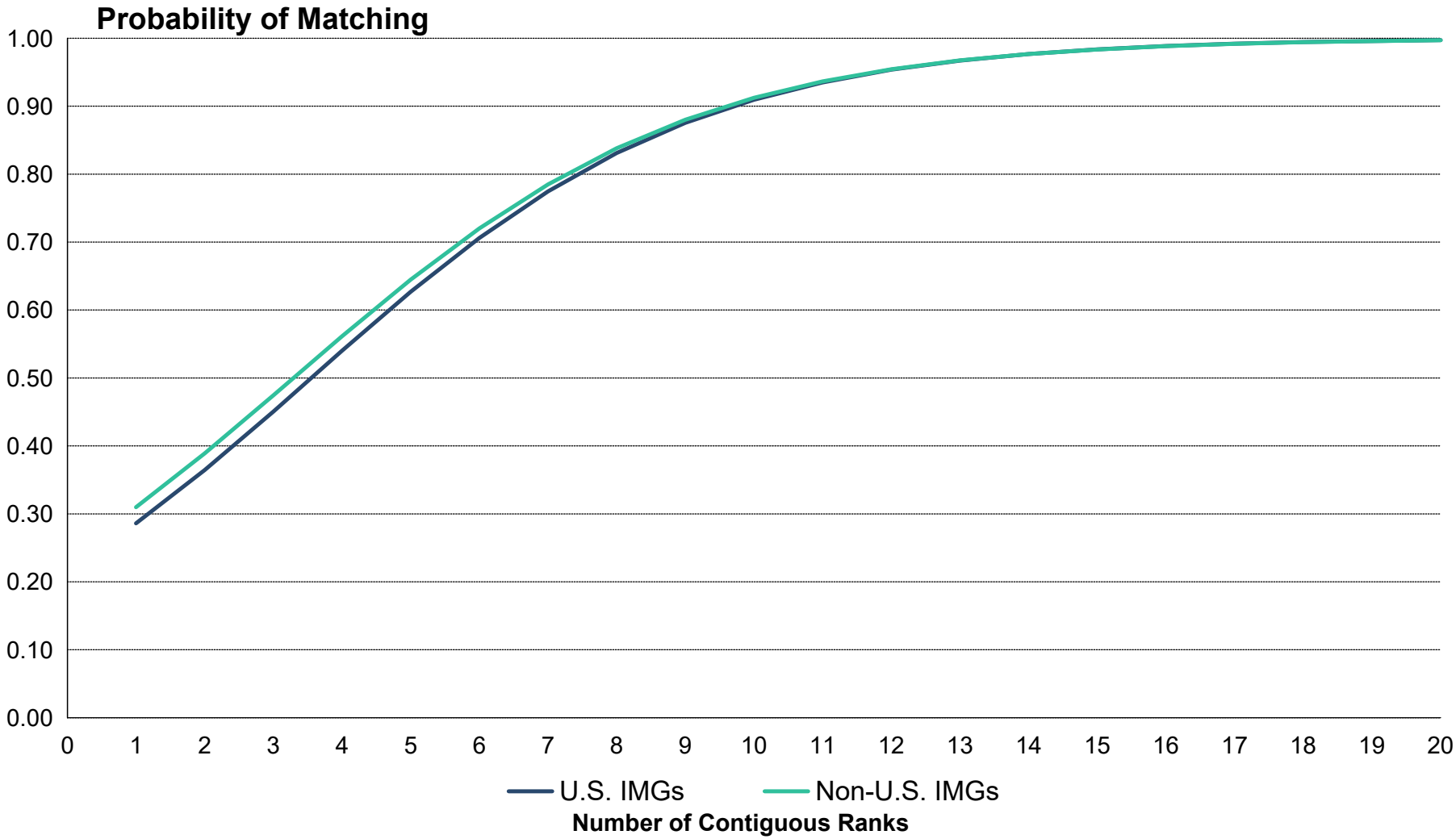
Graph N-1

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

Neurology



Source: NRMP Data Warehouse. Note: Probabilities calculated based on 2016-2018 applicants

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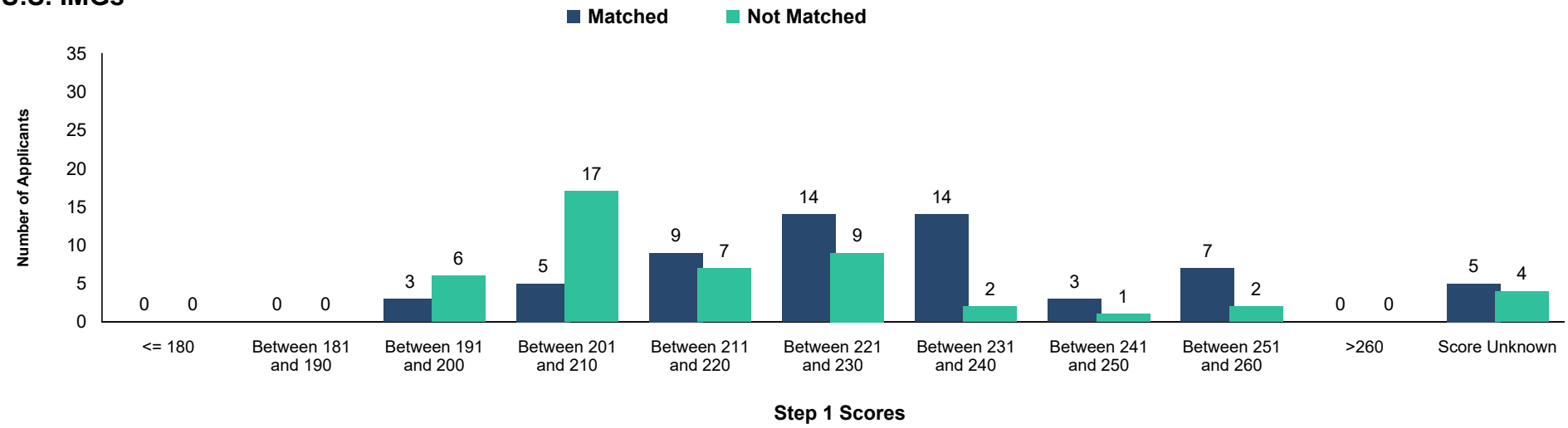
Chart N-3

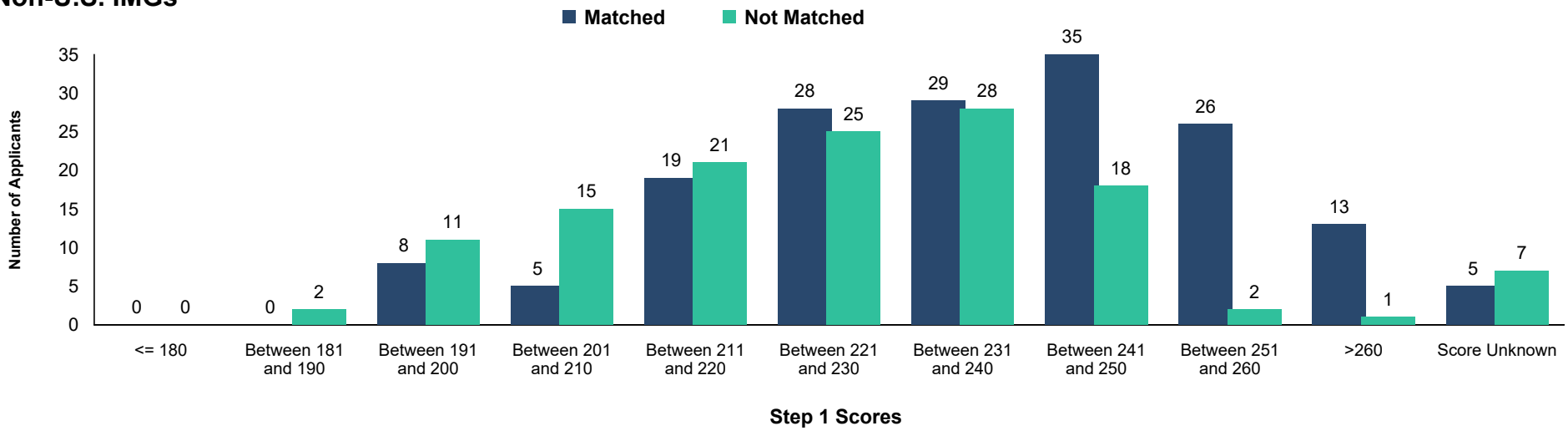
USMLE Step 1 Scores of International Medical Graduates

Neurology

U.S. IMGs



Non-U.S. IMGs



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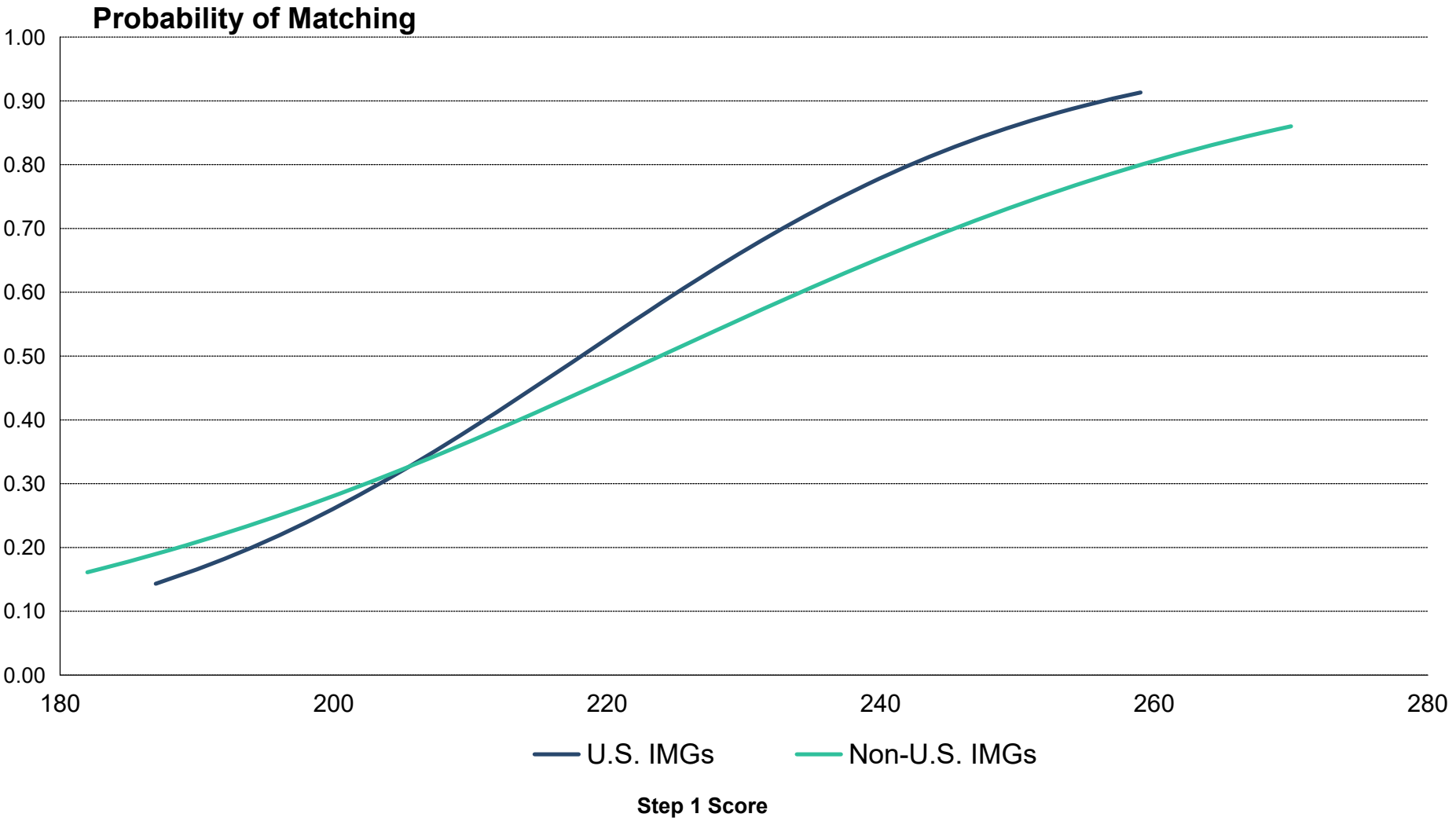
Graph N-2

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

Neurology



Source: NRMP Data Warehouse. Note: Probabilities calculated based on 2016-2018 applicants.

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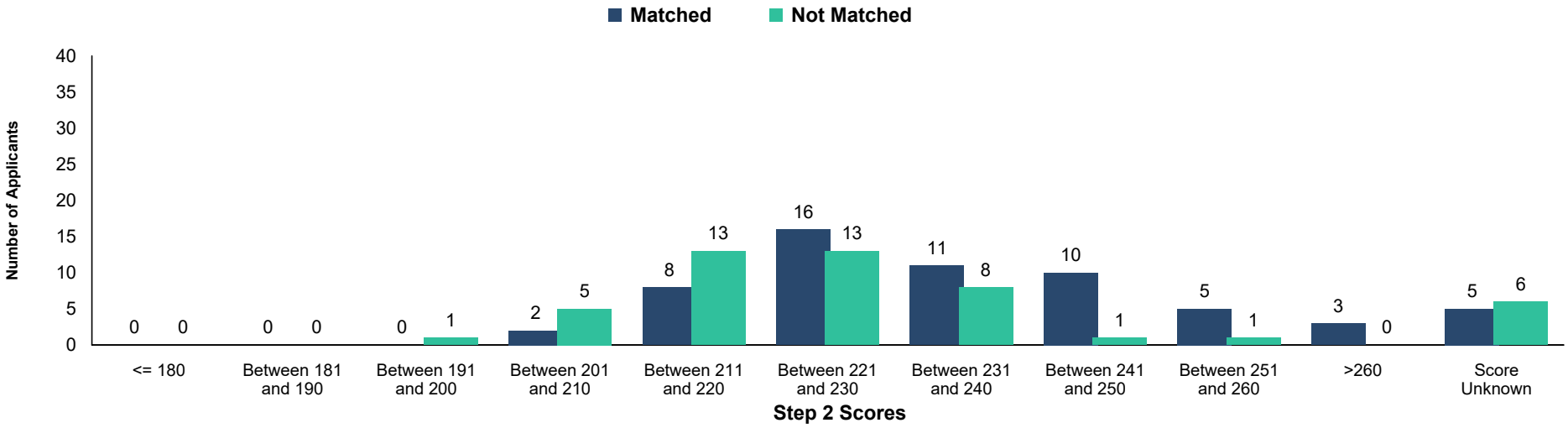
Chart N-4

USMLE Step 2 CK Scores of International Medical Graduates

Neurology

U.S. IMGs



Non-U.S. IMGs

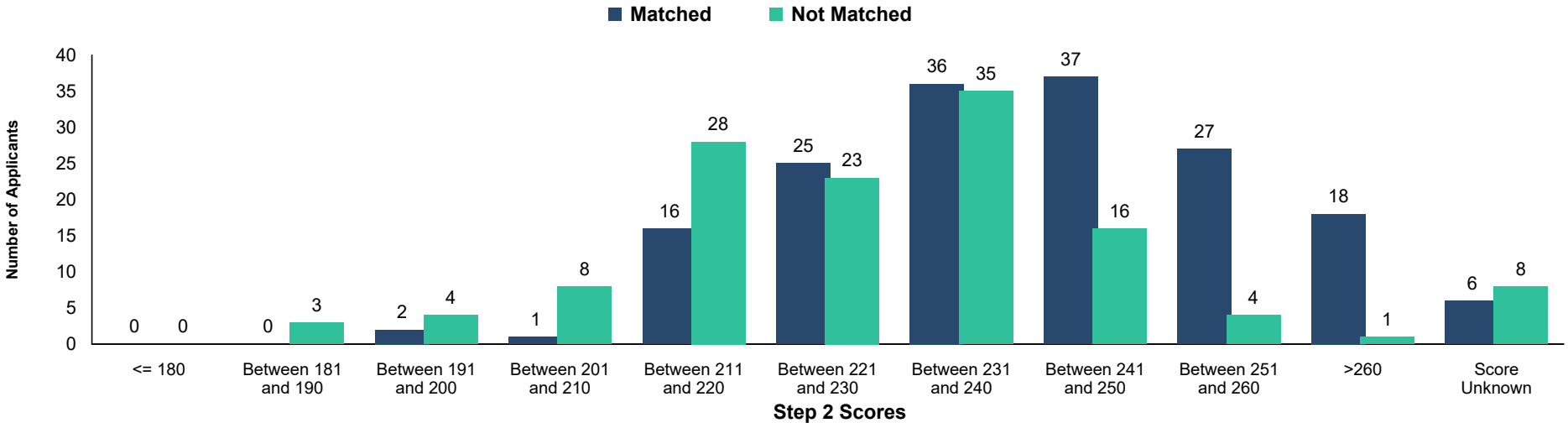


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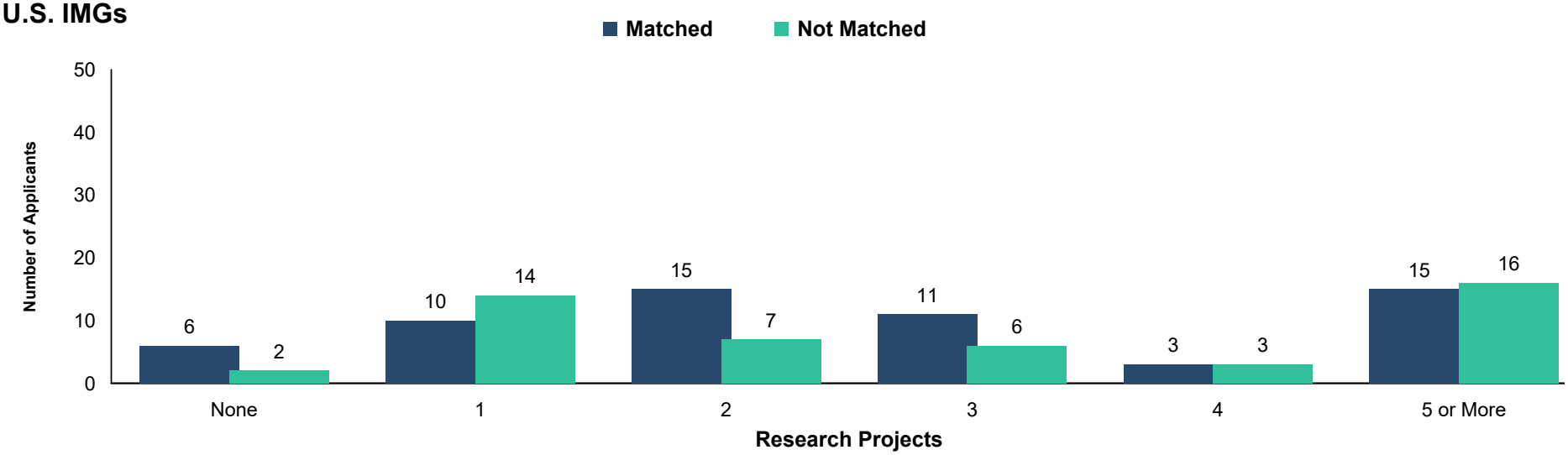
Chart N-5

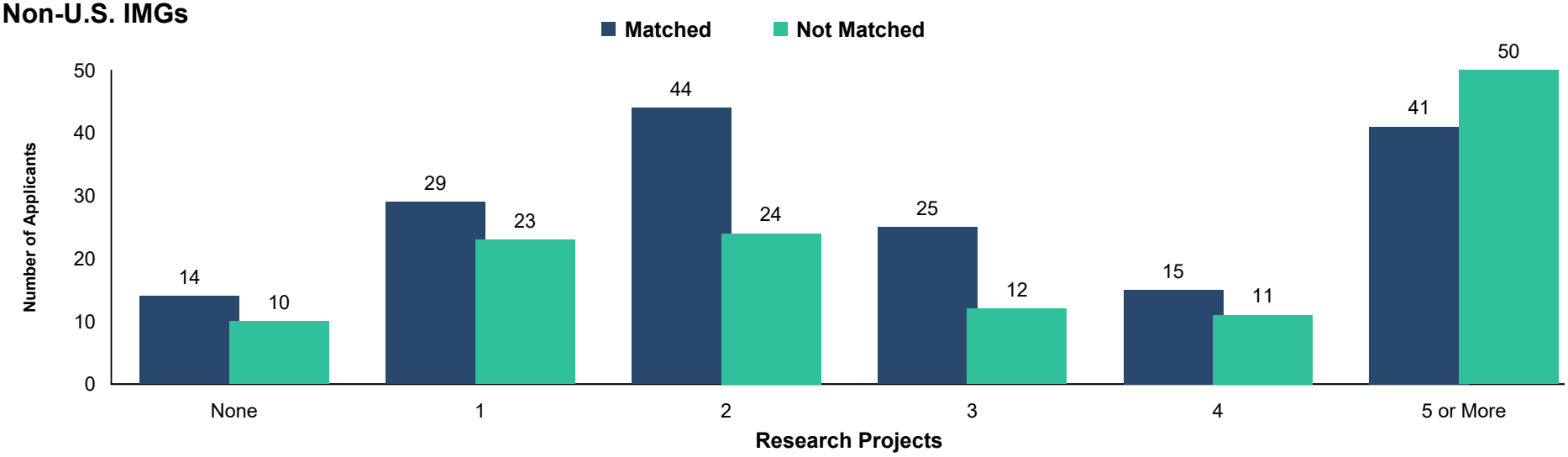
Number of Research Projects of International Medical Graduates

Neurology

U.S. IMGs



Non-U.S. IMGs



Source: NRMP Data Warehouse

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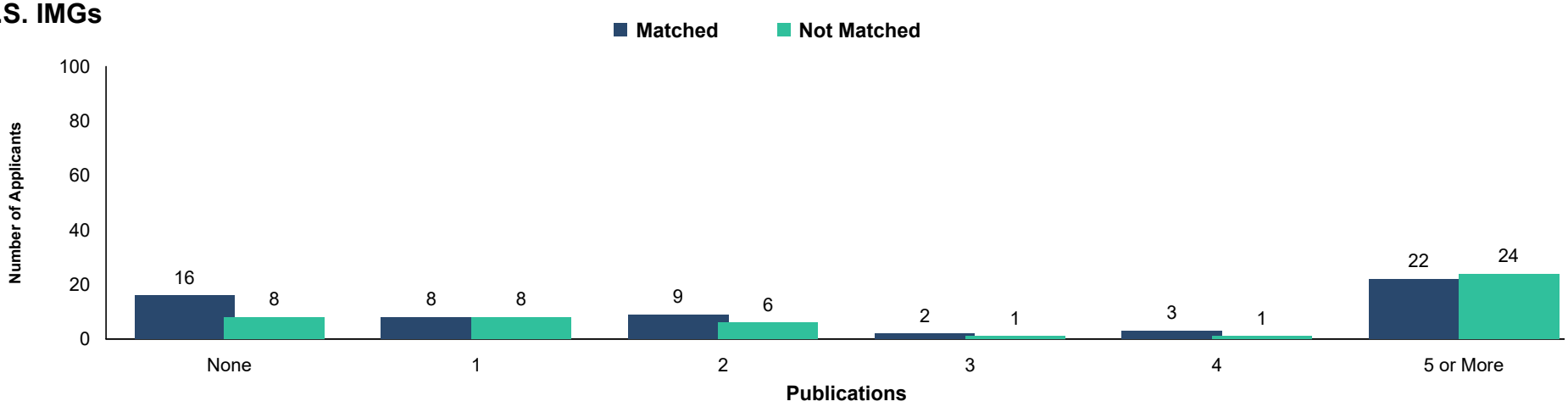
Chart N-6

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

Neurology

U.S. IMGs



Non-U.S. IMGs

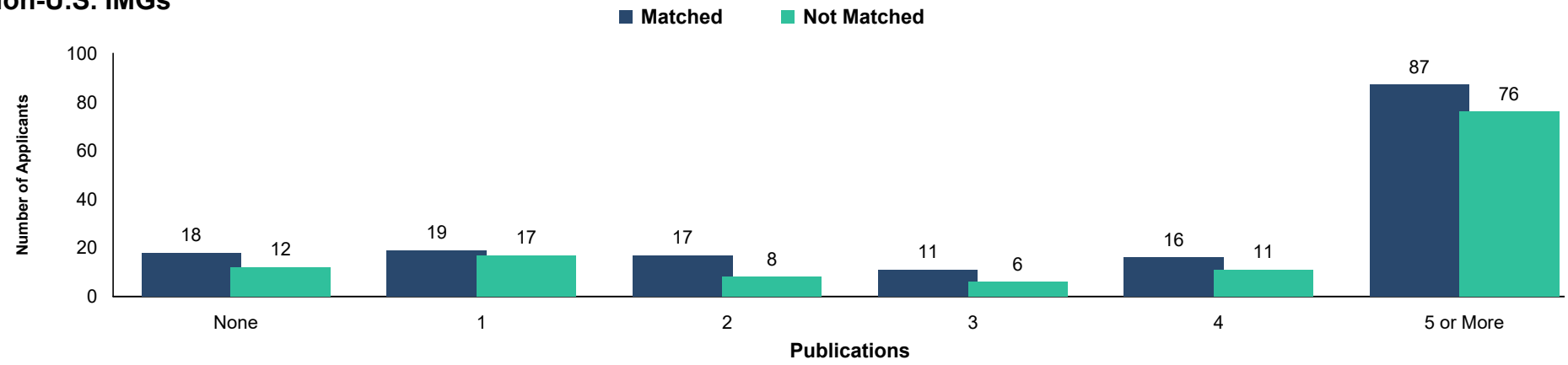


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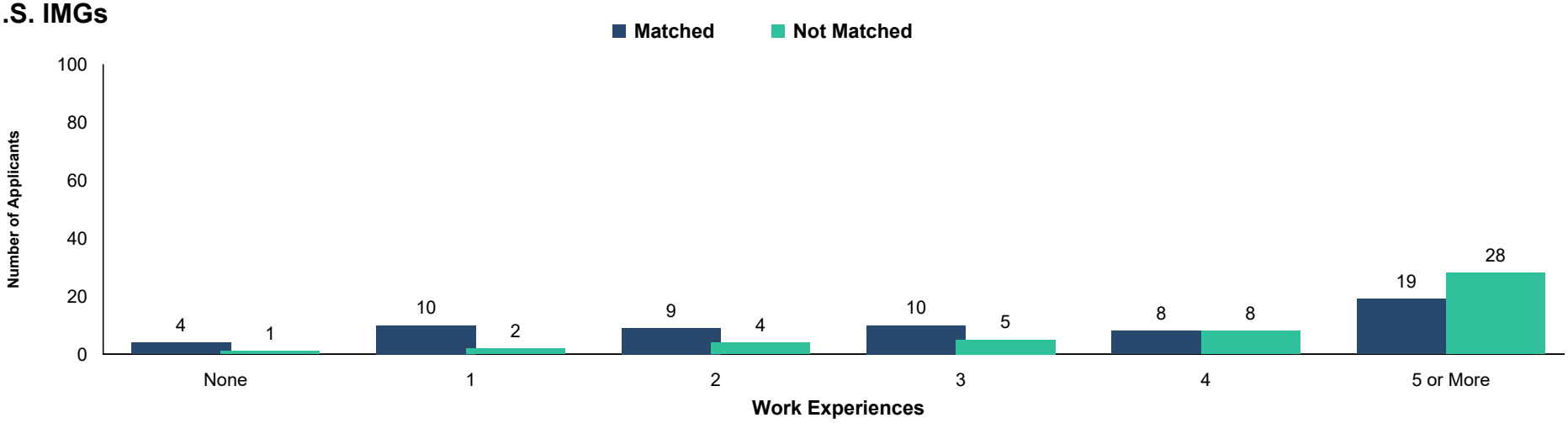
Chart N-7

Number of Work Experiences of International Medical Graduates

Neurology

U.S. IMGs



Non-U.S. IMGs

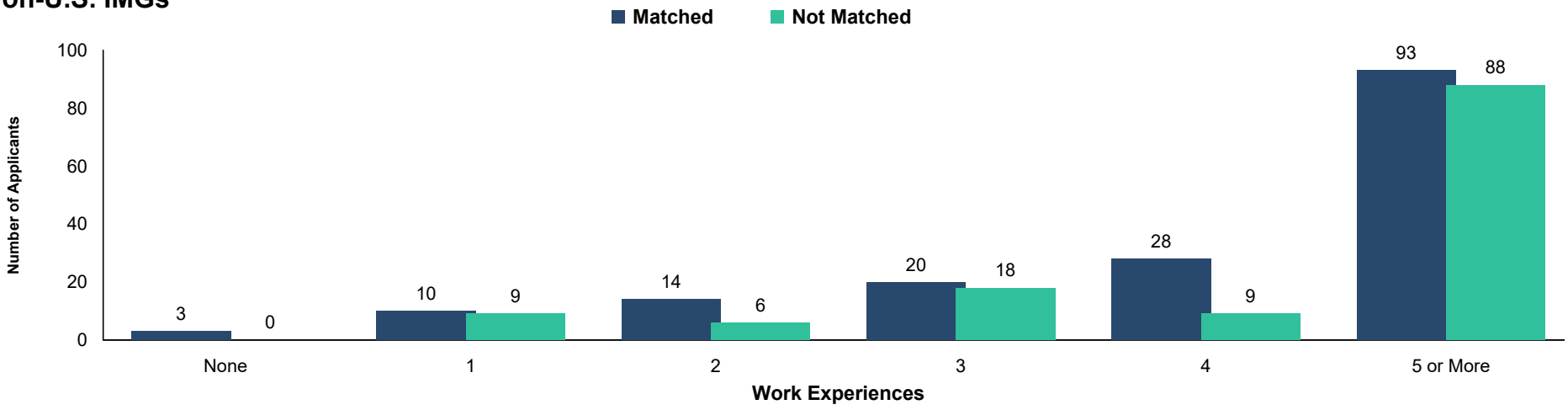


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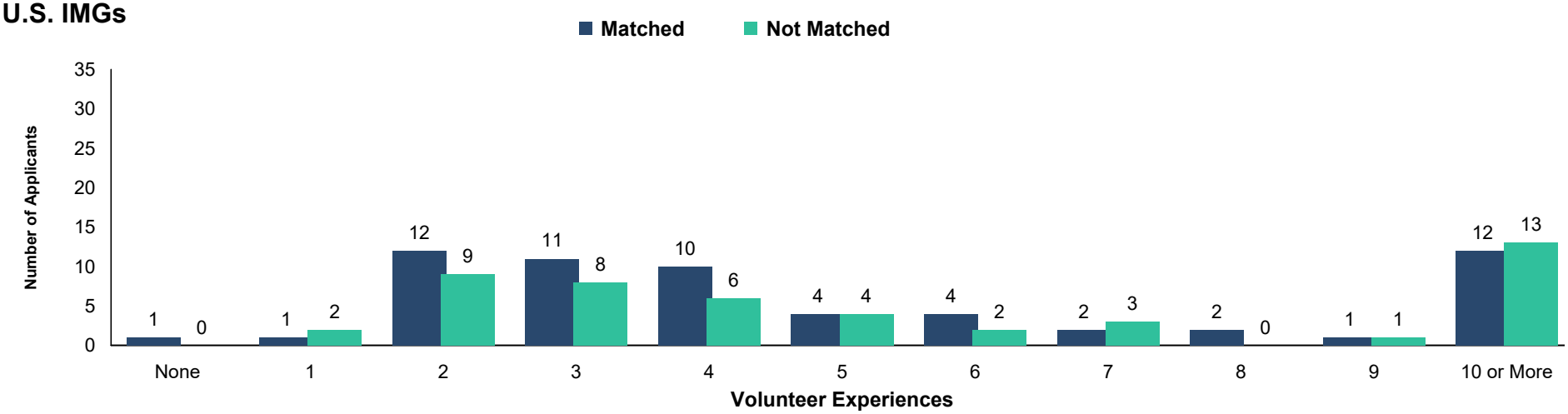
Chart N-8

Number of Volunteer Experiences of International Medical Graduates

Neurology

U.S. IMGs



Non-U.S. IMGs

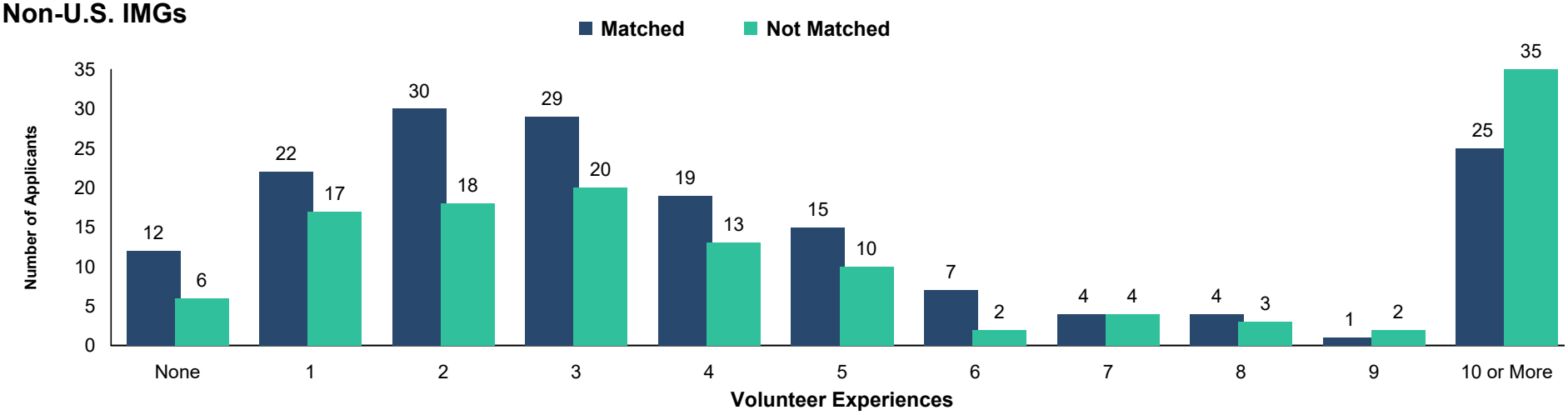


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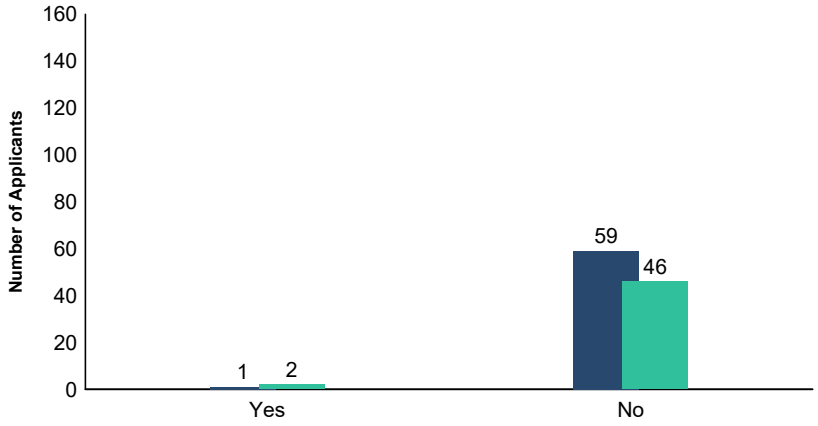
Chart N-9 Other Characteristics of International Medical Graduates

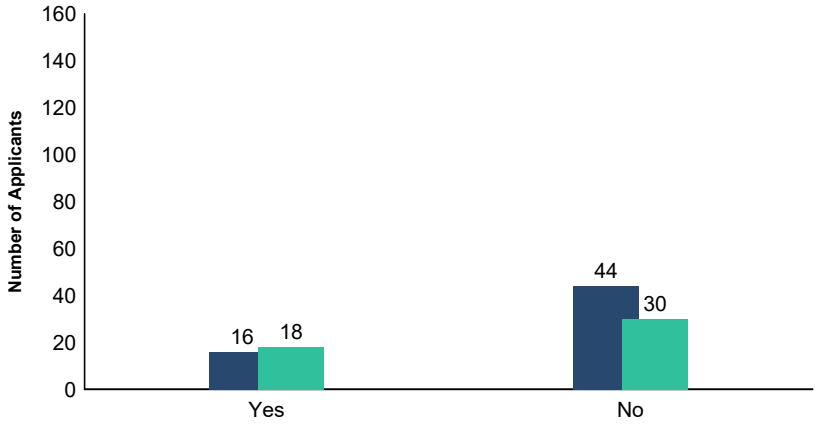
Neurology

U.S. IMGs

Ph.D. Degree

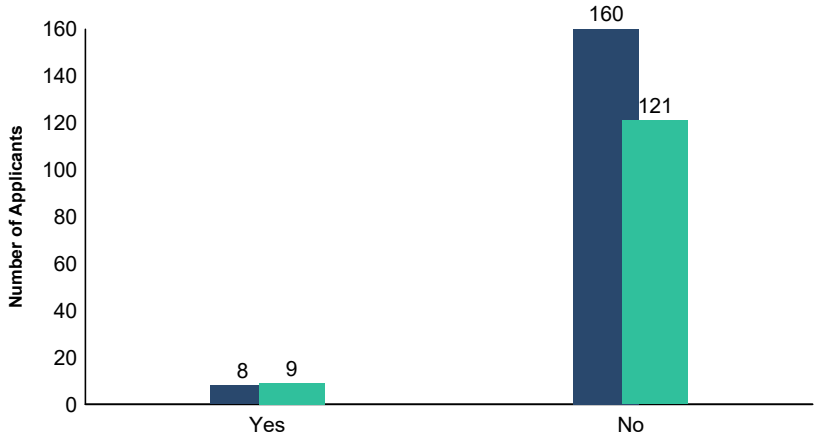


Other Graduate Degree

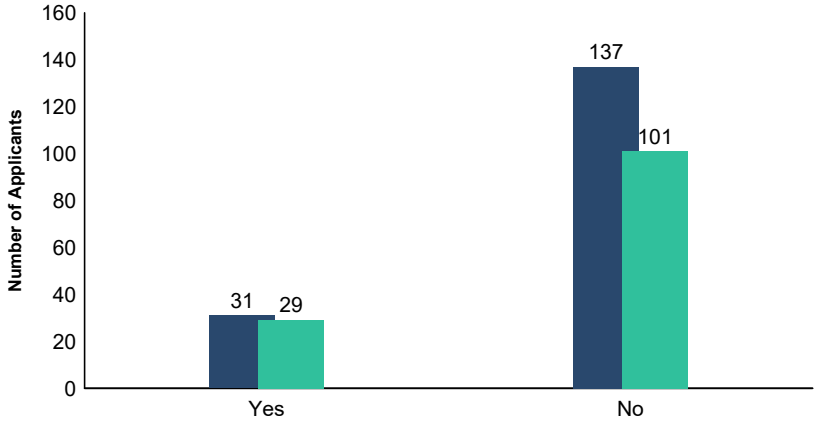


Non-U.S. IMGs

Ph.D. Degree



Other Graduate Degree



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OB Obstetrics and Gynecology

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Table OB-1 Summary Statistics
Obstetrics and Gynecology

Measure	U.S. IMGs		Non-U.S. IMGs	
	Matched (n=57)	Unmatched (n=65)	Matched (n=36)	Unmatched (n=73)
1. Mean number of contiguous ranks	7.3	2.6	3.8	2.5
2. Mean number of distinct specialties ranked	1.4	1.8	1.3	1.6
3. Mean USMLE Step 1 score	229	216	231	228
4. Mean USMLE Step 2 score	238	228	237	237
5. Mean number of research experiences	2.3	2.7	3.1	3.1
6. Mean number of abstracts, presentations, and publications	2.5	2.4	9.1	6.7
7. Mean number of work experiences	3.1	5.0	5.3	4.8
8. Mean number of volunteer experiences	4.7	4.3	3.6	4.2
9. Percentage who have a Ph.D. degree	0.0	0.0	8.6	3.0
10. Percentage who have another graduate degree	16.3	30.6	37.1	34.4

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

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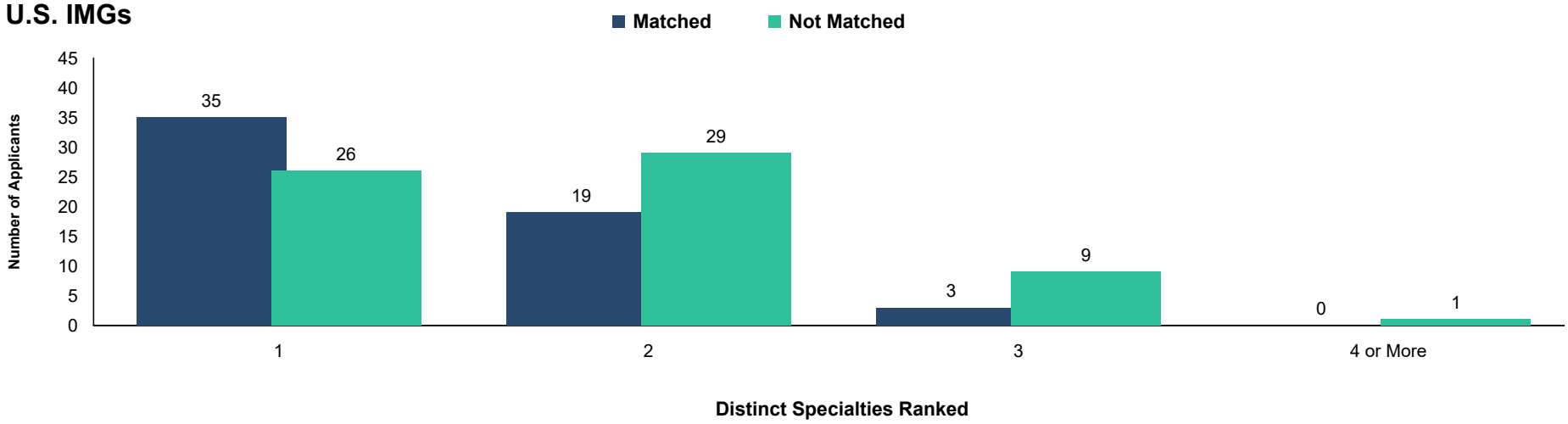
Chart OB-1
Number of Distinct Specialties Ranked by International Medical Graduates
Obstetrics and Gynecology

U.S. IMGs



Non-U.S. IMGs

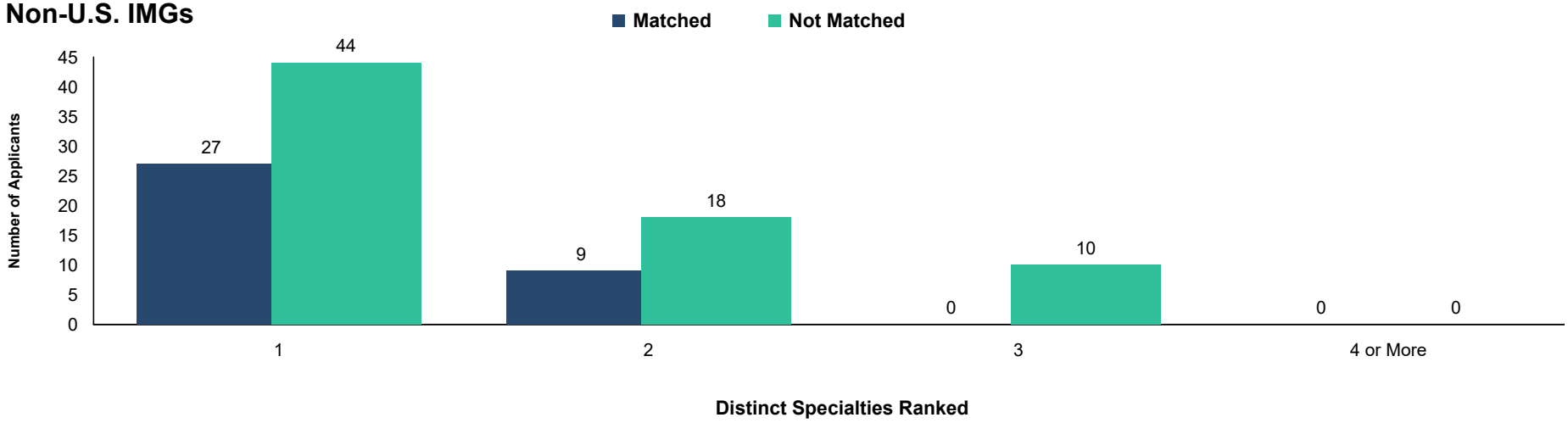


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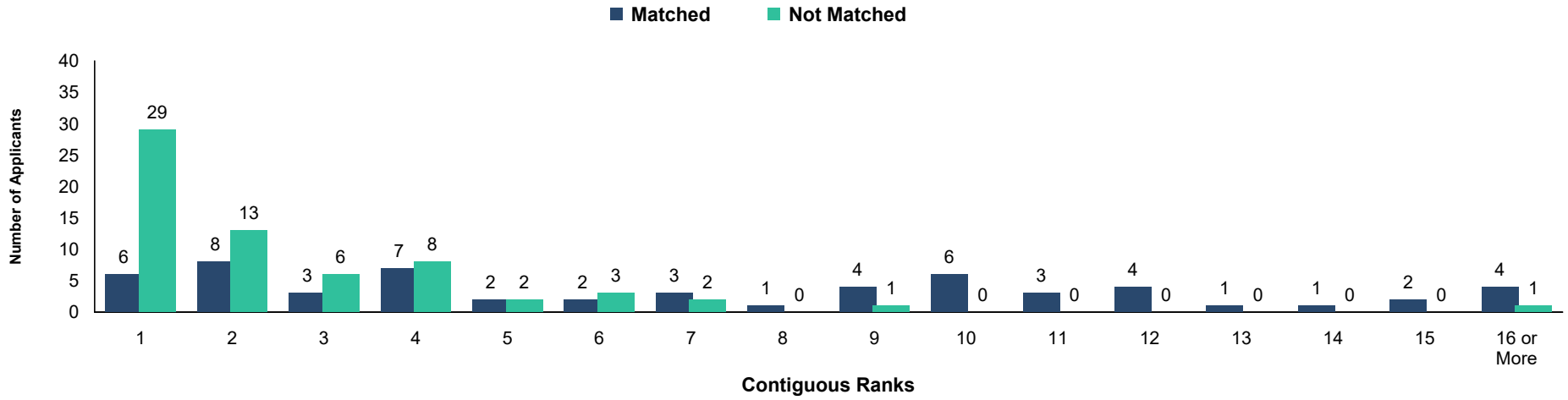
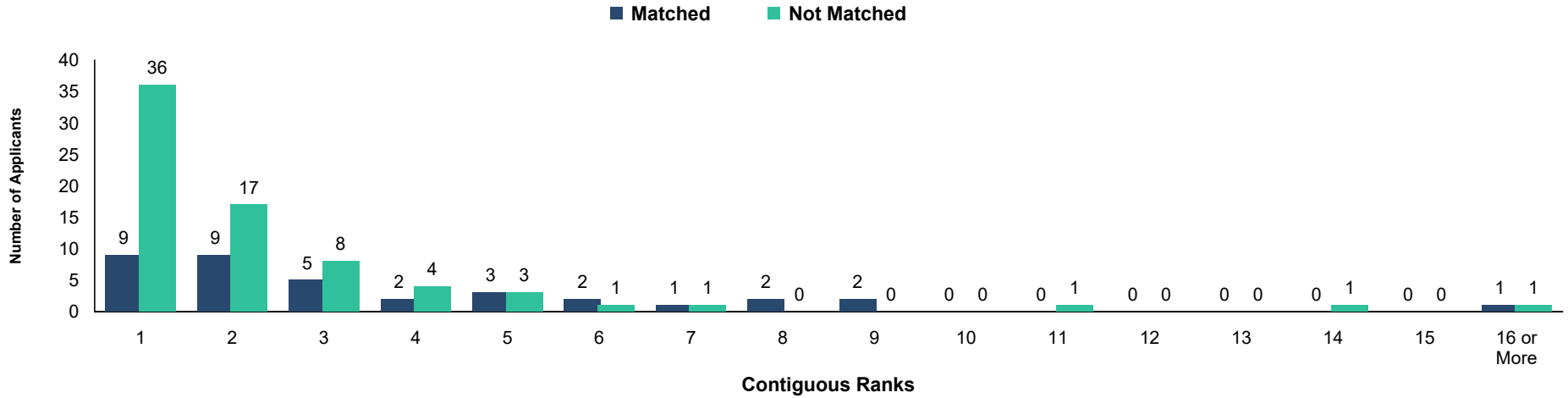
Chart OB-2 Number of Contiguous Ranks of International Medical Graduates Obstetrics and Gynecology

U.S. IMGs



Non-U.S. IMGs



Source: NRMP Data Warehouse

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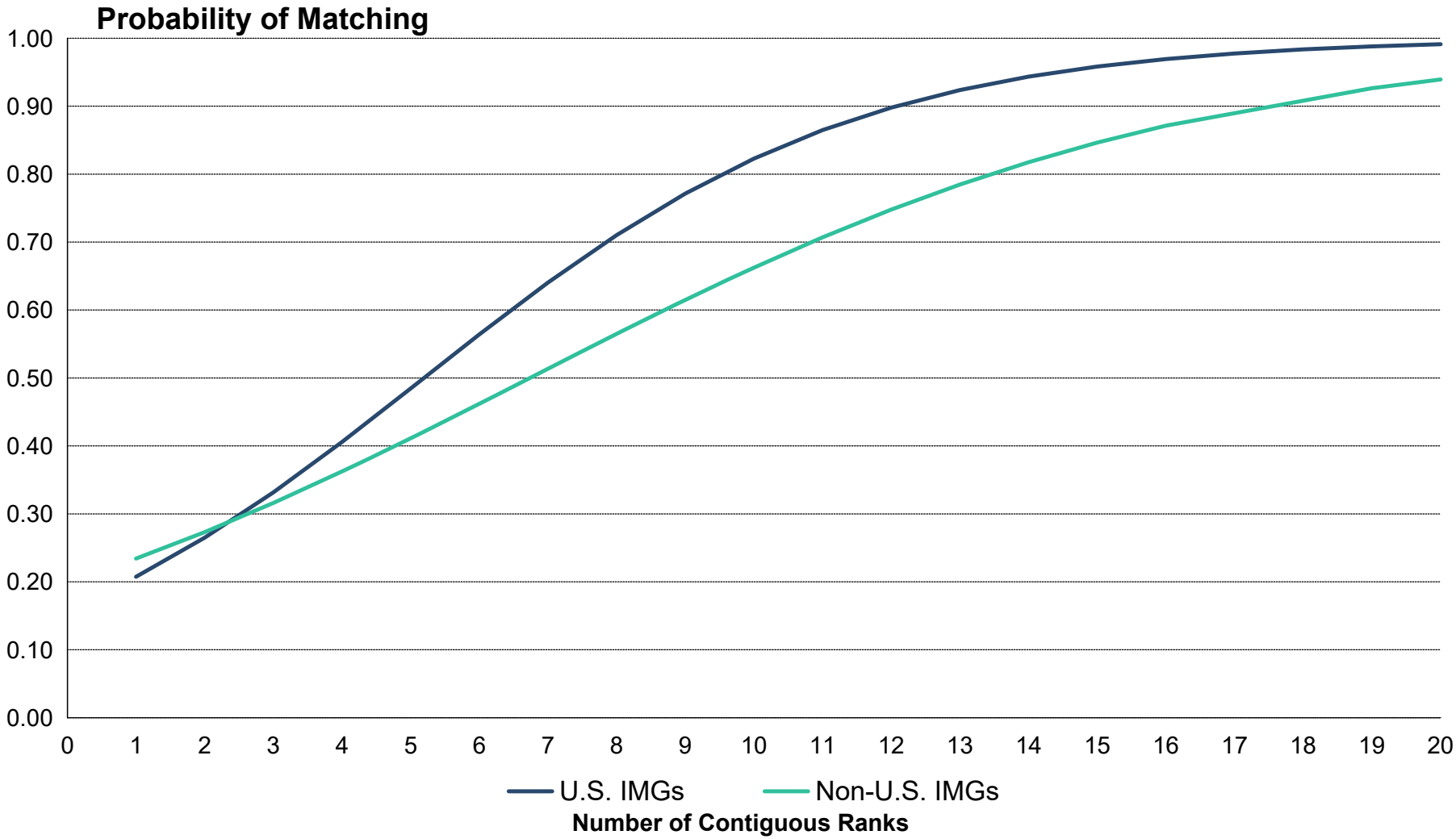
Graph OB-1

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 2016-2018 applicants

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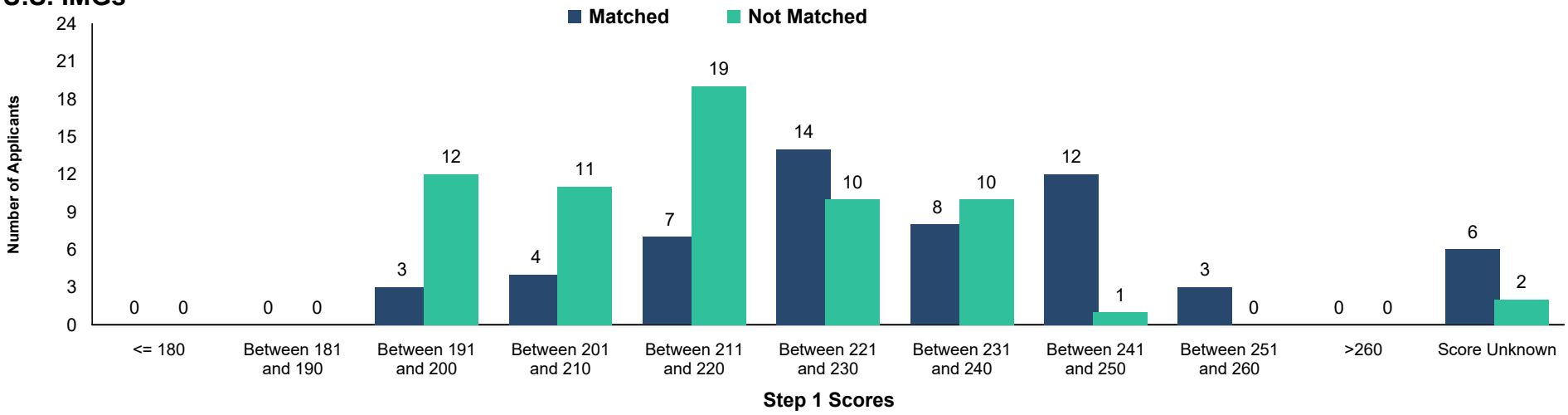
Chart OB-3

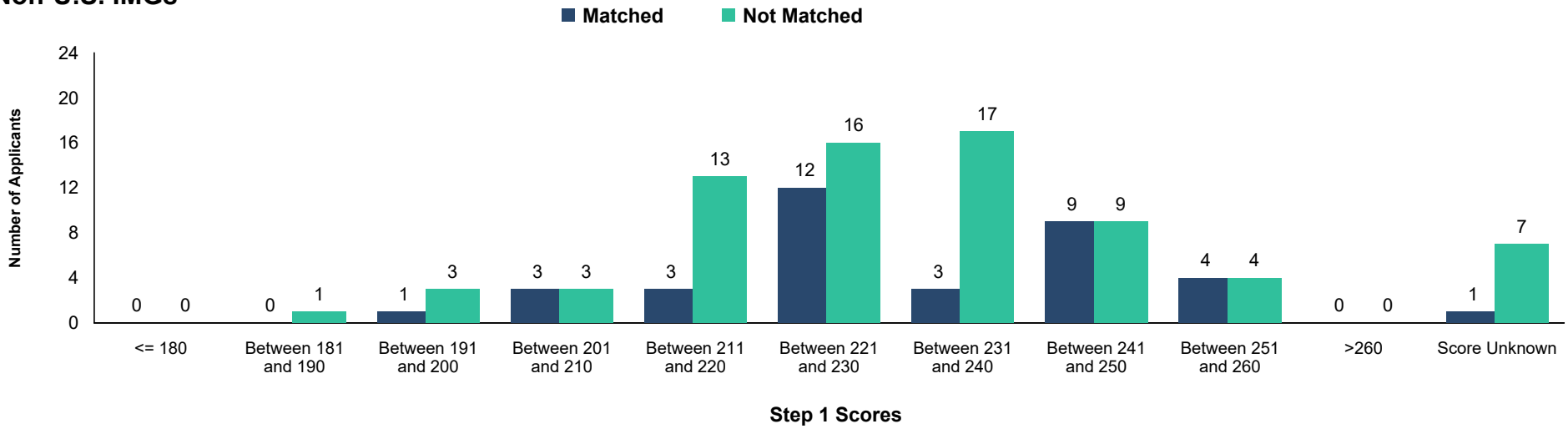
USMLE Step 1 Scores of International Medical Graduates

Obstetrics and Gynecology

U.S. IMGs



Non-U.S. IMGs



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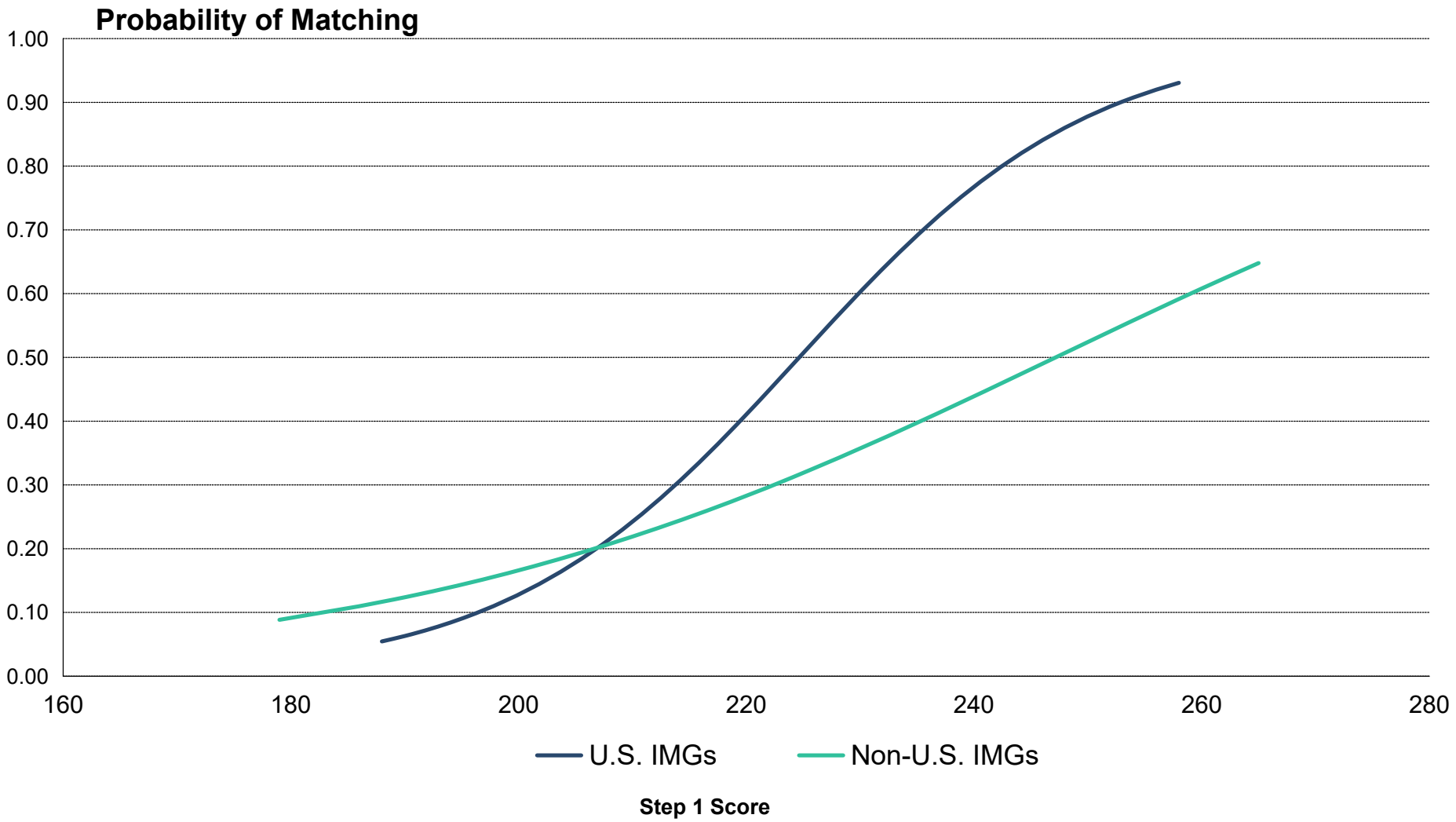
Graph OB-2

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 2016-2018 applicants.

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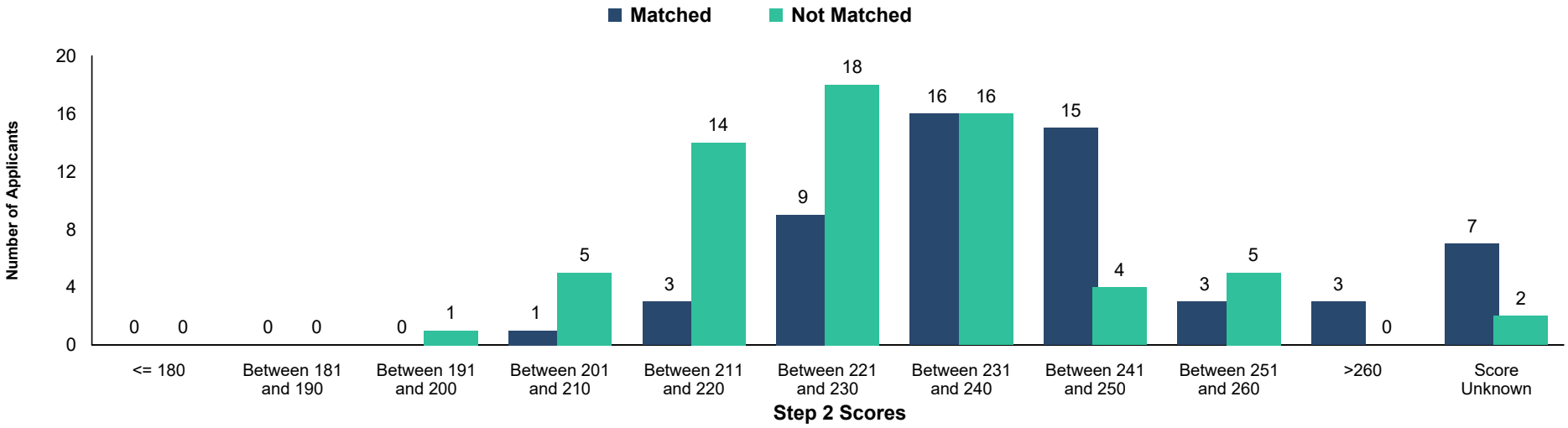
Chart OB-4

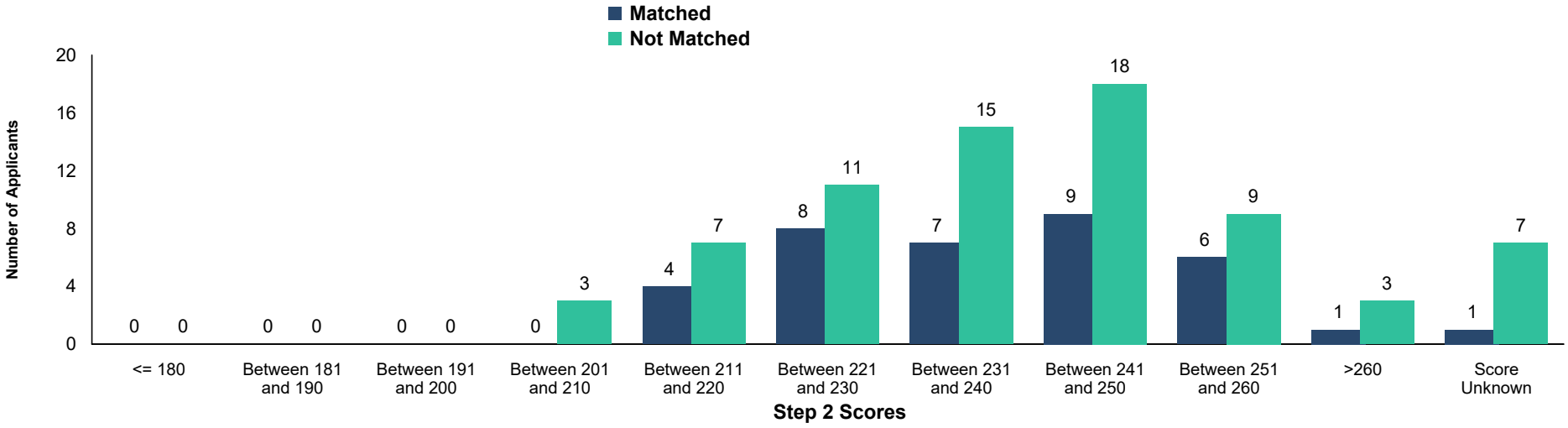
USMLE Step 2 CK Scores of International Medical Graduates

Obstetrics and Gynecology

U.S. IMGs



Non-U.S. IMGs



Source: NRMP Data Warehouse

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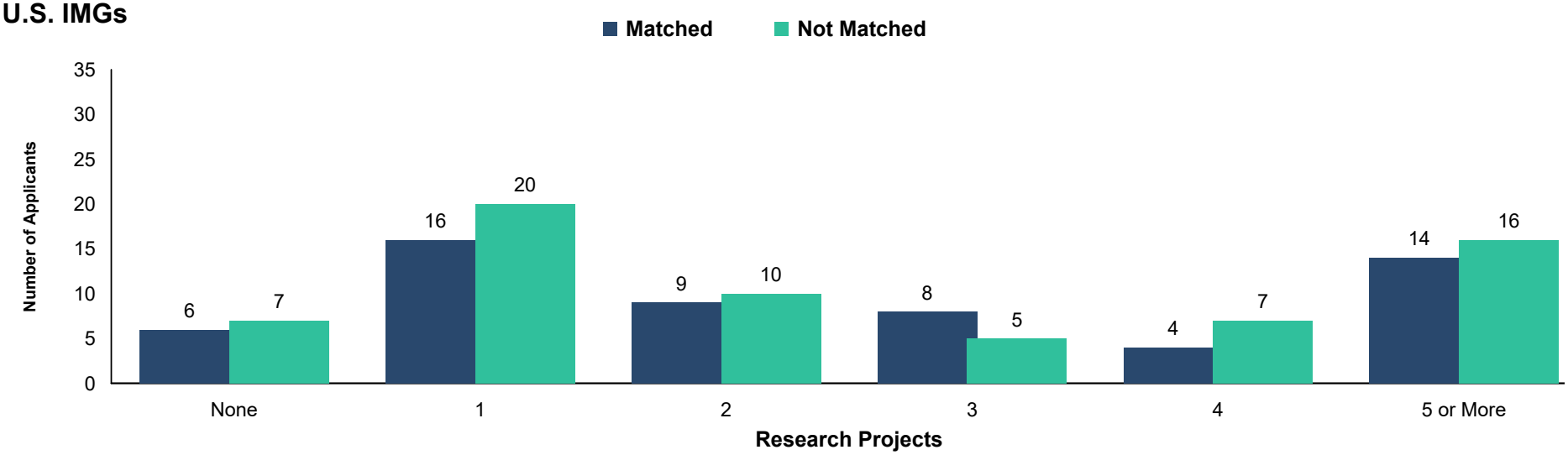
Chart OB-5

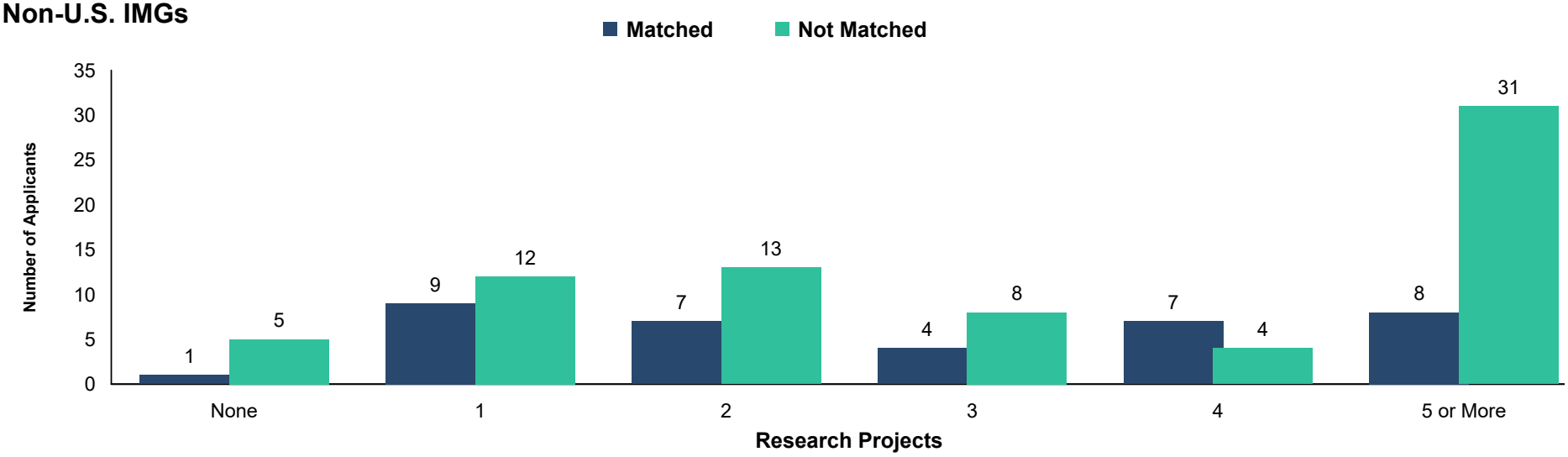
Number of Research Projects of International Medical Graduates

Obstetrics and Gynecology

U.S. IMGs



Non-U.S. IMGs



Source: NRMP Data Warehouse

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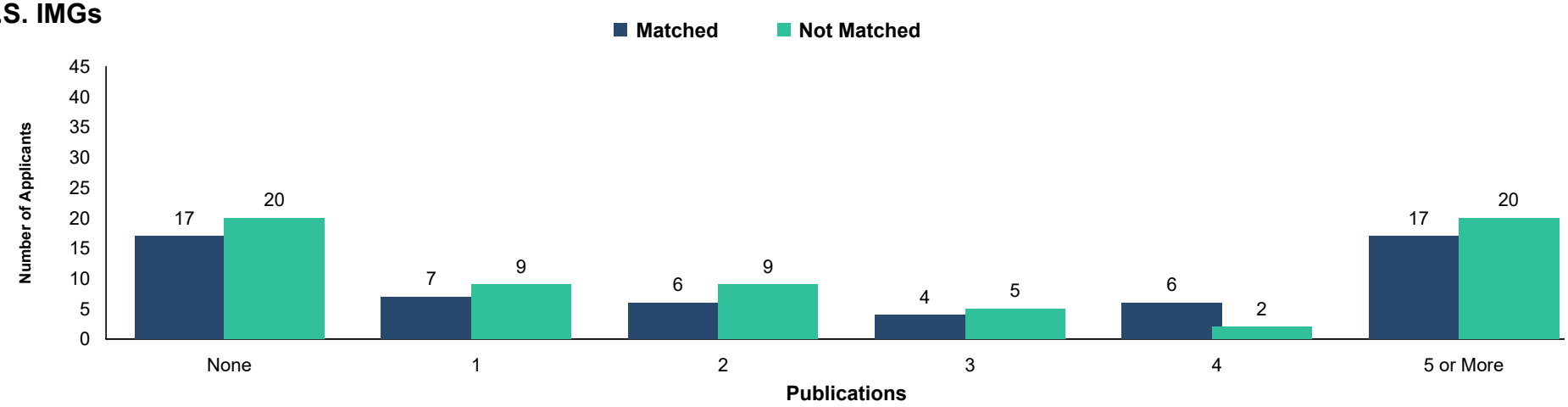
Chart OB-6

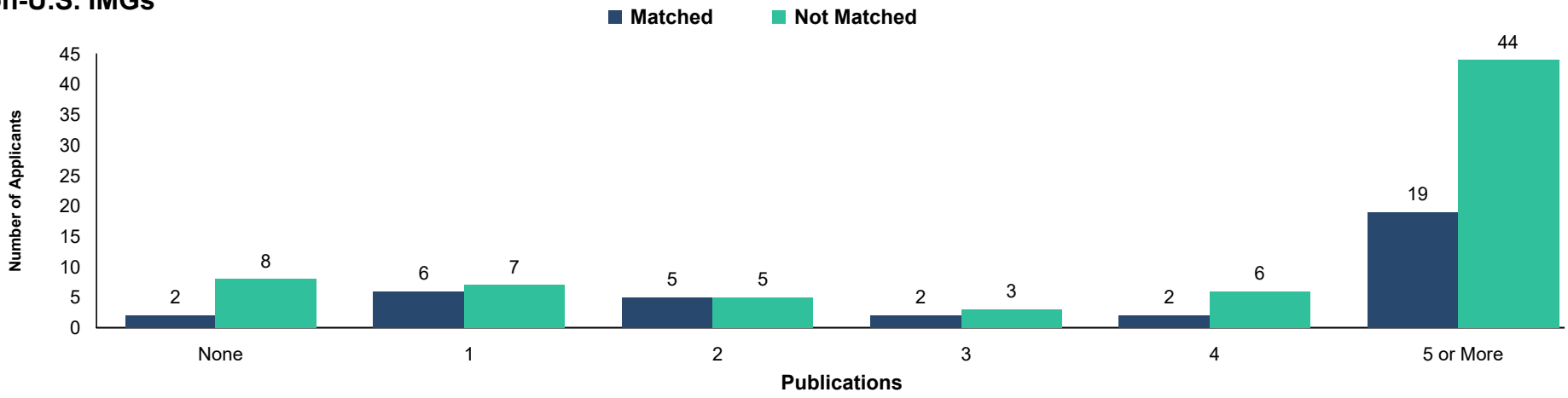
Number of Abstracts, Presentations, and Publications of International Medical Graduates

Obstetrics and Gynecology

U.S. IMGs



Non-U.S. IMGs



Source: NRMP Data Warehouse

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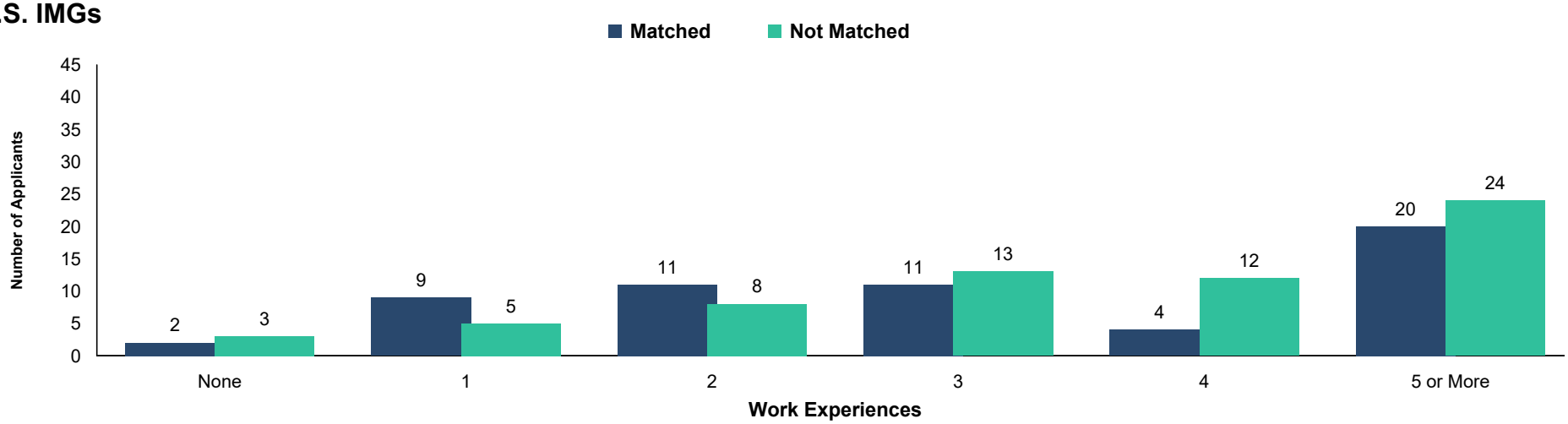
Chart OB-7

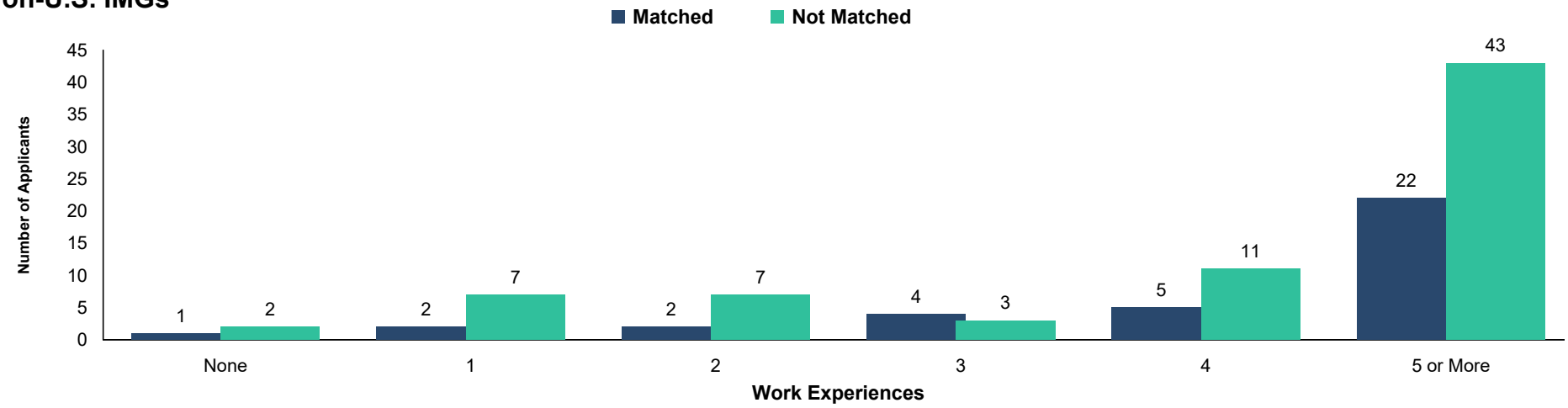
Number of Work Experiences of International Medical Graduates

Obstetrics and Gynecology

U.S. IMGs



Non-U.S. IMGs



Source: NRMP Data Warehouse

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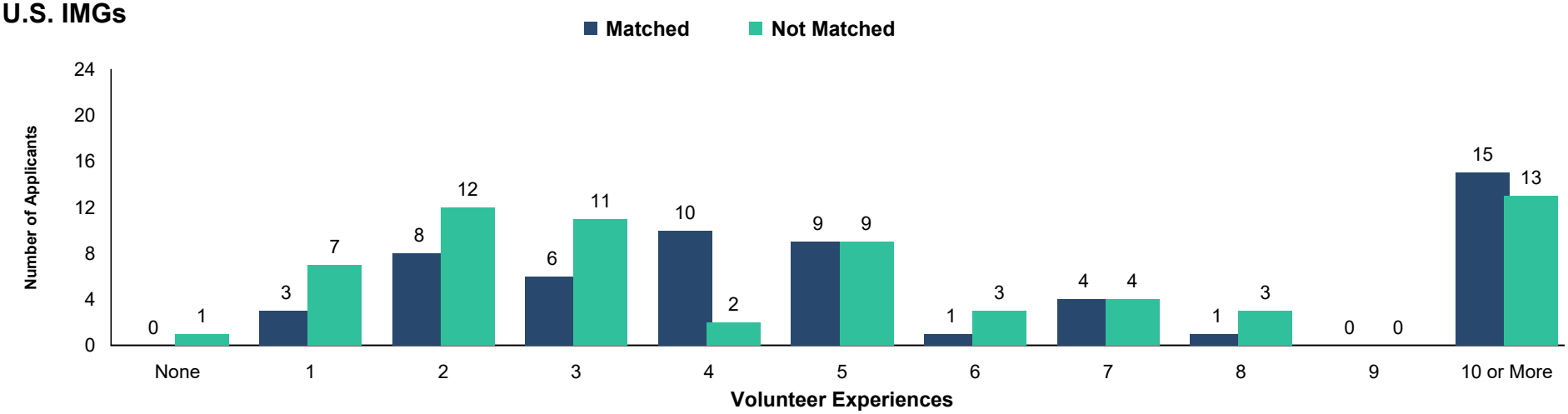
Chart OB-8

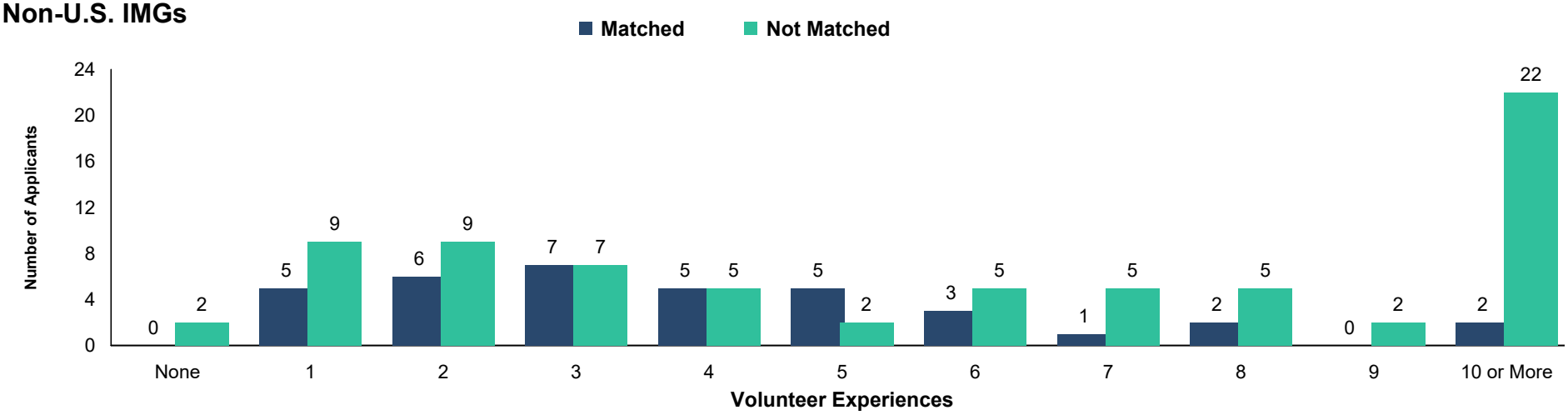
Number of Volunteer Experiences of International Medical Graduates

Obstetrics and Gynecology

U.S. IMGs



Non-U.S. IMGs



Source: NRMP Data Warehouse

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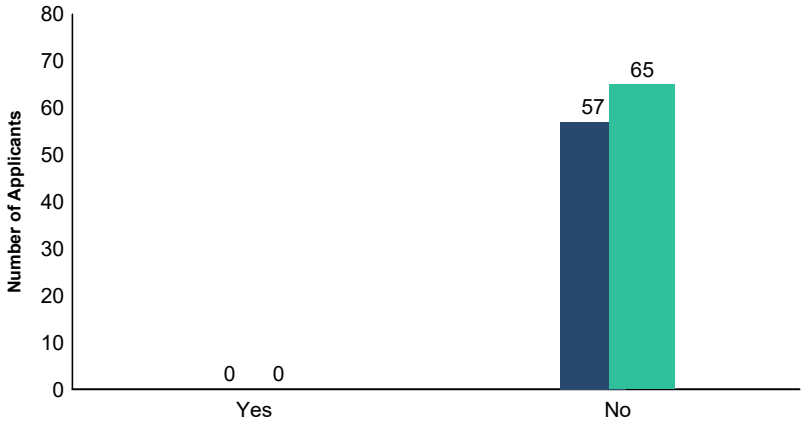
Chart OB-9 Other Characteristics of International Medical Graduates

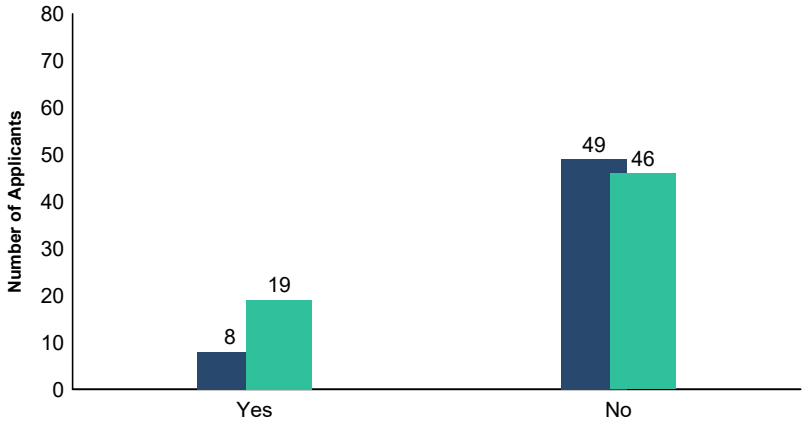
Obstetrics and Gynecology

U.S. IMGs

Ph.D. Degree

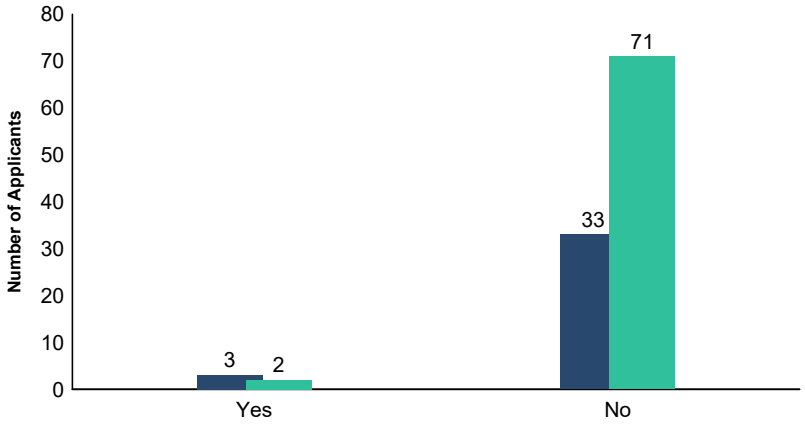


Other Graduate Degree

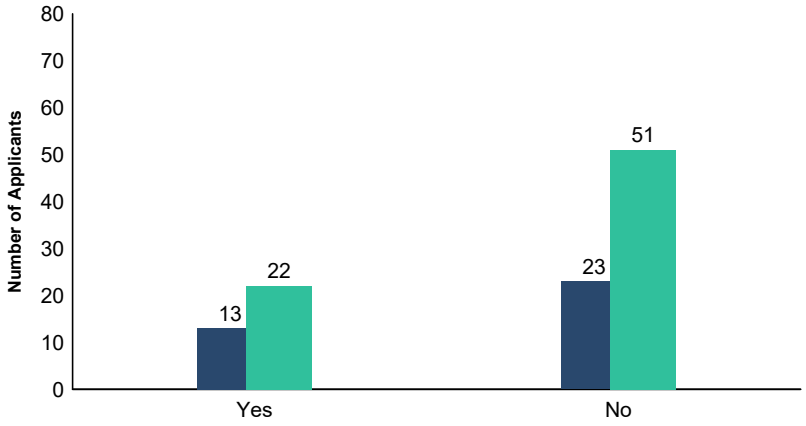


Non-U.S. IMGs

Ph.D. Degree



Other Graduate Degree



Source: NRMP Data Warehouse

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ORS Orthopaedic Surgery

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Table ORS-1 Summary Statistics
Orthopaedic Surgery

Measure	U.S. IMGs		Non-U.S. IMGs	
	Matched (n=9)	Unmatched (n=13)		
1. Mean number of contiguous ranks	3.0	2.0	3.5	4.9
2. Mean number of distinct specialties ranked	1.7	1.6	1.5	1.5
3. Mean USMLE Step 1 score	239	241	239	238
4. Mean USMLE Step 2 score	245	241	237	243
5. Mean number of research experiences	5.3	4.1	1.0	2.2
6. Mean number of abstracts, presentations, and publications	37.1	19.8	14.0	29.0
7. Mean number of work experiences	2.4	3.7	7.0	5.6
8. Mean number of volunteer experiences	3.7	4.6	1.0	3.7
9. Percentage who have a Ph.D. degree	0.0	0.0	0.0	17.6
10. Percentage who have another graduate degree	14.3	16.7	0.0	52.9

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

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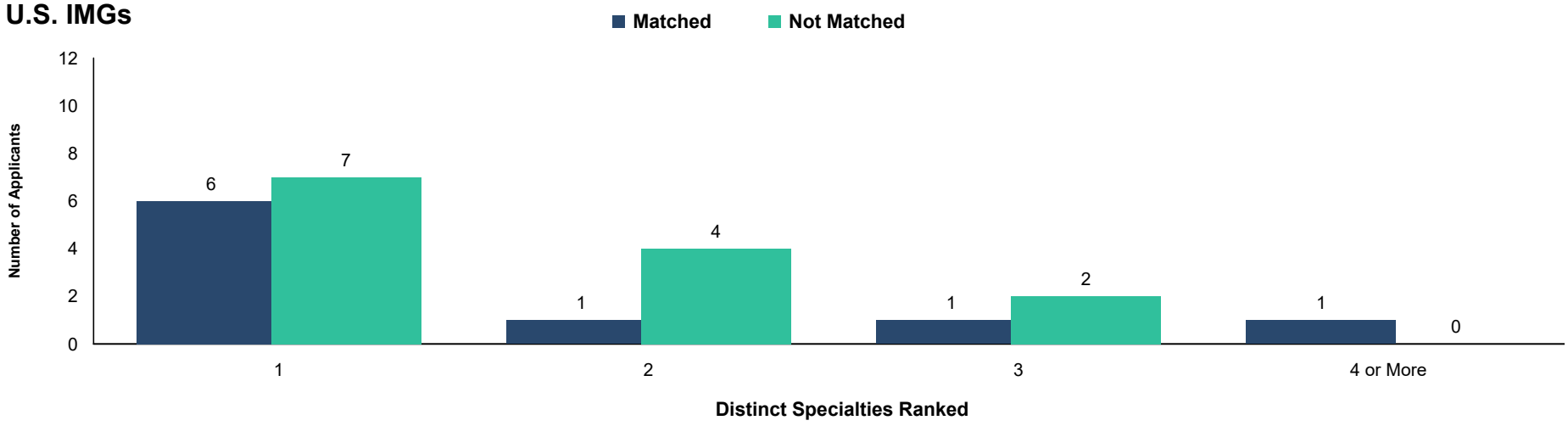
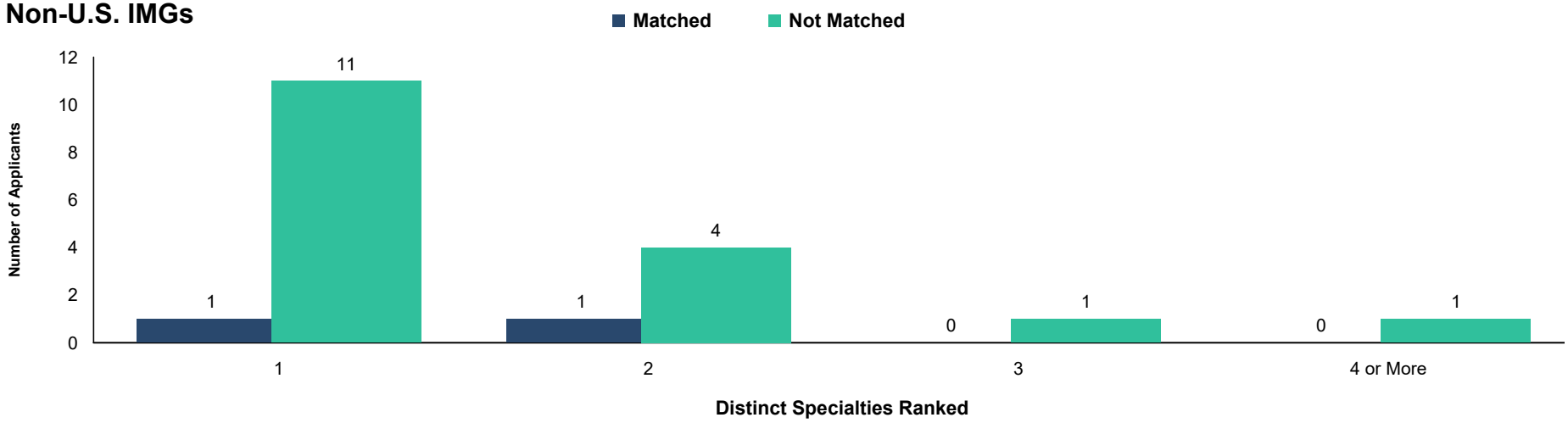
Chart ORS-1 Number of Distinct Specialties Ranked by International Medical Graduates Orthopaedic Surgery

U.S. IMGs



Non-U.S. IMGs



Source: NRMP Data Warehouse

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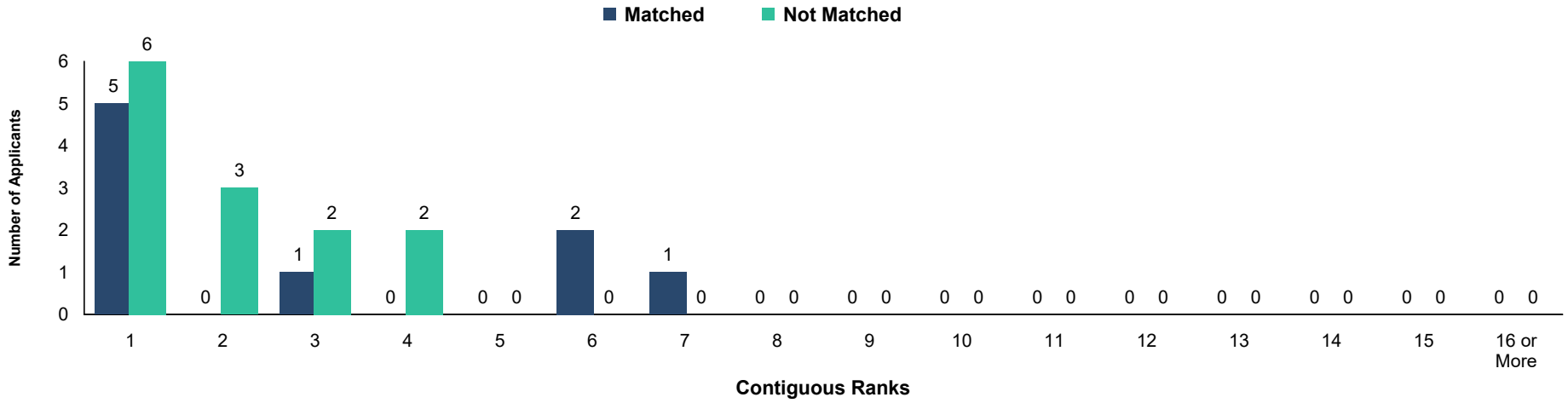
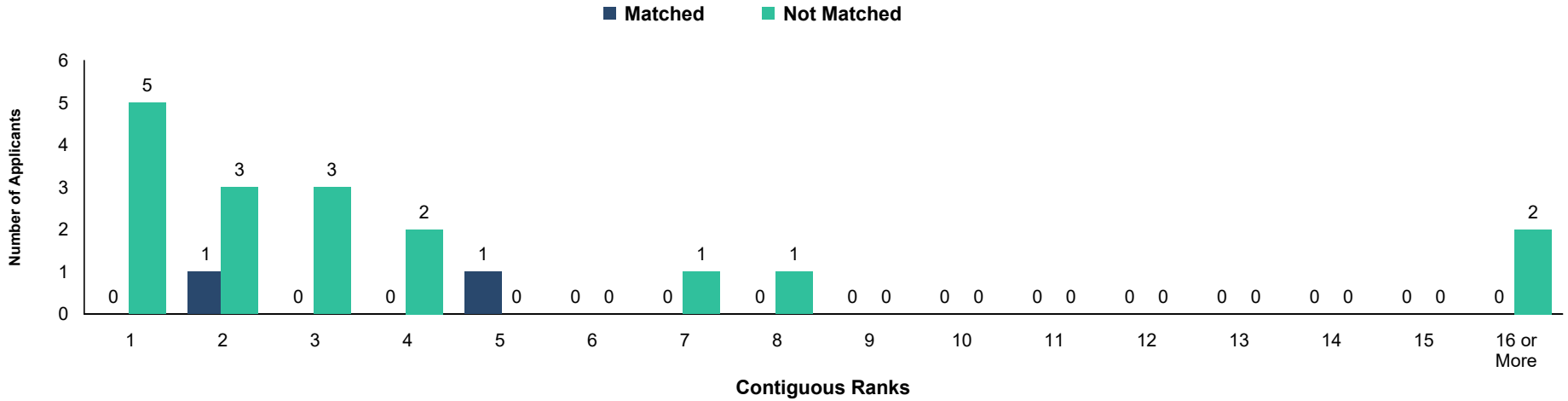
Chart ORS-2 Number of Contiguous Ranks of International Medical Graduates Orthopaedic Surgery

U.S. IMGs



Non-U.S. IMGs



Source: NRMP Data Warehouse

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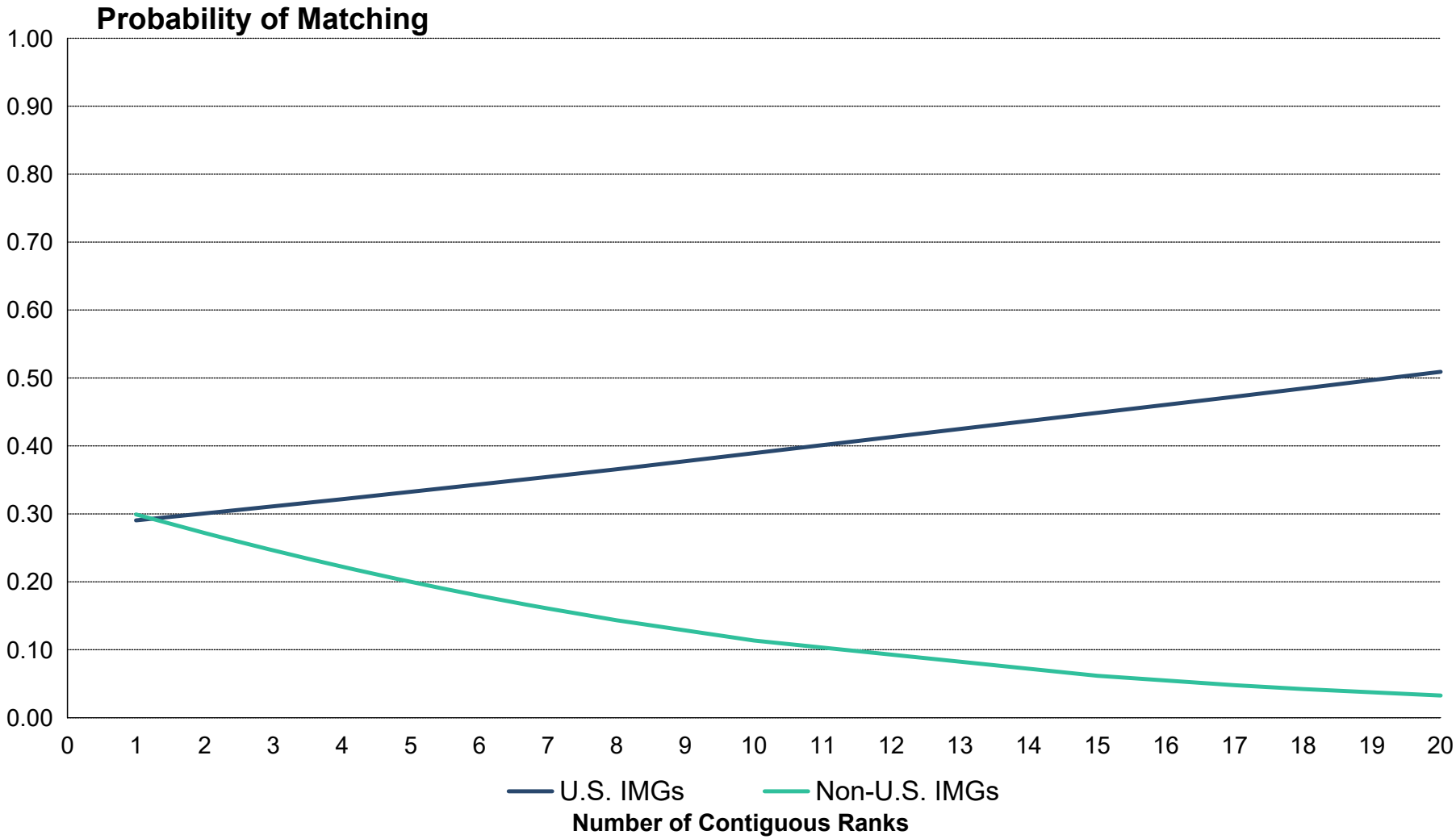
Graph ORS-1

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 2016-2018 applicants

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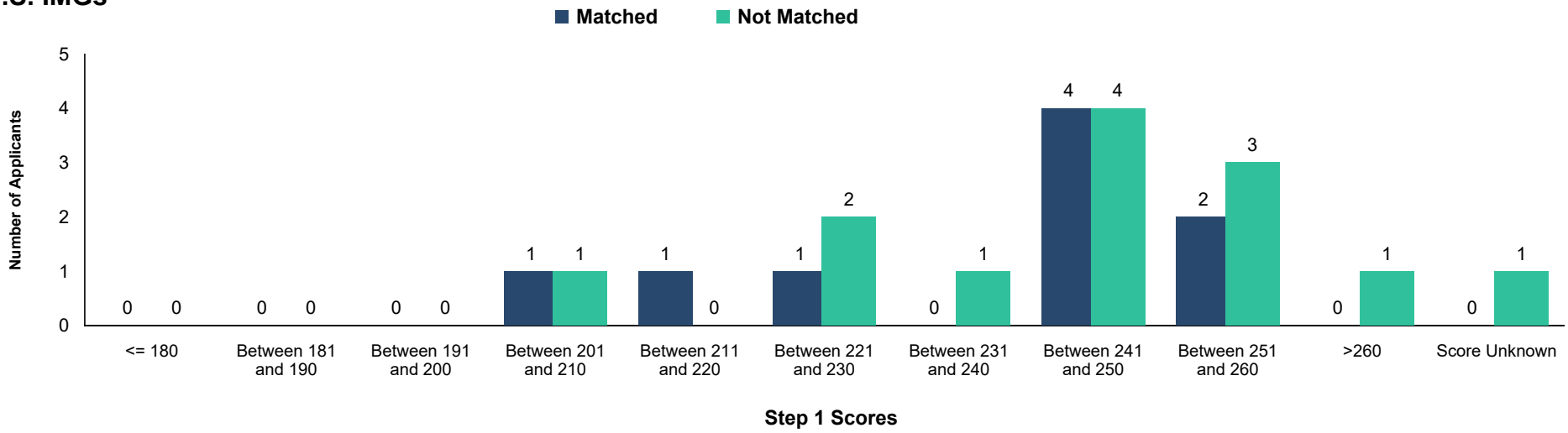
Chart ORS-3

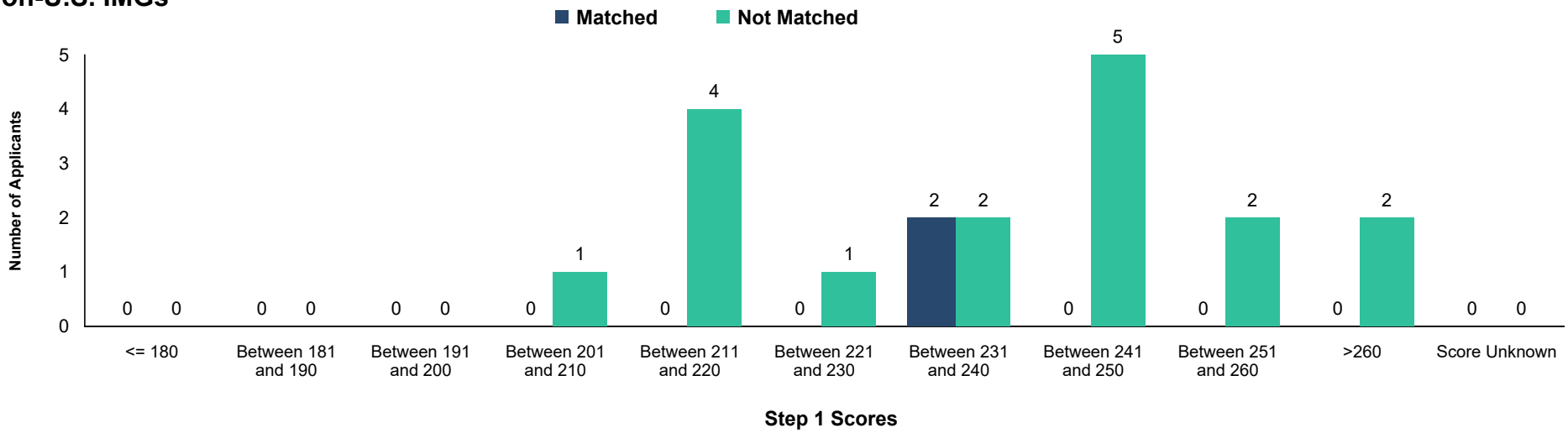
USMLE Step 1 Scores of International Medical Graduates

Orthopaedic Surgery

U.S. IMGs



Non-U.S. IMGs



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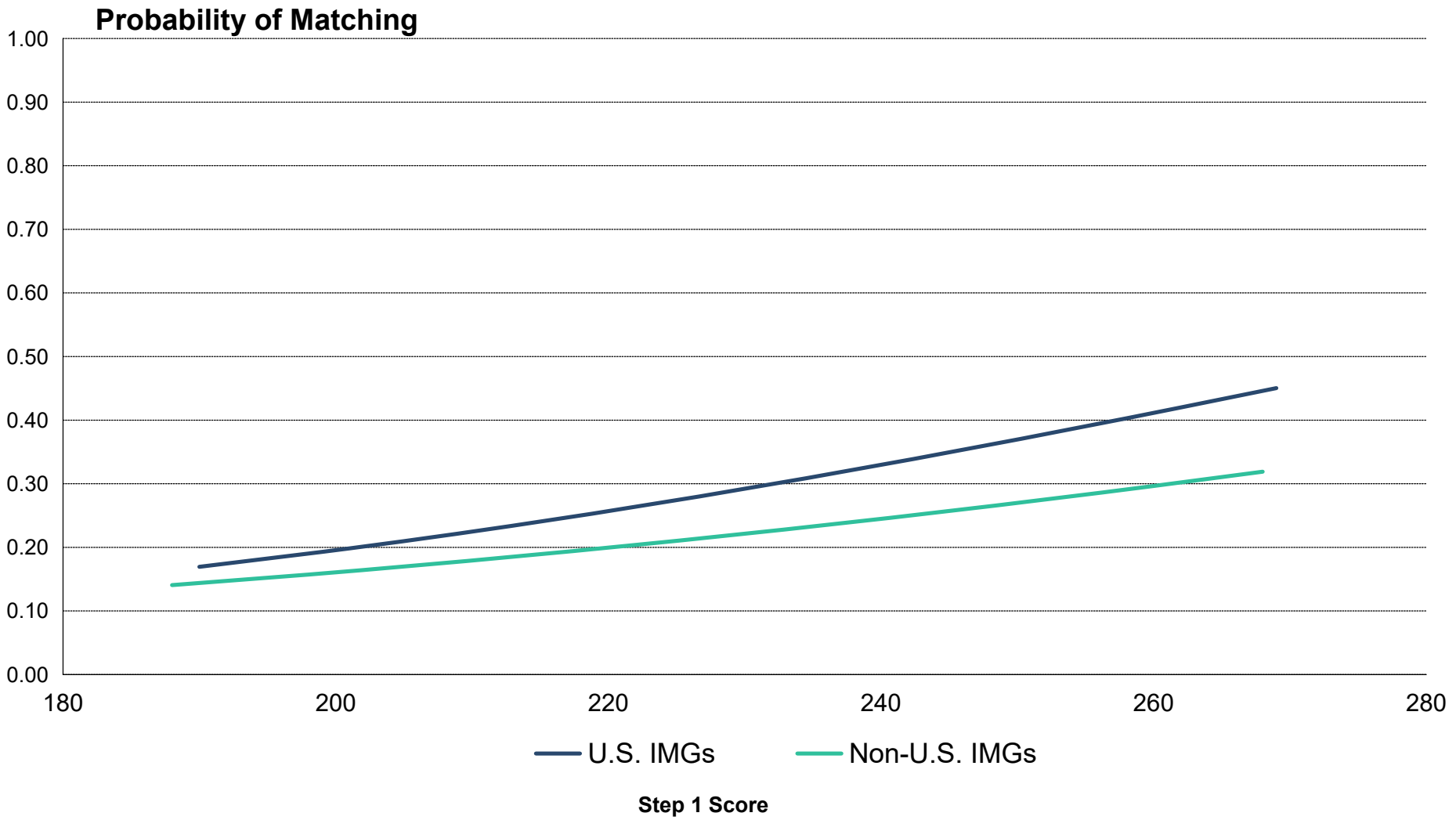
Graph ORS-2

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 2016-2018 applicants.

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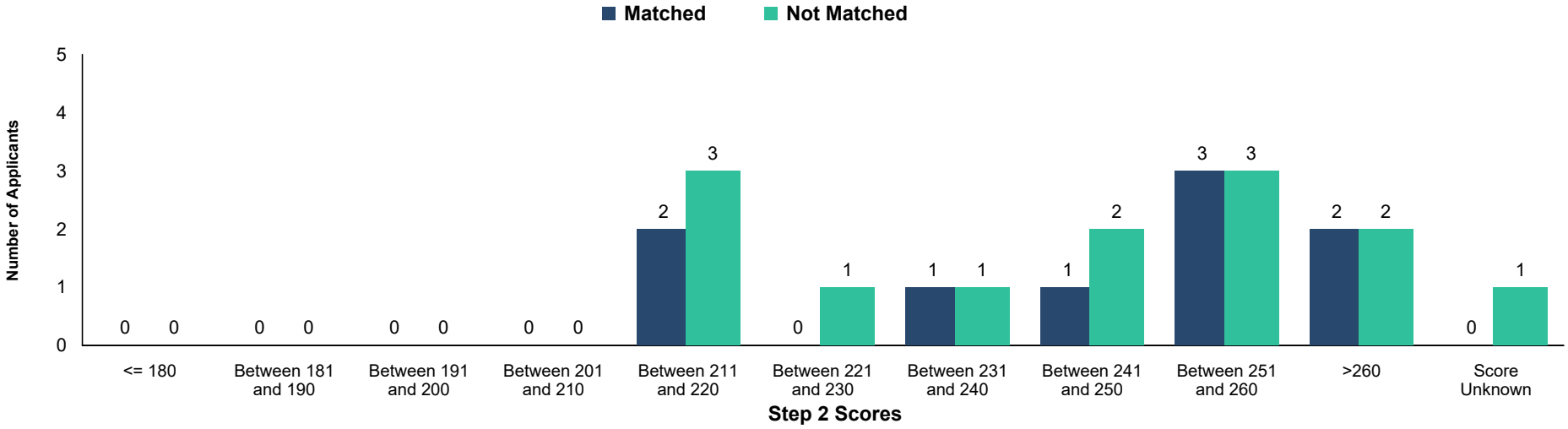
Chart ORS-4

USMLE Step 2 CK Scores of International Medical Graduates

Orthopaedic Surgery

U.S. IMGs



Non-U.S. IMGs

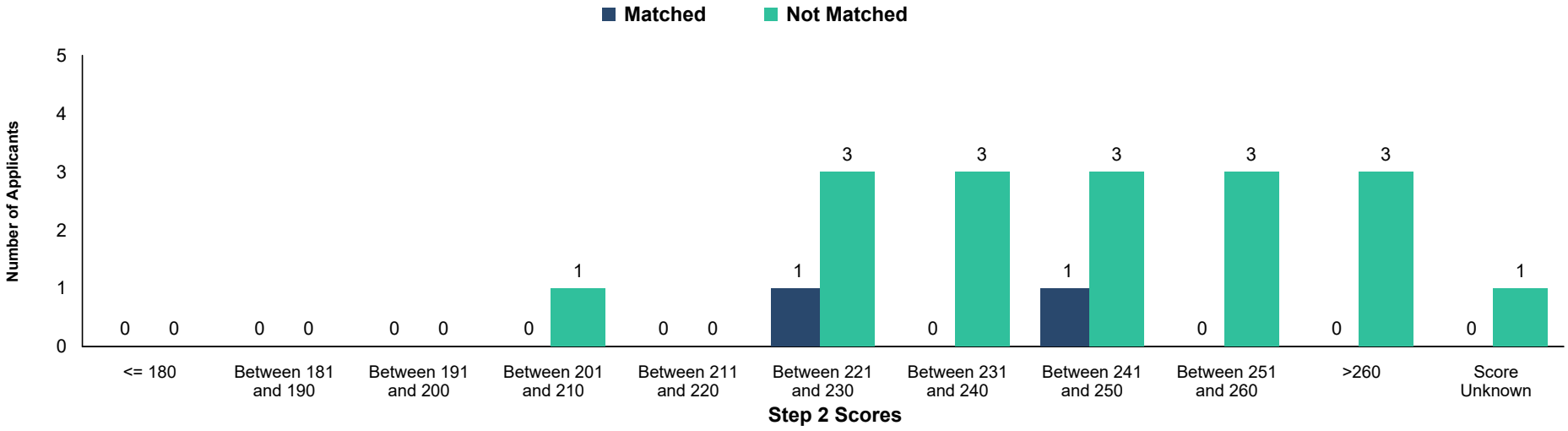


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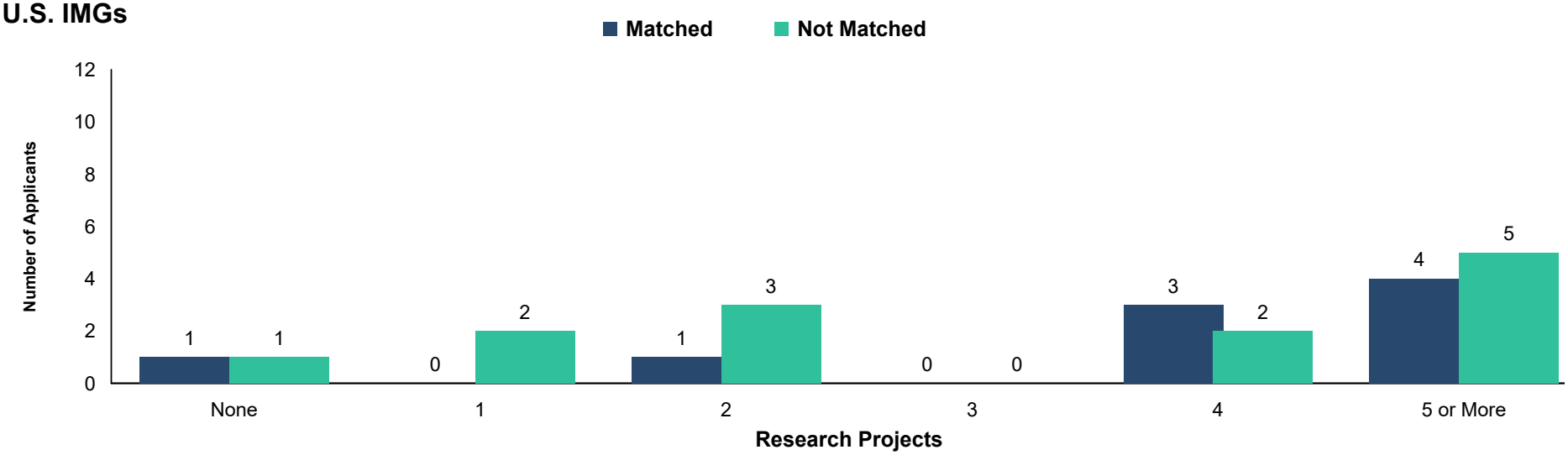
Chart ORS-5

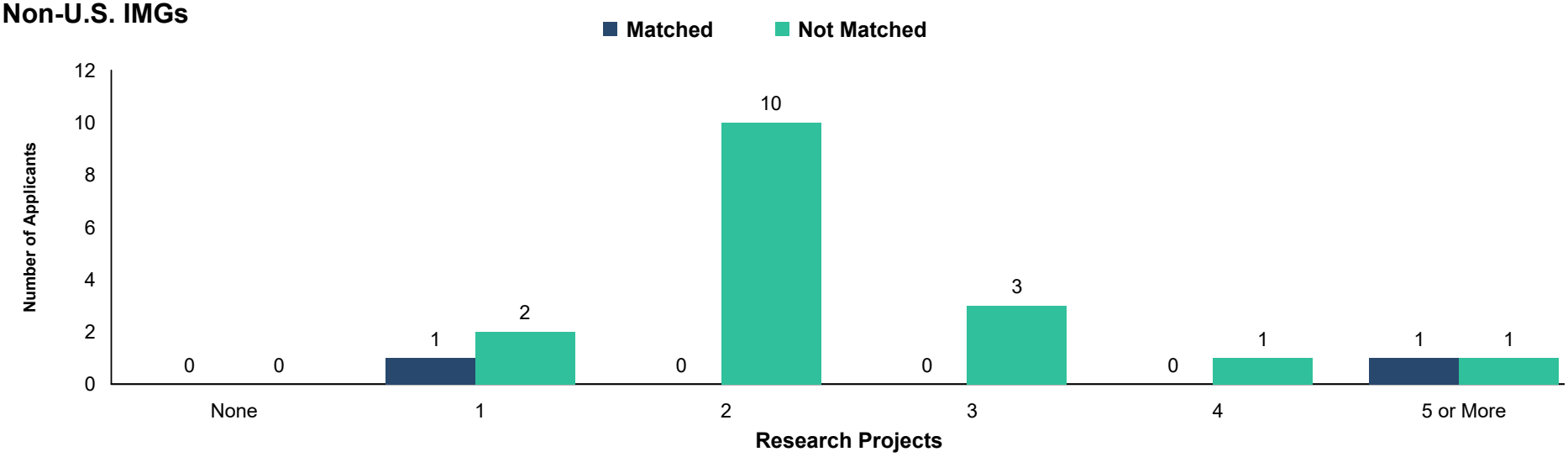
Number of Research Projects of International Medical Graduates

Orthopaedic Surgery

U.S. IMGs



Non-U.S. IMGs



Source: NRMP Data Warehouse

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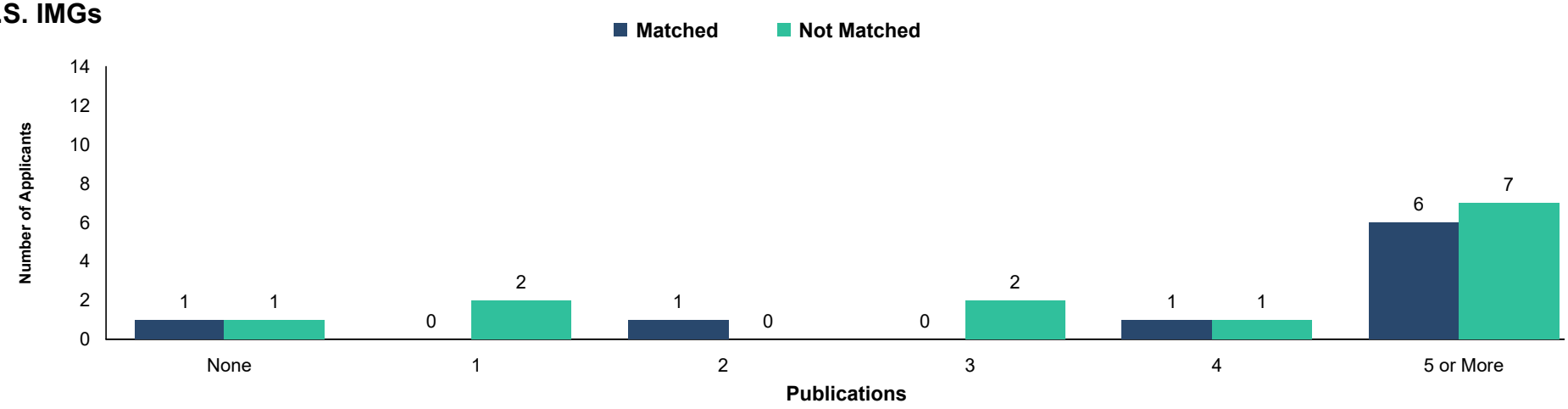
Chart ORS-6

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

Orthopaedic Surgery

U.S. IMGs



Non-U.S. IMGs

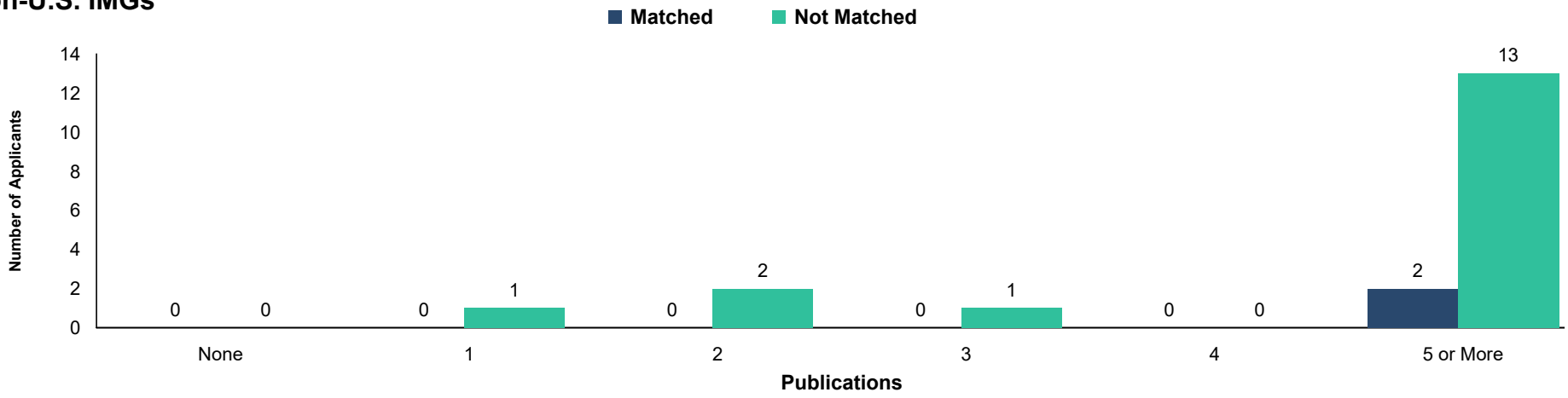


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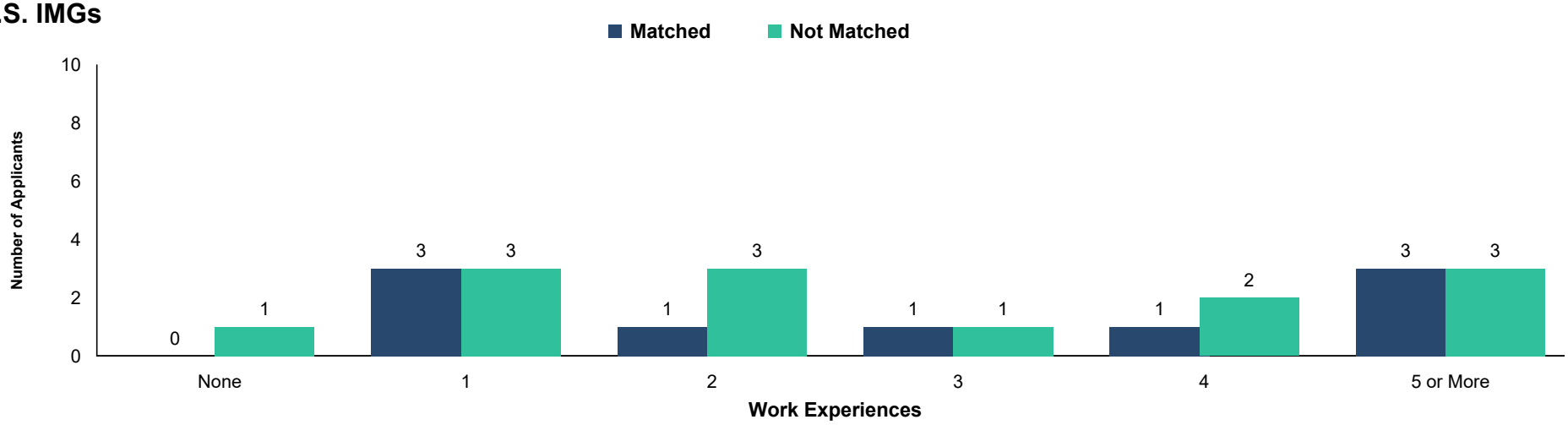
Chart ORS-7

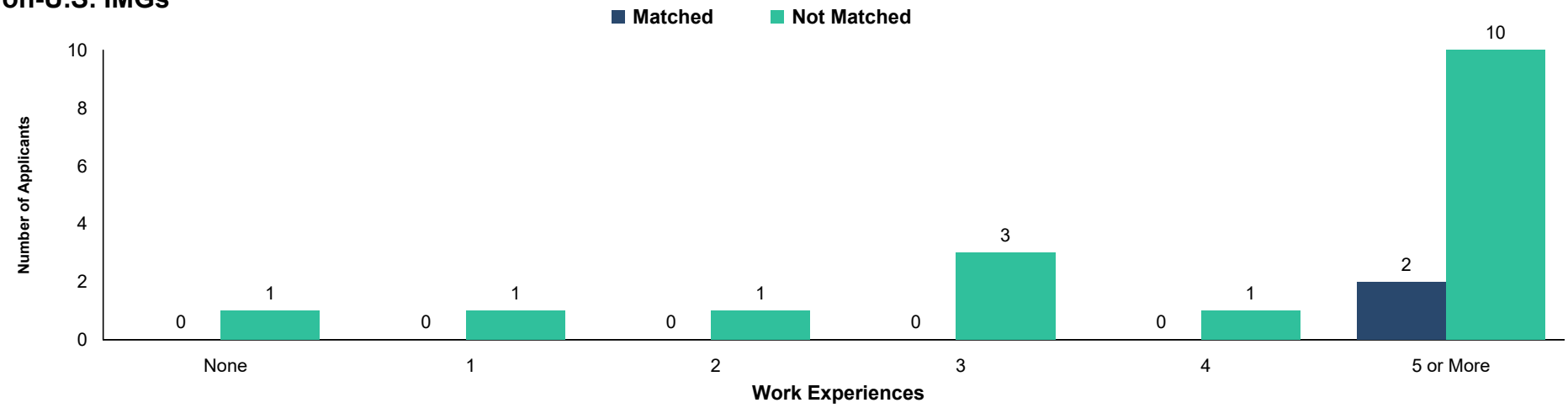
Number of Work Experiences of International Medical Graduates

Orthopaedic Surgery

U.S. IMGs



Non-U.S. IMGs



Source: NRMP Data Warehouse

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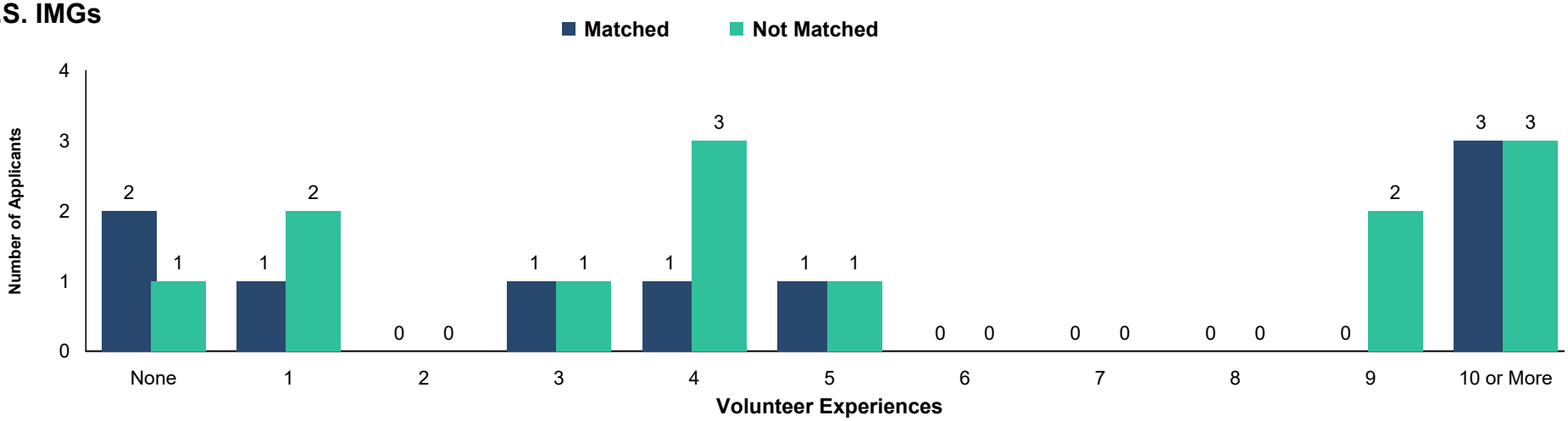
Chart ORS-8

Number of Volunteer Experiences of International Medical Graduates

Orthopaedic Surgery

U.S. IMGs



Non-U.S. IMGs

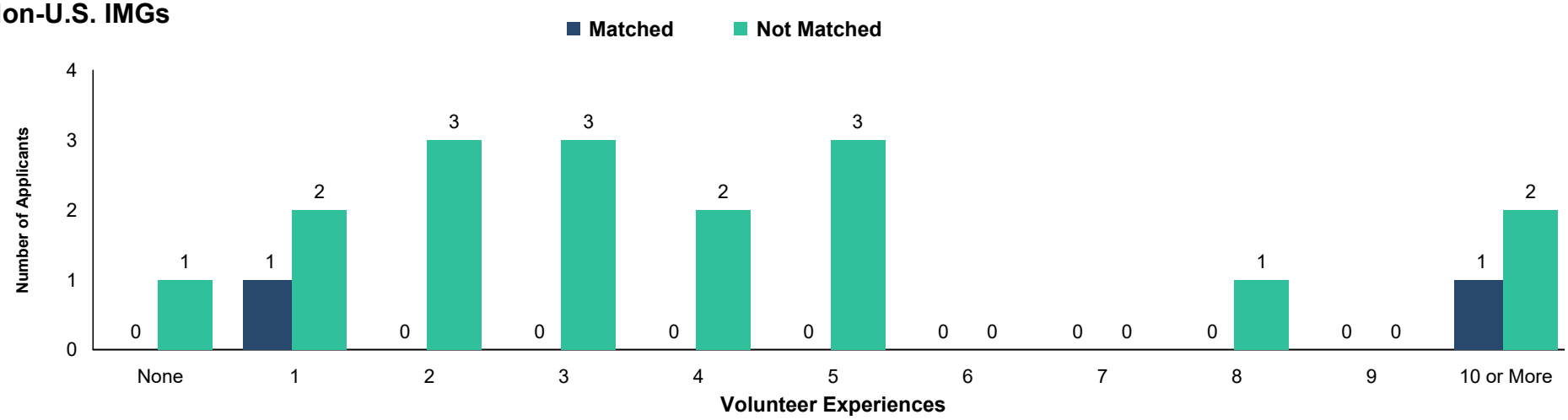


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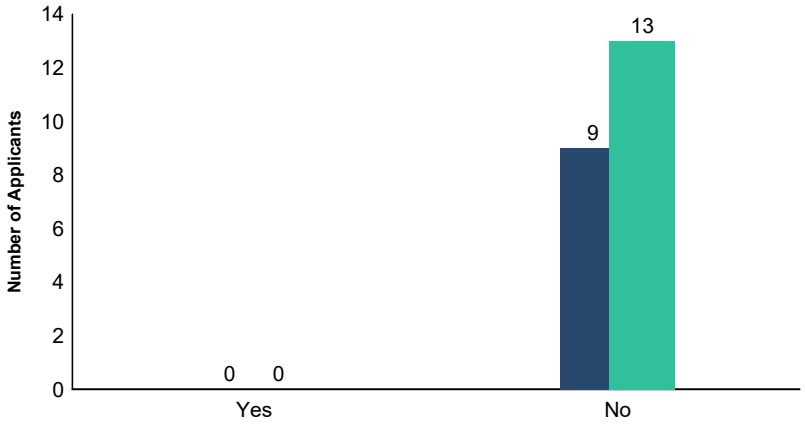
Chart ORS-9

Other Characteristics of International Medical Graduates

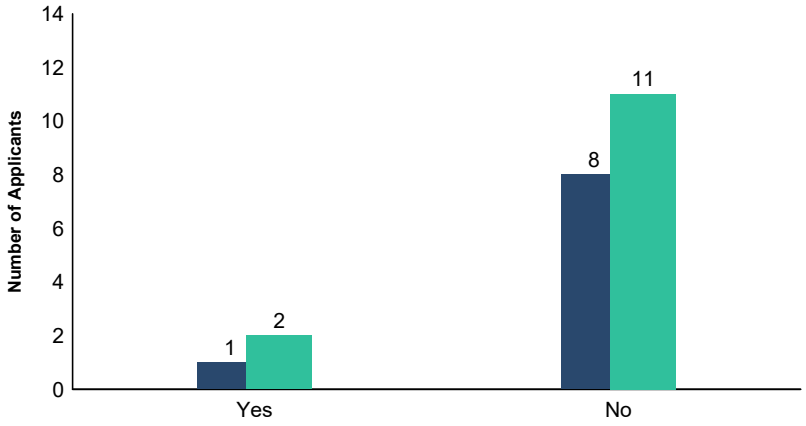
Orthopaedic Surgery

U.S. IMGs

Ph.D. Degree

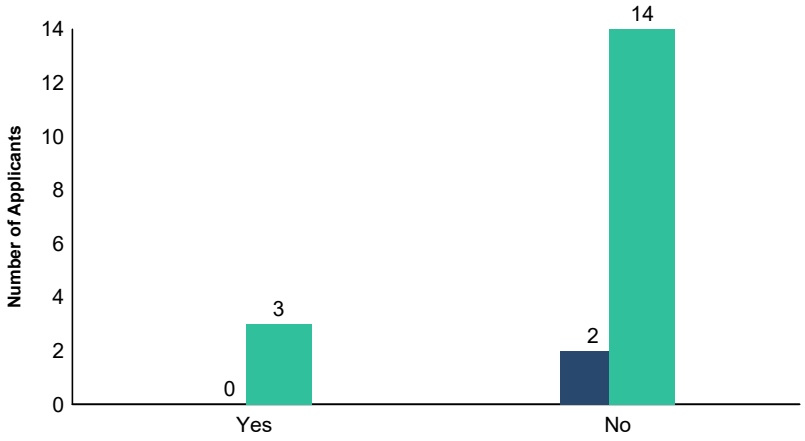


Other Graduate Degree

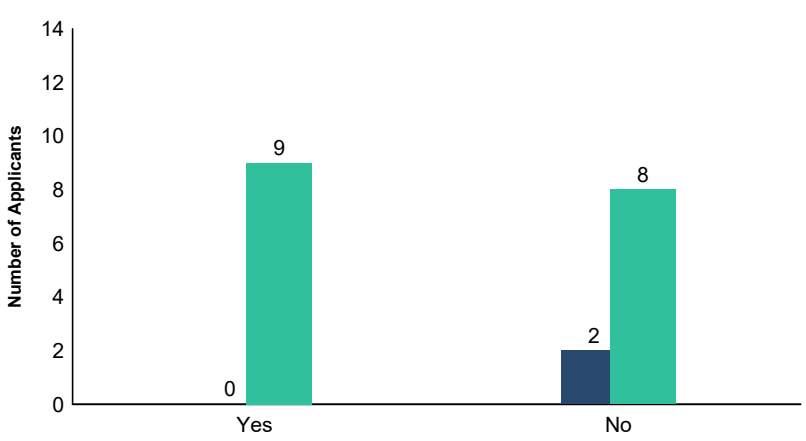


Non-U.S. IMGs

Ph.D. Degree



Other Graduate Degree



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PTH Pathology

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Table PTH-1 Summary Statistics
Pathology

Measure	U.S. IMGs		Non-U.S. IMGs	
	Matched (n=65)	Unmatched (n=34)	Matched (n=151)	Unmatched (n=70)
1. Mean number of contiguous ranks	8.8	2.7	7.8	2.2
2. Mean number of distinct specialties ranked	1.2	1.5	1.1	1.3
3. Mean USMLE Step 1 score	226	213	230	219
4. Mean USMLE Step 2 score	230	221	233	224
5. Mean number of research experiences	2.1	3.9	2.7	4.3
6. Mean number of abstracts, presentations, and publications	5.0	11.8	11.5	14.7
7. Mean number of work experiences	4.3	5.1	4.5	5.9
8. Mean number of volunteer experiences	3.9	2.7	3.0	3.4
9. Percentage who have a Ph.D. degree	10.0	14.8	21.6	19.1
10. Percentage who have another graduate degree	27.1	30.8	32.8	44.8

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

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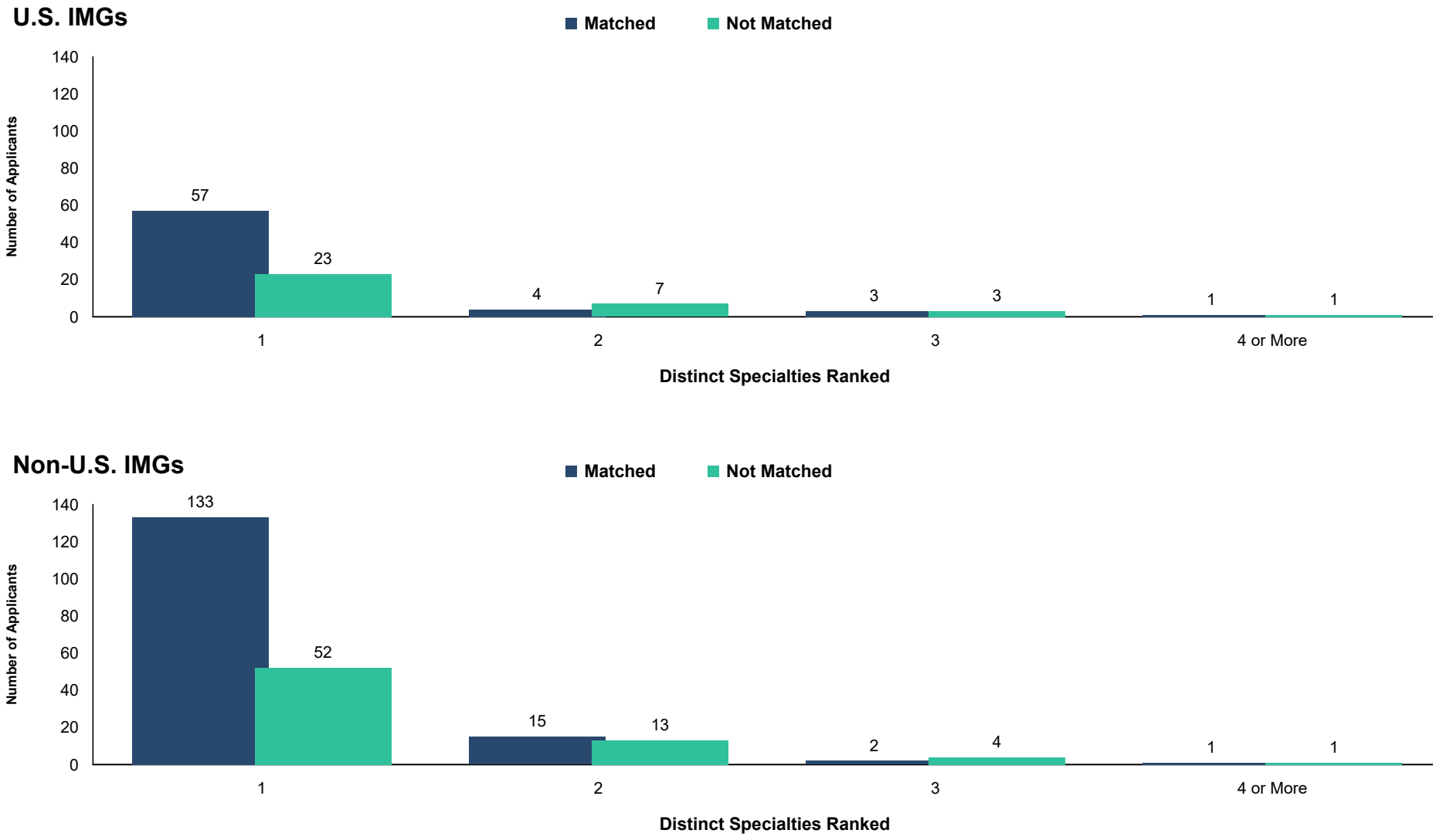
Chart PTH-1 Number of Distinct Specialties Ranked by International Medical Graduates Pathology



Source: NRMP Data Warehouse

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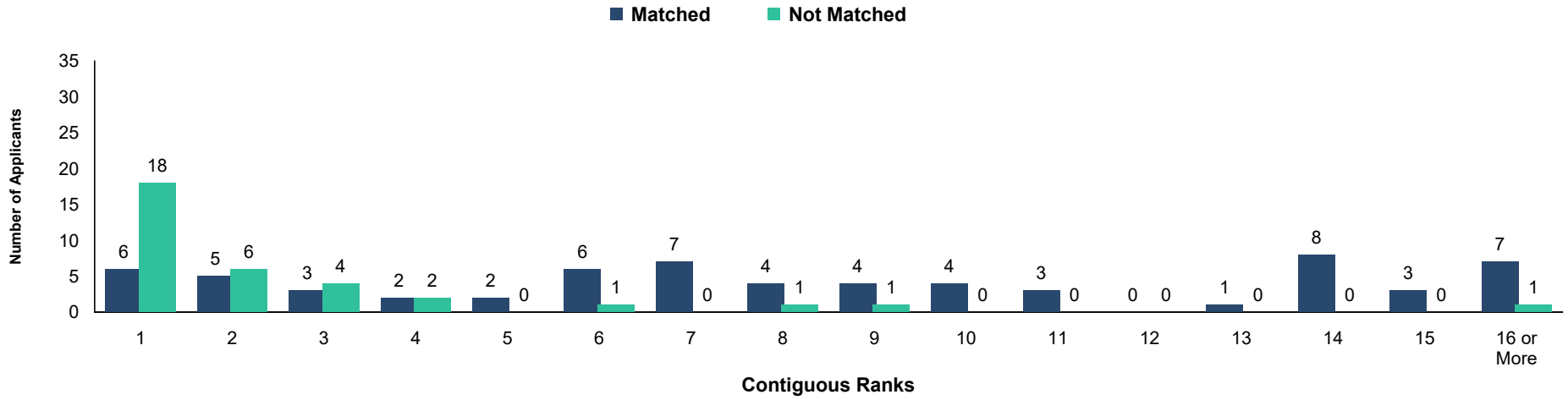
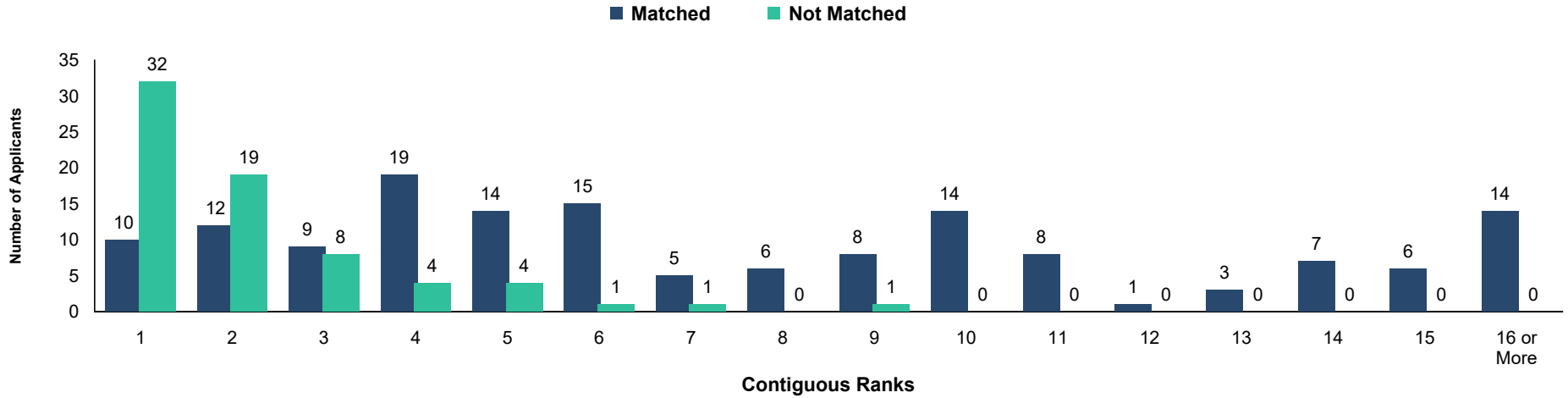
Chart PTH-2 Number of Contiguous Ranks of International Medical Graduates Pathology

U.S. IMGs



Non-U.S. IMGs



Source: NRMP Data Warehouse

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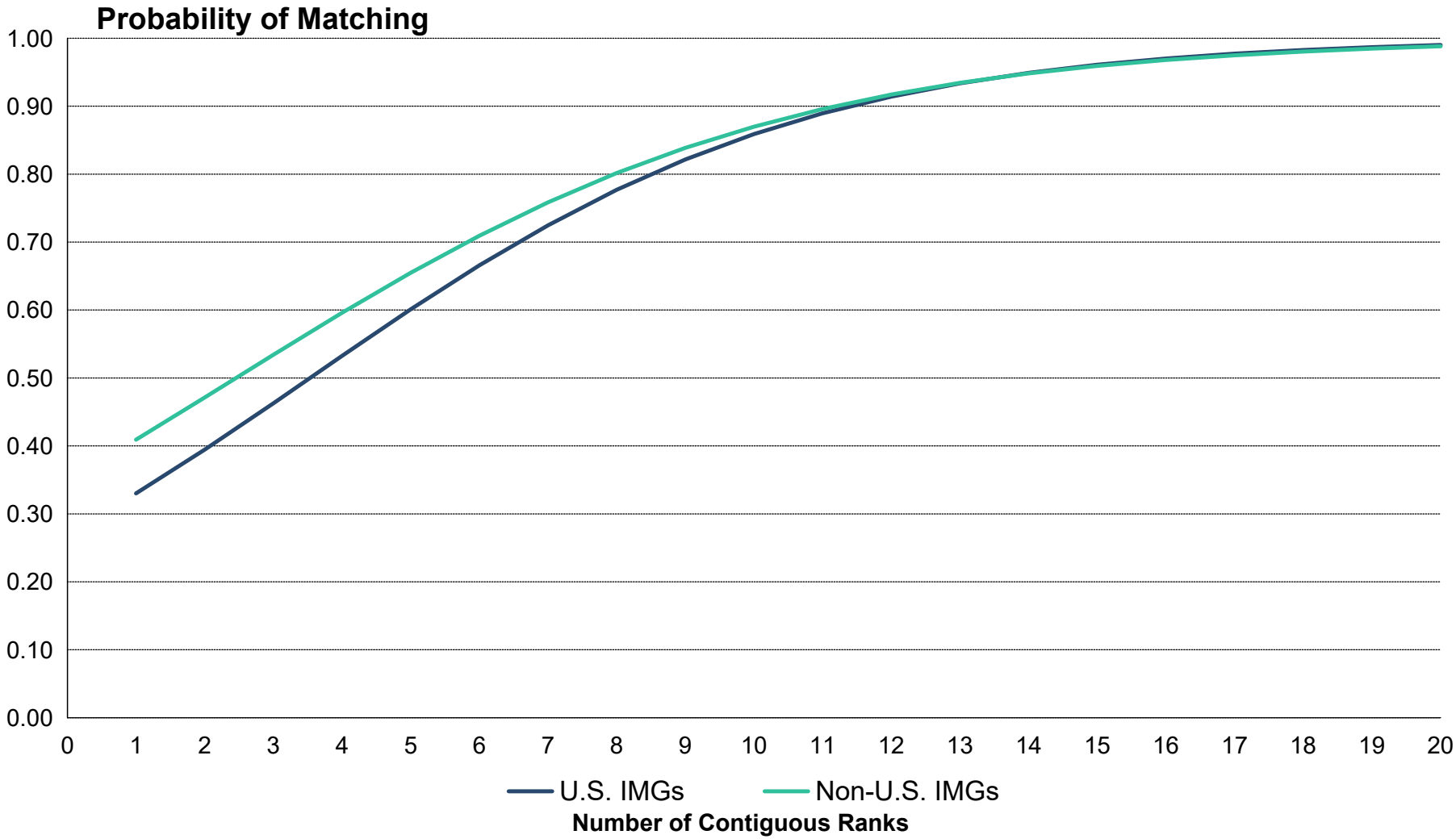
Graph PTH-1

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

Pathology



Source: NRMP Data Warehouse. Note: Probabilities calculated based on 2016-2018 applicants

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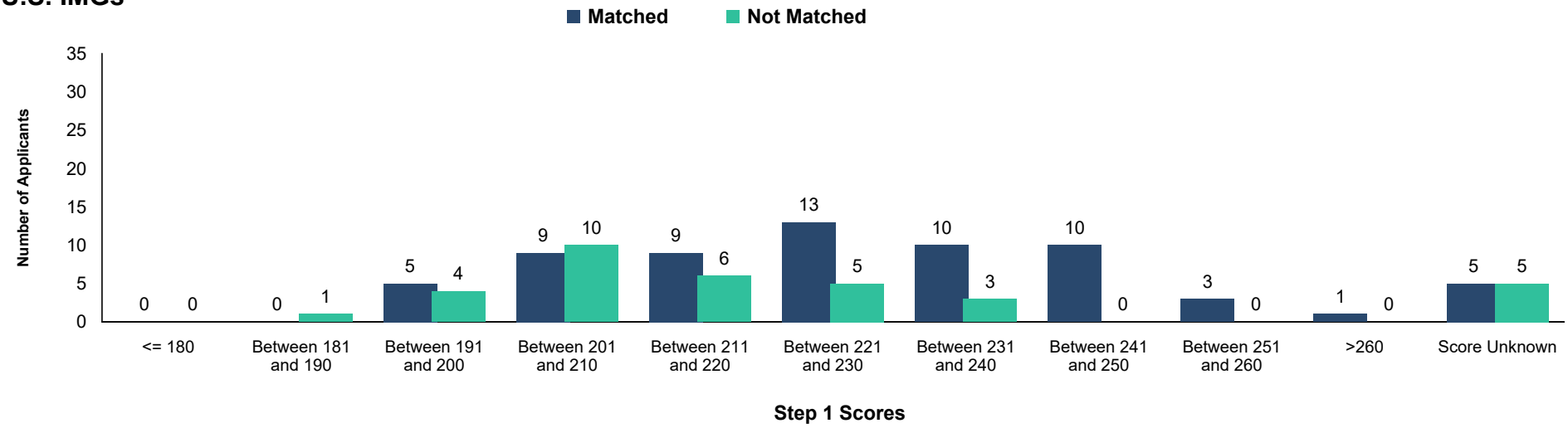
Chart PTH-3

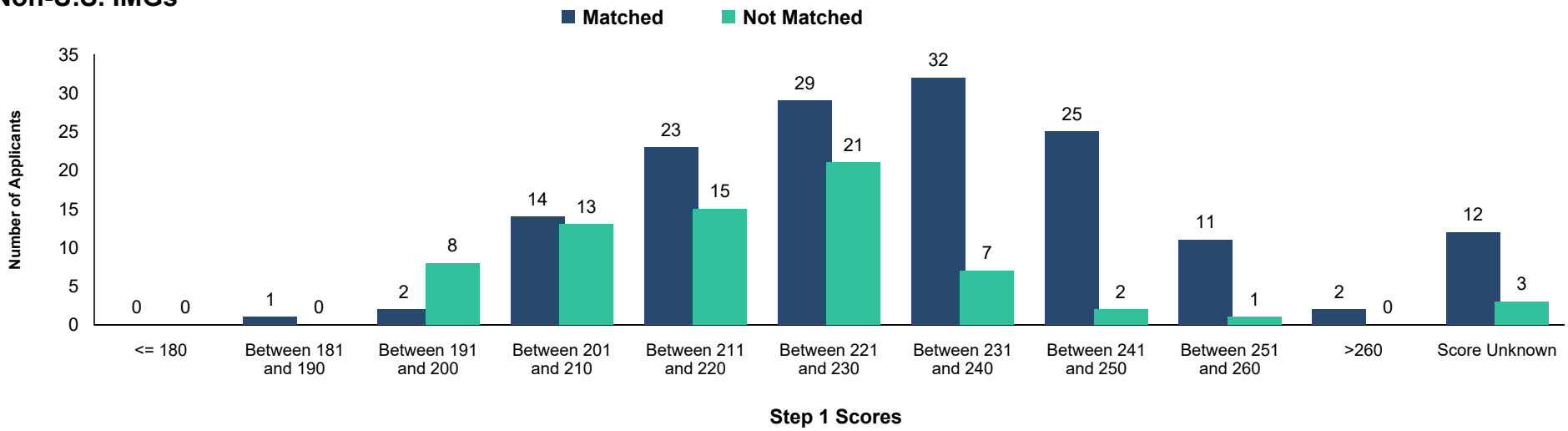
USMLE Step 1 Scores of International Medical Graduates

Pathology

U.S. IMGs



Non-U.S. IMGs



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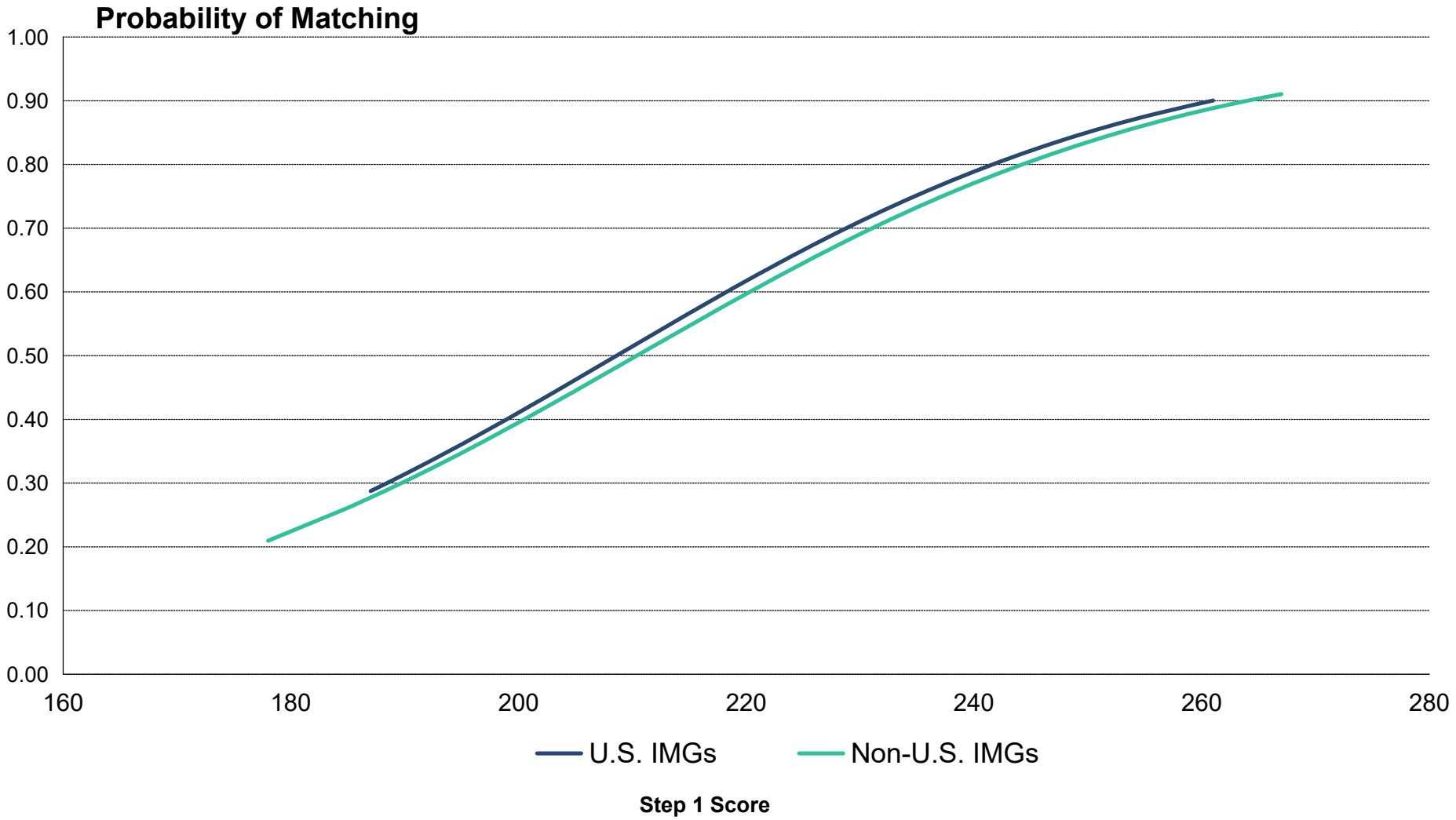
Graph PTH-2

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

Pathology



Source: NRMP Data Warehouse. Note: Probabilities calculated based on 2016-2018 applicants.

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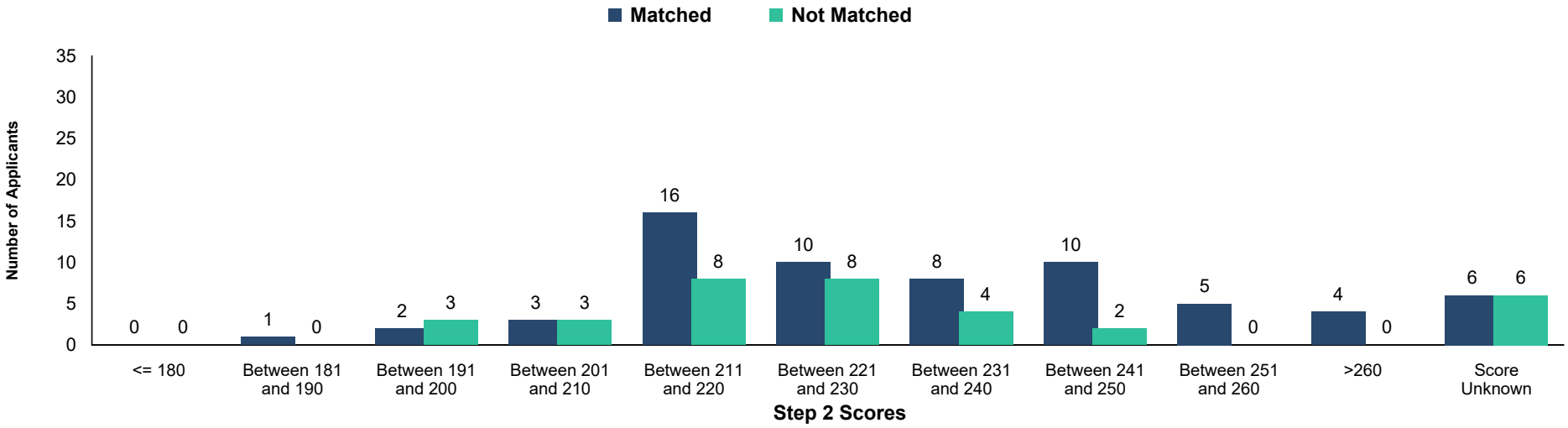
Chart PTH-4

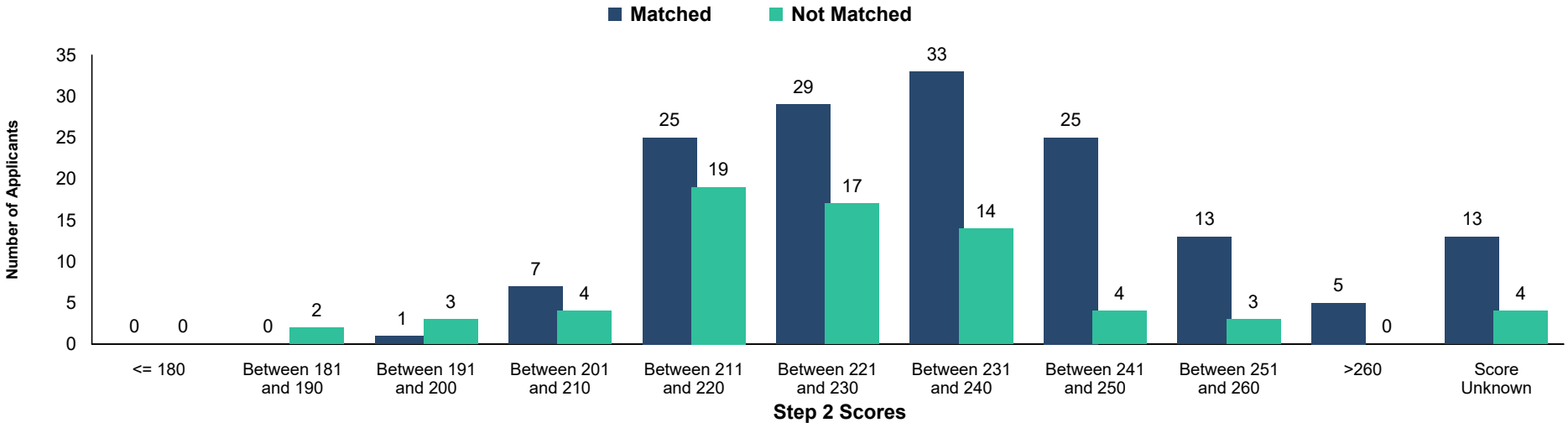
USMLE Step 2 CK Scores of International Medical Graduates

Pathology

U.S. IMGs



Non-U.S. IMGs



Source: NRMP Data Warehouse

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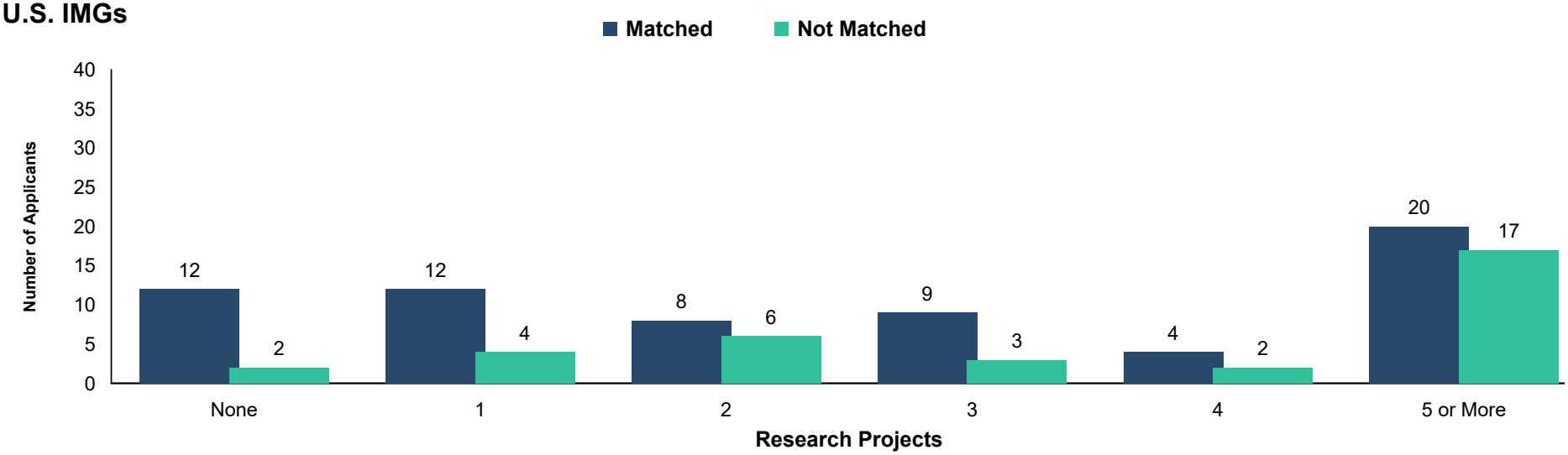
Chart PTH-5

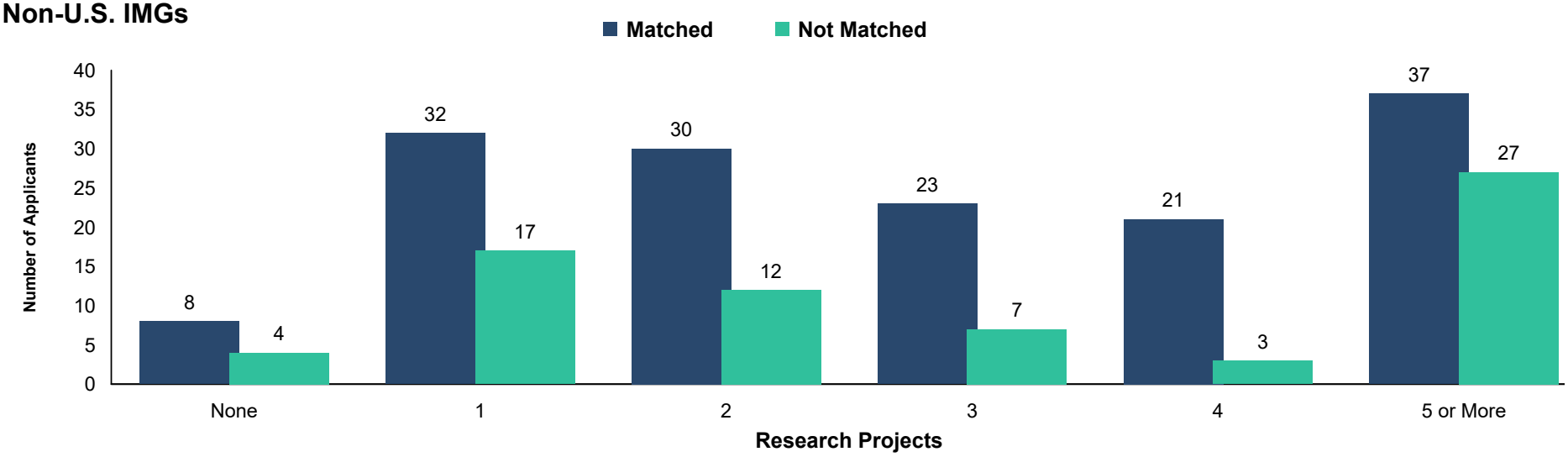
Number of Research Projects of International Medical Graduates

Pathology

U.S. IMGs



Non-U.S. IMGs



Source: NRMP Data Warehouse

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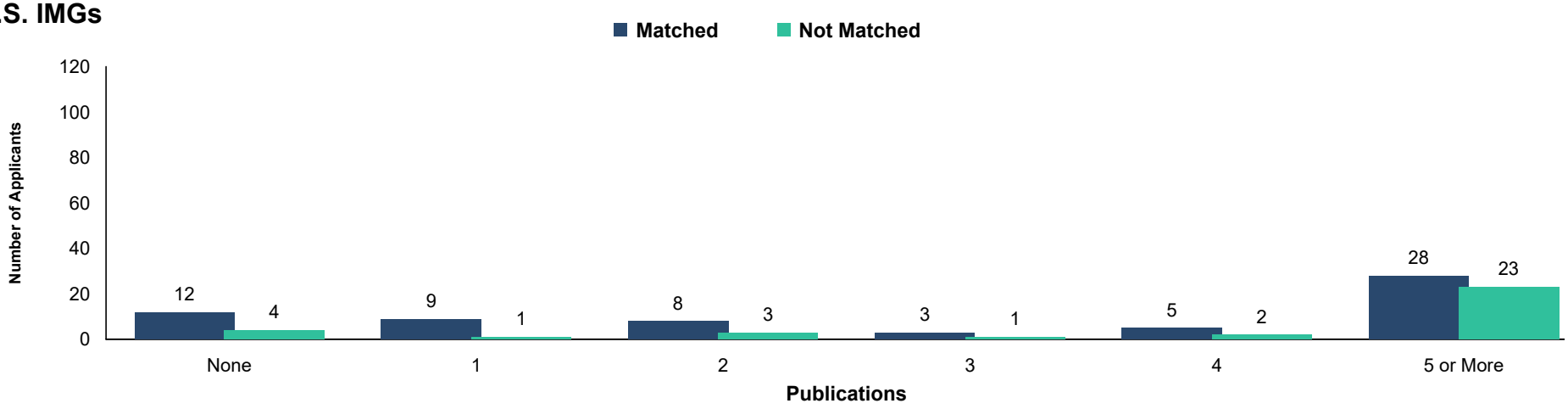
Chart PTH-6

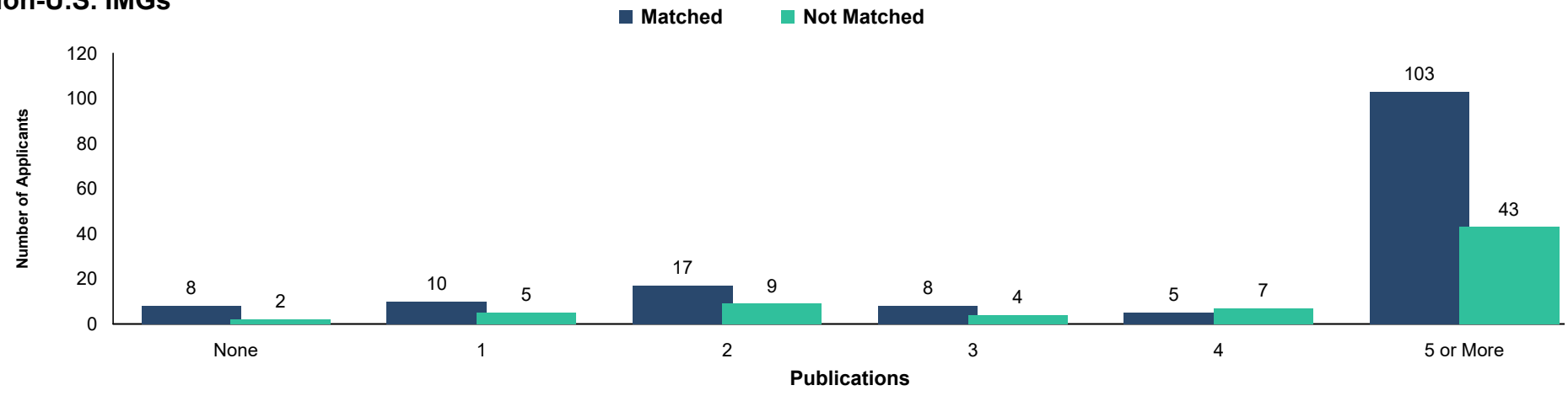
Number of Abstracts, Presentations, and Publications of International Medical Graduates

Pathology

U.S. IMGs



Non-U.S. IMGs



Source: NRMP Data Warehouse

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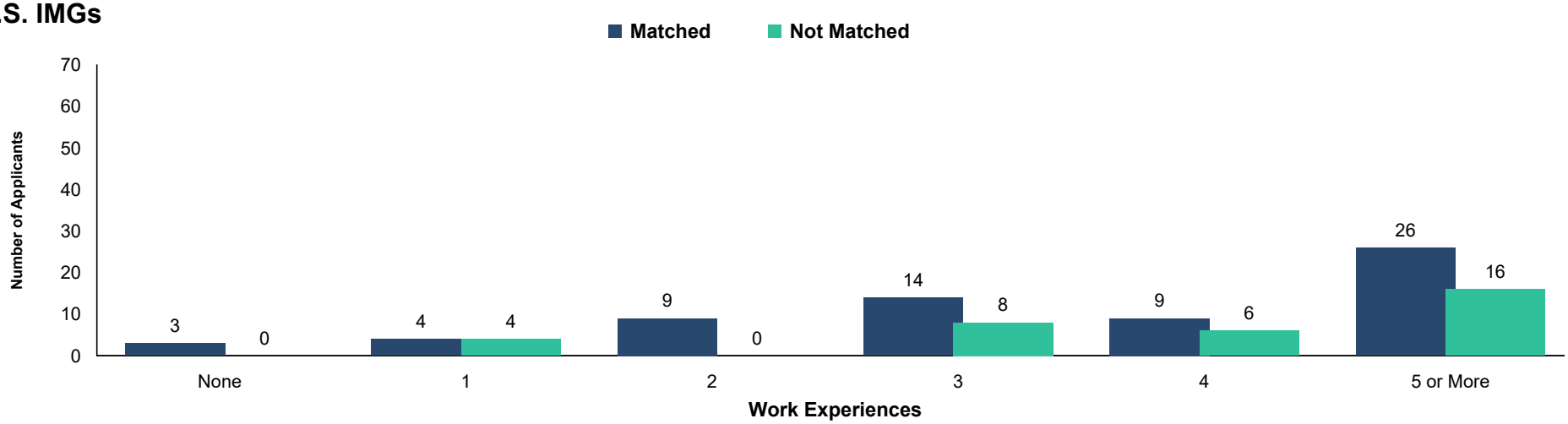
Chart PTH-7

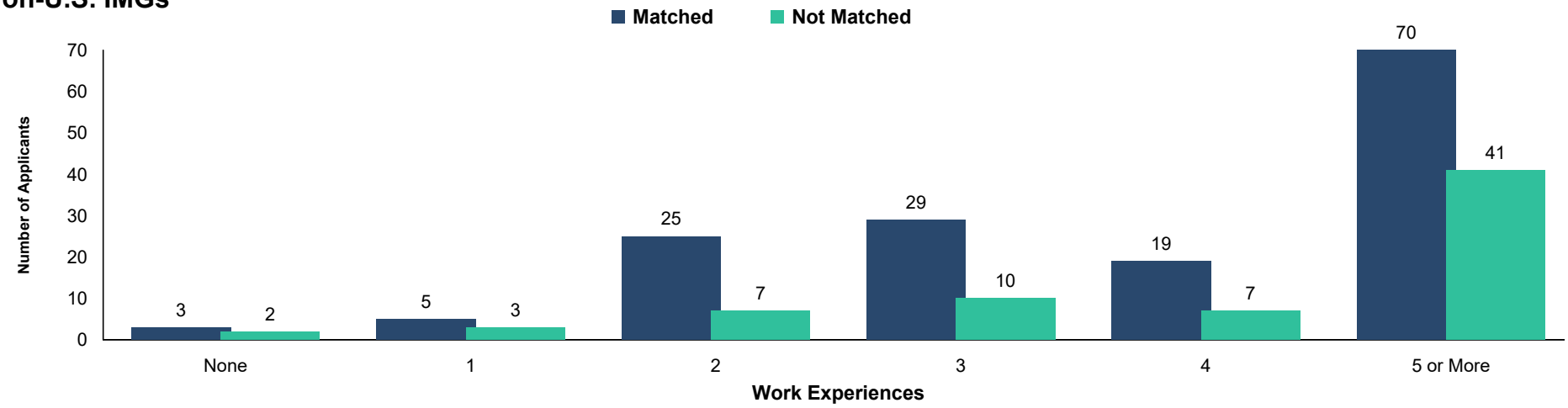
Number of Work Experiences of International Medical Graduates

Pathology

U.S. IMGs



Non-U.S. IMGs



Source: NRMP Data Warehouse

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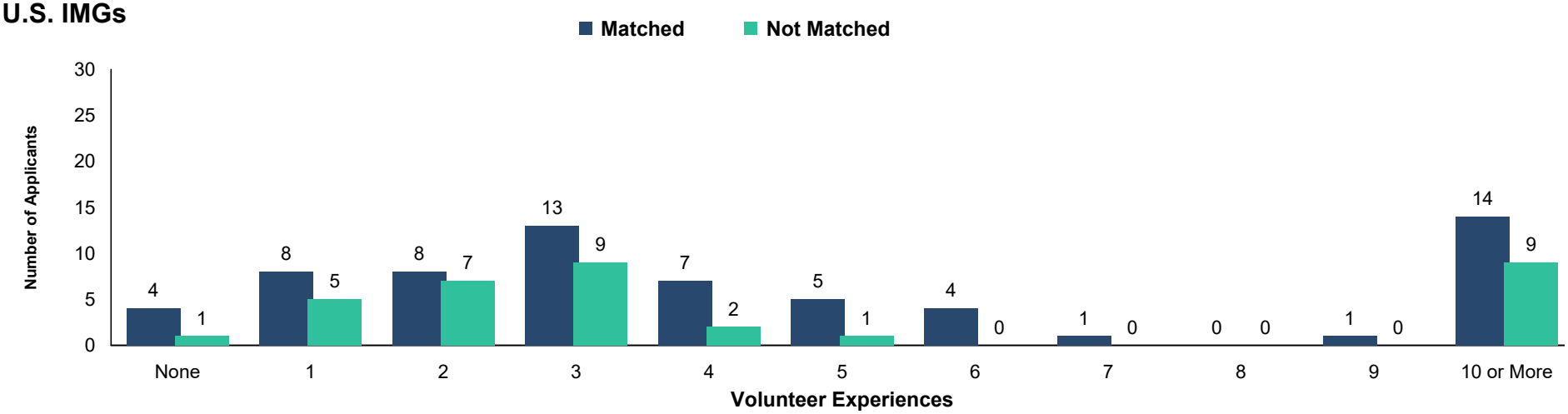
Chart PTH-8

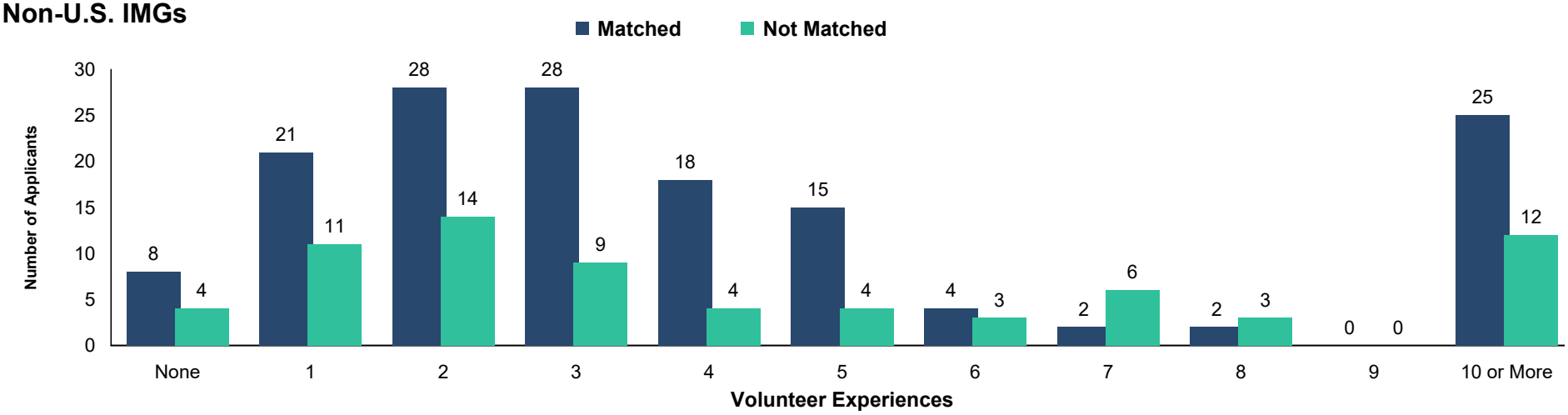
Number of Volunteer Experiences of International Medical Graduates

Pathology

U.S. IMGs



Non-U.S. IMGs



Source: NRMP Data Warehouse

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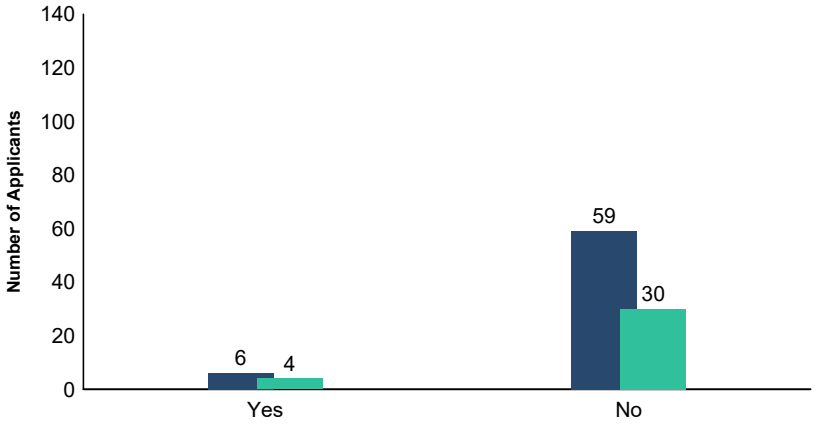
Chart PTH-9 Other Characteristics of International Medical Graduates

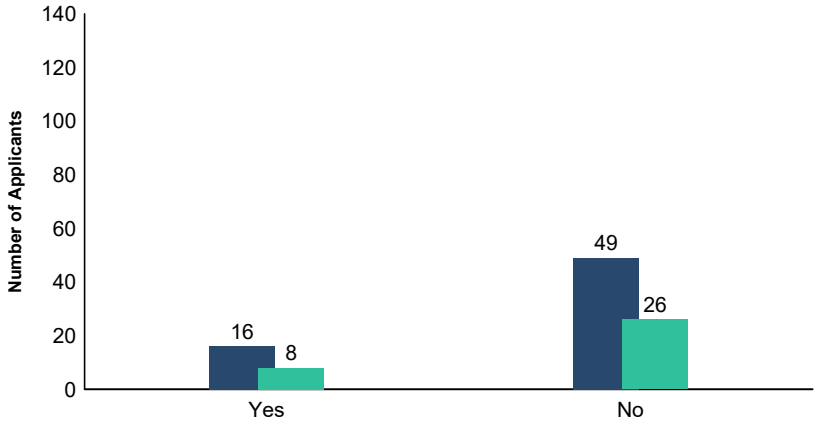
Pathology

U.S. IMGs

Ph.D. Degree

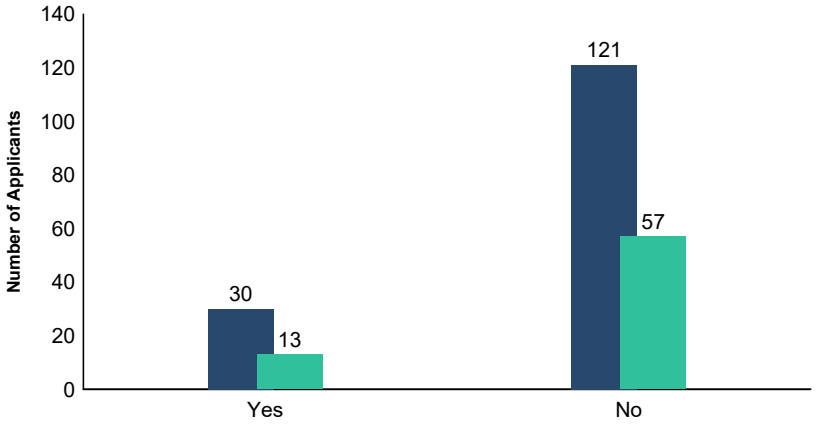


Other Graduate Degree

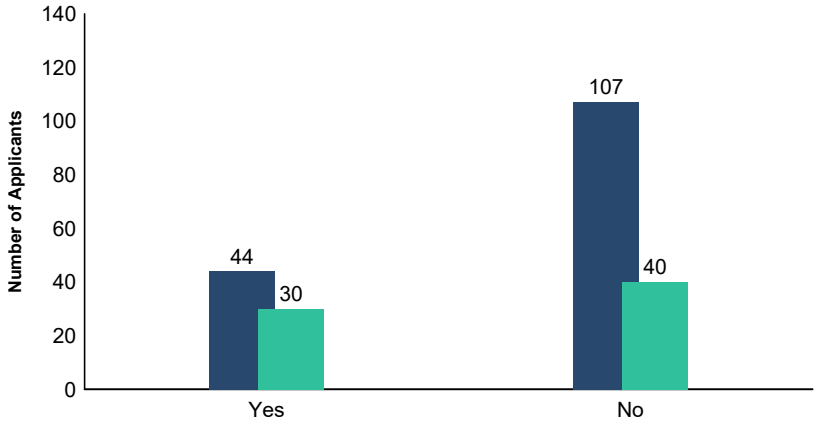


Non-U.S. IMGs

Ph.D. Degree



Other Graduate Degree



Source: NRMP Data Warehouse

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PD Pediatrics

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Table PD-1 Summary Statistics
Pediatrics

Measure	U.S. IMGs		Non-U.S. IMGs	
	Matched (n=189)	Unmatched (n=67)	Matched (n=288)	Unmatched (n=166)
1. Mean number of contiguous ranks	7.9	1.8	5.3	1.8
2. Mean number of distinct specialties ranked	1.4	1.4	1.4	1.4
3. Mean USMLE Step 1 score	221	211	230	213
4. Mean USMLE Step 2 score	232	221	238	224
5. Mean number of research experiences	1.6	1.8	2.1	3.7
6. Mean number of abstracts, presentations, and publications	1.8	3.6	4.1	4.4
7. Mean number of work experiences	3.9	5.1	5.1	6.0
8. Mean number of volunteer experiences	5.2	4.1	3.7	3.9
9. Percentage who have a Ph.D. degree	0.6	7.0	2.2	3.3
10. Percentage who have another graduate degree	21.0	28.1	21.6	30.3

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

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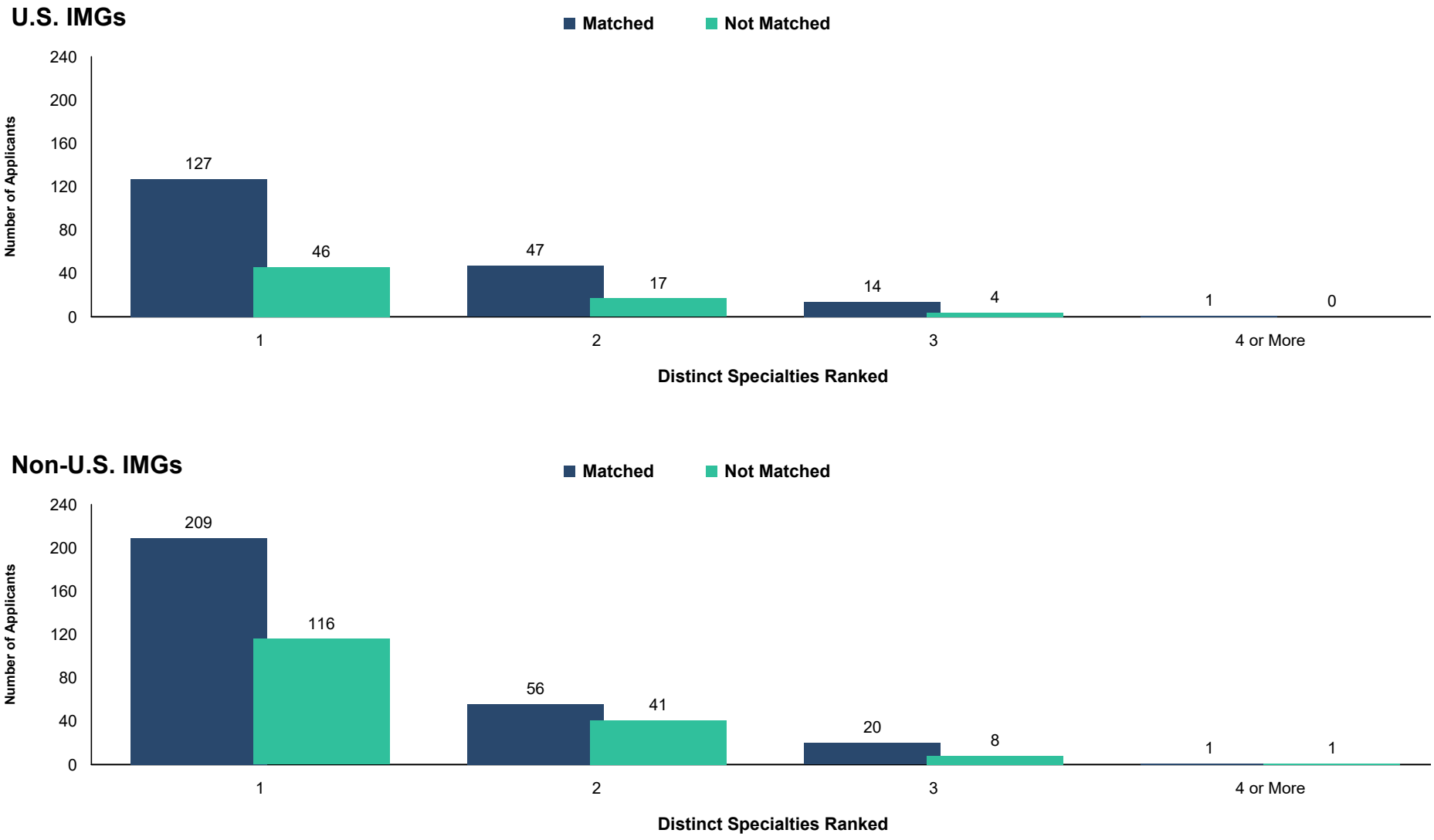
Chart PD-1

Number of Distinct Specialties Ranked by International Medical Graduates
Pediatrics



Source: NRMP Data Warehouse

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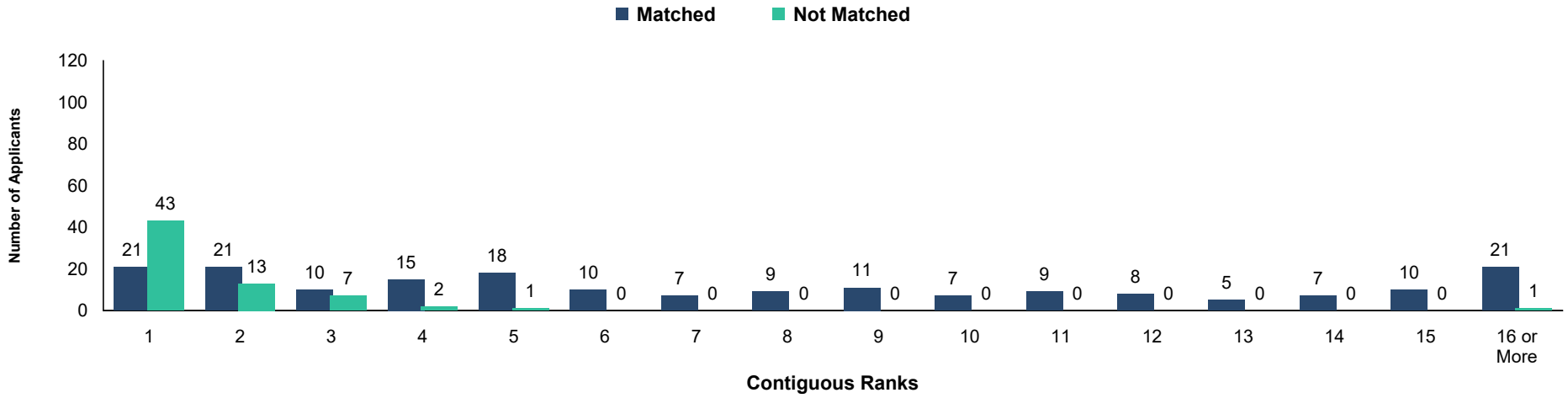
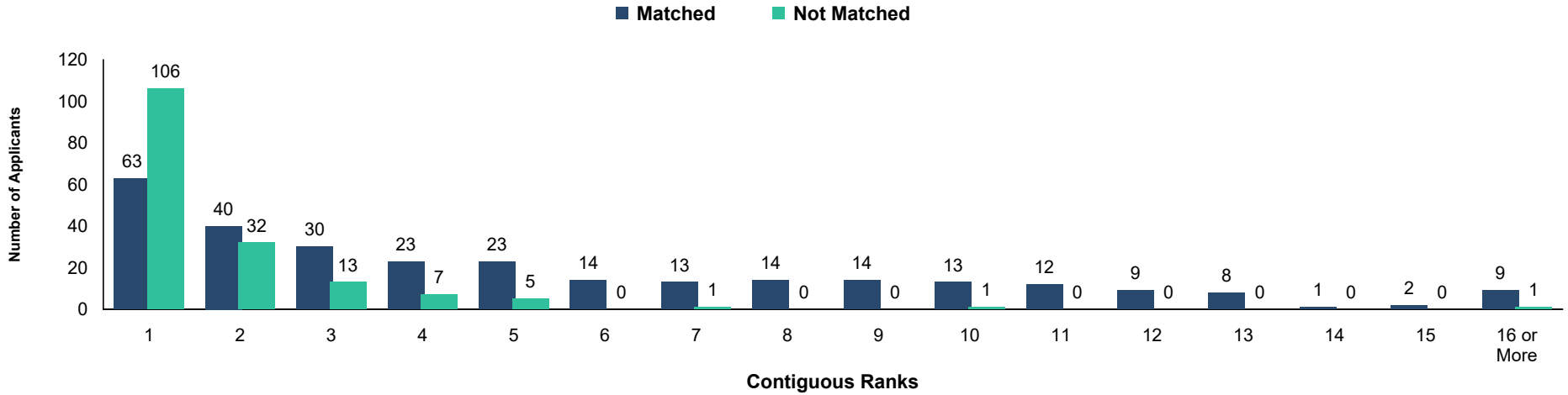
Chart PD-2 Number of Contiguous Ranks of International Medical Graduates Pediatrics

U.S. IMGs



Non-U.S. IMGs



Source: NRMP Data Warehouse

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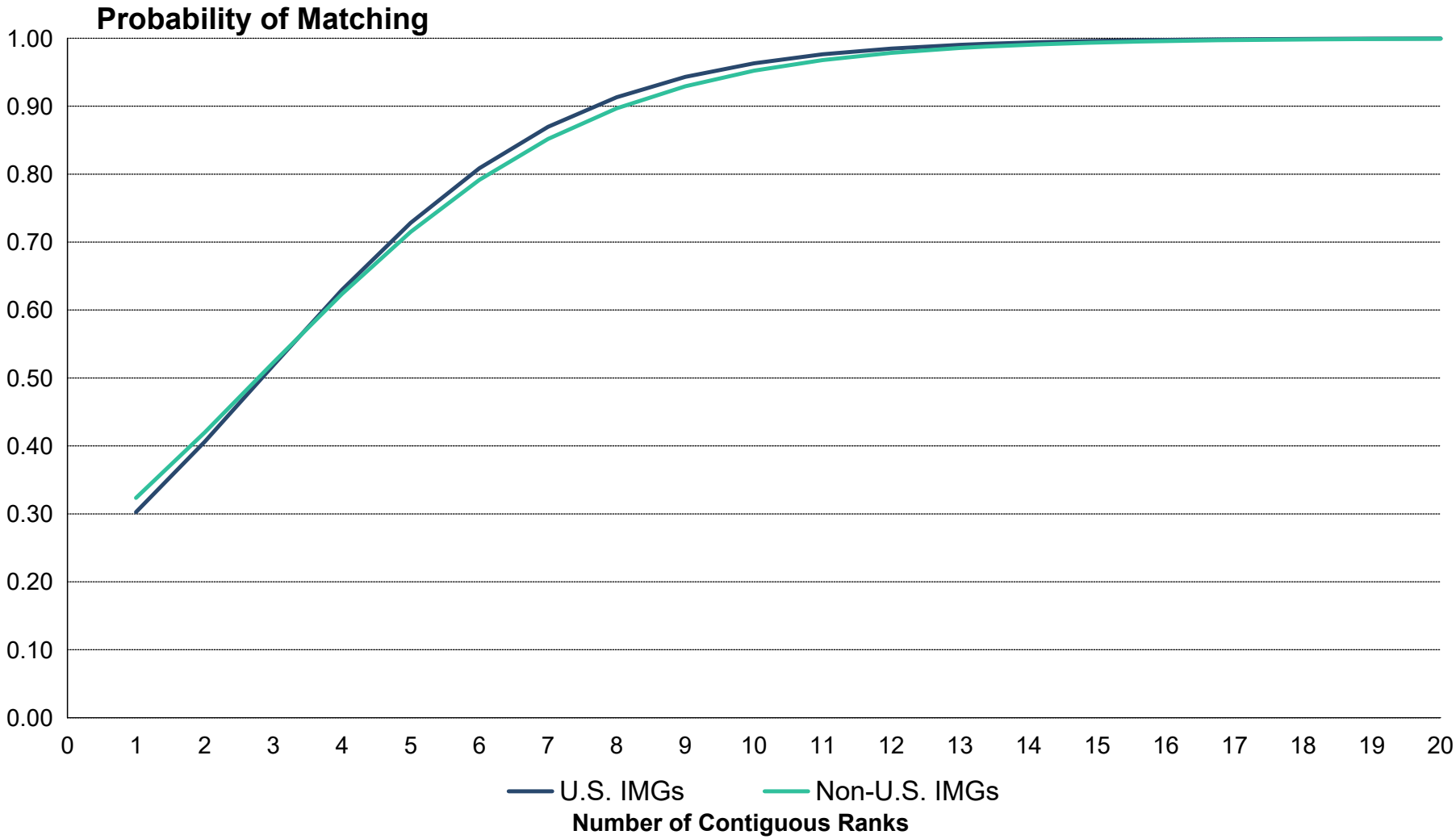
Graph PD-1

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

Pediatrics



Source: NRMP Data Warehouse. Note: Probabilities calculated based on 2016-2018 applicants

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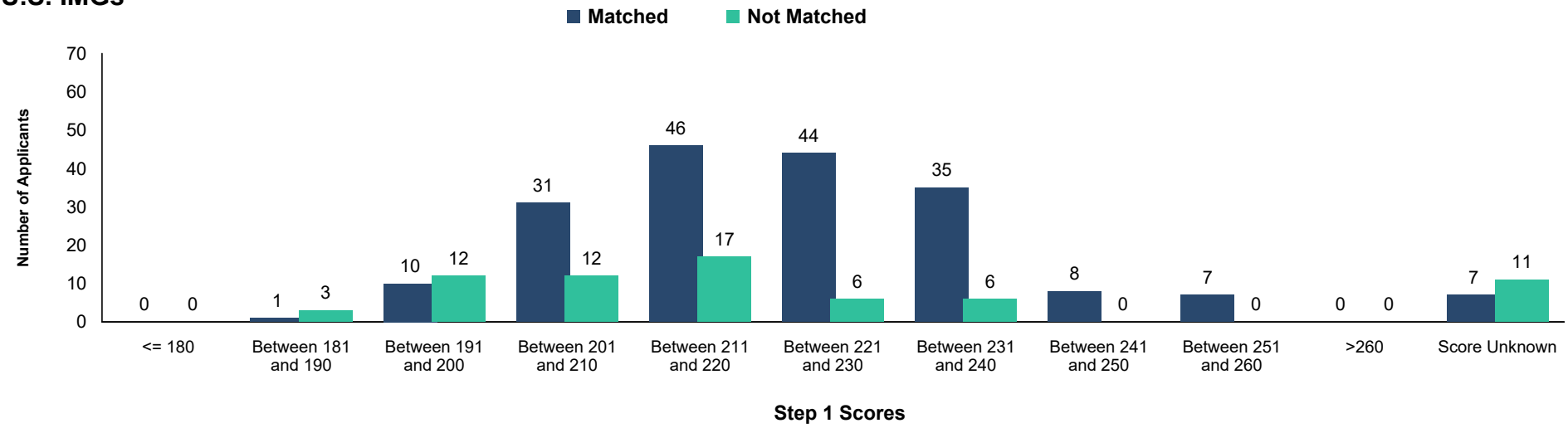
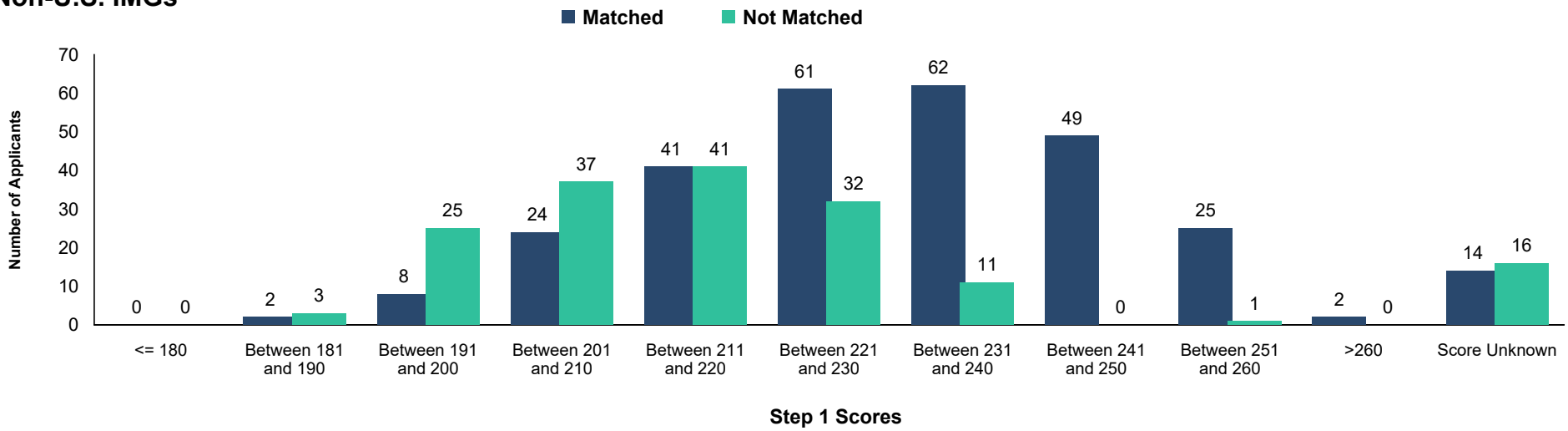
Chart PD-3 USMLE Step 1 Scores of International Medical Graduates

Pediatrics

U.S. IMGs



Non-U.S. IMGs



Source: NRMP Data Warehouse

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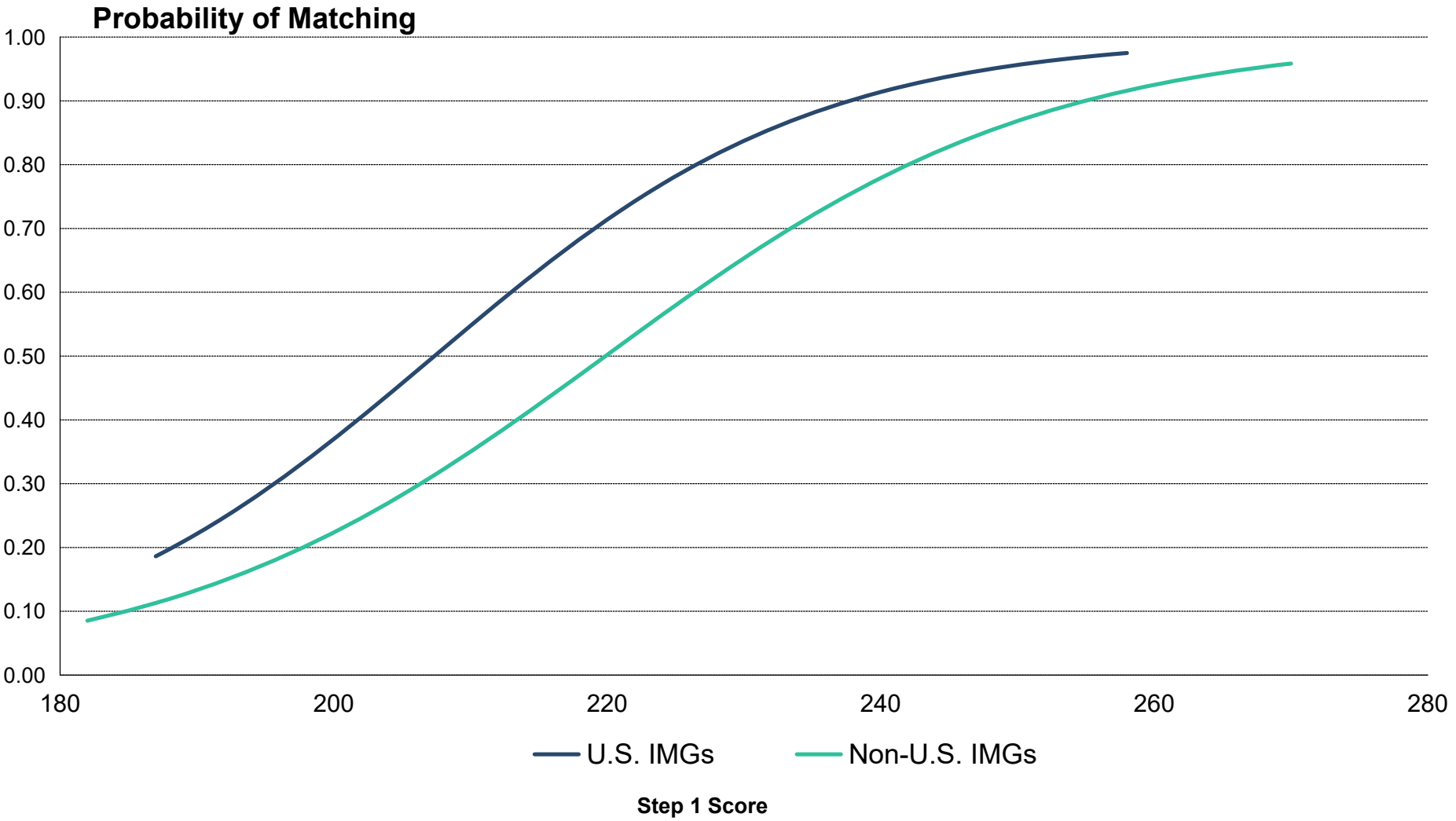
Graph PD-2

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

Pediatrics



Source: NRMP Data Warehouse. Note: Probabilities calculated based on 2016-2018 applicants.

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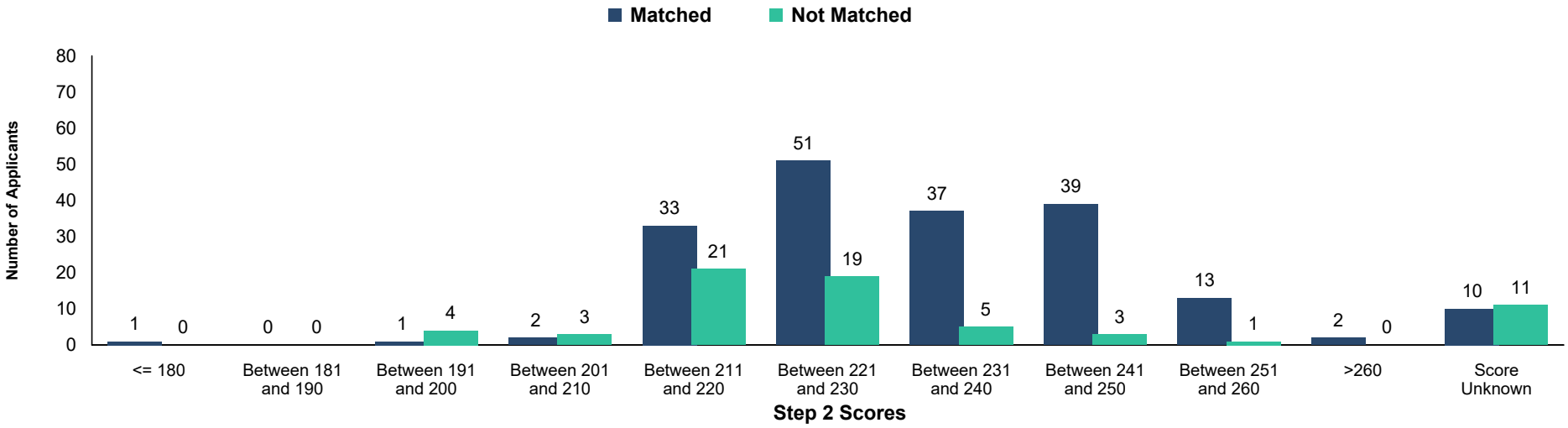
Chart PD-4

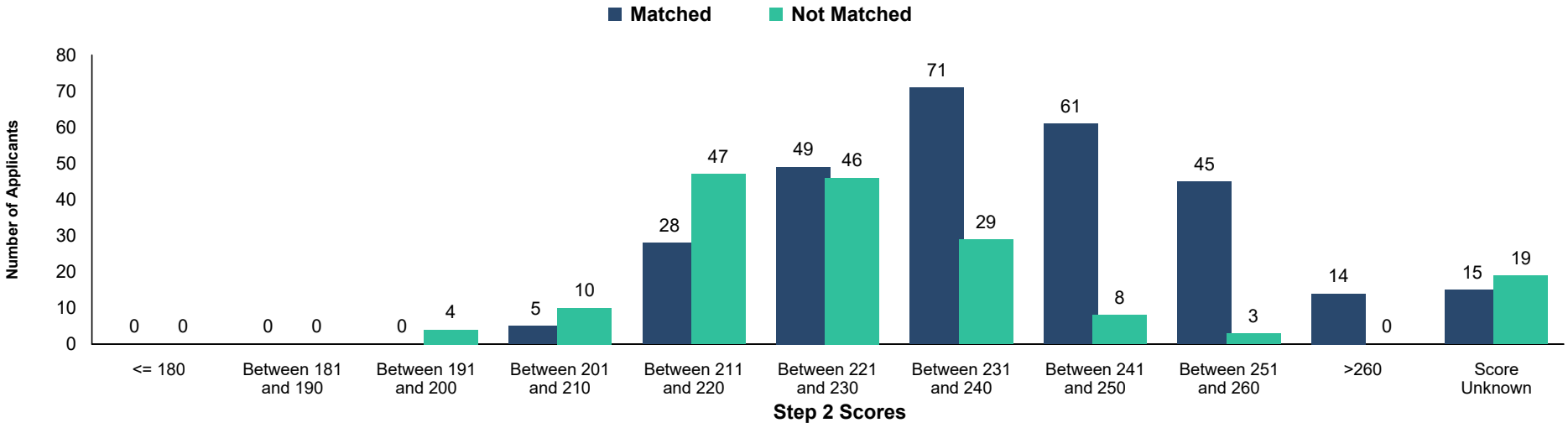
USMLE Step 2 CK Scores of International Medical Graduates

Pediatrics

U.S. IMGs



Non-U.S. IMGs



Source: NRMP Data Warehouse

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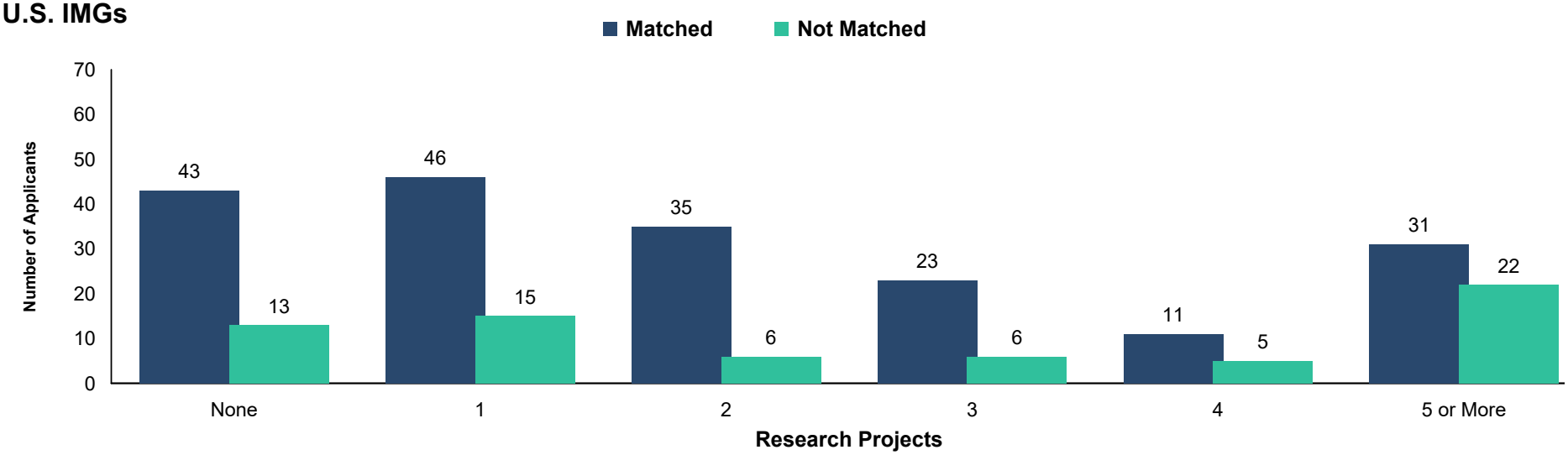
Chart PD-5

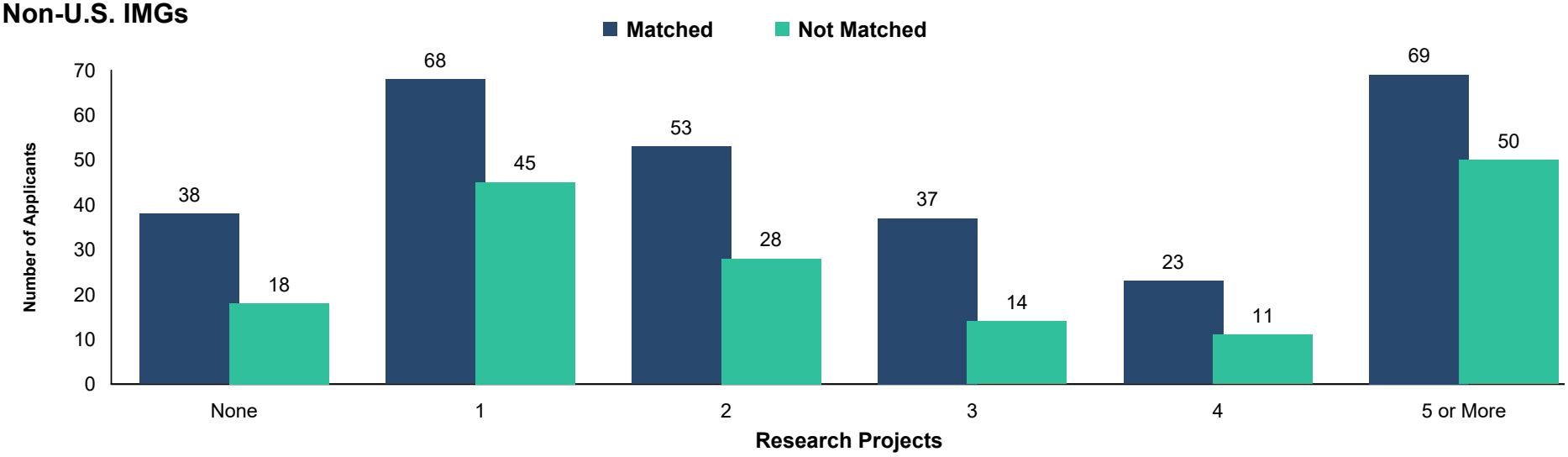
Number of Research Projects of International Medical Graduates

Pediatrics

U.S. IMGs



Non-U.S. IMGs



Source: NRMP Data Warehouse

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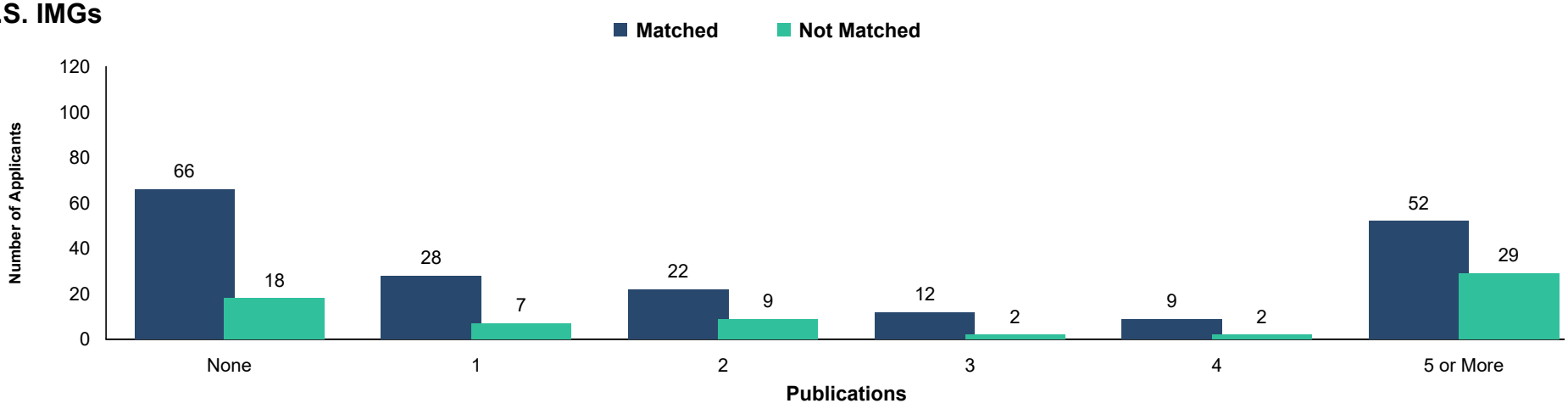
Chart PD-6

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

Pediatrics

U.S. IMGs



Non-U.S. IMGs

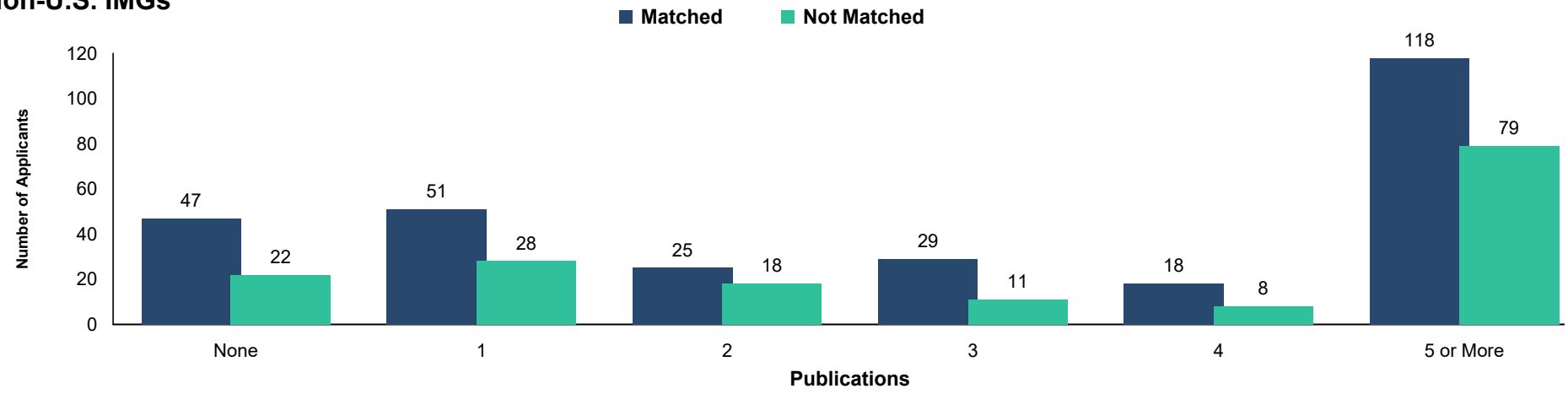


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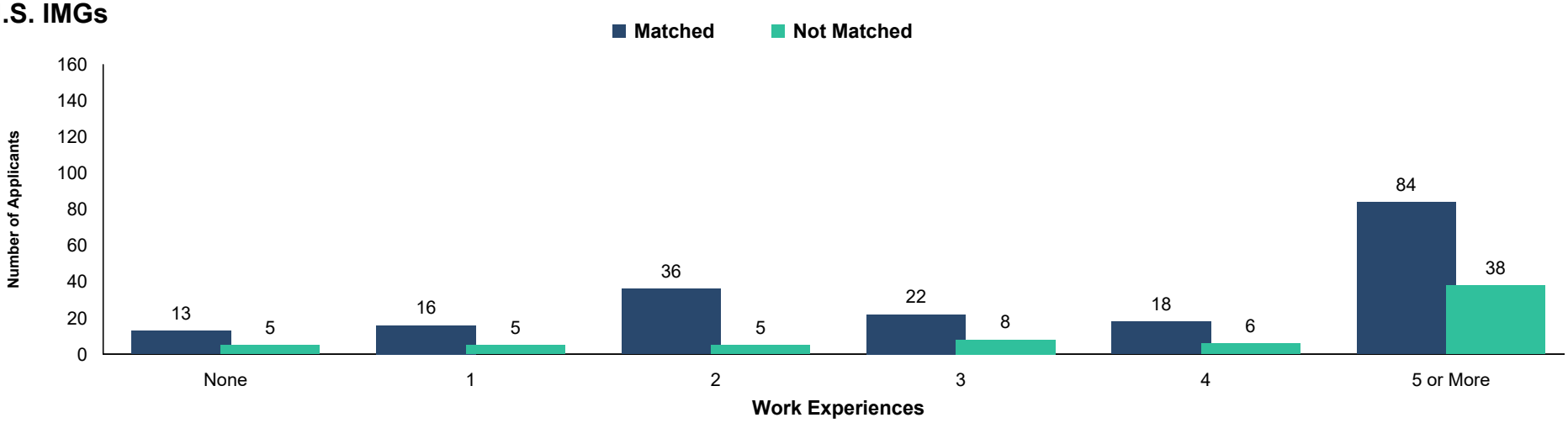
Chart PD-7

Number of Work Experiences of International Medical Graduates

Pediatrics

U.S. IMGs



Non-U.S. IMGs

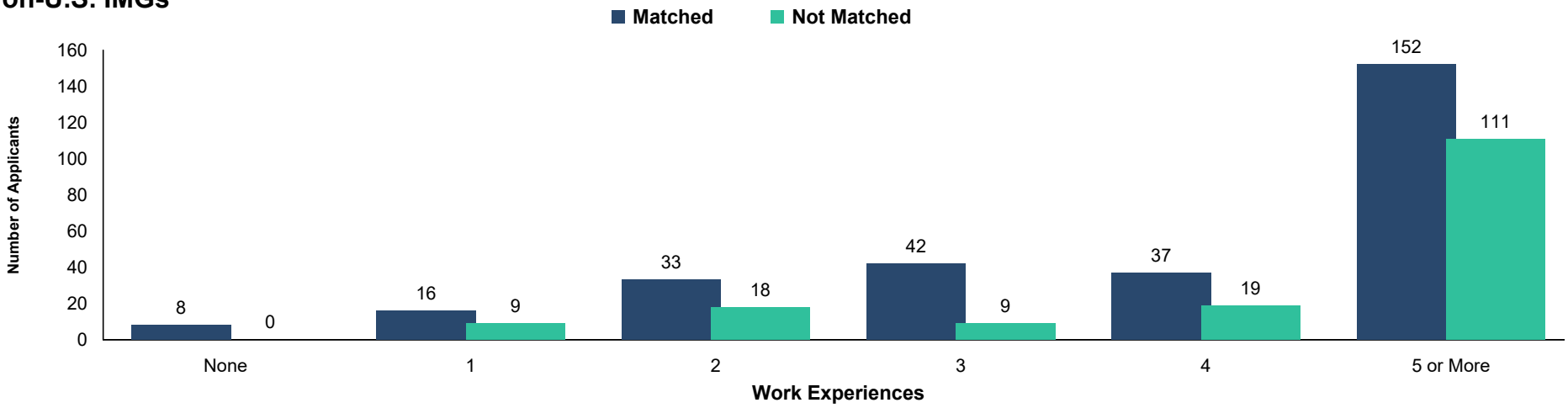


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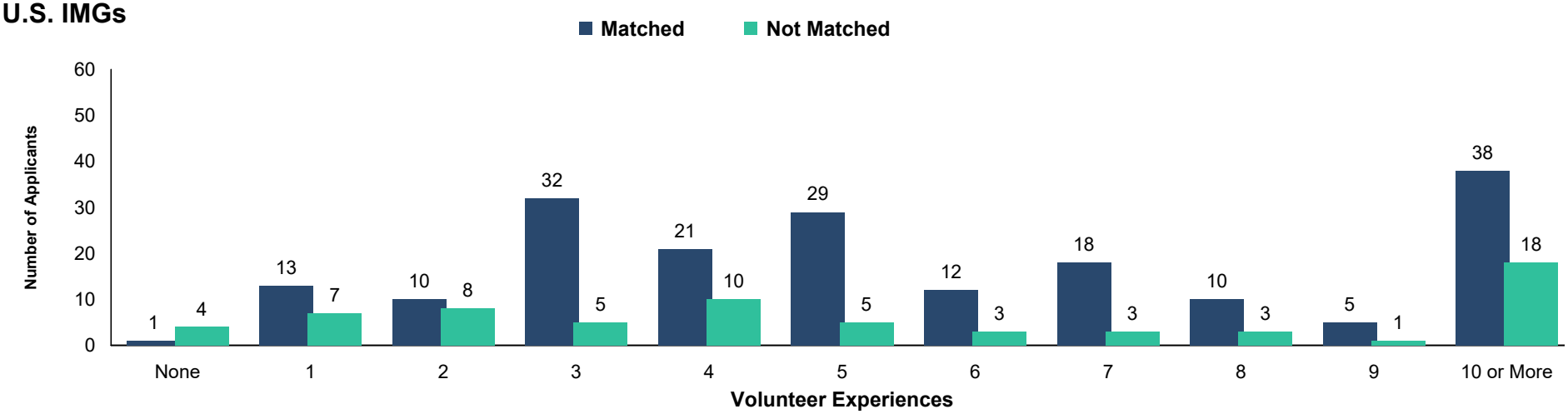
Chart PD-8

Number of Volunteer Experiences of International Medical Graduates

Pediatrics

U.S. IMGs



Non-U.S. IMGs

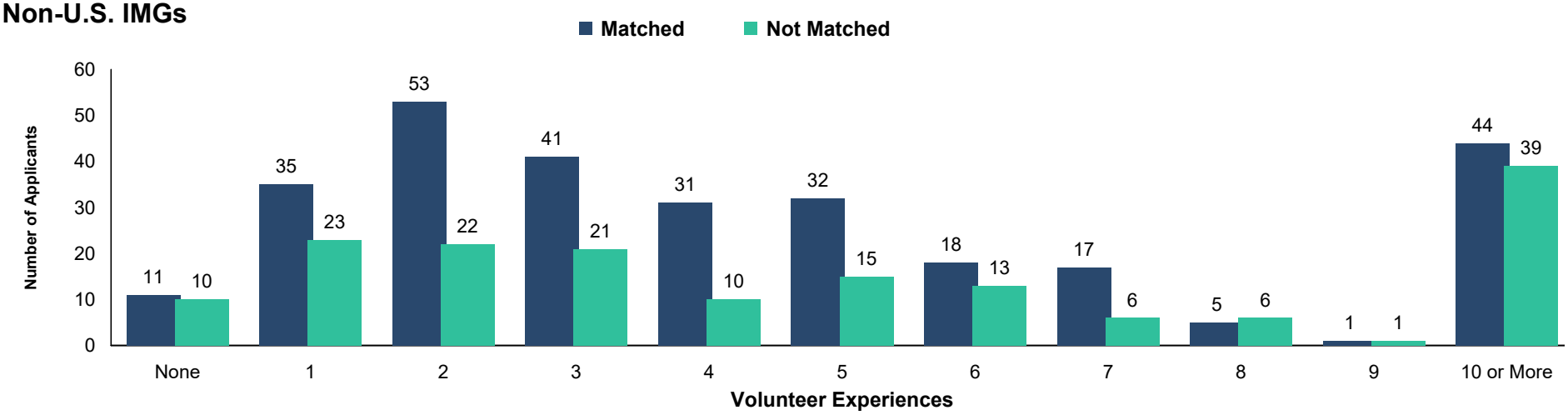


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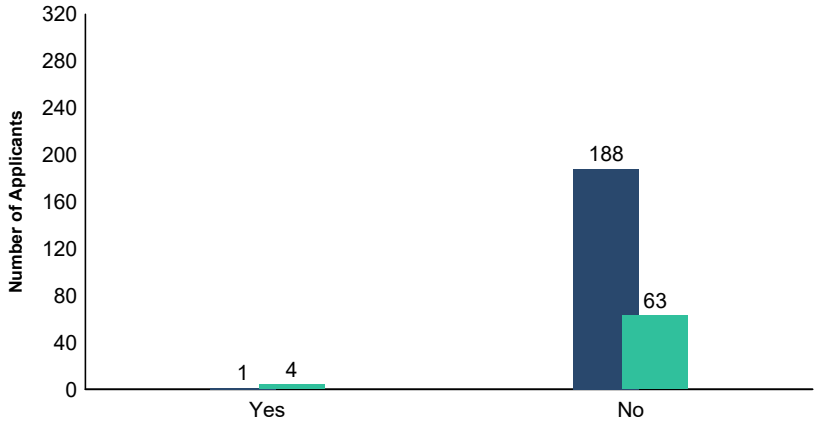
Chart PD-9 Other Characteristics of International Medical Graduates

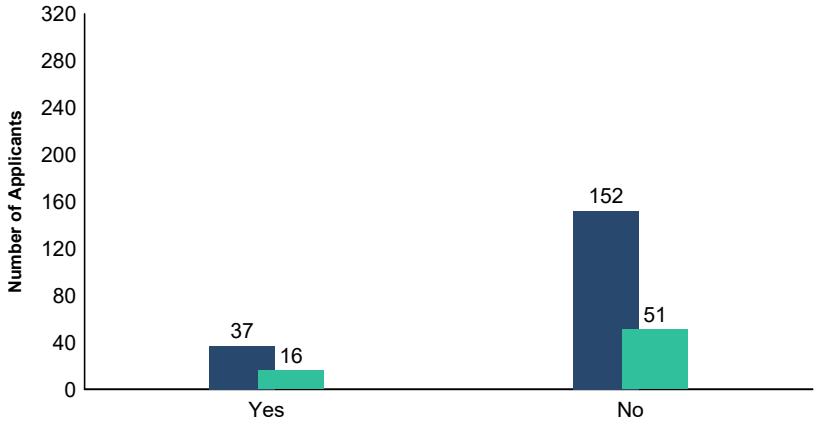
Pediatrics

U.S. IMGs

Ph.D. Degree

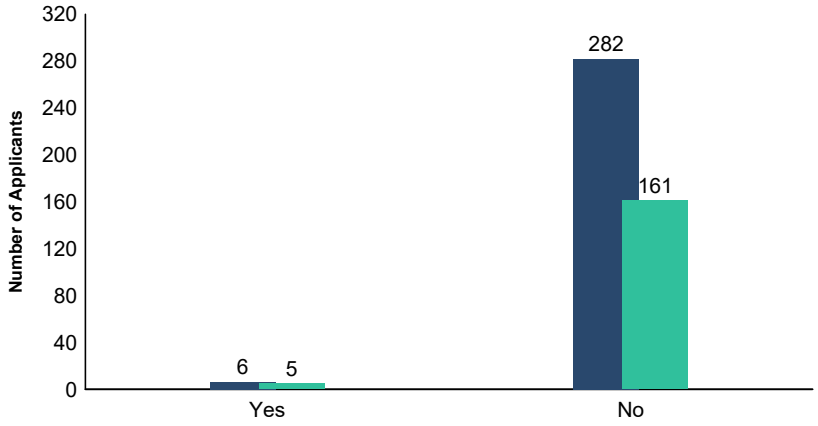


Other Graduate Degree

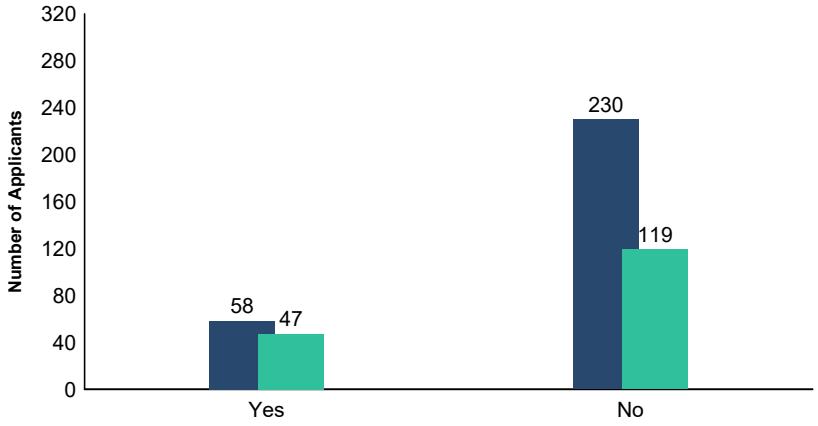


Non-U.S. IMGs

Ph.D. Degree



Other Graduate Degree



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PM Physical Medicine and Rehabilitation

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Table PM-1 Summary Statistics
Physical Medicine and Rehabilitation

Measure	U.S. IMGs		Non-U.S. IMGs	
	Matched (n=18)	Unmatched (n=33)	Matched (n=8)	Unmatched (n=19)
1. Mean number of contiguous ranks	8.0	2.7	6.6	1.8
2. Mean number of distinct specialties ranked	2.3	2.3	2.1	1.5
3. Mean USMLE Step 1 score	226	217	238	221
4. Mean USMLE Step 2 score	235	226	242	231
5. Mean number of research experiences	2.5	2.3	1.6	1.9
6. Mean number of abstracts, presentations, and publications	2.5	4.0	2.4	5.9
7. Mean number of work experiences	2.2	4.2	6.1	6.3
8. Mean number of volunteer experiences	4.6	4.4	3.7	3.7
9. Percentage who have a Ph.D. degree	0.0	3.6	0.0	5.6
10. Percentage who have another graduate degree	13.3	32.1	37.5	27.8

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

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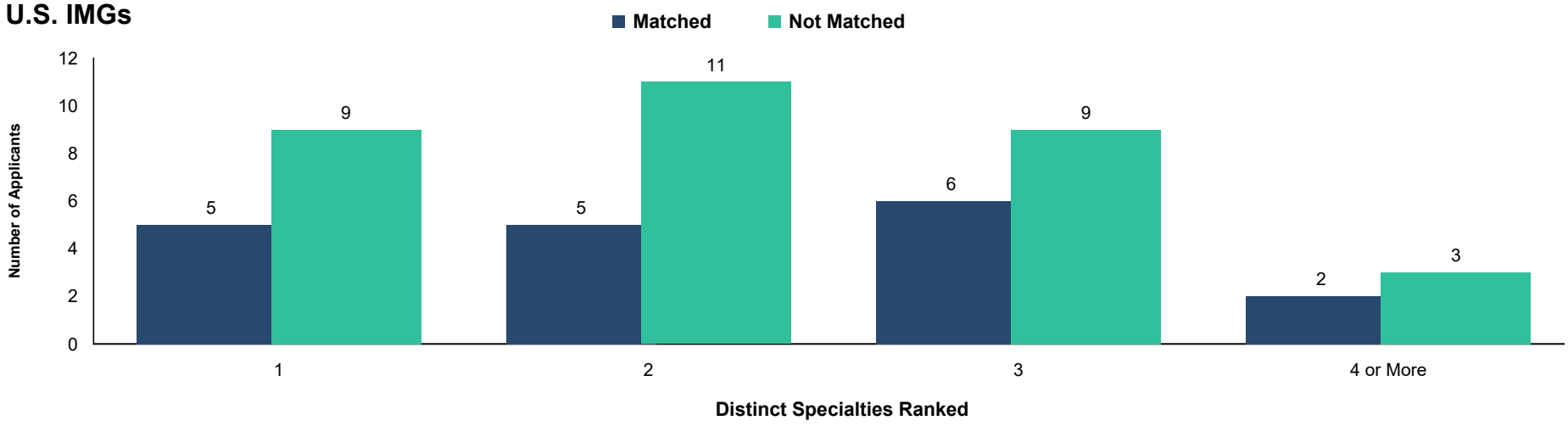
Chart PM-1

Number of Distinct Specialties Ranked by International Medical Graduates
Physical Medicine and Rehabilitation

U.S. IMGs



Non-U.S. IMGs

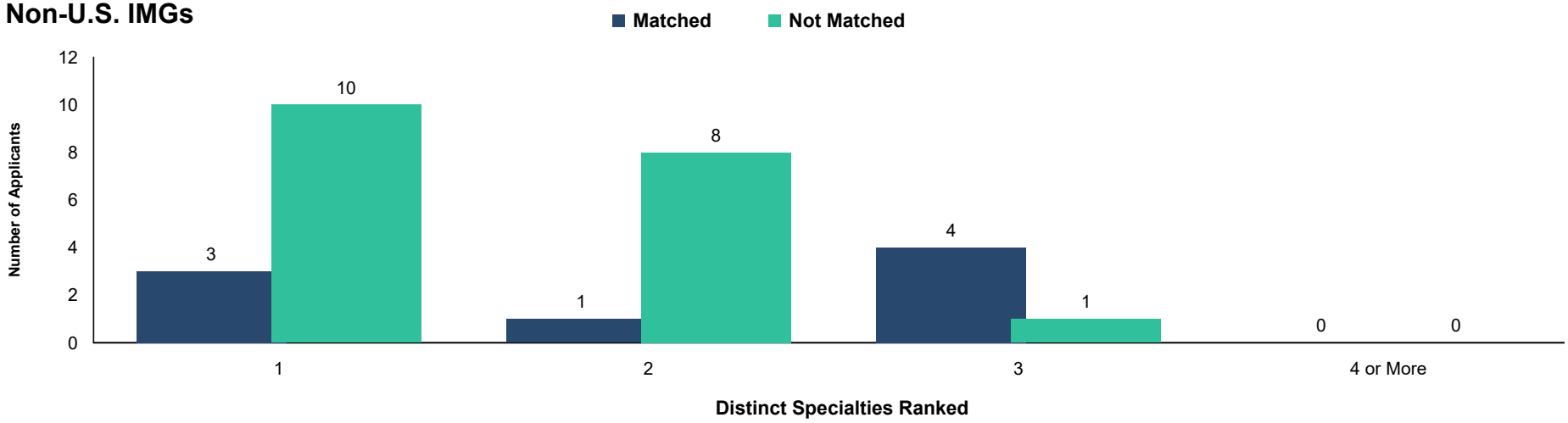


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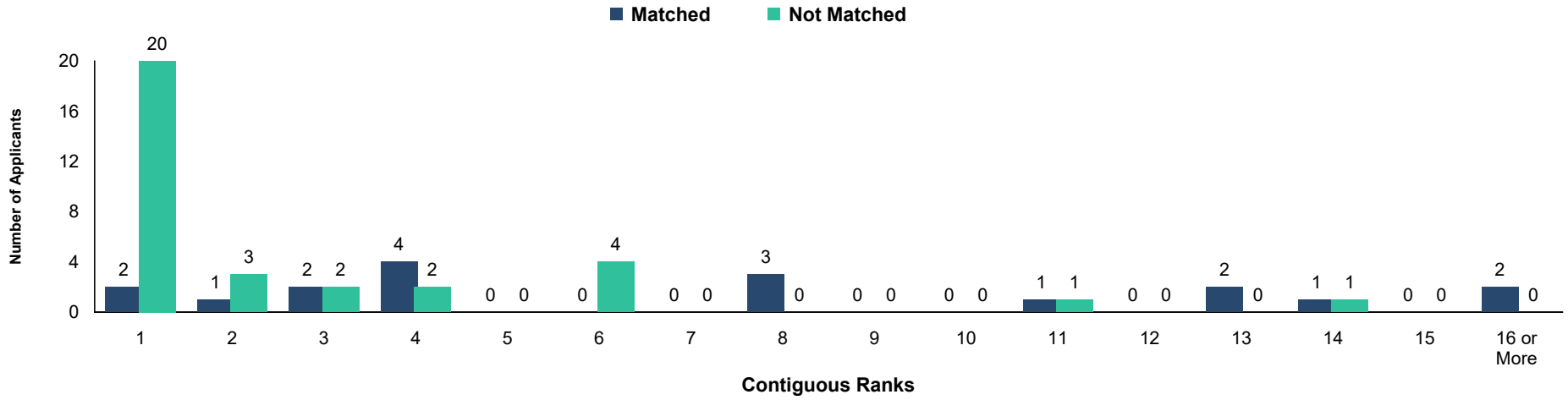
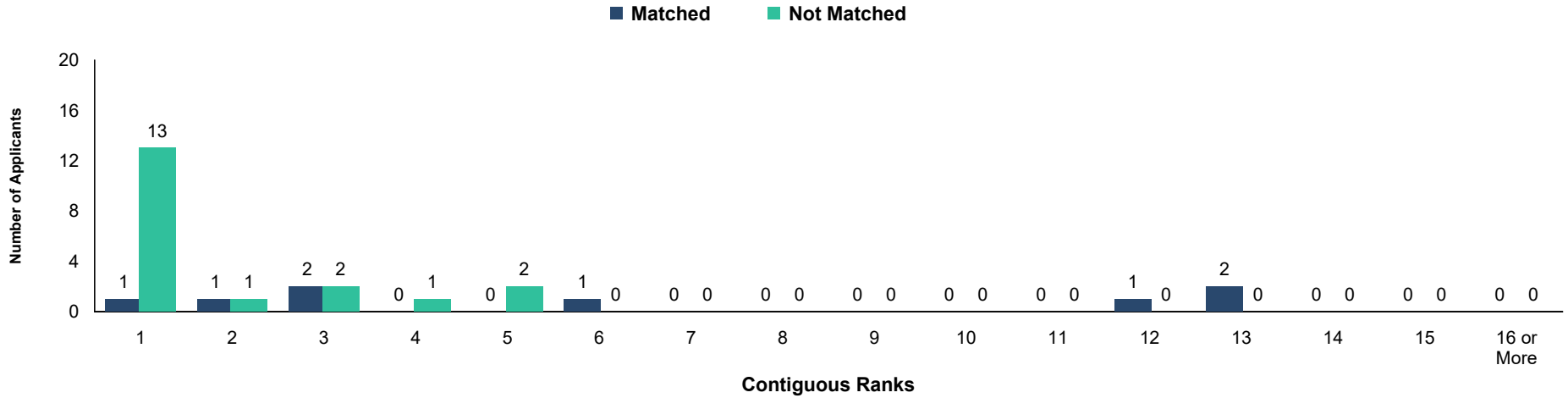
Chart PM-2 Number of Contiguous Ranks of International Medical Graduates Physical Medicine and Rehabilitation

U.S. IMGs



Non-U.S. IMGs



Source: NRMP Data Warehouse

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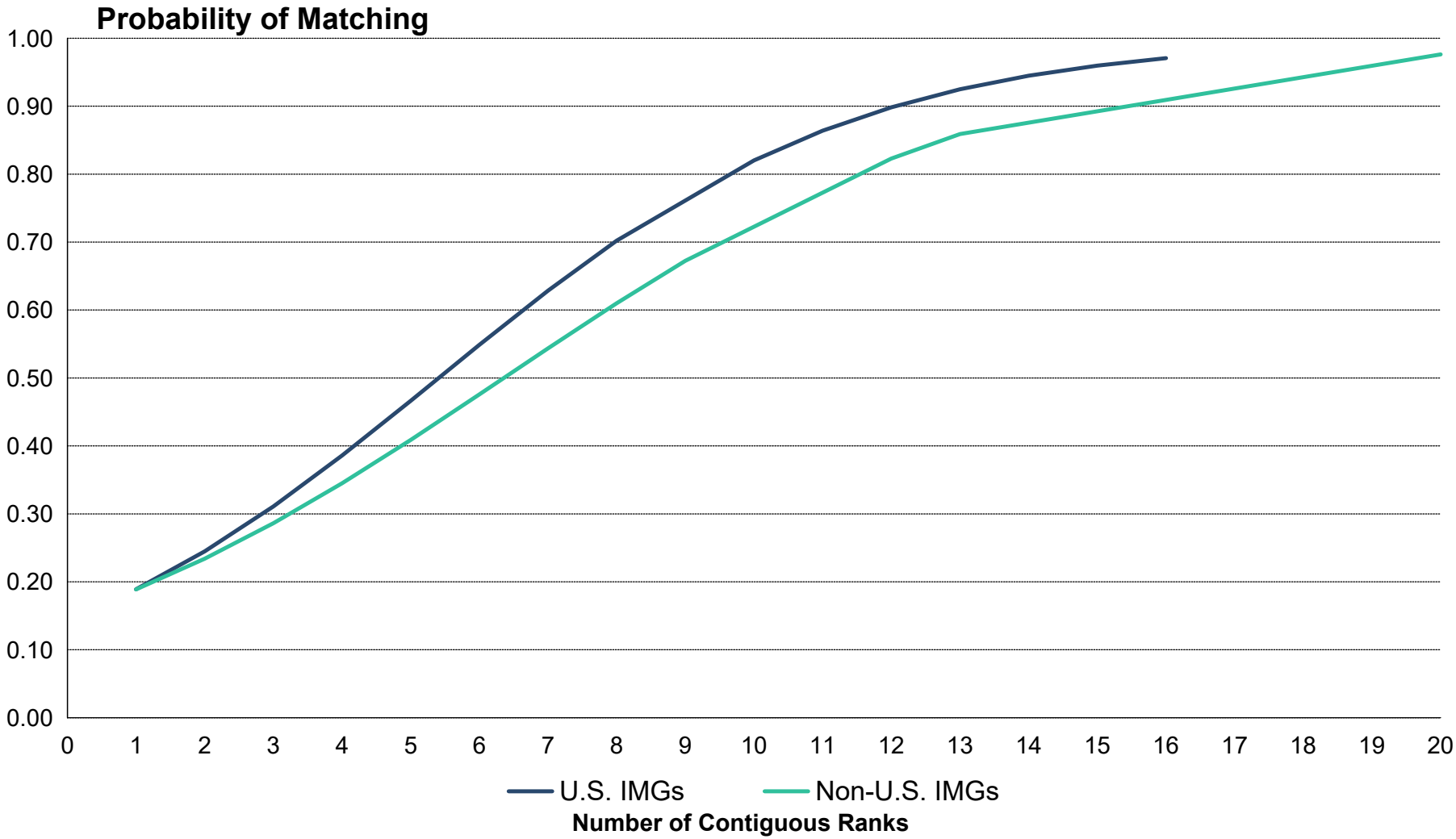
Graph PM-1

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 2016-2018 applicants

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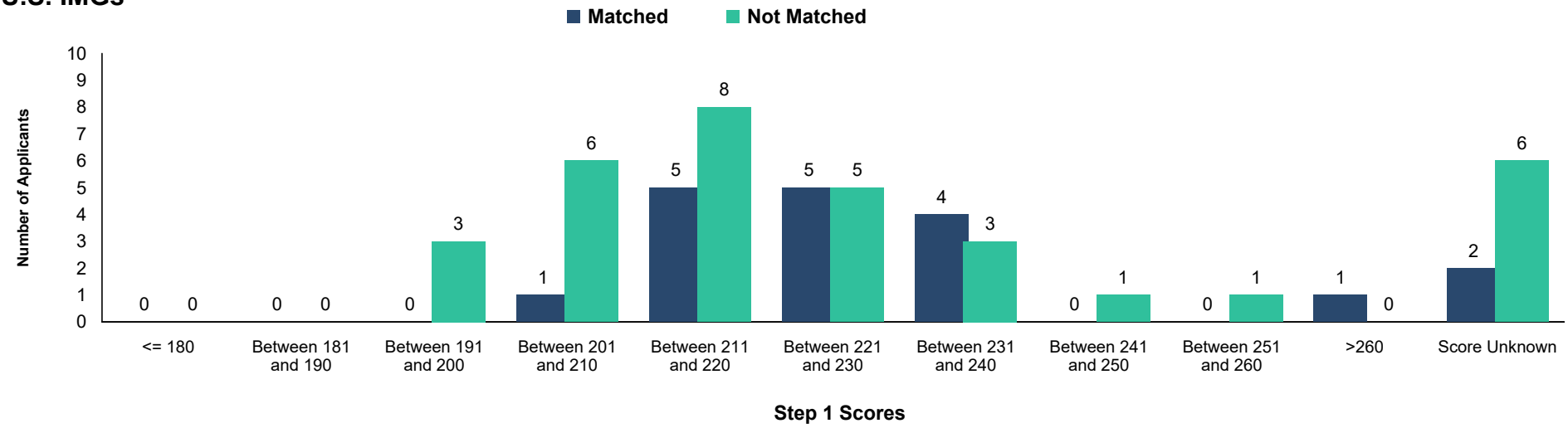
Chart PM-3

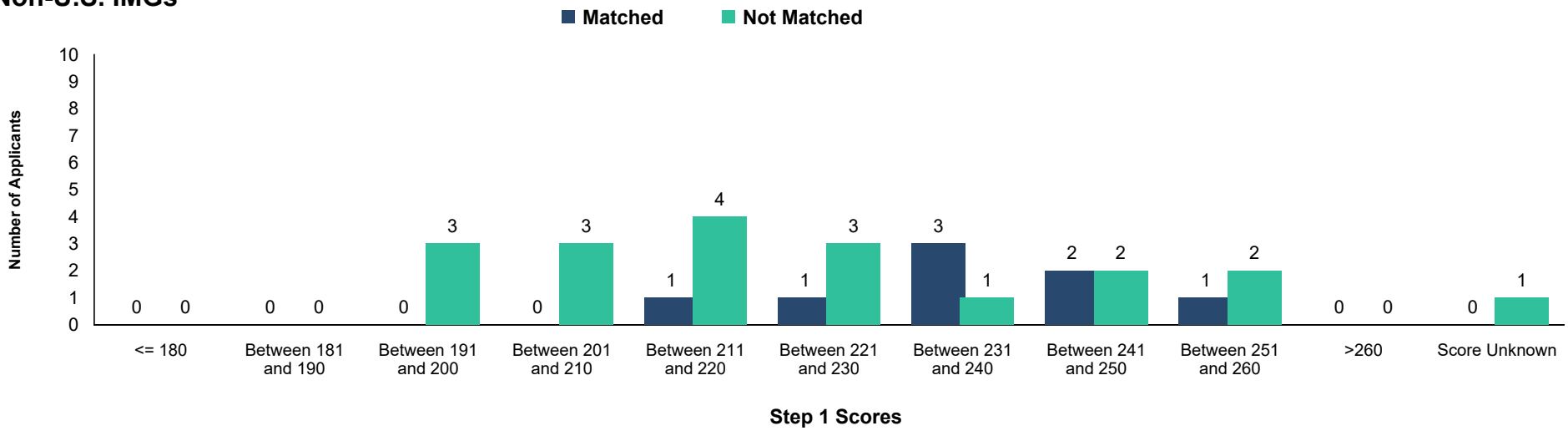
USMLE Step 1 Scores of International Medical Graduates

Physical Medicine and Rehabilitation

U.S. IMGs



Non-U.S. IMGs



Source: NRMP Data Warehouse

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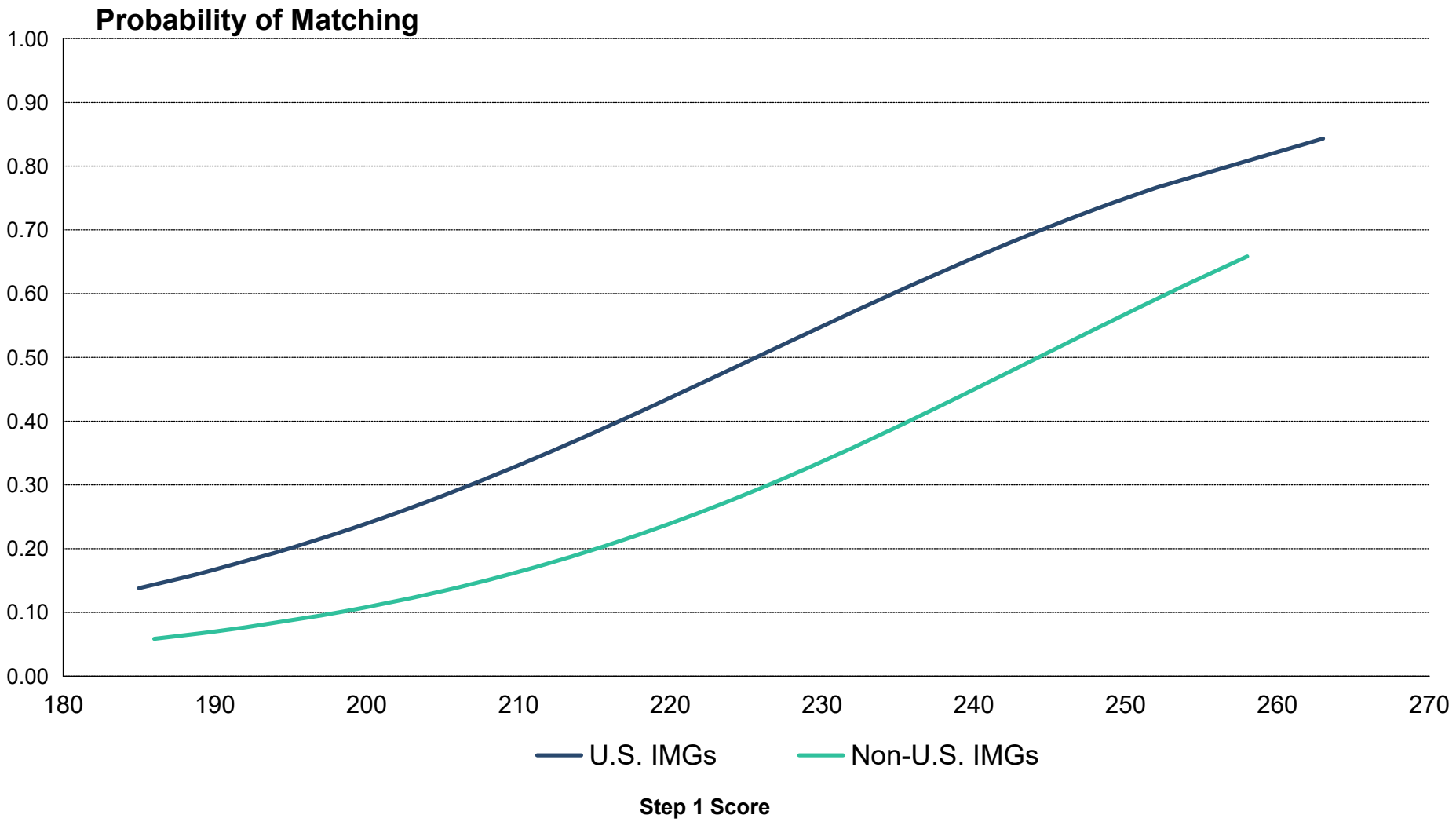
Graph PM-2

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 2016-2018 applicants.

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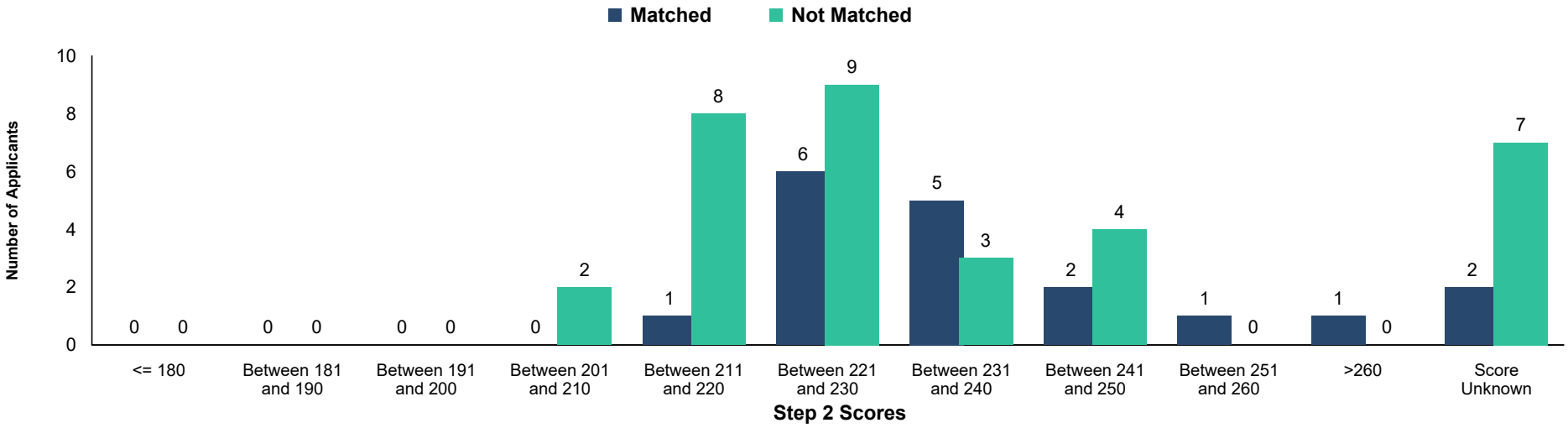
Chart PM-4

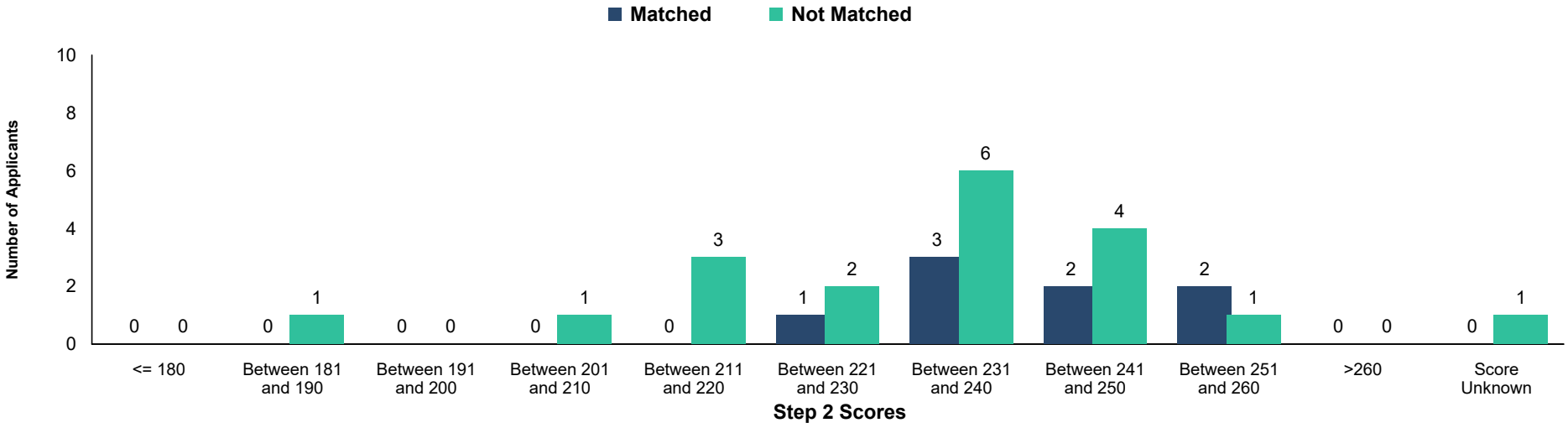
USMLE Step 2 CK Scores of International Medical Graduates

Physical Medicine and Rehabilitation

U.S. IMGs



Non-U.S. IMGs



Source: NRMP Data Warehouse

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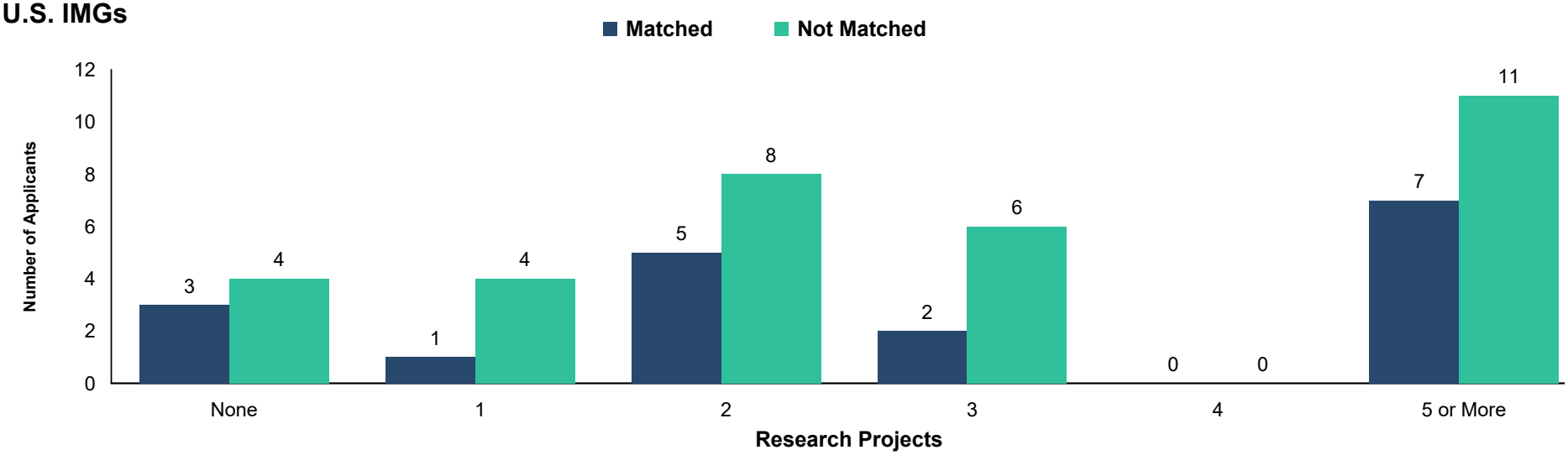
Chart PM-5

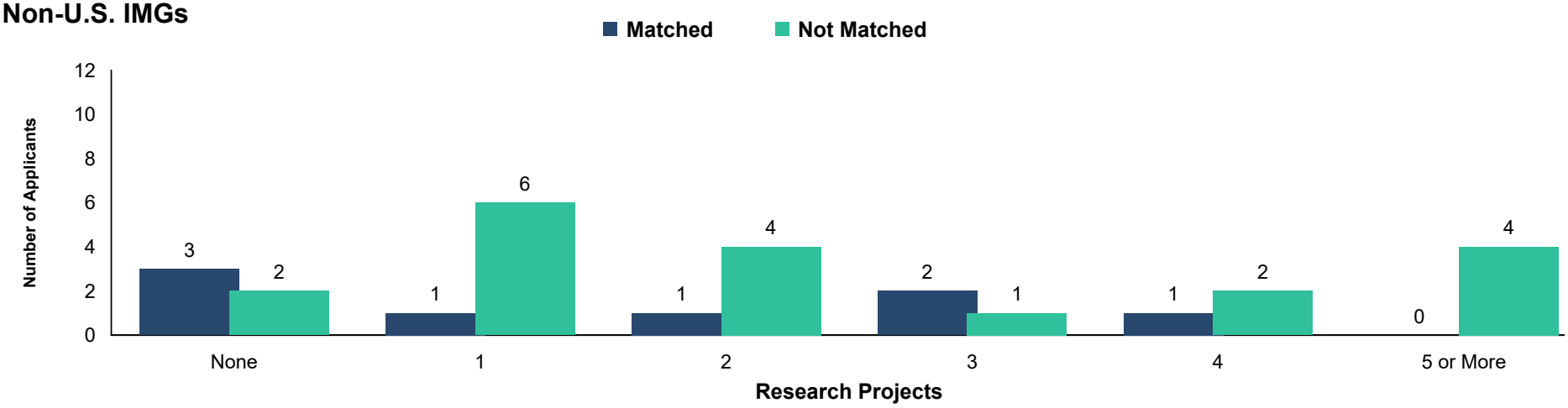
Number of Research Projects of International Medical Graduates

Physical Medicine and Rehabilitation

U.S. IMGs



Non-U.S. IMGs



Source: NRMP Data Warehouse

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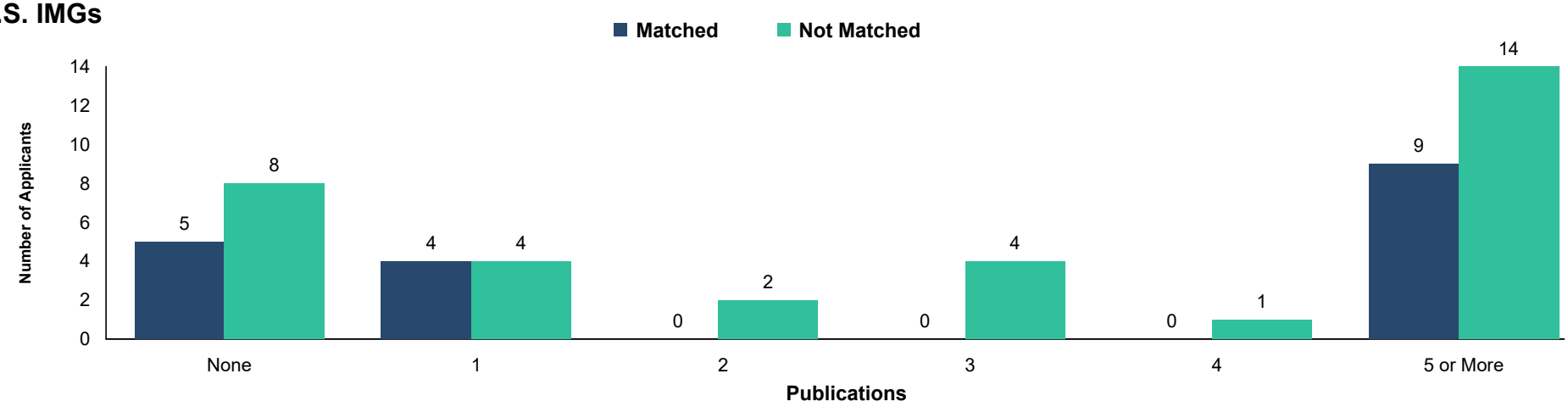
Chart PM-6

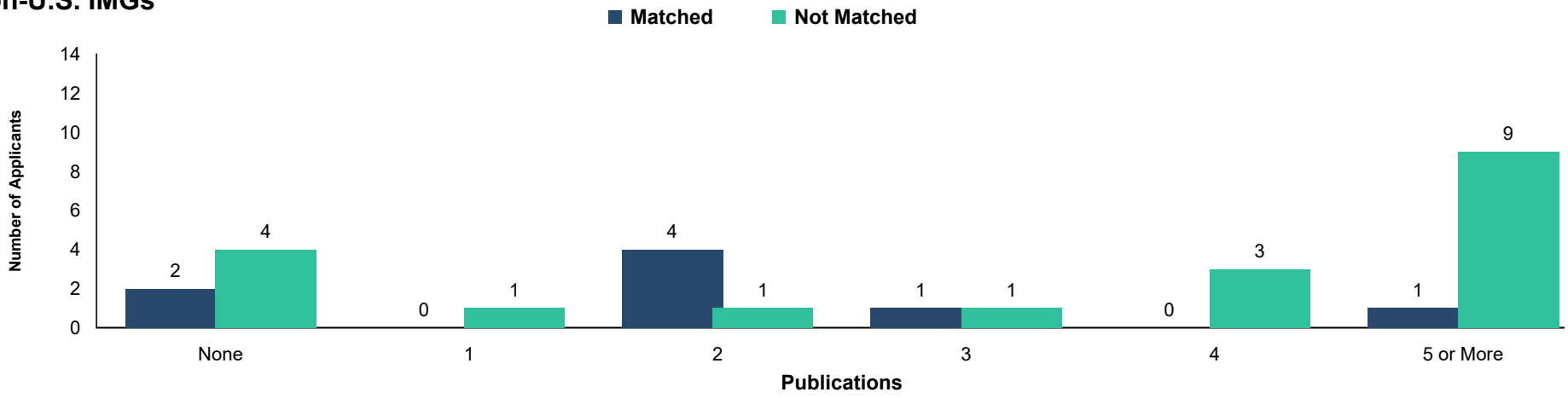
Number of Abstracts, Presentations, and Publications of International Medical Graduates

Physical Medicine and Rehabilitation

U.S. IMGs



Non-U.S. IMGs



Source: NRMP Data Warehouse

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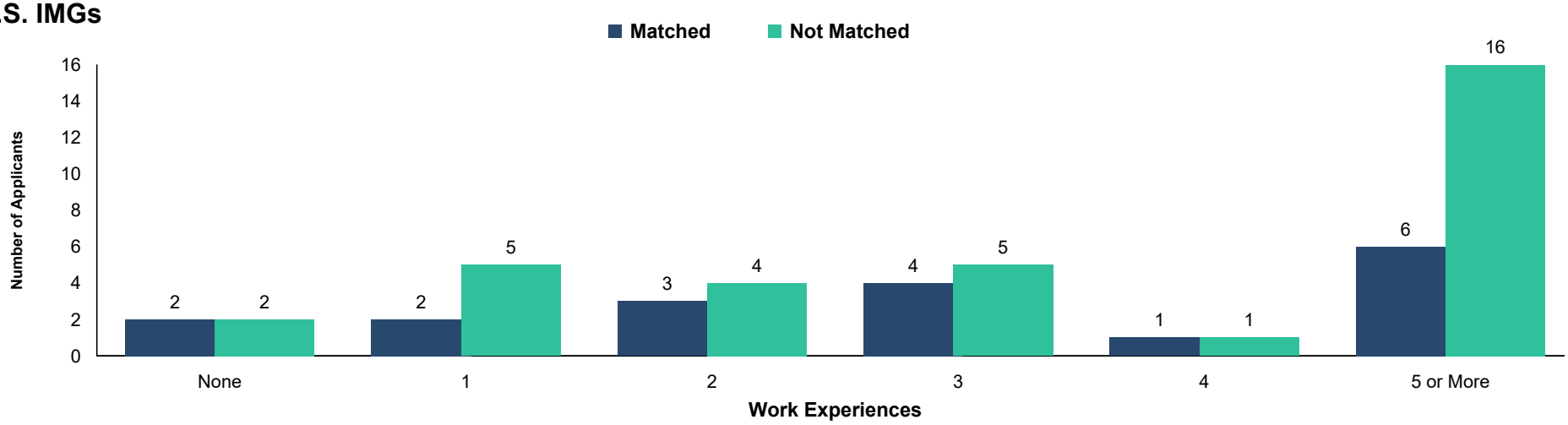
Chart PM-7

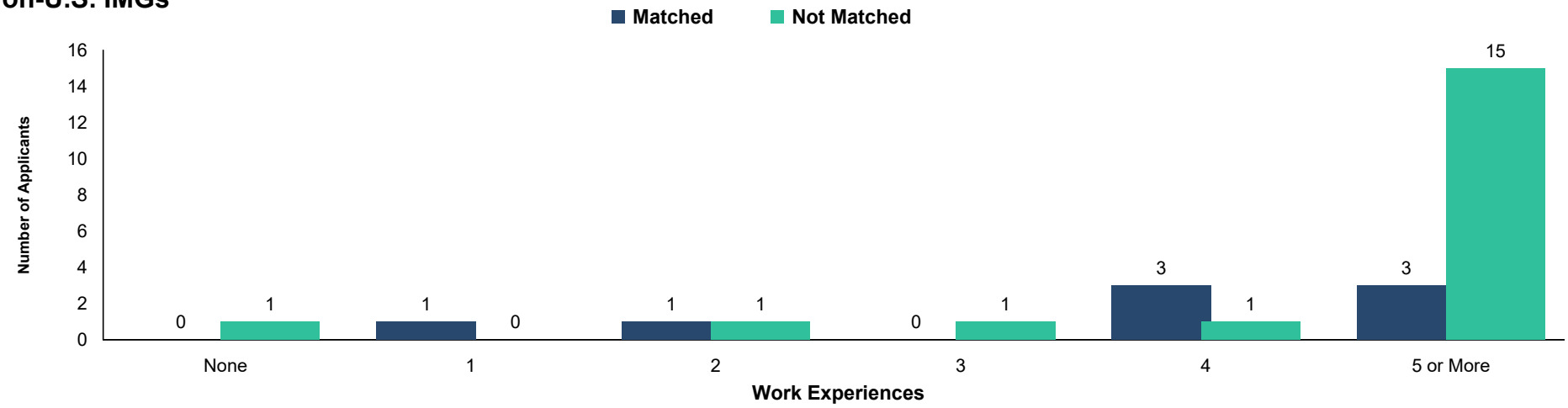
Number of Work Experiences of International Medical Graduates

Physical Medicine and Rehabilitation

U.S. IMGs



Non-U.S. IMGs



Source: NRMP Data Warehouse

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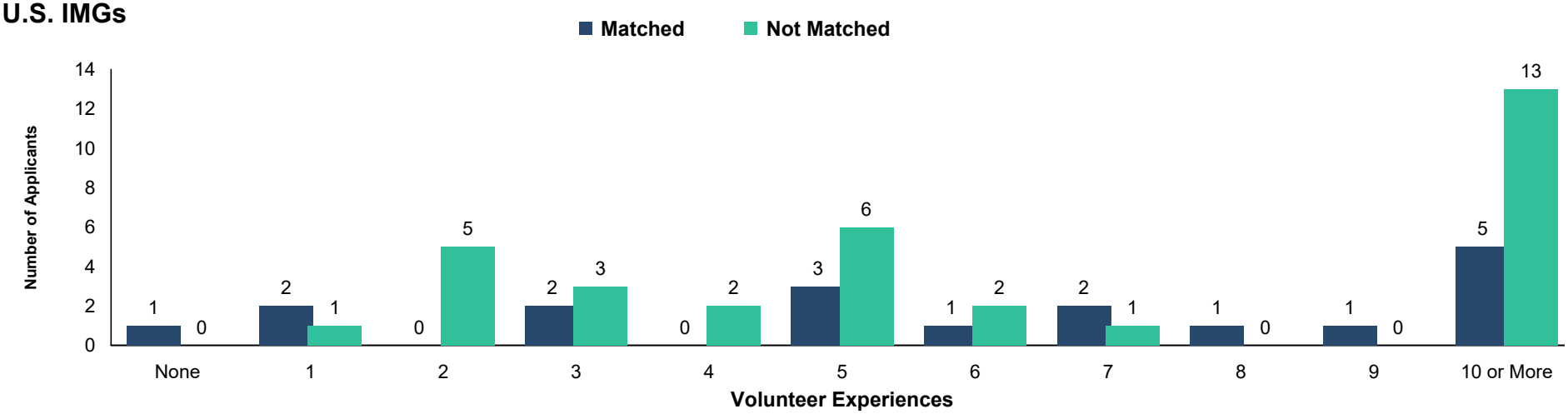
Chart PM-8

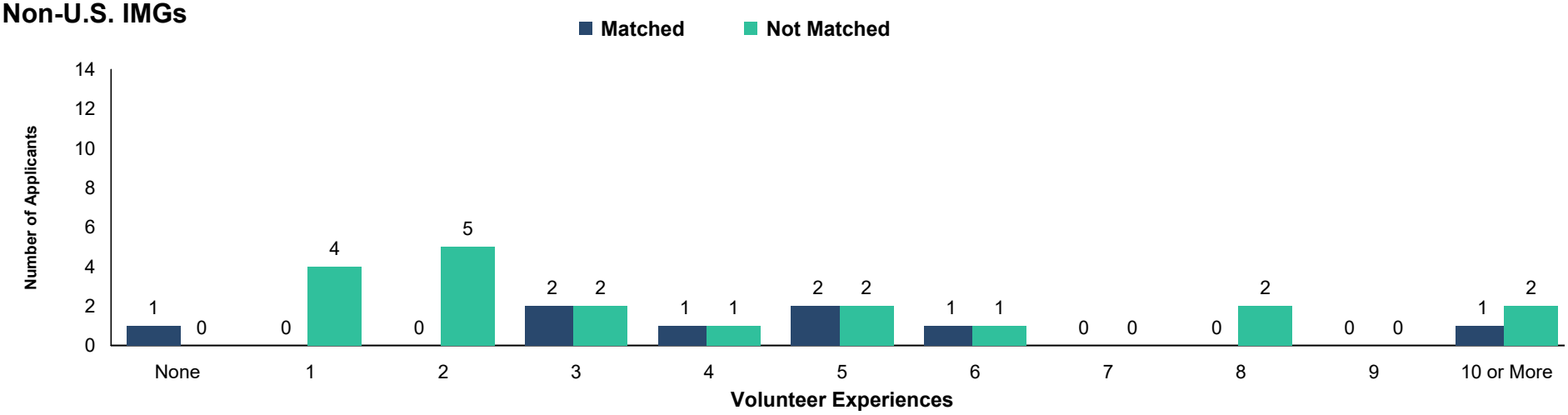
Number of Volunteer Experiences of International Medical Graduates

Physical Medicine and Rehabilitation

U.S. IMGs



Non-U.S. IMGs



Source: NRMP Data Warehouse

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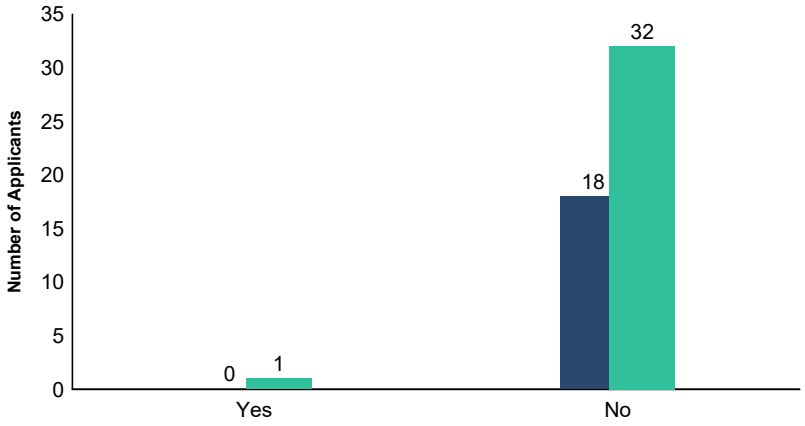
Chart PM-9 Other Characteristics of International Medical Graduates

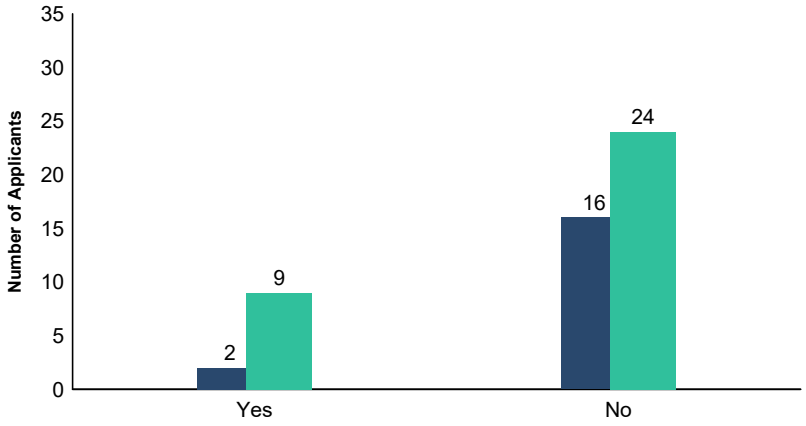
Physical Medicine and Rehabilitation

U.S. IMGs

Ph.D. Degree

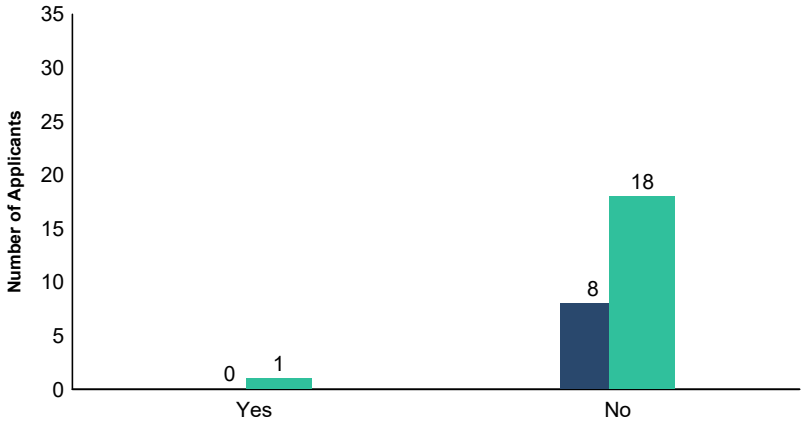


Other Graduate Degree

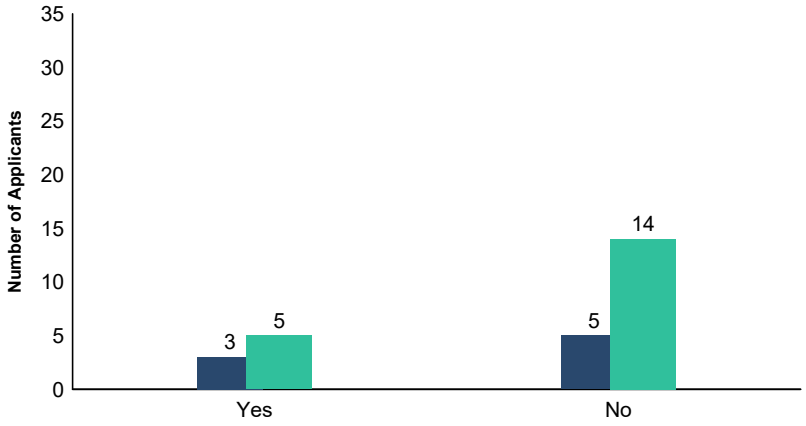


Non-U.S. IMGs

Ph.D. Degree



Other Graduate Degree



Source: NRMP Data Warehouse

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PS Plastic Surgery

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Table PS-1 Summary Statistics
Plastic Surgery

Measure	U.S. IMGs	Non-U.S. IMGs	
	Data not shown due to the small sample size	Matched (n=1)	Unmatched (n=9)
1. Mean number of contiguous ranks		5.0	4.7
2. Mean number of distinct specialties ranked		1.0	1.6
3. Mean USMLE Step 1 score		228	228
4. Mean USMLE Step 2 score		242	239
5. Mean number of research experiences		3.0	3.3
6. Mean number of abstracts, presentations, and publications		28.0	14.9
7. Mean number of work experiences		9.0	5.8
8. Mean number of volunteer experiences		8.0	3.0
9. Percentage who have a Ph.D. degree		0.0	0.0
10. Percentage who have another graduate degree		0.0	14.3

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

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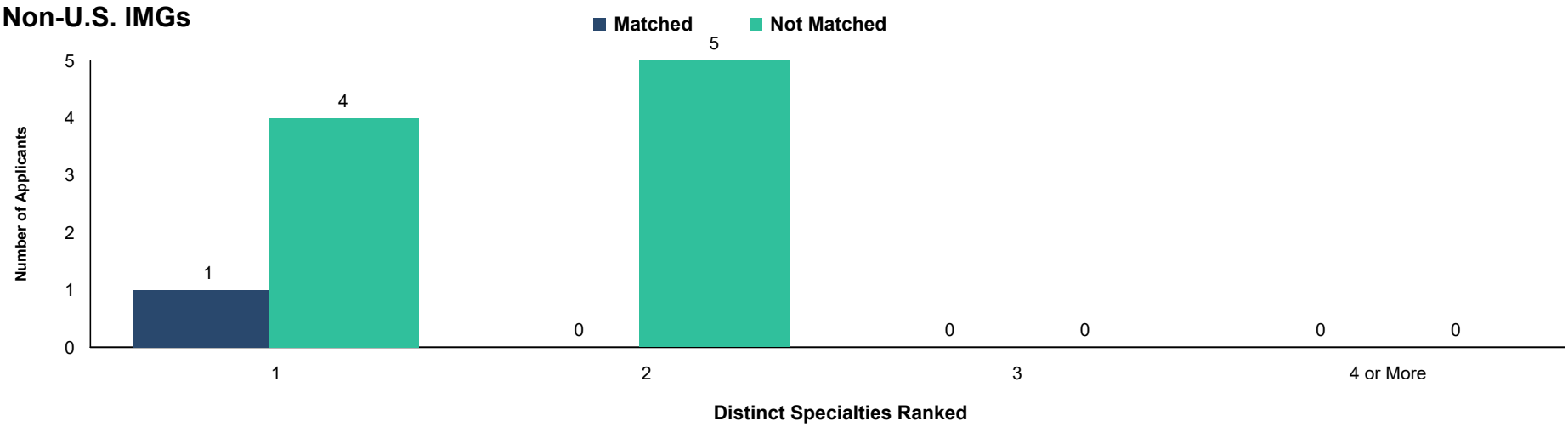
Chart PS-1
Number of Distinct Specialties Ranked by International Medical Graduates
Plastic Surgery



Note: Data for U.S. IMGs are not shown due to the small sample size.

Source: NRMP Data Warehouse

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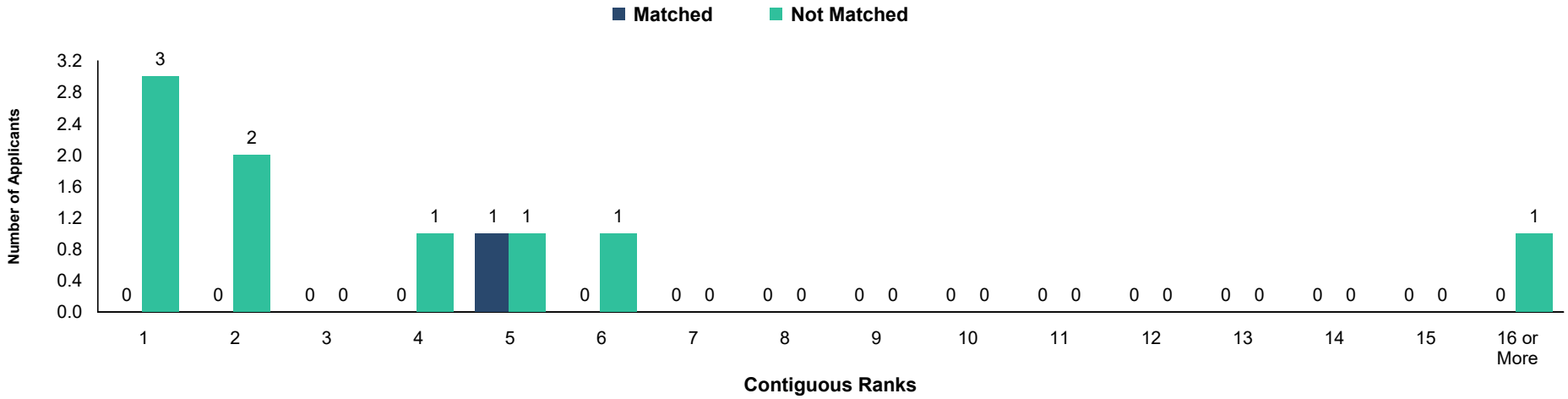
Chart PS-2 Number of Contiguous Ranks of International Medical Graduates Plastic Surgery

Non-U.S. IMGs



Note: Data for U.S. IMGs are not shown due to the small sample size.

Source: NRMP Data Warehouse

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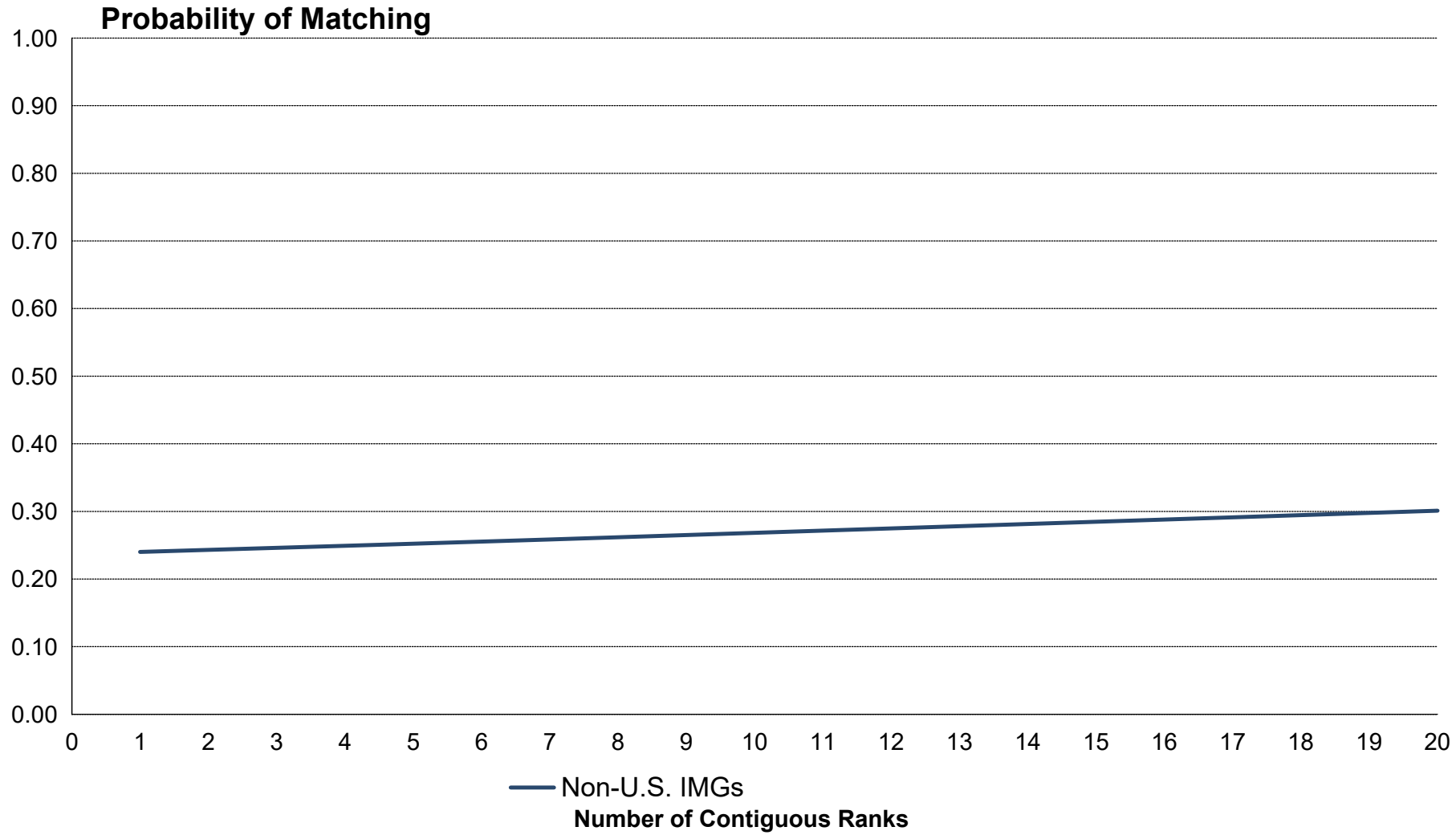
Graph PS-1

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

Plastic Surgery



Note: Data for U.S. IMGs are not shown due to the small sample size.

Source: NRMP Data Warehouse. Note: Probabilities calculated based on 2016-2018 applicants

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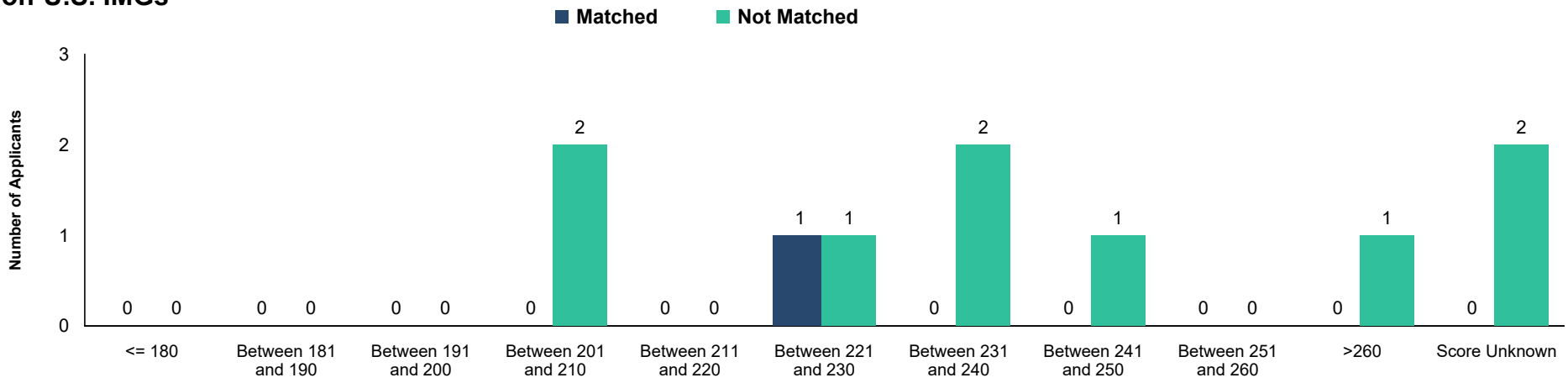
Chart PS-3

USMLE Step 1 Scores of International Medical Graduates

Plastic Surgery

Non-U.S. IMGs



Note: Data for U.S. IMGs are not shown due to the small sample size.

Source: NRMP Data Warehouse

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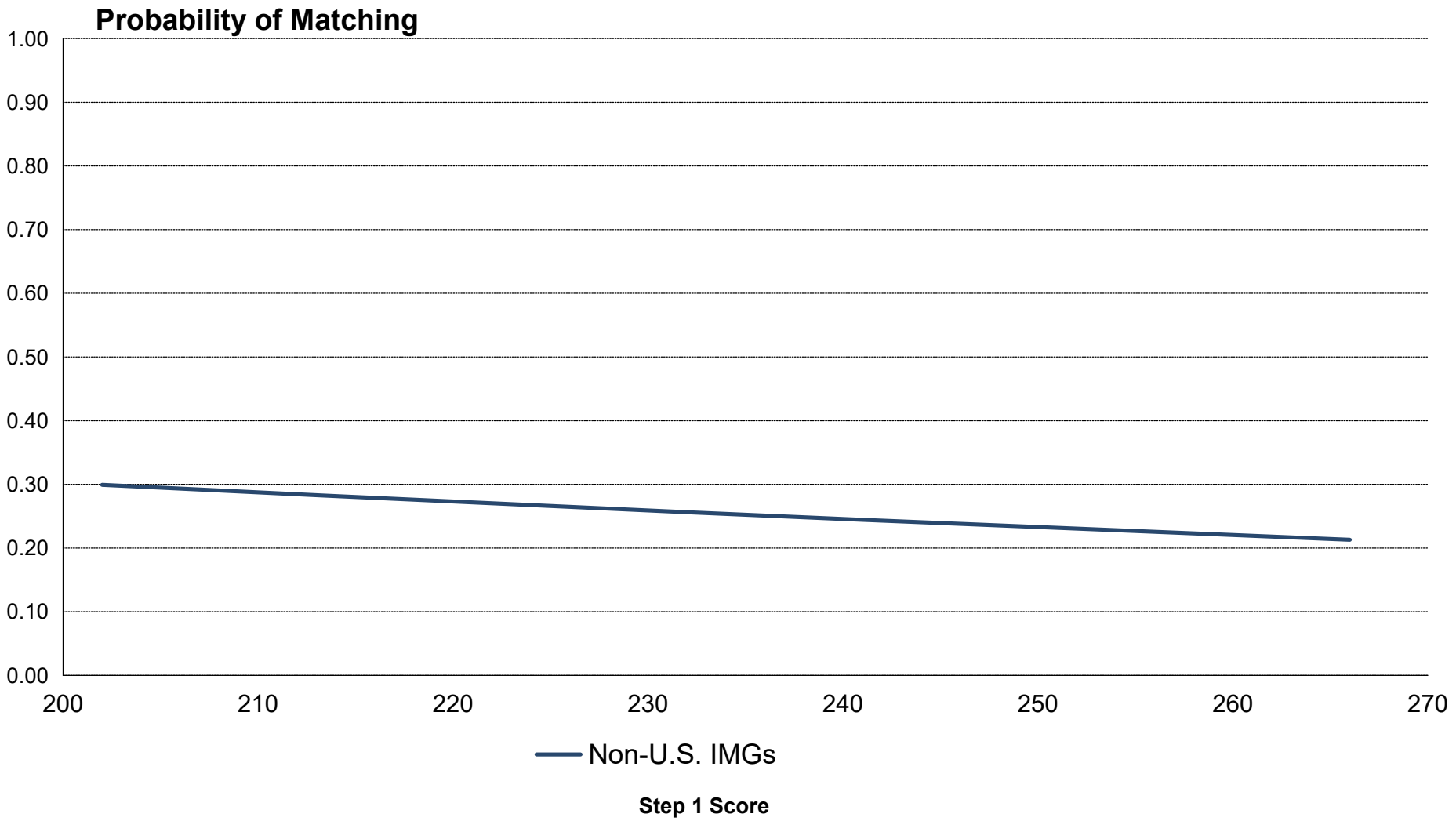
Graph PS-2

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

Plastic Surgery



Note: Data for U.S. IMGs are not shown due to the small sample size.

Source: NRMP Data Warehouse. Note: Probabilities calculated based on 2016-2018 applicants.

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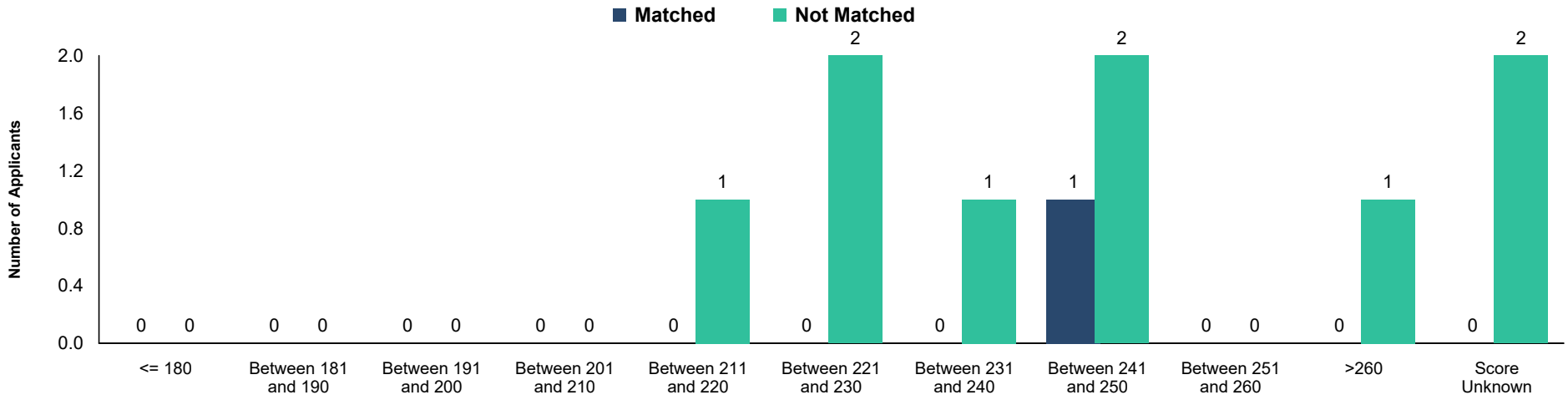
Chart PS-4 USMLE Step 2 CK Scores of International Medical Graduates

Plastic Surgery

Non-U.S. IMGs



Note: Data for U.S. IMGs are not shown due to the small sample size.

Source: NRMP Data Warehouse

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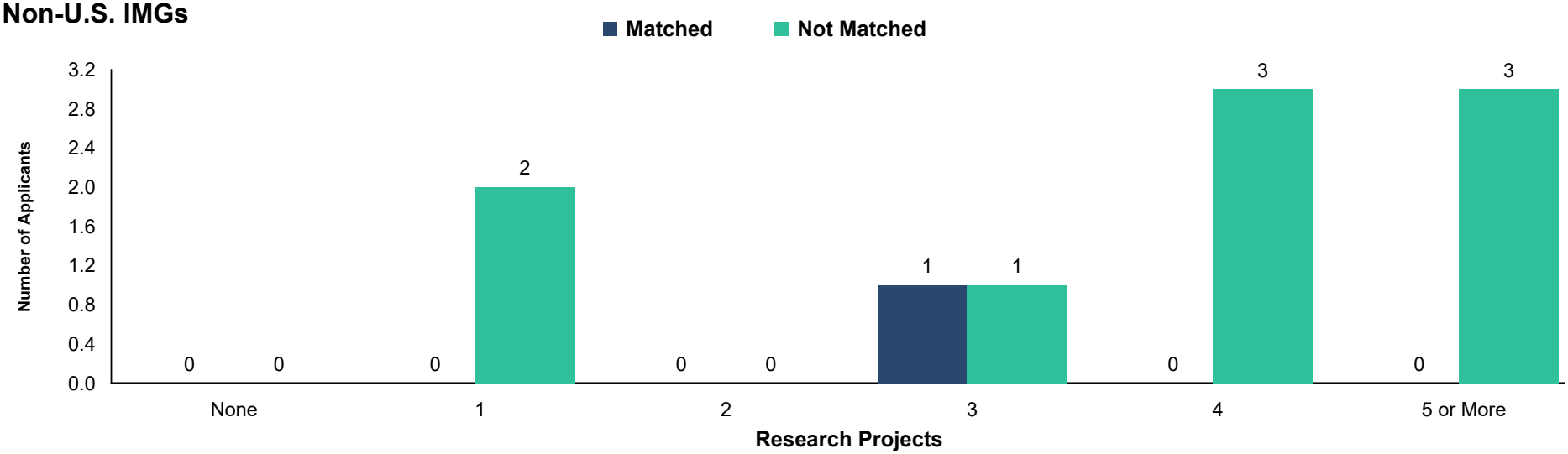
Chart PS-5

Number of Research Projects of International Medical Graduates

Plastic Surgery

Non-U.S. IMGs



Note: Data for U.S. IMGs are not shown due to the small sample size.

Source: NRMP Data Warehouse

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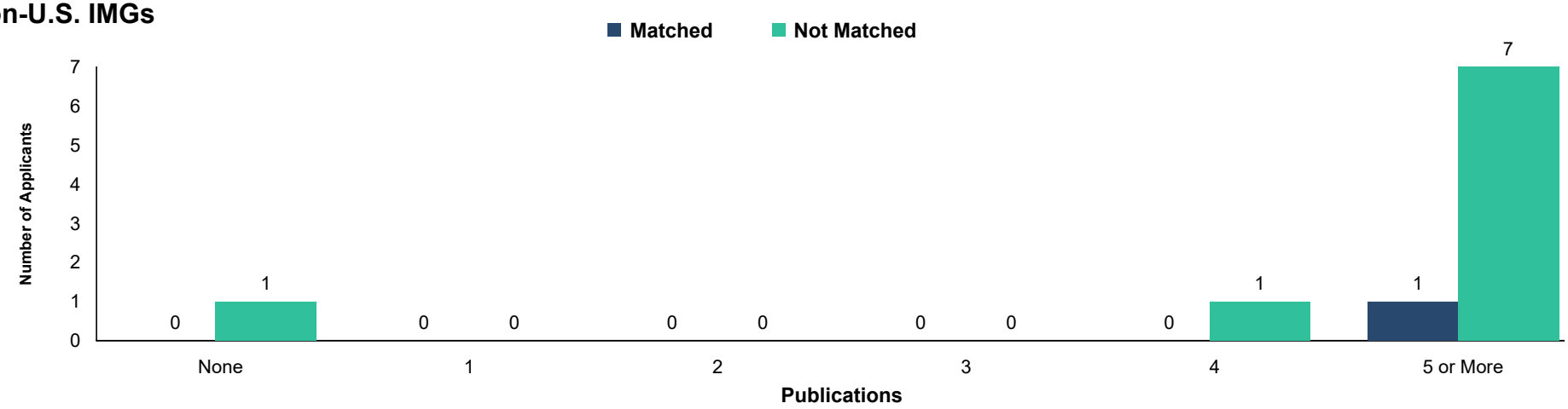
Chart PS-6

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

Plastic Surgery

Non-U.S. IMGs



Note: Data for U.S. IMGs are not shown due to the small sample size.

Source: NRMP Data Warehouse

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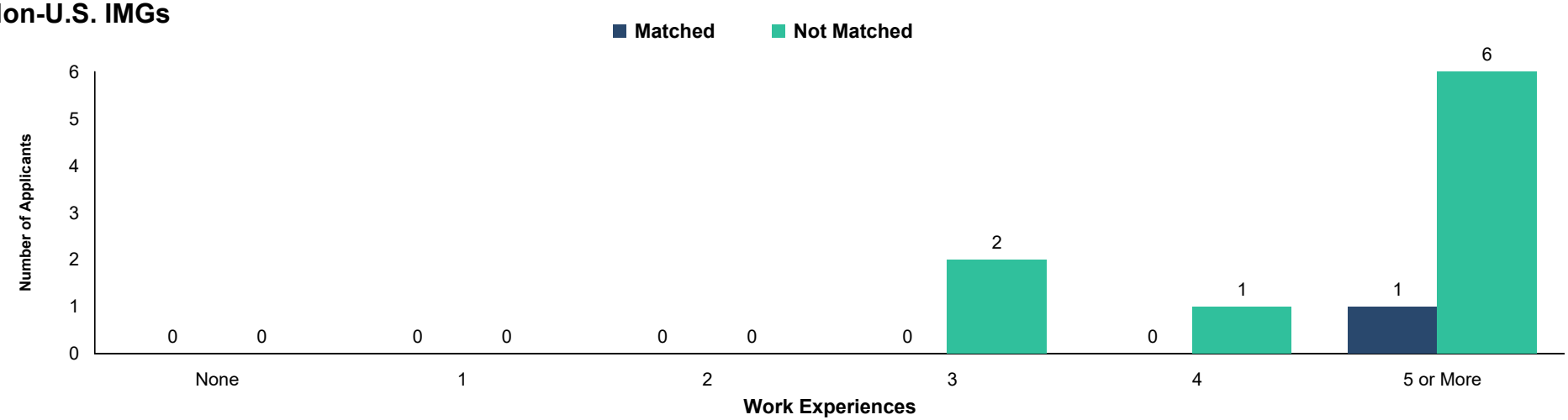
Chart PS-7

Number of Work Experiences of International Medical Graduates
Plastic Surgery

Non-U.S. IMGs



Note: Data for U.S. IMGs are not shown due to the small sample size.

Source: NRMP Data Warehouse

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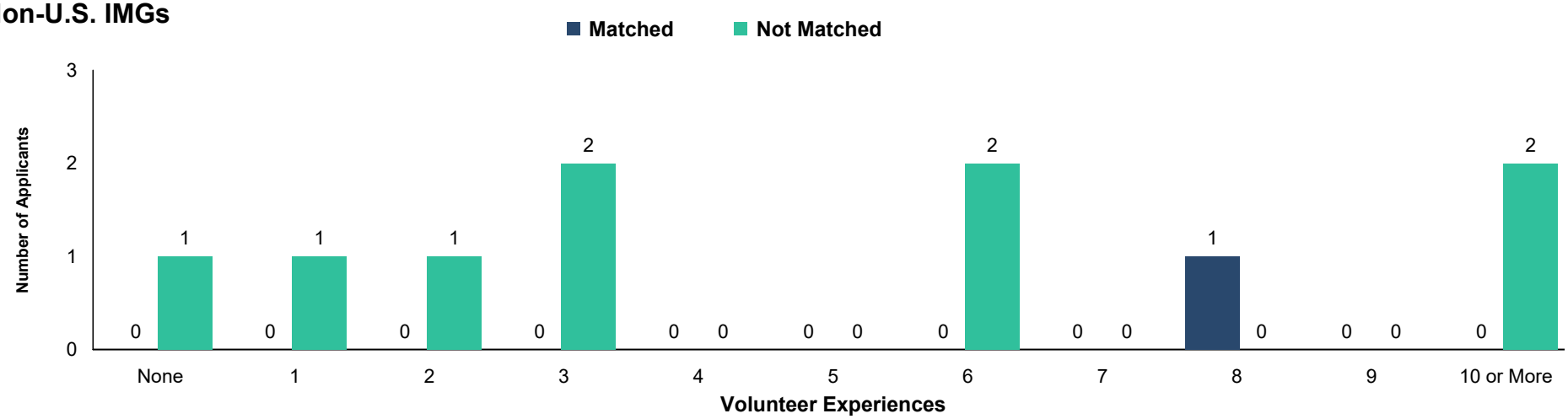
Chart PS-8

Number of Volunteer Experiences of International Medical Graduates

Plastic Surgery

Non-U.S. IMGs



Note: Data for U.S. IMGs are not shown due to the small sample size.

Source: NRMP Data Warehouse

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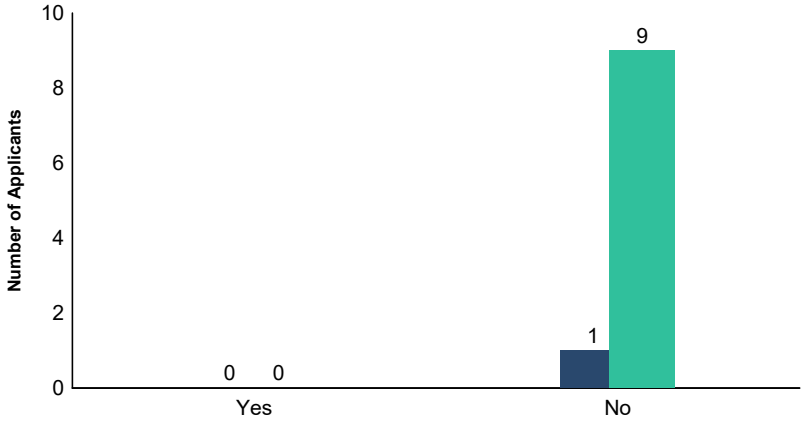
Chart PS-9 Other Characteristics of International Medical Graduates

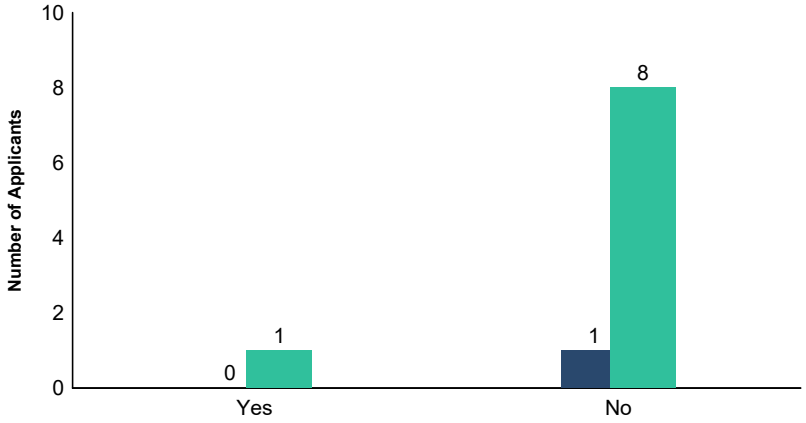
Plastic Surgery

Non-U.S. IMGs

Ph.D. Degree



Other Graduate Degree



Note: Data for U.S. IMGs are not shown due to the small sample size.

Source: NRMP Data Warehouse

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P Psychiatry

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Table P-1 Summary Statistics
Psychiatry

Measure	U.S. IMGs		Non-U.S. IMGs	
	Matched (n=102)	Unmatched (n=242)	Matched (n=123)	Unmatched (n=198)
1. Mean number of contiguous ranks	5.8	2.5	4.7	2.2
2. Mean number of distinct specialties ranked	1.4	1.3	1.4	1.3
3. Mean USMLE Step 1 score	214	207	222	216
4. Mean USMLE Step 2 score	227	217	232	224
5. Mean number of research experiences	1.8	2.1	2.5	5.4
6. Mean number of abstracts, presentations, and publications	2.4	3.0	6.4	4.5
7. Mean number of work experiences	3.7	5.4	6.1	5.9
8. Mean number of volunteer experiences	5.2	4.0	4.4	3.8
9. Percentage who have a Ph.D. degree	2.2	1.5	3.6	2.8
10. Percentage who have another graduate degree	23.7	26.1	21.2	23.4

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

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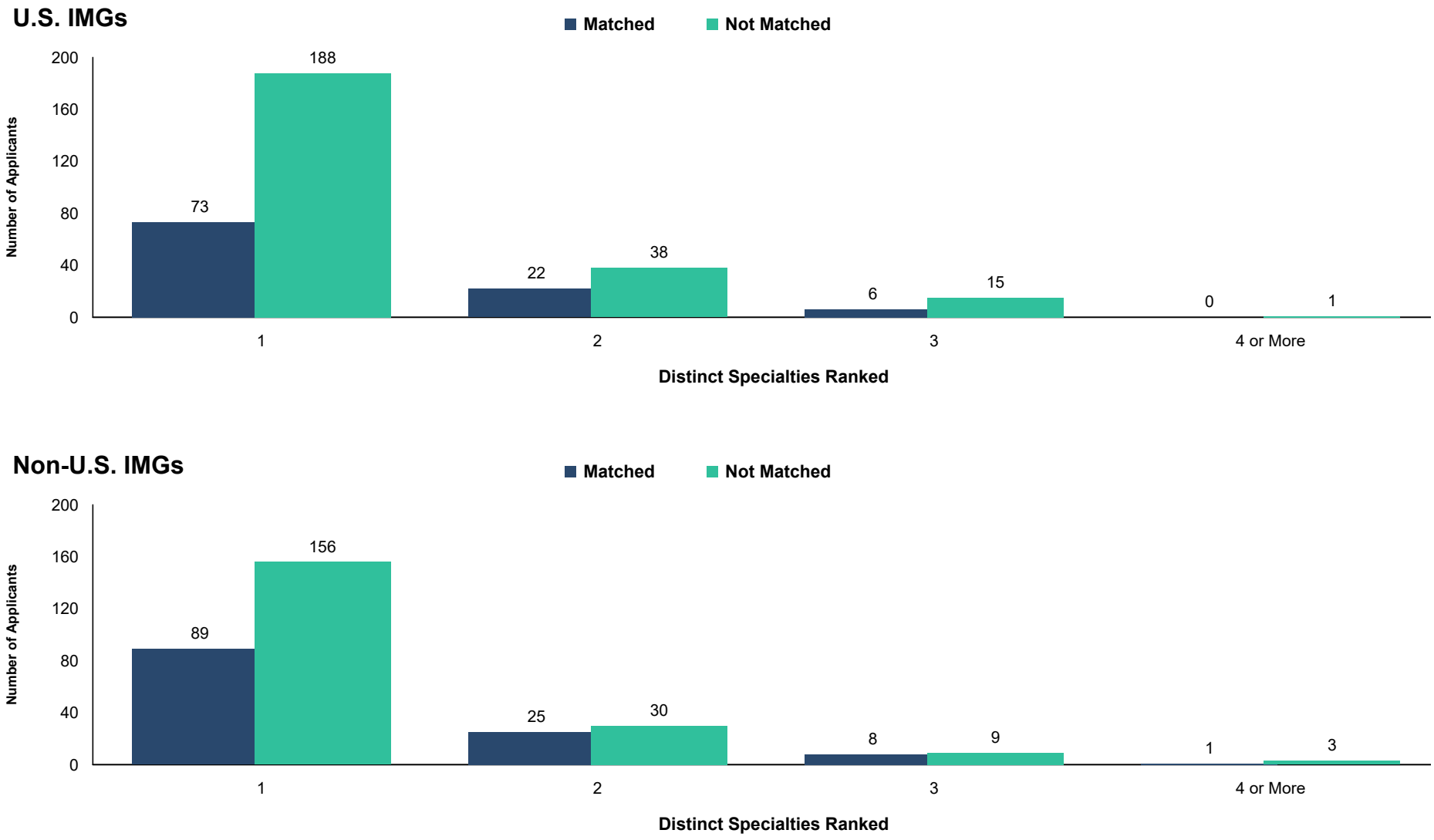
Chart P-1 Number of Distinct Specialties Ranked by International Medical Graduates Psychiatry



Source: NRMP Data Warehouse

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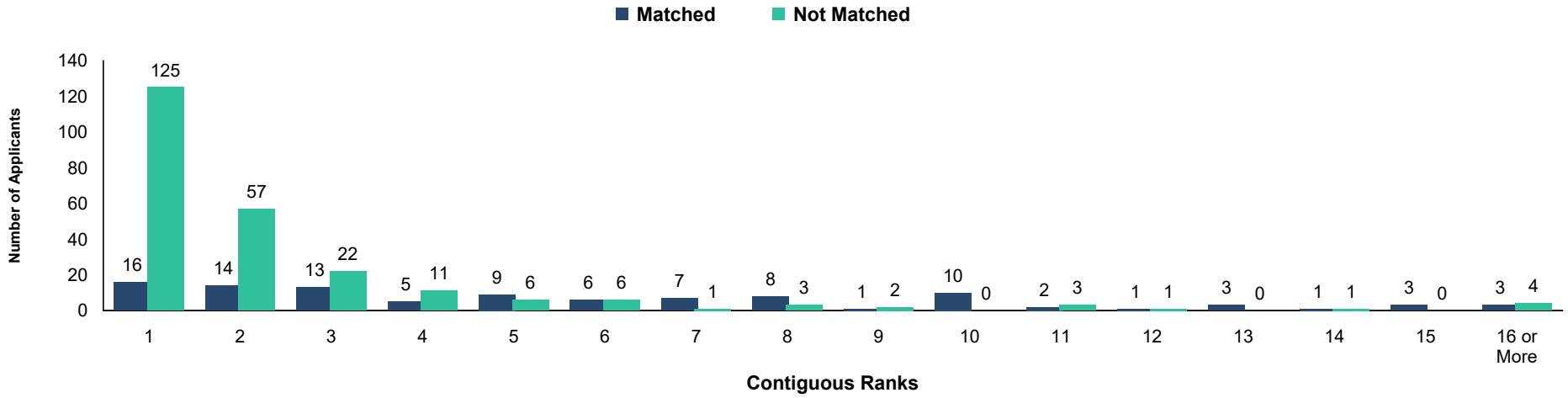
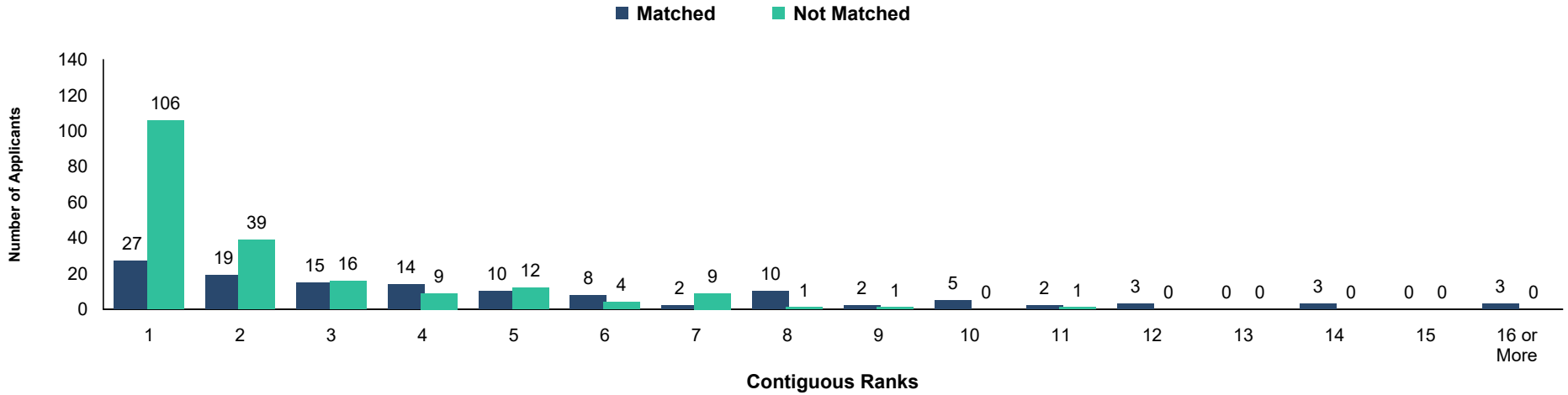
Chart P-2 Number of Contiguous Ranks of International Medical Graduates Psychiatry

U.S. IMGs



Non-U.S. IMGs



Source: NRMP Data Warehouse

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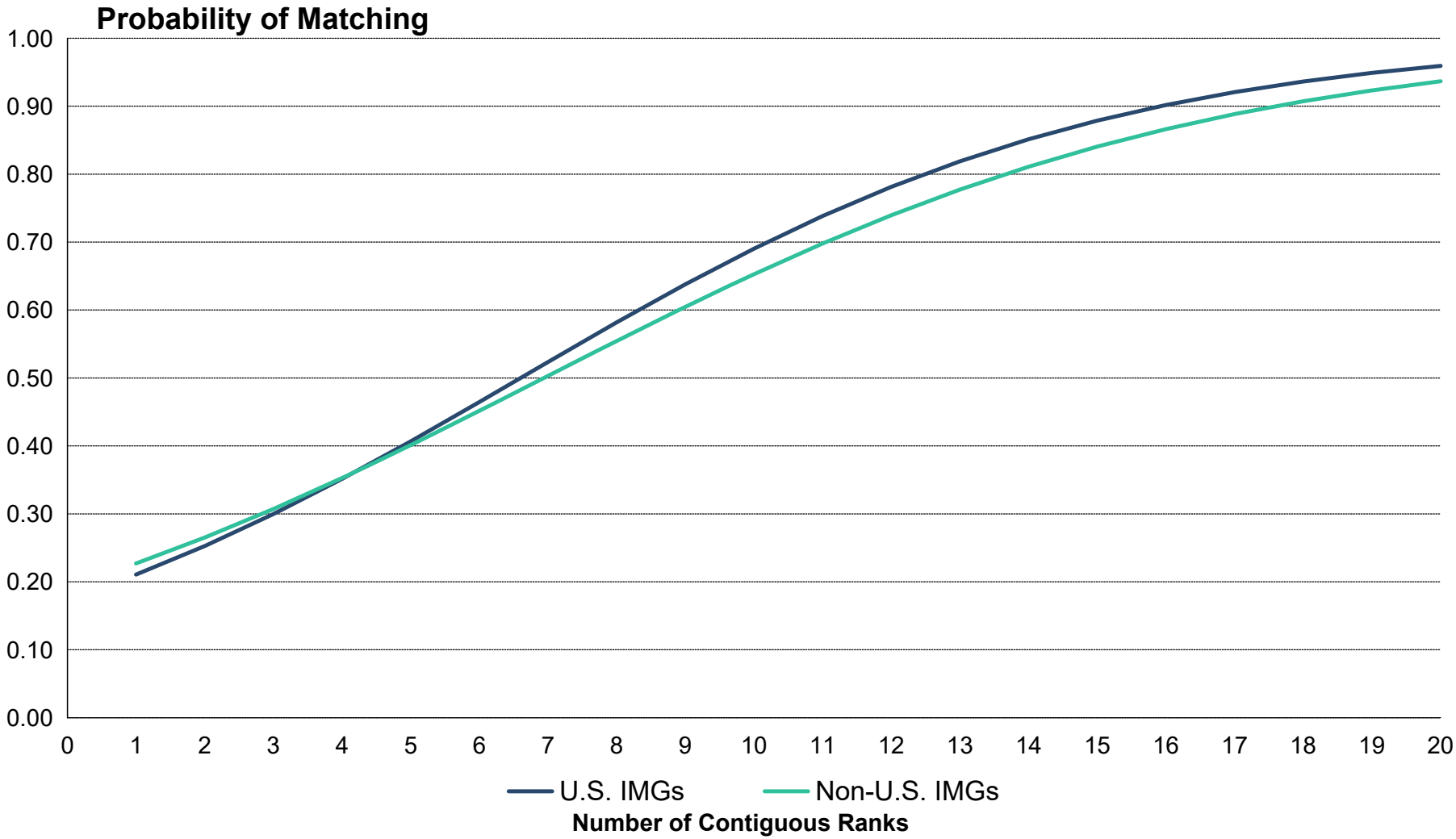
Graph P-1

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

Psychiatry



Source: NRMP Data Warehouse. Note: Probabilities calculated based on 2016-2018 applicants

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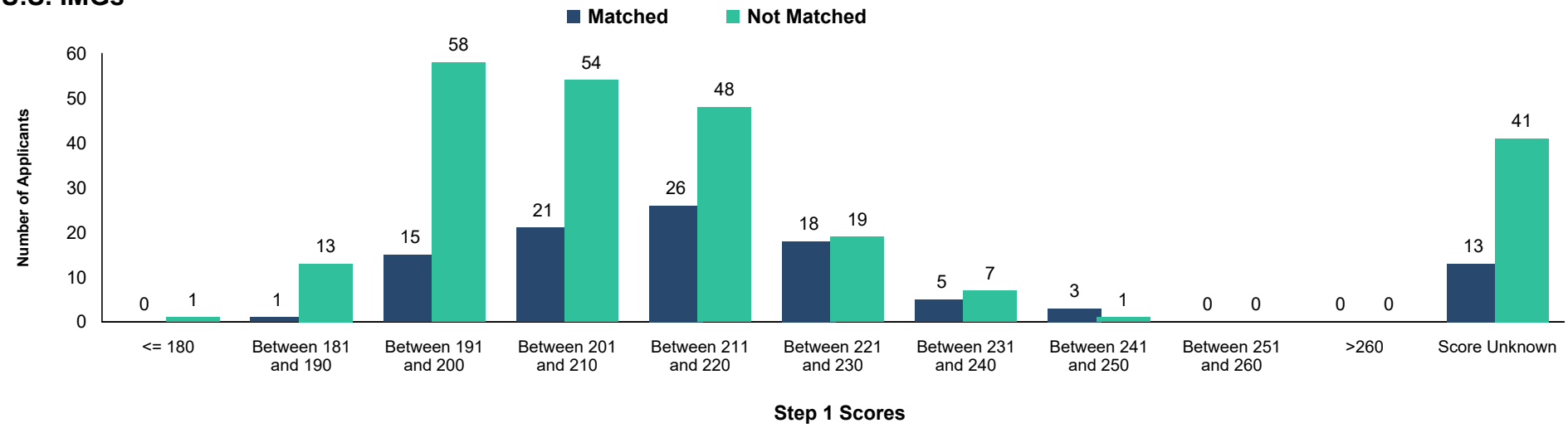
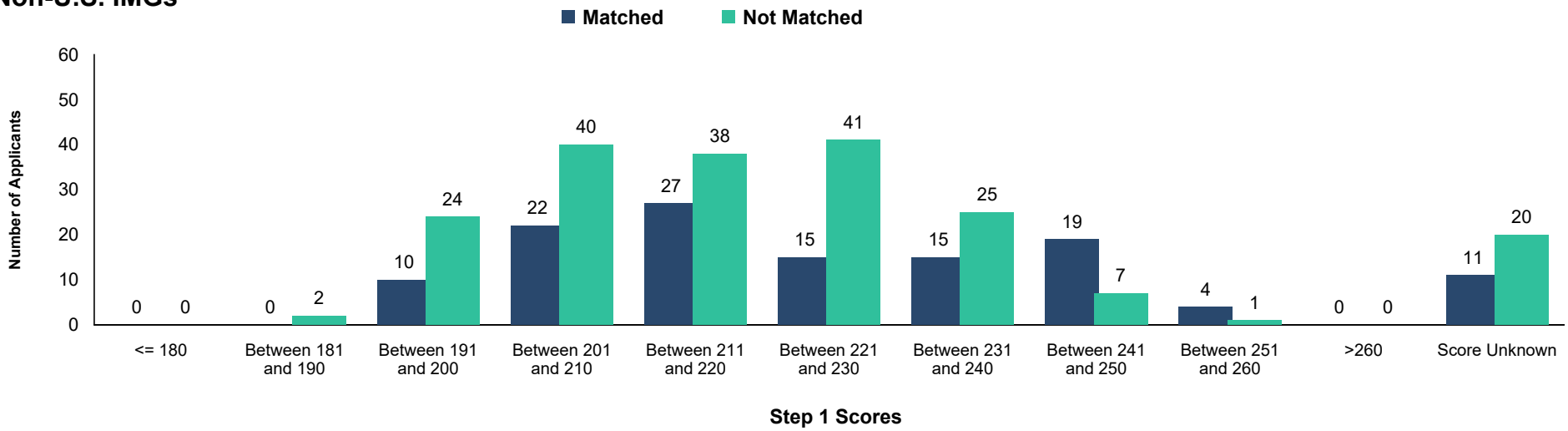
Chart P-3 USMLE Step 1 Scores of International Medical Graduates

Psychiatry

U.S. IMGs



Non-U.S. IMGs



Source: NRMP Data Warehouse

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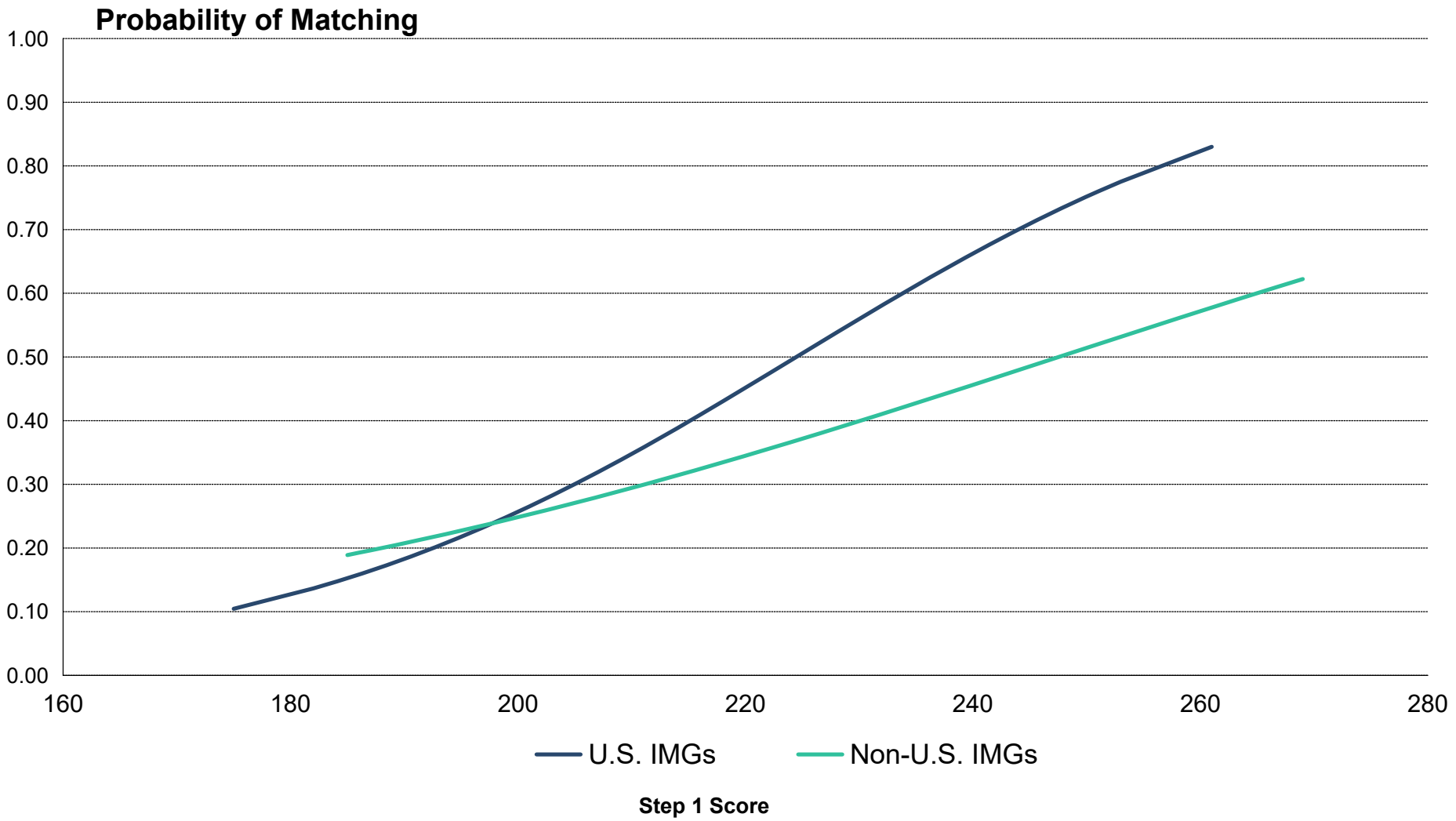
Graph P-2

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

Psychiatry



Source: NRMP Data Warehouse. Note: Probabilities calculated based on 2016-2018 applicants.

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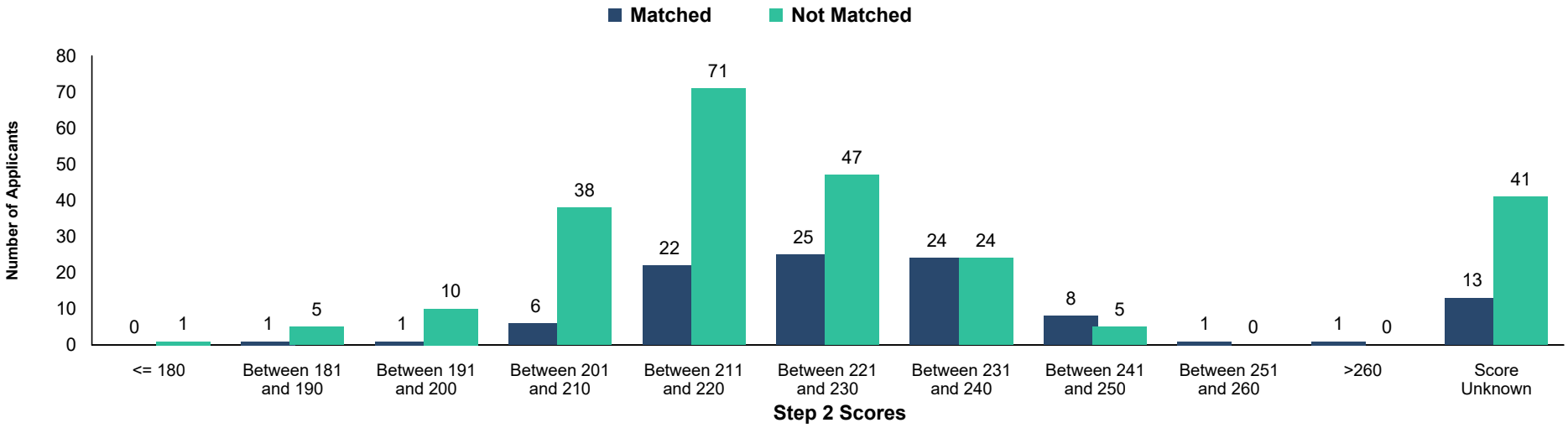
Chart P-4

USMLE Step 2 CK Scores of International Medical Graduates

Psychiatry

U.S. IMGs



Non-U.S. IMGs

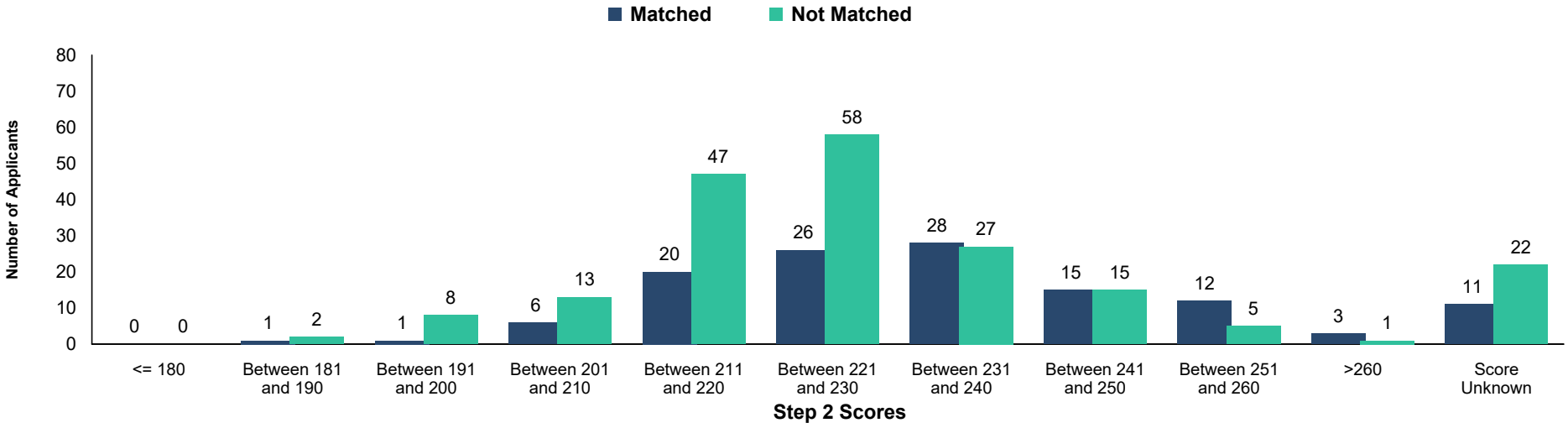


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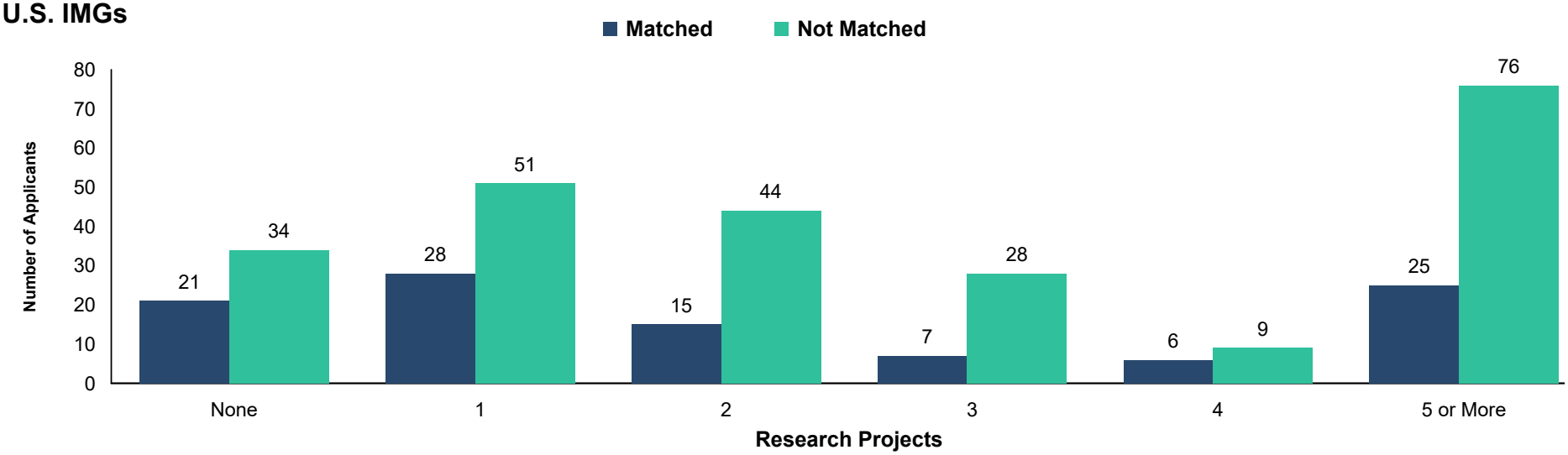
Chart P-5

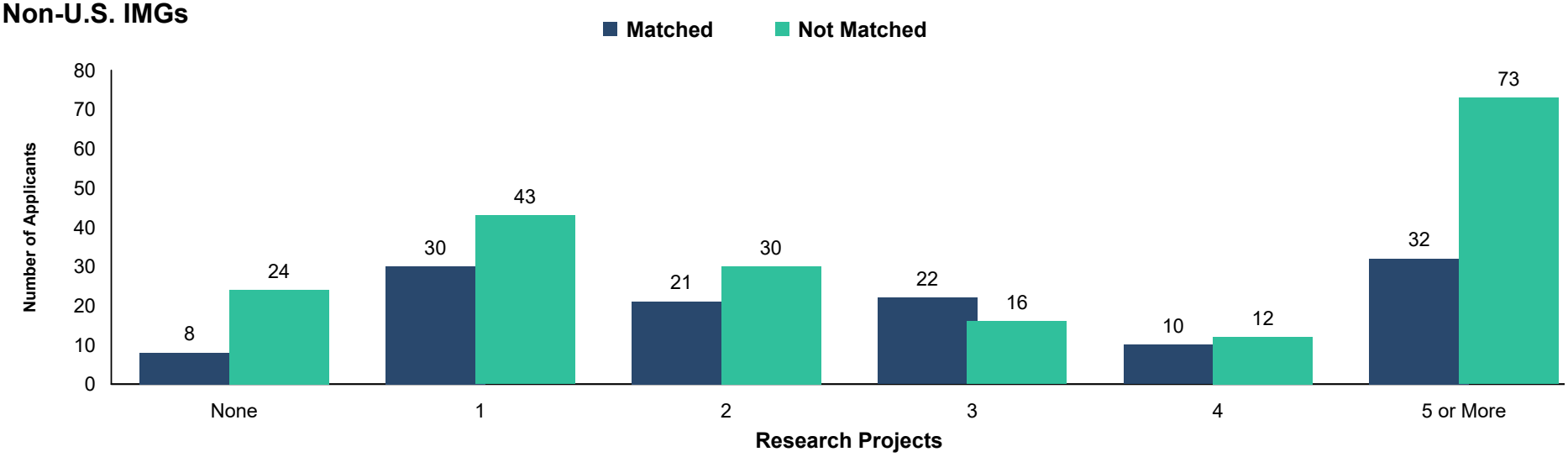
Number of Research Projects of International Medical Graduates

Psychiatry

U.S. IMGs



Non-U.S. IMGs



Source: NRMP Data Warehouse

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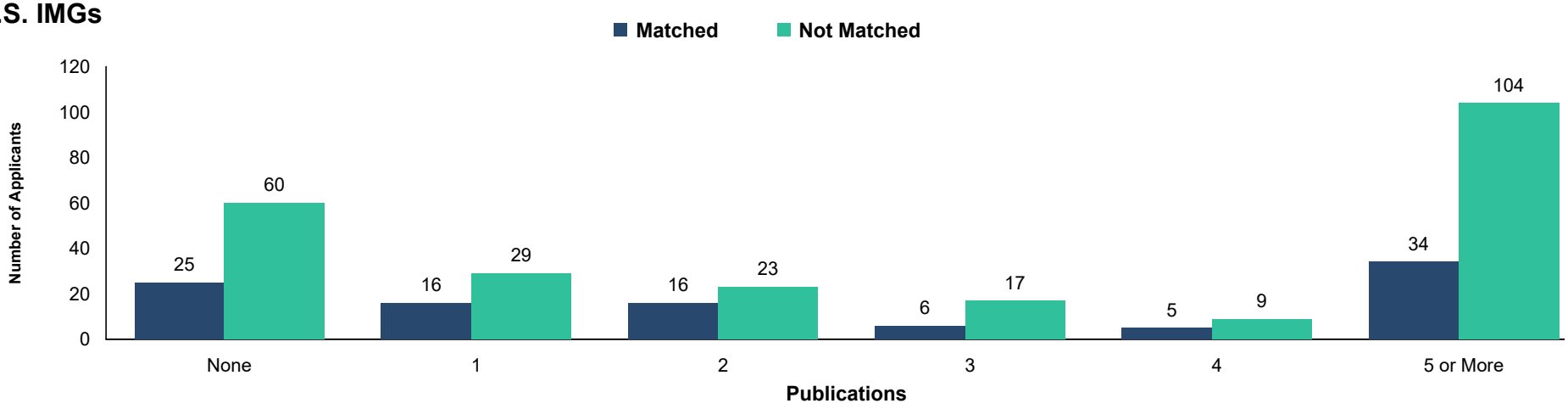
Chart P-6

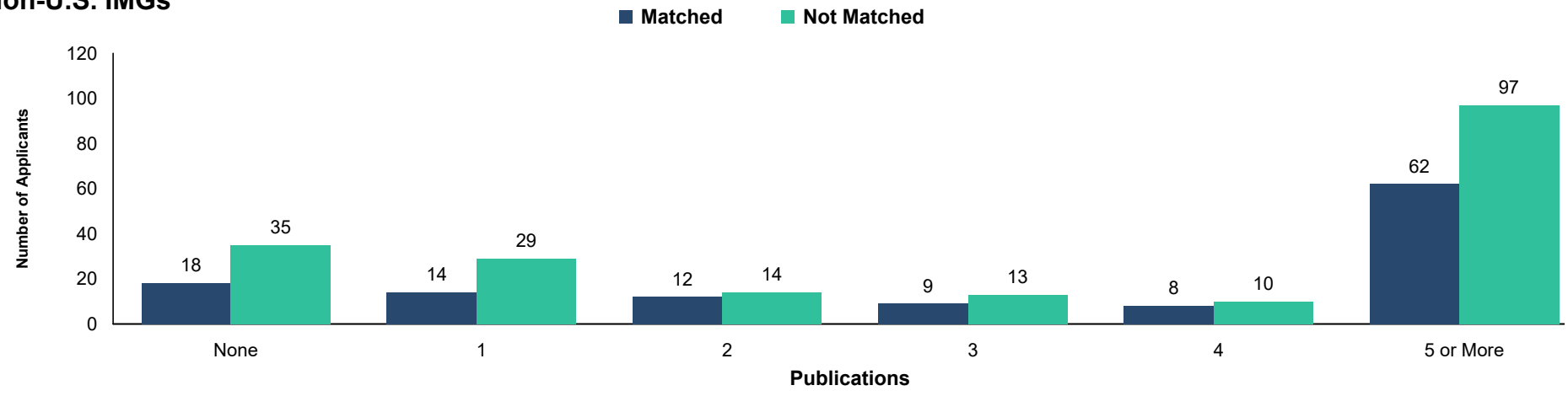
Number of Abstracts, Presentations, and Publications of International Medical Graduates

Psychiatry

U.S. IMGs



Non-U.S. IMGs



Source: NRMP Data Warehouse

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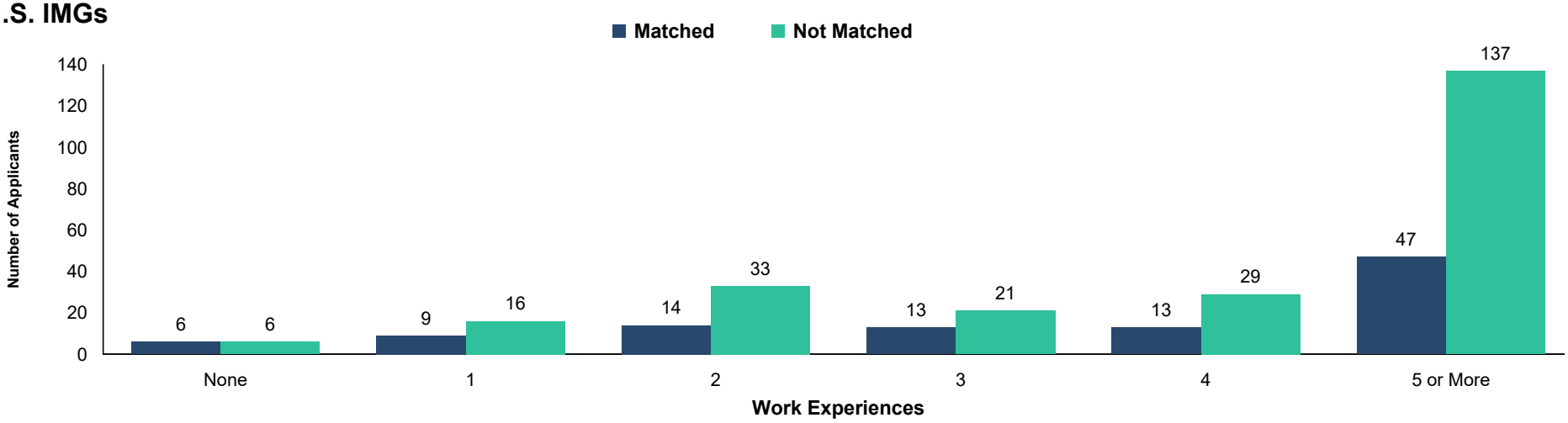
Chart P-7

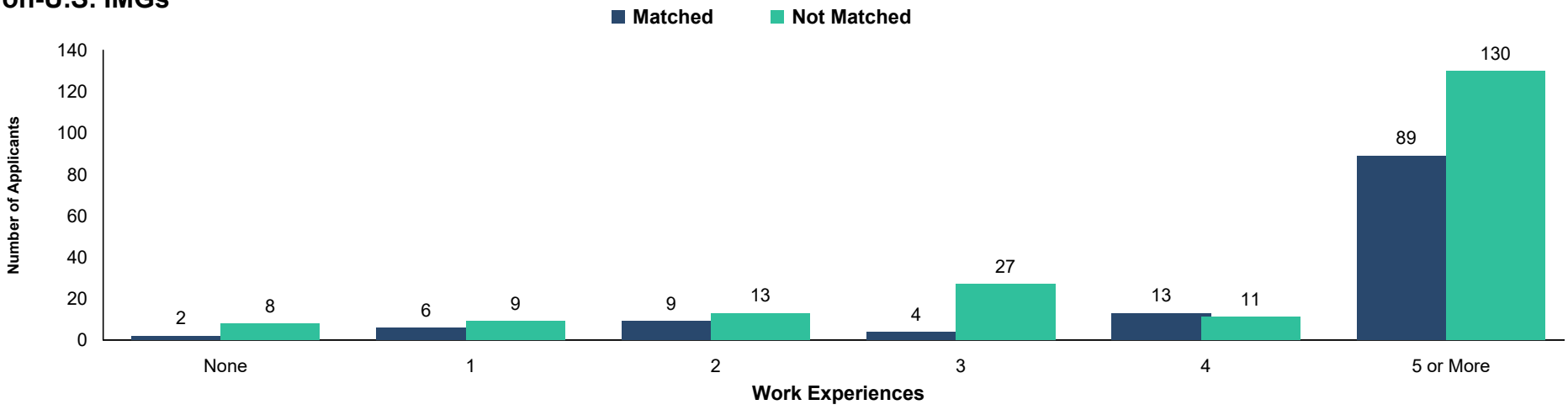
Number of Work Experiences of International Medical Graduates

Psychiatry

U.S. IMGs



Non-U.S. IMGs



Source: NRMP Data Warehouse

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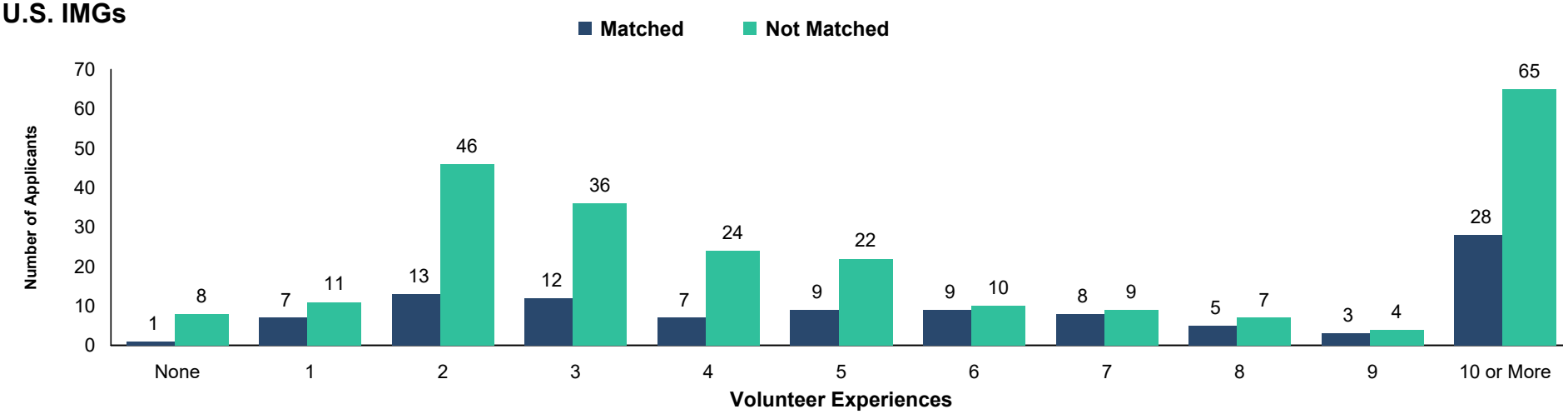
Chart P-8

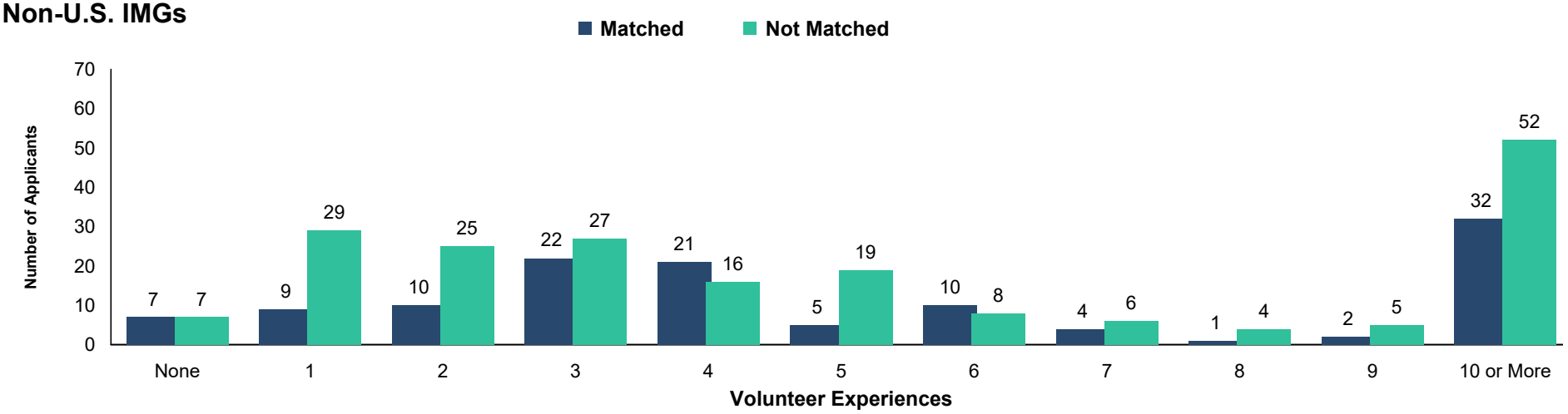
Number of Volunteer Experiences of International Medical Graduates

Psychiatry

U.S. IMGs



Non-U.S. IMGs



Source: NRMP Data Warehouse

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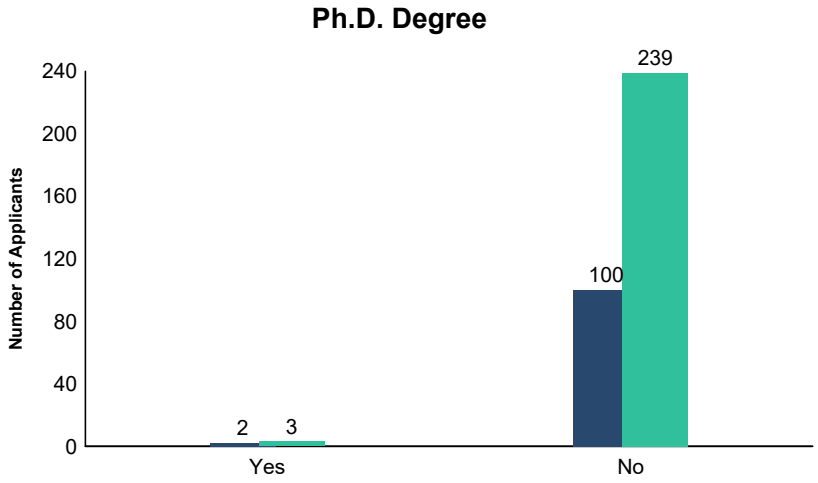
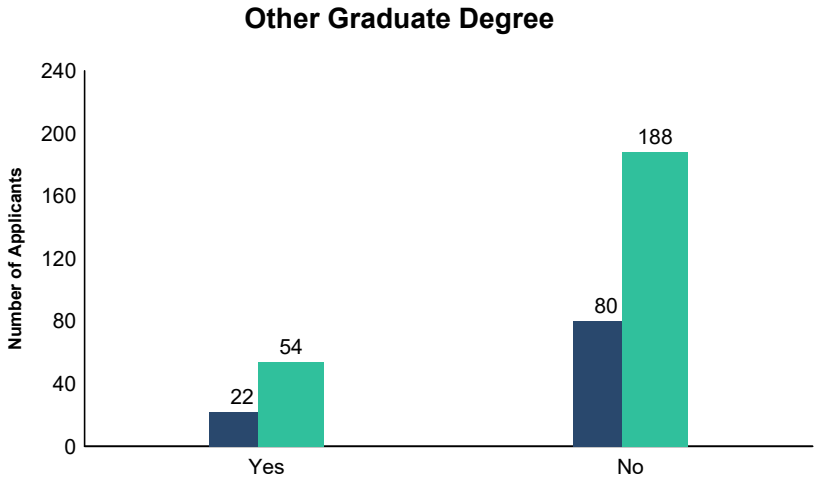
Chart P-9 Other Characteristics of International Medical Graduates

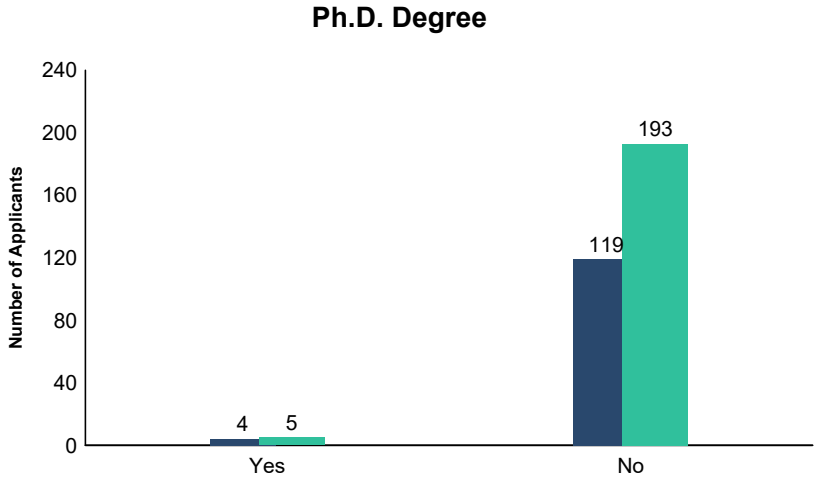
Psychiatry

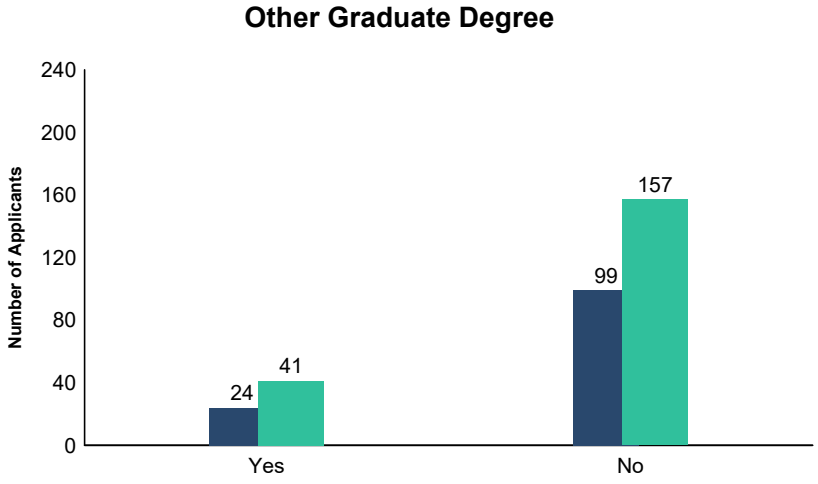
U.S. IMGs





Non-U.S. IMGs





Source: NRMP Data Warehouse

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VS Vascular Surgery

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Table VS-1 Summary Statistics
Vascular Surgery

Measure	U.S. IMGs	Non-U.S. IMGs	
	Data not shown due to the small sample size	Matched (n=4)	Unmatched (n=11)
1. Mean number of contiguous ranks		7.0	1.4
2. Mean number of distinct specialties ranked		1.8	2.2
3. Mean USMLE Step 1 score		243	229
4. Mean USMLE Step 2 score		247	238
5. Mean number of research experiences		3.5	2.7
6. Mean number of abstracts, presentations, and publications		36.3	16.5
7. Mean number of work experiences		5.0	7.2
8. Mean number of volunteer experiences		3.5	3.9
9. Percentage who have a Ph.D. degree		0.0	0.0
10. Percentage who have another graduate degree		50.0	36.4

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

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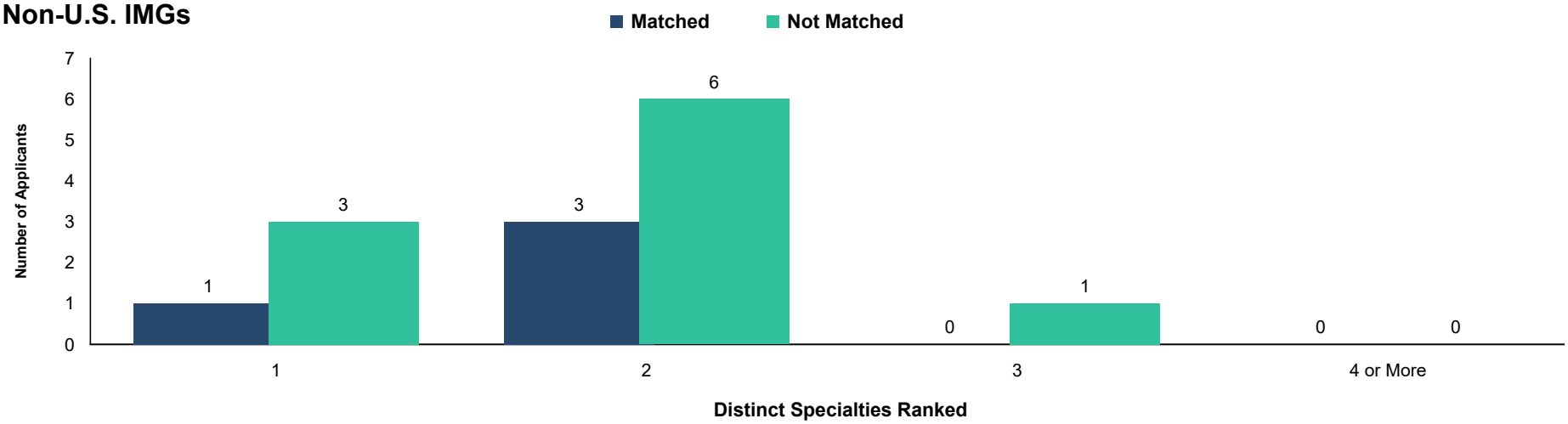
Chart VS-1 Number of Distinct Specialties Ranked by International Medical Graduates Vascular Surgery

Non-U.S. IMGs



Note: Data for U.S. IMGs are not shown due to the small sample size.

Source: NRMP Data Warehouse

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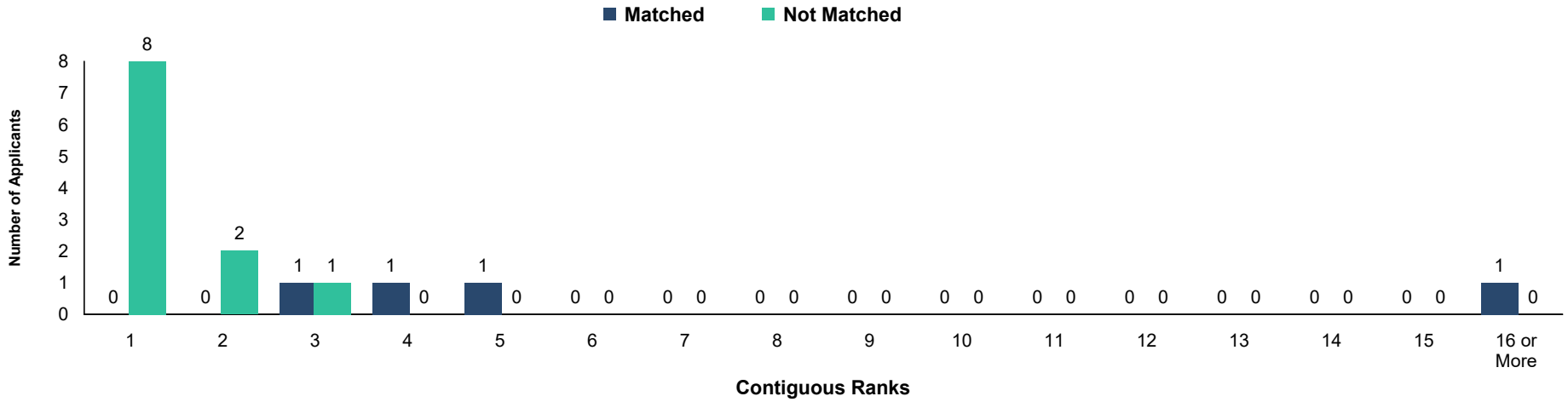
Chart VS-2 Number of Contiguous Ranks of International Medical Graduates Vascular Surgery

Non-U.S. IMGs



Note: Data for U.S. IMGs are not shown due to the small sample size.

Source: NRMP Data Warehouse

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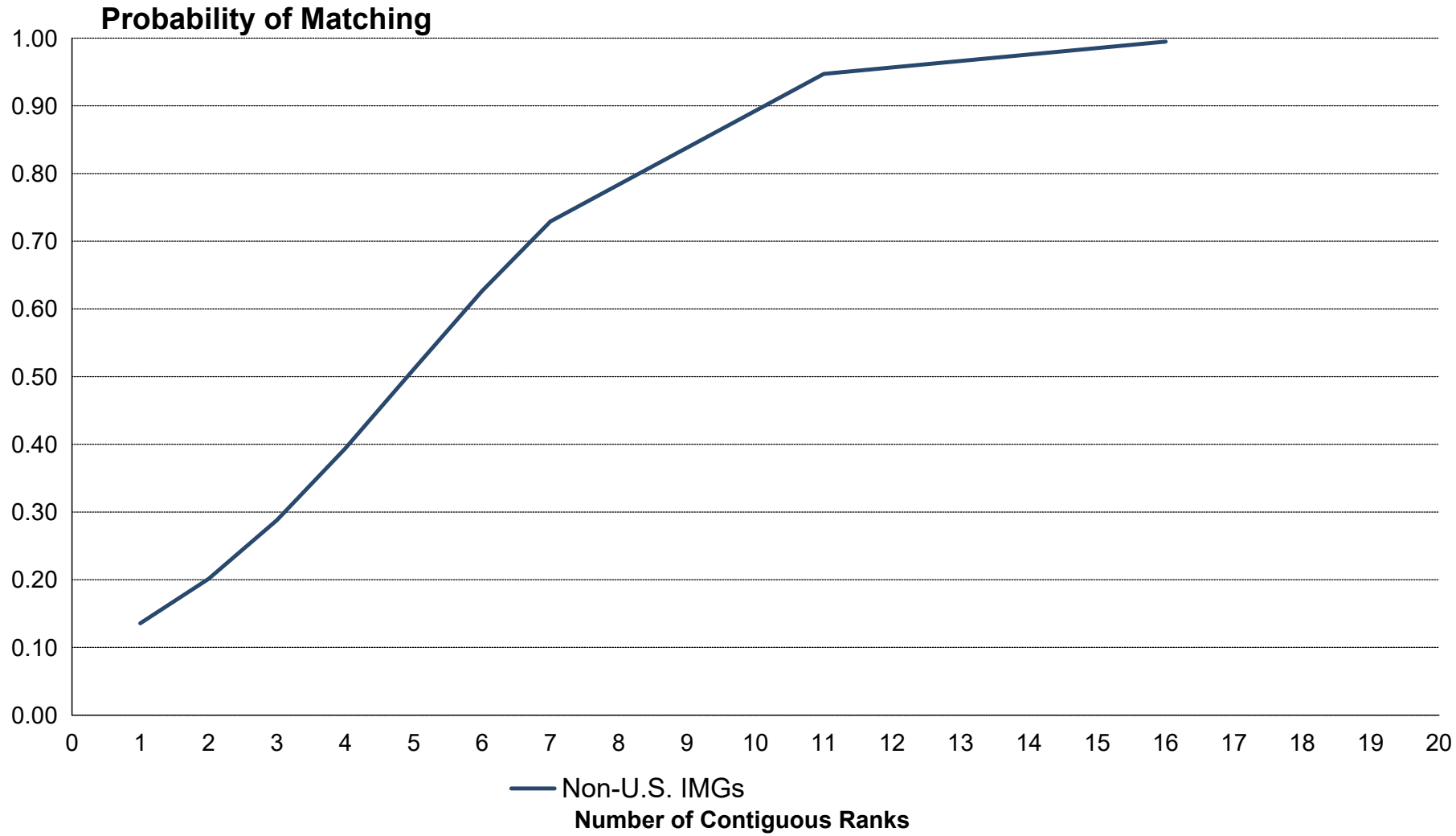
Graph VS-1

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

Vascular Surgery



Note: Data for U.S. IMGs are not shown due to the small sample size.

Source: NRMP Data Warehouse. Note: Probabilities calculated based on 2016-2018 applicants

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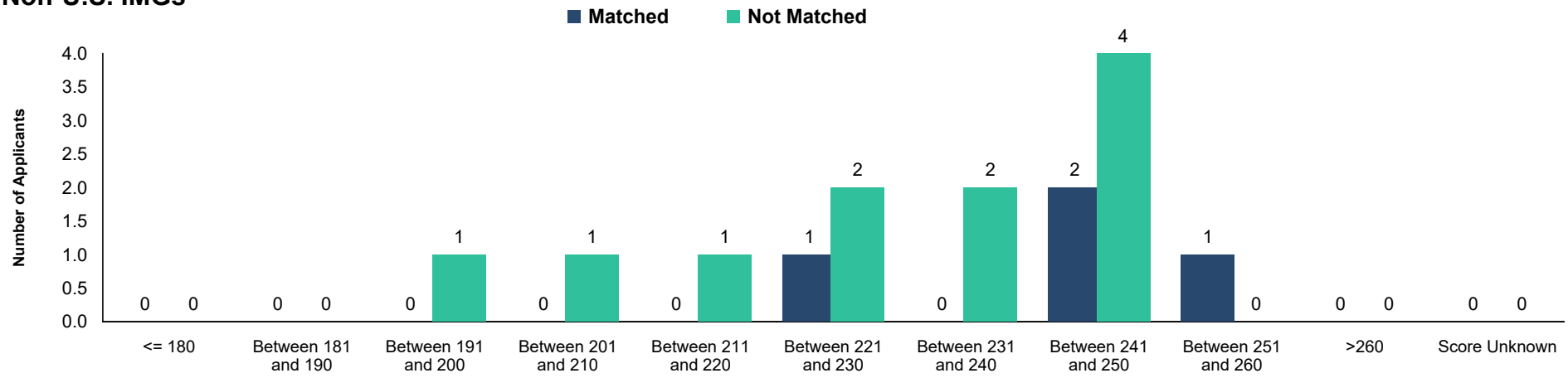
Chart VS-3

USMLE Step 1 Scores of International Medical Graduates

Vascular Surgery

Non-U.S. IMGs



Note: Data for U.S. IMGs are not shown due to the small sample size.

Source: NRMP Data Warehouse

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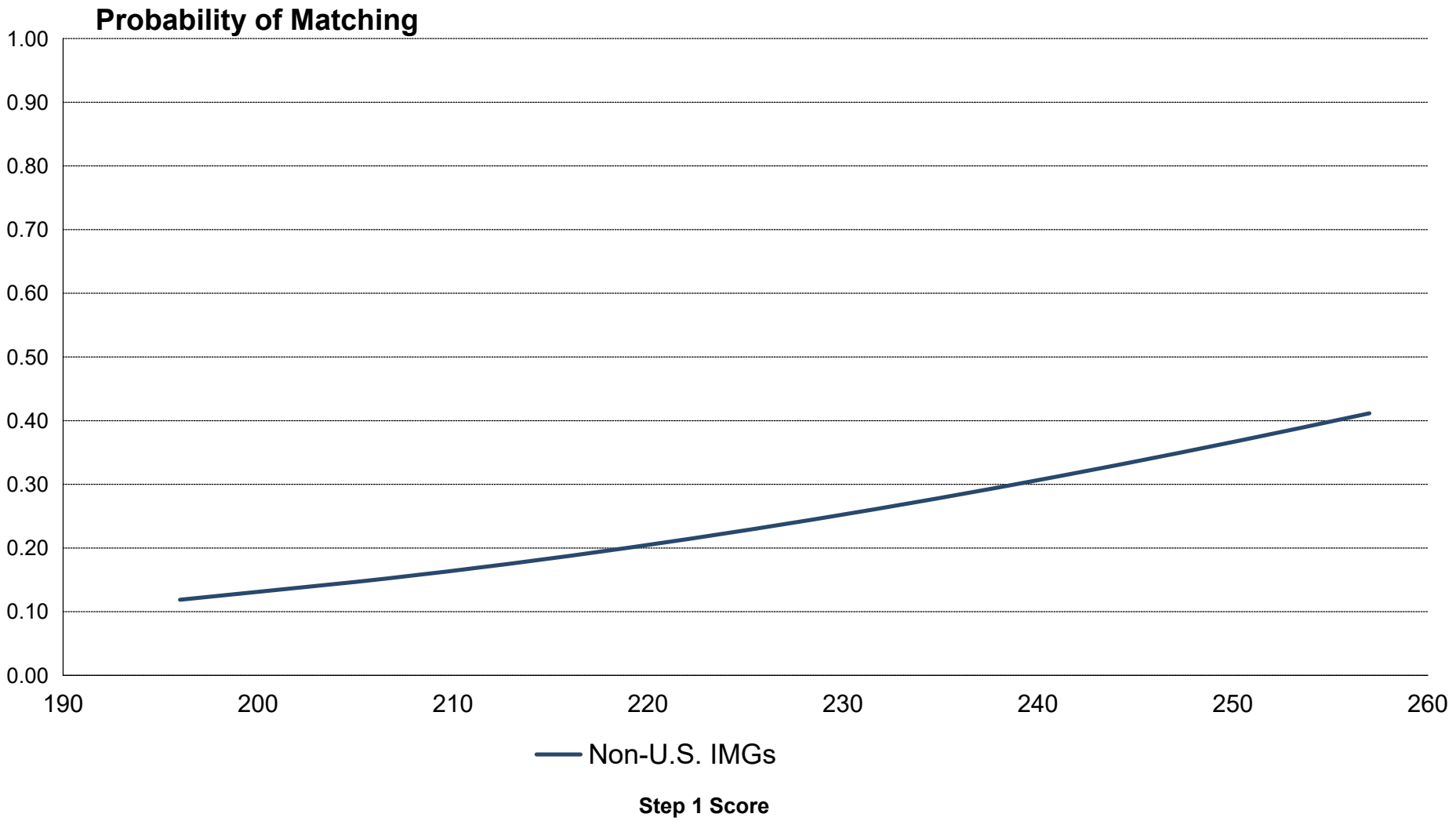
Graph VS-2

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

Vascular Surgery



Note: Data for U.S. IMGs are not shown due to the small sample size.

Source: NRMP Data Warehouse. Note: Probabilities calculated based on 2016-2018 applicants.

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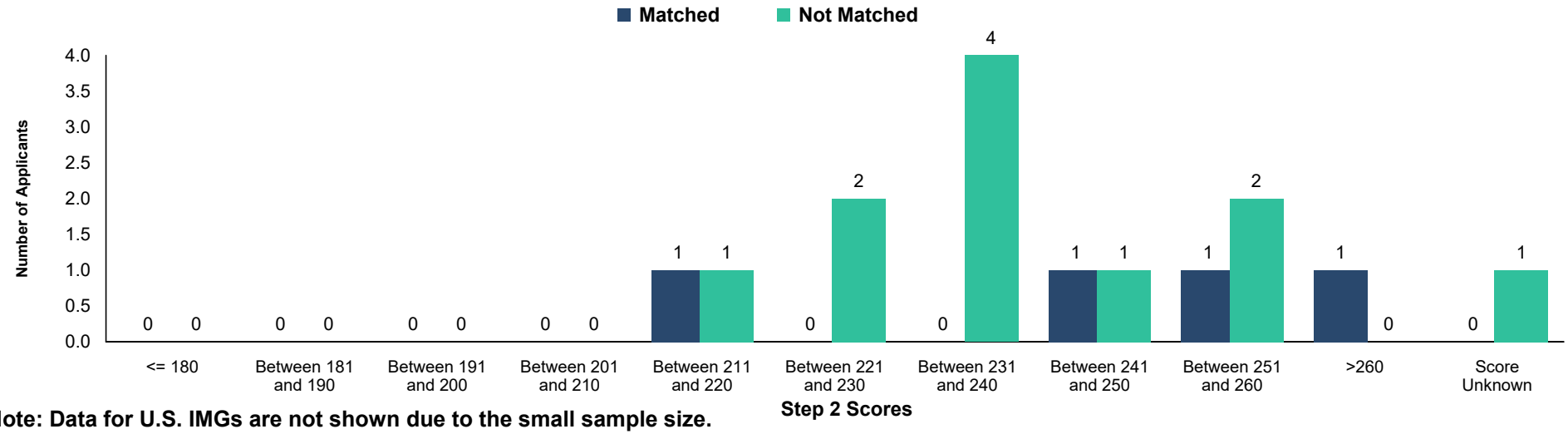
Chart VS-4 USMLE Step 2 CK Scores of International Medical Graduates

Vascular Surgery

Non-U.S. IMGs



Note: Data for U.S. IMGs are not shown due to the small sample size.

Source: NRMP Data Warehouse

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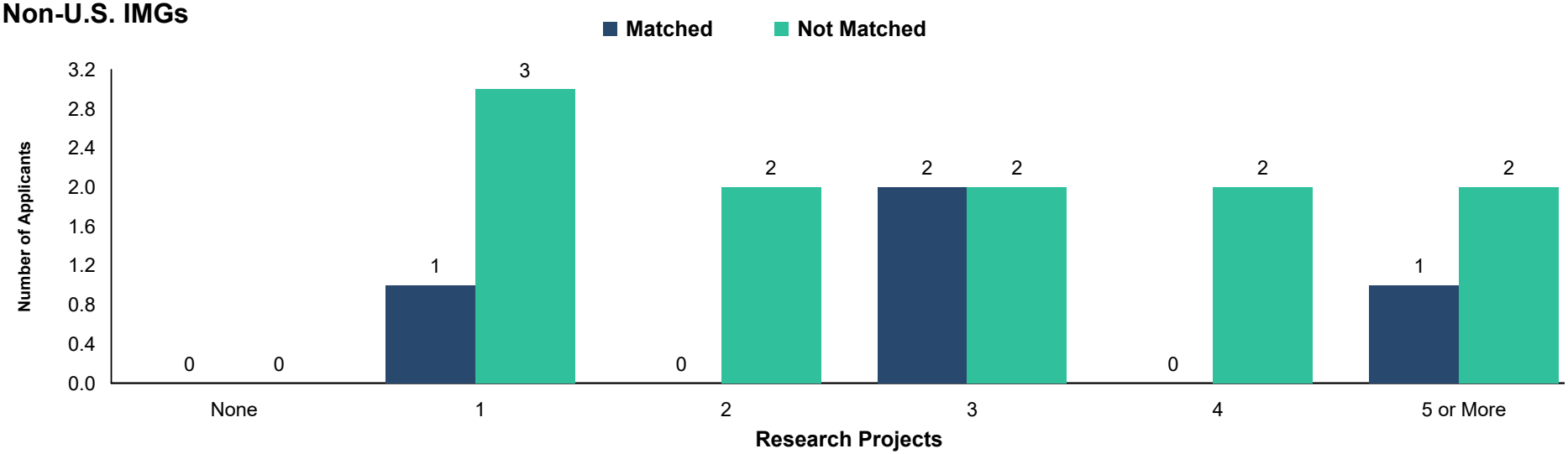
Chart VS-5

Number of Research Projects of International Medical Graduates

Vascular Surgery

Non-U.S. IMGs



Note: Data for U.S. IMGs are not shown due to the small sample size.

Source: NRMP Data Warehouse

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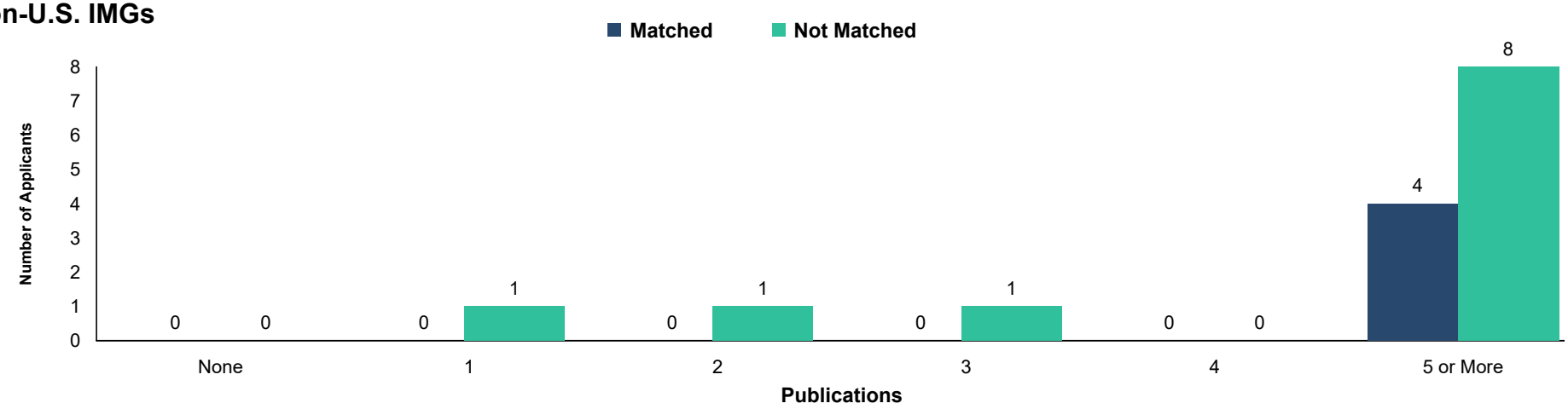
Chart VS-6 Number of Abstracts, Presentations, and Publications of International Medical Graduates

Vascular Surgery

Non-U.S. IMGs



Note: Data for U.S. IMGs are not shown due to the small sample size.

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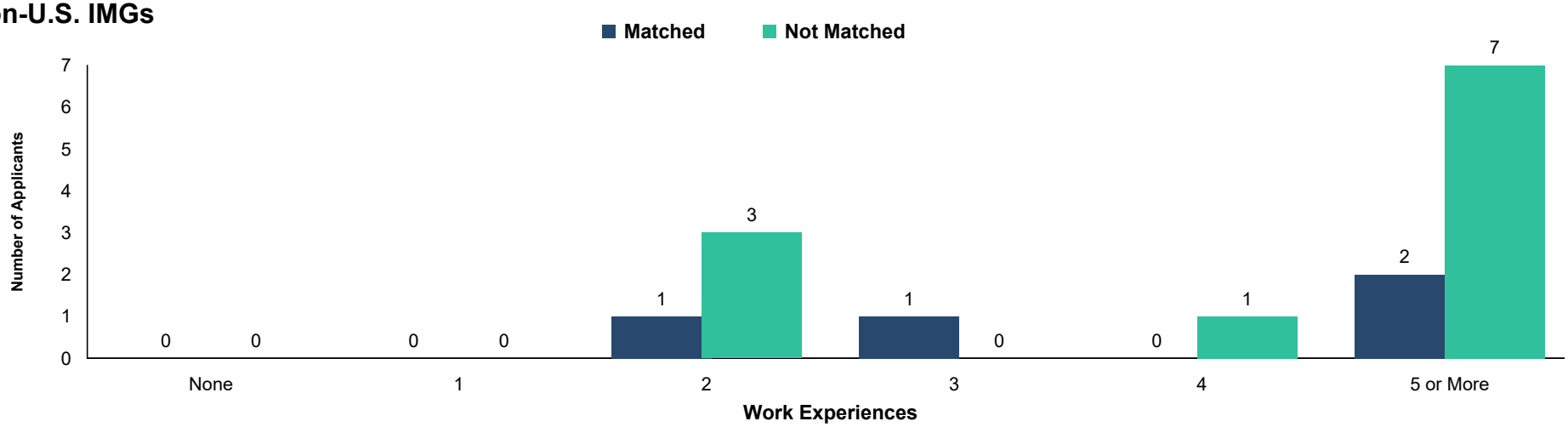
Chart VS-7 Number of Work Experiences of International Medical Graduates

Vascular Surgery

Non-U.S. IMGs



Note: Data for U.S. IMGs are not shown due to the small sample size.

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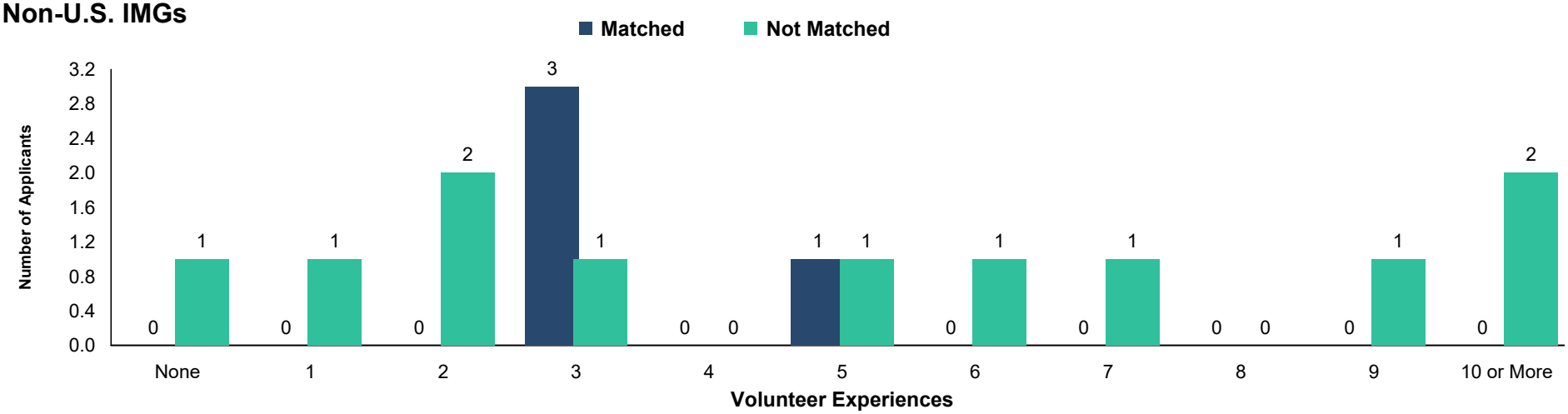
Chart VS-8

Number of Volunteer Experiences of International Medical Graduates

Vascular Surgery

Non-U.S. IMGs



Note: Data for U.S. IMGs are not shown due to the small sample size.

Source: NRMP Data Warehouse

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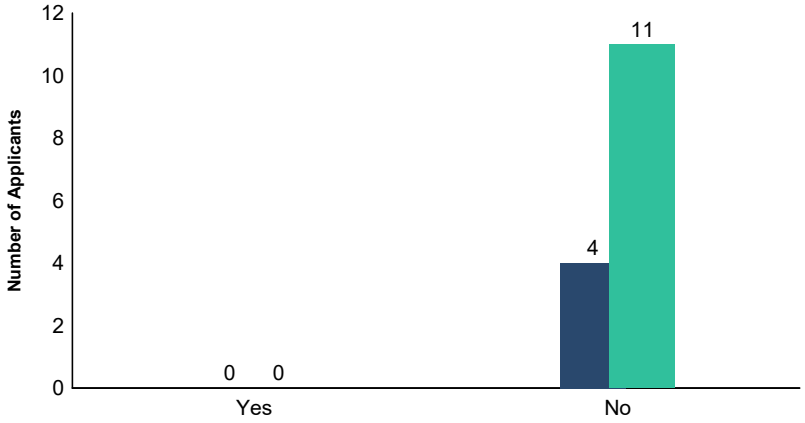
Chart VS-9 Other Characteristics of International Medical Graduates

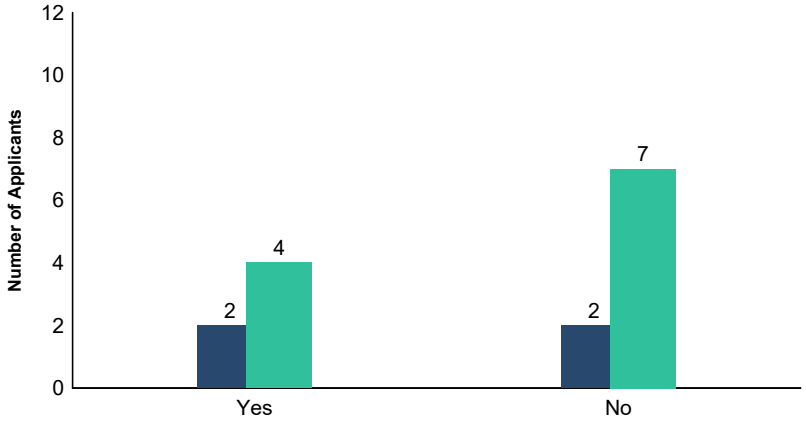
Vascular Surgery

Non-U.S. IMGs

Ph.D. Degree



Other Graduate Degree



Note: Data for U.S. IMGs are not shown due to the small sample size.

Source: NRMP Data Warehouse

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