NRMP
National Resident Matching Program

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Charting Outcomes in the Match

Characteristics of Applicants Who Matched to Their Preferred Specialty in the 2007 NRMP Main Residency Match

2nd Edition

Prepared by:
National Resident Matching Program
and Association of American Medical Colleges

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The first edition of *Charting Outcomes in the Match* was published in July 2006 in response to requests from students and their advisors for data casting some light on how applicant qualifications affect match success. The second edition of *Charting Outcomes* builds on the original study by adding two specialties now participating in the NRMP Main Residency Match (Otolaryngology and Neurology), incorporating several new measures, and conducting regression analyses to predict match success.

For the purposes of this report, match success is defined as a match to the specialty of the applicant's first-ranked program, because that is assumed to be the specialty of choice. Lack of success includes matching to some other specialty as well as failure to match at all. No distinction was made to whether applicants matched to their first, second, third, or last choice.

Combining data from the NRMP, the database of AAMC's Electronic Residency Application Service (ERAS), USMLE scores made available by the National Board of Medical Examiners (NBME) and the Educational Commission for Foreign Medical Graduates (ECFMG), and other AAMC data sources, we identified ten applicant characteristics.

NBME and ECFMG have given permission to use USMLE scores, and the National Resident Matching Program and the Association of American Medical Colleges have collaborated to produce this report.

Because graduating seniors from U.S. allopathic medical schools match at higher rates, on average, than the other groups, and because some of those groups contain small numbers of applicants, this report distinguishes only two types of applicants: U.S. seniors and independent applicants. It should be noted, however, that the independent applicant category is a somewhat heterogeneous group.

The Transition From Medical School to Residency

An important step in the development of a medical career is the selection of a residency, a program of clinical training following graduation from medical school and a prerequisite for an unrestricted license to practice medicine. Appointments to the most sought after residencies are often quite competitive, and the process of selection by both applicants and program directors is facilitated by the National Resident Matching Program (NRMP). For the most competitive specialties, not all applicants can be accommodated, and an applicant may not be able to obtain training in his or her first-choice specialty.

In order to practice medicine in the United States, one must not only graduate from a recognized medical school, but one also must pass a series of licensure examinations and complete a program of graduate medical education—a residency. The residency provides additional supervised clinical training, usually focusing on one medical, surgical, or support specialty.

Successful completion of a residency is one of the requirements for licensure and prepares the physician to practice in that specialty. The residency is thus an extremely important step in the preparation of a physician, and students place great importance on securing a position in the specialty of their choice and in a program within that specialty that will meet their needs.

Residency applicants choose a preferred specialty and select programs within that specialty that are attractive to them with the aid of advisors at their schools, various publicly available databases, and online planning resources such as the AAMC Careers in Medicine Program.

Applicants apply to the programs of their choice, most often using the Electronic Residency Application Service (ERAS) of the AAMC. Program directors and their selection committees review the applications and select some of the applicants for interviews. Then, based on the interviews and the application materials, program directors decide which applicants they would like to have in their programs, and applicants decide which programs they would like to pursue.

The National Resident Matching Program (NRMP) provides a mechanism for determining the best outcome for both applicants and programs. Most applicants and most programs participate in the NRMP. Each applicant provides a rank-ordered list of desired programs, and each program provides a rank-ordered list of applicants. The matching algorithm assigns each applicant to his or her highest ranked program that also ranked the applicant and has not filled all of the available positions with applicants preferred by that program.[1]

For the competitive specialties, some applicants are necessarily disappointed. No applicant is guaranteed success, but those with superior qualifications are very likely to gain entry to their preferred specialty, if not to their preferred program within that specialty.

Applicants to residency programs and their advisors are anxious to have any available information bearing on their probability of matching so that they can tailor their applications and their NRMP rank order lists appropriately. Program directors base their selections on medical school transcripts, particularly clerkship grades, the Medical Student Performance Evaluation (MSPE) or dean's letter, letters of recommendation, research experience, publications, the personal statement from the ERAS application, and the residency interview. They also take into account membership in the medical student honor society Alpha Omega Alpha (AOA) and scores on the United States Medical Licensure

[1] For details of the matching algorithm, see http://www.nrmp.org/res_match/about_res/algorithms.html.

Examination (USMLE), Step 1 and in some cases Step 2.

Although, the licensure examinations and especially Step 1, the basic science examination, are not designed for resident selection, program directors continue to use them because they are quantitative and nationally standardized measures of an applicant's mastery of medical knowledge during training. Program directors might like to have available quantitative and nationally standardized measures of integrity, honesty, sensitivity, cultural competence and other aspects of professionalism, and the AAMC is piloting new approaches to quantifying those measures as a part of the Medical Student Performance Evaluation. Because those data do not now exist, however, program directors try to discern those qualities from the non-quantitative information at their disposal.

Summary

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

- Rank more programs within their preferred specialty
- Be U.S. seniors
- Have higher USMLE Step 1 and Step 2 scores
- Be members of AOA

Although some of the other measures examined seemed to be related to match success for some specialties, the relationships were not consistent enough to draw broad conclusions across specialties. In addition, the data sources used for *Charting Outcomes* could not evaluate other important applicant factors such as course evaluations, reference letters, and the MSPE.

Despite the fairly strong relationship between USMLE Step scores and match success, the distributions of scores show that program directors consider other qualifications in addition to scores on that examination. A high score is not a guarantee of success. Even in the most competitive specialties a few individuals with the most impressive scores are not successful. Neither is a mediocre score a bar to success. In the less competitive specialties, U.S. seniors with barely passing scores usually match to their preferred specialties.

The data also are reassuring because they indicate that at least some programs do not employ an arbitrary cutoff or refuse to consider applicants with less than excellent test performance.

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.
- Have a Plan B. If you are applying to a competitive specialty, and if you would want to have some residency position in the event you are unsuccessful in gaining acceptance to a program in your preferred specialty, rank also your most preferred programs in an alternate specialty.
- Include all of your qualifications in your application, but know that you do not have to be AOA, to have the highest USMLE scores, to have publications, and to have participated in research projects to successfully match.

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

For questions, comments or more information, please contact:

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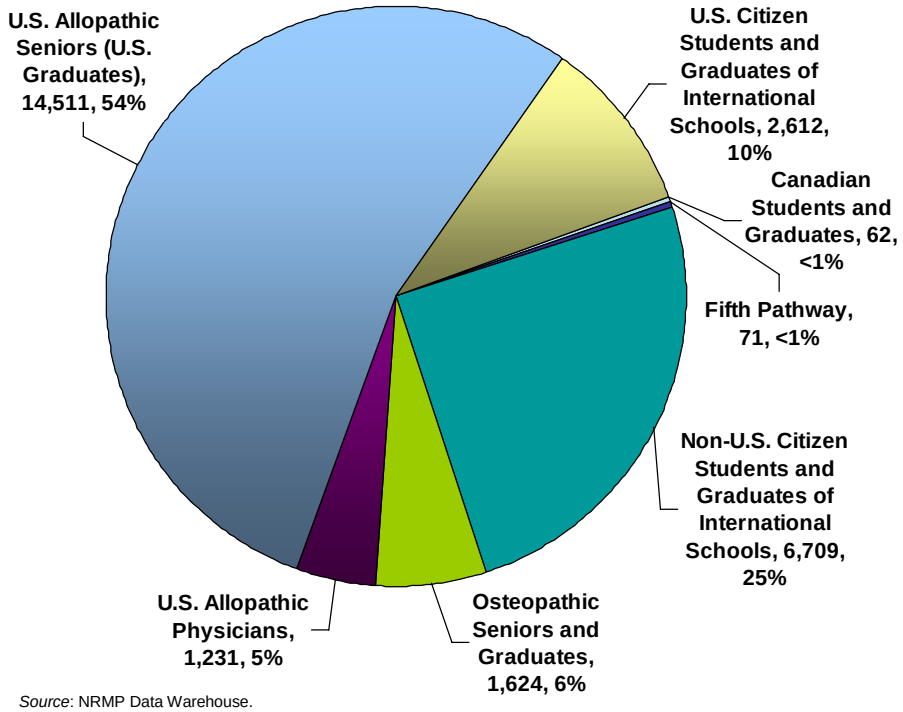
TABLES AND CHARTS FOR ALL SPECIALTIES

Chart 1

ACTIVE APPLICANTS IN THE 2007 MAIN RESIDENCY MATCH
By Applicant Type



Source: NRMP Data Warehouse.

Chart 1 shows the number and percent of active applicants (applicants who submitted rank order lists of programs) by applicant type in the 2007 Main Residency Match . U.S. allopathic medical school seniors constitute 54 percent of the applicants in this report. The next largest group is non-U.S. citizen students and graduates of international medical schools (25%). For the remainder of this report, all applicants who are not U.S. allopathic seniors will be grouped into the "independent applicants" category.

Table 1 provides a summary of the number of applicants and positions for selected specialties participating in the 2007 NRMP Main Residency Match. Only those specialties offering 50 or more positions are included. The numbers of applicants matched by applicant type (U.S. senior and independent applicants) also are provided in this table.

Table 1

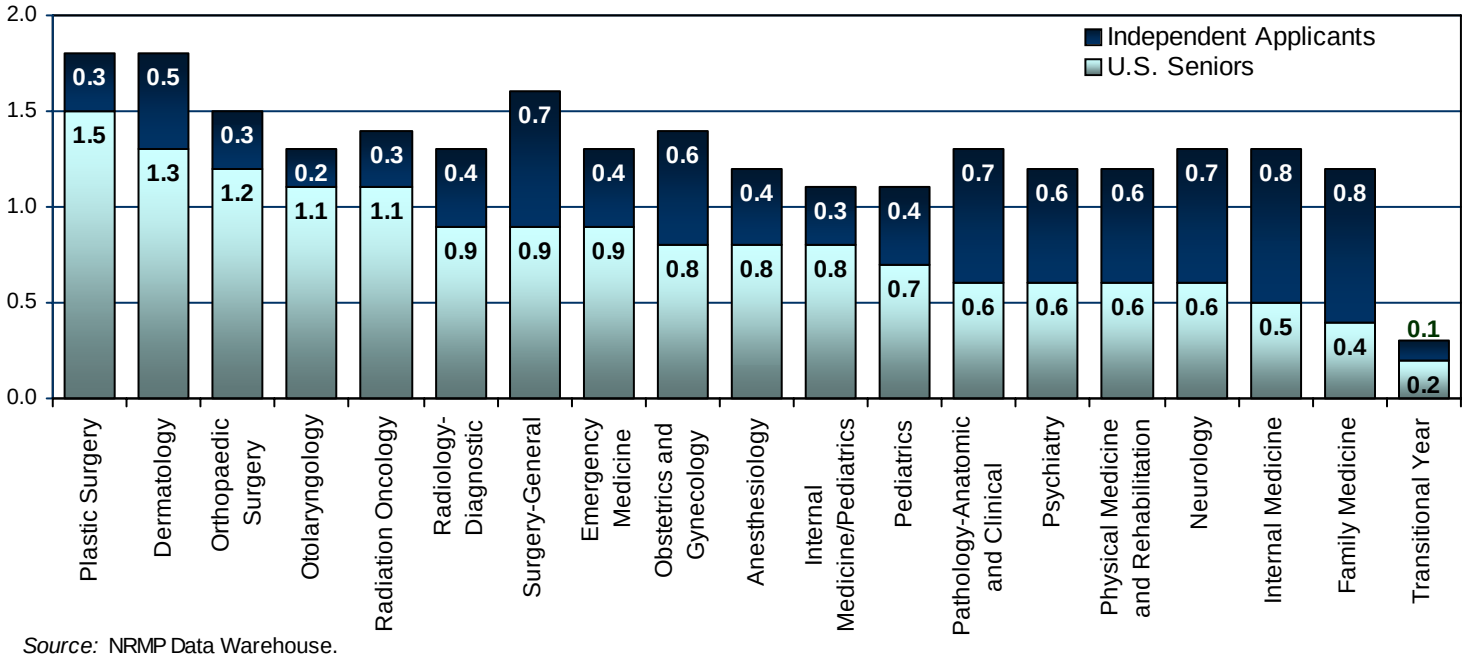
NUMBER OF APPLICANTS AND POSITIONS IN THE 2007 MAIN RESIDENCY MATCH
*By Preferred Specialty**

Preferred Specialty	Total Positions Offered	Total Number of Applicants	Number of Applicants Per Position	U.S. Seniors		Independent Applicants	
				Matched	Not Matched	Matched	Not Matched
Anesthesiology**	1,334	1,581	1.2	1,005	66	259	251
Dermatology**	320	579	1.8	249	158	68	104
Emergency Medicine**	1,384	1,669	1.2	1,092	89	265	223
Family Medicine	2,603	3,043	1.2	1,079	13	939	1,012
Internal Medicine	5,517	7,174	1.3	2,784	61	1,987	2,342
Internal Medicine/Pediatrics	385	401	1.0	274	25	56	46
Neurology**	539	664	1.2	296	12	198	158
Obstetrics and Gynecology	1,146	1,611	1.4	834	102	296	379
Orthopaedic Surgery	616	876	1.4	577	142	36	121
Otolaryngology	270	353	1.3	249	56	17	31
Pathology-Anatomic and Clinical	513	657	1.3	294	19	160	184
Pediatrics	2,424	2,717	1.1	1,691	46	535	445
Physical Medicine and Rehabilitation**	352	432	1.2	182	23	142	85
Plastic Surgery**	92	160	1.7	85	51	5	19
Psychiatry**	1,073	1,319	1.2	626	22	326	345
Radiation Oncology**	142	188	1.3	124	28	10	26
Radiology-Diagnostic**	1,035	1,331	1.3	831	84	179	237
Surgery-General	1,057	1,636	1.6	812	93	352	379
Transitional Year	1,017	303	0.3	179	67	11	46

*Preferred specialty is the specialty ranked first on an applicant's rank order list, excluding preliminary programs in specialties except Transitional Year.
**Includes PGY-1 and PGY-2 positions.
Source: NRMP Data Warehouse.

Chart 2

RATIO - APPLICANTS RANKING SPECIALTY FIRST / AVAILABLE POSITIONS
by Preferred Specialty



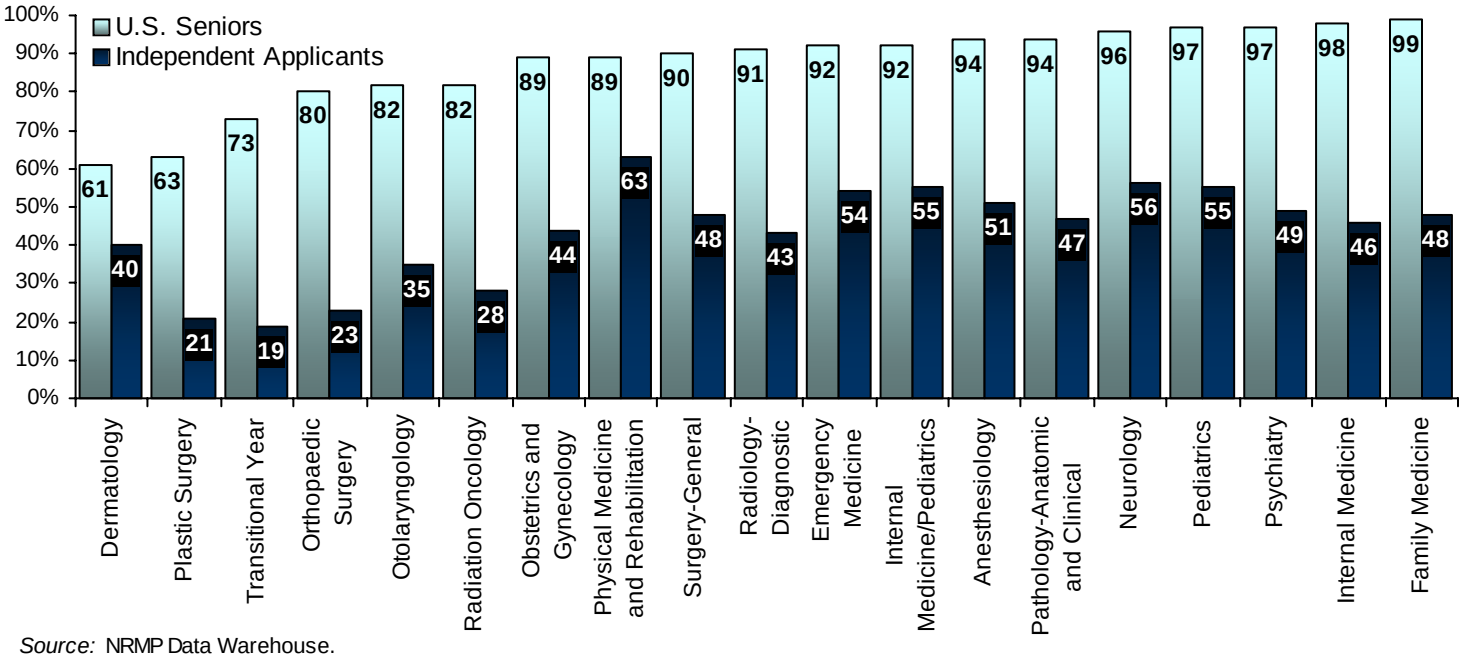
Source: NRMP Data Warehouse.

Chart 2 shows the ratio of U.S. seniors and independent applicants to available positions in each specialty, sorted from left to right in descending order by the ratio for U.S. seniors. All specialties except Plastic Surgery, Dermatology, Orthopaedic Surgery, Otolaryngology, and Radiation Oncology have enough positions to accommodate all U.S. seniors who prefer that specialty. Some positions will be filled by well-qualified international medical school graduates and others, but most programs prefer to fill their positions with graduates of U.S. allopathic medical schools, if possible. As the number of applicants has increased in recent years, fewer specialties have offered enough positions for all applicants who prefer that specialty.

Chart 3

MATCH RATES

Percent Matched by Preferred Specialty



Source: NRMP Data Warehouse.

Chart 3 shows the percentages of U.S. seniors and independent applicants who matched to their preferred specialty. Overall, 92.0 percent U.S. seniors matched to their preferred specialty. Only Dermatology, Plastic Surgery, and Transitional Year had match rates for U.S. seniors of less than 75 percent. For independent applicants, the overall match rate was 47.6 percent and match rates ranged from a low of 19 percent (Transitional Year) to a high of 63 percent (Physical Medicine and Rehabilitation). In general, independent applicants are less successful in matching to their preferred specialty than are U.S. seniors.

Table 2

SUMMARY STATISTICS
All Specialties Combined

Measure	U.S. Seniors		Independent Applicants	
	Matched (n=13,263)	Did Not Match (n=1,157)	Matched (n=5,841)	Did Not Match (n=6,433)
1. Median number of contiguous ranks	8.0	3.0	5.0	2.0
2. Mean number of distinct specialties ranked	1.1	1.6	1.3	1.6
3. Percentage who graduated from top 40 NIH research medical school	36.7	26.4	n/a	n/a
4. Percentage who have a Ph.D. degree	4.0	2.8	n/a	n/a
5. Percentage who have another graduate degree	10.3	12.0	n/a	n/a
6. Percentage who are AOA members	14.1	6.0	n/a	n/a
7. USMLE Step 1 score				
Mean	221	211	215	205
Median	222	210	213	201
25th percentile	206	194	198	190
75th percentile	236	228	213	216
Count	13,212	1,144	4,613	5,968
8. USMLE Step 2 score				
Mean	226	211	217	205
Median	227	211	216	202
25th percentile	211	193	200	190
75th percentile	241	229	234	218
Count	9,141	812	4,586	5,958
9. Mean number of research experiences	2.0	2.1	1.3	1.2
10. Mean number of abstracts, presentations, and publications	2.2	2.1	2.2	2.4

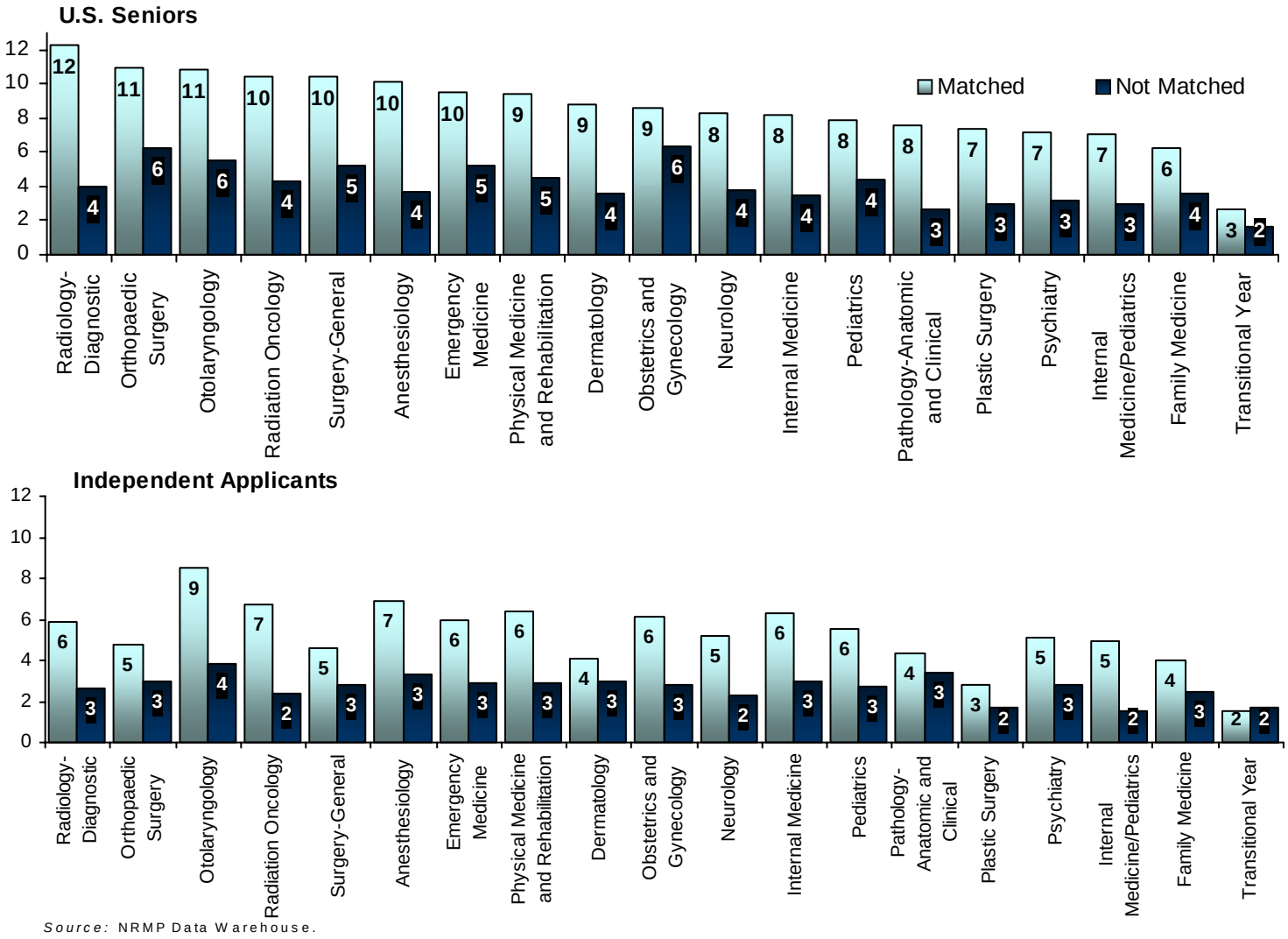
n/a: The measure either does not apply to, applies to only a small percentage of, or no reliable data were available for independent applicants.
Sources. Measures 1, 2, and match outcome from the NRMP Data Warehouse, measure 3 from the AAMC Organizational Characteristics Database and AAMC Enterprise Information Store (EIS), measure 4 and 5 from the AAMC Data Warehouse, measures 6, 9, 10 from the AAMC ERAS Data Warehouse, and measures 7 and 8 from the AAMC Data Warehouse and from the ECFMG both by permission of the NBME and ECFMG.
Note: Counts are provided for USMLE Step scores since they are the only measures with significant missing data.

Table 2 provides summary statistics by applicant type and match outcome on the 10 measures presented in this report. Data on each of these measures will be displayed graphically by preferred specialty on the following pages. Of the 10 measures, only the United States Medical Licensing Examination (USMLE) Step 1 and Step 2 scores had significant missing data. Overall, there were Step 1 scores for 93.4 percent of applicants. Almost all of the applicants who did not have Step 1 scores were osteopathic medical school seniors and graduates who either take an alternative examination (the Comprehensive Osteopathic Medical Licensing Examination, or COMLEX-USA) or take the USMLE exams but do not have their data shared with the AAMC. Step 2 scores were available for 76.8 percent of the applicants. In addition to missing Step 2 scores for the osteopathic applicants, only 69 percent of U.S. seniors had Step 2 scores. The missing data for U.S. seniors can be attributed to the fact that few medical schools require students to take and/or pass the Step 2 examination prior to the NRMP's rank order list deadline.

Chart 4

MEDIAN CONTIGUOUS RANKS BY PREFERRED SPECIALTY

U.S. Seniors and Independent Applicants



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.

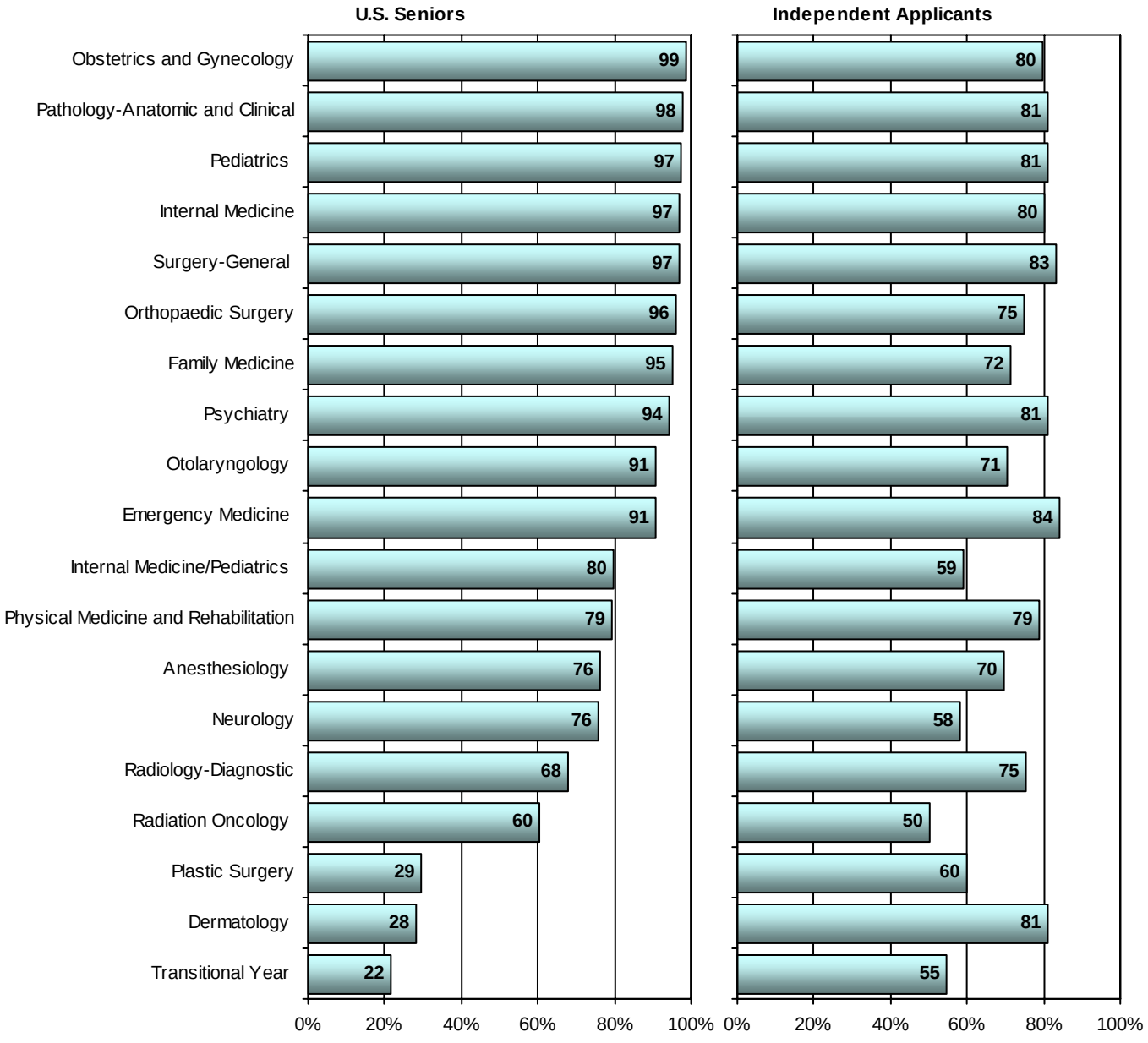
Chart 4 provides the median number of contiguous ranks by preferred specialty for U.S. seniors and independent applicants who matched and did not match. The top panel shows significant variation across the specialties for U.S. seniors. Radiology-Diagnostic had the longest average contiguous rank list for matched U.S. seniors (12) and Family Medicine (6) and Transitional Year (3) had the shortest. In general, U.S. senior applicants who preferred the more competitive specialties submitted longer contiguous lists. For all specialties, U.S. seniors who matched to their preferred specialty had median contiguous rank lists that were longer than U.S. seniors who did not match.

A similar pattern can be found for independent applicants although their lists are shorter than the lists submitted by U.S. seniors. Independent applicants who matched had longer contiguous lists compared with independent applicants who did not match to their preferred specialty.

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

Chart 5

PERCENTAGES OF APPLICANTS RANKING ONLY ONE SPECIALTY BY PREFERRED SPECIALTY
U.S. Seniors and Independent Applicants



Source: NRMP Data Warehouse.

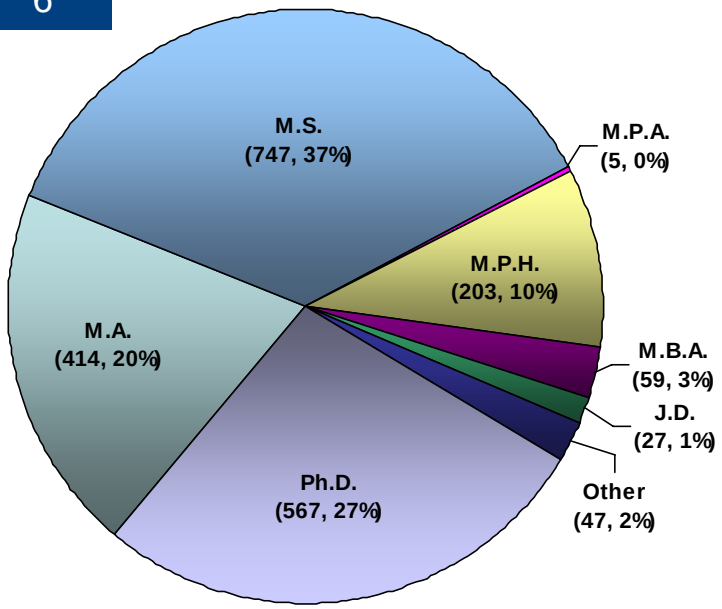
Some applicants are interested in a single specialty while others consider two or more. Chart 5 displays the percentage of applicants who ranked only one specialty by applicant type for applicants who matched to their preferred specialty.

The panel on the left shows the percentage of matched U.S. seniors in each specialty who ranked a single specialty. Overall, 88.6 percent of matched U.S. seniors ranked a single specialty, and the percentages ranged from a high of 99 percent for Obstetrics and Gynecology to a low of 22 percent for Transitional Year.

A similar pattern can be seen for the independent applicants although on average they show less commitment to a single specialty (77.5%) when compared with U.S. seniors.

Chart 6

DISTRIBUTION OF U.S. SENIORS WHO HAVE A GRADUATE DEGREE IN ADDITION TO M.D. DEGREE



Of the 14,420 U.S. seniors included in this report, 2,069 (14.3%) had graduate degrees. Chart 5 shows the distribution of those degrees.

It has been suggested that program directors may give preference to applicants who have a graduate degree in addition to the M.D. degree. Using the data resources of the AAMC, we identified whether an applicant had a graduate degree. The AAMC data include degrees an applicant earned prior to medical school that were captured by the American Medical College Application Service (AMCAS). Degrees obtained during medical school are tracked in the AAMC's Student Record System (SRS). Because we have access to reliable data only on U.S. seniors, we excluded independent applicants from this analysis.

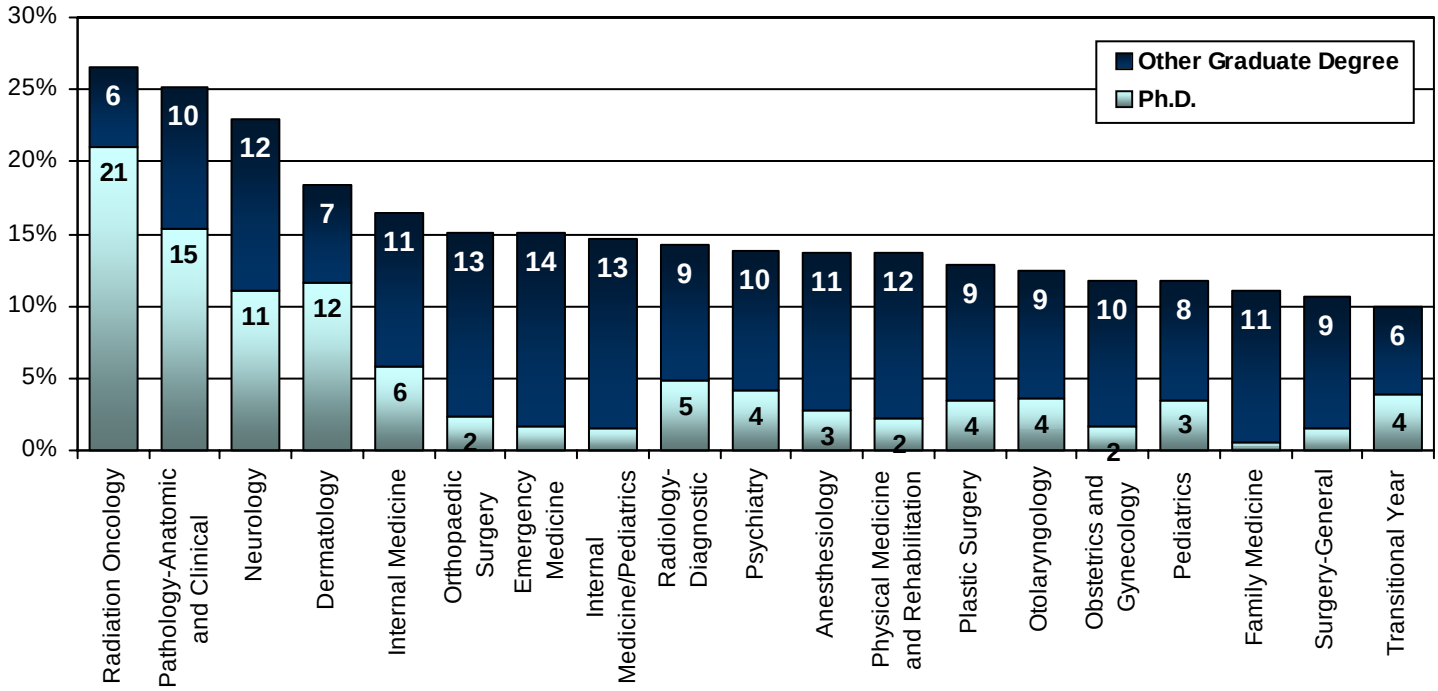
Source: NRMP Data Warehouse and AAMC Data Warehouse.

Overall, there was little difference in the match rates of U.S. seniors who did and did not have graduate degrees (14.3% versus 14.8%). A slightly higher percentage of matched U.S. seniors had Ph.D.s (4.0% vs. 2.8%), and a slightly higher percentage of unmatched U.S. seniors had other graduate degrees (12.0% vs. 10.3%).

Chart 7 shows by preferred specialty the percentage of matched applicants who have a graduate degree. Radiation Oncology had the highest percentage (27%) and Transitional Year the lowest (10%). Radiation Oncology, Anatomic and Clinical Pathology, Dermatology, and Neurology had the highest percentages of matched applicants with Ph.D.s and Emergency Medicine, Orthopaedic Surgery, and Internal Medicine/Pediatrics had the highest percentages with other graduate degrees.

Chart 7

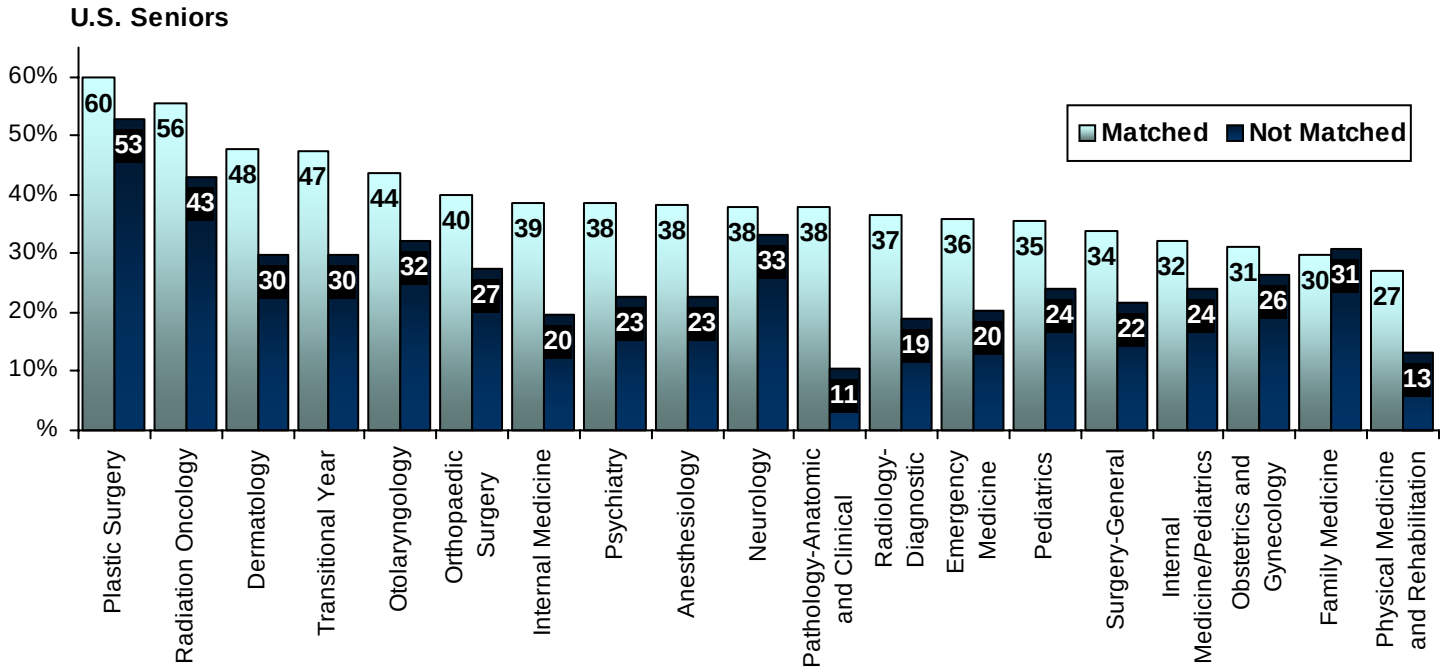
PERCENTAGE OF MATCHED U.S. SENIORS WHO HAVE A GRADUATE DEGREE
by Preferred Specialty



Source: NRMP Data Warehouse and AAMC Data Warehouse.

Chart 8

PERCENTAGE OF U.S. SENIORS WHO GRADUATED FROM A TOP 40 NIH RESEARCH INTENSIVE MEDICAL SCHOOL*
by Preferred Specialty and Match Outcome



*Ranking based on the total amount of NIH grant awards in 2005, including research grants, training grants, fellowship, research and development contracts, and other awards. Total grants awarded to the 125 U.S. Allopathic medical schools ranged from 1.5 to 450 million dollars. The Top 40 medical schools received 100 million dollars or more.

Sources: NRMP Data Warehouse, AAMC Organizational Characteristics Database, and AAMC Enterprise Information Store (EIS).

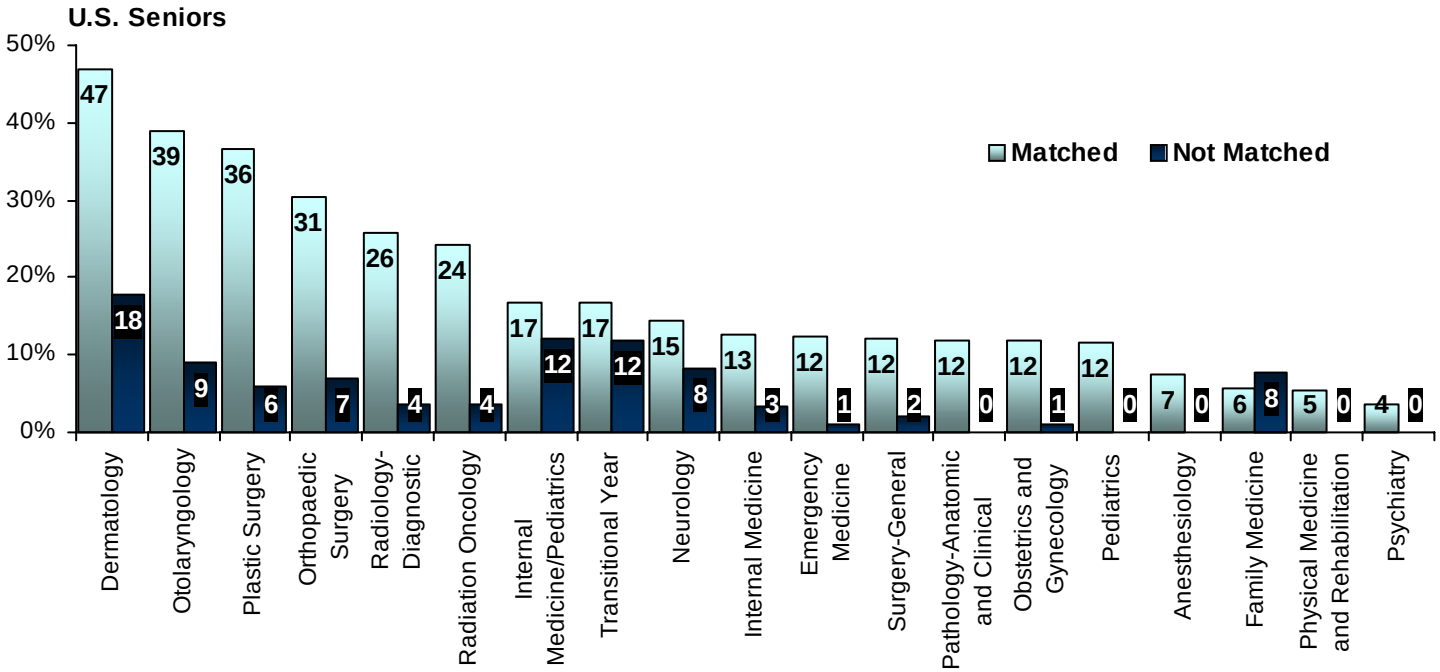
Some program directors may give preference to applicants with research experience or who graduated from a research-intensive medical school. To test this assumption, we obtained the ranking of each U.S. medical school based on the total amount of NIH grant awards, including research grants, training grants, fellowship, research and development contracts, and other awards. A U.S. senior applicant was considered a graduate of a research-intensive medical school if the medical school was in the top 40 based on the most recent data (2005) obtained from the NIH. This measure, by definition, is limited to graduates of U.S. medical schools. Overall, 36.7 percent (n = 4,874) of matched and 26.4 percent (n = 306) of unmatched U.S. seniors were graduates of top 40 NIH research intensive medical schools.

Chart 8 shows the percentage of U.S. seniors who graduated from a top 40 NIH research intensive medical school by specialty and match outcome. For example, 60 percent (51 of 85) of U.S. seniors who matched in Plastic Surgery were graduates of a top 40 research school and 53 percent (27 of 51) of U.S. seniors who did not match in Plastic Surgery were graduates a of top 40 research school.

Plastic Surgery had the highest percentage of matched U.S. seniors who were graduates of a research-intensive medical school. Radiation Oncology, Dermatology, and Transitional Year also had higher percentages of matched applicants from top 40 research schools compared to the other specialties. For all specialties except Family Medicine, smaller percentages of applicants who did not match to their preferred specialty were graduates of top 40 research intensive medical schools compared to applicants who matched. The average across all specialties and match outcome was 36 percent.

Chart 9

PERCENTAGE OF U.S. SENIORS WHO ARE MEMBERS OF ALPHA OMEGA ALPHA (AOA)
by Preferred Specialty and Match Outcome



Source: NRMP Data Warehouse and AAMC ERAS Data Warehouse.

Membership in Alpha Omega Alpha (AOA), the national medical honor society, is an honor reserved for students with high academic achievement. AOA membership is limited to students in medical schools that sponsor an AOA chapter. Most, but not all, allopathic schools in the U.S. and Canada participate, and there is one foreign chapter in Beirut. Among the independent applicants, only graduate U.S. physicians, Canadians, and a small number of others could legitimately claim membership. For that reason, AOA status for each specialty in Chart 9 is reported only for U.S. seniors.

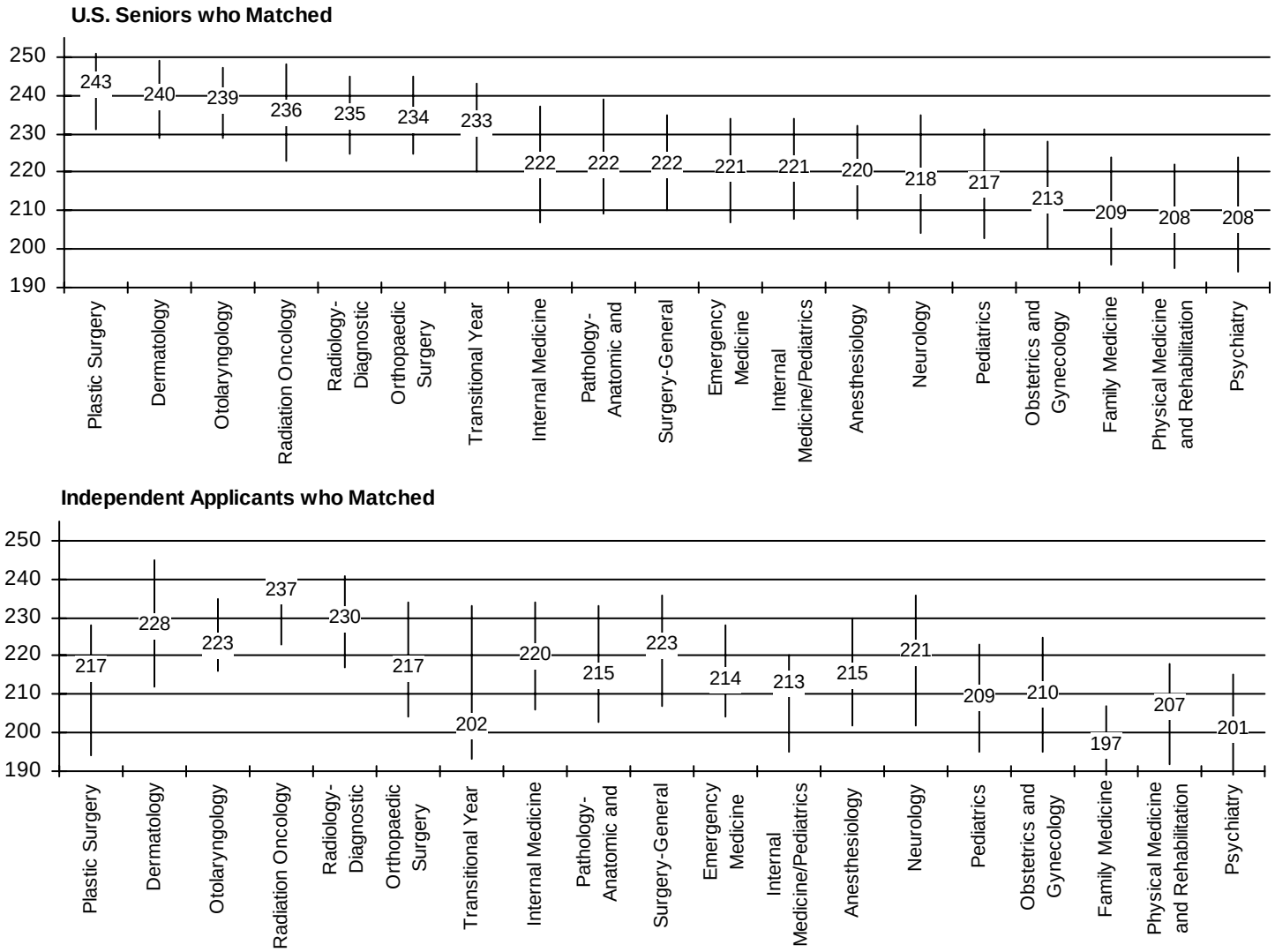
Data on AOA membership are self-reported on the ERAS application. Even for U.S. seniors, however, an analysis of its relationship with success in the Match is limited by the relatively small number of applicants who are members, by the fact that some schools do not have AOA chapters, and by the fact that other schools elect AOA members too late in the academic year for it to be considered in the application process. Overall, 13.4 percent of U.S. seniors included in this report claimed AOA membership on their ERAS application. Applicants who matched to their preferred specialty reported a higher percentage of AOA membership (14.1%) compared to unmatched applicants (6.0%).

As with several of the other measures, the most competitive specialties are able to attract the greatest proportion of AOA members. For Dermatology, the fraction with reported AOA membership was 47.0 percent. All specialties attract some AOA applicants, but for most specialties AOA members account for fewer than one in five successful applicants.

Chart 10

USMLE Step 1 Scores of Matched Applicants by Preferred Specialty

U.S. Seniors and Independent Applicants



Note: Step 1 scores are not available for the majority of Osteopathic seniors and graduates included within the independent applicant category.
Source: NRMP Data Warehouse and AAMC Data Warehouse. USMLE scores by permission of the NBME and ECFMG.

USMLE Step 1 scores are a measure of a student's understanding of important basic science concepts and the ability to apply that knowledge to the practice of medicine. Although such knowledge is only one facet of applicant qualifications considered by program directors in their selection process, it is the only one that is comparable across applicants and educational institutions and available during the interview season and prior to the NRMP's ranking deadline. Overall, U.S. senior applicants have mean USMLE Step 1 scores of 220.4 (s.d. = 20.3) and independent applicants have mean scores of 209.0 (s.d. = 19.6), both well above the minimum passing score of 182.

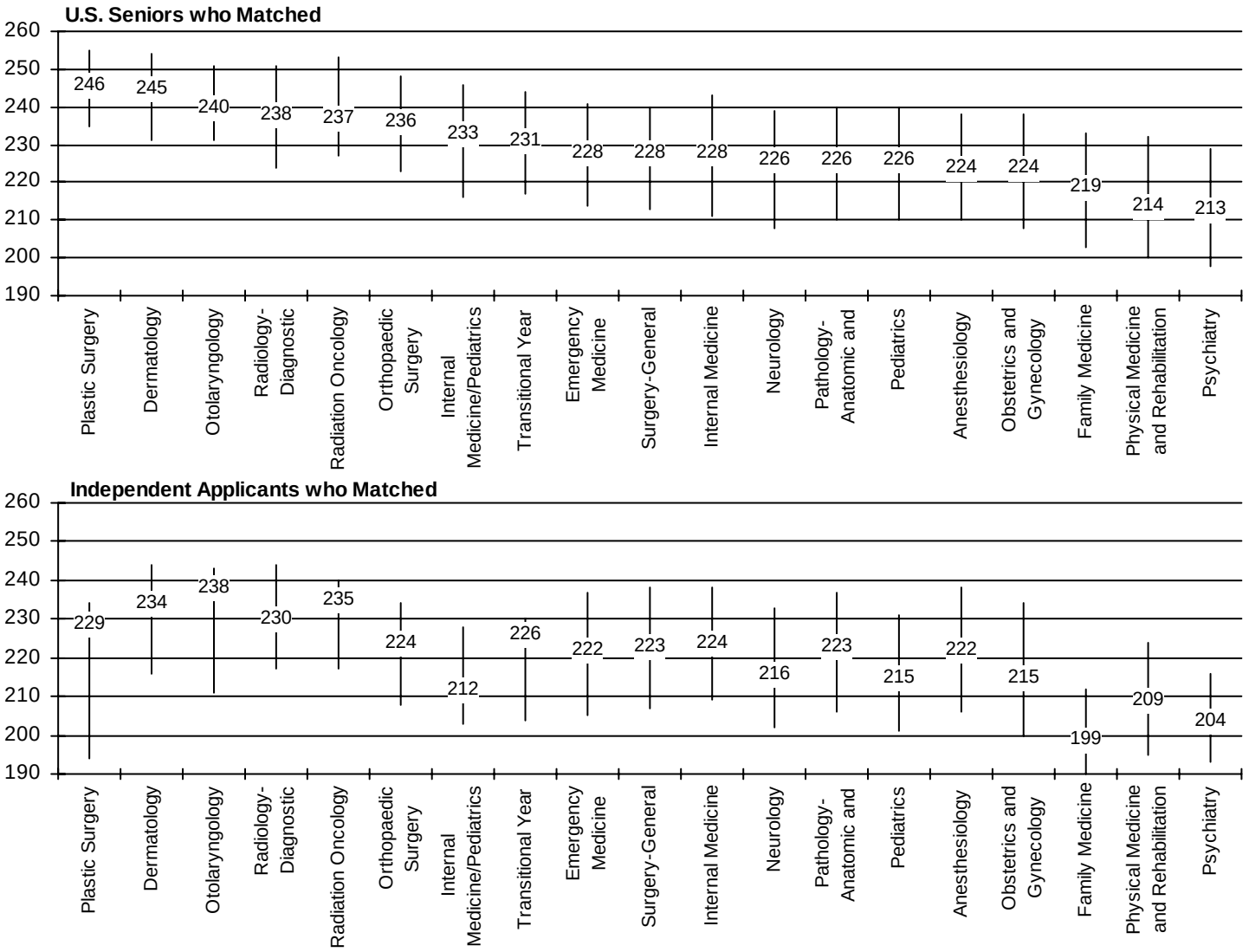
Chart 10 displays the median Step 1 scores for matched U.S. seniors (top panel) and independent applicants (bottom panel) by specialty. The numbers are the median values for successful applicants and the vertical lines show the interquartile ranges, the range of scores for applicants excluding the top and bottom quarters of the distribution. It should not be surprising that scores are generally higher for the more competitive specialties, but it also is clear there is substantial overlap when specialties are compared.

Although, in general, U.S. seniors who matched to their preferred specialty have median Step 1 scores that are higher than those of independent applicants who matched, there are a few exceptions. Independent applicants who matched in Radiation Oncology, General Surgery, and Neurology had equivalent or slightly higher median Step 1 scores when compared with matched U.S. seniors.

Chart 11

USMLE Step 2 Scores of Matched Applicants by Preferred Specialty

U.S. Seniors and Independent Applicants



Note: Thirty-one percent of U.S. seniors did not take the Step 2 examination in time to be included in this report. Step 2 scores are not available for the majority of Osteopathic seniors and graduates included within the independent applicant category.
Source: NRMP Data Warehouse and AAMC Data Warehouse. USMLE scores by permission of the NBME and ECFMG.

USMLE Step 2 scores are a measure of an applicant's ability to apply the medical knowledge, skills, and understanding of clinical science essential for providing patient care. Overall, U.S. senior applicants had mean USMLE step 2 scores of 224.5 (s.d. = 22.3) and independent applicants had mean scores of 210.5 (s.d. = 21.5), both well above the minimum passing score of 182.

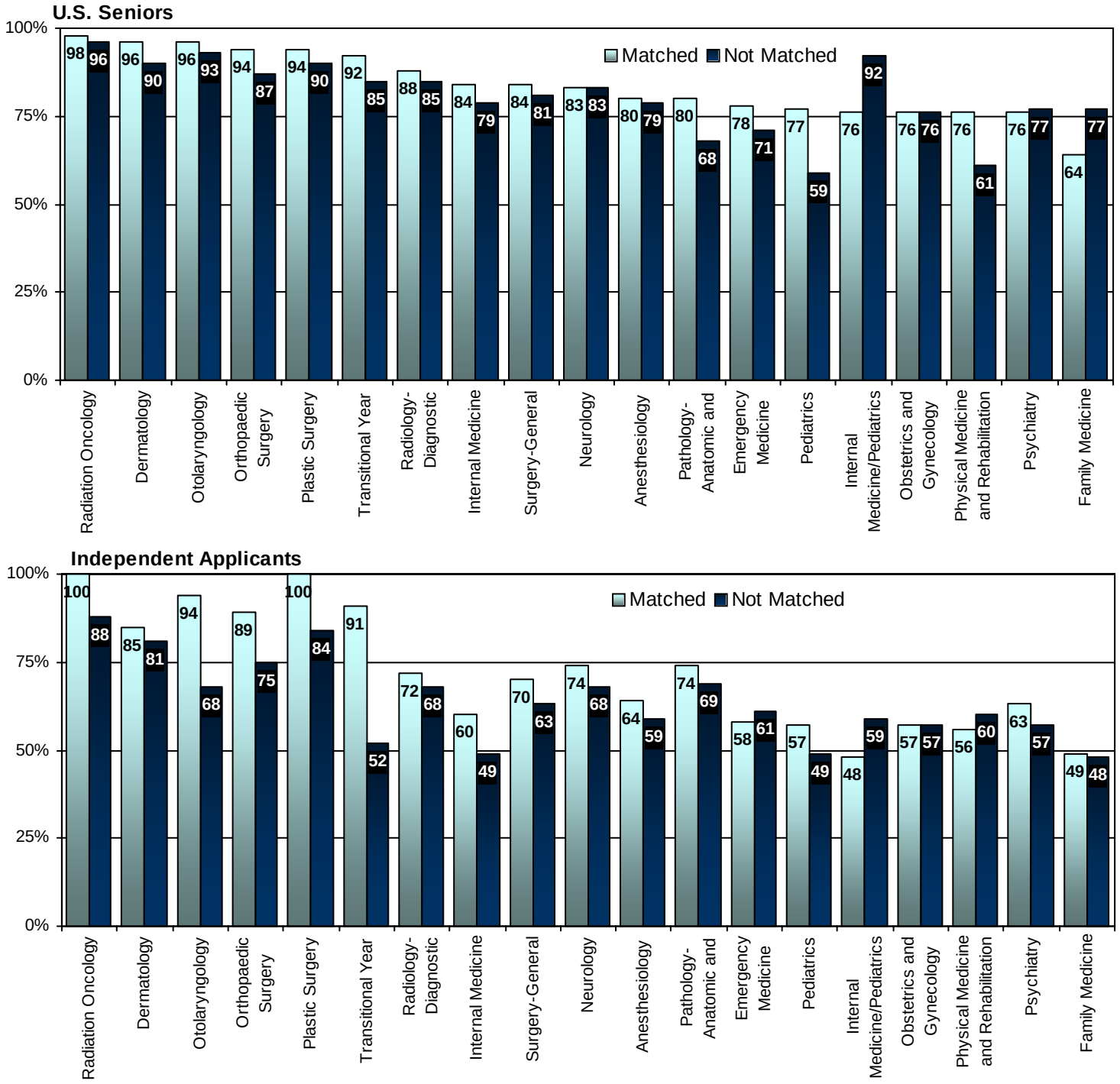
Chart 11 shows the median Step 2 scores for matched U.S. seniors (top panel) and independent applicants (bottom panel) who matched by preferred specialty. The specialties are sorted in descending order based on the median scores of matched U.S. seniors. The numbers are the median values for successful applicants and the vertical lines show the interquartile ranges. As was the case for the Step 1 scores, the more competitive specialties have higher average Step 2 scores.

For some specialties (e.g., Plastic Surgery, Internal Medicine/Pediatrics, Family Medicine) the differences in median Step 2 scores between matched U.S. seniors and independent applicants are quite dramatic; other specialties (e.g., Otolaryngology, Radiation Oncology, Anesthesiology) show only minor differences.

Chart 12

PERCENTAGE REPORTING RESEARCH EXPERIENCES BY PREFERRED SPECIALTY

U.S. Seniors and Independent Applicants by Match Outcome



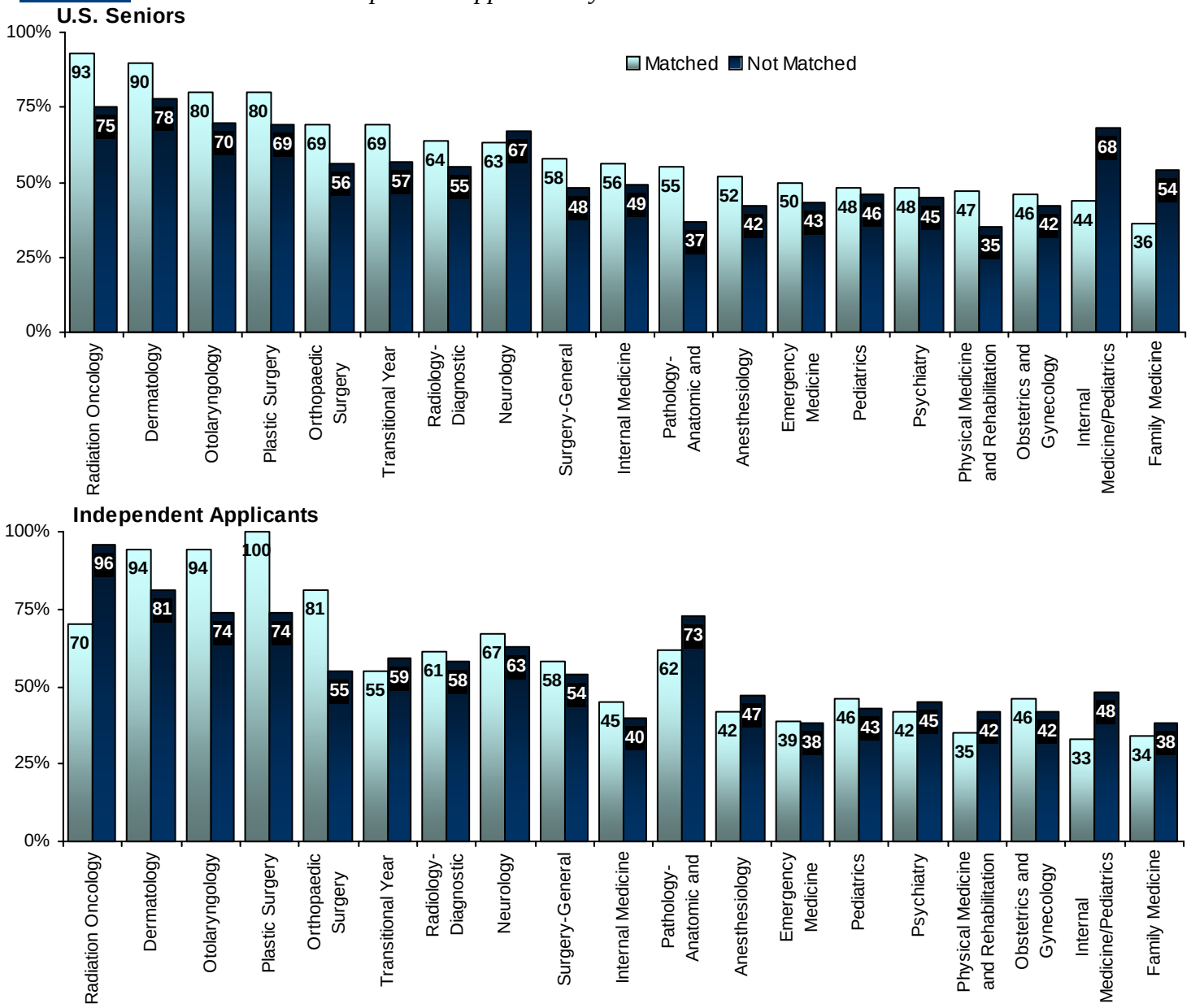
Sources: NRMP Data Warehouse and AAMC ERAS Data Warehouse.

The ERAS application allows applicants to self-report their participation in research projects. These experiences are not verified or evaluated and likely vary greatly in quality. The same competitive specialties stand out with the highest proportion of applicants with this added qualification. However, because high proportions of both matched and unmatched applicants in both the U.S. senior and independent applicant categories report participation in research projects, this measure appears to be less strongly related to match success than are other measures in this report.

Chart 13

PERCENTAGE REPORTING ABSTRACTS, PRESENTATIONS, OR PUBLICATIONS BY PREFERRED SPECIALTY

U.S. Seniors and Independent Applicants by Match Outcome



Sources: NRMP Data Warehouse and AAMC ERAS Data Warehouse.

The ERAS application also permits applicants to list their publications. This information is self-reported and may include peer-reviewed articles, abstracts, poster sessions, and invited national or regional presentations. It is likely the publications vary widely in quality and significance. Some residency programs may independently verify and even review publications for applicants in whom they have an interest, but most probably do not. For the 2008 application cycle, ERAS has modified the collection of this information to include the grouping of publications by type and is requesting Medline numbers.

Many applicants report abstracts, presentation, or publications, sometimes dozens or even hundreds. In the individual specialty sections, we distinguish between no publications, 1-5 publications, and more than five publications. For Chart 13, we report the percent of applicants preferring each specialty who report at least one publication.

As one might expect, the percentages are higher for the more competitive specialties. However, for several specialties U.S. seniors who matched show only slightly higher percentages with publications when compared with non-matched U.S. seniors. Independent applicants are about as likely to report publications as are U.S. seniors, and the relationship between the percentages for matched and unmatched applicants is more mixed.

PREDICTING MATCH SUCCESS

The tables and charts on the preceding pages showed differences in many of the measures by preferred specialty and match outcome for both U.S. seniors and independent applicants. To assess the strength of these measures in predicting match success, we conducted logistic regression separately by applicant type. Because it appears likely that program directors in the highly competitive specialties[1] weigh these measures differently than program directors in less competitive specialties, the analyses were conducted separately for these two specialty groups.

Logistic regression allows one to predict a discrete outcome based on a set of predictor measures. In this case, the discrete outcome is whether an applicant matched or did not match to a preferred specialty. The results of the logistic regression produce odds ratios (ORs). The odds ratio represents a point estimate of the relative increase (greater than 1.00) or decrease (less than 1.00) in the odds of a successful match that can be attributed to a specific measure when all other measures are held constant.

It is important to keep in mind the differences in match rates between U.S. seniors and independent applicants when interpreting the results. For U.S. seniors, the probability of matching to their preferred specialty was .75 for the highly competitive specialties and .94 for the other specialties, translating to odds of matching of 3.0 to 1 and 15.7 to 1, respectively[2]. Any relative increase or decrease in the odds based on the predictor measures should be interpreted with this fact in mind. In comparison, independent applicants have much lower probabilities of matching to a highly competitive specialty (.31, odds of .45 to 1) or to one of the other specialties (.48, odds .92 to 1).

Odds ratios by themselves provide meaningful information. For example, each additional contiguous rank added by a U.S. senior who prefers a highly competitive specialty corresponds to an increase of 1.30 (or 30%) in the odds of matching when all other factors are held constant. However, this odds ratio does not provide the overall odds or probability of matching across the range of values for the predictor measure. Therefore, we provide charts that display the probability of a successful match to the desired specialty as a function of each of the significant measures identified in Table 3.

Table 3 presents odds ratios for the 9 predictors of match success for U.S. seniors and the 6 measures available for independent applicants separately for the two specialty groups. The number of distinct specialties ranked was excluded from these analyses because it is not a meaningful predictor of match success as defined in this study. Significant predictors are denoted in bold and the ranking of the measures by how well they predict match success is shown in parentheses. All four models were statistically significant (based on χ^2 tests). However, measures of classification efficiency[3] (67.6% to 72.0%) and R^2 values[4] (.13 to .31) suggest that their ability to predict match success ranged from modest to moderate. Clearly, these models do not capture all the information about applicants and programs that influences the ranking and matching process.

Despite these limitations, the results shed some light on how the measures included in this report related to match success. For example, for all four groups the single best predictor[5] of match success was the **number of contiguous ranks**. Each additional contiguous rank added to the rank order list increased the odds of matching by a factor of 1.30 to 1.36 for U.S. seniors and 1.09 to 1.19 for independent applicants. This finding is consistent with the NRMP's recommendation that an applicant should rank all programs where he or she is willing to accept a position and where the program has expressed an interest.

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[1] For the purpose of these analyses the highly competitive specialties are defined as specialties where the ratio of the number of U.S. seniors who ranked the specialty first to the number of available positions was 1 to 1 or greater (see Chart 2). These specialties include: Dermatology, Orthopaedic Surgery, Otolaryngology, Plastic Surgery, and Radiation Oncology.

[2] odds = probability of event occurring / 1 - probability of event occurring.

[3] Classification efficiency is calculated by creating a 2 by 2 table of actual and predicted match success and then dividing the number of applicants who were classified correctly by the total number of applicants.

[4] R^2 values are a measure of the strength of association, or predictive validly of the model and range from 0 to 1. For logistic regression they are analogous to, but do not have the same variance interpretation as, R^2 for linear regression. The values reported here are based on the Cox and Snell measure.

[5] Measures were entered in blocks and the -2 Log Likelihood for the block was compared against the full model to identify the best predictors.

Table 3 — Regression Model Predicting Success in Matching to Preferred Specialty

Predictor Variable	U.S. Seniors: Highly Competitive Specialties* OR†	U.S. Seniors: Other Specialties OR	Independent Applicants: Highly Competitive Specialties OR	Independent Applicants: Other Specialties OR
1. Number of contiguous ranks	**1.30 (1)**	**1.36 (1)**	**1.09 (1)**	**1.19 (1)**
2. Graduate of top 40 NIH research medical school (1=yes, 0=no) ‡	1.23	**1.41 (4)**	--	--
3. PH.D. degree (1=yes, 0=no) ‡	**2.88 (5)**	1.30	--	--
4. Other graduate degree (1=yes, 0=No) ‡	1.08	0.95	--	--
5. AOA member (1=yes, 0=no) ‡	**1.90 (4)**	**2.03 (5)**	--	--
6. USMLE Step 1 score§	**(2)**	**(3)**		**(2)**
<= 200	1.00	1.00	1.00	1.00
between 201 and 234	**2.92**	**1.68**	1.06	**1.34**
>= 235	**3.15**	**1.90**	1.74	**1.69**
unknown score	2.22	0.60	1.33	1.64
7. USMLE Step 2 score§	**(3)**	**(2)**	**(2)**	**(2)**
<= 200	1.00	1.00	1.00	1.00
between 201 and 234	**2.28**	**2.42**	1.21	**1.65**
>= 235	**2.73**	**3.29**	**2.72**	**2.87**
unknown score	**2.42**	**1.87**	0.84	**3.43**
8. Number of research experiences	1.01	0.94	**1.14 (4)**	**1.07 (4)**
9. Number of abstracts, presentations, and publications	1.02	1.00	**1.08 (3)**	1.00
Model Evaluation:	χ^2 (13 df) =535.08, $p < .001$ N=1,719	χ^2 (13 df) =1115.09, $p < .001$ N=12,701	χ^2 (9 df) =127.78, $p < .001$ N=437	χ^2 (9 df) =2,327.66, $p < .001$ N=11,837
Percent classified correctly (matched, unmatched, total)	74.3, 78.4, 75.3	71.6, 79.5, 72.0	64.7, 64.8, 64.8	67.6, 71.7, 69.7
R^2	.31	.13	.15	.19

*Competitive specialties include: Dermatology, Orthopaedic Surgery, Otolaryngology, Plastic Surgery and Radiation Oncology.
†OR = odds ratio. Odds ratios significant at p<.05 are shown in bold, the order of the best predictors are noted parenthetically.
‡Data not available for independent applicants.
§USMLE Step 1 and Step 2 score data were entered into the models as score ranges. This coding allows for the evaluation of applicants in the "unknown" score category and permits the inclusion of applicants who would otherwise be excluded from the analysis due to missing data. For the Step examinations the interpretation of the odds ratios are in relation to the reference group: applicants with Step scores of ≤ 200.
Sources. Measure 1 and match outcome from the NRMP Data Warehouse, measure 2 from the AAMC Organizational Characteristics Database and AAMC Enterprise Information Store (EIS), measures 3 and 4 from the AAMC Data Warehouse, measures 5, 6, 9 from the AAMC ERAS Data Warehouse, and measures 6 and 7 from the AAMC Data Warehouse and from the ECFMG both by permission of the NBME and ECFMG.

The second best predictor for three of the four applicant groups was USMLE Step 2 scores. When all other measures were held constant, U.S. seniors who preferred the less competitive specialties and who had **USMLE Step 2 scores** of 235 or higher had odds of matching that were 3.29 times higher than applicants with scores of 200 or lower. For U.S. seniors who preferred the highly competitive specialties USMLE Step 2 scores also were significant, but USMLE Step 1 scores were a better predictor of match success.

USMLE Step 1 scores were significant predictors of match success for U.S. seniors and independent applicants who preferred the less competitive specialties. When all other measures were held constant, the odds of independent applicants with Step 1 scores between 201 and 234 matching to a less competitive specialty increased by a factor of 1.34 when compared to independent applicants whose scores were 200 or lower. However, this measures was not a significant predictor for independent applicants who preferred a highly competitive specialty.

Neither the number of **research experiences** nor the number of **publications** was a significant predictor of match success for U.S. seniors who preferred either a highly competitive or other specialty. The number of research experiences was a significant predictor of match success for independent applicants in both of the specialty groups. The number of publications was a significant predictor of match success for independent applicants who preferred one of the competitive specialties. When all other measures were held constant, each additional research experience increased the odds of

matching by a factor of 1.08. These findings suggest that independent applicants, in particular, should accurately report all their research experiences and publications when applying to residency programs.

For U.S. seniors who preferred less competitive specialties, being a **graduate of a top 40 NIH research medical school** was a significant predictor of match success (OR=1.41), and the fourth best predictor overall. Having a **Ph.D. degree** was a significant and fifth best predictor for U.S. seniors who preferred more competitive specialties (OR=2.88). Being a **member of AOA** was a significant predictor of match success for both groups of U.S. seniors. Having another type of graduate degree was not a significant predictor of match success for either group of U.S. seniors.

In the charts that follow, the significant measures in Table 3 are plotted by the median probability of match success.

Chart 14 — Number of Contiguous Ranks

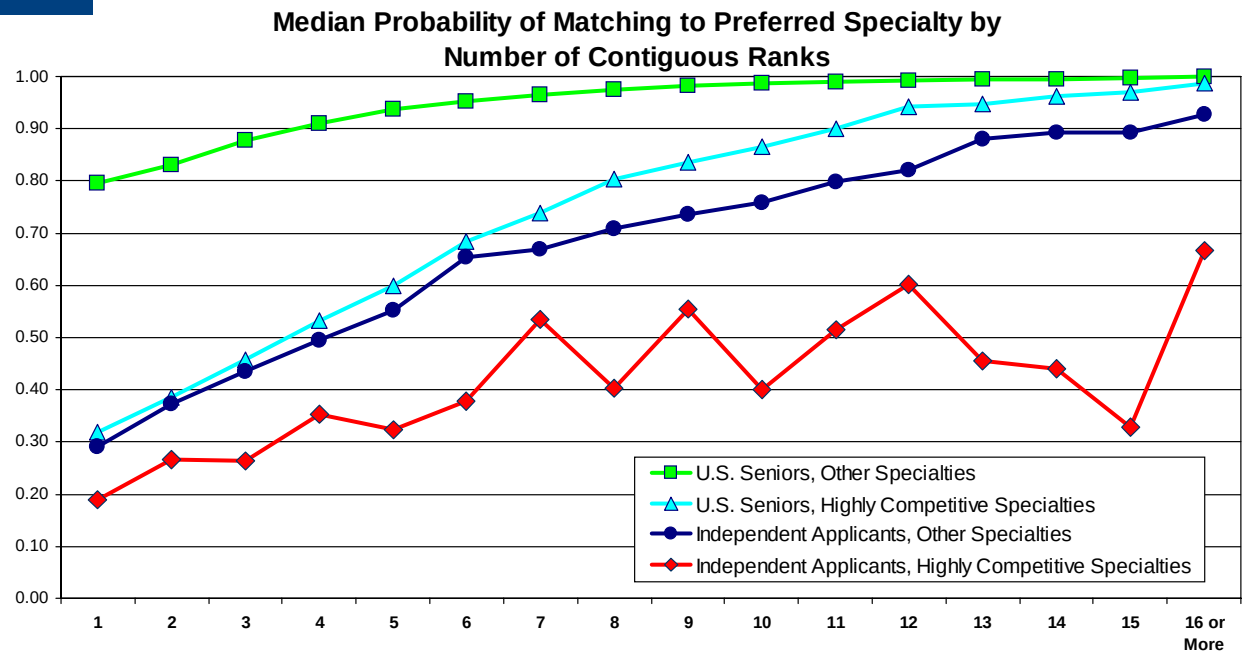


Chart 14 shows the median predicted probability of matching to a preferred specialty by number of contiguous ranks for both U.S. seniors and independent applicants. For U.S. seniors, who averaged about 8 contiguous ranks overall, the increases in median predicted probabilities were more dramatic for applicants who preferred highly competitive specialties compared to those who preferred less competitive specialties. U.S. seniors who preferred one of the competitive specialties had to rank more programs to reach levels of predicted match success comparable to those of U.S. seniors who preferred less competitive specialties. For example, to reach a predicted match probability of .90, U.S. seniors who preferred highly competitive specialties had to rank 11 contiguous programs, but U.S. seniors who preferred less competitive specialties had to rank only 4 programs. Of course these are median values, and they varied within each group and across specialties, depending upon the values of the other predictor variables.

For independent applicants who preferred the less competitive specialties the relationship is fairly linear, with each additional rank corresponding to an increased probability of matching to a preferred specialty. For the independent applicants who preferred the highly competitive specialties the relationship was more erratic, reflecting the small number of applicants at each contiguous rank level. Independent applicants averaged about 4 contiguous ranks on their rank order lists.

Chart 15

USMLE Step 1 Scores

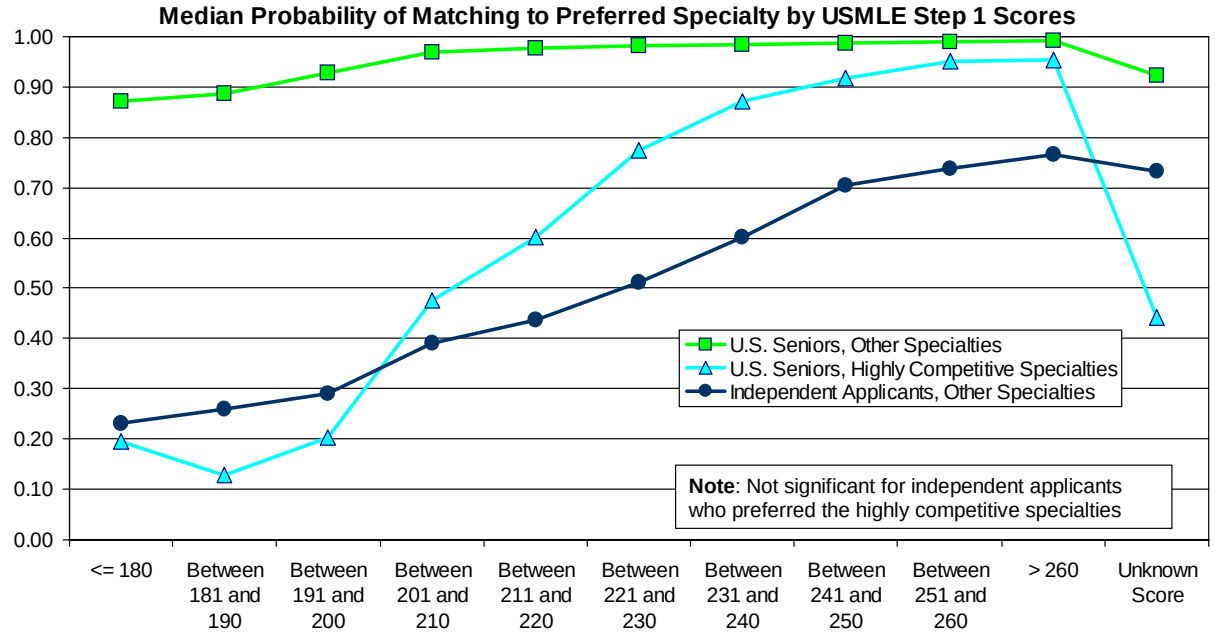
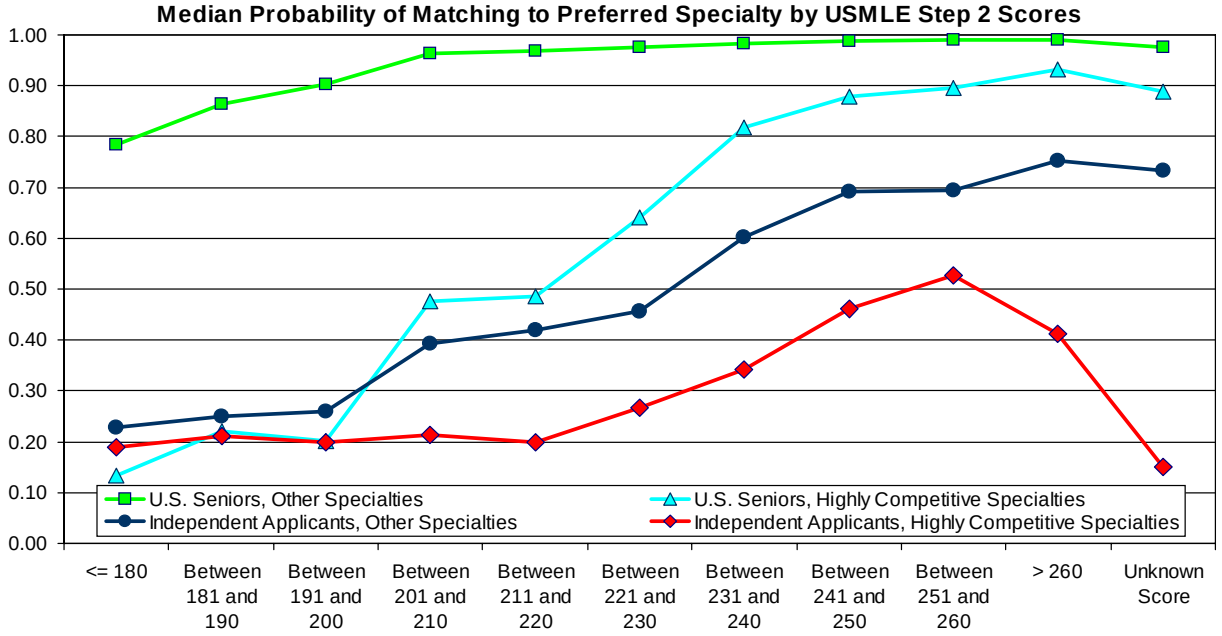


Chart 16

USMLE Step 2 Scores



The relationship between USMLE Step scores and median probability of matching to a preferred specialty is shown in Charts 15 and 16. For U.S. seniors who preferred less competitive specialties, the probability of matching to a preferred specialty increased markedly between Step 1 scores lower than 181 and scores of 210. Above scores of 210, the increases in median predicted probabilities were less sharp. For U.S. seniors who preferred the more competitive specialties, the increases were more dramatic and continued to rise throughout the range of scores.

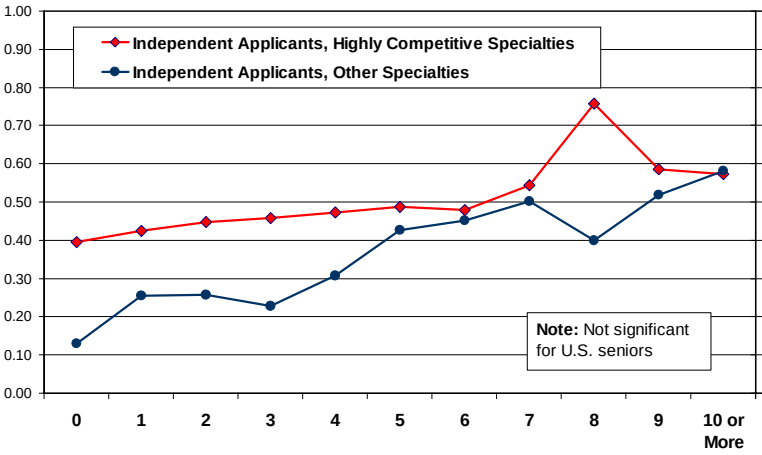
The graphs for Step 1 and Step 2 scores show strikingly similar results, with the notable exception of how having an unknown score differed between the two tests for U.S. seniors. Many programs require a Step 1 score, but the Step 2 score is usually optional. Overall, U.S. seniors had average Step 1 and Step 2 scores of 220 and 224, respectively.

For independent applicants, there was little difference in median predicted probabilities of match success between Step 1 and Step 2 scores lower than 181 and 200; above 200 a more constant increase can be seen throughout the score ranges for independent applicants who preferred less competitive specialties. For independent applicants who preferred the competitive specialties, the median predicted probability of matching *decreased* with Step 2 scores above 260, likely an artifact of the small number of applicants in this score range. Overall, independent applicants had average Step 1 scores of 209 and average Step 2 scores of 210.

Chart 17

Research Experiences
Independent Applicants

Median Probability of Matching to Preferred Specialty by Number of Research Experiences



Publications
Independent Applicants
Preferring other Specialties

Median Probability of Matching to Preferred Specialty by Number of Research Experiences

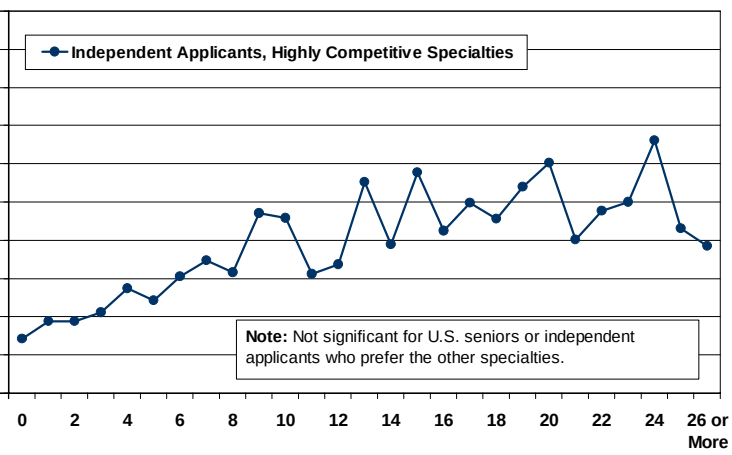
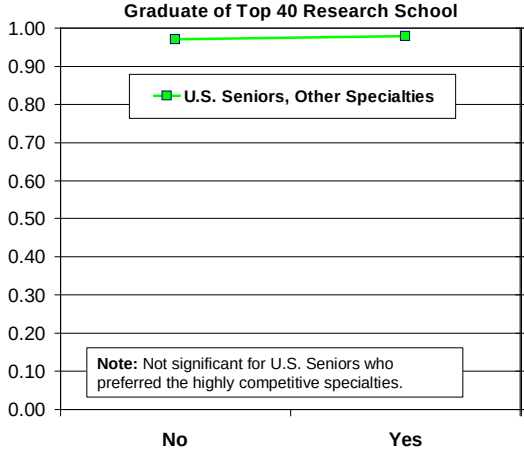


Chart 18

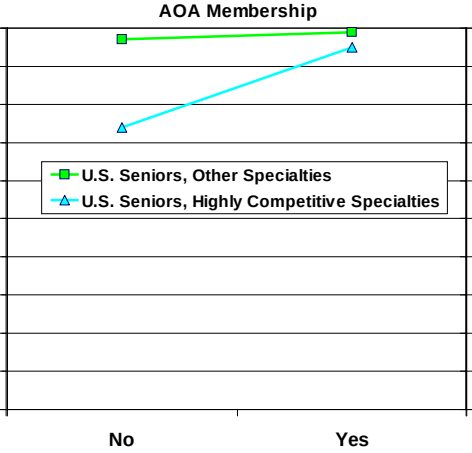
Graduates of Top 40 Research School
U.S. Seniors

Median Probability of Matching to Preferred Specialty by Graduate of Top 40 Research School



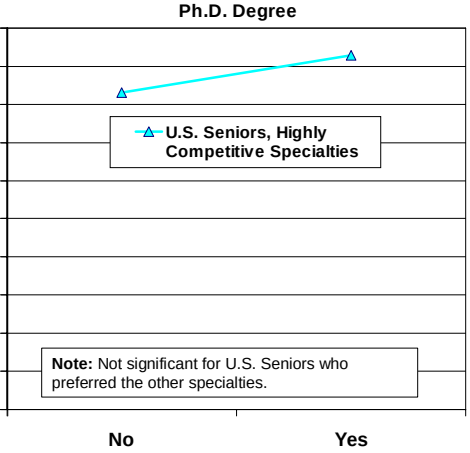
AOA Membership
U.S. Seniors

Median Probability of Matching to Preferred Specialty by AOA Membership



Ph.D. Degree
U.S. Seniors

Median Probability of Matching to Preferred Specialty by Ph.D. Degree



The relationship between number of research experiences and number of publications and the median probability of independent applicants matching to a preferred specialty is shown in Chart 17. These measures were not significant for U.S. seniors in the regression models. For independent applicants in both specialty groups there was a gradual if uneven increase in the median probabilities of match success across the range of research experiences. For independent applicants who preferred the competitive specialties, there was a gradual, if somewhat erratic, increase in median predicted probability of match success with increased numbers of research publications.

Chart 18 shows the relationship between median predicted probability of matching to a preferred specialty and three characteristics of U.S. senior applicants. These measures did not apply to independent applicants. U.S. seniors who graduated from top 40 NIH research intensive medical schools and who preferred the competitive specialties had median predicted probabilities of match success of .98 compared to .97 for graduates of other medical schools. Being a graduate of a top 40 NIH research medical school was not a significant predictor of match success for U.S. seniors who preferred highly competitive specialties. AOA members who preferred a competitive specialty had predicted probabilities of .95 versus .74 for non-AOA members. Comparable median predicted probabilities of match success for U.S. seniors who preferred less competitive specialties were .99 and .97. U.S. seniors with Ph.D. degrees who preferred the competitive specialties had median predicted probabilities of match success of .93 compared to .83 for U.S. seniors without Ph.D. degrees. Having a Ph.D. was not a significant predictor of match success for U.S. seniors who preferred less competitive specialties.

AN ANESTHESIOLOGY

Table AN-1

SUMMARY STATISTICS
Anesthesiology

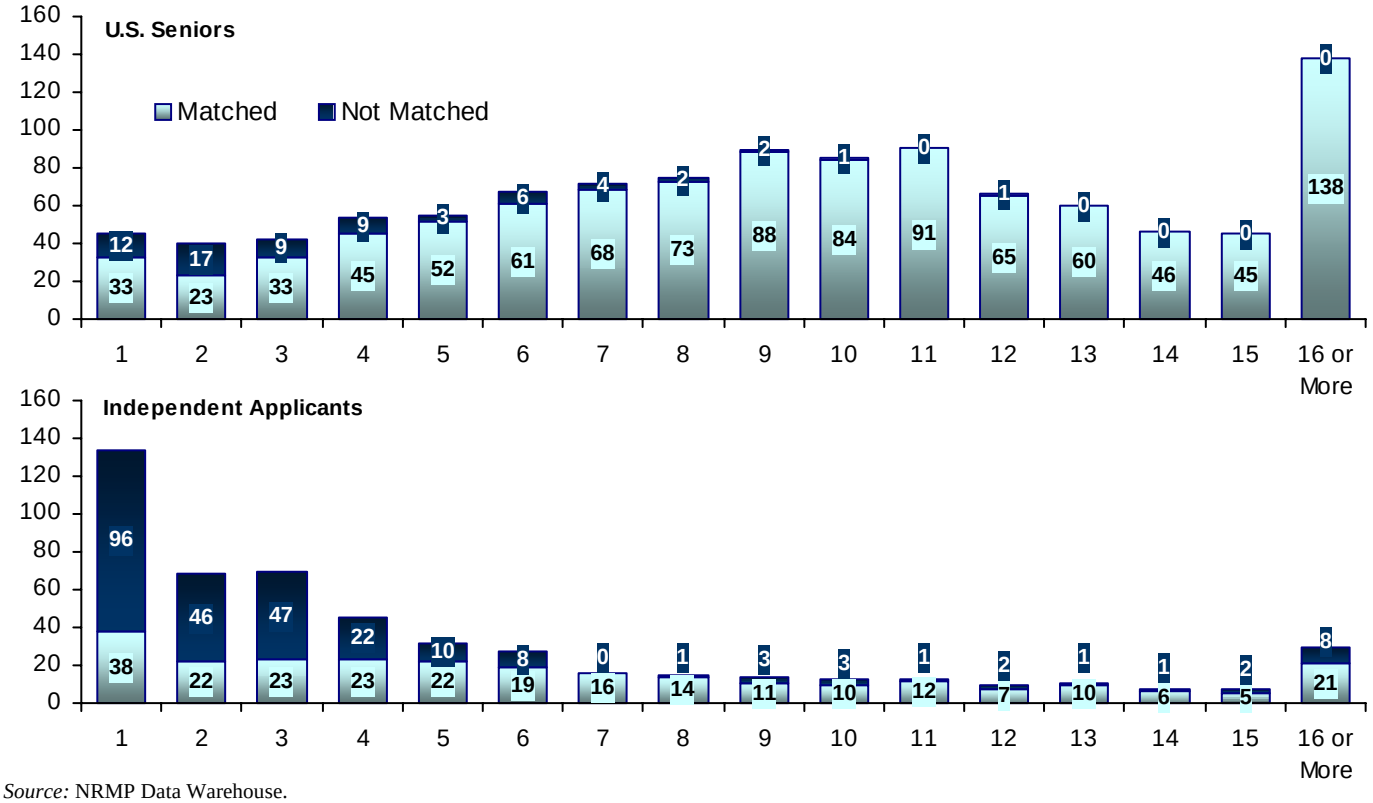
Measure	U.S. Seniors		Independent Applicants	
	Matched (n=1,005)	Did Not Match (n=66)	Matched (n=259)	Did Not Match (n=251)
1. Median number of contiguous ranks	10.0	3.0	6.0	2.0
2. Mean number of distinct specialties ranked	1.3	1.7	1.4	1.6
3. Percentage who graduated from top 40 NIH research medical school	38.1	22.7	n/a	n/a
4. Percentage who have a Ph.D. degree	2.8	3.0	n/a	n/a
5. Percentage who have another graduate degree	10.9	9.1	n/a	n/a
6. Percentage who are AOA members	7.5	0.0	n/a	n/a
7. USMLE Step 1 score				
Mean	220	200	217	206
Median	220	196	215	202
25th percentile	208	190	201	192
75th percentile	232	207	230	217
Count	1,002	65	157	189
8. USMLE Step 2 score				
Mean	223	197	221	207
Median	224	195	222	205
25th percentile	210	186	206	192
75th percentile	238	207	238	219
Count	694	54	155	189
9. Mean number of research experiences	1.8	1.7	1.3	1.2
10. Mean number of abstracts, presentations, and publications	1.7	1.0	1.7	2.6

n/a: The measure either does not apply to, applies to only a small percentage of, or no reliable data were available for independent applicants.
Sources. Measures 1, 2, and match outcome from the NRMP Data Warehouse, measure 3 from the AAMC Organizational Characteristics Database and AAMC Enterprise Information Store (EIS), measure 4 and 5 from the AAMC Data Warehouse, measures 6, 9, 10 from the AAMC ERAS Data Warehouse, and measures 7 and 8 from the AAMC Data Warehouse and from the ECFMG both by permission of the NBME and ECFMG.
Note: Counts are provided for USMLE Step scores since they are the only measures with significant missing data.

Chart AN-1

NUMBER OF CONTIGUOUS RANKS WITHIN PREFERRED SPECIALTY

Anesthesiology

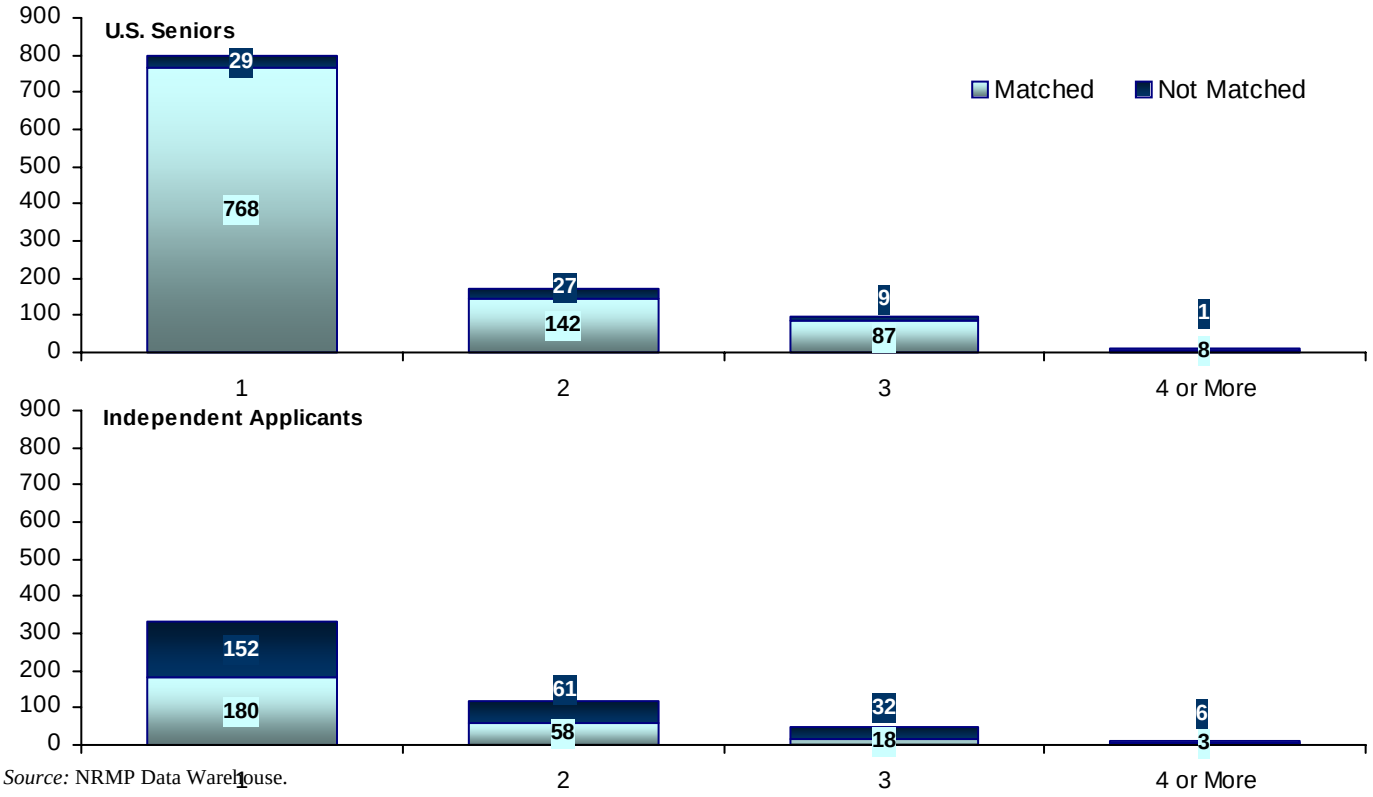


Source: NRMP Data Warehouse.

Chart AN-2

NUMBER OF DISTINCT SPECIALTIES RANKED

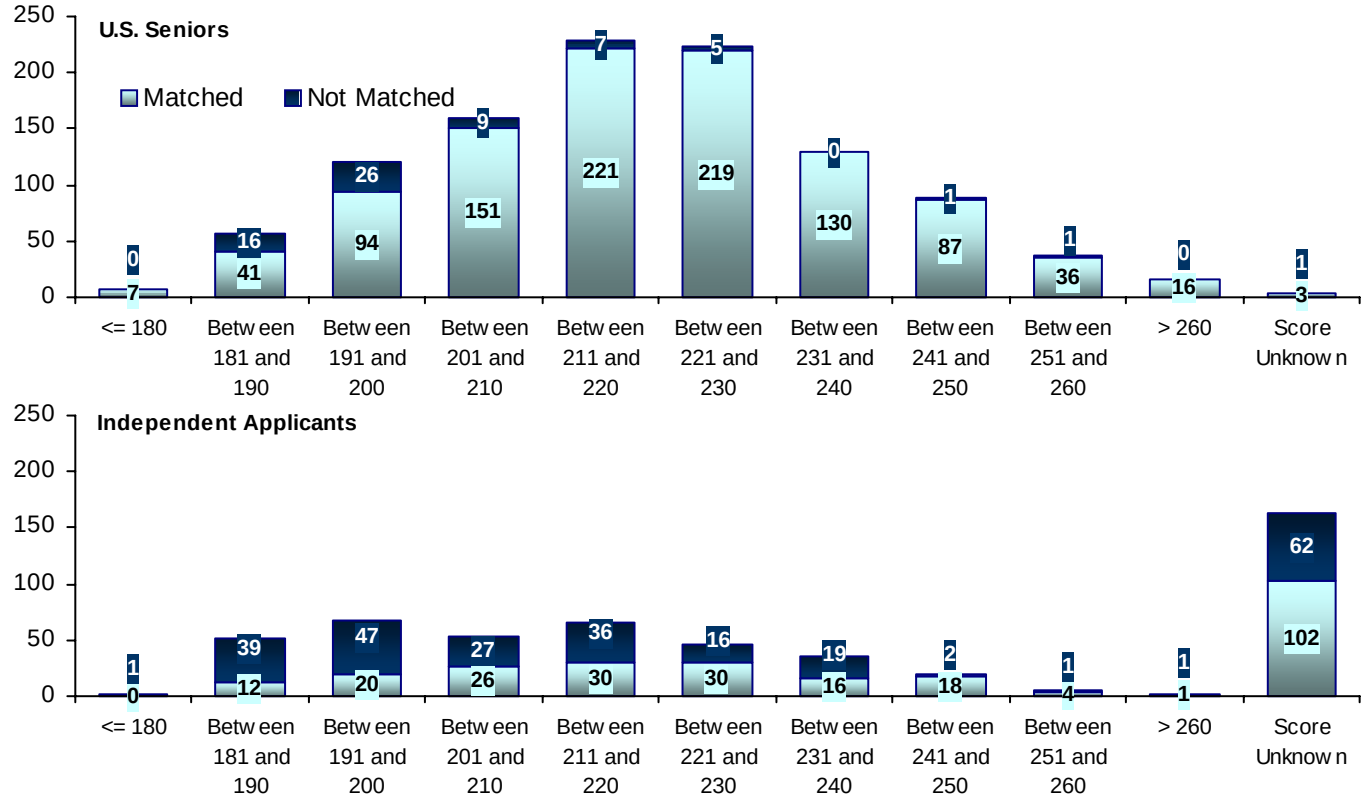
Anesthesiology



Source: NRMP Data Warehouse.

Chart AN-3

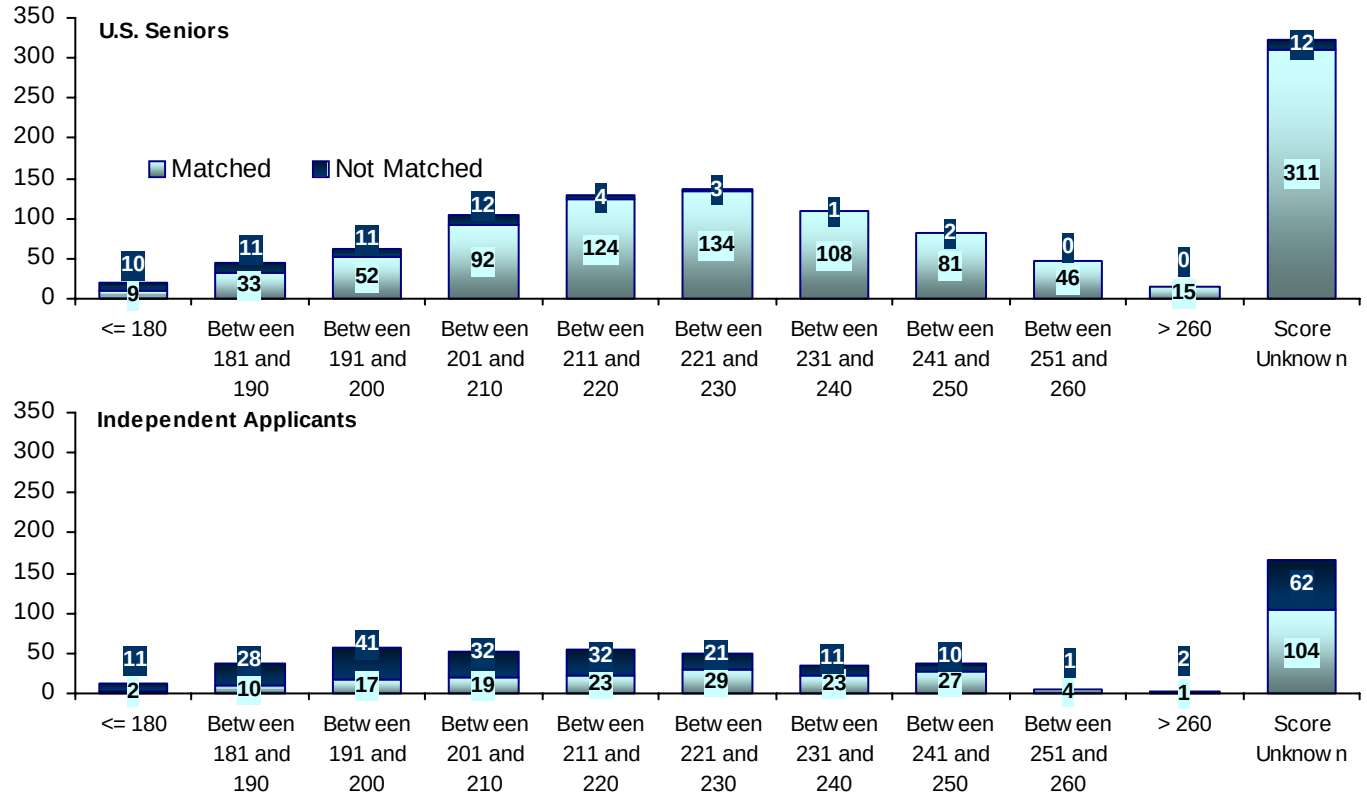
USMLE Step 1 Scores
Anesthesiology



Source: NRMP Data Warehouse and AAMC Data Warehouse. USMLE scores by permission of the NBME and *ECFMG*.

Chart AN-4

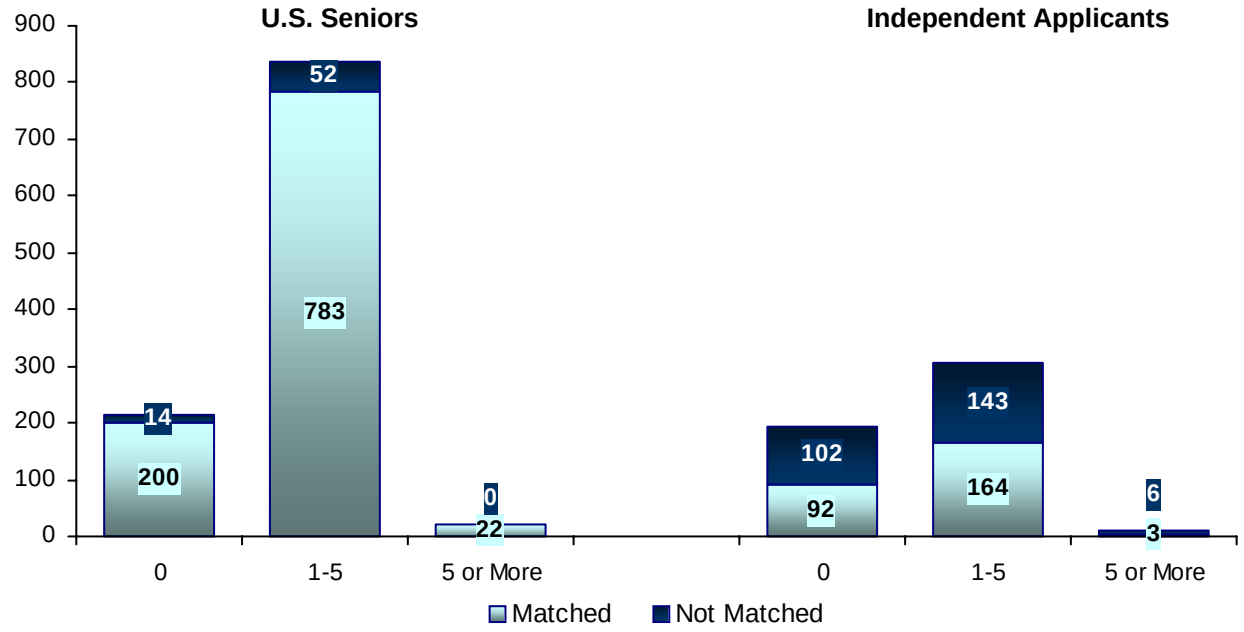
USMLE Step 2 Scores
Anesthesiology



Source: NRMP Data Warehouse and AAMC Data Warehouse. USMLE scores by permission of the NBME and *ECFMG*.

Chart AN-5

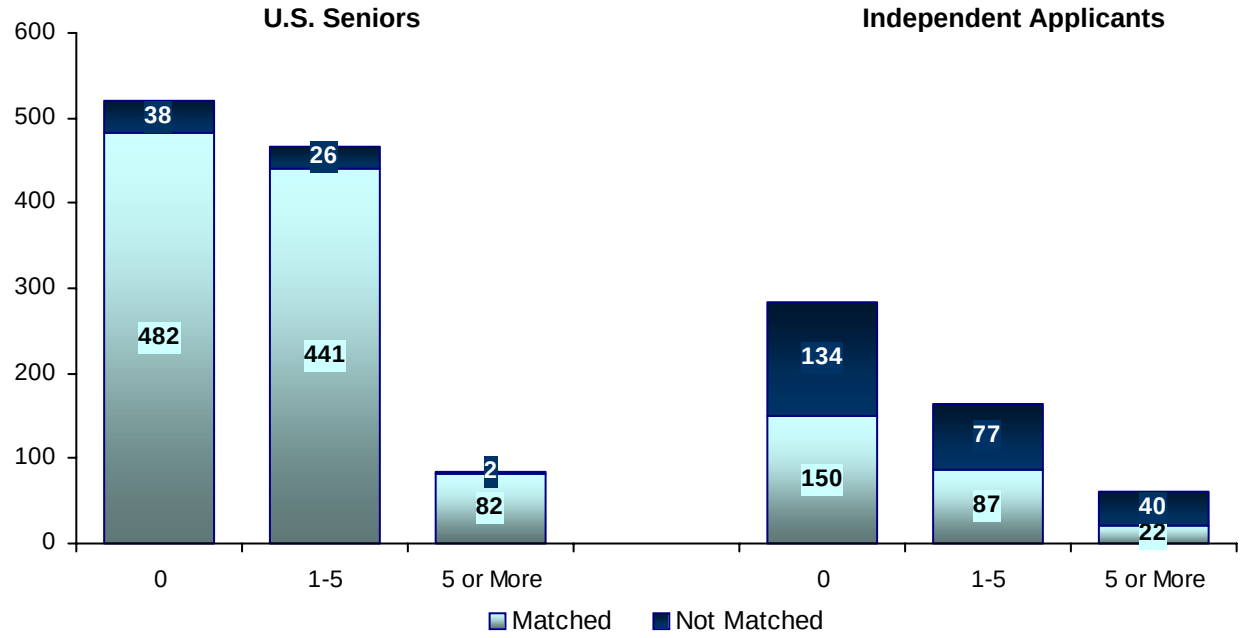
NUMBER OF RESEARCH PROJECTS
Anesthesiology



Source: AAMC ERAS Data Warehouse.

Chart AN-6

NUMBER OF ABSTRACTS, PRESENTATIONS, AND PUBLICATIONS
Anesthesiology

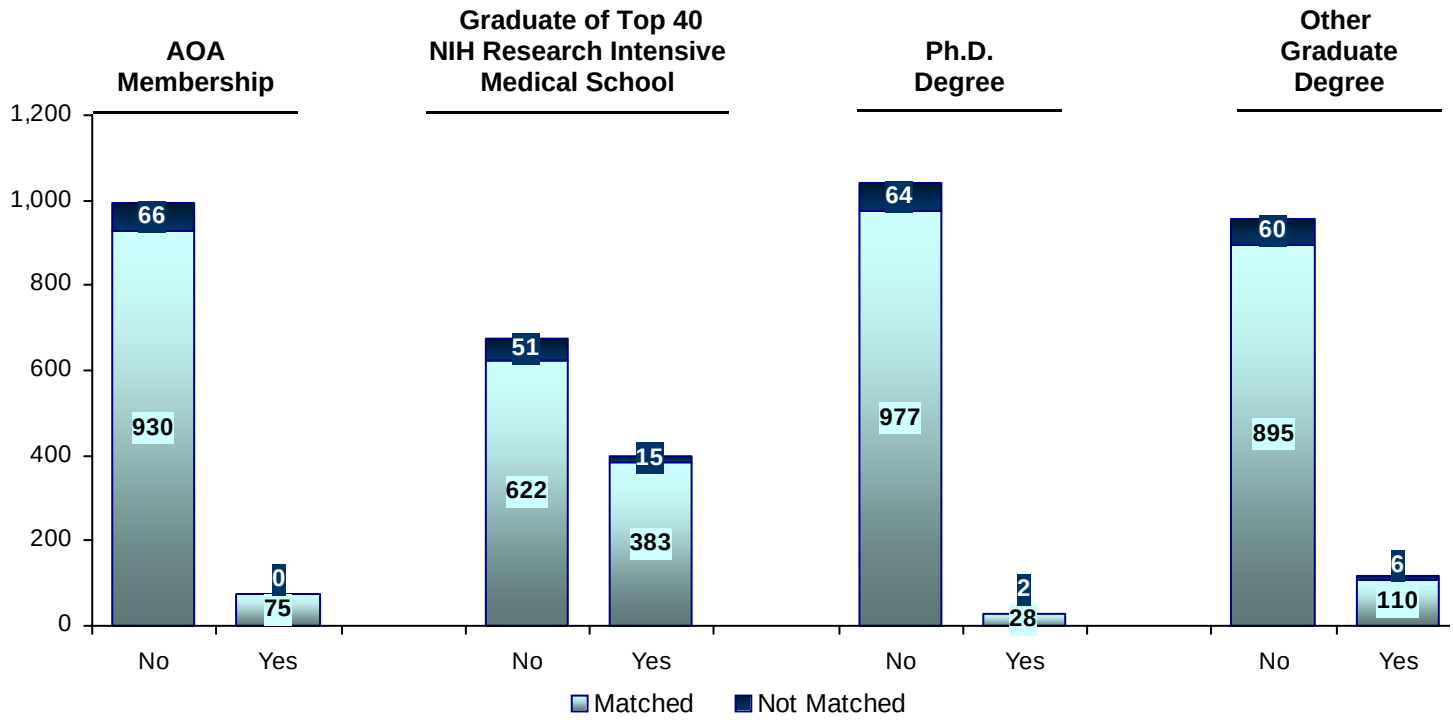


Source: AAMC ERAS Data Warehouse.

Chart AN-7

OTHER CHARACTERISTICS OF U.S. SENIORS

Anesthesiology



Sources. AOA membership from the AAMC ERAS Data Warehouse, Top 40 NIH Research Intensive Medical Schools from the AAMC Organizational Characteristics Database and AAMC Enterprise Information Store (EIS), Ph.D. and other graduate degrees from the AAMC Data Warehouse.

D DERMATOLOGY

Table D-1

SUMMARY STATISTICS
Dermatology

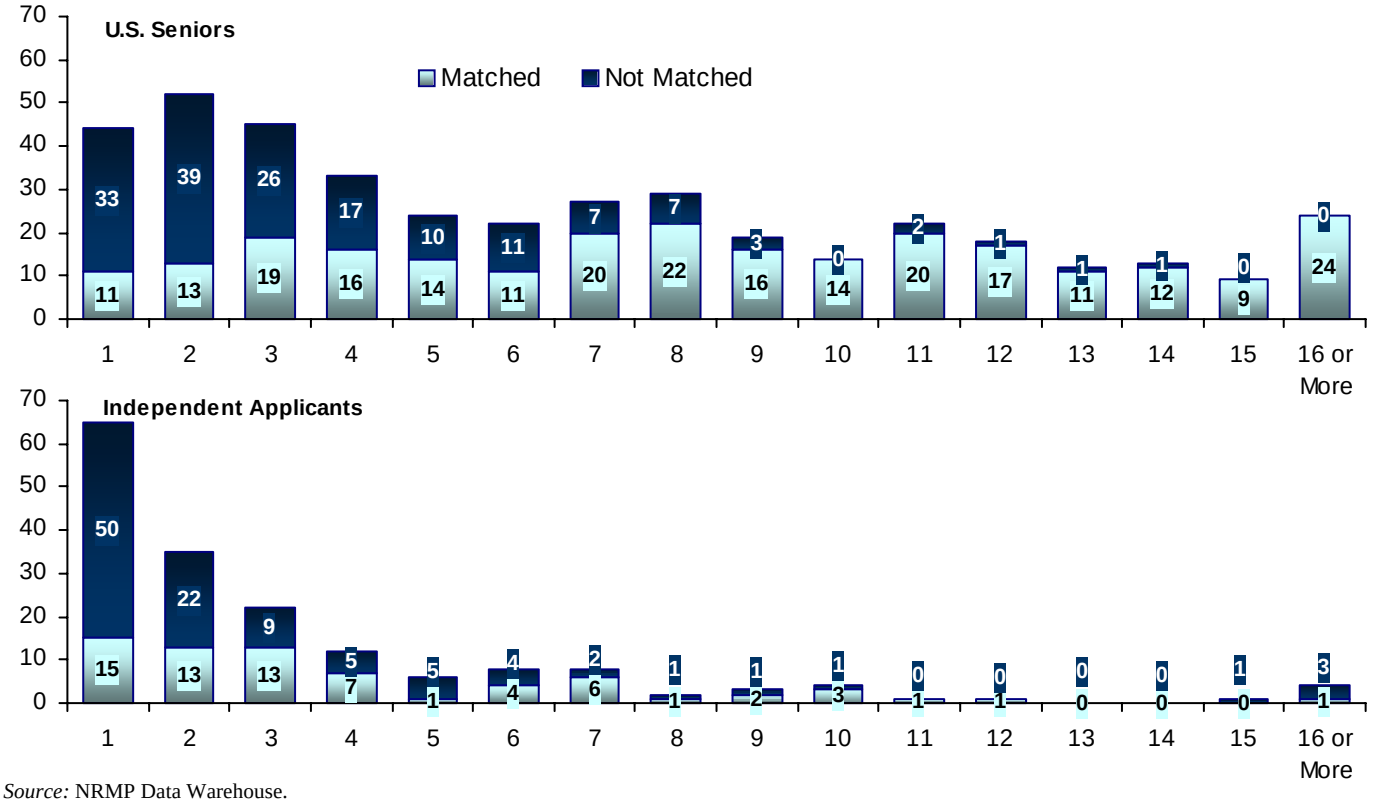
Measure	U.S. Seniors		Independent Applicants	
	Matched (n=249)	Did Not Match (n=158)	Matched (n=68)	Did Not Match (n=104)
1. Median number of contiguous ranks	8.0	3.0	3.0	2.0
2. Mean number of distinct specialties ranked	1.9	2.3	1.3	1.3
3. Percentage who graduated from top 40 NIH research medical school	47.8	29.7	n/a	n/a
4. Percentage who have a Ph.D. degree	11.6	3.8	n/a	n/a
5. Percentage who have another graduate degree	6.8	10.8	n/a	n/a
6. Percentage who are AOA members	47.0	17.7	n/a	n/a
7. USMLE Step 1 score				
Mean	238	226	228	216
Median	240	228	229	216
25th percentile	229	213	212	204
75th percentile	249	241	245	229
Count	248	157	62	91
8. USMLE Step 2 score				
Mean	242	232	230	219
Median	245	234	234	218
25th percentile	231	215	216	207
75th percentile	255	250	244	234
Count	124	99	63	91
9. Mean number of research experiences	3.4	2.7	3.8	3.0
10. Mean number of abstracts, presentations, and publications	5.7	3.3	7.9	6.1

n/a: The measure either does not apply to, applies to only a small percentage of, or no reliable data were available for independent applicants.
Sources. Measures 1, 2, and match outcome from the NRMP Data Warehouse, measure 3 from the AAMC Organizational Characteristics Database and AAMC Enterprise Information Store (EIS), measure 4 and 5 from the AAMC Data Warehouse, measures 6, 9, 10 from the AAMC ERAS Data Warehouse, and measures 7 and 8 from the AAMC Data Warehouse and from the ECFMG both by permission of the NBME and ECFMG.
Note: Counts are provided for USMLE Step scores since they are the only measures with significant missing data.

Chart D-1

NUMBER OF CONTIGUOUS RANKS WITHIN PREFERRED SPECIALTY

Dermatology

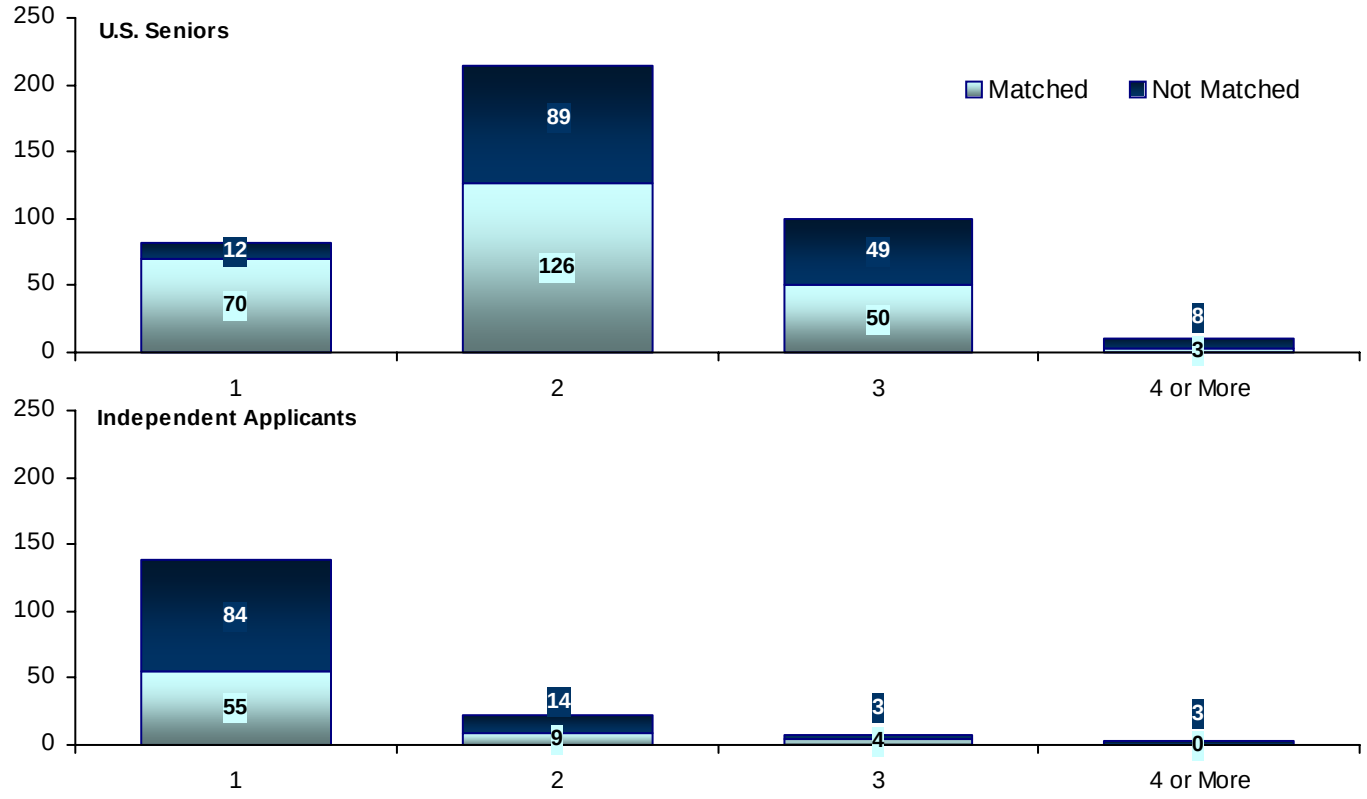


Source: NRMP Data Warehouse.

Chart D-2

NUMBER OF DISTINCT SPECIALTIES RANKED

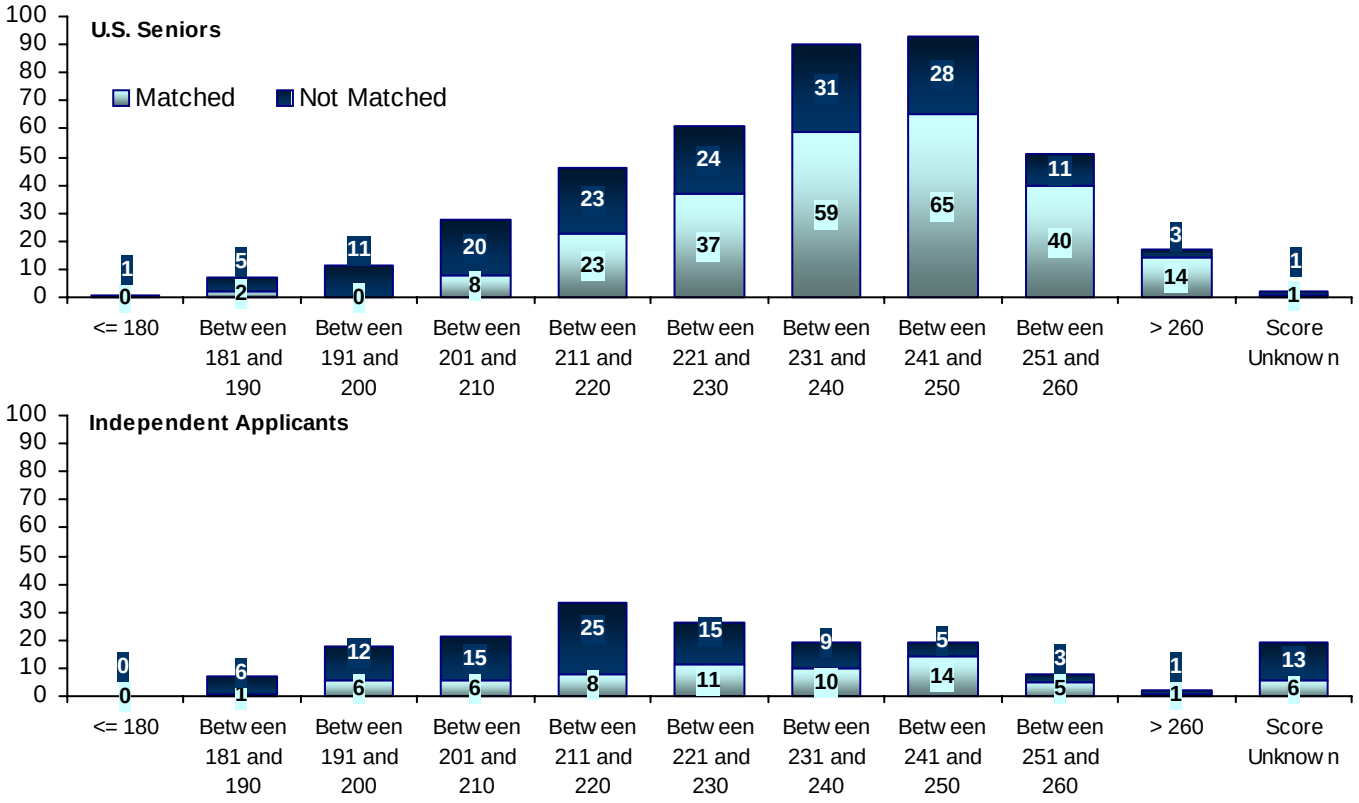
Dermatology



Source: NRMP Data Warehouse.

Chart D-3

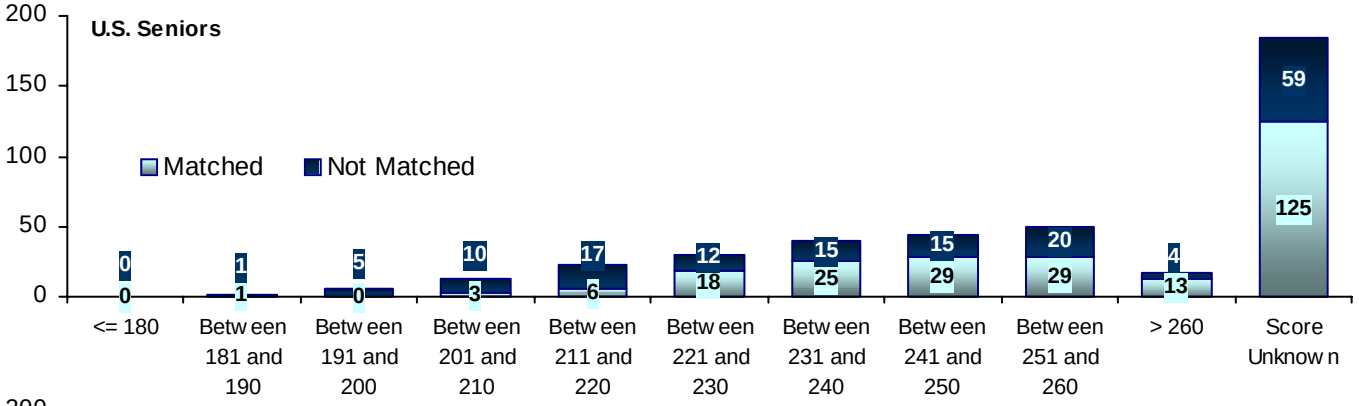
USMLE Step 1 Scores
Dermatology

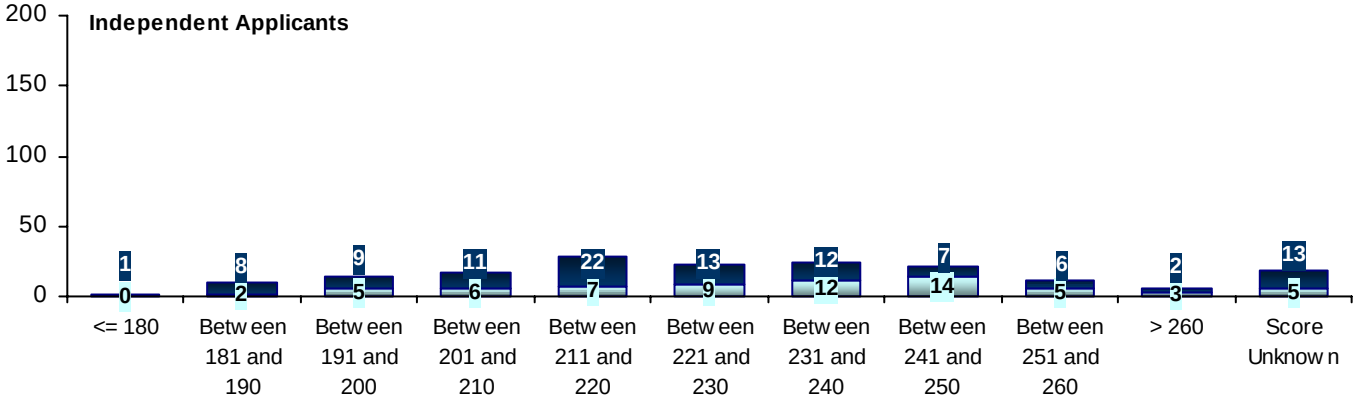


Source: NRMP Data Warehouse and AAMC Data Warehouse. USMLE scores by permission of the NBME and *ECFMG*.

Chart D-4

USMLE Step 2 Scores
Dermatology

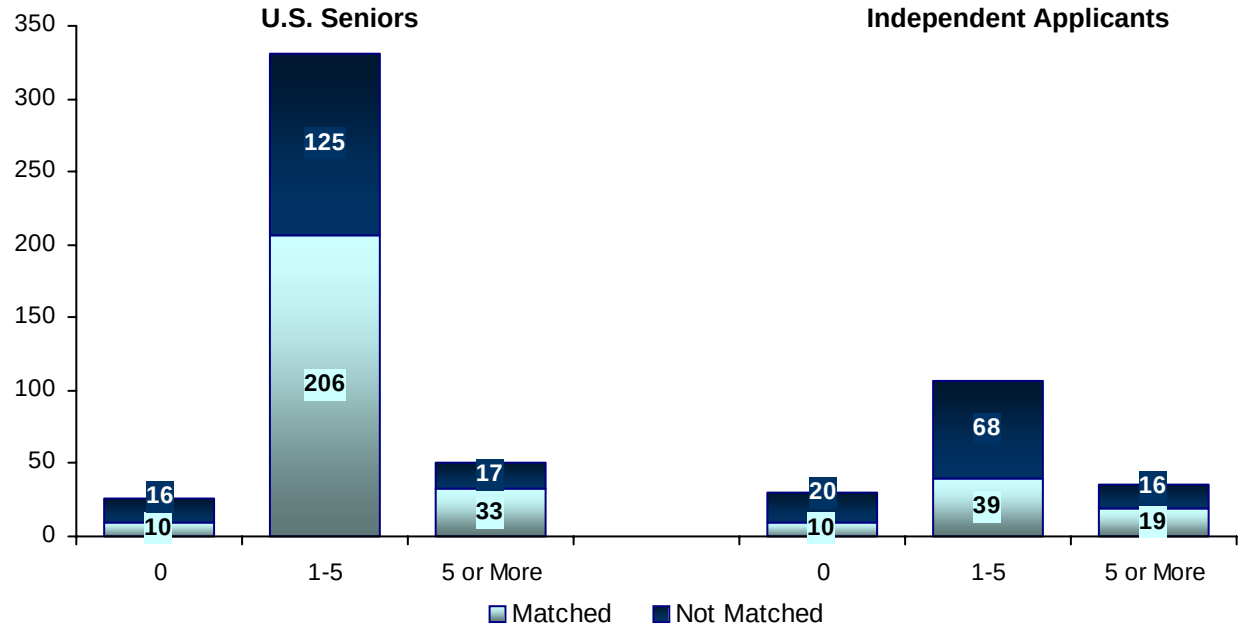




Source: NRMP Data Warehouse and AAMC Data Warehouse. USMLE scores by permission of the NBME and *ECFMG*.

Chart D-5

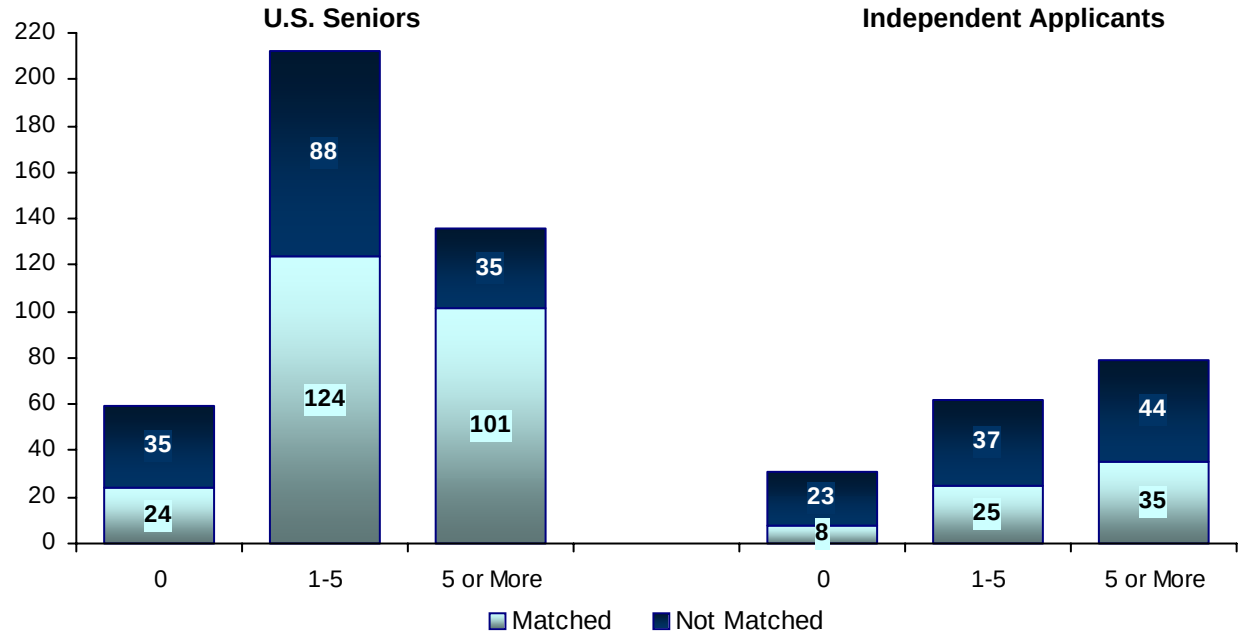
NUMBER OF RESEARCH PROJECTS
Dermatology



Source: AAMC ERAS Data Warehouse.

Chart D-6

NUMBER OF ABSTRACTS, PRESENTATIONS, AND PUBLICATIONS
Dermatology

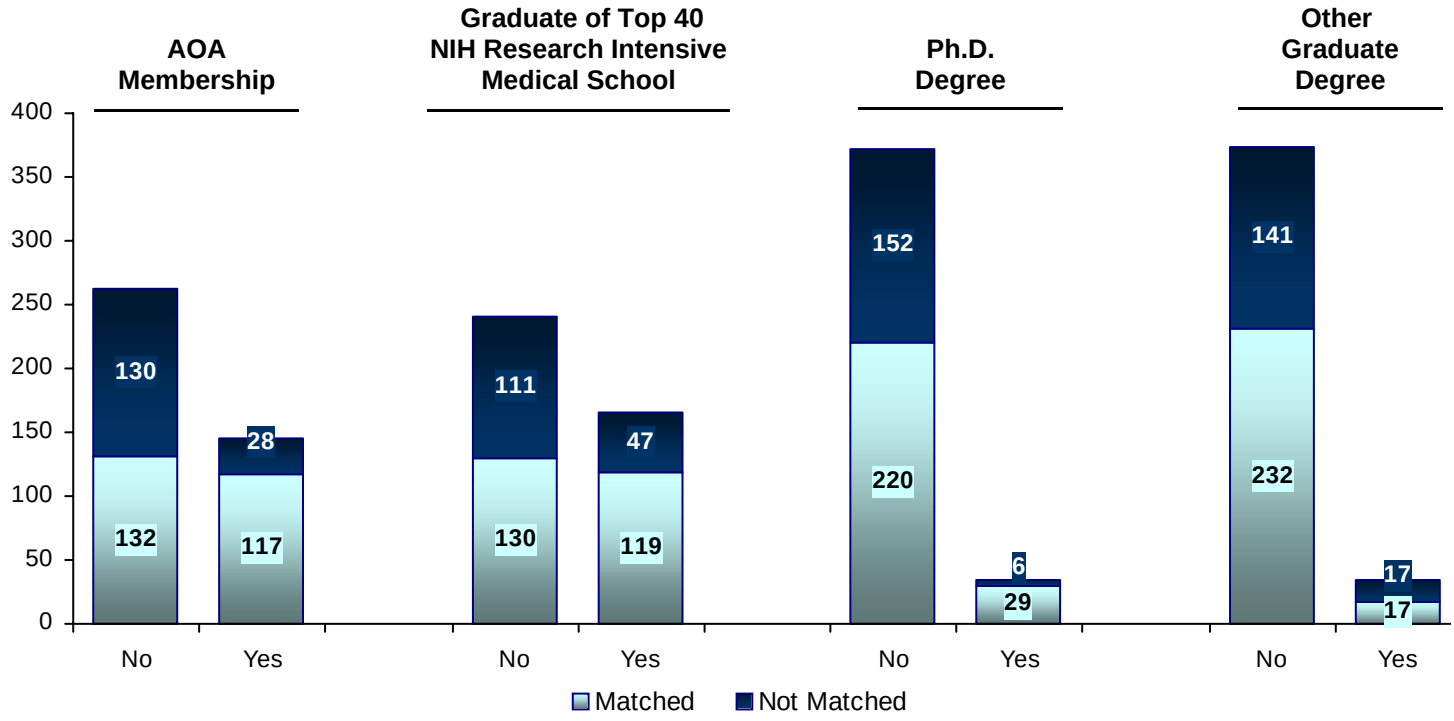


Source: AAMC ERAS Data Warehouse.

Chart D-7

OTHER CHARACTERISTICS OF U.S. SENIORS

Dermatology



Sources. AOA membership from the AAMC ERAS Data Warehouse, Top 40 NIH Research Intensive Medical Schools from the AAMC Organizational Characteristics Database and AAMC Enterprise Information Store (EIS), Ph.D. and other graduate degrees from the AAMC Data Warehouse.

EM EMERGENCY MEDICINE

Table EM-1

SUMMARY STATISTICS
Emergency Medicine

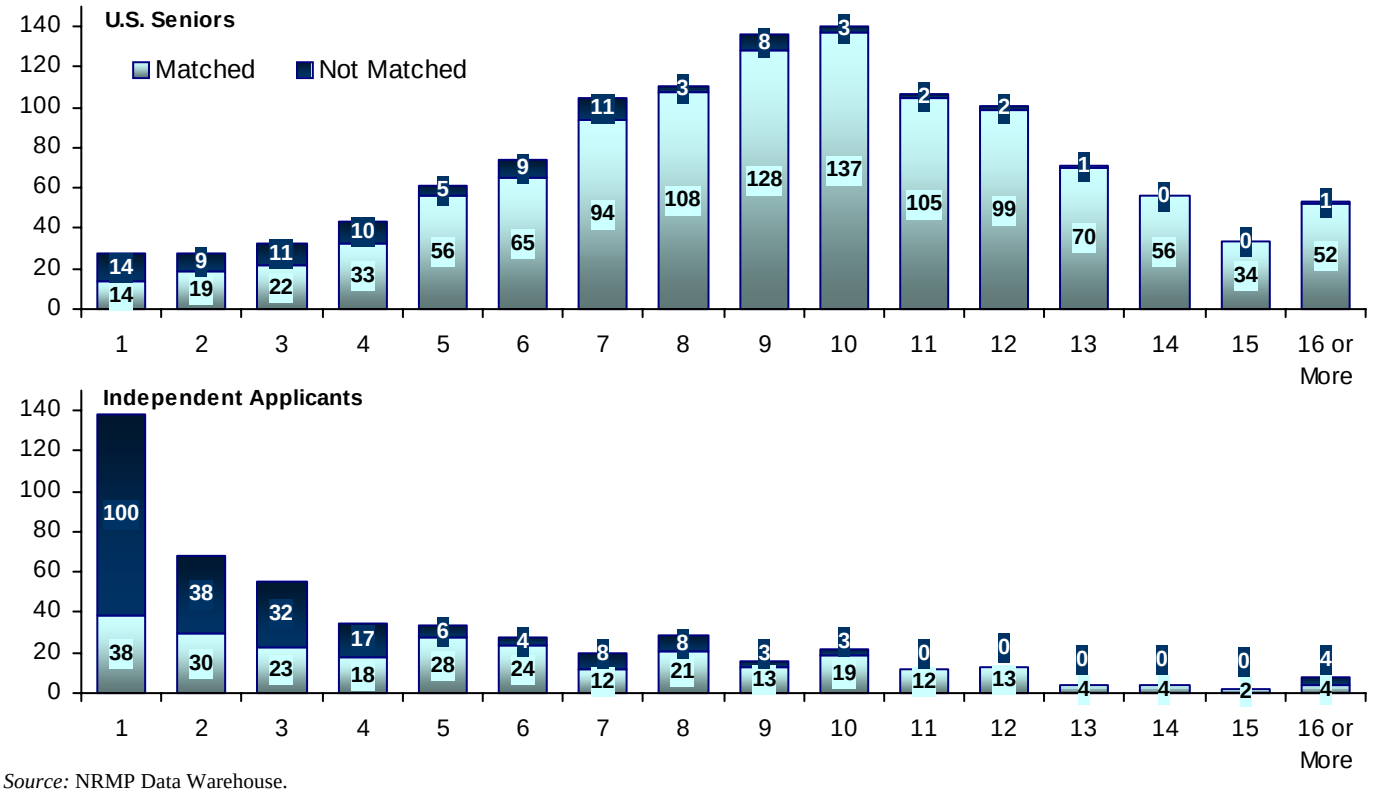
Measure	U.S. Seniors		Independent Applicants	
	Matched (n=1,092)	Did Not Match (n=89)	Matched (n=265)	Did Not Match (n=223)
1. Median number of contiguous ranks	10.0	5.0	5.0	2.0
2. Mean number of distinct specialties ranked	1.1	1.3	1.2	1.5
3. Percentage who graduated from top 40 NIH research medical school	35.9	20.2	n/a	n/a
4. Percentage who have a Ph.D. degree	1.6	0.0	n/a	n/a
5. Percentage who have another graduate degree	13.5	9.0	n/a	n/a
6. Percentage who are AOA members	12.4	1.1	n/a	n/a
7. USMLE Step 1 score				
Mean	220	208	216	204
Median	221	204	214	202
25th percentile	207	194	204	188
75th percentile	234	220	228	217
Count	1,086	88	140	156
8. USMLE Step 2 score				
Mean	227	208	222	204
Median	228	206	222	199
25th percentile	214	193	205	191
75th percentile	241	220	237	218
Count	778	71	140	154
9. Mean number of research experiences	1.8	1.3	1.2	1.2
10. Mean number of abstracts, presentations, and publications	1.6	0.8	1.4	1.5

n/a: The measure either does not apply to, applies to only a small percentage of, or no reliable data were available for independent applicants.
Sources. Measures 1, 2, and match outcome from the NRMP Data Warehouse, measure 3 from the AAMC Organizational Characteristics Database and AAMC Enterprise Information Store (EIS), measure 4 and 5 from the AAMC Data Warehouse, measures 6, 9, 10 from the AAMC ERAS Data Warehouse, and measures 7 and 8 from the AAMC Data Warehouse and from the ECFMG both by permission of the NBME and ECFMG.
Note: Counts are provided for USMLE Step scores since they are the only measures with significant missing data.

Chart EM-1

NUMBER OF CONTIGUOUS RANKS WITHIN PREFERRED SPECIALTY

Emergency Medicine

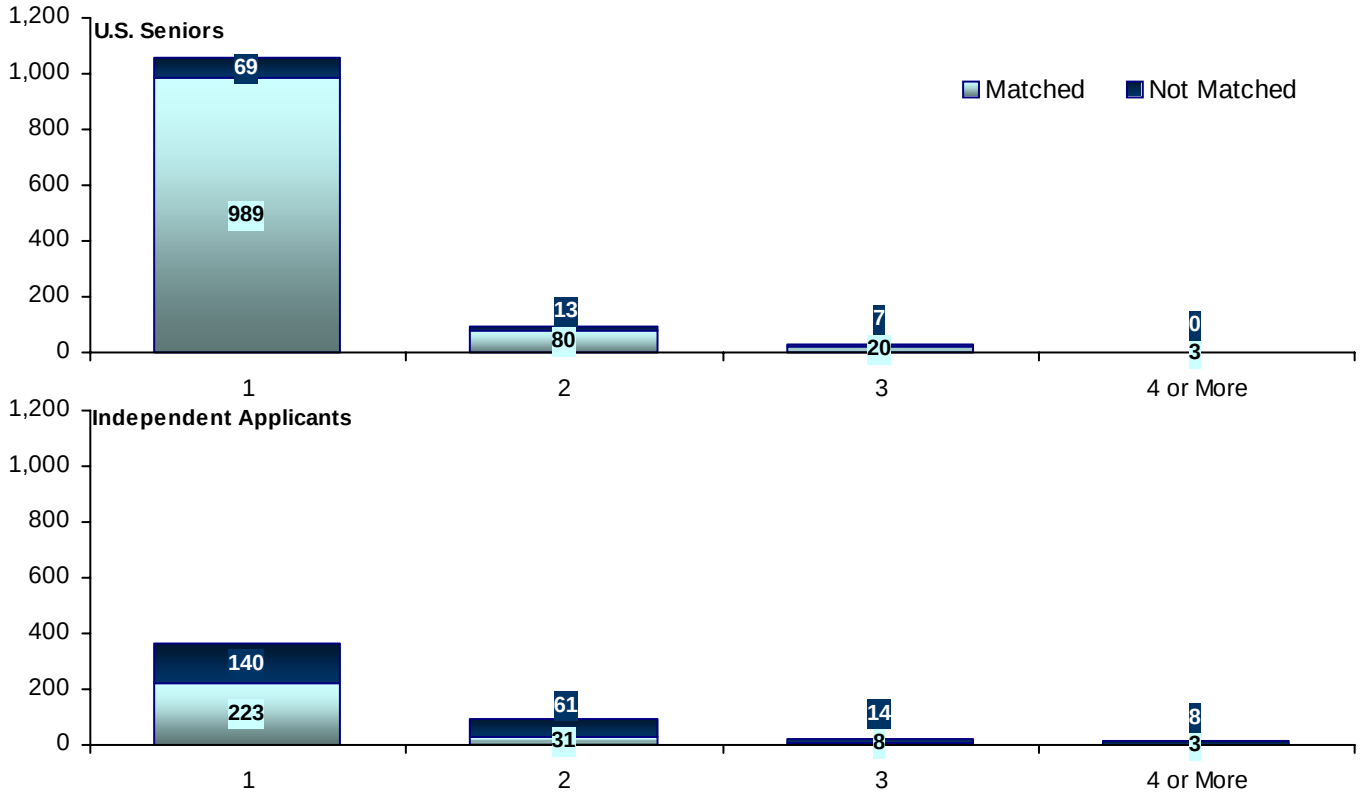


Source: NRMP Data Warehouse.

Chart EM-2

NUMBER OF DISTINCT SPECIALTIES RANKED

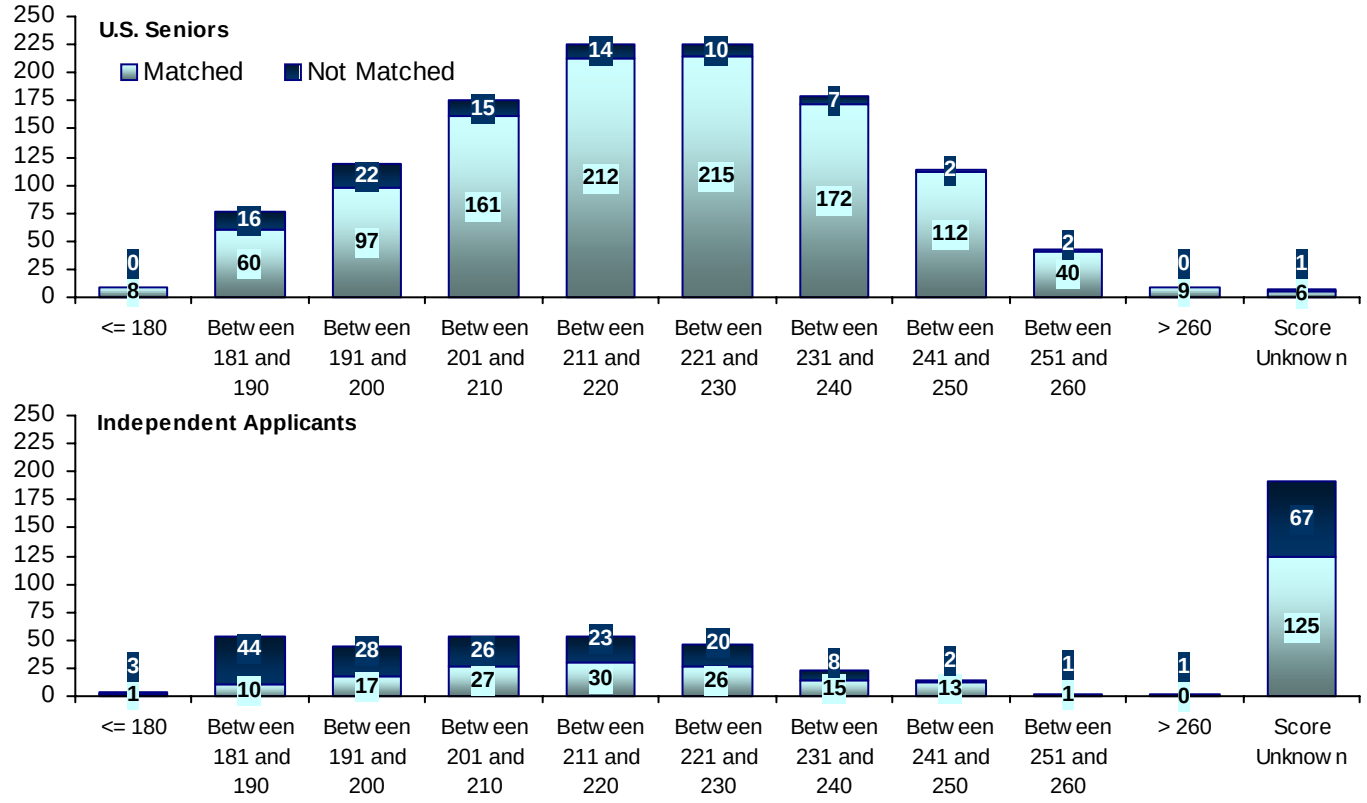
Emergency Medicine



Source: NRMP Data Warehouse.

Chart EM-3

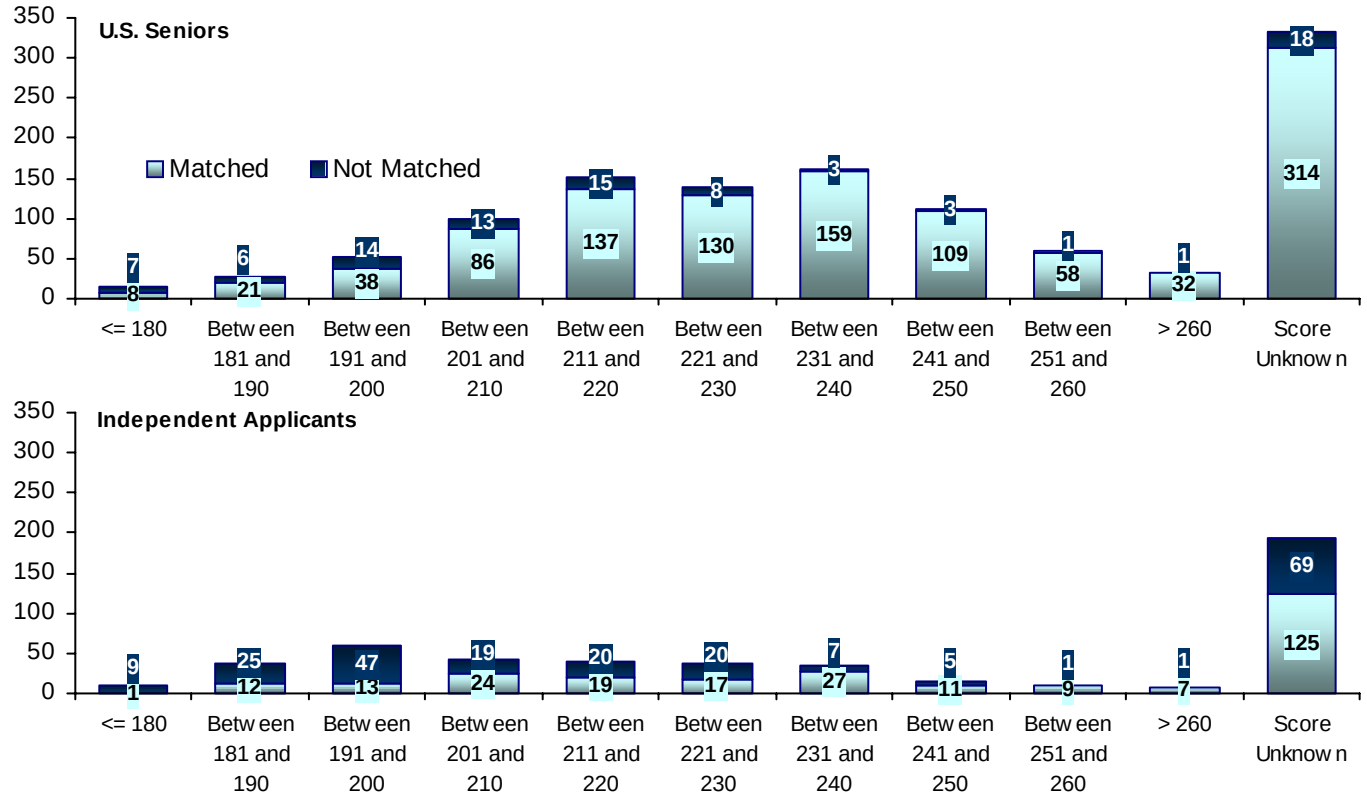
USMLE Step 1 Scores
Emergency Medicine



Source: NRMP Data Warehouse and AAMC Data Warehouse. USMLE scores by permission of the NBME and *ECFMG*.

Chart EM-4

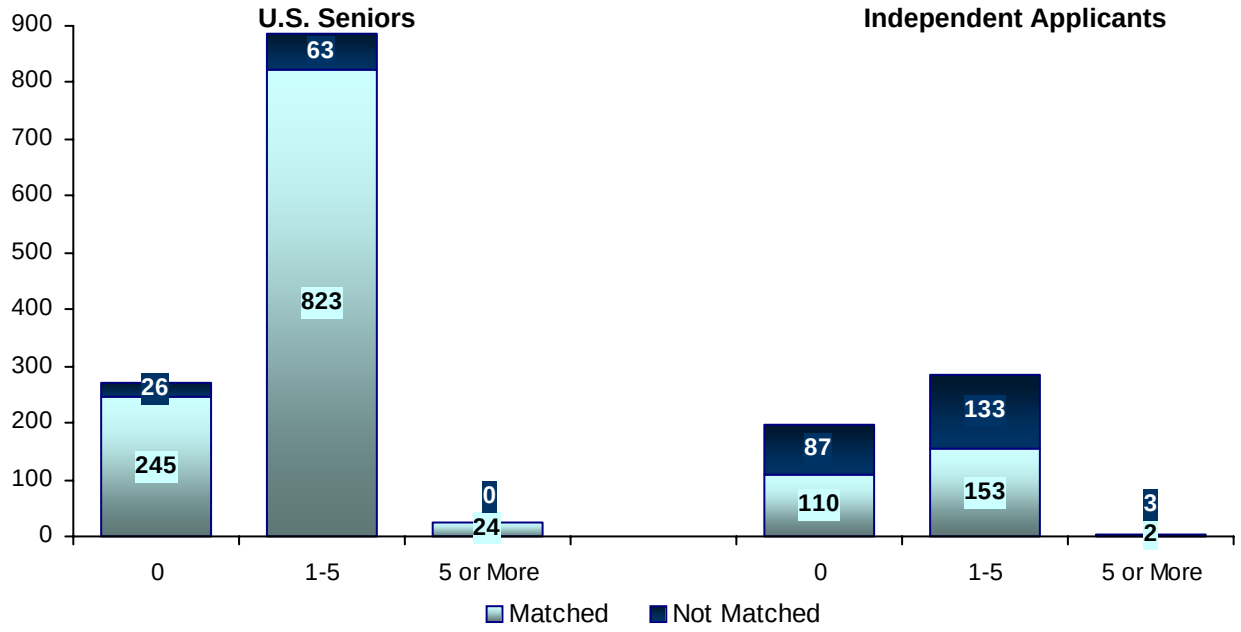
USMLE Step 2 Scores
Emergency Medicine



Source: NRMP Data Warehouse and AAMC Data Warehouse. USMLE scores by permission of the NBME and *ECFMG*.

Chart EM-5

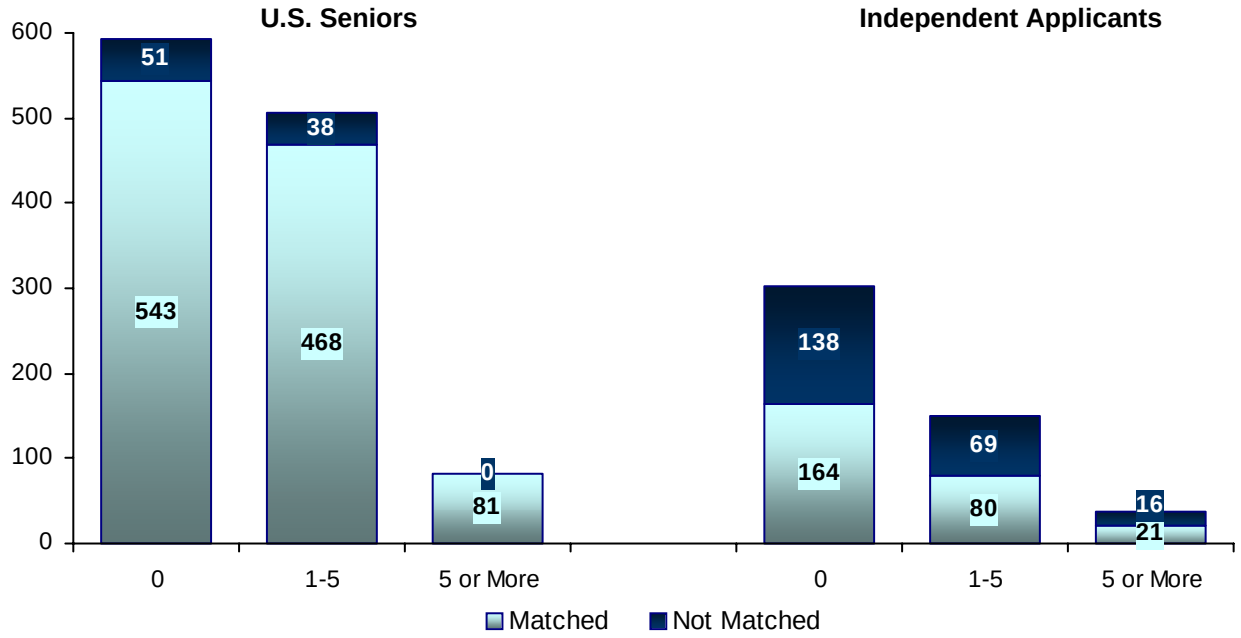
NUMBER OF RESEARCH PROJECTS
Emergency Medicine



Source: AAMC ERAS Data Warehouse.

Chart EM-6

NUMBER OF ABSTRACTS, PRESENTATIONS, AND PUBLICATIONS
Emergency Medicine

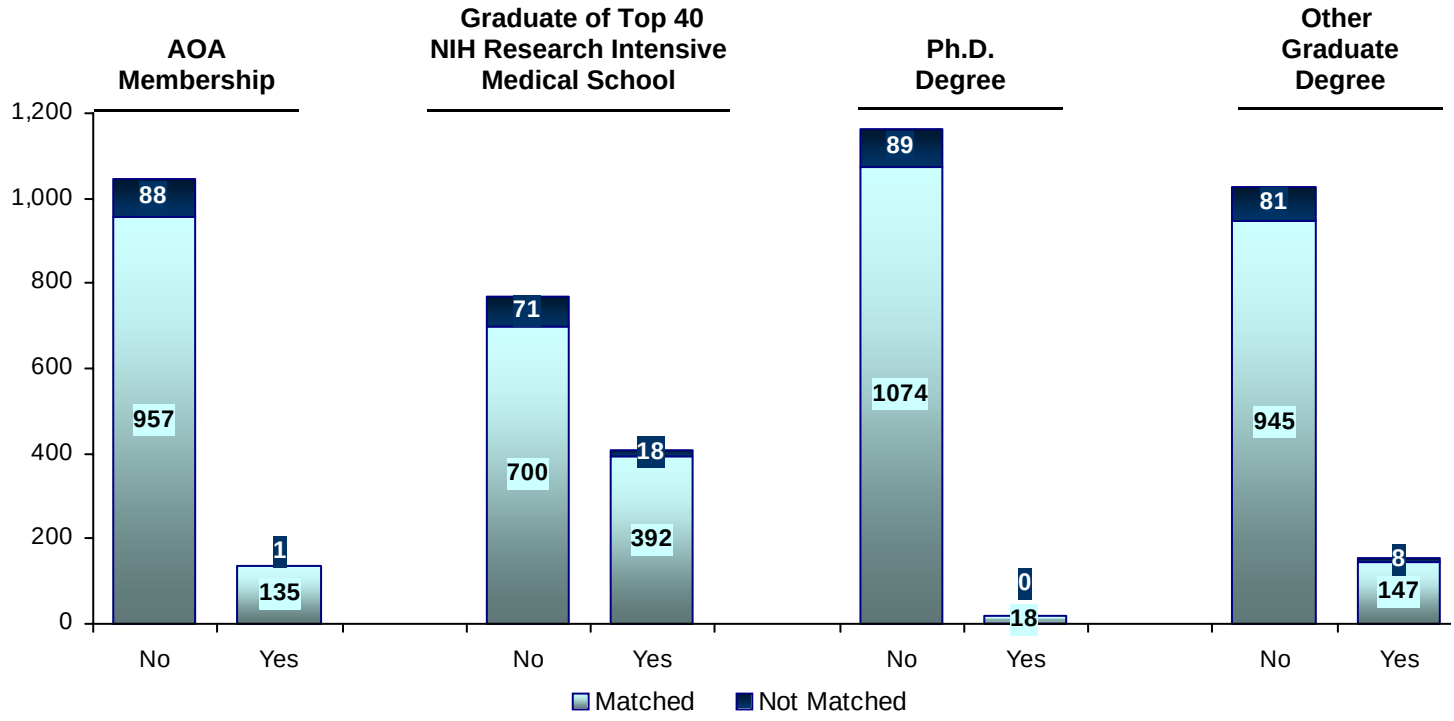


Source: AAMC ERAS Data Warehouse.

Chart EM-7

OTHER CHARACTERISTICS OF U.S. SENIORS

Emergency Medicine



Sources. AOA membership from the AAMC ERAS Data Warehouse, Top 40 NIH Research Intensive Medical Schools from the AAMC Organizational Characteristics Database and AAMC Enterprise Information Store (EIS), Ph.D. and other graduate degrees from the AAMC Data Warehouse.

FM FAMILY MEDICINE

Table FM-1

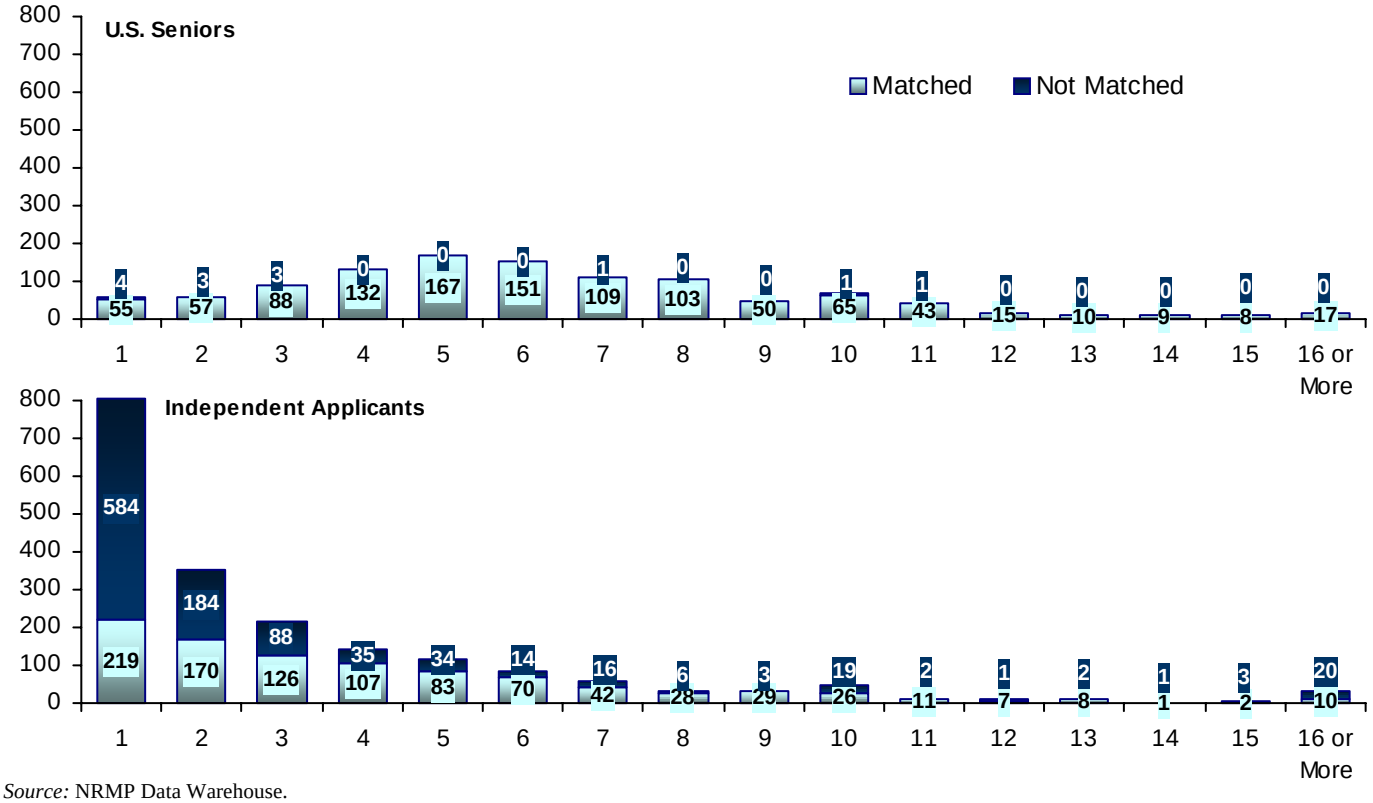
SUMMARY STATISTICS
Family Medicine

Measure	U.S. Seniors		Independent Applicants	
	Matched (n=1,079)	Did Not Match (n=13)	Matched (n=939)	Did Not Match (n=1,012)
1. Median number of contiguous ranks	6.0	2.0	3.0	1.0
2. Mean number of distinct specialties ranked	1.1	1.5	1.4	1.6
3. Percentage who graduated from top 40 NIH research medical school	29.7	30.4	n/a	n/a
4. Percentage who have a Ph.D. degree	0.6	0.0	n/a	n/a
5. Percentage who have another graduate degree	10.5	15.4	n/a	n/a
6. Percentage who are AOA members	5.7	7.7	n/a	n/a
7. USMLE Step 1 score				
Mean	211	198	199	195
Median	209	195	197	193
25th percentile	196	185	188	186
75th percentile	225	218	207	202
Count	1,076	13	713	974
8. USMLE Step 2 score				
Mean	218	205	202	196
Median	220	201	199	193
25th percentile	203	176	190	186
75th percentile	233	232	212	204
Count	830	8	710	973
9. Mean number of research experiences	1.2	2.0	0.9	0.9
10. Mean number of abstracts, presentations, and publications	1.0	2.6	1.1	1.7

n/a: The measure either does not apply to, applies to only a small percentage of, or no reliable data were available for independent applicants.
Sources. Measures 1, 2, and match outcome from the NRMP Data Warehouse, measure 3 from the AAMC Organizational Characteristics Database and AAMC Enterprise Information Store (EIS), measure 4 and 5 from the AAMC Data Warehouse, measures 6, 9, 10 from the AAMC ERAS Data Warehouse, and measures 7 and 8 from the AAMC Data Warehouse and from the ECFMG both by permission of the NBME and ECFMG.
Note: Counts are provided for USMLE Step scores since they are the only measures with significant missing data.

Chart FM-1

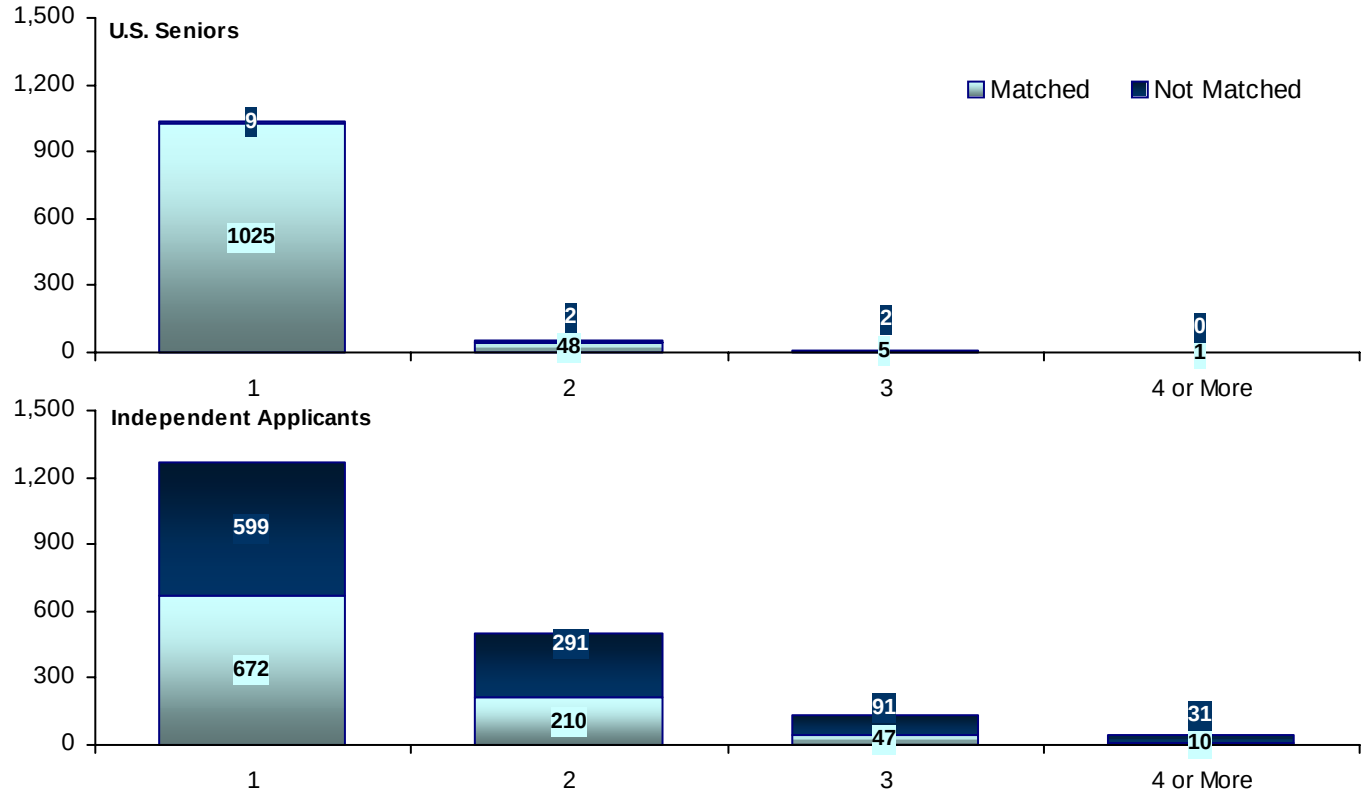
NUMBER OF CONTIGUOUS RANKS WITHIN PREFERRED SPECIALTY
Family Medicine



Source: NRMP Data Warehouse.

Chart FM-2

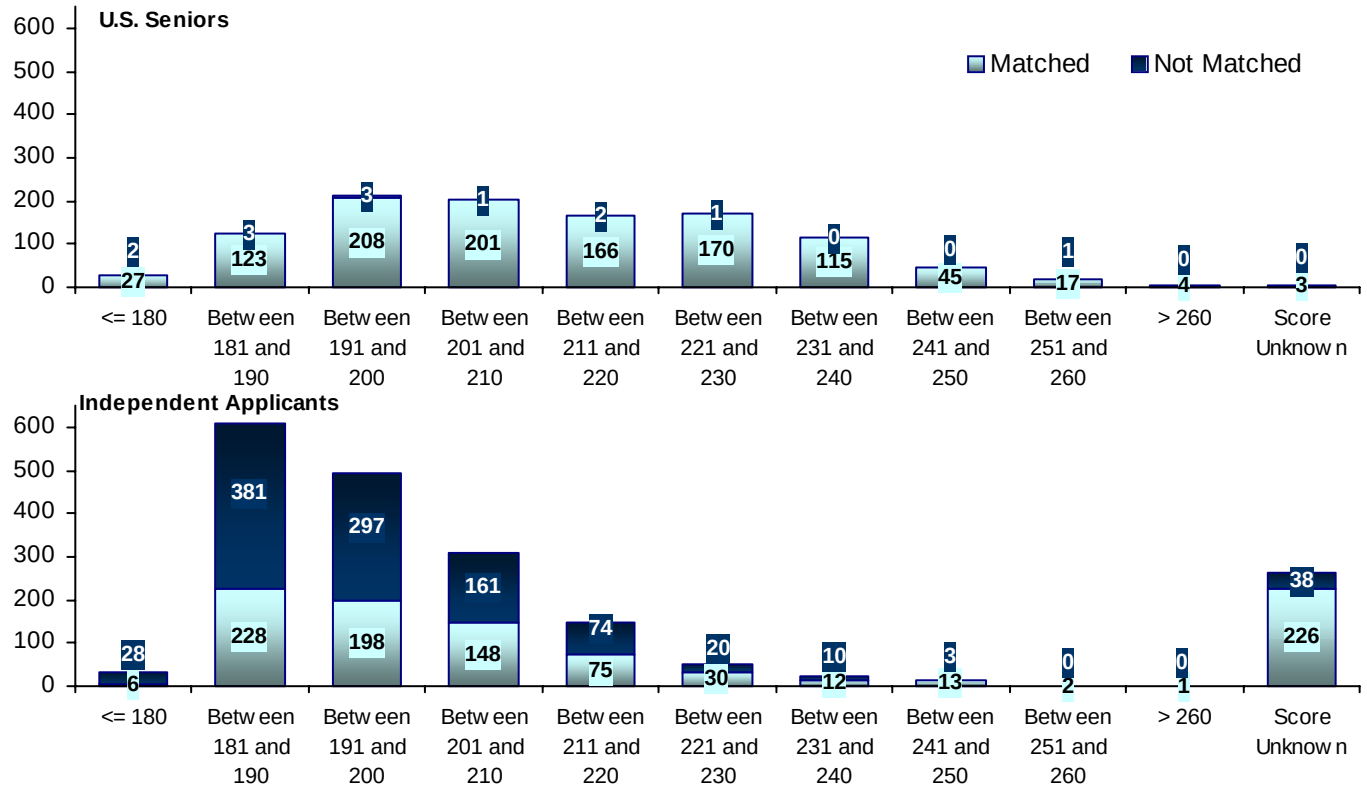
NUMBER OF DISTINCT SPECIALTIES RANKED
Family Medicine



Source: NRMP Data Warehouse.

Chart FM-3

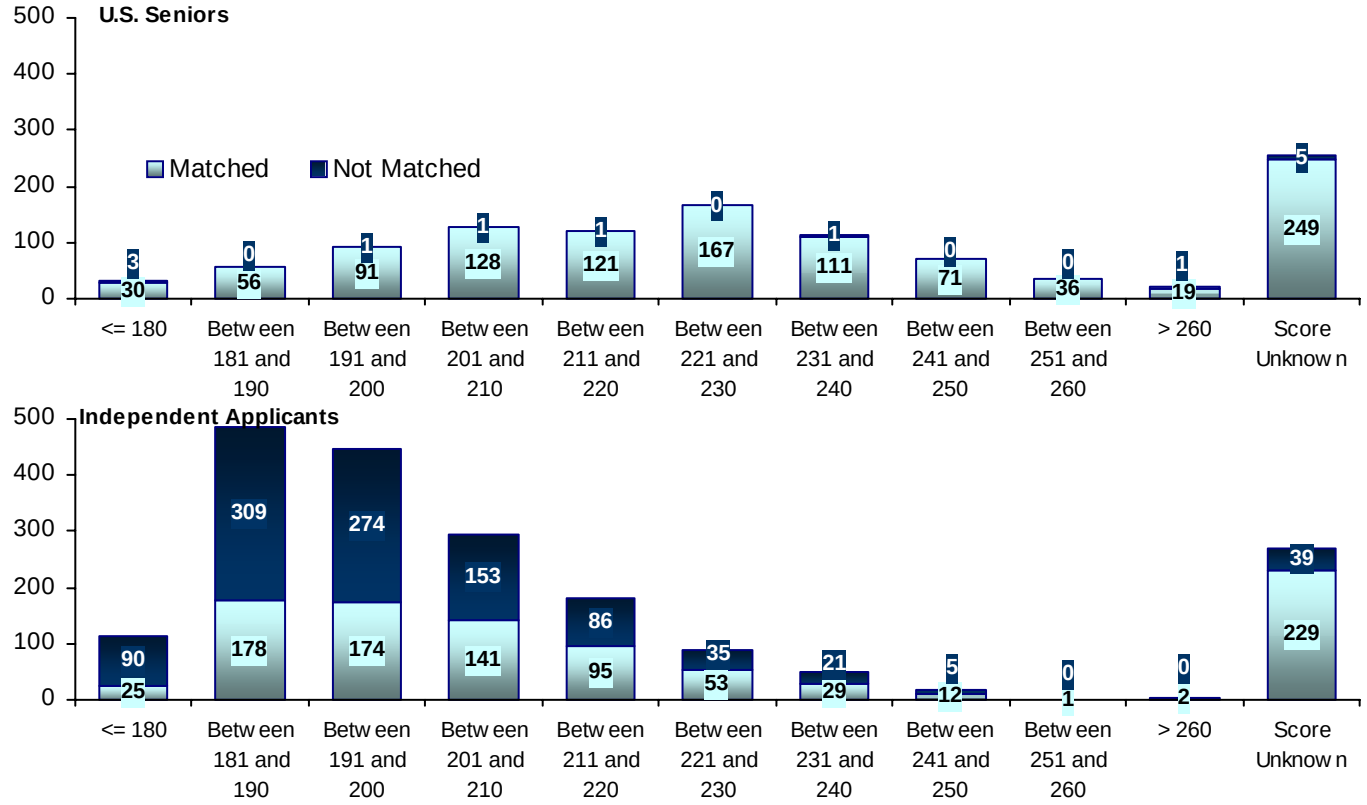
USMLE Step 1 Scores
Family Medicine



Source: NRMP Data Warehouse and AAMC Data Warehouse. USMLE scores by permission of the NBME and *ECFMG*.

Chart FM-4

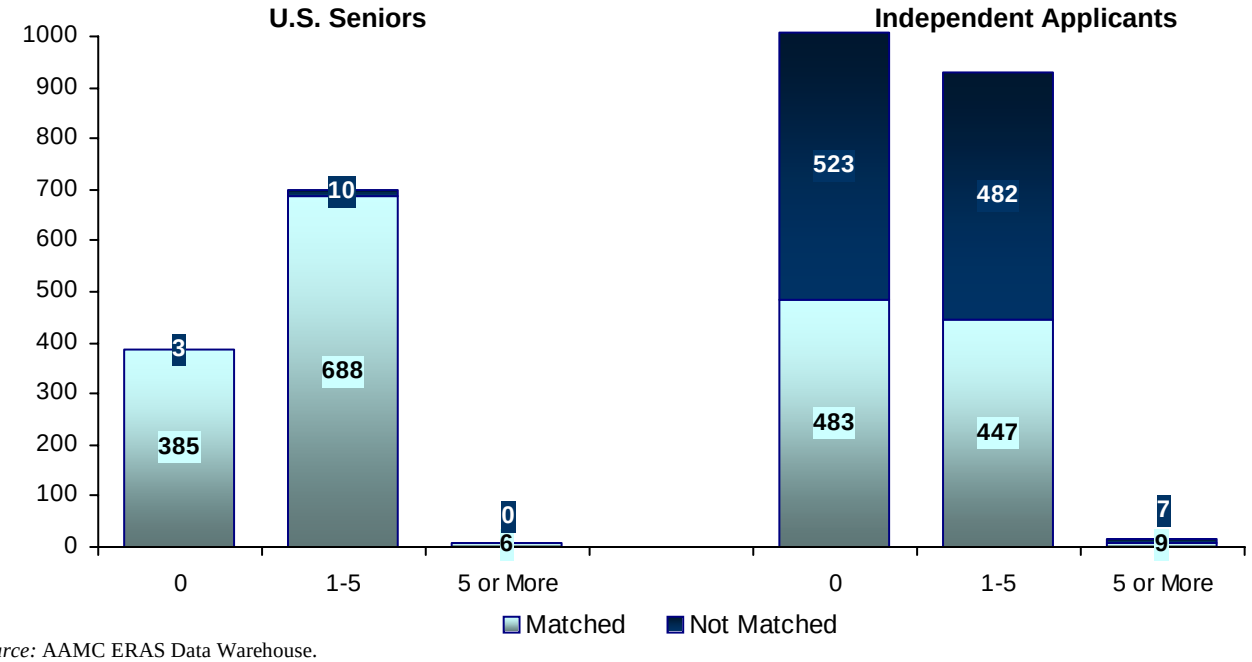
USMLE Step 2 Scores
Family Medicine



Source: NRMP Data Warehouse and AAMC Data Warehouse. USMLE scores by permission of the NBME and *ECFMG*.

Chart FM-5

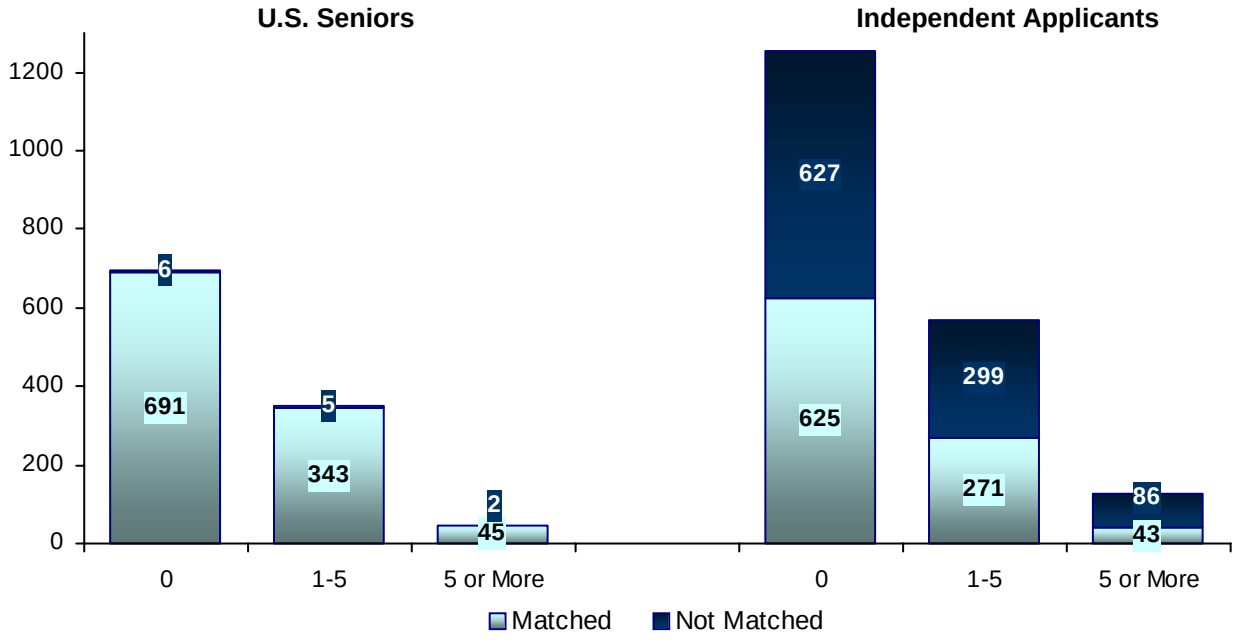
NUMBER OF RESEARCH PROJECTS
Family Medicine



Source: AAMC ERAS Data Warehouse.

Chart FM-6

NUMBER OF ABSTRACTS, PRESENTATIONS, AND PUBLICATIONS
Family Medicine

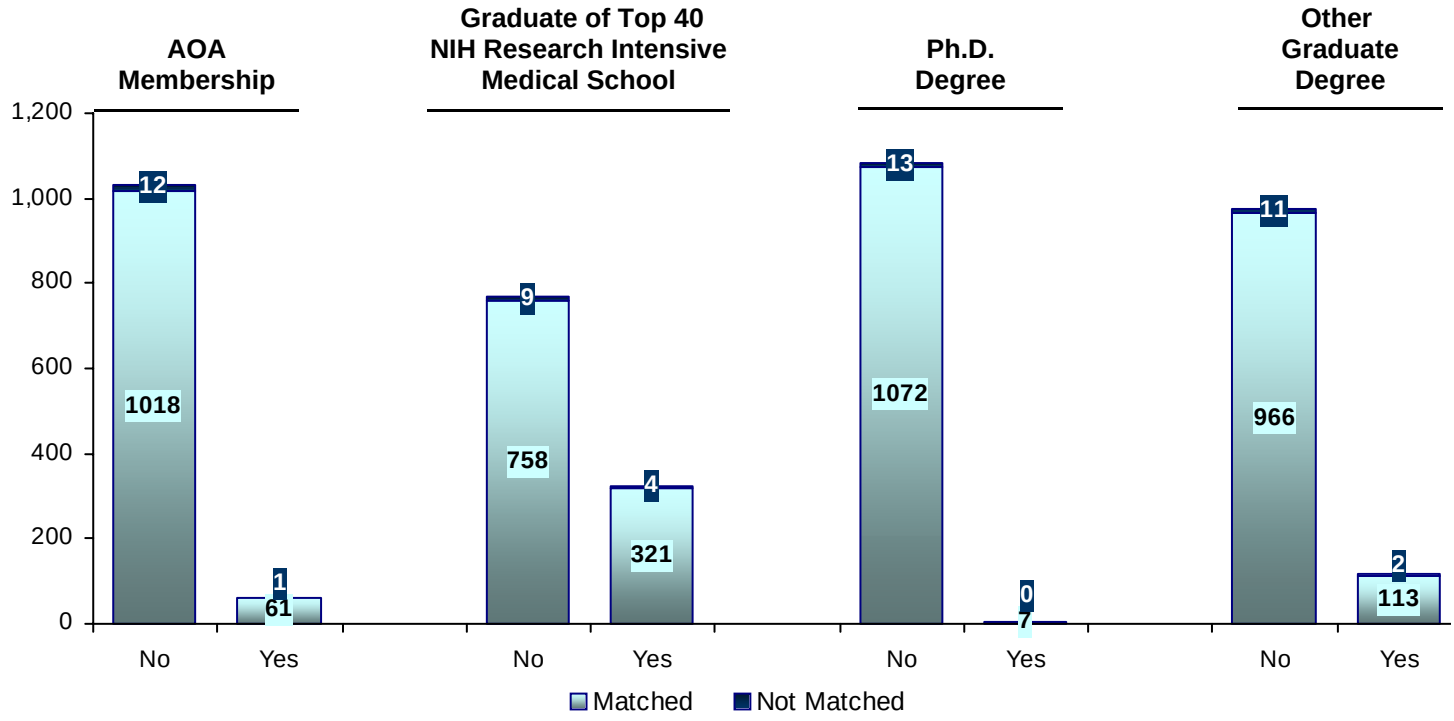


Source: AAMC ERAS Data Warehouse.

Chart FM-7

OTHER CHARACTERISTICS OF U.S. SENIORS

Family Medicine



Sources. AOA membership from the AAMC ERAS Data Warehouse, Top 40 NIH Research Intensive Medical Schools from the AAMC Organizational Characteristics Database and AAMC Enterprise Information Store (EIS), Ph.D. and other graduate degrees from the AAMC Data Warehouse.

IM INTERNAL MEDICINE

Table IM-1

SUMMARY STATISTICS
Internal Medicine

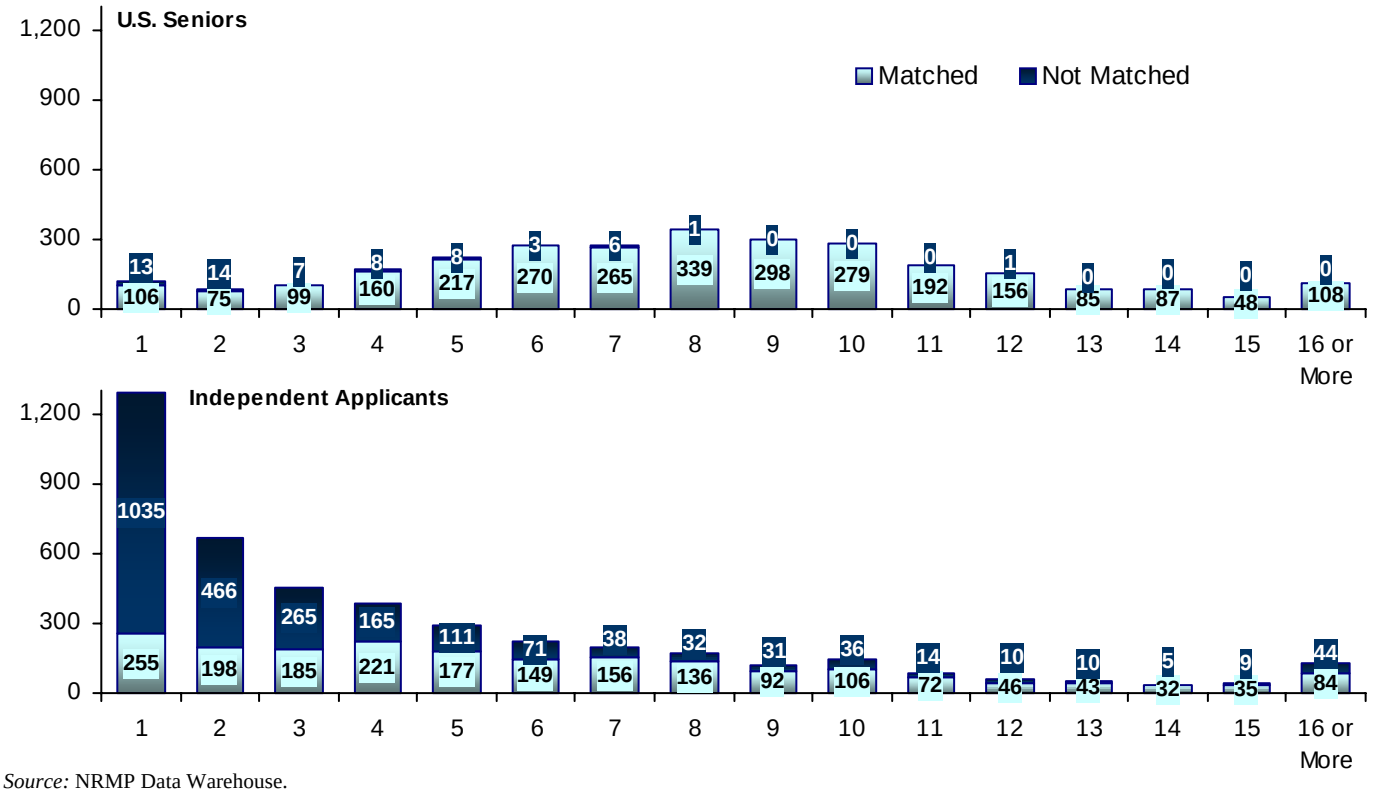
Measure	U.S. Seniors		Independent Applicants	
	Matched (n=2,784)	Did Not Match (n=61)	Matched (n=1,987)	Did Not Match (n=2,342)
1. Median number of contiguous ranks	8.0	3.0	5.0	2.0
2. Mean number of distinct specialties ranked	1.0	1.2	1.3	1.5
3. Percentage who graduated from top 40 NIH research medical school	38.6	19.7	n/a	n/a
4. Percentage who have a Ph.D. degree	5.8	1.6	n/a	n/a
5. Percentage who have another graduate degree	10.6	14.8	n/a	n/a
6. Percentage who are AOA members	12.6	3.3	n/a	n/a
7. USMLE Step 1 score				
Mean	222	199	220	207
Median	222	194	220	205
25th percentile	207	187	206	192
75th percentile	237	209	234	220
Count	2,776	58	1,748	2,303
8. USMLE Step 2 score				
Mean	227	192	222	209
Median	228	186	223	206
25th percentile	211	177	207	193
75th percentile	243	207	238	221
Count	1,938	39	1,740	2,303
9. Mean number of research experiences	2.1	1.6	1.3	1.0
10. Mean number of abstracts, presentations, and publications	2.2	1.2	2.1	2.0

n/a: The measure either does not apply to, applies to only a small percentage of, or no reliable data were available for independent applicants.
Sources. Measures 1, 2, and match outcome from the NRMP Data Warehouse, measure 3 from the AAMC Organizational Characteristics Database and AAMC Enterprise Information Store (EIS), measure 4 and 5 from the AAMC Data Warehouse, measures 6, 9, 10 from the AAMC ERAS Data Warehouse, and measures 7 and 8 from the AAMC Data Warehouse and from the ECFMG both by permission of the NBME and ECFMG.
Note: Counts are provided for USMLE Step scores since they are the only measures with significant missing data.

Chart IM-1

NUMBER OF CONTIGUOUS RANKS WITHIN PREFERRED SPECIALTY

Internal Medicine

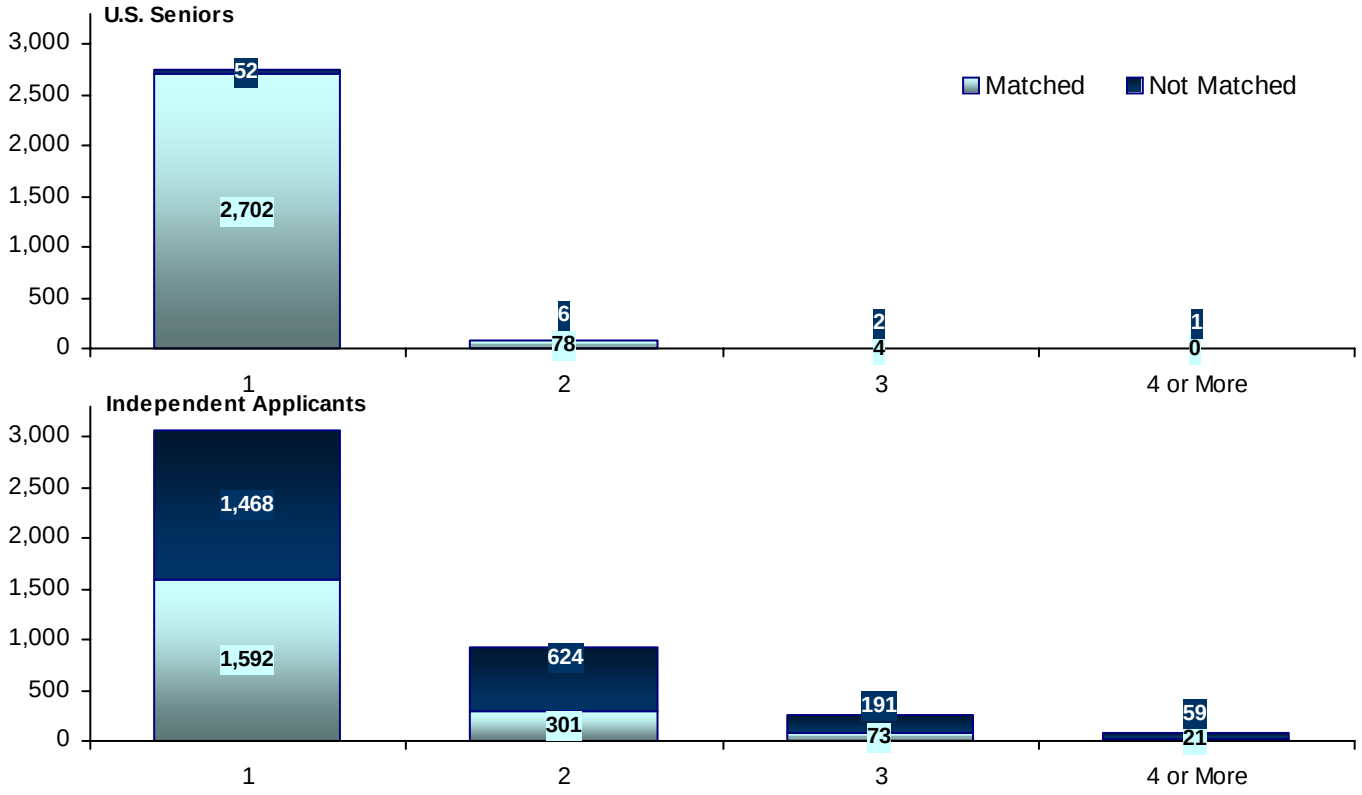


Source: NRMP Data Warehouse.

Chart IM-2

NUMBER OF DISTINCT SPECIALTIES RANKED

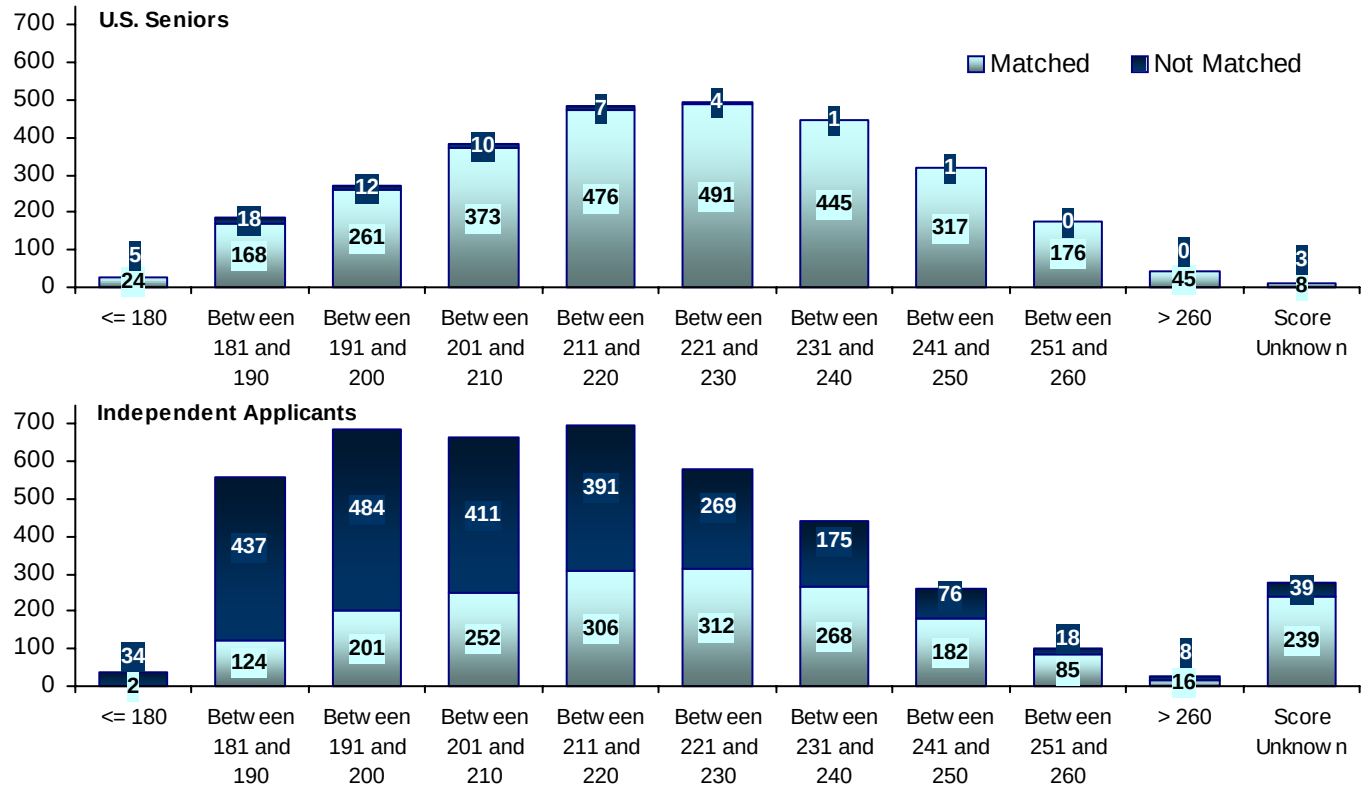
Internal Medicine



Source: NRMP Data Warehouse.

Chart IM-3

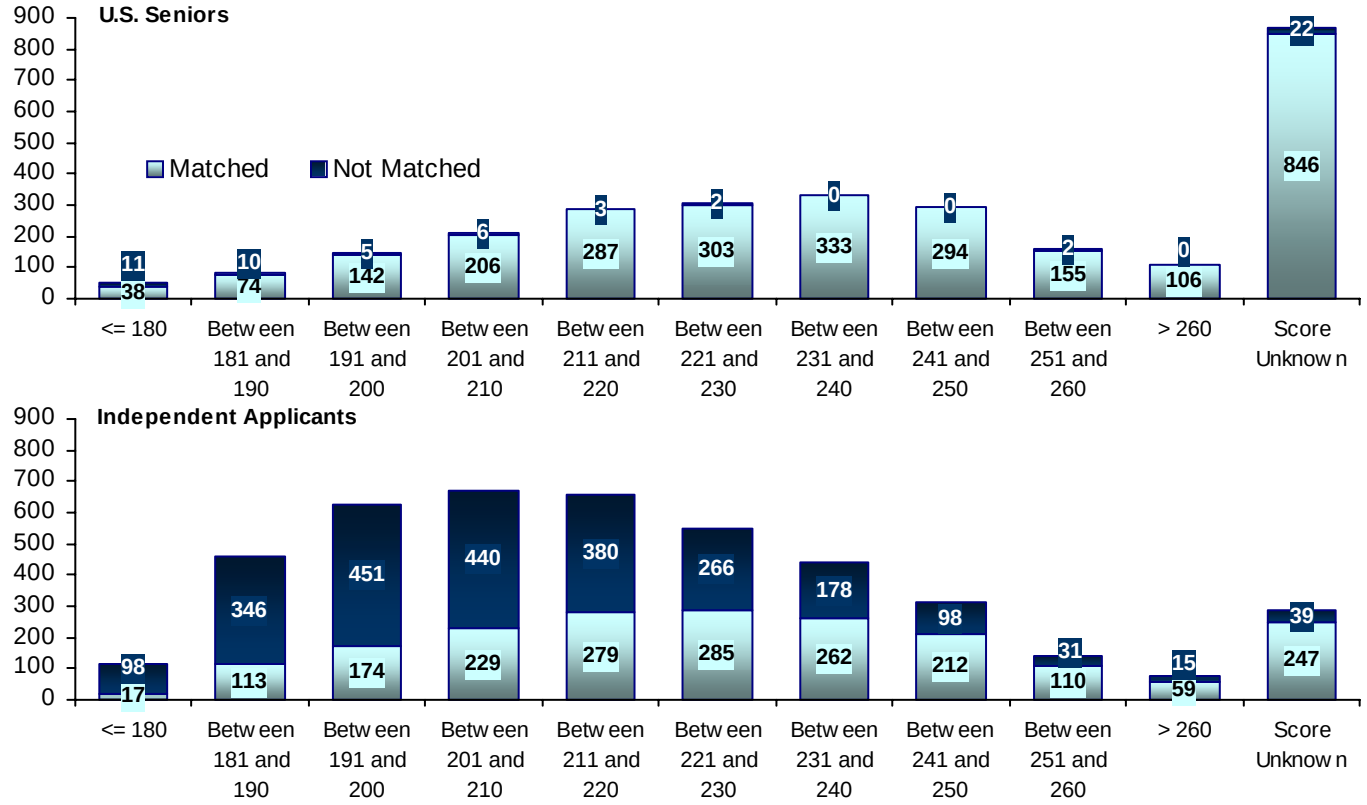
USMLE Step 1 Scores
Internal Medicine



Source: NRMP Data Warehouse and AAMC Data Warehouse. USMLE scores by permission of the NBME and *ECFMG*.

Chart IM-4

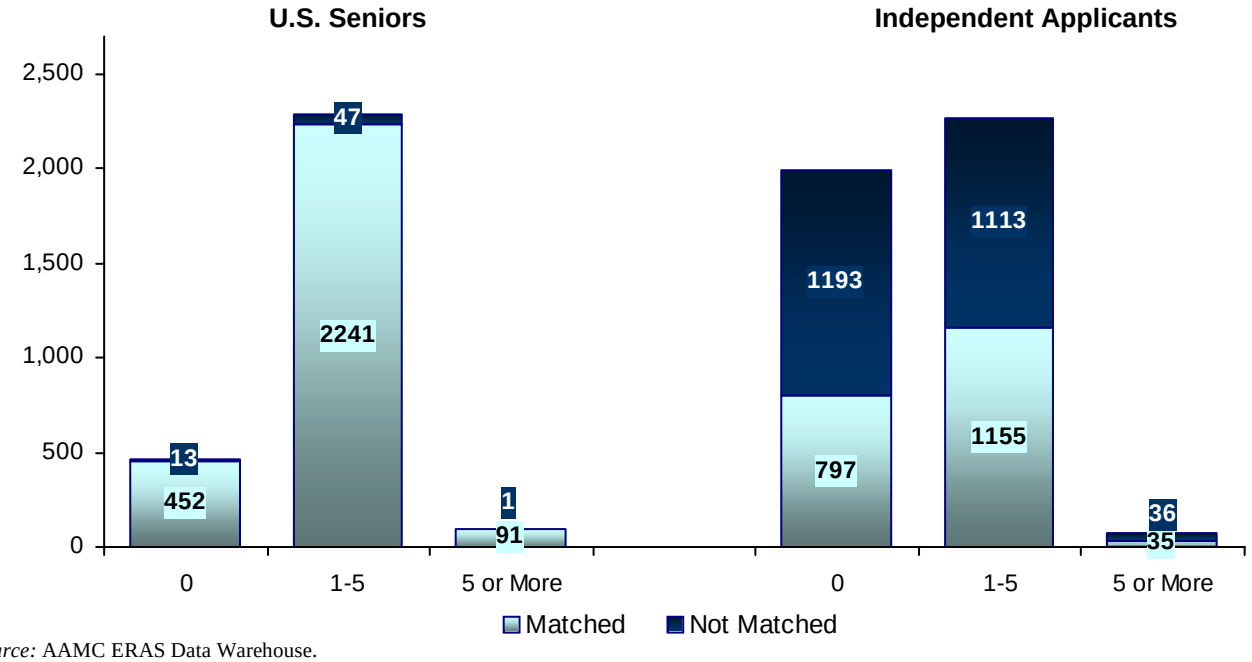
USMLE Step 2 Scores
Internal Medicine



Source: NRMP Data Warehouse and AAMC Data Warehouse. USMLE scores by permission of the NBME and *ECFMG*.

Chart IM-5

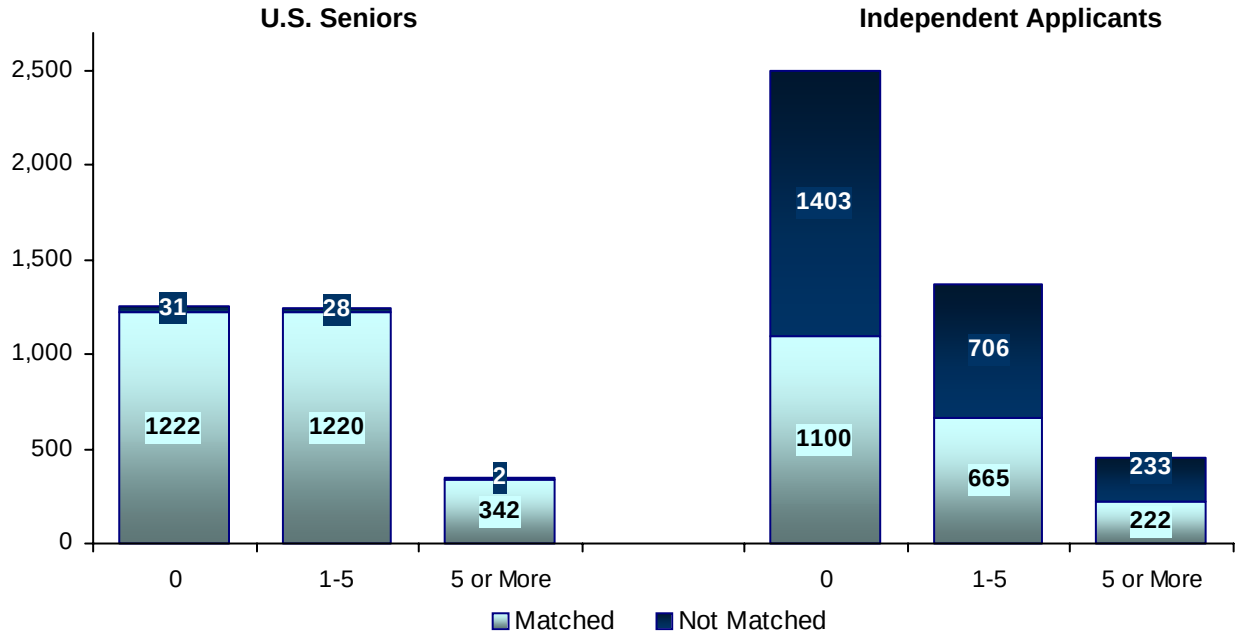
NUMBER OF RESEARCH PROJECTS
Internal Medicine



Source: AAMC ERAS Data Warehouse.

Chart IM-6

NUMBER OF ABSTRACTS, PRESENTATIONS, AND PUBLICATIONS
Internal Medicine

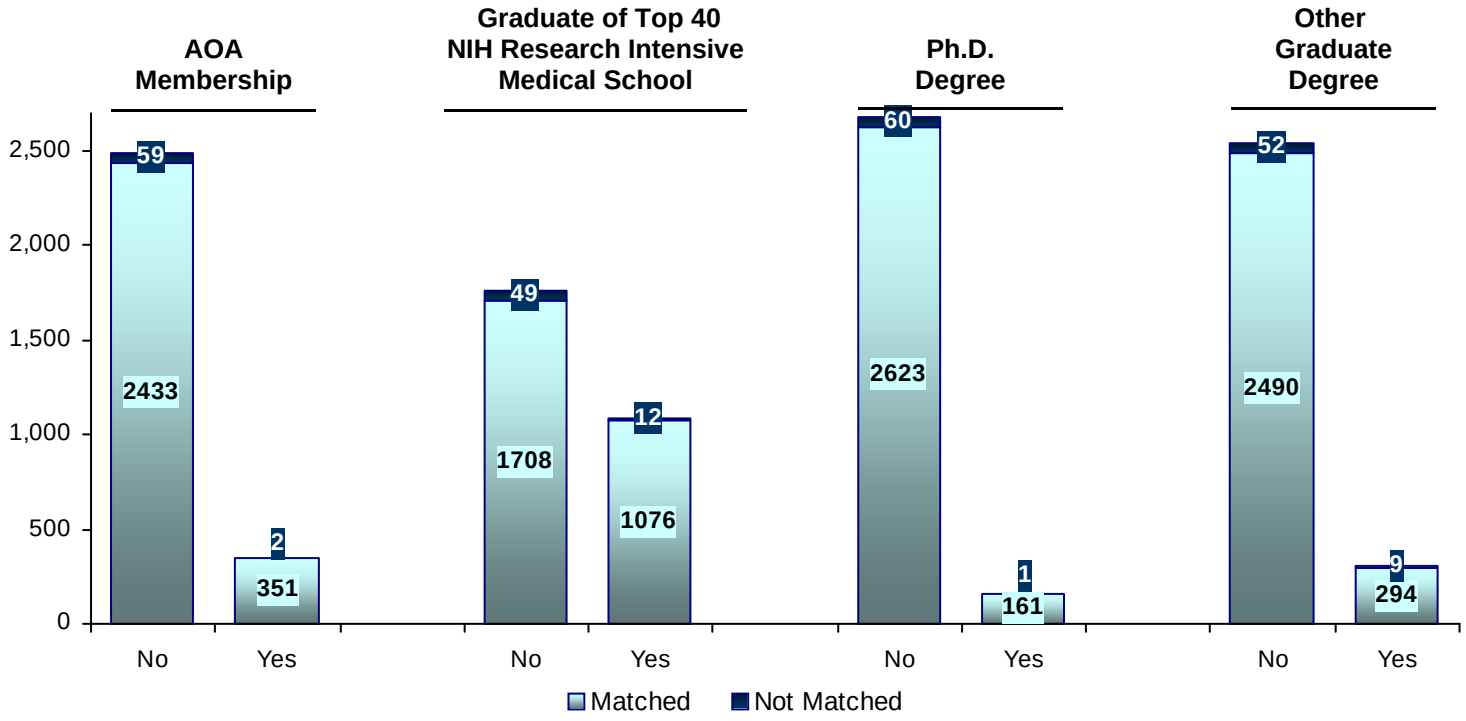


Source: AAMC ERAS Data Warehouse.

Chart IM-7

OTHER CHARACTERISTICS OF U.S. SENIORS

Internal Medicine



Sources. AOA membership from the AAMC ERAS Data Warehouse, Top 40 NIH Research Intensive Medical Schools from the AAMC Organizational Characteristics Database and AAMC Enterprise Information Store (EIS), Ph.D. and other graduate degrees from the AAMC Data Warehouse.

IP INTERNAL MEDICINE/PEDIATRICS

Table IP-1

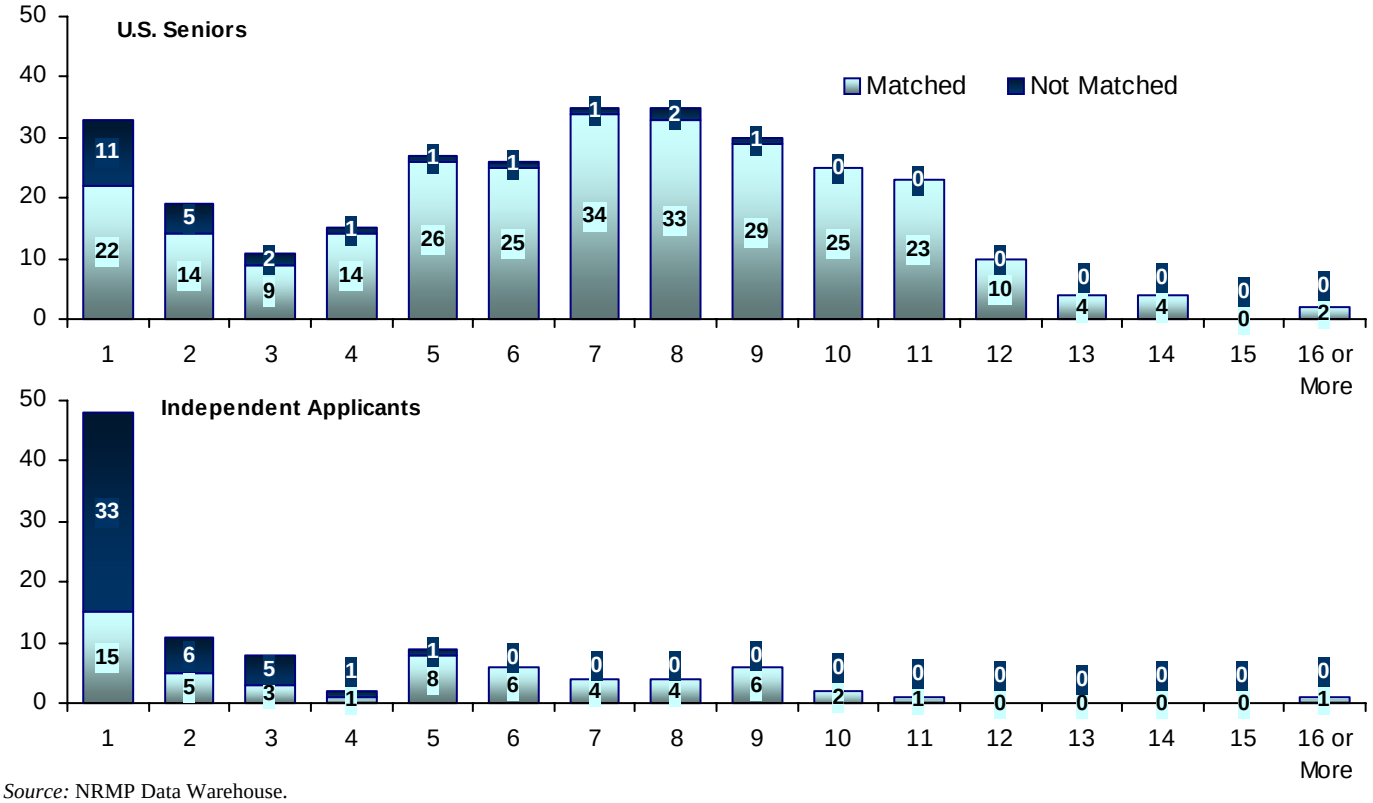
SUMMARY STATISTICS
Internal Medicine/Pediatrics

Measure	U.S. Seniors		Independent Applicants	
	Matched (n=274)	Did Not Match (n=25)	Matched (n=56)	Did Not Match (n=46)
1. Median number of contiguous ranks	7.0	2.0	5.0	1.0
2. Mean number of distinct specialties ranked	1.2	2.2	1.6	2.5
3. Percentage who graduated from top 40 NIH research medical school	32.1	24.0	n/a	n/a
4. Percentage who have a Ph.D. degree	1.5	1.2	n/a	n/a
5. Percentage who have another graduate degree	13.1	32.0	n/a	n/a
6. Percentage who are AOA members	16.8	12.0	n/a	n/a
7. USMLE Step 1 score				
Mean	221	211	210	210
Median	221	207	213	212
25th percentile	208	194	195	197
75th percentile	234	230	220	221
Count	274	24	35	42
8. USMLE Step 2 score				
Mean	231	215	215	209
Median	233	218	212	209
25th percentile	216	189	203	196
75th percentile	246	246	228	222
Count	194	15	35	42
9. Mean number of research experiences	1.7	2.8	1.0	1.4
10. Mean number of abstracts, presentations, and publications	1.3	3.2	0.7	2.2

n/a: The measure either does not apply to, applies to only a small percentage of, or no reliable data were available for independent applicants.
Sources. Measures 1, 2, and match outcome from the NRMP Data Warehouse, measure 3 from the AAMC Organizational Characteristics Database and AAMC Enterprise Information Store (EIS), measure 4 and 5 from the AAMC Data Warehouse, measures 6, 9, 10 from the AAMC ERAS Data Warehouse, and measures 7 and 8 from the AAMC Data Warehouse and from the ECFMG both by permission of the NBME and ECFMG.
Note: Counts are provided for USMLE Step scores since they are the only measures with significant missing data.

Chart IP-1

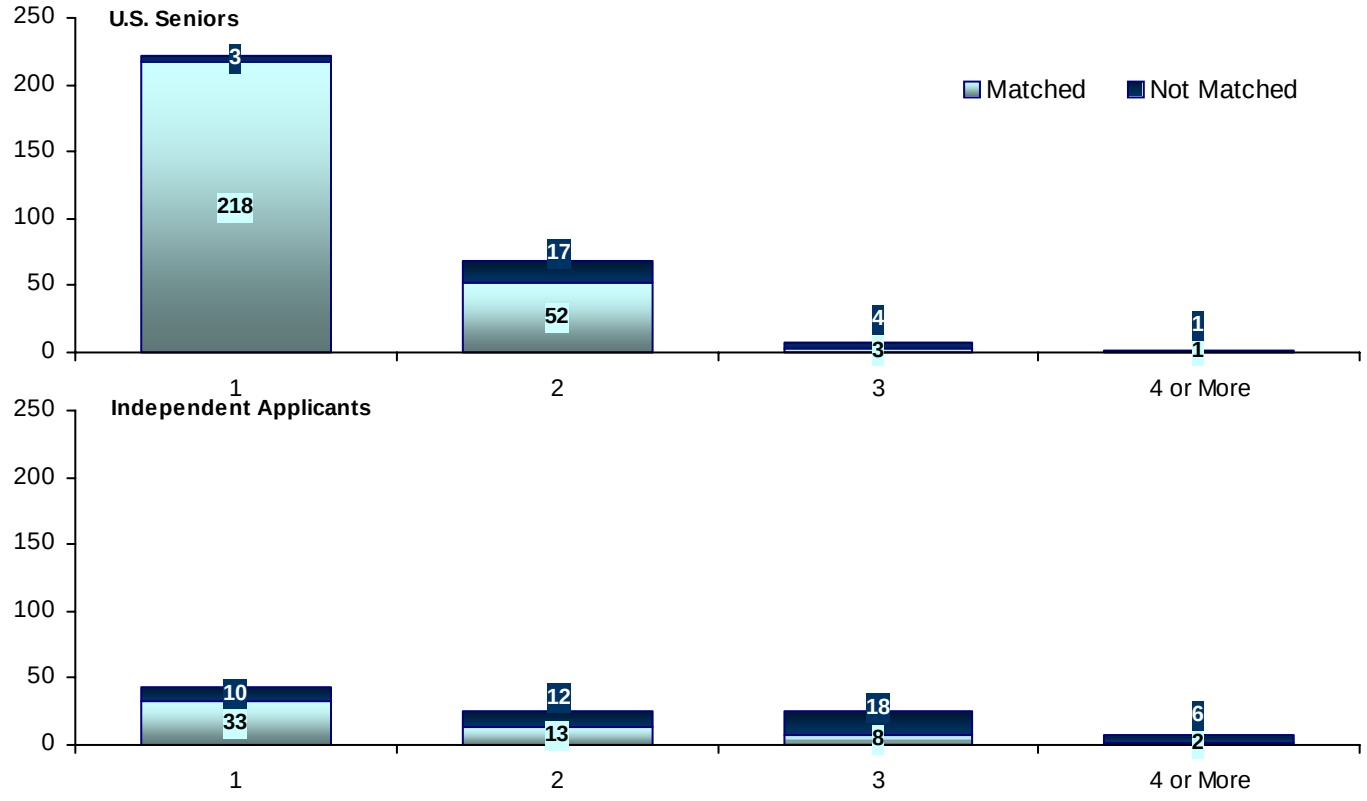
NUMBER OF CONTIGUOUS RANKS WITHIN PREFERRED SPECIALTY
Internal Medicine/Pediatrics



Source: NRMP Data Warehouse.

Chart IP-2

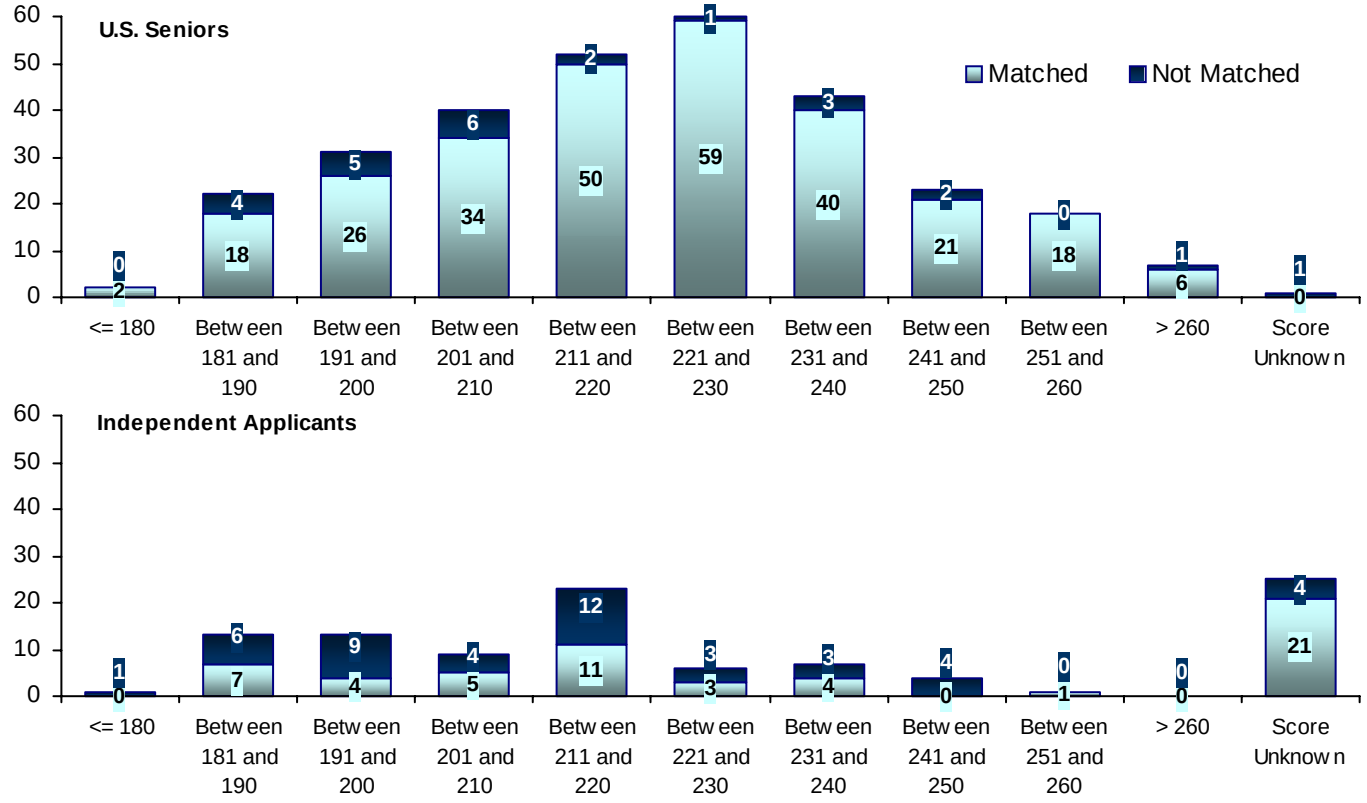
NUMBER OF DISTINCT SPECIALTIES RANKED
Internal Medicine/Pediatrics



Source: NRMP Data Warehouse.

Chart IP-3

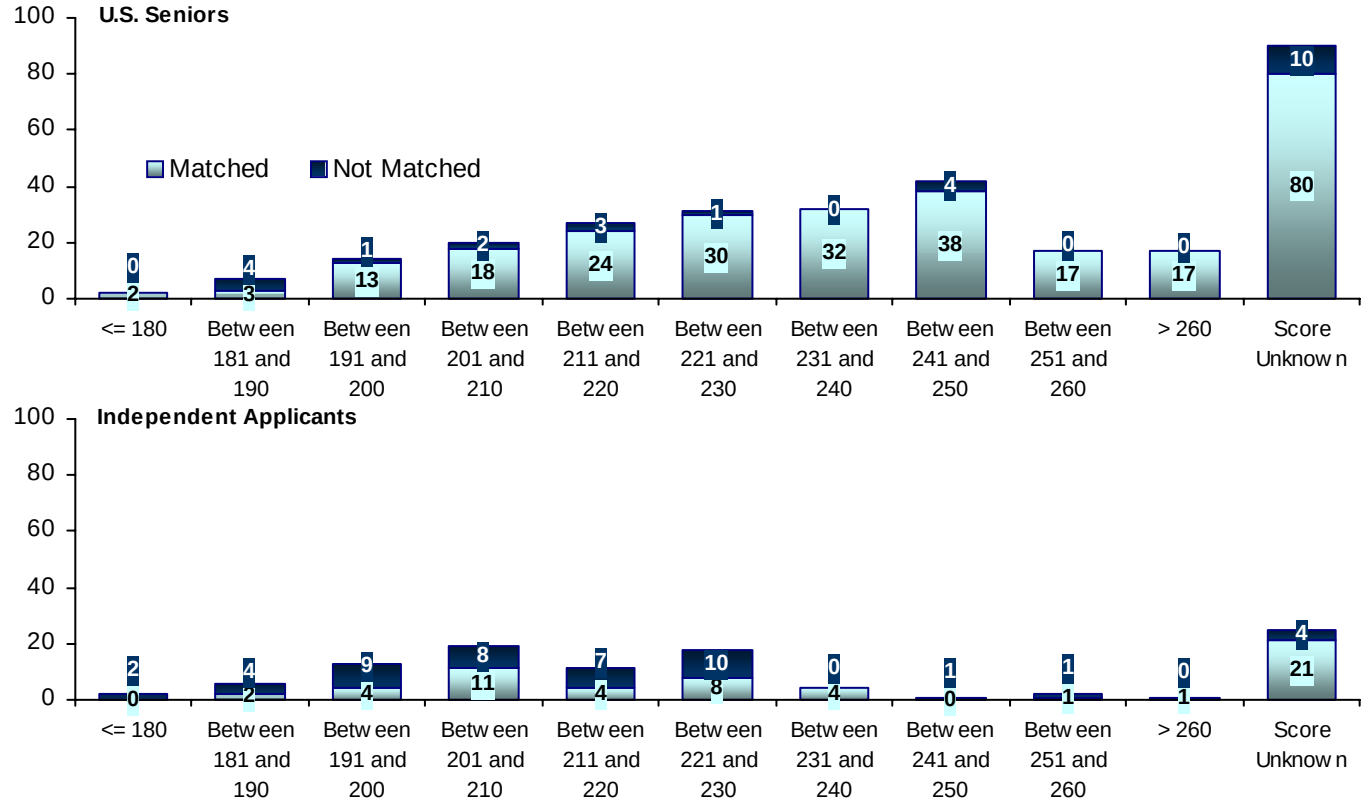
USMLE Step 1 Scores
Internal Medicine/Pediatrics



Source: NRMP Data Warehouse and AAMC Data Warehouse. USMLE scores by permission of the NBME and *ECFMG*.

Chart IP-4

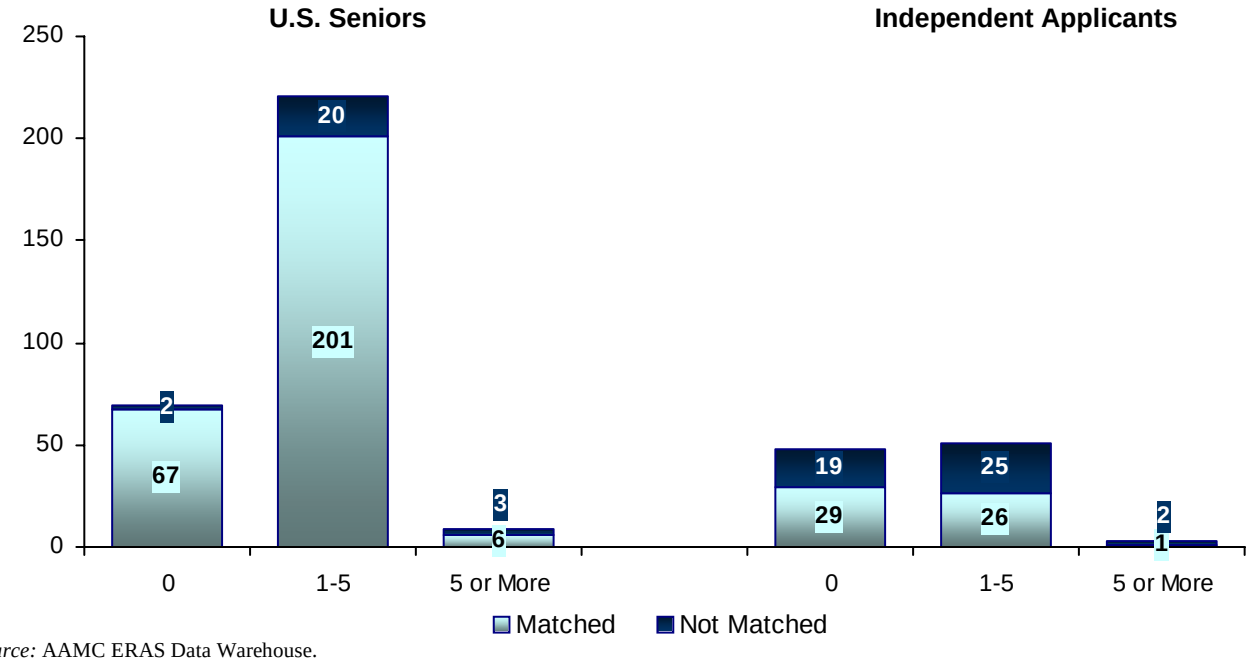
USMLE Step 2 Scores
Internal Medicine/Pediatrics



Source: NRMP Data Warehouse and AAMC Data Warehouse. USMLE scores by permission of the NBME and *ECFMG*.

Chart IP-5

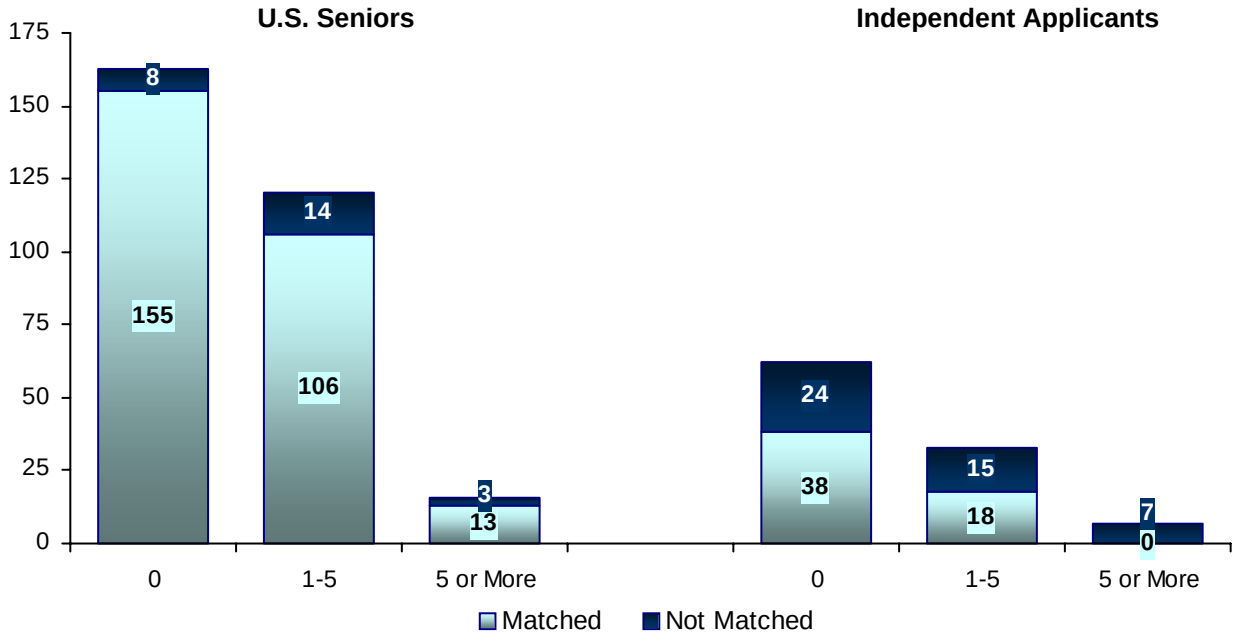
NUMBER OF RESEARCH PROJECTS
Internal Medicine/Pediatrics



Source: AAMC ERAS Data Warehouse.

Chart IP-6

NUMBER OF ABSTRACTS, PRESENTATIONS, AND PUBLICATIONS
Internal Medicine/Pediatrics

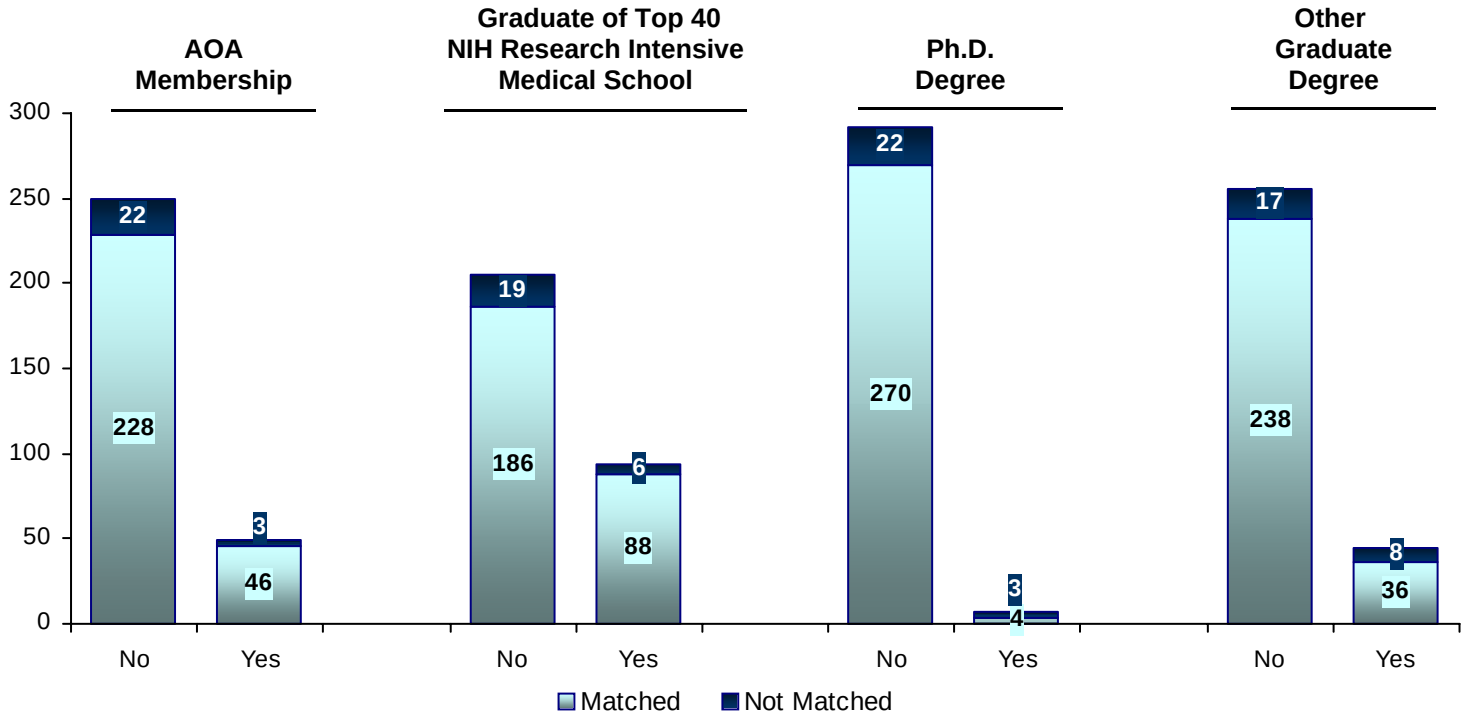


Source: AAMC ERAS Data Warehouse.

Chart IP-7

OTHER CHARACTERISTICS OF U.S. SENIORS

Internal Medicine/Pediatrics



Sources. AOA membership from the AAMC ERAS Data Warehouse, Top 40 NIH Research Intensive Medical Schools from the AAMC Organizational Characteristics Database and AAMC Enterprise Information Store (EIS), Ph.D. and other graduate degrees from the AAMC Data Warehouse.

N NEUROLOGY

Table N-1

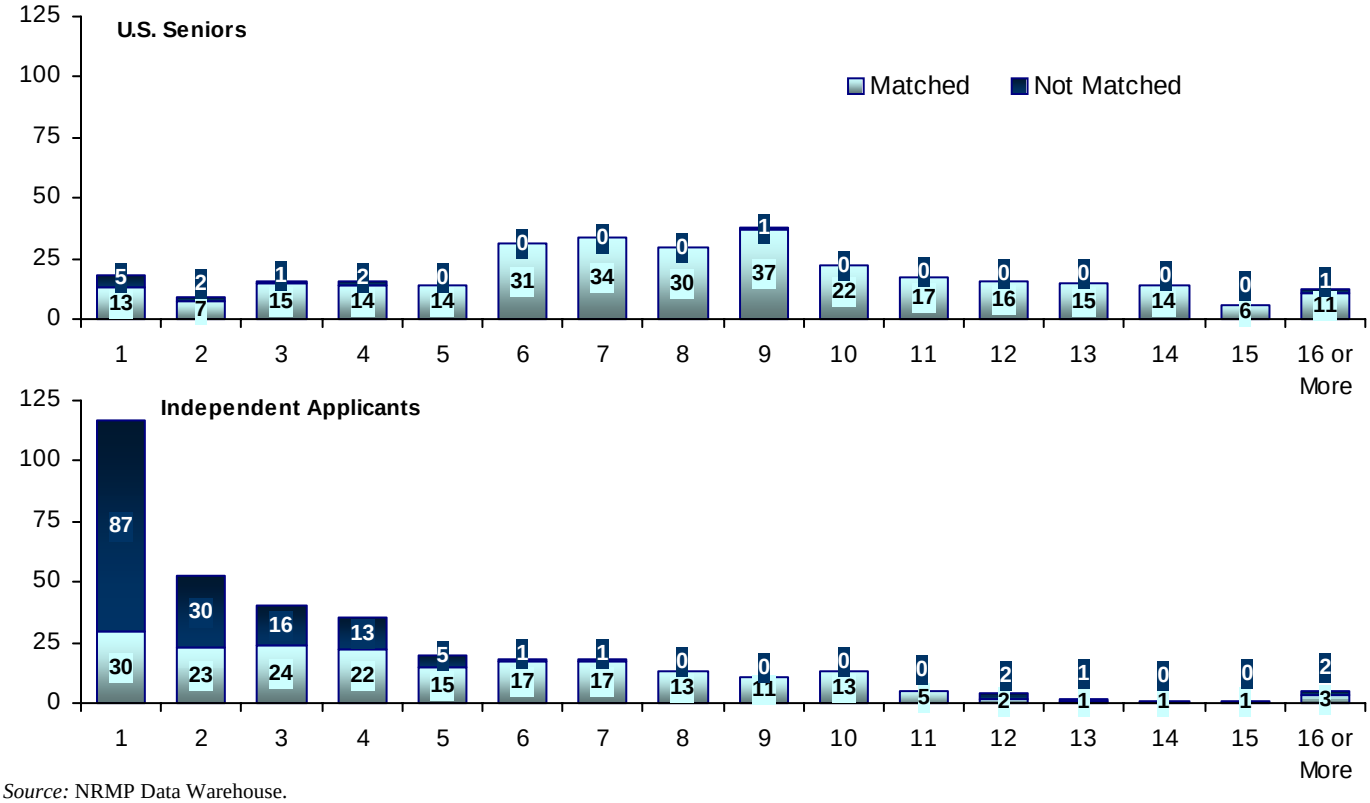
SUMMARY STATISTICS
Neurology

Measure	U.S. Seniors		Independent Applicants	
	Matched (n=296)	Did Not Match (n=12)	Matched (n=198)	Did Not Match (n=158)
1. Median number of contiguous ranks	8.0	2.0	5.0	1.0
2. Mean number of distinct specialties ranked	1.3	1.8	1.6	2.0
3. Percentage who graduated from top 40 NIH research medical school	37.8	33.3	n/a	n/a
4. Percentage who have a Ph.D. degree	11.1	8.3	n/a	n/a
5. Percentage who have another graduate degree	11.8	8.3	n/a	n/a
6. Percentage who are AOA members	14.5	8.3	n/a	n/a
7. USMLE Step 1 score				
Mean	219	202	220	206
Median	218	192	221	203
25th percentile	204	187	202	190
75th percentile	235	209	236	219
Count	294	12	159	152
8. USMLE Step 2 score				
Mean	223	196	221	209
Median	226	188	223	203
25th percentile	208	178	206	192
75th percentile	239	223	237	218
Count	203	6	159	152
9. Mean number of research experiences	2.3	2.1	1.7	1.5
10. Mean number of abstracts, presentations, and publications	3.2	1.9	4.5	4.8

n/a: The measure either does not apply to, applies to only a small percentage of, or no reliable data were available for independent applicants.
Sources. Measures 1, 2, and match outcome from the NRMP Data Warehouse, measure 3 from the AAMC Organizational Characteristics Database and AAMC Enterprise Information Store (EIS), measure 4 and 5 from the AAMC Data Warehouse, measures 6, 9, 10 from the AAMC ERAS Data Warehouse, and measures 7 and 8 from the AAMC Data Warehouse and from the ECFMG both by permission of the NBME and ECFMG.
Note: Counts are provided for USMLE Step scores since they are the only measures with significant missing data.

Chart N-1

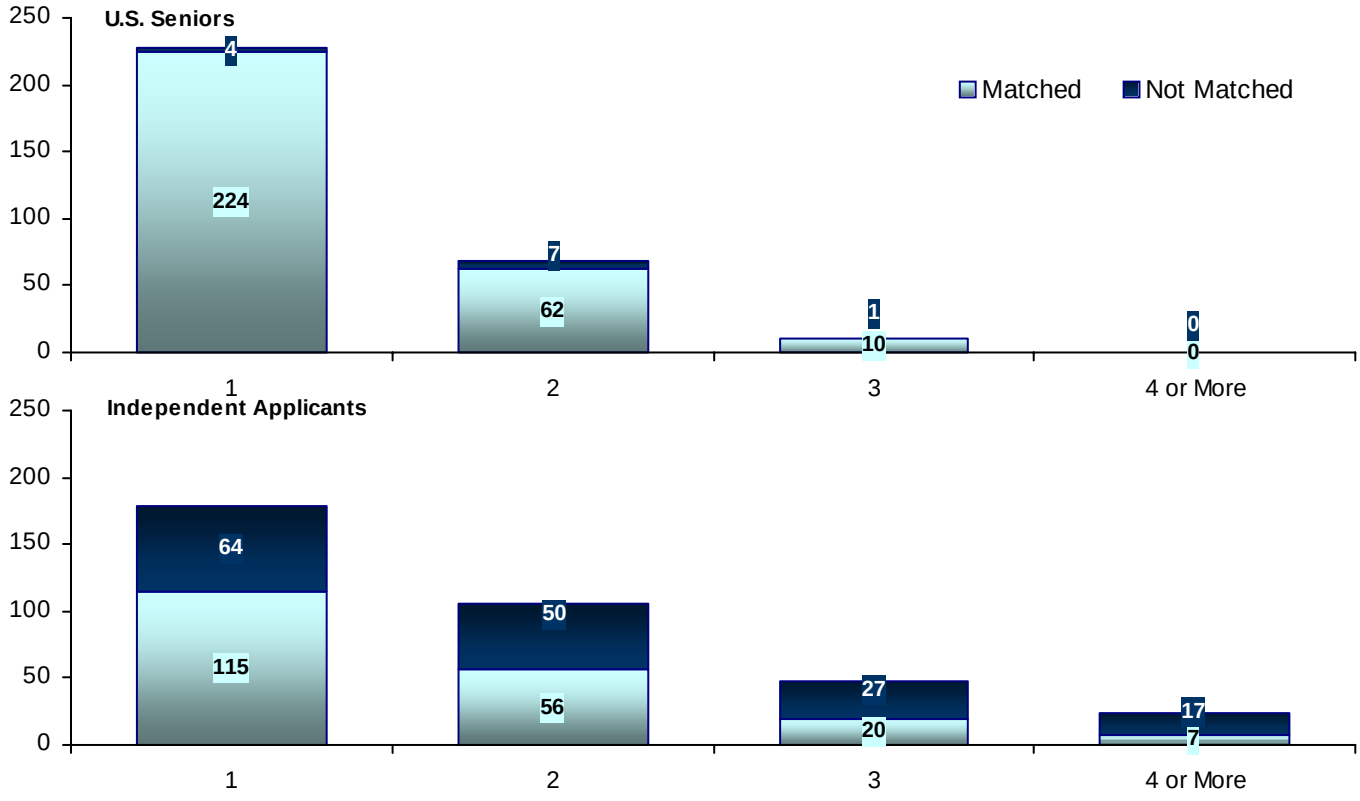
NUMBER OF CONTIGUOUS RANKS WITHIN PREFERRED SPECIALTY
Neurology



Source: NRMP Data Warehouse.

Chart N-2

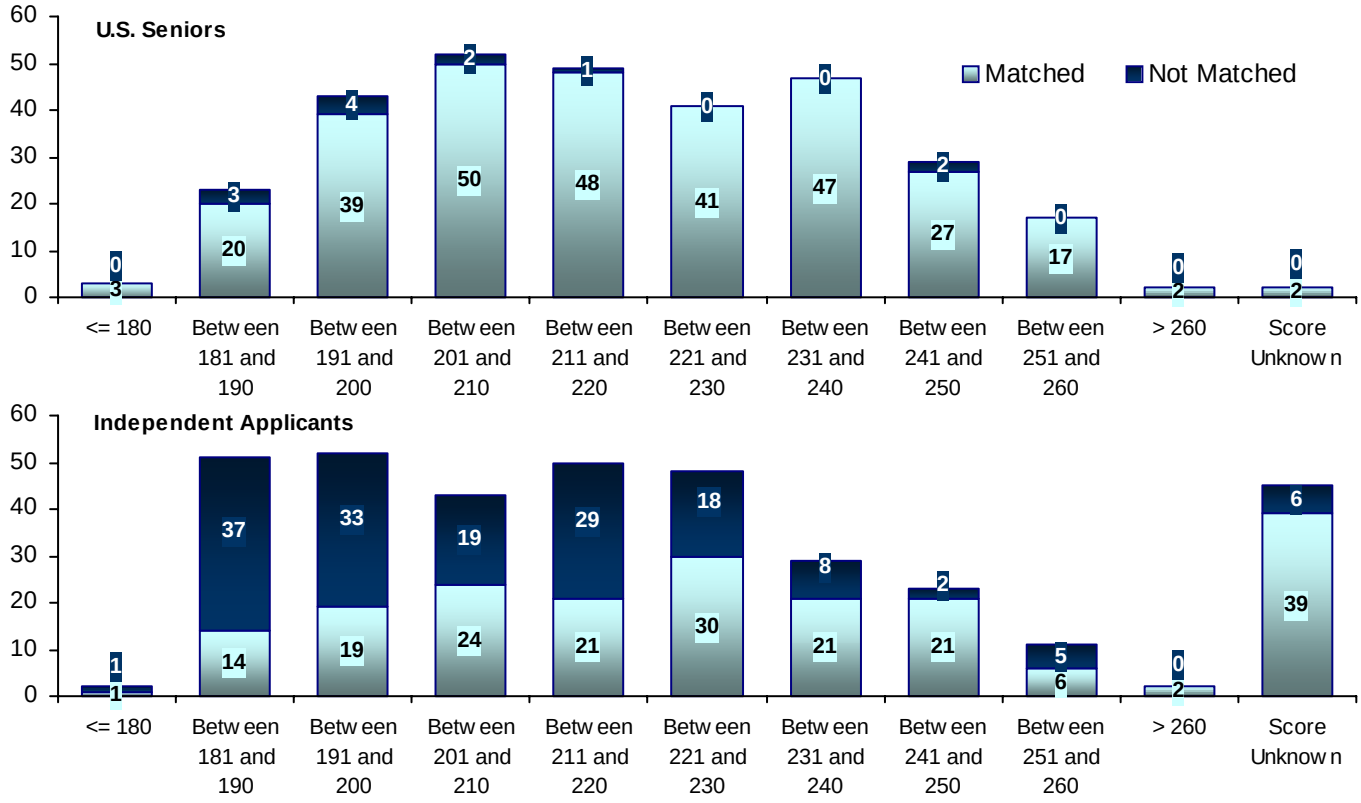
NUMBER OF DISTINCT SPECIALTIES RANKED
Neurology



Source: NRMP Data Warehouse.

Chart N-3

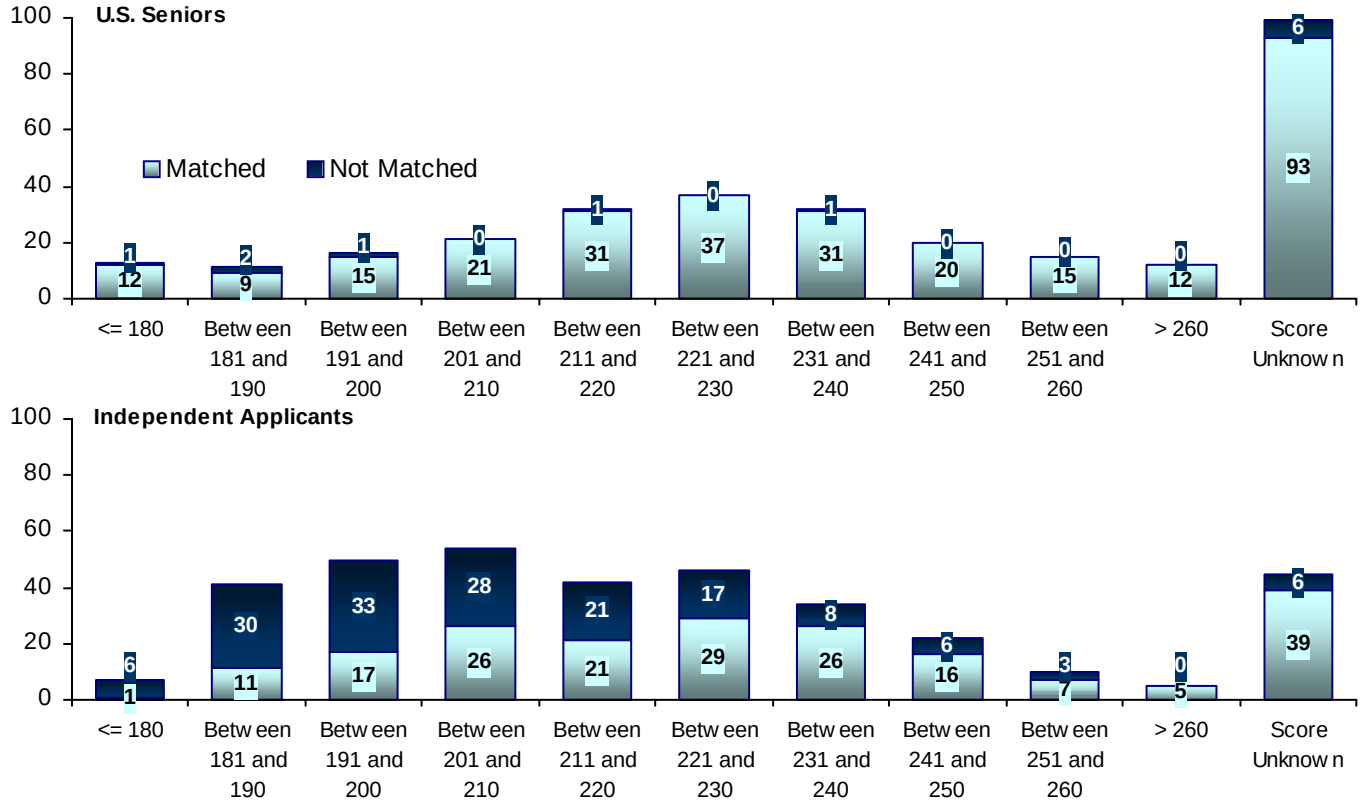
USMLE Step 1 Scores
Neurology



Source: NRMP Data Warehouse and AAMC Data Warehouse. USMLE scores by permission of the NBME and *ECFMG*.

Chart N-4

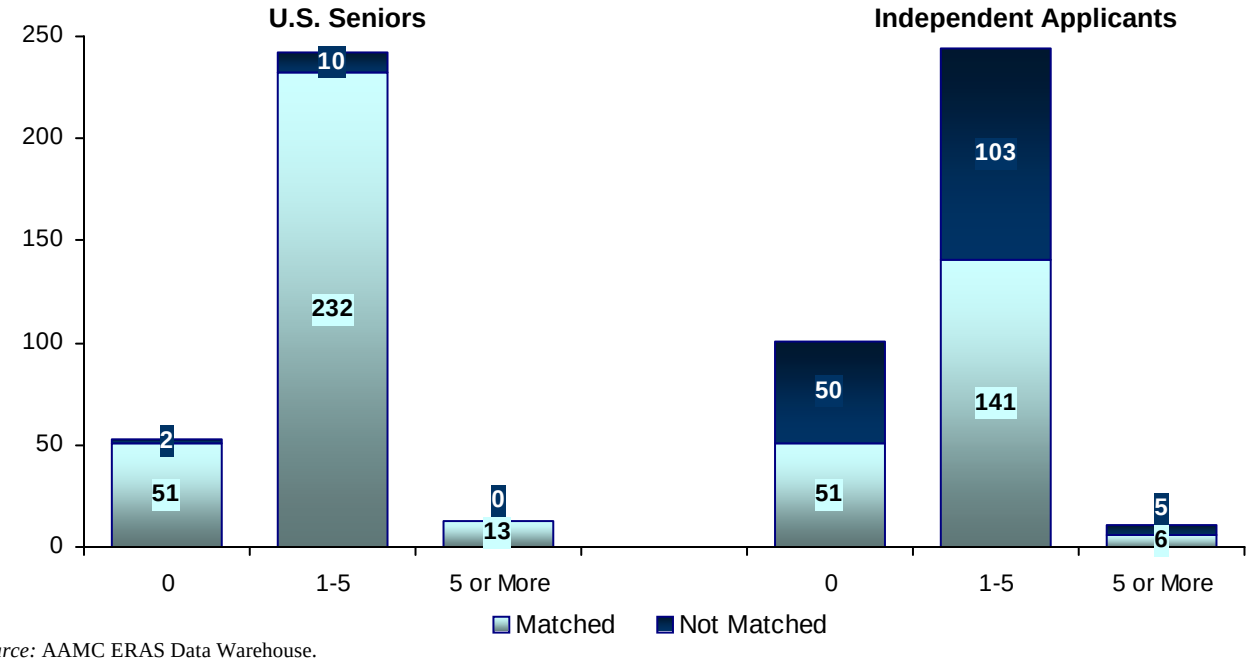
USMLE Step 2 Scores
Neurology



Source: NRMP Data Warehouse and AAMC Data Warehouse. USMLE scores by permission of the NBME and *ECFMG*.

Chart N-5

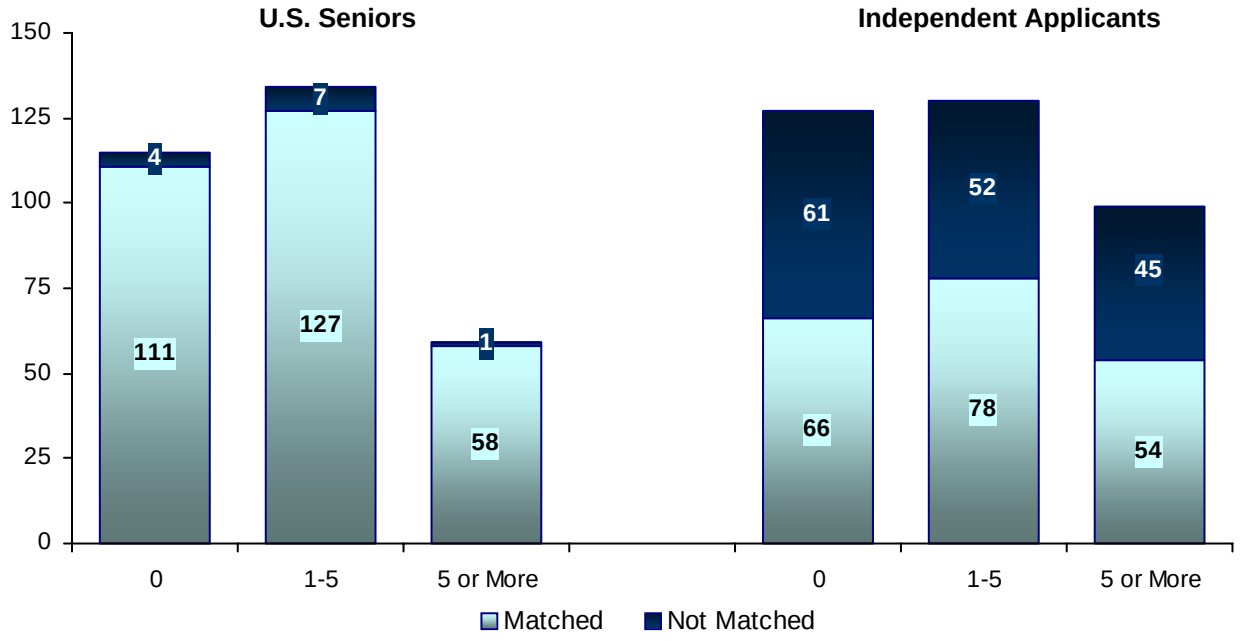
NUMBER OF RESEARCH PROJECTS
Neurology



Source: AAMC ERAS Data Warehouse.

Chart N-6

NUMBER OF ABSTRACTS, PRESENTATIONS, AND PUBLICATIONS
Neurology

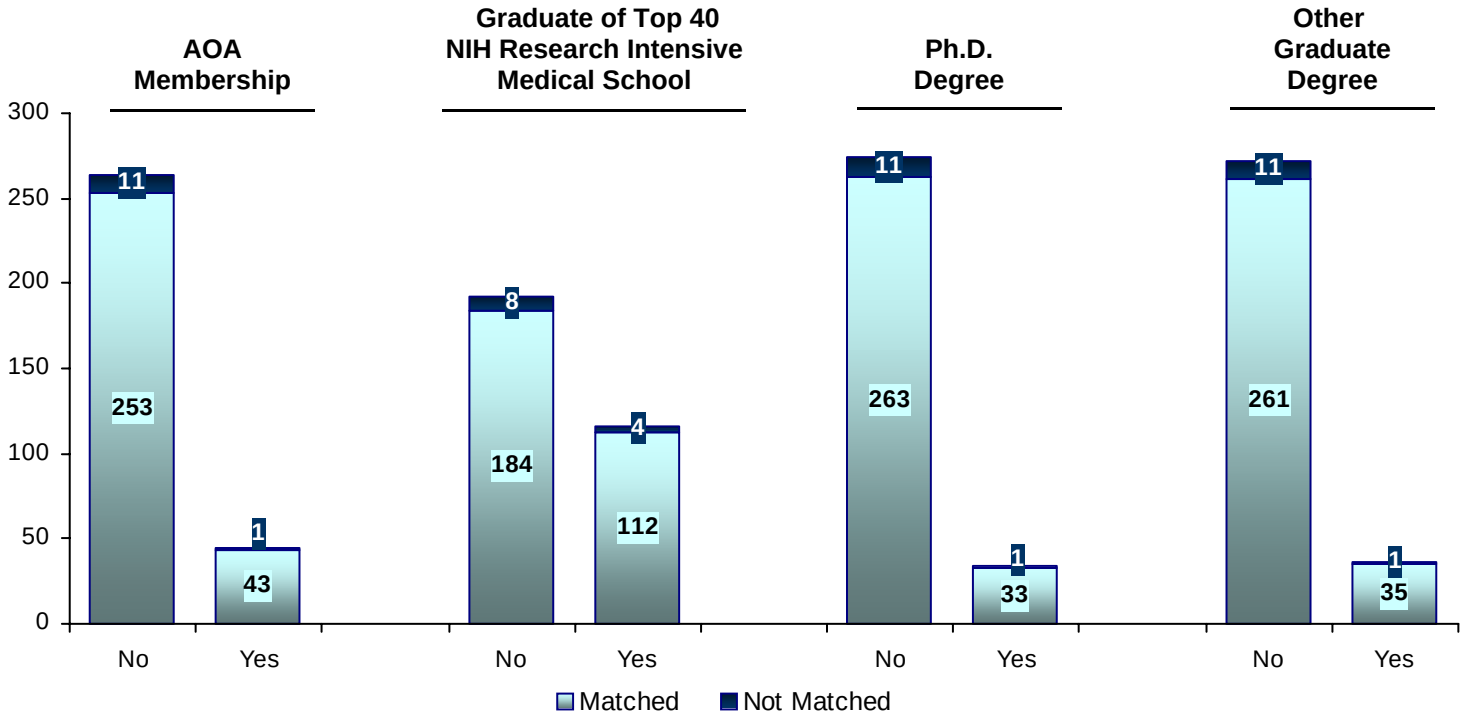


Source: AAMC ERAS Data Warehouse.

Chart N-7

OTHER CHARACTERISTICS OF U.S. SENIORS

Neurology



Sources. AOA membership from the AAMC ERAS Data Warehouse, Top 40 NIH Research Intensive Medical Schools from the AAMC Organizational Characteristics Database and AAMC Enterprise Information Store (EIS), Ph.D. and other graduate degrees from the AAMC Data Warehouse.

OBG OBSTETRICS AND GYNECOLOGY

Table OBG-1

SUMMARY STATISTICS
Obstetrics and Gynecology

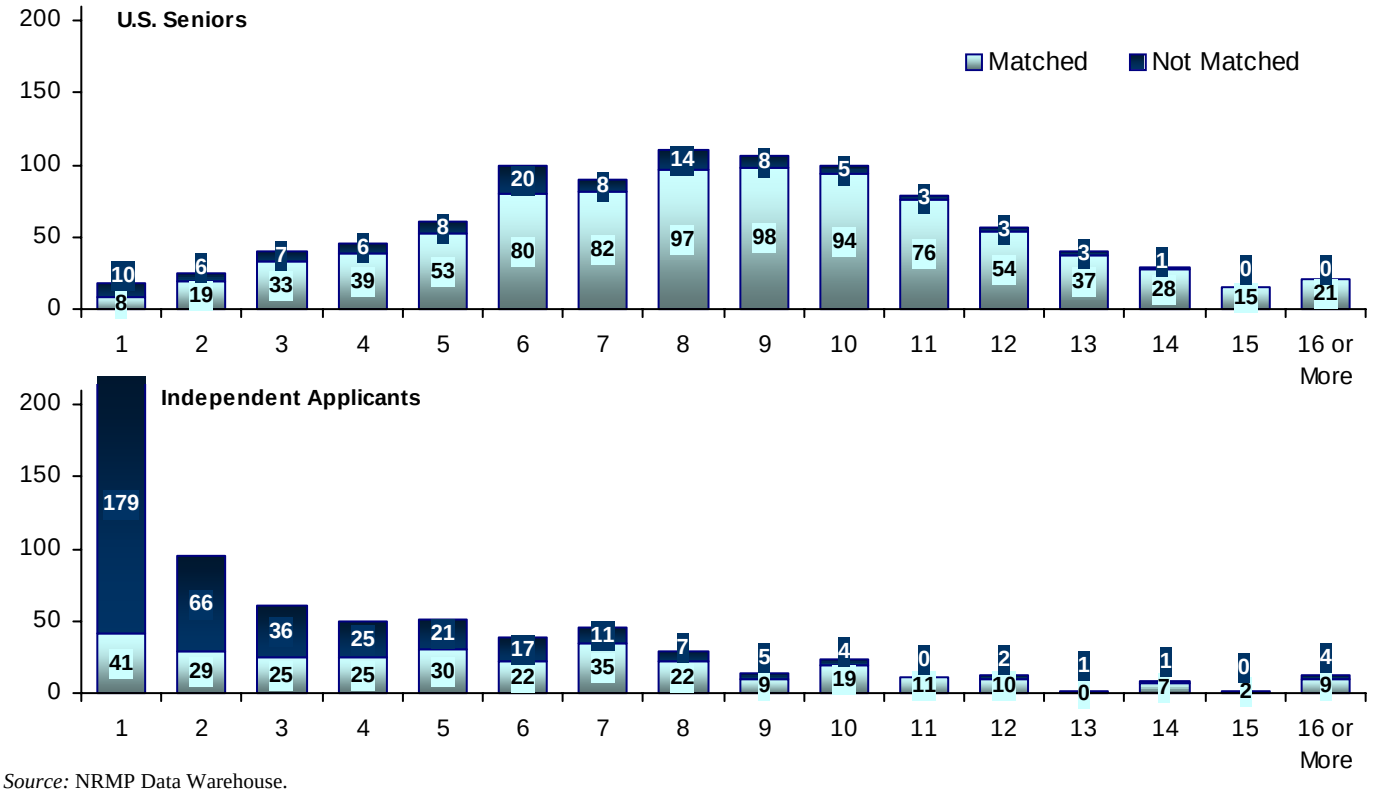
Measure	U.S. Seniors		Independent Applicants	
	Matched (n=834)	Did Not Match (n=102)	Matched (n=296)	Did Not Match (n=379)
1. Median number of contiguous ranks	9.0	6.0	5.0	2.0
2. Mean number of distinct specialties ranked	1.0	1.1	1.3	1.7
3. Percentage who graduated from top 40 NIH research medical school	31.1	26.5	n/a	n/a
4. Percentage who have a Ph.D. degree	1.6	1.0	n/a	n/a
5. Percentage who have another graduate degree	10.2	10.8	n/a	n/a
6. Percentage who are AOA members	11.8	1.0	n/a	n/a
7. USMLE Step 1 score				
Mean	214	200	212	200
Median	213	197	210	196
25th percentile	200	188	195	188
75th percentile	228	210	226	209
Count	834	102	209	339
8. USMLE Step 2 score				
Mean	223	204	216	203
Median	224	202	215	200
25th percentile	208	188	200	188
75th percentile	238	218	234	213
Count	669	84	208	336
9. Mean number of research experiences	1.8	1.7	1.2	1.2
10. Mean number of abstracts, presentations, and publications	1.4	1.4	1.8	1.8

n/a: The measure either does not apply to, applies to only a small percentage of, or no reliable data were available for independent applicants.
Sources. Measures 1, 2, and match outcome from the NRMP Data Warehouse, measure 3 from the AAMC Organizational Characteristics Database and AAMC Enterprise Information Store (EIS), measure 4 and 5 from the AAMC Data Warehouse, measures 6, 9, 10 from the AAMC ERAS Data Warehouse, and measures 7 and 8 from the AAMC Data Warehouse and from the ECFMG both by permission of the NBME and ECFMG.
Note: Counts are provided for USMLE Step scores since they are the only measures with significant missing data.

Chart OBG-1

NUMBER OF CONTIGUOUS RANKS WITHIN PREFERRED SPECIALTY

Obstetrics and Gynecology

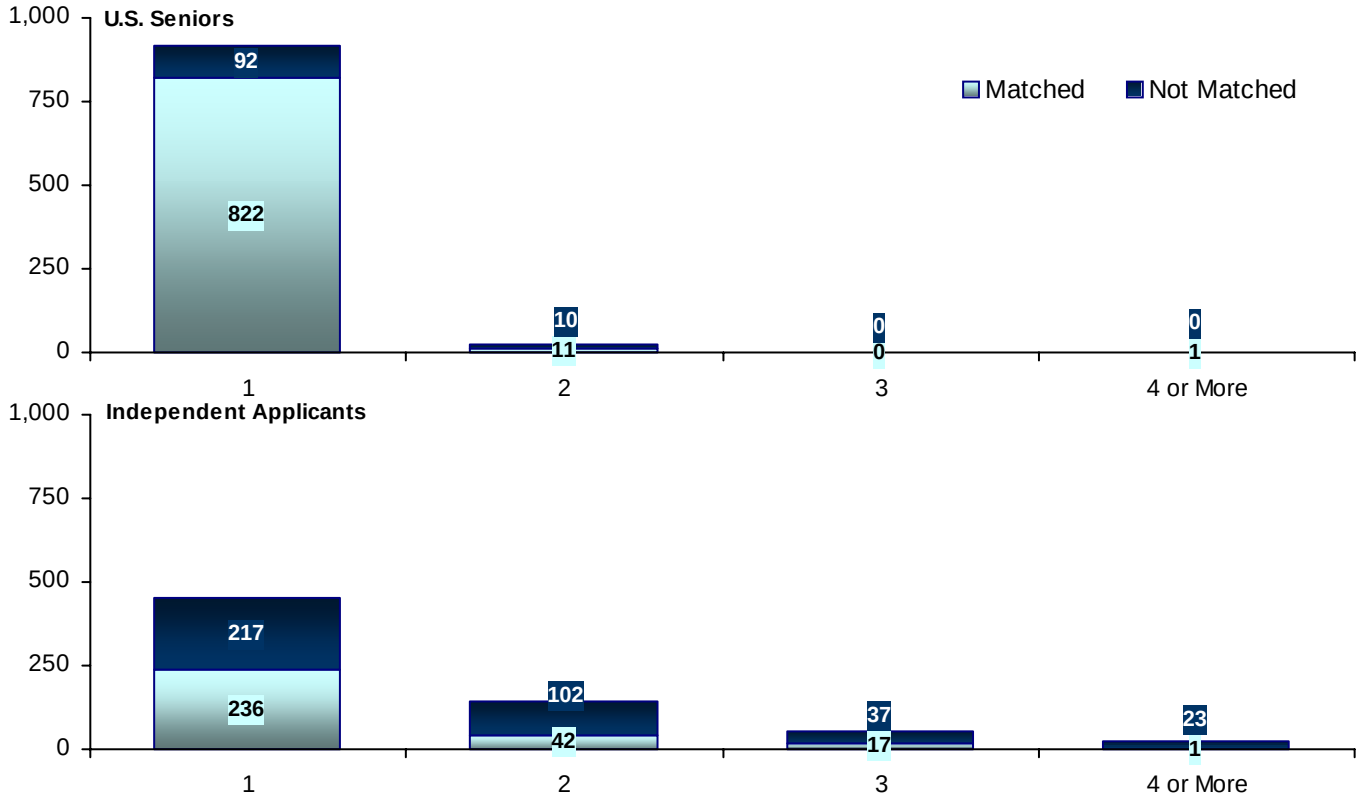


Source: NRMP Data Warehouse.

Chart OBG-2

NUMBER OF DISTINCT SPECIALTIES RANKED

Obstetrics and Gynecology

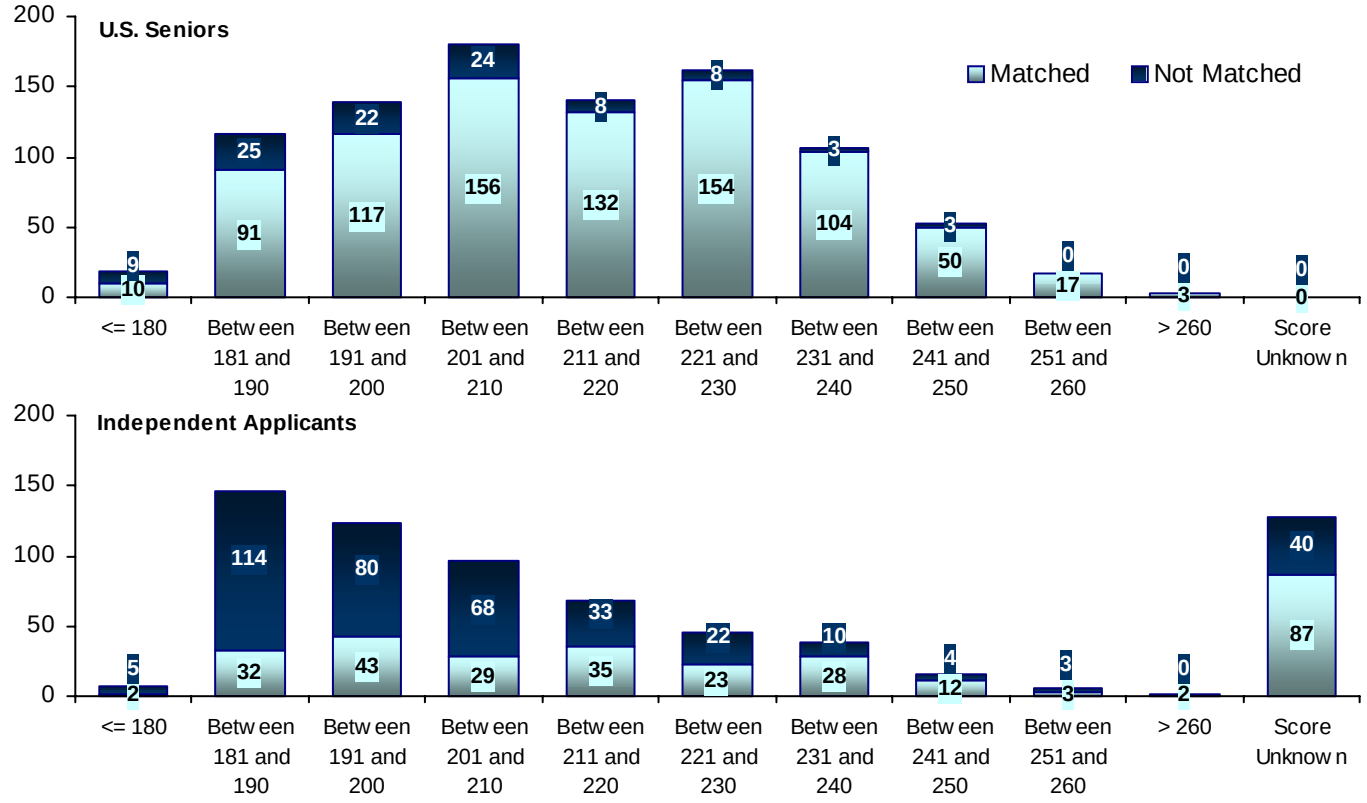


Source: NRMP Data Warehouse.

Chart OBG-3

USMLE Step 1 Scores

Obstetrics and Gynecology

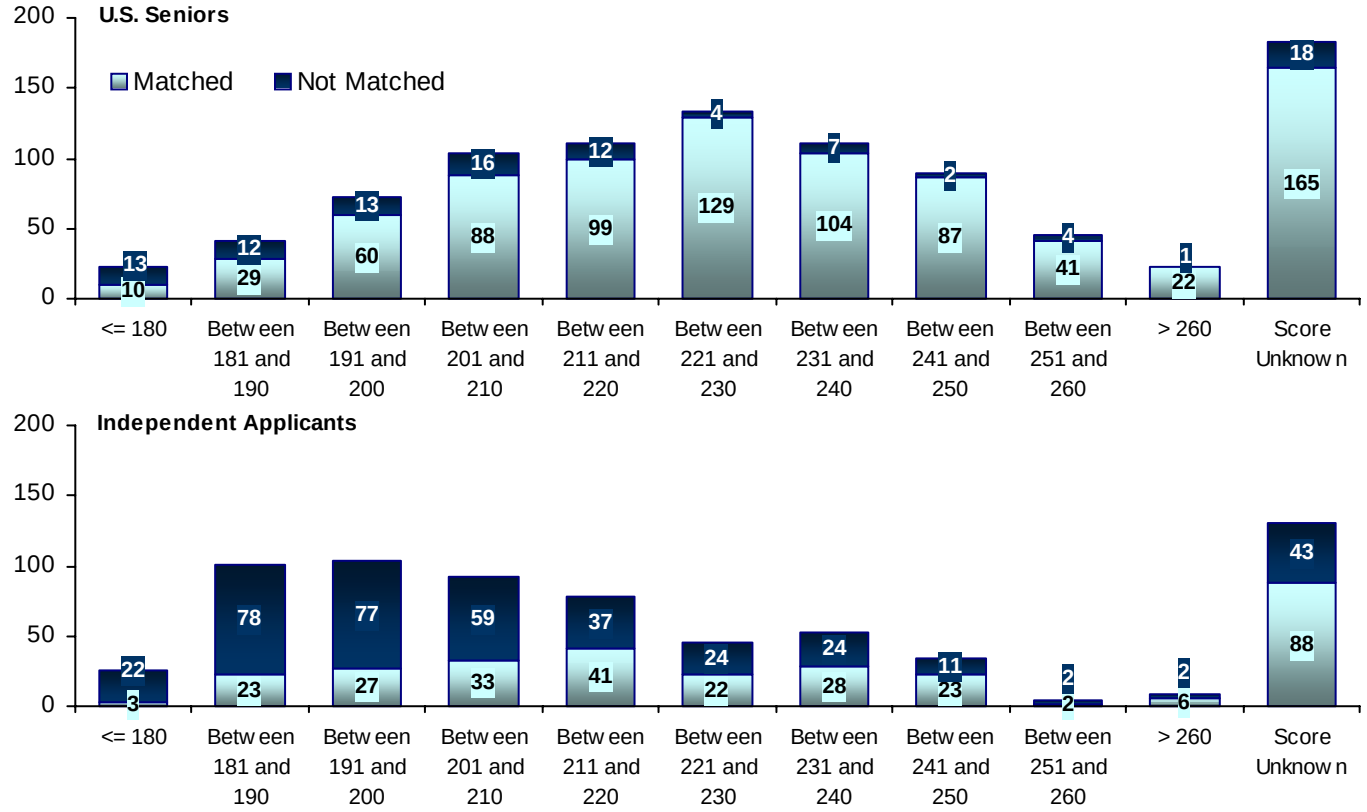


Source: NRMP Data Warehouse and AAMC Data Warehouse. USMLE scores by permission of the NBME and *ECFMG*.

Chart OBG-4

USMLE Step 2 Scores

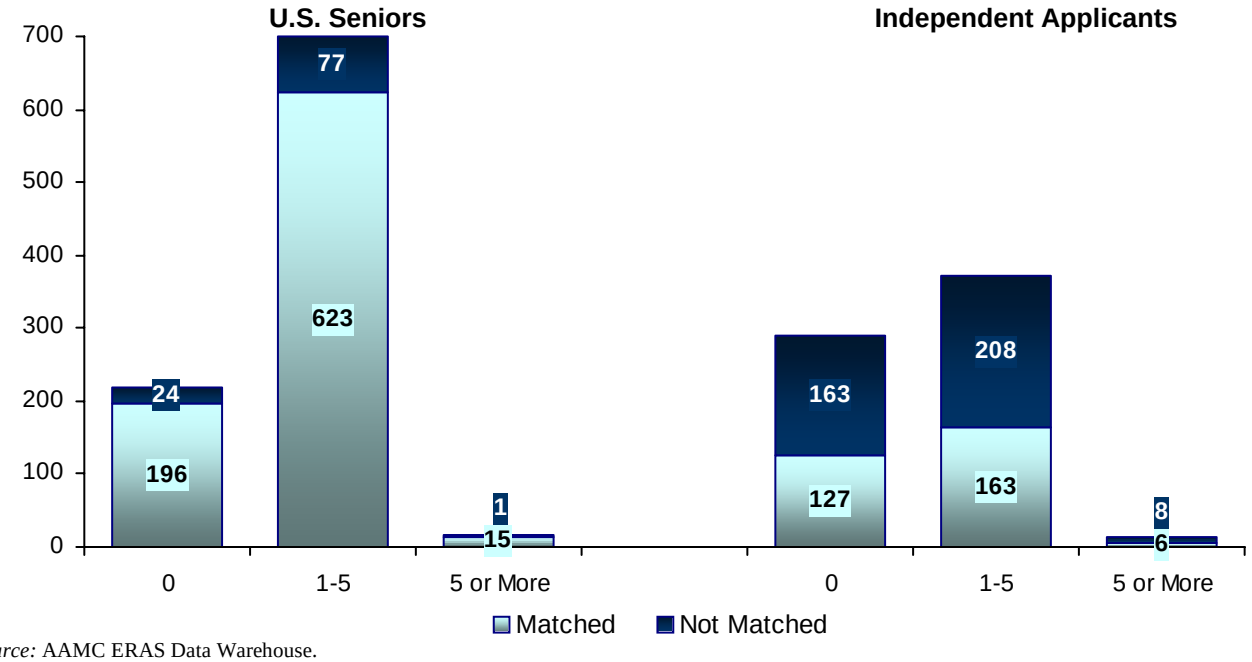
Obstetrics and Gynecology



Source: NRMP Data Warehouse and AAMC Data Warehouse. USMLE scores by permission of the NBME and *ECFMG*.

Chart OBG-5

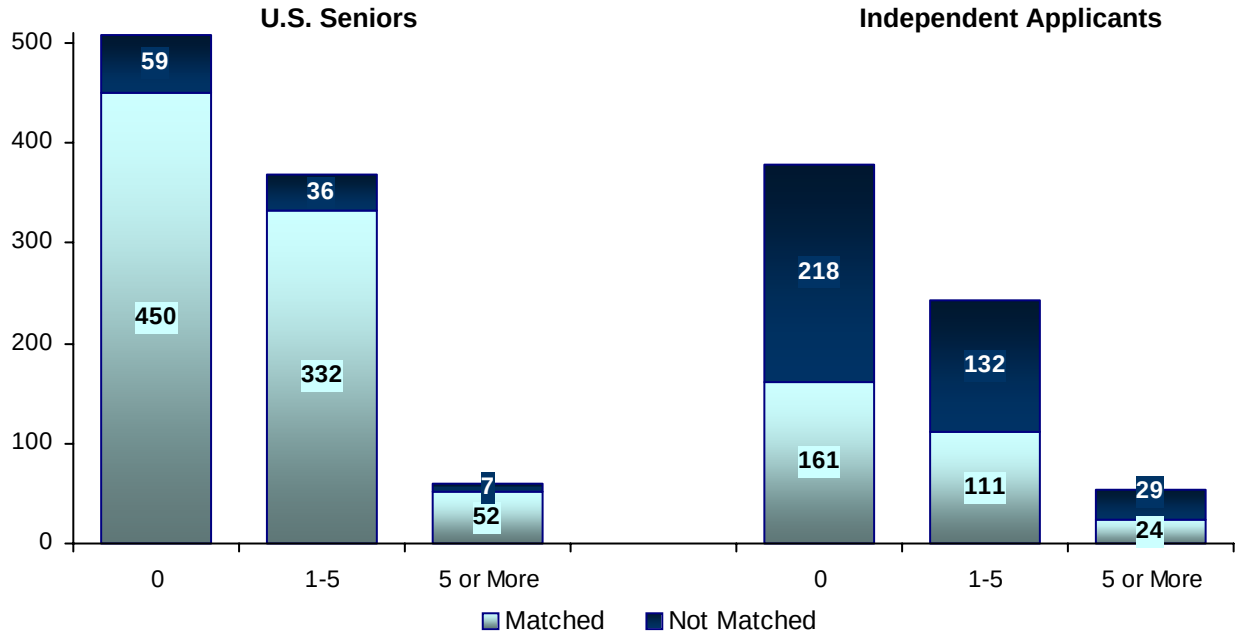
NUMBER OF RESEARCH PROJECTS
Obstetrics and Gynecology



Source: AAMC ERAS Data Warehouse.

Chart OBG-6

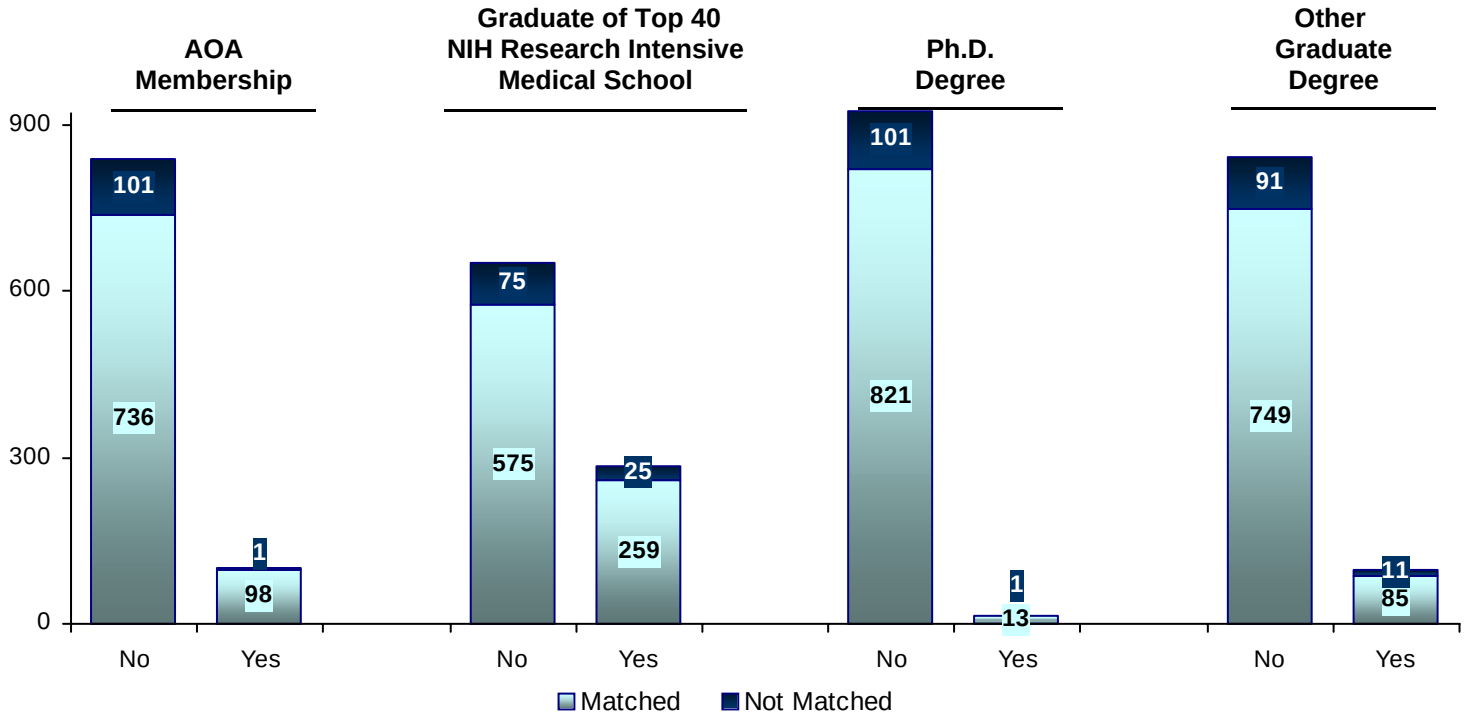
NUMBER OF ABSTRACTS, PRESENTATIONS, AND PUBLICATIONS
Obstetrics and Gynecology



Source: AAMC ERAS Data Warehouse.

OTHER CHARACTERISTICS OF U.S. SENIORS

Obstetrics and Gynecology



Sources. AOA membership from the AAMC ERAS Data Warehouse, Top 40 NIH Research Intensive Medical Schools from the AAMC Organizational Characteristics Database and AAMC Enterprise Information Store (EIS), Ph.D. and other graduate degrees from the AAMC Data Warehouse.

ORS ORTHOPAEDIC SURGERY

Table ORS-1

SUMMARY STATISTICS
Orthopaedic Surgery

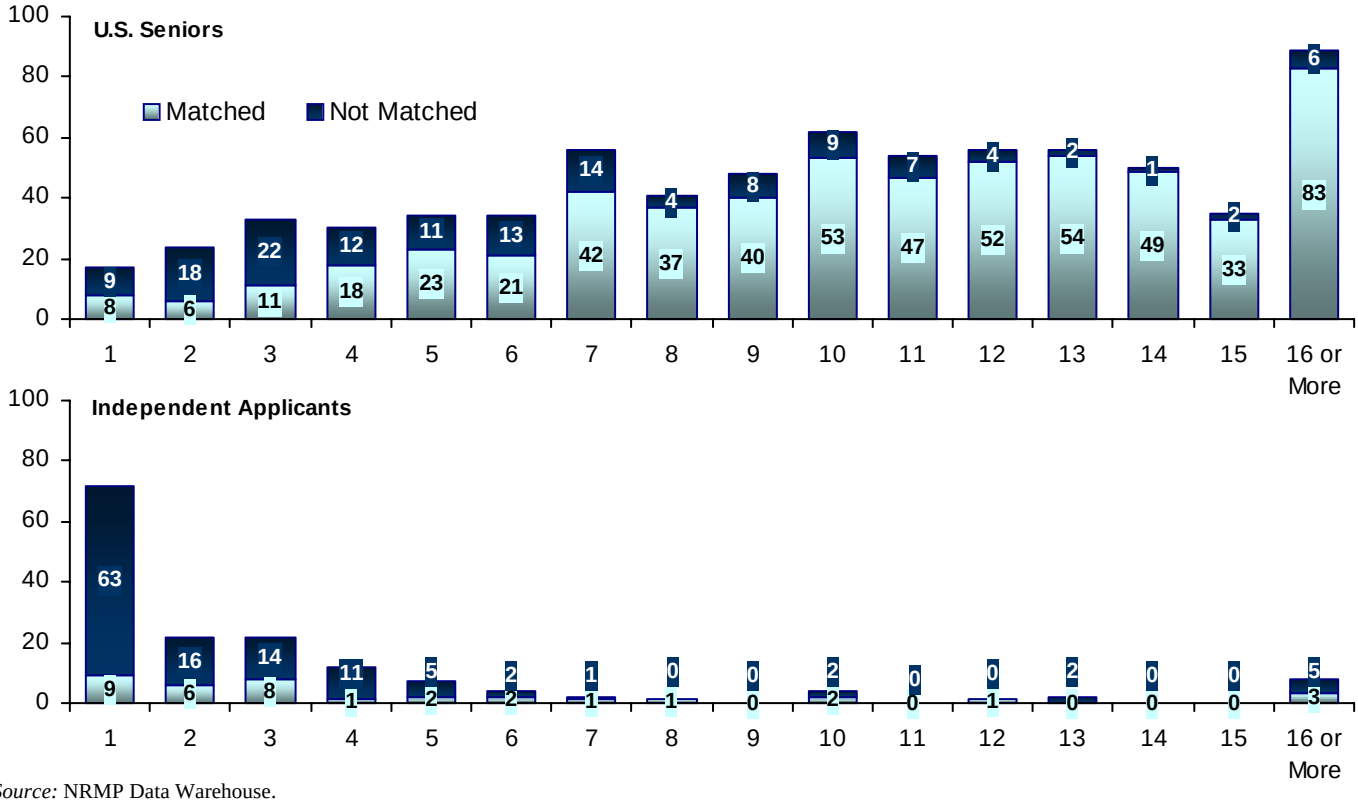
Measure	U.S. Seniors		Independent Applicants	
	Matched (n=577)	Did Not Match (n=142)	Matched (n=36)	Did Not Match (n=121)
1. Median number of contiguous ranks	11.0	5.0	3.0	1.0
2. Mean number of distinct specialties ranked	1.0	1.2	1.3	1.6
3. Percentage who graduated from top 40 NIH research medical school	40.0	27.5	n/a	n/a
4. Percentage who have a Ph.D. degree	2.3	1.4	n/a	n/a
5. Percentage who have another graduate degree	12.8	11.3	n/a	n/a
6. Percentage who are AOA members	30.5	7.0	n/a	n/a
7. USMLE Step 1 score				
Mean	234	216	217	215
Median	234	217	218	215
25th percentile	225	202	203	200
75th percentile	245	231	234	231
Count	575	139	34	111
8. USMLE Step 2 score				
Mean	235	217	222	216
Median	236	217	224	213
25th percentile	223	201	208	200
75th percentile	245	236	234	231
Count	307	99	34	111
9. Mean number of research experiences	2.6	2.3	2.1	1.8
10. Mean number of abstracts, presentations, and publications	3.0	2.3	5.8	3.8

n/a: The measure either does not apply to, applies to only a small percentage of, or no reliable data were available for independent applicants.
Sources. Measures 1, 2, and match outcome from the NRMP Data Warehouse, measure 3 from the AAMC Organizational Characteristics Database and AAMC Enterprise Information Store (EIS), measure 4 and 5 from the AAMC Data Warehouse, measures 6, 9, 10 from the AAMC ERAS Data Warehouse, and measures 7 and 8 from the AAMC Data Warehouse and from the ECFMG both by permission of the NBME and ECFMG.
Note: Counts are provided for USMLE Step scores since they are the only measures with significant missing data.

Chart ORS-1

NUMBER OF CONTIGUOUS RANKS WITHIN PREFERRED SPECIALTY

Orthopaedic Surgery

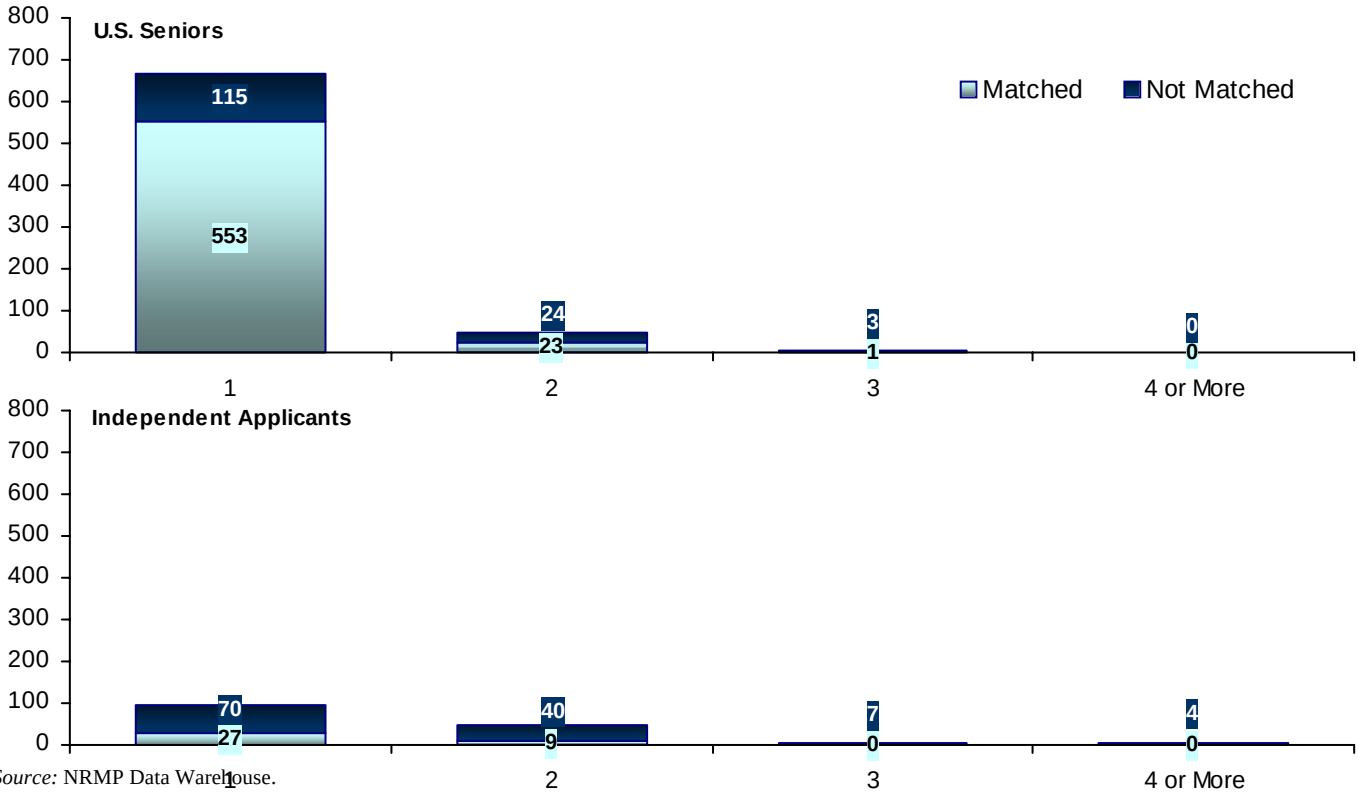


Source: NRMP Data Warehouse.

Chart ORS-2

NUMBER OF DISTINCT SPECIALTIES RANKED

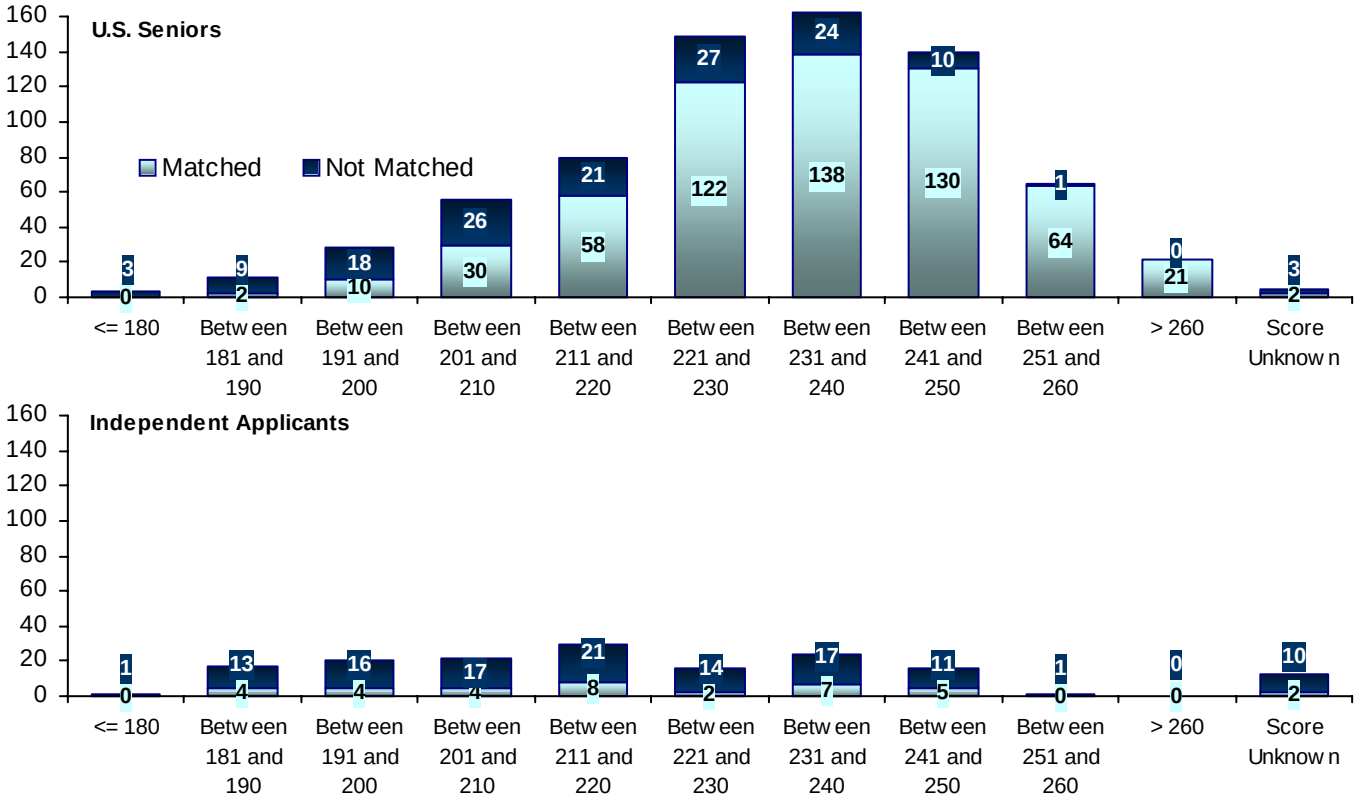
Orthopaedic Surgery



Source: NRMP Data Warehouse.

Chart ORS-3

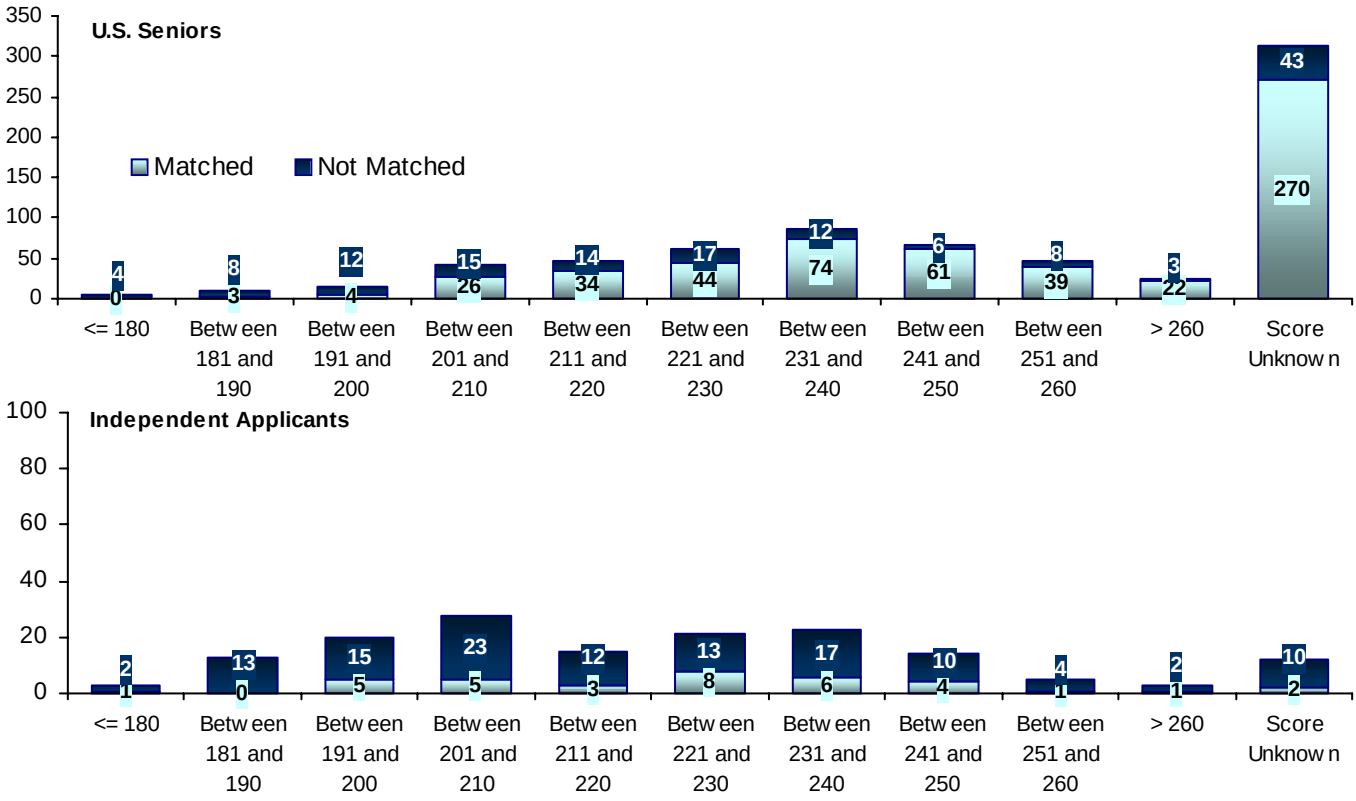
USMLE Step 1 Scores
Orthopaedic Surgery



Source: NRMP Data Warehouse and AAMC Data Warehouse. USMLE scores by permission of the NBME and *ECFMG*.

Chart ORS-4

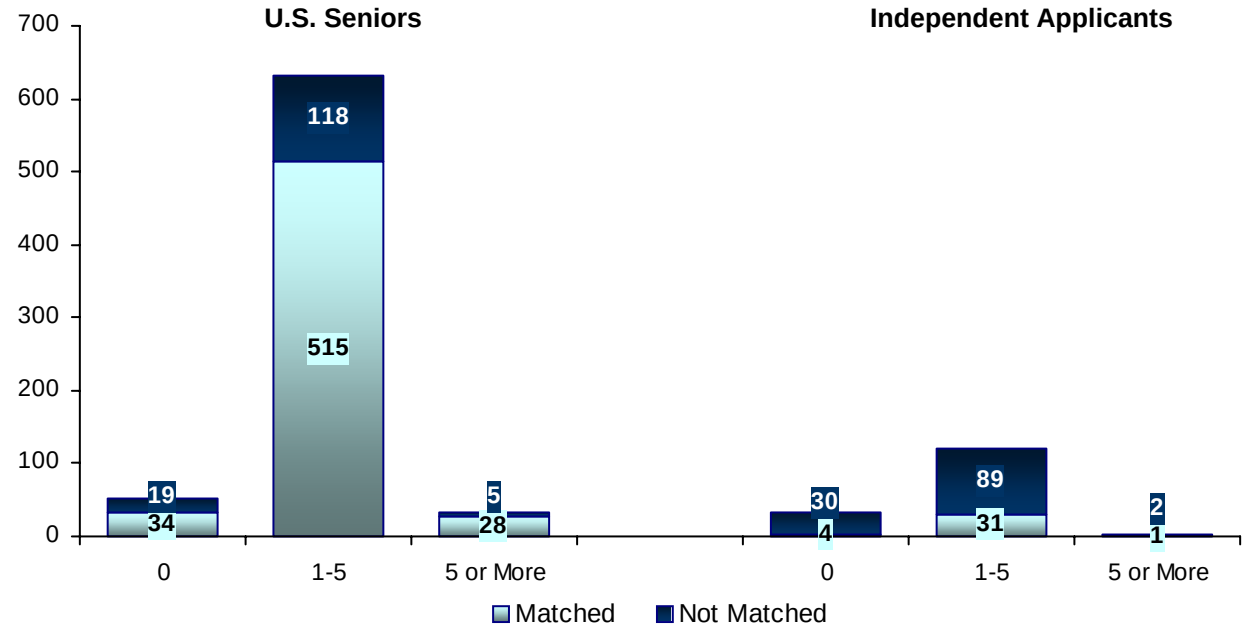
USMLE Step 2 Scores
Orthopaedic Surgery



Source: NRMP Data Warehouse and AAMC Data Warehouse. USMLE scores by permission of the NBME and *ECFMG*.

Chart ORS-5

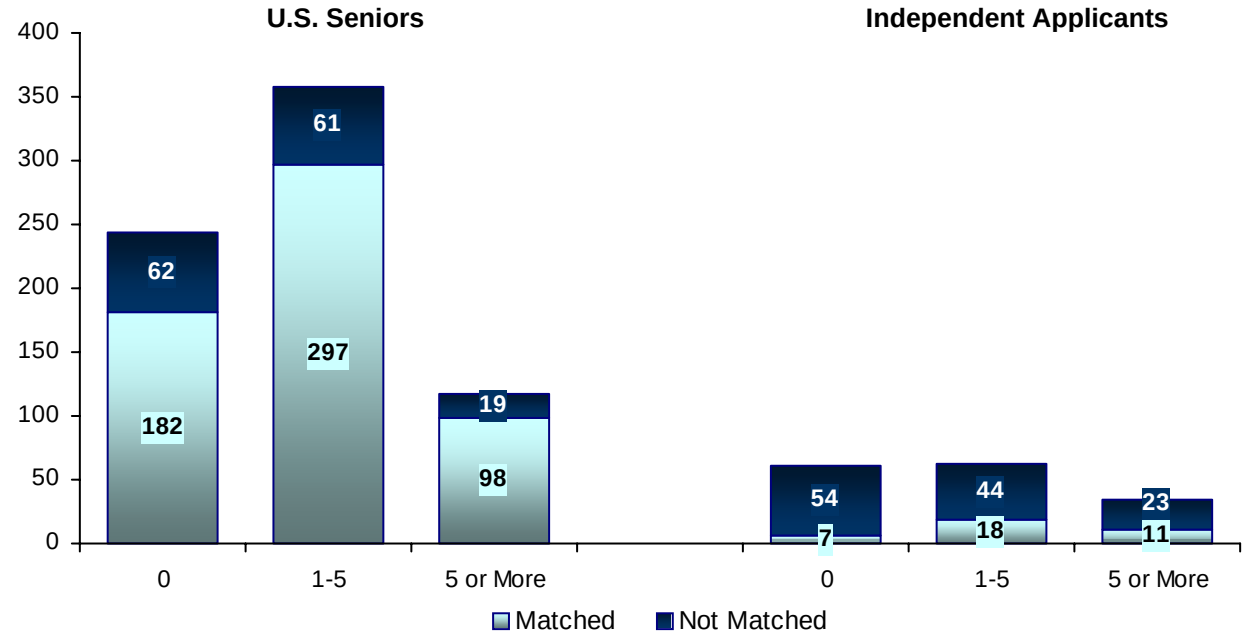
NUMBER OF RESEARCH PROJECTS
Orthopaedic Surgery



Source: AAMC ERAS Data Warehouse.

Chart ORS-6

NUMBER OF ABSTRACTS, PRESENTATIONS, AND PUBLICATIONS
Orthopaedic Surgery

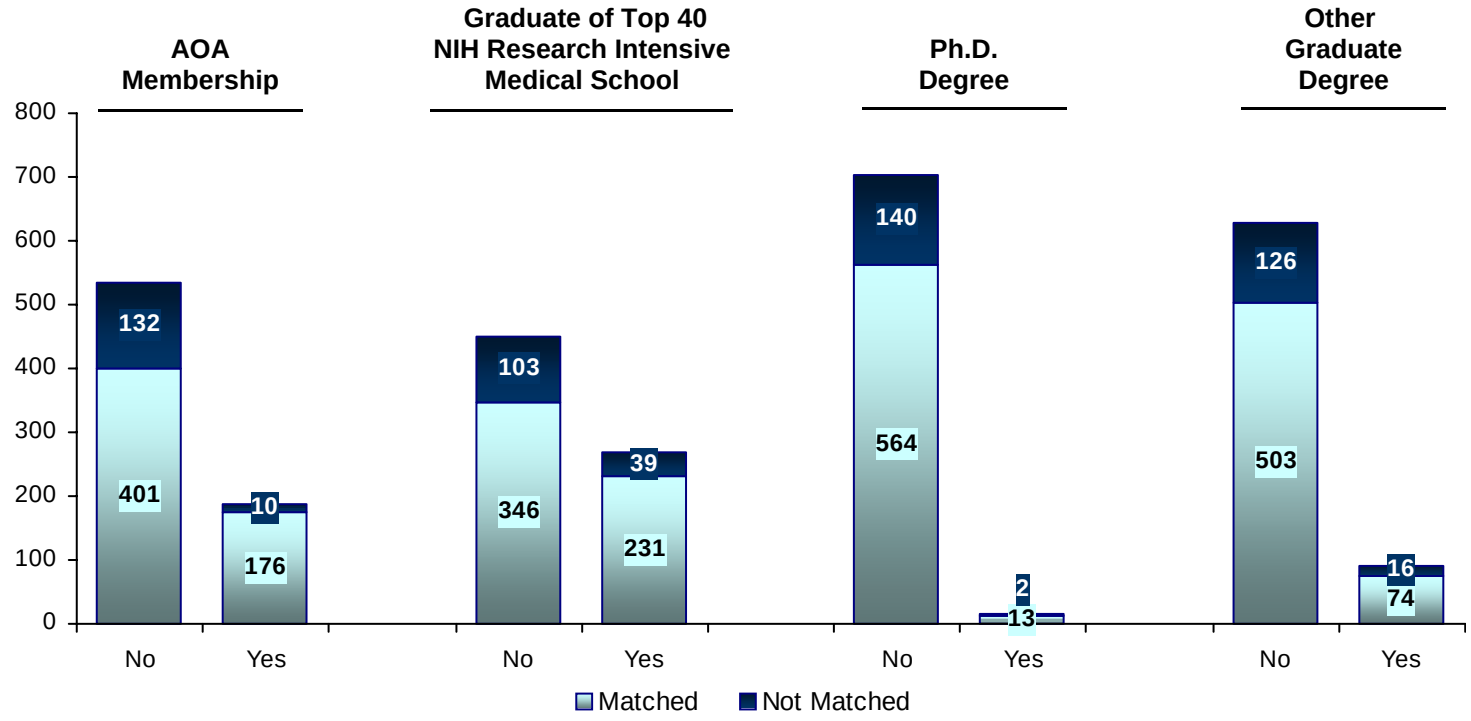


Source: AAMC ERAS Data Warehouse.

Chart ORS-7

OTHER CHARACTERISTICS OF U.S. SENIORS

Orthopaedic Surgery



Sources. AOA membership from the AAMC ERAS Data Warehouse, Top 40 NIH Research Intensive Medical Schools from the AAMC Organizational Characteristics Database and AAMC Enterprise Information Store (EIS), Ph.D. and other graduate degrees from the AAMC Data Warehouse.

OTO OTOLARYNGOLOGY

Table OTO-1

SUMMARY STATISTICS
Otolaryngology

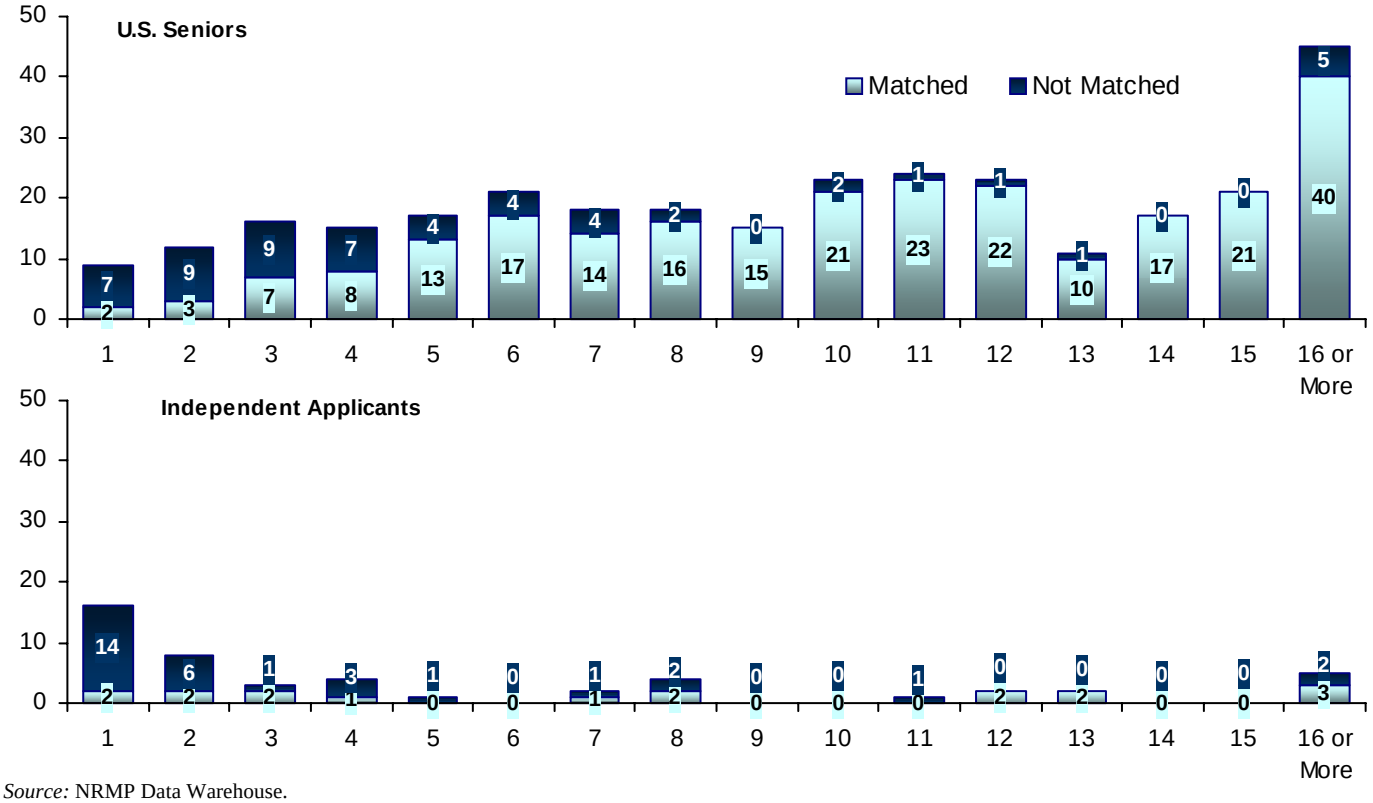
Measure	U.S. Seniors		Independent Applicants	
	Matched (n=249)	Did Not Match (n=56)	Matched (n=17)	Did Not Match (n=31)
1. Median number of contiguous ranks	11.0	4.0	8.0	2.0
2. Mean number of distinct specialties ranked	1.1	1.4	1.3	1.6
3. Percentage who graduated from top 40 NIH research medical school	43.8	32.1	n/a	n/a
4. Percentage who have a Ph.D. degree	3.6	0.0	n/a	n/a
5. Percentage who have another graduate degree	8.8	10.7	n/a	n/a
6. Percentage who are AOA members	39.0	8.9	n/a	n/a
7. USMLE Step 1 score				
Mean	238	224	228	211
Median	239	222	223	211
25th percentile	229	214	216	195
75th percentile	247	236	237	227
Count	249	55	17	28
8. USMLE Step 2 score				
Mean	241	223	228	213
Median	240	226	238	211
25th percentile	231	214	211	204
75th percentile	251	235	243	227
Count	121	38	16	27
9. Mean number of research experiences	3.2	3.0	3.9	1.5
10. Mean number of abstracts, presentations, and publications	4.0	2.3	8.5	4.1

n/a: The measure either does not apply to, applies to only a small percentage of, or no reliable data were available for independent applicants.
Sources. Measures 1, 2, and match outcome from the NRMP Data Warehouse, measure 3 from the AAMC Organizational Characteristics Database and AAMC Enterprise Information Store (EIS), measure 4 and 5 from the AAMC Data Warehouse, measures 6, 9, 10 from the AAMC ERAS Data Warehouse, and measures 7 and 8 from the AAMC Data Warehouse and from the ECFMG both by permission of the NBME and ECFMG.
Note: Counts are provided for USMLE Step scores since they are the only measures with significant missing data.

Chart OTO-1

NUMBER OF CONTIGUOUS RANKS WITHIN PREFERRED SPECIALTY

Otolaryngology

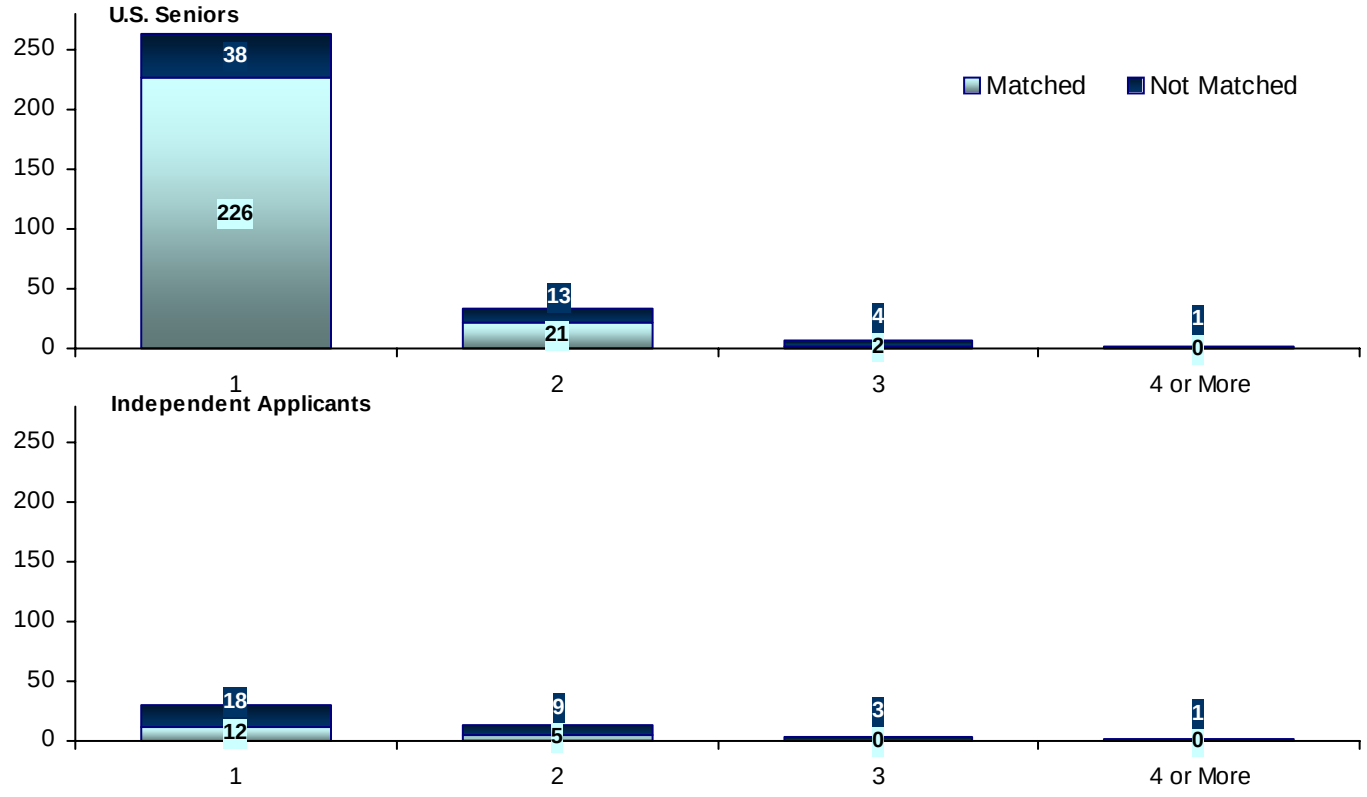


Source: NRMP Data Warehouse.

Chart OTO-2

NUMBER OF DISTINCT SPECIALTIES RANKED

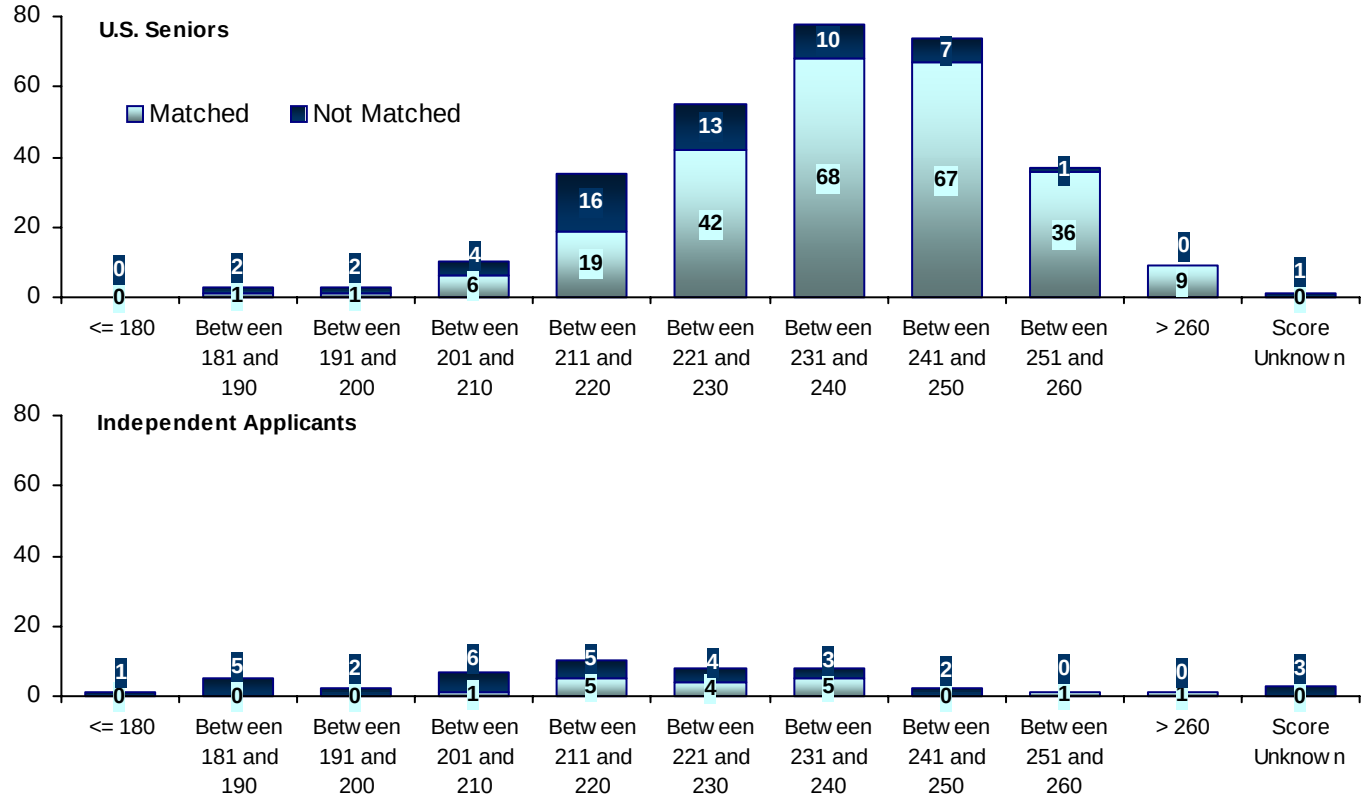
Otolaryngology



Source: NRMP Data Warehouse.

Chart OTO-3

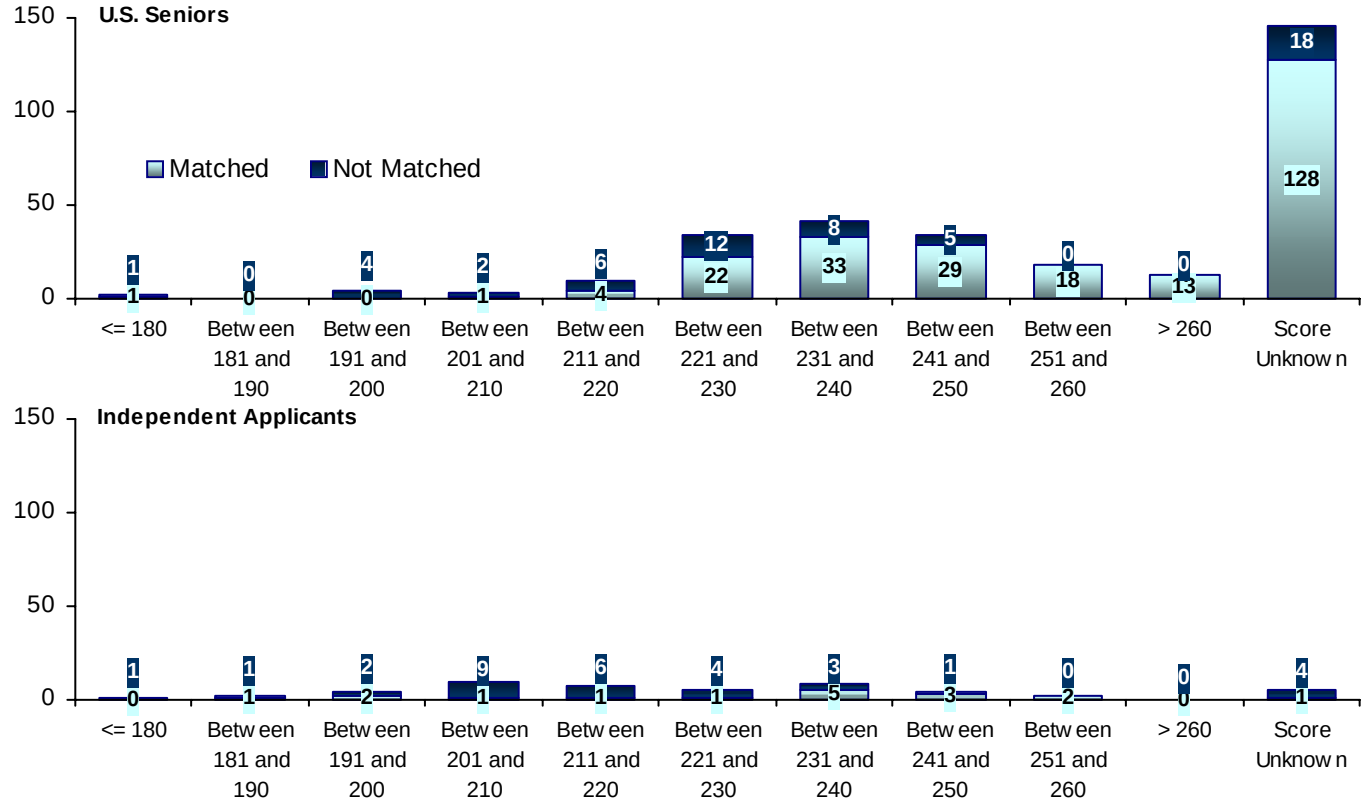
USMLE Step 1 Scores
Otolaryngology



Source: NRMP Data Warehouse and AAMC Data Warehouse. USMLE scores by permission of the NBME and *ECFMG*.

Chart OTO-4

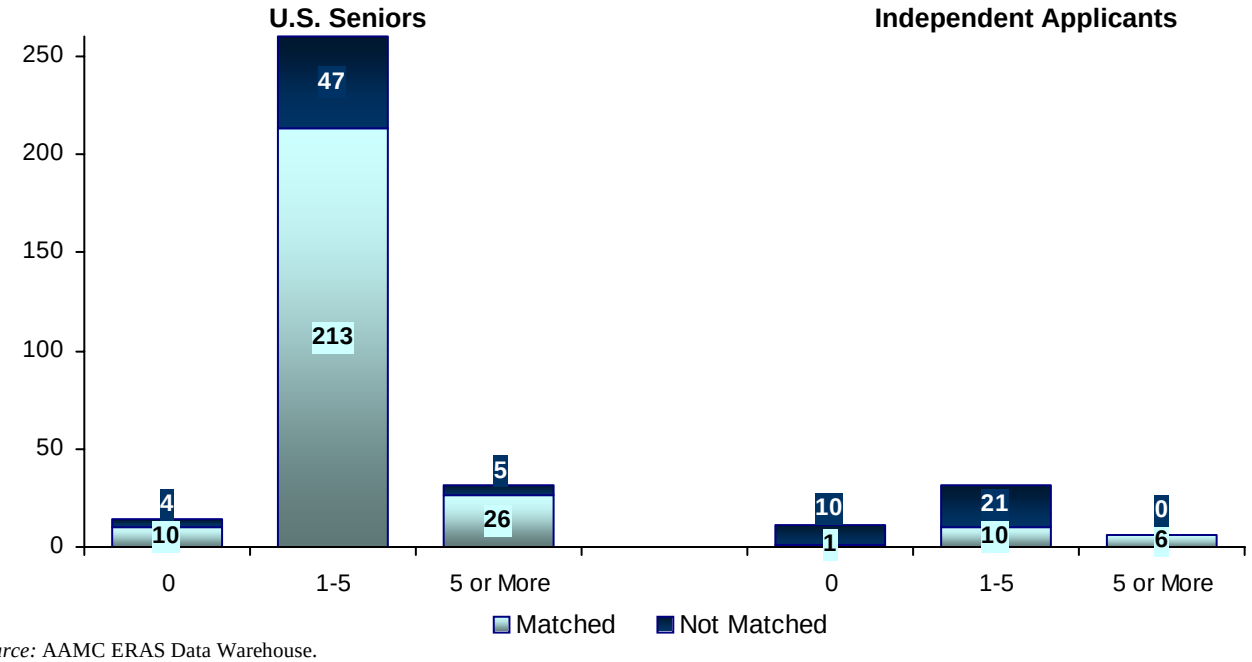
USMLE Step 2 Scores
Otolaryngology



Source: NRMP Data Warehouse and AAMC Data Warehouse. USMLE scores by permission of the NBME and *ECFMG*.

Chart OTO-5

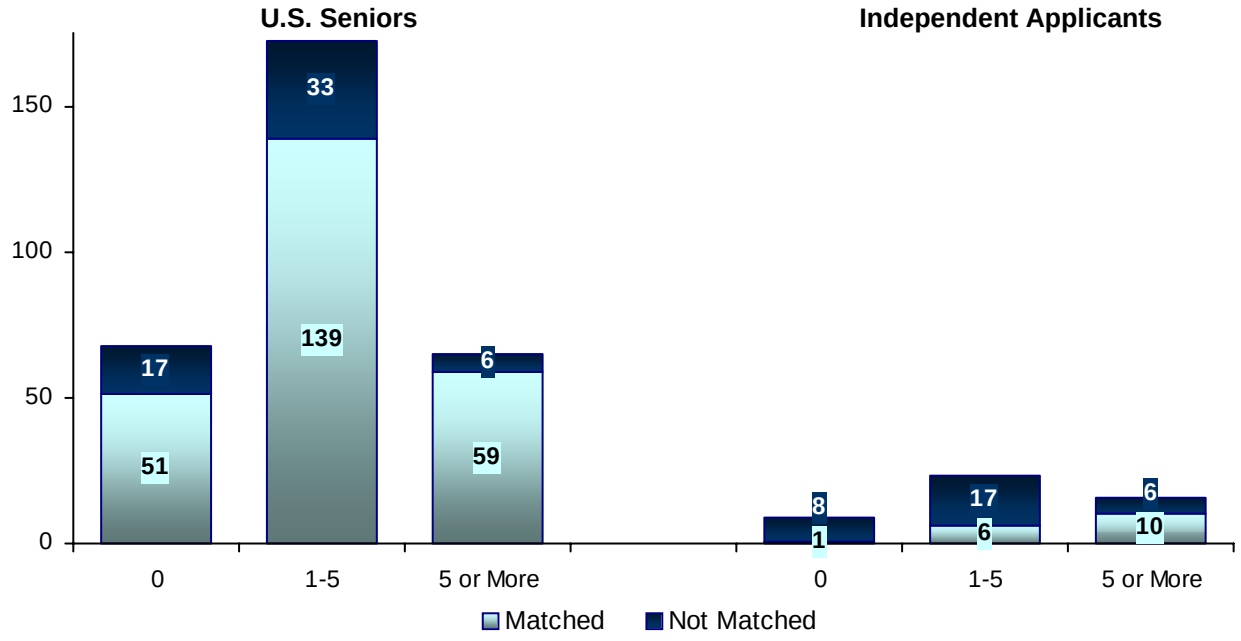
NUMBER OF RESEARCH PROJECTS
Otolaryngology



Source: AAMC ERAS Data Warehouse.

Chart OTO-6

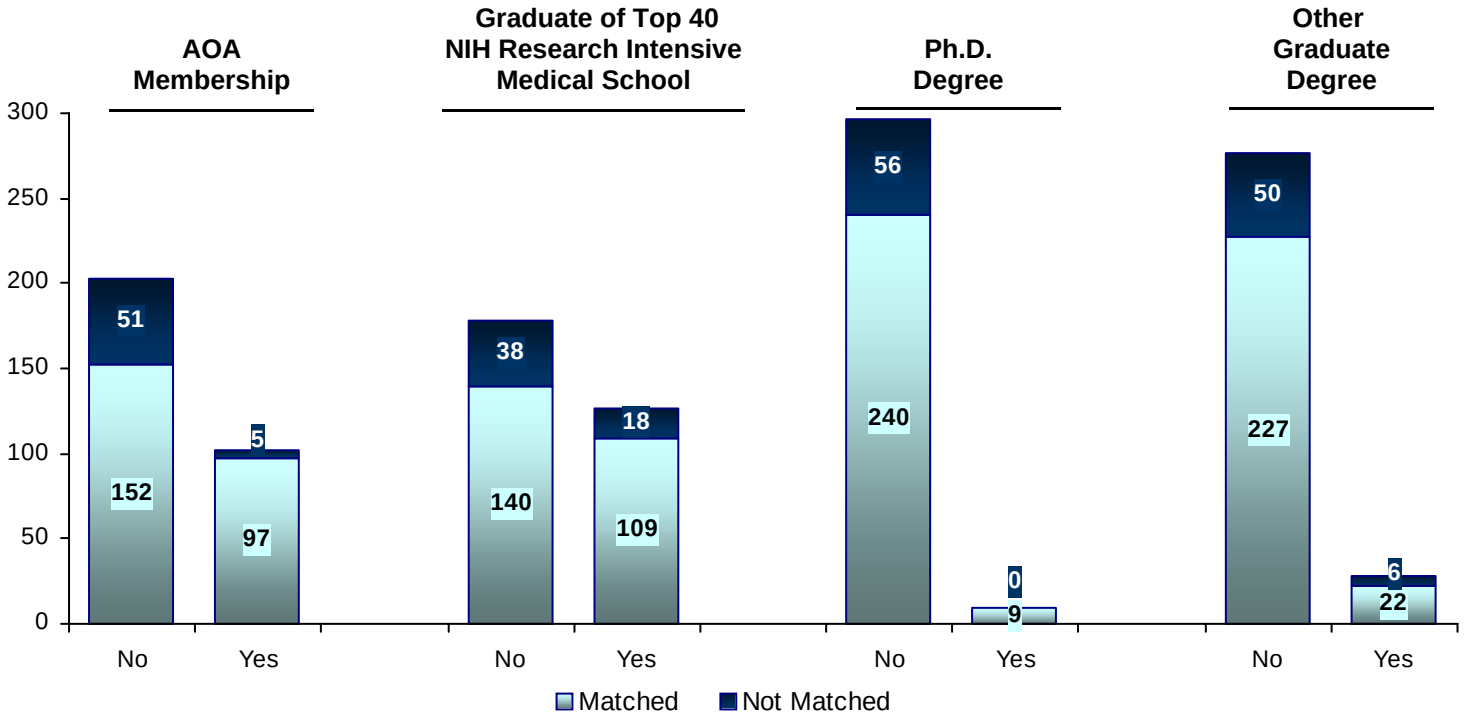
NUMBER OF ABSTRACTS, PRESENTATIONS, AND PUBLICATIONS
Otolaryngology



Source: AAMC ERAS Data Warehouse.

OTHER CHARACTERISTICS OF U.S. SENIORS

Otolaryngology



Sources. AOA membership from the AAMC ERAS Data Warehouse, Top 40 NIH Research Intensive Medical Schools from the AAMC Organizational Characteristics Database and AAMC Enterprise Information Store (EIS), Ph.D. and other graduate degrees from the AAMC Data Warehouse.

PTH PATHOLOGY-ANATOMIC AND CLINICAL

Table PTH-1

SUMMARY STATISTICS
Pathology-Anatomic and Clinical

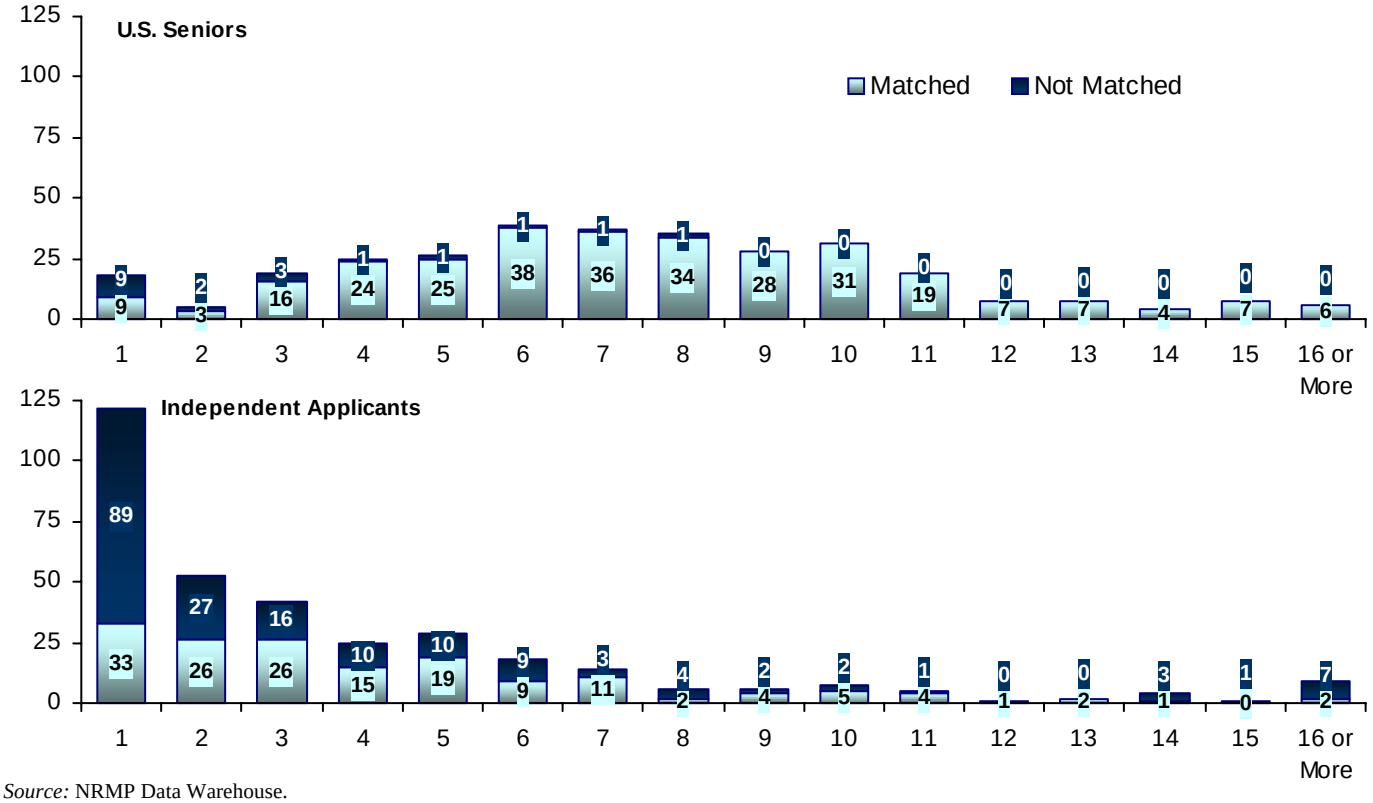
Measure	U.S. Seniors		Independent Applicants	
	Matched (n=294)	Did Not Match (n=19)	Matched (n=160)	Did Not Match (n=184)
1. Median number of contiguous ranks	7.0	2.0	3.0	2.0
2. Mean number of distinct specialties ranked	1.0	1.1	1.3	1.5
3. Percentage who graduated from top 40 NIH research medical school	37.8	10.5	n/a	n/a
4. Percentage who have a Ph.D. degree	15.3	10.5	n/a	n/a
5. Percentage who have another graduate degree	9.9	5.3	n/a	n/a
6. Percentage who are AOA members	11.9	0.0	n/a	n/a
7. USMLE Step 1 score				
Mean	223	207	217	210
Median	222	202	215	208
25th percentile	209	191	203	197
75th percentile	239	212	233	221
Count	292	19	131	173
8. USMLE Step 2 score				
Mean	226	202	216	205
Median	227	199	216	204
25th percentile	210	173	202	189
75th percentile	240	224	233	220
Count	194	16	131	174
9. Mean number of research experiences	2.0	1.5	1.7	1.8
10. Mean number of abstracts, presentations, and publications	2.8	1.7	4.8	7.5

n/a: The measure either does not apply to, applies to only a small percentage of, or no reliable data were available for independent applicants.
Sources. Measures 1, 2, and match outcome from the NRMP Data Warehouse, measure 3 from the AAMC Organizational Characteristics Database and AAMC Enterprise Information Store (EIS), measure 4 and 5 from the AAMC Data Warehouse, measures 6, 9, 10 from the AAMC ERAS Data Warehouse, and measures 7 and 8 from the AAMC Data Warehouse and from the ECFMG both by permission of the NBME and ECFMG.
Note: Counts are provided for USMLE Step scores since they are the only measures with significant missing data.

Chart PTH-1

NUMBER OF CONTIGUOUS RANKS WITHIN PREFERRED SPECIALTY

Pathology-Anatomic and Clinical

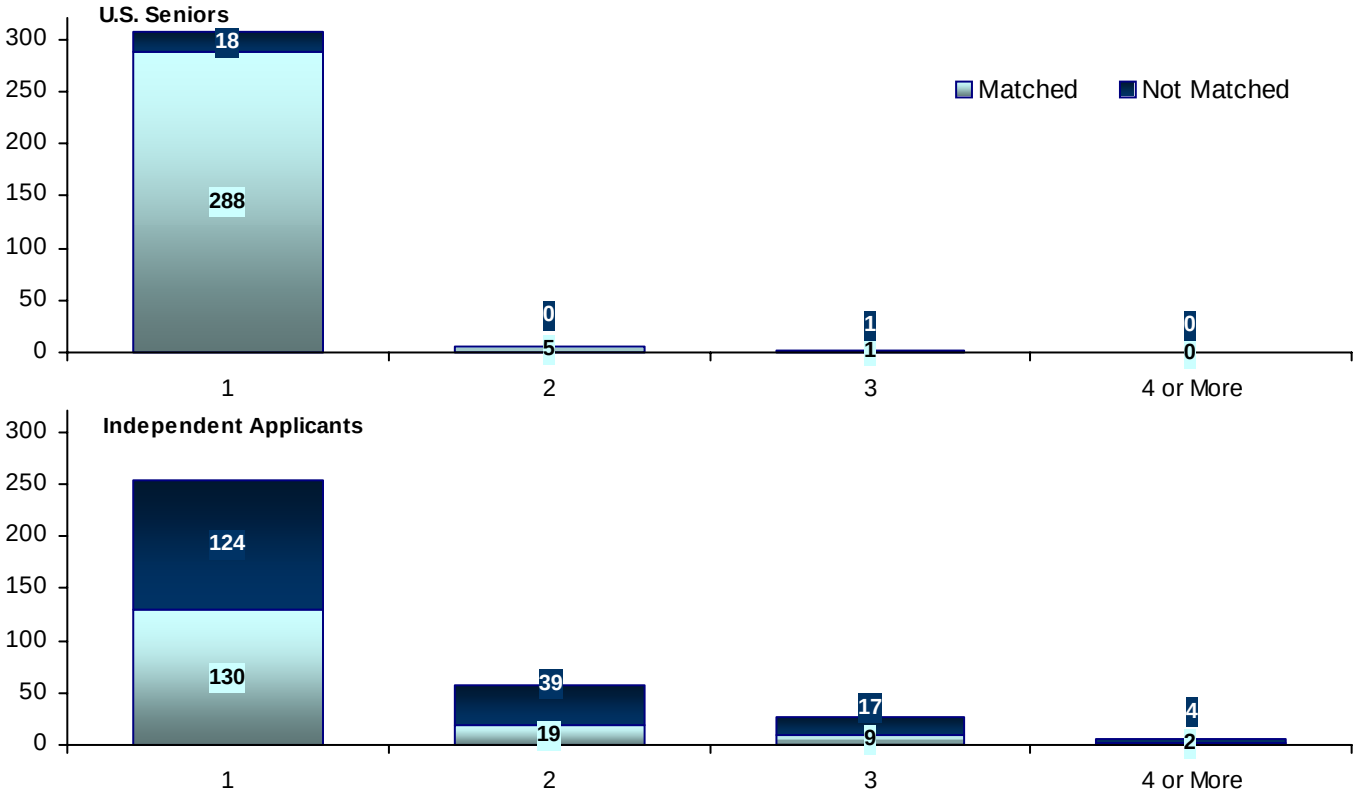


Source: NRMP Data Warehouse.

Chart PTH-2

NUMBER OF DISTINCT SPECIALTIES RANKED

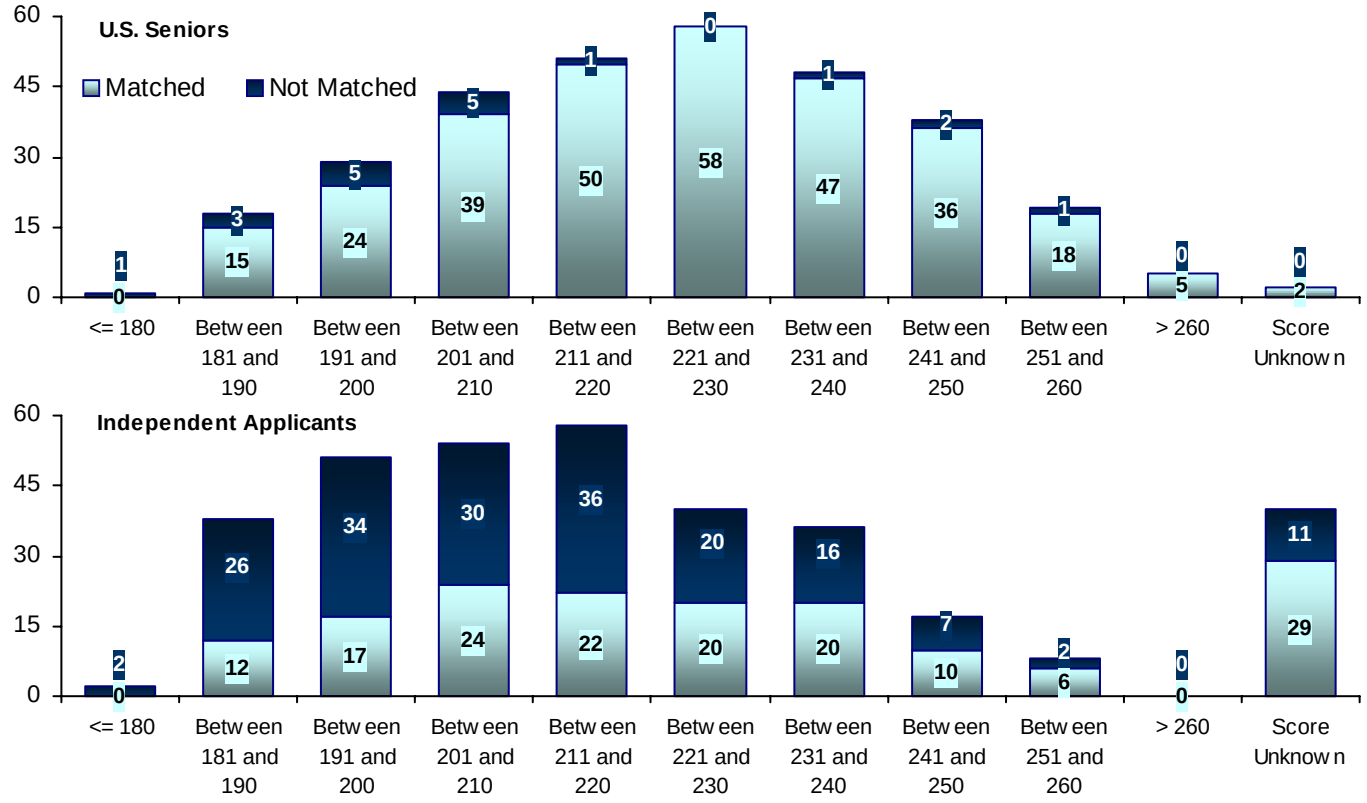
Pathology-Anatomic and Clinical



Source: NRMP Data Warehouse.

Chart PTH-3

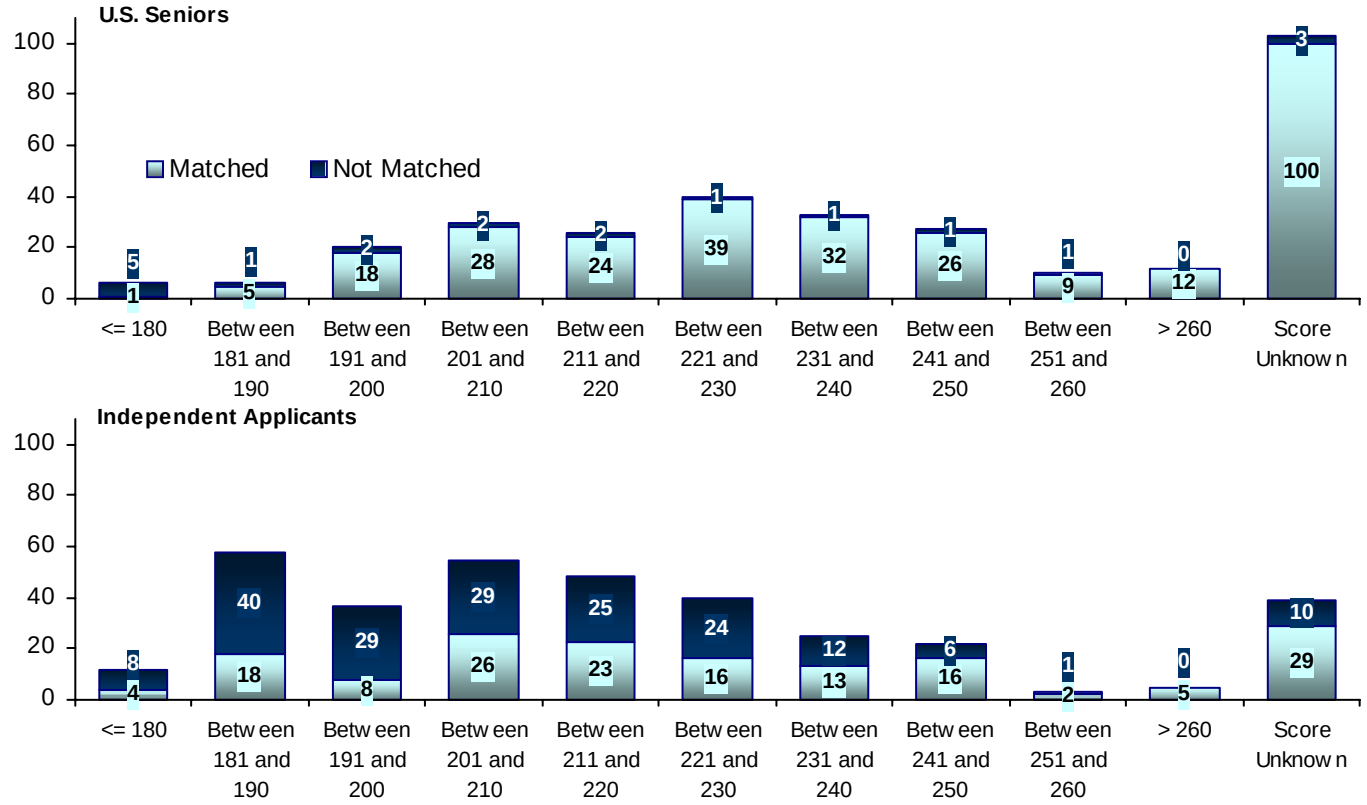
USMLE STEP 1 SCORES
Pathology-Anatomic and Clinical



Source: NRMP Data Warehouse and AAMC Data Warehouse. USMLE scores by permission of the NBME and *ECFMG*.

Chart PTH-4

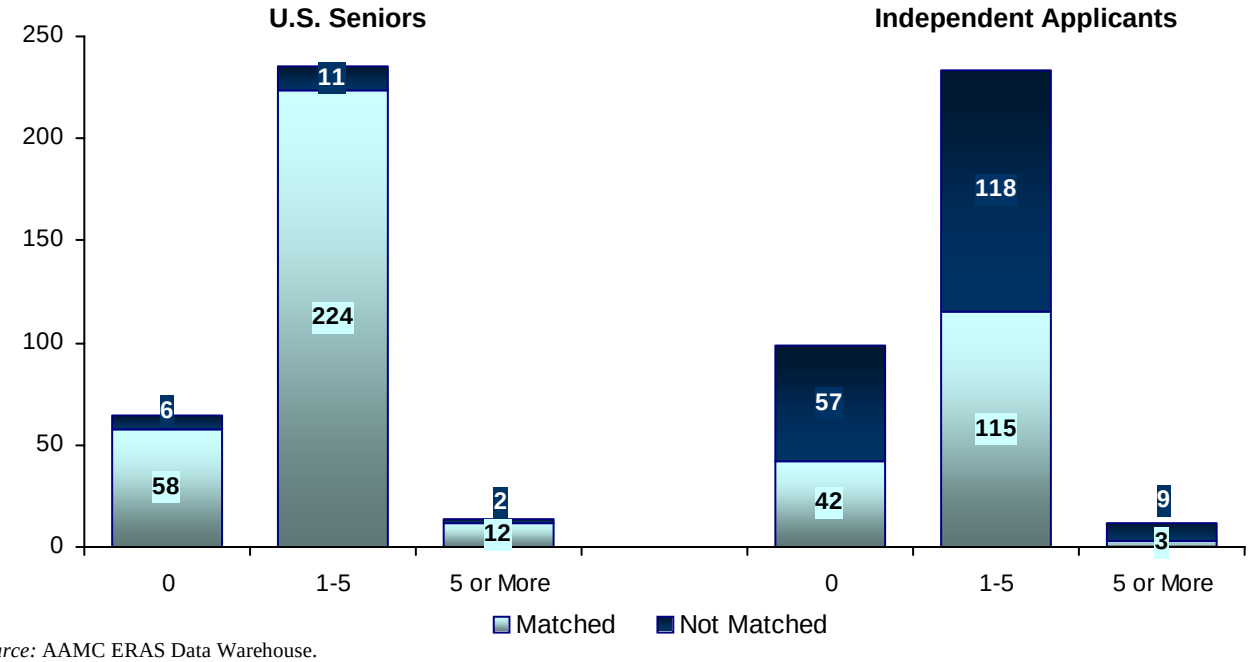
USMLE STEP 2 SCORES
Pathology-Anatomic and Clinical



Source: NRMP Data Warehouse and AAMC Data Warehouse. USMLE scores by permission of the NBME and *ECFMG*.

Chart PTH-5

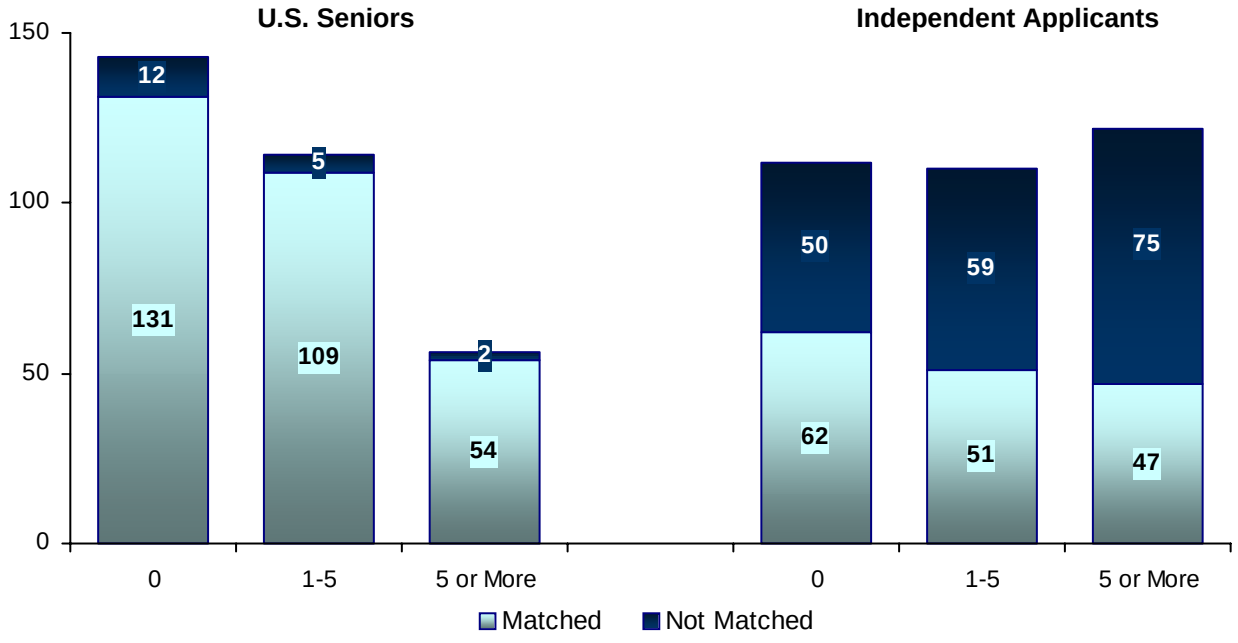
NUMBER OF RESEARCH PROJECTS
Pathology-Anatomic and Clinical



Source: AAMC ERAS Data Warehouse.

Chart PTH-6

NUMBER OF ABSTRACTS, PRESENTATIONS, AND PUBLICATIONS
Pathology-Anatomic and Clinical

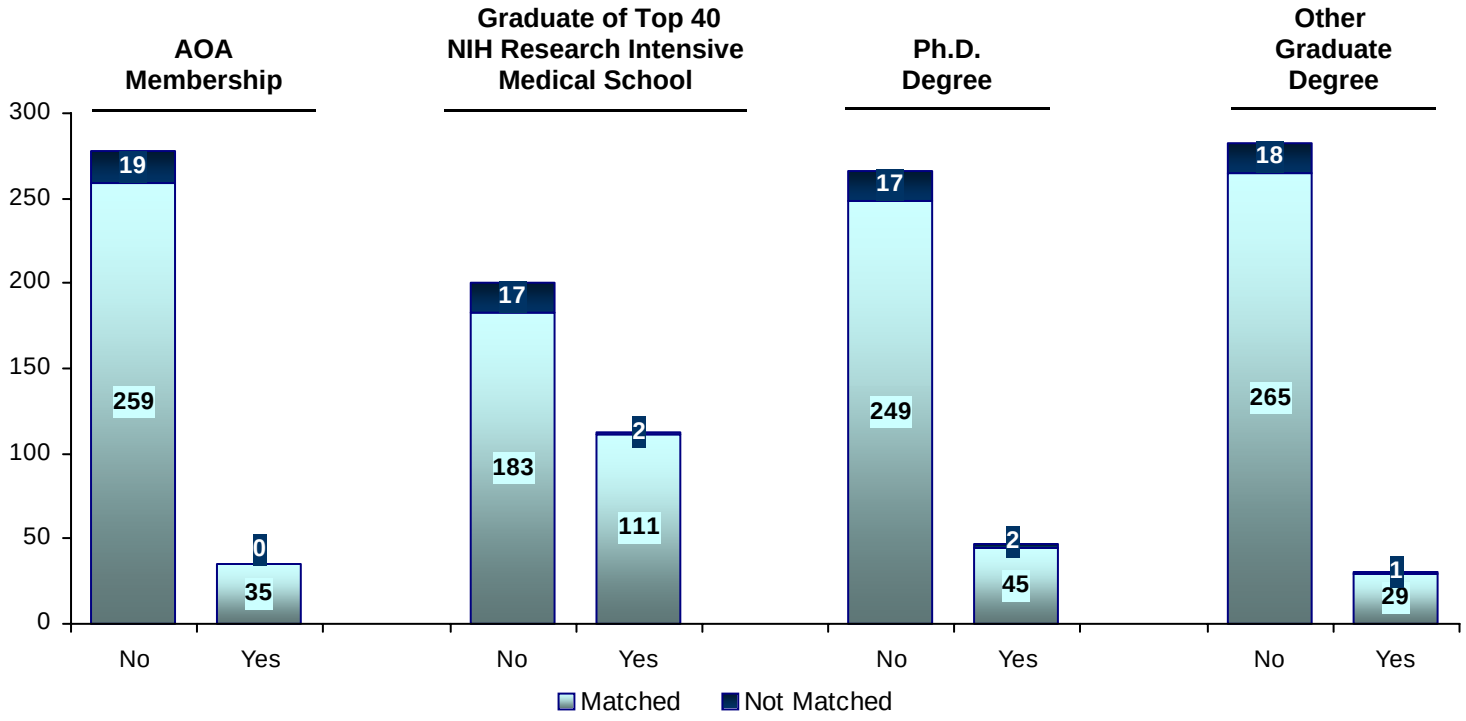


Source: AAMC ERAS Data Warehouse.

Chart PTH-7

OTHER CHARACTERISTICS OF U.S. SENIORS

Pathology-Anatomic and Clinical



Sources. AOA membership from the AAMC ERAS Data Warehouse, Top 40 NIH Research Intensive Medical Schools from the AAMC Organizational Characteristics Database and AAMC Enterprise Information Store (EIS), Ph.D. and other graduate degrees from the AAMC Data Warehouse.

PD PEDIATRICS

Table PD-1

SUMMARY STATISTICS
Pediatrics

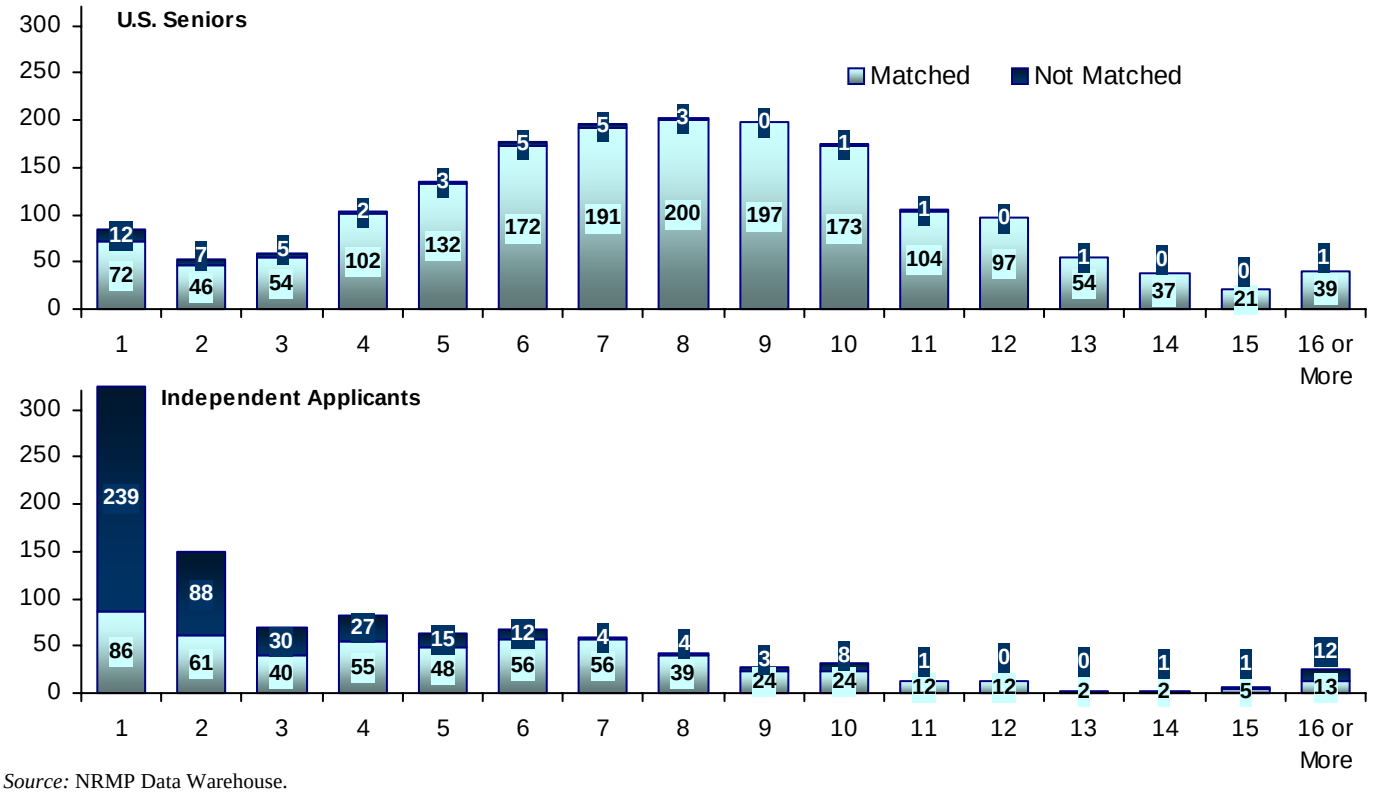
Measure	U.S. Seniors		Independent Applicants	
	Matched (n=1,691)	Did Not Match (n=46)	Matched (n=535)	Did Not Match (n=445)
1. Median number of contiguous ranks	8.0	3.0	5.0	1.0
2. Mean number of distinct specialties ranked	1.0	1.1	1.3	1.5
3. Percentage who graduated from top 40 NIH research medical school	35.4	23.9	n/a	n/a
4. Percentage who have a Ph.D. degree	3.4	8.7	n/a	n/a
5. Percentage who have another graduate degree	8.3	15.2	n/a	n/a
6. Percentage who are AOA members	11.6	0.0	n/a	n/a
7. USMLE Step 1 score				
Mean	217	200	211	201
Median	217	194	209	198
25th percentile	203	186	195	189
75th percentile	231	214	223	211
Count	1,686	46	411	419
8. USMLE Step 2 score				
Mean	225	198	217	202
Median	226	205	215	200
25th percentile	210	176	201	189
75th percentile	240	221	231	214
Count	1,274	31	403	416
9. Mean number of research experiences	1.7	1.7	1.2	0.9
10. Mean number of abstracts, presentations, and publications	1.7	3.1	1.9	1.8

n/a: The measure either does not apply to, applies to only a small percentage of, or no reliable data were available for independent applicants.
Sources. Measures 1, 2, and match outcome from the NRMP Data Warehouse, measure 3 from the AAMC Organizational Characteristics Database and AAMC Enterprise Information Store (EIS), measure 4 and 5 from the AAMC Data Warehouse, measures 6, 9, 10 from the AAMC ERAS Data Warehouse, and measures 7 and 8 from the AAMC Data Warehouse and from the ECFMG both by permission of the NBME and ECFMG.
Note: Counts are provided for USMLE Step scores since they are the only measures with significant missing data.

Chart PD-1

NUMBER OF CONTIGUOUS RANKS WITHIN PREFERRED SPECIALTY

Pediatrics

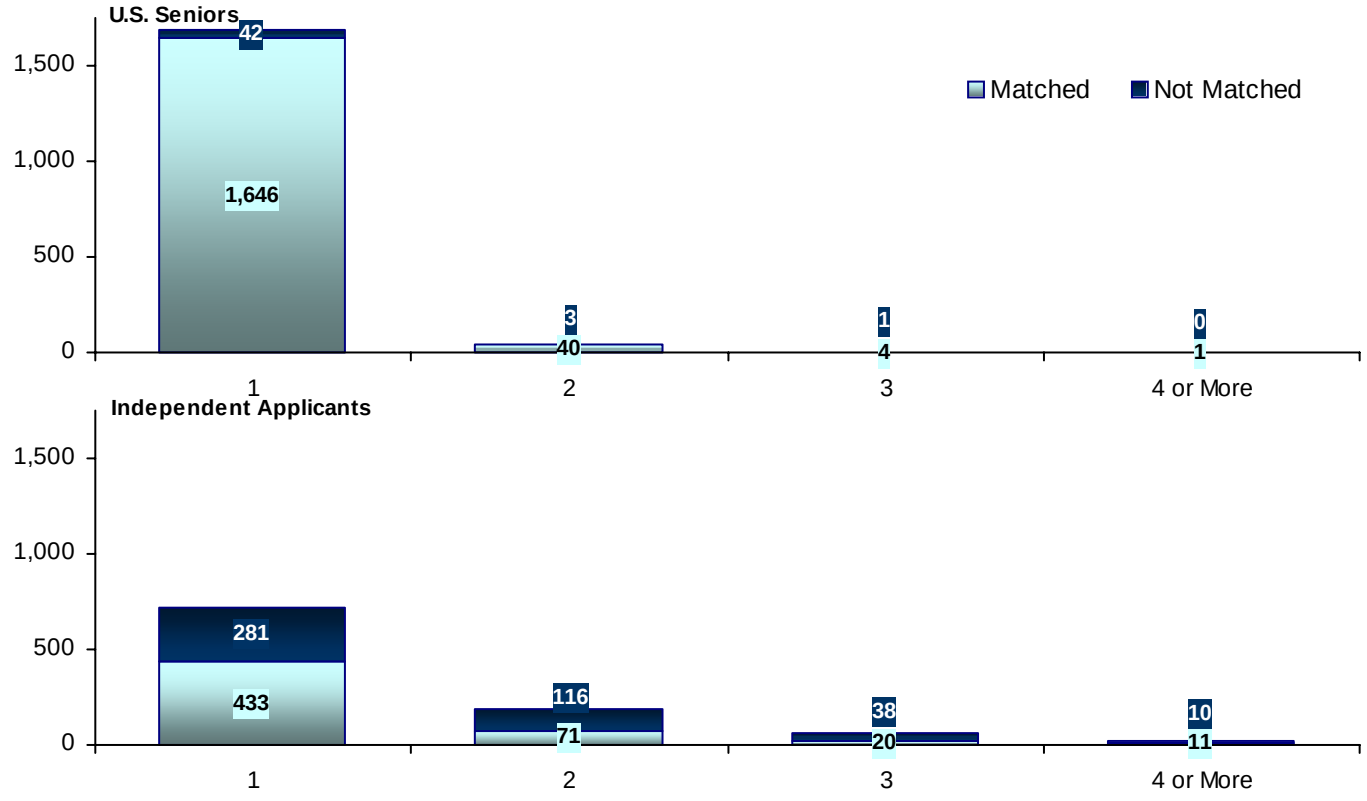


Source: NRMP Data Warehouse.

Chart PD-2

NUMBER OF DISTINCT SPECIALTIES RANKED

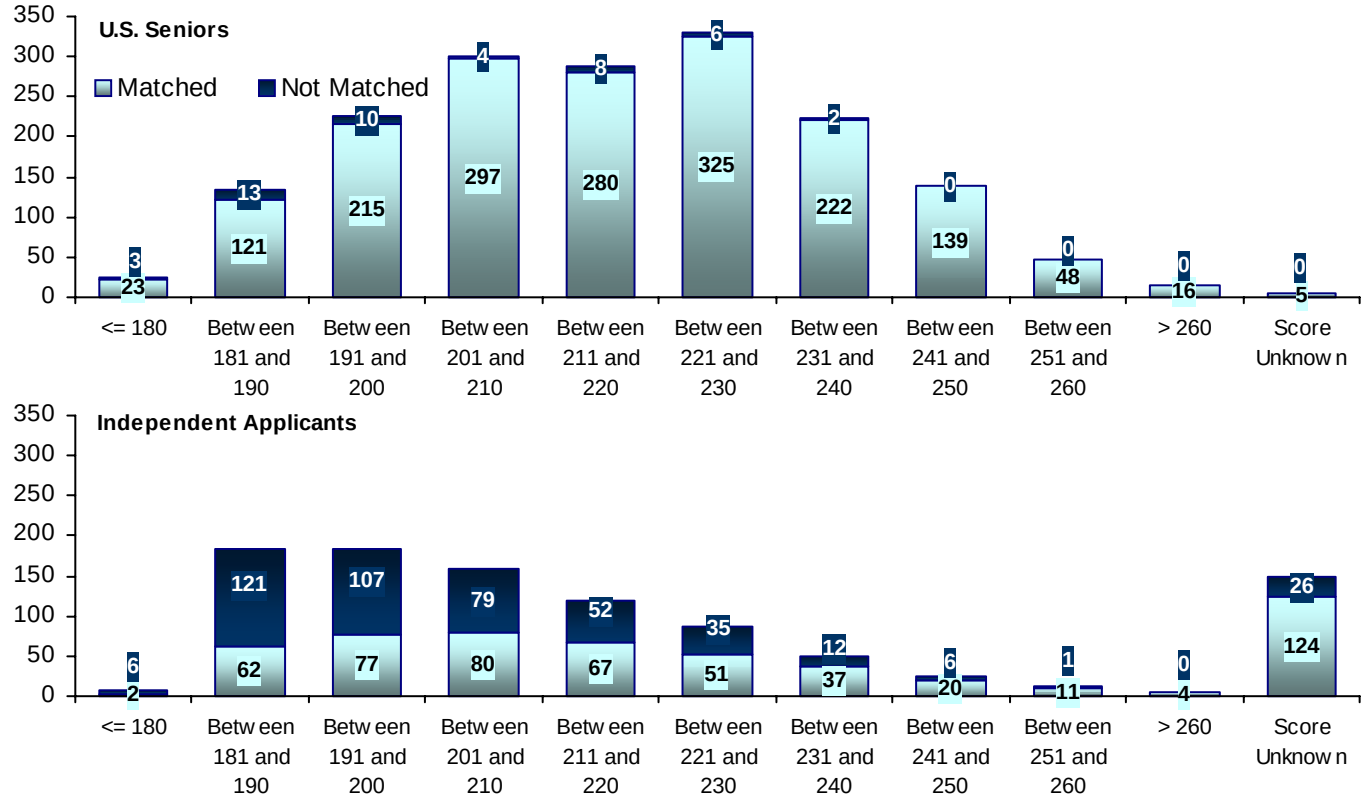
Pediatrics



Source: NRMP Data Warehouse.

Chart PD-3

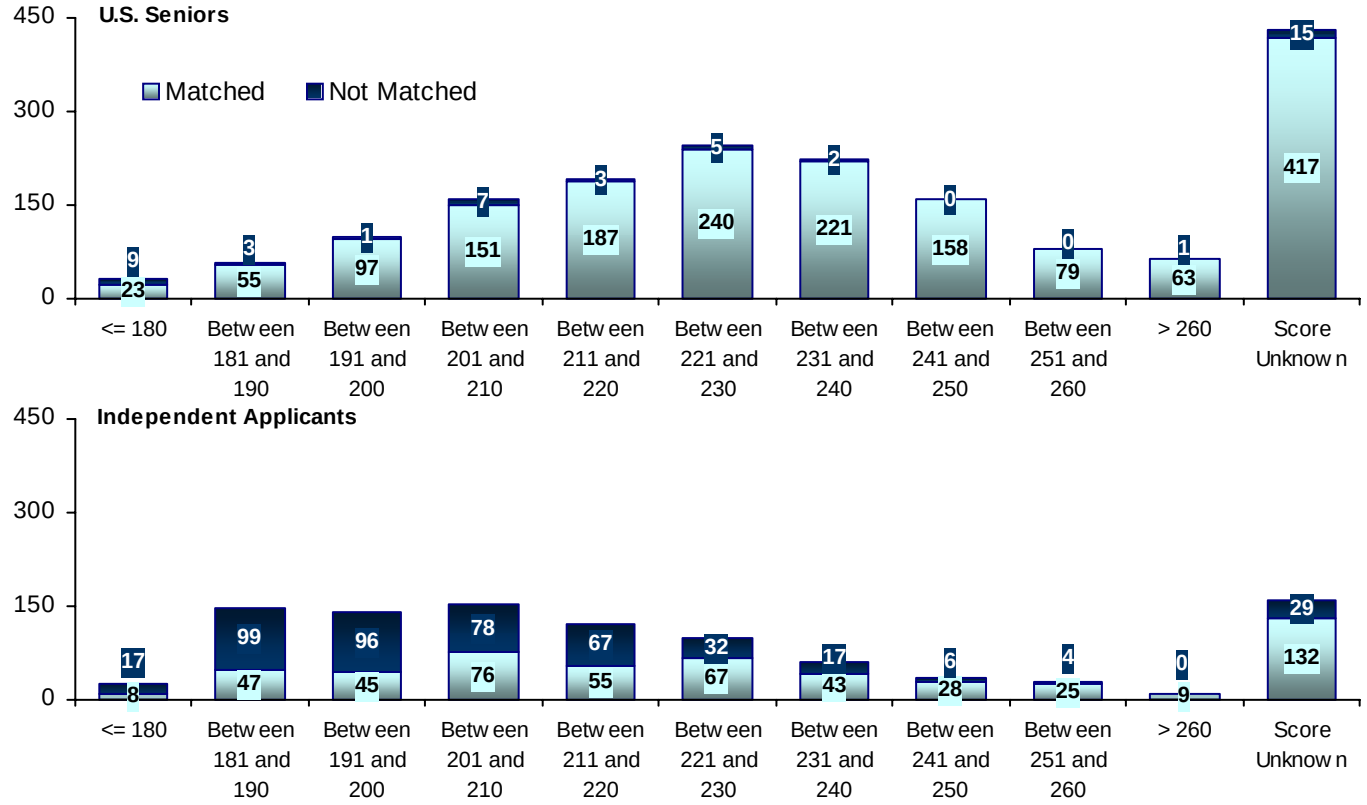
USMLE Step 1 Scores
Pediatrics



Source: NRMP Data Warehouse and AAMC Data Warehouse. USMLE scores by permission of the NBME and *ECFMG*.

Chart PD-4

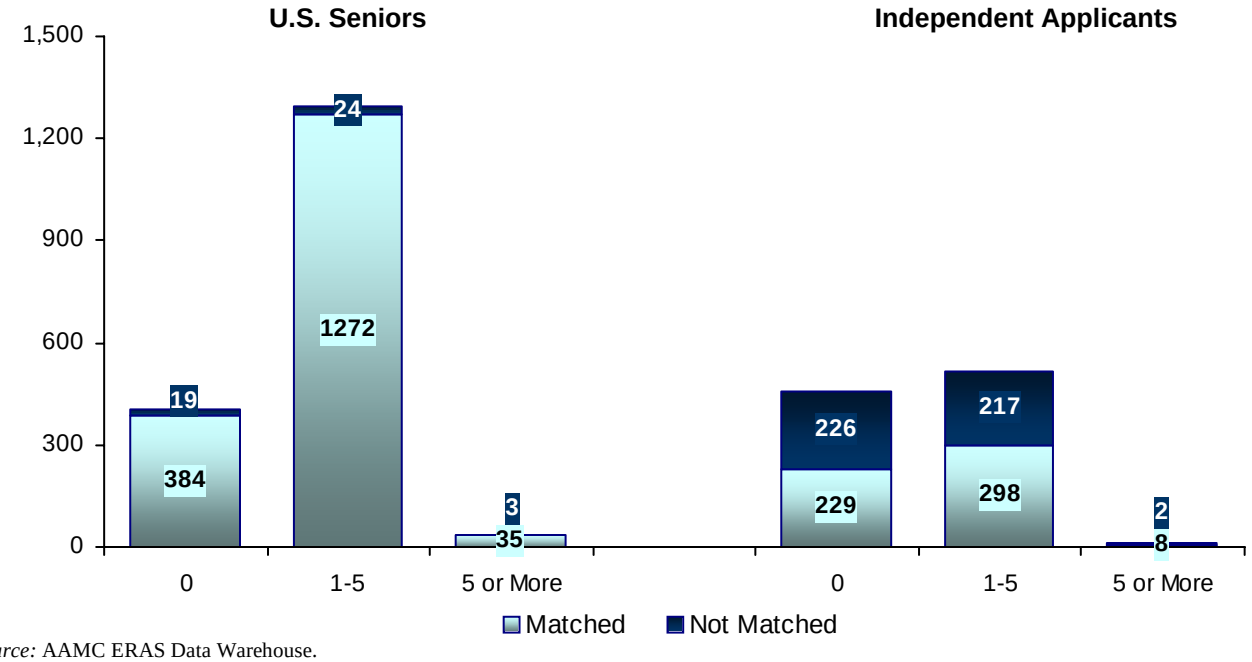
USMLE Step 2 Scores
Pediatrics



Source: NRMP Data Warehouse and AAMC Data Warehouse. USMLE scores by permission of the NBME and *ECFMG*.

Chart PD-5

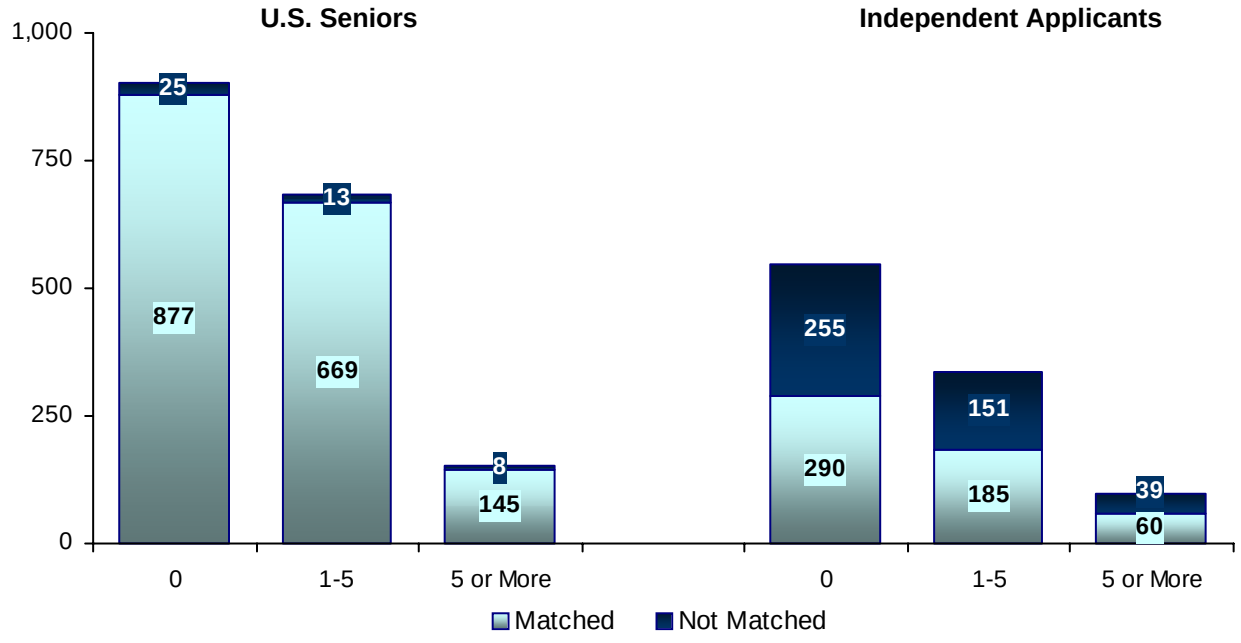
NUMBER OF RESEARCH PROJECTS
Pediatrics



Source: AAMC ERAS Data Warehouse.

Chart PD-6

NUMBER OF ABSTRACTS, PRESENTATIONS, AND PUBLICATIONS
Pediatrics

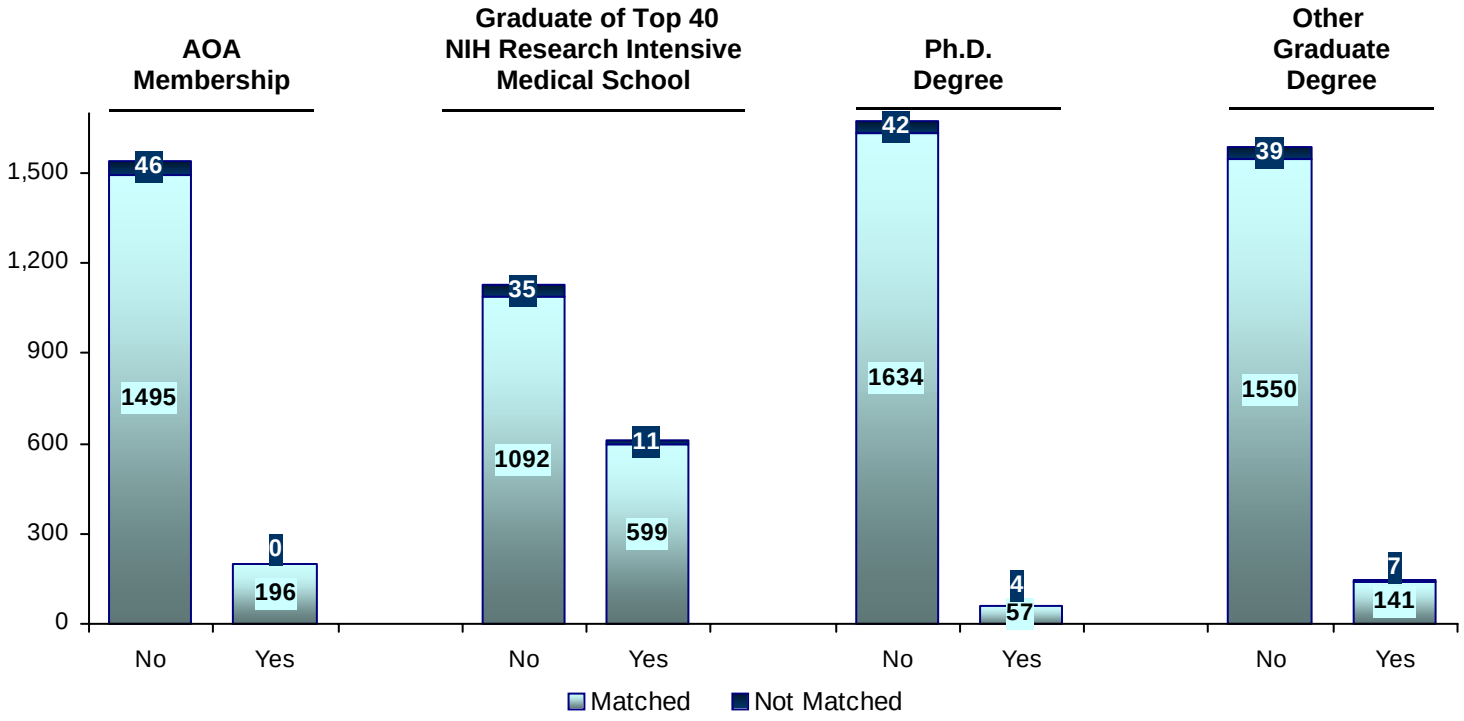


Source: AAMC ERAS Data Warehouse.

Chart PD-7

OTHER CHARACTERISTICS OF U.S. SENIORS

Pediatrics



Sources. AOA membership from the AAMC ERAS Data Warehouse, Top 40 NIH Research Intensive Medical Schools from the AAMC Organizational Characteristics Database and AAMC Enterprise Information Store (EIS), Ph.D. and other graduate degrees from the AAMC Data Warehouse.

PM PHYSICAL MEDICINE AND REHABILITATION

Table PM-1

SUMMARY STATISTICS
Physical Medicine and Rehabilitation

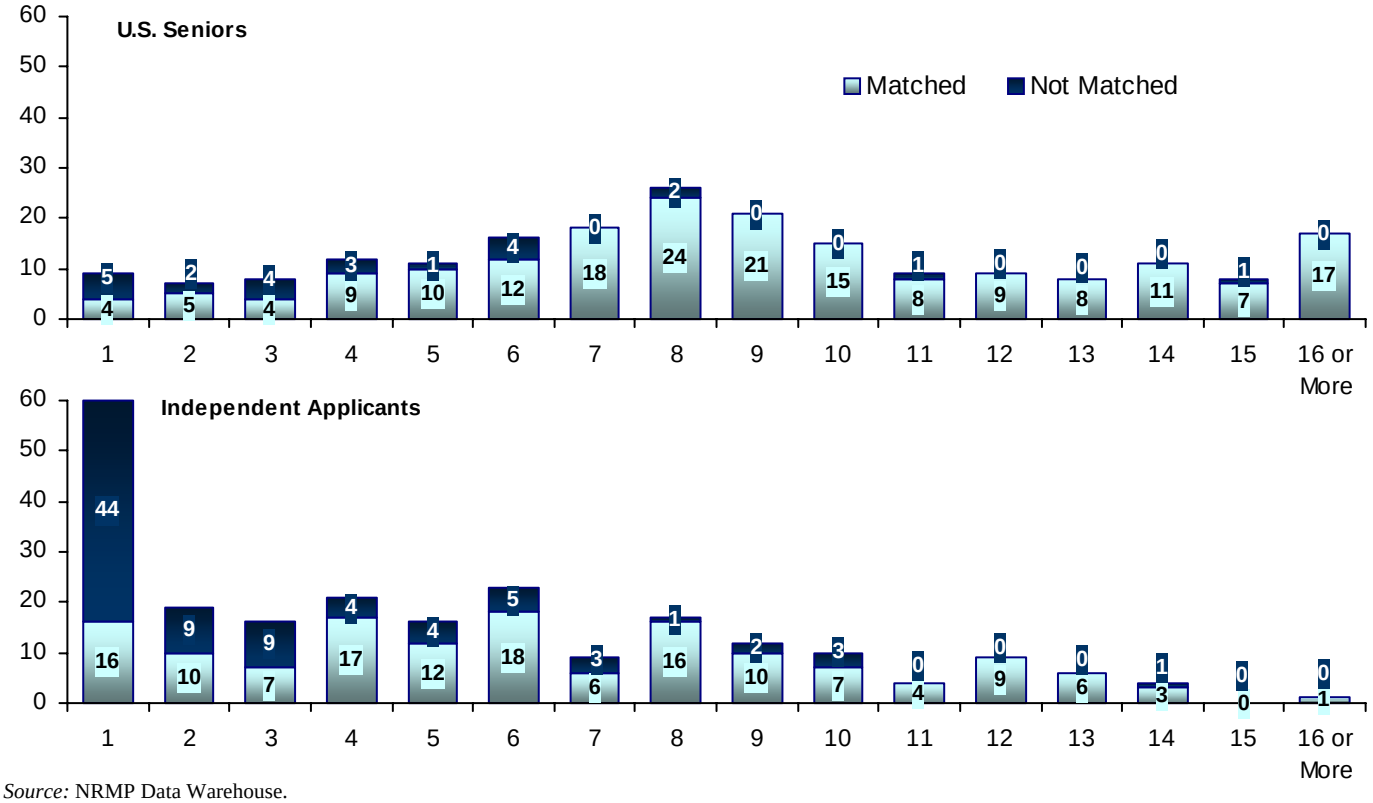
Measure	U.S. Seniors		Independent Applicants	
	Matched (n=182)	Did Not Match (n=23)	Matched (n=142)	Did Not Match (n=85)
1. Median number of contiguous ranks	9.0	4.0	6.0	1.0
2. Mean number of distinct specialties ranked	1.3	1.7	1.3	1.5
3. Percentage who graduated from top 40 NIH research medical school	26.9	13.0	n/a	n/a
4. Percentage who have a Ph.D. degree	2.2	0.0	n/a	n/a
5. Percentage who have another graduate degree	11.5	13.0	n/a	n/a
6. Percentage who are AOA members	5.5	0.0	n/a	n/a
7. USMLE Step 1 score				
Mean	209	193	208	200
Median	208	194	208	198
25th percentile	195	183	192	189
75th percentile	222	209	219	210
Count	182	23	68	59
8. USMLE Step 2 score				
Mean	214	188	210	194
Median	214	186	209	194
25th percentile	200	174	195	184
75th percentile	232	205	224	201
Count	142	17	67	59
9. Mean number of research experiences	1.6	1.0	1.1	1.1
10. Mean number of abstracts, presentations, and publications	1.3	0.6	1.4	2.0

n/a: The measure either does not apply to, applies to only a small percentage of, or no reliable data were available for independent applicants.
Sources. Measures 1, 2, and match outcome from the NRMP Data Warehouse, measure 3 from the AAMC Organizational Characteristics Database and AAMC Enterprise Information Store (EIS), measure 4 and 5 from the AAMC Data Warehouse, measures 6, 9, 10 from the AAMC ERAS Data Warehouse, and measures 7 and 8 from the AAMC Data Warehouse and from the ECFMG both by permission of the NBME and ECFMG.
Note: Counts are provided for USMLE Step scores since they are the only measures with significant missing data.

Chart PM-1

NUMBER OF CONTIGUOUS RANKS WITHIN PREFERRED SPECIALTY

Physical Medicine and Rehabilitation

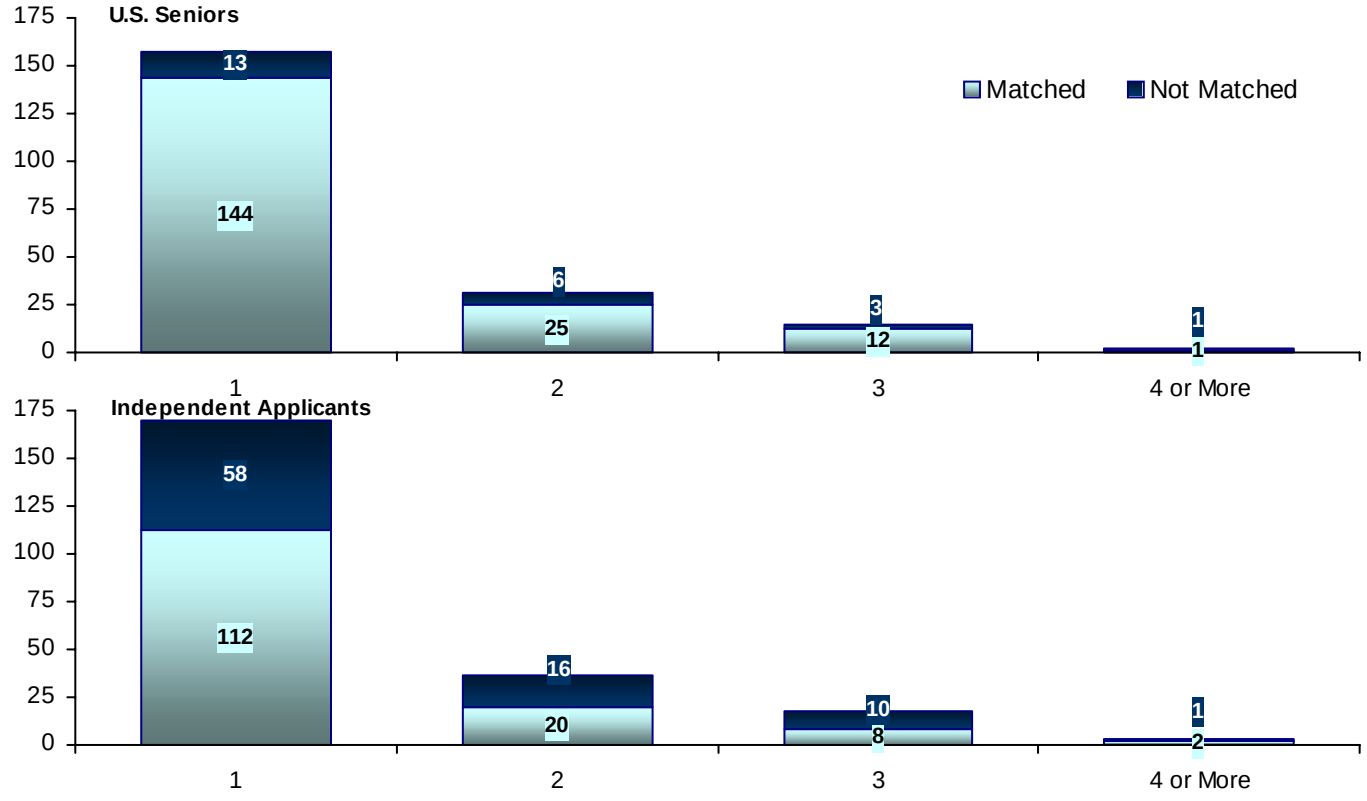


Source: NRMP Data Warehouse.

Chart PM-2

NUMBER OF DISTINCT SPECIALTIES RANKED

Physical Medicine and Rehabilitation

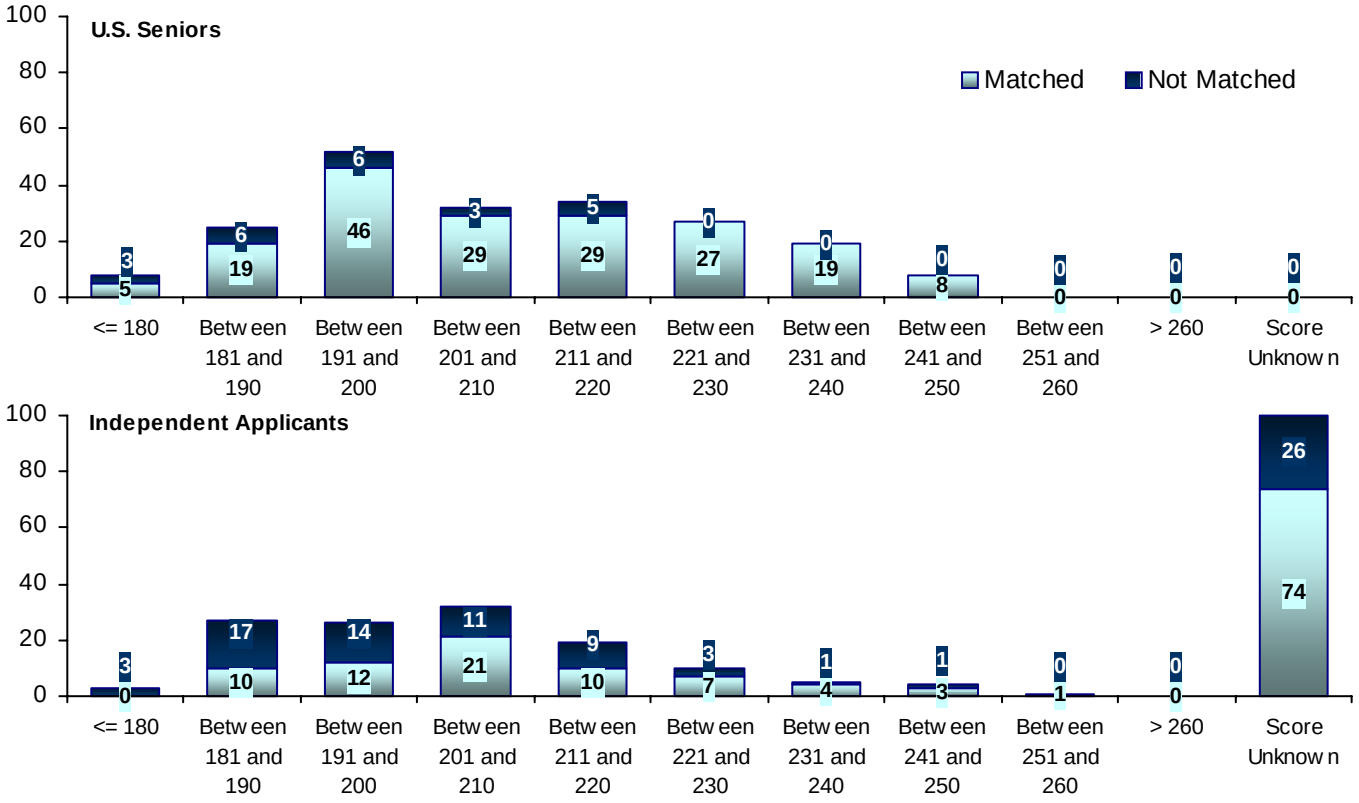


Source: NRMP Data Warehouse.

Chart PM-3

USMLE Step 1 Scores

Physical Medicine and Rehabilitation

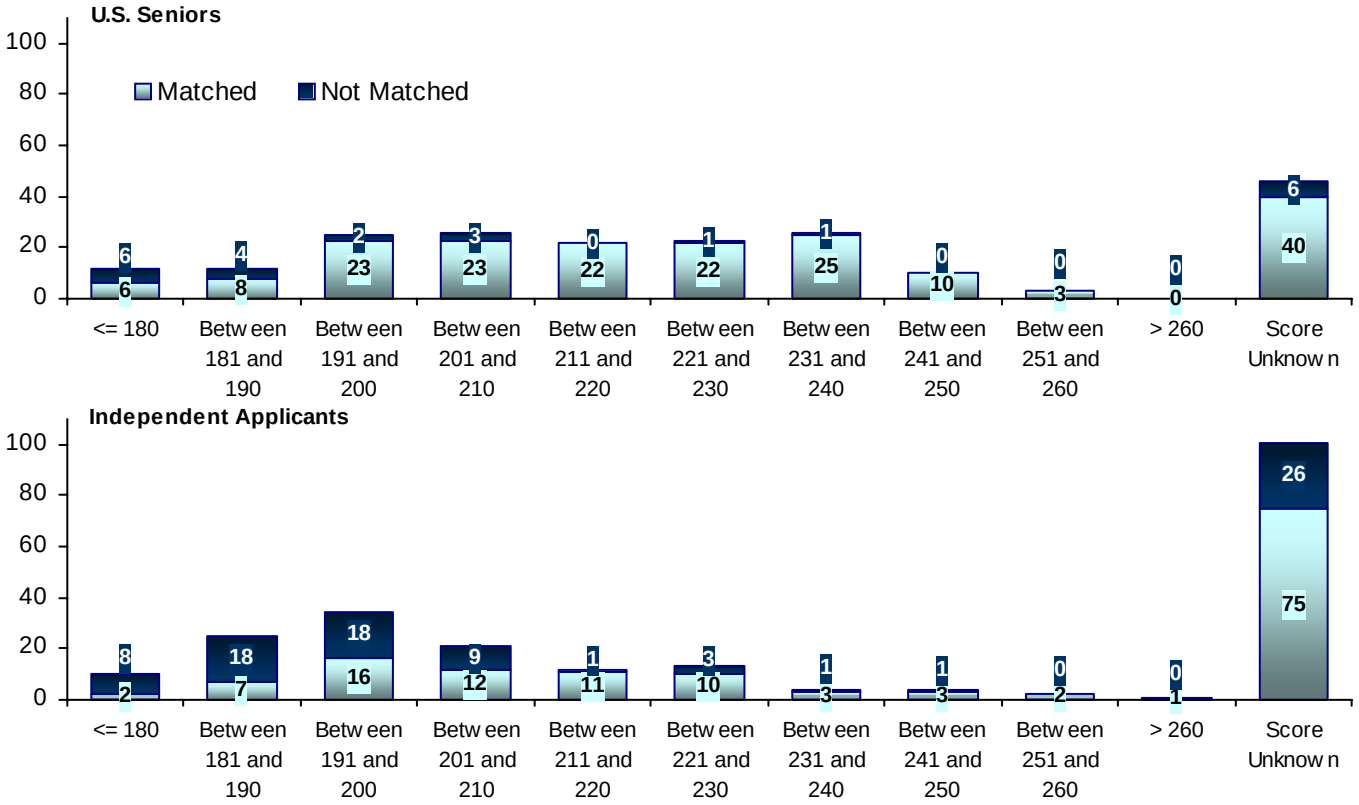


Source: NRMP Data Warehouse and AAMC Data Warehouse. USMLE scores by permission of the NBME and *ECFMG*.

Chart PM-4

USMLE Step 2 Scores

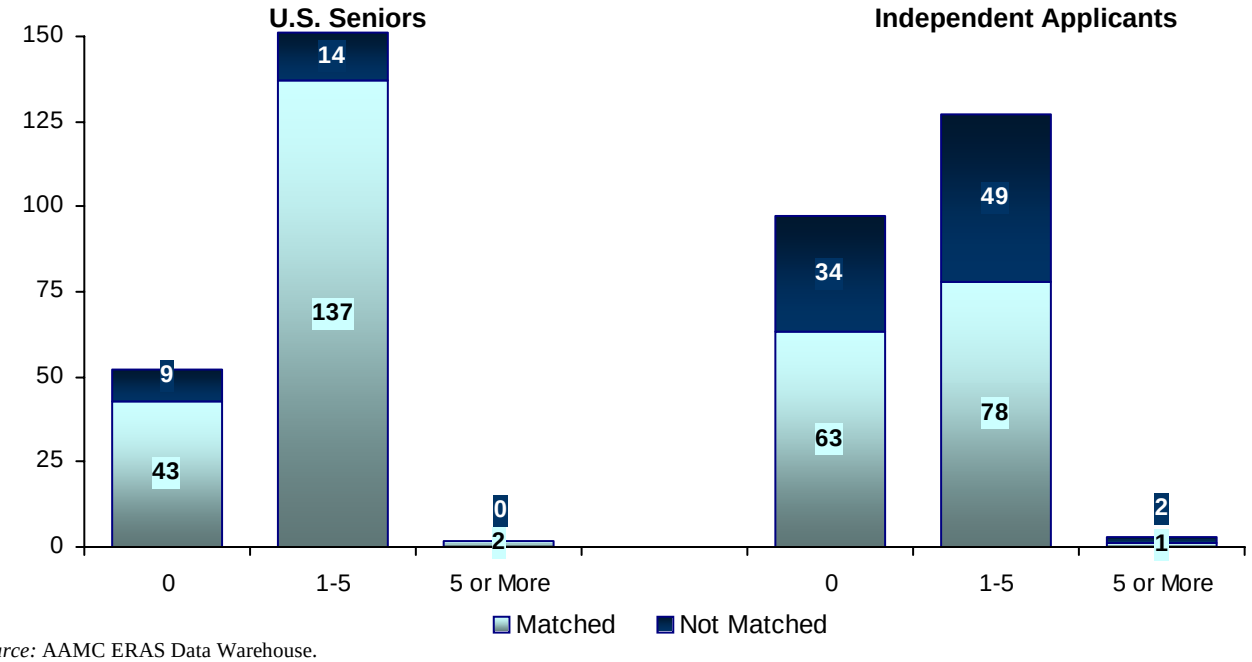
Physical Medicine and Rehabilitation



Source: NRMP Data Warehouse and AAMC Data Warehouse. USMLE scores by permission of the NBME and *ECFMG*.

Chart PM-5

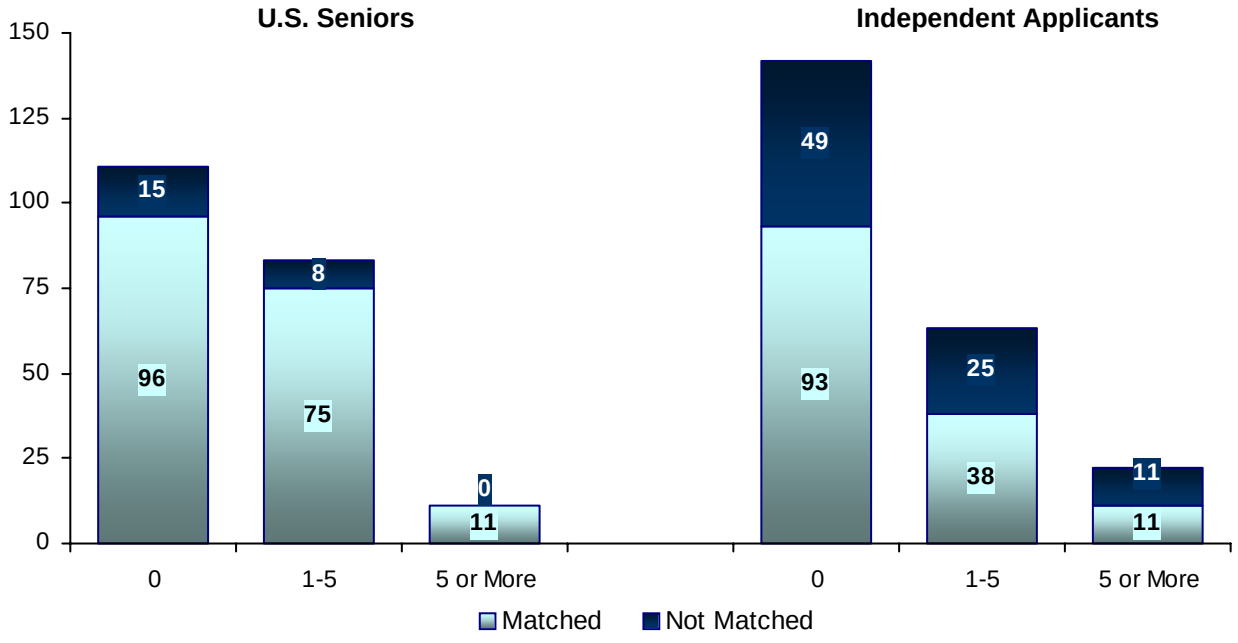
NUMBER OF RESEARCH PROJECTS
Physical Medicine and Rehabilitation



Source: AAMC ERAS Data Warehouse.

Chart PM-6

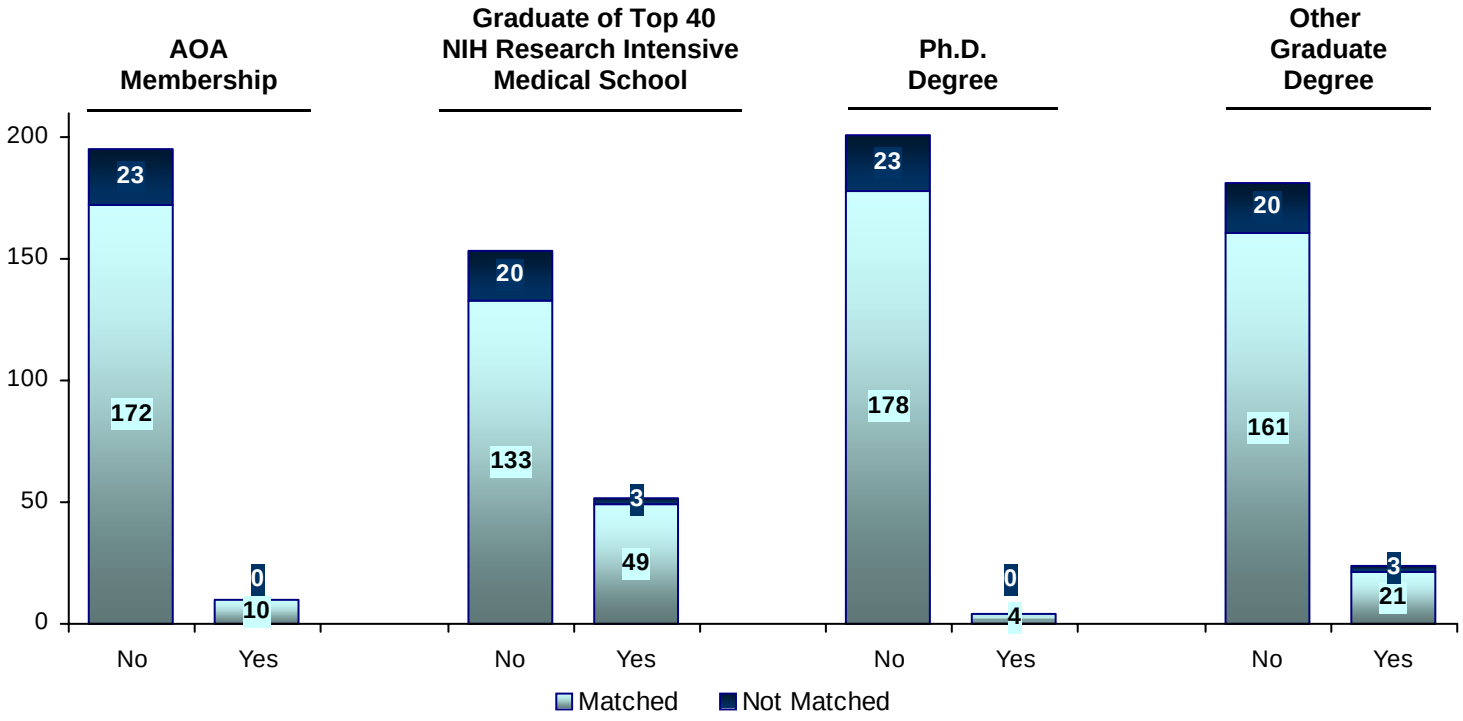
NUMBER OF ABSTRACTS, PRESENTATIONS, AND PUBLICATIONS
Physical Medicine and Rehabilitation



Source: AAMC ERAS Data Warehouse.

OTHER CHARACTERISTICS OF U.S. SENIORS

Physical Medicine and Rehabilitation



Sources. AOA membership from the AAMC ERAS Data Warehouse, Top 40 NIH Research Intensive Medical Schools from the AAMC Organizational Characteristics Database and AAMC Enterprise Information Store (EIS), Ph.D. and other graduate degrees from the AAMC Data Warehouse.

PS PLASTIC SURGERY

Table PS-1

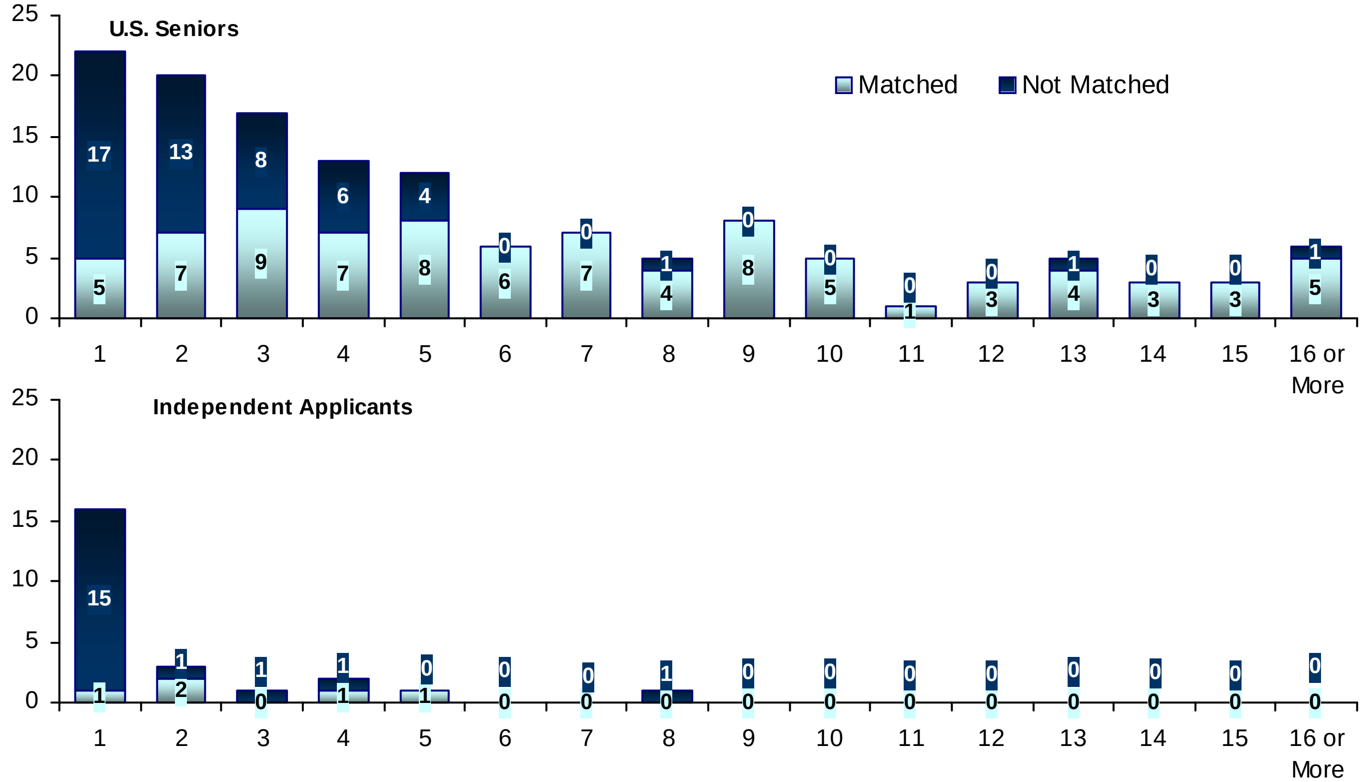
SUMMARY STATISTICS
Plastic Surgery

Measure	U.S. Seniors		Independent Applicants	
	Matched (n=85)	Did Not Match (n=51)	Matched (n=5)	Did Not Match (n=19)
1. Median number of contiguous ranks	7.0	2.0	2.0	1.0
2. Mean number of distinct specialties ranked	1.7	1.9	1.4	1.9
3. Percentage who graduated from top 40 NIH research medical school	60.0	52.9	n/a	n/a
4. Percentage who have a Ph.D. degree	3.5	3.9	n/a	n/a
5. Percentage who have another graduate degree	9.4	13.7	n/a	n/a
6. Percentage who are AOA members	36.5	5.9	n/a	n/a
7. USMLE Step 1 score				
Mean	241	222	218	216
Median	243	225	217	218
25th percentile	231	209	194	201
75th percentile	251	236	242	226
Count	83	51	5	15
8. USMLE Step 2 score				
Mean	244	220	216	214
Median	246	221	229	212
25th percentile	235	211	194	201
75th percentile	257	229	234	225
Count	36	30	5	14
9. Mean number of research experiences	3.4	2.9	4.2	2.1
10. Mean number of abstracts, presentations, and publications	6.0	3.3	19.2	4.9

n/a: The measure either does not apply to, applies to only a small percentage of, or no reliable data were available for independent applicants.
Sources. Measures 1, 2, and match outcome from the NRMP Data Warehouse, measure 3 from the AAMC Organizational Characteristics Database and AAMC Enterprise Information Store (EIS), measure 4 and 5 from the AAMC Data Warehouse, measures 6, 9, 10 from the AAMC ERAS Data Warehouse, and measures 7 and 8 from the AAMC Data Warehouse and from the ECFMG both by permission of the NBME and ECFMG.
Note: Counts are provided for USMLE Step scores since they are the only measures with significant missing data.

Chart PS-1

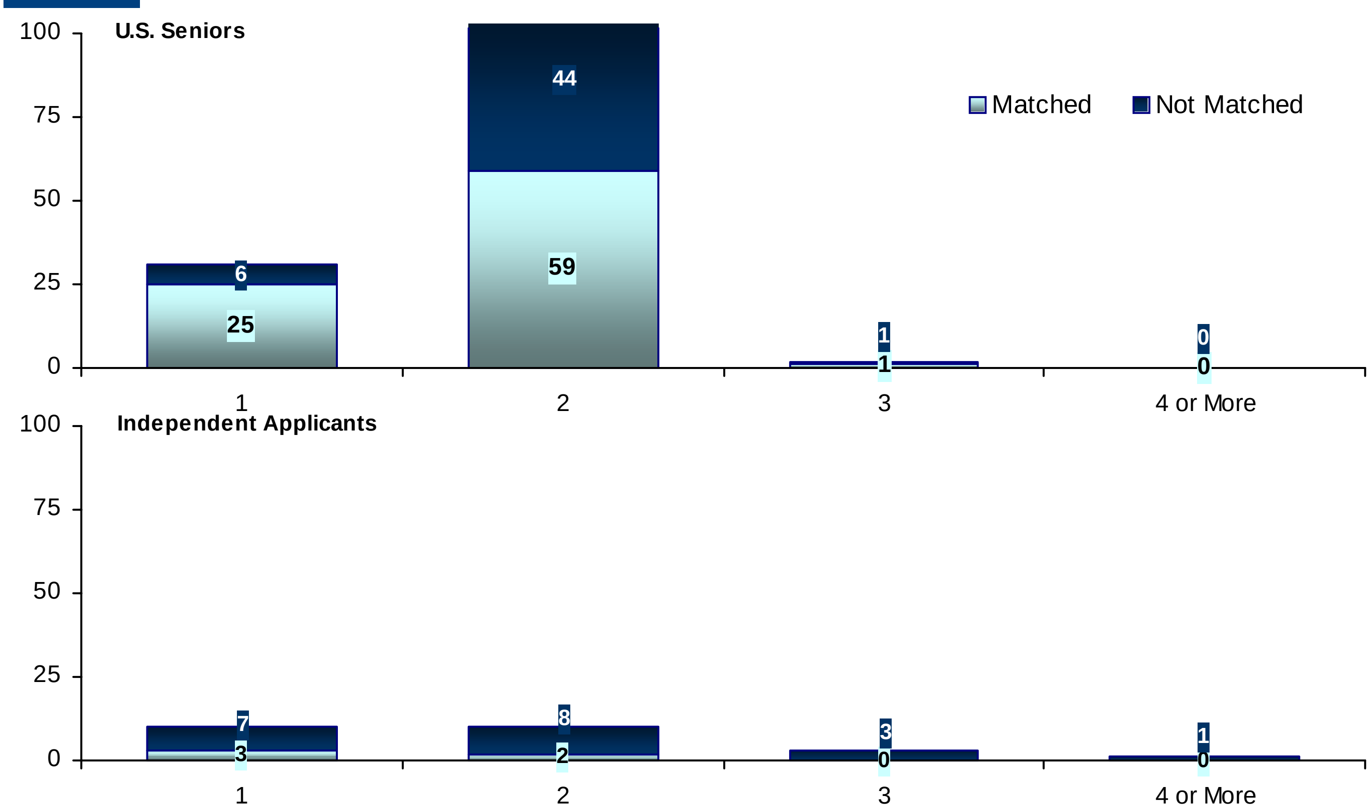
NUMBER OF CONTIGUOUS RANKS WITHIN PREFERRED SPECIALTY
Plastic Surgery



Source: NRMP Data Warehouse.

Chart PS-2

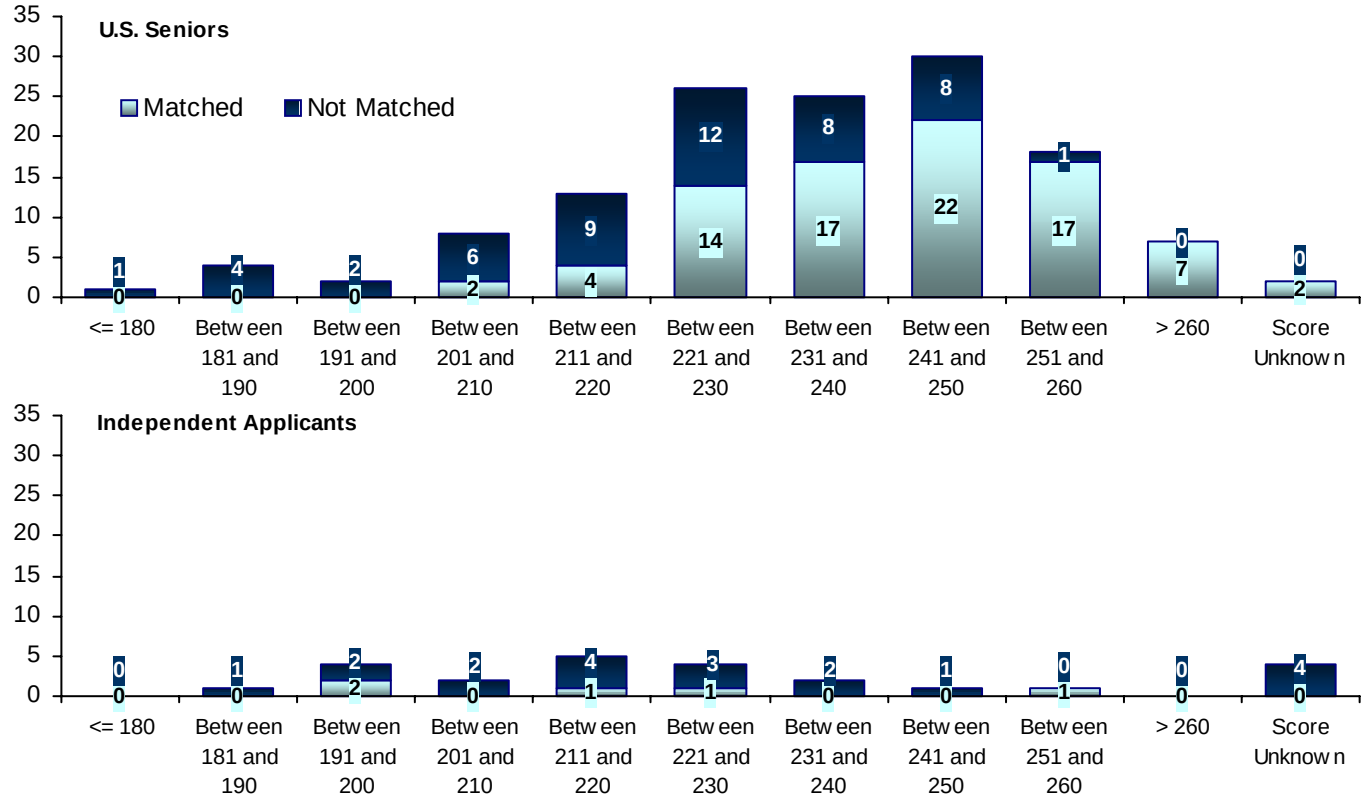
NUMBER OF DISTINCT SPECIALTIES RANKED
Plastic Surgery



Source: NRMP Data Warehouse.

Chart PS-3

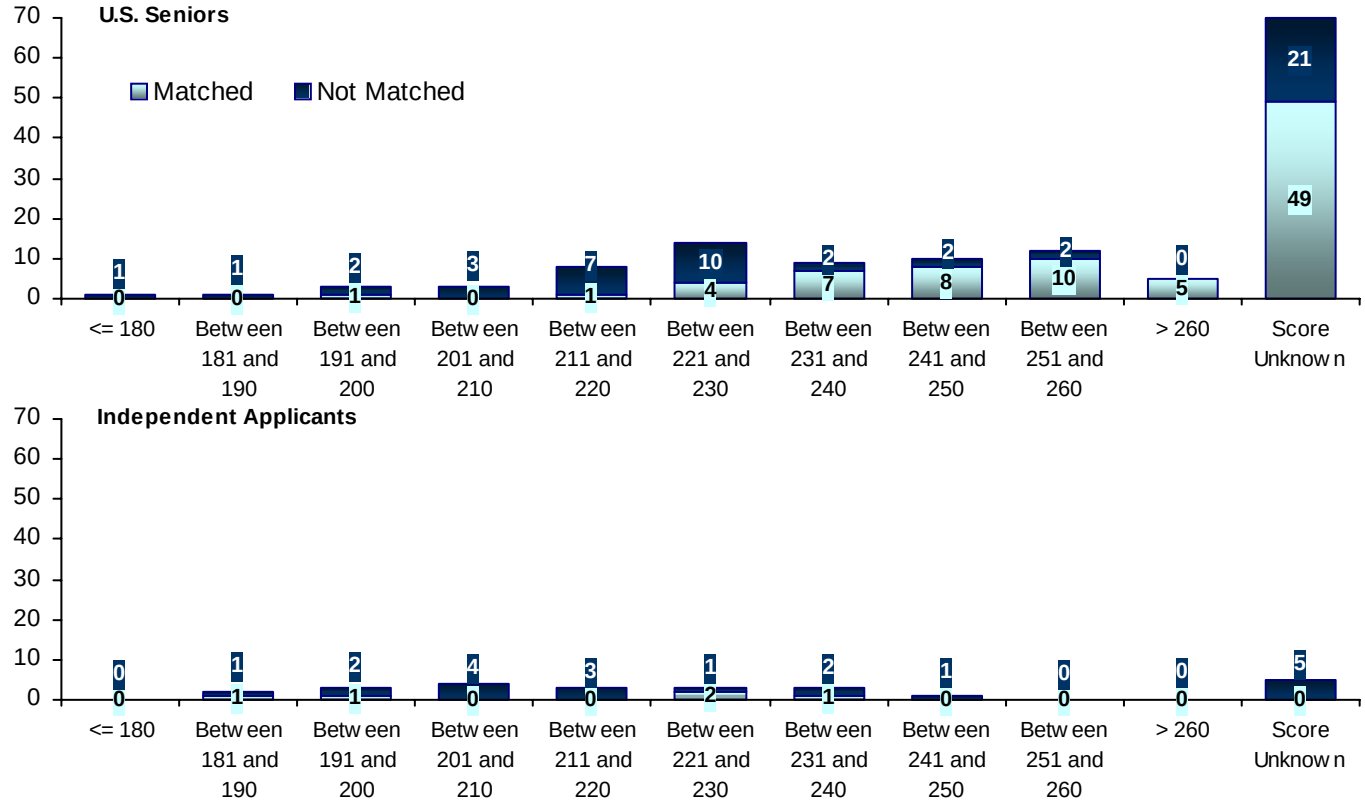
USMLE Step 1 Scores
Plastic Surgery



Source: NRMP Data Warehouse and AAMC Data Warehouse. USMLE scores by permission of the NBME and *ECFMG*.

Chart PS-4

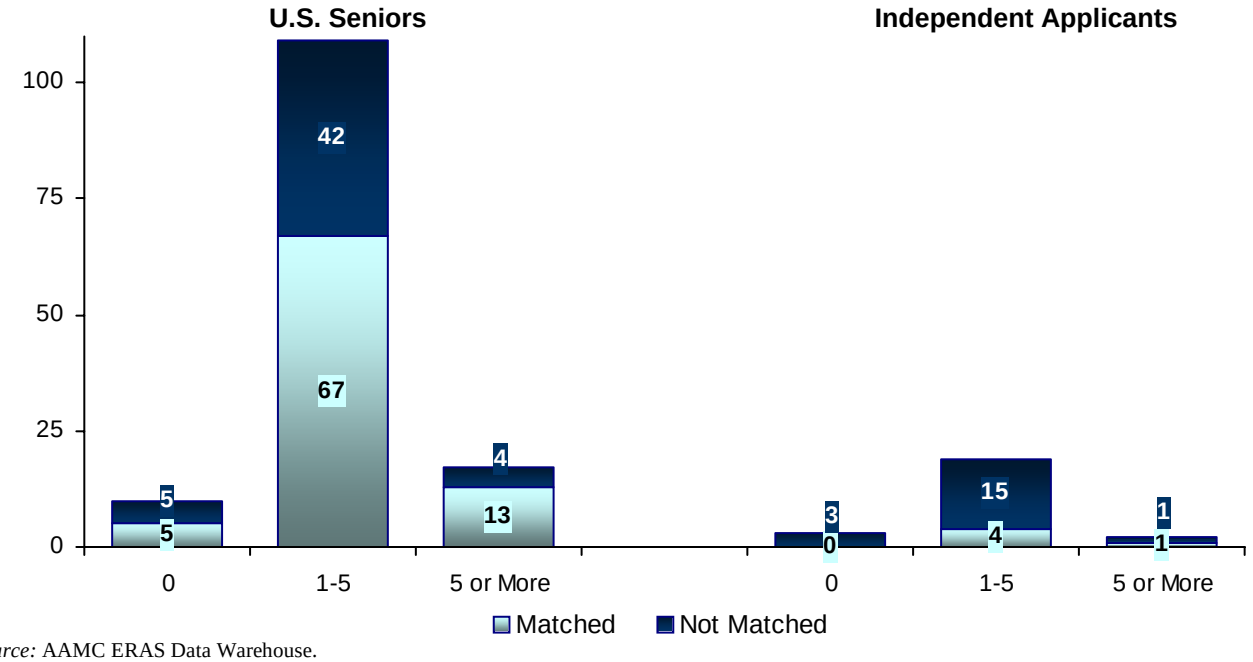
USMLE Step 2 Scores
Plastic Surgery



Source: NRMP Data Warehouse and AAMC Data Warehouse. USMLE scores by permission of the NBME and *ECFMG*.

Chart PS-5

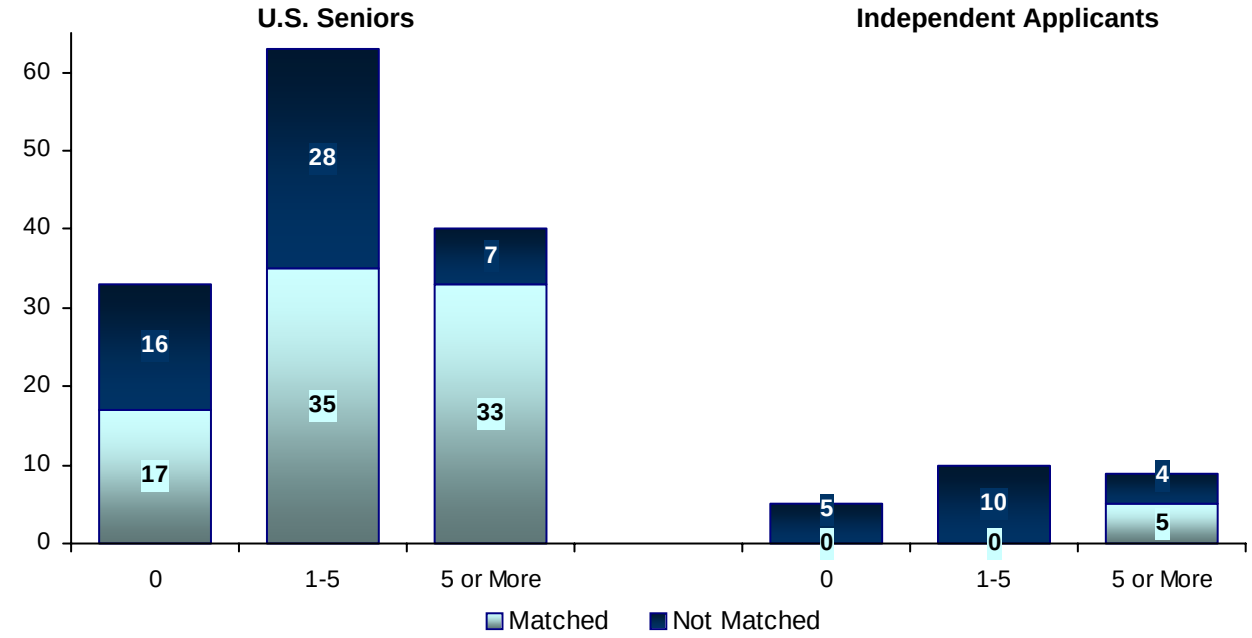
NUMBER OF RESEARCH PROJECTS
Plastic Surgery



Source: AAMC ERAS Data Warehouse.

Chart PS-6

NUMBER OF ABSTRACTS, PRESENTATIONS, AND PUBLICATIONS
Plastic Surgery

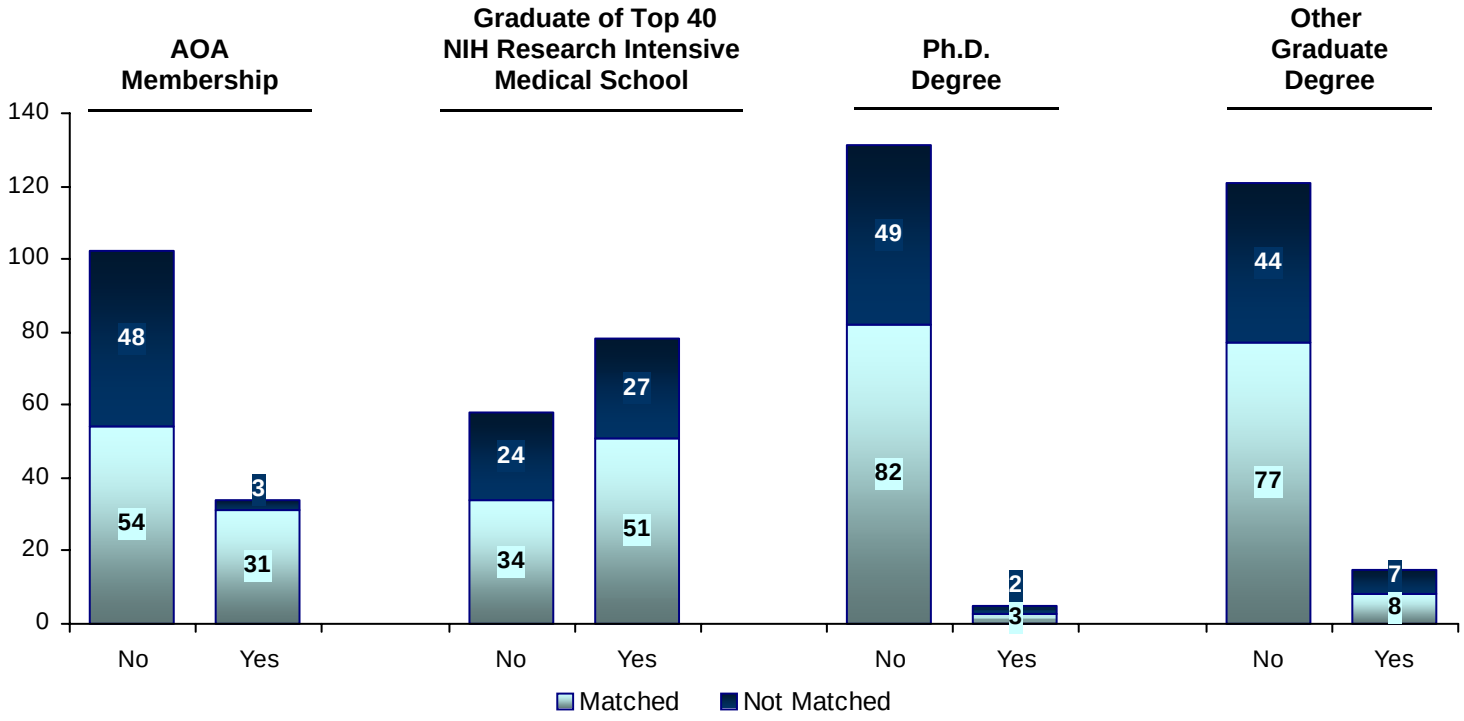


Source: AAMC ERAS Data Warehouse.

Chart PM-7

OTHER CHARACTERISTICS OF U.S. SENIORS

Plastic Surgery



Sources. AOA membership from the AAMC ERAS Data Warehouse, Top 40 NIH Research Intensive Medical Schools from the AAMC Organizational Characteristics Database and AAMC Enterprise Information Store (EIS), Ph.D. and other graduate degrees from the AAMC Data Warehouse.

P PSYCHIATRY

Table P-1

SUMMARY STATISTICS
Psychiatry

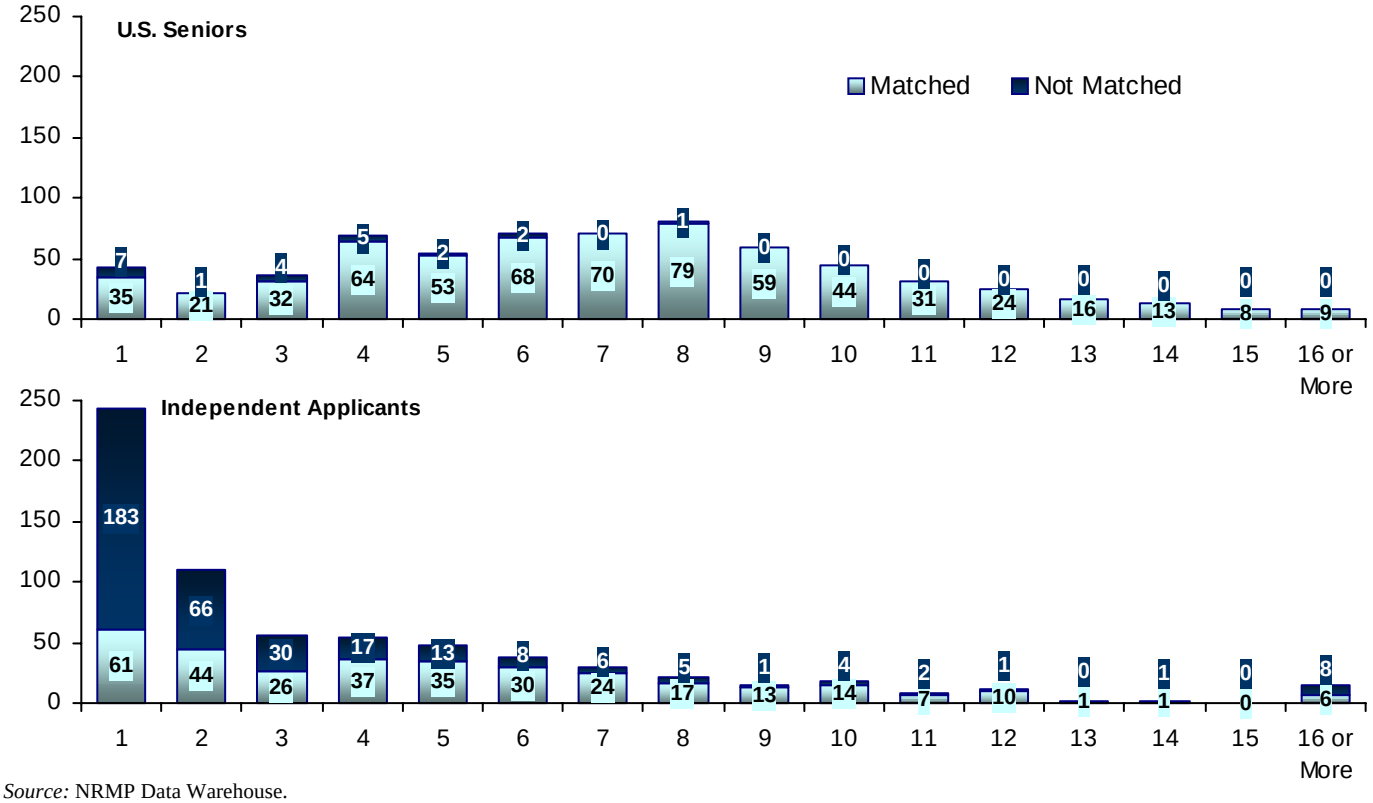
Measure	U.S. Seniors		Independent Applicants	
	Matched (n=626)	Did Not Match (n=22)	Matched (n=326)	Did Not Match (n=345)
1. Median number of contiguous ranks	7.0	3.0	4.0	1.0
2. Mean number of distinct specialties ranked	1.1	1.1	1.3	1.5
3. Percentage who graduated from top 40 NIH research medical school	38.5	22.7	n/a	n/a
4. Percentage who have a Ph.D. degree	4.2	9.1	n/a	n/a
5. Percentage who have another graduate degree	9.6	4.5	n/a	n/a
6. Percentage who are AOA members	3.7	0.0	n/a	n/a
7. USMLE Step 1 score				
Mean	210	194	204	196
Median	208	191	201	193
25th percentile	194	185	189	186
75th percentile	224	206	215	203
Count	624	22	250	320
8. USMLE Step 2 score				
Mean	213	187	206	195
Median	213	191	204	192
25th percentile	198	172	193	184
75th percentile	229	196	216	204
Count	433	13	247	321
9. Mean number of research experiences	1.9	1.8	1.3	1.2
10. Mean number of abstracts, presentations, and publications	2.0	3.6	2.0	2.6

n/a: The measure either does not apply to, applies to only a small percentage of, or no reliable data were available for independent applicants.
Sources. Measures 1, 2, and match outcome from the NRMP Data Warehouse, measure 3 from the AAMC Organizational Characteristics Database and AAMC Enterprise Information Store (EIS), measure 4 and 5 from the AAMC Data Warehouse, measures 6, 9, 10 from the AAMC ERAS Data Warehouse, and measures 7 and 8 from the AAMC Data Warehouse and from the ECFMG both by permission of the NBME and ECFMG.
Note: Counts are provided for USMLE Step scores since they are the only measures with significant missing data.

Chart P-1

NUMBER OF CONTIGUOUS RANKS WITHIN PREFERRED SPECIALTY

Psychiatry

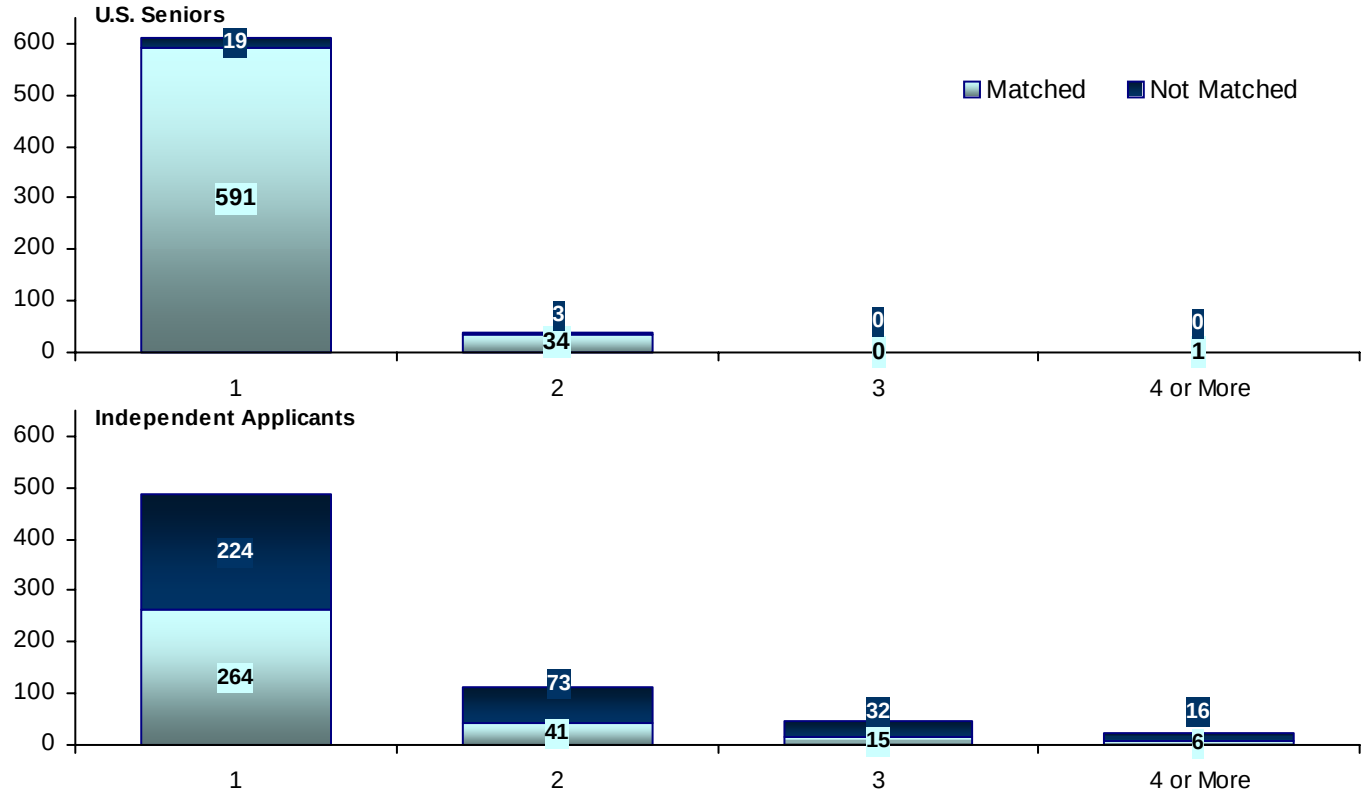


Source: NRMP Data Warehouse.

Chart P-2

NUMBER OF DISTINCT SPECIALTIES RANKED

Psychiatry

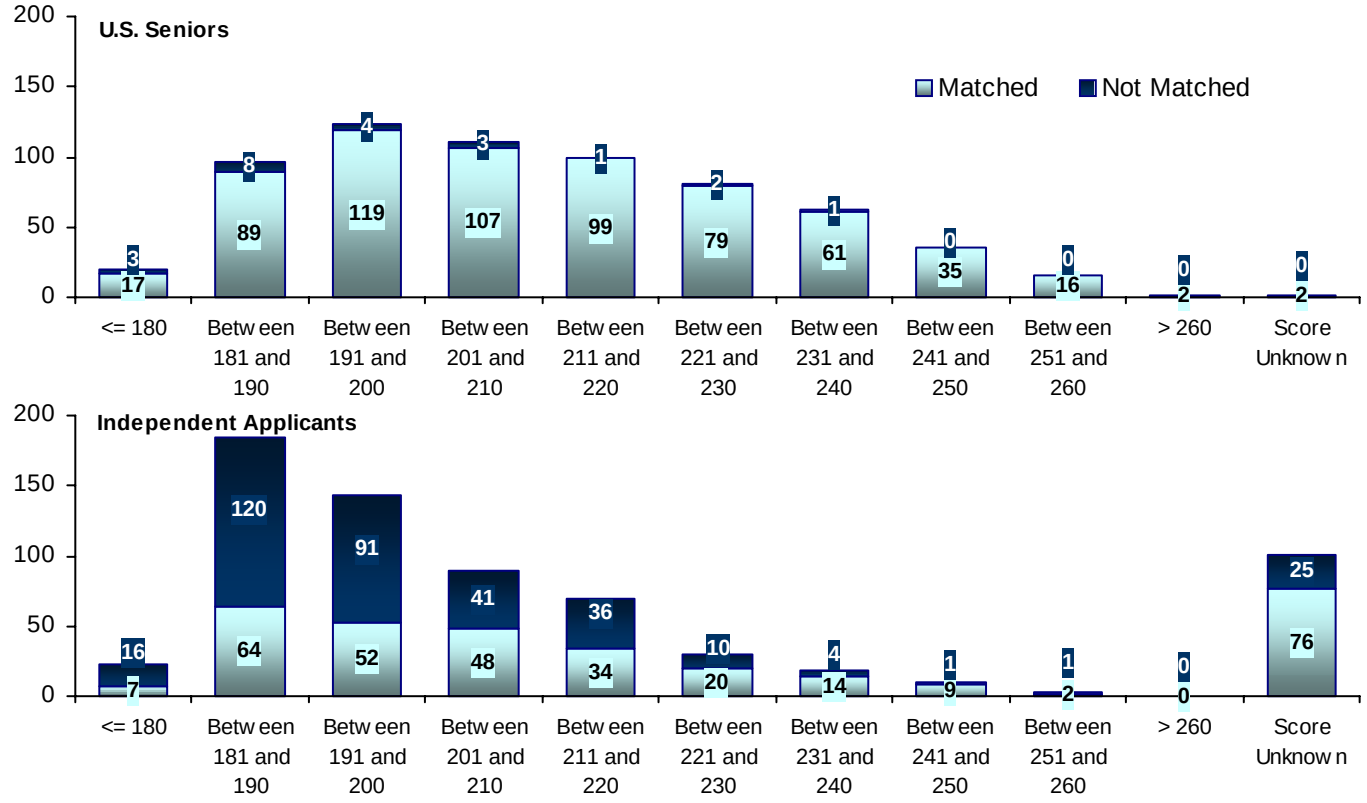


Source: NRMP Data Warehouse.

Chart P-3

USMLE Step 1 Scores

Psychiatry

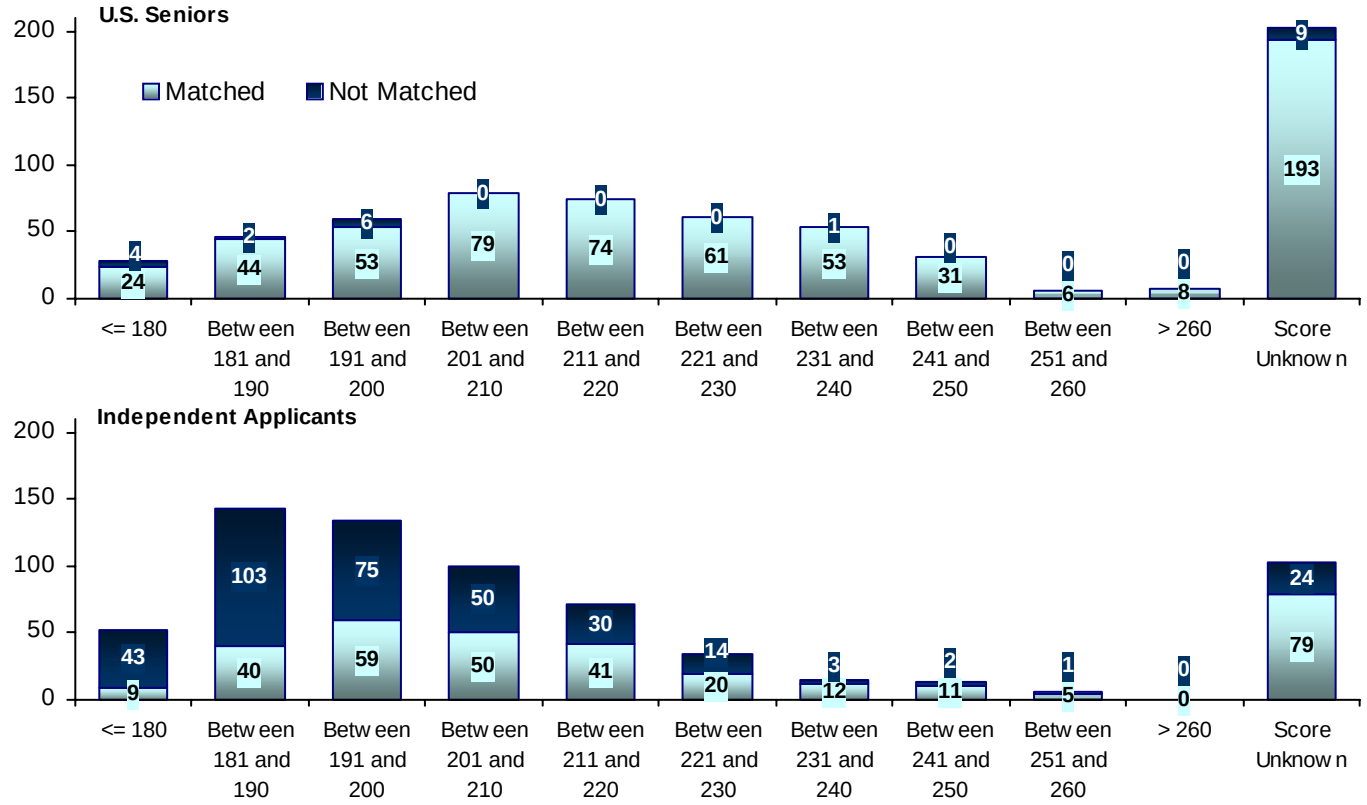


Source: NRMP Data Warehouse and AAMC Data Warehouse. USMLE scores by permission of the NBME and *ECFMG*.

Chart P-4

USMLE Step 2 Scores

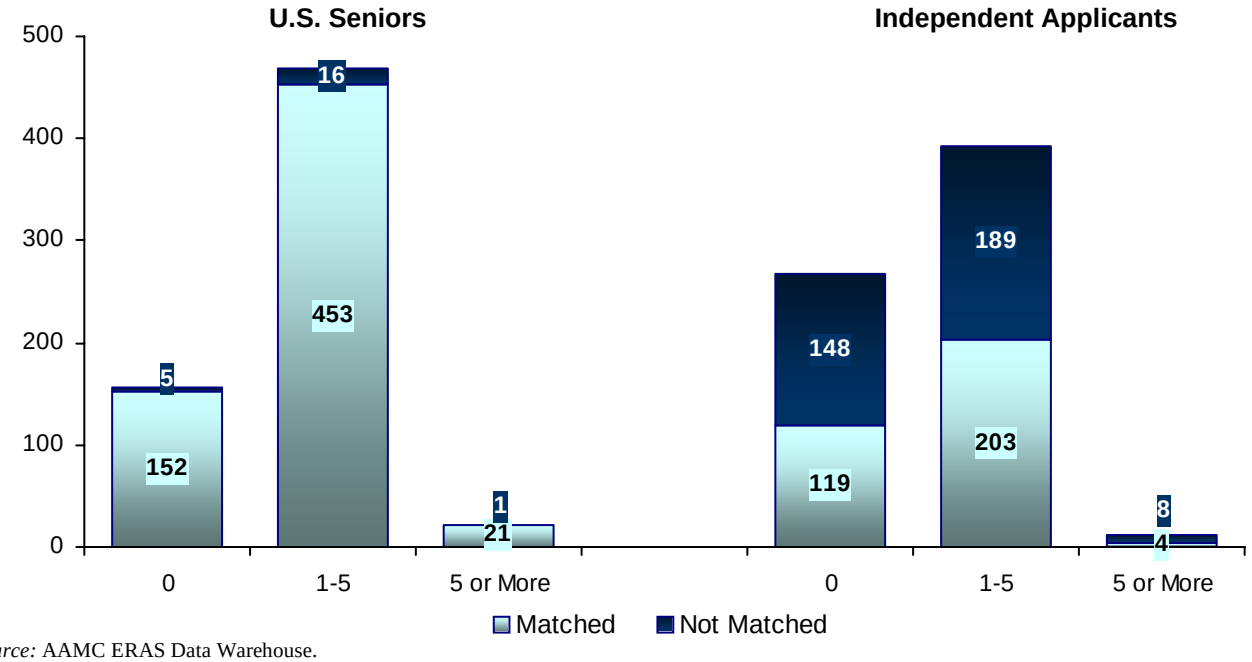
Psychiatry



Source: NRMP Data Warehouse and AAMC Data Warehouse. USMLE scores by permission of the NBME and *ECFMG*.

Chart P-5

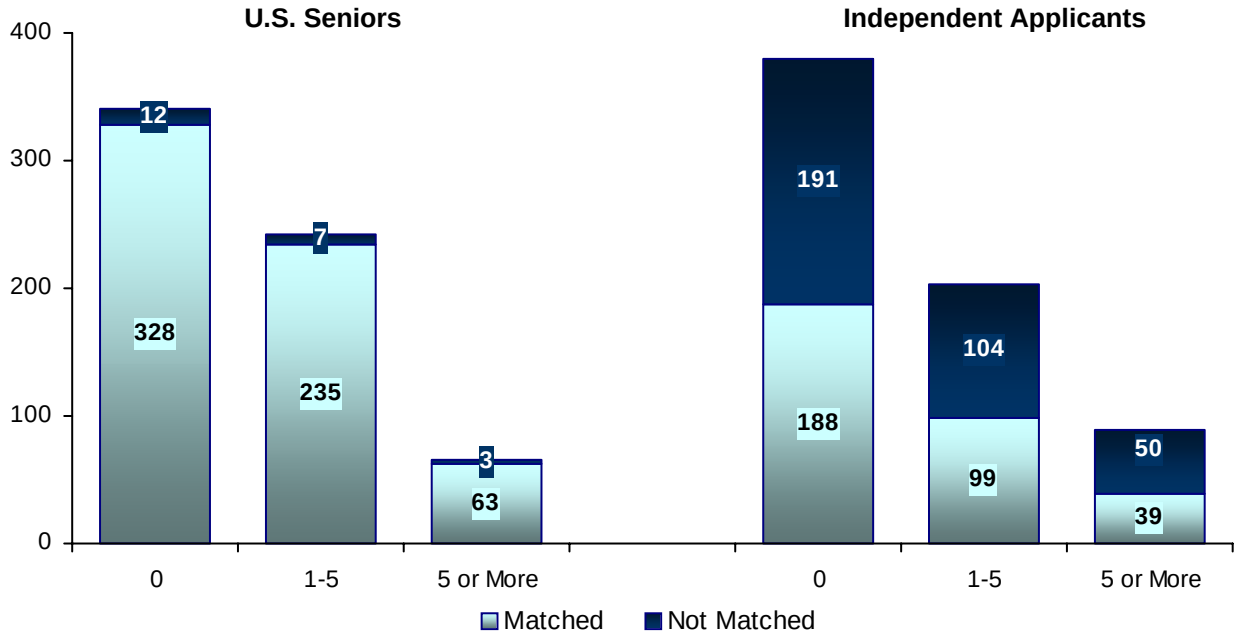
NUMBER OF RESEARCH PROJECTS
Psychiatry



Source: AAMC ERAS Data Warehouse.

Chart P-6

NUMBER OF ABSTRACTS, PRESENTATIONS, AND PUBLICATIONS
Psychiatry

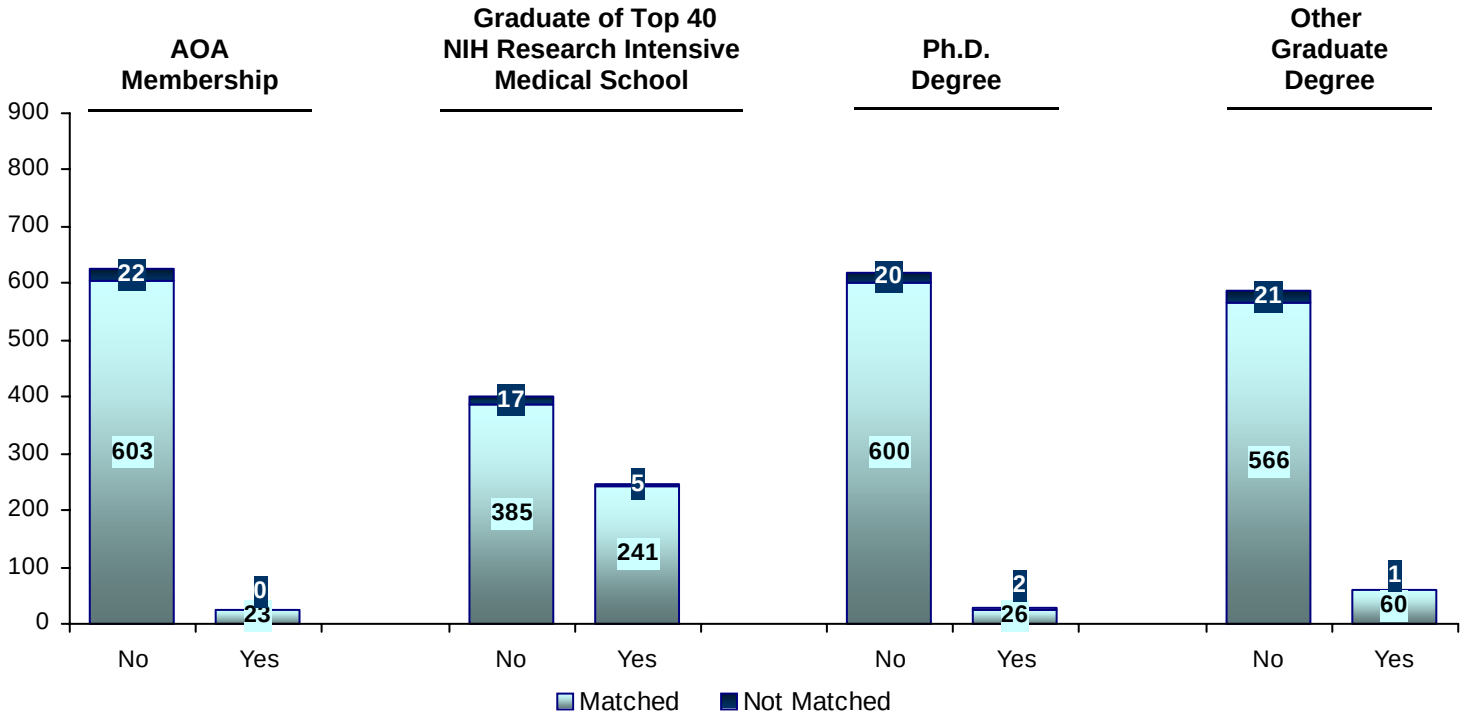


Source: AAMC ERAS Data Warehouse.

Chart P-7

OTHER CHARACTERISTICS OF U.S. SENIORS

Psychiatry



Sources. AOA membership from the AAMC ERAS Data Warehouse, Top 40 NIH Research Intensive Medical Schools from the AAMC Organizational Characteristics Database and AAMC Enterprise Information Store (EIS), Ph.D. and other graduate degrees from the AAMC Data Warehouse.

RO RADIATION ONCOLOGY

Table RO-1

SUMMARY STATISTICS
Radiation Oncology

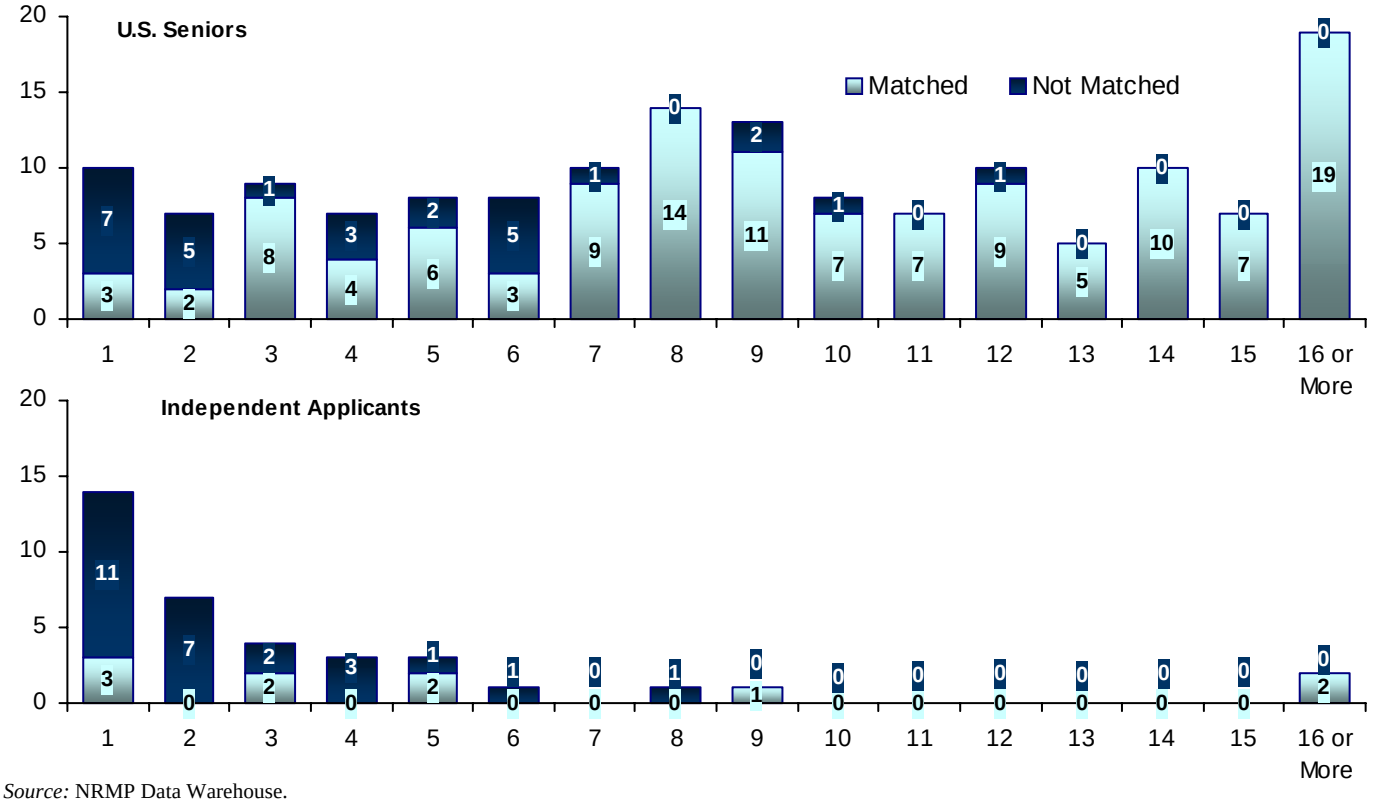
Measure	U.S. Seniors		Independent Applicants	
	Matched (n=124)	Did Not Match (n=28)	Matched (n=10)	Did Not Match (n=26)
1. Median number of contiguous ranks	10.0	4.0	4.0	2.0
2. Mean number of distinct specialties ranked	1.6	1.9	1.6	1.7
3. Percentage who graduated from top 40 NIH research medical school	55.6	42.9	n/a	n/a
4. Percentage who have a Ph.D. degree	21.0	3.6	n/a	n/a
5. Percentage who have another graduate degree	5.6	7.1	n/a	n/a
6. Percentage who are AOA members	24.2	3.6	n/a	n/a
7. USMLE Step 1 score				
Mean	235	219	234	220
Median	236	227	237	224
25th percentile	223	205	222	206
75th percentile	248	232	241	238
Count	123	28	9	20
8. USMLE Step 2 score				
Mean	237	219	227	215
Median	237	224	235	220
25th percentile	227	207	217	191
75th percentile	253	229	240	237
Count	51	19	9	20
9. Mean number of research experiences	3.7	3.0	2.9	3.0
10. Mean number of abstracts, presentations, and publications	6.3	2.9	5.8	5.7

n/a: The measure either does not apply to, applies to only a small percentage of, or no reliable data were available for independent applicants.
Sources. Measures 1, 2, and match outcome from the NRMP Data Warehouse, measure 3 from the AAMC Organizational Characteristics Database and AAMC Enterprise Information Store (EIS), measure 4 and 5 from the AAMC Data Warehouse, measures 6, 9, 10 from the AAMC ERAS Data Warehouse, and measures 7 and 8 from the AAMC Data Warehouse and from the ECFMG both by permission of the NBME and ECFMG.
Note: Counts are provided for USMLE Step scores since they are the only measures with significant missing data.

Chart RO-1

NUMBER OF CONTIGUOUS RANKS WITHIN PREFERRED SPECIALTY

Radiation Oncology

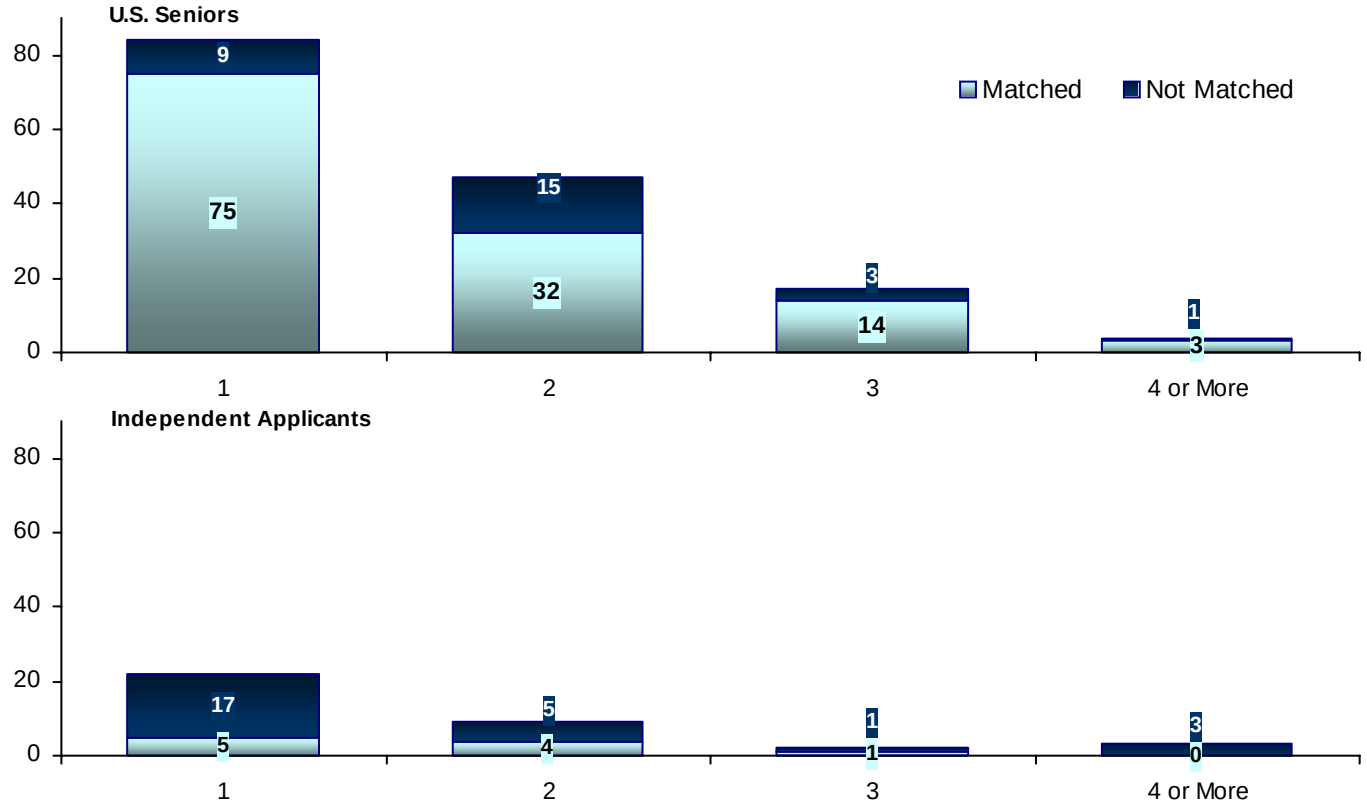


Source: NRMP Data Warehouse.

Chart RO-2

NUMBER OF DISTINCT SPECIALTIES RANKED

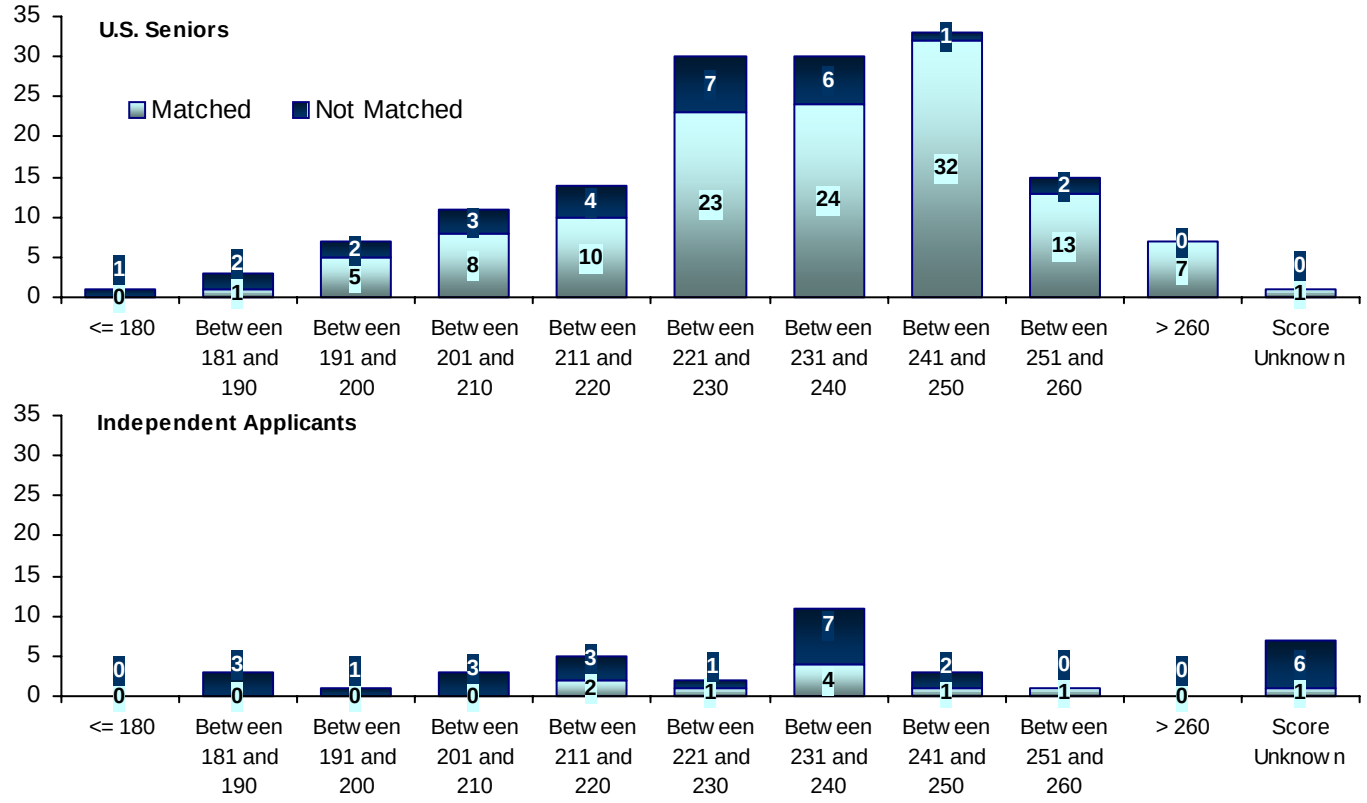
Radiation Oncology



Source: NRMP Data Warehouse.

Chart RO-3

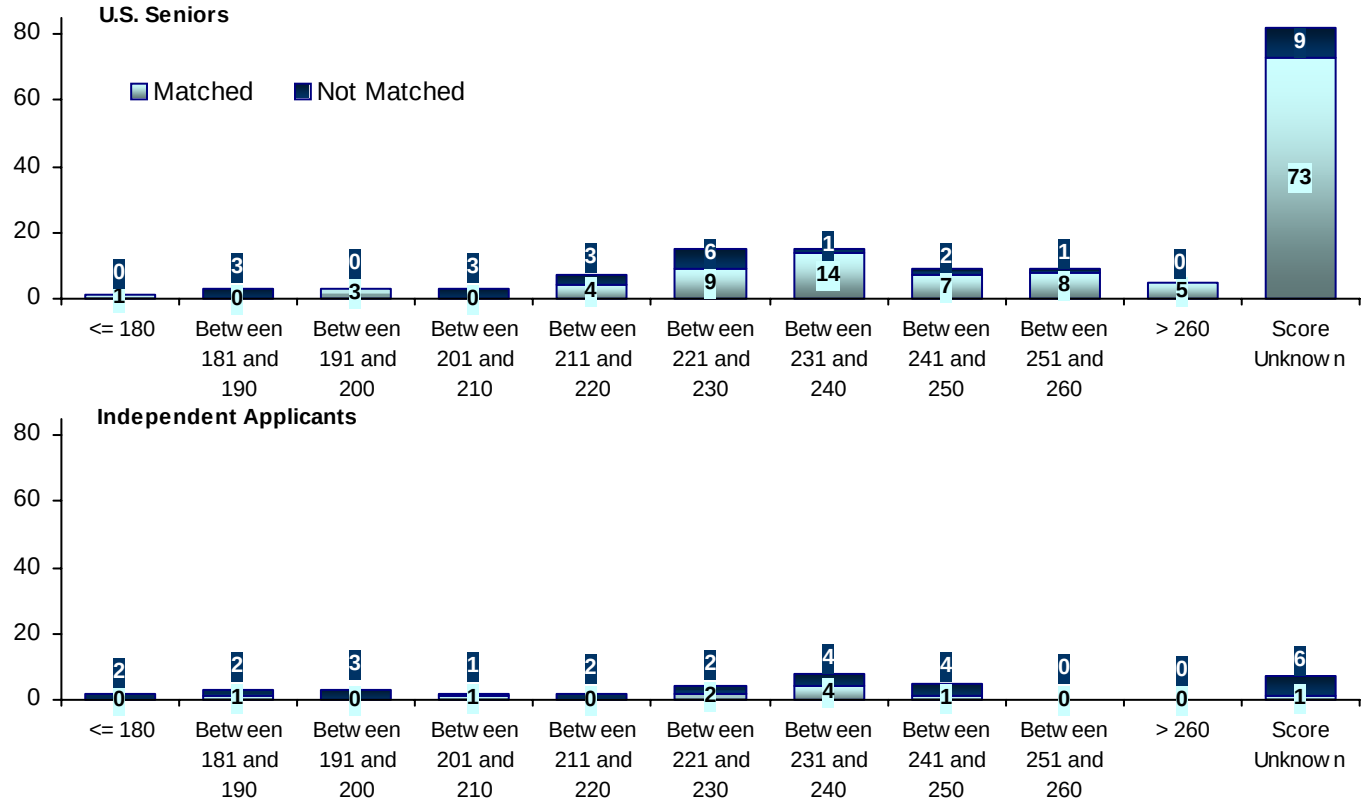
USMLE Step 1 Scores
Radiation Oncology



Source: NRMP Data Warehouse and AAMC Data Warehouse. USMLE scores by permission of the NBME and *ECFMG*.

Chart RO-4

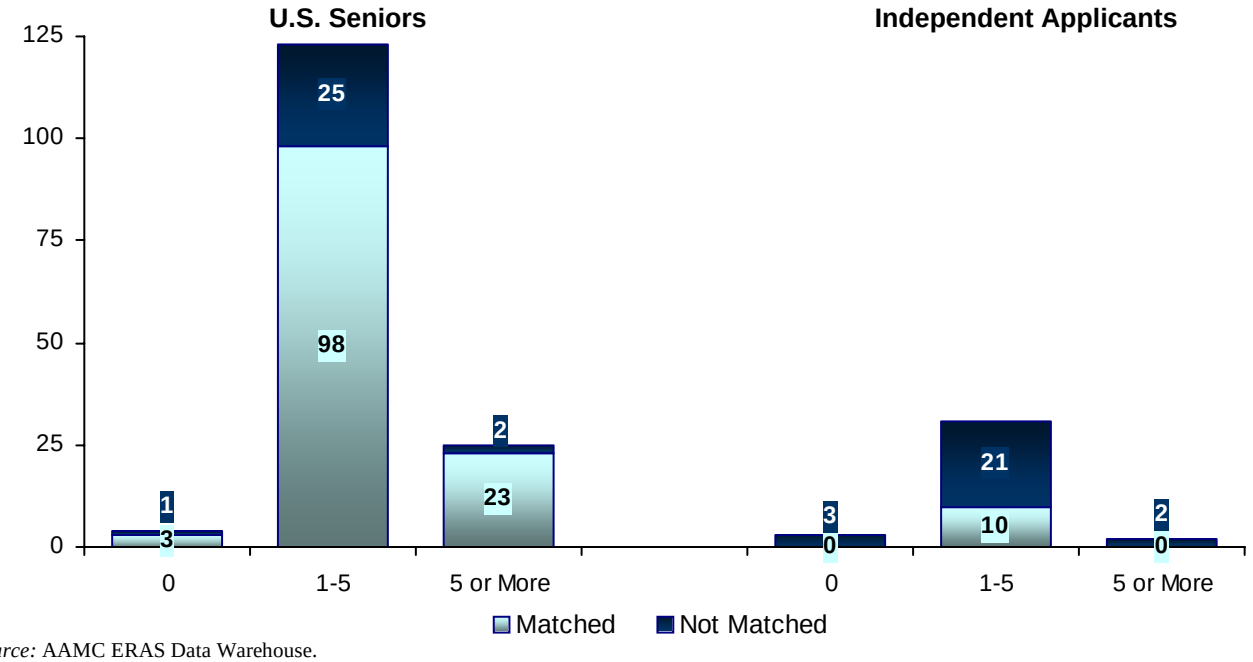
USMLE Step 2 Scores
Radiation Oncology



Source: NRMP Data Warehouse and AAMC Data Warehouse. USMLE scores by permission of the NBME and *ECFMG*.

Chart RO-5

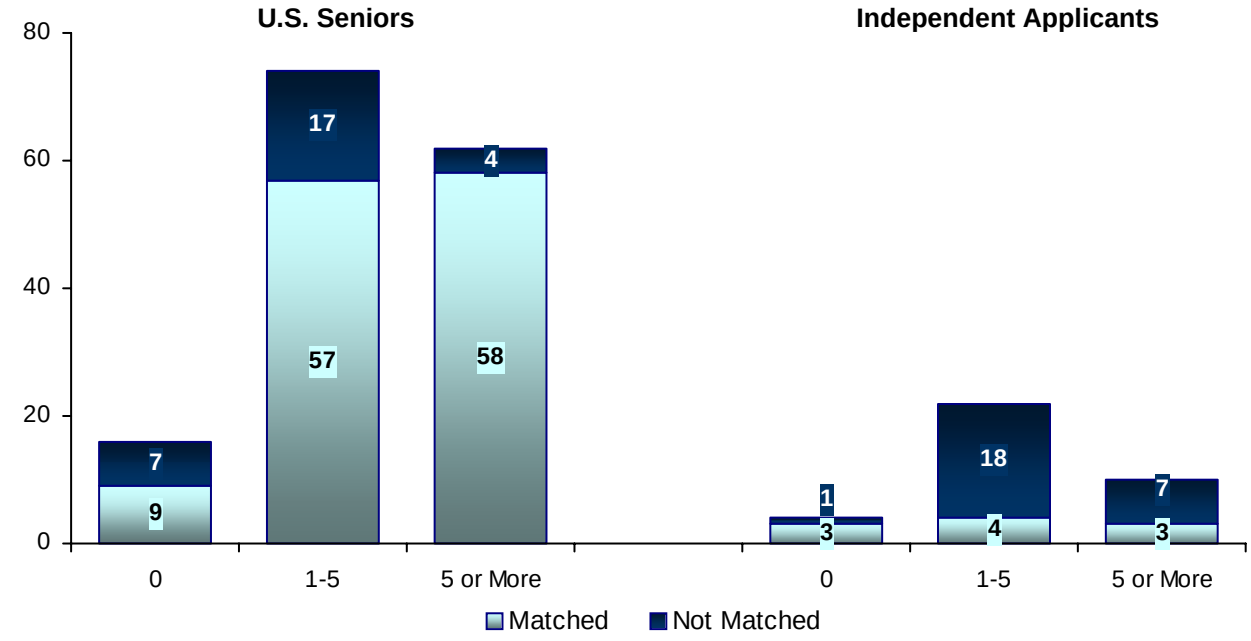
NUMBER OF RESEARCH PROJECTS
Radiation Oncology



Source: AAMC ERAS Data Warehouse.

Chart RO-6

NUMBER OF ABSTRACTS, PRESENTATIONS, AND PUBLICATIONS
Radiation Oncology

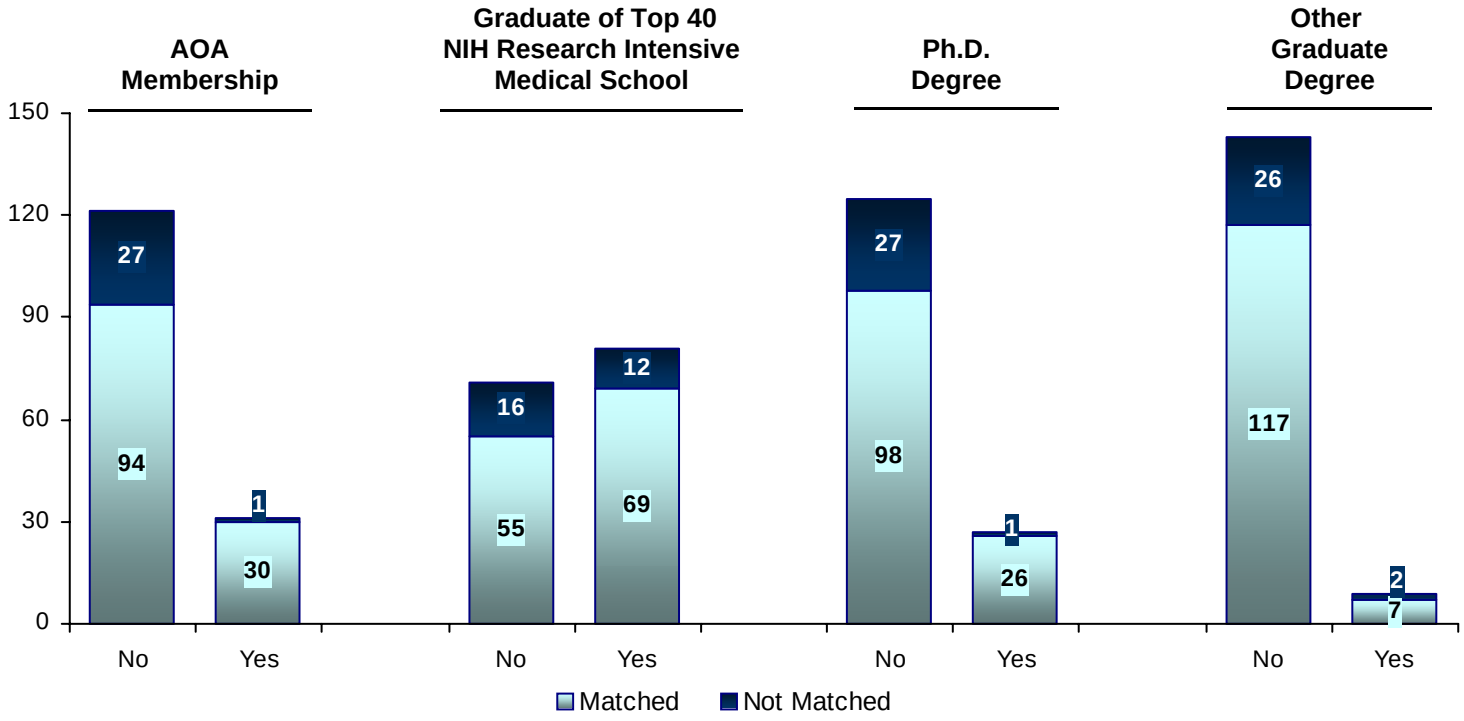


Source: AAMC ERAS Data Warehouse.

Chart RO-7

OTHER CHARACTERISTICS OF U.S. SENIORS

Radiation Oncology



Sources. AOA membership from the AAMC ERAS Data Warehouse, Top 40 NIH Research Intensive Medical Schools from the AAMC Organizational Characteristics Database and AAMC Enterprise Information Store (EIS), Ph.D. and other graduate degrees from the AAMC Data Warehouse.

DR RADIOLOGY-DIAGNOSTIC

Table DR-1

SUMMARY STATISTICS
Radiology-Diagnostic

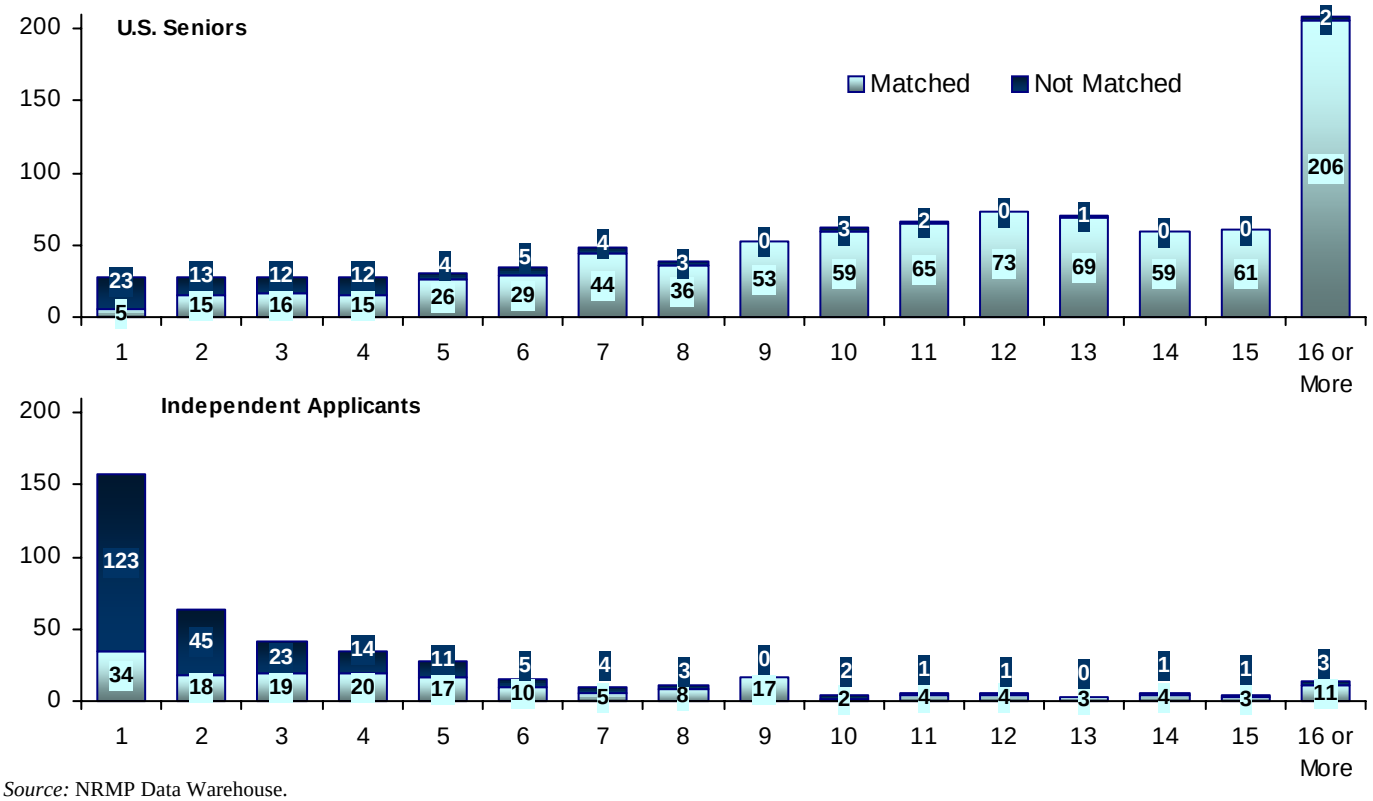
Measure	U.S. Seniors		Independent Applicants	
	Matched (n=831)	Did Not Match (n=84)	Matched (n=179)	Did Not Match (n=237)
1. Median number of contiguous ranks	12.0	3.0	4.0	1.0
2. Mean number of distinct specialties ranked	1.5	2.0	1.4	1.8
3. Percentage who graduated from top 40 NIH research medical school	36.6	19.0	n/a	n/a
4. Percentage who have a Ph.D. degree	4.8	3.6	n/a	n/a
5. Percentage who have another graduate degree	9.4	14.3	n/a	n/a
6. Percentage who are AOA members	25.8	3.6	n/a	n/a
7. USMLE Step 1 score				
Mean	235	212	229	217
Median	235	210	230	218
25th percentile	225	197	217	193
75th percentile	245	226	242	236
Count	825	82	140	192
8. USMLE Step 2 score				
Mean	237	212	229	219
Median	238	212	230	219
25th percentile	224	196	217	203
75th percentile	251	229	244	237
Count	471	64	138	192
9. Mean number of research experiences	2.5	2.2	1.8	1.5
10. Mean number of abstracts, presentations, and publications	2.8	2.2	3.6	2.9

n/a: The measure either does not apply to, applies to only a small percentage of, or no reliable data were available for independent applicants.
Sources. Measures 1, 2, and match outcome from the NRMP Data Warehouse, measure 3 from the AAMC Organizational Characteristics Database and AAMC Enterprise Information Store (EIS), measure 4 and 5 from the AAMC Data Warehouse, measures 6, 9, 10 from the AAMC ERAS Data Warehouse, and measures 7 and 8 from the AAMC Data Warehouse and from the ECFMG both by permission of the NBME and ECFMG.
Note: Counts are provided for USMLE Step scores since they are the only measures with significant missing data.

Chart DR-1

NUMBER OF CONTIGUOUS RANKS WITHIN PREFERRED SPECIALTY

Radiology-Diagnostic

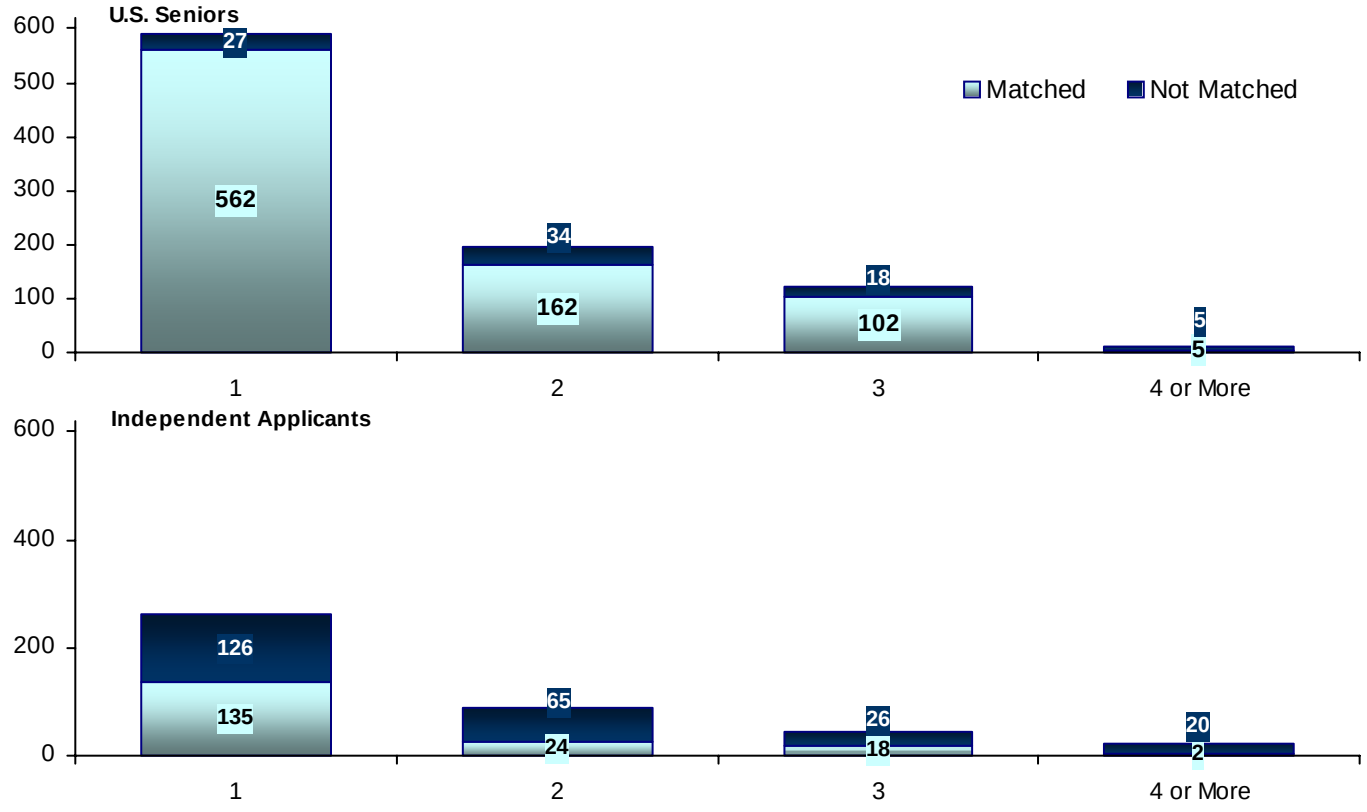


Source: NRMP Data Warehouse.

Chart DR-2

NUMBER OF DISTINCT SPECIALTIES RANKED

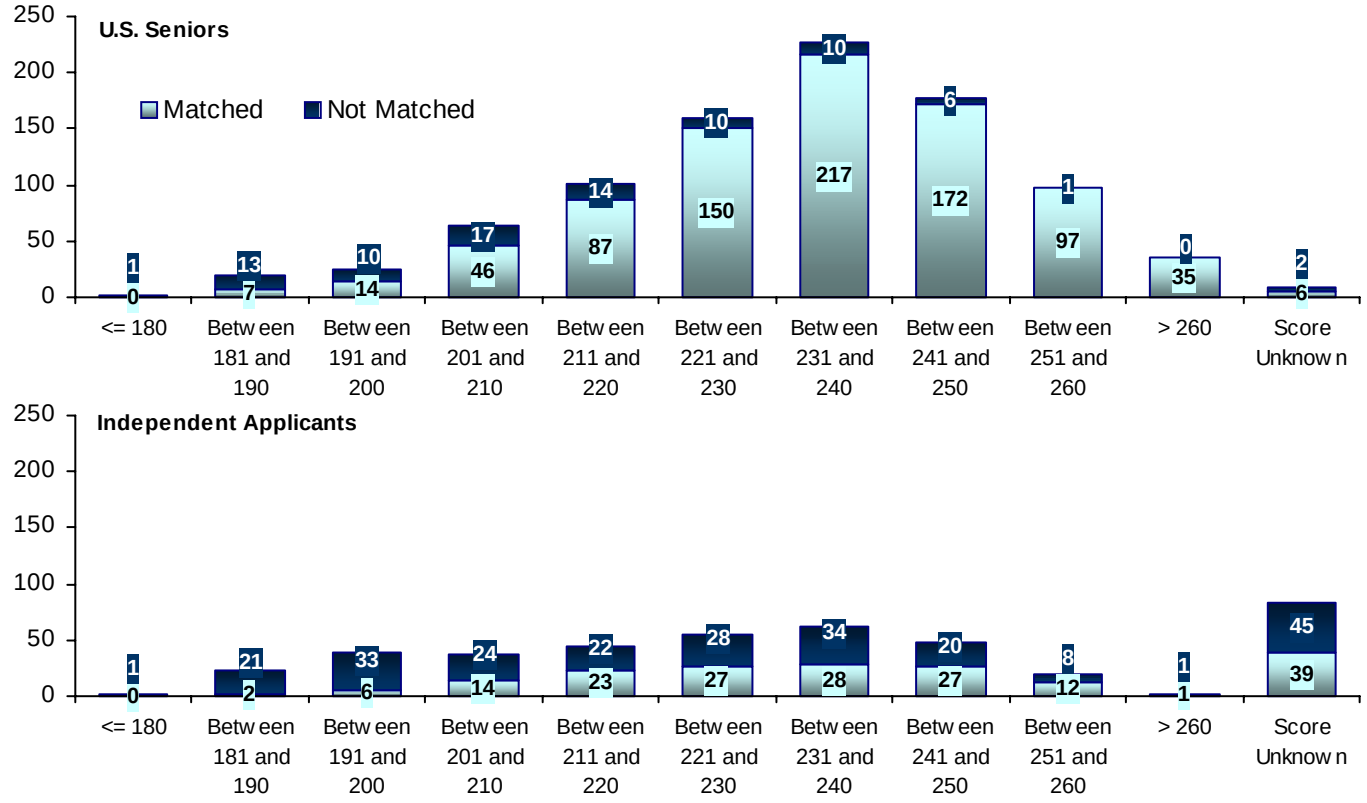
Radiology-Diagnostic



Source: NRMP Data Warehouse.

Chart DR-3

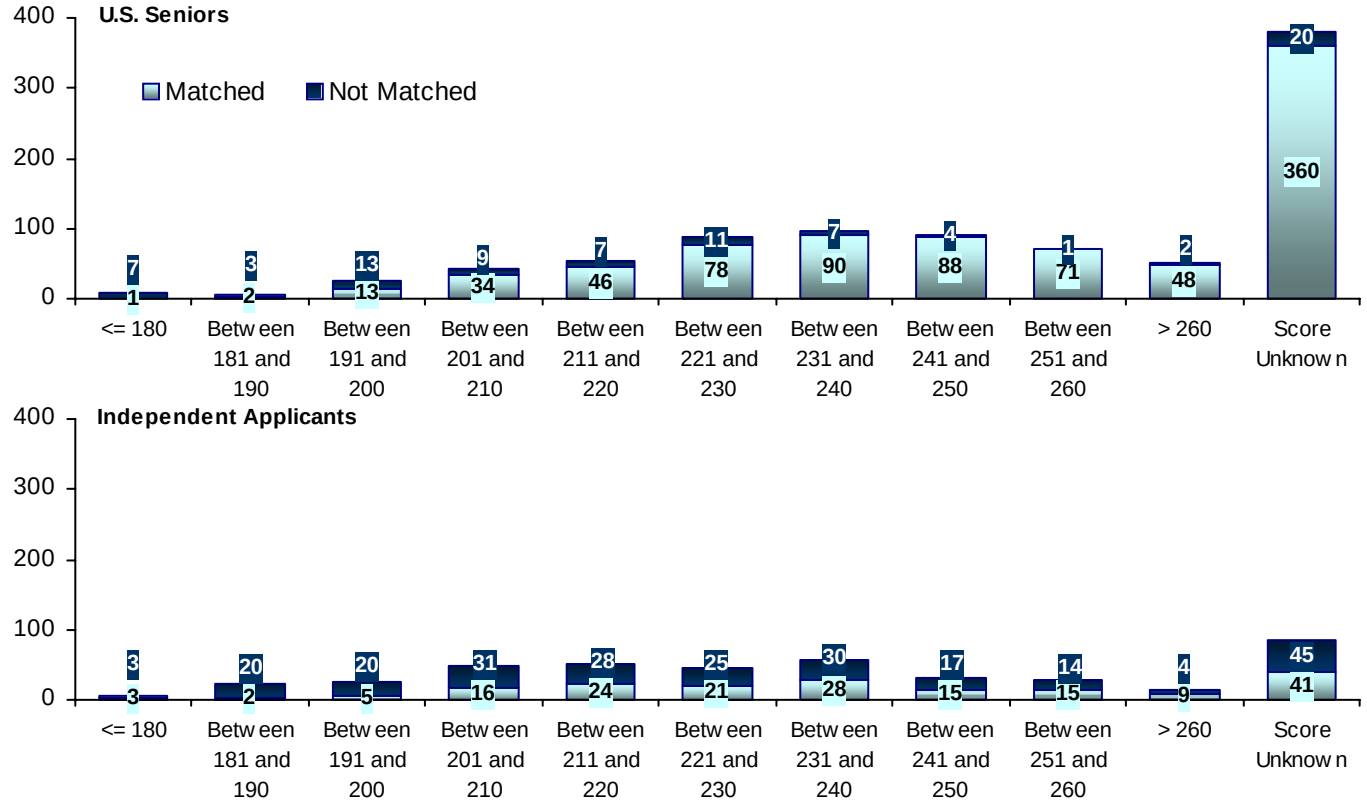
USMLE Step 1 Scores
Radiology-Diagnostic



Source: NRMP Data Warehouse and AAMC Data Warehouse. USMLE scores by permission of the NBME and *ECFMG*.

Chart DR-4

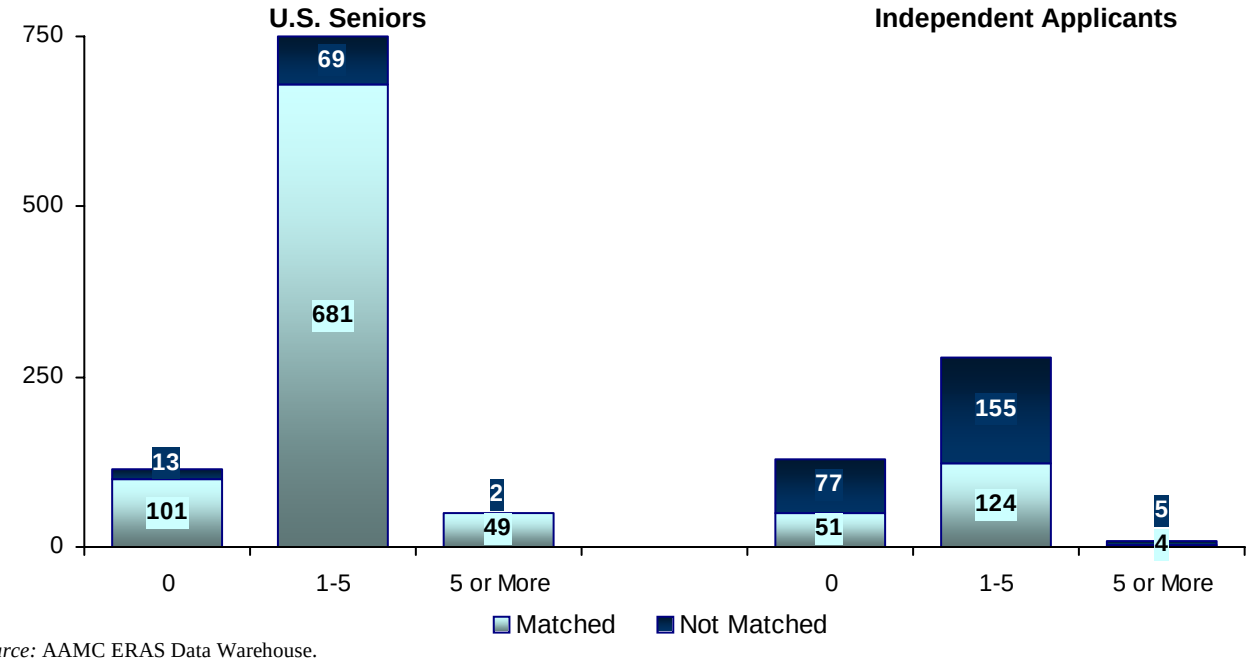
USMLE Step 2 Scores
Radiology-Diagnostic



Source: NRMP Data Warehouse and AAMC Data Warehouse. USMLE scores by permission of the NBME and *ECFMG*.

Chart DR-5

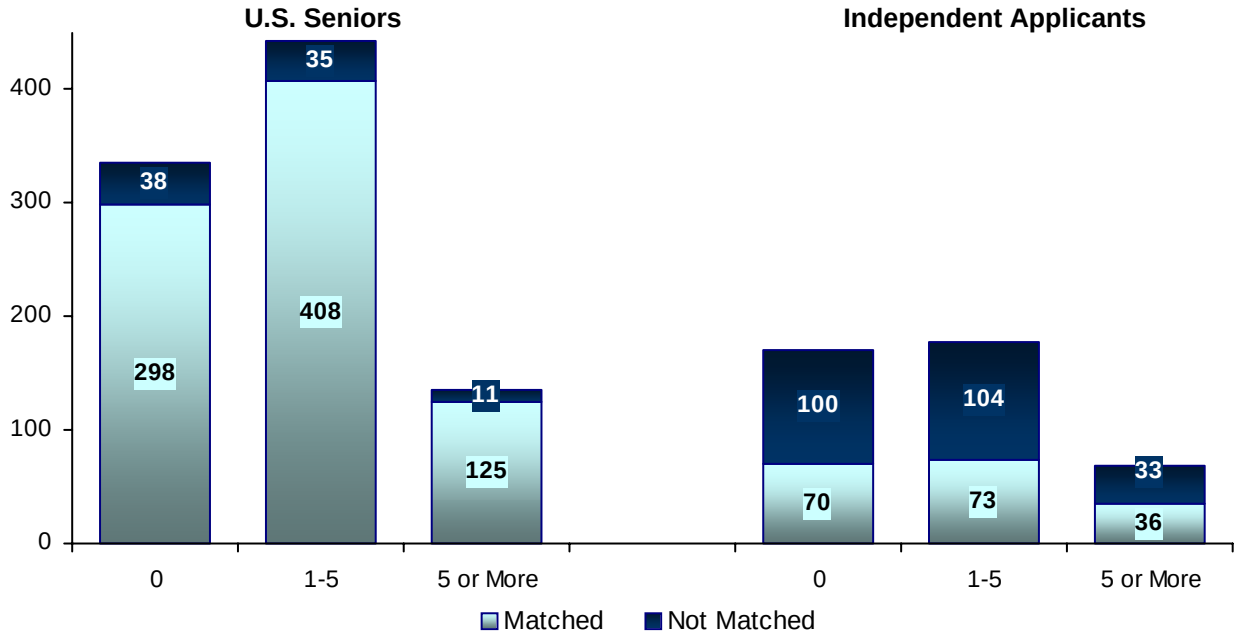
NUMBER OF RESEARCH PROJECTS
Radiology-Diagnostic



Source: AAMC ERAS Data Warehouse.

Chart DR-6

NUMBER OF ABSTRACTS, PRESENTATIONS, AND PUBLICATIONS
Radiology-Diagnostic

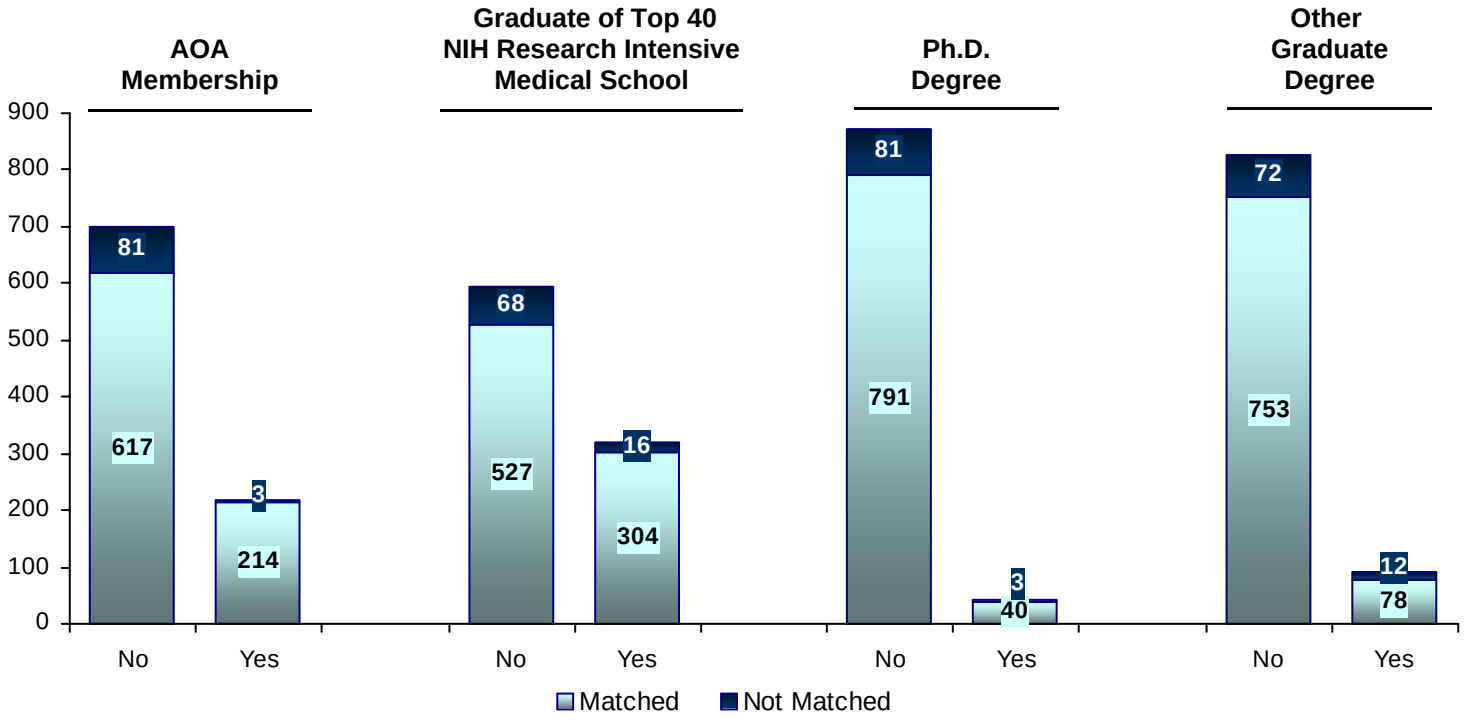


Source: AAMC ERAS Data Warehouse.

Chart DR-7

OTHER CHARACTERISTICS OF U.S. SENIORS

Radiology-Diagnostic



Sources. AOA membership from the AAMC ERAS Data Warehouse, Top 40 NIH Research Intensive Medical Schools from the AAMC Organizational Characteristics Database and AAMC Enterprise Information Store (EIS), Ph.D. and other graduate degrees from the AAMC Data Warehouse.

GS SURGERY-GENERAL

Table GS-1

SUMMARY STATISTICS
Surgery-General

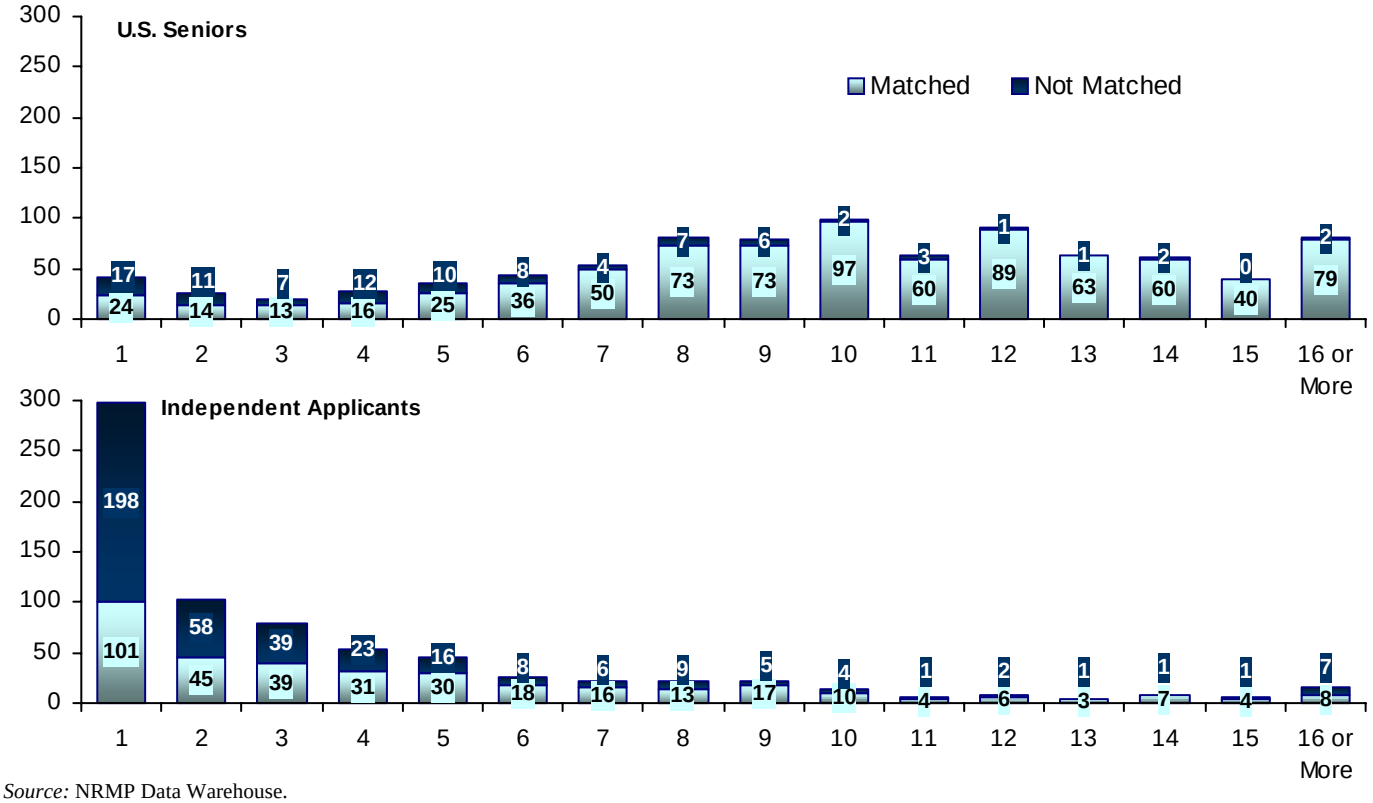
Measure	U.S. Seniors		Independent Applicants	
	Matched (n=812)	Did Not Match (n=93)	Matched (n=352)	Did Not Match (n=379)
1. Median number of contiguous ranks	10.0	4.0	3.0	1.0
2. Mean number of distinct specialties ranked	1.0	1.1	1.2	1.4
3. Percentage who graduated from top 40 NIH research medical school	33.9	21.5	n/a	n/a
4. Percentage who have a Ph.D. degree	1.5	2.2	n/a	n/a
5. Percentage who have another graduate degree	9.2	15.1	n/a	n/a
6. Percentage who are AOA members	12.1	2.2	n/a	n/a
7. USMLE Step 1 score				
Mean	222	204	222	210
Median	222	201	223	207
25th percentile	210	191	207	195
75th percentile	235	217	236	224
Count	806	93	315	343
8. USMLE Step 2 score				
Mean	226	207	224	209
Median	228	205	224	207
25th percentile	213	193	209	193
75th percentile	240	219	238	222
Count	595	69	316	343
9. Mean number of research experiences	2.1	1.9	1.7	1.4
10. Mean number of abstracts, presentations, and publications	2.2	1.6	3.2	3.2

n/a: The measure either does not apply to, applies to only a small percentage of, or no reliable data were available for independent applicants.
Sources. Measures 1, 2, and match outcome from the NRMP Data Warehouse, measure 3 from the AAMC Organizational Characteristics Database and AAMC Enterprise Information Store (EIS), measure 4 and 5 from the AAMC Data Warehouse, measures 6, 9, 10 from the AAMC ERAS Data Warehouse, and measures 7 and 8 from the AAMC Data Warehouse and from the ECFMG both by permission of the NBME and ECFMG.
Note: Counts are provided for USMLE Step scores since they are the only measures with significant missing data.

Chart GS-1

NUMBER OF CONTIGUOUS RANKS WITHIN PREFERRED SPECIALTY

Surgery-General

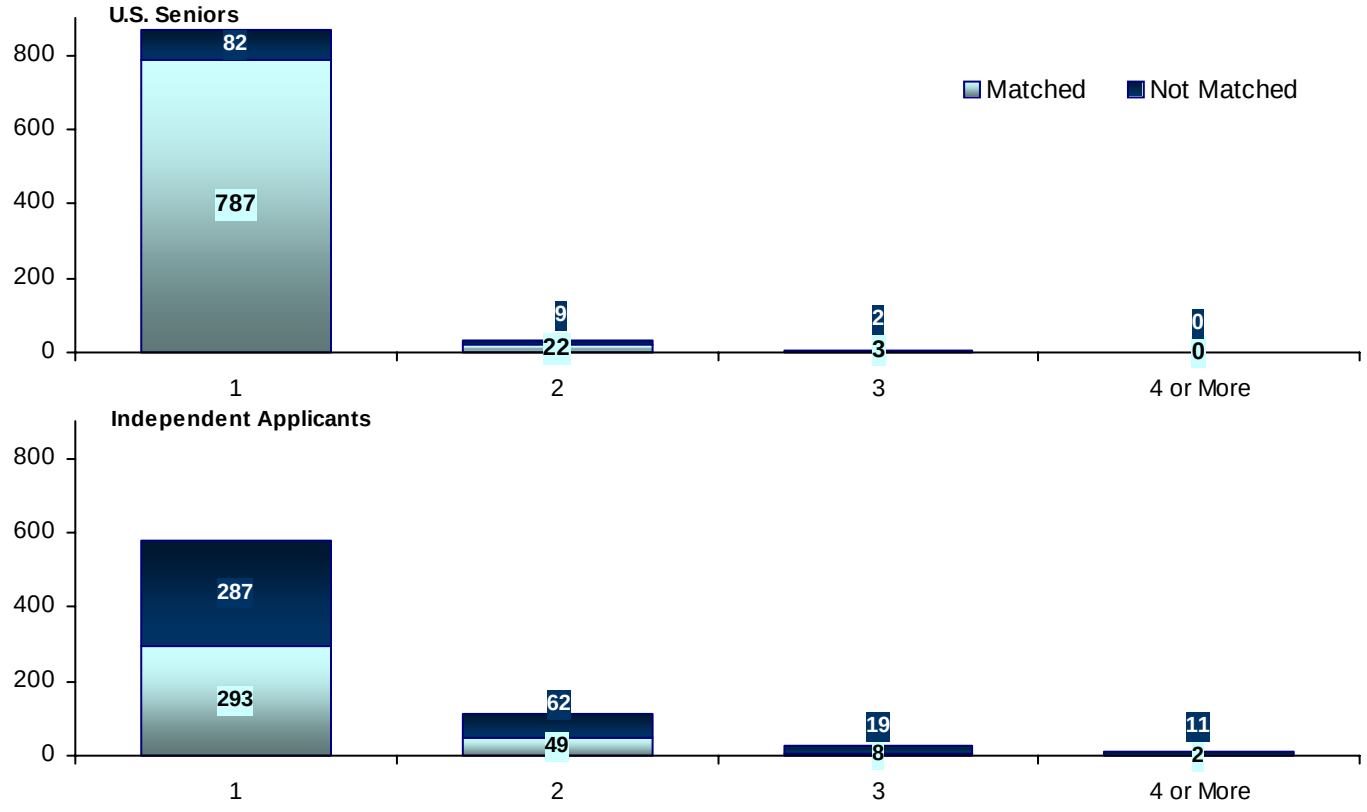


Source: NRMP Data Warehouse.

Chart GS-2

NUMBER OF DISTINCT SPECIALTIES RANKED

Surgery-General

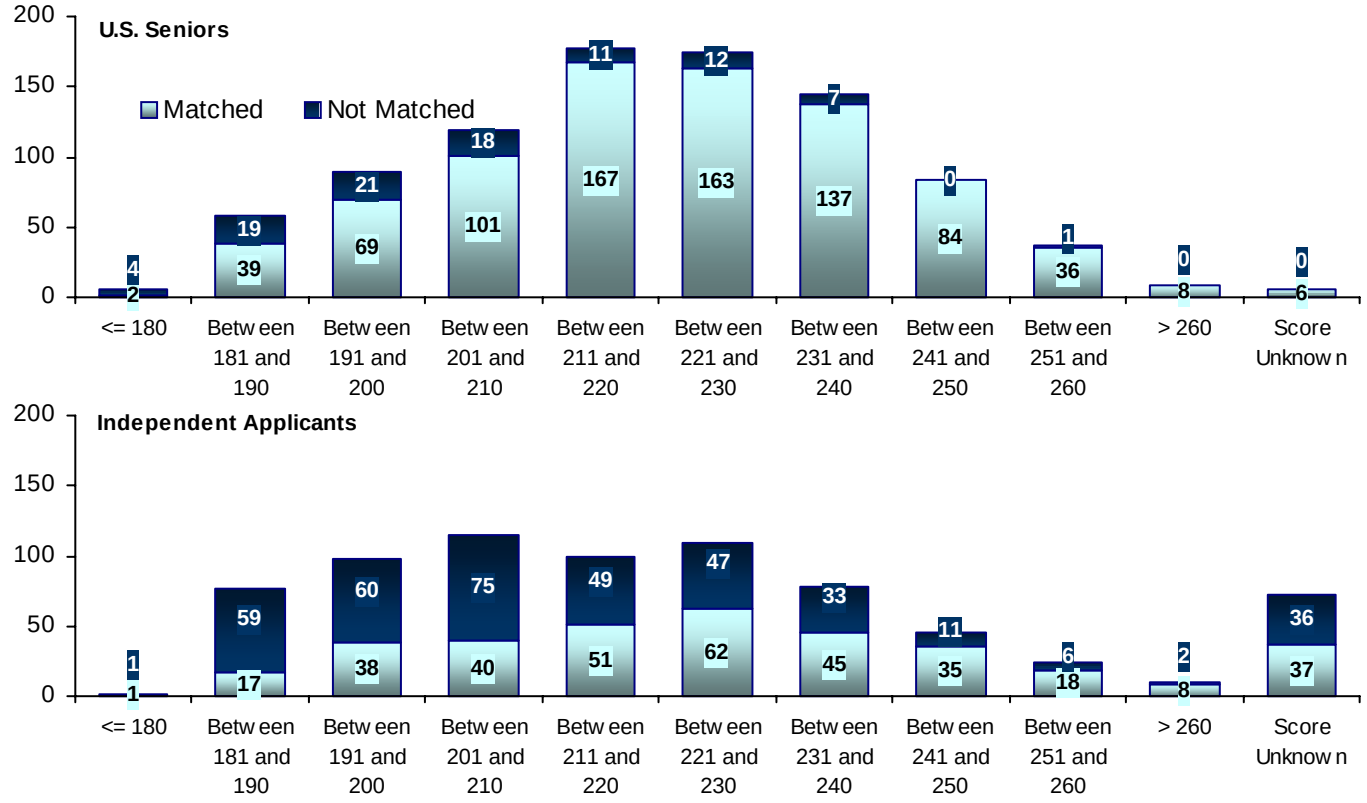


Source: NRMP Data Warehouse.

Chart GS-3

USMLE Step 1 Scores

Surgery-General

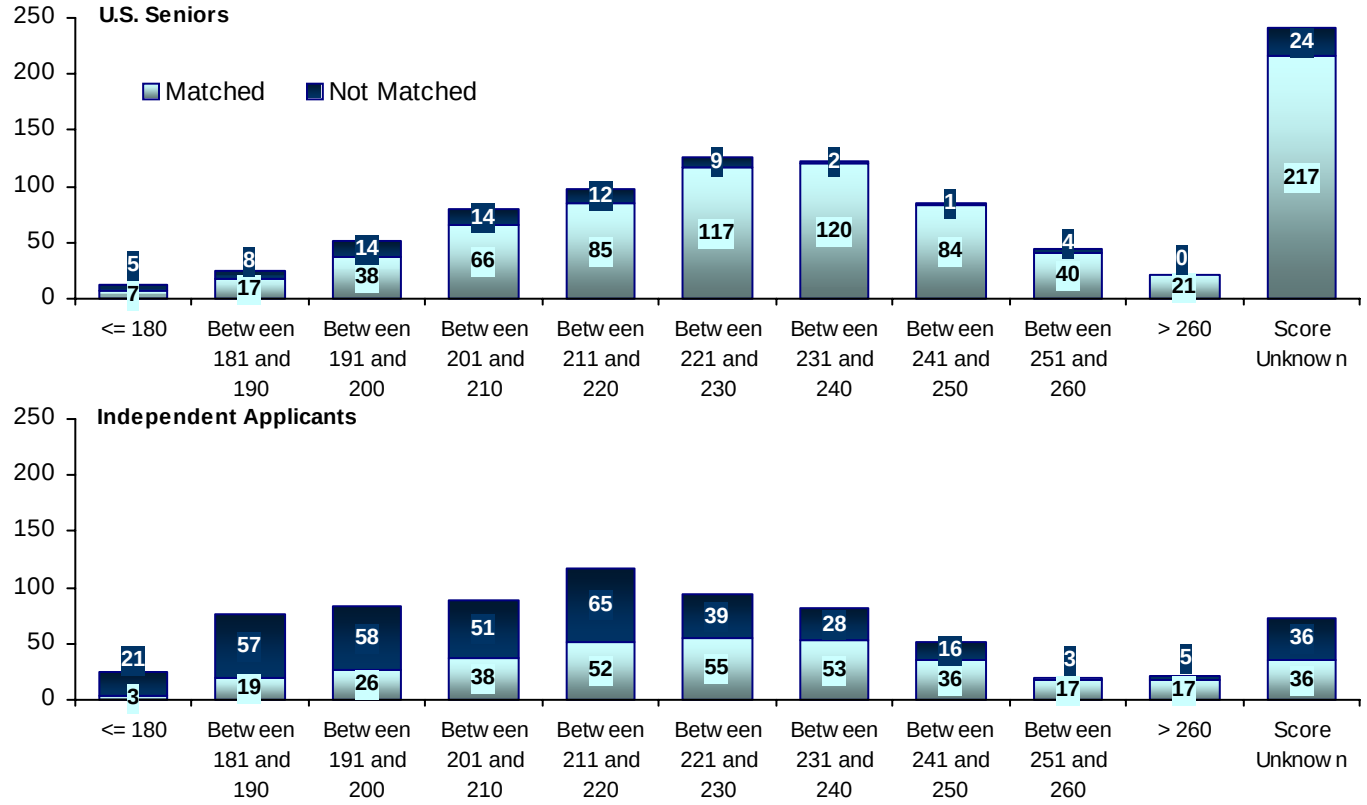


Source: NRMP Data Warehouse and AAMC Data Warehouse. USMLE scores by permission of the NBME and *ECFMG*.

Chart GS-4

USMLE Step 2 Scores

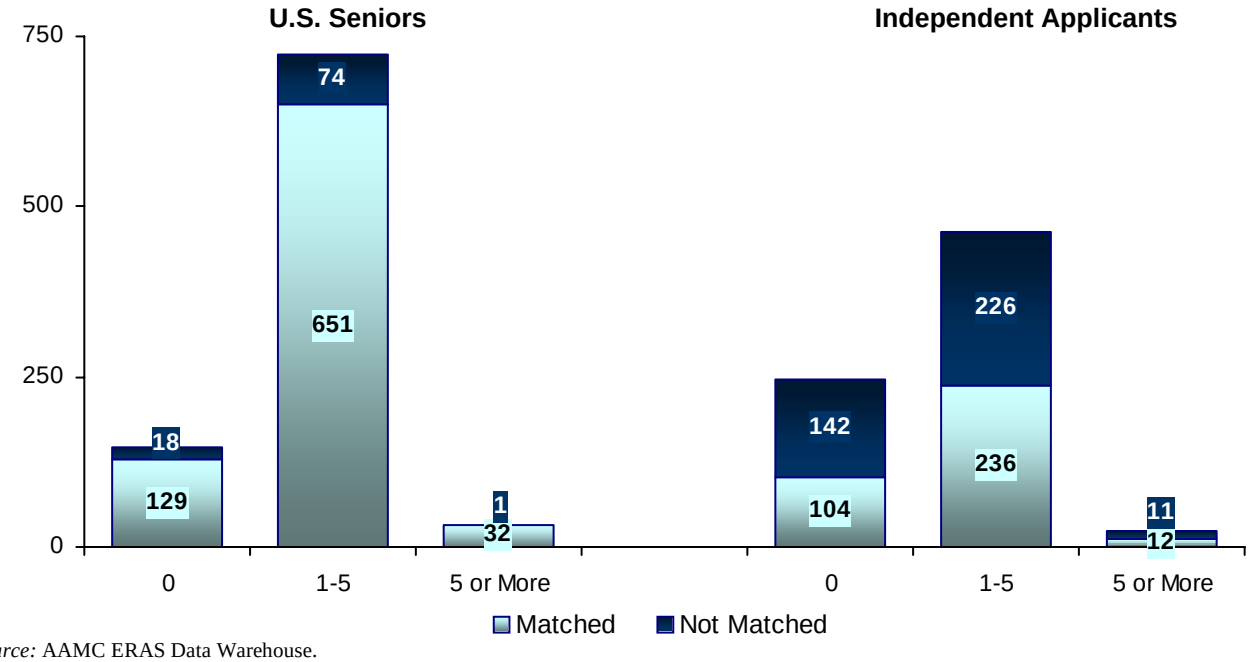
Surgery-General



Source: NRMP Data Warehouse and AAMC Data Warehouse. USMLE scores by permission of the NBME and *ECFMG*.

Chart GS-5

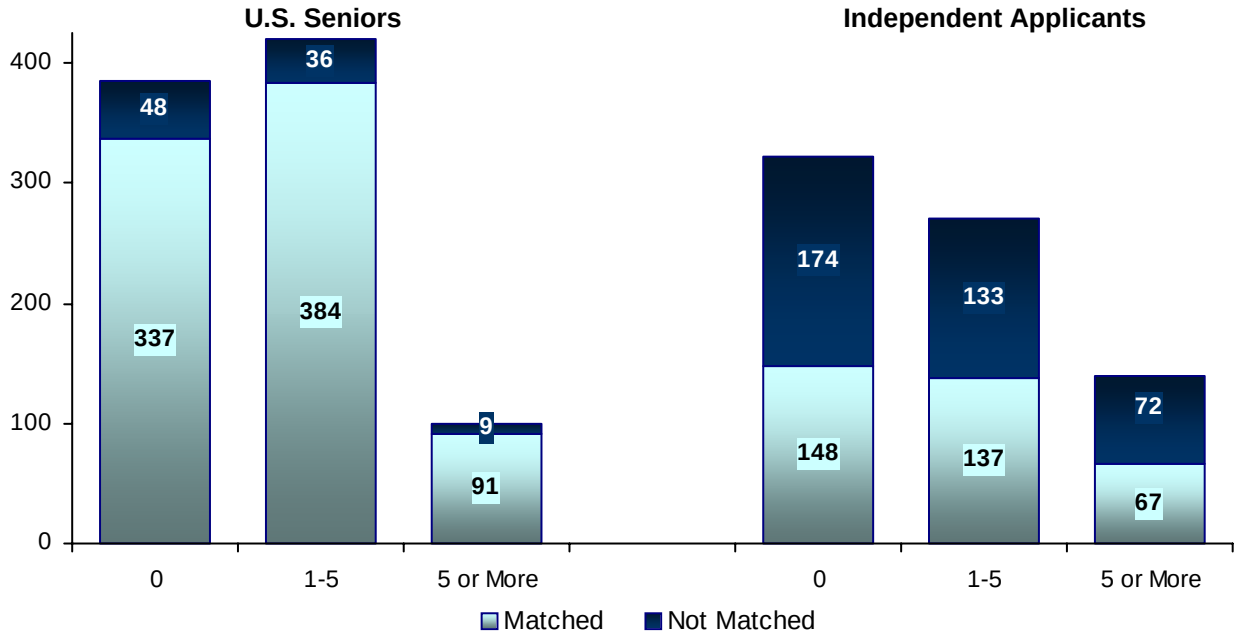
NUMBER OF RESEARCH PROJECTS
Surgery-General



Source: AAMC ERAS Data Warehouse.

Chart GS-6

NUMBER OF ABSTRACTS, PRESENTATIONS, AND PUBLICATIONS
Surgery-General

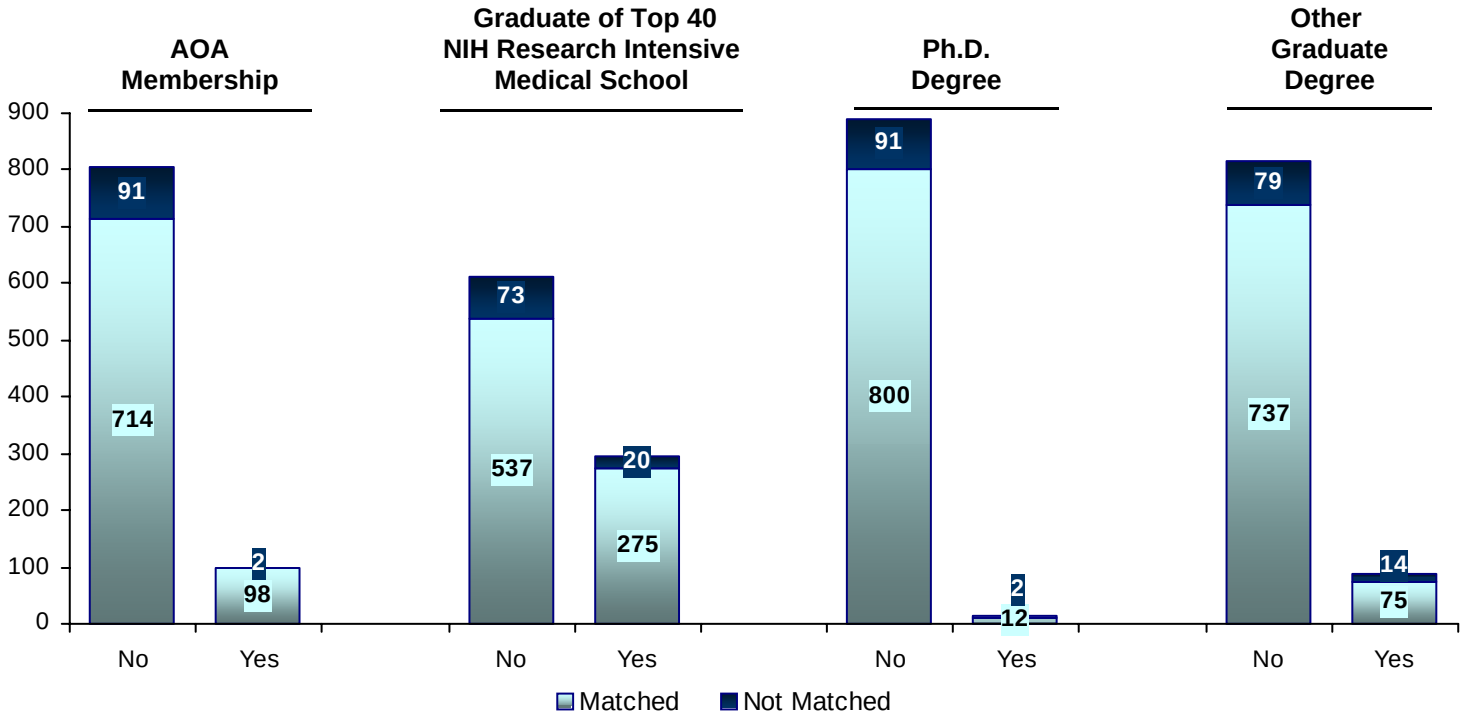


Source: AAMC ERAS Data Warehouse.

Chart GS-7

OTHER CHARACTERISTICS OF U.S. SENIORS

Surgery-General



Sources. AOA membership from the AAMC ERAS Data Warehouse, Top 40 NIH Research Intensive Medical Schools from the AAMC Organizational Characteristics Database and AAMC Enterprise Information Store (EIS), Ph.D. and other graduate degrees from the AAMC Data Warehouse.

TY TRANSITIONAL YEAR

Table TY-1

SUMMARY STATISTICS
Transitional Year

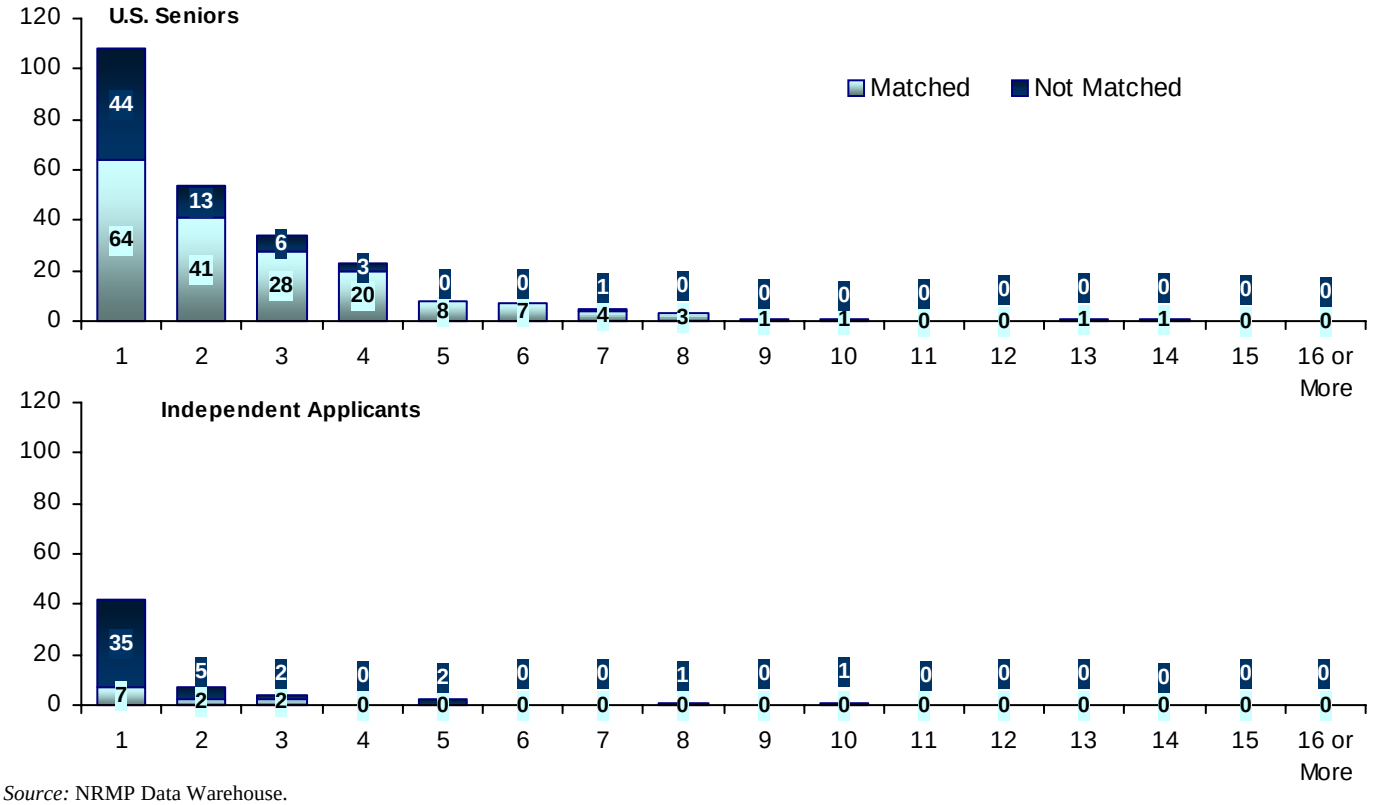
Measure	U.S. Seniors		Independent Applicants	
	Matched (n=179)	Did Not Match (n=67)	Matched (n=11)	Did Not Match (n=46)
1. Median number of contiguous ranks	2.0	1.0	1.0	1.0
2. Mean number of distinct specialties ranked	1.8	2.0	1.5	2.0
3. Percentage who graduated from top 40 NIH research medical school	47.5	29.9	n/a	n/a
4. Percentage who have a Ph.D. degree	3.9	0.0	n/a	n/a
5. Percentage who have another graduate degree	6.1	11.9	n/a	n/a
6. Percentage who are AOA members	16.8	11.9	n/a	n/a
7. USMLE Step 1 score				
Mean	232	225	215	208
Median	233	230	209	205
25th percentile	220	207	193	188
75th percentile	243	239	235	226
Count	177	67	10	42
8. USMLE Step 2 score				
Mean	230	218	220	213
Median	231	223	226	210
25th percentile	217	206	204	192
75th percentile	244	238	230	240
Count	87	40	10	41
9. Mean number of research experiences	2.8	2.6	1.9	1.3
10. Mean number of abstracts, presentations, and publications	3.3	2.2	3.9	3.1

n/a: The measure either does not apply to, applies to only a small percentage of, or no reliable data were available for independent applicants.
Sources. Measures 1, 2, and match outcome from the NRMP Data Warehouse, measure 3 from the AAMC Organizational Characteristics Database and AAMC Enterprise Information Store (EIS), measure 4 and 5 from the AAMC Data Warehouse, measures 6, 9, 10 from the AAMC ERAS Data Warehouse, and measures 7 and 8 from the AAMC Data Warehouse and from the ECFMG both by permission of the NBME and ECFMG.
Note: Counts are provided for USMLE Step scores since they are the only measures with significant missing data.

Chart TY-1

NUMBER OF CONTIGUOUS RANKS WITHIN PREFERRED SPECIALTY

Transitional Year

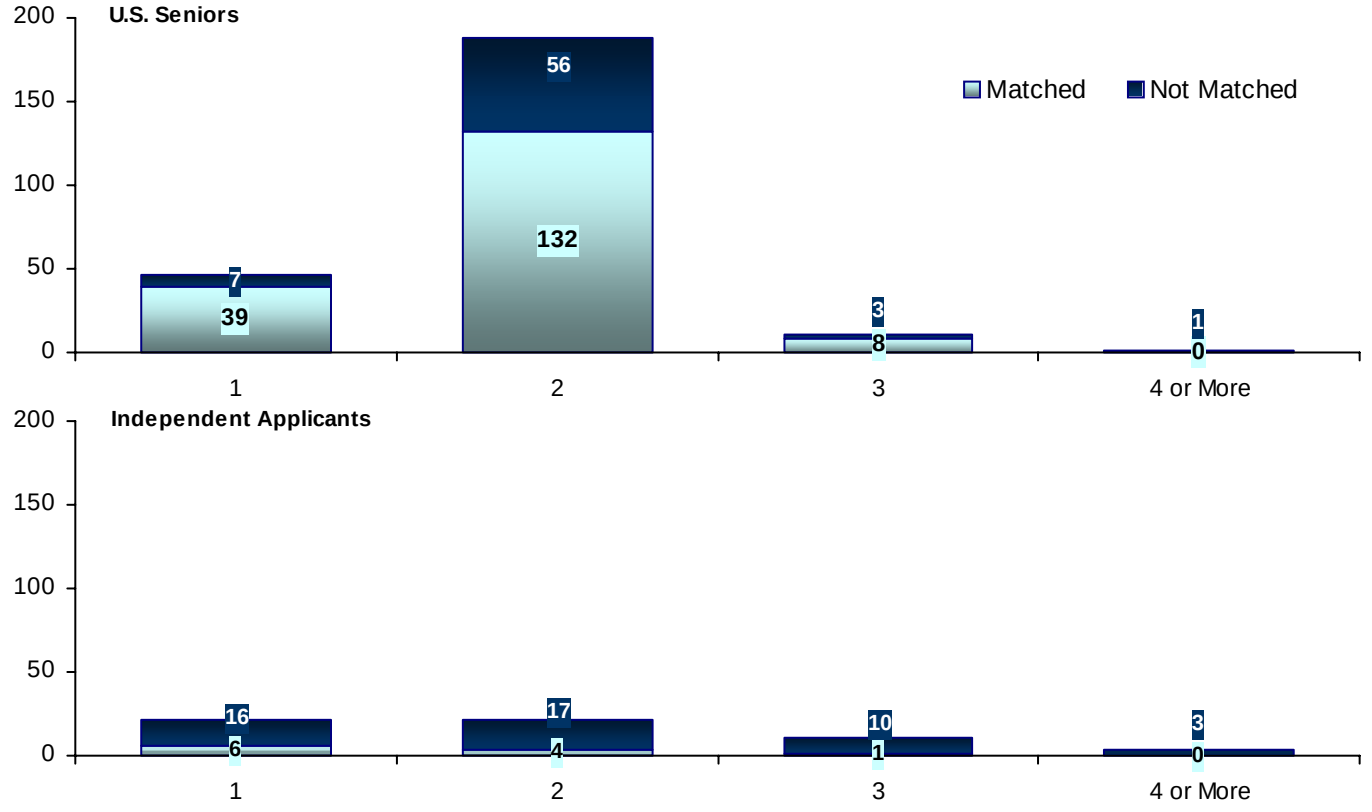


Source: NRMP Data Warehouse.

Chart TY-2

NUMBER OF DISTINCT SPECIALTIES RANKED

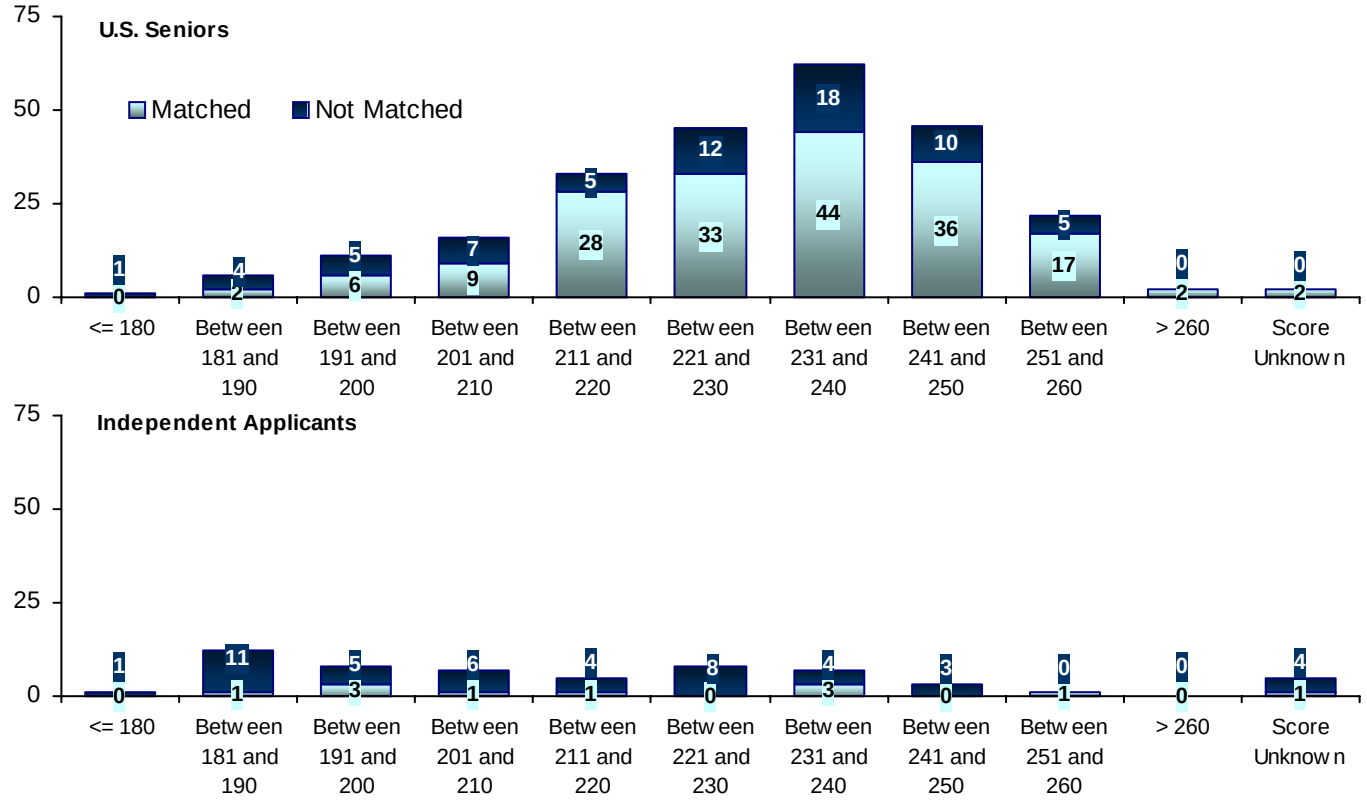
Transitional Year



Source: NRMP Data Warehouse.

Chart TY-3

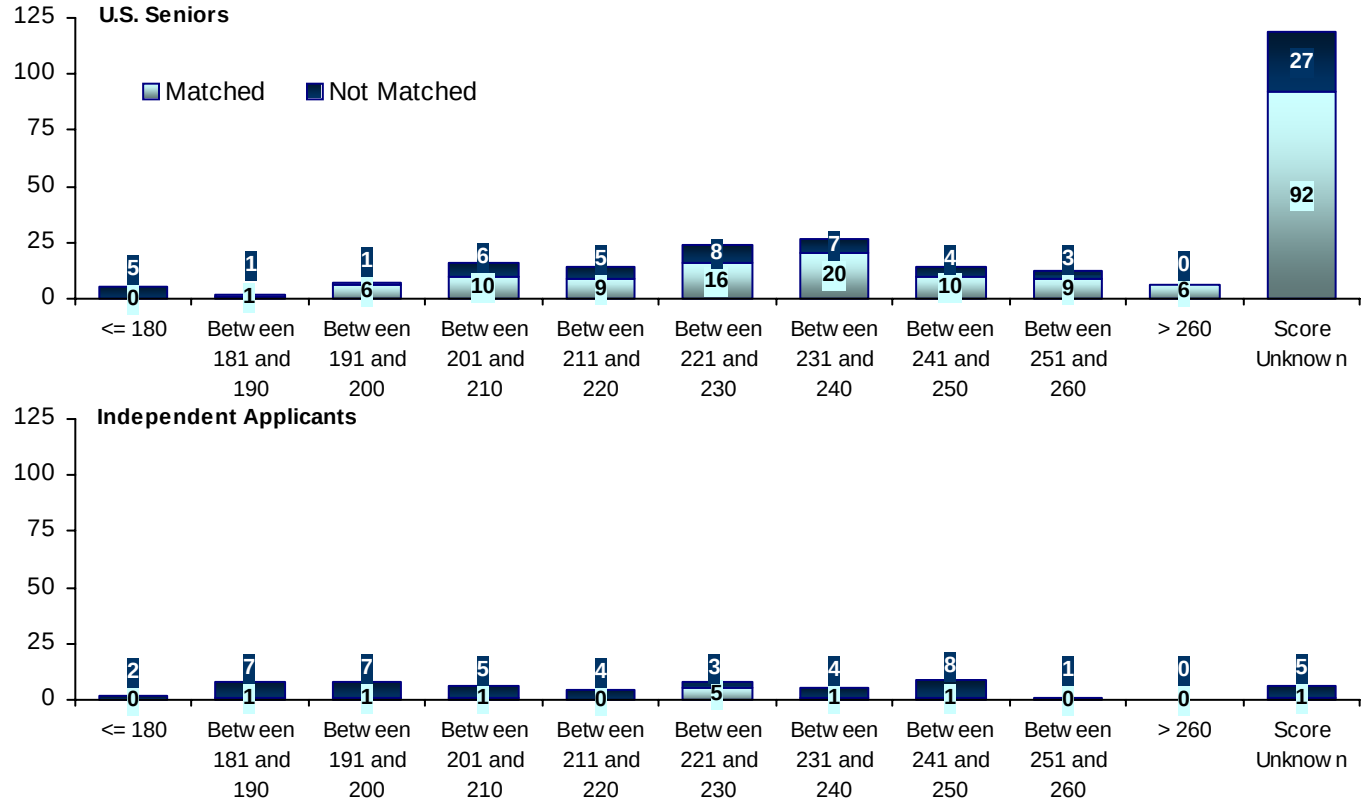
USMLE Step 1 Scores
Transitional Year



Source: NRMP Data Warehouse and AAMC Data Warehouse. USMLE scores by permission of the NBME and *ECFMG*.

Chart TY-4

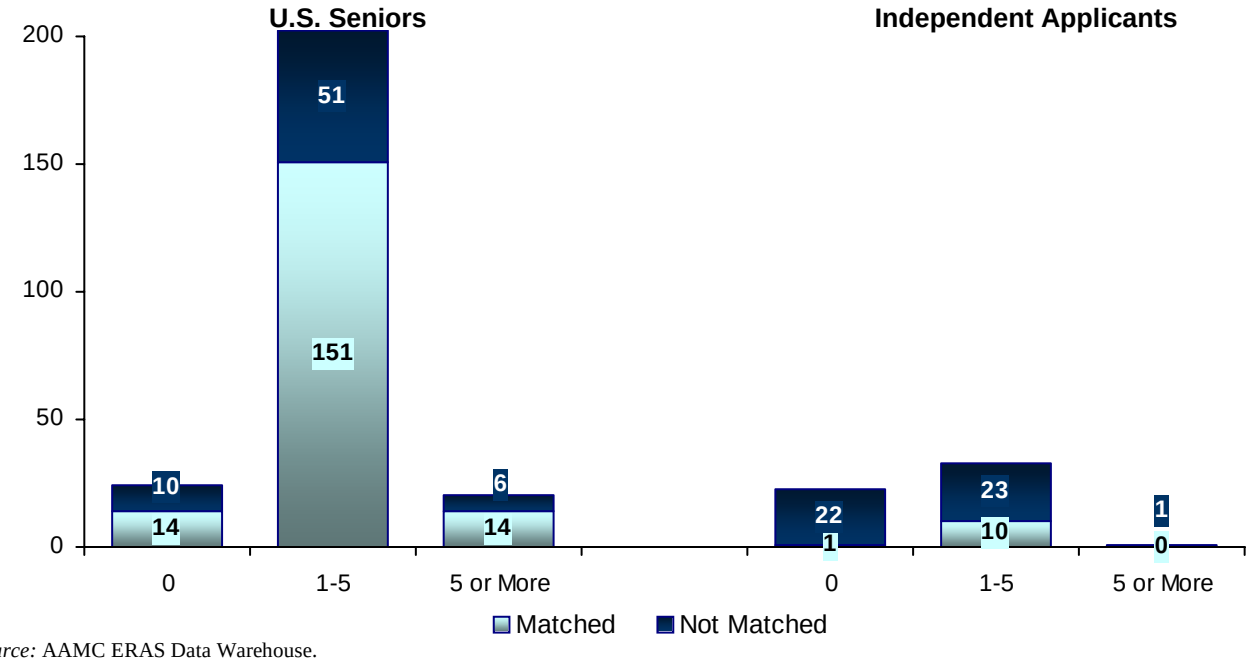
USMLE Step 2 Scores
Transitional Year



Source: NRMP Data Warehouse and AAMC Data Warehouse. USMLE scores by permission of the NBME and *ECFMG*.

Chart TY-5

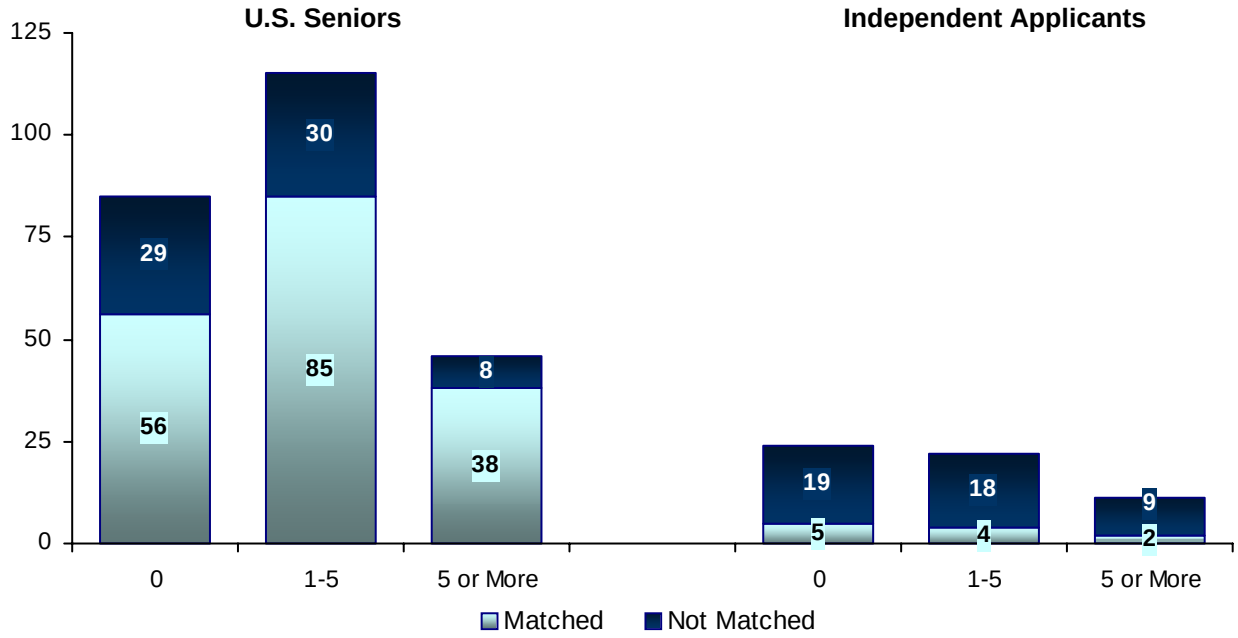
NUMBER OF RESEARCH PROJECTS
Transitional Year



Source: AAMC ERAS Data Warehouse.

Chart TY-6

NUMBER OF ABSTRACTS, PRESENTATIONS, AND PUBLICATIONS
Transitional Year

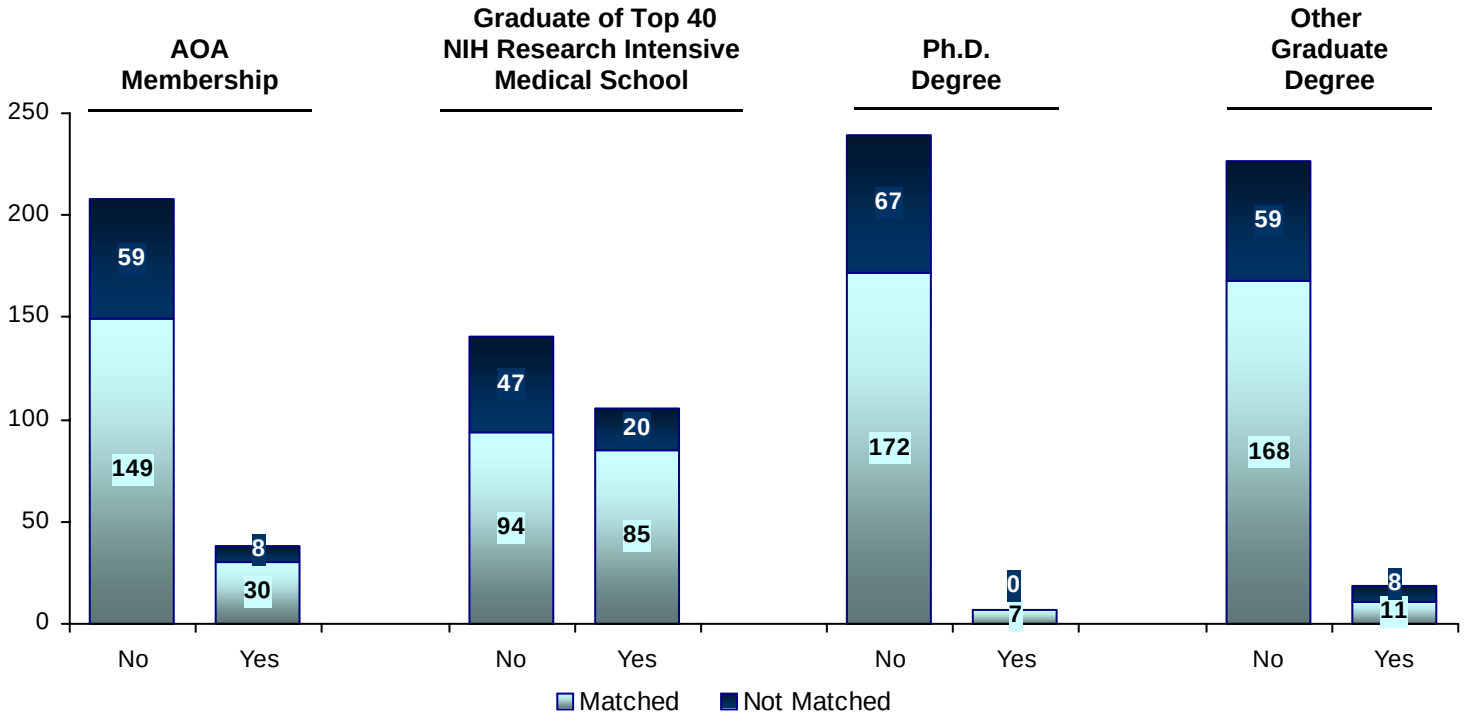


Source: AAMC ERAS Data Warehouse.

Chart TY-7

OTHER CHARACTERISTICS OF U.S. SENIORS

Transitional Year



Sources. AOA membership from the AAMC ERAS Data Warehouse, Top 40 NIH Research Intensive Medical Schools from the AAMC Organizational Characteristics Database and AAMC Enterprise Information Store (EIS), Ph.D. and other graduate degrees from the AAMC Data Warehouse.

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