

Impact of Length of Rank Order List on Match Results: 2005-2024 Main Residency Match

This report outlines the average length of the rank order lists (ROL) of matched versus unmatched applicants, filled versus unfilled programs, over a 20 year period.

While the data contained in this report are insightful and offer a landscape against which to assess trends, it is important to note that there are many factors that contribute to ranking decisions made by both applicants and program and, therefore, to the lengths of their respective ROLs. Those factors include the unique training needs and preferences of applicants and programs, the competitiveness of applicants for the programs and specialties pursued, the competitiveness of programs, competitiveness of preferred specialties, and the number of interviews completed. For detailed information about the factors applicants and programs consider when applying, interviewing, and ranking, please view *Charting Outcomes: Applicant Survey Results* and *Results of the Program Director Survey*, both found on the [Residency and Data Reports page](#) of the NRMP website.

Overall, this report shows that matched applicants and filled programs consistently have longer ROLs than unmatched applicants and unfilled programs. The NRMP advises applicants and programs to include all acceptable choices on their rank order lists. A longer ROL in no way affects the chances of matching to choices higher on the ROL.

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Program Data

Program data are based on the number of positions offered. Any program with one or more positions unfilled after the matching algorithm has been processed, regardless of the number of positions filled, is included in the unfilled program data. Programs that donated unfilled positions to other programs through reversions are considered unfilled, and the fill status of programs that received reverted positions is based on the original quota.

The effects of the COVID-19 pandemic on the residency recruitment process seem to have cooled, with the average length of ROLs for filled programs moving back toward pre-pandemic levels. Between 2020 and 2021, the average length of ROL for filled programs increased 16 percent with the pivot to virtual interviews and genuine uncertainty about the pivot would influence future application and interview behavior. Since 2021, however, length of ROL has shown a consistent decline, 2.16 ranks in 2022, 3.94 ranks in 2023, and 1.16 ranks in 2024. This has resulted in an overall decrease of 7.26 ranks between 2021 and 2024. In contrast, the average length of ROLs for unfilled programs has increased every year since 2021, with a nearly 20 percent increase in 2022 and 26 percent increase in 2023. In 2024, the average length of ROL for unfilled programs increased only 3 percent.

Over 20 years, the average length of ROL for programs has increased 46.5 percent; however, the number of positions filled has increased 91 percent or 9 percentage points overall. In each year since 2007, 84 percent or more of programs have filled.

Year	Filled Programs			Unfilled Programs		
	Number and % Filled	Average Length of ROL	Average Ranks per Position	Number and % Unfilled	Average Length of ROL	Average Ranks per Position
2005	3,005 (79.4%)	55.66	9.35	779 (20.6%)	26.63	4.90
2006	3,159 (81.8%)	55.85	9.74	702 (18.2%)	25.31	4.65
2007	3,360 (84.1%)	56.80	9.96	635 (15.9%)	25.23	4.97
2008	3,410 (84.4%)	57.66	10.04	628 (15.6%)	29.50	5.37
2009	3,601 (87.3%)	58.94	10.52	526 (12.7%)	27.56	5.68
2010	3,614 (87.3%)	61.78	11.11	528 (12.7%)	27.68	5.64
2011	3,660 (87.1%)	63.35	11.33	542 (12.9%)	32.51	6.28
2012	3,767 (85.9%)	64.27	11.52	619 (14.1%)	30.52	6.63
2013	4,029 (87.9%)	68.12	11.11	555 (12.1%)	27.31	6.56
2014	4,041 (86.1%)	68.88	11.52	654 (13.9%)	32.42	7.28
2015	4,093 (86.8%)	70.72	11.64	623 (13.2%)	34.38	7.13
2016	4,191 (87.2%)	71.93	11.99	613 (12.8%)	36.01	7.54
2017	4,398 (87.5%)	72.50	12.35	630 (12.5%)	33.78	7.39
2018	4,623 (87.7%)	74.01	12.83	648 (12.3%)	34.02	7.46
2019	4,759 (85.6%)	75.81	13.12	799 (14.4%)	33.92	7.60
2020	4,975 (85.7%)	76.58	12.91	833 (14.3%)	34.61	7.52
2021	5,120 (86.6%)	88.73	15.35	795 (13.4%)	40.61	8.19
2022	5,191 (85.3%)	86.57	15.20	896 (14.7%)	51.20	9.31
2023	5,431 (86.6%)	82.63	12.97	839 (13.4%)	61.21	8.87
2024	5,608 (87.7%)	81.47	12.76	787(12.3%)	63.05	8.73

Applicant Data

Applicant data are based on the primary rank order lists of all applicant types combined. Data do not include couples.

The number of applicants matched has grown steadily over the past 20 years. Percentages matched have fluctuated, reaching a nadir of 71.9 percent in 2010 and a peak of 81.8 percent in 2023. The average length of ROL for matched applicants also has nearly doubled over the past two decades while the average length of ROL for unmatched applicants has remained static.

Year	Matched Applicants		Unmatched Applicants	
	Number and % Matched	Average Length of ROLs	Number and % Unmatched	Average Length of ROLs
2005	19,234 (79.7%)	7.65	4,901 (20.3%)	4.48
2006	19,484 (76.4%)	7.81	6,011 (23.6%)	4.51
2007	20,042 (75.1%)	8.23	6,660 (24.9%)	4.64
2008	20,167 (74.0%)	8.52	7,094 (26.0%)	4.32
2009	20,458 (72.3%)	8.74	7,854 (27.7%)	4.46
2010	20,797 (71.9%)	9.25	8,130 (28.1%)	4.50
2011	21,363 (73.7%)	9.53	7,608 (26.3%)	4.38
2012	21,745 (73.5%)	9.75	7,855 (26.5%)	4.69
2013	24,186 (74.5%)	9.81	8,299 (25.5%)	4.58
2014	24,660 (76.1%)	10.30	7,760 (23.9%)	4.71
2015	24,918 (75.9%)	10.41	7,913 (24.1%)	4.78
2016	25,481 (76.3%)	10.60	7,903 (23.7%)	4.66
2017	26,186 (77.7%)	10.71	7,533 (22.3%)	4.24
2018	27,424 (78.9%)	10.91	7,349 (21.1%)	4.02
2019	29,044 (80.2%)	11.22	7,180 (19.8%)	4.21
2020	30,582 (81.3%)	11.29	7,050 (18.7%)	4.32
2021	31,546 (78.7%)	12.35	8,514 (21.3%)	4.47
2022	32,305 (80.6%)	12.58	7,798 (19.4%)	4.42
2023	33,112 (81.8%)	12.43	7,360 (18.2%)	4.15
2024	34,312 (80.9%)	12.14	8,105 (19.1%)	4.13

U.S. MD Seniors Data

U.S. MD seniors data are based on applicants' primary rank order lists. Data do not include couples.

U.S. MD seniors historically have had the highest match rate and the longest average ROLs. Year-to-year variations occur within a narrow range, 92-95 percent of U.S. MD seniors matching each year. Average length of ROLs for matched U.S. MD seniors has continued to decrease since its peak in 2022 (14.31 ranks) by .13 of a rank in 2023 and an additional .23 of a rank in 2024.

Although the average length ROL for matched U.S. MD seniors has increased 69.1 percent in 20 years, it is still well below the 20 ranks offered in the standard Match registration fee. Since 2005, average length of ROL has increased 32.9 percent for unmatched U.S. MD seniors.

Year	Matched Applicants		Unmatched Applicants	
	Number and % Matched	Average Length of ROLs	Number and % Unmatched	Average Length of ROLs
2005	12,975 (94.7%)	8.25	726 (5.3%)	5.29
2006	13,285 (94.7%)	8.40	748 (5.3%)	5.26
2007	13,486 (94.7%)	8.90	756 (5.3%)	5.62
2008	13,406 (95.0%)	9.26	699 (5.0%)	5.63
2009	13,560 (94.0%)	9.59	858 (6.0%)	6.27
2010	13,920 (94.0%)	10.17	896 (6.0%)	6.83
2011	14,466 (94.7%)	10.55	817 (5.3%)	6.36
2012	14,477 (95.6%)	10.93	670 (4.4%)	6.52
2013	15,099 (94.2%)	11.04	929 (5.8%)	6.58
2014	15,117 (95.0%)	11.68	796 (5.0%)	6.80
2015	15,512 (94.3%)	11.72	940 (5.7%)	7.15
2016	15,714 (94.3%)	11.97	950 (5.7%)	7.11
2017	15,950 (94.7%)	12.14	889 (5.3%)	6.61
2018	16,165 (94.7%)	12.49	911 (5.3%)	6.84
2019	16,392 (94.0%)	12.91	1041 (6.0%)	6.90
2020	16,606 (93.8%)	12.82	1,089 (6.2%)	7.40
2021	16,935 (92.7%)	13.98	1,325 (7.3%)	7.25
2022	17,064 (93.0%)	14.31	1,288 (7.0%)	7.40
2023	17,061 (93.8%)	14.18	1,125 (6.2%)	7.35
2024	17,091 (93.5%)	13.95	1,185 (6.5%)	7.03

U.S. DO Seniors Data

U.S. DO senior data are based on applicants' primary rank order lists. Data do not include couples.

For U.S. DO seniors, participation rates have increased dramatically since 2016, largely in response to the creation of a single accreditation system that led to the establishment of a Single Match in 2020. Increased participation rates among DO applicants likely have contributed to faster growth in average length of ROL compared to U.S. MD seniors or applicants overall.

Average length of ROLs for matched U.S. DO seniors decreased for the first time since 2017, a decrease of .20 of a rank between 2023 and 2024. For unmatched U.S. DO seniors, the average length of ROL continues to decrease from its peak in 2022 (6.29 ranks) by .12 of a rank in 2023 and an additional .39 of a rank in 2024.

Since 2016, mean ROL length among matched U.S. DO seniors has increased 35.3 percent but has only fluctuated modestly among unmatched U.S. DO seniors. The number of matched U.S. DO seniors has grown over 200 percent while the number of unmatched has seen only modest increases. Over 80 percent of U.S. DO seniors have matched every year since 2005 and over 85 percent since 2014. The percent of U.S. DO seniors matched now approaches historical match rates for U.S. MD seniors.

Year	Matched Applicants		Unmatched Applicants	
	Number and % Matched	Average Length of ROLs	Number and % Unmatched	Average Length of ROLs
2005	1,037 (83.6%)	6.16	203 (16.4%)	3.92
2006	976 (82.2%)	6.14	211 (17.8%)	3.87
2007	1,082 (82.0%)	6.62	237 (18.0%)	3.92
2008	1,304 (82.9%)	6.96	269 (17.1%)	4.15
2009	1,352 (80.6%)	7.05	325 (19.4%)	4.78
2010	1,365 (81.2%)	7.82	316 (18.8%)	4.52
2011	1,494 (81.6%)	8.18	338 (18.4%)	4.73
2012	1,664 (83.4%)	8.39	332 (16.6%)	4.80
2013	1,894 (82.6%)	8.84	399 (17.4%)	4.85
2014	2,030 (86.1%)	9.57	328 (13.9%)	4.98
2015	2,180 (85.5%)	9.57	369 (14.5%)	5.08
2016	2,220 (86.2%)	9.92	355 (13.8%)	5.63
2017	2,706 (87.0%)	9.83	405 (13.0%)	5.45
2018	3,453 (85.9%)	10.15	566 (14.1%)	5.73
2019	4,567 (89.1%)	10.89	559 (10.9%)	5.69
2020	5,531 (90.8%)	11.45	559 (9.2%)	5.81
2021	5,927 (89.3%)	13.31	708 (10.7%)	6.28
2022	6,211 (91.7%)	13.59	564 (8.3%)	6.29
2023	6,350 (91.9%)	13.62	563 (8.1%)	6.17
2024	6,921(92.5%)	13.42	560 (7.5%)	5.78

U.S. IMG Data

U.S. IMGs' data are based on applicants' primary rank order lists. Data do not include couples.

The average length ROL for matched U.S. citizen students and graduates of international medical schools (U.S. IMGs) has grown over the past twenty years by 46.7 percent while the average length of ROL for unmatched U.S. IMGs has declined by 16 percent. Percentages matched have fluctuated over time, ranging from 47.7 percent in 2010 to 67.8 percent in 2023.

Average length of ROL for matched U.S. IMGs peaked in 2023 (9.99 ranks) and decreased by .19 of a rank in 2024.

Year	Matched Applicants		Unmatched Applicants	
	Number and % Matched	Average Length of ROLs	Number and % Unmatched	Average Length of ROLs
2005	1,153 (56.2%)	6.68	900 (43.8%)	4.41
2006	1,245 (52.0%)	6.72	1,149 (48.0%)	4.04
2007	1,342 (50.9%)	7.47	1,295 (49.1%)	4.62
2008	1,513 (52.7%)	8.03	1,356 (47.3%)	4.35
2009	1,582 (48.2%)	7.98	1,703 (51.8%)	4.28
2010	1,707 (47.7%)	8.31	1,870 (52.3%)	4.45
2011	1,840 (50.2%)	8.42	1,825 (49.8%)	4.17
2012	2,041 (49.1%)	8.23	2,113 (50.9%)	4.71
2013	2,636 (53.1%)	8.63	2,326 (46.9%)	4.47
2014	2,690 (53.8%)	8.84	2,308 (46.2%)	4.68
2015	2,575 (53.2%)	8.87	2,266 (46.8%)	4.55
2016	2,774 (54.0%)	9.02	2,362 (46.0%)	4.18
2017	2,695 (54.8%)	9.22	2,223 (45.2%)	3.83
2018	2,821 (57.4%)	8.91	2,095 (42.6%)	3.43
2019	2,908 (58.8%)	9.20	2,037 (41.2%)	3.54
2020	3,056 (61.1%)	8.80	1,948 (38.9%)	3.33
2021	3,069 (59.7%)	9.49	2,072 (40.3%)	3.51
2022	3,021 (61.8%)	9.49	1,870 (38.2%)	3.70
2023	3,271 (67.8%)	9.99	1,553 (32.2%)	3.26
2024	3,099 (67.2%)	9.80	1,512 (32.8%)	3.37

Non U.S. IMG Data

Non-U.S. IMGs' data are based on applicants' primary rank order lists. Data do not include couples.

In contrast to other applicant types, the average length of ROL for matched non-U.S. international medical graduates (non-U.S. IMGs) has remained relatively stable over time although the average length for unmatched IMG applicants has declined by 28.3 percent. The numbers and percentages matched have fluctuated, with percentage matched reaching a nadir of 40.4 percent in 2010 and a peak of 61.8 percent in 2020. Average length of ROL for matched non-U.S. IMGs peaked in 2020 (7.53 ranks) and has decreased every year since, resulting in a decrease of .50 of a rank between 2020 and 2024.

Year	Matched Applicants		Unmatched Applicants	
	Number and % Matched	Average Length of ROLs	Number and % Unmatched	Average Length of ROLs
2005	3,089 (56.4%)	6.75	2,389 (43.6%)	4.53
2006	3,112 (49.2%)	6.83	3,215 (50.8%)	4.68
2007	3,206 (46.6%)	6.92	3,671 (53.4%)	4.60
2008	3,097 (42.9%)	6.90	4,116 (57.1%)	4.15
2009	3,119 (42.5%)	6.89	4,224 (57.5%)	4.24
2010	2,887 (40.4%)	6.81	4,257 (59.6%)	4.06
2011	2,712 (41.3%)	6.47	3,849 (58.7%)	4.05
2012	2,776 (41.3%)	6.46	3,939 (58.7%)	4.44
2013	3,574 (48.1%)	6.96	3,863 (51.9%)	4.14
2014	3,655 (50.6%)	6.83	3,568 (49.4%)	4.24
2015	3,643 (50.4%)	7.30	3,586 (49.6%)	4.26
2016	3,726 (51.2%)	7.19	3,556 (48.8%)	4.25
2017	3,795 (53.3%)	7.19	3,326 (46.7%)	3.69
2018	3,902 (56.5%)	7.27	3,002 (43.5%)	3.20
2019	3,968 (59.1%)	7.11	2,747 (40.9%)	3.32
2020	4,172 (61.8%)	7.53	2,584 (38.2%)	3.36
2021	4,283 (55.3%)	7.52	3,459 (44.7%)	3.51
2022	4,466 (58.2%)	7.48	3,209 (41.8%)	3.51
2023	4,933 (59.8%)	7.22	3,310 (40.2%)	3.13
2024	5,742 (58.8%)	7.03	4,030 (41.2%)	3.25

Updated 03/18/2024.