



# CHARTING OUTCOMES™: DEMOGRAPHIC CHARACTERISTICS OF APPLICANTS IN THE SPECIALTIES MATCHING SERVICE® (SMS®)

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## Introduction

In January 2021, the NRMP Board of Directors voted to approve the collection of primary source demographic data from Specialties Matching Service applicants commencing with Fellowship Matches opening after January 1, 2022. The decision was based on months-long study, including solicitation of feedback from the undergraduate and graduate medical education communities and leaders of national learner organizations. Key considerations in favor of collecting demographic information from applicants included the ability to better understand and report on the composition of residency applicant populations, inform efforts to address diversity, equity, inclusion, and belonging goals in the transition to residency, and increase the transparency and understanding of the matching process. There is a critical need to understand the roles of applicant demographics and potentially related biases at all points in the UME-GME transition, from application submission and review through interviewing and ranking.

### Identification of Content Domains and Sourcing of Items

A work group consisting of NRMP Board members was convened to identify appropriate content domains and items within those content domains for querying applicant demographics. The final set of content domains included sex assigned at birth, sexual orientation, current gender identity, race and ethnicity, urbanicity of childhood rearing environment, first-generation graduation from college, first-generation graduation from medical school, disability status, and accommodations requested and received during residency.

To the extent possible, the work group preferred that the domains include items from existing medical education and national questionnaires and align with the demographic data collection efforts of other medical education organizations. Toward that end, the NRMP conducted examinations of questionnaires administered by entities overseeing medical education (e.g., the Association of American Medical Colleges) and physician licensing (e.g., the Federation of State Medical Boards), as well as existing national health-related surveys of the general population. The work group also directed staff to review relevant literature to locate potentially suitable measures.

When items of interest could not be identified in existing surveys, special-purpose items were crafted by the work group. Those included questions addressing childhood urbanicity and first-generation college and medical graduation. The final selection of items used to query applicant demographics may be found in Appendix A.

### Data Collection Procedures

Demographic data items are administered within the NRMP's Registration, Ranking, and Results (R3) system as part of Match registration. Applicants are introduced to the items with language that makes clear the data are collected for research purposes. They are told they may refuse consent for the use of their data in research and may opt out of answering any or all questions. Further, they are informed that their demographic data will never be incorporated into the matching algorithm, never be identifiable or disaggregated for the public, and never be provided in identifiable form to programs. The NRMP's demographic data collection protocol underwent Institutional Review Board (IRB) review and was determined to be exempt from IRB oversight.

## Structure and Content of this Report

### Data Cell Size Requirements

To preserve applicant confidentiality, a minimum cell size of 25 respondents was required for all data points included in the report. In some cases, that threshold affected which demographic characteristics could be reported (for instance, a specialty may not have the cell sizes to allow race to be reported). It also restricted which response options within a characteristic could be reported (i.e., race could be reported for a specialty but only for specific race groups like Black/African American, Asian, and White). The NRMP will collect data annually; accordingly, the ability to present data with increasing granularity will improve for all specialties over time without compromising applicant confidentiality.

### Data Presentation

With the first iteration of the report, considerations about how best to present the data were purposely broad and exploratory, the overarching goal being to provide as much subspecialty-specific data as possible even if it resulted in the creation of different profiles across subspecialties. This report expands upon last year's report, which included data for a single appointment year (2023), with the inclusion of demographic characteristics reported by applicants who participated in the **Specialties Matching Service for appointment year 2024**. The viewer can choose to view the data for each year individually, or cumulatively, using the **Appointment Year dropdown menu**.

Viewers will have the ability to examine applicant demographics by both **preferred subspecialty** (i.e., the subspecialty of the program ranked first on each applicant's rank order list) and **matched subspecialty** (i.e., the subspecialty an applicant matched to through the match algorithm regardless of whether that subspecialty was preferred). Individual subspecialties can be selected from the **Preferred and Matched Subspecialty dropdown menus**. Because some subspecialties will not have enough data to populate any of the visualizations for at least the first few years of data collection, individuals viewing the visualizations will have the option to select individual subspecialties, or superordinate categories into which some of the smaller specialties have been rolled. To create these categories, individual subspecialties were grouped based on their ACGME specialty classification. There are a handful of cases where there are subspecialties not included in ACGME's specialty structure. In these instances, subspecialties were grouped based on which overarching specialty is assigned within the NRMP system. These specialty categories are reflected in the **Preferred and Matched Specialty Group dropdown menus**.

It is important to reiterate that preferred subspecialty is based on the first-ranked subspecialty on each applicant's rank order list and does not necessarily mean that an applicant obtained a position within that preferred subspecialty. For example, applicants whose preferred subspecialty is Pediatric Hematology/Oncology but who obtain a position in Pediatric Infectious Disease will appear in the visualizations under Pediatric Hematology/Oncology, ***not*** Pediatric Infectious Disease.

In addition to the ability to examine the demographic information by subspecialty, many visualizations include an **Applicant Type dropdown menu**, which allows the viewer to view the information by each of the five applicant types included in the report.

For a full list of visualizations and other components of this report, viewers can visit the Table of Contents screen within the interactive version of the report. Below is a list of visualization types within each category, as well as a description of each.

- **Active Applicants by Preferred Subspecialty: Specialties Matching Service—** Demographic characteristics by preferred subspecialty—all applicant types. Viewers wishing to view only a subset of applicant types can select the applicant types they wish to view.
- **Active Applicants by Matched Subspecialty: Specialties Matching Service—** Demographic characteristics by matched subspecialty—all applicant types. Viewers wishing to view only a subset of applicant types can select the applicant types they wish to view.
- **Active Applicants by Preferred Subspecialty and Applicant Type: Specialties Matching Service—** Demographic characteristics by preferred subspecialty and applicant type.
- **Active Applicants by Matched Subspecialty and Applicant Type: Specialties Matching Service—** Demographic characteristics by matched subspecialty and applicant type.
- **Active Applicants Match Outcomes by Matched Subspecialty: Specialties Matching Service—** Demographic characteristics by matched subspecialty and Match outcomes.
- **Active Unmatched Applicants by Preferred Subspecialty: Specialties Matching Service—** Demographic characteristics of unmatched applicants by preferred subspecialty.

The visualizations included at the specialty level have between one and 8 demographic characteristics reported. In cases where only a subset of the available response options are reported (due to small cell sizes), the percentages included in the visualizations are based only on applicants who endorsed the response options with sufficient cell sizes to report. For example, in the Active Applicants by Match Outcomes visualizations, some cell sizes for the “unmatched by algorithm” response option are too small to report, leading to some categories reporting 100 percent of a grouping as having been matched by the algorithm. This represents 100 percent of the data included in the visualization after the removal of the prohibitively small cells but does not represent 100 percent of the underlying data.

Consistent with standard practice in analyses of survey data, the response options “I do not know” and “I prefer not to answer” were combined for all demographic characteristics that included these two options. For first-generation college and first-generation medical school graduation, the two “yes” categories (i.e., yes first in my immediate family, yes first in my extended family) were also combined. Please see Appendix A for additional detail about the demographic characteristics queried and associated response options.

## Sample and Consent Rates for the Present Report

### Sample

This section of the report highlights active applicants participating in the Specialties Matching Service (SMS) for fellowship appointment year 2024, which included 85 subspecialties and yielded a final sample size of 14,034 active applicants.

### Consent Rates

Percentages of active applicants who consented to provide demographic data for research, combining over all applicant types, are shown in Table 3 by preferred subspecialty, and shown in Table 4 by matched subspecialty. Overall, 80.7 percent (N=11,328) of SMS applicants consented to provide demographic data for appointment year 2024. When looking at SMS applicants who *matched* to a subspecialty, 81.8 percent (N=9,701) consented to provide demographic data. Consent rates also varied both by subspecialty and by applicant type. Among subspecialties with at least 25 consenting active applicants, the highest consent rates were in Pediatric Nephrology by both *preferred* subspecialty (95.1 percent) and by *matched* subspecialty (94.9 percent). The lowest consent rates were in Pediatric Emergency Medicine (Emergency Medicine) by both *preferred* subspecialty (70.0 percent) and by *matched* subspecialty (66.7 percent). Consent to provision of demographic data for research by applicant type, combining over preferred subspecialties, are shown in Table 1. The highest percentages consenting to use of data was observed among Canadian graduates (85.0 percent) while the lowest rate was observed among U.S. IMGs (76.4 percent).

### “Do Not Know” and “Prefer Not to Answer” Responses

The percentages of active applicants who consented to provide demographic data for research and indicated that they did not know or preferred not to answer one or more items was 15.5 percent by *preferred* subspecialty and 15.1 percent by *matched* subspecialty. As noted previously, these two response options were combined for the analyses. Among applicants who did not know or preferred not to answer any items, the majority gave this response to only one question, accounting for 10.1 percent of the overall sample by *preferred* subspecialty and 9.9 percent of the overall sample by *matched* specialty. As with consent to provide demographic data, do not know/prefer not to answer responses to demographic questions varied by preferred subspecialty (Table 5) and matched subspecialty (Table 6). Among subspecialties with at least 25 consenting active applicants, the lowest rates of applicants who gave any do not know/prefer not to answer responses were in Pediatric Hospital Medicine by *preferred* subspecialty (4.3 percent) and Reproductive Endocrinology by *matched* subspecialty (0.0 percent). The highest rates of applicants endorsing these responses were in Forensic Pathology by both *preferred* subspecialty (30.6 percent) and by *matched* subspecialty (31.4 percent). The lowest percentage of applicants providing any of these responses (see Table 2) was observed among U.S. MD graduates (14.0 percent) while the highest was observed among Canadian graduates (27.5 percent).

**Table 1. Consent Rates (%) by Applicant Type—SMS Appointment Year 2024<sup>1</sup>**

<b>Applicant Type<sup>2</sup></b>	<b>Total NRMP Active Applicants<sup>3</sup>, N</b>	<b>Consented to provide demographic data, N (%)</b>
U.S. MD Graduates	7,297	5,993 (82.1)
U.S. DO Graduates	2,170	1,741 (80.2)
U.S. IMGs	1,800	1,375 (76.4)
Non-U.S. IMGs	2,707	2,168 (80.1)
Canadian Graduates	60	51 (85.0)

<sup>1</sup> Fellowship applicants can participate in multiple Matches. For SMS appointment year 2024, there were 19 applicants who participated in more than one Match. These individuals are included in the table above, meaning the values included in the table are not unique applicant counts. The inclusion vs. exclusion of these applicants did not notably change the consent rates.

<sup>2</sup> Excludes Fifth Pathway applicants due to small subgroup sizes.

<sup>3</sup> Active applicants are applicants who certified a rank order list.

**Table 2. “Do Not Know/Prefer Not to Answer” Responses to Demographic Questions by Applicant Type—SMS Appointment Year 2024<sup>1</sup>**

<b>Applicant Type<sup>2</sup></b>	<b>Number of “Do Not Know/Prefer Not to Answer” Responses among Active Applicants<sup>3</sup>, %<sup>4</sup></b>			
	<b>0</b>	<b>1</b>	<b>2</b>	<b>3 or more</b>
U.S. MD Graduates	86.0	9.5	2.0	2.6
U.S. DO Graduates	85.9	9.5	2.1	2.5
U.S. IMGs	79.8	12.5	2.9	4.8
Non-U.S. IMGs	82.5	11.0	2.5	4.0
Canadian Graduates	72.6	9.8	3.9	13.7

<sup>1</sup> Fellowship applicants can participate in multiple Matches. For SMS appointment year 2024, there were 19 applicants who participated in more than one Match. These individuals are included in the table above, meaning the values included in the table are not unique applicant counts. The inclusion vs. exclusion of these applicants did not notably change the observed percentage distributions.

<sup>2</sup> Excludes Fifth Pathway applicants due to small subgroup sizes.

<sup>3</sup> Active applicants are applicants who certified a rank order list.

<sup>4</sup> Some percentages may not add to 100 because of rounding.

**Table 3. Consent Rates by Preferred Subspecialty—SMS Appointment Year 2024<sup>1</sup>**

<b>Preferred Subspecialty<sup>2</sup></b>	<b>Number of Active Applicants<sup>3</sup></b>	<b>Number Consenting to Provide Demographic Data for Research</b>	<b>Consent Rate (%)</b>
Academic General Pediatrics	--	--	--
Addiction Medicine	146	107	73.3
Addiction Psychiatry	63	48	76.2
Adolescent Medicine	28	25	89.3
Adult Congenital Heart Disease	--	--	--
Advanced Heart Failure & Transplant Cardiology	82	64	78.1
Allergy and Immunology	232	182	78.5
Brain Injury Medicine (Physical Medicine & Rehabilitation)	--	--	--
Breast Imaging	177	135	76.3
Cancer Rehabilitation	--	--	--
Cardiovascular Disease	1,789	1,445	80.8
Child Abuse	--	--	--
Child and Adolescent Psychiatry	329	265	80.6
Clinical Cardiac Electrophysiology	160	117	73.1
Clinical Neurophysiology	70	56	80.0
Clinical Ultrasound	145	125	86.2
Colon and Rectal Surgery	145	131	90.3
Complex Family Planning	--	--	--
Consultation-Liaison Psychiatry	103	90	87.4
Critical Care Medicine (Internal Medicine)	206	167	81.1
Developmental and Behavioral Pediatrics	--	--	--
Emergency Medical Services	92	81	88.0
Emergency Radiology	--	--	--
Endocrinology, Diabetes, Metabolism	381	301	79.0
Epilepsy	135	114	84.4
Female Pelvic Medicine and Reconstructive Surgery (OB/GYN)	60	49	81.7
Female Pelvic Medicine and Reconstructive Surgery (Urology)	--	--	--
Forensic Pathology	47	36	76.6
Gastroenterology	1,051	837	79.6
Geriatric Medicine (Family Medicine)	--	--	--
Geriatric Medicine (Internal Medicine)	150	123	82.0
Global Emergency Medicine	--	--	--
Gynecologic Oncology	89	81	91.0
Hand Surgery (General Surgery)	--	--	--
Hand Surgery (Orthopaedic Surgery)	176	144	81.8
Hand Surgery (Plastic Surgery)	--	--	--
Headache Medicine	47	36	76.6
Hematology and Oncology	967	770	79.6
Hospice and Palliative Medicine	398	314	78.9

Infectious Disease	305	262	85.9
Interventional Pulmonology	62	48	77.4
Interventional Radiology	144	109	75.7
Laryngology	32	26	81.3
Maternal-Fetal Medicine	165	143	86.7
Medical Genetics	--	--	--
Medical Toxicology (Emergency Medicine)	59	52	88.1
Minimally Invasive Gynecologic Surgery	60	49	81.7
Musculoskeletal Radiology	163	119	73.0
Neonatal-Perinatal Medicine	278	235	84.5
Nephrology	327	269	82.3
Neuroradiology	244	181	74.2
Oncology	--	--	--
Pain Medicine	359	257	71.6
Pediatric Anesthesiology	129	103	79.8
Pediatric Cardiology	184	154	83.7
Pediatric Critical Care Medicine	211	187	88.6
Pediatric Emergency Medicine (Emergency Medicine)	50	35	70.0
Pediatric Emergency Medicine (Pediatrics)	157	131	83.4
Pediatric Endocrinology	62	57	91.9
Pediatric Gastroenterology	93	73	78.5
Pediatric Hematology/Oncology	129	111	86.1
Pediatric Hospital Medicine	133	116	87.2
Pediatric Infectious Diseases	36	30	83.3
Pediatric Nephrology	41	39	95.1
Pediatric Pulmonology	51	43	84.3
Pediatric Rehabilitation Medicine	--	--	--
Pediatric Rheumatology	32	27	84.4
Pediatric Surgery	64	54	84.4
Pediatric Transplant Hepatology	--	--	--
Pediatric and Adolescent Gynecology	--	--	--
Pulmonary Disease	38	27	71.1
Pulmonary Disease and Critical Care Medicine	942	764	81.1
Reproductive Endocrinology	74	57	77.0
Rheumatology	348	266	76.4
Sleep Medicine	200	146	73.0
Spinal Cord Injury Medicine	--	--	--
Sports Medicine (Emergency Medicine)	--	--	--
Sports Medicine (Family Medicine)	332	268	80.7
Sports Medicine (Pediatrics)	33	27	81.8
Sports Medicine (Physical Medicine and Rehabilitation)	58	48	82.8
Surgical Critical Care	284	243	85.6
Surgical Oncology	90	77	85.6
Thoracic Surgery	151	127	84.1
Vascular Neurology	169	129	76.3
Vascular Surgery	153	130	85.0
<b>TOTAL</b>	<b>14,034</b>	<b>11,328</b>	<b>80.7</b>



<sup>1</sup> Fellowship applicants can participate in multiple Matches. For SMS appointment year 2024, there were 19 applicants who participated in more than one Match. These individuals are included in the table above, meaning the values included in the table are not unique applicant counts. The inclusion vs. exclusion of these applicants did not notably change the observed consent rates.

<sup>2</sup> Subspecialties that did not meet the minimum cell size for reporting of data are included as rows in the table with no data reported, denoted by "--".

<sup>3</sup> Active applicants are applicants who certified a rank order list.

**Table 4. Consent Rates by Matched Subspecialty—SMS Appointment Year 2024<sup>1</sup>**

<b>Matched Subspecialty<sup>2</sup></b>	<b>Number of Active Applicants<sup>3</sup></b>	<b>Number Consenting to Provide Demographic Data for Research</b>	<b>Consent Rate (%)</b>
Academic General Pediatrics	--	--	--
Addiction Medicine	138	100	72.5
Addiction Psychiatry	63	48	76.2
Adolescent Medicine	--	--	--
Adult Congenital Heart Disease	--	--	--
Advanced Heart Failure & Transplant Cardiology	73	58	79.5
Allergy and Immunology	168	134	79.8
Brain Injury Medicine (Physical Medicine & Rehabilitation)	--	--	--
Breast Imaging	166	129	77.7
Cancer Rehabilitation	--	--	--
Cardiovascular Disease	1,195	1,000	83.7
Child Abuse	--	--	--
Child and Adolescent Psychiatry	304	246	80.9
Clinical Cardiac Electrophysiology	140	103	73.6
Clinical Neurophysiology	77	61	79.2
Clinical Ultrasound	138	121	87.7
Colon and Rectal Surgery	114	103	90.4
Complex Family Planning	--	--	--
Consultation-Liaison Psychiatry	98	86	87.8
Critical Care Medicine (Internal Medicine)	179	149	83.2
Developmental and Behavioral Pediatrics	--	--	--
Emergency Medical Services	86	77	89.5
Emergency Radiology	--	--	--
Endocrinology, Diabetes, Metabolism	350	280	80.0
Epilepsy	121	103	85.1
Female Pelvic Medicine and Reconstructive Surgery (OB/GYN)	48	42	87.5
Female Pelvic Medicine and Reconstructive Surgery (Urology)	--	--	--
Forensic Pathology	45	35	77.8
Gastroenterology	688	570	82.9
Geriatric Medicine (Family Medicine)	--	--	--
Geriatric Medicine (Internal Medicine)	155	127	81.9

Global Emergency Medicine	--	--	--
Gynecologic Oncology	80	73	91.3
Hand Surgery (General Surgery)	--	--	--
Hand Surgery (Orthopaedic Surgery)	156	130	83.3
Hand Surgery (Plastic Surgery)	--	--	--
Headache Medicine	44	34	77.3
Hematology and Oncology	750	611	81.5
Hospice and Palliative Medicine	375	298	79.5
Infectious Disease	303	260	85.8
Interventional Pulmonology	43	33	76.7
Interventional Radiology	138	107	77.5
Laryngology	--	--	--
Maternal-Fetal Medicine	137	119	86.9
Medical Genetics	--	--	--
Medical Toxicology (Emergency Medicine)	49	44	89.8
Minimally Invasive Gynecologic Surgery	50	42	84.0
Musculoskeletal Radiology	156	116	74.4
Neonatal-Perinatal Medicine	268	227	84.7
Nephrology	321	261	81.3
Neuroradiology	235	173	73.6
Oncology	--	--	--
Pain Medicine	332	238	71.7
Pediatric Anesthesiology	125	101	80.8
Pediatric Cardiology	170	145	85.3
Pediatric Critical Care Medicine	207	183	88.4
Pediatric Emergency Medicine (Emergency Medicine)	48	32	66.7
Pediatric Emergency Medicine (Pediatrics)	147	124	84.4
Pediatric Endocrinology	60	55	91.7
Pediatric Gastroenterology	94	73	77.7
Pediatric Hematology/Oncology	132	113	85.6
Pediatric Hospital Medicine	121	105	86.8
Pediatric Infectious Diseases	37	32	86.5
Pediatric Nephrology	39	37	94.9
Pediatric Pulmonology	51	42	82.4
Pediatric Rehabilitation Medicine	--	--	--
Pediatric Rheumatology	32	27	84.4
Pediatric Surgery	44	37	84.1
Pediatric Transplant Hepatology	--	--	--
Pediatric and Adolescent Gynecology	--	--	--
Pulmonary Disease	--	--	--
Pulmonary Disease and Critical Care Medicine	769	635	82.6
Reproductive Endocrinology	55	42	76.4
Rheumatology	273	213	78.0
Sleep Medicine	188	140	74.5
Spinal Cord Injury Medicine	--	--	--
Sports Medicine (Emergency Medicine)	--	--	--
Sports Medicine (Family Medicine)	288	238	82.6
Sports Medicine (Pediatrics)	28	25	89.3

Sports Medicine (Physical Medicine & Rehabilitation)	39	32	82.1
Surgical Critical Care	272	232	85.3
Surgical Oncology	73	64	87.7
Thoracic Surgery	95	80	84.2
Vascular Neurology	165	127	77.0
Vascular Surgery	128	111	86.7
<b>TOTAL</b>	<b>11,853</b>	<b>9,701</b>	<b>81.8</b>

<sup>1</sup> Fellowship applicants can participate in multiple Matches. For SMS appointment year 2024, there were 19 applicants who participated in more than one Match. These individuals are included in the table above, meaning the values included in the table are not unique applicant counts. The inclusion vs. exclusion of these applicants did not notably change the observed consent rates.

<sup>2</sup> Subspecialties that did not meet the minimum cell size for reporting of data are included as rows in the table with no data reported, denoted by "--".

<sup>3</sup> Active applicants are applicants who certified a rank order list.

**Table 5. “Do Not Know/Prefer Not to Answer” Responses to Demographic Questions by Preferred Subspecialty—SMS Appointment Year 2024<sup>1</sup>**

Preferred Subspecialty <sup>2</sup>	Number of “Do Not Know/Prefer Not to Answer” Responses among Active Applicants <sup>3</sup> , % <sup>4</sup>			
	0	1	2	3 or more
Academic General Pediatrics	--	--	--	--
Addiction Medicine	76.6	15.9	2.8	4.7
Addiction Psychiatry	79.2	12.5	4.2	4.2
Adolescent Medicine	84.0	12.0	4.0	0.0
Adult Congenital Heart Disease	--	--	--	--
Advanced Heart Failure & Transplant Cardiology	84.4	7.8	1.6	6.3
Allergy and Immunology	84.6	7.1	4.4	3.9
Brain Injury Medicine (Physical Medicine & Rehabilitation)	--	--	--	--
Breast Imaging	87.4	6.7	3.0	3.0
Cancer Rehabilitation	--	--	--	--
Cardiovascular Disease	86.0	8.4	2.3	3.3
Child Abuse	--	--	--	--
Child and Adolescent Psychiatry	77.0	14.0	4.2	4.9
Clinical Cardiac Electrophysiology	90.6	6.8	0.9	1.7
Clinical Neurophysiology	89.3	3.6	5.4	1.8
Clinical Ultrasound	87.2	5.6	2.4	4.8
Colon and Rectal Surgery	90.1	6.9	1.5	1.5
Complex Family Planning	--	--	--	--
Consultation-Liaison Psychiatry	77.8	15.6	4.4	2.2
Critical Care Medicine (Internal Medicine)	86.8	9.6	1.8	1.8
Developmental and Behavioral Pediatrics	--	--	--	--
Emergency Medical Services	86.4	11.1	1.2	1.2
Emergency Radiology	--	--	--	--
Endocrinology, Diabetes, Metabolism	84.1	10.6	3.0	2.3
Epilepsy	76.3	11.4	4.4	7.9
Female Pelvic Medicine and Reconstructive Surgery (OB/GYN)	91.8	8.2	0.0	0.0

Female Pelvic Medicine and Reconstructive Surgery (Urology)	--	--	--	--
Forensic Pathology	69.4	16.7	8.3	5.6
Gastroenterology	83.6	10.5	1.8	4.1
Geriatric Medicine (Family Medicine)	--	--	--	--
Geriatric Medicine (Internal Medicine)	80.5	13.8	1.6	4.1
Global Emergency Medicine	--	--	--	--
Gynecologic Oncology	87.7	4.9	3.7	3.7
Hand Surgery (General Surgery)	--	--	--	--
Hand Surgery (Orthopaedic Surgery)	94.4	4.2	0.0	1.4
Hand Surgery (Plastic Surgery)	--	--	--	--
Headache Medicine	83.3	16.7	0.0	0.0
Hematology and Oncology	83.3	10.8	1.8	4.2
Hospice and Palliative Medicine	81.5	11.5	3.8	3.2
Infectious Disease	81.7	13.4	3.1	1.9
Interventional Pulmonology	85.4	12.5	0.0	2.1
Interventional Radiology	81.7	9.2	3.7	5.5
Laryngology	92.3	7.7	0.0	0.0
Maternal-Fetal Medicine	86.7	11.9	0.7	0.7
Medical Genetics	--	--	--	--
Medical Toxicology (Emergency Medicine)	75.0	21.2	1.9	1.9
Minimally Invasive Gynecologic Surgery	93.9	6.1	0.0	0.0
Musculoskeletal Radiology	89.1	5.0	0.8	5.0
Neonatal-Perinatal Medicine	87.2	9.4	2.1	1.3
Nephrology	82.5	11.2	2.2	4.1
Neuroradiology	77.4	14.4	3.3	5.0
Oncology	--	--	--	--
Pain Medicine	78.2	15.6	1.6	4.7
Pediatric Anesthesiology	89.3	6.8	1.9	1.9
Pediatric Cardiology	90.9	5.8	1.3	2.0
Pediatric Critical Care Medicine	88.2	8.0	2.7	1.1
Pediatric Emergency Medicine (Emergency Medicine)	88.6	8.6	2.9	0.0
Pediatric Emergency Medicine (Pediatrics)	88.6	9.2	2.3	0.0
Pediatric Endocrinology	77.2	15.8	1.8	5.3
Pediatric Gastroenterology	87.7	8.2	2.7	1.4
Pediatric Hematology/Oncology	89.2	6.3	2.7	1.8
Pediatric Hospital Medicine	95.7	4.3	0.0	0.0
Pediatric Infectious Diseases	90.0	6.7	0.0	3.3
Pediatric Nephrology	79.5	18.0	0.0	2.6
Pediatric Pulmonology	86.1	11.6	0.0	2.3
Pediatric Rehabilitation Medicine	--	--	--	--
Pediatric Rheumatology	74.1	22.2	0.0	3.7
Pediatric Surgery	81.5	13.0	3.7	1.9
Pediatric Transplant Hepatology	--	--	--	--
Pediatric and Adolescent Gynecology	--	--	--	--
Pulmonary Disease	85.2	14.8	0.0	0.0
Pulmonary Disease and Critical Care Medicine	83.1	11.1	2.2	3.5
Reproductive Endocrinology	96.5	3.5	0.0	0.0
Rheumatology	81.2	11.3	3.0	4.5
Sleep Medicine	89.0	5.5	1.4	4.1
Spinal Cord Injury Medicine	--	--	--	--
Sports Medicine (Emergency Medicine)	--	--	--	--

Sports Medicine (Family Medicine)	86.2	9.3	2.6	1.9
Sports Medicine (Pediatrics)	85.2	11.1	3.7	0.0
Sports Medicine (Physical Medicine & Rehabilitation)	83.3	10.4	4.2	2.1
Surgical Critical Care	86.4	9.1	1.7	2.9
Surgical Oncology	85.7	11.7	0.0	2.6
Thoracic Surgery	87.4	7.9	1.6	3.2
Vascular Neurology	82.2	12.4	0.8	4.7
Vascular Surgery	87.7	11.5	0.8	0.0
<b>TOTAL</b>	<b>84.5</b>	<b>10.1</b>	<b>2.2</b>	<b>3.2</b>

<sup>1</sup> Fellowship applicants can participate in multiple Matches. For SMS appointment year 2024, there were 19 applicants who participated in more than one Match. These individuals are included in the table above, meaning the values included in the table are not unique applicant counts. The inclusion vs. exclusion of these applicants did not notably change the observed percentage distributions.

<sup>2</sup> Subspecialties that did not meet the minimum cell size for reporting of data are included as rows in the table with no data reported, denoted by "--".

<sup>3</sup> Active applicants are applicants who certified a rank order list.

<sup>4</sup> Some percentages may not add to 100 because of rounding.

**Table 6. “Do Not Know/Prefer Not to Answer” Responses to Demographic Questions by Matched Subspecialty—SMS Appointment Year 2024<sup>1</sup>**

Matched Subspecialty <sup>2</sup>	Number of “Do Not Know/Prefer Not to Answer” Responses among Active Applicants <sup>3</sup> , % <sup>4</sup>			
	0	1	2	3 or more
Academic General Pediatrics	--	--	--	--
Addiction Medicine	77.0	15.0	3.0	5.0
Addiction Psychiatry	79.2	12.5	4.2	4.2
Adolescent Medicine	--	--	--	--
Adult Congenital Heart Disease	--	--	--	--
Advanced Heart Failure & Transplant Cardiology	84.5	8.6	1.7	5.2
Allergy and Immunology	85.8	6.7	3.7	3.7
Brain Injury Medicine (Physical Medicine & Rehabilitation)	--	--	--	--
Breast Imaging	87.6	7.0	2.3	3.1
Cancer Rehabilitation	--	--	--	--
Cardiovascular Disease	86.8	7.9	2.3	3.0
Child Abuse	--	--	--	--
Child and Adolescent Psychiatry	77.6	13.0	4.1	5.3
Clinical Cardiac Electrophysiology	89.3	7.8	1.0	1.9
Clinical Neurophysiology	90.2	4.9	3.3	1.6
Clinical Ultrasound	87.6	5.8	2.5	4.1
Colon and Rectal Surgery	91.3	6.8	1.0	1.0
Complex Family Planning	--	--	--	--
Consultation-Liaison Psychiatry	77.9	15.1	4.7	2.3
Critical Care Medicine (Internal Medicine)	83.9	12.8	1.3	2.0
Developmental and Behavioral Pediatrics	--	--	--	--
Emergency Medical Services	88.3	10.4	0.0	1.3
Emergency Radiology	--	--	--	--
Endocrinology, Diabetes, Metabolism	84.6	10.0	3.2	2.1
Epilepsy	73.8	11.7	5.8	8.7
Female Pelvic Medicine and Reconstructive Surgery (OB/GYN)	90.5	9.5	0.0	0.0

Female Pelvic Medicine and Reconstructive Surgery (Urology)	--	--	--	--
Forensic Pathology	68.6	17.1	8.6	5.7
Gastroenterology	85.3	9.8	2.1	2.8
Geriatric Medicine (Family Medicine)	--	--	--	--
Geriatric Medicine (Internal Medicine)	80.3	14.2	1.6	3.9
Global Emergency Medicine	--	--	--	--
Gynecologic Oncology	87.7	5.5	2.7	4.1
Hand Surgery (General Surgery)	--	--	--	--
Hand Surgery (Orthopaedic Surgery)	95.4	3.1	0.0	1.5
Hand Surgery (Plastic Surgery)	--	--	--	--
Headache Medicine	82.4	17.7	0.0	0.0
Hematology and Oncology	84.6	9.7	2.0	3.8
Hospice and Palliative Medicine	82.2	11.1	3.0	3.7
Infectious Disease	82.3	13.1	3.1	1.5
Interventional Pulmonology	78.8	18.2	0.0	3.0
Interventional Radiology	82.2	9.4	2.8	5.6
Laryngology	--	--	--	--
Maternal-Fetal Medicine	87.4	11.8	0.0	0.8
Medical Genetics	--	--	--	--
Medical Toxicology (Emergency Medicine)	72.7	22.7	2.3	2.3
Minimally Invasive Gynecologic Surgery	92.9	7.1	0.0	0.0
Musculoskeletal Radiology	89.7	5.2	0.9	4.3
Neonatal-Perinatal Medicine	88.1	8.4	2.2	1.3
Nephrology	83.1	10.7	2.3	3.8
Neuroradiology	77.5	14.5	3.5	4.6
Oncology	--	--	--	--
Pain Medicine	78.6	14.7	1.7	5.0
Pediatric Anesthesiology	90.1	5.9	2.0	2.0
Pediatric Cardiology	91.0	6.2	0.7	2.1
Pediatric Critical Care Medicine	88.5	7.7	2.7	1.1
Pediatric Emergency Medicine (Emergency Medicine)	75.0	18.8	6.3	0.0
Pediatric Emergency Medicine (Pediatrics)	91.1	7.3	1.6	0.0
Pediatric Endocrinology	78.2	16.4	0.0	5.5
Pediatric Gastroenterology	87.7	8.2	2.7	1.4
Pediatric Hematology/Oncology	89.4	6.2	2.7	1.8
Pediatric Hospital Medicine	96.2	3.8	0.0	0.0
Pediatric Infectious Diseases	87.5	6.3	0.0	6.3
Pediatric Nephrology	81.1	16.2	0.0	2.7
Pediatric Pulmonology	85.7	11.9	0.0	2.4
Pediatric Rehabilitation Medicine	--	--	--	--
Pediatric Rheumatology	74.1	22.2	0.0	3.7
Pediatric Surgery	86.5	10.8	0.0	2.7
Pediatric Transplant Hepatology	--	--	--	--
Pediatric and Adolescent Gynecology	--	--	--	--
Pulmonary Disease	--	--	--	--
Pulmonary Disease and Critical Care Medicine	83.0	11.7	1.9	3.5
Reproductive Endocrinology	100.0	0.0	0.0	0.0
Rheumatology	83.1	10.3	2.8	3.8
Sleep Medicine	90.0	5.0	1.4	3.6
Spinal Cord Injury Medicine	--	--	--	--
Sports Medicine (Emergency Medicine)	--	--	--	--

Sports Medicine (Family Medicine)	86.1	9.2	3.4	1.3
Sports Medicine (Pediatrics)	76.0	20.0	4.0	0.0
Sports Medicine (Physical Medicine & Rehabilitation)	93.8	6.3	0.0	0.0
Surgical Critical Care	86.2	9.1	1.7	3.0
Surgical Oncology	89.1	7.8	0.0	3.1
Thoracic Surgery	82.5	11.3	1.3	5.0
Vascular Neurology	82.7	11.8	0.8	4.7
Vascular Surgery	91.0	9.0	0.0	0.0
<b>TOTAL</b>	<b>84.9</b>	<b>9.9</b>	<b>2.1</b>	<b>3.0</b>

<sup>1</sup> Fellowship applicants can participate in multiple Matches. For SMS appointment year 2024, there were 19 applicants who participated in more than one Match. These individuals are included in the table above, meaning the values included in the table are not unique applicant counts. The inclusion vs. exclusion of these applicants did not notably change the observed percentage distributions.

<sup>2</sup> Subspecialties that did not meet the minimum cell size for reporting of data are included as rows in the table with no data reported, denoted by "--".

<sup>3</sup> Active applicants are applicants who certified a rank order list.

<sup>4</sup> Some percentages may not add to 100 because of rounding.

## Appendix A

Below is a list of the demographic items that were queried of applicants participating in the Specialties Matching Service for fellowship appointment year 2024. Due to small cell sizes, not all demographic items could be presented in the report. In future years, as sample size accrues, additional variables and response options will be reported for more specialties and at greater levels of granularity.

Items	Source(s)
<p>Are you of Hispanic, Latino, or Spanish origin or descent?</p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p> <p><input type="checkbox"/> Don't know/decline to answer</p> <p><i>(If of Hispanic, Latino, or Spanish origin or descent:)</i></p> <p>Which of these Hispanic, Latino, or Spanish groups best describes you? <i>(More than one category may be selected.)</i></p> <p><input type="checkbox"/> Mexican, Mexican American, Mexicano, or Chicano</p> <p><input type="checkbox"/> Puerto Rican</p> <p><input type="checkbox"/> Central or South American</p> <p><input type="checkbox"/> Cuban or Cuban American</p> <p><input type="checkbox"/> Dominican (from Dominican Republic)</p> <p><input type="checkbox"/> Spanish (from Spain)</p> <p><input type="checkbox"/> Other (specify) _____</p> <p><input type="checkbox"/> I do not know</p> <p><input type="checkbox"/> I prefer not to answer</p> <p>Which of these groups describes you? <i>(More than one category may be selected.)</i><sup>a</sup></p> <p><input type="checkbox"/> White</p> <p><input type="checkbox"/> Black or African American</p> <p><input type="checkbox"/> American Indian or Alaska Native (American Indian includes North American, Central American, and South American Indians)</p>	<p>Adapted from Substance Abuse and Mental Health Services Administration National Survey on Drug Use and Health</p>



- Native Hawaiian
- Guamanian or Chamorro
- Samoan
- Other Pacific Islander
- Asian (including: Asian Indian, Pakistani, Bangladeshi, Sri Lankan, Chinese, Filipino, Japanese, Korean, and Vietnamese)
- Other (specify) \_\_\_\_\_
- I do not know
- I prefer not to answer

*(If identified as Asian:)*

Please tell me which of these Asian groups describes you?

- Asian Indian
- Pakistani
- Bangladeshi
- Sri Lankan
- Chinese
- Filipino
- Japanese
- Korean
- Vietnamese
- Other (specify) \_\_\_\_\_
- I do not know
- I prefer not to answer

*(If identified as other racial group 2 questions previously)*

Please tell me which other racial group describes you

- \_\_\_\_\_
- I do not know
  - I prefer not to answer

<p>How would you characterize the area in which you grew up?</p> <p><input type="checkbox"/> Rural</p> <p><input type="checkbox"/> Suburban</p> <p><input type="checkbox"/> Urban</p> <p><input type="checkbox"/> I do not know</p> <p><input type="checkbox"/> I prefer not to answer</p>	<p>Developed by Work Group</p>
<p>Are you the first member of your family to graduate from college?</p> <p><input type="checkbox"/> Yes, immediate family</p> <p><input type="checkbox"/> Yes, extended family</p> <p><input type="checkbox"/> No</p> <p><input type="checkbox"/> I do not know</p> <p><input type="checkbox"/> I prefer not to answer</p>	<p>Developed by Work Group</p>
<p>Are you the first member of your family to graduate from medical school?</p> <p><input type="checkbox"/> Yes, immediate family</p> <p><input type="checkbox"/> Yes, extended family</p> <p><input type="checkbox"/> No</p> <p><input type="checkbox"/> I do not know</p> <p><input type="checkbox"/> I prefer not to answer</p>	<p>Developed by Work Group</p>
<p>What sex were you assigned at birth?</p> <p><input type="checkbox"/> Male</p> <p><input type="checkbox"/> Female</p> <p><input type="checkbox"/> I prefer not to answer</p>	<p>Association of American Medical Colleges (AAMC) Matriculating Student Questionnaire (MSQ) and Year 2 Questionnaire (Y2Q), 2020</p>
<p>What is your current gender identity? Select all that apply:</p> <p><input type="checkbox"/> Male</p> <p><input type="checkbox"/> Female</p> <p><input type="checkbox"/> Trans male/Trans man</p> <p><input type="checkbox"/> Trans female/Trans woman</p> <p><input type="checkbox"/> Genderqueer/gender nonconforming</p>	<p>AAMC MSQ and Y2Q, 2020</p>

<input type="checkbox"/> Different identity (please state) _____ <input type="checkbox"/> I prefer not to answer	
<p>How do you self-identify?</p> <input type="checkbox"/> Bisexual <input type="checkbox"/> Gay or lesbian <input type="checkbox"/> Heterosexual or straight <input type="checkbox"/> I do not know <input type="checkbox"/> I prefer not to answer	<p>Adapted from AAMC Y2Q and MSQ, 2020</p>
<p>If one of the above three identities did not best describe you, then with what identity do you feel more comfortable?</p> <p>I self-identify as: _____</p> <input type="checkbox"/> I prefer not to answer	<p>AAMC Y2Q, 2020</p>
<p>Are you a person with a disability (e.g., ADHD, learning, psychological, chronic health, mobility, hearing, vision, etc.)?</p> <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> I do not know <input type="checkbox"/> I prefer not to answer	<p>AAMC Y2Q, 2020</p>
<p><i>(If responded affirmatively to the above:)</i></p> <p>Which of the following best describes your disability? If you have more than one type, select all that apply. (Optional: please add a brief description where provided.)</p> <input type="checkbox"/> Attention deficit/hyperactivity disorder <input type="checkbox"/> Chronic health disability <input type="checkbox"/> Deaf or hard of hearing <input type="checkbox"/> Learning disability <input type="checkbox"/> Mobility disability <input type="checkbox"/> Psychological disability <input type="checkbox"/> Visual disability <input type="checkbox"/> Other	<p>AAMC Y2Q, 2020</p>

<input type="checkbox"/> I do not know <input type="checkbox"/> I prefer not to answer	
<p><i>(If responded “yes” to disability question:)</i></p> <p>Did you request accommodations from your residency program?</p> <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> I do not know <input type="checkbox"/> I prefer not to answer	<p>AAMC Y2Q, 2020</p>
<p><i>(If responded “yes” to whether requested accommodations:)</i></p> <p>Has your residency program provided accommodations for your disability?</p> <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> I do not know <input type="checkbox"/> I prefer not to answer	<p>AAMC Y2Q, 2020</p>
<p><i>(If accommodation not provided:)</i> Which of the following best describes why your residency program did not or has not provided accommodations?</p> <input type="checkbox"/> My request for accommodations was denied <input type="checkbox"/> My request for accommodations is under review <input type="checkbox"/> I do not know <input type="checkbox"/> I prefer not to answer	<p>AAMC Y2Q, 2020</p>
<p><i>(If responded “no” to whether requested accommodations:)</i></p> <p>Which of the following best describes why you did not request accommodations from your residency program?</p> <input type="checkbox"/> I have not requested accommodations because I feel I do not need accommodations <input type="checkbox"/> I have not requested accommodations for other reasons <p><i>(Please specify: _____)</i></p> <input type="checkbox"/> I do not know	<p>AAMC Y2Q, 2020</p>

<input type="checkbox"/> I prefer not to answer	
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<sup>a</sup> Applicant-reported race is reported here with each applicant classified in a single category based on a modification of the Census Bureau algorithm as implemented in the 2010 Census. In the future the NRMP Research Team plans to explore other approaches that may have greater utility for classification. Going forward the NRMP Research Team will also examine the subgroup compositions of the race identity categories and develop additional codes for them as needed.

In the categorization used for this report, applicants were assigned to categories using the following order of precedence: Native American/Alaska Native, Pacific Islander, Asian, Black/African American, White, and Other.