



ACGME

Accreditation Council for  
Graduate Medical Education

# MILESTONES

## REPORT 2023

### Preventive Medicine (Aerospace Medicine)

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## EXECUTIVE SUMMARY

Since 2013, the Milestones have allowed for continuous tracking of skill and competence development of resident and fellow physicians throughout their graduate medical education (GME) program(s). The Milestones were designed to assist residency and fellowship programs in developing highly competent physicians and meet the 21st-century health care needs of the public. This report is a snapshot of Milestones ratings for the end of the July 1, 2022 through June 30, 2023 academic year. Learning deficits related to the COVID-19 pandemic have been documented and their long-term influence on learning is the subject of ongoing study.

### What's New for 2023

This year's report introduces box plots for the programs that use the Osteopathic Recognition Milestones. Osteopathic Recognition emerged from a collaborative agreement among the ACGME, American Osteopathic Association (AOA), and American Association of Colleges of Osteopathic Medicine (AACOM) as part of the transition to a single GME accreditation system. Launched in 2015, Osteopathic Recognition is available to ACGME-accredited programs that integrate Osteopathic Principles and Practice into the program's curriculum and demonstrate substantial compliance with the ACGME Osteopathic Recognition Requirements. The Osteopathic Recognition Milestones were first published in August 2015. The Osteopathic Recognition Committee (previously called the Osteopathic Principles Committee) first conferred Osteopathic Recognition in November 2015, allowing recognized programs to designate osteopathic residents/fellows and report Osteopathic Recognition Milestones in the ACGME Accreditation Data System (ADS). The 2.0 version of these Milestones was published in August 2021, with implementation in July 2022. See the [Osteopathic Recognition](#) section of the ACGME website for more resources.

Specialties that had a program(s) with Osteopathic Recognition during the 2022-2023 academic year:

- Anesthesiology
- Dermatology
- Diagnostic Radiology
- Emergency Medicine
- Family Medicine
- Internal Medicine
- Neurological Surgery
- Neurology
- Obstetrics and Gynecology
- Orthopaedic Surgery
- Otolaryngology – Head and Neck Surgery
- Pediatrics
- Physical Medicine and Rehabilitation
- Plastic Surgery
- Psychiatry
- Surgery
- Urology
- Internal Medicine-Pediatrics

### General Summary of Findings

- 1) Across all specialties the number of subcompetencies assessed is provided (including Osteopathic Recognition). The ACGME accredited 13,066 programs across 182 specialties and subspecialties, while providing education and training for 158,079 residents and fellows, during the 2022-2023 academic year.
- 2) Across all specialties, box plots show the mean and median of Milestones ratings, as well as the variance, in general attainment across years.

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- 3) Overall rates of straight-lining (which may be an indicator of bias or difficulty interpreting specific milestones within a local context), do not appear to have been significantly affected as many specialties have transitioned to Milestones 2.0.

The ACGME website includes many resources to help understand the purpose and effective use of the Milestones and Milestones ratings. These include the *Milestones Guidebook*, the *Milestones Guidebook for Residents and Fellows*, and Milestones FAQs, as well as the *Assessment Guidebook*, the *Implementation Guidebook*, and the *Clinical Competency Committee Guidebook*, all accessible on the [Resources page](#) of the Milestones section of the ACGME website.

## Intended Audience

The intended audience for this report includes program directors and members of programs' Clinical Competency Committees (CCCs); leaders within specialty societies who oversee the development of national curricula; members of the ACGME Review and Recognition Committees that oversee accreditation and recognition of individual programs; and the residents, fellows, and faculty members in these programs. Other stakeholders who may benefit from this report include specialty boards, designated institutional officials (DIOs), policymakers, and the public.

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**Note:** In this report, page and table numbers align with the full Milestones National Report for ease of reference.

Specialty and subspecialty names align with the way they appear in the specialty-/subspecialty-specific Program Requirements and in the Milestones documents; these names may differ from how they appear in the Accreditation Data System and ACGME Data Resource Book.

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## HOW TO USE THESE FINDINGS

As can be seen in the data, there is a wide range of attainment across milestones. This variance is likely due to differences in curriculum and/or assessment practices. This should be viewed as welcome news, as it is a signal the Milestones data are providing useful information to drive continuous quality improvement (CQI) in GME. Since the launch of the Milestones initiative in 2013, numerous validity studies have been performed to understand the strengths and weaknesses while informing ongoing improvements (Milestones Bibliography 2022). Multiple research studies informed the creation of Milestones 2.0 for every specialty.

All ACGME-accredited specialties/subspecialties, except 15 pediatric subspecialties, implemented Milestones 2.0 by the end of the 2022-2023 academic year, with 55 of those specialties/subspecialties beginning in July 2022. The data in this 2023 report reflect the version of the Milestones used by each specialty during the 2022-2023 academic year.

To learn more about how Milestones are developed and their intended purpose, see the Milestones Guidebook found on the [Resources page](#) of the ACGME website.

The table below provides some specific purposes and functions of the Milestones organized by stakeholder groups.

**Table 1 – Purpose and Function of Milestones**

| <b>CONSTITUENCY OR STAKEHOLDER</b> | <b>PURPOSE/FUNCTION</b>  |
|------------------------------------|--|
| Residents and Fellows              | <ul style="list-style-type: none"><li>• Provide a descriptive, developmental roadmap for education and training within a specialty or subspecialty</li><li>• Increase transparency of performance requirements</li><li>• Encourage informed self-directed assessment and self-directed learning</li><li>• Facilitate better feedback</li><li>• Facilitate development of individualized learning plans by residents and fellows</li></ul>                          |
| Residency and Fellowship Programs  | <ul style="list-style-type: none"><li>• Guide curriculum and assessment tool development and improvements</li><li>• Provide meaningful framework for the CCC (e.g., help create shared mental model)</li><li>• Provide more explicit expectations of residents and fellows</li><li>• Enhance opportunity for early identification of struggling learners</li><li>• Early identification of advanced learners and the need to continuously challenge them</li></ul> |
| ACGME and the Public               | <ul style="list-style-type: none"><li>• Accountability – report at an aggregated national level on competency outcomes</li><li>• Build community for evaluation and research, with focus on CQI</li></ul>  |
| Certification Boards               | <ul style="list-style-type: none"><li>• Enable ongoing research to improve certification processes</li></ul>   |

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## METHODS

Every six months, the ACGME receives more than 3.6 million Milestones ratings of more than 150,000 learners from residency and fellowship programs in more than 150 specialties and subspecialties across the US. The box plots reported in the following pages summarize these data.

## OVERARCHING THEMES

Examining the dataset in terms of gradual progression of competence shows that during the 2022-2023 academic year:

- 1) Generally, across all specialties/subspecialties and all programs, learners show progressive attainment of milestones across time in their program;
- 2) Not all residents/fellows reach Level 4, which is an educational goal and *not* a requirement or mandate, by the time of graduation; and,
- 3) Each specialty/subspecialty shows variation in attainment of the specific Milestones.

Research to date suggests the following possible reasons for these findings:

- 1) Meaningful differences in actual performance;
- 2) Differences in the complexity of the Milestones competency language as written for a particular specialty or subspecialty;
- 3) Differences in understanding and interpretation of the Milestones, especially for the non-Patient Care (PC) and Medical Knowledge (MK) Milestones;
- 4) Differences in clinical exposure in specific competencies of some residents/fellows in some programs;
- 5) Variation in scoring by individual raters and CCCs;
- 6) Differences in the quality of assessment methods;
- 7) Differences in the types of assessment methods used to show attainment of a particular milestone;
- 8) Differences in the combinations of assessment tools used in a program of assessment; and,
- 9) Differences in CCC processes and approaches for determining milestone attainment.

Of course, many other factors may be at play, and these are the subject of ongoing research. The data should only be reported in the context of interpretive statements and assumptions relevant to the particular stakeholder group, (i.e., DIOs, program directors, residents/fellows, the public). It is important to remember that the Milestones are designed for use as formative assessments to be used in the spirit of CQI, and that Level 4 is an educational goal and *not* a requirement or mandate. To fully interpret and understand the results of Milestones analyses and validity studies, there must also be full awareness of the consequences, with appropriate diligence in providing context for proper interpretation of any rating result (Hubley and Zumbo 2011).

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## Straight-Lining Ratings

Straight-lining ratings are defined as a string of identical Milestones ratings for an individual learner across all subcompetencies. In the original vision of the ACGME's current accreditation model, it was assumed that performance across subcompetencies would vary due to contextual factors, curricular design, and variability among learner abilities, according to the content of each subcompetency. For example, a learner would not necessarily be expected to have exactly the same ratings for the milestones in patient care, interpersonal and communication skills, and systems-based practice during a given six-month period. Accurate detection of true variation in ratings would theoretically be useful for tailoring specific feedback to each learner.

It is theoretically possible that an individual learner could be assigned identical Milestone ratings across all subcompetencies (e.g., straight-lining for Milestones in Level 4 can be a valid rating pattern for the senior-most residents who, at the time of graduation, have truly achieved Level 4 in all subcompetencies). However, the data show several instances in which the rate of straight-lining is higher than would be expected, and these rates are presented in Table 4.

**Method:** The rate of straight-lining was calculated as follows: if any resident's or fellow's string of Milestone ratings was identical across all subcompetencies, the resident or fellow was assigned a value of "1;" otherwise, "0." The table provides the percentage of residents or fellows nationally who were assigned a value of "1" (meaning they had received the same rating for all their milestones).

**Interpretation:** Nationally, the ACGME is working to understand whether this straight-lining effect represents true lack of variation in competence, or if CCCs are simply providing similar ratings across subcompetencies for other reasons, such as a belief that the description of individual milestones for some subcompetencies does not fit with their local setting, or they are otherwise having difficulty obtaining valid and defensible ratings through lack of resources or attention to educational assessment within their programs. If a program notes high rates of straight-lining, it would be important for the program director and CCC to reflect on the causes and whether such a Milestones profile is an accurate assessment of the program's residents or fellows.

While most specialties and subspecialties have adopted the 2.0 version of their Milestones, this transition does not appear to have affected the overall rate of straight-lining. These issues continue to be the subject of ongoing qualitative studies with collaborators from various specialties and subspecialties.

## Milestones 2.0

In response to the feedback received and research completed to date, the Milestones language has now been revised across most specialties and subspecialties to make it easier for program directors to understand and implement locally. Additionally, Milestones language was harmonized across specialties and subspecialties, especially for the competencies of Professionalism, Interpersonal and Communication Skills, Systems-Based Practice, and Practice-Based Learning and Improvement (Edgar, Roberts, and Holmboe 2018; Edgar et al. 2018). Most specialties and subspecialties have made the switch to Milestones 2.0 in the 2022-2023 academic year.

## Limitations

While the interpretations and conclusions that can be drawn from the data presented in this report are based on a single point in time (June 2023), trends for stability in the data patterns for academic year-end since June 2014 have recently been examined for the earliest reporting specialties and subspecialties. Most of the Milestones data show signs of stability across this period, which lends greater confidence to the potential interpretations and conclusions that can be drawn from them.

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## Future Directions

The Milestones data show interesting patterns of variation that require further research to understand their full implications. In the meantime, caution should be exercised in how these results are interpreted and communicated to various stakeholders.

## Acknowledgments

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**Table 2 – Number of Subcompetencies by Specialty**

| Specialty/Subspecialty Name  | Number of Subcompetencies |    |    |     |      |      |     |
|--|---------------------------|----|----|-----|------|------|-----|
|  | Total                     | PC | MK | SBP | PBLI | PROF | ICS |
| Allergy and Immunology   | 19                        | 4  | 3  | 4   | 2    | 3    | 3   |
| Anesthesiology   | 23                        | 10 | 2  | 3   | 2    | 3    | 3   |
| Anesthesiology (Osteopathic Recognition)                               | 7                         | 2  | 1  | 1   | 1    | 1    | 1   |
| Adult Cardiothoracic Anesthesiology                                    | 23                        | 7  | 5  | 3   | 2    | 3    | 3   |
| Critical Care Medicine (multidisciplinary)                             | 19                        | 5  | 2  | 3   | 2    | 3    | 4   |
| Obstetric Anesthesiology   | 20                        | 5  | 2  | 3   | 3    | 3    | 4   |
| Pain Medicine (multidisciplinary)                                      | 21                        | 6  | 2  | 3   | 3    | 4    | 3   |
| Pediatric Anesthesiology   | 20                        | 7  | 2  | 3   | 2    | 3    | 3   |
| Pediatric Cardiac Anesthesiology                                       | 21                        | 7  | 3  | 3   | 2    | 3    | 3   |
| Regional Anesthesiology and Acute Pain Medicine                        | 17                        | 3  | 3  | 3   | 2    | 3    | 3   |
| Colon and Rectal Surgery   | 27                        | 13 | 2  | 3   | 2    | 4    | 3   |
| Dermatology  | 21                        | 8  | 2  | 3   | 2    | 3    | 3   |
| Dermatology (Osteopathic Recognition)                                  | 7                         | 2  | 1  | 1   | 1    | 1    | 1   |
| Dermatopathology (multidisciplinary)                                   | 19                        | 4  | 3  | 4   | 2    | 3    | 3   |
| Micrographic Surgery and Dermatologic Oncology                         | 18                        | 4  | 2  | 4   | 2    | 3    | 3   |
| Pediatric Dermatology  | 21                        | 5  | 2  | 3   | 3    | 4    | 4   |
| Emergency Medicine   | 22                        | 8  | 2  | 4   | 2    | 3    | 3   |
| Emergency Medicine (Osteopathic Recognition)                           | 7                         | 2  | 1  | 1   | 1    | 1    | 1   |
| Emergency Medical Services   | 19                        | 4  | 2  | 5   | 2    | 3    | 3   |
| Medical Toxicology (multidisciplinary)                                 | 22                        | 4  | 5  | 5   | 2    | 3    | 3   |
| Pediatric Emergency Medicine (multidisciplinary)                       | 24                        | 9  | 2  | 4   | 2    | 4    | 3   |
| Sports Medicine (multidisciplinary)                                    | 20                        | 6  | 3  | 3   | 2    | 3    | 3   |
| Undersea and Hyperbaric Medicine (multidisciplinary)                   | 22                        | 4  | 4  | 5   | 3    | 3    | 3   |
| Family Medicine  | 19                        | 5  | 2  | 4   | 2    | 3    | 3   |
| Family Medicine (Osteopathic Recognition)                              | 7                         | 2  | 1  | 1   | 1    | 1    | 1   |
| Clinical Informatics (multidisciplinary)                               | 21                        | 2  | 2  | 3   | 5    | 5    | 4   |
| Geriatric Medicine (multidisciplinary)                                 | 22                        | 6  | 2  | 4   | 2    | 4    | 4   |
| Hospice and Palliative Medicine (multidisciplinary)                    | 20                        | 4  | 3  | 4   | 2    | 3    | 4   |
| Sports Medicine (multidisciplinary)                                    | 20                        | 6  | 3  | 3   | 2    | 3    | 3   |
| Sports Medicine (multidisciplinary, Osteopathic Recognition)           | 7                         | 2  | 1  | 1   | 1    | 1    | 1   |
| Internal Medicine  | 21                        | 6  | 3  | 3   | 2    | 4    | 3   |
| Internal Medicine (Osteopathic Recognition)                            | 7                         | 2  | 1  | 1   | 1    | 1    | 1   |
| Adult Congenital Heart Disease   | 19                        | 5  | 2  | 3   | 2    | 3    | 4   |
| Advanced Heart Failure and Transplant Cardiology                       | 21                        | 5  | 5  | 3   | 2    | 3    | 3   |
| Cardiovascular Disease   | 17                        | 4  | 2  | 3   | 2    | 3    | 3   |
| Clinical Cardiac Electrophysiology                                     | 24                        | 9  | 4  | 3   | 2    | 3    | 3   |
| Clinical Informatics (multidisciplinary)                               | 21                        | 2  | 2  | 3   | 5    | 5    | 4   |
| Critical Care Medicine   | 19                        | 4  | 2  | 4   | 2    | 3    | 4   |
| Endocrinology, Diabetes, and Metabolism                                | 19                        | 6  | 2  | 3   | 2    | 3    | 3   |
| Gastroenterology   | 17                        | 4  | 2  | 3   | 2    | 3    | 3   |
| Gastroenterology (Dual Gastroenterology/Transplant Hepatology Pathway) | 22                        | 7  | 4  | 3   | 2    | 3    | 3   |

**Table 2 – Number of Subcompetencies by Specialty**

| Specialty/Subspecialty Name   | Number of Subcompetencies |    |    |     |      |      |     |
|---|---------------------------|----|----|-----|------|------|-----|
|   | Total                     | PC | MK | SBP | PBLI | PROF | ICS |
| Geriatric Medicine (multidisciplinary)                                | 22                        | 6  | 2  | 4   | 2    | 4    | 4   |
| Hematology and Medical Oncology                                       | 22                        | 5  | 4  | 5   | 2    | 3    | 3   |
| Infectious Disease  | 23                        | 3  | 6  | 5   | 2    | 4    | 3   |
| Interventional Cardiology   | 17                        | 3  | 3  | 3   | 2    | 3    | 3   |
| Nephrology  | 22                        | 7  | 3  | 4   | 2    | 3    | 3   |
| Pulmonary Disease   | 19                        | 4  | 2  | 4   | 2    | 3    | 4   |
| Pulmonary Disease and Critical Care Medicine                          | 20                        | 5  | 2  | 4   | 2    | 3    | 4   |
| Rheumatology  | 21                        | 6  | 3  | 3   | 2    | 4    | 3   |
| Sleep Medicine (multidisciplinary)                                    | 18                        | 4  | 2  | 3   | 2    | 3    | 4   |
| Transplant Hepatology   | 16                        | 3  | 2  | 3   | 2    | 3    | 3   |
| Medical Genetics and Genomics   | 17                        | 3  | 3  | 3   | 2    | 3    | 3   |
| Clinical Biochemical Genetics   | 19                        | 4  | 2  | 5   | 2    | 3    | 3   |
| Laboratory Genetics and Genomics                                      | 19                        | 4  | 2  | 5   | 2    | 3    | 3   |
| Medical Biochemical Genetics  | 16                        | 3  | 2  | 3   | 2    | 3    | 3   |
| Molecular Genetic Pathology (multidisciplinary)                       | 22                        | 3  | 4  | 6   | 3    | 3    | 3   |
| Neurological Surgery  | 20                        | 8  | 2  | 3   | 3    | 2    | 2   |
| Neurology   | 27                        | 12 | 2  | 4   | 2    | 3    | 4   |
| Clinical Neurophysiology  | 28                        | 9  | 5  | 4   | 2    | 3    | 5   |
| Epilepsy  | 24                        | 7  | 3  | 4   | 2    | 3    | 5   |
| Neurocritical Care (multidisciplinary)                                | 24                        | 6  | 4  | 4   | 2    | 3    | 5   |
| Neurodevelopmental Disabilities                                       | 32                        | 10 | 5  | 6   | 2    | 5    | 4   |
| Neuromuscular Medicine (multidisciplinary)                            | 27                        | 10 | 4  | 4   | 2    | 3    | 4   |
| Vascular Neurology  | 25                        | 5  | 7  | 4   | 2    | 3    | 4   |
| Child Neurology   | 26                        | 10 | 4  | 3   | 2    | 3    | 4   |
| Nuclear Medicine  | 22                        | 5  | 5  | 4   | 2    | 3    | 3   |
| Obstetrics and Gynecology   | 32                        | 14 | 2  | 6   | 2    | 4    | 4   |
| Obstetrics and Gynecology (Osteopathic Recognition)                   | 7                         | 2  | 1  | 1   | 1    | 1    | 1   |
| Complex Family Planning   | 25                        | 6  | 3  | 5   | 3    | 4    | 4   |
| Female Pelvic Medicine and Reconstructive Surgery (multidisciplinary) | 28                        | 7  | 8  | 3   | 3    | 3    | 4   |
| Gynecologic Oncology  | 27                        | 5  | 8  | 4   | 3    | 3    | 4   |
| Maternal-Fetal Medicine   | 26                        | 5  | 4  | 6   | 3    | 4    | 4   |
| Reproductive Endocrinology and Infertility                            | 22                        | 3  | 5  | 4   | 3    | 3    | 4   |
| Ophthalmology   | 20                        | 6  | 3  | 3   | 2    | 3    | 3   |
| Orthopaedic Surgery   | 20                        | 7  | 2  | 3   | 2    | 3    | 3   |
| Orthopaedic Surgery (Osteopathic Recognition)                         |                           |    |    |     |      |      |     |
| Adult Reconstructive Orthopaedic Surgery                              | 18                        | 5  | 2  | 3   | 2    | 3    | 3   |
| Foot and Ankle Orthopaedic Surgery                                    | 21                        | 6  | 4  | 3   | 2    | 3    | 3   |
| Hand Surgery (multidisciplinary)                                      | 20                        | 5  | 4  | 3   | 2    | 3    | 3   |
| Musculoskeletal Oncology  | 18                        | 3  | 2  | 3   | 3    | 3    | 4   |
| Orthopaedic Sports Medicine   | 18                        | 5  | 2  | 3   | 2    | 3    | 3   |
| Orthopaedic Surgery of the Spine                                      | 19                        | 6  | 2  | 3   | 2    | 3    | 3   |
| Orthopaedic Trauma  | 21                        | 5  | 5  | 3   | 2    | 3    | 3   |

**Table 2 – Number of Subcompetencies by Specialty**

| Specialty/Subspecialty Name                                      | Number of Subcompetencies |    |    |     |      |      |     |
|--|---------------------------|----|----|-----|------|------|-----|
|  | Total                     | PC | MK | SBP | PBLI | PROF | ICS |
| Pediatric Orthopaedic Surgery                                    | 23                        | 6  | 6  | 3   | 2    | 3    | 3   |
| Osteopathic Neuromusculoskeletal Medicine                        | 18                        | 5  | 2  | 3   | 2    | 3    | 3   |
| Otolaryngology – Head and Neck Surgery                           | 23                        | 9  | 3  | 3   | 2    | 3    | 3   |
| Otolaryngology – Head and Neck Surgery (Osteopathic Recognition) | 7                         | 2  | 1  | 1   | 1    | 1    | 1   |
| Neurotology  | 19                        | 5  | 3  | 3   | 2    | 3    | 3   |
| Pediatric Otolaryngology   | 19                        | 6  | 2  | 3   | 2    | 3    | 3   |
| Pathology (Anatomic and Clinical)                                | 21                        | 6  | 2  | 5   | 2    | 3    | 3   |
| Blood Banking/Transfusion Medicine                               | 23                        | 4  | 6  | 5   | 2    | 3    | 3   |
| Clinical Informatics (multidisciplinary)                         | 21                        | 2  | 2  | 3   | 5    | 5    | 4   |
| Cytopathology  | 21                        | 6  | 2  | 5   | 2    | 3    | 3   |
| Forensic Pathology   | 19                        | 2  | 3  | 5   | 2    | 3    | 4   |
| Hematopathology  | 23                        | 4  | 6  | 5   | 2    | 3    | 3   |
| Medical Microbiology   | 21                        | 3  | 4  | 6   | 2    | 3    | 3   |
| Neuropathology   | 20                        | 4  | 3  | 5   | 2    | 3    | 3   |
| Pediatric Pathology  | 19                        | 4  | 2  | 5   | 2    | 3    | 3   |
| Selective Pathology (Focused Anatomic)                           | 19                        | 4  | 2  | 5   | 2    | 3    | 3   |
| Selective Pathology (Surgical)                                   | 19                        | 4  | 2  | 5   | 2    | 3    | 3   |
| Pediatrics   | 22                        | 5  | 2  | 6   | 2    | 4    | 3   |
| Pediatrics (Osteopathic Recognition)                             | 7                         | 2  | 1  | 1   | 1    | 1    | 1   |
| Adolescent Medicine  | 21                        | 4  | 1  | 5   | 4    | 4    | 3   |
| Child Abuse Pediatrics   | 21                        | 4  | 1  | 5   | 4    | 4    | 3   |
| Clinical Informatics (multidisciplinary)                         | 21                        | 2  | 2  | 3   | 5    | 5    | 4   |
| Developmental-Behavioral Pediatrics                              | 21                        | 4  | 1  | 5   | 4    | 4    | 3   |
| Neonatal-Perinatal Medicine                                      | 21                        | 4  | 1  | 5   | 4    | 4    | 3   |
| Pediatric Cardiology   | 21                        | 4  | 1  | 5   | 4    | 4    | 3   |
| Pediatric Critical Care Medicine                                 | 21                        | 4  | 1  | 5   | 4    | 4    | 3   |
| Pediatric Emergency Medicine (multidisciplinary)                 | 24                        | 9  | 2  | 4   | 2    | 4    | 3   |
| Pediatric Endocrinology  | 21                        | 4  | 1  | 5   | 4    | 4    | 3   |
| Pediatric Gastroenterology                                       | 21                        | 4  | 1  | 5   | 4    | 4    | 3   |
| Pediatric Hematology/Oncology                                    | 21                        | 4  | 1  | 5   | 4    | 4    | 3   |
| Pediatric Hospital Medicine                                      | 21                        | 4  | 1  | 5   | 4    | 4    | 3   |
| Pediatric Infectious Diseases                                    | 21                        | 4  | 1  | 5   | 4    | 4    | 3   |
| Pediatric Nephrology   | 21                        | 4  | 1  | 5   | 4    | 4    | 3   |
| Pediatric Pulmonology  | 21                        | 4  | 1  | 5   | 4    | 4    | 3   |
| Pediatric Rheumatology   | 21                        | 4  | 1  | 5   | 4    | 4    | 3   |
| Pediatric Transplant Hepatology                                  | 21                        | 4  | 1  | 5   | 4    | 4    | 3   |
| Sports Medicine (multidisciplinary)                              | 20                        | 6  | 3  | 3   | 2    | 3    | 3   |
| Physical Medicine and Rehabilitation                             | 24                        | 8  | 2  | 4   | 2    | 5    | 3   |
| Brain Injury Medicine (multidisciplinary)                        | 23                        | 6  | 3  | 4   | 2    | 5    | 3   |
| Pediatric Rehabilitation Medicine                                | 24                        | 8  | 2  | 4   | 2    | 5    | 3   |
| Spinal Cord Injury Medicine                                      | 23                        | 5  | 3  | 4   | 2    | 5    | 4   |
| Sports Medicine (multidisciplinary)                              | 20                        | 6  | 3  | 3   | 2    | 3    | 3   |

**Table 2 – Number of Subcompetencies by Specialty**

| Specialty/Subspecialty Name   | Number of Subcompetencies |    |    |     |      |      |     |
|---|---------------------------|----|----|-----|------|------|-----|
|   | Total                     | PC | MK | SBP | PBLI | PROF | ICS |
| Plastic Surgery - Independent   | 22                        | 7  | 5  | 3   | 2    | 3    | 2   |
| Plastic Surgery - Integrated  | 22                        | 7  | 5  | 3   | 2    | 3    | 2   |
| Hand Surgery (multidisciplinary)                                      | 20                        | 5  | 4  | 3   | 2    | 3    | 3   |
| Preventive Medicine (Aerospace Medicine)                              | 20                        | 6  | 2  | 4   | 2    | 3    | 3   |
| Preventive Medicine (Occupational Medicine)                           | 21                        | 6  | 3  | 4   | 2    | 3    | 3   |
| Preventive Medicine (Public Health and General Preventive Medicine)   | 20                        | 4  | 5  | 3   | 3    | 3    | 2   |
| Psychiatry  | 21                        | 6  | 4  | 3   | 2    | 3    | 3   |
| Addiction Medicine (multidisciplinary)                                | 16                        | 2  | 3  | 3   | 2    | 3    | 3   |
| Addiction Psychiatry  | 17                        | 3  | 3  | 3   | 2    | 3    | 3   |
| Child and Adolescent Psychiatry                                       | 23                        | 7  | 5  | 3   | 2    | 3    | 3   |
| Forensic Psychiatry   | 17                        | 3  | 2  | 4   | 2    | 4    | 2   |
| Geriatric Psychiatry  | 20                        | 5  | 3  | 4   | 2    | 3    | 3   |
| Consultation-Liaison Psychiatry                                       | 16                        | 3  | 2  | 3   | 2    | 3    | 3   |
| Radiation Oncology  | 21                        | 8  | 2  | 3   | 2    | 3    | 3   |
| Diagnostic Radiology  | 24                        | 4  | 4  | 8   | 2    | 3    | 3   |
| Abdominal Radiology   | 20                        | 3  | 2  | 7   | 2    | 3    | 3   |
| Musculoskeletal Radiology   | 22                        | 3  | 3  | 8   | 2    | 3    | 3   |
| Neuroradiology  | 21                        | 4  | 2  | 7   | 2    | 3    | 3   |
| Nuclear Radiology   | 20                        | 3  | 3  | 6   | 2    | 3    | 3   |
| Pediatric Radiology   | 20                        | 2  | 3  | 7   | 2    | 3    | 3   |
| Interventional Radiology - Independent                                | 24                        | 5  | 3  | 7   | 2    | 4    | 3   |
| Interventional Radiology - Integrated                                 | 31                        | 6  | 6  | 10  | 2    | 4    | 3   |
| Surgery   | 18                        | 4  | 2  | 3   | 2    | 4    | 3   |
| Surgery (Osteopathic Recognition)                                     | 7                         | 2  | 1  | 1   | 1    | 1    | 1   |
| Complex General Surgical Oncology                                     | 23                        | 7  | 4  | 3   | 3    | 3    | 3   |
| Pediatric Surgery   | 25                        | 11 | 3  | 3   | 2    | 3    | 3   |
| Surgical Critical Care  | 25                        | 10 | 3  | 4   | 2    | 3    | 3   |
| Vascular Surgery - Independent  | 28                        | 8  | 5  | 6   | 2    | 4    | 3   |
| Vascular Surgery - Integrated   | 28                        | 8  | 5  | 6   | 2    | 4    | 3   |
| Thoracic Surgery - Independent  | 23                        | 8  | 3  | 3   | 2    | 4    | 3   |
| Thoracic Surgery - Integrated   | 24                        | 9  | 3  | 3   | 2    | 4    | 3   |
| Urology   | 20                        | 6  | 2  | 3   | 2    | 3    | 4   |
| Female Pelvic Medicine and Reconstructive Surgery (multidisciplinary) | 28                        | 7  | 8  | 3   | 3    | 3    | 4   |
| Pediatric Urology   | 21                        | 6  | 3  | 3   | 2    | 3    | 4   |
| Transitional Year   | 19                        | 6  | 2  | 3   | 2    | 3    | 3   |
| Transitional Year (Osteopathic Recognition)                           | 7                         | 2  | 1  | 1   | 1    | 1    | 1   |
| Internal Medicine - Pediatrics  | 43                        | 11 | 5  | 9   | 4    | 8    | 6   |

**Note:**      **PC** - Patient Care and Procedural Skills      **PBLI** - Practice-Based Learning and Improvement  
                  **MK** - Medical Knowledge                                      **PROF** - Professionalism  
                  **SBP** - Systems-Based Practice                                      **ICS** - Interpersonal and Communication Skills

**Table 3 – Number of Residents/Fellows by Year in Program**

| Specialty/Subspecialty Name                                       | Total  | Resident/Fellow Year |        |       |       |   |   |   |
|---|--------|----------------------|--------|-------|-------|---|---|---|
|   |        | 1                    | 2      | 3     | 4     | 5 | 6 | 7 |
| Allergy and Immunology  | 325    | 162                  | 163    |       |       |   |   |   |
| Anesthesiology  | 7,255  | 1,501                | 1,971  | 1,922 | 1,861 |   |   |   |
| Anesthesiology (Osteopathic Recognition)                          | 29     | 7                    | 8      | 7     | 7     |   |   |   |
| Adult Cardiothoracic Anesthesiology                               | 258    | 258                  |        |       |       |   |   |   |
| Critical Care Medicine (multidisciplinary)                        | 219    | 219                  |        |       |       |   |   |   |
| Obstetric Anesthesiology  | 51     | 51                   |        |       |       |   |   |   |
| Pain Medicine (multidisciplinary)                                 | 421    | 421                  |        |       |       |   |   |   |
| Pediatric Anesthesiology  | 195    | 195                  |        |       |       |   |   |   |
| Pediatric Cardiac Anesthesiology                                  | 22     | 22                   |        |       |       |   |   |   |
| Regional Anesthesiology and Acute Pain Medicine                   | 94     | 94                   |        |       |       |   |   |   |
| Colon and Rectal Surgery  | 110    | 110                  |        |       |       |   |   |   |
| Dermatology   | 1,564  | 536                  | 522    | 506   |       |   |   |   |
| Dermatology (Osteopathic Recognition)                             | 21     | 7                    | 7      | 7     |       |   |   |   |
| Dermatopathology (multidisciplinary)                              | 77     | 77                   |        |       |       |   |   |   |
| Micrographic Surgery and Dermatologic Oncology                    | 91     | 91                   |        |       |       |   |   |   |
| Pediatric Dermatology   | 22     | 22                   |        |       |       |   |   |   |
| Emergency Medicine (Three-Year Programs)                          | 6,705  | 2,344                | 2,274  | 2,087 |       |   |   |   |
| Emergency Medicine (Four-Year Programs)                           | 2,659  | 682                  | 670    | 647   | 660   |   |   |   |
| Emergency Medicine (Four-Year Programs) (Osteopathic Recognition) | 131    | 29                   | 35     | 31    | 36    |   |   |   |
| Emergency Medical Services  | 98     | 98                   |        |       |       |   |   |   |
| Medical Toxicology (multidisciplinary)                            | 93     | 53                   | 40     |       |       |   |   |   |
| Pediatric Emergency Medicine (multidisciplinary)                  | 143    | 53                   | 51     | 39    |       |   |   |   |
| Sports Medicine (multidisciplinary)                               | 18     | 18                   |        |       |       |   |   |   |
| Undersea and Hyperbaric Medicine (multidisciplinary)              | 12     | 12                   |        |       |       |   |   |   |
| Family Medicine   | 14,697 | 5,067                | 4,929  | 4,701 |       |   |   |   |
| Family Medicine (Osteopathic Recognition)                         | 1,719  | 597                  | 570    | 552   |       |   |   |   |
| Clinical Informatics (multidisciplinary)                          | 22     | 10                   | 12     |       |       |   |   |   |
| Geriatric Medicine (multidisciplinary)                            | 45     | 45                   |        |       |       |   |   |   |
| Hospice and Palliative Medicine (multidisciplinary)               | 490    | 490                  |        |       |       |   |   |   |
| Sports Medicine (multidisciplinary)                               | 294    | 294                  |        |       |       |   |   |   |
| Sports Medicine (multidisciplinary, Osteopathic Recognition)      | 12     | 12                   |        |       |       |   |   |   |
| Internal Medicine   | 31,994 | 12,391               | 10,077 | 9,526 |       |   |   |   |
| Internal Medicine (Osteopathic Recognition)                       | 382    | 134                  | 125    | 123   |       |   |   |   |
| Adult Congenital Heart Disease                                    | 30     | 14                   | 16     |       |       |   |   |   |
| Advanced Heart Failure and Transplant Cardiology                  | 98     | 98                   |        |       |       |   |   |   |
| Cardiovascular Disease  | 3,462  | 1,238                | 1,131  | 1,093 |       |   |   |   |
| Clinical Cardiac Electrophysiology                                | 332    | 183                  | 149    |       |       |   |   |   |
| Clinical Informatics (multidisciplinary)                          | 65     | 40                   | 25     |       |       |   |   |   |
| Critical Care Medicine  | 360    | 217                  | 143    |       |       |   |   |   |
| Endocrinology, Diabetes, and Metabolism                           | 721    | 380                  | 341    |       |       |   |   |   |
| Gastroenterology  | 1,947  | 698                  | 649    | 600   |       |   |   |   |

**Table 3 – Number of Residents/Fellows by Year in Program**

| Specialty/Subspecialty Name   | Total | Resident/Fellow Year |       |       |       |     |     |     |
|---|-------|----------------------|-------|-------|-------|-----|-----|-----|
|   |       | 1                    | 2     | 3     | 4     | 5   | 6   | 7   |
| Gastroenterology (Gastroenterology/Transplant Hepatology Pathway)     | 27    | 1                    | 9     | 17    |       |     |     |     |
| Geriatric Medicine (multidisciplinary)                                | 277   | 277                  |       |       |       |     |     |     |
| Hematology and Medical Oncology                                       | 2,107 | 744                  | 703   | 660   |       |     |     |     |
| Infectious Disease  | 831   | 436                  | 395   |       |       |     |     |     |
| Interventional Cardiology   | 377   | 377                  |       |       |       |     |     |     |
| Nephrology  | 878   | 463                  | 415   |       |       |     |     |     |
| Pulmonary Disease   | 65    | 36                   | 29    |       |       |     |     |     |
| Pulmonary Disease and Critical Care Medicine                          | 2,267 | 833                  | 749   | 685   |       |     |     |     |
| Rheumatology  | 554   | 301                  | 253   |       |       |     |     |     |
| Sleep Medicine (multidisciplinary)                                    | 217   | 217                  |       |       |       |     |     |     |
| Transplant Hepatology   | 48    | 48                   |       |       |       |     |     |     |
| Medical Genetics and Genomics   | 66    | 35                   | 31    |       |       |     |     |     |
| Clinical Biochemical Genetics   | 13    | 8                    | 5     |       |       |     |     |     |
| Laboratory Genetics and Genomics                                      | 75    | 43                   | 32    |       |       |     |     |     |
| Medical Biochemical Genetics  | 17    | 17                   |       |       |       |     |     |     |
| Molecular Genetic Pathology (multidisciplinary)                       | 60    | 60                   |       |       |       |     |     |     |
| Neurological Surgery  | 1,601 | 246                  | 238   | 235   | 226   | 215 | 219 | 222 |
| Neurology   | 3,539 | 681                  | 1,026 | 948   | 884   |     |     |     |
| Clinical Neurophysiology  | 161   | 161                  |       |       |       |     |     |     |
| Epilepsy  | 159   | 159                  |       |       |       |     |     |     |
| Neurocritical Care (multidisciplinary)                                | 115   | 66                   | 49    |       |       |     |     |     |
| Neurodevelopmental Disabilities                                       | 31    | 8                    | 7     | 9     | 7     |     |     |     |
| Neuromuscular Medicine (multidisciplinary)                            | 79    | 79                   |       |       |       |     |     |     |
| Vascular Neurology  | 193   | 193                  |       |       |       |     |     |     |
| Child Neurology   | 483   | 171                  | 167   | 145   |       |     |     |     |
| Nuclear Medicine  | 77    | 38                   | 21    | 18    |       |     |     |     |
| Obstetrics and Gynecology   | 5,995 | 1,578                | 1,502 | 1,481 | 1,434 |     |     |     |
| Obstetrics and Gynecology (Osteopathic Recognition)                   | 80    | 21                   | 19    | 20    | 20    |     |     |     |
| Complex Family Planning   | 55    | 29                   | 26    |       |       |     |     |     |
| Female Pelvic Medicine and Reconstructive Surgery (multidisciplinary) | 155   | 57                   | 51    | 47    |       |     |     |     |
| Gynecologic Oncology  | 241   | 84                   | 79    | 78    |       |     |     |     |
| Maternal-Fetal Medicine   | 417   | 147                  | 139   | 131   |       |     |     |     |
| Reproductive Endocrinology and Infertility                            | 175   | 57                   | 60    | 58    |       |     |     |     |
| Ophthalmology   | 1,739 | 203                  | 530   | 517   | 489   |     |     |     |
| Orthopaedic Surgery   | 4,496 | 902                  | 911   | 901   | 882   | 900 |     |     |
| Orthopaedic Surgery (Osteopathic Recognition)                         | 92    | 18                   | 17    | 18    | 19    | 20  |     |     |
| Adult Reconstructive Orthopaedic Surgery                              | 52    | 52                   |       |       |       |     |     |     |
| Foot and Ankle Orthopaedic Surgery                                    | 16    | 16                   |       |       |       |     |     |     |
| Hand Surgery (multidisciplinary)                                      | 161   | 161                  |       |       |       |     |     |     |
| Musculoskeletal Oncology  | 16    | 16                   |       |       |       |     |     |     |
| Orthopaedic Sports Medicine   | 225   | 225                  |       |       |       |     |     |     |

**Table 3 – Number of Residents/Fellows by Year in Program**

| Specialty/Subspecialty Name                                      | Total | Resident/Fellow Year |       |       |     |     |   |   |
|--|-------|----------------------|-------|-------|-----|-----|---|---|
|  |       | 1                    | 2     | 3     | 4   | 5   | 6 | 7 |
| Orthopaedic Surgery of the Spine                                 | 25    | 25                   |       |       |     |     |   |   |
| Orthopaedic Trauma   | 20    | 20                   |       |       |     |     |   |   |
| Pediatric Orthopaedic Surgery                                    | 39    | 39                   |       |       |     |     |   |   |
| Osteopathic Neuromusculoskeletal Medicine                        | 85    | 16                   | 22    | 47    |     |     |   |   |
| Otolaryngology – Head and Neck Surgery                           | 1,794 | 379                  | 364   | 365   | 348 | 338 |   |   |
| Otolaryngology – Head and Neck Surgery (Osteopathic Recognition) | 25    | 5                    | 5     | 5     | 5   | 5   |   |   |
| Neurotology  | 37    | 19                   | 18    |       |     |     |   |   |
| Pediatric Otolaryngology   | 40    | 40                   |       |       |     |     |   |   |
| Pathology (Anatomic and Clinical)                                | 2,345 | 650                  | 617   | 574   | 504 |     |   |   |
| Blood Banking/Transfusion Medicine                               | 47    | 47                   |       |       |     |     |   |   |
| Clinical Informatics (multidisciplinary)                         | 23    | 12                   | 11    |       |     |     |   |   |
| Cytopathology  | 116   | 116                  |       |       |     |     |   |   |
| Forensic Pathology   | 59    | 59                   |       |       |     |     |   |   |
| Hematopathology  | 141   | 141                  |       |       |     |     |   |   |
| Medical Microbiology   | 14    | 14                   |       |       |     |     |   |   |
| Neuropathology   | 56    | 33                   | 23    |       |     |     |   |   |
| Pediatric Pathology  | 23    | 23                   |       |       |     |     |   |   |
| Selective Pathology (Focused Anatomic)                           | 104   | 104                  |       |       |     |     |   |   |
| Selective Pathology (Surgical)                                   | 75    | 75                   |       |       |     |     |   |   |
| Pediatrics   | 9,562 | 3,332                | 3,228 | 3,002 |     |     |   |   |
| Pediatrics (Osteopathic Recognition)                             | 34    | 13                   | 10    | 11    |     |     |   |   |
| Adolescent Medicine  | 92    | 40                   | 25    | 27    |     |     |   |   |
| Child Abuse Pediatrics   | 59    | 29                   | 18    | 12    |     |     |   |   |
| Clinical Informatics (multidisciplinary)                         | 28    | 17                   | 11    |       |     |     |   |   |
| Developmental-Behavioral Pediatrics                              | 106   | 42                   | 36    | 28    |     |     |   |   |
| Neonatal-Perinatal Medicine                                      | 831   | 304                  | 283   | 244   |     |     |   |   |
| Pediatric Cardiology   | 486   | 172                  | 164   | 150   |     |     |   |   |
| Pediatric Critical Care Medicine                                 | 620   | 221                  | 204   | 195   |     |     |   |   |
| Pediatric Emergency Medicine (multidisciplinary)                 | 453   | 176                  | 143   | 134   |     |     |   |   |
| Pediatric Endocrinology  | 251   | 89                   | 79    | 83    |     |     |   |   |
| Pediatric Gastroenterology                                       | 343   | 125                  | 109   | 109   |     |     |   |   |
| Pediatric Hematology/Oncology                                    | 463   | 160                  | 151   | 152   |     |     |   |   |
| Pediatric Hospital Medicine                                      | 191   | 108                  | 83    |       |     |     |   |   |
| Pediatric Infectious Diseases                                    | 195   | 70                   | 59    | 66    |     |     |   |   |
| Pediatric Nephrology   | 145   | 47                   | 57    | 41    |     |     |   |   |
| Pediatric Pulmonology  | 196   | 79                   | 63    | 54    |     |     |   |   |
| Pediatric Rheumatology   | 109   | 38                   | 35    | 36    |     |     |   |   |
| Pediatric Transplant Hepatology                                  | 12    | 12                   |       |       |     |     |   |   |
| Sports Medicine (multidisciplinary)                              | 28    | 28                   |       |       |     |     |   |   |
| Physical Medicine and Rehabilitation                             | 1,646 | 187                  | 504   | 501   | 454 |     |   |   |
| Brain Injury Medicine (multidisciplinary)                        | 24    | 24                   |       |       |     |     |   |   |
| Pediatric Rehabilitation Medicine                                | 42    | 28                   | 14    |       |     |     |   |   |



**Table 3 – Number of Residents/Fellows by Year in Program**

| Specialty/Subspecialty Name   | Resident/Fellow Year |       |       |       |       |       |     |   |
|---|----------------------|-------|-------|-------|-------|-------|-----|---|
|   | Total                | 1     | 2     | 3     | 4     | 5     | 6   | 7 |
| Spinal Cord Injury Medicine   | 25                   | 25    |       |       |       |       |     |   |
| Sports Medicine (multidisciplinary)                                   | 41                   | 41    |       |       |       |       |     |   |
| Plastic Surgery - Independent   | 202                  | 68    | 67    | 67    |       |       |     |   |
| Plastic Surgery - Integrated  | 1,111                | 197   | 201   | 188   | 181   | 178   | 166 |   |
| Hand Surgery (multidisciplinary)                                      | 27                   | 27    |       |       |       |       |     |   |
| Preventive Medicine (Aerospace Medicine)                              | 52                   | 21    | 31    |       |       |       |     |   |
| Preventive Medicine (Occupational Medicine)                           | 120                  | 68    | 52    |       |       |       |     |   |
| Preventive Medicine (Public Health and General Preventive Medicine)   | 185                  | 98    | 87    |       |       |       |     |   |
| Psychiatry  | 7,748                | 2,154 | 2,097 | 2,008 | 1,489 |       |     |   |
| Addiction Medicine (multidisciplinary)                                | 177                  | 177   |       |       |       |       |     |   |
| Addiction Psychiatry  | 93                   | 93    |       |       |       |       |     |   |
| Child and Adolescent Psychiatry                                       | 974                  | 515   | 459   |       |       |       |     |   |
| Forensic Psychiatry   | 76                   | 76    |       |       |       |       |     |   |
| Geriatric Psychiatry  | 65                   | 65    |       |       |       |       |     |   |
| Consultation-Liaison Psychiatry                                       | 92                   | 92    |       |       |       |       |     |   |
| Radiation Oncology  | 764                  | 191   | 186   | 199   | 188   |       |     |   |
| Diagnostic Radiology  | 4,481                | 1,136 | 1,127 | 1,121 | 1,097 |       |     |   |
| Abdominal Radiology   | 50                   | 50    |       |       |       |       |     |   |
| Musculoskeletal Radiology   | 39                   | 39    |       |       |       |       |     |   |
| Neuroradiology  | 305                  | 305   |       |       |       |       |     |   |
| Nuclear Radiology   | 12                   | 12    |       |       |       |       |     |   |
| Pediatric Radiology   | 59                   | 59    |       |       |       |       |     |   |
| Interventional Radiology - Independent                                | 178                  | 132   | 46    |       |       |       |     |   |
| Interventional Radiology - Integrated                                 | 715                  | 155   | 148   | 148   | 132   | 132   |     |   |
| Surgery   | 9,601                | 2,962 | 1,891 | 1,677 | 1,563 | 1,508 |     |   |
| Surgery (Osteopathic Recognition)                                     | 54                   | 11    | 10    | 13    | 10    | 10    |     |   |
| Complex General Surgical Oncology                                     | 128                  | 67    | 61    |       |       |       |     |   |
| Pediatric Surgery   | 88                   | 41    | 47    |       |       |       |     |   |
| Surgical Critical Care  | 350                  | 350   |       |       |       |       |     |   |
| Vascular Surgery - Independent  | 272                  | 137   | 135   |       |       |       |     |   |
| Vascular Surgery - Integrated   | 382                  | 86    | 86    | 83    | 62    | 65    |     |   |
| Thoracic Surgery - Independent (Two-Year Programs)                    | 153                  | 76    | 77    |       |       |       |     |   |
| Thoracic Surgery - Independent (Three-Year Programs)                  | 105                  | 35    | 39    | 31    |       |       |     |   |
| Thoracic Surgery - Integrated   | 240                  | 47    | 46    | 43    | 39    | 33    | 32  |   |
| Urology   | 1,833                | 386   | 376   | 360   | 362   | 349   |     |   |
| Female Pelvic Medicine and Reconstructive Surgery (multidisciplinary) | 42                   | 16    | 18    | 8     |       |       |     |   |
| Pediatric Urology   | 33                   | 15    | 18    |       |       |       |     |   |
| Transitional Year   | 1,897                | 1,897 |       |       |       |       |     |   |
| Transitional Year (Osteopathic Recognition)                           | 21                   | 21    |       |       |       |       |     |   |
| Internal Medicine - Pediatrics  | 1,541                | 396   | 392   | 385   | 368   |       |     |   |

**Table 4 – Rate of Straight-Lining (June 2023)**

| Specialty/Subspecialty Name   | Number of Subcomp | Yr 1  | Yr 2  | Yr 3  | Yr 4  | Yr 5 | Yr 6 | Yr 7 |
|---|-------------------|-------|-------|-------|-------|------|------|------|
| Allergy and Immunology (325)  | 19                | 9.9%  | 14.1% |       |       |      |      |      |
| Anesthesiology (7,254)  | 23                | 27.4% | 22.5% | 24.7% | 31.5% |      |      |      |
| Adult Cardiothoracic Anesthesiology (258)                                   | 23                | 28.7% |       |       |       |      |      |      |
| Critical Care Medicine (multidisciplinary) (219)                            | 19                | 16.0% |       |       |       |      |      |      |
| Obstetric Anesthesiology (51)   | 20                | 13.7% |       |       |       |      |      |      |
| Pain Medicine (multidisciplinary) (421)                                     | 21                | 26.1% |       |       |       |      |      |      |
| Pediatric Anesthesiology (195)  | 20                | 16.9% |       |       |       |      |      |      |
| Pediatric Cardiac Anesthesiology (22)                                       | 21                | 9.1%  |       |       |       |      |      |      |
| Regional Anesthesiology and Acute Pain Medicine (94)                        | 17                | 31.9% |       |       |       |      |      |      |
| Colon and Rectal Surgery (110)  | 27                | 12.7% |       |       |       |      |      |      |
| Dermatology (1,564)   | 21                | 13.8% | 14.2% | 20.6% |       |      |      |      |
| Dermatopathology (multidisciplinary) (77)                                   | 19                | 16.9% |       |       |       |      |      |      |
| Micrographic Surgery and Dermatologic Oncology (91)                         | 18                | 25.3% |       |       |       |      |      |      |
| Pediatric Dermatology (22)  | 21                | 22.7% |       |       |       |      |      |      |
| Emergency Medicine (Three-Year Programs) (6,669)                            | 22                | 14.2% | 13.0% | 22.3% |       |      |      |      |
| Emergency Medicine (Four-Year Programs) (2,657)                             | 22                | 16.7% | 11.5% | 17.0% | 20.0% |      |      |      |
| Emergency Medical Services (98)   | 19                | 12.2% |       |       |       |      |      |      |
| Medical Toxicology (multidisciplinary) (93)                                 | 22                | 0.0%  | 10.0% |       |       |      |      |      |
| Pediatric Emergency Medicine (multidisciplinary) (143)                      | 24                | 0.0%  | 5.9%  | 7.7%  |       |      |      |      |
| Sports Medicine (multidisciplinary) (18)                                    | 20                | 5.6%  |       |       |       |      |      |      |
| Undersea and Hyperbaric Medicine (multidisciplinary) (12)                   | 22                | 0.0%  |       |       |       |      |      |      |
| Family Medicine (14,678)  | 19                | 7.6%  | 7.2%  | 10.5% |       |      |      |      |
| Clinical Informatics (multidisciplinary) (22)                               | 21                | 0.0%  | 0.0%  |       |       |      |      |      |
| Geriatric Medicine (multidisciplinary) (45)                                 | 22                | 4.4%  |       |       |       |      |      |      |
| Hospice and Palliative Medicine (multidisciplinary) (490)                   | 20                | 10.4% |       |       |       |      |      |      |
| Sports Medicine (multidisciplinary) (294)                                   | 20                | 7.5%  |       |       |       |      |      |      |
| Internal Medicine (31,993)  | 21                | 15.0% | 14.4% | 23.2% |       |      |      |      |
| Adult Congenital Heart Disease (30)   | 19                | 7.1%  | 18.8% |       |       |      |      |      |
| Advanced Heart Failure and Transplant Cardiology (93)                       | 21                | 31.2% |       |       |       |      |      |      |
| Cardiovascular Disease (3,430)  | 17                | 21.6% | 24.4% | 35.1% |       |      |      |      |
| Clinical Cardiac Electrophysiology (328)                                    | 24                | 10.4% | 25.3% |       |       |      |      |      |
| Clinical Informatics (multidisciplinary) (65)                               | 21                | 0.0%  | 0.0%  |       |       |      |      |      |
| Critical Care Medicine (360)  | 19                | 13.8% | 21.0% |       |       |      |      |      |
| Endocrinology, Diabetes, and Metabolism (717)                               | 19                | 2.9%  | 10.3% |       |       |      |      |      |
| Gastroenterology (1938)   | 17                | 13.7% | 17.6% | 31.9% |       |      |      |      |
| Gastroenterology (Dual Gastroenterology/Transplant Hepatology Pathway) (54) | 22                | 0.0%  | 33.3% | 29.4% |       |      |      |      |
| Geriatric Medicine (multidisciplinary) (276)                                | 22                | 12.0% |       |       |       |      |      |      |

**Table 4 – Rate of Straight-Lining (June 2023)**

| Specialty/Subspecialty Name   | Number of Subcomp | Yr 1  | Yr 2  | Yr 3  | Yr 4  | Yr 5  | Yr 6  | Yr 7 |
|---|-------------------|-------|-------|-------|-------|-------|-------|------|
| Hematology and Medical Oncology (2101)                                      | 22                | 11.7% | 15.8% | 23.1% |       |       |       |      |
| Infectious Disease (827)  | 23                | 6.2%  | 13.7% |       |       |       |       |      |
| Interventional Cardiology (375)   | 17                | 38.7% |       |       |       |       |       |      |
| Nephrology (878)  | 22                | 6.0%  | 18.6% |       |       |       |       |      |
| Medical Oncology (10)   | 21                | 20.0% | 40.0% |       |       |       |       |      |
| Pulmonary Disease (65)  | 19                | 22.2% | 24.1% |       |       |       |       |      |
| Pulmonary Disease and Critical Care Medicine (2,261)                        | 20                | 14.6% | 15.4% | 23.6% |       |       |       |      |
| Rheumatology (554)  | 21                | 7.0%  | 15.4% |       |       |       |       |      |
| Sleep Medicine (multidisciplinary) (217)                                    | 18                | 19.8% |       |       |       |       |       |      |
| Transplant Hepatology (48)  | 16                | 18.8% |       |       |       |       |       |      |
| Medical Genetics and Genomics (66)  | 17                | 0.0%  | 19.4% |       |       |       |       |      |
| Clinical Biochemical Genetics (13)  | 19                | 0.0%  | 0.0%  |       |       |       |       |      |
| Laboratory Genetics and Genomics (75)                                       | 19                | 9.3%  | 9.4%  |       |       |       |       |      |
| Medical Biochemical Genetics (17)   | 16                | 11.8% |       |       |       |       |       |      |
| Molecular Genetic Pathology (multidisciplinary) (60)                        | 22                | 15.0% |       |       |       |       |       |      |
| Neurological Surgery (1,601)  | 20                | 13.0% | 10.1% | 8.9%  | 8.8%  | 9.3%  | 15.5% | 9.0% |
| Neurology (3,539)   | 27                | 5.1%  | 5.1%  | 8.3%  | 15.6% |       |       |      |
| Clinical Neurophysiology (161)  | 28                | 5.6%  |       |       |       |       |       |      |
| Epilepsy (157)  | 24                | 16.6% |       |       |       |       |       |      |
| Neurocritical Care (multidisciplinary) (115)                                | 24                | 3.0%  | 4.1%  |       |       |       |       |      |
| Neurodevelopmental Disabilities (31)  | 32                | 25.0% | 0.0%  | 0.0%  | 28.6% |       |       |      |
| Neuromuscular Medicine (multidisciplinary) (79)                             | 27                | 5.1%  |       |       |       |       |       |      |
| Vascular Neurology (191)  | 25                | 13.6% |       |       |       |       |       |      |
| Child Neurology (483)   | 26                | 3.5%  | 1.2%  | 10.3% |       |       |       |      |
| Nuclear Medicine (75)   | 22                | 13.5% | 0.0%  | 38.9% |       |       |       |      |
| Obstetrics and Gynecology (5,995)   | 32                | 5.5%  | 5.0%  | 4.1%  | 15.8% |       |       |      |
| Complex Family Planning (55)  | 25                | 0.0%  | 0.0%  |       |       |       |       |      |
| Female Pelvic Medicine and Reconstructive Surgery (multidisciplinary) (155) | 28                | 1.8%  | 0.0%  | 2.1%  |       |       |       |      |
| Gynecologic Oncology (237)  | 27                | 0.0%  | 2.6%  | 9.2%  |       |       |       |      |
| Maternal-Fetal Medicine (417)   | 26                | 4.1%  | 2.9%  | 12.2% |       |       |       |      |
| Reproductive Endocrinology and Infertility (175)                            | 22                | 0.0%  | 0.0%  | 8.6%  |       |       |       |      |
| Ophthalmology (1726)  | 20                | 21.2% | 12.9% | 13.9% | 21.4% |       |       |      |
| Orthopaedic Surgery (4,488)   | 20                | 20.7% | 18.2% | 22.3% | 28.0% | 33.3% |       |      |
| Adult Reconstructive Orthopaedic Surgery (52)                               | 18                | 32.7% |       |       |       |       |       |      |
| Foot and Ankle Orthopaedic Surgery (16)                                     | 21                | 56.3% |       |       |       |       |       |      |
| Hand Surgery (multidisciplinary) (161)                                      | 20                | 29.2% |       |       |       |       |       |      |
| Musculoskeletal Oncology (16)   | 18                | 31.3% |       |       |       |       |       |      |
| Orthopaedic Sports Medicine (225)   | 18                | 28.4% |       |       |       |       |       |      |
| Orthopaedic Surgery of the Spine (25)                                       | 19                | 40.0% |       |       |       |       |       |      |
| Orthopaedic Trauma (20)   | 21                | 50.0% |       |       |       |       |       |      |
| Pediatric Orthopaedic Surgery (39)  | 23                | 12.8% |       |       |       |       |       |      |
| Osteopathic Neuromusculoskeletal Medicine (85)                              | 18                | 0.0%  | 4.5%  | 0.0%  |       |       |       |      |

**Table 4 – Rate of Straight-Lining (June 2023)**

| Specialty/Subspecialty Name                            | Number of Subcomp | Yr 1  | Yr 2  | Yr 3  | Yr 4  | Yr 5  | Yr 6  | Yr 7 |
|--|-------------------|-------|-------|-------|-------|-------|-------|------|
| Otolaryngology – Head and Neck Surgery (1,779)         | 23                | 9.8%  | 6.6%  | 6.1%  | 7.2%  | 13.7% |       |      |
| Neurotology (35)                                       | 19                | 0.0%  | 35.3% |       |       |       |       |      |
| Pediatric Otolaryngology (40)                          | 19                | 5.0%  |       |       |       |       |       |      |
| Pathology (Anatomic and Clinical) (2,345)              | 21                | 11.1% | 9.4%  | 12.4% | 19.2% |       |       |      |
| Blood Banking/Transfusion Medicine (47)                | 23                | 2.1%  |       |       |       |       |       |      |
| Clinical Informatics (multidisciplinary) (23)          | 21                | 8.3%  | 0.0%  |       |       |       |       |      |
| Cytopathology (115)                                    | 21                | 7.0%  |       |       |       |       |       |      |
| Forensic Pathology (58)                                | 19                | 5.2%  |       |       |       |       |       |      |
| Hematopathology (141)                                  | 23                | 9.9%  |       |       |       |       |       |      |
| Medical Microbiology (14)                              | 21                | 28.6% |       |       |       |       |       |      |
| Neuropathology (56)                                    | 20                | 9.1%  | 13.0% |       |       |       |       |      |
| Pediatric Pathology (23)                               | 19                | 4.3%  |       |       |       |       |       |      |
| Selective Pathology (Focused Anatomic) (104)           | 19                | 27.9% |       |       |       |       |       |      |
| Selective Pathology (Surgical) (75)                    | 19                | 9.3%  |       |       |       |       |       |      |
| Pediatrics (9,530)                                     | 22                | 4.1%  | 5.0%  | 8.0%  |       |       |       |      |
| Adolescent Medicine (92)                               | 21                | 2.5%  | 4.0%  | 7.4%  |       |       |       |      |
| Child Abuse Pediatrics (59)                            | 21                | 6.9%  | 0.0%  | 8.3%  |       |       |       |      |
| Clinical Informatics (multidisciplinary) (28)          | 21                | 0.0%  | 0.0%  |       |       |       |       |      |
| Developmental-Behavioral Pediatrics (106)              | 21                | 4.8%  | 5.6%  | 7.1%  |       |       |       |      |
| Neonatal-Perinatal Medicine (831)                      | 21                | 3.6%  | 3.5%  | 16.4% |       |       |       |      |
| Pediatric Cardiology (486)                             | 21                | 8.7%  | 9.8%  | 12.0% |       |       |       |      |
| Pediatric Critical Care Medicine (620)                 | 21                | 5.4%  | 3.9%  | 11.8% |       |       |       |      |
| Pediatric Emergency Medicine (multidisciplinary) (453) | 24                | 2.3%  | 3.5%  | 6.0%  |       |       |       |      |
| Pediatric Endocrinology (251)                          | 21                | 4.5%  | 2.5%  | 8.4%  |       |       |       |      |
| Pediatric Gastroenterology (343)                       | 21                | 9.6%  | 13.8% | 16.5% |       |       |       |      |
| Pediatric Hematology/Oncology (463)                    | 21                | 5.6%  | 5.3%  | 13.2% |       |       |       |      |
| Pediatric Hospital Medicine (189)                      | 21                | 1.9%  | 6.1%  |       |       |       |       |      |
| Pediatric Infectious Diseases (195)                    | 21                | 1.4%  | 1.7%  | 4.5%  |       |       |       |      |
| Pediatric Nephrology (145)                             | 21                | 10.6% | 8.8%  | 12.2% |       |       |       |      |
| Pediatric Pulmonology (196)                            | 21                | 3.8%  | 7.9%  | 14.8% |       |       |       |      |
| Pediatric Rheumatology (109)                           | 21                | 0.0%  | 2.9%  | 11.1% |       |       |       |      |
| Pediatric Transplant Hepatology (12)                   | 21                | 0.0%  |       |       |       |       |       |      |
| Sports Medicine (multidisciplinary) (28)               | 20                | 3.6%  |       |       |       |       |       |      |
| Physical Medicine and Rehabilitation (1,646)           | 24                | 8.6%  | 7.3%  | 11.6% | 18.7% |       |       |      |
| Brain Injury Medicine (multidisciplinary) (24)         | 23                | 4.2%  |       |       |       |       |       |      |
| Pediatric Rehabilitation Medicine (42)                 | 24                | 0.0%  | 7.1%  |       |       |       |       |      |
| Spinal Cord Injury Medicine (23)                       | 23                | 26.1% |       |       |       |       |       |      |
| Sports Medicine (multidisciplinary) (41)               | 20                | 12.2% |       |       |       |       |       |      |
| Plastic Surgery - Independent (202)                    | 22                | 4.4%  | 9.0%  | 17.9% |       |       |       |      |
| Plastic Surgery - Integrated (1,111)                   | 22                | 17.8% | 14.4% | 14.4% | 14.9% | 13.5% | 22.3% |      |
| Hand Surgery (multidisciplinary) (27)                  | 20                | 14.8% |       |       |       |       |       |      |
| Preventive Medicine (Aerospace Medicine) (52)          | 20                | 0.0%  | 9.7%  |       |       |       |       |      |
| Preventive Medicine (Occupational Medicine) (120)      | 21                | 4.4%  | 1.9%  |       |       |       |       |      |

**Table 4 – Rate of Straight-Lining (June 2023)**

| Specialty/Subspecialty Name  | Number of Subcomp | Yr 1  | Yr 2  | Yr 3  | Yr 4  | Yr 5  | Yr 6  | Yr 7 |
|--|-------------------|-------|-------|-------|-------|-------|-------|------|
| Preventive Medicine (Public Health and General Preventive Medicine) (185)  | 20                | 0.0%  | 2.3%  |       |       |       |       |      |
| Psychiatry (7,748)   | 21                | 12.4% | 12.0% | 13.8% | 19.3% |       |       |      |
| Addiction Medicine (multidisciplinary) (173)                               | 16                | 13.3% |       |       |       |       |       |      |
| Addiction Psychiatry (93)  | 17                | 14.0% |       |       |       |       |       |      |
| Child and Adolescent Psychiatry (974)                                      | 23                | 4.1%  | 8.9%  |       |       |       |       |      |
| Forensic Psychiatry (76)   | 17                | 10.5% |       |       |       |       |       |      |
| Geriatric Psychiatry (65)  | 20                | 15.4% |       |       |       |       |       |      |
| Consultation-Liaison Psychiatry (92)                                       | 16                | 8.7%  |       |       |       |       |       |      |
| Radiation Oncology (764)   | 21                | 15.2% | 19.4% | 24.1% | 28.2% |       |       |      |
| Diagnostic Radiology (4,481)   | 24                | 37.8% | 28.8% | 30.8% | 41.8% |       |       |      |
| Abdominal Radiology (50)   | 20                | 20.0% |       |       |       |       |       |      |
| Musculoskeletal Radiology (39)   | 22                | 25.6% |       |       |       |       |       |      |
| Neuroradiology (305)   | 21                | 25.2% |       |       |       |       |       |      |
| Nuclear Radiology (12)   | 20                | 41.7% |       |       |       |       |       |      |
| Pediatric Radiology (59)   | 20                | 10.2% |       |       |       |       |       |      |
| Interventional Radiology - Independent (178)                               | 24                | 25.8% | 19.6% |       |       |       |       |      |
| Interventional Radiology - Integrated (715)                                | 31                | 37.4% | 30.4% | 35.1% | 32.6% | 34.8% |       |      |
| Surgery (9,563)  | 18                | 26.9% | 18.3% | 17.0% | 18.3% | 33.1% |       |      |
| Complex General Surgical Oncology (113)                                    | 23                | 15.0% | 18.9% |       |       |       |       |      |
| Pediatric Surgery (88)   | 25                | 14.6% | 10.6% |       |       |       |       |      |
| Surgical Critical Care (350)   | 25                | 16.3% |       |       |       |       |       |      |
| Vascular Surgery - Independent (268)                                       | 28                | 5.2%  | 24.1% |       |       |       |       |      |
| Vascular Surgery - Integrated (380)  | 28                | 16.5% | 14.1% | 8.4%  | 16.1% | 32.3% |       |      |
| Thoracic Surgery- Independent (Two-Year Programs) (153)                    | 23                | 6.6%  | 5.2%  |       |       |       |       |      |
| Thoracic Surgery - Independent (Three-Year Programs) (105)                 | 23                | 0.0%  | 12.8% | 12.9% |       |       |       |      |
| Congenital Cardiac Surgery (9)   | 17                | 11.1% |       |       |       |       |       |      |
| Thoracic Surgery - Integrated (240)  | 24                | 14.9% | 10.9% | 4.7%  | 10.3% | 15.2% | 25.0% |      |
| Urology (1,833)  | 20                | 17.9% | 10.6% | 11.4% | 13.5% | 26.4% |       |      |
| Female Pelvic Medicine and Reconstructive Surgery (multidisciplinary) (42) | 28                | 0.0%  | 0.0%  | 0.0%  |       |       |       |      |
| Pediatric Urology (33)   | 21                | 13.3% | 16.7% |       |       |       |       |      |
| Transitional Year (1,897)  | 19                | 19.9% |       |       |       |       |       |      |

Note: The following specialties and subspecialties do not contain data and are not included within the data report due to being a newly designated program or containing an insufficient number of learners.

### Overall

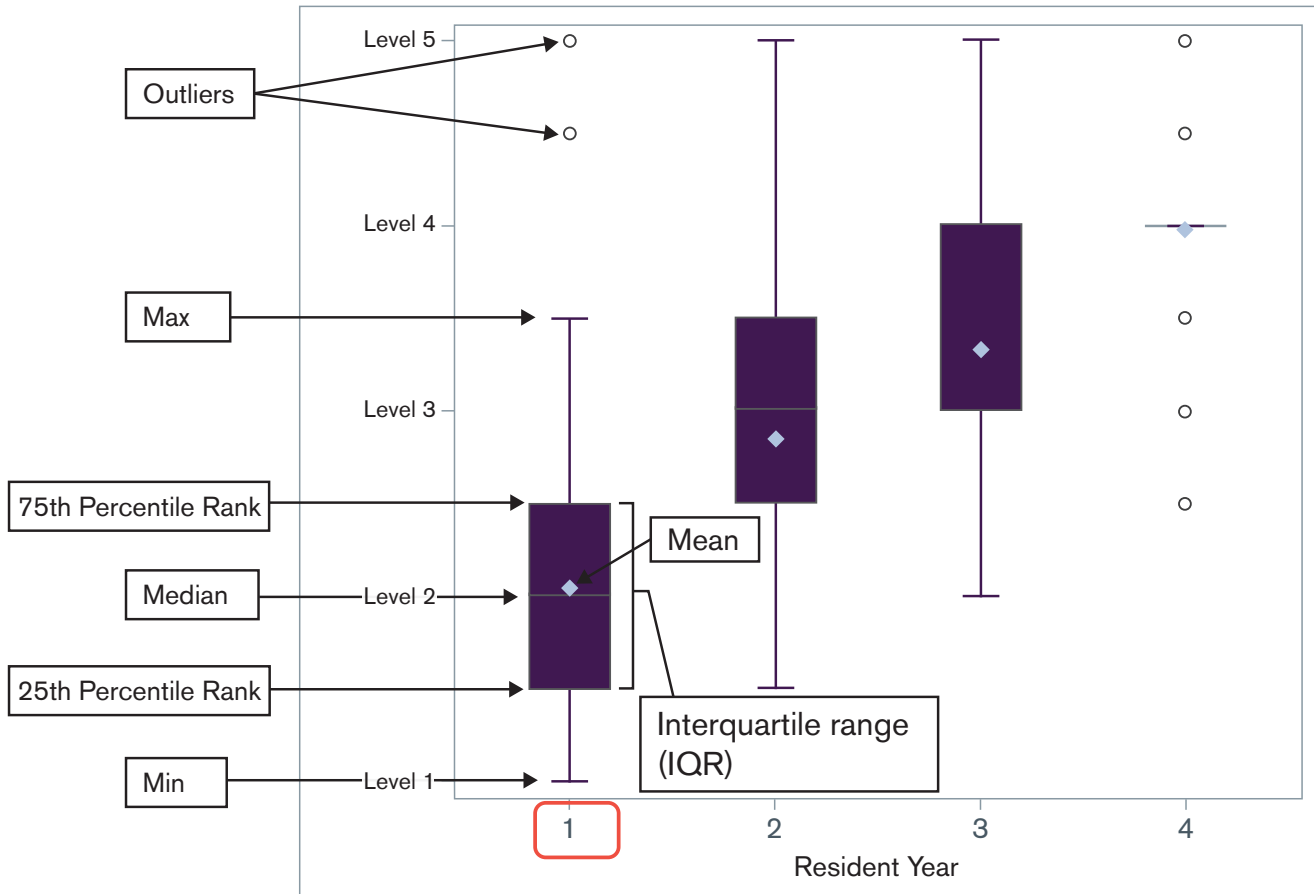
- Medical Oncology
- Neuroendovascular Intervention (Neurological Surgery)
- Neuroendovascular Intervention (Neurology)
- Neuroendovascular Intervention (Radiology)
- Ophthalmic Plastic and Reconstructive Surgery
- Chemical Pathology
- Selective Pathology
- Craniofacial Surgery
- Undersea and Hyperbaric Medicine (multidisciplinary, Preventive Medicine)
- Hand Surgery (multidisciplinary, Surgery)
- Congenital Cardiac Surgery

### Osteopathic Recognition

- Allergy and Immunology
- Cardiovascular Disease
- Diagnostic Radiology
- Emergency Medicine (Three-Year Program)
- Hospice and Palliative Medicine (multidisciplinary, Internal Medicine)
- Neurological Surgery
- Neurology
- Physical Medicine and Rehabilitation
- Plastic Surgery
- Psychiatry
- Pulmonary Disease and Critical Care Medicine
- Sports Medicine (multidisciplinary, Pediatrics)
- Urology
- Internal Medicine - Pediatrics

## FIGURE 1: KEY TO BOX PLOTS

Box plots provide a rigorous and robust way to display complex data, such as for the Milestones. The components of the box plots used for the Milestones are shown below.



As seen in this diagram, the median Milestones level for each resident year is represented by the horizontal line, bounded by the 25th and 75th percentile rank of Milestone ratings, also known as the interquartile range (IQR). The mean rating is represented by the diamond but should be interpreted with caution given the Milestones are ordinal, not interval data. “Min” represents the lowest level and “Max” the highest level (the “whiskers”), excluding outliers (represented by the open circles). As would be expected, there is a general upward trajectory in this subcompetency from Year 1 (median Level 2) to Year 4 (median Level 4).

Most Milestone sets include five levels of development with transition zones between each level (designated as half increments, such as Level 2.5). In this example, the box plot for Resident Year 1 (highlighted by the red box) shows that the median is Level 2, and the IQR extends from Level 1.5 (25th percentile rank) to Level 2.5 (75th percentile rank).

With regard to Milestone levels within an individual residency or fellowship year (i.e., post-graduate year or PGY), the levels can be sorted from least to greatest, and then graphed as shown in this box plot. In the example above, the highest 50 percent of the Resident Year 1 group were at or above Milestone Level 2; they are represented by everything above the median line. Fifty percent of the Year 1 residents fall between Level 1.5 and Level 2.5 (IQR). Those in the top 25 percent of Milestone judgments in the Year 1 group are shown by the top “whisker” (here labeled as “Max”) and the outlier open circles.

The outliers represent those who were judged to be substantially higher (in this case we see two outlier circles) or were judged to be much lower than normal (in this example there are no low outliers). The number of people represented by the circles will vary by the sample size of that specialty.

Box plots provide information on more than just the four split groups. They also show which way the Milestone data can “sway.” For example, if more residents/fellows are judged much higher than just a few residents/fellows being judged much lower, the median is going to be higher, or the top whisker could be longer than the bottom one. Box plots provide a better overview of the data’s distribution nationally than simple means and standard deviations.

The box plots must be interpreted in the context of the Milestones descriptions for each subcompetency within each discipline. Provided below are links to each specialty’s Milestones Sets to help guide review of the data.

## Specialty:

[Allergy and Immunology](#)

[Anesthesiology](#)

[Colon and Rectal Surgery](#)

[Dermatology](#)

[Emergency Medicine](#)

[Family Medicine](#)

[Internal Medicine](#)

[Medical Genetics and Genomics](#)

[Neurological Surgery](#)

[Neurology](#)

[Nuclear Medicine](#)

[Obstetrics and Gynecology](#)

[Ophthalmology](#)

[Orthopaedic Surgery](#)

[Osteopathic Neuromusculoskeletal Medicine](#)

[Otolaryngology – Head and Neck Surgery](#)

[Pathology](#)

[Pediatrics](#)

[Physical Medicine and Rehabilitation](#)

[Plastic Surgery](#)

[Preventive Medicine](#)

(Effective July 2022 Preventive Medicine became three distinct specialties: Aerospace Medicine; Occupational and Environmental Medicine; and Public Health and General Preventive Medicine)

[Psychiatry](#)

[Radiation Oncology](#)

[Radiology](#)

[Surgery](#)

[Thoracic Surgery](#)

[Transitional Year](#)

[Urology](#)

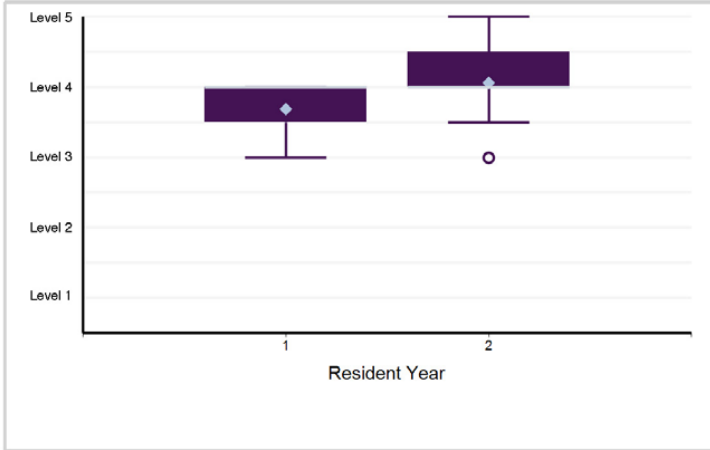


# Box Plot Report - Milestone Evaluation by Resident/Fellow Year: Year-End 2022-2023

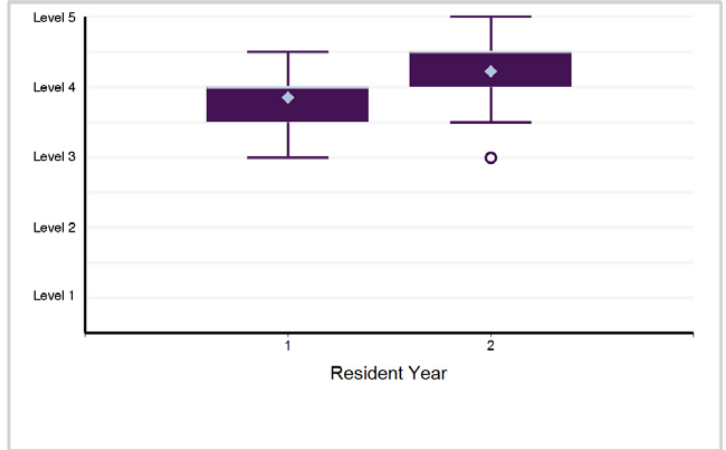
TABLE 123: SPECIALTY: Preventive Medicine (Aerospace Medicine)

| Resident Year  | 1  | 2  | Total Residents |
|----------------|----|----|-----------------|
| # of Residents | 21 | 31 | 52              |

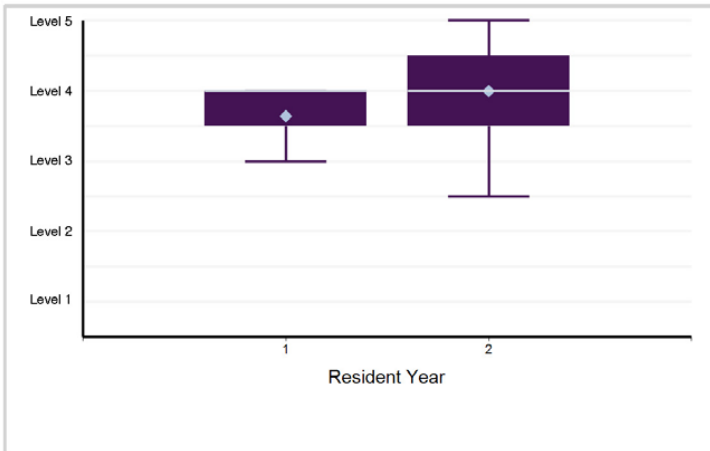
1. Patient Care - Patient Care 1: Health and Performance Optimization



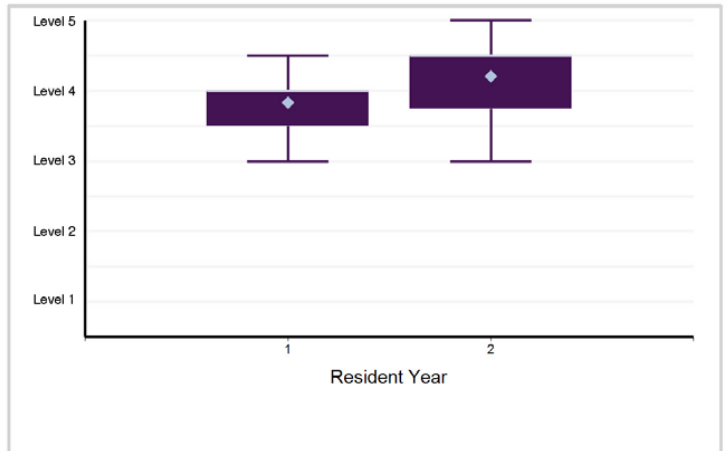
2. Patient Care - Patient Care 2: Fitness for Duty and Medical Standards



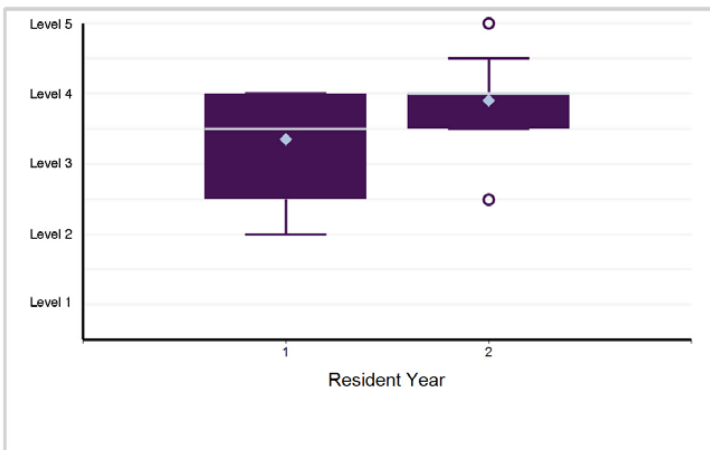
3. Patient Care - Patient Care 3: Hazard Recognition, Mitigation, and Management



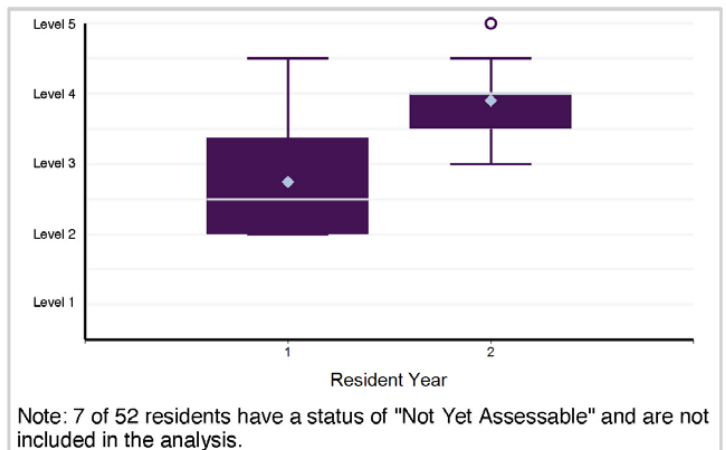
4. Patient Care - Patient Care 4: Clinical Care Skills



5. Patient Care - Patient Care 5: Air and Space Environment



6. Patient Care - Patient Care 6: Aeromedical Transport

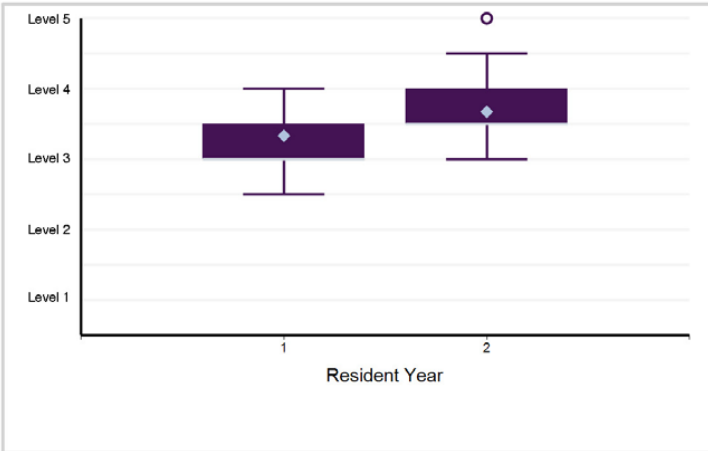


Note: 7 of 52 residents have a status of "Not Yet Assessable" and are not included in the analysis.

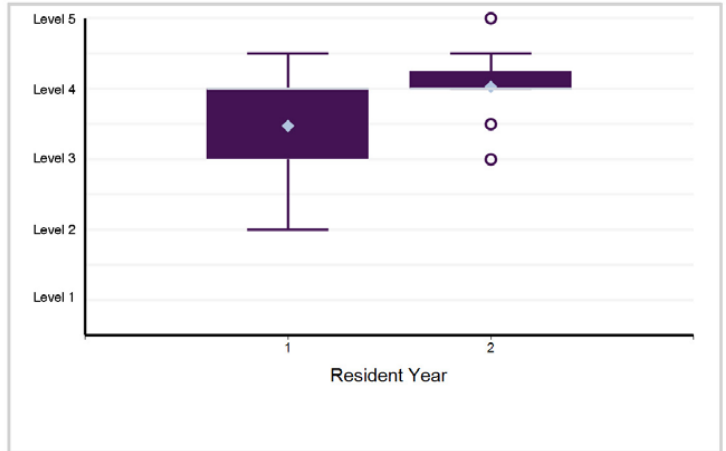
# Box Plot Report - Milestone Evaluation by Resident/Fellow Year: Year-End 2022-2023

## SPECIALTY: Preventive Medicine (Aerospace Medicine)

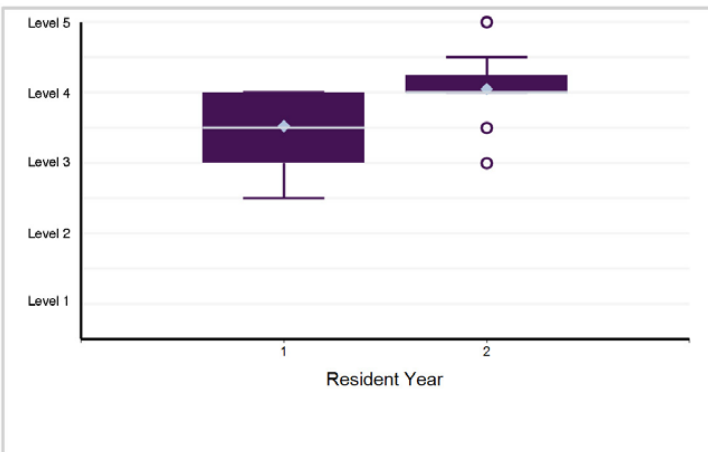
7. Medical Knowledge - Medical Knowledge 1: Biostatistics and Epidemiology



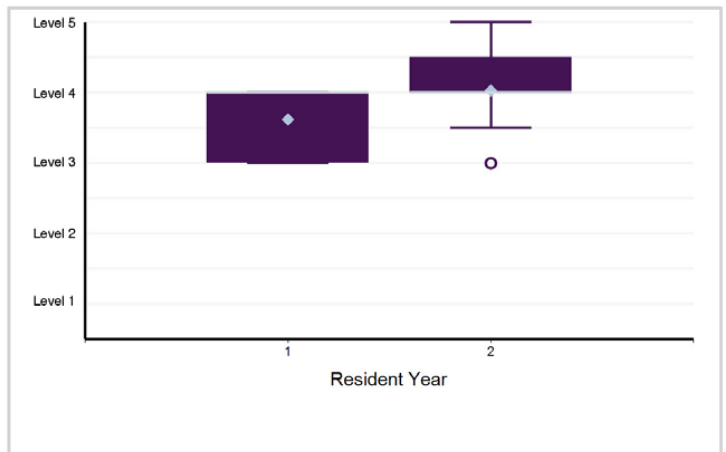
8. Medical Knowledge - Medical Knowledge 2: Regulatory



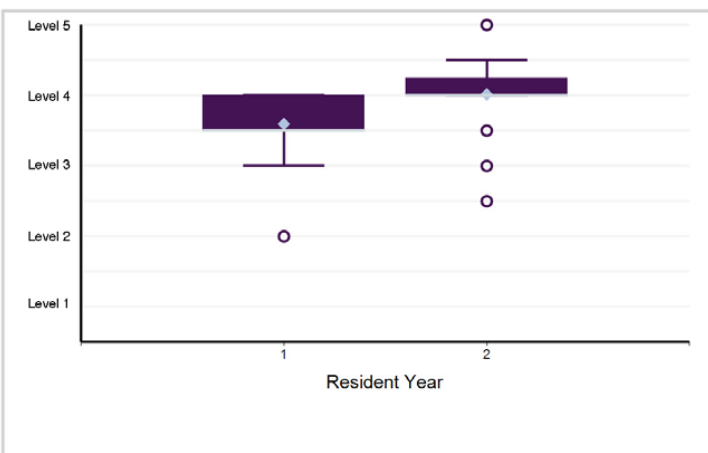
9. Systems-Based Practice - Systems-Based Practice 1: Patient Safety and Quality Improvement



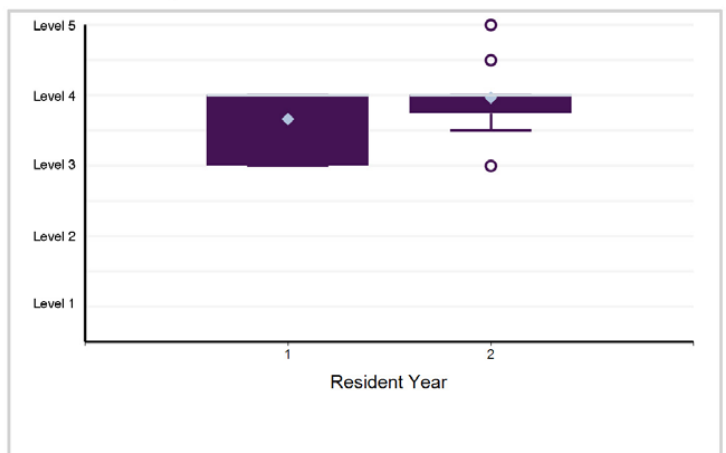
10. Systems-Based Practice - Systems-Based Practice 2: System Navigation for Patient-Centered Care



11. Systems-Based Practice - Systems-Based Practice 3: Population Health



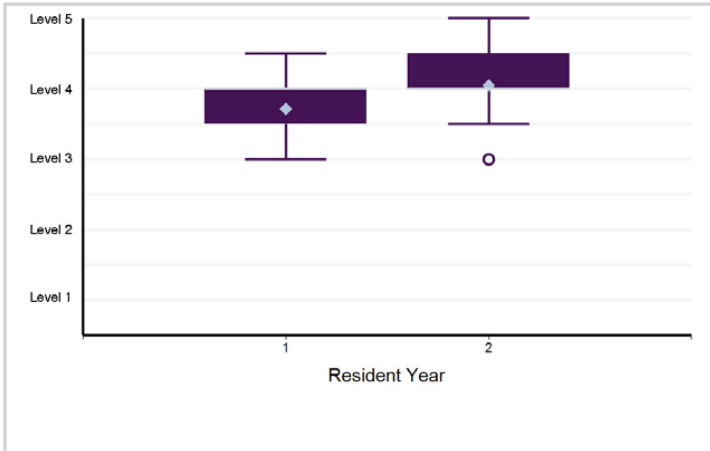
12. Systems-Based Practice - Systems-Based Practice 4: Physician Role in Health Care Systems



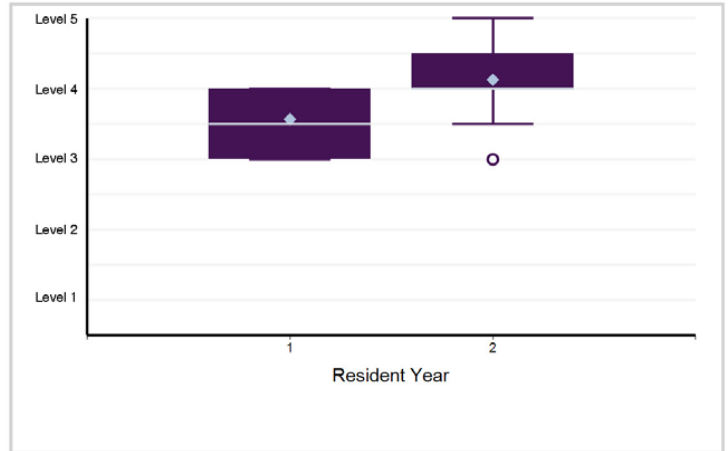
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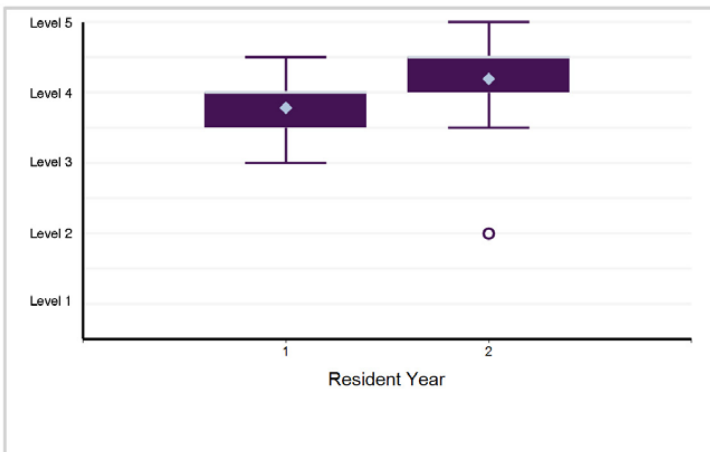
13. Practice-Based Learning and Improvement - Practice-Based Learning and Improvement 1: Evidence-Based and Informed Practice



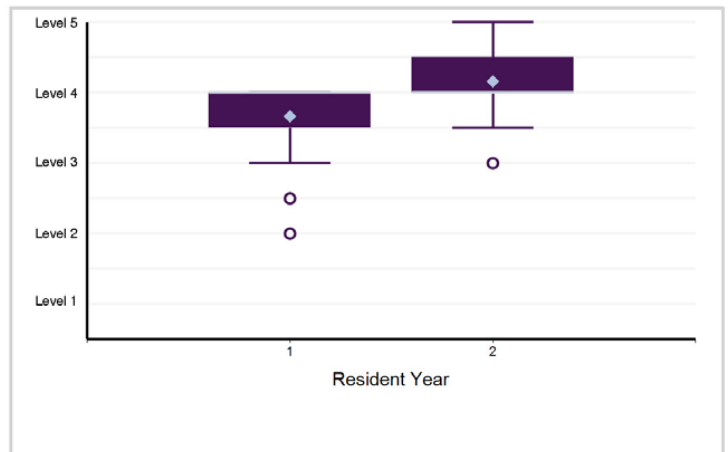
14. Practice-Based Learning and Improvement - Practice-Based Learning and Improvement 2: Reflective Practice and Commitment ...



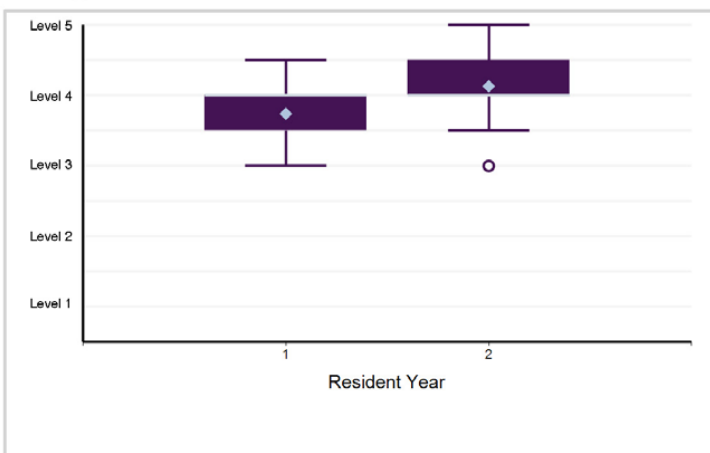
15. Professionalism - Professionalism 1: Professional Behavior and Ethical Principles



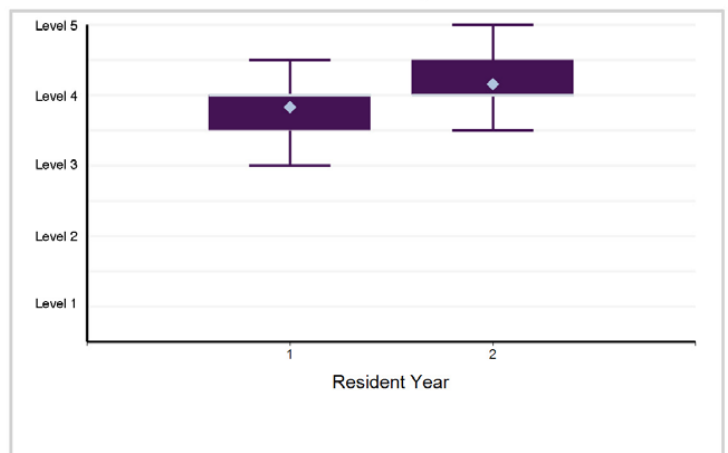
16. Professionalism - Professionalism 2: Accountability/Conscientiousness



17. Professionalism - Professionalism 3: Self-Awareness and Help-Seeking



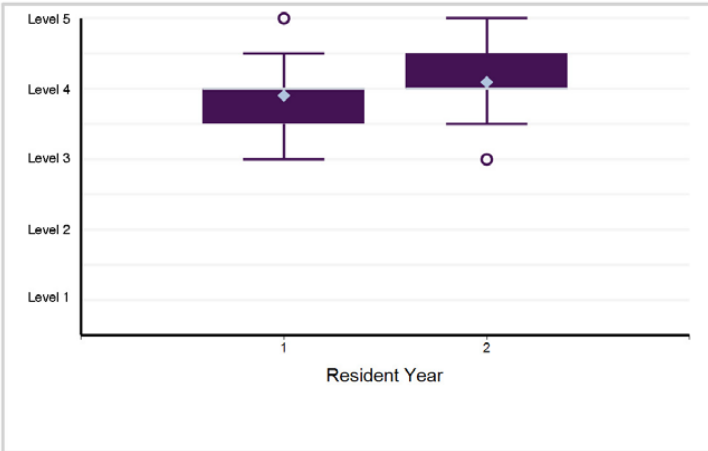
18. Interpersonal and Communication Skills - Interpersonal and Communication Skills 1: Patient- and Family-Centered Communication



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19. Interpersonal and Communication Skills - Interpersonal and Communication Skills 2: Interprofessional and Team Communication



20. Interpersonal and Communication Skills - Interpersonal and Communication Skills 3: Communication within Health Care Systems

