2018

# Trends in Demand for New Physicians, 2014-2018

## *A Summary of Demand Indicators for 34 Physician Specialties*

CHWS
Center *for* Health Workforce Studies

School of Public Health
University at Albany, State University of New York

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## *A Summary of Demand Indicators for 34 Physician Specialties*

**May 2020**


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# PREFACE

This report presents profiles for 34 specialties. Each specialty profile summarizes trends in 5 key areas related to physician supply and demand: starting income, job offers, having to change plans due to limited practice opportunities, relative demand, and numbers of graduates. Data on starting income, job offers, having to change plans, and relative demand are based on responses to the Resident Exit Survey in New York (for the years 2014 to 2018).

This report was prepared by the Center for Health Workforce Studies (CHWS) staff, Yuhao Liu, David Armstrong, and Jonathan Serrano with layout design by Matthew Allegretti. Funding for this report was provided by the New York State Department of Health.

Established in 1996, CHWS is an academic research organization, based at the School of Public Health, University at Albany, State University of New York (SUNY). The mission of CHWS is to provide timely, accurate data and conduct policy relevant research about the health workforce. The research conducted by CHWS supports and promotes health workforce planning and policy making at local, regional, state, and national levels. Today, CHWS has established itself as a national leader in the field of health workforce studies.

The views expressed in this report are those of CHWS and do not necessarily represent positions or policies of the School of Public Health, University at Albany, SUNY, or the New York State Department of Health.

*May 2020*

# ACKNOWLEDGMENT

The authors would like to express their appreciation to the GME administrators and directors at participating teaching hospitals for their efforts to ensure a high response rate to the Resident Exit Survey each year. Without their assistance, this important data collection effort would not be possible.

***Suggested citation:***

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# BACKGROUND

The Center for Health Workforce Studies (CHWS) conducts an annual survey of all physicians in New York completing a residency or fellowship training program (the Exit Survey). The goal is to provide the medical education community with useful information about the outcomes of training and the demand for new physicians. The survey instrument (Appendix C) was developed by CHWS in consultation with the state's teaching hospitals and other key stakeholders.

Each year in the spring, CHWS distributes the Exit Survey to GME administrators at teaching hospitals in New York. The Survey is then forwarded to individual programs where graduating residents and fellows are asked to complete a 32-item questionnaire in the weeks prior to finishing their program. Completed questionnaires are returned to CHWS for data entry and analysis. In 2018, with the excellent participation of teaching hospitals, a total of 3,308 of the estimated 5,283 physicians finishing a residency or fellowship training program completed the Exit Survey (63% response rate). Over the 19 years the survey has been conducted (1998-2003, 2005, 2007-2018), 57,634 of 94,634 graduates have completed the survey (61% cumulative response rate).

This report presents profiles for 34 specialties. Each specialty profile summarizes trends in 5 key areas related to physician supply and demand: starting income, job offers, having to change plans due to limited practice opportunities, relative demand, and numbers of graduates. Data on starting income, job offers, having to change plans, and relative demand are based on responses to the Resident Exit Survey in New York (for the years 2014 to 2018). Data on GME graduates are from the annual medical education issues of the *Journal of the American Medical Association* (*JAMA*), and summarize the numbers of residents (or fellows) completing allopathic GME training programs in the specialty in the US from 2009 to 2018.

Definitions of the 5 areas are as follows:

- ***Starting income:*** The median starting income of survey respondents with confirmed plans to enter patient care/clinical practice in the US following completion of their training program. Starting incomes included respondents' base salaries plus their expected incentive/bonus income. Starting incomes in years 2014-2018 were adjusted for inflation to reflect 2018 dollars and are reported in $1,000s.

- ***Job offers:*** The mean number of job offers for employment/practice positions of survey respondents who had actively searched for a practice position, excluding international medical graduates (IMGs) on temporary visas. Respondents with temporary citizenship status were excluded from this analysis because they were much more likely to experience difficulty in finding practice positions due to visa restrictions.

- ***Having to change plans due to limited practice opportunities:*** The percentage of respondents who had actively searched for a job (excluding IMGs on temporary visas) and who had to change their plans due to limited practice opportunities.

- ***Relative demand:*** Using several questions pertaining to the job market experiences and perceptions of survey respondents who had actively searched for a practice position (excluding IMGs on temporary visas), a composite score was computed to assign an overall rank (or relative demand score) for each specialty in each year that the survey was conducted. The percentages presented are the percentile rank of the specialty amongst all specialties in a given year. A percentile rank of 100% identifies the specialty highest in demand, and the lowest percentile rank would correspond to the specialty with the lowest relative demand score. Appendix A provides a detailed explanation of the methodology used to assess relative demand.

- ***Numbers of graduates of allopathic GME training programs in the US:*** The number of residents completing training was compiled to observe how the number of new entrants to the physician marketplace has changed over time.

**Important Note:**

For each specialty, the number of responses by year is listed at the bottom of the page in the report. Care should be taken when interpreting outcomes based on small samples because the measures may fluctuate greatly from year to year.

# KEY FINDINGS

***Demand for new physicians continues to be strong.***

In 2018, more than 90% of physicians completing training and having searched for a job had received at least 1 job offer at the time they completed the Exit Survey and only 13% reported that they had to change plans due to limited practice opportunities. The median starting income of physicans was $253,150, a 5% increase from 2017. Finally, new physicians' perceptions of both the regional and national job markets were positive in recent years.

***Demand for new primary care physicians* is stronger than the demand for non-primary care physicians***.

Physicians in primary care specialties were less likely than physicians in other specialties to report having to change plans due to limited job opportunities (primary care: 8%, medicine: 18%, surgical: 15%, non-primary care: 12%). Physicians in primary care specialties also received more job offers on average than physicians in other specialties (primary care: 4.2, medicine: 3.5, surgical: 2.7, non-primary care: 3.4)

***There are important differences in the job market experiences of physicans in different specialties.***

Although the overall marketplace appears relatively strong for new graduates, there exist important differences in demand for individual specialties. In New York, specialties experiencing the strongest and weakest relative demand were as follows:

- *Strongest relative demand:* adult psychiatry, family medicine, dermatology, emergency medicine, general internal medicine, and neurology.
    - *Greatest change in income over last 5 years:* internal medicine and pediatrics (combined), physical medicine and rehabilitation, ophthalmology, cardio-thoracic surgery, and general pediatrics
    - *Most job offers:* dermatology, general internal medicine, family medicine, emergency medicine, and adult psychiatry.
    - *Lowest percentage of having to change plans:* family medicine, emergency medicine, adult psychiatry, dermatology, and rheumatology.

* Primary care specialties include family medicine, general internal medicine, general pediatrics, and internal medicine and pediatrics (combined).

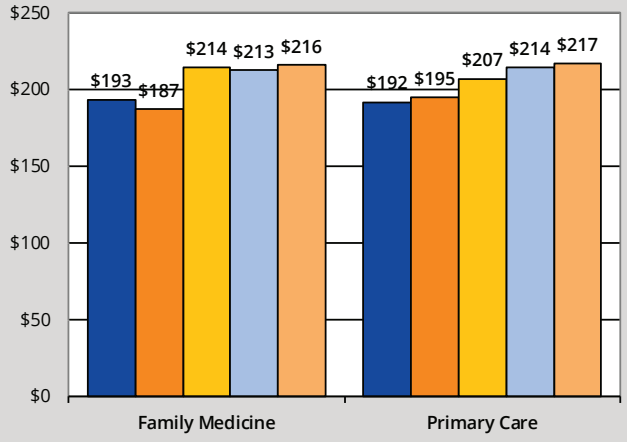
- *Weakest relative demand:* pathology, radiology, infectious disease, pediatric subspecialties, neurosurgery, and nephrology.
    - *Lowest change in income over last 5 years:* rheumatology, urology , radiology, general surgery, and nephrology.
    - *Fewest job offers:* pathology, ophthalmology, pediatric subspecialties, allergy and immunology, and radiology.
    - *Highest percentage of having to change plans:* infectious disease, nephrology, pathology, allergy and immunology, and critical care medicine.

# Specialty Profiles

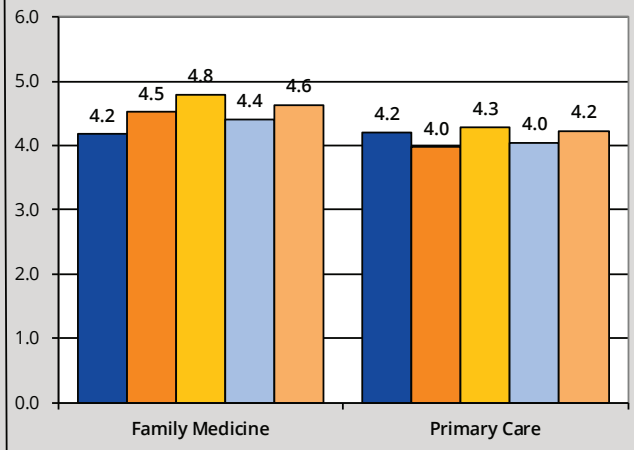
## Specialty: Family Medicine

Legend: 2014 2015 2016 2017 2018

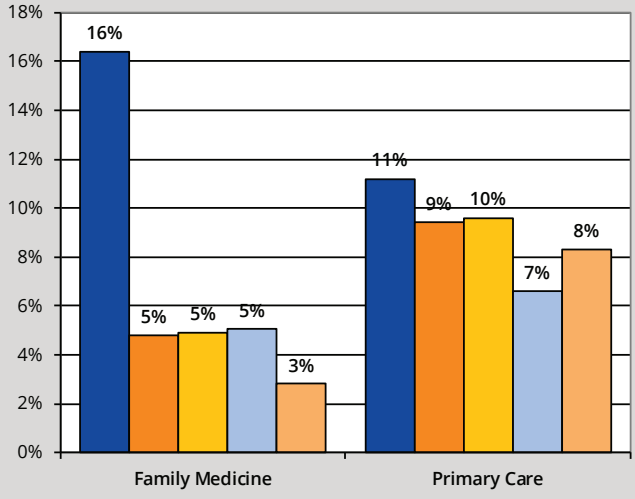
*Trends in Median Starting Income,* 2014 - 2018 (in $1,000s of 2018 dollars)*



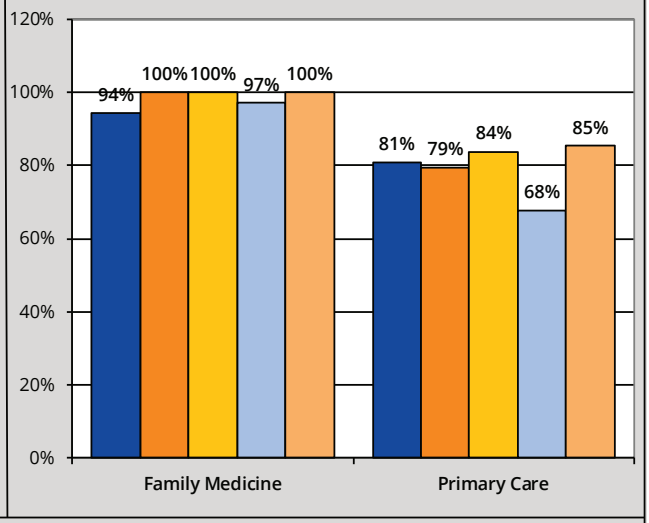

*Trends in Mean Number of Job Offers Received,* 2014 - 2018*



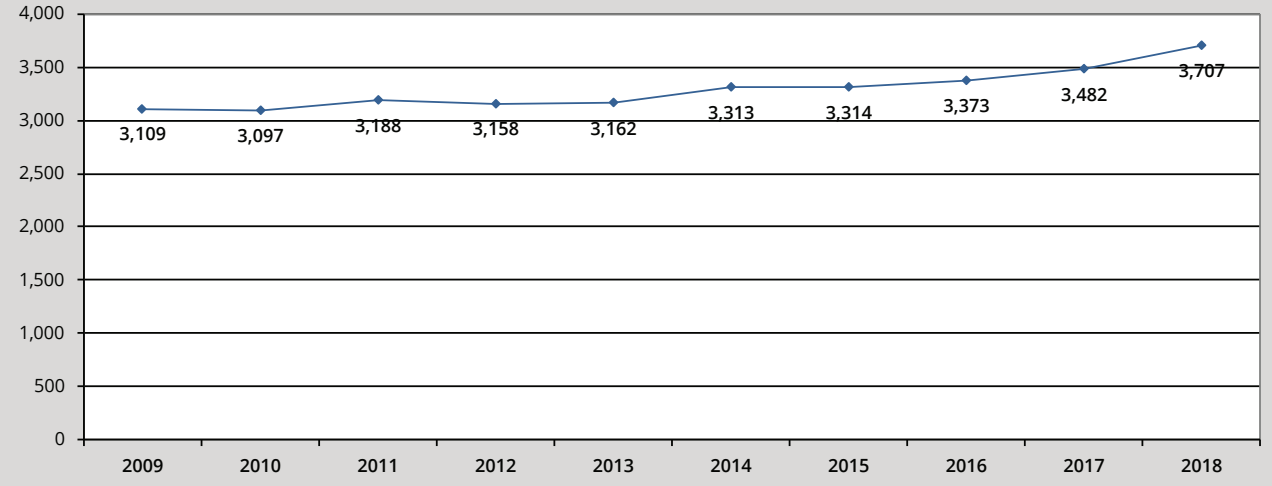

*Trends in Having to Change Plans Due to Limited Practice Opportunities,* 2014 - 2018*




*Trends in Relative Demand* - Percentile Rank of Family Medicine, 2014 - 2018*




*Trends in Number of Graduates of Allopathic Family Medicine GME Programs in the US,** 2009 - 2018*




Number of responses: 2014: n = 70, 2015: n = 92, 2016: n = 92, 2017: n = 117, 2018: n = 125.

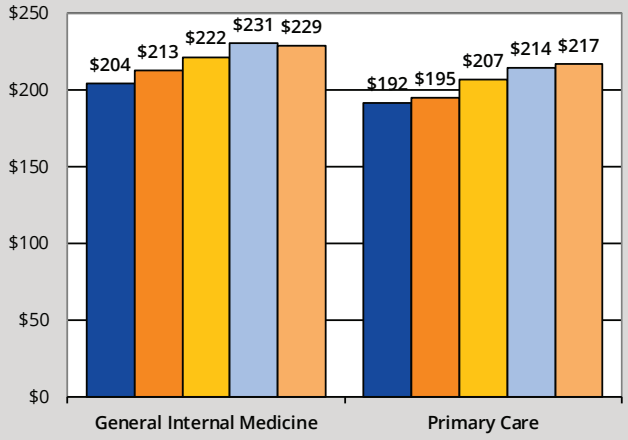
*Source: CHWS, Survey of Residents Completing Training in New York, 2014 - 2018.

**Source: *JAMA Medical Education Issues*, 2009 - 2018.

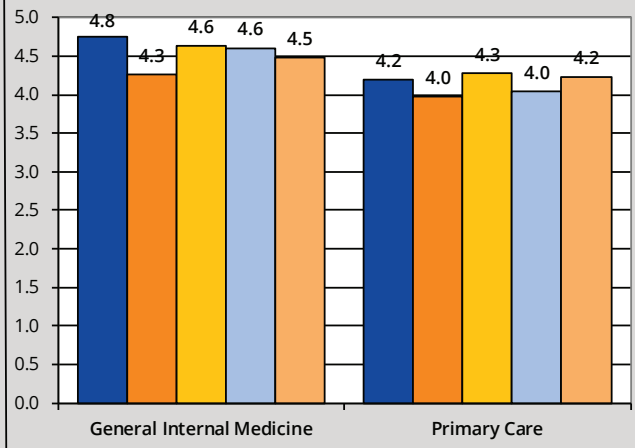
## Specialty: General Internal Medicine

Legend: 2014 2015 2016 2017 2018

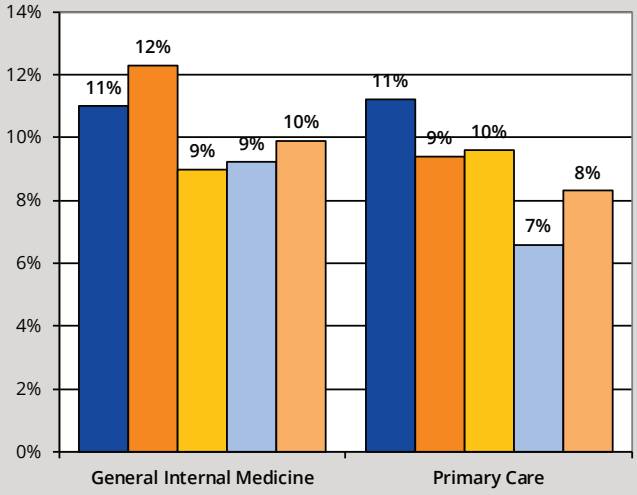
*Trends in Median Starting Income,* 2014 - 2018 (in $1,000s of 2018 dollars)*



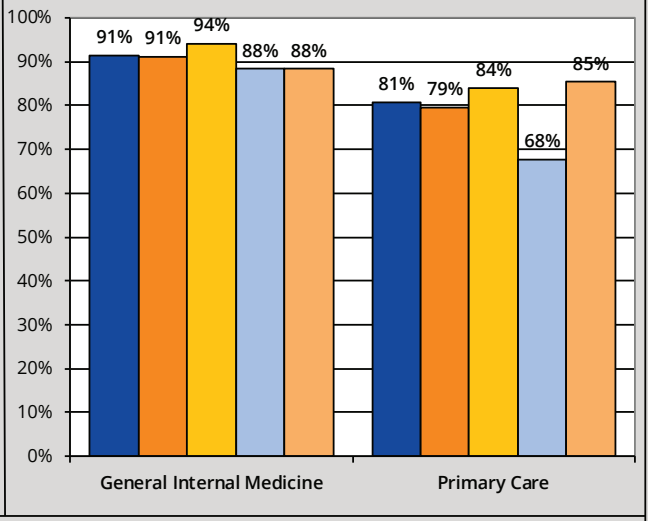

*Trends in Mean Number of Job Offers Received,* 2014 - 2018*



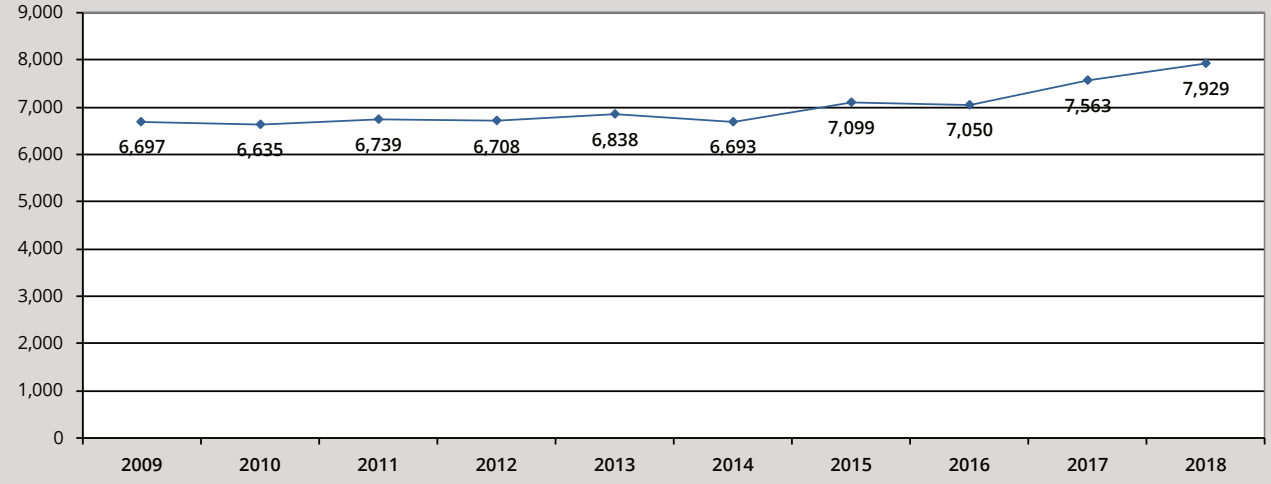

*Trends in Having to Change Plans Due to Limited Practice Opportunities,* 2014 - 2018*




*Trends in Relative Demand* - Percentile Rank of General Internal Medicine, 2014 - 2018*




*Trends in Number of Graduates of Allopathic General Internal Medicine GME Programs in the US,** 2009 - 2018*




Number of responses: 2014: n = 292, 2015: n = 219, 2016: n = 259, 2017: n = 254, 2018: n = 239.

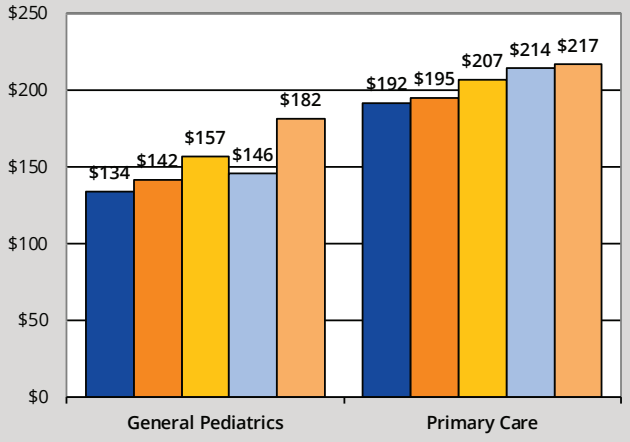
*Source: CHWS, Survey of Residents Completing Training in New York, 2014 - 2018.

**Source: *JAMA Medical Education Issues*, 2009 - 2018.

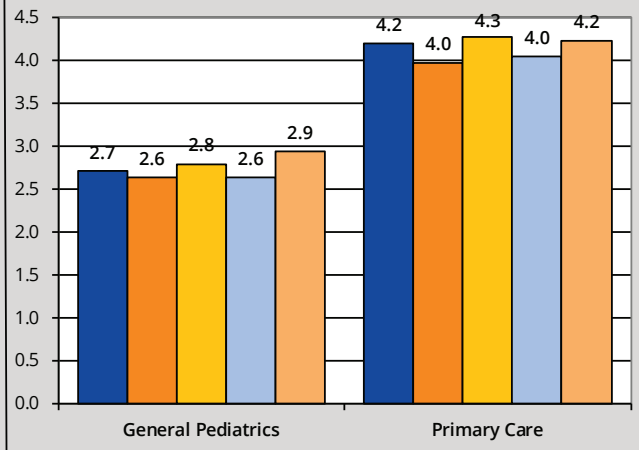
## Specialty: General Pediatrics

Legend: 2014 2015 2016 2017 2018

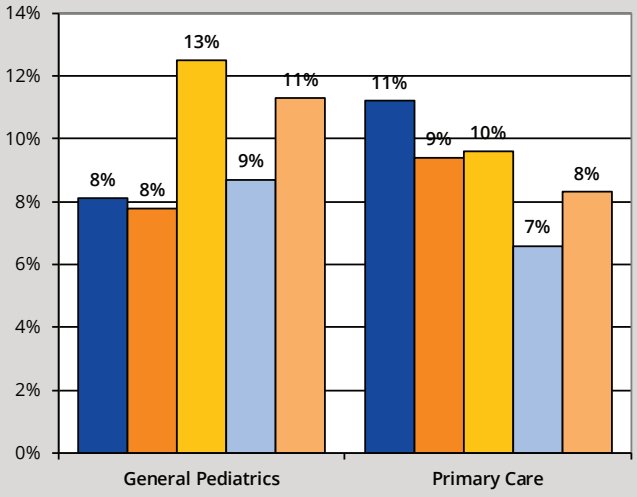
*Trends in Median Starting Income,* 2014 - 2018 (in $1,000s of 2018 dollars)*



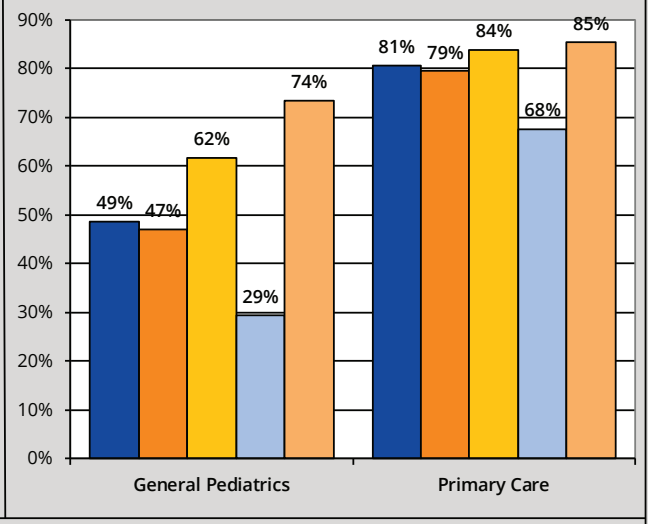

*Trends in Mean Number of Job Offers Received,* 2014 - 2018*



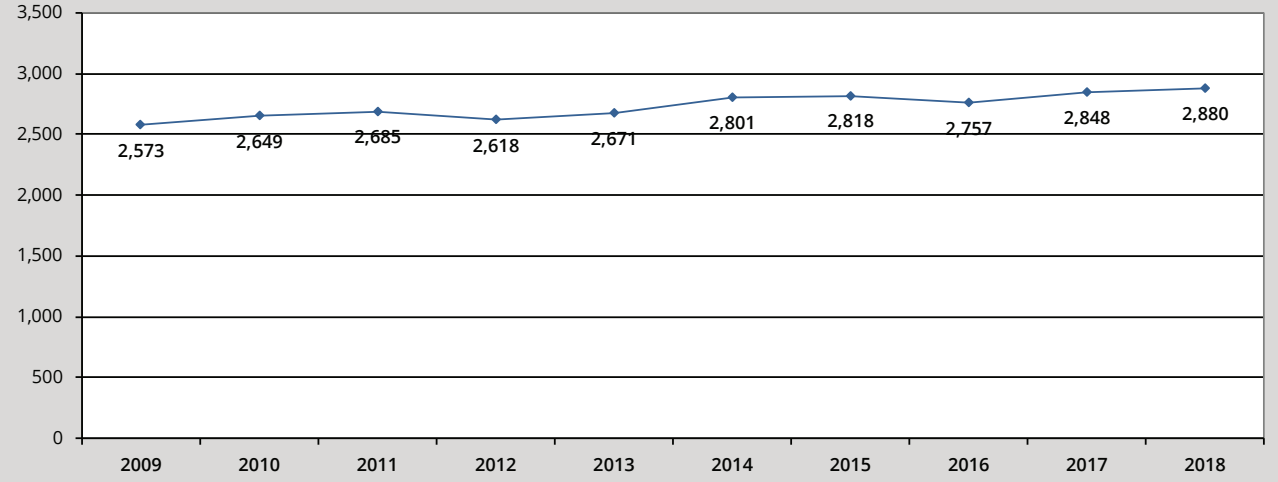

*Trends in Having to Change Plans Due to Limited Practice Opportunities,* 2014 - 2018*




*Trends in Relative Demand* - Percentile Rank of General Pediatrics, 2014 - 2018*




*Trends in Number of Graduates of Allopathic General Pediatrics GME Programs in the US,** 2009 - 2018*




Number of responses: 2014: n = 95, 2015: n = 87, 2016: n = 96, 2017: n = 115, 2018: n = 92.

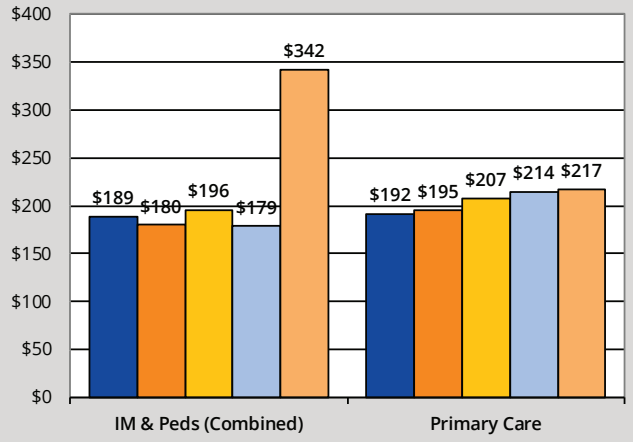
*Source: CHWS, Survey of Residents Completing Training in New York, 2014 - 2018.

**Source: *JAMA Medical Education Issues*, 2009 - 2018.

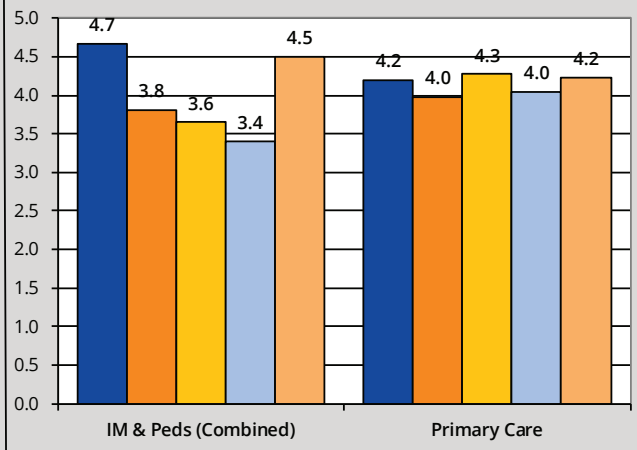
## Specialty: IM & Peds (Combined)

Legend: 2014 2015 2016 2017 2018

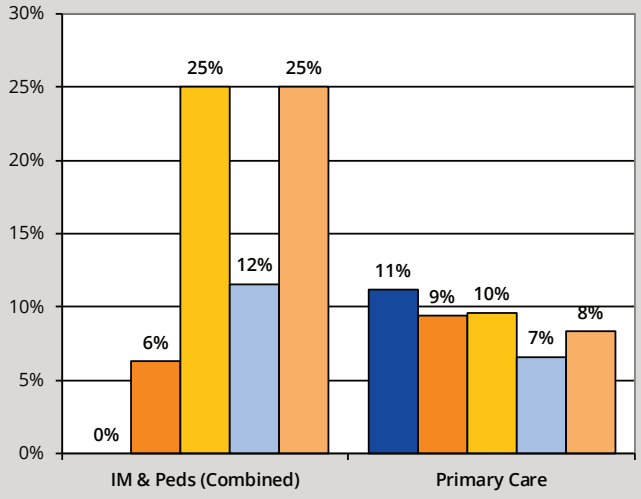
*Trends in Median Starting Income,* 2014 - 2018 (in $1,000s of 2018 dollars)*



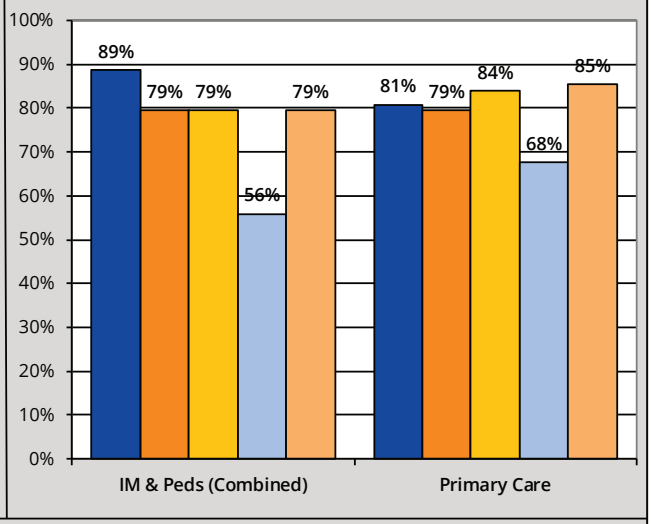

*Trends in Mean Number of Job Offers Received,* 2014 - 2018*



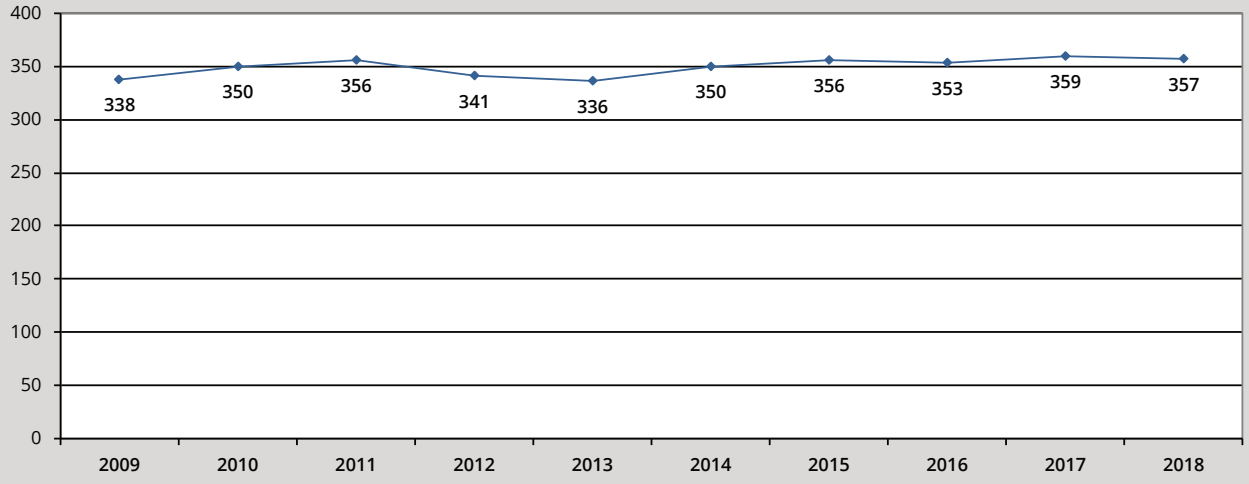

*Trends in Having to Change Plans Due to Limited Practice Opportunities,* 2014 - 2018*




*Trends in Relative Demand* - Percentile Rank of IM & Peds (Combined), 2014 - 2018*




*Trends in Number of Graduates of Allopathic IM & Peds (Combined) GME Programs in the US,** 2009 - 2018*




Number of responses: 2014: n = 3, 2015: n = 16, 2016: n = 17, 2017: n = 8, 2018: n = 4.

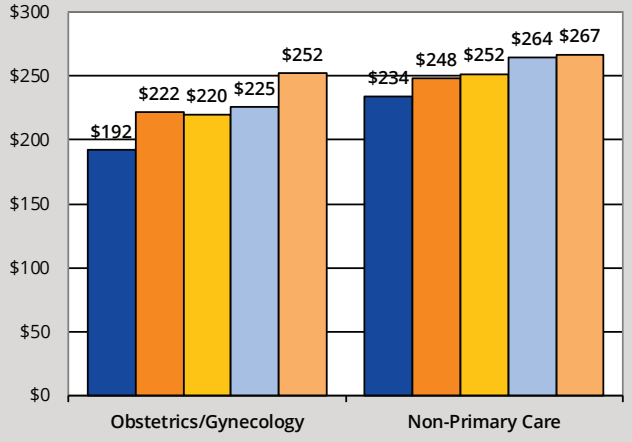
*Source: CHWS, Survey of Residents Completing Training in New York, 2014 - 2018.

**Source: *JAMA Medical Education Issues*, 2009 - 2018.

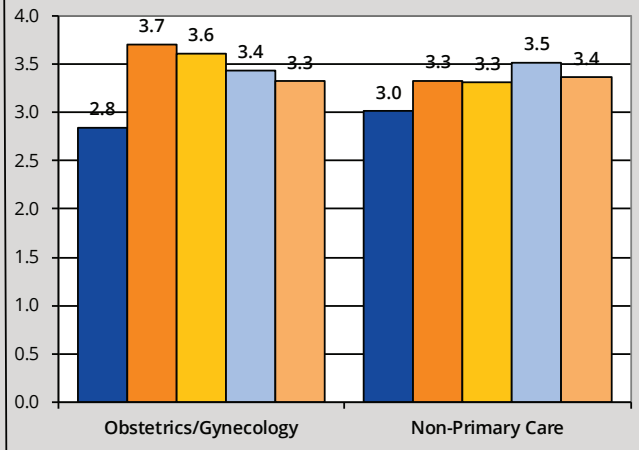
## Specialty: Obstetrics/Gynecology

Legend: 2014 2015 2016 2017 2018

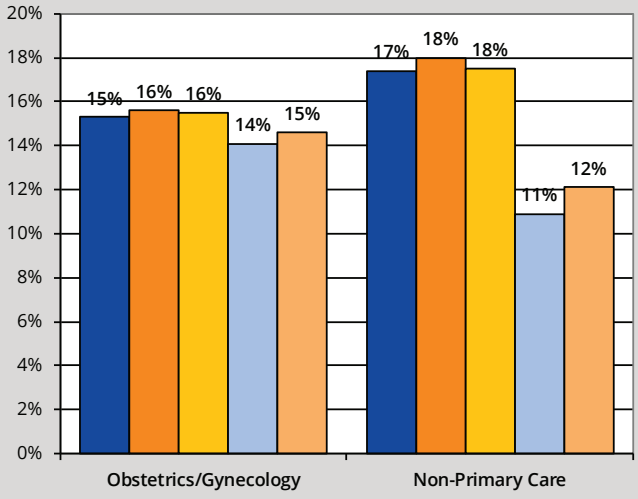
*Trends in Median Starting Income,* 2014 - 2018 (in $1,000s of 2018 dollars)*



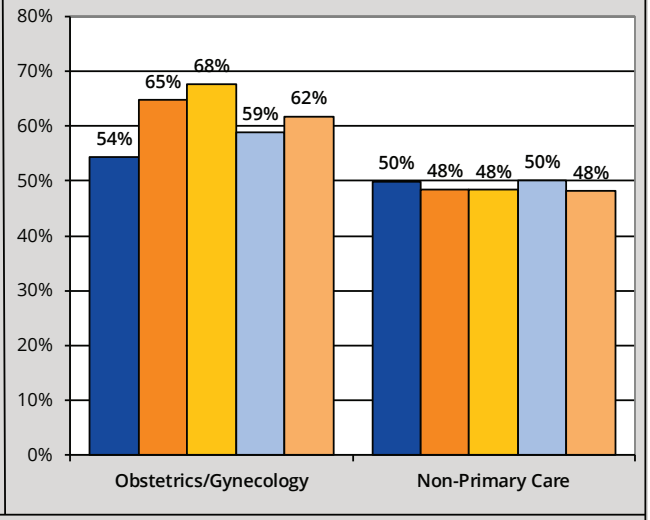

*Trends in Mean Number of Job Offers Received,* 2014 - 2018*



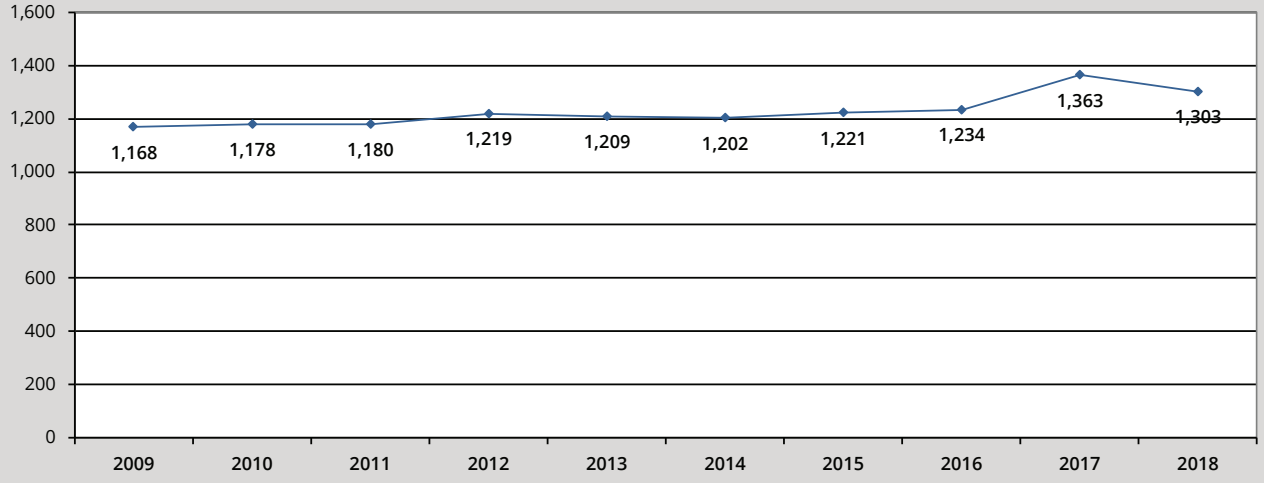

*Trends in Having to Change Plans Due to Limited Practice Opportunities,* 2014 - 2018*




*Trends in Relative Demand* - Percentile Rank of Obstetrics/Gynecology, 2014 - 2018*




*Trends in Number of Graduates of Allopathic Obstetrics/Gynecology GME Programs in the US,** 2009 - 2018*




Number of responses: 2014: n = 79, 2015: n = 71, 2016: n = 85, 2017: n = 99, 2018: n = 89.

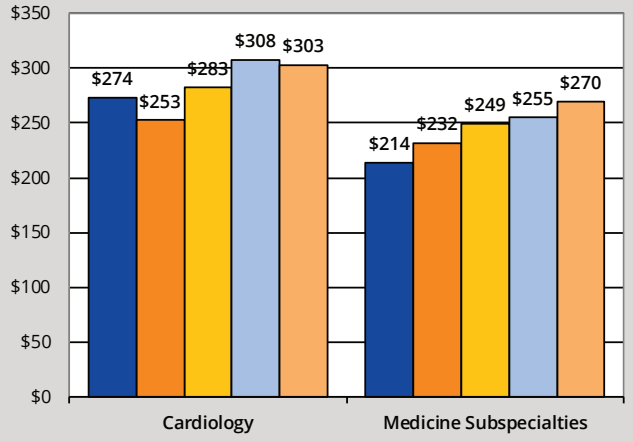
*Source: CHWS, Survey of Residents Completing Training in New York, 2014 - 2018.

**Source: *JAMA Medical Education Issues*, 2009 - 2018.

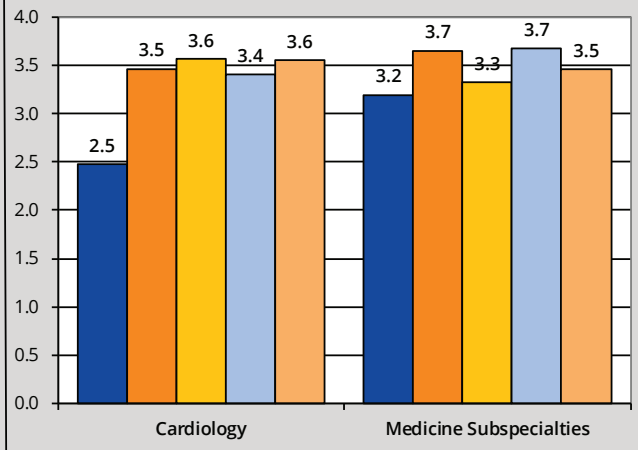
## Specialty: Cardiology

Legend: 2014 2015 2016 2017 2018

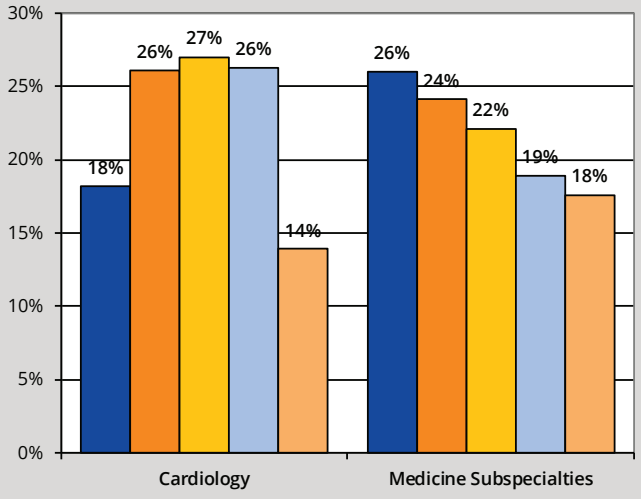
*Trends in Median Starting Income,* 2014 - 2018 (in $1,000s of 2018 dollars)*



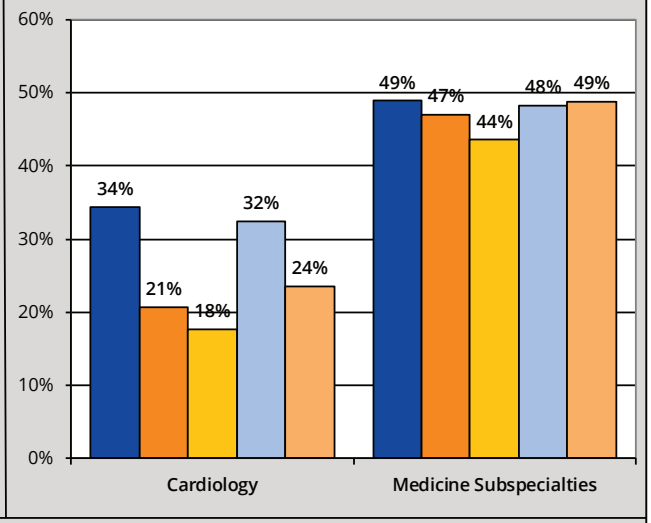

*Trends in Mean Number of Job Offers Received,* 2014 - 2018*



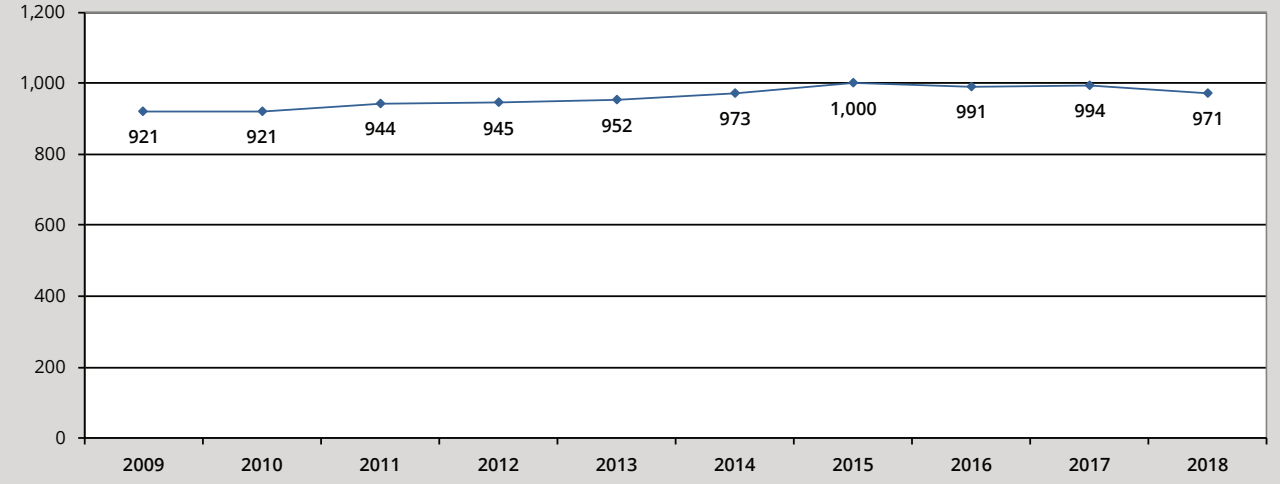

*Trends in Having to Change Plans Due to Limited Practice Opportunities,* 2014 - 2018*




*Trends in Relative Demand* - Percentile Rank of Cardiology, 2014 - 2018*




*Trends in Number of Graduates of Allopathic Cardiology GME Programs in the US,** 2009 - 2018*




Number of responses: 2014: n = 44, 2015: n = 50, 2016: n = 48, 2017: n = 68, 2018: n = 84.

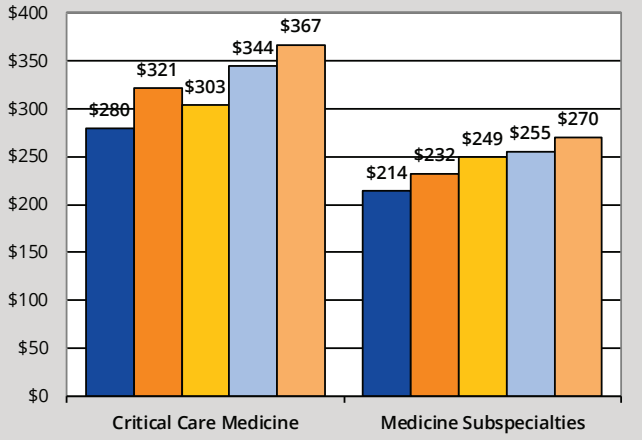
*Source: CHWS, Survey of Residents Completing Training in New York, 2014 - 2018.

**Source: *JAMA Medical Education Issues*, 2009 - 2018.

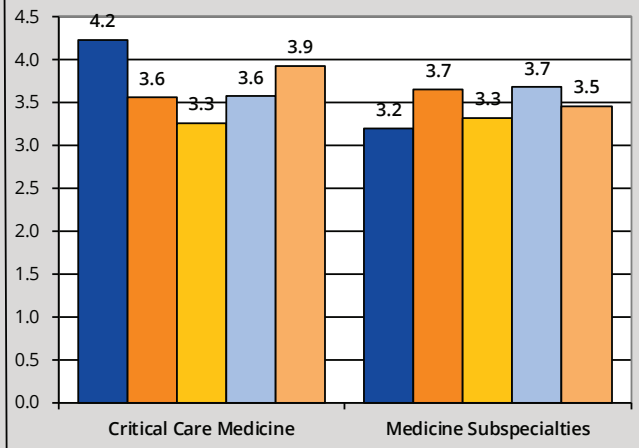
## Specialty: Critical Care Medicine

Legend: 2014 2015 2016 2017 2018

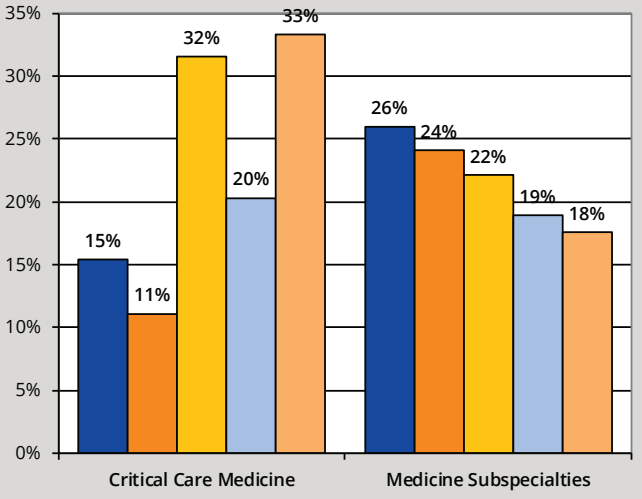
*Trends in Median Starting Income,* 2014 - 2018 (in $1,000s of 2018 dollars)*



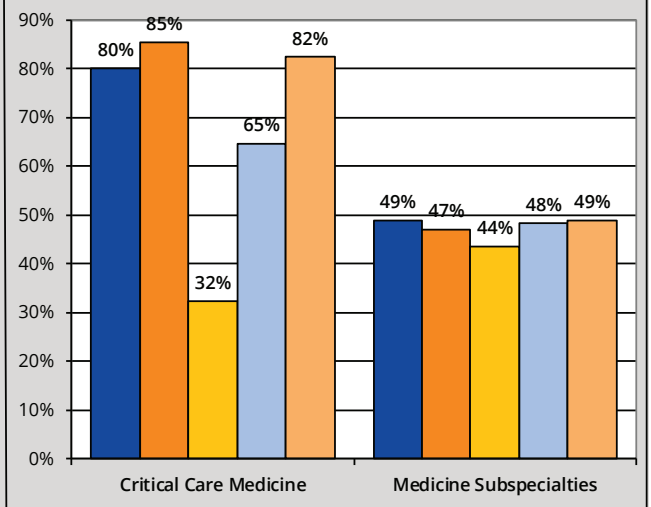

*Trends in Mean Number of Job Offers Received,* 2014 - 2018*



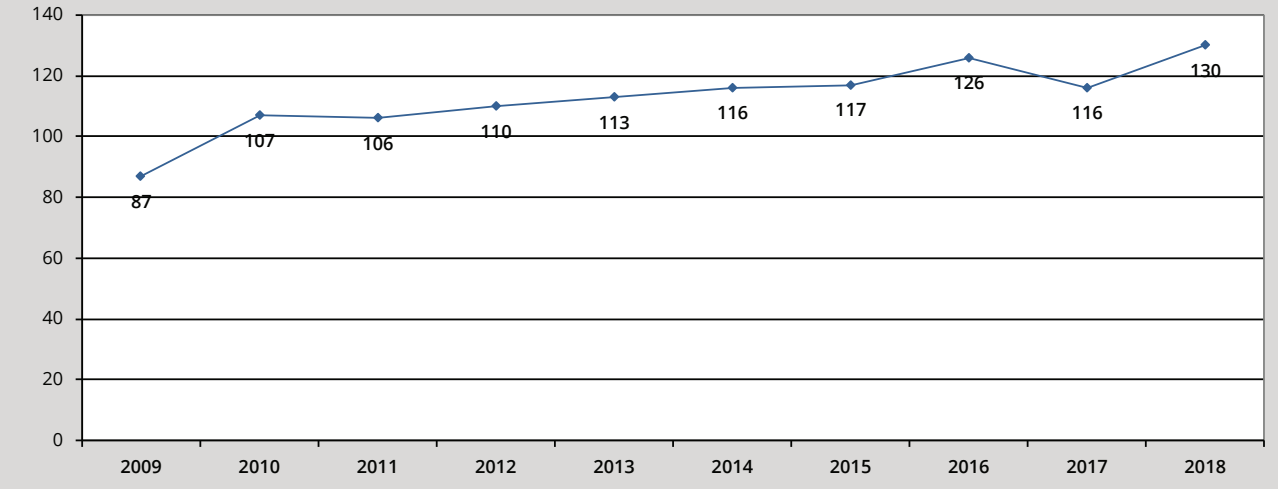

*Trends in Having to Change Plans Due to Limited Practice Opportunities,* 2014 - 2018*




*Trends in Relative Demand* - Percentile Rank of Critical Care Medicine, 2014 - 2018*




*Trends in Number of Graduates of Allopathic Critical Care Medicine GME Programs in the US,** 2009 - 2018*




Number of responses: 2014: n = 13, 2015: n = 9, 2016: n = 19, 2017: n = 11, 2018: n = 16.

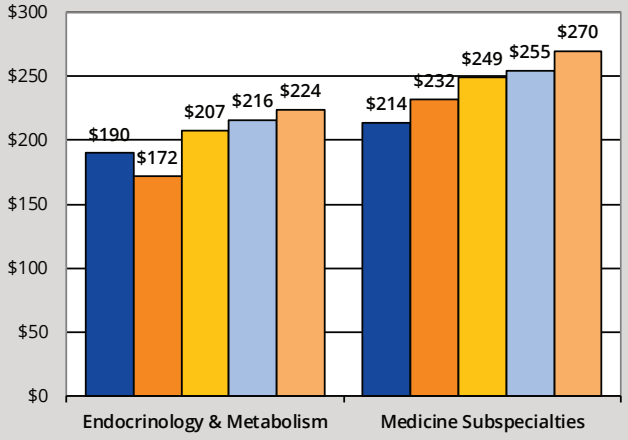
*Source: CHWS, Survey of Residents Completing Training in New York, 2014 - 2018.

**Source: *JAMA Medical Education Issues*, 2009 - 2018.

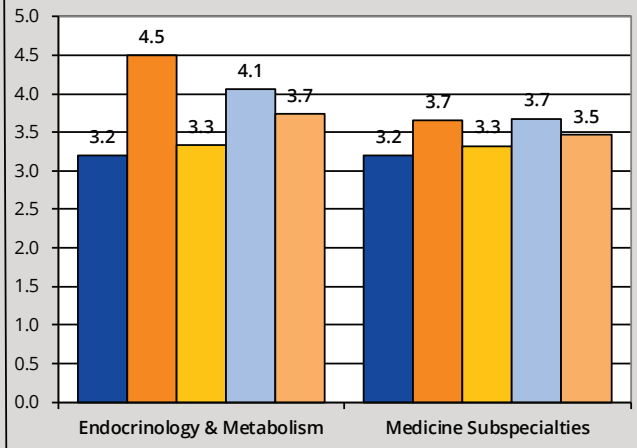
## Specialty: Endocrinology & Metabolism

Legend: 2014 2015 2016 2017 2018

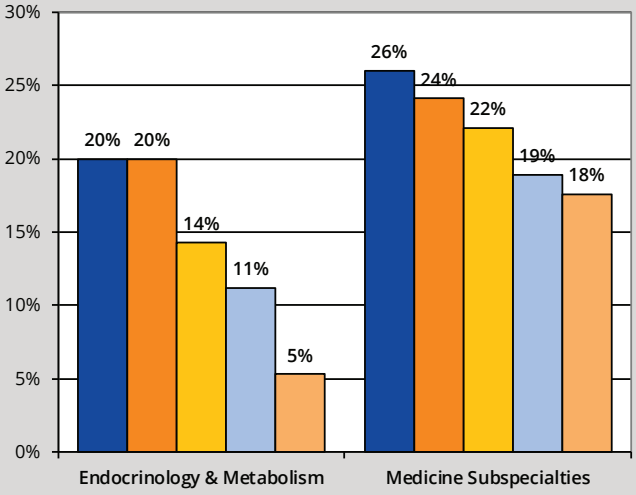
*Trends in Median Starting Income,* 2014 - 2018 (in $1,000s of 2018 dollars)*



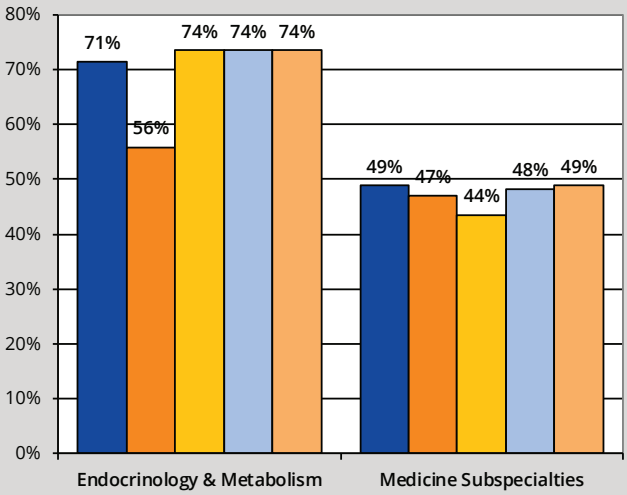

*Trends in Mean Number of Job Offers Received,* 2014 - 2018*



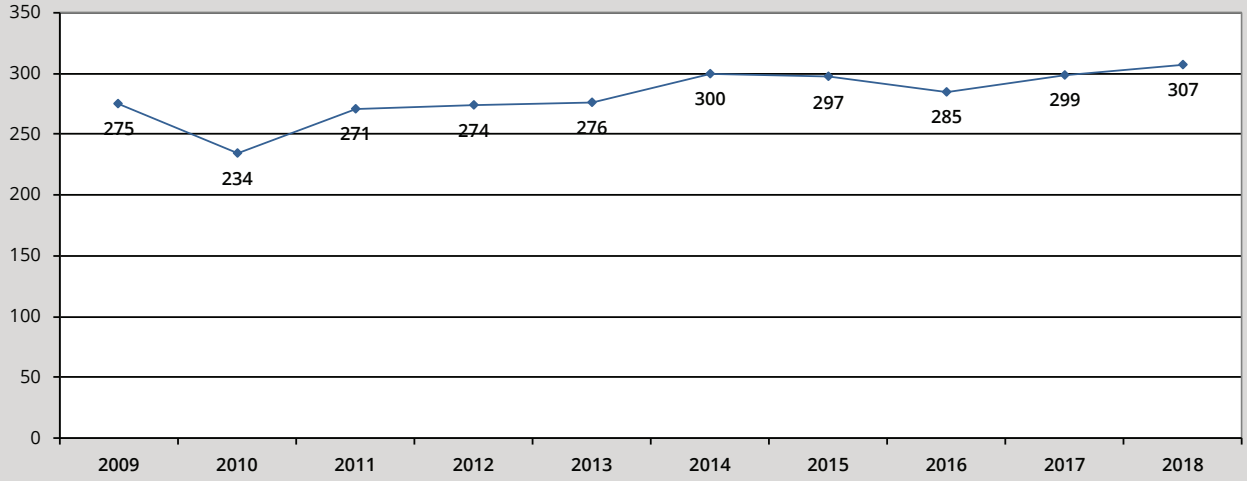

*Trends in Having to Change Plans Due to Limited Practice Opportunities,* 2014 - 2018*




*Trends in Relative Demand* - Percentile Rank of Endocrinology & Metabolism, 2014 - 2018*




*Trends in Number of Graduates of Allopathic Endocrinology & Metabolism GME Programs in the US,** 2009 - 2018*




Number of responses: 2014: n = 15, 2015: n = 20, 2016: n = 25, 2017: n = 25, 2018: n = 21.

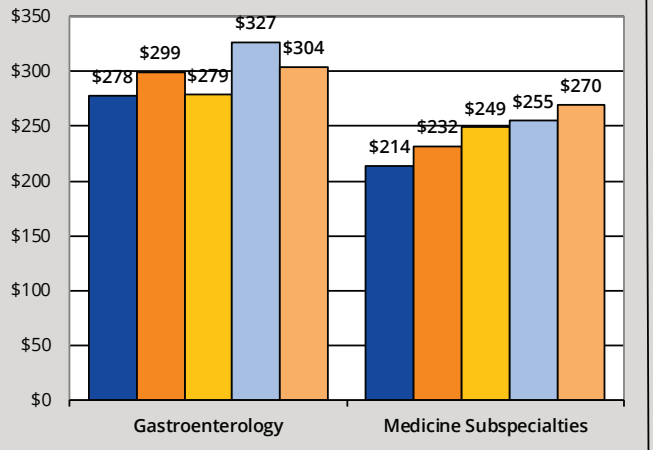
*Source: CHWS, Survey of Residents Completing Training in New York, 2014 - 2018.

**Source: *JAMA Medical Education Issues*, 2009 - 2018.

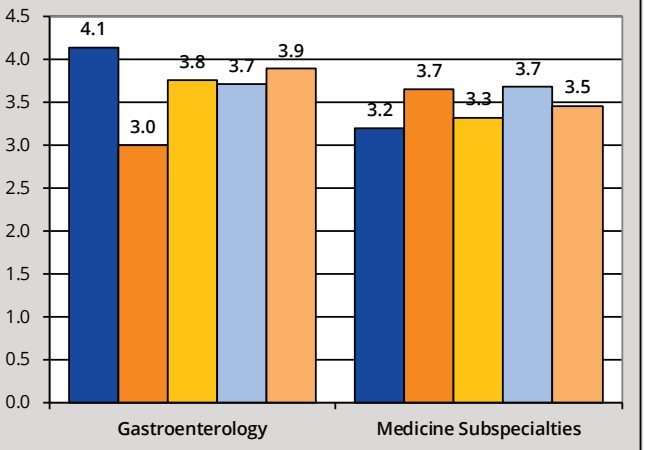
## Specialty: Gastroenterology

Legend: 2014 2015 2016 2017 2018

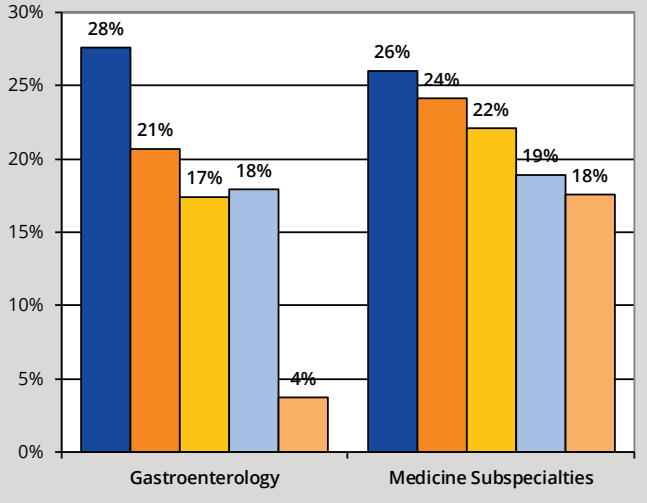
*Trends in Median Starting Income,* 2014 - 2018 (in $1,000s of 2018 dollars)*



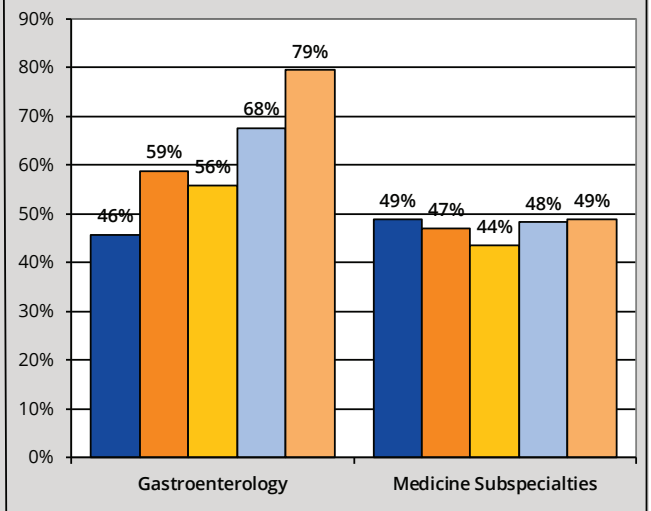

*Trends in Mean Number of Job Offers Received,* 2014 - 2018*



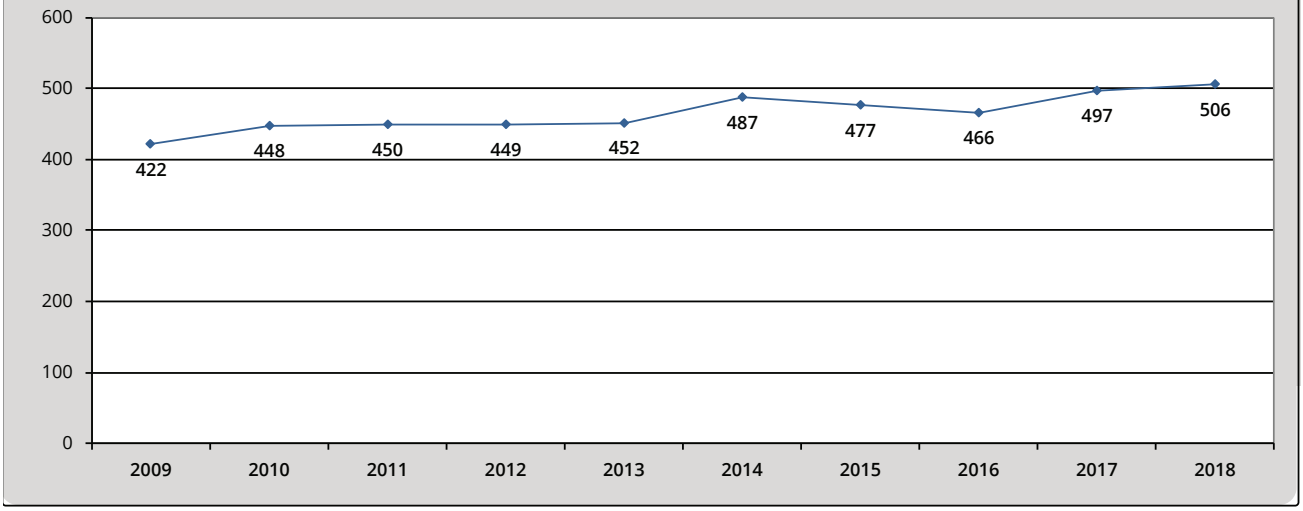

*Trends in Having to Change Plans Due to Limited Practice Opportunities,* 2014 - 2018*




*Trends in Relative Demand* - Percentile Rank of Gastroenterology, 2014 - 2018*




*Trends in Number of Graduates of Allopathic Gastroenterology GME Programs in the US,** 2009 - 2018*




Number of responses: 2014: n = 30, 2015: n = 31, 2016: n = 34, 2017: n = 29, 2018: n = 28.

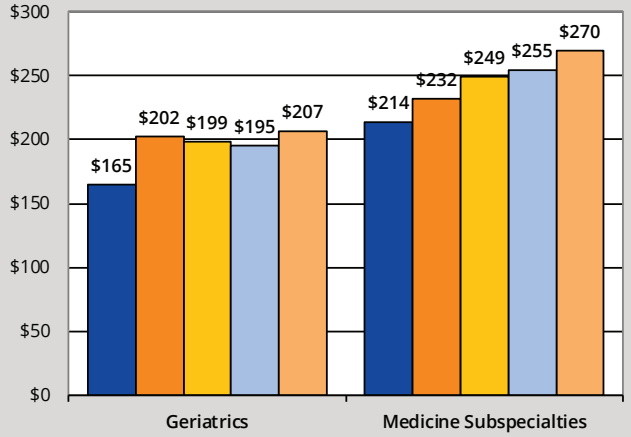
*Source: CHWS, Survey of Residents Completing Training in New York, 2014 - 2018.

**Source: *JAMA Medical Education Issues*, 2009 - 2018.

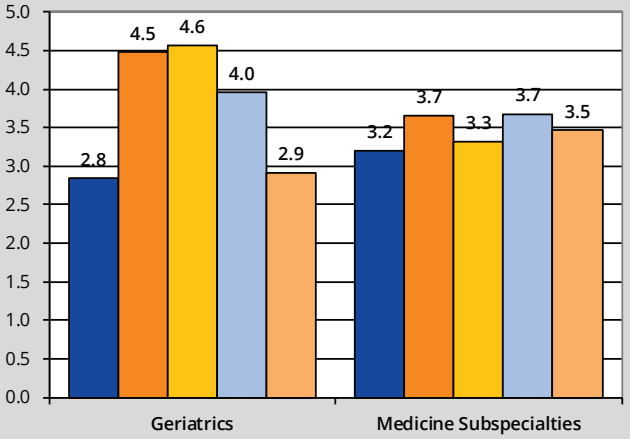
## Specialty: Geriatrics

Legend: 2014 2015 2016 2017 2018

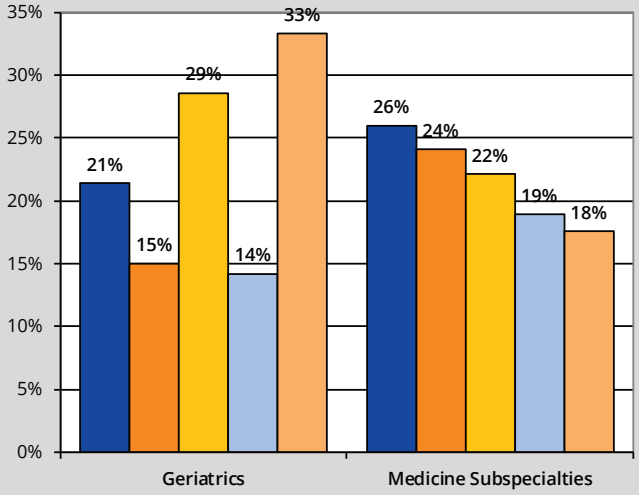
*Trends in Median Starting Income,* 2014 - 2018 (in $1,000s of 2018 dollars)*



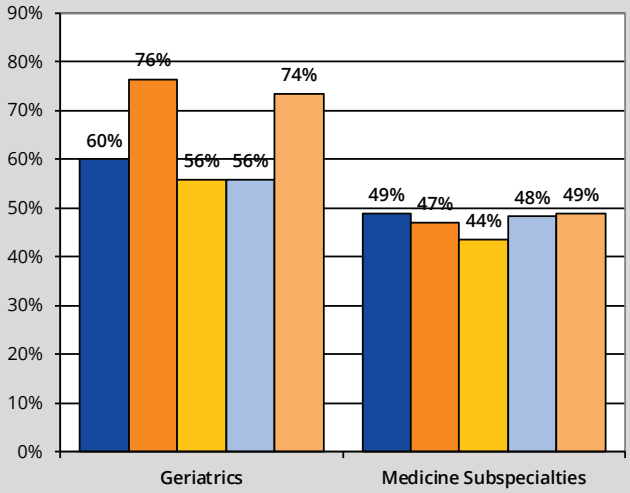

*Trends in Mean Number of Job Offers Received,* 2014 - 2018*



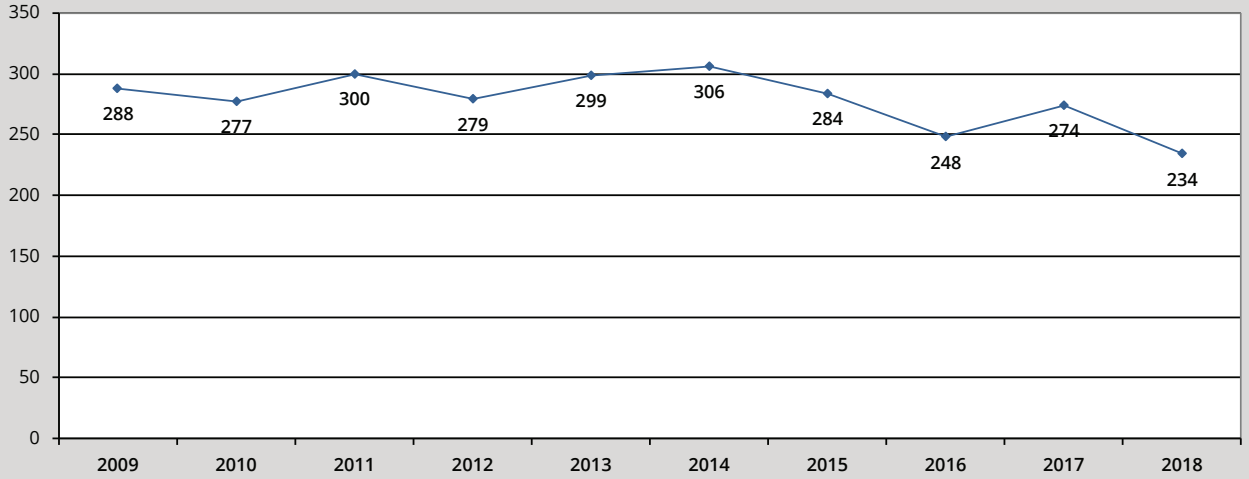

*Trends in Having to Change Plans Due to Limited Practice Opportunities,* 2014 - 2018*




*Trends in Relative Demand* - Percentile Rank of Geriatrics, 2014 - 2018*




*Trends in Number of Graduates of Allopathic Geriatrics GME Programs in the US,** 2009 - 2018*




Number of responses: 2014: n = 15, 2015: n = 20, 2016: n = 18, 2017: n = 15, 2018: n = 14.

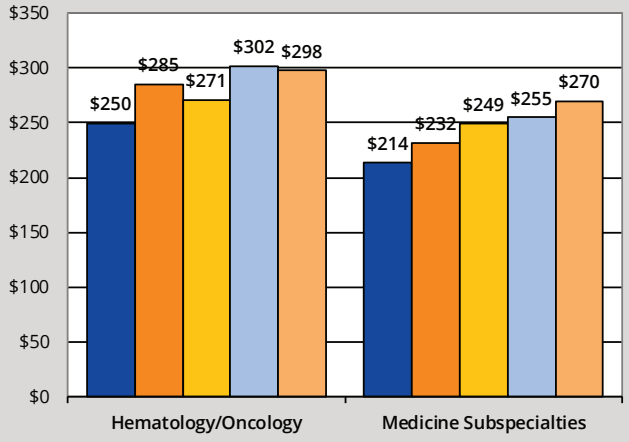
*Source: CHWS, Survey of Residents Completing Training in New York, 2014 - 2018.

**Source: *JAMA Medical Education Issues*, 2009 - 2018.

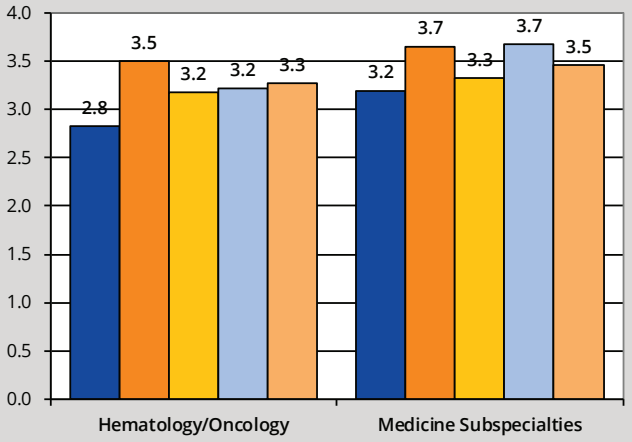
## Specialty: Hematology/Oncology

Legend: 2014 2015 2016 2017 2018

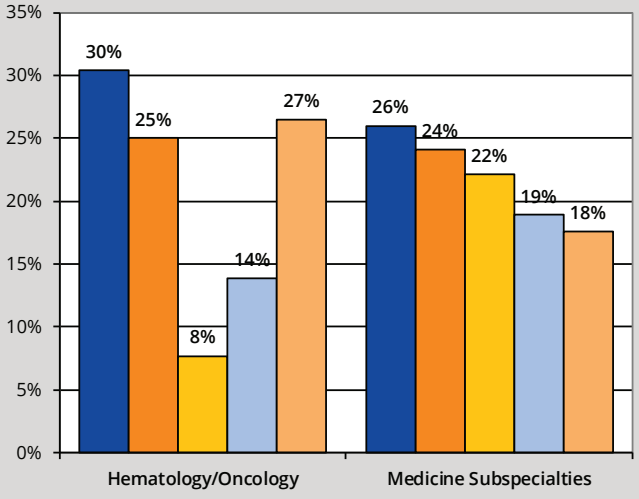
*Trends in Median Starting Income,* 2014 - 2018 (in $1,000s of 2018 dollars)*



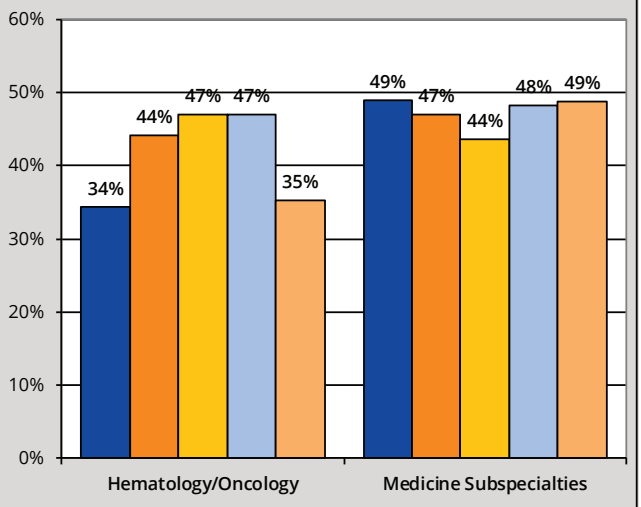

*Trends in Mean Number of Job Offers Received,* 2014 - 2018*



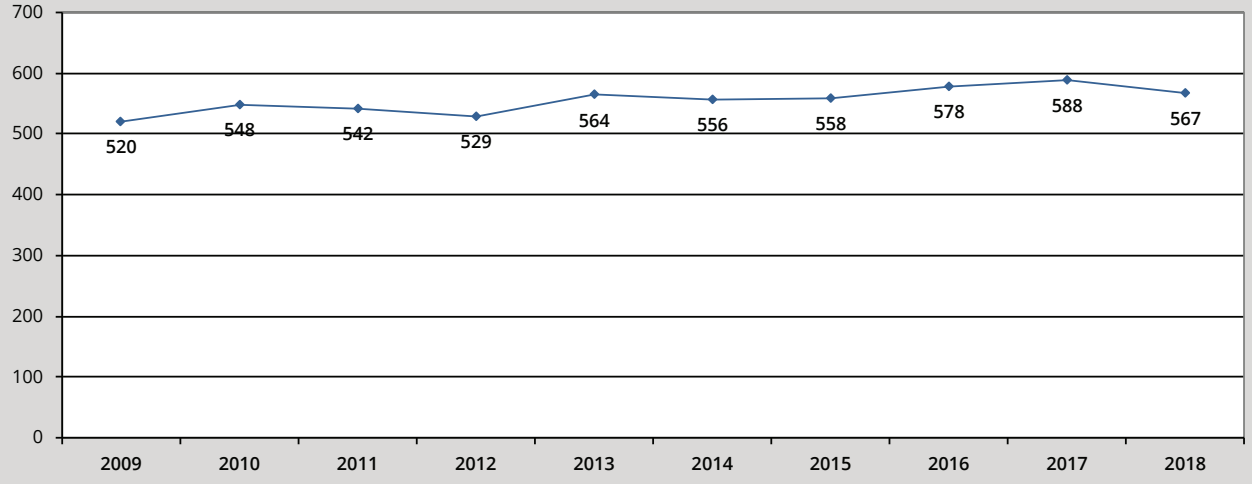

*Trends in Having to Change Plans Due to Limited Practice Opportunities,* 2014 - 2018*




*Trends in Relative Demand* - Percentile Rank of Hematology/Oncology, 2014 - 2018*




*Trends in Number of Graduates of Allopathic Hematology/Oncology GME Programs in the US,** 2009 - 2018*




Number of responses: 2014: n = 24, 2015: n = 17, 2016: n = 38, 2017: n = 19, 2018: n = 36.

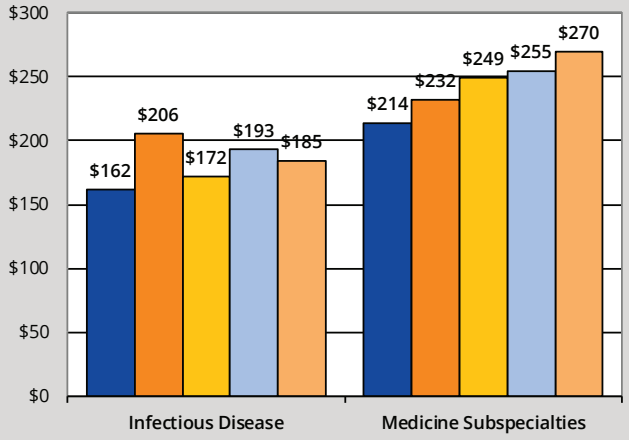
*Source: CHWS, Survey of Residents Completing Training in New York, 2014 - 2018.

**Source: *JAMA Medical Education Issues*, 2009 - 2018.

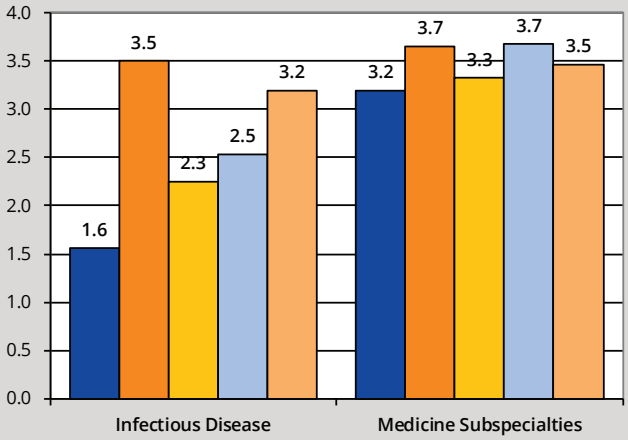
## Specialty: Infectious Disease

Legend: 2014 2015 2016 2017 2018

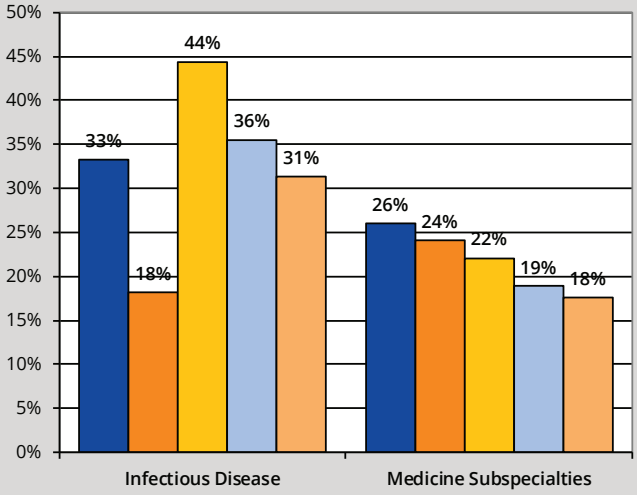
*Trends in Median Starting Income,* 2014 - 2018 (in $1,000s of 2018 dollars)*



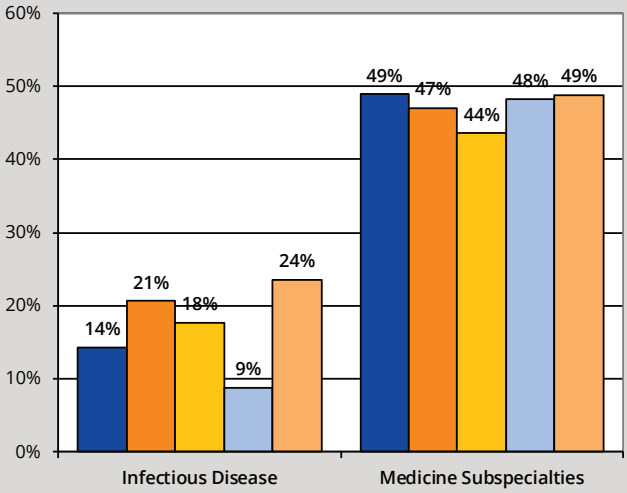

*Trends in Mean Number of Job Offers Received,* 2014 - 2018*



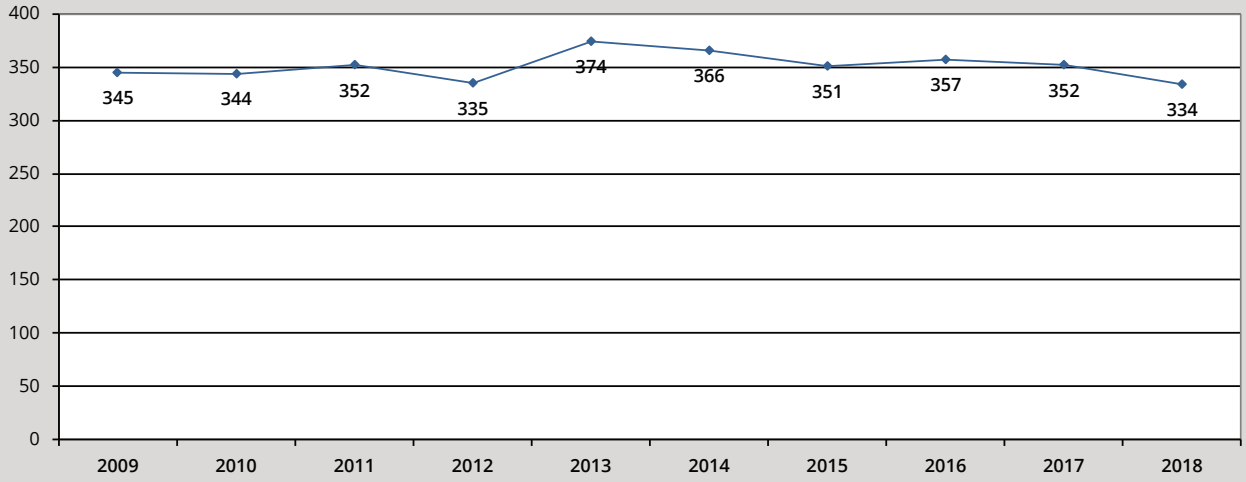

*Trends in Having to Change Plans Due to Limited Practice Opportunities,* 2014 - 2018*




*Trends in Relative Demand* - Percentile Rank of Infectious Disease, 2014 - 2018*




*Trends in Number of Graduates of Allopathic Infectious Disease GME Programs in the US,** 2009 - 2018*




Number of responses: 2014: n = 10, 2015: n = 12, 2016: n = 12, 2017: n = 17, 2018: n = 18.

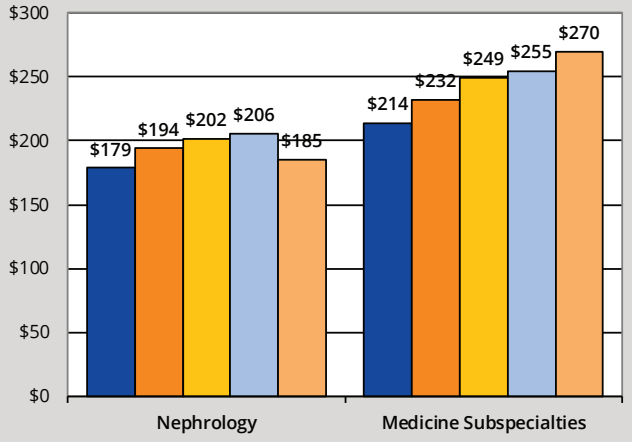
*Source: CHWS, Survey of Residents Completing Training in New York, 2014 - 2018.

**Source: *JAMA Medical Education Issues*, 2009 - 2018.

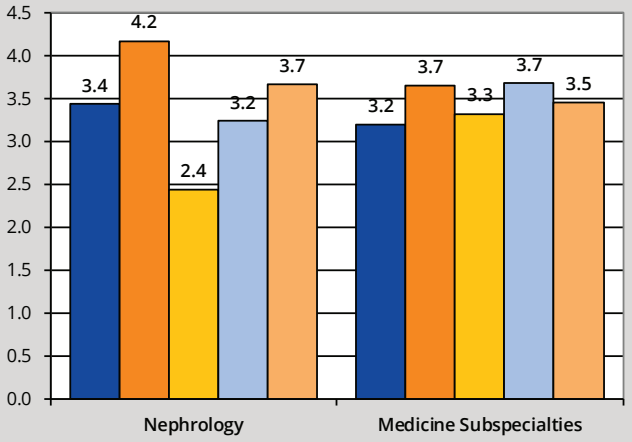
## Specialty: Nephrology

Legend: 2014 2015 2016 2017 2018

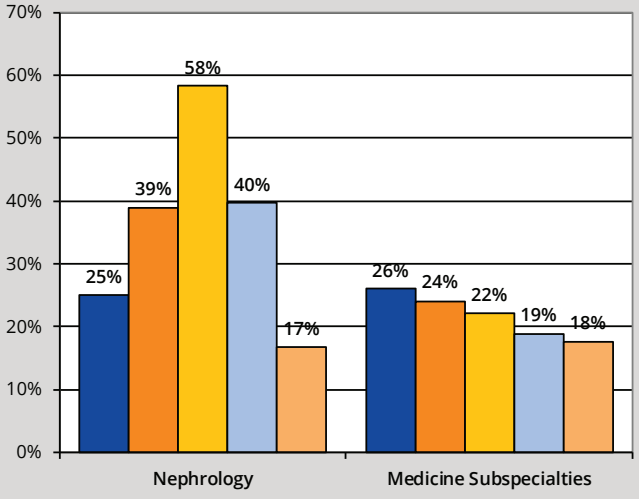
*Trends in Median Starting Income,* 2014 - 2018 (in $1,000s of 2018 dollars)*



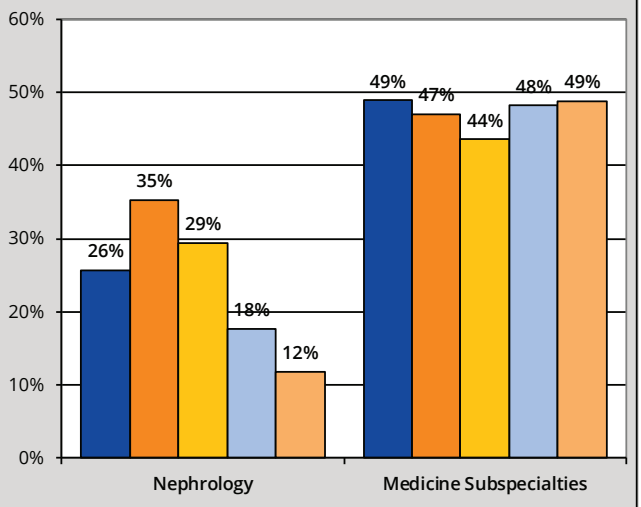

*Trends in Mean Number of Job Offers Received,* 2014 - 2018*



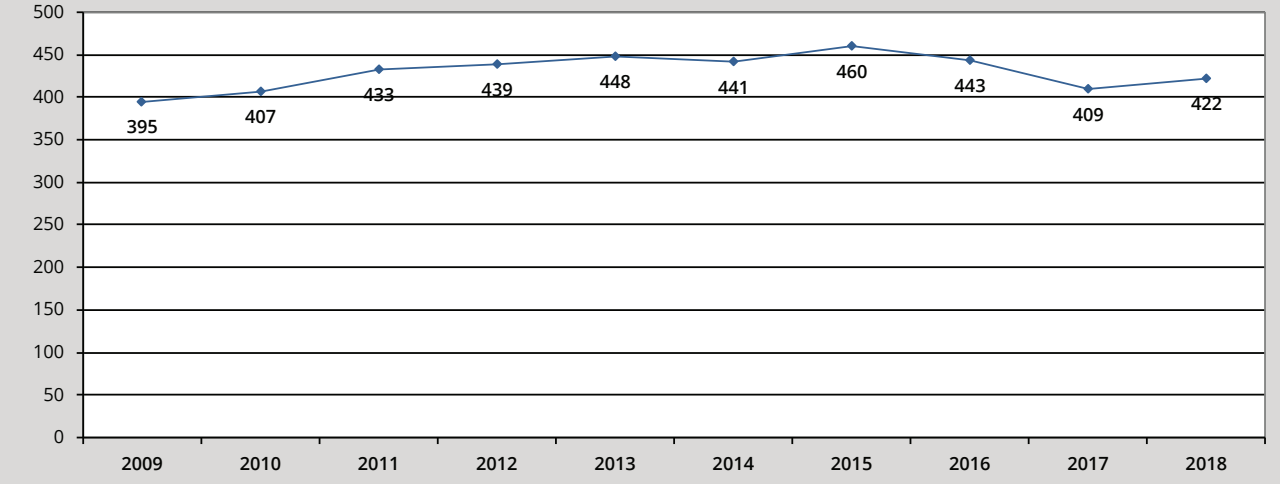

*Trends in Having to Change Plans Due to Limited Practice Opportunities,* 2014 - 2018*




*Trends in Relative Demand* - Percentile Rank of Nephrology, 2014 - 2018*




*Trends in Number of Graduates of Allopathic Nephrology GME Programs in the US,** 2009 - 2018*




Number of responses: 2014: n = 16, 2015: n = 19, 2016: n = 18, 2017: n = 24, 2018: n = 22.

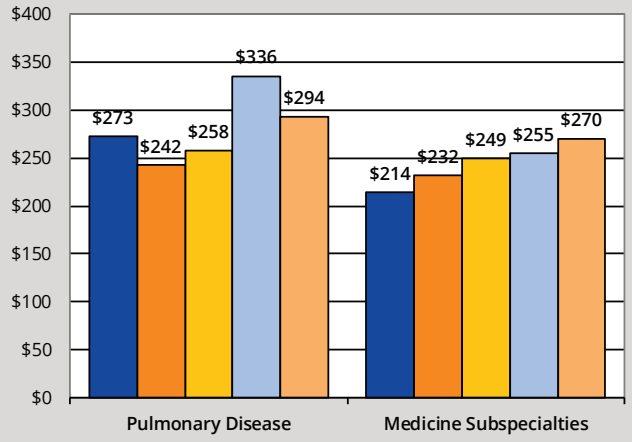
*Source: CHWS, Survey of Residents Completing Training in New York, 2014 - 2018.

**Source: *JAMA Medical Education Issues*, 2009 - 2018.

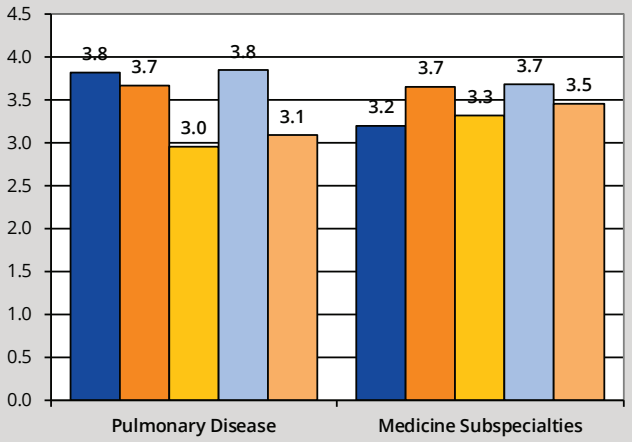
## Specialty: Pulmonary Disease

Legend: 2014 2015 2016 2017 2018

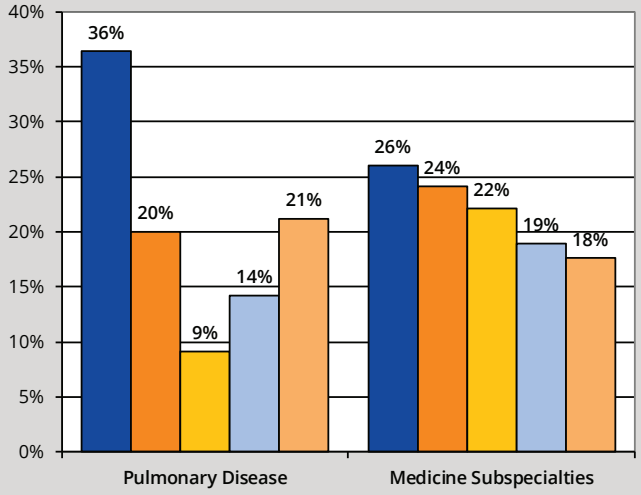
*Trends in Median Starting Income,* 2014 - 2018 (in $1,000s of 2018 dollars)*



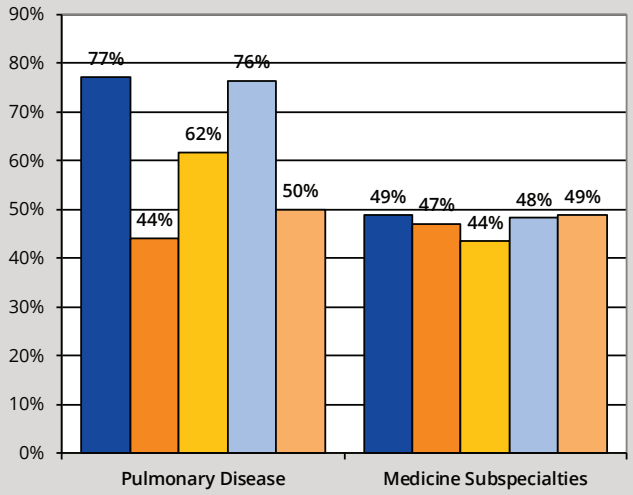

*Trends in Mean Number of Job Offers Received,* 2014 - 2018*



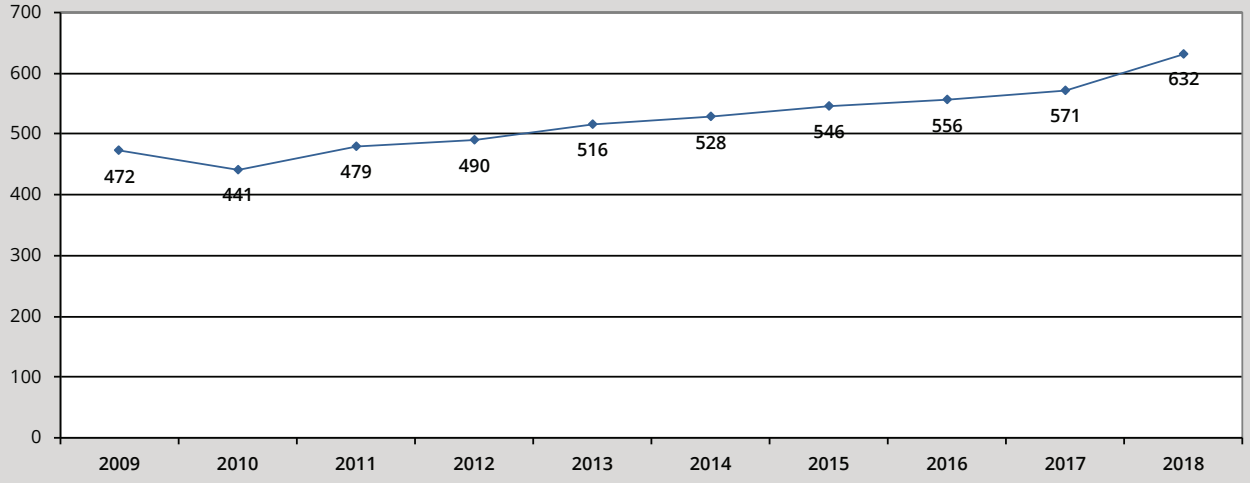

*Trends in Having to Change Plans Due to Limited Practice Opportunities,* 2014 - 2018*




*Trends in Relative Demand* - Percentile Rank of Pulmonary Disease, 2014 - 2018*




*Trends in Number of Graduates of Allopathic Pulmonary Disease GME Programs in the US,** 2009 - 2018*




Number of responses: 2014: n = 23, 2015: n = 15, 2016: n = 26, 2017: n = 21, 2018: n = 33.

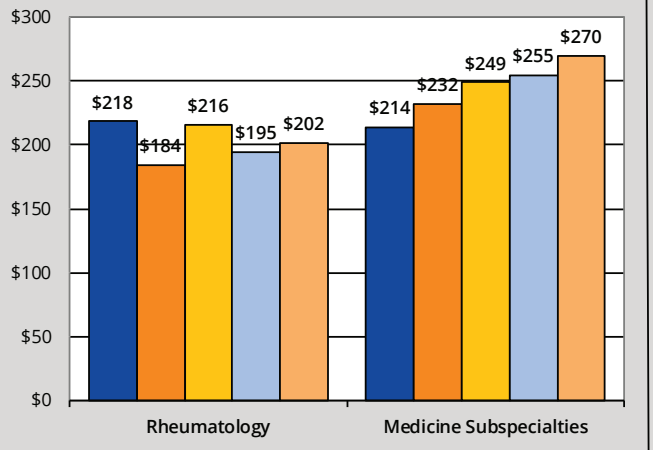
*Source: CHWS, Survey of Residents Completing Training in New York, 2014 - 2018.

**Source: *JAMA Medical Education Issues*, 2009 - 2018.

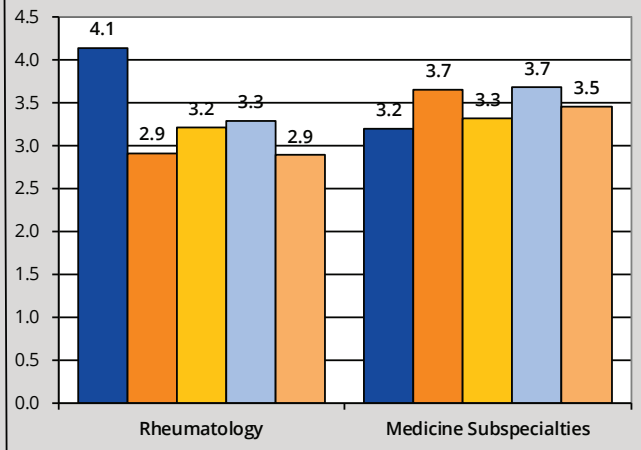
## Specialty: Rheumatology

Legend: 2014 2015 2016 2017 2018

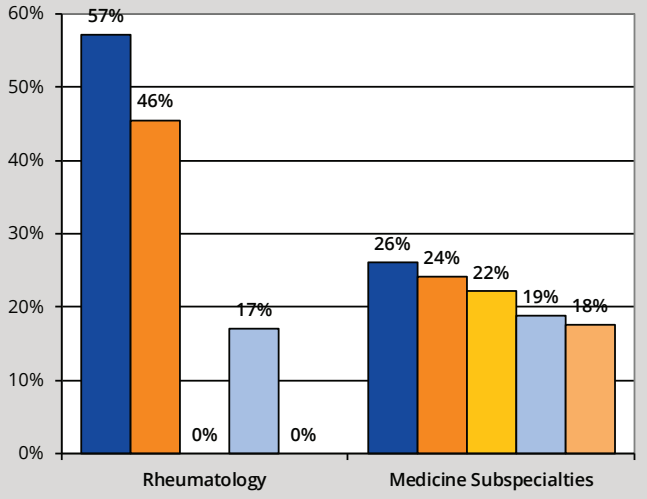
*Trends in Median Starting Income,* 2014 - 2018 (in $1,000s of 2018 dollars)*



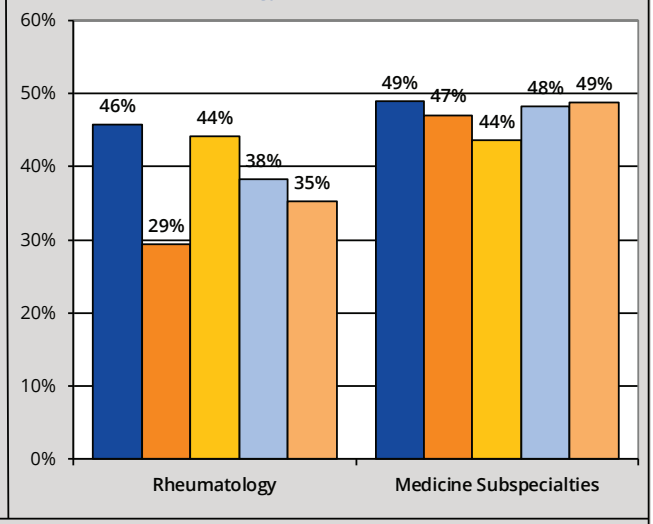

*Trends in Mean Number of Job Offers Received,* 2014 - 2018*



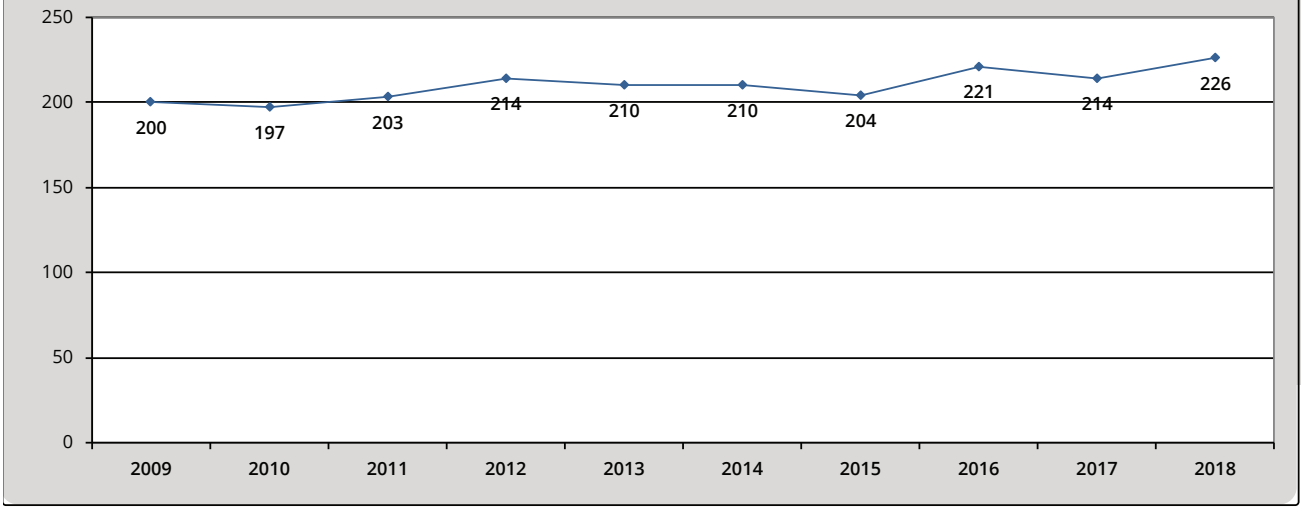

*Trends in Having to Change Plans Due to Limited Practice Opportunities,* 2014 - 2018*




*Trends in Relative Demand* - Percentile Rank of Rheumatology, 2014 - 2018*




*Trends in Number of Graduates of Allopathic Rheumatology GME Programs in the US,** 2009 - 2018*




Number of responses: 2014: n = 7, 2015: n = 14, 2016: n = 15, 2017: n = 8, 2018: n = 10.

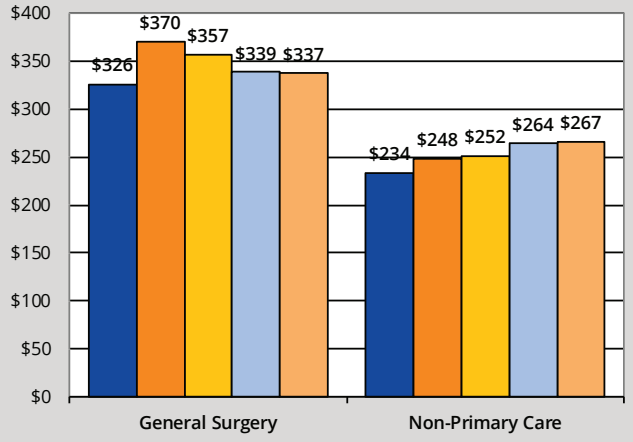
*Source: CHWS, Survey of Residents Completing Training in New York, 2014 - 2018.

**Source: *JAMA Medical Education Issues*, 2009 - 2018.

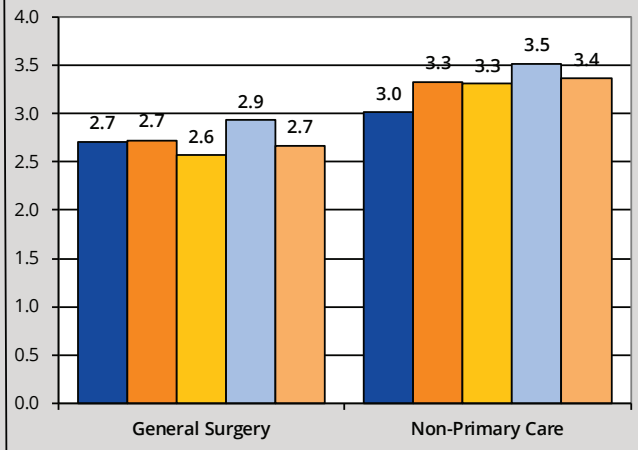
## Specialty: General Surgery

Legend: 2014 2015 2016 2017 2018

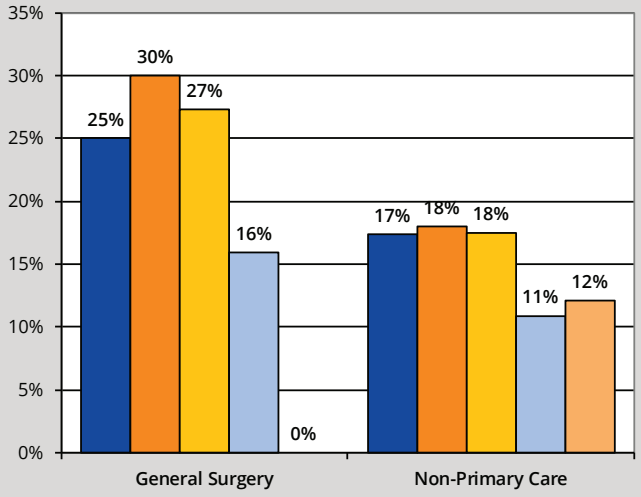
*Trends in Median Starting Income,* 2014 - 2018 (in $1,000s of 2018 dollars)*



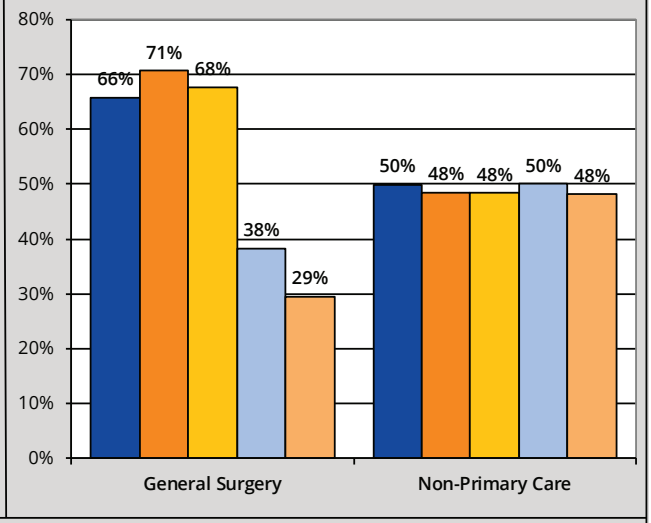

*Trends in Mean Number of Job Offers Received,* 2014 - 2018*



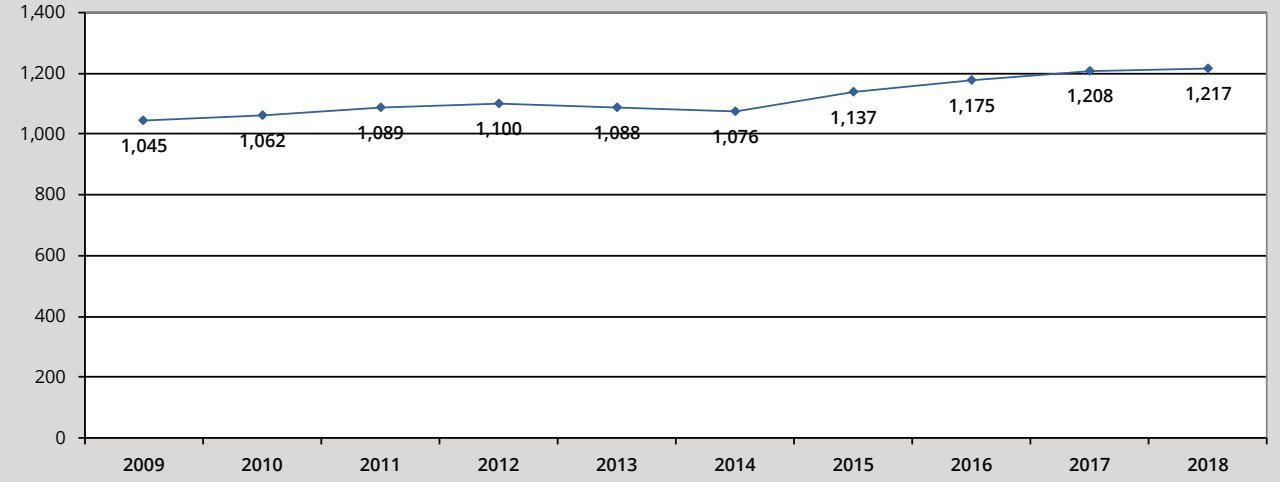

*Trends in Having to Change Plans Due to Limited Practice Opportunities,* 2014 - 2018*




*Trends in Relative Demand* - Percentile Rank of General Surgery, 2014 - 2018*




*Trends in Number of Graduates of Allopathic General Surgery GME Programs in the US,** 2009 - 2018*




Number of responses: 2014: n = 18, 2015: n = 14, 2016: n = 15, 2017: n = 27, 2018: n = 15.

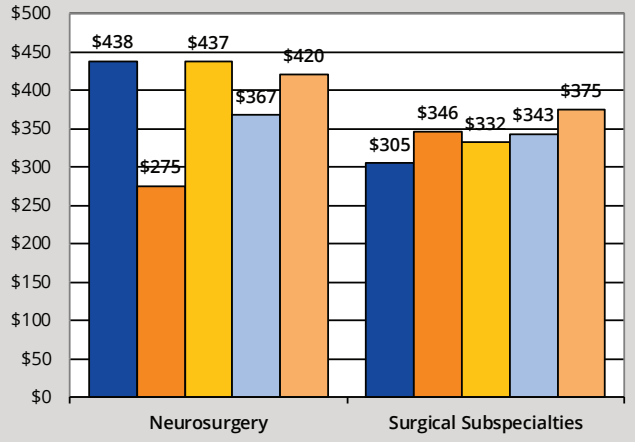
*Source: CHWS, Survey of Residents Completing Training in New York, 2014 - 2018.

**Source: *JAMA Medical Education Issues*, 2009 - 2018.

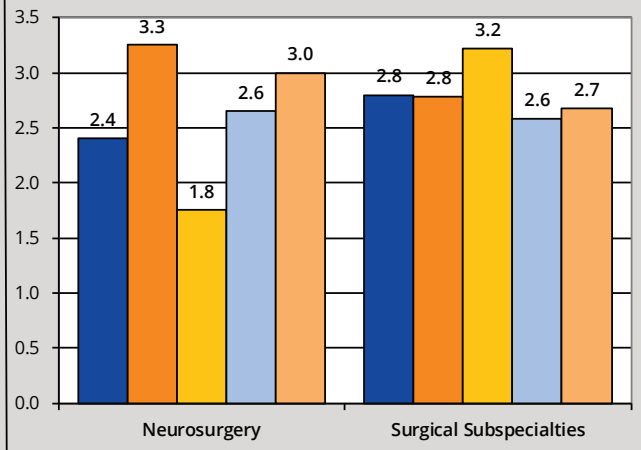
## Specialty: Neurosurgery

Legend: 2014 2015 2016 2017 2018

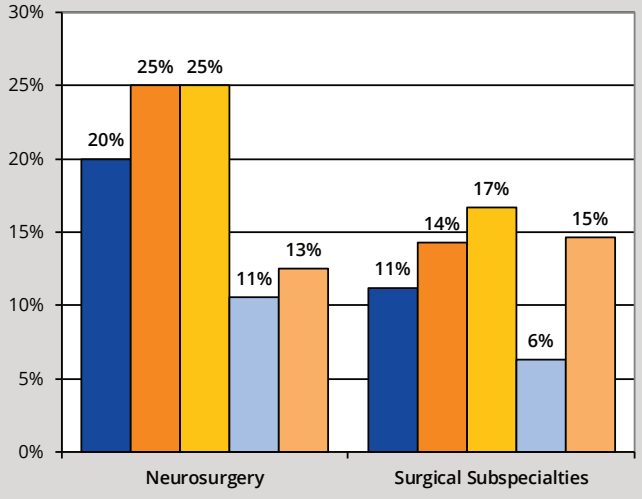
*Trends in Median Starting Income,* 2014 - 2018 (in $1,000s of 2018 dollars)*



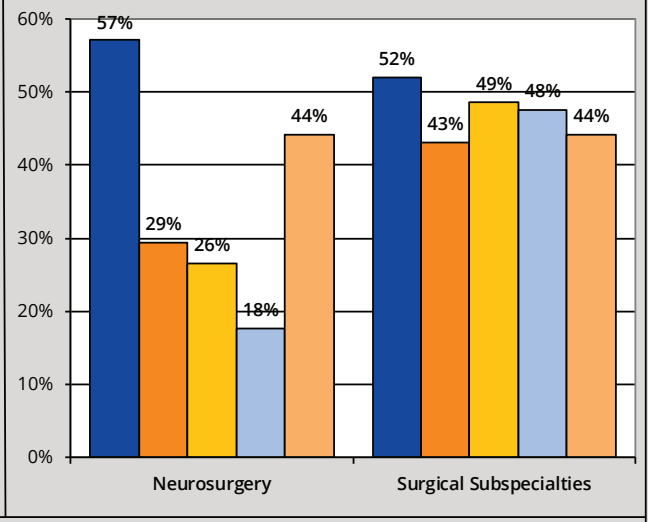

*Trends in Mean Number of Job Offers Received,* 2014 - 2018*



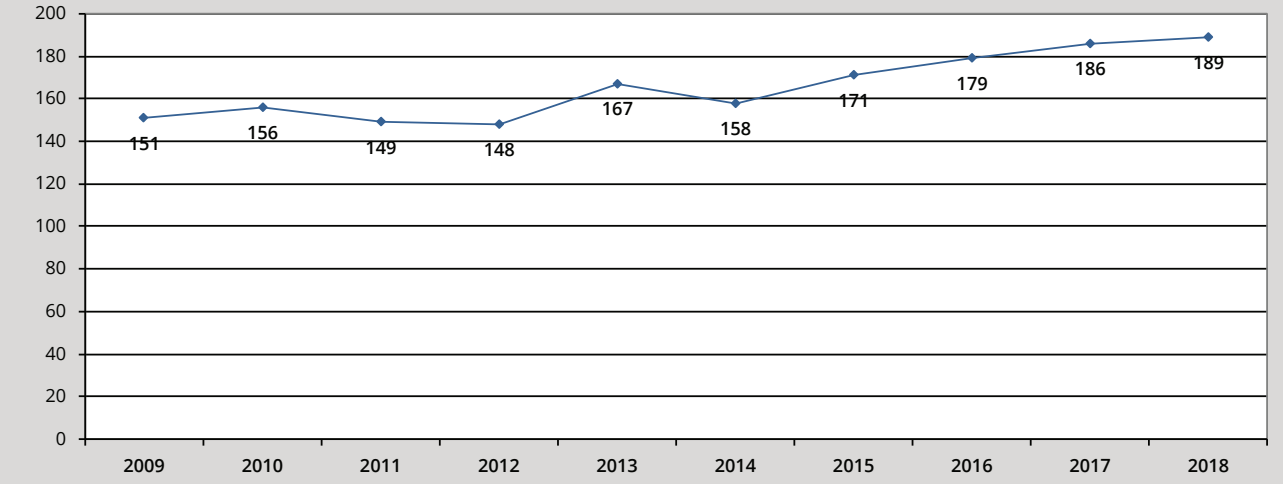

*Trends in Having to Change Plans Due to Limited Practice Opportunities,* 2014 - 2018*




*Trends in Relative Demand* - Percentile Rank of Neurosurgery, 2014 - 2018*




*Trends in Number of Graduates of Allopathic Neurosurgery GME Programs in the US,** 2009 - 2018*




Number of responses: 2014: n = 5, 2015: n = 5, 2016: n = 6, 2017: n = 8, 2018: n = 8.

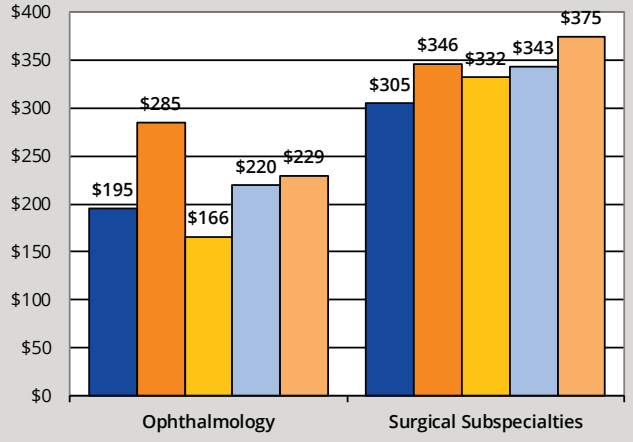
*Source: CHWS, Survey of Residents Completing Training in New York, 2014 - 2018.

**Source: *JAMA Medical Education Issues*, 2009 - 2018.

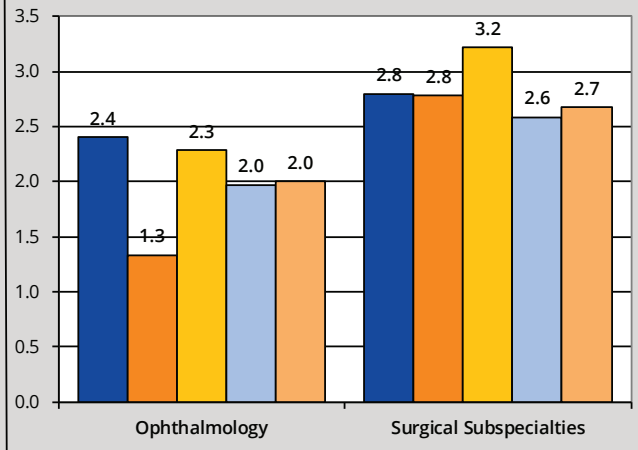
## Specialty: Ophthalmology

Legend: 2014 2015 2016 2017 2018

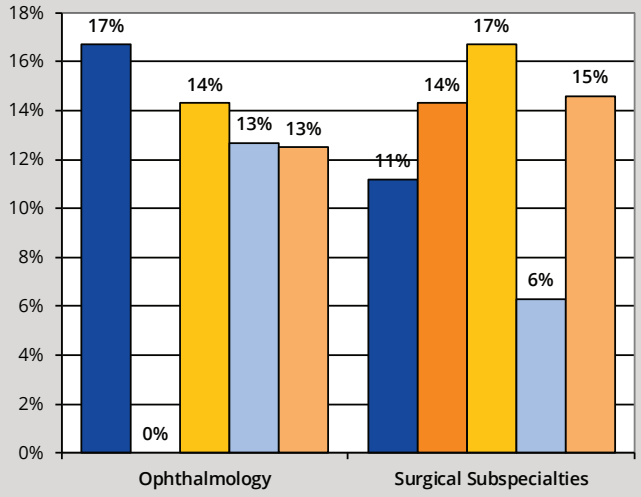
*Trends in Median Starting Income,* 2014 - 2018 (in $1,000s of 2018 dollars)*



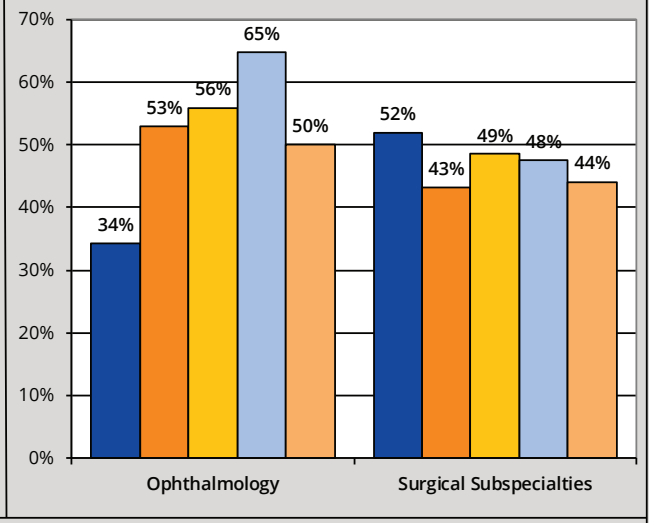

*Trends in Mean Number of Job Offers Received,* 2014 - 2018*



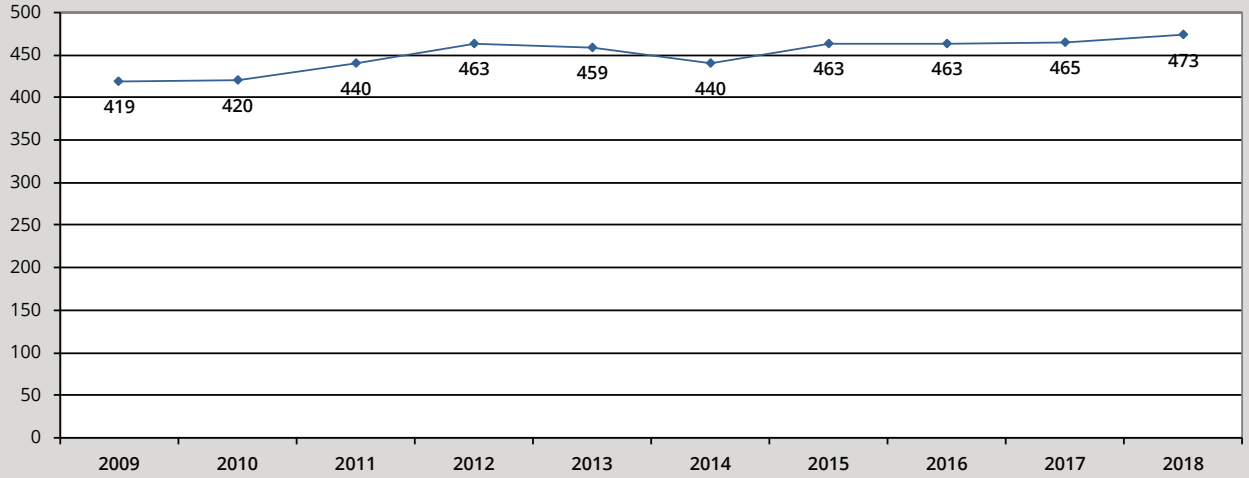

*Trends in Having to Change Plans Due to Limited Practice Opportunities,* 2014 - 2018*




*Trends in Relative Demand* - Percentile Rank of Ophthalmology, 2014 - 2018*




*Trends in Number of Graduates of Allopathic Ophthalmology GME Programs in the US,** 2009 - 2018*




Number of responses: 2014: n = 14, 2015: n = 3, 2016: n = 8, 2017: n = 10, 2018: n = 17.

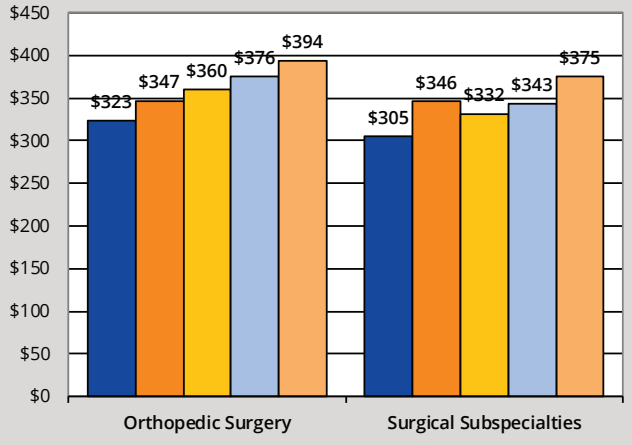
*Source: CHWS, Survey of Residents Completing Training in New York, 2014 - 2018.

**Source: *JAMA Medical Education Issues*, 2009 - 2018.

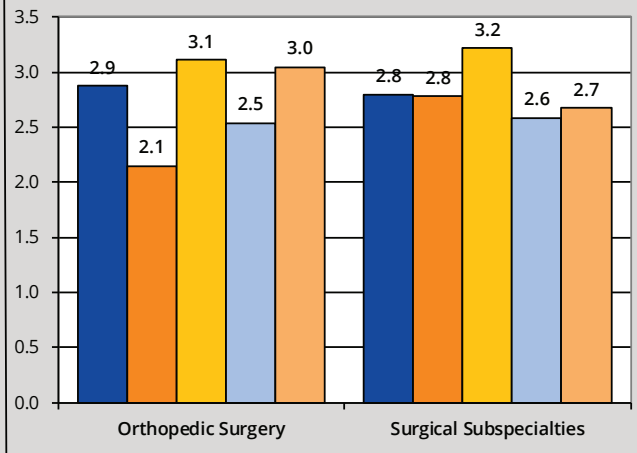
## Specialty: Orthopedic Surgery

Legend: 2014 2015 2016 2017 2018

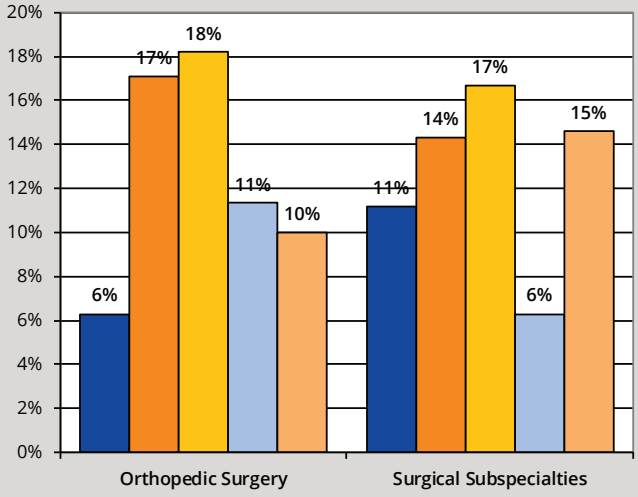
*Trends in Median Starting Income,* 2014 - 2018 (in $1,000s of 2018 dollars)*



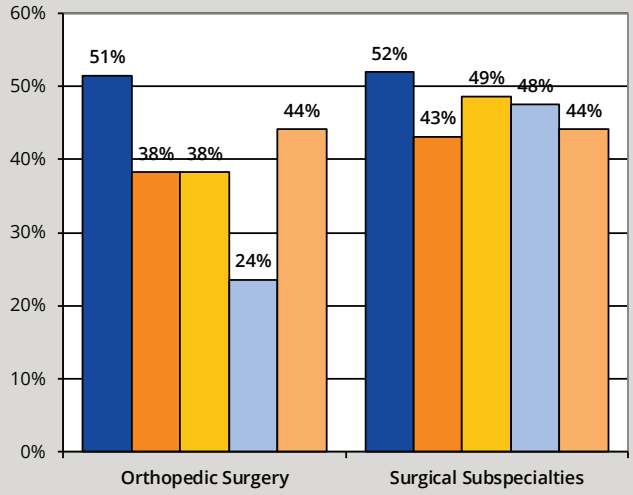

*Trends in Mean Number of Job Offers Received,* 2014 - 2018*



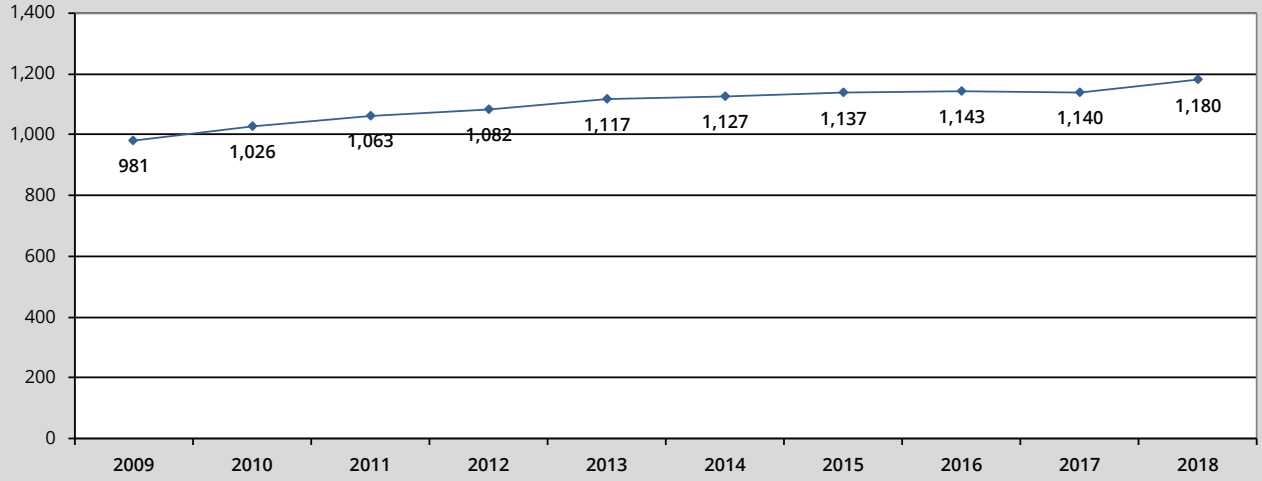

*Trends in Having to Change Plans Due to Limited Practice Opportunities,* 2014 - 2018*




*Trends in Relative Demand* - Percentile Rank of Orthopedic Surgery, 2014 - 2018*




*Trends in Number of Graduates of Allopathic Orthopedic Surgery GME Programs in the US,** 2009 - 2018*




Number of responses: 2014: n = 35, 2015: n = 35, 2016: n = 50, 2017: n = 40, 2018: n = 42.

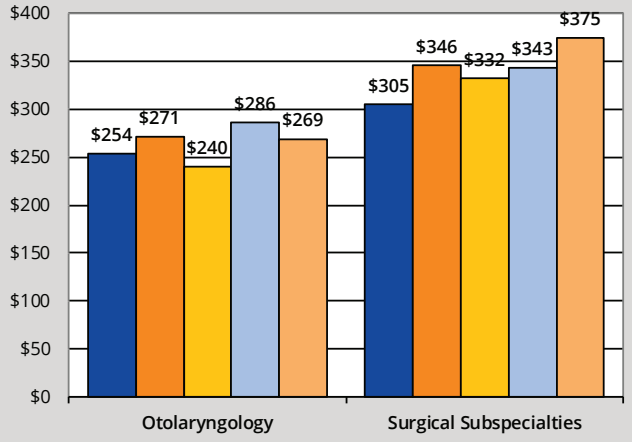
*Source: CHWS, Survey of Residents Completing Training in New York, 2014 - 2018.

**Source: *JAMA Medical Education Issues*, 2009 - 2018.

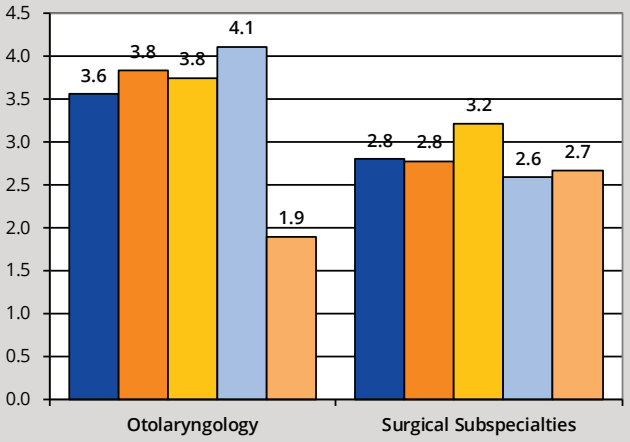
## Specialty: Otolaryngology

Legend: 2014 2015 2016 2017 2018

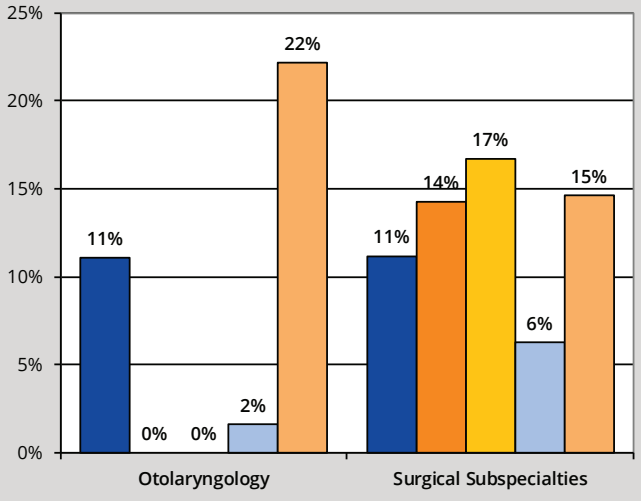
*Trends in Median Starting Income,* 2014 - 2018 (in $1,000s of 2018 dollars)*



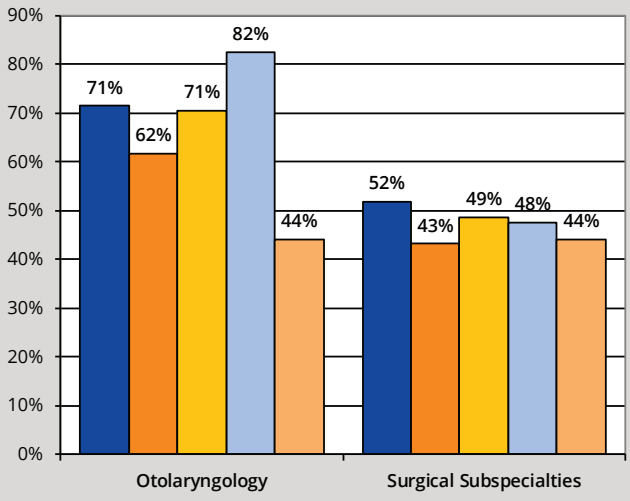

*Trends in Mean Number of Job Offers Received,* 2014 - 2018*



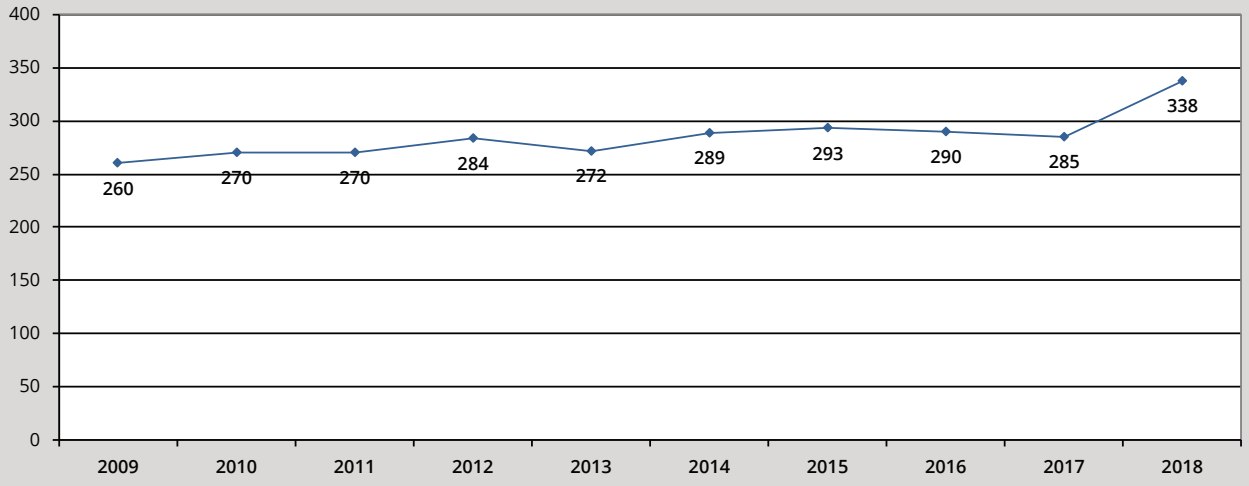

*Trends in Having to Change Plans Due to Limited Practice Opportunities,* 2014 - 2018*




*Trends in Relative Demand* - Percentile Rank of Otolaryngology, 2014 - 2018*




*Trends in Number of Graduates of Allopathic Otolaryngology GME Programs in the US,** 2009 - 2018*




Number of responses: 2014: n = 10, 2015: n = 6, 2016: n = 4, 2017: n = 7, 2018: n = 10.

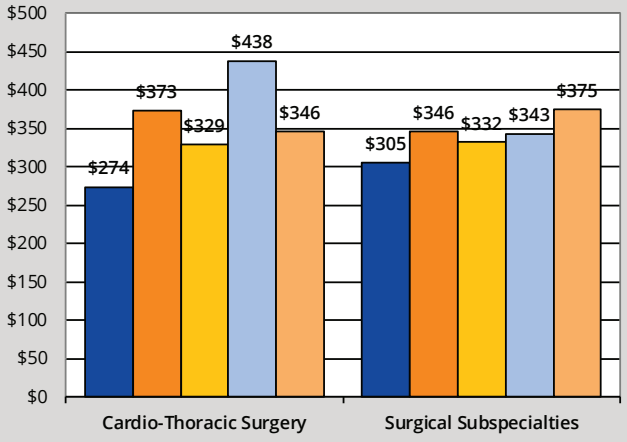
*Source: CHWS, Survey of Residents Completing Training in New York, 2014 - 2018.

**Source: *JAMA Medical Education Issues*, 2009 - 2018.

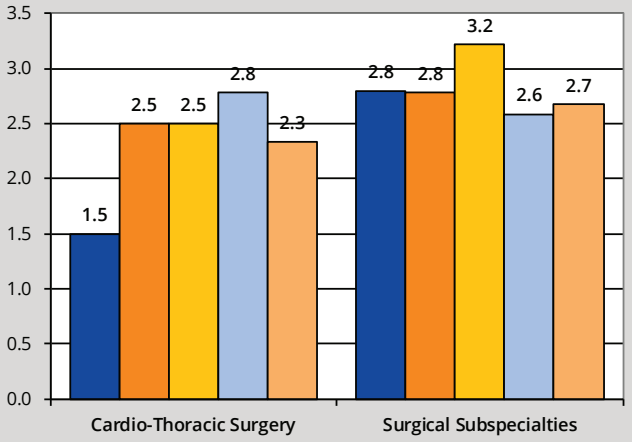
## Specialty: Cardio-Thoracic Surgery

Legend: 2014 2015 2016 2017 2018

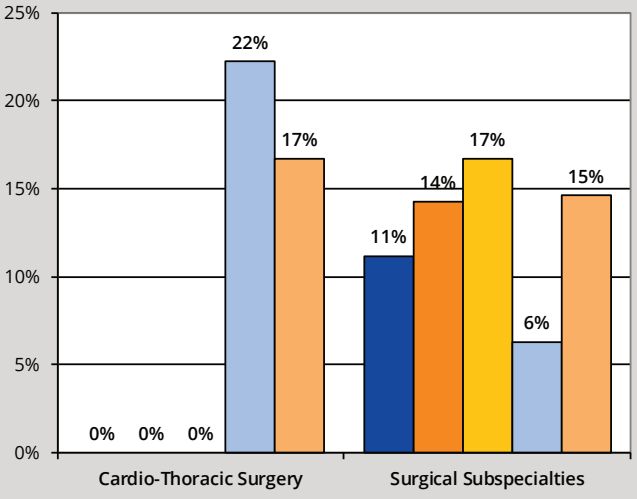
*Trends in Median Starting Income,* 2014 - 2018 (in $1,000s of 2018 dollars)*



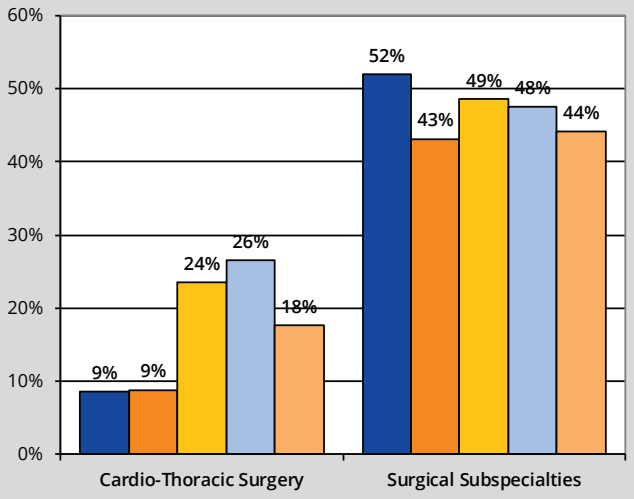

*Trends in Mean Number of Job Offers Received,* 2014 - 2018*



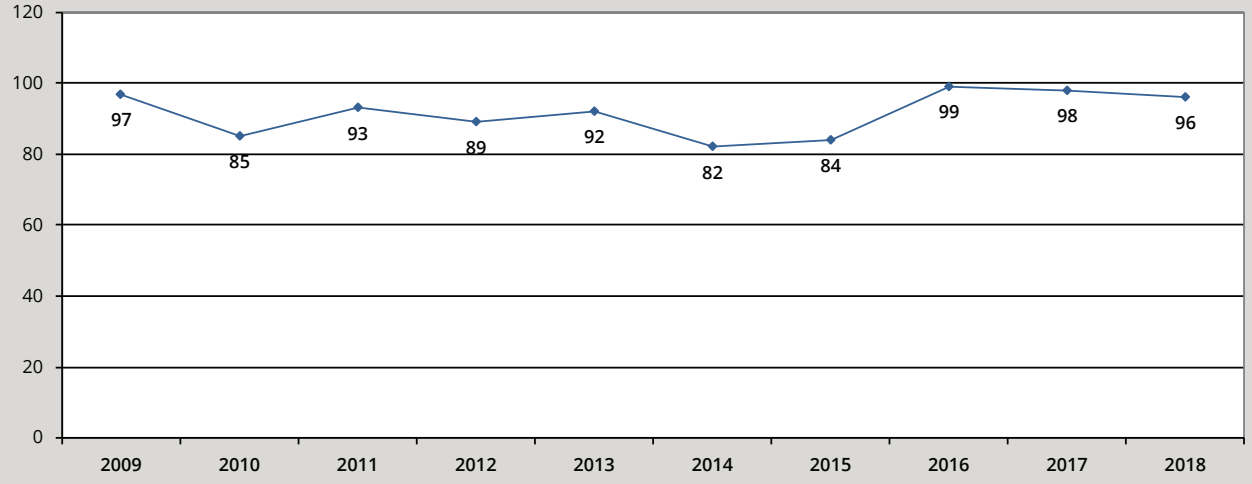

*Trends in Having to Change Plans Due to Limited Practice Opportunities,* 2014 - 2018*




*Trends in Relative Demand* - Percentile Rank of Cardio-Thoracic Surgery, 2014 - 2018*




*Trends in Number of Graduates of Allopathic Cardio-Thoracic Surgery GME Programs in the US,** 2009 - 2018*




Number of responses: 2014: n = 3, 2015: n = 3, 2016: n = 2, 2017: n = 6, 2018: n = 6.

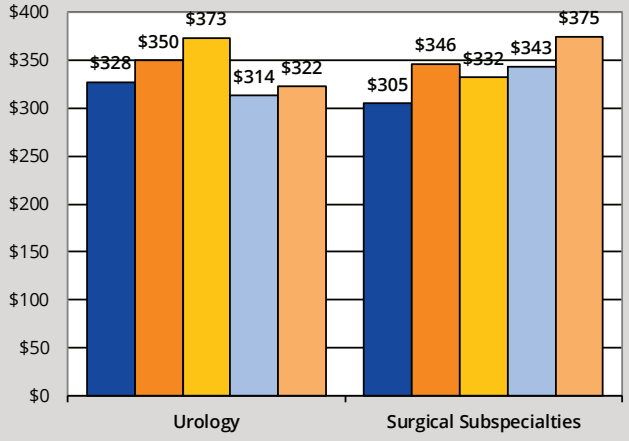
*Source: CHWS, Survey of Residents Completing Training in New York, 2014 - 2018.

**Source: *JAMA Medical Education Issues*, 2009 - 2018.

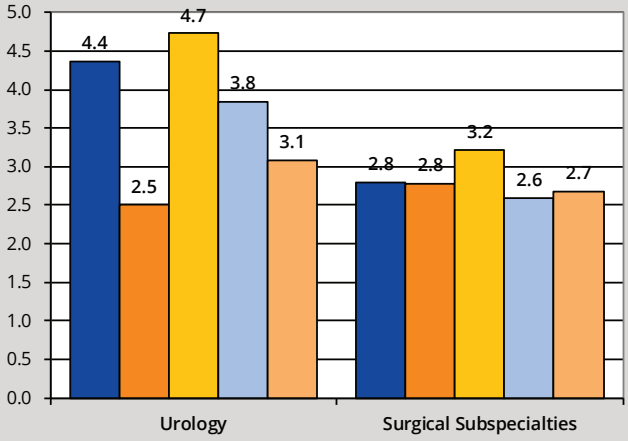
## Specialty: Urology

Legend: 2014 2015 2016 2017 2018

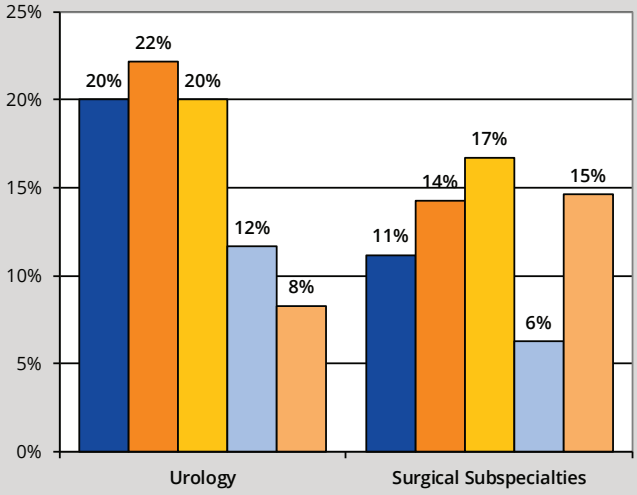
*Trends in Median Starting Income,* 2014 - 2018 (in $1,000s of 2018 dollars)*



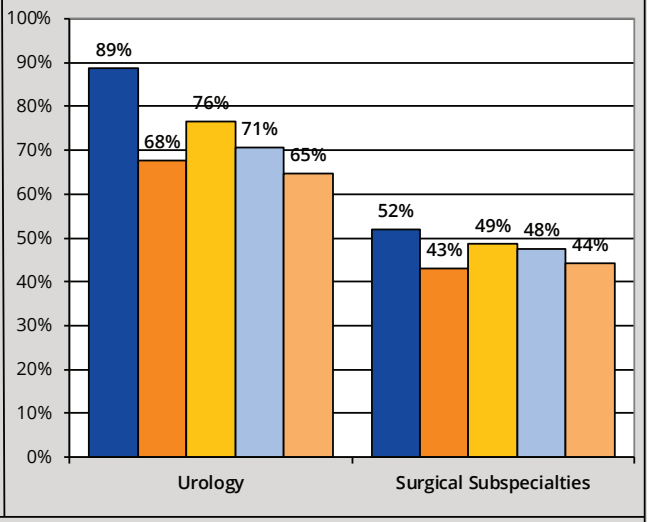

*Trends in Mean Number of Job Offers Received,* 2014 - 2018*



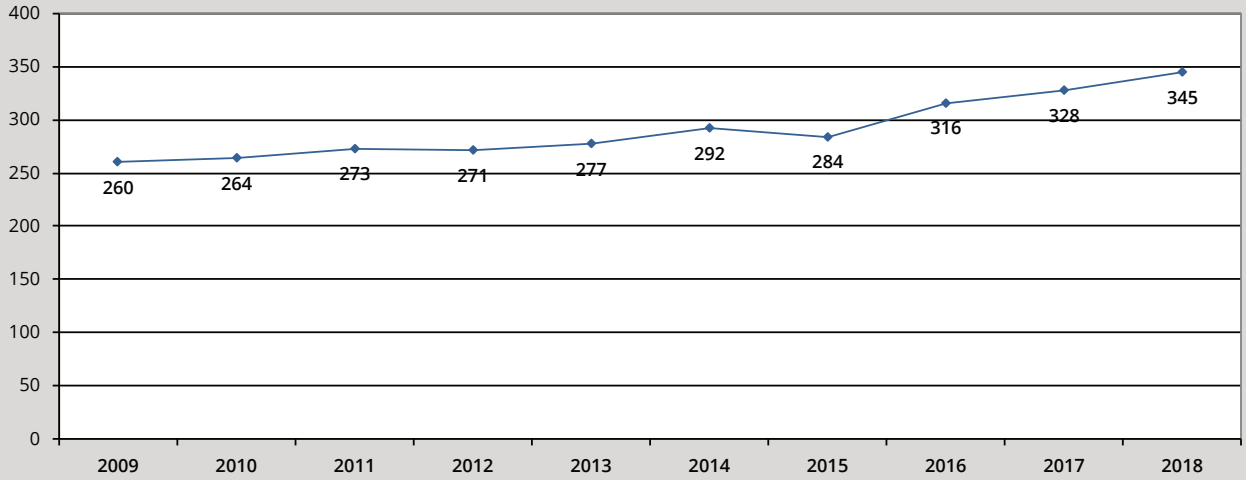

*Trends in Having to Change Plans Due to Limited Practice Opportunities,* 2014 - 2018*




*Trends in Relative Demand* - Percentile Rank of Urology, 2014 - 2018*




*Trends in Number of Graduates of Allopathic Urology GME Programs in the US,** 2009 - 2018*




Number of responses: 2014: n = 11, 2015: n = 10, 2016: n = 13, 2017: n = 12, 2018: n = 16.

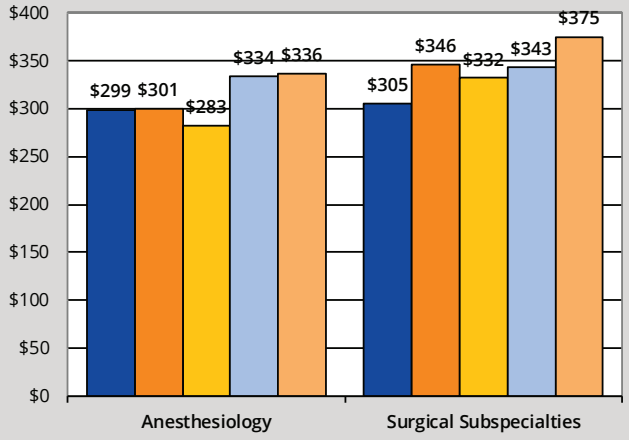
*Source: CHWS, Survey of Residents Completing Training in New York, 2014 - 2018.

**Source: *JAMA Medical Education Issues*, 2009 - 2018.

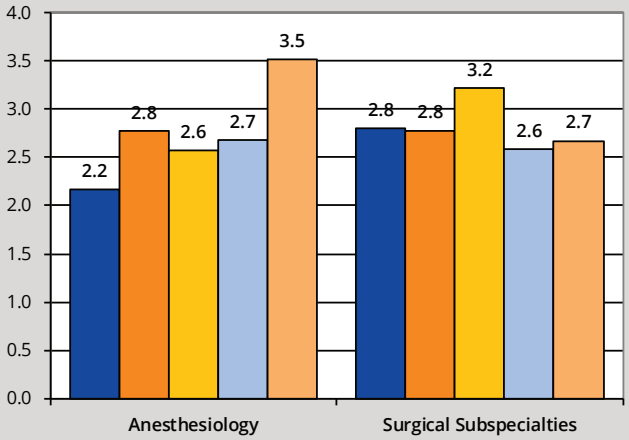
## Specialty: Anesthesiology

Legend: 2014 2015 2016 2017 2018

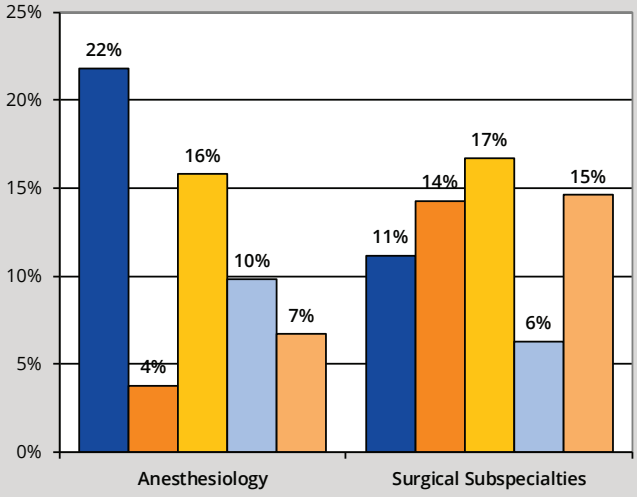
*Trends in Median Starting Income,* 2014 - 2018 (in $1,000s of 2018 dollars)*



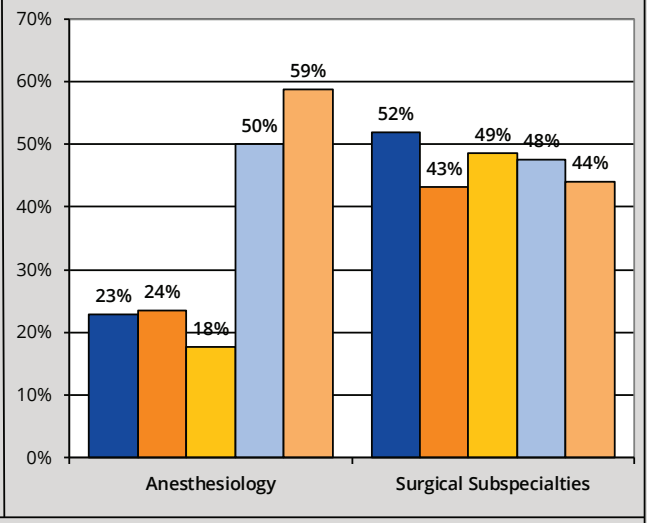

*Trends in Mean Number of Job Offers Received,* 2014 - 2018*



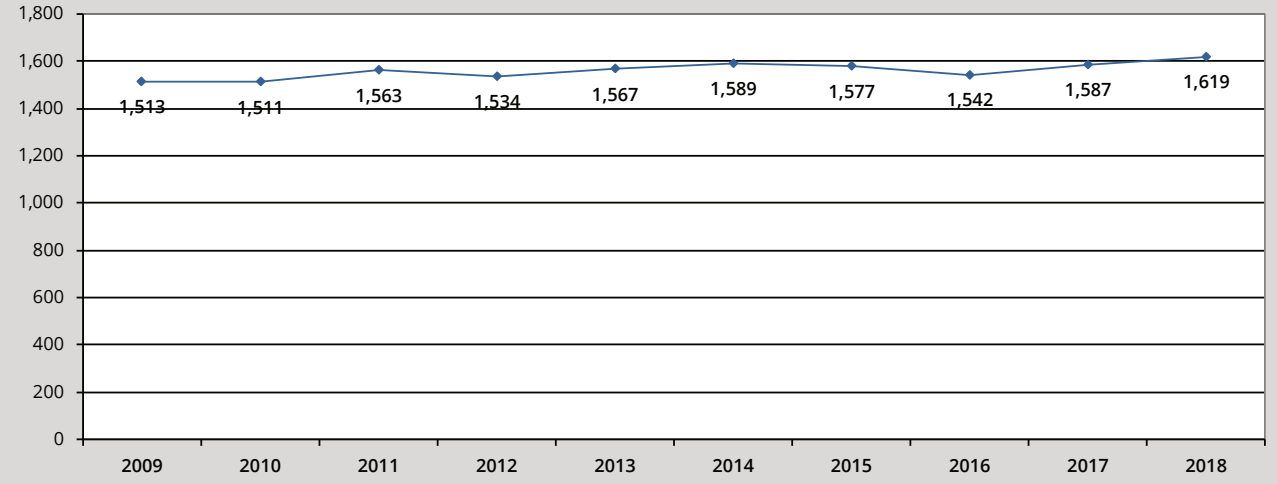

*Trends in Having to Change Plans Due to Limited Practice Opportunities,* 2014 - 2018*




*Trends in Relative Demand* - Percentile Rank of Anesthesiology, 2014 - 2018*




*Trends in Number of Graduates of Allopathic Anesthesiology GME Programs in the US,** 2009 - 2018*




Number of responses: 2014: n = 56, 2015: n = 28, 2016: n = 44, 2017: n = 73, 2018: n = 62.

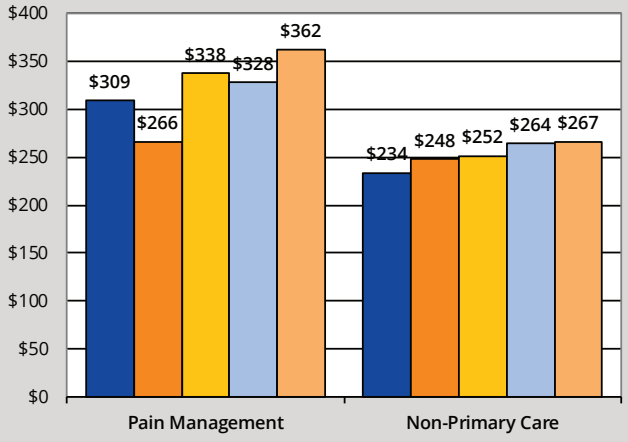
*Source: CHWS, Survey of Residents Completing Training in New York, 2014 - 2018.

**Source: *JAMA Medical Education Issues*, 2009 - 2018.

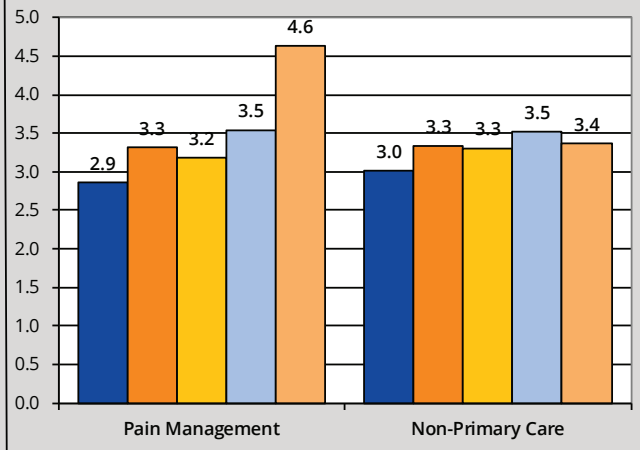
## Specialty: Pain Management

Legend: 2014 2015 2016 2017 2018

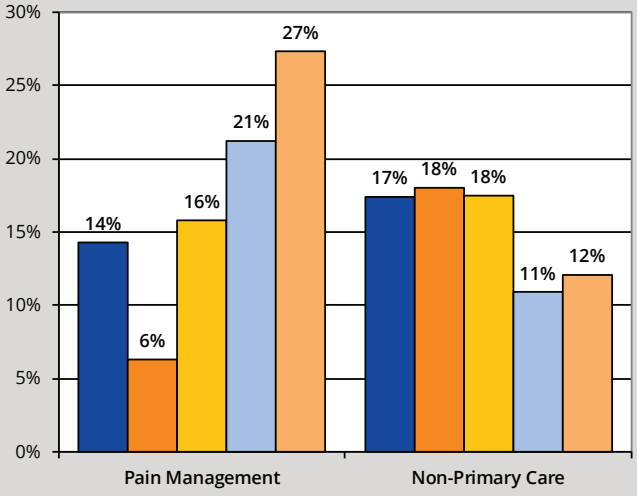
*Trends in Median Starting Income,* 2014 - 2018 (in $1,000s of 2018 dollars)*



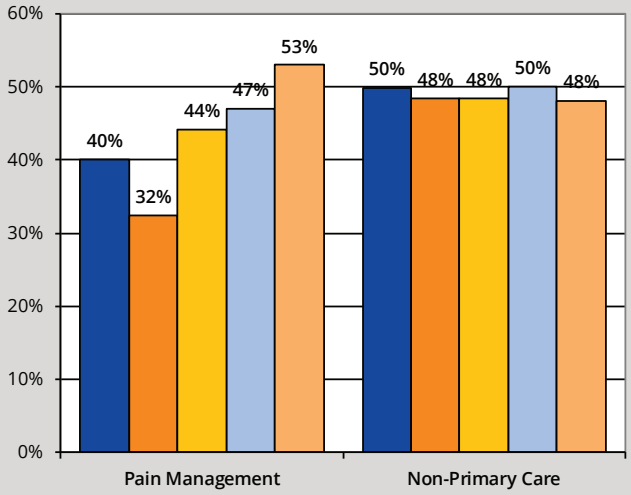

*Trends in Mean Number of Job Offers Received,* 2014 - 2018*



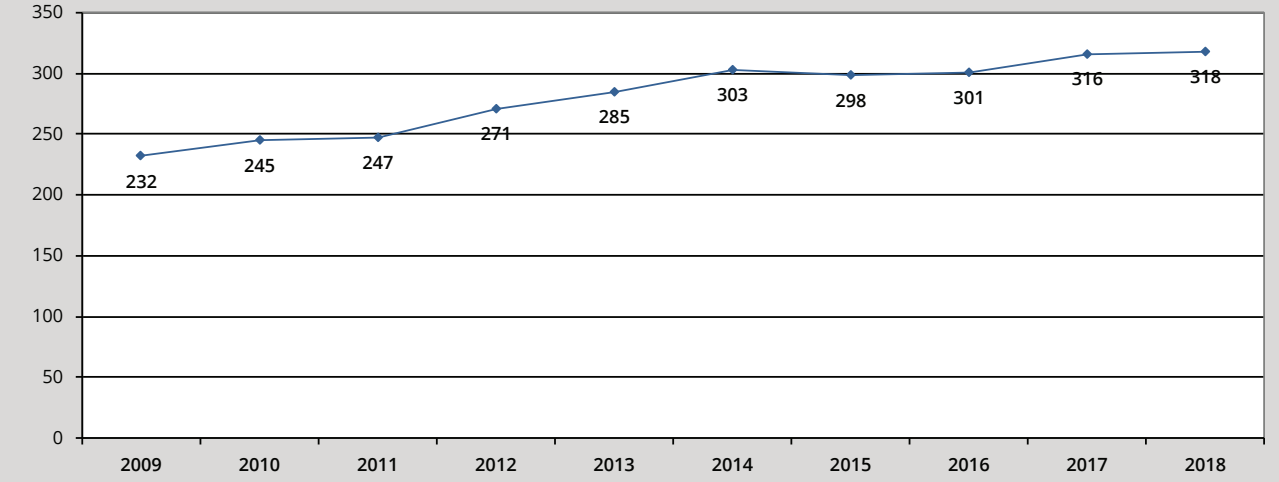

*Trends in Having to Change Plans Due to Limited Practice Opportunities,* 2014 - 2018*




*Trends in Relative Demand* - Percentile Rank of Pain Management, 2014 - 2018*




*Trends in Number of Graduates of Allopathic Pain Management GME Programs in the US,** 2009 - 2018*




Number of responses: 2014: n = 22, 2015: n = 16, 2016: n = 22, 2017: n = 22, 2018: n = 11.

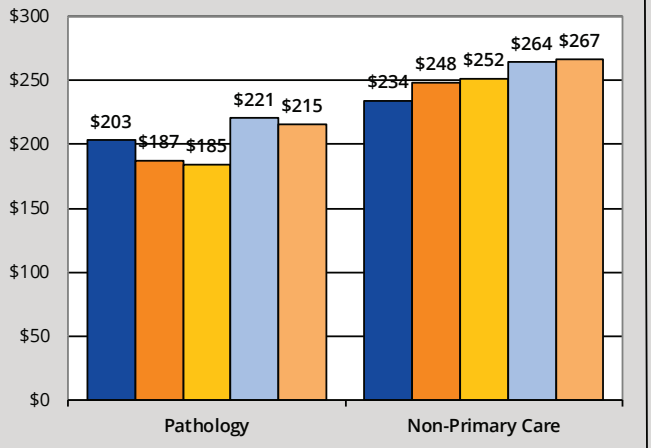
*Source: CHWS, Survey of Residents Completing Training in New York, 2014 - 2018.

**Source: *JAMA Medical Education Issues*, 2009 - 2018.

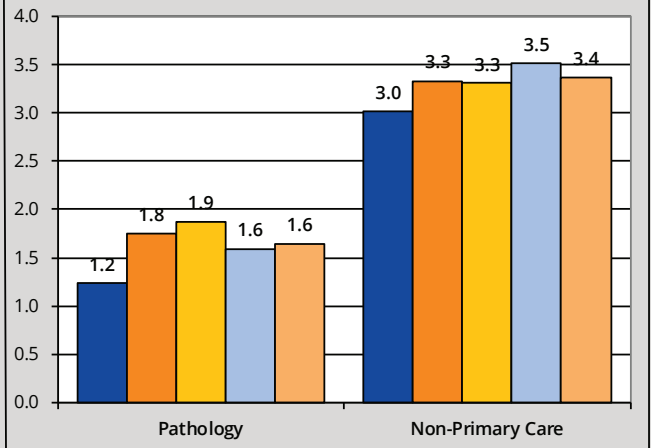
## Specialty: Pathology

Legend: 2014 2015 2016 2017 2018

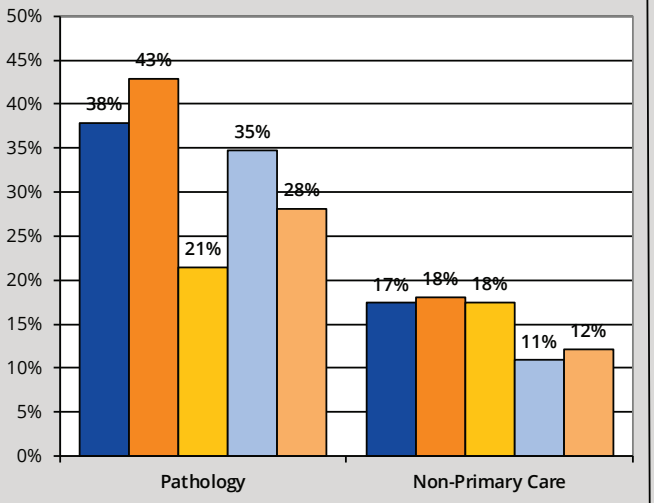
*Trends in Median Starting Income,* 2014 - 2018 (in $1,000s of 2018 dollars)*



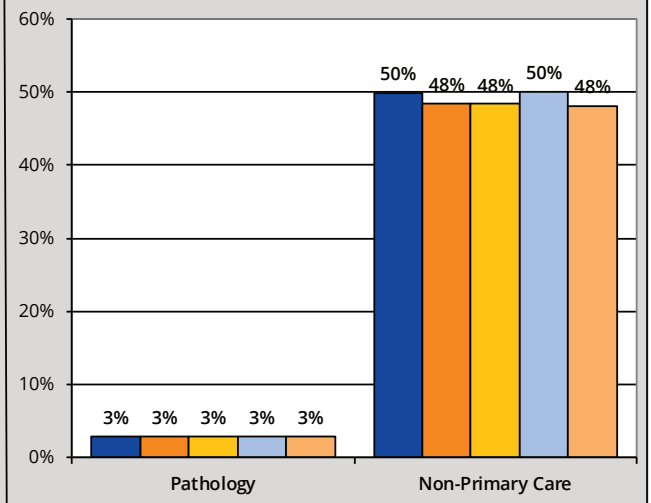

*Trends in Mean Number of Job Offers Received,* 2014 - 2018*



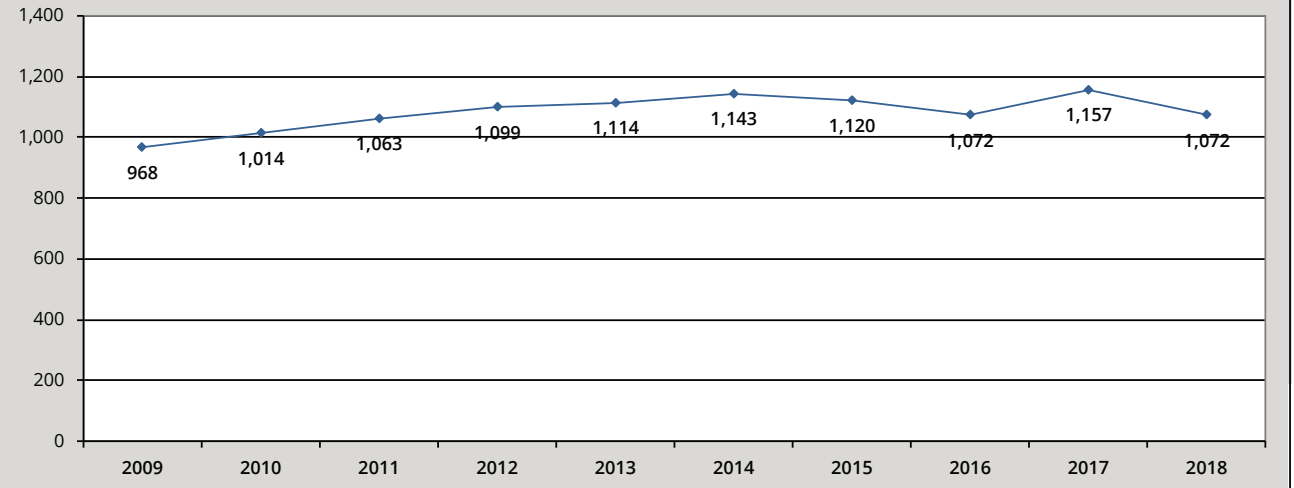

*Trends in Having to Change Plans Due to Limited Practice Opportunities,* 2014 - 2018*




*Trends in Relative Demand* - Percentile Rank of Pathology, 2014 - 2018*




*Trends in Number of Graduates of Allopathic Pathology GME Programs in the US,** 2009 - 2018*




Number of responses: 2014: n = 33, 2015: n = 22, 2016: n = 18, 2017: n = 20, 2018: n = 39.

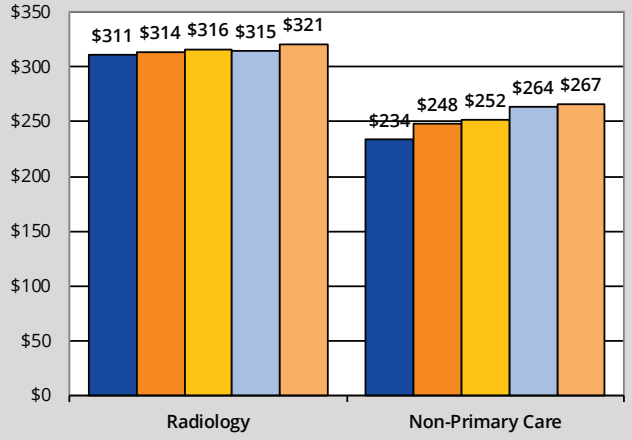
*Source: CHWS, Survey of Residents Completing Training in New York, 2014 - 2018.

**Source: *JAMA Medical Education Issues*, 2009 - 2018.

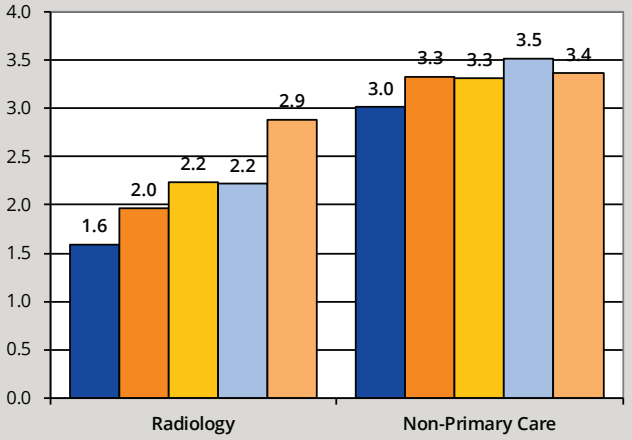
## Specialty: Radiology

Legend: 2014 2015 2016 2017 2018

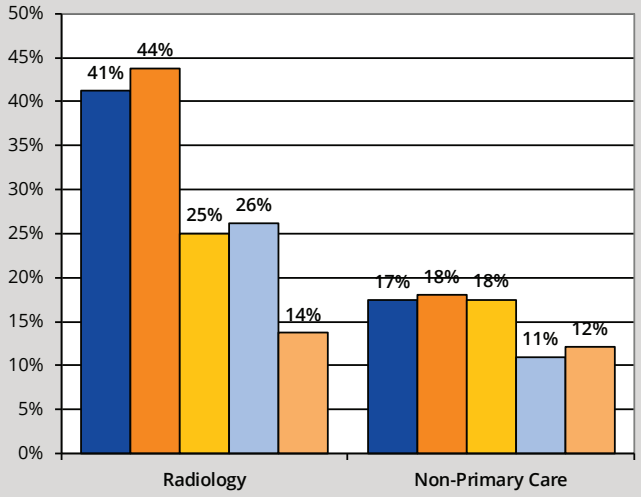
*Trends in Median Starting Income,* 2014 - 2018 (in $1,000s of 2018 dollars)*



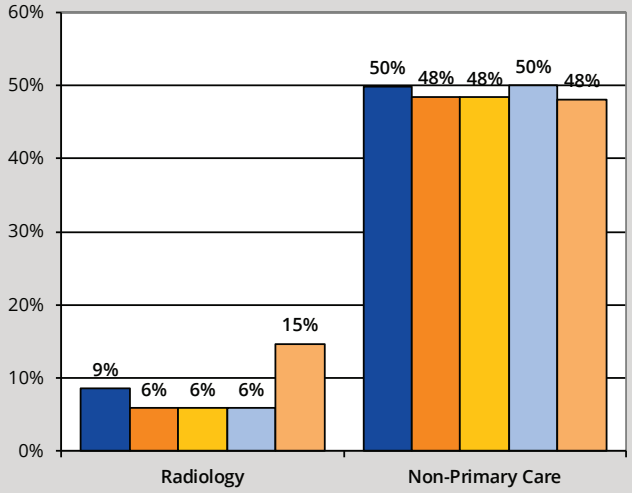

*Trends in Mean Number of Job Offers Received,* 2014 - 2018*



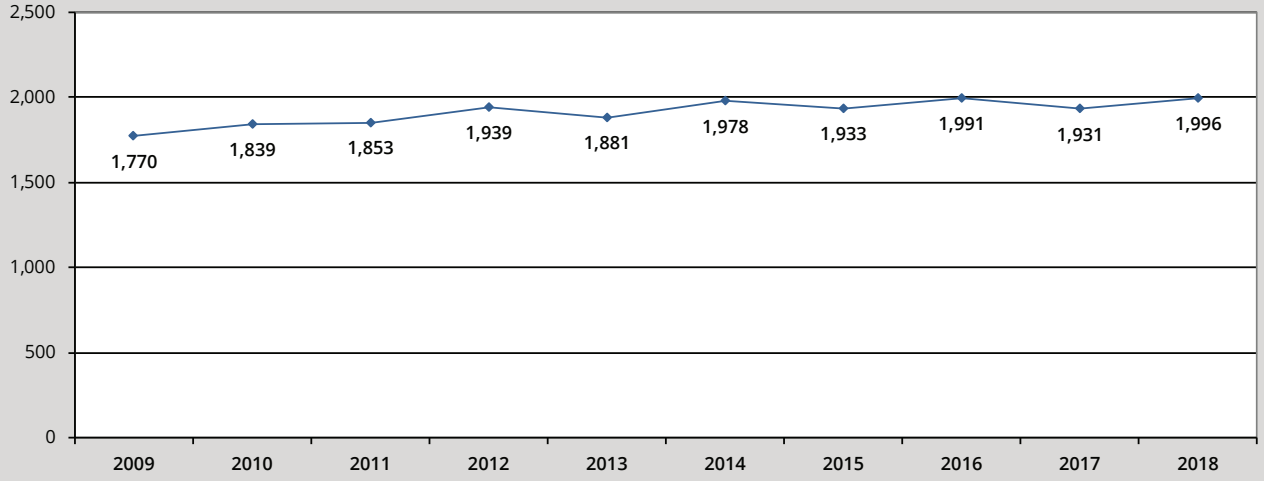

*Trends in Having to Change Plans Due to Limited Practice Opportunities,* 2014 - 2018*




*Trends in Relative Demand* - Percentile Rank of Radiology, 2014 - 2018*




*Trends in Number of Graduates of Allopathic Radiology GME Programs in the US,** 2009 - 2018*




Number of responses: 2014: n = 39, 2015: n = 35, 2016: n = 51, 2017: n = 43, 2018: n = 56.

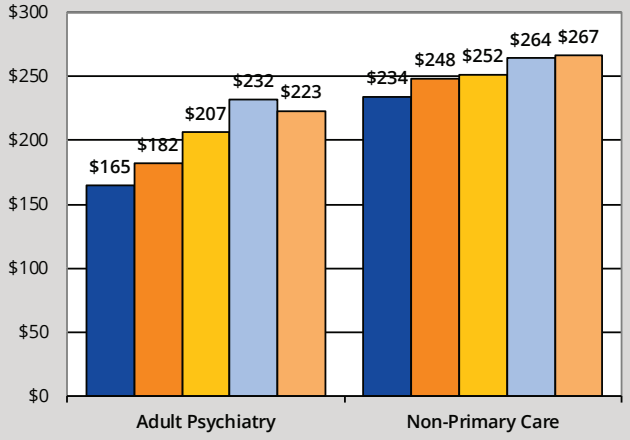
*Source: CHWS, Survey of Residents Completing Training in New York, 2014 - 2018.

**Source: *JAMA Medical Education Issues*, 2009 - 2018.

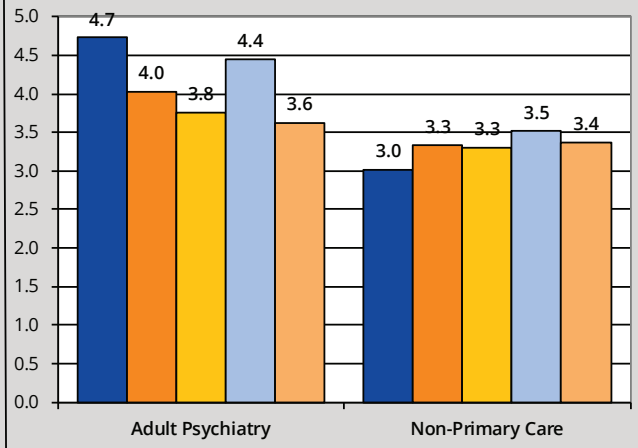
## Specialty: Adult Psychiatry

Legend: 2014 2015 2016 2017 2018

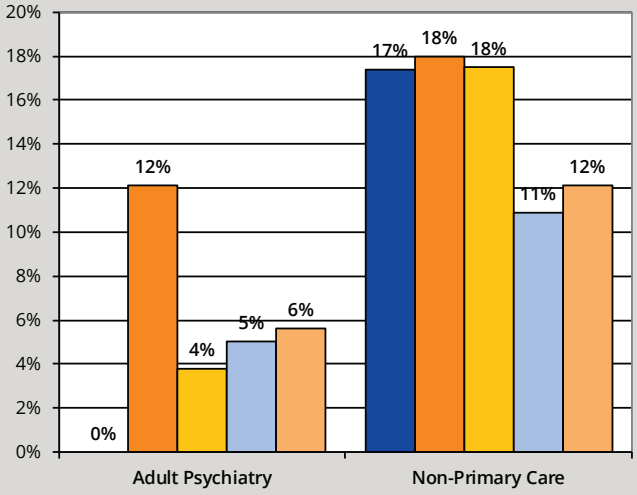
*Trends in Median Starting Income,* 2014 - 2018 (in $1,000s of 2018 dollars)*



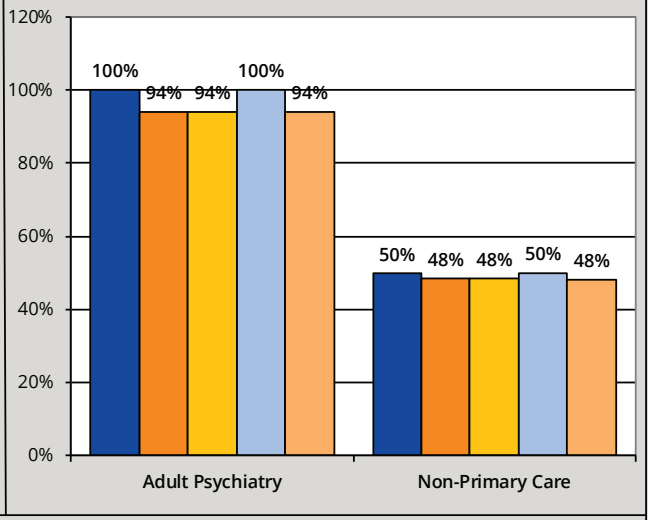

*Trends in Mean Number of Job Offers Received,* 2014 - 2018*



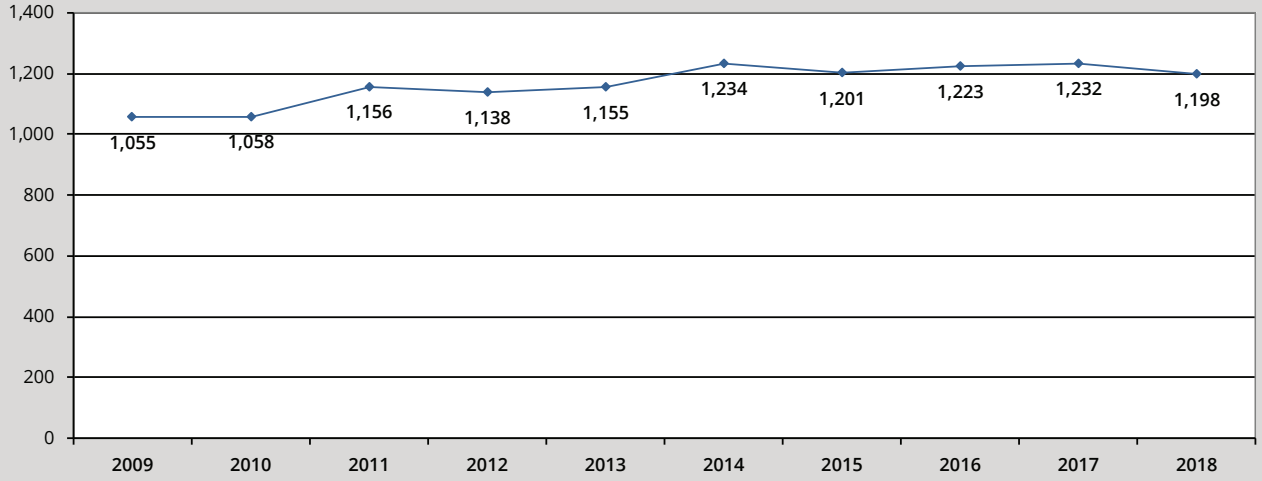

*Trends in Having to Change Plans Due to Limited Practice Opportunities,* 2014 - 2018*




*Trends in Relative Demand* - Percentile Rank of Adult Psychiatry, 2014 - 2018*




*Trends in Number of Graduates of Allopathic Adult Psychiatry GME Programs in the US,** 2009 - 2018*




Number of responses: 2014: n = 40, 2015: n = 38, 2016: n = 58, 2017: n = 49, 2018: n = 61.

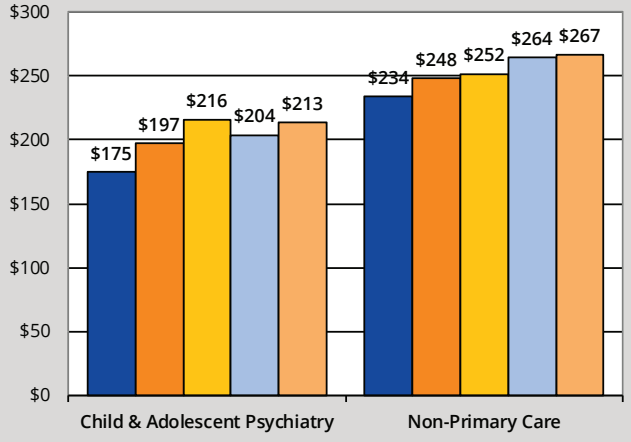
*Source: CHWS, Survey of Residents Completing Training in New York, 2014 - 2018.

**Source: *JAMA Medical Education Issues*, 2009 - 2018.

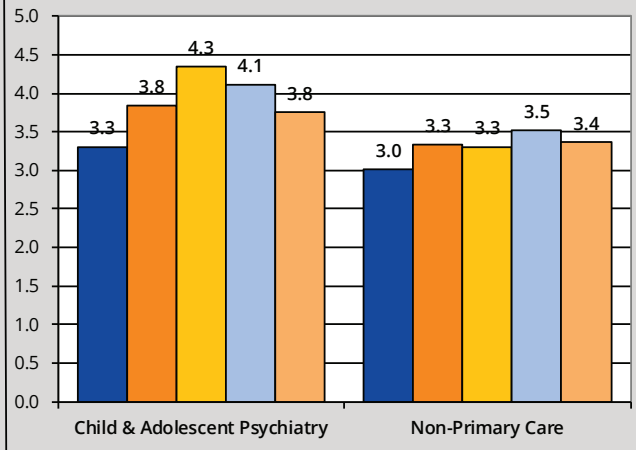
## Specialty: Child & Adolescent Psychiatry

Legend: 2014 2015 2016 2017 2018

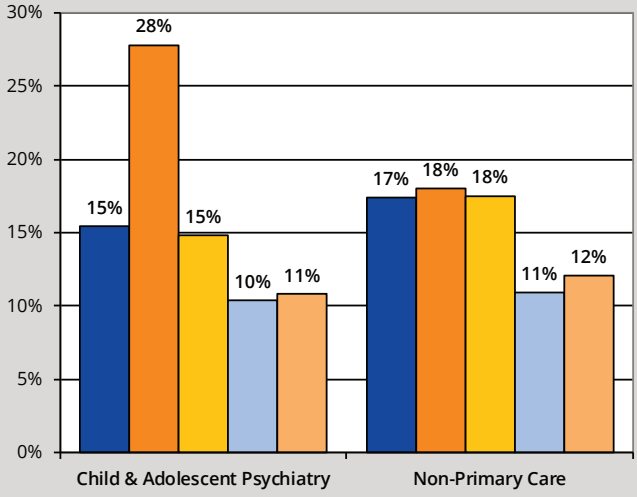
*Trends in Median Starting Income,* 2014 - 2018 (in $1,000s of 2018 dollars)*



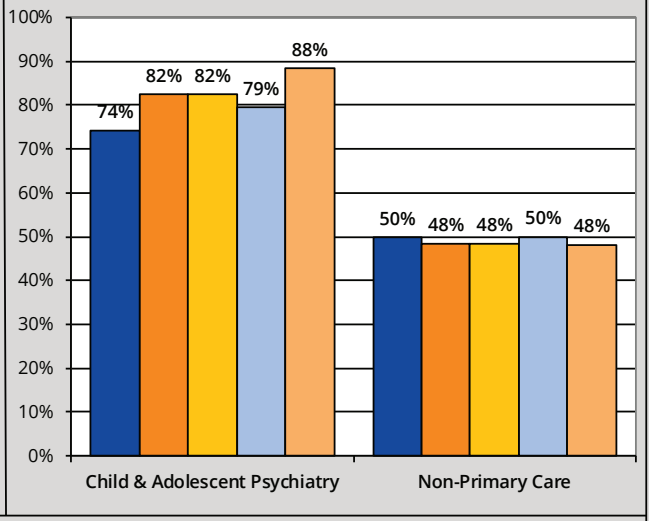

*Trends in Mean Number of Job Offers Received,* 2014 - 2018*



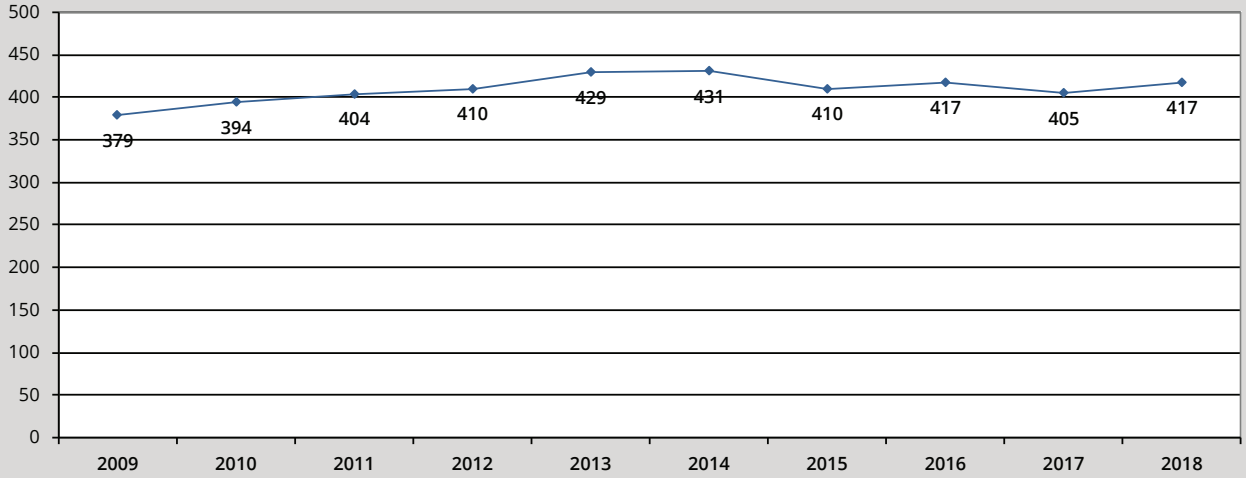

*Trends in Having to Change Plans Due to Limited Practice Opportunities,* 2014 - 2018*




*Trends in Relative Demand* - Percentile Rank of Child & Adolescent Psychiatry, 2014 - 2018*




*Trends in Number of Graduates of Allopathic Child & Adolescent Psychiatry GME Programs in the US,** 2009 - 2018*




Number of responses: 2014: n = 29, 2015: n = 20, 2016: n = 31, 2017: n = 28, 2018: n = 38.

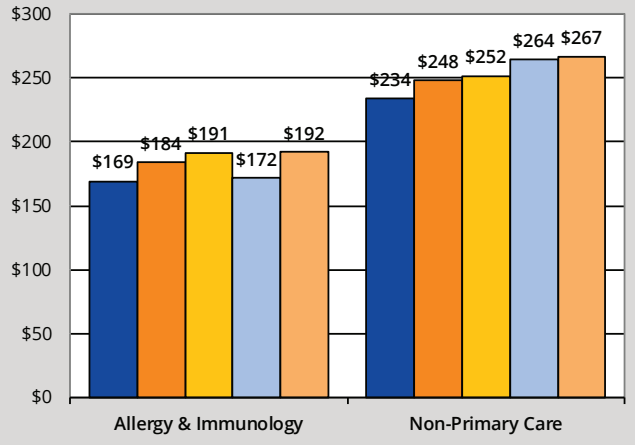
*Source: CHWS, Survey of Residents Completing Training in New York, 2014 - 2018.

**Source: *JAMA Medical Education Issues*, 2009 - 2018.

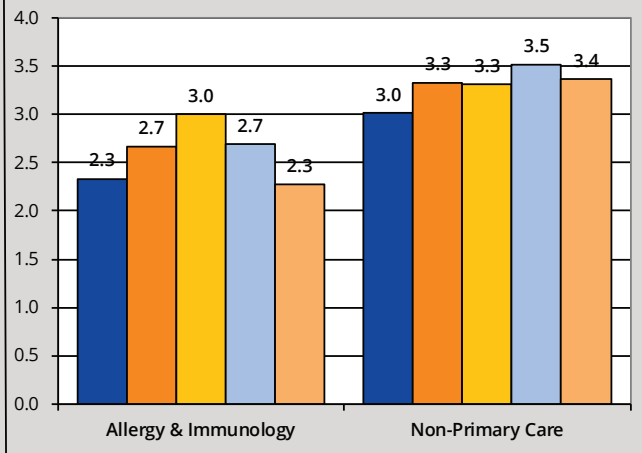
## Specialty: Allergy & Immunology

Legend: 2014 2015 2016 2017 2018

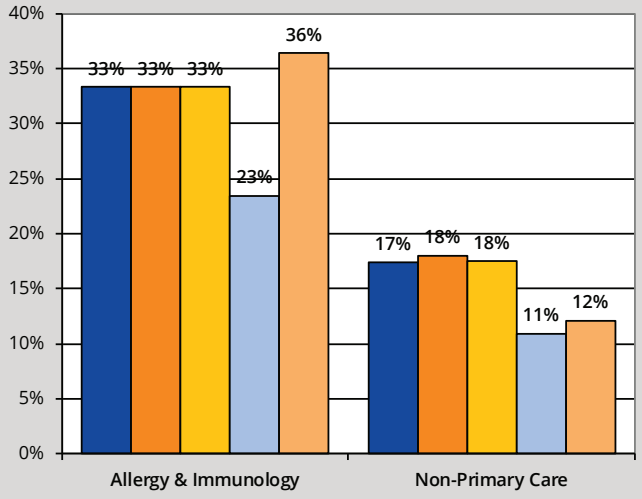
*Trends in Median Starting Income,* 2014 - 2018 (in $1,000s of 2018 dollars)*



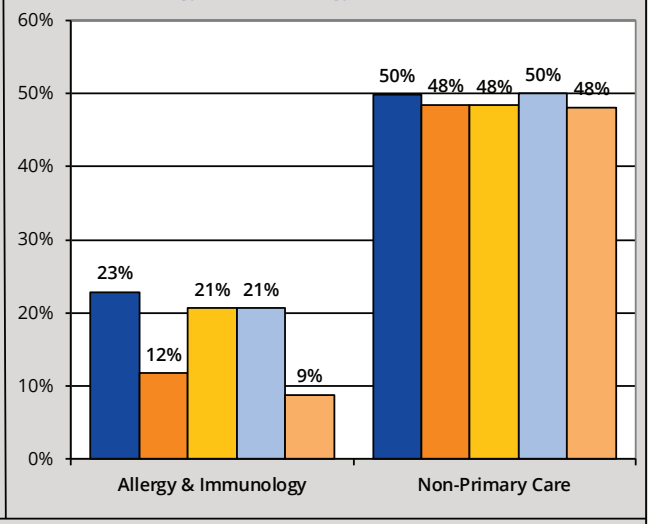

*Trends in Mean Number of Job Offers Received,* 2014 - 2018*



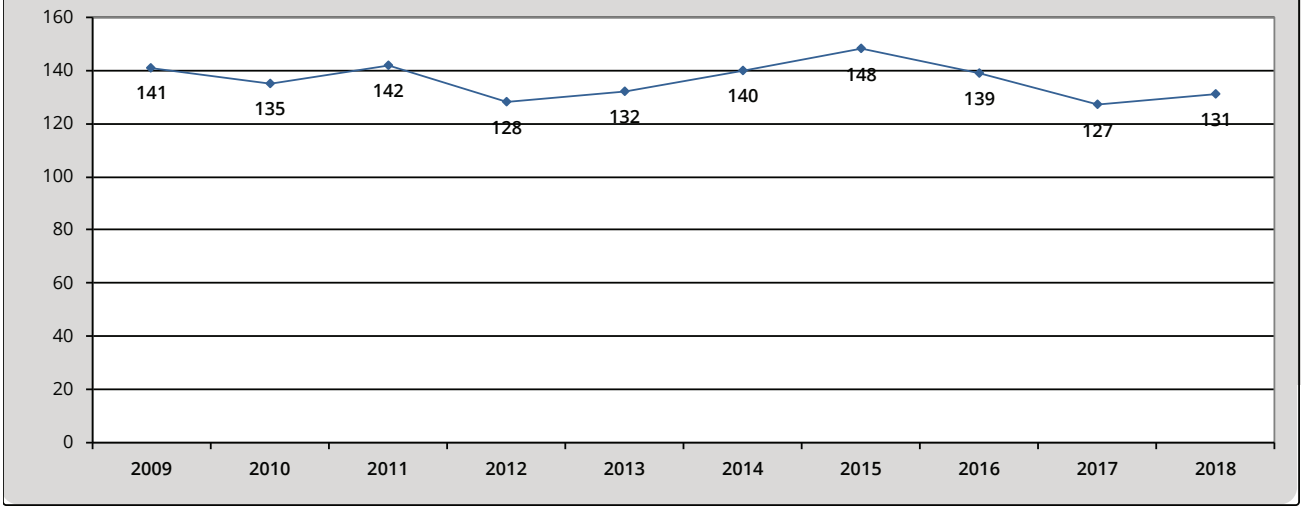

*Trends in Having to Change Plans Due to Limited Practice Opportunities,* 2014 - 2018*




*Trends in Relative Demand* - Percentile Rank of Allergy & Immunology, 2014 - 2018*




*Trends in Number of Graduates of Allopathic Allergy & Immunology GME Programs in the US,** 2009 - 2018*




Number of responses: 2014: n = 6, 2015: n = 6, 2016: n = 9, 2017: n = 11, 2018: n = 12.

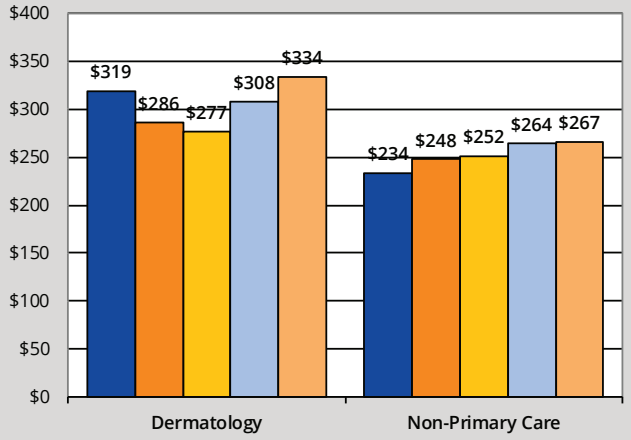
*Source: CHWS, Survey of Residents Completing Training in New York, 2014 - 2018.

**Source: *JAMA Medical Education Issues*, 2009 - 2018.

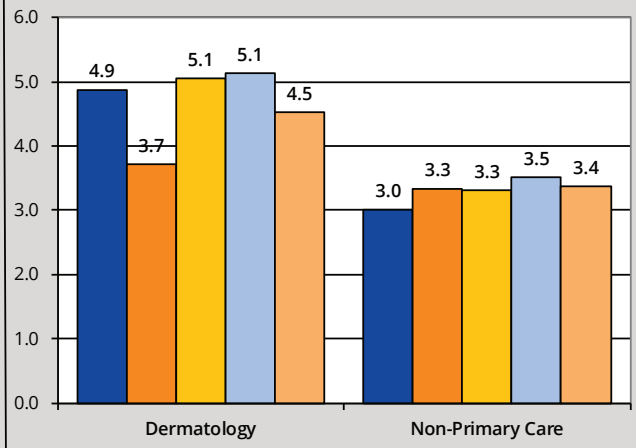
## Specialty: Dermatology

Legend: 2014 2015 2016 2017 2018

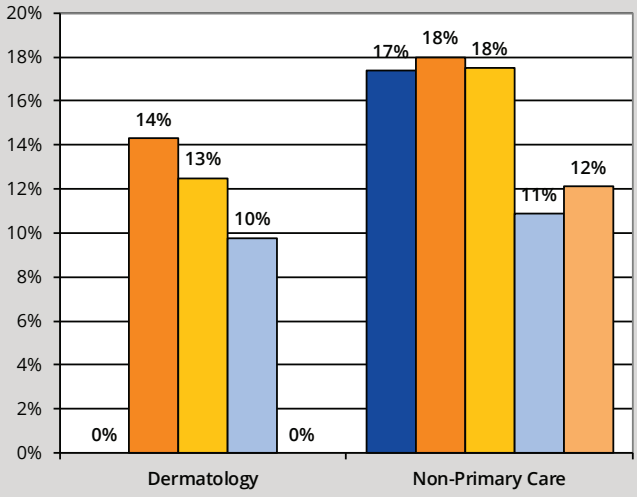
*Trends in Median Starting Income,* 2014 - 2018 (in $1,000s of 2018 dollars)*



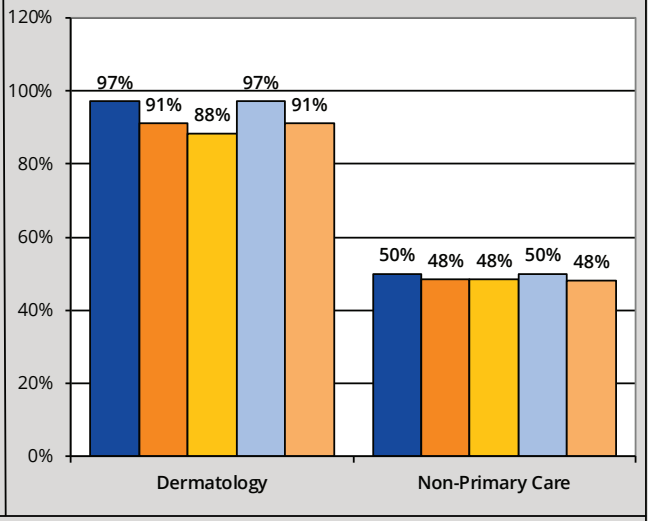

*Trends in Mean Number of Job Offers Received,* 2014 - 2018*



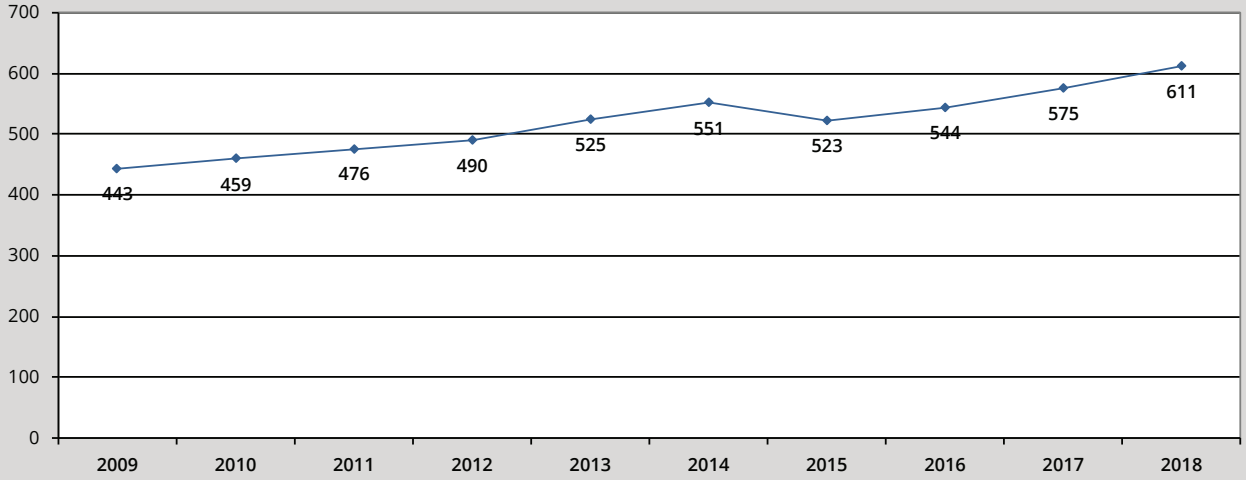

*Trends in Having to Change Plans Due to Limited Practice Opportunities,* 2014 - 2018*




*Trends in Relative Demand* - Percentile Rank of Dermatology, 2014 - 2018*




*Trends in Number of Graduates of Allopathic Dermatology GME Programs in the US,** 2009 - 2018*




Number of responses: 2014: n = 19, 2015: n = 14, 2016: n = 18, 2017: n = 23, 2018: n = 28.

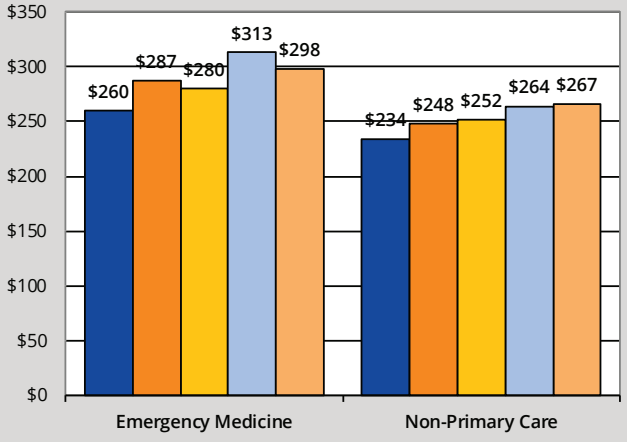
*Source: CHWS, Survey of Residents Completing Training in New York, 2014 - 2018.

**Source: *JAMA Medical Education Issues*, 2009 - 2018.

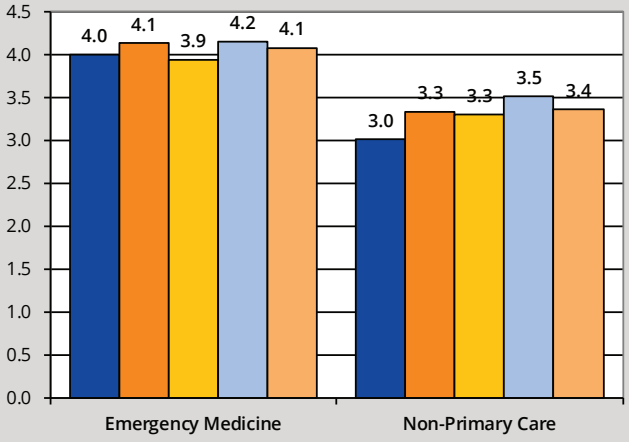
## Specialty: Emergency Medicine

Legend: 2014 2015 2016 2017 2018

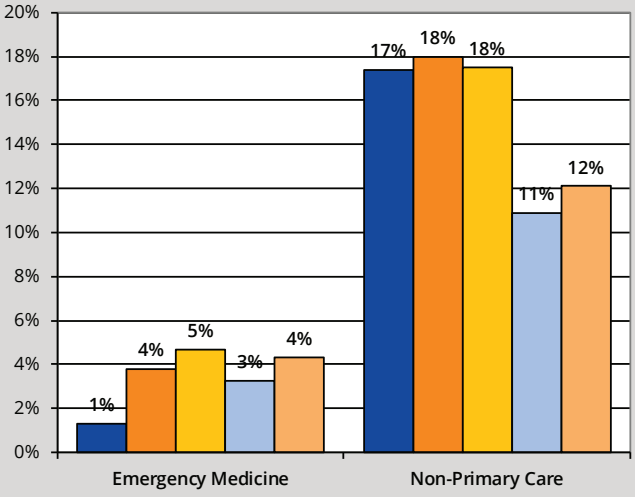
*Trends in Median Starting Income,* 2014 - 2018 (in $1,000s of 2018 dollars)*



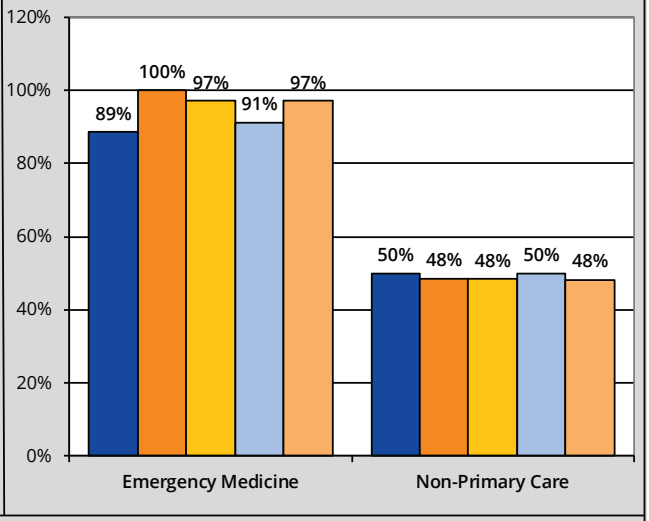

*Trends in Mean Number of Job Offers Received,* 2014 - 2018*



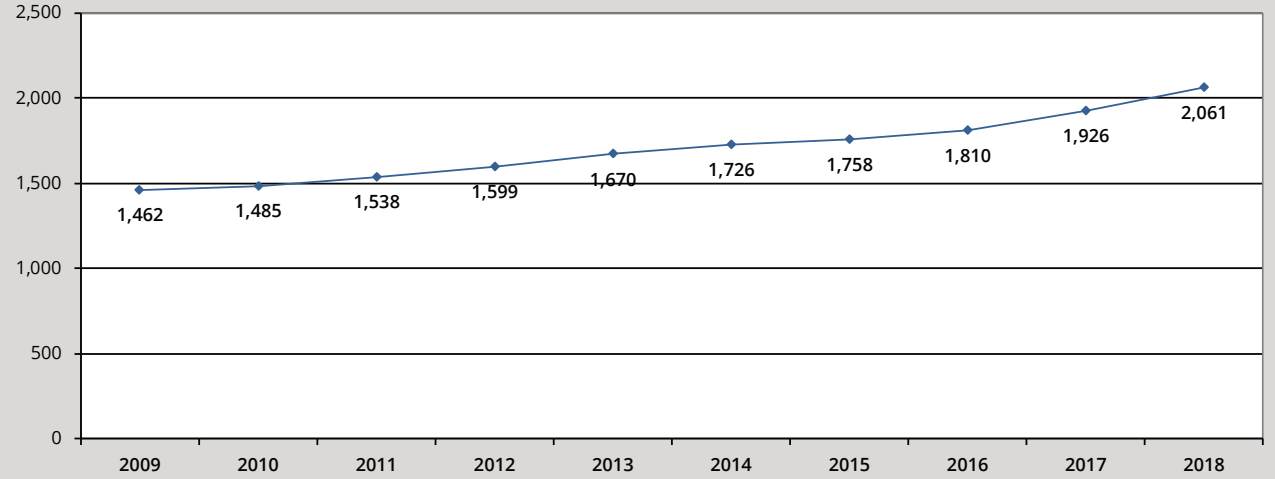

*Trends in Having to Change Plans Due to Limited Practice Opportunities,* 2014 - 2018*




*Trends in Relative Demand* - Percentile Rank of Emergency Medicine, 2014 - 2018*




*Trends in Number of Graduates of Allopathic Emergency Medicine GME Programs in the US,** 2009 - 2018*




Number of responses: 2014: n = 88, 2015: n = 138, 2016: n = 135, 2017: n = 126, 2018: n = 131.

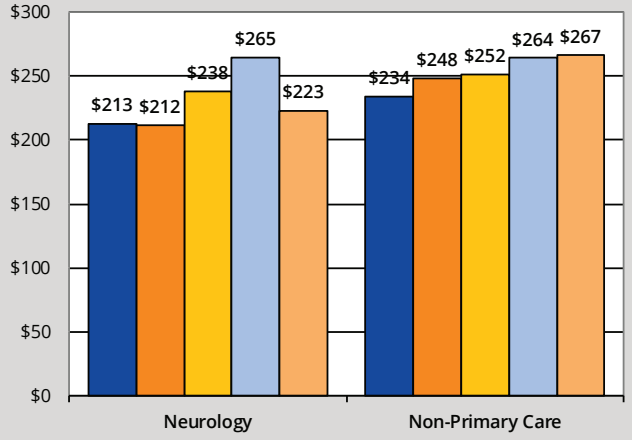
*Source: CHWS, Survey of Residents Completing Training in New York, 2014 - 2018.

**Source: *JAMA Medical Education Issues*, 2009 - 2018.

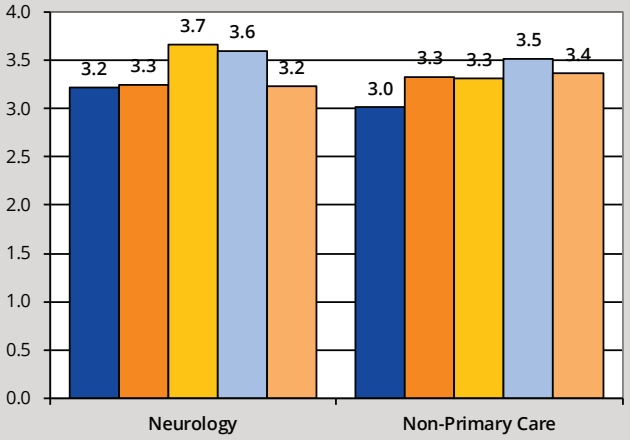
## Specialty: Neurology

Legend: 2014 2015 2016 2017 2018

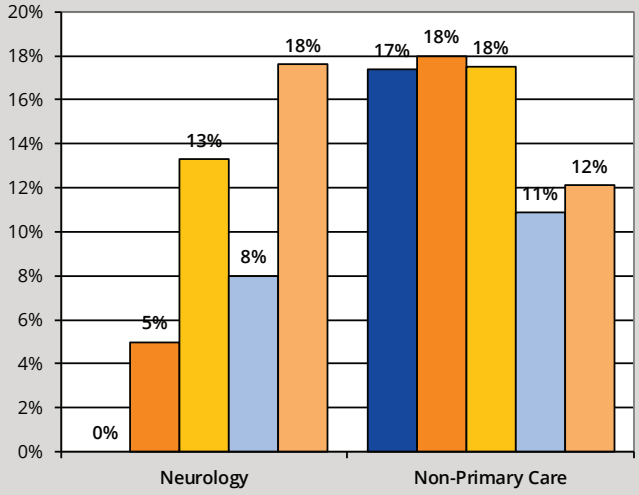
*Trends in Median Starting Income,* 2014 - 2018 (in $1,000s of 2018 dollars)*



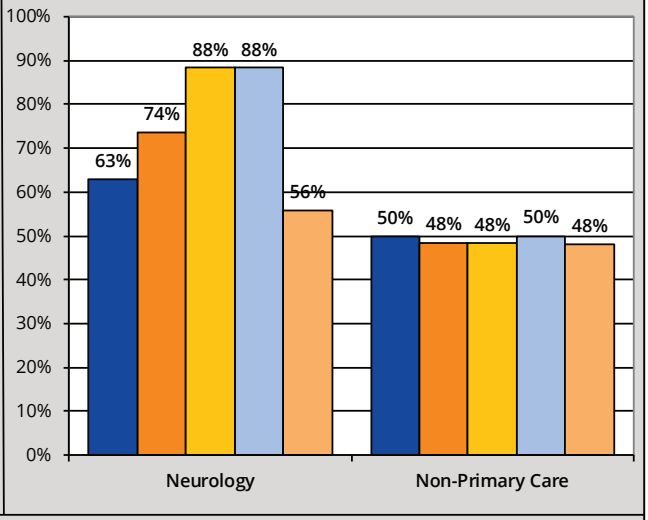

*Trends in Mean Number of Job Offers Received,* 2014 - 2018*



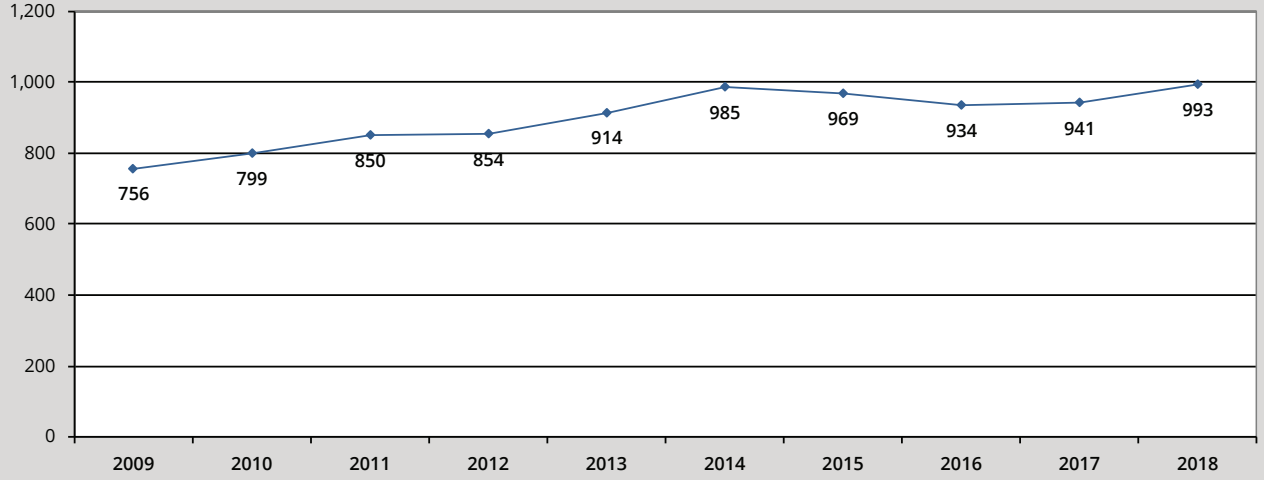

*Trends in Having to Change Plans Due to Limited Practice Opportunities,* 2014 - 2018*




*Trends in Relative Demand* - Percentile Rank of Neurology, 2014 - 2018*




*Trends in Number of Graduates of Allopathic Neurology GME Programs in the US,** 2009 - 2018*




Number of responses: 2014: n = 14, 2015: n = 22, 2016: n = 18, 2017: n = 14, 2018: n = 21.

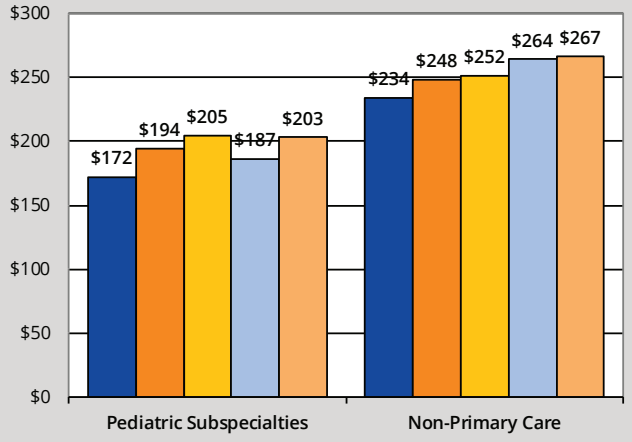
*Source: CHWS, Survey of Residents Completing Training in New York, 2014 - 2018.

**Source: *JAMA Medical Education Issues*, 2009 - 2018.

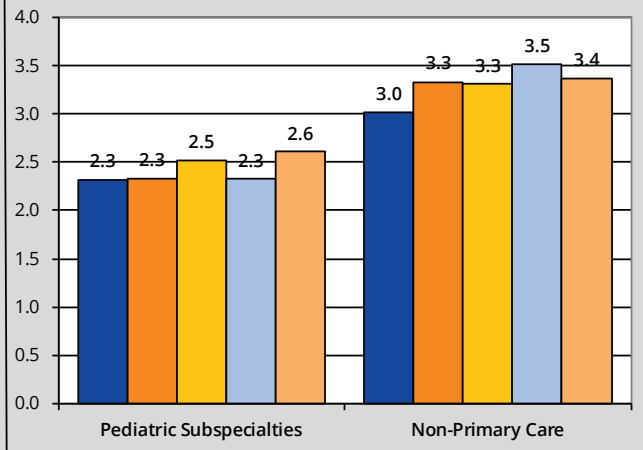
## Specialty: Pediatric Subspecialties

Legend: 2014 2015 2016 2017 2018

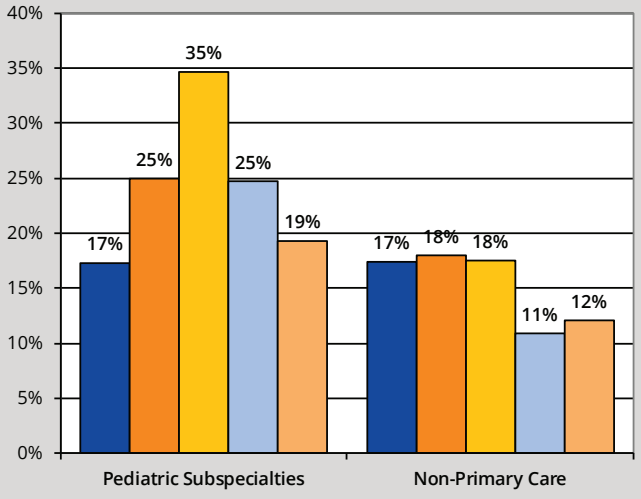
*Trends in Median Starting Income,* 2014 - 2018 (in $1,000s of 2018 dollars)*



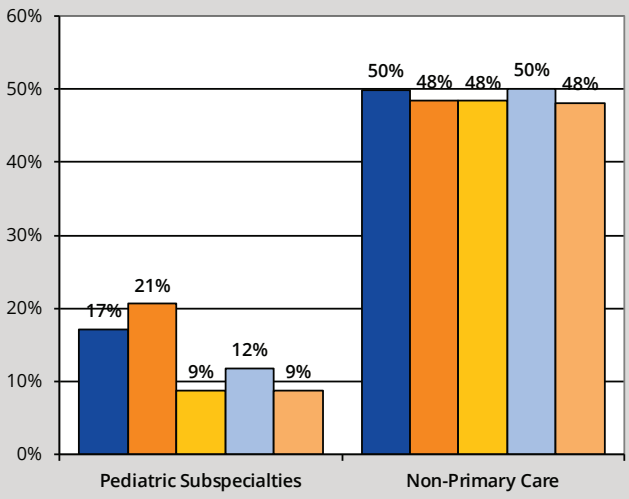

*Trends in Mean Number of Job Offers Received,* 2014 - 2018*



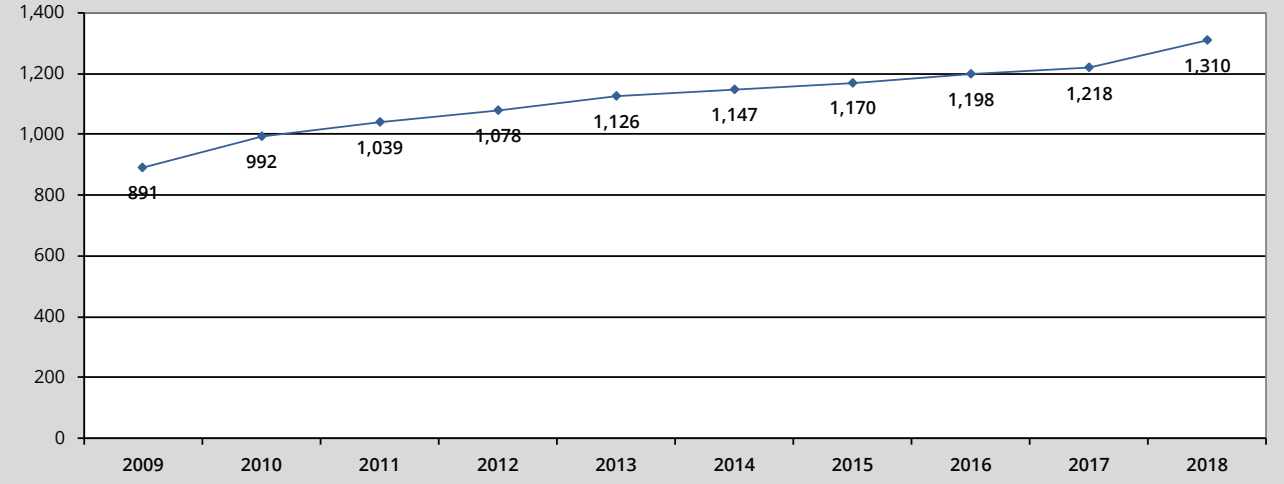

*Trends in Having to Change Plans Due to Limited Practice Opportunities,* 2014 - 2018*




*Trends in Relative Demand* - Percentile Rank of Pediatric Subspecialties, 2014 - 2018*




*Trends in Number of Graduates of Allopathic Pediatric Subspecialties GME Programs in the US,** 2009 - 2018*




Number of responses: 2014: n = 54, 2015: n = 56, 2016: n = 58, 2017: n = 70, 2018: n = 62.

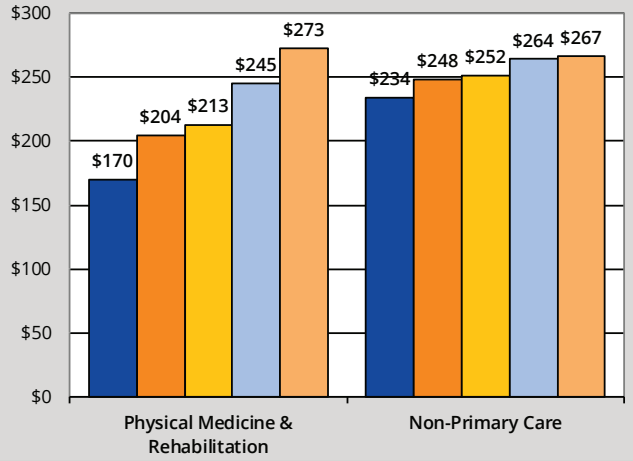
*Source: CHWS, Survey of Residents Completing Training in New York, 2014 - 2018.

**Source: *JAMA Medical Education Issues*, 2009 - 2018.

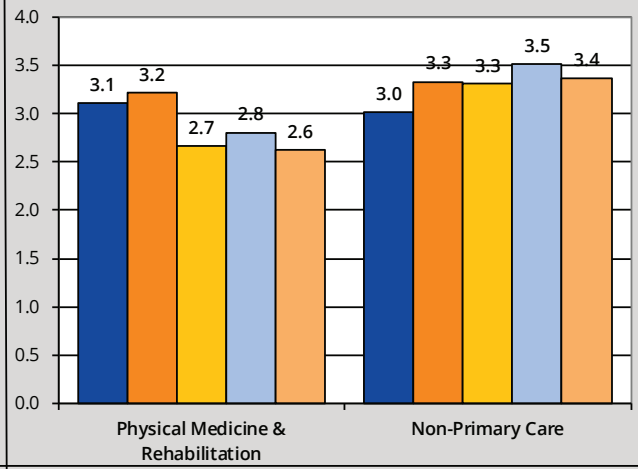
## Specialty: Physical Medicine & Rehabilitation

Legend: 2014 2015 2016 2017 2018

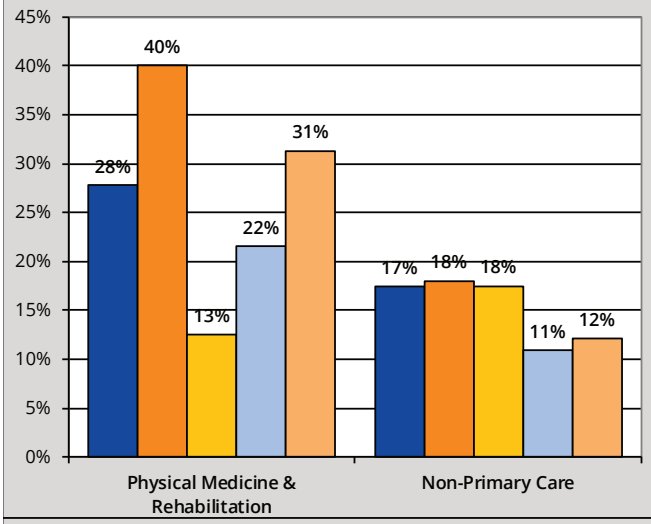
*Trends in Median Starting Income,* 2014 - 2018 (in $1,000s of 2018 dollars)*



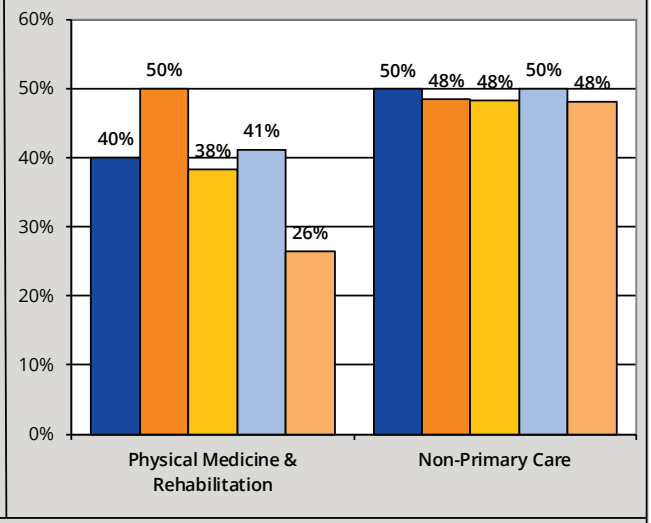

*Trends in Mean Number of Job Offers Received,* 2014 - 2018*



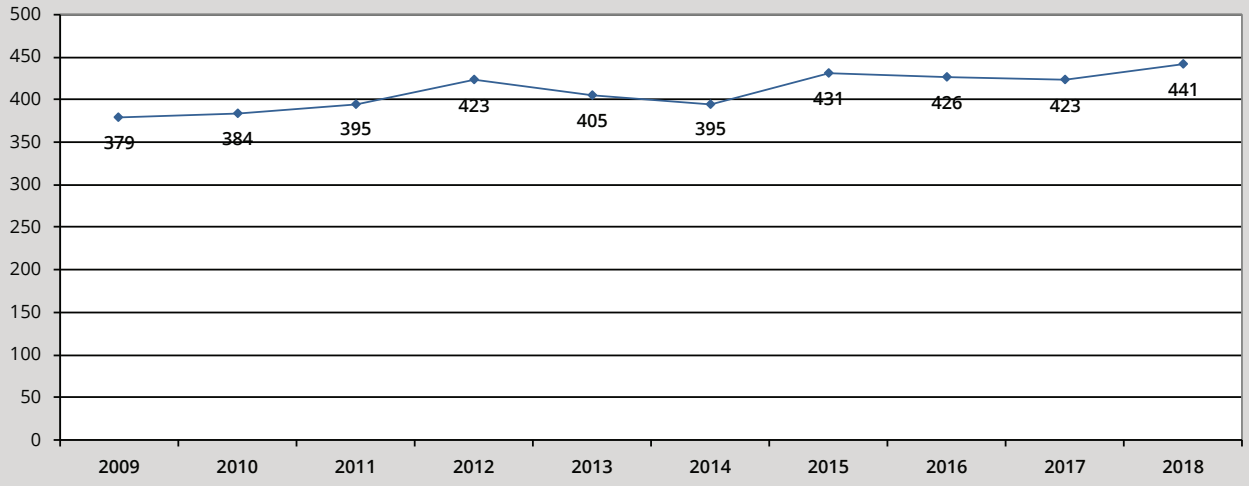

*Trends in Having to Change Plans Due to Limited Practice Opportunities,* 2014 - 2018*




*Trends in Relative Demand* - Percentile Rank of Physical Medicine & Rehabilitation, 2014 - 2018*




*Trends in Number of Graduates of Allopathic Physical Medicine & Rehabilitation GME Programs in the US,** 2009 - 2018*




Number of responses: 2014: n = 19, 2015: n = 15, 2016: n = 21, 2017: n = 27, 2018: n = 18.

*Source: CHWS, Survey of Residents Completing Training in New York, 2014 - 2018.

**Source: *JAMA Medical Education Issues*, 2009 - 2018.

# Appendix A

# METHODOLOGY USED TO MEASURE RELATIVE DEMAND

The Resident Exit Survey cannot be used to determine *absolute* demand for new physicians in different specialties (ie, it cannot be used to determine the number of physicians necessary to serve a given population). However, by analyzing several questions pertaining to job market experiences and perceptions of new physicians and comparing responses over time, in different geographical locations, and between specialties, it is possible to assess whether respondents from certain specialties or in certain locations are finding more or fewer practice opportunities (ie, it measures *relative* demand).

The implication is that while a specialty, such as pathology, may be in low demand relative to other specialties in an absolute sense, there may still be good opportunities for pathologists, but not as good or as many as another specialist that is seeing higher demand (such as child and adolescent psychiatry). In addition, it is not possible to measure the magnitude of the difference in demand between different specialties. So, if the percentile rank of family medicine in New York in 2018 was 88% (ie, general internal medicine had a relative rank equal to or better than 88% of the 34 specialties that were ranked), and the percentile rank of pain management was 53%, this does not imply that demand for genral internal medicine was more than twice as strong as for pain management. The scale is at the ordinal level of measurement.

To measure demand for a given year, a composite score was computed by taking the median of the ranks (ie, where each specialty stood relative to all 34 specialties) scored by each specialty on each of the demand indicators for data from the previous 4 years of the survey. Data from more recent years of the survey received a greater weight than data from earlier years. For example, when calculating the demand score for 2018, data from 2018 were weighted .40, data from 2017 were weighted .30, data from 2016 were weighted .20, and data from 2015 were weighted .10. The following variables were used as indicators of demand:

- Percentage of respondents having difficulty finding a satisfactory practice position
- Percentage of respondents having to change plans due to limited practice opportunities
- Mean number of job offers received by respondents
- Respondents' mean Likert score summarizing their assessment of the regional job market
- Respondents' mean Likert score summarizing their assessment of the national job market
- Trend (ie, average annual change) in median starting income

None of these indicators used alone will provide a perfect picture of demand. However, considered together, they provide a good picture of relative demand by specialty. There was a high degree of correlation between the "percentage of respondents with difficulty finding a satisfactory practice position" variable and the "percentage of respondents having to change plans due to limited practice opportunities" variable (ie, a respondent reporting "difficulty…" was much more likely to also report "having to change plans…"). There was also a high degree of correlation between respondents' assessments of the "regional job market" and the "national job market." To compensate for these observed correlations, the "job offers" variable and the "trends in starting income" variable were each double weighted in computing a composite demand score.

Table 1 summarizes the rank of each specialty (ranked among 34 specialties) on each demand indicator. The variables are:

- ***Difficulty:*** Rank of each specialty based on the percentage of respondents reporting difficulty finding a satisfactory practice position → eg, the specialty with the lowest percentage of respondents reporting difficulty (internal medicine and pediatrics combined) ranked #1 and the specialty with the highest percentage of respondents reporting difficulty (pathology) ranked #34.

- ***Change Plans:*** Rank of each specialty based on the percentage of respondents that had to change plans due to practice opportunities → eg, the specialty with the lowest percentage of respondents having to change plans (family medicine) ranked #1 and the specialty with the highest percentage of respondents reporting difficulty (infectious disease) ranked #34.

- ***Job Offers:*** Rank of each specialty in terms of the mean number of job offers received by respondents (this variable was double weighted in computing the overall demand score) → eg, the specialty with the most job offers (dermatology) ranked #1 and the specialty with the fewest job offers (pathology) ranked #34.

- ***Regional Market:*** Rank of each specialty in terms of the mean Likert score summarizing respondents' assessments of the regional job market for their specialty → eg, the specialty with the most positive assessment of the regional job market (adult psychiatry) ranked #1 and the specialty with the least positive assessment of the regional job market (cardio-thoracic surgery) ranked #34.

- ***National Market:*** Rank of each specialty in terms of the mean Likert score summarizing respondents' assessments of the national job market for their specialty → eg, the specialty with the most positive assessment of the national job market (emergency medicine) ranked #1 and the specialty with the least positive assessment of the national job market (pathology) ranked #34.

- ***Income Trend:*** Rank of each specialty in terms the average annual change (or trend) in median starting income levels of respondents from each specialty → eg, the specialty with the strongest trend in median starting income (internal medicine and pediatrics combined) ranked #1 and the specialty with the weakest trend in median starting income (rheumatology) ranked #34.

*Table 1. Summary of Ranks and Demand Indicators*

| Specialty | Difficulty | Change Plans | Job Offers[a] | Regional Market | National Market | Income Trends[a] | Median Rank | Overall Rank | Percentile Rank[b] |
|---|---|---|---|---|---|---|---|---|---|
| Family Medicine | 7 | 1 | 3 | 3 | 3 | 22 | 3.0 | 1.0 | 100% |
| General Internal Medicine | 8 | 9 | 2 | 7 | 5 | 23 | 7.5 | 5.0 | 88% |
| General Pediatrics | 12 | 11 | 26 | 13 | 15 | 5 | 12.5 | 10.0 | 74% |
| Internal Medicine and Pediatrics (Combined) | 1 | 20 | 13 | 8 | 23 | 1 | 10.5 | 8.0 | 79% |
| Ob/Gyn | 17 | 19 | 17 | 14 | 14 | 8 | 15.5 | 14.0 | 62% |
| Cardiology | 27 | 25 | 12 | 27 | 27 | 24 | 24.5 | 27.0 | 24% |
| Critical Care Med | 21 | 30 | 10 | 18 | 6 | 7 | 10.0 | 7.0 | 82% |
| Endocrinology and Metabolism | 25 | 7 | 7 | 11 | 18 | 14 | 12.5 | 10.0 | 74% |
| Gastroenterology | 10 | 15 | 9 | 9 | 11 | 25 | 10.5 | 8.0 | 79% |
| Geriatrics | 14 | 24 | 11 | 15 | 20 | 9 | 12.5 | 10.0 | 74% |
| Hematology/Oncology | 31 | 23 | 19 | 29 | 22 | 15 | 20.5 | 23.0 | 35% |
| Infectious Disease | 33 | 34 | 24 | 25 | 32 | 16 | 24.5 | 27.0 | 24% |
| Nephrology | 34 | 33 | 18 | 30 | 33 | 30 | 30.0 | 31.0 | 12% |
| Pulmonary Disease | 13 | 21 | 15 | 21 | 9 | 21 | 18.0 | 18.0 | 50% |
| Rheumatology | 22 | 5 | 20 | 20 | 21 | 34 | 20.5 | 23.0 | 35% |
| General Surgery | 18 | 13 | 23 | 19 | 10 | 31 | 21.0 | 25.0 | 29% |
| Neurosurgery | 6 | 12 | 25 | 26 | 26 | 13 | 19.0 | 20.0 | 44% |
| Ophthalmology | 15 | 17 | 33 | 23 | 19 | 3 | 18.0 | 18.0 | 50% |
| Orthopedic | 16 | 14 | 27 | 22 | 24 | 12 | 19.0 | 20.0 | 44% |
| Otolaryngology | 11 | 16 | 22 | 12 | 16 | 26 | 19.0 | 20.0 | 44% |
| Cardio-Thoracic Surg | 20 | 26 | 29 | 34 | 29 | 4 | 27.5 | 29.0 | 18% |
| Urology | 23 | 8 | 14 | 16 | 13 | 33 | 15.0 | 13.0 | 65% |
| Anesthesiology | 5 | 6 | 21 | 5 | 12 | 20 | 16.0 | 15.0 | 59% |
| Pain Management | 26 | 29 | 8 | 24 | 25 | 11 | 17.5 | 17.0 | 53% |
| Pathology | 32 | 32 | 34 | 33 | 34 | 27 | 32.5 | 34.0 | 3% |
| Radiology | 24 | 22 | 30 | 28 | 28 | 32 | 29.0 | 30.0 | 15% |
| Adult Psychiatry | 4 | 3 | 5 | 1 | 2 | 6 | 4.5 | 3.0 | 94% |
| Child and Adolescent Psychiatry | 9 | 10 | 6 | 2 | 4 | 10 | 7.5 | 5.0 | 88% |
| Allergy and Immunology | 28 | 31 | 31 | 32 | 30 | 19 | 30.5 | 32.0 | 9% |
| Dermatology | 3 | 4 | 1 | 6 | 8 | 29 | 5.0 | 4.0 | 91% |
| Emergency Medicine | 2 | 2 | 4 | 4 | 1 | 18 | 4.0 | 2.0 | 97% |
| Neurology | 19 | 18 | 16 | 10 | 7 | 28 | 17.0 | 16.0 | 56% |
| Pediatric Subspecialties | 30 | 27 | 32 | 31 | 31 | 17 | 30.5 | 32.0 | 9% |
| Physical Medicine and Rehabilitation | 29 | 28 | 28 | 17 | 17 | 2 | 22.5 | 26.0 | 26% |

[a] The job offers variable and the income trend variable were each double weighted in computing the median rank.
[b] The percentile rank is the percentage of all 34 specialties with an overall demand rank equal to or lower than each specialty.

***The following example illustrates how the demand score was calculated for Family Medicine in New York in 2018:***

Median $Rank_{FM}$ = median (difficulty, change plans, job offers, job offers, regional market, national market, income trends, income trends)

Median $Rank_{FM}$ = median (7, 1, 3, 3, 3, 3, 22, 22)

Median $Rank_{FM}$ = **3.0**

With a median rank of 3.0, Family Medicine overall ranked 1st out of 34 specialties.

The ***percentile rank*** is computed as:

$\%rank_{FM}$ = { 1 – (RankFM / #Specs) + (1 / #Specs) }

"#Specs" = the number of specialties being ranked

In New York in 2018, there were 34 specialties being ranked, so the percentile rank of Family Medicine is:

$\%rank_{FM}$ = { 1 – (1 / 34) + (1 / 34) } = **100%**.

# Appendix B

# SPECIALTY COMPARISON GROUPS

| Specialty | Comparison Group[a] |
|---|---|
| Family Medicine | Primary Care |
| General Internal Medicine | Primary Care |
| General Pediatrics | Primary Care |
| Internal Medicine and Pediatrics (Combined) | Primary Care |
| Obstetrics/Gynecology | Non-Primary Care |
| Cardiology | Medicine Subspecialties |
| Critical Care Medicine | Medicine Subspecialties |
| Endocrinology and Metabolism | Medicine Subspecialties |
| Gastroenterology | Medicine Subspecialties |
| Geriatrics | Medicine Subspecialties |
| Hematology/Oncology | Medicine Subspecialties |
| Infectious Disease | Medicine Subspecialties |
| Nephrology | Medicine Subspecialties |
| Pulmonary Disease | Medicine Subspecialties |
| Rheumatology | Medicine Subspecialties |
| General Surgery | Non-Primary Care |
| Neurosurgery | Surgical Subspecialties |
| Ophthalmology | Surgical Subspecialties |
| Orthopedic Surgery | Surgical Subspecialties |
| Otolaryngology | Surgical Subspecialties |
| Cardio-Thoracic Surgery | Surgical Subspecialties |
| Urology | Surgical Subspecialties |
| Anesthesiology | Non-Primary Care |
| Pain Management | Non-Primary Care |
| Pathology | Non-Primary Care |
| Radiology | Non-Primary Care |
| Adult Psychiatry | Non-Primary Care |
| Child and Adolescent Psychiatry | Non-Primary Care |
| Allergy and Immunology | Non-Primary Care |
| Dermatology | Non-Primary Care |
| Emergency Medicine | Non-Primary Care |
| Neurology | Non-Primary Care |
| Pediatric Subspecialties | Non-Primary Care |
| Physical Medicine and Rehabilitation | Non-Primary Care |

[a] In each specialty profile, statistics for the specialty are presented next to the average of all specialties in the group to which the specialty belongs (ie, the comparison group). As an example, the starting median of family practice is compared to the median starting income of all primary care. Likewise, the relative demand (or percentile rank) of cardiology is compared against the average percentile rank of all medicine subspecialties.

# Appendix C

# NY RESIDENT EXIT SURVEY INSTRUMENT

# Survey of Residents Completing Training in NY in 2018

Center for Health Workforce Studies | University at Albany, School of Public Health
1 University Place / Suite 220 | Rensselaer, NY 12144-3445

**Marking Instructions**

1. Use a pencil or blue or black ink only.
2. Do not use pens with ink that soaks through the paper.
3. Make solid marks that fill the circle completely.
4. Make no stray marks on this form.
5. Do not fold, tear, or mutilate this form.

CORRECT

INCORRECT

**ACGME Residency Program #**
***For Office Use***

This questionnaire should be completed by all physicians completing a residency/fellowship training program in New York in 2018 (excluding preliminary training positions).

**FIRST NAME**

**LAST NAME**

**Main Hospital at Which You Did Your Training:**

For each question ***mark only one answer*** unless otherwise directed.

## A. BACKGROUND

**1. Gender:** ○ Male ○ Female **2. Age:**

**3. Citizenship Status:**
- ○ Native born US
- ○ Naturalized US
- ○ Permanent resident
- ○ H-1, H-2, H-3 Temporary worker
- ○ J-1, J-2 Exchange visitor

**4. A. Are you of Hispanic/Latino origin?**
○ Yes ○ No

**B. What is your race?** ***(mark all that apply)***
- ○ American Indian/Alaska Native
- ○ Asian or Pacific Islander
- ○ Black/African American
- ○ White
- ○ Other

**5. A. Which best describes your current relationship status?**
- ○ Married
- ○ in Long-term Relationship
- ○ Divorce/Separated/Widowed *(skip to Question 6)*
- ○ Never Married/Single *(skip to Question 6)*

**B. If currently married or in a long-term relationship, is your partner also a physician?**
○ Yes ○ No ○ Question does not apply

**6. Do you have any dependent children?**
○ Yes ○ No

**7. Where did you live when you graduated from high school?**
○ New York ○ Canada
○ Other US state ○ Other country

## B. MEDICAL EDUCATION AND TRAINING

**8. At the end of your current year of training, how many total years of post-graduate training will you have completed in the US?**
○ 1 ○ 2 ○ 3 ○ 4 ○ 5 ○ 6 or more

**9. Type of Medical Education:**
○ Allopathic (M.D.) ○ Osteopathic (D.O.)

**10. Medical School Attended:**
○ New York (*if yes, complete below*) ○ Canada
○ Other US state ○ Other country

**Specify if in NY:**
- ○ Albany Medical College
- ○ Albert Einstein College of Med of Yeshiva University
- ○ Columbia College of Physicians and Surgeons
- ○ CUNY School of Medicine
- ○ Hofstra North Shore-LIJ School of Medicine
- ○ Icahn School of Medicine at Mount Sinai
- ○ New York Medical College
- ○ NYIT College of Osteopathic Medicine
- ○ NYU School of Medicine
- ○ Stony Brook University School of Medicine
- ○ SUNY Downstate Medical Center
- ○ Univ at Buffalo School of Medicine and Biomed Sci, SUNY
- ○ Upstate Medical University, SUNY
- ○ Touro College of Osteopathic Medicine
- ○ University of Rochester School of Med and Dentistry
- ○ Weill Cornell Medical College

**11. What is your current level of education debt?**
- ○ None
- ○ Less than $50,000
- ○ $50,000-$99,999
- ○ $100,000-$149,999
- ○ $150,000-$199,999
- ○ $200,000-$249,999
- ○ $250,000-$299,999
- ○ $300,000-$349,999
- ○ $350,000-$399,999
- ○ $400,000 and over

continue . . .

**12. Specialty you are COMPLETING in 2018 *(mark only one)*:**

- ○ Allergy and Immunology
- ○ Anesthesiology (General)
  - ○ Anesthesiology-Pain Management
  - ○ Other Anesthesiology Subspecialty-*specify below*
- ○ Dermatology
- ○ Emergency Medicine
- ○ Family Medicine
- ○ Internal Medicine (General)
  - ○ Cardiology
  - ○ Critical Care Medicine
  - ○ Endocrinology and Metabolism
  - ○ Gastroenterology
  - ○ Geriatrics
  - ○ Hematology/Oncology
  - ○ Infectious Disease
  - ○ Nephrology
  - ○ Pulmonary Disease/CCM
  - ○ Rheumatology
  - ○ Other Internal Medicine Subspecialty-*specify below*
- ○ Internal Medicine and Pediatrics (Combined)
- ○ Neurology
- ○ Nuclear Medicine
- ○ Obstetrics and Gynecology (General)
  - ○ OB/GYN (Subspecialty)-*specify below*
- ○ Pathology (General)
  - ○ Pathology (Subspecialty)-*specify below*
- ○ Pediatrics (General)
  - ○ Pediatrics (Subspecialty)-*specify below*
- ○ Physical Medicine and Rehabilitation
- ○ Preventive Medicine/Public Health/Occupational Med
- ○ Psychiatry
  - ○ Child and Adolescent Psychiatry
  - ○ Other Psychiatry Subspecialty-*specify below*
- ○ Radiology (Diagnostic)
- ○ Radiology (Therapeutic)
- ○ Surgery (General)
  - ○ Cardio-Thoracic Surgery
  - ○ Neurological Surgery
  - ○ Ophthalmology
  - ○ Orthopedic Surgery
  - ○ Otolaryngology
  - ○ Plastic Surgery
  - ○ Urology
  - ○ Other Surgical Subspecialty-*specify below*
- ○ Other-*specify below*

***If you chose an "Other" specialty category, please specify:***

_____

**13. What do you expect to be doing after completion of your current training program?**

- ○ Patient care/clinical practice (in non-training position)
- ○ Additional subspecialty training or fellowship (*specify specialty*): _____
- ○ Chief resident
- ○ Teaching/research (in non-training position)
- ○ Temporarily out of medicine
- ○ Other (*specify*): _____
- ○ Undecided/Don't know yet

## C. FUTURE PLANS

**14. If you are going on for additional training/fellowship, please answer the following:**

**A. Why are you subspecializing/continuing training? *(mark all that apply)***

- ○ To further your medical education
- ○ Unable to find a job you are happy with
- ○ Unable to find any job
- ○ To stay in the US (ie, due to visa status)
- ○ Other (*specify*): _____
- ○ Always intended to subspecialize
- ○ Question does not apply

**B. If you are leaving NY to continue your training, do you plan to return to NY to practice when your training is complete?**

○ Yes ○ Don't know yet
○ No ○ Question does not apply

**15. If you are not going on for additional training/fellowship or serving as a chief resident, are you joining a medical school as a faculty member?**

○ Yes ○ No ○ Question does not apply

**16. In your upcoming position, how many hours per week do you expect to spend in each of the following activities?**

| | None | 1-9 | 10-19 | 20-29 | 30-39 | 40-49 | 50-59 | 60+ |
|---|---|---|---|---|---|---|---|---|
| Direct patient care: | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Research: | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Teaching: | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Administration: | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Volunteering/ community service: | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |

**17. Where is the location of your primary activity after completing your current training position?**

- ○ Same city/county as current training
- ○ Same region within NY, but different city/county
- ○ Other area within NY
- ○ Other state
- ○ Outside the US
- ○ Don't know yet

**18. Do you have an obligation or visa requirement to work in a federally designated Health Professional Shortage Area?**

○ Yes ○ No

**19. How important is it for you to have control over the following job characteristics:**

| | Not at all important | Of little importance | Important | Very important |
|---|---|---|---|---|
| Predictable start and end time each workday | ○ | ○ | ○ | ○ |
| Length of each workday | ○ | ○ | ○ | ○ |
| Frequency of overnight calls | ○ | ○ | ○ | ○ |
| Frequency of weekend duties | ○ | ○ | ○ | ○ |

**20. If you are planning to enter or have considered entering patient care/clinical practice:**

**A. Have you actively searched for a job?**

○ Yes ○ No, not yet ○ No, I will be self-employed

**B. Have you been offered a job?**

○ Yes, and I have accepted an offer

○ Yes, but I declined the offer(s) and am still searching
*(Skip to Question 28)*

○ No, but I have not actively searched yet
*(Skip to Question 28)*

○ No, I have not yet been offered a practice position
*(Skip to Question 28)*

## D. PRACTICE PLANS

***If you have accepted a position in patient care/clinical practice, please answer the following questions, if not, skip to Question 28.***

**21. Which best describes the type of patient care practice you will be entering?**

| Principal Practice Setting *(mark only one)* | Secondary Practice Setting(s) *(mark all that apply)* | |
|---|---|---|
| ○ | ○ | Solo practice |
| ○ | ○ | Partnership (2 people) |
| ○ | ○ | Group practice (owner/partner) |
| ○ | ○ | Group practice (employee) |
| ○ | ○ | Hospital-Inpatient |
| ○ | ○ | Hospital-Ambulatory care |
| ○ | ○ | Hospital-Emergency room |
| ○ | ○ | Freestanding health center/clinic |
| ○ | ○ | Nursing home |
| ○ | ○ | Other-*specify below* |

***If you chose "Other", please specify:***

**22. A. What is the zip code of the principal practice address where you will be working? If zip code is unknown, please give city or town and state.**

Principal Practice Zip Code: ☐☐☐☐☐ State: ☐☐

City/Town:

**B. Is this principal practice address located in a federally designed Health Professional Shortage Area?**

○ Yes ○ No ○ I don't know

**C. If you are *not* going to practice in NY, please indicate the reasons why. In the first column, indicate all of the reasons why *(mark all that apply)*. In the second column, indicate the main reason why *(mark only one)*.**

| | All Reasons *(mark all that apply)* | Main Reason *(mark only one)* |
|---|---|---|
| **Practice Reasons** | | |
| Overall lack of jobs/practice opportunities in NY | ○ | ○ |
| Better jobs/practice opportunities in desired locations outside NY | ○ | ○ |
| Better jobs/practice opportunities in desired practice setting (eg, hospital, group practice, etc.) outside NY | ○ | ○ |
| Better jobs/practice opportunities outside NY that meet visa status requirements | ○ | ○ |
| **Financial Reasons** | | |
| Better salary/compensation offered outside NY | ○ | ○ |
| Cost of malpractice insurance in NY | ○ | ○ |
| Cost of establishing a medical practice in NY | ○ | ○ |
| Taxes in NY | ○ | ○ |
| Cost of living in NY | ○ | ○ |
| **Personal Reasons** | | |
| Proximity to family | ○ | ○ |
| Better employment opportunities for spouse/ partner outside NY | ○ | ○ |
| Climate (eg, weather) | ○ | ○ |
| **Other Reasons** | | |
| Never intended to practice in NY | ○ | ○ |
| Other reason-*specify below* | ○ | ○ |

***If you chose "Other reason", please specify:***

continue . . .

**23. How many years do you expect to be at your principal practice?**

○ 1 ○ 2 ○ 3 ○ 4 ○ 5 or more

**24. Which best describes the demographics of the area in which you will be practicing?**

○ Inner city
○ Other area within major city
○ Suburban
○ Small city (population less than 50,000)
○ Rural

**25. A. Please identify all of the incentives you received for accepting this practice position *(mark all that apply)*. Also, please indicate the most influential incentive in your decision to accept this practice position *(mark only one)*.**

| Incentives Received | Most Influential Incentive | |
|---|---|---|
| ○ ---------- | ○ ------- | H-1 visa sponsorship |
| ○ ---------- | ○ ------- | J-1 visa waiver |
| ○ ---------- | ○ ------- | Sign-on bonus |
| ○ ---------- | ○ ------- | Income guarantees |
| ○ ---------- | ○ ------- | On-call payments |
| ○ ---------- | ○ ------- | Relocation allowances |
| ○ ---------- | ○ ------- | Spouse/Partner job transition assistance |
| ○ ---------- | ○ ------- | Support for maintenance of certification/continuing med. education |
| ○ ---------- | ○ ------- | Career development opportunities |
| ○ ---------- | ○ ------- | Educational loan payment |
| ○ ---------- | ○ ------- | Other-*specify:* _____ |
| ○ ---------- | ○ ------- | None |

**B. If you received any incentives, how important were they in your decision to accept this practice position?**

○ Not at all important ○ Important
○ Of little importance ○ Very important

**26. Expected gross income during first year of practice:**

| Base Salary/Income | Anticipated Additional Incentive Income |
|---|---|
| ○ Less than $75,000 | ○ None |
| ○ $75,000-$99,999 | ○ Less than $5,000 |
| ○ $100,000-$124,999 | ○ $5,000-$9,999 |
| ○ $125,000-$149,999 | ○ $10,000-$14,999 |
| ○ $150,000-$174,999 | ○ $15,000-$19,999 |
| ○ $175,000-$199,999 | ○ $20,000-$24,999 |
| ○ $200,000-$224,999 | ○ $25,000-$29,999 |
| ○ $225,000-$249,999 | ○ $30,000-$34,999 |
| ○ $250,000-$274,999 | ○ $35,000-$39,999 |
| ○ $275,000-$299,999 | ○ $40,000-$44,999 |
| ○ $300,000-$324,999 | ○ $45,000-$49,999 |
| ○ $325,000-$349,999 | ○ $50,000-$54,999 |
| ○ $350,000-$374,999 | ○ $55,000 -$59,999 |
| ○ $375,000 and over | ○ $60,000 and over |

**27. What is your level of satisfaction with your salary/ compensation?**

○ Very dissatisfied ○ Somewhat satisfied
○ Somewhat dissatisfied ○ Very satisfied

## E. EXPERIENCE IN JOB MARKET

***(If you are going into patient care or have considered going into patient care, please complete the following.)***

**28. A. Did you have difficulty finding a practice position you were satisfied with?**

○ Yes
○ No
○ Haven't looked yet *(skip to Question 31)*

**B. If Yes, what would you say was the main reason? *(mark only one)***

○ Overall lack of jobs/practice opportunities
○ Lack of jobs/practice opportunities that meet visa status requirement
○ Lack of job/practice opportunities in desired locations
○ Lack of job/practice opportunities in desired practice setting (eg, hospital, group practice, etc.)
○ Inadequate salary/compensation offered
○ Lack of employment opportunities for spouse/partner
○ Other-*specify*: _____

**29. Did you have to change your plans because of limited practice opportunities?**

○ Yes
○ No
○ Haven't looked yet *(skip to Question 31)*

**30. How many offers for practice positions did you receive (*excluding fellowships, chief residency, and other training positions)*?**

○ None ○ 1 ○ 2 ○ 3
○ 4 ○ 5 ○ 6-10 ○ Over 10

**31. What is your overall assessment of practice opportunities in your specialty, and within 50 miles of the site where you trained?**

○ No jobs ○ Some jobs
○ Very few jobs ○ Many jobs
○ Few jobs ○ Unknown

**32. What is your overall assessment of practice opportunities in your specialty nationally?**

○ No jobs ○ Some jobs
○ Very few jobs ○ Many jobs
○ Few jobs ○ Unknown

**THANK YOU FOR COMPLETING THIS IMPORTANT SURVEY.**

## About the Authors

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