



## OUR RESIDENCY RESEARCH METHODOLOGY

Doximity's Residency Navigator is a tool built to help medical students make informed residency decisions and to increase transparency in the residency match process.

Residency Navigator is comprised of three major parts - (1) current resident and recent alumni satisfaction data, (2) reputation data, and (3) objective data. Satisfaction data is derived from satisfaction survey responses from each residency's current residents and recent graduates. Since Residency Navigator first launched in 2014, there has been over **43,000** unique respondents to the satisfaction survey. Reputation data is derived from nomination survey responses, which is limited to board-certified physicians in that specialty and is alumni-weighted. For this year's Residency Navigator, there were over **48,000** U.S. board-certified physician respondents to the nomination survey. Objective data is compiled from a variety of public sources as well as our proprietary Doximity database, which covers all U.S. physicians, regardless of that physician's Doximity membership status.

The Residency Navigator user experience begins with a personalized search. Access to the public is limited in scope, whereas medical student and physician members of Doximity can customize extensive search parameters such as geography, training environment, program size and fellowship/subspecialization rates (for more information, see search page data and program page data below). From the search page, members select search parameters to generate a personalized list of programs that best suit their preferences and career goals, or browse a national map of programs in their specialty of interest. Each searcher can then explore detailed, program-level information by accessing individual residency program pages, including a new "people like you" section that highlights notable alumni such as those who graduated from the searcher's own medical school and attended that residency program. Medical student users can also bookmark programs to their own favorites list to add private, personalized notes about each program as they go through the application interview process.

The following document provides a detailed overview of the definition, source and data methodology used in the Residency Navigator.

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## ABOUT DOXIMITY

Doximity is the largest online professional network for U.S. physicians. Its comprehensive physician database includes every United States physician as identified by National Provider Identifier (NPI) number. Physician information is compiled from hundreds of sources including the United States Department of Health and Human Services NPI Registry, state medical boards, and specialty boards (e.g., American Board of Medical Specialties, American Board of Surgery). Doximity's proprietary database is additionally bolstered by more than **675,000** registered and identity-verified physician members who review and update their profiles to provide an additional set of primary data.

## RESIDENT SATISFACTION SURVEY

All verified physician members who are current residents or recent residency graduates and meet eligibility criteria may review their residency program experience in the Resident Satisfaction Survey from May 9, 2018 until Fall 2018.

Eligibility criteria:

- Have completed at least one year of an eligible residency
  - OR have graduated from an eligible residency within the past 10 years
- Residency was a U.S. based M.D. program in the following specialties:
  - Anatomic & Clinical Pathology
  - Anesthesiology
  - Child Neurology
  - Dermatology
  - Diagnostic Radiology
  - Emergency Medicine
  - Family Medicine
  - Internal Medicine
  - Interventional Radiology
  - Medical Genetics
  - Medicine/Pediatrics
  - Neurological Surgery
  - Neurology
  - Nuclear Medicine
  - Obstetrics & Gynecology
  - Ophthalmology
  - Orthopedic Surgery
  - Otolaryngology
  - Pediatrics
  - Physical Medicine & Rehabilitation
  - Plastic Surgery
  - Preventative Medicine
  - Psychiatry
  - Radiation Oncology
  - Surgery
  - Thoracic Surgery
  - Urology

- Vascular Surgery

Responses to the 2018 satisfaction survey are pooled with those from 2016 and 2017 before being displayed on the program pages. Responses are anonymized before publication. In the event that a physician has submitted more than one satisfaction survey, only the most recent submission is displayed.

A screenshot of the Satisfaction Survey instrument is below:

**What was life like at your residency program?**  
Help future applicants by sharing your experience at  
**MacNeal Hospital, Family Medicine Program**

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**How was your residency experience?**

Overall Willingness to recommend this program to others	☆☆☆☆☆
Work Hours Tolerability of shift and call schedules	☆☆☆☆☆
Schedule Flexibility Accommodation around weddings, pregnancy, deaths, etc.	☆☆☆☆☆
Career Guidance Support around job/fellowship placement and quality of mentorship	☆☆☆☆☆
Culture Cohesiveness of the residency and clinical community	☆☆☆☆☆
Clinical diversity Exposure to populations, diseases, procedures, and practice settings	☆☆☆☆☆

**Tell us more about your experience**

Review Headline

Write your review here, e.g. My residency program...

**How will my review appear?**  
All reviews will be screened prior to appearing on your program page and will be displayed anonymously.

*"Program director is very accessible"*  
*I didn't think I'd have such a roll up your sleeves experience with my PD. Dr. Morris is simply wonderful.*  
— Recent alumnus

**Become a Mentor**  
Mentors are available to answer questions via email from potential applicants about this residency program. Your status as a mentor, with a link to your Doximity profile, will appear on the program page.

Yes. I'm interested.

## REPUTATION DATA AMONG BOARD CERTIFIED PHYSICIANS

The 2018 nomination survey for clinical reputation spanned 25 specialties and was conducted from May 9 to June 10, 2018.

Design for the nomination survey was modeled, with permission, on the annual physician survey that is a component of U.S. News & World Report's Best Hospitals rankings. U.S. News editors also provided informal input into the design of the survey.

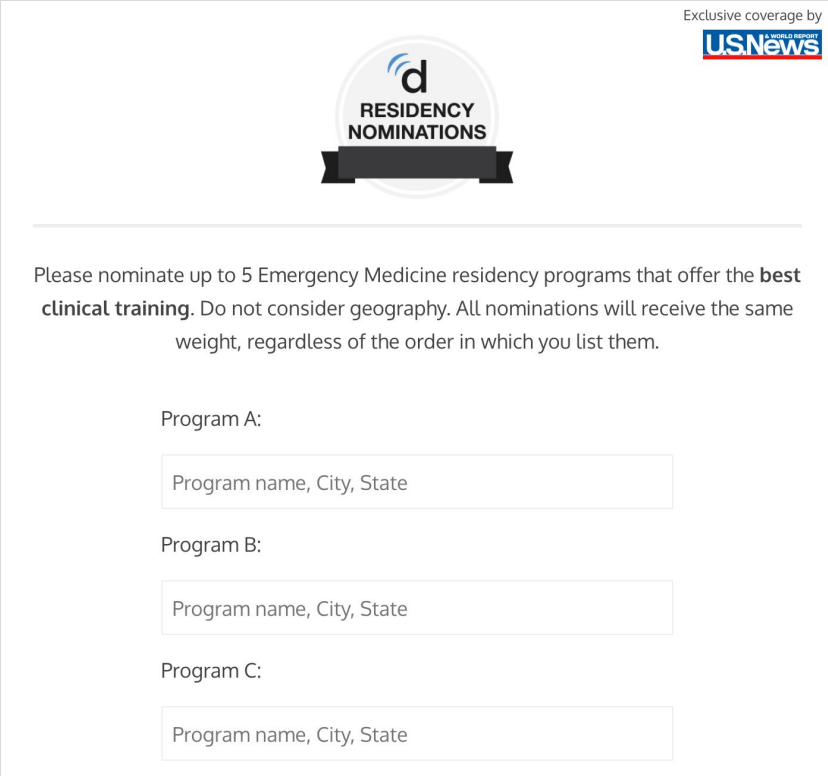
Eligible physicians who were Doximity members were prompted to submit nominations when they signed in to the Doximity website or via email. Eligible physicians who were not Doximity members were also able to share their nominations by registering and verifying with Doximity before the end of the survey period.

Eligibility to participate in the survey was determined by a physician's board certification (see table below):

PROGRAM	BOARD	SPECIALTY
Anatomic & Clinical Pathology	American Board of Pathology	Anatomic & Clinical Pathology
Anesthesiology	American Board of Anesthesiology	Anesthesiology
Child Neurology	American Board of Psychiatry and Neurology	Child Neurology
Dermatology	American Board of Dermatology	Dermatology
Diagnostic Radiology	American Board of Radiology	Diagnostic Radiology
Emergency Medicine	American Board of Emergency Medicine	Emergency Medicine
Family Medicine	American Board of Family Medicine	Family Medicine
Internal Medicine	American Board of Internal Medicine	Internal Medicine
Medical Genetics	American Board of Medical Genetics and Genomics	Medical Genetics
Medicine/Pediatrics	American Board of Internal Medicine and American Board of Pediatrics	Medicine/Pediatrics
Neurological Surgery	American Board of Neurological Surgery	Neurological Surgery
Neurology	American Board of Psychiatry and Neurology	Neurology

Nuclear Medicine	American Board of Nuclear Medicine	Nuclear Medicine
Obstetrics & Gynecology	American Board of Obstetrics and Gynecology	Obstetrics & Gynecology
Ophthalmology	American Board of Ophthalmology	Ophthalmology
Orthopaedic Surgery	American Board of Orthopaedic Surgery	Orthopaedic Surgery
Otolaryngology	American Board of Otolaryngology	Otolaryngology
Pediatrics	American Board of Pediatrics	Pediatrics
Physical Medicine & Rehabilitation	American Board of Physical Medicine and Rehabilitation	Physical Medicine & Rehabilitation
Plastic Surgery	American Board of Plastic Surgery	Plastic Surgery
Preventive Medicine	American Board of Preventive Medicine	Preventive Medicine
Psychiatry	American Board of Psychiatry and Neurology	Psychiatry
Radiation Oncology	American Board of Radiology	Radiation Oncology
Surgery	American Board of Surgery	Surgery
Urology	American Board of Urology	Urology

Each physician could nominate up to 5 residency programs using a survey instrument similar to the one below:



The image shows a survey instrument for residency nominations. At the top center is a circular logo with a stylized 'd' and the text 'RESIDENCY NOMINATIONS' below it. To the right of the logo is the text 'Exclusive coverage by' above the 'USNews' logo. Below the logo is a horizontal line. The main text of the survey reads: 'Please nominate up to 5 Emergency Medicine residency programs that offer the **best clinical training**. Do not consider geography. All nominations will receive the same weight, regardless of the order in which you list them.' Below this text are three input fields, each preceded by a label: 'Program A:', 'Program B:', and 'Program C:'. Each input field contains the placeholder text 'Program name, City, State'.

Over 48,000 verified, board-certified physicians participated in the nomination process. The results of the 2018 nomination survey were pooled with those of the 2016 and 2017 surveys such that only the most recent (2018) responses were counted for physicians that completed the survey more than once.

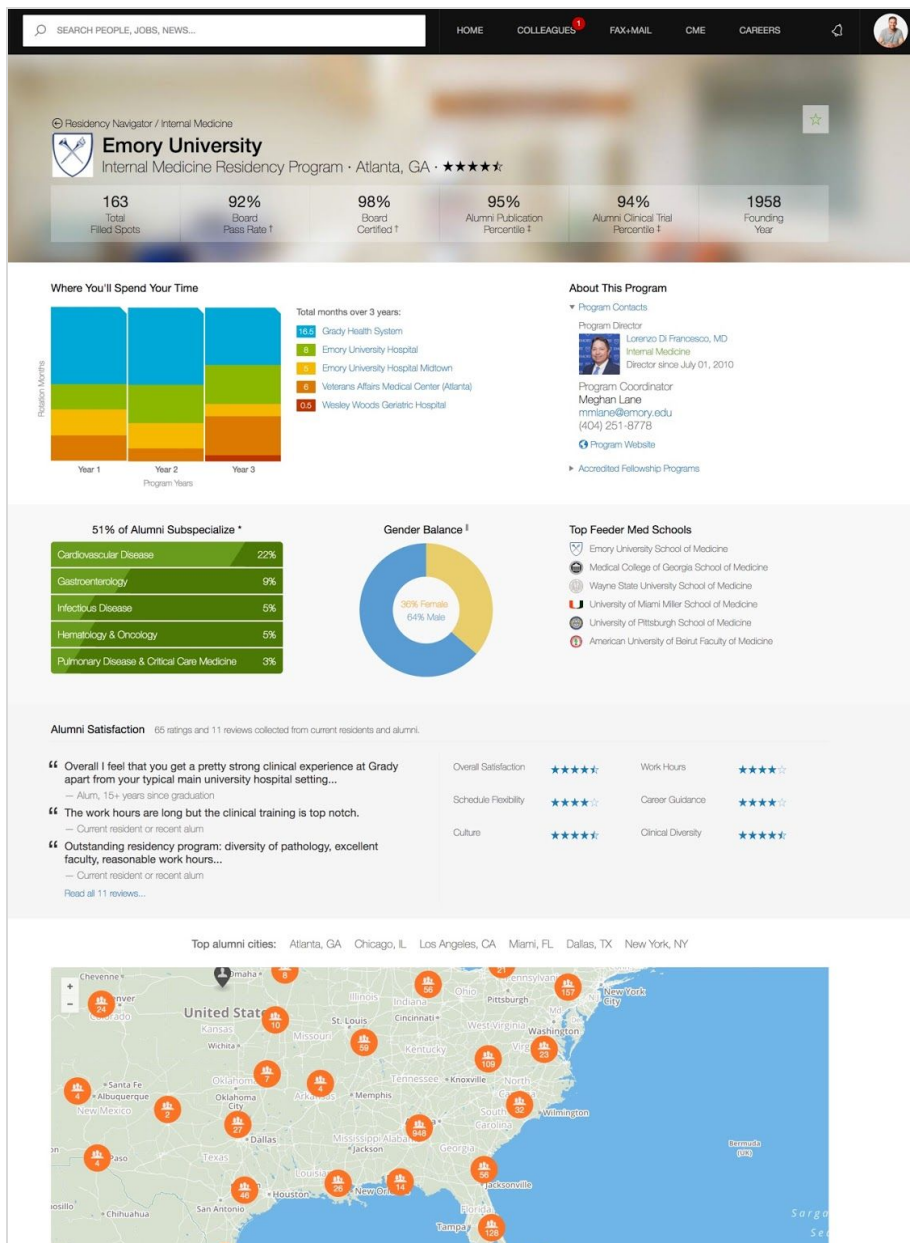
To account for self-nominations, all nominations were classified as alumni and non-alumni responses. Alumni nominations were weighted according to the percent of the eligible physician population that a particular program accounts for within that specialty (number of alumni divided by total eligible within the specialty).

## MEASUREMENT OF RESEARCH OUTPUT

Profile data of all U.S. physicians, regardless of membership with Doximity, were used to calculate research output score for each residency program's recent alumni base. This score was calculated from a combination of the collective h-index of publications authored by alumni graduating within the past 15 years, as well as research grants awarded. Each program's alumni research output was then compared to all other programs within the same specialty to create a percentile score. Research Output may be refreshed periodically to account for new alumni publication and clinical trial data. These updates may affect the Research Output sort order.

## PROGRAM PAGE DATA

An example program page is below. These complete pages are available to signed-in members only.



The following section provides further explanation of the main data listed on the program page not explained on the page itself. Unless otherwise specified, objective data derived from the Doximity database covers all physicians, regardless of Doximity membership status. Program pages may be refreshed throughout the year to account for updated data such as new alumni publications, fellowships, board certifications and practice settings. This may affect the Research Output, Percent Subspecialize and Percent Board Certified rates as well as their respective sort orders.

- **BOARD PASS RATES** Data is self-reported and published by individual boards for the specialties of Internal Medicine, Family Medicine, General Surgery and Pediatrics, but has not yet been released by other specialty boards. Data is not displayed for specialties whose boards have not released board pass rate data.
- **PERCENT BOARD CERTIFIED** Board certification percentage is calculated by measuring presence of an ABMS board certification for alumni who graduated between 2006 and 2015. This helps mitigate the expected lag in board certification post graduation. In addition, all residency graduates pursuing fellowship are also excluded from the denominator.
- **ALUMNI PUBLICATION PERCENTILE** Publication percentile is calculated from a combination of the collective h-index of publications authored by program alumni. Data is derived from publication analysis of alumni who graduated within the past 15 years, regardless of Doximity membership status.
- **ALUMNI CLINICAL TRIAL PERCENTILE** Alumni clinical trial percentile is calculated from clinical trial and grant data derived from Doximity profiles of alumni who graduated within the past 15 years, regardless of Doximity membership status.
- **TOP SUBSPECIALTIES BY ALUMNI** Subspecialty percentages and common subspecialties are derived from Doximity profile data of alumni who graduated within the past 10 years, taking into account current subspecialty, board certification, and fellowship data. The most common subspecialties for alumni following their residency are displayed. Discrepancy between the overall percentage who subspecialize and the aggregate top subspecialty percentages may exist because some physicians may have more than one subspecialty listed.
- **GENDER BALANCE** Gender balance percentage is derived from Doximity profile data of current residents and alumni who graduated within the past 10 years, regardless of Doximity membership status.
- **FEEDER MEDICAL SCHOOLS** Feeder medical school data is from Doximity profile data of alumni who graduated within the past 10 years. The most common medical schools among the alumni of a given residency are displayed.
- **SATISFACTION RATINGS AND REVIEWS** Data is derived from the responses of verified physician members who are current residents or recent alumni (having graduated from residency in the last 10 years) of the particular program. Responses are anonymized before publication. Published data reflects the 6 questions and 1 free text review prompt of the Satisfaction Survey instrument:
  - Overall satisfaction: Willingness to recommend this program to others
  - Work hours: Tolerability of shift and call schedules
  - Schedule flexibility: Accommodation for weddings, pregnancy, deaths, etc.
  - Career guidance: Support around job/fellowship placement; quality of mentorship
  - Culture: Cohesiveness of the residency and clinical community
  - Clinical diversity (Non-surgical residencies): Exposure to populations, diseases procedures, and practice settings



- **ALUMNI METRO AREAS** Data is derived from Doximity user profile data of alumni who graduated within the past 10 years. Metro areas are as defined by the [US Census Bureau](#).
- **ALUMNI MAP** Data is derived from Doximity user profile data. When an alumni population is significantly large, a subset of profiles will be displayed.

## **2018-2019 DATES OF INTEREST**

- September 2018: Satisfaction survey will remain open until Fall 2018.
- December 2018: Doximity will refresh all data related to the individual program page in preparation for increased website traffic coinciding with student preparation for their 2019 rank list submissions. Reputation order published in July 2018 will not be changed.
- Spring 2019: The satisfaction and nomination survey will be distributed again in Spring 2019.
- Summer 2019: Doximity will refresh all data in preparation for September application season.

Should you have any questions regarding this methodology, or marketing and press guidelines, please contact [residency@doximity.com](mailto:residency@doximity.com).

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