

Is Pediatrics For Me?

Jennifer Trainor, MD
Career Advising in Pediatrics
January 23, 2020



What's the attraction?

Kids:

- are cuter than adults
- get better faster than adults
- don't whine as much as adults
- usually don't cause their own illness



Common Myths

- All pediatricians do is see kids with runny noses & vomiting/diarrhea
- If you are AOA with great board scores, you shouldn't "waste" your hard work by going into an easy-to-match specialty
- All pediatricians have low salaries
- A career in pediatrics won't offer enough intellectual stimulation
- Only women go into pediatrics

Pediatricians can:

- Be primary care providers
- Have longitudinal relationships with children and families
- Resuscitate newborns in the delivery room & counsel adolescents on substance abuse & sexually transmitted illness both in the same day



Pediatricians can:

- Be subspecialty care providers
- Perform procedures multiple days per week
- OR never perform procedures



Pediatricians can:

- Work exclusively in hospital-based practice
 - ◆ In an academic environment
 - ◆ In a community environment
- Work exclusively in an outpatient-based practice
 - ◆ As clinicians
 - ◆ As clinician-educators
 - ◆ As clinician-educator, researcher
- Combine the two



Pediatricians can:

- Focus on health policy & public health
- Focus on advocacy
- Participate in international health opportunities
- Focus on research—
basic science,
translational, clinical



Former Lurie & Feinberg grads on Why Peds?

Why I am now so glad I went into Pediatrics (quite different than why I chose Pediatrics, when I knew nothing) in no certain order:



Pediatric
Emergency
Medicine

- I have never disliked a kid for acting like a kid. I may have disliked a parent or the way a parent treated me, but the relationship with the kid is always awesome.
- No one can ever say I am only in it for the money.
- Having our own babies and children is much easier, even if it is just feeling slightly less incompetent.
- Fixing a nursemaid's makes me feel heroic for doing very little.
- Reassuring our over-educated friends that their normal kids are ok is great.
- Pediatric residents, for the most part, perhaps because they are not chasing the most lucrative fields, are cooler and funnier to work with, followed by emergency medicine residents.



Kathy Howard



Gen Peds,
Focus Advocacy

- I loved the people who were already practicing it. I wanted to work with those kinds of doctors for the rest of my life. A truly compassionate selfless group of people, who managed to see the joy and humor in life despite dealing with unbelievable sadness and tragedy sometimes.
- And the children always brought such joy to my days.
- Plus, I've felt like a child advocate since my own tragic childhood, and whether in a small or large way was compelled to to keep children safe and do whatever I could to help them have happy, successful childhoods.
- I have never regretted my decision for a second.

Linda DiMeglio



Pediatric
Endocrinology

- I chose it because I was inspired to enter medicine by my own pediatrician.
- I stayed with it for many of the reasons noted previously.
- I also feel strongly about advocating for those who legally need adult voices and medically need someone always acting in their best interest.
- I love watching them grow and develop over the years and then being their friends and colleagues as adults.
- Shorter medical histories never hurt either!



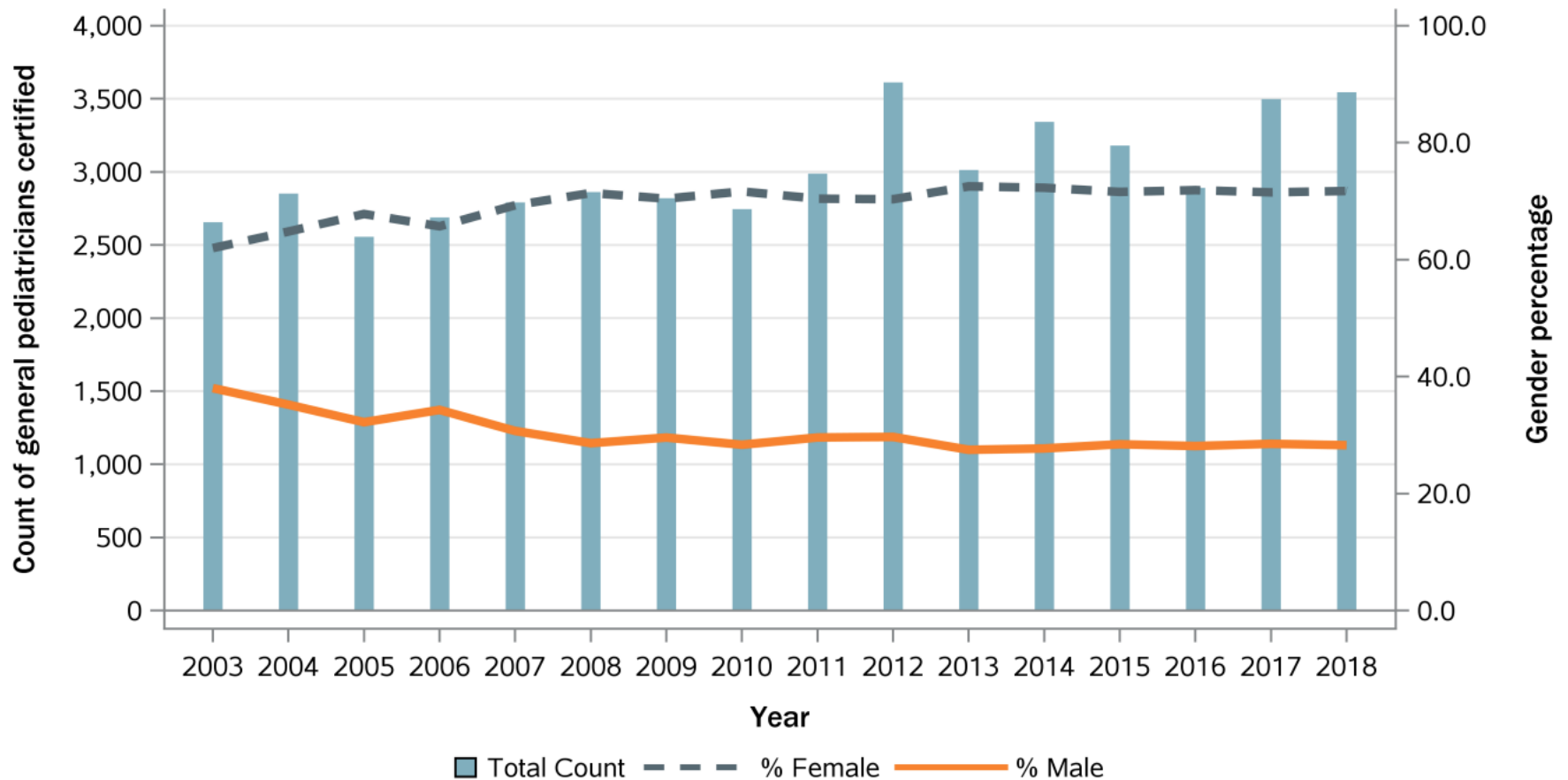
Pediatric Cardiac
Critical Care

Paul Checchia

- Honestly, I'm not 100% sure how I stumbled into peds. I had an overwhelming sense that pediatrics was a "noble" profession. It made far greater of an impact than internal medicine (at least in my mind).
- I also knew that, in general, I didn't like adults when they were sick.
- As far as my choice of critical care, I was an adrenaline junky. I remember a senior resident telling me about how you either like sick children or basically well children. If you like sick; you were heading toward PICU, ED, HemeOnc, Cards. If you like basically well children; Gen Peds, ID, Renal.
- What is more interesting to me is the things that I love about my career now have nothing to do with what I originally liked. ...the research, administration, team building, problem solving have all created fun challenges that I never would have anticipated.

How many pediatricians do we train?

Figure 1.1 Yearly Count of General Pediatricians Certified Since 2003 by Gender



Pediatrics & Subspecialties

Analysis by First-Year Trainees from Pediatric Specialties/Subspecialties (2014-2018)

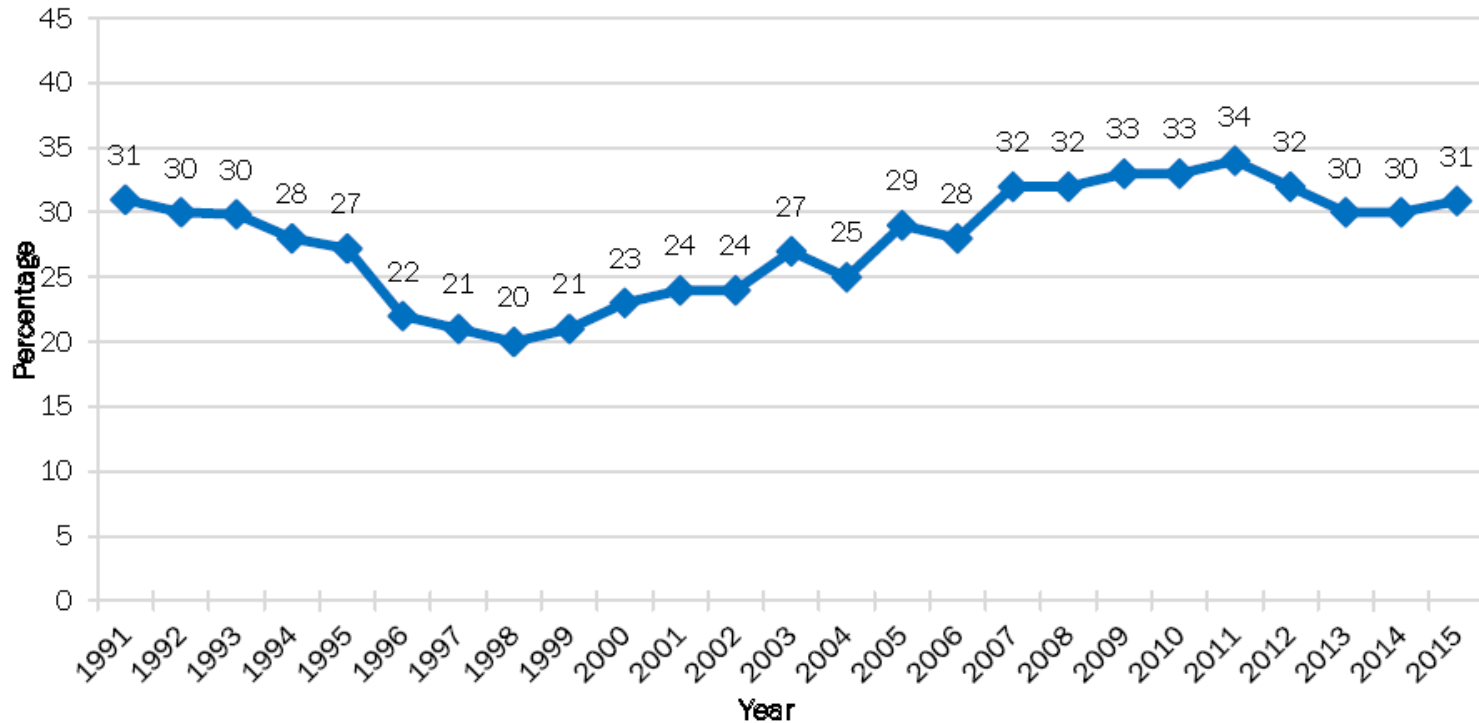
Select (click ↓) a specialty/subspecialty name to filter graphs below.

	2014	2015	2016	2017	2018
Pediatrics (Categorical)	3,076	3,080	3,133	3,161	3,204
Medicine-Pediatrics	373	379	386	381	378
Adolescent Medicine	28	35	34	29	31
Child Abuse Pediatrics	13	16	7	14	18
Developmental and Behavioral Pediatrics	32	40	30	41	42
Neonatal-Perinatal Medicine	257	261	261	258	268
Pediatric Cardiology	145	149	152	152	154
Pediatric Critical Care Medicine	171	179	179	190	193
Pediatric Emergency Medicine	168	168	187	191	189
Pediatric Endocrinology	85	88	81	82	82
Pediatric Gastroenterology	94	102	101	103	113
Pediatric Hematology/Oncology	171	169	168	167	161
Pediatric Infectious Diseases	66	50	58	62	60
Pediatric Nephrology	41	33	36	36	46
Pediatric Pulmonology	58	54	60	52	59
Pediatric Rheumatology	32	25	29	39	29

Data from ABP

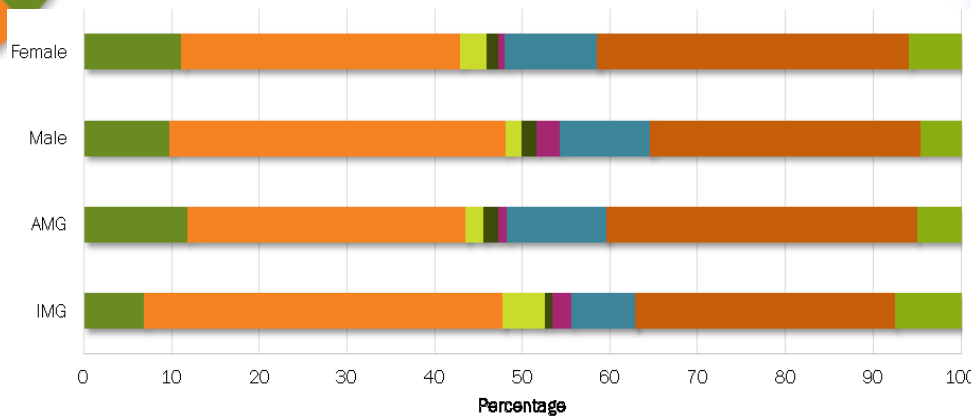
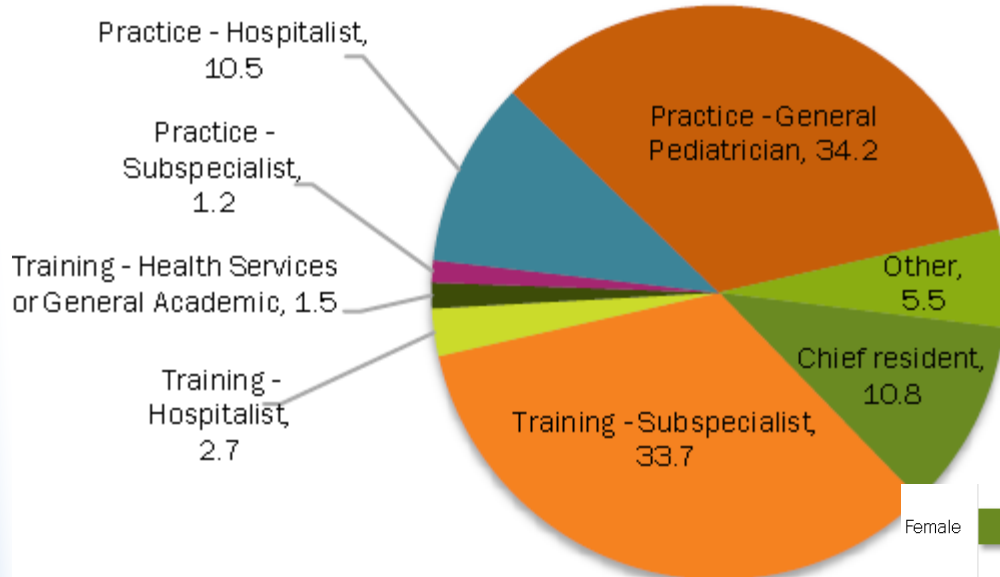
What percent of peds residents go into subspecialties?

General Pediatrics Career Trends
Percent of Respondents Selecting Subspecialty Career Areas Since 1991*



What do we know about recent residency graduates?

2015 General Pediatrics Examination
First-Time Takers (n=3,301)
Current Position

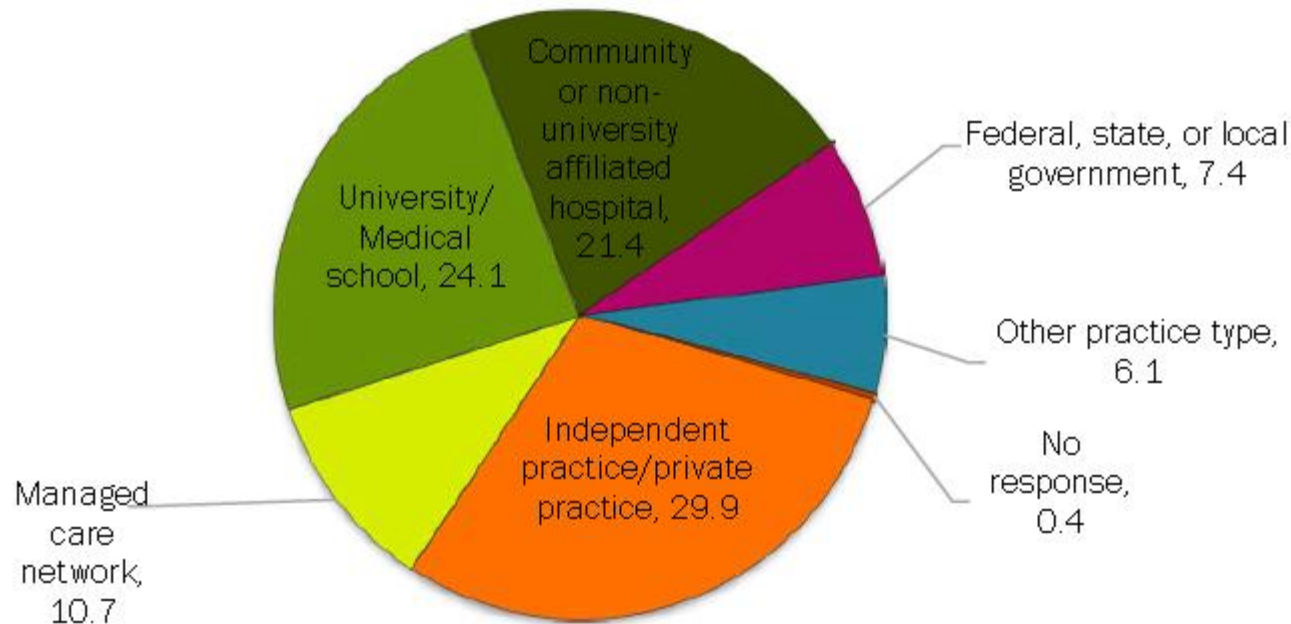


In what practice setting do new grads work?

2015 General Pediatrics Examination

Clinically Active First-time Takers Practicing as General Pediatricians, Subspecialists, or Hospitalists (n=1,385)

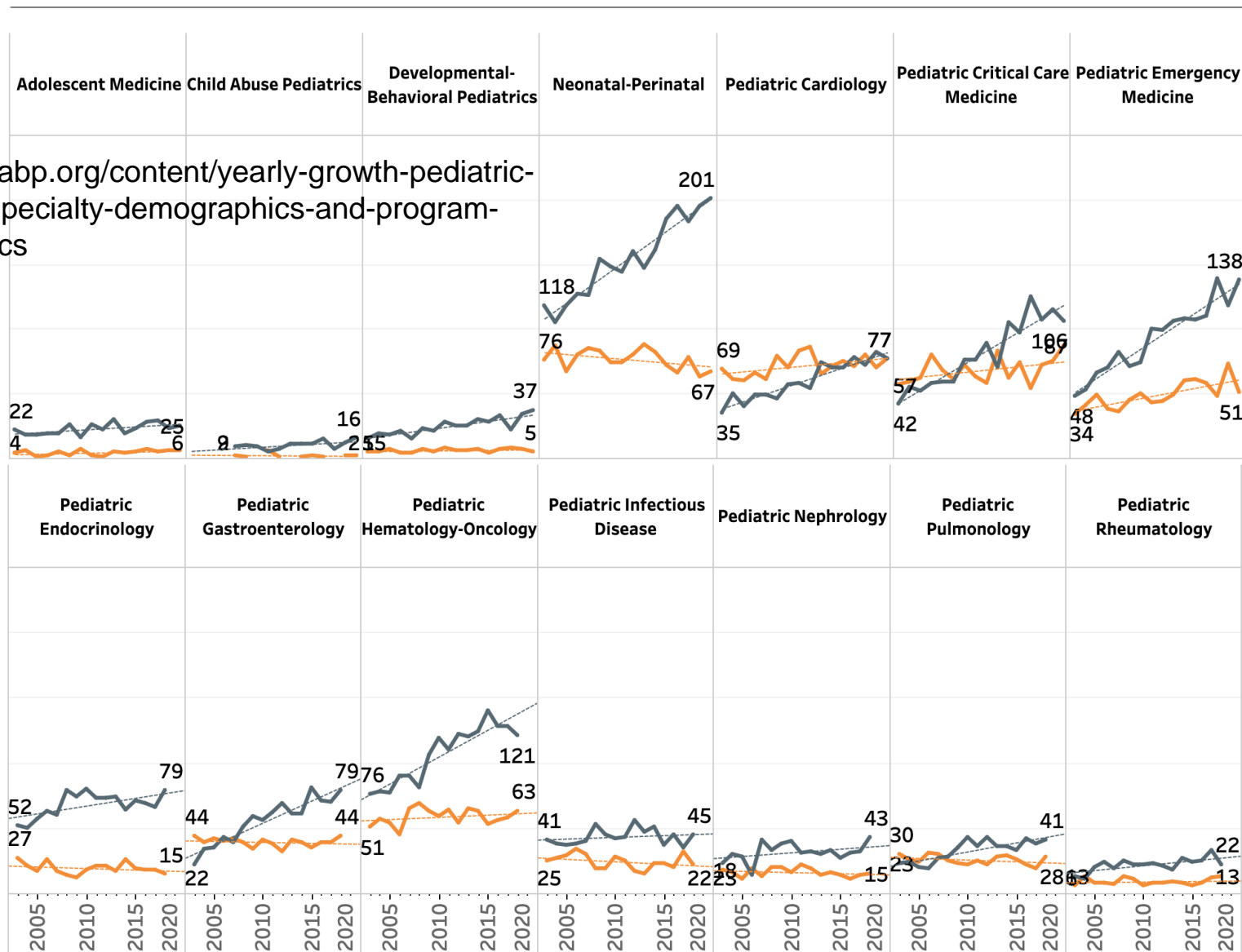
Ownership of Primary Practice by Gender and Medical School



What subspecialties did pediatricians choose?

1st Year Fellows by discipline 2003-2020

<https://www.abp.org/content/yearly-growth-pediatric-fellows-subspecialty-demographics-and-program-characteristics>



Where are the general pediatricians?

US-Based General Pediatrics Trends from 2006–2018

-Hover over or click a state for historical change and more information.

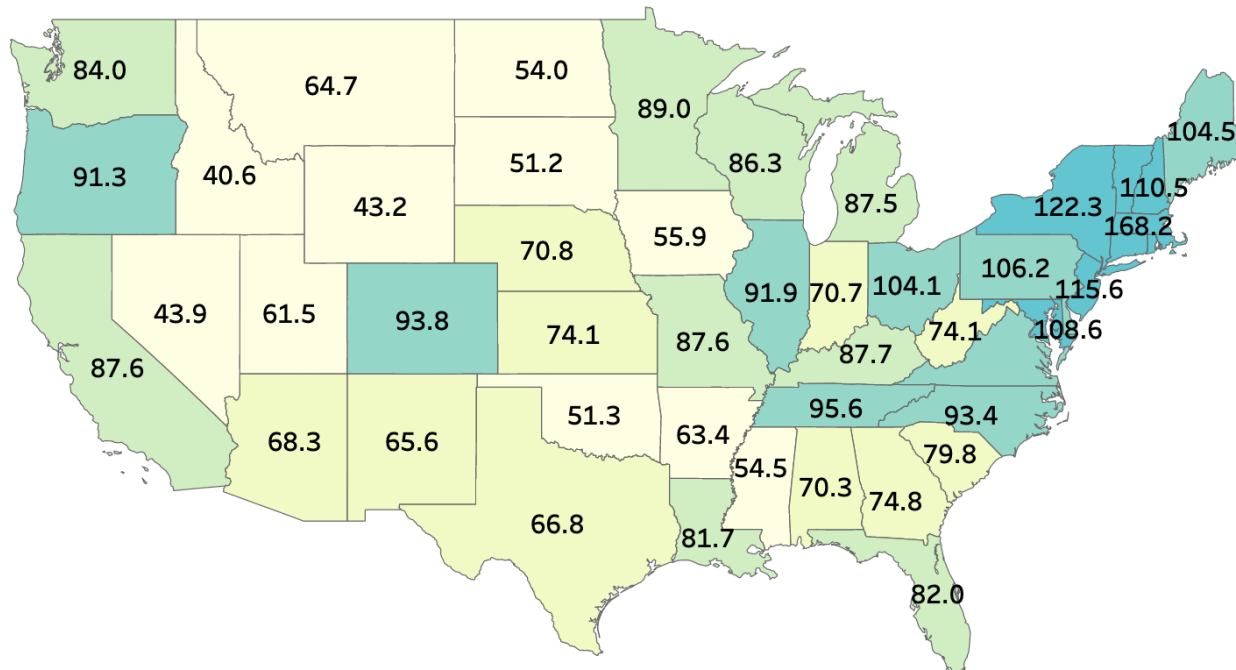
US-Based General Pediatrics Pediatricians in 2018

65,512*

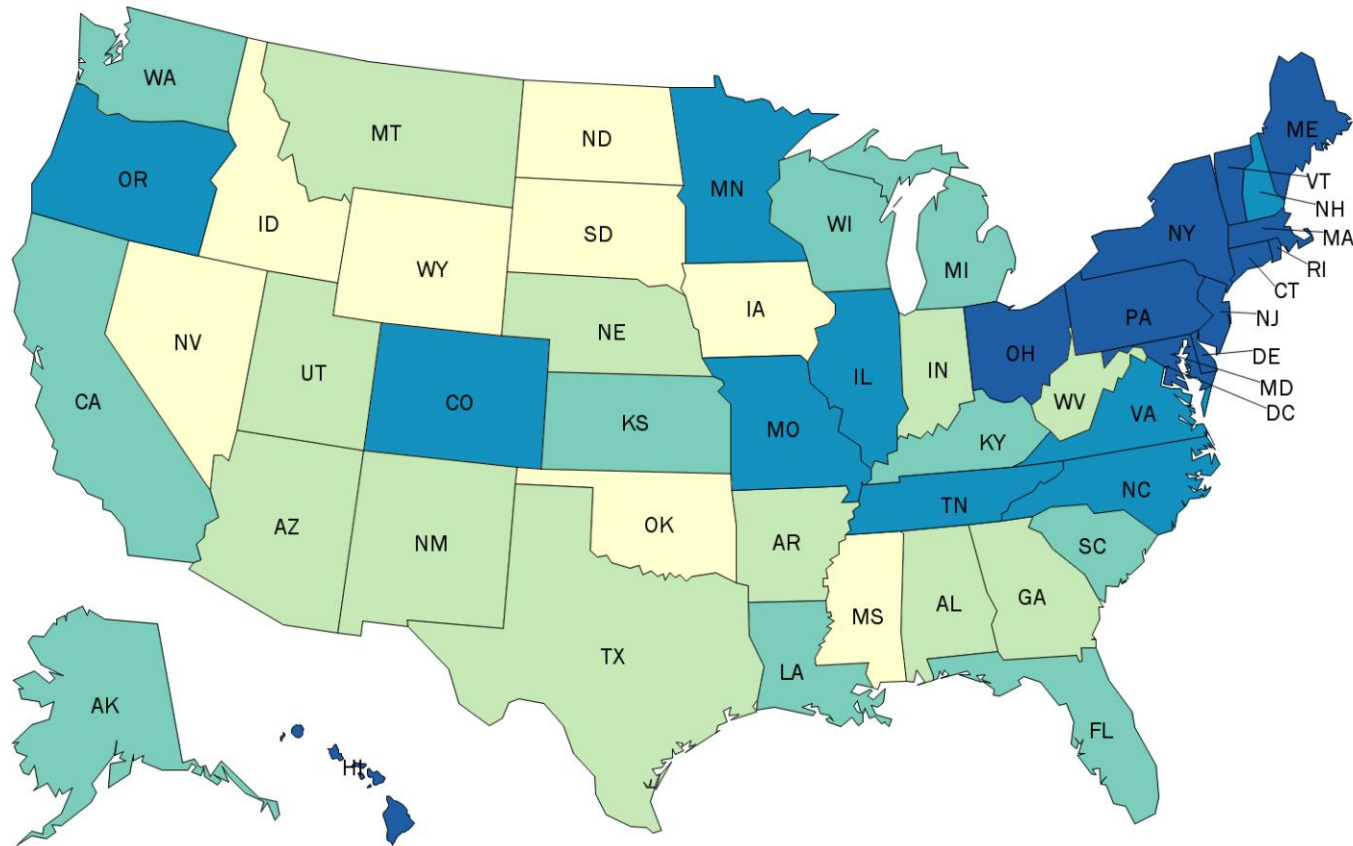
2018 Average Number of General Pediatricians Per State

1,284.5*

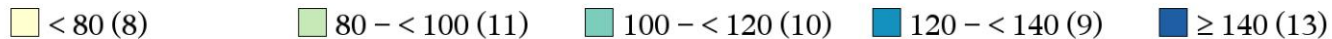
Pediatricians Certified in General Pediatrics per 100,000 Children



Where are the pediatricians and peds specialists?

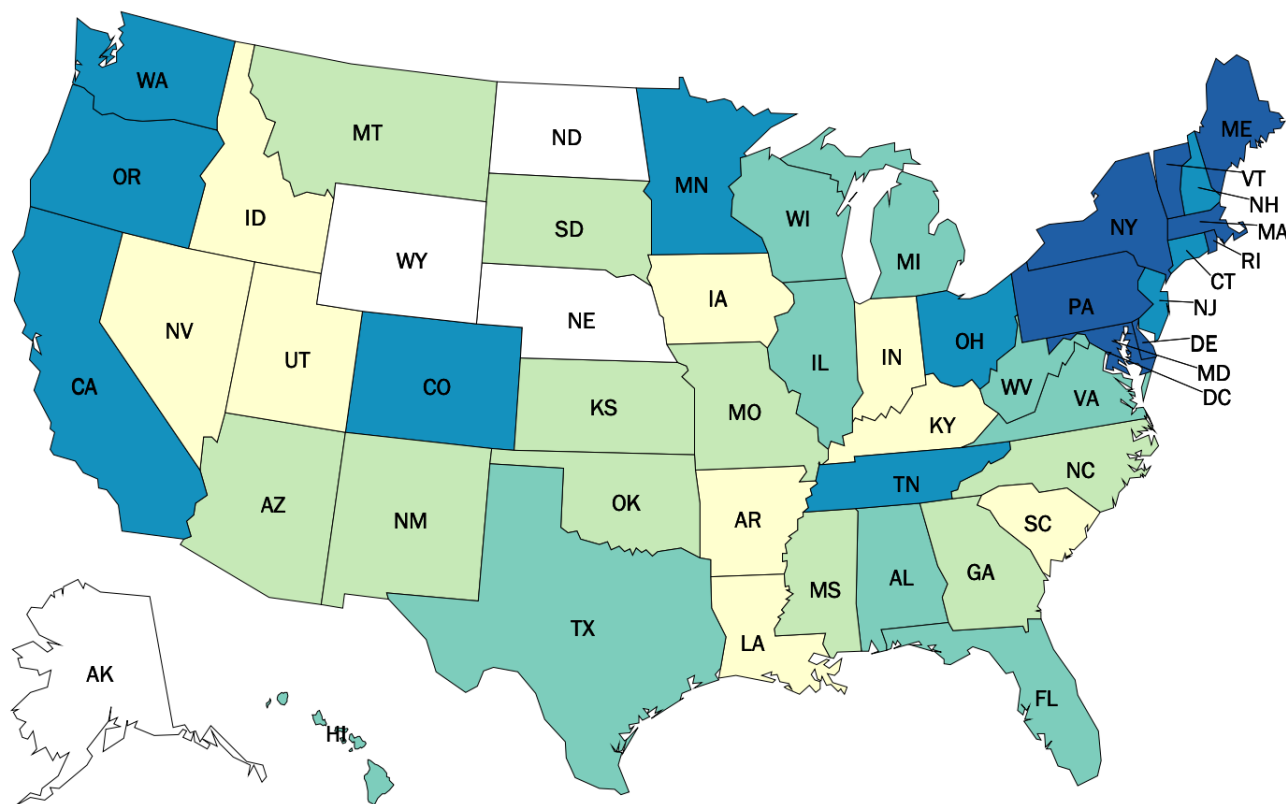


Pediatric diplomates per 100,000 Children

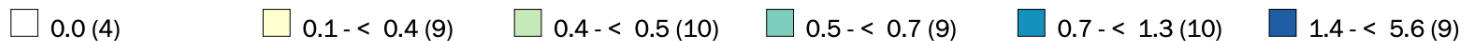


Source: ABP Certification Management System and the US Census Bureau Population Estimates as of July 1, 2017.

Note in some areas, we have very few pediatric specialists



Subspecialists per 100,000 children



Source: ABP Certification Management System and the US Census Bureau Population Estimates as of July 1, 2017.

Are pediatricians happy?

BMC Health Services Research 2009, 9:166

<http://www.biomedcentral.com/1472-6963/9/166>

Table 3: Descriptive Statistics and Regression Results for Specialties; Ranked from High to Low Regression Coefficient, Unadjusted for Covariates ^a

Obs	Specialty	Frequency	Mean satisfaction score	Regression Coefficient	Lower 95% Confidence Limit	Upper 95% Confidence Limit
1	Pediatric emergency medicine	29	0.64	0.409**	0.150	0.667
2	Geriatric medicine	34	0.57	0.339*	0.066	0.612
3	Dermatology	101	0.55	0.312***	0.144	0.480
4	Pediatrics	740	0.52	0.283***	0.181	0.385
5	Internal medicine and pediatrics	50	0.50	0.268**	0.095	0.442
6	Other pediatric subspecialty	98	0.50	0.265**	0.073	0.457
7	Neonatal and perinatal medicine	67	0.50	0.264*	0.012	0.516
8	Allergy and immunology	55	0.50	0.263*	0.061	0.466
9	Child and adolescent psychiatry	59	0.46	0.224*	0.053	0.395
10	Radiation oncology	42	0.44	0.202	-0.039	0.443
11	Cardiovascular diseases	149	0.43	0.198*	0.014	0.381
12	Medical oncology	48	0.43	0.195	-0.097	0.487
13	Ophthalmology	184	0.41	0.172*	0.012	0.332
14	Occupational medicine	53	0.40	0.166	-0.070	0.402
15	Hospitalists	37	0.40	0.165	-0.181	0.510
16	Physical medicine and rehabilitation	69	0.39	0.155	-0.027	0.338
17	Psychiatry	306	0.37	0.137*	0.010	0.265
18	Otolaryngology	81	0.35	0.120	-0.083	0.323
19	Other medical subspecialty	20	0.34	0.106	-0.252	0.465
20	Critical care internal	70	0.33	0.096	-0.201	0.393

Everything highlighted yellow is pediatrics or subspecialty

Now let's get to how you pay the bills...



“So in other words, we're hoping to discover what makes the nitty, gritty.”

****Private Survey: ~1900 pediatrician responses,
19,328 total physician response**

Medscape

**PEDIATRICIAN
COMPENSATION
REPORT**

2019

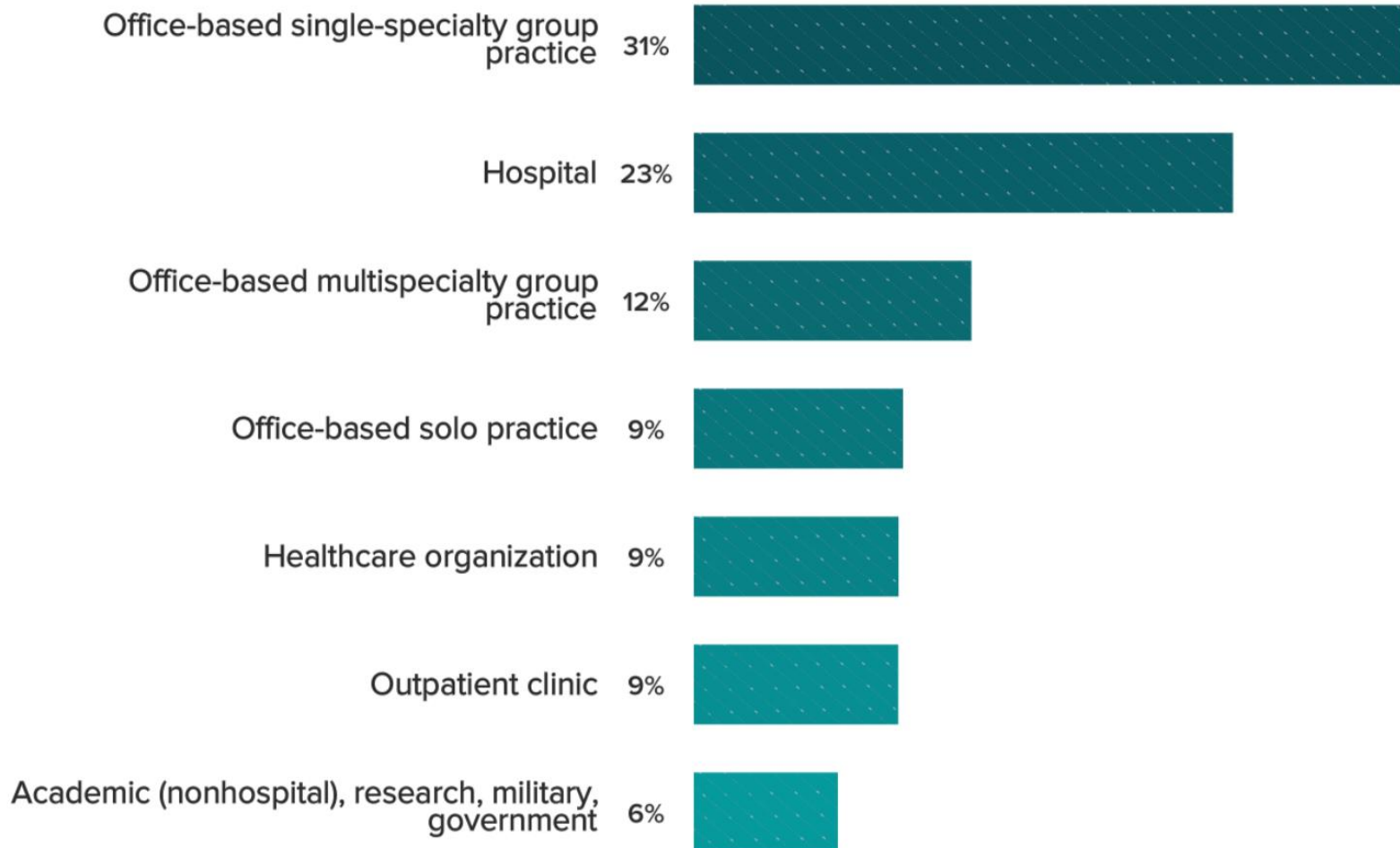


**** May not be representative of total work force or **academic salaries****

<https://www.medscape.com/slideshow/2019-compensation-pediatrician-6011343#1>

Where Respondents Work

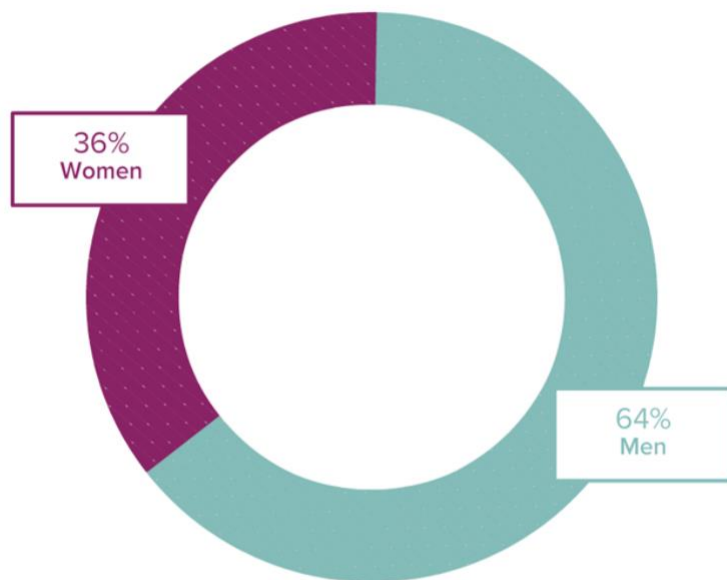
Where Do Pediatricians Work?



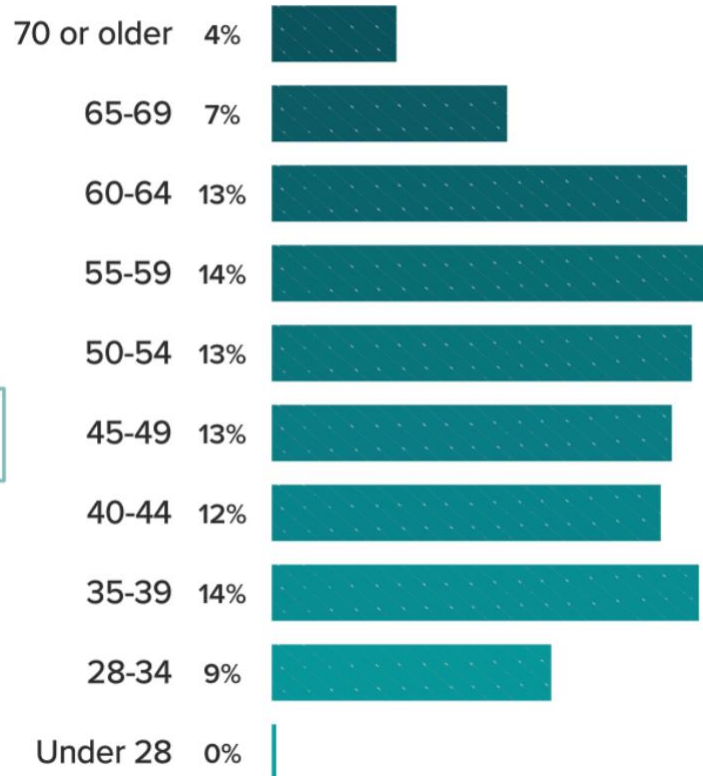
Survey Respondents: All Physicians

Survey Demographics

BY GENDER



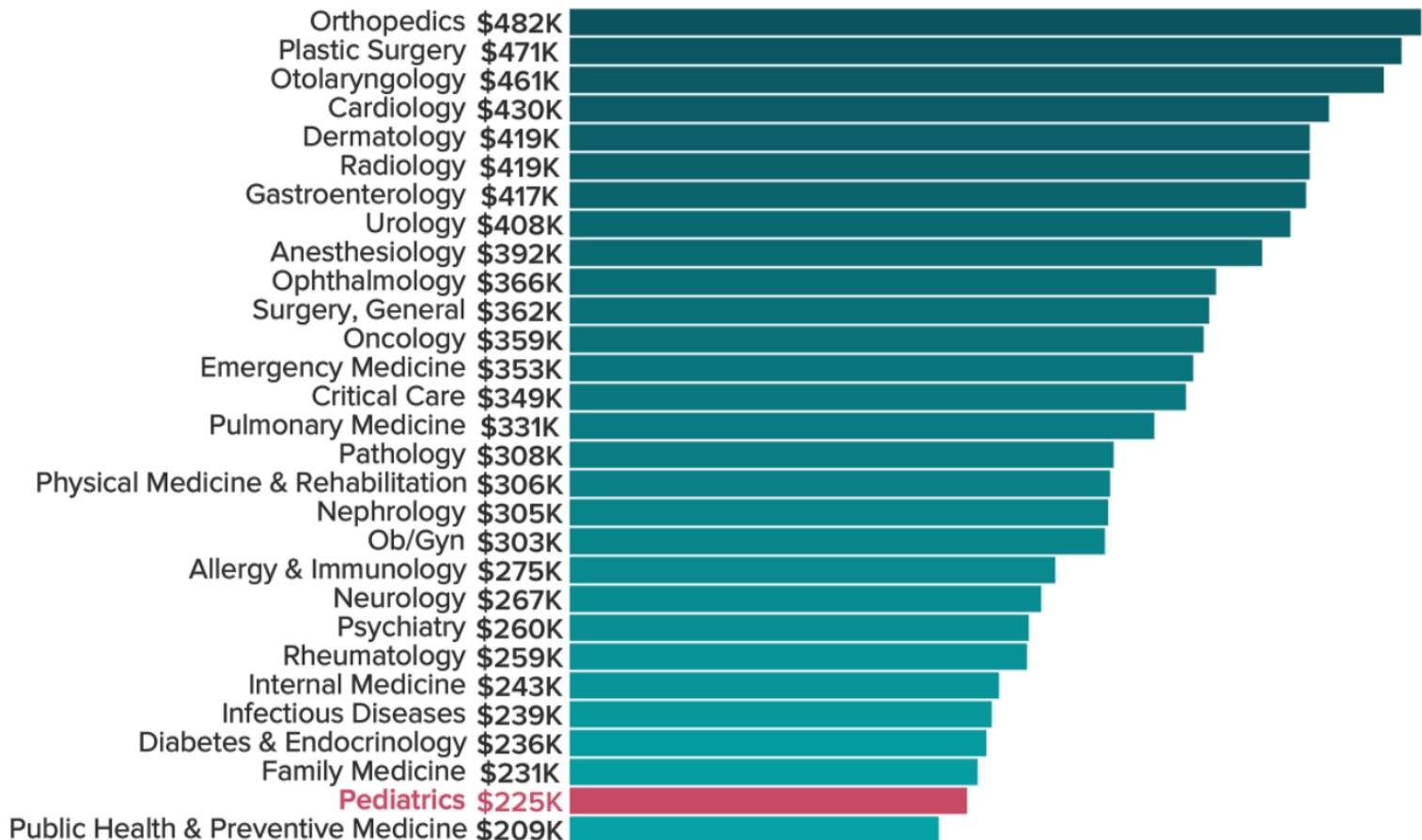
BY AGE



Overall Physician Compensation

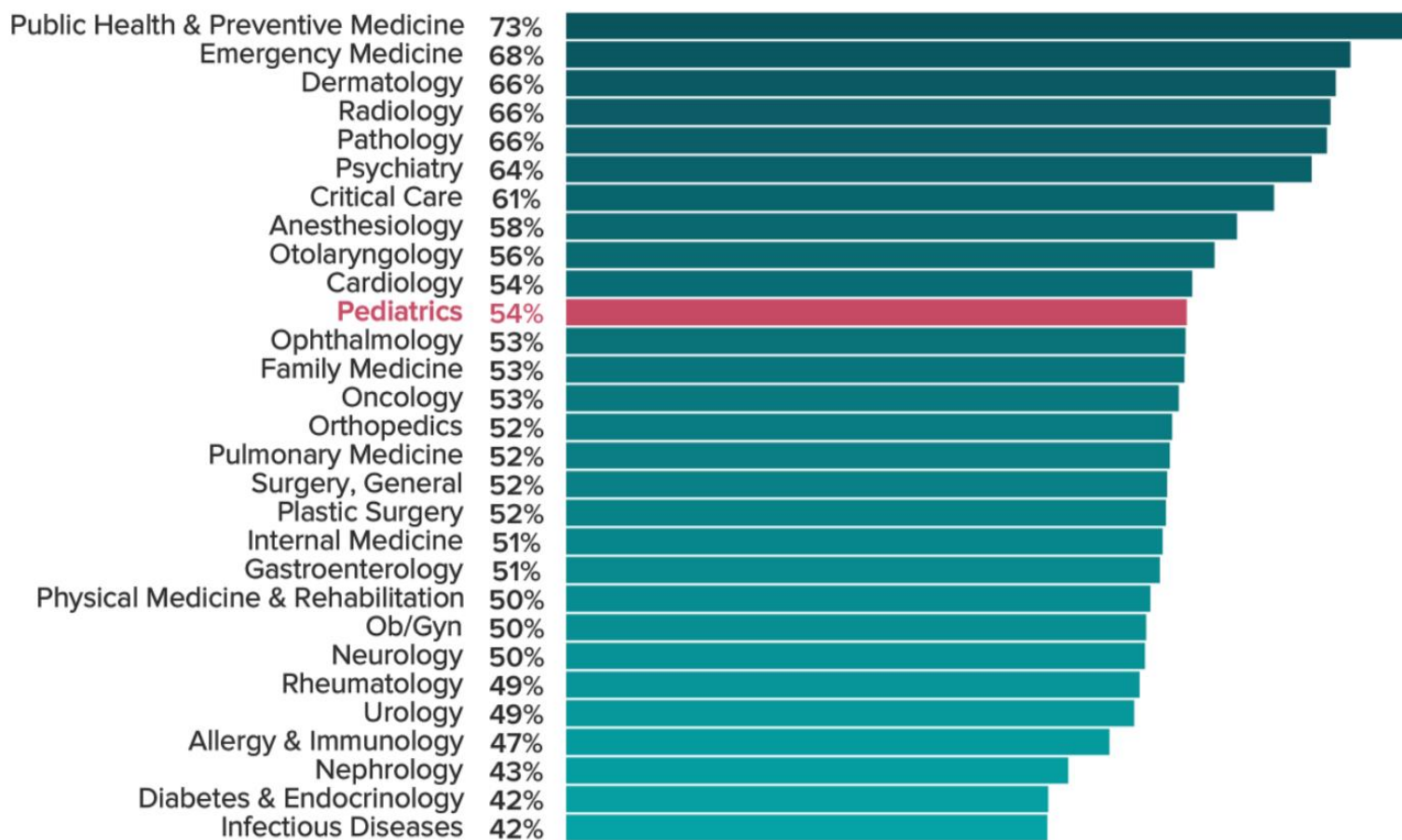
2019

How Much Do Pediatricians Earn?



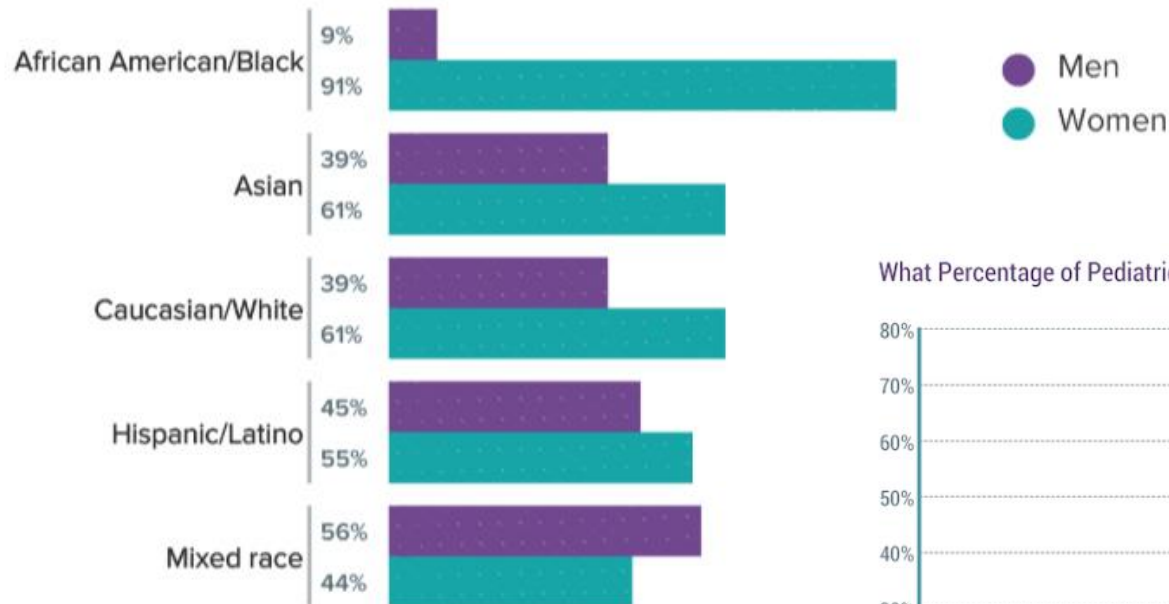
How Do Physicians Feel About Pay?

Do Pediatricians Feel Fairly Compensated?

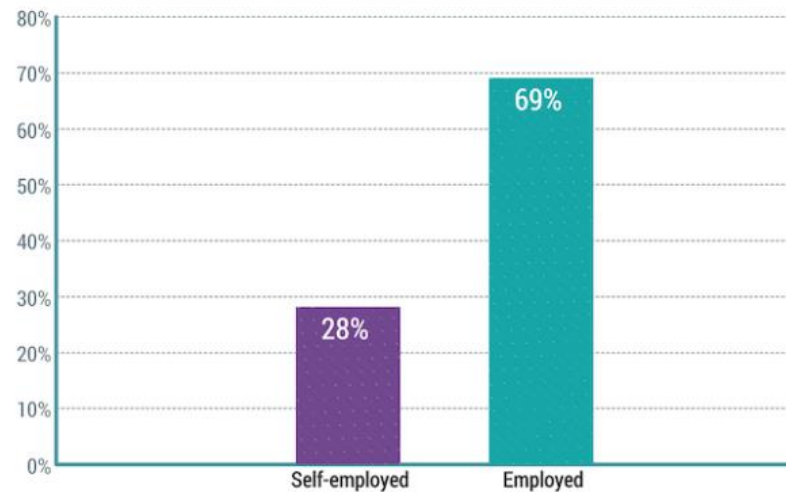


2018 Data

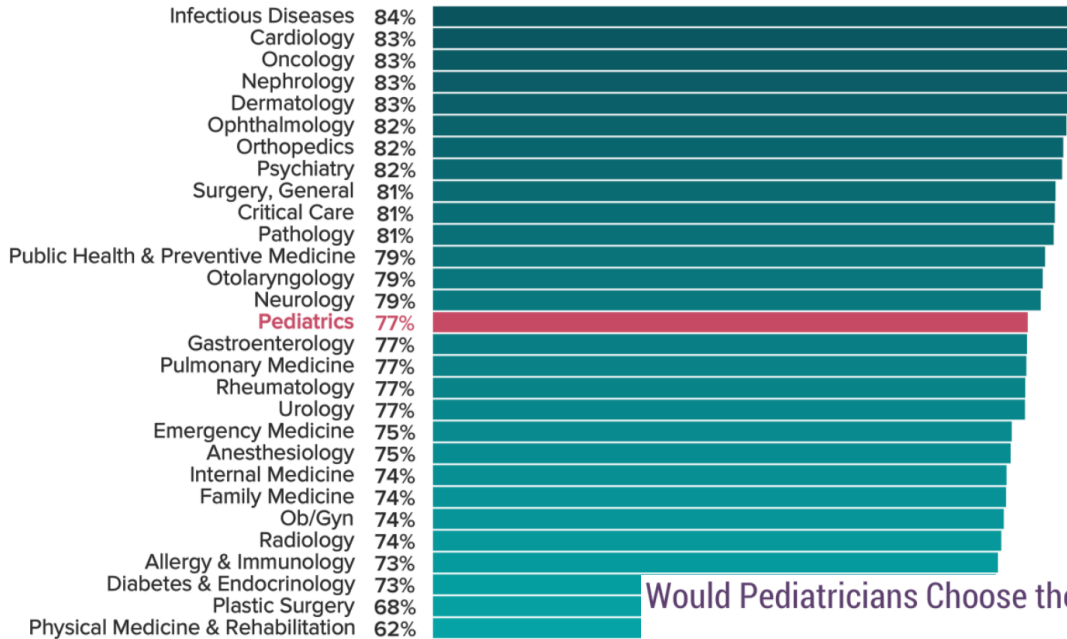
Gender of Pediatricians, by Race/Ethnicity



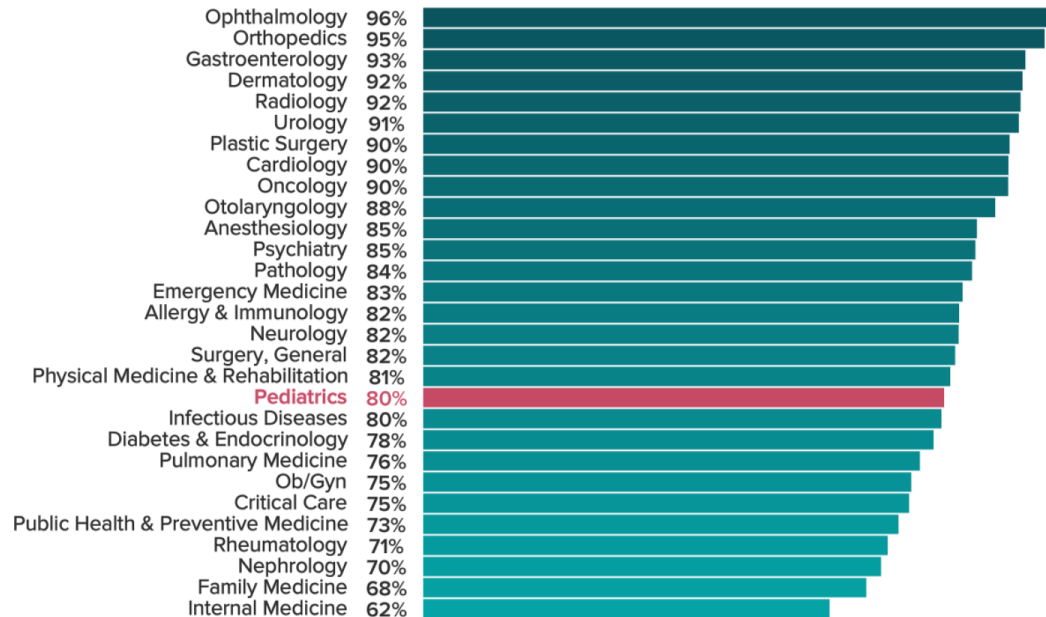
What Percentage of Pediatricians Are Employed vs Self-employed?



Would Pediatricians Choose Medicine Again?

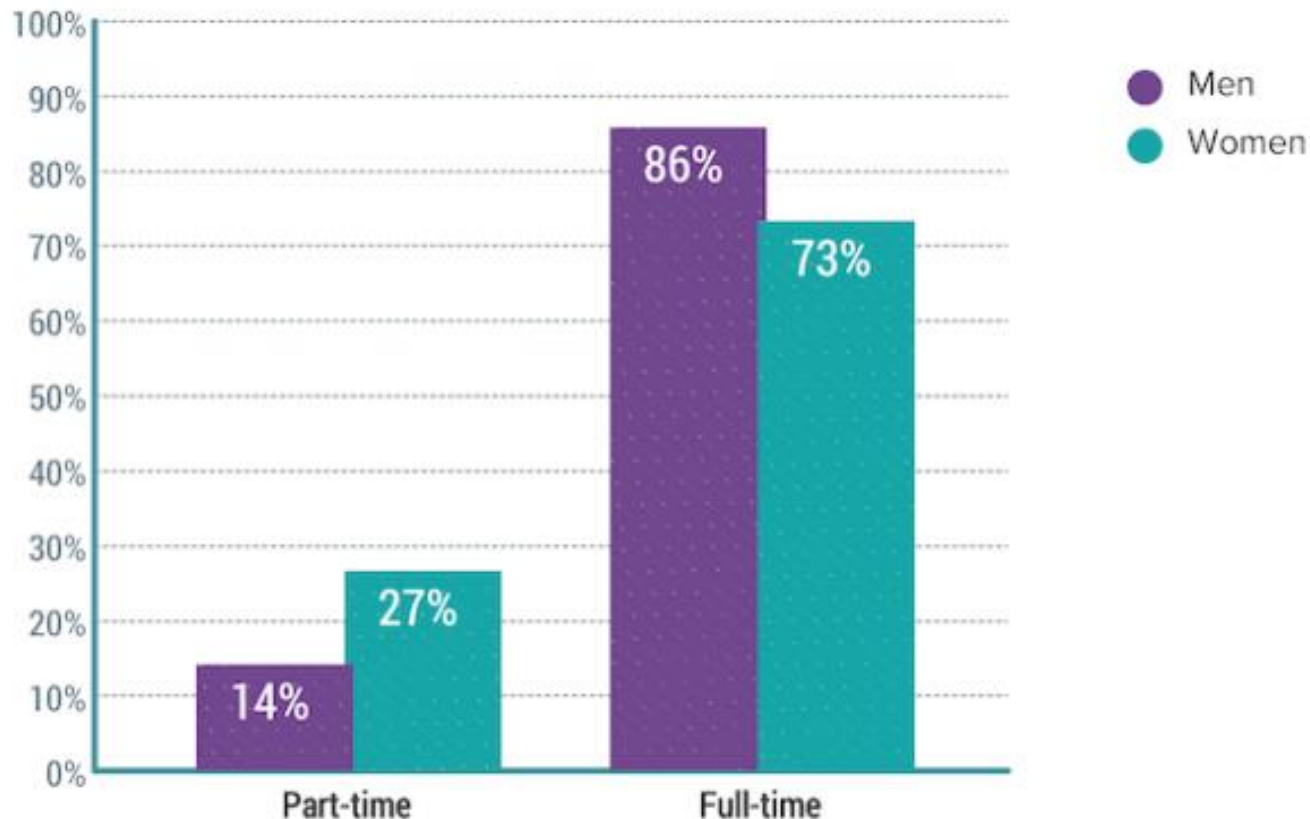


Would Pediatricians Choose the Same Specialty?



Full v. Part-time Workforce

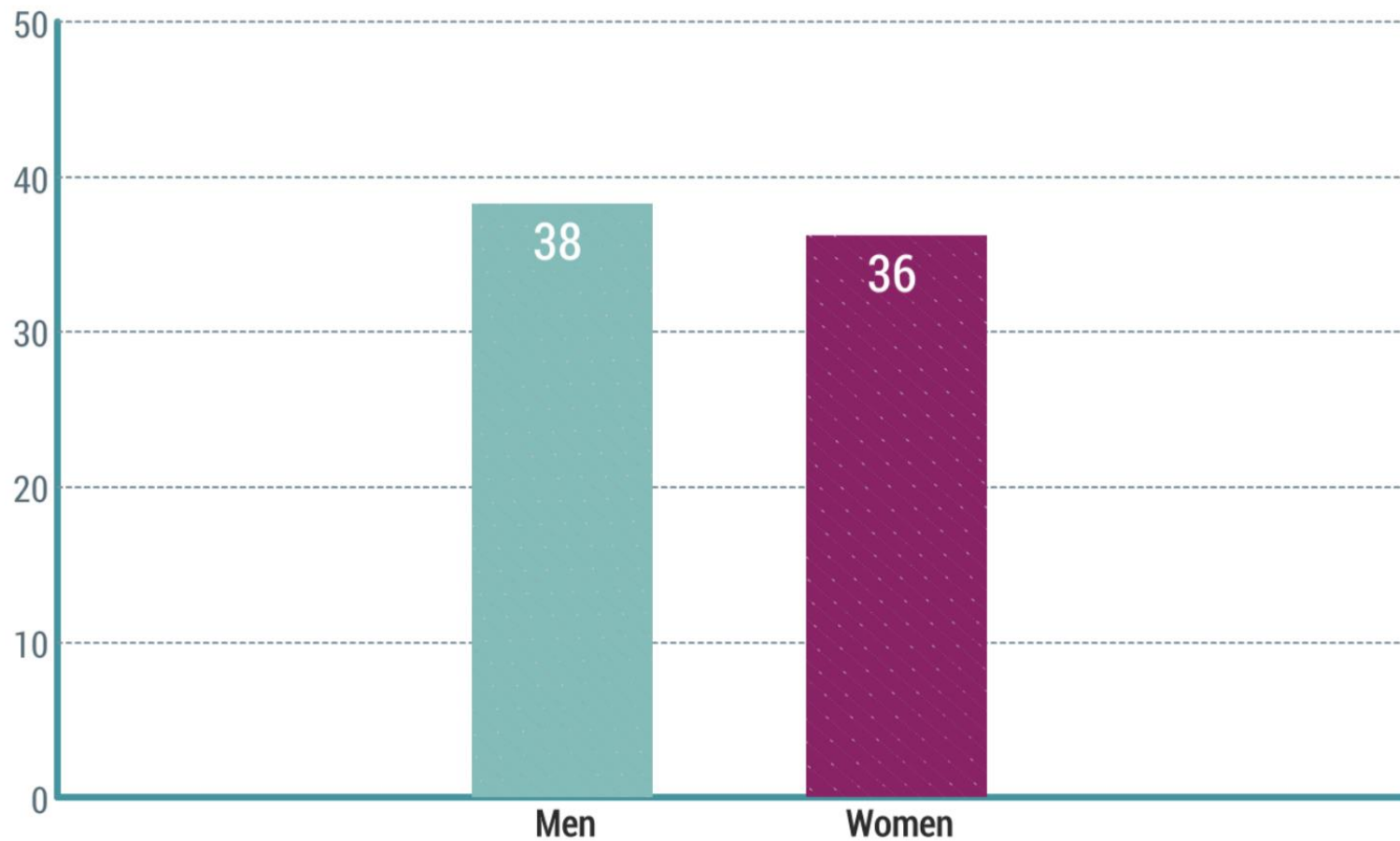
Pediatricians Working Part-time, by Gender



2018 Data

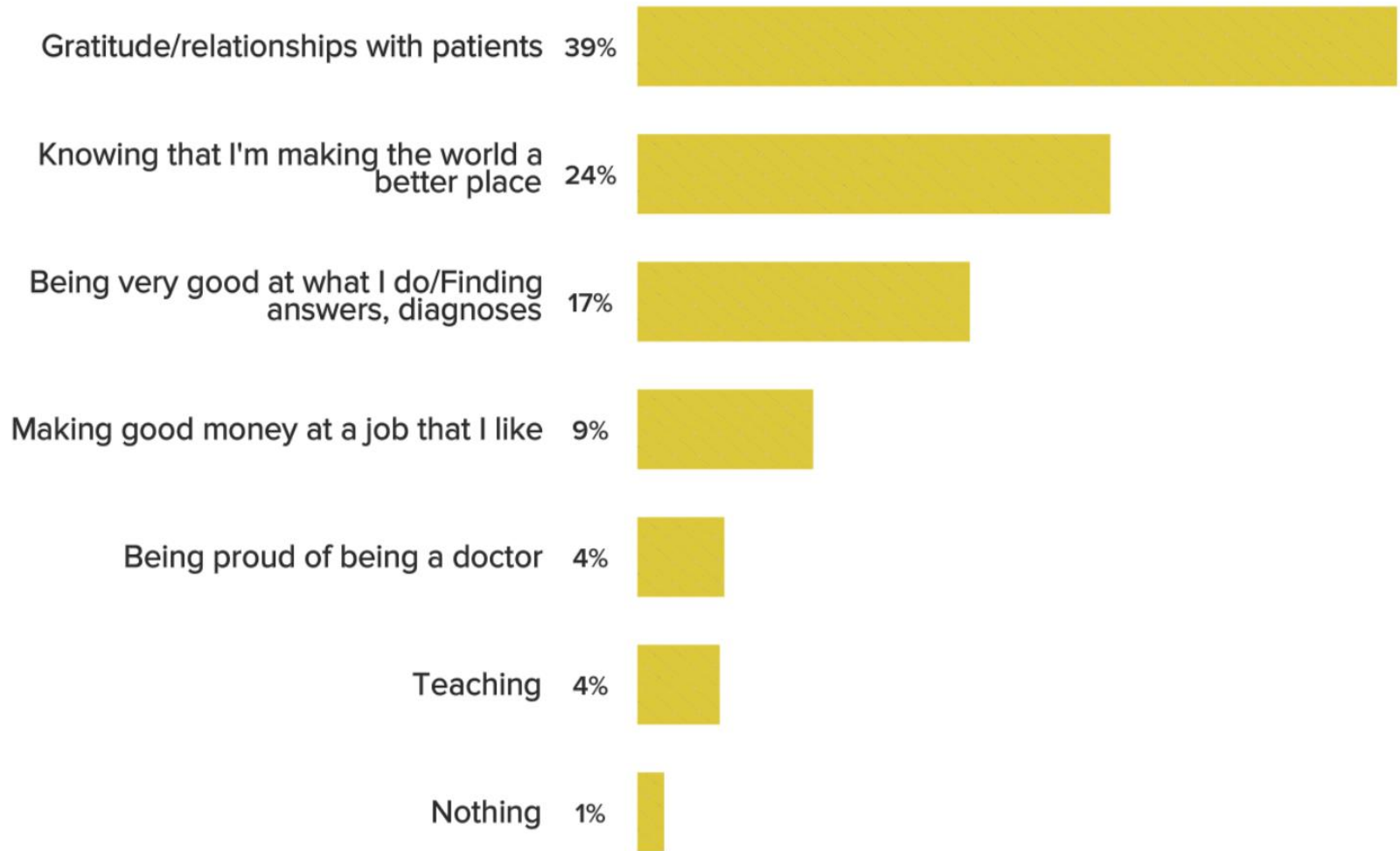
How Many Hours do they Work?

Hours per Week Pediatricians Spent Seeing Patients



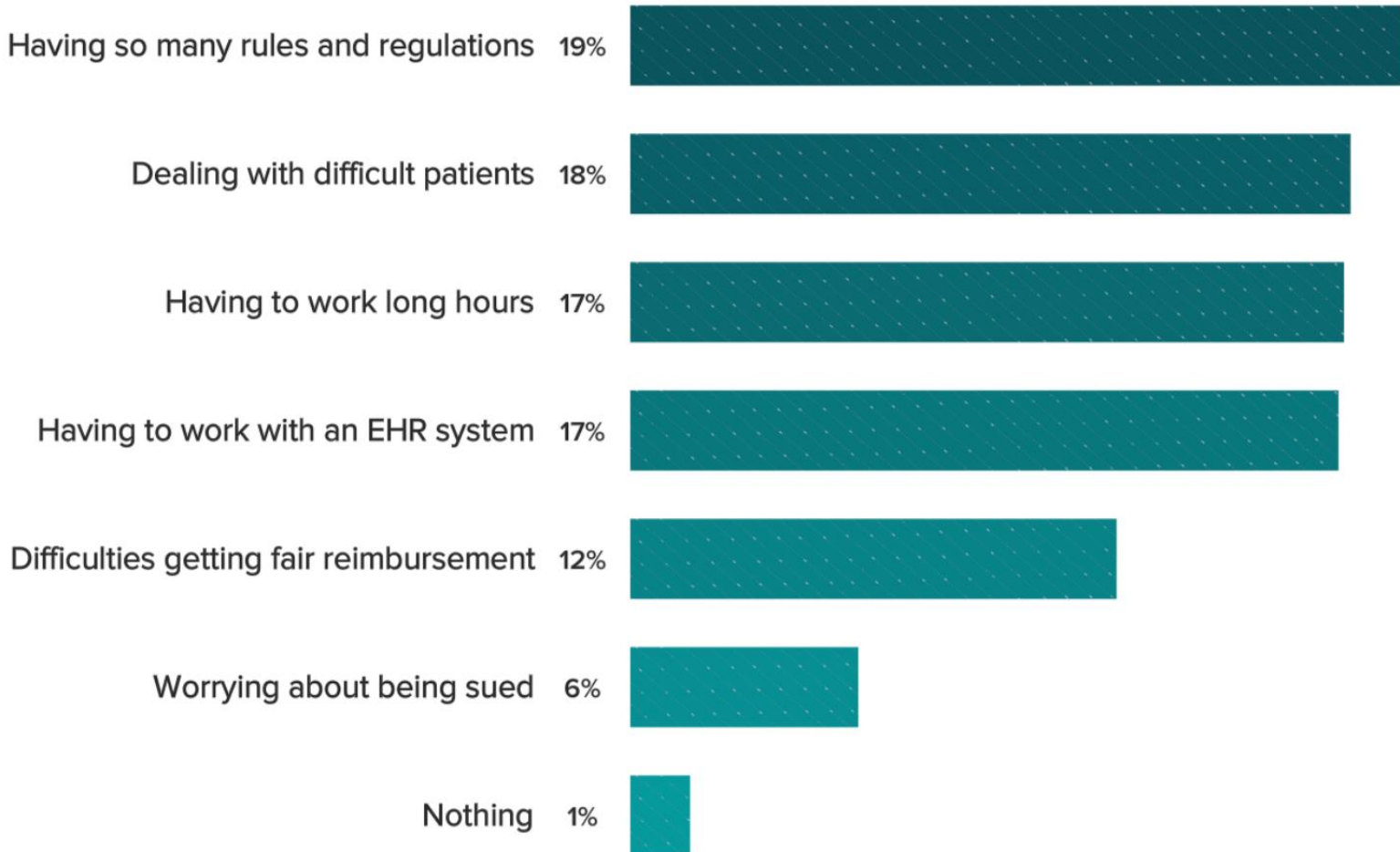
Rewards of the Job

What Is the Most Rewarding Part of Your Job?



Challenges of the Job

What Is the Most Challenging Part of Your Job?



Loan Repayment Options

- NIH Extramural Pediatric Research Loan Repayment Program
 - ◆ http://www.lrp.nih.gov/about_the_programs/pediatric.aspx
 - ◆ Pediatric investigators, up to \$35,000/year x 2 yrs (tax free)
- National Health Service Corps
 - ◆ <https://nhsc.hrsa.gov/loanrepayment/loanrepaymentprogram.html>
 - ◆ Up to \$50,000 for 2-year commitment, may reapply
 - ◆ Primary care pediatrics, high need, underserved area
- Indian Health Service
 - ◆ <https://www.ihs.gov/loanrepayment/>
 - ◆ Up to \$40,000, min 2-year commitment, plus additional 20% to offset tax liability

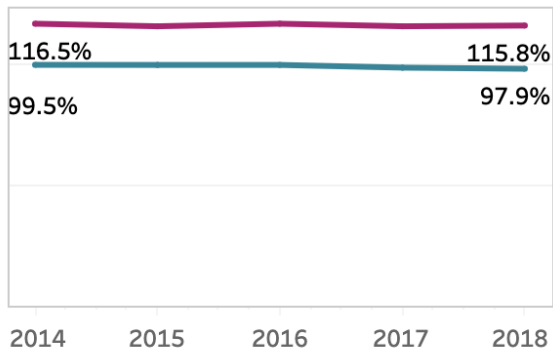
**What do we know about the
match in pediatrics?**

Pediatric Match #s 2014-18

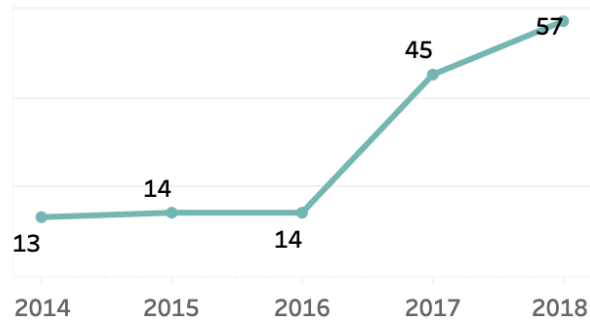
Pediatrics (Categorical) Rates (2014-2018)

Average NRMP Matched Percent: 98.9%
Average Final Fill Rate (ABP): 115.9%

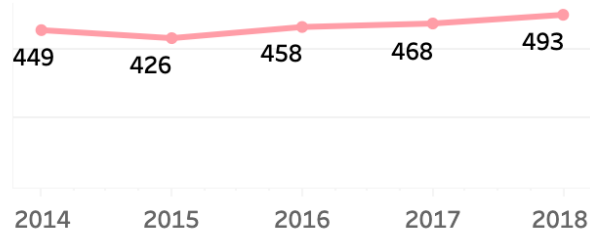
Yearly NRMP Match Percent and Final Fill Rate (ABP) for Pediatrics (Categorical)



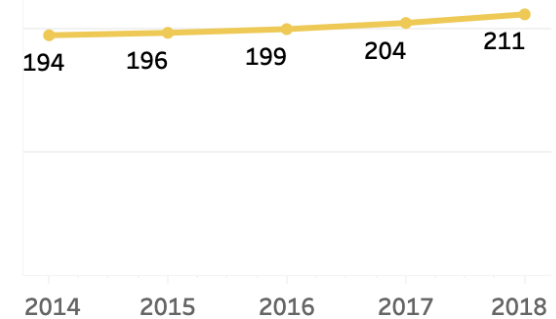
Number of Unfilled Positions per NRMP in Pediatrics (Categorical)



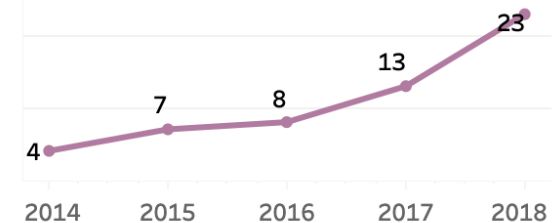
Number of Trainees (ABP) Above NRMP Matched Number in Pediatrics (Categorical)



Number of Programs (NRMP) in Pediatrics (Categorical)

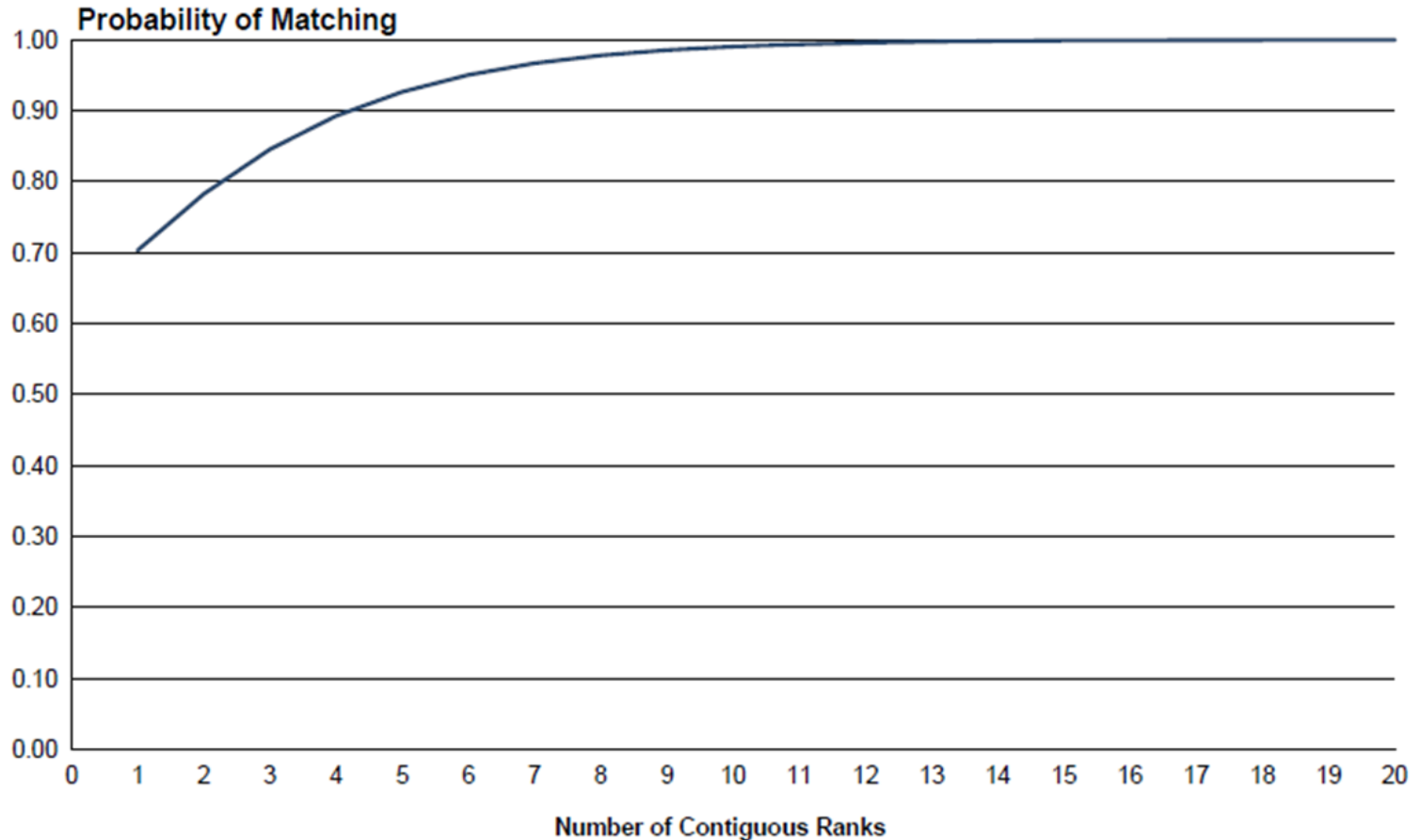


Number of Unfilled Programs (NRMP) in Pediatrics (Categorical)



**Graph
PD-1**

Probability of U.S. Allopathic Seniors Matching to Preferred Specialty by Number of Contiguous Ranks
Pediatrics

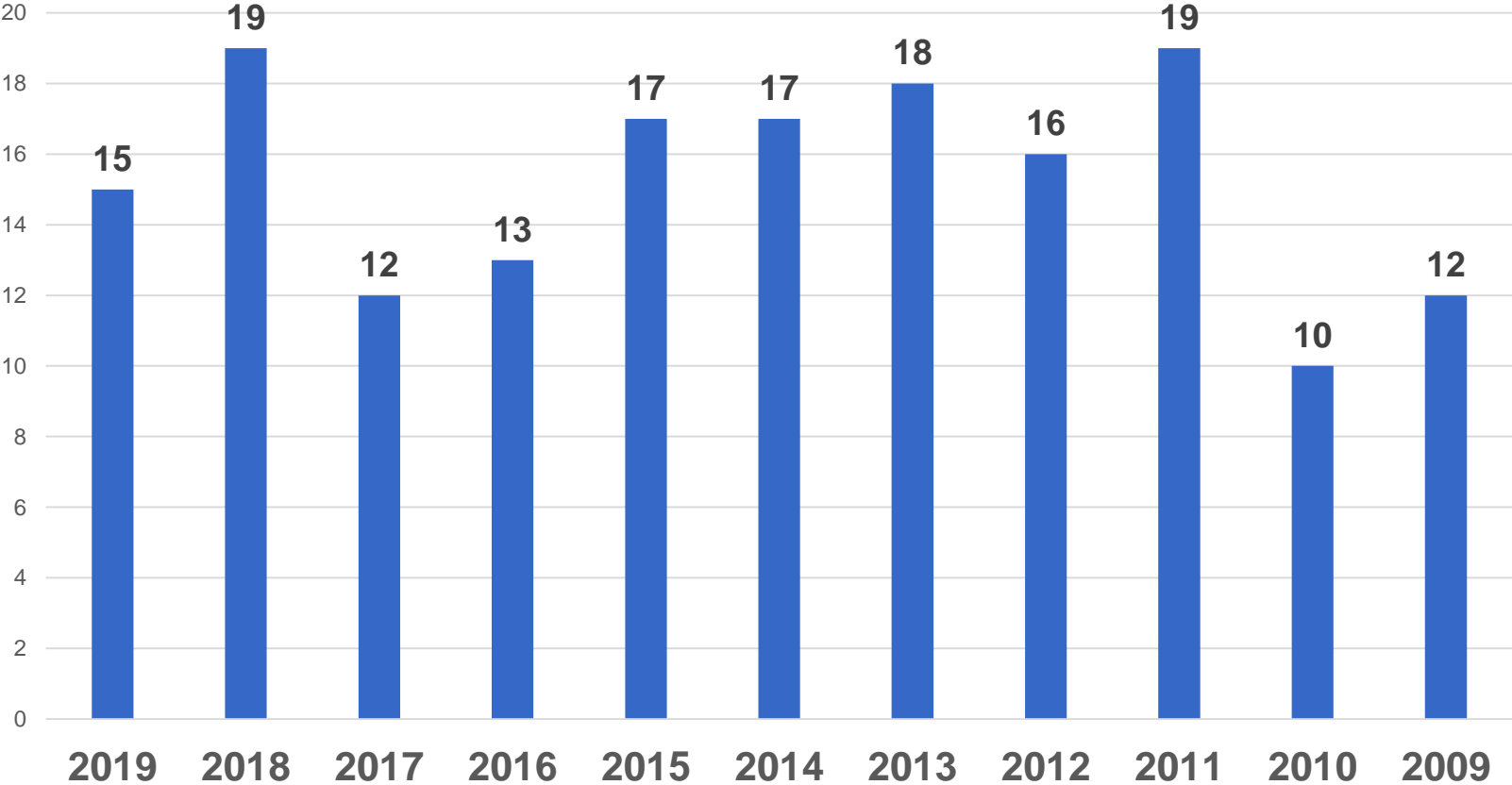


Source: NRMP Data Warehouse. Note: Probabilities calculated based on 2016-2018 applicants

79% of student match in their top 3 programs
10 interviews/rankings almost guarantees a successful match

How Many Students Go Into Pediatrics?

Feinberg Students Entering Pediatrics*
2019-2009



* Includes Child Neurology

Where do Feinberg Students Go?

Matches in Pediatrics 2009-2019

McGaw/Lurie Children's	29	Columbia, Children's Hospital Colorado	3
Baylor	8	Stanford, UCSF, UC San Diego	3
Boston Children's (BCMC)	7	U Chicago, UNC, U Pittsburg, Cornell	3
Cincinnati Children's	7	Harbor UCLA, Lutheran General, Miami	3
Los Angeles Children's	6	U Michigan, U Illinois, Wash U/St. Louis	2
Seattle Children's/U Washington	6	U Vermont, USC-LA County, Christ	2
Children's National/DC	5	UVA, Mt. Sinai, NYU, U Conn, Children's, NYMC Westchester, Montefiore	1
CHOP, Oakland Children's/UCSF	5	U Minnesota, Primary Children's (Utah), Loma Linda, Mercy/KS, Oregon Health Sci	1
Milwaukee Children's, Riley Children's (Indianapolis)	5	Cleveland Clinic, U MD, Johns Hopkins, Portsmouth Naval, Natl Capital Consort	1
Nationwide, UCLA, Rush	4	UT/Houston, U Tennessee, SLU, U Arizona, U South Dakota	1

Planning for next year

- Sign up for an advisor if you think you may be interested in pediatrics
- Note if you have a previous relationship/special interest
- Set up a meeting in February to discuss plans
- Bring transcript, narrative evaluations for clerkships
- Make sure you sign up for pediatric subinternship
- Avoid taking all pediatric electives

Planning for residency match

- Plan at least one elective over the spring/summer to allow a pediatric faculty member to get to know you well for LOR
- Work on essay and CV over the late spring/early summer
- Meet with the chair for advising/chair letter
- Get your application materials into ERAS as early as possible, especially if you are a weaker applicant GOAL SEPT 1. Apply SEPT 15.
- When programs will grant interviews has been a moving target, some October, some November

Bibliography

Bibliography

BMC Health Services Research



Research article

Open Access

Physician career satisfaction within specialties

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This article is available from: <http://www.biomedcentral.com/1472-6963/9/166>

Bibliography

- American Board of Pediatrics Workforce Data
- Available online at: <https://www.abp.org/content/workforce>
- Match Data: <http://www.nrmp.org/main-residency-match-data/>
- Lots of other interesting information available on this site as well: <https://www.abp.org/content/workforce>
- Salary data: <https://www.medscape.com/slideshow/compensation-2017-pediatrics-6008583#32>

Pediatric Match Data 2018



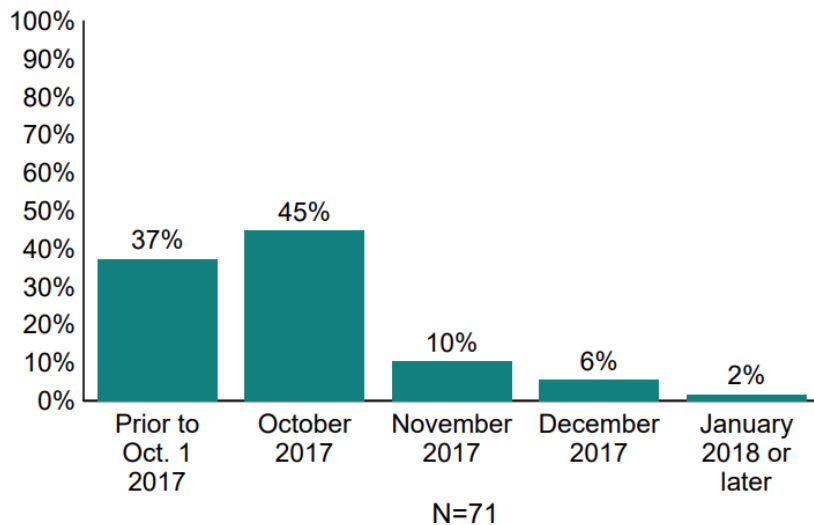
209 Program Directors surveyed, 78 responded
37.3% response rate

Results of the 2018 NRMP Program Director Survey

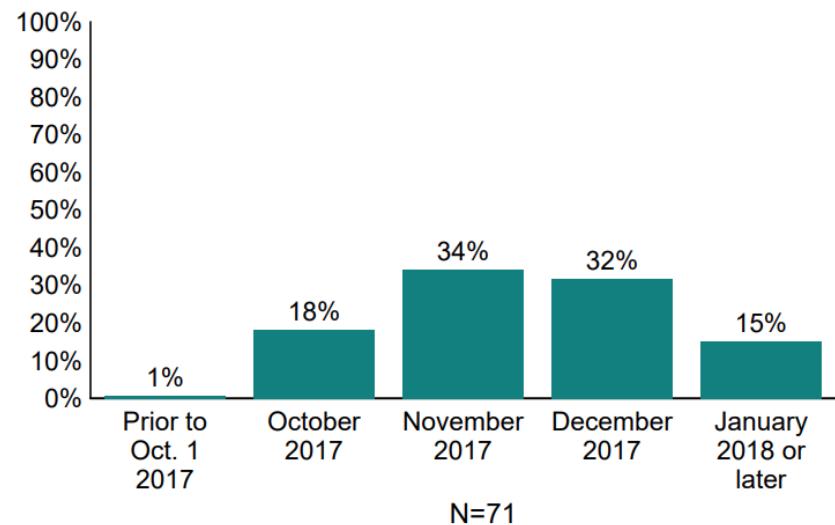
National Resident Matching Program, Data Release and Research Committee: Results of the 2018 NRMP Program Director Survey. National Resident Matching Program, Washington, DC. 2018.

When are interviews offered & conducted?

Percentage of Program's Interviews Extended During Each Time Period

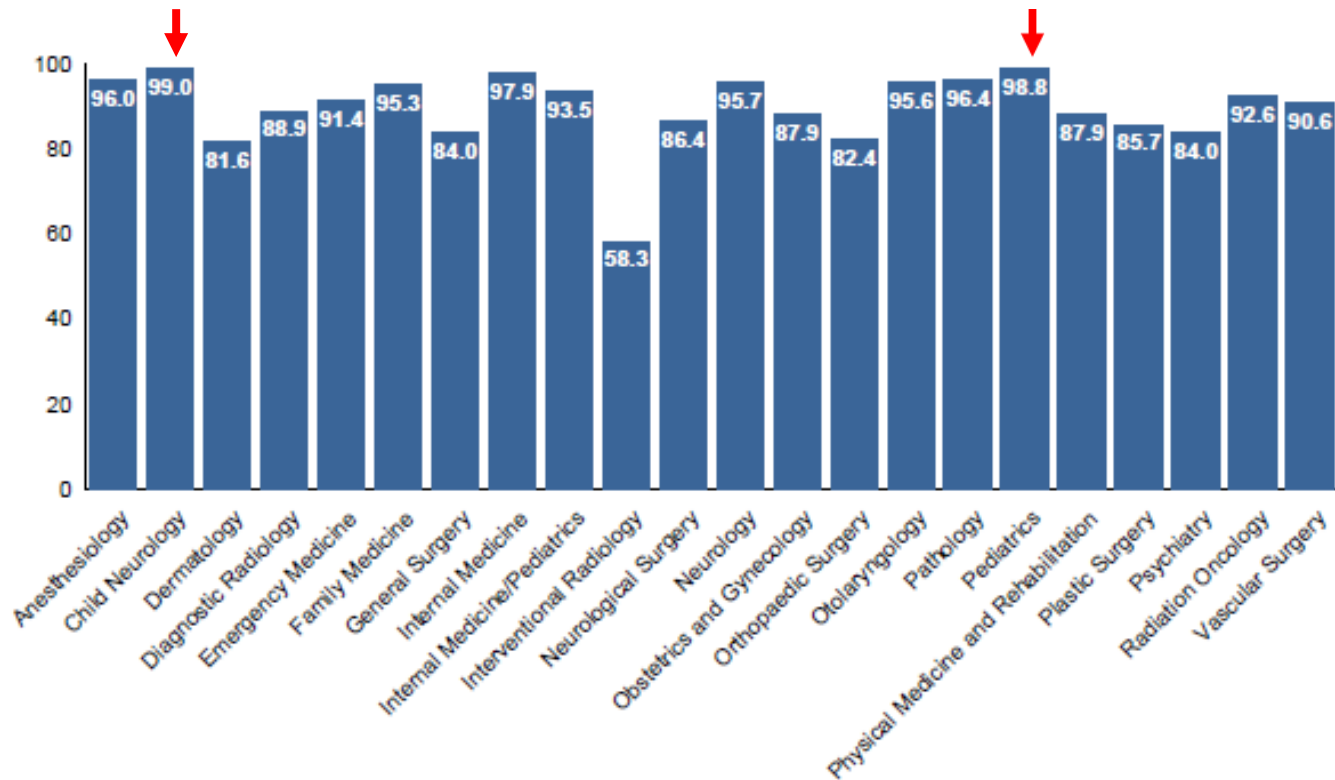


Percentage of Program's Interviews Conducted During Each Time Period



**Chart
3**

Match Rates of U.S. Allopathic Seniors
Percent Matched by Preferred Specialty



Source: NRMP Data Warehouse

NRMP

Charting Outcomes in the Match 2018

Table PD-1 Summary Statistics on U.S. Allopathic Seniors
Pediatrics

Measure	Matched (n=1,640)	Unmatched (n=18)
1. Mean number of contiguous ranks	12.5	4.3
2. Mean number of distinct specialties ranked	1.0	1.2
3. Mean USMLE Step 1 score	227	209
4. Mean USMLE Step 2 score	243	222
5. Mean number of research experiences	2.8	2.5
6. Mean number of abstracts, presentations, and publications	4.1	3.2
7. Mean number of work experiences	3.1	3.2
8. Mean number of volunteer experiences	8.3	6.6
9. Percentage who are AOA members	14.6	0.0
10. Percentage who graduated from one of the 40 U.S. medical schools with the highest NIH funding	29.8	5.6
11. Percentage who have Ph.D. degree	3.1	0.0
12. Percentage who have another graduate degree	14.7	14.3

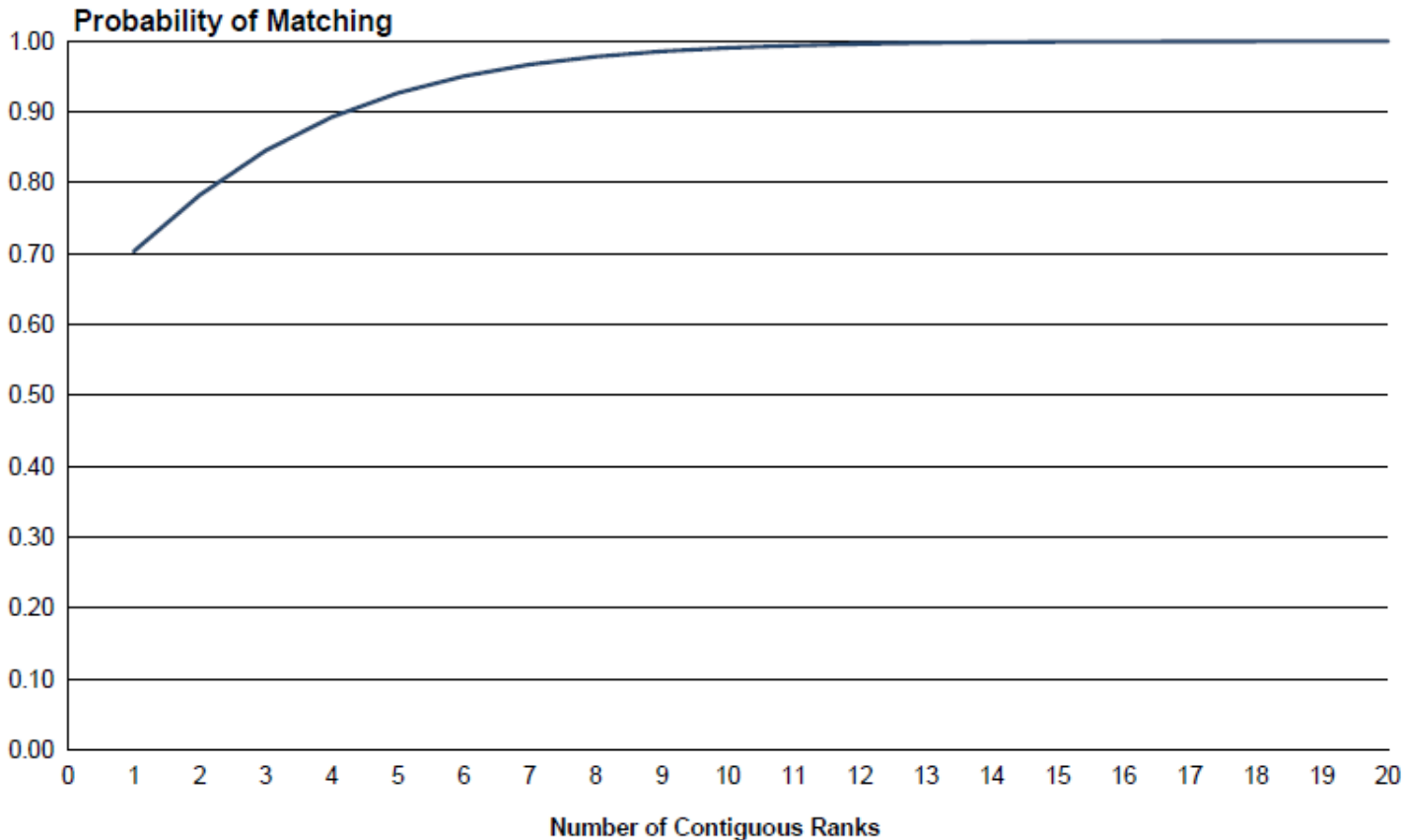
Note: Only U.S. allopathic seniors who gave consent to use their information in research are included.

Sources: NRMP Data Warehouse; Top 40 U.S. medical schools with the highest NIH funding in measure 10 is from the NIH website (<http://report.nih.gov/award/index.cfm>).

Probability of Matching by Number of Programs Ranked

Graph
PD-1

Probability of U.S. Allopathic Seniors Matching to Preferred Specialty by Number of Contiguous Ranks
Pediatrics



Source: NRMP Data Warehouse. Note: Probabilities calculated based on 2016-2018 applicants

Distribution of USMLE Step Scores

Chart PD-3

USMLE Step 1 Scores of U.S. Allopathic Seniors
Pediatrics

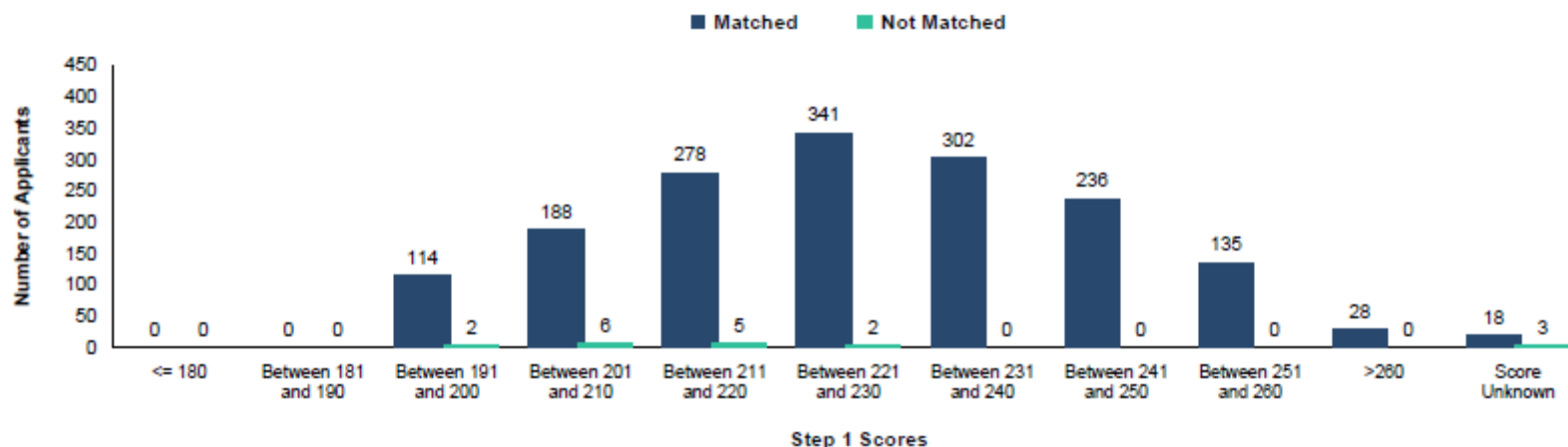
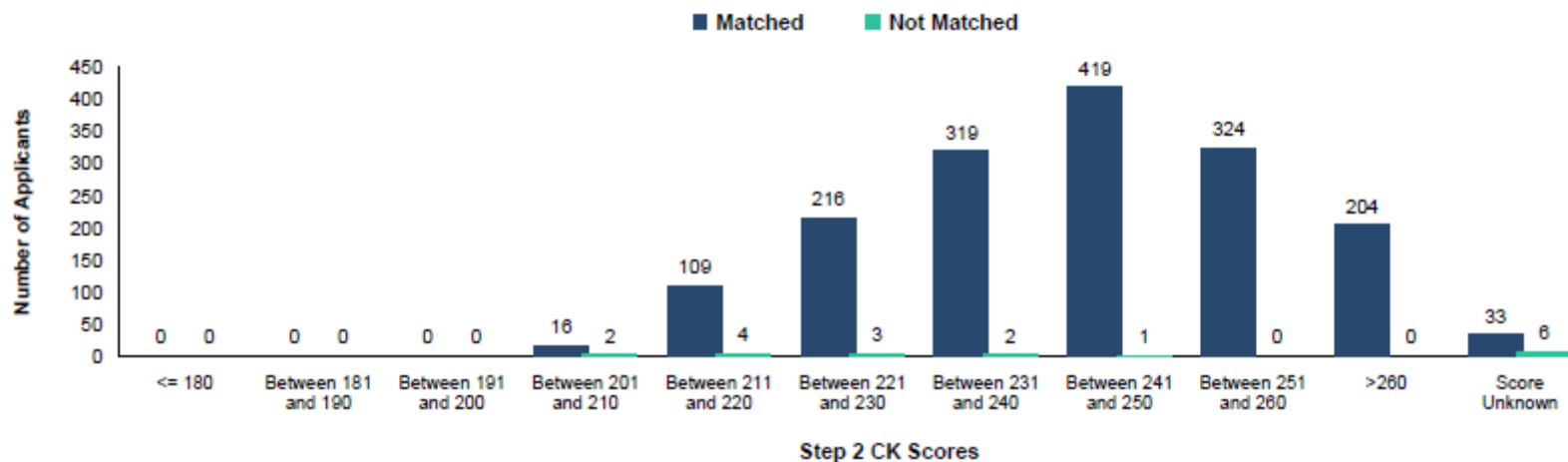


Chart PD-4

USMLE Step 2 CK Scores of U.S. Allopathic Seniors
Pediatrics



Numbers of programs students rank

Chart PD-2 Number of Contiguous Ranks of U.S. Allopathic Seniors
Pediatrics

2016

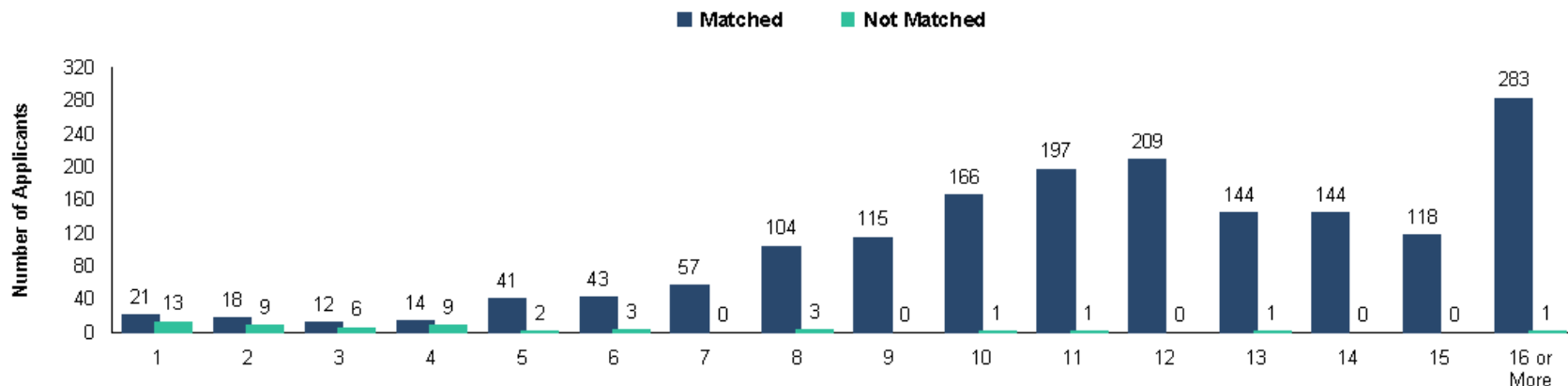
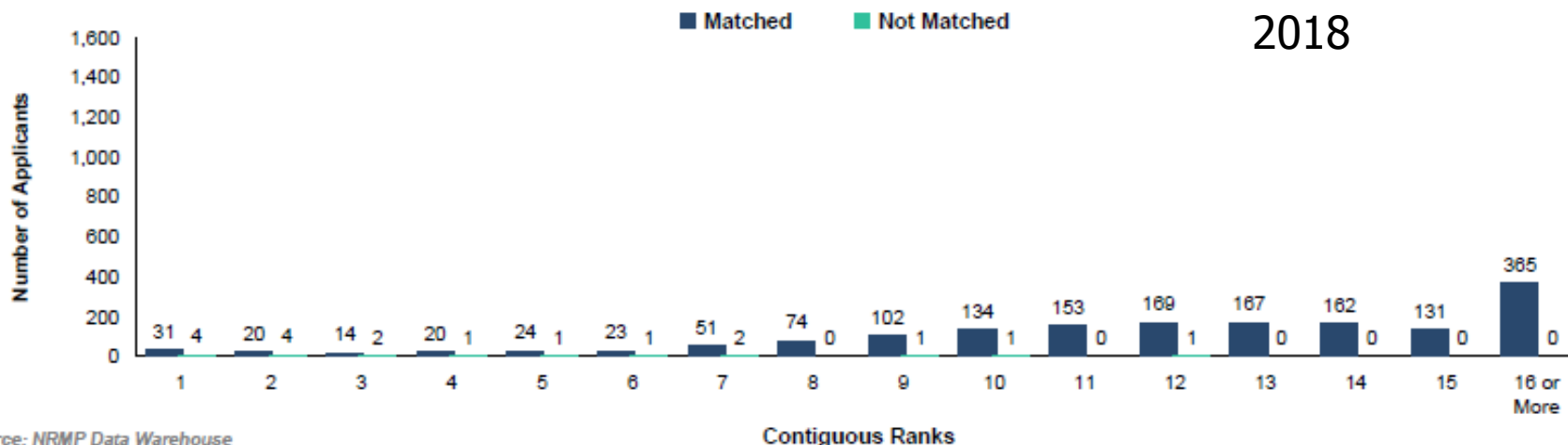
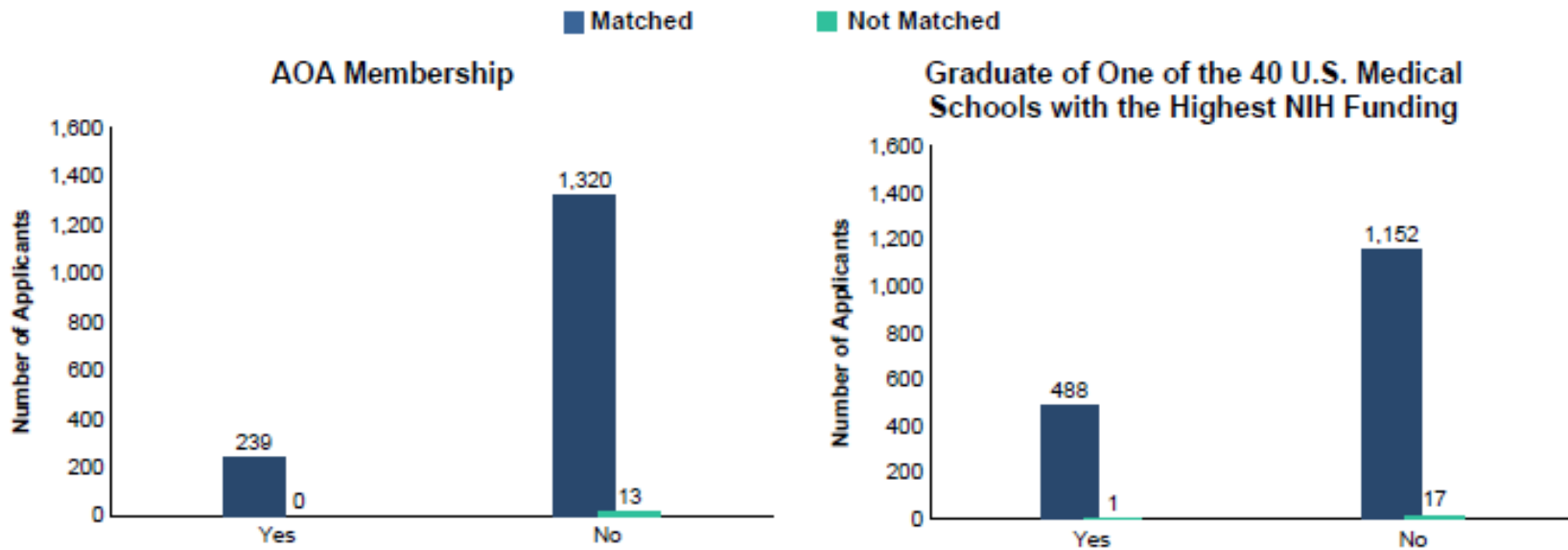


Chart PD-2 Number of Contiguous Ranks of U.S. Allopathic Seniors
Pediatrics

2018



Is it important to be AOA?

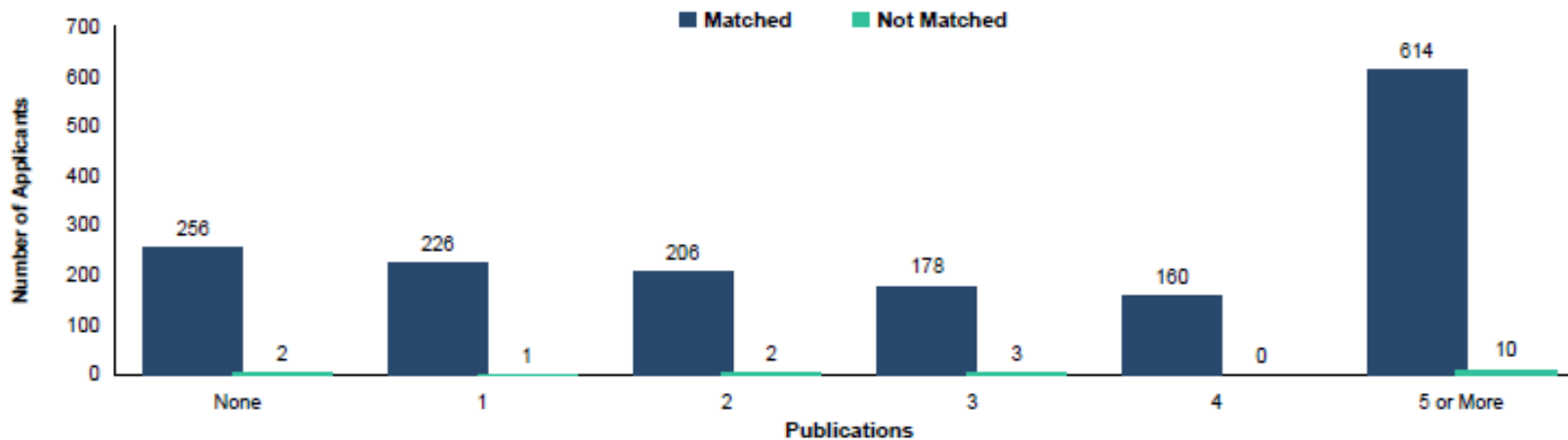


Charting Outcomes in the Match NRMP 2018

How many have published?

Chart
PD-6

Number of Abstracts, Presentations, and Publications of U.S. Allopathic Seniors
Pediatrics



Source: NRMP Data Warehouse

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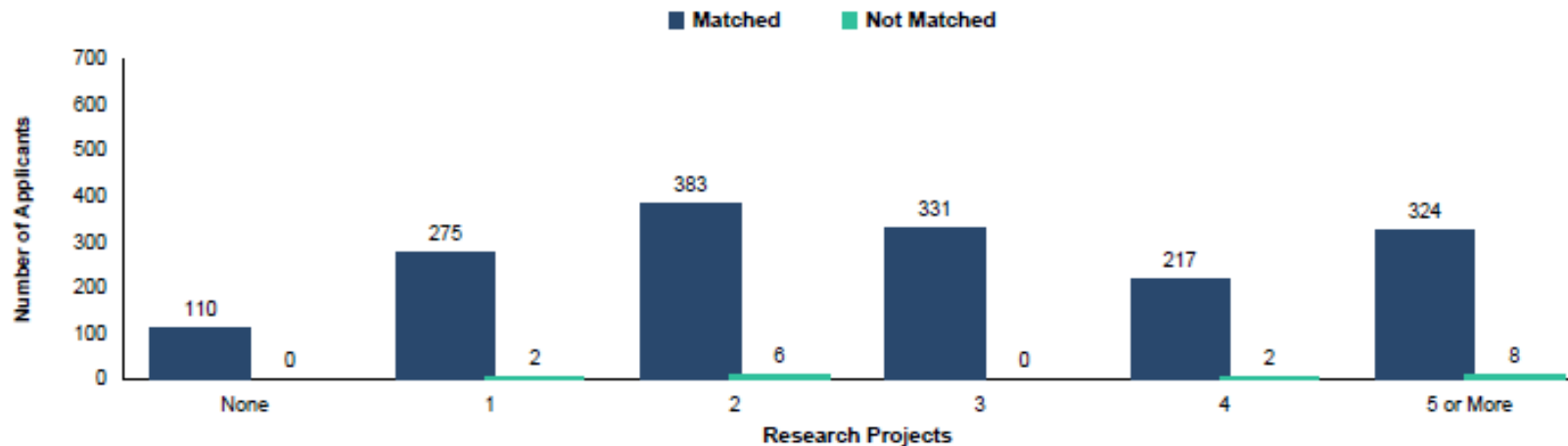
Charting Outcomes in the Match:
U.S. Allopathic Seniors, 2018

Charting Outcomes in the Match NRMP 2018

Done research?

Chart
PD-5

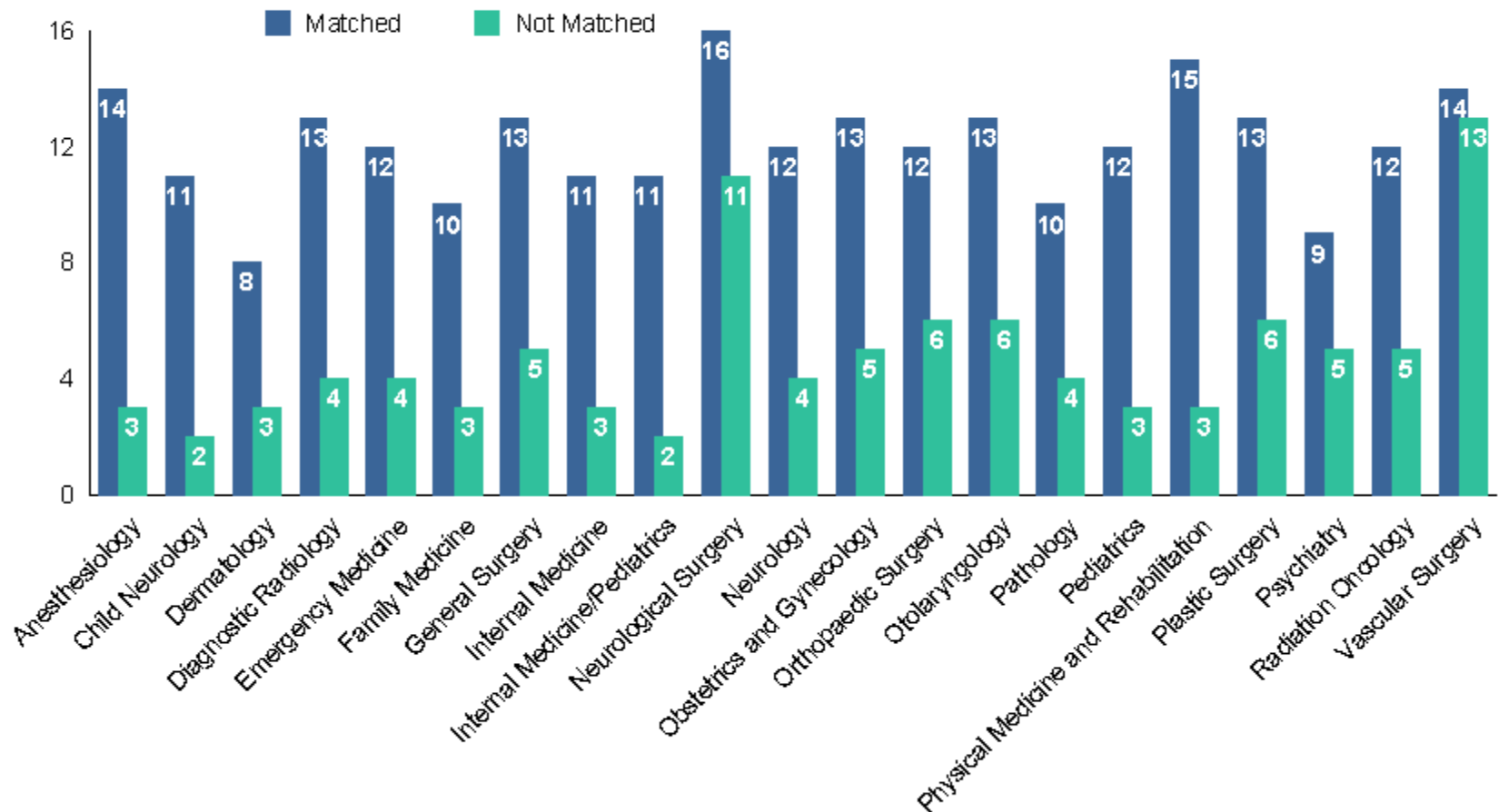
Number of Research Projects of U.S. Allopathic Seniors
Pediatrics



More comparative data 2016

**Chart
4**

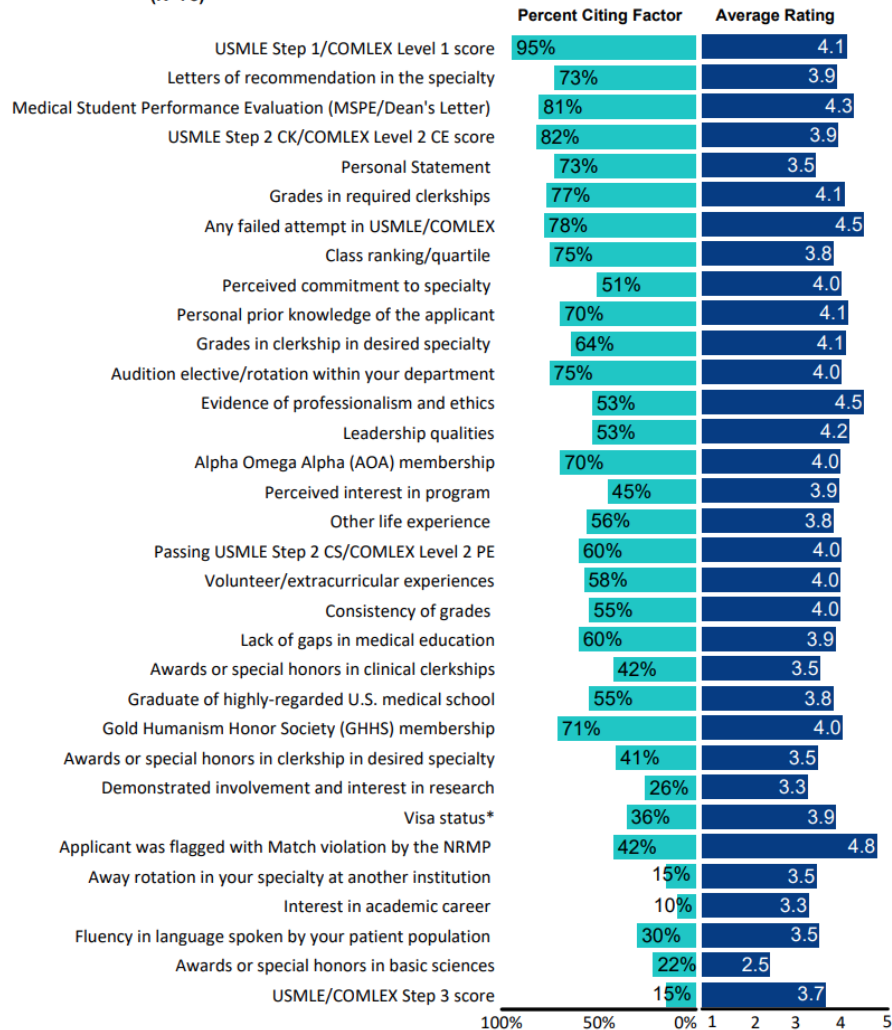
**Median Number of Contiguous Ranks of U.S. Allopathic Seniors
by Preferred Specialty and Match Status**



How do program directors select people to interview?

Figure P-1

Pediatrics
Percentage of Programs Citing Each Factor And Mean Importance Rating¹ for Each Factor in Selecting Applicants to Interview (N=73)



¹ Ratings on a scale from 1 (not at all important) to 5 (very important).

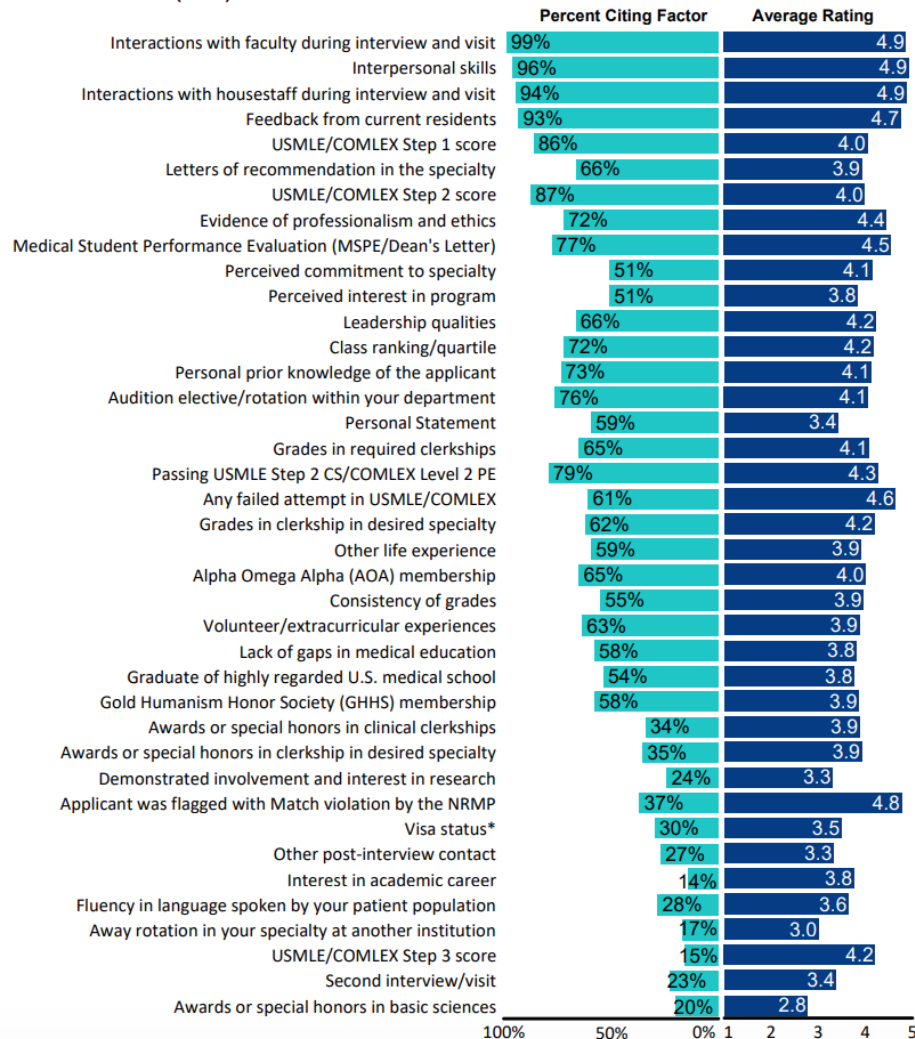
* International Medical Graduates only

Applicant Ranking

What's important?

Figure P-2

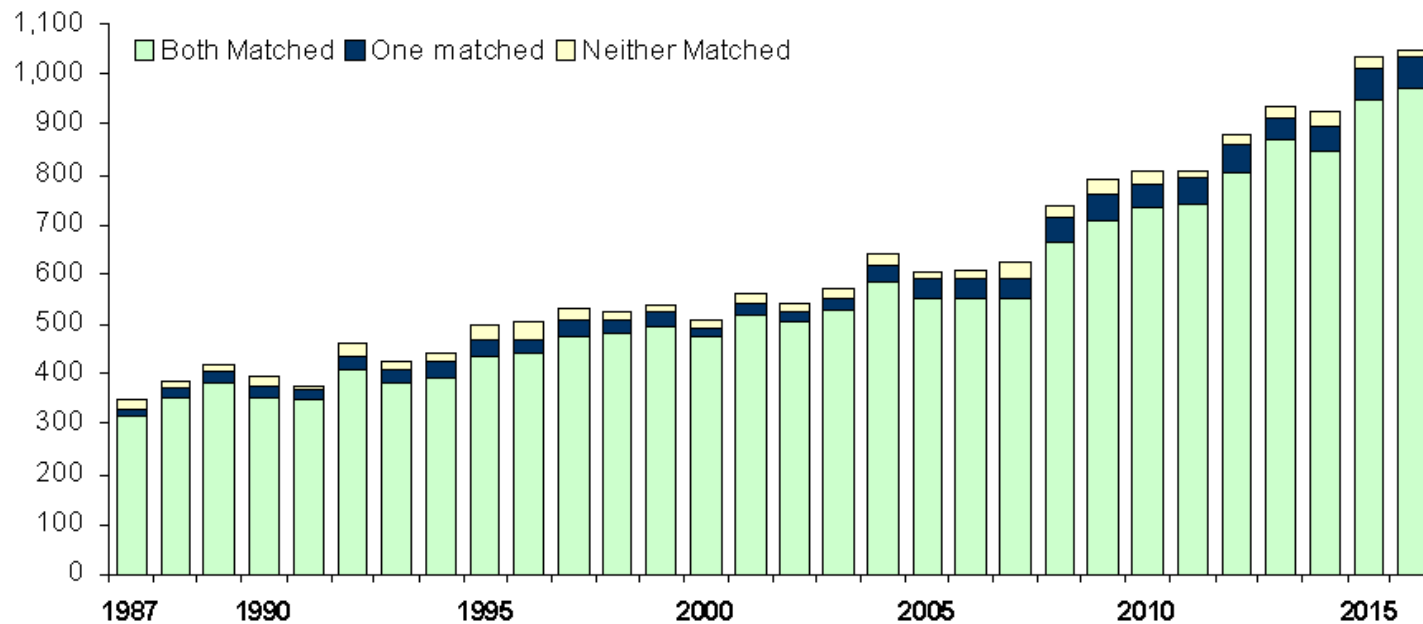
Pediatrics
Percentage of Programs Citing Each Factor And Mean Importance Rating¹ for Each Factor in Ranking Applicants
(N=73)



¹ Ratings on a scale from 1 (not at all important) to 5 (very important).

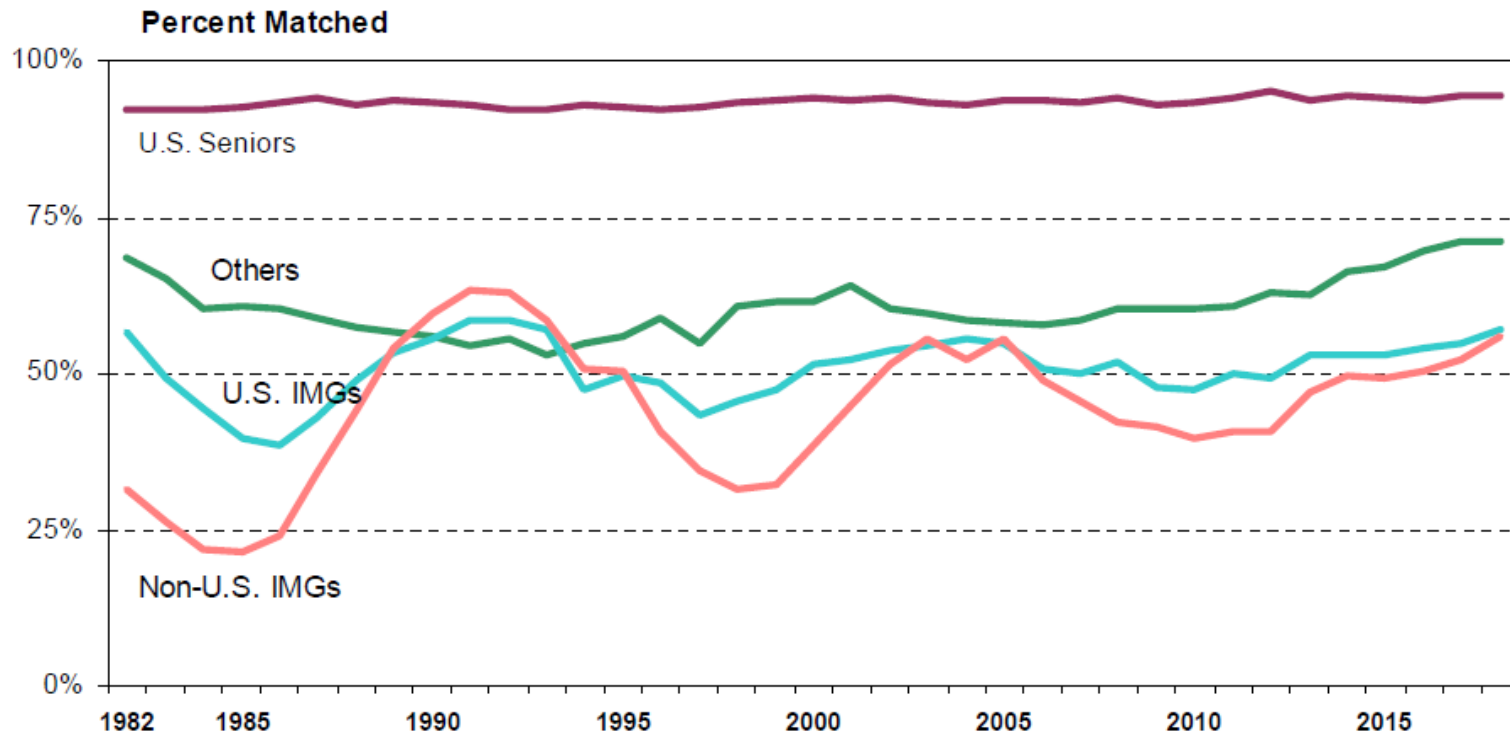
What about Couples Match?

Figure 8 Number of Couples in the Match and Match Outcome, 1987-2016



Reassuring Match Rates US Seniors

Figure 4 PGY-1 Match Rates by Applicant Type, 1982 - 2018



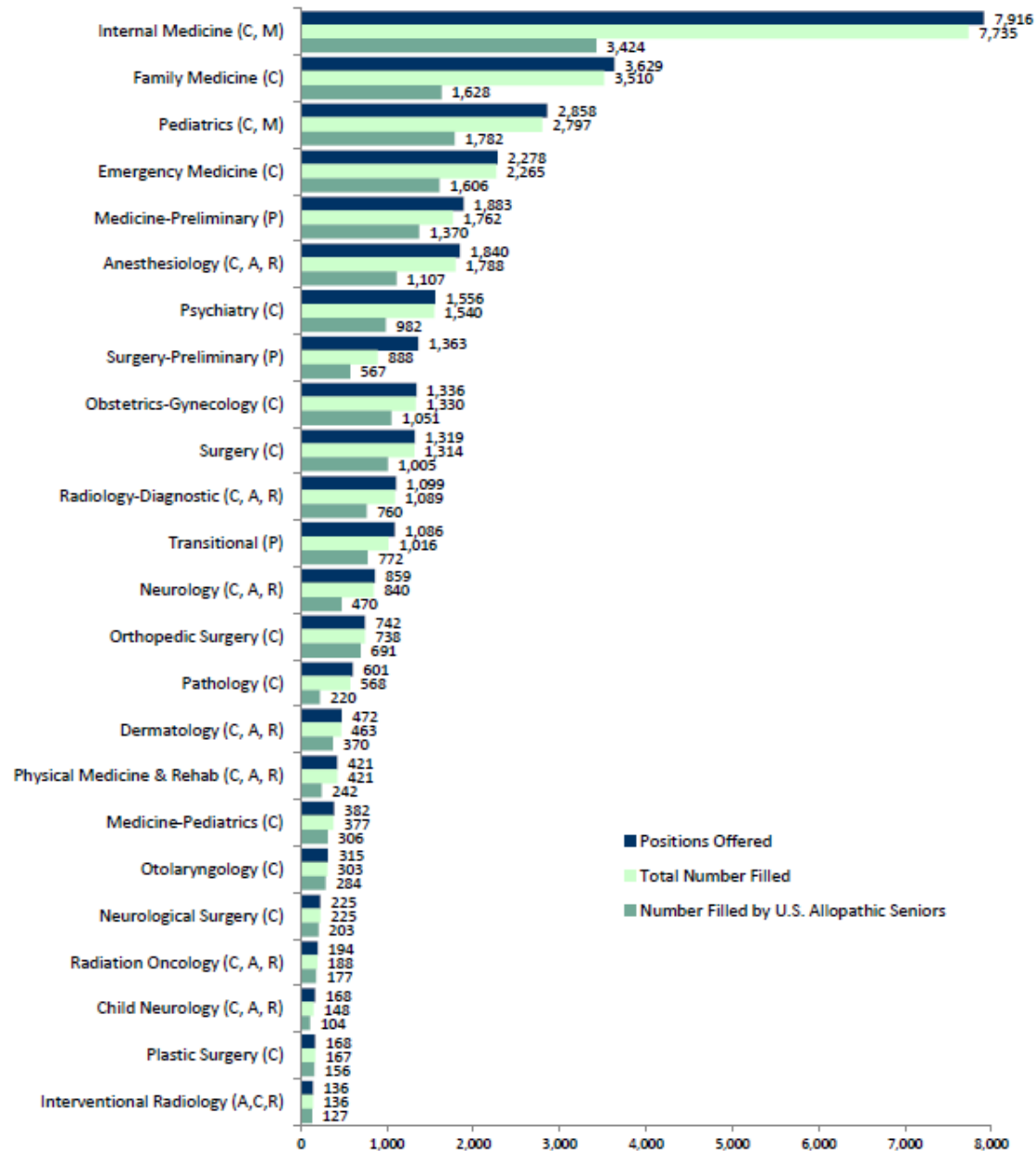
Overall Match #s

US Allopathic graduates

For example, the top five specialties/specialty tracks to which U.S. allopathic medical school seniors (“U.S. Senior”) matched were:

- Internal Medicine (categorical) (3,195)
- Pediatrics (categorical) (1,746)
- Family Medicine (1,628)
- Emergency Medicine (1,606)
- Medicine-Preliminary (PGY-1 Only) (1,370)

Figure 5 Number of Positions Offered and Filled for Selected Specialties,* 2018



* Specialties offering at least 100 positions.

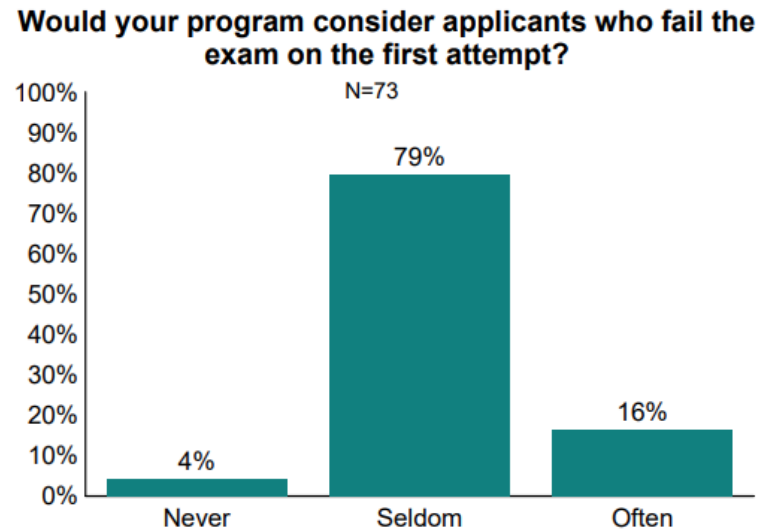
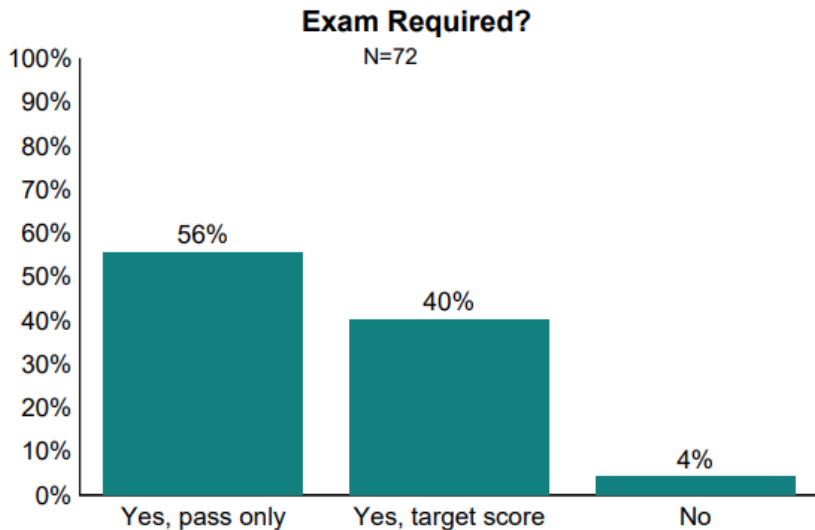
What about USMLE?

Figure P-3

Pediatrics

Programs That Use USMLE Step 1 and Step 2 Clinical Knowledge (CK) Scores When Considering Which Applicants to Interview

Percentage of Programs That Use USMLE Step 1 Scores

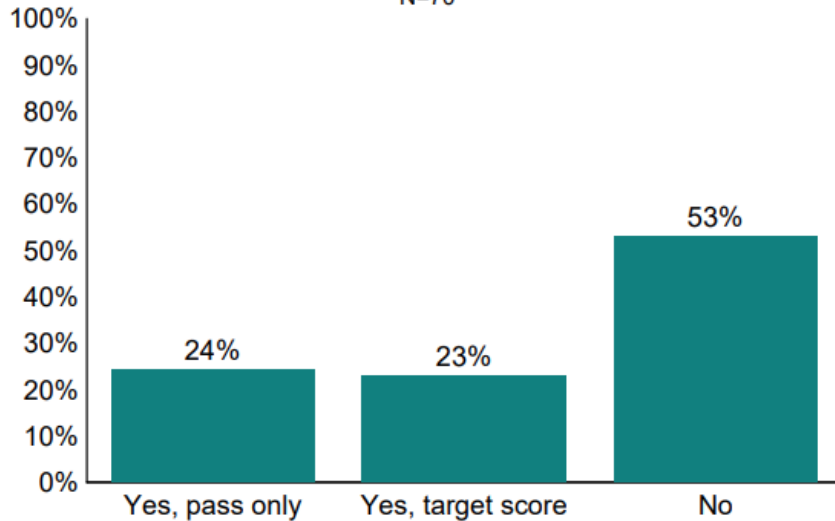


USMLE Step 2

Percentage of Programs That Use USMLE Step 2 (CK) Scores

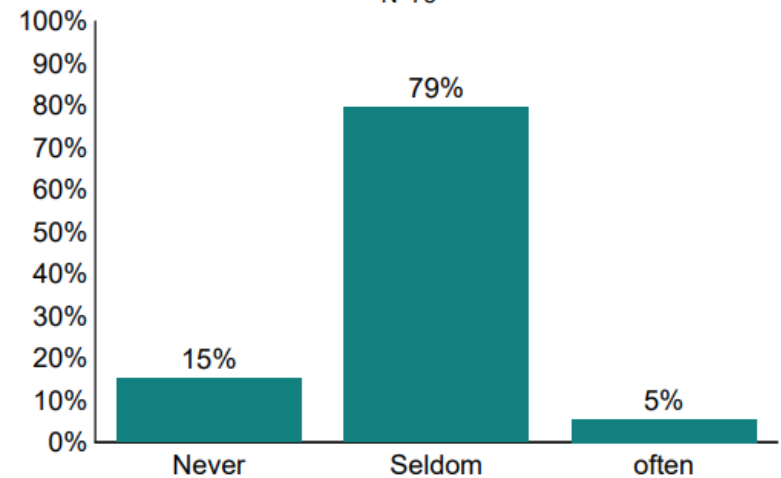
Exam Required?

N=70



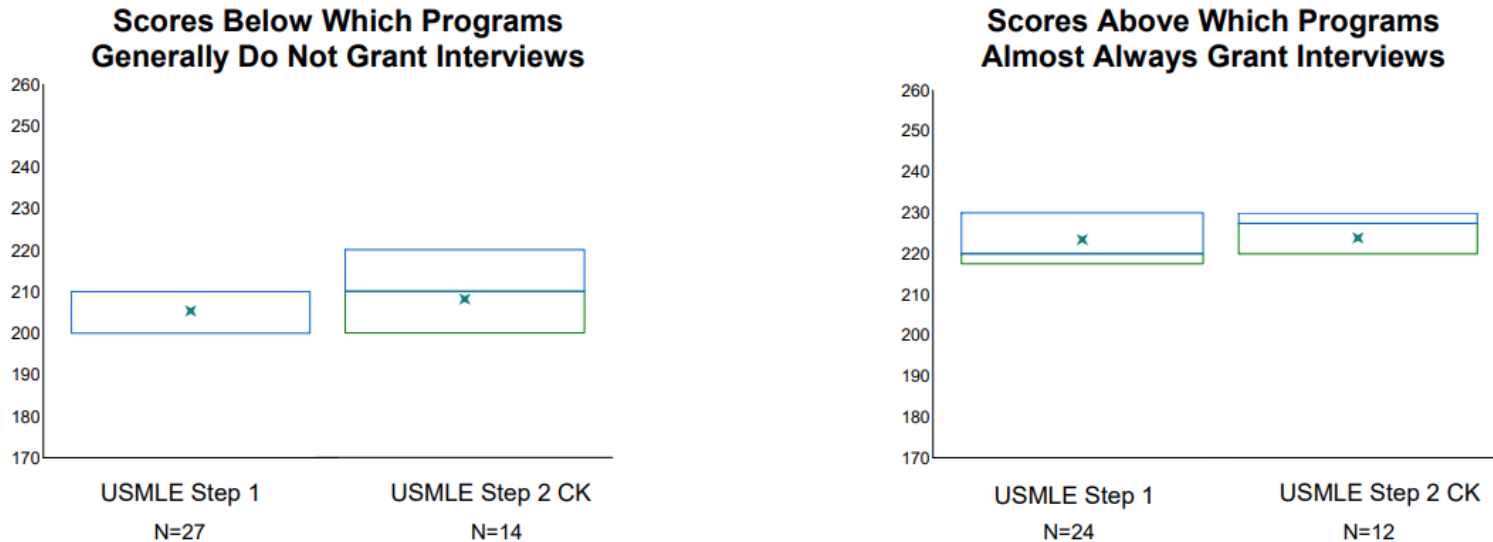
Would your program consider applicants who fail the exam on the first attempt?

N=73



Are there thresholds?

Average USMLE Step 1 and Step 2 CK Scores Programs Consider When Granting Interviews



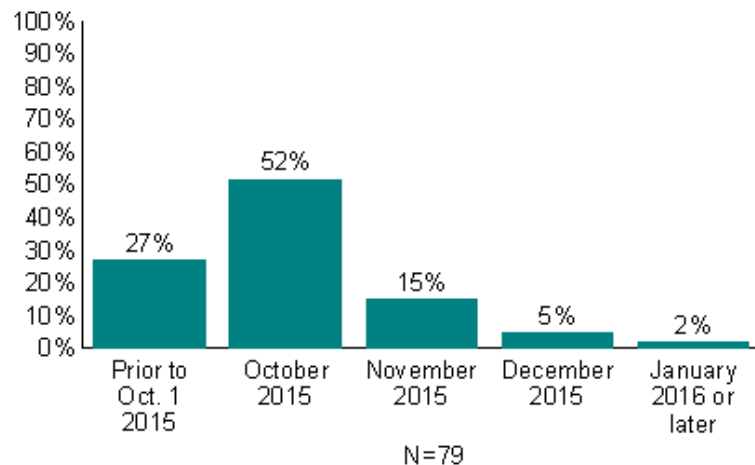
The boxes in the boxplots above represent the interquartile range (or IQR, which is the range between the 25th and 75th percentiles) and the line in the box is the median. The x-shaped symbol is the mean.

NRMP Program Director Survey Results, 2018

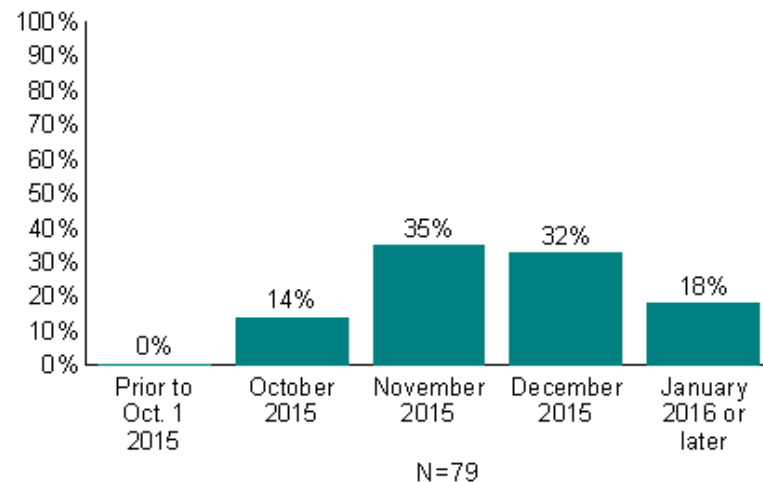
Please note the small #s of responses from PDs here—12-27 responded.
May not be representative.

When are interviews offered?

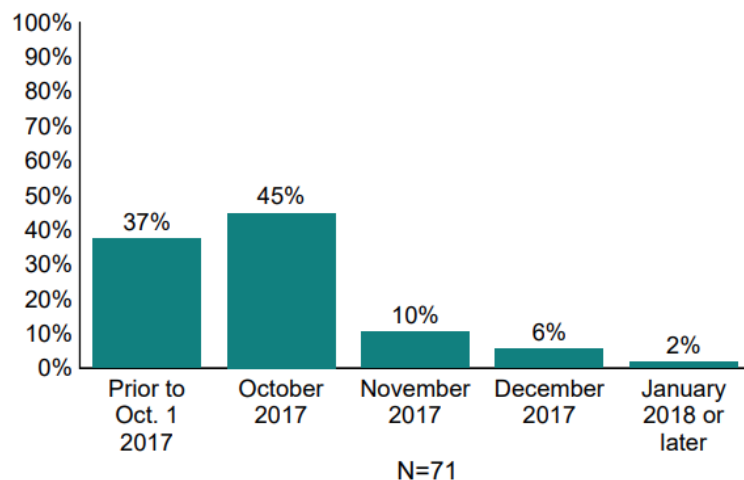
Percentage of Program's Interviews Extended During Each Time Period



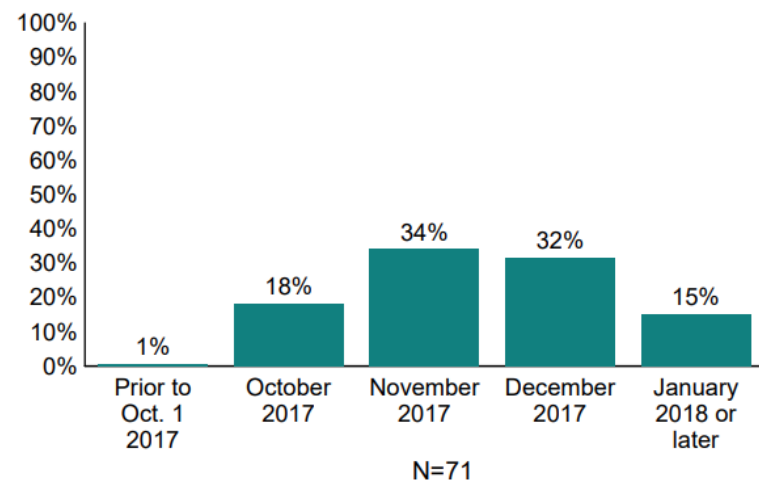
Percentage of Program's Interviews Conducted During Each Time Period



Percentage of Program's Interviews Extended During Each Time Period



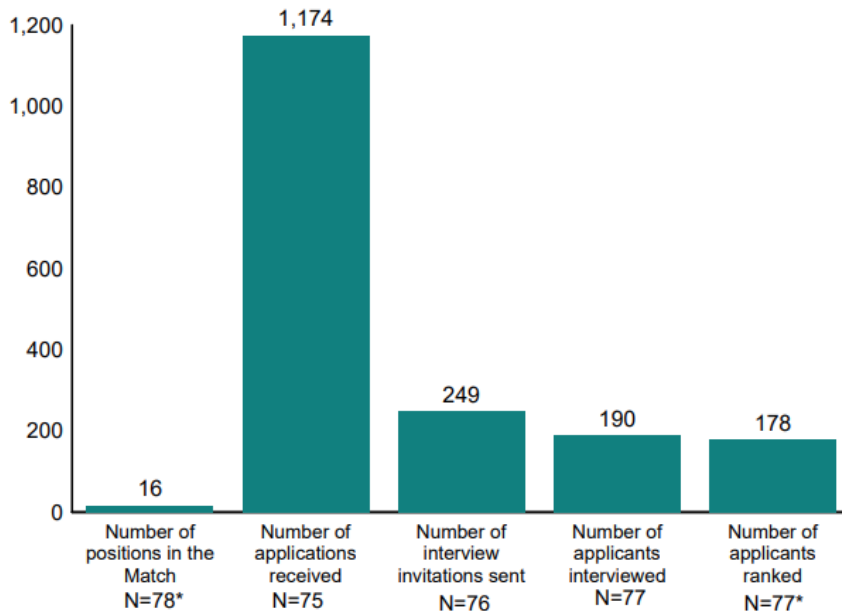
Percentage of Program's Interviews Conducted During Each Time Period



Residency Programs

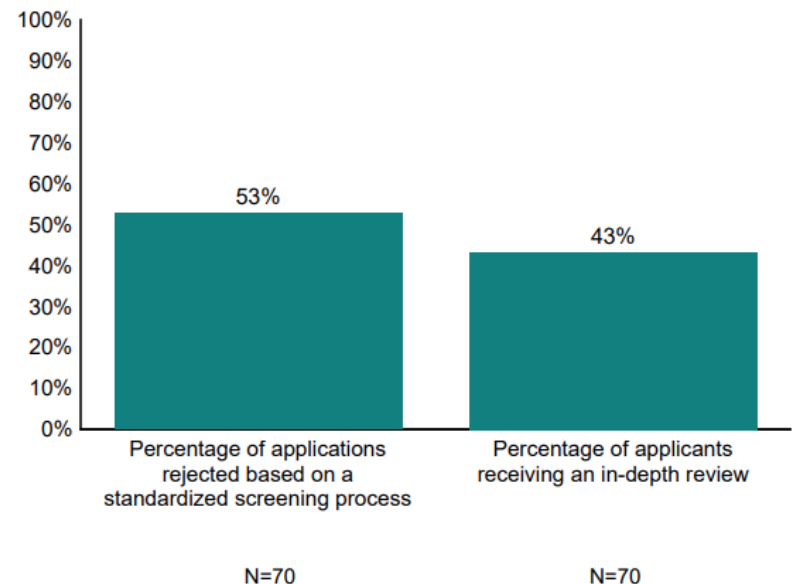
#Applications Received & Screening Behaviors

Average Number of Positions, Applications Received, Interview Invitations Sent, and Applicants Interviewed and Ranked



* Data from the NRMP database. All Responding programs included

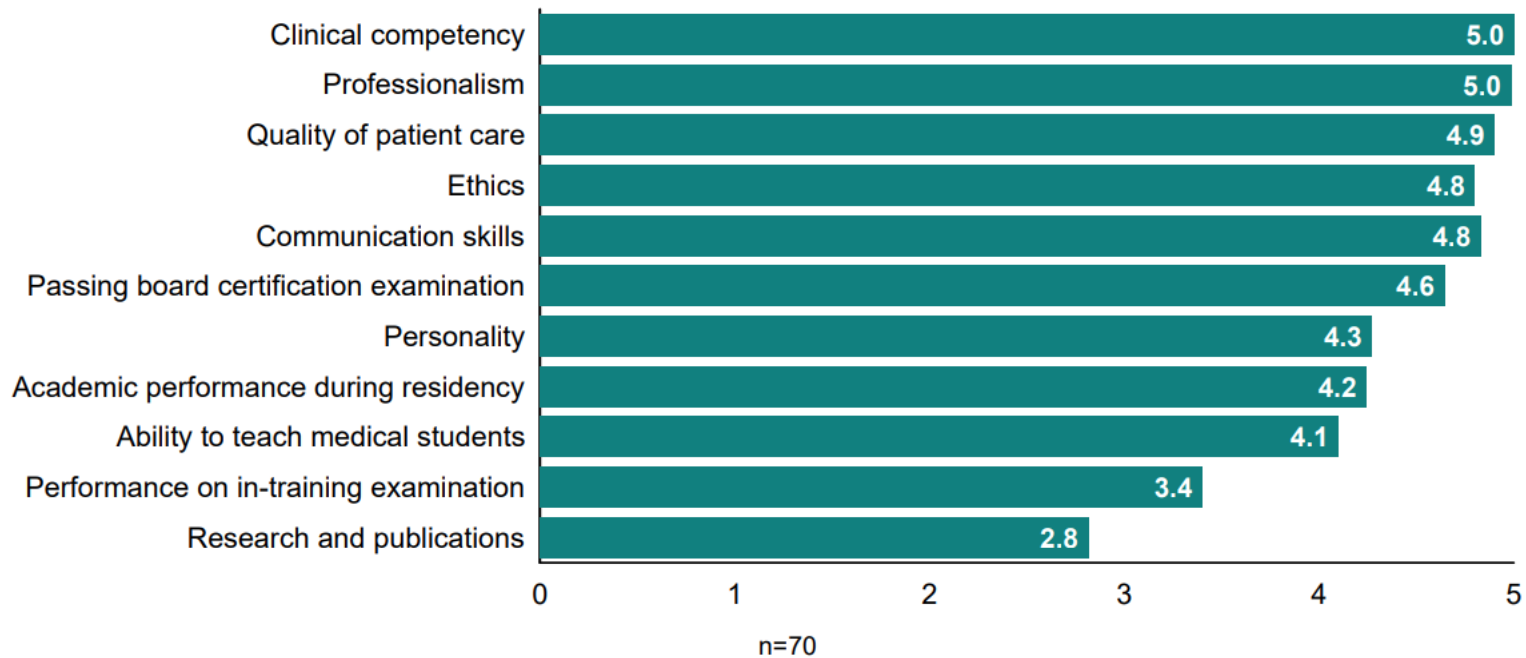
Average Percentage of Applicants Rejected and Reviewed



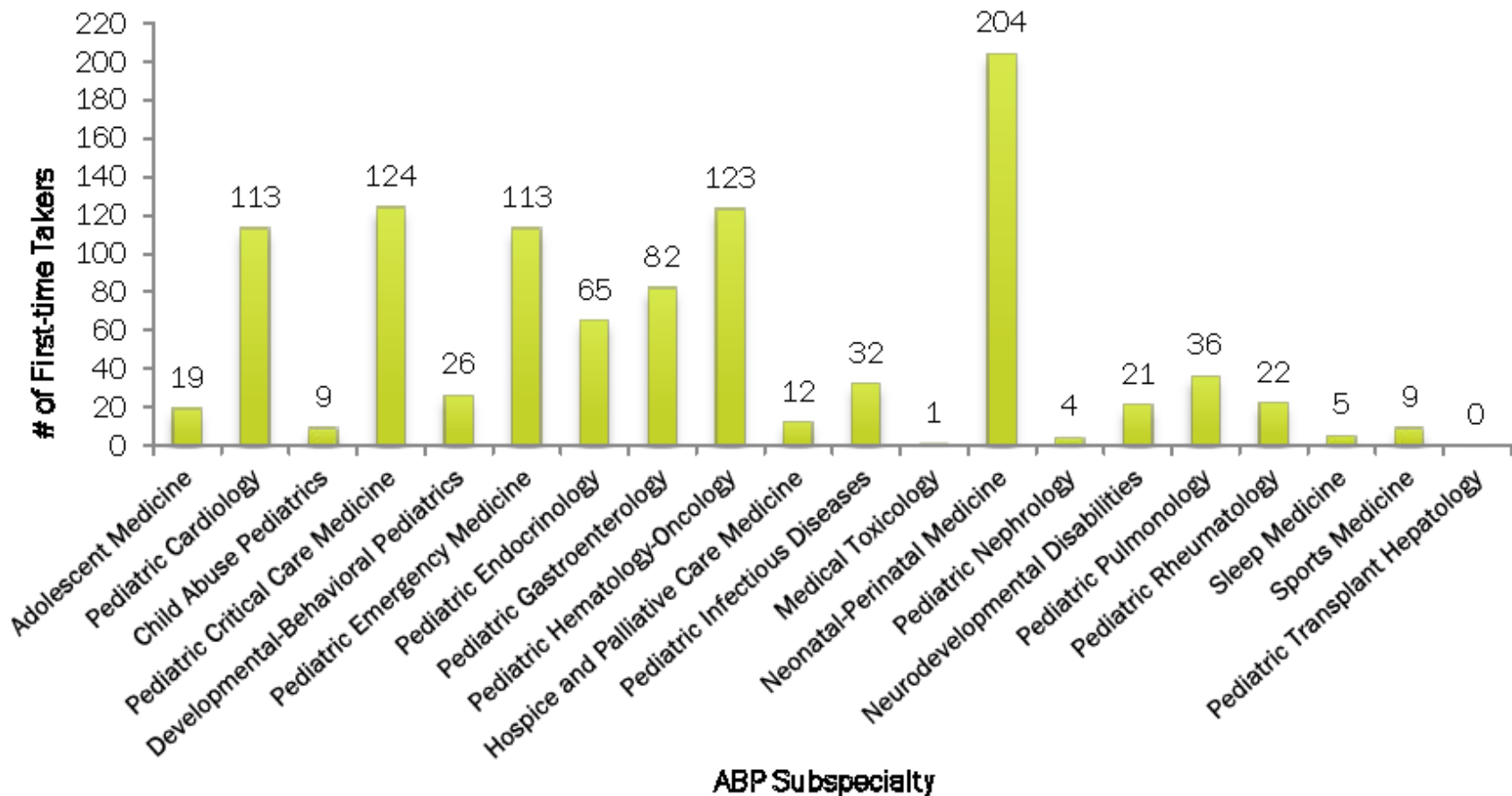
What do PDs think is important in predicting success in residency?

Importance of Factors in Assessing Residents' Success

Average rating on a scale of 5 (5=very important)



What subspecialties did pediatricians choose?



NRMP Match Data 2019



Results of the 2019 NRMP Applicant Survey by Preferred Specialty and Applicant Type

National Resident Matching Program, Data Release and Research Committee: Results of the 2019 NRMP Applicant Survey by Preferred Specialty and Applicant Type. National Resident Matching Program, Washington, DC. 2019.

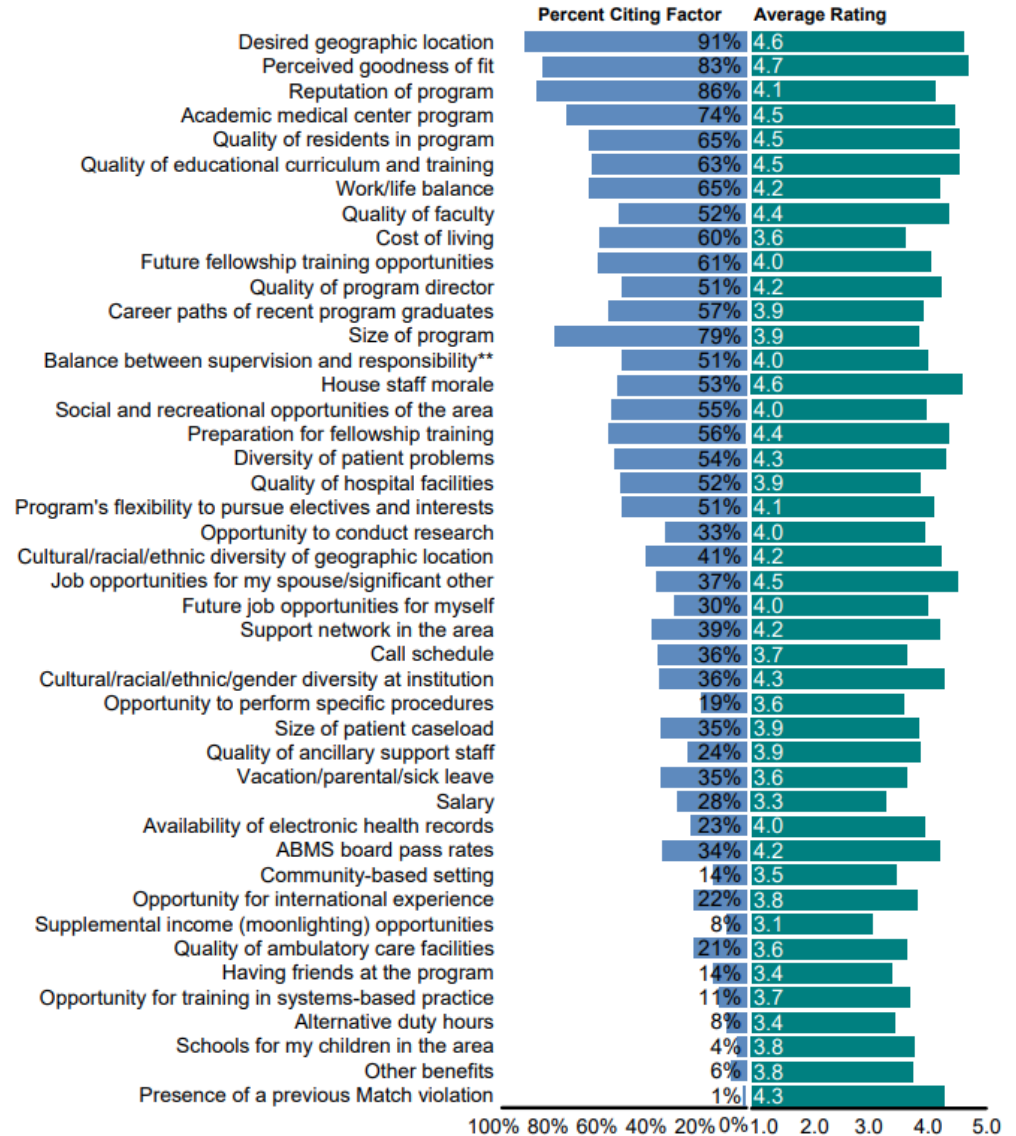
www.nrmp.org/match-data

Selecting

Figure PD-1

Pediatrics

Percent of *U.S. Seniors* Citing Each Factor And Mean Importance Rating* for Each Factor in Selecting Programs for *Application*



2019 Data NRMP applicant survey

Data are presented in descending order of percentage of applicants citing each factor for *U.S. seniors* in all specialties

*Ratings on a scale from 1 (not important) to 5 (extremely important)

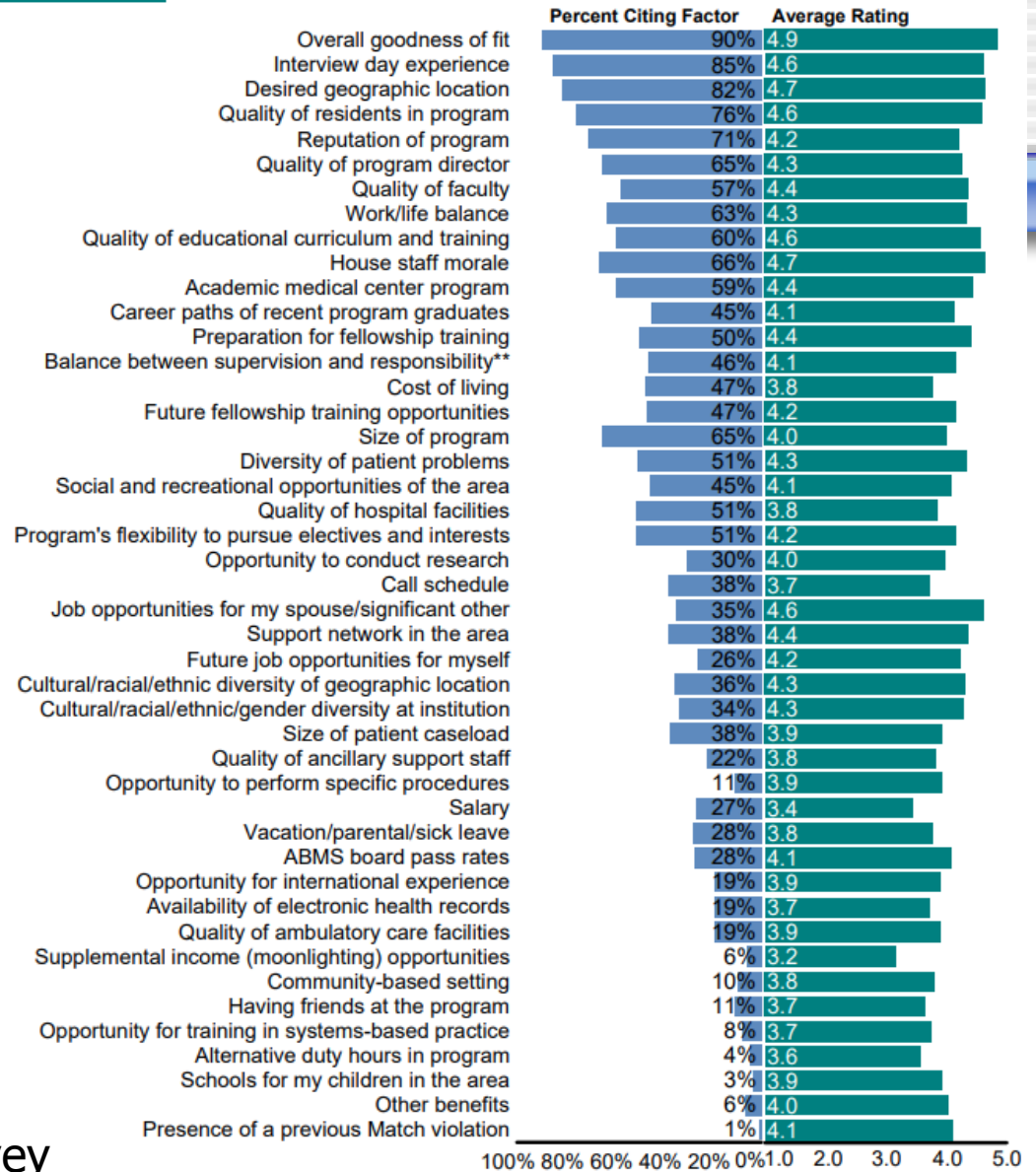
** Appropriate balance between faculty supervision and resident responsibility for patient care

Ranking

Figure PD-2

Pediatrics

Percent of U.S. Seniors Citing Each Factor And Mean Importance Rating* for Each Factor in *Ranking Programs*



2019 Data NRMP applicant survey

Data are presented in descending order of percentage of applicants citing each factor for **U.S. seniors in all specialties**

*Ratings on a scale from 1 (not important) to 5 (extremely important)

** Appropriate balance between faculty supervision and resident responsibility for patient care

Ranking Strategies

Figure PD-3

Pediatrics
Percentage of Applicants Citing Different Ranking Strategies
by Applicant Type

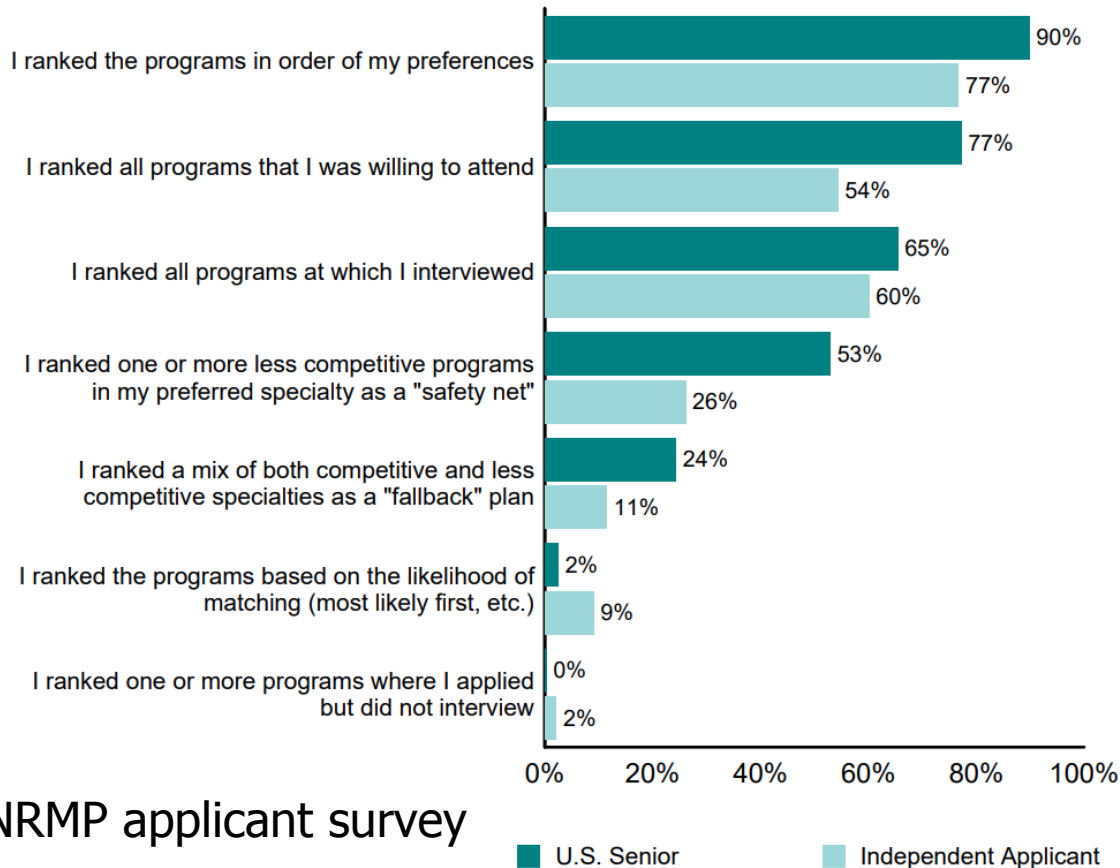
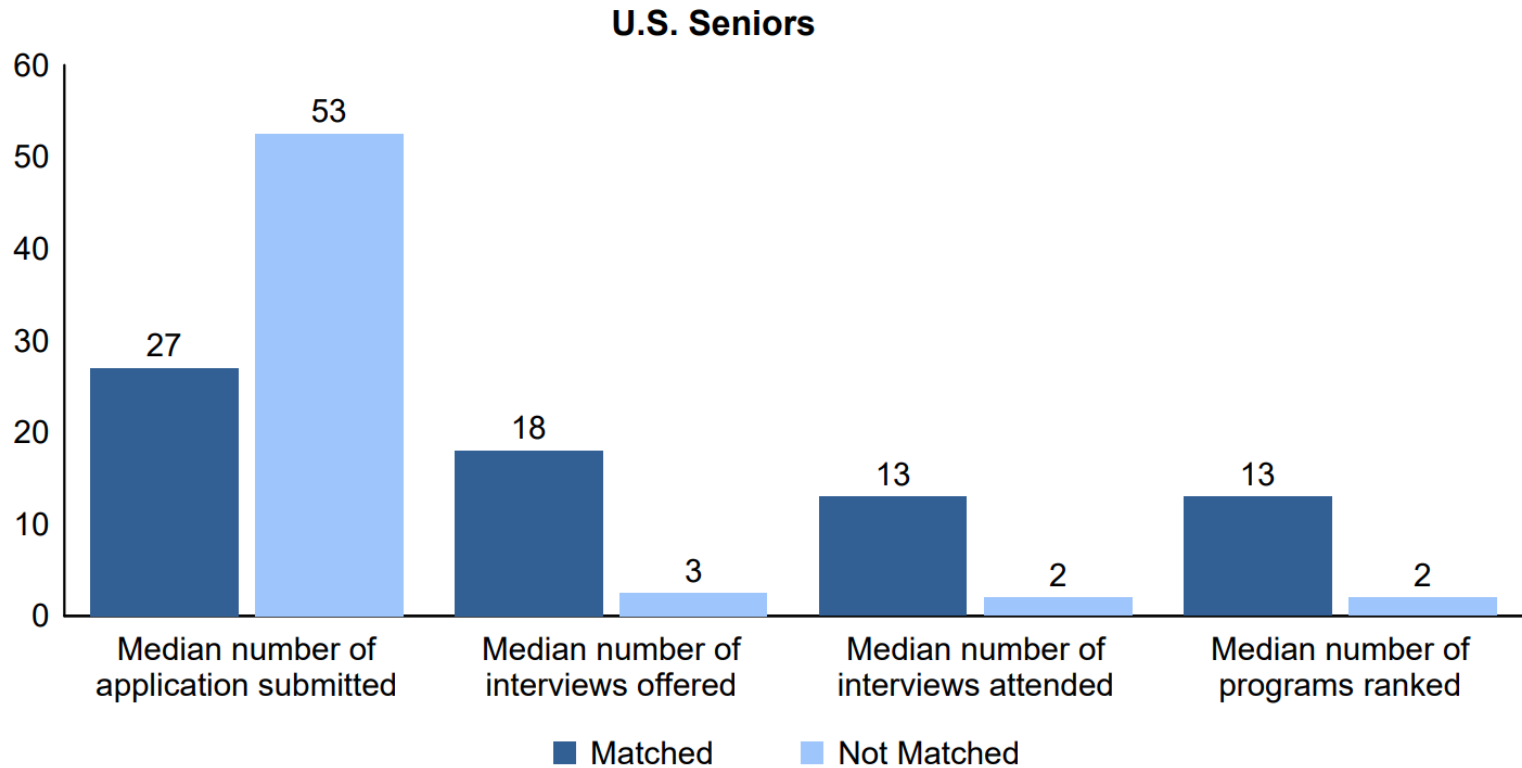


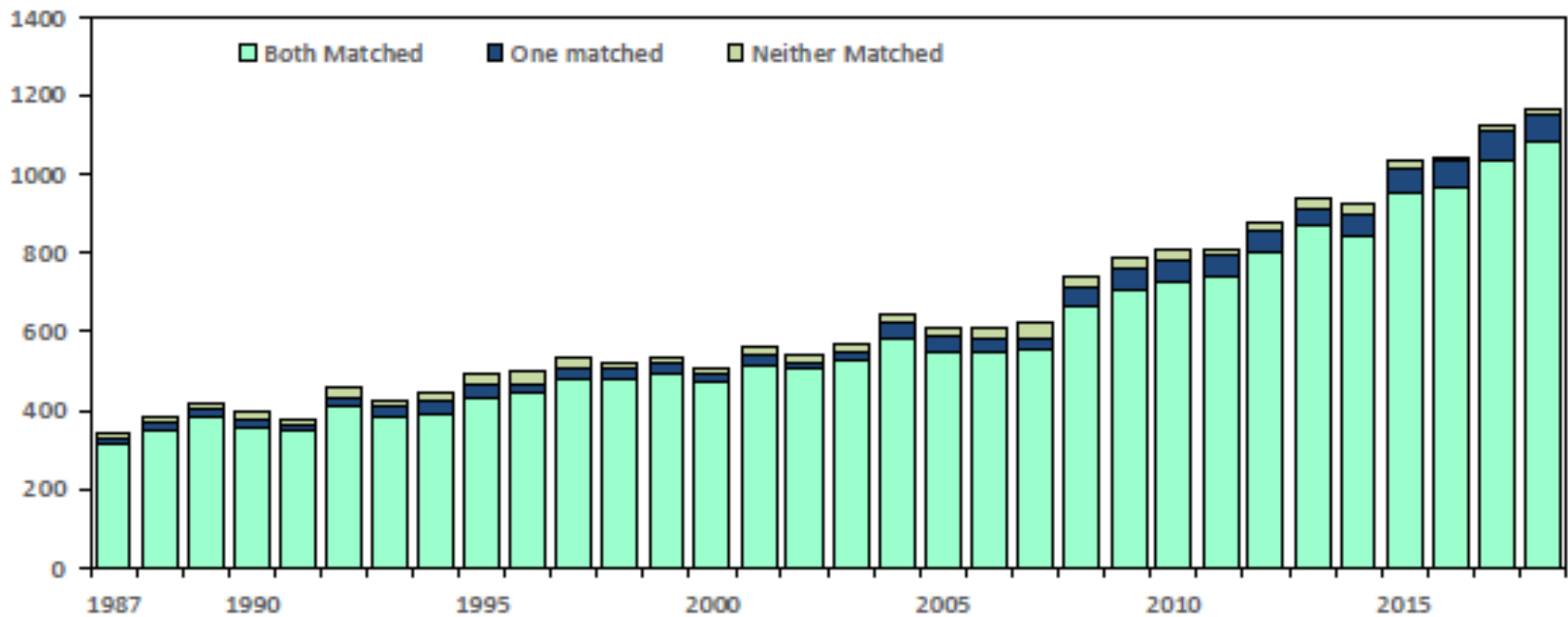
Figure PD-4

Pediatrics
Median Number of Applications, Interviews, and Programs Ranked
by Applicant Type



Couples Outcomes

Figure 8 Number of Couples in the Match and Match Outcome, 1987-2018



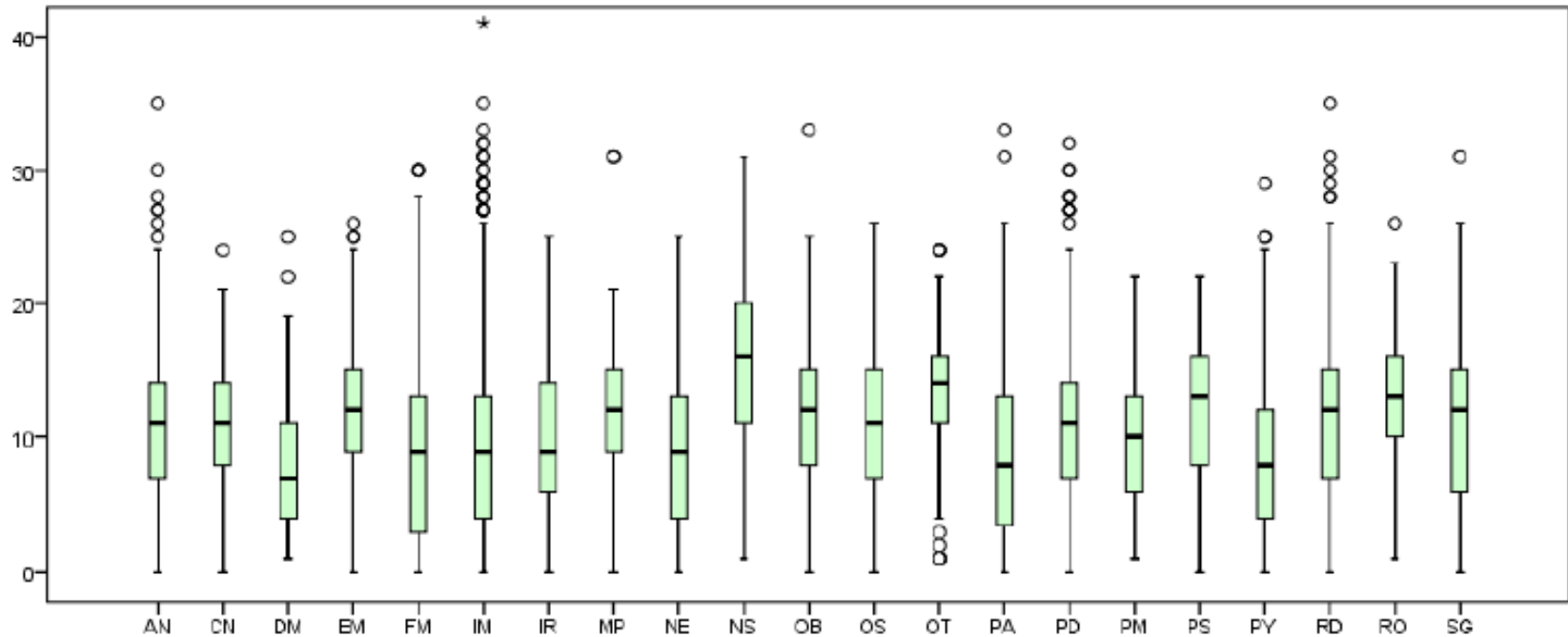
Number of Interviews

by specialty type (Peds in red)

Figure 7

All Specialties
Applicants' First Choice Specialty†
By Specialty (Cont'd)

Number of Interviews Attended by Applicants



Number of Programs Ranked

by specialty type (Peds in red)

