

## INTRODUCTION

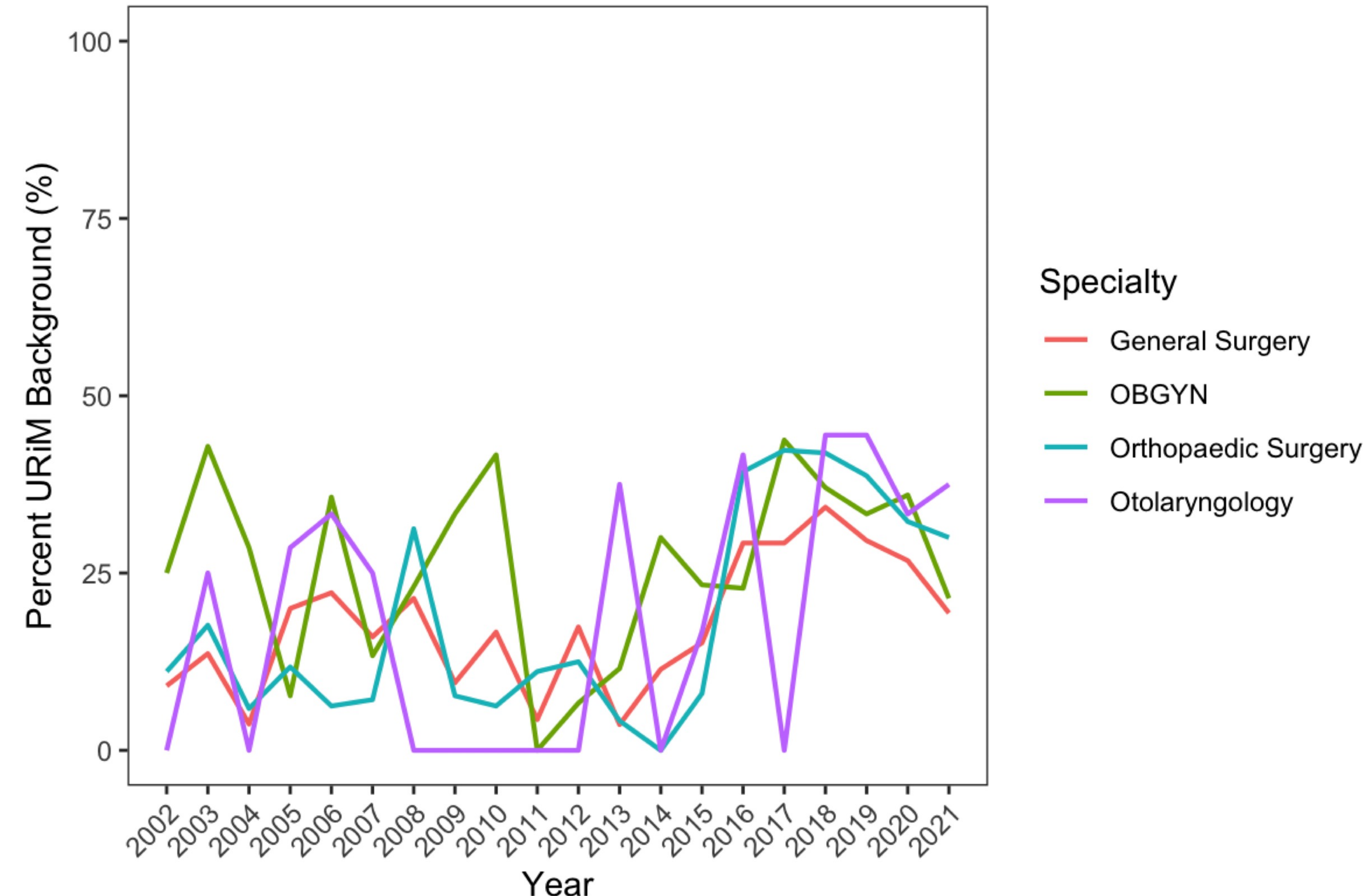
- Orthopaedic surgery ranks among the least racially and gender diverse medical/surgical specialties
- United States military surgeons train in military or military-funded residency positions to care for a markedly diverse population. The composition and diversity of these training programs has not been previously assessed
- **PURPOSE:** The purpose of this study was to analyze the trends of physician diversity in military orthopaedics in comparison with other surgical specialties over time.

## METHODS

- Retrospective cohort study
- Matriculants to first year of residency training in United States military programs between 2002-2020
- Collected:
  - Self-reported race/ethnicity
  - Self-reported gender (binary selection option)
  - Medical/specialty program
- Under-represented in Medicine (URiM) applicants
  - As classified as defined by the American Academy of Medical Colleges based on representation in medicine proportional to US population
  - Self-reported race as African American, American Indian/Alaskan Native, Native Hawaiian, "other", or who reported ethnicity as Hispanic
- Analysis
  - Changes in demographics of persons accepted to training positions over time
  - Linear regression to model trends in diversity among orthopaedic matriculating residents when compared to other surgical subspecialties over time.

## RESULTS - URiM MATRICULATION

Figure 1. Line graph showing the 18 year percentage of URiM background physicians accepted into surgical subspecialty resident programs



### All Programs

9124 total matriculants

- 1875 URiM (20%)
- 900 Asian/Pacific Islander (10%)
- 6349 White/Caucasian (70%)

### Change Over Time

- +1.01% / year (p<0.01)

### Orthopaedic Programs

427 total matriculants

- 81 URiM (19%)
- 26 Asian/Pacific Islander (6%)
- 320 White/Caucasian (75%)

### Change Over Time

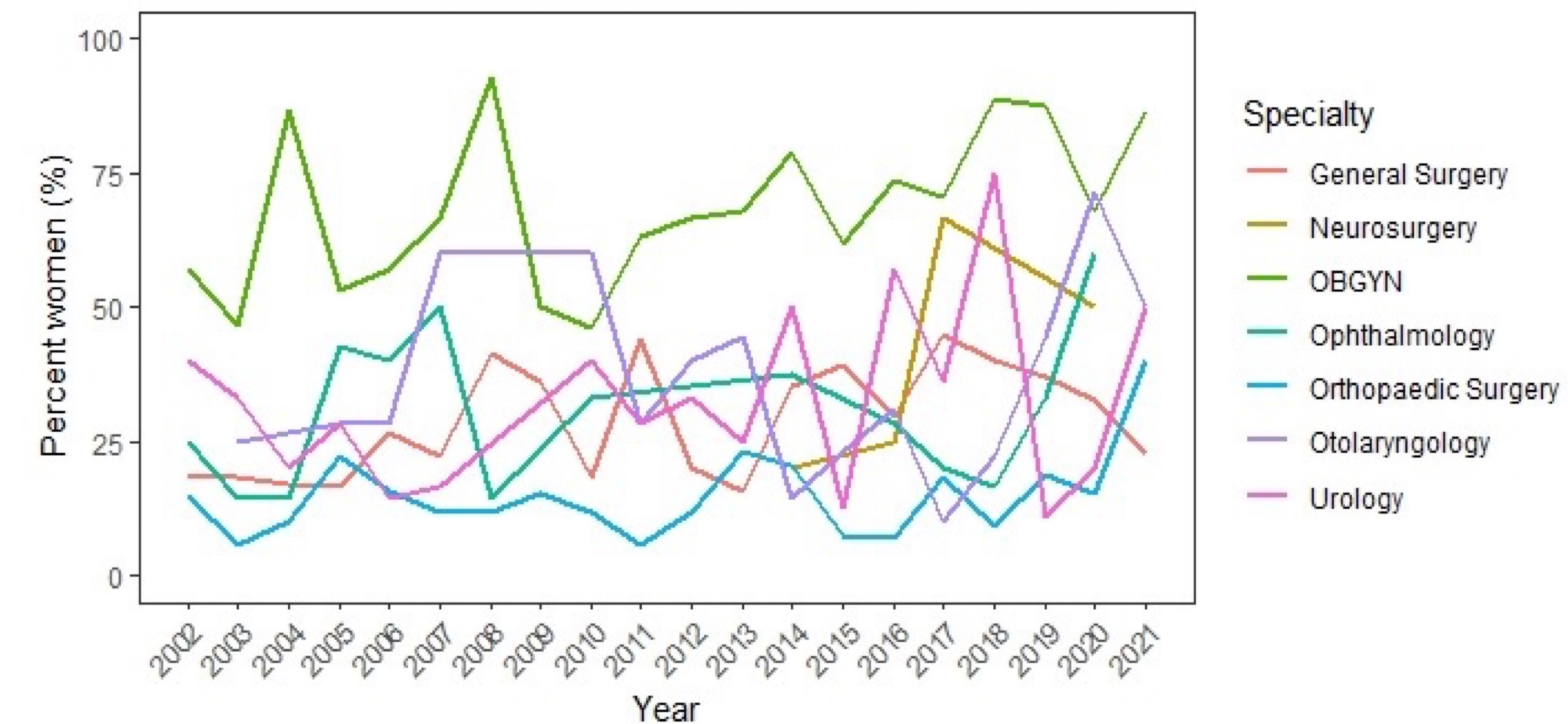
- +1.52% / year (p<0.01)

Table 1. Physicians accepted into orthopaedic resident program by self-identified racial category per year

Year	Asian		Black		White		Hispanic		Pacific Islander		Other		Minorities		Total
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	
2002	0	0.00	2	10.00	16	80.00	0	0.00	2	10.00	0	0.00	2	10.00	20
2003	0	0.00	0	0.00	14	82.35	1	5.88	0	0.00	2	13.33	3	17.65	17
2004	2	10.00	1	5.00	16	80.00	0	0.00	1	5.00	0	0.00	1	5.00	20
2005	1	5.56	1	5.56	15	83.33	0	0.00	0	0.00	1	5.88	2	11.11	18
2006	3	15.79	1	5.26	15	78.95	0	0.00	0	0.00	0	0.00	1	5.26	19
2007	3	17.65	1	5.88	13	76.47	0	0.00	0	0.00	0	0.00	1	5.88	17
2008	1	5.88	0	0.00	11	64.71	0	0.00	0	0.00	5	41.67	5	29.41	17
2009	0	0.00	0	0.00	12	92.31	0	0.00	0	0.00	1	8.33	1	7.69	13
2010	1	5.88	0	0.00	15	88.24	1	5.88	0	0.00	0	0.00	1	5.88	17
2011	0	0.00	0	0.00	16	88.89	0	0.00	0	0.00	2	12.50	2	11.11	18
2012	1	5.88	1	5.88	14	82.35	0	0.00	1	6.25	2	11.76	2	11.76	17
2013	2	7.41	0	0.00	23	85.19	1	3.70	0	0.00	1	3.85	2	7.41	27
2014	2	6.90	0	0.00	27	93.10	0	0.00	0	0.00	0	0.00	0	0.00	29
2015	2	7.41	0	0.00	23	85.19	1	3.70	0	0.00	1	3.85	2	7.41	27
2016	0	0.00	0	0.00	17	60.71	2	7.14	0	0.00	9	47.37	11	39.29	28
2017	1	3.70	0	0.00	15	55.56	1	3.70	0	0.00	10	58.82	11	40.74	27
2018	1	3.13	1	3.13	18	56.25	0	0.00	0	0.00	12	60.00	13	40.63	32
2019	1	3.13	1	3.13	19	59.38	0	0.00	0	0.00	11	52.38	12	37.50	32
2020	2	6.06	1	3.03	21	63.64	0	0.00	0	0.00	9	37.50	10	30.30	33
Average Annual %		5.49		2.47		76.66		1.58		0.79		18.51		17.05	22.53

## RESULTS – FEMALE MATRICULATION

Figure 2. Line graph showing the 18 year percentage of female physicians accepted into surgical subspecialty resident programs



### All Programs

9124 total matriculants

- 2809 female (31%)

### Change Over Time

- +0.94% / year (p<0.01)

### Orthopaedic Programs

427 total matriculants

- 59 female (14%)

### Change Over Time

- +0.10% / year (p=0.66)

## CONCLUSIONS

- Despite improvements, recruitment efforts to date fall far short of reversing gender, racial, and ethnic disparities in military orthopaedics
- Similar trends observed in civilian programs, if not worse
- Additional interventions are still necessary to increase diversity for military (and civilian) orthopaedic surgeon

More diverse/larger pool of applicants → better applicants → better care

## CHALLENGES

- Lack of diversity in leadership failure to recruit diverse applicants
- Orthopaedic has a reputation for lack of inclusion and lack of life balance
- Lack of exposure during MSI-III only those with connections select Ortho

## OPPORTUNITIES

- Improved leadership diversity by recognizing, encouraging, and promoting excellent leaders and retaining them
- Mentorship, Scholarship, & early Exposure (including through Nth dimensions & Perry Initiative)

