

Introduction

- The orthopedic match is highly competitive
- Successful orthopedic applicants have historically had high Step 1 scores
- Step 1 is Pass/Fail after January 26, 2022
- Programs must change applicant assessment
- Students must understand how to build a successful orthopedic application

Objective

- Evaluate 2007-20 Step 1 and 2 score trends among orthopedic applicants
- Assess 2007-20 trends in factors among matched and unmatched applicants including:
 - Abstracts/Publications/Presentations (APP)
 - Graduation from NIH top 40 medical school
 - Additional degrees
 - Alpha Omega Alpha (AOA) status

Methods

- Reviewed 2007-20 National Resident Matching Program (NRMP) *Charting Data in the Match* reports for orthopedics and all specialties for:
 - Step 1 and 2 scores, APP, top 40 medical school, additional degrees, AOA status
- Mean differences between matched and unmatched applicants compared using T-tests
 - Significance at p = 0.05
- Linear regressions to evaluate trends over time

Results

- In 2007, 719 US medical students applied for 616 orthopedic positions
- In 2020, 860 US medical students applied for 849 orthopedic positions

2020 Matched vs Unmatched Applicants				2007-2020 Residency Match Applicant Trends in Orthopedics and All Applicants						
Metric	Ortho	Overall	P	Values for Matched Applicants				2007-20 Rate of Change Matched vs Unmatched		
				2007 Ortho	2007 Overall	2020 Ortho	2020 Overall	Ortho	Overall	
Mean Step 1 Score*	13	9	0.042	234	221	248	234	-0.82	-0.26	
Mean Step 2 Score	13	12	0.059	234	226	255	247	-0.81	-0.59	
Number A/P/P*	2	0	0.010	3	2.2	14.3	6.9	0.12	0.02	
% Top 40 Med School	10.5	8.7	0.210	40	36.7	33.6	31%	-0.45	-0.05	
% Additional Degree	-5.3%	-3.3%	0.250	15.1	14.3	17.5	21.5	-0.37	-0.16	
% AOA Status*	24.8	8.7	<0.001	30.5	14.1	40.3	16.7	0.31	0.01	

No significant differences between ortho vs overall rates of change

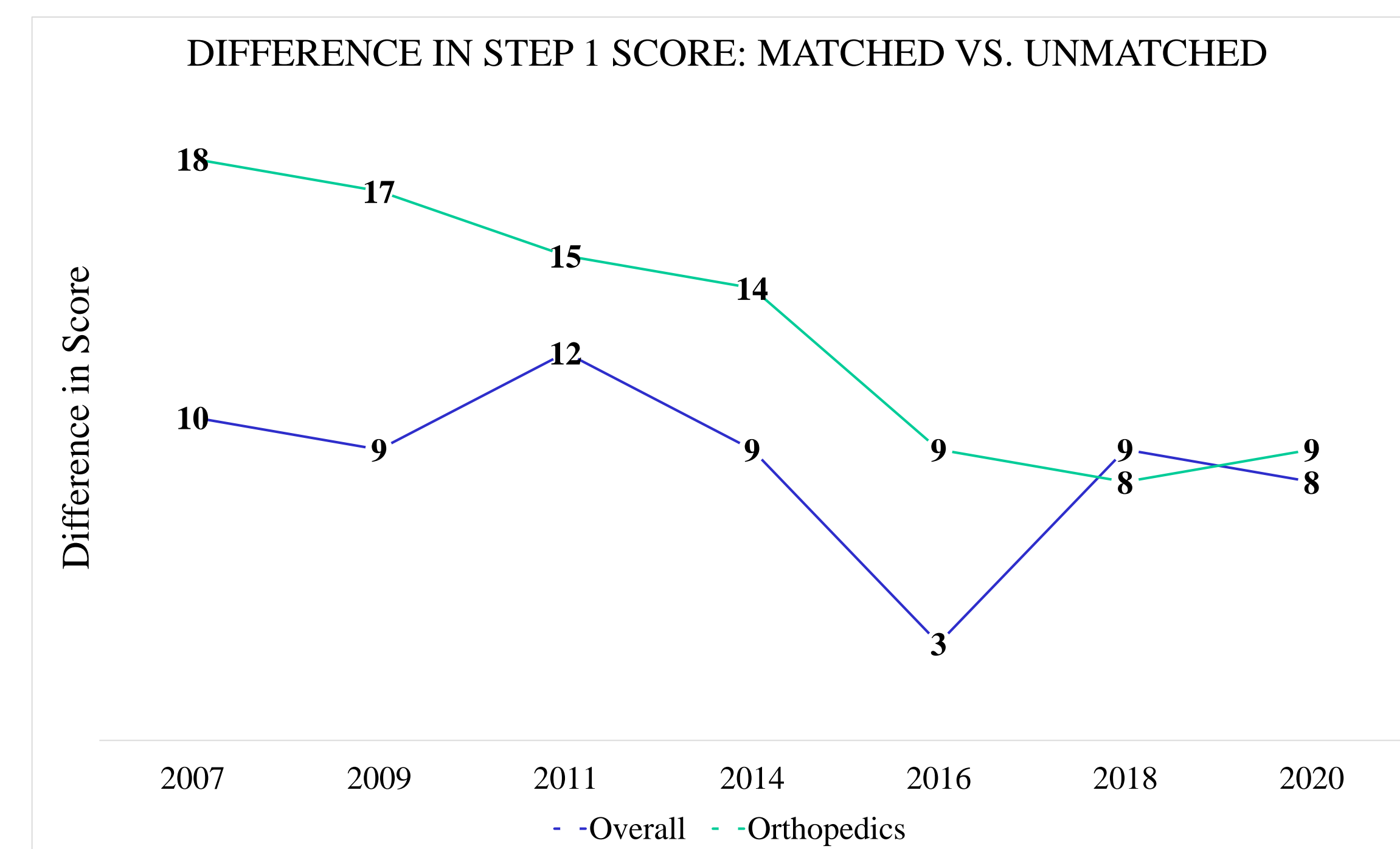


Figure 7

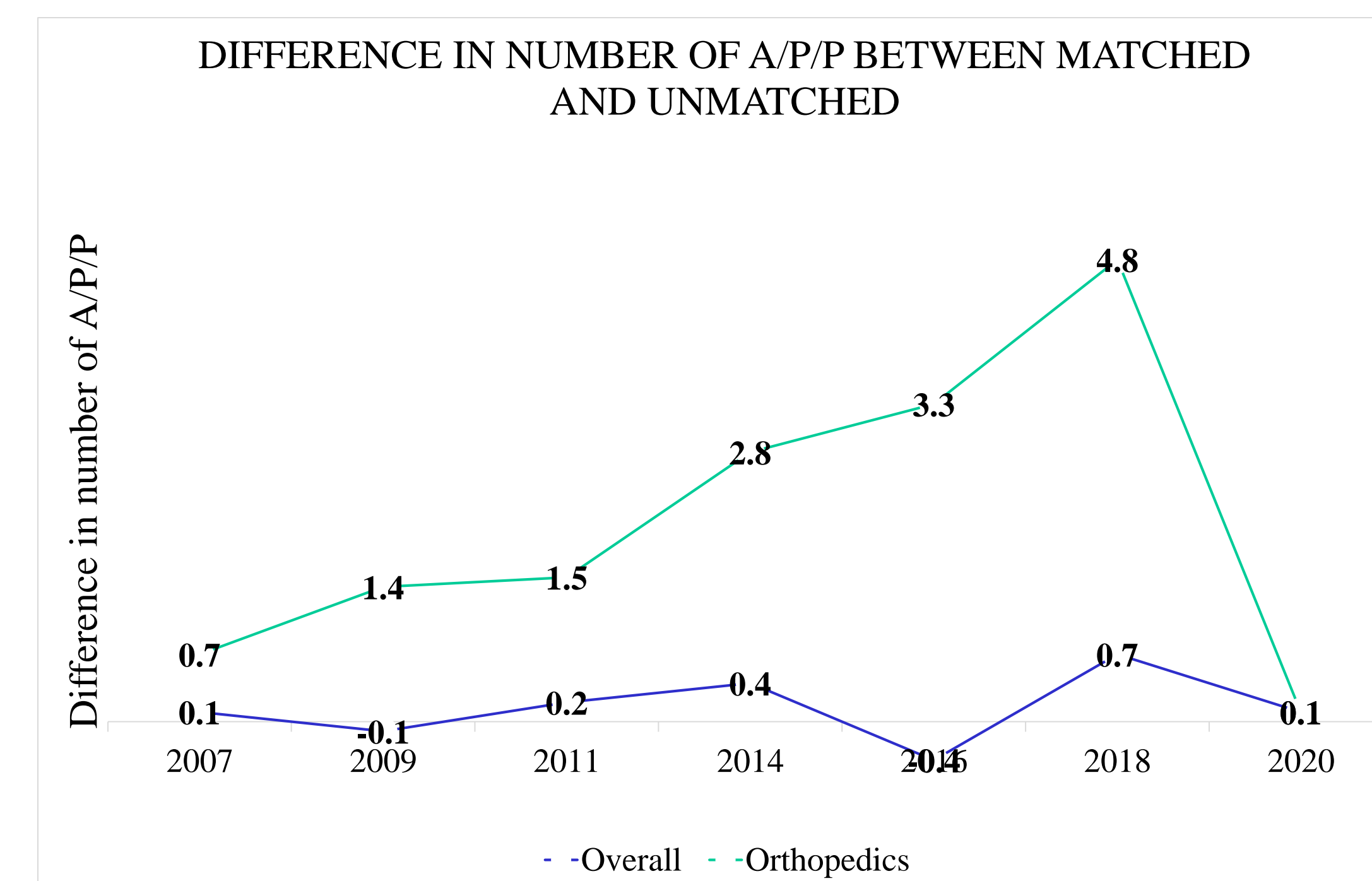


Figure 9

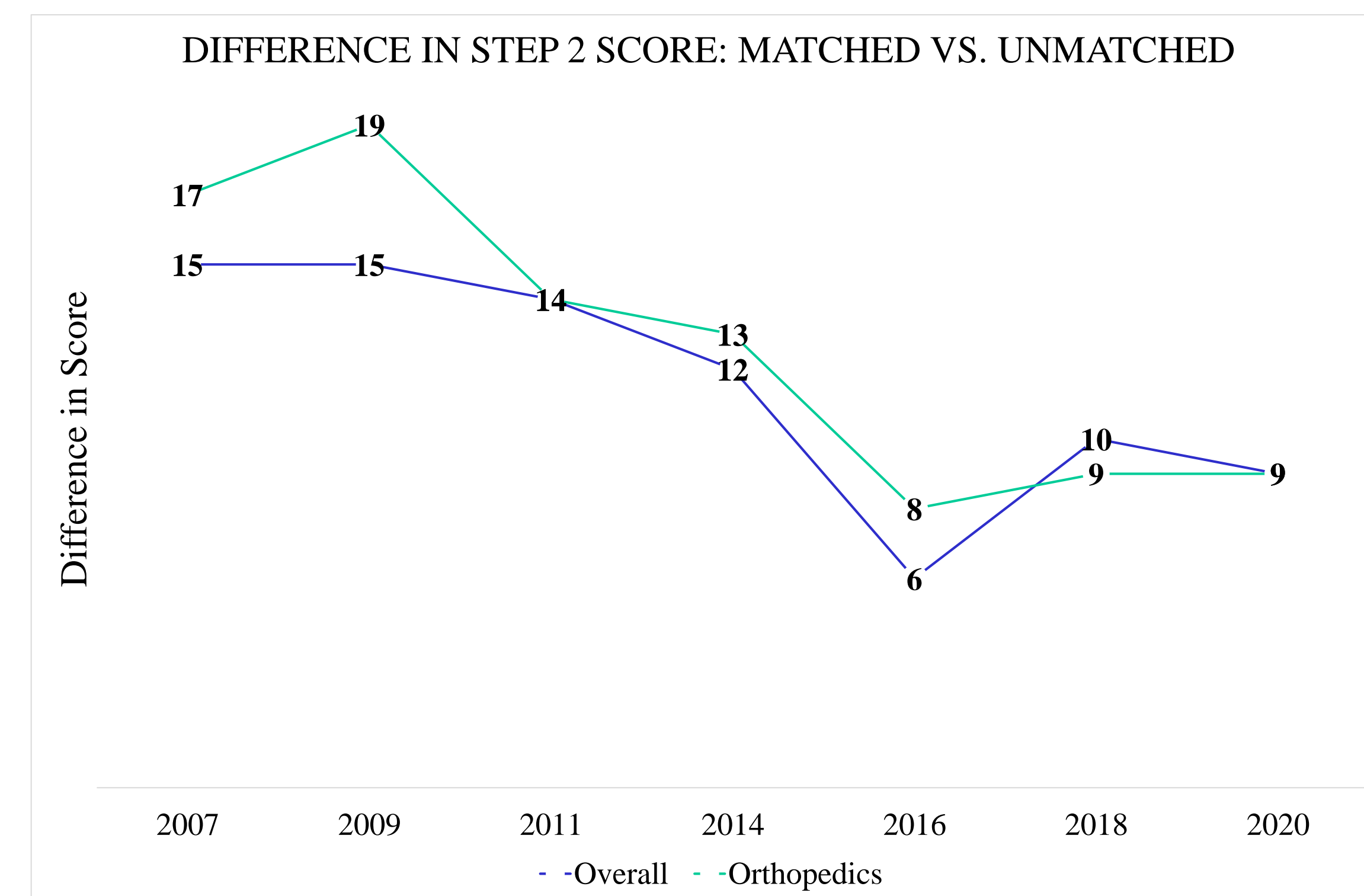


Figure 8

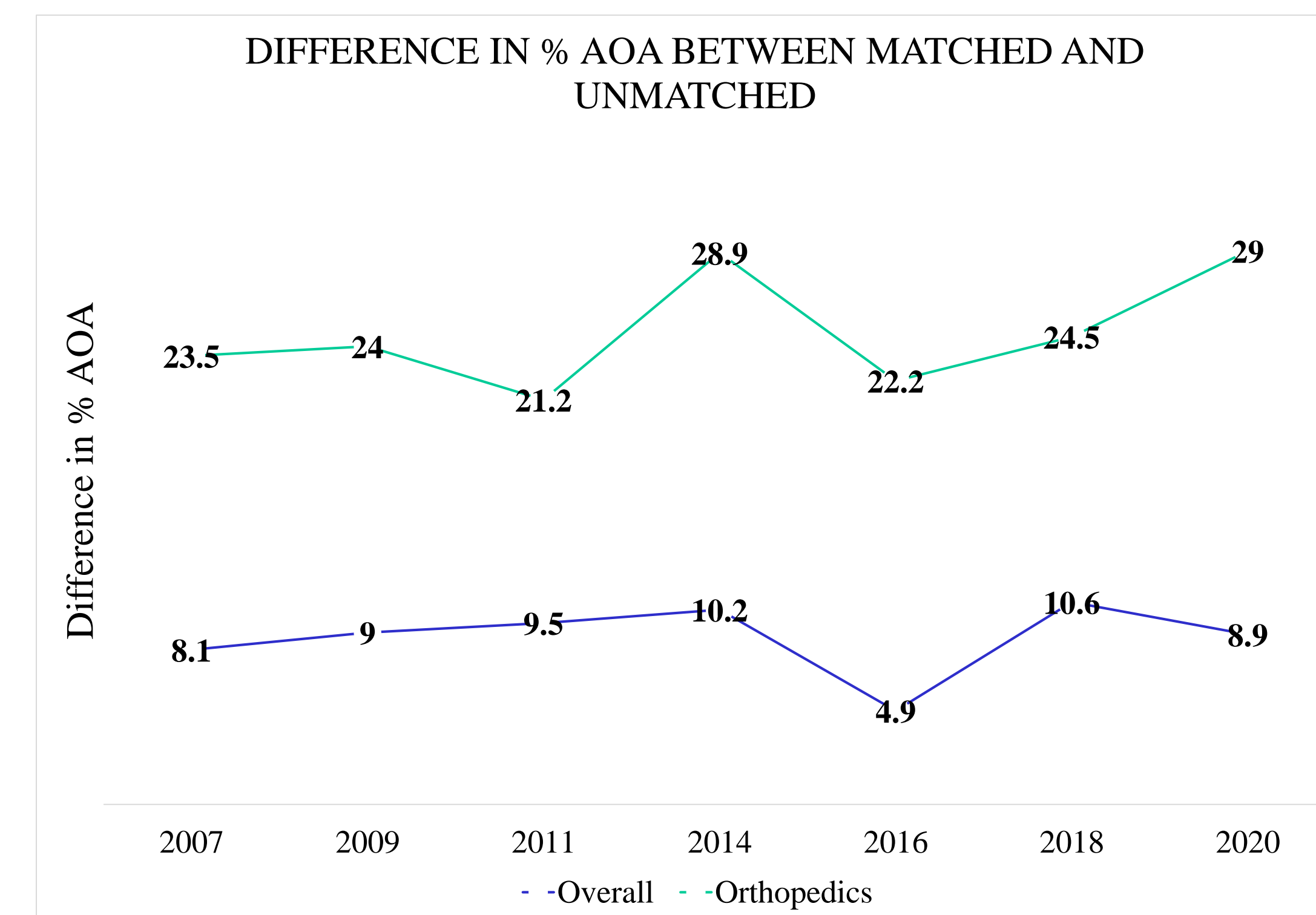


Figure 6

Summary

- Orthopedics applicants are among the most competitive students entering the match
- Successful orthopedic applicants have significantly higher Step 1, number A/P/P, and % AOA status
- Mean Step 1 increased among all applicants, with a slight decrease in difference between matched vs unmatched orthopedic applicants from 2007-20
- Step 2, top 40 medical school, and additional degrees were less associated with a successful orthopedics match

Conclusions

- Step 1 has become relatively less important in the orthopedics match, likely being used more as a screening tool
- Transition to pass/fail Step 1 increases importance of additional factors, including A/P/P and AOA status
- Less reliance on objective factors (e.g., Step 1) may reduce match equity

References

- National Resident Matching Program. *Match Data and Report Archives*. <https://www.nrmp.org/match-data-analytics/archives/>
- Chen et al., Matching in Orthopedic Surgery. *J Am Acad Orthop Surg* 2020;28:135-144.
- Gu et al., Effect of Change in USMLE Step 1 Grading on Orthopaedic Surgery Applicants: A Survey of Orthopaedic Surgery Residency Program Directors *J Am Acad Orthop Surg Glob Res Rev*. 2021 May 4;5(5):e20.00216.
- Schrock et al., A Cross-sectional Analysis of Minimum USMLE Step 1 and 2 Criteria Used by Orthopaedic Surgery Residency Programs in Screening Residency Applications. *J Am Acad Orthop Surg* 2017;25:464-468