

Massachusetts Department of Higher
Education

Critical Thinking Analysis
2017 & 2019

Participating Massachusetts Institutions

2017	2019
Bristol Community College	Cape Cod Community College
Fitchburg State University	Fitchburg State University
Massasoit Community College	North Shore Community College
Mount Wachusett Community College	Northern Essex Community College
North Shore Community College	Salem State University
Northern Essex Community College	University of Massachusetts Amherst
Salem State University	University of Massachusetts Boston
University of Massachusetts Amherst	Westfield State University
University of Massachusetts Lowell	Worcester State University
Westfield State University	
Worcester State University	

Highlighted institutions participated in both 2017 and 2019 and were used to create Matched Set comparisons.

Massachusetts Sample Sizes

	2017	2019	Net Change
2-Year Institutions	312	222	90 (-29%)
4-Year Institutions	484	466	18 (-4%)
Total	796	688	108 (-14%)

Sample sizes reflect work submitted by students at Associates institutions with at least 45 semester credits and students at Bachelors institutions with at least 90 semester credits. "Early" student work was excluded.

Scores & Methodology

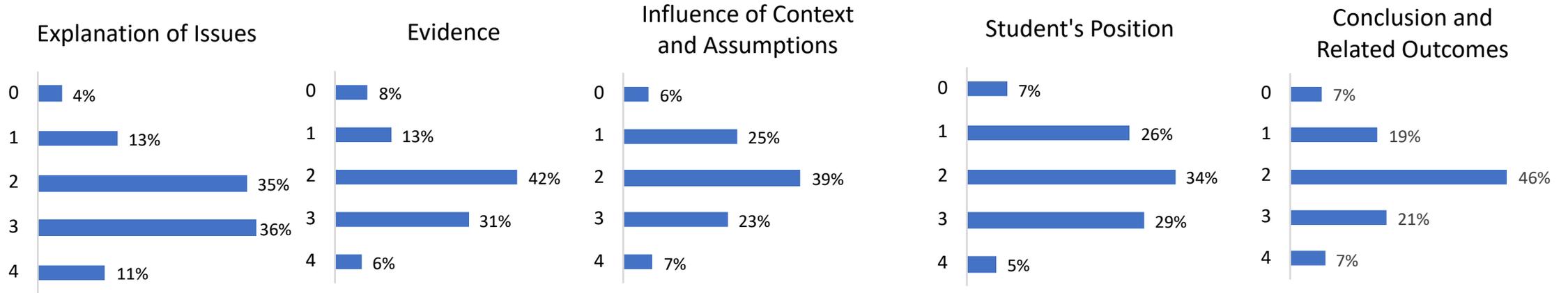
- *These are average scores of student work as scored by faculty using the AAC&U VALUE rubric.*
- *Scores are out of a possible 4 points, ranging from 0 to 4. Chart axes in the following slides refer to this scale.*
- *T-tests were run to determine statistical significance in averages between 2017 and 2019 for key data cuts, using the standard alpha level of 0.05.*
- *Effect sizes were measured using Cohen's D.*



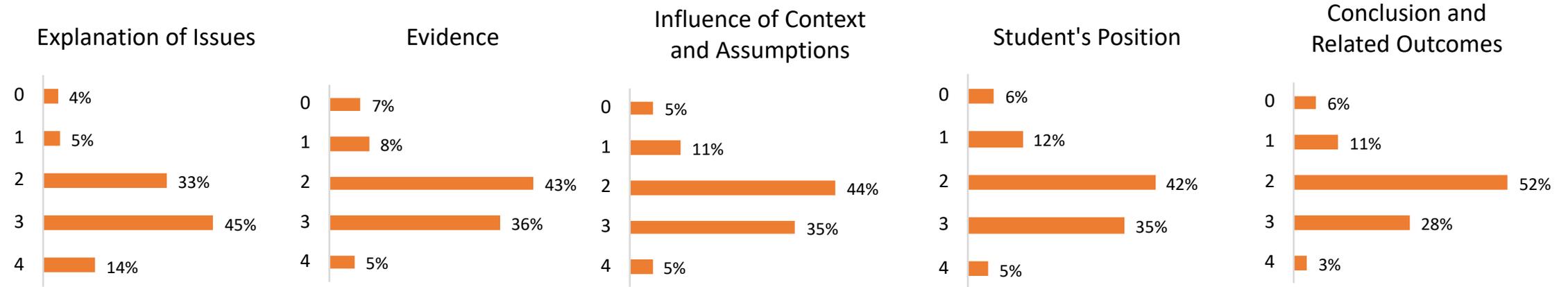
OVERALL RESULTS

Critical Thinking Distribution – All Participating MA Institutions

2017

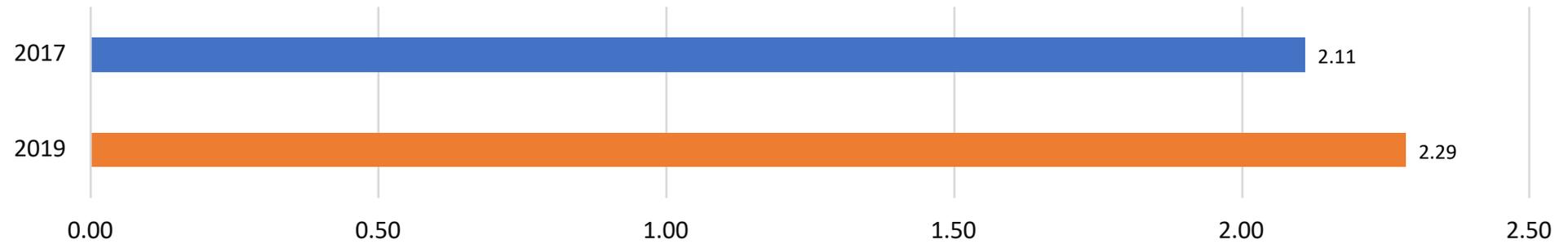


2019

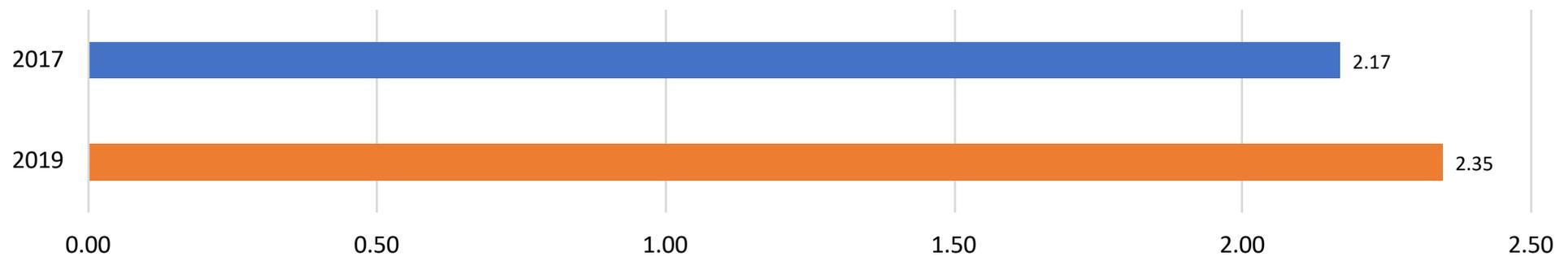


Overall Average Critical Thinking Scores

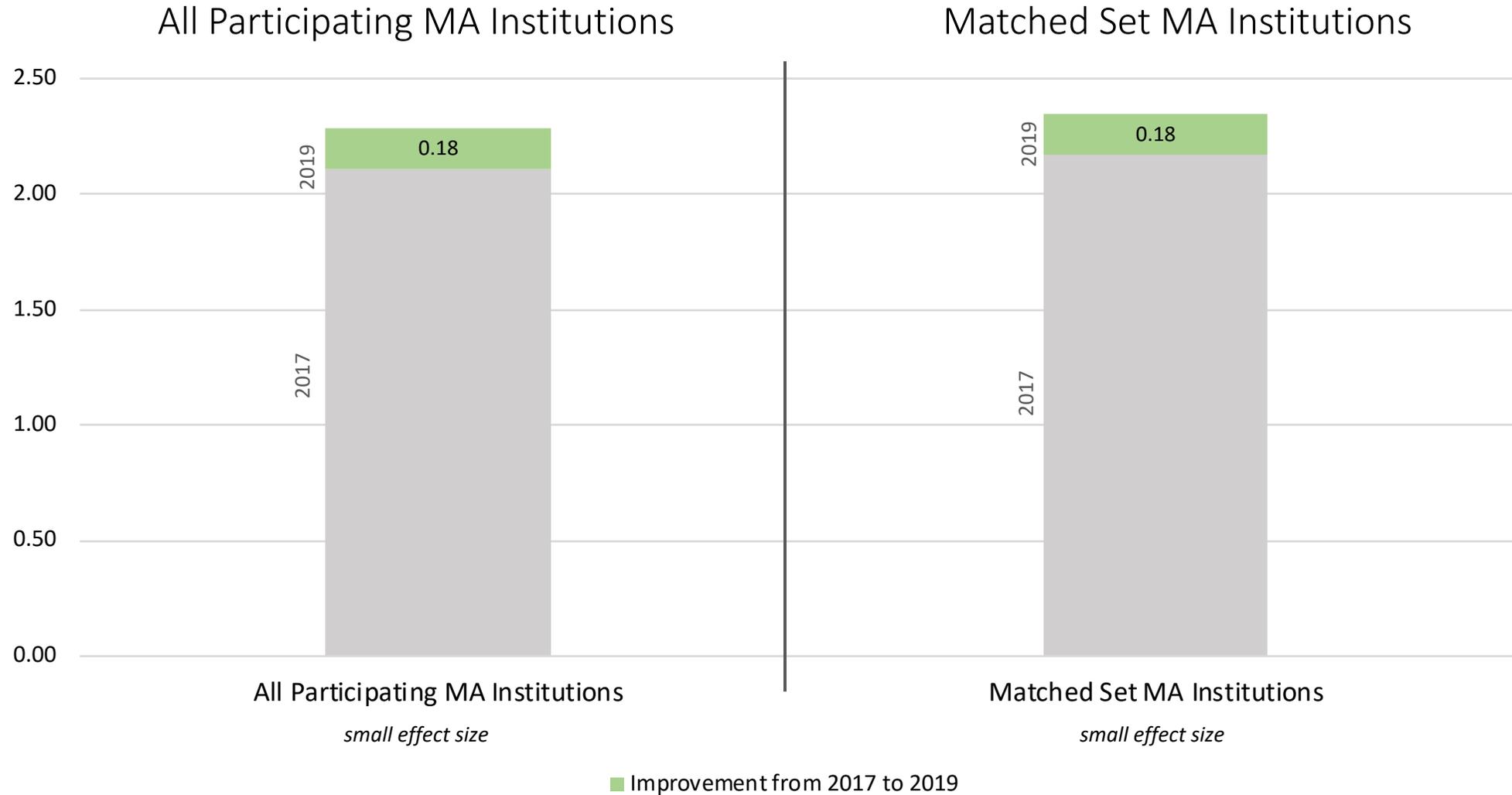
All Participating MA Institutions



Matched Set MA Institutions

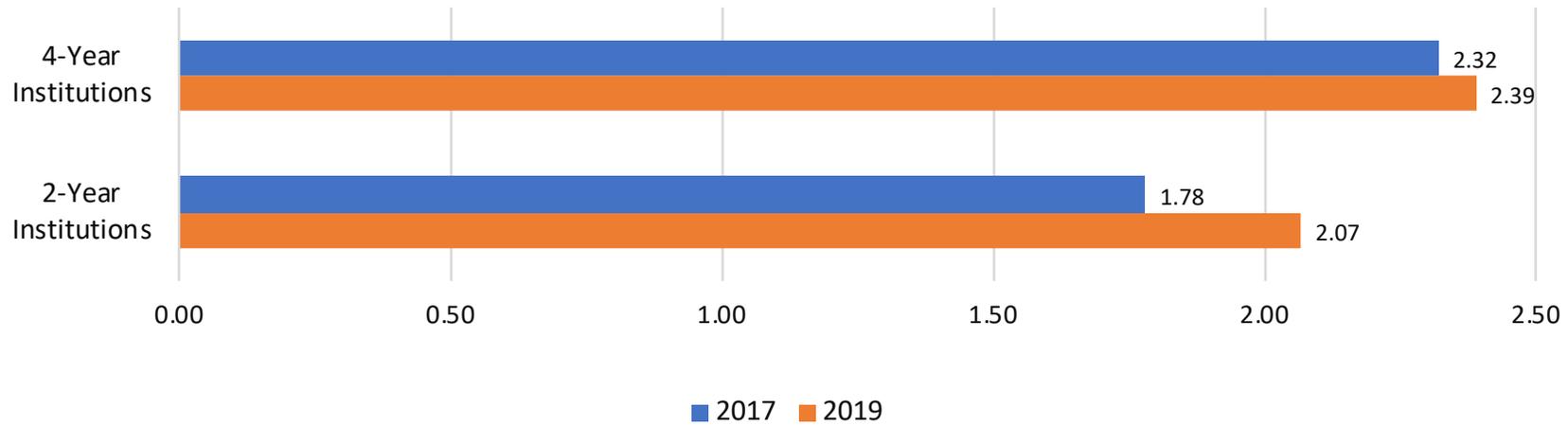


Differences in Average 2017 to 2019

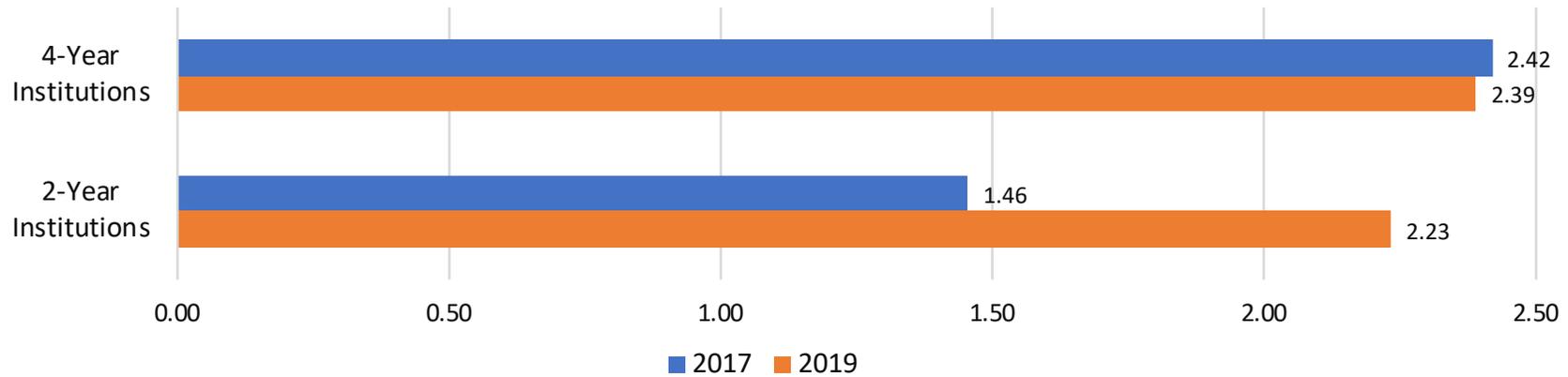


Average Scores: 2-Year and 4-Year Institutions

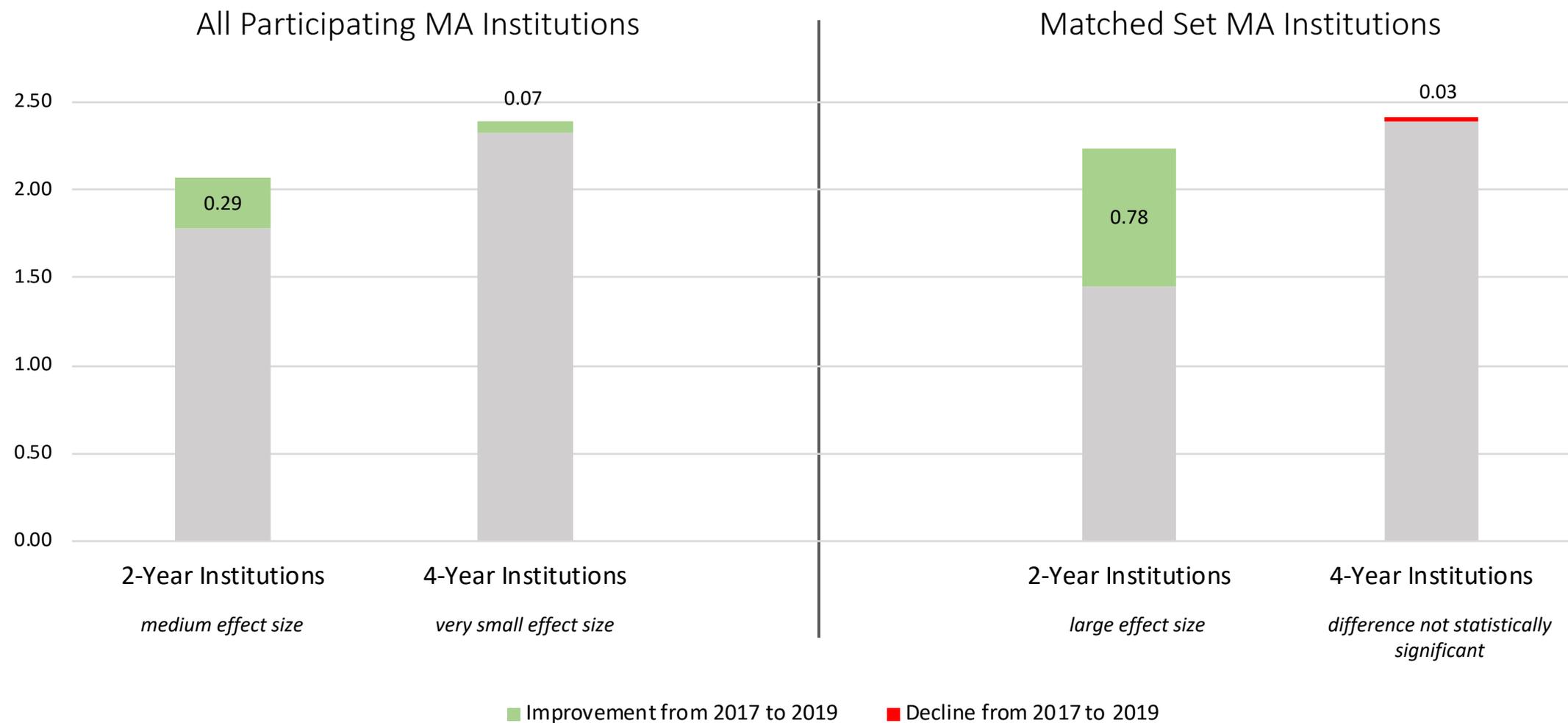
All Participating MA Institutions



Matched Set MA Institutions



Differences in Average 2017 to 2019: 2-Year and 4-Year Institutions

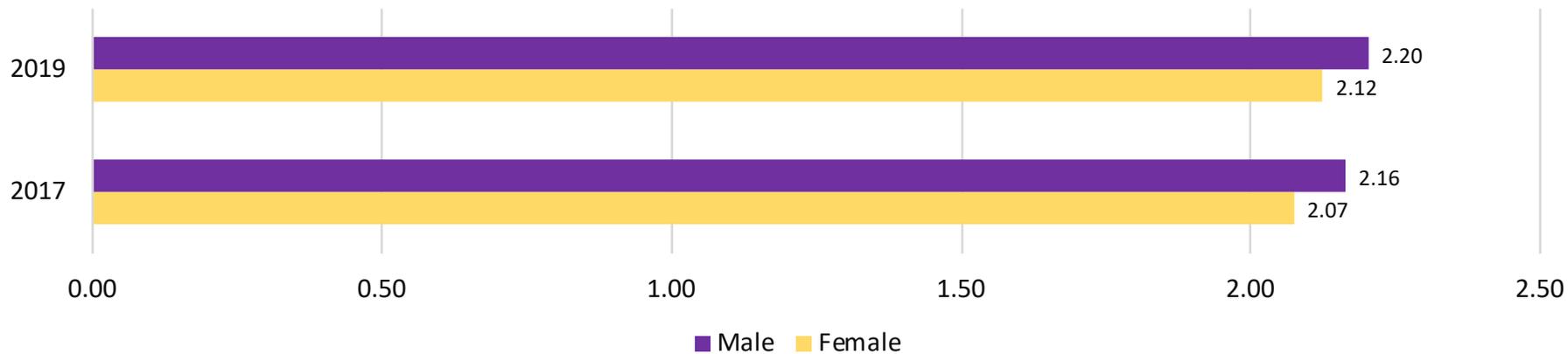




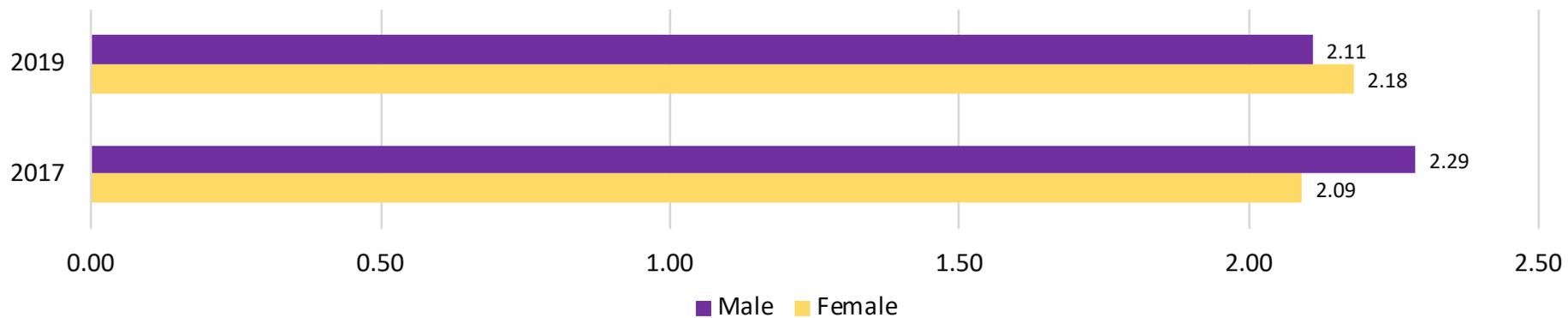
**RESULTS
BY GENDER**

Overall Average Scores by Gender

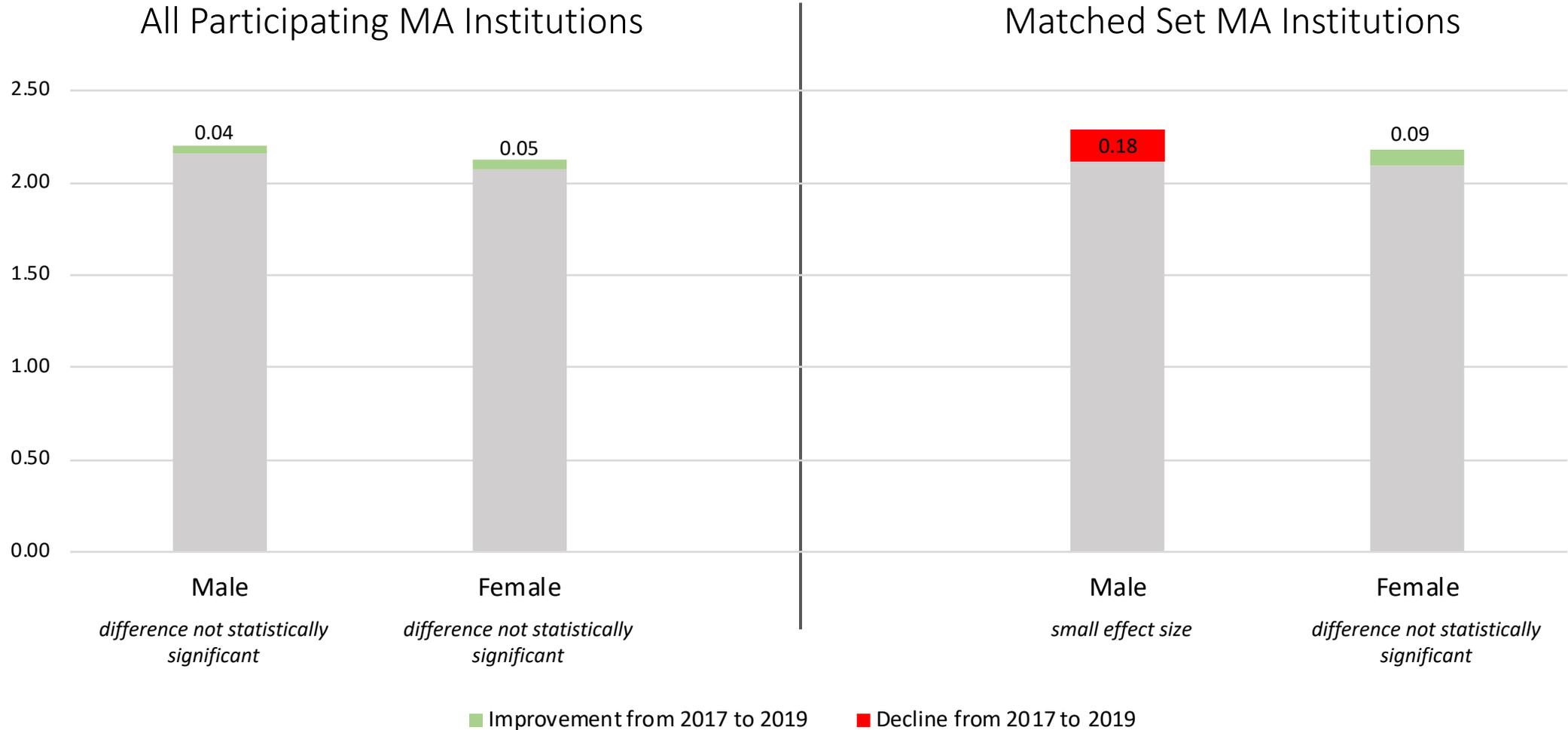
All Participating MA Institutions



Matched Set MA Institutions

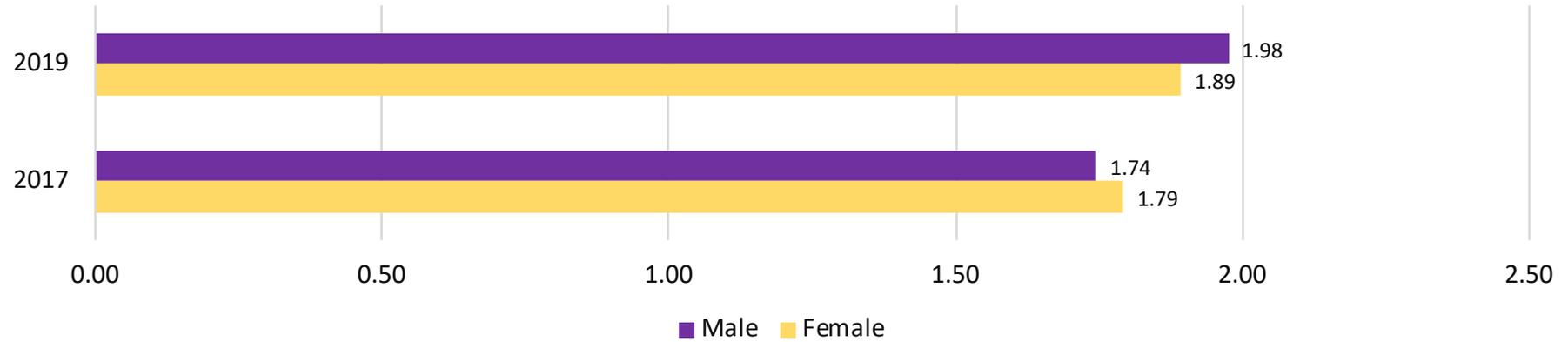


Differences in Average: 2017 to 2019 by Gender

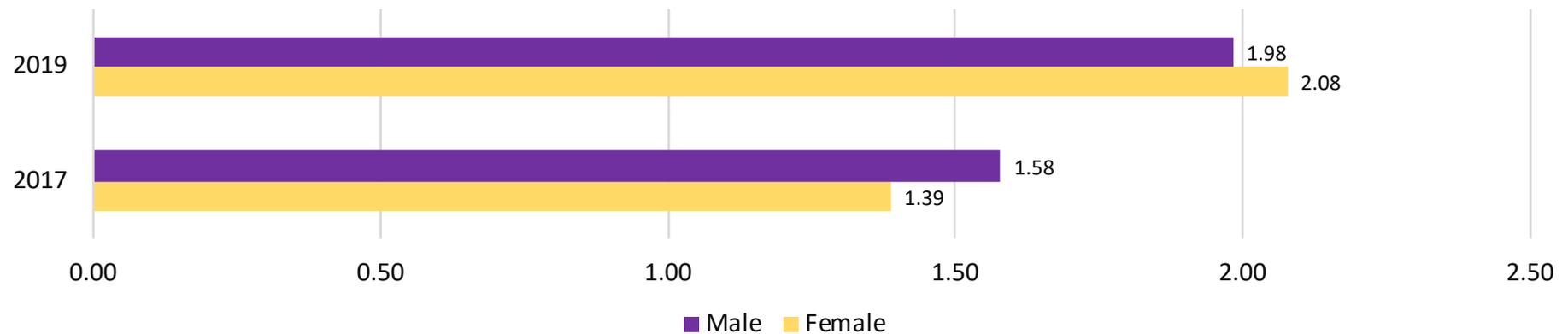


Average Scores by Gender: 2-Year Institutions

All Participating MA 2-Year Institutions



Matched Set MA 2-Year Institutions

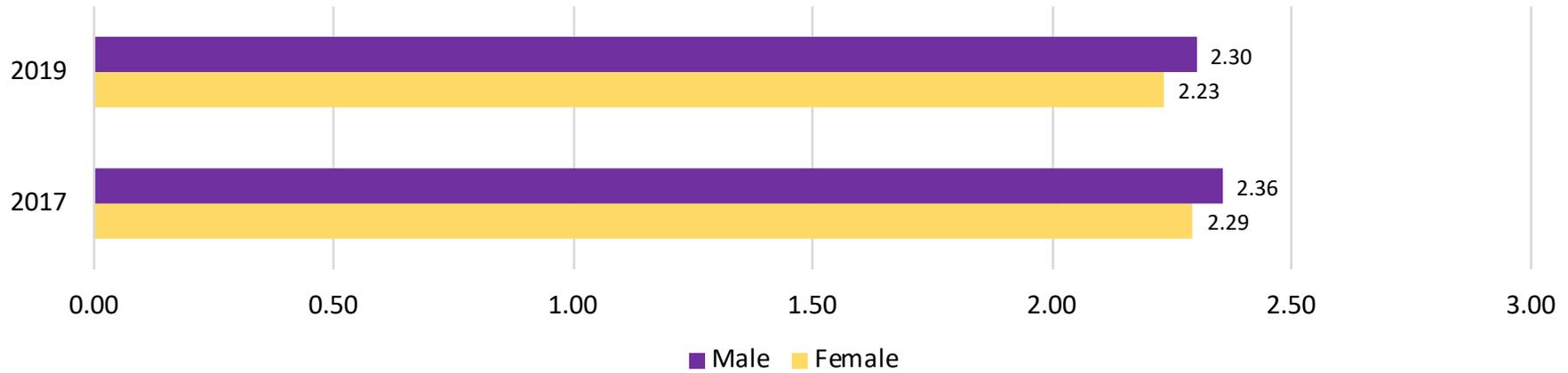


Differences in Average 2017 to 2019: 2-Year Institutions by Gender

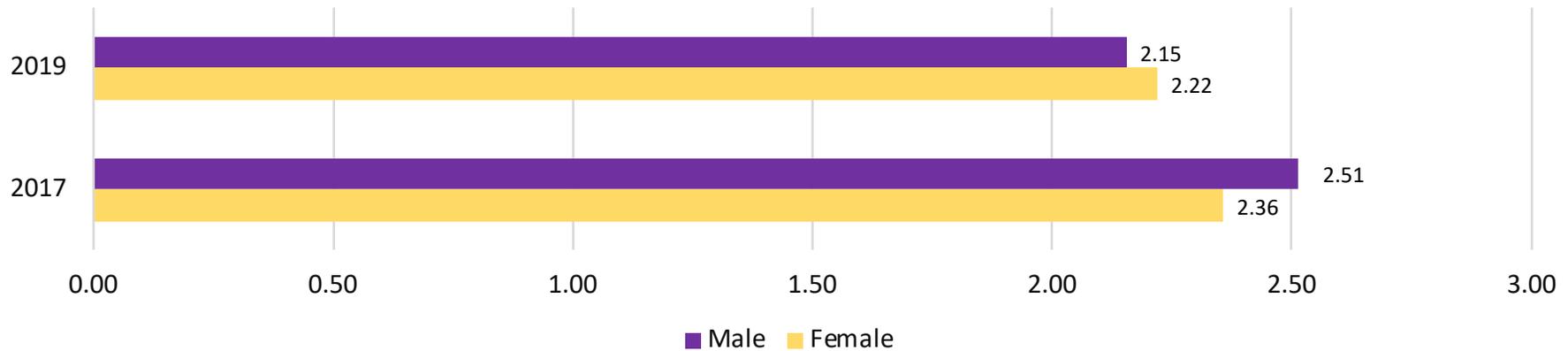


Average Scores by Gender: 4-Year Institutions

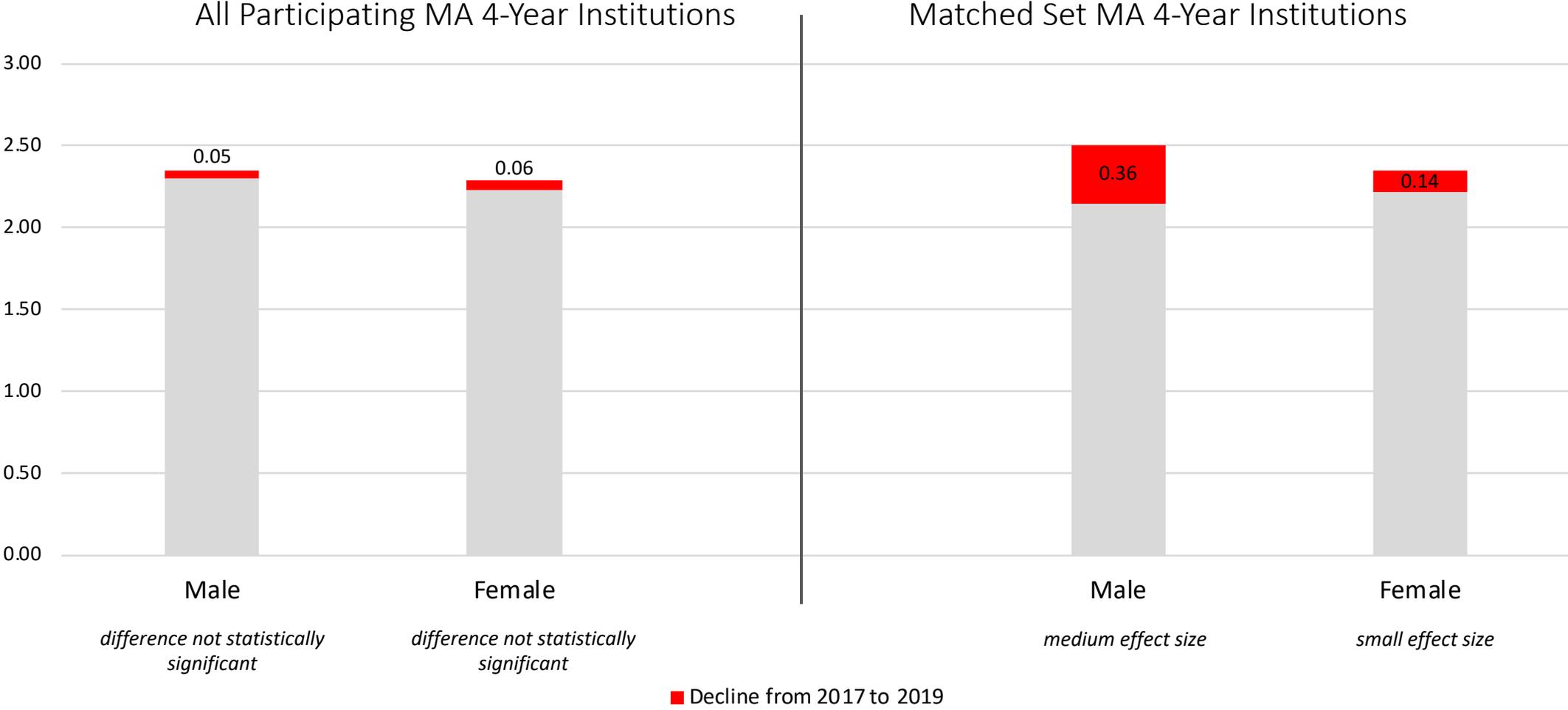
All Participating MA 4-Year Institutions

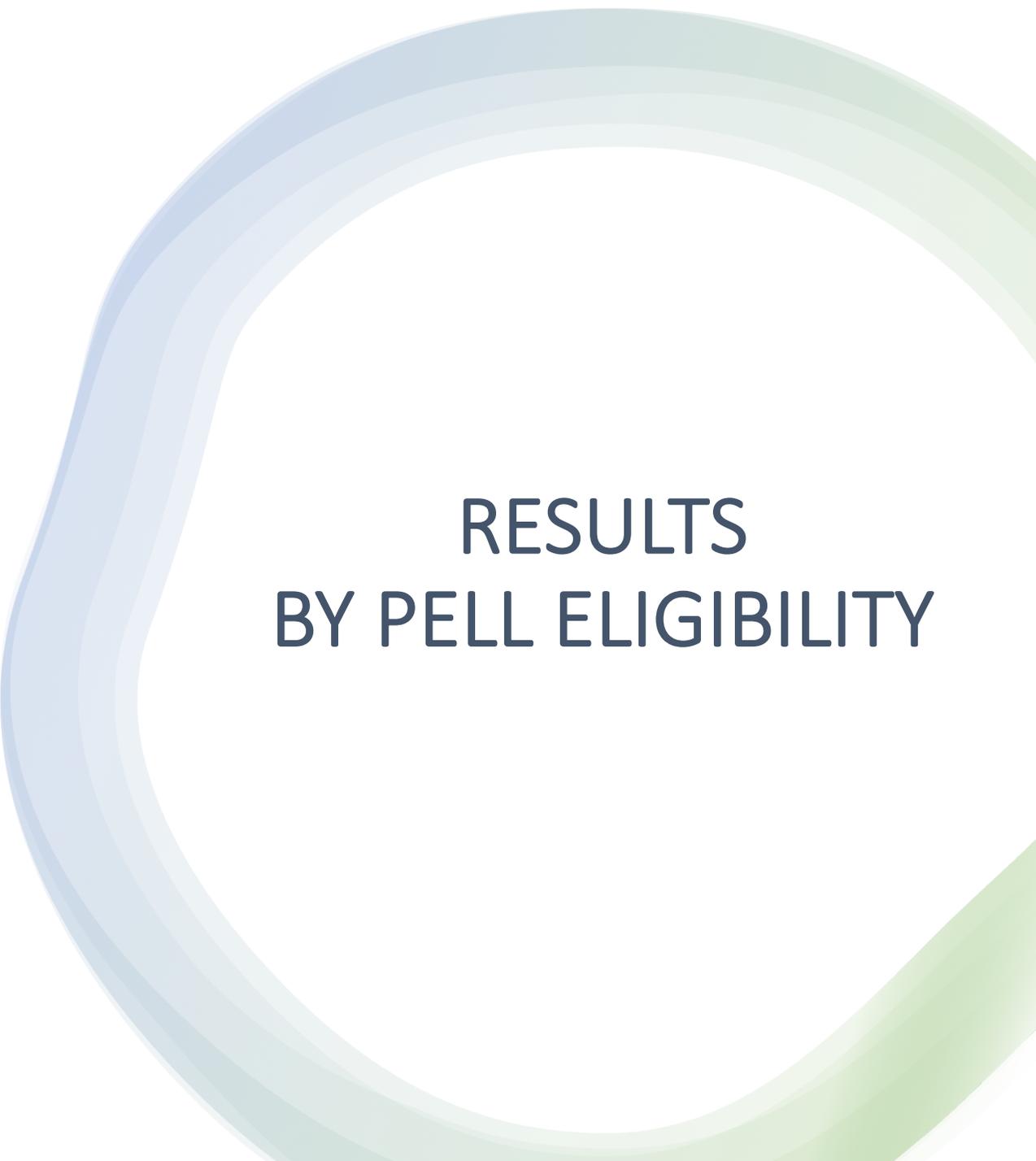


Matched Set MA 4-Year Institutions



Differences in Average 2017 to 2019: 4-Year Institutions by Gender

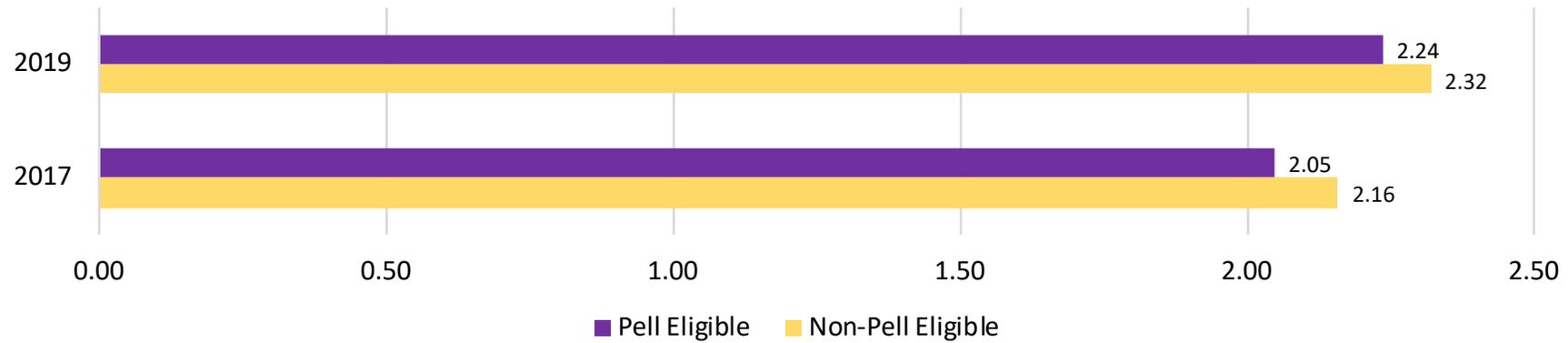




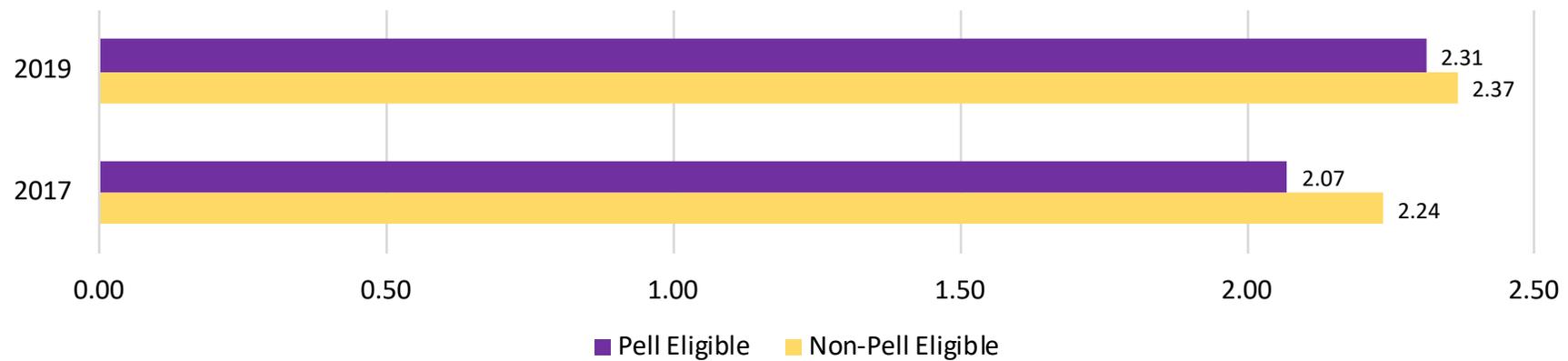
RESULTS BY PELL ELIGIBILITY

Overall Average Scores by Pell Eligibility

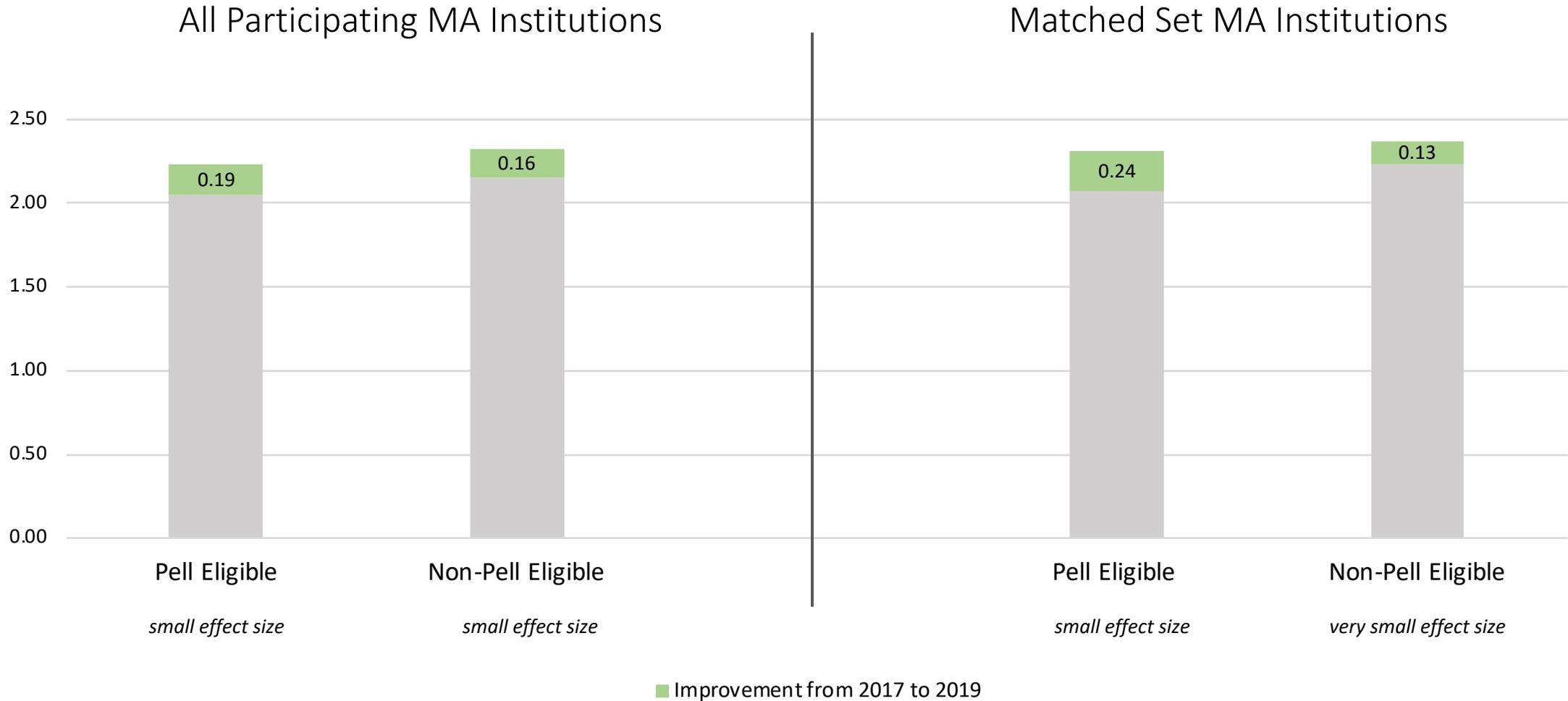
All Participating MA Institutions



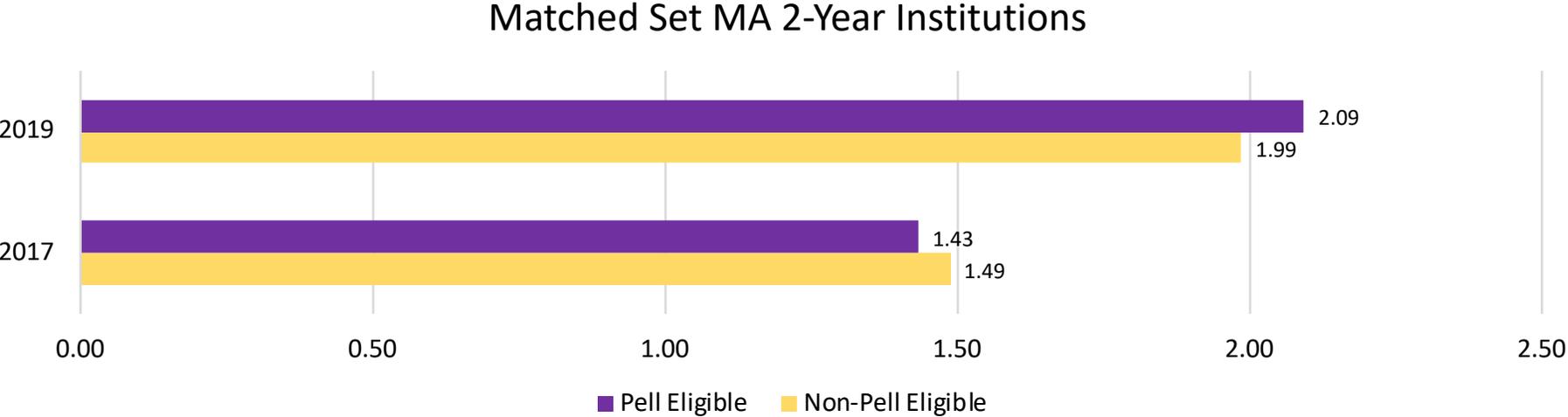
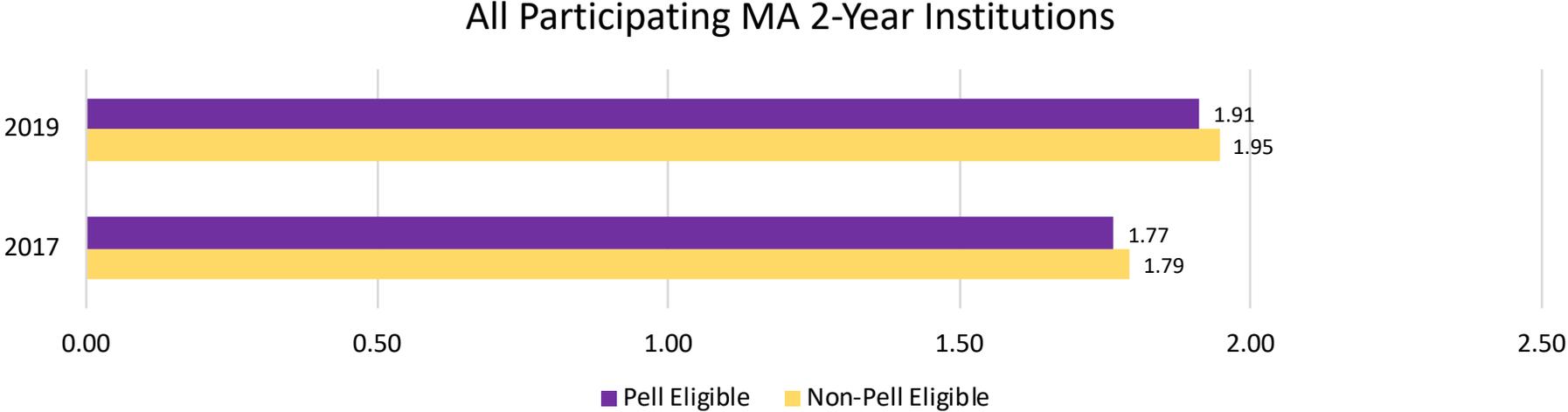
Matched Set MA Institutions



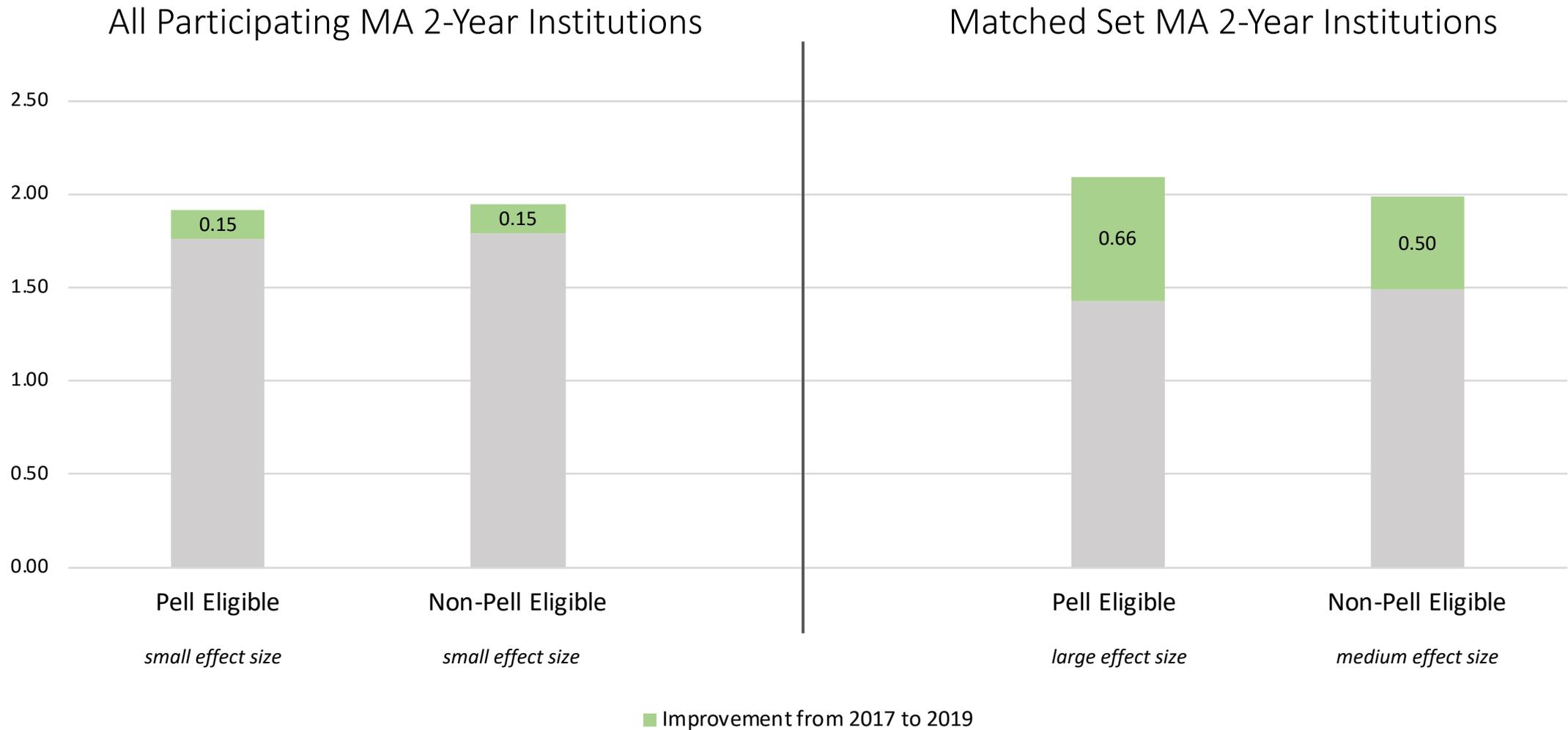
Differences in Average 2017 to 2019 by Pell Eligibility



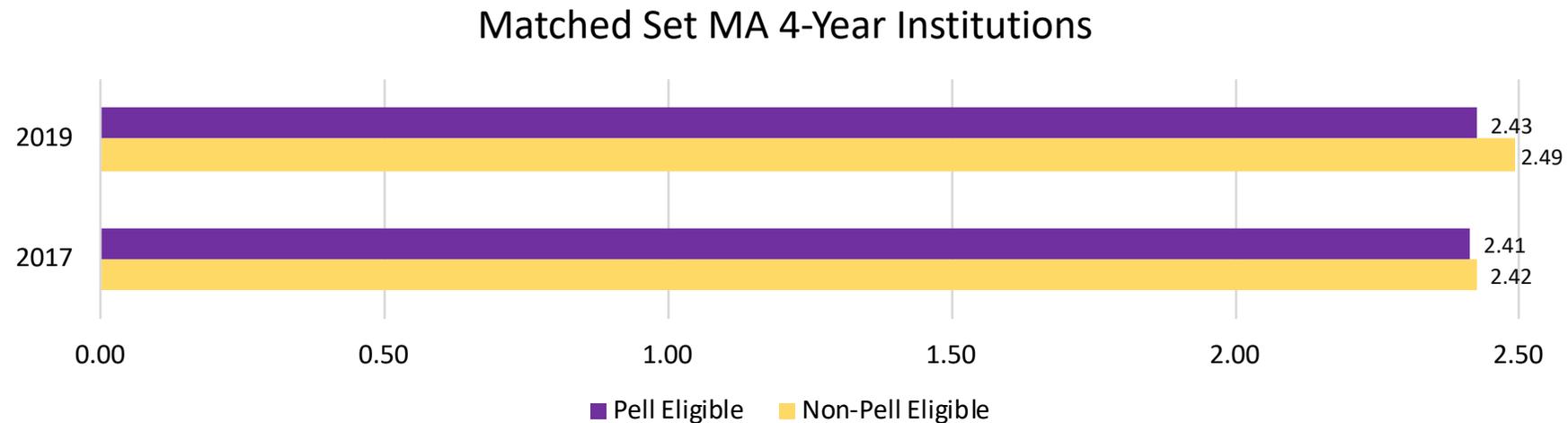
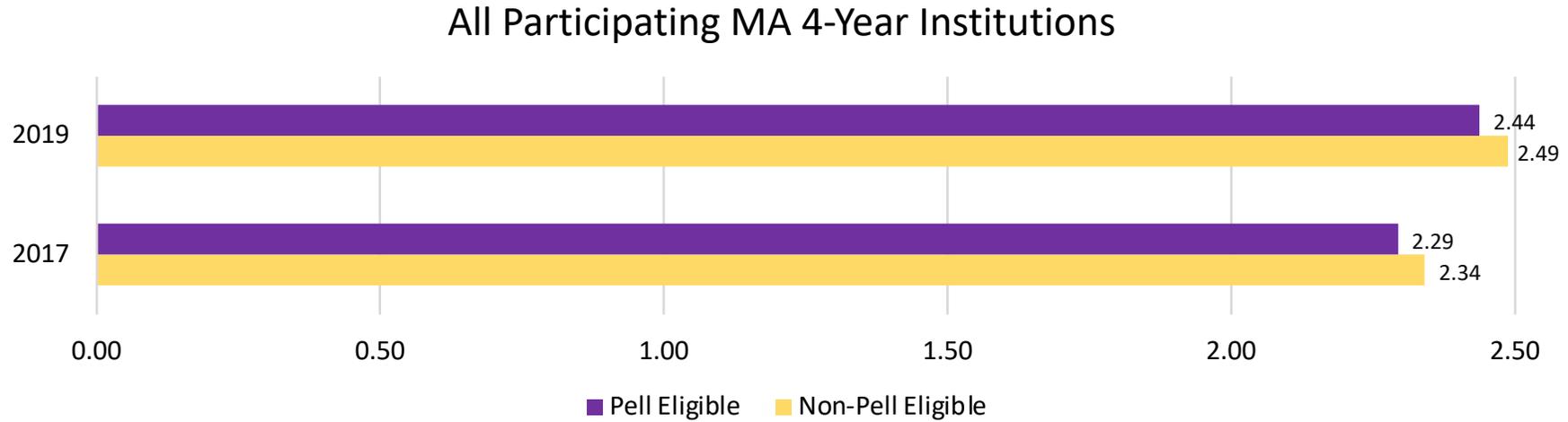
Average Scores by Pell Eligibility: 2-Year Institutions



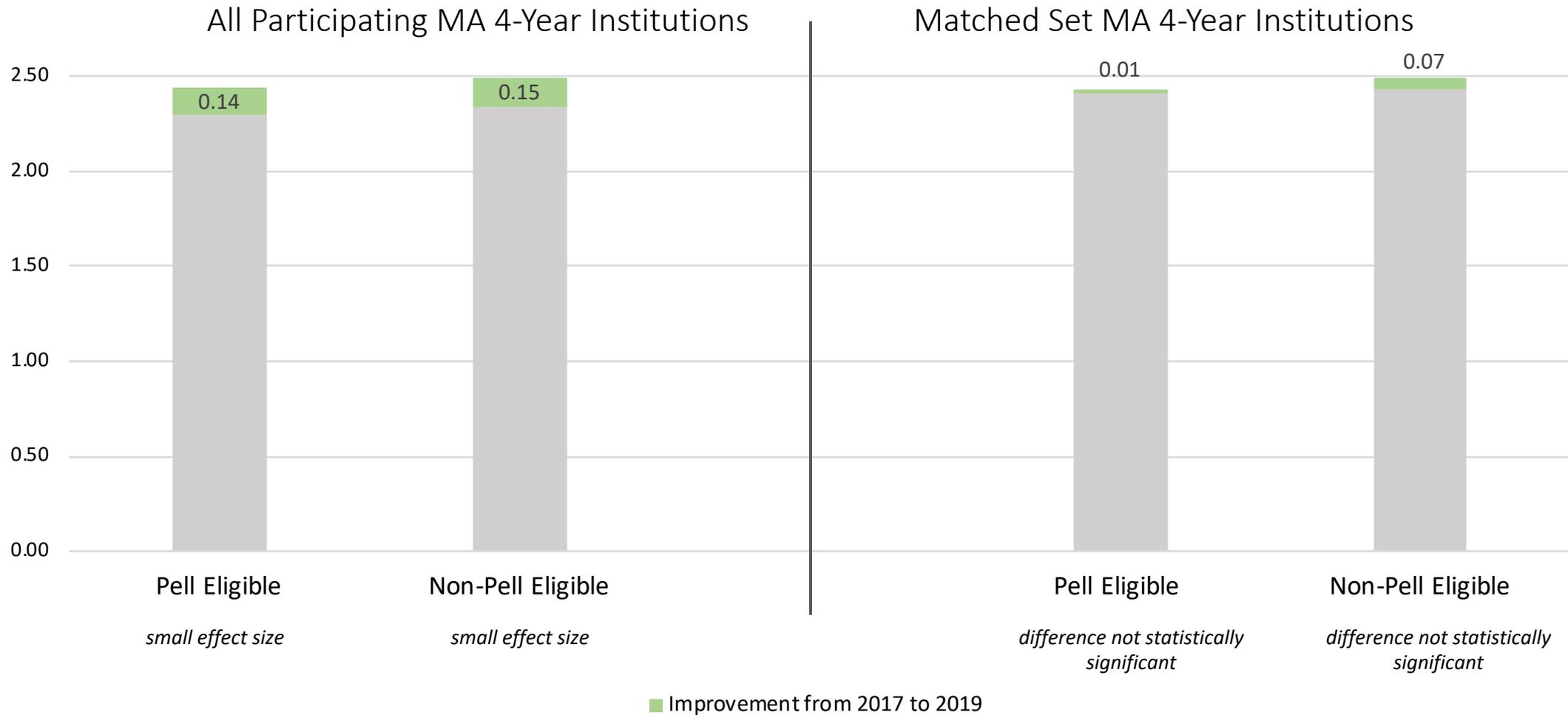
Differences in Average 2017 to 2019: 2-Year Institutions by Pell Eligibility



Average Scores by Pell Eligibility: 4-Year Institutions



Differences in Average 2017 to 2019: 4-Year Institutions by Pell Eligibility

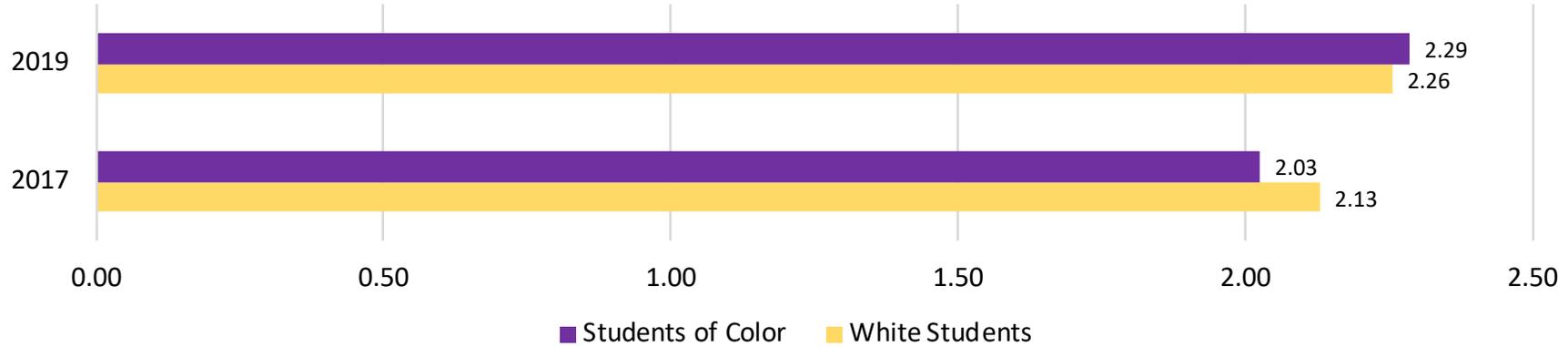




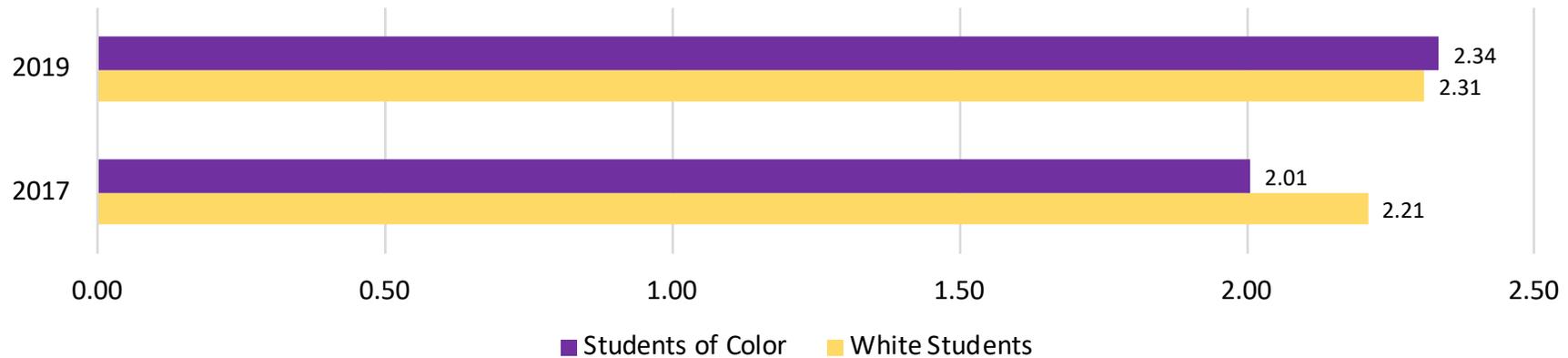
**RESULTS
BY RACE/ETHNICITY**

Overall Average Scores by Race/Ethnicity

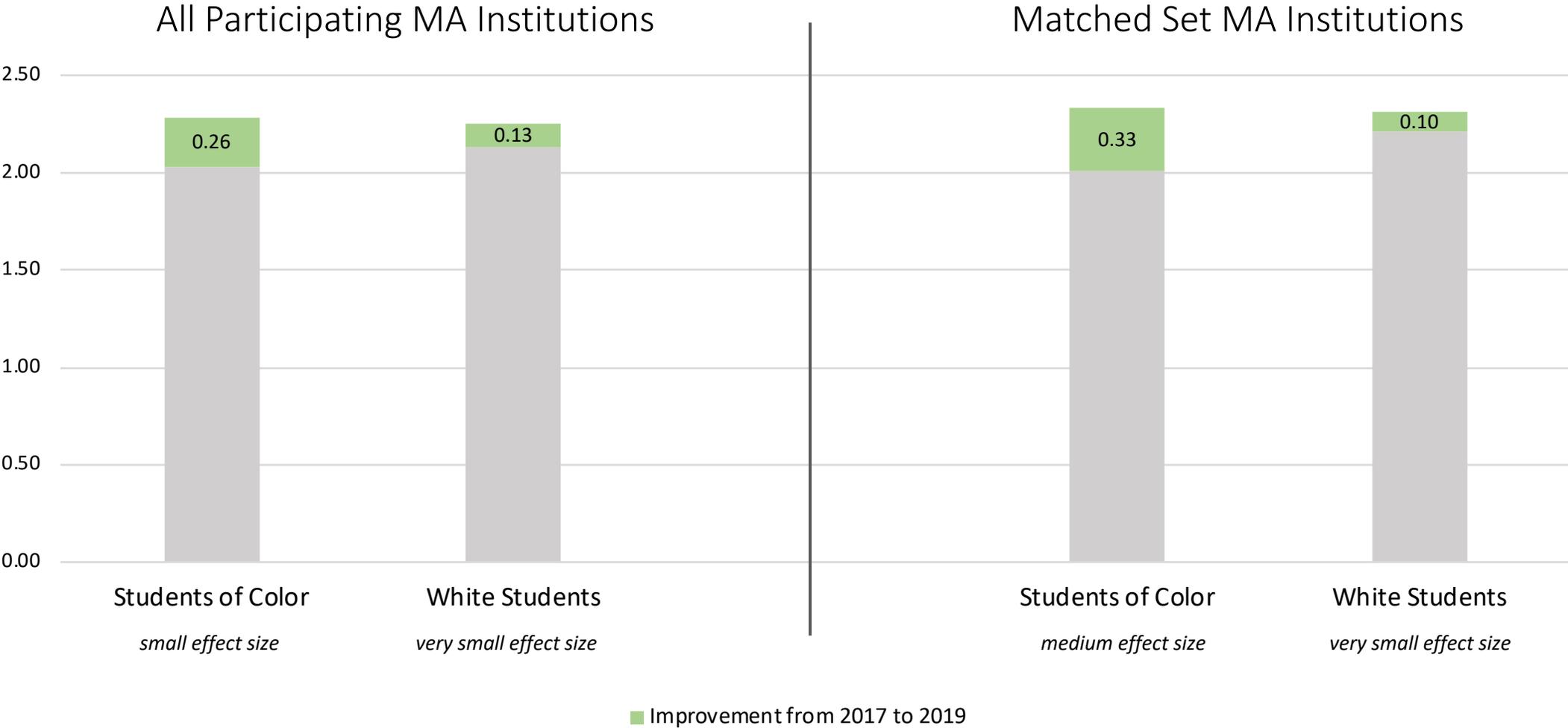
All Participating MA Institutions



Matched Set MA Institutions

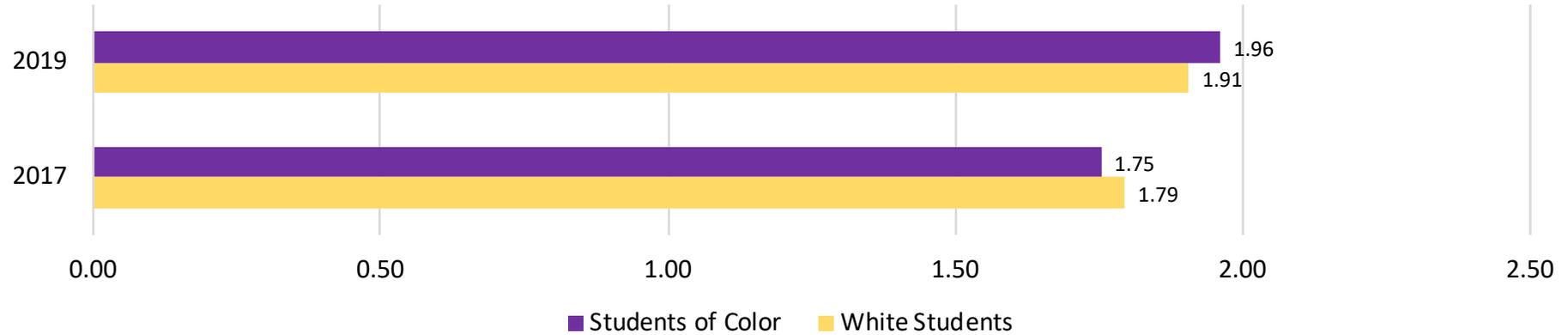


Differences in Average 2017 to 2019 by Race/Ethnicity

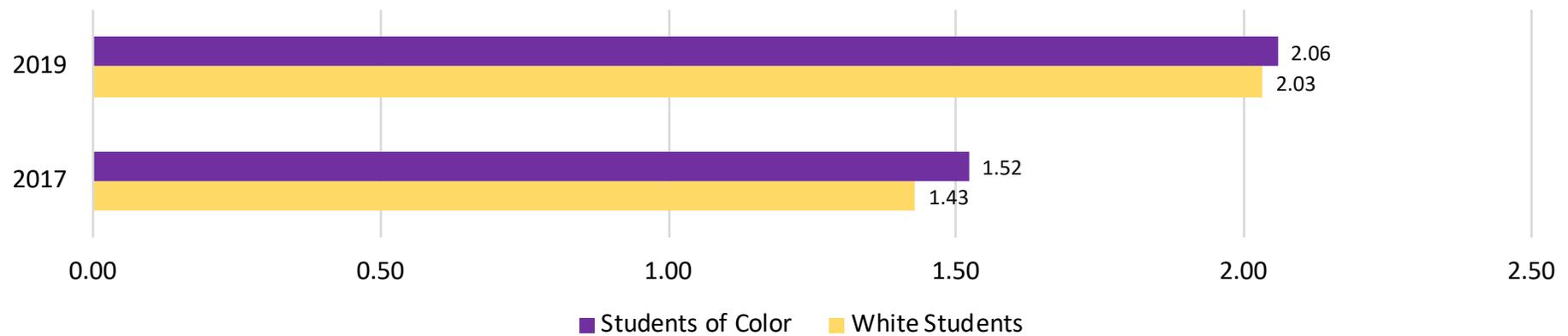


Average Scores by Race/Ethnicity: 2-Year Institutions

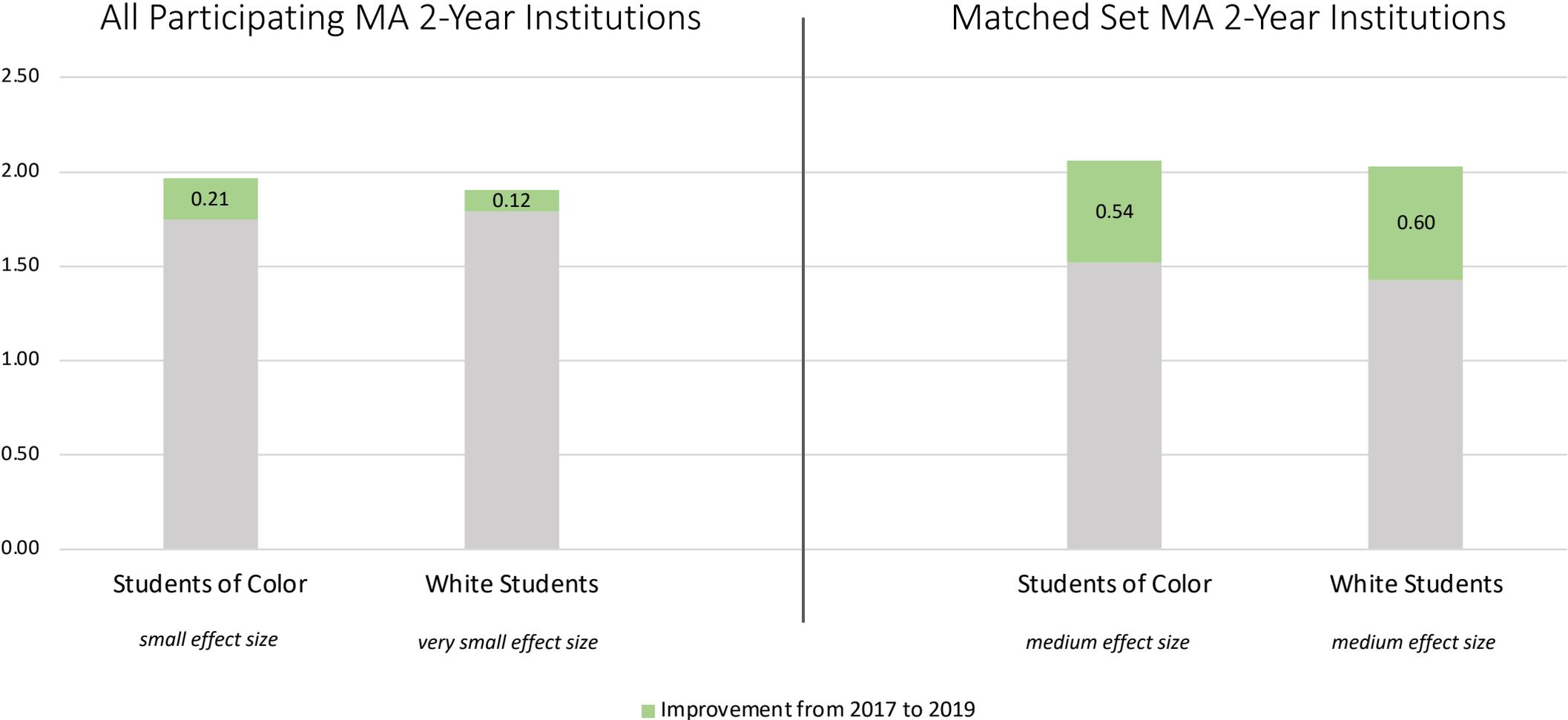
All Participating MA 2-Year Institutions



Matched Set MA 2-Year Institutions

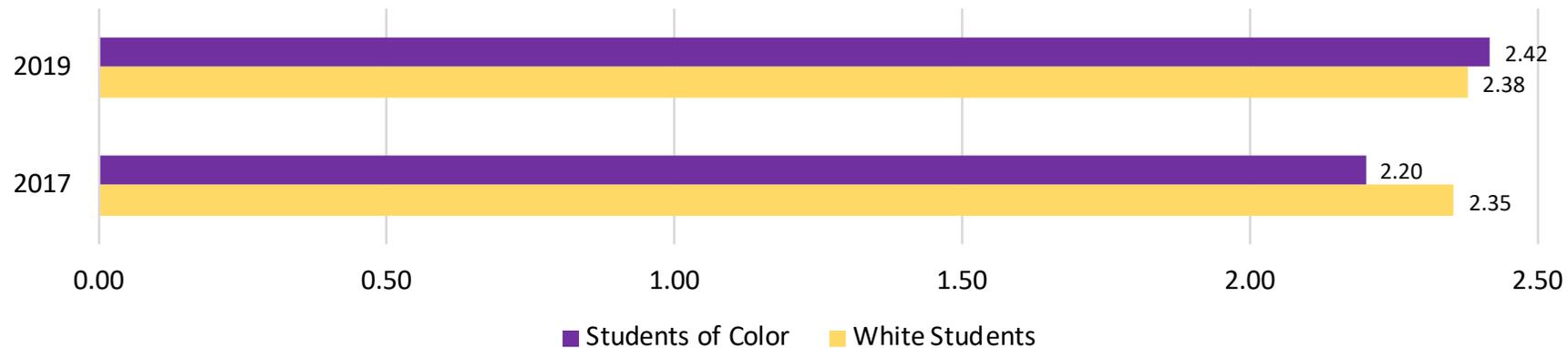


Differences in Average 2017 to 2019: 2-Year Institutions by Race/Ethnicity

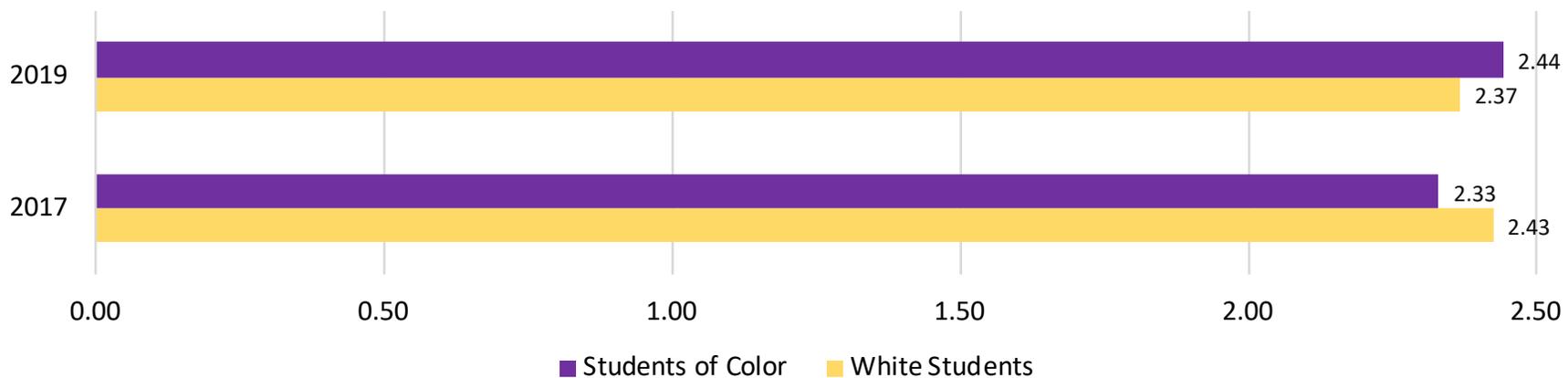


Average Scores by Race/Ethnicity: 4-Year Institutions

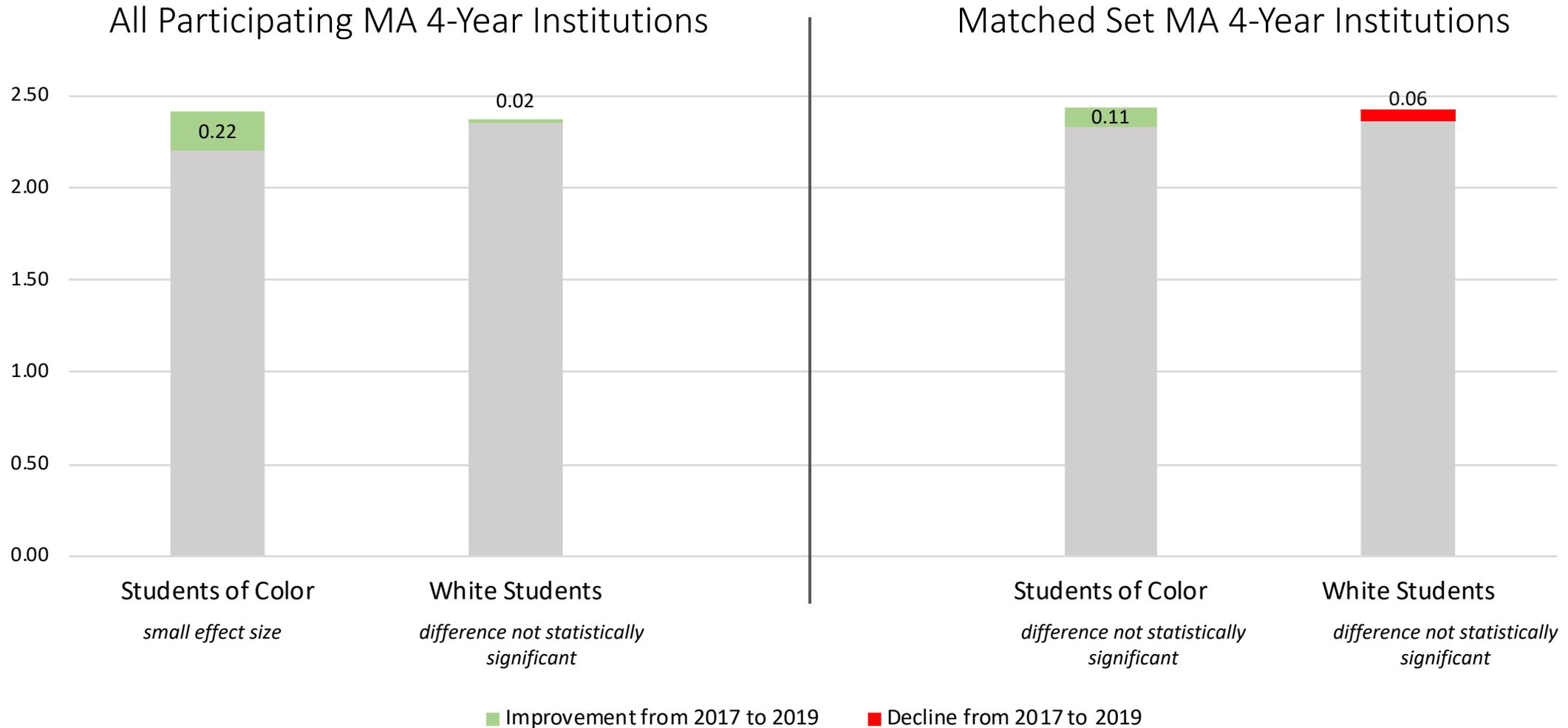
All Participating MA 4-Year Institutions



Matched Set MA 4-Year Institutions



Differences in Average 2017 to 2019: 4-Year Institutions by Race/Ethnicity





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