



**MEMO**

**TO: State Board of Education**

**FROM: Lisa Medler, Executive Director of the Accountability and Continuous Improvement Unit and Marie Huchton, Supervisor of the Accountability Analytics Office**

**RE: Update on the Study of New Digital PSAT/SAT Data for Use in the 2024 Performance Frameworks**

**DATE: July 17, 2024**

This memo is intended to provide you with an update on the department's study of the new Digital PSAT/SAT for use in the 2024 School and District Performance Frameworks. This is based upon our discussion at the June state board meeting (June 13, Item 9.01) and your subsequent vote:

*I move to adjust the 2024 Achievement and Postsecondary & Workforce Readiness sub-indicator targets related to PSAT and SAT in the School and District Performance Frameworks, to the 15th, 50th, and 85th percentiles using the new digital 2024 PSAT/SAT results. If the accountability study is adequately comparable with past trends, then staff are directed to notify the state board of the final targets in a written update in July. If the study demonstrates insufficient comparability with past trends, then staff are directed to inform the board leadership who will decide whether to call a special meeting in July to discuss next steps.*

The three main takeaways from study are:

- **Data is appropriate to use for Growth.** This is because the Digital PSAT/SAT is comparable (but not interchangeable) with the paper-based version and because we verified that the trends were consistent enough that it is appropriate to use for Colorado Growth Model calculations.
- **Overall scores shifted down, especially on the lower end of the scale.** For the most part, we observed that scale scores are lower than in the past. This is especially true for math. The one exception is 10th grade reading and writing (RW) which increased for higher achieving students in comparison to past PSAT results.
- **Scores are different enough to warrant re-norming the 2024 accountability cut scores.** Given the downward shift in scores, CDE determined that re-norming the accountability cut scores is appropriate for use in the 2024 School and District Performance Frameworks. The revised 1-year and 3-year PSAT (Achievement indicator) and SAT (Postsecondary & Workforce indicator) cut scores are shared in two tables at the very end (p. 4) of this memo. While all other cut scores are lower, the 10th grade reading and writing "exceeds" cut score (i.e., 85th percentile) will remain consistent with 2023 and 2019 to avoid raising state expectations after assessments have been completed.



## Additional Detail on CDE findings for Use of the new Digital PSAT/SAT results in the 2024 Accountability Performance Frameworks

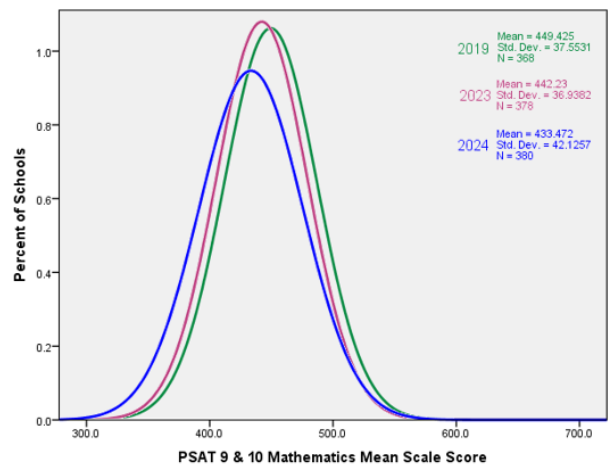
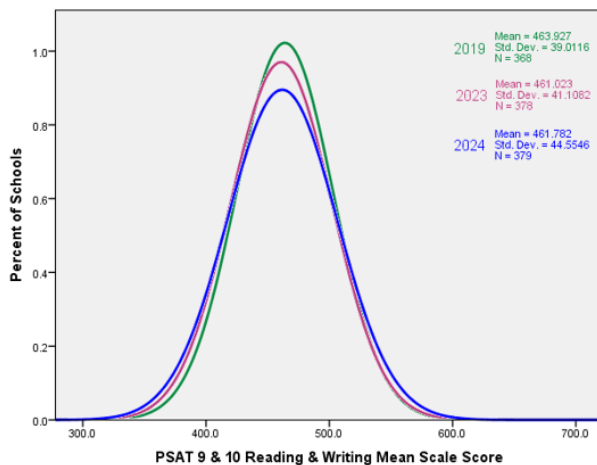
**Data is appropriate to use for Growth.** This is because the Digital PSAT/SAT is comparable (but not interchangeable) with the previous paper-based version and because we verified that the trends were consistent enough that it is appropriate to use for Colorado Growth Model calculations.

CDE looked for consistency in student ranking between consecutive year test scores. In general, lower performing students should continue to demonstrate lower performance on both tests if they represent the same construct; the same is true for higher performing students and those in-between. Our normative Colorado Growth Model can accommodate changes to test scores as long as the constructs (i.e., set of skills and knowledge being measured) remain consistent over time.

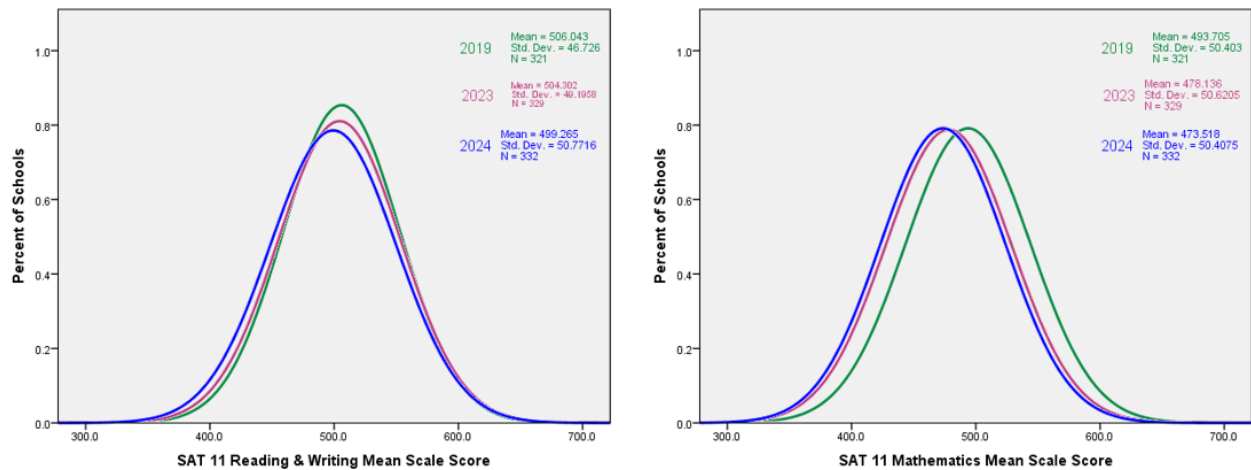
In addition, the team also examined correlations in scale scores between years. Generally, the correlations from 2023 to 2024 are similar to or just slightly lower than prior year correlations and range from 0.7 to 0.9. Correlations at 0.7 qualify as moderately strong and 0.8 to 0.9 are considered strong to very strong. This indicates that the relative rankings of students have stayed consistent between years on both the paper and new digital assessments, providing evidence that the constructs remained consistent. The fairly high correlations for most student demographic groups also indicate that students from historically disadvantaged backgrounds are not being differentially impacted by the transition to the new Digital PSAT/SAT.

**Overall scores shifted down, especially on the lower end of the scale.** For the most part, we observed scale scores lower than in the past, especially for math. School performance framework calculations use the mean scale score for students consistently enrolled in a school from October count through the spring assessment window.

The graphics below show the mean scale score distributions for traditional schools with 16 or more students with valid test scores. For PSAT 9 and 10, mean scale scores declined slightly from 2019 for reading and writing (2-3 points) and more significantly for math (7-16 points). This decline can be seen in the visualizations below, the left tail of the 2024 distribution (the lower scoring end) has shifted even further left (i.e., down) in comparison to earlier years.



SAT 11 results showed similar declines, with mean scale scores declining somewhat for reading and writing (2-7 points) and more significantly for math (15-20 points).



The one exception to this decline was among the highest performers (i.e., 85th percentile or “exceeds” rating on the performance frameworks) for PSAT 9 & 10 reading and writing where mean scale scores increased in comparison to past PSAT results (5 points).

**Scores are different enough to warrant re-norming the 2024 accountability cut scores.** Given the downward shift in student scores, the data are different enough from previous years to warrant re-norming for the 2024 School and District Performance Frameworks. As a reminder, PSAT (grades 9 and 10) is included in the Achievement Performance Indicator; SAT (grade 11) is included in the Postsecondary & Workforce Performance (PWR) Indicator. While all other cut scores are lower, the 10th grade reading and writing “exceeds” cut score (i.e., 85th percentile) will remain consistent with 2023 and 2019. Because the cut scores are being published after the testing window, districts would not have had a chance to adjust instruction in classrooms to meet the higher “exceeds” benchmark. This can be reconsidered when the state board votes on the new 2025 performance framework targets. The final 2024 cut scores are provided below for both 1-year and 3-year frameworks.

## Final PSAT/SAT Cut Score for 2024 Performance Frameworks (1- and 3-Year)

1-Year SPF/DPF Cut-Points			Calculated Scale Score Cut-Points		Difference 2019 to 2024	Final 2024 1yr
			2019 Baseline	2024 1yr		
Achievement: PSAT & CoAlt DLM Grades 9 & 10	Reading & Writing	15th	423.5	415.1	-8.4	415.1
		50th	461.1	458.9	-2.2	458.9
		85th	505.0	510.1	5.1	505.0
	Math	15th	413.0	387.4	-25.6	387.4
		50th	448.4	430.2	-18.2	430.2
		85th	491.0	480.4	-10.6	480.4
PWR: SAT & Co Alt DLM Grade 11	Reading & Writing	15th	458.0	448.1	-9.9	448.1
		50th	501.3	494.6	-6.7	494.6
		85th	554.7	553.1	-1.6	553.1
	Math	15th	439.9	423.3	-16.6	423.3
		50th	488.0	465.8	-22.2	465.8
		85th	544.6	527.0	-17.6	527.0

3-Year SPF/DPF Cut-Points			Scale Score Cut-Points		Difference 2019 to 2024	Final 2024 3yr
			2019 Baseline	2024 3yr		
Achievement: PSAT & CoAlt DLM Grades 9 & 10	Reading & Writing	15th	423.5	419.1	-4.4	419.1
		50th	461.1	457.7	-3.4	457.7
		85th	505.0	507.5	2.5	505.0
	Math	15th	413.0	397.6	-15.4	397.6
		50th	448.4	434.3	-14.1	434.3
		85th	491.0	479.4	-11.6	479.4
PWR: SAT & CoAlt DLM Grade 11	Reading & Writing	15th	458.0	452.5	-5.5	452.5
		50th	501.3	495.1	-6.2	495.1
		85th	554.7	552.5	-2.2	552.5
	Math	15th	439.9	424.7	-15.2	424.7
		50th	488.0	466.4	-21.6	466.4
		85th	544.6	522.5	-22.1	522.5

**CoAlt DLM** = [Colorado Alternate Assessment - Dynamic Learning Maps](#) is the assessment program designed to measure what students with significant cognitive disabilities know and can do.