



COLORADO
Department of Education

Technical Advisory Panel Meeting

April 28, 2026



Welcome & Introductions

- **Welcome from CDE**

- The purpose of the TAP is to provide non-binding technical recommendations to CDE regarding the Colorado Growth Model, state accountability, and other topics as needed.

- **Meeting Logistics:**

- Non-members, please add your Name/Affiliation to the chat box.
- Everyone please mute your sound.
- We ask all non-TAP members to hold any comments until the end of the meeting. We do this to ensure we have sufficient time to address all meeting agenda items.

- **Introductions with Scott Weldon, TAP Chair**

Agenda for Today

- **Welcome and Introductions** | Information Item
- **General CDE Updates** | Information Item
- **PWR Landscape & 1278-315 Alignment** | Feedback Item
- **PWR Sub-Indicators: CLEP Discussion** | Feedback Item
- **CMAS Innovation Study** | Feedback Item
- **Wrap-Up**

[TAP Feedback Form 4-28-26](#)



General CDE Updates

Anne Laesecke
Information Item



CDE Updates

- Board approved amended 1278 implementation timeline in April
 - Current frameworks for points in fall 2026 and 2027
 - Frameworks with 1278 updates for information in spring 2028
 - Frameworks with 1278 updates for points in fall 2028
 - Next steps: Legislative updates next leg. Season.
- Rulemaking on 1 CCR 301-1, Rules for the Administration of Statewide Accountability Measures including Insufficient State Data: Low Participation
 - [Rules documents, including redline version of rules, and presentation](#)
 - [Written feedback to be included as part of the rulemaking process can be submitted via the State Board of Education survey.](#)
- Collecting feedback for legislative report on Small Systems Studies – Minimum N Counts and Stabilization Techniques
 - Due November 1



PWR Landscape & 315-1278 Alignment

Danielle Ongart



Hundreds of educators, students, caregivers and industry professionals provided input for initial program design

The [1215 Task Force](#) and the Postsecondary Workforce Readiness (PWR) [Financial Study](#) vendor took a human-centered approach to understanding the experiences, barriers and opportunities within the PWR ecosystem.

Who Participated:

- 200+ participants in learner and family focus groups across three regions
- 20+ panelists sharing their expertise
- 20 public survey responses
- 45 school districts engaged through surveys, interviews, workshops, and feedback sessions

Data and Program Analysis:

- In-depth review of 19 programs in the PWR landscape
- Analysis of five funding streams and related studies (including National Center for Education Statistics data, the CDE Grants Project and the 1241 Accountability Task Force report)

Accelerating Student Outcomes (Secondary)

Reminder

ACADEMIC ACHIEVEMENT | ACADEMIC GROWTH | GRADUATION RATES



Starting with the anticipated year of graduation of 2029, 100% of graduates will have achieved at least one of the following:

- Earned a quality, in-demand non-degree credential
- Earned 12 college credits that count toward a postsecondary credential
- Participated in one high-quality work-based learning (WBL) opportunity (from Learning Through Work and Learning at Work sections of the Work-based Learning Continuum)

KEY STRATEGIES

**Supporting
multiple pathways
aligned to student
interests and
goals**

**Implementing
Senate Bill 25-
315 and House
Bill 25-1278**

**Providing
regional
trainings to build
local capacity**

**Connecting data
to inform
decision making**

SB 25-315 - Postsecondary & Workforce Readiness Programs Summary

[SB 25-315](#) reinvented Postsecondary & Workforce Readiness (PWR) programs by consolidating multiple PWR programs into “The Big Three” outcome categories:

- 12 College Credits
- Industry-Recognized Credentials
- Work-Based Learning Experience

The intention was to create a more equitable distribution of funds among all local education providers that was easier to access with three distinct funds:

Start-Up Fund

- Three years (2025-26 - 2027-28)
- \$4.5M year 1, \$9.7M after
- Not a grant, formula distribution based on available student data
- To start and/or expand PWR programs
- [Final State Board of Education Start-Up Fund rules](#)

Sustain Fund

- 2026-27 and onward
- \$12.3M year 1, \$14.2M after
- Builds off of the success of CDIP
- Not a grant, funds are distributed for reported Big Three outcomes students achieve
- Draft redline Sustain Rules are posted on CDE's [Big Three Implementation page](#)

Buckner Innovation Fund

- 2028-29 and onward
- \$9.7M each year
- Grant program with limited eligibility
- Support for districts to improve student outcomes measured by the PWR indicator in the revised accountability system

Anticipated State PWR Funding

Funding Sources	2025-26	2026-27	2027-28	2028-29
Start-Up Fund	\$4.5M	\$9.7M	\$9.7M	\$0
Sustain Fund	\$0	\$12.3M	\$14.2M	\$14.2M
Buckner Innovation Fund	\$0	\$0	\$0	\$9.7M
Career Development Incentive Program (CDIP)	\$5M	\$0	\$0	\$0
Accelerating Students Through Concurrent Enrollment (ASCENT)	\$15.3M	\$0	\$0	\$0
Teacher Recruitment Education & Preparation (TREP) Program	\$2.6M	Unknown	Unknown	Unknown
Pathways in Technology Early College High Schools (P-TECH)	\$1M	Unknown	Unknown	Unknown
Career and Technical Act (CTA) State Career and Technical Education Funding	\$31.8M	\$31.8M	\$31.8M	\$31.8M

Start-Up Fund is intended to support districts in getting programs established and does not operate as a traditional grant program

- Provides financial assistance to districts so they can **develop or significantly expand access** to The Big Three.
- Districts are encouraged to consider cross-district collaboration and leverage economies of scale to expand access for students.
- **Needs based formula distribution – rather than a competitive grant –** that is determined based on data available to CDE.
- Districts will **opt in** to the funding with an **assurance** that funds will be used for eligible expenses. If a district does not want the funding, the money is put back into the fund to be distributed to districts accepting Start-Up funds.
- Funding is **distributed through School Finance**, not a grant award letter
- The **funding doesn't expire** - districts may use it immediately or save it for larger future expenses.



Start-Up Fund formula is based on a weights and points system - 8.5 total points and higher receive funding

Start-Up Formula Metric Thresholds				
Allocation Metric	High	Med	Low	
PWR Participation Rate	15.0%	10.0%	5.0%	Points input below
FRL Rate	50.0%	40.0%	30.0%	Points input below
Chronic Absenteeism Rate	35.5%	27.7%	15.0%	Points input below
Graduation Rate	95.0%	85.0%	75.0%	Points input below
Dropout Rate	8.5%	2.0%	0.5%	Points input below
9-12 Student Count Cap	2000.00		500.00	Student Cap in Formula

Start-Up Allocation Weights					
	PWR Participati on Rate Points	FRL Rate Points	Chronic Absenteei sm Rate Points	Graduation Rate Points	Dropout Rate Points
High +	0.00	2.00	2.00	0.00	1.00
Medium - High	2.00	1.50	1.50	0.50	0.75
Low - Medium	3.00	1.00	1.00	0.75	0.50
- Low	4.00	0.00	0.00	1.00	0.00

Start-Up Rural Designation	
NCES Designation - Locale Factor	
Rural: Remote	2.00
Rural: Distant	1.75
Rural: Fringe	1.50
Town: Remote	1.25
Town: Distant	1.00
Town: Fringe	0.75
Suburban: Small	0.00
Suburban: Midsize	0.00
Suburban: Large	0.00
City: Small	0.00
City: Midsize	0.00
City: Large	0.00

Start-Up Student Counts	
Student Count Ceiling	Student Count Floor
2000.00	500.00

Allocation Metric Data Sources

Allocation Metric	2023-24 Data Source
Dropout Rate Grades 9-12	CDE Annual End-of-Year Data Collection
Graduation Rate (4-year)	
Chronic Absenteeism Rate Grades 9-12 (excluding alternative schools)	
Free-and-Reduced Price Lunch Rate (FRL Rate) Grades 9-12	CDE Annual Attendance Collection
Student Count Grades 9-12	CDE October Student Count
Postsecondary Workforce Readiness (PWR) Prior Program Participation Rate	2023-24 CDIP Data Pipeline and 2023-24 October Count

Anticipated SB 25-315 Sustain Fund Timeline

PWR Office Supports Launched

[Save the Dates for six fall '26 Regional Trainings](#)

[Weekly office hours](#) beginning April 20th

'25-'26 Postsecondary and Workforce Readiness Data Collection Trainings

PWR Data Collection Closes (June 30, 2026)

CDE Reviews data submissions

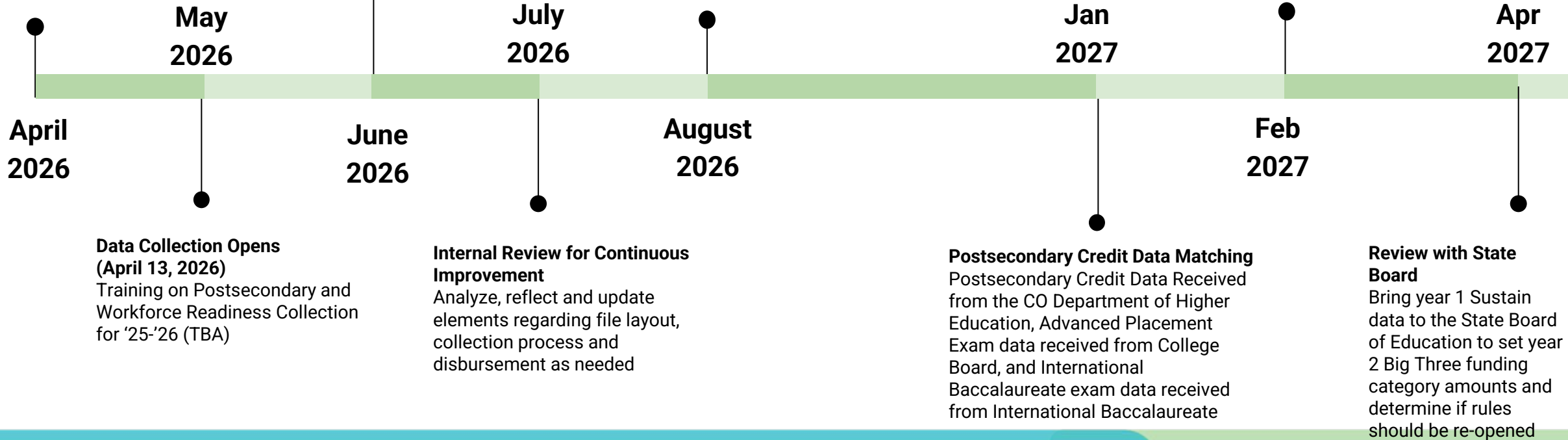
Finalize Sustain Monitoring and Support Processes

Bright Spots throughout the state begin to be identified

Sustain Disbursement

Funding sent to local education providers in late winter/early spring 2027

Sustain funds sent under code 3304



In FY 28-29, the Start-Up Fund converts to the Buckner Innovation Fund

- **Guaranteed funding – similar to CDE’s School Transformation Grants** – for schools and districts who are identified as needing assistance based on the new PWR measure that is included in HB25-1278. The funding is designed to support the **development and/or expansion of access** to The Big Three.
- **Covered Expenses include but are not limited to:** facility construction, renovation, equipment, technology purchase, initial program setup, curriculum development, training and teacher certification.



Starting in FY 26-27, the Sustain Fund provides funding for student achievement of the Big Three

- Provides financial incentives to districts so they can **maintain and/or expand access to** The Big Three.
- **Distribution based on student outcomes achieved** – rather than a competitive grant – using the same data that is included in the revised postsecondary workforce readiness accountability sub-indicator.
- **Covered Expenses include but are not limited to:** new program planning and design, expanding student access to existing programs, implementing individual career and academic plans, wages for registered apprentices, teacher professional development
- "The guiding question for Sustain Fund design: does the student outcome create a meaningful on-ramp to postsecondary education, training, or career success after high school?"



Anticipated SB 25-315 Start-Up Timeline

CDE Finalized Data

Data sets are reviewed for accuracy and finalized

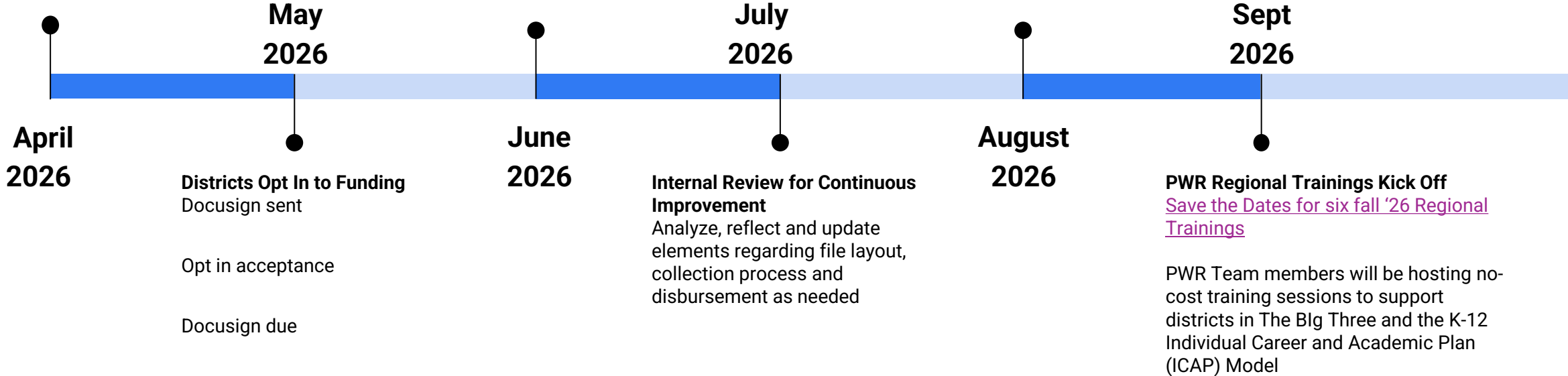
Funding Distributed

Funding sent to districts by June 30, 2026 under code 3303

Program Review

Compliance process begins

Bright Spots throughout the state identified



\$12.3M in Sustain Funding is distributed across the Big Three

Big Three Student Outcomes	2026-27 Percent of Sustain Fund	2026-27 Total Sustain Fund Dollars	2027-28 Percent of Sustain Fund
Postsecondary Credit Attainment	20%	\$2.5M	SBE Decision
Industry-Recognized Credentials	40%	\$5.1M	SBE Decision
Work-Based Learning	35%	\$4.4M	SBE Decision

Big Three category percentages are set in statute for 2026-27 (year one), after that the State Board decides how the funding is allocated, with consideration given to items outlined in Sustain Rules section 5.1(2).

Majority of Round 1 Sustain feedback was around funding weights, data reporting burden and alignment

Weighting Funds to Support Equity

- Weighted funding to address barriers for rural districts, small districts and students with higher needs (e.g. FRL, multilingual learners, highly mobile students).

Implementation and Reporting Considerations

- Questions on Sustain Fund data reporting, timing of funding and administrative capacity, particularly for smaller districts was a common theme

Clarity and Alignment

- Desire for clear rule language with alignment across statute, future CDE guidance and Career and Technical Education (CTE)

Sustain Fund Informal Feedback Survey Response Summary

The state board requested these edits to the Sustain Fund draft rules (round 2 edits)

1. Clarify that Pathways in Technology Early College High School (P-TECH) outcomes are eligible for Sustain Funding
2. Possible edits to postsecondary credit to add CLEP and to look further into Prior Learning Credits articulated credits aligned with Colorado Community College System (CCCS) guarantees
3. Bring back data on local education provider student population sizes to inform a decision on LEP funding limits
4. Ensure it is clear how funding flows to authorizers and charter schools
5. Add a “Department Monitoring of Local Education Providers” section to replace the audit section, giving CDE the authority to monitor student eligibility, student outcomes eligibility, and expenditure eligibility, as well as recover and/or withhold Sustain funding based on monitoring findings

Current State of PWR WIG

CDE does not have required data collections for each of The Big Three for all school districts and all students, so this is an estimate:

- **~16,500 industry credentials are earned by high schoolers in a given year**
 - There were 16,610 industry credentials reported through CDIP in 2023-24, not deduplicated
- **~19,500 students participate in work-based learning experiences each year**
 - 3,345 work-based learning experiences were reported through CDIP in 2023-24 (pre-apprenticeships, apprenticeships and internships).
 - 19,323 students had some kind of WBL experience in 2023-24 (out of 125,143 unique students, which was 15% of secondary CTE participants. Districts reported additional WBL details for the first time this year, so of those that reported WBL Type, 15% was industry sponsored project, 25% was supervised entrepreneurship, 24% did credit-for-work experience, 4% did a clinical experience, 19% was internship, 2% was pre-apprenticeship, and 11% was an apprenticeship.
 - 12,688 students had some kind of WBL experience in 2022-23 (out of 114,124 unique students, which was 11% of secondary CTE participants)
- **~40% of students take concurrent or dual enrollment courses at some point during high school**
 - In 2020-21, high school students attempted a total of 338,673 Concurrent Enrollment credit hours.
 - In 2020-21, the average number of credit hours Concurrent Enrollment students attempted in one program year was 8.6, with an average of 7.9 credit hours passed (slightly higher from 2019-2020).
 - In 2023-24, there were 47,918 students attempted 404,622 credits (8.4 credits per student on average). This is from 420 High Schools out of a total of ~522 high schools in Colorado.



The Big Three

1 - Postsecondary Credit Attainment



- Aligned with the Colorado Commission on Higher Education admissions standards
- Concurrent Enrollment credits
- Dual enrollment credits guaranteed to transfer
- Advanced Placement (AP)
- International Baccalaureate (IB)
- ~40% of high school students take concurrent or dual enrollment courses at some point during high school

Data Sources:

- **Postsecondary courses (CDHE DSA and National Student Clearinghouse CDE contract)**
- **Advanced Placement (AP) Exam Scores (CDE DSA with College Board)**
- **International Baccalaureate (IB) (CDE request to IB)**

2 - Industry-Recognized Credentials

- Industry certification
- Non-degree credential
- List of Qualified Credentials updated annually in the Colorado Talent Pipeline Report
 - Quality and In-demand Non-degree Credentials rubric
- ~20,000 industry-recognized credentials are earned by students each year



Data Source:

- [PWR Data Collection for industry-recognized credentials](#)

3 - Work-Based Learning

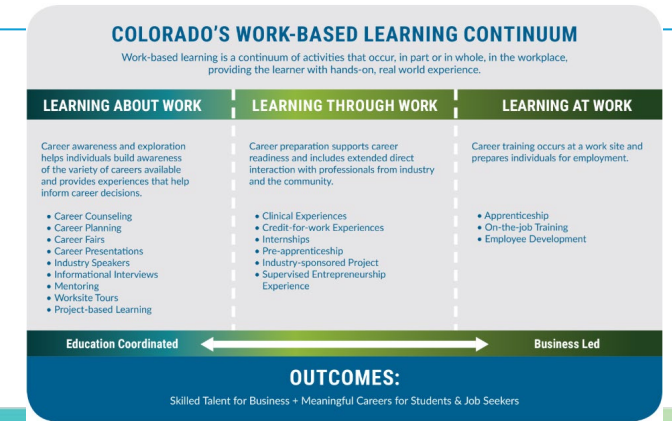
Work-based Learning Continuum items from the “Learning Through Work” and “Learning At Work” sections and defined by the Work-based Learning Quality Expectations

- Clinical Experiences
- Internships
- Pre-Apprenticeships
- Apprenticeships
- Industry-sponsored Projects
- Supervised Entrepreneurship Experiences
- On-the-Job Training
- School-Based Enterprise
- Students earn ~5,000 work-based learning experiences each year



Data Source:

- PWR Data Collection for work-based learning



The Big Three Connect to the Graduation Guidelines Menu of Options

Postsecondary Credit

- Concurrent Enrollment
- Advanced Placement (AP)
- International Baccalaureate (IB)

- Accuplacer
- ACT
- SAT

Industry-Recognized Credential

- Industry Certificate

Work-Based Learning

- ACT WorkKeys
- Armed Services Vocational Aptitude Battery (ASVAB)
- Collaboratively developed, standards-based performance assessment
- District Capstone



PWR Sub-indicator Methodology

Dan Mangan
Feedback Item

Agenda

- Review CCGBG Data Build & Summary Data
- Decision Table Overview
- CLEP Discussion:
 - DPS/BVSD Perspectives
 - Additional Context & Data
- TAP Homework:
 - CE Discussion in May
 - Find out about CLEP & CE in your district

Data Build for CCRBG Sub-Indicator

Course Credit Data

Advanced Placement Exams from College Board

International Baccalaureate Exams from IB

Concurrent Enrollment from CDHE

GT Pathways Course Credit data from CDHE

PWR Collection

IRC Data from PWR Collection

WBL Data from PWR Collection
(Not included in current analysis)

Aggregated student level file, unique by student-year. Student counts as “success” if meeting criteria for *any* of these options.

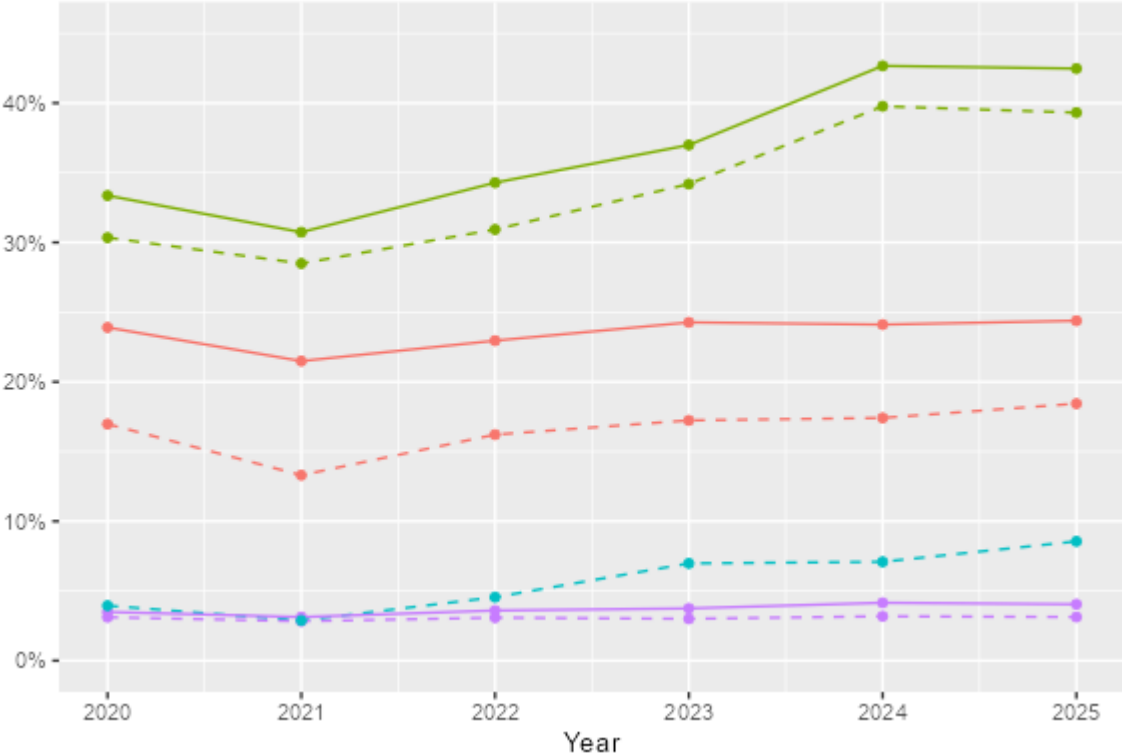
Denominator = Current graduate cohort OR all 9-12 students.

Final student level data set.

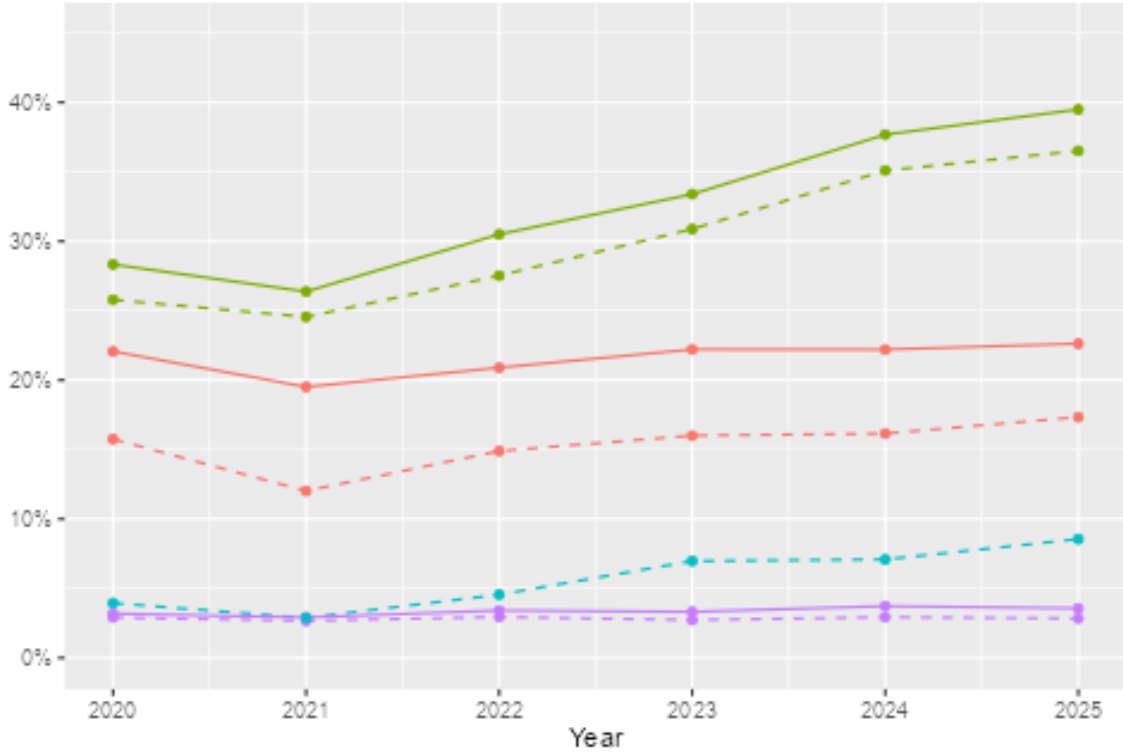
- Unique by student-year
- Each category reported separately.
- CCRBG % met

Single-Year Attempt/Success Rates by Pathway, GT and ALL

% of Graduates Attempting and Passing by Pathway (ALL Courses)



% of Graduates Attempting and Passing by Pathway (GT Courses)



Exam

- AP
- CE
- CTE
- IB

Metric

- Attempt
- Pass



PWR Sub-indicator Decision Table

Status	Sub-indicator	Component	Question	Decision	315 Alignment
Open	CCRBG	Denominator	Use current year grad file or all enrolled 9-12 students?	Leaning towards current year only, but concerns about attribution	NA
Resolved	CCRBG	Numerator	Use 12 aggregate credit threshold to count for CCRBG?	Learning towards not aggregating 12 credit hours	12 credit hour minimum needed to be counted for funding for IB/AP/CE - using lowest amount on CDHE file for IB/AP
Resolved	CCRBG	Numerator – IB	IB cut score?	4 or higher / D or higher	4 or higher (letter grades apply only to CORE, which is not GT)
Resolved	CCRBG	Numerator – IB	Use all IB candidate types?	Yes, include all candidate types	Yes, include all candidate types
Resolved	CCRBG	Numerator – AP	AP cut score?	3 or higher	3 or higher
Open	CCRBG	Numerator – IB/AP	Include non-GT IB/AP exams?	Under investigation	AP/IB must be GT
Open	CCRBG	Numerator – CLEP	Include passing CLEP exams?	Under investigation	Probably include
Resolved	CCRBG	Numerator – CE	CE cut score/grade?	C- or higher	C- or higher
Open	CCRBG	Numerator – CE	Include developmental courses?	Leaning towards not including	Yes, include DevEd (SB24-188)
Open	CCRBG	Numerator – CE	Include non-GT courses?	Under investigation	Courses must be GT (with some exceptions) - example Red Rocks CC more dual enrollment is allowed in statutory language.
Open	CCRBG	Numerator – CE	Include Prior Learning Credits aligned with CCCS? Articulated credits?	Under investigation	Under investigation
Open	CCRBG	Numerator – CE	Include PTECH/TREP?	Probably include	Yes, include PTECH/TREP
Open	CCRBG	Numerator – CE	How/whether to include Early College & on-campus CTE courses?	Under investigation	Probably include

CLEP Overview & Update

- College-Level Examination Program (CLEP) is a College Board credit-by-exam program and is already recognized as GT by CDHE for scores of 50 or higher.
- Used widely by students in only a few CO districts.
- Likely will be included for funding under SB-25-315.
- CDE is still in conversation with College Board regarding CELP data:
 - Can get data at the student level w/ new or updated DSA
 - Unclear whether we would be able to match data with students
 - CDE to meet with College Board next week to discuss further

CLEP – Colorado Demographic Overview (July 2024 – July 2025)

- 489 HS students took a CLEP exam in CO in 24-25
- Current HS students account for 20% of CLEP exams in CO (13% nationally)
 - HS Grads – 32%
 - College Students – 44%
- May also want to consider inclusion for PSP Sub-Indicator.

	State of Colorado				Total Group				
	# Of Test Takers ¹	% of Total	# of Exam Scores Sent ²	# of Scores 50 or Above ³	# Of Test Takers ¹	% of Total	# of Exam Scores Sent ²	# of Scores 50 or Above ³	
All	Total	2,397	100.0%	2,801	2,235	73,477	100%	92,274	64,959
	High School Student	489	20.4%	535	397	9,702	13%	11,663	6,597
	High School Graduate	758	31.6%	836	665	14,560	20%	18,493	10,780
By Education Level	College Freshman	290	12.1%	363	309	11,666	16%	15,190	11,635
	College Sophomore	220	9.2%	263	218	10,763	15%	12,937	10,309
	College Junior	162	6.8%	203	161	6,339	9%	7,772	6,020
	College Senior	369	15.4%	463	369	13,147	18%	16,564	12,456
	College Graduate	106	4.4%	133	111	7,002	10%	9,289	6,903
	Not Indicated	3	0.1%	5	5	298	0%	366	259

CLEP Volume by District (July 2021 – Feb 2026)

- Since 2021, students in 5 districts account for 69% of Colorado HS CLEP exams.
- Spanish Lang. + Spanish Writing exams comprise 66% of total
 - 92% in DPS
 - 69% in BVSD
 - 46% in Dist. 11 (COS)

CLEP Volume by Student AI Code, July 2021 - February 2026

District Name						Total	% of Total
	College Algebra	Spanish Language	College Composition	Spanish With Writing			
	Total	405	3,373	277	734	6,217	
Denver Public Schools	69	2,154	22	243	2,613	42%	
Boulder Valley School District	31	120	15	374	711	11%	
Colorado Springs School District 11	112	173	4	13	396	6%	
Jeffco Public Schools	17	183	24	3	356	6%	
Colorado Charter School Institute	28	92	25	6	234	4%	
Aurora Public Schools	1	185	7	4	225	4%	
Cherry Creek Schools	13	47	11	2	152	2%	
Douglas County School District	17	9	20	1	151	2%	
Academy School District 20	11	11	25		142	2%	
Harrison School District 2	3	87	2	6	128	2%	
Summit School District RE-1		91	1		99	2%	
Lewis-Palmer School District 38	23	2	11		92	1%	

Support For/Against including CLEP in CCRBG Numerator

FOR	AGAINST
SB-25-315 will likely include for funding	Districts may not be providing support structure
Common pathway to college credit in a few districts (recognized as GT by CDHE for scores of 50 or higher)	Use concentrated heavily in urban areas (Denver, COS)
Could be easier to scale than CE, particularly for rural systems	Self-study model raises rigor and attribution concerns
Provides additional pathway option for native Spanish speakers	Subject concentration raises concerns about whether it is a broad college readiness signal
Equity access for ML students	Equity optics may cut both ways if use is concentrated in a handful of urban districts



TAP Feedback

- Does the TAP recommend counting CLEP exams with a passing score for the CCRBG numerator?
- What additional concerns or questions do member have regarding CLEP inclusion?

[TAP Feedback Form 4-28-26](#)

TAP Homework for May Meeting

As a follow-up to today's discussion, we'd like to assign a short homework task ahead of our next meeting.

The TAP is working through a key question: should the CCRBG numerator count only GT-designated CE courses, or should it consider expanding CE options beyond GT?

To ground that decision in real data, we're asking each member to investigate CE in your district before our next meeting:

- **What does your CE enrollment look like overall?**
- **What portion of CE enrollments are GT vs. non-GT?**
- **Are there students earning CE credit through channels that don't fit the standard cooperative agreement model?**

If your district doesn't have this data readily available, a conversation with your CE coordinator is a great starting point. Even a rough picture is helpful – we're looking for a sense of how consistent or variable CE looks across the state.

We'll take 10–30 minutes at the start of next meeting for members to share what they found.



CMAS Testing Time Reduction Study

Christina Wirth-Hawkins

Jasmine Carey

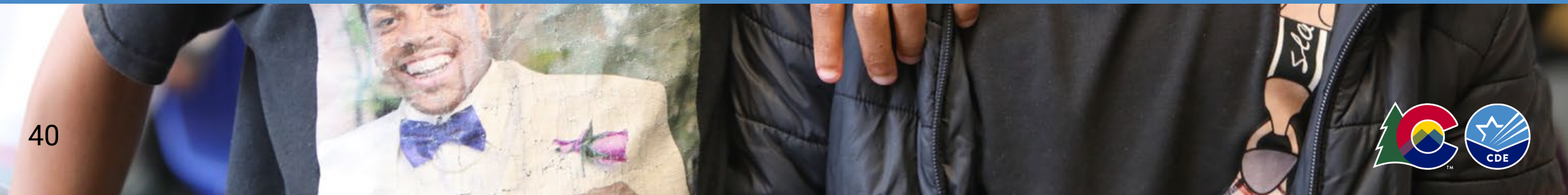
Feedback Item

Agenda

- ❖ CMAS testing time background
- ❖ Study Context
- ❖ Overview of study components and time-reduction opportunities by content area
 - Phase 1: Proportional blueprint reduction of current forms
 - Phase 2: Review of Computer adaptive testing (CAT)
 - Phase 3: Additional considerations
- ❖ Key Study Takeaways
- ❖ Feedback, Recommendations, and Next Steps



CMAS Testing Time Background

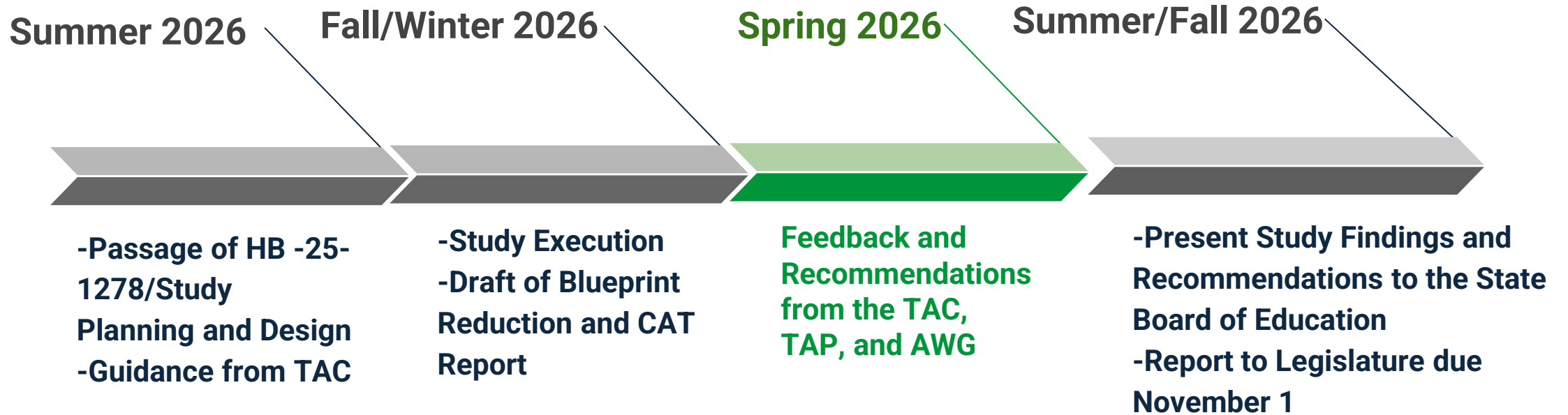


CMAS Time Reduction Study: Building on Existing Practices and Identifying New Opportunities

- ❖ CDE conducts annual analyses to identify opportunities to reduce CMAS testing time
 - In 2026, testing time decreased in grade 5 (science), grades 6-8 (ELA and science), and grade 11 (science)
- ❖ The 1241 Task Force prioritized shorter assessments and recommended computer-adaptive testing (CAT)
- ❖ HB 25-1278 directs CDE to study test reduction and adaptive implementation
 - The CMAS contractor ran simulations using current item banks and blueprints to evaluate shorter tests
 - CDE continues exploring additional strategies to reduce testing time while maintaining content coverage and technical requirements

HB 25-1278 Study Overview and Timeline

- ❖ HB 25-1278 requires a study on shortening statewide assessments and implementing adaptive assessment technology, including evaluating alignment with federal accountability requirements.
- ❖ Findings and recommendations will be reported to the legislature by November 1, 2026.



This Study Prioritizes Stakeholder Feedback Regarding State Assessment Testing Time

Key Priorities

- ❖ Reduce time commitment
 - Minimize total testing time (by test and by grade level)
 - Limit number of testing days to protect instruction
- ❖ Maintain validity and reliability of measures aligned to Colorado Academic Standards
- ❖ Include constructed response and writing (not just multiple choice)
- ❖ Provide results that inform system-level instruction and support accountability

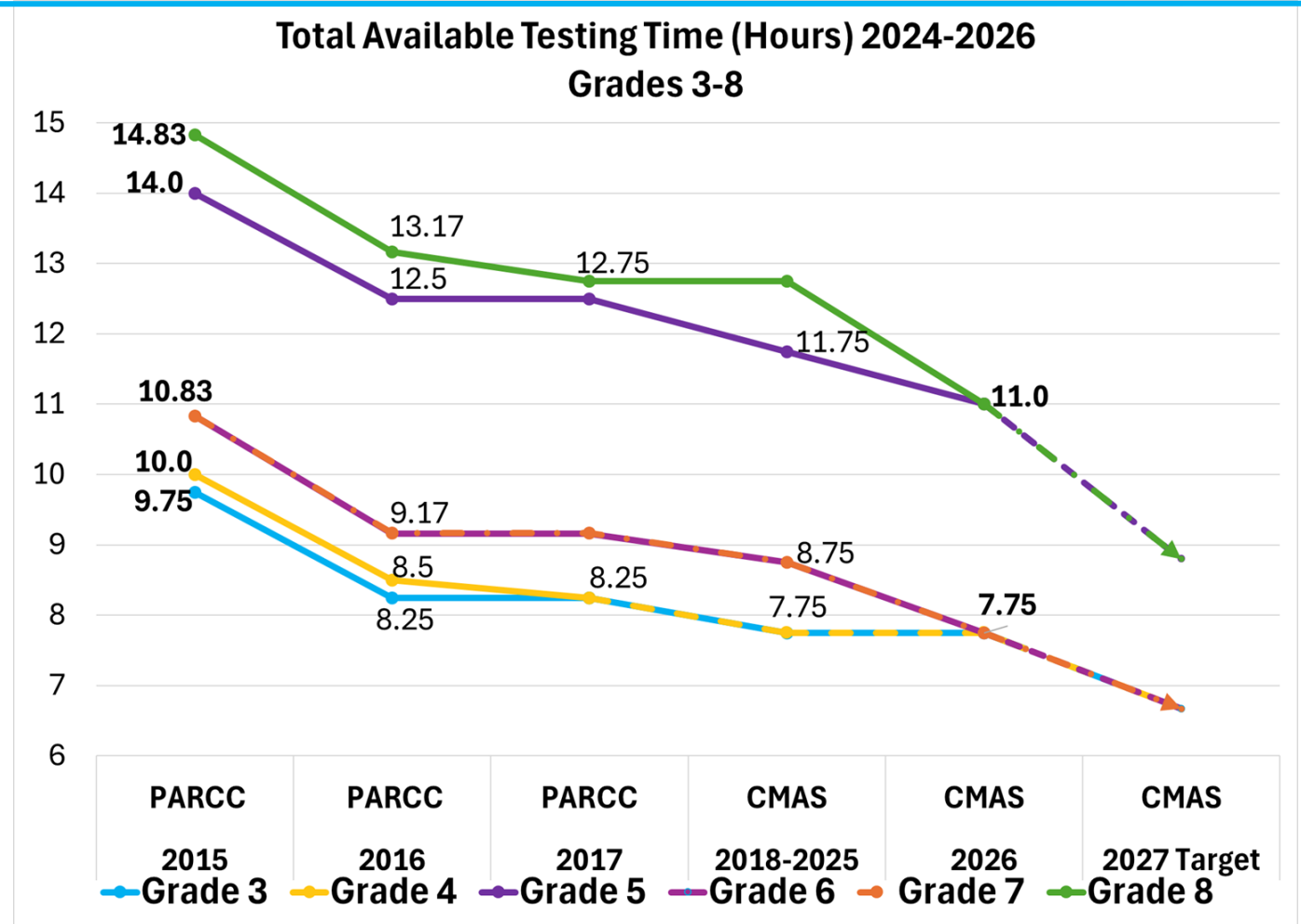
Additional Considerations

- ❖ Meet federal requirements (depth and breadth of standards + technical requirements)
- ❖ Maintain ability to measure student growth
- ❖ Maintain ability to provide meaningful information and reporting categories

Colorado State Assessment Testing Times Have Decreased Significantly Since 2015

Total testing times shown include multiple assessments per grade

- ❖ Grades 5 & 8: ELA, Math & Science
- ❖ Grades 3, 4, 6 & 7: ELA and Math
- ❖ Current total available testing times account for about 1% or less of yearly instructional time
- ❖ Most students do not use all of the provided testing time

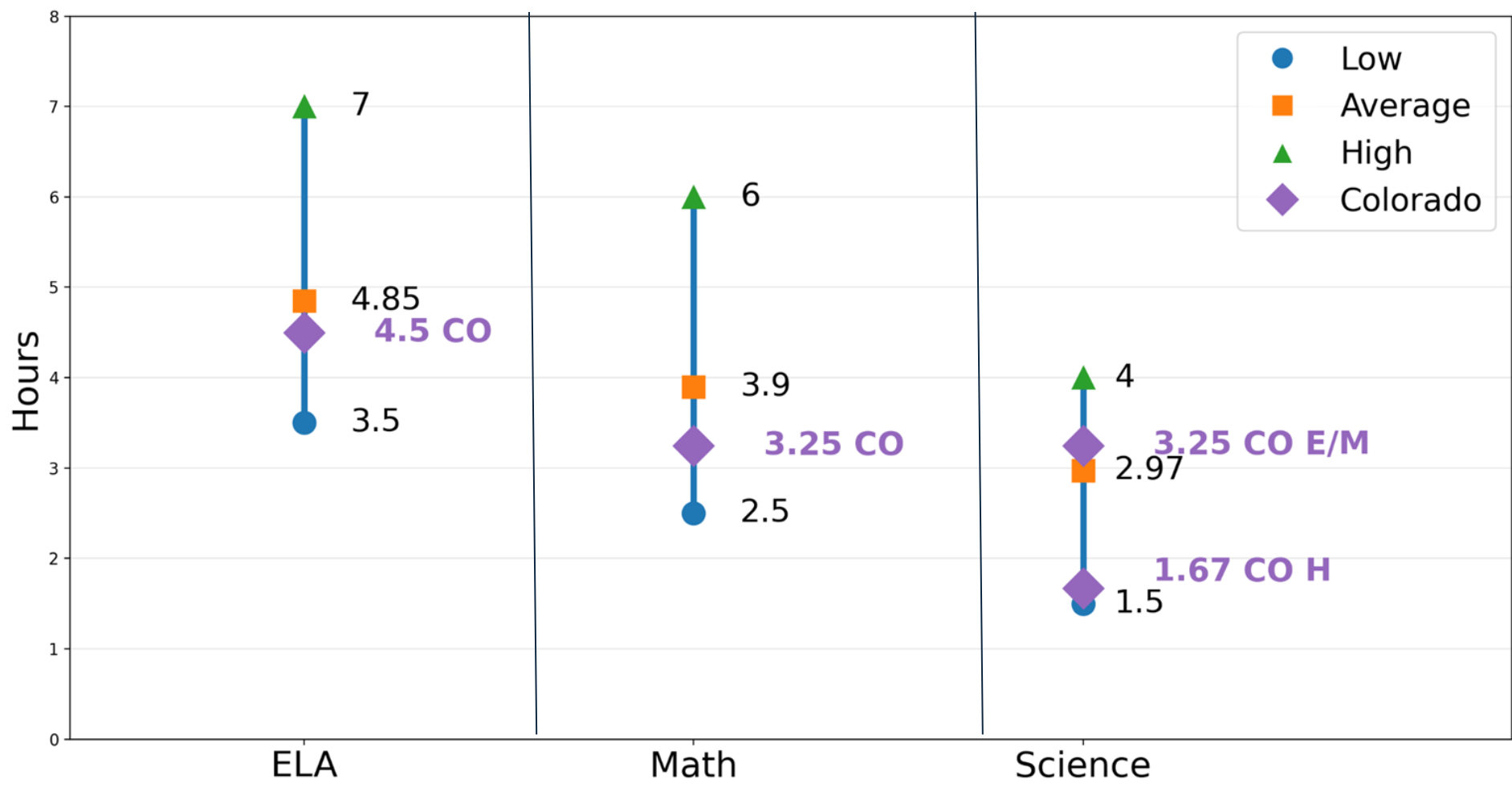


*Note: Social studies not included in graph due to changes in tested populations over years; social studies testing time has decreased significantly since 2015.



CMAS Testing Time Falls Around the Average or Lower Compared to Other States

State Assessment Available Testing Times Across States





Math

CMAS Math Study Includes 3 Phases Focused on Shortening the Assessments

Phase 1

- ❖ Examine test characteristics using shortened linear forms based on operational 2025 assessments and student response data

Phase 2

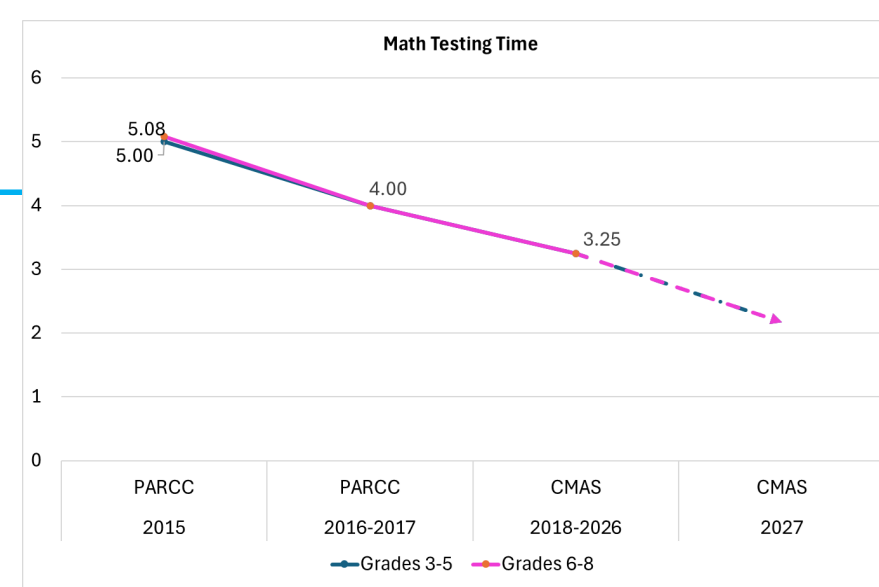
- ❖ Evaluate adaptive simulation approaches - Fully restricted CAT, restricted CAT with reduced blueprint, unconstrained CAT, multi-stage adaptive

Phase 3

- ❖ Explore additional shortening strategies

Key Analyses

Comparison of full-length vs. reduced-length forms across scale score distributions, performance level agreement, correlations, reliability metrics (e.g., coefficient alpha, decision consistency/accuracy), student timing data



Current Math Design:

- 3.25 hours available
- 3 units
- 65 minutes available/unit

*Average total time used by students: ~2 hours, 15 minutes



- ❖ Reduced the total score points by ~30% (from 51 to 34 points).
- ❖ Item selection for the reduced form was guided by content experts to maintain the blueprint's proportional representation of claims and item types.

Reduced Blueprint by Claim**❖ Claim A – Major Content**

- Grade 4 – 24 to 14 points
- Grade 6 – 20 to 14 points

❖ Claim B – Supporting Content

- Grade 4 – 7 to 7 points
- Grade 6 – 11 to 7 points

❖ Claim C – Expressing Mathematical Reasoning

- Grade 4 and 6 – 10/11 to 7 points

❖ Claim D – Modeling and Application

- Grades 4 and 6 – 9 to 6 points (either two 3-point items or one 6-point item)

Math		Count	Mean	Standard Deviation	Minimum	Maximum
Grade 4	Full Scale Score	52,493	737.15	34.26	650	850
Grade 4	Reduced Scale Score	52,493	737.18	35.12	650	850
Grade 4	Full Scale Score CSEM	52,493	8.67	3.04	7	72
Grade 4	Reduced Scale Score CSEM	52,493	10.64	4.76	8	87
Grade 6	Full Scale Score	52,221	732.67	33.60	650	850
Grade 6	Reduced Scale Score	52,221	732.57	34.26	650	850
Grade 6	Full Scale Score CSEM	52,221	9.43	4.40	7	69
Grade 6	Reduced Scale Score CSEM	52,221	11.30	7.12	8	84

Reliability Coefficient Alpha – scale from 0 to 1

Grade	Overall	Subclaim A	Subclaim B	Subclaim C	Subclaim D
Grade 4 Full	0.93	0.90	0.70	0.71	0.57
Grade 4 Reduced	0.89	0.85	0.70	0.57	*
Grade 6 Full	0.92	0.84	0.74	0.75	0.65
Grade 6 Reduced	0.88	0.80	0.66	0.67	*

Classification Accuracy – accuracy of performance level assignment

Grade	Accuracy	Consistency	PChance	Kappa
Grade 4 Full	0.77	0.69	0.25	0.59
Grade 4 Reduced	0.71	0.61	0.24	0.49
Grade 6 Full	0.75	0.65	0.23	0.55
Grade 6 Reduced	0.69	0.59	0.23	0.46

Grade 4 Performance Level Distribution

Grade 4	Reduced L1	Reduced L2	Reduced L3	Reduced L4	Reduced L5	Total
2025 L1	6,542 (12.52%)	837 (1.60%)	0 (0%)	0 (0%)	0 (0%)	7,379 (14.12%)
2025 L2	1,834 (3.51%)	5,950 (11.39%)	2,020 (3.87%)	10 (0.02%)	0 (0%)	9,814 (18.78%)
2025 L3	17 (0.03%)	1,722 (3.30%)	9,083 (17.38%)	2,356 (4.51%)	0 (0%)	13,178 (25.22%)
2025 L4	0 (0%)	6 (0.01%)	1,991 (3.81%)	13,735 (26.29%)	1,071 (2.05%)	16,803 (32.16%)
2025 L5	0 (0%)	0 (0%)	0 (0%)	796 (1.52%)	4,282 (8.19%)	5,078 (9.72%)
Total	8,393 (16.06%)	8,515 (16.30%)	13,094 (25.06%)	16,897 (32.34%)	5,353 (10.24%)	52,252 (100%)

Things to look for:

1. Changes of more than one level
2. Large differences in the numbers above and below the diagonals

Grade 6 Performance Level Distribution

Grade 6	Reduced L1	Reduced L2	Reduced L3	Reduced L4	Reduced L5	Total
2025 L1	8,081 (15.47%)	1,013 (1.94%)	0 (0%)	0 (0%)	0 (0%)	9,094 (17.41%)
2025 L2	1,086 (2.08%)	10,028 (19.20%)	1,094 (2.09%)	0 (0%)	0 (0%)	12,208 (23.38%)
2025 L3	0 (0%)	1,197 (2.29%)	12,114 (23.20%)	1,038 (1.99%)	0 (0%)	14,349 (27.48%)
2025 L4	0 (0%)	0 (0%)	991 (1.90%)	12,542 (24.02%)	453 (0.87%)	13,986 (26.78%)
2025 L5	0 (0%)	0 (0%)	0 (0%)	376 (0.72%)	2,208 (4.23%)	2,584 (4.95%)
Total	9,167 (17.55%)	12,238 (23.44%)	14,199 (27.19%)	13,956 (26.72%)	2,661 (5.10%)	52,221 (100%)

Student Timing in Minutes

- ❖ Unit times are usually set around the 85th – 90th percentile so that students don't feel rushed
- ❖ Goal for Math is to get to 2 units

Grade	10th Percentile	Median	Mean	90th Percentile
Grade 4 Full	83	142	139	191
Grade 4 Reduced	57	100	98	135
Grade 6 Full	67	115	116	168
Grade 6 Reduced	49	84	86	125

- ❖ **ESSA requires measuring the full scope of the state's academic standards**
 - All states using CAT tests have minimum content requirements before the test can finish
 - Content requirements would be necessary to provide any student level subscores

- ❖ **Item level adaptive – Math is the only test with independent items that could support item level**
 - Scenario 1: Fully restricted CAT ensuring all candidates (simulated) take the same blueprint/item specifications/etc. (fixed length)
 - Scenario 2: Same as Scenario 1, but using a reduced blueprint
 - This is to demonstrate whether CAT can regain any reliability that is lost from shortening
 - Scenario 3: Unconstrained, using a precision-based stopping rule ($CSEM < 0.20$)
 - Not really an option given Federal requirements, but demonstrates that CAT does not always lead to a shorter test

CMAS Math Phase 2: Summary

The goal of going to CAT is to shorten the test without losing measurement accuracy

- ❖ Full length fixed mean CSEM - Grade 4: 8.67, Grade 6: 9.43
- ❖ Reduced length fixed mean CSEM - Grade 4: 10.64, Grade 6: 11.30

Grade 4	Full Length (MSE = 0.06)			Reduced (MSE = 0.11)			Unconstrained (MSE = 0.04)		
	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max
Items	30	30	30	20	20	20	13	24.37	245
CSEM	5.51	6.95	83.58	6.24	8.79	136.64	5.66	6.04	31.94
Grade 6	Full Length (MSE = 0.06)			Reduced (MSE = 0.11)			Unconstrained (MSE = 0.04)		
	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max
Items	29	29	29	18	18	18	13	29.80	245
CSEM	5.27	7.31	74.55	6.47	9.30	124.58	5.37	5.73	28.13

- ❖ Reliability ↓ (slightly)
 - ❖ Average CSEM increased by around 2 scale score points for shortened linear form, CAT model would bring the short form back to CSEM for current linear form
 - ❖ Overall test reliability minimally impacted (.02)
 - ❖ Scale scores were minimally impacted (slightly more for Grade 4)
 - ❖ Classification accuracy decreased

- ❖ Time ↓ (meaningfully)
 - ❖ Average and 90th percentile time decreased 30 – 40 minutes

- ❖ Subscores reporting ability ↓ (notable)
 - ❖ Potential loss of reportable Modeling score

❖ Phase 1: Reduce blueprint by 30%

- Overall score performance was comparable
- Subscore reliability was impacted, could be an issue for reporting on Modeling

❖ Phase 2: Use a Computer Adaptive Model

- Improved reliability over shorter fixed form
- Would require an expanded item pool with increased development
- Increase in budget needed for CAT is unlikely to be approved

❖ Phase 3: Other Options

- **CDE's goal for math:** Reduce testing time and administrative burden by transitioning from 3 units to 2
 - Timing data indicates this can be achieved with a more moderate reduction in item count
 - Grades 6–8: Implement fully non-calculator and calculator-based units to eliminate the Unit 1 section break
 - Assessment design: Remove the 6-point item type to increase flexibility in measuring the Modeling subclaim



English Language Arts



Study Includes 3 Phases Focused on Shortening the Assessments

Phase 1

- ❖ Examine test characteristics using shortened linear forms based on operational 2025 assessments and student response data

Phase 2

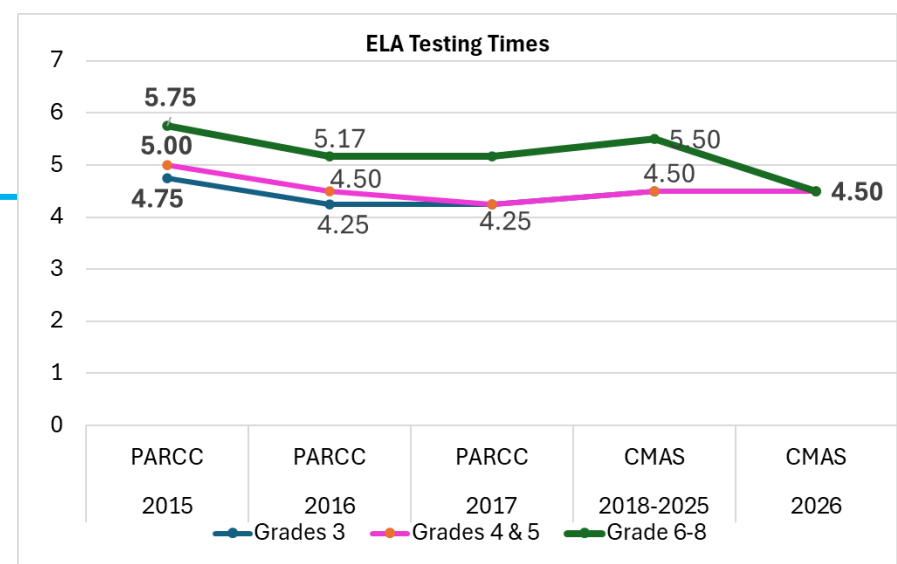
- ❖ Evaluate adaptive simulation approaches - Fully restricted CAT, restricted CAT with reduced blueprint, multi-stage adaptive

Phase 3

- ❖ Explore additional shortening strategies

Key Analyses

Comparison of full-length vs. reduced-length forms across scale score distributions, performance level agreement, correlations, reliability metrics (e.g., coefficient alpha, decision consistency/accuracy), student timing data



Current ELA Design:

- 4.5 hours available
- 3 units
- 1 hour, 30 minutes/unit

*Average total time used by students: ~3 hours

❖ **Point Reductions by Subclaim**

➤ **Reading for Information**

- Grade 4 – 18 to 12
- Grade 6 – 22 to 18

➤ **Reading Literature**

- Grade 4 – 18 to 12
- Grade 6 – 18 to 14

➤ **Vocabulary**

- Grade 4 – 10 to 4 (would not be able to report)
- Grade 6 – 10 to 6

➤ **Writing – points reduced by reducing the weighting of the Written Expression trait**

- Grade 4 – 27 to 20
- Grade 6 – 30 to 22

Unit 1	Unit 2	Unit 3
LAT	RST	FT LAT/RST
Lit Short	Info Long	FT Lit Short/Info Long

ELA		Count	Mean	Standard Deviation	Minimum	Maximum
Grade 4	Full Scale Score	52,252	741.33	37.07	650	850
Grade 4	Reduced Scale Score	52,252	740.37	39.99	650	850
Grade 4	Full Scale Score CSEM	52,252	12.10	2.50	11	60
Grade 4	Reduced Scale Score CSEM	52,252	16.22	5.97	14	74
Grade 6	Full Scale Score	52,414	742.75	33.66	650	850
Grade 6	Reduced Scale Score	52,414	742.64	34.21	650	850
Grade 6	Full Scale Score CSEM	52,414	9.40	1.99	8	54
Grade 6	Reduced Scale Score CSEM	52,414	10.37	2.73	9	66

Reliability Coefficient Alpha – scale from 0 to 1

Assessment	Scenario	Overall	RL	RI	RV	WE	WKL
ELA 4	Full	0.88	0.70	0.72	0.61	0.65	0.76
	Reduced	0.83	0.56	0.55	0.38	0.65	0.76
ELA 6	Full	0.90	0.75	0.81	0.66	0.76	0.81
	Reduced	0.89	0.73	0.79	0.52	0.76	0.81

Classification Accuracy – accuracy of performance level assignment overall

Assessment	Scenario	Accuracy	Consistency	<u>PChance</u>	Kappa
ELA 4	Full	0.68	0.58	0.23	0.45
	Reduced	0.62	0.50	0.23	0.36
ELA 6	Full	0.73	0.63	0.25	0.51
	Reduced	0.71	0.61	0.25	0.48

	Reduced L1	Reduced L2	Reduced L3	Reduced L4	Reduced L5	Total
2025 L1	6,542 (12.52%)	837 (1.60%)	0 (0%)	0 (0%)	0 (0%)	7,379 (14.12%)
2025 L2	1,834 (3.51%)	5,950 (11.39%)	2,020 (3.87%)	10 (0.02%)	0 (0%)	9,814 (18.78%)
2025 L3	17 (0.03%)	1,722 (3.30%)	9,083 (17.38%)	2,356 (4.51%)	0 (0%)	13,178 (25.22%)
2025 L4	0 (0%)	6 (0.01%)	1,991 (3.81%)	13,735 (26.29%)	1,071 (2.05%)	16,803 (32.16%)
2025 L5	0 (0%)	0 (0%)	0 (0%)	796 (1.52%)	4,282 (8.19%)	5,078 (9.72%)
Total	8,393 (16.06%)	8,515 (16.30%)	13,094 (25.06%)	16,897 (32.34%)	5,353 (10.24%)	52,252 (100%)

	Reduced L1	Reduced L2	Reduced L3	Reduced L4	Reduced L5	Total
2025 L1	5,239 (10.00%)	712 (1.36%)	0 (0%)	0 (0%)	0 (0%)	5,951 (11.35%)
2025 L2	876 (1.67%)	8,561 (16.33%)	575 (1.10%)	0 (0%)	0 (0%)	10,012 (19.10%)
2025 L3	0 (0%)	805 (1.54%)	11,867 (22.64%)	684 (1.30%)	0 (0%)	13,356 (25.48%)
2025 L4	0 (0%)	0 (0%)	759 (1.45%)	17,772 (33.91%)	474 (0.90%)	19,005 (36.26%)
2025 L5	0 (0%)	0 (0%)	0 (0%)	291 (0.56%)	3,799 (7.25%)	4,090 (7.80%)
Total	6,115 (11.67%)	10,078 (19.23%)	13,201 (25.19%)	18,747 (35.77%)	4,273 (8.15%)	52,414 (100%)

Student Timing in Minutes

Current available unit time is 90 Minutes (270 total)

Reduced blueprint does not improve timing much, most time is spent reading and writing, not responding to the reading items

Grade	10th Percentile	Median	Mean	90th Percentile
Grade 4 Full	99	180	179	263
Grade 4 Reduced	80	152	152	226
Grade 6 Full	97	174	181	280
Grade 6 Reduced	88	160	166	259

- CAT options are limited for ELA due to the requirements of the standards
 - Colorado Academic Standards require writing to passages
 - Task Force valued the writing score and did not want to remove it
 - Writing cannot be scored on the fly, so it does not contribute to the adaptive algorithm
- ELA
 - Items are passage based so only option with current design is multi-stage (College Board tests are fixed length two-stage adaptive)
 - MST 1-2-2 configuration with full-length and reduced-length blueprints

- ❖ Full length fixed mean CSEM – Grade 4: 12.10, Grade 6: 9.40
- ❖ Reduced length fixed mean CSEM – Grade 4: 16.22, Grade 6: 10.37

Grade 4	Full Length (MSE=0.14)			Reduced Length (MSE=0.24)		
	Min	Mean	Max	Min	Mean	Max
Items	26	26	26	17	17	17
CSEM	8.70	10.86	82.42	10.83	13.58	117.27

Grade 6	Full Length (MSE=0.14)			Reduced Length (MSE=0.24)		
	Min	Mean	Max	Min	Mean	Max
Items	27	27	27	23	23	23
CSEM	7.70	9.01	77.26	8.17	9.71	87.31

- **Proportional Blueprint adjustment**
 - 30% in Pearson study
 - Very low reliability and accuracy – investigating impact on growth model
 - Minimal impact on timing data
- **Multi-stage adaptive**
 - Some improvement in reliability for shorter blueprint but not to the same mean CSEM as full
 - Would require expansion of item pool, additional costs
- **Shorten time with shorter reading passages**
 - Current word count ranges
 - Hard to determine reading time from current data
- **Full design change**
 - Current design is very constrained
 - FT is current 1/3 of the test
 - Would likely require a break in trend, could impact accountability

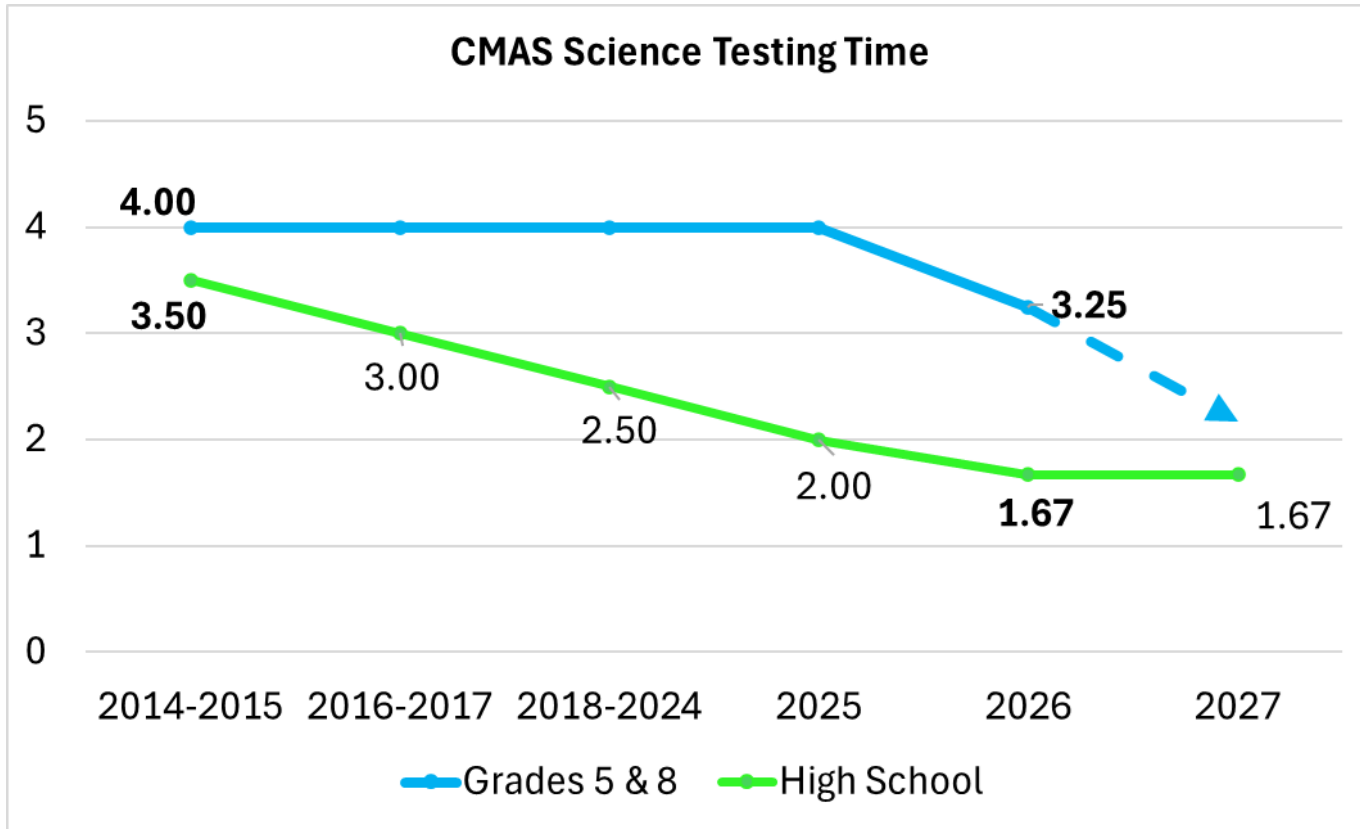
Grade 3 - 5	Min	Max
Short	200	400
Long	400	800
LAT (1 short, 1 long)	600	1200
RST (1-2 short, 1 long)	600	1200
NWT (1 short)	200	400
Pair (2 short)	400	800

Grade 6 - 8	Min	Max
Short	400	700
Long	700	1000
LAT (1 short, 1 long)	1100	1700
RST (2 short, 1 long)	1500	2400
Pair (2 short)	800	1400
NWT (1 short)	400	700



Science





Current Grades 5 & 8 Science Design:

- 3 hours, 15 minutes available
- 3 units
- 1 hour, 5 minutes/unit

*Average total time used by E/M students: ~2 hours, 25 minutes

Shortening Approach (Grades 5 & 8)

- ❖ High school science reduced to 2 units in 2025; similar approach can be applied
- ❖ Combine lower-level reporting categories (maintain one level below standards)
- ❖ Align simulation item sets with cluster item counts
- ❖ Include a single FT section

Multi-Stage Adaptive Option

- ❖ Not included in current study, but a potential future approach
- ❖ Only viable CAT model given stimulus-based item clustering

Advantages:

- Reduces testing time by likely at least $\frac{1}{3}$ (~1 hour, 5 minutes)
- Reduces administrative burden by decreasing the number of units

Disadvantages:

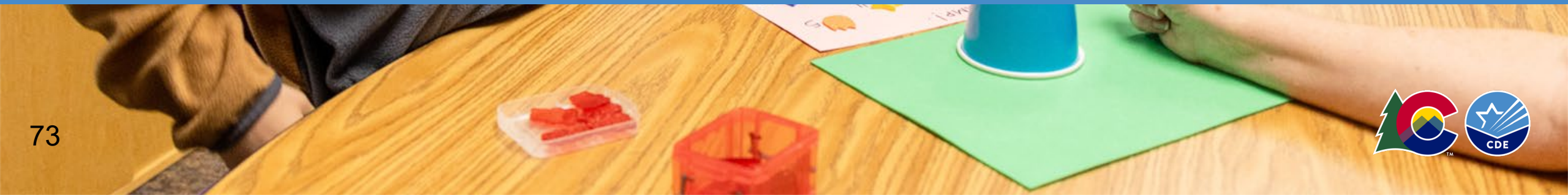
- Decreased reporting
- Limits item release opportunities

- ❖ Test was proportionally reduced by 30% between 2023 and 2024
 - Used items from the previous year’s form
 - IRT equating methods were used to ensure comparability to the longer blueprint
 - No new standard setting or break in trend/accountability
- ❖ Details can be found in the [CMAS 2024 Technical Manual](#)

	Mean Scale Score	Partially Met	Approaching	Met/Exceeded
2024	730	37.8	37.4	24.8
2023	729	38.8	36.6	24.6



Additional Considerations and Strategies



Additional Considerations and Strategies

Leverage Enhanced Timing Analysis - Introduced embedded timer in the 2025–26 test platform

- ❖ Improves accuracy of timing data and reduces proctor error
- ❖ Enables more precise analysis of student testing time

Prioritize Fewer Test Units

- ❖ Reduces administrative burden for schools and districts
- ❖ Supports scheduling of up to two units per day with shorter tests
- ❖ Protects instructional time

Feedback from the TAC

- ❖ **The CMAS Testing Time Reduction Study was taken to CDE's Technical Advisory Committee (TAC) for input on the technical aspect of the study**
 - Expressed concerns about the reliability of subscores with the reduced blueprint for both ELA and Math
 - Expressed concerns about the reliability of the overall ELA assessment with the reduced blueprint
 - Suggested that the Math simulations were limited by the available item bank so additional bank development may improve the results
 - Emphasized that the current CMAS reading expectations should not be reduced to the extent used in the redesigned College Board assessments
 - College Board reading now uses short two to three sentence reading prompts

Key Takeaways from the Testing Time Reduction Study

- ❖ **Shorter tests reduce precision**
 - Impacts are greatest for subscores and detailed reporting
- ❖ **CAT does not inherently reduce testing time**
 - Under required content coverage constraints, length is similar to current tests
- ❖ **CAT can improve measurement precision—but requires major changes**
 - Item bank expansion, cost, and reporting impacts
- ❖ **ELA time is largely driven by reading/writing**
 - Reducing items alone has limited impact
- ❖ **Operational changes may offer the greatest opportunity**
 - Time reductions based on enhanced timing analyses, fewer units, scheduling, and design changes
- ❖ **Decisions involve tradeoffs between time, precision, and reporting**
 - No single approach improves time, precision, and reporting simultaneously

TAP Feedback and Recommendations

Tradeoffs & Priorities

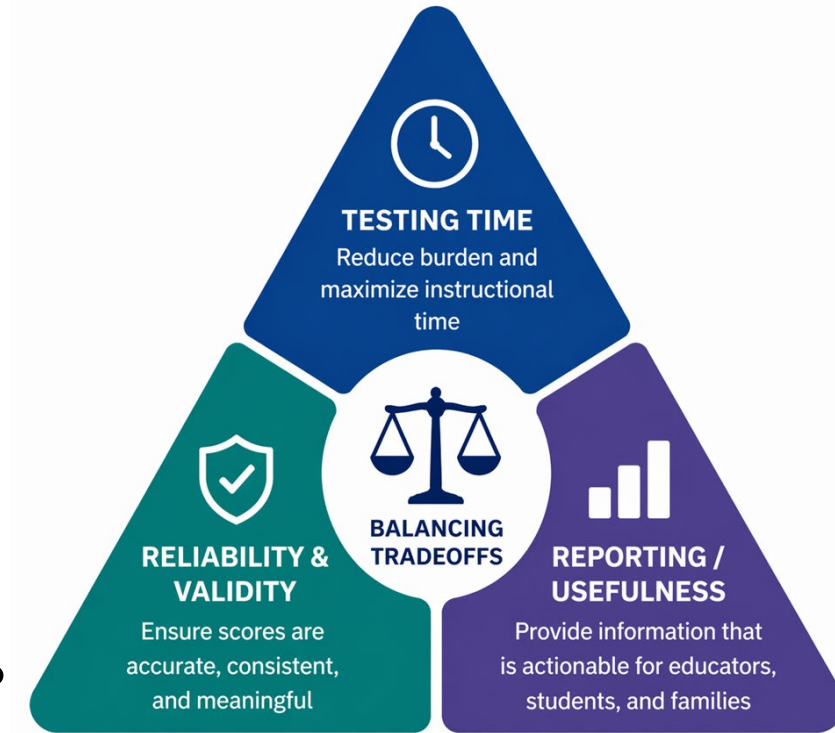
- ❖ How should we balance reduced testing time with reliability, validity, and reporting?
- ❖ What must be preserved and where is there flexibility?
- ❖ What features should remain regardless of test length (e.g., constructed response/writing, growth)?

Approaches to Reducing time

- ❖ What are the key risks or limitations of proportional blueprint reduction, structural changes?
- ❖ Where do you see diminishing returns in reducing test length?
- ❖ What factors (technical, cost, operational) should guide decisions?
- ❖ Does CAT add value? Paper/pencil implications?
- ❖ Which approaches (design vs. operational) offer the greatest impact with the least risk?

Implementation & Impact

- ❖ What changes most meaningfully reduce burden for schools?
- ❖ What scheduling/administration shifts matter most?





Public Comments & Meeting Close

Dan Mangan & Scott Weldon



Technical Advisory Panel

- **Meeting Summary**
 - Suggested future analysis
 - TAP recommendations from this meeting
- **Public Comment**
- **Close Meeting**
 - Next Scheduled Meeting: May 21, 2026