

H.B. 23-1231 Improving Mathematics Outcomes 2025 Report

Submitted to:

Senate Education Committees of the Colorado General Assembly

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Teaching and Learning Unit
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Executive Summary

In April 2023, the Colorado General Assembly passed House Bill 23-1231 (H.B. 23-1231), aimed at accelerating student achievement in mathematics from pre-kindergarten (PK) through 12th grade. The legislation directs the Colorado Department of Education (CDE) to improve mathematics outcomes by equipping educators with high-quality resources and evidence-informed practices to improve instruction. A key portion of the legislation calls on CDE to provide professional development, resources and technical assistance to help improve math instruction. Specifically, CDE must provide interventions for improving math achievement, maintain a list of evidence-informed curriculum and assessment options in mathematics, provide free-optional training for math educators and technical assistance in mathematics to rural districts and to annually report on its progress in providing these activities.

To begin work on H.B. 23-1231, CDE defined students "struggling in math" as those whose achievement falls below grade-level expectations in one or more standards, which necessitates targeted intervention. To ensure support addressed the most pressing challenges, CDE conducted an in-depth evaluation of the top 50 areas of need in K-12 mathematics by identifying specific content and practice gaps where students most often struggle. The findings of this evaluation revealed patterns of unfinished learning and instructional barriers across grade levels, guiding the development of high-impact resources. In 2024, CDE developed 27 mathematics intervention activities, funded through the Elementary and Secondary School Emergency Relief (ESSER) Fund, to target some of the identified areas of need. Available to educators, caregivers, families and out-of-school time professionals, these resources are designed to support instructional planning by providing practical, ready-to-implement strategies for reinforcing foundational math skills.

CDE developed and made available resources to help districts adopt and implement high-quality PK-12 math instructional materials. These include curriculum evaluation tools and a mathematics curriculum and assessment materials resource bank, which links to materials that are evidence-informed and have been evaluated by an impartial third-party.

Funding provided through the legislation enabled CDE to expand its capacity for technical assistance with the addition of 3.5 full-time equivalent positions, including three mathematics content specialists and a half-time planning and program specialist in the Office of Standards and Instructional Support (SIS). This expansion significantly increased the range of direct support compared to prior years, when only one mathematics content specialist served the state through SIS. As a result, CDE's outreach to support math instruction has grown in fiscal years (FY) 2024 and 2025, from 33 and 43 Local Education Agency (LEA) technical assistance engagements, respectively. This represents increases of 125% in 2024 and 193% in 2025 compared to the 2018-2020 average. Expanding capacity for technical assistance also expanded CDE's rural outreach, with rural or small rural schools making up 50% of those served in FY 2024 and 53.5% in FY 2025.

CDE launched the Powerful Practice: Evidence-Informed Math Teaching course in 2024. Developed in partnership with TNTP, the course provides training to enhance educators' use of evidence-based

instructional strategies. It specifically focuses on supporting students who are below grade level, students with disabilities and multilingual learners. The course consists of 14 self-paced modules, each estimated to take one hour to complete. The online, self-paced course is supplemented by optional facilitated sessions led by CDE mathematics content specialists. These sessions provide participants with opportunities to engage in collaborative discussions, deepen understanding of course concepts and receive targeted guidance to support effective classroom implementation.

Since the course launched in June 2024, demand for enrollment has been high. The online course has capacity for 750 participants each fiscal year, and the course quickly reached capacity in both FY 2024 and FY 2025 for a total of 1,500 participants. Strong demand and positive feedback about the course resulted in a waiting list for participants in FY 2025. CDE was able to use federal funds to add 180 registrants from the waitlist in April 2025 under an expedited timeline, increasing total enrollment to 1,680 registrants.

Together, asynchronous and synchronous sessions accounted for 11,088 hours of training, averaging 6.6 hours per participant. Of these, 667 participants completed the full 14 hours, and 55 earned graduate credit through Adams State University. Early evaluations show 96.8% of participants intend to apply the course knowledge and skills in their professional roles. CDE continues to track outcomes to inform future offerings.

With FY 2025 being the first full year of implementation, efforts to realize the goals of H.B. 23-1231 focused on building sustainable systems and statewide capacity. During this foundational year, CDE prioritized resource development, professional learning and stakeholder engagement to lay the groundwork for long-term impact. As there has been a marked emphasis among many districts to focus on improving mathematics instruction, FY 2026 efforts will include a train-the-trainer model to build local capacity and ensure the continued delivery of high-quality professional development aligned with the legislation. Statewide outreach will also deepen, helping identify additional resources and supports needed to strengthen mathematics instruction and improve outcomes across Colorado's PK-12 system.

Introduction and Background

The Colorado General Assembly passed <u>House Bill 23-1231</u> (H.B. 23-1231) in April 2023. The legislation seeks to improve outcomes in pre-kindergarten (PK) through 12th grade mathematics by implementing supports to accelerate student achievement. Through this legislation, the Colorado Department of Education (CDE) is charged with empowering educators with resources and supports that foster excellence in teaching mathematics. This includes connecting educators with top-tier materials, supporting high-quality instruction and offering grants and funding opportunities to elevate math education across the state.

In the years since the COVID-19 pandemic disrupted education, student performance on the Mathematics Colorado Measures of Academic Success (CMAS) has shown strong progress. Most recently, there were notable year-over-year gains in student scores in grades four through eight from 2024 to

2025. State and district efforts to improve math instruction is likely a significant factor in this improvement. As illustrated in Figure 1, elementary mathematics performance rose notably in grades 4 and 5 from 2024 to 2025. Figure 2 demonstrates gains of more than two percentage points across all middle school grades from 2024 to 2025, reinforcing momentum in math achievement statewide. Overall, students continue to demonstrate increased math achievement since the post-pandemic lows, with grades three through six at or above the 2019 percent met/exceeded.

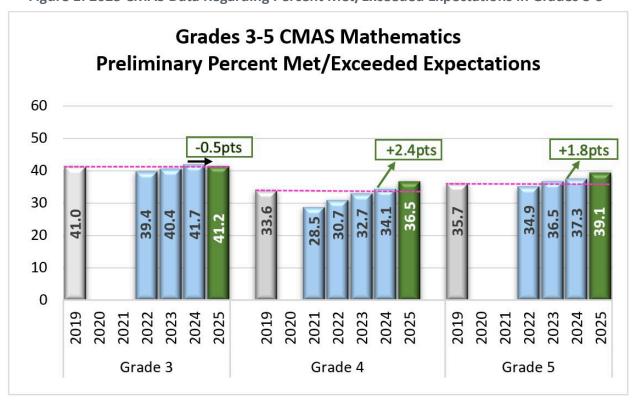


Figure 1: 2025 CMAS Data Regarding Percent Met/Exceeded Expectations in Grades 3-5

Indicates performance exceeds pre-pandemic levels

Note: CMAS Mathematics achievement results by grade level. Participation rates were 93.8% in Grade 3, 93.8% in Grade 4, 92.3% in Grade 5.

Source: CDE Assessment Division maintains data and trends regarding CMAS scores.

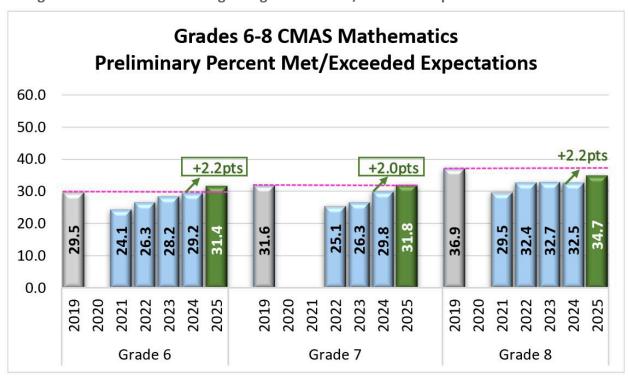


Figure 2: 2025 CMAS Data Regarding Percent Met/Exceeded Expectations in Grades 6-8

Indicates performance exceeds pre-pandemic levels

Note: CMAS Mathematics achievement results by grade level. Participation rates were 89.7% in Grade 6, 86.1% in Grade 7, and 80.4% in Grade 8.

Source: CDE Assessment Division maintains data and trends regarding CMAS scores.

CDE has implemented several pieces of H.B. 23-1231 beginning in the 2023-2024 school year, namely contracting for training in mathematics for elementary and secondary educators, identifying and publishing evidence-informed curricula, assessments and interventions, providing technical assistance for rural local education agencies (LEAs), creating a grant program to accelerate learning, amending the existing Ninth-Grade Success Grant Program to prioritize mathematics and adding requirements for licensure endorsements in mathematics.

In accordance with statute (C.R.S. 22-2-146.5(6)(a)), this report details CDE's progress in implementing two key areas of the legislation: professional development (training) and technical assistance.

Implementation Activities

Mathematics Professional Development

H.B. 23-1231 added C.R.S. 22-2-146.5(2) requiring CDE to make available free, optional trainings in evidence-informed practices in mathematics, including a training specifically designed for elementary school educators and a training specifically designed for secondary school mathematics educators. Each training must include interventions to help students below grade level or struggling in mathematics, children with disabilities and multilingual students. The training must be available to relevant staff of school districts, related administrative units, district charter schools, institute charter schools, boards of cooperative educational services (BOCES) and community-based organizations.

Scope and Objectives of Professional Development

In 2023 CDE partnered with TNTP, formerly The New Teacher Project, to develop Powerful Practice: Evidence-Informed Math Teaching (Powerful Practice), a free, asynchronous online course. The course consists of 14 one-hour modules, each concluding with an assessment and covering key instructional strategies, including:

- intervention strategies for struggling students;
- the impact of task selection on student engagement; and
- targeted support for students with disabilities and multilingual learners.

Integrated throughout each module are examples that participants can choose which demonstrate the overall concepts at an elementary or secondary level. This structure allows for all participants, regardless of their focus on either elementary, secondary, or both, to connect the concepts directly to their sphere of influence while maintaining access to applications at all levels. <u>Appendix A</u> provides a full overview of modules and learning objectives for the course.

Professional Development Implementation

CDE launched Powerful Practice on June 4, 2024, with an initial fiscal year (FY) 2024 cohort of 750 seats, followed by a second 750-seat cohort on July 1, 2024, for FY 2025. All 1,500 seats filled within three months, reflecting strong statewide demand and positive participant feedback. To accommodate the growing waitlist, CDE used Elementary and Secondary School Emergency Relief (ESSER) funds to purchase 180 additional course licenses. These seats were filled in April and May 2025 under an expedited timeline, bringing total participation in the first year of the course to 1,680 individuals. Participants were able to access the course through June 30 of the fiscal year in which they enrolled.

To encourage participants to further engage in the course material, CDE mathematics content specialists created facilitation guides to structure synchronous meeting models to provide participants opportunities to discuss and reflect on their learning from the course. At the district level, these guides help educators reflect on their learning and apply key concepts in collaborative settings. At the state

level, CDE uses these guides as a framework for the department's mathematics content specialists to host virtual sessions as outreach for course participants unable to join in-person discussions in their own local areas. In their first year of availability, CDE's synchronous Powerful Practice meetings had over 80 educators participate. These sessions go beyond traditional learning by connecting theoretical concepts to classroom practices, encouraging active collaboration among educators and cultivating a community where shared strategies are implemented and refined.

Building on this momentum, CDE is expanding its support strategy through a train-the-trainer model designed to increase sustainability and reach. With statewide emphasis on improving mathematics instruction, this model aims to support districts in strengthening local capacity. As this approach evolves, CDE looks to equip educators who complete the Powerful Practice course with the skills and resources to facilitate learning within their own schools or districts. To support this direction, CDE is developing facilitation resources such as ready-to-use session decks and adaptable lesson plans designed to meet varied needs of LEAs.

With a goal of building local leadership and extending the reach of Powerful Practice beyond initial participants, this train-the-trainer approach is estimated to expand access to evidence-informed strategies and lay the groundwork for long-term sustainability of high-quality math instruction across Colorado.

Professional Development Impact

As part of the Powerful Practice course registration, data on course participant district affiliation and classroom impact were collected. Across FY 2024 and FY 2025, 1,680 educators representing 108 Colorado school districts completed an estimated 11,088 hours of both asynchronous and synchronous training, averaging 6.6 hours per participant. Collectively, these educators reported working directly with more than 46,000 students statewide. Rural engagement remained strong across both years, with over 69% of FY 2024 and 63% of FY 2025 participants coming from rural or small rural districts.

Many educators sought further engagement with the course content. A total of 667 educators (39.7%) completed the full 14-hour training and 55 participants extended their learning by earning graduate credit through Adams State University.

The training available in Powerful Practice has successfully engaged a diverse group of K-12 educators, administrators and out-of-school time professionals. The course has received positive feedback, with high levels of satisfaction regarding its applicability to areas of need and ability to foster reflection.

Results from End-of-Course Survey:

- 98.4% of those who completed all trainings would recommend it to others.
- 96.8% agree that they will be able to apply the knowledge and skills acquired from the course in their professional role.

- 98.2% agree that the interactive elements of the course provided opportunities to practice and apply what they learned.
- 99.1% agree that the course encouraged them to reflect on their own professional practice.

Colorado Demographics—Professional Development

Figures 3-6 present course participant demographics by highlighting educator job titles and grade level(s) served. Colorado educators from a range of roles participated in the Powerful Practice course across both FY 2024 and 2025. As illustrated in Figures 3 and 4, the majority of participants in each cohort were licensed teachers, followed by administrators, specialists and interventionists. Figures 5 and 6 show that over half of all registrants primarily served at the elementary level, with additional representation across middle and high school grades. Importantly, Figure 7 and 8 communicate how both cohorts demonstrated strong engagement from educators serving in rural and small rural schools, underscoring the program's reach and relevance across diverse geographic regions of the state. Participation trends remained consistent across both years, highlighting sustained interest among educators in similar roles and settings.

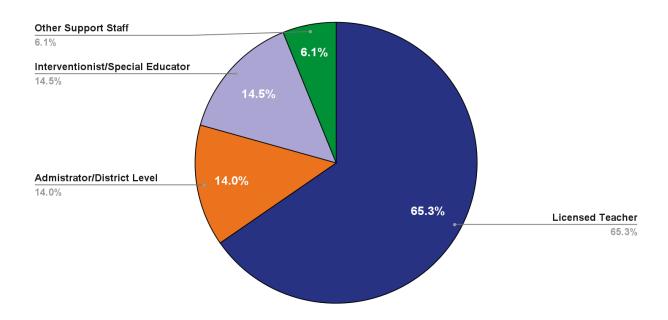


Figure 3: Powerful Practice Course Participant Job Title, Fiscal Year 2024 (N=750)

Note: Percentages are rounded to the nearest tenth, which may result in totals slightly above or below 100%.

Source: CDE collected data regarding job titles during the Powerful Practice course registration process to track registrant demographics.

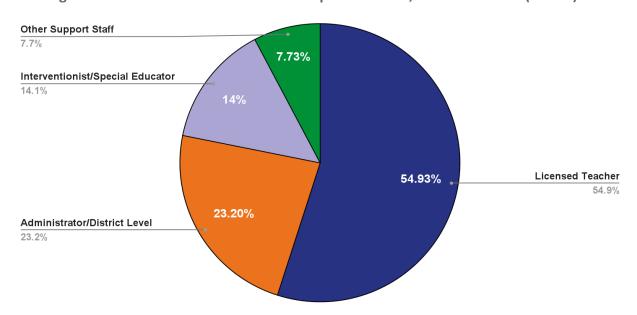


Figure 4: Powerful Practice Course Participant Job Title, Fiscal Year 2025 (N=750).

Source: CDE collected data regarding job titles during the Powerful Practice course registration process to track registrant demographics.

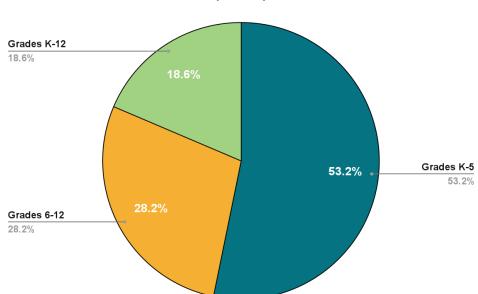
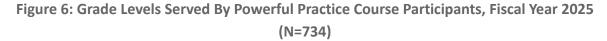
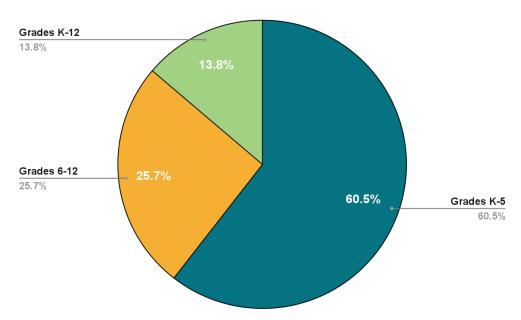


Figure 5: Grade Levels Served By Powerful Practice Course Participants, Fiscal Year 2024 (N=748)

Source: CDE collected grade-level data during the Powerful Practice course registration process to track registrant demographics.

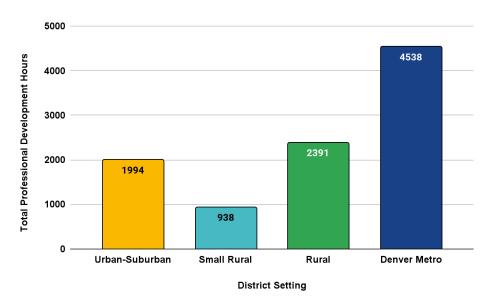




Source: CDE collected grade-level data during the Powerful Practice course registration process to track registrant demographics.

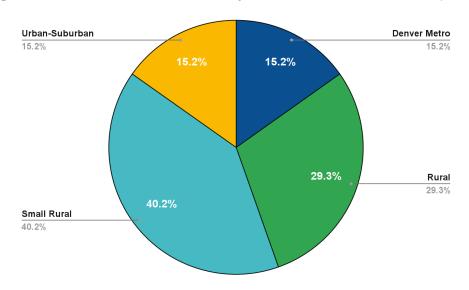
The following figures highlight the volume of professional learning delivered, the types of educational settings served and the geographic distribution of participants across Colorado. Figures 7-10 illustrate the distribution and reach of participation in the Powerful Practice course training across Colorado. Figure 7 presents the total number of training hours completed across various district settings during FY 2024 and 2025. Figures 8 and 9 detail district representation by setting for FY 2024 and FY 2025, providing insight into the educational environments where participants were engaged. Finally, Figure 10 offers a statewide map showing the geographic distribution of registrants along with their district affiliations for both fiscal years. Collectively, these figures show participation from 108 unique school districts across Colorado.

Figure 7: Cumulative Professional Development Hours Logged by Participants Across District Settings, FY 2024–2025 (N=9,861)



Note: Of the 11,088 total hours of professional development provided, 9,861 occurred in district settings, with the remainder reflecting participation from individuals not affiliated with specific school districts. **Source:** CDE collected data through the Powerful Practice course dashboard to track completed modules across all participants in Fiscal Years 2024 and 2025.

Figure 8: Powerful Practice District Representation, Fiscal Year 2024 (N=92)



Note: Percentages are rounded to the nearest tenth, which may result in totals slightly above or below 100%.

Source: CDE collected district IDs during the Powerful Practice course registration process to track registrant demographics.

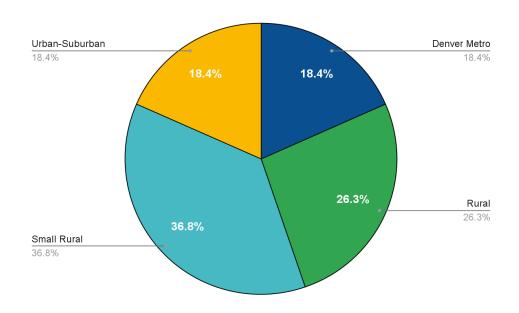


Figure 9: Powerful Practice District Representation, Fiscal Year 2025 (N=76)

Note: Percentages are rounded to the nearest tenth, which may result in totals slightly above or below 100%.

Source: CDE collected district IDs during the Powerful Practice course registration process to track registrant demographics.

Figure 10: Location and District Designations for Powerful Practice Registrants FY 2024 Registrations Both FY 24 and FY 25 Registrations FY 25 Registrations Colorado School District Map

Source: CDE collected district IDs during the Powerful Practice course registration process to track registrant demographics.

State-Level Guidance for Instructional Materials

CDE supports districts in adopting, adapting and implementing high-quality K-12 math instructional materials through resources like curriculum evaluation tools and a <u>mathematics assessment and curriculum resource bank</u>. These efforts aim to ensure that instructional materials are high quality, research backed, effective and meet the needs of all students. By providing tools for evaluating materials, CDE helps districts make informed decisions.

Information regarding both curriculum and assessment materials are housed in the same resource bank, available at no-cost to districts and educators on the CDE website. The mathematics resource bank home page is the seventh most popular CDE mathematics focused web page with 5,069 page views since March 26, 2024.

Curriculum Advisory List

H.B. 23-1231 requires CDE to develop an advisory list of high-quality mathematics curriculum in consultation with educators, districts and national experts. To fulfill this requirement, CDE leverages EdReports, an independent nonprofit that evaluates instructional materials.

EdReports contracts with independent reviewers (trained, expert educators) to review K-12 mathematics curricula using a rubric designed to identify high-quality, standards-aligned instructional materials. Materials go through three consecutive gateways to assess for (1) focus on grade-level content and coherence across grades, (2) conceptual understanding, procedural skill and fluency, engaging applications and mathematical practices and (3) teacher and student supports and usability. Only programs which "meet expectations" for all three gateways on EdReports are included in CDE's curriculum advisory list.

Updates to the list are planned and executed every three months, with a full review projected to be made every four years to ensure outdated or unavailable materials are removed.

Assessment Advisory List

CDE has adopted a similar approach to developing an advisory list for assessment materials as it did for curriculum materials. CDE's assessment advisory list is based on the National Center on Intensive Intervention's (NCII) "Assessment Charts."

Housed at the American Institutes for Research, NCII uses a standardized review process to evaluate the scientific rigor of academic assessments. National content and methodological experts conduct reviews using established evidence standards. CDE updates the assessment advisory list to align with NCII's annual calls for vendor submissions of evidence-based tools.

Mathematics Interventions

H.B. 23-1231 amended Colorado's statutes for district improvement planning to specify that improvement plans must "identify strategies to address the needs of students who are below grade level or struggling in mathematics." This includes setting "ambitious but attainable targets" and identifying strategies designed to improve math outcomes.

For the purposes of math acceleration under H.B. 23-1231, a student is considered "below grade level" or "struggling in math" when there is a gap between their current math achievement in one or more standards and the expected level for their grade, as determined by a body of evidence. A standard is a concern only if a student consistently struggles to the extent that intervention is needed, rather than experiencing productive struggle (the process of grappling with challenging concepts in a way that builds problem-solving skills, persistence and deeper understanding). These concerns align with one or more of the five standards defined by the Colorado Academic Standards for mathematics: Number and Quantity, Algebra and Functions, Data, Statistics and Probability, Geometry and Mathematical Practices.

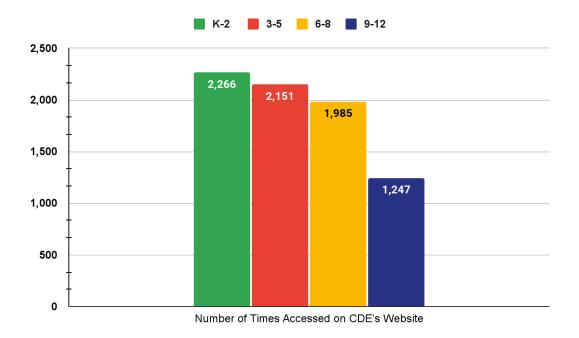
To guide the development of targeted interventions, CDE evaluated the top 50 areas of need in K-12 mathematics and prioritized the most critical gaps. With funding from ESSER funds, CDE in 2023 partnered with a vendor to create the initial 10 interventions. This was followed by collaboration with 18 Colorado educators to create 17 additional interventions. Each intervention consists of a comprehensive collection of educational materials, assessments and engaging activities to address the identified needs. These resources are available on CDE's website at no-cost to educators, caregivers, families and out-of-school time professionals to support and strengthen mathematics learning for students.

To understand engagement with the mathematics interventions, CDE collected web page analytics in March 2025 to assess trends. Between July 1, 2024 and March 31, 2025, mathematics intervention pages accounted for 11% of all math-related page views on CDE's website. The main <u>mathematics intervention</u> page, that allows access to all 27 interventions, is the third most visited math page with 7,407 views, ranking only behind the Colorado Academic Standards for Mathematics and the Office of Standards and Instructional Support mathematics home page. <u>Appendix B</u> provides a breakdown of mathematics interventions by grade band, along with their respective access rates for July 1, 2024 through March 31, 2025.

Data in Figure 11 shows that the highest engagement is with mathematics interventions in the K-2 grade band (2,266 clicks), followed closely by grades 3-5 (2,151 clicks). Engagement with the online resources declines in the 6-8 grade band (1,985 clicks) and further decreases with the 9-12 grade band (1,247 clicks).

¹ The total page views of individual intervention pages do not sum to the 7,407 views of the main mathematics intervention page, as these are separate pages. Some visitors view only the general intervention home page without navigating to specific intervention pages.

Figure 11: Click Rates for CDE's Web-Based Mathematics Interventions Across Grade Bands (N=6,750)²



Source: CDE collected web page analytics to evaluate access trends and usage patterns across intervention pages.

Mathematics Technical Assistance

Under H.B. 23-1231, CDE must provide technical assistance to local education providers (LEAs) with an emphasis in providing systemic support to educators in rural areas upon request. Assistance must include best practices in mathematics, including interventions to assist students below grade level or struggling in mathematics, students with disabilities and multilingual learners. CDE's mathematics specialists leverage their expertise to collaborate with LEAs to improve math instruction through individualized consultation and action plans. This technical assistance includes communicating directly through phone calls and email, connecting educators with relevant resources and offering troubleshooting assistance regarding academic standards in math, interventions and evidence-informed instructional practices. Additionally, the math specialists provide in-person professional learning upon request, equipping K-12 educators with effective teaching strategies and deeper understanding of mathematical concepts. To ensure professional learning addresses the diverse needs and preferences of districts, the mathematics content specialists offer professional learning in both in-person and virtual

² Some interventions span multiple grade levels. These are included in the grade-level bands to reflect click rates by grade, but are counted only once in the total sum of intervention page clicks.

formats. The overarching goal of this tailored approach is to shift system and classroom practices, ultimately improving student learning outcomes.

Expanding Technical Assistance Capacity Through H.B. 23-1231

Prior to the passage of H.B. 23-1231, CDE's Office of Standards and Instructional Support (SIS) provided mathematics-focused technical assistance through a single content specialist. With the addition of 3.5 full-time equivalent positions through H.B. 23-1231, CDE's capacity for providing technical assistance expanded, allowing for broader support across the state. CDE tracks this support using attendance records and consultation logs to measure reach, follow trends, assess impact and refine future efforts.

Between 2018 and 2020, CDE's single mathematics content specialist on staff provided, on average, 14.66 technical assistance opportunities per year. In FY 2024 and 2025, the addition of three more mathematics content specialists through H.B. 23-1231 legislation significantly increased SIS's capacity to respond to district needs. With four content specialists on staff, the team provided 33 technical assistance engagements in FY 2024 (see Table 1) and 43 in FY 2025 (see Table 2), representing a 125% increase in FY 2024 and a 193% increase in FY 2025 compared to the 2018-2020 average. This growth in capacity has allowed for deeper, more sustained engagement with educators and expanded support to previously underserved regions, allowing more districts to act on their goals to strengthen mathematics instruction.

As shown in Figures 12 and 13, 50% of the districts receiving assistance in FY 2024 were designated as rural or small rural, with this number rising to 53.5% in FY 2025. This shift underscores CDE's increased focus on providing support to districts in more rural areas of the state. In FY 2024, 23.5% of technical assistance recipients were from the Denver Metro area, and 26.5% were from urban-suburban districts. In FY 2025, the percentage of recipients from the Denver Metro area decreased slightly to 23.3%, and the proportion of assistance provided to urban-suburban districts decreased to 23.3%.

Technical Assistance Aligned to Local Needs

Districts and schools typically reach out to CDE to request technical assistance. Some districts required targeted support in a single area, while others sought comprehensive assistance across multiple domains. Table 1 and Table 2 demonstrate the types of technical assistance provided. Table 1 reflects support provided during FY 2024, while Table 2 highlights assistance delivered in FY 2025.

The categories below represent the primary areas of technical assistance offered:

Assessment Support & Data Utilization

- Understanding Colorado Measures of Academic Success (CMAS) data and its alignment with curriculum and pacing
- Support for using assessment data to guide classroom instruction

Curriculum and Instructional Support

- Math curriculum alignment and selecting high-quality instructional materials
- Support regarding mathematics-based curriculum

Legislative and Policy Support

- Overview, updates and implementation timeline for H.B. 23-1231
- Colorado Mathematics Pathways³
- Colorado Academic Standards guidance
- Support for teachers adding a mathematics endorsement to their license

Professional Learning and Educator Support

- Focused content knowledge support for educators
- Vertical alignment training to improve instructional coherence
- Classroom visits and coaching
- Facilitating connections between districts and educators for collaborative problem-solving

Strategic/Comprehensive Supports

- Support for districts that request assistance in multiple areas to improve mathematics education, including supporting district plans to increase mathematics achievement through curriculum alignment, data utilization, targeted professional learning for faculty and guidance on effective intervention strategies
- Addressing high failure rates in mathematics at the system level
- Facilitating district-wide strategic discussions to improve student mathematics outcomes

Table 1: Districts and BOCES Receiving Technical Assistance and Corresponding Area of Mathematics Support in Fiscal Year 2024 by District Setting and Congressional District(s)

District	Rural or Non-Rural	Congressional District(s)
Assessment Support and Data Utilization		
Lamar RE-2 - 2660 - LAMAR	Rural	4
Pueblo County 70 - 2700 - PUEBLO	Non-Rural	3
Curriculum and Instructional Support		
Bayfield 10 JT-R - 1530 - BAYFIELD	Rural	3
Boulder Valley RE 2 - 0480 - BOULDER	Non-Rural	2
Cherry Creek 5 - 0130 - GREENWOOD VILLAGE	Non-Rural	1, 4, 6
Jefferson County R-1 - 1420 - GOLDEN	Non-Rural	7

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³ While not legislated, the <u>Colorado Mathematics Pathways</u> initiative has brought together stakeholders from across Colorado to improve the experience of high school mathematics. The initiative is led by two district mathematics specialists and a former mathematics lead for the Colorado Community College System, with facilitation help by staff from CDE, CDHE and CCCS. Colorado's pathways initiative is further supported by the <u>Launch Years Initiative</u>, which is a national effort supporting more than 20 states, and <u>Strong Start to Finish</u>, a grant-funded network of state higher education systems.

District	Rural or Non-Rural	Congressional District(s)	
Mesa County Valley 51 - 2000 - GRAND JUNCTION	Non-Rural	3	
Legislative and	Policy Support		
Douglas County RE 1 - 0900 - CASTLE ROCK	Non-Rural	4	
Littleton 6 - 0140 - LITTLETON	Non-Rural	6	
Pueblo City 60 - 2690 - PUEBLO	Non-Rural	3	
Poudre R-1 - 1550 - FORT COLLINS	Non-Rural	2	
Professional Learning	and Educator Support		
Alamosa RE-11J - 0100 - ALAMOSA	Rural	3	
Centennial R-1 - 0640 - SAN LUIS	Rural	3	
Creede School District - 2010 - CREEDE	Rural	3	
Johnstown-Milliken RE-5J - 3110 - MILLIKEN	Rural	8	
Moffat 2 - 2800 - MOFFAT	Rural	3	
Monte Vista C-8 - 2740 - MONTE VISTA	Rural	3	
Mountain Valley RE 1 - 2790 - SAGUACHE	Rural	3	
Northeast BOCES - 9040 - HAXTUN	Rural	4	
Salida R-32 - 0500 - SALIDA	Rural	7	
Sargent RE-33J - 2750 - MONTE VISTA	Rural	3	
Sierra Grande R-30 - 0740 - BLANCA	Rural	3	
South Conejos RE-10 - 0580 - ANTONITO	Rural	3	
Strategic/Compre	Strategic/Comprehensive Supports		
Adams-Arapahoe 28J - 0180 - AURORA	Non-Rural	6	
Delta County 50(J) - 0870 - DELTA	Rural	3	
Denver County 1 - 0880 - DENVER	Non-Rural	1	
District 49 - 1110 - FALCON	Non-Rural	3, 5	
Fountain 8 - 1000 - FOUNTAIN	Non-Rural	5	
Greeley 6 - 3120 - GREELEY	Non-Rural	8	
Park (Estes Park) R-3 - 1570 - ESTES PARK	Rural	2	
School District 27J - 0040 - BRIGHTON	Non-Rural	8	
South Central BOCES - 9060 - PUEBLO WEST	Non-Rural	3	
Widefield 3 - 0990 - COLORADO SPRINGS	Non-Rural	5	

Table 2: Districts and BOCES Receiving Technical Assistance and Corresponding Area of Mathematics Support in Fiscal Year 2025 by District Setting and Congressional District(s)

District	Rural or Non-Rural	Congressional District(s)
Assessment Support and Data Utilization		
East Grand 2 - 1350 - GRANBY	Rural	2
Curriculum and Instructional Support		
Adams-Arapahoe 28J - 0180 - AURORA	Non-Rural	6

District	Rural or Non-Rural	Congressional District(s)
Charter School Institute (CSI) - 8001 - Global Village Academies - NORTHGLENN	Non-Rural	8
District 49 - 1110 - FALCON	Non-Rural	3,5
East Otero R-1 - 250 - LA JUNTA	Rural	3
Elbert 200 - 0920 - ELBERT	Rural	4
Mancos RE-6 - 2070 - MANCOS	Rural	3
Rocky Ford R-2 - 2530 - ROCKY FORD	Rural	3, 4
Legislative and	Policy Support	
Cherry Creek 5 - 0130 - GREENWOOD VILLAGE	Non-Rural	1, 4, 6
Douglas County RE 1 - 0900 - CASTLE ROCK	Non-Rural	4
Poudre R-1 - 1550 - FORT COLLINS	Non-Rural	2
Professional Learning	and Educator Support	
Academy 20 - 1040 - COLORADO SPRINGS	Non-Rural	5
Adams 12 Five Star Schools - 0020 - THORNTON	Non-Rural	7, 8
Alamosa RE-11J - 0100 - ALAMOSA	Rural	3
Aspen 1 - 2640 - ASPEN	Rural	3
Cheyenne Mountain 12 - 1020 - COLORADO SPRINGS	Non-Rural	5
Dolores RE-4a - 2055 - DOLORES	Rural	3
Durango 9-R - 1520 - DURANGO	Rural	3
Ellicott 22 - 1050 - ELLICOTT	Rural	5
Gunnison Watershed RE1J - 1360 - GUNNISON	Rural	3
Harrison 2 - 0980 - COLORADO SPRINGS	Non-Rural	5
Montezuma-Cortez RE-1 - 2035 - CORTEZ	Rural	3
Park (Estes Park) R-3 - 1570 - ESTES PARK	Rural	2
North Conejos RE-1J - 0550 - LA JARA	Rural	3
Salida R-32 - 0500 - SALIDA	Rural	7
Strategic/Compre	hensive Supports	
Boulder Valley RE 2 - 0480 - BOULDER	Non-Rural	2
Delta County 50(J) - 0870 - DELTA	Rural	3
Denver County 1 - 0880 - DENVER	Non-Rural	1
Fort Morgan RE-3 - 2405 - FORT MORGAN	Rural	4
Fountain 8 - 1000 - FOUNTAIN	Non-Rural	5
Greeley 6 - 3120 - GREELEY	Non-Rural	8
Ignacio 11 JT - 1540 - IGNACIO	Rural	3
Jefferson County R-1 - 1420 - GOLDEN	Non-Rural	7
Johnstown-Milliken RE-5J - 3110 - MILLIKEN	Rural	8
Lamar RE-2 - 2660 - LAMAR	Rural	4
Mesa County Valley 51 - 2000 - GRAND JUNCTION	Non-Rural	3

District	Rural or Non-Rural	Congressional District(s)
Northwest Colo BOCES - 9095 - STEAMBOAT SPRINGS	Rural	2
Pueblo City 60 - 2690 - PUEBLO	Non-Rural	3
School District 27J - 0040 - BRIGHTON	Non-Rural	8
St. Vrain Valley RE 1J - 0470 - LONGMONT	Denver Metro	2,8
Summit RE-1 - 3000 - FRISCO	Rural	2
Thompson R2-J - 1560 - LOVELAND	Non-Rural	2, 4, 8
Weld RE-4 - 3100 - WINDSOR	Rural	4

Colorado Demographics - Technical Assistance in Fiscal Year 2024

Figure 12 provides a breakdown of the technical assistance provided in FY 2024, showing the percentages of each district designation supported out of the total districts served.

Denver Metro
23.5%
26.5%

Rural
17.6%

32.4%

Small Rural
32.4%

Figure 12: Technical Assistance by District Setting in Fiscal Year 2024 (N=33)

Source: CDE maintains a log of completed technical assistance requests by district.

Colorado Demographics - Technical Assistance in Fiscal Year 2025

Figure 13 provides a breakdown of the technical assistance provided in FY 2025, showing the percentages of each district designation supported out of the total districts served.

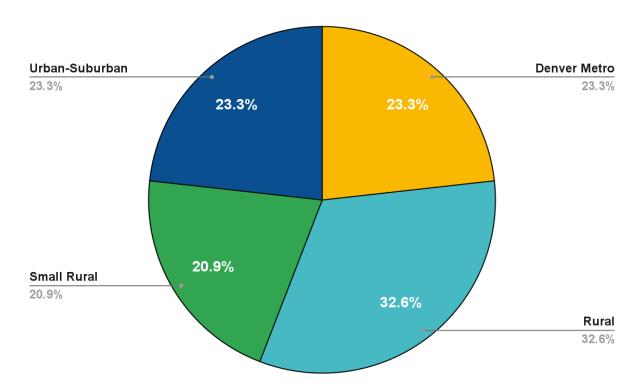


Figure 13: Technical Assistance by District Setting in Fiscal Year 2025 (N=43)

Note: Percentages are rounded to the nearest tenth, which may result in totals slightly above or below 100%.

Source: CDE maintains a log of completed technical assistance requests by district.

Department Coordination for H.B. 23-1231

CDE fosters cross-office collaboration by bringing together teams from the Office of Standards and Instructional Support, School Improvement and Planning, Office of Student Support, Office of Dropout Prevention and Student Re-Engagement, Intensive Supports Office and Educator Workforce Development. These teams convene quarterly to align efforts, share successes and identify areas for improvement in mathematics education, with a particular emphasis on enhancing training and technical assistance efforts of H.B. 23-1231.

Conclusion

CDE's Office of Standards and Instructional Support team supporting H.B. 23-1231 has developed high-quality instructional material guidance, including advisory lists that help districts make informed decisions about curriculum and assessments. To further support student achievement, targeted mathematics interventions are available to address critical learning gaps for students struggling to meet grade-level expectations.

H.B. 23-1231 has prompted CDE to provide targeted support for student achievement through a variety of strategies aimed at improving mathematics education and K-12 mathematics outcomes across the state. By offering training to professionals at no-cost, CDE has equipped educators with evidence-based tools and practices, helping them strengthen instructional methods and deepen their conceptual knowledge. Teachers have reported increased confidence in implementing effective teaching practices with reports of successfully integrating evidence-informed practices into their classrooms to improve student engagement and learning outcomes. These concerted state and district efforts are showing signs of increasing student math achievement since post COVID-19 lows.

In FY 2026, CDE's mathematics content specialists will continue collaborating with school districts and BOCES to provide targeted technical assistance, focusing on addressing district-specific needs and building instructional capacity. Expanded train-the-trainer opportunities will further enhance professional development, allowing educators to support their peers and promoting the sustainability of legislative efforts. Ongoing monitoring and feedback will ensure these efforts remain aligned with the goals of the legislation in a continued effort of accelerating mathematics outcomes for K-12 students across Colorado.

Appendices

Appendix A: Learning Modules within the Professional Development Course

Module Title	Objectives
How the Brain Learns Math: An Overview	 Unpack what we know about how the brain develops mathematical generalizations and how this science guided the development of the Common Core Standard for Mathematics. Consider how these shifts in math instruction disrupt narratives about who can learn mathematics and opens doors to multilingual learners and students with learning and thinking differences.
Rigor: Let your standards be your guide	 Explore how the three aspects of rigor – conceptual understanding, procedural skill & fluency and application – allow students to make sense of and be able to use math. Determine which aspect(s) of rigor are called for in grade-level standards, why and how this should influence instructional decisions.
Procedural Fluency and Conceptual Understanding: Two sides of the same coin	 Unpack how conceptual understanding leads to procedural skill & fluency. Explore the pitfalls of starting with procedural fluency instead of conceptual understanding.
Fluency: It's more than speed	 Define fluency in math by exploring what it is, what it is not, why it matters and how we can support students' building fluency. Experience the Contemplate Then Calculate instructional routine and reflect on how this routine can support fluency in your classroom.
Learning Goals: Focus on the math not the trick	 Identify "tricks" in mathematics instruction and explore how replacing these with mathematical generalizations yields deeper learning. Explore how students develop mathematical generalizations.
Learning Goals: What's language got to do with it?	 Explain how language and mathematics are interdependent. Unpack how language routines serve to define how language learning supports mathematics learning. Explore how Math Language Routines can support multilingual learners and students with thinking and learning differences.

Module Title	Objectives
Math Tasks: What's in a task?	 Select math tasks that align with the aspect of rigor called for by the standard. Explore how "low floor/high ceiling" tasks give access to and challenge students with diverse linguistic and learning needs.
Representations: Opening the doors to mathematical ideas	 Understand how the five types of representations help multilingual learners, students with thinking and learning differences and all students make sense of mathematical concepts. Experience the Compare and Connect instructional routine and describe how this routine can support students in connecting representations.
Word Problems: The problem with key words	 Discuss the pitfalls of teaching students to identify "key words" in word problems. Explore strategies for launching a task including the Three Reads instructional routine.
Discourse: Look who's talking now	 Identify strategies and instructional routines, such as Stronger & Clearer Each Time, to increase student voice in the math classroom. Explain the role math discourse plays in supporting multilingual students and students with thinking and learning differences.
Questioning: Assessing and Advancing Student Understanding	 Understand the role that advancing and assessing questions play in deepening mathematical understanding. Use question stems to write strategic questions.
Expectations: Power of asset-based language	 Unpack what the research says about how our expectations influence student achievement. Reflect on how to build an asset-based mathematics culture in our classrooms.
Just in Time Supports: Moving beyond remediation to accelerate learning	 Explore the science behind how to support learners who need it the most. Identify what just-in-time supports look like for grade-level content.
Putting it all together	 Create a vision for excellent mathematics instruction in your classroom. Write goals and an action plan to help you move closer to your vision.

Appendix B: Mathematics Interventions and Access Rates from July 1, 2024 - March 31, 2025

Mathematics Intervention Title and Main Page	Number of Times Accessed on CDE's Website	
K-2 Grade Band		
Relationship between Numbers and Quantities	771	
Strategies to Add and Subtract within 20	519	
Adding 3 Digit Numbers	391	
Creating and Using Partitions of Ten for Addition	168	
Subtraction as Distance	174	
*Construct Viable Arguments & Critique the Reasoning of Others	243	
Total K-2 Grade Band Intervention Access	2,266	
3-5 Grade Band		
Describe Fractions and Place Fractions on a Number Line	670	
Applying Operations to Solve Word Problems	363	
Finding Area of Irregular Shapes	192	
Modeling and Explaining Fractions	255	
Multiplicative Reasoning	216	
Standard Algorithm for Division	212	
*Construct Viable Arguments & Critique the Reasoning of Others	243	
Total 3-5 Grade Band Intervention Access	2,151	
6-8 Grade Band		
Equality and Inequality	381	
<u>Division of Fractions</u>	231	
Equivalent Expressions	251	
Equivalent Ratios	105	

Mathematics Intervention Title and Main Page	Number of Times Accessed on CDE's Website	
*Construct Viable Arguments & Critique the Reasoning of Others	243	
Graphing Skills	123	
Probability of Events	132	
Pythagorean Theorem to Find Distance	130	
Identify and Use Proportional Relationships	219	
*What is a Variable?	170	
Total 6-8 Grade Band Intervention Access	1,985	
9-12 Grade Band		
Interpreting Shape, Center and Spread	179	
Similarity, Right Triangles, and Trigonometry	172	
Introduction to logarithms	121	
Modeling with Quadratic Functions	167	
Quadratic Growth	70	
<u>Understanding Forms of Linear Equations</u>	125	
*What is a Variable?	170	
*Construct Viable Arguments & Critique the Reasoning of Others	243	
Total 9-12 Grade Band Intervention Access	1,247	

^{*}Some interventions span multiple grade levels. These are included in the grade-level bands to reflect click rates by grade, but are counted only once in the total sum of intervention page clicks as seen in Figure 9.

Note: The total page views of individual intervention pages will not sum to the 7,407 views of the main mathematics intervention page, as they are separate pages. Not all visitors to the main intervention page navigate to specific intervention pages.