CSDE

CONNECTICUT STATE
DEPARTMENT OF EDUCATION

USING ACCOUNTABILITY RESULTS TO GUIDE IMPROVEMENT

October 2024, Eighth Edition

This guide provides detailed information and resources related to every indicator in Connecticut's Next Generation accountability system. Each indicator includes the rationale for its inclusion and the methodology used. Additionally, to inform local improvement efforts, the guide offers hyperlinks to resources, research, and evidence-based strategies.

Change Log

Section	Page	Change
Indicators 1 and 2 a-f	12-17	Updated resources and CSDE contacts.
Indicator 4	20-21	Provided additional examples of absences in the description of the indicator. Updated chronic absenteeism rates in the rationale section. Added examples of input/feedback received.
Indicators 5 and 6	29-33	Added information about CSDE's partnership with the National Alliance of Concurrent Enrollment Partnerships (NACEP). Updated resources and CSDE contacts.
Indicator 7	35-39	Updated resources.
Indicator 9	41	Updated 4-, 5-, and 6-year rates.
Indicators 8 and 9	42-43	Updated resources.
Indicator 10	45-48	Updated resources.
Indicator 11	50	Updated explanation of how participation rates are calculated for high schools. This is incorporated in the methodology section.
Appendix: How to Read Accountability Reports	81-84	Updated the sample report to reflect 2023-24 reporting.
Appendix: Assigning School Categories	86-87	Added an explanation of Focus schools with one or more Turnaround student groups (i.e. Additional Targeted Support and Intervention or ATSI schools). The explanation includes how schools are identified, the identification and exit timelines, and the exit standards.
Appendix: Assigning School Categories	88	Added Focus schools with one or more Turnaround student groups (i.e. ATSI schools) transitioning to Turnaround status in the rules for identifying Turnaround schools
Appendix: Assigning School Categories	88	Turnaround Schools: Updated Fifth Percentile Score Table in School Year 2024-25 (based on 2023-24 reporting).
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Appendix: Assigning School Categories	91	Added values used to identify outlier gaps for schools and districts using 2023-24 data.
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INTRODUCTION

A student is more than a test score; in the same way a school or district is more than the aggregate of the results from state tests. Focusing on a broader set of indicators:

- Provides a more complete picture of a school or district;
- Guards against narrowing of the curriculum to the tested subjects;
- Expands ownership of accountability to more staff; and
- Allows schools to demonstrate progress on "outcome pre-cursors";

Here's a high-level summary of the changes that were made to the accountability system and implemented for the first time in March 2016.

- A range of indicators were incorporated including some focused on college- and career-readiness and others on arts and physical fitness to draw attention to the delivery of a well-rounded education.

- The model gives greater emphasis to academic growth on state tests than academic achievement. The historical focus on 'achievement only' failed to acknowledge schools that may have low performing students but made significant strides last year to improve their performance and close the achievement gap.

- Some metrics were refined (e.g., the calculation of the performance index).

- Student group metrics are more impactful and actionable.

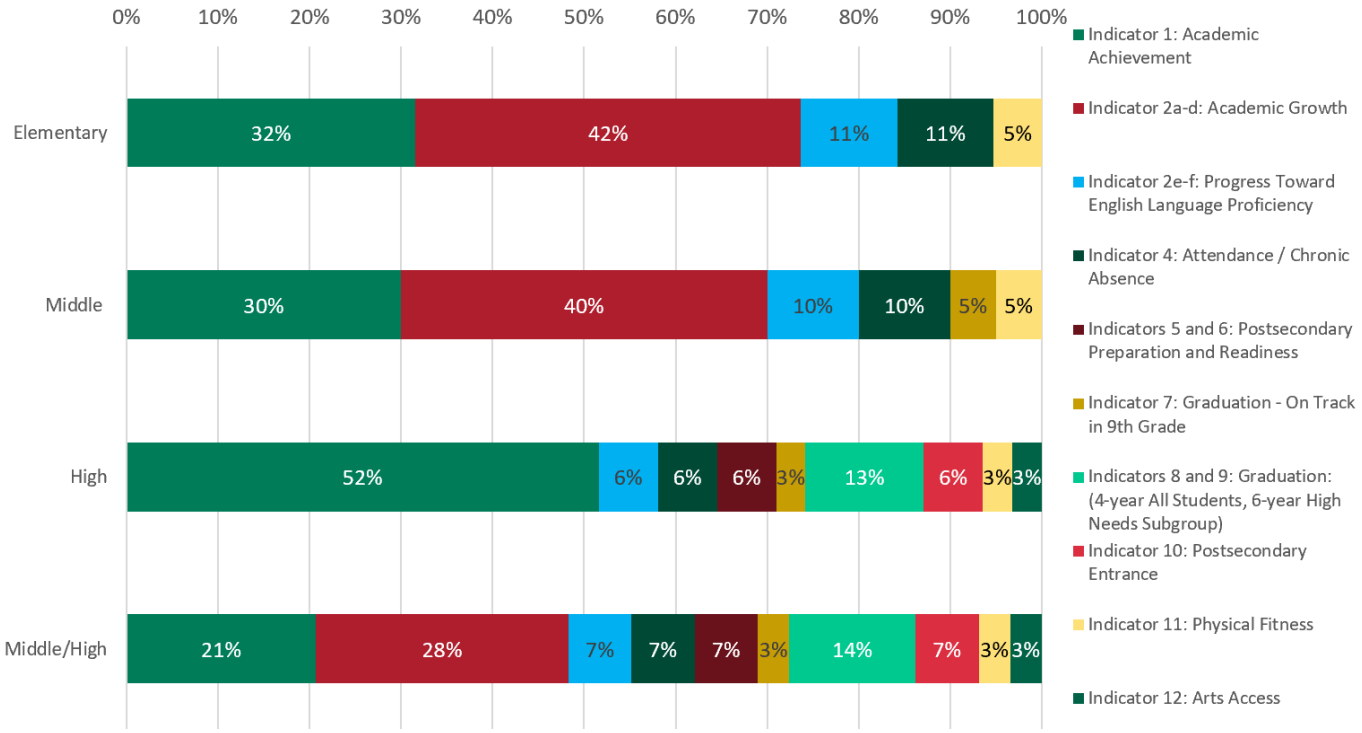
- The school classification methodology was adjusted to better represent overall school performance, target interventions and support, and refrain from "labels" to the greatest extent possible.

The CSDE has worked collaboratively with district/school leaders, consulted with state/national experts, and sought ongoing input from a variety of stakeholders to revamp its accountability system for schools and districts. The CSDE is most appreciative for their feedback and ideas. This model represents our best efforts at the present time to expand the model without adding new data collection/reporting burden to districts. As this model is implemented, the CSDE will continue to work collaboratively with stakeholders and analyze data to refine and improve this model.

Lastly, the CSDE encourages leaders to view accountability results not as a "gotcha" but as a tool to guide and track improvement efforts. This guide emanates from that sincere belief. It provides detailed information and resources related to every indicator. It includes the rationale for its inclusion and the methodology used; also, to inform local improvement efforts, the guide offers links to resources, research, and evidence-based strategies.

The chart below shows how every indicator in the current accountability model contributes to a school's overall Accountability Index. The percentage contribution for each indicator is dependent on the grades served, and the graphic reflects those differences.

Elementary schools in the example below serve students up to and including Grade 7, but do not enroll eighth graders. Middle schools in the example below must include Grade 8 but do not include any higher grades. High schools in this example serve Grades 9-12, and the Middle/High designation is applicable for any school that includes Grade 8 and Grade 12.



INDICATOR 1: ACADEMIC ACHIEVEMENT (STATUS)

Indicator	Weight	
	Schools with academic growth data (Indicator 2)	Schools without academic growth data (e.g., 9-12 high schools)
Subject Performance Index (0-100) in ELA, Math, and Science		
• All Students	150	400
• Students with *High Needs group*	150	400

Description (What): This indicator produces performance indices for English Language Arts/Literacy (ELA) and Mathematics based on results from the Smarter Balanced assessments for Grades 3-8, SAT for Grade 11, and the Connecticut Alternate Assessments (CTAA) in all available tested grades (i.e., 3 through 8 and 11) in the district/school. The performance index for Science is based on results from the Next Generation Science Standards (NGSS) assessment and the Connecticut Alternate Science (CTAS) assessment administered in Grades 5, 8, and 11. ELA, mathematics, and science are weighted equally in elementary, middle, and middle/high schools and at a ratio of 3:3:2 for high schools per Connecticut's approved ESSA plan. Therefore, high schools may earn up to 150 points for ELA All Students, 150 points for Math All Students, and 100 for Science All Students, and the same point totals for students with High Needs.

Rationale (Why): The academic achievement indicator provides the most current status of achievement of the students in a school or district.

Applicability (Who): The achievement status indicator is applicable to all schools and districts with at least one tested grade (i.e., grades 3 through 8, or 11).

Input/Feedback: The overall notion of a Performance Index that recognizes student performance across the continuum (not just 'proficient' and 'not proficient') has been well received. However, in extensive conversations with local practitioners, three important issues emerged with Connecticut's approach to the index prior to the implementation of this model:

First, though the index was an enhancement to the AYP approach of looking solely at 'proficient' and 'not proficient', it still did not capture improvement *within* performance levels. Furthermore, with Smarter Balanced assessments offering four achievement levels as opposed to five in the CMT/CAPT assessments, practitioners were concerned that the index would fail to capture differences in performance within the wide achievement levels.

Second, the interpretable and actionable value of an overall index score that averages all the tested subjects was questioned. Practitioners generally prefer subject-specific indices.

Lastly, practitioners asked why advanced performance couldn't garner additional points in the index, especially if the State's expected level of achievement was below that level. For example, in the Smarter Balanced assessment, level 3 of 4 is considered on-track for college and career readiness while level 4 is an explicit standard that truly represents an "advanced" level of performance.

Methodology (How): The detailed performance index calculation rules and methodology for converting scale scores to index scores for each assessment are included in the appendix. Points are prorated based on the percentage of the ultimate target (75) achieved.

Only students enrolled in the school on October 1st of the testing year and at the time of testing are included in school-level Indicator 1 calculations. Similarly, only students enrolled in the district on October 1st of the testing year are included in district-level Indicator 1 calculations.

Subject-specific index scores are generated and reported for the following groups as long as the minimum group size of at least 20 students is reached:

- All students
- All race/ethnicities
- Gender
- Eligibility for Free- or Reduced-Price Meals
- Students with Disabilities (SWD)
- English learners (EL)*****—For Indicator 1 of the accountability system, this group includes students currently identified as EL and all students who were formerly identified as an EL any time in the four previous school years.
- High Needs supergroup— (i.e., a student belongs to at least one of the following ESEA student groups – Eligible for Free- or Reduced-Price Meals, English learners/multilingual learners or Students with Disabilities).

****** *NOTE: This resource uses the term English learner in some places to describe students who lack sufficient English to be able to access grade-level content and are therefore entitled to receive language instruction support. While this term has been used here and in some Connecticut reports due to its continued use in federal law, the CSDE acknowledges the term multilingual learner as a more assets-oriented term to describe these students and currently uses the combination of English learner/multilingual learner (EL/ML) term in professional learning and other materials.*

Though index scores are reported for all student groups, the High Needs supergroup is the student group used in accountability calculations. This holds more schools accountable for the performance of many more students.

Lowering the minimum group size from 40 to 20 in the first iteration of ESEA Flexibility in 2012 made many more student groups visible across Connecticut; utilizing the High Needs group further increases the number of schools that are held accountable for student group performance and achievement gap determinations.

Connecticut has been granted permission to exempt "recently arrived" EL/MLs in grades 3 through 8 who have attended schools in the United States for less than two years from the academic achievement (status) measure in the State's accountability system for ELA, mathematics, and Science. Instead, Connecticut includes student growth of "recently arrived" EL/MLs from the first to the second year in both ELA and mathematics in school and district accountability calculations in the student's second year. This requires that all "recently arrived" EL/MLs test in all content areas annually. Assessment scores for EL/MLs who have attended U.S. schools for more than two years are used in the achievement status and growth measures of the accountability system.

For more information about how data for "recently arrived" EL/MLs are handled in assessment and accountability reporting, please see the Appendix.

Data Source: State assessment data files and Public School Information System (PSIS) for student demographic (e.g., race/ethnicity, gender) and program (EL/ML, FRPL, disability) data.

Achievement Gap

A district/school is identified as having an achievement gap if the size of its index score gap between the *High Needs student group* and the *Non-High Needs student group* (or the ultimate achievement target of 75 if that's lower) is a significant outlier i.e., at least one standard deviation greater than the statewide gap in any subject area.

INDICATOR 2A-D: ACADEMIC GROWTH (LONGITUDINAL)

Indicator	Max Points
Average percentage of growth target achieved by students in grades 4 through 8 (½ SB-ELA; ½ SB Math)	
• All Students	200
• Students with *High Needs*	200

Description (What): In Connecticut, the Smarter Balanced (SB) Assessment in English Language Arts/Literacy (ELA) and Mathematics are used for measuring student achievement growth. Since spring 2015, Connecticut students have taken the SB ELA and Mathematics in grades 3-8. In both subjects, the test scores are vertically scaled across grades and facilitate tracking student growth within the same subject across grades, despite differences in test content and difficulty.

Each vertical scale ranges from 2000-3000 score points. By subtracting a student's current score (e.g., a grade 5 score of 2400 in Mathematics) from the student's previous score in the same subject (e.g., a grade 4 score of 2300 in Mathematics), a teacher or administrator can assess the individual student's growth in Mathematics performance over a one-year period (a growth of 100 points in this example). Teachers and administrators can use achievement growth information with other academic information about students to plan for student instruction.

The CSDE used the vertical scale to create a growth model based on the expectation that all students in grades 4 through 8 should demonstrate growth each year in ELA and Mathematics. Ambitious yet achievable growth targets were established in ELA and Mathematics for all students entering grades 4 through 8 to reach in that year. To learn more about Connecticut's growth model and how student growth targets were established, see *Developing Connecticut's Growth Model for the Smarter Balanced Summative Assessments in English Language Arts (ELA) and Mathematics*.

There are two metrics generated from the growth model. The percentage of students meeting or exceeding their growth targets is reported as the "Growth Rate." Growth rate is not part of the Next Generation accountability system. The measure used for accountability purposes is the "Average Percentage of Target Achieved" (APTA).

To calculate the APTA for a school or district, every student's growth in vertical scale score points is evaluated against the student's assigned growth target. Students can meet anywhere from 0% of the growth target to 110% of the growth target, yielding 0-110 points toward the school's Indicator 2 values in the accountability system. The school's APTA is an average of the percentage of growth target achieved across all students.

Rationale (Why?): The vertical scale enables the evaluation of growth achieved by the same students over time. A district/school won't be deemed successful on this metric simply because it enrolls students who are historically high performing. Success on this metric is earned by helping all students, whether low or high performing, to achieve adequate growth from one year to the next.

Applicability (Who): The academic growth indicator is applicable to all districts and schools with at least one grade between 4 and 8, inclusive.

Input/Feedback: Practitioners have long awaited the inclusion of academic growth as an indicator in district/school accountability. They are generally more supportive of using academic growth than achievement status to evaluate the effectiveness of a district/school.

Methodology (How): Points are earned for the All Students group ***and*** the High Needs group based on the average percentage of growth target achieved across all students in the group. While students may earn 0-110 points based on the percentage of target achieved, the maximum value for schools and districts is 100 points. Weighting the High Needs group separately in addition to the All Students group rightly over-weights the growth of students with High Needs. The ultimate target for this indicator is 100%.

Only students enrolled in the school on October 1st of the testing year and at the time of testing are included in school-level academic growth calculations. Similarly, only students enrolled in the district on October 1st of the testing year are included in district-level academic growth calculations.

Similar to Indicator 1 (Academic Achievement—Status), a school or district must have at least 20 matched students in order to be eligible to earn any points for Indicator 2 (Academic Growth). If a school or district has at least 20 matched students for any of the four growth indicators (i.e., ELA-All Students, ELA-High Needs, Math-All Students, Math-High Needs), then the maximum possible points for all of the Academic Achievement indicators (indicator 1) for all subjects for that school or district will be 50 points (i.e. Math = 50; ELA = 50; Science = 50). If an elementary or middle school or district has no reportable growth data, the maximum possible points for all of the Academic Achievement indicators (indicator 1) for all subjects for that school or district will be 100 points (i.e. Math = 100; ELA = 100; Science = 100).

Data Source: State assessment data files and Public School Information System (PSIS) for student demographic (e.g., race/ethnicity, gender) and program (EL/ML, FRPL, disability) data.

INDICATOR 2E AND 2F: PROGRESS TOWARD ENGLISH LANGUAGE PROFICIENCY

Indicator	Max Points
Average percentage of growth target achieved based on LAS Links for all English learners/multilingual learners—½ LAS Links Literacy; ½ LAS Links Oral	100

Description (What): The LAS Links, administered annually to all English learners/multilingual learners, is used to measure Progress Toward English Language Proficiency. A student's LAS Links scores from spring of the prior school year are used as a baseline and to establish a Literacy growth target and an Oral growth target. The student's change in vertical scale score in each composite area in the next school year is compared to the student's targets. The percentage of target achieved is determined for each composite area (negative growth is reported as 0; students are capped at 110% of target achieved). At the school-level, the percentage of target achieved is averaged across English learners/multilingual learners to report the Average Percentage of Target Achieved for the school for Literacy and Oral. These values were included as Indicator 2e and 2 f in the accountability system for the first time in 2018-19.

To learn more about Connecticut's growth model using LAS Links, including an explanation of how student growth targets were established, see *Connecticut's Growth Model for the English Language Proficiency Assessments*.

Rationale (Why?): The Every Student Succeeds Act (ESSA) requires that states measure and report on the annual progress English learners/multilingual learners make toward attaining English language proficiency.

The LAS Links vertical scale enables the evaluation of English language proficiency growth achieved by the same students over time. Success on this metric is earned by helping all English learners/multilingual learners achieve adequate growth from one year to the next with the ultimate goal of achieving English language proficiency within five years.

Applicability (Who): The progress toward English language proficiency indicator is applicable to all districts and schools with at least 20 English learners/multilingual learners with matched LAS Links scores across two school years.

Input/Feedback: Practitioners are generally more supportive of using growth measures for accountability rather than evaluating the effectiveness of a district/school using status measures exclusively.

Methodology (How): Points are earned for the composite areas of Literacy and Oral of LAS Links. Each composite score is based on the average percentage of growth target achieved across all English learners/multilingual learners. While a student may achieve up to 110% of a growth target, the maximum value for schools and districts when all students are averaged is 100%. The ultimate target for this indicator is 100%.

Similar to the academic growth measure (Indicators 2a-d), a school or district must have at least 20 matched students in a composite area (i.e. Literacy or Oral) in order to be eligible to earn any points for Indicators 2e and 2f.

Additionally, only students enrolled in the school on October 1st of the testing year and at the time of testing are included in school-level progress toward English language proficiency calculations. Similarly, only students enrolled in the district on October 1st of the testing year are included in district-level progress toward English language proficiency calculations.

Data Source: State assessment data files and Public School Information System (PSIS) for student demographic (e.g., race/ethnicity, gender) and program (EL/ML, FRPL, disability) data.

RESOURCES FOR IMPROVING STUDENT ACHIEVEMENT IN ENGLISH LANGUAGE ARTS, MATHEMATICS AND SCIENCE

CURRICULUM (content of learning by unit, lesson, course, or full year)

1. **Connecticut Approved Standards**
   - CT Core Standards for English Language Arts
   - Connecticut Core Standards - Math
     - CSDE Priority Standards Searchable Webpage
       - High School Mathematics Searchable Webpage
       - K-8 Mathematics Searchable Webpage
       - K-8 English Language Arts Searchable Webpage
   - CT English Language Proficiency (CELP) Standards
   - Next Generation Science Standards
2. **Understanding the Standards**
   - Unbounded Math
   - Curriculum alignment: Interactive Coherence Map (Achieve the Core)
   - Unbounded ELA
   - NGSS
   - CELP Standards
   - Building the Foundation: A Suggested Progression of Sub-skills to Achieve the Reading Standards: Foundational Skills in the Common Core State Standards

3. **CT State Model Curricula**
    - K-12 Curricula Design Principles: A Handbook for Evaluation, Renewal, and Development of District Curricula
    - GoOpenCT
    - High School Math Model Curricula
        - Algebra I
        - Algebra II
        - Geometry
        - Integrated Math

4. **Materials Alignment Resources**
    - EdReports: Provides educator-led, evidence-based reviews of K-12 instructional materials, in full; provides best practices and processes for adopting instructional materials.
    - EQuIP (Educators Evaluating the Quality of Instructional Products) Rubric: a tool designed to identify high-quality instructional units and lessons aligned to the Common Core State Standards (CCSS).
    - Instructional Materials Evaluation Tool
    - GoOpenCT: Aligned Core Programs - provides guidance for how K-8 instructional content aligns with and supports the implementation of the CSDE ELA Model Curricula Alignment guidance for the CSDE Mathematics and English Language Arts Model Curricula.

5. **Implementation Resources**
    - Achieve the Core Lesson Planning: Plan with the Common Core Shifts in Mind (requires log in)
    - Science Classroom Sample Tasks: (Introduction and Overview) (View and Download Tasks) The Classroom Sample Tasks blend content, practices, and concepts from both the NGSS and the Common Core State Standards. Teachers across the disciplines have collaborated to write sample tasks, which are the result of a vision of integrating science, engineering, and mathematics for classroom use.

6. **Professional Learning**
    - CT Core Math Principal's Workshop Series
    - Bridging Practices Among CT Mathematics Educators – Self-Paced Learning Modules
    - Library of Professional Learning Materials from past workshops and conferences
    - On-Demand Professional Learning: Recordings of Webinars
    - Professional learning that encompasses the Reading Foundational Skills of the Common Core State Standards in English Language Arts
    - National Science Teachers Association Professional Learning Resources

- Implementing the CSDE K-3 Model English Language Arts Curricula
- Literacy How Professional Learning Series Webinars

7. **Parent and Community Resources for CT Core Standards** including translated materials in six languages https://portal.ct.gov/SDE/CT-Core-Standards/Family-and-Community

INSTRUCTION (how the curriculum will be taught)

1. **General Core Instruction Resources (Tier 1)**
   - CSDE Evidence-Based Practice Guides
   - Principal "Look Fors" Guide to Classroom CT Core Standards
   - Defined Learning - The Authority on Applied Learning: High-Quality Project Based Learning for All (requires log in)
   - National Council of Teachers of English Interdisciplinary Resources
   - STEM Practice Briefs - Brief essays, each focused on a specific issue, authored and reviewed by teachers and researchers. Each Practice Brief leverages practitioners' expertise and research findings to support the teaching and learning transformations called for in the NGSS.

2. **ELA Instructional Resources (Tier 1)**
   - Literacy Learning Walk Tools
     - The Science of Reading - Literacy Look-Fors Walkthrough Guide - The Science of Reading Literacy Look-Fors Walkthrough Guide is a practical tool designed to assist administrators, literacy coaches, and teachers in establishing a common understanding of evidence-based literacy practices.
     - CSDE K-2 Literacy Learning Walk Form Adapted from K-2 Literacy Protocols by Literacy How
     - K-2 Literacy Learning Walk Debrief Discussion Guide
   - Instructional Materials and Resources
     - CT Writing Portfolio: The Writing Portfolio Guides for Grades K-2 include Smarter Balanced-aligned materials for teachers to complement writing instruction over the school year.
     - Examples of ELA CT Core Standards-aligned Instructional Materials: View illustrative examples of instructional materials evaluated for CT Core Standards alignment and quality, using the EQuIP Rubrics and quality review process.
     - ELA / Literacy - Student Writing Samples - Achieve the Core: Annotated student writing samples illustrating the integration of content understanding and writing.
     - Florida Center for Reading Research Preschool to Grade 5 Student Center Activities and Digital Student Center Activities: The activities are designed for students to practice, demonstrate, and extend their learning of what has already been taught, sometimes with teacher assistance and sometimes independently.
   - Literacy Assessments to Inform Instruction

    - Approved Menu of Research-based Universal Screening Reading Assessments for Kindergarten to Grade 3: This document provides information to local and regional boards of education regarding the approved K-3 research-based universal screening reading assessments.
    - SLD/Dyslexia Assessment Resource Guide (ct.gov): The Connecticut Assessment Resource Guide for Specific Learning Disabilities in Reading and Written Expression (Resource Guide), previously known as the Specific Learning Disability (SLD)/Dyslexia Assessment Resource Guide, was created in response to requests from educators and administrators from local education agencies (LEAs) and families seeking information about appropriate assessment options for the identification of SLD/Dyslexia and other reading-related learning disabilities.
- Professional Reading and Learning
    - Teaching Secondary Students to Writing Effectively: What Works Clearing House
    - Supporting Equitable Literacy Instruction through Text Selection, Analysis, and Use: Student Achievement Partners
    - Reading Rockets: A national public media literacy initiative offering information and resources that include a library of classroom strategies, instructional videos, and sources of reading research on how young kids learn to read, why so many struggle, and how caring adults can help.
- National Professional Organizations for Literacy Education and English Language Arts
    - NCTE - National Council of Teachers of English: Find resources, communities, and professional groups for elementary, middle, secondary, and college.
    - Home | International Literacy Association (literacyworldwide.org): Access the International Literacy Organization's resources by topic or collections.
    - The Reading League - The Science of Reading: Learn about evidence-aligned reading instruction.
    - International Dyslexia Association - …until everyone can read! (dyslexiaida.org): Dyslexia research, education, and advocacy.

3. Mathematics Instructional Resources (Tier 1)

- Math Walkthrough Tool
    - Recommendations for Targeted Math Support and Interventions
    - ML/EL Support Collection for Math
- CT Core Standards Math Materials for Teachers
- Examples of Instructional Material
- Curriculum resources/rich tasks: Mathematics Assessment Project (Secondary)
- Illuminations (NCTM) https://illuminations.nctm.org/
- Achieve the Core Classroom Resources
- NCTM's *Principles to Actions: Ensuring Mathematical Success for All*
- Bridging Practices among Connecticut Mathematics Educators
- YouCubed

4. **Science Instructional Resources (Tier 1)**
    - **Science Walkthrough Tool** (note this file may download directly to your computer)
    - **Tools for Ambitious Science Teaching** (University of Washington)
    - **NGSS Evidence Statements (Executive Summary) (Introduction and Overview) (Grades K-5) (Grades 6-8) (Grades 9-12)** NGSS Evidence Statements provide educators with additional detail on what students should know and be able to do. These Evidence Statements are statements of observable and measurable components that, if met, will satisfy NGSS performance expectations.
    - **NGSS Appendices** - 13 essays detailing elements of the NGSS based upon the recommendations in the *Framework for K-12 Science Education* (National Research Council, 2012).
    - **The Five Tools and Processes for Translating the NGSS** - The *Next Generation Science Standards* (NGSS) challenge teachers to think deeply about learning and teaching with the goal of developing a clear vision of science education that is coherent, focused, and rigorous. These tools are designed to help professional development leaders' work with teachers on curriculum, instruction, and assessment. (American Museum of Natural History in collaboration with BSCS and the K-12 Alliance at WestEd.)
    - **Building Towards NGSS Classroom Series** - These Teaching Channel videos, developed in partnership with Achieve, help teachers' transition classroom instruction to meet the goals of NGSS. The series includes:
        - First Steps Towards Transitioning to the NGSS
        - Making Claims From Evidence, Energy & Matter Across Science Disciplines
        - Working as a Team
    - **Bozeman Science – Generation Science Standards Video Series** Next Generation Science Standards Video Series covers the concepts contained within the K-12 Science Framework. The 60 videos contain: an NGSS overview, 8 practices, 7 crosscutting concepts, and 44 disciplinary core ideas.
    - **Talk Science Professional Development** This component of The Inquiry Project (TERC) is designed to increase the effectiveness of discourse in Grades 3 through 5 science classrooms. The focus is on meaning-making and strategies to support productive discussion. Video case studies are included.
    - **NGSS Storylines**
      Next Generation Science Storylines project is dedicated to providing tools that support teachers in developing, adapting, and teaching with strongly aligned NGSS materials in classrooms around the country.

5. **Reaching ALL learners in Tier 1**
    - **English Learners**
        - EL Strategies Desk Cards (Tip Sheets for ALL Classroom Teachers)
        - Scientific Research-Based Interventions for English Learners

- English Learners in Connecticut's Public Schools: Guidelines for Administrators
- Best Practices for Serving English Learners and Their Families
- Coaching and Self-Reflection Tool for Competency in Teaching English Learners
- ML/EL Support Collection for Math

- **Diversity, Equity and Inclusion**
  - Universal Design for Learning
  - Lessons from the Field: Understanding Culturally Relevant Pedagogy in High-Quality Instructional Materials
  - Diversity, Equity, and Inclusive Resources DEI Collection
  - Ceedar Center-Culturally Responsive Teaching
  - 2023 Culturally Responsive ELA Curriculum Scorecard
  - Equity Audit: Curriculum

6. **Intervention – Supplemental and Intensive Instruction and Supports (Tier 2 and 3)**
   - Evidenced Based Intervention Network
   - Using Scientific Research-Based Interventions: Improving Education for All Students
   - IES Practice Guides
   - What Works Clearing House
   - RTI Network
   - National Center on Intensive Intervention
   - Evidence for ESSA

Where can I get more information?

QUESTIONS	CSDE CONTACTS
Best Practices and Resources for Improving English Language Arts & Literacy Curriculum and Instruction	Dr. Joanne R. White Phone: 860-713-6751 Email: Joanne.R.White@ct.gov
Best Practices and Resources for Improving Mathematics Curriculum and Instruction	Jennifer Michalek Phone: 860-713-6557 Email: jennifer.michalek@ct.gov
Best Practices and Resources for Improving Science Curriculum and Instruction	Ronald Michaels Phone: 860-713-6851 Email: ronald.michaels@ct.gov
Best Practices and Resources for Improving STEM Education	Cheryl Tokarski Phone: 860-713-6867 Email: cheryl.tokarksi@ct.gov
Best Practices and Resources for Supporting English Learners/Multilingual Learners	Megan Alubicki Flick Phone: 860-713-6786 Email: megan.alubicki@ct.gov
Academic Growth Calculations	Renee Savoie Phone: 860-713-6858 Email: renee.savoie@ct.gov

INDICATOR 3: PARTICIPATION RATE

Description (What): This indicator will evaluate participation rates on all assessments for ELA, Mathematics, and Science for All Students group and the High Needs supergroup. Students in the High Needs group must be an English learner/multilingual learner, a student with disabilities, or a student eligible for free or reduced-price lunch at the time of testing.

Rationale (Why): High participation rates for all students across groups is critical if accountability reports are to be representative of all students. The validity of conclusions one can derive from assessment results is partly dependent on the percentage of students who participated in the assessment. For example, one cannot generalize about a school's performance if a large number of eligible students did not participate in the test. Additionally, without high participation rates, fair comparisons across schools and years cannot be made.

Applicability (Who): This indicator is applicable to all schools and districts with at least one tested grade (i.e., grades 3 through 8, or 11).

Methodology: Every school and district is expected to meet/exceed the 95% participation rate standard for the All Students group ***and*** the High Needs group in all the tested subjects. If a school that would otherwise have been classified in Category 1 or 2 has a participation rate that is less than 95% for either the All Students group or the High Needs group in any tested subject, it will be classified into the next lower category.

Data Source: State assessment data files and Public School Information System (PSIS) for student demographic (e.g., race/ethnicity, gender) and program (EL/ML, FRPL, disability) data.

RESOURCES FOR ENSURING ASSESSMENT PARTICIPATION ACROSS THE SCHOOL COMMUNITY

The key to ensuring high participation rates lies in communication with teachers, students, and families. Everyone needs to know what to expect in terms of content, the delivery system, and time demands while also understanding how results will be used. Throughout communication it is essential to maintain perspective. School and district leaders must strike a balance between communicating the importance and value of assessment data while not creating undue anxiety about a single summative test score. In a 180-day school year, the state assessment is a very small component of the instructional program, lasting less than six hours across all content areas for the average student taking mathematics, English language arts/literacy, and science assessments.

The CSDE provides Communication Tools specific to the Smarter Balanced assessments. https://portal.ct.gov/SDE/Student-Assessment/Smarter-Balanced/Smarter-Balanced-Results-Resources/Documents

Connecticut SAT resources including a template letter to parents as well as frequently asked questions are available at http://portal.ct.gov/SDE/Student-Assessment/SAT/Connecticut-SAT-School-Day/Related-Resources.

The CSDE has created a page of resources designed for parents. The page includes materials for the Smarter Balanced Assessment, the Connecticut SAT School Day, the Connecticut Alternate Science Assessment (CTAS), the Connecticut Alternate Assessment (CTAA), the Next Generation Science Standards (NGSS) Assessment, the English language proficiency assessment (LAS Links), and the Connecticut Physical Fitness Assessment. The parent resource page is available here: https://portal.ct.gov/SDE/Student-Assessment/Main-Assessment/Parent-Resources/Documents

The National PTA has created a range of free online resources that can be customized for local use to help parents understand the purpose and stakes associated with state assessments including Smarter Balanced. The organization effectively describes the relationship between content standards for local curricula and the summative assessment through a variety of resources including state-specific parent guides.

To encourage schools to sponsor informational events for families, the National PTA has created a *Parent Assessment Event Toolkit*. The toolkit includes a facilitator's guide, presentation templates, anticipated questions, suggested take-home tools for parents in Spanish and English, and sample announcements. To access the toolkit and other resources, visit: https://www.pta.org/home/family-resources/College-and-Career-Readiness/State-Assessments/Parent-Assessment-Event-Toolkit

Achieve the Core offers resources you can use to speak to parents and community members about the content standards. The site offers guides, documents, and parent videos. http://achievethecore.org/page/2736/talking-with-parents

Where can I get more information?

QUESTIONS	CSDE CONTACTS
Strategies for Ensuring Assessment Participation	Abe Krisst Phone: 860-713-6894 Email: abe.krisst@ct.gov
Participation Rate Calculations	Michael Sabados Phone: 860-713-6856 Email: michael.sabados@ct.gov

INDICATOR 4: CHRONIC ABSENTEEISM

Indicator	Max Points
Percentage of students chronically absent	
• All Students	50
• Students with *High Needs*	50

Description (What): A district/school/student group chronic absenteeism rate is the percentage of students missing ten percent or greater of the total number of days enrolled in the school year for any reason. It includes all absences, (e.g., excused, unexcused absences, disciplinary, and mental health days). For example, children who are enrolled for the full school year (e.g., 180 days) become chronically absent if they miss at least 18 days of school for any reason. Because aggregate school/district-wide attendance rates can mask the extent of individual absenteeism, chronic absenteeism is a better indicator of student attendance.

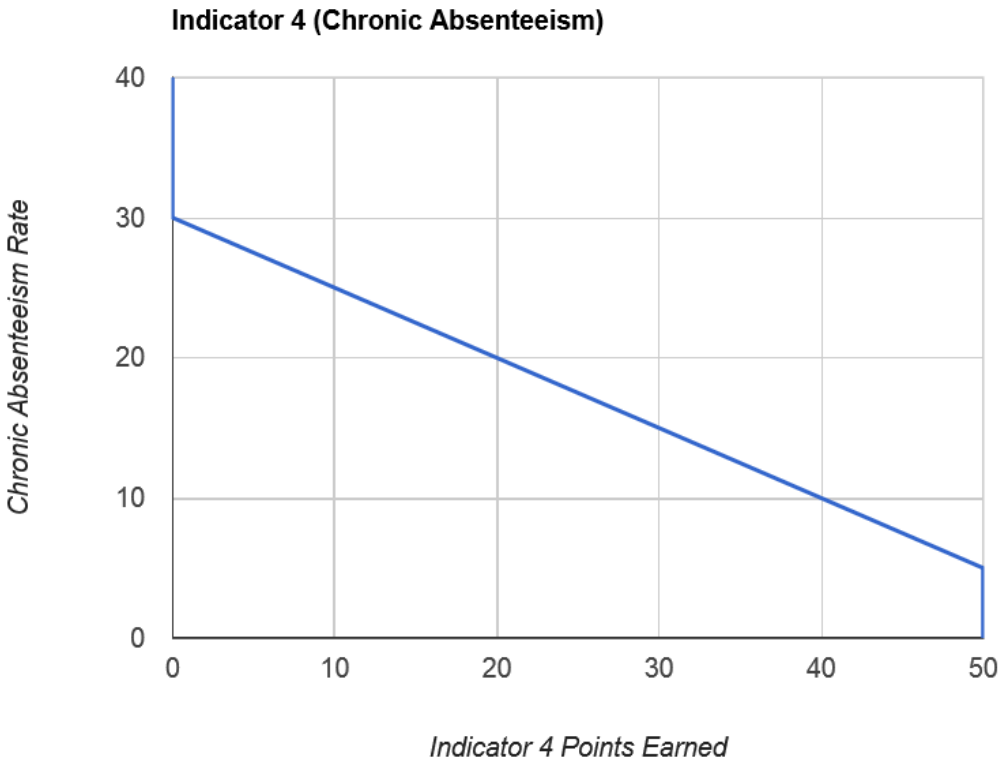
Rationale (Why?): Students need to attend school daily to succeed and data must guide local efforts to improve student attendance. In 2018-19, 10.4% of all students statewide were chronically absent. The percentage increased to 19.0% in 2020-21 and peaked at 23.7% in 2021-22. The 2023-24 school year data show the second consecutive year of declining chronic absenteeism rates at the state level to 17.7% and in all student groups. However, disparities that existed in chronic absenteeism rates among student groups before the pandemic are still much higher than pre-pandemic. For example, the 2023-24 chronic absenteeism rate for students eligible for free lunch (27.5%) was more than two and a half times that of their peers who were not eligible for lunch subsidies (9.8%). In the same year, 27.2% of students with disabilities were chronically absent while 15.6% of their non-disabled peers were identified as chronically absent. Regardless of student group membership, national reports/research as well as state-level data analyses highlight the association of chronic absenteeism with student academic achievement and high school graduation.

Applicability (Who): The chronic absenteeism indicator is applicable to all districts and schools with at least one grade between K and 12, inclusive.

Input/Feedback: This indicator has gained acceptance statewide. Many districts and schools are tracking and monitoring chronic absenteeism regularly at the district and school level in student attendance teams. The CSDE has created virtual communities, e.g., Talk Tuesdays, Attendance Affinity Groups, Attendance and Engagement Advisory Team, as a centralizing force for disseminating promising new practices, promoting communication and collaboration among state and national experts, districts and community-based partners. The CSDE's district/school turnaround initiatives (Alliance District program and Commissioner's Network) incorporate chronic absenteeism as an important indicator. Beginning in 2023, the Bureau of Special Education included chronic absence rates in its district IDEA determinations for the Annual

Performance Reports on Connecticut's State Performance Plan. Staff from 50 percent of Connecticut's school districts have attended the Learner Engagement and Attendance Program (LEAP) training for home visits. Twenty-five districts receive LEAP grants to support LEAP home visits for students who are missing too much school. LEAP is Connecticut's research-based, relational home visit model proven to increase student attendance and family engagement.

Methodology (How): Points will be earned for the All Students group ***and*** the High Needs group based on the percentage of students who are chronically absent. It is important to weight student group absenteeism rates separately because disparities in chronic absenteeism rates among student groups exist in a vast majority of districts/schools throughout the state. The CSDE's expectation is that no district/school will have a chronic absenteeism rate that is greater than 5%; therefore, full points will be awarded if the chronic absenteeism rate is 5% or lower. Conversely, no points will be awarded if the chronic absenteeism rate is 30% or greater. To recognize incremental improvement in the reduction of chronic absenteeism, rates between 30% and 5% will be awarded proportional points.



The following formula is used to convert the chronic absenteeism rate into points:

$$\frac{(30\% - Chronic\ Absenteeism\ Rate)}{25\%}\ x\ 50$$

For example, a school with an "all students" chronic absenteeism rate of 15% would earn 30 of the possible 50 points for the "all students" component of Indicator 4. The calculation is as follows:

$$\frac{(30\% - 15\%)}{25\%}\ x\ 50$$

$$= \frac{15\%}{25\%}\ x\ 50 = \frac{3}{5}\ x\ 50 = 30\ points$$

Data Source: June PSIS

RESOURCES FOR IMPROVING ATTENDANCE

- State Board of Education Definition of Student Attendance (in-person and remote), revised 9/7/2022. https://portal.ct.gov/-/media/SDE/Board/BoardMaterials090722/Adoption_of_the_Updated_Definition_of_Attendance_to_include_Remote_Learning.pdf

- Connecticut State Department of Education staff have assembled a collection of timely and relevant resources focused on understanding potential causes of chronic absenteeism, the impact of loss instructional time, and practical approaches to ensuring that students are attending school ready to learn. The Reducing Chronic Absenteeism in Connecticut Schools webpage is updated regularly with new information and resources for schools and districts to use to reduce chronic absence. www.ct.gov/sde/chronicabsence.

Connecticut-specific resources include:

- Supporting Student Attendance. To support attendance and engagement of students as they participate in varied school learning models, the CSDE established a new system to collect student-level attendance data on a monthly basis. This collection allows for more detailed reporting of student attendance by district, school, and student group. https://edsight.ct.gov/relatedreports/Supporting%20Student%20Participation%20in%202020-21.html

- Reducing Chronic Absence in Connecticut's Schools: A Prevention and Intervention Guide for Schools and Districts. The Prevention and Intervention Guide is designed to support the work in districts, schools, and communities to develop and implement effective strategies to reduce chronic absence. Organized in an easy-to-read manner, the guide is rich with links to research, resources, and toolkits. It also provides examples of local strategies, state, and national resources and a multi-tiered approach to addressing chronic absence. A recording of a webinar providing an overview of the

guide is also available. http://portal.ct.gov/SDE/Publications/Reducing-Chronic-Absence-in-Connecticuts-Schools

- PSIS Reference Guide for 2023-24. The PSIS Reference Guide for 2023-24 provides schools and districts with detailed guidance for reporting attendance data through PSIS. Unique scenarios including disciplinary absences, early dismissal days, and extended family vacations/travel are addressed in Appendix F on pages 52-55 of the PSIS Reference Guide for 2023-24. Guidance on how to address the registration of students who are disengaged from school can be found on pages 62 and 63 of Appendix L in the PSIS Reference Guide for 2023-24. https://portal.ct.gov/-/media/SDE/Performance/Data-Collection/Help-Sites/PSIS/2023-24_PSIS_Reference_Guide.pdf

- Learner Engagement and Attendance Program (LEAP). LEAP is CSDE's research-based, relational home visit model proven to increase student attendance and family engagement. While LEAP grants are available to 14 districts, training in the LEAP relational home visits approach is available for all districts. https://ct.gov/LEAP

- The LEAP Effect. Learn more about LEAP and its impact on attendance and family engagement in the new brief, The LEAP Effect, Taking A Systemic Approach to Improving Attendance & Engagement. https://portal.ct.gov/-/media/SDE/Chronic-Absence/LEAP/The-LEAP-Effect.pdf

- Talk Tuesdays is a virtual network for lowest performing districts and schools to support and learn from each other. An archive of presentation slides and recordings is available on the CSDE website. https://portal.ct.gov/SDE/Chronic-Absence/Talk-Tuesdays

- The Connecticut Attendance Awareness "Better With You!" Campaign provides districts, schools, and community partners with resources and artwork where entities can add their own logo to the design work. The campaign's webpage has printable and downloadable resources for schools and districts, including posters, coloring pages, banners, and handouts for parents and others. All of the materials are in English and Spanish. https://ct.gov/betterwithyou

- High schools vary in governance structures, focus, size, and demographic diversity. Some, however, have been more successful than others in their efforts to tackle chronic absence. To understand the unique challenges and opportunities that high schools present to attendance and engagement, the CSDE engaged Attendance Works to learn more about the practices, policies, and partnerships that high school leaders have incorporated in their schools to improve attendance and engagement, particularly since the COVID-19 public health emergency closed schools. The findings are summarized in *BRIGHT SPOTS: Improving High School Student Attendance in Connecticut.* https://portal.ct.gov/-/media/SDE/Chronic-absence/BrightSpotsCTReport2023Final.pdf

- Mental Health Wellness Days. Legislation passed during the 2021 Legislative Session, Public Act 21-46, An Act Concerning Social Equity and the Health Safety and Education of Children, Section 19 (a) and (b), defines and allows students to have two Mental Health Wellness (MHW) Days in a school year. CSDE issued guidance on tracking and monitoring MHW absences and supporting students and families in the use of MHW days. https://portal.ct.gov/-/media/SDE/Digest/2021-22/MemoMHWdaysFall-2021.pdf

- CSDE's Full, Equal, and Equitable Partnerships with Families provides a common definition and framework of family engagement in Connecticut. https://portal.ct.gov/SDE/Publications/Full-Equal-and-Equitable-Partnerships-with-Families/Introduction

  This guidance includes a chart demonstrating "What Does High-Impact Family Engagement Look Like in Reducing Chronic Absence? https://portal.ct.gov/SDE/Publications/Full-Equal-and-Equitable-Partnerships-with-Families/Chart-5

- Youth Service Bureau Referral for Truancy and Defiance of School Rules Form - The Connecticut State Department of Education, with its partners, has a developed Youth Service Bureau Referral for Truancy and Defiance of School Rules Form to assist districts in developing a system to formally refer students who are truant to the community's Youth Service Bureau. https://portal.ct.gov/-/media/SDE/Truancy/Youth-Service-Bureau-Referral-for-Truancy-and-Defiance-of-School-Rules-Form.pdf?la=en

- Youth Service Bureau Referral Guide - A Youth Service Bureau Referral Guide is also available to be used as a side-by-side resource to assist in completing the Youth Service Bureau Referral for Defiance of School Rules Form. https://portal.ct.gov/-/media/SDE/Truancy/Youth_Service_Bureau_Referral_Guide.pdf?la=en

Other resources include:

- The Attendance Works website offers resources for monitoring, understanding, and addressing chronic absence beginning in the early grades through secondary school. These strategies can be implemented at the school, district, and state level. The website includes resources to help districts and schools develop:
  - Positive Engagement with families and students.
  - Actionable Data to help you identify students with too many absences.
  - Capacity Building to help build a culture of attendance in your classroom, school or district.

  https://www.attendanceworks.org/resources

- The *Attendance Playbook: Smart Solutions for Reducing Chronic Absenteeism Post-Pandemic* from FutureEd and Attendance Works offers nearly two dozen practical strategies for improving attendance. The report explains each intervention, identifies the problem it solves, summarizes supporting research and its evidence level under ESSA guidance. https://www.future-ed.org/wp-content/uploads/2023/05/Attendance-Playbook.5.23.pdf

- The Governor's Prevention Partnership (GPP) supports schools and businesses as well as community and faith-based organizations in ensuring that children are in safe, quality mentoring relationships. Quality mentoring programs can be an effective intervention for reducing chronic absenteeism. The staff at GPP can provide technical assistance and support to districts and schools to establish quality mentoring programs. https://www.preventionworksct.org/what/increase-connections-with-adults/

- The National Mentoring Partnerships provides resources for implementing a mentor program and research-based evidence of the power of mentoring on improving absenteeism, improving attitudes toward school, and likelihood of enrolling in college. http://www.mentoring.org

Where can I get more information?

QUESTIONS	CSDE CONTACTS
Resources, Strategies, and Best Practices	Kari Sullivan Phone: 860-807-2041 Email: kari.sullivan@ct.gov
Data Collection and Reporting	Kendra Shakir Phone: 860-713-6896 Email: kendra.shakir@ct.gov

INDICATOR 5: POSTSECONDARY PREPARATION

Indicator	Max Points
Percentage of students in grades 11 & 12 participating in *at least one* of the following during high school: Two courses in AP/IB/dual credit; ***or*** Two CTE courses in one of 17 career clusters; ***or*** Two workplace experience "courses" in any area.	50

Description (What): This is an access metric. It evaluates whether students in grades 11 and 12 have participated in coursework during high school that prepares them for success in college and/or careers. In recognition of the diverse pathways of our students, credit is awarded if students pursue traditional college-preparatory courses (e.g., Advanced Placement, International Baccalaureate), career-technical education courses, or workplace experience/internship opportunities. Students in Grade 12 include students with disabilities, ages 18+, who are receiving transition-only services. Students who receive transition-only services maintain eligibility for receipt of special education and related services through the end of the school year during which the student turns age 22 (when they reach the maximum age of eligibility), or until they graduate with a regular high school diploma, whichever occurs first. These students who are engaged in workplace experience will contribute positively to a school's Indicator 5 calculation.

Rationale (Why?): Students cannot be expected to demonstrate success in college and careers if they aren't receiving the requisite preparation.

Applicability (Who): This indicator is applicable to all districts and schools that offer grades 11 and/or 12.

Input/Feedback: The primary feedback to this indicator has been that the system should be inclusive to recognize opportunities beyond AP/IB that may be offered by districts. For example, many districts have partnerships with in-state colleges/universities (e.g., UCONN's Early College Experience program, College Careers Pathways) that enable students to take college courses in high school and earn both high school and college credit. In response to this suggestion, the CSDE modified its data collection several years ago to collect information about dual credit courses (i.e. dual enrollment and concurrent enrollment courses).

Methodology (How): Points are awarded to the All Students group based on the percentage of 11th and 12th graders who meet the specified coursework participation thresholds. Points are prorated based on the percentage of the ultimate target (75%) achieved. For detailed calculation rules, see the Appendix.

Data Source: June PSIS (to establish 11th and 12th graders) and Teacher Course Student (for course participation)

INDICATOR 6: POSTSECONDARY READINESS

Indicator	Max Points
Percentage of students in grades 11 & 12 achieving either CCR benchmark on *at least one* of the following: SAT ***or*** ACT ***or*** AP ***or*** IB; or earning three or more college credits through dual credit coursework.	50

Description (What): This metric evaluates whether students in grades 11 and 12 have attained benchmark scores on at least one of the most prevalent college/career readiness exams as well as passage of dual credit courses (i.e. dual enrollment or concurrent enrollment courses).

Rationale (Why?): In addition to looking at "access" (i.e., indicator 5), it is also important to evaluate "performance." In recognition of the exam options available to students, this metric recognizes attainment of the benchmark score for any of the listed options. The indicator also considers performance by recognizing successful completion of dual enrollment or concurrent enrollment courses resulting in students earning college credit prior to high school graduation.

Applicability (Who): This indicator is applicable to all districts and schools that offer grades 11 and/or 12.

Input/Feedback: As with coursework, the primary feedback to this indicator has been that the system should be inclusive and recognize that students may demonstrate college/career readiness through different pathways.

Stakeholders requested that the Indicator 6 definition include other external measures beyond exams that signal preparation for postsecondary education, specifically earning college credit while in high school through the successful passage of dual enrollment or concurrent enrollment courses.

Methodology (How): Points will be awarded to the All Students group based on the percentage of 11th and 12th graders who meet the following benchmark scores on the respective exams:

- SAT– Evidence-Based Reading and Writing score of at least 480 and a Math score of at least 530; or
- ACT – meeting benchmark on 3 of 4 exams (English=18, Reading=22, Math=22, Science=23); or
- AP – 3 or higher on an AP exam; or
- IB – 4 or higher on an IB exam.

For a student's dual credit course completion to contribute positively toward a school or district's Indicator 6 calculation, the following criteria for dual credit courses must be met by the 11th or 12th grader cumulatively during their high school career:

- Student earns 3 or more college credits through dual enrollment or concurrent enrollment courses cumulatively;
- All dual credit course grades must be C or better; and
- Only credit bearing dual enrollment and concurrent enrollment courses will be considered. Remedial courses, audited courses, and courses with pass/fail grades will not be included.

A student can positively contribute to a school or district's Indicator 6 metric through exams *or* dual credit course passage.

Points are prorated based on the percentage of the ultimate target (75%) achieved.

Data Source: June PSIS (to establish 11th and 12th graders), SAT/AP from College Board, ACT from ACT, Inc., IB from International Baccalaureate Organization, and dual credit data from the University of Connecticut, the Connecticut State Colleges and Universities (CSCU), and participating private colleges and universities.

RESOURCES TO PREPARE STUDENTS FOR POSTSECONDARY SUCCESS

This accountability system values increasing student access to rigorous coursework while striking a balance with outcomes based on a variety of nationally recognized assessments and earning college credit before graduation through passage of dual enrollment and concurrent enrollment courses. Research shows that students who enroll in challenging coursework in high school are more likely to graduate and are better positioned for post-secondary success (Morgan, Zakhem, and Cooper 2018; Shields et al. 2021). The system is designed to acknowledge that challenging coursework can take many forms including traditional academic and career-focused dual credit courses, CTE coursework, and workplace experience.

In May 2022, the CSDE released *District Guidance for Developing an Advanced Course Participation Policy*. The guidance was developed in accordance with Public Act 21-199, which requires that boards of education adopt a policy addressing eligibility criteria for student enrollment in an advanced course or program. Additionally, every student must have an academic plan (e.g. Student Success Plan) designed to enroll each student in one or more advanced courses or programs, allowing students to earn college credit or result in career readiness before graduation from high school. The guidance was developed through a review of evidence-based practices, discussions with Connecticut school and district leaders, and feedback from a variety of stakeholders.

The guidance reinforces the important role that teachers, school counselors, and other staff members play in partnership with families to support students in planning for and selecting the courses that interest students and align with their postsecondary goals. The CSDE also plays a part in encouraging students to enroll in advanced courses.

Since 2012-13, the CSDE has used assessment data to identify students who have the potential to succeed in rigorous courses. These students receive a letter directly from the Commissioner of Education encouraging them to explore rigorous coursework options. Until 2019-20 the criteria for identification was limited to PSAT scores and the letters were sent to students in Grades 10 and 11.

Beginning in 2020-21, the CSDE reevaluated the identification methodology and determined that performance on the Smarter Balanced assessment administered in middle school could effectively be used for identification. Unlike PSAT, Smarter Balanced is administered to all students. Smarter Balanced also provides a broad array of accommodations and supports to ensure that students have the tools necessary to effectively demonstrate what they know. Using Smarter Balanced results instead of PSAT provides more students an opportunity to be identified and increases the diversity of the recipient list. The improved methodology considered scores for each grade (6, 7, 8) and subject (mathematics and English language arts) combination separately. Therefore, rather than limiting identification to a single score, this approach looks for strengths on any of the indicators. The methodology applied to analyses beginning in 2022-23 included consideration of Grade 8 NGSS Science performance.

Local school district efforts to encourage more students to enroll in advanced courses should complement and extend beyond the CSDE's efforts. Schools have a tremendous amount of information about every student. Those data as well as recommendations from teachers, administrators, school counselors or other school personnel should be considered together. When making decisions about the appropriateness of courses or programs, consideration should be given to as much information as possible.

In 2022-23, the CSDE announced the Dual Credit Expansion Grant Program. The grant provides funding for public school districts for start-up costs associated with increasing the number and types of dual credit courses offered in partnership with Connecticut's institutions of higher education (IHE). These courses can be part of traditional college pathways or career-oriented pathways leading to industry-recognized credentials. Dual credit courses include dual enrollment (taken on a college campus) and concurrent enrollment courses (taken on the high school campus). The goal of these expansion efforts is to increase the number of students earning non-remedial college credit while enrolled in high school and increase the number of college credits students earn prior to high school graduation The CSDE approved 83 grant applications for a total of $3.8 million. A summary of all district plans is available through the Dual Credit Opportunities website.

The National Alliance of Concurrent Enrollment Partnerships (NACEP) is the sole recognized entity nationally for the accreditation of dual credit programs. As dual credit partnerships expand across Connecticut, it is critical that all programs available through IHEs are of a high quality. To this end, the CSDE has engaged in a three-year contract with NACEP through November 2026 to support Connecticut IHEs to implement best practices with respect to dual

credit programs and attain NACEP accreditation. Through this contract, NACEP will provide live webinars, virtual problems of practice collaborative meetings, Preparation for Accreditation sessions, and two intensive in-person institutes on Program Quality and Accreditation. To learn more about this partnership, visit the Standards and Accreditation section of the Dual Credit Opportunities site.

CTE has a central role in building an inclusive and equitable future that enables each learner to access the education and training they need to be successful in a meaningful career. Career preparation ecosystems in the 21st century offers students flexible and engaging programming and experiences that are reflective of and responsive to their needs.

Additionally, the applied nature of CTE is appealing to students, keeping them motivated and engaged in their learning. Advance CTE has collected information about program designs that work in different community types throughout the country. To review resources for existing and emerging academies visit Homepage | National Career Academy Coalition (ncacinc.com).

- **Career Technical Education Programs** Engaging and rigorous career-technical education programs that focus on providing industry certifications and dual credit opportunities for CTE completers. For more information and resources for quality career-technical programs in high school, see:
    - CSDE CT Core Standards website, CTE page: https://portal.ct.gov/SDE/CT-Core-Standards/Materials-for-Teachers/Career-and-Technical-Education
    - Advance CTE: https://careertech.org
    - Association for Career and Technical Education: https://www.acteonline.org/

Participation in CTE classes and programs is beneficial to all students, including students with disabilities, as it can help prepare students for postsecondary education and postsecondary employment. Students with disabilities have the same right to access and be involved in high-quality CTE opportunities. Pursuant to the Individuals with Disabilities Education Act (IDEA), transition planning and services is required for each student requiring special education beginning not later than the first individualized education program (IEP) to be in effect when such student turns 14 years of age, or younger if determined appropriate by the Planning and Placement Team (PPT). CTE classes and programs should be incorporated into IEP Transition Planning, if appropriate. For more information and resources for Secondary Transition, see:

- CSDE Secondary Transition from School to Adult Life website: https://portal.ct.gov/SDE/Special-Education/Secondary-Transition
- The CSDE *Transition Bill of Rights for Parents of Students Receiving Special Education Services* will help parents and students with an individualized education program (IEP) understand their rights under both Federal and State laws, as well as other important issues regarding the transition to life after high school.
- The U.S. Department of Education, Office of Special Education and Rehabilitative Services document, *A Transition Guide To Postsecondary Education And Employment*

For Students And Youth With Disabilities, developed to aid in a seamless transition from school to post-school activities, addresses transition planning: opportunities and programs; transition services and requirements, as authorized by IDEA and the Rehabilitation Act; education and employment options for students and youth with disabilities after leaving secondary school; and supporting the decisions made by students and youth with disabilities: https://www2.ed.gov/about/offices/list/osers/transition/products/postsecondary-transition-guide-08-2020.pdf

- The U.S. Department of Education, Office for Civil Rights document, *Transition of Students With Disabilities to Postsecondary Education: A Guide for High School Educators*, provides high school educators with answers to questions students with disabilities may have as they prepare to move to the postsecondary education environment: https://www2.ed.gov/about/offices/list/ocr/transitionguide.html
- The U.S. Department of Education, Office for Civil Rights document, *Students with Disabilities Preparing for Postsecondary Education: Know Your Rights and Responsibilities*, contains information for high school students with disabilities who plan to continue their education in postsecondary schools: https://www2.ed.gov/about/offices/list/ocr/transition.html
- EnvisionIT (EIT) is a no-cost, customizable, evidence-based, standards-aligned, digital, college and career readiness curriculum, developed at the Ohio State University Nisonger Center and funded by the U.S. Department of Education, Office of Special Education Programs, for grades 6-12 that teaches English and Language Arts, Information Technology Literacy, College & Career Readiness, and Financial Literacy. EIT is available through Schoology, Google Drive, and Canvas; a Reduced Reading Level course model is also available. The research supporting the EnvisionIT curriculum and all related materials are available at: https://nisonger.osu.edu/research/envision-it/.

Where can I get more information?

QUESTIONS	CSDE CONTACTS
Resources, Strategies, and Best Practices for CTE, Dual and Concurrent Enrollment	Suzanne Loud Phone: 860-713-6748 Email: suzanne.loud@ct.gov
Resources, Strategies, and Best Practices for CTE, Supervised Agriculture Experience (SAE), Unpaid Experiential Learning Program (UELP), and Work-based Learning Programming	Harold Mackin Phone: 860-713-6779 Email: harold.mackin@ct.gov
Resources, Strategies, and Best Practices for CTE, Industry Recognized Credentials, and Student Success Plans	Kyllie Freeman Phone: 860-713-6592 Email: kyllie.freeman@ct.gov

Where can I get more information? (cont'd)

QUESTIONS	CSDE CONTACTS
Resources, Strategies, and Best Practices for CTE, and Cooperative Work Education & Pre-Apprenticeship Work-based Learning and Programming	Sean McKeown Phone: 860-713-6884 Email: sean.mckeown@ct.gov
Resources, Strategies, and Best Practices for Supporting Students with Disabilities	Alycia M. Trakas Phone: 860-713-6932 Email: alycia.trakas@ct.gov
District Guidance for Developing an Advanced Course Participation Policy and CSDE's dual credit expansion efforts	Karen Amaker Phone: 860-993-2388 Email: karen.amaker@ct.gov
Rigorous Coursework Letters: Model design and data analysis to identify students showing potential to succeed in rigorous courses	David Alexandro Phone: 860-713-6881 Email: david.alexandro@ct.gov
Data Collection and Reporting for Coursework (Indicator 5)	Keryn Felder Phone: 860-713-6833 Email: keryn.felder@ct.gov
Data Collection and Reporting for Exams and Dual Credit Coursework (Indicator 6)	Danielle Bousquet Phone: 860-713-6832 Email: danielle.bousquet@ct.gov

INDICATOR 7: GRADUATION - ON-TRACK IN 9TH GRADE

Indicator	Max Points
Percentage of 9th graders earning at least six full-year credits in the year.	50

Description (What): From initial implementation in 2014-15 through 2018-19, this indicator measured the percentage of 9th graders earning at least five full-year credits in the year. Effective 2021-22, a student is considered "on-track" for this indicator if they earn at least 6 credits by the end of Grade 9. This update from the original requirement of 5 credits better aligns with Connecticut General Statutes 10-221a, which requires that students starting with the graduating class of 2023 and after must earn a minimum of 25 credits to graduate.

Rationale (Why?): Ninth grade is a critical year. The University of Chicago's Consortium on Chicago School Research "identifies students as on-track if they earn at least five full-year course credits and no more than one semester F in a core course in their first year of high school. On-track students are more than three and one-half times more likely to graduate from high school in four years than off-track students. The indicator is a more accurate predictor of graduation than students' previous achievement test scores or their background characteristics."

Applicability (Who): This indicator is applicable to all districts and schools that offer grade 9. It is also applied to districts/schools where *the 9th graders had been enrolled in 8th* grade in order to serve as an indicator of how well the middle school is preparing students for success in the first year of high school.

Input/Feedback: During initial implementation, some questioned if the five credits in grade 9 represented being on-track since the total credits required to graduate in many high schools exceeded the state minimum at the time of 20 credits. This concern was addressed effective 2021-22 with the increase to six credits. CSDE has received feedback suggesting that course passage instead of credit accumulation be considered. Some administrators of K-8 schools districts have expressed concern that this metric was holding them accountable for student success in an educational system outside their own.

Methodology (How): The total number of students in 9th grade who earn at least six full year credits is expressed as a percentage of all 9th graders.

The ultimate target for this indicator is 94% (same as that for the four-year cohort graduation rate). Points are prorated based on the percentage of the ultimate target achieved.

For detailed calculation rules, see the Appendix.

Data Source: June PSIS (to establish current year 9th graders and prior year 8th graders) and Teacher Course Student (for credit data).

RESOURCES FOR KEEPING STUDENTS ON-TRACK TO GRADUATION

The on-track definition used by the University of Chicago's Consortium on Chicago School Research has been adopted and customized in districts across the nation. State accountability system indicators are always lagging indicators, but at the local level, districts and schools have the opportunity to track and respond to relevant data quickly before serious problems emerge and on-time graduation for a student is compromised.

1. Ninth Grade Counts Guide
   Ninth Grade Counts was created to help high schools identify weaknesses in their ninth-grade programs, and then develop a purposeful, proactive plan to strengthen this critical educational transition. Focusing on a selection of effective strategies and practices, the three-part guide equips districts and schools with a comprehensive, step-by-step process they can use to build a high-impact ninth-grade action plan.
   - Ninth Grade Counts: Strengthening the Transition into High School
   - Ninth Grade Counts: Strengthening the High School Transition for English Language Learners
   - Ninth Grade Counts: Using Summer Bridge Programs to Strengthen the High School Transition

2. The Preventable Failure: Improvements in High School Graduation Rates when High Schools Focus on the Ninth Grade Year
   Graduation Pathways initiative, a unit of CPS, which pioneered a data-driven approach to monitoring ninth-grade performance, beginning with flagging students who might be at risk for failing even before the school year started, identifying attendance problems, flagging poor course performance each quarter, and finally, providing timely guidance about which students could best benefit from limited credit recovery slots available (UChicago Consortium on School Research, 2021).

3. Colorado Dropout Prevention Framework (2023)
   This robust resource for district and school teams is grounded in the four core components of student success systems. It outlines five foundational practices and prioritizes four strategies to reduce dropout rates and increase student engagement in learning, graduation rates, credit attainment, and preparation for postsecondary options.

4. Creating Student Support Systems for Post-Pandemic Times: Insights from the Field
   Student success systems organize a school community to better support the well-being, academic progress, and career and college readiness of all students. Student success systems, defined with feedback from over 300 educators over the course of a year, are a

post-pandemic approach to student support that builds on prior efforts with early warning/on-track systems and MTSS.

5. The Importance of Student Sense of Belonging
   A two-page infographic from IES's Regional Educational Laboratory Midwest shares five promising strategies for teachers interested in nurturing relationships to support students' sense of belonging (Institute of Educational Sciences).

6. Investing in Adolescents High School Climate and Organizational Context Shape Student Development and Educational Attainment
   This report highlights what schools can do to positively affect students' long-term trajectories. The findings show the value of taking a holistic view of adolescents, and that fostering students' engagement and a challenging, supportive environment for them are the most important things schools can do (UChicago Consortium on School Research, 2023).

7. Best Practices for Grade 9 Transitions
   In the following report, Hanover Research describes research-based strategies to support students before, during, and after they transition to Grade 9. This report includes a special focus on supporting English learners/multilingual learners as they begin their high school career (Hanover, 2017).

8. The Network for College Success's Postsecondary Success Toolkit is a collection of protocols, reports, resources, and artifacts that can help schools better support students to graduate from high school ready to succeed in college. The toolkit can provide your school or district with valuable information on how to develop postsecondary teams that are focused on research, data, and successful practices (Network for College Success, 2017).

9. Freshman On-Track Toolkit
   The NCS Freshman On-Track Toolkit is a collection of protocols, reports, resources, and artifacts used by experienced Coaches in their daily work to help schools better support students through the critical first year of high school (Network for College Success, 2023).

10. The application of research and data is essential to successfully implementing On-Track work in your school or district. In this Component, you will find tools to further your understanding of the fundamental On-Track research as well as guides for developing and tracking interventions. This Component also includes tools to support your team in communicating On-Track research to staff, students, and families.
    a. Calculating Freshman On-Track
    b. Building Relationships to Support the Transition to High School
    c. Developing and Tracking Interventions
    d. Communicating On-Track Research to Staff, Students, and Families

11. The Early Warning Intervention and Monitoring System Implementation Guide is a supporting document for schools and districts that are implementing an early warning system (American Institute for Research, 2020).

12. The District Guide for Creating Indicators for Early Warning Systems intends to improve education outcomes for students. These systems use readily available data to identify students who are at risk of failing to achieve a desired outcome, such as graduating from high school on time. By identifying at-risk students, an early warning system allows schools to proactively support them so they achieve the desired outcome, rather than rely on reactive, remedial interventions (Prepared by American Institutes for Research for REL West at WestEd).

13. Connecticut's Early Indication Tool (EIT), available to authorized users of EdSight Secure, is a data analytics and visualization tool developed by the Connecticut State Department of Education. It uses statistical methods to differentiate the levels of support that individual students may need to reach academic milestones. EIT assigns one of three support levels for most students: Low, Medium, or High. The primary purpose of the EIT is to allow for timely student interventions by district/school staff with the ultimate goal of improving student engagement and outcomes.
    a. Early Indication Tool FAQ
    b. Early Indication Tool: Rationale, Methods, and Results

14. Indicators & Interventions a Practical Manual for Early Warning Systems, a research program of Johns Hopkins University, is committed to studying the dropout problem by identifying barriers and developing tools and models that states, communities, districts, and schools can use to support all students through high school graduation. Using a small set of predictive indicators, the A B C's: Attendance, Behavior, and Course performance – districts can identify those students who need some extra supports or help to succeed. Indicators & Interventions a Practical Manual for Early Warning Systems, 2019:

15. Educators are increasingly aware of the high rates of student exposure to childhood adversity and trauma and the effects on learning. Adverse experiences include family violence; abuse; parent separation or divorce; family mental health and substance use problems or incarceration; and environmental adversities, such as exposure to group and/or community violence, poverty and related stressors, bullying, racism and discrimination, poor health, and involvement with other systems such as child welfare and juvenile justice. School staff may also be directly exposed to a wide range of adverse and potentially traumatic experiences, and they are at risk of experiencing secondary trauma after witnessing the effects of trauma on their students. Experiences related to the COVID-19 crisis add an additional layer of stressors for students, families, and school staff (Center for Great Teachers and leaders, 2020).

a. Supporting Student Resilience and Well-Being with Trauma-Informed Care
b. Building Trust and Well-Being Through Trauma-Informed Communities

16. Multi-Tiered System of Supports (MTSS) is an evidence-based framework that uses data-based problem-solving to integrate academic and behavioral instruction and intervention. The integrated instruction and intervention is delivered to students in varying intensities (multiple tiers) based on student need. MTSS addresses the needs of the **whole child** to remove non-academic barriers to academic achievement and ensure that students achieve their full potential.

17. The Connecticut Comprehensive School Counseling Framework (CCSCF) aligns with a district's mission and strategic operating plan. It enhances learning by assisting students in acquiring critical skills in the areas of academic, career, and social-emotional development. The CCSCF provides a proactive, preventative, and early intervention model for school counselors to support all students in reaching their full potential.

18. CSDE's Rethinking School Discipline Webpage: Improving student academic and behavior outcomes requires ensuring all students access to the most effective and accurately implemented instructional and behavioral practices and interventions. Schools need to create an environment that ensures all students feel emotional and physically safe. Students are losing important instructional time due to exclusionary discipline. The increasing use of disciplinary sanctions such as in-school and out-of-school suspensions, expulsions, or referrals to law enforcement authorities creates the potential for significant, negative educational and long-term outcomes, and can contribute to what has been termed the "school to prison pipeline." Studies suggest a correlation between exclusionary discipline policies and practices and an array of serious educational, economic, and social problems, including school avoidance and diminished educational engagement; decreased academic achievement; increased behavior problems; increased likelihood of dropping out; substance abuse; and involvement with juvenile justice systems (Joint Dear Colleague Letter, 2014).

19. CSDE's Social-Emotional Learning (SEL) Webpage: Social-emotional development contributes to academic and career success by helping students understand and respect themselves and others, acquire effective interpersonal skills, understand safety and resilience skills, and develop into contributing members of society. Improving student academic and behavior outcomes requires ensuring all students have access to the most effective instructional, behavioral practices and interventions. School need to create an environment ensuring that all students feel emotional and physically safe. The integration of SEL is a vital component in K-12 education and it contributes to whole-child success.

20. CSDE's Chronic Absence Webpage: Given the unique challenges created from COVID-19, regular and ongoing communications and strong relationships are vital. Schools,

families and communities working together will create welcoming school environments, strong family and school relations, successful student outcomes and strong student attendance that ensures ALL students benefit from the learning opportunities offered. The most important first steps are prevention and monitoring student attendance early and often. On a regular basis, school teams should review and monitor student attendance data for causes and barriers followed by implementing and monitoring a multi-tier system of support to encourage student attendance and a welcoming climate where all students feel a part of the school community.

21. National Mentoring Partnerships provides resources for implementing a mentor program and research-based evidence of the power of mentoring on reducing absenteeism, improving attitudes toward school, preventing the start of risk-taking behavior, and increasing the likelihood of enrolling in college.

22. The Collaborative for Academic, Social, and Emotional Learning (CASEL) advances the practice of promoting integrated academic, social, and emotional learning for all children in preschool through high school.
    a. Look for these 10 indicators of schoolwide SEL as evidence of high-quality, systemic implementation.
    b. CASEL Evidence-based Guides

Where can I get more information?

QUESTIONS	CSDE CONTACTS
Resources, Strategies, and Best Practices	Kimberly Traverso Phone: 860-807-2057 Email: kimberly.traverso@ct.gov
Connecticut's Early Indication Tool (EIT)	David Alexandro Phone: 860-713-6881 Email: david.alexandro@ct.gov
Data Collection and Reporting	Keryn Felder Phone: 860-713-6833 Email: keryn.felder@ct.gov

INDICATOR 8: GRADUATION – FOUR YEAR ADJUSTED COHORT GRADUATION RATE – ALL STUDENTS

Indicator	Max Points
Percentage of first time 9th graders who graduate with a regular high school diploma in four years or less – All Students	100

Description (What): The four-year adjusted cohort graduation rate represents the percentage of first time 9th graders who graduate with a regular high school diploma in four years or less. It is based on the nationally consistent method defined in 34 C.F.R. § 200.19 (73 FR 64508 (Oct. 29, 2008)).

Rationale (Why?): Graduating from high school is an important milestone in a student's education. The inclusion of the specific four-year adjusted cohort graduation rate is a requirement of the Every Students Succeeds Act (ESSA).

Applicability (Who): This indicator is applicable to all districts and schools that offer at least one grade between 9 and 12, inclusive.

Input/Feedback: Among all the indicators in the accountability model, this is one that continues to irk many district/school leaders. While a vast majority of students do graduate in four years, practitioners adamantly (and one might say rightly) contend that some students (e.g., English learners/multilingual learners who newly arrive in the country in middle/high school, students from low income families who may need to work part-time to support their family, some students with disabilities) benefit from having an extra year or two to complete high school; consequently, they claim it is unfair that these non-graduates are counted as a "failure" in the four-year rate which has become the "de-facto graduation rate."

Methodology (How): The four-year adjusted cohort graduation rate is based on the nationally consistent method as defined in 34 C.F.R. § 200.19 (73 FR 64508 (Oct. 29, 2008)). The ultimate target for all students remains at 94%. Districts/schools can earn up to 100 points based on the pro-rated percentage of the ultimate target (94%) achieved by All Students. For example, a school with a graduation rate of 84.6 (i.e., 90% of the ultimate target of 94%) will earn 90 out of 100 points.

Data Source: PSIS Registration and Collections

INDICATOR 9: GRADUATION – SIX YEAR ADJUSTED COHORT GRADUATION RATE – HIGH NEEDS

Indicator	Max Points
Percentage of first-time 9th graders who graduate with a regular high school diploma in six years or less – *High Needs* group	100

Description (What): The six-year adjusted cohort graduation rate represents the percentage of first-time 9th graders who graduate with a regular high school diploma in six years or less. It is based on the nationally consistent method defined in 34 C.F.R. § 200.19 (73 FR 64508 (Oct. 29, 2008)).

Rationale (Why?): For a variety of reasons, some students (e.g., English learners/multilingual learners who newly arrive in the country in middle/high school, students from low income families who may need to work part-time to support their family, student with disabilities who receive transition-only services to facilitate the transition from school to adult life) benefit from having an extra year or two to complete high school. Unlike in the four-year rate, the graduation accomplishment of these students can be counted as a success in the six-year rate. The results below for the 2019 cohort illustrate why the six-year is a more fair and complete reflection of the successes of all students and student groups.

Four-, Five-, and Six-year Graduation Rates for the 2020-21 Graduation Cohort

Category	4-Year Rate	5-Year Rate	6-year Rate
All Students	89.6	91.8	92.4
English Learner/Multilingual Learner	73.6	79.2	80.4
Special Education	69.1	75.3	78.2
Eligible for Free Meals	80.4	84.4	85.4
High Needs	81.7	85.5	86.6
Female	92.8	94.5	94.9
Male	86.6	89.3	90.1
American Indian or Alaska Native	91.3	93.9	93.0
Asian	96.3	97.4	97.6
Black	81.6	85.8	86.6
Hawaiian or Pacific Islander	100.0	100.0	100.0
Hispanic	82.3	85.9	86.7
Two or More Races	89.3	91.1	91.6
White	94.0	95.3	95.8

Applicability (Who): This indicator is applicable to all districts and schools that offer grade 12.

Input/Feedback: The six-year rate elicits a very different reaction from that of the four-year rate. This extended graduation rate is viewed very favorably by all constituents and stakeholders.

Methodology (How): The six-year adjusted cohort graduation rate is based on the nationally consistent method as defined in 34 C.F.R. § 200.19 (73 FR 64508 (Oct. 29, 2008)). The ultimate target for all students and student groups remains at 94%. Districts/schools can earn up to 100 points based on the pro-rated percentage of the ultimate target (94%) achieved by High Needs students. For example, a school with a six-year graduation rate of 84.6 (i.e., 90% of the ultimate target of 94%) will earn 90 out of 100 points.

Data Source: PSIS Registration and Collection

Graduation Rate Gap: A district/school is identified as having a graduation rate gap if the size of its six-year graduation rate gap between the *High Needs group* and the *Non-High Needs group* (or 94% if that's lower) is at least one standard deviation greater than the statewide gap.

RESOURCES FOR REDUCING DROPOUT AND INCREASING GRADUATION

1. BUILDING A GRAD NATION: Progress and Challenge in Raising High School Graduation Rates. Renewed efforts are underway to bring the same energy and focus the nation has dedicated to boosting high school graduation rates to ensuring all students have future pathways that link high school, training, postsecondary education, job opportunities, and civic engagement (Everyone Graduates Center at the Johns Hopkins School of Education, 2023).

2. GradNation: For those working to increase high school graduation rates, GradNation provides data, insight and analysis; information about effective and promising practices; plus opportunities to connect and learn from one another.

3. The National Dropout Prevention Center/Network (NDPC/N)**.** Since 1986, the NDPC/N has served as a clearinghouse on issues related to dropout prevention and offered strategies designed to increase the graduation rate in America's schools. The organization is a well-established national resource for sharing solutions for student success.

4. The National Mentoring Partnerships provides resources or implementing a mentor program and research-based evidence of the power of mentoring on improving absenteeism, improving attitudes toward school, and likelihood of enrolling in college. Resources include tips for starting a mentoring program and elements of effective practices for mentoring.

5. The *CSDE Transition Bill of Rights for Parents of Students Receiving Special Education Services* will help parents and students with an individualized education program (IEP) understand their rights under both Federal and State laws, as well as other important issues regarding the transition to life after high school.

6. The U.S. Department of Education, Office of Special Education and Rehabilitative Services document, *A Transition Guide To Postsecondary Education And Employment For Students And Youth With Disabilities*, developed to aid in a seamless transition from school to post-school activities, addresses transition planning: opportunities and programs; transition services and requirements, as authorized by IDEA and the Rehabilitation Act; education and employment options for students and youth with disabilities after leaving secondary school.

Where can I get more information?

QUESTIONS	CSDE CONTACTS
Resources, Strategies, and Best Practices for School Counselors to use in supporting all students	Kimberly Traverso Phone: 860-807-2057 Email: kimberly.traverso@ct.gov
Resources, Strategies, and Best Practices for Supporting Students with Disabilities	Jay Brown Phone: 860-713-6918 Email: jay.brown@ct.gov
Resources, Strategies, and Best Practices for Supporting English Learners/Multilingual Learners	Megan Alubicki Flick Phone: 860-713-6786 Email: megan.alubicki@ct.gov
Data Collection, Rate Calculations, and Reporting	Francis Apaloo Phone: 860-713-6832 Email: francis.apaloo@ct.gov

INDICATOR 10: POSTSECONDARY ENTRANCE RATE – ALL STUDENTS

Indicator	Max Points
Percentage of graduating class who enrolled in a 2- or 4-year postsecondary institution any time during the first year after high school graduation	100

Description (What): This rate is the percentage of all students in a graduating class who enrolled in a 2- or 4-year postsecondary institution any time during the first year after high school graduation.

Rationale (Why?): In addition to evaluating the extent of preparation for college/career, it is important to also evaluate attainment of that outcome.

Applicability (Who): This indicator is applicable to all districts and schools that offer grade 12.

Input/Feedback: Some practitioners are supportive of this indicator because it encourages school staff to extend their efforts beyond the school building to support student success. Others are less supportive because they consider this indicator as being shaped more by factors beyond the influence of school staff (e.g., personal choice, family economics); some of these objectors are amenable to its inclusion so long as it is not weighted too heavily and the ultimate target is reasonable.

The CSDE has heard from the field and acknowledges data limitations associated with this indicator. Currently, the Department does not have access to information about important post-secondary outcomes for students including but not limited to evidence of full-time employment immediately following graduation, entry into the military, enrollment in private occupational schools, and transition to apprenticeships.

Methodology (How): Points are awarded based on the percentage of All Students from the graduating class who enter a 2- or 4-year postsecondary institution any time during the first year after high school graduation. Points are prorated based on the percentage of the ultimate target (75%) achieved.

Data Source: PSIS and National Student Clearinghouse

RESOURCES FOR IMPROVING POSTSECONDARY ENTRANCE

1. CT College Bound Initiative: Connecticut College Bound (#CTCollegeBound) is an initiative created through partnership of the Connecticut State Department of Education, the College Board, the Connecticut Association of Financial Aid Administrators (CAPFAA), New Haven Promise, the Connecticut Conference of Independent Colleges, the Connecticut State Colleges & Universities, and UConn. These organizations are joining forces to host FREE virtual and in-person FAFSA workshops for students and their families. Visit FAFSA Connecticut (fafsact.org) to register for these events.

2. Dual Credit Opportunities: Increasing dual credit opportunities in all districts will maximize the affordability of higher education for Connecticut students and prepare students for success in college or careers. Learn more about dual credit partnerships and opportunities in Connecticut.

3. District Guidance for Developing an Advanced Course Participation Policy: Research shows that students who enroll in challenging coursework in high school are more likely to graduate and are better positioned for post-secondary success (Morgan, Zakhem, and Cooper 2018; Shields et al. 2021). Every high school's program of studies should provide a variety of challenging options for all students including courses that allow students to earn college credit while in high school, work-based learning opportunities, and programs that lead to industry-recognized credentials for high-wage, high-skill, and in-demand careers.

4. Career Clusters, Career Pathways, Programs of Study: There are 16 Career Clusters found in the National Career Clusters Framework which were developed in 1996 by the U.S. Department of Education, the Office of Vocational and Adult Education (OVAE), the National School-to-Work Office (NSTWO) and the National Skill Standards Board (NSSB). These clusters provide standardization and consistency across an ever-evolving labor market.

5. This tenth annual High School Benchmarks Report provides the updated data on high school graduates' college access, persistence, and completion outcomes. This report was designed with several features particularly tailored to secondary education practitioners and policymakers. First, results presented in this report update our last years' findings on high school graduates' enrollment in a college or university, persistence from first to second year, and eventual completion of a postsecondary degree. As a result, these metrics provide the relevant benchmarks that secondary education practitioners can use to evaluate and monitor progress in assisting students to make the transition from high school to college (National Student Clearinghouse, 2022).

6. Every year, an estimated 10-40% of high school students with every intention of enrolling in college the following fall never actually do so. Students most underrepresented on college campuses, e.g., students of color, students from low-income backgrounds, and first-

generation students, are the most susceptible to challenges of this "summer melt" (National College Attainment Network, 2020)

a. Summer Melt Resource List
b. Summer Melt Toolkit
c. K-12 Advising Calendar

7. Major cities across the country have been exploring different ways of supporting their students from graduation to college entrance for many years. The uAspire organization focuses on college affordability, FAFSA completion, and assisting students with developing a plan to pay for college, one of the most formidable barriers to college enrollment. uAspire has served Boston-area students for three decades and expanded nationally ten years ago.

8. The Strategic Data Project's *Summer Melt Handbook* provides users with a range of different approaches to effectively measure and develop systems to combat summer melt and improve college enrollment. The handbook acknowledges that school districts have different resources available, so the suggested interventions range from well-developed partnerships with community organizations to simple digital outreach customized and targeted to students and their families. The handbook includes a variety of case studies to showcase the impact of different strategies and provides practical resources including sample templates used for tracking and outreach.

9. Achieve is an independent, nonpartisan, nonprofit education reform organization strongly committed to ensuring all students graduate from high school "college and career ready" or, in other words, fully prepared academically for any and all opportunities they choose to pursue. To achieve this goal, states need a coherent and aligned policy framework anchored in the goal of graduating all students ready for credit-bearing, college-level coursework and the 21st-century workplace. The policy framework must, at a minimum, include college- and career-ready standards, graduation requirements, assessments, and data and accountability systems and have strong alignment with policies set in the postsecondary and economic development sectors.

10. The Free Application for Federal Student Aid (FAFSA®) serves as a critical access milestone in preparing high school students to pursue a higher education. Administered by the U.S. Department of Education's Office of Federal Student Aid, the FAFSA provides hundreds of millions of dollars in aid to Connecticut students. This is critically important, in part, because more than 70 percent of Connecticut jobs require some form of education beyond a high school diploma. While many students aspire to a higher education, less than half of Connecticut high school graduates will earn a college degree within six years of graduating from high school. College enrollment and completion data also reveal opportunity gaps for historically marginalized student groups. Completion of the FAFSA is one of the best predictors of whether or not seniors will enroll in college; students who complete the FAFSA are 84 percent more likely to immediately enroll in postsecondary education. All schools can see real-time FAFSA completion data for their senior class through EdSight Secure. The

public EdSight dashboard representing school and district level completion data is also available.

Best Practices for Boosting FAFSA Completion Rates

Best Practice	Summary of Practices	Potential Expenses
FAFSA Task Force	Collaborative team of counselors and teachers providing one-on-one support to students and families with FAFSA completion. • Group of educators with caseload of students assigned • Coordinator of program • Biweekly meetings with team to review data, celebrate successes and set next steps with student caseload	Staff stipends/hourly rate Correspondence to families sharing the strategy.
Student Incentives & Celebrations	Student prize drawings and giveaways to increase student engagement with FAFSA completion, including senior class celebrations for those who completed the FAFSA. • FAFSA breakfast • Refer a friend • Monthly raffles • Food Truck Celebration • Classroom Competitions	• Flyers/marketing • Swag/incentives • Refreshments
Family Engagement	Communication with families to provide additional information and resources to educate families on the importance of FAFSA completion. • Saturday family FAFSA workshops • Evening events • Communication to parents (letters from coaches, email blasts for events, postcards)	• Flyers/marketing • Guest Speakers on Financial Aid/FAFSA • Refreshments • Incentives/Raffles
Culture-Building Activities	Consistent opportunities to establish FAFSA culture among school communities. • Posters with financial aid vocabulary • Photos displayed when applications completed • Classroom competitions (FSA ID, Applications completed) • Weekly announcements • Staff Awareness • Classroom Activities (Financial Aid Bingo w/prizes)	• Posters for hallways (multiple languages) • T-shirts for completed applications • Checklists for teacher classrooms
Marketing & Promotion	Intentional spaces in school buildings to promote and highlight FAFSA completion and FAFSA Campaign initiatives. • Postcards home • Posters in classrooms • Flyers to promote events and incentives • FAFSA family toolkit • T-shirts for students/staff #FAFSA to promote • School Announcements • Weekly raffles announced • Announcements/tables at sporting events	• Poster/postcard printing • Mailing expenses • T-shirts to promote completion • Flyers for parents/students at sporting events

Community Partnerships	Collaboration with community based organizations including community colleges to increase FAFSA completion and support team goals. • In-kind gifts from local businesses • FAFSA Fridays partnering with local community college • CAPFAA partnership	• Staff stipends/hourly rates for community outreach • Postcard/poster printing for collaboration events

More FAFSA resources can be found on https://portal.ct.gov/SDE/Performance/FAFSA-Completion.

11. Free Tuition at CT State (formerly PACT) is a program that allows Connecticut residents who meet certain eligibility criteria, including completing a FAFSA, to attend any of Connecticut's Community Colleges for up to four years free of mandatory tuition and fees. Awards are available regardless of family income level.

Where can I get more information?

QUESTIONS	CSDE CONTACTS
Resources, Strategies, and Best Practices	Kimberly Traverso Phone: 860-807-2057 Email: kimberly.traverso@ct.gov
Resources, Strategies, and Best Practices Related to FAFSA	John Scianimanico Phone: 860-713-6887 Email: john.scianimanico@ct.gov
Data Collection and Reporting	Danielle Bousquet Phone: 860-713-6832 Email: danielle.bousquet@ct.gov

INDICATOR 11: PHYSICAL FITNESS

Indicator	Max Points
Percentage of students meeting/exceeding the "Health Fitness Zone Standard" in all four areas of the CT Physical Fitness Assessment	50

Description (What): The Third Generation CT Physical Fitness Assessment (CPFA) is focused on health-related fitness. The program mirrors options in the President's Challenge Physical Fitness Program and FitnessGram/ActivityGram. The assessment includes four health-related physical fitness tests designed to assess muscular strength and endurance, flexibility, and cardiovascular fitness. Criterion-referenced standards associated with good health are used rather than normative standards. Since the early 1990's, the assessment has been administered to all students in grades 4, 6, 8, and 10. Effective 2016-17, high schools were granted flexibility (explained below) allowing the assessment to be administered in other grades. For an explanation of the rationale for the test items, descriptions of the standards, and answers to common question, see the *Test Administrator's Manual* for the assessment.

Rationale (Why?): The Connecticut State Board of Education is committed to the physical development of Connecticut's students and focused on outcomes and specific performance objectives that evidence attainment of that goal.

Applicability (Who): This indicator is applicable to all districts and schools that offer grades 4, 6, 8, or 10.

Input/Feedback: Though cardiovascular fitness has been shown to correlate with improved academic performance, stakeholders accept a metric that looks at standard-attainment in all four assessment areas because the focus is health/fitness. Some stakeholders wondered if this area was weighted too heavily.

High schools requested flexibility from the requirement to test Grade 10 students. In April 2016, CSDE announced the following increased flexibility to high schools regarding the administration and reporting of the CPFA results:

- Effective 2016-17, the expectation is that high school(s) must administer the physical fitness assessment at least once to every student *anytime* during Grades 9 through 12.
- The administration of the assessment does not necessarily need to be tied to student participation in a physical fitness class.
- High schools may also use summer school physical fitness courses as an opportunity to administer the assessment.

In September 2018, in response to requests from the field, the CSDE offered additional flexibility with regard to when the CPFA may be administered for all applicable grades. In the past, there were specific designated testing windows for the assessment. Educators shared that the testing windows limited schools and teachers in providing the best possible instruction. As a result, the granted flexibility allows for the administration to happen at any time during the school year.

Methodology (How): The calculation for this indicator consists of two parts. First, participation rate multipliers are established. The Connecticut Physical Fitness Assessment Individual Student Data Collection allows for a precise participation rate calculation in Grades 4, 6, and 8. The high school participation rate is an estimated participation rate based on the mode of the grade in which the high school students were reported.

- If the participation rate is at least 90%, the multiplier is 1. This standard was achieved by approximately 82% of all schools in 2014-15 when the metric was established.
- If the participation rate is at least 70% but less than 90%, the multiplier is 0.5 (approximately 11% of schools in 2014-15).
- If the participation rate is at least 50% but less than 70%, the multiplier is 0.25 (approximately 3% of schools in 2014-15).
- If the participation rate is less than 50%, no points will be awarded for this indicator.

The second step in the calculation is to determine the percentage of students meeting/exceeding the "Health Fitness Zone Standard" in all four areas of the CT Physical Fitness Assessment. The CSDE uses the individual student achievement data reported by districts to the CSDE using the Connecticut Physical Fitness Assessment Individual Student Data Collection. The ultimate target on this measure for a school or district is set at 75%.

Points are prorated based on the percentage of the ultimate target achieved as adjusted by the participation rate multiplier. Three examples are included below.

- Example 1: An elementary school has a 92% participation rate, and the percentage of those tested meeting the "Health Fitness Zone Standard" in all four areas is 76%. This school earns all 50 eligible points.
- Example 2: An elementary school has a 97% participation rate, and the percentage of those tested meeting the "Health Fitness Zone Standard" in all four areas is 70%. This school earns 93.3% of the possible 50 eligible points, which is 46.7 points.
- Example 3: An elementary school has a 55% participation rate, and the percentage of those tested meeting the "Health Fitness Zone Standard" in all four areas is 80%. This school earns 12.5 of 50 eligible points.

Data Source: Connecticut Physical Fitness Assessment Individual Student Data Collection and June PSIS (enrollment)

RESOURCES FOR IMPROVING PHYSICAL FITNESS

- Healthy and Balanced Living Curriculum Framework for Physical Education (CSDE) https://portal.ct.gov/-/media/SDE/Health-Education/Publications/Healthy_and_Balanced_Living_Curriculum_Framework_May_2022.pdf

- Instructional Framework for fitness education in physical education (SHAPE America) https://www.shapeamerica.org/publications/resources/default.aspx?hkey=55103b9c-7979-4a38-a483-c1669fefbc6e

- Guidelines for a Coordinated Approach to School Health https://portal.ct.gov/-/media/SDE/School-Nursing/Guidelines_CSH.pdf

- Linking Health to Achievement (Centers for Disease Control and Prevention) https://www.cdc.gov/healthyyouth/health_and_academics/pdf/health-academic-achievement.pdf

Where can I get more information?

QUESTIONS	CSDE CONTACTS
Resources, Strategies, and Best Practices	John Frassinelli Phone: 860-807-2050 Email: john.frassinelli@ct.gov
Data Collection and Reporting	Raymond Martin Phone: 860-713-6876 Email: raymond.martin@ct.gov

INDICATOR 12: ARTS ACCESS

Indicator	Max Points
Percentage of students in grade 9 through 12 participating in at least one dance, theater, music, visual arts, or media arts course in the school year	50

Description (What): This is an "access" metric that evaluates the extent to which students in high school participate in at least one arts course in the school year in dance, theatre, music, visual arts, or media arts.

Rationale (Why?): The Connecticut State Board of Education believes every student needs and deserves a high-quality education in the arts, including dance, music, theater and the visual arts. The arts are an integral component of the comprehensive curriculum provided to all Connecticut students at every grade.

Applicability (Who): This indicator is applicable to all districts and schools that offer any grade between 9 and 12, inclusive.

Input/Feedback: Traditionally, access to the arts has been measured through instructional hours offered. District/school administrators indicate that self-reported arts instructional hours are not comparable across schools. With the availability now of course-level data, the extent to which students avail of arts opportunities can be empirically known and compared across districts/schools.

The CSDE has heard from the field that students are engaged in important arts-related activities that are not captured through this indicator. The Department acknowledges that many students participate in school- or community-based art programs and activities outside of the school day. At this time, there is not a way to capture that information in this system.

Additionally, stakeholders requested that the definition of arts coursework be expanded to courses that incorporate the use of technology including computer-aided design. District and school leaders cite the importance of curricular alignment of all arts courses to the National Core Arts Standards. In keeping with this principle, beginning in 2021-22, Indicator 12 calculations include courses that align with the fifth artistic discipline of the National Core Arts Standards: Media Arts (e.g. Web Design, Interactive Game Design, Media Literacy).

Methodology (How): Points can be earned for the percentage of All Students in grades 9 through 12 who enroll in at least one "Fine and Performing Arts" course during the school year. These courses are categorized as Subject Area 5 courses and are listed as such in the School Courses for the Exchange of Data (SCED) Code file posted under the "Course Code" header on

the TCS help site: https://portal.ct.gov/SDE/Performance/Data-Collection-Help-Sites/TCS-Help-Site/Documentation. Points are prorated based on the percentage of the ultimate target achieved.

For detailed calculation rules, see the Appendix.

Data Source: June PSIS (to establish current year 9th through 12th graders) and Teacher Course Student (for course participation data)

RESOURCES FOR IMPROVING ACCESS TO THE ARTS

Why is arts access important?
A project of the Arts Education Partnership, *ArtsEdSearch* compiles and summarizes high quality research studies and explores implications for educational policy and practice. *ArtsEdSearch* is a rich resource for districts seeking to bolster their arts programming. Below is the organization's summary for arts access research:

> Research suggests that access to arts education provides an academic advantage to students. Students in schools with extensive and broad offerings in the arts not only are able to learn the arts—a core academic subject—but also do better on state and district standardized tests and are provided with more opportunities to achieve and succeed than students in schools lacking robust arts programs. Arts-rich schools graduate higher percentages of students, who in turn are more likely to complete college and to be socially active in their communities in adulthood. Studies also find that, in arts-rich schools—particularly schools that offer both discipline-based arts classes and integrated arts instruction—students are more engaged and teachers are more effective. Policymakers concerned with educational equity should consider access to rich arts education programming a significant factor in a high-quality education for all students. See more at: https://www.artsedsearch.org/

What can districts do to improve arts access?
From Snapshot Arts Access in U.S. Schools and the Arts Education Partnership:

- Provide a wider variety of arts courses at all levels, particularly high school (including theatre, dance, and/or media arts at advanced levels);
- Provide a higher level frequency of instruction at all levels;
- Provide comprehensive, standards-based instruction aligned vertically throughout the district, with classes taught by certified teachers;
- Engage the arts as a part of high quality support and professional learning programs for the entire educator workforce; and
- Increase opportunities to engage community partners in student art performances, projects, and mentorship.

1. **Standards**
    - CT Arts Standards http://portal.ct.gov/SDE/Arts/Connecticut-Arts-and-Standards
    - Position Statement on the Implementation of the Connecticut Arts Standards http://portal.ct.gov/SDE/Board/Position-Statements
    - A Guide to K-12 Program Development in the Arts https://portal.ct.gov/SDE/Arts/A-Guide-to-K12-Program-Development-in-the-Arts
    - Teaching to the Connecticut Arts Standards Webinars https://portal.ct.gov/SDE/Arts/Connecticut-Arts-and-Standards/Documents

2. **Arts Integration**
    - Connecticut Office of the Arts (COA) https://portal.ct.gov/DECD/Content/Arts-Culture/About_Arts_Office/About-Office-of-Arts;
    - Project Zero at Harvard http://www.pz.harvard.edu/
    - Dance and Science integrated plan http://www.edutopia.org/pdfs/stw/edutopia-stw-bates-artsintegration-lessonplanvelocityaccel-presenta.pdf
    - Mathematics and Art http://mason.gmu.edu/~jsuh4/math%20masterpiece.pdf
    - Kennedy Center resources for teaching in, through and about the arts - http://artsedge.kennedy-center.org/educators.aspx
    - Arts and Social Studies connections http://www.ctsocialstudies.org/
    - Career and Technical Education and the arts - CTE Gateway: California Educators Together (caeducatorstogether.org)

Other resources of note:

- KCAEEN Arts Education Advocacy Toolkit: http://www.kennedy-center.org/education/kcaaen/resources/ArtsEducationAdvocacyToolkit.pdf
- Music Education: http://www.nammfoundation.org/support-music
- Visual Arts Education: http://www.arteducators.org/advocacy
- Theatre Education: http://schooltheatre.org/advocacy
- Dance Education: https://www.ndeo.org/content.aspx?page_id=0&club_id=893257

Where can I get more information?	
QUESTIONS	**CSDE CONTACTS**
Resources, Strategies, and Best Practices	Irene Parisi Phone: 860-713-6852 Email: irene.parisi@ct.gov
Data Collection and Reporting	Keryn Felder Phone: 860-713-6833 Email: keryn.felder@ct.gov

APPENDICES

PERFORMANCE INDEX CALCULATION RULES

Overview

Subject-level indices are calculated at the student-, student group-, school- and district-levels. To calculate an index, a student's score in each subject based on the Smarter Balanced Assessment (SB), SAT, the CT Alternate Assessment (CTAA), the Next Generation Science Standards (NGSS) assessment, or the Connecticut Alternate Science (CTAS) must first be transformed into an index score. Detailed information regarding the calculation of each test specific score can be found in the section titled "Calculating the Performance Index".

Student Individual Performance Indices (IPIs) are derived separately for each subject (Math English Language Arts, and Science).

School Performance Indices (SPIs) are calculated by averaging all of a given school's valid and non-excluded Student IPIs for the applicable subject. Only students enrolled in the school on October 1st of the testing year are included in SPI calculations.

District Performance Indices (DPIs) are calculated by averaging all of a given district's valid and non-excluded Student IPIs for the applicable subject. Note that students who are enrolled in 'Programs' or are outplaced are included in a given Public School Information System (PSIS) "Reporting District's" DPI. Only students enrolled in the district on October 1st of the testing year are included in DPI calculations.

- Connecticut excludes scores of "recently arrived" ELs from SPI and DPI calculations. "Recently arrived" ELs are defined as any EL enrolled for the first time in a U.S. school for fewer than 24 calendar months at the time of testing. Assessment scores for ELs who have attended U.S. schools for more than two years are included in the SPI and DPI calculations. For additional information, please see the section titled *Connecticut Assessment and Accountability Reporting of "Recently Arrived" English Learner/Multilingual Learners*.

Participation Rates are calculated by dividing the number of students who attempted and/or completed the assessment by the total number of students who should have been administered the subject-level assessment. Details regarding whether students were participants or non-participants is contained in the section titled "Participation and Achievement Inclusion Rules."

File Preparation

All demographic data included in the assessment files were extracted from the CSDE frozen PSIS Registration File on the last day of the testing window. Only students in grades 3 through 8, and grade 11 are included in calculations for the standard and alternate ELA and mathematics assessments. Students in grades 5, 8, and 11 are included in calculations for the standard and alternate science assessments.

- English Learner (EL) "Flex" Group:
  As part of the Every Student Succeeds Act (ESSA), students who do not belong to the EL student group at the time of testing but who have been members of the EL group any time up to four years prior are included in the EL flexibility group used for Indicator 1 calculations. The previous student group status is determined using the EL PSIS Collection variable from the October, January and June collections of the current and four prior school years. Additionally, the testing demographic file is reviewed for all available and relevant years. (Note: The January PSIS collection was discontinued in 2017-18.)

The completion of a Learner Characteristics Inventory (LCI) was required for participation in any alternate assessment through 2018-19. Any CTAA student record or Connecticut Alternate Science Assessment (CTAS) without a completed LCI was invalidated. These students were included as non-participants on the standard assessment. In cases where a standard assessment record existed for a student with a completed LCI, the standard assessment record was invalidated and the student was included as a non-participant on the alternate assessment.

Participation and Achievement Inclusion Rules

Accountability reporting requires a series of decision rules that specify whether a student is included in performance index and participation rate calculations. The tables on the following pages provide a comprehensive list of the assessment status rules used for accountability calculations for all summative assessments.

Smarter Balanced Assessment Data File Rules

Assessment	Test Status	Attempted Flag	Participation Numerator (Total Tested)	Participation Denominator (Total Students)	Accountability Achievement
Smarter Balanced ELA	Completed (submitted)	Y= Items completed	Yes: P	Yes	Yes: SS
	Expired (started, not submitted)		Yes: P	Yes	Yes: SS
	Invalidated		Yes: P	Yes	exclude
	Completed	P= Logged in, did not complete any items	No: NP	Yes	exclude
	Expired		Yes: P	Yes	Yes: LOSS
	Invalidated		Yes: P	Yes	exclude
	Invalidated	<> Did not log in to test	Yes: P	Yes	exclude
	No record in testing file		No: NP	Yes	exclude
Smarter Balanced MATH	Completed (c/s, s/s)	Y	Yes: P	Yes	Yes: SS
	Expired (e/c, e/e)		Yes: P	Yes	Yes: SS
	Expired (e/i)		Yes: P	Yes	exclude
	Invalidated (i/i)		Yes: P	Yes	exclude
	Completed (c/i)	P	Yes: P	Yes	exclude
	Expired (e/c, e/e, e/r, e/i)		Yes: P	Yes	Yes: LOSS
	Invalidated (i/i)		Yes: P	Yes	exclude
	Completed (c,s/i)	N	Yes: P	Yes	exclude
	Expired (e/n)		No: NP	Yes	exclude
	Invalidated (i/i)		Not Applicable		
	Pending (c/n)		No: NP	Yes	exclude
	Pending (c/r)		Yes: P	Yes	exclude
	Invalidated (i/i)	<>	Yes: P	Yes	exclude
	No record in testing file		No: NP	Yes	exclude

Legend

Test Status:

Completed = exam completed and submitted to be scored

Expired = exam started but not submitted

Invalidated = test invalidated

Pending = One segment of the two part math exam never started or was reset by the test administrator (Pending exists for Smarter Balanced Math only)

<> = Blank, no exam started by student

SUB-Statuses for Math exam (Sub-status is required because the exam has two segments: Multiple Choice and Performance Task)

c = Completed; subtest submitted to be scored

e = Expired; subtest not submitted

i = Subtest invalidated

r = Reset; subtest reset after started. Temporary test segment status only (typically occurs when appropriate accommodations have not been set in TIDE)

n = No Activity; subtest status only. Never started/logged into the subtest; displays as blank.

s = Scored; Completed subtest

Attempted Flag:

Y = student attempted items within the exam

P = student logged into exam but did not complete any items

<> = Blank, no exam started by student OR exam invalidated before submitted for scoring

SS = Scale Score included in accountability calculations
LOSS = Record is assigned the Lowest Obtainable Scale Score (LOSS) and included in accountability calculations
Exclude = Record is excluded from inclusion in accountability calculations

Connecticut Alternate Assessment (CTAA) Data File Rules

Test Status	Attempted Flag	Participation Numerator (Total Tested)	Participation Denominator (Total Students)	Accountability Achievement
Completed	Y	Yes: P	Yes	Yes: SS
Expired		Yes: P	Yes	Yes: SS
Invalidated		Yes: P	Yes	exclude
Completed	P	Not Applicable		
Expired		Yes: P	Yes	Yes: LOSS
Invalidated		Yes: P	Yes	exclude
< >	< >	No: NP	Yes	exclude

Next Generation Science Standards Assessment (NGSS) and the Connecticut Alternate Science Assessment (CTAS) Data File Rules

Test Status	Attempted Flag	Participation Numerator (Total Tested)	Participation Denominator (Total Students)	Accountability Achievement
Completed	Y	Yes: P	Yes	Yes: SS
Expired		Yes: P	Yes	Yes: SS
Invalidated		Yes: P	Yes	exclude
Expired	P	Yes: P	Yes	Yes: LOSS
Invalidated		Yes: P	Yes	exclude
< >	< >	No: NP	Yes	exclude

SAT Data File Rules

Number of Subject-Level Test Items Answered	Attempted-ness	SAT Student Participated Indicator = Y	Participation Numerator (Total Tested)	Participation Denominator (Total Students)	Accountability Achievement
>=1	Y	Y	Yes: P	Yes	Yes: SS
0	P		Yes: P	Yes	LOSS
< >	< >	N	No: NP	Yes	exclude
< >	< >	< >	No: NP	Yes	exclude

PERFORMANCE INDEX METHODOLOGY

Background

Connecticut first implemented a performance index for school and district accountability purposes in 2012. The performance index was calculated by converting Connecticut Mastery Test (CMT) and Connecticut Academic Performance Test (CAPT) achievement levels to a scale of 0 to 100. This approach recognized and valued improvement in student achievement at all performance levels, not just from 'not proficient' to 'proficient'. It raised expectations by setting the target that all students perform at the higher 'goal' level versus the 'proficient' level.

While practitioners were generally pleased with this index, they wondered if using scale scores to calculate the index instead of achievement levels would yield an even more precise measure of student achievement. Consequently, Connecticut State Department of Education (CSDE) staff consulted with faculty from the University of Connecticut to explore this possibility. The explanation that follows outlines the specific methodology for converting scale scores (or raw scores for the alternate assessments) for the various state assessments into Connecticut's performance index.

Scale Scores Improve Index Calculations

Individual student results from the Smarter Balanced and SAT English language arts (ELA) and Mathematics assessments, and the Next Generation Science Standards (NGSS) assessment are reported in terms of scale scores and achievement levels. Results from the Connecticut Alternate Assessment (CTAA) and the Connecticut Alternate Science assessment (CTAS) are reported using raw scores and achievement levels. Achievement levels unique to each test are used as a way of categorizing student performance in a content area. The levels represent broad groupings of performance that are developed based on the judgment of content experts. Operationally, the levels are used as a starting point in discussing a student's test scores; the scale scores (Smarter Balanced, SAT, and NGSS) and raw scores (CTAA and CTAS) are more precise measures of a student's achievement on the performance continuum.

For district- and school-level accountability, Connecticut uses student scale scores (Smarter Balanced, SAT, and NGSS) and raw scores (CTAA and CTAS), not achievement levels, to calculate performance index scores in ELA, mathematics, and science. This approach to performance index calculation acknowledges that the assessments were not developed to solely classify students into broad achievement levels. On the contrary, they were developed to provide a more precise measure of student performance.

This approach of mapping scale scores instead of achievement levels to index values is consistent with the position paper released by the Smarter Balanced Assessment Consortium wherein they assert that

> *"…they [achievement levels] will be less precise than scale scores for describing student gains over time or changes in achievement gaps among groups, since they do not reveal*

changes of student scores within the bands defined by the achievement levels. Furthermore, there is not a critical shift in student knowledge or understanding that occurs at a single cut score point. Thus, the achievement levels should be understood as representing approximations of levels at which students demonstrate mastery of a set of concepts and skills, and the scale scores just above and below an achievement level as within a general band of performance."

(Position paper available here: https://portal.smarterbalanced.org/library/en/interpretation-and-use-of-scores-and-achievement-levels.pdf)

The index calculation is more sensitive to changes in student performance over time and provides an improved assessment of aggregate growth of students at the group, school, and district levels.

The performance index calculation uses a 0-110 scale. Important considerations in defining the index are that it: (a) provides an aggregate measure of subject-specific performance across grades; (b) allows for a more accurate comparison of subgroup, school, and district performance, not only within a year, but also across years; (c) encourages a focus on all students, not just those at the cusp of an achievement level; and (d) ensures that the expected index performance of 75 falls solidly in the desired achievement level (i.e., Level 3).

To meet these requirements for ELA and mathematics, the individual student index will be set to zero if a student obtains the lowest obtainable scale score (LOSS) for the student's grade, and 110 if the student obtains the highest obtainable scale score (HOSS). For the NGSS assessment, the individual student index is set to zero if a student obtains a score at or below the "low range" for the student's grade, and 110 if the student obtains a score at or above the "high range." Although the highest index value at the school, district, and group level is 100, assigning scores ranging from 100 to 110 to students who are the highest performing has the effect of rewarding these schools and districts by weighting these scores additionally in the computation of the subject-specific performance index.

Further information is provided in Tables 1-5, including the lowest and highest obtainable scores for Smarter Balanced ELA and Mathematics, the Connecticut Alternate Assessments (CTAA) in ELA and Mathematics, SAT Evidence-based Reading and Writing and Mathematics, and the Connecticut Alternate Science (CTAS) assessment. The scores defining the low and high ranges of the scale for the NGSS assessment are also included.

Calculating the Performance Index

The formula used to convert student scale scores (Smarter Balanced, CTAA, and SAT) to an index value is presented below.

$$\textbf{Index} = \frac{\boldsymbol{Scale\ Score - LOSS}}{\boldsymbol{Range}} * \mathbf{110}$$

The following examples use information from Tables 1-3 to convert student scores to index values.

If a Grade 3 student earns a vertical scale score of 2400 on the ELA portion of the Smarter Balanced assessment, the index value for this score is 61.8. The calculation is performed as follows:

$$\textbf{Index} = \frac{\mathbf{2400 - 2114}}{\mathbf{509}} * \mathbf{110} = \mathbf{61.8}$$

If a Grade 8 student earns a scale score of 1276 on the Math portion of the CTAA assessment, the index value for this score is 92.9. The calculation is performed as follows:

$$\textbf{Index} = \frac{\mathbf{1276 - 1200}}{\mathbf{90}} * \mathbf{110} = \mathbf{92.9}$$

Finally, when a Grade 11 student earns a Mathematics scale score of 590 on the SAT, the index value for the score is 71.5. The calculation is performed as follows:

$$\textbf{Index} = \frac{\mathbf{590 - 200}}{\mathbf{600}} * \mathbf{110} = \mathbf{71.5}$$

The formula used to convert student scale scores from the NGSS assessment to an index value is presented below.

$$\textbf{Index} = \frac{\boldsymbol{Scale\ Score - Low\ Range\ Score}}{\boldsymbol{Scale\ Score\ Range}} * \mathbf{110}$$

The following examples use information from Table 4 to convert student NGSS scale scores to index values.

If a Grade 5 student earns a scale score of 525 on the NGSS assessment, the index value for this score is 82.5. The calculation is performed as follows:

$$\textbf{Index} = \frac{\mathbf{525 - 405}}{\mathbf{155}} * \mathbf{110} = \mathbf{85.2}$$

When a Grade 11 student earns a scale score of 1020 on the NGSS assessment (a score below the "low range" score), the listed "low range" score is used in place of the student's earned

score of 1020. The index value for any scale score at or below the "low range" score is 0. The calculation is performed as follows:

$$\textbf{Index} = \frac{\textbf{1030} - \textbf{1030}}{\textbf{130}} * \textbf{110} = \textbf{0}$$

For students earning scores above the listed "high range" score, the high range value is used in the index calculation.

The index calculation using CTAS raw scores is similar. The individual student index will be set to zero if a student earns the lowest obtainable raw score of 0, and 110 if the student obtains the highest possible raw score, which varies by grade. All CTAS raw score ranges are included in Table 5.

The formula used to convert student raw scores from the CTAS to an index value is presented below.

$$\textbf{Index} = \frac{\textbf{\textit{Raw Score}} - \textbf{\textit{Lowest Possible Raw Score}}}{\textbf{\textit{Range}}} * \textbf{110}$$

The following examples use information from Table 5 to convert student raw scores to index values.

If a Grade 5 student earns a raw score of 30 on the CTAS, the index value for this score is 37.5. The calculation is performed as follows:

$$\textbf{Index} = \frac{\textbf{30} - \textbf{0}}{\textbf{88}} * \textbf{110} = \textbf{37.5}$$

If a Grade 8 student earns a raw score of 54 on the CTAS, the index value for this score is 70.7. The calculation is performed as follows:

$$\textbf{Index} = \frac{\textbf{54} - \textbf{0}}{\textbf{84}} * \textbf{110} = \textbf{70.7}$$

Highest and Lowest Obtainable Scores and Score Range Tables

Table 1.
Smarter Balanced ELA and Mathematics
Highest (HOSS) and Lowest (LOSS) Obtainable Scale Scores and Range

Subject	Grade	LOSS	HOSS	RANGE	Subject	Grade	LOSS	HOSS	RANGE
ELA	3	2114	2623	509	MATH	3	2189	2621	432
	4	2131	2663	532		4	2204	2659	455
	5	2201	2701	500		5	2219	2700	481
	6	2210	2724	514		6	2235	2748	513
	7	2258	2745	487		7	2250	2778	528
	8	2288	2769	481		8	2265	2802	537

Table 2.
Connecticut Alternate Assessment (CTAA) ELA and Mathematics
Highest (HOSS) and Lowest (LOSS) Obtainable Scale Scores and Range

Subject	Grade	LOSS	HOSS	RANGE
ELA & MATH	3	1200	1290	90
	4	1200	1290	90
	5	1200	1290	90
	6	1200	1290	90
	7	1200	1290	90
	8	1200	1290	90
	HS	1200	1290	90

Table 3.
SAT Evidence-based Reading and Writing and Mathematics Highest (HOSS) and Lowest (LOSS) Obtainable Scale Scores and Range

	LOSS	HOSS	RANGE
Evidence-Based Reading and Writing	200	800	600
Mathematics	200	800	600

Table 4.
Low Range and High Range Scale Scores and the Scale Score Range by Grade Level for the NGSS Assessment

Grade	Low Range Score	High Range Score	Scale Score Range
5	405	560	155
8	715	860	145
11	1030	1160	130

Table 5.
Lowest and Highest Possible Raw Scores and the Raw Score Range by Grade Level for CTAS

Grade	Lowest Possible Raw Score	Highest Possible Raw Score	Range
5	0	88	88
8	0	84	84
11	0	84	84

CALCULATION RULES FOR INDICATOR 5: PREPARATION FOR POSTSECONDARY AND CAREER READINESS - COURSEWORK

Description:

Pro-rated percentage of students in grades 11 and 12 participating in *at least one* of the following: (a) Two courses in Advanced Placement (AP), International Baccalaureate (IB) and/or dual enrollment; (b) two courses in one of seventeen Career and Technical Education (CTE) categories; **or** (c) two workplace experience courses in any area. This indicator has a maximum of 50 points, and will be assessed in schools that teach eleventh and twelfth grade students. The target percentage for this indicator is 75%.

Formula for Calculation:

Each student, i, will receive an individual score as follows:

$$IS5_i = \begin{cases} 0 & \text{has not completed at least one of the requirements} \\ 1 & \text{completed at least one of the requirements} \end{cases}.$$

It is important to note when evaluating whether or not a student has met the requirements for indicator 5 that the three options cannot be mixed and matched. A student who has taken one AP course and one CTE class has **not** met the requirements for indicator 5.

These individual scores will then be attributed to the schools attended by each student. School scores will then be calculated by taking the sum of the student scores, dividing by the total number, N, of eleventh and twelfth grade students. Points will be assigned as a prorated percentage of the target, out of a maximum of 50, as indicated in the formula below:

$$\text{School Score} = Min\left(\frac{\sum IS5_i}{N} \cdot \frac{50}{0.75}, 50\right).$$

Data Flow Steps: Overview

Indicator 5 is calculated using the following data steps:

1. Course completion data is collected from the districts, then cleaned and validated.
2. The data is further sorted to check for any potential duplicates by Student ID, School ID, Course Description, or School Year. Resolved duplicates are combined with unique outcomes as well as validated data from previous school years.
3. All students meeting at least one of the requirements listed above are flagged in the data. The number of students flagged is counted for each school and district.
4. The total number of eleventh and twelfth graders on which each school and district is being evaluated is determined using the June PSIS collection from that year.
5. The number of students meeting the requirements for indicator 5 is divided by the total number of eleventh and twelfth grade students. If the ratio is 75% or greater, the school

receives the maximum score of 50 points. If the score is less than 75%, the score is then divided by 0.75 and multiplied by 50 to get their prorated score.

Data Flow Steps in Detail:

Step 1: Course completion data is collected from the districts, then cleaned and validated.

- *School districts submit course completion data.*

School districts use National Center for Education Statistics (NCES) course classification codes[1] to submit their course completion data using the Teacher-Course-Student (TCS) Data Collection Site[2]. Collection takes place between March and July at the end of each school year, however updates and corrections can be made up to the freeze date in mid-August to include summer school grades in the indicator calculations.

- *CSDE extracts data from TCS Data Collection Site.*

Before extracting data from TCS, the following data tables are loaded for reference[3]:

1. *Dual Enrollment Codes*: Each observation represents one university offering dual enrollment.
    - **Variables**: TCS Dual Enrollment Code (Primary Key), Dual Enrollment Codes, University Name, University Description
2. *NCES Course Codes:* Each observation represents one potential course that could be offered.
    - **Variables:** TCS Course ID (Primary Key), NCES Course Description Code (five digits), Subject Area Code (two digits), Course ID Code (three digits), Subject Area Name, Course Name, Course Description, Elementary Flag (0 or 1), Secondary Flag (0 or 1), CSDE Created Course Flag (0 or 1)
3. *NCES Course Levels:* Each observation represents a level of courses that could be offered.
    - **Variables:** TCS Course Level (Primary Key), NCES Course Level Code (one character), Level Name, Level Description, Elementary Flag (0 or 1), Secondary Flag (0 or 1)
4. *Course Outcomes*: Each observation represents a potential course outcome, such as pass or fail.
    - **Variables**: TCS Grade Status (Primary Key), Grade Status Codes (one or two characters), Grade Status Name, Grade Description

[1] For more information on NCES Course Classification Codes, see (secondary and non-secondary respectively): files.eric.ed.gov/fulltext/ED515113.pdf and nces.ed.gov/pubs2011/2011801.pdf.
[2] For more information about TCS Data Collection, see https://portal.ct.gov/SDE/Performance/Data-Collection-Help-Sites/TCS-Help-Site/Documentation.
[3] Throughout this document, variables and tables used exclusively for the purpose of managing updates are not included, such as district certification and last modification date/by whom. Also, variable and table names were modified to provide a descriptive understanding of the tables described and may not necessarily represent the order in which the variables appeared in the table.

5. *Teacher Type:* Each observation represents a type of teacher that could be teaching a course.
    - **Variables:** TCS Teacher Type (Primary Key), Teacher Type Code (three digits), Teacher Type Description, Teacher Type Category, Teacher Type SubClass, Educator Identification Number Requirement Flag (0 or 1)

The following data tables can then be extracted from the TCS Data Collection Site:

6. *Course Offerings:* Each observation represents one course section in one school in one district.
    - **Variables:** TCS Course Offering ID (Primary Key), District ID, School/Facility ID, TCS Course ID (PK from Table #2), NCES Course Level (PK from Table #3), NCES Course Code, Available Credit, Grade Span (Low and High), Sequence (Location and Limit), and Section Code.
7. *Course Enrollment:* Each observation represents one student enrolled in one section of a course at one school in one district. Many students, especially in secondary, will have multiple observations.
    - **Variables:** Record ID (Primary Key), TCS Student ID (PK from Table #8), Course Offering ID (PK from Table #6), TCS Grade Status (PK from Table #4), TCS Dual Enrollment Code (PK from Table #1), Letter Grade, Credits Earned, and Course Sessions (Attended and Total)
8. *Student Matching:* Each observation represents one matching of a CT State Student ID (SASID), a District Student ID, and/or a Registration ID.
    - **Variables**: TCS Student ID (Primary Key), SASID, District ID, School ID, Registration ID, District Student ID
9. *Teacher Matching:* Each observation represents one matching of an Educator Identification Number (EIN) to a District Teacher ID.
    - **Variables:** TCS Teacher ID (Primary Key), EIN, District ID, District Teacher ID
10. *Course Teaching:* Each observation represents one teacher teaching in a section in a school in a district. As some sections may be co-taught, some sections may have multiple observations.
    - **Variables:** Record ID (Primary Key), TCS Teacher Type (PK from Table #5), TCS Course ID (PK from Table #2), and TCS Teacher ID (PK from Table #9)

- *Data is cleaned, filtered, and prepared for use.*

1. Data tables are filtered to remove non-public schools, universities, etc.
2. Data tables are joined with existing CSDE data to validate
    a. School and district identification numbers, either missing, incorrect, or invalid
    b. SASIDs, either non-uniquely assigned, incorrect, missing, or invalid
    c. EINs, either incorrect, missing, or invalid
    d. Matching of SASIDs and EINs with most recent school and district IDs
3. Course offering data is joined with course enrollment data and student data. In cases where the available credit is missing or less than 1.0, error checking is completed to determine

whether it is a partial year course, a middle or elementary school course (which would not assign credit), or a potential error.

4. At each stage, questionable observations are filtered into a separate data table for error checking.

Resulting table from Step 1: Each observation contains one course outcome for one student.

- **Variables:** TCS Student ID (PK from Table #8), District ID, School ID, TCS Course ID (PK from Table #7), Grade, Grade Status Code, Credits Earned, Dual Enrollment Flag (0 or 1), Dual Enrollment Code

Step 2. The data is further sorted to check for any potential duplicates by Student ID, School ID, Course Description, or School Year. Resolved duplicates are combined with unique outcomes as well as validated data from previous school years.

Duplicate entries in the course offerings are resolved, either by aggregating marking periods into a full-year course or taking a single entry of several, depending on whether or not the start dates are the same. Once resolved to single course observations, these entries can be re-joined to the non-duplicated courses to create a data table with all courses. Students are then attributed to their current school using the June Public School Information System (PSIS) collection[4]. This data is then joined with similar data tables containing course completion information from the previous four school years so that four years of a twelfth grade student's career can be taken into account, so long as the previous years of data belong to the same school as their current school.

Step 3. All students meeting at least one of the requirements listed above are flagged in the data. The number of students flagged is counted for each school and district.

The three distinct ways in which a student can meet the requirements of indicator five necessitates three sets of criteria to evaluate within the data.

- *AP, IB, and/or Dual Enrollment Courses:*

As AP and IB courses do not have a unique code, they are flagged using the NCES course name. Dual enrollment courses already have a flag in the enrollment table. The number of AP/IB/dual enrollment flags for each student-school combination is counted. When the count is two or greater, that student is considered to have met the requirement for that school on indicator five. AP/IB courses are flagged by the NCES course name. Student records for a course in which the student received both college and high school credit are flagged by having a dual enrollment code. (Note: Dual Enrollment courses, unlike AP/IB courses, are flagged at the student level. This means that, in the same course, some students could have dual enrollment flags while others do not.) The AP/IB/Dual Enrollment flags are all summed by student-school

[4] For more information about PSIS, see the help site at https://portal.ct.gov/SDE/Performance/Data-Collection-Help-Sites/PSIS-Help-Site/Documentation.

combination (i.e., a single student attending one school). When the count is two or greater, that student is considered to have met the requirement for that school on indicator five.

- *Workplace Experience Courses:*

Similar to AP and IB courses, Workplace Experience Courses are flagged using the NCES course name. The number of workplace experience flags for each student-school combination is counted. When the count is two or greater, that student is considered to have met the requirement for that school on indicator five.

- *CTE courses:*

CTE Courses fall into one of seventeen clusters in NCES codes, each of which has a unique flag. The number of CTE flags in each cluster, for each student-school combination, is counted. When any count is two or greater, that student is considered to have met the requirement for that school on indicator five. For a list of CTE courses and their corresponding clusters, see the TCS help site at https://portal.ct.gov/SDE/Performance/Data-Collection-Help-Sites/TCS-Help-Site/Documentation.

- *Merge data to find final counts*

The three lists of students meeting a single requirement for indicator 5 are combined and duplicate entries (in the case of students who met more than one requirement) are removed, leaving only unique student entries. This data is aggregated to find the number of students in each school and district who met at least one requirement for indicator five, which is $\Sigma IS5_i$.

Step 4. The total number of eleventh and twelfth graders on which each school is evaluated is determined using the June PSIS collection from that year.

In this step, the total number of students on which the school or district will be evaluated, *N¸ is calculated*. To do this, all eleventh and twelfth grade students are counted for each school, whether or not they met the requirements for indicator five, in the June PSIS collection of that school year.

Step 5. The number of students meeting the requirements for indicator 5 is divided by the total number of eleventh and twelfth grade students. If the ratio is 75% or greater, the school receives the maximum score of 50 points. If the score is less than 75%, the score is then divided by 0.75 and multiplied by 50 to get their prorated score.

For each school or district, the number of students who met the requirements for indicator five is divided by the total number of students ($\Sigma IS5_i/N$), which is the ratio of these values. This

ratio will necessarily be less than or equal to 1. If it is greater than or equal to 0.75, meaning that the school has met or exceeded the target score of 75%, the school or district score will be the maximum 50 points. If the ratio is less than 0.75, meaning that the school has not met the target score of 75%, the points awarded will be a prorated percentage of the target. This can be found by multiplying the ratio by 50 and dividing by 0.75.

CALCULATION RULES FOR INDICATOR 7: ON-TRACK IN 9TH GRADE

Description:

Pro-rated percentage of 9th grade students who earned *at least* six (6) full-year credits by the end of the school year. This indicator has a maximum of 50 points and will be assessed for schools and districts that teach ninth grade students. Points will also be attributed back to the schools and districts that taught these students as eighth graders. The target percentage for this indicator is 94%.

Formula for Calculation:

Each student, i, will receive an individual score as follows:

$$IS7_i = \begin{cases} 0 & \text{5 or fewer full-year credits} \\ 1 & \text{6 or more full-year credits} \end{cases}.$$

These individual scores will then be attributed to the schools attended by each student in ninth and eighth grade. As such, it should be noted that the score for a school teaching eighth grade students will represent their students from the previous school year; for example, the 2021-22 scores will represent the eighth grade class from 2020-21 and the ninth grade class from 2021-22. School scores will then be calculated by taking the sum of the student scores, dividing by the total number, N, of ninth grade (or eighth grade, as applicable) students. Points will be assigned as a prorated percentage of the target, out of a maximum of 50, as indicated in the formula below:

$$\text{School Score} = Min\left(\frac{\sum IS7_i}{N} \cdot \frac{50}{0.94}, 50\right).$$

Data Flow Steps: Overview

Indicator 7 is calculated using the following data steps:

1. Course completion data is collected from the districts in TCS, then cleaned and validated.
2. The data is further sorted to check for any potential duplicates by Student ID, School ID, Course Description, or School Year.
    a. In cases where duplicates appear to be multiple marking periods for a single year-long course, grades can be aggregated to the course level.

b. In cases where duplicates occur but the course is not a year-long course, the record with the maximum credits earned and maximum available credit is selected.

3. Resolved duplicates are combined with unique outcomes and aggregated by Student ID to find the sum of credits earned for each student. The results are then filtered to retain students with six or more credits.
4. All current ninth grade students are then attributed to a current high school and a previous middle school.
5. The results of steps three and four are counted to obtain the total number of students who earned six or more credits at each school as well as the total number of current ninth graders on which the school will be assessed.

Data Flow Steps in Detail:

Step 1. Course completion data is collected from the districts, then cleaned and validated.

- *School districts submit course completion data.*

School districts use National Center for Education Statistics (NCES) course classification codes[5] to submit their course completion data using the Teacher-Course-Student (TCS) Data Collection Site[6]. Collection takes place between March and July at the end of each school year, however updates and corrections can be made up to the freeze date in mid-August to include summer school grades in the indicator calculations.

Before extracting data from TCS, the following data tables are loaded for reference:

1. *Dual Enrollment Codes*: Each observation represents one university offering dual enrollment.
    - **Variables**: TCS Dual Enrollment Code (Primary Key), Dual Enrollment Codes, University Name, University Description
2. *NCES Course Codes:* Each observation represents one potential course that could be offered.
    - **Variables:** TCS Course ID (Primary Key), NCES Course Description Code (five digits), Subject Area Code (two digits), Course ID Code (three digits), Subject Area Name, Course Name, Course Description, Elementary Flag (0 or 1), Secondary Flag (0 or 1), CSDE Created Course Flag (0 or 1)
3. *NCES Course Levels:* Each observation represents a level of courses that could be offered.

[5] For more information on NCES Course Classification Codes, see (secondary and non-secondary respectively): files.eric.ed.gov/fulltext/ED515113.pdf and nces.ed.gov/pubs2011/2011801.pdf.

[6] For more information about TCS Data Collection, see https://portal.ct.gov/SDE/Performance/Data-Collection-Help-Sites/TCS-Help-Site/Documentation.

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- **Variables:** TCS Course Level (Primary Key), NCES Course Level Code (one character), Level Name, Level Description, Elementary Flag (0 or 1), Secondary Flag (0 or 1)

4. *Course Outcomes*: Each observation represents a potential course outcome, such as pass or fail.
    - **Variables**: TCS Grade Status (Primary Key), Grade Status Codes (one or two characters), Grade Status Name, Grade Description
5. *Teacher Type:* Each observation represents a type of teacher that could be teaching a course.
    - **Variables:** TCS Teacher Type (Primary Key), Teacher Type Code (three digits), Teacher Type Description, Teacher Type Category, Teacher Type SubClass, Educator Identification Number Requirement Flag (0 or 1)

The following data tables are extracted from TCS:

6. *Course Offerings:* Each observation represents one course section in one school in one district.
    - **Variables:** TCS Course Offering ID (Primary Key), District ID, School/Facility ID, TCS Course ID (PK from Table #2), NCES Course Level (PK from Table #3), NCES Course Code, Available Credit, Grade Span (Low and High), Sequence (Location and Limit), and Section Code.
7. *Course Enrollment:* Each observation represents one student enrolled in one section of a course at one school in one district. Many students, especially in secondary, will have multiple observations.
    - **Variables:** Record ID (Primary Key), TCS Student ID (PK from Table #8), Course Offering ID (PK from Table #6), TCS Grade Status (PK from Table #4), TCS Dual Enrollment Code (PK from Table #1), Letter Grade, Credits Earned, and Course Sessions (Attended and Total)
8. *Student Matching:* Each observation represents one matching of a SASID, a District Student ID, and/or a Registration ID.
    - **Variables**: TCS Student ID (Primary Key), SASID, District ID, School ID, Registration ID, District Student ID
9. *Teacher Matching:* Each observation represents one matching of an Educator Identification Number (EIN) to a District Teacher ID.
    - **Variables:** TCS Teacher ID (Primary Key), EIN, District ID, District Teacher ID
10. *Course Teaching:* Each observation represents one teacher teaching in a section in a school in a district. As some sections may be co-taught, some sections may have multiple observations.
    - **Variables:** Record ID (Primary Key), TCS Teacher Type (PK from Table #5), TCS Course ID (PK from Table #2), and TCS Teacher ID (PK from Table #9)

- *Data is cleaned, filtered, and prepared for use.*

1. Data tables are filtered to remove non-public schools, universities, etc.
2. Data tables are joined with existing CSDE data to validate
    a. School and district identification numbers, either missing, incorrect, or invalid
    b. SASIDs, either non-uniquely assigned, incorrect, missing, or invalid
    c. EINs, either incorrect, missing, or invalid
    d. Matching of SASIDs and EINs with most recent school and district IDs
3. Course offering data is joined with course enrollment data and student data. In cases where the available credit is missing or less than 1.0, error checking is completed to determine whether it is a partial year course, a middle or elementary school course (which would not assign credit), or a potential error.
4. At each stage, questionable observations are filtered into a separate data table for error checking.

Resulting table from Step 1: Each observation contains one course outcome for one student.

Variables: TCS Student ID (PK from Table #8), District ID, School ID, TCS Course ID (PK from Table #7), Grade, Grade Status Code, Credits Earned, Dual Enrollment Flag (0 or 1), Dual Enrollment Code

Step 2. The data is further sorted to check for any potential duplicates by Student ID, School ID, Course Description, or School Year.

As credits earned twice for the same course cannot count twice toward the six-credit total, duplicate observations must be removed from the data set. However, as some schools use marking periods rather than full year credits when entering their course information, the program must distinguish between these two cases.

1. When duplicate observations are found, the session dates are checked. If the session dates are the same, then the course is considered a duplicate. The program will select the observation with the maximum earned credits or maximum available credits if the earned credits are equal.
2. If the session dates are not the same, the program will aggregate the credits to create a single course record with the sum of the credits across the marking periods.

Step 3. Resolved duplicates are combined with unique outcomes and aggregated by Student ID to find the sum of credits earned for each student. The results are then filtered to retain students with six or more credits.

The total number of credits earned by each student is calculated. If a student has six or more credits, they have met the requirements for indicator seven, and are retained in the numerator data table. If they have five or fewer credits, they are removed.

Step 4. All current ninth grade students are attributed to a current high school and a previous middle school.

In a separate data table, all students, regardless of whether or not they met the requirements for indicator seven, are attributed to schools for their eighth and ninth grade school years. For students who attended more than one school during the school year, they will be attributed to the school they attended most recently.

Step 5. The results of steps three and four are counted to obtain the total number of students who earned six or more credits at each school as well as the total number of current ninth graders on which the school will be assessed.

The data from step 3 is aggregated at the school and district levels to determine the number of students who met the requirements for indicator seven, in other words, it calculates $\Sigma IS7_i$ for each school and district. The data from step 4 is aggregated at the school and district level to determine the number of students on which the school or district will be assessed. In other words, it calculates the denominator for each school and district. [7]

Step 6. These counts are then divided by the number of students in the relevant grade as determined in the June PSIS collection. If the rate is 94% or greater, the school receives the maximum score of 50 points. If the rate is less than 94%, the rate is then divided by 0.94 and multiplied by 50 to get their prorated score.

[7] If the number of students in the denominator, N, is less than 20, the calculation of the on-track rate is suppressed and the school or district gets no points awarded for this indicator. No possible points are attributed.

CALCULATION RULES FOR INDICATOR 12: ARTS ACCESS

Description:

Pro-rated percentage of students in grades nine through twelve participating in at least one dance, theater, music, visual arts, or media arts course during the school year. This indicator has a maximum of 50 points and will be assessed for all schools that teach students in grades nine through twelve. The target percentage for this indicator is 60%.

Formula for Calculation:

Each student, i, will receive an individual score as follows:

$$IS12_i = \begin{cases} 0 & \text{not enrolled in any applicable arts course} \\ 1 & \text{enrolled in at least one applicable arts course} \end{cases}.$$

These individual scores will then be attributed to the schools attended by each student. School scores will then be calculated by taking the sum of the student scores, dividing by the total number, N, of students in grades nine through twelve. Points will be assigned as a prorated percentage of the target, out of a maximum of 50, as indicated in the formula below:

$$\text{School Score} = Min\left(\frac{\sum IS12_i}{N} \cdot \frac{50}{0.60}, 50\right).$$

Data Flow Steps: Overview

Indicator twelve is calculated using the following data steps:

1. Course completion data is collected from the districts in TCS, then cleaned and validated.
2. The data is further sorted to check for any potential duplicates by Student ID, School ID, Course Description, or School Year. Resolved duplicates are combined with unique outcomes.
3. All students enrolled in at least one applicable arts course are flagged in the data. The number of students flagged is counted for each school and district.
4. The total number of students in grades nine through twelve on which each school and district is being evaluated is determined using the June PSIS collection from that year.
5. The number of students meeting the requirements for indicator twelve is divided by the total number of students in grades nine through twelve. If the ratio is 60% or greater, the school receives the maximum score of 50 points. If the score is less than 60%, the score is then divided by 0.60 and multiplied by 50 to get their prorated score.

Data Flow Steps in Detail:

Step 1. Course completion data is collected from the districts, then cleaned and validated.

- *School districts submit course completion data.*

School districts use National Center for Education Statistics (NCES) course classification codes[8] to submit their course completion data using the Teacher-Course-Student (TCS) Data Collection Site[9]. Collection takes place between March and July at the end of each school year, however updates and corrections can be made up to the freeze date in mid-August to include summer school grades in the indicator calculations.

- *CSDE extracts data from TCS Data Collection Site.*

Before extracting data from TCS, the following data tables are loaded for reference[10]:

1. *Dual Enrollment Codes*: Each observation represents one university offering dual enrollment.
    a. **Variables**: TCS Dual Enrollment Code (Primary Key), Dual Enrollment Codes, University Name, University Description
2. *NCES Course Codes:* Each observation represents one potential course that could be offered.
    a. **Variables:** TCS Course ID (Primary Key), NCES Course Description Code (five digits), Subject Area Code (two digits), Course ID Code (three digits), Subject Area Name, Course Name, Course Description, Elementary Flag (0 or 1), Secondary Flag (0 or 1), CSDE Created Course Flag (0 or 1)
3. *NCES Course Levels:* Each observation represents a level of courses that could be offered.
    a. **Variables:** TCS Course Level (Primary Key), NCES Course Level Code (one character), Level Name, Level Description, Elementary Flag (0 or 1), Secondary Flag (0 or 1)
4. *Course Outcomes*: Each observation represents a potential course outcome, such as pass or fail.
    a. **Variables**: TCS Grade Status (Primary Key), Grade Status Codes (one or two characters), Grade Status Name, Grade Description
5. *Teacher Type:* Each observation represents a type of teacher that could be teaching a course.
    - **Variables:** TCS Teacher Type (Primary Key), Teacher Type Code (three digits), Teacher Type Description, Teacher Type Category, Teacher Type SubClass, Educator Identification Number Requirement Flag (0 or 1)

[8] For more information on NCES Course Classification Codes, see (secondary and non-secondary respectively): files.eric.ed.gov/fulltext/ED515113.pdf and nces.ed.gov/pubs2011/2011801.pdf.
[9] For more information about TCS Data Collection, see https://portal.ct.gov/SDE/Performance/Data-Collection-Help-Sites/TCS-Help-Site/Documentation.
[10] Throughout this document, variables and tables used exclusively for the purpose of managing updates are not included, such as district certification and last modification date/by whom. Also, variable and table names are modified to provide a descriptive understanding of the tables described and may not necessarily represent the order in which the variables appeared in the table.

The following data tables can then be extracted from TCS:

6. *Course Offerings:* Each observation represents one course section in one school in one district.
    - **Variables:** TCS Course Offering ID (Primary Key), District ID, School/Facility ID, TCS Course ID (PK from Table #2), NCES Course Level (PK from Table #3), NCES Course Code, Available Credit, Grade Span (Low and High), Sequence (Location and Limit), and Section Code.
7. *Course Enrollment:* Each observation represents one student enrolled in one section of a course at one school in one district. Many students, especially in secondary, will have multiple observations.
    - **Variables:** Record ID (Primary Key), TCS Student ID (PK from Table #8), Course Offering ID (PK from Table #6), TCS Grade Status (PK from Table #4), TCS Dual Enrollment Code (PK from Table #1), Letter Grade, Credits Earned, and Course Sessions (Attended and Total)
8. *Student Matching:* Each observation represents one matching of a CT State Student ID (SASID), a District Student ID, and/or a Registration ID.
    - **Variables**: TCS Student ID (Primary Key), SASID, District ID, School ID, Registration ID, District Student ID
9. *Teacher Matching:* Each observation represents one matching of an Educator Identification Number (EIN) to a District Teacher ID.
    - **Variables:** TCS Teacher ID (Primary Key), EIN, District ID, District Teacher ID
10. *Course Teaching:* Each observation represents one teacher teaching in a section in a school in a district. As some sections may be co-taught, some sections may have multiple observations.
    - **Variables:** Record ID (Primary Key), TCS Teacher Type (PK from Table #5), TCS Course ID (PK from Table #2), and TCS Teacher ID (PK from Table #9)

- *Data is cleaned, filtered, and prepared for use.*

1. Data tables are filtered to remove non-public schools, universities, etc.
2. Data tables are joined with existing CSDE data to validate
    a. School and district identification numbers, either missing, incorrect, or invalid
    b. SASIDs, either non-uniquely assigned, incorrect, missing, or invalid
    c. EINs, either incorrect, missing, or invalid
    d. Matching of SASIDs and EINs with most recent school and district IDs
3. Course offering data is joined with course enrollment data and student data. In cases where the available credit is missing or less than 1.0, error checking is completed to determine whether it is a partial year course, a middle or elementary school course (which would not assign credit), or a potential error.
4. At each stage, questionable observations are filtered into a separate data table for error checking.

Resulting table from Step 1: Each observation contains one course outcome for one student.

Variables: TCS Student ID (PK from Table #8), District ID, School ID, TCS Course ID (PK from Table #7), Grade, Grade Status Code, Credits Earned, Dual Enrollment Flag (0 or 1), Dual Enrollment Code

Step 2. The data is further sorted to check for any potential duplicates by Student ID, School ID, Course Description, or School Year. Resolved duplicates are combined with unique outcomes.

Duplicate entries in the course offerings are resolved, either by aggregating marking periods into a full-year course or taking a single entry of several, depending on whether or not the start dates are the same. Once resolved to single course observations, these entries can be re-joined to the non-duplicated courses to create a data table with all courses. Students are then attributed to their current school using the June Public School Information System (PSIS) collection[11].

Step 3. All students enrolled in at least one applicable arts course are flagged in the data. The number of students flagged is counted for each school and district.

The NCES secondary course classification codes for all applicable arts courses begin with the subject area code 05. All students in grades nine through twelve enrolled in a course with this flag are flagged as having met the requirements for indicator twelve. This data is aggregated to find the number of students in each school and district enrolled in at least one arts course during the school year.

Applicable SAS Code: `where TCSCourseDim.SubjectAreaCode = "05"`

Step 4. The total number of students in grades nine through twelve on which each school and district will be evaluated is determined using the June PSIS collection from that year.

The total number of students on which the school or district will be evaluated, *N*, is calculated. To do this, all students in grades nine through twelve, whether or not they were enrolled in at least one arts course, in the June PSIS collection of that school year, are counted.

[11] For more information about PSIS, see the help site at https://portal.ct.gov/SDE/Performance/Data-Collection-Help-Sites/PSIS-Help-Site/Documentation.

Step 5. The number of students meeting the requirements for indicator twelve is divided by the total number of students in grades nine through twelve. If the ratio is 60% or greater, the school receives the maximum score of 50 points. If the score is less than 60%, the score is then divided by 0.60 and multiplied by 50 to get their prorated score.

For each school or district, the number of students who were enrolled in at least one arts course is divided by the total number of students ($\Sigma IS12_i/N$), which is the ratio of these values. This ratio will necessarily be less than or equal to 1. If it is greater than or equal to 0.60, meaning that the school has met or exceeded the target score of 60%, the school or district score will be the maximum 50 points. If the ratio is less than 0.60, meaning that the school has not met the target score of 60%, the points awarded will be a prorated percentage of the target. This can be found by multiplying the ratio by 50 and dividing by 0.60.

HOW TO READ ACCOUNTABILITY REPORTS

The sample report below shows a district's performance on all indicators reported for the 2023-24 school year. To support appropriate interpretation, a brief explanation for every column heading is provided following the table.

Indicator	Index/Rate	Target	Points Earned	Max Points	% Points Earned	State % Points Earned
1a. ELA Performance Index - All Students	55.0	75	36.7	50	**73.3**	**85.2**
1b. ELA Performance Index - High Needs Students	50.0	75	33.3	50	**66.6**	**72.1**
1c. Math Performance Index - All Students	49.5	75	33.0	50	**66.0**	**80.2**
1d. Math Performance Index - High Needs Students	44.9	75	30.0	50	**59.9**	**66.1**
1e. Science Performance Index - All Students	52.3	75	34.9	50	**69.8**	**82.4**
1f. Science Performance Index - High Needs Students	47.6	75	31.7	50	**63.5**	**68.5**
2a. ELA Academic Growth - All Students	51.1%	100%	51.1	100	**51.1**	**58.7**
2b. ELA Academic Growth - High Needs Students	48.7%	100%	48.7	100	**48.7**	**54.2**
2c. Math Academic Growth - All Students	51.4%	100%	51.4	100	**51.4**	**61.4**
2d. Math Academic Growth - High Needs Students	50.0%	100%	50.0	100	**50.0**	**55.1**
2e. Progress Toward English Proficiency - Literacy	62.0%	100%	31.0	50	**62.0**	**58.9**
2f. Progress Toward English Proficiency - Oral	58.7%	100%	29.4	50	**58.7**	**55.2**
4a. Chronic Absenteeism - All Students	17.1%	<=5%	25.7	50	**51.4**	**49.3**
4b. Chronic Absenteeism - High Needs Students	22.4%	<=5%	15.2	50	**30.4**	**17.9**
5. Preparation for CCR - Percent Taking Courses	90.4%	75%	50.0	50	**100.0**	**100.0**
6. Preparation for CCR - Percent Passing Exams	26.1%	75%	17.4	50	**34.8**	**59.1**
7. On-track to High School Graduation	82.2%	94%	43.7	50	**87.5**	**89.9**
8. 4-year Graduation: All Students (2023 Cohort)	88.6%	94%	94.3	100	**94.3**	**94.0**
9. 6-year Graduation: High Needs Students (2021 Cohort)	91.7%	94%	97.5	100	**97.5**	**92.1**
10. Postsecondary Entrance (Graduating Class 2023)	68.6%	75%	91.5	100	**91.5**	**91.2**
11. Physical Fitness (estimated participation rate = 94.2%)	61.5%	75%	41.0	50	**82.0**	**63.0**
12. Arts Access	58.2%	60%	48.5	50	**96.9**	**91.7**
Accountability Index	.		986.0	1450	**68.0**	**70.8**

- **Indicator**: This column provides a brief explanation of what is being measured. A full explanation of every indicator is included in the main section of this document (*Using Accountability Results to Guide Improvement*). Every indicator in the

system is assigned a number. When an indicator has subcomponents (e.g. All Students, High Needs Students) a lettering system is used alongside the number.

- **Index/Rate**: All components of indicator 1 are reported as performance indices. All other indicators are reported as rates (i.e. percentages). The values presented in this column are the performance indices and rates earned by this district on the associated indicators.
- **Target**: This value is the ultimate target established for all schools and districts statewide.
- **Points Earned**: This value represents the points earned on the relevant indicator for the district. In every case, points are prorated based on the district's actual performance (i.e. index or rate) as compared to the target. The rules used for prorating points for each of the indicators are explained in the main section of this document.
- **Max Points**: This value is the maximum number of points possible on the associated indicator.
- **% Points Earned**: By indicator, this column shows the percentage of the "max points" earned by this district.
- **State Avg**. **% Points Earned**: By indicator, this column shows the percentage of the "max points" earned by the State.

Many schools have one or more indicators that cannot be measured. In these cases, school reports will display "." in the Index/Rate field and there will be "." in the Points Earned, Max Points, and % Points Earned cells for those indicators. The overall Accountability Index (in the district example above, 68.0) is the percentage of total possible points earned on all available indicators. All schools are classified into one of five categories. The school-level Accountability Index is the primary factor used to determine placement in categories 1, 2, and 3 with additional consideration given to participation rates, achievement gaps, and graduation rate gaps.

Note that the table above does not include Indicator 3, which is the participation rate for every subject for All Students and students with High Needs. Participation data are reported in a separate table within the report.

The gap table below shows the ELA, Math, and Science index scores for students with High Needs and the Non-High Needs group in this district. The size of the gap in index score points is reported and that difference is compared to the average gap across all districts statewide. Note that if the index for the Non-High Needs group exceeds the ultimate target of 75, the ultimate target is used when calculating the gap. If the district's gap is more than one standard deviation beyond the state gap mean, then the district is reported as having an "outlier gap." In the example below, the size of the gaps for ELA, Math, and Science are all less than the standard used to identify outliers.

Graduation rate gaps are determined in the same way. The graduation rate gap is based on the difference in 6-year graduation rates for students with High Needs and the Non-High Needs group. As shown in the table below, this district does not have a gap that is more than one standard deviation beyond the state gap mean and therefore there is N in the outlier gap column.

While there are no points associated with the gap measures, these data are used when placing schools in one of five categories. Additionally, schools are not eligible to be a School of Distinction if reports indicate that the school has an achievement gap or graduation rate gap this is considered an outlier.

Gap Indicators

Indicator	Non-High Needs Rate	High Needs Rate	Size of Gap	State Gap Mean +1 Stdev	Is Gap an Outlier?
ELA Performance Index Gap	64.0	50.0	14.0	16.9	**N**
Math Performance Index Gap	57.6	44.9	12.7	18.2	**N**
Science Performance Index Gap	61.0	47.6	13.4	17.9	**N**
Graduation Rate Gap (2021 Cohort)	94.0	91.7	2.3	9.9	**N**

The participation rate table below includes all of the data for Indicator 3. The expectation for all tested subjects across all tests (i.e., Smarter Balanced, CTAA, Next Generation Science Standards Standard Assessment, Connecticut Alternate Science Assessment, and SAT) for All Students and students with High Needs is at least 95%. Any rate less than 95% means that the district or school did not meet participation requirements. There are no points associated with Indicator 3, but like the gap indicators, these data are used when placing schools in one of five categories. Additionally, schools are not eligible to be a School of Distinction if reports indicate that the school has not met participation requirements.

Assessment Participation Rates

Indicator	Participation Rate (%)
ELA - All Students	98.3
ELA - High Needs Students	98.1
Math - All Students	98.1
Math - High Needs Students	97.7
Science - All Students	96.4
Science - High Needs Students	95.6

CONNECTICUT ASSESSMENT AND ACCOUNTABILITY REPORTING OF "RECENTLY ARRIVED" ENGLISH LEARNER/MULTILINGUAL LEARNERS (EL/ML)

Recently Arrived EL/ML Definition	An EL/ML enrolled for the first time in a U.S. school for fewer than 24 calendar months at the time of testing.
Assessment Participation Requirements	All EL/MLs, including all recently arrived EL/MLs, must participate in all assessments. This includes mathematics, ELA and science as well as the English language proficiency assessment (i.e. LAS Links).
Assessment Reporting (typically in the summer months)	Federal law requires that all EL/MLs be included in assessment reporting regardless of time in a U.S. school.
Accountability Reporting—Achievement Status	Scores earned by recently arrived EL/MLs are not included in Achievement Status (Indicator 1) calculations.
Accountability Reporting—Achievement Growth	Recently arrived EL/MLs who have participated in two Smarter Balanced administrations are included in growth calculations (Indicator 2a-d).
Accountability Reporting—Progress Toward English Language Proficiency	All EL/MLs must take the LAS Links assessment annually. All EL/MLs including those who are "recently arrived" with LAS Links scores in consecutive years are included in Progress Toward English Language Proficiency calculations (Indicators 2e and 2f).
Accountability Reporting—Participation Rates	All students are included in participation rate calculations for ELA, math, and science.

Note regarding EL/ML student group reporting: When reviewing accountability reports and exploring group results for English learner/multilingual learners in particular, keep in mind the "EL Flex" group for accountability. EL Flex includes students who were formerly identified as an EL/ML. Specifically, any student who is not an EL/ML at the time of testing but who had been a member of the EL/ML student group in any time up to four years previous, are included in the EL flexibility group. For a detailed explanation of how the "EL Flex" group is established, see the "File Preparation" section of the Performance Index Calculation Rules in this document.

ASSIGNING SCHOOL CATEGORIES

As required under Connecticut General Statutes Section 10-223e, Connecticut has implemented a five category school classification system. A brief overview of the school classification system is provided in Connecticut's approved ESSA plan (p. 47). All schools are placed into one of five categories.

In 2015-16 and 2016-17, Category 1 schools were those in the top quartile, Category 2 schools were those in the two middle quartiles and Category 3 schools were in the bottom quartile. The cut values from 2015-16 and 2016-17 informed the establishment of criterion-referenced cut points implemented for the first time as part of 2017-18 accountability reporting. The table below shows the range of possible Accountability Index values associated with each school category based on the criterion-referenced cut points.

School Category	Accountability Index Values
1	85 – 100
2	70 – 84.9
3	0 – 69.9

As in prior years, low participation rates, achievement gaps, graduation rate gaps, and identification as a Turnaround or Focus School may result in a lower school category than the initial assignment based on Accountability Index.

The CSDE identifies new Turnaround schools every three years. Turnaround schools are those with low overall performance based on the accountability index or consistently low graduation rates. Newly identified Turnaround schools are placed in Category 4. Turnaround schools are identified every three years. A new group of Turnaround schools was identified during the 2022-23 school year, so no new Turnaround schools based on overall accountability index or low graduation rates will be identified in 2024-25. Turnaround schools that do not meet the exit criteria within four years are moved to Category 5.

Focus schools are those with consistently lagging academic achievement, growth, or graduation rates for students with high needs. Focus schools are identified annually. Newly identified Focus schools are placed in Category 4. Focus schools that do not meet the exit criteria within four years are moved to Category 5.

There is a subset of Focus schools that are identified as having one or more Turnaround student groups. These schools are sometimes referred to as Additional Targeted Support and Intervention schools or ATSI. The identification schedule is on the same timeline as the Turnaround school identification timeline (i.e. every three years). A Turnaround student group is identified by calculating student group performance on every available indicator to establish an overall student group accountability index. If a student group accountability index falls at or below the Turnaround school identification threshold, the Focus school's student group is

identified as a Turnaround student group. An ATSI school maintains its Focus school category of 4 or 5.

To exit, Turnaround schools must no longer meet the reason for their identification in two consecutive years after identification and must demonstrate substantial improvement and continued progress. Focus schools must no longer meet the reason for their identification in two of three years after identification and must demonstrate substantial improvement and continued progress. A Focus school with one or more Turnaround student groups will lose its ATSI designation if the Turnaround student group(s) no longer meet the reason for their identification in two consecutive years after identification and they demonstrate substantial improvement and continued progress on the student group index for the student groups that were the basis for identification. If a Focus school with one or more Turnaround student groups does not exit ATSI status within four years, the ATSI school will be identified as a Turnaround school and will be placed in Category 5. An ATSI school that transitions to Turnaround will be subject to Turnaround school exit standards.

Turnaround and all types of Focus schools are evaluated annually to determine whether the school has earned a "year of credit" toward exit. For Turnaround schools identified based on the overall accountability index, "year of credit" is awarded when the three-year weighted average of the accountability index is above the bottom fifth percentile of schools statewide. For Focus schools identified based on the growth or performance of students with high needs in a specific content area, "year of credit" is awarded when the growth or performance of students with high needs in the relevant content area(s) is not in the bottom 10 percent statewide. Focus schools with one or more Turnaround student groups are evaluated annually by evaluating the identified Turnaround student groups against the Turnaround school standard (i.e. fifth percentile score based on the three-year weighted average of the accountability index).

Turnaround schools identified based on graduation rates earn a "year of credit" toward exit when the six-year graduation rate for the all students group is at least 70%. Focus schools identified based on graduation rates earn a "year of credit" toward exit when the six-year graduation rate for students with high needs is at least 70%.

The detailed rules for school classification are presented below.

To begin the school classification process, the following schools must be removed from the data file:

- Unified School District #1;
- Detention Centers; and
- Schools with 100 or fewer possible points on the Accountability Index.

Per the approved Connecticut State ESSA Plan, beginning in 2018, the identification of Turnaround and Focus schools is based on three school years of data.

Turnaround Schools are the first group of schools to be identified in the school classification process. The detailed rules for identifying Turnaround schools are included below as a reference.

- Schools in which the highest grade is between 9 and 12 are in the high school identification group, and schools in which the highest grade is 8 or below are in the elementary/middle school identification group.
- Any school for which the three-year weighted average on the accountability index is less than or equal to the fifth percentile of Connecticut Title I Schools in their identification group is identified as a Turnaround School. This identification process happens every three years and will occur again at the beginning of the 2025-26 school year.
- Any Focus school with one or more Turnaround student groups (i.e. ATSI school) that does not exit ATSI status within four years, will transition to a Turnaround School.

Fifth Percentile Score for CT Title I Schools in School Year 2024-25

Based on Three-Year Weighted Average of Accountability Index (2021-22, 2022-23, 2023-24)

Note: Turnaround schools will not be identified in 2024-25 except in the case of Focus schools with one or more Turnaround student groups (i.e. ATSI schools) that have not exited after four years. Turnaround schools will be identified in 2025-26 using updated data and cutoff values. The values below are used in 2024-25 to determine whether current Turnaround schools have earned a "year of credit" toward exit.

Identification Group	Fifth Percentile Cutoff
Elementary/Middle Schools	48.67
High Schools	47.20

- Any high school with a six-year adjusted cohort graduation rate for all students that is less than 70% for each of the three most recent cohorts is identified as a Turnaround School.
- Any newly identified Turnaround schools based on overall accountability index or low graduation rates are placed in Category 4.

The next step in the school classification process is to annually identify Focus schools for ELA and Focus schools for Math. For the first time in 2023-24, high schools could also be identified as a Focus school for Science. Again, this identification process uses three school years of data. The detailed rules for identifying Focus schools are as follows:

- For the purpose of Focus school identification, the following identification groups apply:
    - Elementary Schools: Schools in which the highest grade is between 4 and 6.
    - Middle Schools: Schools in which at least one of the grades taught is 7 or 8, including those with 4-6 and/or 9-12 grade students, such as a grades 6-12 school.
    - High Schools: Schools in which all grades are between 9 and 12.

- For Focus ELA and Focus Math identification, the elementary and middle school identification groups are evaluated on their growth scores for students with high needs (Indicator 2b and 2d). The high school identification group is evaluated on their Subject Performance Index (SPI; Indicator 1) for students with high needs. Any school at which the ELA growth (or SPI) for students with high needs falls in the lower 10% of schools in their identification group for three *consecutive* years will be identified as a Focus ELA school. Focus Math schools will be similarly identified using Math growth (or SPI) scores. High schools will be identified as a Focus school for Science when the Science SPI for students with high needs falls in the lower 10% of all high schools for three *consecutive* years (i.e. 2021-22, 2022-23, 2023-24).

Bottom 10% Threshold Scores Used for Focus School Identification in 2024-25 for Elementary and Middle Schools

Note: These values are used also to determine whether current Focus schools have earned a "year of credit" toward exit.

School Type: Measurement	ELA 2021-22	ELA 2022-23	ELA 2023-24	Math 2021-22	Math 2022-23	Math 2023-24
Elementary School: High Needs Growth (Avg. Percentage of Target Achieved)	51.75	48.18	48.69	55.91	54.03	49.78
Middle School: High Needs Growth (Avg. Percentage of Target Achieved)	42.86	41.08	42.50	43.13	41.14	41.74

Bottom 10% Threshold Scores Used for Focus School Identification in 2024-25 for High Schools

Note: These values are used also to determine whether current Focus schools have earned a "year of credit" toward exit.

Administration Year	ELA	Math	Science
2021-22	39.92	35.66	39.55
2022-23	39.55	36.07	39.88
2023-24	38.22	34.49	42.47

- Additionally, a school that teaches at least one grade between 9 and 12 falls into the graduation rate identification group; this includes schools that also serve students below Grade 9, such as a 6-12 school, for example. Any school in this group with a six-year adjusted cohort graduation rate for students with high needs that is less than 70%

for each of the three most recent cohorts is identified as a Focus Graduation Rate school.

- Focus ELA, Focus Math, Focus Science, and Focus Graduation Rate identification are not mutually exclusive. A school may be identified as a Focus School in one, two, three, or all four categories.
- Any newly identified Focus schools based on reporting in 2024-25 will be placed in Category 4. All other Focus schools will remain in their current assigned category.

Following the identification of all Turnaround and Focus schools, the remaining schools must be *initially* placed into Category 1, 2, or 3 based on the Accountability Index. Again, the range of possible Accountability Index values associated with each school category are presented below.

School Category	Accountability Index Values
1	85 – 100
2	70 – 84.9
3	0 – 69.9

Schools *initially* placed in Categories 1 and 2 will drop one category (to Categories 2 and 3, respectively) if one or more of the following are present:

- an outlier achievement gap in ELA, Math, or Science;
- an outlier graduation gap based on the six-year adjusted cohort graduation rate; or
- an assessment participation rate below 95% in any subject for all students or students with high needs.

Schools in Categories 3, 4, and 5 maintain their classification regardless of these criteria.

While the definition of an outlier gap remains the same from year to year (see pages 8 and 83), the values used to identify outlier gaps change annually, and the values at the district level are different than the values for schools. The table on the following page provides means, standard deviations, and the State gap mean plus one standard deviation, which is the standard used to determine whether a gap between students with high needs and those considered non high needs is an "outlier." These data are used in 2023-24 accountability reports issued during the 2024-25 school year.

2023-24 Outlier Gap Standards

	Mean	Standard Deviation	State gap mean + one standard deviation
ELA (Districts)	12.78	4.12	16.90
ELA (Schools)	12.02	5.30	17.32
Math (Districts)	13.93	4.22	18.15
Math (Schools)	13.04	5.49	18.53
Science (Districts)	13.46	4.42	17.88
Science (Schools)	12.84	5.59	18.43
Six-Year Graduation Rate for Students with High Needs (Districts)	4.91	5.01	9.92
Six-Year Graduation Rate for Students with High Needs (Schools)	2.13	3.87	6.00

IDENTIFYING SCHOOLS OF DISTINCTION FOR 2023-24

Annually, the CSDE identifies a group of schools as Schools of Distinction based on a variety of factors. The identification centers on overall performance and academic growth. The guidelines for each distinction type are included below.

HIGHEST PERFORMING

Elementary/middle and high schools are evaluated separately for the Highest Performing distinction. For each school type, the full list of Category 1-5 schools is sorted based on the Accountability Index from highest to lowest. The top 10% become *eligible* for distinction status. To be named a School of Distinction in the Highest Performing category, an eligible school:

- must have data reported for Indicator 1 (Academic Achievement).
- must be in Categories 1, 2, or 3;
- must NOT have an outlier achievement gap based on the difference in index scores between the students with High Needs group and the non-High Needs group in ELA, Math, or Science;
- must NOT have an outlier graduation rate gap based on the six-year graduation rate difference between the students with High Needs group and the Non-High Needs group; and
- must NOT have an assessment participation rate below 95% for the All Students group or the students with High Needs group in ELA, Math, or Science.

HIGHEST GROWTH

Schools with Indicator 2 a-d (Academic Growth) values are evaluated separately from schools without Indicator 2 a-d. There are four Highest Growth distinction categories:

- Highest Growth for All Students—ELA;
- Highest Growth for All Students—Math;
- Highest Growth for Students with High Needs—ELA; and
- Highest Growth for Students with High Needs—Math.

In each case, the percentage of possible points earned for the corresponding category of Indicator 2 will be sorted from highest to lowest, and the top 10% of schools will become *eligible* for distinction status in that category.

To be named a School of Distinction in any of the Highest Growth categories, an eligible school:

- must be in Categories 1, 2, or 3;
- must NOT have an outlier achievement gap based on the difference in index scores between the students with High Needs group and the non-High Needs group in ELA, Math, or Science;
- must NOT have an outlier graduation rate gap based on the six-year graduation rate difference between the students with High Needs group and the Non-High Needs group;
- must NOT have an assessment participation rate in 2022-23 or 2021-22 below 95% for the All Students group or the High Needs student group in ELA, Math, or Science.

GREATEST IMPROVERS

Schools without Indicator 2 a-d (academic growth) are evaluated separately for the "Greatest Improvers" distinction. These schools have shown the greatest percentage improvement in their Accountability Index. Percentage improvement is calculated for every school by subtracting the 2022-23 Accountability Index from the 2023-24 Accountability Index and dividing the difference by the 2022-23 Accountability Index. Then, all of these schools are sorted from highest to lowest based on the percentage improvement in Accountability Index.

Schools in the top 10% of percentage improvement in Accountability Index are eligible for the Greatest Improver distinction. To be named a School of Distinction in the Greatest Improvers category, an eligible school:

- must have data reported for Indicator 1 (Academic Achievement);
- must be in Category 1, 2, or 3;
- must NOT have an outlier achievement gap in 2022-23 or 2023-24 based on the difference in index scores between the students with High Needs group and the non-High Needs group in ELA , Math, or Science;

- must NOT have an outlier graduation rate gap based on the six-year graduation rate difference between the students with High Needs group and the Non-High Needs group in the two most recent six-year cohorts; and
- must NOT have an assessment participation rate in 2022-23 or 2023-24 below 95% for the All Students group or the High Needs group in ELA, Math, or Science.

Schools of Distinction 2023-24 Minimum Values by Distinction Type

Distinction Type	Measure	Top 10 Percent Minimum Value
Highest Performing: Elementary/Middle Schools	Accountability Index	83.59
Highest Performing: High Schools	Accountability Index	83.43
Highest Growth: All Students—ELA	Percentage of possible points earned for Indicator 2 ELA by the "All Students" group	77.01
Highest Growth: All Students—Math	Percentage of possible points earned for Indicator 2 Math by the "All Students" group	82.45
Highest Growth: High Needs—ELA	Percentage of possible points earned for Indicator 2 ELA by the "High Needs" group	71.42
Highest Growth: High Needs—Math	Percentage of possible points earned for Indicator 2 Math by the "High Needs" group	77.65
Greatest Improvers	Percentage improvement in the Accountability Index from 2022-23 to 2023-24	7.41