

2023-24 School Letter Grade Protocol

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Section 1: Document Intent and Overview

In 2016, T.C.A. § 49-1-228 was established and required the Tennessee Department of Education (department) to develop a school letter grading system to provide parents and families with information that shows how our public schools are performing. The state’s school letter grade rating system intends to provide a snapshot of how each school performed during the previous academic year and compare those results over time. Per T.C.A. § 49-1-228, the letter grade system should be based on (1) student performance on the Tennessee Comprehensive Assessment Program (TCAP) tests or end-of-course exams (EOCs); (2) student growth as indicated by Tennessee Value-Added Assessment System (TVAAS) data or data from other measures of student growth; and (3) other outcome indicators of student achievement.

In Fall 2023, the department developed a new letter grade system following a series of statewide engagement efforts. The new letter grade system, presented to the Tennessee State Board of Education in November 2023 and released in December 2023, provides an annual A-F letter grade rating for each public school in Tennessee. Figure 1 provides an overview of the key indicators and the associated weights for each indicator for letter grade calculation by school type (i.e., K-8¹ and High School²). K-8 schools are evaluated based on three key indicators: Achievement (Ach), Growth, and Growth for Bottom 25% (Growth25). In addition to these indicators, high schools are also evaluated on their College and Career Readiness (CCR) indicator.

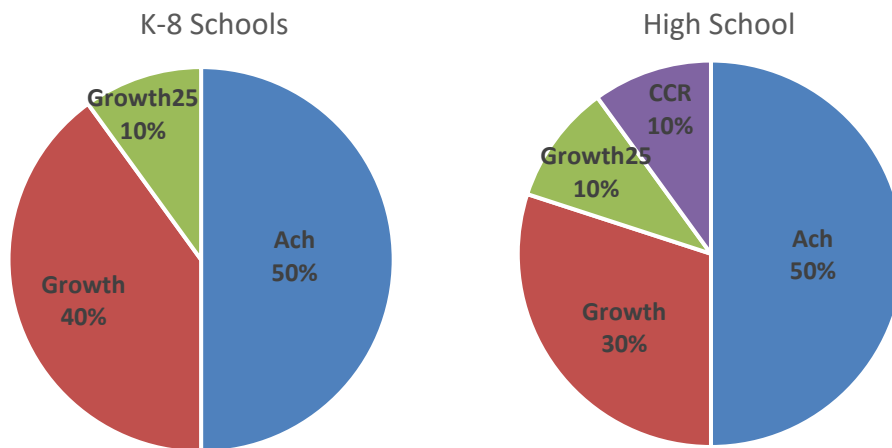


Figure 1. Letter Grade Indicators and Weights by School Type

This document is a technical manual that outlines detailed methodology and business rules applied to calculate school letter grades. Section 2 discusses data sources and business rules for preparing data files. Section 3 discusses letter grade methodology, including indicator calculation and weights. A list of acronyms used in this technical document is presented in [Appendix A](#).

¹ K-8 schools are those with fewer than 30 students in the most recent graduating cohort (i.e., the 2023 graduating cohort). A school serving students from grades 9 to 12 can be a K-8 school if the school has less than 30 students in the recent graduating cohort.

² High schools are those with at least 30 or more students in the most recent graduating cohort (i.e., 2023 graduating cohort). A school serving students from kindergarten to 12th grade can be a high school if the school has 30 or more students in the most recent graduating cohort.

Section 2: Data Preparations and Calculation Procedures

This section discusses the underlying data, including test and non-test data, and the business rules applied to prepare the data files for each indicator.

2.1 Achievement Indicator Data

Three types of achievement data are included in the evaluation of the Achievement indicator, including the Tennessee Comprehensive Assessment Program (TCAP), TCAP Alternate Assessment (TCAP-Alt), and early postsecondary tests.

2.1.1 TCAP, TCAP-Alt, and Early Postsecondary Tests

The Tennessee Comprehensive Assessment Program (TCAP) is the umbrella program of state assessments required by federal law, state statute, and State Board rule. The department administers the program. As shown in Table 1, students in grades 2-8 and students enrolled in end-of-course (EOC) tested subjects are tested. Grade 2 assessments are optional to districts, and they are not included in the calculation of the Achievement indicator. Students in grades 3-8 take the TCAP achievement tests each spring across all subject areas, including ELA, math, science, and social studies. Students in Tennessee can take EOC tests as early as middle school and throughout high school in spring and fall depending on the school schedule.

Table 1. TCAP Testing Portfolio

English Language Arts	Math	Science	Social Studies
TCAP grades 2-8 ³ (grade 2 optional) English I English II	TCAP grades 2-8 (grade 2 optional) Algebra I/Integrated Math I Geometry/Integrated Math II Algebra II/Integrated Math III	TCAP Grades 3-8 Biology	TCAP grades 6-8 U.S. History

The TCAP-Alt Assessments are designed for students with significant cognitive disabilities and are based on alternative content standards. A student’s participation in the alternate assessment must be based on the decision of their Individualized Education Program (IEP) team and must be documented in the IEP.⁴ Table 2 shows Tennessee’s current TCAP-Alt testing portfolio. It should be noted that the department transitioned the alternate assessments for English language arts (ELA) and math from Multi-State Alternate Assessment to Dynamic Learning Maps (DLM) in 2023-24.

Table 2. TCAP-Alt Testing Portfolio

English Language Arts	Math	Science	Social Studies
DLM grades 2-8 (grade 2 optional) DLM grade 11	DLM grades 2-8 (grade 2 optional) DLM grade 11	TCAP Alt grades 3-8 and grade 10	TCAP Alt grades 3-8

In addition to taking TCAP tests, students in Tennessee can take advanced placement (AP), Cambridge International Examinations (CIE), International Baccalaureate (IB), or Statewide Dual Credit (SDC) tests if they choose to enroll in the substitutable courses instead of EOC courses. When calculating the success rates for the evaluation of the Achievement indicator, the department will only take substitutable U.S. History and Biology courses and tests into account ONLY when students choose to enroll in these courses in lieu of U.S. History or Biology EOC courses. For students who have enrolled in U.S. History or Biology EOC courses, their participation

³ Grade 2 assessment is optional and is not used for letter grade calculation.

⁴ In compliance with federal requirements in ESEA section 1111(b)(2)(D)(i)(I), the percentage of students taking alternate assessments cannot exceed 1% of the total student enrollment within the state.

and performance on the EOC tests will be accounted and any other substitutable tests taken will be excluded. For students who are enrolled in substitutable courses in lieu of U.S. History or Biology without any prior enrollment in U.S. History or Biology (i.e., substitution-eligible students), their substitutable tests will be included in the success rate calculation **ONLY IF** at least 95% of the substitution-eligible students enrolled in the substitutable course are tested. For the 2023-24 school year, the department will use the **better of** the success rate with substitution and the success rate without substitution when calculating the G9-12 grade-band success rate. The list of substitutable courses for U.S. History and Biology and the qualifying cut score applied for each course when determining proficiency is provided in [Appendix B](#).

2.1.2 Data Preparation—Source Files

The department receives TCAP and TCAP-Alt science and social studies⁵ assessment data files from the assessment vendor in the form of Comprehensive Data Files (CDF). The department receives DLM assessment data files in the form of General Research File (GRF)⁶. Course records for AP, CIE, IB, and SDC come from course codes and flags submitted to EIS through districts' SIS, and the test results come from various vendors, including College Board, Cambridge International Education, and P20. More information about early postsecondary courses and exams is discussed in detail in [Section 2.3](#).

2.1.2.1 Enrolled, Tested, and Valid TCAP Tests

Counts of enrolled and tested students are primarily used for determining minimum n count eligibility and TCAP participation rates. Definitions for enrolled, tested, and valid tests are specified below.

- **Enrolled** counts include the number of tested and non-tested records representing the total number of students who are actively enrolled on the final day of the testing window. For state accountability, enrolled counts will be based on the course enrollment information in EIS reflecting that they are registered for a tested grade/subject course. Data is derived from EIS course registration data and is reflected in final test registration data housed by the assessment administration vendor (PearsonAccessnext) on the final day of the testing window.
- **Non-Enrolled** represents the number of records removed from assessment files derived from EIS course registration data due to not being enrolled (Student-Not-Tested [SNT] code of 2), not scheduled (SNT code of 3), and medically exempt (SNT code of 4). Non-enrolled records are removed from the denominator and numerator of the participation rate calculation.
- **Tested** counts include the number of tested records (SNT code of 0). A tested record is defined as a student test record that results in a valid scale score and performance level.
- **Non-Tested** counts include the number of student test registrations that do not meet the criteria for being tested due to one or more of the following circumstances:
 - Test Record without a scale score or a performance level; these records will be considered absent (SNT code of 1) for the purposes of accountability calculations
 - Test records with an SNT value of 1 (absent), 2 (not enrolled), 3 (not scheduled), 4 (medically exempt)⁷, or 5 (residential facility)⁸

⁵ TCAP-Alt science and social studies have three performance level: 1 = approaching; 2 = met expectations; 3 = exceeded expectations.

⁶ DLM has four performance levels: 1 = below; 2 = approaching; 3 = met expectations; 4 = exceeded expectations.

⁷ Medically exempt (SNT-4) students are excluded from the participation rate calculation. Districts must complete the required [medically exempt documentation process](#) to accurately exclude these students from the participation rate calculation.

⁸ Residential facility records (SNT-5) mean students are enrolled in a residential facility but did not have a valid test score; these records are counted as enrolled but not tested. Schools can submit appeals to remove students from the participation rate calculation if they are enrolled in an out-of-state residential facility. More appeals guidance will be provided before the opening of the appeals window.

- Test record with a Report of Irregularity (RI) value > 0⁹
 - Test record with attemptedness value of N or without test status code (i.e., SNT, RI)¹⁰
- **Valid** test counts include tested records with a valid scale score and performance level.

Table 3 summarizes decisions to include or exclude records from the participation rate calculation by testing status, including Student-Not-Tested (SNT) codes, Report of Irregularity (RI) codes, and attemptedness codes. More information on the testing status and examples can be found in the [TCAP ACH Building Testing Coordinator Guide](#).

Table 3. Business Rules by Testing Status

Status	Test Status Description	Enrolled?	Tested?
SNT Codes			
0	Not applicable (i.e., student tested)	Yes	Yes
1	Absent	Yes	No
2	Not enrolled	No	No
3	Not scheduled	No	No
4	Medically exempt	No	No
5	Residential facility	Yes ¹¹	No
6	Student tested on alternative assessment	Yes	Based on test data
RI Codes			
0	No RI Status (i.e., student test was valid)	Yes	Yes
1	Adult potential breach of security	Yes	No
2	Student security breach (i.e., student cheating)	Yes	No
3	Irregular Administration (i.e., wrong accommodations, calculator use)	Yes	No
4	Student tested incorrect grade or subject	Yes	No
5	Student did not participate (i.e., refusal to answer questions)	Yes	No
Attemptedness Value			
Y	Attempted; student completed enough questions on each subpart to produce a valid score	Yes	Yes
N	Did not attempt; student did not complete enough questions on each subpart to produce a valid score	Yes	No
Blank	No student answer document / submitted test was received for this student's test record	Yes	No

An SNT status other than 0 will override any RI status that exists in terms of whether the record is considered enrolled and tested.

2.1.2.2 Excluded, Missing, and Duplicate TCAP Data

Below are the department's guidelines for excluding testing data:

- Student testing records from the following types of schools are excluded from state accountability:
 - Juvenile Detention Center records (school number of 999)
 - Individualized Education Account (IEA) records (with a school number of 982)

⁹ Records with RI codes of 1, 2, 3, 4, or 5 are considered enrolled but non-tested as they do not produce a valid scale score and performance level. These records will remain in the denominator but counted as non-tested in the participation rate calculation.

¹⁰ Blank or non-attempted records are counted as enrolled but not tested as they represent students who were registered to take the exam but did not receive a valid scale score or performance level. These records will remain in the denominator but counted as non-tested.

¹¹ All residential facility records will be counted as enrolled, and the records that do not have a valid score will then be reported as non-tested with one exception. If a student is in an out-of-state residential facility, the student will not be included in the participation rate calculation. For such cases, districts shall submit appeals during the accountability data appeals process and provide appropriate documentation to support such appeals.

- Homeschooled¹² records (school number of 981)
- Education Savings Account (ESA) records

- Adult high schools, alternative schools, and CTE schools are not eligible to receive school letter grade. Their students' testing records are mapped back to their sending school to calculate success rates only if they enrolled more than 50% of the school year at the sending school.

- The following testing records are excluded from school-, district-, and state-level files:
 - Records with a district number greater than or equal to 990 (private or parochial testing records).
 - Records with grades of 13 (i.e., students over the age of 18 are defined as adult learners).
 - Records with a subject of math are excluded if the student has other records with a valid performance level and a subject of Algebra I, Algebra II, Geometry, Integrated Math I, Integrated Math II, or Integrated Math III.
 - Records with a subject of ELA are excluded if the student has other records with a valid performance level and a subject of English I or English II.

Below are the department's guidelines for handling missing data:

- Records with missing race/ethnicity values are counted in the *All Students* group and not in any additional historically underserved student group(s).
- Records with missing school numbers are included in the district- and state-level files if the record has a valid district number.¹³
- Records with missing district numbers are included at the state level.¹⁴
- Records with missing grades for EOC subjects are included in both the assessment files and state accountability files.
- Records with missing English learner (EL) status count as not EL unless they appear in an EL proficiency assessment (i.e., WIDA, WIDA-Alt) file.
- Records with missing special education status count as not SWD unless they appear in an alternative testing file (i.e., TCAP-Alt).
- Records with missing ED status do not count as ED.
- Records with missing 50 percent enrollment status count as having been enrolled for at least 50 percent of the year.

Below are the department's guidelines for handling duplicate TCAP records:¹⁵

- Testing records with duplicated student first names, last names, dates of birth, schools, and districts will be screened to prevent duplication in testing records due to alternative IDs when students are tested in residential facilities. When there are duplicates, the records with valid test scores will be used for accountability and the records without test scores will be removed from the assessment file.

¹² Homeschool students are students who no longer attend school within the district and are independently enrolled with other providers for the curriculum. These students are excluded from school accountability.

¹³ If the school number is missing in the file (but the district number is valid), the department checks if the school name is also missing. If the school name is not missing, the department associates the record with the appropriate school number depending on the school name (and assuming there are no duplicated school names).

¹⁴ If the district number is missing, the department checks if the district name is also missing. If the district name is not missing, the department associates the record with the appropriate district number depending on the district name (and assuming there are no duplicated district names).

¹⁵ If a student has multiple records with discrepant demographic or test administration data (e.g., a student with two different district numbers or who is marked as economically disadvantaged in one record but not another), the department uses the data associated with the record that is kept according to the business rules for removing duplicate data.

- The hierarchy below indicates which testing record is included if a student has multiple testing records for two different test types for the same subject area, both with non-missing performance levels.¹⁶
 - TCAP-Alternate assessment
 - TCAP EOC
 - TCAP Achievement¹⁷
 - For example, the English II TCAP-Alternate assessment record is used when a student has both a valid TCAP EOC record and a valid TCAP-Alternative assessment record for English II, assuming both records have non-missing performance levels.
 - Alternatively, the TCAP EOC record is used when a student has both a TCAP EOC record and a TCAP-Alternate assessment record if the performance level for the TCAP-Alternate assessment is missing and the performance level for the TCAP EOC is not missing.
- The record with the highest performance level is included if there are multiple records for the same student, original subject, and test type.
- The record with the highest scale score is included if there are multiple records for the same student, original subject, test type, and performance level.
- The record with the most recent test date is included if there are multiple records for the same student, original subject, test type, performance level, and scale score.
- The record with a non-missing value for race/ethnicity is included if there are multiple records for the same student, original subject, test type, performance level, scale score, and test date.
- The record with a non-missing value for grade is included if there are multiple records for the same student, original subject, test type, performance level, scale score, test date, and race/ethnicity.
- If there are still duplicate records after the department applies the steps above, those duplicate records are all included.

Data management rules applied to the TCAP tests are also applied to TCAP-Alt tests. Additional rules that are specific to TCAP-Alt data are summarized below:

- DLM ELA and math tests and TCAP-Alt for science and social studies are included in the TCAP participation rate and success rate calculation for state accountability.
- All students who take TCAP-Alt assessments are considered students with disabilities (SWD).
- DLM math records in grades 9 or above are included as Algebra I or Integrated Math I records, depending on the district's curriculum sequence (i.e., whether the district has more Algebra or Integrated Math records). DLM ELA records in grades 9 or above are included as English II records. All testing records will be relabeled and modified accordingly in accountability files. Assessment data file calculations will use the original subject before TCAP-Alternate assessment reassignments.

2.1.2.3 Data Corrections

Although the school letter grade system does not consider specific student groups in the calculation, some student group data, such as recently arrived English learners (RAEL), are managed differently when used for the participation rate and success rate calculation.

¹⁶ If students have records for multiple test types, the first record from the hierarchy with a non-missing performance level is included.

¹⁷ If students have two achievement records in the same content area in two different tested grades, the record with the absent flag is dropped, and the non-absent record is retained.

- Recently arrived EL students who have been enrolled in a U.S. school for less than 731 days will be considered tested, and their performance level will be modified to null for accountability files.¹⁸
- Recently arrived EL students who have been enrolled in a U.S. school for less than 731 days will be considered not tested for all subjects with missing performance levels.
- Recently arrived EL students who have been enrolled in a U.S. school for less than 731 days with valid performance levels will be considered tested in those subjects but will have their performance level modified to null in all subject areas for achievement indicator purposes.
- Year 1 Recently arrived EL students were excluded from the TVAAS calculation; however, these students' scores are included in future years as they are prior scores that can be used in the analysis. Year 2 Recently arrived EL students are included in the TVAAS calculation using Year 1 testing data as their prior scores for the analysis.¹⁹

Additionally, the department modifies testing subjects and grades in situations where the grade is either missing or before grade 9 (see Table 4).

Table 4: Modified Testing Subjects for Missing Grades or Below Grade 9

Original Subjects	Original Grade	Modified Subject	Modified Grade
Algebra I, Geometry, Algebra II, Integrated Math I, Integrated Math II, Integrated Math III	Missing	Do not modify	9-12
	< grade 9	Math	Do not modify
English I or English II	Missing	Do not modify	9-12
	< grade 9	ELA	Do not modify
US History or substitutable course	Missing	Do not modify	9-12
	< grade 9	Social studies	Do not modify
Biology or substitutable course	Missing	Do not modify	9-12
	< grade 9	science	Do not modify

2.1.2.4 Substitutable Courses and Tests

As stated earlier in [Section 2.1](#), students who are enrolled in substitutable courses in lieu of U.S. History or Biology will be included in the success rate calculation ONLY IF they do not have any current or prior enrollment in Biology or U.S. History. Additionally, at least 95% of eligible students (students enrolled in an eligible course without enrollment in a corresponding EOC course) must take the exam. The following steps are taken to identify the records of interest:

- **Step 1.** Students who are enrolled in the substitutable courses (see [Appendix B](#)) based on EIS course enrollment in the current year are first identified.
- **Step 2.** Students who have any existing record of enrollment in Biology in the current or prior school year's CDF are removed from the substitutable for biology pool, and students who have any existing record of enrollment in U.S. History in the current or prior school year's CDF are removed from the substitutable for U.S. History pool.
- **Step 3.** The participation rate is calculated for each course based on students who remained in the pool, and only the classes with at least a 95% participation rate are eligible to be included.
- **Step 4.** Students who remain in the eligible classes will be counted in the TCAP participation rate calculation and success rate calculation. Specifically, students who are enrolled in the substitutable courses and remain in the pool will be counted as "enrolled"; those with a valid test score will be

¹⁸ Recently arrived EL students who have been enrolled in a U.S. school for less than 731 days are included in the participation rate calculation, but they are excluded from the success rate calculation. The number of days enrolled is based on the difference between the last date of the spring testing window and the first day when the student was first enrolled in a school in the United States (i.e., date_1st_enrolled_us_school variable from the student_new table in EIS).

¹⁹ Please consult the [TVAAS Technical Report](#) for details.

counted as “tested”; and those with a qualifying score to meet proficiency will be counted as “met expectations.” Consult [Section 2.1.2.1](#) for participation rate calculation and [Section 2.1.2.3](#) for success Rate calculation.

2.1.2.5 Accountability Attribution Rule

The department applies the 50 percent enrollment rule to determine accountable schools for student performance on TCAP assessment results. The calculation for 50 percent enrollment is measured by the number of days a student has been enrolled from the total number of instructional days.²⁰ The total number of days in the school year is pulled from EIS based on district calendar. This pull applies to all assessment data, including demographic data. It is important to note that demographic data that are incorrect by the end of the testing window will remain incorrect in the final accountability data. For students whose demographic data differ across multiple school enrollments (e.g., a student is marked as homeless in one school but not another), the department will take the demographic data of the enrollment that matches the school in which they tested.

Instructional days calculation. The total number of instructional days counts all days in which students were enrolled in a school that was classified as instructional days minus any inclement weather days used during the school year.²¹ Instructional days are days with extract 11 submissions containing a value of “ID (Instructional Days)” for School Day Type and do not have a value of Event Type of either “SI (Stockpiled Day)” or “MI (Missed Instructional Day).” Consult the EIS website for more information regarding these extracts.

The 50 percent enrollment rule does not affect TCAP participation rate calculation; however, it does affect the calculation of the success rates and growth. As summarized in Table 5, the rules are:

- If a student with a valid test score was enrolled less than 50 percent of the instruction days in any Tennessee school, the student is excluded from the calculations of success rates and TVAAS composites.
- If a student with a valid test score was enrolled less than 50 percent of the instructional days in the school in which the student was tested but was enrolled in a Tennessee school for at least 50 percent of the instructional days, the student’s test score is assigned to the school in which the student was enrolled at least 50 percent of the instructional day.
- If a student with a valid test score was enrolled exactly 50 percent in two schools, the student’s test score is assigned to the school where the student was tested.

Table 5. Success Rate Calculation by Enrollment and Testing Scenarios

Enrollment Scenario	Testing Scenario	Count in Participation Rate	Count in Success Rate and Growth	Test score assigned to...
Student was not enrolled for at least 50 percent of the school year in any Tennessee school.	Student was present and tested in School A	Yes in School A	No	None
Student was enrolled for at least 50 percent of the school year in School A in Tennessee.	Student was present and tested in School B in Tennessee	Yes in School B	Yes	School A
Student was enrolled exactly 50 percent in two Tennessee schools (School A and B).	Student was present and tested in School A	Yes in School A	Yes	School A

²⁰ Counts of instructional days are not affected by the instructional model. That is, the instructional model experienced by a student (e.g., learning remotely, hybrid, in-person, etc.) is not considered when determining inclusion in enrollment.

²¹ Stockpiled days are not considered in the total count of instructional days. As such, some schools and districts may have denominators of 167 instructional days.

2.1.3 Calculation Procedures

This section discusses formulas and calculations for letter grade matrices, including percent meeting each performance level, success rate, and TCAP participation rate.

2.1.3.1 Performance Level Percentages

The percent of students at a given performance level for a given subject(s) is equal to the number of valid tests at that performance level, divided by the number of valid tests at all performance levels.²²

$$\text{Percent exceeded expectations} = \frac{\# \text{ exceeded expectations}}{\# \text{ valid tests}} * 100$$

$$\text{Percent met expectations} = \frac{\# \text{ met expectations}}{\# \text{ valid tests}} * 100$$

$$\text{Percent approaching expectations} = \frac{\# \text{ approaching expectations}}{\# \text{ valid tests}} * 100$$

The percent of students scoring *met expectations/exceeded expectations* for a given subject(s) is calculated by dividing the number of *met expectations* and *exceeded expectations* records by the total number of valid tests.

$$\text{Percent met expectations or exceeded expectations} = \frac{\# \text{ met expectations} + \# \text{ exceeded expectations}}{\# \text{ valid tests}} * 100$$

The percent below performance level is calculated during the rounding process to ensure that all percentages sum to 100. Values are rounded to the tenths place only after all calculations and comparisons have been performed.

Percent below = 100 – (percent *exceeded expectations* + percent *met expectations* + percent *approaching expectations*)

2.1.3.2 Success Rates

Success rates represent the number of valid tests with a performance level of *met expectations* or *exceeded expectations* (or meeting proficiency) divided by the total number of valid tests as presented below.

$$\text{Success rate (SR)} = \frac{\# \text{ met or exceeded expectations (tests of interest)}}{\# \text{ valid tests (tests of interest)}}$$

Within the letter grade system, a school's performance on the Achievement indicator is evaluated based on the grade-band success rate within the given school year across all four tested subject areas, including English language arts (ELA), math, science, and social studies. This section discusses the steps taken to calculate grade-band success rates for the Achievement indicator for letter grade calculation.

Step 1. Calculate grade-band subject success rates

Within the letter grade system, four subject success rates are calculated as presented below.

²² Records with missing or null performance levels (e.g., test records of recently arrived ELs) are not included in these counts.

$$\text{ELA SR} = \frac{\# \text{ met or exceeded expectations (ELA tests)}}{\# \text{ valid tests (ELA tests)}}$$

$$\text{Math SR} = \frac{\# \text{ met or exceeded expectations (math tests)}}{\# \text{ valid tests (Math tests)}}$$

$$\text{Science SR} = \frac{\# \text{ met or exceeded expectations (science tests)}}{\# \text{ valid tests (Science tests)}}$$

$$\text{Social Studies SR} = \frac{\# \text{ met or exceeded expectations (social studies tests)}}{\# \text{ valid tests (Social studies tests)}}$$

Depending on the grade levels served, a school may have between three to eleven grade-band subject success rates as shown in Table 6. ELA, math, and science success rates are calculated for schools serving grades 3-5, 6-8, and 9-12. Social studies success rates are calculated for schools serving grades 6-8 and 9-12. A school must have at least 30 valid testing records per subject per grade band to generate a grade-band subject success rate.

Table 6. Grade-band Subject Success Rates by Grade Levels Served

Tested Grade Levels Served between	Grade-band Subject Success Rates										
	G3-5			G6-8				G9-12			
	ELA	Math	Science	ELA	Math	Science	Social Studies	ELA	Math	Science	Social Studies
3 rd and 5 th grade	Yes	Yes	Yes								
6 th and 8 th grade				Yes	Yes	Yes	Yes				
9 th and 12 th grade								Yes	Yes	Yes	Yes
3 rd and 8 th grade	Yes	Yes	Yes	Yes	Yes	Yes	Yes				
3 rd and 12 th grade	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
6 th and 12 th grade				Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Step 2. Adjust subject success rate if not meeting 95% TCAP participation for a given subject

The department will adjust a grade-band subject success rate if the grade-band TCAP participation rate for the given subject is less than 95%. The department adjusts the number of valid tests for a given grade-band subject success rate using the formula below when the grade-band TCAP participation rate for the given subject is less than 95%. A school will not be eligible to receive a grade band success rate if the school does not have sufficient n count to generate an ELA success rate **AND** math success rate within the given grade band.

$$\text{Adjusted subject SR} = \frac{\# \text{ met or exceeded expectations (subject tests)}}{\# \text{ adjusted valid tests (subject tests)}}$$

$$\text{Adjusted valid tests} = (\# \text{ enrolled in tested subject courses} * 0.95)$$

Table 7 shows some examples of adjusted Grades 3-5 ELA success rates. The impact of the adjustment is greater when the grade-band subject TCAP participation rate for the given subject is lower.

Table 7. Adjusted Success Rates: G3-5 ELA Success Rate as an Example

Participation Rate for G3-5 ELA	# enrolled G3-5 ELA count	# valid G3-5 ELA tests	# G3-5 ELA met or exceeded expectations	G3-5 ELA Success Rate	# Adjusted valid G3-5 ELA tests	Adjusted G3-5 ELA success rate
86%	100	86	43	50%	100 x 0.95 = 95	43/95 = 45.3%
76%	100	76	38	50%	100 x 0.95 = 95	38/95 = 40.0%
66%	100	66	33	50%	100 x 0.95 = 95	33/95 = 34.7%

Step 3. Calculate grade-band success rates

Three grade-band success rates with different subject weights applied can be calculated as presented below.

Important note: For 2023-24, the department calculated two grades 9-12 success rates for each school serving any students from grades 9 to 12—one with the substitutable courses included (see [Section 2.1](#) and [Section 2.1.1.4](#) for how substitutable data are managed) and the other with substitutable courses excluded. For 2023-24, the higher success rate is used for the letter grade calculation.

G3 – 5 Success Rate

$$= \left(\frac{\# \text{ met or exceeded expectations (ELA)}}{\# \text{ valid tests (ELA)}} \right) \times 0.40 + \left(\frac{\# \text{ met or exceeded expectations (math)}}{\# \text{ valid tests (math)}} \right) \times 0.40 + \left(\frac{\# \text{ met or exceeded expectations (science)}}{\# \text{ valid tests (science)}} \right) \times 0.20$$

G6 – 8 Success Rate

$$= \left(\frac{\# \text{ met or exceeded expectations (ELA)}}{\# \text{ valid tests (ELA)}} \right) \times 0.35 + \left(\frac{\# \text{ met or exceeded expectations (math)}}{\# \text{ valid tests (math)}} \right) \times 0.35 + \left(\frac{\# \text{ met or exceeded expectations (science)}}{\# \text{ valid tests (science)}} \right) \times 0.15 + \left(\frac{\# \text{ met or exceeded expectations (social studies)}}{\# \text{ valid tests (social studies)}} \right) \times 0.15$$

$$G9 – 12 \text{ Success Rate} = \left(\frac{\# \text{ met or exceeded expectations (all subject EOCs)}}{\# \text{ valid tests (all subject EOCs)}} \right)$$

When one or more subject success rates are not calculated due to not meeting a minimum n count of 30 per subject per grade band, the weights of the missing subject(s) are redistributed to other subject areas. Table 8 shows the business rules for redistributing weights.

Table 8. Redistributing Subject Weights

Grade Band Success Rate	Original Weights	Missing Subject Success Rate(s)	Weights Distribution
Grades 3-5 Success Rate	ELA (40%) Math (40%) Science (20%)	ELA	Math (70%) Science (30%)
		Math	ELA (70%) Science (30%)
		Science	ELA (50%) Math (50%)
		ELA & Math	Not eligible to receive a success rate
		ELA & Science	Math (100%)
		Math & Science	ELA (100%)
Grades 6-8 Success Rate	ELA (35%) Math (35%) Science (15%) Social Studies (15%)	ELA	Math (50%) Science (25%) Social Studies (25%)
		Math	ELA (50%) Science (25%) Social Studies (25%)
		Science	Math (40%) ELA (40%) Social Studies (20%)

Grade Band Success Rate	Original Weights	Missing Subject Success Rate(s)	Weights Distribution
		Social Studies	Math (40%) ELA (40%) Science (20%)
		ELA & Math	Not eligible to receive a success rate
		ELA & Science	Math (70%) Social studies (30%)
		ELA & Social Studies	Math (70%) Science (30%)
		Math & Science	ELA (70%) Social Studies (30%)
		Math & Social Studies	ELA (70%) Science (30%)
		Science & Social Studies	Math (50%) ELA (50%)
Grades 9-12 Success Rate	Proportional Distribution (Not eligible to receive a success rate if missing math and ELA tests)		

2.1.3.3 TCAP Participation Rates

The TCAP participation rate is the percent of the number of tested records divided by the number of enrolled records. Consult [Section 2.1.1.1](#) for the definition of tested and enrolled records.

- **Tested** counts include the number of tested records with a valid performance level.
- **Enrolled** counts include the number of tested and non-tested records.

$$\text{Participation rate} = \frac{\# \text{ tested (valid tests)}}{\# \text{ enrolled}} * 100$$

Important note: TCAP Participation rate is rounded to the nearest whole number and is calculated at subject-level within each grade band (i.e., 3-5, 6-8, 9-12). In 2022-23, a grade-band subject TCAP participation rate of 94.1% or higher but less than 94.9% is rounded to 95%. The grade-band subject TCAP participation rate is used to determine whether a grade-band subject success rate would be adjusted or not due to not meeting the grade-band subject TCAP participation rate of 95%. Participation rates are calculated *after* all data preparations described in [Section 2.1.1](#) are completed. The post-appeal student-level assessment data file²³ is used to calculate the grade-band subject TCAP participation rates and the grade-band subject success rates. Consult [Section 2.1.2.3](#) for more detail regarding how subject-level grade band TCAP participation rate may affect subject-level grade band success rate calculation.

2.1.3.4 Achievement Indicator Score

The department utilized the 2021-22 assessment data to establish the cut scores to evaluate the Achievement indicator. That is, cut scores are established based on quintile cuts for each grade band—the score falls on the 20th-, 40th-, 60th-, and 80th-percentiles are used as the cut scores as presented in Table 15. Please consult the [2022-23 School Letter Grade Protocol and Appeals Guide](#) for details regarding the baseline data.

Table 9. Cut-Scores for Determining Achievement Indicator Scores by Grade Band

Achievement Indicator Score	Success Rate Cut Scores		
	G3-5	G6-8	G9-12
1	0.0-19.9	0.0-17.2	0.0-14.3

²³ The finalized student-level assessment data from the annual accountability appeals process, which include assessment data for all subjects, are used for letter grade calculation.

Achievement Indicator Score	Success Rate Cut Scores		
	G3-5	G6-8	G9-12
2	20.0-30.4	17.3-27.3	14.4-23.9
3	30.5-38.6	27.4-36.0	24.0-31.6
4	38.7-49.4	36.1-45.3	31.7-40.0
5	49.5-100.0	45.4-100.0	40.1-100.0

To calculate the Achievement indicator score, 2023-24 grand-band success rates are evaluated against the cuts presented in Table 9 and receive one or more Achievement indicator scores depending on grade levels served. For instance, traditional elementary schools serving students in kindergarten to 3rd grade would receive an Achievement indicator score based on their G3-5 success rates. K-8 schools would receive two Achievement indicator scores based on their G3-5 success rates and Grades 6-8 success rates. K-12 schools would receive three Achievement indicator scores based on their G3-5 success rates, G6-8 success rates, and G9-12 success rates. For schools with more than one Achievement indicator score, an overall Achievement indicator score is calculated based on the school's student enrollment²⁴ weights. Table 10 shows examples of how the Achievement indicator scores are calculated for schools with various grade compositions.

Table 10. Use case of Achievement Indicator Scores Calculation

Scenario: Schools serving students from...	G3-5			G6-8			G9-12			Overall Achievement Indicator Score
	Success Rate	Indicator Score	Enrollment	Success Rate	Indicator Score	Enrollment	Success Rate	Indicator Score	Enrollment	
Kindergarten to 5 th grade	35.0%	3	100%	--	--	--	--	--	--	$3 \times 1 = 3.0$
6 th to 8 th grade	--	--	--	20.0%	2	100%	--	--	--	$2 \times 1 = 2.0$
9 th to 12 th grade	--	--	--	--	--	--	35.0%	4	100%	$4 \times 1 = 4.0$
Kindergarten to 8 th	35.0%	3	70%	20.0%	2	30%	--	--	--	$(3 \times 0.7) + (2 \times 0.3) = 2.7$
Kindergarten to 12 th	35.0%	3	50%	20.0%	2	25%	35.0%	4	25%	$(3 \times 0.5) + (2 \times 0.25) + (4 \times 0.25) = 3.0$
5 th to 12 th grade	35.0%	3	10%	20.0%	2	45%	35.0%	4	45%	$(3 \times 0.1) + (2 \times 0.45) + (4 \times 0.45) = 3.0$
Kindergarten to 6 th grade	35.0%	3	90%	20.0%	2	10%	--	--	--	$(3 \times 0.9) + (2 \times 0.1) = 2.9$

2.2 Tennessee Value-Added Assessment System (TVAAS) Composites

Two types of TVAAS composites are included in the letter grade system: *TVAAS All Subjects composite* (i.e., Growth) and *TVAAS All Subjects composite* for the highest need students as defined by the bottom 25 percent (i.e., Growth25)²⁵. In this section, key business rules applied in data preparation and calculation are highlighted. For more details regarding TVAAS methodology, please consult the TVAAS [Technical Report](#).^{26, 27}

2.2.1 Data Preparation

²⁴ Only tested grades based on school enrollment records in EIS are included in the enrollment count. For instance, if a school serves students from kindergarten to 5th grade, only students from grades 3 and 5 are counted in the enrollment number. If a school serves students from grades 10 to 12, all students in 10th to 12th grades are counted.

²⁵ District may consult the [Projecting the Lowest 25% Step by Step Guide](#) for guidance on how to identify students who are *likely* to be in Growth25 based on their prior achievement using TVAAS student projections for a given assessment.

²⁶ SAS updates the technical report annually after the release of TVAAS data on the TVAAS website.

²⁷ Although CTE schools are not eligible for school designations, the department reports TVAAS composites for CTE schools.

As stated in [Section 2.1.1.5](#), the department applies the 50 percent enrollment rule to determine accountable schools for student performance on TCAP assessment results. Hence, for TVAAS calculation, only students who spent at least 50% of the school year at the school are accounted for. Please consult [Section 2.1.1.5](#) for how the 50 percent enrollment is calculated and applied in the data preparation process. Additional business rules in the TVAAS data file preparation process are discussed in detail in the TVAAS [Technical Report](#) Section 7.2.9 and Section 7.3.1.

2.2.2 Calculation Procedure

Within the letter grade system, all tested subjects, with few exceptions, are included in the calculation of Growth and Growth25, including:

- ELA, including TCAP ELA 3-8, English I, English II
- Math, including TCAP math 3-8, Algebra I/Integrated Math I, Geometry/Integrated Math II, Algebra II/Integrated Math III
- Science, including TCAP science 5-8, Biology
- Social studies, including TCAP social studies 6-8, U.S. History

The exceptions are:

- Grade 3 and Grade 4 science tests²⁸
- Substitutable courses/tests²⁹
- TCAP-Alt assessments³⁰

2.2.2.1 TVAAS All Subjects Composite

The TVAAS All Subjects composite is used as the Growth indicator in the letter grade system. The grade 3 growth measures are included in the composites when data are available. The TVAAS levels range from 1 to 5, and the interpretation of each level for the TVAAS All Subjects composite is summarized below. Across all subjects:

- Level 5. There is significant evidence that students made more growth than expected.
- Level 4. There is moderate evidence that students made more growth than expected.
- Level 3. There is evidence that students made growth as expected.
- Level 2. There is moderate evidence that students made less growth than expected.
- Level 1. There is significant evidence that students made less growth than expected.

Table 11 shows the mapping of TVAAS levels and the corresponding score for which schools would receive their Growth indicator.

Table 11. School Growth Indicator Score and TVAAS Levels Mapping

Growth Score	TVAAS All Subjects Composite Level
1	Level 1
2	Level 2
3	Level 3
4	Level 4
5	Level 5

²⁸ Grade 3 and 4 Science tests are used as predictors and are included in testing history in TVAAS calculation. However, TVAAS composites do not include value-added measures for grades 3 and 4 Science mainly because these assessments do not have sufficient stretch in the scales (consult TVAAS [Technical Report](#) Section 7.1.1 for more detail).

²⁹ Substitutable courses are not included in the TVAAS calculation.

³⁰ TCAP-Alt assessments are not used as predictors and are only included in testing history in TVAAS calculation.

2.2.2.2 TVAAS All Subjects Composite for the Bottom 25 Percent

TVAAS All Subjects Composites for the bottom 25 percent is used as the Growth25 indicator in the letter grade system. The bottom 25 percent include students who are at the bottom 25 percent based on their TCAP test results (highest need students) within the school per subject and grade level (i.e., TCAP tests) or per course (i.e., EOC courses). The process for identifying the bottom 25 percent does vary slightly by model (i.e., gain vs. predictive model):

- For the gain model³¹, students are identified based on their average score, which is the average of the current and prior-year NCE values. This is conducted separately for each school/subject/grade since the students are not necessarily the same in each set. Therefore, it is possible a student may be identified in math and/or ELA, depending on their TCAP scores in each subject.
- For the predictive model³², it is the predicted score based on the school-level predictive model. Again, this is conducted separately for each school/course or school/subject/grade since the students are not necessarily the same in each set. Therefore, it is possible a student may be identified in multiple subject areas depending on their TCAP scores across all subjects.

Using these values, students are selected within a school/subject/grade or school/course if their average NCE score or predicted score is in the bottom 25 percent. If the 25 percent threshold does not provide an integer, then the model will include the next lowest-score student to have at least 25 percent.

Once the bottom 25 percent of students are identified, there are additional steps to create the school growth measure, and the exact process varies by model.

- For the gain model, all of the students' current and prior test scores in math and ELA are included, just as they are in the overall school gain model, and the same calculation is performed as in the overall school model to produce the growth measures in the specific assessment. This is done separately for each subject since each has a separate set of students. Ultimately, a combined ELA and math model is used to create a composite standard error of any composite measures using components from this overall run and the separate subject models.
- For the predictive model, the students' predicted scores calculated from the overall school model with all students are used to create residuals for the individual students selected in the bottom 25 percent group. Their residual is based on the difference between students' predicted and actual scores, just like the overall school model. The average residual for the bottom 25 percent of students within a school/course or school/subject/grade is shrunk back toward zero because it is based on the number of students in the bottom 25 percent student group. Standard errors are then created based on this subset of students.

It is important to note that the expectation of growth for these students is based on the average amount of growth made by all students within a year/subject/grade or year/course and their own prior testing history. The same requirement applies to the minimum number of students in each school/year/subject/grade or school/year/course to create growth measures. For the gain model, the minimum n count of 6 per school/year/subject/grade is applied. For the predictive model, the minimum n count of 10 per school/year/course is applied. In other words, the minimum number of students must be met by the bottom 25 percent group of students. For example, if there are 12 students overall in a school/year/subject/grade, the bottom 25 percent would be too small ($n = 3$) to report a growth measure.

³¹ The gain model is applied when calculating growth measures for TCAP 3-8 math and ELA.

³² The predictive model is applied when calculating growth measures for TCAP 3-8 science and social studies and EOC tests.

Just like the TVAAS All Subjects composite, the TVAAS All Subjects composite for the bottom 25 percent ranges from 1 to 5. The interpretation of each level is—Across all subjects at this school:

- Level 5. There is significant evidence that students who are identified as the bottom 25 percent made more growth than expected.
- Level 4. There is moderate evidence that students who are identified as the bottom 25 percent made more growth than expected.
- Level 3. There is evidence that students who are identified as the bottom 25 percent made growth as expected.
- Level 2. There is moderate evidence that students who are identified as the bottom 25 percent made less growth than expected.
- Level 1. There is significant evidence that students who are identified as the bottom 25 percent made less growth than expected.

Table 12 shows the mapping of TVAAS levels and the corresponding score for which schools would receive for their Growth25 indicator.

Table 12. School Growth25 Indicator Score and TVAAS Levels Mapping

Growth25 Score	TVAAS All Subjects Composite Level for the Bottom 25 Percent Students
1	Level 1
2	Level 2
3	Level 3
4	Level 4
5	Level 5

2.3 College and Career Readiness (CCR) Data

The letter grade system includes the College and Career Readiness (CCR) indicator for high schools as a measure of student readiness for postsecondary education and careers. Various data sources are used for CCR evaluation, including ACT/SAT and early postsecondary performance data. Table 13 summarizes the data sources for various CCR data elements. For all listed data elements, districts have opportunities to review and verify the data prior to finalization during the [CCR Data Verification Process](#).

Table 13. CCR Data Sources

Data Type	Data Source(s)
ACT	<ul style="list-style-type: none"> • ACT, Inc. provides a score file to the department that includes all students who attempted the exam and their highest composite score, including scores from national administrations
SAT	<ul style="list-style-type: none"> • The College Board provides a score file to the department that includes all students who attempted the SAT exam on an in-school or national test administration
Advanced Placement (AP)	<ul style="list-style-type: none"> • Student information system (SIS) data on course enrollment in AP courses will be obtained from the Education Information System (EIS) • The College Board provides a score file to the department that includes all students who attempted an AP exam, along with exam scores
Cambridge International Examinations (CIE)	<ul style="list-style-type: none"> • SIS data on course enrollment in Cambridge International Education courses will be obtained from EIS • Cambridge International Education provides a score file to the department that includes all students who attempted a Cambridge exam, along with exam scores
College Level Examination Program (CLEP)	<ul style="list-style-type: none"> • The College Board provides a score file to the department that includes all students who attempted a CLEP exam, along with exam scores
Dual Enrollment (DE)	<ul style="list-style-type: none"> • SIS data on dual enrollments are obtained from EIS

Data Type	Data Source(s)
	<ul style="list-style-type: none"> The Tennessee Higher Education Commission (THEC) submits postsecondary student enrollment information to the state’s longitudinal data system (P20Connect), which provides a matched data file to the department
International Baccalaureate (IB)	<ul style="list-style-type: none"> SIS data on course enrollment in IB courses are obtained from EIS International Baccalaureate provides a score file to the department that includes all students who attempted an IB exam.
Local Dual Credit (LDC)	<ul style="list-style-type: none"> SIS data on course enrollment in high school courses that have been appropriately flagged as “local dual credit” are obtained from EIS
Statewide Dual Credit (SDC)	<ul style="list-style-type: none"> SIS data on course enrollment in high school courses that have been appropriately flagged as “statewide dual credit” are obtained from EIS Results of the challenge exam are provided through the Early Postsecondary (EPS) Data System
Industry Credential (IC)	<ul style="list-style-type: none"> Districts provide IC data annually including all students who successfully earned a credential during the current school year
Armed Services Vocational Aptitude Battery (ASVAB) Armed Forces Qualifying Test (AFQT)	<ul style="list-style-type: none"> The U.S. Department of Defense provides results to districts, who then provide data to the department during CCR data verification process

For the letter grade system, the current graduating cohort’s CCR data are used. For the 2023-24 letter grade calculation, the 2023-24 graduating cohort’s CCR data, verified by districts during the [2023-24 CCR Data Verification process](#), are used. The CCR Data Verification Guide, which provides details regarding the data verification process and timeline, is updated annually on the [TDOE website](#). The following sections discuss business rules applied to preparing data files and how each data element is used in the CCR calculation.

2.3.1 Data Preparation

Business rules applied to prepare CCR data files are briefly described in this section. Consult the annual [CCR Data Verification Guide](#) for more details regarding annual key updates.

2.3.1.1 ACT/SAT Data

ACT and SAT results offer students information about their preparation for postsecondary opportunities and the workforce through an assessment of career and college readiness. Below are the guidelines the department uses to prepare ACT and SAT data:

- For ACT and SAT composite scores, a student’s highest score from a single administration obtained within their high school years³³ including June of their self-reported graduation year is used.³⁴ Records containing students’ highest composite scores among the cohort file are provided by ACT.
- The department does not use “superscores.”³⁵
- The department reconciles instances in which students have multiple records, either from a single file or across multiple of the files above, as follows:
 - The record with the highest composite score is included if there are multiple records for the same student with different composite scores.
 - The record with the highest math subscore is included if there are multiple records for the same student with the same composite score.

³³ ACT and SAT data are aggregated by the department for the three most recent school years and are matched to their cohort.

³⁴ There may be scores earned within this timeframe that may not be included (e.g., tests taken in another state or records that do not include a state student ID in any of the files described above).

³⁵ A [superscore](#) is the average of one’s best subject scores from all ACT test attempts.

- The record with the highest reading³⁶ subscore is included if there are multiple records for the same student with the same composite and math scores.
- The record with the highest English subscore is included if there are multiple records for the same student with the same composite, math, and reading scores.
- The record with the highest science subscore is included if there are multiple records for the same student with the same composite, math, reading, and English scores.
- The most recent test record is included if there are multiple records for the same student with the same composite, math, reading, English, and science scores.

2.3.1.2 Early Postsecondary Performance Data

Education Information System (EIS) and local student information systems (SIS) use specific course codes for early postsecondary courses. Student early postsecondary course enrollment information comes from the course codes and flags submitted to EIS via extract 030, including:

- Advanced Placement (AP)
- Cambridge International Examinations (CIE)
- Dual Enrollment (DE)
- International Baccalaureate (IB) courses
- Statewide Dual Credit (SDC) courses
- Local Dual Credit (LDC)

AP, CIE, DE, and IB courses are all denoted with specific course codes following the Course Code Management System (CCMS). SDC courses must be indicated with **both** the appropriate course code and the course flag. LDC courses are denoted with the course flag for all high school course codes available to be taught as an LDC course, which districts should use **ONLY IF** an articulation agreement or a memorandum of understanding (MOU) with a local postsecondary institution is in place.

To prepare the initial CCR data files, the department pulled these various data, including transcript, course enrollment, and course codes, from EIS to help determine which students were enrolled in the qualifying postsecondary courses. For all CCR elements where course enrollment information is obtained through EIS, a student must be appropriately placed in the correct course code, and/or the appropriate flags must be checked to reflect that the course was offered as an early postsecondary course eligible for postsecondary credit. For SDC courses, the department provides specific enrollment and flagging instructions to SDC coordinators. For questions about early postsecondary course enrollment, please email Early.Postsecondary@tn.gov.

In addition to collecting enrollment information, the department also receives various test scores from various data vendors as presented in Table 15, including AP, CIE, CLEP, IB, and SDC. The department then utilizes course enrollment and test information to identify postsecondary courses that are eligible for being counted for CCR status followed by district verification to finalize the data during the CCR Data Verification process. Please consult the annual [CCR Data Verification Guide](#) for details regarding the processes and data sources used for the current school year.

Lastly, the department relies on districts for two key data elements:

- **Industry credentials (ICs).** Districts self-reported ICs earned by their students to the department on an annual basis. Districts' CTE directors review and certify the data following the requirements specified by each IC. As noted in the TDOE's Tennessee Promoted Industry Credential [webpage](#), within the constraints of the local district abilities, any student may attempt to earn any industry credential. Consult the [Tennessee Promoted Industry Credential Report](#) for more information on ICs.

³⁶ For SAT, the department considers the critical reading score as the reading subscore.

- **Armed Services Vocational Aptitude Battery (ASVAB) Armed Forces Qualifying Test (AFQT).** Districts self-reported ASVAB test data to the department during the annual CCR data verification process.

2.3.1.3 Special Cases and Business Rules

This section highlights some special cases and the business rules applied:

- The department will not count Intervention (e.g., G02H22, etc.) or Study Hall (G25H10) courses marked with the LDC flag as postsecondary credits.
- Courses marked with the LDC flag that have a course code corresponding to another early postsecondary course type (e.g., an AP course marked with the LDC flag) will be considered as the type corresponding to the course code rather than the LDC flag.
- Classes for students completed between grades 9 and 12 are considered in the counts of EPSOs students earn.

2.3.1.4 Resolving Duplicated Early Postsecondary Data

The department follows the steps below to retain a single record per student per course when preparing the data file for district review:

- The record with the most recent school year of enrollment is included if there are multiple records for the same student and course code.
- The record with the most recent enrollment end date is included if there are multiple records for the same student, course code, and school year.
- The record with the most recent enrollment start date is included if there are multiple records for the same student, course code, school year, and enrollment end date.
- The record with the most recent class assignment end date is included if there are multiple records for the same student, course code, school year, enrollment end date, and enrollment begin date.
- The record with the most recent class assignment begin date is included if there are multiple records for the same student, course code, school year, enrollment end date, enrollment begin date, and class assignment end date.
- The record with the most recent class section end date is included if there are multiple records for the same student, course code, school year, enrollment end date, enrollment begin date, class assignment end date, and class assignment begin date.
- The record with the most recent class section begin date is included if there are multiple records for the same student, course code, school year, enrollment end date, enrollment begin date, class assignment end date, class assignment begin date, and class section end date.

2.3.2 Calculation Procedure

This section discusses formulas and calculations for the CCR indicator and how the cut-scores are established to evaluate the CCR indicator.

2.3.2.1 CCR Rates

To evaluate school performance on the CCR indicator, the CCR rate is calculated for high schools. The CCR rate formula is presented below:

$$\text{CCR rate} = \frac{\# \text{ graduates earning CCR status}}{\# \text{ students in the graduating cohort}} * 100$$

The number of students in the graduating cohort is defined as the number of students entering grade 9 for the first time four years prior, removing withdrawn students and adding students who join that cohort in later years. Graduates are defined as students who graduated in four years plus a summer with a traditional diploma or an alternate academic diploma having met the graduation requirements in the Tennessee State Board of Education (SBE) [Graduation Requirements Rule 0520-01-03-.06](#) and [High School Policy 2.103](#).³⁷ Please consult the [Cohort protocol](#) for more guidance on cohort and graduation status determination.

To be counted as earning the CCR status, students must be a graduate who meet one of the following criteria:

- Meets or exceeds a composite of 21 (ACT) or 1060 (SAT)
- Earns a score of 31 or higher on the ASVAB AFQT
- Earns a Tier 3 IC **OR** earns a Tier 2 IC and at least one other IC (any tier is acceptable for the second credential)
- Earns one or more “postsecondary credits”

Students must obtain the IC (either by earning the required exam score or completing the licensure requirements) for the credential to count toward the CCR indicator. Only ICs that are on the [department’s promoted list](#) (updated in 2023) are considered for the CCR indicator.

To be counted as earning one or more “postsecondary credits,” students must meet one of the attainment criteria as specified in Table 14. Please note that students who took AP, CIE, CLEP, IB, and SDC tests without enrolling in the associated course are eligible for accounting and will count as receiving postsecondary credits if they meet the specified attainment requirement. Course enrollment is not a requirement for these early postsecondary opportunities. However, students who earn postsecondary credits via the DE and LDC pathways must have enrollment records with a valid state or local course code presented in EIS.

Table 14. Postsecondary Credit Attainment Criterion by Data Element

Data	Attainment Requirement	Course Enrollment
AP	Score of 3, 4, or 5 on associated exam	Not Required
CIE	Exam grade of A*, A, B, C, D, or E (A Level) OR Exam grade of a, b, c, d or e (AS Level)	Not Required
CLEP	Exam score of 50 or higher	Not Required
DE	College credit earned evidenced by passing dual enrollment course examination that are eligible for earning postsecondary credits	Required
IB	<i>Subject Area Tests:</i> Exam score of 3+ (SL or SL/HL); Exam score of 4+ (HL) <i>Theory of Knowledge Exam:</i> Exam score of A, B, or C	Not Required
LDC	College credit earned evidenced by passing local dual credit examination or course requirements that are eligible for earning postsecondary credits	Required
SDC	Challenge exam score necessary to obtain credit at TN public university (varies by exam; see CCR Data Verification Guide Appendix A for a full list of individual SDC exam cut scores.	Not Required

2.3.2.2 CCR Indicator Score

The department utilizes the 2021-22 CCR rate to establish the cut scores to evaluate the CCR indicator. That is, cut scores are established based on quintile cuts of the baseline 2021-22 CCR rate distribution across the state—the score falls on the 20th-, 40th-, 60th-, and 80th-percentiles are used as the cut scores as presented in Table 15. Please consult the [2022-23 School Letter Grade Protocol and Appeals Guide](#) for details regarding the baseline data.

Table 15. Cut-Scores for Determining CCR Indicator Score

³⁷ Also see CHAPTER 0520-01-03-.06

CCR Indicator Score	CCR Rate Cut Scores
1	0.0-31.4%
2	31.5-43.5%
3	43.6-54.4%
4	54.5-65.6%
5	65.7-100.0%

2.4 Rounding and Truncating Procedures

When calculating and reporting the success rates, the department only rounds the grade band subject success rates to the nearest one decimal place. The department does not round any other success rates. When reporting, all calculations are truncated to one decimal place for the Achievement indicator score, the weighted achievement indicator, and the overall letter grade score. For example, a school with an Achievement indicator score of 2.153 will have an Achievement indicator score of 2.1 displayed in reporting.

Section 3: Letter Grade Methodology

This session discusses how the indicators are used to inform a final letter grade for schools that are eligible for a letter grade.

3.1 Letter Grade Eligibility

All schools with a school type of public (code of 0), state special education (code of 2), or charter (code of 3) based on the School Directory (SDE) in Tennessee are eligible for receiving a letter grade with few exceptions. The following types of schools are not eligible for receiving a letter grade:

- Tennessee School for the Blind (schools with an instructional type of 7 in the School Directory)
- Tennessee School for the Deaf (schools with an instructional type of 7 in the School Directory)
- Adult high schools (schools with an instructional type of 9 in the School Directory)
- Alternative schools (schools with an instructional type of 8 in the School Directory)
- CTE schools (schools with an instructional type of 6 in the School Directory)
- Closed schools³⁸
- Schools serving kindergarten to 2nd grade students only
- Schools without an Achievement indicator

3.2 Letter Grade Indicators and Weights

Table 16 summarizes the key indicators included in the letter grade calculation and the corresponding weights by school type. Schools with at least 30 students in the current year’s graduating cohort are identified as high schools and are evaluated on four indicators: Achievement, Growth, Growth25, and CCR. All other schools are identified as K-8 schools and are evaluated on three indicators: Achievement, Growth, and Growth25.

Table 16. Letter Grade Indicators and Weights by School Type

Indicators	K-8 Schools	High Schools
Achievement	50%	50%
Growth	40%	30%
Growth25	10%	10%
CCR	0%	10%

Table 17 shows the re-distribution of weights when one or more indicators are missing due to insufficient data.

Table 17. Indicator Weight Redistribution

School Type	Missing Indicator	Weights Distribution
K-8	Achievement OR Growth	Not Eligible for Letter Grade
	Growth25	Achievement (50%) Growth (50%)
HS	Achievement OR Growth	Not Eligible for Letter Grade
	Growth25	Achievement (50%) Growth (40%) CCR (10%)
	CCR	Achievement (50%) Growth (40%)

³⁸ The department identifies closed schools as those that have an end date between May 31 and August 31 during the current school year.

School Type	Missing Indicator	Weights Distribution
		Growth25 (10%)
	Growth25 & CCR	Achievement (50%) Growth (50%)

3.3 Letter Grade Calculation

The letter grade calculation formulas are presented below by school type:

$$\begin{aligned}
 &K - 8 \text{ School Letter Grade Score} \\
 &= (\text{Achievement Indicator Score} \times 0.50) + (\text{Growth Score} \times 0.40) + (\text{Growth25 Score} \times 0.1)
 \end{aligned}$$

$$\begin{aligned}
 &High School Letter Grade Score \\
 &= (\text{Achievement Indicator Score} \times 0.50) + (\text{Growth Score} \times 0.30) + (\text{Growth25} \times 0.1) \\
 &+ (\text{CCR Score} \times 0.1)
 \end{aligned}$$

Once the letter grade scores are calculated for all eligible schools, each school receives a letter grade of A, B, C, D, or F based on the cut scores below:

- A 4.5-5.0
- B 3.5-4.4
- C 2.5-3.4
- D 1.5-2.4
- F 1.0-1.4

Appendix A: List of Acronyms

Term	Definition
AP	Advanced Placement
ASVAB/AFQT	Armed Services Vocational Aptitude Battery (ASVAB) Armed Forces Qualifying Test (AFQT)
CIE	Cambridge International Examinations
CLEP	College Level Examination Program
CTE	Career Technical Education Schools
DE	Dual Enrollment
ED	Economically Disadvantaged Student Group
EIS	Education Information System
ELA	English Language Arts
EOC	End of Course
IC	Industry Credential
IB	International Baccalaureate
LDC	Local Dual Credit
RAEL	Recently Arrived English Learner
RI	Reports of Irregularity
SAT	Scholastic Aptitude Test
SDC	Statewide Dual Credit
SIS	Student Information System
TCAP	Tennessee Comprehensive Assessment Program

Appendix B: Substitutable Courses

Type	Course	Substitutable Course Number / Title	Min	Max	Proficiency Cut Score
AP	Biology	G03H10 AP Biology	1	5	3
AP	Biology	G03H93 AP Access for All: AP Biology	1	5	3
CIE	Biology	G03H58 CIE Biology AS & A Level	U	A*/a	E/e
IB	Biology	G03H08 IB Biology I HL	1	7	4
IB	Biology	G03H11 IB Biology II HL	1	7	4
IB	Biology	G03H17 IB Biology I SL	1	7	3
IB	Biology	G03H67 IB Biology II SL	1	7	3
IB	Biology	G03H68 IB Biology I SL/HL	1	7	3
IB	Biology	G03H69 IB Biology II SL/HL	1	7	3
IB	Biology	G03H70 IB Biology III SL/HL	1	7	3
IB	Biology	G03H71 IB Biology III SL	1	7	3
IB	Biology	G03H72 IB Biology III HL	1	7	4
SDC	Biology	C18H09 SDC Introduction to Plant Science	0	100	70
AP	US History	G04H21 AP U.S. History	1	5	3
AP	US History	G04HC5 AP Access for All: AP U.S. History	1	5	3
CIE	US History	G04H57 CIE Geography I AS Level	U	a	e
CIE	US History	G04H58 CIE Geography II A Level	U	A*	E
CIE	US History	G04H59 CIE History - US AS & A Level	U	A*/a	E/e
CIE	US History	G04H60 CIE History - International AS & A Level	U	A*/a	E/e
IB	US History	G04H02 IB Geography II HL	1	7	4
IB	US History	G04H03 IB History of the Americas I SL	1	7	3
IB	US History	G04H05 IB History of the Americas I HL	1	7	4
IB	US History	G04H06 IB History of the Americas II HL	1	7	4
IB	US History	G04H08 IB History of the Americas I SL/HL	1	7	3
IB	US History	G04H09 IB History of the Americas II SL/HL	1	7	3
IB	US History	G04H20 IB Geography I HL	1	7	4
IB	US History	G04H76 IB Geography I SL	1	7	3

Type	Course	Substitutable Course Number / Title	Min	Max	Proficiency Cut Score
IB	US History	G04H79 IB History I HL	1	7	4
IB	US History	G04H80 IB History II HL	1	7	4
IB	US History	G04H81 IB History I SL	1	7	3
IB	US History	G04H90 IB Geography II SL	1	7	3
IB	US History	G04H91 IB Geography I SL/HL	1	7	3
IB	US History	G04H92 IB Geography II SL/HL	1	7	3
IB	US History	G04H96 IB History of the Americas II SL	1	7	3
IB	US History	G04H97 IB History II SL	1	7	3
IB	US History	G04H98 IB History I SL/HL	1	7	3
IB	US History	G04H99 IB History II SL/HL	1	7	3
SDC	US History	G04HB3 SDCPilt American History	0	100	75