# 2022-23 School Letter Grade Protocol and Appeals Guide 

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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 conducted a series of statewide engagement opportunities and engaged various stakeholder groups across the state to inform the development of the new letter grade rating system. Next, the department formed a working group representing key stakeholder groups across the state to consolidate the feedback from various channels to help inform the design of the letter grade methodology. The department presented the new letter grade system and methodology to the Tennessee State Board of Education on November 2, 2023, which will provide an A-F letter grade rating for each public school in Tennessee based on their performance during the 2022-23 school year.

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-8 ${ }^{1}$ and High School ${ }^{2}$ ). 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 and the process and timeline to submit appeals. Section 2 discusses data sources and business rules for preparing data files. Section 3 discusses letter grade methodology, including indicator calculation and weights. Section 4 provides guidance on appeals submission, including the process and timeline. A list of acronyms used in this technical document is presented in Appendix A.

[^0]
## 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 2-83 | TCAP grades 2-8 | TCAP Grades 3-8 | TCAP grades 6-8 |
| (grade 2 optional) | (grade 2 optional) | Biology | U.S. History |
| English I | Algebra I/Integrated Math I |  |  |
| English II | Geometry/Integrated Math II |  |  |
| Algebra II/Integrated Math III |  |  |  |

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.

Table 2. TCAP-Alt Testing Portfolio

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

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 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

[^1]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. 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 assessment data files from the assessment vendor in the form of Comprehensive Data Files (CDF). 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 exempted (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) ${ }^{5}$, or 5 (residential facility) ${ }^{6}$
- Test record with a Report of Irregularity (RI) value $>0^{7}$
- Test record with attemptedness value of N or without test status code (i.e., SNT, RI) ${ }^{8}$
- Valid test counts include tested records with a valid scale score and performance level.

[^2]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 ${ }^{9}$ | 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)
- Homeschooled ${ }^{10}$ 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.

[^3]- 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 avalid district number. ${ }^{11}$
- Records with missing district numbers are included at the state level. ${ }^{12}$
- 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: ${ }^{13}$

- 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.
- 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. ${ }^{14}$
- TCAP-Alternate assessment
- TCAP EOC
- TCAP Achievement ${ }^{15}$

[^4]- 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 TCAPAlternate 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:

- MSAA 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).
- MSAA 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). MSAA 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
- Students who took the Multi-State Alternate Assessment (MSAA) exam and received an Early Stopping Rule (ESR) flag will be counted as "tested" in the participation rate calculation. These students will also be included in the success rate calculation with a performance level of 1 (below expectations). These are the recommended practices by MSAA and are commonly applied among the MSAA consortium states.


### 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.

- 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. ${ }^{16}$
- 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.

[^5]- 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. ${ }^{17}$

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 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

[^6]number of days a student has been enrolled from the total number of instructional days. ${ }^{18}$ The total number of days in the school year is pulled from EIS on the final day of the testing window. 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. ${ }^{19}$ 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 <br> Participation <br> Rate | Count in Success <br> Rate and <br> Growth | Test score <br> assigned to... |
| :---: | :---: | :---: | :---: | :---: |
| Student was not enrolled for at least <br> 50 percent of the school year in any <br> Tennessee school. | Student was present and <br> tested in School A | Yes in School A | No | None |
| Student was enrolled for at least 50 <br> percent of the school year in School A <br> in Tennessee. | Student was present and <br> tested in School B in <br> Tennessee | Yes in School B | Yes | School A |
| Student was enrolled exactly 50 <br> percent in two Tennessee schools <br> (School A and B). | Student was present and <br> tested in School A | Yes in School A | Yes | School A |

### 2.1.3 Calculation Procedures

This section discuss 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

[^7]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. ${ }^{20}$

$$
\begin{aligned}
\text { Percent exceeded expectations } & =\frac{\# \text { exceeded expectations }}{\# \text { valid tests }} * 100 \\
\text { Percent met expectations } & =\frac{\# \text { met expectations }}{\# \text { valid tests }} * 100 \\
\text { Percent approaching expectations } & =\frac{\# \text { approaching expectations }}{\# \text { valid tests }} * 100
\end{aligned}
$$

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.

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

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.

$$
\begin{aligned}
& \text { ELA SR }=\frac{\# \text { met or exceeded expectations (ELA tests) }}{\# \text { valid tests (ELA tests) }} \\
& \text { Math SR }=\frac{\# \text { met or exceeded expectations (math tests) }}{\# v a l i d ~ t e s t s ~(M a t h ~ t e s t s) ~}
\end{aligned}
$$

[^8]\[

$$
\begin{aligned}
\text { Science SR } & =\frac{\# \text { met } \text { or exceeded expectations (science tests) }}{\# v a l i d ~ t e s t s ~(S c i e n c e ~ t e s t s) ~} \\
\text { Social Studies SR } & =\frac{\# \text { met or exceeded expectations (social studies tests) }}{\text { \#valid tests (Social studies tests) }}
\end{aligned}
$$
\]

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 |  |  |  |  | -band | Subject Sul | ccess R |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Served between |  | G3- |  |  |  | G6-8 |  |  |  | G9-12 |  |
|  | ELA | Math | Science | ELA | Math | Science | Social Studies | ELA | Math | Science | Social Studies |
| $3^{\text {rd }}$ and $5^{\text {th }}$ grade | Yes | Yes | Yes |  |  |  |  |  |  |  |  |
| $6^{\text {th }}$ and $8^{\text {th }}$ grade |  |  |  | Yes | Yes | Yes | Yes |  |  |  |  |
| $9^{\text {th }}$ and $12^{\text {th }}$ grade |  |  |  |  |  |  |  | Yes | Yes | Yes | Yes |
| $3^{\text {rd }}$ and $8^{\text {th }}$ grade | Yes | Yes | Yes | Yes | Yes | Yes | Yes |  |  |  |  |
| $3^{\text {rd }}$ and $12^{\text {th }}$ grade | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| $6^{\text {th }}$ and $12^{\text {th }}$ 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.

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

Adjusted valid tests $=(\#$ 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 <br> Success <br> Rate | \# Adjusted valid G3-5 ELA tests | Adjusted G3-5 ELA success rate |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 86\% | 100 | 86 | 43 | 50\% | $100 \times 0.95=95$ | $43 / 95=45.3 \%$ |
| 76\% | 100 | 76 | 38 | 50\% | $100 \times 0.95=95$ | $38 / 95=40.0 \%$ |
| 66\% | 100 | 66 | 33 | 50\% | $100 \times 0.95=95$ | $33 / 95=34.7 \%$ |

## 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 2022-23, 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. The higher success rate is used for the letter grade calculation.

G3 - 5 Success Rate

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

G6 - 8 Success Rate

$$
\left.\begin{array}{l}
=\left(\frac{\# \text { met or exceeded expectations (ELA) }}{\# \text { valid tests (ELA) }}\right) \times 0.35+\left(\frac{\# \text { met or exceeded expectations (math) }}{\# v a l i d ~ t e s t s ~(m a t h) ~}\right.
\end{array}\right) \times 0.35
$$

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

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\%) <br> Math (40\%) <br> Science (20\%) | ELA | Math (70\%) <br> Science (30\%) |
|  |  | Math | ELA (70\%) <br> Science (30\%) |
|  |  | Science | $\begin{aligned} & \hline \text { ELA (50\%) } \\ & \text { Math (50\%) } \\ & \hline \end{aligned}$ |
|  |  | ELA \& Math | Not eligible to receive a success rate |
|  |  | ELA \& Science | Math (100\%) |
|  |  | Math \& Science | ELA (100\%) |
| Grades 6-8 Success Rate | ELA (35\%) <br> Math (35\%) <br> Science (15\%) <br> Social Studies (15\%) | ELA | Math (50\%) <br> Science (25\%) <br> Social Studies (25\%) |
|  |  | Math | ELA (50\%) <br> Science (25\%) <br> Social Studies (25\%) |
|  |  | Science | Math (40\%) <br> ELA (40\%) <br> Social Studies (20\%) |
|  |  | Social Studies | Math (40\%) <br> ELA (40\%) <br> Science (20\%) |
|  |  | ELA \& Math | Not eligible to receive a success rate |
|  |  | ELA \& Science | Math (70\%) <br> Social studies (30\%) |
|  |  | ELA \& Social Studies | Math (70\%) |


| Grade Band Success Rate | Original Weights | Missing Subject Success Rate(s) | Weights Distribution |
| :---: | :---: | :---: | :---: |
|  |  |  | Science (30\%) |
|  |  | Math \& Science | ELA (70\%) <br> Social Studies (30\%) |
|  |  | Math \& Social Studies | ELA (70\%) <br> Science (30\%) |
|  |  | Science \& Social Studies | $\begin{aligned} & \hline \text { Math (50\%) } \\ & \text { ELA (50\%) } \\ & \hline \end{aligned}$ |
| 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 subjectlevel 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. For 2022-23, the post-appeal student-level assessment data file ${ }^{21}$ 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 utilizes the 2021-22 assessment data to establish the cut scores to evaluate the Achievement indicator. The same data preparation and calculation procedures described in Section 2.1.1 and Section 2.1.2 are implemented to calculate 2021-22 grade band success rates with one exception. 2021-22 grade band success rates did not include substitutable courses. Based on 2021-22 grade band success rates, cut scores, as presented in Table 9, are established based on quintile cuts for each grade band-the score falls on the $20^{\text {th }}$, $40^{\text {th }}$-, $60^{\text {th }}$-, and $80^{\text {th }}$-percentiles are used.

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 |
| 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 |

[^9]Achievement Indicator

## Score

5
5
-
,
G3-5 Success Rate Cut Scores

| G6-8 | G9-12 |
| :---: | :---: |
| $45.4-100.0$ | $40.1-100.0$ |

To calculate the Achievement indicator score, 2023 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 $3^{\text {rd }}$ 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. $\mathrm{K}-12$ 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 enrollment ${ }^{22}$ 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

|  | G3-5 |  |  | G6-8 |  |  | G9-12 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Scenario: Schools serving students from... |  | Indicator Score |  |  | Indicator Score |  |  | Indicator Score | H 틀 $\bar{\prime}$ 은 | Overall Achievement Indicator Score |
| Kindergarten to $5^{\text {th }}$ grade | 35.0\% | 3 | 100\% | -- | -- | -- | -- | -- | -- | $3 \times 1=3.0$ |
| $6{ }^{\text {th }}$ to $8^{\text {th }}$ grade | -- | -- | -- | 20.0\% | 2 | 100\% | -- | -- | -- | $2 \times 1=2.0$ |
| $9^{\text {th }}$ to $12^{\text {th }}$ grade | -- | -- | -- | -- | -- | -- | 35.0\% | 4 | 100\% | $4 \times 1=4.0$ |
| Kindergarten to 8 ${ }^{\text {th }}$ | 35.0\% | 3 | 70\% | 20.0\% | 2 | 30\% | -- | -- | -- | $(3 \times 0.7)+(2 \times 0.3)=2.7$ |
| Kindergarten to $12^{\text {th }}$ | 35.0\% | 3 | 50\% | 20.0\% | 2 | 25\% | 35.0\% | 4 | 25\% | $\begin{gathered} (3 \times 0.5)+(2 \times 0.25)+(4 \times \\ 0.25)=3.0 \end{gathered}$ |
| $5^{\text {th }}$ to $12^{\text {th }}$ grade | 35.0\% | 3 | 10\% | 20.0\% | 2 | 45\% | 35.0\% | 4 | 45\% | $\begin{gathered} (3 \times 0.1)+(2 \times 0.45)+(4 \times \\ 0.45)=3.0 \end{gathered}$ |
| Kindergarten to $6{ }^{\text {th }}$ 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). 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. ${ }^{23,24}$

### 2.2.1 Data Preparation

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

[^10]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 tests ${ }^{25}$
- Substitutable courses/tests ${ }^{26}$
- TCAP-Alt assessments ${ }^{27}$


### 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 |

### 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

[^11](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 model ${ }^{28}$, 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 model ${ }^{29}$, 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.
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.

[^12]- 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. Specifically, districts may verify ACT/SAT data during the ACT/SAT Appeals Process and all other early postsecondary data during the CCR Data Verification Process ${ }^{30}$.

Table 13. CCR Data Sources

| Data Type | Data Source(s) |
| :--- | :--- |
| ACT | - ACT, Inc. provides a score file to the department that includes all students who <br> attempted the exam and their highest composite score, including scores from <br> national administrations |
| $\underline{\text { SAT }}$ | - The College Board provides a score file to the department that includes all <br> students who attempted the SAT exam on an in-school or national test <br> administration |
| Advanced Placement (AP) | - Student information system (SIS) data on course enrollment in AP courses will <br> be obtained from the Education Information System (EIS) <br> - The College Board provides a score file to the department that includes all <br> students who attempted an AP exam, along with exam scores |
| Cambridge International | - SIS data on course enrollment in Cambridge International <br> Education courses will be obtained from EIS <br> - Cambridge International Education provides a score file to the department that <br> includes all students who attempted a Cambridge exam, along with exam <br> scores |
| College Level Examination Program | - The College Board provides a score file to the department that includes all <br> students who attempted a CLEP exam, along with exam scores |
| (CLEP) | - SIS data on dual enrollments are obtained from EIS <br> - The Tennessee Higher Education Commission (THEC) submits postsecondary <br> student enrollment information to the state's longitudinal data system <br> (P20Connect), which provides a matched data file to the department |
| International Baccalaureate (IB) | - SIS data on course enrollment in IB courses are obtained from EIS |

[^13]| Data Type | $\quad$ Data Source(s) |
| :--- | :--- | \left\lvert\, \(\left.\begin{array}{l}- International Baccalaureate provides a score file to the department that <br>

includes all students who attempted an IB exam.\end{array}\right.\right\}\)

For the letter grade system, the current graduating cohort's CCR data are used. For the 2022-23 letter grade calculation, the 2023 graduating cohort's CCR data, verified by districts in November-December 2023, are used. Please consult the 2022-23 CCR Data Verification Guide for details regarding the data verification process and timeline. This section discusses 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 2022-23 CCR Data Verification Guide for more details.

### 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 the three years ${ }^{31}$ including June of their self-reported graduation year is used. ${ }^{32}$ Records containing students' highest composite scores among the cohort file are provided by ACT.
- The department does not use "superscores."33
- 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.
- The record with the highest reading ${ }^{34}$ subscore is included if there are multiple records for the same student with the same composite and math scores.

[^14]- 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.

The 2023 graduating cohort's ACT and SAT data were finalized in November 2023 via the ACT/SAT Appeals process are used for the 2022-23 CCR indicator calculation.

### 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)
$\mathrm{AP}, \mathrm{CIE}, \mathrm{DE}$, and IB courses are all denoted with specific course codes following the Correlation of Course Codes document. 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 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.

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. 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. Districts' CTE directors review and certify the data following the requirements specified by each IC. The department continues to provide opportunities for districts to review and appeal IC data during the CCR data verification window. More information regarding the CCR appeals process is available on the department's website.
- Armed Services Vocational Aptitude Battery (ASVAB) Armed Forces Qualifying Test (AFQT). Districts self-reported ASVAB test data to the department during the 2022-23 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.
In 2022-23, during the CCR data appeals process, the department implemented the following steps to maintain a single record per student per course:
- Any DE or LDC appeals submitted via the missing CCR data worksheet without a valid state or local course codes are denied.
- Any AP, CIE, CLEP, DE, IB, LDC, and SDC courses submitted via the missing CCR data worksheet with the same student and course name are denied.
- Any ICs submitted via the missing CCR data worksheet with the same student and IC names are denied.


### 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. ${ }^{35}$ 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. ${ }^{36}$
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 <br> 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 <br> eligible for earning postsecondary credits | Required |
| IB | Subject Area Tests: Exam score of 3+ (SL or SL/HL); Exam score of 4+ (HL) <br> Theory of Knowledge Exam: Exam score of A, B, or C | Not Required |
| LDC | College credit earned evidenced by passing local dual credit examination that are eligible <br> for earning postsecondary credits | Required |
| SDC | Challenge exam score necessary to obtain credit at TN public university (varies by exam; <br> see CCR Data Verification Guide Appendix A for a full list of individual SDC exam cut scores. | Not Required |

[^15]
### 2.3.2.2 CCR Indicator Score

The department utilizes the 2022-23 pre-appeals and post-appeals CCR rate and the 2021-22 pre-appeals CCR data ${ }^{37}$ to establish the baseline 2021-22 CCR rate, which is used to determine cut scores for the evaluation of the CCR indicator. The data preparation and calculation procedures described in Section 2.3.1 and Section 2.3.2.1 are implemented to calculate the 2021-22 pre-appeals CCR rates. The steps taken to calculate the baseline 2021-22 CCR rates are described below:

- Calculate school-level pre-appeals 2021-22 CCR rate (i.e., 2022 Pre-CCR) based on the following data elements ${ }^{38:}$
- Finalized post-appeals ACT/SAT data from the 2022 graduating cohort
- AP, CIE, CLEP, IB, and SDC test scores from the 2022 graduating cohort obtained from test vendors
- ICs earned from the 2022 graduating cohort submitted by districts
- Calculate school-level pre-appeals 2022-23 CCR rate (i.e., 2023 Pre-CCR) based on the following data elements:
- Finalized post-appeals ACT/SAT data from the 2023 graduating cohort
- AP, CIE, CLEP, IB, and SDC test scores from the 2023 graduating cohort obtained from test vendors
- ICs earned from the 2023 graduating cohort submitted by districts
- Calculate school-level post-appeals 2022-23 CCR rate (i.e., 2023 Post-CCR) based on the following data elements:
- Finalized post-appeals ACT/SAT data from the 2023 graduating cohort
- Finalized AP, CIE, CLEP, IB, and SDC test scores from the 2023 graduating cohort
- Finalized ICs earned from the 2023 graduating cohort
- Finalized DE and LDC eligibility for postsecondary credits from the 2023 graduating cohort
- Finalized ASVAB test scores from the 2023 graduating cohort
- Calculate the baseline 2021-22 CCR rates by adding $75 \%$ of the difference between the pre- and postappeal 2022-23 CCR rate to the pre-appeal 2021-22 CCR rate. This calculation was conducted at schoollevel; therefore, each school has an estimated baseline 2021-22 CCR rate as presented in the formula below:

CCR Baseline Rates $=(2022$ Pre $-C C R)+0.75 x(2023$ Post $-C C R-2022$ post $-C C R)$

Based on the baseline CCR rates, cut scores are established based on quintile cuts of the baseline 2021-22 CCR rate distribution across the state-the score falls on the $20^{\text {th }}, 40^{\text {th }}, 60^{\text {th }}$, and $80^{\text {th }}$-percentiles are used as the cut scores as presented in Table 15.

Table 15. Cut-Scores for Determining CCR Indicator Score | CCR Indicator Score | CCR Rate Cut Scores |
| :---: | :---: |

| 1 | $0.0-31.4 \%$ |
| :---: | :---: |
| 2 | $31.5-43.5 \%$ |

[^16]| CCR Indicator Score | CCR Rate Cut Scores |
| :---: | :---: |
| 3 | $43.6-54.4 \%$ |
| 4 | $54.5-65.6 \%$ |
| 5 | $65.7-100.0 \%$ |

### 2.4 Truncating Procedures

When calculating the indicators, no rounding is applied to the Achievement indicator score or the weighted achievement indicator. The final letter grade score is truncated to one decimal place prior to assigning to the letter grade.

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 schools ${ }^{39}$
- Schools serving kindergarten to $2^{\text {nd }}$ 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 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 |
| :--- | :--- | :--- |
|  | Achievement OR Growth | Not Eligible for Letter Grade |
|  | Growth25 | Achievement (50\%) <br> Growth (50\%) |
| HS | Achievement OR Growth | Not Eligible for Letter Grade |
|  | Growth25 | Achievement (50\%) <br> Growth (40\%) <br> CCR (10\%) |
|  |  | Achievement (50\%) <br> Growth (40\%) |
|  | CCR |  |

[^17]| School Type |  |  |  | Missing Indicator | Weights Distribution |
| :--- | :--- | :--- | :---: | :---: | :---: |
|  | Growth25 \& CCR | Growth25 (10\%) |  |  |  |

### 3.3 Letter Grade Calculation

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

```
K - 8 School Letter Grade Score
    \(=(\) Achievement Indicator Score \(x 0.50)+(\) Growth Score \(x 0.40)+(\) Growth25 Scorex 0.1\()\)
    High School Letter Grade Score
    \(=(\) Achievement Indicator Score \(x 0.50)+(\) Growth Score \(x 0.30)+(\) Growth25 \(x 0.1)\)
    + (CCR Score x 0.1)
```

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

## Section 4: Letter Grade Appeals Process and Timeline

The letter grade appeals process allows districts to review their letter grade data files and submit appeals as appropriate. This section explains the timeline, process, and parameters for submitting an appeal. Please contact TNED.Accountability@tn.gov for questions not addressed in this document.

### 4.1 Letter Grade Data Files

During the letter grade appeals window, the following data files will be published on the Accountability application for district review:

- Letter Grade Summary (appealable)
- TVAAS Bottom 25\% Student List (not appealable)
- Substitution Student-level Data (not appealable)
- Substitution School-level Data (not appealable)


### 4.1.1 Appealable vs. Non-appealable Issues

The only data file that is appealable for the 2022-23 letter grade process is the Letter Grade Summary. Table 18 shows data metrics included in the Letter Grade Summary.

Table 18 Letter Grade Calculation Metrics

| Metrics | Definition |
| :---: | :---: |
| Grade-Band Subject Success Rates |  |
| G3-5 ELA SR G3-5 math SR G3-5 science SR | Subject success rates for students from grades 3 to 5 Note: Adjusted success rates are used if the participation rate was less than 95\%. |
| G6-8 ELA SR <br> G6-8 math SR <br> G6-8 science SR <br> G6-8 social studies SR | Subject success rates for students from grades 6 to 8 <br> Note: Adjusted success rates are used if the participation rate was less than $95 \%$. |
| G9-12 ELA SR <br> G9-12 math SR <br> G9-12 science SR <br> G9-12 social studies SR <br> G9-12 science SR_w_sub <br> G9-12 social studies SR_w_sub | Subject success rates for students from grades 9 to 12 <br> Note: G9-12 science SR_w_sub and G9-12 social studies SR_w_sub are the success rates with substitution added. <br> Note: Adjusted success rates are used if the participation rate was less than $95 \%$. |
| Grade-Band Subject Participation Rates |  |
| G3-5 ELA PR G3-5 math PR G3-5 science PR | Subject participation rates for students from grades 3 to 5 |
| G6-8 ELA PR <br> G6-8 math PR <br> G6-8 science PR <br> G6-8 social studies PR | Subject participation rates for students from grades 6 to 8 |
| G9-12 ELA PR <br> G9-12 math PR <br> G9-12 science PR <br> G9-12 social studies PR <br> G9-12 science PR_w_sub | Subject participation rates for students from grades 9 to 12 <br> Note: G9-12 science PR_w_sub and G9-12 social studies PR_w_sub are the success rates with substitution added. |


| Metrics | Definition |
| :--- | :--- |
| G9-12 social studies PR_w_sub |  |
| Grade-Band Success Rates | Grade band success rate from grade 3 to 5 |
| G3-5 SR | Grade band success rate from grade 6 to 8 |
| G6-8 SR | Grade band success rate from grade 9 to 12 |
| G9-12 SR | Grade band success rates with substitution from grade 9 to 12 |
| G9-12 SR_w_sub | G3-5 Achievement indicator score |
| Achievement Indicator Scores | G6-8 Achievement indicator score |
| G3-5 ach score | G9-12 Achievement indicator score <br> Note. The higher success rate with or without substitution is used to <br> calculate the achievement score for G9-12 |
| G6-8 ach score | Overall Achievement indicator score |
| G9-12 ach sore |  |
| Overall ach score | Percent of students enrolled are grade 3 to 5 |
| Grade-Band Enrollment | Percent of students enrolled are grade 6 to 8 |
| G3-5 pct enrollment | Percent of students enrolled are grad 9 to 12 |
| G6-8 pct enrollment |  |
| G9-12 pct enrollment | TVAAS All Subjects composite (not appealable) |
| Other Metrics | TVAAS All subjects composite for the bottom 25 percent (not <br> appealable) |
| Growth score | CCR indicator score (not appealable) |
| Growth25 score | Percent of graduates meeting CCR status (not appealable) |
| CCR score | Overall letter grade score |
| CCR rate | Final letter grade |
| LG score | LG |

In addition to releasing the metrics that will be used for letter grade calculation, the department will also release additional data metrics that are not used for letter grade calculation but will be reported on the letter grade dashboard (see additional data metrics in Appendix C). Districts can submit appeals to these additional metrics during the appeal window.

All underlying data utilized to calculate success rates and participation rates were included in the student-level assessment data file that was finalized during the 2022-23 Accountability Phase I Data Appeals process with few exceptions. The Grades $9-12$ science and social studies success rates and participation rates with substitution are new metrics for letter grade calculation purposes. For the sake of transparency, districts can view student-level and school-level substitution data during the appeals process and have a better understanding of who is included in the substitution calculation. However, given the short timeline, districts cannot appeal the student-level and school-level substitution data during the current cycle. ${ }^{40}$ To hold districts harmless, for the 2022-23 letter grade calculation, the higher success rate with or without substitution is used.

Growth scores and Growth 25 scores were provided by the SAS Institute, meaning these data are not appealable. Yet, the list of students identified as the bottom $25 \%$ within each school is provided to districts to review. CCR scores and CCR rates are finalized during the 2022-23 CCR Data Verification process; hence, they are not appealable.

In summary, during the appeals process, the only appealable data file is the Letter Grade Summary and the appealable issues are:

[^18]
## - Department Calculation Errors

- Districts may appeal if calculation errors are made by the department (i.e., the calculations made to produce the metrics specified in Table 18 differ from the process outlined in this letter grade protocol).
- Documentation. Districts shall submit documentation as needed. For example, a district observed a different CCR rate in the Letter Grade Summary data file. Districts can submit an appeal by providing a screenshot of two different data metrics.
- Systematic Errors
- Districts may appeal if there are systematic and uncorrectable district data errors that are outside of the district's control. In the appeal letter, the district shall explain why the error that occurred was outside of district control and explain how the error contributed to the incorrect letter grade calculation.
- Documentation. Districts shall submit documentation (e.g., screenshots of EIS/SIS errors, email communication) that confirms the data error, as needed.

None of the data presented in the TVAAS Bottom $25 \%$ student list, student- and school-level substitution data files are appealable during this appeal cycle. However, the department will continue to improve the process to allow for appeals when possible in future years.

### 4.2 Appeals Timeline

The letter grade appeals window will open on December 12, 2023. All data files will be released on the Accountability application, and all appeals shall be submitted using the 2022-23 School Letter Grade Appeals form by 4 p.m. CST on December 18, 2023. Any appeals submitted after the deadline will not be reviewed. The department will send a response letter to directors via TNED.Accountability@tn.gov, and the letter will be uploaded to the Accountability application by December 21, 2023. All data files will be finalized and updated on the Accountability application on December 21, 2023. The final letter grades will also be released on the School Letter Grades Dashboard on December 21, 2023. .

### 4.3 Submission Process

Districts submitting appeals must explain the appealable issues in a letter on district letterhead which must be submitted by the district's director of schools. Districts must submit this letter with proper supporting documentation providing evidence using the 2022-23 School Letter Grade Appeals form. Any appeals without the proper supporting documentation will be denied. Please reach out to TNED.Accountability@tn.gov for consultation regarding the proper documentation. The department will not consider appeals or additional supporting documentation submitted after December 18, 2023. Please plan to ensure that all proper documentation is submitted by the specified deadline.

### 4.3.1 Appeals Submission Format

District staff submitting the appeals form must have an Orion/SSO account in order to submit the form. Districts must submit the following information:

- District Number
- District Name
- Name and Email of person submitting form
- Director of Schools Name
- Director of Schools Email
- Type of data files being appealed
- An Appeals Letter signed by the Director of Schools
- must be submitted as a PDF file with the naming convention "\#\#\#_AppealsLetter" where \#\#\# is the district number. Ex: 999_AppealsLetter
- $\quad$ Supporting Documentation (as needed)
- Submitted, as needed, as an excel or PDF file with the naming convention "\#\#\#_Documentation" where \#\#\# is the district number. Ex: 999_Documentation
- Important Note: documentation shall be provided for each issue being appealed, as needed.

If you need assistance submitting the 2022-23 School Letter Grade Appeals form, please consult the Microsoft Form Login and Trouble Shooting Guide (see Appendix D) or email TNED.Accountability@tn.gov.

## Appendix A: List of Acronyms

| Term |  |
| :---: | :--- |
| 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 SDC Pilot: American History | 0 | 100 | 75 |

## Appendix C: Additional Data Metrics

| Variable Name | Definition |
| :--- | :--- |
| ach_score_weighted | Weighted Achievement indicator score |
| growth_score_weighted | Weighted TVAAS all subjects composite |
| growth25_score_weighted | Weighted TVAAS all subjects composite for the bottom 25\% within school |
| ccr_score_weighted | Weighted College and career readiness indicator score |
| ach_weight | weights applied for ach |
| growth_weight | weights applied for growth |
| growth25_weight | weights applied for ccr |
| ccr_weight | percentage of students meeting proficiency (all subjects included): All |
| overall_success_rate_all_studen |  |
| ts | ptudents |
| overall_success_rate_bhn | Black/Hispanic/Native American |
| overall_success_rate_ed | percentage of students meeting proficiency (all subjects included): |
| overall_success_rate_el | Economically Disadvantaged |
| overall_success_rate_swd | Language Lef students meeting proficiency (all subjects included): English |
| overall_success_rate_asian | percentage of students meeting proficiency (all subjects included): Students |
| overall_success_rate_asian | percentabe of students meeting proficiency (all subjects included): American |
| overall_success_rate_black | percentage of students meeting proficiency (all subjects included): Black |
| overall_success_rate_hispanic | percentage of students meeting proficiency (all subjects included): Hispanic |
| overall_success_rate_nhpi | percentage of students meeting proficiency (all subjects included): Native |
| overall_success_rate_white | Hawaiian or Other Pacific Islander |
| overall_success_rate_super_sub | percentage of students meeting proficiency (all subjects included): White |
| group | percentage of students meeting proficiency (all subjects included): Super |
| success_rate_g3-5_ela | Subgroup |
| success_rate_g3-5_math | percentage of students meeting proficiency (ela across grades 3-5) |
| success_rate_g3-5_science | percentage of students meeting proficiency (math across grades 3-5) |
| success_rate_g6-8_ela | percentage of students meeting proficiency (science across grades 3-5) |
| success_rate_g6-8_math | percentage of students meeting proficiency (ela across grades 6-8) |
| success_rate_g6-8_science | percentage of students meeting proficiency (math across grades 6-8) |
| success_rate_g6- | percentage of students meeting proficiency (science across grades 6-8) |
| 8_social_studies | percentage of students meeting proficiency (social studies across grades 6- |
| success_rate_g9-12_ela | p |
| success_rate_g9-12_math | percentage of students meeting proficiency (ela across grades 9-12) |
| success_rate_g9-12_science | percentage of students meeting proficiency (science across grades 9-12) |


| Variable Name | Definition |
| :---: | :---: |
| success_rate_g912 social studies | percentage of students meeting proficiency (social studies across grades 912) |
| growth_numeracy_score | TVAAS ELA composite |
| growth_literacy_score | TVAAS literacy composite |
| growth_science_score | TVAAS science composite |
| growth_social studies_score | TVAAS social studies composite |
| growth_ela_math_score_bhn | TVAAS ela/math composite: bhn |
| growth_ela_math_score_ed | TVAAS ela/math composite: ed |
| growth_ela_math_score_el | TVAAS ela/math composite: el |
| growth_ela_math_score_swd | TVAAS ela/math composite: swd |
| growth_ela_math_score_asian | TVAAS ela/math composite: aian |
| growth_ela_math_score_asian | TVAAS ela/math composite: asian |
| growth_ela_math_score_black | TVAAS ela/math composite: black |
| growth_ela_math_score_hispani c | TVAAS ela/math composite: hispanic |
| growth_ela_math_score_nhpi | TVAAS ela/math composite: nhpi |
| growth_ela_math_score_white | TVAAS ela/math composite: white |
| growth_ela_math_score_super_s ubgroup | TVAAS ela/math composite: super subgroup |
| ccr_act_rate | percentage of students meeting act/sat pathway |
| ccr_postsec_rate | percentage of students meeting postseondary credit pathway |
| ccr_ic_rate | percentage of students meeting ic pathway |
| ccr_asvab_rate | percentage of students meeting asvab pathway |
| ccr_rate_bhn | ccr rate: bhn |
| ccr_rate_ed | ccr rate: ed |
| ccr_rate_el | ccr rate: el |
| ccr_rate_swd | ccr rate: swd |
| ccr_rate_asian | ccr rate: aian |
| ccr_rate_asian | ccr rate: asian |
| ccr_rate_black | ccr rate: black |
| ccr_rate_hispanic | ccr rate: hispanic |
| ccr_rate_nhpi | ccr rate: nhpi |
| ccr_rate_white | ccr rate: white |
| ccr_rate_super_subgroup | ccr rate: super subgroup |
| ach_score_g3-5_ela | achievement score (ela across grades 3-5) |
| ach_score_g3-5_math | achievement score (math across grades 3-5) |
| ach_score_g3-5_science | achievement score (science across grades 3-5) |
| ach_score_g6-8_ela | achievement score (ela across grades 6-8) |
| ach_score_g6-8_math | achievement score (math across grades 6-8) |
| ach_score_g6-8_science | achievement score (science across grades 6-8) |


| Variable Name | Definition |
| :--- | :--- |
| ach_score_g6-8_social_studies | achievement score (social studies across grades 6-8) |
| ach_score_g9-12_ela | achievement score (ela across grades 9-12) |
| ach_score_g9-12_math | achievement score (math across grades 9-12) |
| ach_score_g9-12_science | achievement score (science across grades 9-12) |
| ach_score_g9-12_social_studies | achievement score (social studies across grades 9-12) |

## Appendix D: Microsoft Form Login and Trouble Shooting Guide

- Microsoft

Sign in
Email or phone

Can't access your account?
 NextSend me an email receipt of my responses

## Submit

## 2022-23 Graduation Cohort Change Request

(-) Thanks!

Thank you for submitting a cohort change request. The department will review all cohort change requests and update approved changes in the Cohort application.

## Print or get PDF of answers

Submit another response


You don't have permission to view or respond to this form
$\checkmark$ Technical detalas

Create my own form
Powered by Microsoft Forms $\mid$ Privacy and cookies $\mid$ Terms of use

## Microsoft Form Login Requirements

- School and district accountability staff must have an SSO/Orion account to submit a Microsoft Forms for accountability related data appeals, including ACT, Cohort, Ready Graduate, accountability data files, accountability and designation, and Report Card data verification process.
- When clicking on the Microsoft Form link, staff will be prompted to sign in. Make sure to sign in with your SSO/Orion account.
- If staff have trouble logging into their SSO/Orion account, they should refer to the User Guide and contact DT. Support@tn.gov for assistance.


## Submitting a Form

- Staff shall answer all questions and upload the required documentation following the instructions provided by the department.
- When ready to submit, check "Send me an email receipt of my responses" to receive a record of the submission.
- After clicking the Submit button, staff also have the option to save a PDF version of the submission by selecting "Print or get PDF of answers."


## Troubleshooting Common IT issues

If seeing "you don't have permission to view or respond to this form," please attempt the following:

- If the SSO/Orion login information has saved in the internet browser previously, and if
- Using Google Chrome, open a new incognito window and re-sign into the SSO/Orion account.
- Using Microsoft Edge, open a new InPrivate window and re-sign into the SSO/Orion account.
- Using Firefox or Safari, open a new private window and re-sign into the SSO/Orion account.

If attempting to open the Microsoft forms link from within the data appeals resource guides, make sure the form window opens in the same browser in which the resource guide was opened.


[^0]:    ${ }^{1}$ 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.

[^1]:    ${ }^{3}$ Grade 2 assessment is optional and is not used for letter grade calculation.
    ${ }^{4}$ In compliance with federal requirements in ESEA section $1111(\mathrm{~b})(2)(\mathrm{D})(\mathrm{i})(\mathrm{I})$, the percentage of students taking alternate assessments cannot exceed $1 \%$ of the total student enrollment within the state.

[^2]:    ${ }^{5}$ 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.
    ${ }^{6}$ 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.
    ${ }^{7}$ 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. ${ }^{8}$ 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 nontested.

[^3]:    ${ }^{9}$ All residential facility records will be counted as enrolled, and the records that do not have a valid score will then be reported as nontested 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.
    ${ }^{10}$ 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.

[^4]:    ${ }^{11}$ 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).
    ${ }^{12}$ 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)
    ${ }^{13}$ 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.
    ${ }^{14}$ If students have records for multiple test types, the first record from the hierarchy with a non-missing performance level is included. ${ }^{15}$ 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.

[^5]:    ${ }^{16}$ 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. Recently arrived EL students are reported in all other performance indicators, including Chronically Out of School rate, ELPA rate, graduation rate, and Ready Graduate rate.

[^6]:    ${ }^{17}$ Please consult the TVAAS Technical Report for details.

[^7]:    ${ }^{18}$ 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.
    ${ }^{19}$ 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.

[^8]:    ${ }^{20}$ Records with missing or null performance levels (e.g., test records of recently arrived ELs) are not included in these counts.

[^9]:    ${ }^{21}$ In August 2023, the department released the student-level assessment data files to districts for review and submit appeals as appropriate as a part of the 2022-23 accountability data Phase I appeals process. The finalized student-level assessment data, which include assessment data for all subjects, are used for letter grade calculation.

[^10]:    ${ }^{22}$ 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 $10^{\text {th }}$ to $12^{\text {th }}$ grades are counted.
    ${ }^{23}$ SAS updates the technical report annually after the release of TVAAS data on the TVAAS website.
    ${ }^{24}$ Although CTE schools are not eligible for school designations, the department reports TVAAS composites for CTE schools.

[^11]:    ${ }^{25}$ 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).
    ${ }^{26}$ Substitutable courses are not included in the TVAAS calculation.
    ${ }^{27}$ TCAP-Alt assessments are not used as predictors and are only included in testing history in TVAAS calculation.

[^12]:    ${ }^{28}$ The gain model is applied when calculating growth measures for TCAP 3-8 math and ELA.
    ${ }^{29}$ The predictive model is applied when calculating growth measures for TCAP 3-8 science and social studies and EOC tests.

[^13]:    ${ }^{30}$ All data self-reported by districts during the 2022-23 CCR Data Verification process are subject to audit by the department.

[^14]:    ${ }^{31}$ ACT and SAT data are aggregated by the department for the three most recent school years and are matched to their cohort.
    ${ }^{32}$ 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).
    ${ }^{33}$ A superscore is the average of one's best subject scores from all ACT test attempts.
    ${ }^{34}$ For SAT, the department considers the critical reading score as the reading subscore.

[^15]:    ${ }^{35}$ Also see CHAPTER 0520-01-03-. 06
    ${ }^{36}$ Any ICs that are on the most current promoted list are counted no matter when the IC was first included in the promoted list. For instance, IC A was listed in the promoted list in 2023. A student completed IC A in 2019. The IC A is counted for the student toward his/her CCR status.

[^16]:    ${ }^{37}$ Given the amount of data that districts have to review and submit appeals for the 2022-23 graduating cohort, the department opts to not ask districts to review and submit appeals for the 2021-22 graduating cohort.
    ${ }^{38}$ DE, LDC, and ASVAB are district self-reported data submitted to the department during the data verification process. DE and LDC postsecondary attainment data for the 2022 graduating cohort were never collected from districts.

[^17]:    ${ }^{39}$ The department identifies closed schools as those that have an end date between May 31 and Aug. 31 during the current school year.

[^18]:    ${ }^{40}$ The department will improve the review process to allow for appeals in future years.

