



# Annual Snapshot Technical Manual



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## Document History

Version	Date	Author	Notes



## Academic Proficiency

*How well do our schools provide students with opportunities to develop their skills and knowledge to be career and college ready?*

### Indicators

- Assessment – Math (Scale and Growth)
- Assessment – Reading/ELA (Scale and Growth)
- Assessment – Physical Education
- Assessment – Science
- Annual Progress Towards English Proficiency
- Graduation Rate
- Performance on Career/College-Readiness Assessments
- Career/College-Ready Outcomes Within 16 Months of Graduation

### Summative Determination

Summative Determination is the calculation of the current performance and performance change for a school or Supervisory Union/District on the Academic Proficiency indicators. If there are no indicators with at least 25 students assessed, the rating cannot be calculated.

### Participation Adjustments

Summative Determination calculations use participation adjustments when calculating assessment scores for Math and ELA/Reading. The U.S. Department of Education has established a threshold of 95% participation for Math and ELA/Reading assessments. If a student group's participation rate of an assessment falls below 95% the initial Math or ELA/Reading score is multiplied by the percent participation. If the participation rate is 95% or higher, no adjustment is made.

### Summative Determination – Current Performance

- The current performance calculation is composed of the following indicators:
- [Math \(Summative Determination version\)](#)
- [ELA/Reading \(Summative Determination version\)](#)
- Physical Education (Summative Determination version)
- Science (Summative Determination version)
- Annual Progress Towards English Proficiency
- [Graduation Rate](#)
- Performance on Career/College Readiness Assessments
- Career/College-Ready Outcomes Within 16 Months of Graduation

Each indicator is assigned a weight using the methodology found in [Weighting of Academic Proficiency Measures](#). A column of weights is chosen based on the presence or absence of data (25 or more students) for the following indicators: Graduation Rate, Annual Progress towards English Proficiency, and Science. The indicators' performance Point Values are combined using



the selected weights. If an indicator has a weight, but has fewer than 25 students, the weight is split among the indicators that are present with a weight greater than 0. For example, if a school exists with Graduation Rate and Math present with 25 or more students, but its Annual Progress towards English Proficiency has fewer than 25 students, the 10% weight that would have been assigned to Annual Progress towards English Proficiency is split proportionally between all other indicators that exist with 25 or more students.

### **Summative Determination – Performance Change**

The performance change is calculated using only indicators that were available in the current school year and the previous school year. In 2018-19 that meant that the following indicators were considered:

- [ELA/Reading \(Summative Determination version\)](#)
- [Math \(Summative Determination version\)](#)
- Science (Summative Determination version)
- [Graduation Rate](#)
- Annual Progress Towards English Proficiency

Calculating the Summative Determination performance change is done in the same manner as calculating the [current performance](#) with two exceptions:

1. The weighting is the same as was used in the 2017-18 school year when calculating Academic Proficiency: [Weighting of Academic Proficiency Measures 2017-18](#)
2. Instead of combining the indicators' performance Point Values, the performance change values are used

The 2017-18 weighting was designed for the indicators available in that school year. Because the Summative Determination performance change is calculated based on shared indicators between the two school years, it is the most appropriate weighting to use.

In future years the Summative Determination performance change would be calculated using indicators available in both the present year and the previous year, and the 2018-19 weighting method would be used. However, for the 2019-20 school year Summative Determination will [not be calculated](#) due to COVID closures and data that was uncollectable.

### **Summative Determination Calculation**

The Summative Determination current performance and performance change are used together to calculate the final Summative Determination. This is calculated by placing the current performance and performance change on the [Summative Determination Calculation chart](#) to calculate priority. Priority then determines the Summative Determination rating as seen on the [Priority to Rating Conversion chart](#).



## Equity Support Determinations

### Equity Summative Determination

Equity Status calculations are based on an Equity Summative Determination value (ESD). The ESD is composed of the following indicators:

- [ELA/Reading \(Summative Determination version\)](#)
- [Math \(Summative Determination version\)](#)
- Science (Summative Determination version)
- [Graduation Rate](#)
- Annual Progress Towards English Proficiency
- Physical Education\*
- Career/College Readiness Assessments\*
- Career/College-Ready Outcomes Within 16 Months of Graduation\*

\* Not included in the 17-18 Annual Snapshot

Each of these indicators use the [Accountability](#) rules of requiring 25 or more students to be counted. An ESD is calculated for the [historically marginalized student groups listed in the appendix](#).

For an indicator to be included in a school or Supervisory Union/District's student group ESD calculation it must:

1. Have 25 or more students counted in the assessment
2. The student group counterpart must have 25 or more students counted
3. The indicator must have existed for that school or Supervisory Union/District in the previous year

Because of the third point above, Physical Education, Career/College Readiness Assessments, and Career/College-Ready Outcomes Within 16 Months of Graduation are not included in 18-19 Equity Status calculations, but they will be eligible in future years.

If all three criteria are met, the indicator is included and weighted using the methodology found in [Weighting of Academic Proficiency Measures](#). A column of weights is chosen based on the presence (25 or more students) of Graduation Rate, Annual Progress towards English Proficiency, and Science. The weighted averages of the indicators' equity index and equity gap values combine to create the Equity Summative Determination's equity index and equity gap values respectively.

If an indicator has a weight, but fails one of the three criteria, its weight is split among the other indicators with a weight greater than 0. For example, if a school exists with Graduation Rate and Math present with 25 or more students, but its Annual Progress towards English Proficiency has fewer than 25 students, the 10% weight that would have been assigned to



Annual Progress towards English Proficiency is split proportionally between all other indicators that exist with 25 or more students.

In the 2018-19 school year, the same thing will happen to physical education's 6% weighting, and the two College and Career Readiness indicators' 11% weightings because those indicators did not exist in the 17-18 data.

If no indicators meet the three criteria, then no ESD is calculated. All calculated values are rounded to two (2) decimal places.

### **Equity 1 Status**

Every school and Supervisory Union/District's student group that has a calculated Equity Summative Determination will have an Equity 1 status calculation. The equity index Point Value and equity change Point Value are [converted to ratings](#). If either rating is "Not Meeting" and the other is "Not Meeting" or "Approaching" then that student group has Equity 1 status. Otherwise, the Equity 1 status will be recorded as "None."

### **Equity 2 Status**

A school or Supervisory Union/District's student group can be in Equity 2 status if they meet the following criteria

1. The student group must have been in Equity 1 status two years in a row. This criterion is met even if the second year in Equity 1 status is the current year. For example, a school's Free and Reduced Lunch student group that was in Equity 1 status in the 2017-18 and 2018-19 school years could be eligible for Equity 2 status in 2018-19.
2. The student group's Equity Summative Determination must have an equity change value that is in the bottom 5% of all Equity 1 schools and Supervisory Union/Districts within the same student group.

Otherwise, the Equity 2 status will be recorded as "None."

### **Equity 3 Status**

A school or Supervisory Union/District's student group can be in Equity 3 status if they met the following criteria

1. The student group must be in Equity 2 status in the same school year.
2. The student group's Equity Summative Determination must be lower (worse performing) than the largest (best performing) Equity Summative Determination of the All Student Group of all schools eligible for [Comprehensive Support Status](#).

Otherwise, the Equity 3 status will be recorded as "None."

### **Comprehensive Support Calculation**

Approximately 5% of Vermont Title I schools most in need of additional supports are eligible to receive comprehensive supports. Comprehensive support eligibility is calculated every three years (see [COVID section](#) for exceptions); the most recent calculation was based on 2017-18 school year data.



Schools become eligible for comprehensive supports in the following ways:

**Graduation Rate**

Schools with a 4-year Graduation Rate less than 67% are eligible for comprehensive supports. These schools are not required to be Title I.

**Priority**

Using [Summative Determination](#), a [Priority](#) is calculated. Schools are added to the list of schools potentially eligible for support one Priority group at a time until 5% of all Title I schools have been added. At this point in the process, there will be at least 5% of Title I schools on the list, because Priority groups are not broken up before being added. For example, if there are 4.5% of all Title I schools already added to the list, and the next Priority group would increase this percentage to 6%, the entire group is still added.

**Priority Points**

It is possible that this methodology could lead to the identification of more schools for Comprehensive Supports than could be adequately served. Priority points are calculated to narrow down the last Priority group that was added to the list of potentially eligible schools, so that the final list can be supported by Vermont’s available fiscal resources. For more details on Priority Points, see page 64 of the [Consolidated State Plan](#).

Priority Points are assigned as follows:

**Percentage of Historically Marginalized Students**

Schools are given Priority Points based on their percentage of Historically Marginalized Students.

Percent of Enrollment Historically Marginalized	Priority Points
0– 49.99%	0
50.0–59.99%	10
60.0–74.99%	20
75.0–100%	30

**School-Wide Title I**

If a school is School-Wide Title I, it receives 10 Priority Points.

**Reportable EL Group**

If the school has 11 or more students that have taken the English Language Proficiency assessment, then the school receives 10 Priority Points.



### **Supervisory Union/District School Statuses**

If the school belongs to an Supervisory Union/District that has a different school that 1) is already on the potentially eligible for Comprehensive Supports list and 2) Has a Priority group number lower than the school in question, then the school receives 10 Priority Points.

### **P-2 Eligibility Based on Supervisory Union/District**

A school that exclusively serves students PK-2 or K-2 is considered a “P-2” school. These schools are not required to be Title I. Any P-2 school that belongs to a Supervisory Union/District that is in the bottom 5% of performing Supervisory Union/Districts becomes eligible for Comprehensive Supports. This is defined by [Student Determination current performance](#). If multiple Supervisory Union/District have the same current performance, and the Supervisory Union/Districts in that group cross the 5% threshold, all Supervisory Union/Districts with that current performance are included.

### **P-2 Eligibility Based on Grade 3 Comparison**

A P-2 school can become eligible if it is in the bottom 5% of all P-2 schools and Grade 3s from other schools. These are two separate lists combined together. It is not required that these schools be Title I.

### **Grade 3 Scores**

A Grade 3 score is calculated by averaging the Grade 3 Math Accountability and Grade 3 ELA/Reading Accountability performance scores. Only schools that have 25 or more Grade 3 students assessed in these indicators are used.

### **P-2 Scores**

P-2 scores are an average of Math and ELA/Reading scale performance values for all grades P-2 in a building that have 25 or more students assessed.

If a school’s P-2 Score is in the bottom 5% of these combined lists, then it becomes eligible for Comprehensive Supports.

### **Equity 2 Escalation**

Any school that has had a student group in [Equity 2 status](#) for two years in a row becomes eligible for Comprehensive Supports the next time a new cohort is formed. If the school in question has qualified for E2 supports in advance of the initiation of a new Comprehensive Supports cohort, but is no longer eligible for E2 supports when the new cohort begins, it will not be included in that cohort. It must be the same student group in both years. A school is eligible even if the second year of Equity 2 status was this current year. It is not required that the school be Title I.

### **Equity 3 Escalation**

Schools can be become eligible for Comprehensive Supports based on their [Equity 3 status](#).



### **All Schools**

Any school, Title I or not, that has had any student group in Equity 3 status for three years in a row is eligible for Comprehensive Supports the next time a new cohort is formed. If the school in question has qualified for E3 supports in advance of the initiation of a new Comprehensive Supports cohort, but is no longer eligible for E3 supports when the new cohort begins, it will not be included in that cohort. It must be the same student group in each year. The school is eligible even if the third year in Equity 3 status is the current school year.

## **Additional Information Measures**

### **Student Achievement Data**

*Student achievement data* includes the number and percentage of students at Ratings 1-4 and the scale score on the Smarter Balanced ELA and Math assessments, and the Vermont Science Assessment. This directs to the [Vermont Education Dashboard](#).

### **Student Membership**

*Student membership* is the number of students enrolled in the school or Supervisory Union/District.

### **Title I Status**

Through Title I, the federal government disburses money to school districts based on the number of low-income children, ages 5 - 17, in each district as determined by census data. Each district uses its Title I money to supplement and improve regular education programs in order to help students meet state standards. This indicator displays whether the school is participating in Title I.

### **Participation Rates**

*Participation rates* are the percentage of students assessed for each grade, assessment, and student group. These percentages are rounded to the nearest one (1) decimal place. There is no rating associated with these rates, but they are still subject to [privacy-based suppression](#) rules, and are not reported if there are fewer than 11 students.

### **AA-AAAS Assessed Students**

*AA-AAAS assessed students* are the number and percentage of students with the most significant cognitive disabilities taking alternate assessments, by grade and subject. These percentages are rounded to the nearest one (1) decimal place. There is no rating associated with these rates, but they are still subject to [suppression](#) rules, requiring at least 11 students. The subjects considered are ELA/Reading, Math, and Science.

### **English Learner Exemption**

*English learner exemption* is the number and percent of recently arrived English Learners exempted from the Smarter Balanced English Language Arts assessment. These percentages are rounded to the nearest one (1) decimal place.



### **English Learners Not Exited After 5 Years**

*English learners not exited after 5 years* are the number and percentage of English learners who have not attained English language proficiency within 5 years of initial classification as an English learner and first enrollment in the local educational agency. The percentage of students who are not proficient is rounded to the nearest one (1) decimal place. There is no rating associated with these rates, but they are still subject to [suppression](#) rules, requiring at least 11 students.

### **English Learner Proficiencies**

*English learner proficiencies* are the number and percentage of English learners achieving English language proficiency as measured by the State’s English proficiency assessment. The percentage proficient is rounded to the nearest one (1) decimal place. There is no rating associated with these rates, but they are still subject to [suppression](#) rules, requiring at least 11 students. This metric displays the All Student Group and a breakdown of IEP and Non-IEP students.

### **Former English Learner’s Academic Performance**

*Former English learner’s academic performance* is the number and percentage of Former English learners meeting challenging State academic standards for each of the 4 years after such children are no longer receiving services. The percentage proficient is rounded to the nearest one (1) decimal place. There is no rating associated with these rates, but they are still subject to [suppression](#) rules, requiring at least 11 students. The subjects considered are ELA/Reading, Math, and Science. This metric displays the All Student Group and a breakdown of IEP and Non-IEP.

### **CRDC Data**

The [Civil Rights Data Collection \(CRDC\)](#) is a warehouse of information on school climate and preschool enrollment. The CRDC is a collection administered to schools and managed directly by USDOE.

### **Progress Towards Long-Term Goals**

*Progress towards long-term goals* includes current performance and progress toward interim and long-term goals for all student groups and all grades on Academic Proficiency indicators. The current performances of the selected indicator are subject to [suppression](#) rules, requiring at least 11 students. Regardless of suppression, the Interim Goal column will note whether this indicator’s goal was met.

### **NAEP Performance**

*NAEP performance* refers to the Vermont performance on the [National Assessment of Educational Progress \(NAEP\)](#) for math and English language arts at 4th and 8th grades. This directs to an interactive assessment report for “the Nation’s Report Card”, as well as Vermont specific reports based on school year, grade, and subject.



***School Improvement Funds***

Amount and type of Supervisory Union/District investments of federal school improvement funds and the entities receiving those funds. This section directs to a list of LEAs and schools that received section 1003 school improvement funds.

***State Accountability System***

Explanation of the Vermont's federal school accountability system, including indicators of proficiency, school differentiation, and determination of supports.

***Assessment Requirements***

Assessments, their purpose, and the schedule of administration for those assessments required by the Vermont State Plan.



## Personalization

*How well do our schools provide students with authentic engagement and opportunities to shape their own learning?*

### Indicators

#### **Student Participation in Flexible Pathways**

Act 77 and the [Vermont Education Quality Standards \(EQS\)](#) identified that students must be provided the opportunity to learn through flexible and multiple pathways, one of the five essential attributes of personalized learning. This indicator reports the percentage of students who have participated in dual enrollment, career and technology education, early college, work-based learning, virtual learning, or expanded learning opportunities by the end of 12th grade.

#### **School Offerings of Flexible Pathways**

Act 77 and the Education Quality Standards (EQS) identified that students must be provided the opportunity to learn through flexible and multiple pathways, one of the five essential attributes of personalized learning. This indicator reports how many of the following flexible pathways students participated in at a particular school or supervisory union/district in a given year: dual enrollment, career technical education, early college, work-based learning, virtual/blended learning, high school completion program, and expanded learning opportunities.

Each pathway a student accessed is scored as a Yes/No value. Additionally, the number of pathways are totaled and [converted to a Point Value](#).

Included in this indicator are students that either enrolled as a senior or graduated in this school year. Note: This differs from the National Student Clearinghouse (NSC) definition, which only includes graduates. This could result in different values the NSC and Annual Snapshot.

School Offerings of Flexible Pathways was not included in the 2017-18 release of the Annual Snapshot.

#### **Overall Personalization**

The Overall Personalization value is the average performance value of [Student Participation in Flexible Pathways](#) and [School Offerings of Flexible Pathways](#).



## Safe, Healthy Schools

*How well do our schools provide environments where students feel healthy, safe, and supported in achieving their goals?*

### Indicators

#### **Disciplinary Exclusion**

This indicator reflects the amount of school days missed as a result of out-of-school suspensions relative to the number of students enrolled during the school year selected. As exclusion rates fluctuate substantially according to grade level, a rate is calculated for each grade. A school or Supervisory Union/District rate represents the rate of exclusion of all students served by the school or Supervisory Union/District of interest.

Each grade level's percentage, rounded to two (2) decimal places, has a [performance value calculated in the same manner as in the Academic Proficiency domain](#). The All Grade values reported on the Annual Snapshot are the weighted average of their assigned Point Values (see [Point Value Equivalencies](#)) for each grade in the organization—school, Supervisory Union/District, or the state of Vermont—if applicable. Only grades served with an organization will be able to be reported.

These weighted averages are rounded to the nearest integer (whole number). The Student Count reported for All Grades is the sum of all Student Counts in the aggregated grades.

#### **Overall Safe Healthy Schools**

[Disciplinary Exclusion](#) is the only metric available for the Safe Healthy Schools domain, so its value and the Overall Safe Healthy Schools value are identical.



## High Quality Staffing

*How well do our schools employ educators who are well trained and qualified to meet the needs of all students?*

### Indicators

#### **Properly Licensed Teachers**

This reflects educators serving in schools on a Level I, Level II, or Retired license in their area of endorsement and at the instructional level of their license.

The percentage of said teachers, rounded to two (2) decimal places, is converted to a [performance value calculated in the same manner as in the Academic Proficiency domain](#).

Properly Licensed Teachers were not included in the 2017-18 release of the Annual Snapshot.

#### **Educator Retention**

This reflects educators who have served in the same school, Supervisory Union/District, or at the state level at least the last three (3) years. The teacher rate is reported for schools, Supervisory Union/Districts, and the state levels. The principal rate is reported at the Supervisory Union/District and the state levels. The superintendent rate is reported at the state level only.

Each percentage, rounded to two (2) decimal places, is converted to a [performance value calculated in the same manner as in the Academic Proficiency domain](#).

The aggregated Educator Retention is a simple (unweighted) average of the teacher, principal, and superintendent rates, where applicable. At the school level, where only teacher rates are applicable, the aggregated value and the teacher rate value are the same. The employee count of the aggregated Educator Retention is the sum of the applicable teachers, principals, and superintendents.

#### **Overall High Quality Staffing**

The Overall High Quality Staffing value is the average performance value of [Properly Licensed Teachers](#) and [Educator Retention](#).



## Investment Priorities

*How well do our schools provide quality experiences at a price that the community believes is appropriate?*

### Indicators

#### **Educator Quality Standards Staffing Ratio**

This indicator reports a school, Supervisory Union/District, or the state ratios of educators to students relative to standards published in the [Vermont Education Quality Standards \(EQS\)](#). Standards are reported for teachers, school counselors, school librarians, school nurses, and school principals. The teacher and school counselor ratios are disaggregated by primary and secondary levels. For all ratios in this indicator, a Not Meeting rating can be assigned for either a too high or too low ratio. For example, a Not Meeting rating would be assigned if a school had a high student-teacher ratio of 100 to 1 or a low ratio of 2 to 1. As defined by EQS, the principal ratio represents the ratio of principals to teachers, rather than principals to students.

Each ratio is assigned a Point Value based on the [Point Value Reference Table](#). All ratios are rounded to two (2) decimal places.

#### **Per-Pupil Spending**

*The per-pupil spending* indicator represents the average amount of funds spent annually on the education of a student at a school or supervisory union/district. This indicator is reported both as an average amount of state and local funds and as an average amount of federal funds. This indicator is required under ESSA.

Unlike most other indicators, there is no performance Point Value associated with Per-Pupil Spending.

#### **Overall Investment Priorities**

Because [Per-Pupil Spending](#) is an unrated metric, [Educator Quality Standards Staffing Ratio](#) is the only metric used in the calculation of *Overall Investment Priorities*. For this reason, the Educator Quality Standards Staffing Ratio and the Overall Investment Priorities value are identical.

## Metrics and Determinations

### Aggregation Rules

#### Point Value Calculation

To standardize reporting on different measures, the Annual Snapshot converts scores from the various indicators to a scale of 1.0 to 5.0. Point Value conversions are specific to each indicator. All decimals are rounded down for Point Value calculation. The conversion charts can be found [here](#).

#### Point Value to Rating Calculation

Ratings reflect the calculated Point Value for the domain, indicator, or measure of interest. The rating names and images vary depending on whether the metric is based on performance (single-year) or change (multiple-year).

Performance	 Not Meeting	 Approaching	 Meeting	 Exceeding
Change	 Declining	 Not Improving	 Improving	 Excelling

Ratings are calculated based on the [Point Value Conversion Table](#).

#### Scale Scores

Scale scores refer to student performance on an assessment. They are a numerical value based on the scale of that specific assessment and grade. For example, in the 2018-19 school year scale scores for the Smarter Balanced ELA assessments grade 4 has a range of 2,032-2,867 and grade 8 a range of 2,097-2,989. Meanwhile the scale scores for the Vermont Science Assessment (VTSA) range between 0-100 regardless of grade. Because different assessments use different scales to report student performance, the Annual Snapshot standardizes these numbers to Point Values, as explained in [Point Value Calculation](#).

The All Grade point values reported on the Annual Snapshot are the weighted average of the assigned point values (see [Point Value Equivalencies](#)) for each grade in the organization—school, Supervisory Union/District, or the state of Vermont—if applicable. Organizations will



NOT be able to report scale scores if they don't serve the grades where these assessments are administered.

These weighted averages are rounded to the nearest integer (whole number). The Student Count reported for All Grades is the sum of all Student Counts in the aggregated grades.

Math Scale, ELA/Reading Scale, and Science, and Physical Education all require All Grades calculation.

### **Growth Scores**

*A student's growth percentile describes how (ab)normal a student's growth is by examining their current achievement relative to their academic peers—those students with the same "starting point" demonstrating identical prior achievement (Betebenner, 2009<sup>1</sup>)*

The growth score for ELA and Math represents the median of students' change in performance on the assessment over the past three (3) years compared to academic peers. Academic peers are defined as students in the state who performed similarly on the assessment in question two (2) years earlier.

Student Growth Percentiles are standardized across all grades, and the growth All Grade scores are calculated as the average of growth scores of all grades.

### **Overall Scores – ELA/Reading and Math**

ELA/Reading and Math have both scale and growth scores. If there are 11 or more students with a growth score, the combined Overall score is an average of the scale and growth Point Values, rounded to two (2) decimal places. If there are fewer than 11 students with a growth score, the Overall score is the same as the scale score. Student Counts are averaged with the same rules.

This process is used across grades and student groups, including All Grades and All Student Groups totals.

### **Overall Graduation Rate**

A "cohort" is a group of students entering 9<sup>th</sup> grade at the same time. Cohorts are then adjusted by adding in students who transfer in and removing students who transferred out of the district. The 4-year Graduation Rate is the number of students in a cohort who graduate from high school within four years with a regular high school diploma divided by the number of students who formed the adjusted cohort for that graduating class. The 4-year adjusted cohort rate also includes students who graduate in less than four years. The same logic applies to the 6-year Graduation Rate.

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<sup>1</sup> Betebenner, D.W. (2008). A Primer on student growth percentiles. *National Center for the Improvements of Educational Assessment (NCIEA)*. Dover, New Hampshire.



Overall Graduation Rate is composed of 4-year and 6-year Graduation Rates. If both the 4-year and 6-year Student Counts are 11 or higher the Overall is an average of the two, rounded to two (2) decimal places. The Overall Student Count is the same as the 4-year Student Count.

If there is 4-year Graduation Rate data with 11 or more students, but the 6-year Graduation Rate data has fewer than 11 students, the Overall Graduation Rate is identical to the 4-year Graduation Rate. Likewise, if only the 6-year Graduation Rate has 11 or more students, the Overall Graduation Rate is identical to the 6-year Graduation Rate.

### **Overall Academic Proficiency**

The Overall Academic Proficiency is calculated using the following indicators:

- Overall Math
- Overall ELA/Reading
- Overall Graduation Rate
- Annual Progress toward English Proficiency
- Science
- Physical Education\*
- Career/College-Readiness Assessments\*
- Career/College-Ready Outcomes Within 16 Months of Graduation\*

*\* Not included in the 17-18 Annual Snapshot*

Each indicator is only included in the calculation if there are 11 or more students assessed. All included measures are weighted using the methodology found in [Weighting of Academic Proficiency Measures](#). A column of weights is chosen based on the presence (11 or more students) of Graduation Rate, EL Proficiency, and Science. The indicators' performance point values are combined using the selected weights. If an indicator has a weight, but has fewer than 11 students, the weight is split among the indicators that are present with a weight greater than 0. For example, if a school exists with Graduation Rate and Math present with 11 or more students, but its EL Proficiency has fewer than 11 students, the 20% weight that would have been assigned to EL Proficiency is split proportionally between all other indicators that exist with 11 or more students.

If no indicators have 11 or more students, then no Overall Academic Proficiency is calculated. All calculated values are rounded to two (2) decimal places. All weights are rounded to full percentages\.

### **Equity Calculation**

The equity index indicates the difference in performance between students who have been historically underserved in schools compared to their historically privileged peers. Smaller



differences in performance are reflected by a “Meeting” or “Exceeding” [rating](#). If a historically underserved group is outperforming the corresponding student group this will always result in an “Exceeding” rating.

Every student group has a corresponding comparison student group for equity purposes. The complete list can be found in the [Appendix](#).

Equity is calculated by taking the Point Value of the comparison student group and subtracting the Point Value of the student group in question. For example, if the Graduation Rate Point Value for a school’s Non-Homeless population is 1.8, and the Point Value for a school’s Homeless population is 1.2, the Non-Homeless equity is -0.6. A negative value for an equity calculation indicates that the student group in question is performing higher than the comparison group.

Student group data is often [suppressed](#) due to small school size, which can mask the potential problems that these equity calculations are meant to identify. Aggregating [Historically Marginalized](#) student groups makes it possible to report more data, as the combined number of students will increase. This aggregate of historically underserved students is called the Historically Marginalized student group. The Historically Privileged student group is any student not part of one of the Historically Marginalized student groups.

The “All” student group’s equity is calculated by taking the Point Value of the Historically Marginalized student group and subtracting the Point Value of the Historically Privileged student group.

### **Performance Change Calculation**

The performance change is the amount of change for a given domain or indicator for the academic year compared to the previous academic year. For the 2018-19 school year, the performance change of a school’s Math indicator is the 2018-19 Point Value minus the corresponding 2017-18 Point Value.

### **Equity Index Change Calculation**

The equity index change is the current equity index for the given academic year minus the corresponding equity index from the previous academic year. If the equity index of a school’s 7<sup>th</sup> grade ELA/Reading indicator is 2.2, and in the previous year the 7<sup>th</sup> grade ELA/Reading indicator was 2.0, the equity index change is  $2.2 - 2.0 = 0.2$ .

### **Accountability Scores**

Accountability scores consider students who meet two criteria



- 1) They must have been enrolled at a school on October 1 of the school year
- 2) They must be enrolled at that same school during the test window for that assessment

This differs from Reporting scores, which do not require students to have been enrolled at the school prior to the test window. Another distinction between Reporting and Accountability scores is the number of students required: The Accountability reporting threshold is only met if 25 or more students are assessed.

The Accountability All Grades scores are the weighted average of the assigned Point Values (see [Point Value Equivalencies](#)) for each grade in the organization—school, Supervisory Union/District, or the state of Vermont—if applicable. Not all organizations will be able to report Accountability scores for some grades if they don't serve the grades where these assessments are administered. The Student Count reported for All Grades is the sum of all Student Counts in the aggregated grades.

Indicators that require Accountability All Grades calculation: Math Accountability, ELA/Reading Accountability, Science Accountability, and Physical Education.

### **Overall Scores – Math and ELA/Reading for Summative Determination**

Aggregating Math and ELA/Reading for Summative Determination calculations are done by averaging their Accountability data with Growth data, where Growth is only counted if there are 25 or more students tested. If there are fewer than 25 students with a Growth assessment, the Overall value is the same as the Accountability score.

The Student Count for Overall Math and Overall ELA/Reading is the same as the Student Count for the aggregated Math Accountability and ELA/Reading Accountability data.

This process is used only for the All Grades total and is not calculated on a grade by grade level. It is calculated for individual student groups and the All Student Group total.

### **Overall Graduation Rate – Accountability**

The Overall Accountability version of Graduation Rate is calculated the same as [Overall Graduation Rate](#), except the threshold is 25 students instead of 11.

### **Notes**

The following indicator(s) were not included in the 2017-2018 release of the Annual Snapshot:

- Assessment Scale – Physical Education
- Career/College-Readiness Assessments
- Career/College-Readiness Outcomes Within 16 Months of Graduation



## Suppression

Some of the data in the Annual Snapshot are suppressed. There are two reasons this can occur:

1. Statistical reliability
2. Student privacy

### Statistical Reliability

Data may not be statistically reliable if the number of unique students is too small. At the same time, requiring too large a number of students could limit the number of schools able to report data. A 25-student sample size has been determined to be statistically sound for making accountability decisions; therefore, any grouping with fewer students is uncalculated and suppressed.

Note that the requirement of 25 students to report and use for decisions is only for Accountability purposes. Reporting data does not have this limitation.

### Student Privacy

Many Vermont schools have small student populations, making it easy to identify individual student information. To protect student privacy, the Annual Snapshot suppresses data in certain situations: small number suppression and complementary suppression.

#### Small Number Suppression

The purpose of Family Education Rights and Privacy Act (FERPA) regulations is to protect the privacy of students<sup>2</sup>. All reporting of student data with a non-zero student count must ensure confidentiality of individual students' results. Per [Vermont State Board of Education Rule 2555](#) all public reporting of assessments requires a minimum of 11 students.

Suppression becomes more common the more specific the breakdown. For example, Math for All Grades and All Student Groups at the Supervisory Union/District would likely have more than 10 students and so would be reportable. But Math at a building level for grade 5 in the Free and Reduced Lunch student group may or may not have more than 10 students. For more details on student privacy based suppression, see page 24 of the [Consolidated State Plan](#).

#### Complementary Suppression

Small number suppression alone is not sufficient to protect student privacy. In the example below there is an overall (All Student Group) value, an Historically Privileged (HP) group's value, and an Historically Marginalized (HM) group's value which would be reported.

Math Grade 5 Overall	50 students	Meeting
Math Grade 5 Historically Privileged	49 students	Exceeding
Math Grade 5 Historically Marginalized	1 student	Approaching

<sup>2</sup> FERPA 34 CFR § 99.2



Because of small number suppression, the HM group will be suppressed. But the HM group can be unmasked by subtracting the HP group from the overall value. For this reason, the HP group would also receive suppression. This is called complementary suppression.

There are also situations where the Overall value is suppressed. In the above example, if the Math Grade 5 Overall value had been complementary suppressed already (because of another value with a small student count), Math Grade 5 HP would not need to be suppressed. Values are selected for suppression in a manner that intends to limit the number of total suppressions.

Complementary suppression assures that there is never just one suppressed value in a set. Sets that are considered for suppression are listed below. An organization for these purposes will refer to a school, Supervisory Union/District, or Vermont itself.

- Grades: If one grade's value is suppressed in an organization, another grade, or the All Grades, within the same set of indicator, organization, and student group must also be suppressed.
- Student groups: If one student group's value is suppressed in an organization, another student group, or the All Student Group, within the same set of indicator, organization, grade, and [student group type](#) must also be suppressed.
- Organizations: If one school's value is suppressed, another school, or the Supervisory Union/District, within the same set of indicator, Supervisory Union/District, grade, and student group must be suppressed.

Likewise, if a Supervisory Union/District's value is suppressed, another Supervisory Union/District, or the Vermont level value, within the same set of indicator, grade, and student group must be suppressed.

- Indicator component: If one of an indicator's components is suppressed in an organization, another component, or the indicator itself, within the same set of organization, grade, and student group must also be suppressed. For example, if Math is suppressed, either [Overall Academic Proficiency](#) must be suppressed, or one of ELA/Reading, Graduation Rate, Science, etc. must be suppressed.
- Student group component: If one of the [components of the historically marginalized aggregate student group](#) is suppressed, another student group component, or the historically marginalized aggregate, within the same set of indicator, and organization must also be suppressed.
- Change suppression: If a value is suppressed, or its equivalent value from the previous year is suppressed, then the performance change value becomes suppressed. For example, if Science Grade 3 All Student Group's performance value is suppressed in 2017-18, then that same school or Supervisory Union/District's Science Grade 3 All Student Group's performance change is suppressed in 2018-19.
- Equity suppression: If a value is suppressed, its equity index value is also suppressed.
- Equity index change suppression: If a value's performance change is suppressed, then the equity index change value is also suppressed.



### ***Cascading Suppression***

Complementary suppression can cascade and lead to some unexpected results. As an example, a school might have to suppress Physical Education in the Homeless student group for grade 4. Because of grade complementary suppression, another grade must also be suppressed. But if grade 4 is the only grade assessed in that school, the All Grade value is suppressed. In this example, All Grade and grade 4 are one and the same. But, because Physical Education All Grade in the Homeless student group is suppressed, now another school's Physical Education All Grade in the Homeless student group in the same Supervisory Union/District must be suppressed. These leads to further complementary suppressions.

For another example, Math Grade 8 Non-Migrant is suppressed, but there are 0 Migrant students that took the Math Grade 8 assessment in the school. Because of Student Group complementary suppression, Math Grade 8 All Student Group has to be suppressed. Now that Math Grade 8 All Student Group is suppressed, Student Group complementary suppression requires that a student group in every other student group type be suppressed for Math Grade 8. In this manner, suppression can spread quickly across the data set due to the high incidence of very small student counts in Vermont.



## COVID-19 Effects on Data

In March of 2020 the Agency of Education requested and received a waiver for several assessments and reporting requirements due to the COVID-19 pandemic. As a consequence, the following indicators will not be reported in the 2019-20 Annual Snapshot:

- ELA
- Math
- Physical Education
- Science

Additionally, the following indicator were affected by the move to remote learning at the end of the 2019-20 school year and will not be reported.

- Disciplinary Exclusion

### Effect on Overall Academic Proficiency

With many of the components of [Overall Academic Proficiency](#) unusable in 2019-20, this metric will have to be calculated in a different manner, using only the available metrics.

### Effect on Summative Determination

With many of the components of [Summative Determination](#) unusable in 2019-20, this metric will not be calculated.

### Effect on Equity Status and Comprehensive Supports

Both [Equity Status](#) and [Comprehensive Supports](#) rely on [Summative Determination](#), and therefore will not be calculated for 2019-20.



## Appendix

### 1.1 Weighting of Academic Proficiency Measures

#### Content Standards: Accountability Questions and School Level Weights

Accountability Question (Indicators)	Weight if Graduation Rate Present		Weight if No Graduation Rate Present			
	EL Present	No EL Present	EL Present Science	EL Present No Sci.	No EL Present Science	No EL Present No Sci.
How well are students performing in ELA/reading?	20%	22%	35%	38%	38%	40%
How well are students performing in mathematics?	20%	22%	35%	38%	38%	40%
How well are students performing in science?	5%	6%	10%	0%	13%	0%
How well are students performing in physical education?	5%	6%	10%	13%	13%	20%

#### English Language Proficiency: Accountability Questions and School Level Weights

Accountability Question (Indicators)	Weight if Graduation Rate Present		Weight if No Graduation Rate Present			
	EL Present	No EL Present	EL Present Science	EL Present No Sci.	No EL Present Science	No EL Present No Sci.
How well are English Learners gaining English proficiency?	10%	0%	10%	13%	0%	0%



### Graduation Rate: Accountability Questions and School Level Weights

Accountability Question (Indicators)	Weight if Graduation Rate Present		Weight if No Graduation Rate Present			
	EL Present	No EL Present	EL Present Science	EL Present No Sci.	No EL Present Science	No EL Present No Sci.
Are students staying in school until they graduate?	20%	22%	0%	0%	0%	0%

### College and Career Readiness: Accountability Questions and School Level Weights

Accountability Question (Indicators)	Weight if Graduation Rate Present		Weight if No Graduation Rate Present			
	EL Present	No EL Present	EL Present Science	EL Present No Sci.	No EL Present Science	No EL Present No Sci.
How well did seniors perform on career and college ready assessments?	10%	11%	0%	0%	0%	0%
Are alumni pursuing a career and college ready outcome within 16 months of graduation?	10%	11%	0%	0%	0%	0%



## 1.2 Weighting of Academic Proficiency Measures (Summative Determination Performance Change)

### Content Standards: Accountability Questions and School Level Weights

Accountability Question (Indicators)	Weight if Graduation Rate Present		Weight if No Graduation Rate Present			
	EL Present	No EL Present	EL Present Science	EL Present No Sci.	No EL Present Science	No EL Present No Sci.
How well are students performing in ELA/reading?	28%	29%	44%	44%	49%	50%
How well are students performing in mathematics?	28%	29%	44%	44%	49%	50%
How well are students performing in science?	2%	2%	2%	0%	2%	0%

### English Language Proficiency: Accountability Questions and School Level Weights

Accountability Question (Indicators)	Weight if Graduation Rate Present		Weight if No Graduation Rate Present			
	EL Present	No EL Present	EL Present Science	EL Present No Sci.	No EL Present Science	No EL Present No Sci.
How well are English Learners gaining English proficiency?	14%	0%	10%	12%	0%	0%



### Graduation Rate: Accountability Questions and School Level Weights

Accountability Question (Indicators)	Weight if Graduation Rate Present		Weight if No Graduation Rate Present			
	EL Present	No EL Present	EL Present Science	EL Present No Sci.	No EL Present Science	No EL Present No Sci.
Are students staying in school until they graduate?	28%	29%	0%	0%	0%	0%

### 2.1 Summative Determination Calculation

This table displays priority determinations for Comprehensive Supports eligibility. The rows reflect performance in the current year. The columns reflect change in performance between the current year to the previous year.

		Performance Change			
		Not Meeting < 0.0	Approaching 0.01-0.15	Meeting 0.16-0.3	Exceeding > 0.3
Current Performance	Not Meeting 1-1.88	Priority 1	Priority 3	Priority 6	Priority 7
	Approaching 1.89-2.75	Priority 2	Priority 4	Priority 8	Priority 10
	Meeting 2.76-3.65	Priority 5	Priority 11	Priority 12	Priority 14
	Exceeding 3.66-5.0	Priority 9	Priority 13	Priority 15	Priority 16



## 2.2 Summative Determination Priority to Rating Conversion

Priority	Rating
1-3	Not Meeting
4-8	Approaching
9-12	Meeting
13-16	Exceeding

## 3.1 Student Group Comparison Pairs

Student Group Type	Student Group	Comparison Student Group
Economic Status	Free and Reduced Lunch	Non-Free and Reduced Lunch
Economic Status	Non-Free and Reduced Lunch	Free and Reduced Lunch
Race/Ethnicity	African-American	Non-African-American
Race/Ethnicity	American Indian/Alaskan Native	Non-American Indian/Alaskan Native
Race/Ethnicity	Asian	Non-Asian
Race/Ethnicity	Hispanic	Non-Hispanic
Race/Ethnicity	Native Hawaiian-Pacific Islander	Non-Native Hawaiian-Pacific Islander
Race/Ethnicity	White	Non-White
Racial Group	Caucasian	Non-Caucasian
Racial Group	Non-Caucasian	Caucasian
Special Ed	IEP	Non-IEP
Special Ed	Non-IEP	IEP
English Learner	English Learner	Non-English Learner
English Learner	Non-English Learner	English Learner
Gender	Female	Male
Gender	Male	Female
Migrant	Migrant	Non-Migrant
Migrant	Non-Migrant	Migrant
Homeless	Homeless	Non-Homeless
Homeless	Non-Homeless	Homeless
Foster	Foster	Non-Foster
Foster	Non-Foster	Foster
Military	Military Affiliated	Non-Military Affiliated
Military	Non-Military Affiliated	Military Affiliated
Historical Status	Historically Marginalized	Historically Privileged
Historical Status	Historically Privileged	Historically Marginalized



### 3.2 Historically Marginalized Student Group Components

Student Group Type	Student Group
Economic Status	Free and Reduced Lunch
English Learner	English Learner
Foster	Foster
Homeless	Homeless
Migrant	Migrant
Military	Military Affiliated
Race/Ethnicity	African-American
Race/Ethnicity	American Indian/Alaskan Native
Race/Ethnicity	Asian
Race/Ethnicity	Hispanic
Race/Ethnicity	Native Hawaiian-Pacific Islander
Racial Group	Non-Caucasian
Special Ed	IEP

### 3.3 Equity Comparison Student Groups

Historically Privileged Student Group	Historically Marginalized Student Group
Historically Privileged	Historically Marginalized
Non-African-American	African-American
Non-American Indian/Alaskan Native	American Indian/Alaskan Native
Non-Asian	Asian
Non-English Learner	English Learner
Non-Free and Reduced Lunch	Free and Reduced Lunch
Non-Hispanic	Hispanic
Non-IEP	IEP
Non-Native Hawaiian-Pacific Islander	Native Hawaiian-Pacific Islander



#### 4.1 Point Value Reference Table (link)

<https://education.vermont.gov/education-quality-assurance/annual-snapshot/vermont-annual-snapshot-point-value-reference-tables>

#### 4.2 Point Value to Rating Chart

Type	Range	Rating
Performance	$\leq 1.88$	Not Meeting
Performance	$\geq 1.89$ and $\leq 2.75$	Approaching
Performance	$\geq 2.76$ and $\leq 3.65$	Meeting
Performance	$\geq 3.66$	Exceeding
Equity Index	$> 0.5$	Not Meeting
Equity Index	$\geq 0.25$ and $\leq 0.5$	Approaching
Equity Index	$\geq 0.1$ and $\leq 0.24$	Meeting
Equity Index	$< 0.1$	Exceeding
Performance Change	$< 0$	Not Meeting
Performance Change	$\geq 0$ and $\leq 0.15$	Approaching
Performance Change	$\geq 0.16$ and $\leq 0.3$	Meeting
Performance Change	$> 0.3$	Exceeding
Equity Index Change	$< 0$	Not Meeting
Equity Index Change	$\geq 0$ and $\leq 0.1$	Approaching
Equity Index Change	$\geq 0.11$ and $\leq 0.2$	Meeting
Equity Index Change	$> 0.2$	Exceeding