# Calculation Guide 



## 2018-2019 School Performance Index and Accountability Report Card

This resource will answer frequently asked questions regarding South Dakota's accountability system.

## The School Performance Index

While other information is publicly reported on the report card, South Dakota's accountability system is based on a 100point index, called the School Performance Index (SPI), consisting of multiple indicators, each assigned a numeric value. These values are summed to create a total SPI score out of 100 points. Two distinct indexes will be used: one for high school (secondary) accountability, and one for elementary and middle school (pre-secondary) accountability. SPI point details are provided in the second table.

Elementary and Middle School SPI Points Distribution:

| Indicator |  | Maximum Points Possible |  |
| :---: | :---: | :---: | :---: |
|  | Student Achievement | Math | 20 |
|  |  | English Language Arts | 20 |
|  |  | Total | 40 |
|  | Academic Growth | English Language Arts - All Students | 10 |
|  |  | Math - All Students | 10 |
|  |  | English Language Arts - Lowest Quartile | 10 |
|  |  | Math - Lowest Quartile | 10 |
|  |  | Total | 40 |
|  | English Language Proficiency |  | 10 |
| School Quality |  |  | 10 |
| Total |  |  | 100 |

High School SPI Points Distribution:

| Indicator | Maximum Points Available |  |
| :---: | :---: | :---: |
| © Student Achievement | Math | 20 |
| $\stackrel{0}{0}$ | English Language Arts | 20 |
| $\stackrel{-1}{0}$ | Total | 40 |
| $\stackrel{\text { c }}{\text { ( }}$ Four-Year Cohort Graduation |  | 12.5 |
| 잉 College and Career Readiness |  | 25 |
| $\stackrel{4}{4}$ English Language Proficiency |  | 10 |
| High School Completion |  | 12.5 |
| Total |  | 100 |

## The Elementary and Middle School Accountability System

The Elementary and Middle School Accountability System incorporates four key indicators of school performance, described below.

## Indicator \#1: Student Performance

Elementary and middle schools are accountable for the Student Performance indicator. This indicator measures students' performance on the South Dakota English Language Arts Assessment (SD-ELA) and the South Dakota Math Assessment (SD-MATH) or the South Dakota Alternative Assessments in both English Language arts (SD-ELA Alt) and math (SD-MATH Alt). Only those students with the most severe cognitive disabilities take an alternate assessment. First Year in Country students in tested grades are required to participate in the math and science assessments.

The Accountability Report Card also reports proficiency rates that include the South Dakota Science Assessment (SD-SCI) and the South Dakota Science Alternative Assessment (SD-SCI Alt) scores. Science test scores are not included in the SPI calculation.

The South Dakota Assessments are single snapshot, summative assessments designed to measure each student's mastery of South Dakota's content standards in ELA and math. A student receives a scale score which falls into four achievement levels: Level 1 being the lowest level, Level 3 indicating proficiency, and Level 4 indicating advanced performance. Levels 1 and 2 are considered not proficient; levels 3 and 4 are proficient and above.

All students in grades 3-8 and 11 are included in the Student Performance rate calculation for a school or district if they meet Full Academic Year (FAY). FAY means a student was enrolled for a substantial portion of the year in a specific school or district - from October 1 to May 1 with an enrollment gap of no more than 15 consecutive school days.

Results on the State Assessments will be returned three ways:

- Multi-Year Proficiency
- Current Year Proficiency
- Current Year Participation


## Multi-Year Proficiency

## Description

South Dakota is a small state with many small schools and districts. Because of this, Student Performance points are awarded based on a school's performance on the South Dakota Assessments and/or the South Dakota Alternate Assessments over the course of up to three years. This helps even out some of the highs and lows smaller schools may experience and give a more robust picture of Student Performance.

## Calculation

Numerator $=$ Count of FAY students who tested at Level 3 or 4 in 2016-17 + count of FAY students who tested at Level 3 or 4 in 2017-18 + count of FAY students who tested at Level 3 or 4 in 2018-19

Denominator $=$ Count of FAY students who tested in 2016-17 + count of FAY students who tested in 2017-18 + count of FAY students who tested in 2018-19

## Current Year Proficiency

## Description

The proficiency rate for students on the current school year assessments for ELA, math and science are calculated and presented for informational purposes. Schools can compare their current year performance to prior years' performance.

Calculation

$$
\text { Numerator = Count of students who tested at Level } 3 \text { or } 4 \text { in the current school year }
$$

$$
\text { Denominator }=\text { Count of students who tested in the current school year }
$$

## Earning SPI Points

Student Performance Points (SPI) are awarded based on a school's performance over the course of three years for ELA and math. The N -size of 10 is applied over the three years used for the indicator, rather than an N -size of 10 for each individual year. If a school has fewer than 10 students over three years, the school is considered a Small School and will go through a state designed evaluation process. Points are awarded by looking at the performance of all students on the statewide assessment in ELA and mathematics.

The percentage of students scoring at each performance level is calculated and then multiplied by the point value given to that performance level. The point values applied to each performance level details are provided in the table below.

| Performance Level | Point Values |
| :---: | :---: |
| Level 1 | 0.25 |
| Level 2 | 0.50 |
| Level 3 | 1.00 |
| Level 4 | 1.25 |

To comply with the $95 \%$ participation in testing rule, untested students above the amount allowed in the SD Administrative Rule are included in the calculation and assigned a value of zero points for the percent of tests not taken above the five percent allowed.

The steps below reflect how to calculate the percent of points earned based on the performance level of students on the assessments for ELA and math. Note that all calculations are based on adding together the most recent consecutive three years of data.

Phase I steps for calculating points achieved by performance level for ELA and math

1) Determine the denominator for the calculation. This number reflects the larger of either those students assessed or 95 percent of eligible students, as identified in participation rate (current year only for ELA and math assessments).
a. If a school met participation requirements for All Students group, continue to Step 4.
b. If a school did not meet participation requirements for All Students group, determine the number of students required to bring the school up to the 95 percent bar. The students represented here are given a value zero-point value.
2) Determine the number of students scoring at Level 1 and translate into a percent of students using the denominator arrived at in Step 3. These students are given a value of 0.25 point value.
3) Determine the number of students scoring at Level 2 and translate into a percent of students using the denominator arrived at in Step 3. These students are given a value of 0.50 point value.
4) Determine the number of students scoring at Level 3 (proficient) and translate into a percent of students using the denominator arrived at in Step 3. These students are given a value of 1.00 point value.
5) Determine the number of students scoring at Level 4 (proficient) and translate into a percent of students using the denominator arrived at in Step 3. These students are given a value of 1.25 point value.
6) Add up the percent of points earned for each of the above steps to arrive at the total percent of points earned. If this is greater than 100\%, cap this at $100 \%$ of points earned.

Example of above steps calculation results:

|  | Nonparticipants <br> to get up to <br> 95\% | Level 1 | Level 2 | Level 3 | Level 4 | Total | Total Points <br> Earned (\% x 20 <br> points possible <br> by subject area) |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| N-size | 2 | 27 | 50 | 100 | 21 | 200 |  |
| Percent of total | $1.00 \%$ | $13.50 \%$ | $25.00 \%$ | $50.00 \%$ | $10.50 \%$ | $100 \%$ |  |
| Point value | 0.00 | 0.25 | 0.50 | 1.00 | 1.25 |  | $\mathbf{1 5 . 8 0}$ |
| \% of points earned | $\mathbf{0 . 0 0 \%}$ | $3.38 \%$ | $\mathbf{1 2 . 5 0 \%}$ | $\mathbf{5 0 . 0 0 \%}$ | $\mathbf{1 3 . 1 3 \%}$ | $\mathbf{7 9 . 0 1 \%}$ |  |

## Phase II steps to calculate the total points earned for each subject area:

1. Multiply the percentage of points earned by 20, which is the possible points for each subject area: (see Appendix A for rounding rules)
a. $79 \%$ multiplied by $20=15.80$ for Math
b. $88 \%$ multiplied by $20=17.60$ for ELA
2. Total earned points for Student Performance for this school is 33.40 , which is the sum of 15.80 and 17.60.
3. There are 40 points possible for the Student Performance indicator; to calculate the percentage of points earned: divide 33.40 by $40=84 \%$ of the possible points were earned by the school. No school may earn more points than maximum possible.

Example of above steps calculation results:

|  | \% of Points Possible <br> Achieved | Score | Total Points for <br> Student Performance |
| :--- | :---: | :---: | :---: |
| Math | $79.00 \%$ | 15.80 | 33.40 |
| ELA | $88.00 \%$ | 17.60 |  |

## Invalidated Test Scores

SDDOE process for invalidating test scores based on a unique situation at a school resulting in the invalidation of test scores. Invalidated test scores will count in the denominator when calculating student proficiency.

The invalidation of test scores may impact the school's SPI points for the student performance indicator if the school did not test $95 \%$ of their students in the current school year.

## Current Year Participation

## Description

The final component of Student Performance is the participation rate. All students enrolled in a South Dakota public school as of May 1 are required to participate in the ELA, math and science assessments.

Federal and state law requires that 95 percent of students, at the school, district, and state levels, and across every subgroup, participate in the state assessment.

> Administrative Rule 24:55:07:02. At least 95 percent assessed. A school shall administer the state academic assessment to at least 95 percent of the students and 95 percent of students within a student group who are enrolled in the tested grades for the state academic assessment as of May 1. If a school fails to administer the state assessments to 95 percent of students or of the members of a student group, those students necessary to be counted to reach 95 percent shall receive a value of zero in calculating the student achievement key indicator.

## Calculation

Numerator $=$ *Count of students with valid scores

Denominator $=$ Count of eligible students enrolled as of May 1
*Count of students tested includes all students who attempted to take the test by logging in and attempting both portions of the test for ELA or math.

## Indicator \#2: Student Progress

## Description

Student Progress is based on the Student Growth Percentiles model. In this model, every student is compared to his or her peers. Test scores of students in grades $4-8$ are used to capture two successive years of test scores for this measure. Student Progress is based on the students who meet Full Academic Year (FAY) in the current school year.

## Measure Details

- Students are grouped with other South Dakota students based on their performance on previous year's assessment. Then their scores for current year assessment are compared to determine how much they grew.
- Those students who have a relatively higher year two score (i.e., they grew more) will have a higher Student Growth Percentile (SGP).
- Those with a relatively lower year two score (i.e., they grew less than their peers) will have a lower SGP.
- The modeling through Student Growth Percentiles is then used to project how the student will perform in three years.
- Three categories of students are factored into the numerator of the Student Progress calculation. These categories qualify for meeting the growth standard:

1. Those students who are currently proficient and projected to stay proficient receive a designation of "Keeping Up."
2. Those who are not yet proficient but for whom the model projects will become proficient in three years are "Catching Up."
3. Those who are not proficient and not projected to become proficient, but who are achieving significant progress (defined as a Student Growth Percentile of 70 or above, i.e., growing at a rate of better than 70 percent of his or her peers), are designated as having "Very High Growth."

- The above three categories of students, plus the students Not Meeting the Growth standard, are the denominator.


## Definition of Growth Designations

| Designation | Current Year <br> Proficiency | In 3 Years Proficiency | Current Growth |
| :--- | :--- | :--- | :--- |
| Keeping Up | Proficient | Will stay proficient |  |
| Catching Up | Not Proficient | Will be proficient |  |
| Very High Growth | Not Proficient | Will not be proficient | SGP of 70 or above |
| Others | Proficient <br> Not Proficient | Will not be proficient <br> Will not be proficient | SGP of below 70 |

## Calculation

Numerator: Number of current year FAY students with a previous year's assessment score who also earned a designation of Keeping Up, Catching Up, or Very High Growth

Denominator: Number of current year FAY students with a previous year's assessment score
The report card displays rates for both the All Students and the Lowest Quartile groups. The Lowest Quartile is comprised of those students who achieved the lowest 25 percent of scores on the previous year's assessment.

## Earning SPI Points

Points are awarded based on the performance of the All Students group in both ELA and math, as well as the performance of the Lowest Quartile students in ELA and math. Lowest Quartile is calculated on the lowest $25 \%$ of the previous year's assessment scores. An example of calculating Student Progress points:

| Student Groups | ELA |  | Math |  | Total SPI Points |
| :--- | ---: | ---: | ---: | ---: | ---: |
|  | \% Meeting <br> Standard | SPI Points | \% Meeting <br> Standard | SPI Points |  |
|  | $78.00 \%$ | 7.80 | $61.33 \%$ | 6.13 | $\mathbf{2 7 . 4 0}$ |
| Lowest Quartile | $73.68 \%$ | 7.68 | $57.89 \%$ | 5.79 |  |

## Indicator \#3: English Language Learners Progress

## Description

English Language Learners Progress (ELP) indicator is designed to focus on the progress of English Language Learner students assessed by state English language assessment, specifically the ACCESS 2.0. Students who take ACCESS Alt are not included in this indicator. The English Language Learners Progress indicator is based on the students who meet Full Academic Year (FAY) in the current school year.

The point structure for the English Language Learners Progress indicator is like the Student Performance indicator point structure. Schools earn a percentage of points based on how English Language Learner students are performing towards the state's goals for reaching language proficiency, which is a composite score of 5.0 or more on the ACCESS 2.0 assessment.

- The point of entry to the indicator is a student's first ACCESS 2.0 assessment.
- The indicator is structured to consider separately students taking ACCESS 2.0 for the first time and students' progress on the ACCESS 2.0.

All English Learner students who have been in the program before the 2016-17 Academic Year will have their progress trajectories set on their 2016-17 ACCESS 2.0 Composite Score, regardless of how long they have been in the English Learner program (Linear Growth cannot be accurately calculated using scores from two different tests). For English Learner students identified after 2016-2017, their first ACCESS 2.0 Composite Score will become the baseline score used to calculate their progress trajectories.

When English Learner students take the ACCESS 2.0 assessment for the first time, the Composite Score they get is used to determine the number of years it will take for individual students to exit the English Learner program. The diagram below shows the number of years for an English Learner student to exit the program after taking their first ACCESS 2.0 assessment.

| First ACCESS <br> 2.0 Score | Years to Exit after <br> First ACCESS $\mathbf{2 . 0}$ |
| :---: | :---: |
| 1.0 to 1.9 | 5 years |
| 2.0 to 2.9 | 5 years |
| 3.0 to 3.9 | 4 years |
| 4.0 to 4.9 | 3 years |
| 5.0 to 6.0 | Exit |

Once an English Learner student has their first ACCESS 2.0 Composite Score, a Linear Progress Trajectory is calculated based on the number of years they are expected to remain in the English Learner program.

The equation used to calculate the Linear Progress Trajectory is:

Calculation
Numerator: 5.0 - First Score

Denominator: Years to Exit based on first ACCESS 2.0 Composite Score

The Linear Progress Trajectory is used as annual target scores a student must achieve to receive full points each time they take the ACCESS 2.0 Assessment. Below is an example of what an individual student targets would look like:

| Initial ACCESS 2.0 <br> Level | Years to <br> Exit | Year 1 <br> Target | Year 2 <br> Target | Year 3 <br> Target | Year 4 <br> Target | Year 5 <br> Target |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2.2 | 5 years | 2.7 | 3.3 | 3.8 | 4.4 | 5.0 |

The student's second assessment score is used to categorize the student's progress, as detailed below:

- If the student didn't test -> Returning EL, not tested -> 0 Point Value
- If the student scored a 1.9 on his/her next test $->$ Returning EL, tested, no growth $->0.25$ Point Value
- If the student scored a 2.5 on his/her next test -> Returning EL, growing but not meeting goals -> 0.50 Point Value
- If the student scored a 3.1 on his/her next test -> Returning EL, tested, meeting growth goals -> 1.00 Point Value
- If the student scored a 5.2 on his/her next test -> Returning EL, tested, early exit -> 1.25 Point Value


## Earning SPI Points

Points will be awarded based on the performance of English Language Learner students on the ACCESS 2.0 assessment. Students can fall into one of seven growth categories, whether they are first identified as an English Learner, or they are a returning English Learner without a test.

First-identified students (students without a previous ACCESS 2.0 test score):

- Students who both took the ACCESS 2.0 assessment for the first time, and who met the exit criteria within their first year of receiving services are assigned to the category worth 1.0 point value.
- Other students who took the ACCESS 2.0 for the first time and did not exit within their first year of services are given a Progress trajectory but are NOT INCLUDED in this indicator until the second year of identification when progress towards growth can be calculated.

Students with at least one previous ACCESS 2.0 score:

- Students required to take ACCESS 2.0 but did not will be assigned to the category worth zero point value.
- Students who took ACCESS 2.0 as required but either lost proficiency or failed to make progress will be assigned to the category worth 0.25 point value.
- Students who are not on track to exit within the prescribed time frame but who have nevertheless progressed in proficiency OR students who did NOT take the ACCESS 2.0 when first identified but then took the assessment for the first time this year will be assigned to the category worth 0.50 point value.
- Students who are either on track to exit within the prescribed time frame OR students who exited on time are assigned to the category worth 1.0 point value.
- Students who exit ahead of the prescribed timeframe are assigned to the category worth 1.25 point value.

The table below describes the seven categories and points:

| Growth Category | Point Value |
| :--- | :--- |
| Newly-Identified EL, not tested | 0.00 |
| Returning EL, not tested | 0.00 |
| Returning EL, tested, no growth | 0.25 |
| Returning EL, growing but not meeting goals | 0.50 |
| Newly-Identified EL, exiting | 1.00 |
| Returning EL, tested, meeting growth goals | 1.00 |
| Returning El, tested, early exit | 1.25 |

## SPI Points Awarded

Once all English Learner students have been assigned to the appropriate category as denoted above, the cumulative percentages of students in each point category are multiplied by the point level, and by the points available for the indicator to create a calculated ELP indicator score.

## Rounding Rule for ELP Progress Goals

The Linear Growth Trajectory is measured to the hundredth decimal place and the ACCESS 2.0 Assessment measures scores by the tenth decimal place. We calculate targets using the hundredth, but the student's score is rounded down to the tenth (Rounding up would mean they would have to earn a higher than intended score with a linear progress trajectory).

An example for calculating points for the English Language Learners Progress Indicator:

|  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Newlyidentified EL, not tested | Returning EL, not tested | Returning EL, tested, no growth | Returning EL, <br> growing but not meeting goals | Newlyidentified EL exiting | Returning EL, <br> tested, meeting growth goals | Returning EL, tested, early exit | Totals | Total <br> Points <br> Earned <br> (lesser <br> of 10.0 |
| N-size | 10 | 10 | 20 | 20 | 10 | 20 | 10 | 100 | or sum |
| Percent of total EL | 10.00\% | 10.00\% | 20.00\% | 20.00\% | 10.00\% | 20.00\% | 10.00\% | 100\% | of all |
| Point value | 0 |  | 0.25 | 0.5 | 1.00 |  | 1.25 |  | points) |
| \% of <br> Points Earned | 0 |  | 5.00\% | 10.00\% | 30.00\% |  | 12.50\% | 57.5\% | 5.75 |

N-Size of 10 Rule for English Language Learner Progress Indicator
South Dakota's districts vary widely in the number of ELs they serve. Any school meeting an N -size of 10 will be held accountable and receive points based on the performance of its students for the English Language Learner Progress indicator. In this way, SDDOE will be able to hold the maximum number of districts accountable for the progress of their EL students.

- If a school in a district does not meet the EL N-size of 10 in the current school year, but the district identifies 10 or more ELs in the current year, that school will receive the percentage of points earned at the district level for the indicator.
- If a school and district did not meet the N-size of 10 in the current year, the points for the ELP indicator will be redistributed to the other academic indicators. (See Redistribution of SPI points section for details and examples).


## Progress Details for the English Language Learner Progress page in report card

The English Learners On-Track progress measures the rate of EL students that have met annual target goals. The English Learners Exited progress measures the percentage of EL students that score a 5.0 or higher on the ACCESS 2.0 and exited the program. These rates will reflect district data if the N -size for the school is less than 10 students.

## Indicator \#4: School Environment (Attendance)

## Description

The attendance rate is based on the percentage of students attending school for $90 \%$ or more of enrolled days. All students who are FAY and enrolled in grades kindergarten (including junior kindergarten - K1) through grade 8 are included in the attendance rate calculation for the SPI indicator.

NOTE: The attendance rate of $94 \%$ was the standard in past years (before 2017-18) and FAY was not applied. In 201718 , the attendance rate benchmark changed to $90 \%$ and FAY is applied to measure.

Calculation

Numerator $=$ Count of FAY students who attended at least $90 \%$ of his or her enrolled days
Denominator = Count of all FAY students who were enrolled for at least 15 consecutive school days

## Earning SPI Points

Points are earned by taking the percentage of FAY students who attended at least $90 \%$ of enrolled days multiplied by 10. For example, a hypothetical school with 83.54 percent of students attending at least $90 \%$ of enrolled days will receive 8.35 points out of a possible 10.

Attendance rates are calculated based on every unique student enrollment record (a student can have multiple enrollment records) at grades kindergarten (including junior kindergarten - K1) through eighth grade, reduced by students incarcerated at the state penitentiary, students attending school out-of-state, private school, summer school, home school, foreign exchange students, and students attending out-of-state on a contract basis. A unique student enrollment record is defined as unique student/ district/school/enrollment period. There could exist in Infinite Campus multiple enrollment records for the same student at the same district/school for the same enrollment period - if this is so, only one of these is retained for analysis.

Students can be accountable at the school/district/state levels, or district/state levels, or state level only, determined by the process involving district type and funding codes used for academic performance. For each level, the attendance rate is calculated by the (sum of membership days - sum of absent days) / (sum of membership days), summed over each unique enrollment record. This gives each unique enrollment record an attendance percentage).

Note: Chronic Absenteeism is reported in the elementary and middle school report cards, but no SPI points are applied for this measure for school environment. Chronic Absenteeism measures the percentage of students that have attended more than 10 days and have missed $10 \%$ or more enrolled days in the school year

## The High School Accountability System

The High School Accountability System incorporates five key indicators including: student performance, on-time graduation, high school completion, college and career readiness, and English language learner progress.

## Indicator \#1: Student Performance

Student Performance is based on the students' performance on the South Dakota English Language Arts Assessment and the South Dakota Math Assessment or the South Dakota Alternative Assessments in both English Language arts (ELA) and math. Those few students with the most severe cognitive disabilities take an alternate assessment.

The South Dakota Assessments are single snapshot, summative assessments designed to measure each student's mastery of South Dakota's content standards in ELA and math. Science proficiency rates are also reported in the report card per ESSA requirements; however, science is not included in the SPI points for this indicator. A student receives a scale score which falls into four achievement levels: Level 1 being the lowest level, Level 3 indicating proficiency, and Level 4 indicating advanced performance. Levels 1 and 2 are considered not proficient; levels 3 and 4 are proficient and above.

All students in grades 3-8 and 11 are included in the Student Performance rate calculation for a school or district if they meet Full Academic Year (FAY). FAY means a student was enrolled for a substantial portion of the year in a specific school or district - from October 1 to May 1 with an enrollment gap of no more than 15 consecutive school days.

Test scores for Grade 12 students who did not take assessments in 11th grade, are included.

Results on the State assessments will be returned three ways:

- Multi-Year Proficiency
- Current Year Proficiency
- Current Year Participation


## Multi-Year Proficiency

## Description

South Dakota is a small state with many small schools and districts. Because of this, Student Performance points are awarded based on a school's performance on the South Dakota Assessments and/or the South Dakota Alternate Assessments over the course of up to three years. This helps even out some of the highs and lows smaller schools may experience and give a more robust picture of Student Performance.

## Calculation

Numerator $=$ Count of FAY students who tested at Level 3 or 4 in 2016-17 + count of FAY students who tested at Level 3 or 4 in 2017-18 + count of FAY students who tested at Level 3 or 4 in 2018-19

Denominator = Count of FAY students who tested in 2016-17 + count of FAY students who tested in 2017-18 + count of FAY students who tested in 2018-19

## Current Year Proficiency

## Description

The proficiency rate for students on the 2019 assessment is still calculated and presented for informational purposes. Schools can compare their performance to last year's performance and track progress over time.

Calculation

$$
\text { Numerator = Count of students who tested at Level } 3 \text { or } 4 \text { in the current school year }
$$

Denominator $=$ Count of students who tested in the current school year

## Earning SPI Points

Points will be awarded by looking at the achievement of all students, not just those scoring proficient or higher on the statewide assessment in ELA and mathematics in grades three through eight. These assessments have four performance levels: Level 1 being the lowest level, Level 3 indicating proficiency, and Level 4 indicating advanced performance.

The percentage of students scoring at each performance level is calculated and then multiplied by the point value given to that performance level:

| Performance Level | Points Category |
| :---: | :---: |
| Level 1 | 0.25 |
| Level 2 | 0.50 |
| Level 3 | 1.00 |
| Level 4 | 1.25 |

To comply with the participation requirements under ESSA, untested students above the amount allowed in the law are included in the calculation and assigned a value of zero points for the percent of tests not taken above the five percent allowed.

The below steps reflect how to calculate the percent of points earned based on the performance level of students on the assessment. Note that all calculations are based on adding together the most recent consecutive three years of data.

## Phase I steps for calculating points achieved by performance level for ELA and math

1) Determine the denominator for the calculation. This number reflects the larger of either those students assessed or 95 percent of eligible students, as identified in participation rate (current year only for ELA and math assessments).
a. If a school met participation requirements for All Students group, continue to Step 4.
b. If a school did not meet participation requirements for All Students group, determine the number of students required to bring the school up to the 95 percent bar. The students represented here are given a value of zero-point value.
2) Determine the number of students scoring at Level 1 and translate into a percent of students using the denominator arrived at in Step 3. These students are given a value of 0.25 point value.
3) Determine the number of students scoring at Level 2 and translate into a percent of students using the denominator arrived at in Step 3. These students are given a value of 0.50 point value.
4) Determine the number of students scoring at Level 3 (proficient) and translate into a percent of students using the denominator arrived at in Step 3. These students are given a value of 1.00 point value.
5) Determine the number of students scoring at Level 4 (proficient) and translate into a percent of students using the denominator arrived at in Step 3. These students are given a value of 1.25 point value.
6) Add up the percent of points earned for each of the above steps to arrive at the total percent of points earned. If this is greater than $100 \%$, cap this at $100 \%$ of points earned.

Example of above steps calculation results:

|  | Nonparticipants to get up to 95\% | Level 1 | Level 2 | Level 3 | Level 4 | Total | Total Points <br> Earned (\% x 20 points possible by subject area) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| N-size | 2 | 27 | 50 | 100 | 21 | 200 |  |
| Percent of total | 1.00\% | 13.50\% | 25.00\% | 50.00\% | 10.50\% | 100\% |  |
| Point value | 0.00 | 0.25 | 0.50 | 1.00 | 1.25 |  |  |
| \% of points earned | 0.00\% | 3.38\% | 12.50\% | 50.00\% | 13.13\% | 79.01\% | 15.80 |

## Phase II steps to calculate the total points earned for each subject area:

1. Multiply the percentage of points earned by 20 , which is the possible points for each subject area: (see Appendix A for rounding rules)
c. $79 \%$ multiplied by $20=15.80$ for Math
d. $88 \%$ multiplied by $20=17.60$ for ELA
2. Total earned points for Student Performance for this school is 33.40, which is the sum of 15.80 and 17.60.
3. There are 40 points possible for the Student Performance indicator; to calculate the percentage of points earned: divide 33.40 by $40=84 \%$ of the possible points were earned by the school. No school may earn more points than maximum possible.

|  | \% of Points Possible <br> Achieved | Score | Total Points for <br> Student Performance |
| :--- | :---: | :---: | :---: |
| Math | $79.00 \%$ | 15.80 |  |
| ELA | $88.00 \%$ | 17.60 | 33.40 |

The only schools to earn SPI points from Current Year Proficiency are those that are either new or did not have tested students in the previous academic year(s).

## Invalidated Test Scores

SDDOE process for invalidating test scores based on a unique situation at a school resulting in the invalidation of test scores. Invalidated test scores will count in the denominator when calculating student proficiency.

The invalidation of test scores may impact the school's SPI points for the student performance indicator if the school did not test $95 \%$ of their students in the current school year.

## $12^{\text {th }}$ grade non-testers

Students who did not test in $11^{\text {th }}$ grade and did not test in $12^{\text {th }}$ grade are counted in the denominators for both participation and proficiency.

## Current Year Participation

## Description

The final component of Student Performance is the participation rate. All students enrolled in a South Dakota public school as of May 1 are required to participate in the ELA, math and science assessments.

Federal and state law requires that 95 percent of students, at the school, district, and state levels, and across every subgroup, participate in the state assessment.

Calculation

Numerator $=$ Count of students tested who were enrolled as of May 1

Denominator $=$ Count of eligible students enrolled as of May 1

## Indicator \#2: High School Completion

## Description

This is the percent of students in the most recently completed school year who have attained a diploma or a GED. This includes students who graduated outside of the traditional four-year timeframe (both early and late graduates). This also includes students who obtained an alternate completion credential before age 21, namely the GED. The Department collects GED information for all test takers in South Dakota; any schools with students who have completed a GED outside of South Dakota can submit that record to the Department through the appeal process available to districts.

NOTE: If students did not attend at least $50 \%$ of their last enrolled year at one school, students count at the high school they attended the longest, or the last enrolled if there are multiple with equal enrollment lengths.

## Calculation

Numerator = Number of students who obtained a high school diploma or GED in the most recently completed school year
Denominator $=$ Dropouts (Grade 9 dropouts in 2015-16 + Grade 10 dropouts in 2016-17 +
Grade 11 dropouts in 2017-18 + Grade 12 dropouts in 2018-19) +
the number of students who obtained a high school diploma or GED in the most recently completed school year

## Earning SPI Points

The points for High School Completion are calculated based on the Completer Rate multiplied by 12.5 Points.

## Indicator \#3: On-Time Graduation Rate

## Description

The On-Time Graduation rate is based on the number of students who graduate in four years with a regular high school diploma, divided by the number of students who form the "adjusted cohort" for that graduating class. The adjusted
cohort is defined as the students who entered ninth grade for the first time four years ago, minus those who transferred out of the cohort (i.e., moved out of state, transferred to a private school, etc.), plus students who joined the cohort (i.e., students who began four years ago as a ninth grader in a private school, out of state, etc.). As opposed to the completer rate, only students who graduate with a regular diploma are counted positively in this measure. Those who continue their education beyond four years, those who finish with a GED, and those who drop out are all counted against the Four-Year On-Time Graduation Rate. The state's graduation rate goal for All Students group and all subgroups is 100 percent.

NOTE: If students did not attend at least $50 \%$ of the last year of enrollment at one school, students count at the high school they attended the longest, or the last enrolled if there are multiple with equal enrollment lengths.

South Dakota is required to follow the Title I Four-Year Adjusted Cohort methodology in determining Graduation Rate, as defined in the ESEA, 20 U.S.C. § 8101(25) (December 10, 2015).

## Calculation

Numerator $=$ Number of cohort members who graduate in 2018-19 within four years from their first point of entry into 9th grade (fall 2015) with a regular high school diploma

Denominator = Number of first-time ninth graders (starting cohort year-fall 2015), plus students who transfer in, minus students who are removed from the cohort during the school years 2015-16, 2016-17, 2017-18, and 2018-19

## Earning SPI Points

The points for Four-Year Cohort Graduation are calculated are earned based on the Four-Year Cohort Graduation Rate multiplied by 12.5 Points.

## Indicator \#4: College and Career Readiness

## Description

The College and Career Readiness indicator changed in 2017-18 school year, and the indicator for 2018-19 stayed the same as 2017-18. The CCR indicator is a comprehensive measure that includes assessments and coursework for both college and career readiness. students are required to meet

Assessment Readiness and Coursework Readiness. Three measures are reported in the report card for CCR: assessment readiness, coursework readiness, and both assessment AND coursework readiness. Unlike other indicators, the student cohort is comprised of the previous year's completer roster.

| Assessment Readiness for College or Career | Coursework Readiness for College or Career* |
| :---: | :---: |
| Student must meet 1 readiness indicator | Student must meet 1 readiness indicator |
| - College English Readiness- meet 1 of 3 options: SD-ELA Level 3 or 4 in ELA ACT English sub-score of 18 Accuplacer score on Sentence Skills of 86 or higher | - CTE Concentrator- career course readiness <br> - 2 credits within 1 career cluster |
| - SD-MATH Level 3 or 4 in math <br> - ACT math sub-score of 20 <br> - Accuplacer score on Algebra of 76 or higher | - 1 course completed with a C or higher |
| - Career English and Math Readiness- earn silver or higher <br> $\checkmark$ National Career Readiness Certificate | - Advanced Placement exam- college course readiness <br> - 1 course completed with an exam score of 3 or higher |

* Progress towards post-high school credentials is labeled as "Coursework Readiness for College or Career" in this table.

College and Career Readiness is reported for high schools only.

## Details of CCR indicator measures in the above table as reported on the report card:

1) Coursework Readiness (includes college and career coursework options)
a) Students must meet one of the following criteria to be counted as coursework ready:
i) Career and Technical Education concentrator, which means the student completed 2 credits within 1 career cluster
ii) Completion of a state-sponsored dual credit course with a C or higher
iii) Score of 3 or higher on an Advanced Placement exam
2) Assessment Readiness (includes college and career assessment options)
3) Students are Assessment Ready if they meet the benchmark on one of the four assessment options for both English/Reading and math. See section about Assessment Readiness for more information.
4) College AND Career Readiness
a) This measure reflects students who met both the criteria for Coursework Readiness AND Assessment Readiness measures.

## CCR Rules

1. Use Completer roster from previous year.
2. A student will count for the college and career readiness key indicator at the school for which the student counted for the purposes of the prior year completer rate
3. Identify all assessment and coursework taken anytime during a student's high school career for each student by matching student ID.
4. Identify if the student met any of the benchmarks. Each of the assessment readiness and coursework readiness measures has its own benchmark.
5. If an assessment or course is taken multiple times, only the best mark is considered; only C or better for courses-see table above.

## Earning SPI Points

The College and Career Readiness indicator has a value of 25 points. To award points for this indicator, the prior year's completer roster data will be examined, and students will be classified into one of three categories with their point value:

- No Indicators met $=0$ point
- Either Assessment Readiness met OR Coursework Readiness met = 0.5 points
- Both Assessment Readiness AND Coursework Readiness measures met $=1.0$ point

This is an example of how to calculate College and Career Readiness indicator:

|  | No Indicators Met | One Indicator Met | Both Indicators Met | Totals | Total <br> Points |
| :--- | :---: | :---: | :---: | :---: | :---: |
| N-size | 20 | 60 | 120 | $60.00 \%$ |  |
| Earned |  |  |  |  |  |
| Percent of All Students | $10.00 \%$ | $30.00 \%$ | 1.00 |  |  |
| Point value | 0.00 | 0.50 | $60.00 \%$ | $75.00 \%$ | 18.75 |
| \% of Points Earned | 0.00 | $15.00 \%$ |  | 100 |  |

The points for College and Career Readiness are calculated by taking the total percentage of points earned multiplied by 25.

## N-Size Rule of 10

N -sizes and subgroup information will be reported for this indicator-both for assessment and coursework readiness. N size suppression rules will apply. If the number of students who met the different measures (ex: South Dakota Assessments, ACT, Accuplacer, and/or NCRC) is less than 10, the percentage of students will be suppressed in the public report card. SPI points associated with college and career readiness will still be calculated and displayed, regardless of N -size.

## Assessment Readiness

The South Dakota Assessments, ACT, and Accuplacer assessments are used to measure college assessment readiness, a component of the College and Career Readiness key indicator in the SPI. The state's goal is that 100 percent of students taking a college readiness assessment will meet the Board of Regents cut scores:

- South Dakota Assessments:
- ELA: Level 3 or 4
- Math: Level 3 or 4
- ACT:
- English: 18
- Math: 20
- Accuplacer
- Sentence Skills: 86
- Algebra: 76


## Indicator \#5: English Language Learners Progress

## Description

The English Language Learners Progress indicator is the same for high schools as the elementary/middles school indicator; see pages 7-10 in this document.

## Redistribution of SPI Points

Consistency with the 100-point School Performance Index (SPI) is particularly important when conducting the calculations for classifying school support, small and special schools, and for the fidelity of calculating the overall SPI points for individual schools. For that reason, the SDDOE created rules for reallocating SPI points to other academic indicators.

## Rules for redistribution of SPI points:

- If the N -size is below 10 for an indicator
- If there are no students for an indicator

Redistribution of SPI points for elementary and middle schools is applied:

- If a school is not accountable for the English Language Learner Progress indicator (see note on Page 18), then those 10 points will be redistributed equally to all other academic indicators:

1. Student Performance would be 45 Points ( 22.5 for English language arts, 22.5 for mathematics)
2. Student Progress would be 45 Points (11.25 Points for English Language arts, 11.25 Points for mathematics, 11.25 Points for English language arts Lowest Quartile, 11.25 Points for mathematics Lowest Quartile.
3. Attendance would stay as 10 Points, because it is a non-academic/School Quality measure

- If a school is not accountable for the Student Progress Indicator, then those 40 points will be redistributed equally to all other academic indicators:

1. Student Performance would be 72 Points ( 36 for English Language Arts, 36 for Mathematics)
2. English Language Learner Progress would be 18 Points
3. Attendance would stay as 10 Points, because it is a non-academic/School Quality measure

- If a school is not accountable for English Language Learner Progress (10 pts) AND Student Progress (40 pts), then those 50 Points will be redistributed equally to Student Performance ( 45 for English Language Arts, 45 for mathematics).

Redistribution of SPI points for high schools is applied:

- If a School is not accountable for the English Language Learner Progress Indicator (see note below), then those 10 points will be redistributed equally to all other academic indicators:
- Student Performance would be 43.34 Points (21.67 for English Language Arts, 21.67 for Mathematics)
- College and Career Readiness would be 28.33 Points
- On-Time Graduation would be 15.83 Points
- High School Completion would stay as 12.5 Points, because it is a non-academic/School Quality measure.
- If a high school has no students in CCR, then those 25 points are redistributed equally to the other three Academic Indicators:
- Student Performance would be 48.3 Points $(40+8.3=48.3)$
- On-Time Graduation would be 20.83 Points $(12.5+8.3=20.8)$
- English Language Learner Progress would be 18.4 Points ( $10+8.4=18.4$ )
- High School Completion would stay as 12.5 Points, because it is a non-academic/School Quality measure

Redistribution of SPI points when a school has no students in an SPI indicator:

- No students in Student Performance-those points are redistributed to Student Progress and/or English Language Learner Progress
- No students in On-Time Graduation-those points are redistributed to Student Performance

NOTE: N-Size of 10 Rule for English Language Learner Progress Indicator
South Dakota's districts vary widely in the number of ELs they serve. Any school meeting an N -size of 10 will be held accountable and receive points based on the performance of its students for the English Language Learner Progress indicator. In this way, SDDOE will be able to hold the maximum number of districts accountable for the progress of their EL students.

- If a school in a district does not meet the EL N-size of 10 in the current school year, but the district identifies 10 or more ELs in the current year, that school will receive the percentage of points earned at the district level for the indicator.
- If a school and district did not meet the N -size of 10 in the current year, the points for the ELP indicator will be redistributed to the other academic indicators as explained earlier.


## Confidentiality

South Dakota Department of Education takes the job of maintaining and protecting the confidentiality of South Dakota students very seriously. To that end, we have developed and utilize the following protocol:

1. Individual student's results are never reported to the public.
2. The State neither publishes nor publicly releases any data pertaining to school performance or other matters for any group or subgroup with fewer than 10 members.
3. A notation will be used on all public reports when data has been suppressed.

## Questions?

Contact the SD DOE Accountability staff at 605-773-3134 or DOE.Accountability@state.sd.us

