

SY2015-2016 School Progress Report

School District of Philadelphia

Business Rule Documentation

Welcome

This documentation is intended to help further clarify the calculations used for each metric that makes up the School Progress Reports (SPR).

Each section of the documentation begins by identifying the metric being calculated (including the wording used to display the metric in the SPR). Immediately following the metric name, the documentation defines the metric, defines which students are included in the metric, and describes which schools are eligible for the metric.

Subsequently, the documentation identifies the source of the data for both District and Charter schools.

Finally, the documentation describes the steps taken to calculate the score for each metric. This includes any exception codes that may be applied.

For more information about the SPR, see the User Guide and FAQ documents available at [the SPR webpage](#).

SY2015-2016 School Progress Report

School District of Philadelphia

Business Rule Documentation

PSSA PROFICIENT/ADVANCED RATES

(PSSA: % Proficient or Advanced and PSSA: % Advanced)

Metric Description and General Principles

- Two SPR metrics are calculated for each PSSA exam: the percentage of students who score proficient or better (the “proficiency rate”), and the percentage of students who score advanced (the “advanced rate”).
- The state processes test scores, then transmits data for each individual student to the district. This metric includes all students that the state attributes to a given school.
- This metric is calculated for schools that serve any grades between third and eighth grade.
- All students who took the exam in the current school year are counted. If a student has multiple records for an exam, their best score is counted.

Data Source

- District Schools: Data Recognition Corporation (DRC), the assessment vendor for the Pennsylvania Department of Education (PDE)
- Charter Schools: PDE

Business Rules for PSSA Proficient/Advanced Rate Calculations

1. Restrict the sample to student in grades three through eight.
2. Identify each student’s best score on each PSSA exam, and ensure that each student is counted only once at any given school.
3. Assign a proficiency flag to each student:
 - a. PROFICIENT, if the student’s best score was either proficient or advanced
 - b. NOT PROFICIENT, if the student’s best score was either basic or below basic
4. Assign an advanced flag to each student:
 - a. ADVANCED, if the student’s best score was advanced
 - b. NOT ADVANCED, if the student’s best score was proficient, basic, or below basic
5. Calculate the proficiency and advanced rate metrics as follows:
 - a. Proficiency rate: Total number of students who scored proficient or better (3a) divided by total number of students who took the PSSA exam (3a + 3b)
 - b. Advanced rate: Total number of students who scored advanced (4a) divided by total number of students who took the PSSA exam (4a + 4b)
6. Assign an exception code as appropriate:

SY2015-2016 School Progress Report

School District of Philadelphia

Business Rule Documentation

- a. NOT APPLICABLE, if the school does not serve any grades between third and eighth grade.
- b. INSUFFICIENT SAMPLE, if the school served tested grades but had fewer than eligible 25 students.

KEYSTONE PROFICIENT/ADVANCED RATES

(Keystone: % Proficient or Advanced and Keystone: % Advanced)

Metric Description and General Principles

- Two SPR metrics are calculated for each Keystone exam: the percentage of students who score proficient or better (the “proficiency rate”)¹, and the percentage of students who score advanced (the “advanced rate”).
- The state processes test scores, then transmits data for each individual student to the district. This metric includes all students that the state attributes to a given school.
- This metric is only calculated for high schools. Scores for students who take Keystone exams before high school are not counted in school-level proficiency rates. However, these students’ scores are included in district-wide calculations.
- All students who took the exam in the current school year are counted. If a student took an exam multiple times, their best score is counted, even if that score comes from a previous year.²

Data Source

- District Schools: Data Recognition Corporation (DRC), the assessment vendor for the Pennsylvania Department of Education (PDE)
- Charter Schools: PDE

Business Rules for Keystone Proficient/Advanced Rate Calculations

1. Identify each student’s best score on each Keystone exam, and ensure that each student is counted only once at any given school.
2. Assign a proficiency flag to each student:
 - a. PROFICIENT, if the student’s best score was either proficient or advanced
 - b. NOT PROFICIENT, if the student’s best score was either basic or below basic
3. Assign an advanced flag to each student:
 - a. ADVANCED, if the student’s best score was advanced

¹ In past years, results for first-time test takers and for re-testers were reported separately. In SY2015-16, the State suspended the requirement that students pass the Keystone examinations in order to graduate and eliminated the requirement that students be re-tested if they did not pass an exam. To align with this change, beginning in SY2015-16, a single proficiency rate is being reported on the SPR.

² This is to prevent a student who has already passed the exam from negatively impacting their school’s proficiency rate. In practice, very few students re-take an exam once they have passed it.

SY2015-2016 School Progress Report

School District of Philadelphia

Business Rule Documentation

- b. NOT ADVANCED, if the student's best score was proficient, basic, or below basic
- 4. Calculate the proficiency and advanced rate metrics as follows:
 - a. Proficiency rate: Total number of students who scored proficient or better (2a) divided by total number of students who took the Keystone exam (2a + 2b)
 - b. Advanced rate: Total number of students who scored advanced (3a) divided by total number of students who took the Keystone exam (3a + 3b)
- 5. Assign an exception code as appropriate:
 - a. NOT APPLICABLE, if the school is not a high school
 - b. NOT APPLICABLE, if the school is a high school but did not offer the Keystone course
 - c. INSUFFICIENT SAMPLE, if the school is a high school and offered the Keystone course but has fewer than 25 eligible students

INSTRUCTIONAL READING LEVELS

(% Reading at Grade Level – Grades K-2)

Metric Description and General Principles

- The SPR reading levels metric captures the percentage of students in kindergarten, first grade, and second grade who were reading on grade level at the end of the school year.
 - For students in district schools, reading levels are based on the Developmental Reading Assessment (DRA).
 - The type of assessment used to determine whether students are reading on grade level varies from charter school to charter school. Some charter schools are excluded from this metric because they elect to use reading assessments that do not meet the requirements for inclusion in the SPR.

- In order to be included in the calculation, students must have a valid reading level, must have been enrolled at the same school for at least 90 days (roughly half the school year), and must have remained enrolled through at least May 16, 2016.

- This metric applies only to schools serving early grades (i.e., ES and K8 schools).

Data Source

- District Schools: SDP's student information system
- Charter Schools: Enrollment information from SDP's student information system; reading information reported directly by schools through data packets

Business Rules for Reading Levels Calculation

1. Restrict the sample to students in grades K-2.
2. Keep only those students who were enrolled for more than 90 days, and who were enrolled at some point after May 15, 2016.
3. Assign a reading-on-target flag to each student:
 - a. **READING ON TARGET**, if the student's reading level is greater than or equal to the expected reading level for their grade level.
 - b. **READING OFF TARGET**, if the student's reading level is lower than the expected reading level for their grade level.
4. Calculate the reading level metric as follows:
 - a. Total number of students who are reading on grade level (3a) divided by the total number of eligible students (3a + 3b)

SY2015-2016 School Progress Report

School District of Philadelphia

Business Rule Documentation

5. Assign an exception code as appropriate:
 - a. NOT APPLICABLE, if the school does not serve Kindergarten, first grade, and/or second grade.
 - b. NOT APPLICABLE, if the school is a charter school that serves Kindergarten, first grade, and/or second grade but does not administer an eligible reading assessment.
 - c. INSUFFICIENT SAMPLE, if the school has fewer than 25 eligible students.

SY2015-2016 School Progress Report

School District of Philadelphia

Business Rule Documentation

ACCESS PROFICIENCY RATE

(ACCESS for ELLs: % 4.5 or Above)

Metric Description and General Principles

- The ACCESS proficiency metric is the percent of English Language Learners (ELLs) who achieved a composite proficiency level of at least 4.5 on the ACCESS for ELLs 2.0 assessment.
 - ACCESS for ELLs 2.0 is the required instrument for the annual assessment of English language proficiency in Pennsylvania.
- The state processes test scores, then transmits data for each individual student to the district. This metric includes all students that the state attributes to a given school.
- The ACCESS proficiency metric is calculated separately for each school-report type for schools that receive two SPRs. At such schools, students in grades 9-12 are attributed to a school's High School report; and students in grades K-8 are attributed to a school's other report type (i.e., K-8 or Middle School).

Data Source

- District Schools: Data Recognition Corporation (DRC), the assessment vendor for the Pennsylvania Department of Education
- Charter Schools: DRC

Business Rules for ACCESS Proficiency Rate Calculation

1. Identify each student's best score on the ACCESS exam, and ensure that each student is counted only once at any given school.
2. Assign a proficiency flag to each student:
 - a. PROFICIENT, if the student's composite proficiency score is 4.5 or above.
 - b. NOT PROFICIENT, if the student's composite proficiency score is less than 4.5.
3. Calculate the ACCESS proficiency rate as follows:
 - a. Total number of proficient students (2a) divided by the total number of tested students (2a + 2b)
4. Assign an exception code as appropriate:
 - a. INSUFFICIENT SAMPLE, if the school has fewer than 25 eligible students

**AVERAGE GROWTH INDEX and
AVERAGE GROWTH INDEX FOR THE LOWEST-PERFORMING 20% OF STUDENTS
(PVAAS)**

**(PSSA: Average Growth Index; PSSA: Average Growth Index for the Lowest-Performing 20%;
Keystone: Average Growth Index; Keystone: Average Growth Index for the Lowest-
Performing 20%)**

Metric Description and General Principles

- The Average Growth Index (AGI; commonly referred to as PVAAS) is a measure of student growth on statewide standardized assessments (i.e., PSSA and Keystone). In contrast to Proficiency Rates, which calculate whether students hit a specific score, the AGI calculates how individual students' scores have changed since the last time they took statewide standardized assessments. A school's AGI scores corresponds to the average growth (whether positive or negative) of students at that school.
- A student's PSSA/Keystone performance is compared to their predicted performance (i.e., where they are expected to perform), which is heavily based on that student's previous scores on statewide assessments. The difference between the student's actual score and their predicted score is what contributes to the student's AGI.
 - More information on the AGI calculation is available on the [Pennsylvania Department of Education](#) website and [the PVAAS website](#).
- The SPR AGI metrics are calculated by the state and presented in the SPR as delivered to the School District. Because the data does not go through any cleaning processes by SDP, these business rules only describe exception codes.
- AGI scores are calculated for all three Keystone exams (Algebra I, Biology, and Literature) and for all three PSSA exams (English Language Arts, Mathematics, and Science).
- Two sets of AGI metrics are calculated: the AGI for all students at the school, and the AGI for students who were in the bottom 20% of performers at the school.
 - The AGI for the bottom 20% of performers for PSSA Science is not used on the SPR.
- The state's calculations exclude first-year English Language Learners, foreign exchange students, students taking the Pennsylvania Alternate Student Assessment (PASA), and

SY2015-2016 School Progress Report

School District of Philadelphia

Business Rule Documentation

(for Keystones) students who obtained a proficient or advanced score on the assessment in a prior school year.

- Because the metric requires students to have previously taken a standardized assessment, it also excludes third-grade students.
- All other students who took the exam in the current school year and who have at least two PSSA and/or Keystone scores from a previous year (e.g., two English Language Arts assessments; one ELA and one math assessment, etc.) are counted.

Data Source

- District Schools: SAS, the company that developed and calculates student growth information for Pennsylvania
- Charter Schools: SAS

Business Rules for AGI Calculations

1. Assign an exception code as appropriate:
 - a. NOT APPLICABLE, if the metric corresponds to a PSSA exam and the school does not serve any subset of grades 4-8.
 - b. NOT APPLICABLE, if the metric corresponds to a Keystone exam and the school does not serve any subset of grades 9-12.
 - c. NOT APPLICABLE, if the metric is a PSSA Science exam given to a grade not served by the school.
 - d. NOT APPLICABLE, if the school serves a subset of grades 9-12 but the metric corresponds to a Keystone exam in a subject not offered by the school.
 - e. INSUFFICIENT SAMPLE, if the school has too few students to allow production of an AGI value.

CREDIT ACCUMULATION FOR ON-TRACK STUDENTS

(% of On-Track Students Earning Credits Required for Promotion)

Metric Description and General Principles

- The SPR credit accumulation for on-track students metric is the percentage of 9th-11th grade students who began the year on track to graduate on time (within four-years) who have accumulated the number of credits by the end of the year that they need in order to stay on track for graduation.
 - For District schools, this means accumulating 5 credits by the end of 9th grade, 11 credits by the end of 10th grade, and 17.5 credits by the end of 11th grade.
 - For Charter schools, this means earning the number of credits identified by the school as the expected number of credits for a given grade.
 - On-track students are those who begin the year in their expected grade (i.e., have not repeated a grade in high school).
- This metric includes students in grades 9-11 who were enrolled at a school for at least 165 days.
- This metric applies only to high schools.

Data Source

- District Schools: SDP's student information system
- Charter Schools: Enrollment information from SDP's student information system; credit information reported by schools

Business Rules for Credit Accumulation Rate Calculation

1. Restrict the sample to students in Grades 9-11, who were enrolled at a school for at least 165 days, and whose 2015-16 exit code indicates that they were enrolled at the school at the end of the year.
2. Identify the number of credits that each student had at the end of the 2014-15 school year and the number that each student had at the end of the 2015-16 school year, and calculate the number of credits that each student earned over the course of the 2015-16 school year.
 - a. Eliminate from the sample students for whom 2014-15 credit information is missing.
3. Restrict the sample to students who are not repeating a grade and who began the year with at least the expected number of credits for students in their grade level.
4. Assign a stay-on-track flag to each student:

SY2015-2016 School Progress Report

School District of Philadelphia

Business Rule Documentation

- a. STAYED ON TRACK, if the student ended the year with at least the number of credits needed for promotion to the next grade level.
 - b. DID NOT STAY ON TRACK, if the student ended the year with fewer than the number of credits needed for promotion to the next grade level.
5. Calculate Stay-On-Track rate as follows:
- a. Total number of students who began the year on track and stayed on track (4a) divided by the total number of students who began the year on track (4a + 4b)
6. Assign an exception code as appropriate:
- a. NOT APPLICABLE, if the school is not a high school
 - b. DATA NOT AVAILABLE, if the school is a high school but did not provide credit information for any students (charter schools only)
 - c. INSUFFICIENT SAMPLE, if the school is a high school and provided credit information but has less than 25 eligible students

CREDIT ACCUMULATION FOR OFF-TRACK STUDENTS

(% of Off-Track Students Earning Credits Required for Promotion)

Metric Description and General Principles

- The SPR credit accumulation for off-track students metric is the percentage of 9th-11th grade students who began the year off track to graduate on time (within four-years) who, by the end of the year, have accumulated at least as many credits as students in their current grade level are expected to earn during the school year.
 - For District schools, this means earning at least 5 credits during the school year for 9th graders, earning at least 6 credits during the school year for 10th graders, and earning at least 6.5 credits during the school year for 11th graders. For Charter schools, this means earning the number of credits identified by the school as the expected number of credits for a given grade.
- Off-track students are those who are repeating a grade or who begin the year in a lower grade than would be expected based on their first-time 9th grade cohort year.
- This metric includes students in grades 9-11 who were enrolled at a school for at least 165 days.
- This metric applies only to high schools.

Data Source

- District Schools: SDP's student information system
- Charter Schools: Enrollment information from SDP's student information system; credit information reported by schools

Business Rules for Credit Accumulation Rate Calculation

1. Restrict the sample to students in Grades 9-11, who were enrolled at a school for at least 165 days, and whose 2015-16 exit code indicates that they were enrolled at the school at the end of the year.
2. Identify the number of credits that each student had at the end of the 2014-15 school year and the number that each student had at the end of the 2015-16 school year, and calculate the number of credits that each student earned over the course of the 2015-16 school year.
 - a. Eliminate from the sample students for whom 2014-15 credit information is missing.

SY2015-2016 School Progress Report

School District of Philadelphia

Business Rule Documentation

3. Restrict the sample to students who are either repeating their 2014-15 grade, are not in their expected grade based on their first-time 9th grade cohort, or started the year with fewer credits than students at their grade level are expected to have.
4. Assign a back-on-track flag to each student:
 - a. BACK ON TRACK if the student earned at least as many credits as a student in their current grade is expected to earn
 - b. NOT BACK ON TRACK if the student earned fewer than the number of credits a student in their current grade is expected to earn
5. Calculate Back-On-Track rate as follows:
 - a. Total number of students who began the year off track and got back on track divided (4a) by the total number of students who began the year off track (4a + 4b)
6. Assign an exception code as appropriate:
 - a. NOT APPLICABLE, if the school is not a high school
 - b. DATA NOT AVAILABLE, if the school is a high school but did not provide credit information for any students (charter schools only)
 - c. INSUFFICIENT SAMPLE, if the school is a high school and provided credit information but has fewer than 25 eligible students

ACCESS GROWTH

(ACCESS for ELLs: % Growth in 60th Percentile or Above)

Metric Description and General Principles

- The SPR ACCESS growth metric is the percent of English Language Learners (ELLs) who made large improvements in English language proficiency across years – specifically, those who were at or above the 60th percentile for growth.
 - ACCESS for ELLs 2.0 is the required instrument for the annual assessment of English language proficiency in Pennsylvania.
 - A student’s growth score is the change in their performance from one year to the next. Students at or above the 60th percentile are in the top 40%, relative to similar students (above-average growth).
- The state processes test scores, then transmits data for each individual student to the district. This metric includes all students that the state attributes to a given school.
- The ACCESS growth metric is calculated separately for schools that receive two SPRs. At such schools, students in grades 9-12 are attributed to a school’s High School report; and students in grades K-8 are attributed to a school’s other report type (i.e., K-8 or Middle School).
- Because of the transition from the ACCESS for ELLs assessment in 2014-2015 to the ACCESS for ELLs 2.0 assessment in 2015-2016, WIDA (the assessment developer) did not produce growth estimates in 2015-2016. Consequently, this metric was suppressed for all schools on the SY2015-2016 SPR.

ATTENDANCE RATE

(% of Students Attending 95% or More of Instructional Days)

Metric Description and General Principles

- The SPR attendance rate metric is the percent of students who attended 95% or more of instructional days for which they were enrolled at a school.
 - In addition, the SPR displays unscored information on the percent of students who attended 90-95% of instructional days, 85-90% of instructional days, 80-85% of instructional days, and less than 80% of instructional days for which they were enrolled.
- This metric includes all students enrolled at a school for 10 or more days. Students who are enrolled at multiple schools for 10 or more days are included in each of those schools' metric scores.
- This metric applies to all schools and students in all grades.
- The attendance rate metric is calculated separately for each school-report type for schools that receive two SPRs. At such schools, students in grades 9-12 are attributed to a school's High School report; and students in grades 8 or below are attributed to a school's other report type (i.e., K8 or MS).

Data Source

- District Schools: SDP's student information system
- Charter Schools: Enrollment information from SDP's student information system; attendance information reported directly by schools through data packets

Business Rules for Attendance Rate Calculation

1. Ensure that the number of days for which a student was marked absent from a school is less than or equal to the number of days for which he or she was enrolled at that school during the 2015-2016 school year.
2. Remove students who were enrolled in a school for less than 10 days during the 2015-2016 school year.
3. Calculate the percentage of days for which a student attended school:
 - a. Total number of days for which the student was absent, divided by the total number of days for which the student was enrolled at a school
4. Assign an attendance rate flag to each student:

SY2015-2016 School Progress Report

School District of Philadelphia

Business Rule Documentation

- a. YES, if the student attended at least 95% of enrolled days
 - b. NO, if the student attended less than 95% of enrolled days
5. Calculate the attendance rate metric as follows:
 - a. Total number of students with attendance of at least 95% (4a) divided by the total number of eligible students (4a + 4b)
6. Assign an exception code as appropriate:
 - a. DATA NOT AVAILABLE, if the school did not provide attendance information for any students (charter schools only)
 - b. INSUFFICIENT SAMPLE, if the school has fewer than 25 eligible students

ANNUAL RETENTION

(Annual Retention Rate)

Metric Description and General Principles

- The annual retention metric tracks the percentage of students who remain at a school for a full year and either return to the school in the following year or exit the school as planned (i.e., graduated or transitioned to a grade not served by their original school).
- This calculation requires data from two school years, hereafter referred to as Year One (2015-16) and Year Two (2016-17).
- Students are considered retained if they were enrolled at the same school on October 1 of Year One, at the end of Year One, and on October 1 of Year Two, with the following exceptions:
 - Students who graduated from the school prior to the beginning of Year Two are considered retained.
 - Students who completed a school's terminal grade – that is, the final grade offered at the school – are considered retained, as long as they were enrolled at the school at the beginning and end of Year One.
 - Students who attended a school that closed at the end of Year One are considered retained, as long as they were enrolled at the beginning and end of Year One.
- All students who were enrolled on October 1 of Year One and who were enrolled for at least 10 days during Year One are eligible to be counted towards the metric.
- This metric applies to all schools and students in all grades.
- The retention rate metric is calculated separately for each school-report type for schools that receive two SPRs. At such schools, students in grades 9-12 in Year One are attributed to a school's High School report; and students in grades K-8 in Year One are attributed to a school's other report type (i.e., K-8 or Middle School).

Data Source

- District Schools: SDP's student information system
- Charter Schools: SDP's student information system

Business Rules for Annual Retention Rate Calculation

1. Remove students who were not enrolled on October 1st of Year One.

SY2015-2016 School Progress Report

School District of Philadelphia

Business Rule Documentation

2. Remove students who were enrolled in the school for fewer than 10 days.
3. Remove students whose exit codes indicate that they are not eligible for the metric (e.g., they moved out of the country or passed away).
4. Assign a series of flags to each student. These will be used to construct the ultimate retention flag:
 - a. Assign a within-year retention flag to each student:
 - i. RETAINED WITHIN-YEAR, if the student finished the school year at the same school at which they were enrolled on October 1st of Year One.
 - ii. NOT RETAINED WITHIN-YEAR, if the student did not finish the school year at that school.
 - b. Assign an across-year retention flag to each student:
 - i. RETAINED ACROSS-YEAR, if the student was enrolled at the same school in Year One and on October 1st of Year Two.
 - ii. NOT RETAINED ACROSS-YEAR, if the student was enrolled at a different school on October 1st of Year Two, or was not enrolled in any Philadelphia District or Charter school on October 1st of Year Two.
 - c. Assign a promotion flag to each student:
 - i. PROMOTED, if:
 1. The student's Year Two enrollment record indicates they completed or skipped the final grade at their original school,³ OR
 2. The student was not enrolled in any Philadelphia District or Charter school in Year Two, but their Year One enrollment record indicates they were enrolled in the final grade at their original school (these students are assumed to have been promoted)
 - ii. NOT PROMOTED, if:
 1. The student's Year Two enrollment record indicates they had not yet progressed beyond the final grade of their original school, OR
 2. The student was not enrolled in any Philadelphia school in Year Two, and their Year One enrollment record indicates they were not yet enrolled in the school's final grade
 - d. Assign a graduation flag to each student:
 - i. GRADUATED, if the student graduated from the school at which they were enrolled on October 1 of Year One before the beginning of Year Two.

³ This rule also covers a variety of much less common scenarios, including students who are promoted mid-year, students at schools that expand or contract their grade spans, and students are demoted out of the school; generally, a student counts as retained if they were enrolled up until the point when they moved beyond the grade span served by the school.

SY2015-2016 School Progress Report

School District of Philadelphia

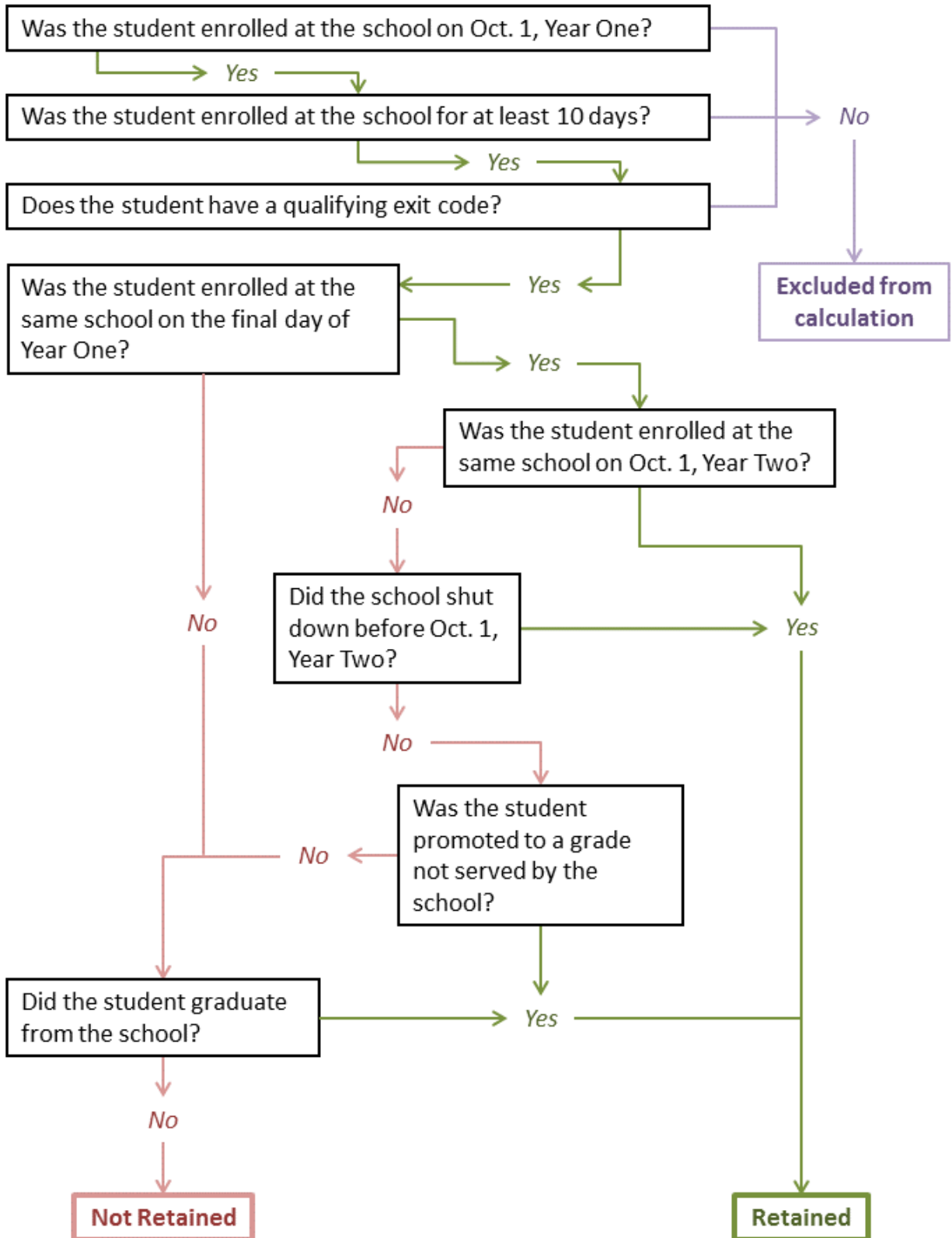
Business Rule Documentation

- ii. DID NOT GRADUATE (from their original school), if the student did not graduate, did not graduate before the beginning of Year Two, or graduated from a different school.
 - e. Assign a school closure flag to each student:
 - i. SCHOOL CLOSED, if the student was enrolled in a school that closed between the end of Year One and the beginning of Year Two.
 - ii. SCHOOL REMAINED OPEN, if the school remained open in Year Two.
- 5. Assign a retention flag to each student:
 - a. RETAINED, if any of the following conditions holds:
 - i. The student was RETAINED WITHIN-YEAR and was RETAINED ACROSS-YEAR, OR
 - ii. The student was RETAINED WITHIN-YEAR and the SCHOOL CLOSED, OR
 - iii. The student was PROMOTED, OR
 - iv. The student GRADUATED.
 - b. NOT RETAINED, if any of the following conditions holds:
 - i. The student was NOT RETAINED WITHIN-YEAR and DID NOT GRADUATE, OR
 - ii. The student was RETAINED WITHIN-YEAR, but was NOT RETAINED ACROSS-YEAR, DID NOT GRADUATE, was NOT PROMOTED, and the SCHOOL REMAINED OPEN.
- 6. Calculate the retention metric as follows:
 - a. Total number of students who were retained (5a) divided by the total number of students (5a + 5b)
- 7. Assign an exception code as appropriate:
 - a. INSUFFICIENT SAMPLE, if the school has fewer than eligible 25 students.

SY2015-2016 School Progress Report

School District of Philadelphia

Business Rule Documentation



IN-SCHOOL SUSPENSION RATE

(% of Students with Zero In-School Suspensions)

Metric Description and General Principles

- The SPR in-school suspension rate metric is the percent of students who received zero in-school suspensions during the school year.
- This metric includes all students enrolled at a school for 10 or more days. Students who are enrolled at multiple schools for 10 or more days are included in each of those schools' metric scores.
- This metric applies to all schools and students in all grades.
- The in-school suspension rate metric is calculated separately for schools that receive two SPRs. At such schools, students in grades 9-12 are attributed to a school's High School report; and students in grades 8 or below are attributed to a school's other report type (i.e., K8 or MS).

Data Source

- District Schools: SDP's student information system
- Charter Schools: Enrollment information from SDP's student information system; suspension information reported directly by schools through data packets

Business Rules for In-School Suspension Rate Calculation

1. Remove students who were enrolled in a school for fewer than 10 days during the 2015-2016 school year.
2. Assign an in-school suspension flag to each student:
 - a. NOT SUSPENDED, if the student received no in-school suspensions during the 2015-2016 school year
 - b. SUSPENDED, if the student received 1 or more in-school suspensions during the 2015-2016 school year
3. Calculate the in-school suspension rate metric as follows:
 - a. Total number of students with no in-school suspensions (2a) divided by the total number of students (2a + 2b)
4. Assign an exception code as appropriate:
 - a. NOT APPLICABLE, if the school does not have an in-school suspension policy (charter schools only)

SY2015-2016 School Progress Report

School District of Philadelphia

Business Rule Documentation

- b. DATA NOT AVAILABLE, if the school did not provide suspension information for any students (charter schools only)
- c. INSUFFICIENT SAMPLE, if the school has fewer than 25 eligible students

OUT-OF-SCHOOL SUSPENSION RATE

(% of Students with Zero Out-of-School Suspensions)

Metric Description and General Principles

- The SPR out-of-school suspension rate metric is the percent of students who received zero out-of-school suspensions during the school year.
- This metric includes all students enrolled at a school for 10 or more days. Students who are enrolled at multiple schools for 10 or more days are included in each of those schools' metric scores.
- This metric applies to all schools and students in all grades.
- The out-of-school suspension rate metric is calculated separately for schools that receive two SPRs. At such schools, students in grades 9-12 are attributed to a school's High School report; and students in grades 8 or below are attributed to a school's other report type (i.e., K8 or MS).

Data Source

- District Schools: SDP's student information system
- Charter Schools: Enrollment information from SDP's student information system; suspension information reported directly by schools through data packets

Business Rules for Out-of-School Suspension Rate Calculation

1. Remove students who were enrolled in a school for fewer than 10 days during the 2015-2016 school year.
2. Assign an out-of-school suspension flag to each student:
 - a. NOT SUSPENDED, if the student received no out-of-school suspensions during the 2015-2016 school year
 - b. SUSPENDED, if the student received 1 or more out-of-school suspensions during the 2015-2016 school year
3. Calculate the out-of-school suspension rate metric as follows:
 - a. Total number of students with no out-of-school suspensions (2a) divided by the total number of students (2a + 2b)
4. Assign an exception code as appropriate:
 - a. DATA NOT AVAILABLE, if the school did not provide suspension information for any students (charter schools only)

SY2015-2016 School Progress Report
School District of Philadelphia
Business Rule Documentation

- b. INSUFFICIENT SAMPLE, if the school has fewer than 25 eligible students

SY2015-2016 School Progress Report

School District of Philadelphia

Business Rule Documentation

STUDENT SURVEY METRICS

(Student Survey: Climate Rating; Student Survey: College and Career Rating; Student Survey: Student Perception of Quality of Teacher Practice)

Metric Description and General Principles

- The School District of Philadelphia administers surveys each spring to students in District public and charter schools, their parents and guardians, teachers, and principals. These surveys are designed to capture feedback on key topics related to school improvement. More information on the survey, including school-level responses to individual survey items, is available at schools-surveys.philasd.org.
- The SPR includes three metrics based on the annual survey of students: the percentage of students who gave their school the highest possible rating for climate, the percentage of high school students who report high levels of college and career readiness, and the percentage of students who rated teachers highly. These metrics reflect only a subset of the items on the full student survey.
- The teacher rating metric is displayed on the SPR, but does not factor into a school's overall score on the SPR.
- Students must be at least in grade 3 in order to take the student survey. Therefore, schools that do not serve any grades between third and twelfth do not receive scores for the student survey metrics.
- Either at least 50 students in Grades 3-12, or at least 25% of students in Grades 3-12 – whichever is greater – must respond to the survey.
 - This threshold is intended to protect the privacy of respondents.
 - If the number of student participants does not meet this threshold, then the school receives a rating of 0 for both metrics.
- For the SPR, the student survey metrics are calculated separately for schools that receive two SPRs. At such schools, students in grades 9-12 are attributed to a school's High School report; and students in grades 8 or below are attributed to a school's other report type (i.e., K-8 or Middle School).

Data Source

- District Schools: SDP Office of Research and Evaluation
- Charter Schools: SDP Office of Research and Evaluation

SY2015-2016 School Progress Report

School District of Philadelphia

Business Rule Documentation

Business Rules for Survey Rating Calculations

1. Determine the number of students enrolled in grades 3-12 on May 31st.
2. Determine response rates for each school:
 - a. PARTICIPATED, if the student completed at least one item on the survey.
 - b. DID NOT PARTICIPATE, if the student did not complete at least one item on the survey.
 - c. PARTICIPATION RATE: Total number of students enrolled at a school on May 31st that participated (2a) divided by the total number of students enrolled (1).
3. Assign a climate subscale flag for each climate related question completed on the student survey:
 - a. POSITIVE CLIMATE RESPONSE, if the student selected the most positive response option (e.g. *Strong Agree, Most or all of the time, etc.*).
 - b. NON-POSITIVE CLIMATE RESPONSE if the student selected a response other than the most positive.
4. Assign a teacher rating subscales flag for each teacher quality related question completed on the student survey:
 - a. POSITIVE CLIMATE RESPONSE, if the student selected the most positive response option.
 - b. NON-POSITIVE CLIMATE RESPONSE if the student selected a response other than the most positive.
5. Assign a college and career rating flag for each college and career readiness related question:
 - a. POSITIVE CLIMATE RESPONSE, if the student selected the most positive response option.
 - b. NON-POSITIVE CLIMATE RESPONSE if the student selected a response other than the most positive.
6. Calculate metric scores:
 - a. CLIMATE SUBSCALE RATING: For each climate subscale, total number of subscale questions that were given the most positive response (3a) divided by total number of responses to corresponding subscale questions (3a + 3b).
 - b. OVERALL CLIMATE RATING: Average of all climate subscale scores.
 - c. TEACHING QUALITY SUBSCALE RATING: For each teacher quality subscale, total number of subscale questions that were given the most positive response (4a), divided by the total number of responses to corresponding subscale questions (4a + 4b).
 - d. OVERALL TEACHER QUALITY RATING: Average of all climate subscale scores.
 - e. COLLEGE AND CAREER RATING: Total number of college and career related questions that were given the most positive response (5a), divided by the total number of responses to college and career related questions (5a + 5b)

SY2015-2016 School Progress Report

School District of Philadelphia

Business Rule Documentation

7. Adjust scores at schools with low response rates:
 - a. If the participation rate was less than 25%, or if the number of participants was fewer than 50, change the metric score to 0.
8. Assign exception codes:
 - a. NOT APPLICABLE, if the school does not serve any grades between third and twelfth.
 - b. NOT APPLICABLE, if the metric is the College and Career Rating and the school is not a high school.

SY2015-2016 School Progress Report

School District of Philadelphia

Business Rule Documentation

PARENT SURVEY METRICS

(Parent/Guardian Survey: Climate Rating; Parent/Guardian Survey: Participation Rate)

Metric Description and General Principles

- The School District of Philadelphia administers surveys each spring to students in District public and charter schools, their parents and guardians, teachers, and principals. These surveys are designed to capture feedback on key topics related to school improvement. More information on the survey, including school-level responses to individual survey items, is available at schools-surveys.philasd.org.
- The SPR includes two metrics based on the annual survey of parents and guardians: the percentage of parents who complete the survey, and the percentage of parents who gave their school the highest possible rating for climate. These metrics reflect only a subset of the items on the full parent/guardian survey.
- In order to receive any points for the parent climate rating, the school must achieve a minimum participation rate. Specifically, the parents of at least 10% of students must respond to the survey.
 - This threshold is intended to protect the privacy of respondents.
 - If the number of parent participants does not meet this threshold, then the school automatically receives a score of 0 for the parent climate rating.
- All schools and grade levels are eligible for and receive scores for the parent survey metrics.
- For the SPR, the parent survey metrics are calculated separately for schools that receive two SPRs. At such schools, responses from parents of students in grades 9-12 are attributed to a school's High School report; and responses from parents of students in grades 8 or below are attributed to a school's other report type (i.e., K-8 or Middle School).

Data Source

- District Schools: SDP Office of Research and Evaluation
- Charter Schools: SDP Office of Research and Evaluation

Business Rules for Survey Ratings Calculations

1. Determine the number of students enrolled in grades K-12 on May 31st:
2. Determine response rates for each school:

SY2015-2016 School Progress Report

School District of Philadelphia

Business Rule Documentation

- a. PARTICIPATED, if the parent completed at least one item on the survey.
 - b. DID NOT PARTICIPATE, if the parent did not complete at least one item on the survey.
 - c. PARTICIPATION RATE: Total number of students enrolled at a school on May 31st whose parents participated (2a) divided by the total number of students enrolled (1).
3. Assign a climate flag for each climate related question completed on the parent survey:
 - a. POSITIVE CLIMATE RESPONSE, if the parent selected the most positive response option (e.g. *Strong Agree, Most or all of the time* etc.).
 - b. NON-POSITIVE CLIMATE RESPONSE if the parent selected a response other than the most positive.
 4. Calculate metric scores:
 - a. CLIMATE SUBSCALE RATING: For each climate subscale, total number of subscale questions that were given the most positive response (3a) divided by total number of responses to corresponding subscale questions (3a + 3b).
 - b. OVERALL CLIMATE RATING: Average of all climate subscale scores.
 - c. PARTICIPATION RATE: Total number of students enrolled at a school on May 31st whose parents participated (2a) divided by the total number of students enrolled (1).
 5. Adjust scores at schools with low response rates:
 - a. If the participation rate was less than 10%, set the CLIMATE RATING metric to 0.

4-YEAR COHORT GRADUATION RATE

(Four-Year Cohort Graduation Rate)

Metric Description and General Principles

- All high school students are assigned a first-time ninth grade cohort, which denotes the academic year in which a student entered the ninth grade for the first time.
- The SPR four-year cohort graduation rate metric is the percentage of students who are members of the cohort originally expected to graduate in the current year who graduate within the expected four-year window.
 - This year, the metric applies to the cohort that first entered ninth grade in 2012-2013. Students in this cohort who advanced at the traditional pace were freshmen in 2012-2013, sophomores in 2013-2014, juniors in 2014-2015, and seniors in 2015-2016.
 - To allow for summer graduates, the four-year window extends through September 30 of the following (or fifth) academic year. In the example above, the window is extended through September 30, 2016.
 - Outcomes for students who graduate in fewer than four years are counted in the calculation for the students' expected four-year graduation year, not in the students' actual graduation year.
- Students are attributed to the last school that they attend in the four-year window.
- This metric applies only to schools that serve students in grade 12.

Data Source

- District Schools: SDP's student information system
- Charter Schools: SDP's student information system

Business Rules for Cohort Graduation Rate Calculation

1. Identify the date and school associated with each student's last record in a Philadelphia district or charter school.
2. Restrict the sample to students in grades 9-12.
3. Restrict the sample to students in the SY2012-2013 first-time 9th grade cohort.
4. Remove students whose exit codes indicate that they are "non-drop departures" (students who are not expected to return to a Philadelphia school – e.g., they moved out of the country or passed away).
5. Assign a graduation status to each student:

SY2015-2016 School Progress Report

School District of Philadelphia

Business Rule Documentation

- a. GRADUATE, if the student's exit code indicates that he/she graduated by their expected graduation date.
 - b. DROPOUT, if the student's exit code indicates that he/she did not graduate but is no longer enrolled at the school.
 - c. CONTINUING, if the student's exit code indicates that he/she did not graduate but is continuing at the school.
6. Calculate the graduation rate as follows:
 - a. Total number of graduates (5a) divided by total number in cohort (5a + 5b + 5c).
 7. Assign an exception code as appropriate at the school level:
 - a. NOT APPLICABLE, if the school does not serve 12th grade
 - b. INSUFFICIENT SAMPLE, if the school serves 12th grade but has fewer than 25 eligible students

FIRST-FALL COLLEGE MATRICULATION

(First-Fall College Matriculation Rate)

Metric Description and General Principles

- The SPR First-fall College Matriculation metric is the percentage of graduates who enroll in a post-secondary institution in the first fall following their high school graduation date.
- All students who graduated between October 1, 2015, and September 30, 2016, are eligible, regardless of when during the year they graduated.
- Students are only eligible for the metric if they graduated.
- Students count as having matriculated if they were enrolled at any type of post-secondary institution (e.g., community college, technical schools, public or private four-year universities) at any point between August 15, 2016, and October 31, 2016.
- Data for this metric is obtained from the National Student Clearinghouse (NSC), an organization that collects data from post-secondary institutions across the country, including more than 3,600 public and private colleges, universities, trade schools, and vocational schools.
 - In order to be counted as having matriculated, a student must attend a school that submits enrollment data to the NSC. Ninety-eight percent of all postsecondary students attend programs/schools that do so.⁴
- Students are attributed to the high school from which they graduated.
- This metric applies only to high schools that serve 12th grade.

Data Source

- District Schools: Graduation information from SDP's student information system; post-secondary matriculation from NSC
- Charter Schools: Graduation information from SDP's student information system; post-secondary matriculation from NSC

Business Rules for First-Fall College Matriculation Rate Calculation

⁴ http://www.studentclearinghouse.org/about/clearinghouse_facts.php

SY2015-2016 School Progress Report

School District of Philadelphia

Business Rule Documentation

9. Restrict the sample to students who graduated between October 1, 2015, and September 30, 2016.
1. Transmit the list of graduates to the NSC so that they can match students to their college enrollment information.
2. Based on the returned NSC data, assign a matriculation status to each student:
 - a. MATRICULATED if the student was enrolled in a post-secondary institution at some point between August 15, 2016, and October 31, 2016.
 - b. NOT MATRICULATED if the student was not enrolled in a post-secondary institution at some point between August 15, 2016, and October 31, 2016.
3. Calculate matriculation rate as follows:
 - a. Total number of students who matriculated (3a) divided by total number of graduates (3a + 3b).
4. Assign an exception code as appropriate:
 - a. NOT APPLICABLE, if the school does not serve 12th grade
 - b. INSUFFICIENT SAMPLE, if the school serves 12th grade but has less than 25 students in its graduation cohort

AP/IB/NOCTI PARTICIPATION AND PERFORMANCE

(AP, IB, and NOCTI Exams Participation and Performance)

Metric Description and General Principles

- The SPR AP/IB/NOCTI participation and performance metric is the percentage of 12th graders who achieve a college or career-ready score on at least one college- or career-aligned assessment.
 - The assessments considered college- or career-aligned⁵ include all Advanced Placement (AP) exams, all International Baccalaureate (IB) exams, and all National Occupational Competency Testing Institute (NOCTI) exams.
 - A student is deemed “college or career-ready” if they achieve a passing score in any subject area according to the standards of the testing authority.
 - In addition, the SPR displays unscored information on the percentage of students who participated in AP, IB, or NOCTI exams but did not achieve a college-ready score, and the percentage of students who did not participate in any assessment.
- This metric includes all graduating and continuing 12th graders who were enrolled at a single school for at least 165 days, whether or not they took a college- or career-aligned assessment. A student who does not take any test is treated the same way as one who participates but scores below the threshold. In this way, participation is “baked in” – students increase the school’s score if they take and pass one of the exams, but do not decrease the school’s score if they take an exam and do not pass (as opposed to not taking an exam at all). In other words, schools will not lose points if more students take these exams.
- Student scores are counted in their 12th-grade year. If a student took one of the assessments before 12th grade, their score is “banked” until they are in 12th grade, at which point the school receives credit for the score.
 - Students’ assessment scores are attributed to the school they are enrolled in their 12th grade year.
- This metric applies only to high schools that serve 12th grade.

Data Source

⁵ In previous years, only AP and IB were included in this metric. Beginning in the SY2015-2016 SPR, NOCTI was added to provide additional ways of identifying students who demonstrate career readiness. Other assessments, including the National Institute for Metalworking Skills (NIMS) exam, may be added in the future.

SY2015-2016 School Progress Report

School District of Philadelphia

Business Rule Documentation

- District Schools: AP information from the College Board; IB information from the International Baccalaureate Organization; NOCTI information from NOCTI; and enrollment information from the SDP's student information system
- Charter Schools: AP information from the College Board; IB information from the International Baccalaureate Organization; NOCTI information from NOCTI; and enrollment information from the SDP's student information system

Business Rules for AP/IB/NOCTI Participation and Performance Calculation

7. Prepare the AP data file:
 - a. Keep a single record for each student containing the student's best score on any AP assessment, regardless of subject.
8. Prepare the IB data file:
 - a. Keep a single record for each student containing the student's best score on any IB assessment, regardless of subject.
9. Prepare the NOCTI data file:
 - a. Keep a single record for each student containing the student's highest rating on any NOCTI assessment, regardless of field.
10. Prepare the enrollment data file:
 - a. Keep only 12th graders.
 - b. Keep only students whose exit codes indicate they graduated or are still enrolled as 12th graders.
 - c. Keep only students who were enrolled at a single school for at least 165 days.
11. Combine the enrollment data set with the AP, IB, and NOCTI data sets, matching the students who took exams to their scores.
12. Assign a college-ready flag:
 - a. COLLEGE/CAREER-READY if the student met the college-ready standard on any assessment:
 - i. The student's best AP Score was a 3 or better, OR
 - ii. The student's best IB Score was a 4 or better, OR
 - iii. The student's best NOCTI score was either Competent or Advanced.
 - b. NOT COLLEGE/CAREER-READY if:
 - i. The student did not take any of the assessments, OR
 - ii. The student took one or more assessments but did not meet the college/career-ready standard in any assessment.
13. Calculate the AP/IB/NOCTI Participation and Performance rate as follows:
 - a. Total number of college/career-ready students (6a) divided by total number of qualifying 12th-grade students (6a + 6b)
14. Calculate the AP/IB/NOCTI Participation rate as follows:

SY2015-2016 School Progress Report

School District of Philadelphia

Business Rule Documentation

- a. Total number of students who took one or more assessments but did not meet the college-ready standard on any (6bii) divided by the total number of qualifying 12th-grade students (6a + 6b)
15. Calculate the AP/IB/NOCTI Non-Participation rate as follows:
- a. Total number of students who did not take any of the assessments (6bi) divided by the total number of qualifying 12th-grade students (6a + 6b)
16. Assign an exception code as appropriate:
- a. NOT APPLICABLE, if the school does not serve 12th graders.
 - b. INSUFFICIENT SAMPLE, if the school has fewer than 25 students who qualified for the metric.

ACT/SAT PARTICIPATION AND PERFORMANCE

(SAT & ACT Exams Participation & Performance)

Metric Description and General Principles

- The ACT/SAT participation and performance metric is the percentage of all 12th graders who achieve a college-ready score on the ACT or SAT at any time during high school.
 - A student is deemed “college-ready” if they meet benchmarks set by the authorities that administer the SAT⁶ and ACT.⁷
 - In addition, the SPR displays unscored information on the percentage of students who participated in the ACT or SAT but did not achieve a college-ready score, and the percentage of students who did not participate in either assessment.
- This metric includes all graduating and continuing 12th graders who were enrolled at a single school for at least 165 days, whether or not they took the SAT or ACT. A student who does not take either test is treated the same way as one who participates but scores below the threshold. In this way, participation is “baked in” – students increase the school’s score if they take and pass one of the tests, but do not decrease the school’s score if they take the test and do not pass (as opposed to not taking a test at all). In other words, schools will not lose points if more students take a test.
- If a student took the SAT and/or ACT multiple times, the best score is used.
- Students’ scores are counted in their 12th-grade year. If a student takes the ACT or SAT before 12th grade, their score is “banked” until they are in 12th grade, at which point the school receives credit for the score.
 - Students are attributed to their senior-year school, even if they took the exam while enrolled at a different school.
- This metric applies only to high schools that serve 12th grade.

Data Source

- District Schools: SAT information from the College Board; ACT information from the ACT; enrollment information from SDP’s student information system
- Charter Schools: SAT information from the College Board; ACT information from the ACT; enrollment information from SDP’s student information system

⁶ College Board, “K-12 Educator Brief: The College and Career Readiness Benchmarks for the SAT Suite of Assessments,” <https://collegereadiness.collegeboard.org/pdf/educator-benchmark-brief.pdf>.

⁷ ACT, “What Are the ACT College Readiness Benchmarks?,” September 2013, <http://www.act.org/content/dam/act/unsecured/documents/benchmarks.pdf>.

SY2015-2016 School Progress Report

School District of Philadelphia

Business Rule Documentation

Business Rules for ACT/SAT Participation and Performance Calculation

1. Prepare the SAT data file:
 - a. Divide the dataset into assessments that occurred before March 1, 2016, and assessments that occurred on or after March 1, 2016.⁸
 - b. For assessments that occurred before March 1, 2016:
 - i. Keep a single record for each student containing the student's best pre-March 1st score in each subject area, even if those scores came from different test dates.
 - c. For assessments that occurred on or after March 1, 2016:
 - i. Keep a single record for each student containing the student's best post-March 1st score in each subject area, even if those scores came from different test dates.
 - d. Re-combine the datasets.
 - e. If a student has a record in both the pre-March 1st and post-March 1st datasets, keep both records. Otherwise, students should have only one record.
2. Prepare the ACT data file:
 - a. Keep a single record for each student containing the student's best scores in each of the four subject areas (English, Math, Reading, and Science).
 - i. If a student has more than one entry in the file, use their best score for each subject area, even if those scores came from different test dates.
3. Prepare the enrollment data file:
 - a. Keep only 12th graders.
 - b. Keep only students whose exit codes indicate that they graduated or are still enrolled as 12th graders.
 - c. Keep only students who were enrolled at a single school for at least 165 days.
4. Combine the enrollment data set with the prepared SAT and ACT data sets, matching the students who took one or both tests to their scores.
5. Assign a college-ready flag:
 - a. COLLEGE-READY if the student met the college-ready standard on either or both assessments:
 - i. The student took the SAT before March 1, 2016, and his or her Composite SAT score (the sum of the three subject area scores – reading, mathematics, and writing) was greater than or equal to 1550, OR
 - ii. The student took the SAT on or after March 1, 2016, and met both subject-specific benchmarks:

⁸ The College Board updated the SAT in March 2016, including a revision of the scoring system. The SPR considers a student to have demonstrated college readiness if they scored as such according to the scoring system at the time they took the exam.

SY2015-2016 School Progress Report

School District of Philadelphia

Business Rule Documentation

1. The student's Math score was at least 530, AND
2. The student's Evidence-Based Reading and Writing score was at least 480, OR
- iii. The student met all four subject-specific benchmarks on the ACT:
 1. The student's English score was at least 18, AND
 2. The student's Math score was at least 22, AND
 3. The student's Reading score was at least 22, AND
 4. The student's Science score was at least 23.
- b. NOT COLLEGE-READY if:
 - i. The student did not take either assessment, OR
 - ii. The student took one or both assessments but did not meet the college-ready standard in either.
6. Calculate the ACT/SAT Participation and Performance rate as follows:
 - a. Total number of college-ready students (5a) divided by total number of qualifying 12th-grade students (5a + 5b)
7. Calculate the ACT/SAT Participation rate as follows:
 - a. Total number of students who took one or both assessments but did not meet the college-ready standard in either (5bii) divided by the total number of qualifying 12th-grade students (5a + 5b)
8. Calculate the ACT/SAT Non-Participation rate as follows:
 - a. Total number of students who did not take either assessment (5bi) divided by the total number of qualifying 12th-grade students (5a + 5b)
9. Assign an exception code as appropriate:
 - a. NOT APPLICABLE, if the school does not serve 12th graders.
 - b. INSUFFICIENT SAMPLE, if the school has fewer than 25 students who qualified for the metric.

SY2015-2016 School Progress Report

School District of Philadelphia

Business Rule Documentation

FAFSA RATE

(FAFSA Completion Rate)

Metric Description and General Principles

- The SPR FAFSA completion rate metric measures the percentage of 12th-grade students who complete the Free Application for Federal Student Aid (FAFSA), a form for students who intend to enroll in college that determines the amount of federal financial aid for which they are eligible, by June 30.
- Students are eligible for the metric if they were enrolled in 12th grade, were enrolled at the school for at least 165 days, and either graduated or were intending to continue at the school as of the end of the 2015-16 school year.
- This metric applies to all high schools serving 12th grade.
- The School District relies on the Pennsylvania Higher Education Assistance Agency (PHEAA) to provide information on which students completed the FAFSA⁹.

Data Source

- District Schools: Enrollment information from SDP's student information system; FAFSA completion data from PHEAA
- Charter Schools: Enrollment information from SDP's student information system; FAFSA completion data from PHEAA

Business Rules for FAFSA Completion Rate

1. Prepare the enrollment data file.
 - a. Keep only students who were in 12th grade.
 - b. Keep only students who were enrolled at the school for at least 165 days.
 - c. Keep only students whose exit codes indicate that they finished the year at the school.
2. Combine the prepared enrollment data file with the FAFSA file from PHEAA.
3. Assign a FAFSA completion flag to each student:
 - a. COMPLETED FAFSA, if the student has a record in the PHEAA FAFSA file indicating they completed the form.
 - b. DID NOT COMPLETE FAFSA, if the student has no record in the PHEAA FAFSA file or if their record indicates they did not complete the form.

⁹ PHEAA was unable to provide reliable data in 2014-15 and so the metric was suppressed for the 2014-15 SPR. Working with SDP, PHEAA was able to resolve the issues for the 2015-16 data.

SY2015-2016 School Progress Report

School District of Philadelphia

Business Rule Documentation

4. Calculate the FAFSA completion rate as follows:
 - a. Total number of eligible 12th graders who completed the form (3a) divided by the total number of eligible 12th graders (3a + 3b)
5. Assign an exception code as appropriate:
 - a. NOT APPLICABLE, if the school did not serve 12th graders.
 - b. INSUFFICIENT SAMPLE, if there were fewer than 25 eligible students.

EDUCATOR EFFECTIVENESS RATINGS

(% of Teachers Receiving an Effectiveness Rating of Distinguished; % of Teachers Receiving an Observation Score of Distinguished in Instruction)

Metric Description and General Principles

- The SPR includes two metrics regarding educator effectiveness ratings: the percentage of teachers who receive an overall effectiveness rating of Distinguished, and the percentage of teachers who receive an effectiveness rating of Distinguished in the Instruction domain.
- While these metrics are displayed in the SPR, they do not count towards the overall SPR score for several reasons. For example, district-wide normalization of observation scoring has not yet occurred, meaning that scores can vary because of differences in how observers rate teachers.
- Teachers' observation data comes from the most recent year in which the teacher received at least one formal observation.
- This metric applies to all District schools. However, each school receives only one rate for each metric. If a school serves multiple report types, both reports receive the same rates.
- Charter schools are not eligible for this metric because they utilize their own evaluation systems.

Data Source

- District Schools: SDP Office of Professional Development
- Charter Schools: *Charters are not eligible for this metric*

Business Rules for Educator Effectiveness Ratings Calculations

1. Assign a Distinguished overall flag to each teacher:
 - a. DISTINGUISHED OVERALL, if the teacher's overall rating was Distinguished.
 - b. NOT DISTINGUISHED OVERALL, if the teacher's overall rating was either Failing, Needs Improvement, or Proficient.
2. Assign a Distinguished in Instruction flag to each teacher:
 - a. DISTINGUISHED IN INSTRUCTION, if the teacher's rating in the Instruction domain was Distinguished.

SY2015-2016 School Progress Report

School District of Philadelphia

Business Rule Documentation

- b. NOT DISTINGUISHED IN INSTRUCTION, if the teacher's rating in the Instruction domain was either Failing, Needs Improvement, or Proficient.
3. Calculate the educator effectiveness rating metrics as follows:
 - a. PERCENT DISTINGUISHED OVERALL: Total number of teachers who were Distinguished overall (1a) divided by the total number of teachers with observation scores (1a + 1b)
 - b. PERCENT DISTINGUISHED IN INSTRUCTION: Total number of teachers who were distinguished in Instruction (2a) divided by the total number of teachers with observation scores (2a + 2b)
4. Assign an exception code as appropriate:
 - a. NOT APPLICABLE, for all charter schools.

TEACHER ATTENDANCE

(% of Teachers Attending 95% or More of Days)

Metric Description and General Principles

- The SPR Teacher Attendance metric is the percentage of included staff members at a school who attended at least 95% of the days in which they were on active assignment at a school.
 - Days of assignment and days absent are only counted if they occurred between September 1, 2015, and June 30, 2016.
- Staff members with a range of roles – including teachers, school counselors, department chairs, academic coaches – are included in this metric, as long as they are on regular assignment, temporary reassignment, or extended leave.
 - Staff members who were assigned to a school for fewer than 10 days are not included in this metric.
- This metric is not calculated for charter schools as data is not available.
- This metric is displayed on the SPR but does not factor into a school’s overall score on the SPR.
- Each school receives only one Teacher Attendance Rate metric score. If a school receives multiple reports, both reports receive the same rate.

Data Source

- District Schools: SDP’s Enterprise Resource Planning application
- Charter Schools: *Charters are not eligible for this metric*

Business Rules for Teacher Attendance Calculation

1. Restrict the sample to staff members who were in eligible positions and were on regular assignment, temporary reassignment, or extended leave.
2. Remove staff members who were assigned to a school for fewer than 10 days.
3. Calculate each staff member’s attendance rate as follows:
 - a. Total number of days the staff member was present while on active assignment (regular, temporary, or extended leave) between September 1, 2015, and June 30, 2016, divided by total number of days the staff member was on active assignment.
4. Assign an attendance rate flag to each teacher:

SY2015-2016 School Progress Report

School District of Philadelphia

Business Rule Documentation

- a. YES, if the staff member's attendance rate was 95% or more.
 - b. NO if the staff member's attendance rate was less than 95%.
5. Calculate the attendance rate metric as follows:
 - a. Total number of staff members with an attendance rate of at least 95% (4a) divided by total number of eligible staff members (4a + 4b).
6. Assign an exception code as appropriate:
 - a. NOT APPLICABLE, for all charter schools.

SY2015-2016 School Progress Report

School District of Philadelphia

Business Rule Documentation

Overall, Domain, and Metric Scores; Tier Assignments; and Ranks

Metric Description and General Principles

- This portion of the documentation describes how final SPR scores and ratings are calculated.
 - First, it explains how metric scores are converted into points, and how those points are combined into scores for the four SPR domains (Achievement, Progress, Climate, and College & Career).
 - Second, it explains how domain scores are turned into overall scores, and how tiers (Model, Reinforce, Watch, or Intervene) are assigned to metrics, domains, and overall scores.
 - Last, it explains how schools are assigned City and Peer Group ranks.
- Points and tiers are a function of five numbers: The **metric score** (whose calculations are described in accompanying business rules documentation), the **metric points possible** (which varies between metrics and report types), and the **floor** and **target** for the metric, which are used to calculate **percent of points earned** out of points possible as described below.
 - Points possible, floors, and targets for each metric are provided in the *SPR User Guide*.
- The **floor** is the minimum **metric score** a school must exhibit before it begins accruing points for a metric. For example, at least 20% of students must score proficient or advanced on standardized tests before a school begins accruing points under the SPR. This is to reflect the district value that schools should be expected to meet a minimum standard.
- The **target** is the **metric score** at or above which a school earns all points for a metric. Targets are meant to be ambitious and are established in alignment with District goals and values.
 - For example, the target for the four-year cohort graduation rate is 100% to align with the District's Anchor Goal 1: *100% of students will graduate, ready for college and career*.
- **Floors** and **targets** were chosen by district staff to reflect district goals and can vary by report type. These are used to calculate **percent of points earned**. Schools earn points according to how far between the floor and the target the school's **metric score** lies. The formula for **percent of points earned** is:

SY2015-2016 School Progress Report

School District of Philadelphia

Business Rule Documentation

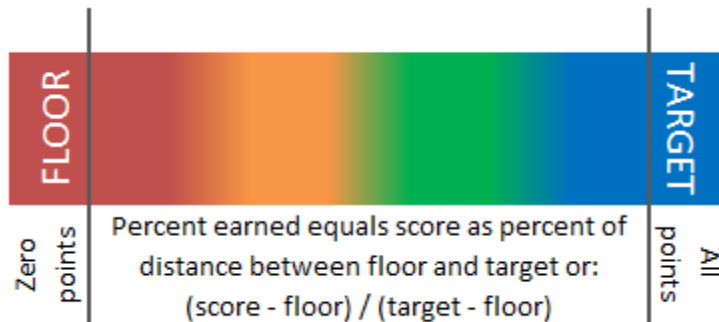
$$\text{Percent of Points Earned} = \frac{\text{Metric Score} - \text{Floor}}{\text{Target} - \text{Floor}}$$

- Schools with **metric scores** below the **floor** receive zero points, and schools with **metric scores** at or above the **target** receive all possible points.
- Final points earned for a metric are calculated by multiplying **metric points possible** by **percent of points earned**:

$$\text{Points Earned} = \text{Points Possible} * \text{Percent of Points Earned}$$

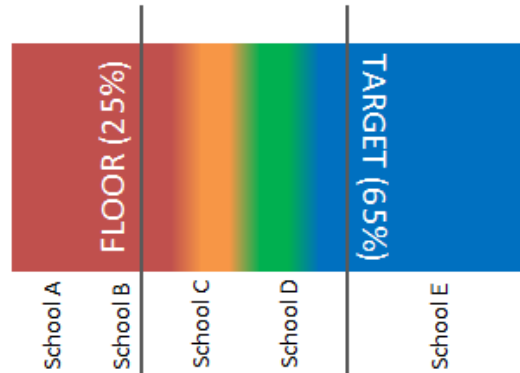
- Figure 1 illustrates this process graphically, and Figure 2 gives some examples based on the ACCESS Growth metric.

Figure 1: Floors, Targets, and Scores



SY2015-2016 School Progress Report
School District of Philadelphia
Business Rule Documentation

Figure 2: Example of Percent of Points Earned Based on ACCESS Growth Metric



- School A (score of 5%) and School B (score of 20%) both receive 0 points because they did not reach the floor.
- School C (score of 40%) receives 40% of points because its score falls 40% of the distance between floor and target:
 $(40 - 25)/(65-25) = 15/40 = 40\%$
- School D (score of 55%) receives 75% of points because its score falls 75% of the distance between floor and target:
 $(55 - 25)/(65-25) = 30/40 = 75\%$
- School E (score of 80%) receives 100% of points because its score fell above the target

If a school is not eligible for a metric, whether because the school does not serve the grades to which the metric applies, because the school had too few students, or for any other reason, then the points earned and points possible are deleted from that school's SPR; they are not scored for the metric, and the metric does not factor into the domain score or overall score.

- **Domain scores** are determined by totaling points earned for metrics within the domain, then dividing by the total number of points possible for the domain (excluding points that the school was not eligible to earn).
- **Overall scores** are determined by totaling points earned across all domains, then dividing by the total number of points possible (excluding points that the school was not eligible to earn).
- **Tier assignments** – whether for a metric, a domain, or overall – are based on percent of points earned.
 - Assignments are as follows:
 - 75% or more of points possible: Model
 - At least 50% but fewer than 75% of points possible: Reinforce
 - At least 25% but fewer than 50% of points possible: Watch
 - Fewer than 25% of points possible: Intervene

SY2015-2016 School Progress Report

School District of Philadelphia

Business Rule Documentation

- Percent of points earned is rounded before tiers are assigned.¹⁰
 - In the event that a school is eligible for fewer than half of the points available in a Domain, it does not receive a tier for that Domain, although its points earned are displayed and do count towards its overall score.
 - Likewise, if a school is eligible for fewer than half of all points in the SPR, it does not receive an overall SPR tier, although its points earned are displayed.
- This process applies to all district and charter schools.
 - Points earned are calculated separately for schools that receive two SPRs (e.g. a K-8 and a HS report). At such schools, metrics pertaining to grades 9-12 are attributed to a school's High School report; and metrics pertaining to grades 8 or below are attributed to a school's other report type (i.e., K8 or MS).

Data Source

- District Schools: Metric-level calculations
- Charter Schools: Metric-level calculations

Business Rules for Score, Tier, and Rank Calculation

17. Determine Metric Points and Tiers:

- a. Calculate the **percent of points earned**:
 - i. Subtract the **floor** from the **score**
 - ii. Subtract the **floor** from the **target**
 - iii. Divide 1.a.i by 1.a.ii., and convert to a percentage.
- b. Replace **percent of points earned** with 0% if it is below 0%, and with 100% if it is above 100%.
- c. Calculate the **points earned**:
 - i. Multiply **points possible** by **percent of points earned**.
- d. If the metric was assigned an exception code, delete **percent of points earned** and **points earned**.
 - i. Because there is an exception code, this metric will not count towards the school's SPR.
- e. Round **percent of points earned** to the nearest integer.
- f. Assign tiers to each metric according to **percent of points earned**

¹⁰ Mathematically, this means that schools actually achieve a "Model" ranking at 74.5% (which is rounded up to 75%), and a "Reinforce" ranking at 49.5%, etc. Schools can move up a tier via the rounding process but not down.

SY2015-2016 School Progress Report

School District of Philadelphia

Business Rule Documentation

- i. “Model” if the school earned at least 75% of points possible
- ii. “Reinforce” if the school earned at least 50% but fewer than 75% of points possible
- iii. “Watch” if the school earned at least 25% but fewer than 50% of points possible
- iv. “Intervene” if the school earned fewer than 25% of points possible
- v. Do not assign a tier if there is an exception code for the metric.

18. Determine Domain Points and Tiers:

- a. Calculate **domain points earned**:
 - i. Total the number of points earned on metrics included in each domain (see appendix to *SPR User Guide* for a list of domains and the metrics that fall within them) for which the school was eligible and did not have an exception code
- b. Calculate **domain points possible**:
 - i. Total the number of points available on metrics included in each domain for which the school was eligible and did not have an exception code
- c. Calculate **domain percent of points earned**:
 - i. Divide **domain points earned** by **domain points possible**
 - ii. Round **domain percent of points earned** to the nearest integer.
- d. Assign tiers to each domain according to **domain percent of points earned**
 - i. “Model” if the school earned at least 75% of points possible
 - ii. “Reinforce” if the school earned at least 50% but fewer than 75% of points possible
 - iii. “Watch” if the school earned at least 25% but fewer than 50% of points possible
 - iv. “Intervene” if the school earned fewer than 25% of points possible
- e. Assign exception codes
 - i. If a school was eligible for fewer than 50% of the points available in a domain, replace the Tier label with “Insufficient Data.” Specifically, schools should be assigned this label if:
 1. The domain is Achievement and the school is eligible for fewer than 15 points
 2. The domain is Progress and the school is eligible for fewer than 20 points
 3. The domain is Climate, the school is not a high school, and the school is eligible for fewer than 15 points

SY2015-2016 School Progress Report

School District of Philadelphia

Business Rule Documentation

4. The domain is Climate, the school is a high school, and the school is eligible for fewer than 10 points
5. The domain is College and Career, the school is a high school, and the school is eligible for fewer than 5 points
- ii. Note that while domain tiers are not displayed if an exception code is applied, the associated points are still included in the overall score calculated in the next section.

19. Determine Overall Points and Tier:

- a. Calculate **overall points earned**:
 - i. Total the number of points earned across all domains
- b. Calculate **overall points possible**:
 - i. Total the number of points possible across all domains
- c. Calculate **overall percent of points earned**:
 - i. Divide **overall points earned** by **overall points possible**
- d. Assign tiers to each overall score according to **overall percent of points earned**
 - i. “Model” if the school earned at least 75% of points possible
 - ii. “Reinforce” if the school earned at least 50% but fewer than 75% of points possible
 - iii. “Watch” if the school earned at least 25% but fewer than 50% of points possible
 - iv. “Intervene” if the school earned fewer than 25% of points possible
- e. Replace the Tier label with “Insufficient Data” if the school was eligible for fewer than 50 points across all domains.

20. Determine City and Peer Ranks:

- a. For each domain, calculate a city-wide rank for each school.
 - i. The school with the highest value of **domain percent of points earned** in the domain should receive the #1 rank.
 - ii. Schools with the same score should receive the same rank.
- b. For overall scores, calculate a city-wide rank for each school.
 - i. The school with the highest value of **overall percent of points earned** in the domain should receive the #1 rank.
 - ii. Schools with the same score should receive the same rank.
- c. For each domain, calculate a peer group rank for each school.
 - i. The school with the highest value of **domain percent of points earned** in the domain within the peer group should receive the #1 rank.
 - ii. Schools with the same score should receive the same rank.
- d. For overall scores, calculate a peer group rank for each school.

SY2015-2016 School Progress Report

School District of Philadelphia

Business Rule Documentation

- i. The school with the highest value for **overall percent of points earned** in the domain within the peer group should receive the #1 rank.
- ii. Schools with the same score should receive the same rank.