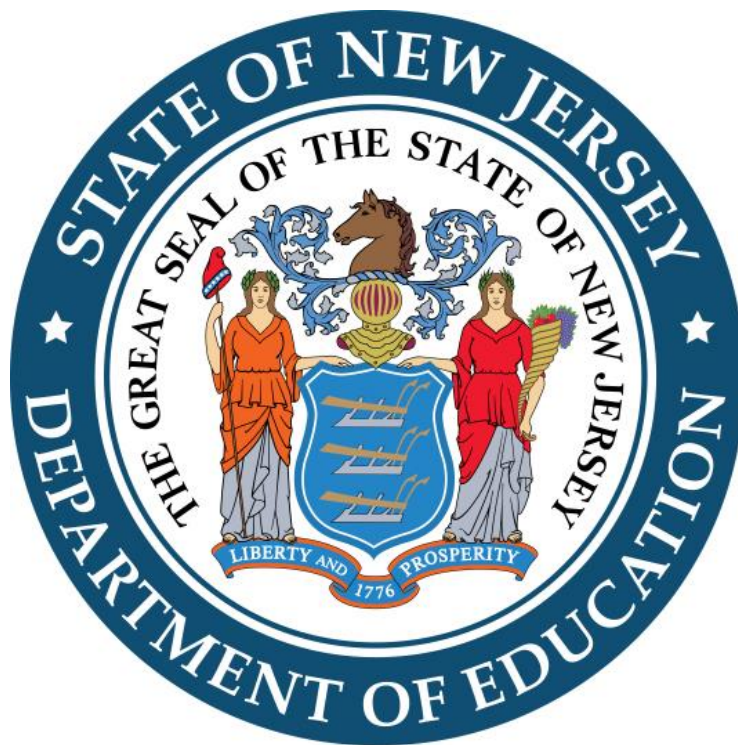


Every Student Succeeds Act (ESSA)
2019 Technical Guide to Summative Ratings and
the Identification of Schools in Need of Support
and Improvement



New Jersey Department of Education
March 2019

Table of Contents

Introduction	3
Schools in Need of Comprehensive Support and Improvement	4
Comprehensive Support and Improvement Identification	4
Comprehensive Support and Improvement Methodology	4
Schools in Need of Targeted Support and Improvement for Low-Performing Student Subgroups	10
Targeted Support and Improvement for Low-Performing Student Subgroups Identification	10
Targeted Support and Improvement for Low-Performing Subgroup Methodology	10
Schools in Need of Targeted Support and Improvement for Consistently Underperforming Subgroups	14
Targeted Support and Improvement for Consistently Underperforming Subgroups Identification	14
Targeted Support and Improvement for Consistently Underperforming Subgroups Methodology	15

Introduction

The *Every Student Succeeds Act (ESSA)* was passed in December 2015 with bipartisan congressional support. It replaced the *No Child Left behind Act (NCLB) of 2001* and reauthorized the *Elementary and Secondary Education Act (ESEA) of 1965*. Despite some key changes in the law, the purpose remains the same: to ensure all students have equitable access to high-quality educational resources and opportunities, and to close educational achievement gaps.

As part of the reauthorization, all states were required to develop a state plan. [New Jersey's ESSA State Plan](#) and its [overview](#) describe how the state will identify which schools need the most comprehensive and targeted support and how the state would then provide the support in a differentiated manner. As part of this process, *ESSA* requires states to meaningfully differentiate how schools are performing and to identify schools in need of support and improvement.

Throughout the 2016-17 school year, the New Jersey Department of Education (NJDOE) collaborated with stakeholders from across the state to develop, within the legal confines of *ESSA*, the *ESSA* accountability system. Through this collaboration, the NJDOE developed its process for meaningful differentiation based on stakeholder input about indicators, weights, and desired outcomes. Additionally, NJDOE's technical advisory committee provided technical guidance. For example, the technical advisory committee suggested the NJDOE could ensure the nominal weights match the effective weights in the summative scores by converting performance values to z-scores.

The [Accountability Profiles Companion Guide](#) and this guide provide schools, districts and the public a transparent explanation of the methodology used to identify schools in need of comprehensive or targeted support and improvement. This guide contains separate sections for each type of support and each section contains an overview and a methodology section. The methodology section was written so that a data specialist can follow the steps and replicate the results using specialized software. Each step is followed by a "Looking at the Data" section that walks the reader through the accompanying [accountability worksheet files](#), allowing nontechnical readers to understand the identification process.

The accountability worksheet files include school and subgroup-level data that is released by the NJDOE annually in the [Title I Accountability Profiles](#). The data is also released to parents, community members, and other stakeholders through the [New Jersey School Performance Reports](#). Data in the accountability worksheet files is limited to include data for regular schools and full-time vocational schools that are currently operational.¹ Values in the chronic absenteeism data columns differ from the data in the

¹ The U.S. Department of Education defines a regular school as "a public elementary/secondary school that does not focus primarily on vocational, special, or alternative education, although it may provide these programs in addition to a regular curriculum," including charter schools. A vocational school is defined as "a school that focuses primarily on providing secondary students with an occupationally relevant or career-related curriculum, including formal preparation for vocational, technical, or professional occupations."

Accountability Profiles because the worksheets reflect non-chronic absenteeism rates (i.e., the chronic absenteeism rate subtracted from 100). This was necessary to align chronic absenteeism with the other data elements, in which a higher number reflects higher performance.

Identifying schools in need of the most support is just one of many steps in ensuring New Jersey students are receiving the high-quality education they deserve. For more information, see the [New Jersey Department of Education's ESSA webpage](#) or email essa@doe.nj.gov.

Schools in Need of Comprehensive Support and Improvement

Comprehensive Support and Improvement Identification

A school is identified for comprehensive support and improvement if any of the following three criteria apply:

1. Its summative score is at or below the bottom fifth percentile of Title I schools (i.e., the cut score).²
2. It has a four-year graduation rate at or below 67 percent.
3. It is a Title I school and has been identified as in need of targeted support and improvement for three or more consecutive years.

Schools are identified for comprehensive support every three years using the methodology outlined in the following section.

Comprehensive Support and Improvement Methodology

The methodology for calculating the summative score by which schools are identified for comprehensive support and improvement is as follows:

1. Determine School Configuration.

Each school configuration type has unique requirements. School configuration is derived based on the following criteria:

- a. Mixed Configuration Schools have at least five of the following six indicators: Four-year Graduation Rate, Five-year Graduation Rate, English Language Arts/Literacy (ELA) Proficiency, Math Proficiency, ELA Growth, and Math Growth.

² Schools are identified for comprehensive support and improvement based on their performance relative to the performance of the fifth percentile of Title I schools. Schools are identified to receive support regardless of whether they receive Title I funding.

- b. Elementary/Middle Schools do not have a Four-year Graduation Rate or Five-year Graduation Rate. Elementary/Middle Schools have at least three of the following four data elements: ELA Proficiency, Math Proficiency, ELA Growth, and Math Growth.
- c. High Schools do not have ELA Growth or Math Growth. High Schools have at least three of the following four data elements: ELA Proficiency, Math Proficiency, Four-year Graduation Rate, and Five-year Graduation Rate.
- d. Schools with fewer than three academic indicators (i.e. Four-year Graduation Rate, Five-year Graduation Rate, ELA Proficiency, Math Proficiency, ELA Growth, and Math Growth) are removed from the dataset. They do not have sufficient data to receive a summative score.

Looking at the Data: In the *Comprehensive* file, *Summative* worksheet, Columns A through C contain school identifiers. Columns D through K contain schools' data for the total student group from the Title I Accountability Profiles. Data for an indicator is only included if data was available for a minimum of 20 students. The data in columns D through K was used to derive the school configuration based on the criteria detailed above in Step 1. The school configuration is reflected in Column L.

2. Convert scores to z-scores, within configuration.

To facilitate accurate comparisons within each school configuration (i.e. Elementary/Middle, High School, and Mixed), the indicators for each student group under consideration (the total student group and nine student subgroups) are converted to z-scores. The indicators are: Chronic Absenteeism, Progress Toward English Language Proficiency (ELP), Four-year Graduation Rate, Five-year Graduation Rate, ELA Proficiency, Math Proficiency, ELA Growth, and Math Growth. If a school is missing a data point (e.g. data is available for fewer than 20 students), the missing value is disregarded when the values are converted to z-scores.³

Looking at the Data: In the *Comprehensive* file, there are separate worksheets for each of the eight indicators. On each worksheet other than ELP, columns A through C contain school identifiers and column D contains the school's configuration (from step 1). Columns E through N contain the schools' actual values of the indicator from the Title I Accountability Profiles for each of the nine student subgroups and the total student group. Data for an indicator is only included if the data was available for a minimum of 20 students. Columns O through X contain the z-score conversions of the data from columns E through N.

The format of the worksheet for the Progress toward English Language Proficiency ("ELP") indicator differs slightly from the rest because this indicator is only used for the English Learners

³ A z-score indicates how many standard deviations an element is from the mean.

student group and the total student group. Therefore, the ELP worksheet contains only nine columns. Columns A through D mirror those of the other indicators. Columns E through F contain the schools' actual values of the indicator from the Title I Accountability Profile for the English Learner student group and the total student group only. Columns G and H contain the z-score conversions of the data from columns E and F.

3. Calculate indicator scores.

For each indicator:

- a. Calculate the average subgroup z-score for each indicator by totaling the nine student subgroup z-scores and dividing by the number of subgroups. Any subgroups that had data for fewer than 20 students will not have a z-score and will not be included in this average.
- b. Average the z-score for the total student group with the average subgroup z-score.
 - i. If there is no average subgroup z-score the z-score for the total student group will be used in place of this average. This would occur if no subgroup had data for at least 20 students or for the ELP indicator, which is not calculated for subgroups other than the English Learner subgroup.
- c. Convert this average to a percentile ranking, by configuration. Round to the nearest hundredth. This is the final indicator score.

Looking at the Data: On each indicator worksheet other than ELP in the comprehensive file, column Y contains the sum of the student subgroup z-scores from columns O through W. Column Z contains the count of student subgroups. Column AA contains the average student subgroup z-score. Column AB contains the average of the average student subgroup z-score (column AA) and the total student group z-score (column X). Column AC reflects column AB converted to a percentile ranking, by configuration.

As previously noted, the worksheet for the ELP indicator has fewer columns, and the indicator score is in column I, not column AC.

4. Look up weights for each indicator.

Weights are determined based on school configuration and whether the ELP indicator is available. Weights for each school configuration are provided in the following three tables:

Table 1: Elementary/Middle School Weights

Indicator	Weight (ELP missing)	Weight (ELP available)
ELA Growth	0.25	0.20
Math Growth	0.25	0.20
ELA Proficiency	0.175	0.15

Indicator	Weight (ELP missing)	Weight (ELP available)
Math Proficiency	0.175	0.15
ELP	-	0.20
Chronic Absenteeism	0.15	0.10

Table 2: High School Weights

Indicator	Weight (ELP missing)	Weight (ELP available)
ELA Proficiency	0.175	0.15
Math Proficiency	0.175	0.15
Four-Year Graduation Rate	0.25	0.20
Five-Year Graduation Rate	0.25	0.20
ELP	-	0.20
Chronic Absenteeism	0.15	0.10

Table 3: Mixed Configuration School Weights

Indicator	Weight (ELP missing)	Weight (ELP available)
ELA Growth	0.15	0.125
Math Growth	0.15	0.125
ELA Proficiency	0.125	0.10
Math Proficiency	0.125	0.10
Four-Year Graduation Rate	0.15	0.125
Five-Year Graduation Rate	0.15	0.125
ELP	-	0.20
Chronic Absenteeism	0.15	0.10

Looking at the Data: Look at the *Summative* worksheet. The indicator scores from column AC of each indicator worksheet (column I on the ELP worksheet) have been copied to columns M through T on the *Summative* worksheet. Columns U through AB contain the weights for each indicator (some weights were adjusted; see next step).

5. Adjust indicator weights.

When schools are missing indicator scores, the weight for each academic indicator will need to be adjusted to evenly redistribute the weight of the missing data to the other available

academic indicators. A school's academic denominator, ELP indicator, and chronic absenteeism indicator tell us which adjustments are needed.

- a. Generate the academic denominator by totaling the weight values for the academic indicators (i.e., ELA Growth, Math Growth, ELA Proficiency, Math Proficiency, Four-Year Graduation rate, Five-Year Graduation rate).
- b. If one of the academic indicators is missing, the weights on the academic indicators will need to be adjusted:
 - ii. If the ELP indicator is missing and the academic denominator is below 0.85, adjust the weight for each academic indicator by dividing its current weight by the academic denominator and multiplying the result by 0.85.
 - iii. If the ELP indicator is available and the academic denominator is below 0.70, adjust the weight for each academic indicator by dividing its current weight by the academic denominator and multiplying the result by 0.70.
- c. If the chronic absenteeism indicator is missing, the weights on academic indicators will need to be adjusted. If adjustments were already made due to a missing academic indicator, start with the adjusted weights in this step.
 - iv. If the ELP indicator is missing and the chronic absenteeism indicator is missing, adjust the weight for each academic indicator by dividing its current weight by 0.85.
 - v. If the ELP indicator is available and the chronic absenteeism indicator is missing, adjust the weight for each academic indicator by dividing its current weight by 0.875.

Looking at the Data: On the *Summative* worksheet, there is a weight-adjustment flag in column AC. A "Y" value in this field indicates that there is a missing indicator score and the weights in columns U through AB were adjusted according to the rules above.

6. Generate summative scores.

- a. Multiply each indicator score by its respective weight to create a value for each indicator.
- b. Add the values for all indicators together. This number represents the school's summative score out of 100 points.

Looking at the Data: On the *Summative* worksheet, the values obtained by multiplying each indicator by its respective weight are contained in columns AD through AK. Adding these values together generates the summative score in column AL.

7. Determine the cut scores used to identify schools in need of comprehensive support and improvement.

The cut scores are determined by identifying the fifth percentile for Title I schools, by school configuration.

- a. Within each school configuration and for Title I schools only, convert the summative scores to percentile rankings.
- b. Identify the summative score of the school at the fifth percentile. This will be the cut score for the configuration.

Looking at the Data: On the *Summative* worksheet, column AM indicates whether a school receives Title I funding for the 2017-18 school year. The following steps will help easily identify the cut-score in the Excel file:

1. Filter the dataset to include only Title I schools (column AM has a value of “Y”)
2. Filter the dataset to include only one configuration (column L)
3. Sort by summative score (column AL) and assign a rank to each summative score from lowest to highest
4. Calculate the percentile ranking for each summative score by subtracting 1 from the school’s rank and then dividing by the total number of scores minus 1
5. Find the school with the largest percentile ranking that is less than or equal to 5.00. Round the summative score for that school up to the nearest hundredth. That will be the cut-score for the school configuration (Column AN)

8. Identify schools in need of comprehensive support and improvement.

- a. All elementary/middle schools, regardless of Title I status, with summative scores at or below the elementary/middle school cut score require comprehensive support and improvement.
- b. All high schools, regardless of Title I status, with summative scores at or below the high school cut score require comprehensive support and improvement.
- c. All mixed configuration schools, regardless of Title I status, with summative scores at or below the mixed configuration school cut score require comprehensive support and improvement.
- d. All high schools and mixed configuration schools, regardless of Title I status, with Four-year Graduation Rates at or below 67 percent require comprehensive support and improvement.

Looking at the Data: On the *Summative* worksheet, column AL contains the summative score. Column AN contains the cut score. If the value in AL is less than or equal to the value in AN, the school is identified as in need of comprehensive support and improvement. Column H contains the schools’ graduation rates. If the value in column H is less than or equal to 67, the school is identified as in need of comprehensive support and improvement. Schools requiring comprehensive support and improvement are indicated in the column AO, *ESSA Status*.

9. Calculate Summative Determinations.

The summative determinations are the percentile rankings of the summative scores. Converting the summative scores to percentile rankings allows schools to be compared across school configurations.

- a. Convert summative scores to percentile rankings, by configuration. Round to the nearest hundredth.

Looking at the Data: On the *Summative* worksheet, column AP contains the summative determination.

Schools in Need of Targeted Support and Improvement for Low-Performing Student Subgroups

Targeted Support and Improvement for Low-Performing Student Subgroups Identification

A school is identified for targeted support and improvement for a low-performing student subgroup if it has a student subgroup with a summative score at or below the bottom fifth percentile of Title I schools (i.e., if the student subgroup were its own school, its summative score would qualify for comprehensive support). Schools are identified for targeted support every three years using the methodology outlined in the following section.

Targeted Support and Improvement for Low-Performing Subgroup Methodology

The following is the methodology by which schools are identified for targeted support and improvement for a low-performing student subgroup:

1. Determine school configuration for each student subgroup.

School configurations are redefined for each student subgroup. In most cases, subgroups will have the same configuration as the school. However, some subgroups may be missing data for an indicator even though it is available for the total school.⁴ This step is necessary to ensure that the data for a subgroup is compared to other schools with similar data available. School configuration is derived for each student subgroup based on the following criteria:

⁴ For example, if a subgroup in a mixed configuration school has both proficiency data elements and both growth data elements, but does not have graduation rate data, this subgroup's performance is considered among the performance of elementary/middle schools because they have similar data elements available (i.e., if the subgroup were its own school, it would be an elementary/middle school).

- a. Subgroups in Mixed Configuration Schools have at least five of the following six data elements: Four-year Graduation Rate, Five-year Graduation Rate, ELA Proficiency, Math Proficiency, ELA Growth, and Math Growth.
- b. Subgroups in Elementary/Middle Schools do not have Four-year graduation rate or Five-year graduation rate, and they have three or more of the following four data elements: ELA Proficiency, Math Proficiency, ELA Growth, and Math Growth.
- c. Subgroups in High Schools do not have ELA Growth or Math Growth, and they have at least three of the following four data elements: ELA Proficiency, Math Proficiency, Four-year Graduation Rate, and Five-year Graduation Rate.
- d. Subgroups with fewer than three indicators are removed from the dataset. They do not have sufficient data to receive summative score.

Looking at the Data: In the *Targeted* file, there are separate worksheets for each student subgroup. On any subgroup worksheet, Columns A through C contain school identifiers. Column D contains the Student Group name. Columns E through L contain the actual values of each indicator from the Title I Accountability Profiles for the student subgroup referenced in column D and the worksheet title.

The data in columns E through L were used to derive the student subgroup's school configuration based on the criteria detailed above in Step 1. The student subgroup's school configuration is reflected in Column M. This workbook does not include information on all student subgroups at a school. Only subgroups with sufficient data appear in the workbook.

2. Calculate Indicator Scores for each student subgroup.

Converting the scores for the indicators to percentiles provides a standardized measure across the different indicators.

- a. Within each student subgroup and each school configuration, convert the scores for each of the eight indicators (i.e. ELA Proficiency, Math Proficiency, ELA Growth, Math Growth, Four-year Graduation Rate, Five-year Graduation Rate, ELP, Chronic Absenteeism) to percentile rankings.
 - i. The ELP indicator applies only to the English Learners subgroup.
- b. Round it to the nearest hundredth.

Looking at the Data: On each subgroup worksheet in the targeted file, the indicator scores are provided in columns N through U. These are the percentile rankings of the data in columns E through L.

3. Look up weights for each indicator for each student subgroup.

Weights are determined based on a student subgroup's school configuration and whether the ELP indicator is available for the student subgroup. Weights for each subgroup school

configuration are provided in the following three tables. These are the same sets of weights used at the school level. The ELP indicator will only be available for the English Learners subgroup, so the second column in the tables will not apply to other student subgroups.

Table 4: Elementary/Middle School Weights

Indicator	Weight (ELP missing)	Weight (ELP available)
ELA Growth	0.25	0.20
Math Growth	0.25	0.20
ELA Proficiency	0.175	0.15
Math Proficiency	0.175	0.15
ELP	-	0.20
Chronic Absenteeism	0.15	0.10

Table 5: High School Weights

Indicator	Weight (ELP missing)	Weight (ELP available)
ELA Proficiency	0.175	0.15
Math Proficiency	0.175	0.15
Four-Year Graduation Rate	0.25	0.20
Five-Year Graduation Rate	0.25	0.20
ELP	-	0.20
Chronic Absenteeism	0.15	0.10

Table 6: Mixed Configuration School Weights

Indicator	Weight (ELP missing)	Weight (ELP available)
ELA Growth	0.15	0.125
Math Growth	0.15	0.125
ELA Proficiency	0.125	0.10
Math Proficiency	0.125	0.10
Four-Year Graduation Rate	0.15	0.125
Five-Year Graduation Rate	0.15	0.125
ELP	-	0.20
Chronic Absenteeism	0.15	0.10

Looking at the Data: On each of the subgroup worksheets in the targeted file, Columns V through AC contain the weights for each indicator (some weights were adjusted; see next step).

4. Adjust indicator weights.

When a student subgroup is missing indicator scores, the weight for each academic indicator will need to be adjusted to evenly redistribute the weight of the missing data to the other available academic indicators. A student subgroup's academic denominator, ELP indicator, and chronic absenteeism indicator tell us which adjustments are needed.

- a. Generate the academic denominator by totaling the weight values for the academic indicators (i.e., ELA Growth, Math Growth, ELA Proficiency, Math Proficiency, Four-Year Graduation rate, Five-Year Graduation rate).
- b. If one of the academic indicators is missing, the weights on the academic indicators will need to be adjusted:
 - vi. If the ELP indicator is missing and the academic denominator is below 0.85, adjust the weight for each academic indicator by dividing its current weight by the academic denominator and multiplying the result by 0.85.
 - vii. If the ELP indicator is available and the academic denominator is below 0.70, adjust the weight for each academic indicator by dividing its current weight by the academic denominator and multiplying the result by 0.70.
- c. If the chronic absenteeism indicator is missing, the weights on academic indicators will need to be adjusted. If adjustments were already made due to a missing academic indicator, start with the adjusted weights in this step.
 - viii. If the ELP indicator is missing and the chronic absenteeism indicator is missing, adjust the weight for each academic indicator by dividing its current weight by 0.85.
 - ix. If the ELP indicator is available and the chronic absenteeism indicator is missing, adjust the weight for each academic indicator by dividing its current weight by 0.875.

Looking at the Data: On each of the subgroup worksheets in the targeted file, there is a weight-adjustment flag in column AD. The flag indicates that weights in columns V through AC were adjusted according to the rules above.

5. Generate summative scores for each subgroup.

For each subgroup:

- a. Multiply each indicator by its respective weight.
- b. Add them together. This number represents the subgroup's summative score out of 100 points.

Looking at the Data: On the student subgroup worksheets in the targeted file, the values obtained by multiplying each indicator by its respective weight are contained in columns AE through AL. Adding these values generates the student subgroup summative score in column AM.

6. Identify schools in need of targeted support and improvement for low-performing student subgroup.

The cut scores that were used to identify schools for comprehensive support and improvement will be used to identify schools in need of targeted support and improvement. If any subgroup in a school has a summative score below the cut score for the given configuration, then that school is in need of targeted support. See step 7 in the Comprehensive Methodology on page 8 to see how the cut scores were determined for each configuration.

Looking at the Data: On the subgroup worksheets in the targeted file, the value of the cut score in column AN is based on the cut score used to identify schools needing comprehensive support and improvement for the student subgroup configuration. If the value in column AM is less than or equal to the value in column AN, the student subgroup is identified for targeted support and improvement for a low-performing student subgroup (column AO).

On the Summary worksheet tab, the status for each of the nine student subgroups is summarized in columns D through L. Column M shows whether any student subgroup in each school was identified for targeted support and improvement for a low-performing student subgroup. If a school was identified, column N lists the names of the student subgroup(s) that were low-performing.

Schools in Need of Targeted Support and Improvement for Consistently Underperforming Subgroups

Targeted Support and Improvement for Consistently Underperforming Subgroups Identification

Schools will be annually identified for targeted support and improvement for consistently underperforming subgroups if one or more student subgroups:

1. Misses interim targets for all available indicators for two consecutive years, and
2. Performs below the state average for all available indicators for two consecutive years.

January 2019 is the first time that schools are identified for targeted support and improvement for consistently underperforming subgroups because two years of data are now available. Schools will be identified annually under the following methodology.

Targeted Support and Improvement for Consistently Underperforming Subgroups Methodology

The following is the methodology by which schools are identified for targeted support and improvement for consistently underperforming subgroups:

1. Determine if a student subgroup will be included.

Consistent with the methodology used to calculate school and subgroup scores, the NJDOE will only review a subgroup for targeted support and improvement for consistently underperforming subgroup status if there is sufficient data for review.

- Subgroups in Mixed Configuration Schools must have at least five of the following six data elements in both years of data: Four-year Graduation Rate, Five-year Graduation Rate, ELA Proficiency, Math Proficiency, ELA Growth, and Math Growth.
- Subgroups in Elementary/Middle Schools do not have a Four-year Graduation Rate or Five-year Graduation Rate, and they must have three or more of the following four data elements: ELA Proficiency, Math Proficiency, ELA Growth, and Math Growth.
- Subgroups in High Schools do not have ELA Growth or Math Growth, and they must have three or more of the following four data elements: ELA Proficiency, Math Proficiency, Four-year Graduation Rate, and Five-year Graduation Rate.

If a subgroup misses its targets and is below the state average for available indicators for two years in a row, it is identified for targeted support and improvement for a consistently underperforming subgroup.

Looking at the Data: On the *Summary* tab of the targeted file, the status for each of the nine student subgroups is summarized in columns O through W. The column for each student group will show a Y if that subgroup missed all interim targets and was below the state average for two consecutive years. Column X shows whether any student subgroups in each school was identified for targeted support and improvement for a consistently underperforming student subgroup. If a school was identified, column Y lists the names of the student subgroup(s) that were consistently underperforming.

For more information, please refer to the New Jersey Department of Education's [ESSA webpage](#).