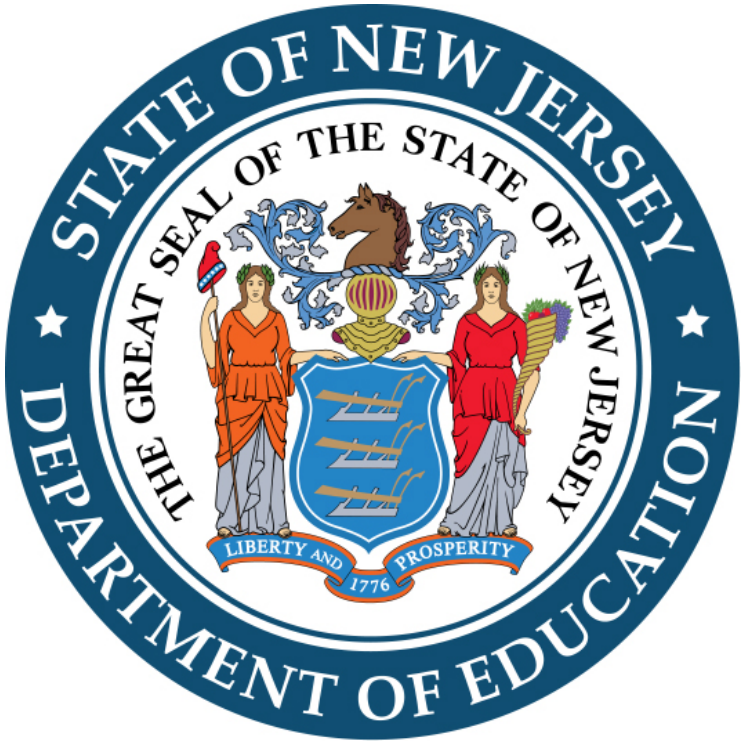
Every Student Succeeds Act (ESSA)

2018-19 Technical Guide to Summative Ratings and the Identification of Schools in Need of Support and Improvement



New Jersey Department of Education

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Introduction

The mission of the New Jersey Department of Education (NJDOE) is to support schools, educators and districts to ensure all of New Jersey's 1.4 million students have equitable access to high-quality education and achieve academic excellence. New Jersey's *ESSA* accountability system helps the NJDOE identify what schools and districts need more support with making sure all students are prepared for postsecondary success.

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*. 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 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 Companion Guide for 2019 Every Student Succeeds Act (ESSA) Accountability Profiles 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 student group-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

[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."

data in the 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 NJDOE's ESSA webpage or email essa@doe.nj.gov.

Every three years, NJDOE will identify schools for Comprehensive Support and Improvement and Targeted Support and Improvement for Low Performing Student Groups. NJDOE last identified schools in January 2019, so the next identification in these categories will not occur until 2022. Therefore, there is no identification in these categories this year and NJDOE is not releasing cut-scores or identifying whether schools met the criteria for identification in these categories. NJDOE is releasing the underlying data for each indicator and the calculated indicator scores and summative scores for districts to use, along with additional accountability progress data released in the School Performance Reports, in monitoring progress and improvement across all accountability indicators.

NJDOE will annually identify schools for Targeted Support and Improvement for Consistently Underperforming Student Groups.

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; or
3. It is a Title I school and has been identified as in need of targeted support and improvement for a low performing student group for three or more consecutive years.

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

[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.

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. Schools will be identified as a:

   a. Mixed configuration school (Mixed) if data is available for at least five of the following six indicators: four-year graduation rate, five-year graduation rate, English Language Arts (ELA) proficiency, math proficiency, ELA growth, and math growth
   b. Elementary/Middle school (ES/MS) if the school does not have a four-year graduation rate or five-year graduation rate, but has at least three of the following four data elements: ELA proficiency, math proficiency, ELA growth, and math growth
   c. High school (High) if the school does not have ELA growth or math growth, but has at least three of the following four data elements: ELA proficiency, math proficiency, four-year graduation rate, and five-year graduation rate

   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, as 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 2019 *ESSA* 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. ES/MS, High School, and Mixed), the indicators for each student group under consideration (the total student group and nine student groups) are converted to z-scores. The indicators are: ELA proficiency, math proficiency, ELA growth, math growth, four-year graduation rate, five-year graduation rate, progress toward English language proficiency (ELP), and chronic absenteeism. 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

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

of the nine student groups 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 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 student group z-score for each indicator by totaling the nine student group z-scores and dividing by the number of student groups
    i. Any student groups 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 student group z-score
    i. If there is no average student group z-score the z-score for the total student group will be used in place of this average. This would occur if no student group had data for at least 20 students or for the ELP indicator, which is not calculated for student groups other than the English Learner student group.
c. Convert this average to a percentile ranking, by configuration, and round to the nearest hundredth
d. This percentile 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 group z-scores from columns O through W. Column Z contains the count of student groups. Column AA contains the average student group z-score. Column AB contains the average of the average student group 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 Tables 1, 2 and 3.

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
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:
    i. 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
    ii. 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.
    i. Both the ELP indicator and chronic absenteeism indicators are missing: adjust the weight for each academic indicator by dividing its current weight by 0.85
    ii. ELP indicator is available but 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 [Note: 2020 is not an identification year, so cut scores were not calculated and are not included in the workbook. This methodology is included for reference only]**

   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
   6. Round the summative score for that school up to the nearest hundredth
   7. That will be the cut-score for the school configuration
      - Cut scores are not provided this year because 2020 is not an identification year.

8. **Identify schools in need of comprehensive support and improvement [Note: 2020 is not an identification year, so identification status is not included in the workbook. This methodology is included for reference only]**

   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. Cut scores and identification status are not provided this year because 2020 is not an identification year.

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, and round to the nearest hundredth

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

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

Targeted Support and Improvement for Low-Performing Student Groups Identification

A school is identified for targeted support and improvement for a low-performing student group if it has a student group with a summative score at or below the bottom fifth percentile of Title I schools (i.e., if the student group 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 Student Group Methodology

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

1. **Determine school configuration for each student group**

   School configurations are redefined for each student group. In most cases, student groups will have the same configuration as the school. However, some student groups 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 student group is compared to other schools with similar data available. School configuration is derived for each student group based on the following criteria. Student groups will be identified as:

   a. Mixed configuration if data is available for 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

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

b. Elementary/Middle configuration (ES/MS) if the student group does not have four-year graduation rate or five-year graduation rate, but has three or more of the following four data elements: ELA proficiency, math proficiency, ELA growth, and math growth
c. High school configuration (High) if the student group does not have ELA growth or math growth, but has at least three of the following four data elements: ELA proficiency, math proficiency, four-year graduation rate, and five-year graduation rate

Student groups with fewer than three indicators are removed from the dataset, as they do not have sufficient data to receive summative scores.

Looking at the Data: In the *Targeted* file, there are separate worksheets for each student group. On any student group 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 group referenced in column D and the worksheet title.

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

2. Calculate indicator scores for each student group

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

a. Within each student group 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 student group
b. Round it to the nearest hundredth
c. This value will be the student group indicator score for each indicator

Looking at the Data: On each student group 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 group

Weights are determined based on a student group's school configuration and whether the ELP indicator is available for the student group. The same weights are used for student groups that were used at the school level.

See step 4 in the Comprehensive Support and Improvement Identification section for the weight tables for each student group configuration. The ELP indicator will only be available for the

English Learners student group, so the second column in the tables will not apply to other student groups.

Looking at the Data: On each of the student group 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 group 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 group'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:
    i. 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
    ii. 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.
    i. Both the ELP indicator and chronic absenteeism indicator are missing: adjust the weight for each academic indicator by dividing its current weight by 0.85
    ii. ELP indicator is available but 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 student group 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 student group

For each student group:

a. Multiply each indicator by its respective weight
b. Add them together
c. The sum represents the student group's summative score out of 100 points

Looking at the Data: On the student group 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 group summative score in column AM.

6. **Identify schools in need of targeted support and improvement for low-performing student groups [Note: 2020 is not an identification year, so identification status is not included in the workbook. This methodology is included for reference only]**

   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 for low-performing student groups. Any student group in a school with a summative score below the cut score for the given configuration is identified as a low-performing student group. 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: Cut scores and identification status are not provided this year because 2020 is not an identification year.

Schools in Need of Targeted Support and Improvement for Consistently Underperforming Student Groups

Targeted Support and Improvement for Consistently Underperforming Student Groups Identification

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

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.

Schools will be identified annually using the methodology outlines in the following section.

Targeted Support and Improvement for Consistently Underperforming Student Groups Methodology

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

1. **Determine if a student group will be included**

   Consistent with the methodology used to calculate school and student group scores, the NJDOE will only review a student group for targeted support and improvement for consistently underperforming subgroup status if there is sufficient data for review. Student groups will be identified as:

   a. Mixed configuration if data is available for 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
   b. Elementary/Middle configuration (ES/MS) if the student group does not have four-year graduation rate or five-year graduation rate, but has three or more of the following four data elements in both years of data: ELA proficiency, math proficiency, ELA growth, and math growth

c. High school configuration (High) if the student group does not have ELA growth or math growth, but has at least three of the following four data elements in both years of data: ELA proficiency, math proficiency, four-year graduation rate, and five-year graduation rate

2. Determine if all targets were missed for two consecutive years

Using the Met Target (Academic Achievement, Graduation Rate, and English Language Progress toward Proficiency), Met Standard (Academic Progress), and Met State Average (Chronic Absenteeism) flags in the 2018 ESSA Accountability Profiles and the 2019 ESSA Accountability Profiles, student groups that missed all targets for a student group for two consecutive years are identified. Only the "Target Not Met" status is counted when identifying missed targets. The following target statuses count as meeting targets:

a. Academic achievement: "Met Target", "Met Target with Confidence Interval applied", and "Met Goal"
b. Academic growth: "Met Standard" and "Exceeds Standard"
c. Graduation rate: "Met Target" and "Met Goal"
d. Chronic absenteeism: "Met State Average"
e. English language progress toward proficiency: "Met Target" and "Met Target within Standard Deviation"

3. Determine if identified student groups are below the state average

Any student groups that have missed targets for two consecutive years must also be below the state average to be identified as a consistently underperforming student group. The state median for Academic Progress is 50, by definition, so any student groups that did not meet the standard are below the state median. The annual targets for chronic absenteeism and English language progress toward proficiency were defined based on the state average, so any student groups that did not meet those targets are below the state average.

The annual targets for Academic Achievement and Graduation Rate were developed individually for each school and student group based on 2015-16 baseline performance, so it's possible that a student group may miss the annual target for these indicators, but still be above the state average. The state averages used for 2018-19 are based on the 2018-19 state proficiency rates, the Cohort 2018 four-year graduation rate, and the Cohort 2017 five-year graduation rate:

a. ELA proficiency: 57.9
b. Math proficiency: 44.5
c. Four-year graduation rate: 90.9
d. Five-year graduation rate: 92.5

Any student groups that have missed all targets for two consecutive years and are below the state averages for Academic Achievement and Graduation Rate will be identified as consistently underperforming student group.

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