

# Suppression Rules for Public Reporting

In this document you will find descriptions and examples of the different methods of suppression used by OSPI to provide the most detailed data possible while simultaneously prioritizing student privacy.

## **When is Suppression Applied?**

The Family Educational Rights and Privacy Act (FERPA) is a federal law that protects the privacy of student education records. To abide by the regulation outlined in FERPA and protect individually identifiable student data, OSPI applies suppression rules to any aggregated student data that is connected to student academic outcomes. This includes, but is not limited to, any reporting on student assessment results, graduation rates, student growth percentiles, or any of our SQSS measures.

## **How to Use This Document?**

Detailed in this document are the methods used by the department of student information to suppress and protect student data across multiple measures. Using a sample set of data, this document will walk you through the logic and steps OSPI uses to apply suppression. The suppression methods reviewed in this document are as follows:

### STUDENT MEASURE SUPPRESSION

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### WSIF SUPPRESSION

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## Sample Data Set

To illustrate the suppression methods described throughout this document, imagine you have a data set that looks as follows:

| District   | School   | Grade                  | Group           | Numerator | Denominator | Percentage |
|------------|----------|------------------------|-----------------|-----------|-------------|------------|
| District A | School A | 3 <sup>rd</sup> Grade  | All Students    | 12        | 18          | 66.7%      |
| District A | School A | 3 <sup>rd</sup> Grade  | EL Students     | 2         | 3           | 66.7%      |
| District A | School A | 3 <sup>rd</sup> Grade  | Non-EL Students | 10        | 15          | 66.7%      |
| District A | School A | 4 <sup>th</sup> Grade  | All Students    | 17        | 22          | 77.3%      |
| District A | School A | 4 <sup>th</sup> Grade  | EL Students     | 7         | 10          | 70.0%      |
| District A | School A | 4 <sup>th</sup> Grade  | Non-EL Students | 10        | 12          | 83.3%      |
| District A | School A | All Grades             | All Students    | 29        | 35          | 82.9%      |
| District A | School A | All Grades             | EL Students     | 9         | 13          | 69.2%      |
| District A | School A | All Grades             | Non-EL Students | 20        | 22          | 90.9%      |
| District A | School B | 3 <sup>rd</sup> Grade  | All Students    | 5         | 7           | 71.4%      |
| District A | School B | 4 <sup>th</sup> Grade  | All Students    | 8         | 10          | 80.0%      |
| District A | School B | All Grades             | All Students    | 13        | 17          | 76.5%      |
| District C | School C | 12 <sup>th</sup> Grade | All Students    | 14        | 15          | 93.3%      |
| District C | School D | 12 <sup>th</sup> Grade | All Students    | 38        | 40          | 95.0%      |
| District C | School E | 12 <sup>th</sup> Grade | All Students    | 295       | 300         | 98.3%      |

## N<10

Any student group that has less than 10 students in the denominator has the numerator, denominator, and outcome data suppressed.

| District   | School   | Grade                 | Group           | Numerator  | Denominator | Percentage | Suppression Notes |
|------------|----------|-----------------------|-----------------|------------|-------------|------------|-------------------|
| District A | School A | 3 <sup>rd</sup> Grade | All Students    | 12         | 18          | 66.7%      |                   |
| District A | School A | 3 <sup>rd</sup> Grade | EL Students     | Suppressed | Suppressed  | Suppressed | N < 10            |
| District A | School A | 3 <sup>rd</sup> Grade | Non-EL Students | 10         | 15          | 66.7%      |                   |
| District A | School A | 4 <sup>th</sup> Grade | All Students    | 17         | 22          | 77.3%      |                   |
| District A | School A | 4 <sup>th</sup> Grade | EL Students     | 7          | 10          | 70.0%      |                   |
| District A | School A | 4 <sup>th</sup> Grade | Non-EL Students | 10         | 12          | 83.3%      |                   |
| District A | School A | All Grades            | All Students    | 29         | 35          | 82.9%      |                   |
| District A | School A | All Grades            | EL Students     | 9          | 13          | 69.2%      |                   |
| District A | School A | All Grades            | Non-EL Students | 20         | 22          | 90.9%      |                   |
| District A | School B | 3 <sup>rd</sup> Grade | All Students    | Suppressed | Suppressed  | Suppressed | N < 10            |
| District A | School B | 4 <sup>th</sup> Grade | All Students    | 8          | 10          | 80.0%      |                   |
| District A | School B | All Grades            | All Students    | 13         | 17          | 76.5%      |                   |
| District C | School C | 12th Grade            | All Students    | 14         | 15          | 93.3%      |                   |
| District C | School D | 12th Grade            | All Students    | 38         | 40          | 95.0%      |                   |
| District C | School E | 12th Grade            | All Students    | 295        | 300         | 98.3%      |                   |

## Top-Bottom Suppression

When the percentage for a student group exceeds a threshold (based on a formula explained below), their outcome is capped and the numerator is suppressed. The threshold is based on the number of students in the denominator and follows the formula [if the Percentage >  $1 - (3 \div \text{Denominator})$  or Percentage <  $(3 \div \text{Denominator})$  then it is capped at  $1 - (3 \div \text{Denominator})$  and  $3 \div \text{Denominator}$  rounded to the nearest hundredth, respectively]. Because we round to the nearest hundredth and do not display 0% or 100% a threshold of 0.4% would be rounded and displayed as <1% while a threshold of 99.6% would be rounded and displayed as >99%. Additionally, the threshold does not exceed the bottom or top 10% (e.g. given a denominator of 15 we would have a threshold value of .2, instead of setting our suppression value at 20% or 80% we would cap it at 10% and 90%)

| District   | School   | Grade                 | Group           | Numerator  | Denominator | Percentage | Suppression Notes                                |
|------------|----------|-----------------------|-----------------|------------|-------------|------------|--|
| District A | School A | 3 <sup>rd</sup> Grade | All Students    | 12         | 18          | 66.7%      |  |
| District A | School A | 3 <sup>rd</sup> Grade | EL Students     | Suppressed | Suppressed  | Suppressed | N<10   |
| District A | School A | 3 <sup>rd</sup> Grade | Non-EL Students | 10         | 15          | 66.7%      |  |
| District A | School A | 4 <sup>th</sup> Grade | All Students    | 17         | 22          | 77.3%      |  |
| District A | School A | 4 <sup>th</sup> Grade | EL Students     | 7          | 10          | 70.0%      |  |
| District A | School A | 4 <sup>th</sup> Grade | Non-EL Students | 10         | 12          | 83.3%      |  |
| District A | School A | All Grades            | All Students    | 29         | 35          | 82.9%      |  |
| District A | School A | All Grades            | EL Students     | 9          | 13          | 69.2%      |  |
| District A | School A | All Grades            | Non-EL Students | 20         | 22          | 90.9%      |  |
| District A | School B | 3 <sup>rd</sup> Grade | All Students    | Suppressed | Suppressed  | Suppressed | N<10   |
| District A | School B | 4 <sup>th</sup> Grade | All Students    | 8          | 10          | 80.0%      |  |
| District A | School B | All Grades            | All Students    | 13         | 17          | 76.5%      |  |
| District C | School C | 12th Grade            | All Students    | Suppressed | Suppressed  | >90.0%     | 3/Den=.2, rate capped at >90% (originally 93.3%) |
| District C | School D | 12th Grade            | All Students    | Suppressed | Suppressed  | >92.0%     | 3/Den=.08, rate set at >92% (originally 95.0%)   |
| District C | School E | 12th Grade            | All Students    | 295        | 300         | 98.3%      | 3/Den=.01, so rate not set (does not exceed 99%) |

## Within Group Suppression

In binary groups, if one group is suppressed (for any reason), the complimentary group is also suppressed. In non-binary groups (such as Federal race/ethnicity), if the sum of denominators for suppressed student groups does not exceed 10, then the next largest group is suppressed until the sum equals or exceeds 10 students.

| District   | School   | Grade                  | Group           | Numerator  | Denominator | Percentage | Suppression Notes   |
|------------|----------|------------------------|-----------------|------------|-------------|------------|---|
| District A | School A | 3 <sup>rd</sup> Grade  | All Students    | 12         | 18          | 66.7%      |   |
| District A | School A | 3 <sup>rd</sup> Grade  | EL Students     | Suppressed | Suppressed  | Suppressed | N < 10  |
| District A | School A | 3 <sup>rd</sup> Grade  | Non-EL Students | Suppressed | Suppressed  | 66.7%      | 3 <sup>rd</sup> Grade EL Students Suppressed, so this group is suppressed |
| District A | School A | 4 <sup>th</sup> Grade  | All Students    | 17         | 22          | 77.3%      |   |
| District A | School A | 4 <sup>th</sup> Grade  | EL Students     | 7          | 10          | 70.0%      |   |
| District A | School A | 4 <sup>th</sup> Grade  | Non-EL Students | 10         | 12          | 83.3%      |   |
| District A | School A | All Grades             | All Students    | 29         | 35          | 82.9%      |   |
| District A | School A | All Grades             | EL Students     | 9          | 13          | 69.2%      |   |
| District A | School A | All Grades             | Non-EL Students | 20         | 22          | 90.9%      |   |
| District A | School B | 3 <sup>rd</sup> Grade  | All Students    | Suppressed | Suppressed  | Suppressed | N < 10  |
| District A | School B | 4 <sup>th</sup> Grade  | All Students    | 8          | 10          | 80.0%      |   |
| District A | School B | All Grades             | All Students    | 13         | 17          | 76.5%      |   |
| District C | School C | 12 <sup>th</sup> Grade | All Students    | Suppressed | Suppressed  | >90.0%     | 3/Den=.2, rate capped at >90% (originally 93.3%)                          |
| District C | School D | 12 <sup>th</sup> Grade | All Students    | Suppressed | Suppressed  | >92.0%     | 3/Den=.08, rate set at >92% (originally 95.0%)                            |
| District C | School E | 12 <sup>th</sup> Grade | All Students    | 295        | 300         | 98.3%      | 3/Den=.01, so rate not set (does not exceed 99%)                          |

## Cross Grade/School/District Suppression

In cases where there is an “all” group (e.g., All Grades, All District) cross group suppression is also applied upward within student groups. For example, if the 3<sup>rd</sup> grade EL students are suppressed for N<10 or Top-Bottom Suppression, the next largest group of EL students (by grade level) is also suppressed. If a school’s All Grades EL students is suppressed, the next largest school in the district is also suppressed.

| District   | School   | Grade                 | Group           | Numerator  | Denominator | Percentage | Suppression Notes  |
|------------|----------|-----------------------|-----------------|------------|-------------|------------|--|
| District A | School A | 3 <sup>rd</sup> Grade | All Students    | 12         | 18          | 66.7%      |  |
| District A | School A | 3 <sup>rd</sup> Grade | EL Students     | Suppressed | Suppressed  | Suppressed | N<10   |
| District A | School A | 3 <sup>rd</sup> Grade | Non-EL Students | Suppressed | Suppressed  | 66.7%      | 3 <sup>rd</sup> Grade EL Students Suppressed, so this group is suppressed  |
| District A | School A | 4 <sup>th</sup> Grade | All Students    | 17         | 22          | 77.3%      |  |
| District A | School A | 4 <sup>th</sup> Grade | EL Students     | Suppressed | Suppressed  | 70.0%      | 3 <sup>rd</sup> Grade EL Students Suppressed, so this group is suppressed  |
| District A | School A | 4 <sup>th</sup> Grade | Non-EL Students | Suppressed | Suppressed  | 83.3%      | 4 <sup>th</sup> Grade EL Students Suppressed, so this group is suppressed  |
| District A | School A | All Grades            | All Students    | 29         | 35          | 82.9%      |  |
| District A | School A | All Grades            | EL Students     | 9          | 13          | 69.2%      |  |
| District A | School A | All Grades            | Non-EL Students | 20         | 22          | 90.9%      |  |
| District A | School B | 3 <sup>rd</sup> Grade | All Students    | Suppressed | Suppressed  | Suppressed | N<10   |
| District A | School B | 4 <sup>th</sup> Grade | All Students    | Suppressed | Suppressed  | 80.0%      | 3 <sup>rd</sup> Grade All Students Suppressed, so this group is suppressed |
| District A | School B | All Grades            | All Students    | 13         | 17          | 76.5%      |  |
| District C | School C | 12th Grade            | All Students    | Suppressed | Suppressed  | >90.0%     | 3/Den=.2, rate capped at >90% (originally 93.3%)                           |
| District C | School D | 12th Grade            | All Students    | Suppressed | Suppressed  | >92.0%     | 3/Den=.08, rate set at >92% (originally 95.0%)                             |
| District C | School E | 12th Grade            | All Students    | 295        | 300         | 98.3%      | 3/Den=.01, so rate not set (does not exceed 99%)                           |

## WSIF Suppression

The Washington School Improvement Framework (WSIF) uses 7 school measures to identify schools throughout Washington to receive additional supports from the Office of Systems and School Improvement. Because this is an evaluation of schools using student outcome data, suppression is applied based on the following rules:

Minimum N rule: A minimum sample size of 20 students over the three years of data is applied to all indicators. Student groups with less than 20 students in the below criteria are suppressed.

- Proficiency: Minimum N is applied to number of students expected to test, over a three year period, per content area per school. Grades included are 3-8 and 11.
- Student Growth: Minimum N is applied to number of students with a Student Growth Percentile, over a three year period, per content area per school. Student growth is calculated for grades 4-8.
- Graduation: Minimum N is applied to number of students in the 4-year graduation cohort aggregated over a three year period.
- English Language Progress: Minimum N is applied to number of students with two years of ELPA21 data, over a three year period, per school. There are now two years of progress, over three years of ELPA21 data, included in the measure. The minimum N will stay at 20, but it will only include the number of students with valid scores in 2015-16 and 2016-17 of the ELPA21, plus the number of students who transitioned in 2017-18 without a valid 2016-17 score.
- Regular Attendance: Minimum N is applied to number of students enrolled for more than 90 calendar days, over a three year period per school
- Ninth Grade On Track: Minimum N is applied to number of first time ninth graders that have attempted one or more credits, over a three year period, per school.
- Dual Credit Rate: Minimum N is applied to number of students taking any course at a 9-12 grade school, over a three year period.

Schools that have been opened for less than three years must meet the N size of 20 students over two years, or schools will not be evaluated in the WSIF.