
Report Card Policy and Technical Manual

For Report Cards Issued on October 12, 2017

Office of Accountability, Research, and Information Services
Oregon Department of Education
Salem, Oregon

OFFICE OF
ACCOUNTABILITY, RESEARCH,
& INFORMATION SERVICES 



It is the policy of the State Board of Education and a priority of the Oregon Department of Education that there will be no discrimination or harassment on the grounds of race, color, religion, sex, sexual orientation, national origin, marital status, age or disability in any educational programs, activities, or employment. Persons having questions about equal opportunity and nondiscrimination should contact the Deputy Superintendent of Public Instruction at the Oregon Department of Education.

This document was produced by the
Office of Accountability, Research, and Information Services
Oregon Department of Education
255 Capitol Street NE
Salem, OR 97310-0203

The Oregon Department of Education hereby gives permission to reproduce
and distribute any or all of this document.

Table of Contents

I.	Introduction	1
	Report Card Scope, Purpose, and Guiding Principles	1
	Guidelines for Reproducing and Distributing the Report Cards	2
	Objective of the Report Card Policy and Technical Manual	2
II.	Suspension of Summative School Ratings	3
III.	RC Summary	4
	School/District Information	4
	School Principal/District Superintendent Letter	5
	School/District Profile	5
	Overall School Rating	5
	Progress	5
	Outcomes	6
	Student Group Outcomes	6
	Curriculum and Learning Environment	6
IV.	RC Rating Details Report	7
	Overall School Rating	7
	Indicator Ratings	7
	Academic Achievement Indicator	8
	Academic Growth Indicator	8
	Student Group Growth Indicator	8
	Graduation Indicator	8
	Student Group Graduation Indicator	9
	Assessment Participation Determination	9
V.	Academic Achievement Indicator	10
	Business Rules	10
	Calculation of Combined Percent Met	12
	Assignment of Academic Achievement Points	13
	Determination of Academic Achievement Indicator Rating	14
VI.	The Oregon Growth Model	15
	Overview of the Growth Model	15
	Calculation of Student Achievement Growth	15
	Achievement Growth Aggregations	16
VII.	Academic Growth Indicator	17

Business Rules.....	17
Median Growth Percentile.....	19
Assignment of Academic Growth Points	20
Determination of the Academic Growth Indicator Rating.....	20
VIII. Student Group Growth Indicator	21
Business Rules.....	21
Median Growth Percentile.....	22
Assignment of Student Group Growth Points	23
Determination of the Student Group Growth Indicator Rating.....	24
IX. Graduation Indicator.....	26
Business Rules.....	26
Calculation of Adjusted Cohort Graduation Rate	27
Calculation of Combined Graduation Rate	27
Assignment of Graduation Points	27
Determination of the Graduation Indicator Rating	28
X. Student Group Graduation Indicator	29
Business Rules.....	29
Calculation of Adjusted Cohort Graduation Rate	30
Calculation of Combined Graduation Rate	31
Assignment of Graduation Points.....	31
Determination of the Student Group Graduation Indicator Rating.....	32
XII. Assessment Participation Determination	33
Business Rules.....	33
Calculation of Assessment Participation.....	35
Calculation of Assessment Participation Determination	36
XIII. Student Group Determinations	38
All Students	38
Economically Disadvantaged	38
English Learners	39
Students with Disabilities.....	39
Race/Ethnicity	39
Underserved Races/Ethnicities	40
Student Group Membership for Graduation Rates	40
XIV. Small and New School Rules	41
XV. Comparison Schools and Districts.....	43

Inclusion Rules	43
Student Demographic Variables	43
Component Calculation	43
Euclidean Distance	44
Size Filter	45
Twenty Most Similar Institutions	46
Like-School and Like-District Averages	46

List of Tables/Figures

Tables

Table 1.	Academic Achievement Indicator Points and Cutoffs by School Type and Subject	13
Table 2.	Academic Achievement Indicator Levels and Cutoffs	14
Table 3.	Example of Median Growth Percentiles by Subject	19
Table 4.	Academic Growth Indicator Points and Cutoffs	20
Table 5.	Academic Growth Indicator Levels and Cutoffs	20
Table 6.	Example of Median Growth Percentiles for Sample Student Groups	23
Table 7.	Student Group Growth Indicator Points and Cutoffs	24
Table 8.	Student Group Growth Indicator Points Calculation by Subject	24
Table 9.	Student Group Growth Indicator Levels and Cutoffs	25
Table 10.	Example of Adjusted Cohort Graduation Rates	27
Table 11.	Graduation Indicator Points and Cutoffs	28
Table 12.	Graduation Indicator Levels and Cutoffs	28
Table 13.	Example of Student Group Adjusted Cohort Graduation Rates	31
Table 14.	Student Group Graduation Indicator Points and Cutoffs	32
Table 15.	Student Group Graduation Indicator Levels and Cutoffs	32
Table 16.	Example of Student Group Participation Rates and Applied Rate	37
Table 17.	Example of Student Group Assessment Participation Determinations	37
Table 18.	Demographic Variable Weights for the Two School Components	44
Table 19.	Demographic Variable Weights for the Two District Components	44
Table 20.	Application of Size Filter to School B and Corresponding Comparators	46

Figures

Figure 1.	Euclidean Distance between School A and School B	45
Figure 2.	Maximum Euclidean Distance for School B	45

I. Introduction

The Oregon Legislature created the school and district report cards in 1999. This legislation required the Oregon Department of Education (ODE) to produce and issue a report card to all public schools and districts in the state of Oregon on or before December 15 of each year. Per Oregon Revised Statutes (ORS) [329.105](#) and [329.115](#), report cards must contain data from the most recent school year (if available) and meet the requirements of state and federal laws. The aim of the report cards is to provide clear, meaningful, and relevant information to parents, educators, community members, and other stakeholders concerning public school and district performance, improvement, and accountability.

In 2012, as part of Oregon’s approved ESEA flexibility waiver, the ODE redesigned the school and district report cards to better convey how schools and districts are doing at ensuring students achieve college and career readiness. The purpose of the report card redesign was to (a) more accurately reflect student learning and growth, (b) incorporate key measures of college and career readiness, (c) align the report card with district achievement compacts, and (d) make the report cards more user-friendly and accessible. The report card redesign included a stakeholder and public engagement process to make design, content, and methodology recommendations. This included public outreach efforts (i.e., focus groups and several online surveys) and the creation of a Report Card (RC) Steering Committee consisting of 17 members representing a diverse assortment of stakeholders throughout Oregon. The RC Steering Committee met twice per month from September 2012 to March 2013. Staff from the ODE attended each committee meeting in an advisory capacity. In addition to school and district data as required by Oregon’s ESEA flexibility waiver and other federal/state laws, the redesigned report cards included the recommendations from the RC Steering Committee (e.g., school principal/district superintendent letter, school/district demographic profile, comparison school rating, like-school and like-district averages, and curriculum and learning environment data). Please see the [School and District Report Card Redesign 2012-2013](#) webpage for further details.

Report Card Scope, Purpose, and Guiding Principles

The report cards are an annual snapshot of school and district performance, improvement, and accountability. They display valid, stable, and reliable data that are also comparable across schools and districts within the state of Oregon. The report cards contain a large amount of data pertaining to a wide variety of education indicators (e.g., demographics, school performance on statewide assessments, graduation, curriculum and learning environment, etc.). The purpose of the report cards is to

communicate information to parents, educators, and communities about how schools are doing at ensuring students achieve college and career readiness while meeting the legislative expectation for school and district accountability. As such, the report cards should:

- Be clear, concise, well-defined, and understandable
- Use information that is valid, stable, and reliable
- Include all students
- Report current levels of performance and improvement over time
- Rate school performance
- Be part of a larger accountability system
- Meet federal and state requirements

Guidelines for Reproducing and Distributing the Report Cards

Districts are responsible for ensuring that the report cards reach the parents of children enrolled in Oregon public schools. As prescribed in Oregon Administrative Rule (OAR) [581-022-2255](#), parents must receive a copy of the report cards by January 15 of each year. While many districts choose to mail report cards to parents, it is important to note that this is not a requirement. Districts have discretion concerning the method they use to distribute report cards to parents and communities. Alternative distribution methods, according to OAR [581-022-2255](#), include electronically sending a copy, providing a link to a state or district web site containing the reports, or making copies available in local schools, libraries, parent centers, community centers, or other public locations easily accessible to parents and community members. The 2016-17 report card (RC) summaries and RC rating details reports are available for download from the [Report Card Download webpage](#). For further information concerning the report cards, please contact Dr. Jonathan Wiens at jon.wiens@state.or.us, Dr. W. Joshua Rew at josh.rew@state.or.us, or Dr. Kia Sorensen at kia.sorensen@state.or.us.

Objective of the Report Card Policy and Technical Manual

This manual is a compilation of policies and technical details pertaining to the RC summaries and RC rating details reports. This includes a description of the procedures, business rules, and calculations for each data element and indicator rating that appear on the RC summary or RC rating details report.

II. Suspension of Summative School Ratings

The summative school rating was a requirement of [Oregon's ESEA flexibility waiver](#) as well as ORS [329.105](#) and OAR [581-022-2255](#). Beginning in 2012-13, the RC summaries and RC rating details reports displayed summative school ratings (i.e., overall school rating and comparison school rating) for each school. However, the ODE received approval from the U. S. Department of Education (USED) to suspend the assignment of summative school ratings in 2014-15 as schools and districts transitioned from administering the Oregon Assessment of Knowledge and Skills (OAKS) to the Smarter Balanced (SB) assessments. The ODE suspended the summative school ratings in 2015-16 due to the recent passage of the [Every Student Succeeds Act](#) (ESSA) and the expiration of Oregon's ESEA flexibility waiver on August 1, 2016. Moreover, the ODE intends to suspend the summative school ratings in 2016-17 as part of the transition to the new school accountability system under ESSA.

The rationale for the suspension of summative school ratings from 2014-15 to 2016-17 are threefold:

- (1) Reduce potential accountability confusion during the transition from Oregon's legacy statewide assessments to assessments aligned with college and career readiness.
- (2) Respect the legislative intent of [House Bill 2680](#) which prohibited the use of 2014-15 Smarter Balanced assessment data in the calculation of summative school ratings.
- (3) Facilitate Oregon's transition from ESEA flexibility to ESSA.

It is important to note that the suspension of summative school ratings does not absolve the ODE from reporting the performance of students by each data element and indicator. Thus, the RC summaries and RC rating details reports will continue to display achievement, growth, graduation, and assessment participation data for each student group (i.e., all students, economically disadvantaged, English learners, students with disabilities, students by race or ethnicity—see [Student Group Determinations](#)). Moreover, the ODE will continue to report the indicator and student group indicator ratings for academic achievement, academic growth, and graduation as well as the assessment participation determination on the RC rating details report as it did in 2015-16.

III. RC Summary

As stated in the [Introduction](#), the aim of the report cards (i.e., RC summary and RC rating details report) is to provide clear, meaningful, and relevant information to parents, educators, community members, and other stakeholders concerning public school and district performance, improvement, and accountability. The primary objective of the RC summary is to display a concise summary of essential school and district data to a specific target audience¹ (i.e., parents, educators, and community members). The RC summary consists of the following sections:

- School/district information
- School principal/district superintendent letter
- School/district profile
- Overall school rating
- Progress
- Outcomes
- Student group outcomes
- Curriculum and learning environment
- Federal title I designation

School/District Information

The school/district information section is found within the header on each page of the RC summary, and displays the school and district name (district name only on the district RC summary), the address, phone number, school or district web address, grades served (i.e., the lowest and highest grade offered at the institution), and the school principal and district superintendent names for the 2017-18 school year. The information for this section comes from the Institutions Database and school/district personnel can validate the school/district information via the [Institutions for Accountability Reporting Validation](#) within the Achievement Data Insight (ADI).

¹ Note that the RC rating details report has a different target audience than the RC summary, given the technical data it displays (e.g., academic growth). While the ODE encourages and invites the public to use the RC rating details report as a supplement to the RC summary, the primary audience for the RC rating details report includes, but is not limited to, school and district personnel, applied researchers from colleges and universities, and staff from community-based organizations with technical knowledge and expertise pertaining to the use, interpretation, and calculation of complex data.

School Principal/District Superintendent Letter

This section is found on page 1 of each RC summary and is a narrative message from the school's principal or district's superintendent that contains information regarding the institution's (i.e., school or district) performance, interventions, initiatives, expectations, or other important details. School principals, district superintendents, or authorized designees submit the narrative message in English and Spanish via the [Report Card Narrative Collection](#) within the ADI.

School/District Profile

This section is found on page 1 of the school RC summary and pages 1-2 of the district RC summary. The school and district profiles display information which describes the context of the institution, such as enrollment (i.e., total and by grade band), demographics (i.e., percent of student by race/ethnicity, percent of students who are economically disadvantaged, percent of students with disabilities, and percent of English learners²), class size by classroom or subject, and additional contextual information (e.g., immunization rates, percent of regular attenders, percent of mobile students, and the unique number of different home languages spoken by students).

Overall School Rating

This section is only found on page 1 of the school RC summary and typically shows two summative ratings for each school: the overall school rating and the school comparison rating. However, it is important to note that this section will not display summative ratings on the 2016-17 school RC summary (see [Suspension of Summative School Ratings](#) for more information).

Progress

This section is found on page 2 of the school RC summary and page 3 of the district RC summary. It displays student participation and performance on statewide assessments. The performance data are longitudinal with three years of English language arts and mathematics performance (i.e., 2014-15 to 2016-17) and four years of science performance (i.e., 2013-14 to 2016-17). Moreover, this section displays a **Yes** or **No** checkbox indicating whether at least 95 percent of students in the school or district took all required statewide assessments (i.e., English language arts, mathematics, and science).

² The English learner student group on the RC summary refers to "Ever" English learners (i.e., the combination of current and former English learners).

Outcomes

This section is found on page 2 of the high school RC summary and page 4 of the district RC summary. It displays longitudinal (i.e., four consecutive years) high school and post-secondary outcomes, including college and career readiness (i.e., freshman on-track), graduation rate (i.e., four-year cohort graduation rate), completion rate (i.e., five-year cohort completion rate), dropout rate, and continuing education (i.e., post-secondary enrollment rate).

Student Group Outcomes

This section is found on page 2 of the elementary and middle school RC summary, page 3 of the high school RC summary, and page 4 of the district RC summary. It displays important outcome data by student group for only the most current year available. The student group outcomes section does not present the same data elements across institution types. For instance, the student group outcomes section on the elementary and middle school RC summary shows English language arts, mathematics, and science performance for fourteen student groups (i.e., race/ethnicity and gender as well as economically disadvantaged, English learners³, students with disabilities, migrant students, and talented and gifted students). On the other hand, the student group outcomes section on the high school and district RC summary presents freshman on track, graduation, completion, and dropout data for the same fourteen student groups as shown on the elementary and middle school RC summary.

Curriculum and Learning Environment

This section is found on page 3 of the elementary and middle school RC summary, pages 3-4 of the high school RC summary, and pages 5-6 of the district RC summary. It displays information provided by the school or district concerning specific programs and activities pertaining to the improvement of student learning. The programs and activities fall under the following categories: school readiness, academic support, academic enrichment, career and technical education, and extracurricular activities. School principals, district superintendents, or authorized designees submit the curriculum and learning environment narratives in English and Spanish via the [Report Card Narrative Collection](#) within the ADI.

³ The English learner student group on the RC summary refers to “Ever” English learners (i.e., the combination of current and former English learners).

IV. RC Rating Details Report

The RC rating details report describes the overall school rating, the rating methodology, the rating for each indicator (i.e., academic achievement, academic growth, student group growth, graduation, and student group graduation), each student group indicator rating, and the assessment participation determination by student group. Note that the RC rating details report will not show overall school ratings (see [Suspension of Summative School Ratings](#) for more information). It is a companion and supplement to the RC summary; however, unlike the RC summary, the target audience is not the public at-large but school and district personnel, applied researchers from colleges and universities, and staff from community-based organizations with technical knowledge and expertise pertaining to the use, interpretation, and calculation of complex data. The RC rating details report consists of the following sections:

- Overall school rating
- Indicator ratings
- Academic achievement indicator
- Academic growth indicator
- Student group growth indicator
- Graduation indicator
- Student group graduation indicator
- Assessment participation determination

Overall School Rating

This section is only relevant to elementary, middle, and high schools. It typically provides a summary of indicator ratings (including levels, percent of points earned, weights, and weighted points), weighted percent of points, overall rating cutoffs, missed participation target indicator, and the federal reporting designation. However, it is important to note that this section will not display the weights for each indicator, weighted percent of points, and the overall school rating on the 2016-17 RC rating details report (see [Suspension of Summative School Ratings](#) for more information).

Indicator Ratings

This section is only relevant to elementary, middle, and high schools. It provides a summary of student group indicator ratings (including levels, points earned, and points eligible), summary of indicator ratings (including level and percent of points earned), and indicator rating cutoffs. The indicator ratings are the

ratings for the academic achievement, academic growth, student group growth, graduation, and student group graduation indicators.

Academic Achievement Indicator

This section provides a summary of English language arts and mathematics achievement by student group (including level, number of tests, percent level 3 or 4, and combined percent met) and the achievement rating cutoffs. The definition of the academic achievement indicator rating is the points a school earns according to the percent of students who meet the state achievement standards on English language arts and mathematics assessments in grades 3 through 8 and 11 (see [Academic Achievement Indicator](#)).

Academic Growth Indicator

This section provides a summary of English language arts and mathematics growth for all students in the school (including level, number of students, median growth percentile), combined median growth percentile, and growth rating cutoffs. The definition of the academic growth indicator rating is the points a school earns according to the value of the median growth percentile (see [Academic Growth Indicator](#)). Moreover, see [The Oregon Growth Model](#) for more information about the growth model Oregon uses for school and district accountability.

Student Group Growth Indicator

This section provides a summary of English language arts and mathematics growth by student group (including level, number of students, median growth percentile), combined median growth percentile, and the growth rating cutoffs. The definition of the student group growth indicator rating is the points a school earns according to the value of the median growth percentile for four specific student groups: economically disadvantaged, English learners, students with disabilities, and underserved races/ethnicities (see [Student Group Growth Indicator](#)). Similarly, see [The Oregon Growth Model](#) for more information about the growth model Oregon uses for school and district accountability.

Graduation Indicator

This section is only relevant to high schools and districts, and provides a summary of the four-year and five-year adjusted cohort graduation rates for all students in the school (including level, adjusted cohort, graduation rates, and combined graduation rate) and the graduation rating cutoffs. The definition of the

graduation indicator rating is the points a school earns according to the value of the highest four-year or five-year adjusted cohort graduation rate (see [Graduation Indicator](#)).

Student Group Graduation Indicator

Similar to the graduation rating indicator, this section is only relevant to high schools and districts, and provides a summary of the four-year and five-year adjusted cohort graduation rates by student group (including level, adjusted cohort, graduation rates, and combined graduation rate) and the graduation rating cutoffs. The definition of the student group graduation indicator rates is the points a school earns according to the value of the highest four-year or five-year adjusted cohort graduation rate for four specific student groups: economically disadvantaged, English learners, students with disabilities, and underserved races/ethnicities (see [Student Group Graduation Indicator](#)).

Assessment Participation Determination

The last section of the RC rating details report describes participation in statewide assessments as well as the assessment participation determination. Specifically, this section provides a summary of English language arts and mathematics assessment participation by student group, including status, number of participants and non-participants, participation rates (i.e., current, prior, and combined), and the applied rate. The definition of the assessment participation determination (i.e., the status field) is whether the student group met the participation target of 94.5 percent on the current or combined participation rate (see [Assessment Participation Determination](#) for more details).

V. Academic Achievement Indicator

The academic achievement indicator is the first of five rating indicators. The focal determinant of the academic achievement indicator for each school is the percent of students who meet the state achievement standards on English language arts and mathematics assessments in grades 3 through 8 and 11. The academic achievement indicator section consists of the following parts: business rules, calculation of combined percent met, assignment of academic achievement points, and the determination of the academic achievement indicator rating.

Business Rules

The business rules for the academic achievement indicator pertain to (a) the inclusion of students in the rating, (b) minimum n-size requirement to receive a rating, (c) reporting of student group achievement, and (d) the suppression of achievement results to protect student confidentiality. The student inclusion rules are identical to those from previous RC summaries and rating details reports as well as the [Adequate Yearly Progress \(AYP\) reports](#). To view a full description of the inclusion rules, please see the [Assessment Inclusion Rules for Accountability Reporting](#). The academic achievement indicator for each school includes students who:

- are a resident at the school on the first school day in May (as submitted in the 3rd Period Cumulative Average Daily Membership [ADM] collection),
- are enrolled in grades 3 to 8 or 11,
- are full academic year⁴ at their “May 1” institution,
- have a valid test⁵, and
- are not a first-year English learner.

Additional student inclusion rules are the following:

- The academic achievement indicator credits the student’s score to the school where he or she was enrolled on the first school day in May (even if the student earned the score in another school and district prior to first school day in May).

⁴ Full academic year refers to a student with enrollment in a school or district for more than one-half of the instructional days prior to the first school day in May. This definition does not require the enrollment to be continuous or consecutive, and it may be part time or full time. The ODE calculates the full academic year (FAY) flag as part of the 3rd Period Cumulative ADM collection and inserts it in the assessment data. The FAY flag identifies students as enrolled for a full academic year when their ADM within a resident school is greater than 0.5.

⁵ A valid test record is a completed or partial test from either Smarter Balanced (where a student responds to at least five computer adaptive items or one performance task item) or the Extended assessment.

- Students repeating 11th grade may have taken the English language arts or mathematics assessment in a previous school year. The ODE will treat scores from previous school years as valid test scores for the current school year only if the score meets the high school achievement standard. The academic achievement indicator rating only uses the highest score if more than one valid test score is available.
- Extended assessments in 2015-16 and 2016-17 are not subject to a one percent cap on performance. However, under ESSA starting in 2017-18, there will be a one percent cap on participation⁶.

Schools receive an academic achievement indicator rating if they meet the minimum n-size requirements⁷. These requirements are as follows for English language arts and mathematics:

- All schools will receive an academic achievement indicator rating if they have at least 40 tests for the two most recent school years in either English language arts or mathematics.
- Small schools will receive an academic achievement indicator rating using three years of assessment data if they have fewer than 40 tests for the two most recent school years in either English language arts or mathematics.
- Schools will not receive an academic achievement indicator rating if they have fewer than 40 tests for the three most recent school years.

Student group achievement results are not part of the academic achievement indicator rating. However, the RC rating details report displays student group achievement and provides the Measure of Interim Progress (MIP)⁸ for each subject. Schools can determine whether student groups meet the MIP by comparing it to the “percent of students at Level 3 or Level 4” for the respective student group. The RC rating details report displays the achievement of following student groups⁹:

- All Students
- Economically Disadvantaged
- English Learners (i.e., current and monitored)
- Students with Disabilities
- American Indian/Alaska Native
- Asian

⁶ Please see [Strategies for Meeting the 1% State-level Cap on Participation in the Alternate Assessment](#) for further details.

⁷ Please see [Small and New School Rules](#) for further information concerning how the ratings treat small schools.

⁸ Please see [Measures of Interim Progress](#) for further information concerning MIP for 2016-17 through 2024-25.

⁹ Please see [Student Group Determinations](#) for further information concerning the rules to determine student group membership.

- Black/African American
- Hispanic/Latino
- Native Hawaiian/Pacific Islander
- White
- Multi-Racial
- Underserved Races/Ethnicities (i.e., students who identify as belonging to the following racial/ethnic groups: American Indian/Alaska Native, Black/African American, Hispanic/Latino, and Native Hawaiian/Pacific Islander)

The RC rating details report suppresses the achievement results (i.e., counts and percentages) for all schools and student groups that meet suppression criteria in order to protect student confidentiality.

The suppression criteria include the following:

- All counts of tests less than six and corresponding percentages receive an “*”.
- All percentages greater than 95% receive “> 95%” and corresponding counts receive an “*”.
- All percentages less than 5% receive “< 5%” and corresponding counts receive an “*”.

Calculation of Combined Percent Met

The RC rating details report displays the counts of tests and the percent of students meeting the state achievement standards in English language arts and mathematics for the 2016-17 school year.

Additionally, the RC rating details report displays the combined percent met that represents the percent of all students meeting in the 2015-16 and 2016-17 school years. Note that the RC rating details report rounds all percentages to the nearest tenth of a percent. The calculation of the combined percent met includes the following:

- Numerator = total number of students who are enrolled in the school on the first school day in May for a full academic year¹⁰ with a valid test score meeting the achievement standard (in 2015-16 and 2016-17).
- Denominator = total number of students who are enrolled in the school on the first school day in May for a full academic year with a valid test (in 2015-16 and 2016-17).
- Combined percent met¹¹ = numerator ÷ denominator.

¹⁰ Full academic year refers to a student with enrollment in a school or district for more than one-half of the instructional days prior to the first school day in May. This definition does not require the enrollment to be continuous or consecutive, and it may be part time or full time. The ODE calculates the full academic year (FAY) flag as part of the 3rd Period Cumulative ADM collection and inserts it in the assessment data. The FAY flag identifies students as enrolled for a full academic year when their ADM within a resident school is greater than 0.5.

¹¹ The calculation of combined percent met for “three-year schools” is similar except the numerator and denominator consist of an additional year of assessment data. For instance, the numerator will consist of the number of students meeting the achievement standard in 2014-15, 2015-16, and 2016-17. The denominator will consist of the number of students with valid tests in 2014-15, 2015-16, and 2016-17.

Assignment of Academic Achievement Points

The academic achievement indicator rating uses a five-point scale with cutoffs to assign points to schools for their English language arts and mathematics achievement. Schools receive one to five points according to whether their combined percent met for English language arts or mathematics is above or below a specific cutoff. The total possible points a school can earn is ten (i.e., five points for English language arts and five for mathematics). The following criteria determine the cutoffs for each of the five points:

- **5 points:** Schools who receive five points are in the top 10 percent of all schools in the state for the combined percent met in English language arts or mathematics. Note that these schools meet the MIP.
- **4 points:** Schools who receive four points meet the MIP but are not in the top 10 percent of all schools.
- **3 points:** Schools who receive three points do not meet the MIP but are not in the lowest 15 percent of schools.
- **2 points:** Schools who receive two points are in the lowest 15 percent of schools in terms of combined percent met but not in the lowest 5 percent.
- **1 point:** Schools who receive one point are in the lowest 5 percent of all schools in the state for combined percent met in English language arts or mathematics.

The following table describes the point scale and cutoffs for the 2016-17 school year.

Table 1. Academic Achievement Indicator Points and Cutoffs by School Type and Subject

Points	Elementary/Middle		High	
	English Language Arts	Math	English Language Arts	Math
5	73.6 & above	65.4 & above	82.3 & above	50.8 & above
4	57.0 to 73.5	47.0 to 65.3	57.0 to 82.2	47.0 to 50.7
3	35.9 to 56.9	26.7 to 46.9	45.6 to 56.9	19.2 to 46.9
2	27.3 to 35.8	19.0 to 26.6	34.5 to 45.5	9.8 to 19.1
1	Less than 27.3	Less than 19.0	Less than 34.5	Less than 9.8

Note that the MIP¹² are different for each subject; however, they are identical for each school type (i.e., elementary, middle, or high school). For the purposes of accountability, high schools are those schools with grade 10 or higher regardless of whether they also have elementary or middle school grades.

Determination of Academic Achievement Indicator Rating

The academic achievement indicator rating consists of five levels. Each level corresponds to the percent of total points (i.e., *(English language arts + mathematics points)/total possible points*) a school earns above a cutoff. It is important to note that the percent of points a school earns is not equivalent to the percent of students who meet the state achievement standards on English language arts and mathematics assessments. The following table lists the academic achievement indicator rating levels and cutoffs. For instance, a Level 5 rating refers to a school that earns 90 percent of possible points. This also signifies that the school is in the top ten percent of all schools in at least one subject (i.e., five points).

Table 2. Academic Achievement Indicator Levels and Cutoffs

Rating	Percent of Points Earned
Level 5	90% & above
Level 4	70% to 89.9%
Level 3	50% or 69.9%
Level 2	30% or 49.9%
Level 1	Less than 30%

¹² Please see [Measures of Interim Progress](#) for further information concerning MIP for 2016-17 through 2024-25.

VI. The Oregon Growth Model

An important feature of the school and district accountability system is student achievement growth by institution and student group. Student achievement growth refers to a student's progress on English language arts and mathematics assessments from year to year as compared to similar students. This section summarizes the Oregon growth model, the calculation of student achievement growth, and institution and student group aggregations of achievement growth.

Overview of the Growth Model

The Oregon growth model is a statistical model that provides a description of each student's achievement growth on English language arts and mathematics assessments from year to year as compared to similar students. Oregon adopted this growth model to obtain a waiver from specific provisions of the No Child Left behind (NCLB) Act. Moreover, it is an adaptation of Colorado's growth model and specifically takes into account Oregon's assessment and accountability system.

Calculation of Student Achievement Growth

The Oregon growth model calculates an estimate of achievement growth using current and past achievement scores, and expresses a student's achievement growth as a percentile. This percentile is known as a student growth percentile, and it is a normative measure of achievement growth. It specifically reflects a student's current achievement ranking as compared to his or her academic peers (i.e., students in the same grade who have similar past achievement scores for the same subject). For instance, a student growth percentile of 50 indicates that a student's current achievement is equal to or greater than 50 percent of academic peers with similar achievement histories.

The Oregon growth model uses the scores from English language arts and mathematics assessments for students in the 3rd through 8th and 11th grades. Moreover, it only includes students with at least two consecutive achievement scores (i.e., a current score and at least one but as many as three prior achievement scores in typical years). The exception is growth for students in high school, given that the current score is from 11th grade and the prior score is from 8th grade. Note that the Oregon growth model does not calculate student growth percentiles for 3rd grade students because they lack prior achievement scores. It will not calculate student growth percentiles for students who take Extended assessments, are missing the current achievement score, or have irregular grade sequences due to retention or acceleration.

Achievement Growth Aggregations

The ODE calculates institution and student group measures of student achievement growth from English language arts and mathematics assessments using output from the Oregon growth model. These institution and student group measures are median growth percentiles (i.e., aggregates of student growth percentiles). They represent the typical achievement growth in English language arts and mathematics for schools, districts, and their respective student groups (see [Academic Growth Indicator](#) and [Student Group Growth Indicator](#)).

VII. Academic Growth Indicator

The academic growth indicator is the second of five rating indicators. The focal determinant of the academic growth indicator for each school is the median growth percentile. As noted in [The Oregon Growth Model](#), the median growth percentile is an aggregate measure of student achievement growth on English language arts and mathematics assessments. The academic growth indicator section consists of the following parts: business rules, median growth percentile, assignment of academic growth points, and determination of the academic growth indicator rating.

Business Rules

The business rules for the academic growth indicator pertain to (a) the inclusion of students in the rating, (b) minimum n-size requirement to receive a rating, (c) the reporting of growth, and (d) the suppression of growth results to protect student confidentiality. The bulk of student inclusion rules are identical to those from previous RC summaries and rating details report as well as the [AYP reports](#) under NCLB. To view a full description of the inclusion rules, please see the [Assessment Inclusion Rules for Accountability Reporting](#). The inclusion rules that deviate from the previous reports pertain to the requirement that students must have two or more years of assessment data for inclusion in the Oregon growth model. The academic growth indicator for each school will include students who:

- are part of the achievement rating (see [Academic Achievement Indicator](#)),
- are residents at the school on the first school day in May (as submitted in the 3rd Period Cumulative ADM collection),
- are enrolled in grades 4 through 8 or 11,
- are full academic year¹³ at their “May 1” institution,
- have a valid test, and
- are not a first-year English learner.

Additional student inclusion rules are the following:

- The growth rating excludes students who take Extended assessments, are missing the current achievement score, or have irregular grade sequences due to retention or acceleration.

¹³ Full academic year refers to a student with enrollment in a school or district for more than one-half of the instructional days prior to the first school day in May. This definition does not require the enrollment to be continuous or consecutive, and it may be part time or full time. The ODE calculates the FAY flag as part of the 3rd Period Cumulative ADM collection and inserts it in the assessment data. The FAY flag identifies students as enrolled for a full academic year when their ADM within a resident school is greater than 0.5.

- Students in grades four through eight must (a) have valid achievement scores from prior school years, (b) not be a first-year English learner in prior school years, and (c) be a resident in an Oregon school on the first school day in May for prior school years.
- Students in the eleventh grade must (a) have a valid eighth grade achievement score from a prior school year, (b) not be a first-year English learner for the year of their eighth grade achievement score, and (c) be a resident in an Oregon school on the first school day in May for the year of their eighth grade achievement score.
- The academic growth indicator credits the student's score to the school where he or she was enrolled on the first school day in May (even if the student earned the score in another school and district prior to May 1).

Schools receive an academic growth indicator rating if they meet the minimum n-size requirements¹⁴. If schools use four years of data for the academic achievement indicator rating, they will also use four years of data for the academic growth indicator rating. The minimum size requirements are the following:

- Schools will receive a growth rating if they have (a) at least 40 tests in the academic achievement indicator rating and (b) at least 30 students with growth percentiles.

The rationale for the minimum n-size of 30 student growth percentiles is twofold. First, a large number of elementary schools in Oregon serve kindergarten through fifth grade. While students in these schools take assessments in the third through fifth grades, only fourth and fifth grade students will have growth percentiles (approximately two-thirds of students taking assessments in these respective schools). Thus, a suitable minimum n-size for the academic growth indicator rating is two-thirds of 40 (i.e., the minimum n-size for the academic achievement indicator rating) or approximately 30 students with growth percentiles after rounding to the nearest ten. Second, the ODE conducted a simulation¹⁵ to determine the influence of n-size on the stability of the standard errors of medians. Findings from the simulation suggested that the standard error of the median reaches a reasonable level of stability at an n-size of 30.

¹⁴ Please see [Small and New School Rules](#) for further information concerning how the ratings treat small schools.

¹⁵ The simulation consisted of (a) a random uniform distribution of 300,000 cases with values ranging from zero to one, (b) 10,000 random samples of size five through seventy-five, (c) calculation of sample median, and (d) calculation of the standard error of the median for each set of 10,000 random samples.

The RC rating details report will suppress the growth results (i.e., counts and medians) for all schools that meet suppression criteria in order to protect student confidentiality. The suppression criteria include the following:

- Student counts less than six will receive an “*”.
- Median growth percentiles will receive an “*” if the student count is less than six.

Median Growth Percentile

The aggregate measure of student achievement growth is the median growth percentile. It represents the typical achievement growth at the respective school. A median is a measure that describes the middle value within a set of values. Thus, the median growth percentile indicates that 50 percent of students in the school exhibit achievement growth above and below the median. For instance, let’s suppose a school has seven students with the following growth percentiles: 37, 58, 39, 65, 46, 51, and 57. To determine the median growth percentile, it is necessary to rank order the growth percentiles (i.e., 37, 39, 46, 51, 57, 58, and 65) and select the middle growth percentile. The middle value or median growth percentile for this school is 51. Note that, if the number of student growth percentiles is even, the median growth percentile is the average of the two middle values. This can produce a median growth percentile that is not a whole number (e.g., 51.5).

The RC rating details report displays the median growth percentiles for each school year (e.g., 2015-16 and 2016-17). Also, it displays a combined median growth percentile representing the two most recent school years. This is not the average of the two medians. Rather, the combined median growth percentile is the combination of two years of student growth percentiles, the rank order of the growth percentiles, and the selection of the middle value. Note that the “combined” median growth percentile for small schools will include three years of student growth percentiles. Finally, the RC Rating details report shows median growth percentiles at the nearest tenth. The following table is an example of English language arts and mathematics median growth percentiles for a sample school.

Table 3. Example of Median Growth Percentiles by Subject

Subject	Median Growth		Combined Median
	2015-16	2016-17	
English Language Arts	39.0	51.5	45.0
Math	53.0	56.0	54.5

Assignment of Academic Growth Points

The academic growth indicator rating uses a five-point scale with cutoffs to assign schools points for their English language arts and mathematics achievement growth. Schools receive one to five points according to whether their median growth percentile for English language arts or mathematics is above or below a specific cutoff. The total possible points a school can earn is ten (i.e., five points for mathematics and five for English language arts). The following table describes the point scale and cutoffs.

Table 4. Academic Growth Indicator Points and Cutoffs

Points	Point Cutoffs for Elementary, Middle, High, and Combined Schools
5	65.0 & above
4	50.0 to 64.5
3	40.0 to 49.5
2	35.0 to 39.5
1	Less than 35.0

Determination of the Academic Growth Indicator Rating

The academic growth indicator rating consists of five levels. Each level corresponds to the percent of total points (i.e., *(English language arts + mathematics) / total possible points*) a schools earns above a cutoff. The following table lists the academic growth indicator rating levels and cutoffs. For instance, a Level 5 rating refers to a school that earns 90 percent of possible points. This also signifies that the school is in the top ten percent of all schools in at least one subject (i.e., five points).

Table 5. Academic Growth Indicator Levels and Cutoffs

Rating	Percent of Points Earned
Level 5	90% & above
Level 4	70% to 89.9%
Level 3	50% or 69.9%
Level 2	30% or 49.9%
Level 1	Less than 30%

VIII. Student Group Growth Indicator

The student group growth indicator is the third of five rating indicators. The focal determinant of the student group growth indicator for each student group is the median growth percentile. As noted in [The Oregon Growth Model](#), the median growth percentile is an aggregate measure of student achievement growth on English language arts and mathematics assessments. The student group growth indicator section consists of the following parts: business rules, median growth percentile, assignment of student group growth points, and determination of the student group growth indicator rating.

Business Rules

The business rules for the student group growth indicator pertain to (a) the inclusion of students in the rating, (b) minimum n-size requirement to receive a rating, (c) reporting of student group growth, and (d) the suppression of growth results to protect student confidentiality. The student inclusion rules for the student group growth indicator are identical to those for the academic growth indicator. The student growth indicator for each school will include students who are part of the academic achievement indicator (see [Academic Achievement Indicator](#)) and the academic growth indicator (see [Academic Growth Indicator](#)).

Student groups within a school receive a student group growth indicator rating if they meet the minimum n-size requirements¹⁶. These requirements are the following:

- All student groups within schools will receive a student group growth indicator rating if they have (a) at least 40 tests in the academic achievement indicator rating and (b) at least 30 students with growth percentiles.
- Student groups within schools will not receive a student group growth indicator rating if they have less than 30 students with growth percentiles or if they have fewer than 40 tests in the student group achievement calculation.
- The student group growth indicator rating for most student groups will use two years of data; however, the student group growth indicator rating at small schools will use three years of data.

¹⁶ Please see [Small and New School Rules](#) for further information concerning how the ratings treat small schools.

The rationale for the minimum n-size of 30 student growth percentiles for each student group is identical to that for the academic growth indicator (see [Academic Growth Indicator](#)). The RC rating details report displays the student group growth indicator for the following student groups¹⁷:

- **Economically Disadvantaged**
- **English Learners (i.e., current and monitored)**
- **Students with Disabilities**
- American Indian/Alaska Native
- Asian
- Black/African American
- Hispanic/Latino
- Native Hawaiian/Pacific Islander
- White
- Multi-Racial
- **Underserved Races/Ethnicities**

The student group growth indicator rating only includes the above subgroups in **bold**. Specifically, the growth for students who are **Economically Disadvantaged, English Learners, Students with Disabilities, and Underserved Races/Ethnicities** will determine the student group growth indicator. Note that **Underserved Races/Ethnicities** includes students who are American Indian/Alaska Native, Black/African American, Hispanic/Latino, or Native Hawaiian/Pacific Islander.

The RC rating details report suppresses the growth results (i.e., counts and medians) for all student groups that meet suppression criteria in order to protect student confidentiality. The suppression criteria include the following:

- Student counts less than six will receive an “*”.
- Median growth percentiles will receive an “*” if the student count is less than six.

Median Growth Percentile

The aggregate measure of student achievement growth is the median growth percentile. It represents the typical achievement growth for a specific student group at the respective school. A median is a measure that describes the middle value within a set of values. Thus, the median growth percentile indicates that 50 percent of students of a specific student group within the school exhibit achievement

¹⁷ Please see [Student Group Determinations](#) for further information concerning the rules to determine student group membership.

growth above and below the median. For instance, let’s suppose a student group has seven students with the following growth percentiles: 37, 58, 39, 65, 46, 51, and 57. To determine the median growth percentile, it is necessary to rank order the growth percentiles (i.e., 37, 39, 46, 51, 57, 58, and 65) and select the middle growth percentile. The middle value or median growth percentile for this student group is 51. Note that, if the number of student growth percentiles is even, the median growth percentile is the average of the two middle values. This can produce a median growth percentile that is not a whole number (e.g., 51.5).

The RC rating details report displays the median growth percentiles for each school year (e.g., 2015-16 and 2016-17). It also displays a combined median growth percentile representing the two most recent school years. This is not the average of the two medians. Rather, it is the combination of two years of student growth percentiles, the ordering of the growth percentiles by rank, and the selection of the middle value. Note that the “combined” median growth percentile for small student groups will include three years of student growth percentiles. Finally, the RC rating details report shows median growth percentiles at the nearest tenth. The following table is an example of mathematics and English language arts median growth percentiles for two sample student groups.

Table 6. Example of Median Growth Percentiles for Sample Student Groups

Student Group	Median Growth Percentile		Combined Median Growth Percentile
	2015-16	2016-17	
Economically Disadvantaged	39.0	51.5	45.0
English Learners	53.0	56.0	54.5

Assignment of Student Group Growth Points

The student group growth indicator rating uses a five-point scale with cutoffs to assign points to student groups within schools for their mathematics and English language arts achievement growth. Note that the student group growth indicator rating only assigns points to the following student groups (assuming these student groups meet the minimum n-size requirements): **Economically Disadvantaged, English Learners, Students with Disabilities,** and **Underserved Races/Ethnicities.** Student groups within schools receive one to five points according to whether their median growth percentile for English language arts or mathematics is above or below a specific cutoff. The total possible points a student group can earn is ten (i.e., five points for English language arts and five for mathematics). The following table describes the point scale and cutoffs.

Table 7. Student Group Growth Indicator Points and Cutoffs

Points	Point Cutoffs for Elementary, Middle, High, and Combined Schools
5	65.0 & above
4	50.0 to 64.5
3	40.0 to 49.5
2	35.0 to 39.5
1	Less than 35.0

Determination of the Student Group Growth Indicator Rating

The student group growth indicator rating consists of five levels. Each level corresponds to the percent of points (i.e., $(\text{mathematics} + \text{English language arts points}) / \text{total possible points}$) a school earns above a cutoff. Note that the total number of points a school earns is the sum of points from the four student groups for mathematics and English language arts. The following table provides an example of the student group growth indicator rating determination by student group.

Table 8. Student Group Growth Indicator Points Calculation by Subject

English Language Arts	Points Earned	Points Possible	Median Growth
Economically Disadvantaged	3	5	45.0
English Learners	4	5	54.5
Students with Disabilities	*	*	*
Underserved Race/Ethnicity	3	5	44.0
Math			
Economically Disadvantaged	3	5	46.0
English Learners	5	5	61.0
Students with Disabilities	*	*	*
Underserved Race/Ethnicity	2	5	34.0
Totals	20	30	
Percent of Points Earned	66.7%		

The example in the table indicates that the students with disabilities student group did not meet the minimum n-size requirements or the suppression criteria; thus, they did not receive a rating, and the RC rating details report suppressed their growth data. The student group growth indicator rating for the

school now depends on the sum of points from six student groups (i.e., three student groups in two subjects). The sum of points the school earned is 20, the total possible points is 30, and the percent of points earned is 66.7 (i.e., $20 \div 30$).

The following table lists the student group growth indicator rating levels and cutoffs. Note that the levels, cutoffs, and interpretations for the student group growth indicator rating are identical to those for the academic achievement indicator rating (see [Academic Achievement Indicator](#)) and the academic growth indicator rating (see [Academic Growth Indicator](#)).

Table 9. Student Group Growth Indicator Levels and Cutoffs

Rating	Percent of Points Earned
Level 5	90% & above
Level 4	70% to 89.9%
Level 3	50% or 69.9%
Level 2	30% or 49.9%
Level 1	Less than 30%

IX. Graduation Indicator

The graduation indicator is the fourth of five rating indicators. Moreover, it is only applicable to high schools and combined schools (e.g., K-12 schools). The focal determinant of the graduation rating for each school is the higher of the four-year or five-year adjusted cohort graduation rates. The cohort graduation rates represent the percent of students in the adjusted cohort who graduate within a certain amount of years of entering high school (e.g., four and five years) with one of the following: regular high school diploma (awarded), regular high school diploma earned (but not awarded), participating in post-graduate scholars program, or modified diploma. The adjusted cohort refers to a group of students who began high school in a specific year (e.g., 2011-12 or 2012-13) after the inclusion of students who transfer into the school and the exclusion of students who emigrate, decease, or transfer out of the school. The graduation indicator rating section consists of the following parts: business rules, calculation of the adjusted cohort graduation rate, calculation of combined graduation rate, assignment of graduation points, and the determination of the graduation indicator rating.

Business Rules

The business rules for the graduation rating pertain to (a) the inclusion of students in the rating and (b) the minimum n-size requirement to receive a rating. The *Oregon Cohort Graduation Rate Policy and Technical Manual* contains the student inclusion rules. Please visit the [Cohort Graduation Rate](#) webpage and click on the [Cohort Graduation Rate Policy and Technical Manual 2015-16](#) link under **School Year 2015-16** to view a complete description of the student inclusion rules.

Schools receive a graduation indicator rating if they meet the minimum n-size requirements¹⁸. These requirements are the following:

- All schools will receive a graduation indicator rating if they have at least 40 students in their adjusted cohort for the two most recent school years.
- Small schools will receive a graduation indicator rating using four years of graduation data if they have at least 40 students in their adjusted cohort for the four most recent school years.
- Schools will not receive a graduation indicator rating if they have fewer than 40 students in their adjusted cohort for the four most recent school years.

¹⁸ Please see [Small and New School Rules](#) for further information concerning how the ratings treat small schools.

Note that the RC rating details report does not suppress the graduation results for schools with small n-sizes (i.e., adjusted cohort counts less than six students or graduation rates less than five percent or greater than 95 percent).

Calculation of Adjusted Cohort Graduation Rate

The *Oregon Cohort Graduation Rate Policy and Technical Manual* contains the calculation of the four-year and five-year adjusted cohort graduation rates. To view a complete description of the calculation, please visit [Cohort Graduation Rate](#) webpage and click on the [Cohort Graduation Rate Policy and Technical Manual 2015-16](#) link under **School Year 2015-16**.

Calculation of Combined Graduation Rate

The RC rating details report displays the four-year and five-year adjusted cohort graduation rates for the two most recent school years. Additionally, it displays combined four-year and five-year adjusted cohort graduation rates representing the two most recent school years. Note that this is not the average of the graduation rates across multiple years. Rather, it is the combination of two years of student graduation data and the calculation of a combined rate (i.e., the sum of numerators ÷ the sum of denominators). Note that the “combined” graduation rate for small schools will include four years of graduation data. Finally, the RC rating details report shows the adjusted cohort graduation rates at the nearest tenth. The following table is an example of the adjusted cohort graduation rates for a sample school.

Table 10. Example of Adjusted Cohort Graduation Rates

Cohort	Adjusted Cohort Graduation Rate		Combined Graduation Rate
	2011-12 Cohort	2012-13 Cohort	
Four-Year	76.7	79.5	78.1
Five-Year	82.2	85.6	83.9

Assignment of Graduation Points

The graduation indicator rating uses a five-point scale with cutoffs to assign schools points for their four-year and five-year adjusted cohort graduation rates. Schools receive one to five points according to whether their rates are above or below a specific cutoff. The total possible points a school can earn is five. The following table describes the point scale and cutoffs for the 2016-17 reporting year.

Table 11. Graduation Indicator Points and Cutoffs

Points	Four-Year Rate	Five-Year Rate
5	90.0% or above	93.0% or above
4	76.0% to 89.9%	78.0% to 92.9%
3	67.0% to 75.9%	67.0% to 77.9%
2	60.0% to 66.9%	60.0% to 66.9%
1	Less than 60.0%	Less than 60.0%

Determination of the Graduation Indicator Rating

The graduation indicator rating consists of five levels. Each level corresponds to the percent of points a school earns above a cutoff. As mentioned previously, the RC rating details report displays a four-year and five-year adjusted cohort graduation rate for the current year and a combination of the two most recent years (or four years in the case of small schools). The highest four-year or five-year adjusted cohort graduation rate (among the current year and combined year rates) will be the applied rate, which determines a school’s graduation indicator rating. The following table lists the graduation indicator rating levels and cutoffs for the 2016-17 reporting year.

Table 12. Graduation Indicator Levels and Cutoffs

Rating	Percent of Points Earned
Level 5	90% & above
Level 4	70% to 89.9%
Level 3	50% or 69.9%
Level 2	30% or 49.9%
Level 1	Less than 30%

X. Student Group Graduation Indicator

The student group graduation indicator is the fifth rating indicator. Similar to the graduation indicator rating (see [Graduation Indicator](#)), it is only applicable to high schools. The focal determinant of the student group graduation indicator rating is the higher of the four-year or five-year adjusted cohort graduation rates. The student group cohort graduation rates represent the percent of students from a specific student group in the adjusted cohort who graduate within a certain amount of years of entering high school (e.g., four and five years) with one of the following: regular high school diploma (awarded), regular high school diploma earned (but not awarded), participating in post graduate scholars program, or modified diploma. The adjusted cohort refers to a group of students from a specific student group that began high school in a specific year (e.g., 2011-12 or 2012-13) after the inclusion of students who transfer into the school and the exclusion of students who emigrate, decease, or transfer out of the school.

The student group graduation indicator rating section consists of the following parts: business rules, calculation of adjusted cohort graduation rate, calculation of combined graduation rate, assignment of graduation points, and the determination of the student group graduation indicator rating.

Business Rules

The business rules for the student group graduation indicator rating pertain to (a) the inclusion of students in the rating and (b) the minimum n-size requirement to receive a rating. The *Oregon Cohort Graduation Rate Policy and Technical Manual* contains the student inclusion rules. These rules are applicable to the student group adjusted cohort graduation rates. Please visit [Cohort Graduation Rate](#) webpage and click on the [Cohort Graduation Rate Policy and Technical Manual 2015-16](#) link under **School Year 2015-16** to view a complete description of the student inclusion rules.

Student groups within schools receive a student group graduation indicator rating if they meet the minimum n-size requirements¹⁹. These requirements are the following:

- All student groups within schools will receive a graduation indicator rating if they have at least 40 students in their adjusted cohort for the two most recent school years.

¹⁹ Please see [Small and New School Rules](#) for further information concerning how the ratings treat small schools.

- Student groups within small schools will receive a student group graduation indicator rating using four years of graduation data if they have fewer than 40 students in their adjusted cohort for the two most recent school years.
- Student groups within schools will not receive a student group graduation indicator rating if they have fewer than 40 students in their adjusted cohort for the four most recent school years.

The RC rating details report displays the student group graduation indicator rating for the following student groups²⁰:

- **Economically Disadvantaged**
- **English Learners (i.e., current and monitored)**
- **Students with Disabilities**
- American Indian/Alaska Native
- Asian
- Black/African American
- Hispanic/Latino
- Native Hawaiian/Pacific Islander
- White
- Multi-Racial
- **Underserved Races/Ethnicities**

The student group graduation indicator rating only includes the above student groups in **bold**. Specifically, the graduation data for students who are **Economically Disadvantaged**, **English Learners**, **Students with Disabilities**, and **Underserved Races/Ethnicities** will determine the student group graduation indicator rating. Note that **Underserved Races/Ethnicities** includes students who are American Indian/Alaska Native, Black/African American, Hispanic/Latino, or Native Hawaiian/Pacific Islander. Note that the RC rating details report does not suppress the graduation results for student groups with small n-sizes (i.e., adjusted cohort counts less than six students or graduation rates less than five percent or greater than 95 percent).

Calculation of Adjusted Cohort Graduation Rate

The *Oregon Cohort Graduation Rate Policy and Technical Manual* contains the calculation of the four-year and five-year adjusted cohort graduation rates. These calculations are applicable to the student

²⁰ Please see [Student Group Determinations](#) for further information concerning the rules to determine student group membership.

group adjusted cohort graduation rates. To view a complete description of the calculation, please visit [Cohort Graduation Rate](#) webpage and click on the [Cohort Graduation Rate Policy and Technical Manual 2015-16](#) link under **School Year 2015-16**.

Calculation of Combined Graduation Rate

The RC rating details report displays the four-year and five-year adjusted cohort graduation rates for each student group for the two most recent school years. Additionally, it displays a combined four-year and five-year adjusted cohort graduation rates representing the two most recent school years. Note that this is not the average of graduation rates. Rather, it is the combination of two years of student group graduation data and the calculation of a combined rate (i.e., the sum of numerators ÷ the sum of denominators). Note that the “combined” graduation rate for small schools will include four years of student group graduation data. The RC rating details report will show the adjusted cohort graduation rates at the nearest tenth. The following table is an example of the adjusted cohort graduation rates by student group.

Table 13. Example of Student Group Adjusted Cohort Graduation Rates

Cohort	Adjusted Cohort Graduation Rate		Combined Graduation Rate
	2011-12 Cohort	2012-13 Cohort	
Four-Year			
Economically Disadvantaged	72.1	74.8	73.5
English Learners	51.6	54.7	53.2
Students with Disabilities	57.2	60.5	58.9
Underserved Races/Ethnicities	61.6	65.1	63.4
Five-Year			
Economically Disadvantaged	78.3	81.1	79.7
English Learners	58.4	60.5	59.5
Students with Disabilities	64.9	67.2	66.1
Underserved Races/Ethnicities	68.3	72.6	70.5

Assignment of Graduation Points

The graduation rating uses a five-point scale with cutoffs to assign student groups (within each school) points for their four-year and five-year adjusted cohort graduation rates. Student groups within schools receive one to five points according to whether their rates are above or below a specific cutoff. The total

possible points a student group can earn is five. The following table describes the point scale and cutoffs for the 2016-17 reporting year.

Table 14. Student Group Graduation Indicator Points and Cutoffs

Points	Four-Year Rate	Five-Year Rate
5	90.0% or above	93.0% or above
4	76.0% to 89.9%	78.0% to 92.9%
3	67.0% to 75.9%	67.0% to 77.9%
2	60.0% to 66.9%	60.0% to 66.9%
1	Less than 60.0%	Less than 60.0%

Determination of the Student Group Graduation Indicator Rating

The student group graduation indicator rating consists of five levels. Each level corresponds to the percent of points a student group within a school earns above a cutoff. As mentioned previously, the RC rating details report displays a four-year and five-year adjusted cohort graduation rate for the current year and a combination of the two most recent years (or four years in the case of small schools). The highest four-year or five-year adjusted cohort graduation rate (among the current year and combined year rates) will be the applied rate which determines the student group graduation indicator ratings. The following table lists the graduation rating levels and cutoffs for the 2016-17 indicator year.

Table 15. Student Group Graduation Indicator Levels and Cutoffs

Rating	Percent of Points Earned
Level 5	90% & above
Level 4	70% to 89.9%
Level 3	50% or 69.9%
Level 2	30% or 49.9%
Level 1	Less than 30%

XII. Assessment Participation Determination

The calculation of academic achievement, academic growth, and the student group growth indicators relies on the use of student achievement scores (see [Academic Achievement Indicator](#), [Academic Growth Indicator](#), and [Student Group Growth Indicator](#)). The validity and reliability of these indicators becomes questionable when student assessment participation declines below acceptable levels. The aim of the assessment participation determination is to indicate whether a student group participates in statewide assessments at an acceptable level (e.g., 94.5 percent). Moreover, the RC rating details report supplements the other indicators by reporting participant and non-participant²¹ counts and participation rates by subject (i.e., English language arts and mathematics) and student group across multiple years (i.e., current, prior, and combined). This supplemental data provides context and caution with respect to the interpretation of the academic achievement, academic growth, and the student group growth indicator ratings. The primary focus of this section is the assessment participation determination and its corresponding business rules and calculations.

Business Rules

The business rules for the assessment participation determination pertain to (a) the inclusion of students in the determination, (b) minimum n-size requirement to receive a determination, and (c) the reporting of student group participation rates. The student inclusion rules are identical to those from previous RC summaries and rating details reports as well as the [AYP reports](#). To view a full description of the inclusion rules, please see the [Assessment Inclusion Rules for Accountability Reporting](#). The assessment participation determination for each student group includes students who:

- are residents at the school on the first school day in May (as submitted in the 3rd Period Cumulative ADM collection),
- are enrolled in grades 3 to 8 or 11,
- have appropriate test administration codes (i.e., blank, 1, 3, 5, 7, or X) on the test record, and
- have a valid²², invalid, or virtual test record.

²¹ Assessment non-participants include the following: students whose parents/guardians opted them out from taking the statewide English language arts or mathematics assessments, students who were absent for an extended period of time, students whose parents/guardians requested they not participate for religious or disability related reasons, or students who did not participate due to unknown circumstances.

²² A valid test record is a completed or partial test from either Smarter Balanced (where a student responds to at least five computer adaptive items or one performance task item) or the Extended assessment.

Additional student inclusion rules are the following:

- The assessment participation determination (a) includes all students regardless to whether they are FAY or not FAY and (b) excludes students where the resident school is a district special education program (only applicable to school-level calculations; district-level calculations will include all students in the district).
- The assessment participation determination credits the student's participation to the school where he or she was enrolled on the first school day in May (even if the student participated in the assessment at another school and district prior to first school day in May).
- Students repeating 11th grade may have taken the English language arts or mathematics assessment in a previous school year. The ODE will treat scores from previous school years as valid test scores for the current school year only if the score meets the high school achievement standard. The assessment participation determination only uses the highest score if more than one valid test score is available.

Student groups receive an assessment participation determination if they meet the minimum n-size requirements²³. These requirements are as follows for English language arts and mathematics:

- Student groups will receive an assessment participation determination if they have at least 40 expected participants²⁴ for the two most recent school years in either English language arts or mathematics.
- All student groups in small schools will receive an assessment participation determination using three years of assessment data if the school as a whole has fewer than 40 expected participants for the two most recent school years in either English language arts or mathematics.
- Student groups in very small schools will not receive an assessment participation determination if the school as a whole has fewer than 40 expected participants for the three most recent school years.

Similar to the other indicators, the RC rating details report displays counts (i.e., participant and non-participant counts), rates (i.e., current, prior, and combined participation rates), and an indicator summary (i.e., assessment participation determination) for the following student groups²⁵:

- All Students

²³ Please see [Small and New School Rules](#) for further information concerning how the ratings treat small schools.

²⁴ Expected participants are all students with valid, invalid, and virtual test records, appropriate test administration codes, who are enrolled in grades 3 through 8 and 11, and are residents at the school on the first school day in May.

²⁵ Please see [Student Group Determinations](#) for further information concerning the rules to determine student group membership.

- Economically Disadvantaged
- English Learners (i.e., current and monitored)
- Students with Disabilities
- American Indian/Alaska Native
- Asian
- Black/African American
- Hispanic/Latino
- Native Hawaiian/Pacific Islander
- White
- Multi-Racial
- Underserved Races/Ethnicities (i.e., students who identify as belonging to the following racial/ethnic groups: American Indian/Alaska Native, Black/African American, Hispanic/Latino, and Native Hawaiian/Pacific Islander)

Note that the RC rating details report does not suppress the assessment participation results for student groups with small n-sizes (e.g., participation and non-participation counts of less than six students or participation rates less than five percent or greater than 95 percent).

Calculation of Assessment Participation

The RC rating details report displays the counts of participants and non-participants as well as the percent of students who participate in statewide assessments by subject (i.e., English language arts and mathematics) for the current and prior school years. Additionally, the RC rating details report displays the combined participation rate, which represents the percent of all students across multiple school years (e.g., 2015-16 and 2016-17) who participated in statewide assessments. Note that the RC rating details report rounds all percentages to the nearest tenth of a percent. The calculation of the participation rates for current, prior, and combined includes the following:

- Numerator = total number of students who are enrolled in the school on the first school day in May with a valid test record. The numerator also includes first year English learners who have either a virtual or invalid test record in English language arts as long as they participated in ELPA21²⁶.

²⁶ This is LEPEg = B from Student Centered Staging and Accountability Warehouse Extract.

- Denominator = total number of students who are enrolled in the school on the first school day in May with a valid, invalid, or virtual test record (and the appropriate test administration codes).
- Participation rate (e.g., current, prior, and combined) = numerator ÷ denominator.

Calculation of Assessment Participation Determination

The assessment participation determination is not a rating; rather, it is a status that indicates whether a student group has met the 94.5 percent annual goal for assessment participation. Under NCLB, the assessment participation determination was an Annual Measureable Objective (AMO) where a school did not meet AYP if the institution as a whole, or any student group within it, did not meet the AMO of 94.5 percent. Under Oregon’s ESEA flexibility waiver, the assessment participation determination continued as an AMO, and the ODE used it to lower the overall school rating by one level if at least one student group in the school did not meet the AMO of 94.5 percent. During the transition from Oregon’s ESEA flexibility waiver to ESSA, the assessment participation determination will remain as an annual goal applied to all student groups²⁷; however, given the suspension of the overall school rating (see [Suspension of Summative School Ratings](#) for more information), the ODE intends to only use it as a supplement to the other indicator ratings (e.g., academic achievement, academic growth, and the student group growth indicators) to facilitate interpretation.

As mentioned previously, the RC rating details report displays three participation rates: current, prior, and combined. The assessment participation determination only uses the current and combined participation rates. The higher of the current or combined participation rate will be the applied rate, which the assessment participation determination uses to indicate whether a student group meets or does not meet the annual goal of 94.5 percent. Additional details concerning the selection of the applied rate are the following:

- If the current rate is greater than or equal to the combined rate, the applied rate is **Current**.
- If the combined rate is greater than the current rate, the applied rate is **Combined**.
- If only the combined rate meets the minimum n-size, the applied rate is **Combined**.
- If both rates do not meet the minimum n-size, the applied rate is **NA**.

²⁷ Please see [Measures of Interim Progress](#) for further information concerning MIP for 2016-17 through 2024-25.

The following table is an example of the participation rates and applied rate by student group.

Table 16. Example of Student Group Participation Rates and Applied Rate

English Language Arts	Participation Rate			Applied Rate
	Prior	Current	Combined	
Economically Disadvantaged	94.7	95.3	95.1	Current
English Learners	93.6	91.4	92.5	Combined

The assessment participation determination consists of three statuses: **Met**, **Not Met**, and **Not Rated**. A student group will receive a status of **Met** if the applied rate is greater than or equal to 94.5 percent, **Not Met** if the applied rate is less than 94.5 percent, or **Not Rated** if the applied rate is NA (which signifies that the student group does not meet the minimum n-size). The following table is an example of the assessment participation determination by student group.

Table 17. Example of Student Group Assessment Participation Determinations

English Language Arts	Status	Participation Rate			Applied Rate
		Prior	Current	Combined	
Economically Disadvantaged	Met	94.7	95.3	95.1	Current
English Learners	Not Met	93.6	91.4	92.5	Combined

XIII. Student Group Determinations

The student group determinations refer to the rules pertaining to the assignment of students to specific student groups. As noted previously, the RC rating details report displays achievement, growth, and graduation data by student group. These student groups include *All Students*, *Economically Disadvantaged*, *English Learners*, *Students with Disabilities*, *American Indian/Alaska Native*, *Asian*, *Black/African American*, *Hispanic/Latino*, *Native Hawaiian/Pacific Islander*, *White*, *Multi-Racial*, and *Underserved Races/Ethnicities*. Moreover, the RC rating details report also provides a student group growth and graduation rating for specific student groups (i.e., *All Students*, *Economically Disadvantaged*, *Limited English Proficient*, *Students with Disabilities*, and *Underserved Races/Ethnicities*). Lastly, the student group graduation rates have additional rules to determine student group membership.

All Students

The *All Students* student group includes all students who are a resident at the school on the first school day in May (as submitted in the 3rd Period Cumulative ADM collection). Exceptions to this are the following:

- Foreign exchange students and home schooling students
- Students enrolled in private alternative programs who do not receive instruction in core academic subjects assessed by statewide assessments
- Students identified by the school or district as transferring in without a test score after the testing window closed
- Students enrolled in district special education programs (this is only applicable to school-level calculations; district-level calculations will include all students in the district)

Economically Disadvantaged

The RC rating details report uses the eligibility application for free and reduced price meal programs to determine membership in the economically disadvantaged student group. School districts identify students as eligible for free and reduced price lunch in the 3rd Period Cumulative ADM collection. Schools and districts that do not administer school lunch programs may identify economically disadvantaged students by other means. Please see the [Cumulative ADM Manual](#) for more information about free and reduced price lunch data.

English Learners

Information concerning the *English Learners* student group comes from the Title III English Language Learners collection. School districts identify students as either *English Learners* or former *English Learners*. Former *English Learners* refers to students who exited an English Learner program in either of the two previous school years (see [Executive Numbered Memorandum No. 010-2006-07](#)). *English Learners* represents a student who:

- is age 3 through 21;
- attends or is preparing to enroll in an elementary school or secondary school;
- was not born in the United States or whose native language is a language other than English;
 - is a Native American or Alaska Native or a native resident of the outlying areas; and
 - comes from an environment where a language other than English has had a significant impact on the individual's level of English language proficiency;
- is migratory, whose native language is a language other than English, and
- comes from an environment where a language other than English is dominant; and whose difficulties in speaking, reading, writing, or understanding the English language may be sufficient to deny the individual:
 - the ability to meet challenging State academic standards;
 - the ability to successfully achieve in classrooms where the language of instruction is English; or
 - the opportunity to participate fully in society.

Students with Disabilities

The *Students with Disabilities* student group includes all students receiving special education services at any time during the school year as part of an Individualized Education Programs (IEP). The data source for the *Student with Disabilities* student group is the 3rd Period Cumulative ADM collection.

Race/Ethnicity

Information concerning a student's race/ethnicity comes from the 3rd Period Cumulative ADM collection.

A student may self-identify as one of the following:

- *American Indian/Alaska Native*: A student having origins in any of the original peoples of North America and who is not Hispanic.
- *Asian*: A student having origins in any of the original peoples of the Far East, Southeast Asia, or the Indian subcontinent, and who is not Hispanic.
- *Native Hawaiian/Pacific Islander*: A student having origins in any of the original peoples of Hawaii, Guam, Samoa, or other Pacific Islands and who is not Hispanic.

- *Black/African American*: A student having origins in any of the black racial groups of Africa and who is not Hispanic.
- *Hispanic/Latino*: A student of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin, regardless of race.
- *White*: A student having origins in any of the original peoples of Europe, North Africa, or the Middle East and who is not Hispanic.
- *Multi-Racial*: A student having origins in more than one race and who is not Hispanic.

Underserved Races/Ethnicities

The RC rating details report uses the *Underserved Races/Ethnicities* student group as part of the student group growth and student group graduation indicator ratings. This student group consists of students from specific racial/ethnic subgroups (i.e., *American Indian/Alaska Native, Native Hawaiian/Pacific Islander, Black/African American, or Hispanic/Latino*) that have an historical and contemporary achievement gap in Oregon. The data source for the *Underserved Races/Ethnicities* student group is the race/ethnicity information from the 3rd Period Cumulative ADM collection.

Student Group Membership for Graduation Rates

The adjusted cohort graduation rates represent the percent of students in the adjusted cohort who graduate within a certain amount of years of entering high school (e.g., four and five years) with one of the following: regular high school diploma (awarded), regular high school diploma earned (but not awarded), participating in post graduate scholars program, or modified diploma. Because these rates use multiple years of data, it is necessary to use multiple years of data to determine student group membership. Thus, the determination of student group membership requires the following rules:

- *Economically Disadvantaged*: If any 3rd Period Cumulative ADM collection or Spring Membership collection identifies the student as *Economically Disadvantaged* during any school year in which the student was enrolled in a high school grade.
- *English Learners*: If any LEP collection record identified the student as an *English Learner* during any school year in which the student was enrolled in a high school grade.
- *Students with Disabilities*: If any Special Education Child Count (SECC) record indicates a student received special education services during any school year in which the student was enrolled in a high school grade.
- *Race/Ethnicity*: The student collection record that determines the final outcome of the student, or in the student's last enrollment record, whichever is later.

XIV. Small and New School Rules

All public schools receive a report card and RC rating details report; however, schools receive indicator ratings as long as they (a) are open on the first school day in May, (b) have a sufficient number of resident students, and (c) have operated for two or more years. This includes all charter schools, alternative schools, state operated schools, and correctional facilities in the state of Oregon.

Certain schools (i.e., small and new schools) will not receive indicator ratings. The rules for small and new schools are the following:

- “Small schools” are those schools that have insufficient data across the two most recent school years as indicated by having an insufficient number of tests (i.e., academic achievement, academic growth, and student group growth indicators) or students (i.e., graduation and student group graduation indicators). The indicator ratings for these small schools will use three years of data for assessment-based indicators and four years of data for graduation-based indicators.
- Small schools will not receive a rating or determination for a specific indicator if they have insufficient tests or students across several school years. Please see the minimum n-size requirements for the [Academic Achievement Indicator](#), [Academic Growth Indicator](#), [Student Group Growth Indicator](#), [Graduation Indicator](#), [Student Group Graduation Indicator](#), and [Assessment Participation Determination](#) for specific details.
- New schools are schools where the first year of operation is the current year. These schools will receive a report card and RC rating details report but not indicator ratings or determinations. This also includes schools that experience a significant boundary change and receive new school status from ODE.

It is important to note that district-administered programs and other public and private programs (e.g., magnet/special programs, special education, and career technical education programs) do not receive a report card or RC rating details report according to the students enrolled in their programs. The RC rating details report will credit data pertaining to students from these programs to the resident school and/or district report cards and RC rating details reports if the resident school or district initiated the placement of students in the programs. Finally, the school and district RC summaries and RC rating details reports do not include achievement, growth, or graduation data for the following students:

- Students enrolled in private schools

- Foreign exchange students and home schooling students
- Students enrolled in private alternative programs who do not receive instruction in core academic subjects assessed Oregon statewide assessments
- Students identified by the school or district as transferring in without a test score after the testing window closed

Please see the [Academic Achievement Indicator](#), [Academic Growth Indicator](#), [Student Group Growth Indicator](#), [Graduation Indicator](#), [Student Group Graduation Indicator](#), and [Assessment Participation Determination](#) for specific details concerning student inclusion rules.

XV. Comparison Schools and Districts

The RC summaries display the like-school and like-district averages for several indicators including English language arts and mathematics achievement, 9th grade on track, dropout, four-year cohort graduation rate, five-year completer rate, and post-secondary enrollment among many others. The intention behind the display of the like-school and like-district averages is to allow for the comparison between a focal institution's performance and the performance of institutions from the same type (i.e., district, elementary, middle, high, and combined²⁸ schools) with similar student demographics and student enrollment sizes. The ODE used an iterative process to identify a focal institution's group of comparators. This process consists of the following parts: inclusion rules, student demographic variables, component calculation, Euclidean distance, size filter, and the selection of the twenty most similar institutions.

Inclusion Rules

The ODE included the following institutions: (a) schools and districts that receive a report card, (b) schools and districts with student enrollments greater than or equal to 40 students (as of the first school day in May), and (c) schools and districts where the highest grade offered is at least the 4th grade.

Student Demographic Variables

The identification of comparison institutions relied on the following student demographic variables:

- The percent of students identified as economically disadvantaged
- The percent of students identified as ever English learners²⁹
- The percent of students identified as belonging to an underserved racial/ethnic group³⁰
- The percent of students identified as mobile within the school year³¹

Component Calculation

The ODE derived two components from the four student demographic variables using principal components analysis (PCA). PCA is a multivariate statistical technique that employs a weighted linear

²⁸ Combined schools are schools that are a combination of high school grades and any grades 7 and lower.

²⁹ These are students who were ever eligible for or participating in a program to acquire academic English.

³⁰ These are students who are American Indian/Alaska Native, Black/African American, Hispanic/Latino, or Native Hawaiian/Pacific Islander.

³¹ These are students who experienced one or more of the following: (a) attended more than one Oregon public school during the school year, (b) entered the Oregon public education system late (i.e., after the first school day in October), (c) exited the Oregon public education system early (i.e., on or before the first school day in May without earning a diploma, certificate, etc.), and (d) had significant gaps in enrollment during the school year totaling ten or more consecutive week days. See [Student Mobility Methodology and Calculation Guide](#) for further details.

combination of a number of similar variables (e.g., student demographic variables) to produce a smaller set of uncorrelated and independent components. The aim of PCA is to retain the components that explain the most variation in the original variables. The ODE transformed each student demographic variable into a z-score and used PCA to retain the components³² that explained the most variation in the student demographic variables. The PCA model retained two components which explained 86 percent of the total variation.

Table 18. Demographic Variable Weights for the Two School Components

Demographic Variable	Component 1	Component 2
Economically Disadvantaged (ECD)	.228	.374
Ever English Learner (Ever EL)	.450	-.177
Underserved Race/Ethnicity (URE)	.438	-.061
Mobility	-.142	.838

Table 19. Demographic Variable Weights for the Two District Components

Demographic Variable	Component 1	Component 2
Economically Disadvantaged (ECD)	.203	.514
Ever English Learner (Ever EL)	.449	-.115
Underserved Race/Ethnicity (URE)	.447	-.005
Mobility	-.141	.729

As part of the PCA, each institution received two component scores. These scores are the sum of the products between the student demographic variables and the weights. The ODE used the two component scores for each institution to calculate the Euclidean distance between schools and districts.

Euclidean Distance

Euclidean distance is the distance between two points. The ODE weighted each institution’s component scores³³ and created a distance matrix to calculate the Euclidean distance for all pairs of institutions within each type. For example, the calculation of Euclidean distance between School A and School B is $\sqrt{(C1_A - C1_B)^2 + (C2_A - C2_B)^2}$ where C1 is the weighted first component score and C2 is the weighted second component score. As an illustration, let’s suppose that School A has $C1_A = 1$ and $C2_A = 1$, and School B has $C1_B = 3$ and $C2_B = 3$. The Euclidean distance between School A and School B would be $\sqrt{(1 - 3)^2 + (1 - 3)^2}$ or 2.828. The scatterplot below shows School A, School B, and their Euclidean distance.

³² The ODE retained components where the Eigen values were greater than or equal to one (i.e., this is Kaiser’s rule).

³³ The ODE weighted each component by its Eigen value. The school Eigen values for the first and second components were 2.360 and 1.086, and the district Eigen values for the first and second components were 2.200 and 1.224.

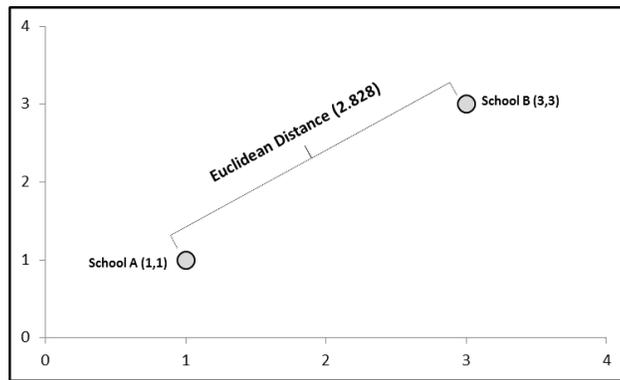


Figure 1. Euclidean Distance between School A and School B

After calculating the Euclidean distance between all pairs of institutions, the ODE removed all comparators where the Euclidean distance between the focal and comparison institutions was greater than 2.75 (for schools) or 2.50 (for districts). This considerably reduced the number of comparators to those with the closest proximity (regardless of student enrollment size). The scatterplot below shows an illustration of School B's comparison schools after applying the maximum Euclidean distance rule.

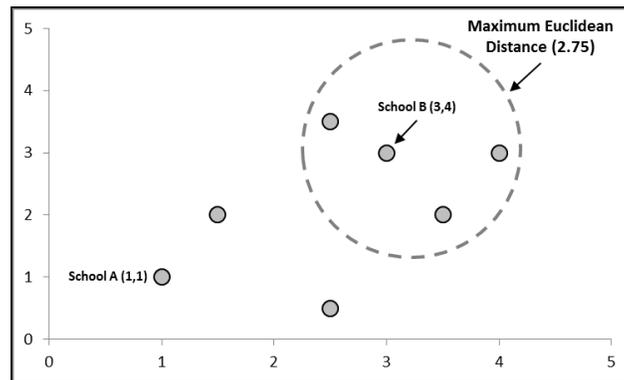


Figure 2. Maximum Euclidean Distance for School B

Size Filter

The ODE applied a size filter to remove any comparators with considerable student enrollment size differences (i.e., sizes either substantially larger or smaller than the focal school). The size filter removes comparators where the size difference in terms of student enrollment between the focal and comparison institution is:

- less than 65 percent of the student enrollment size of the focal school (80 percent for the focal district); and
- less than 65 percent of the student enrollment size of the comparison school (80 percent for the comparison district).

The table below shows an example of the size filter using School B and its six comparison schools. Note that the size filter removed two schools (i.e., School E and School G) because their student enrollment size was either substantially smaller or larger than School B.

Table 20. Application of Size Filter to School B and Corresponding Comparators

Focal School Name	Comparison School Name	Euclidean Distance	Focal School Size	Comparison School Size	Size Difference as a % of Focal School	Size Difference as a % of Comparison School	Remove (Yes or No)
School B	School C	0.23	500	513	2.6	2.5	No
School B	School D	0.37	500	681	36.2	26.6	No
School B	School E	0.46	500	150	70.0	233.3	Yes
School B	School F	0.65	500	567	13.4	11.8	No
School B	School G	0.72	500	1,500	200.0	66.7	Yes
School B	School H	0.84	500	892	78.4	43.9	No

Twenty Most Similar Institutions

Removing comparison schools and districts using Euclidean distance and the size filter greatly decreased the number of comparators; however, while this left many schools and districts with less than 20 comparators, a large number of institutions (especially elementary schools) continued to have a large number of comparators. Thus, for focal schools and districts with greater than twenty comparators, the ODE selected the twenty comparison institutions with the greatest proximity to the focal school and district as measured by the Euclidean distance. These final comparison institutions (twenty or less) are the comparison schools and districts with the most similarity to the focal institutions according to student demographics and enrollment size.

Like-School and Like-District Averages

The RC summaries display the like-school and like-district averages for several indicators (e.g., English language arts [ELA] and mathematics achievement, 9th grade on track, dropout, four-year cohort graduation rate, five-year completer rate, post-secondary enrollment rate, etc.). The comparison schools and districts, as discussed earlier, are the basis for the calculation of the like-school and like-district averages. The calculation of these averages is the pooled numerator ÷ pooled denominator across all comparators (i.e., the twenty most similar institutions). For instance, the like-school and like-district average for ELA performance is the total number of students who earned a level 3 or 4 in ELA in the comparison institutions divided by the total number of ELA tests in the comparison institutions.