

District Ends 1.0

Monitoring Report

Prepared for the Poudre School District

Board of Education



POUDRE SCHOOL DISTRICT

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Superintendent

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Executive Summary

Poudre School District (PSD) is a high achievement district. There are many indicators of our students' successes and the entire PSD community can celebrate these outcomes. Evidence from the TS GOLD, DIBLES Next, NWEA MAP, PSAT, SAT, AP exams, IB Exams, and post-secondary outcomes for PSD graduates all support the claim that PSD students achieve at high levels. Likewise, PSD is a high growth district as can be evidenced by both the state assessment systems student growth percentiles and the results from the NWEA MAP test. While there are many success stories and indicators of progress, PSD also has opportunities for improvement and this report specifies some of these areas. Based on the extensive data displays and analysis evident in this report, three key findings are highlighted below. The highlighted findings are evidenced by longitudinal patterns that can be explored via the many data visualizations included in this report. Effectively addressing these findings will require the attention of our district and the broader community we partner with in support of our young people.

The PSD 4-year graduation rate has decreased 2.3 percentage points from 83.5% in 2016 to 81.2% in 2017 (based on the ASCENT-adjusted PSD rate). The official state-calculated PSD graduation rate of 78.6% is down 2.8 percentage units from 81.4% in 2016. The 2017 graduation rate of 78.6% is exactly the same as the PSD historical low associated with the class of 2015; the class of 2015 was the first PSD class to have graduation requirements of 240 credits, up from 220 credits for prior graduation classes. Although a historical low for PSD, the class of 2015 graduation rate of 78.6% exceeded the statewide graduation rate of 77.3%. The PSD class of 2017 graduation rate (78.6%) is below the statewide graduation rate of 79.0%. When comparing the 2017 PSD ASCENT-adjusted rate of 81.2% to the statewide rate of 79.0%, the PSD rate exceeds the statewide rate by 2.2 percentage units, which is a much smaller difference than we have experienced since the implementation of the ASCENT program in the fall of 2011. Statewide, graduation rates have been steadily increasing. PSD has experienced an overall decline in graduation rates over the past six years (since the Class of 2012). The 7-year graduation rates have also declined from 91.2% in 2012, to 87.3% for the class of 2014 (the most recent graduates for which this extended rate is available). The statewide 7-year rate has been steadily increasing over the same set of years. To interact with a PSD developed graduation rate data visualization tool that provides much greater detail, please click [GRADUATION RATES](#).

Achievement, academic growth, and postsecondary experiences/success are all high overall for the PSD student body considered collectively. As with most, if not all districts in the country, there are clear patterns that indicate identifiable groups of students that are not accessing the same levels of learning and education related opportunities. The PSD student group identified as "Additional Support" in our Student Insight system, as well as other special groups, have academic outcomes that lag overall PSD results. To interact with a PSD developed data visualization tool that allows exploration of these outcomes please click [ACHIEVEMENT and GROWTH](#).

Student connections feedback from our 4th-12th grade students has provided us with a treasure trove of actionable insight. The biggest overall "story" in the data bridges between the "Foundations for Success" End and the "Connections" End. It is that our students identified as candidates for additional support in our Student Insight system, are indicating significantly lower levels of "connectedness" with adults in our schools, with their peers at school, and with their interests while at school. To interact with a PSD developed "Student Connections" visualization tool that provides much greater detail, please click [STUDENT CONNECTIONS](#).

Introduction and Background

The Poudre School District Board of Education (BOE) adopted the policy governance model. In this system of governance, the Board of Education sets broad policy that establishes the vision and direction of Poudre School District (PSD) for the Superintendent to implement. [The District Ends 1.0](#) are aspirational and visionary goals for the district from which the Superintendent is able to create opportunities for students that align with the community's values.

"Ends policies define what results an organization holds itself accountable for producing in the world, for which people, and at what cost. Ends policies, thus, are very distinctive statements. They are not vague generalizations about improving the quality of life. They are not about what an organization does (that is, the activities it engages in) but about the impact it intends to have. As a result, no matter how broadly stated, Ends are ultimately measurable" (The Policy Governance Field book, p 81).

In June of 2014, the Board of Education provided the Superintendent with a substantially revised set of Ends for which an initial interpretation, with measures and targets, were subsequently developed. The following Ends, and related outcomes for 2016/17, are the subject of this report.

- 1.1 **Foundations for Success:** PSD students attain milestones to ensure long term academic success. PSD measures and monitors individual student progress against these milestones.
- 1.2 **Success in a Changing World:** PSD students are prepared for college and workforce success. PSD ensures access and encourages participation in a wide range of experiences that reflect expectations of a changing world.
- 1.3 **Above and Beyond:** PSD students are challenged, motivated, and inspired to reach their personal level of excellence. PSD offers students a broad and diverse set of opportunities that cultivates their talents and offers multiple pathways to high levels of success.
- 1.4 **Connections:** PSD students feel academically and socially connected to their school and community. PSD provides engaging opportunities to support students' individual pursuits and interests.

There are two types of data being reported in the Monitoring Report. The first type includes measures for which specific performance targets are set. These targets are selected such that our system can organize toward their attainment, and such that changes in the level of attainment over time should be related to the effectiveness of our system. The other type of data being reported in the Monitoring Report is what can be termed auxiliary data and there may be "benchmarks" associated with these auxiliary data that are identified to provide some amount of validation or additional insight regarding progress toward the district Ends. The NWEA MAP growth data falls into this category, as there are no targets set in relation to NWEA outcomes, but the data are useful in validating student achievement and growth in math and reading.

There are several purposes for setting targets on key performance indicators and systematically monitoring our progress toward attaining these targets. One purpose is to communicate clearly to the public we serve regarding those outcomes that we aspire to attain. An example of an "aspirational target" is that 100% of our students successfully complete their K-12 educational experience. A second purpose of setting and monitoring targets is to indicate whether key outcomes are increasing, decreasing, or remaining fairly consistent. This purpose reflects a desire to track continuous improvement efforts.

Targets have been set under the premise that continued progress toward the sustainable attainment of the performance targets will require system-wide alignment and ongoing improvement efforts across all grade levels. The metrics selected for target setting should provide Poudre School District (PSD) with a

rich source of information that is responsive to changes in policy and practice and will therefore provide indicators of real successes and areas in need of further attention. The district's goals are intended to ensure that all students are prepared to capitalize on the opportunities available in our rapidly changing world. The best way to ensure that choosing metrics and setting targets actually impacts the system itself is to ensure that the same metrics and data views are available to individual teachers, counselors, principals, and community partners.

In order to promote and support movement toward optimal outcomes system wide, decisions regarding metrics and data sources/displays have been made while considering school team access to similar school and student level metrics. An example of this is the use, wherever possible, of data visualization tools provided by the Colorado Department of Education (CDE) and PSD. PSD-developed data visualization tools are collectively referred to as the PSD analytics platform. The three levels of the PSD analytics platform (Student Insight, Staff Insight, and System Insight) are heavily utilized throughout the DE 1.0 Monitoring Report. Providing views pulled directly from the data analytic tools and then providing context for interpretation within this Monitoring Report should promote wide use and increasing understanding among the many district/school leadership teams and our community partners. Promoting shared understandings, uncovering longitudinal patterns that have leadership value, empirically testing intuition-based assumptions, and thereby promoting data-informed leadership actions are the intended outcomes of the PSD analytics platform. Utilizing the analytics platform in the DE 1.0 Monitoring Report should aid in furthering all of these intended outcomes and ultimately contribute to higher levels of student outcomes and improved student experiences.

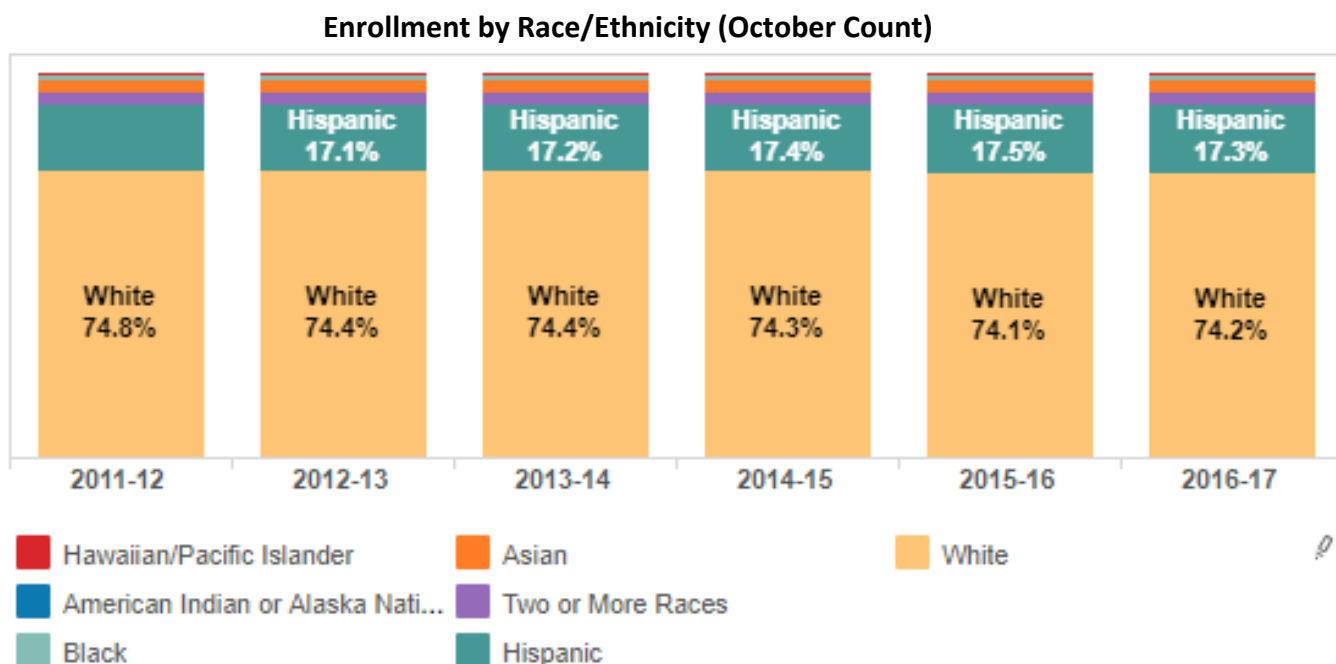
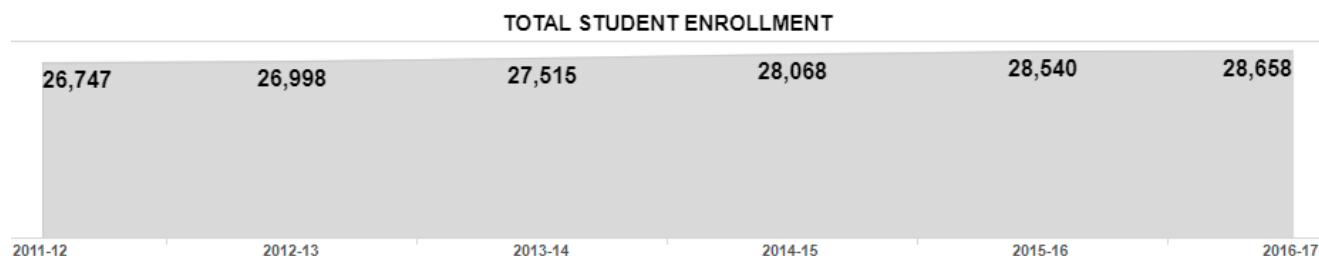
There are multiple hyperlinks included in this report that provide direct access to fully functional data visualizations that are part of the PSD analytics platform. This is a new feature in this latest version of the DE 1.0 Monitoring Report. Personally identifiable information is NOT INCLUDED in these data visualization tools. The analytic tools provided do include drill-down to the school, grade, and student group levels. Aggregate information, broken out in many possible variations of cross-referencing groups through filter selections, is a very powerful tool for exploring mountains of information and identifying key insights. The information provided in the appendices of this report has been substantially reduced due to the inclusion of links to the very powerful and dynamic analytics platform.

Finally, there are two important distinctions to make within the context of the Monitoring Report. There is a difference between a normative interpretation of outcomes and a criterion-referenced interpretation of outcomes. This report contains both forms of contextualizing outcomes and often reports these types of data in conjunction with one another. There are reasons to understand how students perform compared to others and there are reasons to understand how students are performing compared to an objective performance criterion. An example is to monitor what we commonly call "closing the gap." PSD endeavors to close the achievement gap by raising achievement levels for any group of students historically performing below any other group of students (a norm-referenced view of achievement gap). PSD also endeavors to close the gap between individual performance and grade level expectations for each individual student, and groups of students, currently performing below grade level expectations (a criterion referenced view of achievement gap). With regard to the role the Monitoring Report plays in the grand scheme of system accountability and improvement, efforts to close gaps benefit from both criterion-referenced interpretations and norm-referenced interpretations of student outcome data.

The Monitoring Report is not intended to convey the "means" by which results are achieved, but rather it focuses on the "ends." This is the second important distinction to make at the outset of the following report, as the reader will note that the entire report is focused on student outcomes relative to the defined measures and targets. With that said, the BOE has expressed an interest in some level of

synthesis and interpretation as opposed to just providing tables of outcomes and target attainment statements. The current report will attempt to provide a balanced level of interpretation regarding outcome patterns that appear to reflect systemic causes or associations. This report helps inform the annual work of the district on the Unified Improvement Plan (UIP). The UIP is a companion document to the DE 1.0 Monitor Report, and it is where the district documents a root-cause analysis, major improvement strategies, action steps, and related timelines. These two documents form the basis of the Poudre School District's annual cycle of system improvement and accountability. Direct indications of where these two documents intersect will be provided in this DE 1.0 Monitoring Report. Red text will be used to aid readers in quickly identifying these linkages (or "sign-posts") throughout this report. Please keep in mind that successful implementation of any action step contained in the district UIP is likely to have an immediate, or long term, impact on virtually all of the targets outlined in this report.

To set context for the outcomes evidenced in the remainder of this report, a quick set of information on longitudinal demographic changes is provided below. The following graphs reflect changes in the PSD community of students over the past six years. The interested reader should be made aware that the Colorado Department of Education has produced a tool called the [District Dashboard](#) that can be used to explore data views related to a multitude of high interest areas. The same link will also lead the interested reader to the school level dashboard information. The views below come directly from this excellent set of dashboards developed by our Department of Education.



Enrollment by race/ethnicity in the district has been relatively stable for the past six years, with students identified as White varying by about 0.5% and Latino population proportions varying by about 0.2%. Student subgroups by program type have also been very stable.

Enrollment by Instructional Program (October Count)

	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17
English Learners (NEP, LEP, FEP M1/M2)	7.5%	7.2%	7.4%	7.4%	7.3%	7.0%
Students with Disabilities	7.8%	7.4%	7.4%	7.2%	7.4%	7.6%
English Learners (NEP, LEP, FEP, FELL)	10.0%	9.9%	9.9%	9.9%	10.1%	10.0%
Gifted Students	9.4%	10.8%	11.2%	11.1%	11.4%	12.0%
Minority Students	25.2%	25.6%	25.6%	25.7%	25.9%	25.8%
Free/Reduced-Price Lunch Eligible	30.7%	29.4%	29.1%	31.7%	31.3%	29.1%

As we explore our data, identify meaningful patterns, and empower our educational leaders and community partners to take action in support of student outcomes and experience; it is clear that a shifting demographic is unlikely to resonate as a root cause for systemic changes in other outcomes of interest. The PSD Gifted and Talented population is the fastest growing population in terms of percent change.

Summary List of Targets and Alignment to BOE Priorities

- 1) Attendance (Λ): PSD students will have $\geq 95\%$ attendance rate.
- 2) School Readiness (Λ): $\geq 85\%$ of PSD Preschool 3 class/grade (Green) and Pre-K 4 class/grade (Blue) students demonstrate school readiness on four key items of the TS Gold assessment.
- 3) Early Literacy (Λ): $\geq 85\%$ of PSD K-3 students will meet End-of-Year DIBELS Next benchmarks.
- 4) Achievement (Λ): PSD effect size ≥ 0.25 for State assessment subject by grade combinations.
- 5) Academic Growth (Λ): PSD student growth will exceed that of academic peers statewide.
- 6) Additional Support (Λ, Δ): 100% of annual School Unified Improvement Plans (SUIP) will contain action steps that specifically address the Additional Support group needs at their sites.
- 7) Credit Accumulation (Σ): $\geq 85\%$ of 9th-12th grade students will be on track to graduate within 4 years of transition into 9th grade.
- 8) Completion/Graduation (Σ): 100% of PSD students will successfully complete their PreK-12 education. As a leading indicator toward this completion target, $\geq 85\%$ of PSD students will graduate within 4 years of transition into 9th grade.
- 9) Dropout Rate (Σ): Less than 1% of PSD students will dropout in a given year.
- 10) College Readiness (δ): $\geq 85\%$ of PSD students will meet or exceed SAT college readiness benchmarks in Evidence Based Reading and Writing and Mathematics.
- 11) AP/IB/Concurrent Enrollment/Work-Based Learning Participation (δ): $\geq 50\%$ of PSD students in grades 11 and 12 will have an AP, IB, Concurrent Enrollment, and/or work-based learning experience each year.
- 12) AP/IB Performance (δ): PSD classroom teacher weighted z statistics ≥ 1.96 (indicates advanced student performance significantly higher than typical international outcomes).
- 13) Postsecondary Outcomes (δ): All percentages and rates higher than related rates for Colorado.
- 14) Health and Wellness (Δ): Eight key Healthy Kids Colorado Survey items that are directly related to the school environment are more favorable than the state's respective percentages.
- 15) Student Connections (Λ, Σ, Δ): Percent agreement $\geq 90\%$ indicating strong connections to school adults, other students, and interests.

Board Priority Alignment:

Λ = Achievement Gap

Σ = Graduation Rates

Δ = Social Emotional Learning

δ = Post-Secondary and Workforce Readiness

Highlighted Outcomes for 2016/17

Foundations for Success

PSD students attain milestones to ensure long term academic success. PSD measures and monitors individual student progress against these milestones.



Foundations for success contains many of the specific measurable outcomes that both educators and the public we serve have traditionally associated with the academic aspect of the school experience. We have much to be proud of regarding the work of our students, the PSD staff, and our many community partners. Please see the appendices and use provided hyperlinks to the PSD analytics platform to explore student outcomes related to school-readiness, attendance, early literacy, achievement, academic growth, credit accumulation, advanced studies, graduation rates, postsecondary outcomes, and student health/wellness.

The careful reader of this report will notice the many occurrences of targets greater than or equal to (\geq) 85%. A quick discussion of why this specific target has been selected may be helpful in motivating a deeper appreciation of the intended purpose of this Monitoring Report. The 85% target is derived from a careful consideration of a graduation rate that we can then backward map to appropriate measures along the student journey in PSD. In this way we can better align our expectations and student supports to promote progress toward the successful completion of the PreK-12 experience.

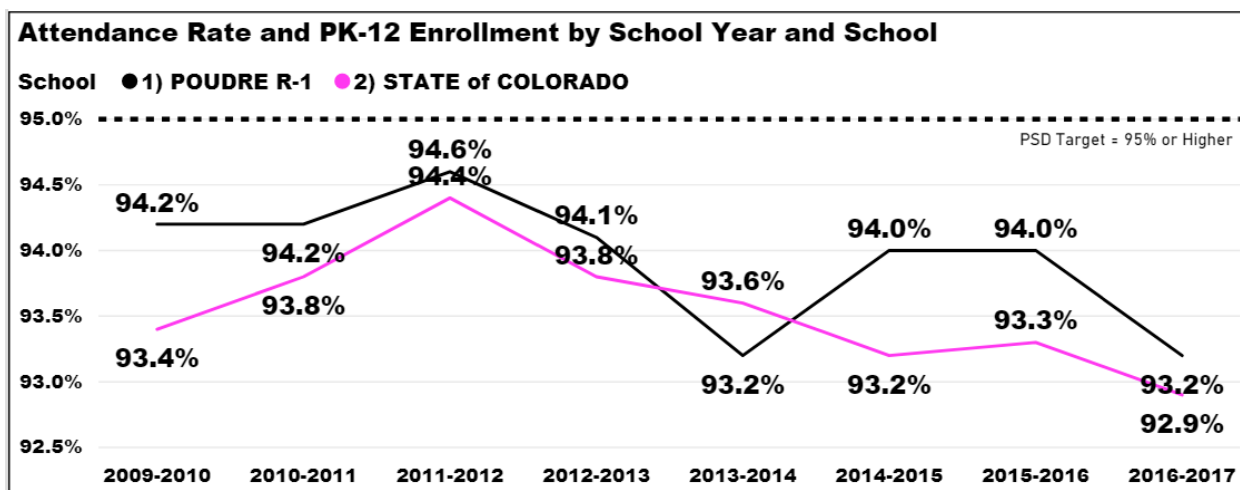
PSD works toward 100% of our students successfully completing their PreK-12 experience. While there is great inherent appeal in this aspirational target, the nature of a Monitoring Report is that key performance indicators are measurable, timely, and able to inform our understanding of the district's relative performance. We don't have access to the percentage of students statewide that successfully complete their PreK-12 experience, unbounded by time. The best proxy that we have access to statewide is the 7-year completion rate. Completion rates include students who attain a GED or non-diploma certificate. PSD's 7-year completion rate for the Class of 2014 (the most recent class for whom this percentage is available) is 91.3%. The most recent 7-year completion rates lack the timeliness that a more ideal Monitoring Report measure would have. One solution to the timeliness issue with regard to what we want to measure, successful completion of the PreK-12 experience, is to pick an indicator that is related to a true completion rate. The 4-year or on-time graduation rate can be used for this purpose. It has the benefit of being the timeliest of the possible graduation rates, and generally speaking rises and falls with the extended rates (5-year, 6-year, and 7-year).

Why an 85% on time graduation rate? PSD has attained that level of outcome in our recent past (Class of 2012 at 86%) and there are multiple other large districts (Academy 20 and Douglass County) that have a graduation requirement of 240 credits or more and that have exceeded an 85% graduation rate for the past six graduating classes. In order for PSD to sustainably meet or exceed 85% on the 4-year graduation rate, it is likely that we will need to increase the graduation rates of one or more subgroups that have historically had lower graduation rates. In this sense, by setting our 4-year graduation rate target at \geq 85%, PSD is promoting the aspirational goal of closing historic outcome gaps and improving outcomes for all students. When it comes to monitoring the improvement of a key outcome like completion/graduation rates, the timeliness of the 4-year rate is attractive. We will also monitor the extended completion and graduation outcomes to honor our overall goal of 100% of students

successfully completing their PreK-12 experience. To interact with a PSD developed graduation rate data visualization tool that provides much greater detail, please click [GRADUATION RATES](#).

- 1) **Attendance Target:** PSD students will have $\geq 95\%$ attendance rate.
Met Target in 2016/17? No, in 2016/17 PSD had an attendance rate of 93.2%.

The 2016/17 rate is the same as the PSD 2013/14 rate when we had dipped below the State attendance rate. In 2016/17 the PSD attendance rate is higher than the overall state rate by 0.3% units. Both PSD and State attendance rates have declined over the past eight years. An eight year view of attendance rates for PSD and the State is provided below. Reported attendance data comes from CDE source documents available by clicking here [CDE DATA SOURCE](#). To interact with a PSD developed attendance data visualization tool for districts and schools statewide please click [ATTENDANCE RATES](#). Appendix 1 of this report also contains additional information for the interested reader. **This target is supported by Action Step 3A – “Transition Strategies” under Major Improvement Strategy #3 (Transitions) of the 2017/18 PSD Unified Improvement Plan (UIP).**



- 2) **School Readiness Target:** $\geq 85\%$ of PSD Preschool 3 class/grade (Green) and Pre-K 4 class/grade (Blue) students demonstrate school readiness on four key items of the TS Gold assessment.
Met Target in 2016/17? No, target was not met by either of two Pre-K groups on all four indicators. The Pre-K 4 class/grade (Blue) students did meet the target for items 8a, 8b, and 9a.

Serving expectant mothers and children from birth to kindergarten, Poudre School District’s Early Childhood Education (ECE) Program uses multiple funding sources to provide critical educational services across the District and Larimer County. Services include educational, vision, and hearing screenings, home visits, socialization opportunities, parenting classes, and more. In 2013, the PSD ECE Program adopted Teaching Strategies GOLD as its assessment tool. This assessment tool can be used from birth through Kindergarten and aligns to the Colorado Academic Preschool Standards.

The first two key items/indicators (items 8a and 8b) are measuring how well young people listen to and understand increasingly complex language. The specific items being used in this Monitoring Report as indicators are referred to as 8a and 8b in the GOLD assessment. On item 8a, Preschool 3 Class (Green Group) students must score ≥ 5 , and the Pre-K Class 4 (Blue Group) students must score ≥ 6 to be considered meeting the age appropriate levels of school readiness on this objective. On item 8b, Preschool 3 Class (Green Group) students must score ≥ 4 , and the Pre-K Class 4 (Blue Group) students must score ≥ 5 to be considered meeting the age appropriate levels of school readiness on this objective.

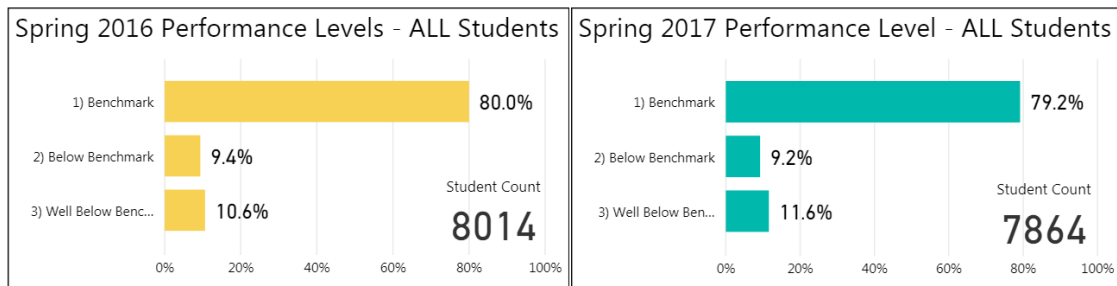
The next two indicators are measuring how well young people use language to express thoughts and needs. The specific items being used in this Monitoring Report as indicators are referred to as 9a and 9b in the GOLD assessment. On item 9a, Preschool 3 Class (Green Group) students and the Pre-K Class 4 (Blue Group) students must score ≥ 5 to be considered meeting the age appropriate levels of school readiness on this objective. On item 9b, Preschool 3 Class (Green Group) students must score ≥ 5 , and the Pre-K Class 4 (Blue Group) students must score ≥ 6 to be considered meeting the age appropriate levels of school readiness on this objective. **This target is supported by Action Step 1D – “Readiness in Early Literacy” under Major Improvement Strategy #1 (Academic Learning) of the 2017/18 PSD Unified Improvement Plan (UIP).**

Percent of Students Meeting School Readiness Indicators by Spring 2017

School Readiness Indicator	Green Group (Prek 3)	Total Green N-Count	Blue Group (PreK 4)	Total Blue N-Count	Combined Outcomes	Total N-Count
Item 8a	74.3%	397	86.5%	534	81.3%	931
Item 8b	86.1%		92.5%		89.8%	
Both 8a & 8b	73.3%		85.0%		80.0%	
Item 9a	65.2%	397	92.5%	534	80.9%	931
Item 9b	73.3%		82.8%		78.7%	
Both 9a & 9b	62.0%		81.6%		73.2%	
All 4 Indicators	61.5%	397	76.8%	534	70.3%	931

- 3) **Early Literacy Target:** $\geq 85\%$ of PSD K-3 students will meet End-of-Year DIBELS Next benchmarks. **Met Target in 2016/17?** No, in 2016/17 approximately 79.2% of kindergarten through grade 3 students met the End of Year Benchmarks.

This result is down slightly from 80.0% in 2015/16. Results from all four grade levels contributed to this slight decline. Please see Appendix 2 for more detail. **This target is supported by all four Action Steps 1A – 1D under Major Improvement Strategy #1 (Academic Learning) of the 2017/18 PSD Unified Improvement Plan (UIP).**



DIBELS Next Criterion Referenced Outcomes - 2016/17

Test Session	Grade	Well Below Benchmark	Below Benchmark	At or Above Benchmark	
Beginning of Year	K	17.5%	14.4%	68.1%	At or Above Benchmark Change
	1	22.4%	13.9%	63.6%	
	2	14.6%	7.7%	77.8%	
	3	16.4%	8.0%	75.7%	
	Total	17.6%	10.8%	71.5%	
End of Year	K	8.0%	12.5%	79.5%	11.4%
	1	14.3%	10.2%	75.5%	11.9%
	2	11.1%	7.6%	81.3%	3.5%
	3	11.3%	7.0%	81.8%	6.1%
	Total	11.2%	9.2%	79.6%	8.1%

From the 7,471 students with both the Beginning-of-Year and End-of-Year DIBELS Next measures, we can see that the number and percentage of students that meet Benchmarks increased during the school year at every grade level.

- 4) **Achievement Target:** PSD effect size ≥ 0.25 for State assessment subject by grade combinations. **Met Target in 2016/17?** No; 7th grade ELA did not meet PSD target. Met target in math.

With regard to accountability uses of state assessment results, the state of Colorado has shifted the focus from the “percent of students at specific performance levels” to the mean (or average) assessment scale score. We did not meet our target achievement results for some subgroups. Please see Appendix 3 for more detail and/or click [ACHIEVEMENT and GROWTH](#) to explore the related data visualization. Results for grade 9 math are not included due to state data collection issues and participation rates that render the information misleading and therefore useless. **This target is supported by all four Action Steps 1A – 1D under Major Improvement Strategy #1 (Academic Learning) of the 2017/18 PSD Unified Improvement Plan (UIP).**

Poudre School District uses standardized scores (or z-scores) to display and aid interpretation of achievement outcomes for individual students. Z-scores answer the fundamental question of how far to the right or left of the state-norm the students score is. In other words, z-scores help us understand “how unusual an outcome is” relative to statewide peers. Positive z-scores indicate an outcome that is greater than average. Negative z-scores indicate an outcome that is less than average. Taking the average for a set of z-scores results in what is traditionally called an “effect size.” So, where z-scores are useful in understanding the meaning of individual scores, effect sizes help us understand the meaning of a group of scores. As with z-scores, positive effect sizes indicate a mean outcome for the group being described that exceeds the mean outcome for statewide grade level peers. The larger the effect size, the more unusually high the achievement outcome. As a visual guide, effect sizes that are small and positive (0.25 to 0.49) are shaded green, medium to large and positive (0.5 up) are shaded blue, small and negative (-0.25 to -0.49) are shaded yellow, and medium to large negative effect sizes (-0.5 down) are shaded red. This shading convention is used throughout the effect size displays in this Monitoring Report. An effect size or z-score of zero indicates the exact mean outcome of the norm group.

English Language Arts (PARCC):

Spring 2015/16			Spring 2016/17		
Level	Effect Size	Students	Level	Effect Size	Students
1) ES	0.35	6029	1) ES	0.34	6148
2) MS	0.33	5272	2) MS	0.24	5266
3) HS	0.30	1007	3) HS	0.39	995
Total	0.34	12308	Total	0.30	12409

Grade	Effect Size	Students	Grade	Effect Size	Students
3	0.31	2009	3	0.34	1989
4	0.33	2079	4	0.36	2042
5	0.41	1941	5	0.33	2117
6	0.33	1928	6	0.25	1869
7	0.34	1760	7	0.20	1808
8	0.31	1584	8	0.27	1589
9	0.30	1007	9	0.39	995
Total	0.34	12308	Total	0.30	12409

Evidence Based Reading and Writing (PSAT – Grade 10):

Spring 2015/16			Spring 2016/17		
Level	Effect Size	Students	Level	Effect Size	Students
3) HS	0.49	1622	3) HS	0.44	1681
Total	0.49	1622	Total	0.44	1681

Evidence Based Reading and Writing (SAT – Grade 11):

Spring 2015/16			Spring 2016/17		
Level	Effect Size	Students	Level	Effect Size	Students
Total			3) HS	0.39	1717
			Total	0.39	1717

Math (PARCC – Grades 3-8):

Spring 2015/16			Spring 2016/17		
Level	Effect Size	Students	Level	Effect Size	Students
1) ES	0.33	6062	1) ES	0.42	6180
2) MS	0.29	5329	2) MS	0.31	5296
Total	0.31	11391	Total	0.37	11476

Grade	Effect Size	Students	Grade	Effect Size	Students
3	0.25	2033	3	0.40	2015
4	0.39	2086	4	0.43	2051
5	0.36	1943	5	0.44	2114
6	0.34	1947	6	0.31	1883
7	0.31	1786	7	0.33	1815
8	0.21	1596	8	0.29	1598
Total	0.31	11391	Total	0.37	11476

Math (PSAT – Grade 10):

Spring 2015/16			Spring 2016/17		
Level	Effect Size	Students	Level	Effect Size	Students
3) HS	0.39	1622	3) HS	0.37	1681
Total	0.39	1622	Total	0.37	1681

Math (SAT – Grade 11):

Spring 2015/16			Spring 2016/17		
Level	Effect Size	Students	Level	Effect Size	Students
Total			3) HS	0.29	1717
			Total	0.29	1717

Science (CMAS – Grades 5, 8, and 11):

Spring 2015/16			Spring 2016/17		
Level	Effect Size	Students	Level	Effect Size	Students
1) ES	0.42	1939	1) ES	0.37	2108
2) MS	0.34	1567	2) MS	0.28	1565
3) HS	0.35	551	3) HS	0.29	467
Total	0.38	4057	Total	0.33	4140

Social Studies (CMAS – Grades 4 and 7):

Spring 2015/16			Spring 2016/17		
Level	Effect Size	Students	Level	Effect Size	Students
1) ES	0.34	642	1) ES	0.40	708
2) MS	0.11	355	2) MS	0.26	656
Total	0.26	997	Total	0.33	1364

Note the small sample sizes associated with Social Studies outcomes. This is due to a sampling design that may limit interpretability.

- 5) **Academic Growth Target:** PSD student growth will exceed that of academic-peers statewide (students in the same grade level and who have similar prior year achievement scores). **Met Target in 2016/17?** No, by Grade Level and Academic Subject Combinations PSD did not exceed growth of academic peers statewide. For both median growth percentiles and Zgain (Z_Post-Z_Pre) metrics displayed below, yellow and red cells indicate areas where PSD growth was below that of academic peers statewide. Green and blue cells indicate areas where PSD growth was greater than that of academic peers statewide. Greater than zero is shaded green, at or above 0.20 shaded blue. At or below zero shaded yellow, at or below -0.20 shaded red. Z_Pre and Z_Post are simply average z-scores for the students of interest in a particular data view. Pre designates achievement prior to, or in the beginning of, the instruction period. Similarly, Z_Post designates achievement following, or toward the end of, the instruction period. Middle school English Language Arts growth is the main area of concern based on 2016/17 results.

There are subgroups of students that are not attaining the PSD growth target. The subgroup of most pronounced need of additional growth are those students that are performing at lower levels based on prior years' assessments. Please see Appendix 4 for more detail and/or click [ACHIEVEMENT and GROWTH](#) to explore the related data visualization. **This target is supported by all four Action Steps 1A – 1D under Major Improvement Strategy #1 (Academic Learning) of the 2017/18 PSD Unified Improvement Plan (UIP).**

English Language Arts (PARCC – Grades 4-9):

Level	Zgain	Z_Post	Z_Pre	Students	Level	MGP	Students
1) ES	0.04	0.37	0.34	3749	1) ES	50	1315
2) MS	-0.14	0.26	0.41	4690	2) MS	40	1457
3) HS	0.00	0.43	0.44	835	3) HS	52	201
Total	-0.06	0.32	0.38	9274	Total	45	2973

Grade	Zgain	Z_Post	Z_Pre	Students	Grade	MGP	Students
4	0.06	0.40	0.34	1836	4	51	641
5	0.01	0.35	0.34	1913	5	49	674
6	-0.17	0.26	0.43	1650	6	35	539
7	-0.16	0.22	0.38	1636	7	38	505
8	-0.10	0.31	0.41	1404	8	49	413
9	0.00	0.43	0.44	835	9	52	201
Total	-0.06	0.32	0.38	9274	Total	45	2973

FR_YN	Zgain	Z_Post	Z_Pre	Students
No	-0.06	0.60	0.67	6301
Yes	-0.05	-0.27	-0.22	2973
Total	-0.06	0.32	0.38	9274

Ethnicity	Zgain	Z_Post	Z_Pre	Students
American Indian or Alaska Native	0.03	-0.21	-0.25	37
Asian	0.00	0.78	0.78	289
Black or African American	-0.04	-0.18	-0.14	110
Hispanic	-0.06	-0.30	-0.24	1693
Native Hawaiian or other Pacific Islander	-0.09	-0.17	-0.07	17
Two or More	-0.08	0.40	0.48	338
White	-0.06	0.47	0.53	6790
Total	-0.06	0.32	0.38	9274

Evidence Based Reading and Writing (PSAT to SAT – Grade 10 to 11):

Level	Zgain	Z_Post	Z_Pre	Students	Level	MGP	Students
3) HS	-0.05	0.49	0.54	1464	3) HS	43	321
Total	-0.05	0.49	0.54	1464	Total	43	321

FR_YN	Zgain	Z_Post	Z_Pre	Students
No	-0.04	0.67	0.71	1143
Yes	-0.10	-0.16	-0.06	321
Total	-0.05	0.49	0.54	1464

Ethnicity	Zgain	Z_Post	Z_Pre	Students
American Indian or Alaska Native	0.13	0.44	0.32	10
Asian	-0.15	0.79	0.94	58
Black or African American	-0.02	0.43	0.45	12
Hispanic	-0.04	-0.24	-0.20	208
Two or More	-0.03	0.38	0.41	53
White	-0.06	0.61	0.67	1120
Total	-0.06	0.49	0.54	1461

Math (PARCC – Grades 4-8):

Level	Zgain	Z_Post	Z_Pre	Students
1) ES	0.11	0.45	0.34	3771
2) MS	-0.07	0.33	0.40	4721
Total	0.01	0.38	0.37	8492

Level	MGP	Students
1) ES	65	3771
2) MS	50	4721
Total	57	8492

Grade	Zgain	Z_Post	Z_Pre	Students
4	0.18	0.46	0.28	1860
5	0.05	0.44	0.39	1911
6	-0.06	0.33	0.40	1656
7	-0.05	0.35	0.40	1648
8	-0.09	0.30	0.39	1417
Total	0.01	0.38	0.37	8492

Grade	MGP	Students
4	67	1860
5	62	1911
6	47	1656
7	50	1648
8	52	1417
Total	57	8492

The 0.18 average z-score gain for 4th grade PSD students in math, means that the PSD spring test outcomes were shifted to the right an additional 0.18 standard deviation units beyond the gains of statewide peers. One standard deviation unit for statewide 4th grade math on the PARCC test is approximately 39 scale score units. Multiplying 0.18 times 39 gives us the number of additional scale score units gained by the average PSD 4th grade student in math, or 7 scale score units. To help put this number in context, there are 25 scale score units between several of the performance level cut scores. So 7 scale score units of additional gain is equivalent to 28% of a performance level range. Keep in mind that this is upward movement in addition to the typical annual growth that Colorado students are already realizing. The same type of interpretation can be applied to the negative z-score gains as well to estimate a student group slide backward relative to academic peers statewide.

FR_YN	Zgain	Z_Post	Z_Pre	Students
No	0.00	0.66	0.66	5678
Yes	0.03	-0.18	-0.21	2814
Total	0.01	0.38	0.37	8492

Ethnicity	Zgain	Z_Post	Z_Pre	Students
American Indian or Alaska Native	-0.08	-0.17	-0.09	33
Asian	0.06	0.87	0.81	255
Black or African American	-0.05	-0.22	-0.18	95
Hispanic	0.05	-0.24	-0.29	1610
Native Hawaiian or other Pacific Islander	0.12	0.06	-0.06	14
Two or More	0.01	0.50	0.49	299
White	0.00	0.53	0.53	6186
Total	0.01	0.38	0.37	8492

Math (PSAT to SAT – Grade 10 to 11):

Level	Zgain	Z_Post	Z_Pre	Students	Level	MGP	Students
3) HS	-0.05	0.39	0.45	1464	3) HS	42	321
Total	-0.05	0.39	0.45	1464	Total	42	321

FR_YN	Zgain	Z_Post	Z_Pre	Students
No	-0.03	0.59	0.62	1143
Yes	-0.14	-0.31	-0.18	321
Total	-0.05	0.39	0.45	1464

Ethnicity	Zgain	Z_Post	Z_Pre	Students
American Indian or Alaska Native	-0.28	0.33	0.61	10
Asian	-0.06	0.89	0.95	58
Black or African American	0.17	0.15	-0.01	12
Hispanic	-0.11	-0.35	-0.24	208
Two or More	-0.16	0.25	0.40	53
White	-0.04	0.52	0.55	1120
Total	-0.05	0.39	0.45	1461

- 6) **Additional Support Target:** 100% of annual School Unified Improvement Plans (SUIP) will contain action steps that specifically address the Additional Support group needs at their sites.
Met Target in 2016/17? Yes

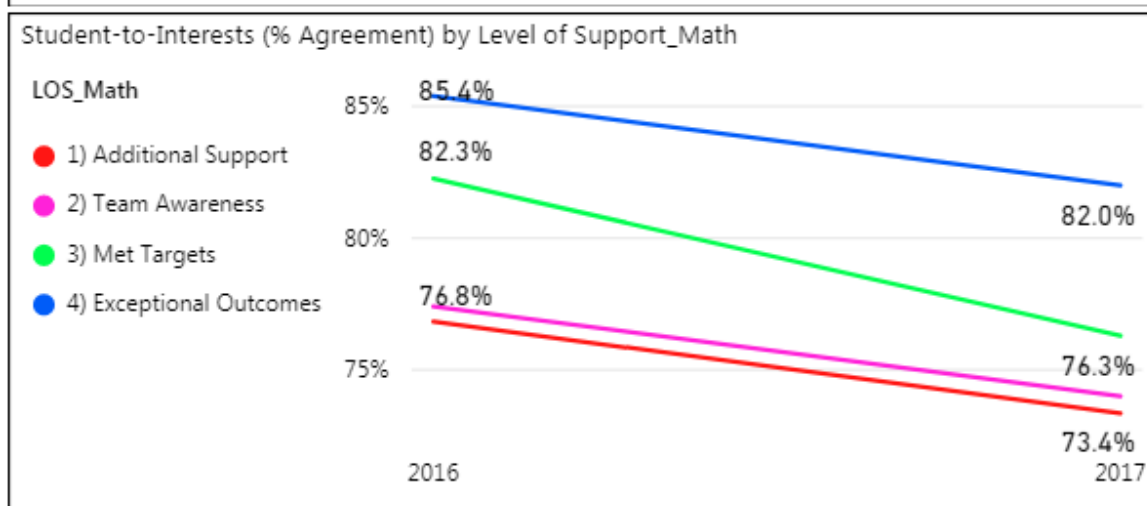
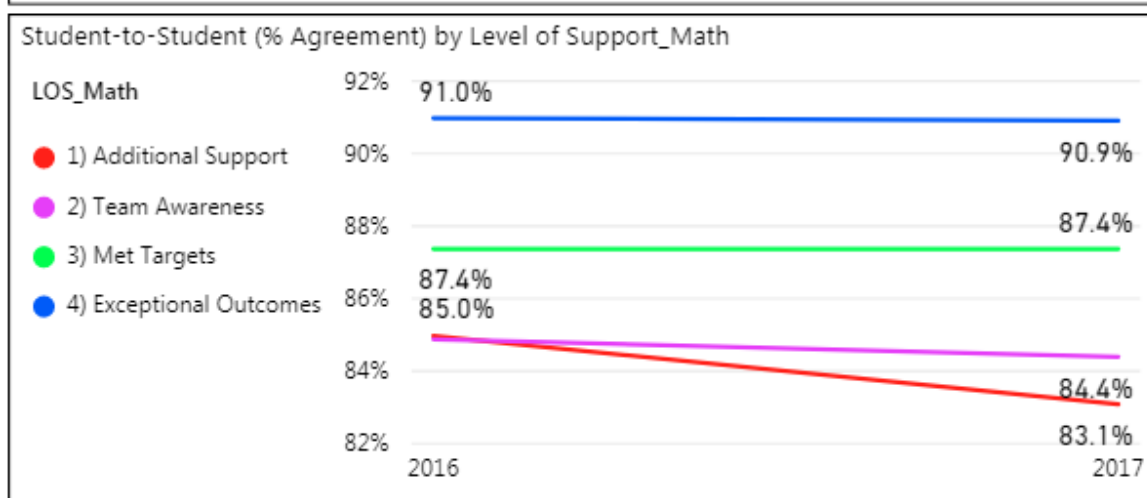
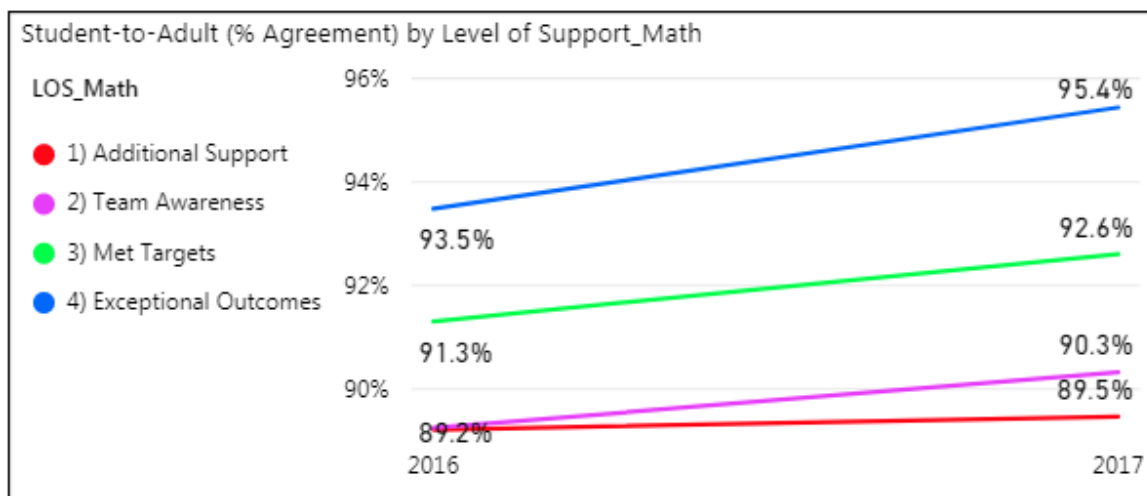
PSD has developed a data visualization tool, Levels of Support, which allows for a shared understanding districtwide regarding which PSD students are most in need of additional academic support in English/Language Arts and Math. PSD students meeting and exceeding performance levels of other students nationwide and statewide are also identified. This shared understanding is based on a body of evidence from the prior academic year for each returning student. The “Additional Support” group consists of students grades 1-12 that scored below the 35th percentile on each district/state assessment (DIBELS Next, MAP, PARCC, CMAS, PSAT, SAT) and each assessment occasion (Fall, Winter, Spring) during the prior school year in either math or in English/reading. This group of students are supported with our schools best efforts to help them make gains relative to national and statewide academic peers as they are currently performing among the lowest 1/3 of students statewide and/or nationwide. “Exceptional Outcomes” students met or exceeded the 95th percentile on the same set of measures. “Met Targets” scored consistently above the 35th percentile, and “Team Awareness” had at least one prior score in the “Additional Support” range and at least one score in the “Met Targets” range.

The Levels of Support tool is available to teachers and school administrators in the first week that teachers are back on contract at the beginning of each school year. Current year classifications of evidence-based support level recommendations are only available to appropriate school and district staff. Recommended support classifications are not part of a student’s permanent record, they are time-limited recommendations to current educational staff working directly on behalf of students. The current year designations are based on a body of evidence from the prior school year. Classifications do not fluctuate based on the latest single scores attained in the current school year because the designations are based on a body of evidence rather than the latest individual score. This stability of support classification within a single school year allows for the systematic effectiveness studies of PSD’s support systems. This is a critical component of system improvement efforts.

Every PSD school directly addressed the needs, to some extent, of their students identified as candidates for Additional Support within their 2017/18 School Unified Improvement Plan (SUIP). Currently in math, 47.3% (1,484) of the 3,139 students identified as “Additional Support” have an individual support plan of some type, for ELA/Reading Additional Support it’s higher, 64.5% (1,743/2,703). In math, this represents a slight decline from this time last year when the percentage was 51.8%. In ELA/Reading, this represents almost no change from this time last year when the associated percentage was 65.3%. PSD will continue to monitor and refine the School Improvement Process as it relates specifically to students’ needs in the Additional Support category of the Levels of Support data tool. **This target is supported by Action Step 1C – “[Data Informed Leadership](#)” under Major Improvement Strategy #1 (Academic Learning) of the 2017/18 PSD Unified Improvement Plan (UIP).**

Connections Information for Additional Support - Math:

We will focus on selected outcomes for Additional Support – Math to highlight patterns that are evident for both English/Reading and for Math. Please click [ACHIEVEMENT and GROWTH](#) and [STUDENT CONNECTIONS](#) to explore related data visualizations.



Academic Performance Information for Additional Support - Math:

We see that performance remains relatively low for the Additional Support group in years subsequent to being identified as good candidates for staff awareness and purposeful assistance. The need for academic support persists into future years.

Spring 2015/16			Spring 2016/17		
Level	Effect Size	Students	Level	Effect Size	Students
1) ES	-0.92	1023	1) ES	-0.89	982
2) MS	-1.02	760	2) MS	-1.00	720
Total	-0.97	1783	Total	-0.94	1702

Grade	Effect Size	Students	Grade	Effect Size	Students
3	-0.93	393	3	-0.83	352
4	-0.91	342	4	-0.92	328
5	-0.94	288	5	-0.93	302
6	-1.09	261	6	-1.01	261
7	-1.01	280	7	-1.03	259
8	-0.96	219	8	-0.93	200
Total	-0.97	1783	Total	-0.94	1702

Academic Growth Information for Additional Support - Math:

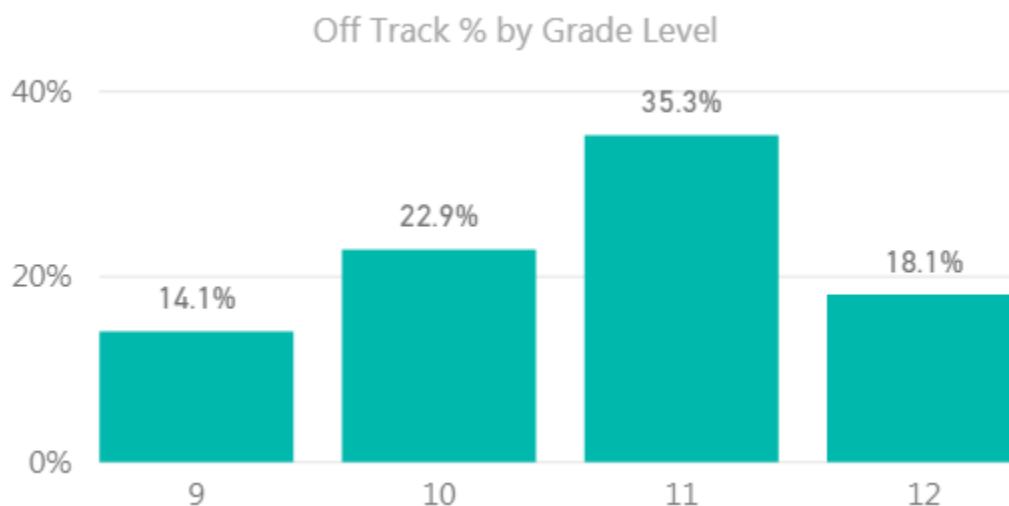
Level	Zgain	Z_Post	Z_Pre	Students	Level	MGP	Students
1) ES	0.23	-0.94	-1.16	613	1) ES	55	613
2) MS	0.10	-1.01	-1.11	691	2) MS	46	691
Total	0.16	-0.97	-1.14	1304	Total	50	1304

Grade	Zgain	Z_Post	Z_Pre	Students	Grade	MGP	Students
4	0.28	-0.93	-1.21	320	4	56	320
5	0.17	-0.95	-1.12	293	5	54	293
6	0.05	-1.03	-1.07	251	6	46	251
7	0.12	-1.03	-1.15	253	7	47	253
8	0.16	-0.94	-1.11	187	8	41	187
Total	0.16	-0.97	-1.14	1304	Total	50	1304

It is clear (in math and English Language Arts) that the Additional Support group is attaining growth at the elementary level that exceeds the growth of statewide academic peers. Note that Median Growth Percentiles (MGP) are above 50 and the Zgain is greater than zero. For middle school, the evidence is mixed. The positive Zgain outcomes indicate that this group of students has moved their mean outcome up, closer to the overall state mean. The Colorado Growth Model suggests that similar students statewide are making even more progress at the middle school level.

- 7) **Credit Accumulation Target:** $\geq 85\%$ of 9th-12th grade students will be on track to graduate within 4 years of transition into 9th grade.
Met Target in 2016/17? No, currently (as of 2-20-18) 77.6% of 9th-12th grade students are on track to graduate based on credit accumulation.

PSD school administrators, counselors, and district staff have worked together to put in place a more consistent credit accumulation tracking and response system. The focus for this system has been the 9th grade students, as this is a critical transition year and research shows that falling behind during the freshman year in credits earned is a strong predictor of future academic challenges. Current year results are very similar to those that were evident at this time last year (79.7%). Please see Appendix 5 for more detail. **This target is supported by Action Step 1C – “Data Informed Leadership” under Major Improvement Strategy #1 (Academic Learning) and Action Step 3A – “Transition Strategies” under Major Improvement Strategy #3 (Transitions) of the 2017/18 PSD Unified Improvement Plan (UIP).**



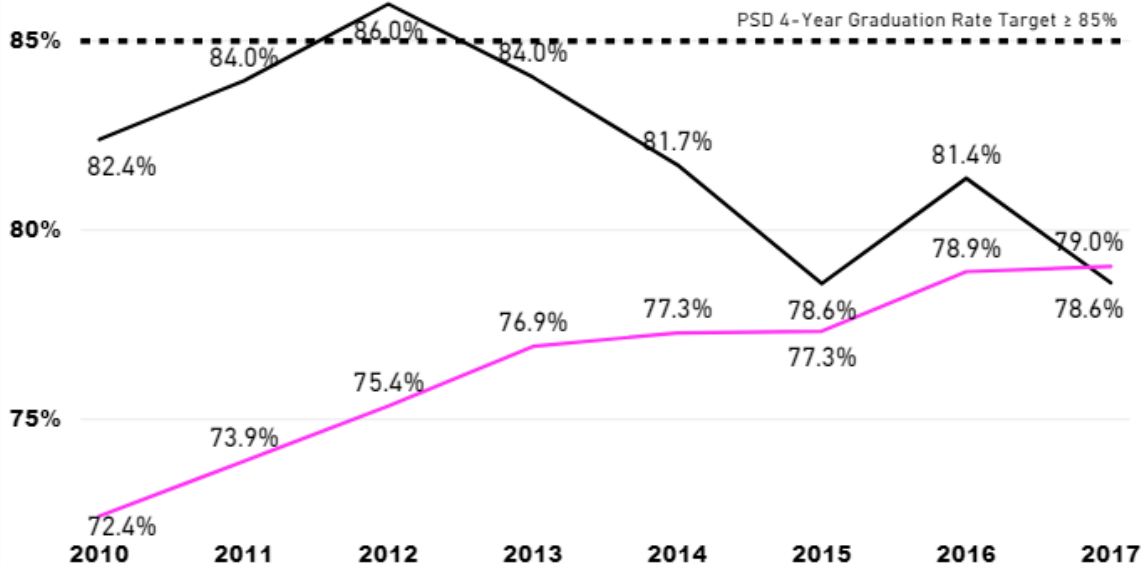
Note: As of 2/20/18 at 2:00 pm

- 8) **Completion/Graduation Target:** 100% of PSD students will successfully complete their PreK-12 education. As a leading indicator toward this completion target, $\geq 85\%$ of PSD students will graduate within 4 years of transition into 9th grade.
Met Target in 2016/17? No, the PSD Class of 2017 had graduation rate of 78.6% based on official state calculations (down 2.8 percentage units from an 81.4% the year before), and a graduation rate of 81.7% when ASCENT and other special student groups are included. Other special groups that include PSD graduates not included in the state calculated 4-year graduation rates are Opportunities Unlimited (OU), Cooper Home (CH), and Community Connections (CC). Current information regarding each of these programs is available at the PSD website.

ASCENT, and other special programs, enroll students that did meet all graduation requirements, but are not included in the State's calculation as graduates. This calculation rule by the state is driven by funding considerations related to these programs. Please click [GRADUATION RATES](#) to explore related data visualizations. **This target is supported by Action Step 3C – “Graduation Rates” under Major Improvement Strategy #3 (Transitions) of the 2017/18 PSD Unified Improvement Plan (UIP).**

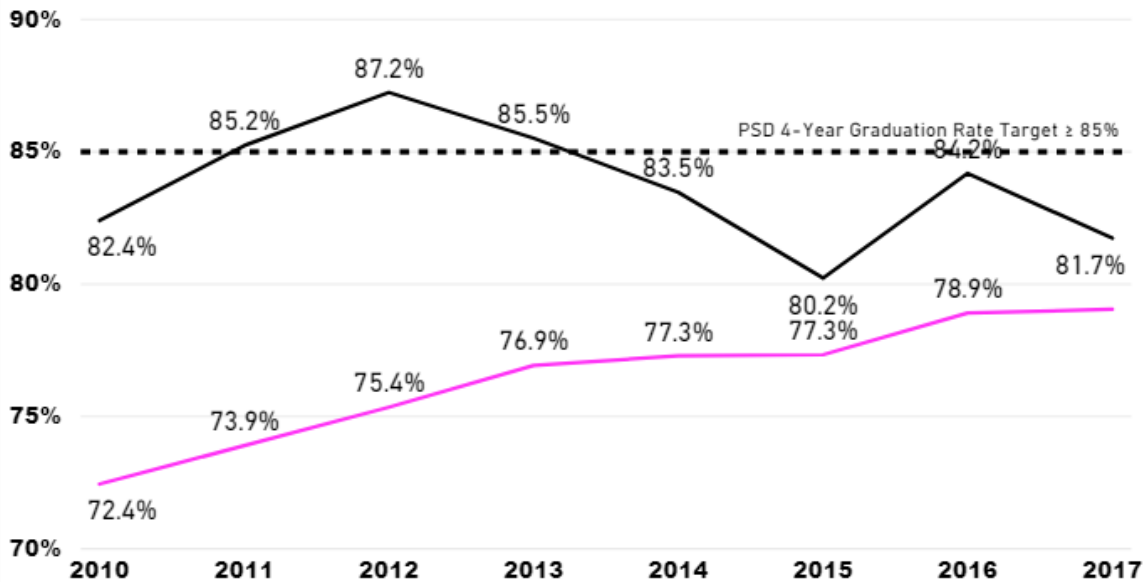
Graduation Rates - ALL Students

SCHOOL ● 1) POUDRE R-1 ● 2) STATE TOTALS



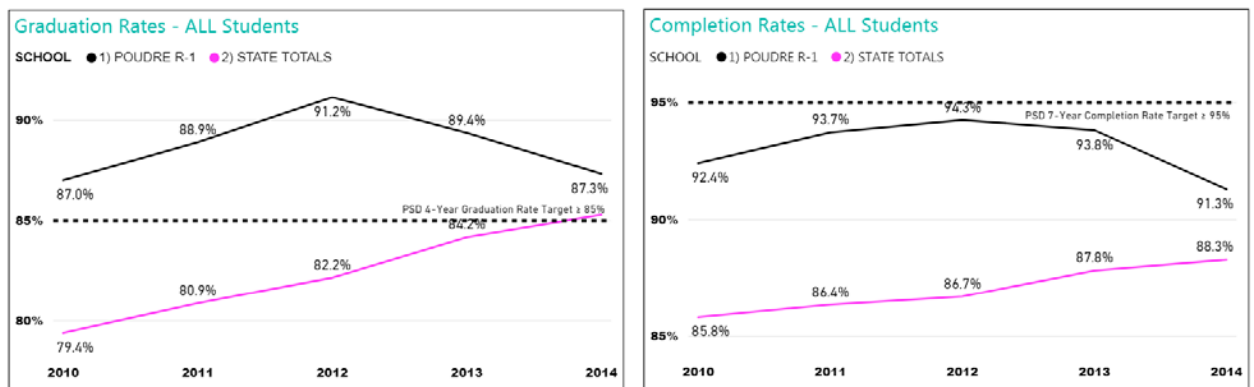
Graduation Rates - ALL Students (ASCENT, OU, CH, CC Adjusted)

SCHOOL ● 1) POUDRE R-1 ● 2) STATE TOTALS



The PSD 4-year graduation rate has decreased 2.3 percentage points from 83.5% in 2016 to 81.2% in 2017 (based on the ASCENT-adjusted PSD rate). The official state-calculated PSD graduation rate of 78.6% is down 2.8 percentage units from 81.4% in 2016. The 2017 graduation rate of 78.6% is exactly the same as the PSD historical low associated with the class of 2015; the class of 2015 was the first PSD class to have graduation requirements of 240 credits, up from 220 credits for prior graduation classes. Although a historical low for PSD, the class of 2015 graduation rate of 78.6% exceeded the statewide graduation rate of 77.3%. The PSD class of 2017 graduation rate (78.6%) is below the statewide graduation rate of 79.0%. When comparing the 2017 PSD ASCENT-adjusted rate of 81.2% to the statewide rate of 79.0%, the PSD rate exceeds the statewide rate by 2.2 percentage units, which is a much smaller difference than we have experienced since the implementation of the ASCENT program in the fall of 2011. Statewide, graduation rates have been steadily increasing. PSD has experienced an overall decline in graduation rates over the past six years (since the Class of 2012).

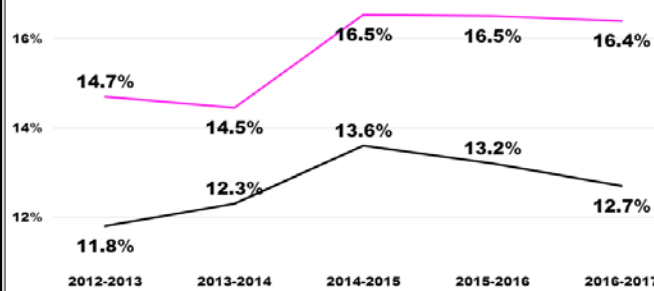
The 7-year graduation rates have also declined from 91.2% in 2012, to 87.3% for the class of 2014 (the most recent graduates for which this extended rate is available). The statewide 7-year rate has been steadily increasing over the same set of years. Similar trajectories are evident for completion rates as well. Please see the 7-year graduation and completion rates provided below. This pattern suggests that PSD will see declining 7-year rates for the next several years leading up to the class of 2017. The one exception of course is anticipated to be for the class of 2016.



Student mobility (moving in/out of a school other than at standard transition times) may be key factor in understanding and addressing declining graduation rates. The leadership value of exploring this issue in conjunction with graduation rates may become apparent as PSD partners with local agencies and organizations to address factors that promote student mobility. Please see Appendix 1 for more detail and/or click [MOBILITY RATES](#) to explore related data visualizations. The overall PSD mobility rates are not trending upwards in recent years, but there is evidence that mobility rates have increased dramatically for specific subgroups of students. In 2014/15, 2015/16, and 2016/17 there are dramatic jumps in mobility and corresponding decreases in PSD graduation rates relative to state graduation rates for the same subgroups that appear to be most impacted by factors that promote mobility.

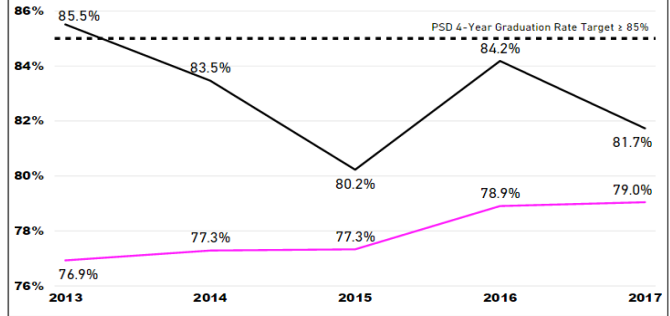
Mobility Rates - ALL Students

SCHOOL ● 1) Poudre R-1 ● 2) STATE TOTAL



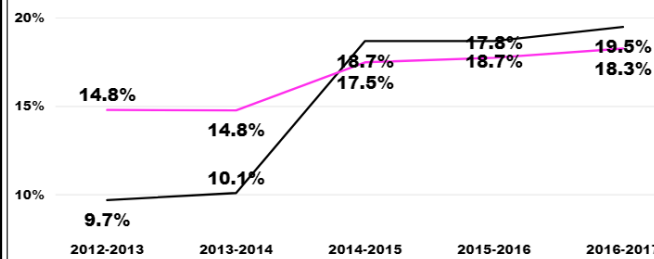
Graduation Rates - ALL Students (ASCENT, OU, CH, CC Adjusted)

SCHOOL ● 1) Poudre R-1 ● 2) STATE TOTALS



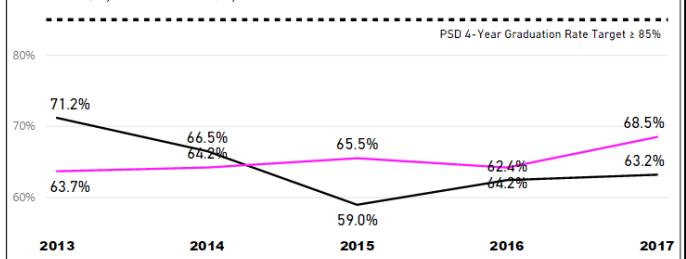
Mobility Rates - Economically Disadvantaged Students

SCHOOL ● 1) Poudre R-1 ● 2) STATE TOTAL



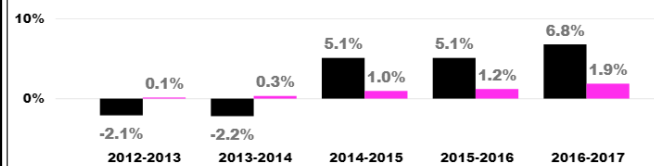
Graduation Rates - Economically Disadvantaged Students

SCHOOL ● 1) Poudre R-1 ● 2) STATE TOTALS



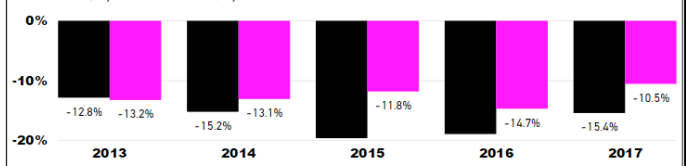
Mobility Rate Disparity (FR - ALL) Positive Values Indicate :(

SCHOOL ● 1) Poudre R-1 ● 2) STATE TOTAL



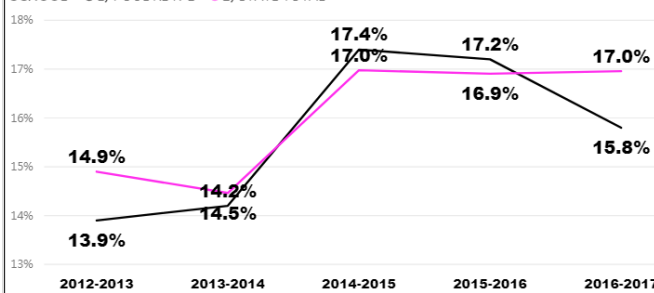
Graduation Rate GAPS (FR - ALL)

SCHOOL ● 1) Poudre R-1 ● 2) STATE TOTALS



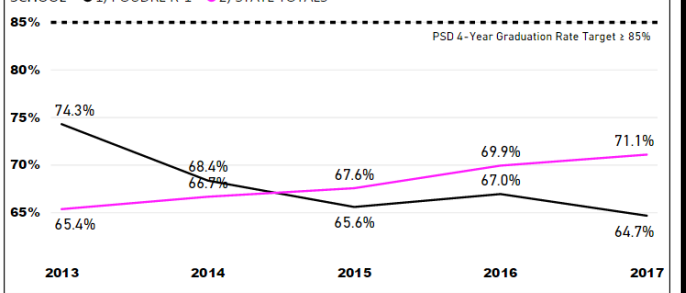
Mobility Rates - Hispanic/Latino Students

SCHOOL ● 1) Poudre R-1 ● 2) STATE TOTAL



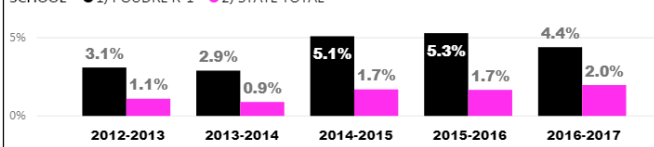
Graduation Rates - Hispanic/Latino Students

SCHOOL ● 1) Poudre R-1 ● 2) STATE TOTALS



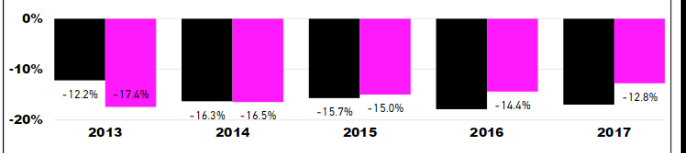
Mobility Rate Disparity (Latino - ALL) Positive Values Indicate :(

SCHOOL ● 1) Poudre R-1 ● 2) STATE TOTAL



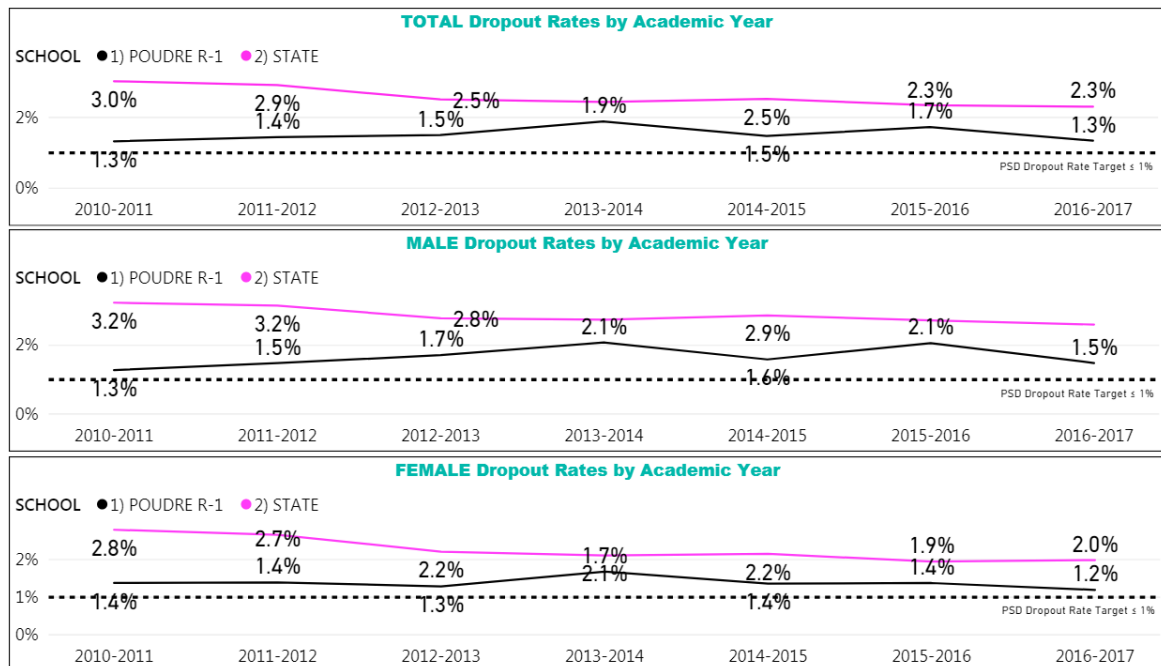
Graduation Rate GAPS (Latino - White)

SCHOOL ● 1) Poudre R-1 ● 2) STATE TOTALS

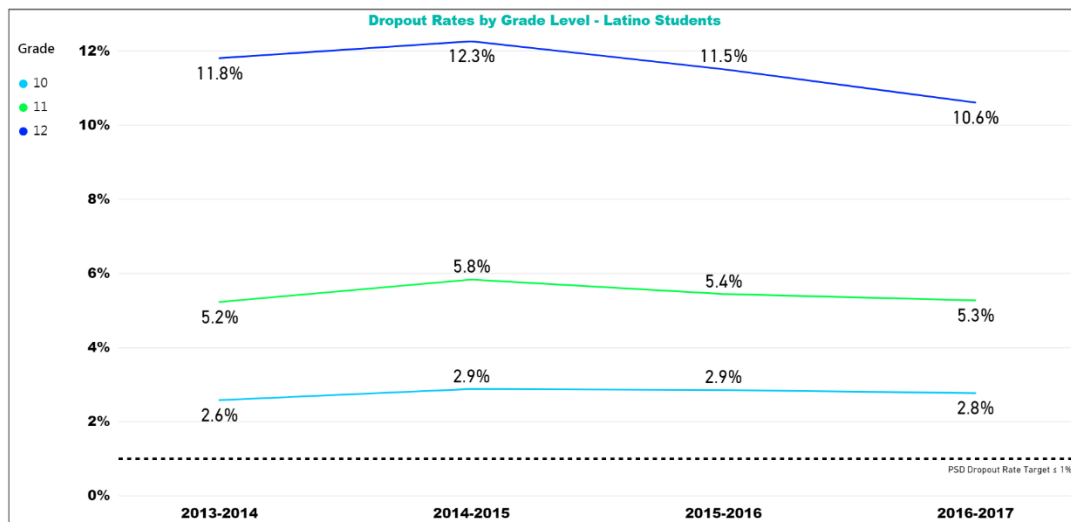


- 9) **Dropout Rate Target:** Less than 1% of PSD students will dropout in a given year.
Met Target in 2016/17? No, the PSD dropout rate was at 1.3% in 2016/17.

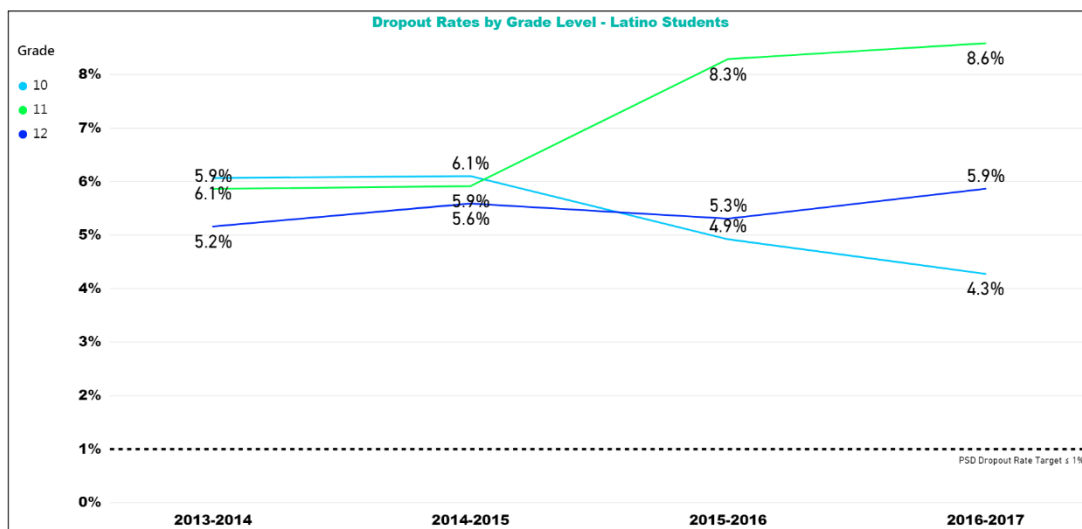
This represents a decrease of 0.4 percentage points from 2015/16, and is 1 percentage unit below the state's 2016/17 dropout rate. By looking at the state and PSD dropout rates across the past seven years, it appears that the change from 220 to 240 credits as a graduation requirement (Class of 2015) has had no impact on dropout rates. Dropout rates do vary dramatically by ethnicity, economic status, and other student characteristics. Please click [DROPOUT RATES](#) to explore related data visualizations. **This target is supported by Action Steps 3A – “Transition Strategies” and 3B – “Transition Monitoring” under Major Improvement Strategy #3 (Transitions) of the 2017/18 PSD Unified Improvement Plan (UIP).**



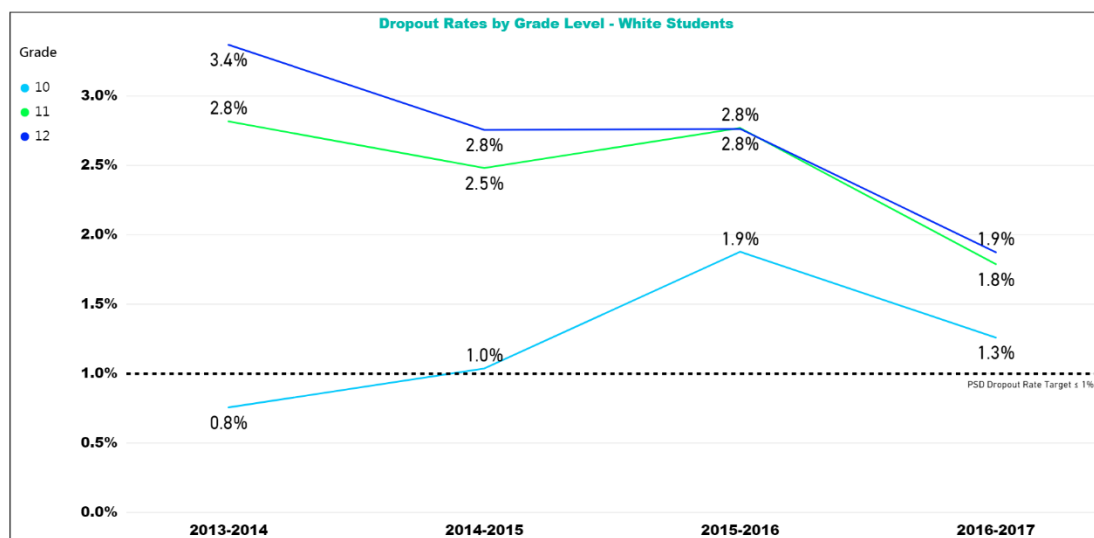
One can see increasing rates of dropping out as the grade levels progress from 7th to 12th. Dropout rates are higher for Latino students than White students statewide and in PSD, but there is a difference in the grade levels at which dropout rates are highest for Latino students. In PSD in recent years, the Latino dropout rate is higher for 11th grade students than for 12th grade students. This is not true for PSD White students or State Latino students.



State of Colorado



Poudre School District

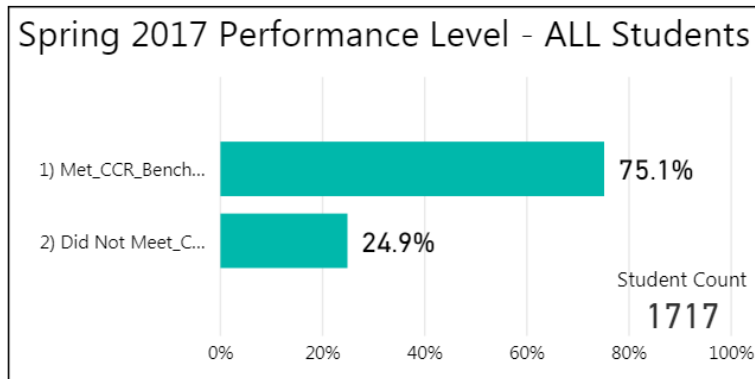


Poudre School District

- 10) **College Readiness Target:** $\geq 85\%$ of PSD students will meet or exceed SAT college readiness benchmarks in Evidence Based Reading and Writing; and in Math.
Met Target in 2016/17? No, the 2016/17 11th grade class had 75.1% and 57.2% of students meet the college readiness targets respectively.

Achievement on the SAT does meet the 0.25 effect size target that PSD has set for all state assessments. PSD outcomes do exceed state outcomes. **This target is supported by all four Action Steps 1A – 1D under Major Improvement Strategy #1 (Academic Learning) of the 2017/18 PSD Unified Improvement Plan (UIP).**

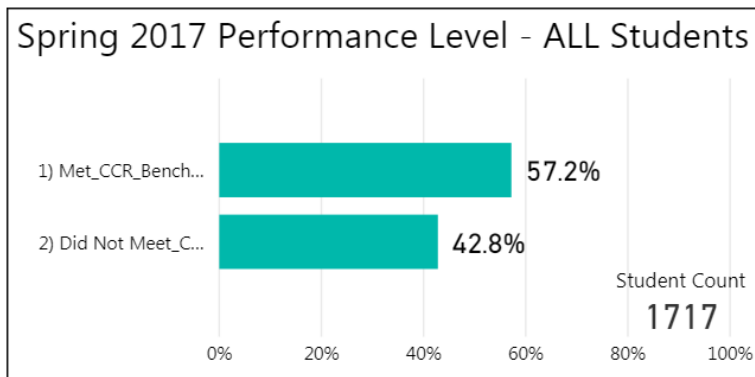
SAT Evidenced-Based Reading and Writing:



Spring 2016/17

Level	Effect Size	Students
3) HS	0.39	1717
Total	0.39	1717

SAT Math:



Spring 2016/17

Level	Effect Size	Students
3) HS	0.29	1717
Total	0.29	1717

- 11) **AP/IB/Concurrent Enrollment/Work-Based Learning Participation:** $\geq 50\%$ of PSD students in grades 11 and 12 will have an Advanced Placement (AP), International Baccalaureate (IB), Concurrent Enrollment, and/or work-based learning experience each year.
Met Target in 2016/17? Yes, 59.1% of PSD juniors and seniors had a Postsecondary Workforce Readiness (PWR) experience.

Counting how many juniors or seniors were part of PSD in 2016/17 will depend on the time frame of the data pull. Using the CDE Pupil Membership by School and Grade official data source and removing the charter school students from the count, PSD had approximately 1,973 juniors and 1,963 seniors in 2016/17. An unduplicated count (no student is counted twice) of 2016/17

juniors and seniors who participated in one or more AP, IB, Concurrent Enrollment, and/or work-based learning experiences is 2,328 (1,069 juniors, 1,259 seniors). Approximately 54.2% of juniors had one of these PWR experiences (up from 50.8% in 2015/16), while 64.1% of seniors had a PWR experience in 2016/17 (up from 63.3% in 2015/16). This is a total of 59.1% (2,328/3,936) of juniors and seniors considered collectively.

The outcomes reported above do not include students that participated in “CU Succeeds”. Students participating in CU Succeeds take college classes taught at PSD campuses by highly qualified college level instructors and recorded on a CU Denver transcript. Rocky Mountain High School has the largest pool of students participating with approximately 200-250 students a year accessing this post-secondary experience. For the past two years (2015/16 and 2016/17) CU Succeeds data has not been included in this report due to challenges in getting the student level information needed to generate unduplicated counts with AP, IB, other concurrent enrollment opportunities, and work-based learning experiences. PSD staff have been collaborating with CU staff to work toward a solution regarding the needed student level data to monitor PSD student access levels and anticipate this information being included in the 2017/18 data under this particular target. **This target is supported by Action Step 3A – “Transition Strategies” under Major Improvement Strategy #3 (Transitions) of the 2017/18 PSD Unified Improvement Plan (UIP).**

- 12) **AP/IB Performance Target:** PSD classroom teacher z statistics ≥ 1.96 (indicates advanced student performance significantly higher than typical international outcomes).
Met Target in 2016/17? Yes, PSD AP advanced classes exceeded international norms by 2.59 standard errors in 2016/17, down from 3.21 standard errors in 2015/16. IB advanced classes exceeded international norms by 2.43 standard errors in 2016/17, down from 2.82 standard errors in 2015/16.

Comparisons of our AP Exam outcomes to international outcomes are carried out as part of the PSD system for identifying evidence of instructional effectiveness for our teacher evaluation process. When the 2016/17 PSD AP teachers’ mean AP exam scores are converted to z-scores (using the standard error of the mean) and compared to the distribution of mean outcomes for all AP teachers internationally, the typical PSD AP teacher’s mean is 2.59 standard error units to the right of the international average, and for IB advanced classes, PSD teachers are 2.43 standard errors to the right of the international average. This is strong evidence that our AP and IB students are performing at very high levels on the AP and IB exams relative to students worldwide. **This target is supported by Action Step 1B – “Formative Instruction Practice” under Major Improvement Strategy #1 (Academic Learning) of the 2017/18 PSD Unified Improvement Plan (UIP).**

- 13) **Postsecondary Outcomes Target:** All percentages and rates higher than related rates for Colorado.
Met Target in 2016/17? UNKNOWN as the CCHE/CDHE have not released the data for the Class of 2016. Based on all 5 postsecondary success measures, and for the past 7 graduating classes (2009-2015) for which PSD and State data are available, PSD has consistently met this target.

Every PSD graduating class from 2009 to 2015 has had lower remediation rates, higher enrollment in 2-year and 4-year institutions, higher first year GPA, higher average cumulative credit hours in their freshman year, and higher persistence into their second year of college. Please see Appendix 6 for more detail.

- 14) **Health and Wellness Target:** Eight key Healthy Kids Colorado Survey items that are directly related to the school environment are more favorable than the state's respective percentages. **Met Target in 2016/17?** No, based on the latest data available at this time which is from the 2015/16 Healthy Kids Colorado Survey. High school self-reported "bully rates" were slightly higher (21.1%) than the states rate (20.1%). PSD met the target on all other items.

The Healthy Kids Colorado Survey (HKCS) collects self-reported health information from Colorado public school students every other year. It allows for both state and regional-level estimates and is administered to students in randomly selected classrooms. The HKCS was administered in Fall 2015 to more than 40,000 students from more than 250 middle and high schools. HKCS is supported by Colorado Department of Public Health and Environment (CDPHE), Colorado Department of Education (CDE), and Colorado Department of Human Services (CDHS).

The Healthy Kids Colorado Survey is the primary source of direct student level measures that provide statewide norms to aid in interpretation of results. The Healthy Kids Colorado Survey has been in a period of revision and improvement over recent years, so this first report out will focus on the 2015/16 data and PSD will remain hopeful that the key items selected for inclusion remain in effect as the survey evolves over time. The specific items selected are a subset of the whole survey and were selected due to their measurement of factors a school staff can influence in a direct manner. There are many other risk-behavior and diet items on the Healthy Kids Colorado Survey that are useful information for a community to survey, but may not be appropriate for inclusion in an accountability process. Please click [Healthy Kids Colorado Survey](#) to find additional information about the survey. The 2017/18 results are expected to be made available prior to the end of the current school year.

There are eight items, six for high schools and three for middle schools that are directly related to school environments and can be appropriately included in the DE 1.0 Monitoring Report. Outcomes for PSD and the state of Colorado on these eight items are provided below. PSD percentages that met the target (more favorable) are shaded green. Others shaded yellow.

Healthy Kids Colorado Survey Key Items Related to School

Level	Students who...	PSD	State
Middle School	Reported having PE class at least 1 day per week, on average	74.6% *	57.3%
	Reported playing on at least 1 sports team in the past 12 months	77.4%	68.2%
	Bullied on school property in past 12 months	40.7% *	47.5%
High School	Participated in extracurricular activities at school	81.4% *	69.3%
	Know an adult who they could talk to or go to for help	80.4% *	71.3%
	Agree that teachers care about them and give them a lot of encouragement	74.6% *	60.9%
	Bullied on school property in past 12 months	21.1%	20.1%
	Have been threatened or injured at school with a weapon in the past 12 months	2.6% *	5.6%
	Did not go to school at least 1 day in the past 30 days because felt they would be unsafe at school or on way	2% *	5.5%

An asterisk () indicates a statistically significant difference between PSD and the state.*

Success in a Changing World

PSD students are prepared for college and workforce success. PSD ensures access and encourages participation in a wide range of experiences that reflect expectations of a changing world.

As PSD prepares students, staff and community for success in a changing world, we have had several opportunities to provide career exploration through **learning about work**, **learning through work**, and **learning at work**.



Learning About Work

This past year we implemented Career Cruising as a tool to help support students in documenting and exploring their career and academic plans for their future beyond high school. At one middle school, a student was sharing how she knew she wanted to be a doctor her whole life. What an aspiration for a young middle school student. Upon completing the Career Matchmaker in Career Cruising, one of the top careers listed for her was a school counselor. As she dug into this career, she did notice her strengths for this career and it peaked her interest. She started to reach out to her school counselor to learn more about the skills and knowledge one needs to be a school counselor. It is important for our youth to learn more about their passions and interests and how careers can support these passions.



Another opportunity for students, parents and community to build awareness is an event called [“Futures Night”](#) or [Noche` Para el Futuro](#), which is a series that started in fall, 2017. *Futures Night - A Career Series* is a community collaboration to build awareness regarding career options in Northern Colorado. The series includes three events:

- [Skilled Trades & Technical Sciences](#)
- [Business, Marketing & Public Administration](#)
- [Criminal Justice and Health Science](#)

While this event is multigenerational, the focus will be on middle and high school students. Attending this event will provide you with information on careers in Architecture, Construction, Manufacturing, Logistics and Transportation (including aviation). Experts in these fields will share their career experiences, pathways and answer your questions. We will have a panel discussion of industry experts from 6:00-7:00 pm, followed by a Career/Education Expo to learn more about career and educational opportunities in the area.

CTE teachers partner with community members for project-based learning through their CTE courses. One example includes a partnership with Neuworks Mechanical, a local plumbing firm. The [plumbers](#) presented the students with a problem to solve, presented a [drawing](#) of the problem and asked the students to present solutions. The students worked in teams of four using Solidworks to design a solution. The plumbers were ecstatic, saying they would never have thought of the student's solutions!



[Learning Through Work](#)

In order for students to get hands-on experience in careers, they may be interested in exploring careers through job shadows, internships and apprenticeships. These three opportunities support students in learning through work and at work. These are learning opportunities that take our students beyond the school walls and into local businesses to interact with multigenerational individuals who are in careers and apply essential skills in the workplace. This learning opportunity helps support our students in expanding their career knowledge and building their confidence.

Journal entries from some of our [PWR Interns](#) and a short video:

"I started my [Healthy Hearts](#) internship this week, courtesy of the Medical Center of the Rockies. On Tuesday, I helped out with a biometric data screening for employees.....I was coordinating insurance ID's and writing receipts for the extra biometric tests that patients were taking.....I think that being a part of check-in gave me that experience in not only the scientific part of cardiology, but also the management aspect..... All in all, this first week has been immensely influential and I can't wait for these next weeks!"

"This has been my first week here at the Orthopedic Bioengineering Research Lab at CSU, and I think beyond lucky doesn't sum up how I feel about getting this internship opportunity. I think I have figured out the basic procedure for the whole lab, and it is so interesting and mind bogglingly educational for me.....One thing I am grateful for is how it really feels like a family at the lab, and even though I am young and less experienced, they treat me the same and want me to learn and enjoy what we all do."

"During our internship, we all wrote some reflection letters that would be sent back to us in a year. While writing mine, I realized how much I had grown as a person through this internship. It has equipped me with basic life skills and job skills and has given me such great opportunities. It influenced my perspective on the future and what I want to eventually do."

Learning At Work

The Postsecondary and Workforce Readiness team has worked hard to reach out to connect with local businesses. We have been very fortunate to find our local industry extremely welcoming to our students regarding career explorations. Our partnership with Larimer County Workforce Center, NoCo Manufacturing Partnership and the Northern Colorado Health Sector Partnership has also provided opportunities for our students and parents to build awareness in the power of job shadows, career tours, internships and soon to be apprenticeships.

Feedback from the NoCo Manufacturing Rocks! Tours:

"The most valuable part of the tour was hearing about the range of prior experience [at Sears Trostel] gives me hope."

"I was surprised by the process to make the finished product and the importance of each person's job [at Walker Manufacturing]."

"It was valuable to learn about the job opportunities involving manufacturing and metal [at Manes Machine]."

Summer in The City

The summer of 2017 was the first year of the Summer in the City program developed by PSD [PWR Internship Program](#) and the City of Fort Collins. Poudre School District students took some time to learn about how their City works. The program was filled with tours and presentations to help students understand and be more involved in local government.

UCHealth - Career Series

"So, you want to be a nurse or a medical professional?" Poudre School District has partnered with Poudre Valley Hospital to create a [career series](#) (5th series is spring, 2018). See information in [English](#) and [Spanish](#).



We value having students share their work-based learning experience. One way we do this is through **"Save the Date Internship Open House."** This is an opportunity for students to present what they learned through their work-based learning experience. They share this information with peers, parents and community members. It is a capstone to the internship opportunity.

Community Support of PWR programming: We could not do all of this career education without the great partnerships with the local industries. Poudre School District CTE programs have Advisory teams that meet bi-annually to support Career Pathways work. Content areas of support include Business, Marketing, Computer Science, Agriculture, Advanced Manufacturing, Family & Consumer Sciences and ACE. Local community members and postsecondary partners advise on workforce trends, economic development and preparing students for workforce and further education. Other outcomes of the Advisory Teams include community support of CTE programs through events such as judging CTSO's, guest speaking, industry field trips, and Work-Based Learning placements.



Above and Beyond

PSD students are challenged, motivated, and inspired to reach their personal level of excellence. PSD offers students a broad and diverse set of opportunities that cultivates their talents and offers multiple pathways to high levels of success.



The following exemplars will demonstrate that PSD students are experiencing opportunities that cultivate their talents and many are experiencing high levels of success. There are many examples of students, teachers, coaches, counselors, principals, other school staff, parents, guardians, and community partners working together to create extraordinary experiences and support the successes of our community's young people. The following are selected examples that celebrate accomplishments experienced during the 2016/17 school year. We hope that the sharing of these stories inspires our staff and the communities we serve toward continued and expanded partnership in supporting all students toward their personal "Above and Beyond" experiences. Each year in this section of the DE 1.0 Monitor Report, we will move this "spot light" around to highlight the diversity of extraordinary experiences and success students are having in performing arts, intellectual competitions, athletics, and all other manner of interests and passions.

Adventure P.E. exposes young adults to classic Colorado activities

Unlike a typical gym class, the adventure physical education class isn't limited by the walls of classroom. What began as one class at Rocky Mountain High School 20 years ago has evolved into one of the most popular physical education courses at the comprehensive high schools.

Students utilize local natural resources to enrich their education, with activities like fly fishing in the Poudre River, mountain biking in Lory State Park, and rock climbing around Horsetooth. The list is as diverse as the schools, with offerings including scuba diving, horseback riding, outdoor survival, disc golf, archery, ice hockey and more.



"We used to call these non-traditional sports, but really, we're in Colorado, and they're all traditional sports here," Mike Dyer, physical education teacher at Rocky Mountain High School said. The classes offer a practical education for teenagers growing up in the shadow of the Rocky Mountains. We want this to be a springboard for kids to take the next step into the outdoors," Dyer said. "We want to give them the confidence to do their own research and be self-guided in these activities."

The class ties into the District Ends, which encourage education that exposes students to authentic experiences, connects them with the local community, and challenges them to do their personal best.

"This class makes me feel happy, and it's good to connect with nature," junior Kaya Cooper said. "I've learned so much more about Fort Collins, like new places to hike. It's cool to see the different parts of town that I didn't know about before."

Poudre High School and concurrent enrollment

Poudre High recently became a satellite campus for Front Range Community College, allowing them to offer an unlimited number of concurrent enrollment courses. To do so, teachers with advanced degrees became certified as FRCC instructors.

"What's great about our staff is that they understand we serve a population with 40 percent of students living in poverty," Mackay explained. "With college being so expensive, we knew that we needed to do everything we can to help our kids earn college credit now."

Their students earned college credits while in high school, saving many thousands of dollars in tuition costs.



"Poudre has done a great job of demonstrating how to make college classes accessible for all students," Sheila Pottorff, Director of Postsecondary and Workforce Readiness said. "They are a committed community to ensuring students are postsecondary and workforce ready." Poudre High School is making connections between what students are learning in high school and their future.

Rachel's Challenge teaches students to relate with kindness and empathy

Across a cavernous room at the Budweiser Events Center, sophomores from Fossil Ridge High School sat knee to knee, holding each other's hands and staring deep into their partners' eyes.

They shifted awkwardly in their seats, giggling as sixty seconds of self-disclosure dragged on for an eternity. There was visible relief when the announcement came to bring chairs to the center of the room for a special speaker.

After a wild start to the morning full of get-to-know-you activities, the students settled down to listen to a somber presentation from Rachel's Challenge, a nonprofit that encourages students to adopt the kindness philosophy of Rachel Scott, the first person killed during the shootings at Columbine High School in 1999.



As he wrapped up, the students quietly dragged their chairs back into formation facing their partner, this time opening up authentically to their classmates. The nervous giggles were replaced by tears and nods as students began to tell each other honestly about the challenges in their lives.

When Rachel Scott died at Columbine, she left behind six diaries detailing her developing beliefs of acting with intentional kindness and compassion towards others. From those writings, her father Darrell Scott developed a culture and climate intervention for K-12 students that teaches them the value of empathy. Fossil Ridge High School implements the program on a deeper level than any other school in the country, providing unique programming for students each year of high school that reinforces the core concepts.

Freshmen attend an assembly that introduces them to the core concepts of Rachel's Challenge. Sophomores spend a day off-site learning about each other and how to start a chain reaction of kindness. Juniors again listen to an assembly, and seniors complete a community service project with their advisory classes aimed at making the world a better place. The pillars of the R.I.D.G.E. program —



respect, integrity, determination, gratitude, and excellence — are wrapped into class curriculum throughout the year.

"We spend a lot of time focusing on the culture and climate of our building," assistant principal Brad Nye explained. "We realize that unless students feel safe and loved, they're not going to be able to achieve at their highest level." Since the school started the program, the number of disciplinary incidents on campus has dropped, and ACT and AP scores have risen.

Eco Week teaches students love of science and nature

"Oh man, look at that thing!"

The shout came from the front of a group of fifth graders hiking through Bobcat Ridge natural area. Eagerly, the students tumbled over each other to form a half-moon around a praying mantis on the side of the path. The hike was part of Eco Week, an annual event for fifth graders in the district that uses ecological lessons, guided hikes, and an overnight trip to the mountains to teach science and social studies standards. The program is designed to help students develop a sense of stewardship and ethical responsibility for the natural world.

"I like the outdoors and being in it," said fifth grader Brendan Johnson as he walked through a brown, open meadow. "This is really hands on. It's cool to learn about all the animals and different plants and what eats each other. "

Volunteer nature guides stopped by ant hills, pointed out scat, and explained the different mini ecosystems to students on the day-long field trip.



"We're sharing the outdoors with other people, helping them to appreciate what they have and the natural areas," volunteer Rob Butcher, a retiree, explained. "I see this as a sharing quest and a learning quest."

The discoveries continued throughout the week, as students visited Pingree Park in the mountains and the Poudre Learning Center in Greeley.

"Having an outdoor classroom really helps motivate the kids," teacher Adrienne Steinle said. "This gives them an opportunity to learn better than they would just sitting in a chair. They'll remember this for the rest of their lives."



Latino students find community, develop skills at youth leadership program

This past summer, PSD sent more students to the Colorado Lorenzo De Zavala (LDZ) Youth Legislative Session, a Latino youth leadership program hosted at Colorado State University, than it ever has before.

Thirty-two sophomores and juniors met monthly to prepare for the life-changing experience before joining their peers from across the state, nation and four Latin American countries in June. The eight-day program trained students to cultivate their talents, and provided an opportunity to demonstrate personal excellence and leadership skills.

The program, managed by the National Hispanic Institute, gave participants a preview of working within the framework of large organizations by practicing their own youth government. Students ran mock elections and practice legislative sessions, complete with bills that they wrote and voted on.



Students learned to navigate complex systems by proposing future community policies and projects. The teenagers brainstormed creative community interventions that would utilize existing resources in their home and school communities.

Participants reflected on their opportunities to be bilingual, bicultural, and to understand their role in the changing dynamics of the emerging Latino population of the future. Though each student is coming from a different background, the students connected to a common purpose: the desire to change the world.

Graduates of the program who attend Colorado State will receive an in-state scholarship of \$10,000 or an out-of-state scholarship for \$20,000.

Highlighting student accomplishments and champions

Every year PSD students, their teammates, coaches, and families are honored by the display of superb performance needed to become a recognized champion. The following students and their teams brought home the gold for the Poudre family. We all recognize that these accomplishments embody the End called Above and Beyond. The accomplishments these young people achieved required dedication, focus, maturity, perseverance, strength, speed, and intelligence. Many, if not all, of these young people often provide an example to their peers regarding personality characteristics that lead to great accomplishment.

- **More than 1,600 seniors graduated in the Class of 2017 in eight ceremonies throughout the district! May 2017**

Outstanding scholarship students -

Boettcher Scholar - Naitra Ramchander, PHS *(The Boettcher Scholarship, sponsored by the Denver-based Boettcher Foundation, is a merit-based scholarship available to Colorado graduating seniors who provide service to community and school, and are in the top 5 percent of their class, receive top scores on college entrance exams, display leadership, and demonstrate character. Only 40 scholarships are offered in the state.)*

Daniels Fund Scholars: Jamie Bonjour, FRHS, Taelor Hansen, PHS, Christy Perry, PHS *(The Daniels Scholarship is awarded to PSD seniors who have demonstrated strong character and a determination to succeed in life.)*

National Hispanic Recognition Scholars: Taylor Trujillo, FRHS; Trinity Tate Young, LCHS; Xavier Edgren, RMHS *(The National Hispanic Recognition Scholar honor, awarded by the College Board, recognizes the top 5,000 Hispanic/Latino students out of 250,000 who take the PSAT during their junior year.)*

National Merit Scholar Finalists: Nicholas Lin, FRHS; Johnny Lammons, FRHS; Dallin Crawford, FRHS; David Perkins, FRHS; Madeline Pettine, FRHS; Lucas Ray, FRHS; Caylie Cox, LCHS; Jacob Hempel-Costello, LCHS; Matthew Iverson, LCHS; Bretta Lichtenwalner, LCHS; David Rohrbaugh, LCHS; Benjamin Seiple, LCHS; Ariel Roy, PHS; Noelle Boyton, RMHS; Russ Huang, RMHS; Brandon Northrop, RMHS *(National Merit Scholars score in the top 1% academically among Colorado seniors. Scholars may win two types of National Merit Scholarships: a one-time \$2,500 award or a corporate-sponsored achievement scholarship. National Merit Scholars earned this elite designation through a two-year testing and application process.)*

- **Odyssey of the Mind** - A record number of district teams qualified for Odyssey of the Mind World Finals, a creative problem-solving competition. PSD elementary schools teams earned 8 out of 10 available spots for Colorado teams, and PSD middle school teams earned 5 out of 10 Colorado spots. Teams represent these schools: **McGraw IB World Elementary, Kinard Core Knowledge Middle School, Traut Core Knowledge Elementary, Bennet IB World Elementary, Lincoln Middle School, Beattie Elementary and Bethke Elementary.**

- **CMEA - Leshar Middle School's Advanced Chamber Orchestra and Preston Middle School's Symphonic Band** were selected to perform at the annual Colorado Music Educators Association Conference in January 2017.

Athletic Accomplishments

Fall 2016 Champions:

- **2016 Colorado Girls 5A State Volleyball Champions – Fossil Ridge High School Girls Volleyball**
- **2016 Boys State Singles Champion – Akhil Gupta, Fossil Ridge High School**

Winter 2016-17 Champions:

2017 5A Girls State Swim Champions: **Fossil Ridge High School Girls Team**

2017 5A Girls Individual State Swim Champions (All listed below attend Fossil Ridge):

- **100 yard Breaststroke Champion and 200 yard Individual Medley Champion: Zoe Bartel**
- **50 yard Freestyle Champion and 100 yard Freestyle Champion: Kylee Alons**
- **100 Butterfly Champion: Coleen Gillilan**
- **100 Backstroke Champion: Bayley Stewart**
- **200 yard Freestyle Relay Champions: Coleen Gillilan, Bailey Kovac, Andrea Niemann, Madeline Mason**
- **200 yard Medley Relay Champions: Bailey Stewart, Zoe Bartel, Coleen Gillilan, Kylee Alons**
- **400 yard freestyle Relay Champions: Madeline Mason, Kylee Alons, Bayley Stewart, Zoe Bartel**

2017 Wrestling Champion (138 lbs) **Jacob Greenwood, Poudre High School**

Spring 2017 Champions:

Tennis: **Ky Ecton, PHS, 5A Girls #1 Singles State Champion**

Track and Field -

- **Gabriella McDonald, RMHS, 5A Girls Shot Put State Champion**
- **Audra Koopman, FCHS, 5A Girls Long Jump State Champion**
- **Lauren Gregory, FCHS, 5A Girls 800 Meter State Champion; 5A Girls 1600 Meter State Champion**

Swimming: **Fossil Ridge High School Boys Swim Team, 5A State Champions**

Baseball: **Rocky Mountain High School Baseball Team, 5A State Champions**

Based on the accomplishments of all the PSD students, highlighted in this report, and the support of teachers, coaches, counselors, administrators, families, friends, and community partners that are important parts of these success stories; there appears to be evidence that the PSD community is reaching above and beyond to attain high levels of accomplishment and recognition.

Connections

PSD students are academically and socially connected to their school and community. PSD provides engaging opportunities to support students' individual pursuits and interests.

In order to gather information regarding student connections, the PSD Student Connections Survey was delivered to all 4th-12th grade PSD students between October 23rd and November 3rd, 2017. The online survey was made available to students during the school day and was delivered in three languages; English, Spanish, and Mandarin. Participation was voluntary, with both parents and students having the ability to opt a student out of the survey.



Students' responses to the Connections Survey are intended to help PSD staff learn more about students' academic and social connections within school. Connections are the result of feeling understood, cared about, supported, and valued. Feeling connected to others helps us to be motivated toward a positive future and make the most of our educational experiences. The Student Connections Survey is designed with four areas of focus; student-to-adult connections, student-to-student connections, student-to-interests connections, and student-to-future connections. During this second annual administration of the Student Connections Survey, Social Emotional Learning (SEL) subscale items were included. PSD also added a couple of new open-ended items regarding graduation expectations for 6th-12th grade respondents and interests and passions for all grade levels.

Individual student responses do not become part of a student's educational record. There are two areas on the 6th-12th grade version of the survey where we ask students if we can share their responses with PSD staff. Other than those two areas on the secondary-level survey, individual student responses are not reported out (confidentiality is maintained). The data gathered are aggregated and used by PSD to improve our service to students and their families based on patterns that emerge across groups of students.

The version of the survey given to middle and high school students included multiple-choice and open-ended (free-response) items. Demographic questions were not needed as the survey was delivered via student email accounts and this allows for PSD to merge in demographic information based on student IDs. Accuracy and efficiency are both increased by use of the student email accounts as a delivery mechanism. A complete copy of the Elementary version of the survey can be accessed by clicking [ELEMENTARY CONNECTIONS SURVEY](#) or going to the address below using your web browser. A complete copy of the Secondary (Middle School and High School) version of the survey can be accessed by clicking [SECONDARY CONNECTIONS SURVEY](#) or going to the address below using your web browser.

Elementary: (<https://drive.google.com/open?id=1Itj-Ob2xcB7zO9Fic3U269XHCZZTKxLH>)

Secondary: (<https://drive.google.com/open?id=1LZI3hM2dQ4CdIAsmT7V8tWUvVIZnDXkL>)

Use of the PSD email system as a delivery mechanism for this survey also allows response rates to be accurately calculated overall and by subgroups of students. This ensures that PSD has a way of gauging representativeness of the results. The response rate for this survey is calculated by dividing the number of completed, or partially completed, surveys by the number of students who received an invitation to participate in the survey. Response rate is an important indicator when assessing the likely representativeness of survey results. The overall response rate districtwide across grades 4-12 was

74.3%, up from 70% in 2016/17. The response rates by level were 88.3% at the elementary level (up from 82.8% in 2016/17), 81.9% at the middle school level (up from 75.7% in 2016/17), and 60.6% at the high school level (up from 58% in 2016/17). Responses were collected from approximately 19,000 students.

To check the likelihood of student responses being representative of the overall population of students we wished to survey, the following graphs can be inspected to see if the distribution of student characteristics differs substantially between the PSD population (top histograms) and the set of students that responded to the survey (bottom histogram).



Other than the reduced response rates as grade levels progress, the respondents have very similar student characteristic distributions when compared to the overall PSD student population.

All multiple choice survey items are written such that they reflect positive sentiments regarding student connections when item agreement is indicated. Averaging results across multiple items and across many students leads to a measurement that indicates the collective level of agreement with these positively phrased items. This type of aggregation across items and students results in a distribution of outcomes that is numerical and varies by student characteristics and by school. Differences between different student groupings in aggregated outcomes (termed “Percent Agreement” in the reports developed) allow PSD staff to identify important patterns and discover opportunities to enhance student connections within their schools. To explore the outcome data from both the 2016/17 and the 2017/18 Student Connections Survey, simply click [STUDENT CONNECTIONS](#) to access a data visualization tool developed to support use of the resulting information to inform PSD staff and community partners.

Now that survey data has been collected, analyzed, and reported out to school and district leadership teams; the real value comes in the work that follows. The specific actions taken may be unique to each school. However, a general approach that should work well for the district overall and individual school leadership teams is described below:

1) Celebrate Positive Outcomes as Reported by Our Students

PSD administrators always lead toward improvement, and this new data collection provides the opportunity to employ an effective system improvement strategy – identify what is going well and celebrate those successes to promote their continuation and expansion. Every one of our schools has areas within the Student Connections data to celebrate. Be sure to energize the whole staff by sharing those celebrations.

2) Develop a More Complete Picture

A careful review of survey data will often surface additional questions. Small group and one-on-one discussions are great ways to ensure that you know what the real student stories are and how we may best respond to new insights. Start this process by exploring your Connections Survey results using the filters within the data visualization tool that allows for nuanced answers to thoughtful questions. Professional curiosity and a willingness to explore is the key.

3) Summarize the Findings that Your Team Believes are Actionable

You will rarely share raw survey data or prepared reports and then sit back and enjoy system improvements. Leadership is the next step. A team of school leaders should develop a succinct and informative summary that seeks to isolate key findings and prioritize those findings based on what is actionable. Actionable means that the information has led to an insight(s) that can be acted on to improve the student experience.

4) Integrate New Insights Into Your School Improvement Efforts

Leadership should consider whether any of the actionable insights gained should give rise to development of specific action steps within their Unified Improvement Plan. Alternatively, there may be simple and immediate responses to actionable insights that can be accomplished through adjustments to the regular routines and ongoing development of school culture. School leadership teams will know how best to handle systematic responses to actionable insights at their school. The key point on this next steps reminder is that change/improvement is not likely to occur without leadership.

5) Track Progress Over Time

As with any improvement effort, leadership will want to continuously evaluate where improvements have been realized and where opportunities exist.

The “Percent Agreement” across items and students are reported below for each level of PSD (elementary, middle, high school). Higher percentages indicate stronger student connections. The 2017/18 results are provided in each cell of the following table, 2016/17 results in parentheses.

Connections Subscale	ES %	MS %	HS %
<i>Student-to-Adult Connections</i>	94.0% (92.6%)	91.1% (90.3%)	90.7% (89.6%)
<i>Student-to-Student Connections</i>	87.3% (87.8%)	86.1% (86.7%)	85.3% (84.9%)
<i>Student-to-Interests Connections</i>	76.0% (80.1%)	74.7% (81.4%)	75.2% (81.0%)

Student Connections Target: Percent agreement $\geq 90\%$ indicating strong connections to school adults, other students, and interests.

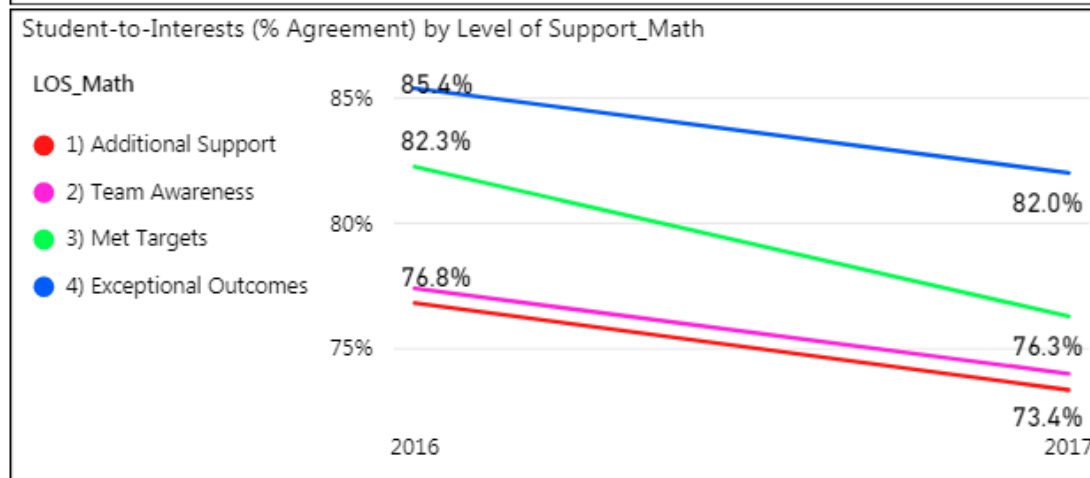
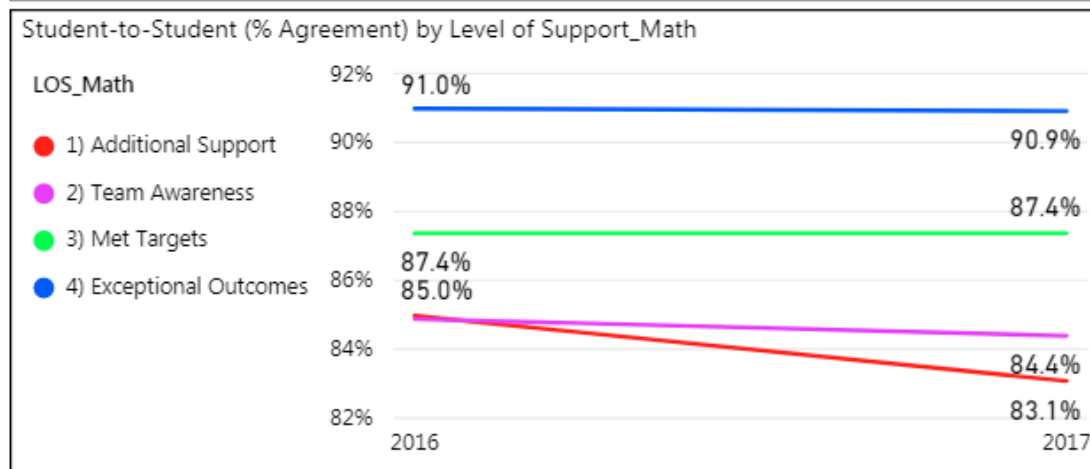
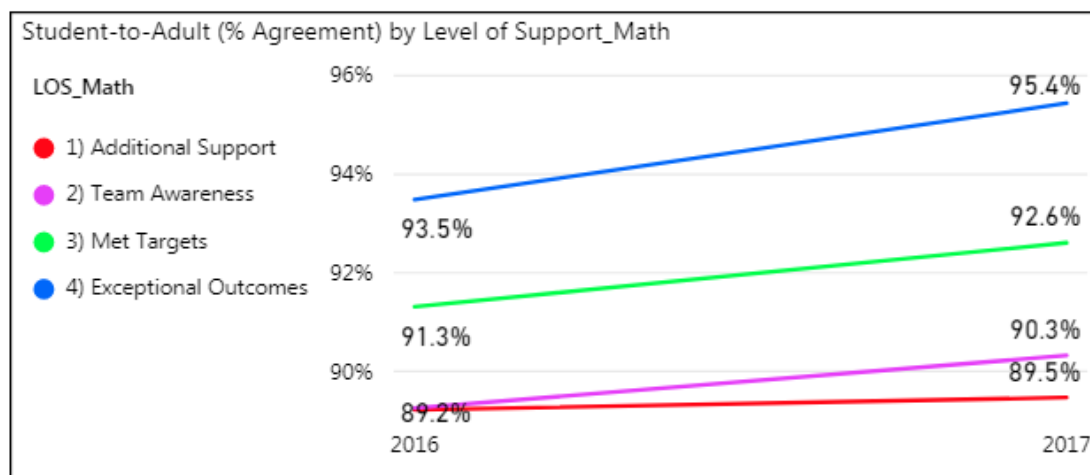
Met Target in 2016/17? No, the target is not hit for each of the three subscales. Note that the target is hit for the Student-to-Adult Connections subscale in 2017/18, and all three levels (ES, MS, HS) show gains for this important subscale when compared to 2016/17 results.

Overall levels of self-reported connection are fairly high district wide, and yet we see useful patterns across the levels of PSD, across the subscales, and among student characteristics. The following are just a few selected outcomes to demonstrate the types of insights that PSD has gained from the survey data. There is no way to adequately represent the tremendous leadership value that a data set such as that produced by the Student Connections Survey generates, especially now that we have two successive years of information and can see change (or lack thereof) over time. A data visualization tool is the only way to efficiently and effectively put the information in the hands of the many school and district leaders that will want to explore outcomes by level (elementary, middle, high), specific school within level, grade within school, and student characteristic combinations or even within specific responses to key items within the survey itself. The two insights being highlighted below are just the “tip of the ice berg” so to say, an example set of insights to demonstrate for the reader the types of outcomes that Poudre School District has at its disposal to promote data-informed leadership. The data visualization tool that is part of the PSD analytics platform is the only way to report out on the Connections Survey in a meaningful way. That data visualization tool can be accessed by simply clicking [STUDENT CONNECTIONS](#).

Selected Insights/Actions:

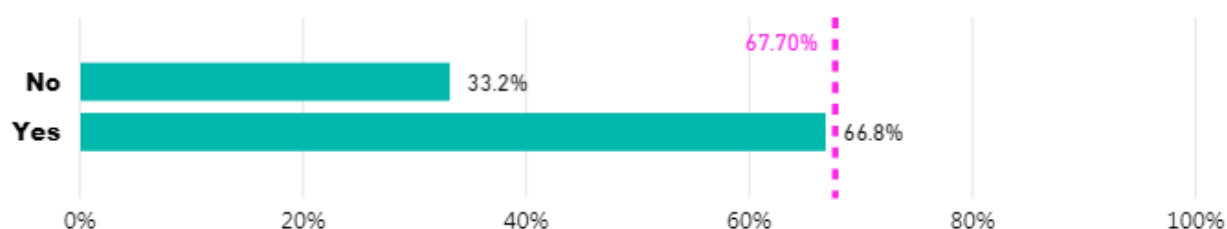
Patterns of student connection are evident based on the “Levels of Support” student groups. PSD has developed a data visualization tool, Levels of Support, which allows for a shared understanding districtwide regarding which PSD students are most in need of additional academic support in English/Language Arts and Math. This shared understanding is based on a body of evidence from the prior academic year for each returning student.

Recall that there is a very strong pattern of increasing self-reported feelings of student connections to adults in school, peers, and interests/passions as students achieve at higher levels based on multiple prior year assessments. This strong pattern is evident at elementary, middle, and high school levels and across all three subscales of the Student Connections Survey. The implications for PSD staff regarding the opportunity to better connect with students at the lower end of the prior achievement scale may prove invaluable to our continuous improvement efforts.

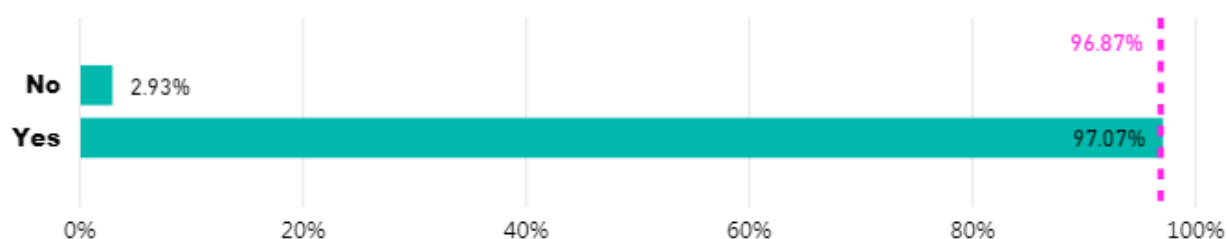


For the second year in a row, students self reported that perceived support/interest from adults in exploring and shaping students hopes and plans for their future is much lower in reference to PSD staff when compared to parents, guardians, and friends. Additionally, the overall rate of approximately 1/3 of students responding “No” to the item depicted below is higher than it might be with intentional action. The outcome was very similar in 2016/17 (31.5% indicated “No” to this item on the Connections Survey). This outcome seems to suggest that staff can focus on increasing the number/percentage of “Yes” responses over time by intentionally engaging students in conversations about their interests and hopes for their future. Additionally, PSD staff can continue to be a source of information and inspiration for connecting our youth with opportunities to explore their interests, both in our classrooms as well as through appropriate connections to community opportunities.

Teacher/Coach played a key role in exploring and shaping hopes and plans for your future.



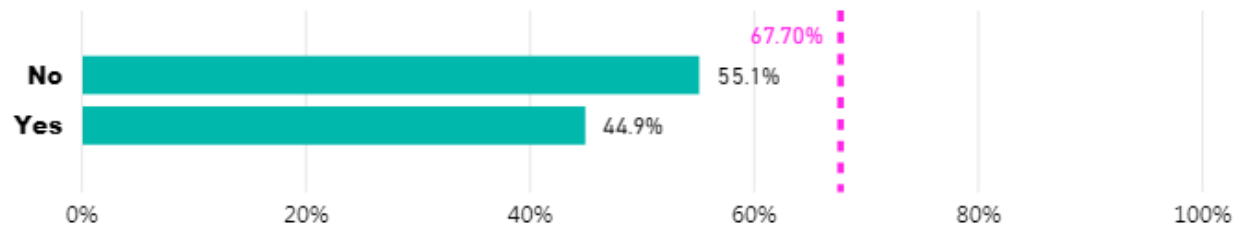
Parent/Guardians/Friends played a key role in exploring and shaping hopes and plans for your future.



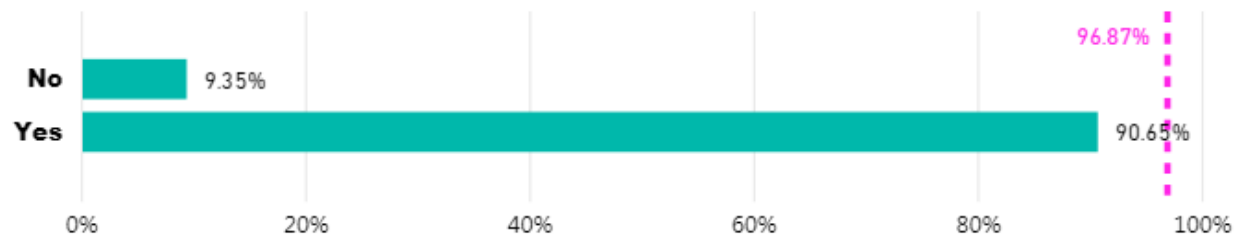
The idea behind these measures is deceptively simple. If there are systematic differences in the number and types of people actively supporting our students in forming a positive image of their future possibilities, we may be able to expand these networks of support. Recall that the Student Connections Survey is focused on providing actionable feedback to school leadership teams so we, as a system, can sustainably improve our service to students and their families.

PSD can explore patterns within the approximately 1/3 of students that did not indicate either a Teacher/Coach or Counselor as playing a key role in this fundamental process related to a fulfilling educational experience. The data visualization tool that is part of the PSD Analytics Platform allows staff (and community partners) to explore many nuanced questions regarding where this form of student connection is strongest and weakest by simply using appropriate filter combinations. For example, the outcome on this set of items filtered to those students in grades 6-12 that indicated they are not sure if they will graduate from high school (492 students) indicates that 55.1% of them do not feel that a teacher or coach played a key role in helping them explore their hopes and plans for the future.

Teacher/Coach played a key role in exploring and shaping hopes and plans for your future.

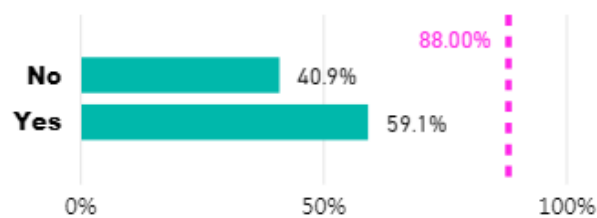


Parent/Guardians/Friends played a key role in exploring and shaping hopes and plans for your future.

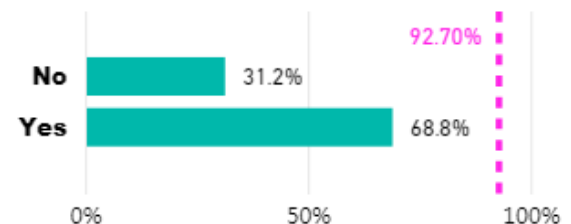


For this same group of 492 students, their response to other key items on the Student Connections Survey varied significantly from the responses of the remainder of the student population. For an example, the graph below depicts outcomes for the 492 students (grade 6-12) that indicated they do not know if they will graduate from high school.

% Feel Connected to Adults at School

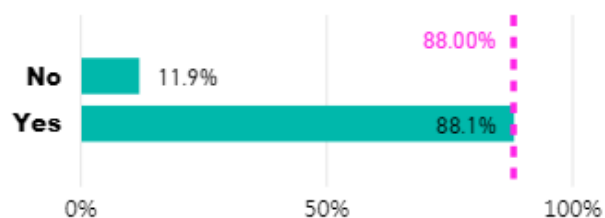


% Feel Listened, To Cared About, and Helped

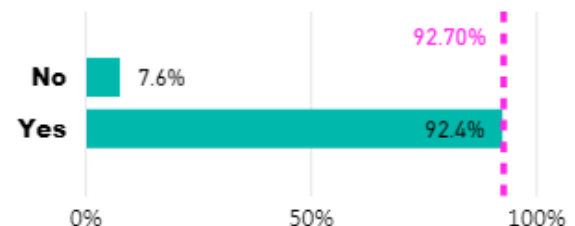


Compared to the remainder of the student respondents (grades 6-12) that indicated they did expect to graduate from high school.

% Feel Connected to Adults at School



% Feel Listened, To Cared About, and Helped



Interpretations and Findings

Combining the summary of outcomes related to specific Ends identified above, with the additional data displays and auxiliary information provided in the appendices and data visualization tools included in this report, the following interpretations of important patterns are offered for the reader's consideration. This is not meant to be a comprehensive listing of insights gained, but rather highlights some of the key findings and relationships across the entire body of evidence that this report represents.

During the 2015/16 school year, the Class of 2015 graduation rate of 78.6% garnered intense interest districtwide. PSD had enjoyed rising graduation rates for several years eventually hitting a high point of 86% for the class of 2012. Then in 2012/13 the graduation rate began a decline and that decline has generally persisted. Although PSD did increase the graduation requirements from 220 to 240 credits for the Class of 2015, and these new graduation requirements included more rigorous credit counts within specific categories, it does not appear that declining graduation rates can be attributed solely to these increased requirements. The evidence shows us that graduation rates were slipping two years prior to the spring of 2015 (the requirements were still 220 credits at that time), the graduation rate jumped right back up to 81.4% for the Class of 2016 (also under the 240 credit requirement), prior to slipping again for the class of 2017. A more honest estimate of a true graduation rate for the Class of 2016 is 84.2% after including certain groups of students that did in fact complete graduation requirements, but are not included in the state's calculation. Of course, PSD does not know what adjustments other districts would argue are more appropriate based on their local systems, so some caution in comparing PSD adjusted rates to statewide official rates is warranted. One final piece evidence that the move to 240 credits did not drive the lower graduation rates can be seen in that the dropout rates did not spike up for the general population during 2014/15, 2015/16, or 2016/17. Dropout rates did spike upward during 2014/15, 2015/16, and 2016/17 for students eligible for free or reduced price meals.

There is also very little evidence to suggest that shifting demographics are a factor in explaining declining graduation rates. All of PSD proportions have remained very stable over the past six years (as shown at the end of the introduction to this Monitoring Report). It appears that both increasing credit accumulation requirements and shifting demographics, as causal factors that explain declining graduation rates, can be empirically denied. So what are some possible key factors?

One likely contributing factor that may be worthy of deeper consideration is increased student mobility, especially for the historically underserved populations such as students eligible for free or reduced price meals, Latino students, and English language learners. Mobility disparity indicators for these groups show gaps not only between these groups and others within PSD, but also disparities between these groups within PSD compared to similar groups statewide. Mobility and its impact on other education outcomes is an area of interest for further study. One promising feature of investigating the impacts of mobility is that mobility may have contributing factors that are within the zone of influence for multi-agency cooperative efforts of an interested community.

Attendance has surfaced as another possible contributing factor when considering declining graduation rates. High school attendance is the lowest of the three levels in PSD (as has been true historically), and has been declining over the past three years (91.5% in 2014/15 for the four comprehensive high schools, down to 90.1% in 2016/17). Truancy rates (unexcused absences) have increased for the high schools during this same period of time and may be a contributing factor to declining graduation rates.

PSD students continue to have high levels of overall academic achievement. As our state transitioned to the PARCC assessment, and CMAS for Science and Social Studies, the z-score methodology we had implemented to analyze results provided a consistent measure of PSD's overall high levels of achievement. As we are now experiencing another shift from ACT to PSAT and SAT, once again the z-score methodology indicates that PSD students demonstrate measurably higher performance than grade level academic peers. Evidence from the TS GOLD, DIBLES Next, NWEA MAP, PSAT, SAT, AP exams, IB Exams, and post-secondary outcomes for PSD graduates all support the claim that PSD students achieve at high levels. PSD has areas of high growth as can be evidenced by both the state assessment systems and the results from NWEA MAP.

Student growth as measured by the Colorado Growth Model as well as the PSD analysis of z-score gains indicates that middle school English Language Arts was an area of low growth in 2017/18. This is unusual for PSD middle schools and the cause of such a reduction of student growth is not known at this time. Students eligible for reduced or free meals as well as students supported with an IEP exhibited lower growth based on the Colorado Growth Model than their statewide peers of similar student groupings.

Student Connections data and postsecondary outcomes both indicate positive outcomes overall for PSD students. The connections data from the PSD created survey does not have state or national norms we can look to in benchmarking our outcomes, but we are able to benchmark ourselves against our prior outcomes. While comparing the two successive years of connections data available (2016/17 and 2017/18) we do not see substantial gains in the core metrics being produced. There are some gains and some losses. We do see very reasonable patterns in the connections data such as clear differences in connections outcomes across student groups defined by other independent measures of achievement and student characteristics. These clear patterns that have sustained across both years of gathering connections data reinforces the validity and leadership value of the information students are providing us.

Postsecondary outcomes being used in this Monitoring Report do have statewide norms that support the claim of PSD students above average success once they transition to the next level of their educational experience. Unfortunately the state reporting agencies for these statewide comparable measures are having difficulty in providing timely information to the general public.

Even with evidence of positive achievement, academic growth, student connections, and postsecondary outcomes overall (across all students), PSD has evidence of persistent performance and outcome gaps for some subgroups of students. The outcome gaps being referred to show up to one degree or another across virtually all indicators for which we have set targets. Evidence of these gaps have been a persistent theme in PSD's District Performance Frameworks going back to the first year (2007/08) the state began reporting out on the Key Performance Indicators. Individual School Performance Frameworks have also indicated a need to address support for various subgroups as described below. Click [DPF and SPF TOOL](#) to interact with a PSD data visualization tool that allows an interested reader to explore Key Performance Indicator outcomes for the most recent two years by district and school statewide. The primary subgroups that have outcomes lagging others include students eligible for reduced or free meals and students identified as candidates for additional support based on a body of longitudinal achievement outcomes at the individual student level. Additional groups that warrant continuous monitoring and support are students being supported with an IEP and English language learners. Student measures that appear to exhibit reliable associations with lower achievement/growth outcomes are mobility, truancy, and lower levels of self-reported connections with adults at school, peers, and interests/passions.

District Ends Conclusion

In summary, the district has adopted four goals that interpret DE 1.0. The interpretations are intended to encompass key outcomes for students throughout their PreK-12 experience in Poudre School District. In an attempt to focus on continuous improvement, PSD has set targets that while achievable, are rigorous, especially when applied to subgroups of students that have not historically performed as high as our general population. PSD has identified the closing of the outcome gaps, while continuing to support all students in academics and extracurricular pursuits, as a priority for many years. The data elements being gathered and reported through this Monitoring Report, and other district systems such as the analytics platform, are intended to help our educators, administrators, and community partners engage in systematic efforts toward optimal student experiences.

The Monitoring Report highlights the many opportunities students in our district are afforded toward developing their personal passions while connecting in meaningful ways with the world around them. The many opportunities PSD students enjoy are only available due to the support of their families, the dedication of PSD staff, and the high level of involvement consistently provided by the surrounding communities.

Overall, Poudre School District has many outcomes to be proud of. There is evidence throughout this Monitoring Report that PSD remains a statewide leader in many areas related to student outcomes. There are also areas that can be improved upon and the data presented in this report are designed to help inform our district regarding these areas of opportunity. This Monitoring Report helps inform our district's improvement processes and these processes are documented in the Unified Improvement Plan. While the Monitoring Report documents progress toward the district ends by reporting on the operationalized outcome goals, the Unified Improvement Plan documents the means being utilized to improve future outcomes. In this way the two documents complement one another and are inextricably linked in an ongoing continuous improvement process that is designed to promote optimal outcomes for all students.

This year's DE 1.0 Monitoring Report includes direct indicators of where the outcome targets are most directly supported within the Unified Improvement Plan. The PSD analytics platform is also directly linked throughout this report to provide school leaders and our community partners the ability to explore outcome data in a much more robust manner. The intention of making such a wealth of de-identified and aggregate data easily available is to promote data-informed leadership among all PSD staff and our community partners. All PSD schools annually engage in site-specific improvement efforts, the availability and explicit public use of the PSD analytics platform within the context of this DE 1.0 Monitoring Report is intended to serve as a model of how the analytics platform can be used to support continuous improvement efforts districtwide and within specific schools.

Appendix 1: Attendance and Mobility

Attendance Target: PSD students will have $\geq 95\%$ attendance rate.

PSD 2016/17 Attendance Rate w/ Charters: 93.2% (down 0.8 percentage units)

PSD 2016/17 Attendance Rate w/o Charters: 94.0% (up 0.1 percentage units)

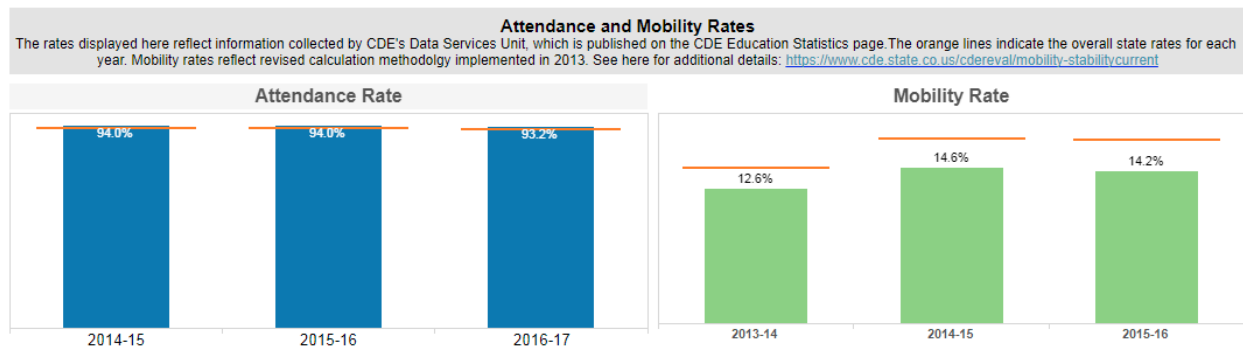
State 2016/17 Attendance Rate (All Schools): 92.9% (down 0.4 percentage units)

The numbers above are reported directly from CDE source documents available [HERE](#).

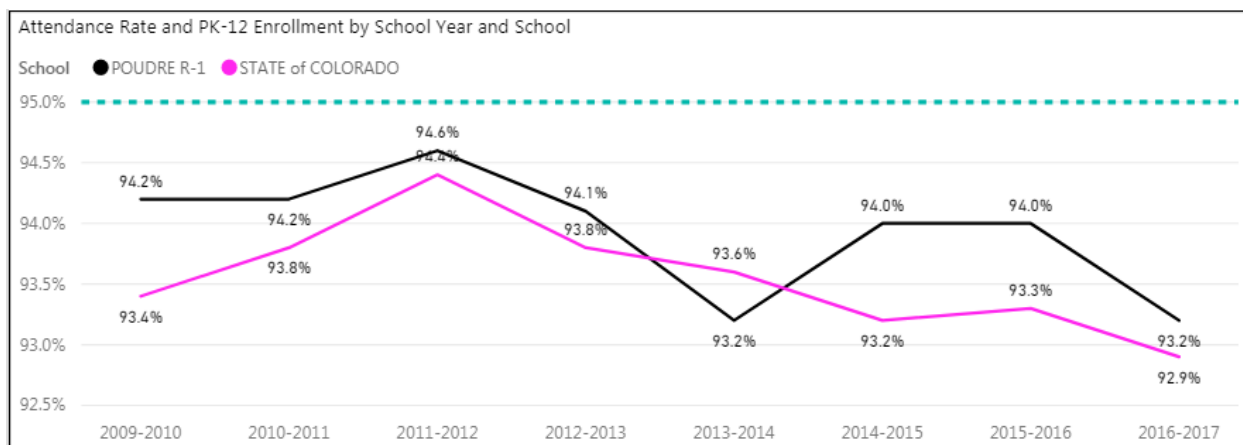
Attendance Rate = Total Student Days Attended divided by the Total Student Days Possible

Total Days Possible = Total Days Attended + Total Student Days Excused Absence + Total Student Days Unexcused Absence

The following display is a snapshot of the [CDE District Dashboard Tool](#).



To get a longer longitudinal view of State, district, and school attendance rate trends, PSD created a data visualization tool that allows one to compare outcomes over time within a setting as well as across different settings state wide. To interact with the PSD developed attendance data visualization tool for districts and schools statewide please click [ATTENDANCE](#).



The 2016/17 PSD attendance rate is higher than the overall state rate by 0.3% units. Both PSD and State attendance rates have declined over the past eight years.

District to district comparisons of attendance rates must be interpreted with caution due to the following message regarding truancy data. The following was retrieved from the Colorado Department of Education (<http://www.cde.state.co.us/cdereval/truancystatistics.htm>).

“The (truancy) data is not comparable between districts because attendance and excuses for absences are rooted in a local policy unique to the district. In some cases, it may be unique to the schools within the district. For example, a school administrator in one school may accept a particular excuse from a parent but another administrator in another school within that same district may not accept the same reason for the excuse by another parent. Some schools may take attendance more than once a day, which increases the chance of discovering students who have left during the school day. Others may not take attendance with the same frequency. A higher rate does indicate more unexcused absences being recorded. However, it may not necessarily indicate a higher number of truant students than another school with more lax procedures.”

PSD attendance rates can be further explored using the PSD Analytics Platform. PSD calculates the attendance percentage for each individual student and has a fairly sophisticated process for tracking these data and making the data available to staff via our data visualization tools. PSD cannot share a link to these tools with the general public, but we can share the following aggregated outcomes which are pulled directly from the PSD Analytics Platform.

When looking at just non-charter PSD schools, we see that there are not substantial gender differences in attendance, but there are significant differences by grade level, ethnicity, IEP status, and identified needs for academic support based on prior performance outcomes. High school students, Hispanic/Latino, American Indian/Alaskan Native, and students identified as candidates for Additional Support are the subgroups with the largest attendance disparities. The general pattern of attendance decrease we see for PSD overall, is evident for virtually every subgroup of students as evidenced in the final column of each attendance table displayed below. We also see that elementary students overall, Asian students, and “Exceptional Outcome” students based on the “Levels of Support” system are three subgroups that met the PSD attendance target of 95% in 2016/17.

Attendance Percentage by Level 2016/17

Level	Attendance %	Attendance Change from General PSD Population Same Year	Attendance Change from Same Subgroup Prior Year
Elementary Schools	95.2%	1.7%	-0.2%
Middle Schools	93.4%	-0.1%	-0.3%
High Schools	90.8%	-2.7%	-1.3%
PSD Overall Rate	93.5%		

Attendance Percentage by Gender 2016/17

Gender	Attendance %	Attendance Change from General PSD Population Same Year	Attendance Change from Same Subgroup Prior Year
Male	93.6%	0.1%	-0.3%
Female	93.4%	-0.1%	-0.5%
PSD Overall Rate	93.5%		

Attendance Percentage by Ethnicity 2016/17

Ethnicity	Attendance %	Attendance Change from General PSD Population Same Year	Attendance Change from Same Subgroup Prior Year
Asian	95.9%	2.4%	-0.1%
Black	93.5%	0.0%	-0.5%
Hawaiian/Pacific	93.0%	-0.5%	-1.1%
Latino/Hispanic	91.3%	-2.2%	-0.7%
Indian / Alaskan	90.0%	-3.5%	-0.7%
Multi Race	93.9%	0.4%	-0.2%
White	93.9%	0.4%	-0.4%
PSD Overall Rate	93.5%		

Attendance Percentage by IEP Support 2016/17

IEP	Attendance %	Attendance Change from General PSD Population Same Year	Attendance Change from Same Subgroup Prior Year
Yes	91.0%	-2.5%	-0.4%
No	93.7%	0.2%	-0.4%
PSD Overall Rate	93.5%		

Attendance Percentage by Math Level of Support 2016/17

Level of Support	Attendance %	Attendance Change from General PSD Population Same Year	Attendance Change from Same Subgroup Prior Year
Additional Support	90.6%	-2.9%	-0.2%
Team Awareness	93.1%	-0.4%	-0.6%
Met Targets	94.4%	0.9%	-0.4%
Exceptional Outcomes	95.9%	2.4%	-0.8%
PSD Overall Rate	93.5%		

Attendance Percentage by ELA/Reading Level of Support 2016/17

Level of Support	Attendance %	Attendance Change from General PSD Population Same Year	Attendance Change from Same Subgroup Prior Year
Additional Support	90.6%	-2.9%	-1.1%
Team Awareness	93.6%	0.1%	-0.5%
Met Targets	94.4%	0.9%	-0.3%
Exceptional Outcomes	95.4%	1.9%	-0.7%
PSD Overall Rate	93.5%		

Regarding mobility rates, in the 2012-2013 school year the mobility calculation was modified so that students who transfer over the summer to different districts are not counted as mobile students. For more information on the mobility rate calculation as revised for 2012-13 see the following link.

<http://www.cde.state.co.us/cdereval/mobility-stabilitycurrent>

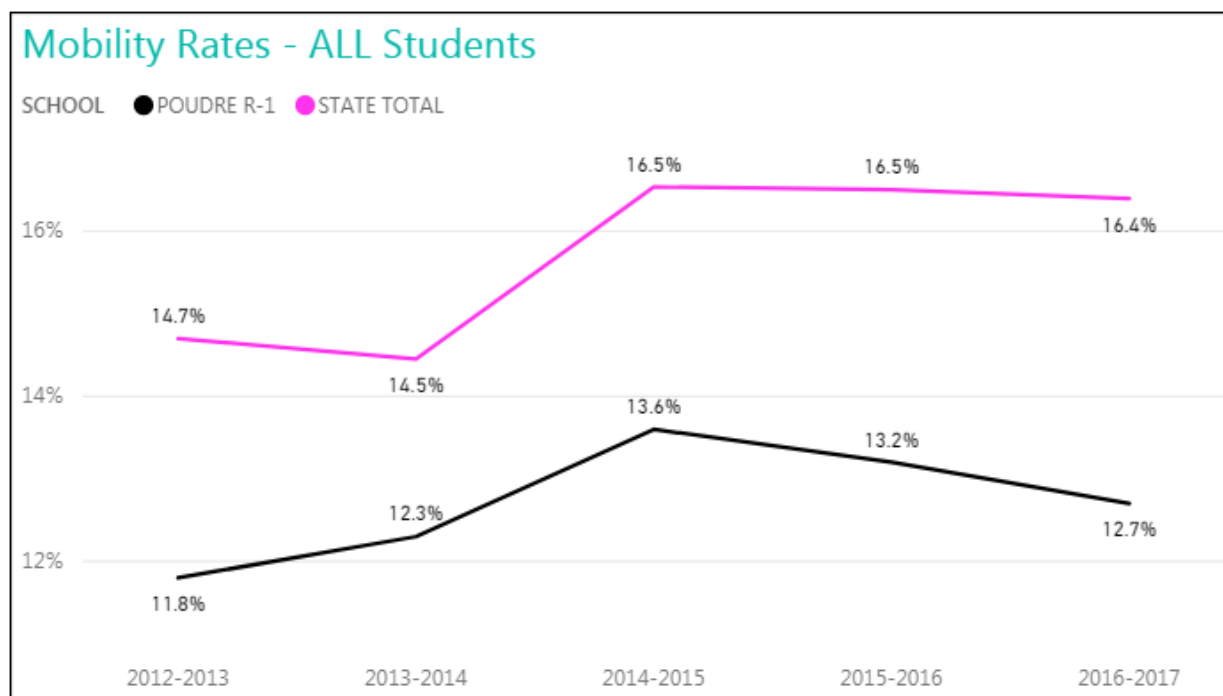
Q: Under what circumstances is a student counted as “mobile”?

A: In general, a student is considered mobile any time he or she enters or exits a school or district in a manner that is not part of the normal educational progression. Examples of normal progression include advancing grades between academic years, matriculating between elementary school and middle school or between middle school and high school, and exiting as a graduate or completer at the end of the twelfth grade. “Unanticipated” or “non-normal” movements – such as a mid-year grade advancement, entry into a school or district after October 1, or exit from a school or district before the end of the school year – are considered instances of student mobility.

Q: What is the difference between the Student Mobility Rate and the Mobility Incidence Rate?

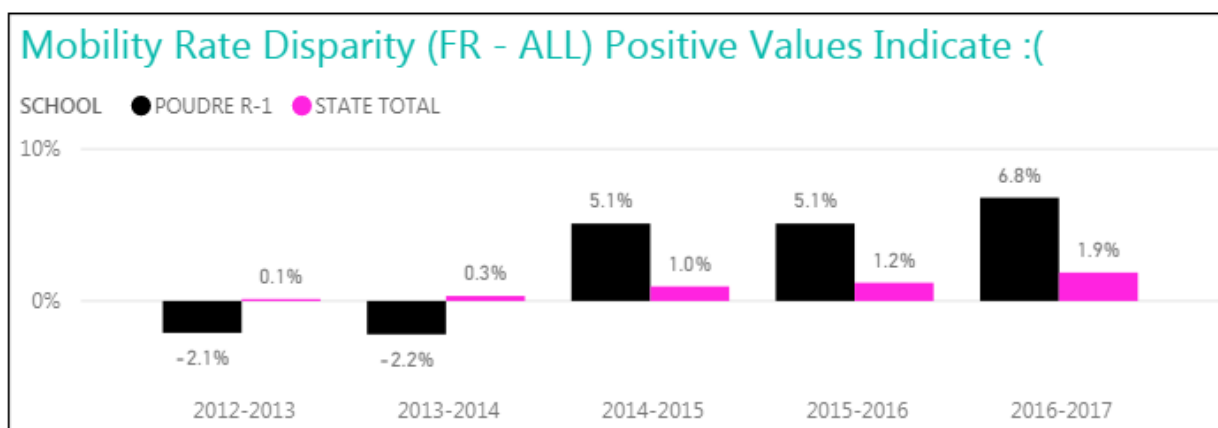
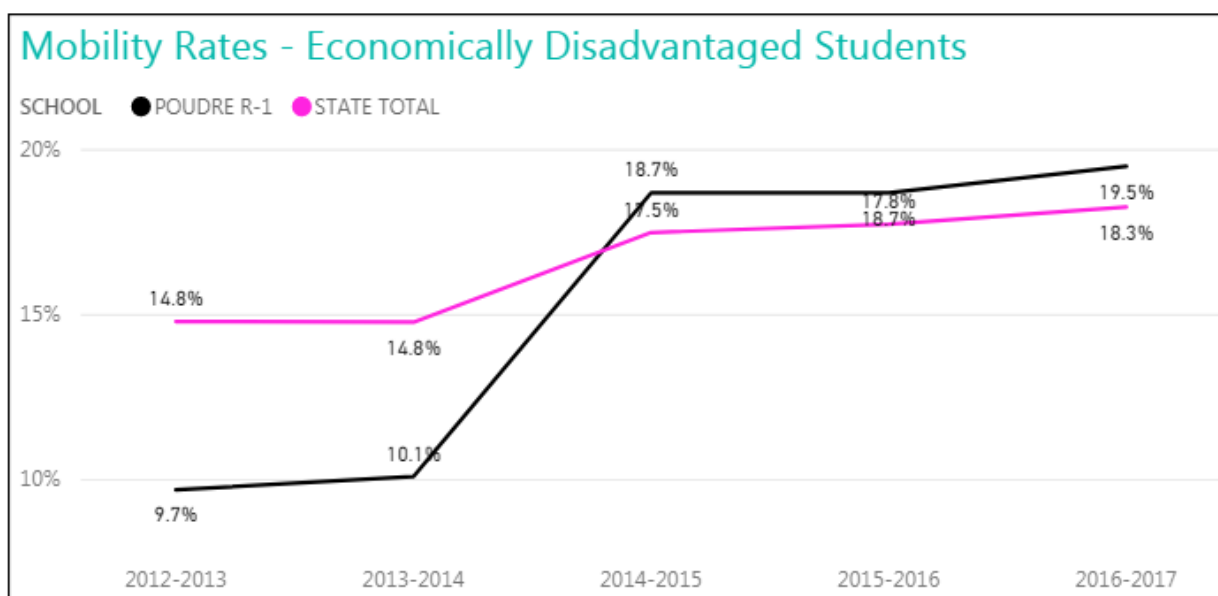
A: The Student Mobility Rate is an unduplicated count – meaning that once a student has been counted as mobile once for a given school or district she or he will not be counted again in the same year. In contrast, the Mobility Incidence Rate is a duplicated count. A student who moves in and out of a school multiple times will be counted as mobile multiple times under the Mobility Incidence Rate calculation.

To get a longer longitudinal view of State, district, and school mobility rate trends, PSD created a data visualization tool that allows one to compare outcomes over time within a setting as well as across different settings state wide. To interact with the PSD developed mobility data visualization tool for districts and schools statewide please click [MOBILITY](#). A few highlights are provided below.



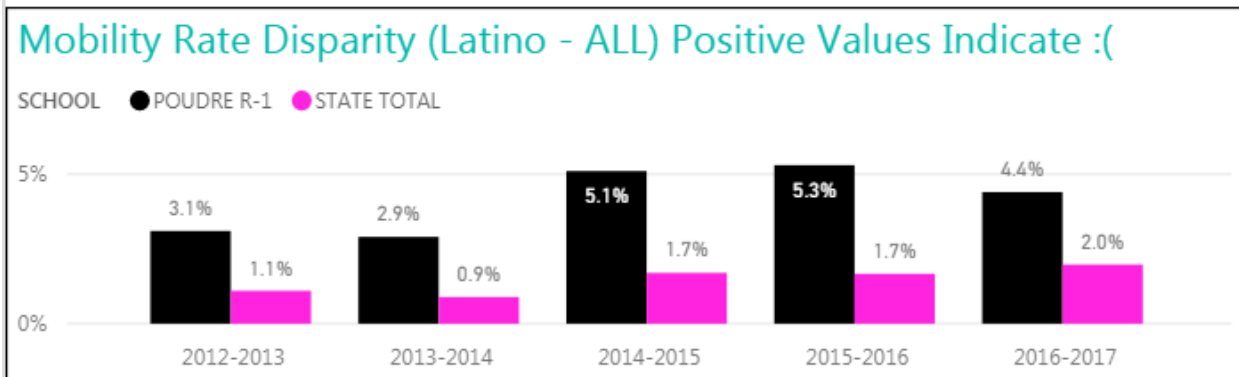
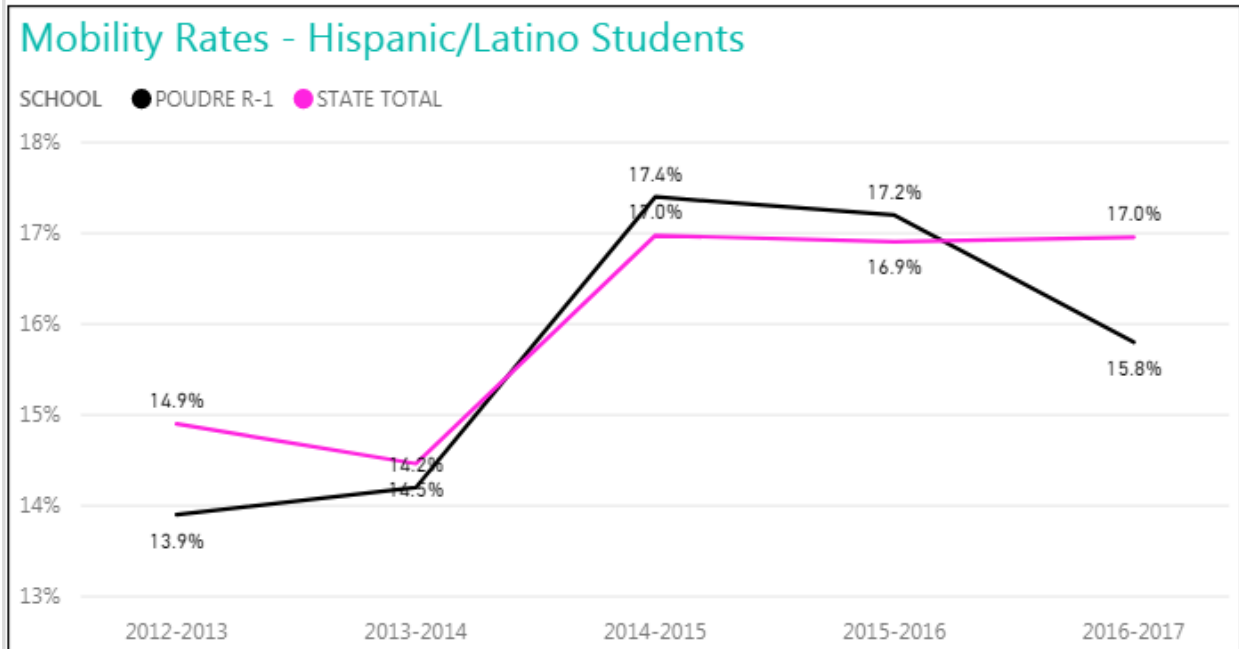
The PSD student mobility rate for all students considered collectively has been below the state's rate and decreasing over the past two years. In the same timeframe, the state mobility rate has remained fairly consistent at about 16.5%.

When we look at the mobility rates for some of PSD's student populations, we see a differences in levels of mobility and a different trends. As an example, students eligible for free or reduced meal prices have had mobility rates climb to 18.7%, 18.7%, and 19.5% in 2014/15, 2015/16, and 2016/17 respectively. The mobility rate difference between students eligible for free or reduced lunch and the overall student population is 5.1 percentage units in 2014/15, 5.1 percentage units in 2015/16, and 6.8% units in 2016/17. This "gap" in mobility rate between two populations of students is termed the "Mobility Rate Disparity" in the graph below. It is important to note that groups with a positive mobility rate disparity are associated with lower achievement, academic growth, and graduation rate outcomes. Mobility is not a favorable trait if one is interested in optimal academic outcomes. The 6.8% mobility rate disparity for PSD students eligible for free or reduced lunch in 2016/17, represents a 53.5% increase in the mobility rate between the general population and the students eligible for free or reduced lunch.

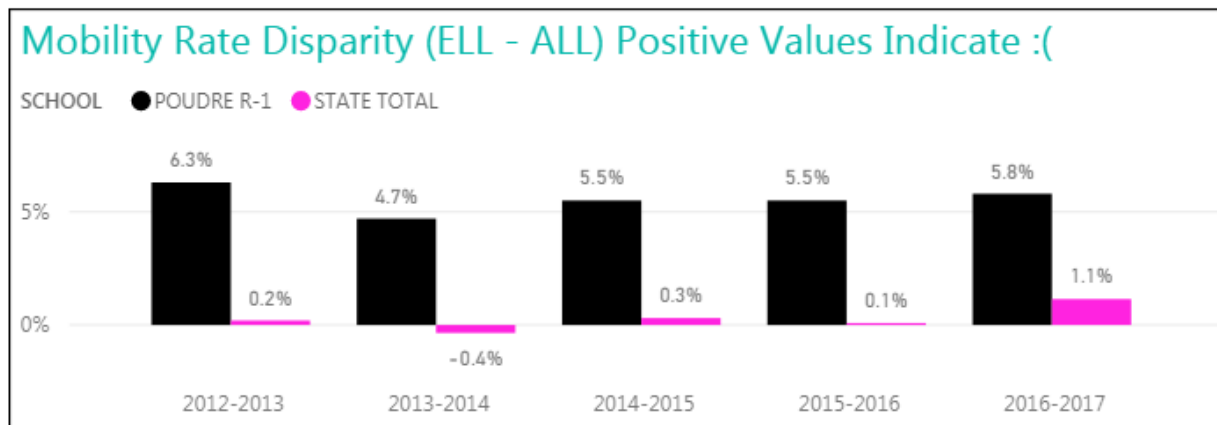
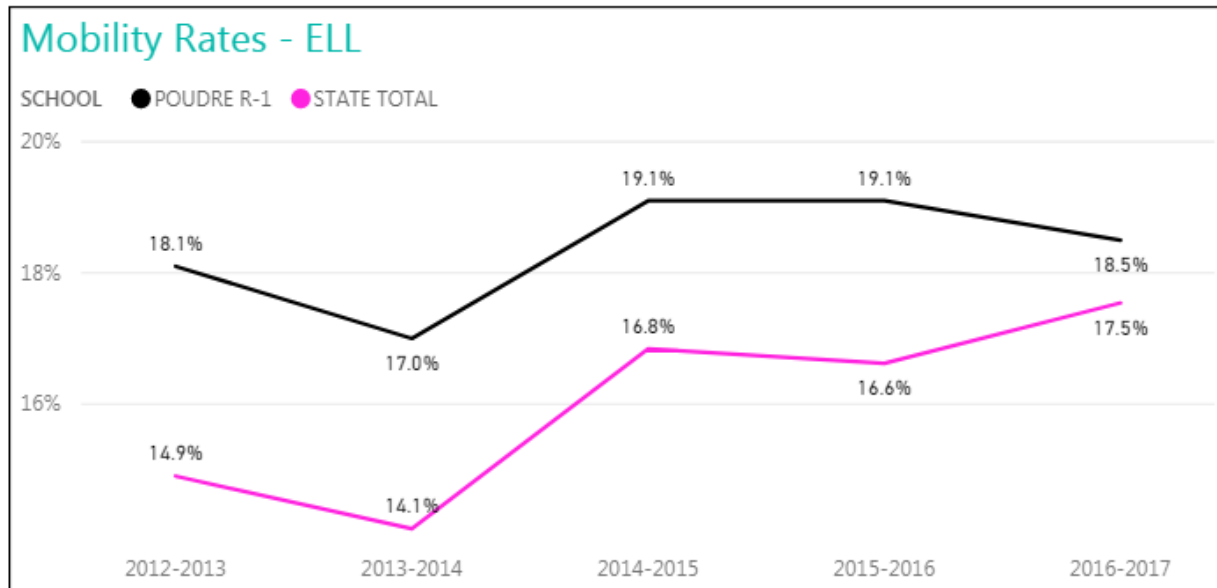


Also, note that PSD mobility for free/reduced lunch students is greater than the mobility of the state's free/reduced lunch population. This outcome is eye-opening in that there are many aspects of a student's experience in school that can be negatively impacted by moving between school locations within a given school year.

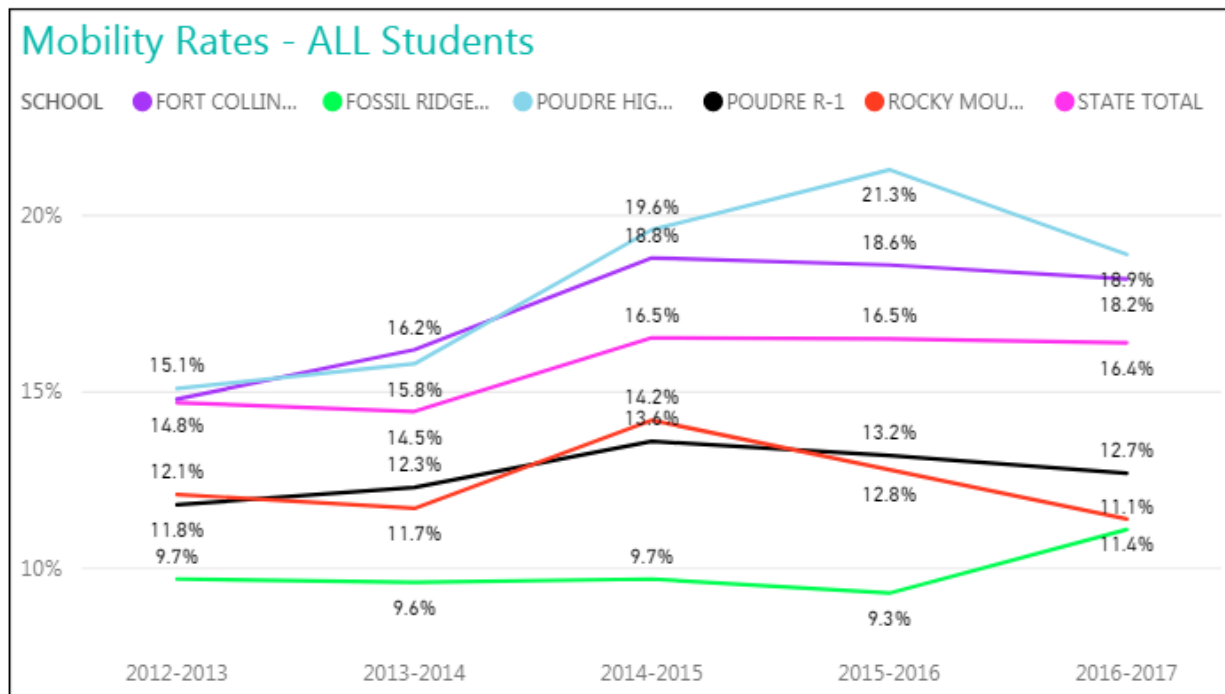
A similar view of mobility emerges for other populations such as Latino students.



Students that are identified as English language learners are also showing high levels of mobility and far outstretch the rates evident across the state for a similar population of students.



Looking at mobility differences across comprehensive high schools, we see that there are substantial differences and these differences roughly align with several other educational outcome indicators of high interest.

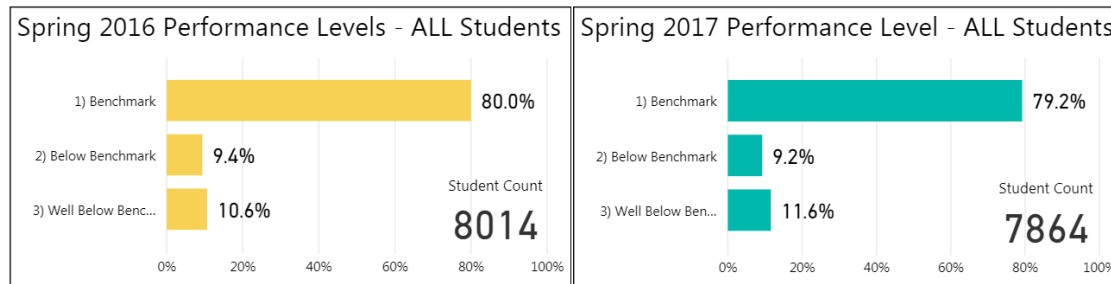


Recall that to interact with the PSD mobility data visualization tool for districts and schools statewide, all one needs to do is click [MOBILITY](#), and then explore the data most relevant to your own questions of interest.

Appendix 2: Early Literacy

Early Literacy Target: $\geq 85\%$ of PSD K-3 students will meet End-of-Year DIBELS Next benchmarks.

DIBELS Next is an assessment that is used in meeting READ Act requirements. PSD has used DIBELS Next for 3 years as of 2016/17. For the past two years, about 80% of kindergarten through 3rd grade students have met the end-of-year benchmark. The following view is pulled from the PSD Analytics Platform and shows the overall performance level outcomes across the most recent two years as well as the outcomes for Latino students where English language acquisition status and meal program status have been controlled for.



The “Beginning-of-Year” to “End-of-Year” comparisons displayed below, within a specific school year (either 2015/16 or 2016/17), are true cohorts. Notice that the totals in the lower right hand corner of the frequency table (two tables on the right) for the 2016/17 cohort match exactly for the “Beginning of Year” and “End of Year” sections (7,471 students). This matched cohort type of design is used so that we are comparing post outcomes (End of Year) to the same exact student group’s pre-scores (Beginning of Year), and observed gains in the percent of students “At or Above Benchmark” is not due to differences in groups of students being compared.

DIBELS Next Criterion Referenced Outcomes - 2015/16

Test Session	Grade	Well Below Benchmark	Below Benchmark	At or Above Benchmark	
Beginning of Year	K	16.1%	14.5%	69.4%	At or Above Benchmark Change
	1	21.4%	14.7%	63.9%	
	2	14.4%	7.9%	77.7%	
	3	16.7%	6.9%	76.4%	
	Total	17.1%	10.9%	72.0%	
End of Year	K	5.9%	11.5%	82.6%	13.2%
	1	12.9%	10.4%	76.6%	12.7%
	2	9.1%	8.9%	82.0%	4.3%
	3	10.4%	6.3%	83.3%	6.9%
	Total	9.6%	9.2%	81.1%	9.1%

DIBELS Next Criterion Referenced Outcomes - 2016/17

Test Session	Grade	Well Below Benchmark	Below Benchmark	At or Above Benchmark	
Beginning of Year	K	17.5%	14.4%	68.1%	At or Above Benchmark Change
	1	22.4%	13.9%	63.6%	
	2	14.6%	7.7%	77.8%	
	3	16.4%	8.0%	75.7%	
	Total	17.6%	10.8%	71.5%	
End of Year	K	8.0%	12.5%	79.5%	11.4%
	1	14.3%	10.2%	75.5%	11.9%
	2	11.1%	7.6%	81.3%	3.5%
	3	11.3%	7.0%	81.8%	6.1%
	Total	11.2%	9.2%	79.6%	8.1%

In each of the past two school years, the percentage of K-3 students that have moved from “Below Benchmark” at the beginning of the year to “At or Above Benchmark” by the end of the year is substantial (9.1 percentage points in 2015/16 and 8.1 percentage units in 2016/17). In both school years, the increase in the percentage of students “At Benchmark” is most dramatic for Kindergarten and 1st grade students as opposed to 2nd and 3rd grade. These patterns may reflect changes in the rigor of the benchmark for higher grades and/or it may reflect the additional learning that is often evident in younger people.

The following frequency counts are provided to help in interpretation of the results we see above.

DIBELS Next Criterion Referenced Outcomes - 2015/16

Test Session	Grade	Well Below Benchmark	Below Benchmark	At or Above Benchmark	Total
Beginning of Year	K	289	260	1246	1795
	1	415	285	1239	1939
	2	282	155	1527	1964
	3	331	137	1518	1986
	Total	1,317	837	5,530	7,684
End of Year	K	106	206	1483	1795
	1	251	202	1486	1939
	2	178	175	1611	1964
	3	206	126	1654	1986
	Total	741	709	6,234	7,684

DIBELS Next Criterion Referenced Outcomes - 2016/17

Test Session	Grade	Well Below Benchmark	Below Benchmark	At or Above Benchmark	Total
Beginning of Year	K	301	248	1173	1722
	1	408	254	1159	1821
	2	284	149	1514	1947
	3	324	158	1499	1981
	Total	1,317	809	5,345	7,471
End of Year	K	137	216	1369	1722
	1	261	186	1374	1821
	2	217	147	1583	1947
	3	223	138	1620	1981
	Total	838	687	5,946	7,471

Looking at similar information for our students being supported with IEPs (see tables on the next page) we see that once again the largest gains are realized during 1st grade.

Students with Disabilities Early Reading - DIBELS Next 2015/16

Grade	Beginning of Year (BOY)		End of Year (EOY)		
	At or Above Benchmark	Total	At or Above Benchmark	Total	Change in %
	Percent BOY	Grade IEP N Count	Percent EOY	Grade IEP N Count	
K	32.8%	116	39.7%	116	6.9%
1	17.3%	110	33.6%	110	16.3%
2	25.2%	139	23.0%	139	-2.2%
3	19.4%	186	25.8%	186	6.4%
Total	23.2%	551	29.6%	551	6.4%

Students with Disabilities Early Reading - DIBELS Next 2016/17

Grade	Beginning of Year (BOY)		End of Year (EOY)		
	At or Above Benchmark	Total	At or Above Benchmark	Total	Change in %
	Percent BOY	Grade IEP N Count	Percent EOY	Grade IEP N Count	
K	34.4%	128	35.9%	128	1.5%
1	21.1%	114	27.2%	114	6.1%
2	30.5%	118	33.9%	118	3.4%
3	20.6%	136	22.8%	136	2.2%
Total	26.6%	496	29.8%	496	3.2%

Latino students are the largest ethnic minority within the PSD student population.

Latino/Latina Students Early Reading - DIBELS Next 2015/16

Grade	Beginning of Year (BOY)		End of Year (EOY)		
	At or Above Benchmark	Total Grade Underserved	At or Above Benchmark	Total Grade Underserved	Change in %
	Percent BOY	N Count	Percent EOY	N Count	
K	41.6%	315	66.7%	315	25.1%
1	45.5%	343	54.8%	343	9.3%
2	60.9%	353	64.9%	353	4.0%
3	58.8%	381	65.9%	381	7.1%
Total	52.2%	1,392	63.1%	1,392	10.9%

Latino/Latina Students Early Reading - DIBELS Next 2016/17

Grade	Beginning of Year (BOY)		End of Year (EOY)		
	At or Above Benchmark	Total Grade Underserved	At or Above Benchmark	Total Grade Underserved	Change in %
	Percent BOY	N Count	Percent EOY	N Count	
K	40.1%	324	59.9%	324	19.8%
1	37.6%	327	57.5%	327	19.9%
2	53.5%	355	54.9%	355	1.4%
3	53.1%	360	58.3%	360	5.2%
Total	46.4%	1,366	57.6%	1,366	11.2%

Free/Reduced Lunch eligible students are an important group to support and monitor.

Free/Reduced Lunch Eligible Early Reading - DIBELS Next 2015/16

Grade	Beginning of Year (BOY)		End of Year (EOY)		
	At or Above Benchmark Percent BOY	Total Grade Free/Reduced N Count	At or Above Benchmark Percent EOY	Total Grade Free/Reduced N Count	Change in %
K	46.9%	591	68.4%	591	21.5%
1	46.1%	679	59.9%	679	13.8%
2	61.4%	700	66.7%	700	5.3%
3	62.2%	725	70.2%	725	8.0%
Total	54.6%	2,695	66.3%	2,695	11.7%

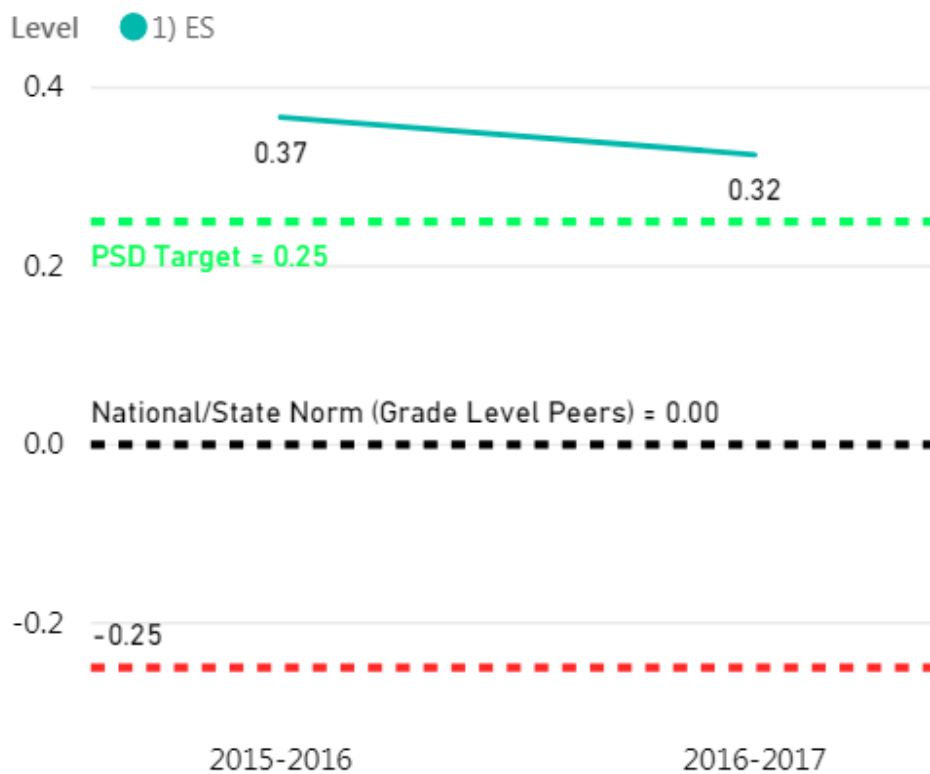
Free/Reduced Lunch Eligible Early Reading - DIBELS Next 2016/17

Grade	Beginning of Year (BOY)		End of Year (EOY)		
	At or Above Benchmark Percent BOY	Total Grade Free/Reduced N Count	At or Above Benchmark Percent EOY	Total Grade Free/Reduced N Count	Change in %
K	49.2%	587	65.1%	587	15.9%
1	42.6%	636	56.9%	636	14.3%
2	60.5%	683	64.1%	683	3.6%
3	55.2%	670	62.7%	670	7.5%
Total	52.1%	2,576	62.2%	2,576	10.1%

Recall that Poudre School District uses standardized scores (or z-scores) to display and aid interpretation of achievement outcomes for individual students. Z-scores answer the fundamental question of how far to the right or left of the national-norm the students DIBELS Next score is. In other words, z-scores help us understand “how unusual an outcome is” relative to nationwide peers. Positive z-scores indicate an outcome that is greater than average. Negative z-scores indicate an outcome that is less than average.

Taking the average for a set of z-scores results in what is traditionally called an “effect size.” So, where z-scores are useful in understanding the meaning of individual scores, effect sizes help us understand the meaning of a group of scores. As with z-scores, positive effect sizes indicate a mean outcome for the group being described that exceeds the mean outcome for nationwide grade level peers. The larger the effect size, the more unusually high the achievement outcome. As a visual guide, effect sizes that are small and positive (0.25 to 0.49) are shaded green, medium to large and positive (0.5 up) are shaded blue, small and negative (-0.25 to -0.49) are shaded yellow, and medium to large negative effect sizes (-0.5 down) are shaded red. This shading convention is used throughout the effect size displays in this Monitoring Report.

Effect Size by Academic Year and Level (Change over time)



Spring 2015/16

Grade	Effect Size	Students
0	0.16	1881
1	0.49	2042
2	0.45	2032
3	0.36	2059
Total	0.37	8013

Spring 2016/17

Grade	Effect Size	Students
0	0.11	1907
1	0.47	1887
2	0.40	2017
3	0.32	2053
Total	0.32	7864

FR_YN	Effect Size	Students
No	0.65	5111
Yes	-0.13	2903
Total	0.37	8013

FR_YN	Effect Size	Students
No	0.59	5182
Yes	-0.20	2682
Total	0.32	7864

Spring 2015/16

Ethnicity	Effect Size	Students
American Indian ...	0.19	34
Asian	0.70	206
Black or African ...	-0.02	84
Hispanic	-0.22	1531
Native Hawaiian ...	-0.05	14
Two or More	0.52	295
White	0.51	5849
Total	0.37	8013

Spring 2016/17

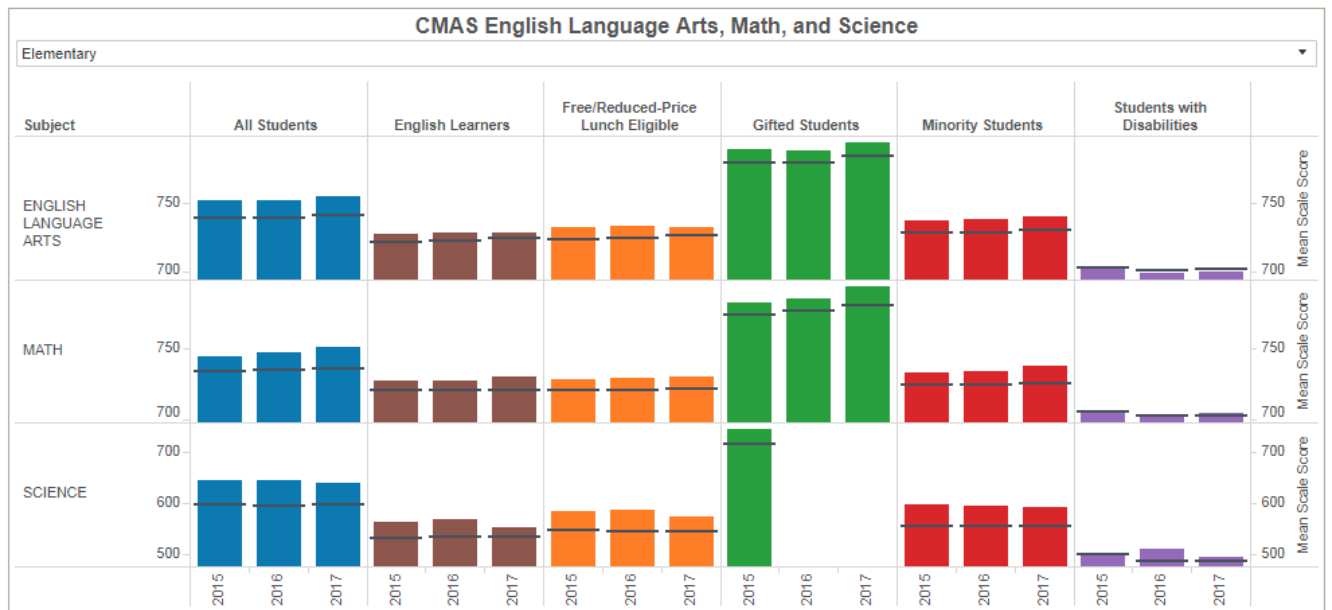
Ethnicity	Effect Size	Students
American Indian ...	0.20	40
Asian	0.61	229
Black or African ...	-0.06	82
Hispanic	-0.28	1450
Native Hawaiian ...	-0.01	15
Two or More	0.41	275
White	0.47	5773
Total	0.32	7864

Appendix 3: Achievement

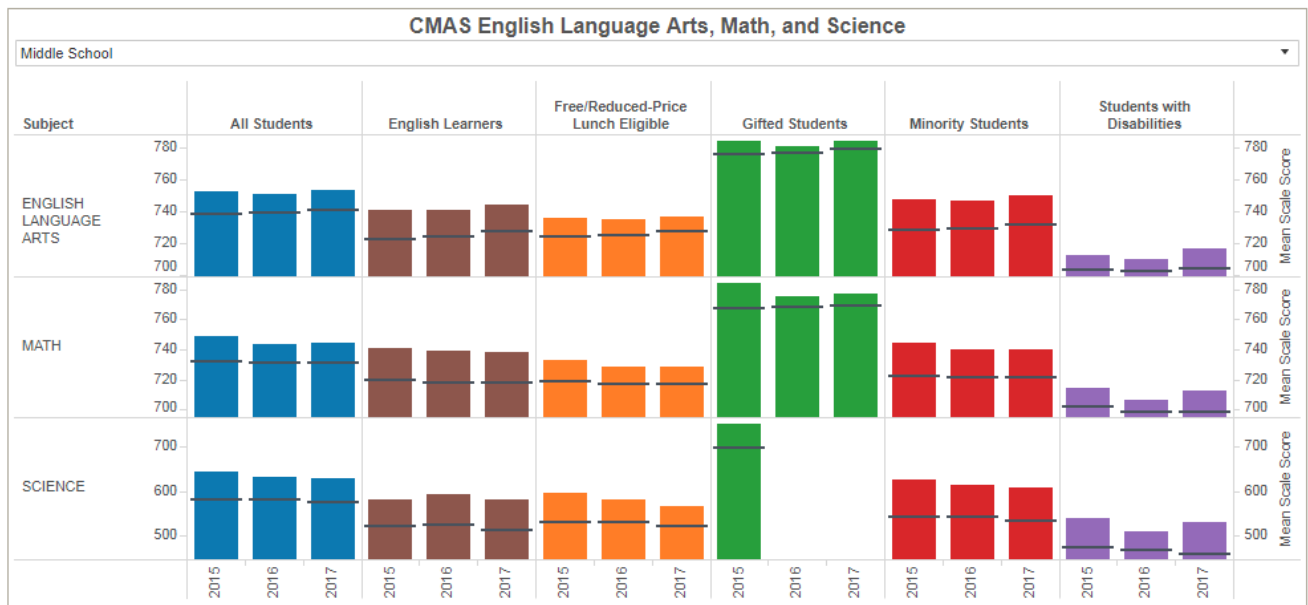
Achievement Target: PSD effect size ≥ 0.25 for State assessment subject by grade combinations.

The following visual, pulled from the [CDE District Dashboards](#), displays CMAS PARCC mean scale scores for math, English Language Arts, and science by level (elementary, middle, high) and student group for the past three school years. The state mean scale score is presented as a black horizontal line. Wherever the colored bar exceeds the horizontal black line, PSD outcomes exceeded the state's outcomes. These views provide a quick high-level and publically available snapshot of how PSD performs relative to the overall state on the state assessment system. We can see at a glance that PSD students perform at higher levels than the Colorado student population. Higher performance is evident overall and by student subgroups at each level (elementary, middle school, and high school). The only exception is evident for PSD students supported with an IEP at the elementary level. In the past two academic years, this important group of PSD students did have slightly lower achievement levels in English Language Arts, as evidenced by the state assessment system, than their statewide peers. After reviewing these high level state displays that indicate PSD has a level of performance that exceeds the overall state outcomes, we will use z-scores and effect sizes to provide insight regarding how much higher PSD results are.

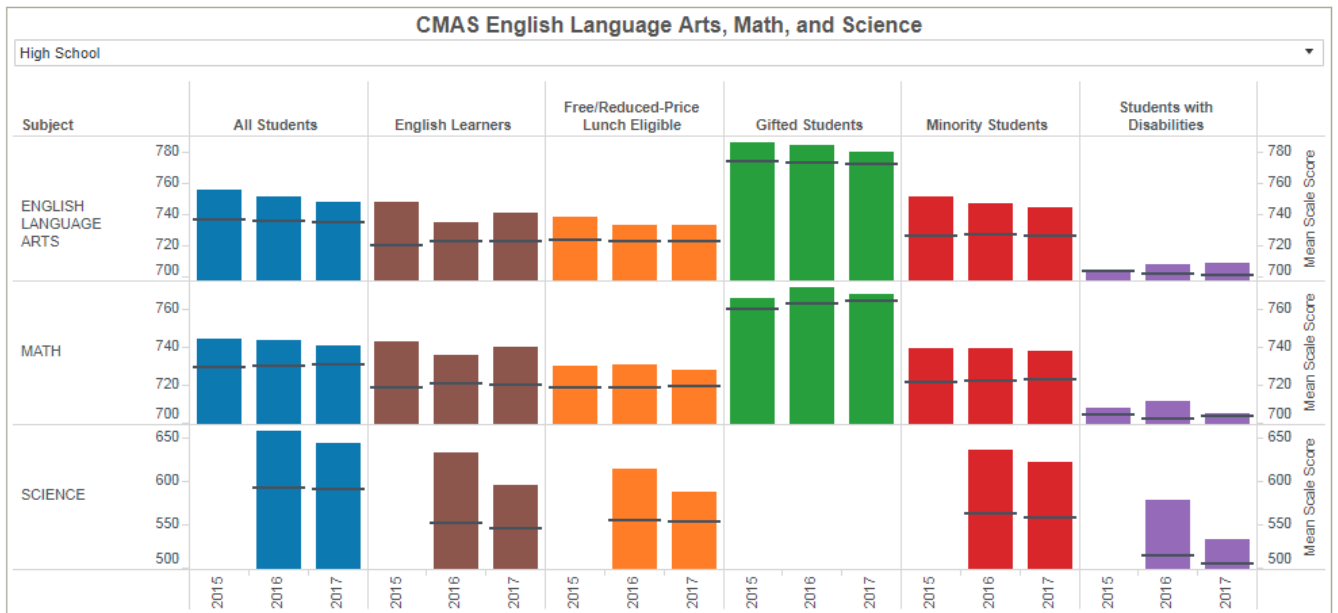
PSD Elementary Results vs. Statewide Results



PSD Middle School Results vs. Statewide Results



PSD High School Results vs. Statewide Results



The following visuals, pulled from the [CDE District Dashboards](#), display **PSAT and SAT** mean scale scores for multiple years by grade and student group. As above, the state mean scale score is presented as a black horizontal line. How unusually high are these results?



Use of “z-scores” and “effect size” to measure how unusual PSD results are

With regard to accountability uses of state assessment results, the state of Colorado has shifted the focus from the “percent of students at specific performance levels” to the mean (or average) assessment scale score. This change in focus is something that PSD can leverage as we have been using “standardized scores” (i.e., z-scores) within both our “[Levels of Support](#)” data visualization tool (provides support to teachers and teams of teachers at the individual-student and groups-of-students levels) and our statistical methodology for finding [evidence of effectiveness within our teacher evaluation system](#).

As mentioned earlier in this report, PSD uses standardized scores (or z-scores) to display and aid interpretation of achievement outcomes for individual students. Z-scores answer the fundamental question of how far to the right or left of a statewide-norm the outcome of a single student is. This indicates how unusually high or low a student outcome is in a probabilistic sense. In other words, z-scores help us understand “how unusual an outcome is” relative to statewide, nationwide, or international peers. Z-scores can be translated into percentile ranks under the assumption of a known probability distribution (most often normal in educational settings) of the underlying scores. One advantage of using z-scores is that taking averages leads to a meaningful and defensible interpretation for groups of students.

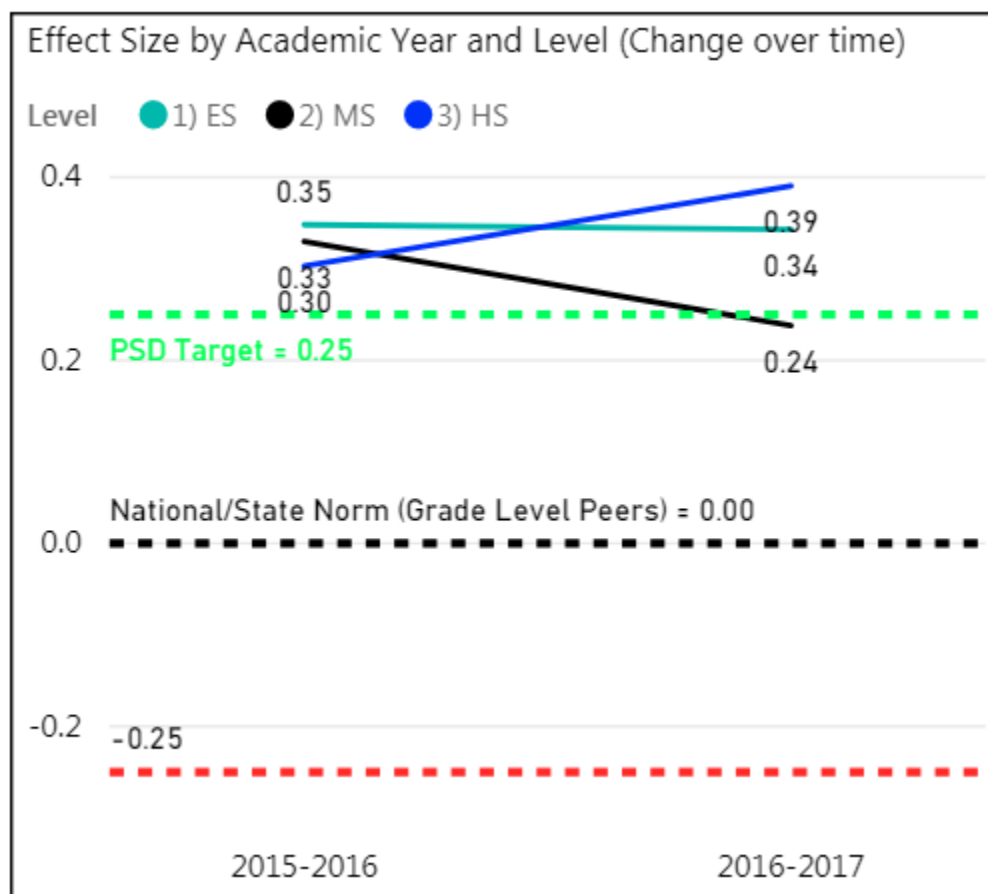
Taking the average for a set of z-scores results in what is traditionally called an “effect size.” So, where z-scores are useful in understanding the meaning of individual scores, effect sizes help us understand the meaning of a group of scores. Specifically, the effect size we are calculating and interpreting is a measure of how far the PSD student mean has moved up or down relative to a norming group. This normative approach to understanding both achievement and growth has many advantages when the goal is to identify real strengths and areas of concern. The many different standard setting practices that assessment vendors use to set performance level expectations can lead to confusion among educators regarding an apparent lack of alignment between assessment programs. The use of z-scores and effect sizes eliminates this issue as all measures are converted to a single “unit of unusualness” which can be consistently interpreted.

The use of z-scores and, related effect sizes, within the context of the Monitoring Report, Levels of Support, and the system we use to identify “Evidence of Effectiveness” as part of the PSD educator evaluation system provides an opportunity to connect uses of these informative metrics across different components of the accountability and support systems we rely on. Uniformity in the metrics being used and making connections between the different support systems PSD uses will benefit our work to develop the potential of all students. Effect sizes can be calculated for any subgrouping of students that PSD is able to obtain statewide means and standard deviations for, not just overall grade level and subject groupings.

For the Monitor Report, a primary goal of analyzing achievement data is to identify true relative strengths and weaknesses across different groupings of students, academic subjects, and in the presence of changes in the assessments being used locally and statewide over time. Recall that standard scores, or z-scores, tell us how far a student’s score falls to the right (+) or the left (-) of the average outcome of the reference group. The distance right or left of average is given in terms of the “unusualness” metric called a standard deviation unit. There are various ways to interpret z-scores, but for our purpose of highlighting real outcomes that are unusually low, unusually high, or changing over time; the two methods we will focus on include a visual inspection via histograms representing the full distribution of scores from all PSD students, and the average z-score using the state means and standard deviations to norm against, which results in the Glass’ Delta Effect Size. The effect size being referenced here is widely used and interpreted in educational research settings.

Effect sizes that are small and positive (0.25 to 0.49) are shaded green, medium to large and positive (0.5 up) are shaded blue, small and negative (-0.25 to -0.49) are shaded yellow, and medium to large negative effect sizes (-0.5 down) are shaded red. This shading convention is used throughout the effect size displays in this report. This convention is based on widely accepted interpretation guidelines put forth by Jacob Cohen (Statistical Power Analysis for the Behavioral Sciences, 2nd Edition) and an investigation of PSD’s typical effect sizes that are evident across multiple years, assessments, and groups of students. Finally, PSD is focusing on the outcomes of our students who are not enrolled in charter schools. The displays below reflect outcomes of non-charter PSD students. This decision is made as PSD administration does not exercise the same level of oversight for charter school outcomes (Ridgeview Classical, Liberty Common, Fort Collins Montessori, and Mountain Sage) as it does for the many non-charter schools in PSD.

English Language Arts and Reading Achievement (State Assessment System)



Spring 2015/16

Level	Effect Size	Students
1) ES	0.35	6029
2) MS	0.33	5272
3) HS	0.30	1007
Total	0.34	12308

Grade	Effect Size	Students
3	0.31	2009
4	0.33	2079
5	0.41	1941
6	0.33	1928
7	0.34	1760
8	0.31	1584
9	0.30	1007
Total	0.34	12308

Spring 2016/17

Level	Effect Size	Students
1) ES	0.34	6148
2) MS	0.24	5266
3) HS	0.39	995
Total	0.30	12409

Grade	Effect Size	Students
3	0.34	1989
4	0.36	2042
5	0.33	2117
6	0.25	1869
7	0.20	1808
8	0.27	1589
9	0.39	995
Total	0.30	12409

Spring 2015/16

Ethnicity	Effect Size	Students
American Indian...	-0.27	53
Asian	0.82	388
Black or African ...	-0.16	156
Hispanic	-0.30	2304
Native Hawaiian...	0.06	20
Two or More	0.41	444
White	0.49	8943
Total	0.34	12308

FR_YN	Effect Size	Students
No	0.64	8073
Yes	-0.24	4235
Total	0.34	12308

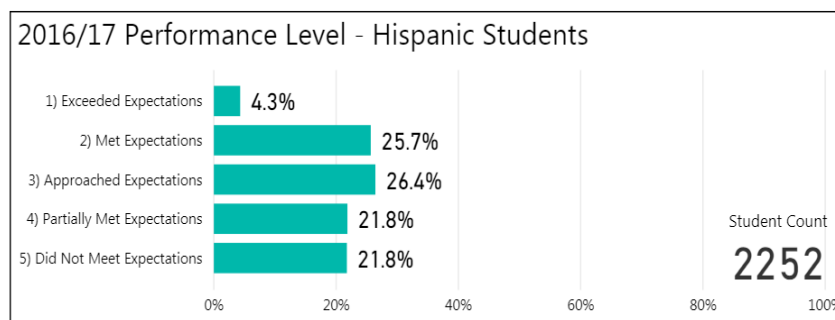
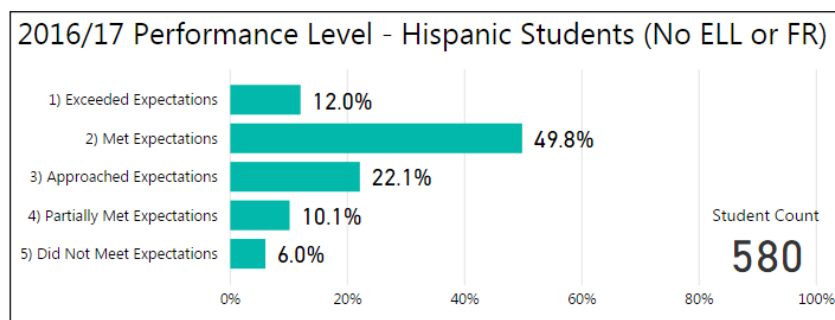
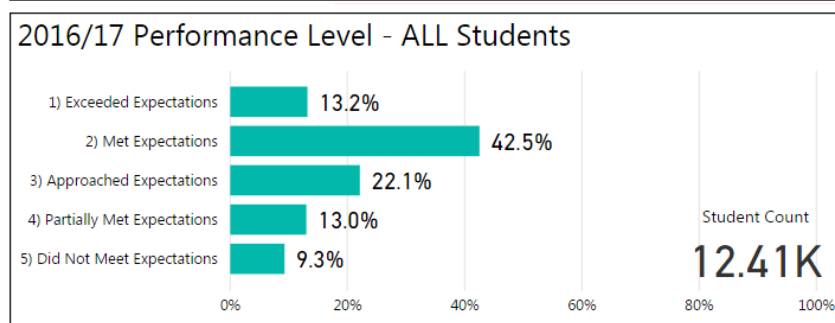
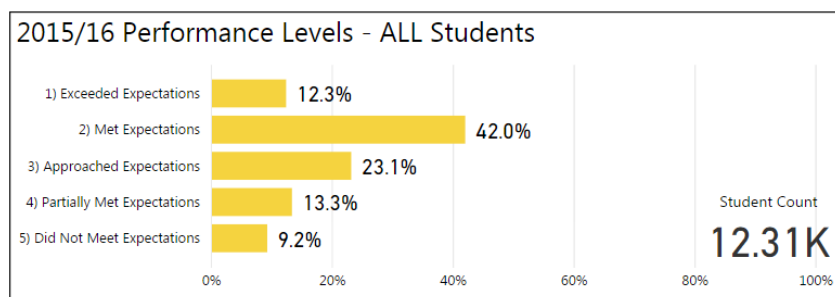
Spring 2016/17

Ethnicity	Effect Size	Students
American Indian ...	-0.08	52
Asian	0.69	388
Black or African ...	-0.21	157
Hispanic	-0.31	2252
Native Hawaiian ...	-0.08	22
Two or More	0.37	460
White	0.44	9078
Total	0.30	12409

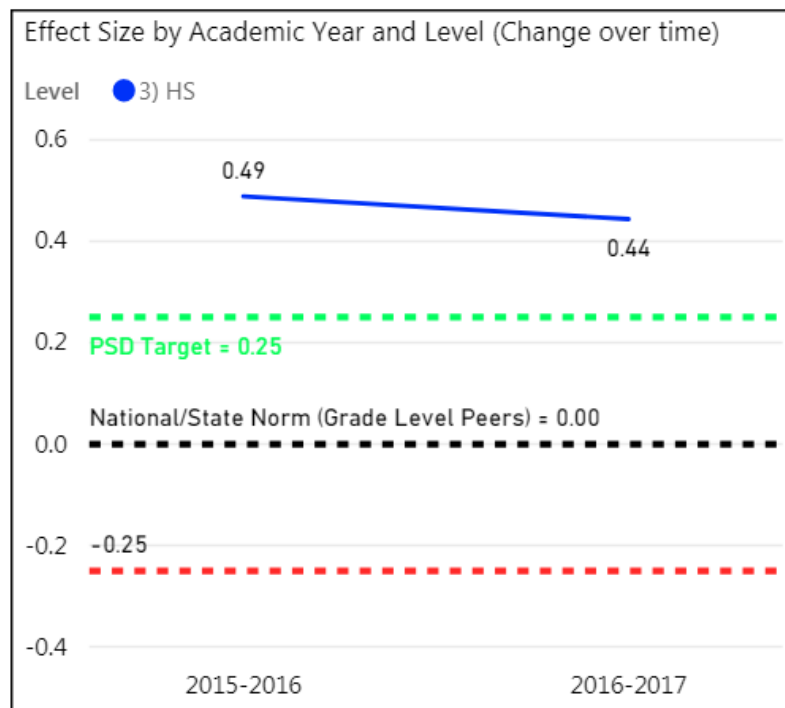
FR_YN	Effect Size	Students
No	0.58	8404
Yes	-0.28	4005
Total	0.30	12409

Collectively, PSD students attained the PSD achievement target related to the 2016/17 English language arts state assessment. The average effect size across grades three through nine is 0.30. This means that on average, PSD students outperformed their statewide peers by approximately 1/3 of a standard deviation unit. This is a small to medium positive effect size and meets the PSD target. Each grade level, except 7th grade, also met the PSD target and met or exceeded an effect size of 0.25. The 7th grade outcome of 0.20 indicates that the PSD population of students did outperform the state population of 7th grade students in English Language Arts by 1/5 of a standard deviation unit, but did not meet the PSD target of a ≥ 0.25 effect size.

Below is a view of English Language Arts performance levels across the most recent two years and for Latino students. The two views offered for Latino students illustrates the impact of removing student scores associated with English language learners and those students eligible for reduced or free meals. One can see the dramatic impact of academic risk factors and the high relative achievement of Latino students once the risk factors are controlled for by exclusion. These types of interactions between student characteristics and educational outcomes can be more fully explored by the reader of this report via the PSD developed data visualization tool available by clicking the following link; [ACHIEVEMENT and GROWTH](#).



10th Grade PSAT Evidence Based Reading and Writing Achievement Effect Size



Spring 2015/16

Level	Effect Size	Students
3) HS	0.49	1622
Total	0.49	1622

Spring 2016/17

Level	Effect Size	Students
3) HS	0.44	1681
Total	0.44	1681

Spring 2015/16

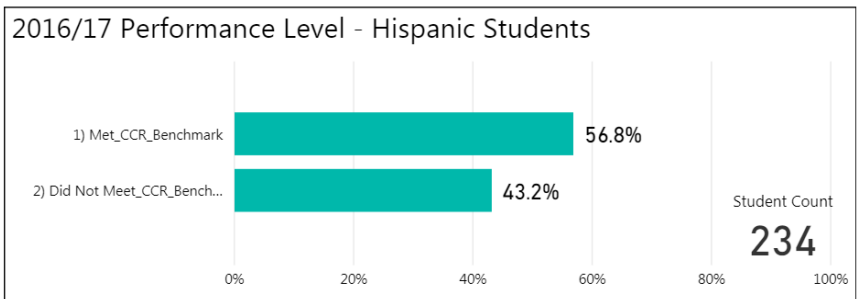
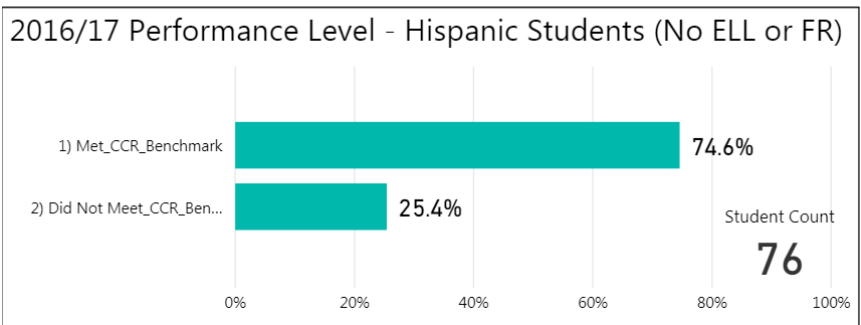
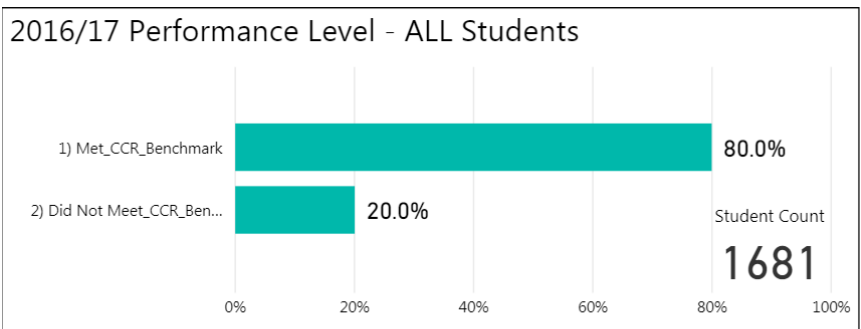
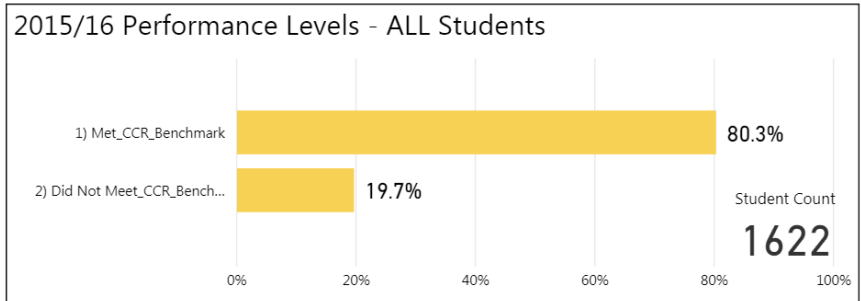
Ethnicity	Effect Size	Students
American Indian...	0.19	11
Asian	0.93	65
Black or African ...	0.51	13
Hispanic	-0.27	236
Two or More	0.44	55
White	0.62	1239
Total	0.49	1619

Spring 2016/17

Ethnicity	Effect Size	Students
American Indian ...	0.19	9
Asian	1.17	53
Black or African ...	-0.14	27
Hispanic	-0.24	234
Two or More	0.49	75
White	0.55	1282
Total	0.44	1680

FR_YN	Effect Size	Students
No	0.68	1208
Yes	-0.07	411
Total	0.49	1619

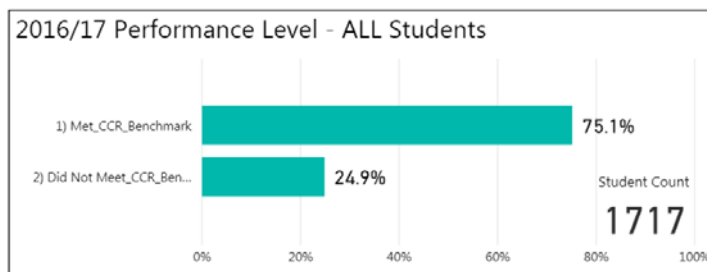
FR_YN	Effect Size	Students
No	0.62	1259
Yes	-0.09	421
Total	0.44	1680



11th Grade SAT Evidence Based Reading and Writing Achievement 2017 Z-Score Distribution

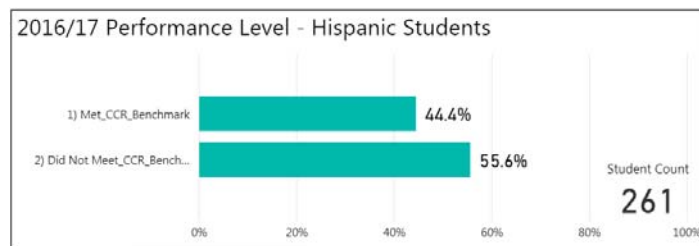
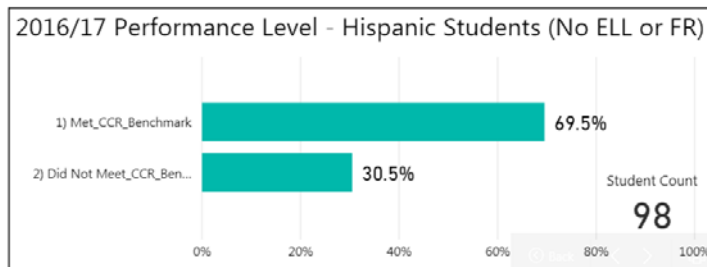
Spring 2016/17

Level	Effect Size	Students
3) HS	0.39	1717
Total	0.39	1717



Spring 2016/17

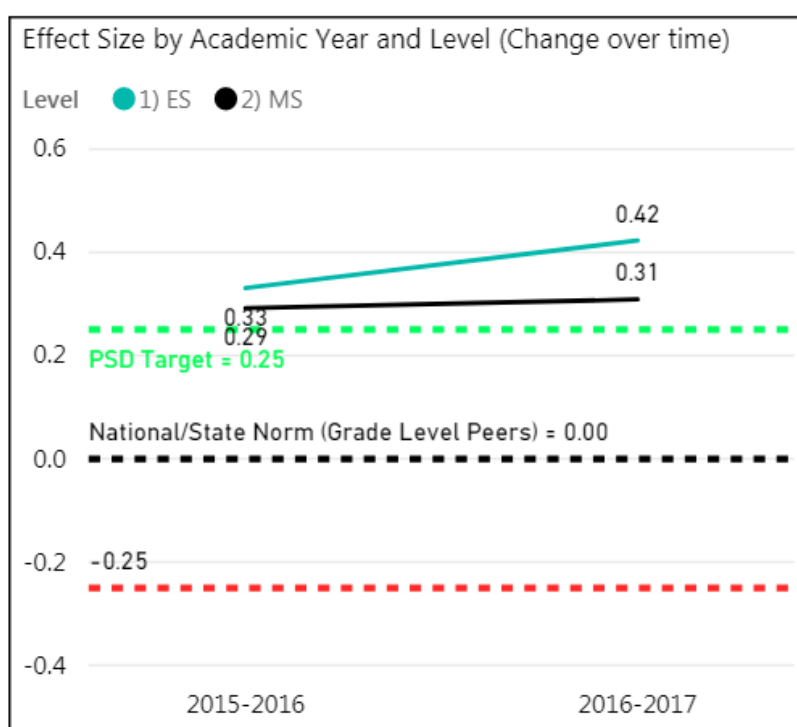
Ethnicity	Effect Size	Students
▲		
American Indian ...	0.30	12
Asian	0.71	65
Black or African ...	0.15	17
Hispanic	-0.33	261
Two or More	0.39	58
White	0.52	1300
Total	0.39	1713



FR_YN	Effect Size	Students
No	0.58	1302
Yes	-0.23	411
Total	0.39	1713

Math Achievement (State Assessment System)

In both 2016 and 2017 the participation level for the 9th grade math assessment is severely limited compared to all other grade levels. Additionally, in both 2016 and in 2017 the math assessments were not designed to reflect grade level standards as they are in English Language Arts grades 3-9 and mathematics grades 3-6. For these two reasons the 9th grade math data are not easily interpreted in a manner consistent with the other grade levels and subject areas. Therefore, the data associated with 9th grade math is not highlighted/displayed in the table CMAS math assessment effect size table. Finally, as the state of Colorado has now transitioned to use of the PSAT for 9th grade students as of the 2018 assessment occasion, we anticipate participation rates to increase dramatically for our 9th grade students and the data will once again provide interpretable outcomes based on statewide grade-level norms. PSD looks forward to this major improvement in the state assessment system and reporting out results in the 2019 DE 1.0 Monitoring Report.



Collectively, PSD students attained the achievement target related to the 2016/17 math state assessment. The average effect size across grades three through nine is 0.37. This means that on average, PSD students outperformed their statewide peers by approximately 1/3 of a standard deviation unit. This would be correctly classified as a small to medium positive effect size and meets the PSD target. Furthermore, each grade level, for which PSD is able to calculate an effect size (grades 3-8), individually also met the PSD target and exceeded an effect size of 0.25.

Spring 2015/16

Level	Effect Size	Students
1) ES	0.33	6062
2) MS	0.29	5329
Total	0.31	11391

Grade	Effect Size	Students
3	0.25	2033
4	0.39	2086
5	0.36	1943
6	0.34	1947
7	0.31	1786
8	0.21	1596
Total	0.31	11391

Spring 2015/16

Ethnicity	Effect Size	Students
American Indian...	-0.20	48
Asian	0.82	360
Black or African ...	-0.15	137
Hispanic	-0.32	2210
Native Hawaiian...	-0.10	18
Two or More	0.42	395
White	0.47	8223
Total	0.31	11391

FR_YN	Effect Size	Students
No	0.61	7405
Yes	-0.23	3986
Total	0.31	11391

Spring 2016/17

Level	Effect Size	Students
1) ES	0.42	6180
2) MS	0.31	5296
Total	0.37	11476

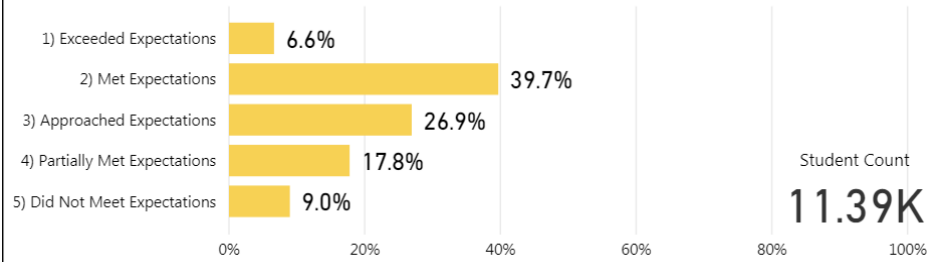
Grade	Effect Size	Students
3	0.40	2015
4	0.43	2051
5	0.44	2114
6	0.31	1883
7	0.33	1815
8	0.29	1598
Total	0.37	11476

Spring 2016/17

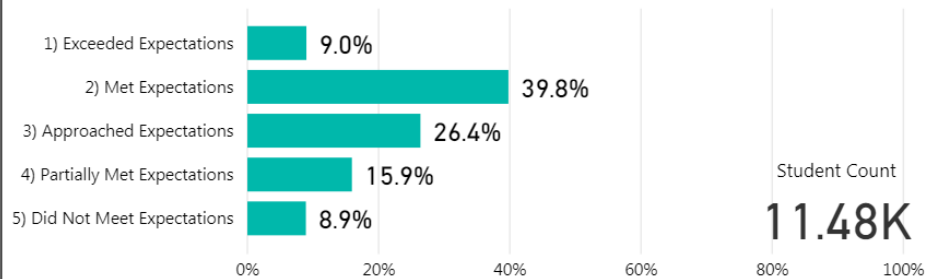
Ethnicity	Effect Size	Students
American Indian ...	-0.02	48
Asian	0.84	354
Black or African ...	-0.29	142
Hispanic	-0.26	2140
Native Hawaiian ...	0.24	19
Two or More	0.48	423
White	0.52	8350
Total	0.37	11476

FR_YN	Effect Size	Students
No	0.65	7679
Yes	-0.20	3797
Total	0.37	11476

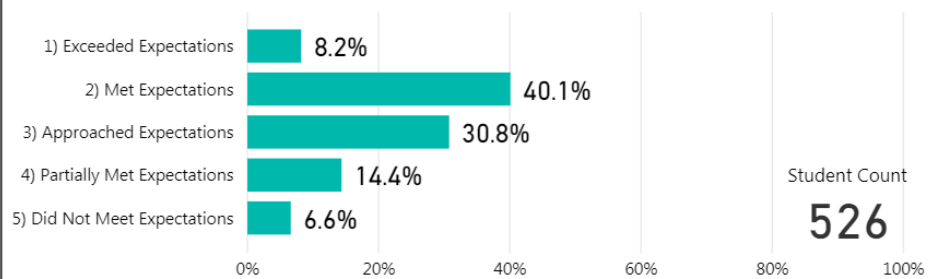
2015/16 Performance Levels - ALL Students



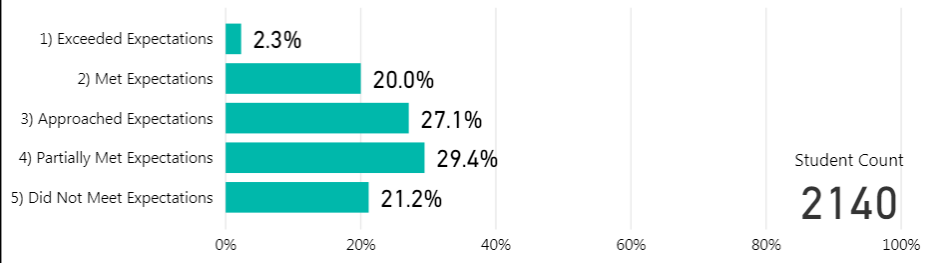
2016/17 Performance Level - ALL Students



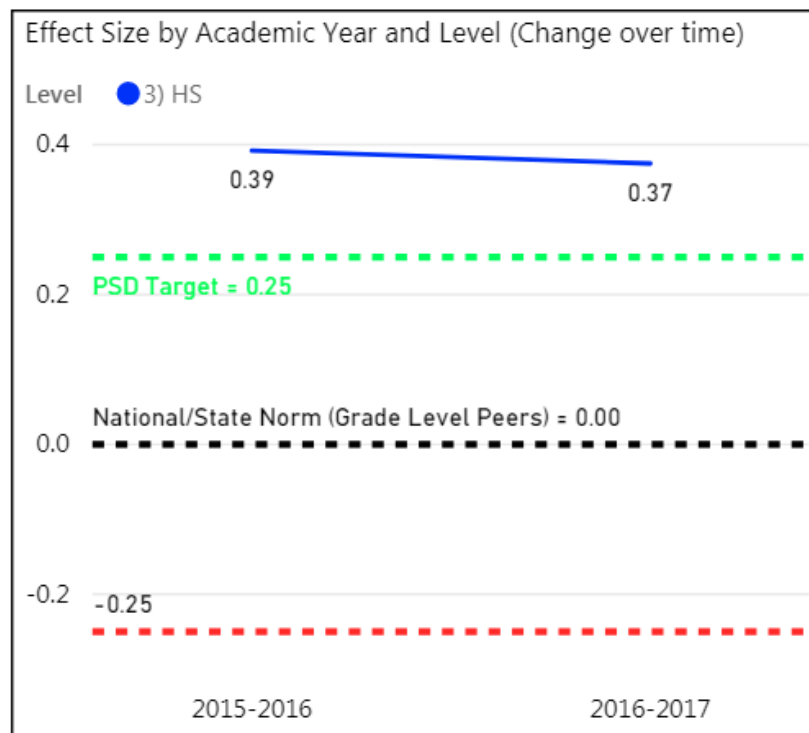
2016/17 Performance Level - Hispanic Students (No ELL or FR)



2016/17 Performance Level - Hispanic Students



10th Grade PSAT Math Achievement 2017 (Effect Size)



Spring 2015/16

Level	Effect Size	Students
3) HS	0.39	1622
Total	0.39	1622

Spring 2016/17

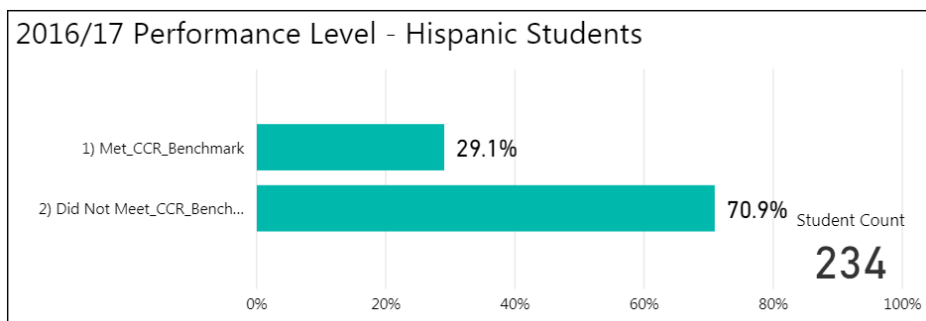
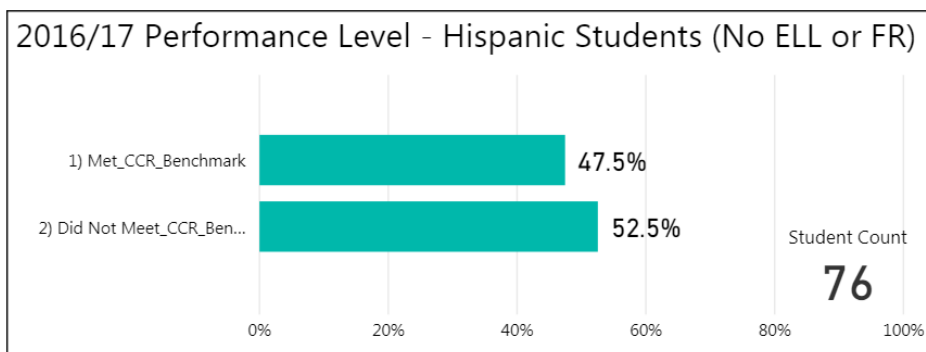
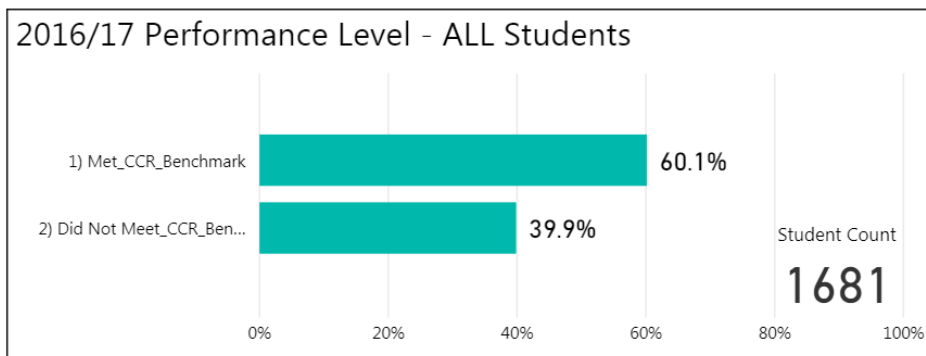
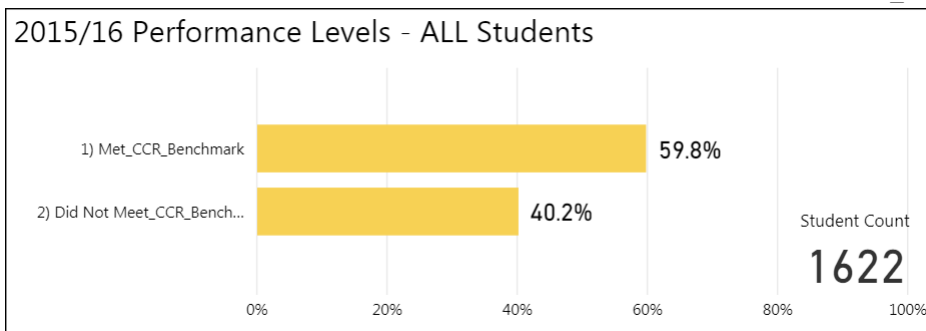
Level	Effect Size	Students
3) HS	0.37	1681
Total	0.37	1681

Spring 2015/16

Ethnicity	Effect Size	Students
American Indian...	0.51	11
Asian	0.99	65
Black or African ...	0.04	13
Hispanic	-0.33	236
Two or More	0.41	55
White	0.50	1239
Total	0.39	1619

Spring 2016/17

Ethnicity	Effect Size	Students
American Indian ...	-0.04	9
Asian	1.28	53
Black or African ...	-0.34	27
Hispanic	-0.30	234
Two or More	0.39	75
White	0.48	1282
Total	0.37	1680



11th Grade SAT Math Achievement 2017 (Effect Size)

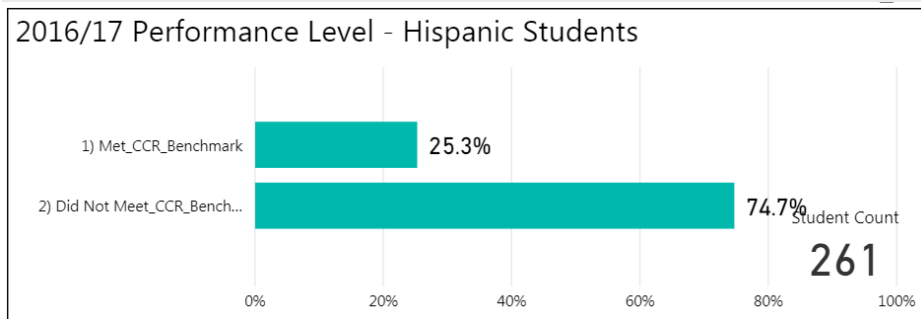
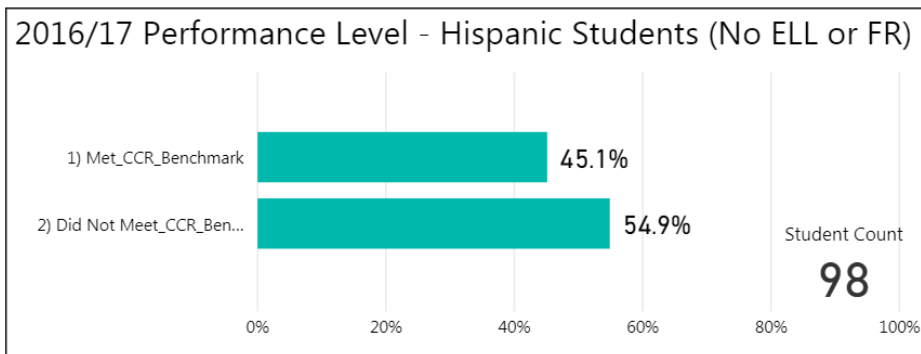
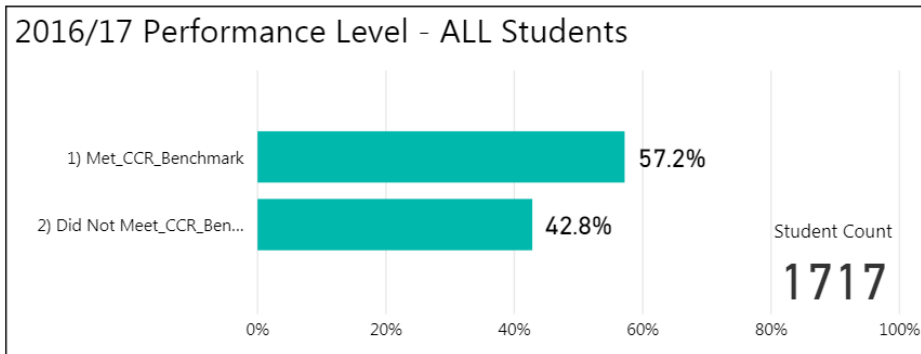
Spring 2016/17

Level	Effect Size	Students
3) HS	0.29	1717
Total	0.29	1717

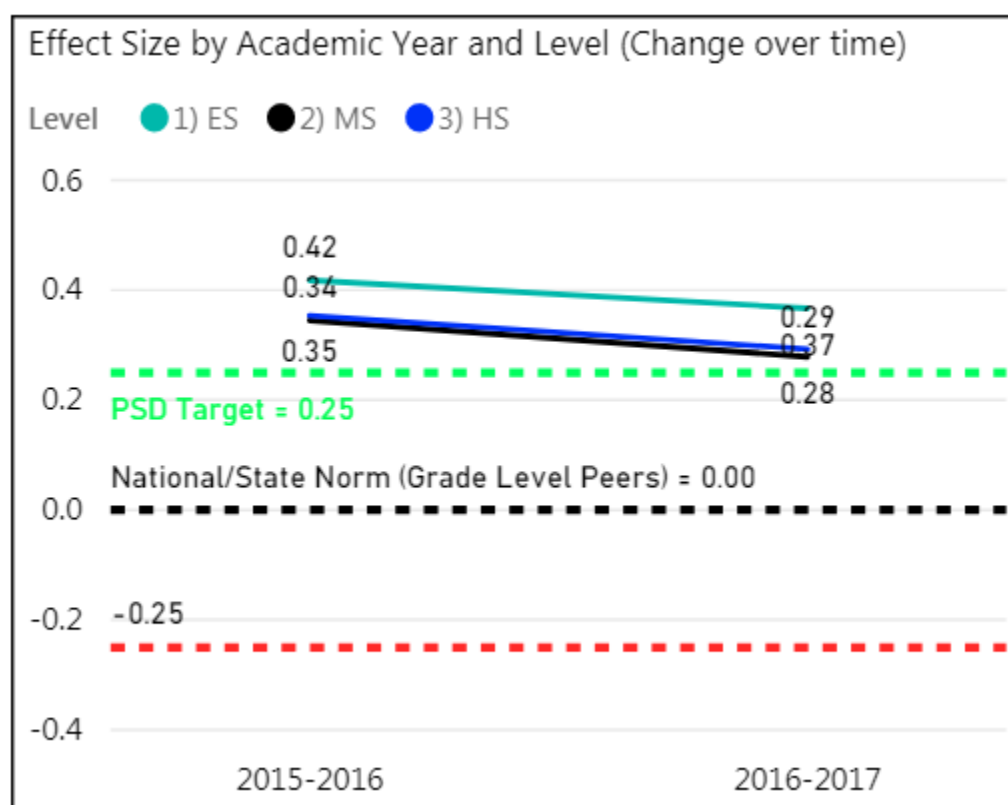
Spring 2016/17

Ethnicity	Effect Size	Students
▲		
American Indian ...	0.22	12
Asian	0.81	65
Black or African ...	-0.03	17
Hispanic	-0.43	261
Two or More	0.22	58
White	0.42	1300
Total	0.29	1713

FR_YN	Effect Size	Students
No	0.50	1302
Yes	-0.36	411
Total	0.29	1713



Science Achievement (State Assessment System)



Spring 2015/16

Level	Effect Size	Students
1) ES	0.42	1939
2) MS	0.34	1567
3) HS	0.35	551
Total	0.38	4057



Grade	Effect Size	Students
5	0.42	1939
8	0.34	1567
11	0.35	551
Total	0.38	4057

Spring 2016/17

Level	Effect Size	Students
1) ES	0.37	2108
2) MS	0.28	1565
3) HS	0.29	467
Total	0.33	4140

Grade	Effect Size	Students
5	0.37	2108
8	0.28	1565
11	0.29	467
Total	0.33	4140

Spring 2015/16

Ethnicity	Effect Size	Students
American Indian...	-0.03	23
Asian	0.86	141
Black or African ...	-0.01	50
Hispanic	-0.26	735
Native Hawaiian...	-0.08	7
Two or More	0.28	146
White	0.53	2955
Total	0.38	4057

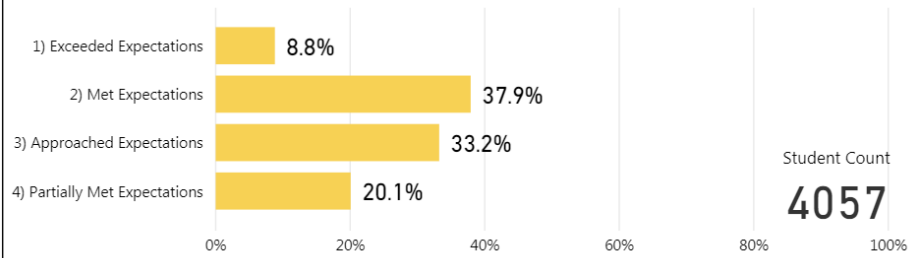
FR_YN	Effect Size	Students
No	0.66	2689
Yes	-0.16	1368
Total	0.38	4057

Spring 2016/17

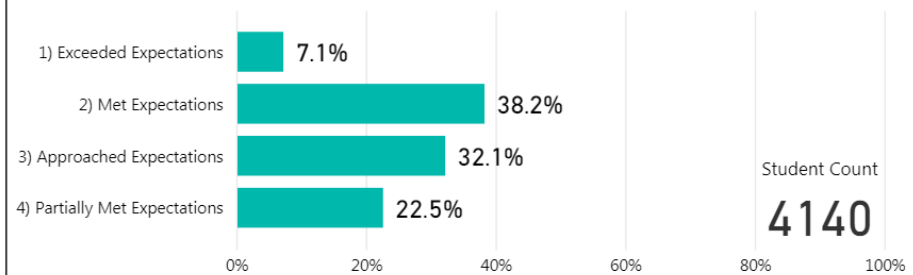
Ethnicity	Effect Size	Students
American Indian ...	-0.28	16
Asian	0.53	136
Black or African ...	-0.26	55
Hispanic	-0.41	742
Native Hawaiian ...	0.10	10
Two or More	0.57	163
White	0.50	3018
Total	0.33	4140

FR_YN	Effect Size	Students
No	0.61	2819
Yes	-0.28	1321
Total	0.33	4140

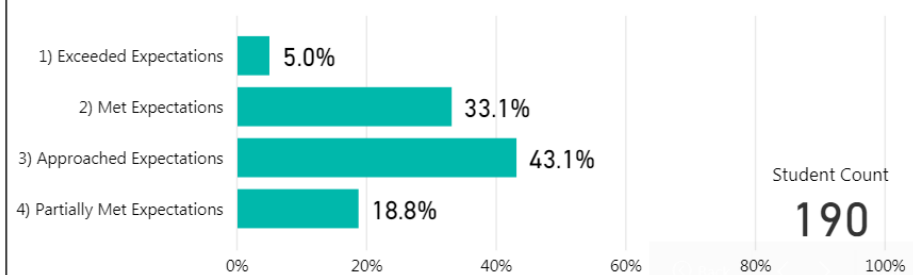
2015/16 Performance Levels - ALL Students



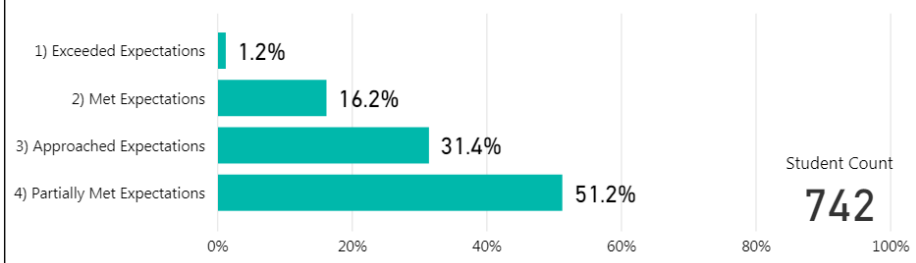
2016/17 Performance Level - ALL Students



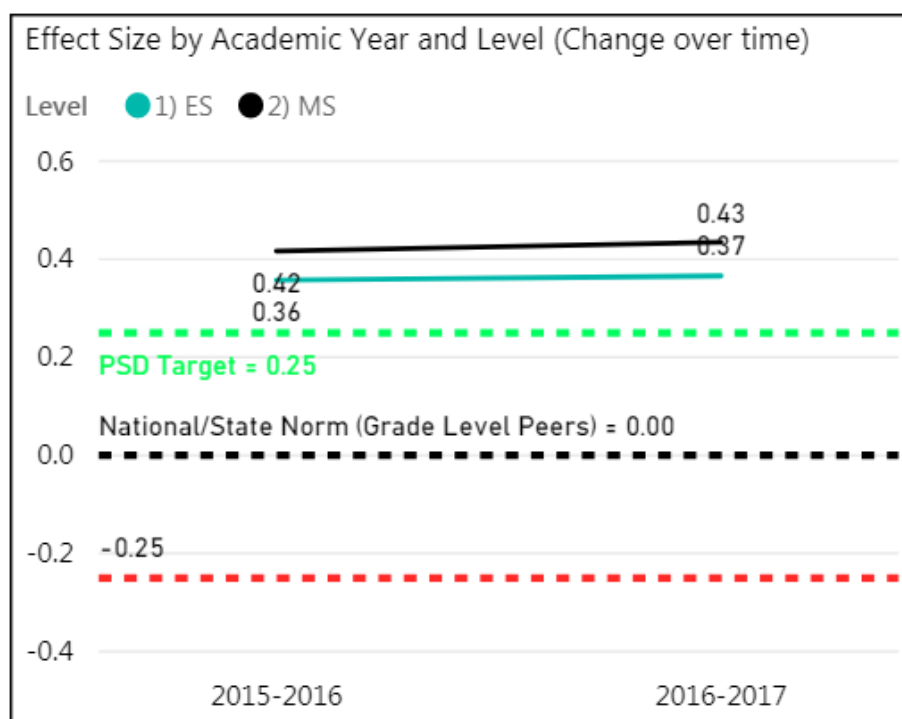
2016/17 Performance Level - Hispanic Students (No ELL or FR)



2016/17 Performance Level - Hispanic Students



Reading Achievement (MAPS)



To provide some level of validation for the high achievement outcomes on the state assessment system, we can inspect outcomes from the nationally normed MAP assessment. The following tables reflect achievement results from the same testing season – spring 2017. As part of the work involved in developing defensible growth metrics for use in the PSD teacher evaluation system, and to support the closing of gaps in PSD via data tools such as “Levels of Support”, PSD calculates z-scores for the NWEA MAP assessment scores. These z-scores are translated into percentile ranks and effect size outcomes for groups of students. The following tables are provided as a means of validating the high levels of achievement PSD students consistently demonstrate – dubbed “the PSD advantage.” Note that a positive effect size indicates an average PSD outcome that exceeds the national group of students taking part in NWEA assessments. NWEA MAP assessments are widely used grades 2-8 in PSD and our tables below are limited to these grade levels. Note that the number of student per grade level taking the science MAP test is much lower than the approximately 2,000 per grade level taking the test in reading and in math. This reduced student count in science indicates that the outcomes are representative of the test takers as opposed to representing the general student population at a given grade level.

Spring 2015/16

Level	Effect Size	Students
1) ES	0.36	8144
2) MS	0.42	5917
Total	0.38	14061

Grade	Effect Size	Students
2	0.31	2010
3	0.30	2047
4	0.38	2119
5	0.45	1969
6	0.33	2043
7	0.43	1987
8	0.50	1887
Total	0.38	14061

Spring 2016/17

Level	Effect Size	Students
1) ES	0.37	8270
2) MS	0.43	6045
Total	0.39	14315

Grade	Effect Size	Students
2	0.31	2007
3	0.39	2046
4	0.38	2074
5	0.39	2143
6	0.38	1992
7	0.43	2065
8	0.50	1988
Total	0.39	14315

Spring 2015/16

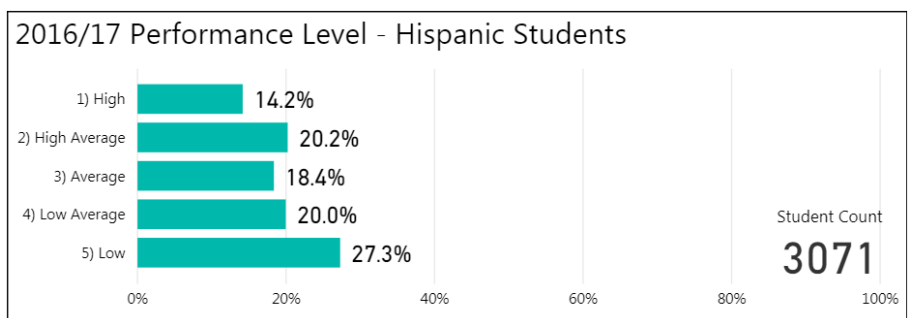
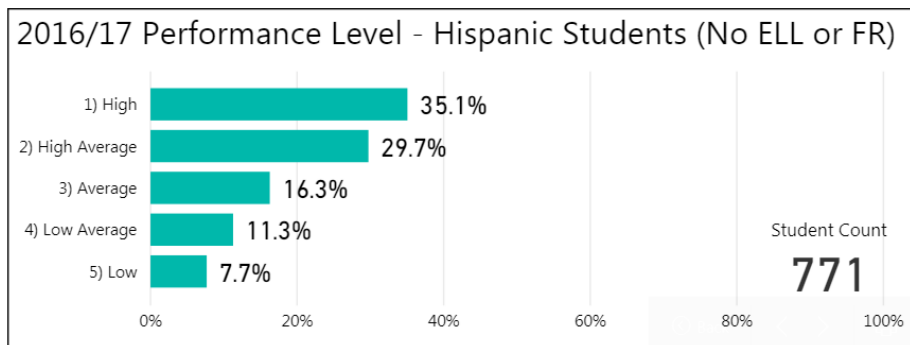
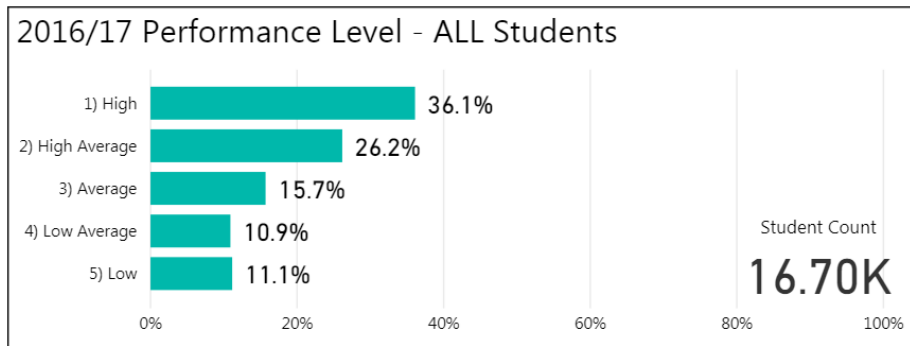
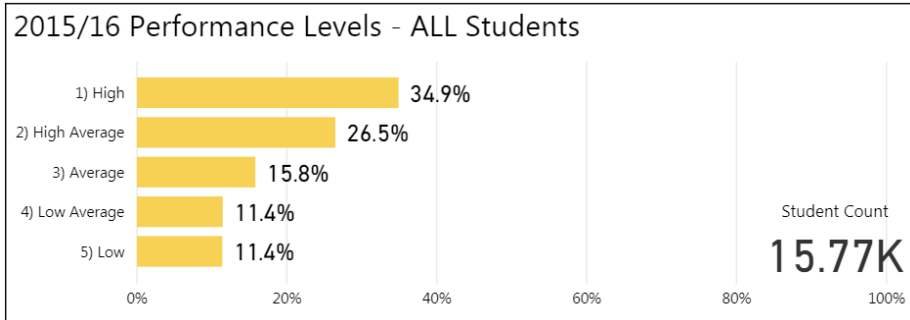
Ethnicity	Effect Size	Students
American Indian...	-0.09	61
Asian	0.67	416
Black or African ...	-0.01	167
Hispanic	-0.31	2631
Native Hawaiian...	0.03	23
Two or More	0.52	517
White	0.55	10246
Total	0.38	14061

FR_YN	Effect Size	Students
No	0.69	9130
Yes	-0.19	4931
Total	0.38	14061

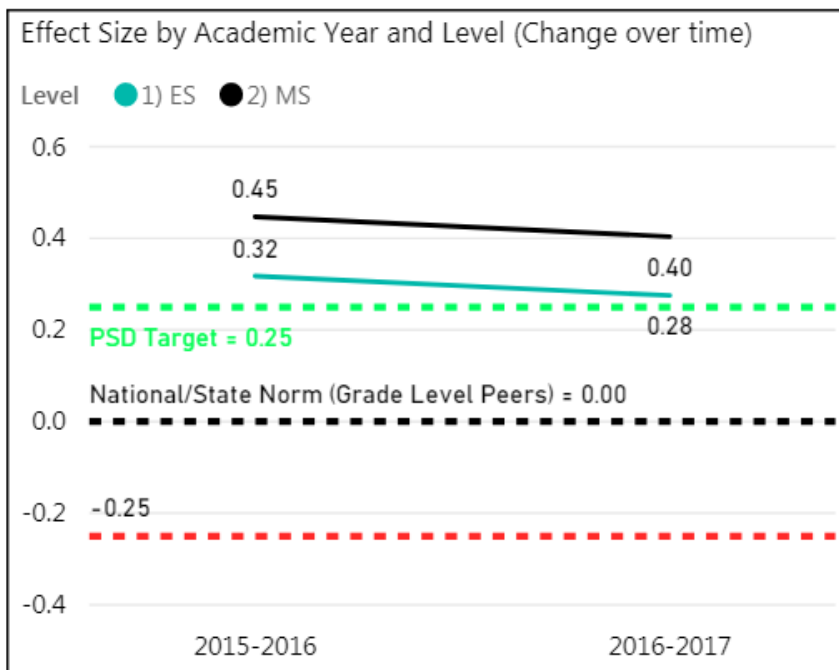
Spring 2016/17

Ethnicity	Effect Size	Students
American Indian ...	0.12	56
Asian	0.63	416
Black or African ...	-0.12	170
Hispanic	-0.31	2636
Native Hawaiian ...	0.15	23
Two or More	0.54	521
White	0.57	10493
Total	0.39	14315

FR_YN	Effect Size	Students
No	0.69	9563
Yes	-0.20	4752
Total	0.39	14315



Math Achievement (MAPS)



Spring 2015/16

Level	Effect Size	Students
1) ES	0.32	8162
2) MS	0.45	5935
Total	0.37	14097

Grade	Effect Size	Students
2	0.17	2009
3	0.24	2051
4	0.37	2128
5	0.49	1975
6	0.29	2047
7	0.46	2016
8	0.61	1872
Total	0.37	14097

Spring 2016/17

Level	Effect Size	Students
1) ES	0.28	8319
2) MS	0.40	6074
Total	0.33	14393

Grade	Effect Size	Students
2	0.18	2013
3	0.28	2052
4	0.29	2085
5	0.34	2169
6	0.27	2000
7	0.42	2080
8	0.53	1994
Total	0.33	14393

Spring 2015/16

Ethnicity	Effect Size	Students
American Indian...	-0.17	60
Asian	0.89	411
Black or African ...	-0.20	165
Hispanic	-0.31	2650
Native Hawaiian...	0.00	24
Two or More	0.51	515
White	0.53	10272
Total	0.37	14097

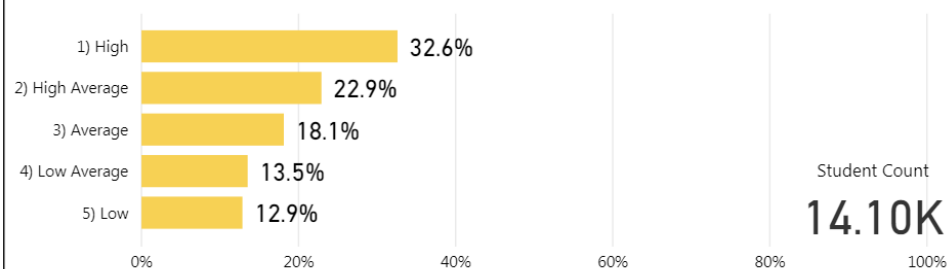
FR_YN	Effect Size	Students
No	0.69	9156
Yes	-0.22	4941
Total	0.37	14097

Spring 2016/17

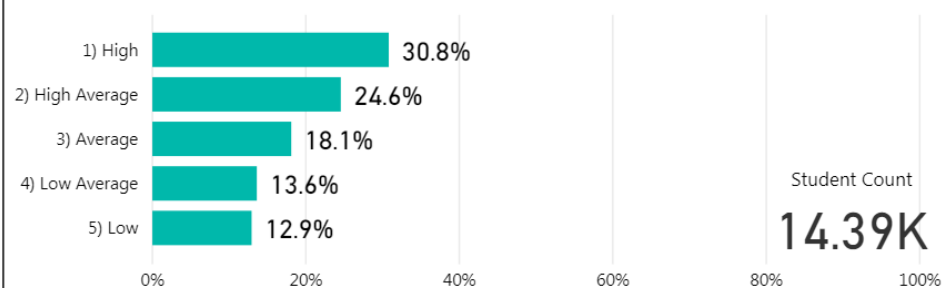
Ethnicity	Effect Size	Students
▲ American Indian ...	-0.05	56
Asian	0.80	418
Black or African ...	-0.38	172
Hispanic	-0.37	2657
Native Hawaiian ...	0.31	23
Two or More	0.46	528
White	0.49	10539
Total	0.33	14393

FR_YN	Effect Size	Students
No	0.63	9608
Yes	-0.27	4785
Total	0.33	14393

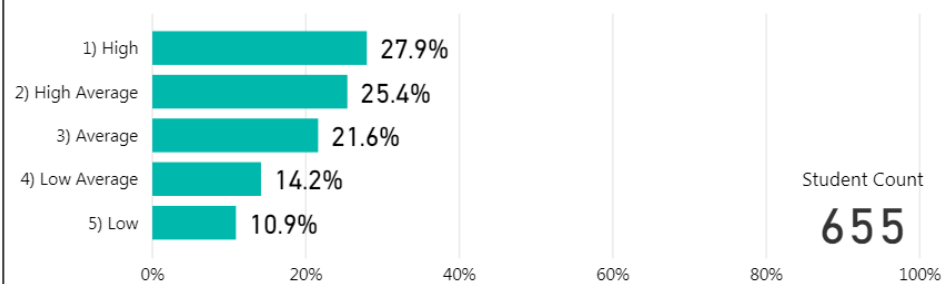
2015/16 Performance Levels - ALL Students



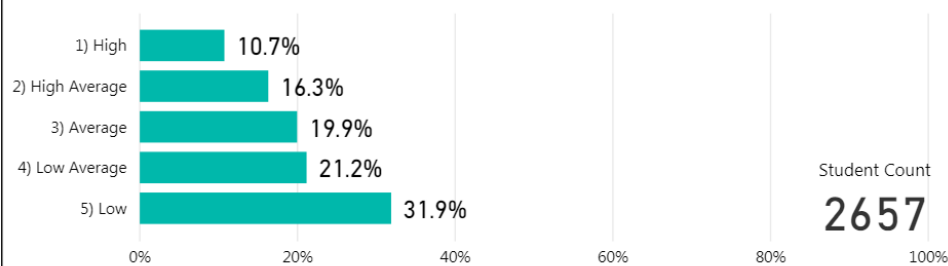
2016/17 Performance Level - ALL Students



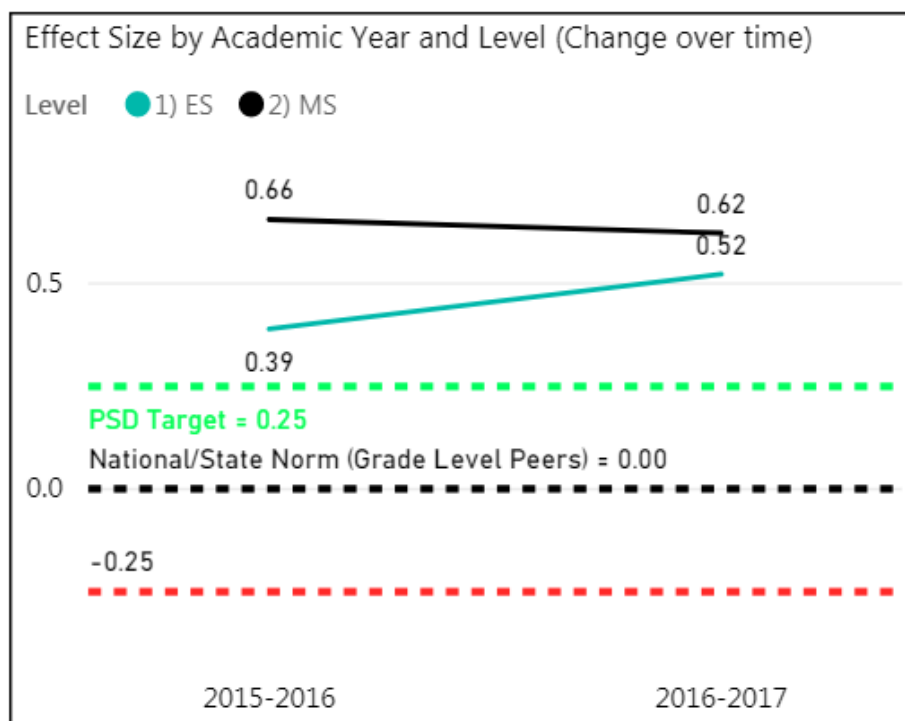
2016/17 Performance Level - Hispanic Students (No ELL or FR)



2016/17 Performance Level - Hispanic Students



Science Achievement (MAPS)



Spring 2015/16

Level	Effect Size	Students
1) ES	0.39	818
2) MS	0.66	2702
Total	0.59	3520

Grade	Effect Size	Students
3	0.50	174
4	0.37	316
5	0.35	328
6	0.57	955
7	0.66	929
8	0.76	818
Total	0.59	3520

Spring 2016/17

Level	Effect Size	Students
1) ES	0.52	625
2) MS	0.62	2832
Total	0.60	3457

Grade	Effect Size	Students
3	0.66	190
4	0.69	169
5	0.32	266
6	0.62	760
7	0.62	1092
8	0.63	980
Total	0.60	3457

Spring 2015/16

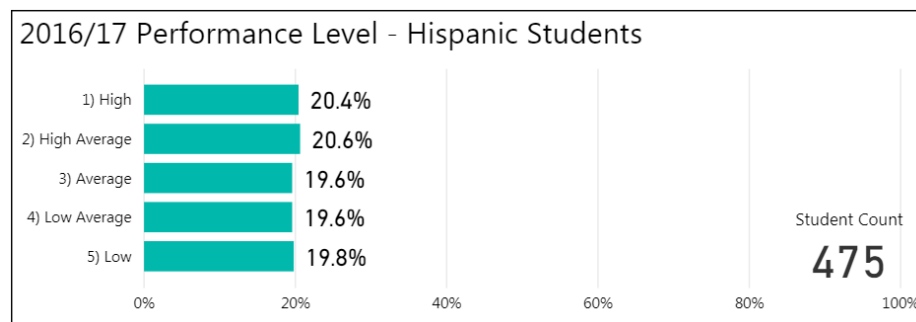
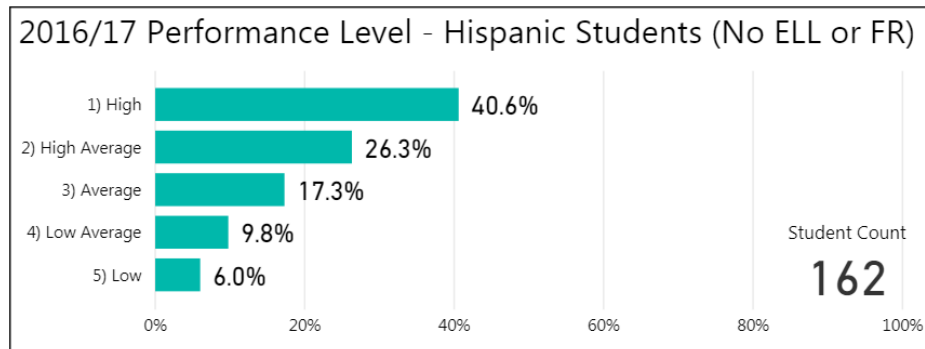
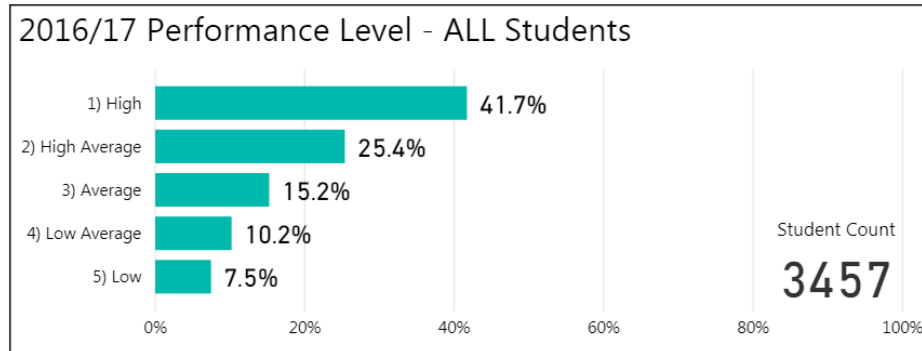
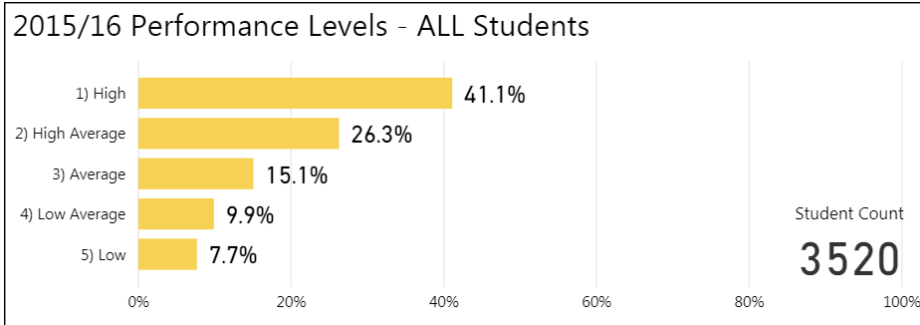
Ethnicity	Effect Size	Students
American Indian...	-0.19	15
Asian	0.86	138
Black or African ...	0.05	52
Hispanic	-0.04	510
Two or More	0.68	143
White	0.71	2656
Total	0.59	3514

FR_YN	Effect Size	Students
No	0.81	2563
Yes	0.01	951
Total	0.59	3514

Spring 2016/17

Ethnicity	Effect Size	Students
American Indian ...	0.28	19
Asian	0.81	122
Black or African ...	0.04	46
Hispanic	-0.02	475
Two or More	0.67	128
White	0.72	2661
Total	0.61	3451

FR_YN	Effect Size	Students
No	0.79	2578
Yes	0.06	873
Total	0.61	3451




Appendix 4: Academic Growth

Academic Growth Target: PSD student growth will exceed that of academic peers statewide.

This growth target is evidenced by PSD student growth percentile distributions exceeding the 1st, 2nd, and 3rd quartile state norms. The state's aggregate growth metric for accountability is the Median Growth Percentile (MGP), and the MGP is the 2nd quartile being referred to above. So it is appropriate to display the MGP outcomes prior to displaying our more nuanced local interpretation of student growth outcomes and targets. In English Language Arts, the overall PSD median growth percentile went down approximately 5 units (54 to 49); in math the overall MGP rose approximately 2 units (53 to 55). As above with our lack of confidence in the measurement value of 9th grade math, the low growth numbers reflected below, although an improvement from the prior year (38 to 43) represent an area impacted by testing anomalies in 2016/17, just as in 2015/16, and will not be delved into too deeply throughout this report. Middle school growth in English Language Arts stands out as the area flagged for deeper consideration by the overall growth outcomes as measured by the Colorado Growth Model. Math growth for 6th and 7th grade is below the state norm and represent decreases (although much more slight) from prior year outcomes. So in a generalized manner, middle school growth appears to have lagged in 2016/17 relative to the overall state and our own prior outcomes. Students eligible for reduced and free meals as well as students supported with an IEP are the two groups for whom PSD growth lags the state's growth for similar populations. The following tabled results, as reported by the CDE, include PSD charter and non-charter schools. CDE reported values have other exclusion criteria as well. For these reasons, the outcomes in the table below can vary slightly from those reported out via the PSD Analytics Platform – System Insight.

☒ CMAS
☐ SAT

		CMAS							
		ENGLISH LANGUAGE ARTS				MATH			
		2016		2017		2016		2017	
		District	State	District	State	District	State	District	State
ALL STUDENTS	All Students	54.00	50.00	49.00	50.00	53.00	50.00	55.00	50.00
GRADE LEVEL	04	58.00	50.00	59.00	50.00	61.00	50.00	66.00	50.00
	05	55.00	50.00	53.00	50.00	51.50	50.00	61.00	50.00
	06	51.00	50.00	42.50	50.00	53.00	50.00	48.00	50.00
	07	54.00	50.00	41.00	50.00	50.00	50.00	49.00	50.00
	08	51.00	50.00	45.00	50.00	52.00	50.00	52.00	51.00
	09	52.00	50.00	52.00	50.00	38.00	49.00	43.00	50.00
ENGLISH LEARNERS	English Learners (NEP, LEP, FEP)	47.50	50.00	49.00	51.00	47.00	47.00	51.00	49.00
	Non-English Learners	54.00	50.00	49.00	50.00	54.00	51.00	56.00	50.00
FREE AND REDUCED LUNCH (FRL)	FRL-Eligible	47.00	47.00	44.00	48.00	46.00	46.00	49.00	46.00
	Non-FRL	57.00	52.00	51.00	52.00	57.00	53.00	58.00	53.00
GENDER	Female	59.00	55.00	54.00	55.00	54.00	51.00	55.00	50.00
	Male	48.00	45.00	45.00	46.00	52.00	49.00	56.00	50.00
GIFTED	Gifted and Talented	61.00	60.00	58.00	58.00	64.00	60.00	64.00	58.00
	Non-Gifted and Talented	51.50	49.00	47.00	49.00	51.00	49.00	54.00	49.00
INDIVIDUALIZED EDUCATION PLAN (IEP)	On IEP	37.00	38.00	37.00	41.00	43.00	40.00	45.00	43.00
	Non-IEP	55.00	51.00	50.00	51.00	54.00	51.00	56.00	51.00
MIGRANT	Migrant		45.00		49.00		42.00		47.00
	Non-Migrant	54.00	50.00	49.00	50.00	53.00	50.00	55.00	50.00
MINORITY	Minority	49.00	49.00	46.00	49.00	47.00	47.00	51.00	48.00
	Non-Minority	55.00	51.00	50.00	51.00	55.00	53.00	57.00	52.00
PERFORMANCE LEVEL	At or Above Benchmark	54.00	50.00	50.00	50.00	54.00	50.00	57.00	50.00
	Below Benchmark	53.00	50.00	48.00	50.00	52.00	50.00	54.00	50.00
RACE/ETHNICITY	American Indian or Alaska Native	46.00	47.00	45.00	46.00	56.00	46.00	42.00	45.00
	Asian	62.00	59.00	62.00	58.00	62.00	59.00	65.00	58.00
	Black	45.00	48.00	37.00	48.00	40.00	46.00	45.00	45.00
	Hispanic	46.00	48.00	44.00	48.00	44.00	46.00	49.00	47.00
	White	55.00	51.00	50.00	51.00	55.00	53.00	57.00	52.00
	Hawaiian/Pacific Islander		50.00		53.50		53.00		50.00
	Two or More Races	53.00	51.00	47.00	51.00	55.00	51.00	56.00	51.00

Median Growth Percentile
 1.00  99.00

○ CMAS
 ● SAT

		SAT		MATH	
		EVIDENCE-BASED READING AND WRITING		2017	
		2017			
		District	State	District	State
ALL STUDENTS	All Students	54.00	49.00	54.00	50.00
ENGLISH LEARNERS	English Learners (NEP, LEP, FEP)	47.00	44.00	42.00	41.00
	Non-English Learners	54.00	51.00	54.00	52.00
FREE AND REDUCED LUNCH (FRL)	FRL-Eligible	41.00	43.00	39.00	41.00
	Non-FRL	55.00	53.00	56.00	54.00
GENDER	Female	53.00	48.00	52.00	48.00
	Male	55.00	51.00	56.00	50.00
GIFTED	Gifted and Talented	62.00	60.00	58.00	58.00
	Non-Gifted and Talented	53.00	48.00	53.00	48.00
INDIVIDUALIZED EDUCATION PLAN (IEP)	On IEP	29.00	32.00	23.50	28.00
	Non-IEP	55.00	51.00	54.00	51.00
MIGRANT	Migrant		39.00		32.00
	Non-Migrant	54.00	49.00	54.00	50.00
MINORITY	Minority	47.00	46.00	45.00	45.00
	Non-Minority	55.00	53.00	55.00	54.00
RACE/ETHNICITY	American Indian or Alaska Native		44.50		41.00
	Asian	56.50	54.00	66.00	56.00
	Black		47.00		43.00
	Hispanic	45.00	44.00	40.00	43.00
	White	55.00	53.00	55.00	54.00
	Hawaiian/Pacific Islander		45.00		45.00
	Two or More Races	49.00	48.00	53.00	51.00

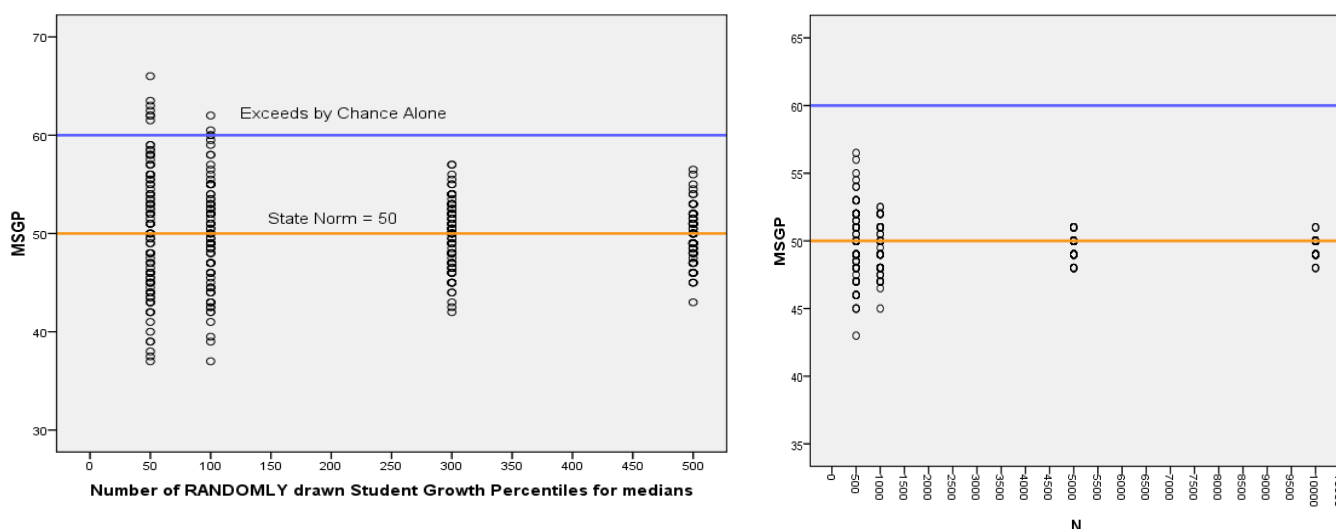
Box Plots and Student Growth Percentiles

Why should PSD consider setting growth targets differently than those reported on the District Performance Framework (DPF)? Even though the Colorado Department of Education has removed use of Adequate Growth Percentiles in the new version of the District Performance Frameworks, [a move that PSD has strongly and publically advocated for since 2011](#), they do not plan to address the systematic impact of district size on rating Median Growth Percentiles. Furthermore, the state intends to continue reporting a measure of center, the median, as opposed to a measure that is more reflective of the entire distribution of student growth percentiles.

To inform our public regarding the N-count phenomenon that makes it challenging to compare growth outcomes across educational environments and subgroups of differing sizes, PSD conducted a quick simulation study. Using a computer, we randomly selected 50 Student Growth Percentiles from a uniform distribution (the same distribution as that of student growth percentiles) and calculated the median, we then repeated this 99 times to get 100 Median Growth Percentiles, each from a simulated school/district with exactly 50 students. We repeated this simulation of 100 median growth percentiles for six other school/district sizes (100, 300, 500, 1,000, 5,000, and 10,000). The resulting simulated median growth percentiles are graphed against their respective sample sizes below. There are 100 “dots” at each simulated sample size (100, 300, 500, 1,000, 5,000, and 10,000), but 100 separate “dots” are not visible in the illustration at each simulated sample size because the medians that are generated

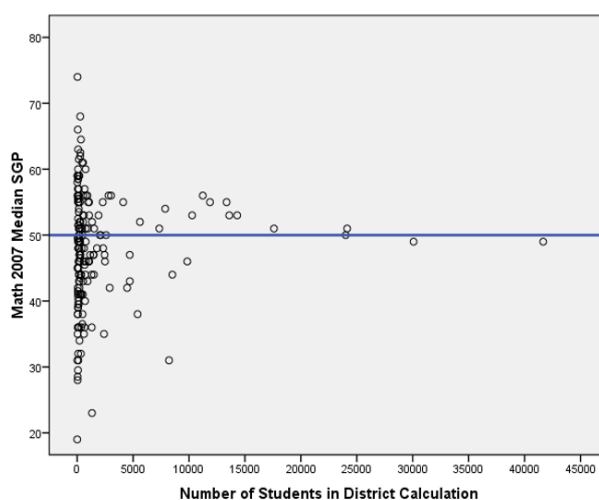
are rounded to integers and “land” on one another when duplicated. This explains why we only see 4 “dots” at the simulated sample sizes of 500 and 10,000.

The reader should understand that the only explanation for the “megaphone” pattern that emerges is a well-documented phenomenon whereby the more data that is used in computing an aggregate statistic, the closer those aggregate statistics tend to fall toward an underlying true value. In the case of simulated median growth percentiles, the true underlying value is 50. This is important because the larger the district, the more unusual it becomes for that large district’s median growth percentile to move a given distance toward a fixed cut point used to award points on the DPF. Note in the illustrations of the simulated data below, the medians based on smaller sample sizes (50 and 100) exceed the target of 60 by chance alone, while the same does not happen for the medians based on larger sample sizes. All the medians are of course centered at 50. The point is that smaller districts/groups will be rewarded for “chance variation” by exceeding the fixed cut point of 60.



In the illustration to the right, one can see that the exact same phenomenon is evident with median growth percentiles calculated for real districts in Colorado based on the 2007 Math CSAP data. All Colorado districts are represented in the illustration. These are real data, not simulated.

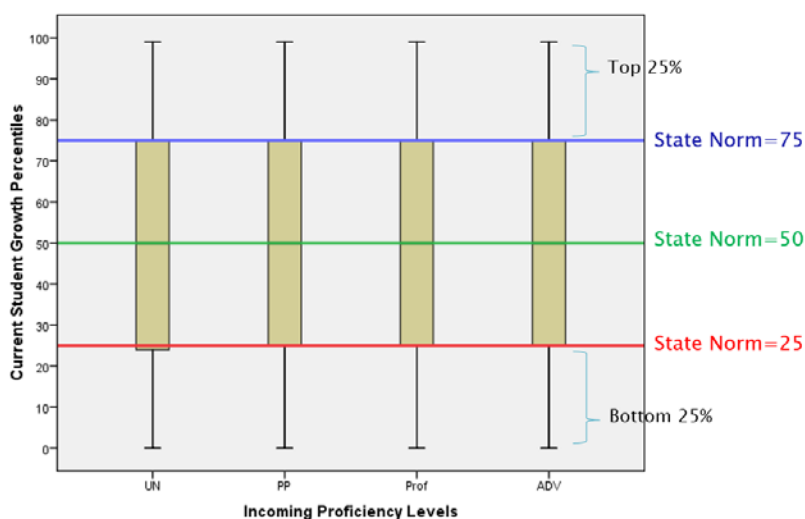
So what is a possible solution that can be used to minimize the impact of N-count on PSD’s interpretation of our growth data, that will utilize the full set of our students’ growth data as opposed to just a “middle student”, and will provide a metric that can distinguish real areas of celebration as well as illuminate areas in need of improvement? The use of box plots, and a scheme for judging multiple points throughout the student growth percentile distribution will provide PSD with a useful set of metrics and related growth targets. Student Growth Percentiles will have similar distributional



properties when derived from PARCC and CMAS as they did with CSAP and TCAP. This means that the PSD method of judging growth will be consistent over multiple years and across the inevitable state assessment system changes.

The scheme that can be used to judge student growth represented as a boxplot is based on the fact that the state norm for the 25th percentile of a district or school distribution of student growth percentiles is 25. Likewise, the 50th percentile (the median) norm is 50, and the 75th percentile norm is 75. Based on just these three simple reference points, one can answer the question of whether there is evidence that the entire growth distribution is shifted up (higher growth than experienced by academic peers statewide), shifted down (lower growth than experienced by academic peers statewide), or some evidence of different movements for different ranges along the growth continuum.

A box-plot is a very common display that can be used to segment a total population of students' scores into 4 relatively equal sections. Each section represents, or contains, about ¼ of the entire data set. The box plot gets its name from the rectangle in the middle of the plot. This rectangle contains the middle 50% of the data. Each of the "whiskers" that extend from the top and from the bottom of the rectangle contain ¼ of the total data being displayed. The box plot is a useful visual display in the current context because the bottom of the rectangle is located at the 25th percentile, the 50th percentile (or median) is marked by a line in the interior of the rectangle, and the top of the rectangle is located at the 75th percentile. So, the three markers (or state norms) that we will use to judge a shift in the PSD growth distribution for a group of students are prominently displayed with a boxplot.

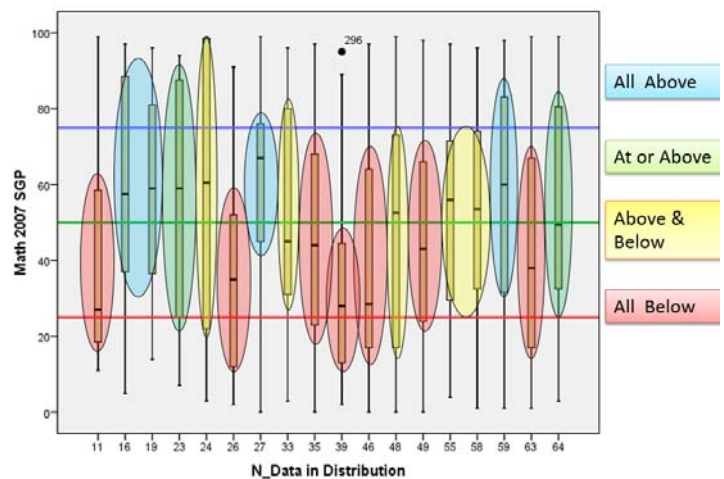


The way in which student growth percentiles are calculated using academic peers (same grade, and same score history on the state test), the boxplots based on the full state data set would look like those illustrated above, and these boxplots would be aligned with the state norms of 25, 50, and 75, as illustrated below, irrespective of the initial performance levels of students.

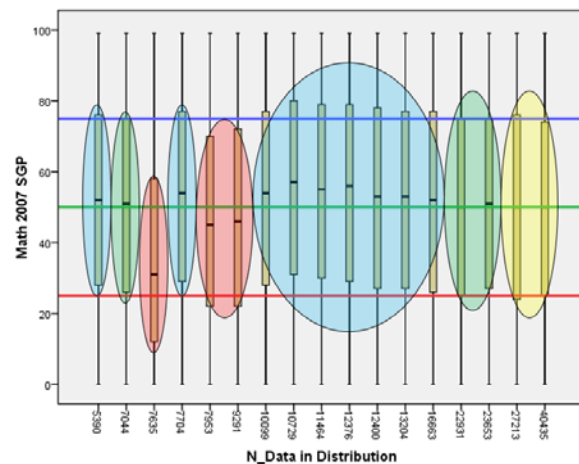
We can plot school and district student growth percentiles, and inspect whether they are shifted up or shifted down relative to the state norms of 25, 50, and 75. Note that we are not concerned with how far they are shifted up, just that the entire distribution is shifted up. Furthermore, we will inspect whether the shift up or down persists over multiple years. Chance events do not replicate...often. It is exactly because we are not measuring the “distance” of the shift that the differences in N-count between different sized educational groupings of students will not influence our judgments regarding where we see deficient or exemplary student growth.

Note in the illustrations to the right that all four levels of outcome (All Above – Blue, At or Above – Green, Above and Below – Yellow, and All Below – Red) are evident for both the smallest and for the largest districts in the state. In PSD, which subjects, grade levels, schools, subgroups, and so on have shifted their entire growth distribution up? How many have shifted down? How consistent are these shifts over time? Is there a better metric, where we do not reward random fluctuations due to N-count, for monitoring the closing of growth gaps where they currently persist?

Smallest Districts' SGP Distribution



Largest Districts' SGP Distribution



Now let's see how well this method distinguishes between the growth we tend to see in PSD by subjects, levels, subgroups, and prior achievement levels. In the following tables, we will see the 1st quartile (local 25th percentile and lower edge of rectangle in boxplot), the median (local 50th percentile and line inside boxplot), and the 3rd quartile (local 75th percentile and upper edge of rectangle in boxplot) each displayed. PSD outcomes above the associated state norm are colored green and indicate students growing more than their statewide academic peers. PSD outcomes below the associated state norm are colored yellow and indicate students growing less than their statewide academic peers.

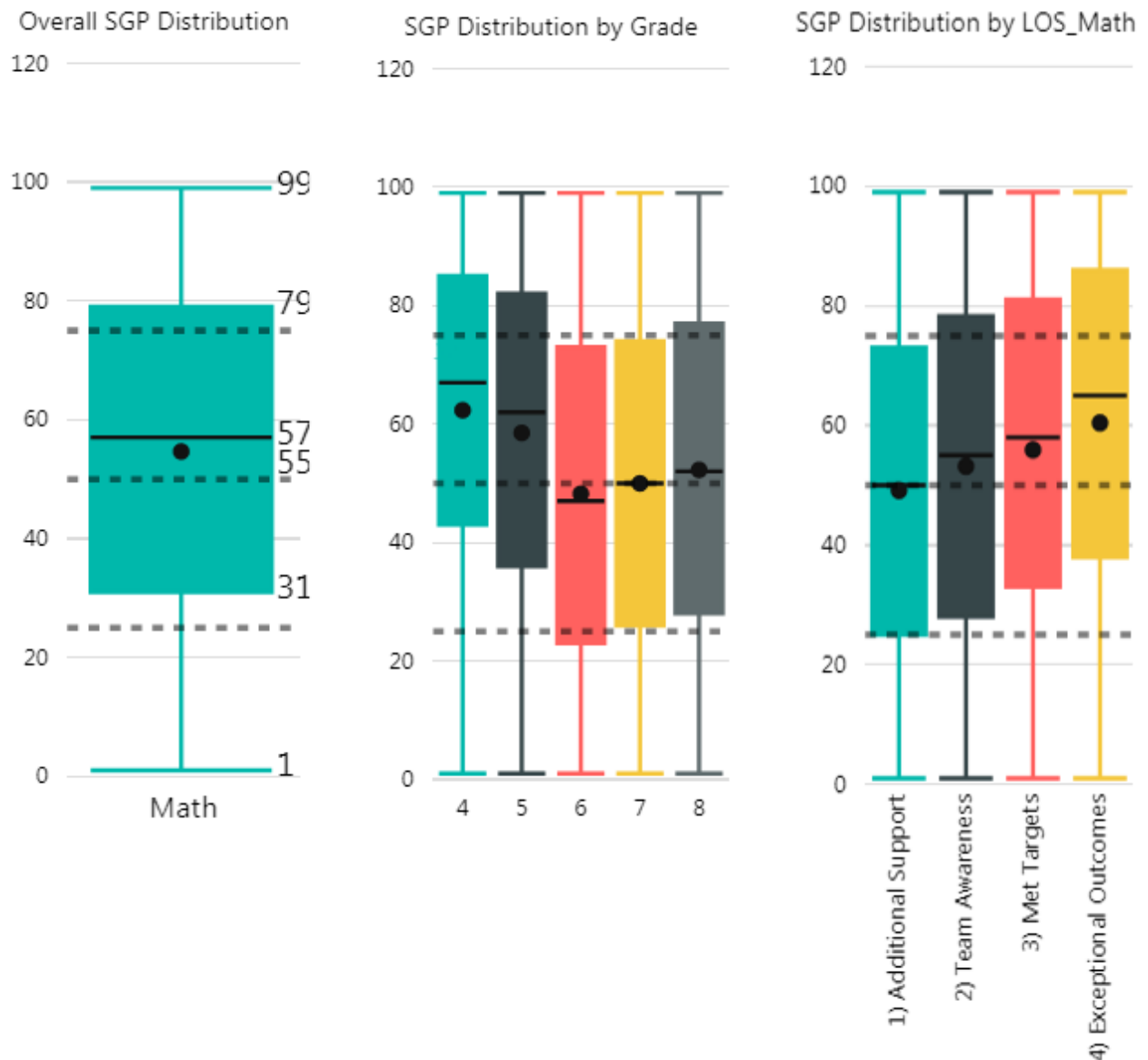
2016/17 Student Growth Percentile Distributions for PSD – English Language Arts

PSD did not meet the overall 2016/17 growth targets in English Language Arts (ELA). This is evidenced by each of the 1st and 2nd quartiles of the PSD growth distributions (24 and 49) falling below the State's norms of 25 and 50 respectively. In other words, the PSD growth distributions are shifted down from the State's distributions in English Language Arts. Recall that growth is measured relative to academic peers (students with similar starting points). Growth distributions being shifted down means that PSD has lower growth than academic peers statewide throughout the student growth percentile distribution, not just at the center (median growth percentile). Growth outcomes being reported in this Monitor Report reflect student outcomes for non-charter PSD schools.



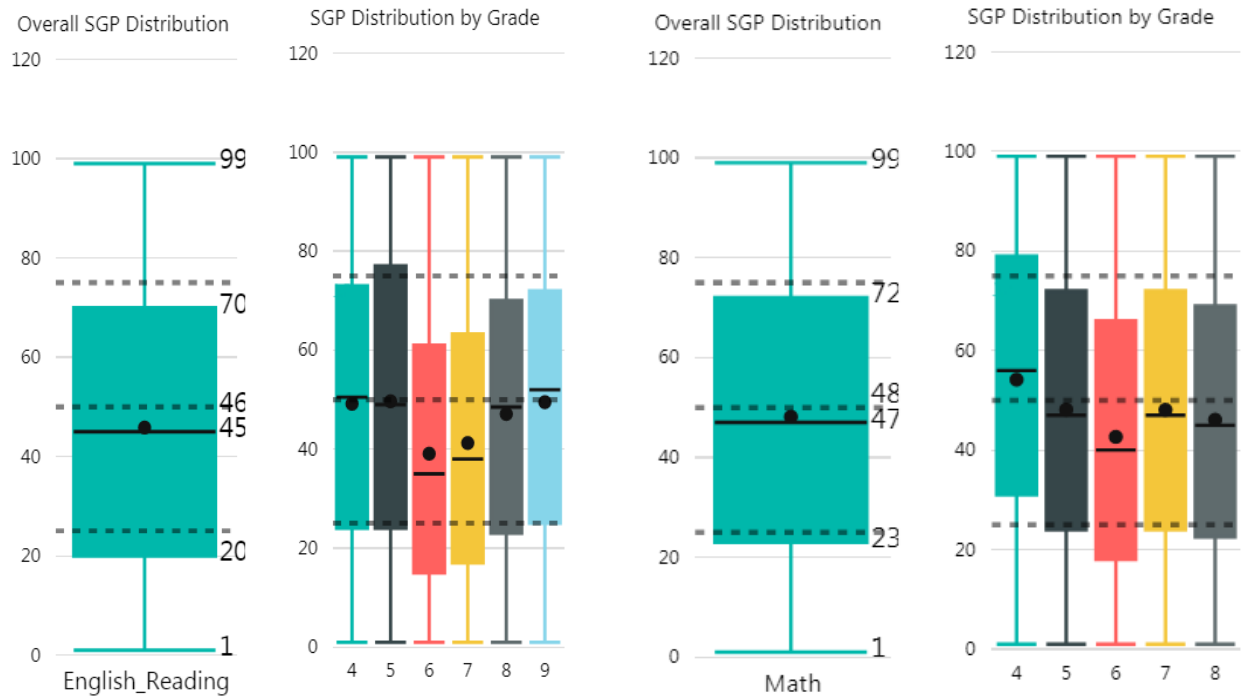
2016/17 Student Growth Percentile Distributions for PSD – Math

PSD did meet the overall 2016/17 growth targets in math. This is evidenced by each of the 1st, 2nd, and 3rd quartiles of the PSD growth distributions (31, 57, and 79) all falling above the State’s norms of 25, 50, and 75 respectively. In other words, the PSD growth distributions are shifted up from the State’s distributions in math. Recall that growth is measured relative to academic peers (students with similar starting points based on prior performance). Growth distributions being shifted up means that PSD has higher growth than academic peers statewide throughout the student growth percentile distribution, not just at the center (median growth percentile). Growth outcomes being reported in this Monitor Report reflect student outcomes for non-charter PSD schools.

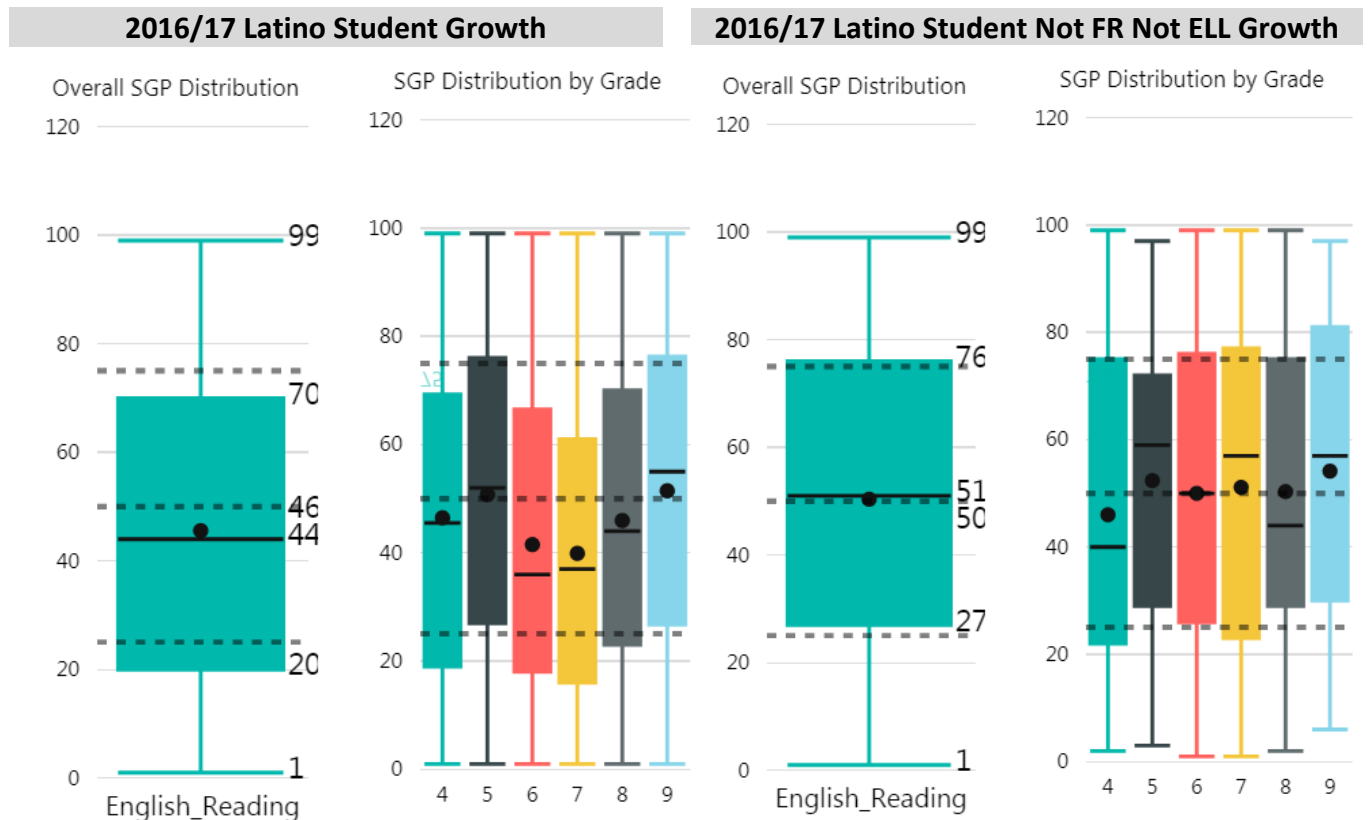


In 2017 the participation level for the 9th grade math assessment is severely limited and the math assessments were not designed to reflect grade level standards. Grade 9 math data are not easily interpreted in a manner consistent with other grade levels and therefore, the growth data associated with 9th grade math is not highlighted/displayed in this report.

2016/17 Student Growth Percentile Distributions by Free/Reduced Lunch Status

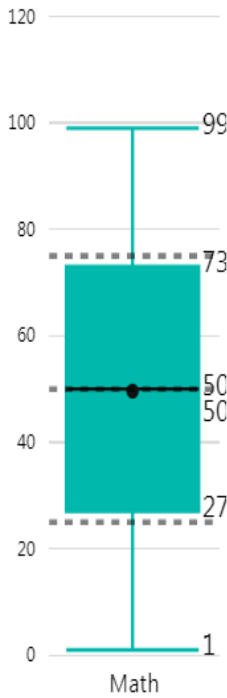


2016/17 Student Growth Percentile Distributions by Latino vs. Latino-Not FR-Not ELL

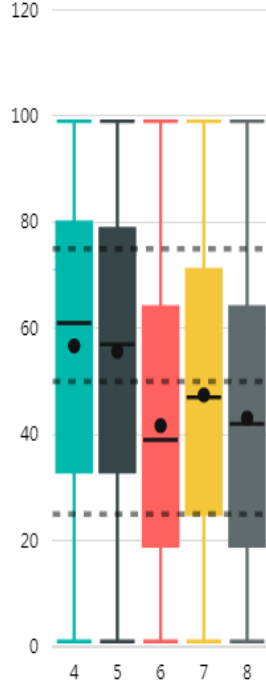


2016/17 Latino Student Growth

Overall SGP Distribution

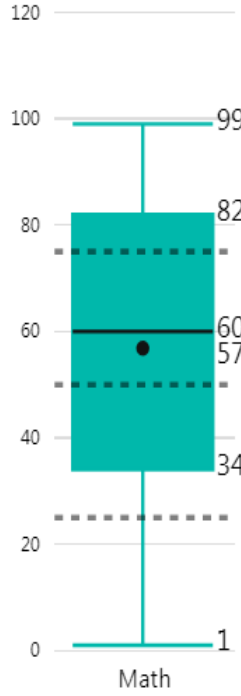


SGP Distribution by Grade

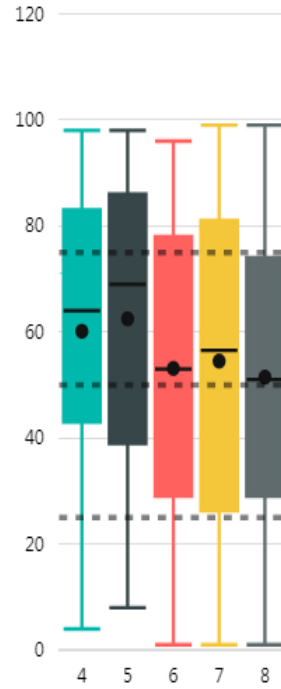


2016/17 Latino Student Not FR Not ELL Growth

Overall SGP Distribution



SGP Distribution by Grade



NWEA Measures of Academic Progress (MAP)

Although no targets are set based on Northwest Evaluation Association (NWEA) growth metrics, student growth is displayed for reading, math, and science based on MAP scores from the fall to the spring of a given academic year. PSD reviews NWEA data to validate the growth being reflected in state assessment scores. Growth data are expressed as "Average Z-Score Gains" for each grade level by subject combination. Z-score gains/losses (Zgain) are selected as the growth metric of interest for PSD as it is related to both the PSD "Evidence of Effectiveness" methodology used for teacher evaluation as well as being related to the percentile ranks and z-scores being utilized in the "Levels of Support" data visualization tool delivered to every school and administrative team at the student and team levels.

MAP tests for reading and math are widely taken in the fall and spring by grades 2 through 8. It is reasonable that PSD has utilized the fall to spring tests to provide meaningful measures of academic growth of the same academic year. The analysis of fall to spring scores is more consistent with measuring academic gains attributable to classroom experiences since changes incurred during the summer months are not reflected. Furthermore, the growth of 2nd grade students can be included in the analysis of fall to spring scores since both a pre and post measure are available, which is not the case with fall-to-fall or spring-to-spring analyses. The only down-side to this approach is that the time span being measured is not consistent with the spring-to-spring approach being used in the generation of state assessment growth data.

Wherever the number recorded in a cell of the table is positive, it indicates that PSD students gained in their achievement, during the course of the school year, at a faster rate or by a greater amount than what was experienced by the NWEA national norming group. Gaining at a rate that is greater than 0.0 is shaded green, 0.20 or more is shaded blue, 0.0 or less yellow, and at or below -0.20 is shaded red.

2016/17 MAP Zgain for PSD – Reading

Level	Zgain	Z_Post	Z_Pre	Students
1) ES	0.18	0.40	0.22	7911
2) MS	0.05	0.48	0.43	5755
Total	0.12	0.43	0.31	13666

Grade	Zgain	Z_Post	Z_Pre	Students
2	0.23	0.33	0.11	1922
3	0.21	0.42	0.21	1955
4	0.16	0.43	0.26	1967
5	0.11	0.42	0.31	2067
6	0.01	0.43	0.42	1894
7	0.08	0.47	0.39	1964
8	0.06	0.54	0.47	1897
Total	0.12	0.43	0.31	13666

The 0.23 average z-score gain for 2nd grade PSD students in reading, means that the PSD spring test outcomes were shifted to the right an additional 0.23 standard deviation units beyond the gains of national peers. One standard deviation unit for nationwide 2nd grade reading for the spring MAP test is 15.21 RIT units (a RIT unit is just NWEA's name for their scale score unit). Multiplying 0.23 times 15.21 gives us the number of additional RIT units gained by the average PSD 2nd grade student in reading, or 3.5 RIT units. Given that the average gain in RIT units from the fall to the spring test occasions is 188.7-174.7 or 14 RIT units, we can see that 3.5 additional RIT units of gain, is equal to an additional 3.5/14 or 0.25 or 1/4 of the expected gain in RIT units from fall to spring. Assuming a linear relationship between days of instruction and units of RIT score gain, and using a rough estimate of 180 days of instruction as a national average for a school year, **PSD 2nd grade readers are gaining approximately the same effect as 45 additional days of instruction.** This is just an estimate, and converting the other tabled effect size values into average additional days of instruction equivalents requires similar calculations based on the [2015 NWEA Measures of Academic Progress Normative Data](#), page 3 tabled values.

Ethnicity	Zgain	Z_Post	Z_Pre	Students
American Indian or Alaska Native	0.20	0.15	-0.05	52
Asian	0.16	0.71	0.54	383
Black or African American	0.13	0.02	-0.11	150
Hispanic	0.11	-0.24	-0.35	2454
Native Hawaiian or other Pacific Islander	0.14	0.15	0.02	22
Two or More	0.10	0.57	0.47	495
White	0.12	0.59	0.46	10110
Total	0.12	0.43	0.31	13666

FR_YN	Zgain	Z_Post	Z_Pre	Students
No	0.11	0.71	0.60	9193
Yes	0.14	-0.14	-0.29	4473
Total	0.12	0.43	0.31	13666

2016/17 MAP Zgain for PSD – Math

Level	Zgain	Z_Post	Z_Pre	Students
1) ES	0.09	0.29	0.20	7959
2) MS	0.07	0.43	0.36	5843
Total	0.08	0.35	0.27	13802

Grade	Zgain	Z_Post	Z_Pre	Students
2	0.11	0.20	0.10	1933
3	0.11	0.29	0.18	1959
4	0.11	0.31	0.20	1985
5	0.04	0.35	0.31	2082
6	0.04	0.29	0.25	1910
7	0.08	0.45	0.36	2006
8	0.08	0.55	0.47	1927
Total	0.08	0.35	0.27	13802

Ethnicity	Zgain	Z_Post	Z_Pre	Students
American Indian or Alaska Native	0.08	-0.01	-0.09	51
Asian	0.06	0.76	0.70	378
Black or African American	0.04	-0.25	-0.29	148
Hispanic	0.04	-0.34	-0.38	2522
Native Hawaiian or other Pacific Islander	0.19	0.30	0.11	22
Two or More	0.06	0.46	0.39	503
White	0.10	0.51	0.41	10178
Total	0.08	0.35	0.27	13802

FR_YN	Zgain	Z_Post	Z_Pre	Students
No	0.09	0.64	0.55	9227
Yes	0.07	-0.24	-0.31	4575
Total	0.08	0.35	0.27	13802

2016/17 MAP Zgain for PSD – Science

Note the reduced N-counts, therefore data represents the outcomes of those students that tested and this may or may not represent the district grade level student outcomes had all possible students tested.

Level	Zgain	Z_Post	Z_Pre	Students
1) ES	0.15	0.49	0.34	439
2) MS	0.10	0.65	0.55	2604
Total	0.11	0.63	0.52	3043

Grade	Zgain	Z_Post	Z_Pre	Students
3	0.35	0.72	0.36	99
4	0.28	0.75	0.47	87
5	0.02	0.31	0.28	253
6	0.13	0.67	0.54	626
7	0.13	0.64	0.51	1042
8	0.05	0.64	0.59	936
Total	0.11	0.63	0.52	3043

Ethnicity	Zgain	Z_Post	Z_Pre	Students
American Indian or Alaska Native	0.05	0.41	0.36	14
Asian	0.14	0.94	0.80	105
Black or African American	0.05	0.11	0.06	38
Hispanic	0.12	-0.02	-0.13	398
Two or More	0.19	0.77	0.57	105
White	0.11	0.73	0.62	2378
Total	0.11	0.63	0.52	3038

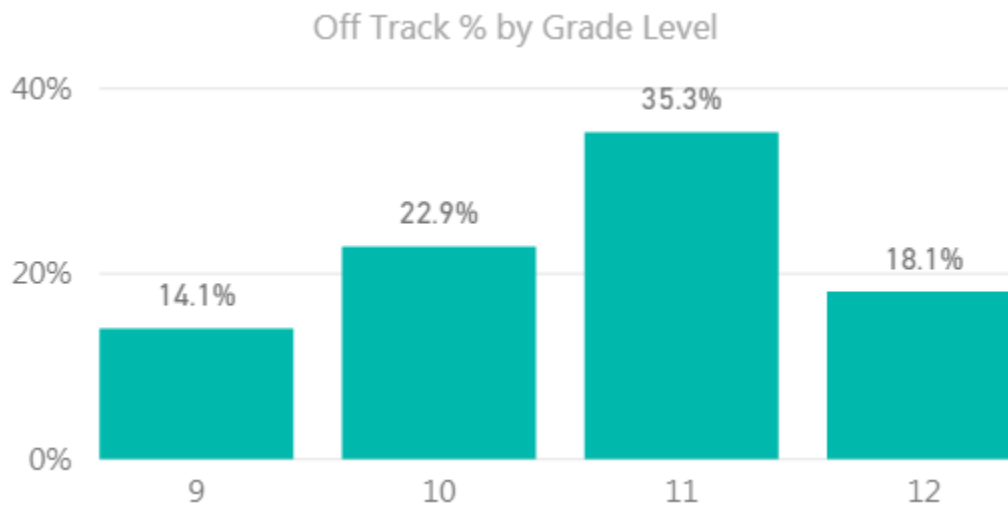
FR_YN	Zgain	Z_Post	Z_Pre	Students
No	0.11	0.80	0.69	2309
Yes	0.11	0.08	-0.03	734
Total	0.11	0.63	0.52	3043

Appendix 5: Credit Accumulation

Credit Accumulation Target: $\geq 85\%$ of 9th-12th grade students will be on track to graduate within 4 years of transition into 9th grade.

The number of students that accrue a year's worth of credits in a year's time is an important marker for student success and eventual graduation from high school. Interestingly, upon completion of the data visualization dashboard needed to support our staff in their work with students, the high schools focused use of this new tool in their work with 9th graders. Research shows that 9th grade students that earn the needed credits to stay on track with a 4-year graduation plan, are much more likely to successfully complete their PreK-12 experience.

Student Insight – Off Track to Graduate



On Track to Graduate Credit Accumulation Requirements by Grade Level

Academic Subject	Credits 9th	Credits 10th	Credits 11th	Credits 12th (Subject Total)
Language Arts	10	20	30	40
U.S. History	0	0	5	10
Civics/Government	0	0	0	5
Social Studies	0	0	5	10
Humanities	0	0	0	5
Fine & Applied Arts	0	0	5	10
World Language/Culture	0	0	5	10
Mathematics	10	20	30	30
Science	0	10	20	30
Health Education	0	0	0	2.5
Wellness	0	0	5	12.5
Personal Finance	0	0	0	5
Economics	0	0	0	5
Elective	0	0	0	65
Total Credits "On-Track"	20	50	105	240

2017/18 On Track to Graduate Credit Accumulation Grades 9-12 (Pulled February)

Student Characteristic	Levels	Off Track	On Track	% Off Track	% On Track	Total N
Grade	Total	1,807	6,260	22.4%	77.6%	8,067
	9	300	1,828	14.1%	85.9%	2,128
	10	450	1,513	22.9%	77.1%	1,963
	11	697	1,282	35.2%	64.8%	1,979
	12	360	1,637	18.0%	82.0%	1,997
Gender	Male	760	3,200	19.2%	80.8%	3,960
	Female	1,047	3,060	25.5%	74.5%	4,107
	American Indian or Alaska Native	20	22	47.6%	52.4%	42
	Asian	25	240	9.4%	90.6%	265
	Black or African American	45	70	39.1%	60.9%	115
	Hispanic	586	825	41.5%	58.5%	1,411
	Native Hawaiian or other Pacific Islander	1	14	6.7%	93.3%	15
	Two or More	64	233	21.5%	78.5%	297
	White	1,066	4,856	18.0%	82.0%	5,922
Lunch Program Status	Free	894	1,258	41.5%	58.5%	2,152
	Reduced	222	503	30.6%	69.4%	5,190
	Neither	691	4,499	13.3%	86.7%	725
ELL Lang. Proficiency	NEP	39	47	45.3%	54.7%	86
	LEP	65	78	45.5%	54.5%	143
	FEP	31	26	54.4%	45.6%	57
	Not ELL	1,672	6,109	21.5%	78.5%	7,781
IEP Support	IEP	322	318	50.3%	49.7%	640
	None	1,485	5,942	20.0%	80.0%	7,427

2016/17 On Track to Graduate Credit Accumulation Grades 9-12 (Pulled February)

Student Characteristic	Levels	Off Track	On Track	% Off Track	% On Track	Total N
Grade	Total	1,588	6,235	20.3%	79.7%	7,823
	9	226	1,762	11.4%	88.6%	1,988
	10	404	1,624	19.9%	80.1%	2,028
	11	629	1,307	32.5%	67.5%	1,936
	12	329	1,542	17.6%	82.4%	1,871
Gender	Male	917	3,041	23.2%	76.8%	3,958
	Female	671	3,194	17.4%	82.6%	3,865
	American Indian or Alaska Native	19	32	37.3%	62.7%	51
	Asian	27	230	10.5%	89.5%	257
	Black or African American	32	78	29.1%	70.9%	110
	Hispanic	497	841	37.1%	62.9%	1,338
	Native Hawaiian or other Pacific Islander	1	12	7.7%	92.3%	13
	Two or More	56	247	18.5%	81.5%	303
	White	956	4,795	16.6%	83.4%	5,751
Lunch Program Status	Free	681	1,048	39.4%	60.6%	1,729
	Reduced	172	473	26.7%	73.3%	645
	Neither	735	4,714	13.5%	86.5%	5,449
ELL Lang. Proficiency	NEP	35	25	58.3%	41.7%	60
	LEP	57	62	47.9%	52.1%	119
	FEP	162	466	25.8%	74.2%	628
	Not ELL	1,318	5,651	18.9%	81.1%	6,969
IEP Support	IEP	303	328	48.0%	52.0%	631
	None	1,285	5,907	17.9%	82.1%	7,192

Appendix 6: Postsecondary Outcomes

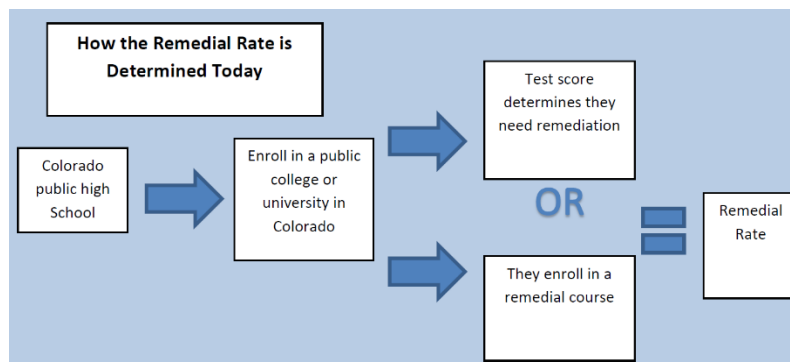
For this section of the Monitoring Report, we will be reporting numbers as they appear in two primary official sources. The first source is the “[High School Graduates Progress and Success at a Glance Colorado Department of Higher Education](#)”, and the additional source we will reference is the “[Colorado Department of Higher Education’s 2014 LEGISLATIVE REPORT ON REMEDIAL EDUCATION](#).” Although both sets of documentation are produced by the Colorado Department of Higher Education, there are differences between the two sources when reporting remedial rates for the state and our district. The reports provide different areas of detail and drill-down, so PSD will utilize both sources and default to the legislative report for the most current year when conflicts are evident.

Post-Secondary Outcomes - Remediation Rates

[Remedial education](#), also called developmental education, refers to classes intended to bolster the basic skills of new college students so they are adequately prepared for college-level work. These classes may be non-credit courses and may not be covered by a student’s financial aid. These courses are usually offered by a community college. They may be offered by four-year institutions on a cash funded basis.

The remediation rate for PSD students entering Colorado Public Higher Education institutions ranged between 33.2% and 22.4% over the last six years (Graduating classes from 2009 to 2014). Remediation rate calculation methods were revised by the state, effective as of the graduating class of 2012. The rates reported above are retroactively based on the revised methodology for all five cohorts. The Department of Higher Education indicated that the new methods produce numbers that are not comparable to those in previous reports. Rates went up dramatically under the new methodology.

The new method starts with a graduating class and tracks them forward into college. The new method incorporates both students assessed as needing remediation and those enrolled in remedial courses.



The assessments used and the cut scores that determine remediation are as follows.

College-Readiness Assessment Cut Score Table

SKILL AREA	ACT Subscore	SAT Subscore	ACCUPLACER Score
Mathematics	Math: 19	Math 460	Elementary Algebra: 85
Writing	English: 18	Verbal 440	Sentence Skills: 95
Reading	Reading: 17	Verbal 430	Reading Comprehension: 80

The illustration below displays the PSD and Colorado remediation rate data for six years. These rates include two and four year Colorado Public Higher Education institutions.

PSD - Remedial Education	
HS Grad Year	% Remedial Rate
2009	33.2%
2010	30.7%
2011	30.3%
2012	28.7%
2013	23.9%
2014	22.4%
2015	*

Colorado - Remedial Education	
HS Grad Year	% Remedial Rate
2009	38.1%
2010	40.5%
2011	39.2%
2012	36.0%
2013	33.2%
2014	34.5%
2015	*

Other post-secondary outcomes that are available via the Colorado Commission of Higher Education (CCHE) reports are post-secondary enrollment levels, type of post-secondary option students opted to enroll in (in-state, out-of-state, 2-year, 4-year), first year GPA, credits earned freshman year, and persistence to enroll in a second year of college. PSD students have more favorable outcomes on all 5 of these measures for all six cohorts represented in the following data tables. We are reporting postsecondary outcomes for all five of the key indicators that are associated with a PSD students first year of college as opposed to degrees earned, as these first year outcomes seem most strongly associated with the quality of a PreK-12 experience.

Taking the ACT outcomes described above in conjunction with these post-secondary access and success indicators, it appears that PSD graduates are prepared for and successful in their pursuit of post-secondary opportunities. There is also a trend from 2009 through 2013 that indicates more and more PSD students were enrolling in out-of-state post-secondary options as opposed to in-state enrollment.

The data contained in tables below include in-state and out-of-state college enrollment outcomes gathered by the CCHE from its partnership with the Clearinghouse. Where the acronym [SURDS](#) is used, it stands for Student Unit Record Data System. SURDS files are the official source of data for public postsecondary education in Colorado. Where designated in a column heading, SURDS indicates that the data is limited to Colorado postsecondary institutions as opposed to the nation-wide university system.

Post-Secondary Outcomes – Enrollment

Poudre School District - Postsecondary Enrollment				
HS Grad Year	% Total Enrollment	% In-State	% Out-of-State	
2009	67.1%	53.2%	13.9%	
2010	63.5%	47.1%	16.3%	
2011	63.6%	47.1%	16.5%	
2012	63.2%	45.6%	17.5%	
2013	62.4%	44.5%	18.0%	
2014	60.4%	43.2%	17.2%	
2015	62.8%	44.5%	18.3%	
HS Grad Year	2 Year In-State	4 Year In-State	2 Year Out-of-State	4 Year Out-of-State
2009	19.1%	34.1%	1.4%	12.5%
2010	15.7%	31.4%	1.3%	15.0%
2011	16.0%	31.1%	1.9%	14.6%
2012	16.4%	29.2%	1.8%	15.8%
2013	13.7%	30.7%	1.9%	16.0%
2014	14.1%	29.1%	1.4%	15.7%
2015	15.5%	29.0%	1.0%	17.3%

Colorado - Postsecondary Enrollment				
HS Grad Year	% Total Enrollment	% In-State	% Out-of-State	
2009	58.8%	47.4%	11.4%	
2010	57.9%	45.9%	12.0%	
2011	57.4%	45.2%	12.2%	
2012	57.0%	44.5%	12.5%	
2013	55.3%	42.9%	12.4%	
2014	55.9%	42.5%	13.4%	
2015	56.5%	43.1%	13.4%	
HS Grad Year	2 Year In-State	4 Year In-State	2 Year Out-of-State	4 Year Out-of-State
2009	15.2%	32.2%	1.3%	10.1%
2010	15.4%	30.5%	1.4%	10.6%
2011	14.9%	30.2%	1.5%	10.7%
2012	14.5%	30.0%	1.5%	11.0%
2013	14.0%	28.7%	1.4%	11.0%
2014	12.9%	29.6%	1.4%	12.0%
2015	12.7%	30.3%	1.3%	12.1%

First Year GPA and Credit Hours

PSD - First Year Postsecondary Outcomes		
HS Grad Year	Avg. Cum. GPA	Avg. Cum. Credit Hrs
2009	2.79	29.8
2010	2.8	30.9
2011	2.78	31.2
2012	2.87	31.7
2013	2.94	34.4
2014	2.87	33.8
2015	2.88	32.9

Colorado - First Year Postsecondary Outcomes		
HS Grad Year	Avg. Cum. GPA	Avg. Cum. Credit Hrs
2009	2.66	28.1
2010	2.66	27.9
2011	2.67	28.3
2012	2.72	28.8
2013	2.76	29.1
2014	2.78	30
2015	2.79	29.5

Post-Secondary Outcomes – Persistence into 2nd Year of College

Poudre School District - Postsecondary Persistence				
HS Grad Year	% 1st Year Persistence- Overall	% 1st Year Persistence- 2 Year Institutions	% 1st Year Persistence- 4 Year Institutions	% 1st Year Persistence- SURDS Only
2009	85.0%	68.5%	92.2%	80.5%
2010	84.9%	63.7%	92.7%	80.5%
2011	84.4%	63.5%	92.6%	79.6%
2012	82.0%	63.0%	89.7%	78.9%
2013	84.8%	65.9%	91.2%	82.8%
2014	83.3%	61.1%	91.1%	83.7%
2015	N/A	N/A	N/A	N/A

Colorado - Postsecondary Persistence				
HS Grad Year	% 1st Year Persistence- Overall	% 1st Year Persistence- 2 Year Institutions	% 1st Year Persistence- 4 Year Institutions	% 1st Year Persistence- SURDS Only
2009	81.5%	63.5%	88.6%	77.9%
2010	80.7%	62.2%	88.3%	76.9%
2011	79.9%	60.2%	87.8%	75.6%
2012	80.0%	61.6%	87.3%	77.8%
2013	79.4%	60.3%	87.0%	77.6%
2014	80.2%	60.3%	87.0%	79.8%
2015	N/A	N/A	N/A	N/A