

# District Ends 1.0

# Monitoring Report

Prepared for the Poudre School District

Board of Education



POUDRE SCHOOL DISTRICT

**Dr. Sandra Smyser**  
**Superintendent**

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## Contents

Executive Summary	3
Introduction and Background	4
Summary List of Measures and Targets	9
Highlighted Outcomes for 2017/18	
Foundations for Success	10
Success in a Changing World	35
Above and Beyond	38
Connections	44
Interpretation and Findings	52
District Ends Conclusion	54
Appendix 1: Attendance and Mobility	55
Appendix 2: Early Literacy	63
Appendix 3: Achievement	69
Appendix 4: Academic Growth	93
Appendix 5: Credit Accumulation	105
Appendix 6: Postsecondary Outcomes	110

## 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, DIBELS 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 analyses evident in this report, four key findings are highlighted below. The highlighted findings are evidenced by longitudinal patterns that can be explored via the many data visualization tools hyperlinked 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 increased 5.4 percentage points from 78.6% in 2017 to 84.0% in 2018. The PSD class of 2018 graduation rate (84.0%) is above the statewide graduation rate of 80.7% (up 1.7 percentage units from 2017). Statewide, graduation rates have been steadily increasing. As of the Class of 2018, ASCENT students are included statewide in the graduation rate numerator. This inclusion increases graduation rates but is not the only reason statewide graduation rates are increasing. The 4-year graduation rate for many subgroups of students in PSD such as Hispanic students, students supported with an IEP, and students eligible for free/reduced lunch are lagging on-time graduation rates for similar subgroups statewide. Additionally, PSD graduation rate gaps between these subgroups and their PSD peers are larger than the respective statewide gaps. To interact with a PSD developed graduation rate data visualization tool that provides 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](#).

Mobility rate disparities between subgroups of students and the general PSD population remain substantially higher in PSD than our statewide counterparts. Attendance rates are steadily declining statewide and locally. Elementary students did not hit the PSD attendance target for the first time in many years. Lower attendance and higher mobility rates are especially prevalent among student groups associated with lower academic performance and growth. To interact with PSD developed data visualization tools that display mobility rates please click [MOBILITY RATES](#), and/or to explore attendance rates click [ATTENDANCE RATES](#).

Student connections feedback from our 4<sup>th</sup>-12<sup>th</sup> grade students has provided us with a treasure trove of actionable insight. One of the biggest overall "stories" in the data bridges between the "Foundations for Success" End and the "Connections" End. PSD students identified as candidates for additional support in our Student Insight system, students that self-report they are not sure if they will graduate, and students not involved in extracurricular activities each indicate 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 2017/18, 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 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 impacts the system itself is to ensure that the same metrics and data views are available to individual teachers, counselors, principals, and community partners.

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.

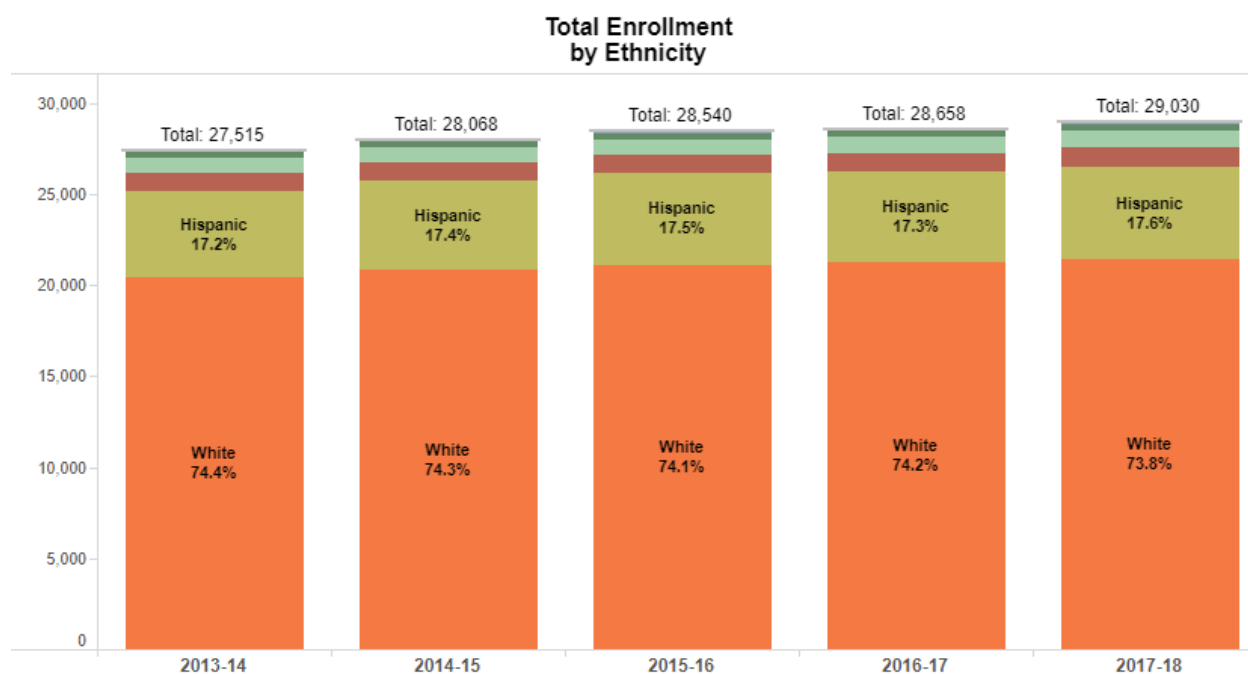
Finally, there are two important distinctions to make within the context of the Monitoring Report. There is a difference between a normative interpretation of outcomes and a criterion-referenced interpretation of outcomes. This report contains both forms of contextualizing outcomes and often reports 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). Regarding 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 the targets outlined in this report.

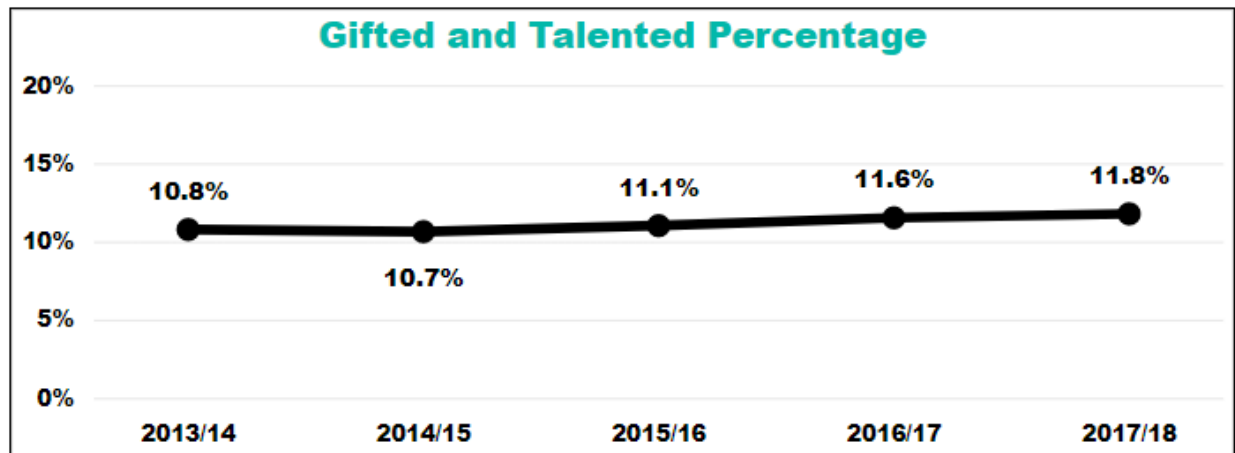
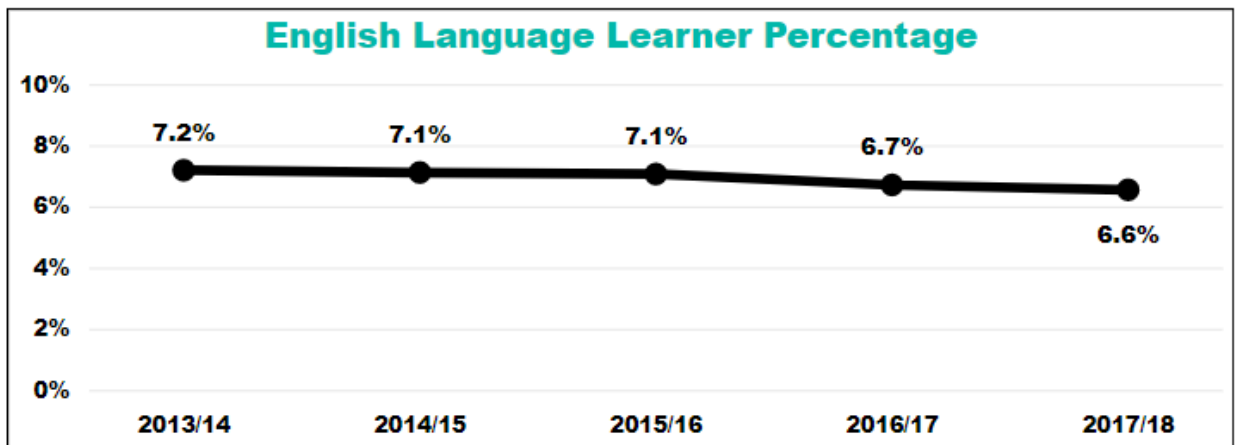
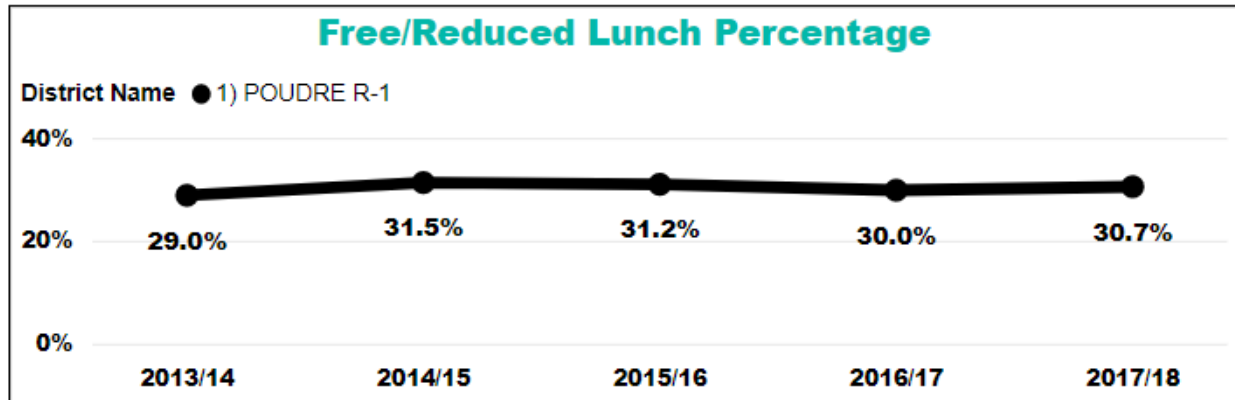
To set context for the outcomes evidenced in the remainder of this report, a quick set of information on longitudinal demographic changes is provided below. The following graphs reflect changes in the PSD community of students over the past five years. The interested reader should be made aware that 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.

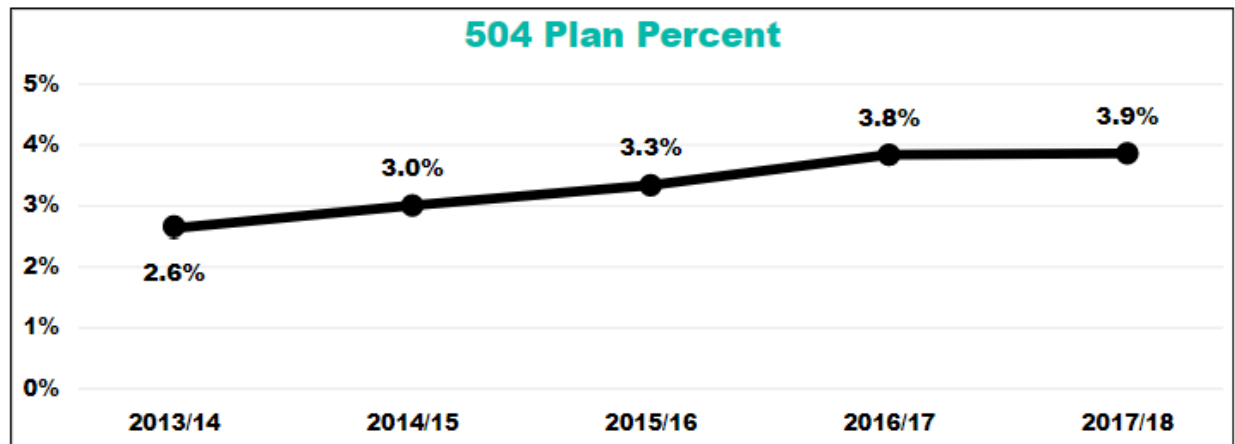
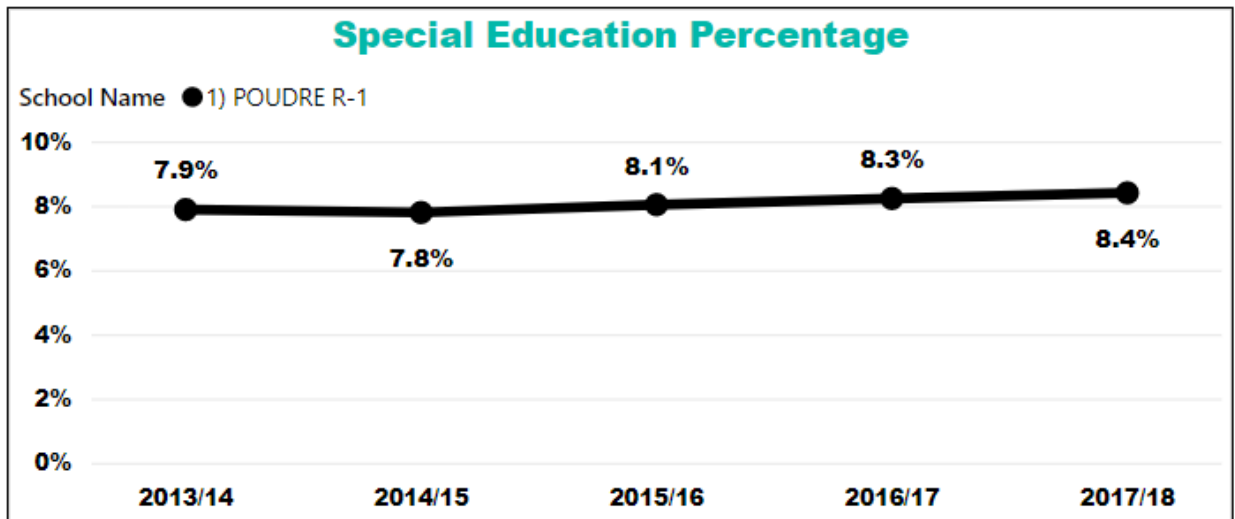
### Enrollment by Race/Ethnicity (October Count)



Enrollment by race/ethnicity in the district has been relatively stable for the past five years, with students identified as White varying by about 0.6% and Latino population proportions varying by about 0.4% over the past five years. Student subgroups by program type have also been very stable.

### Enrollment by Instructional Program (October Count)





As we explore our data, identify meaningful patterns, and empower our educational leaders and community partners to act in support of student outcomes and experience; a shifting demographic is unlikely to resonate as a root cause for systemic changes in other outcomes of interest. To further explore student characteristics over time for PSD schools and all schools and districts statewide, feel free to explore the PSD created [PUPIL MEMBERSHIP](#) data visualization report in System Insight.



## Summary List of Targets and Alignment to BOE Priorities

- 1) Attendance ( $\Lambda$ ): PSD students will have  $\geq 95\%$  attendance rate.
- 2) School Readiness ( $\Lambda$ ):  $\geq 85\%$  of PSD preschool students demonstrate school readiness on four key early-language/reading-readiness items and three social-emotional development indicators available via the TS Gold assessment.
- 3) Early Literacy ( $\Lambda$ ):  $\geq 85\%$  of PSD K-3 students will meet End-of-Year DIBELS Next benchmarks.
- 4) Achievement ( $\Lambda$ ): PSD effect size  $\geq 0.25$  for State assessment subject by grade combinations.
- 5) Academic Growth ( $\Lambda$ ): PSD student growth will exceed that of academic peers statewide.
- 6) Additional Support ( $\Lambda, \Delta$ ): 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 ( $\Sigma$ ):  $\geq 85\%$  of 9<sup>th</sup>-12<sup>th</sup> grade students will be on track to graduate within 4 years of transition into 9th grade.
- 8) Completion/Graduation ( $\Sigma$ ): 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 ( $\Sigma$ ): Less than 1% of PSD students will dropout in a given year.
- 10) College Readiness ( $\delta$ ):  $\geq 85\%$  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 ( $\delta$ ):  $\geq 50\%$  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 ( $\delta$ ): PSD classroom teacher weighted z statistics  $\geq 1.96$  (indicates advanced student performance significantly higher than typical international outcomes).
- 13) Postsecondary Outcomes ( $\delta$ ): All percentages and rates higher than related rates for Colorado.
- 14) Health and Wellness ( $\Delta$ ): 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 ( $\Lambda, \Sigma, \Delta$ ): Percent agreement  $\geq 90\%$  indicating strong connections to school adults, other students, and interests.

### Board Priority Alignment:

$\Lambda$  = Achievement Gap

$\Sigma$  = Graduation Rates

$\Delta$  = Social Emotional Learning

$\delta$  = Post-Secondary and Workforce Readiness

## Highlighted Outcomes for 2017/18

### 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 health/wellness.

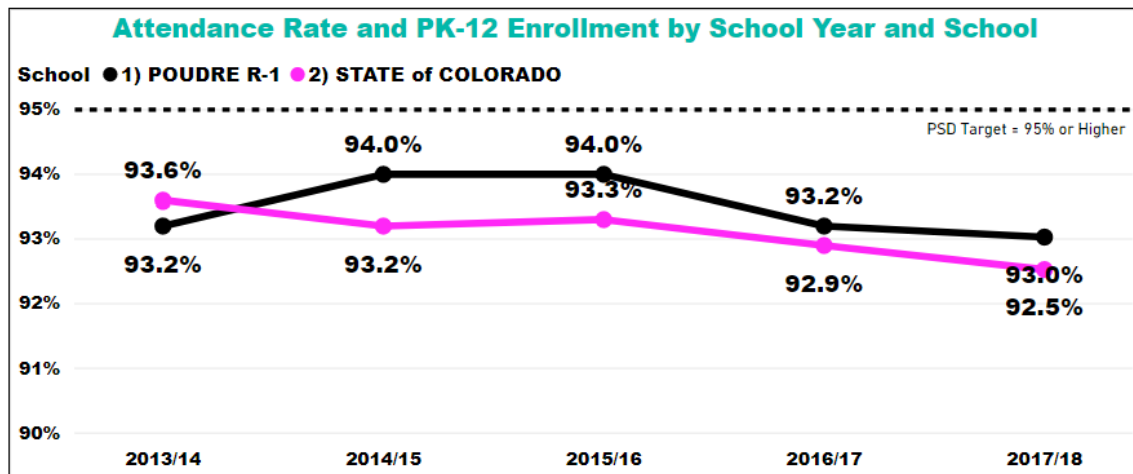
The careful reader of this report will notice the many occurrences of targets greater than or equal to ( $\geq$ ) 85%. A quick discussion of why this specific target has been selected may be helpful in motivating a deeper appreciation of the intended purpose of this Monitoring Report. The 85% target 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. 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 regarding 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 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. 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 2017/18?** No, in 2017/18 PSD had an attendance rate of 93.0%.

The 2017/18 rate is 0.2% below the 2016/17 rate. In 2017/18 the PSD attendance rate is higher than the overall state rate by 0.5% units. Both PSD and State attendance rates have declined over the past five years. 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 2018/19 PSD Unified Improvement Plan (UIP).**



**Attendance Percentage by Level 2017/18**

Level	Attendance %	Attendance Change from General PSD Population Same Year	Attendance Change from Same Subgroup Prior Year
Elementary Schools	94.9%	2.0%	-0.3%
Middle Schools	93.1%	0.2%	-0.3%
High Schools	92.9%	0.0%	2.1%
<b>PSD Overall Rate</b>	<b>92.9%</b>		

We see that elementary students did not hit the PSD attendance target for the first time in many years. Asian students, and “Exceptional Outcome” students in math (based on the “Levels of Support” system) are two subgroups that did meet the PSD attendance target of 95% in 2017/18. There are not substantial gender differences in attendance, but there are differences by grade level, ethnicity, IEP status, and identified needs for academic support based on prior performance outcomes. Students identified as candidates for Additional Support (in both math and ELA), students supported with an IEP, and American Indian students are subgroups with the largest attendance disparities as well as having the largest drops in attendance rates from the prior year. The attendance decreases we see in PSD overall, are evident for virtually every subgroup of students as evidenced in the final column of each attendance tables displayed in this report (see Appendix A for more detail).

- 2) **School Readiness Target:**  $\geq 85\%$  of PSD preschool students demonstrate school readiness on four key early-language/reading-readiness items and three social-emotional development indicators available via the TS Gold assessment.

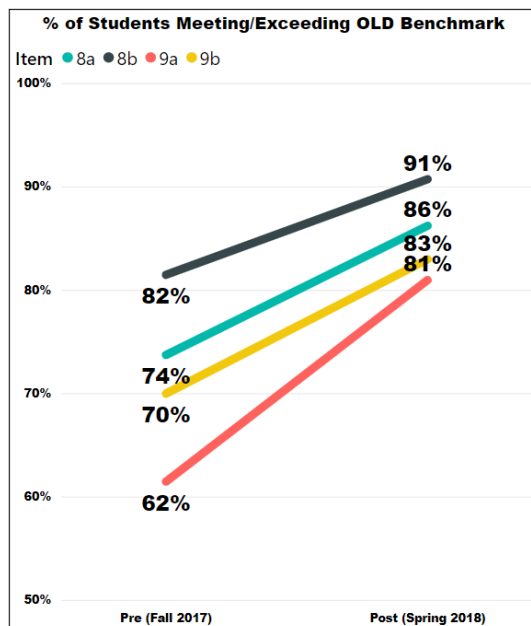
**Met Target in 2017/18?** No, target was not met on two (9a and 9b) of the seven indicators. The target was met on the other five indicators of school readiness.

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. 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. The final three items/indicators (1a, 1b, and 3a) are measuring how well young people are managing their feelings, following limits and expectations, and solving simple social problems that arise. Meeting the benchmark performance level on these items is considered meeting the age appropriate levels of school readiness on these objectives. Growth from fall to spring on all seven key items/indicators and the spring percentage of students meeting the benchmark expectation are illustrated below. **This target is supported by Action Step 1D – “Readiness in Early Literacy” under Major Improvement Strategy #1 (Academic Learning) of the 2018/19 PSD Unified Improvement Plan (UIP).**

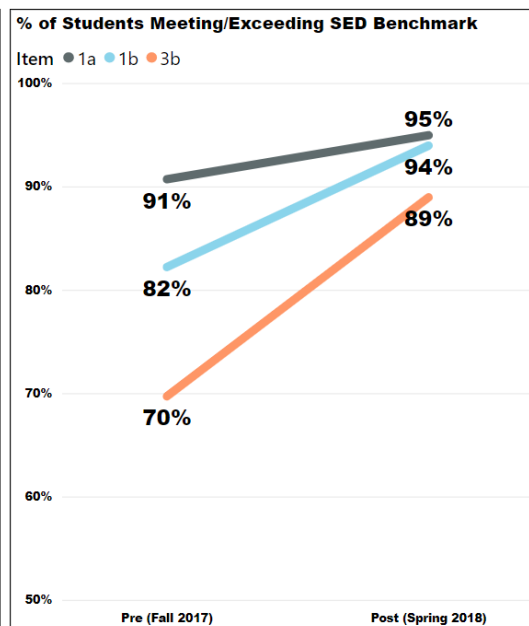
#### ORAL LANGUAGE DEVELOPMENT (OLD)

8a - Comprehends language  
8b - Follows directions  
9a - Uses an expanding expressive vocabulary  
9b - Speaks clearly



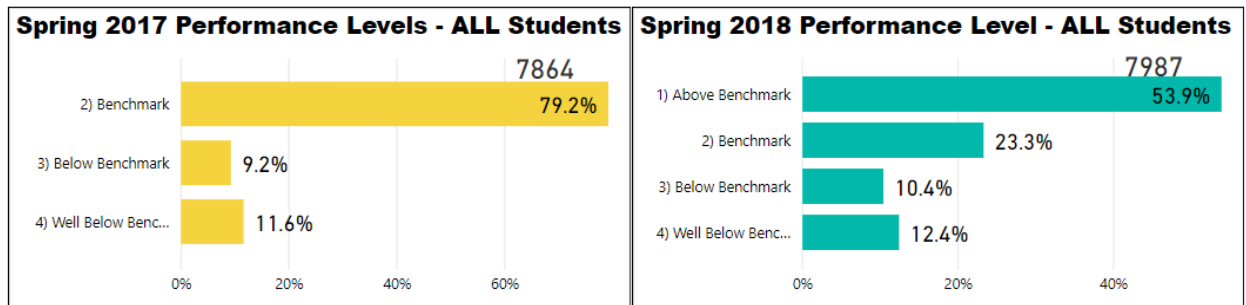
#### SOCIAL and EMOTIONAL DEVELOPMENT (SED)

1a - Manages feelings  
1b - Follows limits and expectations  
3b - Solves social problems



- 3) **Early Literacy Target:**  $\geq 85\%$  of PSD K-3 students will meet End-of-Year DIBELS Next benchmarks. **Met Target in 2017/18?** No, in 2017/18 approximately 77.2% of kindergarten through grade 3 students met the End of Year Benchmarks.

This result is down slightly from 79.2% in 2016/17 and 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 2018/19 PSD Unified Improvement Plan (UIP).**



**DIBELS Next Criterion Referenced Outcomes - 2017/18**

Test Session	Grade	Well Below Benchmark	Below Benchmark	At or Above Benchmark	
Beginning of Year	K	15.9%	14.1%	70.0%	At or Above Benchmark Change
	1	24.5%	15.5%	59.9%	
	2	15.7%	9.3%	75.0%	
	3	15.9%	7.9%	76.2%	
	Total	18.0%	11.7%	70.4%	
End of Year	K	7.9%	12.1%	80.0%	10.0%
	1	16.1%	11.0%	72.8%	12.9%
	2	10.6%	9.9%	79.5%	4.4%
	3	11.2%	7.8%	81.0%	4.8%
	Total	11.4%	10.2%	78.4%	8.0%

From the 7,643 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. The “Beginning-of-Year” to “End-of-Year” comparisons displayed above, are true cohorts. 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” are not due to differences in groups of students being compared. Because we are using only students with pre and post scores, the N-count (7,643) is slightly reduced from the results for all 7,987 students that have a spring score reflected in the bar chart above. As a result, the 78.4% of students meeting spring benchmarks in the table above varies slightly from the 77.2% reported in the bar chart.

- 4) **Achievement Target:** PSD effect size  $\geq 0.25$  for State assessment subject by grade combinations. **Met Target in 2017/18?** No; 7th grade ELA and math did not meet PSD target (0.24 and 0.22 respectively). Grade 8 math did not meet the target at -0.08. SAT 11<sup>th</sup> grade math also fell short of the PSD target at 0.22. The negative effect size for math indicates PSD 8<sup>th</sup> grade math scores were on average lower than the statewide outcome. Historically, this is a very unusual negative result for PSD.

Regarding 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 in either reading or math for most subgroups traditionally associated with low relative performance (Free/Reduced lunch eligible, Hispanic, African American, English Language Learners, students supported with an IEP). Please see Appendix 3 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 2018/19 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 student's 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 (down to -0.25) are shaded yellow, and larger negative effect sizes (-0.25 down) are shaded red. This shading convention is used throughout the achievement effect size displays in this Monitoring Report. An effect size or z-score of zero indicates the exact mean outcome of the norm group.

When displaying growth effect sizes for the most recent school year in the following tables, statistical significance is indicated through use of an asterix (\*) in the column labeled  $\alpha=.05$ . Statistical significance indicates that the difference between the mean outcome for the indicated group varies from the mean outcome for the norm group (national or statewide academic peers) by a larger amount than we would expect to see due to chance variation alone. In other words, it is likely that something systematic is influencing these outcomes. The use of effect size to gauge the “size” of the outcome difference along with a test-of-significance to gauge whether an observed difference is likely to have occurred by chance alone is a very common practice in statistical analyses. The statistical test being conducted to make the determination of statistical significance uses a z-statistic and a 5% significance level ( $\alpha$ , alpha or probability of a Type I error). This may help the reader understand why “ $\alpha=.05$ ” is used as the column header just to the right of the reported effect size. N-Count is used to indicate the number of students with data that contributed to the effect size calculation being reported. As N-Count becomes smaller, and/or the effect size becomes smaller, the likelihood of flagging a result as significant decreases.

**English Language Arts (CMAS – Grades 3-8):**

Spring 2016/17			Spring 2017/18			
Level	Effect Size	N-Count	Level	Effect Size	$\alpha=.05$	N-Count
1) ES	0.34	6148	1) ES	0.35	*	6153
2) MS	0.24	5266	2) MS	0.26	*	5606
<b>Total</b>	<b>0.29</b>	<b>11414</b>	<b>Total</b>	<b>0.31</b>	<b>*</b>	<b>11759</b>

Grade	Effect Size	N-Count	Grade	N-Count	$\alpha=.05$	N-Count
3	0.34	1989	3	0.36	*	2032
4	0.36	2042	4	0.37	*	2047
5	0.33	2117	5	0.34	*	2074
6	0.25	1869	6	0.29	*	2027
7	0.20	1808	7	0.24	*	1841
8	0.27	1589	8	0.25	*	1738
<b>Total</b>	<b>0.29</b>	<b>11414</b>	<b>Total</b>	<b>0.31</b>	<b>*</b>	<b>11759</b>

**Evidence Based Reading and Writing (PSAT8/9 – Grade 9):**

Spring 2016/17			Spring 2017/18			
Level	Effect Size	N-Count	Level	Effect Size	$\alpha=.05$	N-Count
<b>Total</b>			3) HS	0.43	*	1825

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

Spring 2016/17			Spring 2017/18			
Level	Effect Size	N-Count	Level	Effect Size	$\alpha=.05$	N-Count
3) HS	0.44	1681	3) HS	0.43	*	1726

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

Spring 2016/17			Spring 2017/18			
Level	Effect Size	N-Count	Level	Effect Size	$\alpha=.05$	N-Count
3) HS	0.39	1717	3) HS	0.35	*	1762

**Math (CMAS – Grades 3-8):****Spring 2016/17**

Level	Effect Size	N-Count
1) ES	0.42	6180
2) MS	0.31	5296
<b>Total</b>	<b>0.37</b>	<b>11476</b>

Grade	Effect Size	N-Count
3	0.40	2015
4	0.43	2051
5	0.44	2114
6	0.31	1883
7	0.33	1815
8	0.29	1598
<b>Total</b>	<b>0.37</b>	<b>11476</b>

**Spring 2017/18**

Level	Effect Size	$\alpha=.05$	N-Count
1) ES	0.41	*	6193
2) MS	0.16	*	5652
<b>Total</b>	<b>0.29</b>	<b>*</b>	<b>11845</b>

Grade	N-Count	$\alpha=.05$	N-Count
3	0.36	*	2066
4	0.43	*	2048
5	0.44	*	2079
6	0.32	*	2044
7	0.22	*	1858
8	-0.08	*	1750
<b>Total</b>	<b>0.29</b>	<b>*</b>	<b>11845</b>

**Math (PSAT8/9 – Grade 9):****Spring 2016/17**

Level	Effect Size	N-Count
<b>Total</b>		

**Spring 2017/18**

Level	Effect Size	$\alpha=.05$	N-Count
3) HS	0.39	*	1825

**Math (PSAT – Grade 10):****Spring 2016/17**

Level	Effect Size	N-Count
3) HS	0.37	1681

**Spring 2017/18**

Level	Effect Size	$\alpha=.05$	N-Count
3) HS	0.34	*	1726

**Math (SAT – Grade 11):****Spring 2016/17**

Level	Effect Size	N-Count
3) HS	0.29	1717

**Spring 2017/18**

Level	Effect Size	$\alpha=.05$	N-Count
3) HS	0.22	*	1762



### **Science (CMAS – Grades 5, 8, and 11):**

Spring 2016/17			Spring 2017/18			
Level	Effect Size	N-Count	Level	Effect Size	$\alpha=.05$	N-Count
1) ES	0.37	2108	1) ES	0.39	*	2075
2) MS	0.28	1565	2) MS	0.22	*	1718
3) HS	0.29	467	3) HS	0.25	*	321
<b>Total</b>	<b>0.33</b>	<b>4140</b>	<b>Total</b>	<b>0.31</b>	<b>*</b>	<b>4114</b>

### **Social Studies (CMAS – Grades 4 and 7):**

Spring 2016/17			Spring 2017/18			
Level	Effect Size	N-Count	Level	Effect Size	$\alpha=.05$	N-Count
1) ES	0.40	708	1) ES	0.41	*	679
2) MS	0.26	656	2) MS	0.16	*	769
<b>Total</b>	<b>0.33</b>	<b>1364</b>	<b>Total</b>	<b>0.28</b>	<b>*</b>	<b>1448</b>

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 2017/18?** No, by grade-level and academic-subject combinations PSD did not exceed growth of academic peers statewide. For both median growth percentiles (MGP) and Zgain (average across all students of  $z$  post-score –  $z$  pre-score) 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. The Zgain metric is also referred to as a growth effect size.

In the academic growth tables below green indicates a growth effect size greater than or equal to zero or a MGP greater than or equal to 50. Blue indicates a growth effect size greater than or equal to 0.20 or an MGP greater than or equal to 65. A growth effect size below zero, or 50 for a MGP, is shaded yellow. A growth effect size at or below -0.20, or 35 for an MGP, is shaded red.

There are many indications of overall high levels of academic growth, the elementary level of PSD continuing to show the strongest evidence of this sustained positive outcome. Middle school math growth, specifically for the 6<sup>th</sup> grade students, is the main area of concern based on 2017/18 results. There are subgroups of students that are not attaining the PSD growth target. 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 2018/19 PSD Unified Improvement Plan (UIP).**

It is critical that readers notice the N-counts that fall far below 2,00 for a PSD grade level. In 2017, participation rates fell as low as 77% 8th grade PARCC, 51% 9th grade PARCC, and 87% 10th grade PSAT. Additionally, in math, twice accelerated students were not included in MGP calculations. This means that 2018 MGPs do not include 7th grade Algebra I, 8th grade Geometry, 9th grade Algebra 2, or 10th grade students that had Algebra 2 as a 9th grade student in 2017. As N-count diminishes, so does interpretability of results. Participation rates are much higher in 2018 (88%, 91%, and 92% respectively).

### **English Language Arts (PARCC – Grades 4-8):**

Year by Level	2016/17		2017/18		Year by Level	2016/17		2017/18	
	Zgain	N	Zgain	N		MGP	N	MGP	N
1) ES	0.04	3750	0.01	3685	1) ES	57	3820	55	3770
2) MS	-0.14	4690	-0.02	4947	2) MS	43	4790	49	5024
<b>Total</b>	<b>-0.06</b>	<b>8440</b>	<b>-0.01</b>	<b>8632</b>	<b>Total</b>	<b>49</b>	<b>8610</b>	<b>52</b>	<b>8794</b>

Year by Grade	2016/17		2017/18		Year by Grade	2016/17		2017/18	
	Zgain	N	Zgain	N		MGP	N	MGP	N
4	0.06	1836	0.04	1816	4	59	1874	58	1865
5	0.01	1913	-0.03	1869	5	54	1946	52	1905
6	-0.17	1650	-0.08	1810	6	42	1724	49	1867
7	-0.16	1636	-0.02	1615	7	41	1651	47	1628
8	-0.10	1404	0.04	1522	8	45	1415	51	1529

### **Evidence Based Reading & Writing (CMAS to PSAT to SAT – Grade 9-11):**

Year by Level	2016/17		2017/18	
	Zgain	N	Zgain	N
3) HS	-0.05	1464	0.02	3680

Year by Level	2016/17		2017/18	
	MGP	N	MGP	N
3) HS	54	1499	54	3739

Year by Grade	2016/17		2017/18	
	Zgain	N	Zgain	N
9			0.10	1300
10			0.04	879
11	-0.05	1464	-0.06	1501

Year by Grade	2016/17		2017/18	
	MGP	N	MGP	N
9			53	1347
10			56	902
11	54	1499	56	1490

### **Math (PARCC – Grades 4-8):**

Year by Level	2016/17		2017/18	
	Zgain	N	Zgain	N
1) ES	0.11	3773	0.01	3709
2) MS	-0.07	4721	-0.10	4385
<b>Total</b>	<b>0.01</b>	<b>8494</b>	<b>-0.05</b>	<b>8094</b>

Year by Level	2016/17		2017/18	
	MGP	N	MGP	N
1) ES	65	3845	58	3793
2) MS	50	4819	49	4456
<b>Total</b>	<b>57</b>	<b>8664</b>	<b>54</b>	<b>8249</b>

Year by Grade	2016/17		2017/18	
	Zgain	N	Zgain	N
4	0.18	1860	0.03	1833
5	0.05	1911	0.00	1876
6	-0.06	1656	-0.15	1816
7	-0.05	1648	0.06	1351
8	-0.09	1417	-0.20	1218

Year by Grade	2016/17		2017/18	
	MGP	N	MGP	N
4	67	1898	58	1880
5	62	1947	59	1913
6	47	1732	44	1874
7	50	1666	54	1367
8	52	1421	55	1215

### **Math (CMAS to PSAT to SAT – Grade 9-11):**

Year by Level	2016/17		2017/18	
	Zgain	N	Zgain	N
3) HS	-0.05	1464	0.06	3396

Year by Level	2016/17		2017/18	
	MGP	N	MGP	N
3) HS	54	1499	46	3453

==

Year by Grade	2016/17		2017/18	
	Zgain	N	Zgain	N
9			0.10	1306
10			0.48	587
11	-0.05	1464	-0.13	1501

Year by Grade	2016/17		2017/18	
	MGP	N	MGP	N
9			43	1355
10			49	608
11	54	1499	48	1490

- 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 2017/18?** 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 35<sup>th</sup> 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. These 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 95<sup>th</sup> percentile on the same set of measures. “Met Targets” scored consistently above the 35<sup>th</sup> 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.

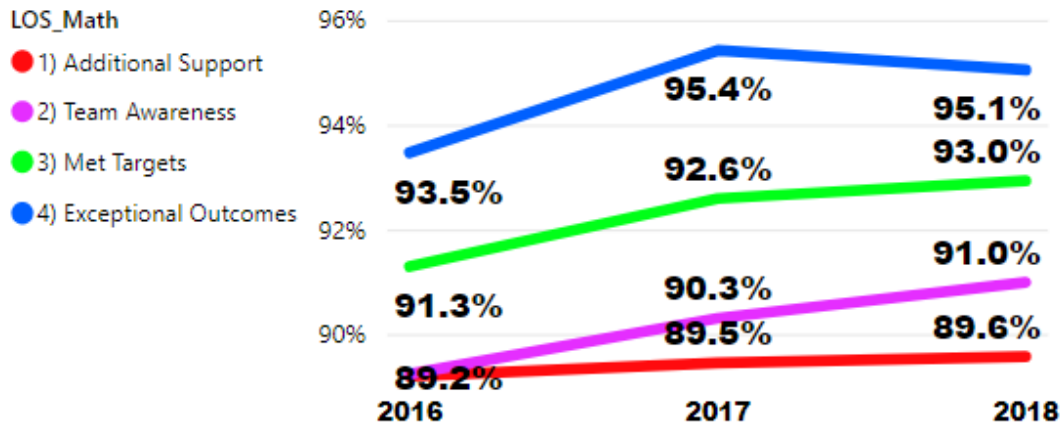
The Levels of Support tool is available to teachers and school administrators in the first week that teachers are back on contract at the beginning of each school year. Current year classifications of evidence-based support level recommendations are only available to appropriate school and district staff. 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 2018/19 School Unified Improvement Plan (SUIP). Currently in math, 50.9% (1,586) of the 3,118 students identified as “Additional Support” have an individual support plan of some type, for ELA/Reading Additional Support it’s higher, 64.7% (1,885/2,915). In math, this represents a slight increase from this time last year when the percentage was 47.3%. In ELA/Reading, this represents almost no change from this time last year when the associated percentage was 64.5%. 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 2018/19 PSD Unified Improvement Plan (UIP).**

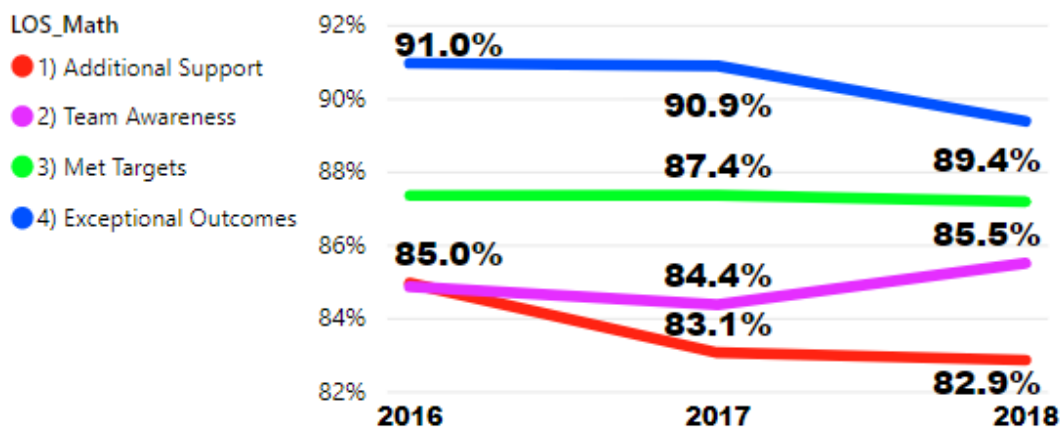
### Connections Information for Additional Support - Math:

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.

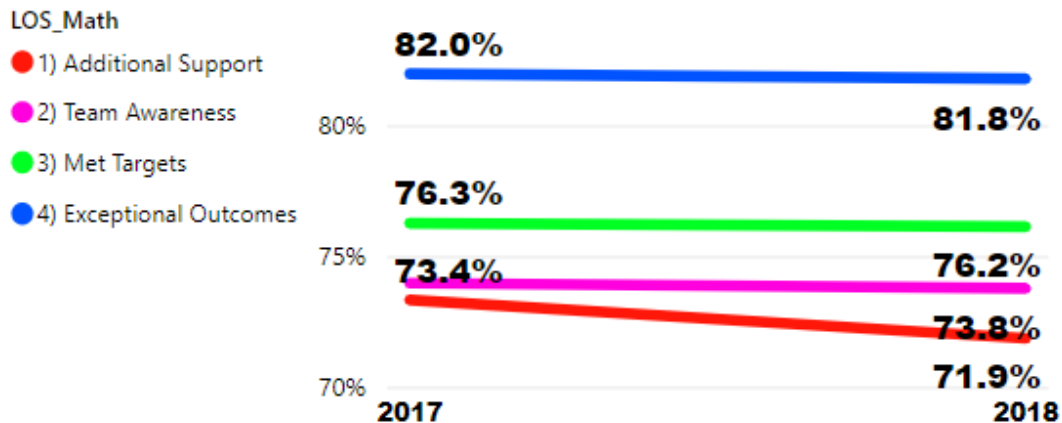
#### **Student-to-Adult (% Agreement) by Level of Support\_Math**



#### **Student-to-Student (% Agreement) by Level of Support\_Math**



#### **Student-to-Interests (% Agreement) by Level of Support\_Math**



### CMAS Academic Performance Information for Additional Support – English Language Arts:

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

Spring 2016/17			Spring 2017/18			
Level	Effect Size	N-Count	Level	Effect Size	$\alpha=.05$	N-Count
1) ES	-1.16	625	1) ES	-1.21	*	611
2) MS	-1.22	521	2) MS	-1.22	*	537
<b>Total</b>	<b>-1.19</b>	<b>1146</b>	<b>Total</b>	<b>-1.21</b>	<b>*</b>	<b>1148</b>

Grade	Effect Size	N-Count	Grade	N-Count	$\alpha=.05$	N-Count
3	-1.05	255	3	-1.15	*	207
4	-1.26	235	4	-1.28	*	205
5	-1.21	135	5	-1.20	*	199
6	-1.30	96	6	-1.23	*	176
7	-1.19	228	7	-1.29	*	176
8	-1.21	197	8	-1.13	*	185
<b>Total</b>	<b>-1.19</b>	<b>1146</b>	<b>Total</b>	<b>-1.21</b>	<b>*</b>	<b>1148</b>

### CMAS Academic Growth Information for Additional Support - English Language Arts:

In English language arts, there is mixed evidence regarding growth for the Additional Support group. Note that Median Growth Percentiles (MGP) are below 50 at all grade levels and the Zgain is greater than zero at all grade levels other than 6<sup>th</sup> grade. Both systems flag 6<sup>th</sup> grade as the biggest area of concern. 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, when taking multiple prior years of scores into account, are making even more progress at the middle school level.

Year by Grade	2016/17		2017/18		Year by Grade	2016/17		2017/18	
	Zgain	N	Zgain	N		MGP	N	MGP	N
4	0.05	213	0.03	187	4	34	212	39	185
5	0.21	129	0.15	190	5	45	129	42	189
6	0.00	88	-0.03	170	6	34	87	32	164
7	0.02	216	0.02	161	7	36	213	35	153
8	0.05	175	0.25	168	8	44	176	49	165

### CMAS Academic Performance Information for Additional Support - Math:

We see that performance remains relatively low for the Additional Support group in years after being identified as good candidates for staff awareness and purposeful assistance. The need for academic support persists into future years. Nonetheless, we also see the absolute number of students that need support in grade cohorts decreases for every grade level. To see this, look at N-Counts on a diagonal from 2016/17 to the next grade level row for 2017/18.

Spring 2016/17			Spring 2017/18			
Level	Effect Size	N-Count	Level	Effect Size	$\alpha=.05$	N-Count
1) ES	-0.89	982	1) ES	-0.93	*	838
2) MS	-1.00	720	2) MS	-1.03	*	722
<b>Total</b>	<b>-0.94</b>	<b>1702</b>	<b>Total</b>	<b>-0.98</b>	<b>*</b>	<b>1560</b>

Grade	Effect Size	N-Count	Grade	N-Count	$\alpha=.05$	N-Count
3	-0.83	352	3	-0.91	*	310
4	-0.92	328	4	-0.89	*	259
5	-0.93	302	5	-1.00	*	269
6	-1.01	261	6	-1.17	*	240
7	-1.03	259	7	-1.04	*	251
8	-0.93	200	8	-0.88	*	231
<b>Total</b>	<b>-0.94</b>	<b>1702</b>	<b>Total</b>	<b>-0.98</b>	<b>*</b>	<b>1560</b>

### CMAS Academic Growth Information for Additional Support - Math:

In math the Additional Support group is attaining growth at the elementary level that exceeds growth of statewide academic peers. Note that Median Growth Percentiles (MGP) are above 50 and the Zgain is greater than zero. For 7<sup>th</sup> grade, 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 in 7<sup>th</sup> grade. Academic growth in math for 6<sup>th</sup> grade students is low, but as we saw earlier in this report, the same statement is true across the whole of the 6<sup>th</sup> grade cohort.

Year by Grade	2016/17		2017/18		Year by Grade	2016/17		2017/18	
	Zgain	N	Zgain	N		MGP	N	MGP	N
4	0.28	320	0.27	250	4	56	315	58	244
5	0.17	293	0.10	263	5	54	289	52	260
6	0.05	251	-0.11	232	6	46	250	33	225
7	0.12	253	0.11	237	7	48	249	41	228
8	0.16	187	0.26	208	8	41	188	51	206

Looking at MAP growth data for the same cohorts of Additional Support students seems to validate the high growth indicated by CMAS student growth effect size (Zgain) calculations.

#### MAP Academic Growth Information for Additional Support - English Language Arts:

Year by Level	2016/17 Zgain	2016/17 N	2017/18 Zgain	2017/18 N
1) ES	0.28	942	0.26	866
2) MS	0.16	562	0.09	581

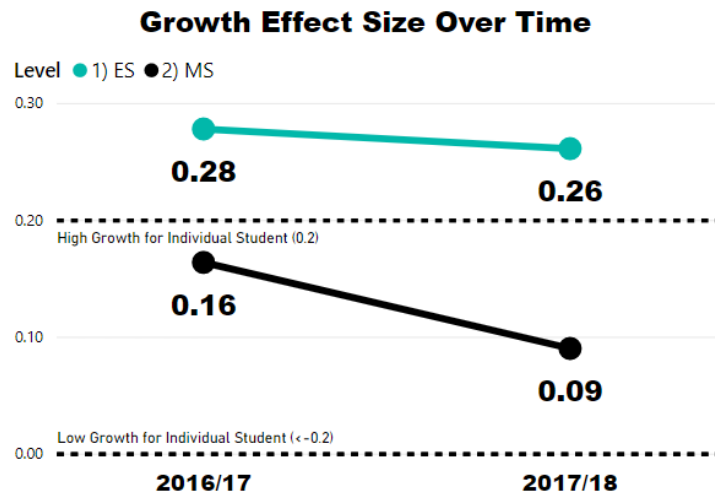
Year by Grade	2016/17 Zgain	2016/17 N	2017/18 Zgain	2017/18 N
2	0.27	330	0.28	236
3	0.34	268	0.25	231
4	0.25	221	0.23	198
5	0.24	123	0.29	201
6	0.08	86	0.04	180
7	0.17	249	0.04	194
8	0.19	227	0.18	207

Year by Ethnicity	2016/17 Zgain	2016/17 N	2017/18 Zgain	2017/18 N
American Indian or Alaska Native	0.47	6	0.16	11
Asian	0.37	26	0.35	28
Black or African American	0.36	26	-0.01	25
Hispanic	0.16	659	0.15	656
Two or More	0.19	36	0.07	59
White	0.29	746	0.25	664

Year by Free/Reduced Lunch	2016/17 Zgain	2016/17 N	2017/18 Zgain	2017/18 N
1) Free (F)	0.18	881	0.14	812
2) Reduced (R)	0.31	182	0.21	297
3) Not FR	0.32	441	0.31	338

Year by Gender	2016/17 Zgain	2016/17 N	2017/18 Zgain	2017/18 N
Female	0.25	616	0.20	599
Male	0.22	888	0.19	848

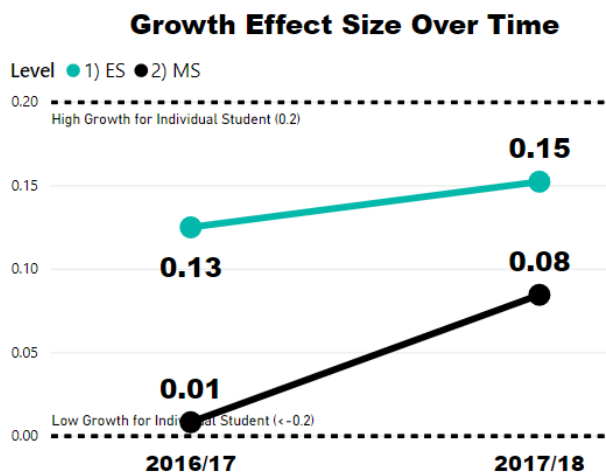


#### MAP Academic Growth Information for Additional Support - Math:

Year by Level	2016/17 Zgain	2016/17 N	2017/18 Zgain	2017/18 N
1) ES	0.13	971	0.15	853
2) MS	0.01	823	0.08	798

Year by Grade	2016/17 Zgain	2016/17 N	2017/18 Zgain	2017/18 N
3	0.15	354	0.20	315
4	0.14	320	0.14	261
5	0.08	297	0.10	273
6	-0.11	264	-0.06	250
7	0.07	292	0.15	279
8	0.06	267	0.15	269

Year by Ethnicity	2016/17 Zgain	2016/17 N	2017/18 Zgain	2017/18 N
American Indian or Alaska Native	0.09	10	0.03	10
Asian	-0.17	19	0.17	20
Black or African American	0.09	39	0.10	39
Hispanic	0.02	764	0.08	745
Two or More	0.03	57	0.05	56
White	0.12	899	0.17	778



Year by Free/Reduced Lunch	2016/17 Zgain	2016/17 N	2017/18 Zgain	2017/18 N
1) Free (F)	0.04	1019	0.09	869
2) Reduced (R)	0.07	197	0.14	382
3) Not FR	0.12	578	0.17	400

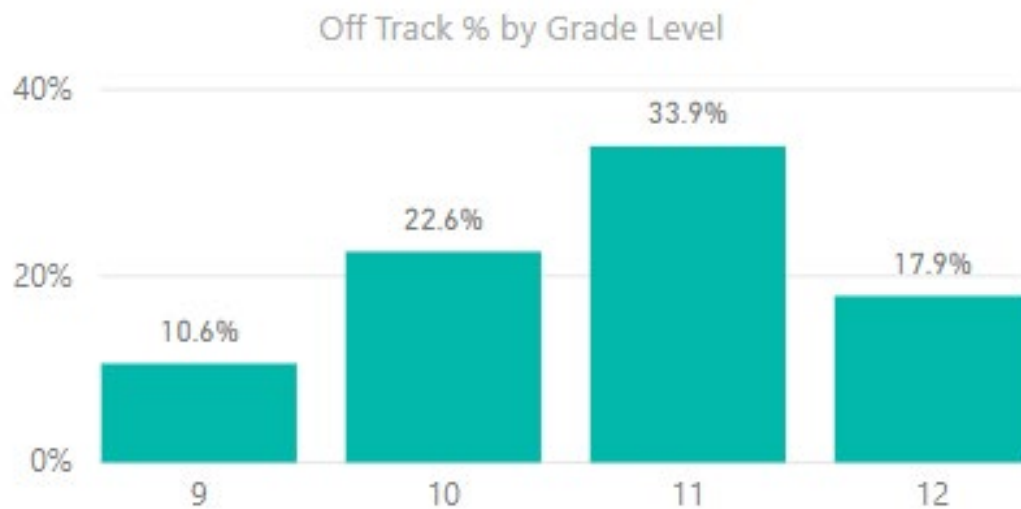
Year by Gender	2016/17 Zgain	2016/17 N	2017/18 Zgain	2017/18 N
Female	0.07	861	0.10	818
Male	0.07	933	0.14	833



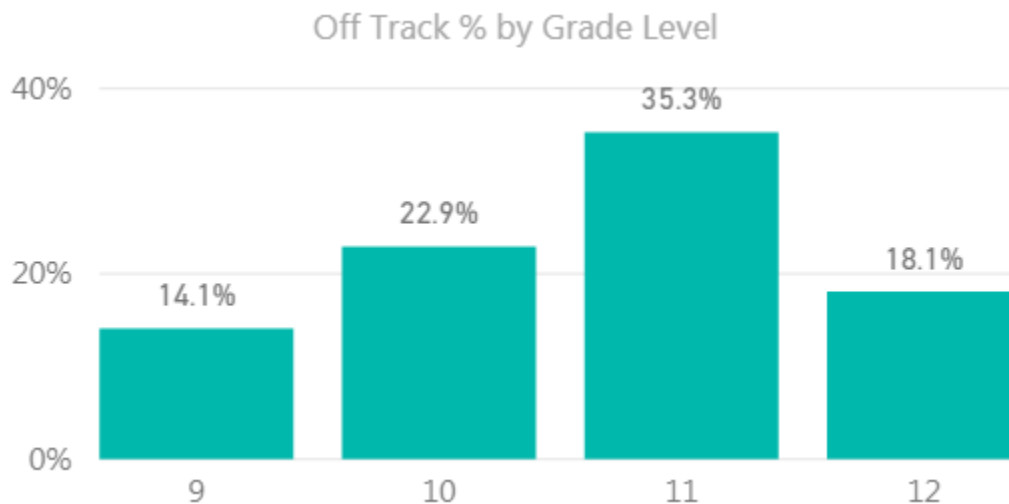
- 7) **Credit Accumulation Target:**  $\geq 85\%$  of 9<sup>th</sup>-12<sup>th</sup> grade students will be on track to graduate within 4 years of transition into 9th grade.

**Met Target in 2017/18?** No, as of 2-20-18 approximately 77.6% of 9<sup>th</sup>-12<sup>th</sup> grade students were on track to graduate based on credit accumulation. Currently (as of 2-12-19) 79.6% of 9<sup>th</sup>-12<sup>th</sup> 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 9<sup>th</sup> 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. 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 2018/19 PSD Unified Improvement Plan (UIP).**



Note: As of 2/12/19 at 7:00 pm

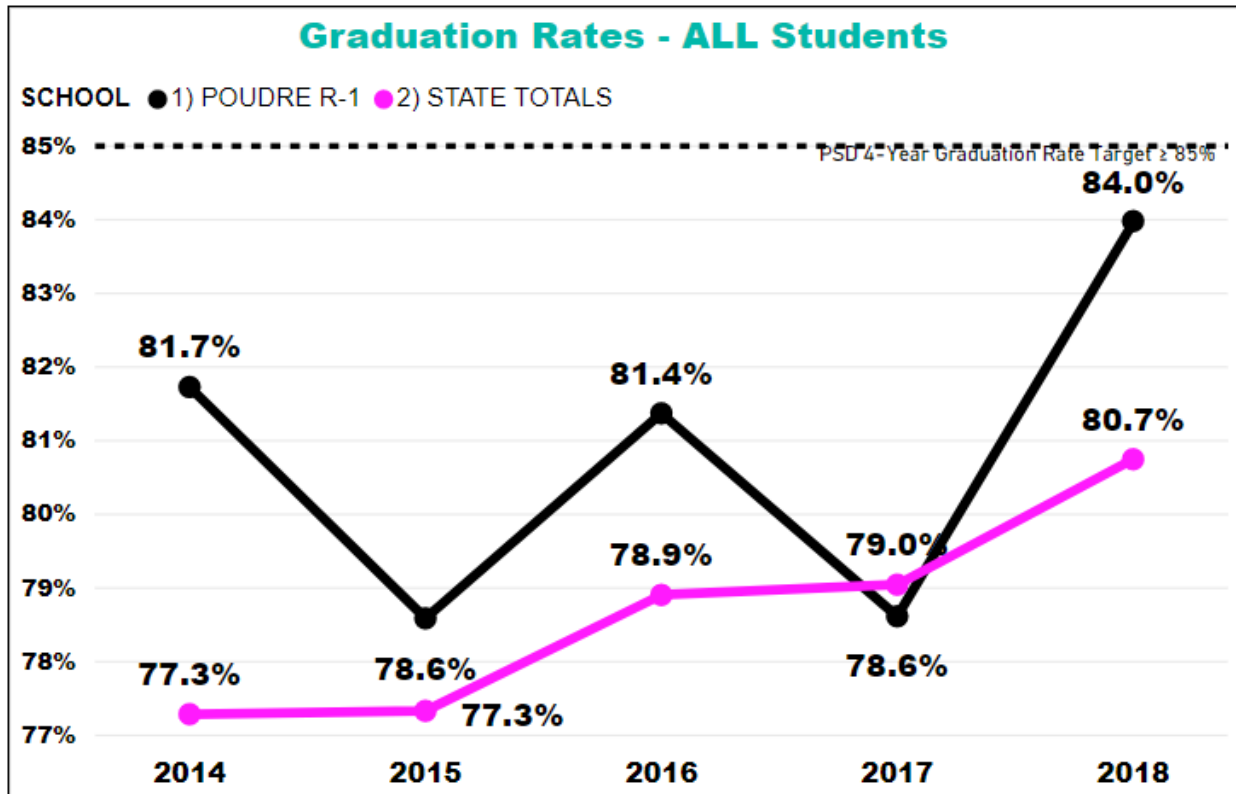


Note: As of 2/20/18 at 2:00 pm

- 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 9<sup>th</sup> grade.

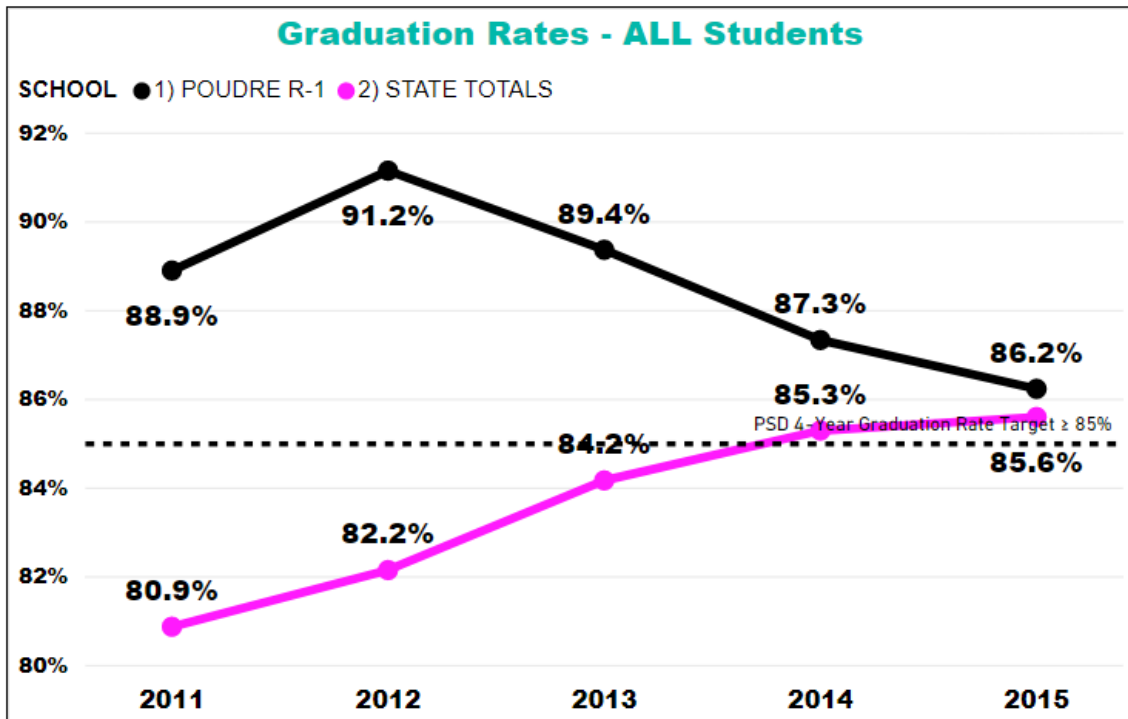
**Met Target in 2017/18?** No, the PSD Class of 2018 had graduation rate 84.0% based on official state calculations (up 5.4 percentage units from 78.6% the year before, an all-time PSD low that fell short of the statewide graduation rate). To interact with a PSD developed graduation rate data visualization tool that provides much greater detail, please click [GRADUATION RATES](#).

This target is supported by Action Step 3C – “[Graduation Rates](#)” under Major Improvement Strategy #3 (Transitions) of the 2018/19 PSD Unified Improvement Plan (UIP).

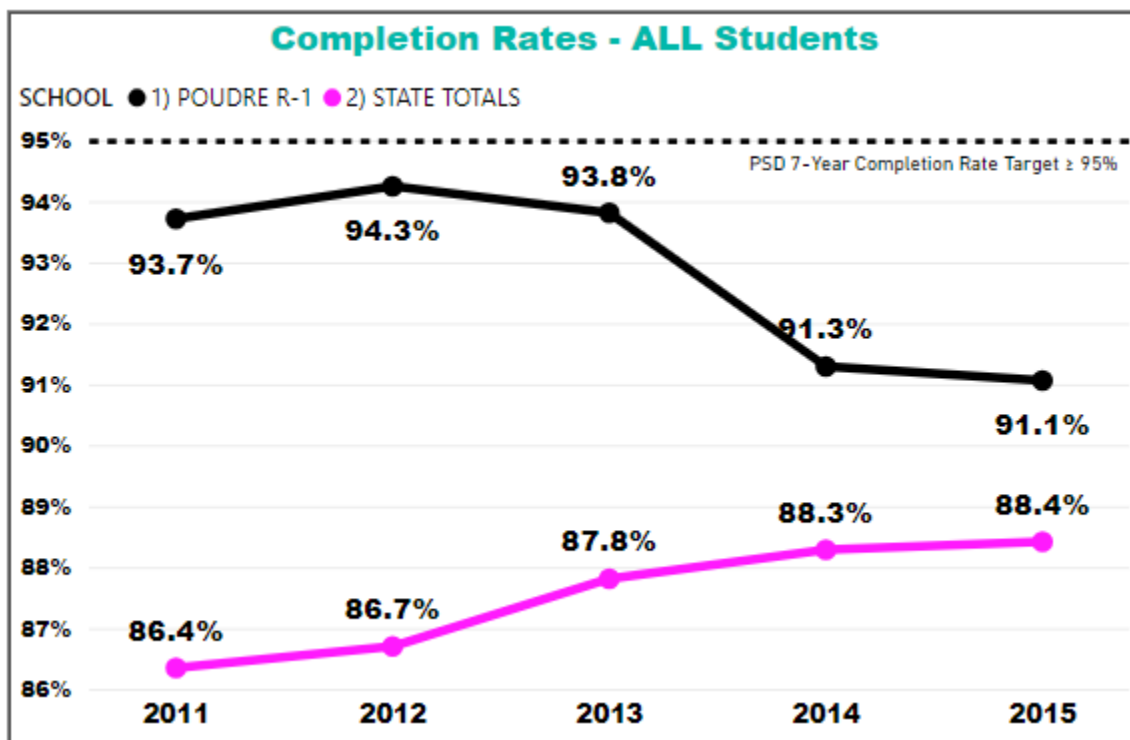


The PSD 4-year graduation rate dramatic increase follows several years of decreases from three consecutive years of 84% or higher graduation rates. The PSD class of 2018 graduation rate (84.0%) is above the statewide graduation rate of 80.7% (up 1.7 percentage units from 2017). Statewide, graduation rates have been steadily increasing. As of the Class of 2018, ASCENT students are included statewide in the graduation rate numerator. This inclusion will put upward pressure on graduation rates but is not the only reason statewide graduation rates are consistently increasing.

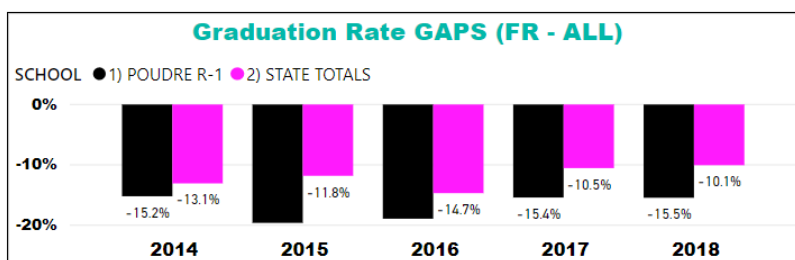
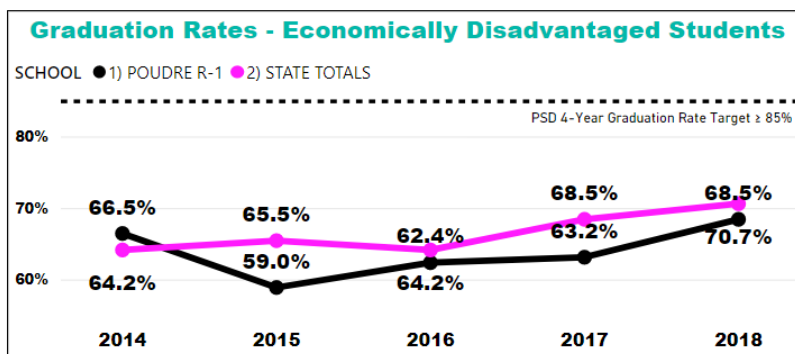
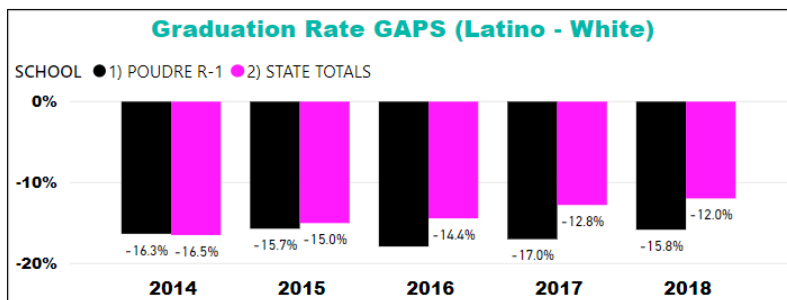
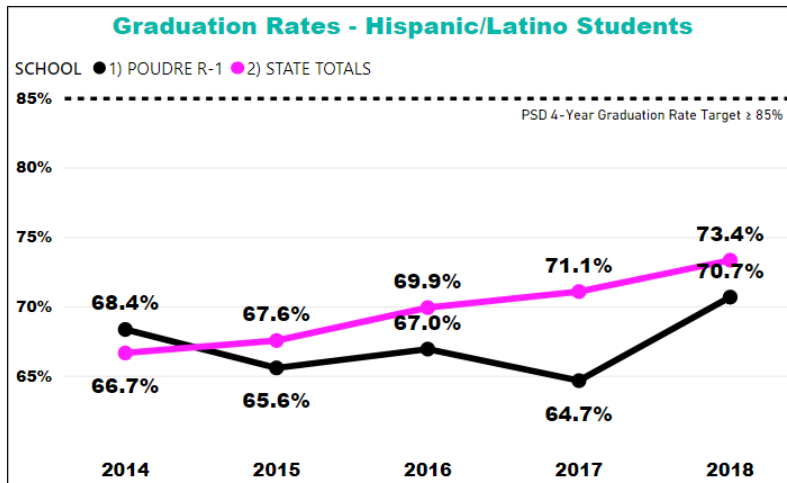
The 7-year graduation rates have consistently declined from 91.2% in 2012, to 86.2% for the class of 2015 (the most recent graduates for which this extended rate is available). The statewide 7-year rate has been steadily increasing over the same set of years.



The 7-year completion rates follow the same patterns as the 7-year graduation rates. PSD can anticipate a positive increase in both 7-year rates as of the Class of 2018.

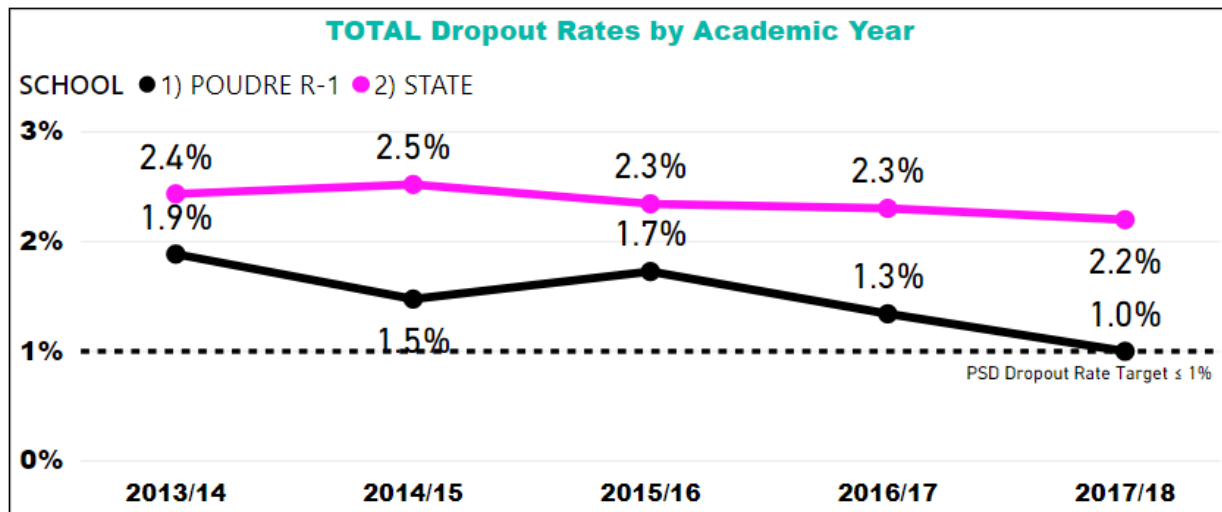


The 4-year graduation rate for many subgroups of students such as Hispanic students, students supported with an IEP, and students eligible for free/reduced lunch are lagging on-time graduation rates for similar subgroups statewide. Additionally, PSD graduation rate gaps between these subgroups and their PSD peers are larger than the similar gaps that exists statewide. To interact with a PSD developed graduation rate data visualization tool that provides greater detail, please click [GRADUATION RATES](#).

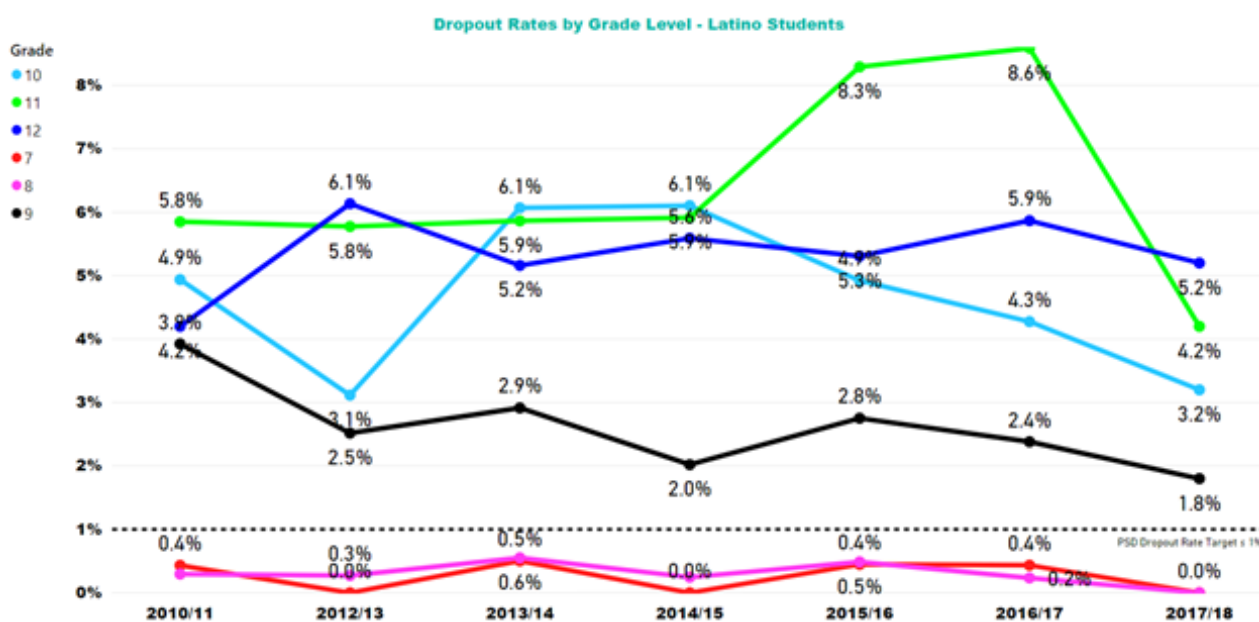
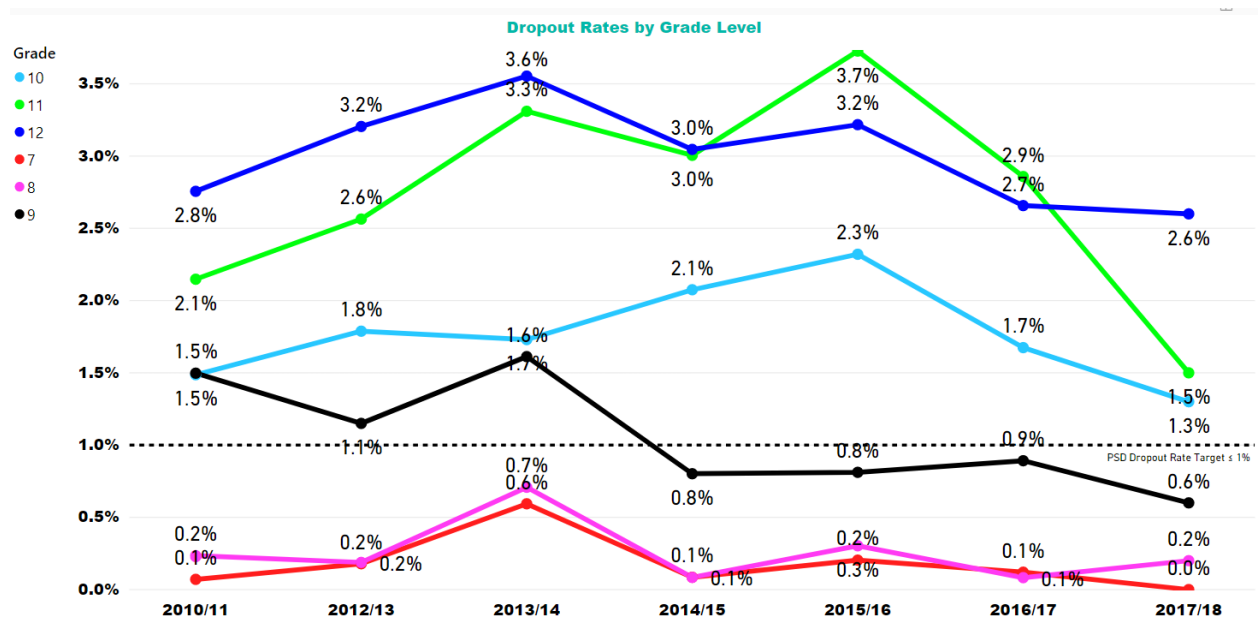


- 9) **Dropout Rate Target:** Less than 1% of PSD students will dropout in a given year.  
**Met Target in 2017/18?** No, the PSD dropout rate was at 1.0% in 2017/18.

This represents a decrease of 0.3 percentage points from 2016/17 and is 1.2 percentage units below the state's 2017/18 dropout rate. By looking at the state and PSD dropout rates across the past five 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 2018/19 PSD Unified Improvement Plan (UIP).



One can see increasing rates of dropping out as the grade levels progress from 7<sup>th</sup> to 12<sup>th</sup>. 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 (2015/16 and 2016/17), the Latino dropout rate is higher for 11<sup>th</sup> grade students than for 12<sup>th</sup> grade students. This is not true for PSD White students or State Latino students. In 2017/18, the Latino/Latina dropout rate by grade level returned to a more typical pattern where dropout rate increases with grade level during the high school years.

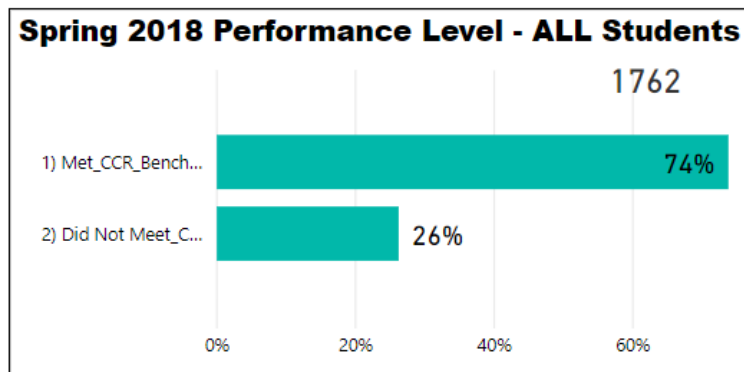


- 10) **College Readiness Target:**  $\geq 85\%$  of PSD students will meet or exceed SAT college readiness benchmarks in Evidence Based Reading and Writing; and in Math.  
**Met Target in 2017/18?** No, the 2017/18 grade 11 class had 74% and 53% of students meet the SAT college readiness targets for Evidenced-Based Reading and Writing and Math respectively.

Evidence Based Reading and Writing achievement on the SAT does meet the 0.25 effect size target that PSD has set for all state assessments. Math achievement on the SAT does not meet the 0.25 effect size target. Outcomes for both Evidence Based Reading and Writing and math have decreased from the spring of 2017 results of 75.1% and 57.2% respectively.

This target is supported by all four Action Steps 1A – 1D under Major Improvement Strategy #1 (Academic Learning) of the 2018/19 PSD Unified Improvement Plan (UIP).

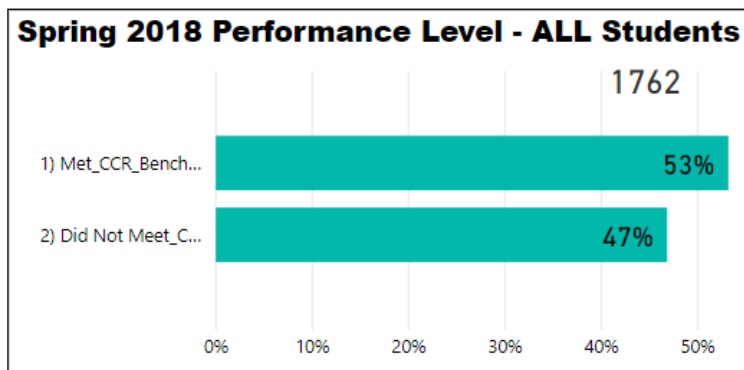
#### SAT Evidenced-Based Reading and Writing:



Spring 2017/18

Level	Effect Size	$\alpha=.05$	N-Count
3) HS	0.35	*	1762

#### SAT Math:



Spring 2017/18

Level	Effect Size	$\alpha=.05$	N-Count
3) HS	0.22	*	1762

- 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 2017/18?** Yes, 59.0% of PSD juniors and seniors had a Postsecondary Workforce Readiness (PWR) experience.

Counting how many juniors or seniors were part of PSD in 2017/18 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 2,012 juniors and 2,097 seniors in 2017/18. An unduplicated count (no student is counted twice) of 2017/18 juniors and seniors who participated in one or more AP, IB, Concurrent Enrollment, and/or work-based learning experiences is 2,426 (1,181 juniors, 1,245 seniors). Approximately 58.7% of juniors had one of these PWR experiences (up from 54.2% in 2016/17 and 50.8% in 2015/16), while 59.4% of seniors had a PWR experience in 2017/18 (down from 64.1% in 2016/17 and 63.3% in 2015/16). This is a total of 59.0% (2,426/4,109) 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 three years 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. In 2017/18 RMHS had 287 students (unduplicated count within the CU Succeeds data set) that participated in CU Succeeds. **This target is supported by Action Step 3A – “Transition Strategies” under Major Improvement Strategy #3 (Transitions) of the 2018/19 PSD Unified Improvement Plan (UIP).**

- 12) **AP/IB Performance Target:** PSD classroom teacher z statistics  $\geq 1.96$  (indicates advanced student performance significantly higher than typical national and international outcomes).  
**Met Target in 2017/18?** Yes, PSD AP advanced classes exceeded national norms by 3.84 standard errors in 2017/18, up from 2.59 standard errors in 2016/17, and up from 3.21 standard errors in 2015/16. IB advanced classes exceeded international norms by 2.21 standard errors in 2017/18, down from 2.43 standard errors in 2016/17 and 2.82 standard errors in 2015/16.

Comparisons of our AP Exam outcomes to national outcomes are carried out as part of the PSD system for identifying evidence of instructional effectiveness for our teacher evaluation process. When the 2017/18 PSD AP teachers’ mean AP exam scores are converted to z-statistics (z-scores using the standard error of the mean) and compared to the distribution of mean outcomes for all AP teachers nationally, the typical PSD AP teacher’s mean is 3.84 standard error units to the right of the national average, and for IB advanced classes, PSD teachers are 2.21 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 nationwide. Keep in mind that moving a mean score greater than 1.96 standard errors is often used to indicate a statistically significant outcome (not likely due to chance alone). **This target is supported by Action Step 1B – “Formative Instruction Practice” under Major Improvement Strategy #1 (Academic Learning) of the 2018/19 PSD Unified Improvement Plan (UIP).**



- 13) **Postsecondary Outcomes Target:** All percentages and rates higher than related rates for Colorado.

**Met Target in 2017/18?** Yes. The Class of 2016 is the latest cohort for which the Colorado Department of Higher Education (CDHE) has released postsecondary data. Based on all 5 postsecondary success measures, and for the past 8 graduating classes (2009-2016) for which PSD and State data are available, PSD has consistently met this target.

Every PSD graduating class from 2009 to 2016 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. (<https://higher.ed.colorado.gov/Data/K12/>)

- 14) **Health and Wellness Target:** 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 2017/18?** No, based on the latest data available at this time which is from the 2017/18 Healthy Kids Colorado Survey. High school self-reported rates of participating in PE and organized sports were slightly lower than the related states rates. PSD met the target on the other five of seven 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 2017 to more than 56,000 students from more than 190 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. Key items selected for inclusion did not remain in effect as the survey evolved from 2015/16 to 2017/18. 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.

There are seven items for high schools that are 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 seven items are provided below. PSD percentages that met the target (more favorable) are shaded green. Others shaded yellow.

Also included in this Monitoring report for awareness building (i.e., no targets are set on these outcomes) are three key substance abuse questions. Although public school staff may not be able to impact substance abuse rates directly, the indicated self-reported rates relative to statewide outcomes are important to be aware of and intervene on when possible.

### Healthy Kids Colorado Survey Key Items Related to School

Level	Students who...	PSD 2017	State 2017	PSD 2015	State 2015
High School	Think it's important to go to college.	92.5% *	89.3%	NA	NA
	Have an adult to go to for help with a serious problem.	79.5% *	73.5%	NA	NA
	Skipped school at least 1 day in last month.	21.0%	22.8%	2% *	5.5%
	Carried a weapon on school property in past 30 days	2.9% *	4.4%	NA	NA
	Been in a physical fight in past 12 months.	15.9%	18.0%	NA	NA
	Have PE class at least 1 day per week, on average.	34.1% *	43.7%	NA	NA
	Played on at least one sports team in the past 12	58.0%	60.6%	NA	NA

*An asterisk (\*) indicates a statistically significant difference between your district and the state.*

### Healthy Kids Colorado Survey Key Substance Abuse Behaviors

Level	Students who...	PSD 2017	State 2017	PSD 2015	State 2015
High School	Used electronic vapor product 1+ days in past 30 days	30.8% *	27.0%	NA	NA
	Drank alcohol in past 30 days	29.3%	28.7%	25.8%	30.2%
	Used marijuana in past 30 days	18.6%	19.4%	13.0%	21.2%

*An asterisk (\*) indicates a statistically significant difference between your district 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 for success in a changing world, we develop student awareness of exciting possibilities through career exploration and access to creative learning spaces. The following stories provide examples of these efforts throughout the 2017/18 school year.



### **Exploring possibilities through concurrent enrollment**

Jada Barry has been tinkering with engines as long as she can remember.



“My uncle and I have worked on cars my whole life,” the Poudre High School senior said from inside the automotive shop at Front Range Community College. “I just really want to know what’s going on inside certain cars.”

This curiosity got Jada wondering about possible careers related to her passion. She was eager to jump in and didn’t want to wait until after high school to start taking a college automotive course.

Thanks to Career Pathways, one of Poudre School District’s Concurrent Enrollment programs, she didn’t have to. Last spring, Jada signed up for an automotive and technology course at Front Range Community College and became one of more than 1,000 PSD high schoolers earning college credit.

Through strong partnerships with FRCC, Colorado State University, Aims Community College, and the University of Colorado, PSD students have many opportunities to explore college-level academics before earning their high school diplomas.

The Concurrent Enrollment programs allow students to enroll in college courses in a way that best aligns with their interests and schedules. Students can take college classes at their high school or on a college campus. PSD wants students to discover their passions and how they can pursue them through a multitude of educational pathways. For more information about these programs and how to enroll, visit PSD’s concurrent enrollment web page.



## Getting a taste of college life

Sixth-grader Madelynn Wiggins didn't hesitate when asked if she'd thought much about her future.

"I'm going to college," she said confidently. "I think I'm going to go to Colorado State University or to Notre Dame."



Madelynn was on a field trip to CSU, along with more than 200 other sixth graders from Lincoln Middle School. This is the second year the school has taken students on this trip, which aims to give the students a taste of college life and inspire them to follow their dreams after they finish high school in just a few short years.

Experiences with universities are intended to motivate and inspire students. Charlene Peterson, the Lincoln media specialist said the following regarding the trip... "it seems like it lit a lot of fires." Students had a chance to ask their most burning questions to CSU students: What are your favorite classes? What are the worst classes? Is the dining hall food any good? How do you pay for college? Trips like these let students see what an exciting place a college campus can be.

During the visit, students met CSU student athletes and heard from first-generation college students. For Madelynn, who will be the first in her family to attend college, this was particularly meaningful. She listened intently as the students talked about their college experience and doled out advice on how she, too, could get to a university.

"They said pick good friends, friends who will help and who will encourage you," she said. Aidan Scully said his favorite part of the trip was seeing a real-life college dorm room – it was nicer than he expected – though he is not quite sure how he feels about having a roommate. He said he hasn't spent too much time thinking about college, but said he'd like to end up at a place like CSU.



"It's a lot bigger (than I expected), he said. "It's just really cool."

## **New PSD Futures Lab**

Planning stages for the Poudre School District Futures Lab project took flight during the 2017/18 school year and is set to launch inaugural programming in the 2019-20 school year. Through the Futures Lab project, PSD will offer students programs and pathways to pursue passions in an applied learning environment that complements and enhances PSD's long-standing and robust college and career-readiness programs.

  
**Building  
Our Future  
TOGETHER**



"All students will have the opportunity to deepen their learning, innovate, develop hard and soft career skills, and earn industry-recognized credentials so they can graduate prepared to succeed in a changing world," said Scott Elias, PSD's director of innovative learning environment design and Futures Lab project lead.

The inaugural programs being offered during the 2019/20 school year will include Entrepreneurship, MobileMakersEDU™ iOS App Development, Unmanned Aerial Systems (drones) and an Advanced Placement Seminar. These inaugural courses are open to all PSD juniors and seniors and will take place at Fort Collins High School, a temporary location until a permanent facility is determined.

PSD anticipates student enrollment among the inaugural programs to be up to 100 students in the 2019-20 school year. High school students participating in Futures Lab project programming will earn credit while remaining enrolled in their home school. While the initial programming will be targeted to juniors and seniors, plans are to expand options to all high schoolers.

"Here in Northern Colorado, it's important for us to grow our own talent for today and the future. We are really excited as we hear some of the initial plans for the Futures Lab project and about how it will add to the tools and opportunities being provided by PSD to students," said Mark Driscoll, Colorado market president at First National Bank of Omaha and a community leader passionate about education. These kids are our community's next generation of workers, neighbors and leaders."

Futures Lab project programming is slated to expand in the 2020-21 school year. PSD is also planning for the Futures Lab project to eventually provide opportunities for students in grades PreK-8 to extend their classroom learning through participation in field trips and other unique experiences.



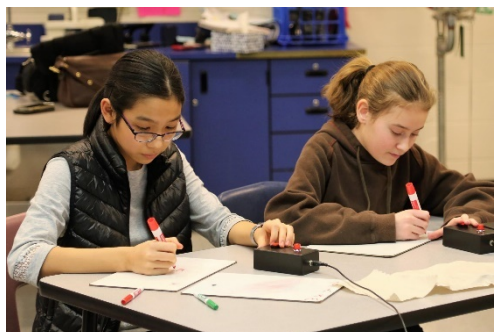
## **Above and Beyond**

*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 2017/18 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.

### **Preston, FCHS Science Bowl winners prepare for national competition**



It's 4 p.m. on a Tuesday, and the halls of Preston Middle School have emptied out. But inside the quiet school, science teacher Logan Burke's classroom is whirring with excited energy. Students slam their hands down on the buzzers sitting on their desks and call out answers to complex science questions. They rattle off equations, list biological terms and name obscure minerals and rocks. This is a Science Bowl practice session, and these kids mean business.

Teams from both Preston and Fort Collins High School recently won their regional competitions and are gearing up to travel to Washington, D.C. to face off against teams from around the country. "My team is amazing," coach Angela Morris said. "They study hard, practice for hours each week and have fun together. I am very proud of them and they are going to represent Colorado and PSD well." Students on the Preston team still remember the excitement they felt when they clinched their spot at Nationals.

"We were like, screaming up and down (when we won)," Preston seventh-grader Sophie Wang said.

The Preston Science Bowl team met after school every week, drilling each other with practice questions. Even when the questions are difficult, and the practices go long, it's hard to miss the glee in the room, as these students gear up for their next competition.



## **Students develop space experiments with astronaut Dottie Metcalf-Lindenburger**

Students in PSD had a unique chance to work with an astronaut from their hometown while also competing for the opportunity to have their own experiment launched into space. The Go For Launch! program, held at Fort Collins High School fall 2017, attracted 55 students interested in space and science. The three-day event was brought in by [Higher Orbits](#), a nonprofit that promotes leadership and STEM (science, technology, engineering and math) skills.

During the workshop, student teams collaborated and developed proposals for space experiments. One proposal was selected to move on to be judged by a team of NASA and Aerospace industry engineers against the three other winners from Go For Launch! competitions in Illinois, Ohio, and Arizona. The overall winning experiment will be launched into space and be on board the International Space Station for a minimum of 30 days.

The winning experiment selected at the FCHS Go For Launch! event involves studying zucchini in space and the effects of microgravity and radiation on decomposition. The idea came from FCHS students Ashley Zhou, Jen Siripachana, Bibiana Delacruz-Stewart, Catherine Liu, Maggie Hubbeling, and Megan Liu. The goal of their experiment is to use the data to create more efficient ways of decomposing waste, creating environmentally friendly energy sources, and increasing public awareness of the space program.



“Ever since I was a kid, I’ve read books about astronauts...Growing up in Colorado, I spent a lot of time outside...watching the stars and finding constellation,” said Hubbeling, who hopes to study aerospace engineering in college and eventually work for NASA. For FCHS junior Elijah Willas, the weekend space study helped him learn more about his interests. After graduation, he plans to attend college and then wants to shoot for working at NASA.

“I’ve been interested in NASA since the second grade,” said Willas. “I love the idea of geology in space.”

A highlight for all students was having astronaut and 1993 Fort Collins High graduate [Dottie Metcalf-Lindenburger](#) talk about her 15 days in space and how she reached her dream of becoming an astronaut. Growing up, she loved science and attended Space Camp. At Boltz Junior High, she made a model of the Space Shuttle Discovery. Twenty years after she made the space shuttle model she found herself on board that very vehicle she made a replica of, on her way to the International Space Station.

FCHS science teacher Rick Blas, who helped coordinate the Go For Launch! event, said it was a great experience for the students to be able to work with Metcalf-Lindenburger.

“It’s a once in a lifetime opportunity to work with an astronaut who flew on a space shuttle,” said Blas. “She’s the first Lambkin in space and I hope she won’t be the last.”

Dottie Metcalf-Lindenburger flew as a Mission Specialist on STS-131 and served as Commander of NASA’s Extreme Environment Mission Operations (NEEMO) 16 mission. She is one of four educator astronauts to fly in space and continues to be an active advocate for STEM programs. To learn visit <http://www.astronautdorothymetcalfindenburger.com/>



## **Live the life you love, love the life you live**

Positive messages greet girls when they walk into a dressed-up bathroom at Boltz Middle School. The motivational messages, scripted in cursive, adorn the bathroom walls and doors alongside pictures of butterflies, birds and pretty, framed mirrors of all sizes.

"I like going in here better now. It's really empowering," said Hannah Boday, eighth grader. "It shows us that the teachers really care about us and that you're you and shouldn't feel bad about that."

Hannah's credit goes to a group of teachers and counselors at Boltz who decided to do something special for girls by transforming a typical plain school bathroom into a room to empower them.

School counselor Christy Chappell first saw a similar project on Facebook and talked about it with counselor Deb Morrison and math educators Stacy Elder and Megan Campain. Knowing that middle school is often a time when girls develop issues with body image and self-esteem, they were instantly invested.



"We are always looking at ways to give positive messages to all students—but especially the girls," said Chappell. "It's so important at this stage for them to know they are perfect just the way they are."

With only a few days and a small budget, they came up with a plan. Statements encouraging girls to "Be your own kind of beautiful" and "Follow your dreams" were created using adhesive letters. Mirrors and inspiring plaques were lined up above the sinks.

"We were strategic about where we posted the messaging," stated Campain, citing a message on one mirror that requires girls to peer through the affirmation to see their reflections.

Hannah and Annie Sullivan, another eighth-grader, are especially appreciative of the efforts. As mentors with the WEB (Where Everybody Belongs) program, they help sixth- and seventh-grade students transition into middle school and know how difficult it can be.

"It's nice to walk into the bathroom and see how pretty it is," said Annie. "All the messages are so inspirational. All of the girls were like, 'Oh, look at this one! Oh, look at this one!'"

Long before this project, Boltz has been creating a positive and affirming environment through messaging directed at the students. Last year, students arrived at school one day to find sticky notes posted all over the walls and window outside the Wellness Center. Each one had a positive message on it. Students were encouraged to take them and re-stick them where they could see the message often.

"Kids had them inside their laptops and lockers—it was awesome," remembered Mrs. Morrison.

Not wanting to leave the boys out, plans are in the works to redo a boys' bathroom with inspirational quotes from sports heroes and historical figures.



## **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.

### **Prestigious Senior Scholarships**

- **U.S. Presidential Scholar:** Chelsea Wang, Fossil Ridge High School
- **U.S. Military Academy Appointments** - Joseph Elson, Taylor Marzolf, Madelyn Bennet; United States Air Force Academy - Monique Roche, Poudre High School
- **Daniels Fund Scholars:** Laura Rencher, Liberty Common High School and Grace Wankelman, Poudre High School
- **National Merit Scholar Finalists:** National Merit Scholars are selected from the finalists group.  
Genna Campain, Fort Collins High School  
Eunice Chen, Fort Collins High School  
Catherine Liu, Fort Collins High School  
Ashley Zhou, Fort Collins High School  
Chelsea Wang, Fossil Ridge High School  
Emma Daharsh, Liberty Common High School  
Catherine Molenaar, Liberty Common High School  
Perry Nielsen, Liberty Common High School  
Sedang Park, Liberty Common High School  
Samantha Burrell, Poudre High School  
Jenna Gorham, Poudre High School  
Jana Jones, Poudre High School  
Daniel Kang, Poudre High School  
Grace Kenyon, Poudre High School  
Kelsey Straw, Poudre High School  
Tyler Joseph Dunaisky, Ridgeview Classical Schools  
Joseph Elson, Rocky Mountain High School  
Jace Fulton, Rocky Mountain High School
- **Boettcher Foundation Scholars:**  
Jay Chandra, Fossil Ridge High School  
Anuja Gore, Fort Collins High School  
Shreya Pandit, Fossil Ridge High School  
Maddison Schink, Poudre High School  
Chelsea Wang, Fossil Ridge High School
- **National Hispanic Scholar** - Perry Nielsen, Liberty Common High School; John McLaurin, Rocky Mountain High School

## Music and Art Honors

- **ASTA 2019 National Orchestra Festival** - The Boltz Middle School Chamber Orchestra, under the direction of Melissa Claeys, and the Rocky Mountain High School Symphony Orchestra, under the direction of Courtney Dowling, have been selected to perform at the American String Teachers Association (ASTA) 2019 National Orchestra Festival in Albuquerque in March 2019. These ensembles are among a select group of school orchestras invited to perform.
- **Colorado Bandmasters Association (CBA) State Concert Band Festival** - Fort Collins HS Symphonic Band (David Miles, director) - rated Excellent; Rocky Mountain Winds (Scott Schlup, director) - rated Superior; Fossil Ridge High School Wind Symphony (Daniel Berard, director) - rated Superior with Distinction
- **CBA Metro Regional Festival** - 8th Grade Symphonic Band (Loni Obluda and Sarah Romero) - rated Superior
- **Northern Colorado ASTA Regional Festival** - Leshar Middle School 8th Grade Orchestra and Advanced Chamber Orchestra - both received Superior ratings
- **Carnegie Hall Performances** - Kinard Middle School choirs (Scott Wheeler) performed at Carnegie Hall in May, working with British composer Alexander L'Estrange. Poudre High School's Impalaphonics performed a "Spotlight" performance at Carnegie Hall in April
- The **Kinard Symphonic Band**, under the direction of Mike Perez, recently performed at the Music 4 All National Festival in March, where they also attended workshops. The band was one of seven middle school ensembles selected nationwide to perform at the festival.
- **Scholastic Art Awards National Silver Medal Winner** - Dakota Pendleton, Rocky Mountain High School

## Science, Math and History State Championships and Honors

- **Fossil Ridge High School Science Olympiad Team wins state championship**
- **Preston Middle School Science Olympiad Team wins state championship**
- **Fort Collins High School Ocean Bowl Team state champions** - Nathan Sima, Larry Chen, Antonio Izzo and Suhaas Narayanan
- **Fort Collins High School Science Bowl Teams state champions** - Nathan Sima, Larry Chen, Suhaas Narayanan, Henry Cafaro and Edward Lim
- **Preston Science Bowl state champions** - Dustin Mock (8th), Ethan Lin (8th), Lucas Mellinger (8th), Sophie Wang (7th), Jackson Dryg (6th) and Coach Logan Burke
- **Fort Collins High School History Bowl/Bee state champions** - Brooke Kron, Henry Cafaro (placed first in the individual junior varsity event), Luka Robenalt (placed first in the individual varsity event), Lincoln Brandt, Doug Ringer and Coach Connor Payne

## Outstanding Extra-Curricular Accomplishments

- **Colorado State Chess Association Scholastic State Championships** –Ridgeview Classical School Chess Team (K-8): Alexander Marsh, Jack Nauman, Aiden Sirotkine, Damian Yanez, Daniel Yanez, Coach Gunnar Anderson
- **PSD spelling bee winner** - Rahul Ghosh, Kinard Middle School

## 2017-18 Athletic Awards

- **#1 Single Girls State Tennis Champion:** Ky Ecton, Poudre High School
- **5A State Shot Put Champion 5A State Discus Champion:** Gabby McDonald- Rocky Mountain High School
- **5A State Long Jump Champion:** Micaylon Moore, Fort Collins High School
- **5A State Triple Jump Champion:** Allam Bushara, Fort Collins High School
- **5A 200 IM state swim champion 5A 100 Fly sState Swim Champion:** Danny Kovac, Fossil Ridge High School
- **5A 100 Free State Swim Champion:** Matt Geraghty, Fossil Ridge High School
- **5A Wrestling State Champion 145 lb:** Jacob Greenwood, Poudre High School
- **4A Girls Swimming Individual State Champion:** 100 Butterfly and 100 backstroke - Audrey Reimer, Fort Collins High School
- **5A Girls Swimming State Champions: State Team Champions** - Fossil Ridge High School Girls Swim Team
- **200 Free FRHS Relay Team State Champions** – Andrea Niemann, Coleen Gillilan, Caraline Baker, Madeline Mason
- **200 Medley FRHS Relay Team State Champions** – Kylee Alons, Bayley Stewart, Zoe Bartel, Coleen Gillilan
- **400 Freestyle FRHS Relay Team State Champions** – Kylee Alons, Bayley Stewart, Zoe Bartel, Caraline Baker
- **5A Girls Swimming Individual State Champions:**
  - **50 Freestyle and 100 Freestyle** – Kylee Alons, FRHS
  - **100 Backstroke** – Bayley Stewart, FRHS
  - **200 Individual Medley and 100 Breaststroke**– Zoe Bartel, FRHS
  - **200 Freestyle and 100 Butterfly** – Coleen Gillilan, FRHS

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 level experiences, accomplishments and public 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.*

To gather information regarding student connections, the PSD Student Connections Survey was delivered to all 4th-12<sup>th</sup> grade PSD students during October and November of 2018. 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 the second and third annual administrations of the Student Connections Survey, Social Emotional Learning (SEL) subscale items were included. Prior to the second administration of this survey PSD had added a couple of additional open-ended items regarding graduation expectations for 6<sup>th</sup>-12<sup>th</sup> grade respondents and interests and passions for all grade levels. Due to the Student-to-Interests subscale change from 2016 to 2017, results for this subscale are displayed for 2017 and 2018 only. The Student-to-Interests subscale data is comparable across 2017 and 2018. All other Connection Survey data is comparable across all three years.

Individual student responses do not become part of a student's educational record. There are two areas on the 6<sup>th</sup>-12<sup>th</sup> 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.

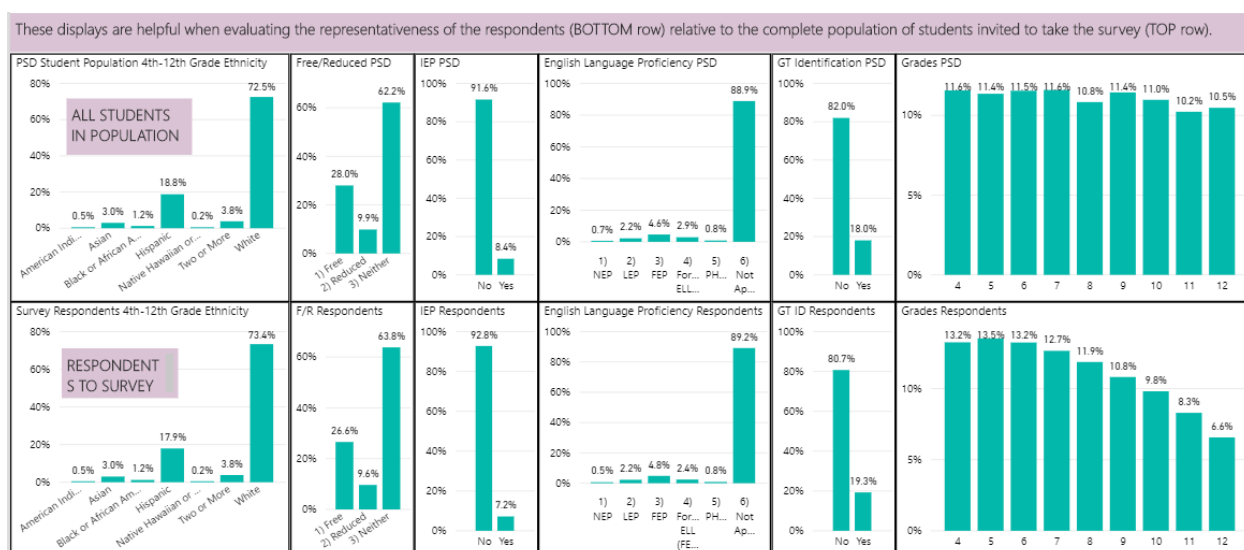
The version of the survey given to middle and high school students included multiple-choice and open-ended (free-response) items. Demographic questions were not needed as the survey was delivered via student email accounts and this allows for PSD to merge in demographic information based on student IDs. 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 2018/19 response rates were 92.7% (elementary, up from 88%), 88.2% (middle school, up from 82%), and 65.3% (high school, up from 61%). Responses were collected from approximately 15,000 students (up from approximately 14,270 in the prior year).

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 all three years of the 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.

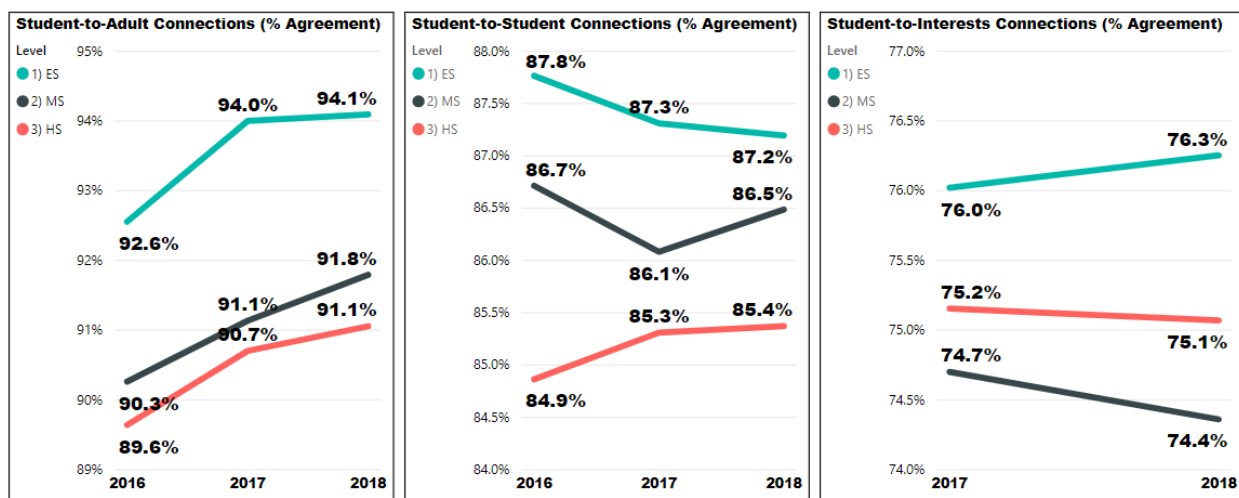
**4) Integrate New Insights Into Your School Improvement Efforts**

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 of 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.



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

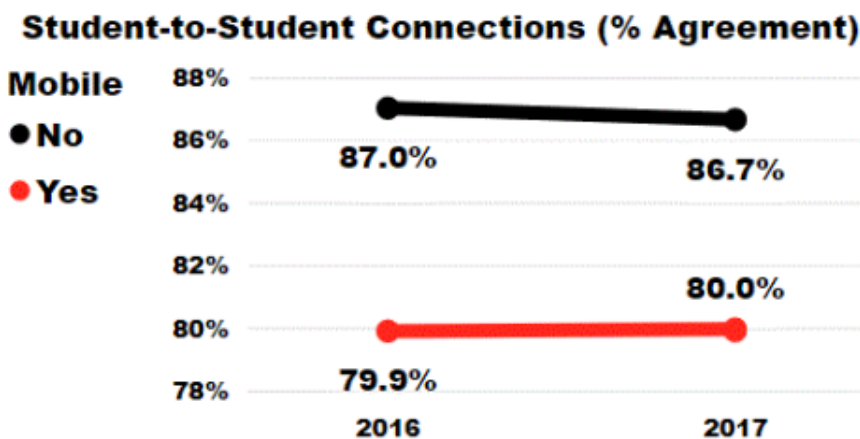
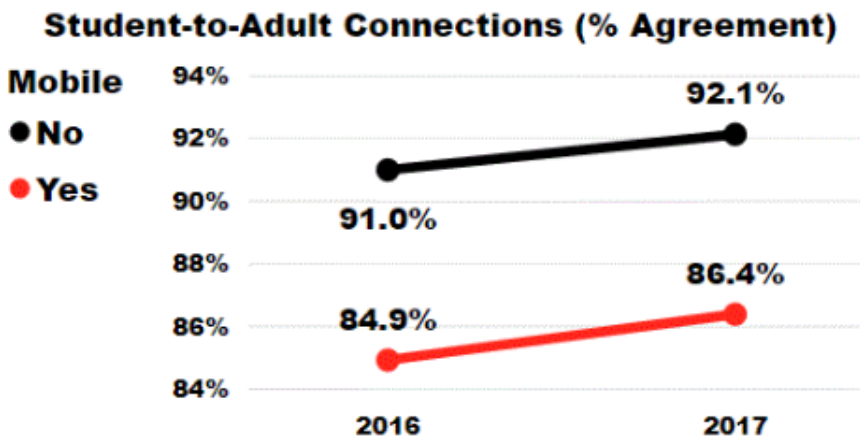
**Met Target in 2017/18?** No, the target is not hit for each of the three subscales. Note that the target is hit for the Student-to-Adult Connections subscale in 2017/18, and all three levels (ES, MS, HS) show gains for this important subscale when compared to 2016/17 and 2015/16 results.

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 three 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 an efficient way to report out on the Connections Survey in a meaningful way. That data visualization tool can be accessed by clicking [STUDENT CONNECTIONS](#).



### Selected Insights/Actions:

Patterns of student connection are evident based on student mobility with mobile students showing lower levels of self-reported connections to adults and peers while at school. Although PSD staff may not be able to directly intervene on all factors driving student mobility, the awareness of these student connection associations/patterns may prompt PSD staff to explore methods for reducing the negative impact of mobility on student connections.

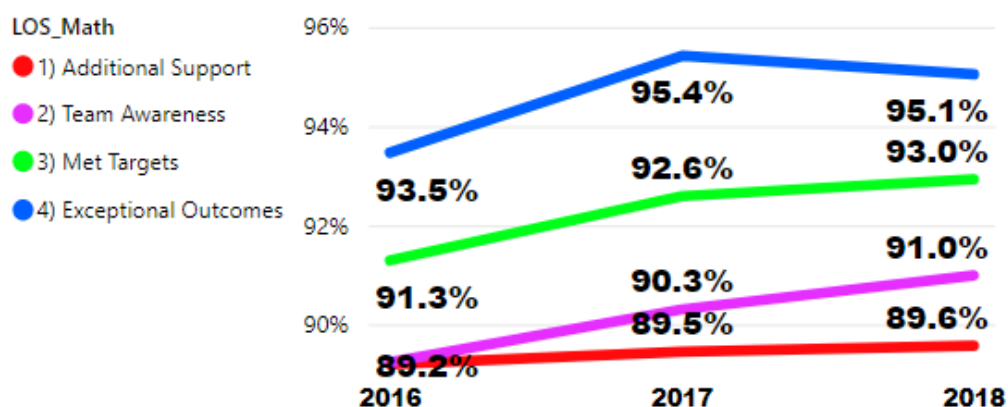


Patterns of student connection are evident based on the “Levels of Support” student groups. PSD has developed a data visualization tool, Levels of Support, which allows for a shared understanding districtwide regarding which PSD students are most in need of additional academic support in English/Language Arts and Math. This shared understanding is based on a body of evidence from the prior academic year for each returning student. Outcomes for the 2018 Connections Survey are from the 2018/19 school year, and hence we do not have the mobility data from this current school year available at the time of writing this report (February of 2019).

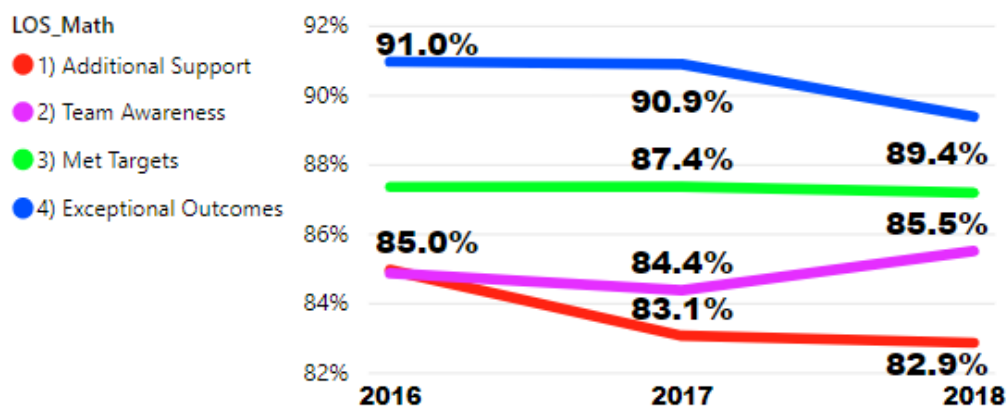


Recall that there is a very strong pattern of increasing self-reported feelings of student connections to adults in school, peers, and interests/passions as students achieve at higher levels based on multiple prior year assessments. This strong pattern is evident at elementary, middle, and high school 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.

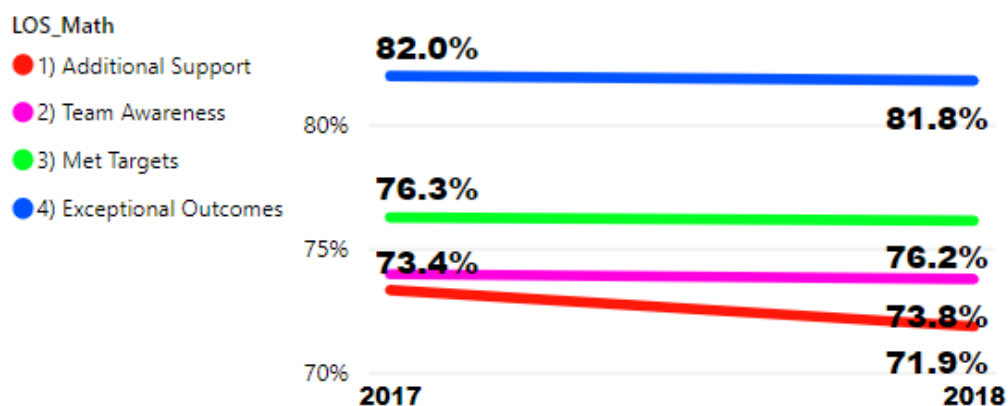
#### Student-to-Adult (% Agreement) by Level of Support\_Math



#### Student-to-Student (% Agreement) by Level of Support\_Math

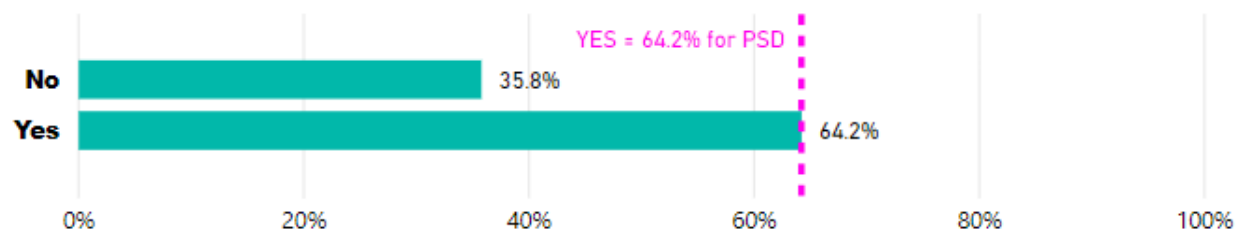


#### Student-to-Interests (% Agreement) by Level of Support\_Math

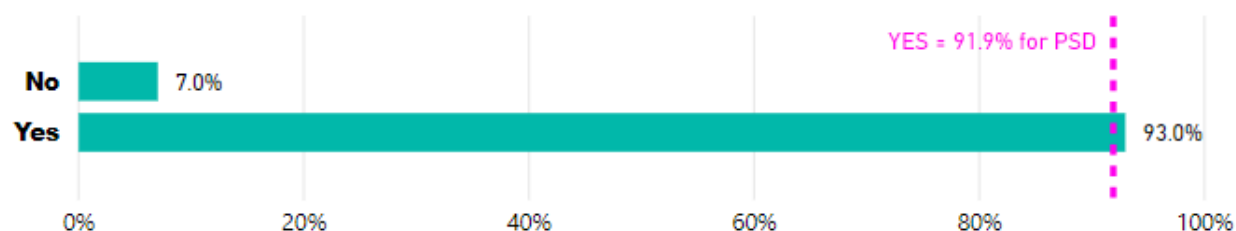


For the second year in a row, students self reported that perceived support/interest from adults in exploring and shaping students hopes and plans for their future is much lower in reference to PSD staff when compared to parents, guardians, and friends. Additionally, the overall rate of approximately 1/3 of students responding “No” to the item depicted below is higher than it might be with intentional action.

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



**Parent/Guardians/Friends played key role exploring/shaping hopes/plans for your future.**

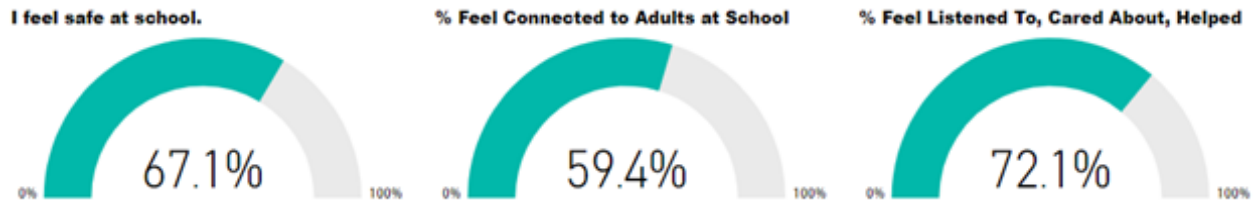


The outcome was very similar in 2016/17 (36.7% indicated “No” to this item on the Connections Survey). This outcome seems to suggest that staff can focus on increasing the number/percentage of “Yes” responses over time by intentionally engaging students in conversations about their interests and hopes 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.

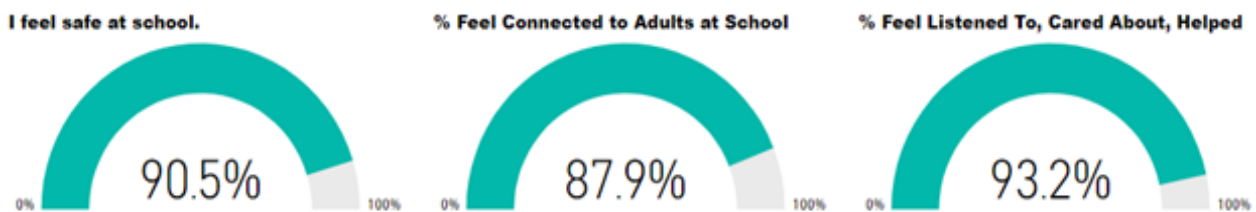
The idea behind these measures is deceptively simple. If there are systematic differences in the number and types of people actively supporting our students in forming a positive image of their future possibilities, we may be able to expand these networks of support. Recall that the Student Connections 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 (564 students) indicates that 59.0% 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.

For this same group of 564 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 564 students (grade 6-12) that indicated they do not know if they will graduate from high school.



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



## 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 led to two years (2015 and 2017) where PSD on-time graduation rates hit 78.6%. Meanwhile, state wide graduation rates steadily climbed and even exceeded the PSD rate in 2017. With the Class of 2018 PSD sees a dramatic change in this trend hitting a graduation rate of 84%. Several data informed actions and sustained leadership efforts at the school level are likely to be key factors in the graduation rate increase. The actions of individual teachers, counselors and administrators as well as the PSD student population are ultimately what impacts the successful conclusion of each students PreK-12 journey. PSD dropout rates have declined by 0.3% to hit 1% in 2017/18. Special populations of students such as Hispanic students and students eligible for free or reduced lunch prices are experiencing lower graduation rates than their PSD peers and lower graduation rates than their like-peers statewide.

High schools with the lowest graduation rates have the highest mobility rates. Higher instances of student mobility and lower levels of school attendance are factors that work against attaining high levels of academic outcomes. These same two factors have been associated with lower levels of self-reported feelings of connection with adults at school, peers at school, and connections to interests and passions while at school. Although these relationships may seem obvious to the average community member and PSD educator, PSD now has longitudinal measures of these important student success factors within our student population and can see patterns that can be leveraged in support of student success. It appears that attendance rates are declining statewide and locally, even at the elementary level. Mobility rates declined statewide due to a change in the calculation methodology. PSD presents a careful analysis of mobility rate disparities in this Monitoring Report and finds that the mobility rate disparity as a percentage of the general population mobility rate increased dramatically for students eligible for free or reduced lunch prices and for Hispanic students. This is an important finding to point out as PSD continues to see higher mobility rate disparities for local populations of student groups associated with lower graduation rates and other markers of academic success when compared to statewide like -peers. The change in the calculation method for mobility rates could lead the unwary observer to conclude that mobility issues are dissipating when in fact they are growing. Mobility may have contributing factors that are within the zone of influence for multi-agency cooperative efforts of an interested community.

There is very little evidence to suggest that shifting demographics are a factor in explaining changing graduation, attendance, or mobility rates. All PSD student characteristic proportions have remained very stable over the past five years.

PSD students continue to have high levels of overall academic achievement. The z-score methodology indicates that PSD students demonstrate measurably higher performance than grade level academic peers. Evidence from the TS GOLD, DIBELS Next, NWEA MAP, CMAS, 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. Students supported with an Individual Education Plan (IEP) have levels of achievement on the CMAS, PSAT, and SAT assessments in English language arts and math that are generally at or below statewide peers for the past several years. Other subgroups such as minority students, English language learners, free/reduced lunch eligible students, and students identified as gifted and talented have state assessment achievement outcomes that exceed their respective statewide like-peer groups. The additional analysis PSD provides using z-scores illustrates that traditional achievement gaps between special groups of students and the overall student population persist.

Student growth as measured by the Colorado Growth Model as well as the PSD analysis of z-score gains indicates some higher growth areas and some lower growth areas. There is not as much consistency in student growth as there is when looking at student achievement. An example is provided in middle school English language arts which was an area of low growth in 2016/17, but in 2017/18 the growth results were very close to the state norm. Overall in 2018, CMAS growth results were stronger in math than in language arts, but for the PSAT taken in 9<sup>th</sup> and 10<sup>th</sup> grades language arts had better growth outcomes. Student growth at the elementary level is very high overall and for all subgroups. In 2018 PSD students supported with an IEP exhibited growth based on the Colorado Growth Model that was as high or higher than their statewide peers except on the math PSAT.

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 three successive years of connections data we see gains in the student-to-adult connections. We also see very reasonable patterns in the connections data such as clear differences in outcomes across student groups. These clear patterns that have sustained across three years of gathering connections data reinforces the validity and leadership value of the information students are providing us. Key take-aways are that students with the lowest levels of past academic performance also self-report the lowest levels of feeling connected to others at school. The five key postsecondary outcomes being used in this Monitoring Report do have statewide norms that support the claim of PSD students experiencing above average success once they transition to the next level of their education.

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 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, English language learners, and Hispanic students (although Hispanic student disparities reduce substantially once economic status and language learner status are controlled for). 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. 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 DE 1.0 Monitoring Report includes direct indicators of where 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 2017/18 Attendance Rate w/ Charters: 93.0% (down 0.2 percentage units from 93.2%)

PSD 2017/18 Attendance Rate w/o Charters: 92.9% (down 1.1 percentage units from 94.0%)

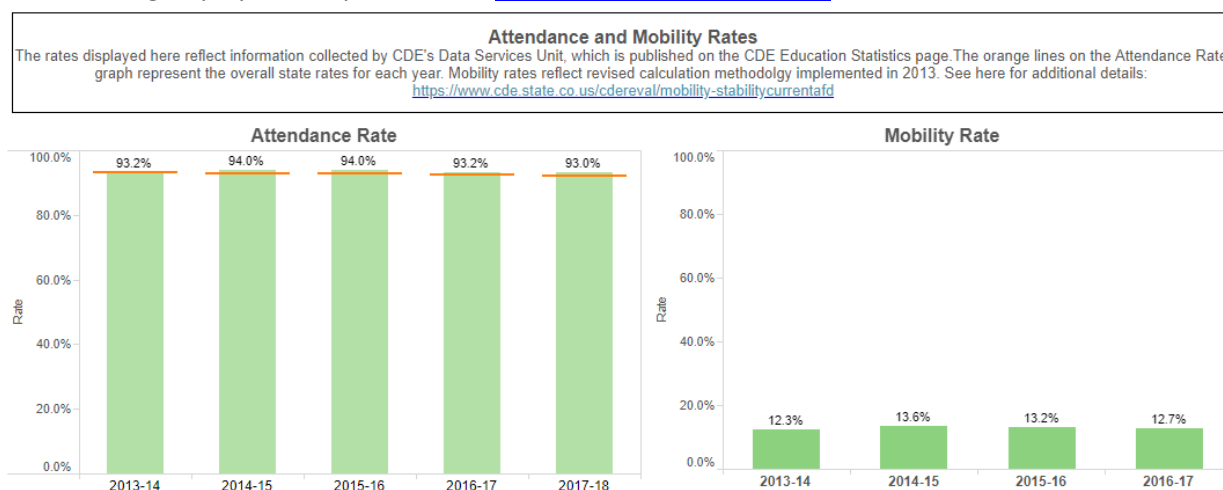
State 2017/18 Attendance Rate (All Schools): 92.5% (down 0.4 percentage units from 92.9%)

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

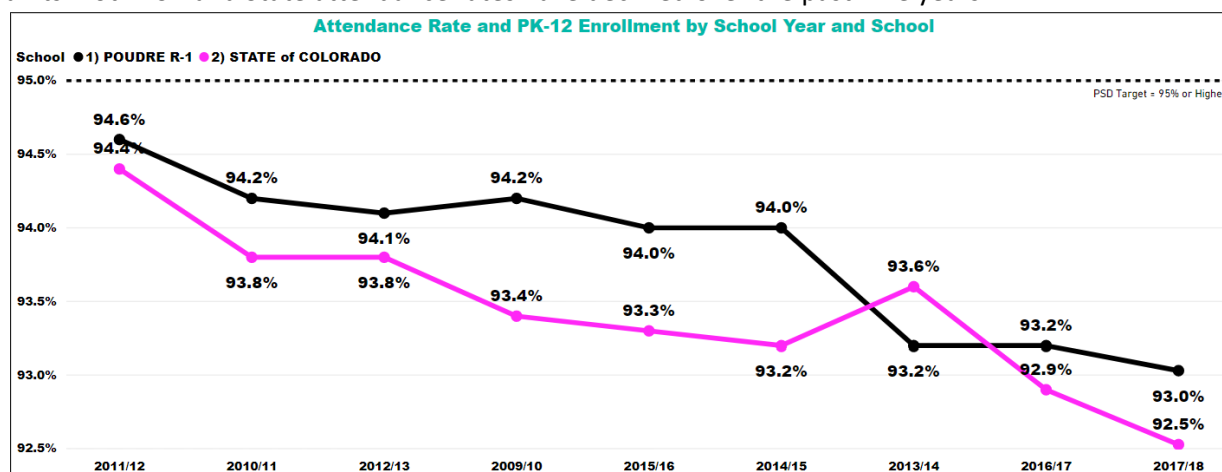
Attendance Rate = Total Student Days Attended divided by the Total Student Days Possible

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 report within System Insight that allows one to explore attendance outcomes over time. To interact with the PSD developed attendance data visualization tool for districts and schools statewide please click [ATTENDANCE](#). The 2017/18 PSD attendance rate is higher than the overall state rate by 0.5% units. Both PSD and State attendance rates have declined over the past nine 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 calculates the attendance percentage for each individual student and has a sophisticated process for tracking these data and making the data available to staff via data visualization reports in Student Insight. PSD cannot share a link to these tools with the public, but we can share the following aggregated outcomes which are pulled directly from Student Insight.

When looking at just non-charter PSD schools, we see that there are not substantial gender differences in attendance, but there are differences by grade level, ethnicity, IEP status, and identified needs for academic support based on prior performance outcomes. Students identified as candidates for Additional Support (in both math and ELA), students supported with an IEP, and American Indian students are subgroups with the largest attendance disparities as well as having the largest drops in attendance rates from the prior year. The attendance decreases we see in PSD overall, are evident for virtually every subgroup of students as evidenced in the final column of each attendance tables displayed below. We see that elementary students have not hit the PSD attendance target for the first time in many years. Asian students, and "Exceptional Outcome" students in math (based on the "Levels of Support" system) are the only two subgroups that met the PSD attendance target of 95% in 2017/18.

**Attendance Percentage by Level 2017/18**

Level	Attendance %	Attendance Change from General PSD Population Same Year	Attendance Change from Same Subgroup Prior Year
Elementary Schools	94.9%	2.0%	-0.3%
Middle Schools	93.1%	0.2%	-0.3%
High Schools	92.9%	0.0%	2.1%
<b>PSD Overall Rate</b>	<b>92.9%</b>		

**Attendance Percentage by Gender 2017/18**

Gender	Attendance %	Attendance Change from General PSD Population Same Year	Attendance Change from Same Subgroup Prior Year
Male	92.9%	0.0%	-0.7%
Female	93.0%	0.1%	-0.4%
<b>PSD Overall Rate</b>	<b>92.9%</b>		

**Attendance Percentage by Ethnicity 2017/18**

<b>Ethnicity</b>	<b>Attendance %</b>	<b>Attendance Change from General PSD Population Same Year</b>	<b>Attendance Change from Same Subgroup Prior Year</b>
Asian	95.4%	2.5%	-0.5%
Black	90.7%	-2.2%	-2.8%
Hawaiian/Pacific	93.4%	0.5%	0.4%
Latino/Hispanic	90.5%	-2.4%	-0.8%
Indian / Alaskan	87.6%	-5.3%	-2.4%
Multi Race	93.4%	0.5%	-0.5%
White	93.5%	0.6%	-0.4%
<b>PSD Overall Rate</b>	<b>92.9%</b>		

**Attendance Percentage by IEP Support 2017/18**

<b>IEP</b>	<b>Attendance %</b>	<b>Attendance Change from General PSD Population Same Year</b>	<b>Attendance Change from Same Subgroup Prior Year</b>
Yes	89.9%	-3.0%	-1.1%
No	93.2%	0.3%	-0.5%
<b>PSD Overall Rate</b>	<b>92.9%</b>		

**Attendance Percentage by Math Level of Support 2017/18**

<b>Level of Support</b>	<b>Attendance %</b>	<b>Attendance Change from General PSD Population Same Year</b>	<b>Attendance Change from Same Subgroup Prior Year</b>
Additional Support	89.1%	-3.8%	-1.5%
Team Awareness	92.5%	-0.4%	-0.6%
Met Targets	93.8%	0.9%	-0.6%
Exceptional Outcomes	95.3%	2.4%	-0.6%
<b>PSD Overall Rate</b>	<b>92.9%</b>		

**Attendance Percentage by ELA/Reading Level of Support 2017/18**

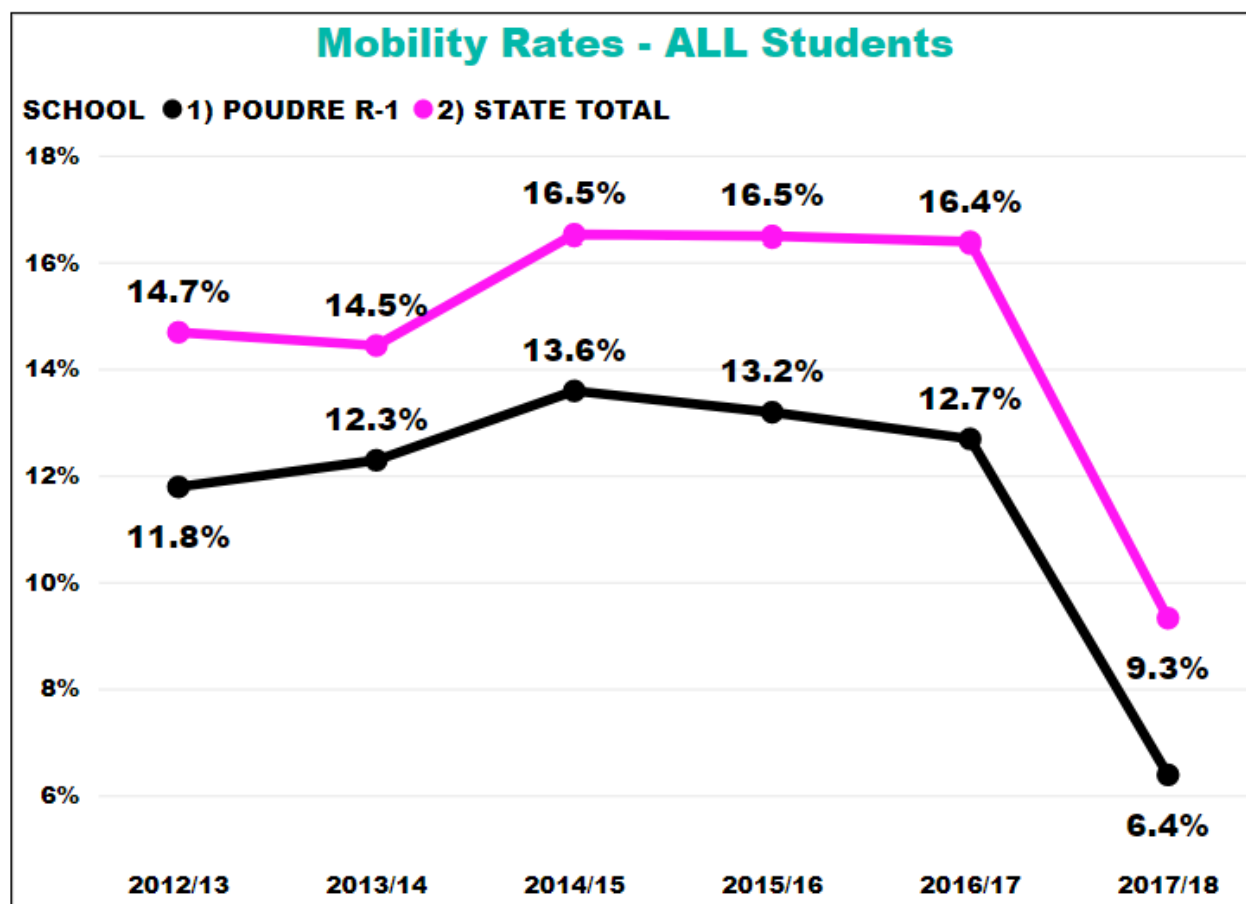
<b>Level of Support</b>	<b>Attendance %</b>	<b>Attendance Change from General PSD Population Same Year</b>	<b>Attendance Change from Same Subgroup Prior Year</b>
Additional Support	89.7%	-3.2%	-0.9%
Team Awareness	92.8%	-0.1%	-0.8%
Met Targets	93.8%	0.9%	-0.6%
Exceptional Outcomes	94.8%	1.9%	-0.6%
<b>PSD Overall Rate</b>	<b>92.9%</b>		

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. **The mobility calculation timeframe was modified in the 2017-2018 school year** so that only entries and exits that occur from the October Count date to the end of the school year are included in the calculation. Students must have a gap in attendance of more than 10 days for a move to be considered mobile. **This change lowers mobility rates relative to prior years.** The PSD student mobility rate for all students considered collectively has been below the state's rate and decreasing over the past several years. In the same timeframe, the state mobility rate has remained consistent at about 16.5%. The drops we see in both the state's rate and PSD's rate in 2017/18 are dramatic due to the changes in calculation method. The more important insights for PSD are attained by looking at mobility rate disparities for specific populations.

For more information on the mobility rate calculation see the following link.

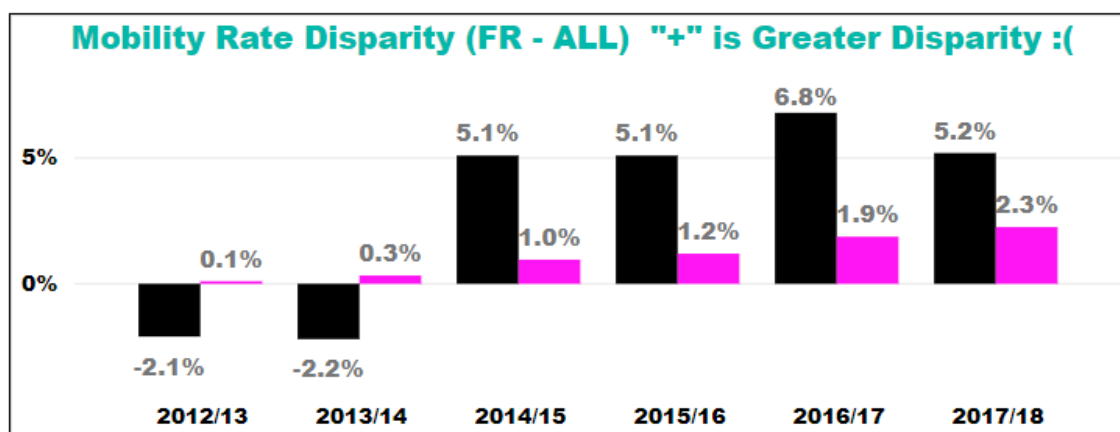
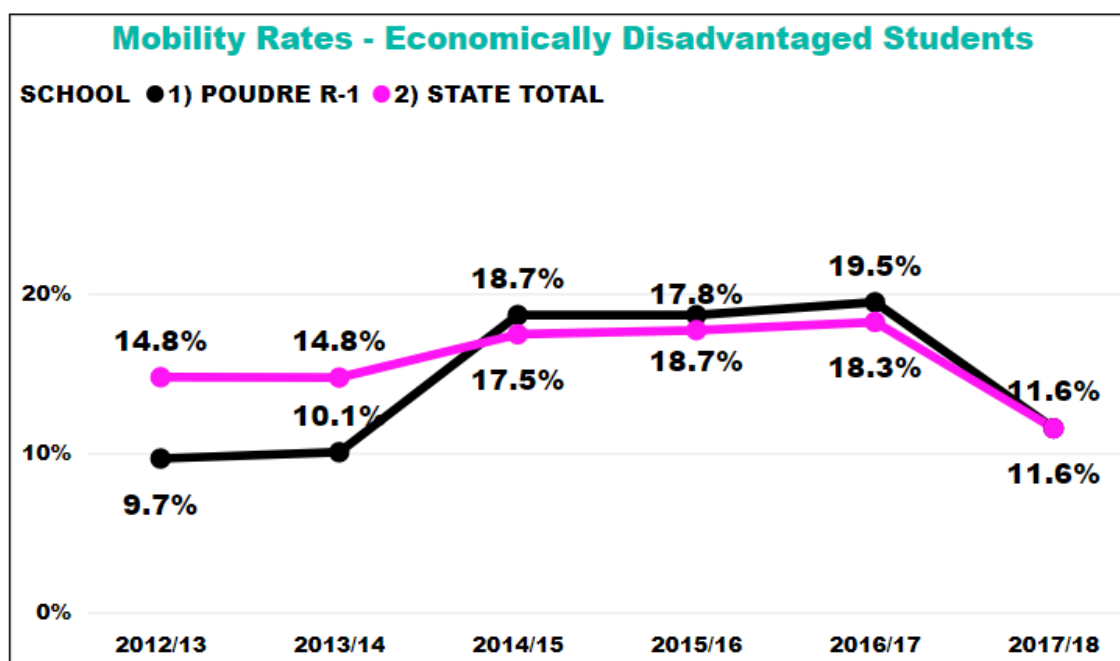
<http://www.cde.state.co.us/cdereval/mobility-stabilitycurrent>

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.

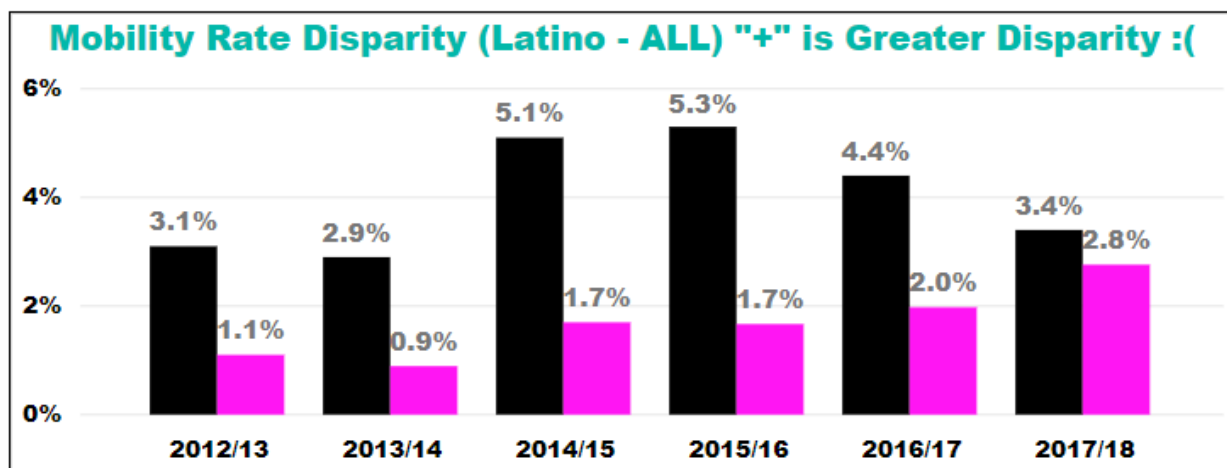
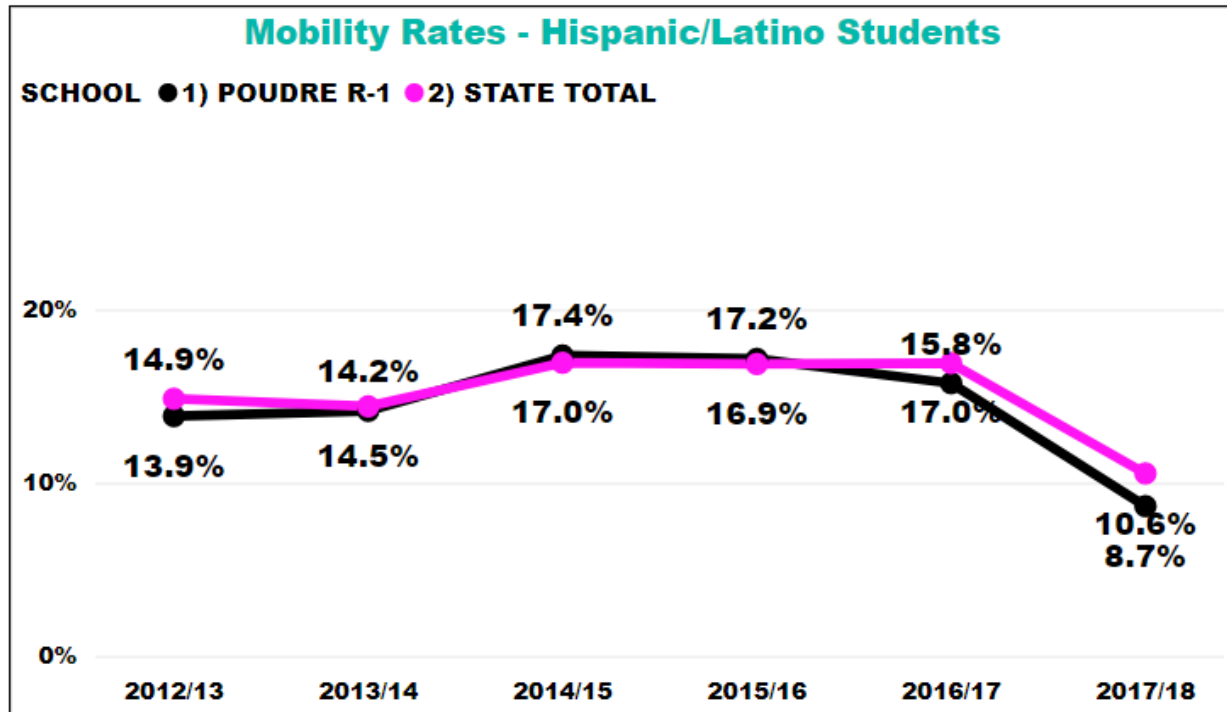


When we look at the mobility rates for some of PSD's student populations, we see differences in levels of mobility and different trends. As an example, students eligible for free or reduced meal prices have had mobility rates climb to 18.7%, 18.7%, and 19.5% in 2014/15, 2015/16, and 2016/17 respectively. 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, 6.8% units in 2016/17, and 5.2% units in 2017/18. This "gap" in mobility rate between two populations of students is termed "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.

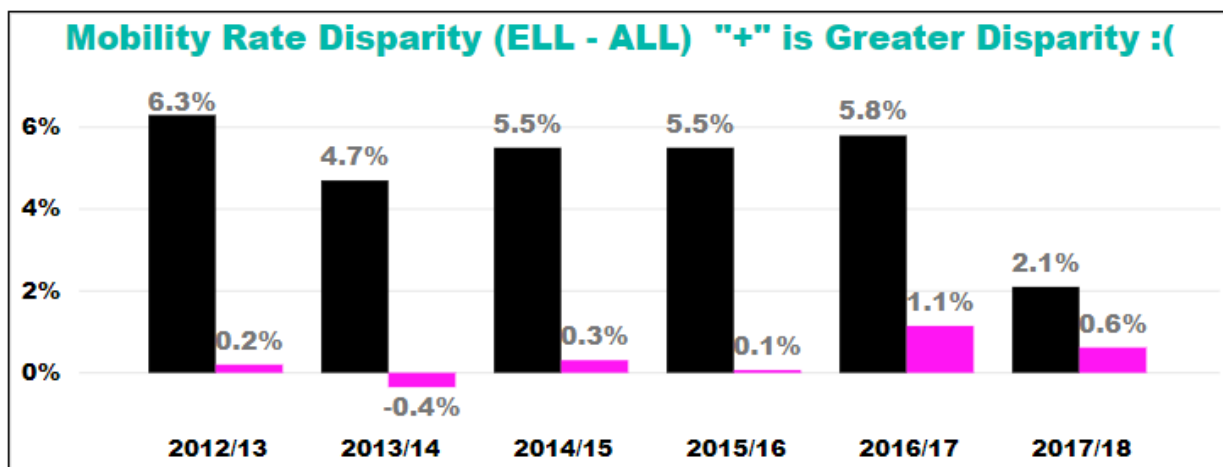
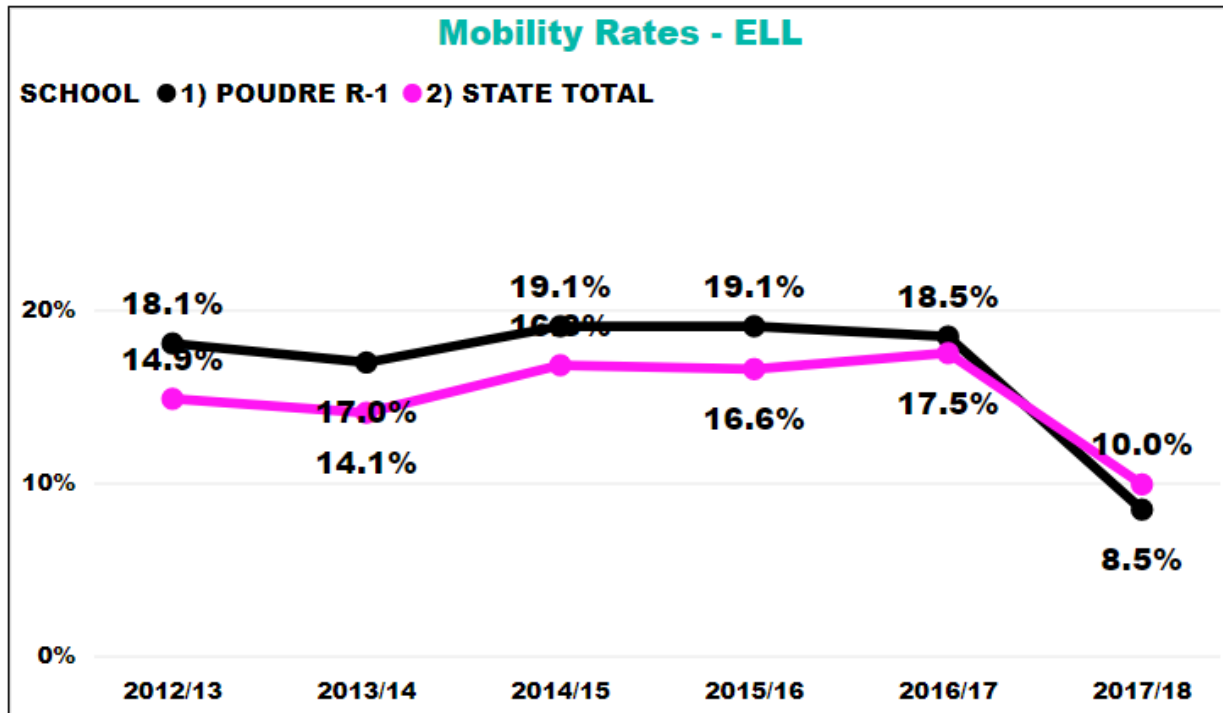
The 5.2% mobility rate disparity for PSD students eligible for free or reduced lunch in 2017/18, represents an 81.3% increase in the mobility rate between the general population and the students eligible for free or reduced lunch. It is important to note that the mobility rate disparity as a percentage of the general population mobility rate increased dramatically from 2016/17 (53.5%) illustrating that while the line graph below shows downward movement in mobility rate (due to a new formula), the disparity for Free/Reduced Lunch as a percentage of the PSD mobility rate increased in 2017/18.



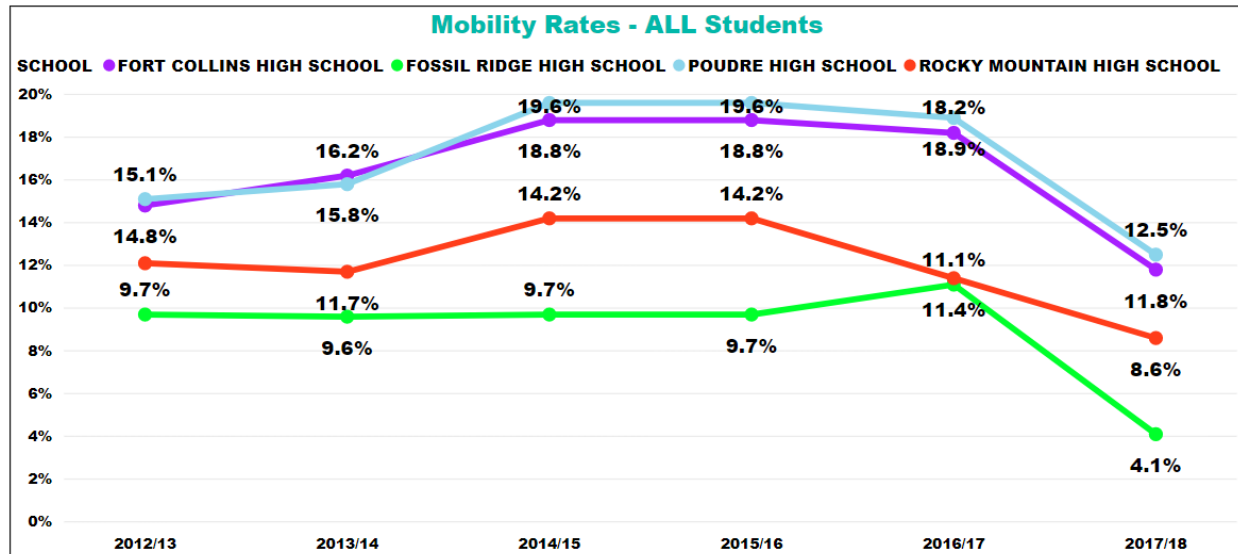
A similar view of mobility emerges for other populations such as Latino students. The 3.4% mobility rate disparity for Hispanic PSD students in 2017/18, represents an 53.1% increase in the mobility rate between the general population and Hispanic students. Again, we see that, that the Hispanic mobility rate disparity as a percentage of the general population mobility rate increased dramatically from 2016/17 (34.6%) illustrating that while the line graph below shows downward movement in mobility rate (due to a new formula), the disparity for Hispanic students as a percentage of the PSD mobility rate increased in 2017/18.



Students that are identified as English language learners (ELL) are also showing high levels of mobility. The 2.1% mobility rate disparity for English Language Learners (ELL) students in 2017/18, represents an 32.8% increase in the mobility rate between the general population and ELL students. The ELL mobility rate disparity as a percentage of general population mobility rate decreased from 2016/17 (45.7%) but remains high.



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.

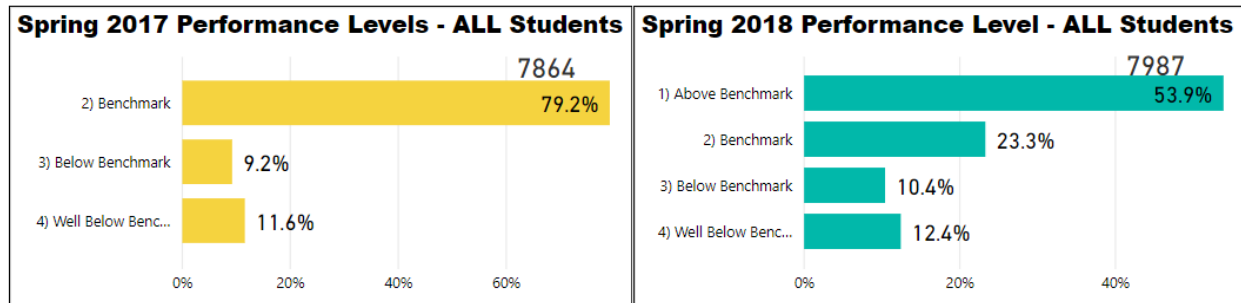




## Appendix 2: Early Literacy

Early Literacy Target: ≥ 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 4 years as of 2017/18. For the past two years, about 80% of kindergarten through 3<sup>rd</sup> grade students have met the end-of-year benchmark. The following view is pulled from System Insight and shows the overall performance level outcomes across the most recent two years.



**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%	<b>At or Above Benchmark Change</b>
	1	22.4%	13.9%	63.6%	
	2	14.6%	7.7%	77.8%	
	3	16.4%	8.0%	75.7%	
	<b>Total</b>	<b>17.6%</b>	<b>10.8%</b>	<b>71.5%</b>	
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%
	<b>Total</b>	<b>11.2%</b>	<b>9.2%</b>	<b>79.6%</b>	<b>8.1%</b>

**DIBELS Next Criterion Referenced Outcomes - 2017/18**

Test Session	Grade	Well Below Benchmark	Below Benchmark	At or Above Benchmark	
Beginning of Year	K	15.9%	14.1%	70.0%	<b>At or Above Benchmark Change</b>
	1	24.5%	15.5%	59.9%	
	2	15.7%	9.3%	75.0%	
	3	15.9%	7.9%	76.2%	
	<b>Total</b>	<b>18.0%</b>	<b>11.7%</b>	<b>70.4%</b>	
End of Year	K	7.9%	12.1%	80.0%	10.0%
	1	16.1%	11.0%	72.8%	12.9%
	2	10.6%	9.9%	79.5%	4.4%
	3	11.2%	7.8%	81.0%	4.8%
	<b>Total</b>	<b>11.4%</b>	<b>10.2%</b>	<b>78.4%</b>	<b>8.0%</b>

The “Beginning-of-Year” to “End-of-Year” comparisons displayed to the left are true cohorts. Notice that the totals in the lower right-hand corner of the frequency table (next page) for the 2017/18 cohort match exactly for the “Beginning of Year” and “End of Year” sections (7,643 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.

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 (8.0 percentage points in 2017/18 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 1<sup>st</sup> grade students as opposed to 2<sup>nd</sup> and 3<sup>rd</sup> 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 - 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

**DIBELS Next Criterion Referenced Outcomes - 2017/18**

Test Session	Grade	Well Below Benchmark	Below Benchmark	At or Above Benchmark	Total
Beginning of Year	K	303	269	1332	1904
	1	458	290	1119	1867
	2	293	174	1404	1871
	3	319	158	1524	2001
	Total	1,373	891	5,379	7,643
End of Year	K	151	230	1523	1904
	1	301	206	1360	1867
	2	198	186	1487	1871
	3	225	156	1620	2001
	Total	875	778	5,990	7,643

For students being supported with IEPs we see the largest gains are realized during 1<sup>st</sup> grade.

**Students with Disabilities Early Reading - DIBELS Next 2016/17**

Grade	Beginning of Year (BOY)		End of Year (EOY)		
	At or Above Benchmark	Total Grade IEP	At or Above Benchmark	Total Grade IEP	Change in %
	Percent BOY	N Count	Percent EOY	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%

**Students with Disabilities Early Reading - DIBELS Next 2017/18**

Grade	Beginning of Year (BOY)		End of Year (EOY)		
	At or Above Benchmark	Total Grade IEP	At or Above Benchmark	Total Grade IEP	Change in %
	Percent BOY	N Count	Percent EOY	N Count	
K	33.6%	149	38.9%	149	5.4%
1	15.0%	153	26.8%	153	11.8%
2	22.4%	147	25.9%	147	3.4%
3	18.3%	169	21.3%	169	3.0%
Total	22.2%	618	28.0%	618	5.8%

Latino students are the largest ethnic minority within the PSD student population. The largest gains are realized during kindergarten and 1<sup>st</sup> grade. Gains in these grades are much larger than gains for the general population.

**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%

**Latino/Latina Students Early Reading - DIBELS Next 2017/18**

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	39.9%	353	59.8%	353	19.8%
1	39.8%	334	55.7%	334	15.9%
2	53.7%	324	59.9%	324	6.2%
3	52.5%	360	53.3%	360	0.8%
Total	46.5%	1,371	57.1%	1,371	10.6%

Free/Reduced Lunch eligible students are an important group to support and monitor. The largest gains are realized during kindergarten and 1<sup>st</sup> grade. Gains in these grades are much larger than gains for the general population.

**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%

**Free/Reduced Lunch Eligible Early Reading - DIBELS Next 2017/18**

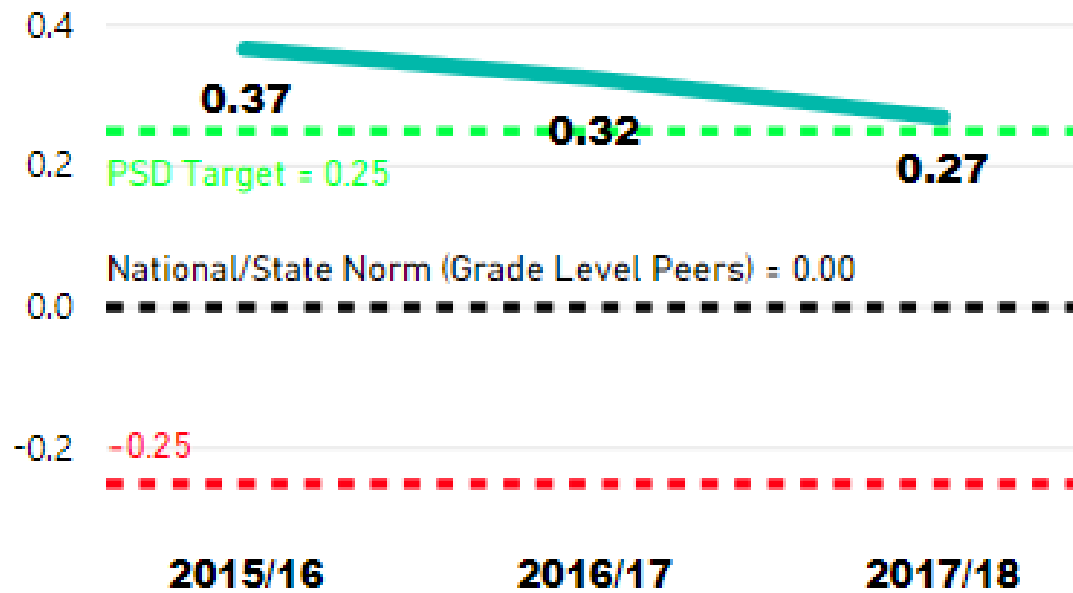
Grade	Beginning of Year (BOY)		End of Year (EOY)		
	At or Above Benchmark Percent BOY	Total Grade Free/Reduced N Count	At or Above Benchmark Percent EOY	Total Grade Free/Reduced N Count	Change in %
K	49.3%	661	63.5%	661	14.2%
1	42.4%	655	57.4%	655	15.0%
2	56.2%	678	61.2%	678	5.0%
3	59.3%	760	62.8%	760	3.4%
Total	52.1%	2,754	61.3%	2,754	9.2%

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. Looking at z-scores provides a more nuanced/sensitive view of achievement when compared to analyzing two broad achievement “buckets” that “At or Above Benchmark” represent.

Taking the average for a set of z-scores results in 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 (down to -0.25) are shaded yellow, and larger negative effect sizes (-0.25 down) are shaded red. This shading convention is used throughout the achievement effect size displays in this Monitoring Report.

## Effect Size by Year and Level (ES, MS, HS)

Level ● 1) ES



### Spring 2016/17

Grade	Effect Size	N-Count
0	0.11	1907
1	0.47	1887
2	0.40	2017
3	0.32	2053
<b>Total</b>	<b>0.32</b>	<b>7864</b>

FR_YN	Effect Size	N-Count
No	0.59	5182
Yes	-0.20	2682
<b>Total</b>	<b>0.32</b>	<b>7864</b>

### Spring 2017/18

Grade	N-Count	$\alpha=.05$	N-Count
0	0.05	*	1988
1	0.39	*	1953
2	0.32	*	1943
3	0.31	*	2103
<b>Total</b>	<b>0.27</b>	<b>*</b>	<b>7987</b>

FR_YN	Effect Size	$\alpha=.05$	N-Count
No	0.57	*	5009
Yes	-0.24	*	2978
<b>Total</b>	<b>0.27</b>	<b>*</b>	<b>7987</b>

## Spring 2016/17

Ethnicity	Effect Size	$\alpha=.05$	N-Count
▲			
American Indian or Alaska Native	0.20		40
Asian	0.61	*	229
Black or African American	-0.06		82
Hispanic	-0.28	*	1450
Native Hawaiian or other Pacific Islander	-0.01		15
Two or More	0.41	*	275
White	0.47	*	5773
<b>Total</b>	<b>0.32</b>	<b>*</b>	<b>7864</b>

## Spring 2017/18

Ethnicity	Effect Size	$\alpha=.05$	N-Count
▲			
American Indian or Alaska Native	-0.02		42
Asian	0.69	*	219
Black or African American	0.08		98
Hispanic	-0.35	*	1523
Native Hawaiian or other Pacific Islander	-0.07		12
Two or More	0.42	*	294
White	0.42	*	5799
<b>Total</b>	<b>0.27</b>	<b>*</b>	<b>7987</b>

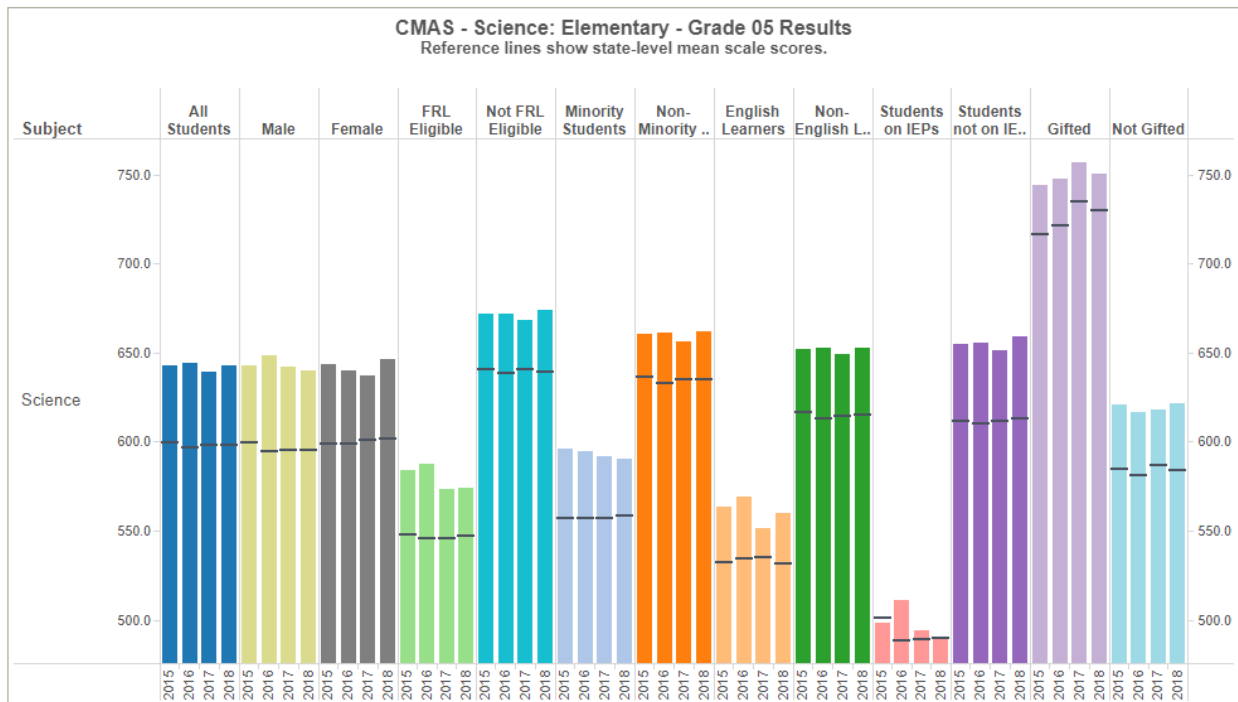
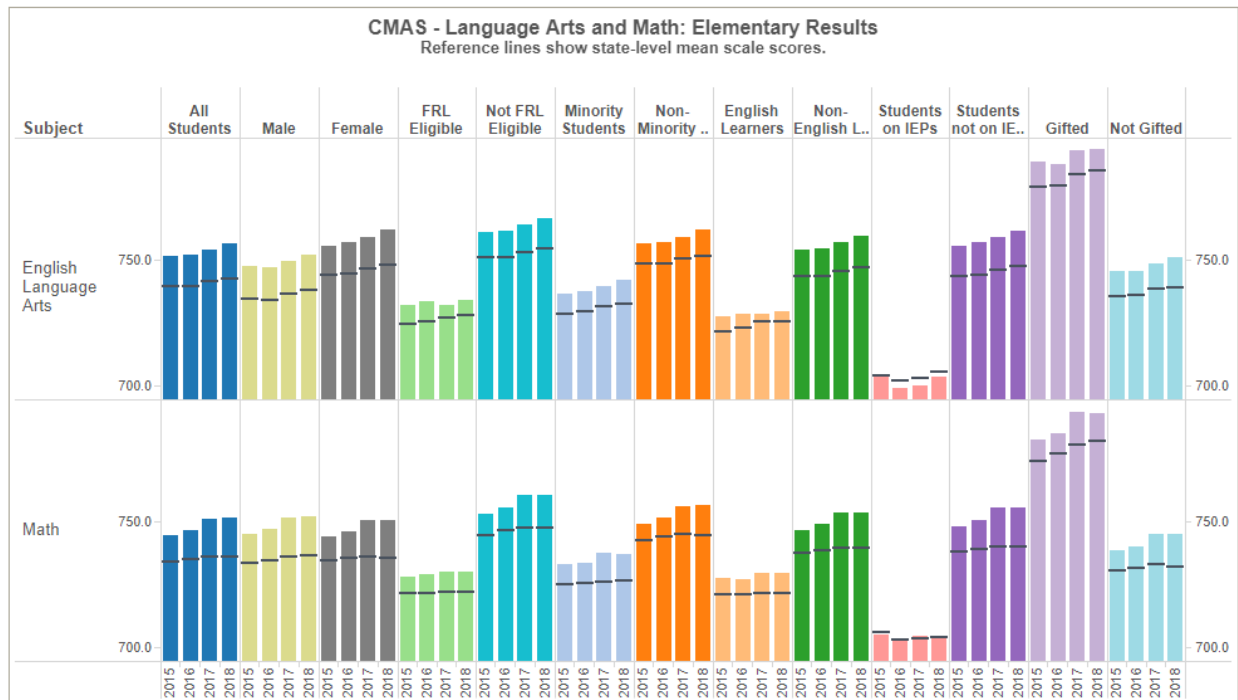
## Appendix 3: Achievement

Achievement Target: PSD effect size  $\geq 0.25$  for State assessment subject by grade combinations.

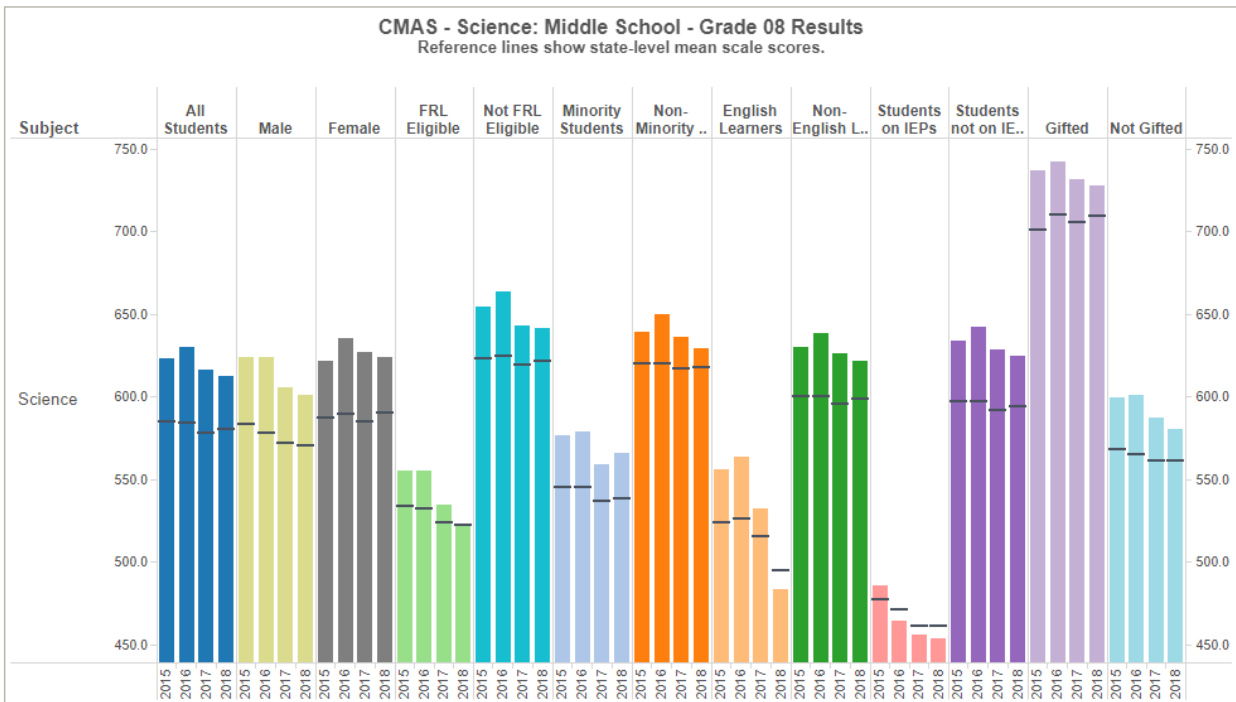
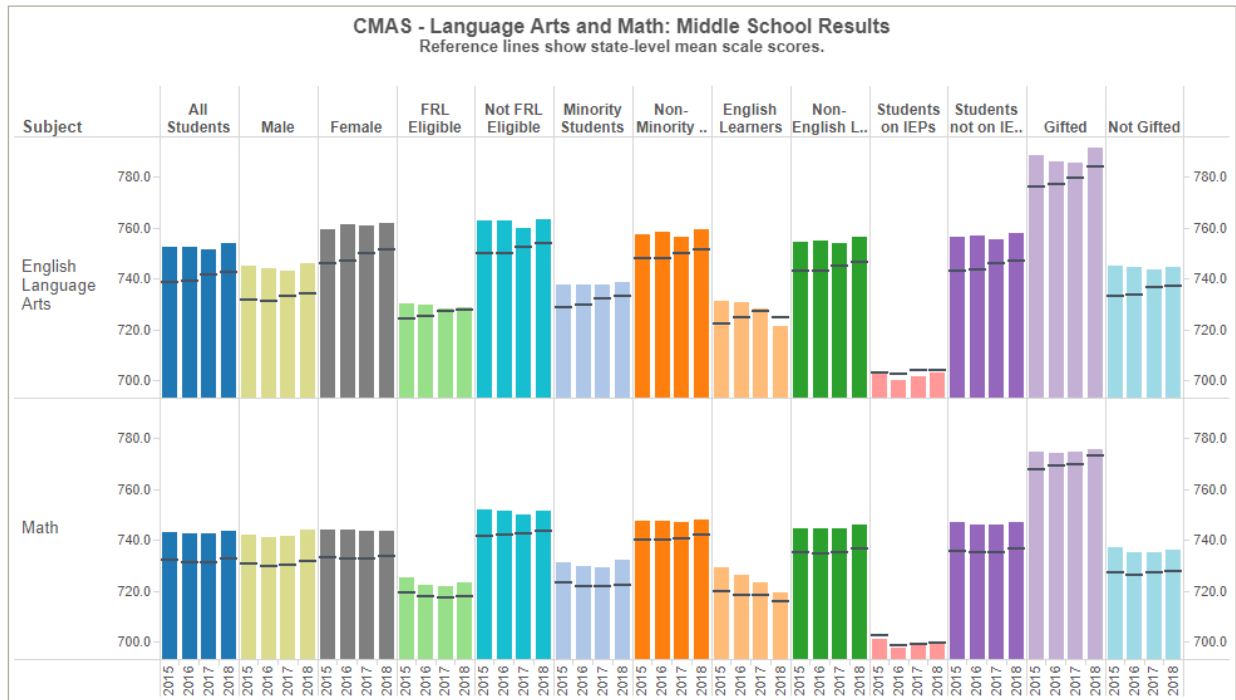
The following visual, pulled from the [CDE District Dashboards](#), displays CMAS PARCC mean scale scores for math, English Language Arts, and science by level (elementary, middle, high) and student group for the past four school years. The state mean scale score is presented as a black horizontal line. Wherever the colored bar exceeds the horizontal black line, PSD outcomes exceeded the state's outcomes. These views provide a quick high-level and publicly 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 exceptions are evident for PSD students supported with an IEP and English language Learners. These important groups of PSD students have slightly lower achievement levels than their statewide peers in English language arts and math at various grade levels as evidenced by the state assessment system. 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.



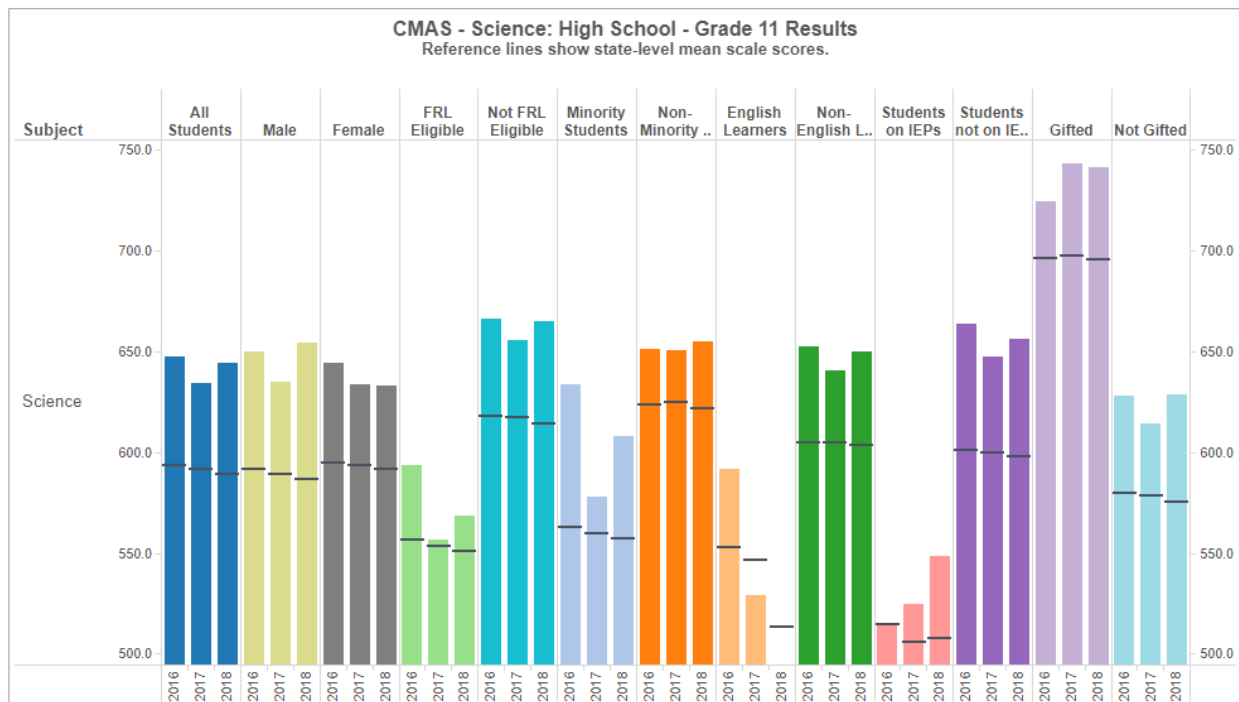
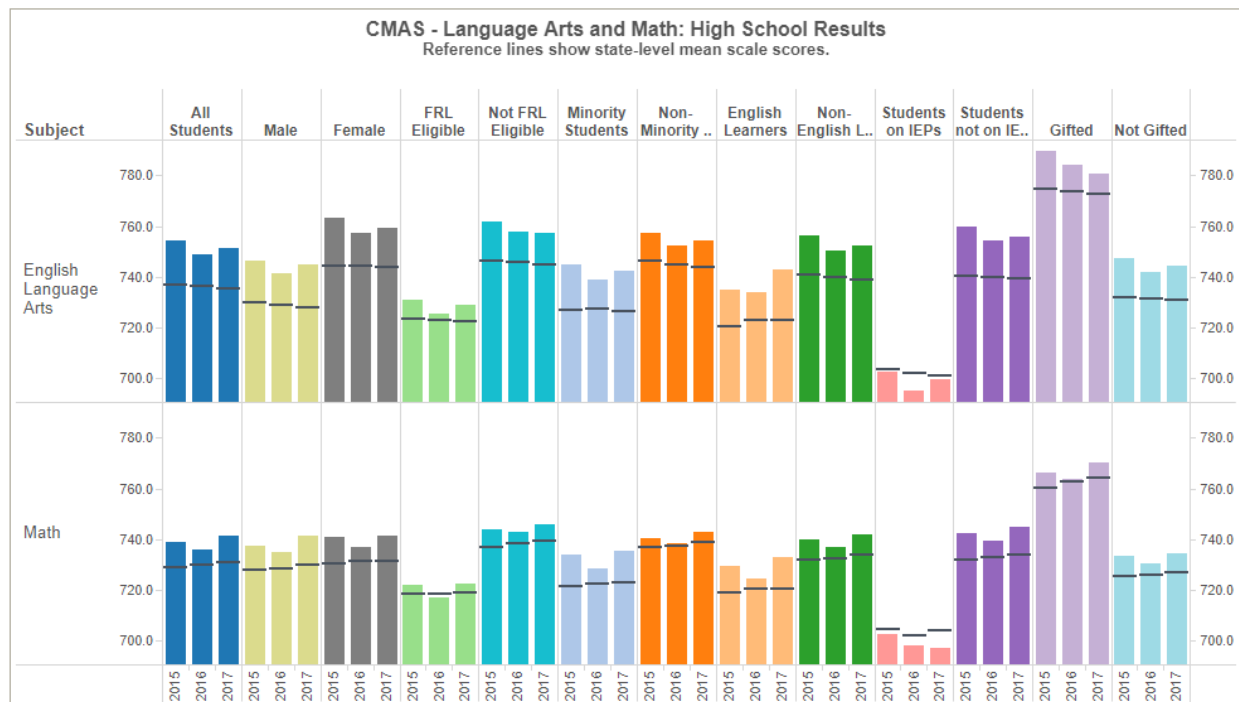
## PSD Elementary Results vs. Statewide Results



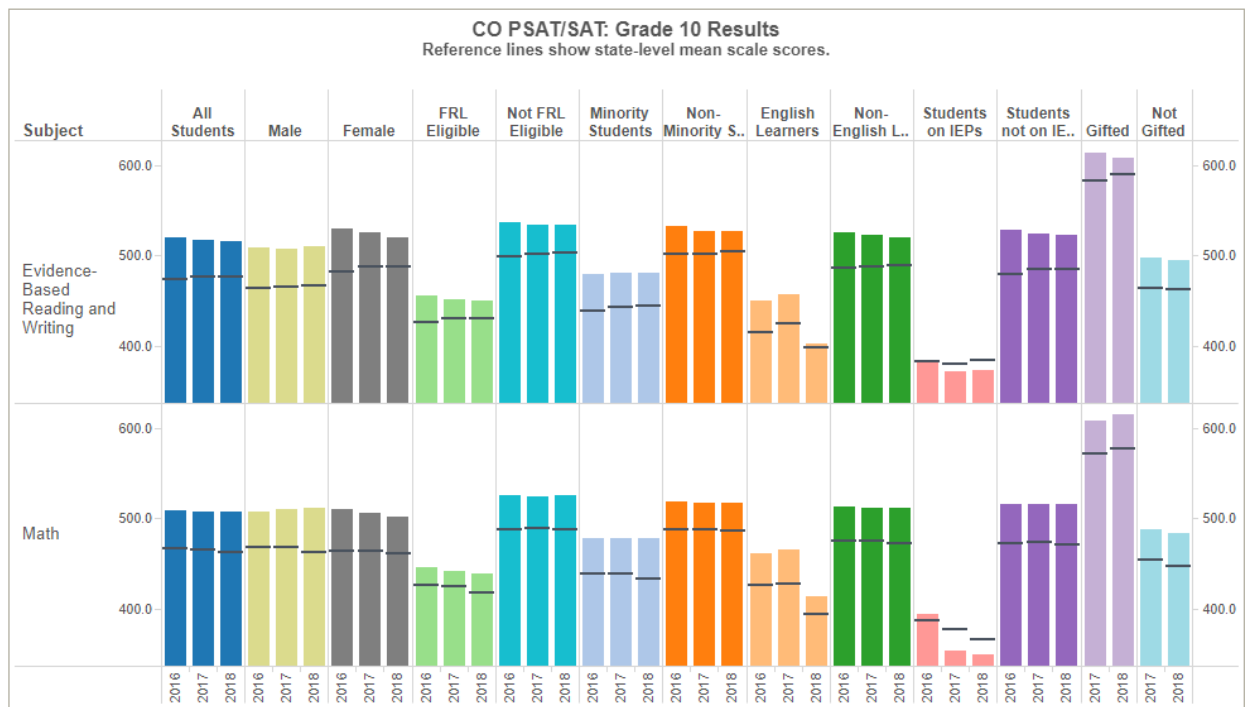
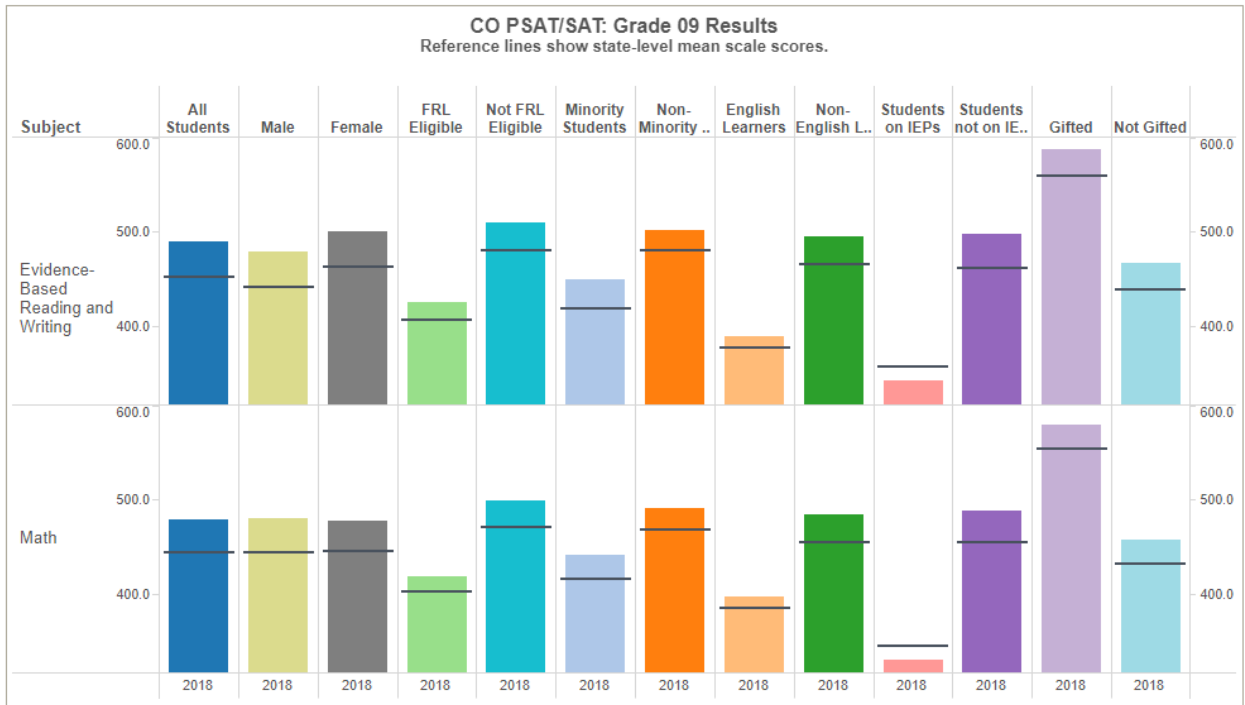
## PSD Middle School Results vs. Statewide Results

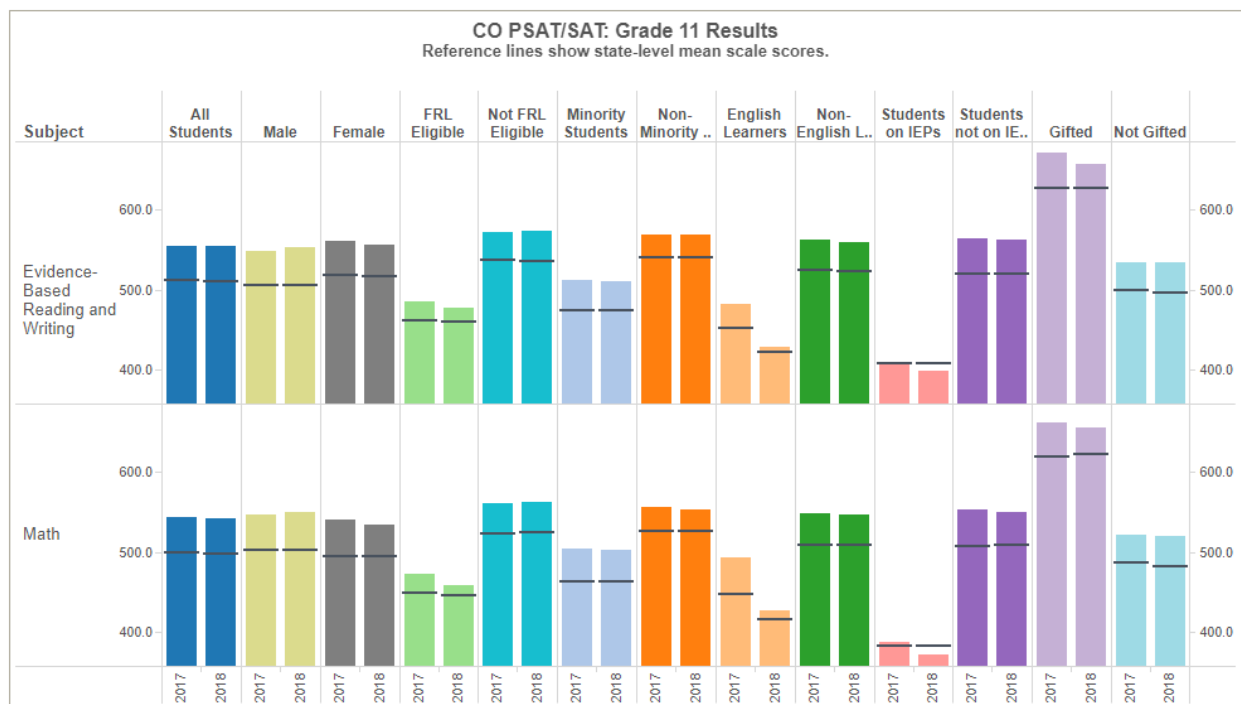


## PSD High School Results vs. Statewide Results



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

Regarding 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. 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.

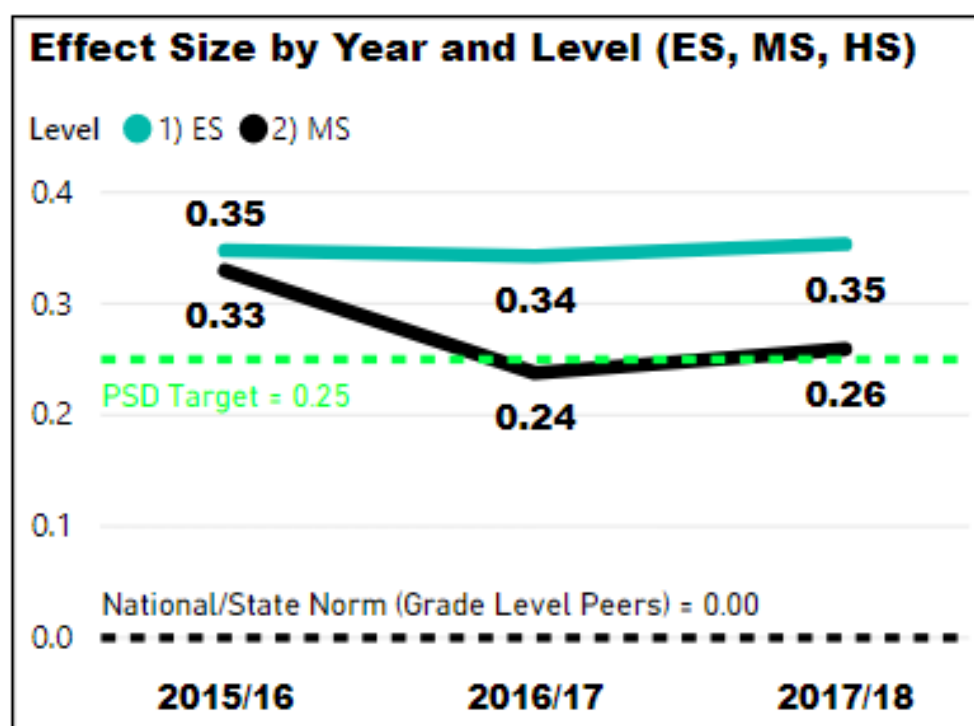
The use of z-scores and, related effect sizes, within the context of the Monitoring Report, Levels of Support, and the system we use to identify “Evidence of Effectiveness” as part of the PSD educator evaluation system provides an opportunity to connect uses of these informative metrics across different 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.

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 (down to -0.25) are shaded yellow, and larger negative effect sizes (-0.25 down) are shaded red. This shading convention is used throughout the achievement effect size displays in this Monitoring Report. This convention is based on widely accepted interpretation guidelines put forth by Jacob Cohen (Statistical Power Analysis for the Behavioral Sciences, 2<sup>nd</sup> 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, Compass) as it does for the many non-charter schools in PSD.

Collectively, PSD students attained the PSD achievement target related to the 2017/18 English language arts state assessment. The average effect size across grades three through eight is 0.31. 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 7<sup>th</sup> grade (for two years in a row), also met the PSD target and met or exceeded an effect size of 0.25. The 7<sup>th</sup> grade outcome of 0.24 is an increase from 2016/17 and indicates that the PSD population of students did outperform the state population of 7<sup>th</sup> grade students in English Language Arts by approximately 1/4 of a standard deviation unit but did not meet the PSD target of a  $\geq 0.25$  effect size.

## English Language Arts and Reading Achievement (State Assessment System)



### Spring 2016/17

Level	Effect Size	N-Count
1) ES	0.34	6148
2) MS	0.24	5266
<b>Total</b>	<b>0.29</b>	<b>11414</b>

Grade	Effect Size	N-Count
3	0.34	1989
4	0.36	2042
5	0.33	2117
6	0.25	1869
7	0.20	1808
8	0.27	1589
<b>Total</b>	<b>0.29</b>	<b>11414</b>

FR_YN	Effect Size	N-Count
No	0.58	7655
Yes	-0.29	3759
<b>Total</b>	<b>0.29</b>	<b>11414</b>

### Spring 2017/18

Level	Effect Size	$\alpha=.05$	N-Count
1) ES	0.35	*	6153
2) MS	0.26	*	5606
<b>Total</b>	<b>0.31</b>	<b>*</b>	<b>11759</b>

Grade	N-Count	$\alpha=.05$	N-Count
3	0.36	*	2032
4	0.37	*	2047
5	0.34	*	2074
6	0.29	*	2027
7	0.24	*	1841
8	0.25	*	1738
<b>Total</b>	<b>0.31</b>	<b>*</b>	<b>11759</b>

FR_YN	Effect Size	$\alpha=.05$	N-Count
No	0.64	*	7303
Yes	-0.23	*	4456
<b>Total</b>	<b>0.31</b>	<b>*</b>	<b>11759</b>



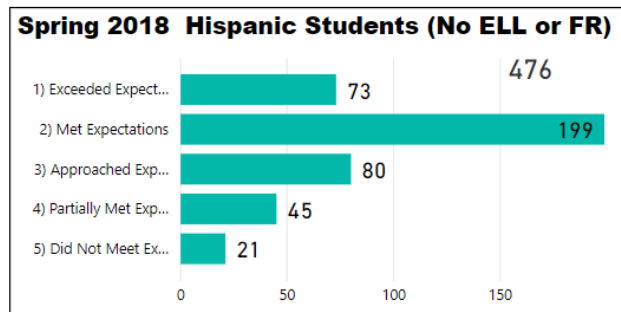
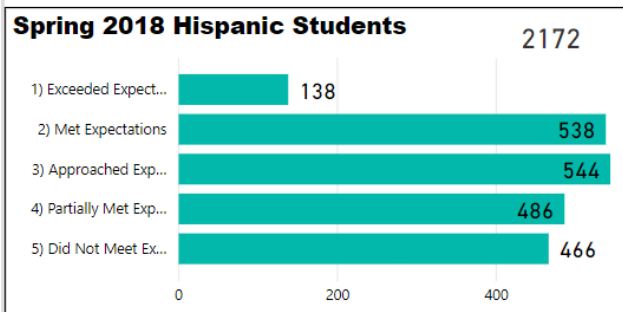
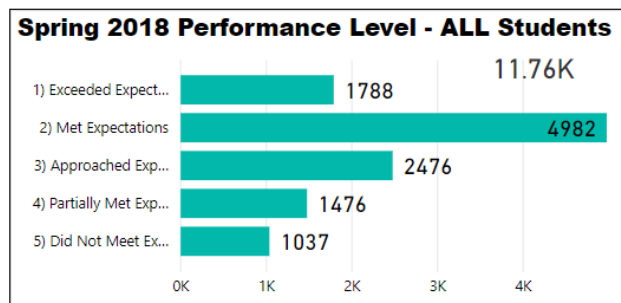
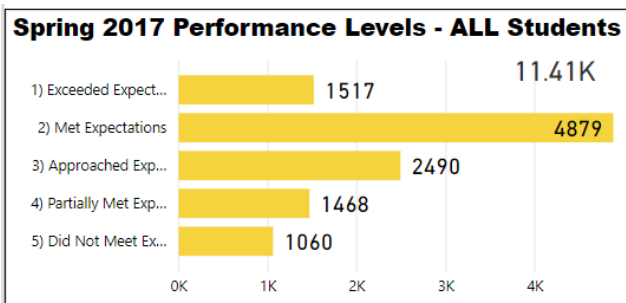
## Spring 2016/17

Ethnicity	Effect Size	$\alpha=.05$	N-Count
American Indian or Alaska Native	-0.10		49
Asian	0.67	*	344
Black or African American	-0.22	*	142
Hispanic	-0.32	*	2115
Native Hawaiian or other Pacific Islander	0.00		19
Two or More	0.38	*	423
White	0.44	*	8322
<b>Total</b>	<b>0.29</b>	<b>*</b>	<b>11414</b>

Below is a view of English Language Arts performance levels across the most recent two years 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](#).

## Spring 2017/18

Ethnicity	Effect Size	$\alpha=.05$	N-Count
American Indian or Alaska Native	-0.11		59
Asian	0.71	*	341
Black or African American	-0.34	*	132
Hispanic	-0.31	*	2172
Native Hawaiian or other Pacific Islander	0.06		15
Two or More	0.39	*	452
White	0.46	*	8588
<b>Total</b>	<b>0.31</b>	<b>*</b>	<b>11759</b>

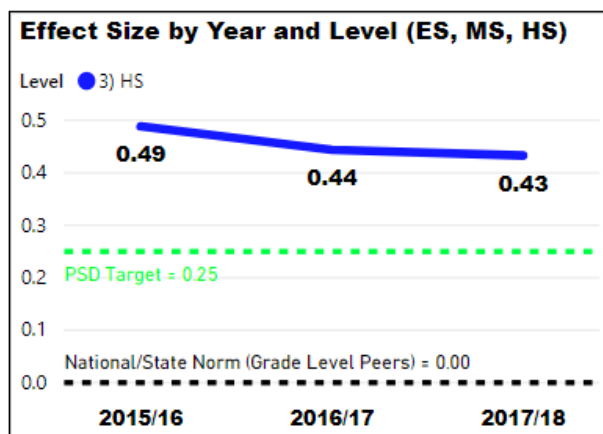


PSD students met the 0.25 effect size achievement target in grades 9-11 for Evidence Based Reading and Writing based on the PSAT/SAT assessment program.

### 9<sup>th</sup> Grade PSAT8/9 Evidence Based Reading and Writing Achievement Effect Size

Spring 2017/18				Spring 2017/18			
Grade	N-Count	$\alpha=.05$	N-Count	Ethnicity	Effect Size	$\alpha=.05$	N-Count
9	0.43	*	1825	Asian	0.51	*	64
Total	0.43	*	1825	Black or African American	-0.18		27
FR_YN	Effect Size	$\alpha=.05$	N-Count	Hispanic	-0.31	*	278
No	0.70	*	1236	Two or More	0.70	*	67
Yes	-0.15	*	589	White	0.57	*	1377
Total	0.43	*	1825	Total	0.43	*	1813

### 10<sup>th</sup> Grade PSAT Evidence Based Reading and Writing Achievement Effect Size

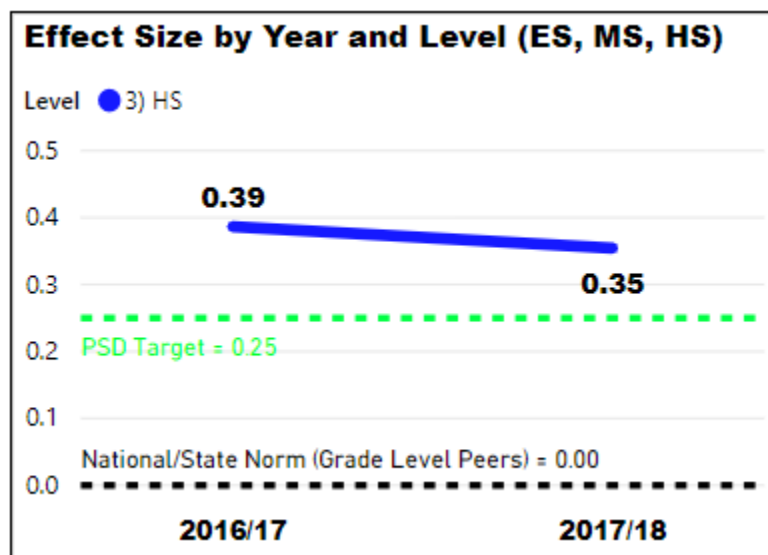


FR_YN	Effect Size	$\alpha=.05$	N-Count
No	0.68	*	1164
Yes	-0.08	*	562
Total	0.43	*	1726

Spring 2016/17			
Ethnicity	Effect Size	$\alpha=.05$	N-Count
Asian	1.17	*	53
Black or African American	-0.14		27
Hispanic	-0.24	*	234
Two or More	0.49	*	75
White	0.55	*	1282
Total	0.44	*	1671

Spring 2017/18			
Ethnicity	Effect Size	$\alpha=.05$	N-Count
Asian	0.83	*	66
Black or African American	0.09		25
Hispanic	-0.17	*	260
Two or More	0.39	*	67
White	0.55	*	1296
Total	0.44	*	1714

## 11<sup>th</sup> Grade SAT Evidence Based Reading and Writing Achievement 2017 Z-Score Distribution



FR_YN	Effect Size	N-Count	FR_YN	Effect Size	$\alpha=.05$	N-Count
No	0.58	1304	No	0.62	*	1192
Yes	-0.23	413	Yes	-0.20	*	564
<b>Total</b>	<b>0.39</b>	<b>1717</b>	<b>Total</b>	<b>0.35</b>	<b>*</b>	<b>1756</b>

### Spring 2016/17

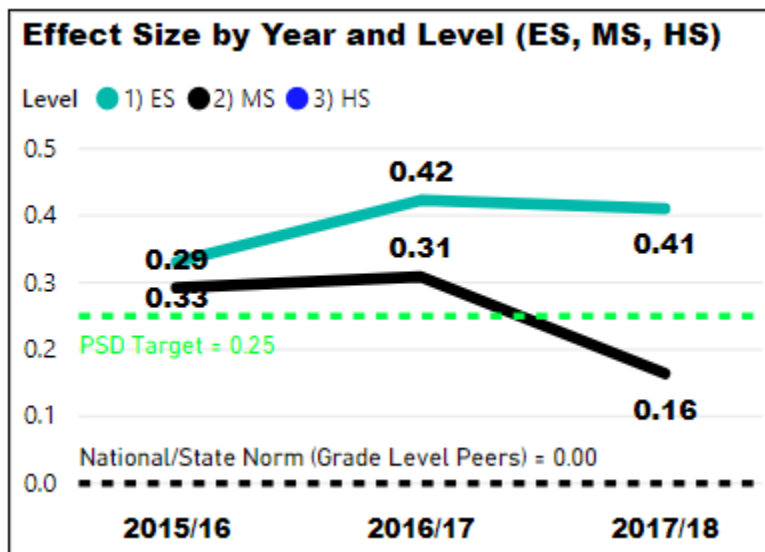
Ethnicity	Effect Size	$\alpha=.05$	N-Count
▲			
American Indian or Alaska Native	0.30		12
Asian	0.71	*	65
Black or African American	0.15		17
Hispanic	-0.33	*	261
Two or More	0.39	*	58
White	0.52	*	1300
<b>Total</b>	<b>0.39</b>	<b>*</b>	<b>1713</b>

### Spring 2017/18

Ethnicity	Effect Size	$\alpha=.05$	N-Count
▲			
Asian	1.01	*	57
Black or African American	-0.39	*	30
Hispanic	-0.35	*	271
Two or More	0.31	*	77
White	0.49	*	1318
<b>Total</b>	<b>0.36</b>	<b>*</b>	<b>1753</b>

## Math Achievement (State Assessment System)

Collectively, PSD students attained the achievement target on the 2017/18 state math assessment. The average effect size across grades three through eight is 0.29 (down from 0.37 in 2017). 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, grades 3-6, individually also met the PSD target and exceeded an effect size of 0.25. The 7<sup>th</sup> grade outcome of 0.22 is a decrease of 0.11 units from 2016/17. This result indicates that the PSD 7<sup>th</sup> grade students did outperform the state population of 7<sup>th</sup> grade students in math by approximately 1/5 of a standard deviation unit but did not meet the PSD target of a  $\geq 0.25$  effect size. The 8<sup>th</sup> grade outcome of -0.08 is a decrease of 0.37 units from 2016/17. This result indicates that the PSD 8<sup>th</sup> grade students did not outperform the state population of 8<sup>th</sup> grade students in math. This student group fell short of the state outcome by almost 1/10 of a standard deviation unit and did not meet the PSD target of a  $\geq 0.25$  effect size. This negative effect size outcome is very unusual for a grade-level group of PSD students. The downward movement in the middle school line graph below is largely driven by this 8<sup>th</sup> grade result.



FR_YN	Effect Size	N-Count	FR_YN	Effect Size	$\alpha=.05$	N-Count
No	0.65	7679	No	0.59	*	7322
Yes	-0.20	3797	Yes	-0.19	*	4523
<b>Total</b>	<b>0.37</b>	<b>11476</b>	<b>Total</b>	<b>0.29</b>	<b>*</b>	<b>11845</b>

### Spring 2016/17

Level	Effect Size	N-Count
1) ES	0.42	6180
2) MS	0.31	5296
<b>Total</b>	<b>0.37</b>	<b>11476</b>

Grade	Effect Size	N-Count
3	0.40	2015
4	0.43	2051
5	0.44	2114
6	0.31	1883
7	0.33	1815
8	0.29	1598
<b>Total</b>	<b>0.37</b>	<b>11476</b>

### Spring 2017/18

Level	Effect Size	$\alpha=.05$	N-Count
1) ES	0.41	*	6193
2) MS	0.16	*	5652
<b>Total</b>	<b>0.29</b>	<b>*</b>	<b>11845</b>

Grade	N-Count	$\alpha=.05$	N-Count
3	0.36	*	2066
4	0.43	*	2048
5	0.44	*	2079
6	0.32	*	2044
7	0.22	*	1858
8	-0.08	*	1750
<b>Total</b>	<b>0.29</b>	<b>*</b>	<b>11845</b>

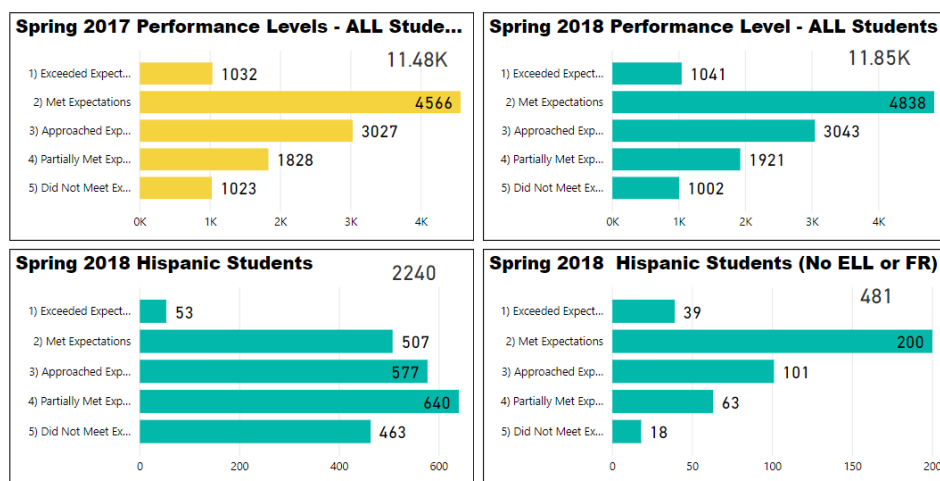
### Spring 2016/17

Ethnicity	Effect Size	$\alpha=.05$	N-Count
▲			
American Indian or Alaska Native	-0.02		48
Asian	0.84	*	354
Black or African American	-0.29	*	142
Hispanic	-0.26	*	2140
Native Hawaiian or other Pacific Islander	0.24		19
Two or More	0.48	*	423
White	0.52	*	8350
<b>Total</b>	<b>0.37</b>	<b>*</b>	<b>11476</b>

### Spring 2017/18

Ethnicity	Effect Size	$\alpha=.05$	N-Count
▲			
American Indian or Alaska Native	-0.15		59
Asian	0.77	*	350
Black or African American	-0.29	*	132
Hispanic	-0.26	*	2240
Native Hawaiian or other Pacific Islander	0.47		15
Two or More	0.34	*	451
White	0.43	*	8598
<b>Total</b>	<b>0.29</b>	<b>*</b>	<b>11845</b>

Below is a view of math performance levels across the most recent two years 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](#).



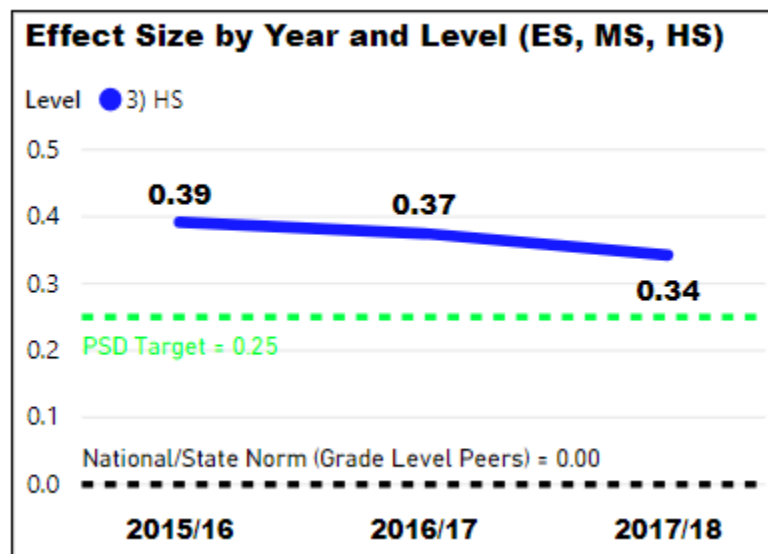
PSD students met the 0.25 effect size achievement target in grades 9 and 10 for math based on the PSAT assessment program. The 11<sup>th</sup> grade outcome of 0.22 is a decrease of 0.07 units from 2016/17 and indicates that the PSD population of students outperformed the state population of 11<sup>th</sup> grade students in math by approximately 1/5 of a standard deviation unit but did not meet the PSD target of a  $\geq 0.25$  effect size.

### 9<sup>th</sup> Grade PSAT8/9 Math Achievement 2018 (Effect Size)

Spring 2017/18							
Grade	N-Count	$\alpha=.05$	N-Count	FR_YN	Effect Size	$\alpha=.05$	N-Count
9	0.39	*	1825	No	0.67	*	1236
Total	0.39	*	1825	Yes	-0.19	*	589
				Total	0.39	*	1825

Spring 2017/18			
Ethnicity	Effect Size	$\alpha=.05$	N-Count
Asian	0.60	*	64
Black or African American	-0.28		27
Hispanic	-0.35	*	278
Two or More	0.63	*	67
White	0.54	*	1377
Total	0.39	*	1813

## 10<sup>th</sup> Grade PSAT Math Achievement 2018 (Effect Size)



FR_YN	Effect Size	N-Count
No	0.58	1260
Yes	-0.23	421
<b>Total</b>	<b>0.37</b>	<b>1681</b>

FR_YN	Effect Size	$\alpha=.05$	N-Count
No	0.63	*	1163
Yes	-0.25	*	562
<b>Total</b>	<b>0.34</b>	<b>*</b>	<b>1725</b>

### Spring 2016/17

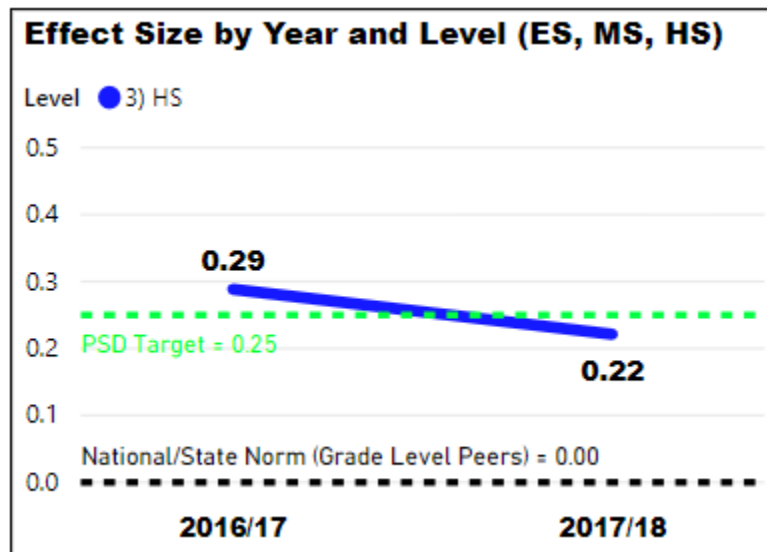
Ethnicity	Effect Size	$\alpha=.05$	N-Count
Asian	1.28	*	53
Black or African American	-0.34		27
Hispanic	-0.30	*	234
Two or More	0.39	*	75
White	0.48	*	1282
<b>Total</b>	<b>0.38</b>	<b>*</b>	<b>1671</b>

### Spring 2017/18

Ethnicity	Effect Size	$\alpha=.05$	N-Count
Asian	1.07	*	66
Black or African American	-0.16		25
Hispanic	-0.30	*	260
Two or More	0.21		67
White	0.46	*	1296
<b>Total</b>	<b>0.35</b>	<b>*</b>	<b>1714</b>



## 11<sup>th</sup> Grade SAT Math Achievement 2017 (Effect Size)



FR_YN	Effect Size	N-Count	FR_YN	Effect Size	$\alpha=.05$	N-Count
No	0.49	1304	No	0.50	*	1192
Yes	-0.36	413	Yes	-0.37	*	564
<b>Total</b>	<b>0.29</b>	<b>1717</b>	<b>Total</b>	<b>0.22</b>	<b>*</b>	<b>1756</b>

### Spring 2016/17

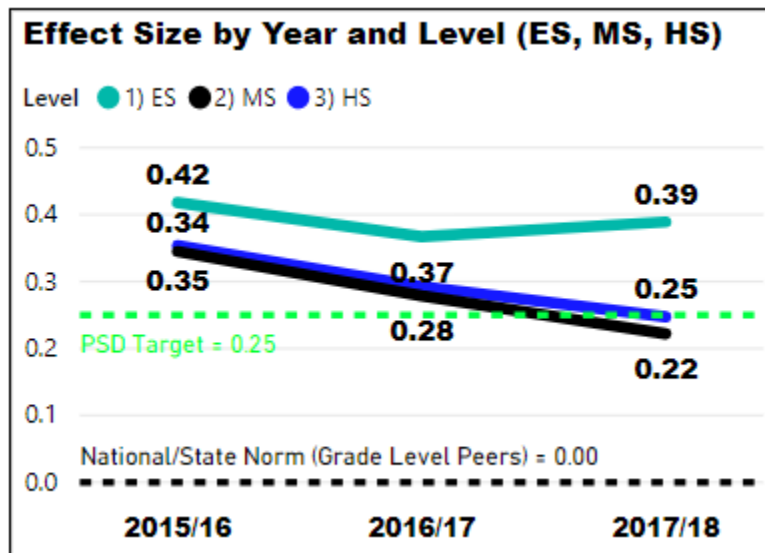
Ethnicity	Effect Size	$\alpha=.05$	N-Count
▲			
American Indian or Alaska Native	0.22		12
Asian	0.81	*	65
Black or African American	-0.03		17
Hispanic	-0.43	*	261
Two or More	0.22		58
White	0.42	*	1300
<b>Total</b>	<b>0.29</b>	<b>*</b>	<b>1713</b>

### Spring 2017/18

Ethnicity	Effect Size	$\alpha=.05$	N-Count
▲			
Asian	1.23	*	57
Black or African American	-0.39	*	30
Hispanic	-0.51	*	271
Two or More	0.21		77
White	0.34	*	1318
<b>Total</b>	<b>0.22</b>	<b>*</b>	<b>1753</b>

## Science Achievement (State Assessment System)

Collectively, PSD students attained the achievement target on the 2017/18 state science assessment. The average effect size across grades three through eight is 0.31 (down from 0.33 in 2017). 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. The 8<sup>th</sup> grade outcome of 0.22 is a decrease of 0.06 units from 2016/17. This result indicates that the PSD 8<sup>th</sup> grade students did outperform the state population of 8<sup>th</sup> grade students in science by approximately 1/5 of a standard deviation unit but did not meet the PSD target of a  $\geq 0.25$  effect size.



### Spring 2016/17

Level	Effect Size	N-Count
1) ES	0.37	2108
2) MS	0.28	1565
3) HS	0.29	467
<b>Total</b>	<b>0.33</b>	<b>4140</b>

Grade	Effect Size	N-Count
5	0.37	2108
8	0.28	1565
11	0.29	467
<b>Total</b>	<b>0.33</b>	<b>4140</b>

FR_YN	Effect Size	N-Count
No	0.61	2819
Yes	-0.28	1321
<b>Total</b>	<b>0.33</b>	<b>4140</b>

### Spring 2017/18

Level	Effect Size	$\alpha=.05$	N-Count
1) ES	0.39	*	2075
2) MS	0.22	*	1718
3) HS	0.25	*	321
<b>Total</b>	<b>0.31</b>	<b>*</b>	<b>4114</b>

Grade	N-Count	$\alpha=.05$	N-Count
5	0.39	*	2075
8	0.22	*	1718
11	0.25	*	321
<b>Total</b>	<b>0.31</b>	<b>*</b>	<b>4114</b>

FR_YN	Effect Size	$\alpha=.05$	N-Count
No	0.64	*	2571
Yes	-0.25	*	1543
<b>Total</b>	<b>0.31</b>	<b>*</b>	<b>4114</b>

### Spring 2016/17

Ethnicity	Effect Size	$\alpha=.05$	N-Count
▲			
American Indian or Alaska Native	-0.28		16
Asian	0.53	*	136
Black or African American	-0.26		55
Hispanic	-0.41	*	742
Native Hawaiian or other Pacific Islander	0.10		10
Two or More	0.57	*	163
White	0.50	*	3018
<b>Total</b>	<b>0.33</b>	<b>*</b>	<b>4140</b>

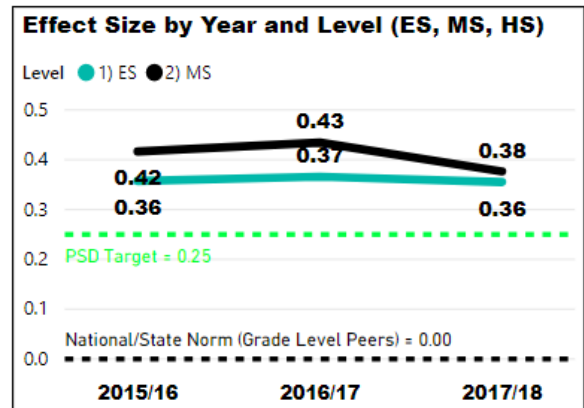
### Spring 2017/18

Ethnicity	Effect Size	$\alpha=.05$	N-Count
▲			
American Indian or Alaska Native	-0.34		16
Asian	0.75	*	136
Black or African American	-0.41	*	50
Hispanic	-0.37	*	775
Two or More	0.47	*	156
White	0.47	*	2976
<b>Total</b>	<b>0.31</b>	<b>*</b>	<b>4109</b>

## 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 graphs and tables reflect achievement results from the same testing seasons – spring 2018 and 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 2016/17

Level	Effect Size	N-Count
1) ES	0.37	8270
2) MS	0.43	6045
<b>Total</b>	<b>0.39</b>	<b>14315</b>

Grade	Effect Size	N-Count
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
<b>Total</b>	<b>0.39</b>	<b>14315</b>

### Spring 2017/18

Level	Effect Size	$\alpha=.05$	N-Count
1) ES	0.36	*	8189
2) MS	0.38	*	6117
<b>Total</b>	<b>0.36</b>	<b>*</b>	<b>14306</b>

Grade	N-Count	$\alpha=.05$	N-Count
2	0.26	*	1937
3	0.36	*	2086
4	0.40	*	2079
5	0.40	*	2087
6	0.31	*	2144
7	0.39	*	1986
8	0.44	*	1987
<b>Total</b>	<b>0.36</b>	<b>*</b>	<b>14306</b>

FR_YN	Effect Size	N-Count	FR_YN	Effect Size	$\alpha=.05$	N-Count
No	0.69	9563	No	0.68	*	8865
Yes	-0.20	4752	Yes	-0.15	*	5441
<b>Total</b>	<b>0.39</b>	<b>14315</b>	<b>Total</b>	<b>0.36</b>	<b>*</b>	<b>14306</b>

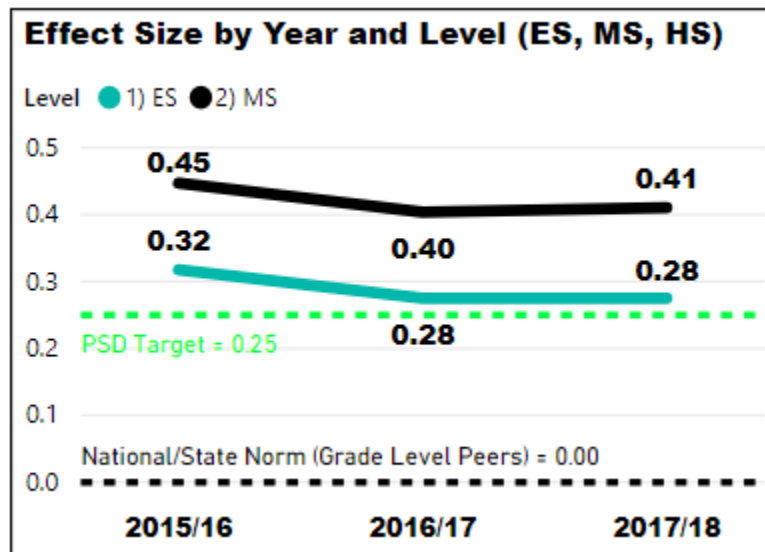
### Spring 2016/17

Ethnicity	Effect Size	$\alpha=.05$	N-Count
▲			
American Indian or Alaska Native	0.12		56
Asian	0.63	*	416
Black or African American	-0.12		170
Hispanic	-0.31	*	2636
Native Hawaiian or other Pacific Islander	0.15		23
Two or More	0.54	*	521
White	0.57	*	10493
<b>Total</b>	<b>0.39</b>	<b>*</b>	<b>14315</b>

### Spring 2017/18

Ethnicity	Effect Size	$\alpha=.05$	N-Count
▲			
American Indian or Alaska Native	0.00		72
Asian	0.58	*	417
Black or African American	-0.18	*	160
Hispanic	-0.30	*	2666
Native Hawaiian or other Pacific Islander	0.11		18
Two or More	0.46	*	542
White	0.53	*	10431
<b>Total</b>	<b>0.36</b>	<b>*</b>	<b>14306</b>

## Math Achievement (MAPS)



### Spring 2016/17

Level	Effect Size	N-Count
1) ES	0.28	8319
2) MS	0.40	6074
<b>Total</b>	<b>0.33</b>	<b>14393</b>

Grade	Effect Size	N-Count
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
<b>Total</b>	<b>0.33</b>	<b>14393</b>

FR_YN	Effect Size	N-Count
No	0.63	9608
Yes	-0.27	4785
<b>Total</b>	<b>0.33</b>	<b>14393</b>

### Spring 2017/18

Level	Effect Size	$\alpha=.05$	N-Count
1) ES	0.28	*	8203
2) MS	0.41	*	6114
<b>Total</b>	<b>0.33</b>	<b>*</b>	<b>14317</b>

Grade	N-Count	$\alpha=.05$	N-Count
2	0.13	*	1935
3	0.24	*	2092
4	0.37	*	2079
5	0.35	*	2097
6	0.25	*	2116
7	0.45	*	1996
8	0.54	*	2002
<b>Total</b>	<b>0.33</b>	<b>*</b>	<b>14317</b>

FR_YN	Effect Size	$\alpha=.05$	N-Count
No	0.67	*	8861
Yes	-0.22	*	5456
<b>Total</b>	<b>0.33</b>	<b>*</b>	<b>14317</b>

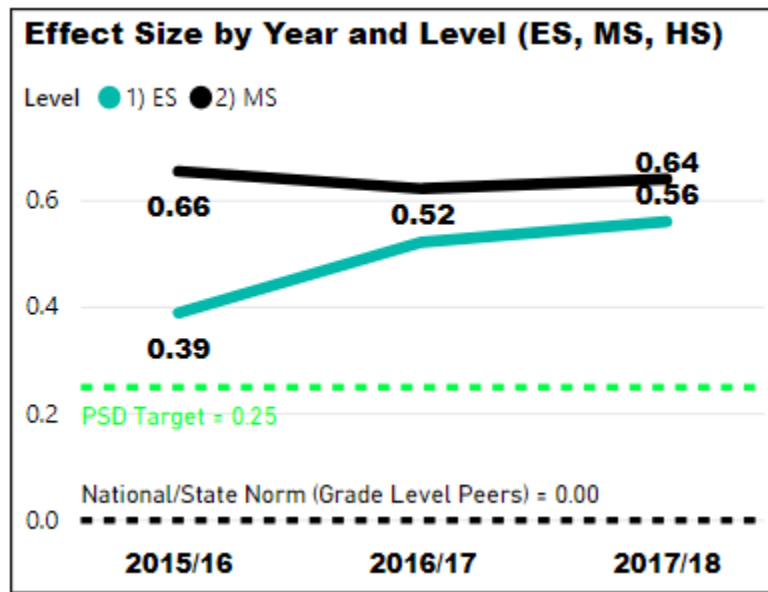
### Spring 2016/17

Ethnicity	Effect Size	$\alpha=.05$	N-Count
▲			
American Indian or Alaska Native	-0.05		56
Asian	0.80	*	418
Black or African American	-0.38	*	172
Hispanic	-0.37	*	2657
Native Hawaiian or other Pacific Islander	0.31		23
Two or More	0.46	*	528
White	0.49	*	10539
<b>Total</b>	<b>0.33</b>	<b>*</b>	<b>14393</b>

### Spring 2017/18

Ethnicity	Effect Size	$\alpha=.05$	N-Count
▲			
American Indian or Alaska Native	-0.18		73
Asian	0.86	*	415
Black or African American	-0.43	*	160
Hispanic	-0.33	*	2681
Native Hawaiian or other Pacific Islander	0.04		18
Two or More	0.37	*	537
White	0.50	*	10433
<b>Total</b>	<b>0.33</b>	<b>*</b>	<b>14317</b>

## Science Achievement (MAPS)



### Spring 2016/17

Level	Effect Size	N-Count
1) ES	0.52	625
2) MS	0.62	2832
<b>Total</b>	<b>0.60</b>	<b>3457</b>

Grade	Effect Size	N-Count
3	0.66	190
4	0.69	169
5	0.32	266
6	0.62	760
7	0.62	1092
8	0.63	980
<b>Total</b>	<b>0.60</b>	<b>3457</b>

FR_YN	Effect Size	N-Count
No	0.79	2582
Yes	0.06	875
<b>Total</b>	<b>0.60</b>	<b>3457</b>

### Spring 2017/18

Level	Effect Size	$\alpha=.05$	N-Count
1) ES	0.56	*	690
2) MS	0.64	*	2813
<b>Total</b>	<b>0.63</b>	<b>*</b>	<b>3503</b>

Grade	N-Count	$\alpha=.05$	N-Count
3	0.50	*	191
4	0.54	*	223
5	0.62	*	276
6	0.64	*	762
7	0.62	*	1087
8	0.66	*	964
<b>Total</b>	<b>0.63</b>	<b>*</b>	<b>3503</b>

FR_YN	Effect Size	$\alpha=.05$	N-Count
No	0.84	*	2448
Yes	0.13	*	1055
<b>Total</b>	<b>0.63</b>	<b>*</b>	<b>3503</b>



### Spring 2016/17

Ethnicity	Effect Size	$\alpha=.05$	N-Count
▲			
American Indian or Alaska Native	0.28		19
Asian	0.81	*	122
Black or African American	0.04		46
Hispanic	-0.02		475
Two or More	0.67	*	128
White	0.72	*	2661
<b>Total</b>	<b>0.61</b>	<b>*</b>	<b>3451</b>

### Spring 2017/18

Ethnicity	Effect Size	$\alpha=.05$	N-Count
▲			
American Indian or Alaska Native	0.11		15
Asian	0.91	*	133
Black or African American	0.09		32
Hispanic	0.01		499
Two or More	0.55	*	136
White	0.74	*	2683
<b>Total</b>	<b>0.63</b>	<b>*</b>	<b>3498</b>

## Appendix 4: Academic Growth

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

This growth target is evidenced by PSD Median Growth Percentiles exceeding 50 and growth effect size exceeding zero. The state's aggregate growth metric for accountability is the Median Growth Percentile (MGP) so it is appropriate to display the MGP outcomes prior to displaying student growth outcomes and targets based on growth effect size (easily calculated for all assessment programs used by PSD).

In English Language Arts, the overall PSD median growth percentile went up approximately 3 units (49 to 52); in math the overall MGP decreased by 1 unit (55 to 54). The following tabled results, as reported by the CDE, include PSD charter and non-charter schools.

### DISTRICT CMAS GROWTH REPORT | 1550: POUDRE R-1

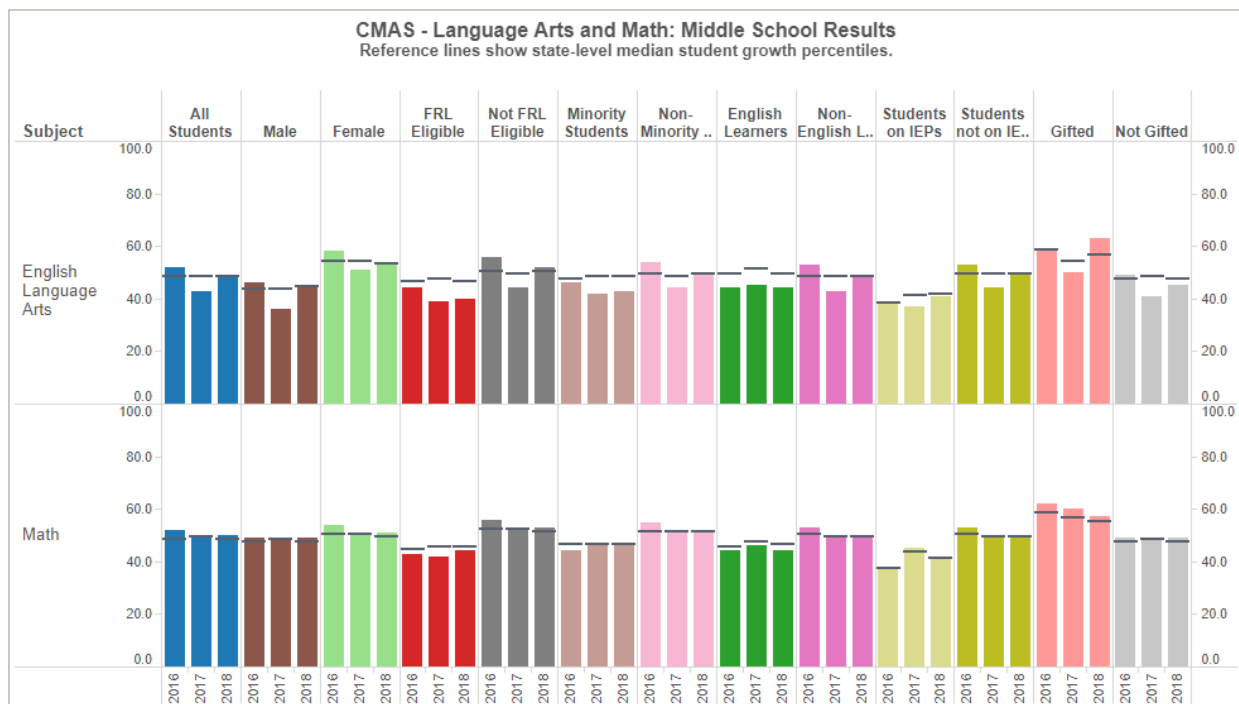
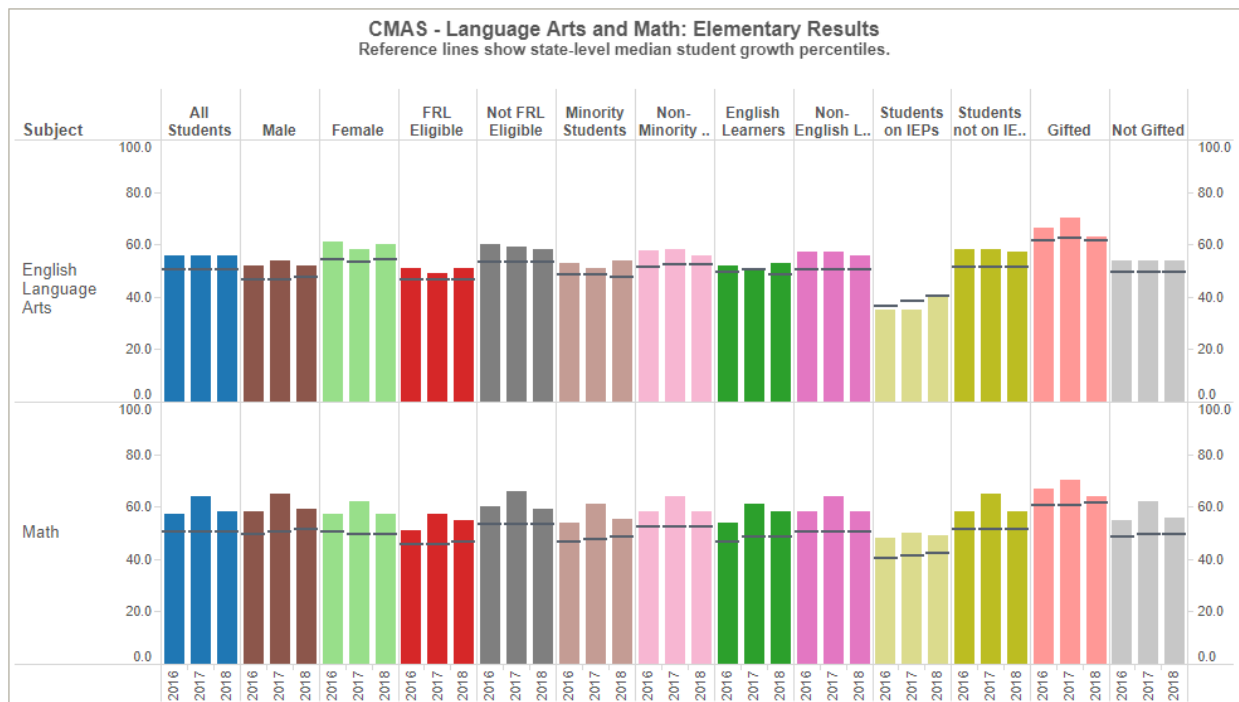


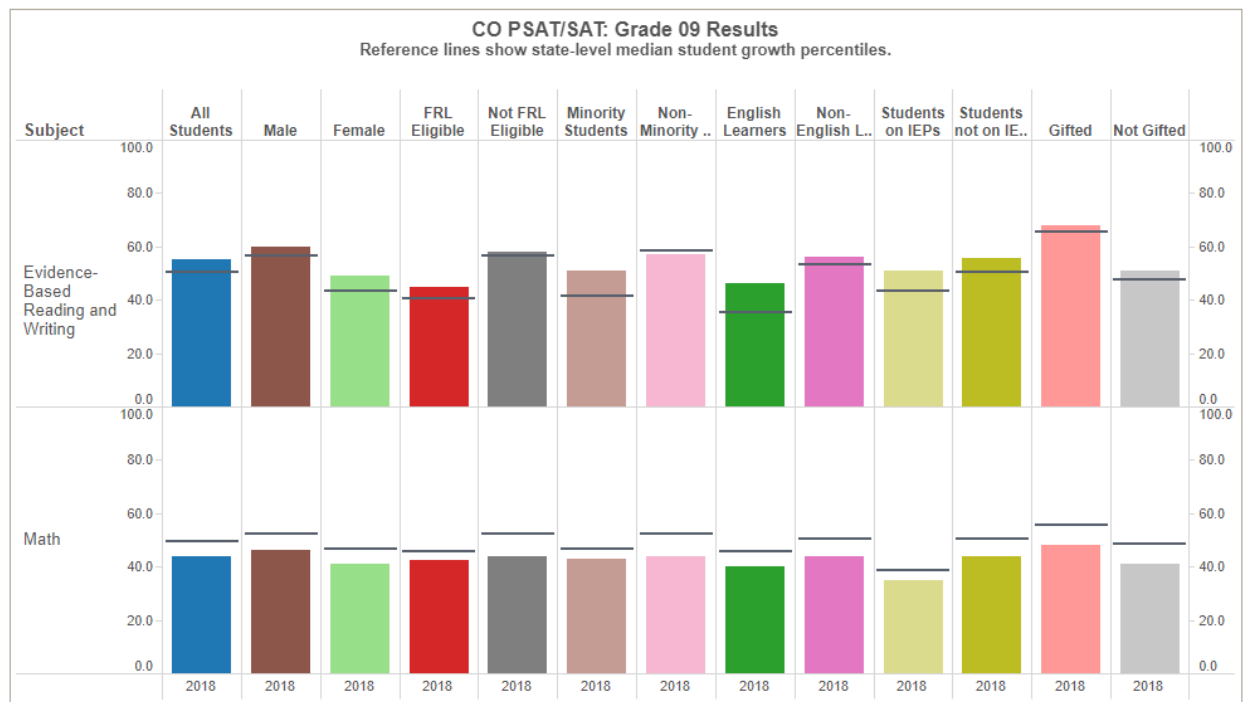
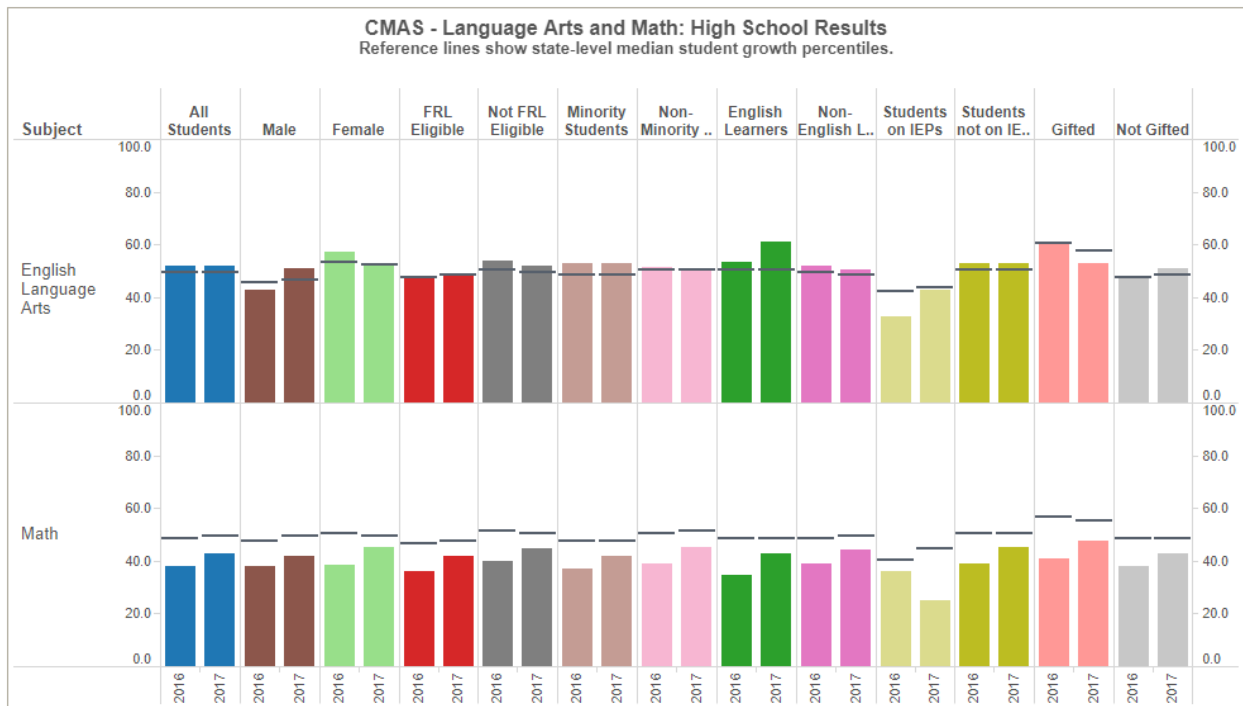
Growth metrics provide another view of the performance of a school, district or group of students. While achievement is focused on the performance at a point in time, growth provides an indication of what happens in between the assessments. Looking at both achievement and growth results provides a more in-depth picture of performance.

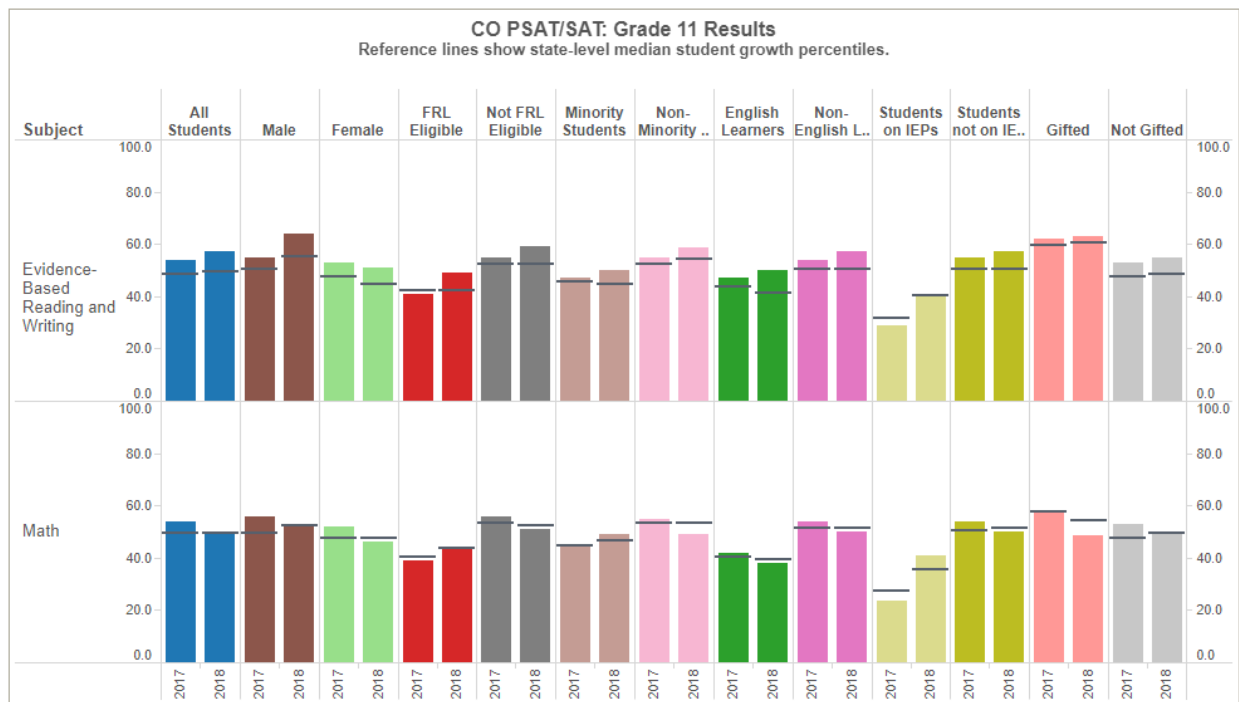
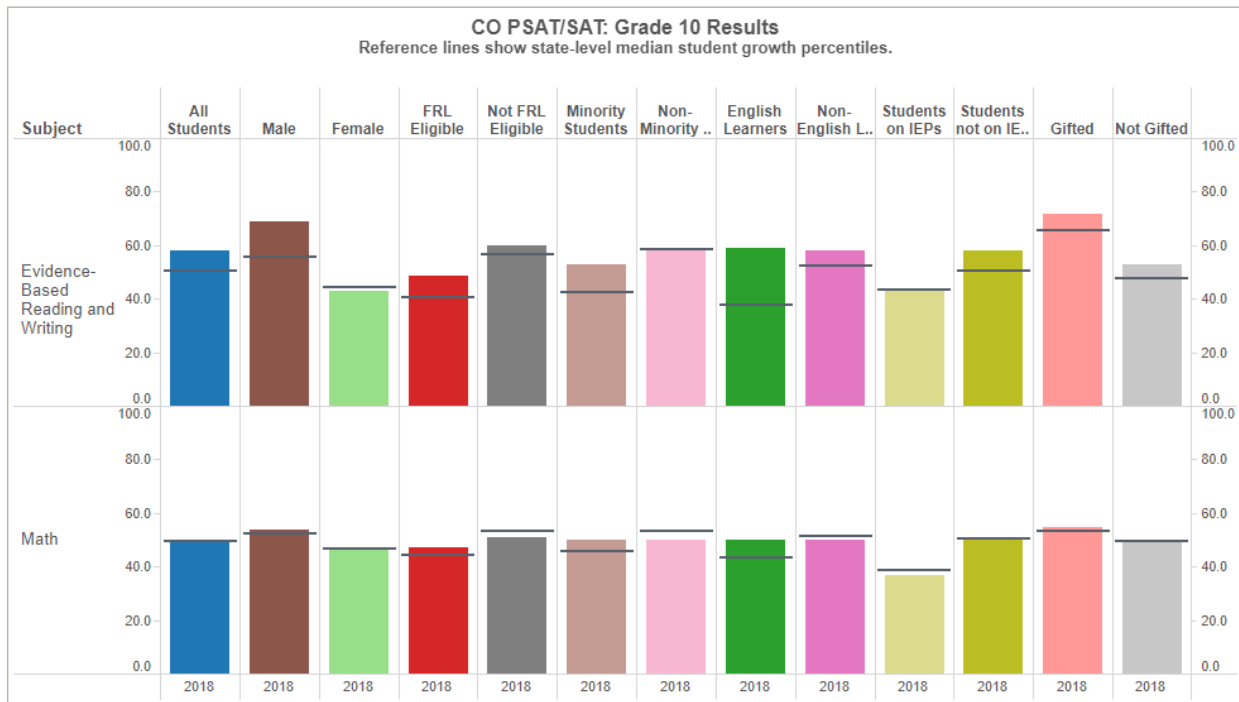
Growth rates for individual students are calculated by analyzing students' Colorado Measures of Academic Success (CMAS) scores in English Language Arts and Math over consecutive years. A student's growth percentile (ranging from 1 to 99) indicates how a student's performance changed over time, relative to students with a similar score history on the state assessments. School and district growth rates are determined by the growth percentiles from individual students, specifically the median (or score in the middle) student growth percentile. Median Growth Percentiles (MGPs) are calculated for the whole school, by grade, and by different student groups. Higher median growth percentiles indicate higher growth rates for the typical students in those groups. Please note that growth rates are independent of achievement levels (students at all achievement levels are just as likely to have high growth as low growth). As a point of reference, the state median growth percentile for any grade, overall, is 50. In rare cases, state median growth percentiles may vary slightly. Missing data in the table reflect fewer than 20 students in the group; data is not shown in the table (the cells are blank) to ensure data privacy and appropriate interpretation of results.

For related resources, including PSAT/SAT growth reports, go to: [www.cde.state.co.us/schoolview/coloradogrowthmodel](http://www.cde.state.co.us/schoolview/coloradogrowthmodel)

		ENGLISH LANGUAGE ARTS						MATH					
		District			State			District			State		
		2016	2017	2018	2016	2017	2018	2016	2017	2018	2016	2017	2018
<b>ALL STUDENTS</b>		54.0	49.0	52.0	50.0	50.0	50.0	53.0	55.0	54.0	50.0	50.0	50.0
<b>GRADE LEVEL</b>	04	58.0	59.0	59.0	50.0	50.0	50.0	61.0	66.0	58.0	50.0	50.0	50.0
	05	55.0	53.0	53.0	50.0	50.0	50.0	51.5	61.0	57.0	50.0	50.0	50.0
	06	51.0	42.5	48.0	50.0	50.0	50.0	53.0	48.0	45.0	50.0	50.0	50.0
	07	54.0	41.0	48.0	50.0	50.0	50.0	50.0	49.0	54.0	50.0	50.0	50.0
	08	51.0	45.0	50.0	50.0	50.0	50.0	52.0	52.0	54.0	50.0	51.0	50.0
	09	52.0	52.0		50.0	50.0		38.0	43.0		49.0	50.0	
<b>ENGLISH LEARNERS</b>	English Learners	47.5	49.0	49.0	50.0	51.0	50.0	47.0	51.0	51.0	47.0	49.0	48.0
	Non-English Learners	54.0	49.0	52.0	50.0	50.0	50.0	54.0	56.0	54.0	51.0	50.0	50.0
<b>FREE AND REDUCED LUNCH (FRL)</b>	FRL Eligible	47.0	44.0	44.0	47.0	48.0	47.0	46.0	49.0	49.0	46.0	46.0	46.0
	Non-FRL	57.0	51.0	55.0	52.0	52.0	52.0	57.0	58.0	56.0	53.0	53.0	53.0
<b>GENDER</b>	Female	59.0	54.0	56.0	55.0	55.0	54.0	54.0	55.0	53.0	51.0	50.0	50.0
	Male	48.0	45.0	49.0	45.0	46.0	46.0	52.0	56.0	54.0	49.0	50.0	50.0
<b>GIFTED</b>	Gifted and Talented	61.0	58.0	63.0	60.0	58.0	59.0	64.0	64.0	61.0	60.0	58.0	59.0
	Non-Gifted and Talented	51.5	47.0	49.0	49.0	49.0	49.0	51.0	54.0	52.0	49.0	49.0	49.0
<b>INDIVIDUALIZED EDUCATION PLAN (IEP)</b>	On IEP	37.0	37.0	40.0	38.0	41.0	42.0	43.0	45.0	45.0	40.0	43.0	43.0
	Non-IEP	55.0	50.0	53.0	51.0	51.0	51.0	54.0	56.0	54.0	51.0	51.0	51.0
<b>MIGRANT</b>	Migrant				45.0	49.0	47.0				42.0	47.0	43.0
	Non-Migrant	54.0	49.0	52.0	50.0	50.0	50.0	53.0	55.0	54.0	50.0	50.0	50.0
<b>MINORITY</b>	Minority	49.0	46.0	49.0	49.0	49.0	48.0	47.0	51.0	51.0	47.0	48.0	48.0
	Non-Minority	55.0	50.0	53.0	51.0	51.0	51.0	55.0	57.0	55.0	53.0	52.0	52.0
<b>PERFORMANCE LEVEL</b>	At or Above Benchmark	54.0	50.0	54.0	50.0	50.0	50.0	54.0	57.0	53.0	50.0	50.0	50.0
	Below Benchmark	53.0	48.0	50.0	50.0	50.0	50.0	52.0	54.0	54.0	50.0	50.0	50.0
<b>RACE/ETHNICITY</b>	American Indian or Alaska Native	46.0	45.0	41.5	47.0	46.0	46.0	56.0	42.0	54.0	46.0	45.0	48.0
	Asian	62.0	62.0	63.0	59.0	58.0	58.0	62.0	65.0	58.0	59.0	58.0	59.0
	Black	45.0	37.0	53.5	48.0	48.0	46.0	40.0	45.0	50.0	46.0	45.0	46.0
	Hispanic	46.0	44.0	46.0	48.0	48.0	48.0	44.0	49.0	49.0	46.0	47.0	47.0
	White	55.0	50.0	53.0	51.0	51.0	51.0	55.0	57.0	55.0	53.0	52.0	52.0
	Hawaiian/Pacific Islander				50.0	53.5	50.0				53.0	50.0	51.0
	Two or More Races	53.0	47.0	54.0	51.0	51.0	50.0	55.0	56.0	54.0	51.0	51.0	51.0







## Median Growth Percentile for PSD – English Language Arts

PSD did not meet our growth targets by all grade-level and academic-subject combinations. The target is to exceed growth of academic peers statewide. For median growth percentiles (MGP) 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. Green shading indicates MGPs greater than or equal to 50. Blue indicates MGPs greater than or equal to 65. A MGP at or 50 is shaded yellow. MGPs below 35 are shaded red.

The following results do not include PSD charter schools. There are many indications of overall high levels of academic growth, the elementary level of PSD continuing to show the strongest evidence of this sustained positive outcome. There are subgroups of students that are not attaining the PSD growth target. Please click [ACHIEVEMENT and GROWTH](#) to explore the related data visualization.

Level

All

Gr...

All

Academic Year

All

Levels of Support - ELA

All

Levels of Support - Math

All

IEP

All

GT Iden...

All

FR Lunch

All

Gender

All

Multiple Year Growth MGP

School (SPF Aligned)

All

Ethnicity

All

ELL Status

All

Home Language

All

Attend ...

All

Mobile St...

All

McKin...

All

Participated in Extra Curric

All

Assessment

CMAS

PSAT\_SAT

Subject

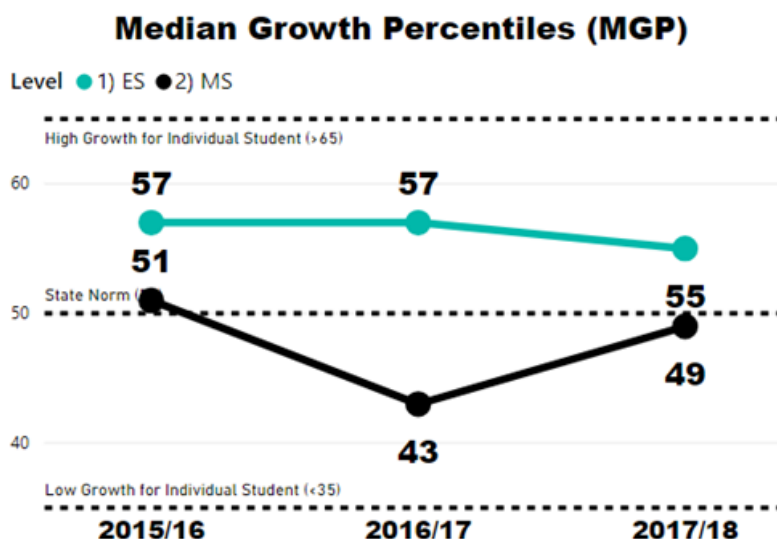
English\_Reading

Math

Year by	2015/16		2016/17		2017/18	
Level	MGP	N	MGP	N	MGP	N
1) ES	57	3686	57	3820	55	3770
2) MS	51	4856	43	4790	49	5024
Total	54	8542	49	8610	52	8794

Year by Grade	2015/16		2016/17		2017/18	
	MGP	N	MGP	N	MGP	N
4	58	1903	59	1874	58	1865
5	56	1783	54	1946	52	1905
6	50	1781	42	1724	49	1867
7	54	1617	41	1651	47	1628
8	51	1458	45	1415	51	1529

Year by Ethnicity	2015/16		2016/17		2017/18	
	MGP	N	MGP	N	MGP	N
American Indian or Alaska Native	51	40	45	31	42	39
Asian	65	276	63	255	62	259
Black or African American	44	94	37	102	52	99
Hispanic	45	1596	43	1587	45	1599
Native Hawaiian or other Pacific Islander	63	11	62	14	47	11
Two or More	53	302	48	317	56	329
White	56	6223	50	6304	53	6458



Year by	2015/16		2016/17		2017/18	
Free?Reduced Lunch	MGP	N	MGP	N	MGP	N
1) Free (F)	46	2414	43	2065	44	1894
2) Reduced (R)	52	766	45	732	46	1316
3) Not FR	57	5362	51	5813	56	5584

Year by Gender	2015/16		2016/17		2017/18	
	MGP	N	MGP	N	MGP	N
Female	59	4150	55	4153	56	4247
Male	48	4392	44	4457	48	4547

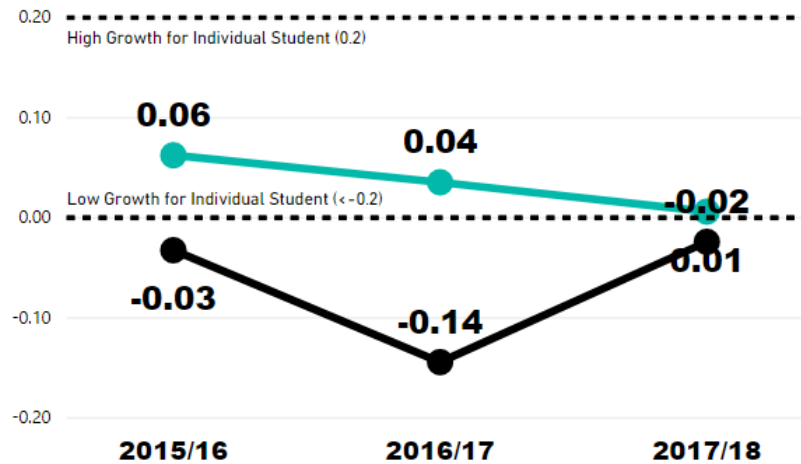
## Student Growth Effect Size for PSD – English Language Arts

For Zgain (average across all students of z post-score – z pre-score) 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. The Zgain metric is also referred to as a growth effect size. A growth effect size greater than or equal to zero is shaded green. Blue indicates a growth effect size greater than or equal to 0.20. A growth effect size at or below zero is shaded yellow. A growth effect size at or below -0.20 is shaded red.

Year by	2015/16		2016/17		2017/18	
Level	Zgain	N	Zgain	N	Zgain	N
1) ES	0.06	3616	0.04	3750	0.01	3685
2) MS	-0.03	4743	-0.14	4690	-0.02	4947

### Growth Effect Size Over Time

Level ● 1) ES ● 2) MS



Year by	2015/16		2016/17		2017/18	
Grade	Zgain	N	Zgain	N	Zgain	N
4	0.10	1856	0.06	1836	0.04	1816
5	0.02	1760	0.01	1913	-0.03	1869
6	-0.05	1706	-0.17	1650	-0.08	1810
7	0.01	1601	-0.16	1636	-0.02	1615
8	-0.06	1436	-0.10	1404	0.04	1522

Year by	2015/16		2016/17		2017/18	
Ethnicity	Zgain	N	Zgain	N	Zgain	N
American Indian or Alaska Native	0.07	36	0.01	34	-0.09	37
Asian	0.10	272	0.02	252	0.06	251
Black or African American	-0.09	86	-0.04	97	-0.10	93
Hispanic	0.02	1587	-0.06	1573	-0.02	1587
Native Hawaiian or other Pacific Islander	0.16	11	-0.13	14	-0.11	11
Two or More	-0.01	292	-0.08	306	0.01	328
White	0.00	6075	-0.07	6164	-0.01	6325

Year by	2015/16		2016/17		2017/18	
Free/Reduced Lunch	Zgain	N	Zgain	N	Zgain	N
1) Free (F)	0.02	2382	-0.05	2058	-0.03	1868
2) Reduced (R)	0.02	747	-0.07	714	-0.04	1305
3) Not FR	0.00	5230	-0.07	5668	0.00	5459
Year by	2015/16		2016/17		2017/18	
Gender	Zgain	N	Zgain	N	Zgain	N
Female	0.06	4058	-0.03	4078	0.01	4160
Male	-0.04	4301	-0.09	4362	-0.03	4472

## Median Growth Percentiles for PSD – Math

Middle school math growth, specifically for the 6<sup>th</sup> grade students, is the main area of concern based on 2017/18 MGP results.

Level

All

Gr...

All

Academic Year

All

Levels of Support - ELA

All

Levels of Support - Math

All

IEP

All

GT Iden...

All

FR Lunch

All

Gender

All

Multiple Year Growth MGP

School (SPF Aligned)

All

Ethnicity

All

ELL Status

All

Home Language

All

Attend ...

All

Mobile St...

All

McKin...

All

Participated in Extra Curric

All

Assessment

CMAS

PSAT\_SAT

Subject

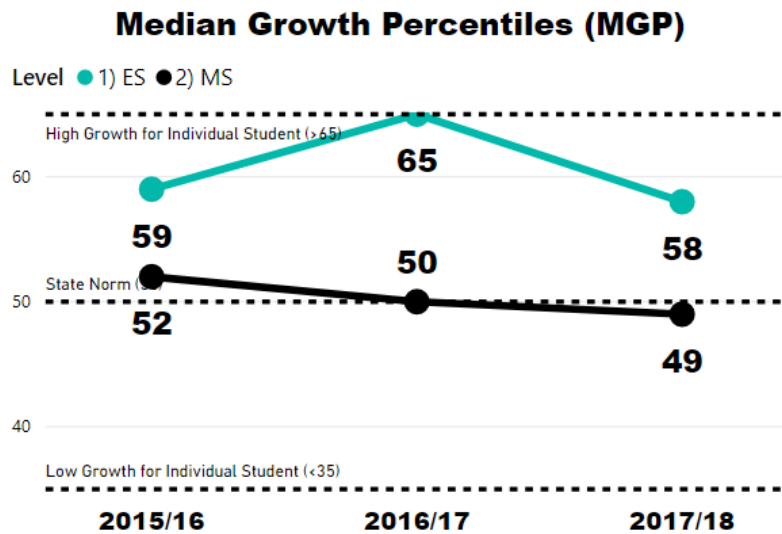
English\_Reading

Math

Year by Level	2015/16		2016/17		2017/18	
	MGP	N	MGP	N	MGP	N
1) ES	59	3708	65	3845	58	3793
2) MS	52	4473	50	4819	49	4456
<b>Total</b>	<b>55</b>	<b>8181</b>	<b>57</b>	<b>8664</b>	<b>54</b>	<b>8249</b>

Year by Grade	2015/16		2016/17		2017/18	
	MGP	N	MGP	N	MGP	N
4	63	1924	67	1898	58	1880
5	54	1784	62	1947	59	1913
6	52	1789	47	1732	44	1874
7	51	1244	50	1666	54	1367
8	53	1440	52	1421	55	1215

Year by Ethnicity	2015/16		2016/17		2017/18	
	MGP	N	MGP	N	MGP	N
American Indian or Alaska Native	61	40	51	31	53	38
Asian	66	262	68	260	58	229
Black or African American	43	91	46	101	50	97
Hispanic	44	1607	50	1622	50	1612
Native Hawaiian or other Pacific Islander	30	11	70	14	57	11
Two or More	57	282	61	312	54	304
White	57	5888	58	6324	55	5958



Year by	2015/16		2016/17		2017/18	
Free/Reduced Lunch	MGP	N	MGP	N	MGP	N
1) Free (F)	47	2413	50	2103	49	1901
2) Reduced (R)	56	749	51	737	51	1302
3) Not FR	59	5019	60	5824	56	5046

Year by Gender	2015/16		2016/17		2017/18	
	MGP	N	MGP	N	MGP	N
Female	56	3987	57	4170	53	4031
Male	54	4194	57	4494	54	4218



## Student Growth Effect Size for PSD – Math

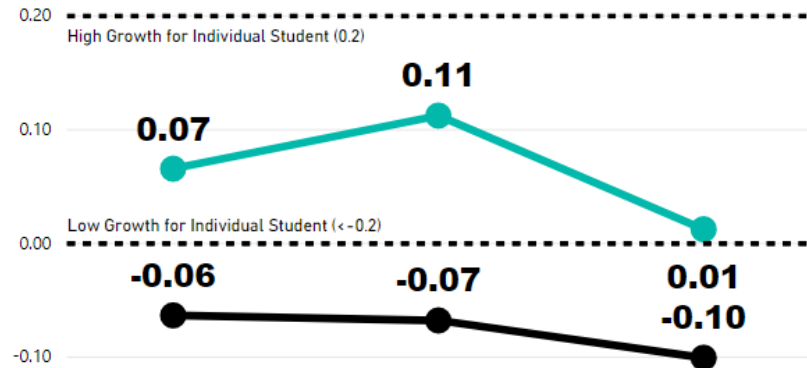
Middle school math growth, specifically for the 6<sup>th</sup> grade students, is also flagged by the growth effect size calculation. Interestingly, 8<sup>th</sup> grade math is also flagged by growth effect size but was not flagged by MGP outcomes.

Year by	2015/16		2016/17		2017/18	
Level	Zgain	N	Zgain	N	Zgain	N
1) ES	0.07	3628	0.11	3773	0.01	3709
2) MS	-0.06	4756	-0.07	4721	-0.10	4385

Year by	2015/16		2016/17		2017/18	
Grade	Zgain	N	Zgain	N	Zgain	N
4	0.14	1870	0.18	1860	0.03	1833
5	-0.02	1758	0.05	1911	0.00	1876
6	0.00	1714	-0.06	1656	-0.15	1816
7	-0.03	1622	-0.05	1648	0.06	1351
8	-0.17	1420	-0.09	1417	-0.20	1218

### Growth Effect Size Over Time

Level ● 1) ES ● 2) MS



Year by	2015/16		2016/17		2017/18	
Ethnicity	Zgain	N	Zgain	N	Zgain	N
American Indian or Alaska Native	0.14	37	-0.08	33	-0.06	36
Asian	0.03	271	0.06	256	-0.04	221
Black or African American	-0.02	86	-0.05	95	0.10	91
Hispanic	-0.01	1607	0.05	1611	-0.01	1600
Native Hawaiian or other Pacific Islander	-0.29	11	0.12	14	0.06	11
Two or More	0.01	290	0.01	299	-0.10	304
White	-0.01	6082	0.00	6186	-0.06	5831

Year by	2015/16		2016/17		2017/18	
Free/Reduced Lunch	Zgain	N	Zgain	N	Zgain	N
1) Free (F)	0.02	2398	0.04	2097	-0.02	1875
2) Reduced (R)	0.05	751	0.01	718	-0.03	1289
3) Not FR	-0.03	5235	0.00	5679	-0.06	4930

Year by	2015/16		2016/17		2017/18	
Gender	Zgain	N	Zgain	N	Zgain	N
Female	0.01	4069	0.01	4092	-0.05	3945
Male	-0.03	4315	0.01	4402	-0.05	4149

## 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 using the same growth effect size utilized above for the state assessment system. 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 over a single 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 2<sup>nd</sup> 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.

For Zgain (average across all students of  $z$  post-score –  $z$  pre-score) 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. The Zgain metric is also referred to as a growth effect size. A growth effect size greater than or equal to zero is shaded green. Blue indicates a growth effect size greater than or equal to 0.20. A growth effect size at or below zero is shaded yellow. A growth effect size at or below -0.20 is shaded red.

## MAP Student Growth Effect Size for PSD – Reading

Year by Level	2015/16		2016/17		2017/18	
	Zgain	N	Zgain	N	Zgain	N
1) ES	0.13	7835	0.18	7911	0.16	7841
2) MS	0.06	5108	0.05	5755	0.00	5869

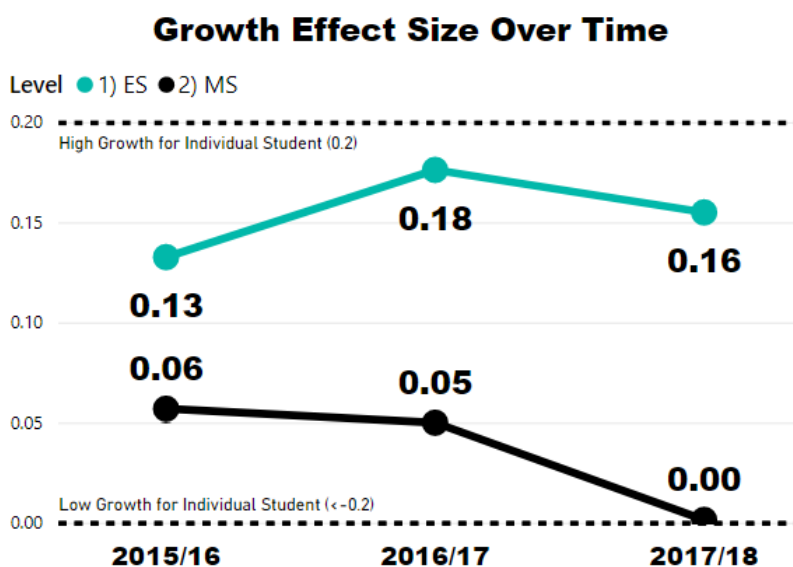
Year by Grade	2015/16		2016/17		2017/18	
	Zgain	N	Zgain	N	Zgain	N
2	0.17	1930	0.23	1922	0.24	1859
3	0.15	1980	0.21	1955	0.17	1997
4	0.14	2043	0.16	1967	0.10	1971
5	0.06	1882	0.11	2067	0.11	2014
6	0.03	1767	0.01	1894	-0.01	2070
7	0.10	1852	0.08	1964	0.00	1890
8	0.04	1489	0.06	1897	0.02	1909

Year by Ethnicity	2015/16		2016/17		2017/18	
	Zgain	N	Zgain	N	Zgain	N
American Indian or Alaska Native	0.21	56	0.20	52	0.15	63
Asian	0.05	382	0.16	383	0.10	393
Black or African American	0.04	152	0.13	150	0.11	141
Hispanic	0.12	2417	0.11	2454	0.09	2521
Native Hawaiian or other Pacific Islander	0.27	19	0.14	22	0.23	16
Two or More	0.12	469	0.10	495	0.11	511
White	0.10	9448	0.12	10110	0.09	10065

Year by Free/Reduced Lunch	2015/16		2016/17		2017/18	
	Zgain	N	Zgain	N	Zgain	N
1) Free (F)	0.13	3867	0.14	3350	0.11	3167
2) Reduced (R)	0.13	1185	0.15	1123	0.08	1935
3) Not FR	0.09	7891	0.11	9193	0.08	8608

Year by Gender	2015/16		2016/17		2017/18	
	Zgain	N	Zgain	N	Zgain	N
Female	0.08	6285	0.12	6584	0.09	6661
Male	0.12	6658	0.12	7082	0.09	7049



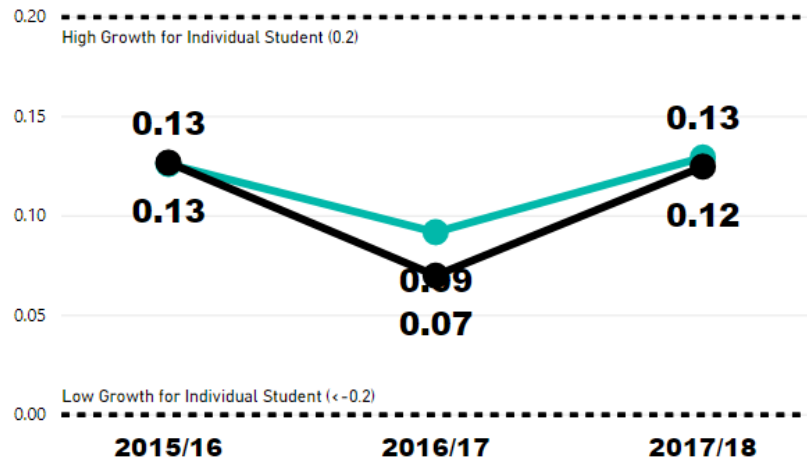
The 0.23 average z-score gain for 2<sup>nd</sup> grade PSD students in reading during 2016/17, means that the PSD spring test outcomes were shifted to the right an additional 0.23 standard deviation units beyond the gains of national peers. One standard deviation unit for nationwide 2<sup>nd</sup> grade 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 2<sup>nd</sup> 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 2<sup>nd</sup> 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.

## MAP Student Growth Effect Size for PSD – Math

Year by Level	2015/16		2016/17		2017/18	
	Zgain	N	Zgain	N	Zgain	N
1) ES	0.13	7809	0.09	7959	0.13	7869
2) MS	0.13	5508	0.07	5843	0.12	5895

### Growth Effect Size Over Time

Level ● 1) ES ● 2) MS



Year by Grade	2015/16		2016/17		2017/18	
	Zgain	N	Zgain	N	Zgain	N
2	0.10	1928	0.11	1933	0.13	1853
3	0.11	1970	0.11	1959	0.11	1999
4	0.15	2028	0.11	1985	0.16	1992
5	0.15	1883	0.04	2082	0.12	2025
6	0.08	1925	0.04	1910	0.12	2045
7	0.15	1924	0.08	2006	0.15	1913
8	0.15	1659	0.08	1927	0.11	1937

Year by Ethnicity	2015/16		2016/17		2017/18	
	Zgain	N	Zgain	N	Zgain	N
American Indian or Alaska Native	0.21	55	0.08	51	0.07	63
Asian	0.10	380	0.06	378	0.18	394
Black or African American	0.10	155	0.04	148	0.06	143
Hispanic	0.08	2487	0.04	2522	0.09	2559
Native Hawaiian or other Pacific Islander	0.11	21	0.19	22	0.02	15
Two or More	0.17	484	0.06	503	0.11	509
White	0.14	9735	0.10	10178	0.14	10081

Year by Free/Reduced Lunch	2015/16		2016/17		2017/18	
	Zgain	N	Zgain	N	Zgain	N
1) Free (F)	0.09	3941	0.07	3440	0.10	3184
2) Reduced (R)	0.14	1205	0.10	1135	0.13	1953
3) Not FR	0.14	8171	0.09	9227	0.14	8627

Year by Gender	2015/16		2016/17		2017/18	
	Zgain	N	Zgain	N	Zgain	N
Female	0.12	6488	0.08	6647	0.12	6697
Male	0.14	6829	0.09	7155	0.13	7067

## MAP Student Growth Effect Size 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.

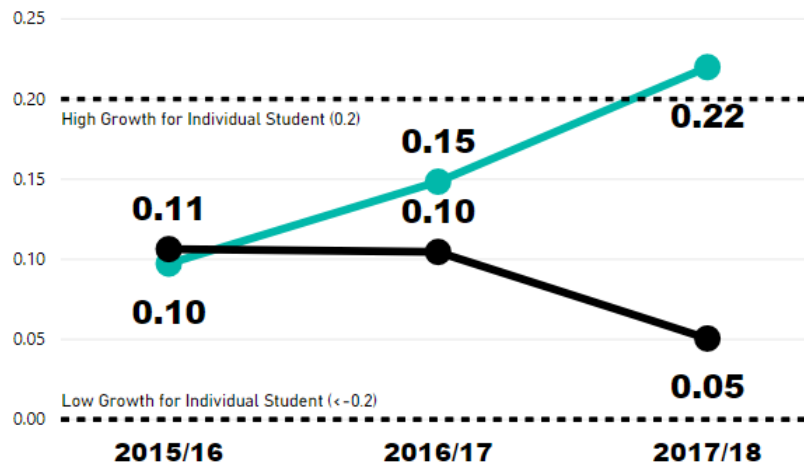
Year by Level	2015/16		2016/17		2017/18	
	Zgain	N	Zgain	N	Zgain	N
1) ES	0.10	586	0.15	439	0.22	479
2) MS	0.11	1972	0.10	2604	0.05	2595

Year by Grade	2015/16		2016/17		2017/18	
	Zgain	N	Zgain	N	Zgain	N
3	0.32	97	0.35	99	0.24	88
4	0.13	236	0.28	87	0.18	129
5	-0.02	253	0.02	253	0.23	262
6	0.09	503	0.13	626	0.13	647
7	0.09	783	0.13	1042	0.02	1037
8	0.14	686	0.05	936	0.03	911

Year by Ethnicity	2015/16		2016/17		2017/18	
	Zgain	N	Zgain	N	Zgain	N
American Indian or Alaska Native	0.03	10	0.05	14	-0.04	12
Asian	0.07	107	0.14	105	0.08	120
Black or African American	-0.08	32	0.05	38	0.00	27
Hispanic	0.07	342	0.12	398	0.02	418
Native Hawaiian or other Pacific Islander	0.08	2	0.37	5	0.18	4
Two or More	0.20	102	0.19	105	0.16	107
White	0.11	1963	0.11	2378	0.08	2386

### Growth Effect Size Over Time

Level ● 1) ES ● 2) MS



Year by Free/Reduced Lunch	2015/16		2016/17		2017/18	
	Zgain	N	Zgain	N	Zgain	N
1) Free (F)	0.09	570	0.11	537	0.04	494
2) Reduced (R)	0.07	164	0.10	197	0.06	384
3) Not FR	0.11	1824	0.11	2309	0.09	2196

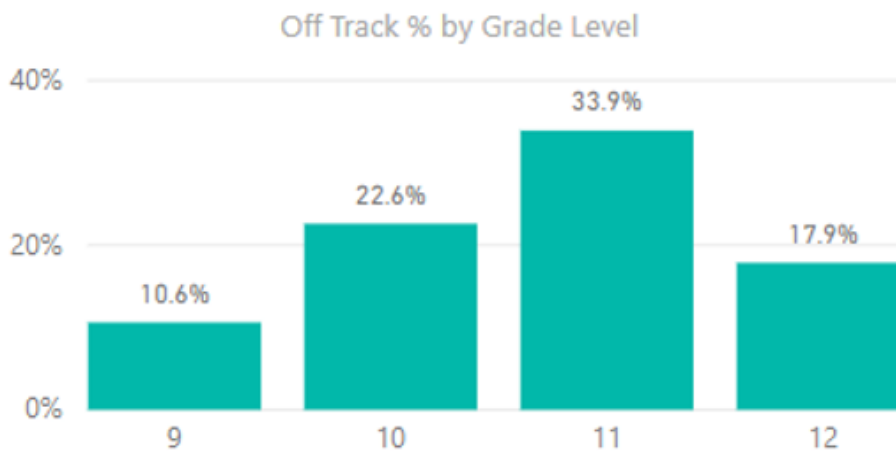
Year by Gender	2015/16		2016/17		2017/18	
	Zgain	N	Zgain	N	Zgain	N
Female	0.10	1236	0.09	1439	0.07	1520
Male	0.11	1322	0.13	1604	0.08	1554

## Appendix 5: Credit Accumulation

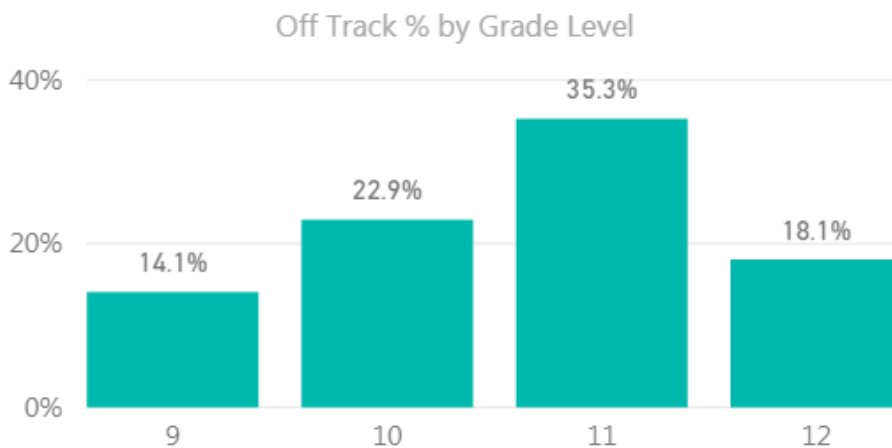
Credit Accumulation Target:  $\geq 85\%$  of 9<sup>th</sup>-12<sup>th</sup> grade students will be on track to graduate within 4 years of transition into 9th grade.

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 9<sup>th</sup> graders. Research shows that 9<sup>th</sup> 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. Three years of tabled results are provided below as this is a newer set of data for PSD and our community. We are all learning from the patterns that emerge.

### Student Insight – Off Track to Graduate



Note: As of 2/12/19 at 7:00 pm

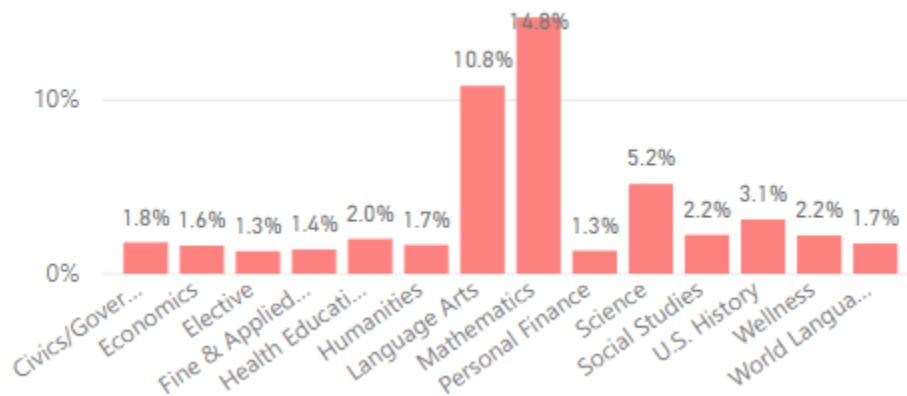


Note: As of 2/20/18 at 2:00 pm

### 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
<b>Total Credits "On-Track"</b>	<b>20</b>	<b>50</b>	<b>105</b>	<b>240</b>

Off Track % by Academic Subject



**2018/19 On Track to Graduate Credit Accumulation Grades 9-12 (Pulled Febuary)**

Student Characteristic	Levels	Off Track	On Track	% Off Track	% On Track	Total N
Grade	Total	1,658	6,459	20.4%	79.6%	8,117
	9	218	1,923	10.2%	89.8%	2,141
	10	458	1,616	22.1%	77.9%	2,074
	11	633	1,265	33.4%	66.6%	1,898
	12	349	1,655	17.4%	82.6%	2,004
Gender	Male	933	3,212	22.5%	77.5%	4,145
	Female	725	3,247	18.3%	81.7%	3,972
Ethnicity	American Indian or Alaska Native	21	20	51.2%	48.8%	41
	Asian	25	237	9.5%	90.5%	262
	Black or African American	41	69	37.3%	62.7%	110
	Hispanic	557	931	37.4%	62.6%	1,488
	Native Hawaiian or other Pacific Islander	4	15	21.1%	78.9%	19
	Two or More	57	251	18.5%	81.5%	308
	White	953	4,936	16.2%	83.8%	5,889
Lunch Program Status	Free	837	1,300	39.2%	60.8%	2,137
	Reduced	207	594	25.8%	74.2%	801
	Neither	614	4,565	11.9%	88.1%	5,179
ELL Lang. Proficiency	NEP	26	22	54.2%	45.8%	48
	LEP	52	43	54.7%	45.3%	95
	FEP (E1,E2,M1,M2)	95	181	34.4%	65.6%	276
	Not ELL	1,485	6,213	19.3%	80.7%	7,698
IEP Support	IEP	309	336	47.9%	52.1%	645
	None	1,349	6,123	18.1%	81.9%	7,472



### 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
Ethnicity	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 Febuary)

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

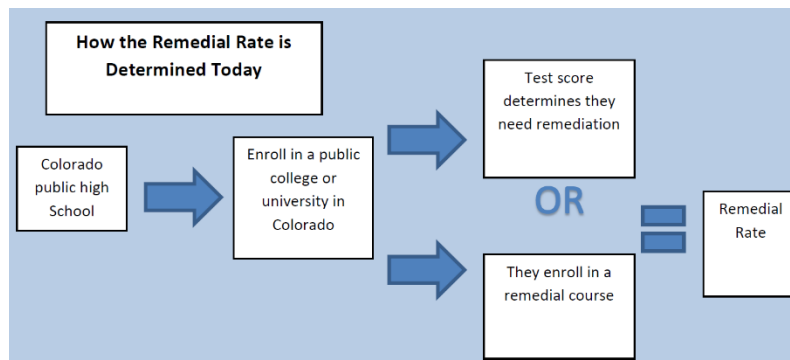
For this section of the Monitoring Report, we will be reporting numbers as they appear in reports produced by the [Colorado Department of Higher Education](#).

### 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 tables below display 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	27.3%
2016	20.6%
2017	NA
2018	NA

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	35.7%
2016	34.9%
2017	NA
2018	NA

Other post-secondary outcomes that are available via the [Colorado Department of Higher Education](#) (CDHE) 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 student's 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.

Considering the SAT outcomes 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 2016 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 CDHE 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%	
2016	61.3%	44.2%	17.2%	
2017	NA	NA	NA	
2018	NA	NA	NA	
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%
2016	14.0%	30.1%	1.7%	15.5%
2017	NA	NA	NA	NA
2018	NA	NA	NA	NA

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%	
2016	55.8%	42.8%	13.0%	
2017	NA	NA	NA	
2018	NA	NA	NA	
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%
2016	13.3%	29.4%	1.5%	11.5%
2017	NA	NA	NA	NA
2018	NA	NA	NA	NA

## 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
2016	2.95	34.2
2017	NA	NA
2018	NA	NA

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
2016	2.78	30.6
2017	NA	NA
2018	NA	NA

## Post-Secondary Outcomes – Persistence into 2<sup>nd</sup> 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	87.2%	69.6%	93.5%	83.0%
2016	N/A	N/A	N/A	N/A
2017	N/A	N/A	N/A	N/A
2018	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	80.7%	62.2%	86.9%	77.7%
2016	N/A	N/A	N/A	N/A
2017	N/A	N/A	N/A	N/A
2018	N/A	N/A	N/A	N/A