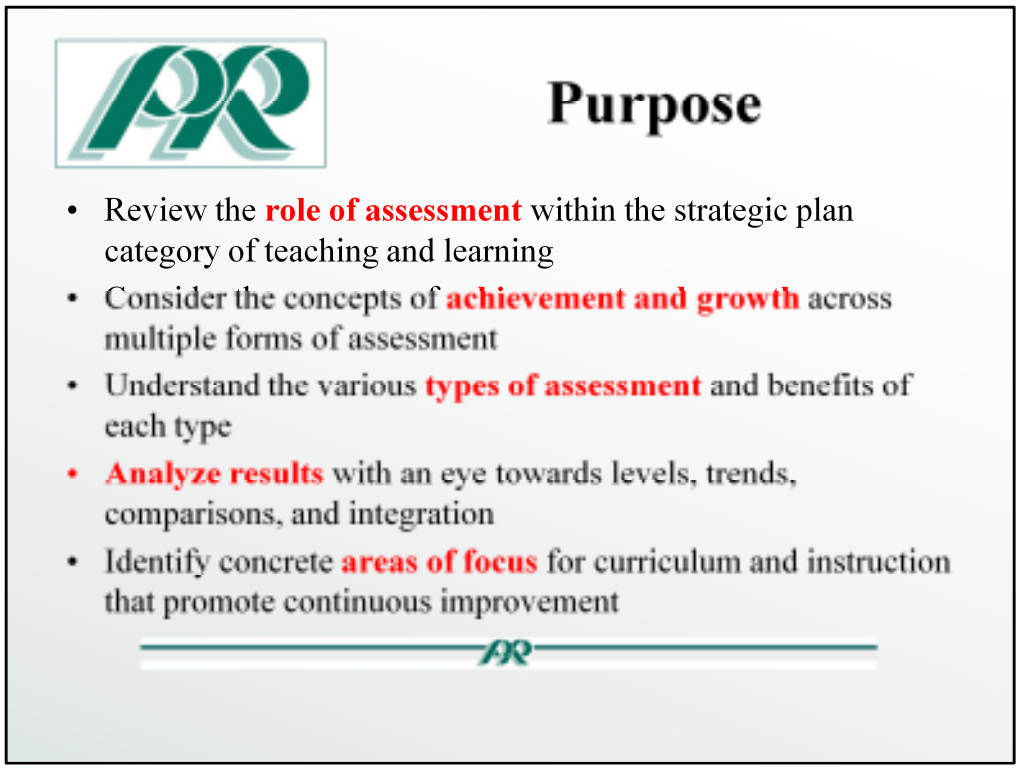
PINE-RICHLAND SCHOOL DISTRICT

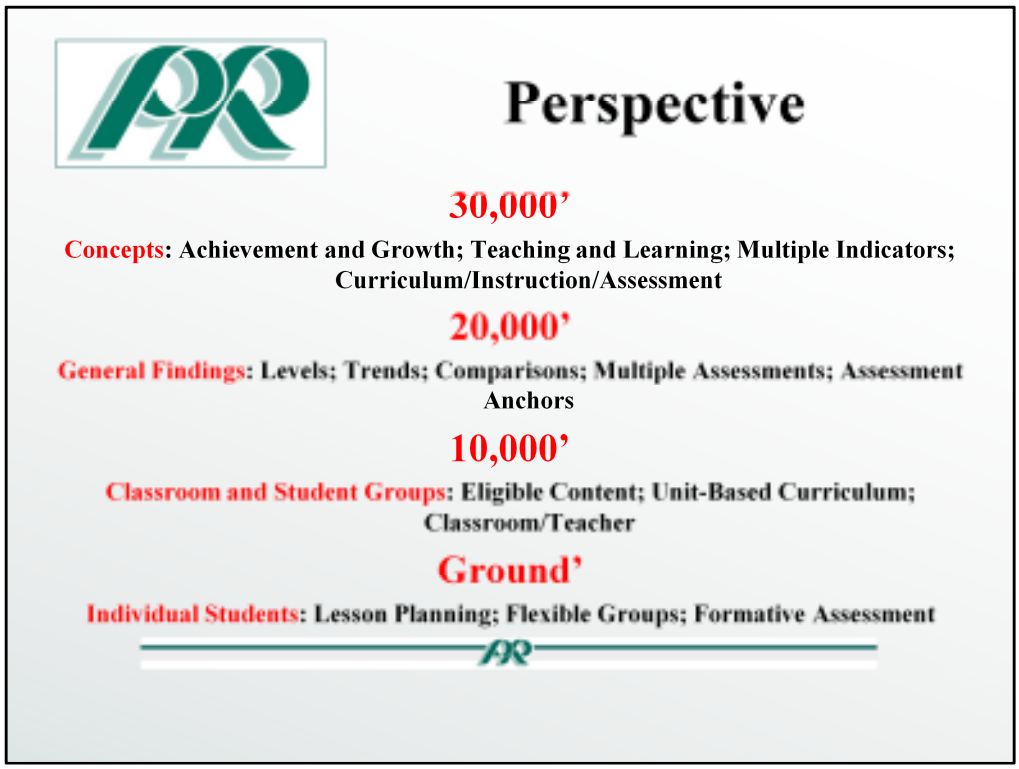
Academic Achievement Report

November 9, 2015

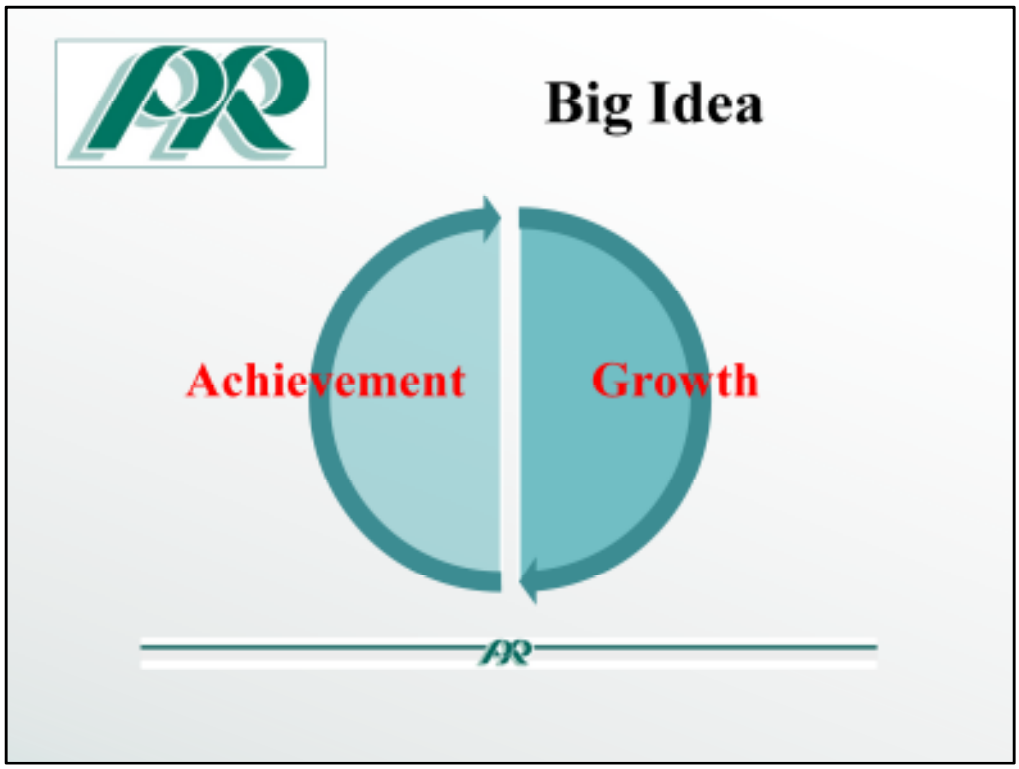
The annual academic achievement report is designed to consolidate results from a series of standardized tests. The report is a comprehensive document that provides historic and current data in each area.



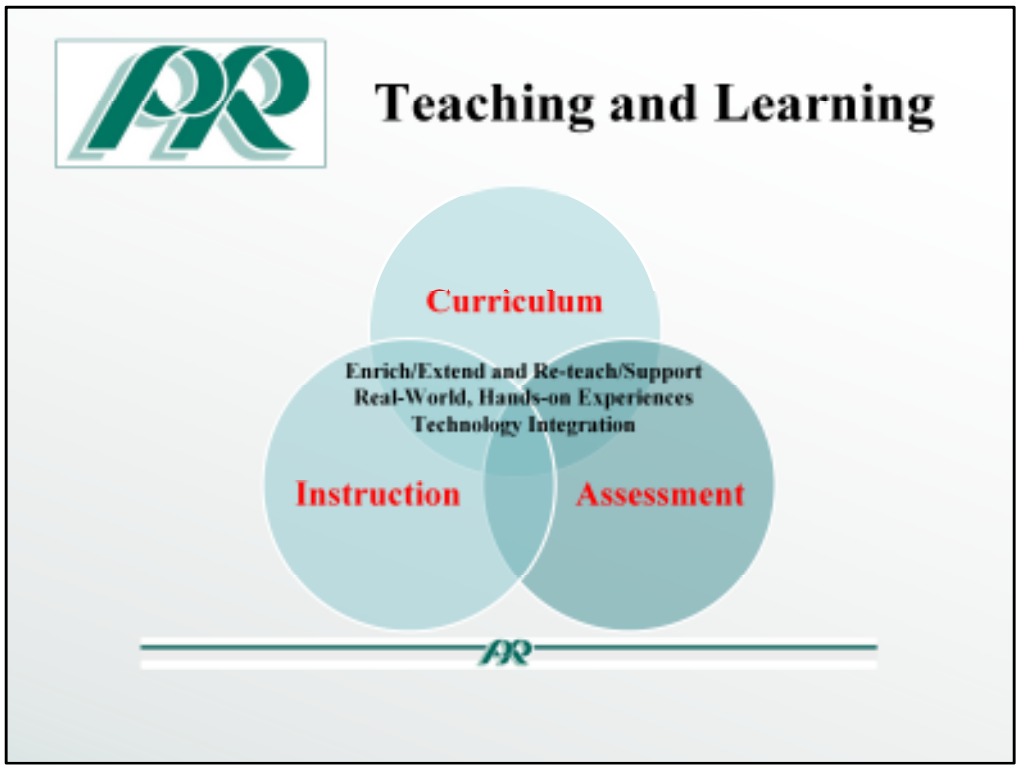
We have several goals for this presentation. First, we will set the context for the information within the strategic plan and will also discuss the various perspectives on data. For example, a classroom teacher of English Language Arts must understand and interact with these results very differently then a principal, a district office administrator, or a board member. Another critical element of this presentation is the attention given to achievement AND growth. The district now has the ability to understand student growth through the PVAAS methodology. Tonight's discussion will center on several summative assessments. Since the other forms of assessment are also important to our strategic direction, we will take a moment to compare these types. The discipline of data analysis is best addressed through an intentional strategy. You will hear the terms "levels, trends, and comparisons" tonight. We will also discuss the integration of certain assessment results into other aspects of the district such as curriculum and instruction. Finally, we will identify additional concrete steps for continuous improvement. We have made significant adjustments based partly on data analyses. Examples include the focus on unit-based curriculum, Wonders resources in ELA, math pathways, RTII decision tree in ELA, and the master schedules.



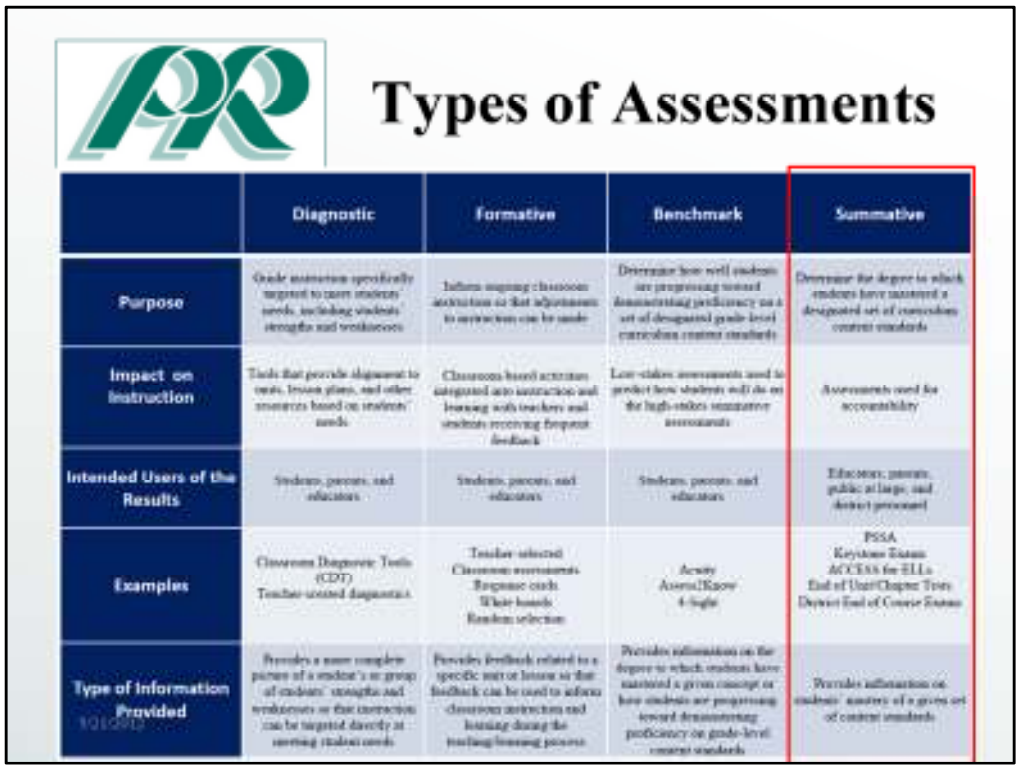
Given tonight's audience, we will generally focus on the 30,000' concepts and 20,000' general findings outlined on this slide. The board has a governance and oversight responsibility to our mission and vision. At the district level, our administrators have the need to understands systems thinking and see the interaction of various programs on the effectiveness of the student learning experience. We felt this slide would clearly illustrate the fact that the academic achievement report is a starting point…not an end point. The information in this document will spiral through all levels of buildings and departments to promote continuous improvement.



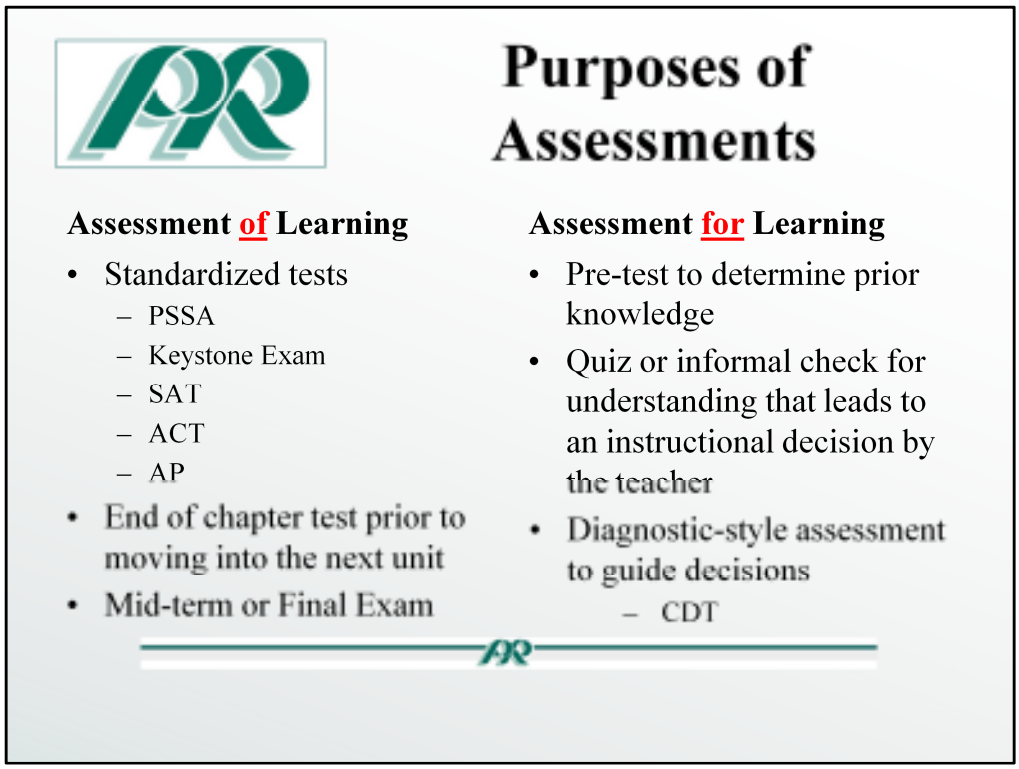
We focused on this topic last year. It is also directly embedded into the mission and vision of our school district. Achievement can be considered as the level of performance at a single point in time. It is a snapshot of a student's understanding on that day or days within the format of that assessment. Growth represents the degree of learning that has occurred over time. If we consider a typical classroom of 24 students on the first day of school. Those students have various levels of achievement. They have different starting points. The fundamental goal of growth is to ensure that every one of the 24 students makes at least a year's worth of growth during a year of schooling. In the case of a struggling student, we actually want to make more than a year of growth to help close the achievement gap. In the case of a high performing student, we want to ensure that we can enrich and extend their learning so that they are challenged to keep growing as well.



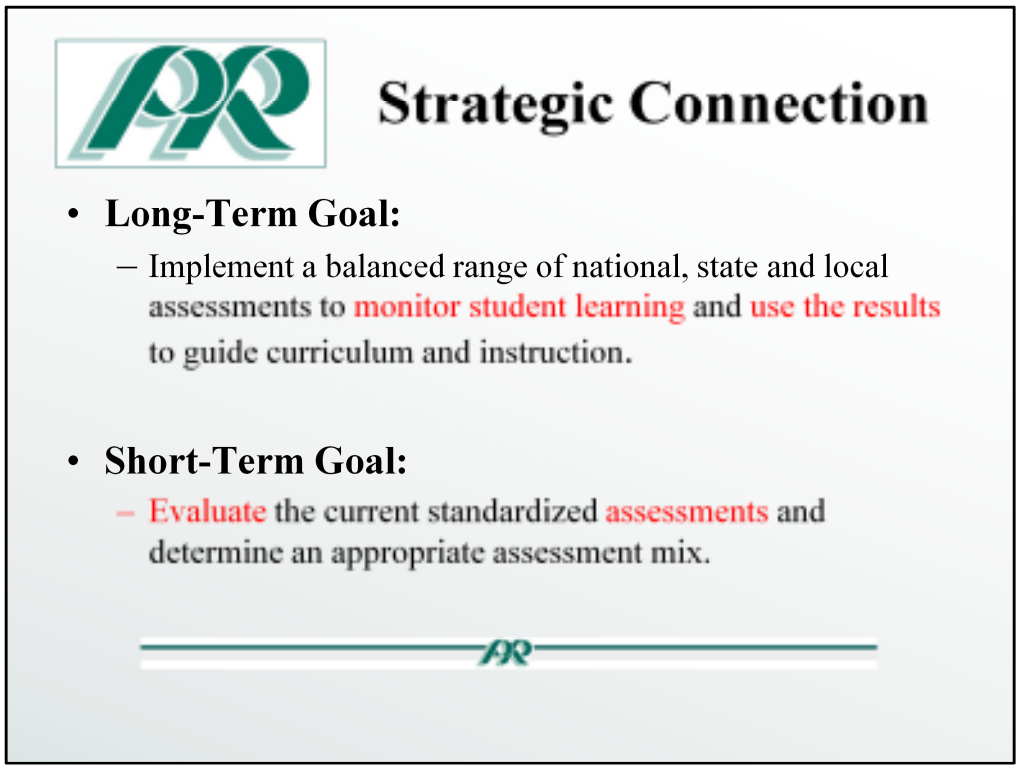
We have taken this slide from our strategic plan town hall meetings. The first category of the strategic plan is “teaching and learning.” This graphic helps illustrate the integration of key ideas. Our goal is have the greatest degree of overlap possible between the circles. When our curriculum, instruction and assessment are aligned, we are more productive in supporting our students.



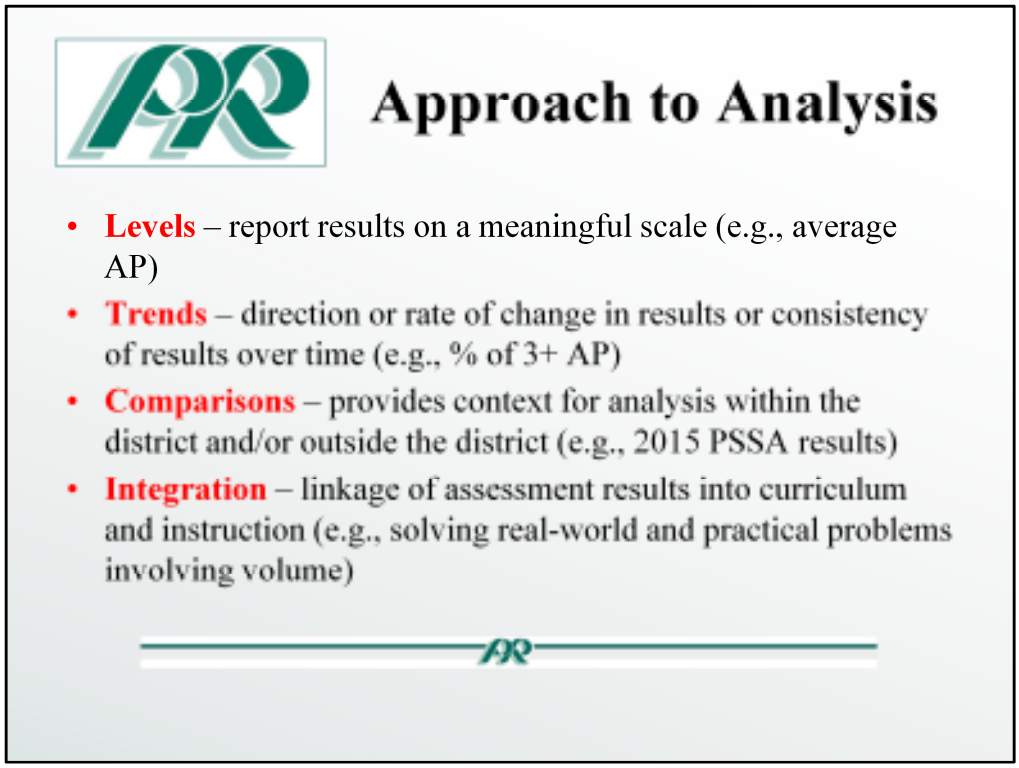
This graphic was taken from the PDE Standards Aligned System website. It does a great job of capturing the various types of assessment and their role in education. As mentioned previously, this presentation is built on a series of summative assessments. The next slide will help capture a crucial difference between types.



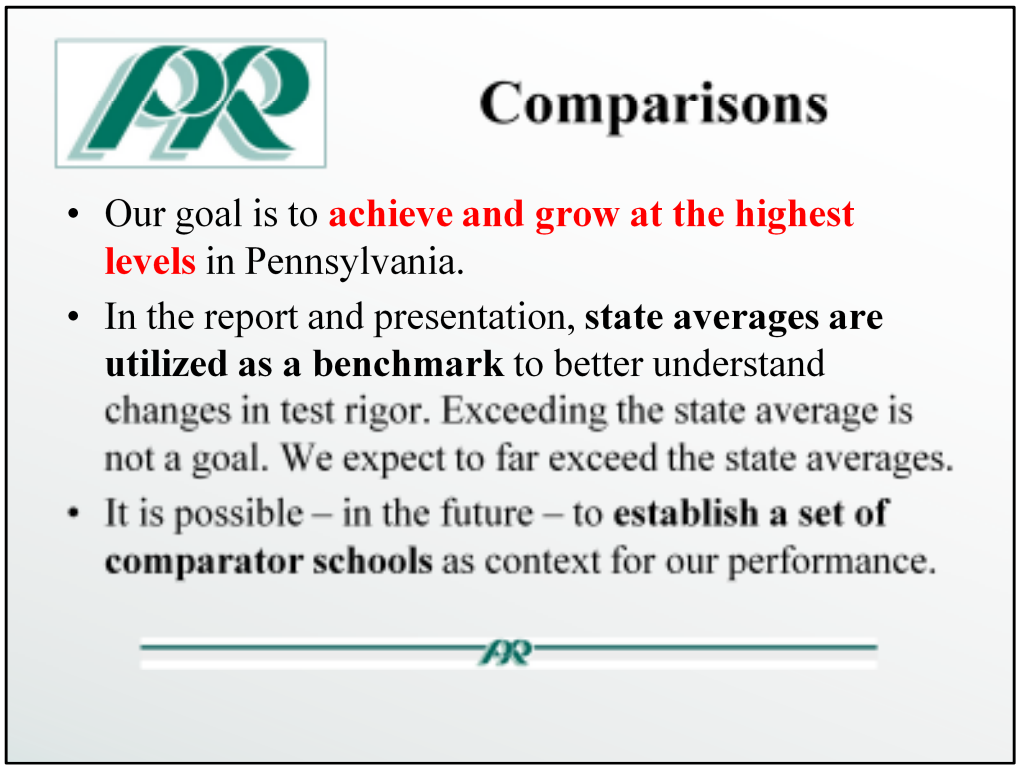
Just as we want to maintain a balance between achievement and growth, we also want to develop a balance between the "of" and the "for" described on this slide. If we think back to our own educational experiences, we are familiar with studying hard to take a test…getting a grade and then moving on. In many cases, we worked hard to memorize a series of discrete facts and information. We might also forget that information fairly quickly. Background knowledge and understanding is a critical part of education. However, the information age has placed some of that information at our fingertips. Part of our continued growth in education is the ability of students to transfer knowledge into new settings.



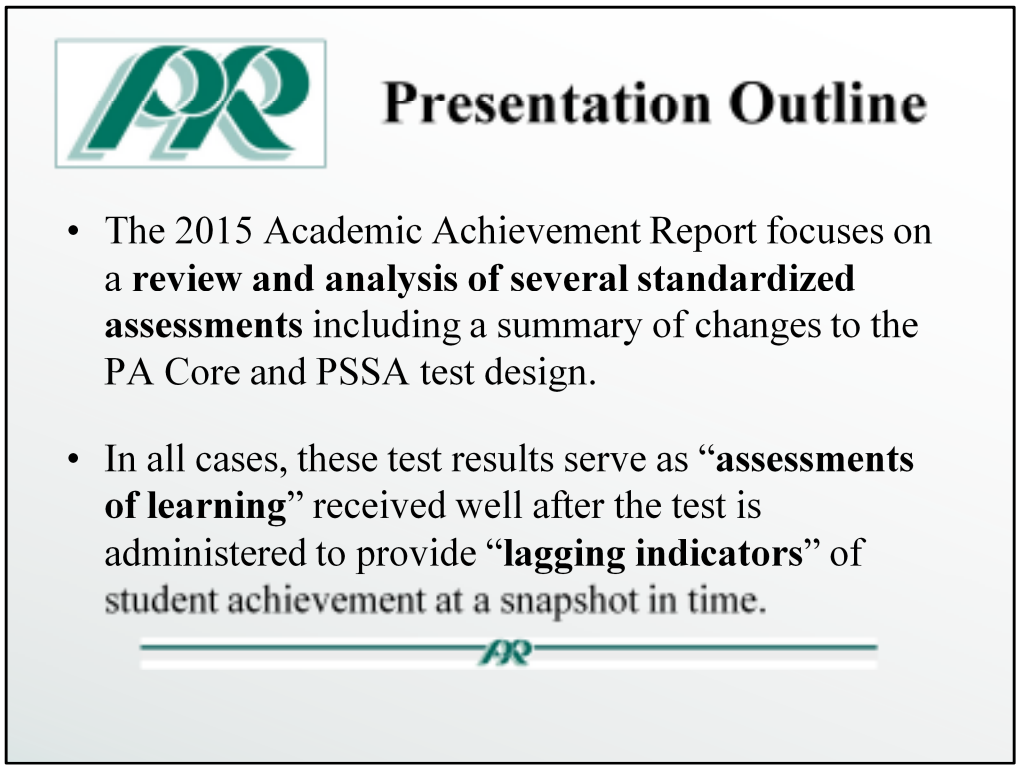
Similar to the Venn diagram of curriculum, instruction and assessment, this is a brief strategic connection to keep the ideas in the front of our mind. As we operate at the 30,000' and 20,000' levels, we want to see and understand the linkages between items.



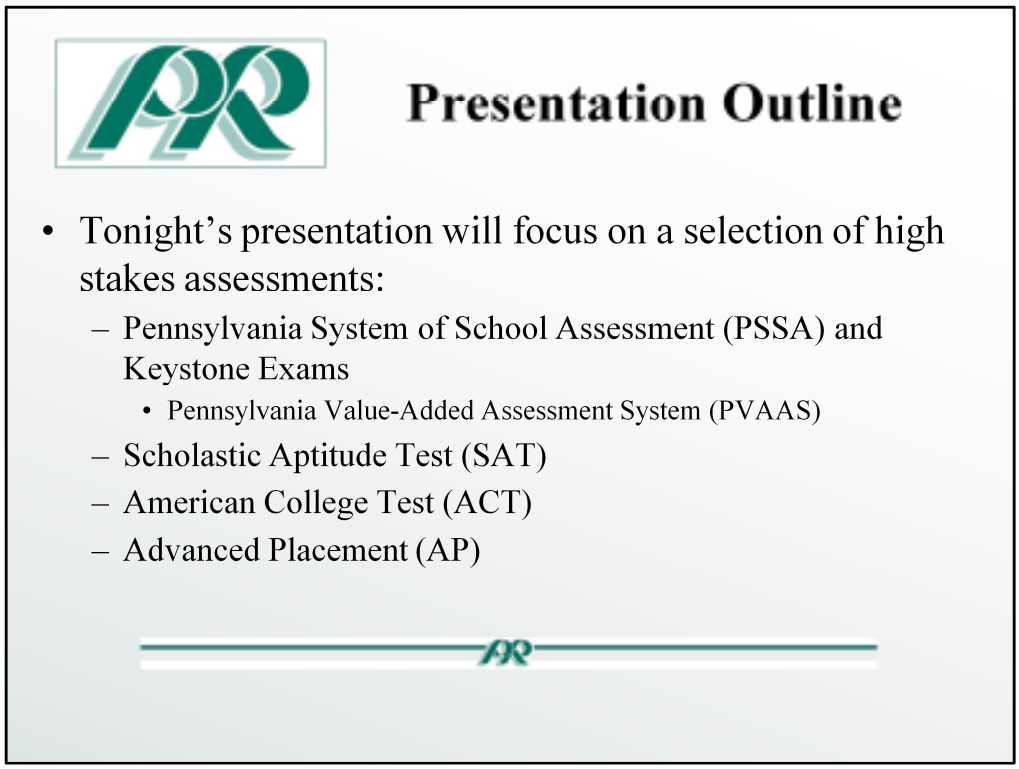
The approach to data analysis is mentioned here. Levels are self explanatory. We consider a trend – either favorable or unfavorable – when we have a minimum of three data points. Since the PSSA assessments were redesigned, we will not have trend data to consider yet. Comparisons help provide context. They can occur internally between schools or externally. More on comparisons in a moment. Integration reinforces the concept of systems thinking. It is the connection of one finding to other aspects of our program. As a different example, we want to consider professional development needs based on assessment results.



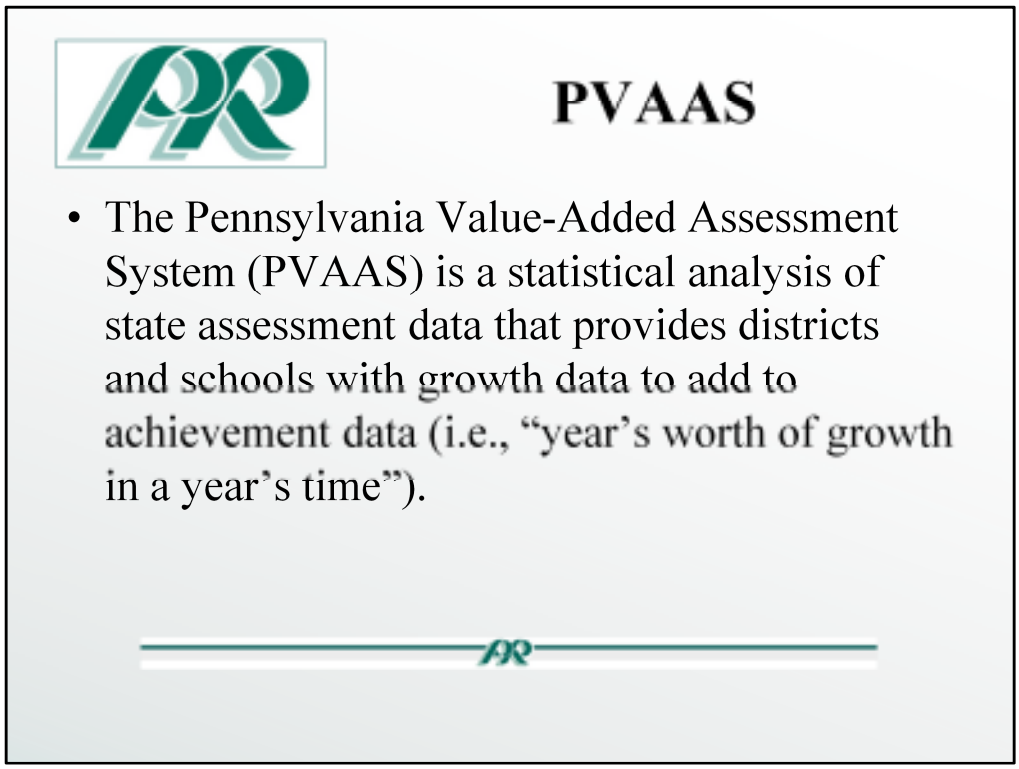
We included this slide so that it is explicit for a member of the audience or someone who might review this information on Board Docs. As an example of the importance of state comparisons, we have the 2015 PSSA that was revised and aligned with the PA Core. If we only reviewed the performance of Pine-Richland students…we would wonder what happened last year. When we see it in context of the overall change in rigor and average state performance, it gives us a better lens for understanding. At the ground level, I can also give an individual student example. We reviewed the data of a student who scored in the advanced category for mathematics. That student scored at the Proficient level in mathematics for the first time in their PSSA testing career. But, when you look at the State NCE level of 73 and percentile of 86, it was the highest relative achievement level the child has ever earned. If we only looked at the performance level without understanding the comparison, we could draw an inaccurate conclusion.



This slide is again designed to help a reader – someone not in attendance tonight – to understand the purpose and context of the presentation.

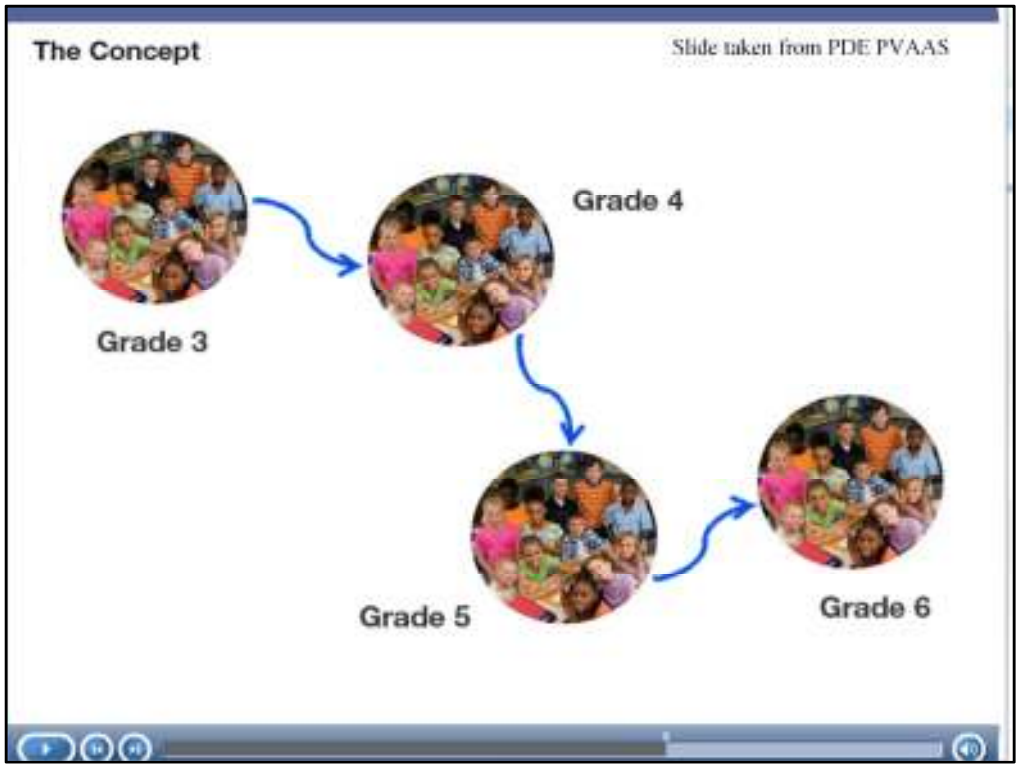


This slide is again designed to help a reader understand the purpose and context of the presentation.

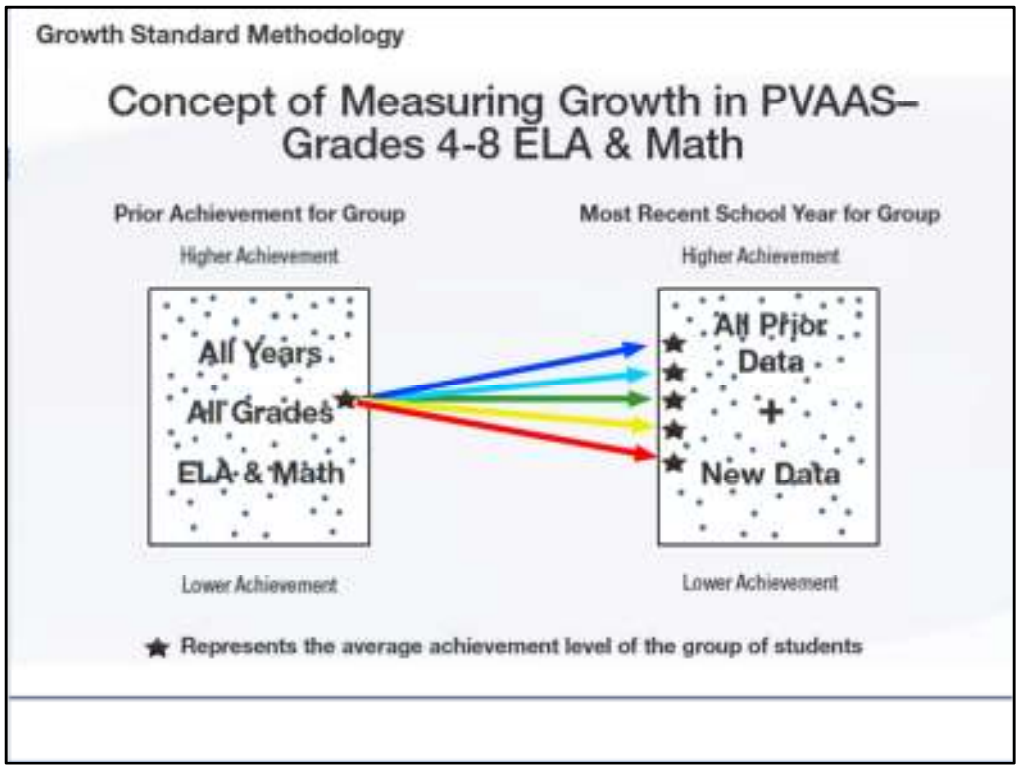


We made a slight change to the organization of the academic achievement report this year. Where available, we have included the PVAAS analysis immediately following the achievement levels for that grade level and test. In this way, we can see both halves of the "achievement and growth" graphic shown earlier in the presentation. PVAAS is an acronym for the Pennsylvania Value-Added Assessment System. The methodology has been used for well over a decade.

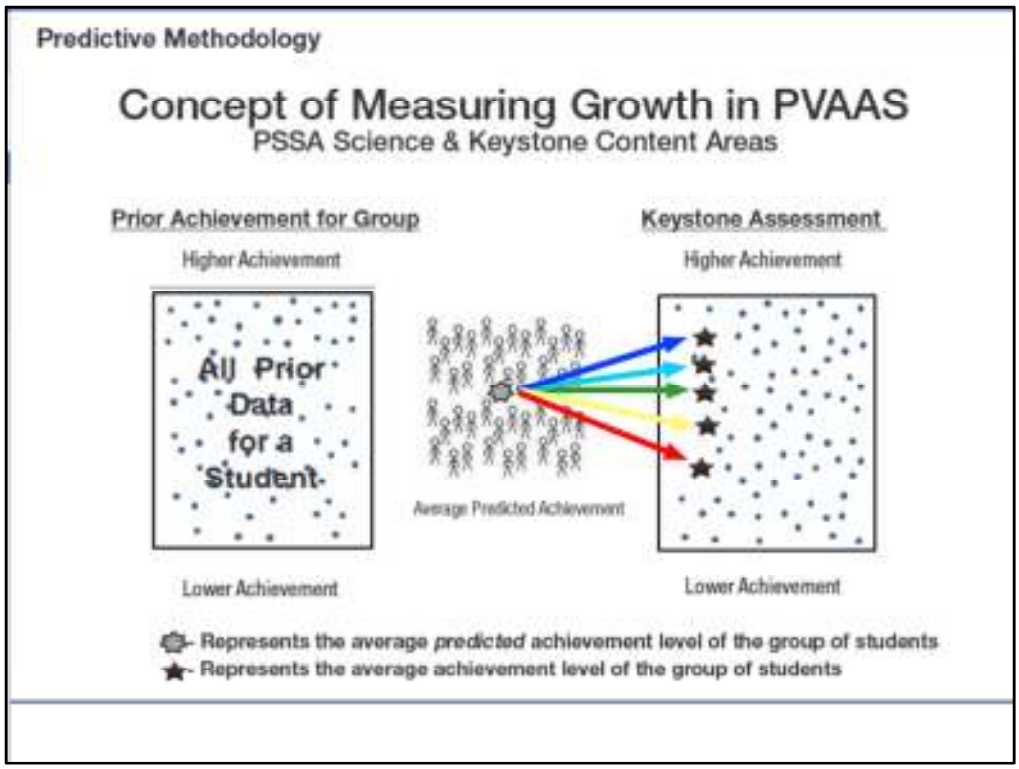
Non-technical and technical descriptions of the PVAAS methodologies are available on the PVAAS website. For tonight, we want to keep this presentation at the 30,000' and 20,000' foot perspective to help us look back at student learning last year and look forward to continuous improvement.



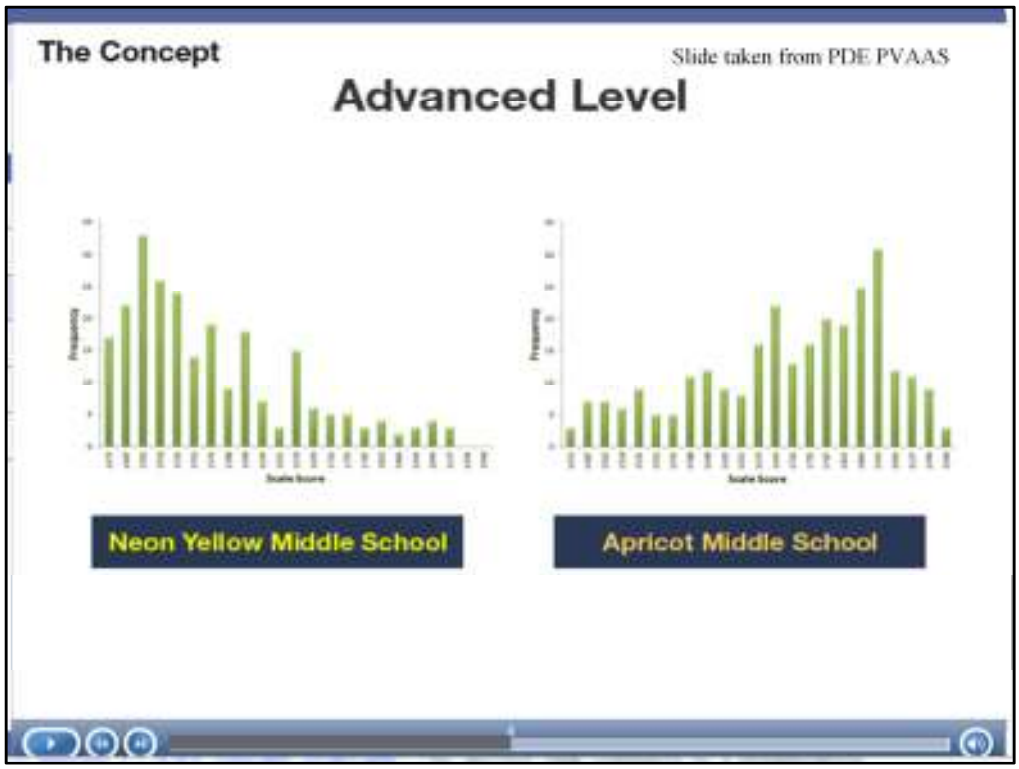
We will review a few conceptual slides before getting into the results. This will hopefully allow us to move more quickly through the data. The first big concept is that PVAAS allows us to follow the growth of the same cohort of students over time. It DOES NOT compare the fifth grade class from one year to the fifth grade class of a different year.



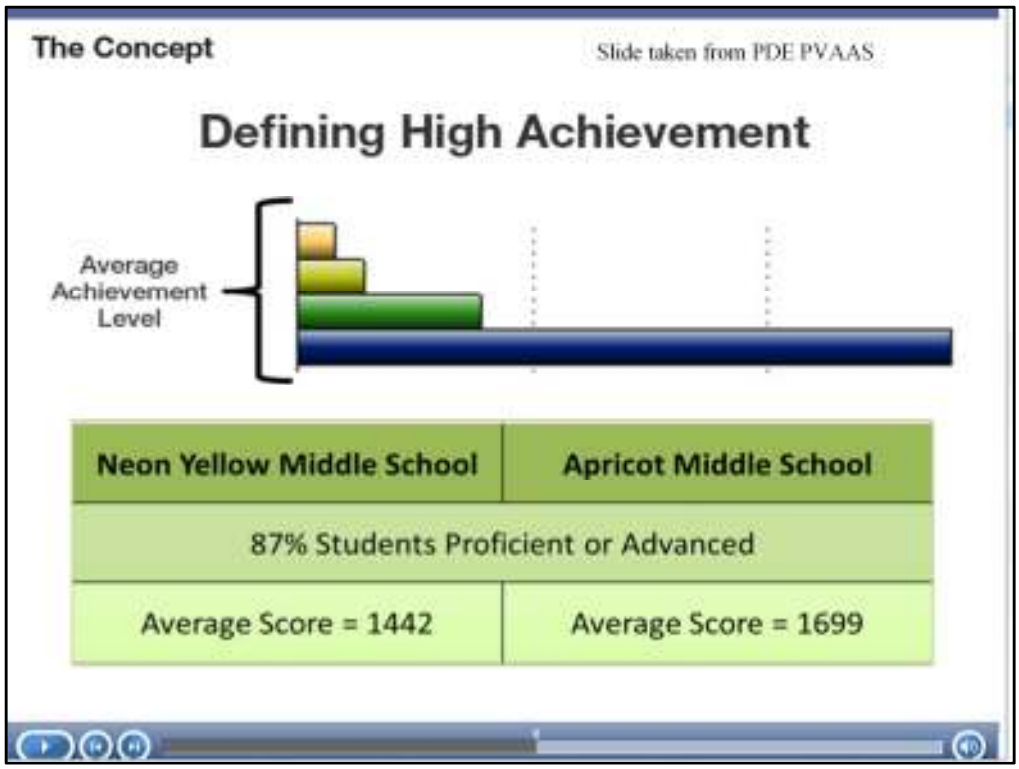
Two different growth methodologies are used. The growth standard methodology on this slide is used when testing occurs in consecutive years. The box on the left illustrates that fact that individual students perform at different levels on a given assessment. To determine growth, PVAAS looks at the AVERAGE combined achievement of that group. When the next testing cycle occurs, the methodology uses ALL prior data PLUS new data to see whether the cohort of students met the PA standard for academic growth (green), far exceeded the PA standard for academic growth (dark blue), or did not met the PA standard for academic growth (red).



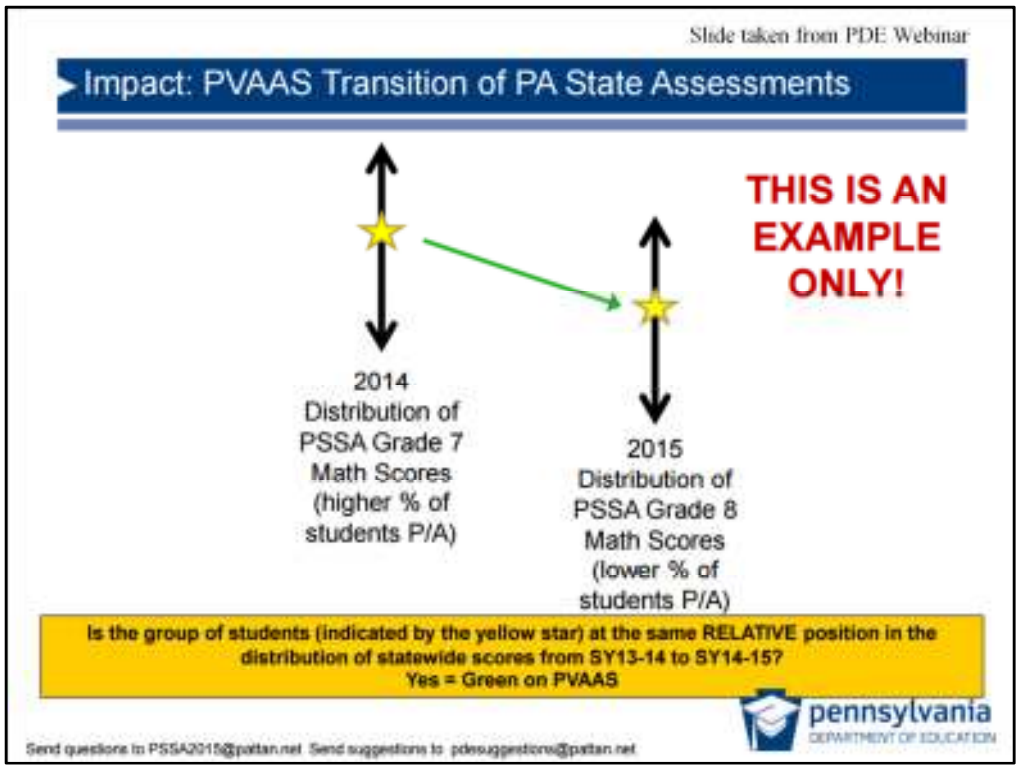
When tests do not occur every year – such as science and Keystone Exams – a predictive methodology is used. Prior data leads to an average predicted achievement level. When the exam is given, the "color" is used to describe whether the cohort of students met, exceeded or failed to meet the predicted level.



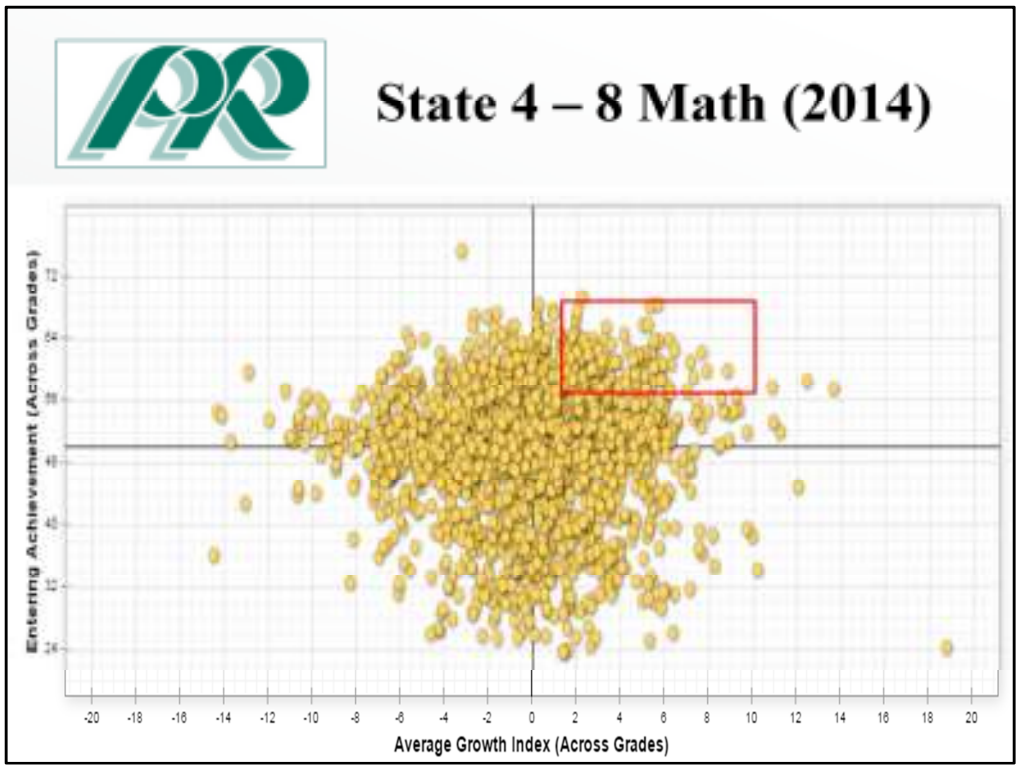
As a high performing school district, it is a common misconception to believe that it is harder to show growth. In this hypothetical example, 68% of students scored at the Advanced performance level on the same test. The PSSA and Keystone Exams have sufficient "stretch" in their rigor that allows detailed analysis of student performance at all levels. The range of scaled scores at the Advanced level is almost 1,000 points. In this example, we can clearly see the opportunity for students at Neon Yellow Middle School (and Apricot) to improve. We will reference this concept when we get to the 2015 fourth grade science results later in the presentation (slide 32).



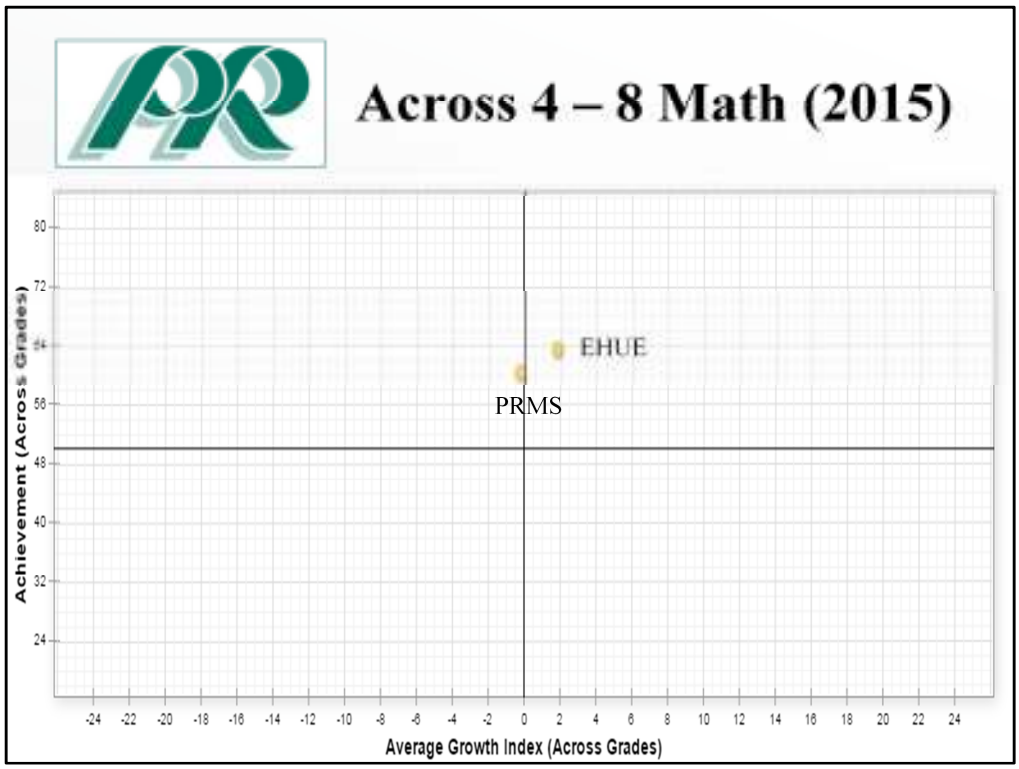
As additional consideration, the group performance is actually an average score of all individuals across all performance levels. This demonstrates the ability of students – in all areas – to improve. It is a misconception that growth is measured by increasing the percentage of students at the advanced/proficient levels. PVAAS does not look at performance levels in this manner for the overall growth measure. PVAAS measures whether a group of students have maintained their "relative position" compared to the other groups. Thinking of the group as having a single average score that correlates to a "percentile" placement with all other schools/groups at that level/test helps to paint a picture.



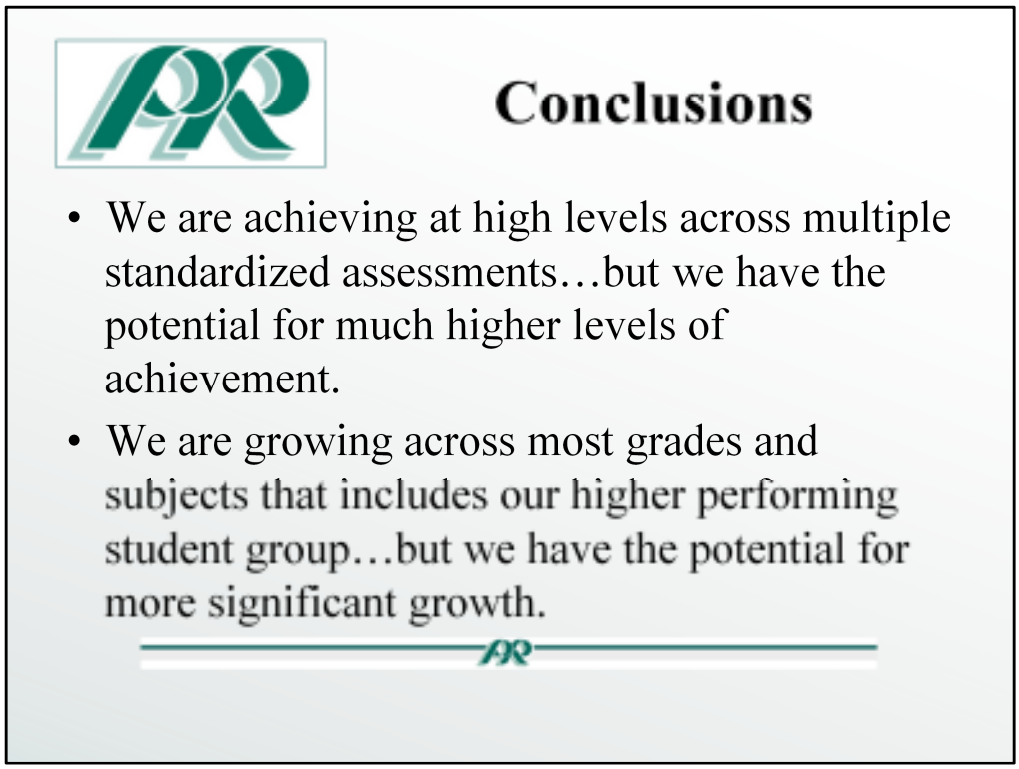
We have also heard a series of concerns about whether growth data can be determined given the revised assessment to PA Core and increase in rigor. Since the results compare to the PA standard for academic growth and refer to the relative position of a group of students, this slide illustrates the concept. This example follows a group of students from grade 7 to grade 8. Even though all of the grade 8 students – in this school and the state – performed at a lower level of achievement, they maintained their relative position. In other words, they still met the PA standard for academic growth and would be considered "green" or "met" from a value-added perspective.



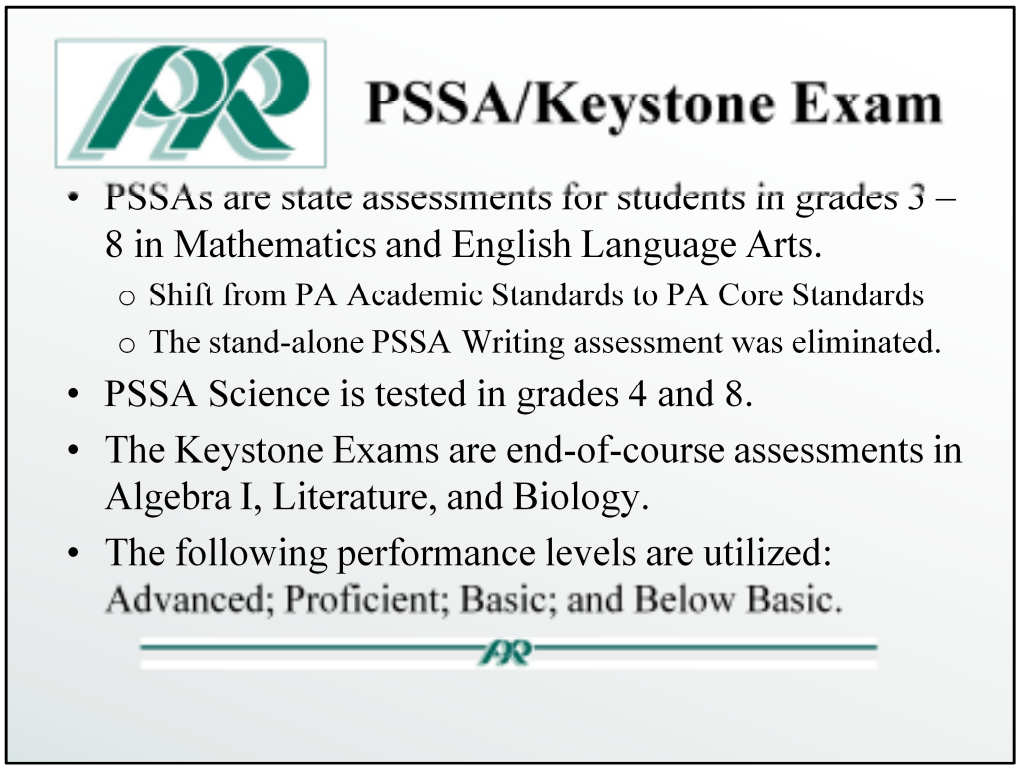
Although the statewide scatter plot is not yet available for 2015, last year's results for math in the 4 – 8 band demonstrate the ability of schools to be BOTH high performing and growing.



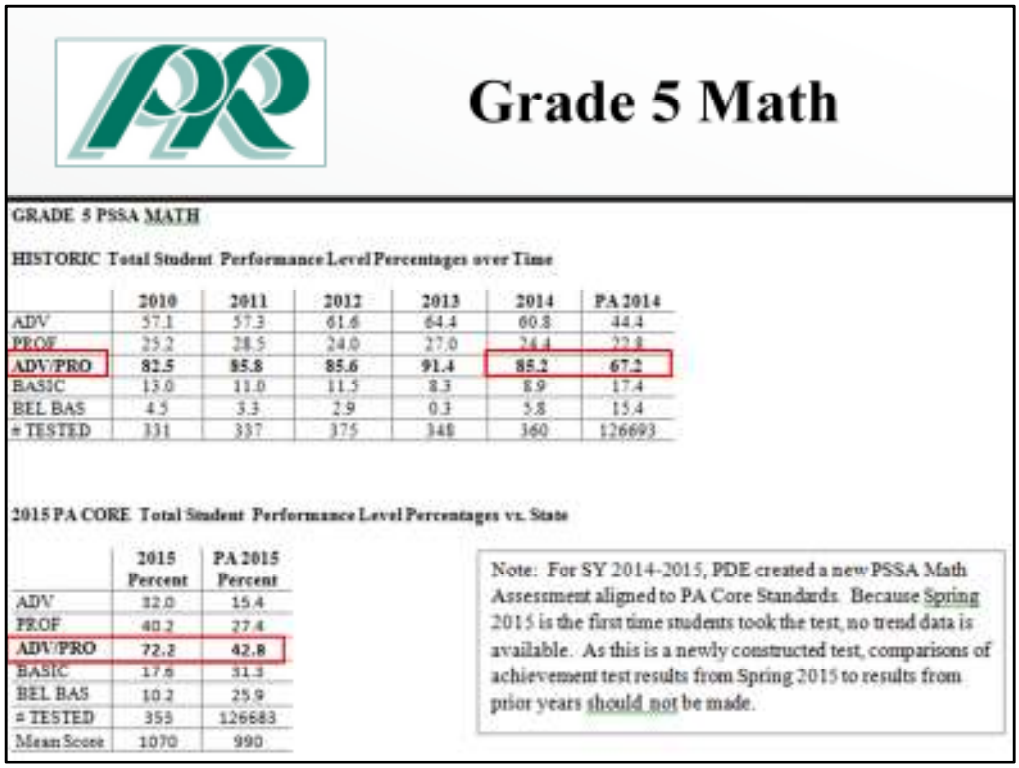
If we look at the 2015 results for Eden Hall and the middle school, we see high relative achievement. These data points look at math across the grade levels (i.e., 4 – 6 at Eden Hall and 7 – 8 at the middle school). We can see that Eden Hall is both achieving and exceeding the growth standard in math. The middle school is achieving and is located right on the "meet the PA standard for academic growth" vertical line.



At the 30,000' level and before we even look at results, we thought it would be beneficial to describe – from our perspective – what you are about to see. We are achieving at high levels. We also have significant opportunity to increase achievement. We are also growing across most grades and subjects. There are some specific exceptions to that growth that we will highlight, but the growth data is more favorable for PRSD in 2015 then in 2014. However, we have the potential for more significant growth.



Two significant changes occurred last year. First, the stand-alone PSSA writing assessment was eliminated. Writing is now embedded into the English Language Arts test. The second major change was the alignment to PA Core standards.



Grade 5 Math

GRADE 5 PSSA MATH

HISTORIC Total Student Performance Level Percentages over Time

	2010	2011	2012	2013	2014	PA 2014
ADV	57.1	57.3	61.6	64.4	60.8	44.4
PROF	25.2	28.5	24.0	27.0	24.4	22.8
ADV/PRO	82.5	85.8	85.6	91.4	85.2	67.2
BASIC	13.0	11.0	11.5	8.3	8.9	17.4
BEL BAS	4.5	3.3	2.9	0.3	5.8	15.4
# TESTED	331	337	375	348	360	126693

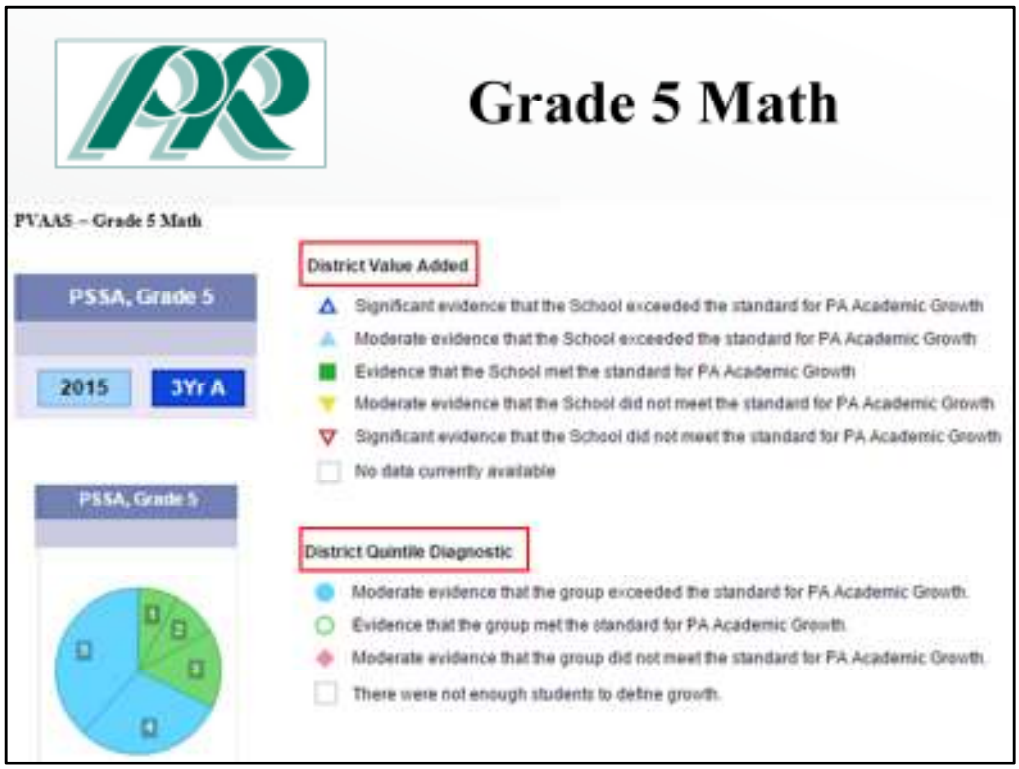
2015 PA CORE Total Student Performance Level Percentages vs. State

	2015 Percent	PA 2015 Percent
ADV	32.0	15.4
PROF	40.2	27.4
ADV/PRO	72.2	42.8
BASIC	17.8	31.3
BEL BAS	10.2	25.9
# TESTED	355	126683
Mean Score	1070	990

Note: For SY 2014-2015, PDE created a new PSSA Math Assessment aligned to PA Core Standards. Because Spring 2015 is the first time students took the test, no trend data is available. As this is a newly constructed test, comparisons of achievement test results from Spring 2015 to results from prior years should not be made.

In tonight's presentation, we are focusing on a small sample of grade levels. The analysis used on these examples can be applied to the full data set in the academic achievement report. We have chosen 5th grade since it has been a grade level that has received much attention over the years at Pine-Richland and in other school districts. You may remember the phrase that "not all tests are created equally" when it comes to rigor and achievement levels. Historically, the fifth grade test has been the hardest for all schools. The achievement scores at the fifth grade level "dipped" at PR and across the state. We have focused on that grade level given the shifts this year.

A new data table was established due to the shift from the legacy academic standards to PA Core standards. As a result, it would not be appropriate to compare the results from 2014 to 2015. We are able to compare how Pine-Richland students scored compared to state averages. In 2014, our students scoring at the proficient or advanced level outscored state averages by 18%. This year, our students scoring at the proficient or advanced level outscored state averages by 29.4%. Over time, we expect our proficiency rate to steadily climb from 72.2% as we experienced years ago with our legacy standards assessments.



The value added growth measure in the top rectangular box combines the growth results for all 5th grade students. The light blue indicates that there is moderate evidence that overall students exceeded the growth standard in 2015. For clarity, the light blue rectangle box refers to current 6th graders who were tested last spring.

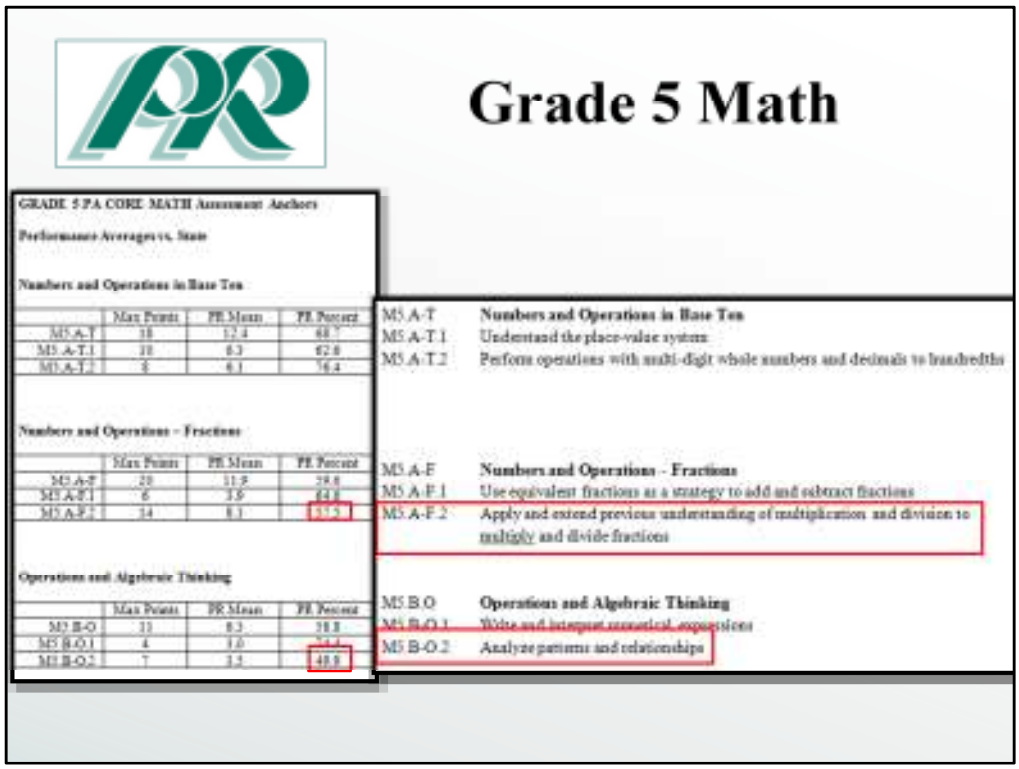
The dark blue 3 year average is very positive. This indicated that over the past three years there is significant evidence that 5th grade math students exceeded the standard for PA Academic Growth. This three year average really helps us to see the impact of the fifth grade program (curriculum, instruction, etc.) across several different cohorts of students.

The District Quintile Diagnostic provides us with a deeper level of insight into student growth. Each number represents a subgroup of students. The 1st quintile represents the group of PR students whose achievement level fell in the lowest 20% of the state distribution, the 2nd quintile represents the group of PR students whose achievement level fell in the 20th to 40th %tile.

3rd – 41-60%tile
4th – 61-80%tile
5th – 81-99%tile

The color of each section of the circle graph is determined by the levels of growth attained by each of the 5 quintiles. This graph indicates that all 5 quintile groups met or exceeded the growth standard.

Ideally, the colors would all be blue especially the 1-3 quintiles where we would like to see students not only meet the growth standard but the exceed it. This will help decrease the achievement gap between these students and their grade-level peers.

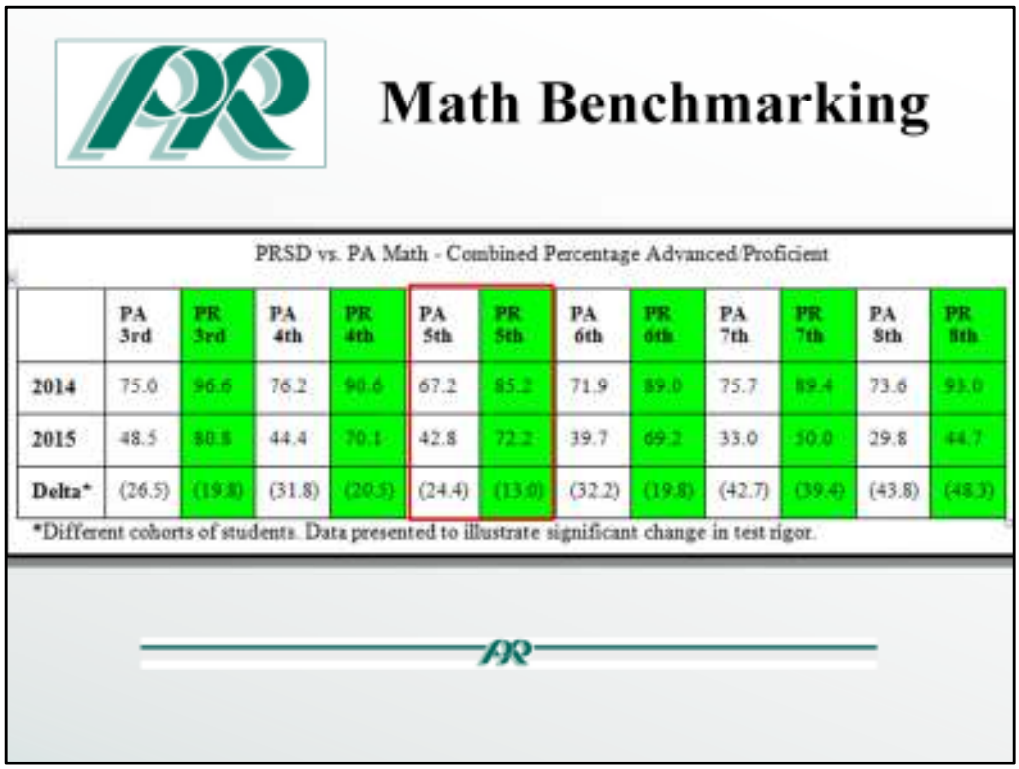


If we again consider the 30,000'...20,000' analogy, this slide helps us dive deeper in the analysis. We are now reviewing the achievement data organized by specific assessment anchor and eligible content items.

The PA Core Assessment Anchors and eligible content are designed to provide us with more specific information related to the strengths and needs of our curriculum and instruction. We have identified areas of concern and will develop curricular and instructional plans to address them.

Example: 0,3,6,9,12,15,…
0,6,12,18,24,30,…

Students must be able to identify that the second sequence is double the first or that the first sequence is ½ the second. In the past they may have been asked to identify the next number in a sequence (0,5,10,15,___). They are now expected to identify differences between sequences.



Math Benchmarking

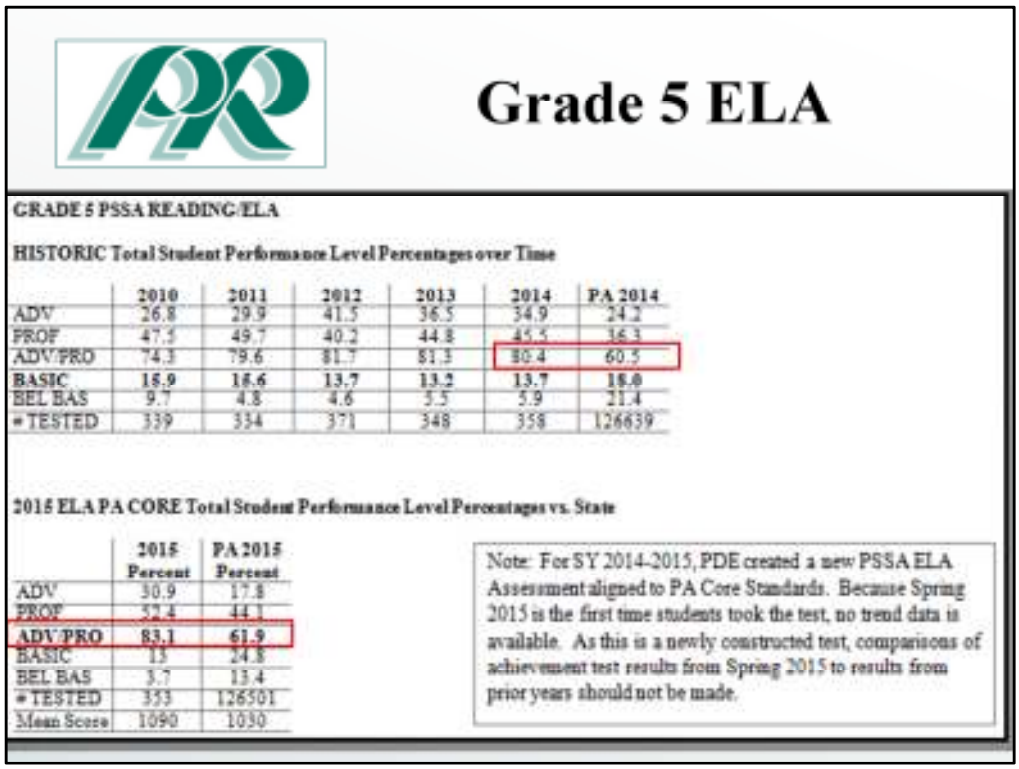
PRSD vs. PA Math - Combined Percentage Advanced/Proficient

	PA 3rd	PR 3rd	PA 4th	PR 4th	PA 5th	PR 5th	PA 6th	PR 6th	PA 7th	PR 7th	PA 8th	PR 8th
2014	75.0	96.6	76.2	90.6	67.2	85.2	71.9	89.0	75.7	89.4	73.6	93.0
2015	48.5	80.8	44.4	70.1	42.8	72.2	39.7	69.2	33.0	50.0	29.8	44.7
Delta*	(26.5)	(19.8)	(31.8)	(20.5)	(24.4)	(13.0)	(32.2)	(19.8)	(42.7)	(39.4)	(43.8)	(48.3)

*Different cohorts of students. Data presented to illustrate significant change in test rigor.

The academic achievement report and this presentation include a comparison to average scores in Pennsylvania. We are not suggesting that our goal is merely to exceed the state average. As we discussed earlier, the state averages help provide a context for reviewing our results.

This table allows us to see across grade levels the impact that the new, more rigorous assessment had on student achievement across PR and across the state. If you recall, and can see from the 2014 data, 5th grade math performance levels were historically lower than other grade levels. This was a result of the 5th grade assessment being more rigorous than other grade levels on the previous version of the PSSAs. Now with the shift to a more rigorous assessment across all grades you can see the impact was less significant in grade 5 compared to other grades (especially grades 7-8). A grade level (5th grade) that was historically lowest in achievement percentages is now near the top.



Grade 5 ELA

GRADE 5 PSSA READING/ELA

HISTORIC Total Student Performance Level Percentages over Time

	2010	2011	2012	2013	2014	PA 2014
ADV	26.8	29.9	41.5	36.5	34.9	24.2
PROF	47.5	49.7	40.2	44.8	45.5	36.3
ADV/PRO	74.3	79.6	81.7	81.3	80.4	60.5
BASIC	15.9	16.6	13.7	13.2	13.7	18.0
BEL BAS	9.7	4.8	4.6	5.5	5.9	21.4
# TESTED	339	334	371	348	358	126639

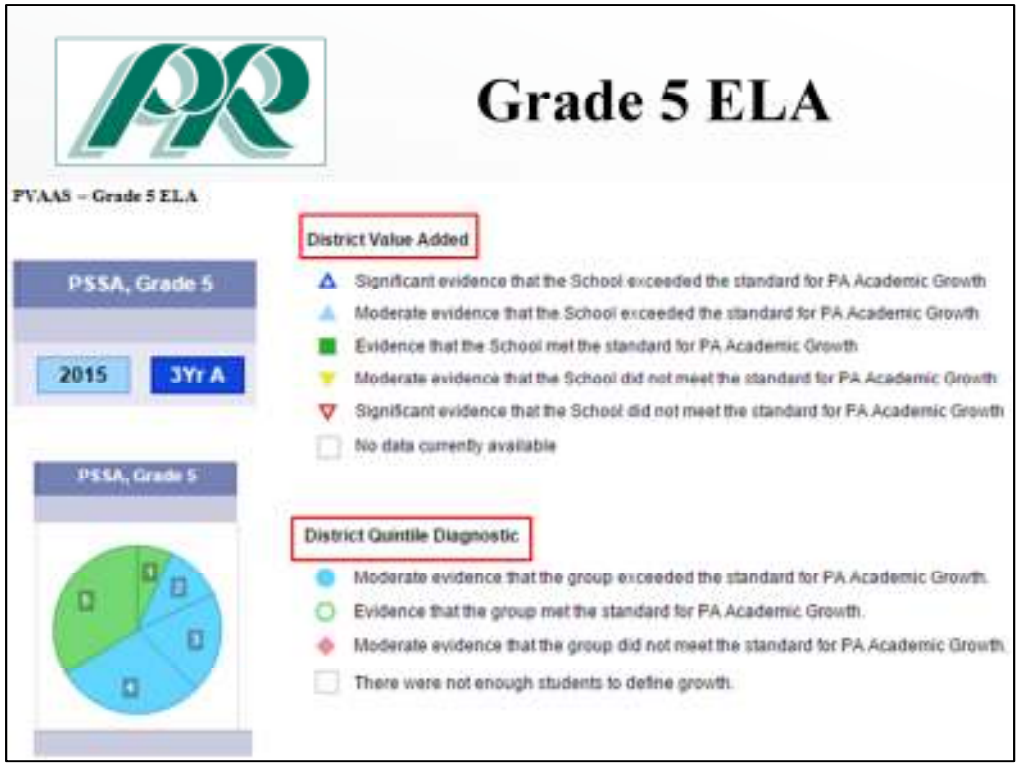
2015 ELA PA CORE Total Student Performance Level Percentages vs. State

	2015 Percent	PA 2015 Percent
ADV	30.9	17.8
PROF	52.4	44.1
ADV/PRO	83.1	61.9
BASIC	13	24.8
BEL BAS	3.7	13.4
# TESTED	353	126501
Mean Score	1090	1030

Note: For SY 2014-2015, PDE created a new PSSA ELA Assessment aligned to PA Core Standards. Because Spring 2015 is the first time students took the test, no trend data is available. As this is a newly constructed test, comparisons of achievement test results from Spring 2015 to results from prior years should not be made.

We will now conduct a similar analysis for fifth grade English Language Arts. If we again consider the historic "dip" in fifth grade achievement, we now actually see an outlier example where the PRSD and state combined percentage of advanced/proficient students actually increased. It is the only example in the entire PSSA data set.

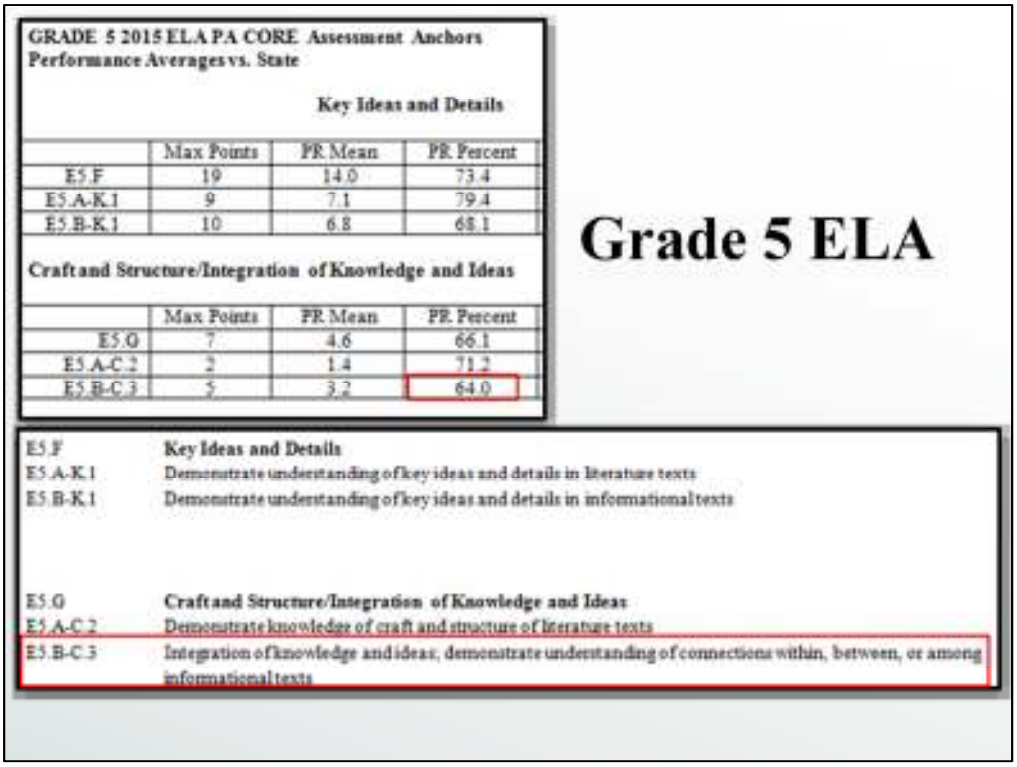
At PR, we see that 83.1% of students scored in those two performance levels.



This slide shows growth at two levels. As a reminder, the methodology behind PVAAS translates the grade level test scores into Normal Curve Equivalent units or NCE scores. This allows the methodology to correct for differences in test rigor between grade levels. As a result, the growth data reflected here has already been adjusted to correct for those differences.

In this case, we want to again start with the Value-Added rectangles. The light blue rectangle for 2015 reflects moderate evidence that the group exceeded the standard for PA academic growth. To get a more robust measure of the impact of the fifth grade program across different cohorts of students, the dark blue three year average rectangle tells us that the students have consistently exceeded the standard for PA academic growth. Value-added data looks at the entire cohort or grade level of students.

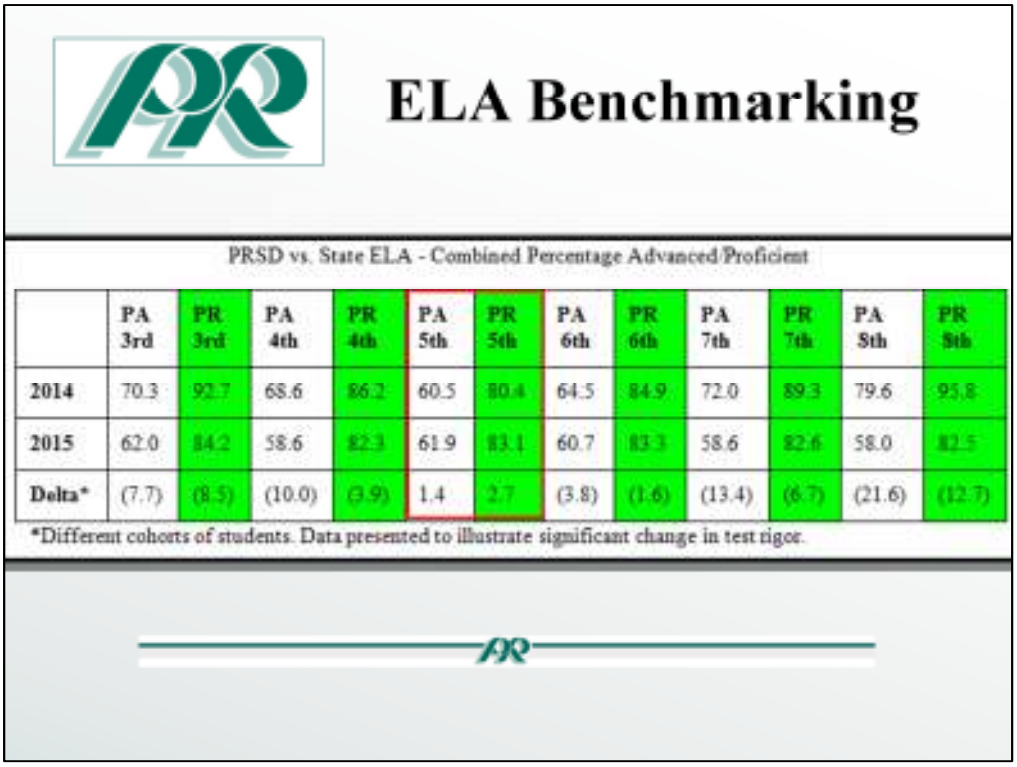
The analysis moves deeper in the quintile diagnostic view. Similar to the math data reviewed a few minutes ago, this is a very positive growth picture. We see that each sub-group is blue or green. That is good news that reflects growth. In an ideal situation, we want the first quintile to also be blue to help close the achievement gap. But it is very powerful to see that the top quintile and fourth quintile of students are meeting and exceeding the standard for PA academic growth. These groups have been an area of focus.



By driving down another layer into the PA Core assessment anchors, we can again see areas of relative strength and need.

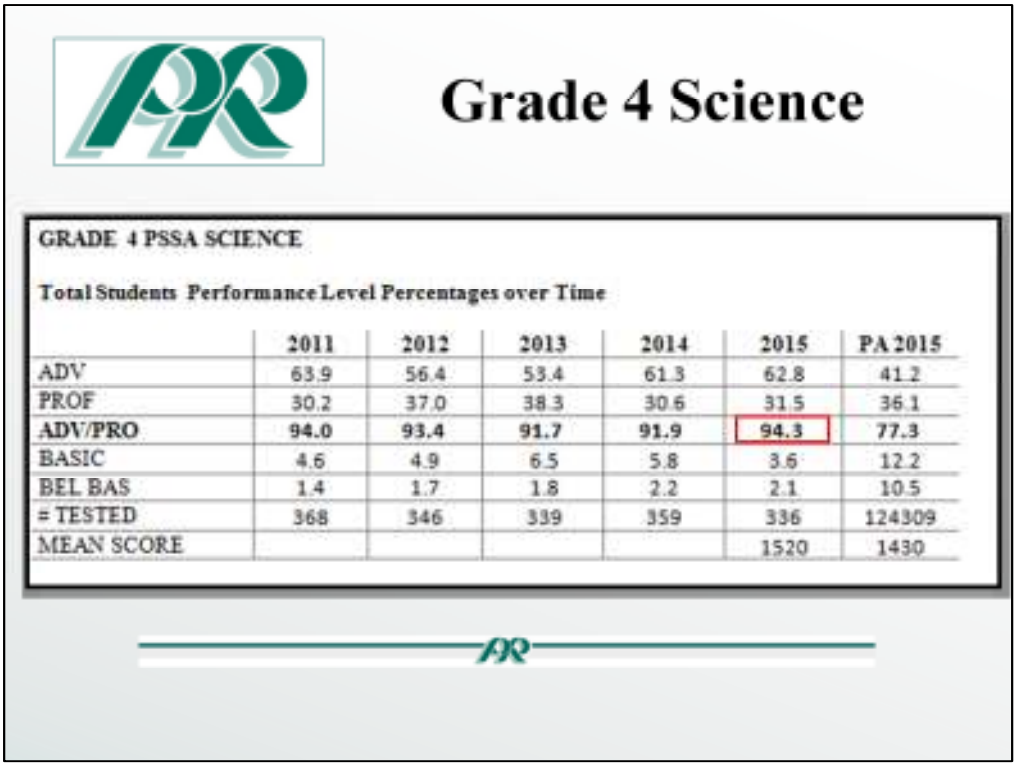
We know that we have an increased need for reading in the content areas at the younger grades. Using ASSET science as an example, our students are actively engaged in hands-on learning. However, the students do not engage with many opportunities to read informational science text at the K - 6 level. Through our curriculum writing, we will address this concern.

A is literature and B is informational. We have a consistent pattern of greater Achievement in fiction (A) over non-fiction (B). This will addressed through our curriculum work as well.



The academic achievement report and this presentation include a comparison to average scores in Pennsylvania. We are not suggesting that our goal is merely to exceed the state average. As we discussed earlier, the state averages help provide a context for reviewing our results.

If you remember from the math benchmarking slide, we saw an average drop in combined advanced/proficient levels of more than 30% across the state. In the ELA data above for Pennsylvania, we see an average drop of about 10%. Grade 5 is again highlighted. Please note that it is the one, single outlier example of an increase in the combined advanced/proficient students at both PR and in the state.



Grade 4 Science

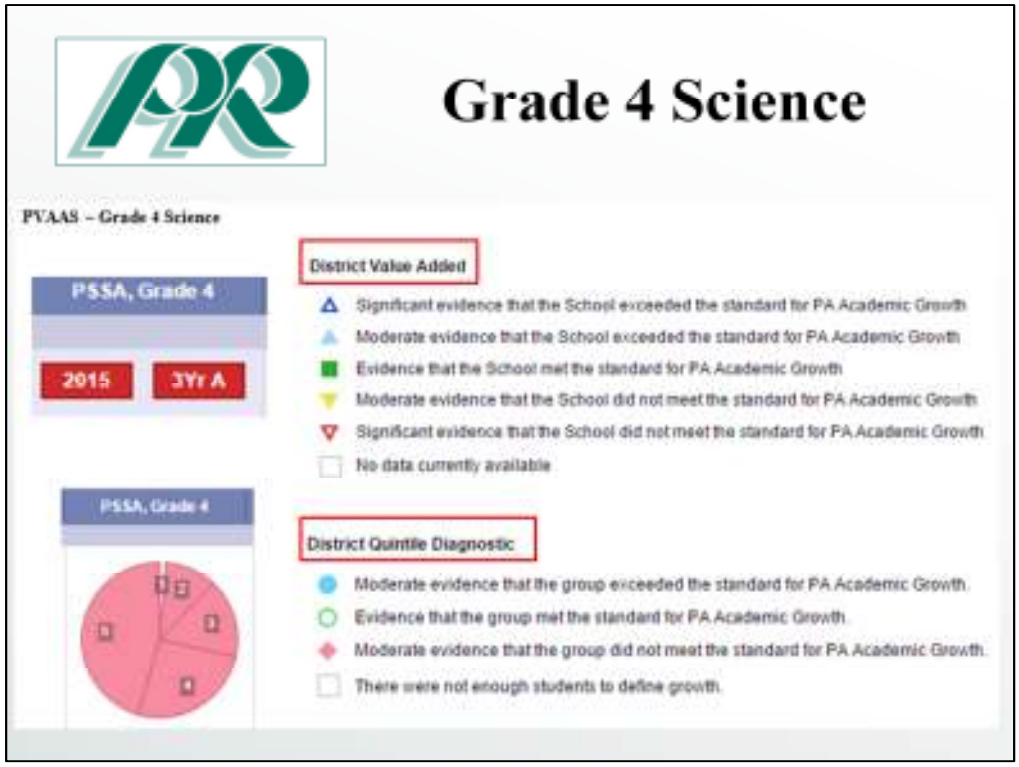
GRADE 4 PSSA SCIENCE

Total Students Performance Level Percentages over Time

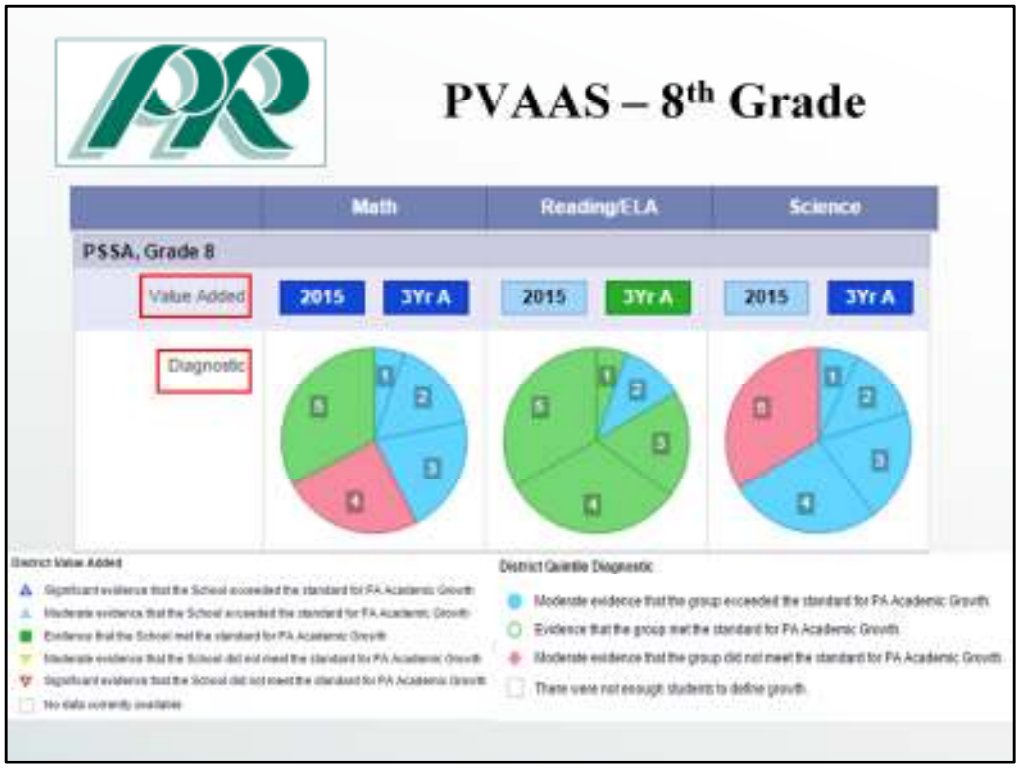
	2011	2012	2013	2014	2015	PA 2015
ADV	63.9	56.4	53.4	61.3	62.8	41.2
PROF	30.2	37.0	38.3	30.6	31.5	36.1
ADV/PRO	**94.0**	**93.4**	**91.7**	**91.9**	**94.3**	**77.3**
BASIC	4.6	4.9	6.5	5.8	3.6	12.2
BEL BAS	1.4	1.7	1.8	2.2	2.1	10.5
= TESTED	368	346	339	359	336	124309
MEAN SCORE					1520	1430

In the academic achievement report, you will see a concern with the PVAAS growth data across all three tested subjects in fourth grade. These data are being reviewed with the teaching staff. Alignment with the PA Core has been and will continue to be addressed. As another example, the rigor of the ELA program is already being felt by students, parents, and staff. We are also in the first year of math pathway implementation for the current and compacted/extended math courses. All of these modifications require time to stabilize.

In this grade 4 science data picture, please note that we do have five years of data reported in a continuous manner for science. Although no trend is evident, the 94.3% of fourth grade students scoring within the advanced or proficient level bands is a historic high. You can also see a high percentage of advanced level performance.

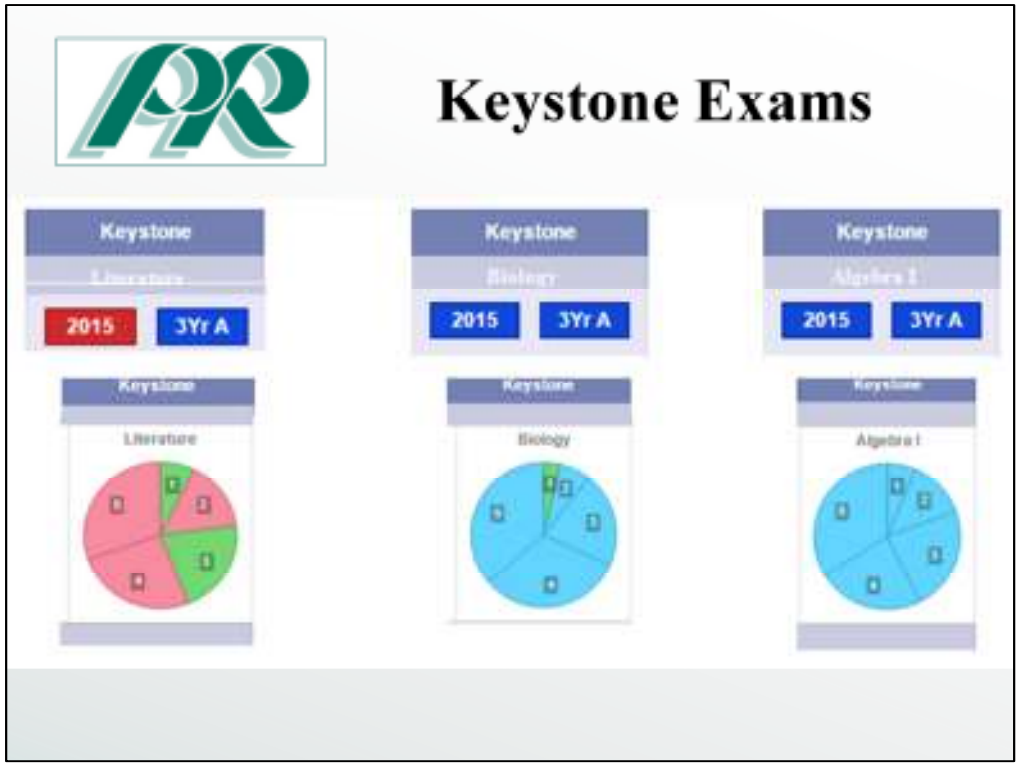


Both at the value-added and quintile diagnostic levels, we see that the cohort and groups did not meet the standard for PA academic growth. We wanted to highlight this slide because it reinforces some of the concepts discussed earlier in the presentation. Thankfully, the fourth grade growth data is an outlier at Pine-Richland. When we review all grade levels and subjects from a growth perspective, we are meeting or exceeding the standard for PA academic growth in most cases. This slide is powerful because we just saw - in the previous slide - that 94.3% of students achieved at the advanced or proficient levels. Given the “stretch” of the test and possibility for increases in scaled scores, this slide shows us that we have work to do. Before PVAAS, we might have come to a different conclusion when just considering the 94.3%.

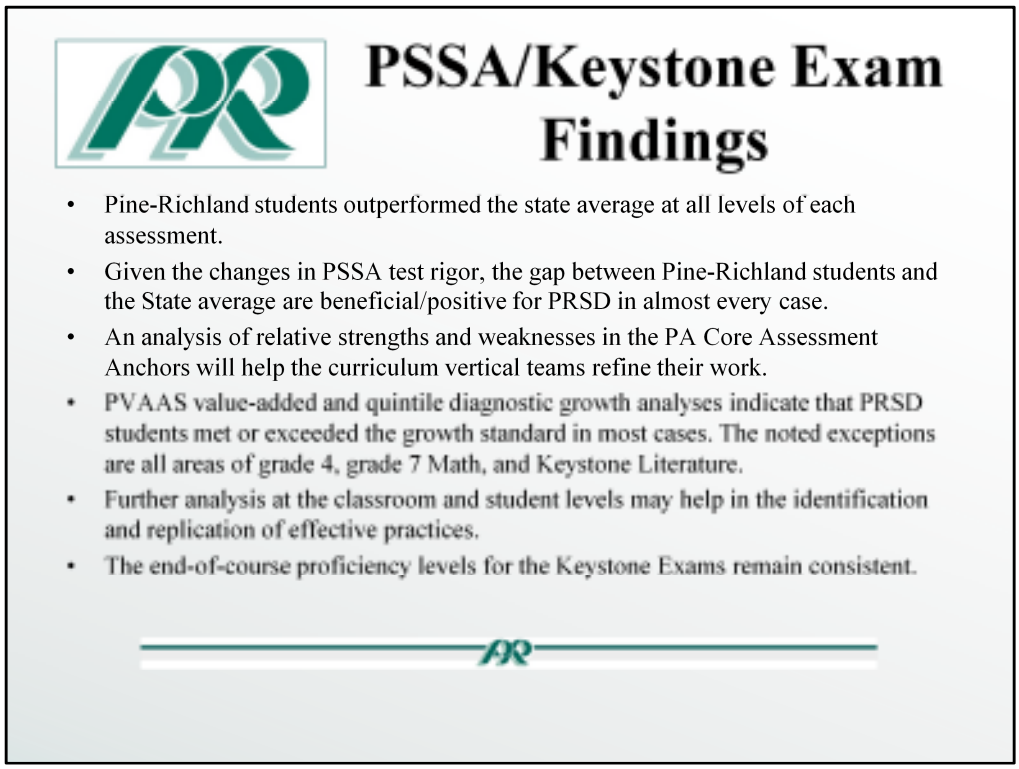


In this example, we have included all of the PVAAS results for 8th grade. By first reviewing the one-year and three-year value-added results, we see that the entire cohort is meeting or exceeding the standard for PA academic growth in all three areas. This is critical information. If we only reviewed scores by achievement and performance level, we would not see the full picture. In 8th grade Math, the combined percentage of advanced/proficient students moved from 93% in 2014 to 44.7% in 2015. This is the most drastic example of a change from the shift to the new PSSA assessment in both the state and at Pine-Richland.

By moving deeper into the quintile diagnostic data, we can see a clearer picture of growth within different groups of learners. This awareness helps inform discussions within the building and departments. Ultimately, these discussions connect back to curriculum, instruction and assessment considerations.

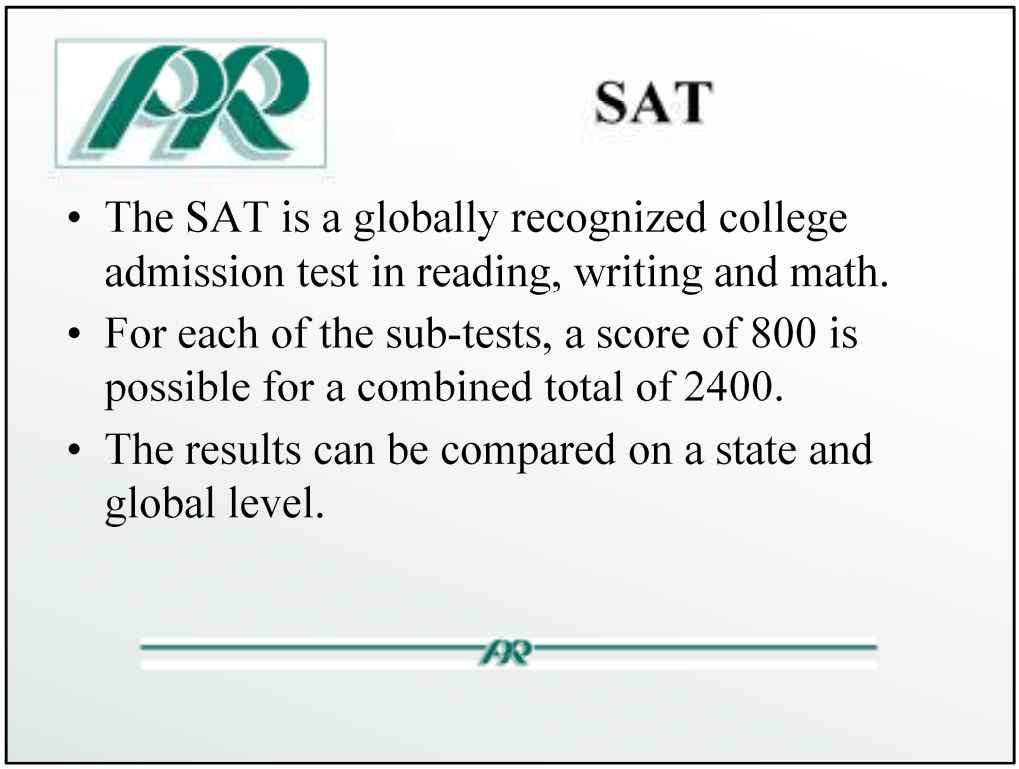


In a similar picture, we see end-of-course growth data for the Keystone Exams. In both Biology and Algebra I, these growth results are excellent. In the case of the Keystone Exam for Literature, we were surprised to see the 2015 growth data. In the more robust three-year value-added indicator, we see dark blue for significant evidence that different cohorts of students exceeded the standard for PA academic growth. In 2015 however, we see a concern with those particular test takers not meeting the growth standard. We will need to review this analysis in more detail at the building and department level.

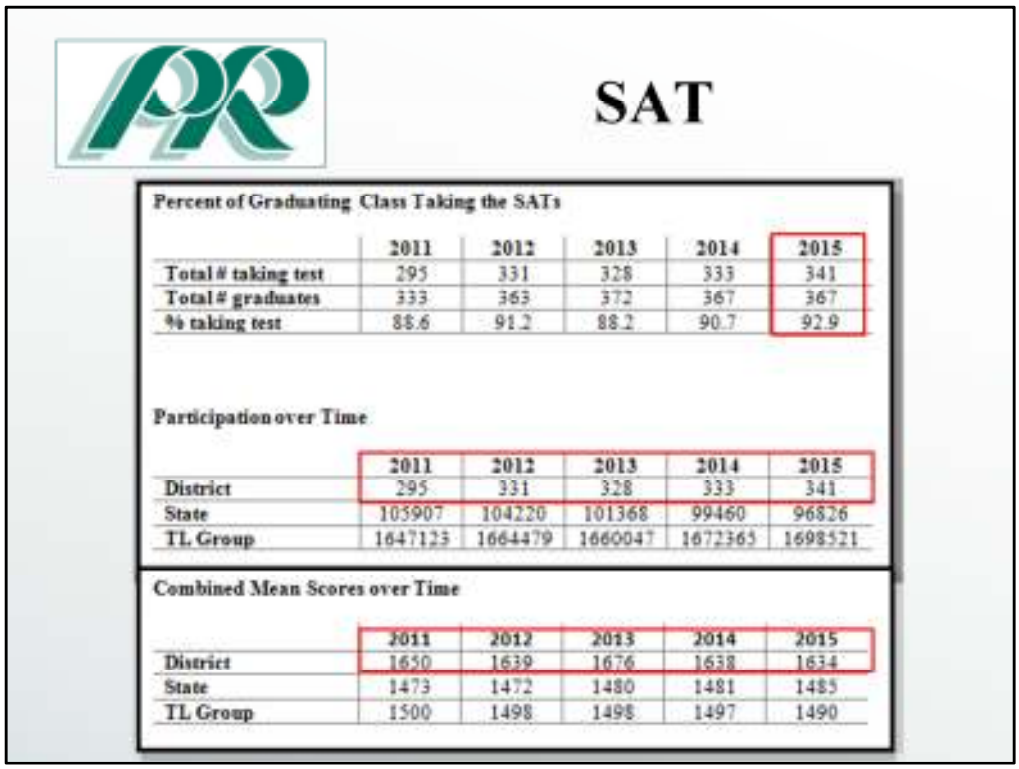


Through the systematic curriculum review process, we have been working hard to align courses for consistency at each grade level and also through the vertical sequence. There are many positive conversations and decisions being generated from this work. In a recent K-3 math example, the concept of pattern recognition emerged from the grade level writing teams. In the PA Core, there is explicit attention given to seeing patterns in numbers. For example, a student would notice the pattern of 4, 8, 12, 16 in a multiplication table. However, the teachers - through their experience and expertise - were concerned that pattern recognition with shapes and colors were not specifically addressed. Whether through the calendar activities or within the eNvision math program, the teachers feel that recognizing repeating patterns, such as circle, circle, square or red, white, blue, from a series of shapes and colors is important for student learning and development. As a result, we are including those learning goals in the Pine-Richland curriculum as an example of exceeding the expectations of the state.

From a general perspective, we are seeing achievement and growth. That growth is also evident with various sub-groups, such as higher and lower achieving students. We also see opportunity to increase both achievement and growth for students within the educational program.



The SAT continues to be a standardized assessment used in the college application process. Since 2005, the test has included a critical reading, a math, and a writing assessment.



SAT

Percent of Graduating Class Taking the SATs

	2011	2012	2013	2014	2015
Total # taking test	295	331	328	333	341
Total # graduates	333	363	372	367	367
% taking test	88.6	91.2	88.2	90.7	92.9

Participation over Time

	2011	2012	2013	2014	2015
District	295	331	328	333	341
State	103907	104220	101368	99460	96826
TL Group	1647123	1664479	1660047	1672365	1698521

Combined Mean Scores over Time

	2011	2012	2013	2014	2015
District	1650	1639	1676	1638	1634
State	1473	1472	1480	1481	1485
TL Group	1500	1498	1498	1497	1490

In 2015, we had the highest percentage of a graduating class taking the SAT, 92.9% which caps a three-year increasing trend in participation for the district. Global participation rates show a three-year increasing trend while state participation rates have been decreasing for the last 5 years.

From a combined mean score perspective, we see a three-year decreasing trend with relatively stable and high scores over the past five years.

SAT

CRITICAL READING

Mean Scores over Time

	2011	2012	2013	2014	2015
PRHS	546	543	549	539	537
State	493	491	494	497	499
TL Group	497	496	496	497	495

MATHEMATICS

Means Scores over Time

	2011	2012	2013	2014	2015
PRHS	571	561	577	562	567
State	501	501	504	504	504
TL Group	514	514	514	513	511

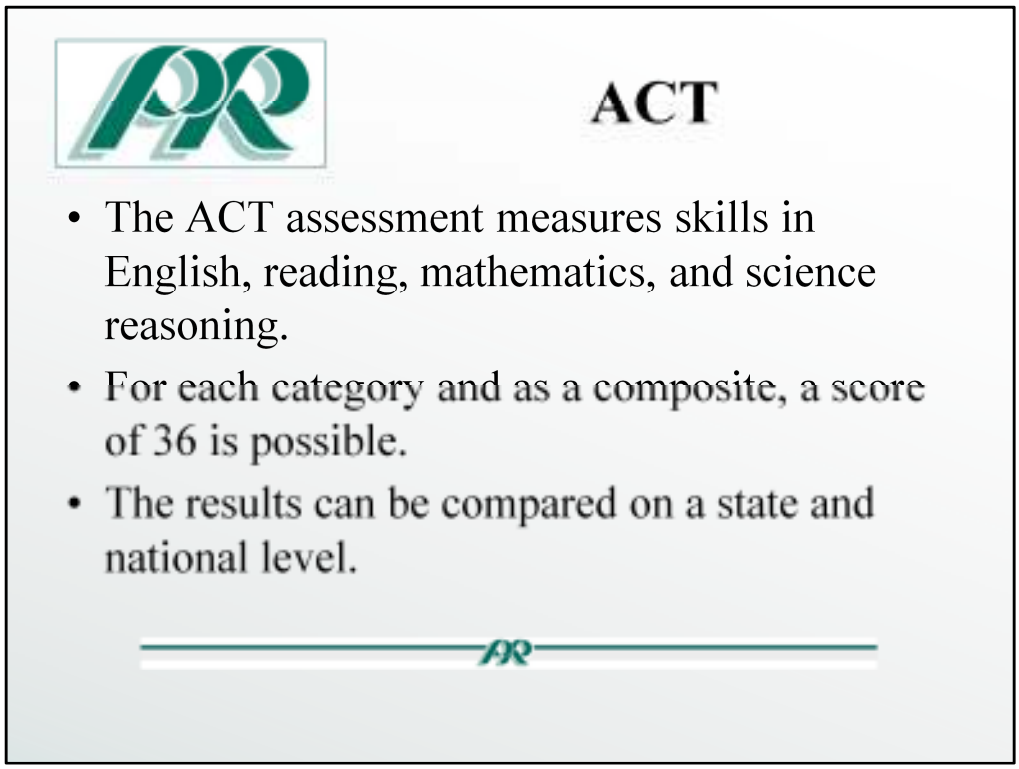
WRITING

Means Scores over Time

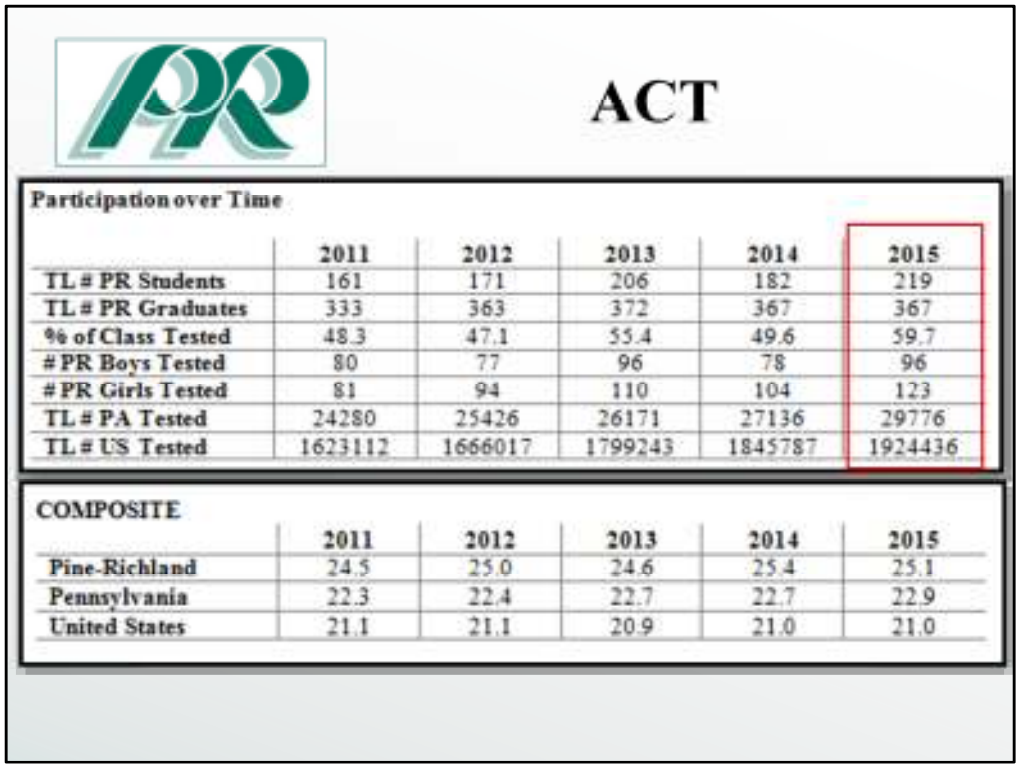
	2011	2012	2013	2014	2015
PRHS	533	535	550	537	530
State	479	480	482	480	482
TL Group	489	488	488	487	484

Monitoring and reporting performance on a series of standardized assessments helps provide a more complete picture of student performance. Generally, a score that is more than five points different for a testing population the size of Pine-Richland is significant. The decrease in Critical Reading scores over a five-year period warrants further analysis.

Importantly, there are changes planned for the SAT beginning in the current year. For example, the writing test is now optional. For those students who choice to participate in the writing portion, the focus of that writing will shift to become more evidence-based. The reported score will revert back to 1600. A quick summary of major changes can be found at: http://www.road2college.com/summary-of-changes-for-new-sat/



The American College Test (ACT) is another summative assessment of a student's readiness for college. Some colleges and universities require ACT scores as part of the application process while others require the SAT. Some colleges allow students the choice of which set of scores to include with their applications. We are beginning to see some colleges drop the requirement of either SAT or ACT scores.



ACT

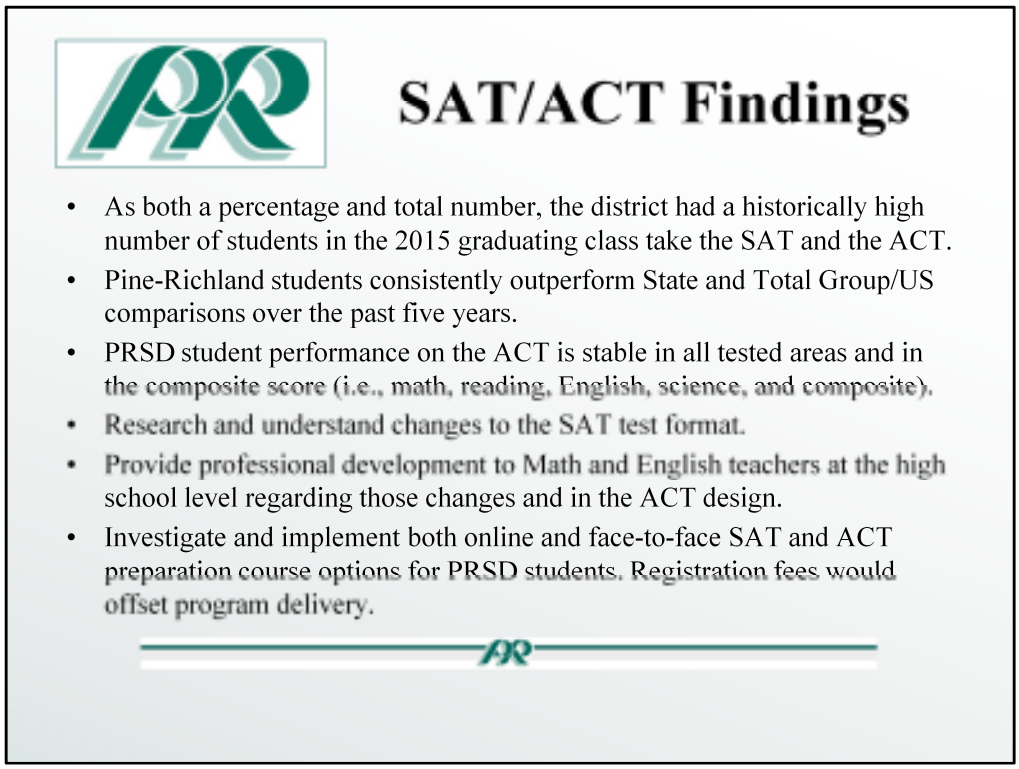
Participation over Time

	2011	2012	2013	2014	2015
TL # PR Students	161	171	206	182	219
TL # PR Graduates	333	363	372	367	367
% of Class Tested	48.3	47.1	55.4	49.6	59.7
# PR Boys Tested	80	77	96	78	96
# PR Girls Tested	81	94	110	104	123
TL # PA Tested	24280	25426	26171	27136	29776
TL # US Tested	1623112	1666017	1799243	1845787	1924436

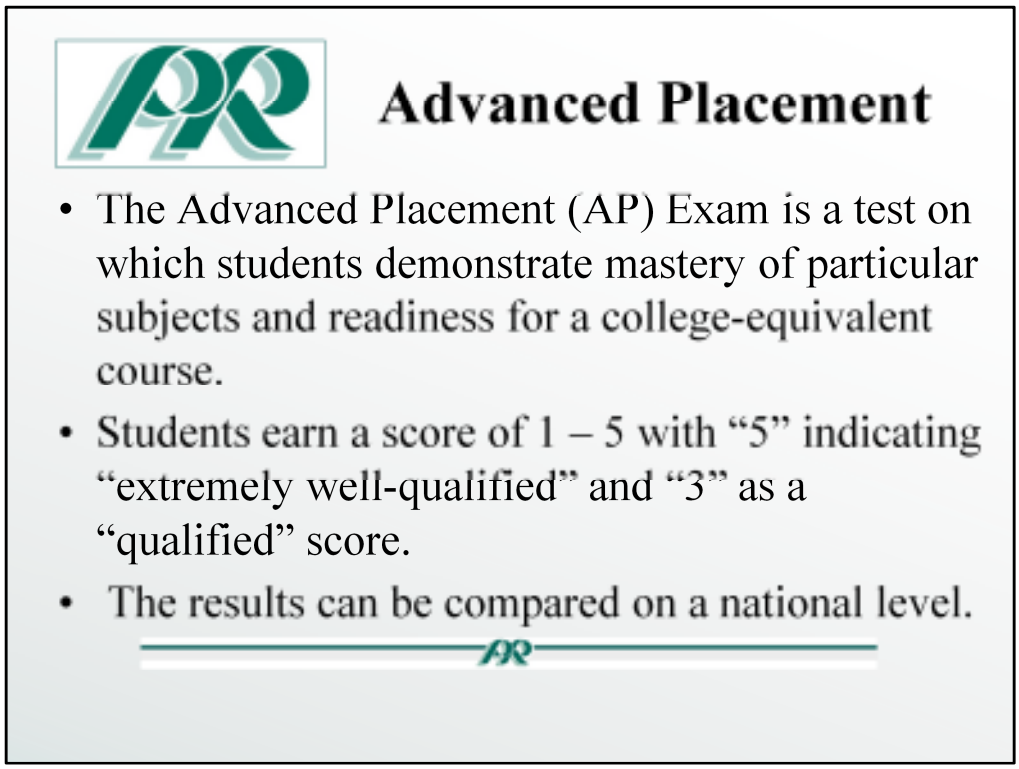
COMPOSITE

	2011	2012	2013	2014	2015
Pine-Richland	24.5	25.0	24.6	25.4	25.1
Pennsylvania	22.3	22.4	22.7	22.7	22.9
United States	21.1	21.1	20.9	21.0	21.0

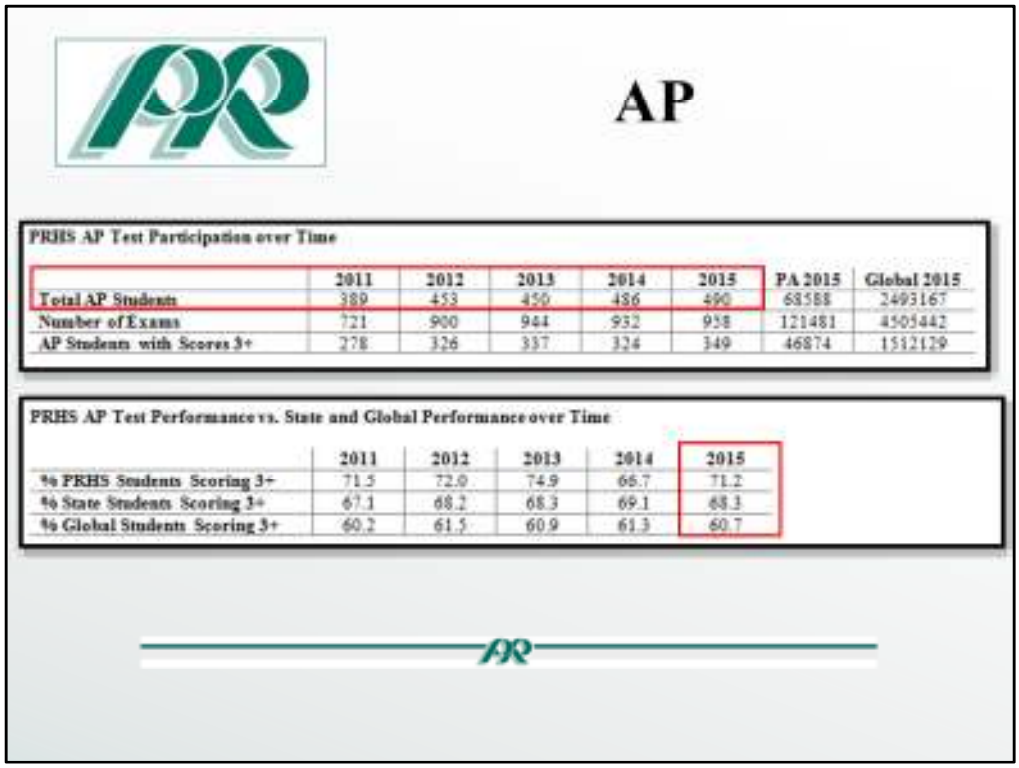
The participation rate for ACT in 2015 was a historic high for the district at 59.7%. Participation at the state and global levels is also rising. As with other summative measures of achievement, test scores for Pine-Richland are higher than Pennsylvania and the United States. The composite scores for alls tests combined (English, reading, math, and science) remain relatively consistent for the district, the state, and the nation.



If the Keystone Exams can be thought of as culminating assessments of the Pennsylvania State System of Assessment, SAT and ACT tests act as culminating assessments of the educational programs at Pine-Richland. We have the opportunity to help our students prepare for the changes ahead to the SAT test and to become familiar with the ACT test design. Additionally, teachers must use these test results as a measure of the effectiveness of their curriculum, instruction, and assessment.

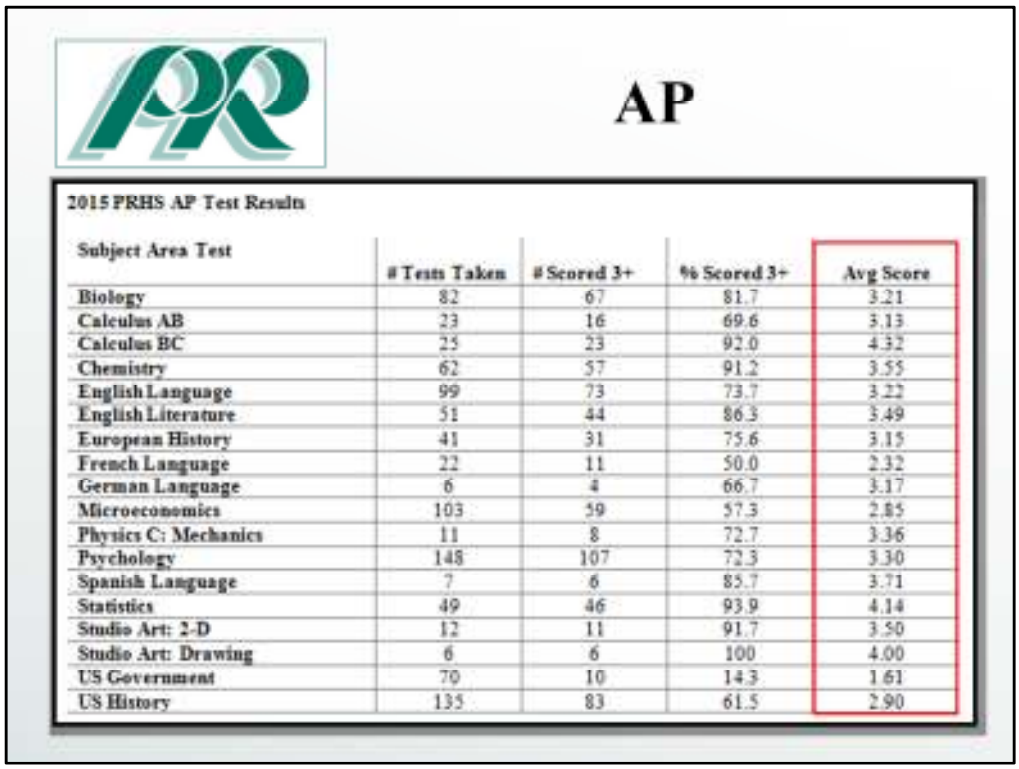


A course may be called AP when its syllabus has been approved by the CollegeBoard. At Pine-Richland, students who are enrolled in an AP course must take the end of course assessment. Colleges and universities vary in how they use the AP scores of their newly admitted students. Some may give course credit for a score of a certain level; others may allow the student to skip an entry level course because of the AP score earned on a subject area test.



In 2015, more students than ever took an AP exam. The three-year positive trend in participation shows us that students are increasingly willing to challenge themselves and take a college-level course in high school. These courses provide a measure of how ready students are for college.

The percentages of students scoring a 3 or more on their AP tests is up from last year but shows no recent trend.

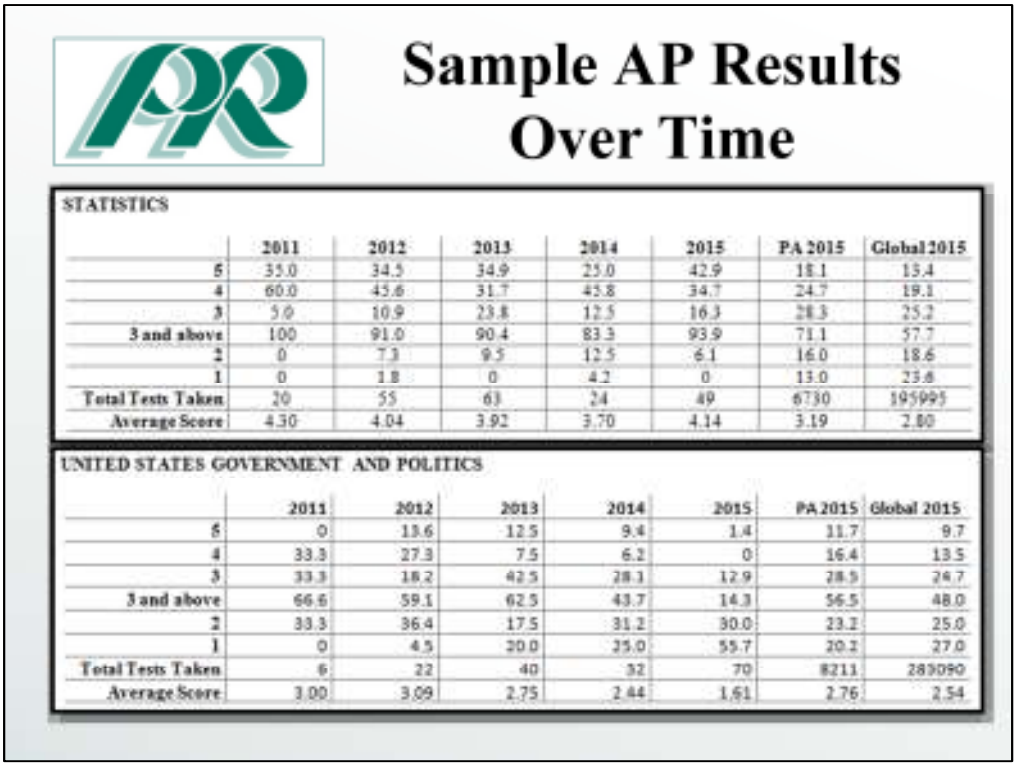


AP

2015 PRHS AP Test Results

Subject Area Test	# Tests Taken	# Scored 3+	% Scored 3+	Avg Score
Biology	82	67	81.7	3.21
Calculus AB	23	16	69.6	3.13
Calculus BC	25	23	92.0	4.32
Chemistry	62	57	91.2	3.55
English Language	99	73	73.7	3.22
English Literature	51	44	86.3	3.49
European History	41	31	75.6	3.15
French Language	22	11	50.0	2.32
German Language	6	4	66.7	3.17
Microeconomics	103	59	57.3	2.85
Physics C: Mechanics	11	8	72.7	3.36
Psychology	148	107	72.3	3.30
Spanish Language	7	6	85.7	3.71
Statistics	49	46	93.9	4.14
Studio Art: 2-D	12	11	91.7	3.50
Studio Art: Drawing	6	6	100	4.00
US Government	70	10	14.3	1.61
US History	135	83	61.5	2.90

As you can see, students at Pine-Richland earned a range of average scores on their AP exams, with a low of 1.61 for United States Government to a high of 4.32 for Calculus BC. Over all, 3 subject areas have averages scores over 4; 11 have average scores over 3; and 3 have average scores over 2. The highest scoring courses are Calculus BC, Statistics, and Studio Art: Drawing. The lowest are US Government and French. Courses with the lowest participation rates in 2015 are Studio Art: Drawing, German, and Spanish. Courses with the highest participation rates are Psychology and United States History.



Sample AP Results Over Time

STATISTICS

	2011	2012	2013	2014	2015	PA 2015	Global 2015
5	35.0	34.5	34.9	25.0	42.9	18.1	15.4
4	60.0	45.6	31.7	45.8	34.7	24.7	19.1
3	5.0	10.9	23.8	12.5	16.3	28.3	25.2
3 and above	100	91.0	90.4	83.3	93.9	71.1	57.7
2	0	7.3	9.5	12.5	6.1	16.0	18.6
1	0	1.8	0	4.2	0	13.0	23.6
Total Tests Taken	20	55	63	24	49	6730	195995
Average Score	4.30	4.04	3.92	3.70	4.14	3.19	2.80

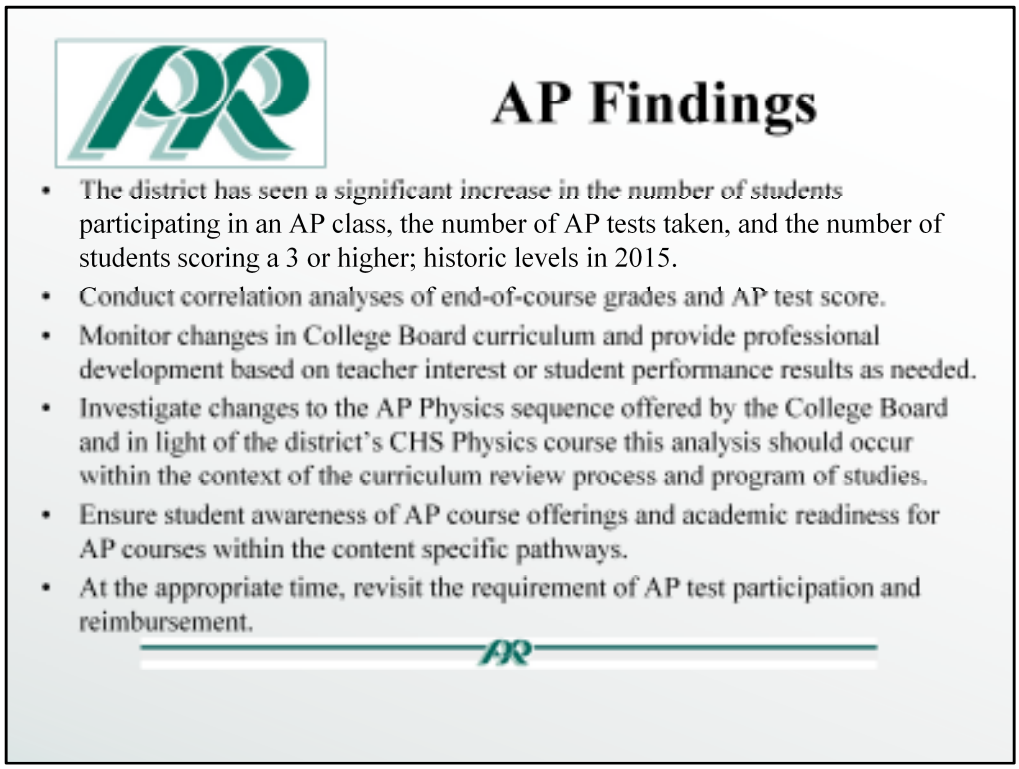
UNITED STATES GOVERNMENT AND POLITICS

	2011	2012	2013	2014	2015	PA 2015	Global 2015
5	0	13.6	12.5	9.4	1.4	11.7	9.7
4	33.3	27.3	7.5	6.2	0	16.4	13.5
3	33.3	18.2	42.5	28.1	12.9	28.5	24.7
3 and above	66.6	59.1	62.5	43.7	14.3	56.5	48.0
2	33.3	36.4	17.5	31.2	30.0	23.2	25.0
1	0	4.5	20.0	25.0	55.7	20.2	27.0
Total Tests Taken	6	22	40	32	70	8211	283090
Average Score	3.00	3.09	2.75	2.44	1.61	2.76	2.54

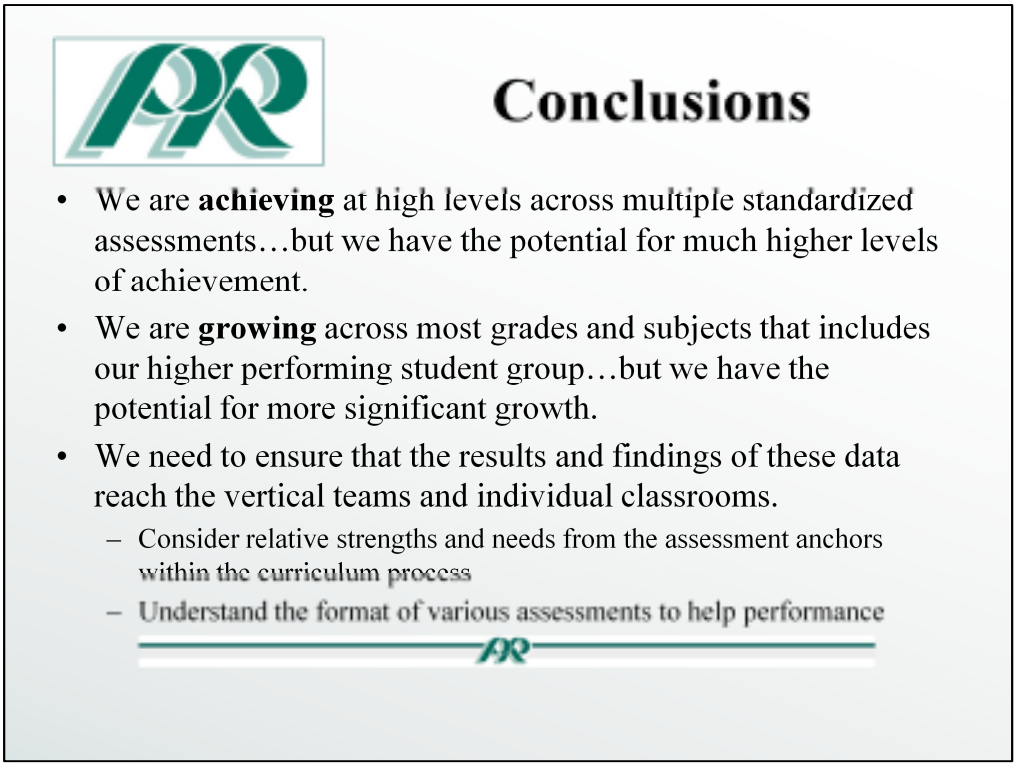
Looking more closely at two courses, Statistics and United States Government, show different patterns over time.
Students in Statistics consistently score well regardless of whether the total number of test takers was 20 or more than doubled. The range of scores over the past 5 years vary by .60 points. This year, the average score of Pine-Richland students was 1.05 above the state's average score.

Students in United States Government, however, had the lowest scores with the most students. Their average scores ranged 1.48 points over time. This year, the Pine-Richland average score was 1.15 points lower than the state.

Analysis of the curriculum, instruction, assessment, and professional development of the teachers of this course may provide insights to help improve the educational experience for students in United States Government.



AP exams are summative tests that measure the readiness of students for college-level work.The curriculum review process provides the opportunity to systematically address the level of preparedness of our students to be successful on AP exams. Once students have met their Keystone Exam requirements for graduation from high school, which is typically by the end of ninth or tenth grade, the summative measures of their readiness for post-secondary college or career shifts to SAT, ACTs, and AP tests. The curriculum review process allows teachers to analyze in each subject area the rigor and challenge in their courses preceding AP courses so that students are well prepared for college-level work.



It will be important that the district continue to think and work strategically to systematically improve achievement and growth over time. The strategic initiatives of the 2015-2016 school year will be a vital step in the continuous improvement of the educational programs at Pine-Richland.

Questions