# PARCC Results: Spring 2017 Administrations <br> <br> JACKSON TOWNSHIP <br> <br> JACKSON TOWNSHIP SCHOOL DISTRICT <br> October 17, 2017 

Tonight's presentation fulfills the state requirement for all districts to present the results of the 2016-2017 administration of PARCC at a public board of education meeting.

Spring 2017 marked the third year of PARCC administration in Grades 3-11 for ELA and Mathematics.

The results presented tonight include the results of all students in the Jackson School District, including both Fall semester and Spring Semester High School Students from the 2016-2017 school year.

## District Participation and Performance



We will begin by examining how the students in our district performed on the PARCC assessment over the last three years when compared to overall State performance.

| COMPARISON OF JACKSON TOWNSHIP SCHOOL DISTRICT'S STUDENTS TESTED SPRING 2016 AND SPRING 2017 PARCC ADMINISTRATIONS |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| English Language Arts Students Tested |  |  | Mathematics Students Tested |  |  |
| Grade | 2016 | 2017 | Grade | 2016 | 2017 |
| 3 | 553 | 574 | 3 | 556 | 575 |
| 4 | 623 | 552 | 4 | 621 | 555 |
| 5 | 607 | 644 | 5 | 606 | 646 |
| 6 | 672 | 642 | 6 | 674 | 641 |
| 7 | 625 | 678 | 7 | 566 | 622 |
| 8 | 689 | 667 | 8* | 428 | 452 |
| 9 | 690 | 708 | Algebra I | 762 | 720 |
| 10 | 698 | 712 | Algebra II | 686 | 739 |
| 11* | 641 | 641 | Geometry | 678 | 648 |
| TOTAL | 5,798 | 5,818 | TOTAL | 5,577 | 5,598 |
| 13 |  |  |  |  |  |

With over 95 percent of our students participating in the PARCC assessment, it is evident that the revised graduation requirements and local protocols have effectively communicated the importance of participation on the assessment.

This slide shows the continued increase in overall student participation on the English Language Arts and Math assessments.

Please note that the data from this slide is a Spring to Spring comparison and do not include Fall semester high school students, which accounts for the slight differences in the number of students taking an ELA versus Math assessment.


If nothing else, this chart provides an illustration of the volume of data that is produced by the PARCC assessment. In this slide, you are seeing a three year comparison of how our "total student population" performed on the English Language Arts component of the assessment by comparing the percentage of students who scored at each proficiency level. PARCC utilizes a five level performance criteria; learners who score a Level 5 are exceeding grade level expectations; with a mid level of 3 demonstrates they are approaching grade level expectations; and a level one indicating they are not yet meeting grade level expectations.

It is important to note that the 2015 data for students in Grades 9, 10, and 11 only includes Spring semester students. The PARCC was not administered to Fall semester students during 2015.

If I can draw your attention to the right side of the chart, so we can take a closer examination of how our students' performance has changed over this three year period.

## Key Points

This data is ELA Data for Total Students
Third year of PARCC Spring Administration 2015 data does not include PARCC Fall data

So many numbers - zoom in on two outcomes 1. REducing the percentage of students scoring 1 or 2 and 2. Increasing the percentage of students scoring 4 or 5


As we zoom in on how the percentage of students scoring at levels 1 and 2 and levels 4 and 5 has changed over the three year period that PARCC has been administered. The chart also illustrates how each grade level has improved their performance by reducing the percentage of students scoring at the lowest levels, while increasing the percentage of students scoring at the highest levels. In simple terms, the minuses on the left side of the table are a good thing and the plusses on the right side are a good thing.

As this data shows, Jackson students outperformed the State in grades 3-10 in English Language Arts by reducing the percentage of students scoring Level 1 and 2. The growth in reducing the percentage of students who scored at the lowest levels:

- Indicates an acclimation of students to the online testing platform and the effectiveness of intervention programs for our neediest students; and the
- Impact of readers and writers workshop in grades 3-8

The data also suggests a significant improvement in the growth of students who scored at level 4 and 5, which is deemed the threshold for being college and career ready. Large gains at the highest grade levels seem to indicate a positive adjustment by teachers to a more rigorous instructional approach and the movement of the assessment to a graduation requirement has more students taking the assessments seriously.


In a similar manner, this slide shares the district's performance in the area of mathematics over the last three years with an emphasis on moving students out of the lowest levels of performance and into the highest levels of performance.

Again, it is important to note that the 2015 scores for Algebra 1, Geometry, and Algebra 2 do not include the performance of Fall semester students. Also, it is important to know that the scores for Grade 8 students does not include middle school students taking Algebra 1 and Geometry. This calculation of Grade 8 performance is consistently applied throughout the State, but it does have a greater effect on district's like Jackson that have a large percentage of middle school students taking Algebra 1 and Geometry in the middle schools. In fact, on the Spring 2017 PARCC administration, 264 students in our middle schools took the Algebra 1 or Geometry assessment.

Just as we did with English Language Arts, we will zoom in on how our math performance has changed over the three year period.

| COMPARISON OF JACKSON TOWNSHIP SCHOOL DISTRICT'S 2015-2017 SPRING PARCC ADMINISTRATIONS MATHEMATICS |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | \% Change in Level 1 and Level 2 |  | \% Change in Level 4 and Level 5 |  |
|  | JACKSON TOWNSHIP | State | JACKSON TOWNSHIP | State |
| Grade 3 | -25\% | -4.4\% | +37\% | +7.5\% |
| Grade 4 | -38\% | -3.5\% | +45\% | +6.7\% |
| Grade 5 | -30\% | -2.5\% | +31\% | +5.2\% |
| Grade 6 | -14\% | -0.2\% | +11\% | +2.8\% |
| Grade 7 | -29\% | -2.1\% | +44\% | +2.8\% |
| Grade 8 | -14\% | -3.8\% | +48\% | +4.2\% |
| Algebra ${ }^{*}$ | -24\% | -4.8\% | +18\% | +5.4\% |
| Algebra II | -30\% | +0.4\% | +0\% | -2.7\% |
| Geometry | -16\% | -9.0\% | +27\% | +7.4\% |
| *Some students in grade 8 participated in the PARCC Algebra I assessment in place of the $8^{\text {th }}$ grade Math assessment. Thus, PARCC Math 8 outcomes are not representative of grade 8 performance as a whole. |  |  |  |  |

When compared to State performance, Jackson students demonstrated Incredible growth in the elementary grades, where a new math curriculum and a greater emphasis on problem solving and critical thinking skills has made an immediate positive impact.

Equally as impressive is the performance of our secondary math students who have for the most part also greatly outperformed the rest of the State over the last three years.

The transition from Elementary to Middle and Middle to High is an area that is being examined closely. With this being a curriculum review year for secondary math, the intent is to make the transition from one level of school to the next as seamless as possible.


As a district, we attempt to sift through the vast amount of data to glean patterns of performance and areas that have either outperformed or underperformed when compared to the State.

Taking a closer look at our district's ELA performance at each performance level, there are several noticeable generalizations:

As seen highlighted in Yellow - Jackson had significantly less students at Level 1 in Language Arts Literacy in Grades 3-8 when compared to the State Average, this is due in part to effective interventions in place to meet the needs of most struggling ELA students.

As seen highlighted in Red - Jackson had less students scoring at the highest level (5) in Language Arts Literacy in all grade level when compared to the State Average. This suggests a need to address and grow more higher level learners in ELA across all grade levels.


Turning our attention to student performance in math at the various performance levels, there is a similar pattern in performance,
just as it is for English Language Arts it is evident in Yellow that Jackson had significantly less students at Level 1 in Math in Grades 3-8 when compared to the State Average, which is testament again to our effective interventions in place to meet the needs of most struggling Math students

And in Red you see that Jackson had less students scoring at the highest level (5) in Math in most grade level when compared to the State Average, which also suggests a need to challenge and grow more higher level learners in Math

|  | JACKSON SCHOOL DISTRICT'S <br> 2015-2017 PARCC SUBGROUP OUTCOMES <br> UMBER OF STUDENTS PARTICIPATING IN SPRING PARCC |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | English Language Arts/ Literacy |  |  | Mathematics |  |  |
|  | Spring 2015 | Spring 2016 | Spring 2017 | Spring 2015 | Spring 2016 | Spring 2017 |
| Hispanic | 387 | 470 | 566 | 408 | 467 | 585 |
| Asian | 179 | 166 | 174 | 175 | 170 | 173 |
| Black | 303 | 316 | 361 | 301 | 324 | 373 |
| White | 3766 | 3,850 | 3,994 | 3774 | 3,852 | 3,952 |
| English Learner | 41 | 35 | 75 | 46 | 42 | 77 |
| Economically Disadvantaged | 881 | 978 | 1,102 | 899 | 973 | 1,122 |
| Students with Disabilities | 610 | 685 | 743 | 630 | 733 | 796 |

As we begin to disaggregate the district data, one of the key tasks for our district is to analyze the performance of the seven statistically significant subgroups of students.

This chart illustrates the participation trends among the students in these subgroups. For comparison purposes, the data found in this chart was pulled exclusively from Spring PARCC administrations only.

An analysis of the data over the last three years, suggests that the student population is becoming more ethnically diverse, and that the ELL and Economically Disadvantaged subgroup size continues to grow at a more rapid rate.

Additionally, the district has continued to have more special education students participating in PARCC assessment during each year of administration.

If nothing else, this chart is indicative of a demographic and socioeconomic student population that is dynamic and evolving.

|  | JACKSON SCHOOL DISTRICT'S <br> 2015-2017 PARCC SUBGROUP OUTCOMES <br> PERFORMANCE - PERCENTAGE SCORING "4"OR BETTER |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | English Language Arts / Literacy |  |  | Mathematics |  |  |
|  | Spring 2015 | Spring 2016 | Spring 2017 | Spring 2015 | Spring 2016 | Spring 2017 |
| Hispanic | 31\% | 37\% | 49\% | 22\% | 29\% | 28\% |
| Asian | 68\% | 69\% | 69\% | 65\% | 68\% | 68\% |
| Black | 34\% | 36\% | 49\% | 22\% | 25\% | 28\% |
| White | 48\% | 52\% | 56\% | 38\% | 46\% | 47\% |
| English Learner | 7\% | 11\% | 15\% | 13\% | 25\% | 22\% |
| Economically Disadvantaged | 32\% | 35\% | 42\% | 23\% | 28\% | 29\% |
| Students with Disabilities | 14\% | 14\% | 17\% | 13\% | 14\% | 14\% |

As we shift our analysis from subgroup participation to subgroup performance. The following has become evident:

- both the Hispanic and Black student populations are closing the achievement gap with rapidly increasing scores in the area of English Language Arts.
- Asian and White student populations of students' performance has remained consistent across the three year period.
- ELL performance has improved but continues to lag behind in growth - thereby exacerbating achievement gaps.
- Students with Disabilities showed slight improvement this past year, but still significantly lags in both growth and proficiency.

In an effort to address the achievement gaps, the district continues to develop curriculum initiatives and allocate financial resources accordingly. Through a combination of Title 1, Title 3, and District funding, an aggressive and robust revision of our intervention services has unfolded over the last year and our staffing levels for ELL and intervention teaching staff have been adjusted to address our these growing subgroups.

## High School Performance



As we move on from analyzing our district PARCC data, we will now take a look at the PARCC performance of our schools, beginning with the high schools.


This slide for Jackson Memorial High School shows the performance of our high school only students on the PARCC assessments for English Language Arts and Mathematics. The 2015 scores that are displayed do not include the Fall 2014 scores because PARCC was not administered for the first time until the Spring of 2015. It is also important to note that the glaring differences between proficiency rates for ELA and Math are greatly impacted by the fact that a large group of students take advanced math courses, such as Algebra 1 and Geometry while still in middle school. Those students' scores are attributed to the middle schools, and are not included in the high schools' scores.

For JMHS, Geometry and Algebra 2 students have made steady progress over the last three years and a current review of the secondary math curriculum provides even more optimism for future performance. Although ELA scores lag behind State averages, teachers have embraced literacy across the curriculum with research tasks in science and social studies embedded into the curriculum.


For Jackson Liberty High School students, there has been progress in Grade 10 and 11 ELA and Geometry. However, Literacy and Math demonstrates similar results and lags behind State averages.

We have begun using a Project based model in some of our math classes to increase students understanding and application of math topics. This method allows students to see math in real world examples and helps them to understand concepts in a practical manner. As we review our curriculum this year, we are looking at other areas in High School Math where we can improve. We are currently working with the teachers to explore options through technology resources, student engagement and enhancing our curriculum.

## Middle School Performance



Moving on from the high schools, we will now take a closer look at the performance of our middle schools on the PARCC assessment.


PARCC performance at the Goetz Middle School consistently exceeds the District and State averages.

In the area of Literacy, the performance of 7th and 8th grade students is noteworthy with percentages that are well above state average and significantly improved from 2016 to 2017.

In Math, nearly all Algebra 1 and Geometry students are demonstrating proficiency on the assessment designed for high school students, which is a testament to the rigor of these advanced math courses.

Student performance in 6th grade for both subject areas does appear to lag, which suggests a greater need to focus on improving students' successful transition from 5th Grade to 6th Grade.

| COMPARISON OF JACKSON TOWNSHIP SCHOOL DISTRICT'S SPRING 2015-2017 PARCC ADMINISTRATIONS PERCENTAGE SCORING "4" or Better CHRISTA MCAULIFFE MIDDLE SCHOOL |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | English Language Arts |  |  | Mathematics |  |  |
|  |  | 2015 | 2016 | 2017 | 2015 | 2016 | 2017 |
| Grade 6 |  | 48\% | 49\% | 47\% | 34\% | 45\% | 37\% |
| Grade 7 |  | 50\% | 57\% | 62\% | 25\% | 36\% | 44\% |
| Grade 8 |  | 45\% | 53\% | 63\% | 22\% | 25\% | 29\% |
| Algebra 1 |  |  |  |  | 91\% | 90\% | 96\% |
| Geometry |  |  |  |  | 100\% | 94\% | 100\% |
| ELA | District Average | State Average |  | Math | District Average | State Average |  |
| Grade 6 | 53\% | 53\% |  | Grade 6 | 49\% | 44\% |  |
| Grade 7 | 68\% | 59\% |  | Grade 7 | 46\% | 40\% |  |
| Grade 8 | 65\% | 59\% |  | Grade 8 | 31\% | 28\% |  |

Similar to the Goetz School, the McAuliffe Middle School's performance in 7th and 8th grade Literacy and Math was above state average and significantly improved from 2016 to 2017.

Algebra 1 and Geometry students at McAuliffe also excelled with nearly all of them passing the assessment designed for high school students.

Likewise to the Goetz School, 6th grade performance demonstrates a need to address the effective transition to the middle school.

## Elementary School Performance



We will now examine the performance of our elementary schools over the last three years.


This chart shows the performance of our 3rd grade students in each of our elementary schools as measured by the percentage of students scoring at a level " 4 " or higher on the PARCC assessment.
In ELA, you see continued solid performance from Rosenauer, Elms, and Johnson with all three school outpacing the State average.

You also see the lagging scores of Crawford, Holman, and Switlik which are experiencing the most rapidly changing student populations and have highest percentages of economically disadvantaged students.

In Math, the positive impact of the new math curriculum is clearly evident in all six schools, where 3rd Grade Math students largely outperformed the state. Huge gains in 3rd Grade Math at Crawford-Rodriguez, Switlik, and Rosenauer are evidence that strong curriculum changes can have a direct impact on all students regardless of socioeconomic or language differences.


A similar analysis of 4th Grade performance, shows again the positive impact of the new math curriculum with all six schools again outperforming the state in 4th grade Math with huge gains at Johnson, Switlik, and Rosenauer.

A look at the literacy scores shows continued solid performance from Crawford-Rodriguez. It is also noteworthy that both Elms and Johnson have the longest running partnership with Teachers College and are both well above State average.


Moving to 5th Grade,
you see that every single Jackson school outperformed the state in 5th grade math with large one year gains in 5th Grade Math at Johnson, Switlik, Holman, and Crawford-Rodriguez.

5th Grade ELA performance also shows huge gains from Crawford-Rodriguez, Holman, and Switlik and a proficiency rate at the Elms School that is among the highest in the State.

## Cohort Performance



The final component of this presentation is an analysis of a single cohort of students moving through our school over the last three years.

| Three-Year Comparison by Cohort |  |  |  |
| :---: | :---: | :---: | :---: |
| English Language Arts |  |  |  |
|  | $\begin{gathered} 2015 \\ \text { Grade } 9 \end{gathered}$ | $\begin{aligned} & 2016 \\ & \text { Grade } 10 \end{aligned}$ | $\begin{aligned} & 2017 \\ & \text { Grade } 11 \end{aligned}$ |
| Jackson Memorial HS | 40\% | 45\% | 20\% |
| Jackson Liberty HS | 27\% | 43\% | 33\% |
| Mathematics |  |  |  |
|  | $\begin{gathered} 2015 \\ \text { Algebra } \end{gathered}$ | 2016 Geometry | $\begin{gathered} 2017 \\ \text { Algebra } 2 \end{gathered}$ |
| Jackson Memorial HS | 8\% | 20\% | 32\% |
| Jackson Liberty HS | 2\% | 10\% | 21\% |
| \% of Students either "Meeting" or "Exceeding" Expectations (>=4) |  |  |  |

In order to illustrate more of an apples to apples comparison, this chart shows how Jackson high school students progressed over the three years of the PARCC assessment. Clearly, there is more work to be done to engage our students in the type of rigorous instruction that the PARCC demands and to instill the importance of the PARCC as a graduation requirement. However, the increase in proficiency from Algebra 1 to Geometry to Algebra 2 is promising, as are the proficiency scores of students who are exiting our middle schools and entering our high schools.

## Three-Year Comparison by Cohort

| English Language Arts |  |  |  |
| :---: | :---: | :---: | :---: |
|  | $\begin{gathered} 2015 \\ \text { Grade } 6 \end{gathered}$ | $\begin{gathered} 2016 \\ \text { Grade } 7 \end{gathered}$ | $\begin{gathered} 2017 \\ \text { Grade } 8 \end{gathered}$ |
| Goetz Middle School | 53\% | 65\% | 68\% |
| McAuliffe Middle School | 48\% | 57\% | 63\% |
| Mathematics |  |  |  |
|  | $\begin{gathered} 2015 \\ \text { Grade } 6 \end{gathered}$ | $\begin{gathered} 2016 \\ \text { Grade } 7 \end{gathered}$ | $\begin{gathered} 2017 \\ \text { Grade 8, Algebra } \\ \text { 1, and Geometry } \end{gathered}$ |
| Goetz Middle School | 51\% | 49\% | 58\% |
| McAuliffe Middle School | 34\% | 36\% | 51\% |

\% of Students either "Meeting" or "Exceeding" Expectations (>=4)

This same apples to apples comparison of a three year cohort of middle school students shoes steady progress in Literacy in both Jackson Middle schools through the three grade levels and a significant improvement in mathematics in both schools. This trend will undoubtedly have a positive impact on future high school performance.


This chart shows the steady progress through the grade levels of a single grade level cohort in the area of Literacy. This data demonstrates the effectiveness of the elementary curriculum and instruction, and an aggressive curriculum review cycle that has embraced the more complex demands of the New Jersey Learning Standards.


When looking at a similar cohort through the lens of Mathematics, it is clear to see the major jump from 2016 to 2017 attributed to the implementation of the new math curriculum. We, as a district, our hopeful that a similar rapid increase will result from a current review of the secondary math curriculum.

In closing, the vast amount of PARCC data provides us with a snapshot of the performance of our district and our schools. A snapshot that affirms the good things that are happening in our schools on a daily basis and a reminder that there is still much work to be done.

Questions??

