# CHERRY HILL PUBLIC SCHOOLS 

## Annual Testing Report

 2011-2012

DECEMBER, 2012

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## CHERRY HILL STUDENT ACHIEVEMENT GOAL:

Continue to improve student achievement at all grade levels for all students and close achievement gaps where they exist.

## EXECUTIVE SUMMARY

New Jersey testing continues to change. In 2008 the State announced a philosophical change in testing at the high school level to move away from comprehensive assessments in math and science, assessing numerous content areas at once, to an assessment system that measures achievement for specific subjects. The effects of this change began in May 2008 with the administration of the End of Course (EOC) Biology test (now the New Jersey Comprehensive Biology Test (NJBCT)) for all first year biology students at the high schools. In 2010, an End of Course (EOC) Algebra 1 assessment was administered to all students in the district, middle school and high school, taking Algebra 1. However, in 2011 it was announced that the last required administration of the EOC Algebra would be in Spring 2011.

In 2011, the State also announced that it would be a governing state in the Partnership for Assessment for College and Career (PARCC), a consortium of states working to develop a nextgeneration assessment system. The PARCC assessment system has a goal of on-line assessments multiple times per year by 2014 .

In 2008 and 2009 there were significant changes over these years in the design and scoring of the NJASK for grades 3 through 8 . On each of these grade level tests, the number of possible points increased and at the same time the State increased the proficiency level standards, making it more difficult for students to achieve the proficient and advanced proficient levels than in the past. The changes were made for grades 5-8 in 2008, and for grades 3 and 4 in 2009.

In November 2011, the State applied for a waiver from certain provisions of the NCLB law, including the requirement that all students become proficient by 2014. The waiver was approved in February 2012. Features of the waiver application include:

- Categorizing all schools in the state into the following categories:
- Priority schools - lowest 5\% of Title 1 schools or non-Title 1 schools that meet the same criteria based on results of state tests over three years
- Focus schools - schools with a graduation rate less than $75 \%$ or schools with largest in-school subgroup achievement gaps or lowest subgroup performance
- Reward schools - schools with high overall achievement and/or have demonstrated great progress
- All other schools
- High School East was designated as a Reward School and all other District schools were in the "all other" category
- The State intends to provide interventions and supports to the Priority and Focus schools and recognize and celebrate the reward schools
- Adequate Yearly Progress (AYP) has been replaced by Annual Measurable Objectives (AMO)
- A school's status regarding AMOs will be reported annually for informational purposes but will not have the economic and programmatic consequences of failing to meet AYP. The first calculations of AMOs has not yet been released by the State.

Cohort exhibits are a part of the Testing Report again this year. These exhibits show the progress of the same group of students over the years, reducing some of the variation that is caused by reviewing results of different groups of students in a grade level over time.

In general, Cherry Hill students continue to perform well on state and national assessments. The following table shows how the total student population in the district performed compared to the DFG GH and I averages on the State Assessments in 2012:

## 2012 STATE ASSESSMENTS

Total Students

|  | Proficient or Advanced Proficient |  |  | Advanced Proficient |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Grade | Language Arts | Mathematics | Science | Language Arts | Mathematics | Science |
| 3 |  |  | N/A |  |  | N/A |
| 4 |  |  |  |  |  |  |
| 5 |  |  | N/A |  |  | N/A |
| 6 |  |  | N/A |  |  | N/A |
| 7 |  |  | N/A |  | \|l|l | N/A |
| 8 |  |  |  |  |  |  |
| 11 |  |  | N/A |  |  | N/A |



Above the DFG I average
Comparable to the DFG I average
Between the DFG GH and I averages
Comparable to the DFG GH Average
Below the DFG GH Average

The following table shows how the students with disabilities population in the district performed compared to the DFG GH and I averages on the State Assessments:

## 2012 STATE ASSESSMENTS

Students with Disabilities

|  | Proficient or Advanced Proficient |  |  |
| ---: | :---: | :---: | :---: |
| Grade | Language <br> Arts | Mathematics | Science |
| 3 |  |  | N/A |
| 4 |  |  | N |
| 5 |  |  | N/A |
| 6 |  |  | N/A |
| 7 |  | N/A |  |
| 8 |  |  |  |
| 11 |  |  | N $/ \mathrm{M}$ |



Above the DFG I average
Comparable to the DFG I average
Between the DFG GH and I averages
Comparable to the DFG GH Average
Below the DFG GH Average
The above tables for both the total student populations and the student with disabilities subgroups show that in most cases the district averages are above the DFG GH, our current district factor group, averages.

On the SATs, both East and West were above the state and national averages in all subjects. 2012 DFG results are not yet available, but the following table shows how the 2012 District SAT results compared to the 2011 DFG GH and I results:

## 2012 District to 2011 DFG SAT Scores



Above the DFG I average
Comparable to the DFG I average
Between the DFG GH and I averages
Comparable to the DFG GH Average
Below the DFG GH Average

The district average SAT is above the DFG GH in all subjects. East was above the DFG I average in all subjects and West was below the DFG GH average in all subjects. East's 2012 average scores improved in Math and Writing from 2011 and were approximately the same in Critical Reading. West's scores improved in 2012 in Math, were comparable in Critical Reading, and declined in Writing from 2011.

## INTRODUCTION

The Cherry Hill Board of Education is committed to improving student achievement for all students and to providing each of our students with a preeminent education. There are many aspects of a preeminent education, including but not limited to: academic challenges, character building, opportunities for social growth, learning civic responsibilities and building the foundation for lifelong learning.

The result on a standardized test is only one of many measures of student achievement. Less easily collected and quantified, but still important, are general classroom work and assessments, projects, oral presentations, participation in classroom discussions, participation in the arts, community service, extracurricular activities and the list continues. Student achievement cannot be solely defined by how our students perform on group administered paper and pencil standardized tests in language arts, mathematics and science, but they are important indicators of academic success.

New Jersey testing continues to change. In 2008 the State announced a philosophical change in testing at the high school level to move away from comprehensive assessments in math and science, assessing numerous content areas at once, to an assessment system that measures achievement for specific subjects. The effects of this change began in May 2008 with the administration of the End of Course (EOC) Biology test (now the New Jersey Comprehensive Biology Test (NJBCT)) for all first year biology students at the high schools. In 2010, an End of Course (EOC) Algebra 1 assessment was administered to all students in the district, middle school and high school, taking Algebra 1. However, in 2011 it was announced that the last required administration of the EOC Algebra would be in Spring 2011.

In 2011, the State also announced that it would be a governing state in the Partnership for Assessment for College and Career (PARCC), a consortium of states working to develop a nextgeneration assessment system. The PARCC assessment system has a goal of on-line assessments multiple times per year by 2014 .

In 2008 and 2009 there were significant changes over these years in the design and scoring of the NJASK for grades 3 through 8 . On each of these grade level tests, the number of possible points increased and at the same time the State increased the proficiency level standards, making it more difficult for students to achieve the proficient and advanced proficient levels than in the past. The changes were made for grades 5-8 in 2008, and for grades 3 and 4 in 2009.

In November 2011, the State applied for a waiver from certain provisions of the NCLB law, including the requirement that all students become proficient by 2014. The waiver was approved in February 2012. Features of the waiver application include:

- Categorizing all schools in the state into the following categories:
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- Reward schools - schools with high overall achievement and/or have demonstrated great progress
- All other schools
- High School East was designated as a Reward School and all other District schools were in the "all other" category
- The State intends to provide interventions and supports to the Priority and Focus schools and recognize and celebrate the reward schools
- Adequate Yearly Progress (AYP) has been replaced by Annual Measurable Objectives (AMO)
- A school's status regarding AMOs will be reported annually for informational purposes but will not have the economic and programmatic consequences of failing to meet AYP. The first calculations of AMOs has not yet been released by the State.

Cohort exhibits are a part of the Testing Report again this year. These exhibits show the progress of the same group of students over the years, reducing some of the variation that is caused by reviewing results of different groups of students in a grade level over time.

## STATE ASSESSMENTS

## Language Arts - HSPA and NJASK

## Introduction

In high school, in the spring of each year, all students who are first time eleventh grade students take the High School Proficiency Assessment (HSPA). The HSPA measures knowledge and skills in the New Jersey Core Curriculum Content Standards, which are designed to make sure that students have the skills needed to become productive citizens and to succeed in college, on the job or in the military. Students must pass the HSPA to graduate from high school. If a student does not pass the HSPA in March of his/her junior year, the student will have the opportunity to take the HSPA again in October and March of his/her senior year. In addition, if a student does not pass the HSPA in March of his/her junior year, the student will begin the Alternative High School Assessment (AHSA), formerly the Special Review Assessment (SRA), for the HSPA in the fall of his/her senior year. The AHSA is an alternative assessment that will enable the student to show whether or not he/she has mastered the same knowledge and skills assessed by the HSPA.

At the middle school, the state testing began in 1999 with the Grade Eight Proficiency Assessment (GEPA). The GEPA was intended to indicate the progress students were making in mastering the knowledge and skills they needed to pass the HSPA. In 2008, the GEPA was replaced by the NJASK8.

In April 2006, NJASK tests were first administered to fifth, sixth, and seventh grade students statewide, assessing Language Arts and Mathematics. New Jersey was required by NCLB regulations to administer state assessments in these subjects to these grade levels during the 2005-2006 school year. The new NJASK was of a similar format to the GEPA, had both multiple choice and open ended questions, but had a greater proportion of multiple choice than the GEPA or HSPA.

In 2008, there was a significant change in the design and scoring of the state assessments for grades 5 through 8 . In each of these grade level tests, the number of possible points increased and at the same time the State increased the proficiency level standards, making it more difficult for students to achieve the proficient and advanced proficient levels than in the past.

NJASK was first administered as an operational test to fourth grade students (NJASK4) and as a field test to third grade students (NJASK3) in Spring 2003. The tests were modeled after the ESPA, which was first administered in 1999 to fourth grade students, and NJASK4 was considered equivalent to the ESPA for No Child Left Behind accountability requirements. NJASK4/ESPA were developed by the state to align testing with the New Jersey Core Curriculum Content Standards. NJASK/ESPA were designed to serve as an indicator for determining those students who may need instructional intervention. Three subjects were operational in March 2005 on NJASK4: language arts literacy, mathematics, and science.

In 2009, the NJASK grades 3 and 4 changed in a manner similar to the 2008 changes to NJASK for grades 5 through 8 .

On each section of the HSPA or NJASK, students attain one of three proficiency levels: advanced proficient, proficient, or partially proficient. All NJASK tests are intended to indicate the progress students are making in mastering the knowledge and skills they will need to pass the HSPA.

## Language Arts Literacy

The language arts literacy assessment assesses knowledge and skills in the following content clusters:

- Reading
- Working with Text
- Analyzing/Critiquing Text
- Writing


## Total Student Results - Language Arts

The following exhibits show results reported on an NCLB basis for Total Students, which means that students who are new to the school are not included, but Alternate Proficiency Assessment (APA) scores are included. DFG GH, I and State results are not available on the same basis, but represent the Total Student Population, including all students and excluding the APA results.

These exhibits show a comparison of the percentage of students who were proficient or advanced proficient at each of the schools, compared to the State and District Factor Group (DFG) GH and DFG I. The district factor groups were originally established in 1975 by the state for the purpose of grouping and comparing results of districts based on similar socioeconomic factors. They are updated every 10 years based on Decennial Census data. District factor groups were recently updated in 2004 based on 2000 Census data, which resulted in a change in district factor group for Cherry Hill from I to GH. Cherry Hill results are compared to both DFG GH, our current district factor group and to DFG I, our past benchmark for excellence. Other districts in the DFG GH include: Lenape Regional High School, Eastern Regional High School, Shamong Township, Tabernacle Township, and Haddon Heights. Districts in DFG I include Evesham, Mount Laurel, Moorestown and Voorhees. Haddonfield has been changed to a DFG J, the highest district factor group.

In 2012, in $3^{\text {rd }}, 5^{\text {th }}$, and $11^{\text {th }}$ grades, the district average for the percentage of students proficient or above in Language Arts is comparable to the District Factor Group (DFG) I; and in $4^{\text {th }}$ and $7^{\text {th }}$ grades are between the DFG GH and DFG I averages, and in $6^{\text {th }}$ and $8^{\text {th }}$ grades are comparable to the GH average. The percentage of students advanced proficient in Language Arts was comparable to the DFG I averages in $3^{\text {rd }}$ and $5^{\text {th }}$ grades, between the GH and I averages in $11^{\text {th }}$ grade, comparable to the GH averages in $4^{\text {th }}$ and $7^{\text {th }}$ grades and below the GH averages in $6^{\text {th }}$ and $8^{\text {th }}$ grades.


## HSPA Language Arts Total Students Advanced Proficient Cherry Hill - DFG - State Comparison



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NJASK8 Language Arts Advanced Proficient Cherry Hill Schools - DFG - State Comparison Total Students


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NJASK 7 Language Arts - Advanced Proficient Cherry Hill - DFG - State Comparison Total Students


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NJASK 6 Language Arts - Advanced Proficient Cherry Hill - DFG - State Comparison Total Students


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NJASK 5 Language Arts Advanced Proficient Cherry Hill - DFG - State Comparison Total Students


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## Students with Disabilities Results - Language Arts

In the $5^{\text {th }}, 6^{\text {th }}$ and $11^{\text {th }}$ grades, the percentages of students proficient or advanced proficient in language arts were higher than the DFG I averages, comparable to the DFG I average in $3^{\text {rd }}$ and $4^{\text {th }}$ grades, and between the DFG GH and I averages in $7^{\text {th }}$ and $8^{\text {th }}$ grades.


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## Cohort Analysis - Language Arts

The previous exhibits showed a snapshot of results for each grade level from year to year, reflecting different groups of students from one year to the next. The following exhibits show the results of several cohorts of students as they progress through the state assessments.

## GRADE 8 ASSESSMENT (NJASK8) TO GRADE 11 ASSESSMENT (HSPA) SAME COHORT OF STUDENTS

The following exhibit shows how the percentages of students proficient or advanced proficient in language arts for the Class of 2013 changed from when they took the NJASK in 8th grade to when they took the HSPA in $11^{\text {th }}$ for General Education Students and Students with Disabilities compared to the DFG GH for the same subgroups. Only students who took the NJASK8 and the HSPA in the Cherry Hill district are included in this exhibit. The General Education student percentages proficient or above were high for both the NJASK8 and the HSPA for both the District and the DFG GH. The Students with Disabilities (IEP Students) percentages proficient or above improved 19 percentage points from the NJASK8 to the HSPA for both the district and the DFG GH. The percentage of IEP students in this cohort who passed the language arts HSPA was $94 \%$, only five percentage points below the general education students.


## NJASK GRADE 5 TO GRADE 8 - SAME COHORT OF STUDENTS

The following exhibit looks at the middle school level. The District percentages proficient or above were at or above the DFG GH averages for every grade level for both General Education Students and Students with Disabilities. By $8^{\text {th }}$ grade both the District and the DFG GH General Education Students' percentages proficient and above were in the high 90's. The gap between General Education students and Students with Disabilities in $8^{\text {th }}$ grade was 31 percentage points for the District and 38 percentage points for the DFG GH. The $8^{\text {th }}$ grade gaps were the smallest of the grade levels.


## NJASK GRADE 3 TO GRADE 6 - SAME COHORT OF STUDENTS

For every grade level, for both General Education Students and Students with Disabilities, the District's percentages of students proficient or above were higher than the DFG GH. The General Education students' percentages proficient or above declined slightly for the District from $3^{\text {rd }}$ to $6^{\text {th }}$ grades but increased from $3^{\text {rd }}$ to $6^{\text {th }}$ grades for the DFG GH general education students. The Students with Disabilities percentages proficient or above declined from grade 3 to grade 6 for both the District and the DFG GH.


## COHORT Results by Ethnic Group - Language Arts

The previous exhibits showed the General Education and Students with Disabilities populations in the specific cohorts. The following exhibits show the cohort of Total Student results broken down by Federal Ethnicity. Cohort exhibits are good for determining changes in achievement gaps because they are looking at the same students results over time. This reduces variability in results due to attrition or additional members in a group over time.

## GRADE 8 ASSESSMENT (NJASK8) TO GRADE 11 ASSESSMENT (HSPA) BY ETHNIC GROUP SAME COHORT OF STUDENTS

The following exhibits show how the percentages proficient or advanced proficient in language art for the Class of 2013 changed by Federal Ethnicity from when they took the NJASK in 8th grade to when they took the HSPA in $11^{\text {th }}$. Only students who took the NJASK8 and the HSPA in the Cherry Hill district are included in this exhibit. All ethnic groups improved from the NJASK8 to the HSPA and the percentages of students who were proficient or advanced proficient on the HSPA were in the high 90's for each ethnic group.


## NJASK GRADE 5 TO GRADE 8 BY ETHNIC GROUP SAME COHORT OF STUDENTS

The following exhibit looks at the middle school level by ethnic groups. Only students who took the NJASK in the Cherry Hill district in all four grades from 2009 to 2012 are included in this exhibit. All ethnic groups had an increase in the percentages of students proficient or above from $5^{\text {th }}$ grades to $8^{\text {th }}$ grades. The only significant closing of the achievement gaps from $5^{\text {th }}$ to $8^{\text {th }}$ grades occurred in $8^{\text {th }}$ grade


## NJASK GRADE 3 TO GRADE 6 BY ETHNIC GROUP SAME COHORT OF STUDENTS

The following exhibit looks at the cohort of students by ethnic groups who were in 3rd grade in 2009 and $4^{\text {th }}$ grade in 2010 and $5^{\text {th }}$ grade in 2011 and $6^{\text {th }}$ grade in 2012 . Only students who took the NJASK in the Cherry Hill district in all grades from 2009 to 2012 are included in this exhibit. This exhibit shows similar results for the Asian, Hispanic and White students, but significantly lower percentages for the Black or African American students.


## STATE ASSESSMENTS

## Mathematics - HSPA and NJASK

## Introduction

In high school, in the spring of each year, all students who are first time eleventh grade students take the High School Proficiency Assessment (HSPA). The HSPA measures knowledge and skills in the New Jersey Core Curriculum Content Standards, which are designed to make sure that students have the skills needed to become productive citizens and to succeed in college, on the job or in the military. Students must pass the HSPA to graduate from high school. If a student does not pass the HSPA in March of his/her junior year, the student will have the opportunity to take the HSPA again in October and March of his/her senior year. In addition, if a student does not pass the HSPA in March of his/her junior year, the student will begin the Alternative High School Assessment (AHSA), formerly the Special Review Assessment (SRA), for the HSPA in the fall of his/her senior year. The AHSA is an alternative assessment that will enable the student to show whether or not he/she has mastered the same knowledge and skills assessed by the HSPA.

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In 2009, the NJASK grades 3 and 4 changed in a manner similar to the 2008 changes to NJASK for grades 5 through 8 .

On each section of the HSPA or NJASK, students attain one of three proficiency levels: advanced proficient, proficient, or partially proficient. All NJASK tests are intended to indicate the progress students are making in mastering the knowledge and skills they will need to pass the HSPA.

## Mathematics

The Mathematics section of the test will measure the students' ability to solve problems by applying mathematical concepts. The areas to be tested are:

- Number sense, concepts and applications;
- Spatial sense and geometry
- Data analysis, probability, statistics and discrete mathematics;
- Patterns, functions, and algebra.

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## Total Student Results - Mathematics

The following exhibits show results reported on an NCLB basis for Total Students, which means that students who are new to the school are not included, but Alternate Proficiency Assessment (APA) scores are included. DFG GH, I and State results are not available on the same basis, but represent the Total Student Population, including all students and excluding the APA results.

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In 2012, in $3^{\text {rd }}, 4^{\text {th }}$ and $5^{\text {th }}$ grades, the percentage of students proficient or advanced proficient was comparable to the DFG I average, and was between the DFG GH and DFG I averages in $6^{\text {th }}$, $7^{\text {th }}, 8^{\text {th }}$ and $11^{\text {th }}$ grades. The percentages of student advanced proficient were higher than the DFG I averages in $5^{\text {th }}$ grade, comparable to the DFG I average in $3^{\text {rd }}$ grade, between the GH and I averages in 11th grade, comparable to the DFG GH averages in $4^{\text {th }}, 7^{\text {th }}$, and $8^{\text {th }}$ grades and below the DFG GH average in $6^{\text {th }}$ grade.

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NJASK8 Mathematics Advanced Proficient Cherry Hill Schools - DFG - State Comparison Total Students


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NJASK 7 Mathematics - Advanced Proficient
Cherry Hill - DFG - State Comparison Total Students


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## NJASK 6 Mathematics - Advanced Proficient Cherry Hill - DFG - State Comparison Total Students



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| NJASK 5 Mathematics Cherry Hill - DFG - State Comparison Total Students |  |  |  |  |  |
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|  |  |  |  |  |  |
|  | 2008 | 2009 | 2010 | 2011 | 2012 |
| ——B Barton | 85\% | 90\% | 89\% | 90\% | 91\% |
| --Cooper | 81\% | 98\% | 91\% | 90\% | 91\% |
| - - Harte | 87\% | 86\% | 94\% | 97\% | 100\% |
| $\longrightarrow$ Johnson | 85\% | 78\% | 90\% | 92\% | 91\% |
| —* Kilmer | 77\% | 76\% | 86\% | 89\% | 94\% |
| ——KKingston | 93\% | 86\% | 86\% | 98\% | 95\% |
| -- Knight | 89\% | 93\% | 99\% | 96\% | 96\% |
| -_Mann | 100\% | 86\% | 97\% | 96\% | 95\% |
| -_ Paine | 87\% | 84\% | 78\% | 85\% | 93\% |
| -*-Sharp | 90\% | 96\% | 98\% | 89\% | 98\% |
| -- Stockton | 97\% | 88\% | 95\% | 90\% | 95\% |
| -- Woodcrest | 88\% | 95\% | 90\% | 95\% | 96\% |
| $\longrightarrow$ District | 88\% | 87\% | 91\% | 92\% | 94\% |
| - -* - DFG GH | 84\% | 85\% | 86\% | 88\% | 90\% |
| - - - DFG I | 89\% | 90\% | 91\% | 92\% | 93\% |
| ---+--- State | 77\% | 77\% | 79\% | 81\% | 83\% |

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## NJASK 5 Mathematics Advanced Proficient <br> Cherry Hill - DFG - State Comparison Total Students



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## Students with Disabilities - Mathematics

In $3^{\text {rd }}, 5^{\text {th }}, 7^{\text {th }}, 8^{\text {th }}$, and $11^{\text {th }}$ grades the percentages of students proficient or advanced proficient in mathematics were higher than the DFG I averages, in $6^{\text {th }}$ grade comparable to the DFG I average and in $4^{\text {th }}$ grade between the DFG GH and I averages.


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| NJASK5 Mathematics Students with Disabilities District DFG State Comparison |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 듣. |  |  |  |  |  |
| 흐은 |  |  |  |  |  |
| $\text { 은 은 } 70 \%$ |  |  |  |  |  |
| 는 $50 \%$ |  |  |  |  |  |
| $\begin{array}{ll} 0 \\ \# & 50 \% \\ \hline 1 \end{array}$ |  |  |  |  |  |
| © |  |  |  |  |  |
| 흔 주 20\% |  |  |  |  |  |
| $\text { 芴を } 10 \%$ |  |  |  |  |  |
| O 0\% | 2008 | 2009 | 2010 | 2011 | 2012 |
| $\longrightarrow$ District | 65\% | 65\% | 70\% | 74\% | 77\% |
| - - - DFG GH | 57\% | 59\% | 59\% | 62\% | 67\% |
| - - DFGI | 63\% | 66\% | 67\% | 70\% | 73\% |
| ---x--- STATE | 49\% | 51\% | 51\% | 56\% | 58\% |

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| NJASK4 Mathematics Students with Disabilities District DFG$\pm \stackrel{\rightharpoonup}{む}$ State Comparison |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  | 2009 | 2010 | 2011 | 2012 |
| --District | 70\% | 75\% | 82\% | 71\% |
| --DDFG GH | 58\% | 62\% | 68\% | 66\% |
| --DFGI | 66\% | 69\% | 75\% | 74\% |
| $\rightarrow$ State | 52\% | 56\% | 61\% | 58\% |
| NJASK3 Mathematics Students with Disabilities District DFG $\stackrel{\rightharpoonup}{\stackrel{\rightharpoonup}{0}} \quad$ State Comparison |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  | 2009 | 2010 | 2011 | 2012 |
| --District | 78\% | 81\% | 83\% | 79\% |
| -- DFG GH | 66\% | 70\% | 71\% | 71\% |
| --DFG I | 71\% | 75\% | 77\% | 76\% |
| $\rightarrow$ State | 57\% | 63\% | 63\% | 61\% |

## Cohort Analysis - Mathematics

The previous exhibits showed a snapshot of results for each grade level from year to year, reflecting different groups of students from one year to the next. The following exhibits show the results of several cohorts of students as they progress through the state assessments.

## GRADE 8 ASSESSMENT (NJASK8) TO GRADE 11 ASSESSMENT (HSPA) SAME COHORT OF STUDENTS

The following exhibit shows how the percentages of students proficient or advanced proficient in mathematics for the Class of 2013 changed from when they took the NJASK in 8th grade to when they took the HSPA in $11^{\text {th }}$ for General Education Students and Students with Disabilities compared to the DFG GH. Only students who took the NJASK8 and the HSPA in the Cherry Hill district are included in this exhibit. The General Education student percentages proficient or above for the District were around 95\% for both the NJASK8 and the HSPA. The Students with Disabilities (IEP Students) percentages proficient or above improved about 10 percentage points from the NJASK8 to the HSPA for both the district and the DFG GH, but were 24 percentage points below the General Education results for the District HSPA Math and 45 percentage points below for the District Factor Group GH.


## NJASK GRADE 5 TO GRADE 8 - SAME COHORT OF STUDENTS

The following exhibit looks at the middle school level. The District percentages proficient or above were higher than the DFG GH for every grade level for General Education Students and higher than the DFG GH average in $7^{\text {th }}$ and $8^{\text {th }}$ grades for Students with Disabilities. The percentages proficient or above decline from $5^{\text {th }}$ to $7^{\text {th }}$ grades for all student groups except District Students with Disabilities which improves slightly from $5^{\text {th }}$ to $7^{\text {th }}$ grades. The gap between the District General Education Students and District Students with Disabilities decreases from $5^{\text {th }}$ grade ( 55 percentage points) to $8^{\text {th }}$ grade ( 27 percentage points), while the DFG GH gap increases from $5^{\text {th }}$ grade ( 31 percentage points) to $8^{\text {th }}$ grade ( 51 percentage points).


## NJASK GRADE 3 TO GRADE 6 - SAME COHORT OF STUDENTS

For every grade level, for both General Education Students and Students with Disabilities, the District's percentages of students proficient or above were higher than the DFG GH. The General Education students' percentages proficient or above were generally flat in the high 90 's for the District and increase for the DFG GH. The Students with Disabilities percentages proficient or above were declined slightly for the District and DFG GH from grades 3 to 5 and had a larger drop in grade 6. The gap between the General Education results and the Students with Disabilities results increased from around 25 percentage points for the District grades 3 to 5 and increased to 33 percentage points in grade 6 . The DFG GH gap doubled from 22 percentage points in grade 5 to 44 percentage points in grade 6 .


## COHORT Results by Ethnic Group - Mathematics

The previous exhibits showed the General Education and Students with Disabilities populations in the specific cohorts. The following exhibits show the cohort of Total Student results broken down by Federal Ethnicity. Cohort exhibits are good for determining changes in achievement gaps because they are looking at the same students results over time. This eliminates variability in results due to attrition or additional members in a group over time.

## GRADE 8 ASSESSMENT (NJASK8) TO GRADE 11 ASSESSMENT (HSPA) BY ETHNIC GROUP SAME COHORT OF STUDENTS

The following exhibits show how the percentages proficient or advanced proficient in mathematics for the Class of 2013 changed by Federal Ethnicity from when they took the NJASK in 8th grade to when they took the HSPA in $11^{\text {th }}$. Only students who took the NJASK8 and the HSPA in the Cherry Hill district are included in this exhibit. All ethnic groups improved from the NJASK8 to the HSPA, but there was a 15 percentage point gap between Black or African American Students from White Students on the HSPA.


## NJASK GRADE 5 TO GRADE 8 BY ETHNIC GROUP SAME COHORT OF STUDENTS

The following exhibit looks at the middle school level by ethnic groups. Only students who took the NJASK in the Cherry Hill district in all four grades from 2009 to 2012 are included in this exhibit. The Asian students were the only subgroup that showed improvement from $5^{\text {th }}$ to $8^{\text {th }}$ grades; the other subgroups showed deteriorating results from $5^{\text {th }}$ to $8^{\text {th }}$ grades, particularly in $6^{\text {th }}$ and $7^{\text {th }}$ grades. This pattern is similar to the Total Student DFG GH pattern where $85 \%$ of the students were proficient or advanced proficient in mathematics in $5^{\text {th }}$ grade in $2009,79 \%$ in $6^{\text {th }}$ grade in $2010,75 \%$ in $7^{\text {th }}$ grade in 2011 and $81 \%$ in $8^{\text {th }}$ grade in 2012 . The gaps between Black or African American and Hispanic students increased from the White students in grades 6 and 7 and decreased in $8^{\text {th }}$ grade.


## NJASK GRADE 3 TO GRADE 6 BY ETHNIC GROUP SAME COHORT OF STUDENTS

The following exhibit looks at the cohort of students by ethnic groups who were in 3rd grade in 2009 and 4th grade in 2010 and 5th grade in 2011 and $6^{\text {th }}$ grade in 2012. Only students who took the NJASK in the Cherry Hill district in all grades from 2009 to 2012 are included in this exhibit. This exhibit shows a pattern of fluctuation in the gaps between $3^{\text {rd }}$ and $6^{\text {th }}$ grades.


## STATE ASSESSMENTS

## Science - New Jersey Biology Competency Test (NJBCT) and NJASK

## Introduction

In May 2008, the HSPA science test was replaced with an End of Course (EOC) Biology assessment which has been renamed the New Jersey Biology Competency Test (NJBCT). This test was administered to all high school students who were enrolled in a first year Biology course beginning in the 2007-2008 school year. The Department of Education only released raw score data for the first and second years of the test, and 2010 was the first year that proficiency levels were reported.

The NJBCT consisted of multiple-choice and performance assessment components. The performance assessment was comprised of three written tasks that were to assess the students' knowledge of essential life science concepts and processes to solve problems or challenges posed by each task. Passing the NJBCT will be a graduation requirement at some time in the future.

At the middle school, the science state testing began in 2000 with the Grade Eight Proficiency Assessment (GEPA) science section. In 2008, the GEPA was replaced by the NJASK8. Although the new test reflected a significant change in the design and scoring from the GEPA for language arts and mathematics, there were minimal changes to the science section of the test. For this reason, historical results are provided for the grade eight testing, only in science.

In fourth grade, the State first administered an operational science section of the NJASK in March 2005.

On the science section of the NJASK 4, 8 and the EOC Biology, students attain one of three proficiency levels: advanced proficient, proficient, or partially proficient.

The NJASK science assessments measures knowledge and skills in three content clusters:

- Life science
- Physical science
- Earth science

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## Total Student Results - Science

The first set of exhibits shows proficiency levels of the NJBCT. The data reflect the results of all students without any adjustment to put the data on a NCLB basis.

The remaining exhibits show results reported on an NCLB basis for Total Students, which means that students who are new to the school are not included, but Alternate Proficiency Assessment (APA) scores are included. DFG GH, I and State results are not available on the same basis, but represent the Total Student Population, including all students and excluding the APA results.

These exhibits show a comparison of the percentage of students who were proficient or advanced proficient at each of the schools, compared to the State and District Factor Group (DFG) GH and DFG I. The district factor groups were originally established in 1975 by the state for the purpose of grouping and comparing results of districts based on similar socioeconomic factors. They are updated every 10 years based on Decennial Census data. District factor groups were recently updated in 2004 based on 2000 Census data, which resulted in a change in district factor group for Cherry Hill from I to GH. Cherry Hill results are compared to both DFG GH, our current district factor group and to DFG I, our past benchmark for excellence. Other districts in the DFG GH include: Lenape Regional High School, Eastern Regional High School, Shamong Township, Tabernacle Township, and Haddon Heights. Districts in DFG I include Evesham, Mount Laurel, Moorestown and Voorhees. Haddonfield has been changed to a DFG J, the highest district factor group.

2012 District percentages proficient or advanced proficient were comparable to the DFG I averages on the NJBCT. In 2012, in $4^{\text {th }}$ grade, the district average percentages of students proficient or advanced proficient was comparable to the DFG I average and was between the DFG GH and DFG I averages in $8^{\text {th }}$ grade. The percentages of students advanced proficient were above the DFG I average on the NJBCT, between the DFG GH and DFG I averages in $8^{\text {th }}$ grade, and below the DFG GH average in $4^{\text {th }}$ grade.

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## NJBCT (Biology) Total Students



NJBCT (Biology) Total Students Advanced Proficient


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NJASK8/GEPA Science Advanced Proficient Cherry Hill Schools - DFG - State Comparison



## NJASK4 Science - Advanced Proficient Cherry Hill Schools - DFG - State Comparison Total Students



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## Students with Disabilities Results - Science

The District average on the NJBCT improved from 2010 to 2012 and was above the DFG GH average in all years. In the $8^{\text {th }}$ grade the percentages of students proficient or advanced proficient was between the DFG GH and DFG I averages and below the DFG GH average in $4^{\text {th }}$ grade.



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SAT Results
The Class of 2005 was the last class to take the former version of the SAT, which was a threehour test that measured two skills related to freshman performance in college: verbal and mathematical reasoning, with a range of scores from 200 to 800 in each subject. In March 2005, a new version of the SAT was administered. The language arts portion of the test now includes two separate test sections: "Writing", which includes a student-written essay and multiple-choice questions about writing; and "Critical Reading", which multiple-choice questions about short and long reading passages. Analogies have been eliminated on the new SAT. The Writing and Critical Reading sections of the SAT each have a range of scores from 200 to 800 . Changes were also made to the Mathematics section, including expanding topics covered by the test to include Algebra II content and eliminating quantitative comparisons. The Mathematics section of the SAT also has a range of scores from 200 to 800 . The new SAT is three hours and 45 minutes, 45 minutes longer than the old SAT, and has a total possible score of 2400 , versus 1600 with the old SAT. The College Board states that the scores from the Verbal and Mathematics sections of the old SAT are equivalent to the scores of the new Critical Reading and Mathematics sections.

Colleges use the scores to predict freshman performance in college. According to the College Board, which administers the SAT, research confirms that the SAT is not the most critical factor in college admissions. The College Board's guidelines advise colleges to consider a wide range of factors when making high stakes decisions, and not to base decisions solely on scores when other relevant information is available. Students use SAT scores to select colleges for which they have a reasonable chance for success.

Both East and West were above the state and national averages in all subjects. 2011 DFG results are not yet available, but in 2012 East was above the 2011 DFG I averages in all subjects and West was below the 2011 DFG GH average in all subjects.

In 2012, the percentage of $12^{\text {th }}$ grade students taking the SAT increased at East over 2011 and was stable at West.

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Cherry Hill Math SAT Scores


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## Advanced Placement Results

The Cherry Hill Public Schools strive to challenge all of the students in the district. Among the most challenging courses offered at the high schools are the AP tests and were the IB tests, which were offered for the last time at West during the 2007-2008 school year. AP and IB tests are reported as combined indicators for West, reflecting the student participation in Cherry Hill's most challenging academic options. At Cherry Hill West, many students who previously may have opted for AP courses, may have instead opted for the IB program when it was available, therefore, by combining the results, we receive a consistent picture of the district's trends.

## Advanced Placement (AP) Program

The Advanced Placement (AP) program of the College Board is an important means of providing secondary students with challenging curricula. This voluntary program enables students to take college level courses while still in high school. Upon completion of an AP course, the student takes an examination. A score of 3 or above might qualify the student for college credit and/or advanced placement in college, depending on the school. Advanced Placement courses are offered at both Cherry Hill East and Cherry Hill West.

Cherry Hill students at both schools took advantage of the following AP offerings:

| Art History | Computer Science | French Language | Psychology |
| :--- | :--- | :--- | :--- |
| Art Studio | Economics- Macro | French Literature | Spanish Language |
| Biology | Economics - Micro | Latin | Spanish Literature |
| Calculus | English Literature | Music Theory | Statistics |
| Chemistry | European History | Physics | U.S. History |
|  |  |  | World History |

## AP (and IB at West during the years when they were available) Participation and Tests

The following graphs show the number of students who took one or more AP (or IB at West during the years when they were available) tests. The counts are unduplicated within the AP or IB subgroup; however, if a student took one or more AP tests and one or more IB exams, the student would be counted once in each category. The last year the IB tests were administered was 2008. During the 2006-2007 and 2007-2008 school years the District paid the test fee for the AP tests; however, this was discontinued for the 20082009 school year and subsequent. The number of students taking the AP tests increased significantly during the period of time when the district paid for the tests and declined in 2009. The number of students taking the AP tests was higher in 2012 than in 2011 at East and lower at West yet the number of tests taken increased at both schools.

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West Number of AP (and IB 2001-2008) Tests


## Percentage of Students with AP Scores of 3 or Above

Knowing how many students participated in the high level courses and tests is important, but how did they perform is also an essential question. The following graph shows the percentage of students who scored a 3 or above on the AP tests, a level at which a student might be eligible to receive college credit at some colleges. The increase in the percentage of scores of 3 or above beginning in 2009 is probably related to the fewer number of students taking the test. It is likely that the students who paid for and took the test during 2009 and 2010 were stronger students than the students who opted not to take the test. Percentages of students scoring 3 or above increased at both East and West in 2012 from 2011.


