

## **CHAPTER 3**

### **ANALYSIS OF ACHIEVEMENT GAP DATA -- HOW ARE PENNSYLVANIA SCHOOLS AND STUDENTS DOING?**

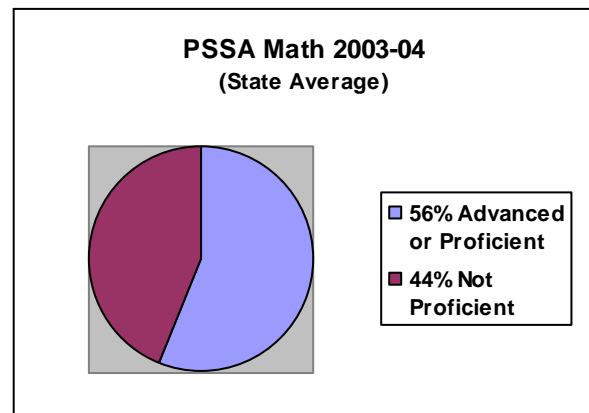
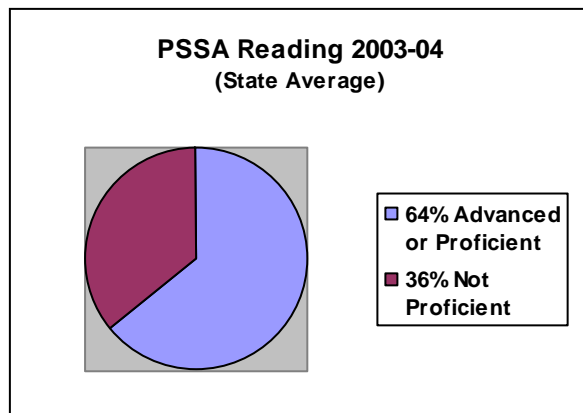


- ***Introductory Note.*** *To understand how to improve our public schools, we must first identify and comprehend the achievement gaps in our schools. This section of the action report looks at important data about the gaps in response to key questions that parents and community leaders may want to consider.*

**A. What is the current statewide achievement gap?**

At this time, more than one in three students in Pennsylvania are failing to make adequate progress in school according to state standards. The 2003-04 statewide achievement gap is 36% in reading and 44% in math, based on PSSA results. Using state “proficiency” standards, these results show that many students did not demonstrate on the PSSA that they have “satisfactory academic performance,” “solid understanding” or an “adequate display” of the core knowledge and skills for their grade level in reading and math.

🔑 *What are the reading and math achievement gaps for your child’s school district? Why are the gaps so big? What is your district doing to close the gaps for all students?*




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**REMINDER.** *In this action report, the achievement gap is defined as the difference between -- (1) current student performance on the PSSA at advanced and proficient levels; and (2) 100% advanced and proficient scores. The goal is for all students (100%) to pass the PSSA, demonstrating that they have the core knowledge and skills expected for their grade level.*

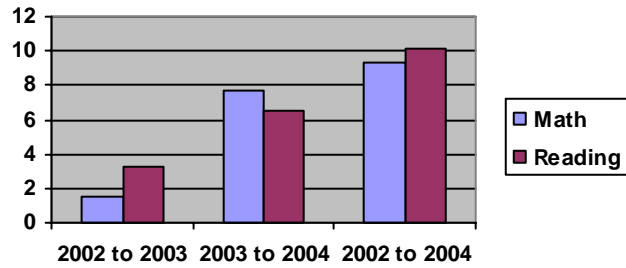
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**B. Over the last three years, how has the achievement gap changed?**

In general, more students are passing the PSSA from one year to the next. This means that overall statewide achievement gaps have decreased. At the current average rate of decrease, Pennsylvania students at the end of the 2013-14 school year might – in theory – nearly close the achievement gap. (See the box below.)

At first glance, this appears to be good news. However, the situation is much more complex. It is not realistic to expect PSSA scores to increase every year. 31% of all districts have shown decreasing PSSA scores or only slow improvement. In general, high schools have shown minimal reduction in the gaps. Other signs of trouble appear when PSSA results are analyzed more closely for different student groups, such as students in poverty, of color, or with disabilities. In short, major education reforms are needed before public schools can truly close the gap by the end of 2013-14. (See Chapter 4 for additional analysis of these complexities.)

Overall PSSA Passing Rate Increase  
(State Avg. % per year)



PSSA Passing Rate Increase			
	2001-02 to 2002-03	2002-03 to 2003-04	2002 to 2004
Math	1.5%	7.7%	9.3%
Reading	3.3%	6.5%	10.1%

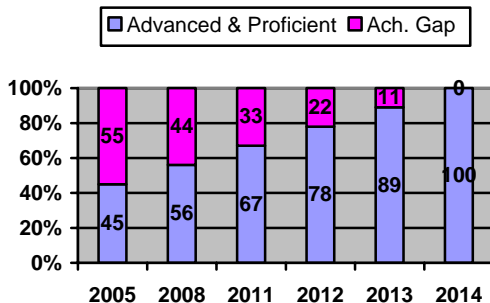
*How quickly should the gaps get smaller?*

The table in Chapter 2.H. and the graphs below show the steps laid out in state policy for closing the achievement gap. Based on 2003-04 PSSA results (56% passing rate in math; 64% in reading), the state average for all students is ahead of schedule for closing the gap. The statewide average for all students has already reached the 2008 goals for advanced and proficient scores. If the number of students who pass the PSSA increases in the future by an annual average of 6.0% in math and 4.6% in reading, then all students would – in theory – make at least a proficient PSSA score by the end of 2013-14.

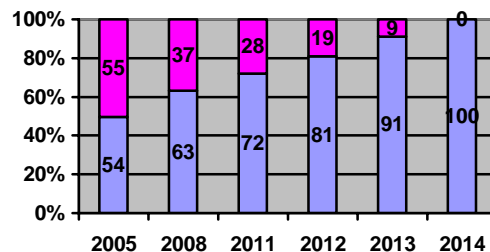
For the last two school years, actual student performance on the PSSA has almost met these improvement goals. The PSSA passing rate in math has improved by an average of 4.7% per year. The passing rate in reading has improved by an average of 5.0%.

If student performance on the PSSA continues to improve at these rates for several more years, Pennsylvania would nearly close the achievement gap. The analysis in Chapter 4 of this report examines some of the problems that may stand in the way of reaching this goal.

Pennsylvania's PSSA Goals - Math



Reading



**C. Do some schools and districts have larger gaps than others?**

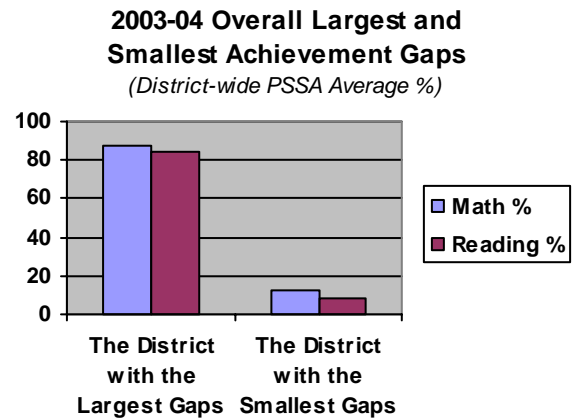
There are 500 school districts in Pennsylvania that report PSSA scores. (One small district sends its students to schools in a neighboring district.) The current achievement gaps in some districts are much larger than the gaps in other districts. For example, on the 2003-04 PSSA:

50 districts with the smallest gaps  
(Average for all students)  
- Average gap in reading is 16%  
- Average gap in math is 21%

50 districts with the largest gaps  
(Average for all students)  
- Average gap in reading is 54%  
- Average gap in math is 63%

It is also revealing to compare the two districts at the extreme ends of the achievement gap. The district with the largest achievement gaps in the state has gaps of 87% in math and 84% in reading. The district with the smallest gaps in the state has gaps of 13% in math and 8% in reading.

Appendix F at the end of this report includes a ranking of the achievement gaps for all school districts in Pennsylvania. Much more achievement gap data are available on the website for the Education Law Center at [www.elc-pa.org](http://www.elc-pa.org).




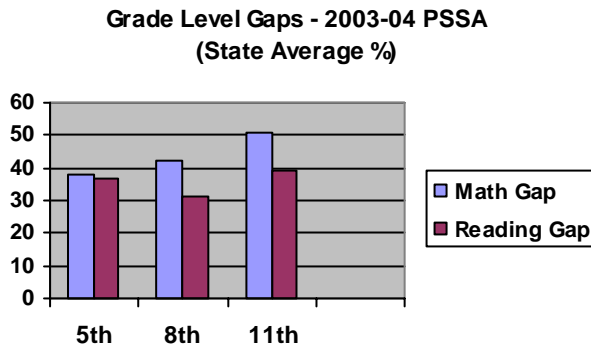
Number of Districts with Achievement Gaps in Each of the Following Categories (2003-04 PSSA – Average of math and reading scores for all students.)						
70% and higher	60% - 69.9%	50% - 59.9%	40% - 49.9%	30% - 39.9%	20% - 29.9%	Up to 19.9%
7	8	28	119	199	109	30
NOTE: This chart shows that achievement gaps vary widely between different school districts. In 162 school districts (32% of all districts in the state), a majority of students failed the PSSA in reading, math, or both.						

*How do the achievement gaps in your local schools compare to the gaps in other districts? Why do these differences exist? What lessons can your local schools learn from other schools that are successfully closing the achievement gap?*

### **D. Is the achievement gap different at the elementary, middle, and high school levels?**

The achievement gap is generally bigger in higher grades than in lower grades. The math gap appears to rise from elementary school through high school. The reading gap is smaller in the middle grades but is largest in high school.

 *Is this happening in your school district? Why? What is your district doing to stop student achievement from falling at the high school level?*



**Data for this chart:**

	5th	8th	11th
Math Gap	38%	42%	51%
Reading Gap	37%	31%	39%

#### ***Graduation Requirements and the PSSA***

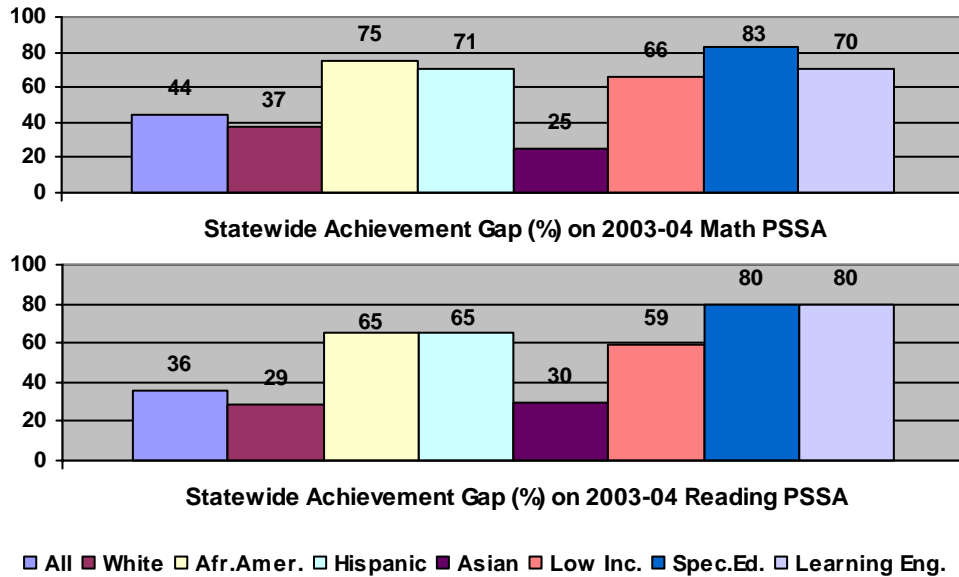
Public school students in Pennsylvania cannot graduate from high school unless they successfully complete one of the following options:

1. Receive a “proficient” score either on the 11<sup>th</sup> grade PSSA in reading, writing, and math or on the PSSA re-tests in 12<sup>th</sup> grade; or
2. Receive a “proficient” score on a local assessment that matches the PSSA standards for student achievement.

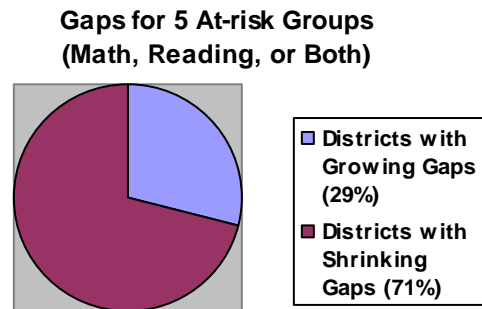
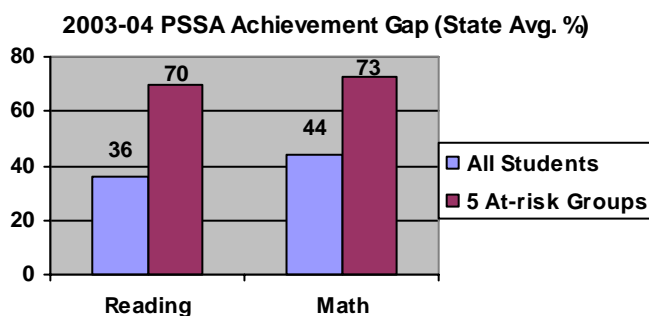
See the state regulation for graduation requirements at 22 Pa. Code Section 4.24 -- <http://www.pacode.com/secure/data/022/chapter4/s4.24.html>.

**E. Do some groups of students have larger achievement gaps than others, when compared by poverty, disability, race, English language skills, or other factors?**

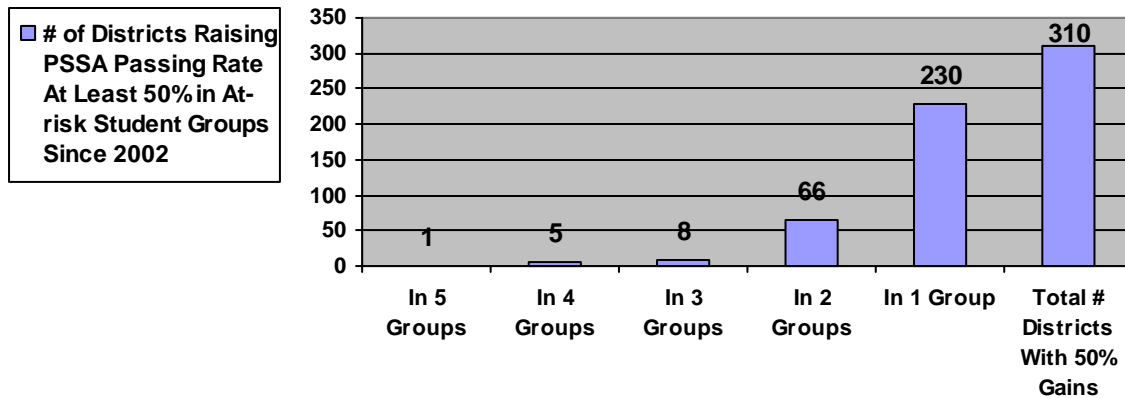
The achievement gap for some groups of students is much bigger than the gap for others. Asian and White students generally have the smallest achievement gaps. Students with disabilities frequently have the largest gaps. Low-income, African American, and Hispanic students also often have very large gaps. If eliminating the achievement gap means that all students will reach the “top of the mountain” – 100% passing rate on the PSSA and 0% achievement gap – then some groups of students are currently much farther up the mountain than others.



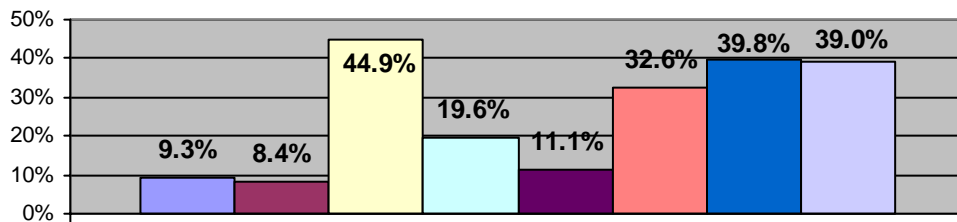
Students in five groups (African American, Hispanic, low-income, special education, and English language learners) are at risk of being left behind in school. The average PSSA passing rates for these student groups are actually falling – and the achievement gap is growing – in many Pennsylvania school districts.



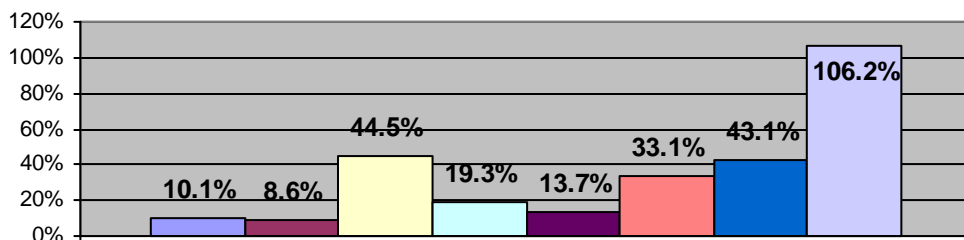
On the other hand, many school districts are proving that the achievement gap can be closed for students in the five at-risk groups. About one out of every six districts (16%) has improved the PSSA passing rate by at least 50% for two or more of these student groups. Nearly half of all districts have raised achievement by 50% in one student group. These models of success may be duplicated for other students and in other districts throughout the state. See Appendix E of this report for a list of these districts.



The next two charts show the *increase* in advanced and proficient performance (the “passing rate”) on the PSSA by each student group in the three school years from 2001-02 and 2003-04.



Statewide INCREASE in Math PSSA Passing Rate from 2002 to 2004



Statewide INCREASE in Reading PSSA Passing Rate from 2002 to 2004

■ All ■ White ■ Afr.Amer. ■ Hispanic ■ Asian ■ Low Inc. ■ Spec.Ed. ■ Learning Eng.

**CONCLUSION** – The 5 at-risk student groups are making progress, but huge gaps still exist.

*How are the different student groups doing in your local schools? Why is there such a big difference in the gaps between the groups? Do some children really have a different quality of education than other children? What can your community do to change this situation?*

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- ***Note for Reflection.*** *The following six pages provide a more detailed analysis of the achievement gaps for each student group – African American, Hispanic, low-income, special education, and English language learners. Before proceeding through this analysis, it may be worthwhile to pause and reflect on what it really means to close the achievement gap. How can we give every child an equal opportunity to receive a quality education?*

You can find additional information about achievement gap data in Appendix F of this report and on-line at [www.elc-pa.org](http://www.elc-pa.org).

***What should determine the quality of a child’s public education?***

The mission of the Pennsylvania Department of Education is “to lead and serve the educational community to enable each individual to grow into an inspired, productive, fulfilled lifelong learner.” This means that all students in every school should have the same opportunity for academic success.

The data about achievement gaps suggest questions about whether some children are receiving a different quality of education from others. Currently, every student in Pennsylvania may not receive an equal education opportunity. Some factors that may influence these issues appear to include:

- |  |                       |
|--|-----------------------|
| - School district of residence<br>(education budget, class size,<br>teacher quality, etc.) | - Race or ethnicity   |
| - Family income  | - English proficiency |
|  | - Disability          |
|  | - Gender              |

☞ *Is it fair for the quality of education to depend on these factors? How can your community give all children the same chance for high academic achievement?*

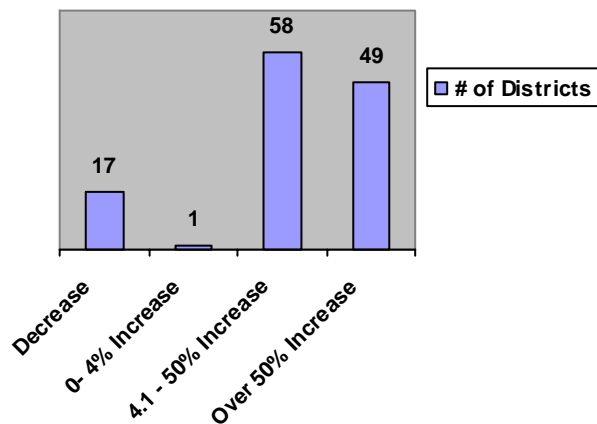
**F. African American Students – Achievement gaps in detail.**

African Americans are the second largest racial student group in Pennsylvania.

	Total Number in Pa.	% of All Students in Pa.	# of Districts Enrolling			
			10 Afr.Amer. Students	50 Afr.Amer. Students	100 Afr.Amer. Students	1000 Afr.Amer. Students
African American Students	287,000	16%	415	211	151	28

- The academic achievement of African American students remains far behind other student groups. The statewide 2003-04 achievement gaps for African American students (75% in math; 65% in reading) are much bigger than the average gaps for all students (44% in math; 36% in reading).

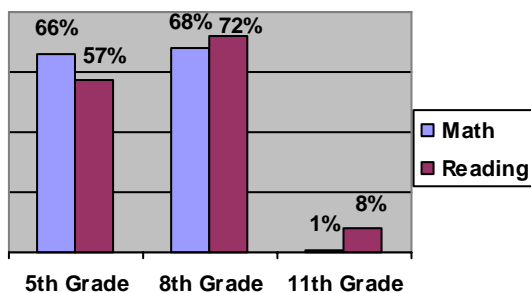
**2002-2004 Change in PSSA Passing Rate (Reading/Math Ave.) for African American Students**



- Many districts show significant reductions in African American gaps, but the gaps are increasing in many other districts. 17 districts show a decrease in the overall average of reading and math PSSA passing rates. An additional 14 districts show decreasing scores in one subject, but offsetting increases in scores for the other subject.

- There are only 5 districts in the state where African American students are passing the PSSA at a higher rate than the state average in both reading and math.
- High school poses a significant problem area, with African American achievement currently at very low levels and improving much more slowly than in the lower grades.

**Statewide African American PSSA Improvement 2002 to 2004**



	2003-04 PSSA Advanced and Proficient %			
	Math		Reading	
	African American	All Students	African American	All Students
5 <sup>th</sup> Grade	30.3	61.8	34.6	62.7
8 <sup>th</sup> Grade	26.1	57.9	41.4	68.9
11 <sup>th</sup> Grade	17.5	49.1	27.9	60.8

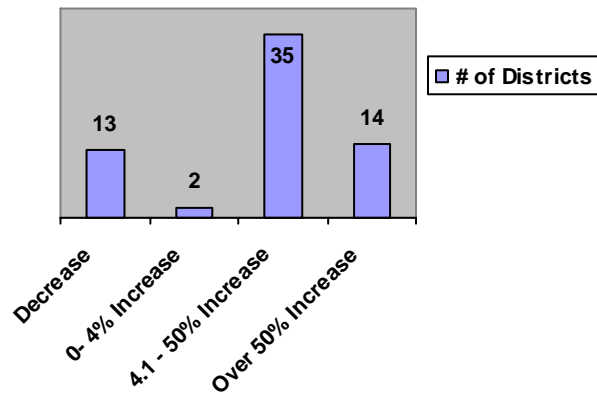
**G. Hispanic Students – Achievement gaps in detail.**

Hispanics are the third largest racial student group in Pennsylvania.

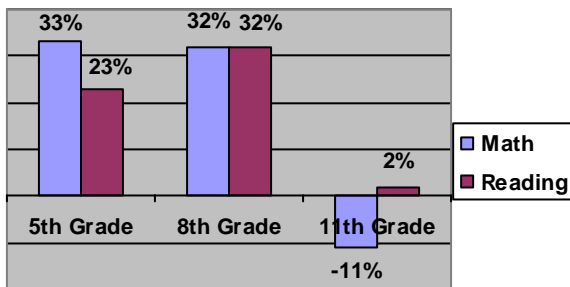
	Total Number in Pa.	% of All Students in Pa.	# of Districts Enrolling			
			10 Hispanic Students	50 Hispanic Students	100 Hispanic Students	1000 Hispanic Students
Hispanic Students	101,000	5%	300	132	72	10

- Hispanic students remain far behind other student groups. The statewide 2003-04 achievement gaps for Hispanic students (71% in math; 65% in reading) are much bigger than the average gaps for all students (44% in math; 36% in reading).
- Many districts show significant reductions in Hispanic gaps, but the gaps are increasing in many other districts. 13 districts show a decrease in the overall average of reading and math PSSA passing rates. An additional 5 districts show decreasing scores in one subject, but offsetting increases in scores for the other subject.
- There are only 7 districts in the state where Hispanic students are passing the PSSA at a higher rate than the state average in both reading and math.
- High school poses a significant problem area, with Hispanic PSSA passing rates in high school math falling more than 11% over the last three years.

**2002-2004 Change in PSSA Passing Rate (Reading/Math Ave.) for Hispanic Students**



**Statewide Hispanic PSSA Improvement 2002 to 2004**



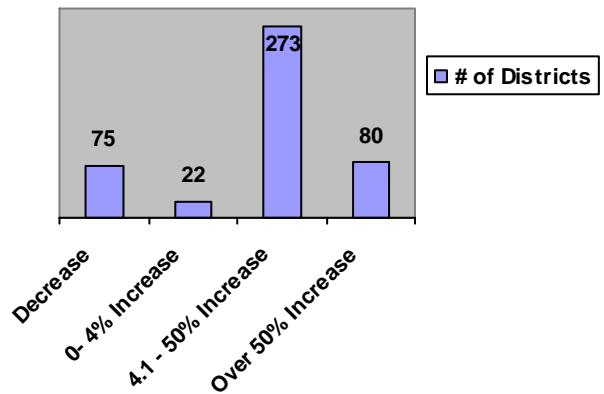
	Math		Reading	
	Hispanic	All Students	Hispanic	All Students
5 <sup>th</sup> Grade	38.2	61.8	35.3	62.7
8 <sup>th</sup> Grade	31.2	57.9	39.7	68.9
11 <sup>th</sup> Grade	18.9	49.1	29.4	60.8

**H. Low-Income Students – Achievement gaps in detail.**

Nearly all school districts in Pennsylvania (98%) enroll more than 10 students from low-income families, requiring the districts to report PSSA scores for this group. The low-income category overlaps many other student groups, including students of all races, students with disabilities, and English language learners. Many school districts report low-income PSSA scores in two ways – for students participating in Title I programs (“Title I” scores) and also for students receiving free and reduced price meals (“Economically Disadvantaged” scores). This action report includes data based on the broader category of Economically Disadvantaged scores, referring to these students as coming from low-income families.

- Low-income students remain far behind other student groups. The statewide 2003-04 achievement gaps for low-income students (66% in math; 59% in reading) are much bigger than the average gaps for all students (44% in math; 36% in reading).

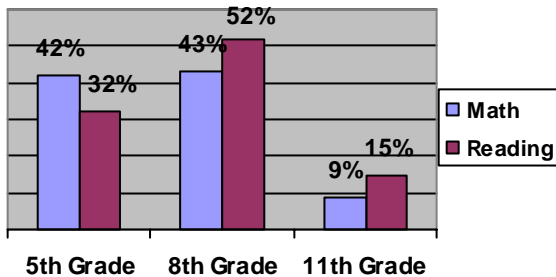
**2002-2004 Change in PSSA Passing Rate (Reading/Math Ave.) for Low-income Students**



- Many districts show significant reductions in low-income gaps, but the gaps are increasing in many other districts. 75 districts show a decrease in the overall average of reading and math PSSA passing rates. An additional 63 districts show decreasing scores in one subject, but offsetting increases in scores for the other subject.

- There are only 32 districts in the state where low-income students are passing the PSSA at a higher rate than the state average in both reading and math.
- High school poses a significant problem area, with low-income achievement currently at very low levels and improving much more slowly than in the lower grades.

**Statewide Low-income PSSA Improvement 2002 to 2004**



	2003-04 PSSA Advanced and Proficient %			
	Math		Reading	
	Low-income	All Students	Low-income	All Students
5 <sup>th</sup> Grade	41.6	61.8	42.1	62.7
8 <sup>th</sup> Grade	35.1	57.9	47.4	68.9
11 <sup>th</sup> Grade	23.8	49.1	33.8	60.8

## **I. Students in Special Education – Achievement gaps in detail.**

Nearly all school districts in Pennsylvania (96%) enrolled more than 10 students with disabilities who receive special education services, requiring the districts to report PSSA scores for this group. The special education category overlaps many other student groups, including students of all races, students from both rich and poor families, and English language learners.

Some additional characteristics about this group may help you to better understand the data:

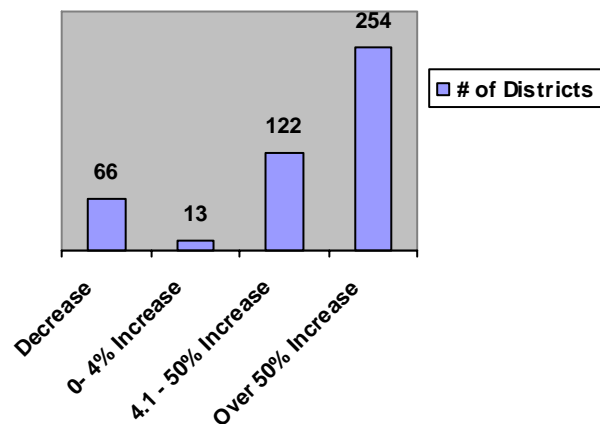
- Many students with disabilities attend public schools and do not need special education services. Only students who actually receive special education services on a full or part-time basis are counted in the achievement data for the “special education” student group. Other students with disabilities are counted as part of other relevant groups, by gender, race, and economic status.
- The great majority of students in special education are capable of learning in accordance with the same academic standards as other students in their grade. This is true for most students with emotional or behavioral disabilities and for many students with other disabilities. This means that most students in special education should be instructed under the same academic standards and with the same expectations for achievement as all other students.
- Only a small number of students in special education (usually less than 10%) have such severe cognitive disabilities that they are unable to take the PSSA. This small group of students takes alternative state exams, called the **PASA (Pennsylvania Alternate System of Assessment)**. Students who pass the PASA are counted in the same manner as students who pass the PSSA, up to 1% of all students tested in the district.

On April 7, 2005, the U.S. Department of Education announced a new policy expanding the number of students who are likely take alternate assessments. The policy applies to students in special education with “persistent academic disabilities.” The IEP team must decide whether even the best instruction can help each child to reach grade level standards. If not, children who pass a new alternate test (not yet developed) can be counted in the same manner as students who pass the PSSA, up to 2% of all students tested in the district. If the total number of students taking the PASA and alternate tests exceeds 3%, their scores will count as “failing” under NCLB.

The achievement gap results for students in special education are mixed:

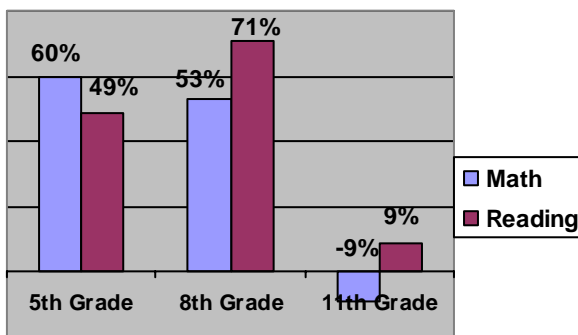
- Special education students have the largest achievement gaps in the state. The statewide 2003-04 gaps for special education students (83% in math; 80% in reading) are about twice as big as the average gaps for all students (44% in math; 36% in reading).

**2002-2004 Change in PSSA Passing Rate  
(Reading/Math Ave.) for  
Students in Special Education**



- Many districts show significant reductions in special education gaps, but the gaps are increasing in many other districts. 66 districts show a decrease in the overall average of reading and math PSSA passing rates. An additional 58 districts show decreasing scores in one subject, but offsetting increases in scores for the other subject.
- There is only 1 district in the state where special education students are passing the PSSA at a higher rate than the state average in both reading and math.
- High school students in special education are actually losing ground in math, with PSSA passing rates falling 9% from 2001-02 to 2003-04.

**Statewide Special Education PSSA Improvement 2002 to 2004**



2003-04 PSSA Advanced and Proficient %				
	Math		Reading	
	Special Education	All Students	Special Education	All Students
5 <sup>th</sup> Grade	27.1	61.8	23.0	62.7
8 <sup>th</sup> Grade	15.9	57.9	22.6	68.9
11 <sup>th</sup> Grade	9.0	49.1	14.8	60.8

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### Accommodations for Students Taking the PSSA

Some students need changes in testing conditions so that the PSSA accurately measures their knowledge and skills. These changes are called “accommodations.” Here are some options for accommodations on the PSSA:

- Schools can choose to give limited accommodations to any student, including extra time or a testing area without distractions.
- Schools are required by law to consider giving students in special education the same kind of accommodations they normally receive on other kinds of homework, class work, and tests. The IEP team makes these decisions.
- Schools are also required to give reasonable accommodations for English language learners.
- Accommodations may not be allowed if they change the basic nature of the test and prevent the test from measuring what the student really knows.

Pennsylvania rules for PSSA accommodations may be found on the Internet at – [http://www.pde.state.pa.us/a\\_and\\_t/cwp/view.asp?a=108&Q=45132&a\\_and\\_tNav=678&a\\_and\\_tNav=](http://www.pde.state.pa.us/a_and_t/cwp/view.asp?a=108&Q=45132&a_and_tNav=678&a_and_tNav=)

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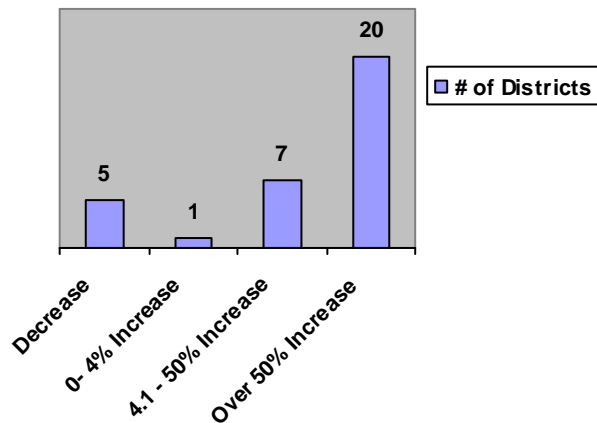
**J. Students with Limited English Proficiency – Achievement gaps in detail.**

Students with limited English proficiency (LEP) are currently learning the English language. LEP students include recent immigrants and refugees from all over the world, including Africa, Asia, Europe, and Central and South America. LEP students are usually enrolled in a special class, “English as a Second Language” (ESL), but attend regular classes for math and other subjects. Schools may offer LEP students the option to skip the PSSA in reading in their first year of enrollment in a U.S. public school. LEP students are sometimes called “English language learners” (ELLs).

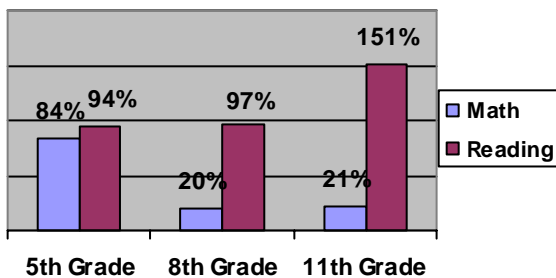
Over 38,000 LEP students are enrolled in Pennsylvania public schools. Only 58 districts enroll more than 10 LEP students, allowing them to report PSSA scores for this group. The achievement gap results in these districts are mixed:

- LEP students remain far behind other student groups. The statewide 2003-04 achievement gaps for LEP students (70% in math; 80% in reading) are much bigger than the average gaps for all students (44% in math; 36% in reading).
- Many districts show significant reductions in LEP gaps, but the gaps are increasing in many other districts. 5 districts show a decrease in the overall average of reading and math PSSA passing rates. An additional 7 districts show decreasing scores in one subject, but offsetting increases in scores for the other subject.
- There are only 4 districts in the state where LEP students are passing the PSSA at a higher rate than the state average in both reading and math.
- LEP students are the only group for which a PSSA passing rate (in math) is lowest in the middle grades compared to elementary and high school grade levels.

**2002-2004 Change in PSSA Passing Rate (Reading/Math Ave.) for English Language Learners**



**Statewide PSSA Improvement 2002 to 2004 -- English Language Learners**



	2003-04 PSSA Advanced and Proficient %			
	Math		Reading	
	LEP	All Students	LEP	All Students
5 <sup>th</sup> Grade	34.4	61.8	24.8	62.7
8 <sup>th</sup> Grade	27.7	57.9	20.3	68.9
11 <sup>th</sup> Grade	28.4	49.1	14.3	60.8