The Performance of Historically Underachieving Groups of Students in South Carolina Elementary and Middle Schools: A Call to Action

South Carolina Education Oversight Committee
Division of Accountability

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The achievement gap between demographic groups of students has been described extensively (Jencks and Phillips, 1998). The focus in many of these studies is on historically underachieving groups of students (members of racial minority groups and students in poverty). Reducing achievement gaps between student groups by raising the scores of lower scoring members of those groups is recognized as a necessary component of efforts to raise overall educational levels.

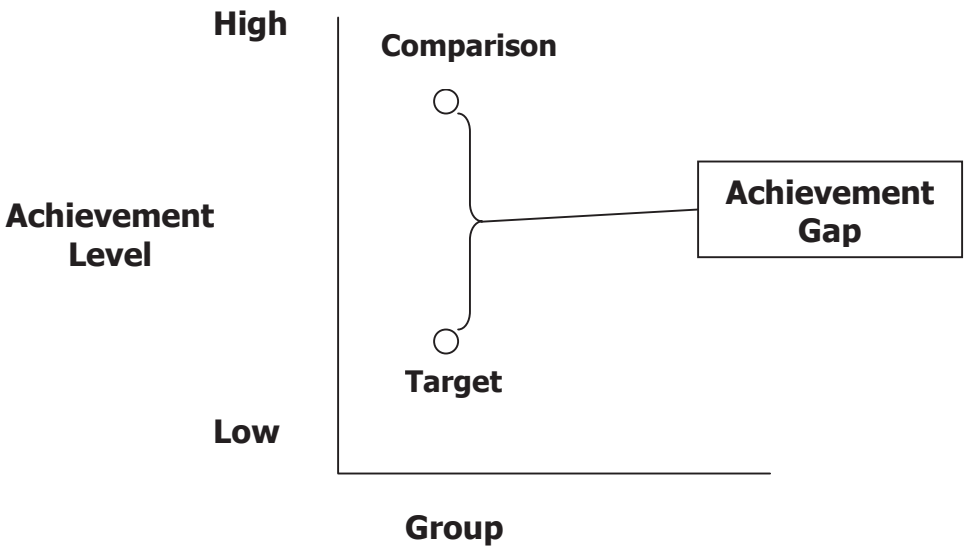
The achievement gap is an area of particular interest, and the Education Oversight Committee (EOC) has requested that staff conduct in-depth studies of SC's educational system, including studies of the existence and extent of achievement gaps and how those gaps affect reaching our achievement goals. In 2003 the EOC issued a report on the achievement gaps revealed in the 2002 PACT data, and this report provides an update to that report (EOC, 2003). In addition, for this report the staff reviewed National Assessment of Education Progress (NAEP) reading and math results for South Carolina to identify the extent of achievement gaps at the Proficient or Advanced achievement level. The NAEP studies were conducted in recognition that NAEP sets a national target for states and that the Proficient or Advanced proficiency level represents the targets for both NCLB and the South Carolina Education Accountability Act (EAA). We also reviewed the Palmetto Achievement Challenge Test (PACT) data to provide a description of the achievement gap in elementary and middle schools, and identified a set of schools that are closing the gaps in specific subjects for specific student groups.

What is the achievement gap?

The achievement gap is often described in terms of differential performance by different student demographic groups on state or national achievement tests. For example, a finding from NAEP is that the performance of White students exceeds that of African-American students, and the performance of students living above the poverty line exceeds that of students living in poverty (Grissmer, Flanagan, and Williamson, 1998; Hedges and Nowell, 1998).

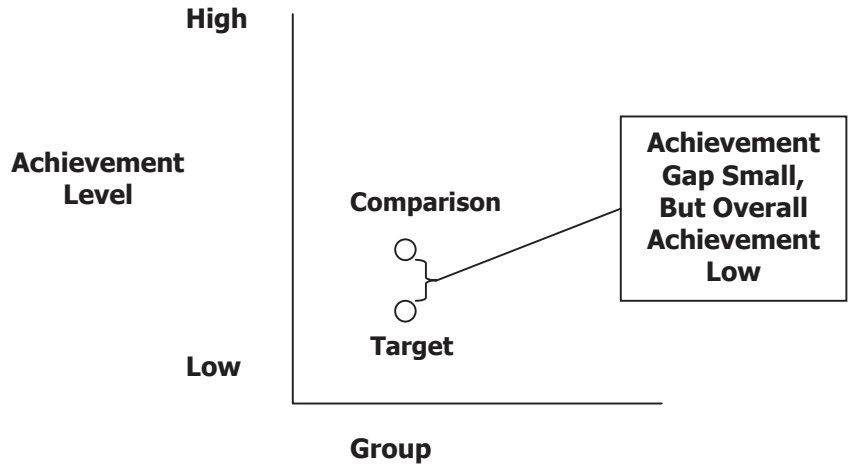
An important education reform goal is to close the achievement gap between the demographic groups by raising the performance of all groups, with the expectation that the lower scoring groups must improve more rapidly than the higher scoring groups to "catch up." The gap is described in terms of the target group (the lower-scoring demographic group) and the comparison group (the higher-scoring group) (see Figure 1). The difference in achievement between the target and comparison groups at various performance levels (Basic, Proficient, Advanced) is the achievement gap.

Figure 1



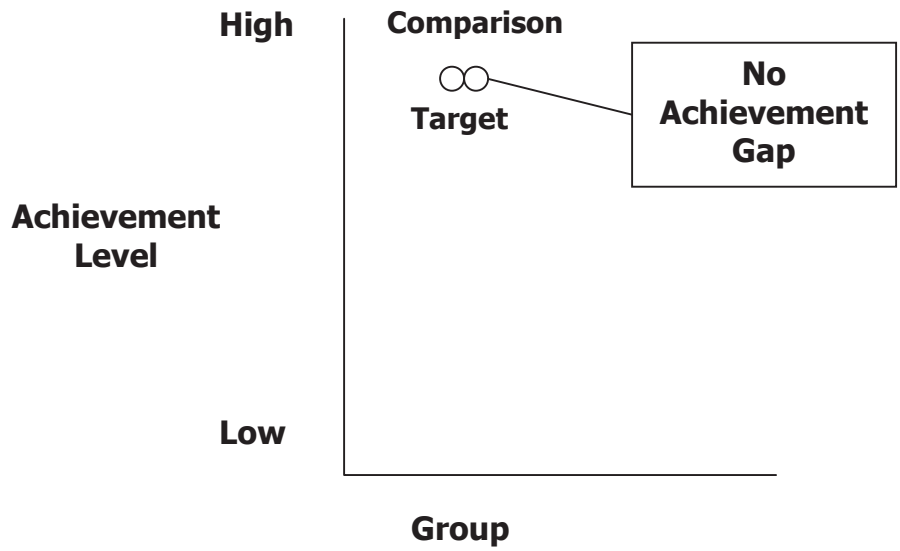
Reducing the gap can be accomplished in a couple of ways. All the groups can be poorly performing, resulting in small gaps (see Figure 2). This is not a desirable outcome.

Figure 2



The achievement of both target and comparison groups can be raised to a high level (Figure 3). This is the desirable outcome, and the approach we are pursuing in South Carolina.

Figure 3



The studies

EOC staff studied the historical NAEP reading and math data for grades four and eight, and the 2002-2003 performance on PACT English language arts (ELA) and mathematics in grades three through eight of African-American and White students, and of students participating in the federal free/reduced price lunch program and students who pay for lunch. The target groups were African-American students and students participating in the free/reduced lunch program. The comparison groups were White students and students not participating in the lunch program (pay lunch). A breakdown of the numbers and percentages of students belonging to these demographic groups in the PACT data used for this analysis is presented in Appendix A.

The NAEP study

Three recent studies have lauded the gains that South Carolina has made in achievement measured by the National Assessment of Educational Progress (NAEP). An Education Trust study noted that performance in math by South Carolina eighth graders led the nation in improvement of scale scores on the NAEP tests administered between 1996 and 2003; fourth graders also showed high gains in math between 1992 and 2003 (Education Trust, 2004). The Council of Chief State School Officers (CCSSO) found from their study of NAEP math scores that South Carolina fourth graders had shown large improvements compared to other states (CCSSO, 2004). Another study by the Education Testing Service (ETS) recognized South Carolina for its high levels of improvement in both NAEP math and NAEP reading scores compared to other states (ETS, 2003).

These gains in NAEP scores are a source of justifiable pride for South Carolina educators, and should be celebrated. South Carolina's NAEP achievement gains have been notable, but have

these gains been realized by all demographic groups? Are the achievement gaps in NAEP scores between White and minority students and between children in poverty and those not in poverty being reduced at a sufficient rate to eliminate the gaps and meet our achievement goals by 2010 (Education Accountability Act, EAA) or 2014 (No Child Left Behind, NCLB)?

To gain insight into these questions, the historical NAEP results for the demographic groups White, African American, eligible for the federal free/reduced lunch program, and not eligible (pay lunch) were examined for the performance of these demographic groups at the Proficient or Advanced achievement level. The Proficient or Advanced achievement level was chosen for study because it represents the achievement target for both EAA and NCLB. For example, for EAA the goal is that the average performance level of students on PACT will be Proficient by 2010; for NCLB, the goal is that all students will be Proficient or higher by 2014. South Carolina's achievement goals have been set for PACT scores, not NAEP, but PACT and NAEP are generally acknowledged to represent similar levels of rigor in their Proficient and Advanced achievement performance standards (Princeton Review, 2003).

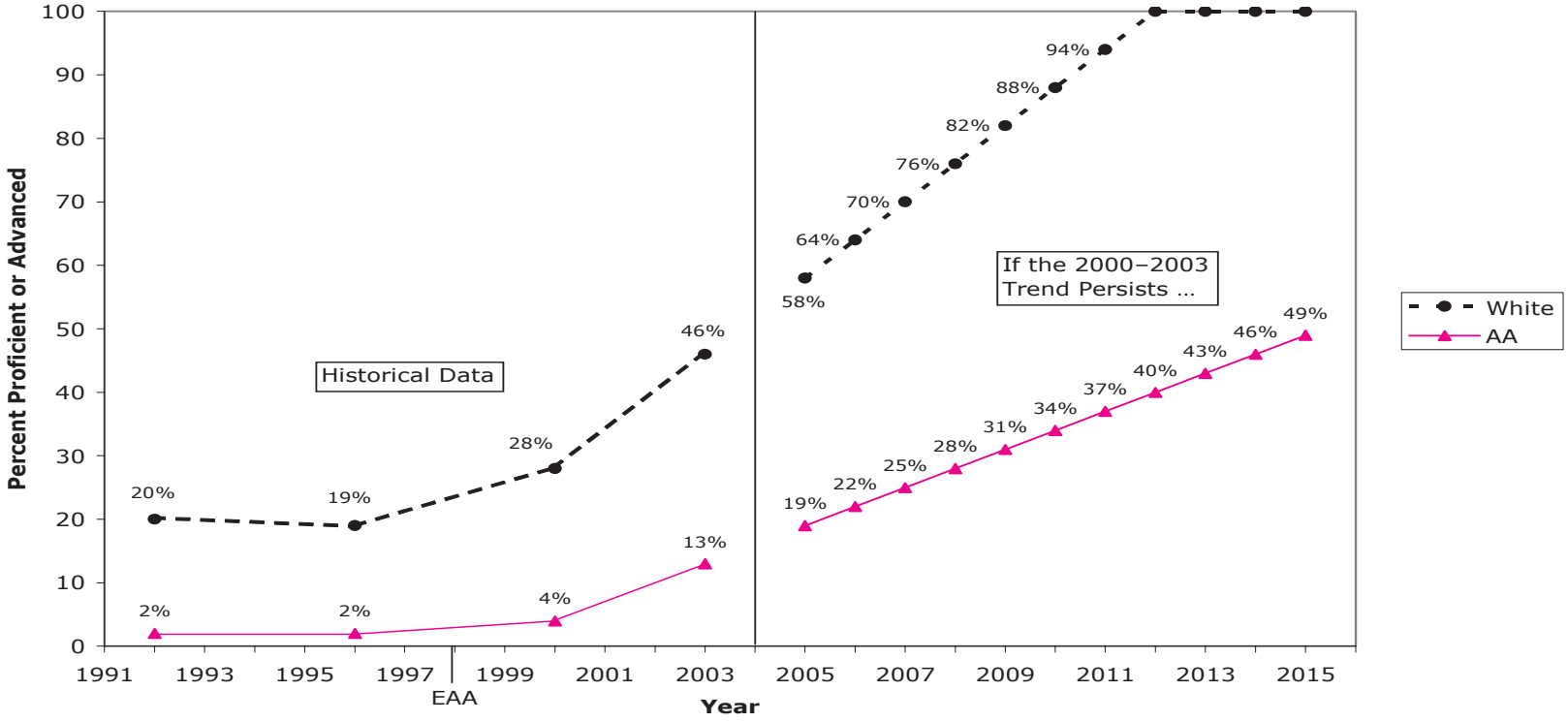
The percentages of South Carolina White, African American, free/reduced lunch, and pay lunch students scoring Proficient or Advanced on the grade 4 and grade 8 NAEP reading and math tests are displayed in Figures 4-11. The NAEP data available since 1992 for each test and each demographic group are displayed. NAEP data were obtained from the National Center for Educational Statistics (available on-line at http://www.nces.ed.gov/nationsreportcard/naepdata/). The NAEP reading and math tests designed to measure state levels of achievement have not been administered every year in the past, nor have results for all demographic groups been reported each year. The NAEP tests are administered to a sample of students in each state and are estimates of the performance of all students at the grade level in the state.

In addition to displaying the historical NAEP data through 2003, the figures display a projection of NAEP scores through 2015. This projection is based on the performance trend for the group of students displayed for the years since the EAA reforms were passed in 1998: 1998 through 2003 for reading; 2000 through 2003 for math (math scores for 1998 are not available). The projections were made assuming that future growth in NAEP scores will take place at the same rate as observed between 1998 and 2003 for reading and 2000 and 2003 for math. Of course, the actual growth in South Carolina NAEP achievement in the future is not known, and other projections could be made based on a different set of assumptions.

Figure 4 displays grade 4 math performance for White and African American students. The historical data show large gaps in achievement favoring White students in the percentages of students scoring Proficient or Advanced. There were also differences between the demographic groups in the gains made between 2000 and 2003. The percentage of White students scoring Proficient or Advanced increased during this time by 18 percentage points, for an annual increase of 6.0 percentage points. The percentage of African American students scoring Proficient or Advanced increased by 9 percentage points, with an annual gain of 3.0 percentage points. The projection of future grade 4 NAEP math performance for South Carolina White students assumes an annual increase of 6.0 percentage points. Starting at 46% for 2005, it is projected that White student performance will increase 12 percentage points over the two year interval 2003-2005 to 58% Proficient or Advanced. Similarly, future grade 4 math NAEP scores for South Carolina African American students are projected based on an annual increase of 3.0 percentage points. Starting at 13% in 2003, the 2005 projection for African American students is 19% Proficient or Advanced. The projection suggests that 100% of White students may score Proficient or Advanced by 2014, compared to 46% of African American students. Of course, we do not know what the actual percentages will be in 2014, but it is clear from the

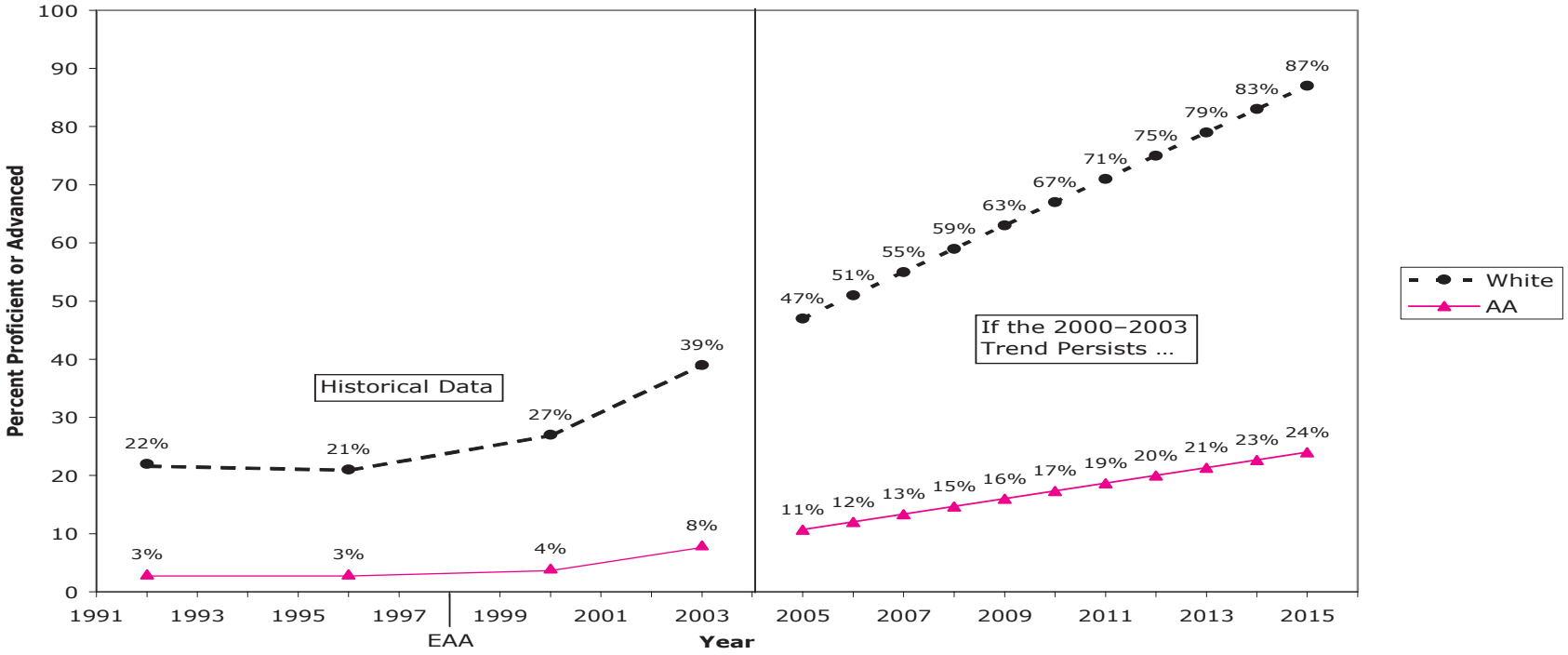
projections based on the current rates of gain by the two groups that the gap in achievement between White and African American students will widen rather than narrow in the future.

Figure 4
SC NAEP Grade 4 Math (% Proficient or Advanced)
White vs. African-American Students



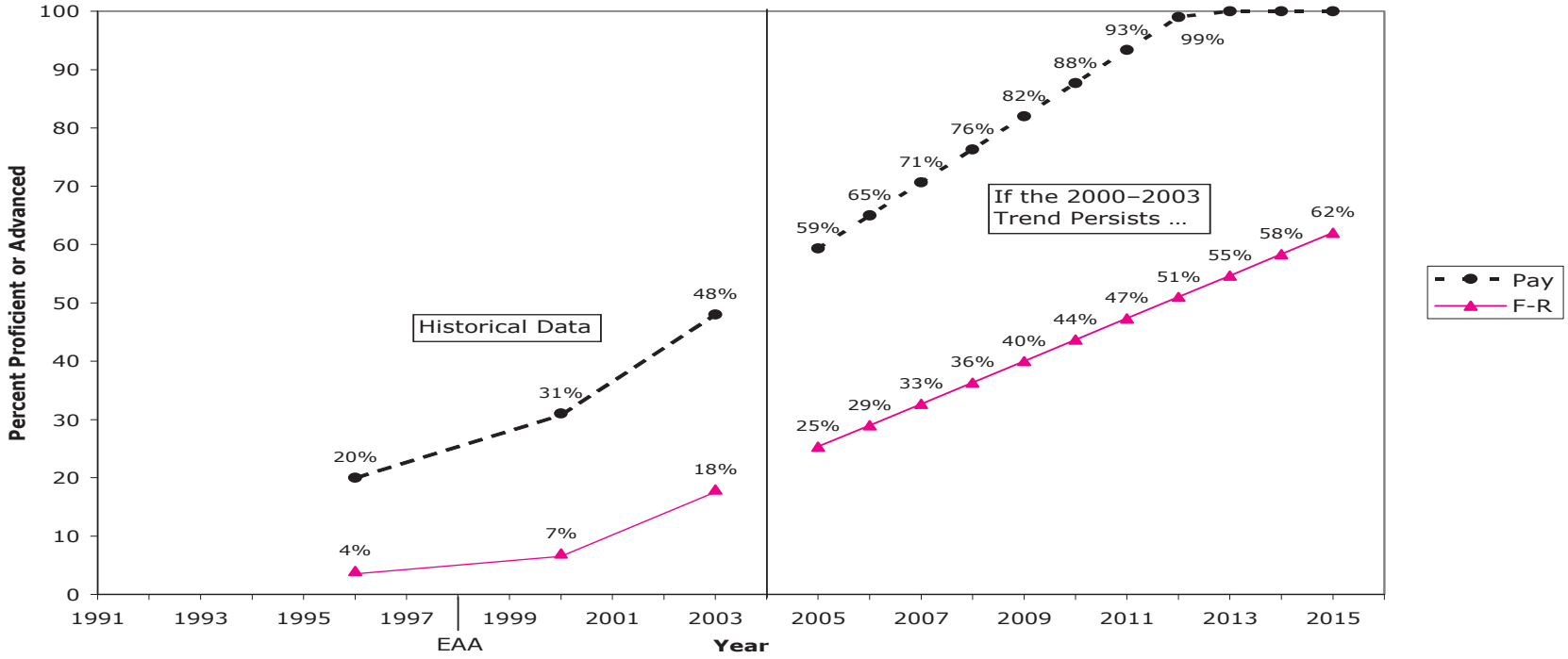
The grade 8 math results by racial group are shown in Figure 5. In NAEP grade 8 math the percentage of White students scoring Proficient or Advanced increased 12 percentage points between 2000 and 2003, or an average of 4.0 percentage points per year. The percentage of African American students scoring Proficient or Advanced increased 4 percentage points between 2000 and 2003 (1.3 percentage points per year). Based on trends since 2000, 83% of White students are projected to be scoring Proficient or Advanced by 2014. Only 23% of African American students are projected to score Proficient or Advanced by 2014. The projections show the gap between White and African American students widening by 2014.

Figure 5
SC NAEP Grade 8 Math (% Proficient or Advanced)
White vs. African-American Students



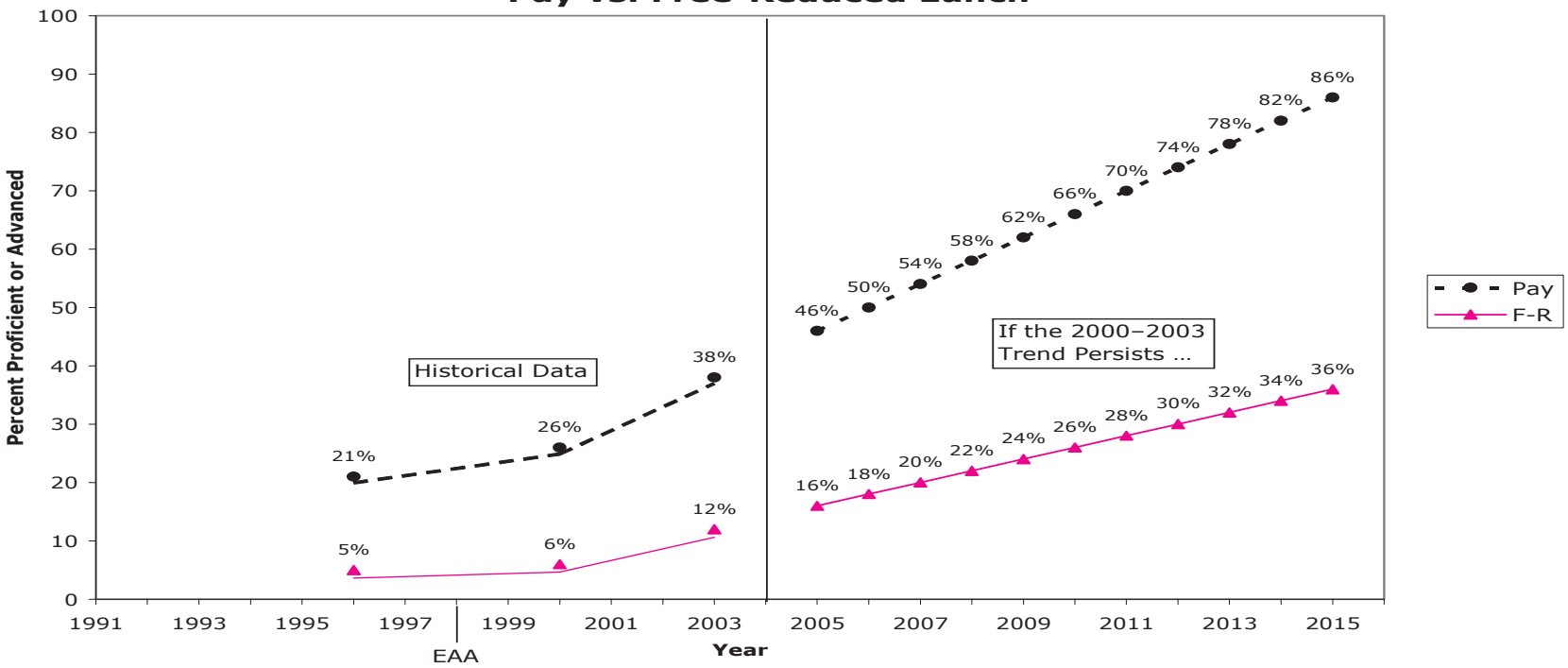
The data for pay lunch and free/reduced lunch student performance at the Proficient or Advanced level on grade 4 math are shown in Figure 6. Seventeen more percent of pay lunch students scored Proficient or Advanced on the 2003 grade 4 math test than on the test administered in 2000 (an increase of 5.7 percentage points per year). The increase for free/reduced lunch students during the same period was 11 percentage points (3.7 percentage points per year). It is projected that 100% of pay lunch students may score Proficient or Advanced by 2014 and 58% of free/reduced lunch students will score Proficient or Advanced by 2014. The achievement gap between pay and free/reduced lunch students in grade 4 math is projected to widen by 2014.

Figure 6
SC NAEP Grade 4 Math (% Proficient or Advanced)
Pay vs. Free-Reduced Lunch



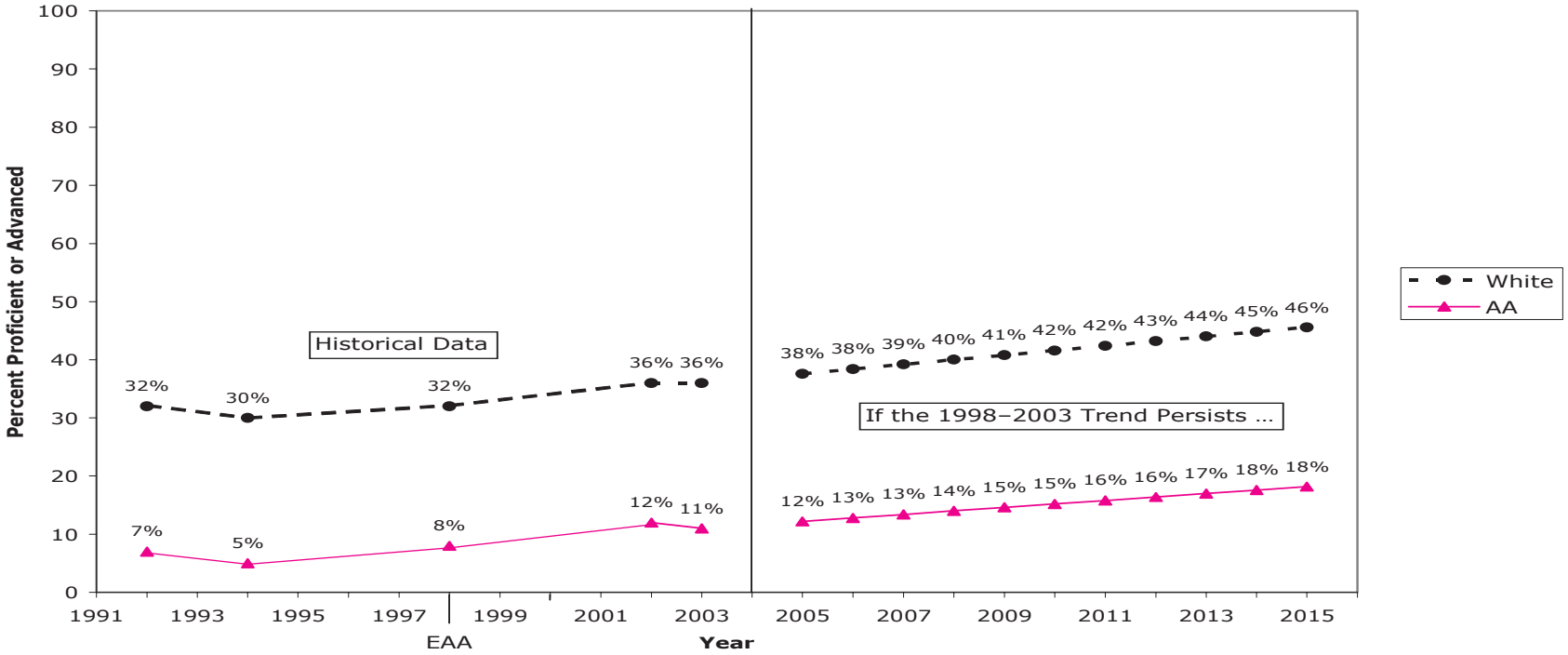
Grade 8 math performance for pay and free/reduced lunch students is shown in Figure 7. The percentage of pay lunch students scoring Proficient or Advanced increased 12 percentage points between 2000 and 2003 (4.0 percentage point increase per year). The performance of free/reduced lunch students increased 6 percentage points in the 2000-2003 time period (increase of 2.0 percentage points per year). Eighty-two percent of pay lunch students are projected to score Proficient or Advanced by 2014, while 34% of free/reduced lunch students are expected to score at this level by 2014. The projections based on current data show the achievement gap widening by 2014.

Figure 7
SC NAEP Grade 8 Math (% Proficient or Advanced)
Pay vs. Free-Reduced Lunch



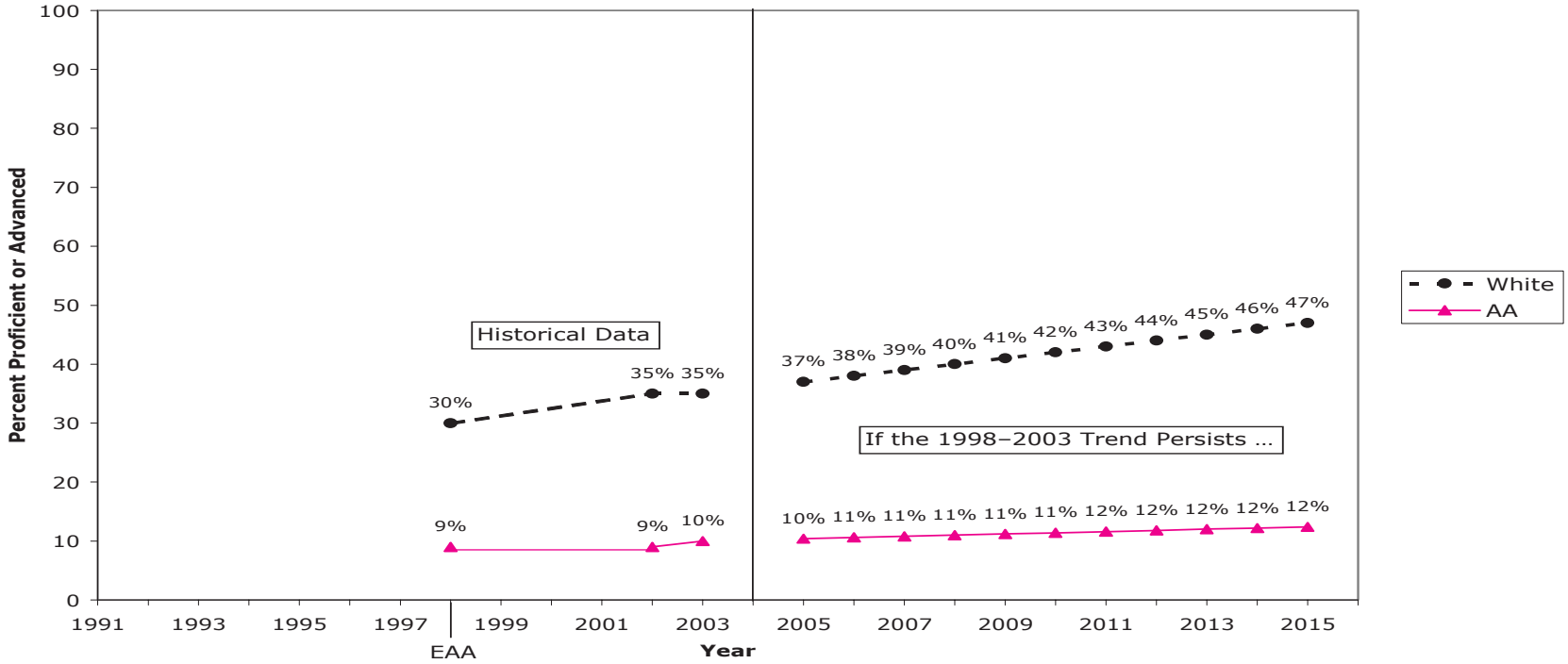
Grade 4 NAEP reading test performance for South Carolina White and African American students is shown in Figure 8. The historical data show no increase in the percentage of White students scoring Proficient or Advanced from 2002 to 2003. The performance of White students increased 4 percentage points between 1998 and 2003 (0.8 percentage points per year). The performance of African American students declined 1 percentage point between 2002 and 2003. The percentage of African American students scoring Proficient or Advanced increased 3 percentage points between 1998 and 2003 (0.6 percentage points per year). The percentage of White students projected to score Proficient or Advanced is 45% by 2014, while for African American students the projection is 18% scoring at this level. The achievement gap between White and African American students is projected to widen by 2014.

Figure 8
SC NAEP Grade 4 Reading (% Proficient or Advanced)
White vs. African-American Students



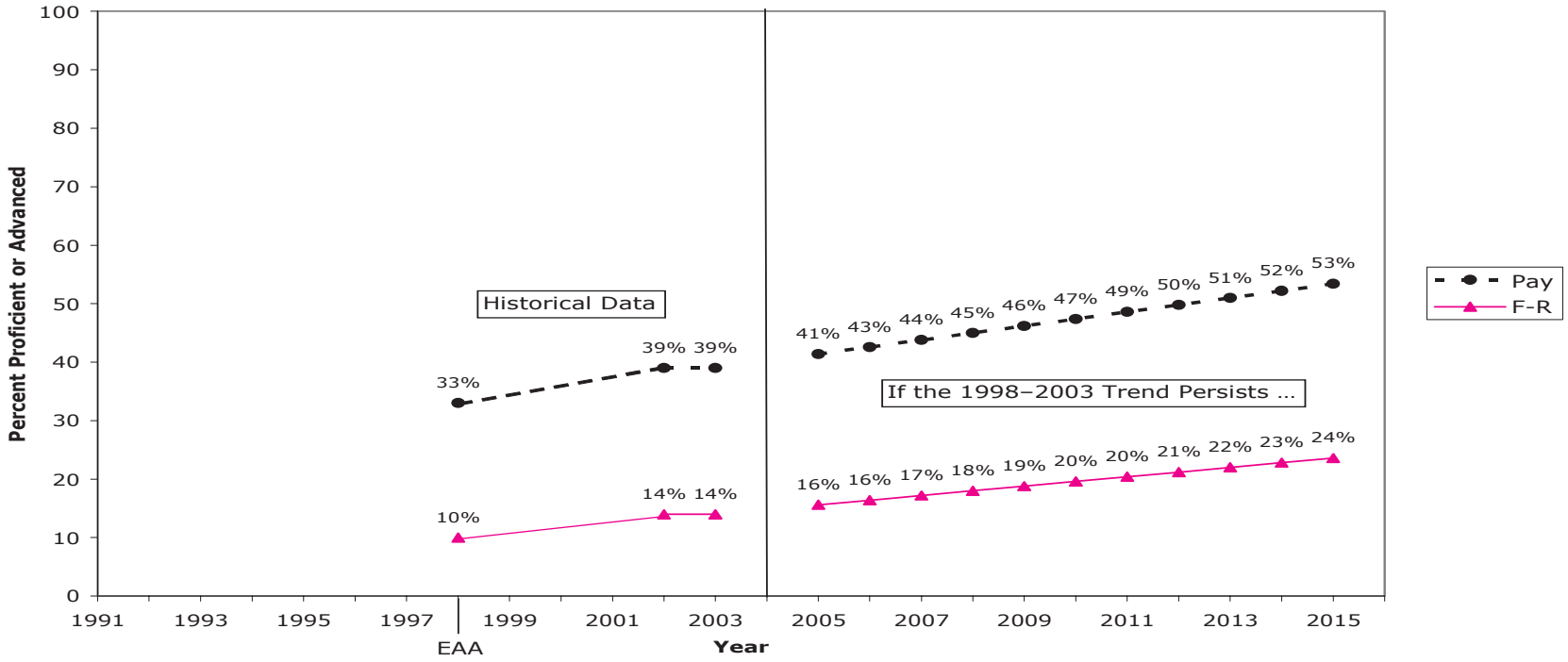
The grade 8 NAEP reading test performance of White and African American students is exhibited in Figure 9. There was no increase in the percentage of White students scoring Proficient or Advanced between 2002 and 2003. The percentage of White students scoring at this level increased 5 percentage points between 1998 and 2003 (1.0 percentage point per year). The percentage of African American students scoring Proficient or Advanced increased 1 percentage point between 2002 and 2003; this also was the gain between 1998 and 2003 (0.2 percentage point increase per year). By 2014 46% of White students are projected to score Proficient or Advanced, compared to 12% of African American students. The achievement gap is projected to widen by 2014.

Figure 9
SC NAEP Grade 8 Reading (% Proficient or Advanced)
White vs. African-American Students



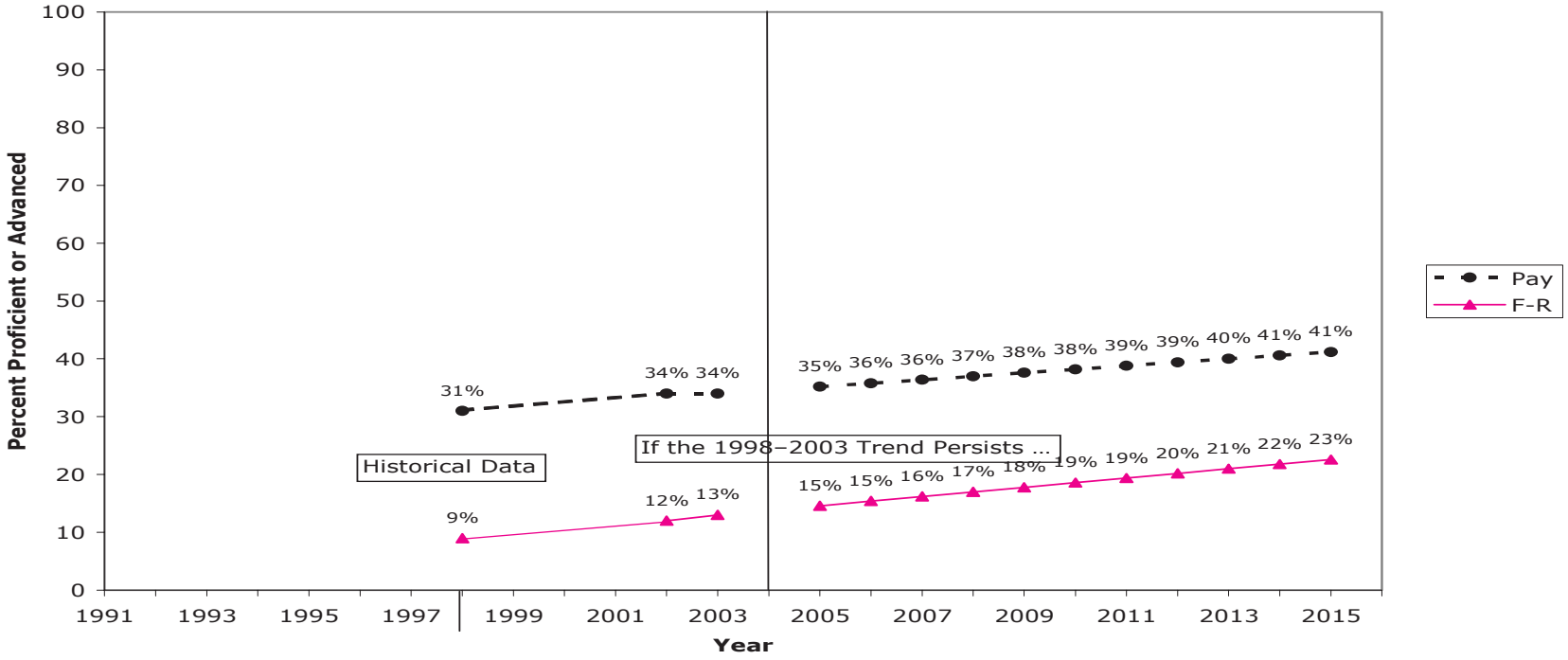
The performance of pay and free/reduced lunch students on the grade 4 NAEP reading test is shown in Figure 10. Pay lunch students showed no gain in the percent Proficient or Advanced between 2002 and 2003. Between 1998 and 2003, the proportion of pay lunch students scoring Proficient or Advanced increased 6 percentage points (1.2 percentage points per year). There were no gains for free/reduced lunch students between 2002 and 2003, either. The proportion of free/reduced lunch students scoring Proficient or Advanced increased 4 percentage points between 1998 and 2003 (0.8 percentage points per year). Fifty-two percent of pay lunch students are projected to score Proficient or Advanced by 2014, compared to 23% of free/reduced lunch students. It is evident from the projection that the achievement gap between pay and free/reduced lunch students widens by 2014.

Figure 10
SC NAEP Grade 4 Reading (% Proficient or Advanced)
Pay vs. Free-Reduced Lunch



The performance of the pay and free/reduced lunch students on grade 8 NAEP reading is shown in Figure 11. There was no increase in the percentage of pay lunch students scoring Proficient or Advanced on the eighth grade reading test between 2002 and 2003. The percentage of pay lunch students scoring Proficient or Advanced increased 3 percentage points between 1998 and 2003 (0.6 percentage points per year). There was an increase of 1 percentage point in the percentage of free/reduced students scoring Proficient or Advanced between 2002 and 2003. The percentage of free/reduced students scoring Proficient or Advanced increased 4 percentage points between 1998 and 2003 (0.8 percentage point per year). Forty-one percent of pay lunch students are projected to score Proficient or Advanced by 2014, while only 22% of free/reduced lunch students score at that level by 2014. The gap in achievement between the groups narrows by 2014, but the projected overall achievement for both pay lunch and free/reduced lunch students by 2014 is alarmingly low.

Figure 11
SC NAEP Grade 8 Reading (% Proficient or Advanced)
Pay vs. Free-Reduced Lunch



The historical state NAEP Proficient or Advanced results for the nation are shown in Appendix B, Figures A-H. In general, compared to South Carolina the national data show larger gaps between the demographic groups. The national data from NAEP reading show relatively flat growth, similar to that for South Carolina. The national grade 4 math data also show an increase in recent years similar to that in South Carolina, but the national grade 8 math results appear not to be increasing for White students at the same level as that found in South Carolina. This may be an artifact of the fact that national White students scored higher in the past than South Carolina White students.

Based on current improvement trends in the percentages of South Carolina students scoring Proficient or Advanced on NAEP reading and math tests, it appears that the achievement gaps between demographic groups widen by 2014 in seven of the eight comparisons made. While two groups are projected based on current trends to score at the 100% Proficient or Advanced level by 2014 (White and pay lunch students in grade 4 math), African American and free/reduced lunch students do not approach 100% in either grade or subject by 2014. In fact, in four projections based on current trends less than 25% of African American or free/reduced lunch students are projected to score Proficient or Advanced by 2014. This is an achievement challenge of crisis proportions.

The progress documented in the historical South Carolina NAEP data is slower for reading than for math. While the single grade and demographic group in which the gap appears to be narrowing is grade 8 reading for free/reduced price lunch students, the overall low levels of reading achievement projected for both pay and free/reduced lunch students at this grade level are woefully short of reaching our achievement goals and are not cause for celebration. The picture in math is much more encouraging, however. It would be important to identify the reasons for South Carolina's progress in math achievement in the hope that similar approaches can be used to stimulate reading progress. At this point it would appear that South Carolina's prospects for greatly increasing reading achievement if the same methods are used as in the past are dismal, and it is clear that changes in the education of children to read are needed.

What is the educational significance of the achievement gaps evident in the NAEP results? A recent study by the Education Trust reported the achievement gaps in scale scores between African American and White students in South Carolina and the nation (Table 1) and provided an interpretation of the educational significance of the gaps (Education Trust, 2004). The Education Trust reports that 10 points on the NAEP score scale represent approximately one year of learning. Thus a group which scores 10 scale score points lower than another group is performing at a learning level approximately one year below the comparison group.

TABLE 1

Score Gaps Between White and African American Students
South Carolina and the Nation
National Assessment of Educational Progress (NAEP)

Year, Grade Level, and Subject Tested	South Carolina		United States	
	South Carolina Gap Between White and African American Students in Scale Score Points	Approximate Number of Years of Learning That SC African American Students Score Behind SC White Students	United States Gap Between White and African American Students in Scale Score Points	Approximate Number of Years of Learning That US African American Students Score Behind US White Students
2003 Grade 4 Reading	27	2.7	30	3.0
2003 Grade 8 Reading	25	2.5	27	2.7
2003 Grade 4 Math	24	2.4	27	2.7
2003 Grade 8 Math	33	3.3	35	3.5
2000 Grade 4 Science	34	3.4	35	3.5
2000 Grade 8 Science	33	3.3	39	3.9
2002 Grade 4 Writing	17	1.7	20	2.0
2002 Grade 8 Writing	20	2.0	25	2.5

Source: Education Trust Education Watch: Achievement Gap Summary Tables, 2004

While the data in Table 1 show that the NAEP scale score gaps between South Carolina White and African American students are smaller than those in the nation, the achievement levels indicated by those gaps are still a matter of great concern. Based on the data reported by the Education Trust, South Carolina African American students are performing from a low of 1.7 years behind White students in grade 4 writing to 3.4 years behind White students in grade 4 science. The gaps in South Carolina reading and math scores range from 2.5 years (grade 8 reading) to 2.7 years (grade 4 reading), and from 2.4 years (grade 4 math) to 3.3 years (grade 8 math).

The gaps in years of learning represented by the NAEP scale scores allow us to evaluate the size of the educational challenge faced in South Carolina. The data from the Education Trust report suggest that African American students are, on average, approximately two years behind White students by the fourth grade, and these gaps persist through the eighth grade. This

suggests that our educational system should focus on identifying learning problems encountered by young children and intervene as quickly and effectively as possible to alleviate them, and that this need is particularly acute for African American children.

The PACT study

The PACT achievement levels studied were the percentages of students in each group scoring Basic or higher (Basic, Proficient, or Advanced) and percentages of students scoring Proficient or higher (Proficient or Advanced) on the PACT ELA and math tests administered in spring 2003.

In addition to studying the performances of the target and comparison groups described above, we also studied the PACT performance of each of the combinations of student demographic groups (African-American free/reduced lunch, African-American pay lunch, White free/reduced lunch, and White pay lunch). The study of the combinations helps to understand the effects of poverty when evaluating the performance of demographic groups. For example, is the higher performance of White students in part because fewer White students live in poverty than African-American students? By studying the performance of poor- and non-poor White and African-American students, we can help to control for effects related to socioeconomic status.

We also studied an additional factor, the overall achievement level of the school attended. School overall achievement level was defined as school Absolute Rating (Excellent, Good, Average, Below Average, and Unsatisfactory). This study was done to identify the relationships among school overall achievement and the achievement gap.

Finally, we identified a group of schools that were closing the achievement gap for at least one of the target groups in at least one subject area. These schools provide examples of educational practices that can be encouraged and implemented in other schools.

Results from the PACT study

Data for the study came from two primary sources: 2003 PACT test results for demographic groups published on the SC Department of Education (SDE) Web site (www.myscschools.com); and the original 2003 PACT test data files to obtain data on the combinations of demographic groups (White pay lunch, African-American free/reduced lunch, etc.). The 2003 PACT results reported on the SDE web site are from students who were attending the same school on both the 45th day and on the first day of testing; these data also include data from students with disabilities tested at a lower grade level than their nominal grade based on age (off-level testing). The data on the 45th day and on off-level testing were not available for the combinations of demographic groups studied from the PACT test data files.

<u>PACT Achievement Gaps in 2003</u>

The data analysis is presented first at the statewide level for four demographic groups: African-American students; White students; students participating in the federal free/reduced price lunch program (subsidized meals); and students not participating in the federal lunch program (full-pay meals). The data for these four groups are then analyzed at the school level, where school-level data are analyzed by their 2003 Absolute Rating status (Excellent, Good, Average, Below Average, and Unsatisfactory). The same analyses are then reported based on the

combinations of the demographic groups (African-American free lunch; African-American pay lunch; White free lunch; White pay lunch). These last analyses permit the estimation of the effects of poverty within the racial groups; further insights are provided when the data are analyzed by school rating, providing a control for school overall achievement. The analyses are presented for English language arts (ELA) percent Basic or above; ELA percent Proficient or Advanced; Math Basic or above; and Math Proficient or Advanced.

The Statewide results for the 2002 and 2003 ELA PACT administrations are listed in Table 2, and the achievement gaps are listed in Table 3.

Table 2
2002 and 2003 PACT Results By Demographic Group

Demographic Group	ELA						Math					
	% Basic or Above			% Proficient or Advanced			% Basic or Above			% Proficient or Advanced		
	2002	2003	Diff.	2002	2003	Diff.	2002	2003	Diff.	2002	2003	Diff.
All Students	74.7	70.5	-4.2	31.2	27.3	-3.9	68.2	73.8	+5.6	28.6	29.6	+1.0
White	84.8	81.1	-3.7	42.9	37.8	-5.1	80.4	84.9	+4.5	40.2	41.7	+1.5
African-American	61.2	57.2	-4.0	15.3	13.6	-1.7	51.6	59.4	+7.8	12.7	13.4	+0.7
Free/Reduced Lunch	63.3	58.9	-4.4	16.7	14.6	-2.1	55.4	63.0	+7.6	15.2	16.1	+0.9
Pay Lunch	86.9	83.5	-3.4	46.4	41.4	-5.0	81.8	85.9	+4.1	42.8	44.5	+1.7

Diff. = 2003 - 2002
Source: SC Department of Education

The data in Table 2 indicate that pay lunch students have the highest scores and African-American students have the lowest in both years. The percentages of students scoring Proficient or Advanced in both subjects are considerably lower than the percentages scoring Basic or above for all groups.

The data in Table 2 also show that PACT ELA performance was lower for all groups in 2003 than in 2002. At the ELA Basic or above score level, African American and free/reduced lunch students showed a slightly larger drop in performance than White and pay lunch students (for example, the performance of African American students dropped 4.0 percentage points, while the performance of White students dropped 3.7 percentage points. At the ELA Proficient or Advanced level, all groups also dropped in performance in 2003 compared to 2002. Larger percentages of White and pay lunch students than African American and free/reduced lunch students failed to achieve the ELA Proficient or Advanced level in 2003 compared to 2002 (for example, White students experienced a drop of 5.1 percentage points, while scores for African American students dropped 1.7 percentage points).

On the other hand, Table 2 shows that all groups increased their PACT math performance in 2003 compared to 2002. African American and free/reduced lunch students showed the largest gains at the math Basic or above level, while White and pay lunch students showed the largest

gains at the Proficient or Advanced level. While the gains at the math Basic or above level were substantial for all groups, the gains in the percentages scoring Proficient or Advanced were more modest.

The achievement gaps between the groups listed in Table 3 below were calculated by subtracting the performance of the comparison groups (White and pay lunch) from that of the target groups (African-American and free/reduced lunch). Since the comparison groups score higher than the target groups, the differences are negative. For example, the percentage of African-American students scoring Basic or above in ELA was 23.6 percentage points lower than White students in 2002, and 23.9 percentage points lower in 2003. The gaps in 2003 ranged from -22.9% (math % Basic or above for free/reduced vs. pay lunch students) to -28.4% (math % Proficient or Advanced, free/reduced vs. pay lunch students).

Table 3
2002 and 2003 PACT Achievement Gaps Between Demographic Groups

Target – Comparison Group	ELA				Math			
	% Basic or above		% Proficient or Advanced		% Basic or above		% Proficient or Advanced	
	2002	2003	2002	2003	2002	2003	2002	2003
African-American – White	-23.6	-23.9↑	-27.6	-24.2↓	-28.8	-25.5↓	-27.5	-28.3↑
Free/Reduced Lunch – Pay Lunch	-23.6	-24.6↑	-29.7	-26.8↓	-26.4	-22.9↓	-27.6	-28.4↑

↑ = gap increased
↓ = gap narrowed

The comparisons of gaps in 2002 and 2003 in Table 3 reveal that the sizes of the gaps increased at the ELA Basic or above achievement level and at the math Proficient or Advanced level for both target groups. The achievement gaps at the ELA Proficient or Advanced level and at the math Basic or above level decreased in 2003 compared to 2002, but for different reasons. The size of the achievement gap in ELA at the Proficient or Advanced level decreased as a result of the relatively larger declines in performance of White and pay lunch students compared to African American and free/reduced lunch students, as shown in Table 2 above. The smaller gap in 2003 was the result of the decline in comparison group performance. As shown above in Figure 2, closing the gap through declines in comparison group performance is counterproductive and will not allow us to reach our achievement goals.

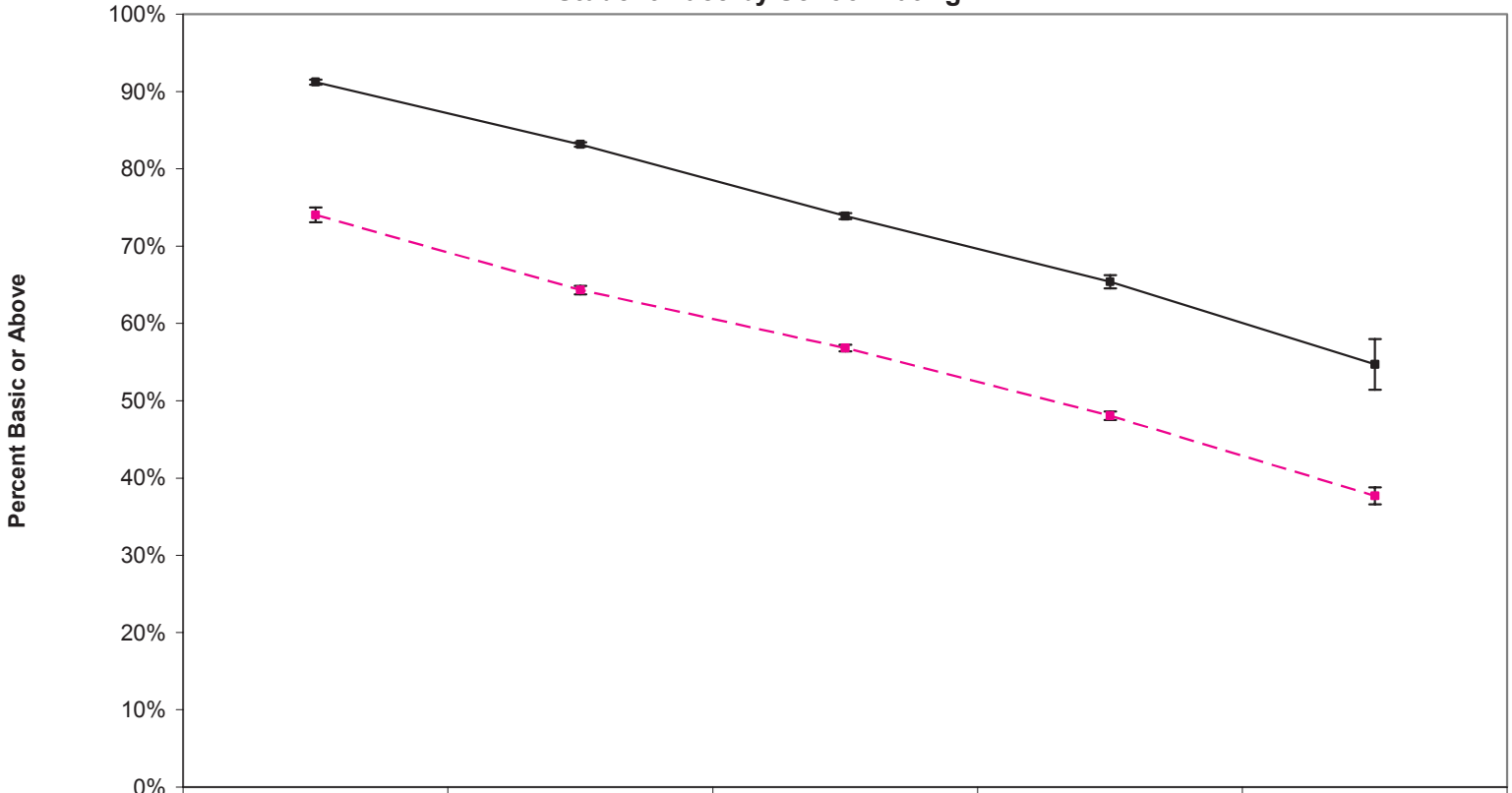
On the other hand, the closing of the achievement gaps in math at the Basic or above achievement level follows the desired pattern: all demographic groups increased their performance, but the target groups increased at a faster rate than the comparison groups.

PACT School Level Analyses

The achievement levels for the demographic groups by school Absolute Rating are shown in Figures 12-19. The data for these analyses were calculated based on the student-level PACT data so 95% confidence intervals around the estimates of the subgroup means could be determined. The confidence interval is indicated with a vertical line at each data point. The size of the confidence interval is shown by a horizontal line at each end of the vertical line. Longer lines signify larger confidence intervals. A 95% confidence interval specifies the range within which we are 95% sure the "true" mean lies. The size of the confidence interval depends in part on the size of the sample from which the data are calculated. Data calculated from large samples result in smaller confidence intervals than data based on small samples, so the size of the confidence interval depends in large part on the size of the sample from which the data are calculated.

For example, in Unsatisfactory schools there were only 885 White students for whom test data were available, while there were 7,633 African-American students with test data. The size of the confidence interval in Unsatisfactory schools for White students is thus much larger than that for African-American in Unsatisfactory schools (see Figure 12). This pattern is reversed in Excellent schools: 31,501 White students and 8,199 African-American students were tested in those schools, resulting in a very small confidence interval for White students and a somewhat larger, though still small, confidence interval for African-American students (see Figure 12). Data points which have intersecting confidence interval lines can be considered not significantly different.

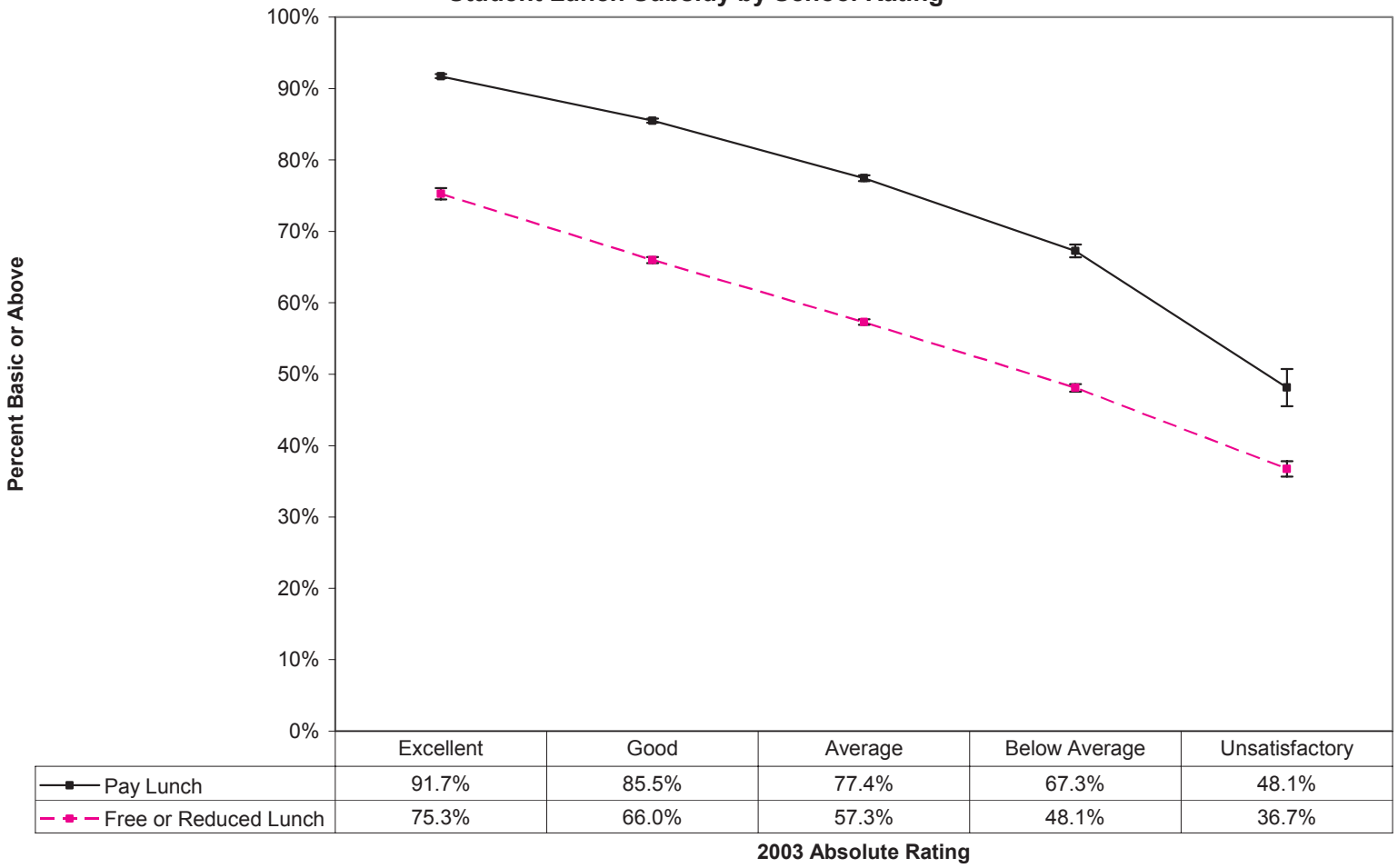
Figure 12: 2003 PACT ELA Percent Basic or Above
Student Race by School Rating



	Excellent	Good	Average	Below Average	Unsatisfactory
White	91.2%	83.2%	73.9%	65.4%	54.7%
AA	74.0%	64.3%	56.8%	48.1%	37.7%

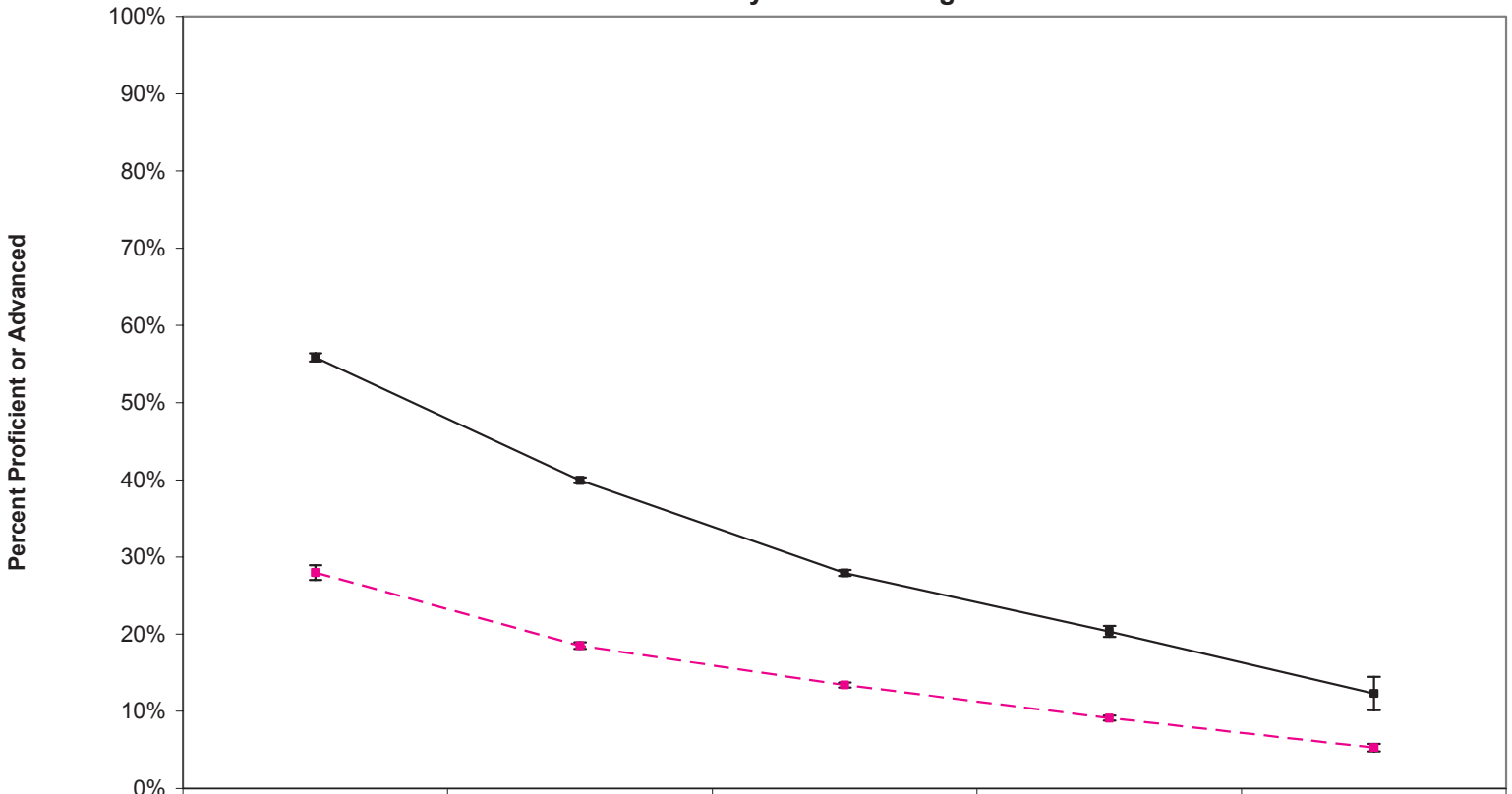
2003 Absolute Rating

Figure 13: 2003 PACT ELA Percent Basic or Above
Student Lunch Subsidy by School Rating



	Excellent	Good	Average	Below Average	Unsatisfactory
Pay Lunch	91.7%	85.5%	77.4%	67.3%	48.1%
Free or Reduced Lunch	75.3%	66.0%	57.3%	48.1%	36.7%

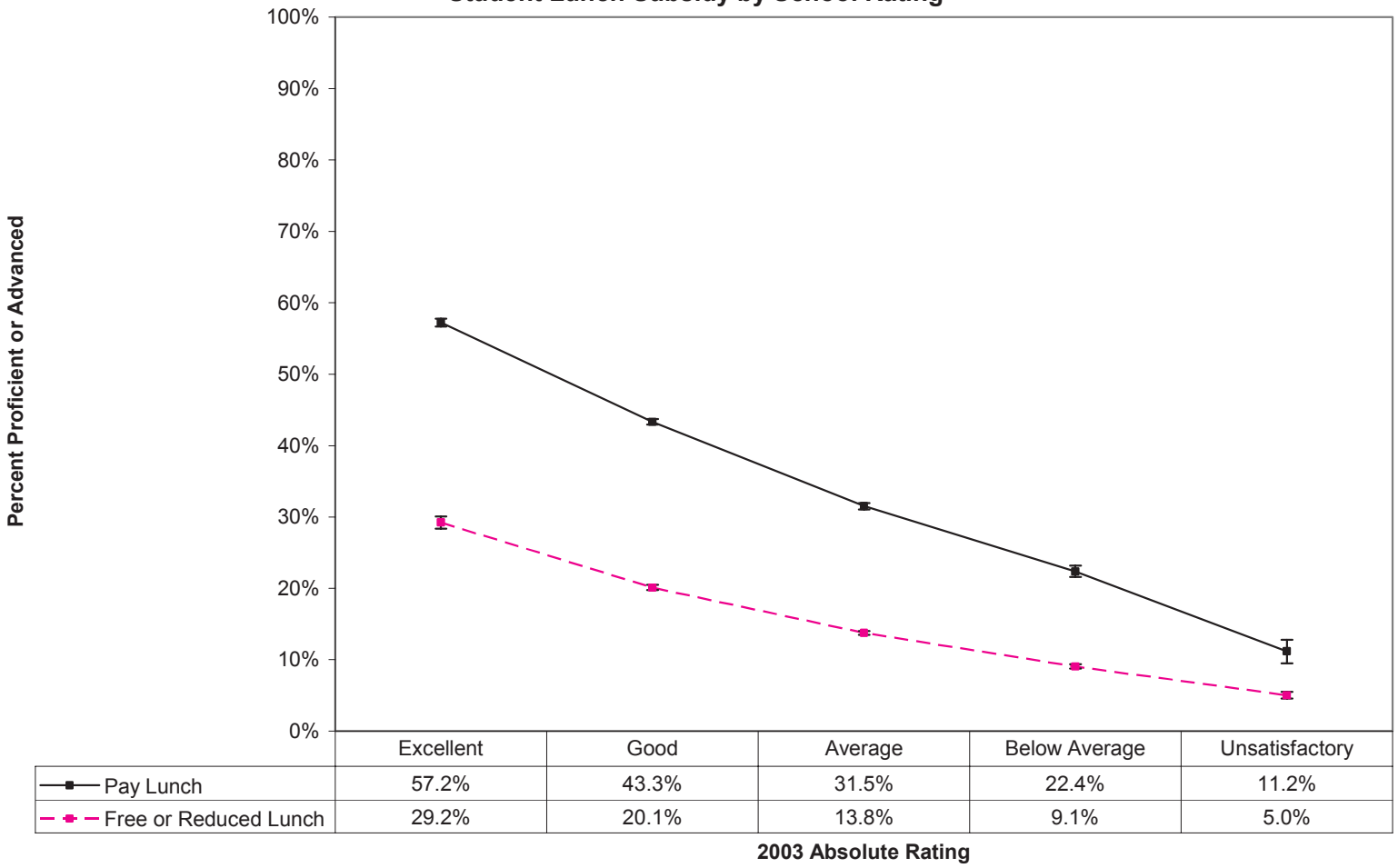
Figure 14: 2003 PACT ELA Percent Proficient or Advanced
Student Race by School Rating



	Excellent	Good	Average	Below Average	Unsatisfactory
White	55.9%	39.9%	27.9%	20.3%	12.3%
AA	28.0%	18.5%	13.4%	9.1%	5.3%

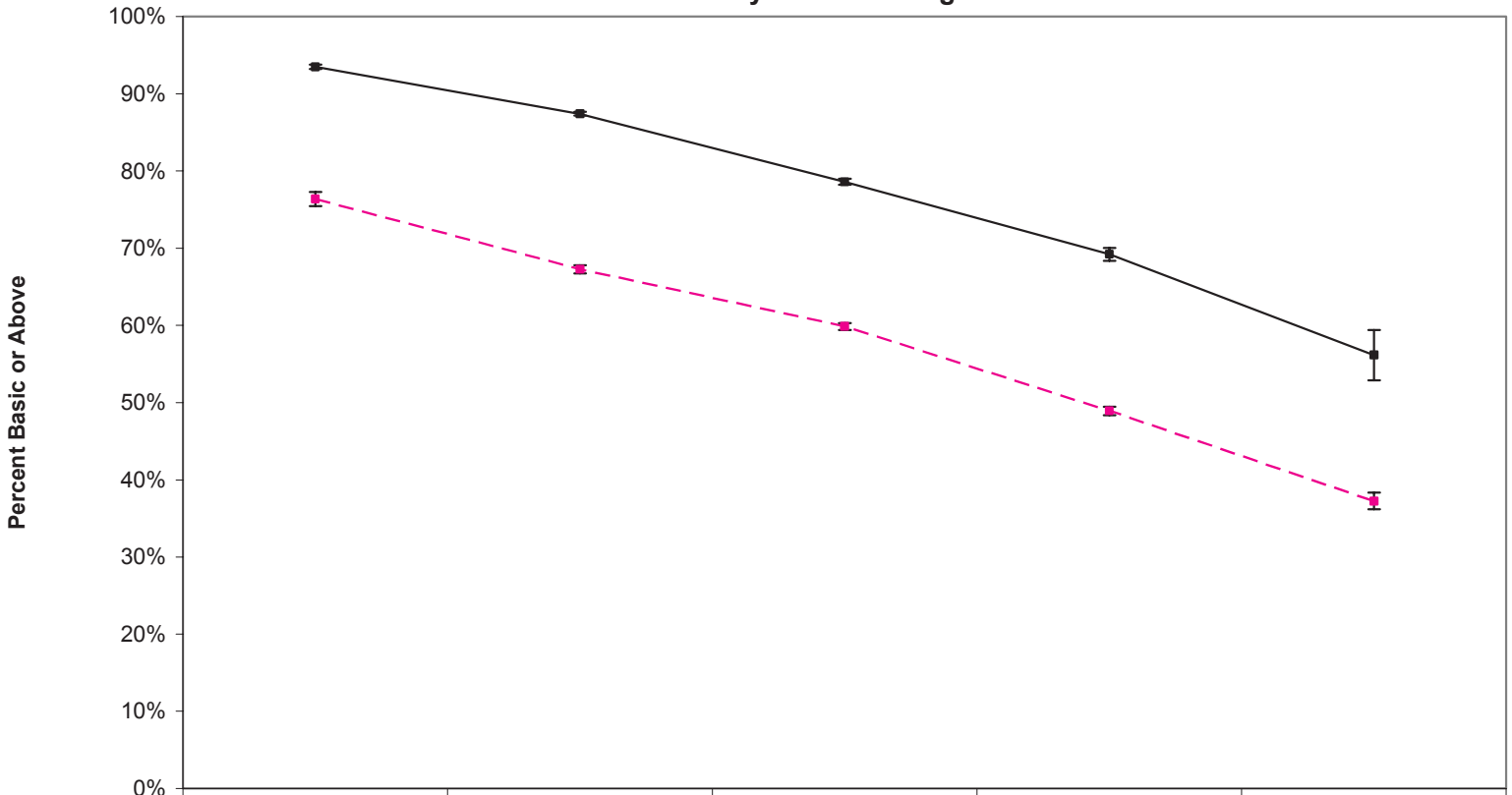
2003 Absolute Rating

Figure 15: 2003 PACT ELA Percent Proficient or Advanced
Student Lunch Subsidy by School Rating



	Excellent	Good	Average	Below Average	Unsatisfactory
Pay Lunch	57.2%	43.3%	31.5%	22.4%	11.2%
Free or Reduced Lunch	29.2%	20.1%	13.8%	9.1%	5.0%

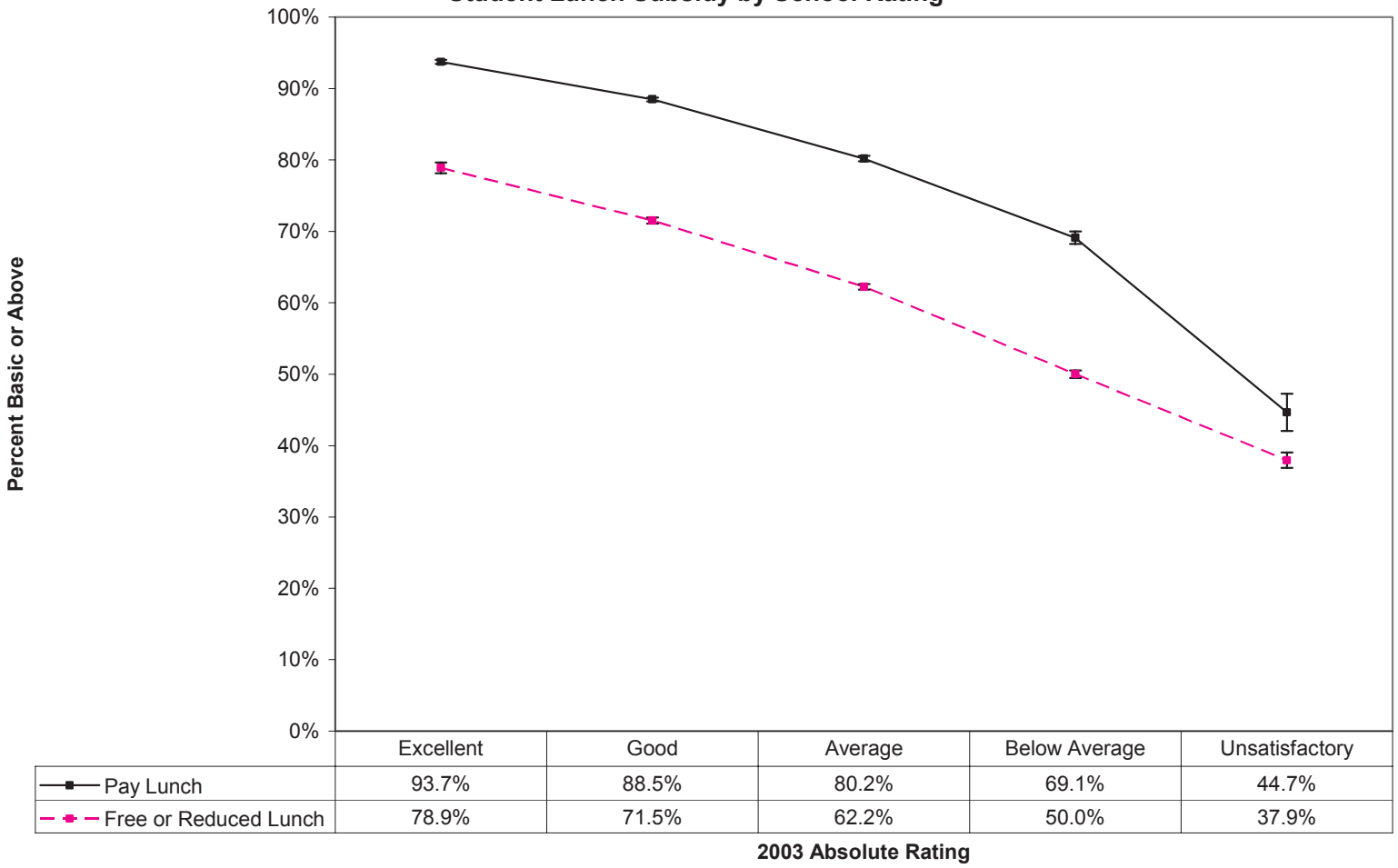
Figure 16: 2003 PACT Math Percent Basic or Above
Student Race by School Rating



	Excellent	Good	Average	Below Average	Unsatisfactory
White	93.5%	87.4%	78.6%	69.2%	56.2%
AA	76.4%	67.3%	59.9%	48.9%	37.2%

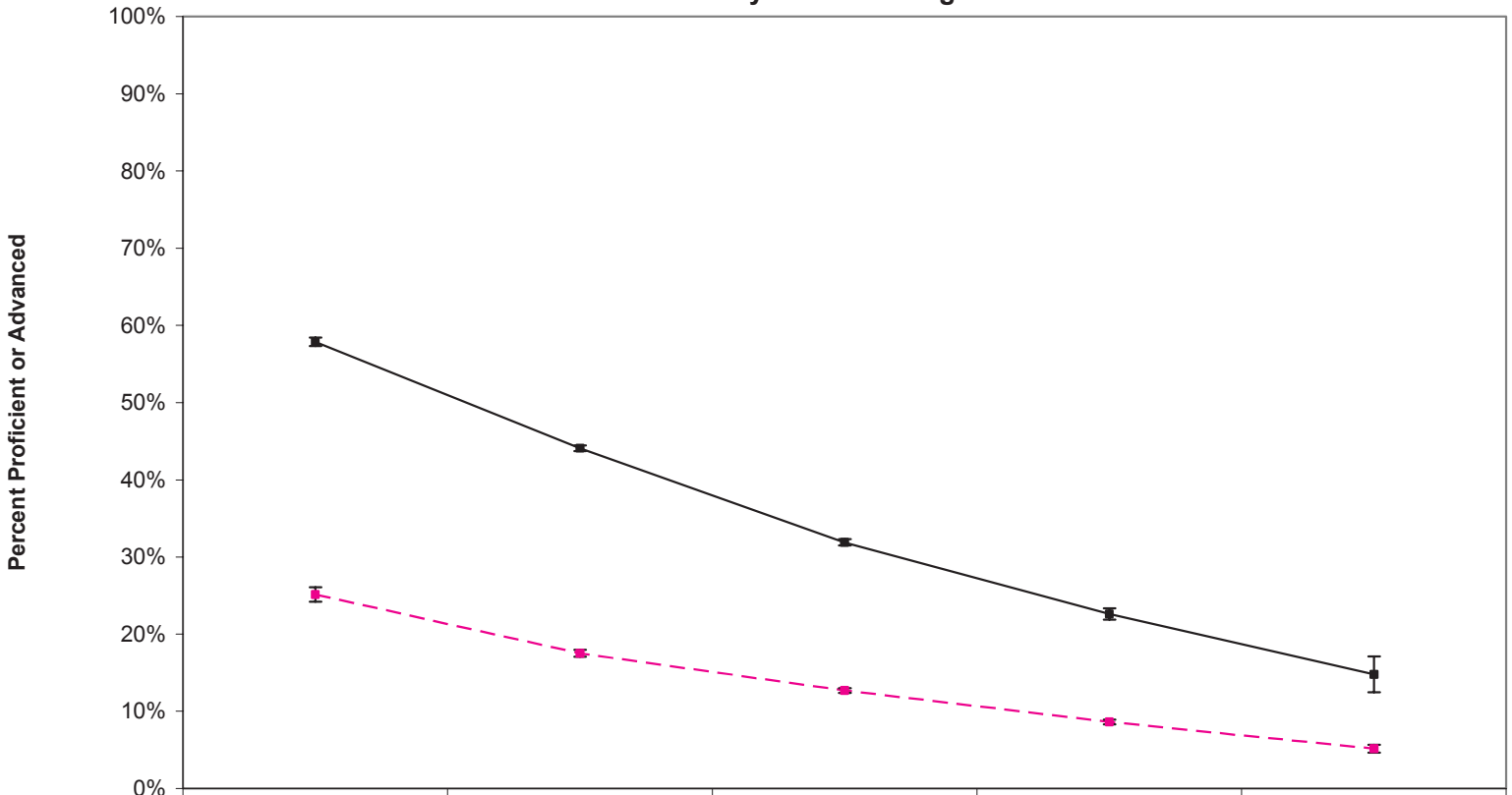
2003 Absolute Rating

Figure 17: 2003 PACT Math Percent Basic or Above
Student Lunch Subsidy by School Rating



	Excellent	Good	Average	Below Average	Unsatisfactory
Pay Lunch	93.7%	88.5%	80.2%	69.1%	44.7%
Free or Reduced Lunch	78.9%	71.5%	62.2%	50.0%	37.9%

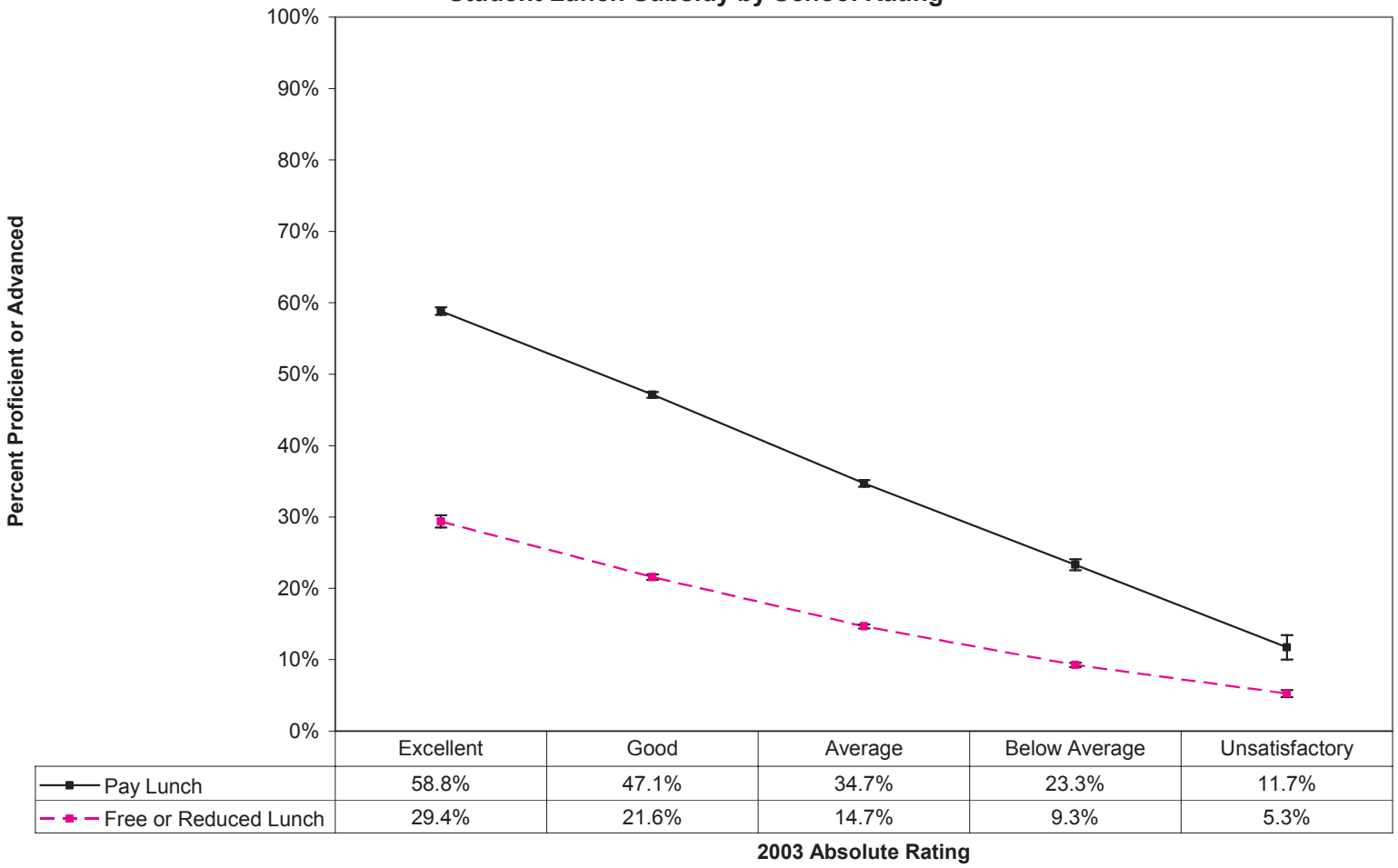
Figure 18: 2003 PACT Math Percent Proficient or Advanced
Student Race by School Rating



	Excellent	Good	Average	Below Average	Unsatisfactory
White	57.9%	44.1%	31.9%	22.6%	14.8%
AA	25.1%	17.5%	12.7%	8.6%	5.2%

2003 Absolute Rating

Figure 19: 2003 PACT Math Percent Proficient or Advanced
Student Lunch Subsidy by School Rating



	Excellent	Good	Average	Below Average	Unsatisfactory
Pay Lunch	58.8%	47.1%	34.7%	23.3%	11.7%
Free or Reduced Lunch	29.4%	21.6%	14.7%	9.3%	5.3%

Several observations are evident from Figures 12 through 19:

- The overall achievement levels for each group are highest in Excellent schools and lowest in Unsatisfactory schools;
- For ELA % Basic or above (Figures 12-13), over 90% of the White and pay lunch students in Excellent schools scored Basic or above in ELA and approximately one-half scored Basic or above in Unsatisfactory schools; only 75% of African American and free/reduced lunch students scored Basic or above in Excellent schools and approximately one-third scored Basic or above in Unsatisfactory schools;
- For ELA % Proficient or Advanced (Figures 14-15), only 5% of African American and free/reduced lunch students scored Proficient or Advanced in Unsatisfactory schools and less than 30% scored Proficient or Advanced in Excellent schools, while more than one-half of White and pay lunch students scored Proficient or Advanced in Excellent schools;
- The results for math % Basic or above (Figures 16-17) and math % Proficient or Advanced (Figures 18-19) are similar to those for ELA Basic and above and ELA Proficient or Advanced.

As indicated earlier, one of the goals for these analyses was to shed some light on the association of race and socioeconomic status with PACT performance in 2003. We know from the data that the average performance of African-American students is lower than that of White students, and that the performance of free/reduced lunch students is lower than that of pay lunch students. Without further analysis, we cannot tell from the data the extent to which the lower performance of African-American students is related to poverty.

To gain some insight into this question, we reanalyzed the data by subdividing the racial groups into two categories: those participating in the free/reduced lunch program and those who paid for their lunches. This enabled us to control or compensate for the effects of poverty on the performance of different racial groups.

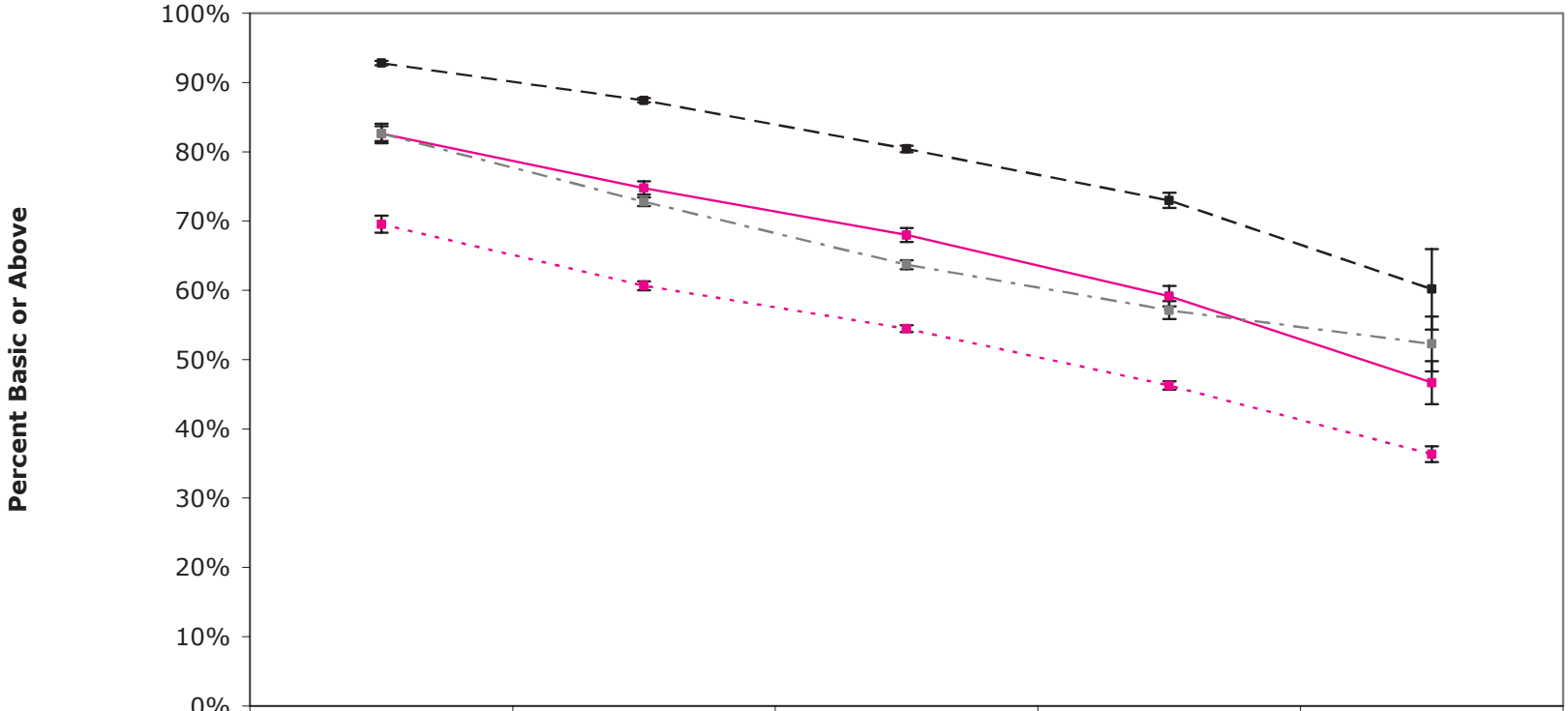
However, it is important to keep in mind that the use of the federal subsidized lunch data allows only partial control for the effects of poverty because of the differential levels of poverty in the African-American and White communities. The US Census data reported by Kids Count indicate that poverty in South Carolina is deeper and more pervasive among African-American families than White families. These data reveal that the median income of African-American families in 2000 was $28,742, while the median for White non-Hispanic families was $50,794. The upper income limit of eligibility for the federal reduced lunch program for a child from a family of four is $33,485; for the free lunch program it is $23,530 for a family of four (SC Department of Education, 2003). The median family income for African-American families is at a level to qualify for the reduced lunch program, while the median family income for non-Hispanic White families is well above the cut-off for the program. When reviewing the findings from this analysis, it is important to keep in mind that the use of the federal subsidized lunch eligibility data may not provide an adequate control for socioeconomic status. It is likely, for example, that the poverty of African-American children participating in the free/reduced price lunch program may be greater than that of White children participating in the program, and that the family wealth of African-American children not participating in the program may still be considerably lower than that of White pay lunch children. Thus the differences in performance between African-American and White children who have the same federal lunch program status

may be related to differences in economic status between the racial groups which cannot be detected with the data available for this analysis.

The analysis of the four demographic subgroups (African American pay lunch; African American free/reduced lunch; White pay lunch; White free/reduced lunch) was conducted at the school level. The performance of each subgroup was summarized by school Absolute Rating. The results are shown in Figures 20-23.

- Across both ELA and Math and for each performance level (% Basic or above and % Proficient or Advanced), the performance for each subgroup was higher for each higher level of school rating;
- Across both ELA and Math and for each performance level and for all school rating levels, the achievement of White pay lunch students was the highest and the achievement of African-American free/reduced lunch students was the lowest;
- For both ELA and Math and for both performance levels (% Basic or above and % Proficient or Advanced), the achievement levels of African-American pay lunch students and that of White free/reduced lunch students are similar for most school rating levels;
- For both ELA and Math % Basic or above (Figures 20 and 22), the magnitude of the gaps between the subgroups are similar across the school rating levels;
- For both ELA and Math % Proficient or Advanced (Figures 21 and 23), the achievement gaps are larger for schools with higher Absolute Ratings than for lower-rated schools, especially the gap between African-American free/reduced lunch students and White pay lunch students.

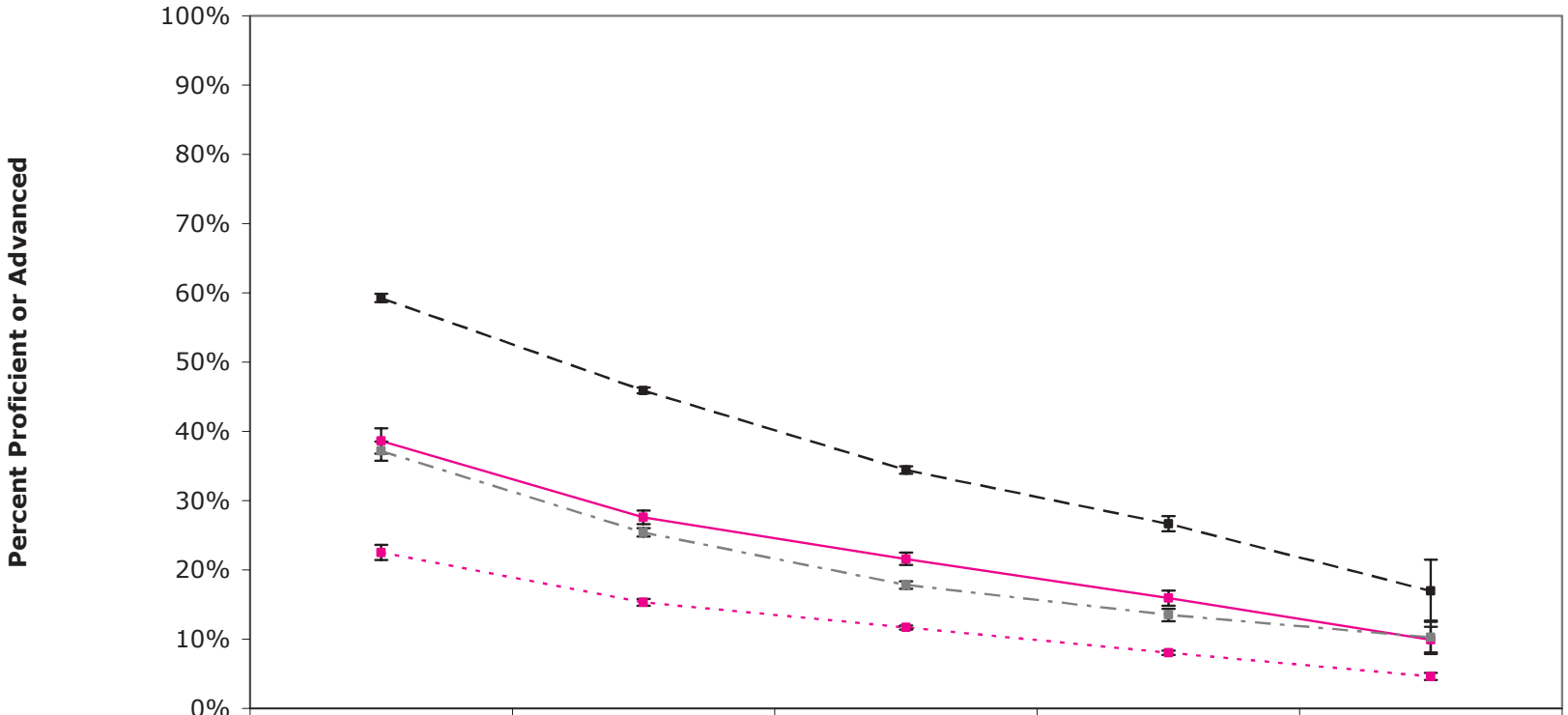
Figure 20: 2003 PACT ELA
Percent Basic or Above



	Excellent	Good	Average	Below Average	Unsatisfactory
White/Pay	92.8%	87.4%	80.4%	73.0%	60.1%
AA/Pay	82.6%	74.8%	68.0%	59.2%	46.7%
White/F-R	82.6%	72.8%	63.7%	57.1%	52.3%
AA/F-R	69.5%	60.7%	54.4%	46.3%	36.3%

2003 Absolute Rating

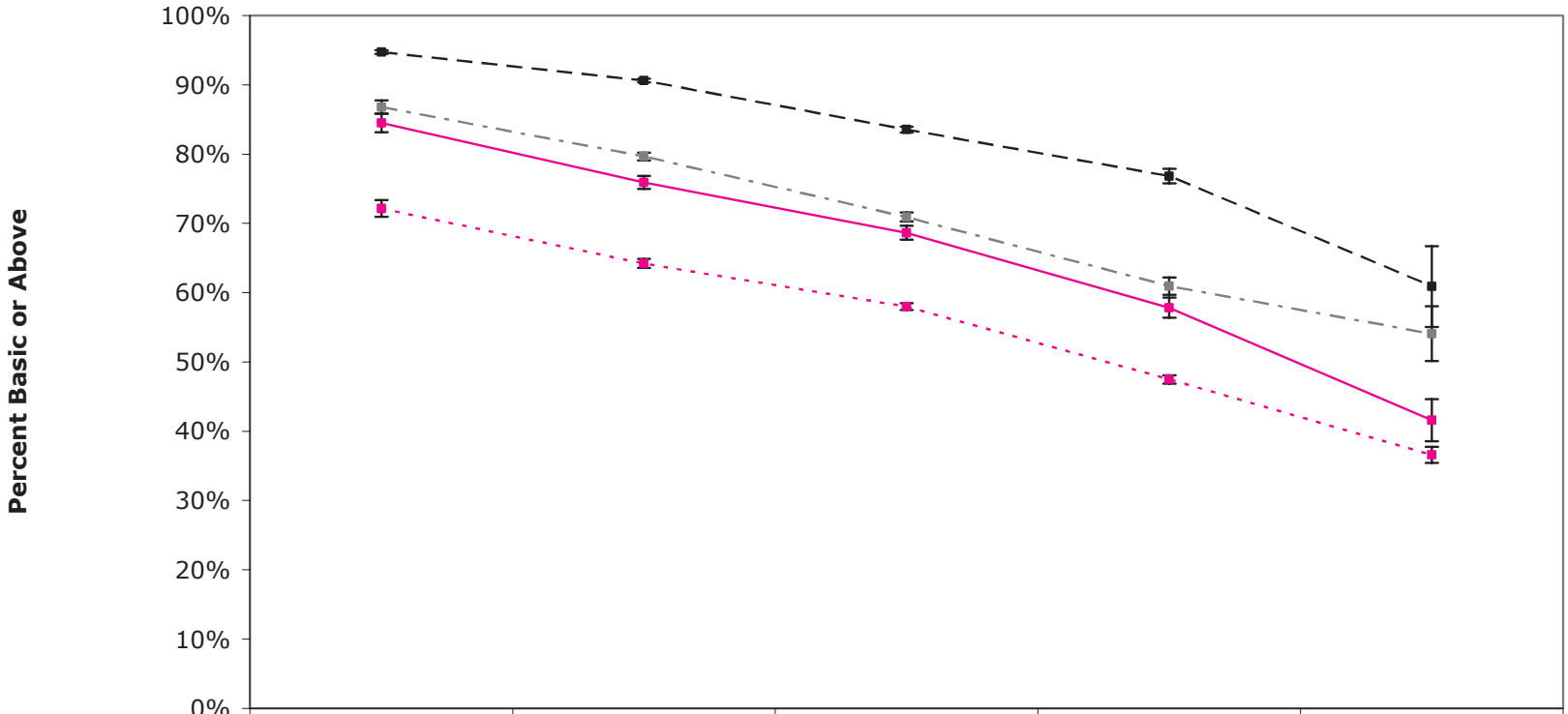
Figure 21: 2003 PACT ELA
Percent Proficient or Advanced



	Excellent	Good	Average	Below Average	Unsatisfactory
White/Pay	59.2%	45.9%	34.4%	26.6%	17.0%
AA/Pay	38.6%	27.6%	21.6%	15.9%	9.9%
White/F-R	37.1%	25.4%	17.8%	13.5%	10.3%
AA/F-R	22.5%	15.3%	11.7%	8.0%	4.6%

2003 Absolute Rating

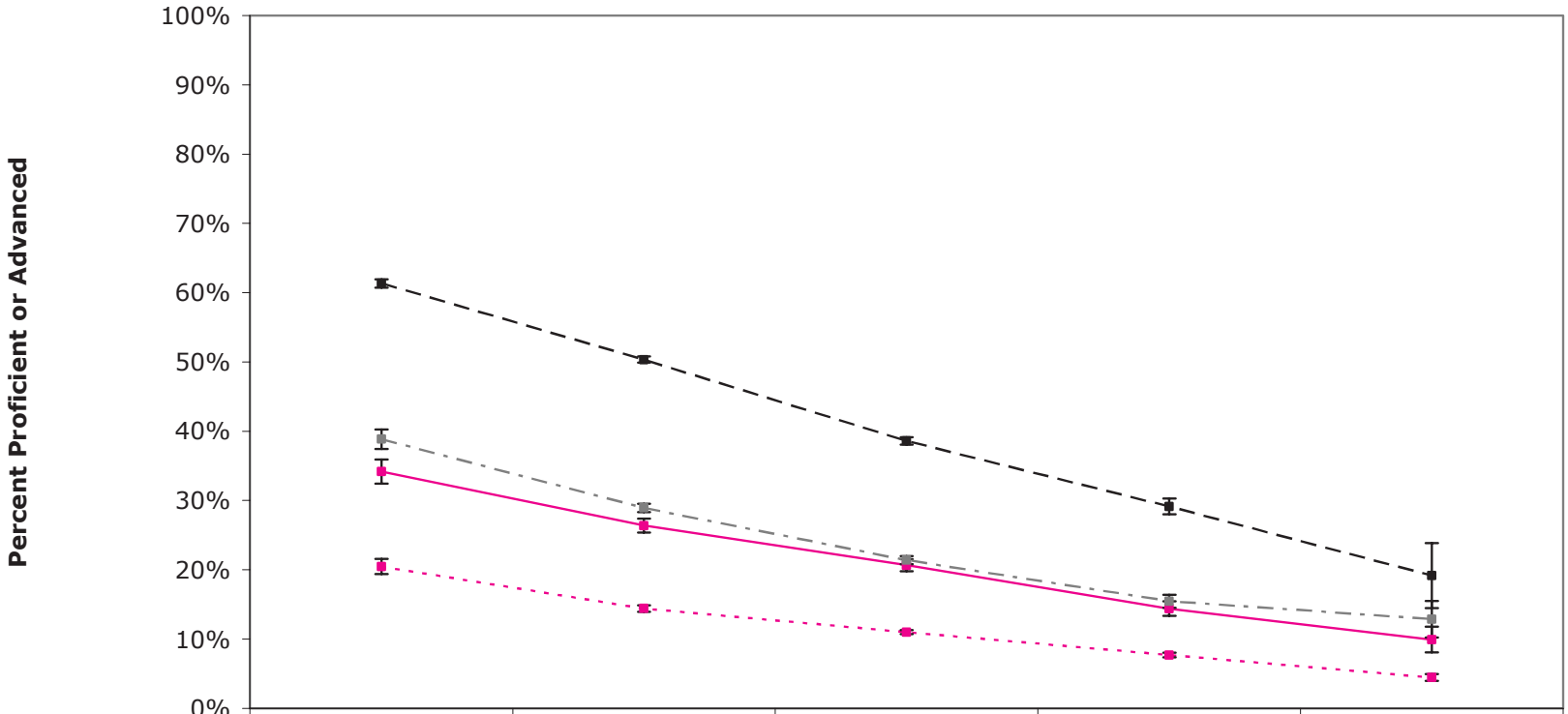
Figure 22: 2003 PACT Math
Percent Basic or Above



	Excellent	Good	Average	Below Average	Unsatisfactory
White/Pay	94.7%	90.6%	83.5%	76.8%	60.9%
AA/Pay	84.5%	75.9%	68.7%	57.8%	41.6%
White/F-R	86.8%	79.7%	70.9%	60.9%	54.1%
AA/F-R	72.2%	64.2%	58.0%	47.5%	36.6%

2003 Absolute Rating

Figure 23: 2003 PACT Math
Percent Proficient or Advanced



	Excellent	Good	Average	Below Average	Unsatisfactory
White/Pay	61.3%	50.3%	38.6%	29.1%	19.2%
AA/Pay	34.2%	26.4%	20.7%	14.4%	9.9%
White/F-R	38.8%	28.9%	21.4%	15.5%	12.9%
AA/F-R	20.5%	14.4%	11.0%	7.7%	4.5%

2003 Absolute Rating

The analysis of the achievement of demographic subgroups generated several additional issues to be considered:

- The similar achievement levels of African-American pay lunch students and White free/reduced lunch students statewide and for all school Absolute Rating levels may in part reflect our study's inadequacies in the control of economic differences between the racial groups. It may be that the average income of the families of pay lunch African-American students is just above the cut-off for eligibility for the subsidized lunch program and the average family incomes of the White free/reduced lunch eligible students may be just below the cut-off. The two groups may thus be more similar in their socioeconomic status than the lunch program eligibility would indicate. Unfortunately, the available data did not permit an exploration of this hypothesis.
- The overall achievement of all the subgroups was quite low in Unsatisfactory and Below Average schools, especially for the % Proficient or Advanced achievement level. The smaller gaps in the % Proficient or Advanced category in these schools may simply reflect the low overall achievement levels, which would limit the size of the gap attainable.
- While the average performance of African-American students participating in the free/reduced lunch program is highest in schools rated Excellent, the achievement level for these students is at a similar level as White free/reduced lunch students and African American pay lunch students in Average schools. As noted in the 2002 EOC report on the achievement gap, the low achievement at the % Proficient or Advanced levels by African-American free/reduced lunch students in schools receiving high Absolute Ratings is a matter of deep concern and should be a major focus of attention for personnel in those schools.

Identification of schools closing the gap

To provide further insight into the achievement gap in South Carolina, we identified schools that showed high levels of performance by one or more of the target groups in ELA, math, or both. The performance of the target group of students had to be in the range of the performance of the comparison group or higher. For example, a school in which the percentage of African-American students (target group) scoring Proficient or Advanced was in the range of or higher than the percentage of White students (comparison group) scoring at that level statewide would meet the criteria for selection. The following process was used to identify these schools.

These prerequisite conditions had to be met for a school to be considered:

- The school must have test results from at least one of the target groups to be considered;
- The size of the target group in the school must be large enough to provide reliable information (at least 30 students enrolled);
- At least 95% of the target group were tested in the subject area under consideration.

To obtain the achievement cut points to identify schools making exemplary progress in closing the gap, schools were ranked by the 2003 PACT achievement performance of all students in the school for these tests and performance levels:

- ELA - % scoring Basic or higher;
- ELA - % scoring Proficient or Advanced;
- Math - % scoring Basic or higher;
- Math - % scoring Proficient or Advanced.

The achievement level for each test corresponding to the 75th percentile and the 90th percentile for all schools was identified. These data and the averages of the school percentages of students scoring at each achievement level for all students and for the demographic groups are shown in Table 4. These analyses were carried out with school as the level of analysis, so the percentages listed in Table 4 represent the percentile ranks of schools and the average of the school percentages for all schools.

Table 4
75th and 90th Percentiles and Averages of
School Percentages of Students in Each Category
2003 Pact Test Performance

PACT Test Performance Levels	All Students – 75th %ile and Above of All Schools	All Students – 90th %ile and Above of All Schools	Mean School Perform-ance - All Students	Mean School Performance - African-American Students	Mean School Performance - White Students	Mean School Performance Free/Reduced Lunch Students	Mean School Performance - Pay Lunch Students
ELA % Basic or higher	81.1%	87.4%	71.4%	61.4%	80.6%	63.0%	81.5%
Math % Basic or higher	84.7%	90.0%	74.7%	63.8%	84.2%	67.2%	83.9%
ELA % Proficient or Advanced	36.8%	47.5%	28.0%	16.3%	37.1%	17.7%	39.3%
Math % Proficient or Advanced	39.3%	47.5%	29.0%	15.3%	39.5%	18.5%	40.6%

Source: SC Department of Education www.myscschools.com

The performance of each qualifying target group (having at least 30 tested students) in each school was evaluated against the performance corresponding to the 75th and 90th percentiles for all schools statewide. The criteria for identification were that the target group had to score at least at the level of the 75th percentile for all students in all schools (this level of performance was near that of the comparison groups). For example, a school in which 36 of the 42 African-American students (85.7%) tested scored Basic or higher on the ELA test would be identified as a school closing the gap because 85.7% of the target group (African-American students) scored Basic or higher, which is greater than the 75th percentile for all students (81.1%).

The performance of each target group in schools meeting the 75th percentile criterion was also examined to see if it was at or above the 90th percentile for all students in all schools (exceeded

the performance of the comparison group). In our example school, the 85.7% scoring Basic or higher was less than the criterion at the 90th percentile (87.4%).

Schools in which at least one target group met or exceeded the 75th or 90th percentile for each test were identified as schools showing strong evidence of closing the achievement gap.

Results:

Ninety-three schools with data did not have a sufficient number of African American students (at least 30), and twenty-one schools did not have a sufficient number of free/reduced lunch participants, so they could not be evaluated. The remaining 807 schools could be evaluated for the performance of at least one target group of students.

One hundred-ten schools (three of which had both elementary and middle school grades and thus two report cards) were identified. These schools represent approximately 14% of all schools having sufficient numbers of students in the target groups for analysis. Seventy-four schools had at least one target group achieve between the 75th and 89th state percentiles, and thirty-three had at least one group achieve at the 90th percentile or higher. Fifty-five of the schools identified in 2003 had also been recognized in 2002 for high performance by at least one target group in at least one subject area (EOC, 2003). These schools are of particular interest because they show sustained progress in reducing achievement gaps. The schools are listed in Table 5.

Table 5
Schools With Target Demographic Groups Scoring At or Above the 75th or 90th Percentiles

Obs	BEDS	District	School	Group(s) Identified**								
1.	160018	Abbeville	Cherokee Trail Elementary	A-A ELA 75th Basic+								
2.	160019	Abbeville	Diamond Hill Elementary	FR Math 75th Basic+								
3.	201029	Aiken	Gloverville Elementary	FR Math 75th Basic+								
4.	201035	Aiken	Millbrook Elementary	A-A ELA 75th Basic+	FR ELA 75th Basic+							
5.	201056	Aiken	Chukker Creek Elementary*	FR Math 75th Basic+								
6.	401004	Anderson 1	Palmetto Elementary	FR ELA 75th Basic+								
7.	401005	Anderson 1	Cedar Grove Elementary*	FR ELA 75th Basic+								
8.	401007	Anderson 1	Pelzer Elementary	FR Math 90th Prof+								
9.	401008	Anderson 1	Wren Middle	FR Math 75th Prof+								
10.	401009	Anderson 1	West Pelzer Elementary*	FR ELA 75th Prof+	FR Math 75th Prof+							
11.	401011	Anderson 1	Spearman Elementary*	FR ELA 75th Basic+								
12.	401013	Anderson 1	Wren Elementary*	FR ELA 75th Basic+								

Obs	BEDS	District	School	Group(s) Identified**								
13.	401014	Anderson 1	Hunt Meadows Elementary*	FR ELA 90th Basic+								
14.	401062	Anderson 1	Powdersville Elementary	FR ELA 75th Basic+	FR Math 75th Basic+							
15.	402015	Anderson 2	Marshall Primary*	A-A Math 75th Basic+								
16.	402018	Anderson 2	Honea Path Elementary*	FR ELA 75th Basic+	FR ELA 75th Prof+	FR Math 75th Prof+	FR Math 90th Basic+					
17.	402021	Anderson 2	Wright Elementary	FR ELA 75th Prof+	FR ELA 90th Basic+	FR Math 90th Basic+	FR Math 90th Prof+					
18.	404031	Anderson 4	La France Elementary*	FR ELA 75th Basic+	FR ELA 75th Prof+	FR Math 90th Basic+	FR Math 90th Prof+					
19.	404034	Anderson 4	Pendleton Elementary*	A-A ELA 75th Basic+	A-A Math 75th Basic+	FR ELA 75th Basic+	FR Math 90th Basic+					
20.	404036	Anderson 4	Townville Elementary*	FR ELA 75th Prof+	FR ELA 90th Basic+	FR Math 90th Basic+						
21.	405044	Anderson 5	Centerville Elementary	A-A Math 75th Basic+	FR Math 75th Basic+							
22.	405051	Anderson 5	New Prospect Elementary	A-A Math 75th Basic+	FR Math 75th Basic+							
23.	405059	Anderson 5	Whitehall Elementary	A-A ELA 75th Basic+	FR ELA 75th Basic+							

Obs	BEDS	District	School	Group(s) Identified**								
24.	501003	Bamberg 1	Richard Carroll Primary*	A-A ELA 75th Basic+	A-A Math 75th Basic+	FR ELA 75th Prof+	FR Math 75th Basic+					
25.	801025	Berkeley	MenRiv Elementary*	FR ELA 75th Basic+	FR Math 75th Prof+	FR ELA 90th Prof+	FR Math 90th Basic+					
26.	801033	Berkeley	Marrington Elementary*	A-A ELA 75th Basic+	FR Math 75th Basic+	FR ELA 90th Basic+	FR ELA 90th Prof+					
27.	801045	Berkeley	Westview Primary	FR ELA 75th Prof+	FR ELA 90th Basic+							
28.	1001068	Charleston	Oakland Elementary	FR ELA 75th Basic+								
29.	1001069	Charleston	Orange Grove Elementary*	A-A ELA 75th Basic+	A-A Math 75th Basic+	FR Math 75th Basic+						
30.	1001085	Charleston	Stono Park Elementary*	A-A ELA 75th Prof+	A-A Math 75th Prof+	FR ELA 75th Prof+	FR Math 75th Prof+	A-A ELA 90th Basic+	A-A Math 90th Basic+	FR ELA 90th Basic+	FR Math 90th Basic+	
31.	1001090	Charleston	Mamie Whitesides Elementary	FR ELA 75th Basic+								
32.	1001094	Charleston	Buist Academy*	A-A ELA 90th Basic+	A-A ELA 90th Prof+	A-A Math 90th Prof+						
33.	1001101	Charleston	Charleston Progressive	A-A ELA 75th Basic+	FR ELA 75th Basic+							
34.	1001102	Charleston	Charles Pinckney Elementary*	FR Math 75th Basic+								

Obs	BEDS	District	School	Group(s) Identified**								
35.	1101012	Cherokee	Goucher Elementary*	FR Math 90th Basic+								
36.	1301014	Chesterfield	Edwards Elementary*	A-A ELA 75th Basic+	FR ELA 75th Basic+	A-A Math 90th Basic+	FR Math 90th Basic+					
37.	1301021	Chesterfield	Plainview Elementary	FR ELA 75th Basic+								
38.	1401005	Clarendon 1	St Paul Primary	A-A ELA 75th Basic+	A-A ELA 75th Prof+	FR ELA 75th Basic+	FR ELA 75th Prof+					
39.	1402012	Clarendon 2	Manning Primary*	FR ELA 75th Basic+	FR Math 75th Basic+							
40.	1601018	Darlington	Pate Elementary*	A-A Math 75th Prof+	FR ELA 75th Prof+	FR Math 75th Prof+	A-A ELA 90th Basic+	A-A ELA 90th Prof+	A-A Math 90th Basic+	FR ELA 90th Basic+	FR Math 90th Basic+	
41.	1702007	Dillon 2	East Elementary*	A-A Math 75th Basic+	A-A Math 75th Prof+	FR ELA 75th Basic+	A-A ELA 90th Prof+	FR ELA 90th Prof+	FR Math 90th Basic+	FR Math 90th Prof+		
42.	1702008	Dillon 2	South Elementary	A-A ELA 75th Prof+	FR ELA 75th Prof+	A-A ELA 90th Basic+	A-A Math 90th Basic+	A-A Math 90th Prof+	FR ELA 90th Basic+	FR Math 90th Basic+	FR Math 90th Prof+	
43.	1802012	Dorchester 2	R H Rollings Middle School of the Arts*	A-A ELA 75th Prof+	A-A Math 75th Basic+	FR ELA 75th Basic+	FR ELA 75th Prof+	FR Math 75th Basic+	FR Math 75th Prof+	A-A ELA 90th Basic+		
44.	1901008	Edgefield	Merriwether Elementary*	A-A Math 75th Basic+	FR ELA 75th Basic+	FR Math 75th Basic+						
45.	2201009	Georgetown	Browns Ferry Elementary	A-A ELA 75th Prof+	A-A Math 75th Prof+	FR ELA 75th Basic+	FR ELA 75th Prof+	A-A ELA 90th Basic+	A-A Math 90th Basic+	FR Math 90th Basic+		

Obs	BEDS	District	School	Group(s) Identified**								
46.	2201012	Georgetown	Pleasant Hill Elementary	FR Math 75th Basic+								
47.	2201020	Georgetown	Plantersville Elementary	A-A Math 75th Prof+	FR Math 75th Prof+							
48.	2201023	Georgetown	Sampit Elementary	A-A Math 90th Basic+	FR Math 90th Basic+							
49.	2301030	Greenville	Brook Glenn Elementary*	FR ELA 75th Basic+	FR ELA 75th Prof+	FR Math 75th Basic+						
50.	2301071	Greenville	Mountain View Elementary*	FR Math 75th Basic+								
51.	2301089	Greenville	Taylors Elementary	A-A ELA 75th Basic+	A-A ELA 75th Prof+							
52.	2301090	Greenville	Tigerville Elementary	FR Math 75th Basic+								
53.	2301108	Greenville	Oakview Elementary*	A-A ELA 75th Prof+	A-A Math 75th Prof+	A-A Math 90th Basic+						
54.	2450016	Greenwood 50	Hodges Elementary	A-A ELA 75th Basic+	FR ELA 75th Basic+							
55.	2601014	Horry	Aynor Elementary	FR Math 75th Basic+	FR Math 75th Prof+							
56.	2601021	Horry	Daisy Elementary*	FR Math 75th Basic+								
57.	2601023	Horry	Green Sea Floyds Elementary	FR ELA 75th Basic+								

Obs	BEDS	District	School	Group(s) Identified**								
58.	2601025	Horry	Homewood Elementary*	A-A Math 75th Basic+	FR Math 75th Basic+	FR Math 75th Prof+						
59.	2601029	Horry	Lakewood Elementary*	A-A ELA 75th Basic+	FR ELA 75th Basic+	FR ELA 75th Prof+	FR Math 75th Basic+	A-A Math 90th Prof+	FR Math 90th Prof+			
60.	2601030	Horry	St James Elementary*	FR Math 75th Basic+								
61.	2601032	Horry	Loris Elementary	FR Math 75th Basic+								
62.	2601033	Horry	Midland Elementary	FR Math 75th Basic+								
63.	2601034	Horry	Myrtle Beach Elementary	A-A ELA 75th Basic+	FR ELA 75th Basic+							
64.	2601042	Horry	Waccamaw Elementary*	FR ELA 75th Basic+								
65.	2601046	Horry	Forestbrook Elementary*	FR ELA 90th Basic+	FR ELA 90th Prof+	FR Math 90th Basic+	FR Math 90th Prof+					
66.	2601049	Horry	Carolina Forest Elementary*	FR ELA 75th Basic+	FR Math 75th Prof+							
67.	2601050	Horry	Seaside Elementary*	FR ELA 75th Basic+	FR Math 75th Basic+							
68.	2601056	Horry	Palmetto Bays Elementary	FR ELA 75th Basic+								

Obs	BEDS	District	School	Group(s) Identified**								
69.	2801018	Kershaw	Lugoff Elementary*	FR ELA 75th Basic+	FR Math 75th Basic+							
70.	2801024	Kershaw	Doby's Mill Elementary	A-A ELA 75th Prof+	A-A Math 75th Basic+	FR Math 75th Basic+						
71.	3055014	Laurens 55	Waterloo Elementary	FR ELA 75th Basic+								
72.	3201009	Lexington 1	Oak Grove Elementary	FR Math 75th Basic+								
73.	3202023	Lexington 2	Saluda River Academy for the Arts*	A-A ELA 75th Basic+	A-A ELA 75th Prof+							
74.	3202024	Lexington 2	Springdale Elementary	A-A ELA 75th Basic+								
75.	3205042	Lexington 5	Dutch Fork Elementary*	A-A ELA 90th Basic+	A-A ELA 90th Prof+	A-A Math 90th Basic+	FR ELA 90th Basic+	FR ELA 90th Prof+	FR Math 90th Basic+			
76.	3205046	Lexington 5	CrossRoads Middle	FR Math 75th Prof+								
77.	3205050	Lexington 5	Chapin Middle	FR Math 75th Basic+								
78.	3205053	Lexington 5	River Springs Elementary*	A-A ELA 75th Basic+	A-A Math 75th Basic+							
79.	3701017	Oconee	Ravenel Elementary*	FR Math 75th Basic+								
80.	3701020	Oconee	Tamassee-Salem Elementary	FR Math 90th Basic+								

Obs	BEDS	District	School	Group(s) Identified**								
81.	3701023	Oconee	Westminster Elementary*	FR Math 75th Basic+								
82.	3701024	Oconee	Tamassee-Salem Middle	FR Math 75th Prof+								
83.	3901010	Pickens	Ambler Elementary*	FR Math 75th Basic+								
84.	3901017	Pickens	East End Elementary*	FR Math 75th Basic+								
85.	3901020	Pickens	Holly Springs Elementary*	FR Math 90th Basic+								
86.	3901021	Pickens	A R Lewis Elementary	FR Math 75th Basic+								
87.	3901022	Pickens	Liberty Elementary*	FR ELA 75th Basic+								
88.	4002080	Richland 2	North Springs Elementary*	A-A ELA 75th Basic+	A-A ELA 75th Prof+							
89.	4002083	Richland 2	Rice Creek Elementary*	A-A ELA 75th Basic+	A-A ELA 75th Prof+							
90.	4002087	Richland 2	Bookman Road Elementary*	A-A Math 75th Basic+	FR Math 90th Basic+							
91.	4002089	Richland 2	Lake Carolina Elementary	A-A ELA 75th Basic+	A-A ELA 75th Prof+	FR ELA 75th Basic+						
92.	4201011	Spartanburg 1	New Prospect Elementary*	FR ELA 75th Basic+	FR Math 75th Basic+							

Obs	BEDS	District	School	Group(s) Identified**								
93.	4202015	Spartanburg 2	Boiling Springs Elementary	A-A ELA 75th Basic+	A-A ELA 75th Prof+	A-A Math 75th Prof+	FR Math 75th Basic+	A-A Math 90th Basic+				
94.	4202020	Spartanburg 2	James Hendrix Elementary	A-A Math 75th Basic+								
95.	4202023	Spartanburg 2	Mayo Elementary	FR Math 75th Basic+								
96.	4205090	Spartanburg 5	River Ridge Elementary	FR ELA 75th Prof+								
97.	4302008	Sumter 2	Cherryvale Elementary	A-A Math 75th Basic+	FR Math 75th Basic+							
98.	4302019	Sumter 2	Shaw Heights Elementary*	FR ELA 75th Prof+	A-A ELA 90th Basic+	A-A Math 90th Basic+	FR ELA 90th Basic+	FR Math 90th Basic+				
99.	4317041	Sumter 17	Kingsbury Elementary	A-A ELA 75th Basic+								
100.	4501013	Williamsburg	W M Anderson Primary*	A-A Math 75th Basic+	A-A Math 75th Prof+	FR ELA 75th Prof+	FR Math 75th Basic+	FR Math 75th Prof+	A-A ELA 90th Basic+	A-A ELA 90th Prof+	FR ELA 90th Basic+	
101.	4501023	Williamsburg	St Mark Elementary*	A-A Math 90th Basic+	FR Math 90th Basic+							
102.	4602011	York 2	Bethany Elementary*	FR Math 90th Prof+								
103.	4602012	York 2	Bethel Elementary	FR Math 75th Basic+	FR Math 90th Prof+							
104.	4602014	York 2	Kinard Elementary	FR Math 75th Basic+								

Obs	BEDS	District	School	Group(s) Identified**								
105.	4602047	York 2	Griggs Road Elementary	FR Math 75th Prof+								
106.	4603022	York 3 (Rock Hill)	Ebenezer Avenue Elementary	FR Math 75th Basic+								
107.	4603601	York 3 (Rock Hill)	The Children's School at Sylvia Circle	A-A Math 75th Basic+								

* School was also identified as closing gap(s) for one or more groups in 2001-2002 school year.

** Groups are:

A-A ELA 75th Basic+ = African-American students, ELA test, at or above 75th %ile, scored Basic or higher;
A-A ELA 90th Basic+ = African-American students, ELA test, at or above 90th %ile, scored Basic or higher;
A-A Math 75th Basic+ = African-American students, Math test, at or above 75th %ile, scored Basic or higher;
A-A Math 90th Basic+ = African-American students, Math test, at or above 90th %ile, scored Basic or higher;
A-A ELA 75th Prof+ = African-American students, ELA test, at or above 75th %ile, scored Proficient or Advanced;
A-A ELA 90th Prof+ = African-American students, ELA test, at or above 90th %ile, scored Proficient or Advanced;
A-A Math 75th Prof+ = African-American students, Math test, at or above 75th %ile, scored Proficient or Advanced;
A-A Math 90th Prof+ = African-American students, Math test, at or above 90th %ile, scored Proficient or Advanced;
FR ELA 75th Basic+ = Free/reduced lunch students, ELA test, at or above 75th %ile, scored Basic or higher;
FR ELA 90th Basic+ = Free/reduced lunch students, ELA test, at or above 90th %ile, scored Basic or higher;
FR Math 75th Basic+ = Free/reduced lunch students, Math test, at or above 75th %ile, scored Basic or higher;
FR Math 90th Basic+ = Free/reduced lunch students, Math test, at or above 90th %ile, scored Basic or higher;
FR ELA 75th Prof+ = Free/reduced lunch students, ELA test, at or above 75th %ile, scored Proficient or Advanced;
FR ELA 90th Prof+ = Free/reduced lunch students, ELA test, at or above 90th %ile, scored Proficient or Advanced;
FR Math 75th Prof+ = Free/reduced lunch students, Math test, at or above 75th %ile, scored Proficient or Advanced;
FR Math 90th Prof+ = Free/reduced lunch students, Math test, at or above 90th %ile, scored Proficient or Advanced.

Not surprisingly, since these schools were chosen because their target demographic groups were achieving near or above the levels of the comparison groups statewide, their overall achievement for all students tended to be high. Of the 110 report card absolute ratings issued for these 107 schools (three schools received both elementary and middle school report cards), 63 were Excellent, 44 were Good, and 3 were Average. These schools also received recognition for achievement and for other qualities in the past two years:

- 59 had received Palmetto Gold Awards, 43 of them for two consecutive years;
- 13 had received Palmetto Silver Awards;
- 1 received the Palmetto's Finest award;
- 1 was a National Blue Ribbon Award school; and
- 26 had received Red Carpet awards.

In an attempt to identify characteristics of these schools which would help to differentiate them from other schools, we compared their report card profile data to those from all schools in the State and to those from schools rated Excellent or Good. These comparisons for selected report card data are listed in Table 6. The data for both 2002 and 2003 are listed in Table 6 for comparison purposes.

Table 6
Comparison of 2002 and 2003 Selected Report Card Variables
Schools In Which Target Group Scores Are At or Above 75th Percentile for All Students
Compared to All Schools And to Schools Rated Excellent or Good

Report Card Variable	Above 75%ile Schools			Excellent or Good Schools			All Schools (Grades 3-8)		
	Mean 2003 (2002)	5%ile 2003 (2002)	95%ile 2003 (2002)	Mean 2003 (2002)	5%ile 2003 (2002)	95%ile 2003 (2002)	Mean 2003 (2002)	5%ile 2003 (2002)	95%ile 2003 (2002)
Poverty Index	56.7 (52.8)	17.9 (17.7)	92.2 (90.9)	51.6 (49.0)	18.9 (18.3)	81.6 (79.2)	65.3 (64.2)	28.2 (26.2)	95.2 (95.5)
Dollars per Student	6113 (5545)	4625 (4140)	8197 (7000)	5937 (5531)	4577 (4172)	7712 (7075)	6217 (5665)	4695 (4194)	8589 (7681)
Student Teacher Ratio	19.1 (19.2)	14.3 (14.4)	23.1 (22.9)	19.7 (19.2)	14.9 (12.3)	24.6 (24.5)	19.2 (18.4)	12.8 (10.6)	24.6 (24.5)
Student Attendance	96.0 (96.5)	94.5 (95.2)	97.3 (97.7)	95.9 (96.3)	93.9 (94.1)	97.3 (97.5)	95.5 (96.1)	92.8 (93.5)	97.2 (98.0)
Teacher Attendance	95.4 (95.1)	92.8 (92.1)	98.0 (97.4)	95.5 (95.4)	93.0 (92.4)	98.6 (98.3)	95.2 (95.2)	92.4 (92.4)	98.4 (98.2)
Student Retention	2.8 (3.5)	0.2 (0.6)	6.9 (7.5)	2.6 (3.1)	0.2 (0.5)	6.3 (7.0)	2.9 (4.1)	0.2 (0.7)	7.4 (9.2)
Days Prof. Development	12.2 (11.0)	6.5 (6.9)	20.8 (17.1)	11.3 (10.6)	6.1 (6.5)	18.0 (16.7)	11.6 (10.5)	5.6 (5.8)	19.2 (16.4)
Teachers Advanced Degrees	47.8 (50.7)	26.1 (30.0)	73.1 (71.4)	50.6 (51.4)	29.4 (30.0)	70.5 (71.1)	48.5 (48.3)	27.3 (25.6)	69.6 (69.0)
% Cont. Contract Teachers	87.3 (85.6)	70.6 (71.2)	100 (97.4)	87.1 (86.1)	73.0 (71.2)	100 (97.3)	83.2 (81.6)	63.2 (58.6)	97.4 (96.4)

Table 6 Continued

Report Card Variable	Above 75%ile Schools			Excellent or Good Schools			All Schools (Grades 3-8)		
	Mean 2003 (2002)	**5%ile 2003 (2002)**	**95%ile 2003 (2002)**	**Mean 2003 (2002)**	**5%ile 2003 (2002)**	**95%ile 2003 (2002)**	**Mean 2003 (2002)**	**5%ile 2003 (2002)**	**95%ile 2003 (2002)**
Teachers Out of Field	1.1 (1.4)	0 (0)	5.0 (7.0)	1.4 (1.6)	0 (0)	6.5 (7.4)	1.8 (2.3)	0 (0)	7.9 (9.5)
Teacher Retention	86.7 (88.1)	76.2 (79.5)	95.4 (95.0)	86.2 (86.7)	73.1 (75.4)	94.2 (94.4)	83.8 (83.9)	68.5 (69.1)	93.8 (93.6)
Average Teacher Salary	40119 (40057)	35645 (36178)	44253 (44433)	40694 (40335)	36462 (36333)	44799 (44433)	39865 (39347)	35538 (34807)	44275 (43707)
% Spent on Teacher Salaries	64.9 (65.1)	56.8 (54.9)	71.9 (72.3)	65.5 (65.7)	56.8 (57.5)	72.7 (74.5)	64.4 (64.9)	54.4 (55.5)	73.2 (74.1)
Principal's Years At School	6.3 (6.8)	1.0 (1.0)	19.0 (17.0)	6.3 (6.1)	1.0 (1.0)	18.0 (17.0)	5.5 (5.3)	1.0 (1.0)	17.0 (16.0)
% Parents Conferencing	97.6 (97.2)	91.4 (82.8)	99.7 (100)	96.5 (96.6)	83.9 (80.6)	99.6 (99.8)	93.2 (92.3)	66.0 (61.3)	99.5 (99.7)
Gifted & Talented Students	20.5 (19.9)	4.5 (5.2)	42.8 (40.4)	21.7 (21.6)	6.7 (6.8)	43.2 (41.5)	15.4 (14.7)	2.2 (1.4)	35.5 (35.8)
Students with Disabilities	8.0 (7.9)	3.2 (3.3)	15.9 (14.6)	8.8 (8.9)	3.2 (3.4)	16.7 (17.0)	10.4 (10.2)	3.5 (3.3)	19.6 (20.1)
Teacher Satisfaction Learning Environment	95.8 (96.2)	85.7 (84.4)	100 (100)	95.0 (94.2)	81.1 (79.2)	100 (100)	88.2 (86.5)	57.1 (53.6)	100 (100)
Student Satisfaction Learning Environment	88.3 (90.1)	73.6 (76.6)	98.8 (100)	85.5 (85.7)	66.7 (67.2)	97.5 (97.6)	80.6 (80.7)	55.1 (56.3)	96.7 (96.6)

Report Card Variable	Above 75%ile Schools			Excellent or Good Schools			All Schools (Grades 3-8)		
	Mean 2003 (2002)	**5%ile 2003 (2002)**	**95%ile 2003 (2002)**	**Mean 2003 (2002)**	**5%ile 2003 (2002)**	**95%ile 2003 (2002)**	**Mean 2003 (2002)**	**5%ile 2003 (2002)**	**95%ile 2003 (2002)**
Parent Satisfaction Learning Environment	89.4 (90.4)	78.2 (77.8)	98.1 (100)	87.8 (88.0)	73.3 (71.3)	97.7 (100)	82.9 (82.5)	61.5 (60.0)	96.9 (97.4)
Teacher Satisfaction Phys. & Social Environment	95.3 (95.2)	82.6 (81.8)	100 (100)	94.9 (94.0)	80.0 (80.0)	100 (100)	88.9 (87.4)	61.2 (55.6)	100 (100)
Student Satisfaction Phys. & Social Environment	87.7 (88.7)	73.5 (73.1)	98.0 (98.8)	85.6 (86.3)	68.1 (69.1)	97.3 (97.8)	80.5 (81.5)	58.1 (59.6)	96.8 (97.1)
Parent Satisfaction Phys. & Social Environment	88.9 (89.4)	75.0 (77.8)	97.5 (100)	87.3 (86.9)	73.5 (70.0)	97.4 (99.2)	80.7 (80.5)	56.7 (56.1)	91.2 (97.6)
Teacher Satisfaction Home-School	88.6 (88.5)	60.0 (55.2)	100 (100)	88.2 (87.5)	60.0 (56.5)	100 (100)	71.3 (69.5)	25.0 (23.8)	100 (100)
Student Satisfaction Home-School	89.9 (91.9)	79.8 (83.3)	97.4 (100)	89.0 (89.9)	79.2 (78.8)	98.0 (98.8)	86.5 (87.8)	74.2 (75.1)	97.0 (97.7)
Parent Satisfaction Home-School	78.0 (81.5)	61.0 (63.8)	92.0 (94.4)	75.6 (76.9)	57.6 (56.3)	90.3 (92.1)	71.3 (72.7)	51.2 (50.0)	89.5 (90.2)
Enrollment	488 (542)	197 (224)	822 (955)	581 (600)	236 (232)	976 (1043)	541 (546)	212 (213)	949 (955)

In both 2002 and 2003 the identified schools had a higher poverty rate than the Excellent or Good schools but lower than that for all schools. In both years their dollars spent per student were less than all schools, but higher than Excellent or Good schools. The identified schools had slightly more days of professional development for teachers than all schools or Excellent or Good schools. Teacher retention was also somewhat higher in the identified and in Excellent or Good schools compared to all schools in the state. Excellent or Good schools had a slightly higher percentage of gifted and talented schools than the identified schools; both groups had higher proportions of gifted and talented students than all schools. The identified schools and the Excellent or Good schools also had somewhat lower percentages of students with disabilities than all schools.

However, most of the differences between the identified schools and other schools were small. One exceptional area was in the teacher, student, and parent survey results, where the identified schools tended to have consistently higher results than the comparison schools. This difference was observed in 2002, as well. Parents, teachers, and students in the gap-reducing schools tended to be much more satisfied with home-school relations than survey respondents from other South Carolina schools. This suggests that teachers, students, and parents perceive these schools to be welcoming and positive places with a strong focus on learning.

The performance of the identified target group(s) in these schools was at such a high level that the achievement gap for those students compared to comparison students statewide was virtually eliminated. What the adults in these schools and their communities do every day is making a positive difference for their students. The EOC is initiating a series of studies of these schools, especially schools identified in both 2002 and 2003, to identify practices and policies they have in common that would be helpful to other schools.

Discussion

Unsatisfactory and Below Average schools demonstrate an undesirable gap reduction (exhibited in Figure 2): overall low achievement for all groups leads to small achievement gaps. The challenge for these schools is to raise the achievement levels of all groups. The large gaps between student demographic groups in the percentages of students scoring Proficient or Advanced in Excellent and Good schools presents a somewhat different challenge. The challenge for these schools is to raise the achievement of their lower income students and students of color while maintaining the high levels of achievement of their higher-scoring students.

The need to reduce the achievement gaps among demographic groups of students is clear if we are to meet our goal that all students achieve at high levels of performance. While the achievement gaps remain large, the trend data indicate that South Carolina educators have risen to the initial challenge to reduce the numbers of poor and African-American children who are scoring below grade level. However, in 2003 it appears that only about 14% of South Carolina elementary and middle schools are coming close to eliminating the gap, and then only for some groups in one subject area in many cases.

The data also indicate that what adults in schools and in communities do makes a difference, and that schools can be successful in raising the achievement levels of all

students to a high level regardless of the risk factors students bring to school with them. The challenge now is to raise our expectations for all groups of students.

The NAEP data trends make it clear that great progress has been made in math, although the large gaps that remain may only widen with time unless focused action is taken to further improve the math skills of minority and poor children. Both the NAEP and PACT data indicate that much greater attention also must be placed on raising the reading and language arts achievement for all students, but especially for minority students and students in poverty.

There is no doubt that unacceptably large achievement gaps between demographic groups of students exist in South Carolina. This has long been recognized, and many studies and recommendations from a variety of groups to reduce those gaps, such as the *African American Student Achievement Committee Report* (SDE, 2001) and *Miles To Go* (Southern Education Foundation, 2002), have been made. At this point in the twenty-first century the achievement gaps have taken on crisis proportions: we must raise the achievement of all our students if we are to prosper as a State and nation, but the persistence of low achievement among groups of students prevents us from attaining that goal. The numerous recommendations to close the gaps which have been made over the years tell us how to eliminate the gaps. We must make a statewide commitment to address the needs of poor and minority children and act on the recommendations which have been made earlier.

What should we be doing?

- Carry out all the recommendations of the *African American Student Achievement Committee Report*;
- Focus attention on those students falling behind in school and provide for their needs as provided in the EAA:
  - ✓ Increase instructional time for these students;
  - ✓ Develop clear, effective Academic Assistance Plans for each child and rigorously fulfill the Plan;
  - ✓ Improve the literacy development of our youngest children by providing effective family literacy programs;
  - ✓ Focus our preschool intervention programs, such as the four year old child development program, on children most at risk for later school failure;
- Provide for the health and safety of all our children, with special attention to children who currently lack access to care;
- Provide strong interventions to reduce the academic weaknesses of students entering high school.

We must remember that South Carolina's future depends on the success of all its children, and, therefore, we must recommit ourselves in all we do to assign greater priority to the future of these young people than to our comfort with the traditional. As Bill Barnet, former Chairman of the EOC, has said, "The risk of inertia is greater than the risk of innovation." Our success will never be stronger than the accomplishment of the weakest group of children.

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Appendix A

Analysis of Demographic Information
PACT Data Used For Achievement Gap Study

The Performance of Historically Underachieving Groups of Students in South Carolina Elementary and Middle Schools: A Call to Action

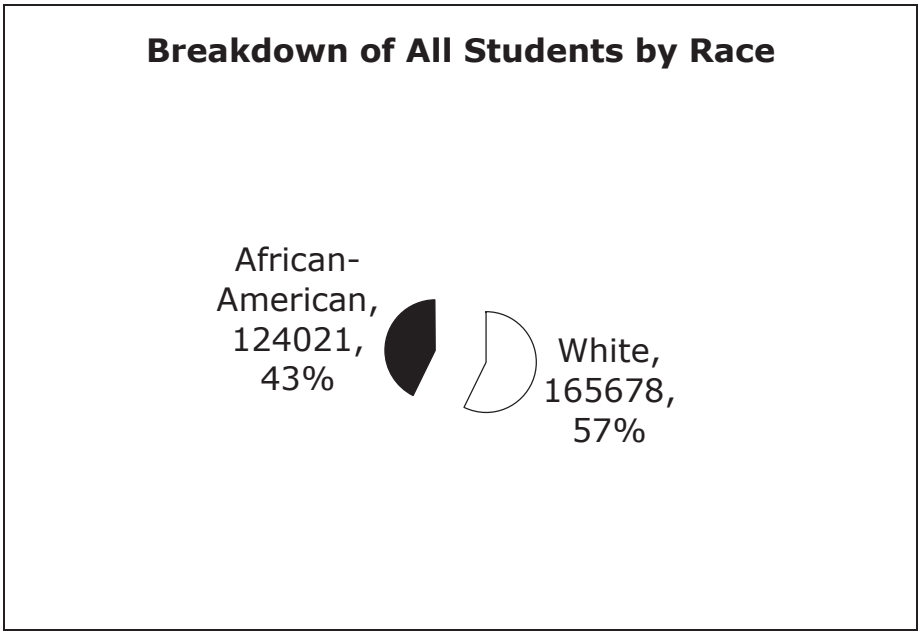
Analysis of Demographic Information in PACT Data Used for Study

For the detailed achievement gap analysis of South Carolina student PACT performance by racial and socioeconomic demographic student groups, the EOC examined only White and African-American students (other racial minority groups such as Hispanics and Asian-Americans were not considered in the study).

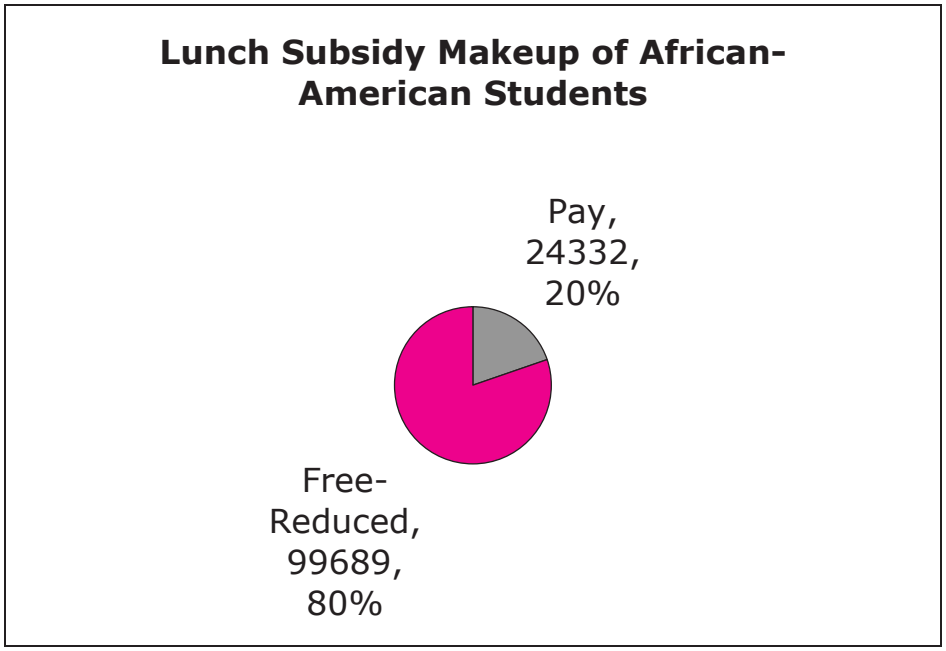
Of the original records transmitted to the SC Education Oversight Committee from the SC State Department of Education, data on both race and lunch subsidy status was available for 289,699 students in grades 3-8.

Breakdown by Race, Then by Lunch Subsidy Status

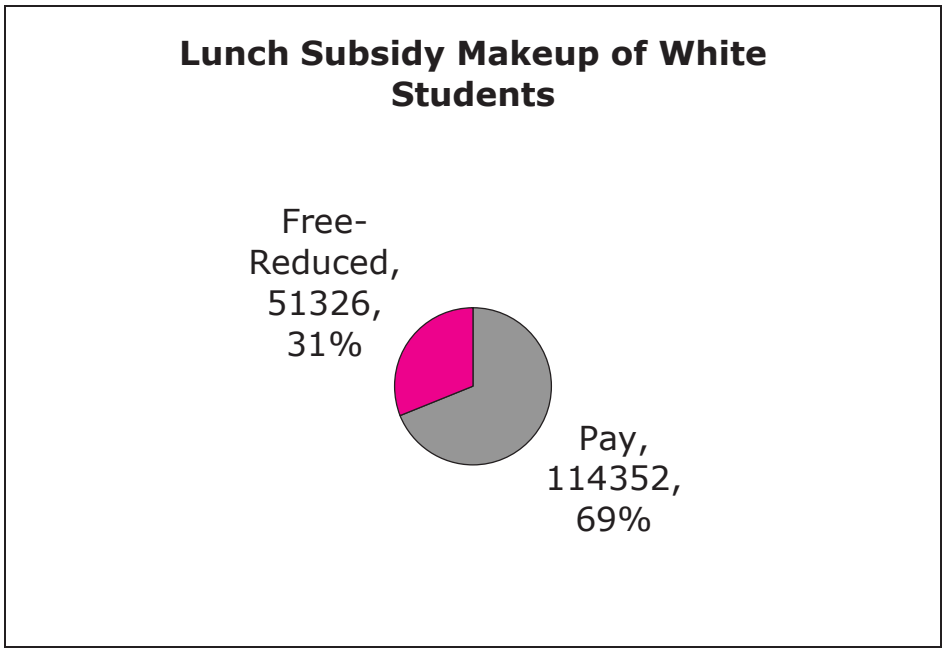
Of the roughly 300,000 total students in the study, slightly more than 40% were African-American (slightly fewer than 60% were White):



Approximately 80% of African-American students received free or reduced-price lunch (approximately 20% of African-American students paid for their lunch):

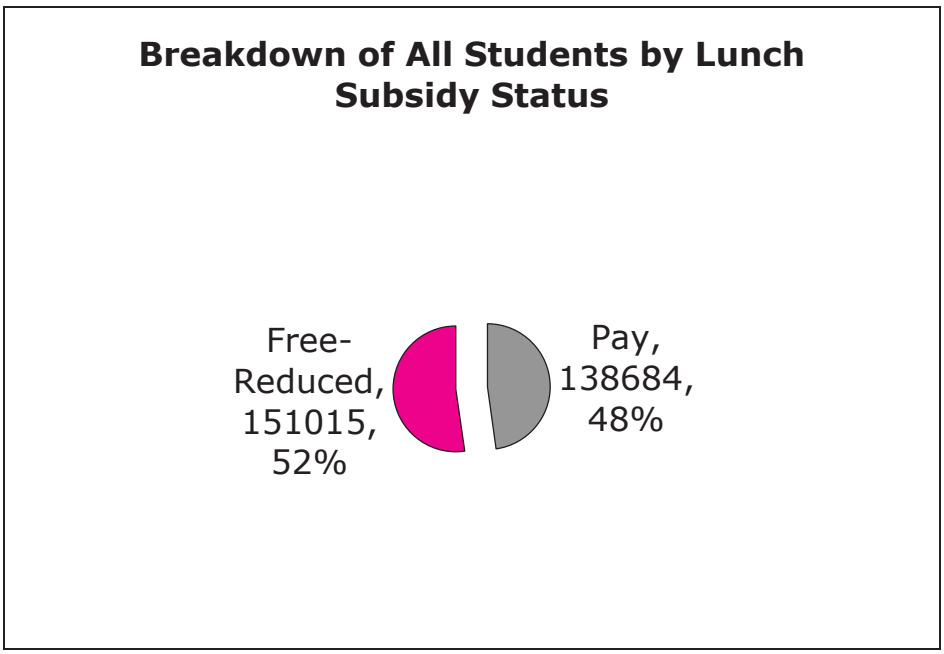


Approximately 30% of white students received free or reduced-price lunch (approximately 70% of White students paid for their lunch):

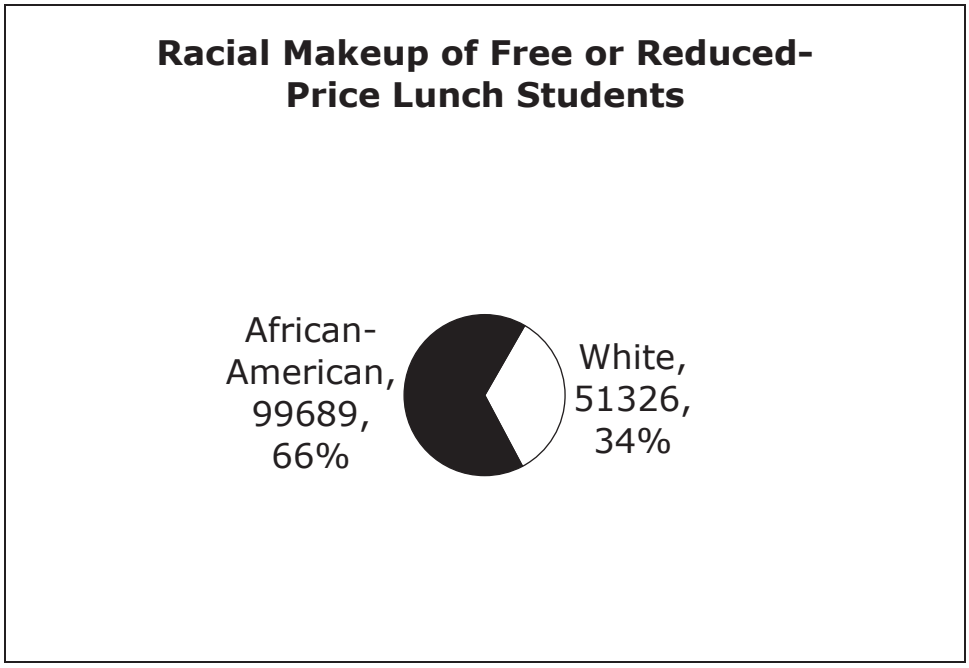


Breakdown by Lunch Subsidy Status, Then by Race

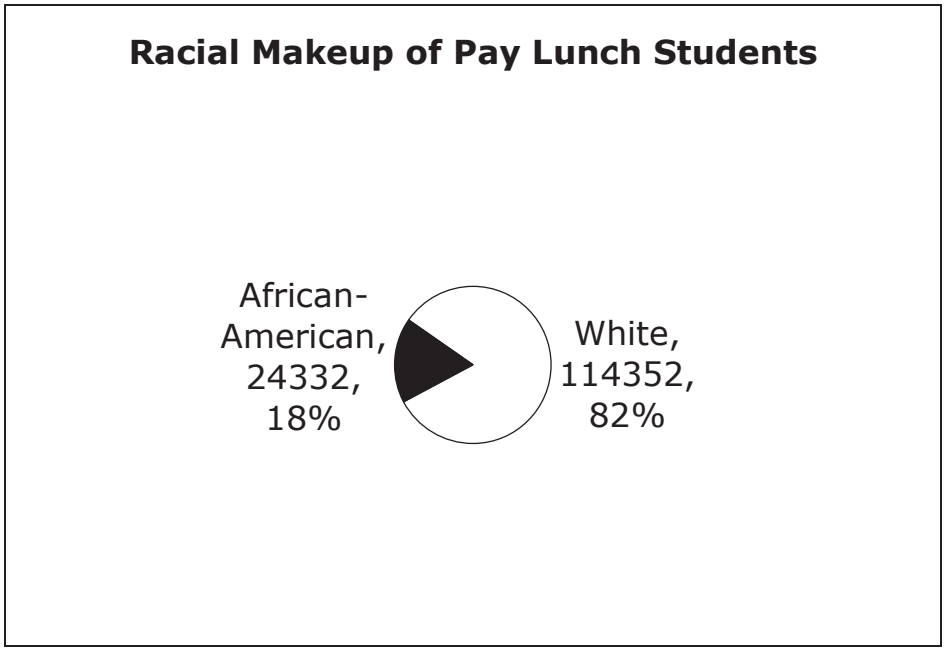
Along the lunch-subsidy dimension, slightly more than 50% received free or reduced-price lunch (slightly less than 50% paid for their lunch):



Roughly two-thirds of free or reduced-price lunch students were African-American (roughly one-third were White):



Roughly 20% of pay-lunch students were African-American (roughly 80% of pay-lunch students were White):

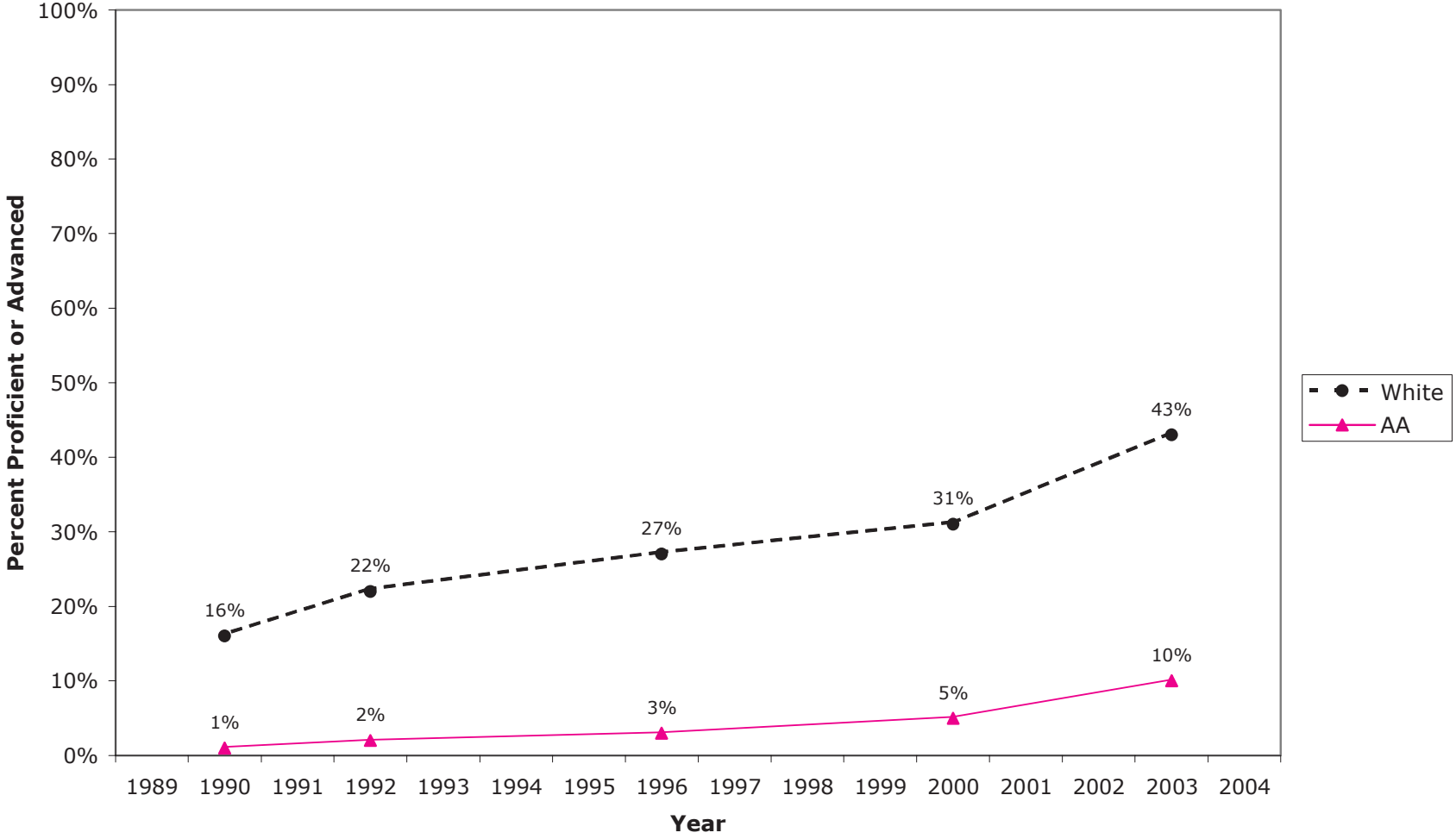


APPENDIX B FIGURES A - H

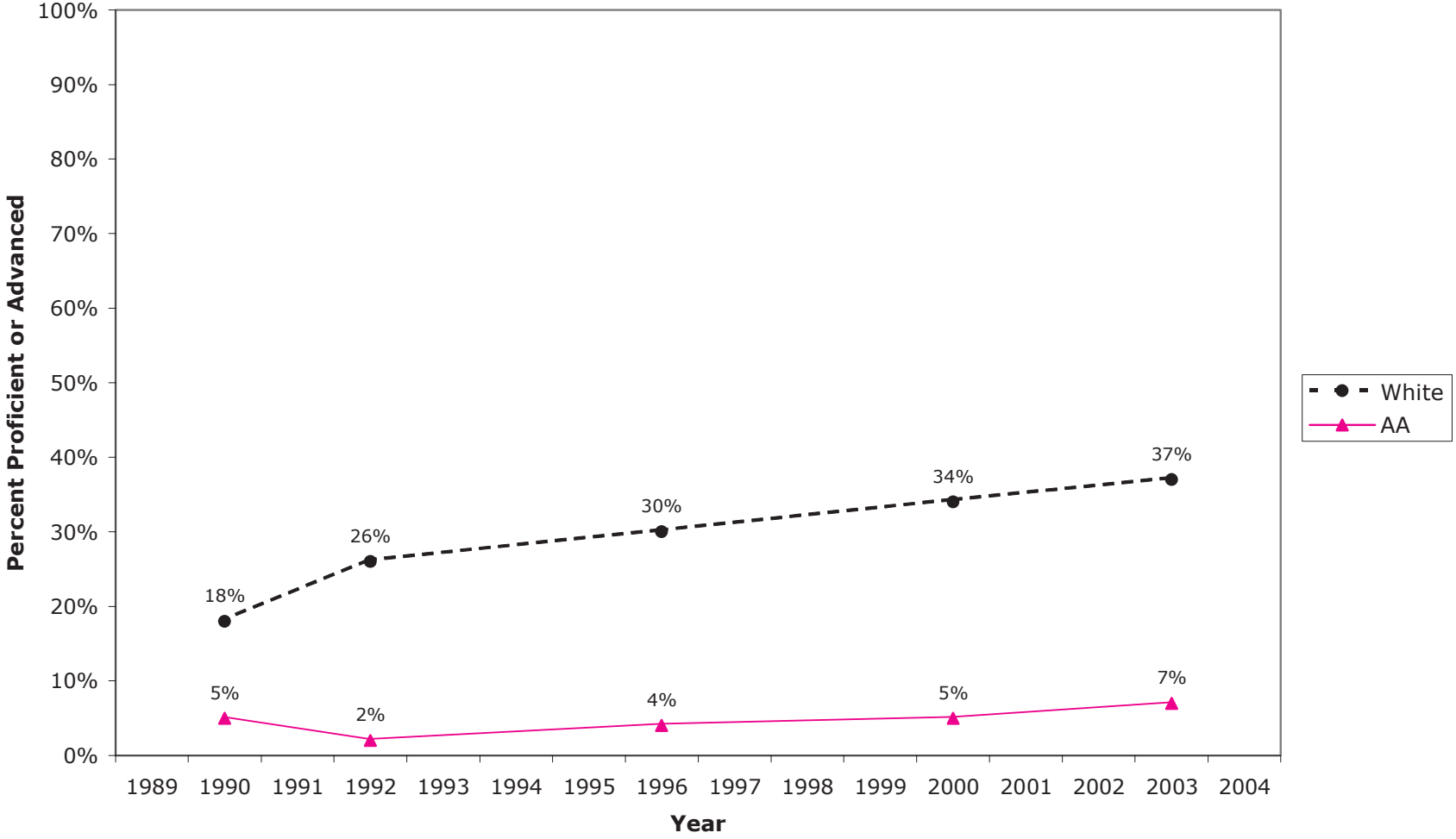
National NAEP Proficient or Advanced Performance
Historical Reading and Math Results

SC Education Oversight Committee
June 17, 2004

Appendix Figure A
US NAEP Grade 4 Math (% Proficient or Advanced)
White vs. African-American Students

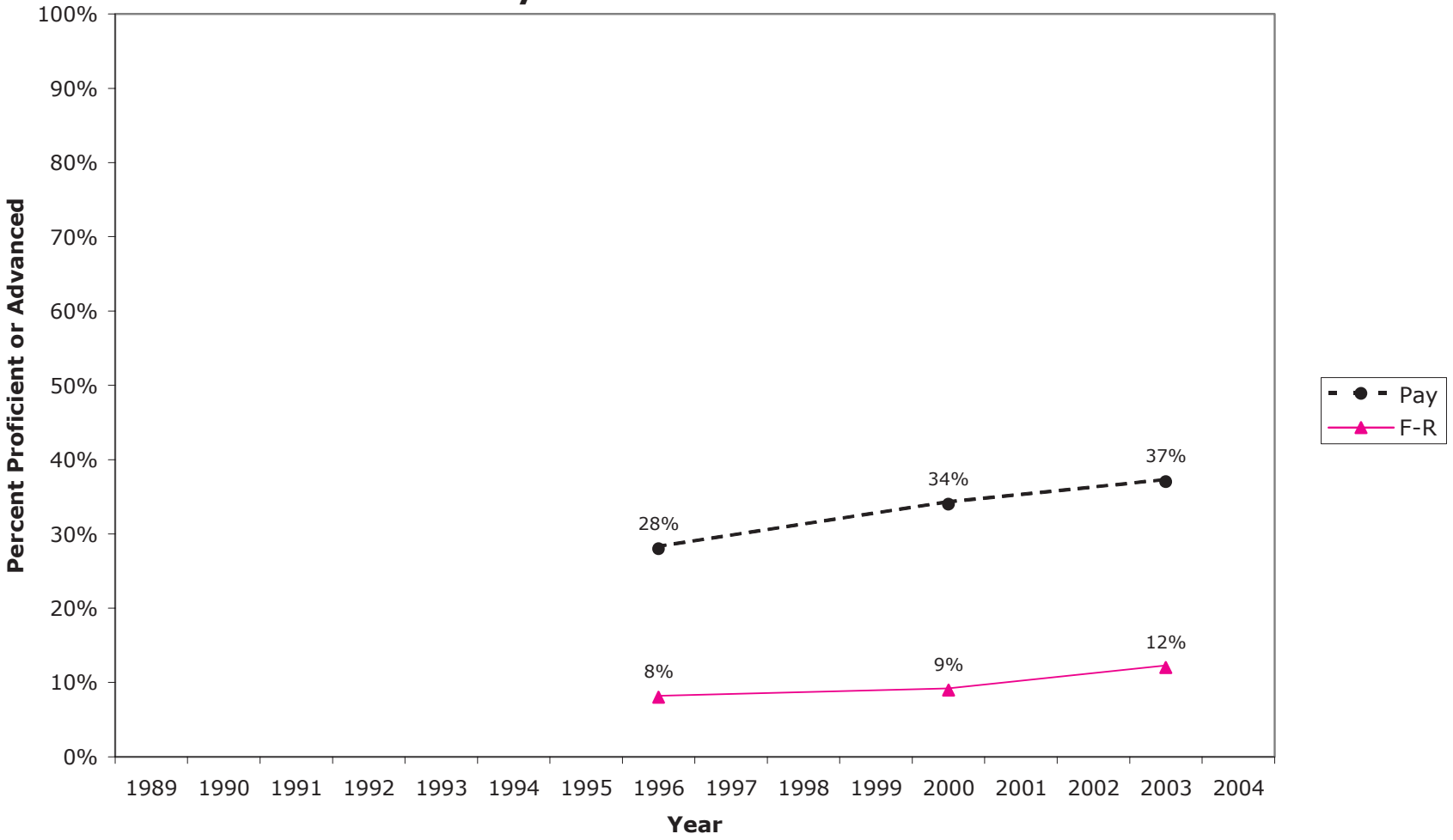


Appendix Figure B
US NAEP Grade 8 Math (% Proficient or Advanced)
White vs. African-American Students

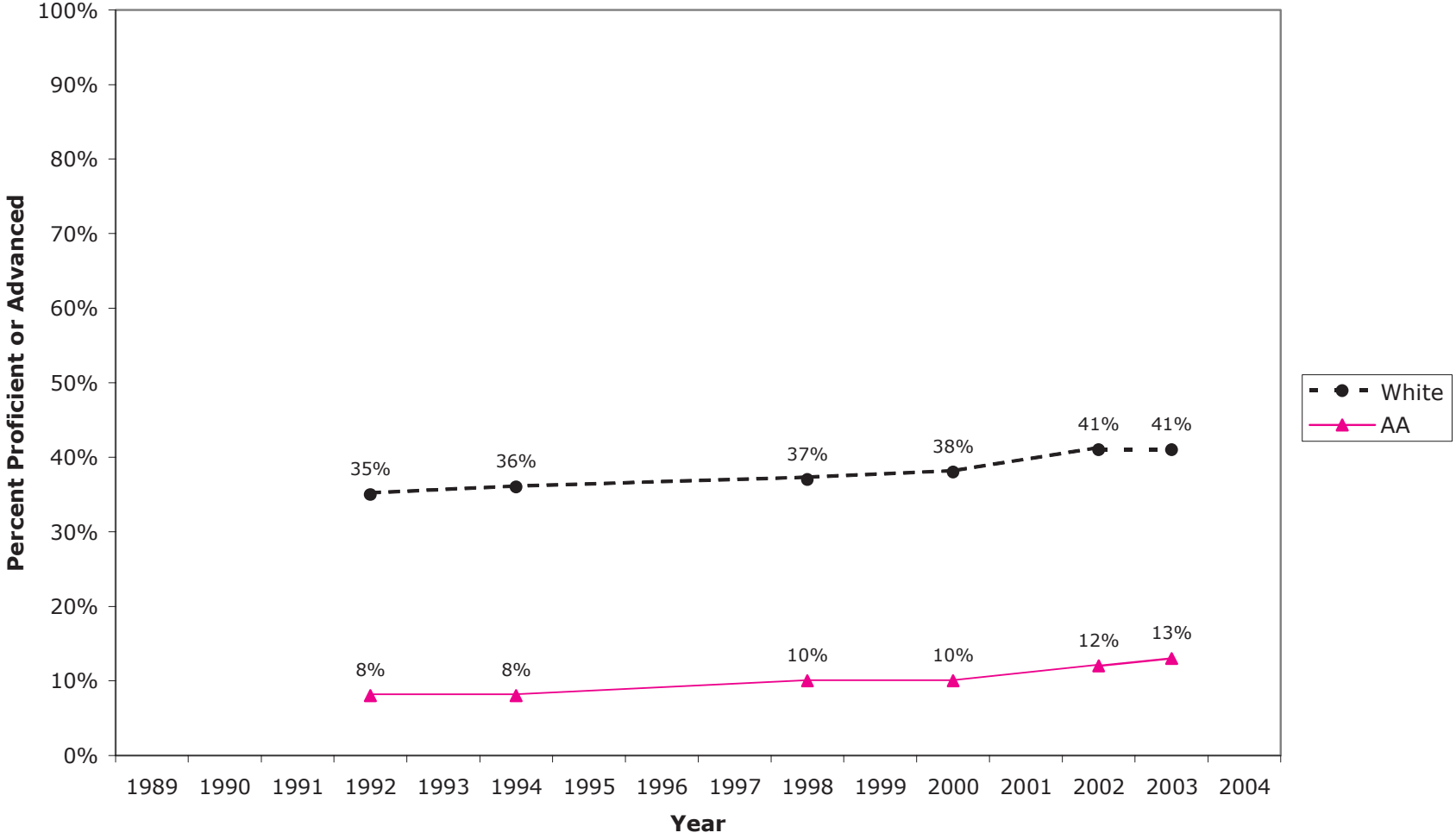


Appendix Figure C
US NAEP Grade 4 Math (% Proficient or Advanced)
Pay vs. Free-Reduced Lunch

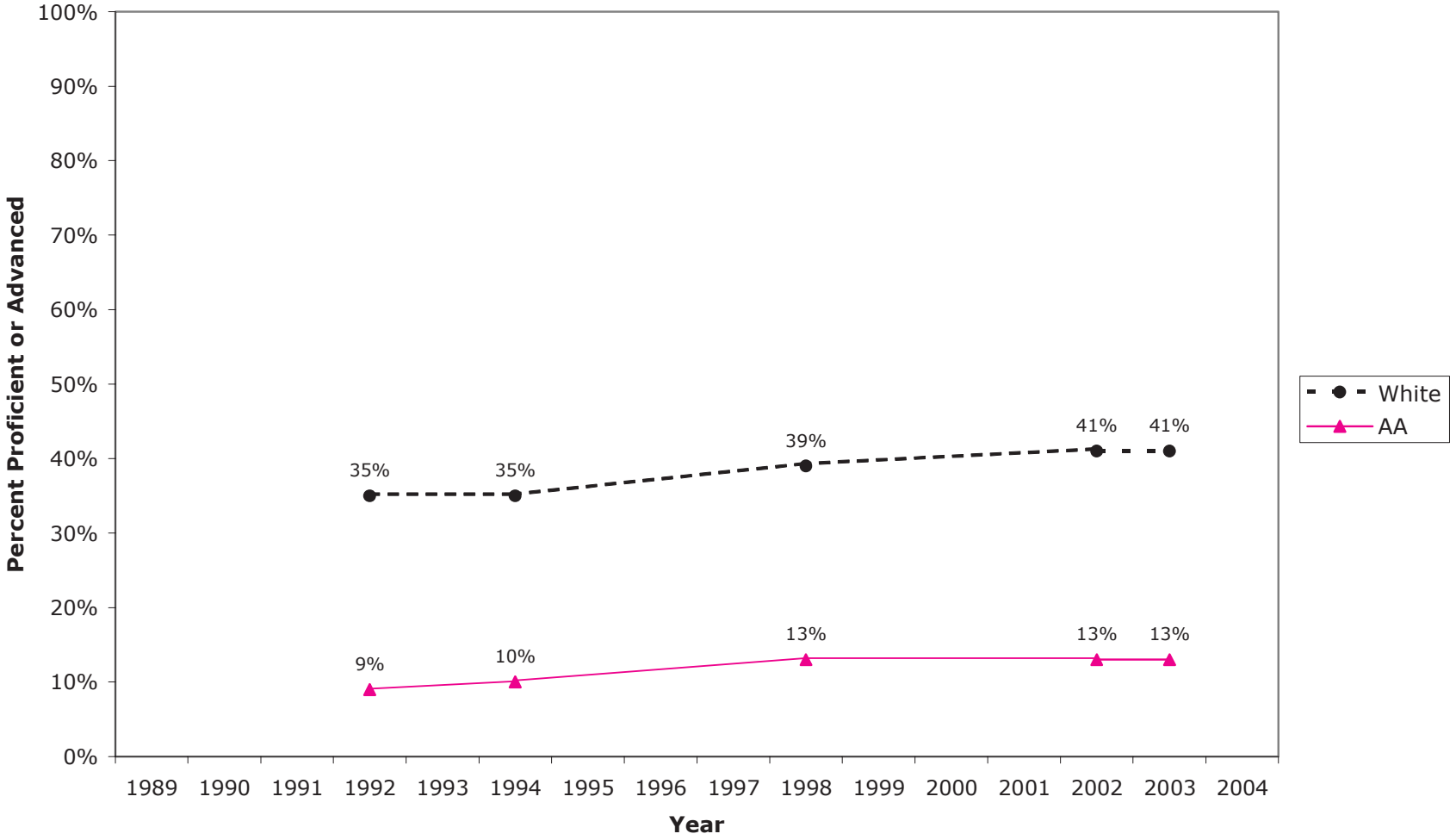
Appendix Figure D
US NAEP Grade 8 Math (% Proficient or Advanced)
Pay vs. Free-Reduced Lunch



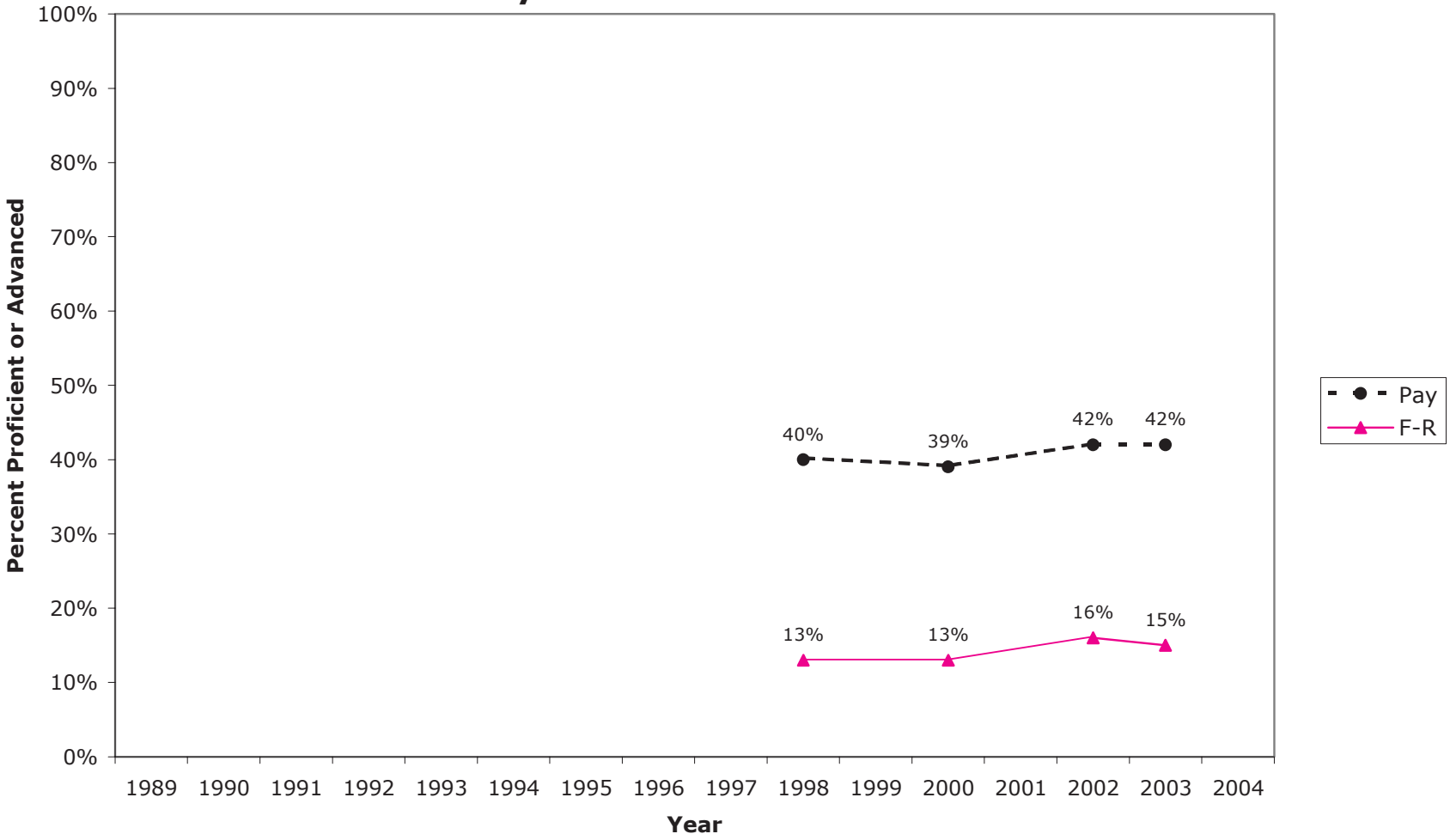
Appendix Figure E
US NAEP Grade 4 Reading (% Proficient or Advanced)
White vs. African-American Students



Appendix Figure F
US NAEP Grade 8 Reading (% Proficient or Advanced)
White vs. African-American Students



Appendix Figure G
US NAEP Grade 4 Reading (% Proficient or Advanced)
Pay vs. Free-Reduced Lunch



Appendix Figure H
US NAEP Grade 8 Reading (% Proficient or Advanced)
Pay vs. Free-Reduced Lunch