

2002-03



**WAKE COUNTY  
PUBLIC SCHOOL SYSTEM**

**Project Achieve Evaluation:  
Year Two, 2002-03  
(SUMMARY)**

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***ABSTRACT***

Project Achieve is a major Wake County Public School System (WCPSS) instructional initiative to improve student achievement adapted from a Brazosport, Texas model. The number of schools involved increased from 8 to 13 in 2002-03. Results were generally positive. All Project Achieve elementary and middle schools met the state ABCs High Growth standard in spring 2003 (up from five in spring 2001), and 10 of 13 schools increased the percent of students at or above grade level. Compared to other WCPSS students, participation in Project Achieve was generally associated with significantly higher gains in mathematics and similar gains in reading (when background characteristics were controlled through regression analyses). Staff members also expressed more positive opinions about the academic program in their schools than in the past.

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## TABLE OF CONTENTS

<b>Summary</b> .....	1
Background.....	1
Project Expenditures.....	2
Effects of Project Achieve .....	2
Evidence of Effectiveness in Elementary Schools.....	3
Evidence of Effectiveness in Middle Schools .....	3
Conclusions.....	4
Recommendations.....	5
<b>Evaluation Plan</b> .....	6
Evaluation Questions .....	6
Data Collection .....	6
<b>Implementation</b> .....	6
Demographics.....	6
Implementation, Year Two.....	7
Planning and Staff Development .....	8
Pacing Calendars and Focus Lesson Development .....	8
Locally Developed Mini-Assessments .....	9
Team Time: Re-Focusing and Enrichment.....	9
Other Instructional Resources.....	9
<b>Project Expenditures</b> .....	10
<b>Effects of Project Achieve</b> .....	10
Method and Measures.....	10
Academic Impact in the Ten Elementary Schools.....	11
Performance Composites, Grades and Subjects Combined .....	11
Performance Composites by Subject and Grade Level.....	12
ABC Growth Composites for Elementary Schools .....	16
Regression Analyses .....	20
Adequate Yearly Progress (New Federal Standard).....	20
Academic Impact in the Three Middle Schools.....	21
Performance Composites, Grades and Subjects Combined .....	21
Performance Composites by Subject and Grade Level.....	22
ABC Growth Composites for Middle Schools .....	24
Regression Analyses .....	27
Adequate Yearly Progress (Federal Standard).....	28
Staff Feedback on Academic Effectiveness.....	28
Elementary Schools .....	28
Middle Schools .....	29
<b>Conclusions and Recommendations</b> .....	30

### Attachments

## PROJECT ACHIEVE EVALUATION: YEAR TWO, 2002-03

### SUMMARY

This is an evaluation of the second year of Project Achieve, a major local instructional initiative in grades 3-8 based on the principles and process successfully applied in Brazosport, Texas for almost a decade. District modifications in implementation were tailored to meet local needs and the *North Carolina Standard Course of Study*. Local, state, and federal resources were used to support implementation.

### BACKGROUND

Project Achieve was initiated in 2001-02 to help reach the WCPSS Goal 2003 that 95% of students tested at grades 3 and 8 would be at or above grade level. During the summer of 2002, two elementary schools (Aversboro and Swift Creek) and one middle school (North Garner) were added to the original eight schools participating in 2001-02: six elementary schools (Cary, Creech Road, Hodge Road, Rand Road, Smith, and Vance), and two middle schools (East Garner and East Wake). Two more elementary schools (Carver and Knightdale) joined the project after the first quarter of the 2002-03 school year. Some schools were invited to participate based on past achievement patterns, and four additional schools volunteered. Participating schools had a higher percentage of economically disadvantaged students (those receiving free or reduced-price lunches) and low-achieving students than in WCPSS as a whole. Additionally, 12 of the 13 schools had a higher percentage of students with disabilities (identified for special education services) than in the district overall.

The ten elementary schools had grades 3-5 student memberships ranging from 222 to 366, with 28–59% of those students receiving free or reduced-price lunches (FRL) compared to 26% for the district, and 9–25% of students scoring below grade level on the May 2002 state End-of-Grade (EOG) tests, compared to 10% for the district. The percentage of students with disabilities in the elementary schools ranged from 14–22%, compared to 12% for the district.

Total memberships of the three middle schools ranged from 811 to 888 students, with 39-43% of students receiving FRL (compared with 19% for the district) and 20-22% of their students performing below grade level on the EOG tests, compared to 13% for the district. The percentage of students with disabilities was greater in two of the three middle schools (23% and 24%) than in district middle schools overall (17%).

The WCPSS Project Achieve instructional process is a continuous cycle of the following eight steps:

1. ***Disaggregate Test Scores to Identify Needs:*** Collect and analyze data, including the disaggregation of end-of-grade test results, to identify weak and strong areas of performance.
2. ***Develop a Pacing Calendar:*** Develop an instructional calendar with time allocations and areas of focus, all based on the identified needs of students.

3. ***Deliver Instructional Focus Lessons:*** Deliver structured instructional focus lessons (designed to last 15-20 minutes), guided by the calendar, and extend them into the regular lessons.
4. ***Assess Student Mastery:*** Assess student mastery of the instructional focus lessons through mini-assessments to aid in determining follow-up.
5. ***Re-Focus:*** Provide time for tutoring/ re-focusing on non-mastery areas.
6. ***Enrich:*** Provide opportunities for students to extend learning in mastery areas.
7. ***Maintain and Re-Teach Throughout the Year:*** Provide students with materials for ongoing maintenance of new skills and re-teaching as needed.
8. ***Monitor the Process:*** Continuously examine implementation and success of the teaching and learning process.

The process entails restructuring of the school day for (a) uninterrupted blocks of instructional time in reading and mathematics and (b) development of a separate 30-to-45-minute period called “team time” for re-focusing or enrichment of targeted instructional objectives. Additionally, the process involves a change in staff mindset from individual teacher efforts to greater teamwork within a grade and across grades (including special programs).

Details regarding the development and implementation of Project Achieve can be found in E&R Report No. 02.35, *Project Achieve Evaluation, Year One*, and 02.28, *Report on 2001-02 Project Achieve Assessments*.

## PROJECT EXPENDITURES

Overall expenditures for Project Achieve in the 13 schools were \$1,127,102 (up from \$689,205 for eight schools the previous year), not including other instructional resources available to all schools. With services to 5,635 elementary students and 2,647 middle school students, the cost per student was \$136, compared to \$138 in 2002.

## EFFECTS OF PROJECT ACHIEVE

Multiple means were used for assessing academic growth of participating students from the baseline year (2000-01) through the first (2001-02) and second (2002-03) years of Project Achieve. These included: (a) state ABCs Accountability Program’s *performance* and *growth* measures, (b) the new federal measure of *Adequate Yearly Progress*, and (c) a district measure based on regression analyses of EOG scale score gains.

Desired outcomes for participating schools were the following:

- Participating schools would improve ABCs *performance* composites (percentage of students at/above grade level) from the previous year.
- Participating schools would improve ABCs *growth* composite status from the previous year.
- Program participation would be associated with EOG scale score gains in reading and mathematics that were equal to or greater than that of students in non-Achieve schools.
- Baseline *Adequate Yearly Progress* data (federal *performance* standard by student subgroups) would be comparable to that of other district schools.

- Staff members would express more positive opinions about the academic program of their school than in previous years.

### Evidence of Effectiveness in Elementary Schools

Results were generally positive:

- All ten elementary schools met the state ABCs' *High Growth* standard (compared to three in 2001 and eight in 2002). Additionally, Project Achieve elementary schools as a group attained higher growth than the district in reading (grades 4 and 5) and in mathematics (grades 3, 4, and 5).
- From 83-93% of students in the 10 schools were at or above grade level in spring 2003 (up from 73-83% in 2001 and 75-90% in 2002). All received state recognition as either a *School of Excellence* or *School of Distinction*. The greatest *performance* composite gains (9 and 16 percentage points) were made in two of the schools added in Year 2 (Carver and Knightdale).
- *Adequate Yearly Progress* (AYP) is a new accountability measure (as part of the federal No Child Left Behind Act), based on the academic performance of various student subgroups. Seven of 10 (70%) of the elementary schools met the AYP standard (compared to 62% for the district). Of the three remaining schools, two missed only one subgroup target and the other missed two of 25 targets.
- Staff survey responses to items regarding the instructional program in their schools were more positive than in previous years.

To assess the fifth outcome (scale score gains equal to or greater than other district schools), Evaluation & Research (E&R) staff used least squares regression analyses to reduce any bias in results due to pre-existing differences among elementary students in participating schools and non-participating schools. The purpose of this statistical procedure was to account for (control) differences in student background, such as prior achievement (EOG pre-test score), free or reduced-price lunch status (FRL), gender, race, limited English proficiency, and disability (special education status) when examining the main effects on achievement of participation in Project Achieve.

Compared to students in non-Achieve schools, Project Achieve student results were generally more positive in mathematics and similar to non-Achieve students in reading. More specifically, controlling for the variables listed above, student participation in Project Achieve at grades 3-5 was associated (correlated) with significantly higher gains (than those of students in non-Achieve schools) in mathematics at grades 3 and 4, but lower at grade 5. In reading, there was no significant difference at grades 4 and 5 but less growth at grade 3.

### Evidence of Effectiveness in Middle Schools

Four of the five desired outcomes were met and the fifth (scale score gains equal to or greater than in non-Achieve schools) was met in five of six subject-grade comparisons.

- All three middle schools met the state *High Growth* standard (compared to one in 2001). Also, Project Achieve middle schools combined attained higher growth than the district in reading at grades 6, 7, and 8 and in mathematics at grades 6 and 7.
- The percentage of students at/above grade level overall (*performance* composite) increased in the two continuing middle schools (from 75-77% in 2001 and 79% in 2002 to 81.0-81.9% in 2003), but remained the same (78%) in the middle school added in Year 2.
- Staff responses to survey items regarding the instructional program in their schools were more positive than in previous years.

As at grades 3-5, E&R staff used least squares regression analyses to reduce any bias due to pre-existing differences among students in participating and non-participating middle schools. Student participation in Project Achieve at the middle school level was associated with significantly higher scale score gains in mathematics at 6<sup>th</sup> and 7<sup>th</sup> grades; there was no difference between Project Achieve students and non-Achieve students at grade 8. For reading, Project Achieve participation was associated with no significant differences at grades 7 and 8 but less growth at grade 6.

## CONCLUSIONS

The brief timeframe for project preparation was a challenge for the five schools joining the project in Year Two, particularly for the two schools added after the traditional school year had already begun. Nevertheless, as in the initial year of Project Achieve, there was a considerable jump in student achievement in four of five schools new to Project Achieve, with particularly large gains in two of the elementary schools.

All 13 Project Achieve schools - both new and continuing - met the state *High Growth* standard. Most (10 of 13) schools increased their performance composites (the percent of students at/above grade level on the EOG tests), and staff members expressed more positive opinions about their school's academic program than in previous years.

An additional desired outcome for the second year of implementation was that participation in Project Achieve would be correlated with reading and math achievement equal to or greater than in non-Achieve schools. Regression analyses indicate that student participation in Project Achieve was generally correlated with significantly higher gains in mathematics and gains similar to the rest of the district for reading. Overall, expectations were met for nine of 12 subject-grade comparisons.

Considering that participating schools had a higher percentage of FRL students, low-achieving students, and special education students than the district average and that districtwide achievement gains were the norm in 2002-03, second-year outcomes for Project Achieve were encouraging, especially in mathematics.

## RECOMMENDATIONS

**During the 2003-04 school year, Project Achieve schools and central office contacts are:**

- *Continuing school-based teacher professional development in targeted areas, based on staff-identified student needs at each school.* For example, some schools are continuing teacher professional development in Guided Reading. This began during the second half of the 2002-03 school year and will continue through 2003-04.
- *Increasing communication between K-2 teachers and grades 3-5 teachers in participating elementary schools.* Participating schools identified a need for more sharing of perspectives and grade-level curriculum expectations for students across groups, especially between grades 2 and 3. Some schools are developing pacing guides and brief focus lessons for grade 2, and all are enhancing reading resources and supporting grade-level and across-grades planning meetings.
- *Providing mentoring for new special education teachers.* Title II-A is funding one position to assist these first-year teachers. Recruitment and retention of special education teachers is particularly important in schools with a higher percentage of students with disabilities than the district overall.
- *Reviewing and revising guidelines for implementing Project Achieve in self-contained special education classrooms.* Some teachers of self-contained special education classes have reported difficulty in using Project Achieve focus lessons on the same calendar as other classes because of the lower and varied instructional levels of their students. The general recommendation has been to expose these students to the on-grade-level lessons either by mainstreaming them to an appropriate class or providing the most appropriate focus lesson in their classroom. However, for students functioning two to three grade levels below regular grade level, other options are being explored, such as treating the focus lessons as a resource and including simpler versions within their instruction.
- *Providing new English-as-a-Second-Language central support.* A part-time position has been added to provide consultation with teachers and address support to ESL students in Project Achieve schools.

**Recommendations for future action include:**

- *Monitoring faculty involvement in planning and decision-making within the individual schools.* Staff survey data indicate large gains in staff involvement, yet there is room for growth, especially at the middle school level.
- *Monitoring the impact of pacing calendars and prepared focus lessons on new teachers.* Some school and central office staff believe that the process, structure and support of Project Achieve has been most beneficial to novice teachers, teachers new to the state or district, and teachers new to Project Achieve. This has implications for use of the materials by other schools.
- *Exploring reasons why reading gains were relatively lower for Project Achieve students than students in other schools at grades 3 and 8 (based on regression analyses).*

## **PROJECT ACHIEVE EVALUATION: YEAR TWO, 2002-03**

### **EVALUATION PLAN**

#### **EVALUATION QUESTIONS**

Three general evaluation questions are addressed in this report:

- What services were provided in 2002-03, the second year of Project Achieve?
- What were the effects of the project?
- How could the project be improved?

#### **DATA COLLECTION**

Sources of data for the project included:

- Participation records of planning and training activities, school-based plans for reform at the individual schools, and process checks, including a mid-year survey and plus-delta reviews.
- Records of site visits by Curriculum and Instruction (C&I) staff.
- Minutes of joint meetings of school representatives, as well as meetings of the central office Oversight Committee (composed of representatives from C&I, E&R, and Special Programs divisions) and of the C&I contacts for Project Achieve schools.
- Annual WCPSS Staff Survey results.
- State End-of-Grade (EOG) test scale scores plus ABC growth scores and performance composites in reading and mathematics for spring 2001, 2002, and 2003 at grades 3-8.
- Federal NCLB Adequate Yearly Progress measurement reports.
- Budget data for the project, including local and state reports.
- WCPSS student database with demographic information.

### **IMPLEMENTATION**

#### **DEMOGRAPHICS**

Demographic data for all 13 schools, compared to the district as a whole, are shown in Figure 1. These schools, in general, had a higher percentage of low-income students (receiving free or reduced-price lunches), students with disabilities, and low-achieving students than the district as a whole.



**Figure 1**  
**Demographic Data for Project Achieve Schools, Year Two (2002-03)**

	<b>% of Students with Disabilities</b>	<b>% of Limited English Proficient Students</b>	<b>% of F/R Lunch Students</b>	<b>% of Students Below Grade Level in Spring 2002</b>
<b>GRADES 3-5</b>				
Aversboro	18%	0%	44%	12%
Carver	22%	12%	47%	25%
Cary	19%	7%	28%	14%
Creech Road	20%	13%	47%	21%
Hodge Road	16%	7%	45%	12%
Knightdale	18%	3%	45%	24%
Rand Road	14%	0%	37%	14%
Smith	22%	7%	59%	19%
Swift Creek	17%	0%	31%	9%
Vance	17%	7%	38%	10%
<b>WCPSS Elementary</b>	12%	7%	26%	10%
<b>GRADES 6-8</b>				
East Garner	24%	0%	39%	20%
East Wake	23%	10%	41%	20%
North Garner	17%	7%	43%	22%
<b>WCPSS Mid. Schools</b>	17%	3%	19%	13%

Note: Numbers shaded indicate that they are higher than comparable district measures.  
Sources: May 2003 Student Locator file and July 2003 AYP Release.

## IMPLEMENTATION, YEAR TWO

A few key facts regarding implementation provide important context in interpreting project outcomes:

- Two elementary schools (Aversboro and Swift Creek) and one middle school (North Garner) joined Project Achieve during summer 2002, with new principals at each school. Two of these principals were from Year 1 Project Achieve Schools. Among the eight continuing schools, there were new principals at Smith Elementary, Creech Road Elementary, and East Wake Middle School.
- Two other elementary schools, Carver and Knightdale, joined the project after the new school year had begun (October 2002), with project implementation in the second quarter. Thus, teachers in these schools received the pacing guides and the first batch of focus lessons after their own yearly plans/maps had been made. Nevertheless, focus lessons were used immediately, with teachers quickly learning to use them as an anticipatory set for extensions and integration with subsequent activities within the scheduled blocks of time for reading and mathematics.

- Cary Elementary moved to another location for Year 2 while the original school site was undergoing renovation. Construction continued at East Garner Middle School, resulting in increased travel time between classes.

### **Planning and Staff Development**

Beginning anew the eight-step process (described earlier in the summary), staff members of eleven schools participated in project training during workdays before students arrived for the 2002-03 school year, disaggregated their NC end-of-grade test results (Step 1 of the process), and thereafter met regularly to discuss project implementation issues and to participate in professional development activities. Two additional elementary schools, Carver and Knightdale, entered the project in October 2002, received training at that time, and participated in subsequent project activities. Most schools scheduled time for weekly grade-level planning sessions and periodic across-grade planning meetings. In February 2003, there was a full-day planning and process check with school teams at a central location. Another planning meeting for all school teams followed the release of spring 2003 state test data.

### **Pacing Calendars and Focus Lesson Development**

Beginning in May 2001, the Curriculum and Instruction Department (C&I) staff members and selected teachers developed reading and mathematics pacing guideline calendars and focus lessons for use at each grade (3-8) in the targeted schools (Steps 2 and 3 in the process). Each set of focus lessons in reading and mathematics centered on one to four objectives from the *NC Standard Course of Study* at the appropriate grade level.

The development of focus lessons is an on-going process. For Year 2, C&I staff members sought feedback from schools to improve focus lessons, expanded instructional resources, and added optional activities to provide expansions and further individualize instruction. Quarterly, each teacher in Project Achieve schools received notebooks that organized the series of focus lessons (with scripts and suggestions for extending the lessons), transparencies for use with an overhead projector, and pre-printed student handouts. Manipulative/materials for mathematics hands-on activities were also distributed.

Teachers in the targeted schools scheduled the 10-20 minute daily focus lessons at the beginning of each reading class and each mathematics class as introductory material, an “anticipatory set,” which could be enhanced and extended into the full blocks of time allotted for math and reading instruction. (As in Year 1, consistency varied somewhat by school, grade, and special education composition.)

A team of AG teachers and central office staff wrote sets of enrichment lessons as another resource for use with students who had demonstrated mastery of the targeted skills within focus lessons. Enrichment lessons are designed to broaden knowledge and further emphasize higher order thinking skills.

Self-contained special education classes presented a different challenge due to varied instructional levels within each class. In many cases, students in special education classes were

mainstreamed into regular classrooms (at the appropriate grade level) for the focus lesson portions of reading and mathematics instructional blocks.

### **Locally Developed Mini-Assessments**

E&R, in collaboration with C&I and selected teachers, produced short four-to-16-item multiple-choice assessments (tools used to measure student mastery of the objectives targeted by a specific series of focus lessons), and dates for assessments were a part of the new pacing calendar. This development began in summer 2001 and has continued throughout the project.

At specified intervals, student mastery of targeted curriculum material was measured using the assessments developed jointly by E&R and C&I (Step 4), all based on the *NC Standard Course of Study*. A typical reading assessment consisted of a reading passage followed by four to eight comprehension, meta-cognition, and/or analysis types of questions, while a typical mathematics assessment consisted of about ten items requiring calculations and/or problem-solving skills. After students completed assessments, the individual schools scanned student answer sheets and produced same-day reports of assessment results. A new software system, ParScore, was adopted in Year 2 to improve scanning and reporting functions.

### **Team Time: Re-Focusing and Enrichment**

Schools used mini-assessment data - along with teacher observations and other measures - to identify student needs for “re-focusing” (remediation) or enrichment instruction and activities in language arts and mathematics.

At each school, “Team Time,” a 30-minute or longer period, was set aside - generally daily – for either re-focusing or enrichment of the target focus lesson objectives (Steps 5 and 6 of the process). Grouping practices for Team Time in the elementary schools varied based on student results on the relevant skills. Middle schools tended to identify a group/class once per quarter and provide re-focusing or enrichment within that group as appropriate.

Two other steps completed the Project Achieve process. Throughout the year, students were provided with materials for ongoing maintenance of new skills and re-teaching as needed (Step 7). Furthermore, participating schools continuously examined implementation and success of the teaching and learning process (Step 8).

### **Other Instructional Resources**

Additional instructional resources and services available to students in the Project Achieve schools, as well as in other WCPSS schools, include:

- Accelerated Learning Program (ALP) at grades 3-8, providing up to 22 days of tailored instruction in small groups for low-performing students. In some schools, ALP teachers assisted with the Achieve re-focus/remediation time.
- ALP II, funded by Title I and local funds, to improve literacy skills for struggling students, primarily in grades K-2.
- Special Education at all grade levels.

- English as a Second Language at all grade levels.
- Communities in Schools (including volunteer tutors) in some elementary schools.
- Instructional Resource Teachers in elementary schools and in the four Project Achieve middle schools.
- Title II-funded class-size reduction teacher positions in 26 of the 80 elementary schools (two per Project Achieve school).

### PROJECT EXPENDITURES

The overall expenditures for Project Achieve in the 13 schools were **\$1,127,102** (up from \$689,205 for eight schools the previous year), not including the other instructional resources listed in the section above. With services to 5,635 elementary students and 2,647 middle school students, the cost per student was \$136, compared to \$138 in 2002. Project expenditures for the 2002-03 school year are summarized in Figure 2. These costs do not reflect C&I, Special Education, or E&R staff time devoted to the project.

**Figure 2**  
**Project Achieve Expenditures, 2002-03**

Budget Categories	Costs
Substitute Teachers ( <i>used for planning and staff development</i> )	\$ 75,340.00
Focus Lesson and Enrichment Lesson Writers	\$ 50,815.73
Staff Training	\$ 11,594.73
Instructional Supplies, Materials, & Equipment ( <i>Excluding assessments</i> )	\$ 639,792.84
Temporary Clerical Assistance	\$ 16,658.18
Printing ( <i>focus lessons, enrichment lessons, and mini-assessments</i> )	\$ 266,542.60
Assessments ( <i>scanners, printers, software, and answer sheets</i> )	\$ 66,358.20
TOTAL	<b>\$ 1,127,102.28</b>

For this project, local, state and federal resources were used to assist in implementation of school reform plans at participating schools. For instance, funding from the Improving America's Schools Act (Title V) was allocated for some planning and training activities, and some Title II-A funding was allocated for teacher professional development in guided reading. Four additional schools (three elementary and one middle school) are being added to the project in 2003-04, and a portion of the expenditures above will continue in Year 3 of the project. However, some expenditures should decrease over time.

### EFFECTS OF PROJECT ACHIEVE

#### METHOD AND MEASURES

The ABCs accountability system uses results from the state's EOG reading and math tests for grades 3-8, along with writing assessments at grades 4 and 7, to set standards against which to measure annual *growth* and *performance* for every elementary and middle school in the state. (However, based on NC Department of Public Instruction decisions, writing scores at grades 4 and 7 were not included in the spring 2001, 2002, and 2003 ABCs calculations.) It should be

noted that limited-English-proficient (LEP) and special education students could not be exempt from EOG tests in 2003. Prior to 2003, some LEP students could be exempted from testing, and Individual Education Plans (IEPs) for students with disabilities could designate assessments other than state tests. For 2002-03, however, all students were required to use state tests, and these students were expected to take the multiple-choice standard EOG or alternative forms of the tests. Results of the alternative assessments are included as a portion of each school's performance composite (percent of students at or above grade level). Thus, results for some special education and LEP students are reflected in the overall school results for the first time. Too, more special education students were tested using the standard EOG (rather than state-developed alternative tests).

For Year 2 of Project Achieve, the 2002-03 ABCs *performance* and *growth* results for participating schools were compared to those same statistics for the previous year. Comparisons were calculated by grade for both reading and mathematics. Adequate Yearly Progress (AYP) status, the outcome of federal standards implemented in the 2002-03 school year, was also reported for each school.

To clarify the effects of participation in Project Achieve, E&R staff used least squares regression analyses to reduce any bias due to pre-existing differences among students in Achieve schools and non-Achieve schools. The purpose of this procedure was to control for differences in student background in the areas of prior achievement (EOG pre-test score), an indicator of family income level (free or reduced-price lunch status), gender, race, limited English proficiency, and special education status (disability) when examining the main effects of participation in Project Achieve.

Desired outcomes for the second year of Project Achieve included the following:

- Participating schools would improve ABCs *performance* (percentage of students at/above grade level) composites from the previous year.
- Participating schools would improve ABCs *growth* composite status from the previous year.
- Program participation would be associated with EOG scale score gains in reading and mathematics that were equal to or greater than that of students in non-Achieve schools.
- Baseline *Adequate Yearly Progress* (federal performance standard by student subgroups) data would be comparable to that of other district schools.
- Staff members would express more positive opinions about the academic program of their school than in previous years.

## ACADEMIC IMPACT IN THE TEN ELEMENTARY SCHOOLS

### Performance Composites, Grades and Subjects Combined

The overall *Performance Composite* for a school is the percent of all students at or above grade level for all grades and subjects combined. ***Based on spring 2003 NC EOG testing results, the ten Project Achieve elementary schools had 83-93% of students at or above grade level.*** As shown in Figure 3, three of the participating schools (Knightdale, Swift Creek, and Cary) had greater than 90% of their students at or above grade level, while the remaining seven schools had

83-89% of students at/above grade level. Prior to Project Achieve, only two of six continuing schools and two of four new schools had greater than 80% of students at/above grade level.

*Increases in seven of the ten schools were greater than those of the district overall.* Of the three schools with a decrease in student performance, two were continuing schools that had experienced large increases (7.4 and 11.5 percentage points) the first year of the program and were still able to maintain 6.1 and 8.8 percentage point increases over two years. Aversboro, a new Project Achieve school, attained a 13.3 percentage point increase in spring 2002 (before Achieve) and, with a 1.5 percent decrease in spring 2003, maintained an 11.4 percentage point increase from spring 2001. All three schools that showed declines had 85% or more of their students at/above grade level in spring 2002.

**Figure 3**  
**Percent of Elementary Students At/Above Grade Level by School on ABCs**

Schools	Spring 2001 (Baseline)	Spring 2002 (Year 1)	Spring 2003 (Year 2)	Increase/Decrease in %-age Points 2002-03	Increase from Previous Year?	Increase > WCPSS ?
<i>New Schools</i>						
Aversboro	74.7	88.0%	86.1%	-1.9	No	No
Carver	--	75.4%	84.7%	9.3	Yes	Yes
Knightdale	--	76.1%	91.6%	15.5	Yes	Yes
Swift Creek	--	90.7%	92.8%	2.1	Yes	Yes
<i>Continuing Schools</i>						
Cary	77.7%	86.1%	90.1%	4.0	Yes	Yes
Creech	80.3%	79.2%	83.2%	4.0	Yes	Yes
Hodge Road	76.2%	87.7%	85.0%	-2.7	No	No
Rand Road	73.1%	86.1%	89.3%	3.2	Yes	Yes
Smith	79.9%	80.9%	86.1%	5.2	Yes	Yes
Vance	83.1%	90.5%	89.2%	-1.3	No	No
WCPSS	86.1%	90.3%	90.8%	0.5	Yes	Yes

Note: Negative numbers indicate a decrease from the previous year.

### Performance Composites by Subject and Grade Level

Performance composites (percentage of students at or above grade level) for reading and mathematics at grades 3, 4, and 5 are shown in Figures 4 and 5.

#### Reading

Project Achieve elementary schools showed increases in reading in 18 of 30 grade comparisons between spring of 2002 and 2003. The largest increases were in those cases where the percentage of students at/above grade level was lowest (less than 70%) in spring 2002.

- Of the four new schools, two schools (Carver and Knightdale) attained increases in reading at all grades (as did the district as a whole), while the two other schools attained increases in reading in grades 4 and 5 but not in grade 3. The size of the decrease in

grade 3 at Aversboro suggested that further enquiry was needed. Preliminary results of the enquiry suggest that several factors may have contributed to the decrease: a cohort of students with greater needs (substantially lower K-2 achievement and higher percentage of students identified for special education services), staffing issues (including turnover in three special education positions), and ineffectiveness of one instructional strategy in particular. Adjustments, including smaller class size, are being implemented for this student cohort in 2003-04.

- Dramatic increases were seen in 3<sup>rd</sup> and 4<sup>th</sup> grades at Knightdale (25.5 and 18.6 percentage points), 4<sup>th</sup> grade at Creech Road (19 percentage points), and 3<sup>rd</sup> grade at Rand Road (18.7 percentage points).
- Of the schools continuing in Project Achieve for the second year, 12 of 18 (66%) comparisons by grade were positive in the first year, with 8 of 18 (44%) positive in the second year. Most declines were either small or occurred in cases where the percentage of students at grade level had increased considerably the previous year.
- One of the continuing schools (Cary) attained increases in reading at every grade level, another (Creech Road) attained increases at two grade levels, and the remaining four schools attained increases at one grade level. (Although Rand Road experienced decreases at grades 4 and 5, student cohort movement from the previous grade to the next was substantial in both instances.)

### **Mathematics**

Overall, the percentage of students at/above grade level in mathematics was greater than in reading.

- Project schools showed increases in mathematics in 21 of 30 grade comparisons between spring of 2002 and 2003.
- As in the district, the highest percentage of students at/above grade level was at grade 3. The largest increases were in 3<sup>rd</sup> grade at Carver (35.4 percentage points), Knightdale (30.5 percentage points), Rand Road (24.1 percentage points), and Smith (20.3 percentage points).
- Increases at every grade level were made by four schools: Knightdale, Swift Creek, Cary, and Smith.
- In the four new Project Achieve schools, only six of the 12 grade-level comparisons showed 90% or more students scoring at/above grade level before implementation, compared to 11 of 12 (to the nearest percent) afterwards. Two of the four new schools (Knightdale and Swift Creek) attained increases in mathematics at all grades, while the other two schools had negligible decreases at grade 5. However, the decrease in grade 3 at Aversboro (with the companion decrease in reading) suggested that further discussion and analyses were needed. As noted earlier, based on the results of a preliminary review, adjustments are being implemented in 2003-04.
- In the six continuing elementary schools, only 4 of 18 grade-level comparisons showed 90% or more of students scoring at/above grade level before project implementation. Two years later, all 18 comparisons by grade showed 90% or more of the students at grade level in math. In terms of increases, Cary and Smith attained increases in math at every grade level. Two other continuing schools (Creech Road and Hodge Road) attained increases at two grade levels, and two schools (Rand Road and Vance) attained

increases at one grade level. As in reading, Rand Road experienced decreases at grades 4 and 5, but student cohort movement from grade 3 the previous year to grade 4 in spring 2003 was substantial (from 73% to 94%).

**Figure 4**  
**Percent of Elementary Students At/Above Grade Level in READING**  
**By Grade for Three Years**

School	Grade	Spring 2001 (Baseline)	Spring 2002 (Year 1)	Spring 2003 (Year 2)	Increase/ Decrease in % Points 2002 to 2003	Increase from Previous Year?
<b><i>New Schools</i></b>						
Aversboro	3 <sup>rd</sup>	--	96.4%	75.9%	-20.5	No
	4 <sup>th</sup>	--	83.3%	90.4%	7.1	Yes
	5 <sup>th</sup>	--	77.8%	88.4%	10.6	Yes
Carver	3 <sup>rd</sup>	--	66.7%	80.2%	13.5	Yes
	4 <sup>th</sup>	--	69.6%	76.1%	6.5	Yes
	5 <sup>th</sup>	--	82.1%	86.9%	4.8	Yes
Knightdale	3 <sup>rd</sup>	--	65.7%	91.2%	25.5	Yes
	4 <sup>th</sup>	--	69.8%	88.4%	18.6	Yes
	5 <sup>th</sup>	--	80.0%	88.8%	8.8	Yes
Swift Creek	3 <sup>rd</sup>	--	90.1%	86.8%	-3.3	No
	4 <sup>th</sup>	--	85.1%	89.6%	4.5	Yes
	5 <sup>th</sup>	--	92.8%	93.0%	0.2	Yes
<b><i>Continuing Schools</i></b>						
Cary	3 <sup>rd</sup>	76.5%	88.8%	89.3%	0.5	Yes
	4 <sup>th</sup>	73.3%	79.7%	92.1%	12.4	Yes
	5 <sup>th</sup>	84.5%	87.3%	95.4%	8.1	Yes
Creech Road	3 <sup>rd</sup>	84.2%	82.2%	80.5%	-1.7	No
	4 <sup>th</sup>	82.2%	63.9%	82.9%	19.0	Yes
	5 <sup>th</sup>	85.2%	73.5%	84.0%	10.5	Yes
Hodge Road	3 <sup>rd</sup>	77.2%	82.4%	82.0%	-0.4	No
	4 <sup>th</sup>	75.7%	82.0%	81.2%	-0.8	No
	5 <sup>th</sup>	85.6%	92.2%	90.4%	-1.8	No
Rand Road	3 <sup>rd</sup>	72.6%	69.0%	87.7%	18.7	Yes
	4 <sup>th</sup>	74.0%	82.7%	75.7%	-7.0	No
	5 <sup>th</sup>	82.8%	93.7%	92.2%	-1.5	No
Smith	3 <sup>rd</sup>	74.8%	82.2%	78.2%	-4.0	No
	4 <sup>th</sup>	83.1%	72.8%	78.7%	5.9	Yes
	5 <sup>th</sup>	86.4%	84.4%	83.0%	-1.4	No
Vance	3 <sup>rd</sup>	82.1%	80.9%	84.9%	3.9	Yes
	4 <sup>th</sup>	76.3%	86.9%	80.9%	-6.0	No
	5 <sup>th</sup>	82.1%	95.9%	93.4%	-2.5	No
WCPSS	3 <sup>rd</sup>	85.3%	86.4%	89.0%	2.6	Yes
	4 <sup>th</sup>	85.9%	86.6%	90.0%	3.4	Yes
	5 <sup>th</sup>	90.8%	91.7%	93.5%	1.8	Yes

Note 1: Negative numbers indicate a decrease from the previous year.

Note 2: Shaded areas indicate increases from the previous year.



**Figure 5**  
**Percent of Students At/Above Grade Level in MATHEMATICS**  
**By Grade for Three Years**

School	Grade	Spring 2001 (Baseline)	Spring 2002 (Year 1)	Spring 2003 (Year 2)	Increase/ Decrease in % Points 2002 to 2003	Increase from Previous Year?
<i>New Schools</i>						
Aversboro	3 <sup>rd</sup>	--	94.6%	80.5%	-14.1	No
	4 <sup>th</sup>	--	90.0%	97.3%	7.3	Yes
	5 <sup>th</sup>	--	90.1%	89.9%	-0.2	No
Carver	3 <sup>rd</sup>	--	62.5%	97.9%	35.4	Yes
	4 <sup>th</sup>	--	86.3%	97.7%	11.4	Yes
	5 <sup>th</sup>	--	90.5%	89.7%	-0.8	No
Knightdale	3 <sup>rd</sup>	--	67.7%	98.2%	30.5	Yes
	4 <sup>th</sup>	--	88.9%	98.1%	9.2	Yes
	5 <sup>th</sup>	--	83.2%	94.8%	11.6	Yes
Swift Creek	3 <sup>rd</sup>	--	88.7%	94.1%	5.4	Yes
	4 <sup>th</sup>	--	92.1%	97.0%	4.9	Yes
	5 <sup>th</sup>	--	95.2%	97.7%	2.5	Yes
<i>Continuing Schools</i>						
Cary	3 <sup>rd</sup>	75.9%	90.7%	99.0%	8.3	Yes
	4 <sup>th</sup>	82.6%	97.4%	98.9%	1.5	Yes
	5 <sup>th</sup>	90.6%	91.8%	97.2%	5.4	Yes
Creech Road	3 <sup>rd</sup>	75.0%	78.9%	92.9%	14.0	Yes
	4 <sup>th</sup>	90.5%	96.3%	94.6%	-1.7	No
	5 <sup>th</sup>	76.5%	81.9%	90.4%	8.5	Yes
Hodge Road	3 <sup>rd</sup>	72.0%	84.6%	92.1%	7.5	Yes
	4 <sup>th</sup>	85.2%	98.4%	90.3%	-8.1	No
	5 <sup>th</sup>	84.0%	87.4%	91.3%	3.9	Yes
Rand Road	3 <sup>rd</sup>	65.3%	73.2%	97.3%	24.1	Yes
	4 <sup>th</sup>	83.7%	97.4%	94.3%	-3.1	No
	5 <sup>th</sup>	83.9%	94.7%	93.5%	-1.2	No
Smith	3 <sup>rd</sup>	76.0%	72.0%	92.3%	20.3	Yes
	4 <sup>th</sup>	94.0%	90.6%	97.8%	7.2	Yes
	5 <sup>th</sup>	78.7%	83.0%	92.1%	9.1	Yes
Vance	3 <sup>rd</sup>	87.6%	82.6%	92.3%	9.7	Yes
	4 <sup>th</sup>	90.0%	97.6%	89.7%	-7.9	No
	5 <sup>th</sup>	88.1%	97.3%	95.6%	-1.7	No
WCPSS	3 <sup>rd</sup>	84.0%	87.1%	93.5%	6.4	Yes
	4 <sup>th</sup>	92.7%	94.8%	96.3%	1.5	No
	5 <sup>th</sup>	92.1%	93.8%	95.6%	1.8	Yes

Note 1: Negative numbers indicate a decrease from the previous year.

Note 2: Shaded areas indicate increases from the previous year.

## ABC Growth Composites for Elementary Schools

A growth *composite* is calculated from two years of EOG test scores, a pre-test and a post-test. Schools achieve *Expected Growth* if the composite indicates, on average, one year's growth for one year of instruction. To meet *High Growth*, a school's scores must increase 10% more than is expected.

### Growth Composites, Grades and Subjects Combined

A review of ABCs *Expected* and *High Growth* composites for Project Achieve schools shows that ***all ten of the participating elementary schools met the state High Growth standard in 2002-03*** as shown in Figure 6. Before Project Achieve, only half met *High Growth*. The difference in pattern suggests that Project Achieve, in coordination with other instructional resources, helped student achievement at participating schools on the tests comprising the ABCs.

**Figure 6**  
**Overall Growth by Elementary School, Grades and Subjects Combined**

	Spring 2001		Spring 2002		Spring 2003	
	Met Expected Growth?	Met High Growth?	Met Expected Growth?	Met High Growth?	Met Expected Growth?	Met High Growth?
<i>New Schools</i>						
Aversboro			Yes	Yes	Yes	<b>Yes</b>
Carver			No	No	Yes	<b>Yes</b>
Knightdale			No	No	Yes	<b>Yes</b>
Swift Creek			Yes	Yes	Yes	<b>Yes</b>
<i>Continuing Schools</i>						
Cary	Yes	No	Yes	Yes	Yes	<b>Yes</b>
Creech Road	Yes	Yes	Yes	Yes	Yes	<b>Yes</b>
Hodge Road	Yes	No	Yes	Yes	Yes	<b>Yes</b>
Rand Road	Yes	No	Yes	Yes	Yes	<b>Yes</b>
Smith	Yes	Yes	Yes	Yes	Yes	<b>Yes</b>
Vance	Yes	Yes	Yes	Yes	Yes	<b>Yes</b>
<b>WCPSS</b>	93% of Elementary Schools	63% of Elementary Schools	84% of Elementary Schools	56% of Elementary Schools	100% of Elementary Schools	89% of Elementary Schools

Note: Shaded areas indicate that the *High Growth* standard was met. Bold indicates *High Growth* in spring 2003

### Growth Composites by Achievement Levels (Student Subgroups)

Achievement levels are used to indicate whether a student scores below grade level (Levels I or II), on grade level (Level III), or above grade level (Level IV). Students can be grouped based upon their achievement level on the pre-test. As indicated in Figure 7, both new and continuing project elementary schools have attained significant increases in growth overall, with the highest growth made by students whose pre-test results were at Levels I-II and III.

**Figure 7**  
**Elementary Schools' Status on ABCs by Achievement Level (Student Subgroups)**  
**(Number of Project Achieve Schools in Each ABC Growth Category)**

Achievement Levels (Student Subgroups)	2000-01			2001-02			2002-03		
	Below Expected Growth	Expected Growth	High Growth	Below Expected Growth	Expected Growth	High Growth	Below Expected Growth	Expected Growth	High Growth
<i>Six Continuing Schools</i>									
Levels I-II	--	1	5	--	--	6	--	--	6
Level III	2	--	4	--	1	5	--	--	6
Level IV	5	1	--	2	2	2	4	2	--
All	--	3	3	--	--	6	--	--	6
<i>Four New Schools</i>									
Levels I-II				--	1	3	--	--	4
Level III				1	--	3	--	--	4
Level IV				3	--	1	1	3	--
All				1	--	3	--	--	4

Note: Shaded areas are the *High Growth* columns.

### **ABC Growth Composites for Other Student Subgroups**

A review of ABC *Expected* and *High Growth* composites for Project Achieve elementary schools shows that growth in achievement by key student subgroups ranked in the top twenty among the 80 elementary schools in WCPSS. As shown in Figure 8, two schools new to Project Achieve, Carver and Knightdale, achieved the highest growth by key subgroups. Nonetheless, there was less growth by students with disabilities in four of the 10 schools than in the district overall; all four schools had higher percentages of disabled students than the district.

**Figure 8**  
**Rating of ABCs Growth by Key Subgroups**  
**(Among the 80 WCPSS Elementary Schools, Spring 2003)**

	F/R Lunch	Disabled	Black	Hispanic/Latino
<i>New Schools</i>				
Aversboro	ABCs High	ABCs Below	ABCs High	N/A
Carver	#1	#2	#2	#3
Knightdale	#3	#1	#4	#4
Swift Creek	Top 10	ABCs High	Top 20	N/A
<i>Continuing Schools</i>				
Cary	Top 10	Top 20	ABCs High	Top 20
Creech Road	ABCs High	ABCs Expected	ABCs High	Top 20
Hodge Road	ABCs High	ABCs Below	ABCs High	Top 20
Rand Road	ABCs High	ABCs Expected	ABCs High	#5
Smith	ABCs High	ABCs High	ABCs High	N/A
Vance	ABCs High	ABCs High	ABCs High	#1
<i>WCPSS Growth</i>	<i>ABCs High</i>	<i>ABCs High</i>	<i>ABCs High</i>	<i>ABCs High</i>

Note 1: N/A indicates fewer than 40 students in the school.

Note 2: All Project Achieve elementary schools had higher percentages of FRL and Disabled students than the district overall.

### **Growth Composites for Project Achieve Schools Combined, Grades 3-5**

While *all Project Achieve elementary schools met the state ABCs High Growth standard* overall, growth varied by grade and subject. Growth composites by grade and subject for each participating school are shown in Attachment 1. Growth composites for the ten elementary schools combined, shown in Figures 9a and 9b, were generally higher than growth composites for the district overall.

#### ***Reading Results***

Growth in reading was relatively weaker at grade 3 (in the district and in all ten of the Project Achieve schools) and grade 4 (in the district and in seven of 10 Achieve schools.)

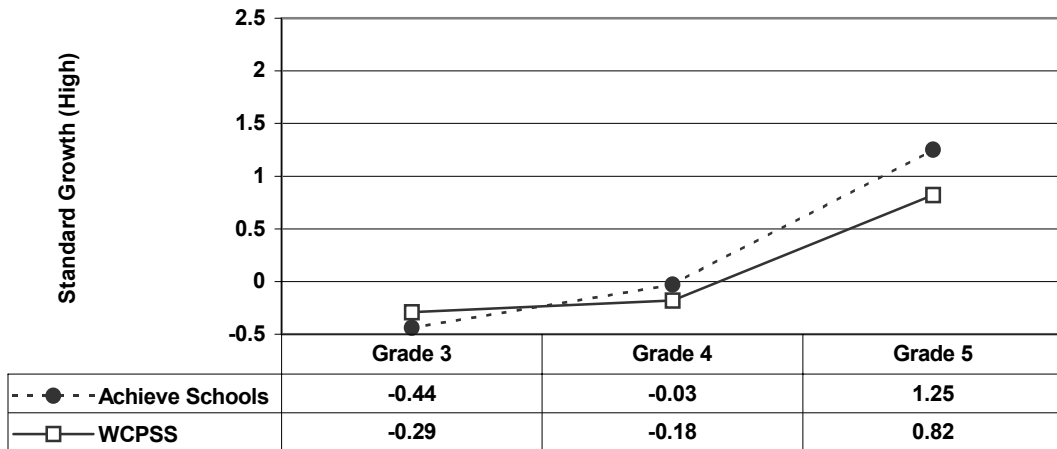
- Project Achieve elementary schools combined attained higher growth than the district in reading at grades 4 and 5 but not at grade 3.
- As in the district overall, growth in Project Achieve elementary schools was greatest at grade 5. Fifth-grade students in all ten elementary schools met the *High Growth* standard.
- Greatest improvement occurred at new Project Achieve schools Knightdale and Carver and continuing school Rand Road (Attachment 1).

#### ***Mathematics Results***

As in Year 1, Project Achieve schools (as well as the district) showed higher growth in mathematics than in reading.

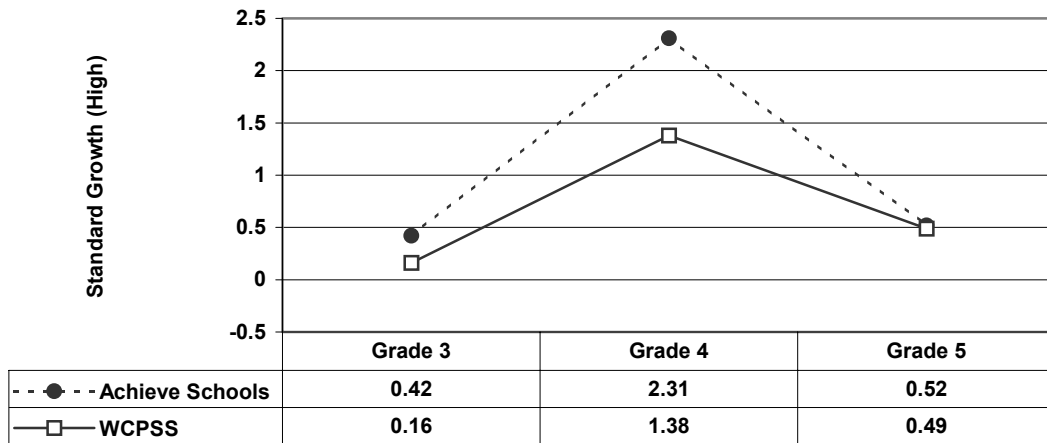
- The ten Project Achieve elementary schools combined attained higher growth than the district in mathematics at grades 3 and 4 and similar results at grade 5.
- Although growth in math was relatively weaker at grade 3 in both the district and Project Achieve schools, all 10 participating schools attained *High Growth* at grade 4, and nine of 10 met the *High Growth* standard at grade 5.

**Figure 9a**  
**Comparison of High Growth in READING:**  
**Project Achieve Elementary Schools Combined vs. WCPSS**



Note: Numbers zero and above indicate *High Growth*.

**Figure 9b**  
**Comparison of High Growth in MATHEMATICS:**  
**Project Achieve Elementary Schools Combined vs. WCPSS**



Note: Numbers zero and above indicate *High Growth*.

## Regression Analyses

EOG pre- and post-test results were available for more than 7,000 students at each grade, 3-8. Least squares regression analyses were used to control for differences in student EOG pre-test scores, FRL status, gender, race, limited English proficiency, and special education status when examining the main effects of participation in Project Achieve.

As shown in Figure 10, controlling for the variables listed above, student participation in Project Achieve at grades 3-5 was associated/correlated with significantly higher gains (than in non-Achieve schools) in mathematics at grades 3 and 4 but lower gains at grade 5. In reading, there was no significant difference at grades 4 and 5 but less growth at grade 3. Additional information is provided in Attachment 3.

**Figure 10**  
**Impact of Project Achieve on Reading and Math Achievement,**  
**Grades 3-5, 2002-03**

		Regression Coefficients	# of Students
<b>READING</b>			
<i>Grade</i>	3	-0.61* (.21)	7,597
	4	-0.25 (.18)	7,216
	5	-0.17 (.13)	7,180
<b>MATHEMATICS</b>			
<i>Grade</i>	3	0.33* (.14)	7,598
	4	0.80** (.15)	7,246
	5	-0.80** (.16)	7,197

\* Significant at the .05 level.

\*\* Significant at the .001 level.

Standard errors of measurement are in parentheses.

Student sample weights were applied, and cluster corrections to standard errors were made since students were clustered within schools.

## Adequate Yearly Progress (New Federal Standard)

Adequate Yearly Progress (AYP) is a new measurement standard under the federal No Child Left Behind Act. While the state ABCs of public education measures absolute *performance* (percent of students at/above grade level) of students over the course of a year, *Adequate Yearly Progress measures subgroups of students against a target performance standard for all students.* The AYP subgroups are: White, Black, Hispanic, Native American, Asian/Pacific Islander, Multiracial, Limited English Proficient, Economically Disadvantaged (FRL), and Students with Disabilities (Special Education). In order to qualify as a subgroup, there must be at least 40 students in a school identified in that category. For 2002-03 and 2003-04, the AYP standards are 68.9% of students proficient in reading and 74.6% of students proficient in math. For a school to meet the AYP standard overall, every subgroup - as well as the school as a whole - must meet the targets.

AYP's "all or nothing" approach challenges schools to meet a different level of success. Of the 123 WCPSS schools' performance measured under the new legislation, 53 achieved the goal of 100% of student group targets. *Overall, 50 of 80 (63%) district elementary schools met AYP, while seven of 10 (70%) Project Achieve elementary schools (all four new schools and half of continuing schools) met the AYP standard.* The three schools not meeting the AYP standard missed for only one or two subgroups – most often students with disabilities. AYP status of individual schools is shown in Figure 11.

**Figure 11**  
**AYP Status by Elementary School, 2002-03**

Schools	Made Adequate Yearly Progress?	Number of Target Goals Met	Type of Target Goal Not Met
<i>New Schools</i>			
Aversboro	Yes	19 of 19	n/a
Carver	Yes	25 of 25	n/a
Knightdale	Yes	21 of 21	n/a
Swift Creek	Yes	17 of 17	n/a
<i>Continuing Schools</i>			
Cary	Yes	21 of 21	n/a
Creech Road	No	24 of 25 (96%)	Reading goal by students with disabilities.
Hodge Road	No	23 of 25 (92%)	Reading & math goals by students with disabilities.
Rand Road	No	16 of 17 (93%)	Reading goal by Black students.
Smith	Yes	21 of 21	n/a
Vance	Yes	17 of 17	n/a
<b>WCPSS</b>	50 of 80 (63%) elementary schools met the AYP standard.		

Note: Shaded areas indicate that AYP was met.

## ACADEMIC IMPACT IN THE THREE MIDDLE SCHOOLS

### Performance Composites for Middle Schools, Grades and Subjects Combined

Overall in the district, the percentage of students at or above grade level is higher in elementary schools than in middle schools. As shown in Figure 12, this is true in Project Achieve schools as well. The percentage of middle school students at/above grade level increased slightly between spring 2002 and spring 2003 in two of three Project Achieve middle schools and in WCPSS overall.

**Figure 12**  
**Percent of Middle School Students At/Above Grade Level,**  
**Grades and Subjects Combined**

	Spring 2001	Spring 2002	Spring 2003	Increase/ Decrease in %-age Points 2002-03	Increase from the Previous Year?
North Garner Middle		78.4%	78.0%	-0.4	No
Each Garner Middle	77.3%	79.6%	81.9%	2.3	Yes
East Wake Middle	75.9%	79.5%	81.0%	1.5	Yes
WCPS	85.4%	86.9%	89.7%	2.8	Yes

### **Performance Composites by Subject and Grade Level**

Performance composites (percentage of students at/above grade level) for both reading and mathematics at grades 6, 7, and 8 are shown in Figures 13 and 14.

#### **Reading**

Unlike the elementary schools, increases in percentage of students at/above grade level in reading at Project Achieve middle schools are greater than those in math. Overall, eight of nine grade comparisons showed increases in the percentage of student's at/above grade level.

- The largest increase (13 percentage points) was in grade 7 at North Garner (the new school), followed by 12.1 percentage points in grade 6 at East Garner, and 9.1 percentage points in grade 8 at East Wake.
- In the two continuing schools, as well as the district, increases were attained at every grade level. At North Garner, increases were attained at grades 6 and 7, while performance at grade 8 remained stable (with increases made by the cohort when moving from grade 7 to grade 8).

#### **Mathematics**

Overall, six of nine grade comparisons in spring 2003 showed increases in the percentage of students at/above grade level.

- As with the district, there was an increase in math performance at two grade levels in each of the Project Achieve middle schools. The district showed a decrease at grade 7, as did two of the three middle schools.
- The largest increases (8.9 and 6.4 percentage points) were by 6<sup>th</sup>-grade students at East Garner and East Wake.



**Figure 13**  
**Percent of Middle School Students At/Above Grade Level in READING**  
**By Grade for Three Years**

School	Grade	Spring 2001	Spring 2002	Spring 2003	Increase/Decrease in %-age Points 2002-03	Increase from Previous Year?
North Garner Middle	6 <sup>th</sup>	--	73.4%	73.7%	0.3	Yes
	7 <sup>th</sup>	--	70.6%	83.6%	13.0	Yes
	8 <sup>th</sup>	--	80.9%	80.8%	-0.1	No
East Garner Middle	6 <sup>th</sup>	69.2%	63.6%	75.7%	12.1	Yes
	7 <sup>th</sup>	71.7%	82.5%	83.4%	0.9	Yes
	8 <sup>th</sup>	91.2%	84.2%	88.4%	4.2	Yes
East Wake Middle	6 <sup>th</sup>	68.3%	74.1%	76.9%	2.8	Yes
	7 <sup>th</sup>	72.5%	79.5%	84.6%	5.1	Yes
	8 <sup>th</sup>	82.3%	79.5%	88.6%	9.1	Yes
WCPSS	6 <sup>th</sup>	80.7%	82.8%	87.7%	4.9	Yes
	7 <sup>th</sup>	85.1%	86.7%	90.3%	3.6	Yes
	8 <sup>th</sup>	90.6%	91.4%	92.2%	0.8	Yes

Note 1: Negative numbers indicate a decrease from the previous year.

Note 2: Shaded areas indicate an increase from the previous year.

**Figure 14**  
**Percent of Middle School Students At/Above Grade Level in MATHEMATICS**  
**By Grade for Three Years**

School	Grade	Spring 2001	Spring 2002	Spring 2003	Increase/Decrease in %-age Points 2002-03	Increase from Previous Year?
North Garner Middle	6 <sup>th</sup>	--	87.5%	86.1%	-1.4	No
	7 <sup>th</sup>	--	85.9%	86.6%	0.7	Yes
	8 <sup>th</sup>	--	77.9%	78.1%	0.2	Yes
East Garner Middle	6 <sup>th</sup>	79.0%	78.9%	87.8%	8.9	Yes
	7 <sup>th</sup>	80.3%	87.8%	81.9%	-5.9	No
	8 <sup>th</sup>	78.9%	79.2%	84.4%	5.2	Yes
East Wake Middle	6 <sup>th</sup>	77.3%	80.7%	87.1%	6.4	Yes
	7 <sup>th</sup>	80.3%	83.3%	81.0%	-2.3	No
	8 <sup>th</sup>	76.7%	77.1%	82.7%	5.6	Yes
WCPSS	6 <sup>th</sup>	88.1%	90.2%	91.7%	1.5	Yes
	7 <sup>th</sup>	87.6%	90.3%	87.9%	-2.4	No
	8 <sup>th</sup>	86.9%	88.3%	88.6%	0.3	Yes

Note 1: Negative numbers indicate a decrease from the previous year.

Note 2: Shaded areas indicate an increase from the previous year.

### ABC Growth Composites for Middle Schools

As noted earlier, a *growth composite* is calculated from two years of EOG test scores. Schools achieve *Expected Growth* if the composite indicates, on average, one year's growth for one year of instruction. To meet *High Growth*, a school's scores must increase 10% more than is expected.

### Growth Composites, Grades and Subjects Combined

A review of ABCs *Expected* and *High Growth* composites for Project Achieve middle schools shows that **all three Project Achieve middle schools met the state High Growth standard in 2002-2003** (Figure 15). Both North Garner and East Wake improved from *Expected* to *High Growth* in their first year, with East Garner maintaining *High Growth*.

**Figure 15**  
Overall Growth by Middle School, Grades and Subjects Combined

School	Spring 2001		Spring 2002		Spring 2003	
	Met Expected Growth?	Met High Growth?	Met Expected Growth?	Met High Growth?	Met Expected Growth?	Met High Growth?
North Garner Middle School			Yes	No	Yes	<b>Yes</b>
East Garner Middle School	Yes	Yes	Yes	Yes	Yes	<b>Yes</b>
East Wake Middle School	Yes	No	Yes	Yes	Yes	<b>Yes</b>
<b>WCPSS</b>	75% of Middle Schools	46% of Middle Schools	92% of Middle Schools	63% of Middle Schools	88% of Middle Schools	36% of Middle Schools

Note: Shaded areas indicate that the *High Growth* standard was met. Bold indicates *High Growth* in spring 2003.

### Growth Composites by Achievement Levels (Student Subgroups)

Achievement levels are used to indicate whether a student scores below grade level (Levels I or II), on grade level (Level III), or above grade level (Level IV). As indicated in Figure 16, both new and continuing project middle schools have attained significant increases in growth overall, with the highest growth made by students whose pre-test scores were at Levels I-II and III.

**Figure 16**  
**Middle Schools' Status on ABCs by Achievement Level (Student Subgroups)**  
 (Number of Project Achieve Schools in Each ABC Growth Category)

Achievement Levels	2000-01			2001-02			2002-03		
	Below Expected Growth	Expected Growth	High Growth	Below Expected Growth	Expected Growth	High Growth	Below Expected Growth	Expected Growth	High Growth
<i>Two Continuing Schools</i>									
Levels I-II	1	--	1	--	--	2	--	--	2
Level III	1	--	1	1	1	--	--	--	2
Level IV	1	--	1	--	--	2	1	1	--
All	1	--	1	--	1	1	--	--	2
<i>One New School</i>									
Levels I-II				--	--	1	--	--	1
Level III				1	--	-	--	--	1
Level IV				1	--	-	1	--	--
All				--	1	-	--	--	1

Note: Shaded areas are the *High Growth* columns.

### ABCs Growth Composites for Key Student Subgroups

A review of ABCs *Expected* and *High Growth* composites for Project Achieve middle schools shows that achievement growth by key student subgroups ranked in the top ten among the 26 middle schools in WCPSS. See Figure 17.

**Figure 17**  
**Rating of ABCs Growth by Key Subgroups**  
 (Among the 26 WCPSS Middle Schools, Spring 2003)

	F/R Lunch	Black	Hispanic/Latino	Levels I & II
<i>New School</i>				
North Garner Middle	#5	#7	ABCs High	ABCs High
<i>Continuing Schools</i>				
East Garner Middle	#3	#2	#2	ABCs High
East Wake Middle	#2	#3	#3	#4
<i>WCPSS Growth</i>	<i>ABCs Expected</i>	<i>ABCs Expected</i>	<i>ABCs High</i>	<i>ABCs Expected</i>

### Growth Composites by Project Achieve Schools Combined, Grades 6-8

While all three Project Achieve middle schools met the state ABCs *High Growth standard overall*, growth varied by grade and/or subject. Growth composites by grade and subject for each participating middle school are shown in Attachment 2. Growth composites by the three

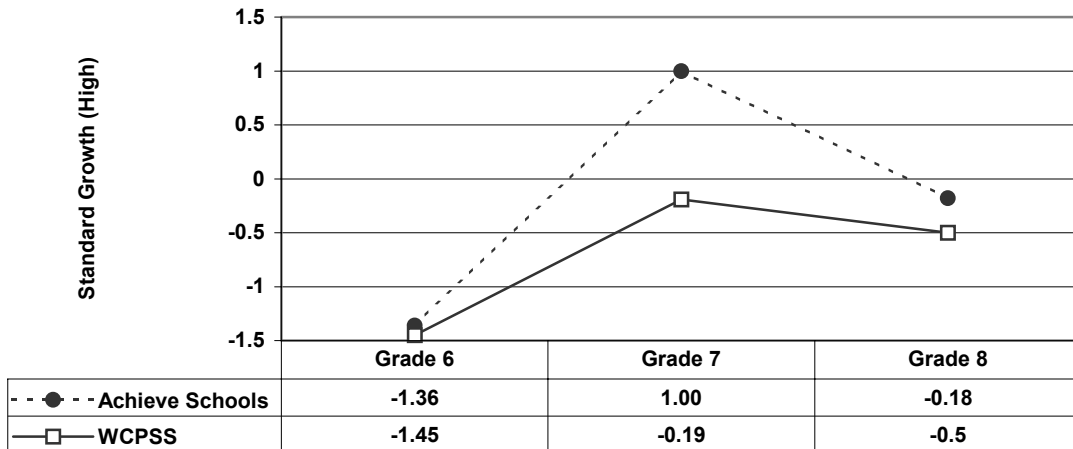
middle schools combined, shown in Figures 18a and 18b, are higher than growth composites of the district in five of six subject-grade comparisons.

**Reading**

Growth in reading at Project Achieve Middle schools combined is greater at grades 6, 7, and 8 than for district middle schools overall.

- At Grade 7, Project Achieve middle schools combined met the *High Growth* standard; the district did not.
- Grade 6 (followed by grade 8) remains the biggest challenge for both Project Achieve and WCPSS in reading.

**Figure 18a**  
**High Growth in READING:**  
**Project Achieve Middle Schools vs. WCPSS**



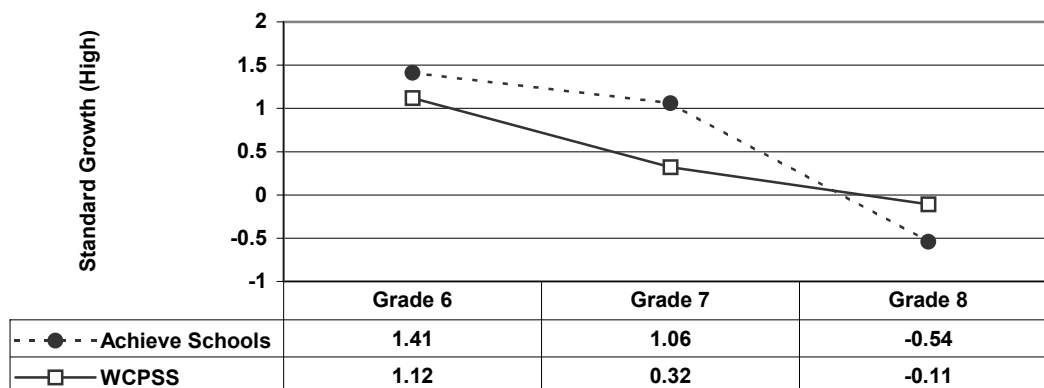
Note: Numbers zero and above indicate *High Growth*.

**Mathematics**

The three middle schools combined attained higher growth than the district in mathematics at grades 6 and 7 but lower growth at grade 8.

- At grades 6 and 7, both the district and Project Achieve middle schools attained *High Growth* in math.
- Grade 8 remains the biggest challenge for Project Achieve middle schools and the district.

**Figure 18b**  
**High Growth in MATHEMATICS: Project Achieve vs. WCPSS**



Note: Numbers zero and above indicate *High Growth*.

### Regression Analyses

E&R staff used least squares regression analyses to account (control) for differences in student background in the areas of prior achievement (EOG pre-test score), free or reduced-price lunch status, gender, race, limited English proficiency, and special education status when examining the main effects of participation in Project Achieve.

As shown in Figure 19, controlling for the variables above, middle school participation in Project Achieve was associated (correlated) with significantly higher scale score gains in mathematics at grades 6 and 7 but not at grade 8. For reading, Project Achieve participation was associated with no significant difference at grades 7 and 8, but less growth at grade 6. Thus, patterns were more positive in math than in reading. Additional information is provided in Attachment 4.

**Figure 19**  
**Impact of Project Achieve in Reading and Mathematics,**  
**Middle Schools, 2002-03**

		Regression Coefficients		# of Students
<b>READING</b>				
<i>Grade</i>	6	-0.37*	(.15)	7,395
	7	0.00	(.14)	7,432
	8	-0.26	(.15)	7,225
<b>MATHEMATICS</b>				
<i>Grade</i>	6	1.22**	(.18)	7,421
	7	1.13**	(.20)	7,447
	8	-0.13	(.20)	7,224

\* Significant at the .05 level.

\*\* Significant at the .001 level.

Standard errors are in parentheses. Student sample weights were applied, and cluster corrections to standard errors were made since students were clustered within schools.

### Adequate Yearly Progress (New Federal Standard)

As noted earlier, Adequate Yearly Progress (AYP), a new measurement standard under the Federal No Child Left Behind Act, measures subgroups of students against a fixed performance standard for all students. The subgroups are: White, Black, Hispanic, Native American, Asian/Pacific Islander, Multiracial, Limited English Proficient, Economically Disadvantaged (Free or Reduced-Priced Lunch), and Students with Disabilities (Special Education). In order to qualify as a subgroup, there must be at least 40 students identified in that category in the school.

For 2002-03 and 2003-04, the AYP standards for grades 6-8 are 68.9% proficiency in reading and 74.6% proficiency in math. For a middle school to meet the AYP standard overall, every subgroup - as well as the school as a whole - must meet the goals. Because middle schools are larger, the number of subgroups with 40 or more students in each school is generally greater than in elementary schools. Only one of 26 (4%) district middle schools met the AYP standard. As shown in Figure 20, none of the Project Achieve middle schools met the AYP standard, but East Garner missed the standard by only one subgroup target.

**Figure 20**  
**AYP Status by Middle School, 2002-03**

Schools	Made Adequate Yearly Progress?	Number of Target Goals Met	Type of Target Goal Not Met
North Garner Middle School	No	21 of 29 (72%)	Math & reading goals by Hispanic, economically disadvantaged, and limited English proficient students, and students with disabilities.
East Garner Middle School	No	24 of 25 (96%)	Mathematics goal by students with disabilities (special education).
East Wake Middle School	No	24 of 29 (83%)	Math & reading goals by limited English proficient students and students with disabilities.
<b>WCPSS</b>	1 of 26 (4%) middle schools met the AYP standard.		

### STAFF FEEDBACK ON ACADEMIC EFFECTIVENESS

Surveys are administered annually to gauge opinions of all WCPSS school staff members. Although a new survey form was used in spring 2003, the three items in Figures 21 and 22 remained the same across years. Staff agreement rates on these items, at both the elementary and middle school levels, increased from the previous year in Project Achieve schools.

### Elementary Schools

Ratings in general are higher at the elementary school level than at the middle school level in both Project Achieve schools and the district overall.

- In the ten Project Achieve elementary schools, 98% of respondents reported that staff members in their schools use a variety of instructional methods to meet student needs (up from 82% in the six continuing elementary schools in spring 2001). The agreement rating on this item now matches that of district elementary schools overall.
- More Project Achieve respondents (90%, up from 76%) than district respondents (87%, up from 80%) indicated that staff development opportunities meet the needs of teachers in their school.
- Eighty percent of respondents in Project Achieve schools (up from 59% and 78% in previous years) agreed that faculty was involved in cooperative planning and decision-making. This approaches the district average of 86% agreement.

**Figure 21**  
**Elementary Staff Survey Results**

Items	WCPSS Elementary Staff			Project Achieve Staff		
	2000-01 (N=4,677)	2001-02 (N=4,677)	2002-03 (N=4,638)	2000-01 (N=224)	2001-02 (N=374)	2002-03 (N=614)
<i>Percent "Agree" or "Strongly Agree"</i>						
Staff development opportunities meet the needs of teachers at this school.	75%	80%	87%	75%	76%	90%
This school's staff members use a variety of instructional methods to meet student needs.	93%	97%	98%	82%	94%	98%
Faculty is involved in collaborative planning and decision-making.	75%	84%	86%	59%	78%	80%

Note: Shaded areas indicate increases between 2001-02 and 2002-03.

### Middle Schools

Project Achieve middle school staff responses to the three survey items were again more positive than in the previous year.

- As in the elementary schools, 98% of respondents in the middle schools – both in Project Achieve schools and the district overall – agreed that staff members in their schools use a variety of instructional methods to meet student needs. This contrasts with

71% agreement in spring 2001 for the first two middle schools before they entered Project Achieve.

- Agreement ratings in Project Achieve middle schools, as in district middle schools overall, suggest room for improvement in faculty involvement in collaborative planning and decision-making. Nevertheless, ratings increased substantially in the Project Achieve middle schools from spring 2001 and spring 2003.
- Agreement ratings (77% for Achieve middle schools and the district) regarding staff development meeting the needs of teacher in their school also indicate room for improvement, yet ratings did increase in the Project Achieve schools.

**Figure 22**  
**Middle School Staff Survey Results**

Items	WCPSS Middle Staff 2000-01 (N=1,353)	WCPSS Middle Staff 2001-02 (N=1,825)	WCPSS Middle Staff 2002-03 (N=1,708)	Project Achieve Staff 2000-01 (N=100)	Project Achieve Staff 2001-02 (N=143)	Project Achieve Staff 2002-03 (N=209)
	<i>Percent "Agree" or "Strongly Agree"</i>					
Staff development opportunities meet the needs of teachers at this school.	67%	78%	77%	59%	70%	77%
This school's staff members use a variety of instructional methods to meet student needs.	87%	94%	98%	71%	94%	98%
Faculty is involved in collaborative planning and decision-making.	62%	76%	74%	35%	52%	67%

Note: Shaded areas indicate increases from the previous year.

### CONCLUSIONS AND RECOMMENDATIONS

Conclusions and recommendations are in the summary at the beginning of this report.

### REFERENCES

*PDCA Instructional Cycle*. (2001). American Productivity and Quality Center. Houston, Texas.

Speas, C. (2003). *Project Achieve Evaluation Report: Year One, 2001-02*. (Evaluation & Research Report No. 02.35) Raleigh, NC: Wake County Public School System.

Dulaney, C., & Regan, R. (2003). *North Carolina ABC Results*. (Evaluation & Research Report No. 03.17) Raleigh, NC: Wake County Public School System.

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**Attachment 1**  
**ABC Growth Standards Met/Not Met in READING,**  
**Grades 3-5, for Three Years**

School	Grade	READING					
		Spring 2001		Spring 2002		Spring 2003	
		Met Expected Growth?	Met High Growth?	Met Expected Growth?	Met High Growth?	Met Expected Growth?	Met High Growth?
<i><b>New Schools</b></i>							
Aversboro	3 <sup>rd</sup>	--	--	Yes	Yes	Yes	No
	4 <sup>th</sup>	--	--	Yes	No	No	No
	5 <sup>th</sup>	--	--	Yes	Yes	Yes	Yes
Carver	3 <sup>rd</sup>	--	--	No	No	Yes	No
	4 <sup>th</sup>	--	--	No	No	Yes	Yes
	5 <sup>th</sup>	--	--	Yes	Yes	Yes	Yes
Knightdale	3 <sup>rd</sup>	--	--	No	No	Yes	No
	4 <sup>th</sup>	--	--	No	No	Yes	Yes
	5 <sup>th</sup>	--	--	No	No	Yes	Yes
Swift Creek	3 <sup>rd</sup>	--	--	No	No	No	No
	4 <sup>th</sup>	--	--	Yes	Yes	Yes	Yes
	5 <sup>th</sup>	--	--	Yes	Yes	Yes	Yes
<i><b>Continuing Schools</b></i>							
Cary	3 <sup>rd</sup>	Yes	Yes	Yes	Yes	Yes	No
	4 <sup>th</sup>	No	No	No	No	No	No
	5 <sup>th</sup>	Yes	Yes	Yes	Yes	Yes	Yes
Creech Road	3 <sup>rd</sup>	No	No	Yes	No	Yes	No
	4 <sup>th</sup>	Yes	Yes	No	No	No	No
	5 <sup>th</sup>	Yes	Yes	Yes	Yes	Yes	Yes
Hodge Road	3 <sup>rd</sup>	No	No	No	No	No	No
	4 <sup>th</sup>	Yes	No	Yes	Yes	Yes	No
	5 <sup>th</sup>	Yes	Yes	Yes	Yes	Yes	Yes
Rand Road	3 <sup>rd</sup>	No	No	No	No	Yes	No
	4 <sup>th</sup>	No	No	No	No	Yes	No
	5 <sup>th</sup>	Yes	Yes	Yes	Yes	Yes	Yes
Smith	3 <sup>rd</sup>	Yes	No	No	No	Yes	No
	4 <sup>th</sup>	Yes	Yes	No	No	No	No
	5 <sup>th</sup>	Yes	Yes	Yes	Yes	Yes	Yes
Vance	3 <sup>rd</sup>	No	No	Yes	Yes	No	No
	4 <sup>th</sup>	No	No	Yes	Yes	No	No
	5 <sup>th</sup>	Yes	Yes	Yes	Yes	Yes	Yes
WCPSS	3 <sup>rd</sup>	Yes	No	Yes	No	Yes	No
	4 <sup>th</sup>	Yes	No	No	No	Yes	No
	5 <sup>th</sup>	Yes	Yes	Yes	Yes	Yes	Yes

Note: Shaded areas indicate that the *High Growth* standard was met.

**Attachment 1 (continued)**  
**ABC Growth Standards Met/Not Met in MATHEMATICS,**  
**Grades 3-5, for Three Years**

School	Grade	MATHEMATICS					
		Spring 2001		Spring 2002		Spring 2003	
		Met Expected Growth?	Met High Growth?	Met Expected Growth?	Met High Growth?	Met Expected Growth?	Met High Growth?
<i><b>New Schools</b></i>							
Aversboro	3 <sup>rd</sup>	--	--	Yes	Yes	Yes	Yes
	4 <sup>th</sup>	--	--	Yes	Yes	Yes	Yes
	5 <sup>th</sup>	--	--	Yes	No	Yes	Yes
Carver	3 <sup>rd</sup>	--	--	No	No	Yes	Yes
	4 <sup>th</sup>	--	--	Yes	No	Yes	Yes
	5 <sup>th</sup>	--	--	Yes	Yes	Yes	Yes
Knightdale	3 <sup>rd</sup>	--	--	No	No	Yes	Yes
	4 <sup>th</sup>	--	--	Yes	Yes	Yes	Yes
	5 <sup>th</sup>	--	--	No	No	Yes	Yes
Swift Creek	3 <sup>rd</sup>	--	--	No	No	Yes	Yes
	4 <sup>th</sup>	--	--	Yes	Yes	Yes	Yes
	5 <sup>th</sup>	--	--	Yes	Yes	Yes	Yes
<i><b>Continuing Schools</b></i>							
Cary	3 <sup>rd</sup>	Yes	No	Yes	Yes	Yes	Yes
	4 <sup>th</sup>	Yes	No	Yes	Yes	Yes	Yes
	5 <sup>th</sup>	Yes	No	Yes	Yes	Yes	Yes
Creech Road	3 <sup>rd</sup>	No	No	Yes	No	Yes	Yes
	4 <sup>th</sup>	Yes	Yes	Yes	Yes	Yes	Yes
	5 <sup>th</sup>	Yes	No	Yes	No	No	No
Hodge Road	3 <sup>rd</sup>	No	No	No	No	Yes	No
	4 <sup>th</sup>	Yes	Yes	Yes	Yes	Yes	Yes
	5 <sup>th</sup>	Yes	Yes	Yes	Yes	Yes	Yes
Rand Road	3 <sup>rd</sup>	No	No	Yes	No	Yes	No
	4 <sup>th</sup>	Yes	No	Yes	Yes	Yes	Yes
	5 <sup>th</sup>	Yes	Yes	Yes	Yes	Yes	Yes
Smith	3 <sup>rd</sup>	Yes	No	Yes	No	Yes	Yes
	4 <sup>th</sup>	Yes	Yes	Yes	Yes	Yes	Yes
	5 <sup>th</sup>	No	No	Yes	Yes	Yes	Yes
Vance	3 <sup>rd</sup>	Yes	No	Yes	Yes	Yes	No
	4 <sup>th</sup>	Yes	Yes	Yes	Yes	Yes	Yes
	5 <sup>th</sup>	Yes	Yes	Yes	Yes	Yes	Yes
WCPSS	3 <sup>rd</sup>	Yes	No	Yes	No	Yes	Yes
	4 <sup>th</sup>	Yes	Yes	Yes	Yes	Yes	Yes
	5 <sup>th</sup>	Yes	No	Yes	Yes	Yes	Yes

Note: Shaded areas indicate that the *High Growth* standard was met.

**Attachment 2**  
**ABC Growth Standards Met/Not Met in READING,**  
**Grades 6-8, for Three Years**

School		Grade		READING					
				Spring 2001		Spring 2002		Spring 2003	
				Met Expected Growth?	Met High Growth?	Met Expected Growth?	Met High Growth?	Met Expected Growth?	Met High Growth?
North Garner Middle	6th	--	--	No	No	No	No		
	7th	--	--	Yes	Yes	Yes	Yes		
	8th	--	--	Yes	Yes	Yes	Yes		
East Garner Middle	6th	No	No	No	No	No	No		
	7th	Yes	Yes	Yes	Yes	Yes	Yes		
	8th	Yes	Yes	Yes	Yes	Yes	Yes		
East Wake Middle	6th	No	No	Yes	No	No	No		
	7th	Yes	Yes	Yes	Yes	Yes	Yes		
	8th	Yes	No	Yes	No	Yes	No		
WCPSS	6th	No	No	No	No	No	No		
	7th	Yes	No	No	No	Yes	No		
	8th	Yes	No	Yes	No	No	No		

Note: Shaded areas indicate that the *High Growth* standard was met.

**ABC Growth Standards Met/Not Met in MATHEMATICS,**  
**Grades 6-8, for Three Years**

School		Grade		MATHEMATICS					
				Spring 2000		Spring 2001		Spring 2002	
				Met Expected Growth?	Met High Growth?	Met Expected Growth?	Met High Growth?	Met Expected Growth?	Met High Growth?
North Garner Middle	6th	--	--	No	No	Yes	Yes		
	7th	--	--	Yes	Yes	Yes	Yes		
	8th	--	--	No	No	No	No		
East Garner Middle	6th	No	No	Yes	No	Yes	Yes		
	7th	No	No	Yes	Yes	Yes	Yes		
	8th	Yes	Yes	No	No	No	No		
East Wake Middle	6th	Yes	No	No	No	No	No		
	7th	No	No	Yes	Yes	Yes	Yes		
	8th	No	No	No	No	No	No		
WCPSS	6th	No	No	Yes	Yes	Yes	Yes		
	7th	Yes	Yes	Yes	Yes	Yes	Yes		
	8th	Yes	Yes	Yes	No	Yes	No		

Note: Shaded areas indicate that the *High Growth* standard was met.

**Attachment 3**  
**Disaggregation of EOG Reading and Math Scores**  
**Grades 3-5**

Dependent Variable = 2003 EOG Scores

Independent Variables	Coefficient Values					
	Read			Math		
	Grade 3	Grade 4	Grade 5	Grade 3	Grade 4	Grade 5
Pre test scale score	0.56**	0.60**	0.49**	0.55**	0.71**	0.79**
Race <sup>♦</sup>						
American Indian	0.44	-0.24	-0.03	-0.27	-0.70	-0.23
Asian	0.59	0.32	-0.20	0.96**	1.19**	0.94**
Black	-2.56**	-1.35**	1.19**	-1.83**	-1.32**	-1.45**
Hispanic	-1.11**	-1.30**	-0.69*	-0.90**	-0.26	-0.61*
Multiracial	-1.28**	-0.64	0.14	-0.44	-1.07**	-0.72*
FRL status of student	-1.82**	-1.51**	-0.81**	-1.19**	-0.90**	-1.07**
LEP	-0.59	-0.80	-0.63	0.20	-0.23	0.24
Disabled	-2.43**	-1.52**	-1.13**	-1.81**	-1.45**	-1.46**
Sex (female=0)	-0.32*	-0.26*	-0.38**	0.30**	0.28*	0.03
Project Achieve Participation	-0.61*	-0.25	-0.17	0.33*	0.80**	-0.80**
Intercept	116.92**	65.49**	85.65**	124.23**	81.33**	61.26**
Sample Size	7597	7216	7180	7598	7246	7197
Explained Variation	58%	61%	63%	64%	69%	74%
F Value	970	1039	1090	1211	1496	1836

Note: Attachment 3 shows unstandardized coefficients from linear regression models. Values reflect differences in scale score points. The dependent variable is 2003 EOG scale scores, the independent variable is program participation, and the control variables are pre-test, race, sex, LEP, disabled, and student FRL.

\*Significant at the .05 level.

\*\*Significant at the .001 level.

♦ For race, white is the reference category.

**Attachment 4**  
**Disaggregation of EOG Reading and Math Scores**  
**Grades 6-8**

Dependent Variable = 2003 EOG Scores

Independent Variables	Coefficient Values					
	Read			Math		
	Grade 6	Grade 7	Grade 8	Grade 6	Grade 7	Grade 8
Pre test scale score	0.58**	0.51**	0.57**	0.72**	0.93**	0.79**
Race <sup>♦</sup>						
American Indian	-1.41	-0.33	-0.17	-1.53	-2.54*	-0.07
Asian	-0.03	0.45*	0.08	1.59**	1.09**	0.51
Black	-1.60**	-0.86**	-1.32**	-1.67**	-1.10**	-1.89**
Hispanic	-0.89**	-0.49*	-0.60*	-0.58*	-0.51	-0.48
Multiracial	-0.39	-0.17	-0.24	-0.24	-0.13	-0.71
FRL status of student	-1.04**	-1.06**	-0.66**	-1.06**	-0.97**	-0.82**
LEP	-1.48*	0.30	-2.07**	-2.54**	0.30	0.58
Disabled	-1.62**	-1.35**	-1.51**	-2.01**	-1.28**	-1.67**
Sex (female=0)	-0.16	-0.06	-0.14	0.16	-0.27*	0.42**
Project Achieve Participation	-0.37*	0.00	-0.26	1.22**	1.13**	-0.13
Intercept	68.67**	82.11**	73.09**	79.65**	25.39**	61.88**
Sample Size	7395	7432	7225	7421	7447	7224
Explained Variation	66%	66%	65%	78%	79%	79%
F Value	1328	1307	1208	2392	2539	2445

Note: Attachment 4 shows unstandardized coefficients from linear regression models. Values reflect differences in scale score points. The dependent variable is 2003 EOG scale scores, the independent variable is program participation, and the control variables are pre-test, race, sex, LEP, disabled, and student FRL.

\*Significant at the .05 level.

\*\*Significant at the .001 level.

♦ For race, white is the reference category.

**Project Achieve Evaluation Report:  
Year Two, 2002-03**

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