



# MEASURING UP

WAKE COUNTY PUBLIC SCHOOLS

EVALUATION AND RESEARCH DEPARTMENT

## WCPSS GRADES K-5 LITERACY AND MATHEMATICS ASSESSMENT RESULTS: 2000-2001

September 2002

*Author: Edie Pierce*

The percentage of students identified as needing extra support in the acquisition of *reading* skills at the next grade level dropped in kindergarten, first, and second grades from the 1999-2000 school year to 2000-2001. Approximately the same percentage of students in grades 1, 2, and 3 were identified as needing extra support in *writing* as had been reported in 1999-2000.

As for mathematics performance, more kindergarten students in 2000-2001 (14%) than in 1999-2000 (11%) remained at the *pre-emergent* stage of mathematics development and were identified as needing extra support in the next school year. The percent of grades 1-5 students demonstrating proficiency in none of the mathematics strands decreased from 1999-2000 but increased slightly for students demonstrating proficiency in only one of the four strands.

Because of the subjective nature of the assessments, it is not clear if these results indicate a change in students' true achievement or an increased focus by teachers on requirements in some subjects. In other words, did the students really have better skills in reading and lower skills in math? Evidence from other sources will need to be considered before making changes in instruction or in allocation of resources.

### BACKGROUND

In early 1999, the North Carolina State Board of Education instituted Policy HAS-C-016, mandating that school districts implement assessments at kindergarten, first, and second grades. The use of grades K-2 assessments was required, for the first time, in all NC elementary schools during the 2000-2001 school year. Local school districts were given the option of using state-developed assessment materials, adaptations of those materials, or unique assessments adopted by local school boards.

The K-2 assessments adopted by the Wake County Public School System (WCPSS) are used to monitor achievement of objectives in the *North Carolina Standard Course of Study*, and include:

- documented, on-going individualized literacy and mathematics assessments throughout the school year, and
- summative evaluations at the end of the year.

As early as 1995, WCPSS had chosen to adapt, expand, and implement state-developed literacy and mathematics assessment materials in grades K-3. The *Kindergarten Developmental Profile* (charting both reading and mathematics progress) was implemented first, and the *Mathematics Observation Profiles* for grades 1-5 and the *Literacy Assessment Profile* for grades 1-3 have been used system-wide since 1997. A new literacy assessment for grades 3-5 was piloted in 1999-2000 and, after teacher training was completed, was implemented in the 2000-2001 school year.

As set forth in State Board of Education policy, the purposes of literacy and mathematics assessments in the early grades are to provide:

- current teachers with information about the progress of each student for instructional adaptations and early interventions,
- next-year teachers with information about the status of each of their incoming students,
- parents with information about the status of their children relative to grade-level standards at parent/teacher conferences throughout the year, and
- schools and school districts with information about the achievement status and progress of groups of students as they move from kindergarten through the early grades.

Results of assessments in the early grades (K-2) are for local use only. There is no reporting of results to the NC Department of Public Instruction or State Board of Education. For clarification, a summary of all the types of formal assessment used in grades K-5 are shown in *Attachment 1*. This report deals only with the assessment data recorded on instructional *Profiles*.

## ASSESSMENT MATERIALS AND PROCEDURES

WCPSS teachers in grades K-5 use “*Profiles*”, based on a checklist of specific goals and objectives from the *NC Standard Course of Study*, to keep track of students’ progress during each school year. The *Profiles* are lightweight cardboard folders, printed with specific goals and objectives, on which teachers record their observations of student performance on those objectives during the school year. Instructional Resource Teachers (IRTs) at the school level are trained on the use of the *Profiles* at meetings they attend through the Curriculum and Instruction Department. IRTs then relay information on to teachers in their schools. K-2 teachers receive information on how to record information on *Profiles* at their K-2 Math Assessment training.

At regular intervals throughout the school year, typically near the end of each quarter, teachers indicate each student’s progress on the objectives listed on the literacy and mathematics *Profiles* for that student. Each rating is based on teacher observations of a student’s demonstrated level of performance and should reflect at least three observations of an objective to determine proficiency. The literacy assessment consists of teacher observations of a student’s reading behaviors - such as oral reading performance, types of reading strategies used, and elements understood while reading - as well as a demonstrated stage of reading and writing development. Students in grades K-2, and students in 3-5 whose instructional reading level is below 24, are assessed using the *K-3 Literacy Assessment: Receptive Literacy Summative Profile Card*. The *3-5 Literacy Assessment: Receptive Literacy Summative Profile Card* is used for students in grades 3-5 whose instructional reading level is 24 or above. Supporting documentation such as running records, and print concepts mastered are placed on the profile card. Other assessments such as work samples, chapter tests, and journal entries can be placed inside the cardboard *Profiles*.

*Math Observation Profiles Cards* are used for grades 1-5 to record teacher observations of student level of performance (I-IV) in four curriculum content areas called “strands”. The strands include Number Sense, Spatial Sense, Patterns and Relationships, and Data and Probability. Kindergarten students are determined to be *Pre-Emergent*, *Emergent*, or *Developing* in their math skills.

At the end of each school year, WCPSS K-5 teachers complete a one-page K-5 Assessment Data Capture Form, designed by the Evaluation & Research Department, to electronically capture the assessment information recorded by teachers on each student’s *Mathematics Observation Profile*, *Reading Continuum Profile*, and *Writing Continuum Profile*. Instructions require that teachers bubble choices in each area of the assessment that most closely indicates the student’s most recent level of development.

One purpose for the development of the WCPSS early grades assessments and subsequent teacher training was to ensure uniformity of measurement method and materials. However, since all *Profiles* ratings are based on teacher judgment, some cautions must be kept in mind when interpreting K-5 assessment results. The *Profiles* ratings are more subjective in nature than standardized test results and, thus, have lower statistical reliability than the NC End-of-Grade test scores in grades 3-8. Also, the data capture forms and the cut-off points defining proficiency in grades K-5 were subject to slight changes in the early stages of implementation, and curriculum revisions at the state level have resulted in corresponding revisions to the WCPSS *Profiles*. For example, beginning in 1999-2000 the mathematics *Profiles* differed from earlier versions because, in a revised *NC Standard Course of Study*, seven mathematics strands (content areas) of previous years were collapsed into four strands (described below). Therefore, in most instances, this report is limited to 1999-2000 compared with 2000-2001 assessment results, rather than comparisons to previous years.

## **GRADES K-5 ASSESSMENT RESULTS, 2000-2001**

Results reported in this bulletin reflect the status of all WCPSS students in the early grades as of June 2001. Student stages of development and proficiency levels are summarized for WCPSS both by subject area (reading, writing, and mathematics) and grade level.

## **LITERACY ASSESSMENT RESULTS**

### **Reading**

The discussions below summarize grades K-3 reading assessment results by:

- Stages of reading development,
- Number of print concepts mastered by kindergarten students at the beginning (*early emergent/emergent*) stage of reading development, and
- Reading instructional book levels.

References to reading levels for 4<sup>th</sup> and 5<sup>th</sup> grade students identify only those children who were still in the primary-grades stages of development.

### Stages of Reading Development

The four stages of reading development in the WCPSS K-3 reading curriculum are *early emergent/emergent*, *developing*, *early independent*, and *independent*. Student progression

through the four stages is shown in *Table 1* for both 1999-2000 and 2000-2001. At the kindergarten level, approximately 62% of students were identified by the teachers as *early emergent/emergent* readers at the end of the 2000-2001 school year, which was the same as reported at the end of the 1999-2000 school year. Eighty-five percent of first grade students were identified as *developing and early independent* readers in 2000-2001, a 4% increase over the 81% of students reported at these stages (stage 2 and stage 3) in 1999-2000. Forty-eight percent of grade 2 students were considered *independent* readers at the end of 2000-2001, the same as was reported at the end of the previous year. At the end of grade 3, the percent of students identified as *independent* (stage 4) readers - remained constant at approximately 76%.

**Table 1: Percent of WCPSS Students in Grades K-5 at Each Stage of Reading Development.**

	Stages of Reading Development				
	Early Emergent/ Emergent	Developing	Early Independent	Independent	No Data Reported
<b>1999-2000</b>					
<i>Grade K</i>	<b>62.2</b>	33.9	2.5	0.4	1.0
<i>Grade 1</i>	6.9	<b>42.4</b>	38.8	10.8	1.9
<i>Grade 2</i>	1.7	9.2	<b>37.4</b>	48.4	3.3
<i>Grade 3</i>	1.3	4.0	14.8	<b>75.9</b>	4.0
<i>Grade 4</i>	0.6	1.4	2.0	3.3	92.7
<i>Grade 5</i>	0.4	0.9	1.3	2.8	94.6
<b>2000-2001</b>					
<i>Grade K</i>	<b>61.5</b>	33.8	3.2	0.4	1.1
<i>Grade 1</i>	5.2	<b>48.0</b>	37.2	8.5	1.1
<i>Grade 2</i>	1.9	8.0	<b>41.5</b>	48.4	1.9
<i>Grade 3</i>	1.1	3.6	15.7	<b>76.2</b>	3.4
<i>Grade 4</i>	0.6	1.5	2.8	3.9	91.2
<i>Grade 5</i>	0.4	1.1	1.6	2.8	94.0

Note: At grades 4 and 5, teachers used the literacy *Profiles* and related materials only with students reading below Book Level 32.  
Typical stages for each grade level are indicated by the bold percentages.

In grades 4 and 5, stages of reading development were reported only for the 6-9% of students reading at or below Book Level 32 (which is at the top of the *independent* reading stage). See *Attachment 2* for information regarding progress through reading stages by some subgroups of the WCPSS grades K-2 student population.

Print Concepts for Kindergarten Students at the First Stage of Reading Development

Students functioning at the beginning (*early emergent/emergent*) stage of reading development were expected to master 19 print concepts. Print concepts include teacher observations to determine whether a student handles books appropriately; follows print word for word; understands directionality (reads text left to right and top to bottom); and is able to distinguish between letters, words, and sentences.

Below in *Table 2* is a two-year comparison of the number and percent of print concepts mastered by kindergarten students at the *early emergent/emergent* reading stage.

**Table 2: Number and Percent of WCPSS Kindergarten Students at the Early Emergent/Emergent Reading Stage Demonstrating Mastery of Print Concepts**

	11 or less	12 to 16	17 to 19	No Data	Above EE/E Stage	Stages - No Data
1999-2000						
<i>Number of Students</i>	468	920	3,305	266	2,935	86
<i>Percent of Students</i>	6.0%	12.0%	41.0%	3.0%	37.0%	1.0%
2000-2001						
<i>Number of Students</i>	465	667	4,817	182	1,758	55
<i>Percent of Students</i>	6.0%	8.0%	61.0%	2.0%	22.0%	1.0%

Note: The shaded areas indicate number and percent of kindergarten students below the cut-off point (17 print concepts), an indicator of need for additional reading support at the next grade level (Grade 1).

Seventeen print concepts is one of the cut-off points or indicators used for identifying students in need of extra reading support during the next school year. Seventy-seven percent of students were at the *early emergent/emergent* reading level (students who demonstrated mastery of print concepts) at the end of the 2000-2001 school year compared with 62% in 1999-2000. The number of students who had mastered fewer than 17 print concepts decreased from 18% of students in 1999-2000 to slightly less than 14% in 2000-2001. Therefore, even though fewer students were above the *early emergent/emergent* stage at the end of their kindergarten year in 2000-2001 (22%) than in 1999-2000 (37%), fewer students were below the 17-point indicator signaling that additional reading support would be needed for them at Grade 1. It is also important to note that the percentage of kindergarteners able to master at least 17 of 19 print concepts went up substantially, from 41% to 61%.

Instructional Reading Book Levels

There are 32 reading book levels through which students advance, as they become more proficient readers. Different books, emphasizing and enhancing specific reading objectives, are available for each of the 32 book levels.

The criteria, established by WCPSS Curriculum and Instruction specialists, for identifying students needing extra reading support are as follows:

- Students entering Grade 1 not yet reading at book levels 1-2, or with mastery of print concepts less than 17,
- Students entering Grade 2 reading at book levels less than 15-16, and
- Students entering Grade 3 reading at book levels less than 23-24.

Typically, the instructional reading book levels – and corresponding reading stages - for each grade are as follows:

- Kindergarten..... Book Levels 1-4 ..... *early emergent/emergent* reading stage
- Grade 1 ..... Book Levels 5-16..... *developing* reading stage
- Grade 2 ..... Book Levels 17-24.... *early independent* reading stage
- Grade 3 ..... Book Levels 25-32.... *independent* reading stage

The cut off point for Instructional Reading Book Levels in Kindergarten is 1-2. This level has been identified as one indicator or predictor of a possible need for extra support and perhaps

retention. Approximately 36% of kindergarten students for the 2000-2001 school year were at or below this range (not yet at Level 1) at the end of the school year. Approximately 64% of kindergarten students showed typical instructional reading levels of 3-4 or above. The typical range of book levels at grades 1, 2, and 3 is wider than that at kindergarten, with the greatest range or variation at grade 1.

**Table 3: Percentages of Students in Grades K-5 at Instructional Reading Book Levels from None Yet (Not Yet at Level 1) to 32 2000-2001**  
Instructional Reading Book Levels

Grade Assessed	None Yet	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	31-32	No Data Reported
K	15.3	20.4	26.8	14.9	7.2	3.7	2.6	1.5	1.7	1.4	0.8	0.6	1.0	0.6	0.2	0.1	0.2	1.1
1	1.2	1.1	2.4	3.1	3.2	4.7	4.0	6.5	19.0	12.9	8.3	5.6	9.0	6.8	4.0	2.3	4.7	1.1
2	0.7	0.6	0.6	0.5	0.7	1.2	0.8	1.3	2.1	2.9	3.1	4.8	16.2	15.5	10.5	7.5	30.1	1.0
3	0.6	0.2	0.3	0.3	0.4	0.5	0.5	0.6	0.9	1.1	1.3	1.6	3.8	7.6	8.2	9.4	59.4	3.1
4	0.3	0.1	0.1	0.2	0.2	0.2	0.3	0.1	0.4	0.3	0.3	0.5	0.7	1.1	1.2	1.1	1.5	90.1
5	0.1	0.1	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.5	0.4	0.5	1.2	94.5

Note 1: Shaded areas indicate the percentage of students below the cut-off points at grades K-2, indicating a need for support in reading if promoted.  
Note 2: At grades 4 and 5, data were reported only for students reading at or below Book Level 32.

Only 69% of third-grade students were reading Book Levels 29-32 by the end of the 2000-2001 school year as compared with at 73% of third-grade students in 1999-2000.

About 15% of kindergarten students, 20% of first grade students, and 15% of second grade students were identified as needing extra support in reading at the next school level. These percentages have decreased from the end of the 1999-2000 school year.

## Writing

Writing *Profiles* are also used to record and monitor K-3 literacy development. The stages of writing are derived from the *NC Benchmarks of Proficiency in Writing*. Similar to the stages of reading, the four writing stages are *emergent*, *developing*, *early independent*, and *independent*. Table 4 shows the percent of WCPSS students in K-3 at each level of writing development.

**Table 4: Percent of WCPSS students in K-3 at Each Stage of Writing Development**

	Stages of Writing				No Data Reported
	Emergent	Developing	Early Independent	Independent	
Grade K	59.9%	37.7%	1.2%	0.1%	1.1%
Grade 1	5.7%	65.3%	26.0%	2.1%	0.9%
Grade 2	2.5%	14.2%	58.6%	24.0%	0.8%
Grade 3	1.6%	6.8%	29.3%	60.9%	1.4%
Grade 4	0.6%	1.3%	1.7%	2.8%	93.6%
Grade 5	0.5%	1.0%	1.3%	2.1%	95.2%

Note: While no formal standards applied, shaded areas indicate percentage of students identified as needing extra support in writing at the next grade level.

As indicated in *Table 4*, at the end of the 2000-2001 school year, about 60% of kindergarten students were in the first or *emergent* stage of writing, with another 39% beyond this stage. Most students reached the higher levels of writing ability as desired in each grade K-3. The percentage below the “typical pattern” informally desired increased across grades, from 0% at Kindergarten to 38% in grade 3. These percentages are approximately the same as those reported in 1999-2000. Beyond grade 3, some teachers used the K-3 writing *Profiles* with students identified as needing extra support in writing: about 6% of students in grade 4 and 5% of students in grade 5. Teachers reported more students needing additional support in writing in grade 5 in the 2000-2001 K-5 Assessment (5%) than the percentage reported last year (2%).

## MATHEMATICS ASSESSMENT RESULTS

*Mathematics Observation Profiles* are somewhat different from reading and writing *Profiles*, with a unique math *Profile* for each grade level. As with the literacy *Profiles*, teachers identify and mark student mastery of skills on the *Mathematics Profiles* and store samples of student work in the folders.

### Stages of Mathematics Development for Kindergarten Students

As shown in *Table 5*, at the end of the 1999-2000 and 2000-2001 school years, the percentages of kindergarten students at each of the three stages of mathematics development varied somewhat, with a slight increase of students at the middle level, the *emergent stage*, and a decrease in the highest level, the *developing stage*.

**Table 5: Percent of WCPSS Kindergarten Students at Each Stage of Mathematics Development**

	1999-2000	2000-2001
<i>Pre-Emergent Stage</i>	11.0%	14.0%
<i>Emergent Stage</i>	54.0%	58.0%
<i>Developing Stage</i>	35.0%	27.9%

Kindergarten students in the *pre-emergent* stage of mathematics development at the end of the 2000-2001 school year were identified as needing extra support at the next grade level (1<sup>st</sup> grade).

### Off-Grade-Level Mathematics Performance

As mentioned earlier, separate mathematics *Profiles* are designed for each grade, 1-5. As indicated in *Table 6*, some students used instructional materials and *Profiles* above or below grade level. For example, at the end of the 2000-2001 school year, about 96% of first-grade students were using instructional materials for attaining the first-grade *Profile* goals, and about one-half of one percent of students was using above-grade-level instructional materials and *Profiles*. The highest percent of students using above-grade materials and *Profiles* was at grade 4.

**Table 6: Percent of WCPSS Students in Grades K-5 Using Instructional Materials and Profiles below Grade Level, at Grade Level, and above Grade Level**

	Percent Using Math Instructional Materials & Profiles			
	<b>Below</b> Grade Level	<b>At</b> Grade Level	<b>Above</b> -Grade Level	No data
<i>Grade 1</i>	0.4%	95.7%	0.4%	3.5%
<i>Grade 2</i>	1.4%	94.9%	0.3%	3.4%
<i>Grade 3</i>	1.8%	93.6%	0.2%	4.3%
<i>Grade 4</i>	2.4%	90.7%	0.5%	6.3%
<i>Grade 5</i>	3.3%	88.7%	0.2%	7.7%

Overall, as grade level increased, the percent of students using mathematics instructional *Profiles* below grade level increased from less than 1% at grade 1 to 3.3% at grade 5. There is no clear reason why there was no data recorded for some students.

#### Student Proficiency in the Four Mathematics Strands

As noted earlier, changes to the *NC Standard Course of Study* result in corresponding curriculum revisions at the local level. Thus, the WCPSS mathematics *Profiles* for the 2000-2001 school year differ from earlier mathematics *Profiles* because, at the state level, the mathematics curriculum was collapsed from seven mathematics strands into four “strands” or areas of curriculum content. At grades 1-5, mathematics development is currently gauged by demonstrated proficiency (Level III or IV) in the following four strands:

- Number sense, numeration, and numerical operations,
- Spatial sense, measurement, and geometry,
- Patterns, relationships, and functions, and
- Data, probability, and statistics.

The goals and objectives for each strand are listed on students’ mathematics *Profiles*. For each of the four strands, teachers mark the level of proficiency, I-IV. A student is considered proficient in a mathematics strand if his/her performance is at Levels III or IV (rather than Levels I or II). The percent of students, in grades 1-5, rated by teachers as demonstrating proficiency in each type of mathematics strand is shown in *Table 7*.

Although proficiency rates were slightly higher in grades 1 and 2 than in other grades at the end of the 2000-2001 school year, there were only small differences in proficiency rates across the four strands.

**Table 7: Percent of WCPSS Students in Grades 1-5 Who Demonstrated Proficiency (Performance Levels III or IV) in Each of the Four Mathematics Strands**

	<i>Mathematics Strands</i>			
	Number Sense	Spatial Sense	Patterns & Functions	Data & Statistics
Grade 1	81.3%	82.1%	84.2%	78.6%
Grade 2	81.0%	77.3%	79.2%	79.2%
Grade 3	78.0%	75.8%	76.5%	77.3%
Grade 4	75.2%	72.3%	72.4%	72.2%
Grade 5	76.6%	73.6%	72.1%	73.6%

See *Attachment 3* for the percentage of students by grade at each level of proficiency (I, II, III, and IV) for all mathematics strands. *Attachment 4* contains percentages of students, by subgroups, at performance levels I and II (not demonstrating proficiency) in grades 1-5.

Number of Mathematics Strands in Which Students Are Proficient

While *Table 7* indicates the percent of students rated by teachers as proficient in each mathematics strand, *Table 8* indicates the percent of students who, based on teacher ratings, demonstrated proficiency in zero, one, two, three, or all four of the mathematics strands. Any student not demonstrating proficiency in at least two of the mathematics strands was identified as likely to need extra assistance.

**Table 8: Percent of WCPSS Students by Grade Who Were Rated as Proficient (Performance Level III or IV) in One, Two, Three, Four, or No Mathematics Strand(s)**

	% Proficient in No Math Strands	% Proficient in 1 Math Strand	% Proficient in 2 Math Strands	% Proficient in 3 Math Strands	% Proficient in 4 Math Strands
<i>Grade 1</i>	11.4%	3.5%	5.5%	6.9%	72.8%
<i>Grade 2</i>	12.9%	3.8%	6.8%	7.4%	69.1%
<i>Grade 3</i>	15.2%	4.4%	6.1%	6.2%	68.1%
<i>Grade 4</i>	18.8%	4.7%	6.2%	6.1%	64.1%
<i>Grade 5</i>	17.5%	4.5%	7.6%	5.3%	65.1%

As expected, at each grade level, a majority of students demonstrated proficiency in all four of the mathematics strands. However, while the percent of students proficient in four strands was almost the same in grades 2-5, the percent of students not demonstrating proficiency in any math strand increased with grade level, from 11% at grade 1 to almost 19% at grade 4. If no data was recorded for a student, the lack of data was treated as “Proficient in No Math Strands.” This data, however, accounted for less than 1% of students at each grade level.

**SUMMARY**

Reading, writing, and math classroom profile assessments in WCPSS reflect the North Carolina Standard Course of Study. Curriculum and Instruction coordinators have identified informal benchmarks for “typical” performance that are helpful in examining trends in performance and in

targeting students for extra support. At least 60% of students in reading, writing, and math showed performance at or above these informal benchmarks at every grade level.

- In reading, high percentages of students in K-3 showed reading development at or above the stage considered typical for each grade level in 2001-2002 (from 100% at Kindergarten, to 76% at grade 3). For the instructional book levels considered desirable, 63% (K) to 80% (grade 2) of students met or exceeded the benchmarks.
- In writing, 2001-2002, the percentage of students performing at the typical stage of writing ranged from 100% at Kindergarten to 61% at grade 3. These results were similar to those reported 1999-2000.
- In math, the percentage of students demonstrating grade level performance on all four math strands ranged from 73% at grade 1 to 64% at grade 4. These percentages were similar, but slightly lower than in 1999-2000. About one fourth of the students at each grade did not score in Level III or IV on two or more of the strands. This is considered a stronger indicator of need for additional assistance for these students.

Based on the new WCPSS standards for reading, 18-36% of students (K-2), and for mathematics 14%-23% of students in math were identified as needing additional instructional support the next school year.

## References

- *NC Standard Course of Study*, NC Dept. of Public Instruction, 1989/1992/1999.
- WCPSS “Grades K-5 Assessment Data Capture Form”, E&R, 2000 and 2001.
- WCPSS “K-5 Assessment Data Access Spreadsheet” for each elementary school, E&R, August 2001. (Spreadsheet was offered in Excel if requested.)
- WCPSS Literacy Profiles:
  - *K-3 Literacy Assessment Reading Continuum Summative Profile*, Form 3008R, 1997.
  - *K-3 Literacy Assessment Writing Continuum Summative Profile*, Form 3008W, 1997.
- WCPSS *K-3 Literacy Assessment Expository Text Retelling Forms, Narrative Text Retelling Forms, and Print Concepts Checklist for Early Emergent/Emergent Readers* with Administration Guide, 1997.
- WCPSS Mathematics Profiles (with an *Observation Profile* for each grade, K-5), 2000.

## Attachments

### *Attachment 1:* Types of Assessments in the Early Grades 2000-2001

Grades K-2	<ul style="list-style-type: none"> <li>▪ Kindergarten Initial Assessment is required by WCPSS for students entering kindergarten.</li> <li>▪ <b>Local literacy &amp; mathematics assessments, recorded on <i>Profiles</i>, are required by the state.</b></li> </ul>
Grade 3	<ul style="list-style-type: none"> <li>▪ Grade 3 Pretests in reading and mathematics are required by the state</li> <li>▪ <b>Local literacy assessments, recorded on <i>Profiles</i>, are required by WCPSS.</b></li> <li>▪ <b>Local mathematics assessments, using current <i>Profiles</i>, are optional in WCPSS.</b> (A new local on-going mathematics assessment for grades 3 – 5 is in development.)</li> <li>▪ Local-option mid-year EOG tests in reading and mathematics, available by school choice</li> <li>▪ End-of-Grade tests in reading and mathematics are required by the state</li> </ul>
Grades 4 – 5	<ul style="list-style-type: none"> <li>▪ The NC Writing Assessment in grade 4 is required by the state.</li> <li>▪ A Writing Assessment in grade 5 is required by WCPSS for students who have not yet achieved proficiency in writing at level 2.5 or above.</li> <li>▪ <b>Local literacy assessments, recorded on <i>Profiles</i>, are required by WCPSS.</b></li> <li>▪ <b>Local mathematics assessments, using current <i>Profiles</i>, are optional in WCPSS.</b> (A new local on-going mathematics assessment for grades 3 – 5 is in development.)</li> <li>▪ Local-option mid-year EOG tests in reading and mathematics, available by school choice</li> <li>▪ End-of-Grade tests in reading and mathematics are required by the state</li> </ul>

Note: Only the literacy and mathematics assessments **in bold above** are discussed in this report

**Attachment 2:**  
**Percent of WCPSS Grades K-2 Students,**  
**by Subgroups, at each Stage of Reading Development in May, 2001**

	Reading Stages				
	Early Emerg./ Emergent	Developing	Early Independent	Independent	No Data Reported
<b>Kindergarten</b>					
<i>All Students</i>	61.5%	33.8%	3.2%	0.4%	1.1%
<i>White Females</i>	47.0%	46.2%	5.4%	0.5%	0.9%
<i>White Males</i>	56.6%	39.1%	3.0%	0.4%	0.9%
<i>Black Females</i>	76.9%	21.2%	1.0%	0.1%	0.7%
<i>Black Males</i>	80.6%	16.3%	0.8%	0.3%	2.1%
<i>Other Females</i>	34.3%	53.8%	7.2%	0.9%	3.8%
<i>Other Males</i>	71.5%	24.2%	2.9%	0.5%	1.1%
<i>White F/R Lunch</i>	69.4%	27.7%	1.8%	0.0%	1.1%
<i>Black F/R Lunch</i>	84.8%	13.8%	0.1%	0.2%	1.1%
<i>Other F/R Lunch</i>	87.4%	11.1%	0.2%	0.0%	1.3%
<i>White Non-F/R Lunch</i>	50.9%	43.4%	4.2%	0.5%	0.9%
<i>Black Non-F/R Lunch</i>	71.2%	25.1%	1.6%	0.2%	1.8%
<i>Other Non-F/R Lunch</i>	10.7%	73.9%	10.4%	1.6%	3.3%
<b>Grade 1</b>					
<i>All Students</i>	5.2%	48.0%	37.2%	8.5%	1.1%
<i>White Females</i>	0.8%	31.0%	58.6%	9.0%	0.6%
<i>White Males</i>	1.9%	33.9%	56.4%	7.0%	0.9%
<i>Black Females</i>	6.2%	30.2%	56.7%	6.0%	1.0%
<i>Black Males</i>	7.8%	50.5%	37.3%	3.2%	1.2%
<i>Other Females</i>	11.1%	38.3%	42.6%	6.7%	1.2%
<i>Other Males</i>	10.1%	31.2%	49.2%	8.1%	1.4%
<i>White F/R Lunch</i>	7.5%	56.6%	29.3%	4.8%	1.8%
<i>Black F/R Lunch</i>	12.0%	65.5%	18.3%	3.0%	1.2%
<i>Other F/R Lunch</i>	23.1%	55.6%	15.3%	3.2%	2.7%
<i>White Non-F/R Lunch</i>	1.4%	40.6%	46.5%	10.6%	0.9%
<i>Black Non-F/R Lunch</i>	2.7%	56.8%	31.3%	7.9%	1.3%
<i>Other Non-F/R Lunch</i>	4.2%	41.8%	41.2%	11.6%	1.3%
<b>Grade 2</b>					
<i>All Students</i>	1.9%	8.0%	41.5%	46.7%	1.9%
<i>White Females</i>	0.5%	2.7%	35.9%	59.5%	1.3%
<i>White Males</i>	0.8%	4.7%	38.8%	54.2%	1.5%
<i>Black Females</i>	1.4%	11.7%	51.9%	32.0%	3.0%
<i>Black Males</i>	4.4%	16.9%	49.0%	27.2%	2.5%
<i>Other Females</i>	5.1%	12.6%	40.3%	39.9%	2.0%
<i>Other Males</i>	6.6%	15.6%	42.6%	31.8%	3.3%
<i>White F/R Lunch</i>	2.1%	12.3%	46.9%	35.8%	2.9%
<i>Black F/R Lunch</i>	4.2%	18.2%	53.5%	20.9%	3.3%
<i>Other F/R Lunch</i>	11.1%	24.2%	45.6%	15.7%	3.5%
<i>White Non-F/R Lunch</i>	0.5%	3.1%	36.7%	58.4%	1.3%
<i>Black Non-F/R Lunch</i>	1.0%	8.5%	45.9%	42.4%	2.1%
<i>Other Non-F/R Lunch</i>	2.2%	7.0%	38.6%	50.1%	2.2%

Note: Among the kindergarten students in the *Early Emergent/Emergent* reading stage, some were performing at or below Book Level 1.

**Attachment 3:**  
**Percentages of WCPSS Students by Grade at**  
**Each Performance Level (I-IV) in the Four Mathematics Strands May, 2001**

	Mathematics Strands			
	Number Sense	Spatial Sense	Patterns & Functions	Data & Statistics
<b>Grade 1</b>				
Performance Level 1	3.2%	3.3%	3.2%	4.2%
Level 2	15.5%	14.5%	12.5%	17.1%
Level 3	71.0%	76.0%	76.2%	71.5%
Level 4	10.2%	6.2%	8.0%	7.1%
<b>Grade 2</b>				
Performance Level 1	3.2%	3.6%	3.8%	4.3%
Level 2	15.8%	19.1%	17.0%	17.1%
Level 3	70.8%	71.6%	72.8%	72.2%
Level 4	10.3%	5.7%	6.4%	6.4%
<b>Grade 3</b>				
Performance Level 1	3.7%	4.3%	4.4%	4.6%
Level 2	18.4%	19.9%	19.2%	18.1%
Level 3	61.5%	63.2%	62.6%	63.7%
Level 4	16.4%	12.6%	13.9%	13.6%
<b>Grade 4</b>				
Performance Level 1	4.8%	5.9%	6.0%	6.4%
Level 2	20.0%	22.2%	21.5%	21.5%
Level 3	55.6%	56.6%	55.9%	55.4%
Level 4	19.6%	16.7%	16.6%	16.7%
<b>Grade 5</b>				
Performance Level 1	4.4%	5.3%	5.9%	5.9%
Level 2	18.9%	21.1%	22.0%	20.5%
Level 3	52.0%	53.1%	51.9%	52.5%
Level 4	24.7%	20.5%	20.2%	21.1%

Note: The shaded boxes indicate areas of performance below the cut-off point for proficiency in a mathematics strand.

**Attachment 4:**  
**Percentages of WCPSS Students, by Grade and Subgroup, with**  
**Performance at Levels I and II (Not Proficient) in the Mathematics Strands in May, 2001**

	Mathematics Strands			
	Number Sense	Spatial Sense	Patterns & Functions	Data & Statistics
<b>Grade 1</b>				
<i>All Students</i>	18.8%	17.9%	15.8%	21.4%
<i>White Males</i>	9.4%	8.6%	7.9%	10.7%
<i>White Females</i>	9.7%	8.5%	7.7%	10.7%
<i>Black Males</i>	36.1%	36.4%	31.9%	42.1%
<i>Black Females</i>	34.5%	32.3%	27.6%	37.5%
<i>Other Males</i>	24.3%	25.0%	21.0%	29.8%
<i>Other Females</i>	27.5%	25.3%	23.8%	31.8%
<i>White F/R Lunch</i>	24.6%	24.6%	22.8%	27.2%
<i>Black F/R Lunch</i>	43.9%	43.1%	37.5%	49.5%
<i>Other F/R Lunch</i>	37.5%	38.5%	34.9%	45.5%
<i>White Non-F/R Lunch</i>	8.4%	7.4%	6.7%	9.5%
<i>Black Non-F/R Lunch</i>	23.3%	22.2%	19.1%	26.3%
<i>Other Non-F/R Lunch</i>	15.4%	13.8%	11.6%	18.1%
<b>Grade 2</b>				
<i>All Students</i>	19.0%	23.3%	6.4%	6.5%
<i>White Males</i>	8.3%	10.8%	10.1%	10.4%
<i>White Females</i>	11.0%	12.9%	11.4%	11.3%
<i>Black Males</i>	37.3%	43.9%	41.1%	42.6%
<i>Black Females</i>	40.5%	43.6%	37.0%	38.0%
<i>Other Males</i>	23.9%	28.1%	27.9%	29.0%
<i>Other Females</i>	22.2%	29.7%	24.6%	27.7%
<i>White F/R Lunch</i>	23.5%	31.7%	29.0%	31.4%
<i>Black F/R Lunch</i>	45.3%	51.5%	47.9%	49.2%
<i>Other F/R Lunch</i>	37.8%	45.6%	44.0%	47.9%
<i>White Non-F/R Lunch</i>	6.4%	9.9%	9.4%	9.3%
<i>Black Non-F/R Lunch</i>	28.4%	32.2%	29.3%	29.3%
<i>Other Non-F/R Lunch</i>	12.5%	16.8%	13.6%	14.3%
<b>Grade 3</b>				
<i>All Students</i>	0.3%	0.3%	0.3%	0.3%
<i>White Males</i>	0.4%	0.5%	0.5%	0.5%
<i>White Females</i>	0.5%	0.5%	0.5%	0.5%
<i>Black Males</i>	4.3%	4.5%	4.5%	4.5%
<i>Black Females</i>	4.4%	4.6%	4.6%	4.5%
<i>Other Males</i>	25.1%	27.8%	29.2%	28.2%
<i>Other Females</i>	27.1%	32.7%	31.7%	27.9%
<i>White F/R Lunch</i>	9.6%	11.0%	9.7%	9.9%
<i>Black F/R Lunch</i>	4.2%	4.4%	4.5%	4.4%
<i>Other F/R Lunch</i>	40.1%	46.7%	48.4%	45.7%
<i>White Non-F/R Lunch</i>	0.2%	0.2%	0.2%	0.2%
<i>Black Non-F/R Lunch</i>	3.9%	3.6%	4.0%	4.1%
<i>Other Non-F/R Lunch</i>	16.1%	18.5%	17.6%	15.4%

Note: Students with performance at Levels I and II in a mathematics strand are identified as needing extra mathematics support in the next school year. Performance at Levels I and II in two or more mathematics strands is one indicator or predictor of possible retention.

## -Continuation of Attachment 4-

	Mathematics Strands			
	Number Sense	Spatial Sense	Patterns & Functions	Data & Statistics
<b>Grade 4</b>				
<i>All Students</i>	24.8%	27.7%	9.3%	9.5%
<i>White Males</i>	13.9%	13.7%	14.7%	15.3%
<i>White Females</i>	14.3%	15.7%	15.3%	15.3%
<i>Black Males</i>	48.9%	56.5%	55.9%	54.1%
<i>Black Females</i>	46.8%	54.4%	52.7%	54.1%
<i>Other Males</i>	25.7%	32.0%	32.4%	33.3%
<i>Other Females</i>	30.7%	33.3%	32.4%	34.0%
<i>White F/R Lunch</i>	34.5%	39.1%	38.8%	41.2%
<i>Black F/R Lunch</i>	57.4%	66.3%	64.9%	63.9%
<i>Other F/R Lunch</i>	46.3%	55.0%	55.6%	56.9%
<i>White Non-F/R Lunch</i>	12.7%	13.0%	13.3%	13.5%
<i>Black Non-F/R Lunch</i>	34.6%	40.5%	39.6%	40.4%
<i>Other Non-F/R Lunch</i>	15.4%	17.1%	16.4%	17.5%
<b>Grade 5</b>				
<i>All Students</i>	23.4%	26.4%	10.5%	9.5%
<i>White Males</i>	15.5%	17.2%	18.7%	16.5%
<i>White Females</i>	11.8%	13.7%	14.3%	13.4%
<i>Black Males</i>	48.3%	53.0%	57.3%	56.8%
<i>Black Females</i>	41.9%	49.1%	50.0%	47.5%
<i>Other Males</i>	28.0%	32.3%	33.5%	32.8%
<i>Other Females</i>	24.4%	28.2%	28.7%	26.9%
<i>White F/R Lunch</i>	37.1%	41.9%	41.3%	41.9%
<i>Black F/R Lunch</i>	54.6%	61.3%	63.2%	62.8%
<i>Other F/R Lunch</i>	47.3%	54.4%	54.1%	54.1%
<i>White Non-F/R Lunch</i>	12.2%	13.8%	15.1%	13.2%
<i>Black Non-F/R Lunch</i>	32.4%	36.4%	38.8%	37.9%
<i>Other Non-F/R Lunch</i>	14.4%	16.7%	18.2%	16.3%

Note: Students with performance at Levels I and II in a mathematics strand are identified as needing extra mathematics support in the next school year. Performance at Levels I and II in two or more mathematics strands is one indicator or predictor of possible retention.