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ABSTRACT

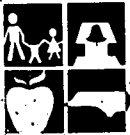
This publication provides a reference for educators and others interested in conducting comparative studies relative to North Carolina tests. It includes norms, tables, and other statistical information for all state-developed tests (state-mandated and local-option tests for which baseline data are available) that were administered during the current accountability cycle. The North Carolina ABCs Accountability Model requires extensive use of statistics from the state-mandated tests to monitor the progress of the state's public schools. Student improvement is monitored at the elementary and middle school levels through end-of-grade tests and at the high school level through end-of-course tests in the core subjects for which tests have been developed: English I and II; Algebra I and II; Geometry; U.S. History; Economic, Legal, and Political Systems; Physical Science; Biology; Physics; and Chemistry. Users of this publication are reminded that state-level frequency distributions and other descriptive statistics are prepared each year, but the normative statistics for baseline purposes are established the first year a test is used. Test interpretation material is provided in the following areas: (1) "Using Test Scores for Student Decisions"; (2) "End-of-Grade Tests--Achievement Levels by Subject and Grade"; (3) "End-of-Course Tests--Achievement Levels and Scale Scores; and (4) "Glossary of Testing and Other Statistical Terms." Tables present data on the state-mandated end-of-grade tests in reading and mathematics, local option end-of-grade tests in social studies, science, French, and Spanish, and state-mandated end-of-course tests. (Contains 62 tables.) (SLD)

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State Norms

for the North Carolina Testing Program



Public Schools of North Carolina
State Board of Education
Department of Public Instruction
Division of Accountability Services/Testing Section

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1998 Edition

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Introduction

The purpose of this publication is to provide a reference for educators and others interested in conducting comparative studies relative to North Carolina tests. This publication includes norms tables and other statistical information for all state-developed tests (state-mandated and local option tests where baseline data are available) that were administered during the current accountability cycle. New tests and revisions of existing tests are made from time to time; therefore, subsequent editions of this publication will include norms and statistical information for new and revised tests as they are implemented.

The North Carolina ABCs Accountability Model requires extensive use of statistics from North Carolina state-mandated tests to monitor the progress of the state's public schools. Each school is measured against itself, and is accountable for having students make reasonable progress based on year-to-year comparisons of test performance. The model retains the core components of the previous testing program, focusing accountability on the basics. Student improvement is routinely measured by the State Board of Education in reading, writing, mathematics, and computer skills at the elementary and middle school levels. Schools are held accountable in the core subjects required for graduation where state tests have been developed: English I and II; Algebra I and II; Geometry; U.S. History; Economic, Legal, and Political Systems; Physical Science; Biology; Physics; and Chemistry. Statistical information, including norms, for other

state-developed tests is included in this document as a reference when using those tests.

Users of this publication are reminded that state-level frequency distributions and other descriptive statistics are prepared each year a state-mandated test is administered; however, for baseline comparative purposes, normative statistics are established the first year a test is administered. The baseline norm year is shown for each test in the List of Contents (on page 3) and at the top of each table.

Several legitimate statistical methods exist whereby norms may be calculated for tests. Each method may produce slightly different (although educationally insignificant) normative scores. The statistics presented here represent the product of the method used by the Public Schools of North Carolina, North Carolina Department of Public Instruction (NCDPI), for the state's testing and accountability programs. This method computes percentile ranks that can be compared across two or more distributions (unlike percentiles). Accordingly, persons using these tables should be able to replicate statistics on file at NCDPI when calculating test averages and percentile rankings locally.

Educators and others interested in using these tables may contact the Regional Accountability Coordinator (RAC), local testing coordinators, or the Division of Accountability Services for additional information on the appropriate uses of these tables.

Acknowledgments

The development of a document that contains a variety of statistical information requires the skill and efforts of many individuals. We thank George Stubblefield and Tara Francis for compiling the statistical information; Kristopher Kaase for compiling the graphics and developing the end-of-grade interpolation tables; Mildred Bazemore for organization, writing, editing and contributions to the text; and Karen Davis, Tara Francis, LaShon Ormond, Eleanor Sanford, and George Stubblefield for their contributions to the text of this document.

List of Contents

Guides to the Interpretation of Tests:

Using Test Scores for Student Decisions
End-of-Grade Tests - Achievement Levels by Subject and Grade
End-of-Course Tests - Achievement Levels and Scale Scores
Glossary of Testing and Other Statistical Terms

Norms and Interpolation Tables:

	Current Norm Year	Original Norm Year
State-Mandated End-of-Grade Tests		
Grade 3 Pretests Reading and Mathematics	1996	1996
Grades 3-8 Reading	1993	1993
Grade 3-8 Mathematics	1993	1993
Local Option End-of-Grade Tests		
Grades 3-8 Social Studies	1994	1994
Grades 3-8 Science	1996	1996
French Forms A and B	1992	1992
Spanish Forms A and B	1992	1992
State-Mandated End-of-Course Tests		
Algebra I	1994	1987
Biology	1995	1987
Economic, Legal, & Political Systems	1997	1991
English I	1995	1990
U.S. History	1995	1988
Algebra II	1997	1988
Chemistry	1997	1989
Geometry	1997	1989
Physical Science	1997	1991
Physics	1997	1990

End-of-Grade Tests

Historical Information. North Carolina end-of-grade tests were initiated in response to legislation passed in 1989 by the North Carolina General Assembly. North Carolina end-of-grade tests were developed by the North Carolina Department of Public Instruction with technical support from the L.L. Thurstone Psychometric Laboratory at The University of North Carolina at Chapel Hill and the North Carolina Technical Advisory Group. The tests were developed for use as achievement tests to measure the acquisition of specific subject-area content and skills associated with a particular grade in school.

Based on the 1989 legislation, North Carolina end-of-grade tests were developed for two purposes:

- To provide accurate measurement of individual student skills and knowledge specified in the North Carolina *Standard Course of Study*, and
- To provide accurate measurement of the knowledge and skills attained by groups of students for school, school system, and state accountability.

End-of-grade tests are based on the assessment of higher level skills. When properly administered and interpreted, these test results provide an independent, uniform source of reliable and valid information that enables:

- Students to know the extent to which they have mastered expected knowledge and skills and how they compare to others;
- Parents to know if their children are acquiring the knowledge and skills needed to succeed in a highly competitive job market;
- Teachers to know if their students have mastered grade-level knowledge and skills in the curriculum and, if not, what weaknesses need to be addressed;
- Community leaders and lawmakers to know if students in North Carolina schools are improving their performance over time and how the students compare with students from other states or the nation; and
- Citizens to objectively assess their return on investment in the public schools.

Scores on the end-of-grade tests are only one of many indicators of the achievement of students. The value of these tests lies primarily in the fact that the scores provide a common standard that is not influenced by local differences in achievement and expectations. The tests provide yardsticks, which can be used to compare the achievement of students, schools, school systems, and the state. The assessment yardstick can be used to measure gains (or losses) in performance across time to see if education improvement efforts at the state and local level are working.

Scale Scores. Raw scores are converted to scale scores on the end-of-grade tests. Scale scores allow the different forms of the test to be equated, so that a scale score of 150 in Reading on Form A represents the same level of achievement as a scale score of 150 on Form B, even though the raw scores may be slightly different.

The reading, mathematics, and science tests are reported on developmental scales, which yield rulers to measure growth in these subject areas across time. Just like height in inches, on average, student scores are expected to go up every year. Also like height, the rate of growth is somewhat faster in the earlier grades than in later grades.

Developmental scale scores on end-of-grade tests can be used to chart the average educational growth of students as they progress through the grades. Given the way the scales were developed, the differences in mathematics scores between grades in 1992-93 can provide a standard for comparing average growth across grade levels for the future, e.g., between where students were at the end of the third grade versus where they are at the end of the fourth grade. This *anticipated growth* varies from grade level to grade level and from subject to subject. Each year test results can be used to chart the *actual growth* of students from grade level to grade level within a subject. Schools and school systems may use the developmental scale scores to compare their own mean scale scores to the state average to evaluate the performance of

their students. Social studies scores are not on a developmental scale because the specific content covered at each grade is different. Scale scores can be averaged and relative comparisons made within each subject and across groups, schools, and school systems.

It is not appropriate to compare developmental scale scores across subjects (i.e., mathematics vs. reading) because the typical growth across grades for each subject is different. It is appropriate to compare scale scores within subjects and types of tests (i.e., open-ended and multiple-choice) across years.

Achievement Levels. Achievement levels allow the comparison of student and group performance to standards based on what is expected in each subject at each grade level. Achievement levels were determined by relating the judgments of thousands of North Carolina teachers concerning the performance of each of their students to each student's performance on the end-of-grade multiple-choice tests. The four levels are:

Level I: Students performing at this level do not have sufficient mastery of knowledge and skills in this subject area to be successful at the next grade level.

Level II: Students performing at this level demonstrate inconsistent mastery of knowledge and skills in this subject area and are minimally prepared to be successful at the next grade level.

Level III: Students performing at this level consistently demonstrate mastery of grade level subject matter and skills and are well prepared for the next grade level.

Level IV: Students performing at this level consistently perform in a superior

manner clearly beyond that required to be proficient at grade level work.

Each achievement level corresponds to a range of scale scores for each subject and grade level. The scale score ranges for each subject and grade is presented below.

Ranges for Achievement Levels by Subject and Grade End-of-Grade Tests

Reading and Mathematics Scale Scores (1998)

Subject/Grade		Level I	Level II	Level III	Level IV
Reading	PT3	119-127	128-132	133-144	145-162
	3	115-130	131-140	141-150	151-172
	4	119-134	135-144	145-155	156-174
	5	124-138	139-148	149-158	159-178
	6	128-140	141-151	152-161	162-180
	7	130-144	145-154	155-163	164-183
	8	132-144	145-155	156-165	166-184
	Mathematics	PT3	105-117	118-125	126-134
3		98-124	125-137	138-149	150-173
4		111-131	132-142	143-155	156-182
5		117-140	141-149	150-160	161-188
6		130-145	146-154	155-167	168-196
7		134-151	152-160	161-172	173-203
8		137-154	155-164	165-177	178-208

Science Scale Scores (1997)

Grade	Level I	Level II	Level III	Level IV
3	119-132	133-143	144-155	156-180
4	122-136	137-147	148-159	160-182
5	128-141	142-150	151-161	162-187
6	130-141	142-151	152-161	162-188
7	134-145	146-153	154-164	165-189
8	134-145	146-154	155-166	167-190

Social Studies Scale Scores (1994)

Grade	Level I	Level II	Level III	Level IV
3	25-40	41-50	51-60	61-79
4	26-41	42-50	51-61	62-85
5	25-41	42-51	52-62	63-85
6	29-39	40-49	50-59	60-85
7	26-40	41-49	50-60	61-85
8	28-39	40-48	49-58	59-86

North Carolina Writing Assessment at Grades 4 and 7

Writing	Level I	Level II	Level III	Level IV
4 & 7	0.0 - 1.0	1.5 - 2.0	2.5 - 3.0	3.5 - 4.0

End-of-Course Tests

Historical Information. The North Carolina end-of-course tests were initiated in response to legislation passed by the North Carolina General Assembly — the North Carolina Elementary and Secondary Reform Act of 1984. This act called for the implementation of the Basic Education Program through the establishment of a core curriculum for all students for each content area and the development of tests to assess the implementation of each curriculum across the state. Based on this legislation, the North Carolina end-of-course tests were developed for two purposes:

- To provide accurate measurement of individual student skills and knowledge specified in the North Carolina *Standard Course of Study*, and
- To provide accurate measurement of the knowledge and skills attained by groups of students for school, school system, and state accountability.

End-of-course tests are based on the assessment of higher level skills within the context of specific subject-area content. When properly administered and interpreted, these test results provide an independent, uniform source of reliable and valid information, which enables

- Students to know the extent to which they have mastered expected knowledge and skills and how they compare to others;
- Parents to know if their children are acquiring the knowledge and skills needed to succeed in a highly competitive job market;

- Teachers to know if their students have mastered grade-level knowledge and skills in the curriculum and, if not, what weaknesses need to be addressed;
- Community leaders and lawmakers to know if students in North Carolina schools are improving their performance over time and how the students compare with students from other states or the nation; and
- Citizens to objectively assess their return on investment in the public schools.

The North Carolina end-of-course tests were developed by the North Carolina Department of Public Instruction with technical support from the L.L. Thurstone Psychometric Laboratory at The University of North Carolina at Chapel Hill and the North Carolina Technical Advisory Group. The tests were developed for use as achievement tests to measure the acquisition of specific subject-area content and skills.

Scores on the end-of-course tests are only one of many indicators of the achievement of students. The value of these tests lies primarily in the fact that the scores provide a common standard that is not influenced by local differences in achievement and expectations. The tests provide yardsticks, which can be used to compare the achievement of students, schools, school systems, and the state. The assessment yardstick can be used to measure gains (or losses) in performance across time to see if educational improvement efforts at the state and local level are working.

High School Subjects Tests (EOC) Scale Scores

- The end-of-course tests are reported in terms of scale scores. Unlike end-of-grade tests, developmental scale scores are inappropriate for end-of-course tests because the content taught in each of the courses is discrete.
- Scale scores allow the different forms of the test to be equated, so that a scale score of 50 in Algebra I on Form A represents the same level of achievement as a scale score of 50 on Form B, even though the raw scores may be slightly different.
- The scale scores for all tests have a mean of 50 and a standard deviation of 10. The range of scale scores is approximately 20 to 90.
- Beginning with 1993-94, scores for Algebra I were reported as scale scores rather than raw scores. In 1994-95, Biology, English I, and U.S. History were reported as scale scores rather than raw scores. In 1995-96 Economic, Legal, and Political Systems (ELP) used scale scores rather than raw scores to report student performance. These scores are not comparable to scores from earlier years when raw scores were used.

Achievement Levels. Achievement levels allow the comparison of student and group performance to standards based on what is expected in each subject at each grade level. Achievement levels were determined by relating the judgments of thousands of North Carolina teachers concerning the performance of each of their students to each student's performance on the end-of-course tests. The four levels are:

Level I: Students performing at this level do not have sufficient mastery of knowledge and skills of the course to be successful at a more advanced level in the content area.

Level II: Students performing at this level demonstrate inconsistent mastery of knowledge and skills of the course and are minimally prepared to be successful at a more advanced level in the content area.

Level III: Students performing at this level consistently demonstrate mastery of the course subject matter and skills and are well prepared for a more advanced level in the content area.

Level IV: Students performing at this level consistently perform in a superior manner clearly beyond that required to be proficient in the course subject matter and skills and are very well prepared for a more advanced level in the content area.

Each achievement level corresponds to a range of scale scores for each subject.

**Achievement Level Ranges for
North Carolina End-of-Course Tests**

Test/Year Normed	Level I	Level II	Level III	Level IV
Algebra I*/1994	23-44	45-54	55-56	66-87
Algebra II/1997	23-45	46-57	58-68	69-88
Biology*/1995	25-46	47-54	55-64	65-88
Chemistry/1997	23-47	48-55	56-64	65-88
ELP*/1997	21-42	43-51	52-60	61-87
English I*/1995	22-42	43-51	52-60	61-85
English II**	0.0-1.5	2.0-2.5	3.0-3.5	4.0-6.0
Geometry/1997	23-45	46-56	57-66	67-87
Physics/1997	23-42	43-51	52-62	63-87
Physical Science/1997	23-43	44-53	54-63	64-87
US History*/1997	27-47	48-56	57-64	65-88

* These achievement level ranges have been approved by the State Board of Education.

** English II benchmarks were set in the summer of 1997.

Using Test Scores for Student Decisions

There is a natural desire to want to use numbers as if they were absolutely precise when making decisions. However, common experiences teach that most measurements vary a little in their precision. A carpenter's ruler may not be as accurate as a scientist's, bathroom scales may not be as accurate as those in a doctor's office, and speedometers in cars may show speeds that vary from those captured on a radar gun. Decisions can be and are made from both levels of precision.

Individuals often use their knowledge of accuracy when making the final decision. For example, the carpenter may use lumber that has been cut just a bit short but reject other cuts because of the intended use of the wood. The doctor may not make a decision about a patient using just one precise measurement but may prefer to use a pattern of weight measurements from two scales before suggesting a course of treatment. The police officer may not ticket a speeding offender driving within a few miles per hour of the posted speed limit because he or she recognizes the potential for a difference in precision.

Making decisions about students has similar problems, with the additional complexity of the measurement of human characteristics such as school achievement or aptitude. Clearly, it is easier to measure speed, weight, or length than intelligence or achievement. Teachers who work with students approximately 180 days each year can only assign grades into perhaps five broad categories of achievement (such as A, B, C, D, or F). They also know that achievement may vary from day to day for a given student. One day a student

may respond in a consistent "well above average" fashion while the very next day he or she may give average or just above average responses. When it comes to a decision that has more important consequences than reporting to parents about progress in school, such as failure in a grade or admission to a special program, teachers are often uncomfortable depending on their own judgment alone. Most prefer to use additional independent judgments or results from standardized tests to confirm these major decisions.

Multiple-choice tests are more reliable than any single teacher's test, but they are not perfect instruments. Just as speedometers, scales, and rulers have variation in their measurement accuracy, test scores vary due to characteristics of the specific test items and the differences in student performance that occur on a daily basis. In order to help ensure that all students meet a standard of performance, citizens and educators sometimes feel a need to use a single objective score from a standardized test to make important decisions about students. It is inappropriate to place so much weight on a single administration of a single instrument, which takes such a short time to administer. The *Testing Code of Ethics*, guidelines adopted by the State Board of Education, has helped many educators make more appropriate interpretations of test scores. Two items under Reporting are illustrative:

- Individual test scores are best presented as approximations and not as absolutes. It is preferable to report results as a limited score range rather than distinct points.

- Test scores are to be presented as one source of information about a student or group of students and should not be used alone for placement, referral, and other consequential decisions on the education of a student.

These guidelines are consistent with Standards for Educational and Psychological Testing developed nationally by the American Psychological Association, the American Educational Research Association, and the National Council on Measurement in Education.

For more information on the psychometric characteristics (e.g., standard error of measurement) of tests developed by The NCDPI, refer to the following documents:

- North Carolina End-of-Grade Tests, Technical Report #1 (NCDPI, 1996), and
- North Carolina End-of-Course Tests, Technical Report #1 (NCDPI, 1996).

Examples of Appropriate Uses

The process for identifying students for special programs in North Carolina follows guidelines in the Testing Code of Ethics by using a combination of teacher recommendations, standardized tests, and past performance.

- The state standard for a **Competency Test** in a given area, which was also set using a combination of information, is currently based on one test. However, the student has repeated opportunities to take the test before the decision to withhold graduation with a diploma is made.
- Similarly, **Grade-Level Proficiency Guidelines** identify students on a standard set by teachers and translated to a test score. Under these guidelines, local policy and discretion determine promotion and retention decisions which take into account the student's test score and other information which may indicate a student's level of achievement in a grade.

Conclusion

When making decisions that impact students, the best plan is one which incorporates a combination of information about the student. The plan should ask for repeated demonstrations of the weaknesses or excellence of the student in the particular area. This conservative approach more nearly matches that used by the carpenter, doctor, or police officer. It takes into account variation in measurement and checks for patterns that provide keys for any important decision.

Glossary of Testing and Other Statistical Terms

Achievement Levels. Predetermined levels of achievement that relate the judgment of North Carolina teachers to the actual student performance on North Carolina tests. The achievement levels allow for the comparison of student and group performance to establish standards based on what is expected in a subject area at each grade level.

Achievement Test. A test that measures the extent to which a person has “achieved” something, acquired certain information, or mastered certain standardized sets of skills - usually as a result of planned instruction or training.

Criterion-Referenced Test. A test that is designed to provide information on the specific knowledge or skills possessed by a student. Such tests usually cover relatively small units and are related to instruction. Performance is measured in reference to mastery of particular skills. Scores from these tests have meaning in terms of *what* the student knows or can do, rather than in their relation to the scores made by some external reference or norm group.

Curriculum-Based Test. A test that is designed to measure student performance in reference to goals and competencies specifically defined in a curriculum.

Developmental Scale Scores. Developmental scales are similar to rulers that allow growth in a subject to be measured across time. Developmental scale scores are intended to be interpreted much like height in inches. As is the case for growth in

height, we expect an annual increase in scale scores, but not the same increase for each year. The rate of growth is a bit faster in the earlier grades than in the later grades. A developmental scale score in end-of-grade reading should not be compared to a developmental scale score in end-of-grade mathematics.

Diagnostic Test. A test that is used to diagnose, analyze or locate an individual’s specific areas of weakness and/or strength to determine the nature of the weaknesses or deficiencies and, where possible, to suggest the cause. Diagnostic tests are most commonly prepared for the skill subjects.

End-of-Course Tests. Curriculum-based accountability assessments used to measure student achievement in specific high school courses.

End-of-Grade Tests. Achievement tests that provide information about the overall proficiency of students in specific content areas at the end of a grade. They measure how much a student has grown educationally in a year and whether or not groups of students are performing according to grade level expectations. These tests are curriculum-based accountability tests and scores are presented as developmental scale scores. The tests provide limited information about the strengths and weaknesses of individual students in specific skill areas.

Focused Holistic Score. Used in assessments, which evaluate the writing skills of students in grades 4, 7, and English II (grade 10). Student

compositions are assigned a score that reflects a trained reader's general impression of each composition's quality. The reader focuses on the set of prescribed composition characteristics (main idea, supporting details, coherence, and organization) and assigns a score based on the level of facility that the writer demonstrates.

Frequency. The number of objects, individuals, or events in a category. For example, the number of students enrolled in an elementary school or in an Algebra I course; the number of students in each grade level; and the number of students in third grade who scored 150 on their reading test.

Frequency Distribution. The number of objects, individuals, or events in each category of a variable. For example, the number of third-grade students in Xavier Elementary School scoring at each score point on the reading EOG test.

Gain. Gain is computed as the difference between the average student test scores in the grade, group or subject in Year 1 and the average test scores of the same grade, group or subject in Year 2. For example, the difference between grade 3 reading scores in 1993 and grade 3 reading scores in 1994; or the difference between Algebra I test scores in 1994 and Algebra I test scores in 1995.

Growth. The cohort difference in test score achievement across grades/years. Growth is computed as the difference between the test scores (developmental scale scores) of a group in Year 1 and the test scores of the same group in Year 2. For example, grade 3 mathematics

test scores in 1993 and grade 4 mathematics test scores in 1994.

Mean, Median, Mode. Measures of central tendency. The mean (or average) is the sum of the scores divided by the total number of scores. The median is the middle score in an ordered distribution of scores. The mode is the most frequently occurring score in the distribution. The mean is generally the best measure of central tendency when scores are normally distributed.

Mean Percent Correct. The average of the percentage of test questions students answered correctly.

N or Number. The number of students with valid test scores on a specific test, which may also be referred to as "N-counts."

Normal Curve Equivalents (NCEs). The normal curve equivalent (NCE) scale ranges from 1 to 99. NCEs have many of the same characteristics as percentile ranks but have the additional advantage of being based on an equal-interval scale. That is, the difference between two successive scores on the scale has the same meaning throughout the scale.

Norm-Referenced Test. A test that measures performance in relation to a comparison group.

Norming Year. The first year a test is administered; used for baseline comparative purposes. Percentile scores are computed based on the state distribution of scores from the norming year.

Percentiles. A percentile indicates the percentage of scores that fall below a given score. A commonly used percentile is the median, which is the 50th percentile. For example, a score at the 55th percentile means that the score is higher than the score achieved by 55 percent of all students taking the test in the year the test was normed. A score at the 55th percentile *does not* mean 55% of the questions were answered correctly.

Percentile Ranks. The percentile rank of a score is the percentage of scores less than or equal to that score. For example, the percentile rank of 63 is the percentage of scores in the distribution that falls at or below a score of 63. In Algebra I, the percentile rank of a score of 63 is 80. The percentile rank is a point on the percentile scale, whereas a percentile is a score, a point on the original measurement scale. Percentile ranks of scores can be compared across two or more distributions; percentiles cannot be used to determine differences in relative rank due to the fact that the interval between adjacent percentiles do not necessarily represent equal raw or scale score intervals.

Range. A measure of variability. The range is the difference between the highest and lowest scores in the distribution.

Raw Score. The number of test questions a student answers correctly.

Scale Scores. Scores that express how far a given *raw* score (number correct) is from a reference point, usually the mean score. Scale scores are units of an equal-interval scale. The difference between two successive scores on the scale has the same meaning throughout the scale.

The advantage of scale scores is that they allow an individual's performance to be compared on several different tests, regardless of the raw score scales.

Standard Deviation. A measure of variability; an indication of how much variation there is in the scores, i.e., how close together or how spread out the scores are. The standard deviation measures the extent to which scores or events in a distribution, on the average, deviate from the mean. The standard deviation is the square root of the variance.

For example: SAT Verbal Scores are reported as scale scores. The scores range from 200 to 800. The mean is 500. To determine the standard deviation of normally distributed scores, divide the range of scores by 6 ($600/6=100$).

Statistical significance = $1/4$ of a standard deviation ($100/4=25$). Using the SAT example, a score of 485 is within 25 points of the mean. In a statistical context, this score is not significantly different from the mean.

Educational significance = $1/3$ of a standard deviation ($100/3=33.3$). Using the SAT example, a score of 465 is not within 33 points of the mean. In an educational context, this score is not significantly different from the mean score.

Reliability. The extent to which a test is consistent in measuring whatever it purports to measure; an indication of dependability, stability, trustworthiness, and relative freedom from errors of measurement. Reliability is usually expressed as a *reliability coefficient* or

by the standard error of measurement derived from it.

Standard Error of Measurement. As applied to a single obtained score, the amount by which the score may differ from the hypothetical true score due to errors of measurement. The larger the standard error of measurement, the less reliable the score. In about two-thirds of the scores in a group, the obtained score will not differ by more than one standard error measurement from the true score.

Standardized Test. A test designed to provide a systematic sample of individual performance, administered according to prescribed directions, scored in conformance with definite rules, and interpreted in reference to certain normative information.

Test Item Banks and Testlets. Item banks are pools of items available electronically and from which teachers can select items for use in the classroom. Test item banks are designed to match the curriculum goals and objectives which allows the teacher to assess achievement/mastery immediately after instruction. Item banks can be used to generate tests to diagnose student strengths and weaknesses.

Testlets are a resource developed by NCDPI for teachers and administrators to operationalize and implement the revised North Carolina *Standard Course of Study*. Testlets are mini-tests that measure specific areas of the curriculum. The same items are found in test item banks developed by NCDPI and found in the testlets.

Validity. The extent to which a test measures that which it purports to measure. All procedures for determining test validity are concerned with the relationships between performance on the test and other independently observable facts. There is content-related validity, criterion-related validity, construct-related validity, and predictive validity.

Variance. A measure of variability derived by subtracting the mean test score from each student's test score, squaring the difference, summing the squares, and dividing by the number of students. If the variance is small, the scores are close together; if the variance is large, the scores are more spread out.

State-Mandated End-of-Grade Test Norms

**NORTH CAROLINA TESTING PROGRAM
END-OF-GRADE TEST -- GRADE 3 PRETEST READING -- 1996**

STATE SUMMARY STATISTICS

Number of Students With Valid Scores	94,551	High Score	160
		Low Score	119
Mean	137.8	1996 State Percentiles	Scale Score
Standard Deviation	8.6	90	149.7
		75	144.8
		50 (Median)	137.4
Variance	73.8	25	130.1
		10	127.3

FREQUENCY DISTRIBUTION

Developmental Scale	Frequency	Cumulative Frequency	Percent	Cumulative Percent	1996 State Percentile
160	1	94551	0.0	100.0	99
159	0	94550	0.0	100.0	99
158	281	94550	0.3	100.0	99
157	436	94269	0.5	99.7	99
156	738	93833	0.8	99.2	99
155	1089	93095	1.2	98.5	98
154	372	92006	0.4	97.3	97
153	1929	91634	2.0	96.9	96
152	1956	89705	2.1	94.9	94
151	1592	87749	1.7	92.8	92
150	1413	86157	1.5	91.1	90
149	3437	84744	3.6	89.6	88
148	2348	81307	2.5	86.0	85
147	1681	78959	1.8	83.5	83
146	4258	77278	4.5	81.7	79
145	2886	73020	3.1	77.2	76
144	1698	70134	1.8	74.2	73
143	4858	68436	5.1	72.4	70
142	3404	63578	3.6	67.2	65
141	3617	60174	3.8	63.6	62
140	1514	56557	1.6	59.8	59
139	3777	55043	4.0	58.2	56
138	3822	51266	4.0	54.2	52
137	1560	47444	1.7	50.2	49
136	3893	45884	4.1	48.5	46
135	3719	41991	3.9	44.4	42
134	1688	38272	1.8	40.5	40
133	3758	36584	4.0	38.7	37
132	1891	32826	2.0	34.7	34
131	5628	30935	6.0	32.7	30
130	3745	25307	4.0	26.8	25
129	5661	21562	6.0	22.8	20
128	5231	15901	5.5	16.8	14
127	5740	10670	6.1	11.3	8
126	2722	4930	2.9	5.2	4
125	437	2208	0.5	2.3	2
124	864	1771	0.9	1.9	1
123	501	907	0.5	1.0	1
LESS THAN 123	406	406	0.4	0.4	1

NORTH CAROLINA TESTING PROGRAM
END-OF-GRADE TEST -- GRADE 3 PRETEST MATHEMATICS -- 1996

STATE SUMMARY STATISTICS

Number of Students with Valid Scores	94,846	High Score	154
		Low Score	105
Mean	130.0	1996 State Percentiles	Scale Score
Standard Deviation	8.1	90	140.7
		75	135.7
Variance	65.5	50 (Median)	130.0
		25	124.1
		10	119.3

FREQUENCY DISTRIBUTION

Developmental Scale	Frequency	Cumulative Frequency	Percent	Cumulative Percent	1996 State Percentile
154	6	94846	0.0	100.0	99
153	38	94840	0.0	100.0	99
152	9	94802	0.0	100.0	99
151	187	94793	0.2	99.9	99
150	28	94606	0.0	99.8	99
149	471	94578	0.5	99.7	99
148	49	94107	0.1	99.2	99
147	907	94058	1.0	99.2	99
146	399	93151	0.4	98.2	98
145	1030	92752	1.1	97.8	97
144	1781	91722	1.9	96.7	96
143	1405	89941	1.5	94.8	94
142	1669	88536	1.8	93.4	92
141	1864	86867	2.0	91.6	91
140	2800	85003	3.0	89.6	88
139	1884	82203	2.0	86.7	86
138	3246	80319	3.4	84.7	83
137	3326	77073	3.5	81.3	80
136	3447	73747	3.6	77.8	76
135	3624	70300	3.8	74.1	72
134	3787	66676	4.0	70.3	68
133	3832	62889	4.0	66.3	64
132	5101	59057	5.4	62.3	60
131	4242	53956	4.5	56.9	55
130	4297	49714	4.5	52.4	50
129	4386	45417	4.6	47.9	46
128	4339	41031	4.8	43.3	41
127	4325	36692	4.6	38.7	36
126	4180	32367	4.4	34.1	32
125	2606	28187	2.8	29.7	28
124	4164	25581	4.4	27.0	25
123	3791	21417	4.0	22.6	21
122	2397	17626	2.5	18.9	17
121	3242	15229	3.4	16.1	14
120	2092	11987	2.2	12.6	12
119	2519	9895	2.7	10.4	9
118	1514	7376	1.6	7.8	7
117	1276	5862	1.4	6.2	6
116	1473	4586	1.6	4.8	4
115	807	3113	0.9	3.3	3
114	545	2306	0.6	2.4	2
113	622	1761	0.7	1.9	2
112	382	1139	0.4	1.2	1
111	199	757	0.2	0.8	1
LESS THAN 111	558	558	0.6	0.6	1

**NORTH CAROLINA TESTING PROGRAM
END-OF-GRADE TEST -- GRADE 3 READING -- 1993**

STATE SUMMARY STATISTICS

Number of Students with Valid Scores	85,381	High Score	172
		Low Score	116
Mean	142.7	1993 State Percentiles	Scale Score
Standard Deviation	9.9	90	155.2
		75	149.9
		50 (Median)	143.6
Variance	97.3	25	135.8
		10	128.7

FREQUENCY DISTRIBUTION

Developmental Scale	Frequency	Cumulative Frequency	Percent	Cumulative Percent	1993 State Percentile
172	5	85381	0.0	100.0	99
171	11	85376	0.0	100.0	99
170	10	85365	0.0	100.0	99
169	48	85355	0.1	100.0	99
168	33	85307	0.0	99.9	99
166	170	85274	0.2	99.9	99
165	85	85104	0.1	99.7	99
164	336	85019	0.4	99.6	99
163	164	84683	0.2	99.2	99
162	543	84519	0.6	99.0	99
161	270	83976	0.3	98.4	98
160	1189	83706	1.4	98.0	97
159	993	82517	1.2	96.7	96
158	472	81524	0.6	95.5	95
157	1746	81052	2.0	94.9	94
156	1955	79306	2.3	92.9	92
155	1432	77351	1.7	90.6	90
154	2306	75919	2.7	88.9	88
153	2449	73613	2.9	86.2	85
152	2532	71164	3.0	83.4	82
151	2605	68632	3.1	80.4	79
150	3541	66027	4.2	77.3	75
149	3754	62486	4.4	73.2	71
148	2573	58732	3.0	68.8	67
147	3411	56159	4.0	65.8	64
146	3512	52748	4.1	61.8	60
145	3498	49236	4.1	57.7	56
144	3291	45738	3.9	53.6	52
143	2402	42447	2.8	49.7	48
142	3930	40045	4.6	46.9	45
141	2972	36115	3.5	42.3	41
140	2080	33143	2.4	38.8	38
139	2750	31063	3.2	36.4	35
138	3394	28313	4.0	33.2	31
137	1900	24919	2.2	29.2	28
136	2467	23019	2.9	27.0	26
135	1796	20552	2.1	24.1	23
134	1790	18756	2.1	22.0	21
133	1686	16966	2.0	19.9	19
132	1847	15280	2.2	17.9	17
131	1839	13433	2.2	15.7	15
130	1731	11594	2.0	13.6	13
129	1663	9863	2.0	11.6	11
128	1554	8200	1.8	9.6	9
127	991	6646	1.2	7.8	7
126	1352	5655	1.6	6.6	6
125	893	4303	1.1	5.0	5
124	583	3410	0.7	4.0	4
123	1230	2827	1.4	3.3	3
122	574	1597	0.7	1.9	2
LESS THAN 122	1023	1023	1.2	1.2	1

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**NORTH CAROLINA TESTING PROGRAM
END-OF-GRADE TEST -- GRADE 3 MATHEMATICS -- 1993**

STATE SUMMARY STATISTICS

Number of Students with Valid Scores	85,026	High Score	171
		Low Score	100
Mean	139.9	1993 State Percentiles	Scale Score
Standard Deviation	11.3	90	153.6
		75	148.2
Variance	128.1	50 (Median)	140.9
		25	132.2
		10	124.1

FREQUENCY DISTRIBUTION

Developmental Scale	Frequency	Cumulative Frequency	Percent	Cumulative Percent	1993 State Percentile
171	15	85026	0.0	100.0	99
170	19	85011	0.0	100.0	99
168	64	84992	0.1	100.0	99
167	83	84928	0.1	99.9	99
165	129	84845	0.2	99.8	99
164	244	84716	0.3	99.6	99
163	210	84472	0.3	99.4	99
162	389	84262	0.5	99.1	99
161	369	83873	0.4	98.6	98
160	657	83504	0.8	98.2	98
159	440	82847	0.5	97.4	97
158	816	82407	1.0	96.9	96
157	1097	81591	1.3	96.0	95
156	1076	80494	1.3	94.7	94
155	1211	79418	1.4	93.4	93
154	1964	78207	2.3	92.0	91
153	2190	76243	2.6	89.7	88
152	2330	74053	2.7	87.1	86
151	1565	71723	1.8	84.4	83
150	3173	70158	3.7	82.5	81
149	2392	66985	2.8	78.8	77
148	2325	64593	2.7	76.0	75
147	3927	62268	4.6	73.2	71
146	2222	58341	2.6	68.6	67
145	2888	56119	3.4	66.0	64
144	3465	53231	4.1	62.6	61
143	2697	49766	3.2	58.5	57
142	3188	47069	3.8	55.4	53
141	2426	43881	2.9	51.6	50
140	3039	41455	3.6	48.8	47
139	2249	38416	2.7	45.2	44
138	2787	36167	3.3	42.5	41
137	2193	33380	2.6	39.3	38
136	3222	31187	3.8	36.7	35
135	1530	27965	1.8	32.9	32
134	2966	26435	3.5	31.1	29
133	1462	23469	1.7	27.6	27
132	2263	22007	2.7	25.9	25
131	1767	19744	2.1	23.2	22
130	1687	17977	2.0	21.1	20
129	2056	16290	2.4	19.2	18
128	1198	14234	1.4	16.7	16
127	1497	13036	1.8	15.3	14
126	1069	11539	1.3	13.6	13
125	1425	10470	1.7	12.3	11
124	1309	9045	1.5	10.6	10
123	927	7736	1.1	9.1	9

NORTH CAROLINA TESTING PROGRAM
END-OF-GRADE TEST -- GRADE 3 MATHEMATICS -- 1993
(Continued)

Developmental Scale	Frequency	Cumulative Frequency	Percent	Cumulative Percent	1993 State Percentile
122	1070	6809	1.3	8.0	7
121	754	5739	0.9	6.8	6
120	747	4985	0.9	5.9	5
119	697	4238	0.8	5.0	5
118	625	3541	0.7	4.2	4
117	524	2916	0.6	3.4	3
116	504	2392	0.6	2.8	3
115	407	1888	0.5	2.2	2
114	358	1481	0.4	1.7	2
113	277	1123	0.3	1.3	1
112	164	846	0.2	1.0	1
111	208	682	0.2	0.8	1
110	186	474	0.2	0.6	1
109	99	288	0.1	0.3	1
108	70	189	0.1	0.2	1
107	45	119	0.1	0.1	1
106	46	74	0.1	0.1	1
LESS THAN 106	28	28	0.0	0.0	1

**NORTH CAROLINA TESTING PROGRAM
END-OF-GRADE TEST -- GRADE 4 READING -- 1993**

STATE SUMMARY STATISTICS

Number of Students with Valid Scores	84,811	High Score	174
Mean	147.1	Low Score	119
Standard Deviation	9.6	1993 State Percentiles	Scale Score
Variance	92.8	90	159.2
		75	154.3
		50 (Median)	147.9
		25	140.1
		10	133.1

FREQUENCY DISTRIBUTION

Developmental Scale	Frequency	Cumulative Frequency	Percent	Cumulative Percent	1993 State Percentile
174	25	84811	0.0	100.0	99
173	11	84786	0.0	100.0	99
171	120	84775	0.1	100.0	99
170	40	84655	0.1	99.8	99
169	104	84615	0.1	99.8	99
168	236	84511	0.3	99.7	99
167	198	84275	0.2	99.4	99
166	428	84077	0.5	99.1	99
165	564	83649	0.7	98.6	98
164	665	83085	0.8	98.0	98
163	759	82420	0.9	97.2	97
162	1390	81661	1.6	96.3	95
161	1573	80271	1.9	94.7	94
160	1711	78698	2.0	92.8	92
159	1851	76987	2.2	90.8	90
158	2030	75136	2.4	88.6	87
157	2705	73106	3.2	86.2	85
156	3580	70401	4.2	83.0	81
155	2193	66821	2.6	78.8	77
154	4311	64628	5.1	76.2	74
153	2801	60317	3.3	71.1	69
152	2824	57516	3.3	67.8	66
151	3464	54692	4.1	64.5	62
150	4012	51228	4.7	60.4	58
149	2517	47216	3.0	55.7	54
148	3809	44699	4.5	52.7	50
147	3148	40890	3.7	48.2	46
146	2329	37742	2.8	44.5	43
145	3502	35413	4.1	41.8	40
144	2313	31911	2.7	37.6	36
143	2734	29598	3.2	34.9	33
142	2244	26864	2.7	31.7	30
141	2165	24620	2.6	29.0	28
140	2758	22455	3.3	26.5	25
139	1636	19697	1.9	23.2	22
138	1666	18061	2.0	21.3	20
137	2247	16395	2.7	19.3	18
136	1674	14148	2.0	16.7	16
135	2233	12474	2.6	14.7	13
134	1144	10241	1.4	12.1	11
133	1599	9097	1.9	10.7	10
132	1490	7498	1.7	8.8	8
131	1668	6008	2.0	7.1	6
130	1171	4340	1.4	5.1	4
129	898	3169	1.1	3.7	3
128	725	2271	0.9	2.7	2
127	670	1546	0.8	1.8	1
126	403	876	0.5	1.0	1
125	327	473	0.4	0.6	1
LESS THAN 125	146	146	0.2	0.2	1

**NORTH CAROLINA TESTING PROGRAM
END-OF-GRADE TEST -- GRADE 4 MATHEMATICS -- 1993**

STATE SUMMARY STATISTICS

Number of Students with Valid Scores	84,453	High Score	178
Mean	146.1	Low Score	112
Standard Deviation	10.5	1993 State Percentiles	Scale Score
Variance	109.5	90	159.2
		75	154.0
		50 (Median)	146.7
		25	138.7
		10	131.6

FREQUENCY DISTRIBUTION

Developmental Scale	Frequency	Cumulative Frequency	Percent	Cumulative Percent	1993 State Percentile
178	9	84453	0.0	100.0	99
177	8	84444	0.0	100.0	99
176	6	84436	0.0	100.0	99
175	19	84430	0.0	100.0	99
174	21	84411	0.0	100.0	99
173	78	84390	0.1	99.9	99
172	59	84312	0.1	99.8	99
171	143	84253	0.2	99.8	99
170	101	84110	0.1	99.6	99
169	233	84009	0.3	99.5	99
168	321	83776	0.4	99.2	99
167	319	83455	0.4	98.8	99
166	410	83136	0.5	98.4	98
165	520	82726	0.6	98.0	98
164	863	82206	1.0	97.3	97
163	967	81343	1.2	96.3	96
162	1179	80376	1.4	95.2	94
161	1299	79197	1.5	93.8	93
160	1330	77898	1.6	92.2	91
159	2007	76568	2.4	90.7	89
158	2091	74561	2.5	88.3	87
157	2200	72470	2.6	85.8	85
156	2824	70270	3.3	83.2	82
155	2486	67446	2.9	79.9	78
154	2933	64960	3.5	76.9	75
153	2342	62027	2.8	73.5	72
152	3106	59685	3.7	70.7	69
151	3041	56579	3.6	67.0	65
150	3136	53538	3.7	63.4	62
149	3599	50402	4.3	59.7	58
148	1815	46803	2.2	55.4	54
147	3529	44988	4.2	53.3	51
146	2925	41459	3.5	49.1	47
145	2397	38534	2.8	45.6	44
144	2941	36137	3.5	42.8	41
143	2969	33196	3.5	39.3	38
142	2300	30227	2.7	35.8	34
141	2814	27927	3.3	33.1	31
140	2226	25113	2.6	29.7	28
139	2229	22887	2.6	27.1	26
138	2199	20658	2.6	24.5	23
137	2049	18459	2.4	21.9	21
136	2082	16410	2.5	19.4	18
135	1474	14328	1.8	17.0	16
134	1904	12854	2.3	15.2	14
133	1306	10950	1.6	13.0	12
132	1273	9644	1.5	11.4	11

NORTH CAROLINA TESTING PROGRAM
 END-OF-GRADE TEST -- GRADE 4 MATHEMATICS -- 1993
 (Continued)

Developmental Scale	Frequency	Cumulative Frequency	Percent	Cumulative Percent	1993 State Percentile
131	1501	8371	1.8	9.9	9
130	1078	6870	1.3	8.1	7
129	1000	5792	1.2	6.9	6
128	1183	4792	1.4	5.7	5
127	784	3609	0.9	4.3	4
126	669	2825	0.8	3.4	3
125	522	2156	0.6	2.6	2
124	424	1634	0.5	1.9	2
123	354	1210	0.4	1.4	1
122	266	856	0.3	1.0	1
121	257	590	0.3	0.7	1
120	156	333	0.2	0.4	1
119	103	177	0.1	0.2	1
118	43	74	0.1	0.1	1
117	19	31	0.0	0.0	1
LESS THAN 117	12	12	0.0	0.0	1

**NORTH CAROLINA TESTING PROGRAM
END-OF-GRADE TEST -- GRADE 5 READING -- 1993**

STATE SUMMARY STATISTICS

Number of Students with Valid Scores	85,337	High Score	178
		Low Score	125
Mean	151.5	1993 State Percentiles	Scale Score
Standard Deviation	9.0	90	162.7
		75	158.3
Variance	81.6	50 (Median)	152.1
		25	145.1
		10	138.8

FREQUENCY DISTRIBUTION

Developmental Scale	Frequency	Cumulative Frequency	Percent	Cumulative Percent	1993 State Percentile
178	13	85337	0.0	100.0	99
177	3	85324	0.0	100.0	99
175	51	85321	0.1	100.0	99
174	36	85270	0.0	99.9	99
173	147	85234	0.2	99.9	99
172	83	85087	0.1	99.7	99
171	258	85004	0.3	99.6	99
170	339	84746	0.4	99.3	99
169	271	84407	0.3	98.9	99
168	892	84136	1.1	98.6	98
167	1208	83244	1.4	97.6	97
166	935	82036	1.1	96.1	96
165	1038	81101	1.2	95.0	94
164	1722	80063	2.0	93.8	93
163	1893	78341	2.2	91.8	91
162	4107	76448	4.8	89.6	87
161	2057	72341	2.4	84.8	84
160	2192	70284	2.6	82.4	81
159	3575	68092	4.2	79.8	78
158	2927	64517	3.4	75.6	74
157	3538	61590	4.2	72.2	70
156	4180	58052	4.9	68.0	66
155	2751	53872	3.2	63.1	62
154	3438	51121	4.0	59.9	58
153	3341	47683	3.9	55.9	54
152	4035	44342	4.7	52.0	50
151	3228	40307	3.8	47.2	45
150	3316	37079	3.9	43.5	42
149	3160	33763	3.7	39.6	38
148	3167	30603	3.7	35.9	34
147	2501	27436	2.9	32.2	31
146	2941	24935	3.5	29.2	27
145	1789	21994	2.1	25.8	25
144	2999	20205	3.5	23.7	22
143	2154	17206	2.5	20.2	19
142	1662	15052	2.0	17.6	17
141	1656	13390	1.9	15.7	15
140	2104	11734	2.5	13.8	13
139	1554	9630	1.8	11.3	10
138	1403	8076	1.6	9.5	9
137	1282	6673	1.5	7.8	7
136	1247	5391	1.5	6.3	6
135	1043	4144	1.2	4.9	4
134	1084	3101	1.3	3.6	3
133	762	2017	0.9	2.4	2
132	493	1255	0.6	1.5	1
LESS THAN 132	762	762	0.9	0.9	1

**NORTH CAROLINA TESTING PROGRAM
END-OF-GRADE TEST --- GRADE 5 MATHEMATICS -- 1993**

STATE SUMMARY STATISTICS

Number of Students with Valid Scores	84,999	High Score	185
		Low Score	124
Mean	152.3	State Percentiles	Scale Score
Standard Deviation	9.7	90	165.1
		75	159.1
		50 (Median)	152.3
Variance	94.7	25	145.0
		10	139.5

FREQUENCY DISTRIBUTION

Developmental Scale	Frequency	Cumulative Frequency	Percent	Cumulative Percent	1993 State Percentile
185	5	84999	0.0	100.0	99
184	6	84994	0.0	100.0	99
183	19	84988	0.0	100.0	99
182	20	84969	0.0	100.0	99
181	31	84949	0.0	99.9	99
180	29	84918	0.0	99.9	99
179	90	84889	0.1	99.9	99
178	86	84799	0.1	99.8	99
177	204	84713	0.2	99.7	99
176	70	84509	0.1	99.4	99
175	257	84439	0.3	99.3	99
174	322	84182	0.4	99.0	99
173	351	83860	0.4	98.7	98
172	420	83509	0.5	98.3	98
171	788	83089	0.9	97.8	97
170	795	82301	0.9	96.8	96
169	908	81506	1.1	95.9	95
168	988	80598	1.2	94.8	94
167	1247	79610	1.5	93.7	93
166	1126	78363	1.3	92.2	92
165	1915	77237	2.3	90.9	90
164	1814	75322	2.1	88.6	88
163	1914	73508	2.3	86.5	85
162	2062	71594	2.4	84.2	83
161	2731	69532	3.2	81.8	80
160	1898	66801	2.2	78.6	77
159	2985	64903	3.5	76.4	75
158	2796	61918	3.3	72.9	71
157	3696	59122	4.4	69.6	67
156	1824	55426	2.2	65.2	64
155	3890	53602	4.6	63.1	61
154	3513	49712	4.1	58.5	56
153	2997	46199	3.5	54.4	53
152	3662	43202	4.3	50.8	49
151	3068	39540	3.6	46.5	45
150	2285	36472	2.7	42.9	42
149	3887	34187	4.6	40.2	38
148	2371	30300	2.8	35.7	34
147	2396	27929	2.8	32.9	31
146	2255	25533	2.7	30.0	29
145	3837	23278	4.5	27.4	25
144	2262	19441	2.7	22.9	22
143	2876	17179	3.4	20.2	19
142	2154	14303	2.5	16.8	16
141	1894	12149	2.2	14.3	13
140	1823	10255	2.1	12.1	11
139	1590	8432	1.9	9.9	9

NORTH CAROLINA TESTING PROGRAM
 END-OF-GRADE TEST -- GRADE 5 MATHEMATICS -- 1993
 (Continued)

Developmental Scale	Frequency	Cumulative Frequency	Percent	Cumulative Percent	1993 State Percentile
138	1471	6842	1.7	8.1	7
137	1229	5371	1.5	6.3	6
136	1102	4142	1.3	4.9	4
135	865	3040	1.0	3.6	3
134	675	2175	0.8	2.6	2
133	505	1500	0.6	1.8	1
132	440	995	0.5	1.2	1
131	215	555	0.3	0.7	1
130	239	340	0.3	0.4	1
129	57	101	0.1	0.1	1
LESS THAN 129	44	44	0.1	0.1	1

**NORTH CAROLINA TESTING PROGRAM
END-OF-GRADE TEST -- GRADE 6 READING -- 1993**

STATE SUMMARY STATISTICS

Number of Students with Valid Scores	84,278	High Score	180
		Low Score	128
Mean	154.0	1993 State Percentiles	Scale Score
Standard Deviation	9.1	90	165.5
		75	160.9
		50 (Median)	154.8
Variance	82.7	25	147.7
		10	140.8

FREQUENCY DISTRIBUTION

Developmental Scale	Frequency	Cumulative Frequency	Percent	Cumulative Percent	1993 State Percentile
180	6	84278	0.0	100.0	99
179	28	84272	0.0	100.0	99
177	41	84244	0.1	100.0	99
176	92	84203	0.1	99.9	99
174	350	84111	0.4	99.8	99
172	585	83761	0.7	99.4	99
171	317	83176	0.4	98.7	99
170	596	82859	0.7	98.3	98
169	1226	82263	1.5	97.6	97
168	1538	81037	1.8	96.2	95
167	1741	79499	2.1	94.3	93
166	1935	77758	2.3	92.3	91
165	2061	75823	2.5	90.0	89
164	2038	73762	2.4	87.5	86
163	2947	71724	3.5	85.1	83
162	3709	68777	4.4	81.6	79
161	2894	65068	3.4	77.2	75
160	3604	62174	4.3	73.8	72
159	4283	58570	5.1	69.5	67
158	2746	54287	3.3	64.4	63
157	3763	51541	4.5	61.2	59
156	3161	47778	3.8	56.7	55
155	3652	44617	4.3	52.9	51
154	3549	40965	4.2	48.6	47
153	3551	37416	4.2	44.4	42
152	2320	33865	2.8	40.2	39
151	2810	31545	3.3	37.4	36
150	3328	28735	4.0	34.1	32
149	1731	25407	2.1	30.2	29
148	3374	23676	4.0	28.1	26
147	1645	20302	2.0	24.1	23
146	1693	18657	2.1	22.1	21
145	1645	16964	2.0	20.1	19
144	2236	15319	2.7	18.2	17
143	1579	13083	1.9	15.5	15
142	1638	11504	1.9	13.7	13
141	2038	9866	2.4	11.7	10
140	1883	7828	2.2	9.3	8
139	1259	5945	1.5	7.1	6
138	1180	4686	1.4	5.6	5
137	971	3506	1.2	4.2	4
136	999	2535	1.2	3.0	2
135	558	1536	0.7	1.8	1
LESS THAN 135	978	978	1.2	1.2	1

**NORTH CAROLINA TESTING PROGRAM
END-OF-GRADE TEST -- GRADE 6 MATHEMATICS -- 1993**

STATE SUMMARY STATISTICS

Number of Students with Valid Scores	83,683	High Score	193
		Low Score	132
Mean	158.3	1993 State Percentiles	Scale Score
Standard Deviation	10.1	90	171.9
		75	165.4
		50 (Median)	157.8
Variance	101.1	25	150.4
		10	145.3

FREQUENCY DISTRIBUTION

Developmental Scale	Frequency	Cumulative Frequency	Percent	Cumulative Percent	1993 State Percentile
193	5	83683	0.0	100.0	99
192	11	83678	0.0	100.0	99
191	7	83667	0.0	100.0	99
190	21	83660	0.0	100.0	99
189	10	83639	0.0	100.0	99
188	45	83629	0.1	99.9	99
187	57	83584	0.1	99.9	99
186	66	83527	0.1	99.8	99
185	85	83461	0.1	99.7	99
184	173	83376	0.2	99.6	99
183	219	83203	0.3	99.4	99
182	279	82984	0.3	99.2	99
181	311	82705	0.4	98.8	99
180	310	82394	0.4	98.5	98
179	357	82084	0.4	98.1	98
178	613	81727	0.7	97.7	97
177	818	81114	1.0	96.9	96
176	748	80296	0.9	96.0	96
175	1080	79548	1.3	95.1	94
174	1204	78468	1.4	93.8	93
173	1083	77264	1.3	92.3	92
172	1353	76181	1.6	91.0	90
171	2025	74828	2.4	89.4	88
170	1319	72803	1.6	87.0	86
169	2160	71484	2.6	85.4	84
168	2013	69324	2.4	82.8	82
167	1683	67311	2.0	80.4	79
166	2632	65628	3.2	78.4	77
165	2916	62996	3.5	75.3	74
164	2620	60080	3.1	71.8	70
163	2279	57460	2.7	68.7	67
162	3573	55181	4.3	65.9	64
161	1806	51608	2.2	61.7	61
160	3806	49802	4.6	59.5	57
159	2131	45996	2.6	55.0	54
158	2785	43865	3.3	52.4	51
157	3812	41080	4.6	49.1	47
156	2412	37268	2.9	44.5	43
155	2481	34856	3.0	41.7	40
154	2502	32375	3.0	38.7	37
153	3469	29873	4.2	35.7	34
152	2610	26404	3.1	31.6	30
151	2677	23794	3.2	28.4	27
150	2625	21117	3.1	25.2	24
149	2584	18492	3.1	22.1	21
148	2550	15908	3.1	19.0	17
147	2309	13358	2.8	16.0	15

NORTH CAROLINA TESTING PROGRAM
 END-OF-GRADE TEST -- GRADE 6 MATHEMATICS -- 1993
 (Continued)

FREQUENCY DISTRIBUTION

Developmental Scale	Frequency	Cumulative Frequency	Percent	Cumulative Percent	1993 State Percentile
146	2278	11049	2.7	13.2	12
145	2068	8771	2.5	10.5	9
144	1718	6703	2.1	8.0	7
143	1449	4985	1.7	6.0	5
142	1096	3536	1.3	4.2	4
141	1259	2440	1.5	2.9	2
140	443	1181	0.5	1.4	1
LESS THAN 140	738	738	0.9	0.9	1

**NORTH CAROLINA TESTING PROGRAM
END-OF-GRADE TEST -- GRADE 7 READING -- 1993**

STATE SUMMARY STATISTICS

Number of Students with Valid Scores	83,868	High Score	183
		Low Score	131
Mean	157.0	1993 State Percentiles	Scale Score
Standard Deviation	8.6	90	167.5
		75	163.3
Variance	74.1	50 (Median)	157.9
		25	151.1
		10	144.8

FREQUENCY DISTRIBUTION

Developmental Scale	Frequency	Cumulative Frequency	Percent	Cumulative Percent	1993 State Percentile
183	4	83868	0.0	100.0	99
182	4	83864	0.0	100.0	99
181	25	83860	0.0	100.0	99
180	14	83835	0.0	100.0	99
179	91	83821	0.1	99.9	99
177	166	83730	0.2	99.8	99
176	197	83564	0.2	99.6	99
175	141	83367	0.2	99.4	99
174	628	83226	0.8	99.2	99
173	625	82598	0.8	98.5	98
172	299	81973	0.4	97.7	98
171	1182	81674	1.4	97.4	97
170	1442	80492	1.7	96.0	95
169	1681	79050	2.0	94.3	93
168	1889	77369	2.3	92.3	91
167	2739	75480	3.3	90.0	88
166	3787	72741	4.5	86.7	84
165	2255	68954	2.7	82.2	81
164	3030	66699	3.6	79.5	78
163	3875	63669	4.6	75.9	74
162	3851	59794	4.6	71.3	69
161	4437	55943	5.3	66.7	64
160	3537	51506	4.2	61.4	59
159	3414	47969	4.1	57.2	55
158	4069	44555	4.9	53.1	51
157	3111	40486	3.7	48.3	46
156	3033	37375	3.6	44.6	43
155	3748	34342	4.5	41.0	39
154	2855	30594	3.4	36.5	35
153	2999	27739	3.6	33.1	31
152	2776	24740	3.3	29.5	28
151	2711	21964	3.2	26.2	25
150	1640	19253	2.0	23.0	22
149	2203	17613	2.6	21.0	20
148	2670	15410	3.2	18.4	17
147	1550	12740	1.9	15.2	14
146	1445	11190	1.7	13.3	12
145	1921	9745	2.3	11.6	10
144	1297	7824	1.6	9.3	9
143	1289	6527	1.5	7.8	7
142	1154	5238	1.4	6.3	6
141	996	4084	1.2	4.9	4
140	1016	3088	1.2	3.7	3
139	606	2072	0.7	2.5	2
138	663	1466	0.8	1.8	1
137	413	803	0.5	1.0	1
136	166	390	0.2	0.5	1
LESS THAN 136	224	224	0.3	0.3	1

**NORTH CAROLINA TESTING PROGRAM
END-OF-GRADE TEST -- GRADE 7 MATHEMATICS -- 1993**

STATE SUMMARY STATISTICS

Number of Students with Valid Scores	83,143	High Score	201
		Low Score	140
Mean	164.1	1993 State Percentiles	Scale Score
Standard Deviation	10.0	90	177.6
		75	171.2
		50 (Median)	163.7
Variance	99.6	25	155.8
		10	151.3

FREQUENCY DISTRIBUTION

Developmental Scale	Frequency	Cumulative Frequency	Percent	Cumulative Percent	1993 State Percentile
201	1	83143	0.0	100.0	99
199	3	83142	0.0	100.0	99
198	7	83139	0.0	100.0	99
197	20	83132	0.0	100.0	99
196	8	83112	0.0	100.0	99
195	32	83104	0.0	100.0	99
194	40	83072	0.1	99.9	99
193	32	83032	0.0	99.9	99
192	87	83000	0.1	99.8	99
191	115	82913	0.1	99.7	99
190	134	82798	0.2	99.6	99
189	147	82664	0.2	99.4	99
188	188	82517	0.2	99.3	99
187	295	82329	0.4	99.0	99
186	343	82034	0.4	98.7	98
185	426	81691	0.5	98.3	98
184	645	81265	0.8	97.7	97
183	516	80620	0.6	97.0	97
182	929	80104	1.1	96.3	96
181	528	79175	0.6	95.2	95
180	1157	78647	1.4	94.6	94
179	1343	77490	1.6	93.2	92
178	1458	76147	1.8	91.6	91
177	1376	74689	1.7	89.8	89
176	1785	73313	2.2	88.2	87
175	2053	71528	2.5	86.0	85
174	2190	69475	2.6	83.6	82
173	2454	67285	3.0	80.9	79
172	1701	64831	2.1	78.0	77
171	2424	63130	2.9	75.9	74
170	3075	60706	3.7	73.0	71
169	2235	57631	2.7	69.3	68
168	3686	55396	4.4	66.6	64
167	1953	51710	2.4	62.2	61
166	2693	49757	3.2	59.9	58
165	3623	47064	4.4	56.6	54
164	2370	43441	2.9	52.3	51
163	2498	41071	3.0	49.4	48
162	2570	38573	3.1	46.4	45
161	2733	36003	3.3	43.3	42
160	2909	33270	3.5	40.0	38
159	3078	30361	3.7	36.5	35
158	3085	27283	3.7	32.8	31
157	2072	24198	2.5	29.1	28
156	2025	22126	2.4	26.6	25
155	3095	20101	3.7	24.2	22
154	2942	17006	3.5	20.5	19

NORTH CAROLINA TESTING PROGRAM
 END-OF-GRADE TEST -- GRADE 7 MATHEMATICS -- 1993
 (Continued)

FREQUENCY DISTRIBUTION

Developmental Scale	Frequency	Cumulative Frequency	Percent	Cumulative Percent	1993 State Percentile
153	2831	14064	3.4	16.9	15
152	2474	11233	3.0	13.5	12
151	2170	8759	2.6	10.5	9
150	1931	6589	2.3	7.9	7
149	1456	4658	1.8	5.6	5
148	1412	3202	1.7	3.9	3
147	665	1790	0.8	2.2	2
146	603	1125	0.7	1.4	1
145	334	522	0.4	0.6	1
144	131	188	0.2	0.2	1
143	35	57	0.0	0.1	1
LESS THAN 143	22	22	0.0	0.0	1

**NORTH CAROLINA TESTING PROGRAM
END-OF-GRADE TEST -- GRADE 8 READING -- 1993**

STATE SUMMARY STATISTICS

Number of Students with Valid Scores	80,833	High Score	184
		Low Score	132
Mean	158.7	1993 State Percentiles	Scale Score
Standard Deviation	8.9	90	169.7
		75	165.1
		50 (Median)	159.6
Variance	79.0	25	152.9
		10	145.6

FREQUENCY DISTRIBUTION

Developmental Scale	Frequency	Cumulative Frequency	Percent	Cumulative Percent	1993 State Percentile
184	12	80833	0.0	100.0	99
183	11	80821	0.0	100.0	99
182	25	80810	0.0	100.0	99
181	28	80785	0.0	99.9	99
180	120	80757	0.2	99.9	99
179	100	80637	0.1	99.8	99
178	133	80537	0.2	99.6	99
177	273	80404	0.3	99.5	99
176	409	80131	0.5	99.1	99
175	272	79722	0.3	98.6	98
174	1007	79450	1.3	98.3	98
173	1330	78443	1.7	97.0	96
172	1627	77113	2.0	95.4	94
171	1173	75486	1.5	93.4	93
170	1873	74313	2.3	91.9	91
169	2038	72440	2.5	89.6	88
168	2833	70402	3.5	87.1	85
167	3021	67569	3.7	83.6	82
166	3110	64548	3.9	79.9	78
165	2275	61438	2.8	76.0	75
164	4573	59163	5.7	73.2	70
163	3682	54590	4.6	67.5	65
162	2810	50908	3.5	63.0	61
161	4087	48098	5.1	59.5	57
160	3799	44011	4.7	54.5	52
159	3062	40212	3.8	49.8	48
158	3570	37150	4.4	46.0	44
157	3306	33580	4.1	41.5	39
156	3219	30274	4.0	37.5	35
155	2520	27055	3.1	33.5	32
154	3016	24535	3.7	30.4	28
153	2273	21519	2.8	26.6	25
152	1771	19246	2.2	23.8	23
151	2128	17475	2.6	21.6	20
150	1759	15347	2.2	19.0	18
149	1264	13588	1.6	16.8	16
148	1608	12324	2.0	15.3	14
147	1524	10716	1.9	13.3	12
146	1254	9192	1.6	11.4	11
145	1587	7938	2.0	9.8	9
144	1126	6351	1.4	7.9	7
143	1040	5225	1.3	6.5	6
142	879	4185	1.1	5.2	5
141	1028	3306	1.3	4.1	3
140	1056	2278	1.3	2.8	2
139	494	1222	0.6	1.5	1
138	460	728	0.6	0.9	1
LESS THAN 138	268	268	0.3	0.3	1

NORTH CAROLINA END-OF-GRADE TESTING PROGRAM GRADE 8 READING INTERPOLATION TABLE -- BASE YEAR 1993

DSS = Developmental Scale Score % = State Percentile

DSS	%	DSS	%	DSS	%	DSS	%	DSS	%	DSS	%
184.0	99	177.3	99	170.6	92	163.9	70	157.2	40	150.5	19
183.9	99	177.2	99	170.5	92	163.8	69	157.1	40	150.4	18
183.8	99	177.1	99	170.4	91	163.7	68	157.0	39	150.3	18
183.7	99	177.0	99	170.3	91	163.6	68	156.9	39	150.2	18
183.6	99	176.9	99	170.2	91	163.5	67	156.8	38	150.1	18
183.5	99	176.8	99	170.1	91	163.4	67	156.7	38	150.0	18
183.4	99	176.7	99	170.0	91	163.3	66	156.6	38	149.9	17
183.3	99	176.6	99	169.9	90	163.2	66	156.5	37	149.8	17
183.2	99	176.5	99	169.8	90	163.1	65	156.4	37	149.7	17
183.1	99	176.4	99	169.7	90	163.0	65	156.3	36	149.6	17
183.0	99	176.3	99	169.6	89	162.9	65	156.2	36	149.5	16
182.9	99	176.2	99	169.5	89	162.8	64	156.1	36	149.4	16
182.8	99	176.1	99	169.4	89	162.7	64	156.0	35	149.3	16
182.7	99	176.0	99	169.3	89	162.6	63	155.9	35	149.2	16
182.6	99	175.9	98	169.2	88	162.5	63	155.8	34	149.1	16
182.5	99	175.8	98	169.1	88	162.4	62	155.7	34	149.0	16
182.4	99	175.7	98	169.0	88	162.3	62	155.6	34	148.9	15
182.3	99	175.6	98	168.9	88	162.2	62	155.5	33	148.8	15
182.2	99	175.5	98	168.8	87	162.1	61	155.4	33	148.7	15
182.1	99	175.4	98	168.7	87	162.0	61	155.3	33	148.6	15
182.0	99	175.3	98	168.6	87	161.9	61	155.2	32	148.5	15
181.9	99	175.2	98	168.5	87	161.8	60	155.1	32	148.4	15
181.8	99	175.1	98	168.4	86	161.7	60	155.0	32	148.3	14
181.7	99	175.0	98	168.3	86	161.6	60	154.9	31	148.2	14
181.6	99	174.9	98	168.2	86	161.5	59	154.8	31	148.1	14
181.5	99	174.8	98	168.1	85	161.4	59	154.7	31	148.0	14
181.4	99	174.7	98	168.0	85	161.3	58	154.6	30	147.9	14
181.3	99	174.6	98	167.9	85	161.2	58	154.5	30	147.8	13
181.2	99	174.5	98	167.8	84	161.1	57	154.4	30	147.7	13
181.1	99	174.4	98	167.7	84	161.0	57	154.3	29	147.6	13
181.0	99	174.3	98	167.6	84	160.9	56	154.2	29	147.5	13
180.9	99	174.2	98	167.5	83	160.8	56	154.1	29	147.4	13
180.8	99	174.1	98	167.4	83	160.7	55	154.0	28	147.3	12
180.7	99	174.0	98	167.3	83	160.6	55	153.9	28	147.2	12
180.6	99	173.9	97	167.2	82	160.5	54	153.8	27	147.1	12
180.5	99	173.8	97	167.1	82	160.4	54	153.7	27	147.0	12
180.4	99	173.7	97	167.0	82	160.3	53	153.6	27	146.9	12
180.3	99	173.6	97	166.9	81	160.2	53	153.5	26	146.8	12
180.2	99	173.5	97	166.8	81	160.1	52	153.4	26	146.7	11
180.1	99	173.4	96	166.7	80	160.0	52	153.3	26	146.6	11
180.0	99	173.3	96	166.6	80	159.9	51	153.2	25	146.5	11
179.9	99	173.2	96	166.5	80	159.8	51	153.1	25	146.4	11
179.8	99	173.1	96	166.4	79	159.7	50	153.0	25	146.3	11
179.7	99	173.0	96	166.3	79	159.6	50	152.9	25	146.2	11
179.6	99	172.9	96	166.2	78	159.5	49	152.8	24	146.1	11
179.5	99	172.8	95	166.1	78	159.4	49	152.7	24	146.0	11
179.4	99	172.7	95	166.0	78	159.3	49	152.6	24	145.9	10
179.3	99	172.6	95	165.9	77	159.2	48	152.5	23	145.8	10
179.2	99	172.5	95	165.8	77	159.1	48	152.4	23	145.7	10
179.1	99	172.4	95	165.7	76	159.0	48	152.3	23	145.6	10
179.0	99	172.3	95	165.6	76	158.9	47	152.2	23	145.5	9
178.9	99	172.2	94	165.5	76	158.8	47	152.1	23	145.4	9
178.8	99	172.1	94	165.4	75	158.7	46	152.0	23	145.3	9
178.7	99	172.0	94	165.3	75	158.6	46	151.9	22	145.2	9
178.6	99	171.9	94	165.2	75	158.5	46	151.8	22	145.1	9
178.5	99	171.8	94	165.1	75	158.4	45	151.7	22	145.0	9
178.4	99	171.7	93	165.0	75	158.3	45	151.6	21	144.9	8
178.3	99	171.6	93	164.9	74	158.2	44	151.5	21	144.8	8
178.2	99	171.5	93	164.8	74	158.1	44	151.4	21	144.7	8
178.1	99	171.4	93	164.7	73	158.0	44	151.3	21	144.6	8
178.0	99	171.3	93	164.6	73	157.9	43	151.2	20	144.5	7
177.9	99	171.2	93	164.5	73	157.8	43	151.1	20	144.4	7
177.8	99	171.1	93	164.4	72	157.7	42	151.0	20	144.3	7
177.7	99	171.0	93	164.3	72	157.6	42	150.9	20	144.2	7
177.6	99	170.9	92	164.2	71	157.5	41	150.8	19	144.1	7
177.5	99	170.8	92	164.1	71	157.4	41	150.7	19	144.0	7
177.4	99	170.7	92	164.0	70	157.3	40	150.6	19	143.9	7

Developmental scale scores reported in tenths represent the average performance of a class, school, system, or other group of students. Individual students only receive a whole number developmental scale score.

**NORTH CAROLINA TESTING PROGRAM
END-OF-GRADE TEST -- GRADE 8 MATHEMATICS -- 1993**

STATE SUMMARY STATISTICS

Number of Students with Valid Scores	80,032	High Score	206
		Low Score	141
Mean	168.3	1993 State Percentiles	Scale Score
Standard Deviation	10.6	90	182.4
		75	175.8
Variance	112.6	50 (Median)	168.5
		25	159.8
		10	154.3

FREQUENCY DISTRIBUTION

Developmental Scale	Frequency	Cumulative Frequency	Percent	Cumulative Percent	1993 State Percentile
206	1	80032	0.0	100.0	99
205	3	80031	0.0	100.0	99
204	2	80028	0.0	100.0	99
203	19	80026	0.0	100.0	99
202	21	80007	0.0	100.0	99
201	51	79986	0.1	99.9	99
200	33	79935	0.0	99.9	99
199	29	79902	0.0	99.8	99
198	87	79873	0.1	99.8	99
197	61	79786	0.1	99.7	99
196	91	79725	0.1	99.6	99
195	110	79634	0.1	99.5	99
194	157	79524	0.2	99.4	99
193	195	79367	0.2	99.2	99
192	241	79172	0.3	98.9	99
191	401	78931	0.5	98.6	98
190	286	78530	0.4	98.1	98
189	505	78244	0.6	97.8	97
188	457	77739	0.6	97.1	97
187	819	77282	1.0	96.6	96
186	806	76463	1.0	95.5	95
185	1035	75657	1.3	94.5	94
184	996	74622	1.2	93.2	93
183	1397	73626	1.8	92.0	91
182	1750	72229	2.2	90.3	89
181	928	70479	1.2	88.1	87
180	2011	69551	2.5	86.9	86
179	1804	67540	2.3	84.4	83
178	2371	65736	3.0	82.1	81
177	2116	63365	2.6	79.2	78
176	1812	61249	2.3	76.5	75
175	2859	59437	3.6	74.3	72
174	2027	56578	2.5	70.7	69
173	3263	54551	4.1	68.2	66
172	1691	51288	2.1	64.1	63
171	3643	49597	4.6	62.0	60
170	1856	45954	2.3	57.4	56
169	3968	44098	5.0	55.1	53
168	2156	40130	2.7	50.1	49
167	2209	37974	2.8	47.5	46
166	2249	35765	2.8	44.7	43
165	3020	33516	3.8	41.9	40
164	2338	30496	2.9	38.1	37
163	1527	28158	1.9	35.2	34
162	2469	26631	3.1	33.3	32
161	2487	24162	3.1	30.2	29
160	2470	21675	3.1	27.1	26

NORTH CAROLINA TESTING PROGRAM
 END-OF-GRADE TEST -- GRADE 8 MATHEMATICS -- 1993
 (Continued)

Developmental Scale	Frequency	Cumulative Frequency	Percent	Cumulative Percent	1993 State Percentile
159	2543	19205	3.2	24.0	22
158	2424	16662	3.0	20.8	19
157	2356	14238	2.9	17.8	16
156	1446	11882	1.8	14.9	14
155	2097	10436	2.6	13.0	12
154	1891	8339	2.4	10.4	9
153	1041	6448	1.3	8.1	7
152	1390	5407	1.7	6.8	6
151	1569	4017	2.0	5.0	4
150	804	2448	1.0	3.1	3
149	784	1644	1.0	2.1	2
148	406	860	0.5	1.1	1
147	260	454	0.3	0.6	1
146	109	194	0.1	0.2	1
145	48	85	0.1	0.1	1
LESS THAN 145	37	37	0.1	0.1	1

Local Option End-of-Grade Test Norms

BEST COPY AVAILABLE

**NORTH CAROLINA TESTING PROGRAM
END-OF-GRADE TEST -- GRADE 3 SCIENCE -- 1996**

STATE SUMMARY STATISTICS

Number of Students With Valid Scores	9,305	High Score	177
		Low Score	121
Mean	145.4	1996 State Percentiles	Scale Score
Standard Deviation	9.8	90	158.0
		75	152.7
		50 (Median)	145.7
Variance	95.9	25	138.0
		10	132.2

FREQUENCY DISTRIBUTION

Scale Score	Frequency	Cumulative Frequency	Percent	Cumulative Percent	1996 State Percentile
177	1	9305	0.0	100.0	99
176	1	9304	0.0	100.0	99
175	1	9303	0.0	100.0	99
174	2	9302	0.0	100.0	99
173	4	9300	0.0	100.0	99
172	3	9296	0.0	99.9	99
171	10	9293	0.1	99.9	99
169	20	9283	0.2	99.8	99
168	19	9263	0.2	99.6	99
167	20	9244	0.2	99.3	99
166	65	9224	0.7	99.1	99
165	75	9159	0.8	98.4	98
164	34	9084	0.4	97.6	97
163	65	9050	0.7	97.3	97
162	72	8985	0.8	96.6	96
161	144	8913	1.6	95.8	95
160	164	8769	1.8	94.2	93
159	126	8605	1.4	92.5	92
158	206	8479	2.2	91.1	90
157	230	8273	2.5	88.9	88
156	253	8043	2.7	86.4	85
155	302	7790	3.3	83.7	82
154	289	7488	3.1	80.5	79
153	274	7199	2.9	77.4	76
152	339	6925	3.6	74.4	73
151	332	6586	3.6	70.8	69
150	292	6254	3.1	67.2	66
149	393	5962	4.2	64.1	62
148	346	5569	3.7	59.9	58
147	360	5223	3.9	56.1	54
146	253	4863	2.7	52.3	51
145	278	4610	3.0	49.5	48
144	366	4332	3.9	46.6	45
143	215	3966	2.3	42.6	41
142	410	3751	4.4	40.3	38
141	112	3341	1.2	35.9	35
140	434	3229	4.7	34.7	32
139	279	2795	3.0	30.0	29
138	381	2516	4.1	27.0	25
137	116	2135	1.3	22.9	22
136	249	2019	2.7	21.7	20
135	348	1770	3.7	19.0	17

**NORTH CAROLINA TESTING PROGRAM
END-OF-GRADE TEST -- GRADE 3 SCIENCE -- 1996
(Continued)**

134	104	1422	1.1	15.3	15
133	330	1318	3.6	14.2	12
132	173	988	1.9	10.6	10
131	149	815	1.6	8.8	8
130	181	666	2.0	7.2	6
129	173	485	1.9	5.2	4
128	128	312	1.4	3.4	3
127	67	184	0.7	2.0	2
126	54	117	0.6	1.3	1
125	41	63	0.4	0.7	1
124	9	22	0.1	0.2	1
123	7	13	0.1	0.1	1
122	3	6	0.0	0.1	1
121	3	3	0.0	0.0	1

**NORTH CAROLINA TESTING PROGRAM
END-OF-GRADE TEST -- GRADE 3 SOCIAL STUDIES -- 1994**

STATE SUMMARY STATISTICS

Number of Students With Valid Scores	88,208	High Score	79
		Low Score	26
Mean	52.2	1994 State Percentiles	Scale Score
Standard Deviation	9.1	90	63.7
		75	58.5
		50 (Median)	53.0
Variance	82.3	25	46.1
		10	39.0

FREQUENCY DISTRIBUTION

Scale Score	Frequency	Cumulative Frequency	Percent	Cumulative Percent	1994 State Percentile
79	17	88208	0.0	100.0	99
78	30	88191	0.0	100.0	99
77	43	88161	0.1	100.0	99
76	55	88118	0.1	99.9	99
75	98	88063	0.1	99.8	99
74	217	87965	0.3	99.7	99
73	196	87748	0.2	99.5	99
72	218	87552	0.3	99.3	99
71	474	87334	0.5	99.0	99
70	329	86860	0.4	98.5	98
69	691	86531	0.8	98.1	98
68	1249	85840	1.4	97.3	97
66	1509	84591	1.7	95.9	95
65	1936	83082	2.2	94.2	93
64	2159	81146	2.5	92.0	91
63	2410	78987	2.7	89.6	88
62	1749	76577	2.0	86.8	86
61	2793	74828	3.2	84.8	83
60	2864	72035	3.3	81.7	80
59	3031	69171	3.4	78.4	77
58	4262	66140	4.8	75.0	73
57	4219	61878	4.8	70.2	68
56	3324	57659	3.8	65.4	63
55	4486	54335	5.1	61.6	59
54	3140	49849	3.6	56.5	55
53	4997	46709	5.7	53.0	50
52	2977	41712	3.4	47.3	46
51	2910	38735	3.3	43.9	42
50	3650	35825	4.1	40.6	39
49	3368	32175	3.8	36.5	35
48	3461	28807	3.9	32.7	31
47	2346	25346	2.7	28.7	27
46	2329	23000	2.6	26.1	25
45	2769	20671	3.1	23.4	22
44	2076	17902	2.4	20.3	19
43	1974	15826	2.2	17.9	17
42	1872	13852	2.1	15.7	15
41	1188	11980	1.4	13.6	13
40	1197	10792	1.4	12.2	12
39	1656	9595	1.9	10.9	10
38	1587	7939	1.8	9.0	8
37	1508	6352	1.7	7.2	6
36	1319	4844	1.5	5.5	5
35	1060	3525	1.2	4.0	3
34	554	2465	0.6	2.8	2
33	692	1911	0.8	2.2	2
32	532	1219	0.6	1.4	1
31	383	687	0.4	0.8	1
30	152	304	0.2	0.3	1
29	119	152	0.1	0.2	1
LESS THAN 29	33	33	0.0	0.0	1

**NORTH CAROLINA TESTING PROGRAM
END-OF-GRADE TEST -- GRADE 4 SCIENCE -- 1996**

STATE SUMMARY STATISTICS

Number of Students With Valid Scores	11,853	High Score	177
		Low Score	126
Mean	149.5	1996 State Percentiles	Scale Score
Standard Deviation	9.1	90	161.5
Variance	82.1	75	156.4
		50 (Median)	149.7
		25	142.3
		10	137.0

FREQUENCY DISTRIBUTION

Scale Score	Frequency	Cumulative Frequency	Percent	Cumulative Percent	1996 State Percentile
177	2	11853	0.0	100.0	99
176	3	11851	0.0	100.0	99
175	4	11848	0.0	100.0	99
174	8	11844	0.1	99.9	99
173	8	11836	0.1	99.9	99
172	7	11828	0.1	99.8	99
171	15	11821	0.1	99.7	99
170	35	11806	0.3	99.6	99
169	28	11771	0.2	99.3	99
168	52	11743	0.4	99.1	99
167	122	11691	1.0	98.6	98
166	83	11569	0.7	97.6	97
165	103	11486	0.9	96.9	96
164	190	11383	1.6	96.0	95
163	268	11193	2.3	94.4	93
162	265	10925	2.2	92.2	91
161	305	10660	2.6	89.9	89
160	322	10355	2.7	87.4	86
159	359	10033	3.0	84.7	83
158	369	9674	3.1	81.6	80
157	395	9305	3.3	78.5	77
156	266	8910	2.2	75.2	74
155	414	8644	3.5	72.9	71
154	417	8230	3.5	69.4	68
153	576	7813	4.9	65.9	63
152	465	7237	3.9	61.1	59
151	454	6772	3.8	57.1	55
150	482	6318	4.1	53.3	51
149	471	5836	4.0	49.2	47
148	508	5365	4.3	45.3	43
147	340	4857	2.9	41.0	40
146	351	4517	3.0	38.1	37
145	362	4166	3.1	35.2	34
144	458	3804	3.9	32.1	30
143	311	3346	2.6	28.2	27
142	346	3035	2.9	25.6	24
141	455	2689	3.8	22.7	21
140	478	2234	4.0	18.9	17
139	128	1756	1.1	14.8	14
138	279	1628	2.4	13.7	13
137	351	1349	3.0	11.4	10
136	309	998	2.6	8.4	7
135	155	689	1.3	5.8	5

**NORTH CAROLINA TESTING PROGRAM
END-OF-GRADE TEST -- GRADE 4 SCIENCE -- 1996
(Continued)**

134	142	534	1.2	4.5	4
133	173	392	1.5	3.3	3
132	98	219	0.8	1.9	1
131	77	121	0.7	1.0	1
130	22	44	0.2	0.4	1
129	9	22	0.1	0.2	1
128	10	13	0.1	0.1	1
127	1	3	0.0	0.0	1
126	2	2	0.0	0.0	1

**NORTH CAROLINA TESTING PROGRAM
END-OF-GRADE TEST -- GRADE 4 SOCIAL STUDIES -- 1994**

STATE SUMMARY STATISTICS

Number of Students With Valid Scores	84,961	High Score	82
		Low Score	27
Mean	52.7	1994 State Percentiles	Scale Score
Standard Deviation	9.0	90	64.2
		75	59.6
		50 (Median)	53.1
Variance	81.5	25	45.9
		10	39.8

FREQUENCY DISTRIBUTION

Scale Score	Frequency	Cumulative Frequency	Percent	Cumulative Percent	1994 State Percentile
82	3	84961	0.0	100.0	99
81	4	84958	0.0	100.0	99
80	7	84954	0.0	100.0	99
79	8	84947	0.0	100.0	99
78	20	84939	0.0	100.0	99
77	21	84919	0.0	100.0	99
76	99	84898	0.1	99.9	99
75	47	84799	0.1	99.8	99
74	108	84752	0.1	99.8	99
73	258	84644	0.3	99.6	99
72	331	84386	0.4	99.3	99
71	332	84055	0.4	98.9	99
70	652	83723	0.8	98.5	98
69	815	83071	1.0	97.8	97
68	973	82256	1.2	96.8	96
67	1186	81283	1.4	95.7	95
66	1324	80097	1.6	94.3	93
65	1573	78773	1.9	92.7	92
64	2304	77200	2.71	90.87	90
63	2625	74896	3.09	88.15	87
62	2110	72271	2.48	85.06	84
61	2297	70161	2.70	82.58	81
60	4794	67864	5.64	79.88	77
59	2536	63070	2.98	74.23	73
58	2676	60534	3.15	71.25	70
57	3584	57858	4.22	68.10	66
56	4419	54274	5.20	63.88	61
55	2665	49855	3.14	58.68	57
54	2801	47190	3.30	55.54	54
53	4564	44389	5.37	52.25	50
52	2652	39825	3.12	46.87	45
51	3552	37173	4.18	43.75	42
50	2730	33621	3.21	39.57	38
49	2669	30891	3.14	36.36	35
48	2748	28222	3.23	33.22	32
47	2634	25474	3.10	29.98	28
46	2709	22840	3.19	26.88	25
45	2639	20131	3.11	23.69	22
44	2574	17492	3.03	20.59	19
43	2471	14918	2.91	17.56	16
42	2297	12447	2.70	14.65	13
41	598	10150	0.70	11.95	12
40	1534	9552	1.81	11.24	10
39	1949	8018	2.29	9.44	8
38	1591	6069	1.87	7.14	6
37	1379	4478	1.62	5.27	4
36	1066	3099	1.25	3.65	3

NORTH CAROLINA TESTING PROGRAM
 END-OF-GRADE TEST -- GRADE 4 SOCIAL STUDIES -- 1994
 (Continued)

FREQUENCY DISTRIBUTION

Scale Score	Frequency	Cumulative Frequency	Percent	Cumulative Percent	1994 State Percentile
35	788	2033	0.93	2.39	2
34	516	1245	0.61	1.47	1
33	474	729	0.56	0.86	1
32	138	255	0.16	0.30	1
LESS THAN 32	117	117	0.14	0.14	1

**NORTH CAROLINA TESTING PROGRAM
END-OF-GRADE TEST -- GRADE 5 SCIENCE -- 1996**

STATE SUMMARY STATISTICS

Number of Students With Valid Scores	16,152	High Score	181
		Low Score	131
Mean	152.8	1996 State Percentiles	Scale Score
Standard Deviation	9.1	90	165.1
		75	159.4
		50 (Median)	152.5
Variance	82.1	25	145.8
		10	141.1

FREQUENCY DISTRIBUTION

Scale Score	Frequency	Cumulative Frequency	Percent	Cumulative Percent	1996 State Percentile
181	2	16152	0.0	100.0	99
180	9	16150	0.1	100.0	99
179	4	16141	0.0	99.9	99
178	15	16137	0.1	99.9	99
177	11	16122	0.1	99.8	99
176	25	16111	0.2	99.8	99
175	14	16086	0.1	99.6	99
174	36	16072	0.2	99.5	99
173	62	16036	0.4	99.3	99
172	91	15974	0.6	98.9	99
171	91	15883	0.6	98.3	98
170	157	15792	1.0	97.8	97
169	173	15635	1.1	96.8	96
168	230	15462	1.4	95.7	95
167	251	15232	1.6	94.3	94
166	276	14981	1.7	92.8	92
165	437	14705	2.7	91.0	90
164	334	14268	2.1	88.3	87
163	417	13934	2.6	86.3	85
162	387	13517	2.4	83.7	82
161	423	13130	2.6	81.3	80
160	526	12707	3.3	78.7	77
159	549	12181	3.4	75.4	74
158	536	11632	3.3	72.0	70
157	583	11096	3.6	68.7	67
156	586	10513	3.6	65.1	63
155	594	9927	3.7	61.5	60
154	627	9333	3.9	57.8	56
153	623	8706	3.9	53.9	52
152	676	8083	4.2	50.0	48
151	691	7407	4.3	45.9	44
150	719	6716	4.5	41.6	39
149	475	5997	2.9	37.1	36
148	249	5522	1.5	34.2	33
147	730	5273	4.5	32.7	30
146	686	4543	4.3	28.1	26
145	478	3857	3.0	23.9	22
144	193	3379	1.2	20.9	20
143	684	3186	4.2	19.7	18
142	654	2502	4.1	15.5	13
141	524	1848	3.2	11.4	10
140	277	1324	1.7	8.2	7

**NORTH CAROLINA TESTING PROGRAM
END-OF-GRADE TEST -- GRADE 5 SCIENCE -- 1996
(Continued)**

139	371	1047	2.3	6.5	5
138	171	676	1.1	4.2	4
137	178	505	1.1	3.1	3
136	161	327	1.0	2.0	2
135	105	166	0.7	1.0	1
134	38	61	0.2	0.4	1
133	14	23	0.1	0.1	1
132	7	9	0.0	0.1	1
131	2	2	0.0	0.0	1

**NORTH CAROLINA TESTING PROGRAM
END-OF-GRADE TEST -- GRADE 5 SOCIAL STUDIES -- 1994**

STATE SUMMARY STATISTICS

Number of Students With Valid Scores	85,268	High Score	83
		Low Score	28
Mean	52.7	1994 State Percentiles	Scale Score
Standard Deviation	8.9	90	64.0
		75	59.3
		50 (Median)	53.0
Variance	79.1	25	45.8
		10	40.7

FREQUENCY DISTRIBUTION

Scale Score	Frequency	Cumulative Frequency	Percent	Cumulative Percent	1994 State Percentile
83	1	85268	0.0	100.0	99
82	1	85267	0.0	100.0	99
81	1	85266	0.0	100.0	99
80	5	85265	0.0	100.0	99
79	17	85260	0.0	100.0	99
78	18	85243	0.0	100.0	99
77	47	85225	0.1	100.0	99
76	50	85178	0.1	100.0	99
75	24	85128	0.0	99.8	99
74	148	85104	0.2	99.8	99
73	203	84956	0.2	99.6	99
72	302	84753	0.4	99.4	99
71	401	84451	0.5	99.0	99
70	542	84050	0.6	98.6	98
69	724	83508	0.9	97.9	98
68	868	82784	1.0	97.1	97
67	1460	81916	1.7	96.1	95
66	1356	80456	1.6	94.4	94
65	1523	79100	1.8	92.8	92
64	1745	77577	2.1	91.0	90
63	3885	75832	4.6	88.9	87
62	2255	71947	2.6	84.4	83
61	2353	69692	2.8	81.7	80
60	2597	67339	3.1	79.0	77
59	3579	64742	4.2	75.9	74
58	3663	61163	4.3	71.7	70
57	2931	57500	3.4	67.4	66
56	3057	54569	3.6	64.0	62
55	3045	51512	3.6	60.4	59
54	3023	48467	3.6	56.8	55
53	5251	45444	6.2	53.3	50
52	3148	40193	3.7	47.1	45
51	3146	37045	3.7	43.5	42
50	3165	33899	3.7	39.8	38
49	3157	30734	3.7	36.0	34
48	3066	27577	3.6	32.3	31
47	1067	24511	1.3	28.8	28
46	3027	23444	3.6	27.5	26
45	2890	20417	3.4	23.9	22
44	2872	17527	3.4	20.6	19
43	1802	14655	2.1	17.2	16
42	2418	12853	2.8	15.1	14
41	2309	10435	2.7	12.2	11
40	1270	8126	1.5	9.5	9
39	1270	6856	1.5	8.0	7
38	1632	5586	1.9	6.6	6
37	1292	3954	1.5	4.6	4
36	966	2662	1.1	3.1	3

NORTH CAROLINA TESTING PROGRAM
 END-OF-GRADE TEST -- GRADE 5 SOCIAL STUDIES -- 1994
 (Continued)

FREQUENCY DISTRIBUTION

Scale Score	Frequency	Cumulative Frequency	Percent	Cumulative Percent	1994 State Percentile
35	771	1696	0.9	2.0	2
34	539	925	0.6	1.1	1
33	191	386	0.2	0.5	1
32	115	195	0.1	0.2	1
LESS THAN 32	80	80	0.1	0.1	1

**NORTH CAROLINA TESTING PROGRAM
END-OF-GRADE TEST -- GRADE 6 SCIENCE -- 1996**

STATE SUMMARY STATISTICS

Number of Students With Valid Scores	17,138	High Score	183
		Low Score	130
Mean	154.3	1996 State Percentiles	Scale Score
Standard Deviation	9.0	90	166.4
		75	161.1
		50 (Median)	154.0
Variance	80.2	25	147.3
		10	142.2

FREQUENCY DISTRIBUTION

Scale Score	Frequency	Cumulative Frequency	Percent	Cumulative Percent	1996 State Percentile
183	2	17138	0.0	100.0	99
182	6	17136	0.0	100.0	99
180	7	17130	0.0	100.0	99
179	9	17123	0.1	99.9	99
178	14	17114	0.1	99.9	99
177	18	17100	0.1	99.8	99
176	31	17082	0.2	99.7	99
175	48	17051	0.3	99.5	99
174	72	17003	0.4	99.2	99
173	65	16931	0.4	98.8	99
172	145	16866	0.9	98.4	98
171	158	16721	0.9	97.6	97
170	219	16563	1.3	96.6	96
169	238	16344	1.4	95.4	95
168	312	16106	1.8	94.0	93
167	336	15794	2.0	92.2	91
166	384	15458	2.2	90.2	89
165	420	15074	2.5	88.0	87
164	492	14654	2.9	85.5	84
163	488	14162	2.9	82.6	81
162	549	13674	3.2	79.8	78
161	611	13125	3.6	76.6	75
160	416	12514	2.4	73.0	72
159	633	12098	3.7	70.6	69
158	437	11465	2.6	66.9	66
157	674	11028	3.9	64.4	62
156	699	10354	4.1	60.4	58
155	706	9655	4.1	56.3	54
154	712	8949	4.2	52.2	50
153	761	8237	4.4	48.1	46
152	769	7476	4.5	43.6	41
151	779	6707	4.6	39.1	37
150	222	5928	1.3	34.6	34
149	500	5706	2.9	33.3	32
148	739	5206	4.3	30.4	28
147	753	4467	4.4	26.1	24
146	665	3714	3.9	21.7	20
145	196	3049	1.1	17.8	17
144	630	2853	3.7	16.7	15
143	374	2223	2.2	13.0	12
142	525	1849	3.1	10.8	9
141	394	1324	2.3	7.7	7

**NORTH CAROLINA TESTING PROGRAM
END-OF-GRADE TEST -- GRADE 6 SCIENCE -- 1996
(Continued)**

140	319	930	1.9	5.4	4
139	238	611	1.4	3.6	3
138	153	373	0.9	2.2	2
137	93	220	0.5	1.3	1
136	81	127	0.5	0.7	1
135	39	46	0.2	0.3	1
134	2	7	0.0	0.0	1
133	2	5	0.0	0.0	1
131	2	3	0.0	0.0	1
130	1	1	0.0	0.0	1

**NORTH CAROLINA TESTING PROGRAM
END-OF-GRADE TEST -- GRADE 6 SOCIAL STUDIES -- 1994**

STATE SUMMARY STATISTICS

Number of Students With Valid Scores	85,628	High Score	84
		Low Score	30
Mean	52.0	1994 State Percentiles	Scale Score
Standard Deviation	8.8	90	63.7
		75	58.3
		50 (Median)	51.8
Variance	78.2	25	44.8
		10	39.9

FREQUENCY DISTRIBUTION

Scale Score	Frequency	Cumulative Frequency	Percent	Cumulative Percent	1994 State Percentile
84	1	85628	0.0	100.0	99
82	4	85627	0.0	100.0	99
81	7	85623	0.0	100.0	99
80	6	85616	0.0	100.0	99
79	11	85610	0.0	100.0	99
78	28	85599	0.0	100.0	99
77	43	85571	0.1	99.9	99
76	69	85528	0.1	99.9	99
75	122	85459	0.1	99.8	99
74	171	85337	0.2	99.7	99
73	259	85166	0.3	99.5	99
72	306	84907	0.4	99.2	99
71	382	84601	0.5	98.8	99
70	493	84219	0.6	98.4	98
69	563	83726	0.7	97.8	97
68	893	83163	1.0	97.1	97
67	1426	82270	1.7	96.1	95
66	985	80844	1.2	94.4	94
65	1478	79859	1.7	93.3	92
64	1737	78381	2.0	91.5	91
63	2419	76644	2.8	89.5	88
62	1608	74225	1.9	86.7	86
61	2956	72617	3.5	84.8	83
60	2777	69661	3.2	81.4	80
59	2178	66884	2.5	78.1	77
58	3123	64706	3.7	75.6	74
57	3438	61583	4.0	71.9	70
56	3825	58145	4.5	67.9	66
55	2860	54320	3.3	63.4	62
54	3046	51460	3.6	60.1	58
53	3148	48414	3.7	56.5	55
52	3281	45266	3.8	52.9	51
51	3442	41985	4.0	49.0	47
50	3627	38543	4.2	45.0	43
49	3607	34916	4.2	40.8	39
48	1244	31309	1.5	36.6	36
47	2408	30065	2.8	35.1	34
46	3783	27657	4.4	32.3	30
45	3649	23874	4.3	27.9	26
44	3613	20225	4.2	23.6	22
43	3390	16612	4.0	19.4	17
42	2110	13222	2.5	15.4	14
41	877	11112	1.0	13.0	12
40	2697	10235	3.2	12.0	10
39	2843	7538	3.3	8.8	7
38	2157	4695	2.5	5.5	4
37	1026	2538	1.2	3.0	2
36	831	1512	1.0	1.8	1

NORTH CAROLINA TESTING PROGRAM
 END-OF-GRADE TEST -- GRADE 6 SOCIAL STUDIES -- 1994
 (Continued)

FREQUENCY DISTRIBUTION

Scale Score	Frequency	Cumulative Frequency	Percent	Cumulative Percent	1994 State Percentile
35	324	681	0.4	0.8	1
34	251	357	0.3	0.4	1
33	81	106	0.1	0.1	1
32	11	25	0.0	0.0	1
LESS THAN 32	14	14	0.0	0.0	1

**NORTH CAROLINA TESTING PROGRAM
END-OF-GRADE TEST -- GRADE 7 SCIENCE -- 1996**

STATE SUMMARY STATISTICS

Number of Students With Valid Scores	17,604	High Score	188
		Low Score	135
Mean	157.2	1996 State Percentiles	Scale Score
Standard Deviation	8.8	90	168.8
		75	163.7
		50 (Median)	156.9
Variance	77.0	25	150.3
		10	145.7

FREQUENCY DISTRIBUTION

Scale Score	Frequency	Cumulative Frequency	Percent	Cumulative Percent	1996 State Percentile
188	1	17604	0.0	100.0	99
186	3	17603	0.0	100.0	99
185	2	17600	0.0	100.0	99
184	2	17598	0.0	100.0	99
183	10	17596	0.1	100.0	99
182	6	17586	0.0	99.9	99
181	23	17580	0.1	99.9	99
180	12	17557	0.1	99.7	99
179	16	17545	0.1	99.7	99
178	48	17529	0.3	99.6	99
177	80	17481	0.5	99.3	99
176	83	17401	0.5	98.9	99
175	102	17318	0.6	98.4	98
174	159	17216	0.9	97.8	97
173	193	17057	1.1	96.9	96
172	194	16864	1.1	95.8	95
171	271	16670	1.5	94.7	94
170	300	16399	1.7	93.2	92
169	371	16099	2.1	91.5	90
168	514	15728	2.9	89.3	88
167	447	15214	2.5	86.4	85
166	461	14767	2.6	83.9	83
165	685	14306	3.9	81.3	79
164	555	13621	3.2	77.4	76
163	799	13066	4.5	74.2	72
162	591	12267	3.4	69.7	68
161	644	11676	3.7	66.3	64
160	845	11032	4.8	62.7	60
159	656	10187	3.7	57.9	56
158	466	9531	2.7	54.1	53
157	427	9065	2.4	51.5	50
156	675	8638	3.8	49.1	47
155	734	7963	4.2	45.2	43
154	759	7229	4.3	41.1	39
153	741	6470	4.2	36.8	35
152	747	5729	4.2	32.5	30
151	485	4982	2.8	28.3	27
150	497	4497	2.8	25.6	24
149	695	4000	4.0	22.7	21
148	441	3305	2.5	18.8	18
147	658	2864	3.7	16.3	14
146	534	2206	3.0	12.5	11
145	525	1672	3.0	9.5	8

**NORTH CAROLINA TESTING PROGRAM
END-OF-GRADE TEST -- GRADE 7 SCIENCE -- 1996
(Continued)**

144	289	1147	1.6	6.5	6
143	317	858	1.8	4.9	4
142	206	541	1.2	3.1	2
141	185	335	1.1	1.9	1
140	94	150	0.5	0.9	1
139	36	56	0.2	0.3	1
138	9	20	0.1	0.1	1
137	8	11	0.1	0.1	1
136	2	3	0.0	0.0	1
135	1	1	0.0	0.0	1

**NORTH CAROLINA TESTING PROGRAM
END-OF-GRADE TEST -- GRADE 7 SOCIAL STUDIES -- 1994**

STATE SUMMARY STATISTICS

Number of Students With Valid Scores	84,563	High Score	82
		Low Score	27
Mean	52.0	1994 State Percentiles	Scale Score
Standard Deviation	8.8	90	63.6
		75	58.7
		50 (Median)	52.1
Variance	77.8	25	45.2
		10	40.1

FREQUENCY DISTRIBUTION

Scale Score	Frequency	Cumulative Frequency	Percent	Cumulative Percent	1994 State Percentile
82	2	84563	0.0	100.0	99
81	3	84561	0.0	100.0	99
80	8	84558	0.0	100.0	99
79	14	84550	0.0	100.0	99
77	31	84536	0.0	100.0	99
76	76	84505	0.1	99.9	99
75	77	84429	0.1	99.8	99
74	166	84352	0.2	99.6	99
73	150	84186	0.2	99.6	99
72	133	84036	0.2	99.4	99
71	350	83903	0.4	99.2	99
70	687	83553	0.8	98.8	98
69	617	82866	0.7	98.0	98
68	789	82249	0.9	97.3	97
67	872	81460	1.0	96.3	96
66	1371	80588	1.6	95.3	94
65	1271	79217	1.5	93.7	93
64	2076	77946	2.5	92.2	91
63	2128	75870	2.5	89.7	88
62	1850	73742	2.2	87.2	86
61	2714	71892	3.2	85.0	83
60	3840	69178	4.5	81.8	80
59	2436	65338	2.9	77.3	76
58	2606	62902	3.1	74.4	73
57	2778	60296	3.3	71.3	70
56	3718	57518	4.4	68.0	66
55	3947	53800	4.7	63.6	61
54	3085	49853	3.7	59.0	57
53	3206	46768	3.8	55.3	53
52	3375	43562	4.0	51.5	50
51	3318	40187	3.9	47.5	46
50	3498	36869	4.1	43.6	42
49	3453	33371	4.1	39.5	37
48	2170	29918	2.6	35.4	34
47	3397	27748	4.0	32.8	31
46	2359	24351	2.8	28.8	27
45	3305	21992	3.9	26.0	24
44	2041	18687	2.4	22.1	21
43	2945	16646	3.5	19.7	18
42	1829	13701	2.2	16.2	15
41	2594	11872	3.1	14.0	13
40	2307	9278	2.7	11.0	10
39	1418	6971	1.7	8.2	7
38	1678	5553	2.0	6.6	6
37	1298	3875	1.5	4.6	4
36	941	2577	1.1	3.1	2
35	778	1636	0.9	1.9	1
34	483	858	0.6	1.0	1
33	187	375	0.2	0.4	1
32	139	188	0.2	0.2	1
LESS THAN 32	49	49	0.1	0.1	1

**NORTH CAROLINA TESTING PROGRAM
END-OF-GRADE TEST -- GRADE 8 SCIENCE -- 1996**

STATE SUMMARY STATISTICS ON SCALE SCORES

Number of Students With Valid Scores	17,330	High Score	187
		Low Score	137
Mean	158.4	1996 State Percentiles	Scale Score
Standard Deviation	9.0	90	170.4
		75	165.4
		50 (Median)	158.1
Variance	81.4	25	151.6
		10	146.3

FREQUENCY DISTRIBUTION

Scale Score	Frequency	Cumulative Frequency	Percent	Cumulative Percent	1996 State Percentile
187	3	17330	0.0	100.0	99
186	1	17327	0.0	100.0	99
184	6	17326	0.0	100.0	99
183	7	17320	0.0	99.9	99
182	14	17313	0.1	99.9	99
181	26	17299	0.2	99.8	99
180	29	17273	0.2	99.7	99
179	63	17244	0.4	99.5	99
178	62	17181	0.4	99.1	99
177	76	17119	0.4	98.8	99
176	135	17043	0.8	98.3	98
175	158	16908	0.9	97.6	97
174	191	16750	1.1	96.7	96
173	306	16559	1.8	95.6	95
172	280	16253	1.6	93.8	93
171	330	15973	1.9	92.2	91
170	362	15643	2.1	90.3	89
169	391	15281	2.3	88.2	87
168	598	14890	3.5	85.9	84
167	788	14292	4.6	82.5	80
166	469	13504	2.7	77.9	77
165	523	13035	3.0	75.2	74
164	544	12512	3.1	72.2	71
163	547	11968	3.2	69.1	67
162	784	11421	4.5	65.9	64
161	547	10637	3.2	61.4	60
160	599	10090	3.5	58.2	56
159	583	9491	3.4	54.8	53
158	611	8908	3.5	51.4	50
157	661	8297	3.8	47.9	46
156	699	7636	4.0	44.1	42
155	669	6937	3.9	40.0	38
154	655	6268	3.8	36.2	34
153	681	5613	3.9	32.4	30
152	663	4932	3.8	28.5	27
151	420	4269	2.4	24.6	23
150	432	3849	2.5	22.2	21
149	459	3417	2.7	19.7	18
148	570	2958	3.3	17.1	15
147	545	2388	3.1	13.8	12
146	462	1843	2.7	10.6	9
145	432	1381	2.5	8.0	7

**NORTH CAROLINA TESTING PROGRAM
END-OF-GRADE TEST -- GRADE 8 SCIENCE -- 1996
(Continued)**

144	316	949	1.8	5.5	5
143	297	633	1.7	3.7	3
142	134	336	0.8	1.9	2
141	118	202	0.7	1.2	1
140	50	84	0.3	0.5	1
139	26	34	0.2	0.2	1
138	7	8	0.0	0.1	1
137	1	1	0.0	0.0	1

**NORTH CAROLINA TESTING PROGRAM
END-OF-GRADE TEST -- GRADE 8 SOCIAL STUDIES -- 1994**

STATE SUMMARY STATISTICS

Number of Students With Valid Scores	82,674	High Score	84
		Low Score	30
Mean	51.9	1994 State Percentiles	Scale Score
Standard Deviation	8.5	90	63.3
		75	58.0
Variance	72.5	50 (Median)	51.8
		25	45.0
		10	40.5

FREQUENCY DISTRIBUTION

Scale Score	Frequency	Cumulative Frequency	Percent	Cumulative Percent	1994 State Percentile
84	1	82674	0.0	100.0	99
83	4	82673	0.0	100.0	99
82	5	82669	0.0	100.0	99
81	3	82664	0.0	100.0	99
80	10	82661	0.0	100.0	99
79	17	82651	0.0	100.0	99
78	8	82634	0.0	100.0	99
77	43	82626	0.1	99.9	99
76	45	82583	0.1	99.9	99
75	96	82538	0.1	99.8	99
74	65	82442	0.1	99.7	99
73	127	82377	0.2	99.6	99
72	196	82250	0.2	99.5	99
71	282	82054	0.3	99.3	99
70	546	81772	0.7	98.9	99
69	526	81226	0.6	98.3	98
68	664	80700	0.8	97.6	97
67	774	80036	0.9	96.8	96
66	921	79262	1.1	95.9	95
65	1822	78341	2.2	94.8	94
64	1828	76519	2.2	92.6	91
63	1542	74691	1.9	90.3	89
62	1706	73149	2.1	88.5	87
61	3242	71443	3.9	86.4	84
60	2768	68201	3.4	82.5	81
59	2245	65433	2.7	79.2	78
58	2426	63188	2.9	76.4	75
57	4430	60762	5.4	73.5	71
56	3684	56332	4.5	68.1	66
55	2974	52648	3.6	63.7	62
54	3000	49674	3.6	60.1	58
53	3161	46674	3.8	56.5	55
52	3279	43513	4.0	52.6	51
51	3372	40234	4.1	48.7	47
50	3558	36862	4.3	44.6	42
49	3705	33304	4.5	40.3	38
48	2274	29599	2.8	35.8	34
47	2364	27325	2.9	33.1	32
46	2605	24961	3.2	30.2	29
45	3605	22356	4.4	27.0	25
44	3449	18751	4.2	22.7	21
43	3251	15302	3.9	18.5	17
42	1841	12051	2.2	14.6	13
41	1845	10210	2.2	12.4	11
40	2315	8365	2.8	10.1	9
39	1802	6050	2.2	7.3	6
38	1497	4248	1.8	5.1	4
37	1041	2751	1.3	3.3	3
36	1044	1710	1.3	2.1	1
35	382	666	0.5	0.8	1
34	142	284	0.2	0.3	1
LESS THAN 34	142	142	0.2	0.2	1



NORTH CAROLINA TESTING PROGRAM
FRENCH (FORM A) -- 1992

STATE SUMMARY STATISTICS

Number of Students With Valid Scores	863	High Score	39
Mean	21.6	Low Score	4
Standard Deviation	5.8	1992 State Percentiles	Core Score
Variance	33.7	90	29
		75	26
		50 (Median)	22
		25	18
		10	14

FREQUENCY DISTRIBUTION

Core Score	Frequency	Cumulative Frequency	Percent	1992 State Percentile
40	0	859	0.0	99
39	1	859	0.1	99
38	0	858	0.0	99
37	5	858	0.6	99
36	3	853	0.3	99
35	3	850	0.3	98
34	5	847	0.6	98
33	13	842	1.5	98
32	11	829	1.3	96
31	15	818	1.7	95
30	20	803	2.3	93
29	19	783	2.2	91
28	30	764	3.5	89
27	43	734	5.0	85
26	51	691	5.9	80
25	44	640	5.1	74
24	51	596	5.9	69
23	64	545	7.5	63
22	58	481	6.8	56
21	63	423	7.3	49
20	54	360	6.3	42
19	56	306	6.5	35
18	47	250	5.5	29
17	34	203	4.0	24
16	45	169	5.2	20
15	35	124	4.1	14
14	21	89	2.4	10
13	27	68	3.1	8
12	18	41	2.1	5
11	15	23	1.7	3
10	2	8	0.2	1
9	5	6	0.6	1
8	0	1	0.0	1
Less than 7	1	1	0.1	1

**NORTH CAROLINA TESTING PROGRAM
FRENCH (FORM B) -- 1992**

STATE SUMMARY STATISTICS

Number of Students With Valid Scores	840	High Score	39
		Low Score	5
Mean	20.9	1992 State Percentiles	Core Score
Standard Deviation	5.1	90	27
		75	25
		50 (Median)	21
Variance	26.2	25	18
		10	14

FREQUENCY DISTRIBUTION

Core Score	Frequency	Cumulative Frequency	Percent	1992 State Percentile
40	0	840	0.0	99
39	1	840	0.1	99
38	1	839	0.1	99
37	1	838	0.1	99
36	0	837	0.0	99
35	2	837	0.2	99
34	1	835	0.1	99
33	4	834	0.5	99
32	8	830	1.0	99
31	8	822	1.0	98
30	11	814	1.3	97
29	16	803	1.9	96
28	30	787	3.6	94
27	32	757	3.8	90
26	37	725	4.4	86
25	46	688	5.5	82
24	52	642	6.2	76
23	59	590	7.0	70
22	76	531	9.0	63
21	56	455	6.7	54
20	73	399	8.7	48
19	71	326	8.5	39
18	53	255	6.3	30
17	52	202	6.2	24
16	31	150	3.7	18
15	30	119	3.6	14
14	29	89	3.5	11
13	18	60	2.1	7
12	14	42	1.7	5
11	13	28	1.5	3
10	9	15	1.1	2
9	0	6	0.0	1
8	2	6	0.2	1
Less than 7	4	4	0.5	1

**NORTH CAROLINA TESTING PROGRAM
SPANISH (FORM A) -- 1992**

STATE SUMMARY STATISTICS

Number of Students With Valid Scores	1,260	High Score	40
		Low Score	1
Mean	20.8	1992 State Percentiles	Core Score
		90	28
Standard Deviation	5.7	75	24
		50 (Median)	21
Variance	32.6	25	17
		10	14

FREQUENCY DISTRIBUTION

Core Score	Frequency	Cumulative Frequency	Percent	1992 State Percentile
40	2	1260	0.2	99
39	2	1258	0.2	99
38	1	1256	0.1	99
37	4	1255	0.3	99
36	7	1251	0.6	99
35	2	1244	0.2	99
34	4	1242	0.3	99
33	10	1238	0.8	98
32	11	1228	.9	97
31	16	1217	1.3	97
30	21	1201	1.7	95
29	38	1180	3.0	94
28	43	1142	3.4	91
27	44	1099	3.5	87
26	49	1055	3.9	84
25	60	1006	4.8	80
24	84	946	6.7	75
23	69	862	5.5	68
22	93	793	7.4	63
21	84	700	6.7	56
20	93	616	7.4	49
19	77	523	6.1	42
18	73	446	5.8	35
17	70	373	5.6	30
16	66	303	5.2	24
15	62	237	4.9	19
14	55	175	4.4	14
13	46	120	3.7	10
12	30	74	2.4	6
11	18	44	1.4	3
10	10	26	0.8	2
9	6	16	0.5	1
8	4	10	0.3	1
Less than 7	6	6	0.5	1

NORTH CAROLINA TESTING PROGRAM
SPANISH (FORM B) -- 1992

STATE SUMMARY STATISTICS

Number of Students With Valid Scores	1,152	High Score	39
		Low Score	1
Mean	20.5	1992 State Percentiles	Core Score
Standard Deviation	5.5	90	28
		75	24
		50 (Median)	20
Variance	30.4	25	17
		10	14

FREQUENCY DISTRIBUTION

Core Score	Frequency	Cumulative Frequency	Percent	1992 State Percentile
40	0	1152	0.0	99
39	3	1152	0.3	99
38	1	1149	0.1	99
37	3	1148	0.3	99
36	2	1145	0.2	99
35	6	1143	0.5	99
34	3	1137	0.3	99
33	9	1134	0.8	98
32	9	1125	0.8	98
31	13	1116	1.1	97
30	16	1103	1.4	96
29	27	1087	2.3	94
28	31	1060	2.7	92
27	33	1029	2.9	89
26	45	996	3.9	86
25	55	951	4.8	83
24	68	896	5.9	78
23	81	828	7.0	72
22	59	747	5.1	65
21	69	688	6.0	60
20	101	619	8.8	54
19	73	518	6.3	45
18	88	445	7.6	39
17	80	357	6.9	31
16	68	277	5.9	24
15	47	209	4.1	18
14	54	162	4.7	14
13	39	108	3.4	9
12	28	69	2.4	6
11	17	41	1.5	4
10	13	24	1.1	2
9	4	11	0.3	1
8	2	7	0.2	1
Less than 7	5	5	0.4	0

State-Mandated End-of-Course Test Norms

BEST COPY AVAILABLE

**NORTH CAROLINA TESTING PROGRAM
END-OF-COURSE TEST -- ALGEBRA I -- 1994**

STATE SCALE SCORE SUMMARY STATISTICS

Number of Students With Valid Scores	69,142	High Score	87
		Low Score	23
Mean	55.1	1994 State Percentiles	Scale Score
Standard Deviation	9.1	90	66.7
		75	61.3
Variance	83.1	50 (Median)	55.3
		25	48.6
		10	42.8

FREQUENCY DISTRIBUTION

Scale Score	Frequency	Cumulative Frequency	Percent	Cumulative Percent	1994 State Percentile
87	2	69142	0.0	100.0	99
86	3	69140	0.0	100.0	99
85	5	69137	0.0	100.0	99
84	26	69132	0.0	100.0	99
83	29	69106	0.0	100.0	99
82	49	69077	0.1	99.9	99
81	48	69028	0.1	99.8	99
80	81	68980	0.1	99.8	99
79	81	68899	0.1	99.7	99
78	83	68818	0.1	99.5	99
77	170	68735	0.3	99.4	99
76	199	68565	0.3	99.2	99
75	271	68366	0.4	98.9	99
74	332	68095	0.5	98.5	98
73	389	67763	0.6	98.0	98
72	373	67374	0.5	97.4	97
71	1034	67001	1.5	96.9	96
70	631	65967	0.9	95.4	95
69	842	65336	1.2	94.5	94
68	1303	64494	1.9	93.3	92
67	1132	63191	1.6	91.4	91
66	1935	62059	2.8	89.8	88
65	1064	60124	1.5	87.0	86
64	2227	59060	3.2	85.4	84
63	2580	56833	3.7	82.2	80
62	1819	54253	2.6	78.5	77
61	2518	52434	3.6	75.8	74
60	3246	49916	4.7	72.2	70
59	2231	46670	3.2	67.5	66
58	2941	44439	4.3	64.3	62
57	3697	41498	5.4	60.0	57
56	2537	37801	3.7	54.7	53
55	3166	35264	4.6	51.0	49
54	3165	32098	4.6	46.4	44
53	2609	28933	3.8	41.9	40
52	1919	26324	2.8	35.3	33
50	1750	20697	2.5	29.9	29
49	1759	18947	2.5	27.4	26
48	2949	17188	4.3	24.9	23
47	2199	14239	3.2	20.6	19
46	1554	12040	2.3	17.4	16

NORTH CAROLINA TESTING PROGRAM
 END-OF-COURSE TEST -- ALGEBRA I -- 1994
 (Continued)

Scale Score	Frequency	Cumulative Frequency	Percent	Cumulative Percent	1994 State Percentile
45	1424	10486	2.1	15.2	14
44	1306	9062	1.9	13.1	12
43	1199	7756	1.7	11.2	10
42	1138	6557	1.7	9.5	9
41	1041	5419	1.5	7.8	7
40	970	4378	1.4	6.3	6
39	814	3408	1.2	4.9	4
38	653	2594	0.9	3.8	3
37	556	1941	0.8	2.8	2
36	409	1385	0.6	2.0	2
35	384	976	0.6	1.4	1
34	262	592	0.4	0.9	1
33	119	330	0.2	0.5	1
32	109	211	0.2	0.3	1
LESS THAN 32	102	102	0.2	0.2	1

**NORTH CAROLINA TESTING PROGRAM
END-OF-COURSE TEST -- BIOLOGY -- 1995**

STATE SCALE SCORE SUMMARY STATISTICS

Number of Students with Valid Scores	62,470	High Score	85
		Low Score	28
Mean	55.5	1995 State Percentiles	Scale Score
Standard Deviation	8.7	90	66.7
		75	61.7
		50 (Median)	55.9
Variance	75.1	25	49.7
		10	43.8

FREQUENCY DISTRIBUTION

Scale Score	Frequency	Cumulative Frequency	Percent	Cumulative Percent	1995 State Percentile
85	1	62470	0.0	100.0	99
84	1	62469	0.0	100.0	99
83	3	62468	0.0	100.0	99
82	9	62465	0.0	100.0	99
81	6	62456	0.0	100.0	99
80	25	62450	0.0	100.0	99
79	36	62425	0.1	99.9	99
78	59	62389	0.1	99.9	99
77	70	62330	0.1	99.8	99
76	135	62260	0.2	99.7	99
75	221	62125	0.4	99.5	99
74	214	61904	0.3	99.1	99
73	431	61690	0.7	98.8	98
72	355	61259	0.6	98.1	98
71	748	60904	1.2	97.5	97
70	617	60156	1.0	96.3	96
69	858	59539	1.4	95.3	95
68	1225	58681	2.0	93.9	93
67	1449	57456	2.3	92.0	91
66	1561	56007	2.5	89.7	88
65	1730	54446	2.8	87.2	86
64	1999	52716	3.2	84.4	83
63	2129	50717	3.4	81.2	79
62	2246	48588	3.6	77.8	76
61	2310	46342	3.7	74.2	72
60	2531	44032	4.1	70.5	68
59	3017	41501	4.8	66.4	64
58	2711	38484	4.3	61.6	59
57	2784	35773	4.5	57.3	55
56	2745	32989	4.4	52.8	51
55	2815	30244	4.5	48.4	46
54	2866	27429	4.6	43.9	42
53	2314	24563	3.7	39.3	37
52	1928	22249	3.1	35.6	34
51	2817	20321	4.5	32.5	30
50	2279	17504	3.7	28.0	26
49	1800	15225	2.9	24.4	23
48	1817	13425	2.9	21.5	20
47	1597	11608	2.6	18.6	17
46	1624	10011	2.6	16.0	15
45	1409	8387	2.3	13.4	12

NORTH CAROLINA TESTING PROGRAM
 END-OF-COURSE TEST -- BIOLOGY -- 1995
 (Continued)

Scale Score	Frequency	Cumulative Frequency	Percent	Cumulative Percent	1995 State Percentile
44	1039	6978	1.7	11.2	10
43	975	5939	1.6	9.5	9
42	854	4964	1.4	8.0	7
41	831	4110	1.3	6.6	6
40	702	3279	1.1	5.3	5
39	836	2577	1.3	4.1	3
38	699	1741	1.1	2.8	2
37	324	1042	0.5	1.7	1
36	225	718	0.4	1.2	1
35	268	493	0.4	0.8	1
34	92	225	0.2	0.4	1
33	79	133	0.1	0.2	1
LESS THAN 33	54	54	0.1	0.1	1

NORTH CAROLINA TESTING PROGRAM
END-OF-COURSE TEST -- ECONOMIC, LEGAL, AND POLITICAL SYSTEMS -- 1997

STATE SCALE SCORE SUMMARY STATISTICS

Number Of Students With Valid Scores	82,263	High Score	85
		Low Score	21
Mean	53.8	1997 State Percentiles	Scale Score
Standard Deviation	9.3	90	65.3
		75	60.5
		50 (Median)	54.6
Variance	86.4	25	47.7
		10	40.7

FREQUENCY DISTRIBUTION

Scale Score	Frequency	Cumulative Frequency	Percent	Cumulative Percent	1997 State Percentile
85	2	82263	0.0	100.0	99
84	1	82261	0.0	100.0	99
83	2	82260	0.0	100.0	99
82	4	82258	0.0	100.0	99
81	10	82254	0.0	100.0	99
80	36	82244	0.0	100.0	99
79	16	82208	0.0	99.9	99
78	38	82192	0.1	99.9	99
77	100	82154	0.1	99.9	99
76	90	82054	0.1	99.8	99
75	174	81964	0.2	99.6	99
74	177	81790	0.2	99.4	99
73	260	81613	0.3	99.2	99
72	409	81353	0.5	98.9	99
71	747	80944	0.9	98.4	98
70	757	80197	0.9	97.5	97
69	697	79440	0.9	96.6	96
68	1466	78743	1.8	95.7	95
67	1270	77277	1.5	93.9	93
66	1669	76007	2.0	92.4	91
65	1807	74338	2.2	90.4	89
64	2308	72531	2.8	88.2	87
63	2566	70223	3.1	85.4	84
62	2717	67657	3.3	82.2	81
61	3079	64940	3.7	78.9	77
60	3040	61861	3.7	75.2	73
59	3259	58821	4.0	71.5	70
58	3620	55562	4.4	67.5	65
57	3457	51942	4.2	63.1	61
56	3538	48485	4.3	58.9	57
55	4137	44947	5.0	54.6	52
54	3357	40810	4.1	49.6	48
53	3268	37453	4.0	45.5	44
52	3489	34185	4.2	41.6	39
51	2543	30696	3.1	37.3	36
50	2714	28153	3.3	34.2	33
49	2679	25439	3.3	30.9	29
48	2747	22760	3.3	27.7	26
47	2212	20013	2.7	24.3	23
46	2170	17801	2.6	21.6	20
45	1646	15631	2.0	19.0	18
44	1640	13985	2.0	17.0	16
43	1450	12345	1.8	15.0	14
42	1721	10895	2.1	13.2	12
41	1210	9174	1.5	11.2	10
40	1028	7964	1.3	9.7	9
39	1187	6936	1.4	8.4	8
38	1355	5749	1.7	7.0	6
37	727	4394	0.9	5.3	5
36	775	3667	0.9	4.5	4
35	754	2892	0.9	3.5	3
34	808	2138	1.0	2.6	2
33	468	1330	0.6	1.6	1
32	304	862	0.4	1.1	1
LESS THAN 32	558	558	0.7	0.7	1

**NORTH CAROLINA TESTING PROGRAM
END-OF-COURSE TEST -- ENGLISH I -- 1995**

STATE SCALE SCORE SUMMARY STATISTICS

Number of Students with Valid Scores	67,739	High Score	84
		Low Score	24
Mean	53.1	1995 State Percentiles	Scale Score
Standard Deviation	8.9	90	64.5
		75	59.4
		50 (Median)	53.2
Variance	9.9	25	47.0
		10	41.3

FREQUENCY DISTRIBUTION

Scale Score	Frequency	Cumulative Frequency	Percent	Cumulative Percent	1995 State Percentile
84	3	67739	0.0	100.0	99
83	6	67736	0.0	100.0	99
82	4	67730	0.0	100.0	99
81	15	67726	0.0	100.0	99
80	21	67711	0.0	100.0	99
79	17	67690	0.0	99.9	99
78	59	67673	0.1	99.9	99
77	38	67614	0.1	99.8	99
76	65	67576	0.1	99.8	99
75	187	67511	0.3	99.7	99
74	71	67324	0.1	99.4	99
73	274	67253	0.4	99.3	99
72	361	66979	0.5	98.9	99
71	395	66618	0.6	98.4	98
70	553	66223	0.8	97.8	97
69	596	65670	0.9	97.0	97
68	709	65074	1.1	96.1	96
67	1077	64365	1.6	95.0	94
66	1244	63288	1.8	93.4	93
65	1057	62044	1.6	91.6	91
64	1900	60987	2.8	90.0	89
63	1644	59087	2.4	87.2	86
62	1399	57443	2.1	84.8	84
61	2918	56044	4.3	82.7	81
60	2026	53126	3.0	78.4	77
59	2799	51100	4.1	75.4	73
58	2391	48301	3.5	71.3	70
57	2437	45910	3.6	67.8	66
56	3137	43473	4.6	64.2	62
55	2574	40336	3.8	59.6	58
54	3358	37762	5.0	55.8	53
53	2032	34404	3.0	50.8	49
52	4088	32372	6.0	47.8	45
51	2039	28284	3.0	41.8	40
50	2681	26245	4.0	38.7	37
49	3363	23564	5.0	34.8	32
48	1897	20201	2.8	29.8	28
47	2593	18304	3.8	27.0	25
46	1739	15711	2.6	23.2	22
45	2246	13972	3.3	20.6	19
44	1527	11726	2.3	17.3	16
43	1961	10199	2.9	15.1	14

NORTH CAROLINA TESTING PROGRAM
 END-OF-COURSE TEST -- ENGLISH I -- 1995
 (Continued)

Scale Score	Frequency	Cumulative Frequency	Percent	Cumulative Percent	1995 State Percentile
42	1265	8238	1.9	12.2	11
41	1176	6973	1.7	10.3	9
40	1053	5797	1.6	8.6	8
39	952	4744	1.4	7.0	6
38	610	3792	0.9	5.6	5
37	763	3182	1.1	4.7	4
36	617	2419	0.9	3.6	3
35	517	1802	0.8	2.7	2
34	389	1285	0.6	1.9	2
33	299	896	0.4	1.3	1
32	252	597	0.4	0.9	1
31	178	345	0.3	0.5	1
30	79	167	0.1	0.3	1
LESS THAN 30	88	88	0.1	0.2	1

**NORTH CAROLINA TESTING PROGRAM
END-OF-COURSE TEST -- US HISTORY -- 1995**

STATE SCALE SCORE SUMMARY STATISTICS

Number of Students with Valid Scores	53,157	High Score	85
		Low Score	28
Mean	56.2	1995 State Percentiles	Scale Score
Standard Deviation	8.3	90	66.9
		75	62.2
		50 (Median)	56.4
Variance	69.3	25	50.4
		10	44.9

FREQUENCY DISTRIBUTION

Scale Score	Frequency	Cumulative Frequency	Percent	Cumulative Percent	1995 State Percentile
85	1	53157	0.0	100.0	99
84	9	53156	0.0	100.0	99
83	6	53147	0.0	100.0	99
82	19	53141	0.0	100.0	99
81	18	53122	0.0	99.9	99
80	37	53104	0.1	99.9	99
79	51	53067	0.1	99.8	99
78	58	53016	0.1	99.7	99
77	81	52958	0.2	99.6	99
76	104	52877	0.2	99.5	99
75	260	52773	0.5	99.3	99
74	148	52513	0.3	98.8	99
73	330	52365	0.6	98.5	98
72	319	52035	0.6	97.9	98
71	609	51716	1.2	97.3	97
70	644	51107	1.2	96.1	96
69	855	50463	1.6	94.9	94
68	1052	49608	2.0	93.3	92
67	1106	48556	2.1	91.3	90
66	1308	47450	2.5	89.3	88
65	1430	46142	2.7	86.8	85
64	1847	44712	3.5	84.1	82
63	2309	42865	4.3	80.6	78
62	2158	40556	4.1	76.3	74
61	2024	38398	3.8	72.2	70
60	2493	36374	4.7	68.4	66
59	2542	33881	4.8	63.7	61
58	2302	31339	4.3	59.0	57
57	2298	29037	4.3	54.6	52
56	2315	26739	4.4	50.3	48
55	2472	24424	4.7	46.0	44
54	2301	21952	4.3	41.3	39
53	2367	19651	4.5	37.0	35
52	2338	17284	4.4	32.5	30
51	1514	14946	2.9	28.1	27
50	1904	13432	3.9	25.3	23
49	1588	11528	3.0	21.7	20
48	1462	9940	2.8	18.7	17
47	1367	8478	2.6	16.0	15
46	1025	7111	1.9	13.4	12
45	1235	6086	2.3	11.5	10
44	1091	4851	2.1	9.1	8

**NORTH CAROLINA TESTING PROGRAM
 END-OF-COURSE TEST -- US HISTORY -- 1995
 (Continued)**

Scale Score	Frequency	Cumulative Frequency	Percent	Cumulative Percent	1995 State Percentile
43	771	3760	1.5	7.1	6
42	856	2989	1.6	5.6	5
41	541	2133	1.0	4.0	4
40	400	1592	0.8	3.0	3
39	343	1192	0.7	2.2	2
38	353	849	0.7	1.6	1
37	278	496	0.5	0.9	1
36	92	218	0.2	0.4	1
35	70	126	0.1	0.2	1
34	28	56	0.1	0.1	1
33	16	28	0.0	0.1	1
LESS THAN 33	12	12	0.0	0.0	1

**NORTH CAROLINA TESTING PROGRAM
END OF COURSE TEST -- ALGEBRA II -- 1997**

STATE SCALE SCORE SUMMARY STATISTICS

Number Of Students With Valid Scores	44,065	High Score	88
		Low Score	33
Mean	58.8	1997 State Percentiles	Scale Score
Standard Deviation	10.5	90	72.8
		75	66.1
		50 (Median)	59.0
Variance	109.6	25	50.3
		10	44.8

FREQUENCY DISTRIBUTION

Scale Score	Frequency	Cumulative Frequency	Cumulative Percent	Percent	1997 State Percentile
88	12	44065	0.0	100.0	99
87	52	44053	0.1	100.0	99
86	93	44001	0.2	99.9	99
85	129	43908	0.3	99.6	99
84	113	43779	0.3	99.4	99
83	109	43666	0.3	99.9	99
82	148	43557	0.3	98.9	99
81	206	43409	0.5	98.5	98
80	292	43203	0.7	98.0	98
79	308	42911	0.7	97.4	97
78	317	42603	0.7	96.7	96
77	390	42286	0.9	96.0	96
76	425	41896	1.0	95.1	95
75	505	41471	1.2	94.1	94
74	712	40966	1.6	93.0	92
73	816	40254	1.9	91.4	90
72	823	39438	1.9	89.5	89
71	700	38615	1.6	87.6	87
70	972	37915	2.2	86.0	85
69	1439	36943	3.3	83.8	82
68	904	35504	2.1	80.6	80
67	957	34600	2.2	78.5	77
66	1362	33643	3.1	76.4	75
65	1422	32281	3.2	73.3	72
64	1644	30859	3.7	70.0	68
63	1272	29215	2.9	66.3	65
62	1311	27943	3.0	63.4	62
61	2307	26632	5.2	60.4	58
60	1473	24325	3.3	55.2	54
59	1499	22852	3.4	51.9	50
58	1613	21353	3.7	48.5	47
57	1053	19740	2.4	44.8	44
56	565	18687	1.3	42.4	42
55	1689	18122	3.8	41.1	39
54	1683	16433	3.8	37.3	35
53	1646	14750	3.7	33.5	32
52	1092	13104	2.5	29.7	28
51	627	12012	1.4	27.3	27
50	1628	11385	3.7	25.8	24
49	1581	9757	3.6	22.1	20
48	1003	8176	2.3	18.6	17
47	512	7173	1.2	16.3	16
46	1433	6661	3.3	15.1	13
45	1236	5228	2.8	11.9	10
44	754	3992	1.7	9.1	8
43	948	3238	2.2	7.4	6
42	700	2290	1.6	5.2	4
41	597	1590	1.4	3.6	3
40	406	993	0.9	2.3	2
39	265	587	0.6	1.3	1
38	186	322	0.4	0.7	1
LESS THAN 38	136	136	0.3	0.3	1

**NORTH CAROLINA TESTING PROGRAM
END-OF-COURSE TEST -- CHEMISTRY -- 1997**

STATE SCALE SCORE SUMMARY STATISTICS

Number Of Students With Valid Scores	35,458	High Score	88
		Low Score	28
Mean	56.8	1997 State Percentiles	Scale Score
Standard Deviation	8.5	90	68.0
		75	62.8
		50 (Median)	56.7
Variance	72.8	25	50.9
		10	45.6

FREQUENCY DISTRIBUTION

Scale Score	Frequency	Cumulative Frequency	Percent	Cumulative Percent	1997 State Percentile
88	2	35458	0.0	100.0	99
87	1	35456	0.0	100.0	99
86	3	35455	0.0	100.0	99
85	7	35452	0.0	100.0	99
84	2	35445	0.0	100.0	99
83	15	35443	0.0	100.0	99
82	14	35428	0.0	99.9	99
81	37	35414	0.1	99.9	99
80	26	35377	0.1	99.8	99
79	39	35351	0.1	99.7	99
78	95	35312	0.3	99.6	99
77	73	35217	0.2	99.3	99
76	149	35144	0.4	99.1	99
75	191	34995	0.5	98.7	98
74	177	34804	0.5	98.2	98
73	377	34627	1.1	97.7	97
72	288	34250	0.8	96.6	96
71	398	33962	1.1	95.8	95
70	589	33564	1.7	94.7	94
69	676	32975	1.9	93.0	92
68	715	32299	2.0	91.1	90
67	909	31584	2.6	89.1	88
66	699	30675	2.0	86.5	86
65	1116	29976	3.2	84.5	83
64	1272	28860	3.6	81.4	80
63	1428	27588	4.0	77.8	76
62	1511	26160	4.3	73.8	72
61	1037	24649	2.9	69.5	68
60	1493	23612	4.2	66.6	64
59	1577	22119	4.5	62.4	60
58	1621	20542	4.6	57.9	56
57	1501	18921	4.2	53.4	51
56	1870	17420	5.3	49.1	46
55	1516	15550	4.3	43.9	42
54	1515	14034	4.3	39.6	37
53	1898	12519	5.4	35.3	33
52	1130	10621	3.2	30.0	28
51	1102	9491	3.1	26.8	25
50	1020	8389	2.9	23.7	22
49	1051	7369	3.0	20.8	19
48	1237	6318	3.5	17.8	16
47	835	5081	2.4	14.3	13
46	803	4246	2.3	12.0	11
45	450	3443	1.3	9.7	9
44	631	2993	1.8	8.4	8
43	566	2362	1.6	6.7	6
42	421	1796	1.2	5.1	4
41	501	1375	1.4	3.9	3
40	289	874	0.8	2.5	2
39	202	585	0.6	1.7	1
38	178	383	0.5	1.1	1
37	85	205	0.2	0.6	1
36	76	120	0.2	0.3	1
LESS THAN 36	44	44	0.1	0.1	1

**NORTH CAROLINA TESTING PROGRAM
END-OF-COURSE TEST -- GEOMETRY -- 1997**

STATE SCALE SCORE SUMMARY STATISTICS

Number Of Students With Valid Scores	52,736	High Score	87
		Low Score	30
Mean	57.0	1997 State Percentiles	Scale Score
Standard Deviation	10.4	90	70.7
		75	64.8
		50 (Median)	57.2
Variance	107.4	25	49.0
		10	42.6

FREQUENCY DISTRIBUTION

Scale Score	Frequency	Cumulative Frequency	Percent	Cumulative Percent	1997 State Percentile
87	4	52736	0.0	100.0	99
86	19	52732	0.0	100.0	99
85	20	52713	0.0	100.0	99
84	42	52693	0.1	99.9	99
83	123	52651	0.2	99.8	99
81	160	52528	0.3	99.6	99
80	207	52368	0.4	99.3	99
79	203	52161	0.4	98.9	99
78	193	51958	0.4	98.5	98
77	254	51765	0.5	98.2	98
76	496	51511	0.9	97.7	97
75	498	51015	0.9	96.7	96
74	536	50517	1.0	95.8	95
73	1053	49981	2.0	94.8	94
72	702	48928	1.3	92.8	92
71	938	48226	1.8	91.5	91
70	810	47288	1.5	89.7	89
69	1508	46478	2.9	88.1	87
68	1243	44970	2.4	85.3	84
67	1296	43727	2.5	82.9	82
66	1727	42431	3.3	80.5	79
65	1490	40704	2.8	77.2	76
64	1928	39214	3.7	74.4	73
63	1160	37286	2.2	70.7	70
62	1969	36126	3.7	68.5	67
61	1684	34157	3.2	64.8	63
60	2128	32473	4.0	61.6	60
59	1899	30345	3.6	57.5	56
58	1373	28446	2.6	53.9	53
57	2349	27073	4.5	51.3	49
56	1921	24724	3.6	46.9	45
55	1467	22803	2.8	43.2	42
54	1495	21336	2.8	40.5	39
53	1434	19841	2.7	37.6	36
52	1542	18407	2.9	34.9	33
51	1497	16865	2.8	32.0	31
50	1458	15368	2.8	29.1	28
49	1488	13910	2.8	26.4	25
48	1510	12422	2.9	23.6	22
47	1478	10912	2.8	20.7	19
46	1540	9434	2.9	17.9	16
45	908	7894	1.7	15.0	14
44	533	6986	1.0	13.3	13
43	1306	6453	2.5	12.2	11
42	1200	5147	2.3	9.8	9
41	1005	3947	1.9	7.5	7
40	876	2942	1.7	5.6	5
39	698	2066	1.3	3.9	3
38	502	1368	1.0	2.6	2
37	370	866	0.7	1.6	1
36	271	496	0.5	0.9	1
35	101	225	0.2	0.4	1
LESS THAN 35	124	124	0.2	0.2	1

**NORTH CAROLINA TESTING PROGRAM
END-OF-COURSE TEST -- PHYSICAL SCIENCE -- 1997**

STATE SCALE SCORE SUMMARY STATISTICS

Number Of Students With Valid Scores	59,609	High Score	85
		Low Score	25
Mean	53.7	1997 State Percentiles	Scale Score
Standard Deviation	9.4	90	65.8
		75	60.5
		50 (Median)	54.1
Variance	87.9	25	47.2
		10	40.6

FREQUENCY DISTRIBUTION

Scale Score	Frequency	Cumulative Frequency	Percent	Cumulative Percent	1997 State Percentile
85	2	59609	0.0	100.0	99
83	5	59607	0.0	100.0	99
82	17	59602	0.0	100.0	99
81	11	59585	0.0	100.0	99
80	22	59574	0.0	99.9	99
79	51	59552	0.1	99.9	99
78	30	59501	0.1	99.8	99
77	84	59471	0.1	99.8	99
76	127	59387	0.2	99.6	99
75	155	59260	0.3	99.4	99
74	211	59105	0.4	99.2	99
73	275	58894	0.5	98.8	99
72	327	58619	0.6	98.3	98
71	516	58292	0.9	97.8	97
70	631	57776	1.1	96.9	96
69	712	57145	1.2	95.9	95
68	1080	56433	1.8	94.7	94
67	676	55353	1.1	92.9	92
66	1490	54677	2.5	91.7	90
65	1131	53187	1.9	89.2	88
64	1553	52056	2.6	87.3	86
63	2017	50503	3.4	84.7	83
62	1453	48486	2.4	81.3	80
61	2348	47033	3.9	78.9	77
60	2107	44685	3.5	75.0	73
59	2182	42578	3.7	71.4	70
58	2360	40396	4.0	67.8	66
57	2861	38036	4.8	63.8	61
56	1952	35175	3.3	59.0	57
55	2461	33223	4.1	55.7	54
54	2533	30762	4.3	51.6	49
53	2128	28229	3.6	47.4	46
52	2559	26101	4.3	43.8	42
51	1995	23542	3.4	39.5	38
50	1468	21547	2.5	36.2	35
49	2627	20079	4.4	33.7	31
48	2030	17452	3.4	29.3	28
47	1490	15422	2.5	25.9	25
46	1411	13932	2.4	23.4	22
45	1458	12521	2.5	21.0	20
44	1381	11063	2.3	18.6	17
43	1330	9682	2.2	16.2	15
42	1283	8352	2.2	14.0	13
41	1176	7069	2.0	11.9	11
40	1426	5893	2.4	9.9	9
39	911	4467	1.5	7.5	7
38	1094	3556	1.8	6.0	5
37	622	2462	1.0	4.1	4
36	691	1840	1.2	3.1	3
35	358	1149	0.6	1.9	2
34	271	791	0.5	1.3	1
LESS THAN 34	520	520	0.9	0.9	1

**NORTH CAROLINA TESTING PROGRAM
END-OF-COURSE TEST -- PHYSICS -- 1997**

STATE SCALE SCORE SUMMARY STATISTICS

Number Of Students With Valid Scores	10,592	High Score	84
		Low Score	25
Mean	55.9	1997 State Percentiles	Scale Score
Standard Deviation	9.0	90	67.5
		75	62.0
		50 (Median)	56.2
Variance	81.7	25	49.5
		10	44.0

FREQUENCY DISTRIBUTION

Scale Score	Frequency	Cumulative Frequency	Percent	Cumulative Percent	1997 State Percentile
84	5	10592	0.1	100.0	99
82	16	10587	0.2	100.0	99
81	9	10571	0.1	99.8	99
80	9	10562	0.1	99.7	99
79	26	10553	0.3	99.6	99
78	40	10527	0.4	99.9	99
77	36	10487	0.3	99.0	99
76	33	10451	0.3	98.7	99
75	35	10418	0.3	98.4	98
74	66	10383	0.6	98.0	98
73	73	10317	0.7	97.4	97
72	73	10244	0.7	96.7	96
71	128	10171	1.2	96.0	95
70	131	10043	1.2	94.8	94
69	176	9912	1.7	93.6	93
68	208	9736	2.0	91.9	91
67	221	9528	2.1	90.0	89
66	227	9307	2.1	87.9	87
65	307	9080	2.9	85.7	84
64	281	8773	2.7	82.8	82
63	388	8492	3.7	80.2	78
62	351	8104	3.3	76.5	75
61	372	7753	3.5	73.2	71
60	425	7381	4.0	69.7	68
59	549	6956	5.2	65.7	63
58	318	6407	3.0	60.5	59
57	667	6089	6.3	57.5	54
56	355	5422	3.4	51.2	50
55	347	5067	3.3	47.8	46
54	604	4720	5.7	44.6	42
53	421	4116	4.0	38.9	37
52	334	3695	3.2	34.9	33
51	303	3361	2.9	31.7	30
50	397	3058	3.8	28.9	27
49	366	2661	3.5	25.1	23
48	297	2295	2.8	21.7	20
47	361	1998	3.4	18.9	17
46	288	1637	2.7	15.5	14
45	216	1349	2.0	12.7	12
44	154	1133	1.5	10.7	10
43	204	979	1.9	9.2	8
42	156	775	1.5	7.3	7
41	104	619	1.0	5.8	5
40	116	515	1.1	4.9	4
39	111	399	1.1	3.8	3
38	83	288	0.8	2.7	2
37	61	205	0.6	1.9	2
36	52	144	0.5	1.4	1
LESS THAN 36	92	92	0.9	0.9	1



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