

Relationships Among the Pennsylvania System of School Assessment (PSSA) and Other Commonly Administered Assessments

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Abstract

In order to investigate the validity of the Pennsylvania System of School Assessment (PSSA), the Human Resources Research Organization (HumRRO) conducted a series of studies that examined several aspects of the testing system. This report is the third of the series. HumRRO matched student data from the PSSA and other commonly administered assessments provided by seven large public school districts. Scale scores were correlated between PSSA and the comparison assessments to compute convergent validity coefficients. All comparison tests were highly correlated with PSSA, even among dissimilar subjects (for example, PSSA reading and Terra Nova science). Same subject correlations were highest for mathematics, typically ranging from about 0.7 to about 0.9. For reading, correlations were slightly weaker, ranging from about 0.6 to about 0.8. These coefficients provide strong evidence for the convergent validity of the PSSA.

In addition, demographic factors were analyzed from the PSSA and the comparison tests to determine if the PSSA exhibited any differential impact based on gender, ethnicity, English proficiency, or socioeconomic status. Differential impact is a necessary, but insufficient, indicator of test bias. Student subgroup means did differ on both PSSA reading and mathematics. Males and females tended to score very similarly (small effect size (>0.20)) with males demonstrating a slight advantage in mathematics. Asian and White students' means were typically larger than Hispanic students' means, which were in turn, larger than Black students' means. Effect sizes for ethnic groups were typically moderate to large (0.5 or higher). Students with limited English Proficiency (LEP) did not score as high as students not designated LEP. The difference in scoring between LEP versus non-LEP students was larger for reading than mathematics. Means for students designated as economically disadvantaged were also lower than those for students not so designated. These results followed typical national scoring patterns and were very similar for all comparison tests. When regression analyses were conducted using comparison tests to predict PSSA scores, adding any of the demographic factors listed above failed to elicit an appreciable improvement in the prediction. Despite differential scoring among various demographic groups of students, no evidence was found that PSSA added bias toward any investigated group.

**RELATIONSHIPS AMONG THE PENNSYLVANIA SYSTEM OF SCHOOL
ASSESSMENT (PSSA) AND OTHER COMMONLY ADMINISTERED
ASSESSMENTS**

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RELATIONSHIPS AMONG THE PENNSYLVANIA SYSTEM OF SCHOOL ASSESSMENT (PSSA) AND OTHER COMMONLY ADMINISTERED ASSESSMENTS

Introduction

As part of Pennsylvania's System of School Assessment (PSSA), students in Grades 5, 8, and 11 take tests in reading and mathematics. Students in Grades 6, 9, and 11 are assessed in writing. The annual PSSA is a standards based criterion-referenced assessment used to measure a student's attainment of the academic standards while also determining the degree to which school programs enable students to attain proficiency standards. PSSA results are produced at both student and school levels. Student scores, which are provided only to their respective schools/districts, can be used diagnostically to identify students in need of additional educational opportunities. School scores are provided for schools and districts to use for curriculum and instruction improvement discussions and planning (www.pde.state.pa.us/a_and_t/site).

PSSA tests students' abilities in relation to academic standards adopted in 1999. The standards identify what students should know and be able to do within each subject area at each designated grade level. PSSA test items are linked to the standards and PSSA scores are used to stratify student performance within the standards. Students receive designations of Below Basic, Basic, Proficient, or Advanced, depending on how they score in each tested subject. These proficiency levels are determined using cut scores on the PSSA measurement scale. The cut scores were determined using the Bookmark (Lewis, Mitzel & Green, 1996) and Borderline Groups (Livingston & Zieky, 1978) standards-setting procedures.

Because PSSA serves as an assessment for individual students and for schools, it is configured using both common and matrix items. The common items are administered to all students and are used to create all student-level measures. The matrix items are administered by form such that each student only takes a portion of the matrix items. There are typically 10-12 matrix forms, spiraled within classrooms to ensure a random and representative sample of students receive each form. The matrix items add to the overall content coverage of the PSSA and allow for better diagnostic data to be produced at the school and district levels.

In addition to the PSSA, many schools and districts also require that students take additional achievement tests. Most of these are commercially available norm-referenced tests and serve as an additional source of information for the school or district, such as allowing parents to compare their child's performance to a nationally normed sample. Scores from these other tests are a valuable data source for investigating the convergent validity of the PSSA.

The quality of an assessment is typically characterized by its reliability and validity. Simply, reliability is an indication of how similar a student's scores on an assessment would be if the student took the test multiple times. Reliability is largely

concerned with the consistency of an assessment. Internal consistency reliability coefficients are provided in the PSSA technical manuals produced by Data Recognition Corporation (DRC) each year (Mead & Melby, 2002; Mead & Melby, 2003; Mead, Smith & Swanlund, 2003). PSSA test-retest reliability estimates ranged from 0.93 to 0.94 for math and from 0.92 to 0.94 for reading for the full set of items (common + matrix) in 2002. They were slightly lower for the common items only, 0.92 for math for all grades and ranging from 0.88 to 0.91 for reading (Estimates were very similar in 2001 and 2003.). This reduction in reliability for the common items only reflects that reliability statistics are influenced to a great extent by test length. The common section of the PSSA contains a minimum of 60 score points (for Grade 5 reading) and 80 or more score points for all other grade/subjects. This relatively large number of items helps account for PSSA's very high reliability estimates. HumRRO did not independently calculate reliability estimates. These estimates are part of the normal output of the software DRC uses to estimate item parameters. They are very similar for each PSSA administration and also similar to reliability estimates for other tests with a similar number of items.

So, we know that according to traditional reliability statistics, PSSA is a reliable measurement instrument. This report is more concerned with the validity of the PSSA. Simply put, does the PSSA measure what it purports to measure? This is not as simple a question as it might seem. One way of investigating validity is to compute convergent validity coefficients. Convergent validity coefficients are measures of the relationship between two separate tests of student ability for the same subject matter. They are correlations between students performance on the two tests. Often, convergent validity statistics are used to ensure that multiple forms from a single assessment are measuring essentially equivalent content. When convergent validity coefficients are calculated for that purpose, higher correlations are considered better than lower correlations. When we correlate PSSA scores with scores from another test, however, the interpretation of the coefficients requires additional explanation.

PSSA tests student ability related to content that is specific to Pennsylvania. The academic standards outline the content that Pennsylvania has decided is essential for students in its public schools. The extent to which another test measures content that is different from Pennsylvania's will limit the strength of the correlation between the two assessments. In fact, if the correlations were very high, it would raise questions as to whether the two assessments were measuring anything different at all, and consequently whether both are necessary. PSSA is composed of both multiple-choice and performance-task items. If another test uses only multiple-choice items, there may be method differences that reduce the strength of the correlations as well. Still, all the test scores analyzed as part of this research report scores for recognizable subjects, such as mathematics and reading. We expect student scores on the various tests to be related. We are left looking for what Hoffman (1998) refers to as "Goldilocks" correlations. Correlations between PSSA and other assessments should fall in this "not-too-high and not-too-low" range.

Comparisons between PSSA and other tests can also provide insights into the performance of various identified groups of interest. The federal No Child Left Behind

(NCLB) Act (NCLB, 2004) requires each state to measure the proficiency of its students as well as reduce gaps between traditionally lower-performing groups and their higher-performing peers. NCLB requires that states reduce gaps associated with ethnicity, socioeconomic status, language and disability. Comparisons of group performance on PSSA can determine if there is differential impact, a necessary but insufficient condition for bias, associated with the assessment. This report examines gender, ethnicity, language and socioeconomic status for differential impact.

Description of Data

Student-level PSSA files from the administrations conducted in 2001, 2002 and 2003 were provided by DRC. HumRRO downloaded the data from a secure file transfer protocol (FTP) site. Files included student responses and scores for reading and mathematics as well as demographic information. Files also identified students by name, school, and district. In most cases, student birthdates were also included in the files. No student-level records were shared with the Pennsylvania Department of Education. Files included student-level identifiers for the express purpose of matching PSSA results with results from other assessments. Once matching was complete, student names and birthdates were purged from all working files. All PSSA files were provided as text files. Text files were converted to SAS databases prior to analyses or merging with other files.

Comparison test data was collected from large districts with the help of the Pennsylvania Department of Education. A letter (Appendix A) was sent to the 25 most populous school districts requesting that they release non-PSSA test data to HumRRO. Districts were instructed to send data directly to HumRRO. Seven districts provided usable data, in various formats, from a wide variety of tests. The test data provided by six participating districts were typically from norm-referenced commercially available assessments. Data from CTBS/Terra Nova (CTB McGraw-Hill, 1997) was sent from four of the seven districts. In addition, data was provided from the CAT-5, SAT-9, and the Northwest Evaluation Association's (NWEA) achievement tests. One district provided both CTBS/Terra Nova and SAT-9 data. The seventh district provided data from the New Standards Reference Exam (NSRE), a standards-referenced test. In addition to district-level test administrations, PSSA was compared to SAT, an entrance requirement for most Pennsylvania colleges and universities. College Board provided state-level SAT data from administrations conducted in 2001, 2002, and 2003. Results from those comparisons were made in a separate report (Koger, Thacker & Dickinson, 2004).

Because districts typically receive data in a format suitable for student-level reporting, most did not have test data in a readily readable format for the entire district. In order to merge data with PSSA, district-level data was transformed to SPSS database format. Also, because of differences in the testing administration dates, conditions, or varying components of the assessment given, each district was treated separately. Consequently, there are four separate correlation matrices presented in this report between CTBS/Terra Nova and PSSA.

Descriptive Statistics

PSSA

Tables 1-3 present a summary of the data included in the PSSA files. Statistics represent scale scores for reading and mathematics and are the same scale scores reported to students. They are based only on the common set of items to which all students respond. The number of cases presented in the first column is the total number of students in the file. Not all of those students had data in both scale-score fields, so n-counts are smaller than the number of cases. Scale score minimums were limited to 700 for 2002 and 2003.

Table 1. Summary Data from PSSA 2001

Grade 5 (Cases = 145,440)	Mathematics (Non-Missing)	Reading (Non-Missing)
N	142,858	142,810
X	1311.42	1312.14
S.D.	190.65	202.68
Min.	595	381
Max.	2,212	2506
Grade 8 (Cases = 143,119)		
N	139,322	139,073
X	1,310.46	1,304.56
S.D.	200.35	210.06
Min.	373	100
Max.	2201	2214
Grade 11 (Cases = 122,332)		
N	116,137	115,566
X	1,304.11	1,296.87
S.D.	220.57	217.57
Min.	100	100
Max.	2481	2088

Table 2. Summary Data from PSSA 2002

Grade 5 (Cases =145,688)	Mathematics (Non-Missing)	Reading (Non-Missing)
N	143,159	143,046
X	1315.19	1316.39
S.D.	208.32	205.13
Min.	700	700
Max.	2409	2630
Grade 8 (Cases =146,127)		
N	141,910	141,801
X	1315.78	1309.70
S.D.	199.62	218.87
Min.	700	700
Max.	2293	2345
Grade 11 (Cases =129,475)		
N	123,550	123,234
X	1314.47	1312.86
S.D.	228.29	215.13
Min.	700	700
Max.	2437	2362

Table 3. Summary Data from PSSA 2003

Grade 5 (Cases =143,502)	Mathematics (Non-Missing)	Reading (Non-Missing)
N	141,402	141,530
X	1338.13	1331.60
S.D.	207.98	224.59
Min.	700	700
Max.	2325	2444
Grade 8 (Cases =148,760)		
N	144,964	145,302
X	1319.92	1336.97
S.D.	209.04	227.05
Min.	719	700
Max.	2228	2666
Grade 11 (Cases =133,168)		
N	126,941	127,427
X	1314.78	1315.61
S.D.	214.78	235.39
Min.	700	700
Max.	2238	2355

Matching Data

All comparison test data had to be matched to PSSA data in order to perform correlations and other calculations. A series of merge attempts were made based on the available student data. If possible, data was merged using a student identification number; however, only one district had sufficient numbers of students with identification numbers coded to allow merging on that variable. The others were merged using a combination of students' last names, first names, middle initials, and birthdates. Because data was specific to a particular district, only PSSA data from that district was included in the merge attempt. This was especially useful for comparison test data that did not include birthdates.

Rules were established to ensure the consistency of merging data. As many as eight merge attempts were made for each comparison test. The first merge attempt was made using last name, first name, middle initial, date of birth and district code. The second merge attempt was made using last name, first name, date of birth, and district code. The third merge attempt was made using last name, first name truncated to the first four letters, date of birth, and district code. The fourth merge attempt was made using last name truncated to the first four letters, first name truncated to the first four letters, date of birth, and district code. The fifth through eighth merge attempts repeated the first four

without including date of birth. As mentioned above, some comparison test data did not include birthdates and some PSSA files did not include birthdates. Often, even when it was supposed to be included, much of the date-of-birth data was blank in the test information provided. Each merge was conducted using as many merging variables as available and proceeding stepwise through the eight possible merges attempts. Each merge attempt resulted in three files—successfully merged student data, unmerged students from File 1, and unmerged students from File 2. Each successive merge attempt was made using only the students from the unmerged files. The successfully merged data was then appended to create the final working files.

CTBS/Terra Nova Data

Four of the seven participating districts provided CTBS/Terra Nova data. Each district is treated separately for several reasons. First, the districts did not always choose the same components of Terra Nova. Second, districts often did not give Terra Nova to the same grade level students. Third, each district has its own demographic makeup and policies. HumRRO created a short results summary for each participating district. The utility of that information depends on the districts' ability to separate their results from the larger population. Finally, all included districts provided sufficient data for the creation of correlation tables. It is instructive to compare the relationships between Terra Nova and PSSA for the four districts.

Differences in the types of CTBS tests given in each of the participating districts do not change the manner in which the results of those tests are compared to the PSSA. The CTBS Survey, Battery editions, and Multiple Assessments are interconnected. Each offers norm-referenced and curriculum-referenced information and all are tied to a common scale and share a set of linking items. Because of this interconnection, test configurations can vary from grade to grade and still provide consistent and comparable information (CTB McGraw-Hill, 1997).

CTBS/Terra Nova tests were designed to measure concepts, processes, and skills taught throughout the nation. The subject areas measured are reading/language arts (with reading and language scores reported separately), mathematics, science, and social studies. Supporting the measurement of these main content areas are supplemental tests in Word Analysis, Vocabulary, Language Mechanics, Spelling, and Mathematics Computation. All items, whether selected response (multiple choice), constructed response, or extended response, are classified according to content categories that reflect educational objectives commonly found in state, district, and diocese curriculum guides; in major textbooks, basal series, and instructional programs; and in national standards publications (CTB McGraw-Hill, 1997). The four Pennsylvania school districts that supplied CTBS data chose either the Survey or Battery editions containing selected-response items only.

Table 4. Merge Cycle Statistics for District 1 Grade 5 2002 CTBS

Merge Cycle	Number Retained	Percent of Original Data File
1 st Merge (<i>last name, first name, middle initial</i>)	562	62.4%
2 nd Merge (<i>last name, first name</i>)	637	70.7%
3 rd Merge (<i>last name, truncated first name</i>)	723	80.2%
4 th Merge (<i>truncated last name, truncated first name</i>)	738	81.9%

Table 5. Merge Cycle Statistics for District 1 Grade 8 2002 CTBS

Merge Cycle	Number Retained	Percent of Original Data File
1 st Merge (<i>last name, first name, middle initial</i>)	564	60.3%
2 nd Merge (<i>last name, first name</i>)	646	69.2%
3 rd Merge (<i>last name, truncated first name</i>)	719	77.0%
4 th Merge (<i>truncated last name, truncated first name</i>)	732	78.4%

Table 6. Merge Cycle Statistics for District 2 Grade 5 2001 CTBS

Merge Cycle	Number Retained	Percent of Original Data File
1 st Merge (<i>last name, first name, middle initial</i>)	405	28.2%
2 nd Merge (<i>last name, first name</i>)	705	49.1%
3 rd Merge (<i>last name, truncated first name</i>)	1254	87.4%
4 th Merge (<i>truncated last name, truncated first name</i>)	1281	89.3%

Table 7. Merge Cycle Statistics for District 3 Grade 5 2002 CTBS

Merge Cycle	Number Retained	Percent of Original Data File
1 st Merge (<i>last name, first name, middle initial</i>)	196	24.9%
2 nd Merge (<i>last name, first name</i>)	347	44.1%
3 rd Merge (<i>last name, truncated first name</i>)	635	80.7%
4 th Merge (<i>truncated last name, truncated first name</i>)	664	84.4%

Table 8. Merge Cycle Statistics for District 4 Grade 5 2003 CTBS

Merge Cycle	Number Retained	Percent of Original Data File
1 st Merge (<i>last name, first name, middle initial, birth date</i>)	11,345	72.7%
2 nd Merge (<i>last name, first name, birth date</i>)	11,460	73.4%
3 rd Merge (<i>last name, truncated first name, birth date</i>)	13,962	89.4%
4 th Merge (<i>truncated last name, truncated first name, birth date</i>)	14,337	91.8%
5 th Merge (<i>last name, first name, middle initial</i>)	14,602	93.5%
6 th Merge (<i>last name, first name</i>)	14,783	94.7%
7 th Merge (<i>last name, truncated first name</i>)	14,887	95.4%
8 th Merge (<i>truncated last name, truncated first name</i>)	14,920	95.6%

Table 9. Merge Cycle Statistics for District 4 Grade 8 2003 CTBS

Merge Cycle	Number Retained	Percent of Original Data File
1 st Merge (<i>last name, first name, middle initial, birth date</i>)	10,169	70.5%
2 nd Merge (<i>last name, first name, birth date</i>)	10,297	71.4%
3 rd Merge (<i>last name, truncated first name, birth date</i>)	12,528	86.9%
4 th Merge (<i>truncated last name, truncated first name, birth date</i>)	12,851	89.1%
5 th Merge (<i>last name, first name, middle initial</i>)	13,155	91.3%
6 th Merge (<i>last name, first name</i>)	13,348	92.6%
7 th Merge (<i>last name, truncated first name</i>)	13,445	93.3%
8 th Merge (<i>truncated last name, truncated first name</i>)	13,479	93.5%

SAT-9 Data

District 4 supplied both CTBS and Stanford Achievement Test, Version 9 (SAT-9), data. SAT-9 is also a standardized, norm-referenced test. Version 9 was normed in 1995. District 4 provided SAT-9 data only for Grades 8 and 10. Only science scores were included on the data file. The version of SAT-9 taken in District 4 included only multiple-choice items. The Stanford 9 Science subtest is designed to assess understanding

of the life, physical, and earth/space sciences. Mirroring the philosophy presented in Science for All Americans (<http://www.project2061.org/tools/sfaa/default.htm>), the Science subtest de-emphasizes specific content vocabulary and emphasizes the unifying themes and concepts of science. The same criteria used in the National Science Education Standards (<http://www.nap.edu/readingroom/books/nse/html/>) were employed to determine the importance of conceptual information, including the ideas that the concepts should have strong predictive power, be applicable in many situations, guide observation, encourage questioning, and represent organizing principles (<http://www.murray.k12.ga.us/Curriculum/Science/GL33907.HTM>).

Table 10. Merge Cycle Statistics for District 4 Grade 8 2001 SAT 9

Merge Cycle	Number Retained	Percent of Original Data File
1 st Merge (<i>last name, first name, middle initial</i>)	13,872	92.9%
2 nd Merge (<i>last name, first name</i>)	13,968	93.6%
3 rd Merge (<i>last name, truncated first name</i>)	14,047	94.1%

Table 11. Merge Cycle Statistics for District 4 Grade 11 2001 SAT-9

Merge Cycle	Number Retained	Percent of Original Data File
1 st Merge (<i>last name, first name, birth date</i>)	5,432	61.4%
2 nd Merge (<i>last name, truncated first name, birth date</i>)	5,482	62.0%
3 rd Merge (<i>truncated last name, truncated first name, birth date</i>)	5,509	62.3%
4 th Merge (<i>last name, first name</i>)	7,599	86.0%
5 th Merge (<i>last name, truncated first name</i>)	7,610	86.1%
6 th Merge (<i>truncated last name, truncated first name</i>)	7,621	86.2%

District 5 provided data from the California Achievement Test, Version 5 (CAT-5). Since the administration of CAT-5 in District 5, CTB/McGraw Hill has released Version 6 and made the test a part of the overall Terra Nova group of tests. CAT-5 is a standardized norm-referenced achievement test.

Table 12. Merge Cycle Statistics for District 5 Grade 5 2001 CAT-5

Merge Cycle	Number Retained	Percent of Original Data File
1 st Merge (<i>last name, first name, middle initial</i>)	418	54.3%
2 nd Merge (<i>last name, first name</i>)	648	84.2%
3 rd Merge (<i>last name, truncated first name</i>)	676	87.8%
4 th Merge (<i>truncated last name, truncated first name</i>)	687	89.2%

Table 13. Merge Cycle Statistics for District 5 Grade 8 2002 CAT-5

Merge Cycle	Number Retained	Percent of Original Data File
1 st Merge (<i>last name, first name, middle initial</i>)	406	52.7%
2 nd Merge (<i>last name, first name</i>)	585	76.0%
3 rd Merge (<i>last name, truncated first name</i>)	613	79.6%
4 th Merge (<i>truncated last name, truncated first name</i>)	623	80.9%

District 6 uses the Northwest Evaluation Association’s (NWEA) Achievement Level Tests to provide parents, teachers and administrators with an accurate assessment of student progress in mastering the skills of mathematics, reading, and language usage. NWEA Achievement Level Tests are a series of tests that provide information about academic growth and student learning. NWEA tests are designed to measure growth in student achievement in addition to providing status information. District 6 recommends that NWEA may be used for the following purposes:

- Monitor the progress of all students toward district and state standards,
- Measure growth in student achievement over time,
- Place students into appropriate courses or instructional settings,
- Provide instructional focus for individuals or groups,
- Evaluate program effectiveness,
- Communicate to parents.

NWEA testing consists of four parts:

1. Locator Tests for new students to determine appropriate test level,
2. Achievement Level Tests to determine student achievement,
3. Retests of Achievement Level Tests for students who scored too high or too low on their test (first test was too hard or too easy),
4. Reports of student achievement for parent, teacher, and district use.

NWEA is a computer-administered test that consists of multiple levels, and several levels are given in the same classroom. The first time a student is tested, the appropriate test level is determined by use of a Locator Test. During the second and subsequent years, the

NWEA software automatically assigns the correct level to the student based on previous results (NWEA information was provided via an internal document from District 6.).

NWEA reports students' scores on the RIT (Rasch Unit) scale. RIT scores are calculated in much the same way as the PSSA scale scores, although on a somewhat different scale. Both the RIT scores and the PSSA scale scores are equal interval and can be compared using correlations, effect size statistics, and other means.

Table 14. Merge Cycle Statistics for District 6 Grade 5 2001 NWEA

Merge Cycle	Number Retained	Percent of Original Data File
1 st Merge (<i>last name, first name, middle initial</i>)	1,110	76.3%
2 nd Merge (<i>last name, first name</i>)	1,320	90.7%
3 rd Merge (<i>last name, truncated first name</i>)	1,342	92.2%
4 th Merge (<i>truncated last name, truncated first name</i>)	1,362	93.6%

Table 15. Merge Cycle Statistics for District 6 Grade 5 2002 NWEA

Merge Cycle	Number Retained	Percent of Original Data File
1 st Merge (<i>last name, first name, middle initial</i>)	1,021	75.2%
2 nd Merge (<i>last name, first name</i>)	1,228	90.5%
3 rd Merge (<i>last name, truncated first name</i>)	1,248	92.0%
4 th Merge (<i>truncated last name, truncated first name</i>)	1,282	94.5%

Table 16. Merge Cycle Statistics for District 6 Grade 5 2003 NWEA

Merge Cycle	Number Retained	Percent of Original Data File
1 st Merge (<i>last name, first name, middle initial, birth date</i>)	710	54.9%
2 nd Merge (<i>last name, first name, birth date</i>)	1,187	91.8%
3 rd Merge (<i>last name, truncated first name, birth date</i>)	1,206	93.3%
4 th Merge (<i>truncated last name, truncated first name, birth date</i>)	1,215	94.0%
5 th Merge (<i>last name, first name, middle initial</i>)	1,237	95.7%
6 th Merge (<i>last name, first name</i>)	1,250	96.7%
7 th Merge (<i>last name, truncated first name</i>)	1,250	96.7%
8 th Merge (<i>truncated last name, truncated first name</i>)	1,259	97.4%

Table 17. Merge Cycle Statistics for District 6 Grade 8 2001 NWEA

Merge Cycle	Number Retained	Percent of Original Data File
1 st Merge (<i>last name, first name, middle initial</i>)	849	70.4%
2 nd Merge (<i>last name, first name</i>)	1,031	85.5%
3 rd Merge (<i>last name, truncated first name</i>)	1,051	87.1%
4 th Merge (<i>truncated last name, truncated first name</i>)	1,070	88.7%

Table 18. Merge Cycle Statistics for District 6 Grade 8 2002 NWEA

Merge Cycle	Number Retained	Percent of Original Data File
1 st Merge (<i>last name, first name, middle initial</i>)	828	67.9%
2 nd Merge (<i>last name, first name</i>)	1,047	85.8%
3 rd Merge (<i>last name, truncated first name</i>)	1,063	87.1%
4 th Merge (<i>truncated last name, truncated first name</i>)	1,097	89.9%

Table 19. Merge Cycle Statistics for District 6 Grade 8 2003 NWEA

Merge Cycle	Number Retained	Percent of Original Data File
1 st Merge (<i>last name, first name, middle initial, birth date</i>)	1,104	84.1%
2 nd Merge (<i>last name, first name, birth date</i>)	1,168	89.0%
3 rd Merge (<i>last name, truncated first name, birth date</i>)	1,185	90.3%
4 th Merge (<i>truncated last name, truncated first name, birth date</i>)	1,202	91.5%
5 th Merge (<i>last name, first name, middle initial</i>)	1,221	93.0%
6 th Merge (<i>last name, first name</i>)	1,232	93.8%
7 th Merge (<i>last name, truncated first name</i>)	1,243	94.7%
8 th Merge (<i>truncated last name, truncated first name</i>)	1,243	94.7%

District 7 provided data from the New Standards Reference Exam (NSRE). NSRE is a standards-referenced, rather than a norm-referenced, examination. This means that for NSRE there exists a set of standards, a definition of measurement targets—that is, constructs—that are derived from those standards, and a test blueprint for the test that yields scores for estimating the status of respondents with respect to these constructs, and criteria for successful performance in terms of these scores (Wiley, 1997). In many regards the NSRE was constructed in much the same manner as the PSSA. Like the PSSA, the NSRE data includes scale scores. The scale scores are tied to standards and to cutpoints that allow categorization of students by ability level.

Table 20. Merge Cycle Statistics for District 7 Grade 4 English 2000 NSRE

Merge Cycle	Number Retained	Percent of Original Data File
1 st Merge (<i>last name, first name, middle initial</i>)	443	49.7%
2 nd Merge (<i>last name, first name</i>)	660	74.0%
3 rd Merge (<i>last name, truncated first name</i>)	698	78.3%
4 th Merge (<i>truncated last name, truncated first name</i>)	736	82.5%

Table 21. Merge Cycle Statistics for District 7 Grade 4 Math 2000 NSRE

Merge Cycle	Number Retained	Percent of Original Data File
1 st Merge (<i>last name, first name, middle initial</i>)	439	49.2%
2 nd Merge (<i>last name, first name</i>)	653	73.2%
3 rd Merge (<i>last name, truncated first name</i>)	696	78.0%
4 th Merge (<i>truncated last name, truncated first name</i>)	734	82.3%

Table 22. Merge Cycle Statistics for District 7 Grade 7 English 2000 NSRE

Merge Cycle	Number Retained	Percent of Original Data File
1 st Merge (<i>last name, first name, middle initial</i>)	388	54.2%
2 nd Merge (<i>last name, first name</i>)	498	69.6%
3 rd Merge (<i>last name, truncated first name</i>)	523	73.0%
4 th Merge (<i>truncated last name, truncated first name</i>)	540	75.4%

Table 23. Merge Cycle Statistics for District 7 Grade 7 Math 2000 NSRE

Merge Cycle	Number Retained	Percent of Original Data File
1 st Merge (<i>last name, first name, middle initial</i>)	386	54.5%
2 nd Merge (<i>last name, first name</i>)	501	70.8%
3 rd Merge (<i>last name, truncated first name</i>)	527	74.4%
4 th Merge (<i>truncated last name, truncated first name</i>)	541	76.4%

Table 24. Merge Cycle Statistics for District 7 Grade 10 English 2000 NSRE

Merge Cycle	Number Retained	Percent of Original Data File
1 st Merge (<i>last name, first name, middle initial, birth date</i>)	315	52.7%
2 nd Merge (<i>last name, first name, birth date</i>)	361	60.4%
3 rd Merge (<i>last name, truncated first name, birth date</i>)	381	63.7%
4 th Merge (<i>truncated last name, truncated first name, birth date</i>)	391	65.4%
5 th Merge (<i>last name, first name, middle initial</i>)	421	70.4%
6 th Merge (<i>last name, first name</i>)	421	70.4%
7 th Merge (<i>last name, truncated first name</i>)	422	70.6%
8 th Merge (<i>truncated last name, truncated first name</i>)	422	70.6%

Table 25. Merge Cycle Statistics for District 7 Grade 10 Math 2000 NSRE

Merge Cycle	Number Retained	Percent of Original Data File
1 st Merge (<i>last name, first name, middle initial, birth date</i>)	305	53.5%
2 nd Merge (<i>last name, first name, birth date</i>)	357	62.6%
3 rd Merge (<i>last name, truncated first name, birth date</i>)	371	65.1%
4 th Merge (<i>truncated last name, truncated first name, birth date</i>)	382	67.0%
5 th Merge (<i>last name, first name, middle initial</i>)	403	70.7%
6 th Merge (<i>last name, first name</i>)	412	72.3%
7 th Merge (<i>last name, truncated first name</i>)	413	72.5%
8 th Merge (<i>truncated last name, truncated first name</i>)	414	72.6%

Table 26. Merge Cycle Statistics for District 7 Grade 4 English 2001 NSRE

Merge Cycle	Number Retained	Percent of Original Data File
1 st Merge (<i>last name, first name, middle initial</i>)	494	56.1%
2 nd Merge (<i>last name, first name</i>)	702	79.7%
3 rd Merge (<i>last name, truncated first name</i>)	731	83.0%
4 th Merge (<i>truncated last name, truncated first name</i>)	771	87.5%

Table 27. Merge Cycle Statistics for District 7 Grade 4 Math 2001 NSRE

Merge Cycle	Number Retained	Percent of Original Data File
1 st Merge (<i>last name, first name, middle initial</i>)	506	56.2%
2 nd Merge (<i>last name, first name</i>)	715	79.4%
3 rd Merge (<i>last name, truncated first name</i>)	741	82.3%
4 th Merge (<i>truncated last name, truncated first name</i>)	782	86.9%

Table 28. Merge Cycle Statistics for District 7 Grade 7 English 2001 NSRE

Merge Cycle	Number Retained	Percent of Original Data File
1 st Merge (<i>last name, first name, middle initial</i>)	406	57.1%
2 nd Merge (<i>last name, first name</i>)	527	74.1%
3 rd Merge (<i>last name, truncated first name</i>)	545	76.7%
4 th Merge (<i>truncated last name, truncated first name</i>)	568	79.9%

Table 29. Merge Cycle Statistics for District 7 Grade 7 Math 2001 NSRE

Merge Cycle	Number Retained	Percent of Original Data File
1 st Merge (<i>last name, first name, middle initial</i>)	398	55.1%
2 nd Merge (<i>last name, first name</i>)	524	72.6%
3 rd Merge (<i>last name, truncated first name</i>)	541	74.9%
4 th Merge (<i>truncated last name, truncated first name</i>)	568	78.7%

Table 30. Merge Cycle Statistics for District 7 Grade 10 English 2001 NSRE

Merge Cycle	Number Retained	Percent of Original Data File
1 st Merge (<i>last name, first name, middle initial, birth date</i>)	291	50.2%
2 nd Merge (<i>last name, first name, birth date</i>)	377	65.0%
3 rd Merge (<i>last name, truncated first name, birth date</i>)	391	67.4%
4 th Merge (<i>truncated last name, truncated first name, birth date</i>)	411	70.9%
5 th Merge (<i>last name, first name, middle initial</i>)	423	72.9%
6 th Merge (<i>last name, first name</i>)	430	74.1%
7 th Merge (<i>last name, truncated first name</i>)	431	74.3%
8 th Merge (<i>truncated last name, truncated first name</i>)	432	74.5%

Table 31. Merge Cycle Statistics for District 7 Grade 10 Math 2001 NSRE

Merge Cycle	Number Retained	Percent of Original Data File
1 st Merge (<i>last name, first name, middle initial, birth date</i>)	292	50.7%
2 nd Merge (<i>last name, first name, birth date</i>)	376	65.3%
3 rd Merge (<i>last name, truncated first name, birth date</i>)	389	67.5%
4 th Merge (<i>truncated last name, truncated first name, birth date</i>)	410	71.2%
5 th Merge (<i>last name, first name, middle initial</i>)	423	73.4%
6 th Merge (<i>last name, first name</i>)	430	74.7%
7 th Merge (<i>last name, truncated first name</i>)	430	74.7%
8 th Merge (<i>truncated last name, truncated first name</i>)	431	74.8%

Table 32. Merge Cycle Statistics for District 7 Grade 4 English 2002 NSRE

Merge Cycle	Number Retained	Percent of Original Data File
1 st Merge (<i>last name, first name, middle initial</i>)	570	64.7%
2 nd Merge (<i>last name, first name</i>)	678	77.0%
3 rd Merge (<i>last name, truncated first name</i>)	695	78.9%
4 th Merge (<i>truncated last name, truncated first name</i>)	718	81.5%

Table 33. Merge Cycle Statistics for District 7 Grade 4 Math 2002 NSRE

Merge Cycle	Number Retained	Percent of Original Data File
1 st Merge (<i>last name, first name, middle initial</i>)	571	64.8%
2 nd Merge (<i>last name, first name</i>)	676	76.7%
3 rd Merge (<i>last name, truncated first name</i>)	693	78.7%
4 th Merge (<i>truncated last name, truncated first name</i>)	715	81.2%

Table 34. Merge Cycle Statistics for District 7 Grade 7 English 2002 NSRE

Merge Cycle	Number Retained	Percent of Original Data File
1 st Merge (<i>last name, first name, middle initial</i>)	445	55.6%
2 nd Merge (<i>last name, first name</i>)	581	72.5%
3 rd Merge (<i>last name, truncated first name</i>)	626	78.2%
4 th Merge (<i>truncated last name, truncated first name</i>)	655	81.8%

Table 35. Merge Cycle Statistics for District 7 Grade 7 Math 2002 NSRE

Merge Cycle	Number Retained	Percent of Original Data File
1 st Merge (<i>last name, first name, middle initial</i>)	454	54.6%
2 nd Merge (<i>last name, first name</i>)	591	71.0%
3 rd Merge (<i>last name, truncated first name</i>)	631	75.8%
4 th Merge (<i>truncated last name, truncated first name</i>)	658	79.1%

Table 36. Merge Cycle Statistics for District 7 Grade 10 English 2002 NSRE

Merge Cycle	Number Retained	Percent of Original Data File
1 st Merge (<i>last name, first name, middle initial, birth date</i>)	285	56.8%
2 nd Merge (<i>last name, first name, birth date</i>)	358	71.3%
3 rd Merge (<i>last name, truncated first name, birth date</i>)	367	73.1%
4 th Merge (<i>truncated last name, truncated first name, birth date</i>)	383	76.3%
5 th Merge (<i>last name, first name, middle initial</i>)	393	78.3%
6 th Merge (<i>last name, first name</i>)	401	79.9%
7 th Merge (<i>last name, truncated first name</i>)	403	80.3%
8 th Merge (<i>truncated last name, truncated first name</i>)	405	80.7%

Table 37. Merge Cycle Statistics for District 7 Grade 10 Math 2002 NSRE

Merge Cycle	Number Retained	Percent of Original Data File
1 st Merge (<i>last name, first name, middle initial, birth date</i>)	290	57.7%
2 nd Merge (<i>last name, first name, birth date</i>)	363	72.2%
3 rd Merge (<i>last name, truncated first name, birth date</i>)	374	74.4%
4 th Merge (<i>truncated last name, truncated first name, birth date</i>)	391	77.7%
5 th Merge (<i>last name, first name, middle initial</i>)	402	79.9%
6 th Merge (<i>last name, first name</i>)	410	81.5%
7 th Merge (<i>last name, truncated first name</i>)	410	81.5%
8 th Merge (<i>truncated last name, truncated first name</i>)	411	81.7%

The proportion of students merged ranged from about 70% to about 95%. When the comparison test was given in a different grade than the PSSA, the merge proportion was much lower than when the two tests were given in the same grade. The number of valid cases for each comparison was at least 300.

Relationships Among Measures of Student-Level Scores

Illustrations of Relationships

The first aspect of comparing scores from one test to another is to recognize that the measurement scales for the various tests might be very different. One cannot simply compare one mean with another or one score with another for two distinct tests. Each testing system estimates student ability, often in very similar ways, but then transforms that data to give the test scores meaning in reference to norms, standards, or other aspects of the system. For example, scale scores on PSSA and scale scores on CTBS might look radically different, but represent essentially equivalent ability. Scale scores can be considered in relation to student ability in much the same way that numbers of degrees are considered in relation to temperature. Just as water’s freezing point is either 273, 0, or 32 degrees depending on whether one uses the Kelvin, Celsius, or Fahrenheit temperature scale, student proficiency could be represented by essentially any number one chooses to define.

Table 38 through Table 73 include the number of matched students, minimum and maximum scores, mean scores, and standard deviations for the PSSA and comparison tests. The number of students varies slightly from test to test since not all students had valid data in all fields. Means for matched students were always slightly larger than for unmatched students.

Table 38. PSSA and CTBS Scale Score Descriptives for District 1 Grade 5 2002

Assessment	Scale Score Descriptives				
	N	Minimum	Maximum	Mean	Standard Deviation
PSSA					
Reading	733	765	2630	1437.98	182.71
Math	733	850	2030	1448.97	185.16
CTBS					
Reading	738	498	810	690.23	40.24
Language	738	502	814	688.37	44.00
Math	734	487	850	695.04	41.53
Science	733	534	793	690.07	33.79
Total	734	526	813	691.34	37.48

Table 39. PSSA and CTBS Scale Score Descriptives for District 1 Grade 8 2002

Assessment	Scale Score Descriptives				
	N	Minimum	Maximum	Mean	Standard Deviation
PSSA					
Reading	728	835	1901	1440.75	184.73
Math	728	877	2080	1432.25	188.85
CTBS					
Reading	730	529	838	712.74	34.02
Language	730	535	835	712.56	42.83
Math	728	530	892	745.85	50.70
Science	723	604	893	725.49	37.50
Total	726	570	855	723.75	37.84

Table 40. PSSA and CTBS Scale Score Descriptives for District 2 Grade 5 2001

Assessment	Scale Score Descriptives				
	N	Minimum	Maximum	Mean	Standard Deviation
PSSA					
Reading	1277	828	2254	1468.56	162.42
Math	1277	960	2212	1467.01	163.00
CTBS					
Reading	1280	577	810	713.06	34.23
Language	1280	590	814	702.10	31.79
Math	1281	508	850	719.99	32.65
Total	1280	579	803	711.72	28.22

Table 41. PSSA and CTBS Scale Score Descriptives for District 3 Grade 5 2002

Assessment	Scale Score Descriptives				
	N	Minimum	Maximum	Mean	Standard Deviation
PSSA					
Reading	660	847	2177	1374.61	190.86
Math	659	858	2325	1366.19	177.77
CTBS					
Reading	664	517	780	669.26	42.05
Language	664	561	757	660.83	32.01
Math	664	512	770	650.97	36.90
Total	664	534	760	660.34	32.92

Table 42. PSSA and CTBS Scale Score Descriptives for District 4 Grade 5 2003

Assessment	Scale Score Descriptives				
	N	Minimum	Maximum	Mean	Standard Deviation
PSSA					
Reading	14,738	700	2,177	1,158.36	195.28
Math	14,687	700	2,093	1,180.49	184.06
CTBS					
Reading	14,845	407	790	638.91	45.01
Language	14,845	424	782	641.28	41.02
Math	14,833	430	797	633.89	43.39
Science	14,639	400	809	630.11	38.15
Total	14,740	462	760	638.35	38.96

Table 43. PSSA and CTBS Scale Score Descriptives for District 4 Grade 8 2003

Assessment	Scale Score Descriptives				
	N	Minimum	Maximum	Mean	Standard Deviation
PSSA					
Reading	13,154	700	1,953	1,174.10	211.99
Math	13,085	778	2,228	1,174.91	163.70
CTBS					
Reading	13,414	498	820	662.58	42.47
Language	13,414	523	808	655.66	37.53
Math	13,345	324	872	676.06	45.90
Science	13,087	366	857	666.25	40.98
Total	13,290	511	794	665.14	37.87

Table 44. PSSA and SAT-9 Scale Score Descriptives for District 4 Grade 8 2001

Assessment	Scale Score Descriptives				
	N	Minimum	Maximum	Mean	Standard Deviation
PSSA					
Reading	13,558	477	1,879	1,131.28	197.24
Math	13,602	741	1,899	1,153.24	157.53
SAT-9					
Science OE	13,523	499	775	606.32	43.35
Science MC	13,892	516	814	656.98	31.70

Table 45. PSSA and SAT-9 Scale Score Descriptives for District 4 Grade 11 2001

Assessment	Scale Score Descriptives				
	N	Minimum	Maximum	Mean	Standard Deviation
PSSA					
Reading	6,943	544	1,944	1,191.09	219.06
Math	7,235	715	2,103	1,194.63	201.35
SAT-9					
Science OE	7,594	555	851	677.98	30.16
Science MC	7,247	523	759	631.92	41.83

Table 46. PSSA and CAT-5 Scale Score Descriptives for District 5 Grade 5 2001

Assessment	Scale Score Descriptives				
	N	Minimum	Maximum	Mean	Standard Deviation
PSSA					
Reading	624	596	1844	1266.01	199.55
Math	602	860	1769	1269.99	166.92
CAT-5					
Reading	684	525	849	709.74	48.28
Language	674	556	848	713.30	45.22
Math	678	551	806	712.66	44.83
Total	665	578	834	712.38	42.32

Table 47. PSSA and CAT-5 Scale Score Descriptives for District 5 Grade 8 2002

Assessment	Scale Score Descriptives				
	N	Minimum	Maximum	Mean	Standard Deviation
PSSA					
Reading	552	778	1799	1252.93	202.59
Math	530	877	1744	1254.84	158.03
CAT-5					
Reading	611	525	867	733.31	45.17
Language	597	579	864	728.23	46.46
Math	610	546	881	742.04	47.14
Total	588	564	850	735.10	42.99

Table 48. PSSA and NWEA Scale Score Descriptives for District 6 Grade 5 2001

Assessment	Scale Score Descriptives				
	N	Minimum	Maximum	Mean	Standard Deviation
PSSA					
Reading	1,346	716	1,935	1,210.81	210.33
Math	1,348	808	2,030	1,215.36	176.63
NWEA					
Math	1,345	158	267	212.29	14.91
Reading	1,340	145	245	204.28	15.97
Language	1,335	155	258	206.21	15.20
General Sci.	1,341	154	236	201.15	10.31
Sci. Concepts	1,333	160	242	197.01	10.03

Table 49. PSSA and NWEA Scale Score Descriptives for District 6 Grade 5 2002

Assessment	Scale Score Descriptives				
	N	Minimum	Maximum	Mean	Standard Deviation
PSSA					
Reading	1,257	700	2,143	1,235.50	213.93
Math	1,260	798	2,189	1,254.70	209.63
NWEA					
Math	1,275	161	254	212.64	14.88
Reading	1,260	146	244	204.87	16.21
Language	1,266	153	244	207.74	13.90

Table 50. PSSA and NWEA Scale Score Descriptives for District 6 Grade 5 2003

Assessment	Scale Score Descriptives				
	N	Minimum	Maximum	Mean	Standard Deviation
PSSA					
Reading	1,249	700	2,003	1,252.74	230.53
Math	1,249	808	2,325	1,309.68	207.52
NWEA					
Math	1,250	164	271	215.54	16.20
Reading	1,246	141	256	205.55	17.02
Language	1,248	153	252	207.91	14.71

Table 51. PSSA and NWEA Scale Score Descriptives for District 6 Grade 8 2001

Assessment	Scale Score Descriptives				
	N	Minimum	Maximum	Mean	Standard Deviation
PSSA					
Reading	1,043	676	1,713	1,202.38	206.32
Math	1,050	856	1,828	1,191.45	165.82
NWEA					
Math	828	162	262	219.99	15.25
Reading	1,016	149	252	215.86	15.84
Language	1,020	158	254	217.24	14.76
Algebra	184	233	286	250.98	8.58
Sci. Concepts	1,008	164	239	207.31	10.44
Earth-Space Science	1,004	171	264	210.39	12.01

Table 52 PSSA and NWEA Scale Score Descriptives for District 6 Grade 8 2002

Assessment	Scale Score Descriptives				
	N	Minimum	Maximum	Mean	Standard Deviation
PSSA					
Reading	1,071	700	2,050	1,225.38	210.24
Math	1,076	859	1,939	1,223.96	173.44
NWEA					
Math	830	157	258	219.14	14.85
Reading	1,056	154	268	216.50	16.24
Language	1,049	151	255	216.56	14.38
Algebra	200	224	278	251.15	9.20

Table 53. PSSA and NWEA Scale Score Descriptives for District 6 Grade 8 2003

Assessment	Scale Score Descriptives				
	N	Minimum	Maximum	Mean	Standard Deviation
PSSA					
Reading	1,233	700	2,043	1,211.45	232.70
Math	1,232	824	1,887	1,213.25	171.71
NWEA					
Math	984	160	262	219.68	16.29
Reading	1,162	143	253	215.32	18.17
Language	1,190	158	260	216.07	15.43
Algebra	182	230	289	253.62	8.68

Table 54. PSSA and CAT-5 Scale Score Descriptives for District 5 Grade 5 2001

Assessment	Scale Score Descriptives				
	N	Minimum	Maximum	Mean	Standard Deviation
PSSA					
Reading	624	596	1844	1266.01	199.55
Math	602	860	1769	1269.99	166.92
CAT-5					
Reading	684	525	849	709.74	48.28
Language	674	556	848	713.30	45.22
Math	678	551	806	712.66	44.83
Total	665	578	834	712.38	42.32

Table 55. PSSA and CAT-5 Scale Score Descriptives for District 5 Grade 8 2002

Assessment	Scale Score Descriptives				
	N	Minimum	Maximum	Mean	Standard Deviation
PSSA					
Reading	552	778	1799	1252.93	202.59
Math	530	877	1744	1254.84	158.03
CAT-5					
Reading	611	525	867	733.31	45.17
Language	597	579	864	728.23	46.46
Math	610	546	881	742.04	47.14
Total	588	564	850	735.10	42.99

Table 56. PSSA and NSRE Scale Score Descriptives for District 7 Grade 4 English 2000

Assessment	Scale Score Descriptives				
	N	Minimum	Maximum	Mean	Standard Deviation
PSSA					
Reading	681	776	1844	1265.90	188.20
NSRE					
Reading	722	125	184	146.71	9.67
Writing	722	124	177	144.29	7.51

Table 57. PSSA and NSRE Scale Score Descriptives for District 7 Grade 4 Math 2000

Assessment	Scale Score Descriptives				
	N	Minimum	Maximum	Mean	Standard Deviation
PSSA					
Math	681	906	2030	1291.79	178.56
NSRE					
Math	730	126	162	143.39	5.81

Table 58. PSSA and NSRE Scale Score Descriptives for District 7 Grade 4 English 2001

Assessment	Scale Score Descriptives				
	N	Minimum	Maximum	Mean	Standard Deviation
PSSA					
Reading	729	700	2403	1254.38	204.00
NSRE					
Reading	754	126	200	150.78	11.60
Writing	754	118	180	142.98	7.621

Table 59. PSSA and NSRE Scale Score Descriptives for District 7 Grade 4 Math 2001

Assessment	Scale Score Descriptives				
	N	Minimum	Maximum	Mean	Standard Deviation
PSSA					
Math	742	758	2189	1282.63	197.48
NSRE					
Math	766	125	166	144.68	6.26

Table 60. PSSA and NSRE Scale Score Descriptives for District 7 Grade 4 English 2002

Assessment	Scale Score Descriptives				
	N	Minimum	Maximum	Mean	Standard Deviation
PSSA					
Reading	700	777	1893	1237.84	193.44
NSRE					
Reading	704	129	200	149.97	10.04
Writing	704	128	177	143.99	6.54

Table 61. PSSA and NSRE Scale Score Descriptives for District 7 Grade 4 Math 2002

Assessment	Scale Score Descriptives				
	N	Minimum	Maximum	Mean	Standard Deviation
PSSA					
Math	696	808	1956	1298.93	190.50
NSRE					
Math	704	128	171	146.43	6.36

Table 62. PSSA and NSRE Scale Score Descriptions for District 7 Grade 7 English 2000

Assessment	Scale Score Descriptives				
	N	Minimum	Maximum	Mean	Standard Deviation
PSSA					
Reading	504	700	1681	1216.48	198.26
NSRE					
Reading	515	126	173	143.35	7.65
Writing	515	130	179	148.18	7.61

Table 63. PSSA and NSRE Scale Score Descriptives for District 7 Grade 7 Math 2000

Assessment	Scale Score Descriptives				
	N	Minimum	Maximum	Mean	Standard Deviation
PSSA					
Math	508	856	1778	1220.32	179.23
NSRE					
Math	515	100	175	132.37	12.16

Table 64. PSSA and NSRE Scale Score Descriptives for District 7 Grade 7 English 2001

Assessment	Scale Score Descriptives				
	N	Minimum	Maximum	Mean	Standard Deviation
PSSA					
Reading	548	700	1901	1206.40	216.30
NSRE					
Reading	538	121	178	142.15	6.50
Writing	538	129	189	147.62	6.93

Table 65. PSSA and NSRE Scale Score Descriptives for District 7 Grade 7 Math 2001

Assessment	Scale Score Descriptives				
	N	Minimum	Maximum	Mean	Standard Deviation
PSSA					
Math	544	839	1854	1201.91	167.39
NSRE					
Math	526	100	179	130.65	11.68

Table 66. PSSA and NSRE Scale Score Descriptives for District 7 Grade 7 English 2002

Assessment	Scale Score Descriptives				
	N	Minimum	Maximum	Mean	Standard Deviation
PSSA					
Reading	633	700	1825	1217.39	208.43
NSRE					
Reading	633	130	182	143.09	8.05
Writing	633	127	200	148.70	9.12

Table 67. PSSA and NSRE Scale Score Descriptives for District 7 Grade 7 Math 2002

Assessment	Scale Score Descriptives				
	N	Minimum	Maximum	Mean	Standard Deviation
PSSA					
Math	631	845	2013	1208.52	175.70
NSRE					
Math	629	108	181	133.32	12.31

Table 68. PSSA and NSRE Scale Score Descriptives for District 7 Grade 10 English 2000

Assessment	Scale Score Descriptives				
	N	Minimum	Maximum	Mean	Standard Deviation
PSSA					
Reading	390	730	1769	1228.24	205.21
NSRE					
Reading	399	126	182	145.96	8.77
Writing	399	133	200	148.99	10.08

Table 69. PSSA and NSRE Scale Score Descriptives for District 7 Grade 10 Math 2000

Assessment	Scale Score Descriptives				
	N	Minimum	Maximum	Mean	Standard Deviation
PSSA					
Math	382	812	2007	1183.45	196.09
NSRE					
Math	394	110	189	137.74	12.58

Table 70. PSSA and NSRE Scale Score Descriptives for District 7 Grade 10 English 2001

Assessment	Scale Score Descriptives				
	N	Minimum	Maximum	Mean	Standard Deviation
PSSA					
Reading	400	700	1868	1224.20	216.14
NSRE					
Reading	377	124	200	144.45	8.62
Writing	377	133	181	148.41	7.46

Table 71. PSSA and NSRE Scale Score Descriptives for District 7 Grade 10 Math 2001

Assessment	Scale Score Descriptives				
	N	Minimum	Maximum	Mean	Standard Deviation
PSSA					
Math	398	803	2188	1228.45	221.24
NSRE					
Math	379	109	199	139.52	12.56

Table 72. PSSA and NSRE Scale Score Descriptives for District 7 Grade 10 English 2002

Assessment	Scale Score Descriptives				
	N	Minimum	Maximum	Mean	Standard Deviation
PSSA					
Reading	378	700	1795	1196.57	226.91
NSRE					
Reading	374	124	182	143.37	8.64
Writing	374	134	169	149.56	6.34

Table 73. PSSA and NSRE Scale Score Descriptives for District 7 Grade 10 Math 2002

Assessment	Scale Score Descriptives				
	N	Minimum	Maximum	Mean	Standard Deviation
PSSA					
Math	383	844	1790	1177.26	174.20
NSRE					
Math	379	112	189	138.99	11.92

Correlations Among Student-Level Measures¹

Once student data was matched, correlation matrices were constructed for PSSA and each of the comparison tests. Each table in this section represents the correlation matrix between PSSA and a single comparison test at a particular grade level and

¹ Given the extremely large sample sizes used in this report, tests of statistical significance are irrelevant. All reported relationships are statistically significant; that is, unlikely to be due to chance. Therefore, the report focuses on interpretation of the results.

administration year. When possible, multiple subjects are included in the same table. For District 7, however, a greater match was obtained by separating the subject test components. This may be due to test administration procedures for the NSRE and because the NSRE and PSSA were not given at the same grade levels. Only convergent validity coefficients (same or similar subject for two different tests) are provided in the correlation tables for District 7.

The correlation tables presented in this section are formatted such that correlations in bold and underlined represent convergent validity coefficients. These correlations are between the same or similar subjects on two separate assessments. Correlations that are bold, but not underlined are from two different assessments and two distinct academic subjects. Italicized correlations are between different subjects for the same assessment. These correlations are much more informative than relative means for the different assessments. Recall our water temperature example from above; it is true that water freezes at numbers of degrees that appear to vary widely depending on the scale we choose, but if several temperatures are measured on each scale and correlated together, the correlation would be perfect (or 1.00). If PSSA and another assessment measure a particular content construct in much the same way, we can expect a high correlation (never as high as 1.00 due to measurement error inherent in PSSA and all other measures of student achievement). If the correlation is low, we can surmise that the construct the two tests are measuring is very different.

The correlation between PSSA mathematics and CTBS/Terra Nova mathematics ranged from 0.69 to 0.83 for Grade 5 and from 0.61 to 0.83 for Grade 8. Both CTBS reading and language scores might be considered analogous content to PSSA reading. In all cases, the two correlation coefficients were very similar ranging from 0.59 to 0.76 for Grade 5 and 0.69 to 0.71 for Grade 8. Also, in all cases CTBS/Terra Nova reading correlated slightly higher with PSSA reading than with language. Mathematics correlations were typically a bit stronger than reading correlations for CTBS/Terra Nova. Two districts also administered a CTBS science test, which correlated at about 0.70 with both PSSA mathematics and reading. The correlation between PSSA and total CTBS is also presented in the tables. Total CTBS scores are computed from the various content area scores.

Table 74. PSSA and CTBS Correlations for District 1 Grade 5 Students 2002

Variable	1	2	3	4	5	6	7
PSSA							
1. Reading	1.00						
2. Math	.68	1.00					
CTBS							
3. Reading	<u>.68</u>	.61	1.00				
4. Language	<u>.62</u>	.60	.73	1.00			
5. Math	.66	<u>.79</u>	.69	.68	1.00		
6. Science	.63	.64	.72	.62	.73	1.00	
7. Total	.73	.74	.90	.90	.88	.77	1.00

Table 75. PSSA and CTBS Correlations for District 1 Grade 8 Students 2002

Variable	1	2	3	4	5	6	7
PSSA							
1. Reading	1.00						
2. Math	.76	1.00					
CTBS							
3. Reading	<u>.71</u>	.68	1.00				
4. Language	<u>.67</u>	.62	.76	1.00			
5. Math	.68	<u>.81</u>	.68	.64	1.00		
6. Science	.71	.71	.74	.67	.73	1.00	
7. Total	.77	.80	.89	.89	.89	.80	1.00

Table 76. PSSA and CTBS Correlations for District 2 Grade 5 Students 2001

Variable	1	2	3	4	5	6
PSSA						
1. Reading	1.00					
2. Math	.67	1.00				
CTBS						
3. Reading	<u>.61</u>	<u>.54</u>	1.00			
4. Language	<u>.59</u>	<u>.58</u>	.62	1.00		
5. Math	<u>.58</u>	<u>.75</u>	.58	.61	1.00	
6. Total	<u>.69</u>	.73	.86	.86	.85	1.00

Table 77. PSSA and CTBS Correlations for District 3 Grade 5 Students 2002

Variable	1	2	3	4	5	6
PSSA						
1. Reading	1.00					
2. Math	.70	1.00				
CTBS						
3. Reading	<u>.71</u>	<u>.60</u>	1.00			
4. Language	<u>.67</u>	<u>.59</u>	.71	1.00		
5. Math	<u>.60</u>	<u>.69</u>	.67	.68	1.00	
6. Total	<u>.75</u>	.71	.91	.88	.88	1.00

Table 78. PSSA and CTBS Correlations for District 4 Grade 5 Students 2003

Variable	1	2	3	4	5	6
PSSA						
1. Reading	1.00					
2. Math	.77	1.00				
CTBS						
3. Reading	<u>.76</u>	.67	1.00			
4. Language	<u>.74</u>	.69	.79	1.00		
5. Math	.72	<u>.83</u>	.71	.72	1.00	
6. Science	.71	.69	.70	.68	.74	1.00

Table 79. PSSA and CTBS Correlations for District 4 Grade 8 Students 2003

Variable	1	2	3	4	5	6
PSSA						
1. Reading	1.00					
2. Math	.75	1.00				
CTBS						
3. Reading	<u>.69</u>	.52	1.00			
4. Language	<u>.69</u>	.54	.83	1.00		
5. Math	.62	<u>.61</u>	.70	.71	1.00	
7. Science	.61	.50	.69	.69	.71	1.00

District 4 administered CTBS/Terra Nova as well as SAT-9 science tests. SAT-9 science scale scores were provided separately for multiple-choice and open-ended items. Both scale scores from SAT-9 had correlation coefficients from 0.62 to 0.69 for Grade 8 and 0.46 to 0.51 for Grade 11. Coefficients for both PSSA math and reading were very similar.

Table 80. PSSA and SAT-9 Correlations for District 4
Grade 8 Students 2001

Variable	1	2	3	4
PSSA				
1. Reading	1.00			
2. Math	.72	1.00		
SAT-9				
3. M/C Science	.68	.69	1.00	
4. O/E Science	.65	.62	.66	1.00

Table 81. PSSA and SAT-9 Correlations for District 4
Grade 11 Students 2001

Variable	1	2	3	4
PSSA				
1. Reading	1.00			
2. Math	.62	1.00		
SAT-9				
3. M/C Science	.46	.51	1.00	
4. O/E Science	.49	.49	.60	1.00

District 5 administered CAT-5 to Grades 5 and 8. Results were almost identical to results from CTBS/Terra Nova. Correlations for math were slightly higher than for reading/language, but all convergent validity coefficients were between 0.70 and 0.80. Correlations between PSSA reading and CAT-5 reading were slightly higher than between PSSA reading and CAT-5 language.

Table 82. PSSA and CAT-5 Correlations for District 5 Grade 5 Students 2001

Variable	1	2	3	4	5	6
PSSA						
1. Reading	1.00					
2. Math	.70	1.00				
CAT-5						
3. Reading	.80	.62	1.00			
4. Language	.71	.60	.80	1.00		
5. Math	.68	.74	.77	.75	1.00	
7. Total	.80	.72	.93	.92	.91	1.00

Table 83. PSSA and CAT-5 Correlations for District 5 Grade 8 Students 2002

Variable	1	2	3	4	5	6
PSSA						
1. Reading	1.00					
2. Math	.77	1.00				
CAT-5						
3. Reading	.76	.62	1.00			
4. Language	.74	.67	.82	1.00		
5. Math	.70	.78	.79	.77	1.00	
7. Total	.80	.76	.94	.93	.92	1.00

District 6 administered NWEA, which is a norm-referenced assessment consisting of several possible tests in 2001, 2002, and 2003. Students are given locator tests to determine their appropriate achievement test level. This is a more ability-tailored approach than is used for either the CTBS/Terra Nova or the CAT-5. This methodology is purported to maximize test information for students with varying ability levels (www.nwea.org). Correlations between NWEA and PSSA were very high. Grade 5 math convergent validity coefficients ranged from 0.87 to 0.88 for the three administrations. Reading coefficients were nearly as high, ranging from 0.84 to 0.86 correlating NWEA reading to PSSA reading and from 0.81 to 0.83 correlating NWEA language to PSSA reading.

Grade 8 results were similar for reading. The reading-to-reading correlation ranged from 0.83 to 0.87 and the reading-to-language correlation ranged from 0.82 to

0.84 for the three administrations. Mathematics correlations were slightly lower, but the mathematics tests were divided between mathematics and algebra. The NWEA mathematics-to-PSSA mathematics correlations ranged from 0.79 to 0.83, while the PSSA mathematics-to-NWEA algebra correlations ranged from 0.64 to 0.73. This is not surprising since no students took both the NWEA mathematics and algebra tests. Students took one or the other, presumably based on their ability estimates from the locator tests or because the students were enrolled in algebra at Grade 8. In either event, this likely means that the range of ability represented by students taking either the Grade 8 NWEA mathematics test or the algebra test was smaller than if the students had been combined and taken a single assessment. More simply, it seems likely that higher ability students took the algebra test while lower ability students took the mathematics test. This causes lower correlations with PSSA for the two tests because of the truncated ranges. Even so, the convergent validity coefficients for PSSA and NWEA mathematics and algebra are very high.

Table 84. PSSA and NWEA Correlations for District 6 Grade 5 Students 2001

Variable	1	2	3	4	5	6	7
PSSA							
1. Reading	1.00						
2. Math	.78	1.00					
NWEA							
3. Reading	<u>.84</u>	.74	1.00				
4. Language	<u>.84</u>	.79	.82	1.00			
5. Math	.77	<u>.87</u>	.80	.80	1.00		
6. General Sci	.78	.71	.80	.76	.76	1.00	
7. Sci. Concepts	.79	.74	.78	.77	.77	.80	1.00

Table 85. PSSA and NWEA Correlations for District 6 Grade 5 Students 2002

Variable	1	2	3	4	5
PSSA					
1. Reading	1.00				
2. Math	.78	1.00			
NWEA					
3. Reading	<u>.86</u>	.75	1.00		
4. Language	<u>.83</u>	.76	.88	1.00	
5. Math	.79	<u>.88</u>	.82	.83	1.00

Table 86. PSSA and NWEA Correlations for District 6 Grade 5 Students 2003

Variable	1	2	3	4	5
PSSA					
1. Reading	1.00				
2. Math	.81	1.00			
NWEA					
3. Reading	<u>.85</u>	.75	1.00		
4. Language	<u>.83</u>	.77	.89	1.00	
5. Math	.80	<u>.88</u>	.81	.84	1.00

Table 87. PSSA and NWEA Correlations for District 6 Grade 8 Students 2001

Variable	1	2	3	4	5	6	7	8
PSSA								
1. Reading	1.00							
2. Math	.76	1.00						
NWEA								
3. Reading	<u>.83</u>	.72	1.00					
4. Language	<u>.82</u>	.73	.90	1.00				
5. Math	.70	<u>.79</u>	.79	.81	1.00			
6. Algebra 1	.38	<u>.73</u>	.53	.57		1.00		
7. Sci. Concepts	.77	.78	.80	.79	.73	.64	1.00	
8. Earth-Space Sci.	.73	.69	.76	.74	.673	.49	.80	1.00

Table 88. PSSA and NWEA Correlations for District 6 Grade 8 Students 2002

Variable	1	2	3	4	5	6
PSSA						
1. Reading	1.00					
2. Math	.79	1.00				
NWEA						
3. Reading	<u>.86</u>	.75	1.00			
4. Language	<u>.83</u>	.76	.89	1.00		
5. Math	.74	<u>.83</u>	.77	.78	1.00	
6. Algebra 1	.51	<u>.70</u>	.81	.64		1.00

Note: Students took either the NWEA math or NWEA Algebra assessment but not both.

Table 89. PSSA and NWEA Correlations for District 6 Grade 8 Students 2003

Variable	1	2	3	4	5	6
PSSA						
1. Reading	1.00					
2. Math	.79	1.00				
NWEA						
3. Reading	<u>.87</u>	.74	1.00			
4. Language	<u>.84</u>	.73	.90	1.00		
5. Math	.76	<u>.83</u>	.79	.79	1.00	
6. Algebra 1	.54	<u>.64</u>	.58	.57		1.00

Note: Students took either the NWEA math or NWEA Algebra assessment but not both.

District 7 students took the NSRE. The NSRE was always administered one grade level lower than the PSSA. The NSRE may also have been administered in parts, with mathematics and reading/writing tests given on separate days. This is suspected due to the merge statistics when attempts were made using results from both tests. More students were successfully merged when each test was considered separately. This does not allow for the larger correlation matrices produced for the previous six districts. Instead, several tables containing only convergent validity coefficients are included. Reading and writing coefficients were very similar in all cases, ranging from 0.53 to 0.70 across all administration years and grade levels. Mathematics coefficients were higher, ranging from 0.72 to 0.88 for all administration years and grade levels. These coefficients are again very high and similar to correlations between PSSA and NWEA.

Table 90. PSSA and NSRE Correlations for District 7 Grade 4 English Students 2000

Variable	1	2	3
PSSA			
1. Reading	1.00		
NSRE			
2. Reading	<u>.63</u>	1.00	
3. Writing	<u>.58</u>	.67	1.00

Table 91. PSSA and NSRE Correlations for District 7 Grade 4 Math Students 2000

Variable	1	2
PSSA		
1. Math	1.00	
NSRE		
2. Math	<u>.75</u>	1.00

Table 92. PSSA and NSRE Correlations for District 7 Grade 4 English Students 2001

Variable	1	2	3
PSSA			
1. Reading	1.00		
NSRE			
2. Reading	<u>.64</u>	1.00	
3. Writing	<u>.53</u>	.65	1.00

Table 93. PSSA and NSRE Correlations for District 7 Grade 4 Math Students 2001

Variable	1	2
PSSA		
1. Math	1.00	
NSRE		
2. Math	<u>.74</u>	1.00

Table 94. PSSA and NSRE Correlations for District 7 Grade 4 English Students 2002

Variable	1	2	3
PSSA			
1. Reading	1.00		
NSRE			
2. Reading	<u>.62</u>	1.00	
3. Writing	<u>.61</u>	.63	1.00

Table 95. PSSA and NSRE Correlations for District 7 Grade 4 Math Students 2002

Variable	1	2
PSSA		
1. Math	1.00	
NSRE		
2. Math	<u>.74</u>	1.00

Table 96. PSSA and NSRE Correlations for District 7 Grade 7 English Students 2000

Variable	1	2	3
PSSA			
1. Reading	1.00		
NSRE			
2. Reading	<u>.66</u>	1.00	
3. Writing	<u>.68</u>	.72	1.00

Table 97. PSSA and NSRE Correlations for District 7 Grade 7 Math Students 2000

Variable	1	2
PSSA		
1. Math	1.00	
NSRE		
2. Math	<u>.72</u>	1.00

Table 98. PSSA and NSRE Correlations for District 7 Grade 7 English Students 2001

Variable	1	2	3
PSSA			
1. Reading	1.00		
NSRE			
2. Reading	<u>.70</u>	1.00	
3. Writing	<u>.57</u>	.65	1.00

Table 99. PSSA and NSRE Correlations for District 7 Grade 7 Math Students 2001

Variable	1	2
PSSA		
1. Math	1.00	
NSRE		
2. Math	<u>.80</u>	1.00

Table 100. PSSA and NSRE Correlations for District 7 Grade 7 English Students 2002

Variable	1	2	3
PSSA			
1. Reading	1.00		
NSRE			
2. Reading	<u>.61</u>	1.00	
3. Writing	<u>.63</u>	.66	1.00

Table 101. PSSA and NSRE Correlations for District 7 Grade 7 Math Students 2002

Variable	1	2
PSSA		
1. Math	1.00	
NSRE		
2. Math	<u>.77</u>	1.00

Table 102. PSSA and NSRE Correlations for District 7 Grade 10 English Students 2000

Variable	1	2	3
PSSA			
1. Reading	1.00		
NSRE			
2. Reading	<u>.73</u>	1.00	
3. Writing	<u>.69</u>	.69	1.00

Table 103. PSSA and NSRE Correlations for District 7 Grade 10 Math Students 2000

Variable	1	2
PSSA		
1. Math	1.00	
NSRE		
2. Math	<u>.88</u>	1.00

Table 104. PSSA and NSRE Correlations for District 7 Grade 10 English Students 2001

Variable	1	2	3
PSSA			
1. Reading	1.00		
NSRE			
2. Reading	<u>.72</u>	1.00	
3. Writing	<u>.64</u>	.75	1.00

Table 105. PSSA and NSRE Correlations for District 7 Grade 10 Math Students 2001

Variable	1	2
PSSA		
1. Math	1.00	
NSRE		
2. Math	<u>.87</u>	1.00

Table 106. PSSA and NSRE Correlations for District 7 Grade 10 English Students 2002

Variable	1	2	3
PSSA			
1. Reading	1.00		
NSRE			
2. Reading	<u>.70</u>	1.00	
3. Writing	<u>.69</u>	.78	1.00

Table 107. PSSA and NSRE Correlations for District 7 Grade 10 Math Students 2002

Variable	1	2
PSSA		
1. Math	1.00	
NSRE		
2. Math	<u>.87</u>	1.00

In addition to scale scores, NSRE also reports two categorical levels of competency. Students either meet NSRE standard, or they do not. It is informative to compare the performance category results from the PSSA with those from NSRE. Figures 1-6 show the numbers of students from District 7 scoring in each performance category for the 2003 PSSA administration. The bars representing the PSSA categories are then split to indicate whether those same students met NSRE standards during the 2002 administration (Administration years for NSRE and PSSA are different because students were tested in adjacent grades.).

Figures 1-6 show clearly that the proportion of students meeting NSRE standards increases with PSSA performance category. The relationship is not perfect, but clearly students who score in the Proficient/Advanced range on PSSA were more likely to have met NSRE standards, as well. In addition, these bar graphs show clearly that standards are high for both PSSA and NSRE, especially at the middle and high school levels.

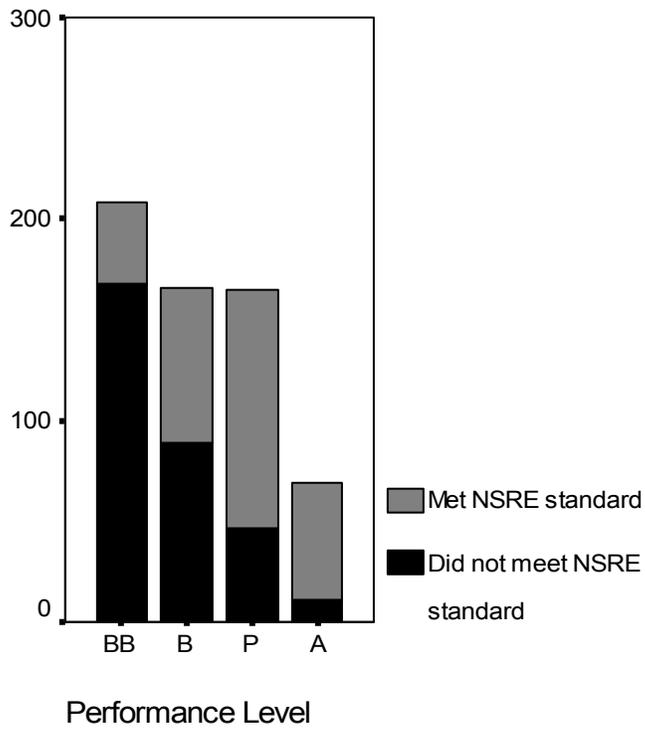


Figure 1. NSRE Standards Compared to PSSA Standards for 5th Grade Reading 2003

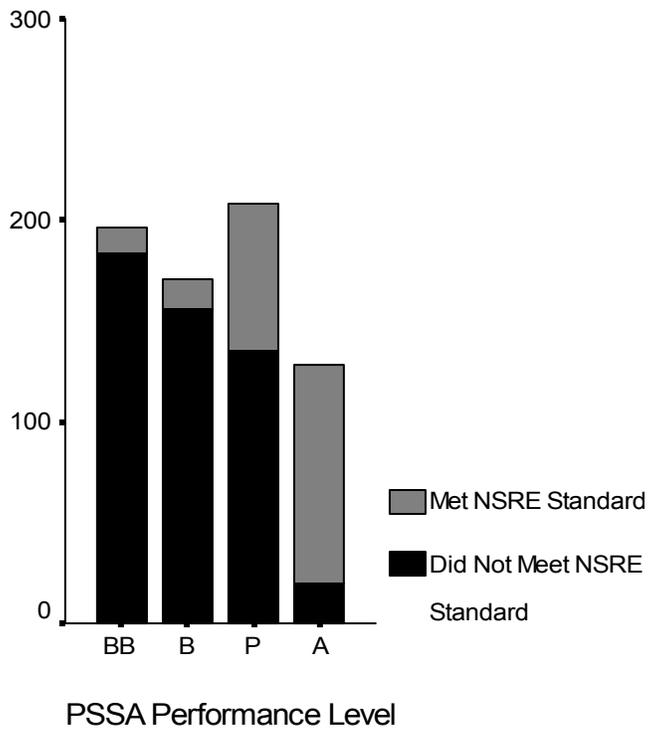


Figure 2. NSRE Standards Compared to PSSA Standards for 5th Grade Math 2003

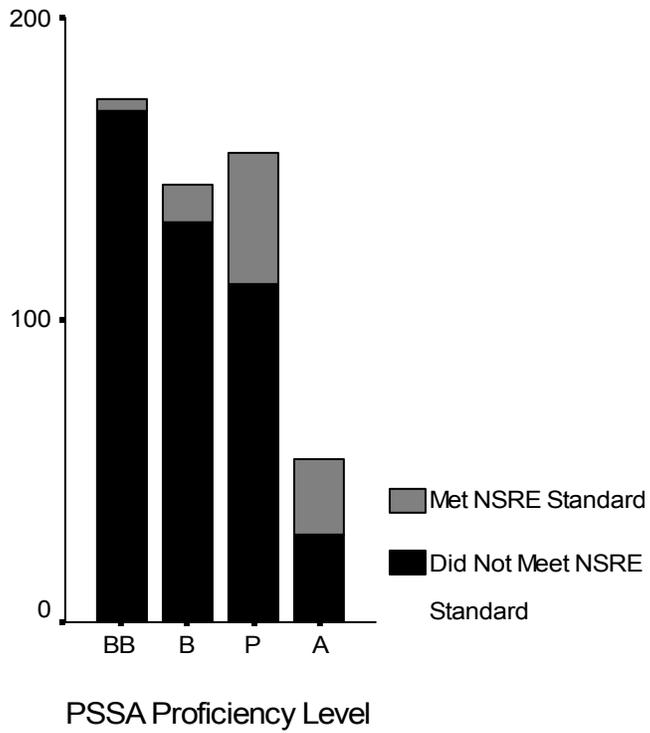


Figure 3. NSRE Standards Compared to PSSA Standards for 8th Grade Reading 2003

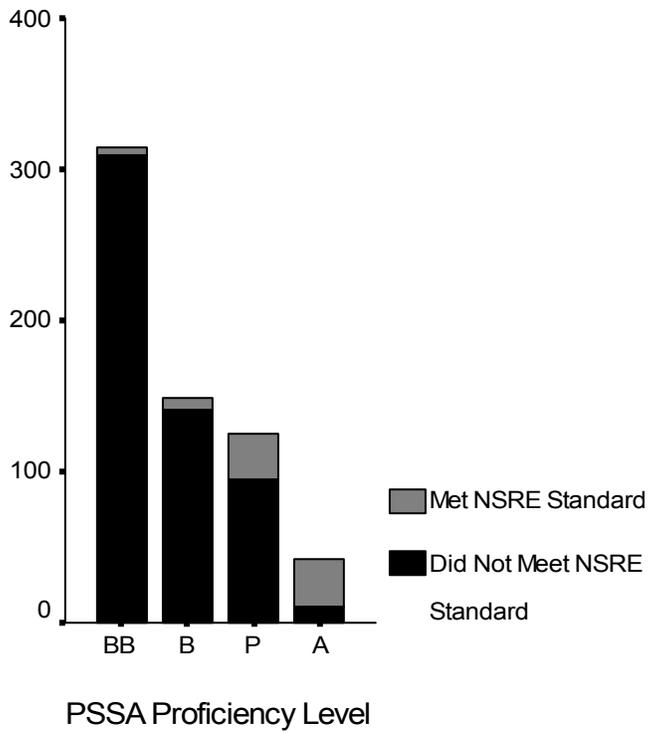


Figure 4. NSRE Standards Compared to PSSA Standards for 8th Grade Math 2003

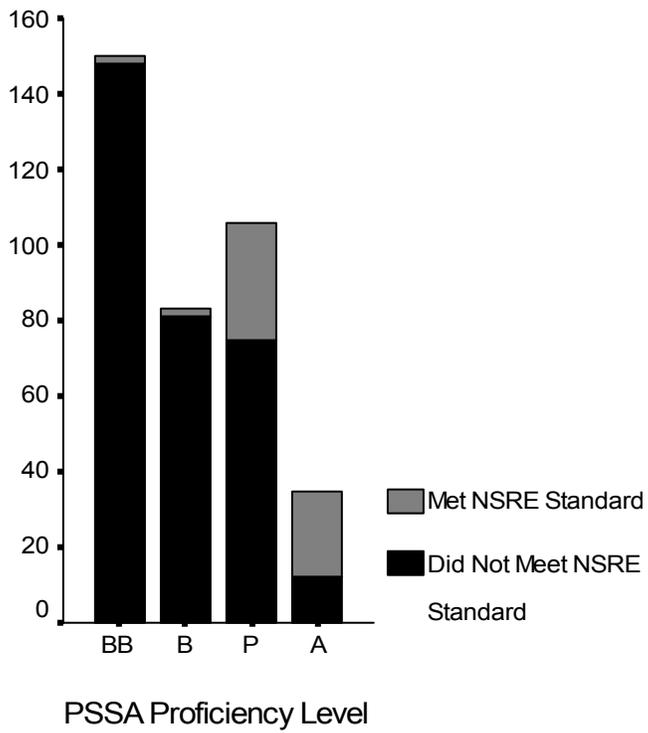


Figure 5. NSRE Standards Compared to PSSA Standards for 11th Grade Reading 2003

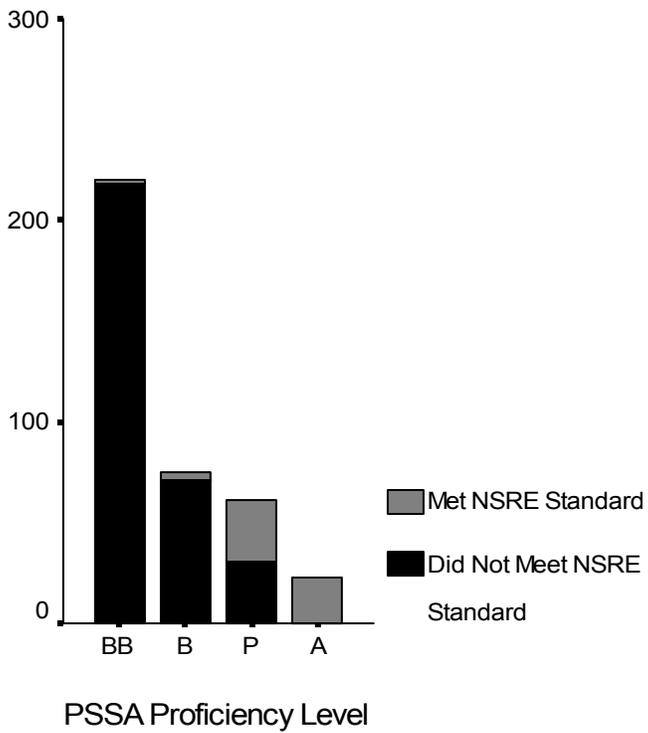


Figure 6. NSRE Standards Compared to PSSA Standards for 11th Grade Math 2003

Gender, Ethnic and Socioeconomic Differences

Analyses were conducted to compare performance on the PSSA and other achievement measures among students from varying backgrounds. Average test performance tends to differ for students of differing genders, ethnic groups, and socioeconomic status. The important question for judging bias on the PSSA is not whether specific groups show mean differences, but whether those differences are larger for the PSSA than the differences observed on other measures of student achievement.

Differences between measures of achievement can be captured in several ways. This report will present two measures of mean differences. First, effect size statistics will be calculated for the differences between major categories of students. The magnitude of the effect size statistics is less important than the difference between the effect sizes for PSSA compared to the other measures.

District 1 Grade 5 and 8 students' PSSA results were compared to CTBS/Terra Nova results. Both tests were administered in 2002. Grade 5 results include a comparison of descriptive statistics by gender (Table 108), including effect size statistics. The descriptive statistics are followed by a table with regression results from using CTBS/Terra Nova scores to predict PSSA scores, then adding gender to test the effect on the strength of the regression (Table 109). This same pattern is repeated for ethnicity (Table 110 through Table 112), although there are two regression tables; one for Black versus White students (dichotomously coded (Table 111)), and another comparing Hispanic/Latino to White students (also dichotomously coded (Table 112)). The next four tables present similar results for LEP students and for students identified as economically disadvantaged (Table 113 through Table 116). This same overall pattern is then repeated for Grade 8 students (through Table 125).

Table 108. PSSA and CTBS Descriptive Statistics by Gender District 1 Grade 5 2002

	Gender	Mean Scale Score	Standard Deviation	Number of Cases	Effect Size
PSSA Component					
Reading	Male	1422.25	174.93	396	
	Female	1456.79	190.24	336	-.09
Math	Male	1453.52	183.66	396	
	Female	1443.94	187.24	336	.03
CTBS Component					
Reading	Male	688.04	42.47	399	
	Female	692.80	37.43	337	-.06
Language	Male	682.41	43.07	399	
	Female	695.49	44.21	337	-.15
Math	Male	694.84	42.87	399	
	Female	695.38	39.94	334	-.01
Science	Male	691.59	37.59	398	
	Female	688.36	28.63	333	.01

Table 109. PSSA and CTBS Regressions Results Showing Adjusted Strengths of Gender Effects District 1 Grade 5 2002

PSSA Component	Standardized Coefficient			Change in R ² due to Gender
	CTBS Control	Gender	R ²	
Reading	.68		.46	
Reading	.68	.05	.46	.00
Math	.79		.63	
Math	.79	-.02	.63	.00

Table 110. PSSA and CTBS Descriptive Statistics by Ethnic Group Across District 1 Grade 5 2002

		White	Black	Hispanic	Asian
PSSA Component					
Reading	Mean	1454.93	1308.34	1214.60	1557.65
	S.D.	172.60	161.59	199.87	134.75
	N	624	32	20	17
	Effect Size		.40	.54	-.31
Math	Mean	1465.42	1283.75	1222.80	1671.94
	S.D.	170.15	186.03	155.19	167.59
	N	624	32	20	17
	Effect Size		.45	.60	-.52
CTBS Component					
Reading	Mean	693.55	661.59	640.90	715.41
	S.D.	38.10	35.53	42.47	29.58
	N	626	32	21	17
	Effect Size		.40	.55	-.31
Language	Mean	691.65	667.72	643.86	712.76
	S.D.	41.71	51.45	54.34	34.97
	N	626	32	21	17
	Effect Size		.25	.44	-.26
Math	Mean	698.49	658.84	655.68	734.18
	S.D.	38.40	46.51	32.42	25.88
	N	624	32	19	17
	Effect Size		.42	.52	-.48
Science	Mean	693.00	663.22	654.00	712.18
	S.D.	31.67	37.52	27.73	25.28
	N	625	32	19	17
	Effect Size		.40	.55	-.32

Table 111. Regression Results Showing the Adjusted Strength of Ethnicity Effects (Black versus White) District 1 Grade 5 2002

PSSA Component	Predictors included	R ²	Change in R ²
Reading	CTBS Reading	.43	
Reading	CTBS Reading & ethnicity	.43	.00
Math	CTBS Math	.60	
Math	CTBS Math & ethnicity	.60	.00

Table 112. Regression Results Showing the Adjusted Strength of Ethnicity Effects (Hispanic/Latino versus White) District 1 Grade 5 2002

PSSA Component	Predictors included	R ²	Change in R ²
Reading	CTBS Reading	.44	
Reading	CTBS Reading & ethnicity	.44	.00
Math	CTBS Math	.60	
Math	CTBS Math & ethnicity	.60	.00

Table 113. PSSA and CTBS Descriptive Statistics by LEP Status District 1 Grade 5 2002

PSSA Component	LEP Status	Mean Scale Score	Standard Deviation	Number of Cases	Effect Size
PSSA Component					
Reading	Non-LEP	1442.66	179.30	722	
	LEP	1131.09	142.86	11	.62
Math	Non-LEP	1452.30	184.02	722	
	LEP	1230.45	122.06	11	.59
CTBS Component					
Reading	Non-LEP	691.18	39.36	727	
	LEP	627.45	49.46	11	.59
Language	Non-LEP	689.28	43.33	727	
	LEP	628.36	48.46	11	.59
Math	Non-LEP	695.61	41.33	725	
	LEP	649.11	32.08	9	.58
Science	Non-LEP	690.52	33.60	725	
	LEP	649.38	26.31	8	.58

Table 114. PSSA and CTBS Regressions Results Showing Adjusted Strengths of LEP Status Effects District 1 Grade 5 2002

PSSA Component	Predictors included	R ²	Change in R ² due to LEP Status
Reading	CTBS reading	.46	
Reading	CTBS reading & LEP status	.46	.00
Math	CTBS math	.63	
Math	CTBS math & LEP status	.63	.00

Table 115. PSSA and CTBS Descriptive Statistics by SES Status District 1 Grade 5 2002

	SES Flag	Mean Scale Score	Standard Deviation	Number of Cases	Effect Size
PSSA Component					
Reading	Non-SES	1448.28	175.74	697	
	SES	1238.61	202.57	36	.58
Math	Non-SES	1458.58	179.99	697	
	SES	1262.89	188.20	36	.58
CTBS Component					
Reading	Non-SES	692.36	39.07	699	
	SES	652.03	42.13	39	.58
Language	Non-SES	690.44	42.51	699	
	SES	651.23	53.37	39	.57
Math	Non-SES	697.38	40.21	696	
	SES	652.11	42.34	38	.58
Science	Non-SES	691.98	32.60	695	
	SES	655.11	36.51	38	.58

Table 116. PSSA and CTBS Regressions Results Showing Adjusted Strengths of SES Status Effects District 1 Grade 5 2002

PSSA Component	Predictors included	R ²	Change in R ² due to SES Status
Reading	CTBS reading	.46	
Reading	CTBS reading & SES status	.47	.01
Math	CTBS math	.63	
Math	CTBS math & SES status	.63	.00

Table 117. PSSA and CTBS Descriptive Statistics by Gender District 1 Grade 8 2002

	Gender	Mean Scale Score	Standard Deviation	Number of Cases	Effect Size
PSSA Component					
Reading	Male	1425.48	193.73	356	
	Female	1455.52	174.78	366	-.08
Math	Male	1435.03	195.97	357	
	Female	1430.75	182.86	365	.01
CTBS Component					
Reading	Male	710.31	37.43	358	
	Female	715.07	30.34	366	-.07
Language	Male	705.13	44.12	358	
	Female	719.72	40.61	366	-.17
Math	Male	747.08	52.85	357	
	Female	744.88	48.81	365	.02
Science	Male	728.06	40.94	356	
	Female	722.75	33.65	361	.07

Table 118. PSSA and CTBS Regressions Results Showing Adjusted Strengths of Gender Effects District 1 Grade 8 2002

PSSA Component	Standardized Coefficient			Change in R ² due to Gender
	CTBS Control	Gender	R ²	
Reading	.71		.50	
Reading	.71	.03	.50	.00
Math	.81		.66	
Math	.81	.01	.66	.00

Table 119. PSSA and CTBS Descriptive Statistics by Ethnic Group Across District 1 Grade 8 2002

		White	Black	Hispanic	Asian
PSSA					
Component					
Reading	Mean	1454.97	1258.81	1319.16	1513.28
	S.D.	175.16	201.55	198.68	182.33
	N	594	32	19	32
	Effect Size		.46	.34	-.16
Math	Mean	1447.61	1220.09	1350.53	1538.69
	S.D.	179.30	154.54	229.52	166.96
	N	594	32	19	32
	Effect Size		.56	.23	-.25
CTBS					
Component					
Reading	Mean	715.75	682.85	694.84	718.39
	S.D.	32.71	39.34	22.30	32.96
	N	594	33	19	33
	Effect Size		.41	.35	-.04
Language	Mean	715.47	683.88	687.37	725.39
	S.D.	40.97	37.96	44.19	56.70
	N	594	33	19	33
	Effect Size		.37	.31	-.10
Math	Mean	749.47	698.94	737.05	768.55
	S.D.	49.37	41.98	64.10	33.57
	N	593	33	19	33
	Effect Size		.48	.11	-.22
Science	Mean	728.95	688.00	706.28	732.58
	S.D.	35.83	40.43	41.39	31.13
	N	589	33	18	33
	Effect Size		.47	.28	-.05

Table 120. Table Regression Results Showing the Adjusted Strength of Ethnicity Effects (Black versus White) District 1 Grade 8 2002

PSSA Component	Predictors included	R ²	Change in R ²
Reading	CTBS reading	.49	
Reading	CTBS reading & ethnicity	.50	.01
Math	CTBS math	.63	
Math	CTBS math & ethnicity	.64	.01

Table 121. Table Regression Results Showing the Adjusted Strength of Ethnicity Effects (Hispanic/Latino versus White) District 1 Grade 8 2002

PSSA Component	Predictors included	R ²	Change in R ²
Reading	CTBS reading	.48	
Reading	CTBS reading & ethnicity	.49	.01
Math	CTBS math	.63	
Math	CTBS math & ethnicity	.64	.01

Table 122. PSSA and CTBS Descriptive Statistics by LEP Status District 1 Grade 8 2002

PSSA Component	LEP Status	Mean Scale Score	Standard Deviation	Number of Cases	Effect Size
Reading	Non-LEP	1443.02	183.82	721	
	LEP	1206.29	123.31	7	.59
Math	Non-LEP	1432.99	189.17	721	
	LEP	1355.86	142.75	7	.54
CTBS Component					
Reading	Non-LEP	712.96	34.04	723	
	LEP	690.00	24.78	7	.57
Language	Non-LEP	712.76	42.92	723	
	LEP	691.71	27.09	7	.56
Math	Non-LEP	746.09	50.76	721	
	LEP	720.71	37.69	7	.56
Science	Non-LEP	725.69	37.43	716	
	LEP	704.86	42.23	7	.57

Table 123. PSSA and CTBS Regressions Results Showing Adjusted Strengths of LEP Status Effects District 1 Grade 8 2002

PSSA Component	Predictors included	R ²	Change in R ² due to LEP Status
Reading	CTBS reading	.50	
Reading	CTBS reading & LEP status	.51	.01
Math	CTBS math	.66	
Math	CTBS math & LEP status	.66	.00

Table 124. PSSA and CTBS Descriptive Statistics by SES Status District 1 Grade 8 2002

	SES Flag	Mean Scale Score	Standard Deviation	Number of Cases	Effect Size
PSSA Component					
Reading	Non-SES	1449.49	182.60	687	
	SES	1294.24	158.20	41	.57
Math	Non-SES	1441.63	186.78	687	
	SES	1274.98	151.78	41	.57
CTBS Component					
Reading	Non-SES	714.02	34.20	688	
	SES	691.76	22.48	42	.57
Language	Non-SES	714.35	42.38	688	
	SES	683.21	39.79	42	.57
Math	Non-SES	748.11	50.27	686	
	SES	708.83	43.06	42	.57
Science	Non-SES	727.07	37.10	682	
	SES	699.32	34.67	41	.57

Table 125. PSSA and CTBS Regressions Results Showing Adjusted Strengths of SES Status Effects District 1 Grade 8 2002

PSSA Component	Predictors included	R ²	Change in R ² due to SES Status
Reading	CTBS reading	.50	
Reading	CTBS reading & SES status	.51	.01
Math	CTBS math	.66	
Math	CTBS math & SES status	.66	.00

District 2 only provided usable comparison test results from a 2001 administration of CTBS/Terra Nova. Descriptive statistics and regression results for gender, ethnicity, LEP status, and socioeconomic status are presented in the same order as for District 1 (Table 126 through Table 134).

Table 126. PSSA and CTBS Descriptive Statistics by Gender District 2 Grade 5 2001

	Gender	Mean Scale Score	Standard Deviation	Number of Cases	Effect Size
PSSA Component					
Reading	Male	1447.16	158.77	642	
	Female	1491.62	161.23	625	-.14
Math	Male	1467.29	161.26	642	
	Female	1468.10	164.23	625	.00
CTBS Component					
Reading	Male	710.76	34.29	642	
	Female	715.82	33.85	627	-.07
Language	Male	696.80	30.05	642	
	Female	707.83	32.40	627	-.17
Math	Male	721.25	32.22	643	
	Female	719.08	32.80	627	.03

Table 127. PSSA and CTBS Regressions Results Showing Adjusted Strengths of Gender Effects District 2 Grade 5 2001

PSSA Component	Standardized Coefficient			Change in R ² due to Gender
	CTBS Control	Gender	R ²	
Reading	.60		.37	
Reading	.60	.09	.38	.01
Math	.74		.55	
Math	.74	.03	.55	.00

Table 128. PSSA and CTBS Descriptive Statistics by Ethnic Group Across District 2 Grade 5 2001

		White	Black	Hispanic	Asian
PSSA Component					
Reading	Mean	1469.00	1346.40	1509.78	1474.52
	S.D.	158.96	164.69	176.58	188.14
	N	1164	10	9	25
	Effect Size		.35	-.12	-.02
Math	Mean	1466.34	1335.60	1551.89	1559.04
	S.D.	160.87	156.04	155.09	210.91
	N	1164	10	9	25
	Effect Size		.38	-.26	-.24
CTBS Component					
Reading	Mean	713.13	694.40	708.89	723.92
	S.D.	34.14	21.49	28.07	28.89
	N	1166	10	9	25
	Effect Size		.31	.07	-.17
Language	Mean	702.39	679.40	710.44	706.88
	S.D.	31.58	20.99	30.62	34.17
	N	1166	10	9	25
	Effect Size		.39	-.13	-.07
Math	Mean	719.91	695.80	735.11	740.24
	S.D.	31.73	31.08	33.04	36.40
	N	1167	10	9	25
	Effect Size		.36	-.23	-.29

Table 129. Regression Results Showing the Adjusted Strength of Ethnicity Effects (Black versus White) District 2 Grade 5 2001

PSSA Component	Predictors included	R ²	Change in R ²
Reading	CTBS Reading	.36	
Reading	CTBS Reading & ethnicity	.36	.00
Math	CTBS Math	.55	
Math	CTBS Math & ethnicity	.56	.01

Table 130. Regression Results Showing the Adjusted Strength of Ethnicity Effects (Hispanic/Latino versus White) District 2 Grade 5 2001

PSSA Component	Predictors Included	R ²	Change in R ²
Reading	CTBS Reading	.36	
Reading	CTBS Reading & ethnicity	.36	.00
Math	CTBS Math	.55	
Math	CTBS Math & ethnicity	.55	.00

Table 131. PSSA and CTBS Descriptive Statistics by LEP Status District 2 Grade 5 2001

	LEP Status	Mean Scale Score	Standard Deviation	Number of Cases	Effect Size
PSSA Component					
Reading	Non-LEP	1468.61	162.47	1276	
	LEP	1404.00	NA	1	.27
Math	Non-LEP	1467.05	163.06	1276	
	LEP	1411.00	NA	1	.24
CTBS Component					
Reading	Non-LEP	713.08	34.24	1276	
	LEP	682.00	NA	1	.54
Language	Non-LEP	702.13	31.78	1276	
	LEP	667.00	NA	1	.62
Math	Non-LEP	719.99	32.66	1276	
	LEP	711.00	NA	1	.19

Table 132. PSSA and CTBS Regressions Results Showing Adjusted Strengths of LEP Status Effects District 2 Grade 5 2001

PSSA Component	Predictors included	R ²	Change in R ² due to LEP Status
Reading	CTBS reading	0.38	
Reading	CTBS reading & LEP status	0.38	0.00
Math	CTBS math	0.56	
Math	CTBS math & LEP status	0.56	0.00

Table 133. PSSA and CTBS Descriptive Statistics by SES Status District 2 Grade 5 2001

	SES Flag	Mean Scale Score	Standard Deviation	Number of Cases	Effect Size
PSSA Component					
Reading	Non-SES	1472.39	159.74	1246	
	SES	1314.52	194.78	31	.57
Math	Non-SES	1471.29	160.17	1246	
	SES	1295.00	184.65	31	.58
CTBS Component					
Reading	Non-SES	713.80	33.96	1249	
	SES	683.19	32.49	31	.58
Language	Non-SES	702.69	31.52	1249	
	SES	678.10	33.58	31	.57
Math	Non-SES	720.93	32.17	1249	
	SES	683.34	30.34	32	.58

Table 134. PSSA and CTBS Regressions Results Showing Adjusted Strengths of SES Status Effects District 2 Grade 5 2001

PSSA Component	Predictors included	R ²	Change in R ² due to SES Status
Reading	CTBS reading	0.38	
Reading	CTBS reading & SES status	0.38	0.00
Math	CTBS math	0.56	
Math	CTBS math & SES status	0.56	0.00

Like District 2, District 3 provided usable results from only one administration of their comparison test. CTBS/Terra Nova was administered to Grade 5 students in 2002. Again, the same order for results is followed as presented for District 1. Descriptive statistics and regression analyses can be found for District 3 in Table 135 through Table 143.

Table 135. PSSA and CTBS Descriptive Statistics By Gender District 3 Grade 5 2002

	Gender	Mean Scale Score	Standard Deviation	Number of Cases	Effect Size
PSSA Component					
Reading	Male	1362.89	190.64	332	
	Female	1388.80	192.86	313	-.07
Math	Male	1376.88	176.01	331	
	Female	1356.94	181.16	313	.06
CTBS Component					
Reading	Male	667.03	43.05	335	
	Female	672.23	40.72	313	-.06
Language	Male	657.03	31.46	335	
	Female	665.28	32.22	313	-.13
Math	Male	653.39	36.55	335	
	Female	648.96	37.49	313	.06

Table 136. PSSA and CTBS Regressions Results Showing Adjusted Strengths of Gender Effects District 3 Grade 5 2002

PSSA Component	Standardized Coefficient			Change in R ² due to Gender
	CTBS Control	Gender	R ²	
Reading	.71		.50	
Reading	.71	.03	.50	.00
Math	.70		.48	
Math	.70	-.01	.48	.00

Table 137. PSSA and CTBS Descriptive Statistics by Ethnic Group Across District 3 Grade 5 2002

		White	Black	Hispanic	Asian
PSSA Component					
Reading	Mean	1396.01	1324.05	1318.09	1470.36
	S.D.	193.75	168.15	190.99	161.71
	N	458	94	80	11
	Effect Size		.19	.20	.07
Math	Mean	1391.49	1300.86	1297.00	1448.64
	S.D.	177.68	146.58	169.54	256.70
	N	457	94	80	11
	Effect Size		.27	.26	-.13
CTBS Component					
Reading	Mean	674.82	655.02	657.61	669.55
	S.D.	42.42	36.71	39.13	44.21
	N	460	95	80	11
	Effect Size		.24	.21	.06
Language	Mean	665.07	650.68	650.94	658.73
	S.D.	32.09	28.54	31.84	29.90
	N	460	95	80	11
	Effect Size		.23	.22	.10
Math	Mean	658.43	629.44	636.08	648.36
	S.D.	36.62	29.92	33.54	31.88
	N	460	95	80	11
	Effect Size		.40	.30	.15

Table 138. Regression Results Showing the Adjusted Strength of Ethnicity Effects (Black versus White) District 3 Grade 5 2002

PSSA Component	Predictors included	R ²	Change in R ²
Reading	CTBS Reading	.49	
Reading	CTBS Reading & ethnicity	.49	.00
Math	CTBS Math	.48	
Math	CTBS Math & ethnicity	.48	.00

Table 139. Regression Results Showing the Adjusted Strength of Ethnicity Effects (Hispanic/Latino versus White) District 3 Grade 5 2002

PSSA Component	Predictors included	R ²	Change in R ²
Reading	CTBS Reading	.49	
Reading	CTBS Reading & ethnicity	.49	.00
Math	CTBS Math	.47	
Math	CTBS Math & ethnicity	.47	.00

Table 140. PSSA and CTBS Descriptive Statistics by LEP Status District 3 Grade 5 2002

	LEP Status	Mean Scale Score	Standard Deviation	Number of Cases	Effect Size
PSSA Component					
Reading	Non-LEP	1381.22	191.26	627	
	LEP	1248.88	131.99	33	.37
Math	Non-LEP	1368.73	176.77	626	
	LEP	1318.06	192.46	33	.14
CTBS Component					
Reading	Non-LEP	670.65	42.14	631	
	LEP	642.76	30.34	33	.36
Language	Non-LEP	661.86	32.11	631	
	LEP	641.15	22.47	33	.35
Math	Non-LEP	651.98	37.19	631	
	LEP	631.64	24.23	33	.31

Table 141. PSSA and CTBS Regressions Results Showing Adjusted Strengths of LEP Status Effects District 3 Grade 5 2002

PSSA Component	Predictors included	R ²	Change in R ² due to LEP Status
Reading	CTBS reading	.50	
Reading	CTBS reading & LEP status	.50	.00
Math	CTBS math	.48	
Math	CTBS math & LEP status	.48	.00

Table 142. PSSA and CTBS Descriptive Statistics by SES Status District 3 Grade 5 2002

	SES Flag	Mean Scale Score	Standard Deviation	Number of Cases	Effect Size
PSSA Component					
Reading	Non-SES	1410.15	179.29	447	
	SES	1300.01	193.29	213	.28
Math	Non-SES	1395.41	175.13	446	
	SES	1305.02	177.77	213	.25
CTBS Component					
Reading	Non-SES	677.17	40.34	449	
	SES	652.76	40.83	215	.29
Language	Non-SES	667.05	30.73	449	
	SES	647.83	30.77	215	.30
Math	Non-SES	657.37	36.24	449	
	SES	637.61	36.90	215	.27

Table 143. PSSA and CTBS Regressions Results Showing Adjusted Strengths of SES Status Effects District 3 Grade 5 2002

PSSA Component	Predictors included	R ²	Change in R ² due to SES Status
Reading	CTBS reading	.50	
Reading	CTBS reading & SES status	.51	.01
Math	CTBS math	.48	
Math	CTBS math & SES status	.49	.01

District 4 provided results from CTBS/Terra Nova and from SAT-9. CTBS/Terra Nova was administered to Grades 5 and 8 in 2003. Descriptive statistics and regression results are provided first for Grade 5, then for Grade 8, in the same format and order as for previous districts (through Table 161). Only the science component of SAT-9 was provided, so only descriptive statistics are provided for SAT-9. SAT-9 was administered in grades 8 and 11. Those results are in Table 162 through Table 169.

Table 144. PSSA and CTBS Descriptive Statistics by Gender District 4 Grade 5 2003

	Gender	Mean Scale Score	Standard Deviation	Number of Cases	Effect Size
PSSA Component					
Reading	Male	1140.27	193.26	7335	
	Female	1177.09	195.60	7343	-.09
Math	Male	1176.03	188.13	7311	
	Female	1185.61	179.93	7316	-.03
CTBS Component					
Reading	Male	633.46	47.04	7394	
	Female	644.61	42.01	7387	-.12
Language	Male	634.34	43.72	7394	
	Female	648.44	36.63	7387	-.17
Math	Male	631.33	45.28	7388	
	Female	636.65	41.24	7382	-.06
Science	Male	629.58	39.83	7279	
	Female	630.77	36.31	7299	-.02

Table 145. PSSA and CTBS Regressions Results Showing Adjusted Strengths of Gender Effects District 4 Grade 5 2003

PSSA Component	Standardized Coefficient			Change in R ² due to Gender
	CTBS Control	Gender	R ²	
Reading	.76		.58	
Reading	.76	.00	.58	.00
Math	.83		.69	
Math	.83	-.02	.69	.00

Table 146. PSSA and CTBS Descriptive Statistics by Ethnic Group Across District 4 Grade 5 2003

		White	Black	Hispanic	Asian
PSSA Component					
Reading	Mean	1264.71	1140.77	1109.19	1248.27
	S.D.	216.54	180.36	191.72	204.13
	N	2061	9789	2077	701
	Effect Size		.30	.36	.04
Math	Mean	1296.42	1151.24	1159.72	1318.92
	S.D.	207.47	162.98	182.17	198.99
	N	2055	9759	2062	701
	Effect Size		.36	.33	-.06
CTBS Component					
Reading	Mean	659.17	635.53	629.79	657.34
	S.D.	42.53	44.13	45.72	38.55
	N	2070	9871	2090	702
	Effect Size		.26	.32	.02
Language	Mean	661.45	638.10	631.37	658.93
	S.D.	40.94	38.93	43.54	36.29
	N	2070	9871	2090	702
	Effect Size		.28	.34	.03
Math	Mean	658.16	627.81	629.43	664.28
	S.D.	44.48	40.43	44.32	39.28
	N	2066	9866	2086	702
	Effect Size		.34	.31	-.07
Science	Mean	650.04	625.35	626.32	650.81
	S.D.	37.86	36.36	38.27	36.46
	N	2062	9811	1955	702
	Effect Size		.32	.30	-.01

Table 147. Regression Results Showing the Adjusted Strength of Ethnicity Effects (Black versus White) District 4 Grade 5 2003

PSSA Component	Predictors included	R ²	Change in R ²
Reading	CTBS Reading	0.58	
Reading	CTBS Reading & ethnicity	0.59	0.01
Math	CTBS Math	0.68	
Math	CTBS Math & ethnicity	0.69	0.01

Table 148. Regression Results Showing the Adjusted Strength of Ethnicity Effects (Hispanic/Latino versus White) District 4 Grade 5 2003

PSSA Component	Predictors included	R ²	Change in R ²
Reading	CTBS Reading	0.62	
Reading	CTBS Reading & ethnicity	0.63	0.01
Math	CTBS Math	0.71	
Math	CTBS Math & ethnicity	0.72	0.01

Table 149. PSSA and CTBS Descriptive Statistics by LEP Status District 4 Grade 5 2003

PSSA Component	LEP Status	Mean Scale Score	Standard Deviation	Number of Cases	Effect Size
Reading	Non-LEP	1164.13	194.87	13842	
	LEP	1069.17	179.36	896	.53
Math	Non-LEP	1181.98	183.82	13793	
	LEP	1157.40	186.29	894	.52
Reading	Non-LEP	639.97	44.80	13944	
	LEP	622.49	45.05	901	.56
Language	Non-LEP	642.19	40.91	13944	
	LEP	627.09	40.22	901	.56
Math	Non-LEP	634.18	43.29	13934	
	LEP	629.39	44.70	899	.55
Science	Non-LEP	630.59	37.92	13847	
	LEP	621.78	41.03	792	.56

Table 150. PSSA and CTBS Regressions Results Showing Adjusted Strength of LEP Status Effects District 4 Grade 5 2003

PSSA Component	Predictors included	R ²	Change in R ² due to LEP Status
Reading	CTBS reading	.58	
Reading	CTBS reading & LEP status	.58	.00
Math	CTBS math	.68	
Math	CTBS math & LEP status	.68	.00

Table 151. PSSA and CTBS Descriptive Statistics by SES Status District 4 Grade 5 2003

	SES Flag	Mean Scale Score	Standard Deviation	Number of Cases	Effect Size
PSSA Component					
Reading	Non-SES	1302.84	205.96	1658	
	SES	1140.05	186.05	13080	.38
Math	Non-SES	1319.39	197.82	1657	
	SES	1162.82	174.49	13030	.39
CTBS Component					
Reading	Non-SES	667.79	38.10	1664	
	SES	635.27	44.49	13181	.37
Language	Non-SES	668.13	37.78	1664	
	SES	637.89	40.16	13181	.36
Math	Non-SES	662.89	40.71	1663	
	SES	630.23	42.32	13170	.37
Science	Non-SES	654.98	34.88	1662	
	SES	626.93	37.37	12977	.57

Table 152. PSSA and CTBS Regressions Results Showing Adjusted Strengths of SES Status Effects District 4 Grade 5 2003

PSSA Component	Predictors included	R ²	Change in R ² due to SES Status
Reading	CTBS reading	.58	
Reading	CTBS reading & SES status	.59	.01
Math	CTBS math	.68	
Math	CTBS math & SES status	.69	.01

Table 153. PSSA and CTBS Descriptive Statistics by Gender District 4 Grade 8 2003

	Gender	Mean Scale Score	Standard Deviation	Number of Cases	Effect Size
PSSA Component					
Reading	Male	1112.83	284.24	6677	
	Female	1181.57	261.26	6725	-.12
Math	Male	1128.85	267.33	6677	
	Female	1154.44	240.55	6725	-.05
CTBS Component					
Reading	Male	655.10	44.16	6638	
	Female	670.28	39.11	6702	-.18
Language	Male	649.16	39.62	6638	
	Female	662.37	33.91	6702	-.18
Math	Male	673.00	49.39	6604	
	Female	679.51	41.61	6668	-.07
Science	Male	665.71	45.42	6469	
	Female	667.04	35.77	6557	-.02

Table 154. PSSA and CTBS Regressions Results Showing Adjusted Strengths of Gender Effects District 4 Grade 8 2003

PSSA Component	Standardized Coefficient			Change in R ² due to Gender
	CTBS Control	Gender	R ²	
Reading	.69		.48	
Reading	.69	.00	.48	.00
Math	.61		.38	
Math	.61	.00	.38	.00

Table 155. PSSA and CTBS Descriptive Statistics by Ethnic Group Across District 4 Grade 8 2003

		White	Black	Hispanic	Asian
PSSA Component					
Reading	Mean	1265.77	1122.15	1092.92	1252.61
	S.D.	257.63	272.31	277.66	220.38
	N	2129	8802	1800	635
	Effect Size		.26	.31	.03
Math	Mean	1244.91	1110.24	1116.50	1301.40
	S.D.	252.88	250.38	237.15	211.29
	N	2129	8802	1800	635
	Effect Size		.26	.25	-.12
CTBS Component					
Reading	Mean	682.06	658.44	655.13	678.23
	S.D.	42.33	40.84	43.28	38.22
	N	2121	8767	1784	633
	Effect Size		.27	.30	.05
Language	Mean	673.10	651.89	649.71	668.70
	S.D.	39.38	35.69	37.64	34.13
	N	2121	8767	1784	633
	Effect Size		.27	.29	.06
Math	Mean	699.48	669.34	670.31	710.57
	S.D.	45.32	43.39	45.29	39.45
	N	2112	8710	1781	633
	Effect Size		.32	.31	-.13
Science	Mean	685.38	661.84	659.42	683.17
	S.D.	39.03	39.48	43.44	34.14
	N	2103	8586	1673	628
	Effect Size		.29	.30	.03

Table 156. Regression Results Showing the Adjusted Strength of Ethnicity Effects (Black versus White) District 4 Grade 8 2003

PSSA Component	Predictors included	R ²	Change in R ²
Reading	CTBS Reading	0.63	
Reading	CTBS Reading & ethnicity	0.63	0.00
Math	CTBS Math	0.63	
Math	CTBS Math & ethnicity	0.63	0.00

Table 157. Regression Results Showing the Adjusted Strength of Ethnicity Effects (Hispanic/Latino versus White) District 4 Grade 8 2003

PSSA Component	Predictors included	R ²	Change in R ²
Reading	CTBS Reading	0.69	
Reading	CTBS Reading & ethnicity	0.70	0.01
Math	CTBS Math	0.68	
Math	CTBS Math & ethnicity	0.68	0.00

Table 158. PSSA and CTBS Descriptive Statistics by LEP Status District 4 Grade 8 2003

PSSA Component	LEP Status	Mean Scale Score	Standard Deviation	Number of Cases	Effect Size
Reading	Non-LEP	1150.77	278.56	12742	
	LEP	1055.84	233.32	737	.50
Math	Non-LEP	1140.29	257.94	12742	
	LEP	1140.62	230.41	737	.47
CTBS Component					
Reading	Non-LEP	663.41	42.39	12681	
	LEP	648.29	41.31	733	.56
Language	Non-LEP	656.26	37.50	12681	
	LEP	645.37	36.46	733	.56
Math	Non-LEP	676.22	45.69	12612	
	LEP	673.36	49.45	733	.55
Science	Non-LEP	666.70	40.77	12447	
	LEP	657.49	43.95	640	.56

Table 159. PSSA and CTBS Regressions Results Showing Adjusted Strengths of LEP Status Effects District 4 Grade 8 2003

PSSA Component	Predictors included	R ²	Change in R ² due to LEP Status
Reading	CTBS reading	.48	
Reading	CTBS reading & LEP status	.48	.00
Math	CTBS math	.37	
Math	CTBS math & LEP status	.37	.00

Table 160. PSSA and CTBS Descriptive Statistics by SES Status District 4 Grade 8 2003

	SES Flag	Mean Scale Score	Standard Deviation	Number of Cases	Effect Size
PSSA Component					
Reading	Non-SES	1296.14	232.74	2612	
	SES	1109.39	277.11	10867	.55
Math	Non-SES	1262.44	219.62	2612	
	SES	1110.95	256.07	10867	.54
CTBS Component					
Reading	Non-SES	686.48	38.96	2611	
	SES	656.80	41.25	10803	.57
Language	Non-SES	677.40	34.44	2611	
	SES	650.41	36.33	10803	.57
Math	Non-SES	700.57	42.36	2607	
	SES	670.11	44.74	10738	.57
Science	Non-SES	685.62	34.77	2601	
	SES	661.44	40.98	10486	.57

Table 161. PSSA and CTBS Regressions Results Showing Adjusted Strengths of SES Status Effects District 4 Grade 8 2003

PSSA Component	Predictors included	R ²	Change in R ² due to SES Status
Reading	CTBS reading	.48	
Reading	CTBS reading & SES status	.48	.00
Math	CTBS math	.37	
Math	CTBS math & SES status	.38	.01

Table 162. PSSA and SAT-9 Descriptive Statistics by Gender District 4 Grade 8 2001

	Gender	Mean Scale Score	Standard Deviation	Number of Cases	Effect Size
PSSA Component					
Reading	Male	1110.13	202.15	5620	
	Female	1156.86	189.85	6061	-.12
Math	Male	1155.70	163.29	5663	
	Female	1156.46	153.24	6071	.00
SAT-9 Component					
Science- MC	Male	659.52	33.77	5738	
	Female	656.19	29.45	6159	.05
Science- OE	Male	606.42	43.88	5578	
	Female	608.07	42.46	6052	-.02

Table 163. PSSA and SAT-9 Descriptive Statistics by Ethnic Group Across District 4 Grade 8 2001

		White	Black	Hispanic	Asian
PSSA Component					
Reading	Mean	1227.15	1105.22	1086.10	1211.84
	S.D.	214.78	179.41	189.04	198.73
	N	1930	6270	1264	628
	Effect Size		.29	.33	.04
Math	Mean	1244.79	1121.13	1126.04	1297.27
	S.D.	182.41	131.69	135.53	183.81
	N	1935	6292	1270	629
	Effect Size		.36	.35	-.14
SAT-9 Component					
Science-.MC	Mean	676.15	651.05	653.04	674.33
	S.D.	33.79	27.94	30.09	32.87
	N	1960	6423	1262	630
	Effect Size		.38	.34	.03
Science- OE	Mean	629.22	598.96	600.41	630.80
	S.D.	41.42	40.44	43.51	41.49
	N	1935	6244	1245	622
	Effect Size		.35	.32	-.02

Table 164. PSSA and SAT-9 Descriptive Statistics by LEP Status District 4 Grade 8 2001

		LEP Status	Mean Scale Score	Standard Deviation	Number of Cases	Effect Size
PSSA Component						
Reading	Non-LEP		1133.76	197.44	13200	
	LEP		1039.98	166.00	358	.53
Math	Non-LEP		1152.74	156.91	13238	
	LEP		1171.69	177.98	364	.51
SAT-9 Component						
Science-MC	Non-LEP		657.13	31.79	13575	
	LEP		650.55	26.92	317	.56
Science- OE	Non-LEP		606.39	43.31	13182	
	LEP		603.44	44.62	341	.55

Table 165. PSSA and SAT-9 Descriptive Statistics by SES Status District 4 Grade 8 2001

	SES Flag	Mean Scale Score	Standard Deviation	Number of Cases	Effect Size
PSSA Component					
Reading	Non-SES	1138.91	197.57	12093	
	SES	1068.30	182.80	1465	.52
Math	Non-SES	1157.64	159.28	12109	
	SES	1117.58	137.53	1493	.53
SAT-9 Component					
Science- MC	Non-SES	657.94	31.92	12399	
	SES	649.03	28.60	1493	.56
Science- OE	Non-SES	607.43	43.26	12074	
	SES	597.01	42.93	1449	.55

Table 166. PSSA and SAT-9 Descriptive Statistics by Gender District 4 Grade 11 2001

	Gender	Mean Scale Score	Standard Deviation	Number of Cases	Effect Size
PSSA Component					
Reading	Male	1067.88	396.34	2737	
	Female	1100.34	386.79	3169	-.04
Math	Male	1141.01	1141.01	2737	
	Female	1135.26	1135.26	3169	.01
SAT-9 Component					
Science- .MC	Male	678.96	678.96	2723	
	Female	675.90	675.90	3161	.05
Science- OE	Male	630.37	630.37	2563	
	Female	631.65	631.65	3043	-.02

Table 167. PSSA and SAT-9 Descriptive Statistics by Ethnic Group Across District 4 Grade 11 2001

		White	Black	Hispanic	Asian
PSSA Component					
Reading	Mean	1223.24	1010.69	1019.36	1215.54
	S.D.	332.40	409.42	368.73	322.31
	N	1157	3081	448	470
	Effect Size		.27	.28	.01
Math	Mean	1263.62	1063.59	1079.36	1319.71
	S.D.	271.33	322.45	260.61	261.58
	N	1157	3081	448	470
	Effect Size		.32	.33	-.10
SAT-9 Component					
Science- MC	Mean	692.33	670.13	672.82	686.38
	S.D.	32.30	27.33	26.08	31.57
	N	1154	3072	441	470
	Effect Size		.35	.32	.09
Science- OE	Mean	648.39	622.51	624.11	641.15
	S.D.	40.37	40.58	39.32	433.33
	N	1124	2896	415	451
	Effect Size		.30	.29	.09

Table 168. PSSA and SAT-9 Descriptive Statistics by LEP Status District 4 Grade 11 2001

		LEP Status	Mean Scale Score	Standard Deviation	Number of Cases	Effect Size
PSSA Component						
Reading	Non-LEP		1084.69	402.72	7505	
	LEP		1060.65	221.42	116	.41
Math	Non-LEP		1132.16	330.33	7505	
	LEP		1231.34	191.86	116	.41
SAT-9 Component						
Science- MC	Non-LEP		678.10	30.19	7478	
	LEP		670.14	26.90	116	.56
Science- OE	Non-LEP		632.13	41.81	7147	
	LEP		616.98	40.85	100	.56

Table 169. PSSA and SAT-9 Descriptive Statistics by SES Status District 4 Grade 11 2001

	SES Flag	Mean Scale Score	Standard Deviation	Number of Cases	Effect Size
PSSA Component					
Reading	Non-SES	1092.89	395.54	7285	
	SES	898.64	460.47	336	.44
Math	Non-SES	1134.86	331.32	7285	
	SES	1107.85	269.73	336	.45
SAT-9 Component					
Science- MC	Non-SES	678.53	30.18	7258	
	SES	665.95	27.15	336	.57
Science- OE	Non-SES	632.94	41.54	6945	
	SES	608.45	41.72	302	.57

District 5 provided CAT-5 test results. CAT-5 scale scores are similar to CTBS/Terra Nova scores. Descriptive statistics and regression results are provided for Grade 5 and Grade 8 (Table 170 through Table 187). CAT-5 was administered to Grade 5 in 2001 and Grade 8 in 2002. The tables are arranged in the same order as in previous districts.

Table 170. PSSA and CAT-5 Descriptive Statistics by Gender District 5 Grade 5 2001

	Gender	Mean Scale Score	Standard Deviation	Number of Cases	Effect Size
PSSA Component					
Reading	Male	1256.99	211.10	304	
	Female	1273.89	188.22	318	-.04
Math	Male	1279.03	174.61	295	
	Female	1260.73	159.23	305	.05
CAT-5 Component					
Reading	Male	706.03	51.09	343	
	Female	713.72	44.82	337	-.08
Language	Male	706.95	45.26	334	
	Female	719.70	44.51	336	-.14
Math	Male	709.69	48.29	338	
	Female	715.74	40.94	336	-.07

Table 171. PSSA and CAT-5 Regressions Results Showing Adjusted Strengths of Gender Effects District 5 Grade 5 2001

PSSA Component	Standardized Coefficient			Change in R ² due to Gender
	CAT-5 Control	Gender	R ²	
Reading	.80		.64	
Reading	.80	.02	.64	.00
Math	.74		.55	
Math	.75	-.08	.56	.01

Table 172. PSSA and CAT-5 Descriptive Statistics by Ethnic Group Across District 5 Grade 5 2001

PSSA Component		White	Black	Hispanic	Asian
Reading	Mean	1315.82	1200.23	1233.98	1354.40
	S.D.	200.05	175.22	221.51	105.15
	N	299	212	49	5
	Effect Size		.29	.19	-.12
Math	Mean	1310.29	1199.53	1267.64	1440.80
	S.D.	169.92	137.91	150.13	116.14
	N	296	200	44	5
	Effect Size		.34	.13	-.41
CAT-5 Component					
Reading	Mean	720.63	693.89	705.83	720.50
	S.D.	48.53	46.40	41.81	18.61
	N	326	236	54	6
	Effect Size		.27	.16	.00
Language	Mean	721.90	696.37	718.84	758.17
	S.D.	46.45	40.60	40.19	23.34
	N	320	232	55	6
	Effect Size		.28	.04	-.44
Math	Mean	721.31	698.09	708.63	765.17
	S.D.	44.72	42.25	43.53	10.34
	N	325	231	54	6
	Effect Size		.26	.14	-.55

Table 173. Regression Results Showing the Adjusted Strength of Ethnicity Effects (Black versus White) District 5 Grade 5 2001

PSSA Component	Predictors included	R ²	Change in R ²
Reading	CAT-5 Reading	.64	
Reading	CAT-5 Reading & ethnicity	.64	.00
Math	CAT-5 Math	.56	
Math	CAT-5 Math & ethnicity	.57	.01

Table 174. Regression Results Showing the Adjusted Strength of Ethnicity Effects (Hispanic/Latino versus White) District 5 Grade 5 2001

PSSA Component	Predictors included	R ²	Change in R ²
Reading	CAT-5 Reading	.64	
Reading	CAT-5 Reading & ethnicity	.64	.00
Math	CAT-5 Math	.56	
Math	CAT-5 Math & ethnicity	.56	.00

Table 175. PSSA and CAT-5 Descriptive Statistics by LEP Status District 5 Grade 5 2001

PSSA Component	LEP Status	Mean Scale Score	Standard Deviation	Number of Cases	Effect Size
Reading	Non-LEP	1265.92	199.67	622	
	LEP	1294.50	218.50	2	-.07
Math	Non-LEP	1269.58	166.83	598	
	LEP	1331.50	195.59	4	-.17
CAT-5 Component					
Reading	Non-LEP	709.87	48.34	679	
	LEP	691.80	38.87	5	.20
Language	Non-LEP	713.09	45.31	669	
	LEP	741.60	16.68	5	-.39
Math	Non-LEP	712.48	44.90	673	
	LEP	737.40	26.31	5	-.32

Table 176. PSSA and CAT-5 Regressions Results Showing Adjusted Strengths of LEP Status Effects District 5 Grade 5 2001

PSSA Component	Predictors included	R ²	Change in R ² due to LEP Status
Reading	CAT-5 reading	.64	
Reading	CAT-5 reading & LEP status	.64	.00
Math	CAT-5 math	.55	
Math	CAT-5 math & LEP status	.55	.00

Table 177. PSSA and CAT-5 Descriptive Statistics by SES Status District 5 Grade 5 2001

PSSA Component	SES Flag	Mean Scale Score	Standard Deviation	Number of Cases	Effect Size
Reading	Non-SES	1339.98	208.14	158	
	SES	1240.93	190.35	466	.24
Math	Non-SES	1323.06	174.50	153	
	SES	1251.91	160.49	449	.21
CAT-5 Component					
Reading	Non-SES	723.50	55.70	178	
	SES	704.90	44.43	506	.18
Language	Non-SES	721.45	48.16	173	
	SES	708.41	43.14	501	.20
Math	Non-SES	723.47	47.71	177	
	SES	708.84	43.18	501	.16

Table 178. PSSA and CAT-5 Regressions Results Showing Adjusted Strengths of SES Status Effects District 5 Grade 5 2001

PSSA Component	Predictors included	R ²	Change in R ² due to SES Status
Reading	CAT-5 reading	.64	
Reading	CAT-5 reading & SES status	.64	.00
Math	CAT-5 math	.55	
Math	CAT-5 math & SES status	.55	.00

Table 179. PSSA and CAT-5 Descriptive Statistics by Gender District 5 Grade 8 2002

	Gender	Mean Scale Score	Standard Deviation	Number of Cases	Effect Size
PSSA Component					
Reading	Male	1240.73	202.89	275	
	Female	1264.55	201.68	273	-.06
Math	Male	1262.59	163.75	264	
	Female	1247.54	152.50	262	.05
CAT-5 Component					
Reading	Male	728.23	48.64	314	
	Female	738.93	40.80	292	-.12
Language	Male	719.27	47.16	303	
	Female	737.50	44.13	289	-.20
Math	Male	739.50	51.78	311	
	Female	744.65	41.89	294	-.05

Table 180. PSSA and CAT-5 Regressions Results Showing Adjusted Strengths of Gender Effects District 5 Grade 8 2002

PSSA Component	Standardized Coefficient			Change in R ² due to Gender
	CAT-5 Control	Gender	R ²	
Reading	.76		.58	
Reading	.76	.00	.58	.00
Math	.78		.61	
Math	.78	-.03	.61	.00

Table 181. PSSA and CAT-5 Descriptive Statistics by Ethnic Group Across District 5 Grade 8 2002

		White	Black	Hispanic	Asian
PSSA Component					
Reading	Mean	1296.45	1180.83	1201.08	1294.43
	S.D.	190.15	197.62	231.51	186.23
	N	297	160	36	7
	Effect Size		.29	.22	.01
Math	Mean	1286.68	1198.89	1221.10	1385.00
	S.D.	160.87	134.37	159.66	186.20
	N	288	152	31	7
	Effect Size		.28	.20	-.27
CAT-5 Component					
Reading	Mean	744.07	720.09	707.04	760.17
	S.D.	41.16	42.76	56.97	28.50
	N	314	186	45	6
	Effect Size		.27	.35	-.22
Language	Mean	737.43	714.84	704.93	759.00
	S.D.	45.23	42.19	58.12	62.28
	N	310	178	43	6
	Effect Size		.25	.30	-.19
Math	Mean	753.16	726.61	717.71	787.86
	S.D.	43.20	43.75	60.49	47.87
	N	314	186	45	7
	Effect Size		.29	.32	-.36

Table 182. Regression Results Showing the Adjusted Strength of Ethnicity Effects (Black versus White) District 5 Grade 8 2002

PSSA Component	Predictors included	R ²	Change in R ²
Reading	CAT-5 Reading	.58	
Reading	CAT-5 Reading & ethnicity	.59	.01
Math	CAT-5 Math	.62	
Math	CAT-5 Math & ethnicity	.62	.00

Table 183. Regression Results Showing the Adjusted Strength of Ethnicity Effects (Hispanic/Latino versus White) District 5 Grade 8 2002

PSSA Component	Predictors included	R ²	Change in R ²
Reading	CAT-5 Reading	.56	
Reading	CAT-5 Reading & ethnicity	.56	.00
Math	CAT-5 Math	.61	
Math	CAT-5 Math & ethnicity	.61	.00

Table 184. PSSA and CAT-5 Descriptive Statistics by LEP Status District 5 Grade 8 2002

PSSA Component	LEP Status	Mean Scale Score	Standard Deviation	Number of Cases	Effect Size
Reading	Non-LEP	1256.08	201.77	544	
	LEP	1038.56	137.59	8	.53
Math	Non-LEP	1256.02	157.32	522	
	LEP	1177.75	196.15	8	.21
CAT-5 Component					
Reading	Non-LEP	733.54	44.99	609	
	LEP	663.00	66.47	2	.53
Language	Non-LEP	728.38	46.43	595	
	LEP	683.50	41.72	2	.45
Math	Non-LEP	742.25	46.89	601	
	LEP	728.11	63.47	9	.13

Table 185. PSSA and CAT-5 Regressions Results Showing Adjusted Strengths of LEP Status Effects District 5 Grade 8 2002

PSSA Component	Predictors included	R ²	Change in R ² due to LEP Status
Reading	CAT-5 reading	.58	
Reading	CAT-5 reading & LEP status	.58	.00
Math	CAT-5 math	.61	
Math	CAT-5 math & LEP status	.61	.00

Table 186. PSSA and CAT-5 Descriptive Statistics by SES Status District 5 Grade 8 2002

	SES Flag	Mean Scale Score	Standard Deviation	Number of Cases	Effect Size
PSSA Component					
Reading	Non-SES	1301.83	243	243	
	SES	1214.47	309	309	.21
Math	Non-SES	1274.85	238	238	
	SES	1238.53	292	292	.11
CAT-5 Component					
Reading	Non-SES	746.80	259	259	
	SES	723.38	352	352	.26
Language	Non-SES	743.20	256	256	
	SES	717.00	341	341	.28
Math	Non-SES	755.18	255	255	
	SES	732.60	355	355	.24

Table 187. PSSA and CAT-5 Regressions Results Showing Adjusted Strengths of SES Status Effects District 5 Grade 8 2002

PSSA Component	Predictors included	R ²	Change in R ² due to SES Status
Reading	CAT-5 reading	.58	
Reading	CAT-5 reading & SES status	.58	.00
Math	CAT-5 math	.61	
Math	CAT-5 math & SES status	.61	.00

District 6 provided NWEA test results from Grades 5 and 8 for administrations conducted in 2001, 2002 and 2003. Data is arranged in the same manner as for other districts. Each grade level and administration year make up a separate section of results. Grade 5 results from 2001 can be found in Table 188 through Table 196. They are followed by Grade 5 results for 2002 (Table 197 through Table 205) and 2003 (Table 206 through Table 214). Grade 8 results for 2001 are in Table 215 through Table 223, in Table 224 through Table 232 for 2002, and Table 233 through Table 241 for 2003.

Table 188. PSSA and NWEA Descriptive Statistics by Gender District 6 Grade 5 2001

	Gender	Mean Scale Score	Standard Deviation	Number of Cases	Effect Size
PSSA Component					
Reading	Male	1195.29	218.06	667	
	Female	1226.81	201.05	677	-.07
Math	Male	1222.19	184.84	667	
	Female	1209.12	168.02	679	.04
NWEA Component					
Reading	Male	202.59	17.62	661	
	Female	206.00	13.96	676	-.11
Language	Male	204.44	16.32	660	
	Female	208.01	13.78	672	-.12
Math	Male	212.35	15.91	663	
	Female	212.28	13.87	679	.00
Science	Male	201.73	11.23	664	
	Female	200.63	9.30	674	.05

Table 189. PSSA and NWEA Regressions Results Showing Adjusted Strengths of Gender Effects District 6 Grade 5 2001

PSSA Component	Standardized Coefficient			Change in R ² due to Gender
	NWEA Control	Gender	R ²	
Reading	.84		.71	
Reading	.84	-.02	.71	.00
Math	.87		.75	
Math	.87	-.04	.75	.00

Table 190. PSSA and NWEA Descriptive Statistics by Ethnic Group Across District 6 Grade 5 2001

		White	Black	Hispanic	Asian
PSSA Component					
Reading	Mean	1293.55	1165.93	1159.70	1272.76
	S.D.	224.56	186.19	180.56	251.83
	N	443	142	531	29
	Effect Size		.30	.31	.04
Math	Mean	1296.24	1150.40	1171.09	1324.17
	S.D.	187.83	155.08	144.29	182.51
	N	443	142	533	29
	Effect Size		.40	.35	-.08
NWEA Component					
Reading	Mean	210.61	200.06	200.17	211.93
	S.D.	15.87	14.98	14.30	15.86
	N	439	140	533	27
	Effect Size		.32	.33	-.04
Language	Mean	212.29	202.61	202.44	213.39
	S.D.	14.91	13.42	13.69	17.28
	N	439	141	526	28
	Effect Size		.32	.33	-.03
Math	Mean	218.94	206.47	208.46	221.90
	S.D.	14.63	14.11	12.89	14.76
	N	438	144	532	29
	Effect Size		.40	.36	-.10
Science	Mean	205.72	197.32	198.57	205.31
	S.D.	10.03	9.36	9.17	11.06
	N	440	142	529	29
	Effect Size		.40	.35	.02

Table 191. Regression Results Showing the Adjusted Strength of Ethnicity Effects (Black versus White) District 6 Grade 5 2001

PSSA Component	Predictors included	R ²	Change in R ²
Reading	NWEA Reading	0.73	
Reading	NWEA Reading & ethnicity	0.73	0.00
Math	NWEA Math	0.76	
Math	NWEA Math & ethnicity	0.76	0.00

Table 192. Regression Results Showing the Adjusted Strength of Ethnicity Effects (Hispanic/Latino versus White) District 6 Grade 5 2001

PSSA Component	Predictors included	R ²	Change in R ²
Reading	NWEA Reading	0.71	
Reading	NWEA Reading & ethnicity	0.71	0.00
Math	NWEA Math	0.74	
Math	NWEA Math & ethnicity	0.75	0.01

Table 193. PSSA and NWEA Descriptive Statistics by LEP Status District 6 Grade 5 2001

	LEP Status	Mean Scale Score	Standard Deviation	Number of Cases	Effect Size
PSSA Component					
Reading	Non-LEP	1219.75	209.31	1277	
	LEP	1045.39	153.64	69	.56
Math	Non-LEP	1221.04	175.73	1279	
	LEP	1110.07	160.64	69	.55
NWEA Component					
Reading	Non-LEP	204.97	15.80	1274	
	LEP	191.03	13.28	66	.57
Language	Non-LEP	206.99	14.90	1269	
	LEP	191.24	13.25	66	.58
Math	Non-LEP	212.82	14.83	1277	
	LEP	202.40	12.74	68	.57
Science	Non-LEP	201.67	10.09	1272	
	LEP	191.64	9.73	69	.58

Table 194. PSSA and NWEA Regressions Results Showing Adjusted Strengths of LEP Status Effects District 6 Grade 5 2001

PSSA Component	Predictors included	R ²	Change in R ² due to LEP Status
Reading	NWEA reading	.71	
Reading	NWEA reading & LEP status	.71	.00
Math	NWEA math	.75	
Math	NWEA math & LEP status	.75	.00

Table 195. PSSA and NWEA Descriptive Statistics by SES Status District 6 Grade 5 2001

	SES Flag	Mean Scale Score	Standard Deviation	Number of Cases	Effect Size
PSSA Component					
Reading	Non-SES	1293.24	222.60	509	
	SES	1160.69	185.50	837	.54
Math	Non-SES	1273.70	188.86	509	
	SES	1179.97	158.77	839	.54
NWEA Component					
Reading	Non-SES	210.68	15.53	515	
	SES	200.29	14.92	825	.57
Language	Non-SES	212.18	14.72	517	
	SES	202.43	14.27	818	.57
Math	Non-SES	217.34	14.71	516	
	SES	209.15	14.16	829	.56
Science	Non-SES	205.55	9.91	515	
	SES	198.41	9.59	826	.57

Table 196. PSSA and NWEA Regressions Results Showing Adjusted Strengths of SES Status Effects District 6 Grade 5 2001

PSSA Component	Predictors included	R ²	Change in R ² due to SES Status
Reading	NWEA reading	.71	
Reading	NWEA reading & SES status	.71	.00
Math	NWEA math	.75	
Math	NWEA math & SES status	.75	.00

Table 197. PSSA and NWEA Descriptive Statistics by Gender District 6 Grade 5 2002

	Gender	Mean Scale Score	Standard Deviation	Number of Cases	Effect Size
PSSA Component					
Reading	Male	1228.66	217.01	612	
	Female	1244.30	210.53	634	-.04
Math	Male	1261.87	213.31	614	
	Female	1248.78	206.08	635	.03
NWEA Component					
Reading	Male	203.82	16.57	614	
	Female	206.20	15.48	626	-.08
Language	Male	206.09	14.11	616	
	Female	209.47	13.40	630	-.12
Math	Male	213.03	15.03	619	
	Female	212.43	14.74	636	.02

Table 198. PSSA and NWEA Regressions Results Showing Adjusted Strengths of Gender Effects District 6 Grade 5 2002

PSSA Component	Standardized Coefficient			Change in R ² due to Gender
	NWEA Control	Gender	R ²	
Reading	.86		.74	
Reading	.86	-.01	.74	.00
Math	.88		.77	
Math	.88	-.01	.77	.00

Table 199. PSSA and NWEA Descriptive Statistics by Ethnic Group Across District 6 Grade 5 2002

		White	Black	Hispanic	Asian
PSSA Component					
Reading	Mean	1328.78	1192.92	1178.99	1224.20
	S.D.	229.39	190.41	193.01	71.12
	N	379	137	502	10
	Effect Size		.31	.33	.29
Math	Mean	1355.33	1200.90	1197.33	1266.00
	S.D.	236.93	176.58	177.79	85.65
	N	379	138	503	10
	Effect Size		.35	.35	.24
NWEA Component					
Reading	Mean	211.90	201.21	200.49	208.80
	S.D.	17.26	14.23	15.00	5.31
	N	373	138	506	10
	Effect Size		.32	.33	.12
Language	Mean	213.27	205.76	203.97	211.10
	S.D.	14.70	12.04	13.35	7.31
	N	376	140	507	10
	Effect Size		.27	.31	.09
Math	Mean	219.42	209.76	208.58	215.20
	S.D.	16.50	13.27	13.07	7.47
	N	378	140	508	10
	Effect Size		.31	.34	.16

Table 200. Regression Results Showing the Adjusted Strength of Ethnicity Effects (Black versus White) District 6 Grade 5 2002

PSSA Component	Predictors included	R ²	Change in R ²
Reading	NWEA Reading	0.74	
Reading	NWEA Reading & ethnicity	0.74	0.00
Math	NWEA Math	0.78	
Math	NWEA Math & ethnicity	0.79	0.01

Table 201. Regression Results Showing the Adjusted Strength of Ethnicity Effects (Hispanic/Latino versus White) District 6 Grade 5 2002

PSSA Component	Predictors included	R ²	Change in R ²
Reading	NWEA Reading	0.75	
Reading	NWEA Reading & ethnicity	0.76	0.01
Math	NWEA Math	0.77	
Math	NWEA Math & ethnicity	0.78	0.01

Table 202. PSSA and NWEA Descriptive Statistics by LEP Status District 6 Grade 5 2002

PSSA Component	LEP Status	Mean Scale Score	Standard Deviation	Number of Cases	Effect Size
Reading	Non-LEP	1249.51	213.44	1148	
	LEP	1087.95	156.09	109	.55
Math	Non-LEP	1267.82	210.48	1150	
	LEP	1117.52	140.59	110	.55
NWEA Component					
Reading	Non-LEP	205.92	16.15	1163	
	LEP	193.95	12.42	112	.57
Language	Non-LEP	208.63	13.72	1156	
	LEP	198.32	12.18	110	.57
Math	Non-LEP	213.53	14.92	1149	
	LEP	203.40	10.88	111	.57

Table 203. PSSA and NWEA Regressions Results Showing Adjusted Strengths of LEP Status Effects District 6 Grade 5 2002

PSSA Component	Predictors included	R ²	Change in R ² due to LEP Status
Reading	NWEA reading	.74	
Reading	NWEA reading & LEP status	.74	.00
Math	NWEA math	.77	
Math	NWEA math & LEP status	.78	.01

Table 204. PSSA and NWEA Descriptive Statistics by SES Status District 6 Grade 5 2002

	SES Flag	Mean Scale Score	Standard Deviation	Number of Cases	Effect Size
PSSA Component					
Reading	Non-SES	1339.41	231.83	336	
	SES	1197.59	193.72	921	.54
Math	Non-SES	1360.70	234.37	337	
	SES	1216.00	185.42	923	.54
NWEA Component					
Reading	Non-SES	212.33	16.41	347	
	SES	202.03	15.21	913	.56
Language	Non-SES	213.86	14.20	350	
	SES	205.40	13.05	916	.57
Math	Non-SES	219.90	16.06	348	
	SES	209.91	13.45	927	.57

Table 205. PSSA and NWEA Regressions Results Showing Adjusted Strengths of SES Status Effects District 6 Grade 5 2002

PSSA Component	Predictors included	R ²	Change in R ² due to SES Status
Reading	NWEA reading	.74	
Reading	NWEA reading & SES status	.74	.00
Math	NWEA math	.77	
Math	NWEA math & SES status	.78	.01

Table 206. PSSA and NWEA Descriptive Statistics by Gender District 6 Grade 5 2003

	Gender	Mean Scale Score	Standard Deviation	Number of Cases	Effect Size
PSSA Component					
Reading	Male	1230.74	235.02	613	
	Female	1273.90	224.77	633	-.15
Math	Male	1308.56	208.48	613	
	Female	1310.67	207.15	633	-.02
NWEA Component					
Reading	Male	203.58	18.08	612	
	Female	207.49	15.73	631	-.13
Language	Male	205.59	15.16	611	
	Female	210.15	13.94	634	-.16
Math	Male	214.86	17.20	616	
	Female	216.19	15.18	631	-.05

Table 207. PSSA and NWEA Regressions Results Showing Adjusted Strengths of Gender Effects District 6 Grade 5 2003

PSSA Component	Standardized Coefficient			Change in R ² due to Gender
	NWEA Control	Gender	R ²	
Reading	.85		.72	
Reading	.85	.00	.72	.00
Math	.88		.77	
Math	.88	-.02	.77	.00

Table 208. PSSA and NWEA Descriptive Statistics by Ethnic Group Across District 6
Grade 5 2003

		White	Black	Hispanic	Asian
PSSA Component					
Reading	Mean	1348.79	1240.37	1186.93	1339.76
	S.D.	235.62	213.25	208.27	240.67
	N	410	208	599	29
	Effect Size		.23	.37	-.05
Math	Mean	1393.42	1267.64	1261.24	1425.48
	S.D.	213.87	183.08	190.33	221.71
	N	410	208	599	29
	Effect Size		.27	.37	-.04
NWEA Component					
Reading	Mean	212.22	204.18	201.29	209.55
	S.D.	15.49	16.33	16.68	20.36
	N	409	211	594	29
	Effect Size		.25	.40	.06
Language	Mean	214.01	206.47	204.05	211.72
	S.D.	13.18	13.61	14.46	19.25
	N	410	208	598	29
	Effect Size		.25	.38	-.07
Math	Mean	222.56	212.00	211.49	225.76
	S.D.	15.49	14.73	15.28	18.09
	N	409	210	599	29
	Effect Size		.25	.28	.13

Table 209. Regression Results Showing the Adjusted Strength of Ethnicity Effects (Black versus White) District 6 Grade 5 2003

PSSA Component	Predictors included	R ²	Change in R ²
Reading	NWEA Reading	0.74	
Reading	NWEA Reading & ethnicity	0.74	0.00
Math	NWEA Math	0.78	
Math	NWEA Math & ethnicity	0.78	0.00

Table 210. Regression Results Showing the Adjusted Strength of Ethnicity Effects (Hispanic/Latino versus White) District 6 Grade 5 2003

PSSA Component	Predictors included	R ²	Change in R ²
Reading	NWEA Reading	0.71	
Reading	NWEA Reading & ethnicity	0.72	0.01
Math	NWEA Math	0.76	
Math	NWEA Math & ethnicity	0.76	0.00

Table 211. PSSA and NWEA Descriptive Statistics by LEP Status District 6 Grade 5 2003

	LEP Status	Mean Scale Score	Standard Deviation	Number of Cases	Effect Size
PSSA Component					
Reading	Non-LEP	1278.30	226.78	1067	
	LEP	1102.85	192.58	182	.58
Math	Non-LEP	1327.30	205.84	1067	
	LEP	1206.40	186.67	182	.56
NWEA Component					
Reading	Non-LEP	207.26	16.30	1066	
	LEP	195.42	17.66	180	.59
Language	Non-LEP	209.55	13.98	1065	
	LEP	198.31	15.19	183	.59
Math	Non-LEP	216.92	15.98	1068	
	LEP	207.41	15.09	182	.58

Table 212. PSSA and NWEA Regressions Results Showing Adjusted Strengths of LEP Status Effects District 6 Grade 5 2003

PSSA Component	Predictors included	R ²	Change in R ² due to LEP Status
Reading	NWEA reading	.71	
Reading	NWEA reading & LEP status	.72	.01
Math	NWEA math	.77	
Math	NWEA math & LEP status	.77	.00

Table 213. PSSA and NWEA Descriptive Statistics by SES Status District 6 Grade 5 2003

	SES Flag	Mean Scale Score	Standard Deviation	Number of Cases	Effect Size
PSSA Component					
Reading	Non-SES	1373.36	236.29	351	
	SES	1205.59	210.32	898	.09
Math	Non-SES	1411.76	218.09	351	
	SES	1269.79	188.92	898	.06
NWEA Component					
Reading	Non-SES	213.59	14.53	349	
	SES	202.42	16.89	897	.04
Language	Non-SES	215.08	13.11	349	
	SES	205.12	14.35	899	.03
Math	Non-SES	223.52	16.16	349	
	SES	212.45	15.13	901	.02

Table 214. PSSA and NWEA Regressions Results Showing Adjusted Strengths of SES Status Effects District 6 Grade 5 2003

PSSA Component	Predictors included	R ²	Change in R ² due to SES Status
Reading	NWEA reading	.71	
Reading	NWEA reading & SES status	.72	.01
Math	NWEA math	.77	
Math	NWEA math & SES status	.77	.00

Table 215. PSSA and NWEA Descriptive Statistics by Gender District 6 Grade 8 2001

	Gender	Mean Scale Score	Standard Deviation	Number of Cases	Effect Size
PSSA Component					
Reading	Male	1168.16	206.47	478	
	Female	1231.75	202.27	561	-.15
Math	Male	1195.83	169.94	483	
	Female	1188.20	162.72	563	.02
NWEA Component					
Reading	Male	213.23	17.14	466	
	Female	218.11	14.33	545	-.15
Language	Male	214.22	15.69	465	
	Female	219.85	13.44	549	-.19
Math	Male	219.94	16.04	392	
	Female	220.08	14.50	431	.00
Science	Male	207.19	10.96	459	
	Female	207.44	10.03	544	-.01

Table 216. PSSA and NWEA Regressions Results Showing Adjusted Strengths of Gender Effects District 6 Grade 8 2001

PSSA Component	Standardized Coefficient			Change in R ² due to Gender
	NWEA Control	Gender	R ²	
Reading	.83		.69	
Reading	.83	.03	.69	.00
Math	.79		.62	
Math	.79	-.09	.63	.01

Table 217. PSSA and NWEA Descriptive Statistics by Ethnic Group Across District 6 Grade 8 2001

		White	Black	Hispanic	Asian
PSSA Component					
Reading	Mean	1286.28	1161.61	1123.50	1269.40
	S.D.	195.01	205.14	189.11	186.37
	N	370	105	403	20
			.30	.39	.04
Math	Mean	1263.56	1158.42	1122.38	1282.85
	S.D.	177.41	160.78	125.87	153.13
	N	371	105	408	20
			.30	.42	-.06
NWEA Component					
Reading	Mean	222.07	213.74	209.91	218.95
	S.D.	14.06	17.29	14.81	15.06
	N	365	99	389	20
			.26	.39	.11
Language	Mean	223.21	214.60	211.76	221.90
	S.D.	12.89	16.34	13.79	12.86
	N	363	102	393	20
			.28	.39	.05
Math	Mean	224.41	217.85	217.11	224.27
	S.D.	14.72	17.51	14.17	14.57
	N	242	93	369	11
			.20	.24	.00
Science	Mean	211.82	205.43	203.18	209.86
	S.D.	10.25	10.04	9.19	12.06
	N	368	96	381	21
			.30	.41	.09

Table 218. Regression Results Showing the Adjusted Strength of Ethnicity Effects (Black versus White) District 6 Grade 8 2001

PSSA Component	Predictors included	R ²	Change in R ²
Reading	NWEA Reading	0.72	
Reading	NWEA Reading & ethnicity	0.73	0.01
Math	NWEA Math	0.68	
Math	NWEA Math & ethnicity	0.68	0.00

Table 219. Regression Results Showing the Adjusted Strength of Ethnicity Effects (Hispanic/Latino versus White) District 6 Grade 8 2001

PSSA Component	Predictors included	R ²	Change in R ²
Reading	NWEA Reading	0.69	
Reading	NWEA Reading & ethnicity	0.70	0.01
Math	NWEA Math	0.59	
Math	NWEA Math & ethnicity	0.60	0.01

Table 220. PSSA and NWEA Descriptive Statistics by LEP Status District 6 Grade 8 2001

PSSA Component	LEP Status	Mean Scale Score	Standard Deviation	Number of Cases	Effect Size
Reading	Non-LEP	1205.43	204.93	1031	
	LEP	939.92	154.68	12	.60
Math	Non-LEP	1193.25	165.64	1037	
	LEP	1047.77	110.16	13	.57
NWEA Component					
Reading	Non-LEP	216.07	15.61	1005	
	LEP	196.36	23.75	11	.58
Language	Non-LEP	217.45	14.58	1008	
	LEP	200.17	19.68	12	.58
Math	Non-LEP	220.22	15.11	815	
	LEP	205.77	18.17	13	.57
Science	Non-LEP	207.45	10.39	996	
	LEP	195.83	8.78	12	.58

Table 221. PSSA and NWEA Regressions Results Showing Adjusted Strengths of LEP Status Effects District 6 Grade 8 2001

PSSA Component	Predictors included	R ²	Change in R ² due to LEP Status
Reading	NWEA reading	.69	
Reading	NWEA reading & LEP status	.69	.00
Math	NWEA math	.62	
Math	NWEA math & LEP status	.62	.00

Table 222. PSSA and NWEA Descriptive Statistics by SES Status District 6 Grade 8 2001

	SES Flag	Mean Scale Score	Standard Deviation	Number of Cases	Effect Size
PSSA Component					
Reading	Non-SES	1239.49	206.89	610	
	SES	1150.09	194.03	433	.53
Math	Non-SES	1218.60	172.51	614	
	SES	1153.22	147.87	436	.54
NWEA Component					
Reading	Non-SES	219.17	14.49	604	
	SES	211.01	16.49	412	.56
Language	Non-SES	219.93	13.71	605	
	SES	213.32	15.36	415	.56
Math	Non-SES	222.77	14.00	456	
	SES	216.58	16.03	372	.56
Science	Non-SES	209.10	10.59	599	
	SES	204.70	9.65	409	.57

Table 223. PSSA and NWEA Regressions Results Showing Adjusted Strengths of SES Status Effects District 6 Grade 8 2001

PSSA Component	Predictors included	R ²	Change in R ² due to SES Status
Reading	NWEA reading	.69	
Reading	NWEA reading & SES status	.69	.00
Math	NWEA math	.62	
Math	NWEA math & SES status	.62	.00

Table 224. PSSA and NWEA Descriptive Statistics by Gender District 6 Grade 8 2002

	Gender	Mean Scale Score	Standard Deviation	Number of Cases	Effect Size
PSSA Component					
Reading	Male	1212.55	215.92	559	
	Female	1238.04	203.22	506	-.06
Math	Male	1232.27	177.39	562	
	Female	1213.35	168.32	508	.05
NWEA Component					
Reading	Male	214.61	16.89	553	
	Female	218.43	15.26	497	-.11
Language	Male	214.48	14.88	548	
	Female	218.77	13.52	495	-.15
Math	Male	218.94	15.55	423	
	Female	219.17	14.07	402	-.01

Table 225. PSSA and NWEA Regressions Results Showing Adjusted Strengths of Gender Effects District 6 Grade 8 2002

PSSA Component	Standardized Coefficient			Change in R ² due to Gender
	NWEA Control	Gender	R ²	
Reading	.86		.74	
Reading	.87	-.04	.74	.00
Math	.83		.68	
Math	.83	-.06	.69	.01

Table 226. PSSA and NWEA Descriptive Statistics by Ethnic Group Across District 6 Grade 8 2002

		White	Black	Hispanic	Asian
PSSA Component					
Reading	Mean	1328.02	1189.81	1146.67	1261.00
	S.D.	200.88	188.97	193.96	161.60
	N	363	118	425	14
	Effect Size		.33	.42	.18
Math	Mean	1311.63	1169.19	1164.65	1298.07
	S.D.	177.69	137.94	148.90	229.96
	N	365	120	426	14
	Effect Size		.41	.41	.03
NWEA Component					
Reading	Mean	224.14	212.90	210.83	216.79
	S.D.	14.08	15.30	16.12	12.99
	N	362	116	418	14
	Effect Size		.36	.40	.26
Language	Mean	223.39	212.82	211.68	219.21
	S.D.	12.31	12.32	15.18	13.28
	N	359	119	414	14
	Effect Size		.39	.39	.16
Math	Mean	223.46	216.52	216.40	225.71
	S.D.	13.22	13.86	15.78	16.20
	N	211	104	380	7
	Effect Size		.25	.24	-.08

Table 227. Regression Results Showing the Adjusted Strength of Ethnicity Effects (Black versus White) District 6 Grade 8 2002

PSSA Component	Predictors included	R ²	Change in R ²
Reading	NWEA Reading	0.73	
Reading	NWEA Reading & ethnicity	0.73	0.00
Math	NWEA Math	0.69	
Math	NWEA Math & ethnicity	0.69	0.00

Table 228. Regression Results Showing the Adjusted Strength of Ethnicity Effects (Hispanic/Latino versus White) District 6 Grade 8 2002

PSSA Component	Predictors included	R ²	Change in R ²
Reading	NWEA Reading	0.74	
Reading	NWEA Reading & ethnicity	0.75	0.01
Math	NWEA Math	0.68	
Math	NWEA Math & ethnicity	0.68	0.00

Table 229. PSSA and NWEA Descriptive Statistics by LEP Status District 6 Grade 8 2002

	LEP Status	Mean Scale Score	Standard Deviation	Number of Cases	Effect Size
PSSA Component					
Reading	Non-LEP	1231.64	207.93	1040	
	LEP	1015.19	210.24	31	.57
Math	Non-LEP	1227.44	173.26	1045	
	LEP	1106.58	136.19	31	.56
NWEA Component					
Reading	Non-LEP	216.94	16.09	1026	
	LEP	201.40	14.26	30	.58
Language	Non-LEP	217.03	14.09	1019	
	LEP	200.37	15.29	30	.58
Math	Non-LEP	219.41	14.82	805	
	LEP	210.48	13.25	25	.57

Table 230. PSSA and NWEA Regressions Results Showing Adjusted Strengths of LEP Status Effects District 6 Grade 8 2002

PSSA Component	Predictors included	R ²	Change in R ² due to LEP Status
Reading	NWEA reading	.74	
Reading	NWEA reading & LEP status	.74	.00
Math	NWEA math	.68	
Math	NWEA math & LEP status	.68	.00

Table 231. PSSA and NWEA Descriptive Statistics by SES Status District 6 Grade 8 2002

	SES Flag	Mean Scale Score	Standard Deviation	Number of Cases	Effect Size
PSSA Component					
Reading	Non-SES	1314.44	195.67	426	
	SES	1166.56	198.65	645	.56
Math	Non-SES	1294.82	176.80	428	
	SES	1177.15	154.39	648	.55
NWEA Component					
Reading	Non-SES	222.94	14.64	431	
	SES	212.06	15.81	625	.57
Language	Non-SES	222.32	12.83	428	
	SES	212.59	14.06	621	.57
Math	Non-SES	222.40	13.54	267	
	SES	217.59	15.20	563	.56

Table 232. PSSA and NWEA Regressions Results Showing Adjusted Strengths of SES Status Effects District 6 Grade 8 2002

PSSA Component	Predictors included	R ²	Change in R ² due to SES Status
Reading	NWEA reading	.74	
Reading	NWEA reading & SES status	.75	.01
Math	NWEA math	.68	
Math	NWEA math & SES status	.68	.00

Table 233. PSSA and NWEA Descriptive Statistics by Gender District 6 Grade 8 2003

	Gender	Mean Scale Score	Standard Deviation	Number of Cases	Effect Size
PSSA Component					
Reading	Male	1178.21	234.20	656	
	Female	1249.35	225.59	575	-.15
Math	Male	1209.80	177.00	655	
	Female	1217.54	165.72	575	-.02
NWEA Component					
Reading	Male	213.13	18.37	607	
	Female	217.72	17.68	553	-.13
Language	Male	213.66	15.71	626	
	Female	218.75	14.70	562	-.16
Math	Male	218.84	16.66	516	
	Female	220.63	15.86	466	-.05

Table 234. PSSA and NWEA Regressions Results Showing Adjusted Strengths of Gender Effects District 6 Grade 8 2003

PSSA Component	Standardized Coefficient			Change in R ² due to Gender
	NWEA Control	Gender	R ²	
Reading	.87		.76	
Reading	.87	.03	.76	.00
Math	.83		.69	
Math	.83	.00	.69	.00

Table 235. PSSA and NWEA Descriptive Statistics by Ethnic Group Across District 6 Grade 8 2003

		White	Black	Hispanic	Asian
PSSA Component					
Reading	Mean	1313.05	1207.80	1137.67	1336.77
	S.D.	228.63	218.44	208.89	273.90
	N	407	192	602	30
	Effect Size		.23	.37	-.05
Math	Mean	1292.70	1193.23	1161.65	1308.40
	S.D.	182.43	166.55	140.14	201.62
	N	406	192	602	30
	Effect Size		.27	.37	-.04
NWEA Component					
Reading	Mean	223.73	215.43	209.24	221.23
	S.D.	15.60	16.18	17.82	22.54
	N	384	182	564	30
	Effect Size		.25	.40	.06
Language	Mean	222.78	215.55	211.08	225.30
	S.D.	13.94	13.56	14.87	19.01
	N	399	186	573	30
	Effect Size		.25	.38	-.08
Math	Mean	226.04	218.09	216.95	221.21
	S.D.	15.41	15.72	15.94	19.95
	N	267	161	535	19
	Effect Size		.25	.28	.13

Table 236. Regression Results Showing the Adjusted Strength of Ethnicity Effects (Black versus White) District 6 Grade 8 2002

PSSA Component	Predictors included	R ²	Change in R ²
Reading	NWEA Reading	0.77	
Reading	NWEA Reading & ethnicity	0.77	0.00
Math	NWEA Math	0.74	
Math	NWEA Math & ethnicity	0.74	0.00

Table 237. Regression Results Showing the Adjusted Strength of Ethnicity Effects (Hispanic/Latino versus White) District 6 Grade 8 2002

PSSA Component	Predictors included	R ²	Change in R ²
Reading	NWEA Reading	0.75	
Reading	NWEA Reading & ethnicity	0.75	0.00
Math	NWEA Math	0.69	
Math	NWEA Math & ethnicity	0.69	0.00

Table 238. PSSA and NWEA Descriptive Statistics by LEP Status District 6 Grade 8 2003

	LEP Status	Mean Scale Score	Standard Deviation	Number of Cases	Effect Size
PSSA Component					
Reading	Non-LEP	1230.20	225.91	1143	
	LEP	973.34	181.22	90	.58
Math	Non-LEP	1223.25	170.78	1142	
	LEP	1086.28	127.64	90	.56
NWEA Component					
Reading	Non-LEP	217.06	16.68	1080	
	LEP	192.35	21.18	82	.59
Language	Non-LEP	217.42	14.28	1108	
	LEP	197.91	18.76	82	.59
Math	Non-LEP	221.18	15.23	899	
	LEP	203.81	18.62	85	.58

Table 239. PSSA and NWEA Regressions Results Showing Adjusted Strengths of LEP Status Effects District 6 Grade 8 2003

PSSA Component	Predictors included	R ²	Change in R ² due to LEP Status
Reading	NWEA reading	.76	
Reading	NWEA reading & LEP status	.76	.00
Math	NWEA math	.69	
Math	NWEA math & LEP status	.69	.00

Table 240. PSSA and NWEA Descriptive Statistics by SES Status District 6 Grade 8 2003

	SES Flag	Mean Scale Score	Standard Deviation	Number of Cases	Effect Size
PSSA Component					
Reading	Non-SES	1309.16	228.98	411	
	SES	1162.60	218.86	822	.54
Math	Non-SES	1280.66	190.20	411	
	SES	1179.50	150.85	821	.54
NWEA Component					
Reading	Non-SES	222.79	16.46	392	
	SES	211.52	17.82	770	.57
Language	Non-SES	222.78	13.90	396	
	SES	212.73	15.07	794	.57
Math	Non-SES	224.26	15.28	266	
	SES	217.98	16.34	718	.56

Table 241. PSSA and NWEA Regressions Results Showing Adjusted Strengths of SES Status Effects District 6 Grade 8 2003

PSSA Component	Predictors included	R ²	Change in R ² due to SES Status
Reading	NWEA reading	.76	
Reading	NWEA reading & SES status	.76	.00
Math	NWEA math	.69	
Math	NWEA math & SES status	.69	.00

District 7 administered the NSRE, but not at the same grade levels as PSSA. While PSSA is administered at Grades 5, 8, and 11, NSRE was given at Grades 4, 7, and 10. NSRE results were available for 2000, 2001, and 2002. This allowed student level matching between grades for PSSA results from 2001, 2002, and 2003. All data presented for PSSA was collected during the academic year immediately following NSRE

administration. Further complicating matters, the NSRE was apparently not given during a single administration period. NSRE data for math was provided separately from reading and writing. When the two NSRE files were merged, a portion of the students had one, but not the other, NSRE component. For that reason, the two major components of NSRE were treated separately when comparing to PSSA. Consequently, District 7 descriptive statistics are presented in 18 separate sections. There is one section for each grade level, administration year grouping, and subject (3 grade levels times 3 administration year groupings times 2 subjects equals 18 sections). Each section's results are ordered the same as in previous districts (Table 242 through Table 403).

Table 242. PSSA 2001 Grade 5 and NSRE 2000 Grade 4 Descriptive Statistics by Gender, District 7 Reading

	Gender	Mean Scale Score	Standard Deviation	Number of Cases	Effect Size
PSSA Component					
Reading	Male	1243.00	195.36	318	
	Female	1285.97	179.59	363	-.11
NSRE Component					
Reading	Male	144.87	9.08	346	
	Female	148.40	9.91	375	-.18
Writing	Male	142.12	6.74	346	
	Female	146.29	7.64	375	-.28

Table 243. PSSA 2001 Grade 5 and NSRE 2000 Grade 4 Regressions Results Showing Adjusted Strengths of Gender Effects, District 7 Reading

PSSA Component	Standardized Coefficient			Change in R ² due to Gender
	NSRE Control	Gender	R ²	
Reading	.63		.39	
Reading	.62	.01	.39	.00

Table 244. PSSA 2001 Grade 5 and NSRE 2000 Grade 4 Descriptive Statistics by Ethnic Group Across District 7 Reading

		White	Black	Hispanic	Asian
PSSA Component					
Reading	Mean	1354.03	1229.11	1228.58	1382.00
	S.D.	187.38	164.40	182.16	202.34
	N	178	141	269	15
	Effect Size		.33	.34	-.08
NSRE Component					
Reading	Mean	149.65	146.40	144.97	151.27
	S.D.	10.35	9.68	8.92	11.50
	N	185	149	291	15
	Effect Size		.16	.23	-.08
Writing	Mean	146.64	143.42	142.93	147.80
	S.D.	8.48	6.77	6.71	6.44
	N	185	149	291	15
	Effect Size		.21	.23	-.08

Table 245. PSSA 2001 Grade 5 and NSRE 2000 Grade 4 Regression Results Showing Adjusted Strengths of Ethnicity Effects for Black Students, District 7 Reading

PSSA Component	Predictors included	R ²	Change in R ² for Black students
Reading	NSRE reading	.39	
Reading	NSRE reading & ethnicity	.44	.05

Table 246. PSSA 2001 Grade 5 and NSRE 2000 Grade 4 Regression Results Showing Adjusted Strengths of Ethnicity Effects for Hispanic/Latino Students, District 7 Reading

PSSA Component	Predictors included	R ²	Change in R ² for Hispanic/Latino students
Reading	NSRE reading	.38	
Reading	NSRE reading & ethnicity	.41	.03

Table 247. PSSA 2001 Grade 5 and NSRE 2000 Grade 4 Descriptive Statistics by LEP Status, District 7 Reading

	LEP Status	Mean Scale Score	Standard Deviation	Number of Cases	Effect Size
PSSA Component					
Reading	Non-LEP	1274.25	187.30	643	
	LEP	1124.71	143.36	38	.56
NSRE Component					
Reading	Non-LEP	147.04	9.73	682	
	LEP	141.05	6.48	40	.57
Writing	Non-LEP	144.55	7.55	682	
	LEP	139.85	5.08	40	.57

Table 248. PSSA 2001 Grade 5 and NSRE 2000 Grade 4 Regressions Results Showing Adjusted Strengths of LEP Status Effects, District 7 Reading

PSSA Component	Predictors included	R ²	Change in R ² due to LEP Status
Reading	NSRE reading	.39	
Reading	NSRE reading & LEP status	.40	.01

Table 249. PSSA 2001 Grade 5 and NSRE 2000 Grade 4 Descriptive Statistics by SES Status, District 7 Reading

	SES Flag	Mean Scale Score	Standard Deviation	Number of Cases	Effect Size
PSSA Component					
Reading	Non-SES	1357.50	174.39	243	
	SES	1215.08	176.13	438	.56
NSRE Component					
Reading	Non-SES	148.45	10.74	275	
	SES	145.63	8.79	447	.56
Writing	Non-SES	145.85	8.58	275	
	SES	143.32	6.60	447	.56

Table 250. PSSA 2001 Grade 5 and NSRE 2000 Grade 4 Regressions Results Showing Adjusted Strengths of SES Status Effects, District 7 Reading

PSSA Component	Predictors included	R ²	Change in R ² due to SES Status
Reading	NSRE reading	.39	
Reading	NSRE reading & SES status	.44	.05

Table 251. PSSA 2001 Grade 5 and NSRE 2000 Grade 4 Descriptive Statistics by Gender, District 7 Mathematics

PSSA Component	Gender	Mean Scale Score	Standard Deviation	Number of Cases	Effect Size
Math	Male	1280.28	173.92	321	
	Female	1302.05	182.22	360	-.06
Math	Male	143.21	6.00	356	
	Female	143.54	5.63	373	-.03

Table 252. PSSA 2001 Grade 5 and NSRE 2000 Grade 4 Regressions Results Showing Adjusted Strengths of Gender Effects, District 7 Mathematics

PSSA Component	Standardized Coefficient		R ²	Change in R ² due to Gender
	NSRE Control	Gender		
Math	.75		.55	
Math	.75	.06	.56	.01

Table 253. PSSA 2001 Grade 5 and NSRE 2000 Grade 4 Descriptive Statistics by Ethnic Group Across District 7 Mathematics

		White	Black	Hispanic	Asian
PSSA Component					
Math	Mean	1355.56	1255.56	1273.70	1394.13
	S.D.	187.63	171.03	168.00	183.17
	N	177	144	266	15
	Effect Size		.27	.22	-.11
NSRE Component					
Math	Mean	145.67	142.11	142.42	146.87
	S.D.	6.19	5.64	5.26	6.62
	N	188	152	292	15
	Effect Size		.29	.26	-.10

Table 254. PSSA 2001 Grade 5 and NSRE 2000 Grade 4 Regressions Results Showing Adjusted Strengths of Ethnicity Effects for Black Students, District 7 Mathematics

PSSA Component	Predictors included	R ²	Change in R ² for Black students
Math	NSRE Math	.64	
Math	NSRE Math & ethnicity	.64	.00

Table 255. PSSA 2001 Grade 5 and NSRE 2000 Grade 4 Regressions Results Showing Adjusted Strengths of Ethnicity Effects for Hispanic/Latino Students, District 7 Mathematics

PSSA Component	Predictors included	R ²	Change in R ² for Hispanic/Latino students
Math	NSRE Math	.54	
Math	NSRE Math & ethnicity	.54	.00

Table 256. PSSA 2001 Grade 5 and NSRE 2000 Grade 4 Descriptive Statistics by LEP Status, District 7 Mathematics

		LEP Status	Mean Scale Score	Standard Deviation	Number of Cases	Effect Size
PSSA Component						
Math	Non-LEP		1298.09	178.56	646	
	LEP		1175.54	134.60	35	.56
NSRE Component						
Math	Non-LEP		143.56	5.84	694	
	LEP		139.94	3.96	36	.57

Table 257. PSSA 2001 Grade 5 and NSRE 2000 Grade 4 Regressions Results Showing Adjusted Strengths of LEP Status Effects, District 7 Mathematics

PSSA Component	Predictors included	R ²	Change in R ² due to LEP Status
Math	NSRE Math	.55	
Math	NSRE Math & LEP status	.55	.00

Table 258. PSSA 2001 Grade 5 and NSRE 2000 Grade 4 Descriptive Statistics by SES Status, District 7 Mathematics

PSSA Component	SES Flag	Mean Scale Score	Standard Deviation	Number of Cases	Effect Size
Math	Non-SES	1361.26	178.34	243	
	SES	1253.25	166.81	438	.55
Math	Non-SES	145.03	6.25	279	
	SES	142.37	5.28	451	.57

Table 259. PSSA 2001 Grade 5 and NSRE 2000 Grade 4 Regressions Results Showing Adjusted Strengths of SES Status Effects, District 7 Mathematics

PSSA Component	Predictors included	R ²	Change in R ² due to SES Status
Math	NSRE Math	.55	
Math	NSRE Math & SES status	.56	.01

Table 260. PSSA 2002 Grade 5 and NSRE 2001 Grade 4 Descriptive Statistics by Gender, District 7 Reading

	Gender	Mean Scale Score	Standard Deviation	Number of Cases	Effect Size
PSSA Component					
Reading	Male	1231.29	206.90	364	
	Female	1278.48	198.31	362	-.12
NSRE Component					
Reading	Male	148.61	10.94	383	
	Female	153.03	11.86	368	-.19
Writing	Male	141.12	6.71	383	
	Female	144.90	8.03	368	-.25

Table 261. PSSA 2002 Grade 5 and NSRE 2001 Grade 4 Regressions Results Showing Adjusted Strengths of Gender Effects, District 7 Reading

PSSA Component	Standardized Coefficient			Change in R ² due to Gender
	NSRE Control	Gender	R ²	
Reading	.64		.41	
Reading	.64	.00	.41	.00

Table 262. PSSA 2002 Grade 5 and NSRE 2001 Grade 4 Descriptive Statistics by Ethnic Group Across District 7 Reading

		White	Black	Hispanic	Asian
PSSA Component					
Reading	Mean	1390.38	1221.92	1193.08	1357.55
	S.D.	227.03	147.87	185.96	166.49
	N	168	142	315	11
	Effect Size		.40	.46	.08
NSRE Component					
Reading	Mean	155.52	149.81	148.12	150.00
	S.D.	13.43	10.92	10.45	9.73
	N	177	150	319	11
	Effect Size		.23	.29	.22
Writing	Mean	145.63	141.89	141.30	148.82
	S.D.	8.51	7.04	6.88	8.04
	N	177	150	319	11
	Effect Size		.23	.27	-.20

Table 263. PSSA 2002 Grade 5 and NSRE 2001 Grade 4 Regressions Results Showing Adjusted Strengths of Ethnicity Effects for Black Students, District 7 Reading

PSSA Component	Predictors included	R ²	Change in R ² for Black students
Reading	NSRE reading	.38	
Reading	NSRE reading & ethnicity	.44	.06

Table 264. PSSA 2002 Grade 5 and NSRE 2001 Grade 4 Regressions Results Showing Adjusted Strengths of Ethnicity Effects for Hispanic/Latino Students, District 7 Reading

PSSA Component	Predictors included	R ²	Change in R ² for Hispanic/Latino students
Reading	NSRE reading	.46	
Reading	NSRE reading & ethnicity	.51	.05

Table 265. PSSA 2002 Grade 5 and NSRE 2001 Grade 4 Descriptive Statistics by LEP Status, District 7 Reading

	LEP Status	Mean Scale Score	Standard Deviation	Number of Cases	Effect Size
PSSA Component					
Reading	Non-LEP	1275.18	197.63	663	
	LEP	1045.44	139.77	66	.56
NSRE Component					
Reading	Non-LEP	151.35	11.61	697	
	LEP	143.79	9.06	57	.34
Writing	Non-LEP	143.32	7.62	697	
	LEP	138.84	6.39	57	.30

Table 266. PSSA 2002 Grade 5 and NSRE 2001 Grade 4 Regressions Results Showing Adjusted Strengths of LEP Status Effects, District 7 Reading

PSSA Component	Predictors included	R ²	Change in R ² due to LEP Status
Reading	NSRE reading	.41	
Reading	NSRE reading & LEP status	.43	.02

Table 267. PSSA 2002 Grade 5 and NSRE 2001 Grade 4 Descriptive Statistics by SES Status, District 7 Reading

	SES Flag	Mean Scale Score	Standard Deviation	Number of Cases	Effect Size
PSSA Component					
Reading	Non-SES	1327.09	222.03	243	
	SES	1218.02	184.10	486	.26
NSRE Component					
Reading	Non-SES	152.33	12.83	277	
	SES	149.88	10.74	477	.10
Writing	Non-SES	144.09	8.63	277	
	SES	142.34	6.90	477	.11

Table 268. PSSA 2002 Grade 5 and NSRE 2001 Grade 4 Regressions Results Showing Adjusted Strengths of SES Status Effects, District 7 Reading

PSSA Component	Predictors included	R ²	Change in R ² due to SES Status
Reading	NSRE reading	.41	
Reading	NSRE reading & SES status	.43	.02

Table 269. PSSA 2002 Grade 5 and NSRE 2001 Grade 4 Descriptive Statistics by Gender, District 7 Mathematics

	Gender	Mean Scale Score	Standard Deviation	Number of Cases	Effect Size
PSSA Component					
Math	Male	1281.38	202.37	373	
	Female	1284.39	192.52	366	-.01
NSRE Component					
Math	Male	144.58	6.50	391	
	Female	144.80	5.99	372	-.02

Table 270. PSSA 2002 Grade 5 and NSRE 2001 Grade 4 Regressions Results Showing Adjusted Strengths of Gender Effects, District 7 Mathematics

PSSA Component	Standardized Coefficient			Change in R ² due to Gender
	NSRE Control	Gender	R ²	
Math	.74		.55	
Math	.74	.01	.55	.00

Table 271. PSSA 2002 Grade 5 and NSRE 2001 Grade 4 Descriptive Statistics By Ethnic Group Across District 7 Mathematics

PSSA Component		White	Black	Hispanic	Asian
Math	Mean	1392.39	1238.71	1237.29	1410.00
	S.D.	213.90	167.72	184.45	176.78
	N	174	148	311	13
	Effect Size		.37	.37	-.04
NSRE Component					
Math	Mean	147.84	143.03	143.43	149.36
	S.D.	6.62	5.14	5.95	5.75
	N	182	152	318	14
	Effect Size		.38	.35	-.12

Table 272. PSSA 2002 Grade 5 and NSRE 2001 Grade 4 Regressions Results Showing Adjusted Strengths of Ethnicity Effects for Black Students, District 7 Mathematics

PSSA Component	Predictors included	R ²	Change in R ² for Black students
Math	NSRE Math	.55	
Math	NSRE Math & ethnicity	.56	.01

Table 273. PSSA 2002 Grade 5 and NSRE 2001 Grade 4 Regressions Results Showing Adjusted Strengths of Ethnicity Effects for Hispanic/Latino Students, District 7 Mathematics

PSSA Component	Predictors included	R ²	Change in R ² for Hispanic/Latino students
Math	NSRE Math	.56	
Math	NSRE Math & ethnicity	.57	.01

Table 274. PSSA 2002 Grade 5 and NSRE 2001 Grade 4 Descriptive Statistics by LEP Status, District 7 Mathematics

	LEP Status	Mean Scale Score	Standard Deviation	Number of Cases	Effect Size
PSSA Component					
Math	Non-LEP	1299.83	192.73	677	
	LEP	1103.54	1103.54	65	.57
NSRE Component					
Math	Non-LEP	144.97	6.24	710	
	LEP	140.96	5.27	56	.57

Table 275. PSSA 2002 Grade 5 and NSRE 2001 Grade 4 Regressions Results Showing Adjusted Strengths of LEP Status Effects, District 7 Mathematics

PSSA Component	Predictors included	R ²	Change in R ² due to LEP Status
Math	NSRE Math	.55	
Math	NSRE Math & LEP status	.56	.01

Table 276. PSSA 2002 Grade 5 and NSRE 2001 Grade 4 Descriptive Statistics by SES Status, District 7 Mathematics

	SES Flag	Mean Scale Score	Standard Deviation	Number of Cases	Effect Size
PSSA Component					
Math	Non-SES	1342.80	201.10	256	
	SES	1250.94	188.17	486	.54
NSRE Component					
Math	Non-SES	145.62	6.72	292	
	SES	144.10	5.89	474	.56

Table 277. PSSA 2002 Grade 5 and NSRE 2001 Grade 4 Regressions Results Showing Adjusted Strengths of SES Status Effects, District 7 Mathematics

PSSA Component	Predictors included	R ²	Change in R ² due to SES Status
Math	NSRE Math	.55	
Math	NSRE Math & SES status	.56	.01

Table 278. PSSA 2003 Grade 5 and NSRE 2002 Grade 4 Descriptive Statistics by Gender, District 7 Reading

	Gender	Mean Scale Score	Standard Deviation	Number of Cases	Effect Size
PSSA Component					
Reading	Male	1219.82	192.52	335	
	Female	1254.73	193.05	359	-.09
NSRE Component					
Reading	Male	147.78	9.10	336	
	Female	151.93	10.37	362	-.21
Writing	Male	142.07	5.88	336	
	Female	144.88	6.26	362	-.23

Table 279. PSSA 2003 Grade 5 and NSRE 2002 Grade 4 Regressions Results Showing Adjusted Strengths of Gender Effects, District 7 Reading

PSSA Component	Standardized Coefficient			Change in R ² due to Gender
	NSRE Control	Gender	R ²	
Reading	.62		.39	
Reading	.63	-.05	.39	.00

Table 280. PSSA 2003 Grade 5 and NSRE 2002 Grade 4 Descriptive Statistics by Ethnic Group Across District 7 Reading

		White	Black	Hispanic	Asian
PSSA Component					
Reading	Mean	1311.70	1217.42	1205.90	1306.71
	S.D.	200.23	187.45	174.64	264.28
	N	169	183	314	14
	Effect Size		.24	.26	.01
NSRE Component					
Reading	Mean	152.80	149.22	148.68	151.46
	S.D.	11.18	10.03	8.96	11.47
	N	173	183	315	13
	Effect Size		.17	.19	.07
Writing	Mean	144.95	143.05	142.82	145.62
	S.D.	6.90	6.15	5.62	7.71
	N	173	183	315	13
	Effect Size		.14	.16	-.05

Table 281. PSSA 2003 Grade 5 and NSRE 2002 Grade 4 Regressions Results Showing Adjusted Strengths of Ethnicity Effects for Black Students, District 7 Reading

PSSA Component	Predictors included	R ²	Change in R ² for Black students
Reading	NSRE reading	.39	
Reading	NSRE reading & ethnicity	.41	.02

Table 282. PSSA 2003 Grade 5 and NSRE 2002 Grade 4 Regressions Results Showing Adjusted Strengths of Ethnicity Effects for Hispanic/Latino Students, District 7 Reading

PSSA Component	Predictors included	R ²	Change in R ² for Hispanic/Latino students
Reading	NSRE reading	.36	
Reading	NSRE reading & ethnicity	.38	.02

Table 283. PSSA 2003 Grade 5 and NSRE 2002 Grade 4 Descriptive Statistics by LEP Status, District 7 Reading

	LEP Status	Mean Scale Score	Standard Deviation	Number of Cases	Effect Size
PSSA Component					
Reading	Non-LEP	1255.63	192.91	605	
	LEP	1124.54	155.30	95	.41
NSRE Component					
Reading	Non-LEP	150.65	10.13	609	
	LEP	145.65	8.25	95	.31
Writing	Non-LEP	143.99	6.31	609	
	LEP	140.67	4.83	95	.30

Table 284. PSSA 2003 Grade 5 and NSRE 2002 Grade 4 Regressions Results Showing Adjusted Strengths of LEP Status Effects, District 7 Reading

PSSA Component	Predictors included	R ²	Change in R ² due to LEP Status
Reading	NSRE reading	.38	
Reading	NSRE reading & LEP status	.40	.02

Table 285. PSSA 2003 Grade 5 and NSRE 2002 Grade 4 Descriptive Statistics by SES Status, District 7 Reading

	SES Flag	Mean Scale Score	Standard Deviation	Number of Cases	Effect Size
PSSA Component					
Reading	Non-SES	1312.42	213.67	181	
	SES	1211.83	178.90	519	.49
NSRE Component					
Reading	Non-SES	153.16	9.77	178	
	SES	148.90	9.91	526	.55
Writing	Non-SES	145.42	7.30	178	
	SES	142.91	5.69	526	.56

Table 286. PSSA 2003 Grade 5 and NSRE 2002 Grade 4 Regressions Results Showing Adjusted Strengths of SES Status Effects, District 7 Reading

PSSA Component	Predictors included	R ²	Change in R ² due to SES Status
Reading	NSRE reading	.39	
Reading	NSRE reading & SES status	.40	.02

Table 287. PSSA 2003 Grade 5 and NSRE 2002 Grade 4 Descriptive Statistics by Gender, District 7 Mathematics

	Gender	Mean Scale Score	Standard Deviation	Number of Cases	Effect Size
PSSA Component					
Math	Male	1298.34	196.52	335	
	Female	1299.61	185.01	355	.00
NSRE Component					
Math	Male	146.90	6.50	336	
	Female	145.94	6.16	362	.08

Table 288. PSSA 2003 Grade 5 and NSRE 2002 Grade 4 Regressions Results Showing Adjusted Strengths of Gender Effects, District 7 Mathematics

PSSA Component	Standardized Coefficient			Change in R ² due to Gender
	NSRE Control	Gender	R ²	
Math	.74		.55	
Math	.75	.06	.56	.01

Table 289. PSSA 2003 Grade 5 and NSRE 2002 Grade 4 Descriptive Statistics by Ethnic Group Across District 7 Mathematics

PSSA Component		White	Black	Hispanic	Asian
Math	Mean	1364.69	1264.85	1274.93	1400.79
	S.D.	199.57	193.36	169.82	223.77
	N	167	184	312	14
	Effect Size		.25	.22	-.10
NSRE Component					
Math	Mean	148.96	144.76	145.70	150.85
	S.D.	6.45	6.01	315	8.05
	N	173	184	5.87	13
	Effect Size		.32	.25	-.15

Table 290. PSSA 2003 Grade 5 and NSRE 2002 Grade 4 Regressions Results Showing Adjusted Strengths of Ethnicity Effects for Black Students, District 7 Mathematics

PSSA Component	Predictors included	R ²	Change in R ² for Black Students
Math	NSRE Math	.61	
Math	NSRE Math & ethnicity	.61	.00

Table 291. PSSA 2003 Grade 5 and NSRE 2002 Grade 4 Regressions Results Showing Adjusted Strengths of Ethnicity Effects for Hispanic/Latino Students, District 7 Mathematics

PSSA Component	Predictors included	R ²	Change in R ² for Hispanic/Latino Students
Math	NSRE Math	.51	
Math	NSRE Math & ethnicity	.51	.00

Table 292. PSSA 2003 Grade 5 and NSRE 2002 Grade 4 Descriptive Statistics by LEP Status, District 7 Mathematics

	LEP Status	Mean Scale Score	Standard Deviation	Number of Cases	Effect Size
PSSA Component					
Math	Non-LEP	1314.15	190.03	602	
	LEP	1201.44	163.50	94	.55
NSRE Component					
Math	Non-LEP	146.89	6.35	612	
	LEP	143.36	5.58	92	.02

Table 293. PSSA 2003 Grade 5 and NSRE 2002 Grade 4 Regressions Results Showing Adjusted Strengths of LEP Status Effects, District 7 Mathematics

PSSA Component	Predictors included	R ²	Change in R ² due to LEP Status
Math	NSRE Math	.55	
Math	NSRE Math & LEP status	.55	.00

Table 294. PSSA 2003 Grade 5 and NSRE 2002 Grade 4 Descriptive Statistics by SES Status, District 7 Mathematics

	SES Flag	Mean Scale Score	Standard Deviation	Number of Cases	Effect Size
PSSA Component					
Math	Non-SES	1355.42	209.67	180	
	SES	1279.23	179.41	516	.53
NSRE Component					
Math	Non-SES	148.83	6.43	179	
	SES	145.61	6.14	525	.57

Table 295. PSSA 2003 Grade 5 and NSRE 2002 Grade 4 Regressions Results Showing Adjusted Strengths of SES Status Effects, District 7 Mathematics

PSSA Component	Predictors included	R ²	Change in R ² due to SES Status
Math	NSRE Math	.55	
Math	NSRE Math & SES status	.55	.00

Table 296. PSSA 2001 Grade 8 and NSRE 2000 Grade 7 Descriptive Statistics by Gender, District 7 Reading

	Gender	Mean Scale Score	Standard Deviation	Number of Cases	Effect Size
PSSA Component					
Reading	Male	1200.45	204.61	243	
	Female	1231.41	191.34	261	-.08
NSRE Component					
Reading	Male	141.92	7.39	253	
	Female	144.77	7.64	261	-.19
Writing	Male	146.43	7.31	253	
	Female	149.87	7.53	261	-.23

Table 297. PSSA 2001 Grade 8 and NSRE 2000 Grade 7 Regressions Results Showing Adjusted Strengths of Gender Effects, District 7 Reading

PSSA Component	Standardized Coefficient			Change in R ² due to Gender
	NSRE Control	Gender	R ²	
Reading	.66		.44	
Reading	.67	-.03	.44	.00

Table 298. PSSA 2001 Grade 8 and NSRE 2000 Grade 7 Descriptive Statistics by Ethnic Group Across District 7 Reading

		White	Black	Hispanic	Asian
PSSA Component					
Reading	Mean	1291.38	1185.11	1156.65	1194.86
	S.D.	216.08	185.28	176.26	191.04
	N	133	80	200	14
	Effect Size		.26	.32	.24
NSRE Component					
Reading	Mean	145.70	142.66	142.04	141.81
	S.D.	8.55	7.30	6.62	5.97
	N	135	82	204	16
	Effect Size		.19	.22	.25
Writing	Mean	150.66	147.52	146.83	147.81
	S.D.	8.29	7.64	7.21	7.25
	N	135	82	204	16
	Effect Size		.19	.23	.18

Table 299. PSSA 2001 Grade 8 and NSRE 2000 Grade 7 Regressions Results Showing Adjusted Strengths of Ethnicity Effects for Black Students, District 7 Reading

PSSA Component	Predictors included	R ²	Change in R ² for Black students
Reading	NSRE reading	.40	
Reading	NSRE reading & ethnicity	.42	.02

Table 300. PSSA 2001 Grade 8 and NSRE 2000 Grade 7 Regressions Results Showing Adjusted Strengths of Ethnicity Effects for Hispanic/Latino Students, District 7 Reading

PSSA Component	Predictors included	R ²	Change in R ² for Hispanic/Latino students
Reading	NSRE reading	.43	
Reading	NSRE reading & ethnicity	.46	.03

Table 301. PSSA 2001 Grade 8 and NSRE 2000 Grade 7 Descriptive Statistics by LEP Status, District 7 Reading

	LEP Status	Mean Scale Score	Standard Deviation	Number of Cases	Effect Size
PSSA Component					
Reading	Non-LEP	1257.78	199.59	259	
	LEP	1172.82	187.56	245	.53
NSRE Component					
Reading	Non-LEP	143.70	8.34	273	
	LEP	142.95	6.79	242	.56
Writing	Non-LEP	148.99	7.89	273	
	LEP	147.26	7.18	242	.56

Table 302. PSSA 2001 Grade 8 and NSRE 2000 Grade 7 Regressions Results Showing Adjusted Strengths of LEP Status Effects, District 7 Reading

PSSA Component	Predictors included	R ²	Change in R ² due to LEP Status
Reading	NSRE reading	.44	
Reading	NSRE reading & LEP status	.45	.01

Table 303. PSSA 2001 Grade 8 and NSRE 2000 Grade 7 Descriptive Statistics by SES Status, District 7 Reading

	SES Flag	Mean Scale Score	Standard Deviation	Number of Cases	Effect Size
PSSA Component					
Reading	Non-SES	1164.78	179.01	280	
	SES	1291.38	216.08	133	.47
NSRE Component					
Reading	Non-SES	142.22	6.81	286	
	SES	145.70	8.55	135	.55
Writing	Non-SES	147.03	7.33	286	
	SES	150.66	8.29	135	.55

Table 304. PSSA 2001 Grade 8 and NSRE 2000 Grade 7 Regressions Results Showing Adjusted Strengths of SES Status Effects, District 7 Reading

PSSA Component	Predictors included	R ²	Change in R ² due to SES Status
Reading	NSRE reading	.44	
Reading	NSRE reading & SES status	.46	.02

Table 305. PSSA 2001 Grade 8 and NSRE 2000 Grade 7 Descriptive Statistics by Gender, District 7 Mathematics

	Gender	Mean Scale Score	Standard Deviation	Number of Cases	Effect Size
PSSA Component					
Math	Male	1230.07	191.90	249	
	Female	1210.94	165.98	259	.05
NSRE Component					
Math	Male	132.79	12.66	257	
	Female	131.98	11.68	257	.03

Table 306. PSSA 2001 Grade 8 and NSRE 2000 Grade 7 Regressions Results Showing Adjusted Strengths of Gender Effects, District 7 Mathematics

PSSA Component	Standardized Coefficient			Change in R ² due to Gender
	NSRE Control	Gender	R ²	
Math	.72		.52	
Math	.72	-.02	.52	.00

Table 307. PSSA 2001 Grade 8 and NSRE 2000 Grade 7 Descriptive Statistics by Ethnic Group Across District 7 Mathematics

PSSA Component		White	Black	Hispanic	Asian
Math	Mean	1302.99	1180.48	1164.61	1275.08
	S.D.	203.05	167.30	140.30	228.63
	N	137	81	197	13
	Effect Size		.31	.35	.08
NSRE Component					
Math	Mean	139.79	129.69	128.62	135.64
	S.D.	12.88	12.08	10.19	13.21
	N	135	81	201	14
	Effect Size		.37	.41	.18

Table 308. PSSA 2001 Grade 8 and NSRE 2000 Grade 7 Regressions Results Showing Adjusted Strengths of Ethnicity Effects for Black Students, District 7 Mathematics

PSSA Component	Predictors included	R ²	Change in R ² for Black students
Math	NSRE Math	.64	
Math	NSRE Math & ethnicity	.64	.00

Table 309. PSSA 2001 Grade 8 and NSRE 2000 Grade 7 Regressions Results Showing Adjusted Strengths of Ethnicity Effects for Hispanic/Latino Students, District 7 Mathematics

PSSA Component	Predictors included	R ²	Change in R ² for Hispanic/Latino students
Math	NSRE Math	.70	
Math	NSRE Math & ethnicity	.70	.00

Table 310. PSSA 2001 Grade 8 and NSRE 2000 Grade 7 Descriptive Statistics by LEP Status, District 7 Mathematics

	LEP Status	Mean Scale Score	Standard Deviation	Number of Cases	Effect Size
PSSA Component					
Math	Non-LEP	1225.34	178.49	489	
	LEP	1090.95	150.81	19	.56
NSRE Component					
Math	Non-LEP	132.64	12.15	497	
	LEP	125.00	10.39	18	.56

Table 311. PSSA 2001 Grade 8 and NSRE 2000 Grade 7 Regressions Results Showing Adjusted Strengths of LEP Status Effects, District 7 Mathematics

PSSA Component	Predictors included	R ²	Change in R ² due to LEP Status
Math	NSRE Math	.52	
Math	NSRE Math & LEP status	.52	.00

Table 312. PSSA 2001 Grade 8 and NSRE 2000 Grade 7 Descriptive Statistics by SES Status, District 7 Mathematics

	SES Flag	Mean Scale Score	Standard Deviation	Number of Cases	Effect Size
PSSA Component					
Math	Non-SES	1263.20	187.93	259	
	SES	1175.71	158.14	249	.54
NSRE Component					
Math	Non-SES	135.93	12.77	270	
	SES	128.44	10.11	245	.56

Table 313. PSSA 2001 Grade 8 and NSRE 2000 Grade 7 Regressions Results Showing Adjusted Strengths of SES Status Effects, District 7 Mathematics

PSSA Component	Predictors included	R ²	Change in R ² due to SES Status
Math	NSRE Math	.52	
Math	NSRE Math & SES status	.52	.00

Table 314. PSSA 2002 Grade 8 and NSRE 2001 Grade 7 Descriptive Statistics by Gender, District 7 Reading

	Gender	Mean Scale Score	Standard Deviation	Number of Cases	Effect Size
PSSA Component					
Reading	Male	1194.03	229.29	270	
	Female	1217.99	202.43	274	-.06
NSRE Component					
Reading	Male	141.33	6.98	260	
	Female	142.96	5.87	270	-.13
Writing	Male	145.89	6.65	260	
	Female	149.31	6.82	270	-.25

Table 315. PSSA 2002 Grade 8 and NSRE 2001 Grade 7 Regressions Results Showing Adjusted Strengths of Gender Effects, District 7 Reading

PSSA Component	Standardized Coefficient			Change in R ² due to Gender
	NSRE Control	Gender	R ²	
Reading	.70		.49	
Reading	.70	-.02	.49	.00

Table 316. PSSA 2002 Grade 8 and NSRE 2001 Grade 7 Descriptive Statistics by Ethnic Group Across District 7 Reading

		White	Black	Hispanic	Asian
PSSA Component					
Reading	Mean	1300.42	1163.99	1148.90	1318.71
	S.D.	216.79	185.69	207.69	242.29
	N	120	91	223	17
	Effect Size		.32	.35	-.04
NSRE Component					
Reading	Mean	143.98	140.40	140.91	143.76
	S.D.	6.65	5.14	5.66	7.85
	N	121	87	211	17
	Effect Size		.29	.25	.02
Writing	Mean	148.59	146.24	146.65	151.18
	S.D.	6.34	5.75	6.82	9.10
	N	121	87	211	17
	Effect Size		.19	.16	-.19

Table 317. PSSA 2002 Grade 8 and NSRE 2001 Grade 7 Regressions Results Showing Adjusted Strengths of Ethnicity Effects for Black Students, District 7 Reading

PSSA Component	Predictors included	R ²	Change in R ² for Black students
Reading	NSRE reading	.52	
Reading	NSRE reading & ethnicity	.52	.00

Table 318. PSSA 2002 Grade 8 and NSRE 2001 Grade 7 Regressions Results Showing Adjusted Strengths of Ethnicity Effects for Hispanic/Latino Students, District 7 Reading

PSSA Component	Predictors included	R ²	Change in R ² for Hispanic/Latino students
Reading	NSRE reading	.56	
Reading	NSRE reading & ethnicity	.57	.01

Table 319. PSSA 2002 Grade 8 and NSRE 2001 Grade 7 Descriptive Statistics by LEP Status, District 7 Reading

PSSA Component	LEP Status	Mean Scale Score	Standard Deviation	Number of Cases	Effect Size
Reading	Non-LEP	1224.93	209.32	508	
	LEP	971.10	159.28	40	.59
Reading	Non-LEP	142.50	6.42	507	
	LEP	136.42	4.92	31	.58
Writing	Non-LEP	148.03	6.80	507	
	LEP	140.90	5.58	31	.58

Table 320. PSSA 2002 Grade 8 and NSRE 2001 Grade 7 Regressions Results Showing Adjusted Strengths of LEP Status Effects, District 7 Reading

PSSA Component	Predictors included	R ²	Change in R ² due to LEP Status
Reading	NSRE reading	.49	
Reading	NSRE reading & LEP status	.50	.01

Table 321. PSSA 2002 Grade 8 and NSRE 2001 Grade 7 Descriptive Statistics by SES Status, District 7 Reading

	SES Flag	Mean Scale Score	Standard Deviation	Number of Cases	Effect Size
PSSA Component					
Reading	Non-SES	1257.56	215.45	254	.53
	SES	1162.20	207.44	294	
NSRE Component					
Reading	Non-SES	143.66	6.78	258	.57
	SES	140.77	5.90	280	
Writing	Non-SES	148.78	7.40	258	.56
	SES	146.56	6.30	280	

Table 322. PSSA 2002 Grade 8 and NSRE 2001 Grade 7 Regressions Results Showing Adjusted Strengths of SES Status Effects, District 7 Reading

PSSA Component	Predictors included	R ²	Change in R ² due to SES Status
Reading	NSRE reading	.49	
Reading	NSRE reading & SES status	.49	.00

Table 323. PSSA 2002 Grade 8 and NSRE 2001 Grade 7 Descriptive Statistics by Gender, District 7 Mathematics

	Gender	Mean Scale Score	Standard Deviation	Number of Cases	Effect Size
PSSA Component					
Math	Male	1207.04	171.73	267	.03
	Female	1195.48	162.87	273	
NSRE Component					
Math	Male	131.29	12.61	256	.06
	Female	130.00	10.59	263	

Table 324. PSSA 2002 Grade 8 and NSRE 2001 Grade 7 Regressions Results Showing Adjusted Strengths of Gender Effects, District 7 Mathematics

PSSA Component	Standardized Coefficient			Change in R ² due to Gender
	NSRE Control	Gender	R ²	
Math	.80		.63	
Math	.80	.00	.63	.00

Table 325. PSSA 2002 Grade 8 and NSRE 2001 Grade 7 Descriptive Statistics by Ethnic Group Across District 7 Mathematics

PSSA Component		White	Black	Hispanic	Asian
Math	Mean	1264.63	1144.66	1166.08	1385.56
	S.D.	180.48	118.19	144.96	237.90
	N	115	90	221	16
	Effect Size		.37	.31	-.35
NSRE Component					
Math	Mean	134.47	125.98	128.14	144.06
	S.D.	12.24	8.34	10.67	16.47
	N	121	86	205	16
	Effect Size		.38	.29	-.39

Table 326. PSSA 2002 Grade 8 and NSRE 2001 Grade 7 Regressions Results Showing Adjusted Strengths of Ethnicity Effects for Black Students

PSSA Component	Predictors included	R ²	Change in R ² for Black students
Math	NSRE Math	.62	
Math	NSRE Math & ethnicity	.63	.01

Table 327. PSSA 2002 Grade 8 and NSRE 2001 Grade 7 Regressions Results Showing Adjusted Strengths of Ethnicity Effects for Hispanic/Latino Students, District 7 Mathematics

PSSA Component	Predictors included	R ²	Change in R ² for Hispanic/Latino students
Math	NSRE Math	.63	
Math	NSRE Math & ethnicity	.64	.01

Table 328. PSSA 2002 Grade 8 and NSRE 2001 Grade 7 Descriptive Statistics by LEP Status, District 7 Mathematics

	LEP Status	Mean Scale Score	Standard Deviation	Number of Cases	Effect Size
PSSA Component					
Math	Non-LEP	1213.28	166.36	503	
	LEP	1062.41	107.21	41	.57
NSRE Component					
Math	Non-LEP	131.27	11.64	496	
	LEP	120.50	6.79	30	.57

Table 329. PSSA 2002 Grade 8 and NSRE 2001 Grade 7 Regressions Results Showing Adjusted Strengths of LEP Status Effects, District 7 Mathematics

PSSA Component	Predictors included	R ²	Change in R ² due to LEP Status
Math	NSRE Math	.64	
Math	NSRE Math & LEP status	.64	.00

Table 330. PSSA 2002 Grade 8 and NSRE 2001 Grade 7 Descriptive Statistics by SES Status, District 7 Mathematics

	SES Flag	Mean Scale Score	Standard Deviation	Number of Cases	Effect Size
PSSA Component					
Math	Non-SES	1243.04	183.80	250	
	SES	1166.94	143.35	294	.54
NSRE Component					
Math	Non-SES	133.25	12.67	254	
	SES	128.23	10.11	272	.55

Table 331. PSSA 2002 Grade 8 and NSRE 2001 Grade 7 Regressions Results Showing Adjusted Strengths of SES Status Effects, District 7 Mathematics

PSSA Component	Predictors included	R ²	Change in R ² due to SES Status
Math	NSRE Math	.64	
Math	NSRE Math & SES status	.64	.00

Table 332. PSSA 2003 Grade 8 and NSRE 2002 Grade 7 Descriptive Statistics by Gender, District 7 Reading

	Gender	Mean Scale Score	Standard Deviation	Number of Cases	Effect Size
PSSA Component					
Reading	Male	1202.34	210.85	297	
	Female	1234.18	206.92	322	-.08
NSRE Component					
Reading	Male	142.09	7.57	294	
	Female	144.02	8.47	325	-.12
Writing	Male	147.08	7.69	294	
	Female	150.18	10.12	325	-.17

Table 333. PSSA 2003 Grade 8 and NSRE 2002 Grade 7 Regressions Results Showing Adjusted Strengths of Gender Effects, District 7 Reading

PSSA Component	Standardized Coefficient			Change in R ² due to Gender
	NSRE Control	Gender	R ²	
Reading	.62		.38	
Reading	.62	.00	.38	.00

Table 334. PSSA 2003 Grade 8 and NSRE 2002 Grade 7 Descriptive Statistics by Ethnic Group Across District 7 Reading

		White	Black	Hispanic	Asian
PSSA Component					
Reading	Mean	1324.45	1174.87	1174.38	1310.14
	S.D.	197.66	211.02	190.62	217.75
	N	157	163	272	22
	Effect Size		.34	.34	.04
NSRE Component					
Reading	Mean	147.04	141.36	141.49	146.77
	S.D.	9.88	6.52	6.90	7.74
	N	159	162	270	22
	Effect Size		.32	.31	.02
Writing	Mean	153.60	147.20	146.66	149.23
	S.D.	12.24	8.15	6.47	6.72
	N	159	162	270	22
	Effect Size		.29	.32	.22

Table 335. PSSA 2003 Grade 8 and NSRE 2002 Grade 7 Regressions Results Showing Adjusted Strengths of Ethnicity Effects for Black Students, District 7 Reading

PSSA Component	Predictors included	R ²	Change in R ² for Black students
Reading	NSRE reading	.42	
Reading	NSRE reading & ethnicity	.44	.02

Table 336. PSSA 2003 Grade 8 and NSRE 2002 Grade 7 Regressions Results Showing Adjusted Strengths of Ethnicity Effects for Hispanic/Latino Students, District 7 Reading

PSSA Component	Predictors included	R ²	Change in R ² for Hispanic/Latino students
Reading	NSRE reading	.38	
Reading	NSRE reading & ethnicity	.41	.03

Table 337. PSSA 2003 Grade 8 and NSRE 2002 Grade 7 Descriptive Statistics by LEP Status, District 7 Reading

PSSA Component	LEP Status	Mean Scale Score	Standard Deviation	Number of Cases	Effect Size	
Reading	Non-LEP	1228.12	206.65	589		
	LEP	1073.65	178.56	44	.47	
NSRE Component	Reading	Non-LEP	143.37	8.10	590	
		LEP	139.30	6.24	43	.33
	Writing	Non-LEP	149.20	9.06	590	
		LEP	141.72	6.70	43	.50

Table 338. PSSA 2003 Grade 8 and NSRE 2002 Grade 7 Regressions Results Showing Adjusted Strengths of LEP Status Effects, District 7 Reading

PSSA Component	Predictors included	R ²	Change in R ² due to LEP Status
Reading	NSRE reading	.37	
Reading	NSRE reading & LEP status	.38	.01

Table 339. PSSA 2003 Grade 8 and NSRE 2002 Grade 7 Descriptive Statistics by SES Status, District 7 Reading

	SES Flag	Mean Scale Score	Standard Deviation	Number of Cases	Effect Size
PSSA Component					
Reading	Non-SES	1279.53	213.21	240	.47
	SES	1179.44	196.25	393	
NSRE Component					
Reading	Non-SES	145.93	8.89	243	.55
	SES	141.33	6.93	390	
Writing	Non-SES	152.14	10.77	243	.55
	SES	146.55	7.13	390	

Table 340. PSSA 2003 Grade 8 and NSRE 2002 Grade 7 Regressions Results Showing Adjusted Strengths of SES Status Effects, District 7 Reading

PSSA Component	Predictors included	R ²	Change in R ² due to SES Status
Reading	NSRE reading	.37	
Reading	NSRE reading & SES status	.38	.01

Table 341. PSSA 2003 Grade 8 and NSRE 2002 Grade 7 Descriptive Statistics by Gender, District 7 Mathematics

	Gender	Mean Scale Score	Standard Deviation	Number of Cases	Effect Size
PSSA Component					
Math	Male	1208.83	168.69	301	-.01
	Female	1210.73	183.65	317	
NSRE Component					
Math	Male	133.66	12.23	297	.02
	Female	133.23	12.45	319	

Table 342. PSSA 2003 Grade 8 and NSRE 2002 Grade 7 Regressions Results Showing Adjusted Strengths of Gender Effects, District 7 Mathematics

PSSA Component	Standardized Coefficient			Change in R ² due to Gender
	NSRE Control	Gender	R ²	
Math	.77		.59	
Math	.77	.01	.59	.00

Table 343. PSSA 2003 Grade 8 and NSRE 2002 Grade 7 Descriptive Statistics by Ethnic Group Across District 7 Mathematics

PSSA Component		White	Black	Hispanic	Asian
Math	Mean	1288.31	1159.09	1178.91	1369.19
	S.D.	204.10	148.38	146.58	209.42
	N	160	161	271	21
	Effect Size		.34	.29	-.22
NSRE Component					
Math	Mean	140.64	129.69	130.77	142.57
	S.D.	13.76	10.24	10.27	13.95
	N	157	165	269	21
	Effect Size		.41	.38	-.08

Table 344. PSSA 2003 Grade 8 and NSRE 2002 Grade 7 Regressions Results Showing Adjusted Strengths of Ethnicity Effects for Black Students, District 7 Mathematics

PSSA Component	Predictors included	R ²	Change in R ² for Black Students
Math	NSRE Math	.69	
Math	NSRE Math & ethnicity	.69	.00

Table 345. PSSA 2003 Grade 8 and NSRE 2002 Grade 7 Regressions Results Showing Adjusted Strengths of Ethnicity Effects for Hispanic/Latino Students, District 7 Mathematics

PSSA Component	Predictors included	R ²	Change in R ² for Hispanic/Latino students
Math	NSRE Math	.57	
Math	NSRE Math & ethnicity	.57	.00

Table 346. PSSA 2003 Grade 8 and NSRE 2002 Grade 7 Descriptive Statistics by LEP Status, District 7 Mathematics

	LEP Status	Mean Scale Score	Standard Deviation	Number of Cases	Effect Size
PSSA Component					
Math	Non-LEP	1213.42	175.58	593	
	LEP	1132.13	161.24	38	.54
NSRE Component					
Math	Non-LEP	133.93	12.25	588	
	LEP	124.54	9.54	41	.57

Table 347. PSSA 2003 Grade 8 and NSRE 2002 Grade 7 Regressions Results Showing Adjusted Strengths of LEP Status Effects, District 7 Mathematics

PSSA Component	Predictors included	R ²	Change in R ² due to LEP Status
Math	NSRE Math	.59	
Math	NSRE Math & LEP status	.59	.00

Table 348. PSSA 2003 Grade 8 and NSRE 2002 Grade 7 Descriptive Statistics by SES Status, District 7 Mathematics

	SES Flag	Mean Scale Score	Standard Deviation	Number of Cases	Effect Size
PSSA Component					
Math	Non-SES	1256.95	196.45	249	
	SES	1176.96	152.95	382	.53
NSRE Component					
Math	Non-SES	138.13	13.38	247	
	SES	130.21	10.46	382	.56

Table 349. PSSA 2003 Grade 8 and NSRE 2002 Grade 7 Regressions Results Showing Adjusted Strengths of SES Status Effects, District 7 Mathematics

PSSA Component	Predictors included	R ²	Change in R ² due to SES Status
Math	NSRE Math	.59	
Math	NSRE Math & SES status	.59	.00

Table 350. PSSA 2001 Grade 11 and NSRE 2000 Grade 10 Descriptive Statistics by Gender, District 7 Reading

	Gender	Mean Scale Score	Standard Deviation	Number of Cases	Effect Size
PSSA Component					
Reading	Male	1213.69	219.21	188	
	Female	1239.38	190.33	199	-.06
NSRE Component					
Reading	Male	144.73	8.60	192	
	Female	147.09	8.92	201	-.13
Writing	Male	147.35	9.87	192	
	Female	150.49	10.15	201	-.15

Table 351. PSSA 2001 Grade 11 and NSRE 2000 Grade 10 Regressions Results Showing Adjusted Strengths of Gender Effects, District 7 Reading

PSSA Component	Standardized Coefficient			Change in R ² due to Gender
	NSRE Control	Gender	R ²	
Reading	.73		.53	
Reading	.73	-.04	.53	.00

Table 352. PSSA 2001 Grade 11 and NSRE 2000 Grade 10 Descriptive Statistics by Ethnic Group Across District 7 Reading

		White	Black	Hispanic	Asian
PSSA Component					
Reading	Mean	1349.49	1189.27	1132.89	1182.52
	S.D.	197.94	166.12	172.71	185.65
	N	126	60	113	21
	Effect Size		.40	.51	.41
NSRE Component					
Reading	Mean	151.26	144.39	141.78	143.65
	S.D.	10.71	5.13	6.19	6.43
	N	131	59	117	20
	Effect Size		.38	.49	.40
Writing	Mean	153.79	147.41	145.03	148.05
	S.D.	11.83	7.59	7.01	7.85
	N	131	59	117	20
	Effect Size		.31	.40	.28

Table 353. PSSA 2001 Grade 11 and NSRE 2000 Grade 10 Regressions Results Showing Adjusted Strengths of Ethnicity Effects for Black Students, District 7 Reading

PSSA Component	Predictors included	R ²	Change in R ² for Black students
Reading	NSRE reading	.56	
Reading	NSRE reading & ethnicity	.57	.01

Table 354. PSSA 2001 Grade 11 and NSRE 2000 Grade 10 Regressions Results Showing Adjusted Strengths of Ethnicity Effects for Hispanic/Latino Students, District 7 Reading

PSSA Component	Predictors included	R ²	Change in R ² for Hispanic/Latino students
Reading	NSRE reading	.60	
Reading	NSRE reading & ethnicity	.61	.01

Table 355. PSSA 2001 Grade 11 and NSRE 2000 Grade 10 Descriptive Statistics by LEP Status, District 7 Reading

PSSA Component	LEP Status	Mean Scale Score	Standard Deviation	Number of Cases	Effect Size	
Reading	Non-LEP	1229.89	205.05	386		
	LEP	1068.75	174.88	4	.56	
NSRE Component	Reading	Non-LEP	146.03	8.79	395	
		LEP	139.25	2.22	4	.57
	Writing	Non-LEP	149.03	10.12	395	
		LEP	145.25	3.78	4	.56

Table 356. PSSA 2001 Grade 11 and NSRE 2000 Grade 10 Regressions Results Showing Adjusted Strengths of LEP Status Effects, District 7 Reading

PSSA Component	Predictors included	R ²	Change in R ² due to LEP Status
Reading	NSRE reading	.52	
Reading	NSRE reading & LEP status	.52	.00

Table 357. PSSA 2001 Grade 11 and NSRE 2000 Grade 10 Descriptive Statistics by SES Status, District 7 Reading

	SES Flag	Mean Scale Score	Standard Deviation	Number of Cases	Effect Size
PSSA Component					
Reading	Non-SES	1270.71	215.24	252	
	SES	1150.68	159.12	138	.54
NSRE Component					
Reading	Non-SES	147.26	9.61	268	
	SES	143.30	5.95	131	.56
Writing	Non-SES	150.15	11.09	268	
	SES	146.60	7.09	131	.56

Table 358. PSSA 2001 Grade 11 and NSRE 2000 Grade 10 Regressions Results Showing Adjusted Strengths of SES Status Effects, District 7 Reading

PSSA Component	Predictors included	R ²	Change in R ² due to SES Status
Reading	NSRE reading	.52	
Reading	NSRE reading & SES status	.53	.01

Table 359. PSSA 2001 Grade 11 and NSRE 2000 Grade 10 Descriptive Statistics by Gender, District 7 Mathematics

	Gender	Mean Scale Score	Standard Deviation	Number of Cases	Effect Size
PSSA Component					
Math	Male	1197.63	210.53	186	
	Female	1170.18	181.55	193	.07
NSRE Component					
Math	Male	138.05	13.33	191	
	Female	137.52	11.97	197	.02

Table 360. PSSA 2001 Grade 11 and NSRE 2000 Grade 10 Regressions Results Showing Adjusted Strengths of Gender Effects, District 7 Mathematics

PSSA Component	Standardized Coefficient			Change in R ² due to Gender
	NSRE Control	Gender	R ²	
Math	.88		.77	
Math	.88	-.05	.77	.00

Table 361. PSSA 2001 Grade 11 and NSRE 2000 Grade 10 Descriptive Statistics by Ethnic Group Across District 7 Mathematics

PSSA Component		White	Black	Hispanic	Asian
Math	Mean	1293.41	1124.11	1102.71	1235.75
	S.D.	227.49	137.05	134.22	177.18
	N	128	56	111	20
	Effect Size		.41	.45	.15
NSRE Component					
Math	Mean	144.45	134.30	131.92	141.63
	S.D.	14.41	8.62	8.64	13.32
	N	130	57	119	19
	Effect Size		.39	.47	.12

Table 362. PSSA 2001 Grade 11 and NSRE 2000 Grade 10 Regressions Results Showing Adjusted Strengths of Ethnicity Effects for Black Students, District 7 Mathematics

PSSA Component	Predictors included	R ²	Change in R ² for Black students
Math	NSRE Math	.81	
Math	NSRE Math & ethnicity	.81	.00

Table 363. PSSA 2001 Grade 11 and NSRE 2000 Grade 10 Regressions Results Showing Adjusted Strengths of Ethnicity Effects for Hispanic/Latino Students, District 7 Mathematics

PSSA Component	Predictors included	R ²	Change in R ² for Hispanic/Latino students
Math	NSRE Math	.80	
Math	NSRE Math & ethnicity	.80	.00

Table 364. PSSA 2001 Grade 11 and NSRE 2000 Grade 10 Descriptive Statistics by LEP Status, District 7 Mathematics

	LEP Status	Mean Scale Score	Standard Deviation	Number of Cases	Effect Size
PSSA Component					
Math	Non-LEP	1181.66	196.10	378	.46
	LEP	1352.50	110.78	4	
NSRE Component					
Math	Non-LEP	137.70	12.63	390	.53
	LEP	142.25	6.19	4	

Table 365. PSSA 2001 Grade 11 and NSRE 2000 Grade 10 Regressions Results Showing Adjusted Strengths of LEP Status Effects, District 7 Mathematics

PSSA Component	Predictors included	R ²	Change in R ² due to LEP Status
Math	NSRE Math	.77	
Math	NSRE Math & LEP status	.77	.00

Table 366. PSSA 2001 Grade 11 and NSRE 2000 Grade 10 Descriptive Statistics by SES Status, District 7 Mathematics

	SES Flag	Mean Scale Score	Standard Deviation	Number of Cases	Effect Size
PSSA Component					
Math	Non-SES	1222.67	214.43	249	.54
	SES	1110.02	127.51	133	
NSRE Component					
Math	Non-SES	139.75	13.85	264	.55
	SES	133.67	8.12	130	

Table 367. PSSA 2001 Grade 11 and NSRE 2000 Grade 10 Regressions Results Showing Adjusted Strengths of SES Status Effects, District 7 Mathematics

PSSA Component	Predictors included	R ²	Change in R ² due to SES Status
Math	NSRE Math	.77	
Math	NSRE Math & SES status	.77	.00

Table 368. PSSA 2002 Grade 11 and NSRE 2001 Grade 10 Descriptive Statistics by Gender, District 7 Reading

	Gender	Mean Scale Score	Standard Deviation	Number of Cases	Effect Size
PSSA Component					
Reading	Male	1227.86	208.35	189	
	Female	1221.18	223.34	203	.02
NSRE Component					
Reading	Male	143.40	7.40	177	
	Female	145.67	9.52	190	-.13
Writing	Male	147.38	6.81	177	
	Female	149.48	7.88	190	-.14

Table 369. PSSA 2002 Grade 11 and NSRE 2001 Grade 10 Regressions Results Showing Adjusted Strengths of Gender Effects, District 7 Reading

PSSA Component	Standardized Coefficient			Change in R ² due to Gender
	NSRE Control	Gender	R ²	
Reading	.71		.51	
Reading	.73	-.12	.52	.01

Table 370. PSSA 2002 Grade 11 and NSRE 2001 Grade 10 Descriptive Statistics by Ethnic Group Across District 7 Reading

		White	Black	Hispanic	Asian
PSSA Component					
Reading	Mean	1330.87	1124.14	1133.83	1218.11
	S.D.	204.86	180.14	199.05	193.12
	N	135	50	133	18
	Effect Size		.47	.45	.27
NSRE Component					
Reading	Mean	147.90	142.47	141.69	144.88
	S.D.	11.19	6.51	6.27	4.18
	N	126	45	121	17
	Effect Size		.28	.32	.16
Writing	Mean	151.22	146.73	146.02	151.00
	S.D.	8.48	5.47	6.21	6.14
	N	126	45	121	17
	Effect Size		.30	.34	.01

Table 371. PSSA 2002 Grade 11 and NSRE 2001 Grade 10 Regressions Results Showing Adjusted Strengths of Ethnicity Effects for Black Students, District 7 Reading

PSSA Component	Predictors included	R ²	Change in R ² for Black students
Reading	NSRE reading	.49	
Reading	NSRE reading & ethnicity	.54	.05

Table 372. PSSA 2002 Grade 11 and NSRE 2001 Grade 10 Regressions Results Showing Adjusted Strengths of Ethnicity Effects for Hispanic/Latino Students, District 7 Reading

PSSA Component	Predictors included	R ²	Change in R ² for Hispanic/Latino students
Reading	NSRE reading	.54	
Reading	NSRE reading & ethnicity	.57	.03

Table 373. PSSA 2002 Grade 11 and NSRE 2001 Grade 10 Descriptive Statistics by LEP Status, District 7 Reading

	LEP Status	Mean Scale Score	Standard Deviation	Number of Cases	Effect Size
PSSA Component					
Reading	Non-LEP	1231.94	213.84	389	
	LEP	950.27	70.13	11	.60
NSRE Component					
Reading	Non-LEP	144.60	8.60	371	
	LEP	135.00	2.45	6	.58
Writing	Non-LEP	148.52	7.45	371	
	LEP	141.17	4.36	6	.58

Table 374. PSSA 2002 Grade 11 and NSRE Grade 10 Regressions Results Showing Adjusted Strengths of LEP Status Effects, District 7 Reading

PSSA Component	Predictors included	R ²	Change in R ² due to LEP Status
Reading	NSRE reading	.51	
Reading	NSRE reading & LEP status	.52	.01

Table 375. PSSA 2002 Grade 11 and NSRE 2001 Grade 10 Descriptive Statistics by SES Status, District 7 Reading

	SES Flag	Mean Scale Score	Standard Deviation	Number of Cases	Effect Size
PSSA Component					
Reading	Non-SES	1271.12	216.30	252	.54
	SES	1144.29	191.60	148	
NSRE Component					
Reading	Non-SES	145.84	9.40	245	.56
	SES	141.86	6.20	132	
Writing	Non-SES	149.53	7.90	245	.56
	SES	146.33	6.09	132	

Table 376. PSSA 2002 Grade 11 and NSRE 2001 Grade 10 Regressions Results Showing Adjusted Strengths of SES Status Effects, District 7 Reading

PSSA Component	Predictors included	R ²	Change in R ² due to SES Status
Reading	NSRE reading	.51	
Reading	NSRE reading & SES status	.52	.01

Table 377. PSSA 2002 Grade 11 and NSRE 2001 Grade 10 Descriptive Statistics by Gender, District 7 Mathematics

	Gender	Mean Scale Score	Standard Deviation	Number of Cases	Effect Size
PSSA Component					
Math	Male	1250.18	222.90	188	.09
	Female	1210.23	218.96	202	
NSRE Component					
Math	Male	139.79	12.24	179	.01
	Female	139.64	12.87	190	

Table 378. PSSA 2002 Grade 11 and NSRE 2001 Grade 10 Regressions Results Showing Adjusted Strengths of Gender Effects, District 7 Mathematics

PSSA Component	Standardized Coefficient			Change in R ² due to Gender
	NSRE Control	Gender	R ²	
Math	.87		.76	
Math	.87	-.07	.76	.00

Table 379. PSSA 2002 Grade 11 and NSRE 2001 Grade 10 Descriptive Statistics by Ethnic Group Across District 7 Mathematics

PSSA Component		White	Black	Hispanic	Asian
Math	Mean	1333.78	1113.92	1149.21	1260.47
	S.D.	241.85	134.85	181.06	205.25
	N	135	51	132	17
	Effect Size		.49	.43	.17
NSRE Component					
Math	Mean	146.40	133.60	134.19	143.44
	S.D.	13.69	7.88	10.44	10.68
	N	126	48	121	16
	Effect Size		.50	.48	.12

Table 380. PSSA 2002 Grade 11 and NSRE 2001 Grade 10 Regressions Results Showing Adjusted Strengths of Ethnicity Effects for Black Students, District 7 Mathematics

PSSA Component	Predictors included	R ²	Change in R ² for Black students
Math	NSRE Math	.80	
Math	NSRE Math & ethnicity	.80	.00

Table 381. PSSA 2002 Grade 11 and NSRE 2001 Grade 10 Regressions Results Showing Adjusted Strengths of Ethnicity Effects for Hispanic/Latino Students, District 7 Mathematics

PSSA Component	Predictors included	R ²	Change in R ² for Hispanic/Latino students
Math	NSRE Math	.76	
Math	NSRE Math & ethnicity	.76	.00

Table 382. PSSA 2002 Grade 11 and NSRE 2001 Grade 10 Descriptive Statistics by LEP Status, District 7 Mathematics

	LEP Status	Mean Scale Score	Standard Deviation	Number of Cases	Effect Size
PSSA Component					
Math	Non-LEP	1231.86	221.99	387	
	LEP	1108.36	157.26	11	.54
NSRE Component					
Math	Non-LEP	139.76	12.47	373	
	LEP	124.50	8.57	6	.58

Table 383. PSSA 2002 Grade 11 and NSRE 2001 Grade 10 Regressions Results Showing Adjusted Strengths of LEP Status Effects, District 7 Mathematics

PSSA Component	Predictors included	R ²	Change in R ² due to LEP Status
Math	NSRE Math	.75	
Math	NSRE Math & LEP status	.75	.00

Table 384. PSSA 2002 Grade 11 and NSRE 2001 Grade 10 Descriptive Statistics by SES Status, District 7 Mathematics

	SES Flag	Mean Scale Score	Standard Deviation	Number of Cases	Effect Size
PSSA Component					
Math	Non-SES	1278.64	235.26	250	
	SES	1143.66	164.06	148	.54
NSRE Component					
Math	Non-SES	141.92	13.43	249	
	SES	134.92	9.12	130	.56

Table 385. PSSA 2002 Grade 11 and NSRE 2001 Grade 10 Regressions Results Showing Adjusted Strengths of SES Status Effects, District 7 Mathematics

PSSA Component	Predictors included	R ²	Change in R ² due to SES Status
Math	NSRE Math	.75	
Math	NSRE Math & SES status	.75	.00

Table 386. PSSA 2003 Grade 11 and NSRE 2002 Grade 10 Descriptive Statistics by Gender, District 7 Reading

	Gender	Mean Scale Score	Standard Deviation	Number of Cases	Effect Size
PSSA Component					
Reading	Male	1190.76	236.12	184	
	Female	1202.08	218.28	194	-.02
NSRE Component					
Reading	Male	142.35	7.98	181	
	Female	144.33	9.12	193	-.11
Writing	Male	148.88	6.33	181	
	Female	150.19	6.36	193	-.10

Table 387. PSSA 2003 Grade 11 and NSRE 2002 Grade 10 Regressions Results Showing Adjusted Strengths of Gender Effects, District 7 Reading

PSSA Component	Standardized Coefficient			Change in R ² due to Gender
	NSRE Control	Gender	R ²	
Reading	.70		.49	
Reading	.71	-.08	.50	.01

Table 388. PSSA 2003 Grade 11 and NSRE 2002 Grade 10 Descriptive Statistics by Ethnic Group Across District 7 Reading

		White	Black	Hispanic	Asian
PSSA Component					
Reading	Mean	1309.80	1102.03	1121.65	1356.55
	S.D.	225.55	189.45	194.61	178.47
	N	144	79	141	11
	Effect Size		.45	.41	-.11
NSRE Component					
Reading	Mean	146.95	140.46	141.15	144.91
	S.D.	9.99	7.91	5.99	6.67
	N	143	81	137	11
	Effect Size		.34	.31	.12
Writing	Mean	151.90	147.36	148.11	152.91
	S.D.	6.48	5.92	5.82	3.89
	N	143	81	137	11
	Effect Size		.34	.29	-.08

Table 389. PSSA 2003 Grade 11 and NSRE 2002 Grade 10 Regressions Results Showing Adjusted Strengths of Ethnicity Effects for Black Students, District 7 Reading

PSSA Component	Predictors included	R ²	Change in R ² for Black students
Reading	NSRE reading	.51	
Reading	NSRE reading & ethnicity	.55	.04

Table 390. PSSA 2003 Grade 11 and NSRE 2002 Grade 10 Regressions Results Showing Adjusted Strengths of Ethnicity Effects for Hispanic/Latino Students, District 7 Reading

PSSA Component	Predictors included	R ²	Change in R ² for Hispanic/Latino students
Reading	NSRE reading	.50	
Reading	NSRE reading & ethnicity	.52	.02

Table 391. PSSA 2003 Grade 11 and NSRE 2002 Grade 10 Descriptive Statistics by LEP Status, District 7 Reading

PSSA Component	LEP Status	Mean Scale Score	Standard Deviation	Number of Cases	Effect Size	
Reading	Non-LEP	1212.24	221.01	355		
	LEP	954.65	176.55	23	.64	
NSRE Component	Reading	Non-LEP	143.77	8.55	359	
		LEP	133.80	3.91	15	.64
	Writing	Non-LEP	149.91	6.18	359	
		LEP	141.27	5.27	15	.70

Table 392. PSSA 2003 Grade 11 and NSRE 2002 Grade 10 Regressions Results Showing Adjusted Strengths of LEP Status Effects, District 7 Reading

PSSA Component	Predictors included	R ²	Change in R ² due to LEP Status
Reading	NSRE reading	.49	
Reading	NSRE reading & LEP status	.49	.00

Table 393. PSSA 2003 Grade 11 and NSRE Grade 10 Descriptive Statistics by SES Status, District 7 Reading

	SES Flag	Mean Scale Score	Standard Deviation	Number of Cases	Effect Size
PSSA Component					
Reading	Non-SES	1273.74	219.12	202	.44
	SES	1107.99	202.50	176	
NSRE Component					
Reading	Non-SES	145.77	9.74	204	.55
	SES	140.49	5.96	170	
Writing	Non-SES	151.18	6.54	204	.55
	SES	147.61	5.70	170	

Table 394. PSSA 2003 Grade 11 and NSRE 2002 Grade 10 Regressions Results Showing Adjusted Strengths of SES Status Effects, District 7 Reading

PSSA Component	Predictors included	R ²	Change in R ² due to SES Status
Reading	NSRE reading	.49	
Reading	NSRE reading & SES status	.52	.03

Table 395. PSSA 2003 Grade 11 and NSRE 2002 Grade 10 Descriptive Statistics by Gender, District 7 Mathematics

	Gender	Mean Scale Score	Standard Deviation	Number of Cases	Effect Size
PSSA Component					
Math	Male	1195.49	175.42	188	.10
	Female	1159.69	171.64	195	
NSRE Component					
Math	Male	140.04	11.72	182	.08
	Female	138.02	12.06	197	

Table 396. PSSA 2003 Grade 11 and NSRE 2002 Grade 10 Regressions Results Showing Adjusted Strengths of Gender Effects, District 7 Mathematics

PSSA Component	Standardized Coefficient			Change in R ² due to Gender
	NSRE Control	Gender	R ²	
Math	.87		.75	
Math	.86	-.06	.75	.00

Table 397. PSSA 2003 Grade 11 and NSRE 2002 Grade 10 Descriptive Statistics by Ethnic Group Across District 7 Mathematics

PSSA Component		White	Black	Hispanic	Asian
Math	Mean	1254.04	1107.30	1126.64	1336.50
	S.D.	195.04	119.57	137.81	173.80
	N	145	80	143	12
	Effect Size		.41	.37	-.23
NSRE Component					
Math	Mean	144.50	133.27	135.70	150.08
	S.D.	13.00	8.10	9.42	13.41
	N	144	82	139	12
	Effect Size		.46	.38	-.24

Table 398. PSSA 2003 Grade 11 and NSRE 2002 Grade 10 Regressions Results Showing Adjusted Strengths of Ethnicity Effects for Black Students, District 7 Mathematics

PSSA Component	Predictors included	R ²	Change in R ² for Black students
Math	NSRE Math	.78	
Math	NSRE Math & ethnicity	.78	.00

Table 399. PSSA 2003 Grade 11 and NSRE 2002 Grade 10 Regressions Results Showing Adjusted Strengths of Ethnicity Effects for Hispanic/Latino Students, District 7 Mathematics

PSSA Component	Predictors included	R ²	Change in R ² for Hispanic/Latino students
Math	NSRE Math	.76	
Math	NSRE Math & ethnicity	.77	.01

Table 400. PSSA 2003 Grade 11 and NSRE 2002 Grade 10 Descriptive Statistics by LEP Status, District 7 Mathematics

	LEP Status	Mean Scale Score	Standard Deviation	Number of Cases	Effect Size
PSSA Component					
Math	Non-LEP	1185.98	173.10	359	
	LEP	1046.92	136.86	24	.09
NSRE Component					
Math	Non-LEP	139.26	11.86	362	
	LEP	133.29	12.16	17	.03

Table 401. PSSA 2003 Grade 11 and NSRE 2002 Grade 10 Regressions Results Showing Adjusted Strengths of LEP Status Effects, District 7 Mathematics

PSSA Component	Predictors included	R ²	Change in R ² due to LEP Status
Math	NSRE Math	.75	
Math	NSRE Math & LEP status	.75	.00

Table 402. PSSA 2003 Grade 11 and NSRE 2002 Grade 10 Descriptive Statistics by SES Status, District 7 Mathematics

	SES Flag	Mean Scale Score	Standard Deviation	Number of Cases	Effect Size
PSSA Component					
Math	Non-SES	1234.59	181.93	204	
	SES	1111.93	138.99	179	.55
NSRE Component					
Math	Non-SES	142.33	12.71	206	
	SES	135.01	9.52	173	.56

Table 403. PSSA 2003 Grade 11 and NSRE 2002 Grade 10 Regressions Results Showing Adjusted Strengths of SES Status Effects, District 7 Mathematics

PSSA Component	Predictors included	R ²	Change in R ² due to SES Status
Math	NSRE Math	.75	
Math	NSRE Math & SES status	.75	.00

The effect size statistics show clearly that subgroups of students exhibit differential mean performance on PSSA, as well as on all of the comparison assessments. In all cases, gender differences were small and PSSA exhibited no more differential impact than any of the comparison tests. Differences related to ethnicity, English proficiency, and economic status were more pronounced and always in the directions expected given national trends for those demographic groups. Student identified as economically disadvantaged did not score as well as those not identified. Students with limited English proficiency did not score as well as their English-speaking peers. English proficiency differences were more pronounced for the PSSA and other reading/language/writing tests than for mathematics. Black students did not score as well as Hispanic students, who in turn, did not score as well as White or Asian students.

Effect sizes for the PSSA were similar to comparison tests for all subgroups of students in all subjects. When the comparison tests were used as predictor variables for PSSA scores, adding any listed demographic variable to the equation changed the r-squared value (the value indicating the amount of variance explained in the equation) no more than 0.01, or about 1%. In most cases the r-squared value did not change at all. In other words, PSSA identifies the same mean differences for subgroups as the comparison assessments in all cases. There is no indication that PSSA has more or less differential impact toward any identified group than any of the comparison tests.

Summary and Conclusion

The primary purpose of this investigation was to determine the relationship between students' PSSA scores and those same students' scores on comparison tests. Five comparison tests from seven districts were compared to PSSA. All comparison tests were highly correlated with PSSA, even among dissimilar subjects (for example, PSSA reading and Terra Nova science). This is consistent with Sicolý's (2002) findings that academically strong students tend to score well on all assessments in all subjects. Same-subject correlations were highest for mathematics, typically ranging from about 0.7 to about 0.9. For reading, correlations were slightly weaker, ranging from about 0.6 to about 0.8. These coefficients provide strong evidence for the convergent validity of the PSSA.

In addition, demographic factors were analyzed from the PSSA and the comparison tests to determine if the PSSA exhibited any differential impact based on gender, ethnicity, English proficiency, or socioeconomic status. Differential impact is a necessary, but insufficient, indicator of test bias. Student subgroup means did differ on both PSSA reading and mathematics. Males and females tended to score very similarly (small effect size (>0.20)) with males demonstrating a slight advantage in mathematics. Asian and White students' means were typically larger than Hispanic students' means, which were in turn, larger than Black students' means. Effect sizes for ethnic groups were typically moderate to large (0.5 or higher). Students with limited English Proficiency (LEP) did not score as high as students not designated LEP. The difference in scoring between LEP versus non-LEP students was larger for reading than for mathematics. Means for students designated as economically disadvantaged were also lower than those for students not so designated. These results followed typical national scoring patterns

(Bacci, Koger, Hoffman & Thacker, 2003; Camara & Schmidt, 1999; Stroud, 1995; Thacker & Hoffman, 1999; Willingham & Cole, 1997) and were very similar for all comparison tests. When regression analyses were conducted using comparison tests to predict PSSA scores, adding any of the demographic factors listed above failed to elicit an appreciable improvement in the prediction. Despite differential scoring among various demographic groups of students, no evidence was found that PSSA added bias toward any investigated group.

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Appendix

Dear

The State Board of Education is currently performing a validity study of the Pennsylvania System of School Assessment (PSSA). I write to ask for your help with this study by providing student standardized test results from your school district. A critical part of the State Board's review of its Chapter 4 regulations, which is now underway, is a validity study of the PSSA. The State Board has contracted with the Human Resources Research Organization (HumRRO) to perform the study. Based in Alexandria, Virginia, HumRRO is an independent, nonprofit corporation engaged in research, development and evaluation in the behavioral and social sciences with application toward improving human performance and organizational and educational effectiveness.

The State Board has asked HumRRO to determine:

1. Does the PSSA adequately measure the academic content specified by State Standards contained in Chapter 4?
2. Are the PSSA tests internally consistent and replicable?
3. Does the PSSA produce results that support decisions required by Chapter 4 regulations? These include a determination of whether a student has demonstrated proficiency in meeting State academic standards in reading, writing, and mathematics; the award of a State certificate of proficiency or distinction; etc.
4. Do the scores produced by the PSSA correlate positively and significantly with pertinent scores produced on related tests such as Terra Nova, Stanford Achievement Test, etc.?
5. Were the methodologies used to determine performance levels (cut scores) reasonable and technically competent?

In order for HumRRO to provide a response to question 4, it needs test data from a representative sample of school districts. These data include widely administered, commonly accepted tests (norm-referenced or otherwise), such as, but are not limited to, the SAT-9, CTBS, MAT-7, ITBS, Terra-Nova, etc. Participation in this study is voluntary and HumRRO is only asking for data files the district already has available, so effort should be minimal. The enclosed sheet provides technical specifications for the test data.

To thank you for cooperating, HumRRO will provide a summary of results for participating districts that includes information relating PSSA to other tests the district is using. In addition to the summary data, the final reports will also be made available to the districts.

All HumRRO personnel with access to data have signed non-disclosure agreements. Student names will only be used to match data files and will be purged from

those files once matching is complete. No student or school will be identified in the final report or any draft or summary document.

Dr. Arthur Thacker is the senior scientist leading this study for HumRRO. Dr. Thacker will contact you to discuss opportunities to access data for inclusion in this study. Should you have any questions, please contact Dr. Thacker at (1-800-219-9030) or athacker@humrro.org.

Should you have general questions about the validity study, please contact me at 717-787-3787.

Sincerely,

Jim Buckheit
Executive Director

Enclosure

Technical Specifications PSSA Validity Study

HumRRO

Art Thacker, Senior Scientist

1-800-219-9030

athacker@humrro.org

1. Files **must** include student names and birth dates in order to match the test data to PSSA data. Student names will only be used to match data files and will be purged from those files once matching is complete. No student or school will be identified in the final report or any draft or summary document.
2. While mathematics and reading (language arts) test data are most pertinent, please provide all subjects tested in the files you send. The relationships among subject areas can be very important to this type of study.
3. If the files you have include demographic information, please provide that information as well. District demographic data will serve as a check on the demographics collected during PSSA administration and may include additional variables not otherwise collected.
4. Files are needed from 2003 test administrations. If data is available from previous years for the same exam, please provide those files as well. HumRRO would like data from 2001, 2002, and 2003 (and may possibly use data from as far back as 1996 for this study).
5. When supplying data files for HumRRO, please include file documentation. HumRRO is very familiar with large scale test data, but since each test is documented differently, this information is vital for completing the study. The documentation that your testing contractor sent along with the data files will be sufficient.
6. If at all possible, please copy files onto CD and send to:

Arthur Thacker
Human Resources Research Organization
The Springs Office Center, Suite 170
950 Breckenridge Lane
Louisville, KY 40207

If files cannot be copied or are on some other medium, they can be sent to HumRRO and will be sent back within one week. Please include this request if data files are to be returned.

Should you have any questions or concerns, please don't hesitate to call either Lenny Lock (or other representative) at the Pennsylvania Department of Education or Arthur Thacker at HumRRO.

This letter should include HumRRO's toll free number (1-800-219-9030) and should also include Art's e-mail address athacker@humrro.org.