

# **California Alternate Performance Assessment (CAPA)**

## **Technical Report**

### **Spring 2004 Administration**

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**Educational Testing Service (ETS)**



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# Introduction

The California Alternate Performance Assessment (CAPA) is part of the Standardized Testing and Reporting (STAR) program. Administered annually in the spring, the STAR program was authorized in 1997 by state law to measure how well students are learning the knowledge and skills identified in the California academic standards. The CAPA was added to the STAR program in 2003 to meet the requirements of the Individuals with Disabilities Educational Act of 1997 and the No Child Left Behind Act of 2001 that an alternate assessment be in place for those students with significant cognitive disabilities who are unable to take the general STAR California Standards Tests even with accommodations or modifications. Eligibility for participation in CAPA is determined by the student's Individualized Education Program (IEP).

In 2004, CAPA was administered during any consecutive two-week period between April 12, 2004 and May 14, 2004, as determined at the local level. Across the state, a total of 37,387 students in grades 2-11 participated in CAPA.

This technical report outlines the statistical analyses that were carried out in support of the 2004 CAPA. Chapter I provides an overview of the test content, target population, and scoring procedures. Chapter II details the statistical procedures that were carried out in support of the CAPA. These procedures include preliminary task analyses, differential task functioning analyses, equating and scaling, and various miscellaneous analyses. Chapter III presents statewide test results.

# Chapter I. Test Overview

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## Test Content

The CAPA is a standards-based, on-demand assessment designed to measure the progress of students with significant cognitive disabilities in meeting the California content standards. The CAPA assesses English-language arts (ELA) and Mathematics for students in grades 2 – 11 and has a field test section in Science (SC) for students in Grades 5 and 10. CAPA has five assessment levels; Level I is for those students in grades 2 – 11 with the most significant cognitive disabilities who are functioning at or below the 24 months level of development. Levels II – V are age/grade appropriate. For students in ungraded educational settings, grade is determined by the formula: age minus five equals grade. Table 1 summarizes the grades and content areas assessed by each CAPA assessment level.

**Table 1.1 Summary of CAPA Assessment Levels**

Test Level	I	II	III	IV	V
Grades	2 - 11	2 - 3	4 - 5	6 - 8	9 -11
Content Area	ELA Mathematics Science*	ELA Mathematics	ELA Mathematics Science	ELA Mathematics	ELA Mathematics Science

\*Grades 5 and 10 only

## Target Population

Students with significant cognitive disabilities in grades two through eleven who are unable to take the STAR CSTs even with accommodations or modifications take the CAPA. Participation in CAPA and eligibility for Level I assessment is determined by the student's Individualized Educational Program (IEP). Only students whose parents/guardians have submitted written requests to exempt them from STAR Program testing do not take the tests.

## Scores for Analysis and Reporting

In 2004, each ELA and MATH test consisted of 8 operational tasks and one field test task. An additional Science section was administered in grades 5 and 10 for field-testing but no scores were reported. Student performance on each task is scored by one primary examiner, usually the child's teacher or other licensed or certificated staff member who is familiar to the student and who has completed the CAPA training. To establish scoring reliability, approximately 10% of students receive a second independent rating by a trained observer who is also a licensed or certificated staff member. The Level I assessment is scored using a 5-point rubric which is based on the level of independence with which the student completes a task. The Level II – V assessments are scored with a 4-point rubric, which is based on the degree to which the student completes the task and includes task specific qualifiers to aid in the objective scoring of each task. Table 1.2 provides the general rubrics which are applied to the CAPA tasks.

**Table 1.2 Base Rubrics for CAPA Scoring**

Level I		Levels II - V	
Score Points	Description	Score Points	Description
5	Complete task without prompts	4	Completes task with 100% accuracy
4	Completes task with a verbal or gestural prompt	3	Partially completes task ( <i>scoring criteria specific to the task</i> )
3	Completes task with a physical or modeled prompt	2	Minimally completes task ( <i>scoring criteria specific to the task</i> )
2	Attempts task	1	Attempts task
1	Orients to task	NR	No Response
NR	No Response		

For test scoring purposes, No Response (NR) ratings were assigned a task raw score of zero. Thus, CAPA raw scores range from 0 to 40 for Level I and from 0 to 32 for Levels II – V. Total raw scores for each content area on CAPA are converted from raw scores to scaled scores. For CAPA, raw scores are converted to scaled scores ranging from 15 to 60. Scaled scores are also converted to the following proficiency levels: Far Below Basic, Below Basic, Basic, Proficient, and Advanced. The Basic and Proficient cut points are at scaled scores of 30 and 35, respectively. The cut points for Below Basic and Advanced vary by CAPA assessment level and content area. (Information on the standard setting procedures used to establish cut points, see the California Alternate Performance Assessment (CAPA) Standard Setting Technical Report, submitted to CDE on July 8, 2003.)

## Chapter II. Analysis

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Following the scanning of answer documents, student demographic and item response data were transmitted to ETS's statistical analysis division. ETS research and statistical analysis staff had primary responsibility for analyzing CAPA operational and field test data to ensure accuracy and validity of scoring. Most of the psychometric work was carried out using GENASYs, proprietary statistical analysis software developed by the Educational Testing Service. The GENASYs system includes components for establishing testing program statistical information, processing scores for students (including case sampling and scoring of multiple-choice items), traditional item analyses, and item response theory (IRT) analyses. The proprietary version of PARSCALE (Muraki & Bock, 1999) that is contained within GENASYs allows for estimation of IRT item parameters for dichotomously scored items. It has been thoroughly tested and is currently utilized by several high-stakes testing programs administered by ETS, including the California Standardized Testing and Reporting (STAR) assessments and the California High School Exit Examinations, as well as NAEP, GMAT, and TOEFL. All technical support and analyses were carried out in accordance with both the *Standards for Educational and Psychological Testing*, issued jointly by the American Educational Research Association, the American Psychological Association, the National Council on Measurement in Education, and the *ETS Standards for Quality and Fairness*.

ETS staff verified the output from the scoring programs to ensure the accuracy of the scoring process. After the operational administration, ETS staff ran a set of preliminary item analyses based on a sample of the early answer document receipts. The preliminary item analyses were used to assure the accuracy of the scoring and to get an initial indication of how items were functioning. A minimum of 1,000 answer sheets at each assessment level from a heterogeneous sample of different schools (i.e., diverse in geography and demographic characteristics) were used. ETS instituted a set of flags that automatically identified items with questionable performance characteristics.

Content specialists examined all flagged items, to verify that the items in the published test book were correct and unambiguous. In addition to preliminary item analyses derived statistically, ETS compared hand scoring for a small sample of student answer sheets to the scanned results to confirm the accuracy of scanning and scoring.

After scoring, ETS subjected all test items to extensive statistical analyses. These analyses showed which items were at an appropriate difficulty level for the testing population and screened for differential item difficulty for subgroups of the state's population. Additionally, ETS content specialists confirmed the item-to-standard match for each of the content areas.

The analysis of the test data can be broken down into several components: 1) classical item analyses; 2) differential item functioning (DIF) analyses; 3) reliability analyses; and 4) scaling and production of scoring tables. In the following sections, the analysis procedures for each component are described in detail. Tables summarizing the analyses and are provided at the end of the chapter.

# Classical Item Analyses

Classical item analyses involve computing, for every item in each form, a set of statistics based on classical test theory. Each statistic is designed to provide some key information about the quality of each item from an empirical perspective. The statistics calculated for CAPA operational and field test analyses are described below.

- **Average Item Score (AIS):** For polytomously scored items, this statistic indicates the average rating earned on the item. Desired values generally fall within the range of 30-80% of the maximum item score. Occasionally, items that fall outside this range can be justified for inclusion in an item bank or a test form based upon the quality and educational importance of the item content or to better measure students with very high or low achievement, especially if the students have not yet received instruction in the content or if they lack motivation to complete the field test items to the best of their ability. CAPA rubrics range from 0 to 4 or from 0 to 5 depending on the test level. As a result, the average item score for a CAPA item falls between 0 and either 4 or 5 corresponding to the rubric in use. For Level I items, which are scored on a 0-5 point rubric, 30% is represented by the value 1.50 and 80% is represented by the value 4.00. For Levels II-V items, which are scored on a 0-4 point rubric, 30% is represented by the value 1.20 and 80% is represented by the value 3.20.
- **Polyserial correlation of the item score with the total test score:** This statistic describes the relationship between performance on the specific item and performance on the entire form. It is sometimes referred to as a discrimination index because it is an indicator of the degree to which students who do well on this content area also do well on this item. Items with negative or extremely low correlations ( $p < 0.05$ ) can indicate serious problems with the item itself or can indicate that students have not been taught the content. Due to the small number (8) and similarity of items, CAPA item-total correlations tend to be higher than seen on longer tests with more heterogeneous items. Based on the range of polyserials produced in field test analyses, an indicator of poor discrimination was set to 0.60, a relatively low polyserial for CAPA.

For the CAPA analyses, flags were defined in order to identify items with extreme values. Flagged items were subject to additional scrutiny by statistical analysis and test development staff. The following flagging criteria were applied to all items tested in Spring 2004:

- **Difficulty Flags:**
  - A: Low average item score (e.g. below 1.5 at Level I; below 1.2 at Levels II-V)
  - H: High average item score (e.g. above 4.0 at Level I; above 3.2 at Levels II-V)
- **Discrimination Flag:**
  - R: Polyserial correlation less than .60
- **Omit/Non-Response/Flag:**
  - O: Omit/Non-response rates greater than .50

Results of these analyses are presented in Appendix A.

# Differential Item Functioning (DIF) Analyses

One of the goals of test development is to assemble a set of items that provides a measure of a student’s ability that is as fair and accurate as possible for all groups within the population. Differential item functioning (DIF) analysis refers to procedures that assess whether items are differentially difficult for different groups of examinees. DIF procedures typically control for overall between-group differences on a criterion, usually test scores. Between-group performance on each item is then compared within sets of examinees having the same total test scores. If the item is differentially more difficult for an identifiable subgroup when conditioned on ability, the item may be measuring something different from the intended construct. However, it is important to recognize that DIF-flagged items might be related to actual differences in relevant knowledge or skills (item impact) or statistical Type 1 error. As a result, DIF statistics are used to identify potential sources of item bias. Subsequent review by content experts and bias/sensitivity committees are required to determine the source and meaning of performance differences.

In the CAPA DIF analyses, DIF statistics were estimated for all major subgroups with sufficient sample size. These groups were identified by CDE and are listed in Table 2.1. Items with statistically significant differences in performance were flagged so that items could be carefully examined for possible biased or unfair content that was undetected in earlier fairness and bias content review meetings held prior to form construction.

**Table 2.1 Student Sub-groups for DIF Analysis**

<b>DIF Type</b>	<b>Reference Group</b>	<b>Focal Group</b>
Gender	Male	Female
Race/Ethnicity	White	African American Hispanic/Latin American American Indian Asian Pacific Islander Filipino Combined Asian Group (Asian/Pacific Islander/Filipino)
Disability	Mental Retardation	Hard of Hearing Deaf Speech Language Impairment Visual Impairment Emotional Disturbance Orthopedic Impairment Other Health Impairment Specific Learning Disability Deaf-Blindness Established Medical Disability Autism Traumatic Brain Injury

DIF analyses of the CAPA's polytomously scored items were completed using the Mantel-Haenszel (MH) ordinal procedure which is based on the Mantel procedure (Mantel, 1963; Mantel & Haenszel, 1959). This method compares the proportions of matched examinees from each group in each polytomous item-response category [that is, the probability of a given item score for the studied groups of interest after matching on total test score]. As with dichotomously scored items, the common odds ratio is estimated across all categories of matched examinee ability. The resulting estimate is interpreted as the relative likelihood of a given item score for members of two groups when matched on ability. As such, the common odds ratio provides an estimated effect size where a value of unity indicates equal odds, and thus no DIF (Dorans & Holland, 1993). The corresponding statistical test is  $H_0: \alpha = 1$ , where  $\alpha$  is a common odds ratio assumed equal for all matched score categories  $s = 1$  to  $S$ . Values less than unity indicate DIF in favor of the focal group, a value of unity indicates the null condition, and a value greater than one indicates DIF in favor of the reference group. The associated  $MH\chi^2$  is distributed as a chi-square random variable with 1 degree of freedom.

As an index of magnitude, the odds ratio is frequently transformed to a delta scale given by  $MH D-DIF = -2.35 \ln(\alpha_{MH})$  where positive values indicate DIF in favor the reference group and negative values favor the focal group.

In addition to MH D-DIF another statistic called the standardized mean difference (SMD) was evaluated. This statistic represents the difference in average item score between members of two groups who have been matched on their overall test score. The SMD compares the item means of the two studied groups after adjusting for differences in the distribution of members across the values of the matching variable (total test score). A negative SMD value means that, conditional on the matching variable, the focal group has a lower mean item score than the reference group. In contrast a positive SMD value means that, conditional on the matching variable, the reference group has lower mean item score than the focal group.

The ETS classification scheme puts items into three DIF categories on the basis of a combination of statistical significance and magnitude (absolute value) of  $MH D-DIF$  (Willingham & Cole, 1997):

*A items or negligible DIF:* MH D-DIF is not statistically different from 0 (at the .05 level) or its absolute value is less than 1 delta unit;

*B items or intermediate DIF:* MH D-DIF is statistically different from 0 (at the .05 level) and its absolute value is at least 1 but less than 1.5 or an absolute value of at least 1 but not significantly greater than 1 (at the .05 level),

*C items or large DIF:* MH D-DIF is statistically different from 1 (at the .05 level) and its absolute value is at least 1.5.

Items classified as B+ or C+ tend to be easier for members of the focal group than for members of the reference group with comparable total scores. Items classified as B- or C- tend to be more difficult for members of the focal group than for members of the reference group whose total scores on the test are like those of the focal group. (See Table 2.2)

**Table 2.2 DIF Flags based on the MH D-DIF Classification Scheme**

<b>Flag</b>	<b>Descriptor</b>
A-	Low DIF favoring members of the reference group
B-	Moderate DIF favoring members of the reference group
C-	High DIF favoring members of the reference group
A+	Low DIF favoring members of the focal group
B+	Moderate DIF favoring members of the focal group
C+	High DIF favoring members of the focal group

Following standard ETS procedure, items classified in Category C were sent for review by test development staff and/or content review committees to consider any identifiable characteristics that may have contributed to the differential item functioning. These items might be revised for additional field testing or removed from the item pool.

## Reliability

Reliability is used to measure the extent to which an assessment will yield the same results when administered in different times, locations, or populations, when the two administrations do not differ in relevant variables. Reliability coefficients are usually forms of correlation coefficients. The forms of reliability below measure different dimensions of reliability and thus any or all might be used in assessing the reliability of CAPA.

### Test Score Reliability

Reliability focuses on the extent to which differences in test scores reflect true differences in the knowledge, ability, or skills being tested rather than fluctuations due to chance or factors other than those are being tested. The variance in the distributions of test scores-- essentially, the differences among individuals--is partly due to real differences in the knowledge, skills, or ability being tested (true variance) and partly due to random errors in the measurement process (error variance). The number used to describe reliability is an estimate of the proportion of the total variance that is true score variance. Several different ways of estimating this proportion exist. The estimates of reliability reported in this report are internal-consistency measures, which are derived from analysis of the consistency of the performance of individuals on items within a test (internal-consistency reliability). Therefore, they apply only to the test form being analyzed. They do not take into account form-to-form variation due to equating limitations or lack of parallelism, nor are they responsive to day-to-day variation due, for example, to state of health or testing environment. Reliability coefficients may range from 0 to 1. The higher the reliability coefficient for a set of scores, the more likely individuals would be to obtain very similar scores upon repeated testing occasions with parallel forms.

When the goal is to estimate the precision of a set of test scores from a single administration, a measure of internal consistency is frequently used to estimate reliability. For the CAPA a measure of internal consistency called coefficient alpha ( $\alpha$ ) was used for estimating the reliability of the tests. The formula for coefficient alpha, given by

$$\rho_{xx'} \geq \frac{k}{k-1} \left(1 - \frac{\sum \sigma_i^2}{\sigma_x^2}\right),$$

where  $k$  is the number of items on the test,  $\sum \sigma_i^2$  is item score variance summed over all items, and  $\sigma_x^2$  is observed-score variance, reflects the fact that the reliability of a set of test scores is influenced by the observed-score variance. Coefficient alpha can be thought of as a lower bound to a theoretical reliability coefficient known as the “coefficient of precision”, as well as the lower bound of the proportion of variance in the test scores explained by common factors underlying item performance.

Several factors can affect reliability coefficients: 1) test length, 2) speededness, and 3) variance of true-scores.

Test length is one factor that will affect both true-score variance and observed-score variance. In general, scores based on longer tests are more reliable due to the fact that as tests increase in length, true score and observed score variance increase faster than error score variance increases. Moreover, a longer test provides for broader sampling of the content domain, and thus more accurately reflects a student’s performance on the domain as a whole.

As noted above, the magnitude of a reliability coefficient also depends on variation among individuals on both their true-scores and error scores, because reliability is a property of the scores on a test for a particular group of examinees. *“When a test is too hard or too easy for a group of examinees, a restriction of score range and, consequently, of true-score variance will likely result (Crocker & Algina, 1986, p. 144, italics added).”* Simply stated, as variance of true-scores decreases, reliability also decreases.

## Standard Error of Measurement

The squared standard error of measurement (SEM) is an estimate of error score variance,  $\sigma_E^2$ . In CTT, it is assumed that SEM is equal along the measurement scale and it is estimated from the standard deviation of observed scores and test reliability coefficient:

$$SEM = s_x \sqrt{1 - r_{xx'}}$$

where SEM=standard error of measurement,

$s_x$ = standard deviation of observed scores, and

$r_{xx'}$ = coefficient of reliability (alpha).

SEM is particularly useful in determining the confidence interval (CI) that captures an examinee’s true score with given probability. Assuming that measurement error is normally distributed, it can be said that there is a 95 percent probability that the CI of  $\pm 1.96$  SEM around the observed score contains an examinee’s true score. For example, if an examinee’s observed score on a given test equals 15 points, and SEM equals 1.92, one can be 95% confident that the examinee’s true score lies between 11 and 19 points ( $15 \pm 3.76$  rounded to the nearest integer).

In the Item Response Theory (IRT) framework standard error of measurement is not assumed to be the same at each score level when measured in scaled score units, and thus is often referred to as a conditional standard error of measurement (CSEM). It is typically smaller in scaled score units towards the center of the scale where more items are located and larger at the extremes where there are fewer items. An examinee's SEM under the IRT framework is equal to the inverse of the square root of the test information function:

$$\text{CSEM}(\hat{\theta}) = \frac{1}{\sqrt{I(\theta)}},$$

where  $\text{CSEM}(\hat{\theta})$  is the standard error of measurement, and  $I(\theta)$  is the test information function. CSEMs are provided for each scaled score point of the operational CAPA tests.

## Inter-Rater Reliability

Inter-rater reliability addresses the consistency of the implementation of a rating system. For the CAPA, approximately 10% of students received two ratings, one by the primary examiner and a second independent rating by a trained observer. Consistency between the two ratings was evaluated with the following statistics:

- Percentage of scores awarded at each score point (See Appendix B.)
- Number and percentage of exact agreement between raters (See Tables 2.15 – 2.19.)
- Number and percentage of adjacent agreement between raters (See Tables 2.15 – 2.19)
- Number and percentage of non-adjacent scores between raters (See Tables 2.15 – 2.19)
- Mean absolute difference between ratings for the examiner and the observer (See Tables 2.15 – 2.19)
- Correlation between ratings for the examiner and the observer (See Tables 2.15 – 2.19).

## Reliability of Classification and Decision Accuracy

The methodology used for estimating the reliability of performance level classification decisions is described in Livingston and Lewis (1995) and is implemented using the ETS-proprietary computer program RELCLASS-COMP (Version 4.12). For each level and test, RELCLASS-COMP estimates true scores and single-form scores on forms parallel to the one actually given. RELCLASS-COMP estimates decision accuracy using an estimated joint distribution of reported performance level classifications on the current form of the exam and the performance level classifications based on an all-forms average (true score). RELCLASS-COMP estimates decision consistency using an estimated joint distribution of reported performance level classifications on the current form of the exam and performance level classifications on the alternate (parallel) form.

The term *accuracy*...refers to the extent to which the actual classifications of test takers (on the basis of their single-form scores) agree with those that would be made on the basis of their true scores, if their true scores could somehow be known. The term *consistency* refers to the agreement between the classifications based on two non-overlapping, equally difficult forms of the test. (Livingston & Lewis, 1995)

In each case, the proportion of performance level classifications with exact agreement is the sum of the entries in the diagonal of the contingency table representing the joint distribution. Reliability of classification at each performance level cut score is estimated by collapsing the joint distribution at the passing score boundary into a 2 by 2 table and summing the two entries in the diagonal. RELCLASS COMP also computes the effective length of the test.

## Scaling and Production of Scoring Tables

### Item Calibration and Equating

The purpose of item calibration and equating is to create a common scale for expressing the difficulty estimates of all the items across versions within a test. The scale commonly has a mean score of 0 and a standard deviation of 1. It should be noted that this scale is often referred to as the “theta” metric and is not used for reporting purposes because the values typically range from –3 to +3. Therefore, following calibration and equating, the scale is usually transformed to a reporting scale (also known as a scaled score; see scaling section below), which can be more meaningfully interpreted by students, teachers, and other stakeholders.

The IRT model used to calibrate the CAPA test items was the 1-parameter partial credit (1PPC) model, a more restrictive model of the generalized partial-credit model (Muraki, 1992) where all items are assumed to be equally discriminating. The fundamental equation of this model is the probability that a person with proficiency,  $\theta_k$ , on scale  $k$  will have, for the  $j^{\text{th}}$  item, a response  $x_j$  that is scored in the  $i^{\text{th}}$  of  $m_j$  ordered score categories:

$$P(x_j = i | \theta_k, a_j, b_j, d_{j0}, \dots, d_{jm_j-1}) = \frac{\exp \sum_{v=0}^i 1.7a_j(\theta_k - b_j + d_{jv})}{\sum_{g=0}^{m_j-1} \exp \sum_{v=0}^g 1.7a_j(\theta_k - b_j + d_{jv})} \equiv P_{ji}(\theta_k)$$

where:

$m_j$  is the number of categories in the response to item  $j$ ;

$x_j$  is the response to item  $j$ , with possible values 0, 1, ...,  $m_j - 1$ ;

$a_j$  is the slope parameter;

$b_j$  is the item location parameter characterizing overall difficulty; and

$d_{jv}$  is the category  $v$  threshold parameter

All IRT analyses were conducted using the proprietary version of PARSCALE (Muraki, 1999) that is contained within GENASYS. In IRT-based equating, once two forms have been placed on the same IRT scale through their common items, raw scores on a new form can be converted to raw scores on an old form. These converted raw scores can then be transformed to scaled scores through table lookup and linear interpolation. The “base” or “reference” calibrations for the

CAPA tests were established by calibrating samples of data from the 2003 administration. This established a scale to which subsequent item calibrations could be linked. The 2004 items were placed on that scale through a set of common items from the 2003 forms (See Table 2.31).

The procedures used for equating the CAPA tests involved three steps: 1) item calibration, 2) item parameter scaling, and 3) true score equating. These steps are described below.

Step 1: For the item calibrations, the PARSCALE program was constrained by setting a common discrimination value for all items equal to 1.0 / 1.7 (or 0.588). The resulting estimation was equivalent to the Rasch partial credit model for polytomously scored items.

The PARSCALE calibrations were run in two stages, following procedures used with other ETS testing programs. In the first stage, estimation imposed normal constraints on the updated prior ability distribution. The estimates resulting from this first stage were used as starting values for a second PARSCALE run, in which the subject prior distribution was updated after each EM cycle with no constraints. For both stages, the metric of the scale was controlled by the constant discrimination parameters. This approach was used to obtain unequated 2004 item parameter estimates. Once these estimates were obtained, each task was evaluated using fit statistics in conjunction with plots of model-data fit that were generated by the GENASYS system. Items flagged for potential misfit were evaluated with respect to their impact on test specifications, psychometric quality, and coverage of academic content standards.

Step 2: Next, calibrations of the 2004 data were then equated or scaled to the previously obtained 2003 scale estimates using the Stocking and Lord (1983) procedure. In the case of one-parameter model calibrations, this procedure is equivalent to setting the mean of the new item parameter estimates for the common items equal to the mean of the previously scaled estimates. As commonly done in this approach, the linking process was carried out iteratively by inspecting differences between the transformed new and old (reference) estimates for the linking items, and, if necessary, removing items for which the item difficulty estimates changed significantly. The differences were calculated using the following formula:

$$\text{WRMSD} = \sqrt{\sum_{j=1}^{61} w_j [P_n(\theta_j) - P_r(\theta_j)]^2} ,$$

where  $\theta_j$  ranges from  $-3.0$  to  $3.0$  by  $0.1$ ,  $w_j$  is a weight equal to the proportion of estimated abilities from the transformed new form in interval  $j$ ,  $P_n(\theta_j)$  is the probability of a given score for the transformed new form item at ability level  $j$ , and  $P_r(\theta_j)$  is the probability of the same score for the old (reference) form item.

Simply put, transformed new and old parameter estimates were evaluated using weighted (based on the reference form abilities) root mean square difference statistics that summarize differences in ICCs.

Criteria for removal from the linking set were WRMSD greater than 0.625 for Level I and 0.500 for Levels II-V. For the 2004 CAPA tests, no linking items were eliminated.

Step 3: Once the new calibrations for each test were linked to the Rasch scale, defined by the reference calibrations, IRT true score equating procedures were utilized to transform the new

form number-correct scores to their respective reference form scaled scores. The true score equating procedure is based on the relationship between raw scores and ability. For tests consisting entirely of multiple-choice items, this is the well-known relationship defined in Lord (1980; eq. 4-5):

$$\xi(\theta) = \sum_{i=1}^n P_i(\theta),$$

where  $P_i(\theta)$  is the probability of a correct response to item  $i$  at ability level  $\theta$  (defined by the Rasch model),  $\xi(\theta)$  is the corresponding true score, and the summation is over the  $n$  items in the test.

For all CAPA tests,  $\xi(\theta)$  is based on polytomously scored performance (constructed response) items<sup>1</sup>, and the relationship can be defined as:

$$\xi(\theta) = \sum_{j=1}^{ncr} \sum_{x=1}^m s_x P_{xj}(\theta),$$

where  $ncr$  is the number of constructed response items in the test,  $m$  is the number of score categories in each polytomously scored item,  $s_x$  is the score value for category  $x$ , and  $P_{xj}(\theta)$  is the probability of a score in category  $x$  at ability  $\theta$  (defined by the Rasch partial credit model). For Level I there are 6 possible scores per item: 0, 1, 2, 3, 4, and 5. For Levels II-V there are 5 possible scores: 0, 1, 2, 3, and 4. A score of zero is only assigned for students who fail to respond to the prompt.

For each integer score  $\xi_n$  on the new form, the true score equating procedure first solved for the corresponding ability level using equation 3. Next, the procedure used that ability level to find the corresponding score  $\xi_b$  on the base or reference form. Finally, each score  $\xi_b$  was transformed to the appropriate CAPA scaled score scale using the reference form CAPA raw-score-to-scaled-score conversion tables and linear interpolation. In particular, the theta scale was linearly transformed onto the 15 – 60 scale by holding the raw scores for the Proficient and Basic cuts obtained in the standard setting fixed at 35 and 30, respectively. Remaining scaled score cuts for Advanced, Below Basic and Far Below Basic were allowed to fall along the scale and identified by matching with the corresponding raw score identified in the standard setting process.

## Equating Samples

The 2004 equating samples were selected from available student records in a data file obtained in early June. These data consisted of approximately 17 to 23 percent of the total CAPA testing data that were eventually available when all testing was completed. The use of partial student samples for equating was necessitated by score reporting deadlines, and was approved by the CDE. Only students with valid results on the CAPA tests were included in the equating samples. In addition, students testing out of level were excluded from these samples.

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<sup>1</sup> See Chapter 1 for the scoring rubric.

## Statistical Analysis Results

This section contains the tabulated results of the analyses described above. Individual classical item statistics and flags are provided in Appendix A. Appendix B contains individual item rating frequencies.

Tables 2.3 – 2.7 provide a general statistical summary of each CAPA ELA and Mathematics test by level. For each level and content area, test level statistics include the scaled score mean, standard deviation, and range, as well as the internal consistency reliability (coefficient alpha) and standard error of measurement. Item/task summary statistics include the means and standard deviations for the average item scores (AIS), polyserial correlations, and Rasch difficulties. Reliability coefficients ranged from 0.88 – 0.92.

Tables 2.8 – 2.12 provide the raw score intercorrelations and means by content area section for each CAPA level. Intercorrelations ranged from 0.78 – 0.90 between content areas within a test level indicating a moderate to high degree of correlation between performance on the content areas. Given the functional nature of many of the standards being assessed on CAPA this degree of correlation is not surprising.

DIF SMD statistics for items flagged for C category ethnic and disability DIF are provided in Tables 2.13 and 2.14, respectively. No items were flagged for gender DIF.

Tables 2.15 – 2.19 summarize the average rating assigned by the examiner and the observer for each CAPA item. Included are the mean and standard deviation of assigned ratings, the percentage of exact and adjacent ratings and percentage of ratings that differ by more than 1 score point (neither exact nor adjacent), as well as the mean absolute difference and the correlation between ratings for the examiner and the observer. Mean absolute differences range from 0.04 – 0.22. The correlations between examiner and observer ratings range from 0.85 – 0.97.

The reliability classification results for both accuracy and consistency are reported in Tables 2.20 – 2.29. The decision accuracy for ELA ranges from 0.68 – 0.75 across all performance levels and from 0.90 – 0.94 for the proficient and above classification. The decision accuracy for math ranges from 0.66 – 0.73 across all performance levels and from 0.89 – 0.91 for the proficient and above classification. The decision consistency for ELA ranges from 0.59 – 0.67 across all performance levels and from 0.87 – 0.93. The decision consistency for math ranges from 0.56 – 0.63 across all performance levels and from 0.86 – 0.90.

Table 2.30 provides the raw score distribution of the 2004 CAPA equating samples, as well as the 2004 total examinee population. Inspection suggests that the equating samples were roughly comparable to the total examinee population.

Table 2.31 presents, for each CAPA test, the number of common items between the 2004 (new) and reference test forms, the number of items removed from the common item sets, the final correlations between the new and reference difficulty estimates, and the average WRMSD statistic (see equation 1) across the final set of common items. These results indicate that, with the exception of Level I Mathematics, the new and old difficulty estimates were highly correlated (usually 0.95 or higher) and similar in magnitude (average WRMSD values of 0.11 and lower).

The raw to scale to performance level conversions are presented in Tables 2.32 – 2.41 for ELA and Mathematics. Tables 2.42 – 2.51 present the scaled score frequency distributions for ELA

and Mathematics. Tables 2.52 – 2.54 present the raw score frequency distributions for Science field tests in Levels I, III, and V.

**Table 2.3 Summary Statistics – Level I**

Level/Content	I	
	ELA	Mathematics
<b>Scaled Score Information</b>		
Number of Examinees	8785	8770
Mean Score	42	32
SD	12.59	10.95
Possible Range	15-60	15-60
Obtained Range	15-60	15-60
Median	43	32
Reliability	0.91	0.92
SEM	3.78	3.10
<b>Item Information</b>		
Number of Items	8	8
Mean Average Item Score (AIS)	2.93	2.48
SD AIS	0.54	0.23
Range AIS	2.07-3.70	2.02-2.69
Mean Polyserial	0.79	0.83
SD Polyserial	0.05	0.02
Range Polyserial	0.71-0.84	0.79-0.86
Mean Rasch Difficulty	0.08	-0.14
SD Rasch Difficulty	0.31	0.16
Range Rasch Difficulty	(-0.34)-(-0.52)	(-0.30)-(-0.18)

**Table 2.4 Summary Statistics – Level II**

Level/Content	II	
	ELA	Mathematics
<b>Scaled Score Information</b>		
Number of Examinees	5615	5609
Mean Score	37	38
SD	7.44	7.86
Possible Range	15-60	15-60
Obtained Range	15-60	15-60
Median	37	37
Reliability	0.88	0.84
SEM	2.58	3.14
<b>Item Information</b>		
Number of Items	8	8
Mean Average Item Score (AIS)	2.7	2.77
SD AIS	0.43	0.56
Range AIS	2.10-3.24	1.92-3.61
Mean Polyserial	0.78	0.75
SD Polyserial	0.03	0.03
Range Polyserial	0.74-0.84	0.69-0.79
Mean Rasch Difficulty	-0.55	-0.32
SD Rasch Difficulty	0.50	0.55
Range Rasch Difficulty	(-1.23)-(0.14)	(-1.09)-(0.37)

**Table 2.5 Summary Statistics – Level III**

Level/Content	III	
	ELA	Mathematics
<b>Scaled Score Information</b>		
Number of Examinees	6103	6087
Mean Score	36	39
SD	10.4	9.6
Possible Range	15-60	15-60
Obtained Range	15-60	15-60
Median	36	38
Reliability	0.89	0.87
SEM	3.45	3.46
<b>Item Information</b>		
Number of Items	8	8
Mean Average Item Score (AIS)	2.8	2.74
SD AIS	0.42	0.55
Range AIS	2.39-3.44	1.92-3.60
Mean Polyserial	0.78	0.78
SD Polyserial	0.04	0.04
Range Polyserial	0.73-0.83	0.70-0.82
Mean Rasch Difficulty	-0.71	-0.47
SD Rasch Difficulty	0.63	0.6
Range Rasch Difficulty	(-1.71)-(-0.04)	(-1.47)-(-0.47)

**Table 2.6 Summary Statistics – Level IV**

Level/Content	IV	
	ELA	Mathematics
<b>Scaled Score Information</b>		
Number of Examinees	8845	8834
Mean Score	36	34
SD	11.32	10.21
Possible Range	15-60	15-60
Obtained Range	15-60	15-60
Median	35	33
Reliability	0.90	0.88
SEM	3.58	3.54
<b>Item Information</b>		
Number of Items	8	8
Mean Average Item Score (AIS)	2.92	2.62
SD AIS	0.51	0.43
Range AIS	2.17-3.64	1.77-3.14
Mean Polyserial	0.80	0.79
SD Polyserial	0.04	0.04
Range Polyserial	0.75-0.85	0.72-0.83
Mean Rasch Difficulty	-0.83	-0.43
SD Rasch Difficulty	0.87	0.41
Range Rasch Difficulty	(-2.32)-(0.12)	(-0.90)-(0.36)

**Table 2.7 Summary Statistics – Level V**

Level/Content	V	
	ELA	Mathematics
<b>Scaled Score Information</b>		
Number of Examinees	8039	8032
Mean Score	38	35
SD	10.81	9.60
Possible Range	15-60	15-60
Obtained Range	15-60	15-60
Median	37	33
Reliability	0.90	0.88
SEM	3.42	3.33
<b>Item Information</b>		
Number of Items	8	8
Mean Average Item Score (AIS)	3.08	2.76
SD AIS	0.47	0.44
Range AIS	2.49-3.73	2.07-3.44
Mean Polyserial	0.79	0.79
SD Polyserial	0.03	0.07
Range Polyserial	0.76-0.84	0.70-0.86
Mean Rasch Difficulty	-0.76	-0.57
SD Rasch Difficulty	0.82	0.53
Range Rasch Difficulty	(-2.21)-(-0.04)	(-1.26)-(-0.17)

**Table 2.8 Raw Score Intercorrelations by Section: Level I**

	ELA	Mathematics	Science
ELA	-	0.88	0.87
Mathematics		-	0.90
Science			-
N	8785	8770	4778
Raw Score Mean	23.23	19.78	21.07
Raw Score SD	11.47	12.03	12.57

**Table 2.9 Raw Score Intercorrelations by Section: Level II**

	<b>ELA</b>	<b>Mathematics</b>
ELA	-	0.83
Mathematics		-
N	5615	5609
Raw Score Mean	21.62	22.06
Raw Score Std	6.90	6.72

**Table 2.10 Raw Score Intercorrelations by Section: Level III**

	<b>ELA</b>	<b>Mathematics</b>	<b>Science</b>
ELA	-	0.82	0.81
Mathematics		-	0.78
Science			-
N	6103	6087	5519
Raw Score Mean	22.32	21.92	23.89
Raw Score Std	7.56	7.18	6.73

**Table 2.11 Raw Score Intercorrelations by Section: Level IV**

	<b>ELA</b>	<b>Mathematics</b>
ELA	-	0.86
Mathematics		-
N	8845	8834
Raw Score Mean	23.27	20.93
Raw Score Std	7.48	7.70

**Table 2.12 Intercorrelations by Section: Level V**

	<b>ELA</b>	<b>Mathematics</b>	<b>Science</b>
ELA	-	0.86	0.83
Mathematics		-	0.83
Science			-
N	8039	8032	7610
Raw Score Mean	24.59	22.16	24.50
Raw Score Std	6.93	7.41	6.39

**Table 2.13 Ethnic Group DIF Statistics for C Category Items**

<b>Content Area</b>	<b>Item No.</b>	<b>Level</b>	<b>Item#</b>	<b>Version</b>	<b>SMD</b>	<b>Comparison</b>	<b>Disadvantaged</b>
ELA	VB543103	2	7	1	-0.321	Asian/White	Asian
	VB487040	3	2	1	0.310	Asian/White	White
	VB397804	3	7	1	-0.372	Filipino/White	Filipino
	VB411735	5	6	1	-0.322	Filipino/White	Filipino
Mathematics	VB411735	5	6	1	-0.349	Filipino/White	Filipino
Science	VB411735	5	6	1	-0.381	Filipino/White	Filipino
	VB411735	5	6	1	-0.338	Asian/White	Asian
	VB411735	5	6	1	-0.342	CombAsian/White	CombAsian

**Table 2.14 Disability Group DIF Statistics for C Category Items**

Content Area	Item No.	Level	Item#	Version	SMD	Comparison	Disadvantaged	
ELA	VB397808	1	5	1	0.609	MR/VI	MR	
			5	1	0.488	MR/OI	MR	
	VB539156	1	9	1	-0.523	MR/OI	OI	
			9	1	0.437	MR/AU	MR	
	VB486738	2	5	1	-0.346	MR/OI	OI	
			3	5	1	-0.418	MR/OI	OI
			3	5	1	0.329	MR/AU	MR
	VB487040	2	4	1	0.384	MR/AU	MR	
			3	2	1	0.704	MR/AU	MR
	VB429438	2	8	1	-0.317	MR/AU	AU	
	VB487173	3	6	1	-0.426	MR/AU	AU	
			5	8	1	-0.322	MR/AU	AU
	VB397804	3	7	1	-0.572	MR/AU	AU	
	VB411735	3	8	1	-0.369	MR/AU	AU	
	VB487078	4	3	1	-0.289	MR/OI	OI	
			4	3	1	0.287	MR/AU	MR
			5	7	1	-0.331	MR/OI	OI
	VB397806	4	7	1	-0.355	MR/AU	AU	
	VB541569	4	9	2	0.430	MR/AU	MR	
	VB540262	4	9	3	0.548	MR/AU	MR	
Math	VB539113	1	18	3	-0.672	MR/OI	OI	
	VB487981	2	12	1	-0.305	MR/AU	AU	
	VB487027	2	13	1	0.476	MR/AU	MR	
			3	11	1	0.394	MR/AU	MR
	VB427028	4	13	1	0.397	MR/AU	MR	
Science	VB540963	5	19	3	-0.317	MR/OI	OI	
	VB540249	5	20	4	-0.410	MR/AU	AU	

**Table 2.15 CAPA Double Rater Summary Level I**

Level I		First Rating			Second Rating			% Agreement				
Subject	Item	N	Mean	SD	N	Mean	SD	Exact	Adjacent	Neither	MAD*	Corr**
ELA	1	948	2.75	1.84	948	2.72	1.85	92.62	6.33	1.05	0.10	0.97
	2	948	2.68	1.85	948	2.66	1.86	91.03	7.07	1.90	0.12	0.97
	3	948	2.14	1.68	948	2.12	1.68	89.98	7.59	2.43	0.14	0.95
	4	948	2.52	1.81	948	2.54	1.8	89.45	7.70	2.85	0.15	0.95
	5	948	3.56	1.77	948	3.51	1.8	89.98	5.91	4.11	0.19	0.92
	6	948	3.36	1.84	948	3.29	1.86	88.29	6.54	5.17	0.22	0.91
	7	948	3.86	1.74	948	3.82	1.77	93.88	4.11	2.01	0.11	0.95
	8	948	3.41	1.87	948	3.36	1.88	90.82	7.38	1.80	0.13	0.97
	9	948	3.11	1.89	948	3.1	1.91	91.98	5.80	2.22	0.13	0.96
Mathematics	10	881	2.78	1.81	881	2.78	1.8	89.90	7.95	2.15	0.15	0.95
	11	881	2.81	1.78	881	2.79	1.78	88.88	8.63	2.49	0.16	0.95
	12	881	2.93	1.78	881	2.93	1.79	90.01	7.83	2.16	0.14	0.96
	13	881	2.58	1.8	881	2.57	1.8	90.47	6.70	2.83	0.14	0.95
	14	881	2.94	1.76	881	2.93	1.77	90.35	6.92	2.73	0.14	0.96
	15	881	2.98	1.85	881	2.97	1.84	90.35	6.58	3.07	0.16	0.94
	16	881	2.53	1.78	881	2.53	1.77	90.35	6.92	2.73	0.15	0.95
	17	881	2.29	1.97	881	2.25	1.97	89.56	7.95	2.49	0.15	0.96
	18	881	2.75	1.8	881	2.74	1.8	89.10	7.15	3.75	0.18	0.94
Science	19	455	2.78	1.84	455	2.76	1.85	92.31	5.49	2.20	0.12	0.96
	20	455	3.06	1.78	455	3.05	1.78	91.43	6.59	1.98	0.12	0.97
	21	455	2.66	1.85	455	2.66	1.86	92.31	5.93	1.76	0.11	0.97
	22	455	2.65	1.91	455	2.67	1.91	91.21	5.27	3.52	0.14	0.96
	23	455	2.67	1.85	455	2.65	1.86	90.11	6.37	3.52	0.16	0.95
	24	455	3.21	1.86	455	3.21	1.85	93.19	5.05	1.76	0.11	0.96
	25	455	2.66	1.88	455	2.64	1.89	92.53	4.62	2.85	0.15	0.94
	26	455	2.66	1.93	455	2.65	1.94	92.53	5.27	2.20	0.12	0.96
	27	455	2.83	1.79	455	2.86	1.78	88.79	7.91	3.30	0.18	0.93

\* Mean absolute difference between first and second ratings

\*\* Pearson correlation between first and second ratings

**Table 2.16 CAPA Double Rater Summary Level II**

Level II		First Rating			Second Rating			% Agreement				
Subject	Item	N	Mean	SD	N	Mean	SD	Exact	Adjacent	Neither	MAD*	Corr**
ELA	1	585	3.2	1.07	585	3.19	1.08	94.53	4.79	0.68	0.07	0.95
	2	585	3.06	1.19	585	3.04	1.2	95.56	3.59	0.85	0.06	0.97
	3	585	2.18	0.99	585	2.17	1.01	93.50	5.30	1.20	0.08	0.95
	4	585	2.27	1.22	585	2.26	1.23	92.82	5.64	1.54	0.09	0.95
	5	585	2.77	1.34	585	2.78	1.36	91.28	7.01	1.71	0.12	0.94
	6	585	1.92	1.24	585	1.93	1.26	92.14	6.32	1.54	0.11	0.94
	7	585	2.38	1.16	585	2.37	1.19	88.89	9.23	1.88	0.14	0.93
	8	585	3.06	1.24	585	3.04	1.27	93.33	5.30	1.37	0.09	0.95
	9	585	3.09	1.21	585	3.09	1.21	95.04	3.93	1.03	0.06	0.97
Mathematics	10	579	3.54	1.05	579	3.53	1.06	98.10	0.69	1.21	0.04	0.94
	11	579	3.38	1.2	579	3.36	1.21	95.68	2.25	2.07	0.08	0.94
	12	579	3.19	1.14	579	3.18	1.16	94.30	4.66	1.04	0.08	0.95
	13	579	1.83	1.19	579	1.84	1.21	94.13	3.63	2.24	0.09	0.94
	14	579	2.46	1.31	579	2.45	1.3	92.23	5.70	2.07	0.10	0.95
	15	579	1.95	1.11	579	1.96	1.12	93.26	5.35	1.39	0.08	0.96
	16	579	2.72	1.33	579	2.7	1.33	93.44	4.32	2.24	0.10	0.95
	17	579	2.53	1.48	579	2.53	1.48	93.96	3.63	2.41	0.11	0.93
	18	579	2.99	1.35	579	3	1.35	94.13	4.15	1.72	0.10	0.93

\* Mean absolute difference between first and second ratings

\*\* Pearson correlation between first and second ratings

**Table 2.17 CAPA Double Rater Summary Level III**

Level III		First Rating			Second Rating			% Agreement				
Subject	Item	N	Mean	SD	N	Mean	SD	Exact	Adjacent	Neither	MAD*	Corr**
ELA	1	779	3.47	0.93	779	3.46	0.93	97.18	2.31	0.51	0.04	0.97
	2	779	2.64	1.22	779	2.64	1.23	94.48	4.75	0.77	0.07	0.97
	3	779	3.27	1.04	779	3.25	1.07	94.99	3.72	1.29	0.07	0.94
	4	779	2.21	1.31	779	2.22	1.31	90.37	6.93	2.70	0.14	0.92
	5	779	3.14	1.20	779	3.14	1.22	93.71	5.13	1.16	0.08	0.95
	6	779	2.51	1.39	779	2.47	1.38	89.86	8.34	1.80	0.13	0.95
	7	779	2.42	1.30	779	2.41	1.31	91.78	7.45	0.77	0.09	0.96
	8	779	2.43	1.38	779	2.43	1.40	89.73	8.34	1.93	0.13	0.95
	9	779	2.85	1.27	779	2.82	1.29	93.20	4.36	2.44	0.11	0.92
Mathematics	10	771	3.59	0.94	771	3.57	0.96	97.41	1.82	0.77	0.04	0.94
	11	771	2.31	1.24	771	2.31	1.25	93.00	5.45	1.55	0.09	0.95
	12	771	2.82	1.36	771	2.81	1.36	94.03	4.41	1.56	0.09	0.95
	13	771	2.51	1.34	771	2.53	1.33	91.18	5.58	3.24	0.14	0.92
	14	771	2.97	1.35	771	2.96	1.36	94.55	4.02	1.43	0.08	0.95
	15	771	2.38	1.14	771	2.37	1.16	95.46	4.02	0.52	0.05	0.97
	16	771	1.87	1.14	771	1.84	1.14	90.79	8.04	1.17	0.11	0.95
	17	771	3.28	1.08	771	3.27	1.09	94.81	3.37	1.82	0.09	0.90
	18	771	2.98	1.28	771	2.98	1.28	94.03	4.54	1.43	0.09	0.94
Science	19	763	3.13	1.05	763	3.14	1.07	95.15	3.28	1.57	0.07	0.94
	20	763	2.84	1.14	763	2.82	1.15	91.48	6.95	1.57	0.11	0.94
	21	763	2.93	1.03	763	2.93	1.03	93.97	5.11	0.92	0.07	0.94
	22	763	3.22	1.00	763	3.21	1.01	94.50	4.59	0.91	0.07	0.95
	23	763	3.22	1.06	763	3.19	1.10	95.28	3.28	1.44	0.07	0.95
	24	763	2.67	1.12	763	2.64	1.13	92.92	5.37	1.71	0.10	0.93
	25	763	3.14	1.05	763	3.13	1.06	94.89	4.19	0.92	0.07	0.95
	26	763	3.13	1.02	763	3.14	1.02	94.76	4.06	1.18	0.07	0.94
	27	763	3.06	1.14	763	3.06	1.12	92.79	5.64	1.57	0.10	0.92

\* Mean absolute difference between first and second ratings

\*\* Pearson correlation between first and second ratings

**Table 2.18 CAPA Double Rater Summary Level IV**

Level IV		First Rating			Second Rating			% Agreement				
Subject	Item	N	Mean	SD	N	Mean	SD	Exact	Adjacent	Neither	MAD*	Corr**
ELA	1	812	3.64	0.75	812	3.64	0.76	96.55	2.96	0.49	0.04	0.93
	2	812	3.45	0.96	812	3.44	0.96	95.20	3.94	0.86	0.06	0.94
	3	812	3.34	1.07	812	3.33	1.07	95.32	3.20	1.48	0.07	0.94
	4	812	2.45	1.44	812	2.44	1.44	92.24	5.67	2.09	0.11	0.95
	5	812	2.14	1.16	812	2.14	1.16	91.87	6.65	1.48	0.10	0.94
	6	812	2.75	1.40	812	2.73	1.41	91.75	6.40	1.85	0.11	0.95
	7	812	2.85	1.25	812	2.83	1.25	90.76	8.00	1.24	0.11	0.95
	8	812	2.85	1.35	812	2.84	1.37	89.16	8.87	1.97	0.14	0.94
	9	812	2.72	1.32	812	2.73	1.31	91.75	6.65	1.60	0.11	0.94
Mathematics	10	821	2.33	1.30	821	2.33	1.30	92.08	6.70	1.22	0.09	0.96
	11	821	2.66	1.20	821	2.67	1.19	93.67	4.02	2.31	0.10	0.94
	12	821	3.00	1.38	821	2.98	1.38	94.03	3.78	2.19	0.10	0.94
	13	821	2.61	1.40	821	2.61	1.39	92.94	4.99	2.07	0.10	0.95
	14	821	2.76	1.34	821	2.76	1.34	92.20	5.24	2.56	0.11	0.94
	15	821	2.52	1.27	821	2.52	1.26	94.03	4.63	1.34	0.08	0.96
	16	821	1.68	1.35	821	1.67	1.34	94.52	3.78	1.70	0.08	0.96
	17	821	3.05	1.21	821	3.07	1.20	91.47	6.46	2.07	0.11	0.93
	18	821	2.76	1.33	821	2.81	1.30	91.60	6.21	2.19	0.13	0.92

\* Mean absolute difference between first and second ratings

\*\* Pearson correlation between first and second ratings

**Table 2.19 CAPA Double Rater Summary Level V**

Level V		First Rating			Second Rating			% Agreement				
Subject	Item	N	Mean	SD	N	Mean	SD	Exact	Adjacent	Neither	MAD*	Corr**
ELA	1	832	3.73	0.68	832	3.70	0.75	98.08	1.08	0.84	0.04	0.88
	2	832	3.50	0.91	832	3.47	0.96	96.15	2.64	1.21	0.06	0.92
	3	832	2.55	1.17	832	2.52	1.19	92.31	5.65	2.04	0.11	0.92
	4	832	2.52	1.11	832	2.49	1.12	90.38	8.05	1.57	0.13	0.91
	5	832	2.73	1.39	832	2.69	1.42	90.87	7.09	2.04	0.12	0.94
	6	832	2.91	1.34	832	2.89	1.37	90.99	7.45	1.56	0.12	0.95
	7	832	3.47	1.06	832	3.42	1.12	95.19	3.49	1.32	0.08	0.92
	8	832	3.12	1.26	832	3.10	1.28	88.94	9.13	1.93	0.14	0.93
	9	832	2.79	1.25	832	2.80	1.26	92.79	5.53	1.68	0.10	0.95
Mathematics	10	834	3.34	1.22	834	3.33	1.23	97.24	2.04	0.72	0.04	0.97
	11	834	2.84	1.19	834	2.84	1.18	94.00	5.28	0.72	0.07	0.97
	12	834	2.37	1.15	834	2.34	1.16	88.13	9.11	2.76	0.16	0.89
	13	834	2.88	1.34	834	2.86	1.35	93.76	4.68	1.56	0.09	0.96
	14	834	2.54	1.18	834	2.53	1.20	94.48	4.68	0.84	0.07	0.97
	15	834	2.57	1.28	834	2.56	1.30	92.93	5.64	1.43	0.09	0.95
	16	834	1.98	1.46	834	1.99	1.47	94.96	3.72	1.32	0.07	0.97
	17	834	3.16	1.17	834	3.16	1.15	92.69	5.16	2.15	0.11	0.91
	18	834	2.29	1.35	834	2.27	1.35	92.09	5.88	2.03	0.12	0.93
Science	19	800	3.53	0.87	800	3.51	0.92	93.75	5.25	1.00	0.08	0.90
	20	800	2.91	1.15	800	2.91	1.16	92.75	5.75	1.50	0.09	0.95
	21	800	3.12	1.11	800	3.11	1.12	92.63	6.38	0.99	0.09	0.96
	22	800	2.68	1.21	800	2.66	1.23	88.50	9.50	2.00	0.14	0.93
	23	800	3.40	0.98	800	3.37	1.02	94.00	4.13	1.87	0.09	0.92
	24	800	2.99	1.14	800	2.97	1.18	92.50	6.25	1.25	0.10	0.94
	25	800	3.31	1.00	800	3.28	1.04	94.38	4.50	1.12	0.08	0.92
	26	800	2.47	1.30	800	2.45	1.31	89.88	7.75	2.37	0.14	0.92
	27	800	2.96	1.19	800	2.97	1.19	90.63	6.25	3.12	0.17	0.85

\* Mean absolute difference between first and second ratings

\*\* Pearson correlation between first and second ratings

**Table 2.20 Reliability of Classification and Decision Accuracy: English-Language Arts - Level I**

	Placement Score	Advanced	Proficient	Basic	Below Basic	Far Below Basic	Category Total*	
<b>Decision Accuracy</b>	28-40	0.37	0.05	0.00	0.00	0.00	0.43	
	16-27	0.04	0.23	0.03	0.00	0.00	0.31	
	11-15	0.00	0.03	0.04	0.01	0.00	0.08	
	<b>All-forms Average</b>	8-10	0.00	0.00	0.02	0.02	0.01	0.05
		0-7	0.00	0.00	0.01	0.02	0.09	0.12
		<b>Estimated Proportion Correctly Classified : Total =0.75, Proficient &amp; Above =0.94</b>						
<b>Decision Consistency</b>	28-40	0.36	0.07	0.00	0.00	0.00	0.43	
	16-27	0.06	0.19	0.04	0.01	0.01	0.31	
	11-15	0.00	0.03	0.03	0.01	0.01	0.08	
	<b>Alternate Form</b>	8-10	0.00	0.01	0.02	0.01	0.02	0.05
		0-7	0.00	0.01	0.02	0.02	0.08	0.12
		<b>Estimated Proportion Correctly Classified : Total = 0.67, Proficient &amp; Above = 0.93</b>						

\*Inconsistencies with category cell entries are due to rounding.

**Table 2.21 Reliability of Classification and Decision Accuracy: English-Language Arts - Level II**

	Placement Score	Advanced	Proficient	Basic	Below Basic	Far Below Basic	Category Total*	
<b>Decision Accuracy</b>	27-32	0.23	0.06	0.00	0.00	0.00	0.29	
	20-26	0.04	0.28	0.05	0.00	0.00	0.37	
	14-19	0.00	0.05	0.14	0.02	0.00	0.21	
	<b>All-forms Average</b>	7-13	0.00	0.00	0.03	0.07	0.00	0.10
		0-6	0.00	0.00	0.00	0.01	0.01	0.03
		<b>Estimated Proportion Correctly Classified : Total =0.73 , Proficient &amp; Above =0.90</b>						
<b>Decision Consistency</b>	27-32	0.22	0.07	0.00	0.00	0.00	0.29	
	20-26	0.07	0.23	0.07	0.01	0.00	0.37	
	14-19	0.00	0.06	0.11	0.04	0.00	0.21	
	<b>Alternate Form</b>	7-13	0.00	0.00	0.03	0.06	0.01	0.10
		0-6	0.00	0.00	0.00	0.01	0.02	0.03
		<b>Estimated Proportion Correctly Classified : Total =0.64, Proficient &amp; Above = 0.87</b>						

\*Inconsistencies with category cell entries are due to rounding.

**Table 2.22 Reliability of Classification and Decision Accuracy: English-Language Arts - Level III**

	Placement Score	Advanced	Proficient	Basic	Below Basic	Far Below Basic	Category Total*	
<b>Decision Accuracy</b>	29-32	0.20	0.06	0.00	0.00	0.00	0.26	
	23-28	0.03	0.21	0.05	0.00	0.00	0.29	
	18-22	0.00	0.05	0.10	0.03	0.00	0.19	
	<b>All-forms Average</b>	11-17	0.00	0.00	0.04	0.11	0.02	0.17
		0-10	0.00	0.00	0.00	0.02	0.06	0.08
<b>Estimated Proportion Correctly Classified : Total =0.69, Proficient &amp; Above =0.90</b>								
<b>Decision Consistency</b>	29-32	0.19	0.07	0.01	0.00	0.00	0.26	
	23-28	0.06	0.17	0.05	0.01	0.00	0.29	
	18-22	0.00	0.06	0.08	0.05	0.00	0.19	
	<b>Alternate Form</b>	11-17	0.00	0.01	0.04	0.09	0.03	0.17
		0-10	0.00	0.00	0.00	0.02	0.06	0.08
<b>Estimated Proportion Correctly Classified : Total =0.59, Proficient &amp; Above =0.89</b>								

\*Inconsistencies with category cell entries are due to rounding.

**Table 2.23 Reliability of Classification and Decision Accuracy: English-Language Arts - Level IV**

	Placement Score	Advanced	Proficient	Basic	Below Basic	Far Below Basic	Category Total*	
<b>Decision Accuracy</b>	29-32	0.26	0.06	0.01	0.00	0.00	0.33	
	25-28	0.04	0.12	0.04	0.00	0.00	0.20	
	21-24	0.00	0.04	0.08	0.03	0.00	0.15	
	<b>All-forms Average</b>	16-20	0.00	0.00	0.04	0.08	0.02	0.15
		0-15	0.00	0.00	0.00	0.03	0.14	0.17
<b>Estimated Proportion Correctly Classified : Total =0.68, Proficient &amp; Above =0.92</b>								
<b>Decision Consistency</b>	29-32	0.25	0.06	0.01	0.00	0.00	0.33	
	25-28	0.06	0.09	0.04	0.01	0.00	0.20	
	21-24	0.01	0.04	0.06	0.04	0.00	0.15	
	<b>Alternate Form</b>	16-20	0.00	0.01	0.04	0.06	0.03	0.15
		0-15	0.00	0.00	0.01	0.03	0.13	0.17
<b>Estimated Proportion Correctly Classified : Total =0.59 , Proficient &amp; Above =0.92</b>								

\*Inconsistencies with category cell entries are due to rounding.

**Table 2.24 Reliability of Classification and Decision Accuracy: English-Language Arts - Level V**

	Placement Score	Advanced	Proficient	Basic	Below Basic	Far Below Basic	Category Total*
<b>Decision Accuracy</b>	30-32	0.24	0.05	0.00	0.00	0.00	0.30
	26-29	0.05	0.16	0.05	0.01	0.00	0.27
	21-25	0.00	0.04	0.12	0.03	0.00	0.19
<b>All-forms Average</b>	16-20	0.00	0.00	0.03	0.07	0.02	0.12
	0-15	0.00	0.00	0.00	0.03	0.10	0.12
<b>Estimated Proportion Correctly Classified : Total =0.69 , Proficient &amp; Above =0.91</b>							
<b>Decision Consistency</b>	30-32	0.24	0.06	0.00	0.00	0.00	0.30
	26-29	0.07	0.12	0.06	0.01	0.00	0.27
	21-25	0.00	0.05	0.09	0.04	0.00	0.19
<b>Alternate Form</b>	16-20	0.00	0.00	0.04	0.05	0.03	0.12
	0-15	0.00	0.00	0.00	0.03	0.09	0.12
<b>Estimated Proportion Correctly Classified : Total =0.60 , Proficient &amp; Above =0.89</b>							

\*Inconsistencies with category cell entries are due to rounding.

**Table 2.25 Reliability of Classification and Decision Accuracy: Mathematics - Level I**

	Placement Score	Advanced	Proficient	Basic	Below Basic	Far Below Basic	Category Total*
<b>Decision Accuracy</b>	35-40	0.11	0.02	0.00	0.00	0.00	0.13
	25-34	0.03	0.18	0.05	0.00	0.00	0.26
	17-24	0.00	0.04	0.12	0.04	0.00	0.21
<b>All-forms Average</b>	6-16	0.00	0.00	0.03	0.19	0.01	0.23
	0-5	0.00	0.00	0.00	0.04	0.12	0.16
<b>Estimated Proportion Correctly Classified : Total =0.73, Proficient &amp; Above =0.91</b>							
<b>Decision Consistency</b>	35-40	0.10	0.03	0.00	0.00	0.00	0.13
	25-34	0.04	0.15	0.05	0.01	0.00	0.26
	17-24	0.00	0.05	0.10	0.05	0.01	0.21
<b>Alternate Form</b>	6-16	0.00	0.00	0.04	0.16	0.03	0.23
	0-5	0.00	0.00	0.00	0.04	0.12	0.16
<b>Estimated Proportion Correctly Classified : Total =0.63, Proficient &amp; Above = 0.90</b>							

\*Inconsistencies with category cell entries are due to rounding.

**Table 2.26 Reliability of Classification and Decision Accuracy: Mathematics - Level II**

	Placement Score	Advanced	Proficient	Basic	Below Basic	Far Below Basic	Category Total*	
<b>Decision Accuracy</b>	27-32	0.23	0.07	0.00	0.00	0.00	0.30	
	20-26	0.05	0.27	0.05	0.00	0.00	0.38	
	12-19	0.00	0.06	0.17	0.01	0.00	0.24	
	<b>All-forms Average</b>	8-11	0.00	0.00	0.02	0.02	0.00	0.05
		0-7	0.00	0.00	0.00	0.01	0.01	0.03
		<b>Estimated Proportion Correctly Classified : Total =0.72, Proficient &amp; Above = 0.89</b>						
<b>Decision Consistency</b>	27-32	0.22	0.07	0.00	0.00	0.00	0.30	
	20-26	0.08	0.22	0.07	0.00	0.00	0.38	
	12-19	0.00	0.07	0.14	0.03	0.00	0.24	
	<b>Alternate Form</b>	8-11	0.00	0.00	0.02	0.02	0.01	0.05
		0-7	0.00	0.00	0.01	0.01	0.01	0.03
		<b>Estimated Proportion Correctly Classified : Total =0.62, Proficient &amp; Above =0.86</b>						

\*Inconsistencies with category cell entries are due to rounding.

**Table 2.27 Reliability of Classification and Decision Accuracy: Mathematics - Level III**

	Placement Score	Advanced	Proficient	Basic	Below Basic	Far Below Basic	Category Total*	
<b>Decision Accuracy</b>	27-32	0.25	0.05	0.00	0.00	0.00	0.31	
	20-26	0.05	0.26	0.05	0.00	0.00	0.36	
	14-19	0.00	0.05	0.12	0.02	0.00	0.19	
	<b>All-forms Average</b>	9-13	0.00	0.00	0.03	0.05	0.01	0.08
		0-8	0.00	0.00	0.00	0.02	0.03	0.05
		<b>Estimated Proportion Correctly Classified : Total =0.71 , Proficient &amp; Above = 0.90</b>						
<b>Decision Consistency</b>	27-32	0.24	0.07	0.00	0.00	0.00	0.31	
	20-26	0.08	0.21	0.07	0.01	0.00	0.36	
	14-19	0.00	0.06	0.09	0.03	0.00	0.19	
	<b>Alternate Form</b>	9-13	0.00	0.00	0.03	0.04	0.01	0.08
		0-8	0.00	0.00	0.01	0.02	0.03	0.05
		<b>Estimated Proportion Correctly Classified : Total =0.61, Proficient &amp; Above =0.87</b>						

\*Inconsistencies with category cell entries are due to rounding.

**Table 2.28 Reliability of Classification and Decision Accuracy: Mathematics - Level IV**

	Placement Score	Advanced	Proficient	Basic	Below Basic	Far Below Basic	Category Total*	
<b>Decision Accuracy</b>	29-32	0.14	0.05	0.00	0.00	0.00	0.20	
	24-28	0.03	0.15	0.05	0.00	0.00	0.23	
	18-23	0.00	0.05	0.16	0.04	0.00	0.25	
	<b>All-forms Average</b>	14-17	0.00	0.00	0.05	0.06	0.03	0.14
		0-13	0.00	0.00	0.00	0.03	0.15	0.19
		<b>Estimated Proportion Correctly Classified : Total =0.66, Proficient &amp; Above =0.90</b>						
<b>Decision Consistency</b>	29-32	0.13	0.05	0.01	0.00	0.00	0.20	
	24-28	0.05	0.12	0.06	0.00	0.00	0.23	
	18-23	0.01	0.06	0.12	0.04	0.01	0.25	
	<b>Alternate Form</b>	14-17	0.00	0.01	0.05	0.05	0.04	0.14
		0-13	0.00	0.00	0.01	0.03	0.14	0.19
		<b>Estimated Proportion Correctly Classified : Total =0.56, Proficient &amp; Above =0.88</b>						

\*Inconsistencies with category cell entries are due to rounding.

**Table 2.29 Reliability of Classification and Decision Accuracy: Mathematics - Level V**

	Placement Score	Advanced	Proficient	Basic	Below Basic	Far Below Basic	Category Total*	
<b>Decision Accuracy</b>	29-32	0.18	0.05	0.00	0.00	0.00	0.24	
	25-28	0.03	0.12	0.05	0.00	0.00	0.21	
	19-24	0.00	0.05	0.17	0.03	0.01	0.26	
	<b>All-forms Average</b>	16-18	0.00	0.00	0.04	0.04	0.03	0.10
		0-15	0.00	0.00	0.01	0.03	0.16	0.19
		<b>Estimated Proportion Correctly Classified : Total =0.67 , Proficient &amp; Above =0.90</b>						
<b>Decision Consistency</b>	29-32	0.17	0.06	0.01	0.00	0.00	0.24	
	25-28	0.05	0.09	0.06	0.00	0.00	0.21	
	19-24	0.01	0.06	0.13	0.04	0.02	0.26	
	<b>Alternate Form</b>	16-18	0.00	0.01	0.04	0.03	0.03	0.10
		0-15	0.00	0.00	0.02	0.03	0.15	0.19
		<b>Estimated Proportion Correctly Classified : Total =0.57 , Proficient &amp; Above =0.88</b>						

\*Inconsistencies with category cell entries are due to rounding.

**Table 2.30 CAPA 2004 Raw Score Distributions: Equating Sample vs. Total**

Group	Level	ELA				Mathematics			
		N	% Total N	Mean RS	SD RS	N	% Total N	Mean RS	SD RS
<b>Total</b>	I	8785		23.23	11.47	8770		19.78	12.03
	II	5615		21.62	6.90	5609		22.06	6.72
	III	6103		22.32	7.56	6087		21.92	7.18
	IV	8845		23.27	7.48	8834		20.93	7.70
	V	8039		24.59	6.93	8032		22.16	7.41
<b>Equating Sample</b>	I	1489	16.9	24.59	11.43	1489	17.0	21.68	12.26
	II	1015	18.1	22.02	6.51	1015	18.1	22.42	6.46
	III	1046	17.1	23.21	7.01	1046	17.2	22.58	6.84
	IV	1708	19.3	24.35	6.96	1708	19.3	21.82	7.53
	V	1853	23.1	24.96	6.44	1853	23.1	22.48	7.24

**Table 2.31 Evaluation of Common Items between New and Reference Test Forms**

Subject	Level	N Common Items	N Items Removed	Final Correlation	WRMSD
<b>ELA</b>	I	5		0.99	0.11
	II	5		0.95	0.09
	III	6		0.99	0.11
	IV	5		0.99	0.09
	V	5		0.99	0.09
<b>Mathematics</b>	I	5		0.49*	0.19
	II	5		0.98	0.09
	III	5		0.99	0.11
	IV	5		0.99	0.08
	V	7		0.98	0.09

\*Note: Low correlation is due to restriction of range in item difficulty parameters.

**Table 2.32 Score Conversions: ELA Level I**

<b>Raw Score</b>	<b>Scaled Score</b>	<b>Performance Level</b>
40	60	<b>Advanced</b>
39	60	
38	60	
37	60	
36	57	
35	55	
34	53	
33	51	
32	50	
31	49	
30	48	
29	47	
28	46	
27	45	<b>Proficient</b>
26	44	
25	43	
24	42	
23	41	
22	40	
21	39	
20	38	
19	37	
18	37	
17	36	
16	35	
15	34	<b>Basic</b>
14	33	
13	32	
12	31	
11	30	
10	29	<b>Below Basic</b>
9	27	
8	26	
7	25	<b>Far Below Basic</b>
6	24	
5	23	
4	22	
3	21	
2	18	
1	15	
0	15	

**Table 2.33 Score Conversions: Math Level I**

<b>Raw Score</b>	<b>Scaled Score</b>	<b>Performance Level</b>
40	60	<b>Advanced</b>
39	56	
38	50	
37	47	
36	45	
35	44	
34	42	<b>Proficient</b>
33	41	
32	40	
31	39	
30	39	
29	38	
28	37	
27	36	
26	36	
25	35	
24	34	<b>Basic</b>
23	34	
22	33	
21	32	
20	32	
19	31	
18	30	
17	30	
16	29	<b>Below Basic</b>
15	28	
14	27	
13	26	
12	25	
11	24	
10	23	
9	22	
8	22	
7	21	
6	21	
5	20	<b>Far Below Basic</b>
4	19	
3	18	
2	17	
1	15	
0	15	

**Table 2.34 Score Conversions: ELA Level II**

<b>Raw Score</b>	<b>Scaled Score</b>	<b>Performance Level</b>
32	60	<b>Advanced</b>
31	49	
30	45	
29	43	
28	42	
27	41	
26	40	<b>Proficient</b>
25	39	
24	38	
23	37	
22	36	
21	35	
20	35	
19	34	<b>Basic</b>
18	33	
17	32	
16	32	
15	31	
14	30	
13	29	<b>Below Basic</b>
12	29	
11	28	
10	27	
9	26	
8	25	
7	24	
6	22	<b>Far Below Basic</b>
5	21	
4	19	
3	17	
2	15	
1	15	
0	15	

**Table 2.35 Score Conversions: Math Level II**

<b>Raw Score</b>	<b>Scaled Score</b>	<b>Performance Level</b>
32	60	<b>Advanced</b>
31	52	
30	48	
29	45	
28	43	
27	42	
26	40	<b>Proficient</b>
25	39	
24	38	
23	37	
22	37	
21	36	
20	35	
19	34	<b>Basic</b>
18	34	
17	33	
16	32	
15	32	
14	31	
13	30	
12	30	
11	29	<b>Below Basic</b>
10	28	
9	27	
8	26	
7	25	<b>Far Below Basic</b>
6	23	
5	21	
4	18	
3	15	
2	15	
1	15	
0	15	

**Table 2.36 Score Conversions: ELA Level III**

<b>Raw Score</b>	<b>Scaled Score</b>	<b>Performance Level</b>
32	60	<b>Advanced</b>
31	49	
30	45	
29	42	
28	40	<b>Proficient</b>
27	39	
26	38	
25	37	
24	36	
23	35	
22	34	<b>Basic</b>
21	33	
20	32	
19	31	
18	30	
17	29	<b>Below Basic</b>
16	28	
15	27	
14	26	
13	25	
12	23	
11	23	
10	22	<b>Far Below Basic</b>
9	22	
8	21	
7	21	
6	20	
5	19	
4	18	
3	17	
2	16	
1	15	
0	15	

**Table 2.37 Score Conversions: Math Level III**

<b>Raw Score</b>	<b>Scaled Score</b>	<b>Performance Level</b>
32	60	<b>Advanced</b>
31	56	
30	50	
29	47	
28	44	
27	43	
26	41	<b>Proficient</b>
25	40	
24	39	
23	38	
22	37	
21	36	
20	35	
19	34	<b>Basic</b>
18	33	
17	32	
16	31	
15	31	
14	30	
13	28	<b>Below Basic</b>
12	27	
11	26	
10	25	
9	25	
8	24	<b>Far Below Basic</b>
7	23	
6	22	
5	21	
4	19	
3	18	
2	16	
1	15	
0	15	

**Table 2.38 Score Conversions: ELA Level IV**

<b>Raw Score</b>	<b>Scaled Score</b>	<b>Performance Level</b>
32	60	<b>Advanced</b>
31	49	
30	44	
29	41	
28	39	<b>Proficient</b>
27	37	
26	36	
25	35	
24	34	<b>Basic</b>
23	32	
22	31	
21	30	
20	29	<b>Below Basic</b>
19	28	
18	27	
17	26	
16	25	
15	24	<b>Far Below Basic</b>
14	23	
13	22	
12	21	
11	21	
10	20	
9	20	
8	20	
7	19	
6	19	
5	18	
4	18	
3	17	
2	16	
1	15	
0	15	

**Table 2.39 Score Conversions: Math Level IV**

<b>Raw Score</b>	<b>Scaled Score</b>	<b>Performance Level</b>
32	60	<b>Advanced</b>
31	50	
30	45	
29	42	
28	40	<b>Proficient</b>
27	39	
26	37	
25	36	
24	35	
23	34	<b>Basic</b>
22	33	
21	32	
20	31	
19	31	
18	30	
17	29	<b>Below Basic</b>
16	28	
15	27	
14	26	
13	25	<b>Far Below Basic</b>
12	24	
11	23	
10	21	
9	20	
8	20	
7	19	
6	19	
5	18	
4	18	
3	17	
2	16	
1	15	
0	15	

**Table 2.40 Score Conversions: ELA Level V**

<b>Raw Score</b>	<b>Scaled Score</b>	<b>Performance Level</b>
32	60	<b>Advanced</b>
31	49	
30	44	
29	41	<b>Proficient</b>
28	39	
27	37	
26	35	
25	34	<b>Basic</b>
24	33	
23	32	
22	31	
21	30	
20	29	<b>Below Basic</b>
19	28	
18	27	
17	26	
16	25	
15	24	<b>Far Below Basic</b>
14	24	
13	23	
12	23	
11	23	
10	22	
9	22	
8	21	
7	21	
6	20	
5	19	
4	19	
3	18	
2	16	
1	15	
0	15	

**Table 2.41 Score Conversions: Math Level V**

<b>Raw Score</b>	<b>Scaled Score</b>	<b>Performance Level</b>
32	60	<b>Advanced</b>
31	48	
30	43	
29	41	
28	39	<b>Proficient</b>
27	37	
26	36	
25	35	
24	34	<b>Basic</b>
23	33	
22	32	
21	31	
20	31	
19	30	
18	29	<b>Below Basic</b>
17	28	
16	27	
15	26	<b>Far Below Basic</b>
14	25	
13	25	
12	25	
11	24	
10	24	
9	23	
8	23	
7	22	
6	21	
5	20	
4	19	
3	18	
2	16	
1	15	
0	15	

**Table 2.42 Scaled Score Frequency Distributions: Level I – English-Language Arts**

<b>Scaled Score</b>	<b>Frequency</b>	<b>Percent</b>	<b>Cumulative Frequency</b>	<b>Percent Below</b>
60	1138	12.95	1138	87.05
57-59	266	3.03	1404	84.02
54-56	239	2.72	1643	81.30
51-53	661	7.52	2304	73.77
48-50	907	10.32	3211	63.45
45-47	798	9.08	4009	54.37
42-44	781	8.89	4790	45.48
39-41	679	7.73	5469	37.75
36-38	822	9.36	6291	28.39
33-35	495	5.63	6786	22.75
30-32	438	4.99	7224	17.77
27-29	284	3.23	7508	14.54
24-26	430	4.89	7938	9.64
21-23	288	3.28	8226	6.36
18-20	105	1.20	8331	5.17
15-17	454	5.17	8785	0.00

**Table 2.43 Scaled Score Frequency Distributions: Level II – English-Language Arts**

<b>Scaled Score</b>	<b>Frequency</b>	<b>Percent</b>	<b>Cumulative Frequency</b>	<b>Percent Below</b>
60	162	2.89	162	97.11
57-59	0	0.00	162	97.11
54-56	0	0.00	162	97.11
51-53	0	0.00	162	97.11
48-50	229	4.08	391	93.04
45-47	267	4.76	658	88.28
42-44	606	10.79	1264	77.49
39-41	957	17.04	2221	60.45
36-38	917	16.33	3138	44.11
33-35	1046	18.63	4184	25.49
30-32	695	12.38	4879	13.11
27-29	404	7.20	5283	5.91
24-26	149	2.65	5432	3.26
21-23	76	1.35	5508	1.91
18-20	29	0.52	5537	1.39
15-17	78	1.39	5615	0.00

**Table 2.44 Scaled Score Frequency Distributions: Level III – English-Language Arts**

<b>Scaled Score</b>	<b>Frequency</b>	<b>Percent</b>	<b>Cumulative Frequency</b>	<b>Percent Below</b>
60	490	8.03	490	91.97
57-59	0	0.00	490	91.97
54-56	0	0.00	490	91.97
51-53	0	0.00	490	91.97
48-50	401	6.57	891	85.40
45-47	343	5.62	1234	79.78
42-44	382	6.26	1616	73.52
39-41	594	9.73	2210	63.79
36-38	898	14.71	3108	49.07
33-35	742	12.16	3850	36.92
30-32	689	11.29	4539	25.63
27-29	571	9.36	5110	16.27
24-26	265	4.34	5375	11.93
21-23	505	8.27	5880	3.65
18-20	123	2.02	6003	1.64
15-17	100	1.64	6103	0.00

**Table 2.45 Scaled Score Frequency Distributions: Level IV – English-Language Arts**

<b>Scaled Score</b>	<b>Frequency</b>	<b>Percent</b>	<b>Cumulative Frequency</b>	<b>Percent Below</b>
60	774	8.75	774	91.25
57-59	0	0.00	774	91.25
54-56	0	0.00	774	91.25
51-53	0	0.00	774	91.25
48-50	733	8.29	1507	82.96
45-47	0	0.00	1507	82.96
42-44	789	8.92	2296	74.04
39-41	1174	13.27	3470	60.77
36-38	870	9.84	4340	50.93
33-35	678	7.67	5018	43.27
30-32	981	11.09	5999	32.18
27-29	789	8.92	6788	23.26
24-26	745	8.42	7533	14.83
21-23	711	8.04	8244	6.79
18-20	467	5.28	8711	1.51
15-17	134	1.51	8845	0.00

**Table 2.46 Scaled Score Frequency Distributions: Level V – English-Language Arts**

<b>Scaled Score</b>	<b>Frequency</b>	<b>Percent</b>	<b>Cumulative Frequency</b>	<b>Percent Below</b>
60	779	9.69	779	90.31
57-59	0	0.00	779	90.31
54-56	0	0.00	779	90.31
51-53	0	0.00	779	90.31
48-50	809	10.06	1588	80.25
45-47	0	0.00	1588	80.25
42-44	793	9.86	2381	70.38
39-41	1329	16.53	3710	53.85
36-38	466	5.80	4176	48.05
33-35	1110	13.81	5286	34.25
30-32	815	10.14	6101	24.11
27-29	636	7.91	6737	16.20
24-26	600	7.46	7337	8.73
21-23	538	6.69	7875	2.04
18-20	80	1.00	7955	1.04
15-17	84	1.04	8039	0.00

**Table 2.47 Scaled Score Frequency Distributions: Level I – Mathematics**

<b>Scaled Score</b>	<b>Frequency</b>	<b>Percent</b>	<b>Cumulative Frequency</b>	<b>Percent Below</b>
60	293	3.34	293	96.66
57-59	0	0.00	293	96.66
54-56	141	1.61	434	95.05
51-53	0	0.00	434	95.05
48-50	161	1.84	595	93.22
45-47	382	4.36	977	88.86
42-44	405	4.62	1382	84.24
39-41	891	10.16	2273	74.08
36-38	896	10.22	3169	63.87
33-35	983	11.21	4152	52.66
30-32	1144	13.04	5296	39.61
27-29	598	6.82	5894	32.79
24-26	488	5.56	6382	27.23
21-23	942	10.74	7324	16.49
18-20	472	5.38	7796	11.11
15-17	974	11.11	8770	0.00

**Table 2.48 Scaled Score Frequency Distributions: Level II – Mathematics**

<b>Scaled Score</b>	<b>Frequency</b>	<b>Percent</b>	<b>Cumulative Frequency</b>	<b>Percent Below</b>
60	217	3.87	217	96.13
57-59	0	0.00	217	96.13
54-56	0	0.00	217	96.13
51-53	222	3.96	439	92.17
48-50	265	4.72	704	87.45
45-47	296	5.28	1000	82.17
42-44	683	12.18	1683	69.99
39-41	620	11.05	2303	58.94
36-38	1272	22.68	3575	36.26
33-35	946	16.87	4521	19.40
30-32	655	11.68	5176	7.72
27-29	205	3.65	5381	4.06
24-26	85	1.52	5466	2.55
21-23	45	0.80	5511	1.75
18-20	23	0.41	5534	1.34
15-17	75	1.34	5609	0.00

**Table 2.49 Scaled Score Frequency Distributions: Level III – Mathematics**

<b>Scaled Score</b>	<b>Frequency</b>	<b>Percent</b>	<b>Cumulative Frequency</b>	<b>Percent Below</b>
60	333	5.47	333	94.53
57-59	0	0.00	333	94.53
54-56	274	4.50	607	90.03
51-53	0	0.00	607	90.03
48-50	299	4.91	906	85.12
45-47	333	5.47	1239	79.65
42-44	643	10.56	1882	69.08
39-41	1031	16.94	2913	52.14
36-38	890	14.62	3803	37.52
33-35	732	12.03	4535	25.50
30-32	717	11.78	5252	13.72
27-29	223	3.66	5475	10.05
24-26	388	6.37	5863	3.68
21-23	102	1.68	5965	2.00
18-20	49	0.80	6014	1.20
15-17	73	1.20	6087	0.00

**Table 2.50 Scaled Score Frequency Distributions: Level IV – Mathematics**

<b>Scaled Score</b>	<b>Frequency</b>	<b>Percent</b>	<b>Cumulative Frequency</b>	<b>Percent Below</b>
60	533	6.03	533	93.97
57-59	0	0.00	533	93.97
54-56	0	0.00	533	93.97
51-53	0	0.00	533	93.97
48-50	399	4.52	932	89.45
45-47	366	4.14	1298	85.31
42-44	435	4.92	1733	80.38
39-41	801	9.07	2534	71.32
36-38	824	9.33	3358	61.99
33-35	1161	13.14	4519	48.85
30-32	1474	16.69	5993	32.16
27-29	910	10.30	6903	21.86
24-26	757	8.57	7660	13.29
21-23	380	4.30	8040	8.99
18-20	606	6.86	8646	2.13
15-17	188	2.13	8834	0.00

**Table 2.51 Scaled Score Frequency Distributions: Level V – Mathematics**

<b>Scaled Score</b>	<b>Frequency</b>	<b>Percent</b>	<b>Cumulative Frequency</b>	<b>Percent Below</b>
60	494	6.15	494	93.85
57-59	0	0.00	494	93.85
54-56	0	0.00	494	93.85
51-53	0	0.00	494	93.85
48-50	549	6.84	1043	87.01
45-47	0	0.00	1043	87.01
42-44	445	5.54	1488	81.47
39-41	875	10.89	2363	70.58
36-38	853	10.62	3216	59.96
33-35	1094	13.62	4310	46.34
30-32	1353	16.85	5663	29.49
27-29	841	10.47	6504	19.02
24-26	1029	12.81	7533	6.21
21-23	285	3.55	7818	2.66
18-20	96	1.20	7914	1.47
15-17	118	1.47	8032	0.00

**Table 2.52 Raw Score Frequency Distributions: Level I – Science**

<b>Raw Score</b>	<b>Frequency</b>	<b>Percent</b>	<b>Cumulative Frequency</b>	<b>Percent Below</b>	<b>Raw Score</b>	<b>Frequency</b>	<b>Percent</b>	<b>Cumulative Frequency</b>	<b>Percent Below</b>
45	275	5.75	275	94.25	22	87	1.82	2740	42.73
44	104	2.17	379	92.08	21	93	1.94	2833	40.78
43	105	2.19	484	89.88	20	90	1.88	2923	38.90
42	145	3.03	629	86.85	19	90	1.88	3013	37.02
41	97	2.03	726	84.82	18	110	2.30	3123	34.72
40	89	1.86	815	82.96	17	84	1.76	3207	32.96
39	120	2.51	935	80.46	16	81	1.69	3288	31.27
38	85	1.78	1020	78.68	15	83	1.73	3371	29.54
37	98	2.05	1118	76.63	14	76	1.59	3447	27.95
36	122	2.55	1240	74.08	13	80	1.67	3527	26.28
35	98	2.05	1338	72.03	12	82	1.71	3609	24.56
34	116	2.42	1454	69.61	11	88	1.84	3697	22.72
33	114	2.38	1568	67.22	10	77	1.61	3774	21.11
32	107	2.24	1675	64.99	9	129	2.70	3903	18.42
31	105	2.19	1780	62.79	8	67	1.40	3970	17.02
30	131	2.74	1911	60.05	7	64	1.34	4034	15.68
29	96	2.01	2007	58.05	6	66	1.38	4100	14.30
28	107	2.24	2114	55.81	5	100	2.09	4200	12.21
27	130	2.72	2244	53.09	4	65	1.36	4265	10.85
26	100	2.09	2344	51.00	3	79	1.65	4344	9.20
25	103	2.15	2447	48.85	2	71	1.48	4415	7.71
24	123	2.57	2570	46.28	1	64	1.34	4479	6.38
23	83	1.73	2653	44.54	0	305	6.38	4784	0.00

\* Frequency distributions are based on raw scores

**Table 2.53 Raw Score Frequency Distributions: Level III – Science**

Raw Score	Frequency	Percent	Cumulative Frequency	Percent Below	Raw Score	Frequency	Percent	Cumulative Frequency	Percent Below
36	288	5.22	288	94.78	16	90	1.63	5042	8.66
35	320	5.80	608	88.99	15	62	1.12	5104	7.54
34	376	6.81	984	82.17	14	48	0.87	5152	6.67
33	373	6.76	1357	75.42	13	65	1.18	5217	5.49
32	400	7.25	1757	68.17	12	36	0.65	5253	4.84
31	400	7.25	2157	60.92	11	31	0.56	5284	4.28
30	313	5.67	2470	55.25	10	28	0.51	5312	3.77
29	346	6.27	2816	48.99	9	44	0.80	5356	2.97
28	330	5.98	3146	43.01	8	24	0.43	5380	2.54
27	242	4.38	3388	38.62	7	20	0.36	5400	2.17
26	265	4.80	3653	33.82	6	12	0.22	5412	1.96
25	208	3.77	3861	30.05	5	7	0.13	5419	1.83
24	187	3.39	4048	26.67	4	13	0.24	5432	1.59
23	180	3.26	4228	23.41	3	15	0.27	5447	1.32
22	183	3.32	4411	20.09	2	15	0.27	5462	1.05
21	150	2.72	4561	17.37	1	13	0.24	5475	0.82
20	110	1.99	4671	15.38	0	45	0.82	5520	0.00
19	104	1.88	4775	13.50					
18	95	1.72	4870	11.78					
17	82	1.49	4952	10.29					

\* Frequency distributions are based on raw scores

**Table 2.54 Raw Score Frequency Distributions: Level V – Science**

Raw Score	Frequency	Percent	Cumulative Frequency	Percent Below	Raw Score	Frequency	Percent	Cumulative Frequency	Percent Below
36	540	7.10	540	92.90	17	120	1.58	6986	8.20
35	538	7.07	1078	85.83	16	94	1.24	7080	6.96
34	583	7.66	1661	78.17	15	66	0.87	7146	6.10
33	493	6.48	2154	71.70	14	76	1.00	7222	5.10
32	537	7.06	2691	64.64	13	57	0.75	7279	4.35
31	498	6.54	3189	58.09	12	53	0.70	7332	3.65
30	458	6.02	3647	52.08	11	39	0.51	7371	3.14
29	421	5.53	4068	46.54	10	26	0.34	7397	2.80
28	384	5.05	4452	41.50	9	33	0.43	7430	2.37
27	346	4.55	4798	36.95	8	18	0.24	7448	2.13
26	366	4.81	5164	32.14	7	19	0.25	7467	1.88
25	308	4.05	5472	28.09	6	13	0.17	7480	1.71
24	290	3.81	5762	24.28	5	13	0.17	7493	1.54
23	281	3.69	6043	20.59	4	15	0.20	7508	1.34
22	212	2.79	6255	17.81	3	14	0.18	7522	1.16
21	198	2.60	6453	15.20	2	13	0.17	7535	0.99
20	170	2.23	6623	12.97	1	14	0.18	7549	0.80
19	129	1.70	6752	11.27	0	61	0.80	7610	0.00
18	114	1.50	6866	9.78					

\* Frequency distributions are based on raw scores

# Chapter III. Statewide Assessment Results

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In 2004, 37,387 students in grades 2–11 participated in CAPA. In this chapter, we provide detailed information on statewide test results. In the first section, we describe the participants and their scores, including disability distributions and test results.

## Participation

The number of students with one or more test sections at test level is presented in Table 3.1. Level IV had the largest sample size of all the levels with 8,845 students assessed, followed by Levels I and III with 8,875 and 8,039 assessed students, respectively.

**Table 3.1 Distribution of Students Across Test Levels**

Test Level	Frequency	Percent	Cumulative Frequency	Cumulative Percent
I	8785	23.5%	8785	23.5%
II	5615	15.0%	14400	38.5%
III	6103	16.3%	20503	54.8%
IV	8845	23.7%	29348	78.5%
V	8039	21.5%	37387	100%

Table 3.2 summarizes the overall counts for the number of students with each disability, completing a CAPA test level in ELA or mathematics. Across all levels, the largest disability group (48-48.1%) is Mental Retardation, followed by Autism (15.8%) and Multiple Disability (9.1%). The unknown category was comprised of those examinees for which no disability type was gridded. This category included 2.1% of the examinees. Tables 3.3 – 3.7 provide parallel information by test level.

**Table 3.2 Disability Distributions Across All Levels**

Disability	ELA		Mathematics	
	Frequency	Percent	Frequency	Percent
Mental Retardation	17961	48.04	17945	48.07
Hard of Hearing	344	0.92	344	0.92
Deafness	486	1.30	484	1.30
Speech / Language Impairment	949	2.54	951	2.55
Visual Impairment	425	1.14	422	1.13
Emotional Disturbance	408	1.09	407	1.09
Orthopedic Impairment	3034	8.12	3027	8.11
Other Health Impairment	1076	2.88	1074	2.88
Specific Learning Disability	2321	6.21	2312	6.19
Deaf Blindness	51	0.14	50	0.13
Multiple Disability	3410	9.12	3401	9.11
Autism	5924	15.85	5916	15.85
Traumatic Brain Injury	218	0.58	219	0.59
Unknown	780	2.09	780	2.09
TOTAL	37387	100.00	37332	100.00

**Table 3.3 Level I Disability Distributions**

Disability	ELA		Mathematics	
	Frequency	Percent	Frequency	Percent
Mental Retardation	3097	35.25	3089	35.22
Hard of Hearing	65	0.74	65	0.74
Deafness	31	0.35	30	0.34
Speech / Language Impairment	32	0.36	32	0.36
Visual Impairment	202	2.30	199	2.27
Emotional Disturbance	21	0.24	21	0.24
Orthopedic Impairment	1547	17.61	1544	17.61
Other Health Impairment	172	1.96	172	1.96
Specific Learning Disability	78	0.89	77	0.88
Deaf Blindness	33	0.38	32	0.36
Multiple Disability	1889	21.50	1888	21.53
Autism	1390	15.82	1391	15.86
Traumatic Brain Injury	45	0.51	45	0.51
Unknown	183	2.08	185	2.11
TOTAL	8785	100.00	8770	100.00

**Table 3.4 Level II Disability Distributions**

Disability	ELA		Mathematics	
	Frequency	Percent	Frequency	Percent
Mental Retardation	2428	43.24	2426	43.25
Hard of Hearing	49	0.87	49	0.87
Deafness	64	1.14	64	1.14
Speech / Language Impairment	370	6.59	370	6.60
Visual Impairment	42	0.75	42	0.75
Emotional Disturbance	42	0.75	42	0.75
Orthopedic Impairment	308	5.49	306	5.46
Other Health Impairment	229	4.08	229	4.08
Specific Learning Disability	371	6.61	370	6.60
Deaf Blindness	2	0.04	2	0.04
Multiple Disability	3	0.05	3	0.05
Autism	279	4.97	279	4.97
Traumatic Brain Injury	1292	23.01	1291	23.02
Unknown	27	0.48	27	0.48
<b>TOTAL</b>	<b>5615</b>	<b>100.00</b>	<b>5609</b>	<b>100.00</b>

**Table 3.5 Level III Disability Distributions**

Disability	ELA		Mathematics	
	Frequency	Percent	Frequency	Percent
Mental Retardation	2921	47.86	2920	47.97
Hard of Hearing	53	0.87	53	0.87
Deafness	91	1.49	90	1.48
Speech / Language Impairment	226	3.70	225	3.70
Visual Impairment	39	0.64	39	0.64
Emotional Disturbance	62	1.02	61	1.00
Orthopedic Impairment	356	5.83	355	5.83
Other Health Impairment	213	3.49	212	3.48
Specific Learning Disability	446	7.31	444	7.29
Deaf Blindness	4	0.07	4	0.07
Multiple Disability	305	5.00	301	4.94
Autism	1263	20.69	1259	20.68
Traumatic Brain Injury	31	0.51	31	0.51
Unknown	93	1.52	93	1.53
<b>TOTAL</b>	<b>6103</b>	<b>100.00</b>	<b>6087</b>	<b>100.00</b>

**Table 3.6 Level IV Disability Distributions**

Disability	ELA		Mathematics	
	Frequency	Percent	Frequency	Percent
Mental Retardation	4839	54.71	4836	54.74
Hard of Hearing	83	0.94	83	0.94
Deafness	155	1.75	155	1.75
Speech / Language Impairment	183	2.07	185	2.09
Visual Impairment	68	0.77	68	0.77
Emotional Disturbance	109	1.23	108	1.22
Orthopedic Impairment	424	4.79	424	4.80
Other Health Impairment	262	2.96	261	2.95
Specific Learning Disability	751	8.49	749	8.48
Deaf Blindness	5	0.06	5	0.06
Multiple Disability	478	5.40	475	5.38
Autism	1268	14.34	1265	14.32
Traumatic Brain Injury	53	0.60	54	0.61
Unknown	167	1.89	166	1.88
TOTAL	8845	100.00	8834	100.00

**Table 3.7 Level V Disability Distributions**

Disability	ELA		Mathematics	
	Frequency	Percent	Frequency	Percent
Mental Retardation	4676	58.17	4674	58.19
Hard of Hearing	94	1.17	94	1.17
Deafness	145	1.80	145	1.81
Speech / Language Impairment	138	1.72	139	1.73
Visual Impairment	74	0.92	74	0.92
Emotional Disturbance	174	2.16	175	2.18
Orthopedic Impairment	399	4.96	398	4.96
Other Health Impairment	200	2.49	200	2.49
Specific Learning Disability	675	8.40	672	8.37
Deaf Blindness	7	0.09	7	0.09
Multiple Disability	1	0.01	1	0.01
Autism	459	5.71	458	5.70
Traumatic Brain Injury	711	8.84	710	8.84
Unknown	62	0.77	62	0.77
TOTAL	8039	100.00	8032	100.00

## Test Results

In this section, we provide test results by level and disaggregated by demographic subgroups.

Tables 3.8-3.9 summarize the demographics and test results of all CAPA examinees for each content area. The number and percentage of examinees within each subgroup that scored within each performance level is presented along with mean scaled scores and scaled score standard deviations for each subgroup.

Tables 3.10 – 3.19 present a summary of the scaled score means and standard deviations for each disability type by language fluency. In addition, the percent in each disability by language fluency subgroup scoring in the Proficient performance level or above is presented.

Tables 3.20 – 3.24 provide scaled score means, standard deviations and the percent of examinees scoring proficient or above for each disability type by test level and content area. In levels I and V, all disability groups seem to do better on the ELA test than Mathematics. Across the other test levels, there is a less consistent pattern.

Tables 3.25 – 3.29 summarize the mean scaled score at selected percentile points for each disability type by test level and content area.

Table 3.30 summarizes the number and percentage of students in each performance level by content area across all test levels. Tables 3.31 – 3.35 present the number and percentage of students in each performance level by disability group for each test level and content area.

It is the policy of the CDE to not report information on subgroups with 11 or fewer members. This rule has been applied to the tables found in this section of the technical report.

**Table 3.8 Demographic Summary for All Examinees\*: English-Language Arts-2004**

		Number (Percent)						Scaled Score Mean	Scaled Score SD
	Number Tested	Advanced	Proficient	Basic	Below Basic	Far Below Basic			
All	Total Examinees	37387	12325(33%)	10476(28%)	5941(16%)	4342(12%)	4303(12%)	38	11.13
Grade	Second	3781	1201(32%)	1388(37%)	677(18%)	324( 9%)	191( 5%)	38	9.30
	Third	3776	1268(34%)	1296(34%)	656(17%)	329( 9%)	227( 6%)	38	9.49
	Fourth	3958	1144(29%)	1189(30%)	653(16%)	575(15%)	397(10%)	37	10.98
	Fifth	3873	1207(31%)	1096(28%)	667(17%)	554(14%)	349( 9%)	38	11.11
	Sixth	3985	1180(30%)	904(23%)	589(15%)	559(14%)	753(19%)	36	11.55
	Seventh	3783	1443(38%)	841(22%)	503(13%)	459(12%)	537(14%)	38	11.86
	Eighth	3798	1512(40%)	893(24%)	458(12%)	416(11%)	519(14%)	38	11.88
	Ninth	3956	1230(31%)	1082(27%)	641(16%)	490(12%)	513(13%)	38	11.29
	Tenth	3518	1158(33%)	963(27%)	595(17%)	367(10%)	435(12%)	39	11.56
	Eleventh	2959	982(33%)	824(28%)	502(17%)	269( 9%)	382(13%)	39	11.75
Level	I	8785	3777(43%)	2710(31%)	737( 8%)	472( 5%)	1089(12%)	42	12.59
	II	5615	1601(29%)	2073(37%)	1205(21%)	553(10%)	183( 3%)	37	7.44
	III	6103	1616(26%)	1761(29%)	1162(19%)	1048(17%)	516( 8%)	36	10.40
	IV	8845	2950(33%)	1729(20%)	1320(15%)	1312(15%)	1534(17%)	36	11.32
	V	8039	2381(30%)	2203(27%)	1517(19%)	957(12%)	981(12%)	38	10.81
Gender	Male	23359	7806(33%)	6565(28%)	3607(15%)	2703(12%)	2678(11%)	38	11.15
	Female	14012	4516(32%)	3907(28%)	2333(17%)	1636(12%)	1620(12%)	38	11.09
	Unknown	16	3(19%)	4(25%)	1( 6%)	3(19%)	5(31%)	32	10.60
Race/Ethnicity	American Indian or Alaska Native	286	117(41%)	82(29%)	35(12%)	25( 9%)	27( 9%)	40	11.22
	Asian	2543	677(27%)	672(26%)	447(18%)	379(15%)	368(14%)	36	11.11
	Pacific Islander	203	72(35%)	62(31%)	29(14%)	21(10%)	19( 9%)	38	10.46
	Filipino	977	282(29%)	271(28%)	155(16%)	142(15%)	127(13%)	37	11.25

		Number (Percent)							
		Number Tested	Advanced	Proficient	Basic	Below Basic	Far Below Basic	Scaled Score Mean	Scaled Score SD
	Hispanic or Latino	16842	5247(31%)	4738(28%)	2790(17%)	2080(12%)	1987(12%)	37	10.98
	African American	4514	1669(37%)	1281(28%)	673(15%)	425( 9%)	466(10%)	39	11.22
	White(not Hispanic origin)	11374	4050(36%)	3182(28%)	1719(15%)	1195(11%)	1228(11%)	39	11.24
Language Fluency	English Only Students	23904	8169(34%)	6718(28%)	3671(15%)	2636(11%)	2710(11%)	38	11.17
	Initially Fluent English Proficient	1279	376(29%)	333(26%)	228(18%)	182(14%)	160(13%)	37	10.97
	Redesignated Fluent English proficient	486	140(29%)	134(28%)	93(19%)	65(13%)	54(11%)	37	10.70
	English Learner	10913	3352(31%)	3056(28%)	1834(17%)	1386(13%)	1285(12%)	37	11.03
	Unknown	805	288(36%)	235(29%)	115(14%)	73( 9%)	94(12%)	39	11.32
Economically Disadvantaged	Yes	21974	7277(33%)	6174(28%)	3547(16%)	2548(12%)	2428(11%)	38	11.05
	No	13799	4439(32%)	3853(28%)	2149(16%)	1636(12%)	1722(12%)	38	11.24
	Unknown	1614	609(38%)	449(28%)	245(15%)	158(10%)	153( 9%)	39	11.27

\*Results for groups with less than 11 members are not reported

**Table 3.9 Demographic Summary for All Examinees\*: Mathematics-2004**

		Number (Percent)						Scaled Score Mean	Scaled Score SD
	Number Tested	Advanced	Proficient	Basic	Below Basic	Far Below Basic			
All	Total Examinees	37332	8361(22%)	10329(28%)	8690(23%)	4833(13%)	5119(14%)	35	10.16
Grade	Second	3779	941(25%)	1324(35%)	945(25%)	349( 9%)	220( 6%)	36	8.82
	Third	3771	962(26%)	1340(36%)	836(22%)	376(10%)	257( 7%)	37	9.39
	Fourth	3942	931(24%)	1385(35%)	847(21%)	458(12%)	321( 8%)	36	9.85
	Fifth	3864	1054(27%)	1282(33%)	764(20%)	455(12%)	309( 8%)	37	10.40
	Sixth	3978	603(15%)	897(23%)	967(24%)	675(17%)	836(21%)	33	10.03
	Seventh	3780	752(20%)	930(25%)	907(24%)	581(15%)	610(16%)	34	10.47
	Eighth	3793	838(22%)	943(25%)	903(24%)	514(14%)	595(16%)	35	10.88
	Ninth	3951	782(20%)	822(21%)	996(25%)	563(14%)	788(20%)	34	9.89
	Tenth	3520	795(23%)	781(22%)	836(24%)	482(14%)	626(18%)	34	10.30
	Eleventh	2954	703(24%)	625(21%)	689(23%)	380(13%)	557(19%)	34	10.51
	Level	I	8770	1142(13%)	2300(26%)	1854(21%)	2028(23%)	1446(16%)	32
II		5609	1683(30%)	2125(38%)	1368(24%)	259( 5%)	174( 3%)	38	7.86
III		6087	1882(31%)	2195(36%)	1175(19%)	507( 8%)	328( 5%)	39	9.60
IV		8834	1733(20%)	2046(23%)	2214(25%)	1198(14%)	1643(19%)	34	10.21
V		8032	1921(24%)	1663(21%)	2079(26%)	841(10%)	1528(19%)	35	9.60
Gender	Male	23322	5508(24%)	6525(28%)	5311(23%)	2862(12%)	3116(13%)	35	10.26
	Female	13993	2850(20%)	3800(27%)	3374(24%)	1969(14%)	2000(14%)	35	9.97
	Unknown	17	3(18%)	4(24%)	5(29%)	2(12%)	3(18%)	34	12.60
Race/Ethnicity	American Indian or Alaska Native	286	77(27%)	89(31%)	69(24%)	22( 8%)	29(10%)	37	10.37
	Asian	2542	412(16%)	681(27%)	621(24%)	396(16%)	432(17%)	33	9.67
	Pacific Islander	199	63(32%)	54(27%)	41(21%)	22(11%)	19(10%)	37	10.17
	Filipino	980	173(18%)	262(27%)	244(25%)	134(14%)	167(17%)	34	9.66

		Number (Percent)							
		Number Tested	Advanced	Proficient	Basic	Below Basic	Far Below Basic	Scaled Score Mean	Scaled Score SD
	Hispanic or Latino	16816	3572(21%)	4678(28%)	3968(24%)	2262(13%)	2336(14%)	35	9.95
	African American	4505	1130(25%)	1280(28%)	1016(23%)	520(12%)	559(12%)	36	10.39
	White(not Hispanic origin)	11357	2783(25%)	3132(28%)	2577(23%)	1390(12%)	1475(13%)	36	10.43
Language Fluency	English Only Students	23868	5500(23%)	6528(27%)	5552(23%)	3051(13%)	3237(14%)	35	10.27
	Initially Fluent English Proficient	1275	242(19%)	334(26%)	301(24%)	196(15%)	202(16%)	34	9.90
	Redesignated Fluent English proficient	486	102(21%)	138(28%)	113(23%)	57(12%)	76(16%)	35	9.77
	English Learner	10898	2297(21%)	3118(29%)	2562(24%)	1436(13%)	1485(14%)	35	9.89
	Unknown	805	220(27%)	211(26%)	162(20%)	93(12%)	119(15%)	36	10.87
Economically Disadvantaged	Yes	21929	4983(23%)	6178(28%)	5120(23%)	2740(12%)	2908(13%)	35	10.04
	No	13790	2947(21%)	3707(27%)	3201(23%)	1912(14%)	2023(15%)	35	10.29
	Unknown	1613	431(27%)	444(28%)	369(23%)	181(11%)	188(12%)	36	10.50

\*Results for groups with less than 11 members are not reported

**Table 3.10 Scaled Scores--Language Fluency by Disability \*: Level I – English-Language Arts**

<b>Disability</b>	<b>Language Fluency</b>	<b>N</b>	<b>Mean</b>	<b>SD</b>	<b>% Proficient or above</b>
Mental Retardation	English Only	1824	44	12.15	76.80
	Initially Fluent English Proficient	116	44	11.10	77.69
	Redesignated Fluent English Proficient	28	45	8.64	80.65
	English Learner	1103	46	12.11	80.72
	Unknown	26	45	10.94	81.48
Hard of Hearing	English Only	45	47	10.16	91.30
	English Learner	15	42	14.46	75.00
Visual Impairment	English Only	145	37	12.13	51.27
	Initially Fluent English Proficient	16	32	12.40	43.75
	English Learner	36	38	12.25	56.10
Emotional Disturbance	English Only	15	54	8.11	83.33
Orthopedic Impairment	English Only	1201	38	11.93	58.81
	Initially Fluent English Proficient	80	37	12.09	49.43
	Redesignated Fluent English Proficient	16	41	13.67	62.50
	English Learner	238	39	12.00	61.42
	Unknown	12	44	14.48	53.33
Other Health Impairment	English Only	113	41	13.30	68.33
	English Learner	49	42	14.13	68.52
Deaf Blindness	English Only	26	34	12.67	35.71

\*Results for groups with less than 11 members are not reported

**Table 3.11 Scaled Scores Language Fluency by Disability\*: Level II – English-Language Arts**

<b>Disability</b>	<b>Language Fluency</b>	<b>N</b>	<b>Mean</b>	<b>SD</b>	<b>% Proficient or above</b>
Mental Retardation	English Only	1411	36	6.71	61.28
	Initially Fluent English Proficient	67	34	6.79	42.65
	Redesignated Fluent English Proficient	21	38	4.98	71.43
	English Learner	905	35	6.00	54.48
	Unknown	24	36	7.14	62.50
Hard of Hearing	English Only	32	39	10.18	69.70
	English Learner	14	38	6.43	53.33
Visual Impairment	English Only	29	35	8.07	50.00
Emotional Disturbance	English Only	35	43	8.59	83.78
Orthopedic Impairment	English Only	208	36	7.05	54.11
	Initially Fluent English Proficient	12	37	5.09	50.00
	English Learner	86	36	5.79	60.67
Other Health Impairment	English Only	163	40	6.61	82.84
	English Learner	63	37	6.15	73.85

\*Results for groups with less than 11 members are not reported

**Table 3.12 Scaled Scores Language Fluency by Disability\*: Level III – English-Language Arts**

<b>Disability</b>	<b>Language Fluency</b>	<b>N</b>	<b>Mean</b>	<b>SD</b>	<b>% Proficient or above</b>
Mental Retardation	English Only	1736	36	9.77	53.40
	Initially Fluent English Proficient	107	34	9.42	47.27
	Redesignated Fluent English Proficient	40	31	7.02	26.83
	English Learner	1013	35	9.33	47.33
	Unknown	25	36	8.60	60.00
Hard of Hearing	English Only	33	34	10.72	40.00
	English Learner	16	35	10.30	38.89
Visual Impairment	English Only	25	38	14.09	51.85
Emotional Disturbance	English Only	50	45	10.33	83.02
Orthopedic Impairment	English Only	234	37	9.78	52.53
	Initially Fluent English Proficient	16	37	14.57	47.06
	English Learner	100	38	10.00	64.42
Other Health Impairment	English Only	140	41	10.30	74.83
	English Learner	64	38	10.66	70.31

\*Results for groups with less than 11 members are not reported

**Table 3.13 Scaled Scores Language Fluency by Disability\*: Level IV – English-Language Arts**

<b>Disability</b>	<b>Language Fluency</b>	<b>N</b>	<b>Mean</b>	<b>SD</b>	<b>% Proficient or above</b>
Mental Retardation	English Only	2962	36	10.91	50.85
	Initially Fluent English Proficient	178	33	9.33	40.74
	Redesignated Fluent English Proficient	93	32	9.63	35.79
	English Learner	1569	34	10.09	43.52
	Unknown	37	34	10.78	43.24
Hard of Hearing	English Only	61	36	12.20	44.12
	English Learner	19	39	7.08	84.21
Visual Impairment	English Only	50	35	11.54	40.35
	English Learner	17	40	10.14	66.67
Emotional Disturbance	English Only	97	43	11.17	70.09
Orthopedic Impairment	English Only	273	36	10.80	50.16
	Initially Fluent English Proficient	28	37	9.61	56.67
	English Learner	116	35	10.92	47.46
Other Health Impairment	English Only	190	40	11.47	59.13
	English Learner	57	38	12.01	55.00

\*Results for groups with less than 11 members are not reported

**Table 3.14 Scaled Scores Language Fluency by Disability\*: Level V – English-Language Arts**

<b>Disability</b>	<b>Language Fluency</b>	<b>N</b>	<b>Mean</b>	<b>SD</b>	<b>% Proficient or above</b>
Mental Retardation	English Only	3080	38	10.44	55.81
	Initially Fluent English Proficient	211	36	9.95	44.55
	Redesignated Fluent English Proficient	89	35	9.83	46.15
	English Learner	1234	35	9.33	44.42
	Unknown	62	33	9.97	38.24
Hard of Hearing	English Only	55	38	10.16	59.65
	English Learner	26	37	12.47	48.15
Visual Impairment	English Only	58	35	8.82	47.62
	English Learner	11	34	7.01	45.45
Emotional Disturbance	English Only	147	44	10.72	71.78
	English Learner	17	44	11.35	72.22
Orthopedic Impairment	English Only	289	36	11.16	41.40
	Initially Fluent English Proficient	17	33	7.21	44.44
	English Learner	75	36	9.52	44.19
	Unknown	11	37	10.07	63.64
Other Health Impairment	English Only	148	44	11.03	71.88
	English Learner	38	38	7.91	57.50

\*Results for groups with less than 11 members are not reported

**Table 3.15 Scaled Scores Language Fluency by Disability\*: Level I – Mathematics**

<b>Disability</b>	<b>Language Fluency</b>	<b>N</b>	<b>Mean</b>	<b>SD</b>	<b>% Proficient or above</b>
Mental Retardation	English Only	1822	34	11.38	42.73
	Initially Fluent English Proficient	115	33	9.45	46.28
	Redesignated Fluent English Proficient	28	33	8.92	41.94
	English Learner	1098	36	11.20	53.40
	Unknown	26	36	10.74	55.56
Hard of Hearing	English Only	45	36	9.74	54.35
	English Learner	15	31	10.67	37.50
Visual Impairment	English Only	142	27	8.93	20.89
	Initially Fluent English Proficient	16	24	9.34	12.50
	English Learner	36	29	9.69	21.95
Emotional Disturbance	English Only	15	45	11.88	66.67
Orthopedic Impairment	English Only	1200	28	9.55	21.21
	Initially Fluent English Proficient	79	27	9.62	19.54
	Redesignated Fluent English Proficient	16	31	12.27	37.50
	English Learner	237	29	10.09	24.34
	Unknown	12	32	14.12	33.33
Other Health Impairment	English Only	113	32	11.54	37.50
	English Learner	49	33	13.41	37.04
Deaf Blindness	English Only	25	26	10.51	17.86

\*Results for groups with less than 11 members are not reported

**Table 3.16 Scaled Scores Language Fluency by Disability\*: Level II – Mathematics**

<b>Disability</b>	<b>Language Fluency</b>	<b>N</b>	<b>Mean</b>	<b>SD</b>	<b>% Proficient or above</b>
Mental Retardation	English Only	1410	38	7.28	64.44
	Initially Fluent English Proficient	67	35	7.37	52.94
	Redesignated Fluent English Proficient	21	40	4.57	95.24
	English Learner	905	37	6.31	61.79
	Unknown	23	36	4.44	70.83
Hard of Hearing	English Only	32	42	10.74	69.70
	English Learner	14	39	5.12	60.00
Visual Impairment	English Only	29	37	11.06	44.12
Emotional Disturbance	English Only	35	43	9.39	75.68
Orthopedic Impairment	English Only	206	38	8.97	58.01
	Initially Fluent English Proficient	12	37	8.34	58.33
	English Learner	86	39	7.58	70.79
Other Health Impairment	English Only	163	41	7.47	79.88
	English Learner	63	38	6.96	67.69

\*Results for groups with less than 11 members are not reported

**Table 3.17 Scaled Scores Language Fluency by Disability\*: Level III - Mathematics**

<b>Disability</b>	<b>Language Fluency</b>	<b>N</b>	<b>Mean</b>	<b>SD</b>	<b>% Proficient or above</b>
Mental Retardation	English Only	1735	38	8.86	62.34
	Initially Fluent English Proficient	106	35	7.59	58.18
	Redesignated Fluent English Proficient	40	35	6.42	56.10
	English Learner	1014	37	8.19	63.27
	Unknown	25	38	9.84	68.00
Hard of Hearing	English Only	33	37	9.12	51.43
	English Learner	16	40	11.12	61.11
Visual Impairment	English Only	25	38	12.51	48.15
Emotional Disturbance	English Only	49	48	9.85	84.91
Orthopedic Impairment	English Only	233	38	9.75	53.70
	Initially Fluent English Proficient	16	39	14.91	47.06
	English Learner	100	39	9.85	59.62
Other Health Impairment	English Only	139	42	10.76	68.03
	English Learner	64	39	9.35	70.31

\*Results for groups with less than 11 members are not reported

**Table 3.18 Scaled Scores Language Fluency by Disability\*: Level IV – Mathematics**

<b>Disability</b>	<b>Language Fluency</b>	<b>N</b>	<b>Mean</b>	<b>SD</b>	<b>% Proficient or above</b>
Mental Retardation	English Only	2961	33	9.39	38.74
	Initially Fluent English Proficient	177	32	9.00	30.16
	Redesignated Fluent English Proficient	92	31	8.99	25.26
	English Learner	1569	32	8.93	32.25
	Unknown	37	32	9.57	35.14
Hard of Hearing	English Only	61	34	10.69	39.71
	English Learner	19	39	9.56	52.63
Visual Impairment	English Only	50	33	10.83	29.82
	English Learner	17	39	12.58	61.11
Emotional Disturbance	English Only	96	43	11.28	71.03
Orthopedic Impairment	English Only	273	33	9.34	35.96
	Initially Fluent English Proficient	28	35	10.44	33.33
	English Learner	116	33	9.11	37.29
Other Health Impairment	English Only	189	36	9.58	47.12
	English Learner	57	36	9.67	43.33

\*Results for groups with less than 11 members are not reported

**Table 3.19 Scaled Scores Language Fluency by Disability\*: Level V - Mathematics**

<b>Disability</b>	<b>Language Fluency</b>	<b>N</b>	<b>Mean</b>	<b>SD</b>	<b>% Proficient or above</b>
Mental Retardation	English Only	3077	34	8.88	39.73
	Initially Fluent English Proficient	210	33	8.26	30.91
	Redesignated Fluent English Proficient	89	33	8.81	30.77
	English Learner	1236	33	7.78	32.56
	Unknown	62	32	9.42	26.47
Hard of Hearing	English Only	55	35	8.96	43.86
	English Learner	26	34	9.87	40.74
Visual Impairment	English Only	58	34	8.99	41.27
	English Learner	11	34	8.79	27.27
Emotional Disturbance	English Only	148	42	10.86	65.64
	English Learner	17	40	10.42	66.67
Orthopedic Impairment	English Only	289	34	10.17	32.94
	Initially Fluent English Proficient	17	35	9.51	33.33
	English Learner	75	35	10.18	39.53
Other Health Impairment	English Only	147	40	10.73	62.50
	English Learner	38	35	7.42	52.50

\*Results for groups with less than 11 members are not reported

**Table 3.20 Scaled Score Information--Subject by Disability \* Level I**

<b>Subject</b>	<b>Disability</b>	<b>N</b>	<b>Mean</b>	<b>SD</b>	<b>% Proficient or above</b>
English-Language Arts	Mental Retardation	3097	45	12.08	78.30
	Hard of Hearing	65	46	11.33	86.57
	Deaf	31	46	10.40	84.85
	Speech or Language Impairment	32	48	12.62	87.50
	Visual Impairment	202	37	12.26	51.82
	Emotional Disturbance	21	51	10.01	76.00
	Orthopedic Impairment	1547	38	11.99	58.73
	Other Health Impairment	172	41	13.71	67.39
	Specific Learning Disability	78	45	13.09	80.49
	Autism	1390	45	10.13	82.09
	Traumatic Brain Injury	45	42	13.63	58.49
	Deaf Blindness	33	33	12.12	36.11
	Multiple Disability	1889	37	13.03	56.63
	Unknown	183	43	12.13	73.23
Mathematics	Mental Retardation	3089	35	11.26	46.75
	Hard of Hearing	65	34	9.78	49.25
	Deaf	30	36	11.14	42.42
	Speech or Language Impairment	32	38	11.12	65.63
	Visual Impairment	199	27	9.10	20.45
	Emotional Disturbance	21	43	13.10	60.00
	Orthopedic Impairment	1544	28	9.72	21.88
	Other Health Impairment	172	32	12.01	36.41
	Specific Learning Disability	77	36	12.91	52.44
	Autism	1391	35	8.83	48.83
	Traumatic Brain Injury	45	32	12.86	35.85
	Deaf Blindness	32	25	9.81	13.89
	Multiple Disability	1888	28	10.29	25.30
	Unknown	185	33	11.56	39.90

\*Results for groups with less than 11 members are not reported

**Table 3.21 Scaled Score Information--Subject by Disability \* Level II**

<b>Subject</b>	<b>Disability</b>	<b>N</b>	<b>Mean</b>	<b>SD</b>	<b>% Proficient or above</b>
English-Language Arts	Mental Retardation	2428	36	6.48	58.36
	Hard of Hearing	49	39	9.01	62.75
	Deaf	64	40	6.75	79.10
	Speech or Language Impairment	370	41	6.86	87.21
	Visual Impairment	42	36	8.17	55.32
	Emotional Disturbance	42	43	8.90	86.36
	Orthopedic Impairment	308	36	6.63	55.22
	Other Health Impairment	229	39	6.51	80.59
	Specific Learning Disability	371	41	7.48	86.72
	Autism	1292	36	8.20	59.58
	Traumatic Brain Injury	27	37	9.12	60.71
	Multiple Disability	279	35	7.58	48.48
	Unknown	109	36	7.89	61.54
Mathematics	Mental Retardation	2426	37	6.92	63.47
	Hard of Hearing	49	41	9.29	66.67
	Deaf	64	43	8.61	88.06
	Speech or Language Impairment	370	43	7.85	86.68
	Visual Impairment	42	38	10.28	57.45
	Emotional Disturbance	42	44	9.59	79.55
	Orthopedic Impairment	306	38	8.54	61.19
	Other Health Impairment	229	40	7.41	76.37
	Specific Learning Disability	370	43	8.38	85.94
	Autism	1291	37	7.68	58.24
	Traumatic Brain Injury	27	38	9.64	53.57
	Multiple Disability	279	36	8.07	54.88
	Unknown	109	37	8.40	58.12

\*Results for groups with less than 11 members are not reported

**Table 3.22 Scaled Score Information--Subject by Disability \* Level III**

Subject	Disability	N	Mean	SD	% Proficient or above
English-Language Arts	Mental Retardation	2921	35	9.61	50.77
	Hard of Hearing	53	35	10.76	38.98
	Deaf	91	34	7.90	39.39
	Speech or Language Impairment	226	43	10.57	79.74
	Visual Impairment	39	37	13.89	47.62
	Emotional Disturbance	62	46	10.65	81.82
	Orthopedic Impairment	356	37	10.06	55.32
	Other Health Impairment	213	40	10.37	73.64
	Specific Learning Disability	446	45	11.16	79.20
	Autism	1263	33	9.66	42.61
	Traumatic Brain Injury	31	38	10.25	59.38
	Multiple Disability	305	34	9.73	42.90
	Unknown	93	38	9.76	63.37
	Mathematics	Mental Retardation	2920	37	8.58
Hard of Hearing		53	39	9.80	55.93
Deaf		90	43	9.95	77.78
Speech or Language Impairment		225	44	9.28	84.91
Visual Impairment		39	38	11.75	52.38
Emotional Disturbance		61	47	9.74	84.85
Orthopedic Impairment		355	38	10.00	55.06
Other Health Impairment		212	41	10.37	68.64
Specific Learning Disability		444	45	10.19	82.35
Autism		1259	38	9.90	59.58
Traumatic Brain Injury		31	39	8.27	71.88
Multiple Disability		301	37	9.18	57.72
Unknown		93	40	8.86	69.31

\*Results for groups with less than 11 members are not reported

**Table 3.23 Scaled Score Information--Subject by Disability \* Level IV**

<b>Subject</b>	<b>Disability</b>	<b>N</b>	<b>Mean</b>	<b>SD</b>	<b>% Proficient or above</b>
English-Language Arts	Mental Retardation	4839	35	10.63	47.77
	Hard of Hearing	83	37	11.08	53.33
	Deaf	155	38	10.65	63.69
	Speech or Language Impairment	183	43	9.72	77.37
	Visual Impairment	68	36	11.31	46.05
	Emotional Disturbance	109	43	10.86	72.27
	Orthopedic Impairment	424	36	10.77	50.00
	Other Health Impairment	262	39	11.54	58.30
	Specific Learning Disability	751	44	11.09	80.81
	Autism	1268	33	11.33	37.08
	Traumatic Brain Injury	53	36	10.77	52.63
	Multiple Disability	478	33	11.21	41.45
	Unknown	167	37	11.07	49.46
Mathematics	Mental Retardation	4836	33	9.24	36.05
	Hard of Hearing	83	35	10.42	43.33
	Deaf	155	39	10.67	66.88
	Speech or Language Impairment	185	41	10.48	69.47
	Visual Impairment	68	34	11.51	36.84
	Emotional Disturbance	108	44	11.09	72.27
	Orthopedic Impairment	424	33	9.42	36.44
	Other Health Impairment	261	36	9.62	46.64
	Specific Learning Disability	749	42	10.66	72.55
	Autism	1265	32	10.36	32.35
	Traumatic Brain Injury	54	35	9.57	45.61
	Multiple Disability	475	32	9.87	34.38
	Unknown	166	35	10.55	37.10

\*Results for groups with less than 11 members are not reported

**Table 3.24 Scaled Score Information--Subject by Disability \* Level V**

<b>Subject</b>	<b>Disability</b>	<b>N</b>	<b>Mean</b>	<b>SD</b>	<b>% Proficient or above</b>
English-Language Arts	Mental Retardation	4676	37	10.19	51.87
	Hard of Hearing	94	38	10.80	58.76
	Deaf	145	39	9.76	64.00
	Speech or Language Impairment	138	42	10.30	69.08
	Visual Impairment	74	35	8.61	48.10
	Emotional Disturbance	174	44	10.75	72.02
	Orthopedic Impairment	399	36	10.66	43.01
	Other Health Impairment	200	42	10.67	67.91
	Specific Learning Disability	675	44	10.48	78.47
	Autism	711	35	12.03	42.76
	Traumatic Brain Injury	62	40	9.94	60.87
	Multiple Disability	459	34	10.87	38.68
	Unknown	224	41	10.88	66.95
Mathematics	Mental Retardation	4674	34	8.61	37.08
	Hard of Hearing	94	35	9.68	45.36
	Deaf	145	39	9.46	62.67
	Speech or Language Impairment	139	39	9.71	61.18
	Visual Impairment	74	33	8.88	37.97
	Emotional Disturbance	175	42	10.78	65.80
	Orthopedic Impairment	398	34	10.16	35.05
	Other Health Impairment	200	39	10.41	59.53
	Specific Learning Disability	672	41	10.07	72.95
	Autism	710	33	10.23	34.93
	Traumatic Brain Injury	62	38	9.47	56.52
	Multiple Disability	458	32	9.34	29.06
	Unknown	223	38	9.89	55.23

\*Results for groups with less than 11 members are not reported

**Table 3.25 Disability Percentiles\* Level I**

Subject	Disability	N	Mean Scaled Score	Scaled Score SD	Percentiles (Mean Scaled Score)						
					1%	5%	25%	50%	75%	95%	99%
English-Language Arts	Mental Retardation	3097	45	12.08	15	22	37	47	55	60	60
	Hard of Hearing	65	46	11.33	15	24	41	46	55	60	60
	Deaf	31	46	10.40	23	24	37	47	53	60	60
	Speech or Language Impairment	32	48	12.62	15	18	43	52	57	60	60
	Visual Impairment	202	37	12.26	15	15	29	37	46	57	60
	Emotional Disturbance	21	51	10.01	30	31	44	51	60	60	60
	Orthopedic Impairment	1547	38	11.99	15	15	30	38	47	60	60
	Other Health Impairment	172	41	13.71	15	15	33	44	50	60	60
	Specific Learning Disability	78	45	13.09	15	15	37	47	57	60	60
	Autism	1390	45	10.13	15	26	39	46	53	60	60
	Traumatic Brain Injury	45	42	13.63	15	18	29	45	53	60	60
	Deaf Blindness	33	33	12.12	15	15	27	33	37	55	60
	Multiple Disability	1889	37	13.03	15	15	27	37	47	60	60
	Unknown	183	43	12.13	15	22	36	43	51	60	60
Mathematics	Mental Retardation	3089	35	11.26	15	15	28	34	41	60	60
	Hard of Hearing	65	34	9.78	15	17	30	35	39	50	60
	Deaf	30	36	11.14	18	21	27	34	42	60	60
	Speech or Language Impairment	32	38	11.12	15	15	33	39	45	60	60
	Visual Impairment	199	27	9.10	15	15	20	28	34	44	50
	Emotional Disturbance	21	43	13.10	21	22	33	42	60	60	60
	Orthopedic Impairment	1544	28	9.72	15	15	20	28	34	45	56
	Other Health Impairment	172	32	12.01	15	15	23	32	39	56	60
	Specific Learning Disability	77	36	12.91	15	15	27	36	44	60	60
	Autism	1391	35	8.83	15	20	30	35	39	50	60
	Traumatic Brain Injury	45	32	12.86	15	15	22	32	42	60	60
	Deaf Blindness	32	25	9.81	15	15	15	23	31	47	50
	Multiple Disability	1888	28	10.29	15	15	20	27	35	47	60
	Unknown	185	33	11.56	15	15	23	33	39	60	60

\*Results for groups with less than 11 members are not reported

**Table 3.26 Disability Percentiles\* Level II**

Subject	Disability	N	Mean Scaled Score	Scaled Score SD	Percentiles (Mean Scaled Score)						
					1%	5%	25%	50%	75%	95%	99%
English-Language Arts	Mental Retardation	2428	36	6.48	17	26	32	35	40	45	60
	Hard of Hearing	49	39	9.01	19	28	33	36	43	60	60
	Deaf	64	40	6.75	15	33	36	39	42	49	60
	Speech or Language Impairment	370	41	6.86	25	32	38	41	45	60	60
	Visual Impairment	42	36	8.17	15	26	30	37	40	45	60
	Emotional Disturbance	42	43	8.90	31	33	36	41	49	60	60
	Orthopedic Impairment	308	36	6.63	15	26	32	36	40	45	60
	Other Health Impairment	229	39	6.51	22	29	35	39	42	49	60
	Specific Learning Disability	371	41	7.48	15	32	37	41	45	60	60
	Autism	1292	36	8.20	15	24	32	36	41	49	60
	Traumatic Brain Injury	27	37	9.12	15	19	29	38	42	49	60
	Multiple Disability	279	35	7.58	15	21	31	35	40	45	60
	Unknown	109	36	7.89	15	22	32	36	41	49	60
Mathematics	Mental Retardation	2426	37	6.92	15	28	34	37	40	48	60
	Hard of Hearing	49	41	9.29	23	32	34	38	45	60	60
	Deaf	64	43	8.61	15	32	38	42	47	60	60
	Speech or Language Impairment	370	43	7.85	29	33	37	42	48	60	60
	Visual Impairment	42	38	10.28	15	23	34	37	42	60	60
	Emotional Disturbance	42	44	9.59	30	32	37	42	48	60	60
	Orthopedic Impairment	306	38	8.54	15	26	33	37	43	52	60
	Other Health Impairment	229	40	7.41	27	30	36	40	45	60	60
	Specific Learning Disability	370	43	8.38	15	32	38	42	48	60	60
	Autism	1291	37	7.68	15	26	32	37	40	52	60
	Traumatic Brain Injury	27	38	9.64	15	23	32	37	45	52	60
	Multiple Disability	279	36	8.07	15	25	32	36	40	52	60
	Unknown	109	37	8.40	15	23	33	36	43	52	60

\*Results for groups with less than 11 members are not reported

**Table 3.27 Disability Percentiles\* Level III**

Subject	Disability	N	Mean Scaled Score	Scaled Score SD	Percentiles (Mean Scaled Score)						
					1%	5%	25%	50%	75%	95%	99%
English-Language Arts	Mental Retardation	2921	35	9.61	16	22	29	35	40	60	60
	Hard of Hearing	53	35	10.76	16	20	26	33	42	60	60
	Deaf	91	34	7.90	16	21	28	33	37	49	60
	Speech or Language Impairment	226	43	10.57	21	28	36	42	49	60	60
	Visual Impairment	39	37	13.89	15	16	26	36	45	60	60
	Emotional Disturbance	62	46	10.65	21	28	38	45	60	60	60
	Orthopedic Impairment	356	37	10.06	16	22	31	36	42	60	60
	Other Health Impairment	213	40	10.37	16	23	35	39	45	60	60
	Specific Learning Disability	446	45	11.16	15	25	38	45	49	60	60
	Autism	1263	33	9.66	15	20	27	33	38	49	60
	Traumatic Brain Injury	31	38	10.25	19	21	31	37	45	60	60
	Multiple Disability	305	34	9.73	15	21	28	33	39	60	60
	Unknown	93	38	9.76	15	22	32	38	45	60	60
Mathematics	Mental Retardation	2920	37	8.58	18	25	32	37	41	56	60
	Hard of Hearing	53	39	9.80	23	24	31	37	44	60	60
	Deaf	90	43	9.95	15	26	38	42	47	60	60
	Speech or Language Impairment	225	44	9.28	23	31	38	44	50	60	60
	Visual Impairment	39	38	11.75	15	23	28	36	44	60	60
	Emotional Disturbance	61	47	9.74	21	33	40	47	56	60	60
	Orthopedic Impairment	355	38	10.00	18	24	31	37	44	60	60
	Other Health Impairment	212	41	10.37	19	25	34	40	47	60	60
	Specific Learning Disability	444	45	10.19	15	25	39	44	56	60	60
	Autism	1259	38	9.90	15	22	31	37	43	60	60
	Traumatic Brain Injury	31	39	8.27	21	25	34	39	43	56	60
	Multiple Disability	301	37	9.18	16	24	31	37	43	56	60
	Unknown	93	40	8.86	15	26	35	39	47	56	60

\*Results for groups with less than 11 members are not reported

**Table 3.28 Disability Percentiles\* Level IV**

Subject	Disability	N	Mean Scaled Score	Scaled Score SD	Percentiles (Mean Scaled Score)						
					1%	5%	25%	50%	75%	95%	99%
English-Language Arts	Mental Retardation	4839	35	10.63	18	20	27	34	41	60	60
	Hard of Hearing	83	37	11.08	16	21	27	37	44	60	60
	Deaf	155	38	10.65	19	23	30	37	44	60	60
	Speech or Language Impairment	183	43	9.72	25	29	36	41	49	60	60
	Visual Impairment	68	36	11.31	15	21	28	35	44	60	60
	Emotional Disturbance	109	43	10.86	21	26	36	44	49	60	60
	Orthopedic Impairment	424	36	10.77	16	20	29	36	44	60	60
	Other Health Impairment	262	39	11.54	19	21	31	39	44	60	60
	Specific Learning Disability	751	44	11.09	15	26	37	44	49	60	60
	Autism	1268	33	11.33	15	19	23	31	39	60	60
Mathematics	Traumatic Brain Injury	53	36	10.77	16	19	28	36	44	60	60
	Multiple Disability	478	33	11.21	15	18	24	32	39	60	60
	Unknown	167	37	11.07	19	21	28	35	41	60	60
	Mental Retardation	4836	33	9.24	17	20	27	32	37	50	60
	Hard of Hearing	83	35	10.42	16	20	29	33	40	60	60
	Deaf	155	39	10.67	19	21	32	37	45	60	60
	Speech or Language Impairment	185	41	10.48	24	27	34	39	45	60	60
	Visual Impairment	68	34	11.51	15	20	27	33	40	60	60
	Emotional Disturbance	108	44	11.09	23	27	36	42	50	60	60
	Orthopedic Impairment	424	33	9.42	15	18	28	33	39	50	60
Mathematics	Other Health Impairment	261	36	9.62	16	20	31	35	40	60	60
	Specific Learning Disability	749	42	10.66	15	25	35	40	50	60	60
	Autism	1265	32	10.36	15	18	25	31	36	60	60
	Traumatic Brain Injury	54	35	9.57	16	18	30	34	40	50	60
	Multiple Disability	475	32	9.87	15	17	24	31	37	50	60
	Unknown	166	35	10.55	18	20	27	33	40	60	60

\*Results for groups with less than 11 members are not reported

**Table 3.29 Disability Percentiles\* Level V**

Subject	Disability	N	Mean Scaled Score	Scaled Score SD	Percentiles (Mean Scaled Score)						
					1%	5%	25%	50%	75%	95%	99%
<b>English-Language Arts</b>	Mental Retardation	4676	37	10.19	19	23	30	35	44	60	60
	Hard of Hearing	94	38	10.80	20	23	29	39	44	60	60
	Deaf	145	39	9.76	23	26	33	39	44	60	60
	Speech or Language Impairment	138	42	10.30	23	25	35	41	49	60	60
	Visual Impairment	74	35	8.61	15	21	29	35	41	49	49
	Emotional Disturbance	174	44	10.75	19	27	35	44	49	60	60
	Orthopedic Impairment	399	36	10.66	15	21	28	35	41	60	60
	Other Health Impairment	200	42	10.67	22	28	34	41	49	60	60
	Specific Learning Disability	675	44	10.48	15	27	37	44	49	60	60
	Autism	711	35	12.03	15	21	24	33	41	60	60
	Traumatic Brain Injury	62	40	9.94	22	24	33	40	49	60	60
	Multiple Disability	459	34	10.87	15	20	26	32	41	60	60
	Unknown	224	41	10.88	21	23	33	41	49	60	60
<b>Mathematics</b>	Mental Retardation	4674	34	8.61	16	23	28	32	37	48	60
	Hard of Hearing	94	35	9.68	20	24	27	34	41	60	60
	Deaf	145	39	9.46	24	26	33	37	43	60	60
	Speech or Language Impairment	139	39	9.71	22	25	32	37	43	60	60
	Visual Impairment	74	33	8.88	15	20	27	32	37	48	60
	Emotional Disturbance	175	42	10.78	16	26	34	39	48	60	60
	Orthopedic Impairment	398	34	10.16	15	19	27	33	39	60	60
	Other Health Impairment	200	39	10.41	16	25	32	37	46	60	60
	Specific Learning Disability	672	41	10.07	15	26	35	41	48	60	60
	Autism	710	33	10.23	15	19	25	31	37	60	60
	Traumatic Brain Injury	62	38	9.47	23	25	31	38	43	60	60
	Multiple Disability	458	32	9.34	15	20	25	31	36	48	60
	Unknown	223	38	9.89	23	25	31	36	43	60	60

\*Results for groups with less than 11 members are not reported

**Table 3.30 Demographic Summary: All Levels\***

Subject	Disability	N	Mean Scaled Score	Scaled Score SD	Number (Percent)				
					Advanced	Proficient	Basic	Below Basic	Far Below Basic
English-Language Arts	Mental Retardation	17961	37	10.78	5472( 30%)	4940( 28%)	3216( 18%)	2424( 13%)	1909( 11%)
	Hard of Hearing	344	39	11.29	127( 37%)	91( 26%)	47( 14%)	40( 12%)	39( 11%)
	Deaf	486	38	9.83	160( 33%)	156( 32%)	79( 16%)	62( 13%)	29( 6%)
	Speech or Language Impairment	949	42	9.23	509( 54%)	290( 31%)	99( 10%)	36( 4%)	15( 2%)
	Visual Impairment	425	36	11.33	116( 27%)	117( 28%)	68( 16%)	56( 13%)	68( 16%)
	Emotional Disturbance	408	44	10.64	226( 55%)	110( 27%)	46( 11%)	18( 4%)	8( 2%)
	Orthopedic Impairment	3034	37	11.03	865( 29%)	965( 32%)	479( 16%)	279( 9%)	446( 15%)
	Other Health Impairment	1076	40	10.73	451( 42%)	337( 31%)	126( 12%)	91( 8%)	71( 7%)
	Specific Learning Disability	2321	44	10.56	1365( 59%)	601( 26%)	189( 8%)	73( 3%)	93( 4%)
	Autism	5924	37	11.25	1755( 30%)	1625( 27%)	915( 15%)	792( 13%)	837( 14%)
	Traumatic Brain Injury	218	39	11.05	87( 40%)	52( 24%)	33( 15%)	20( 9%)	26( 12%)
	Deaf Blindness	51	32	11.25	9( 18%)	9( 18%)	13( 25%)	6( 12%)	14( 27%)
	Multiple Disability	3410	36	12.00	884( 26%)	947( 28%)	530( 16%)	377( 11%)	672( 20%)
	Unknown	776	39	10.99	298( 38%)	235( 30%)	99( 13%)	68( 9%)	76( 10%)
Mathematics	Mental Retardation	17945	35	9.26	3443( 19%)	5119( 29%)	4715( 26%)	2270( 13%)	2398( 13%)
	Hard of Hearing	344	36	10.06	91( 26%)	92( 27%)	80( 23%)	39( 11%)	42( 12%)
	Deaf	484	40	10.13	191( 39%)	158( 33%)	80( 17%)	27( 6%)	28( 6%)
	Speech or Language Impairment	951	42	9.34	459( 48%)	316( 33%)	120( 13%)	30( 3%)	26( 3%)
	Visual Impairment	422	31	10.67	65( 15%)	87( 21%)	94( 22%)	84( 20%)	92( 22%)
	Emotional Disturbance	407	43	10.84	214( 53%)	105( 26%)	63( 15%)	10( 2%)	15( 4%)
	Orthopedic Impairment	3027	32	10.54	476( 16%)	647( 21%)	670( 22%)	647( 21%)	587( 19%)

					Number (Percent)				
Subject	Disability	N	Mean Scaled Score	Scaled Score SD	Advanced	Proficient	Basic	Below Basic	Far Below Basic
	Other Health Impairment	1074	38	10.39	350( 33%)	309( 29%)	231( 22%)	101( 9%)	83( 8%)
	Specific Learning Disability	2312	42	10.30	1211( 52%)	640( 28%)	273( 12%)	75( 3%)	113( 5%)
	Autism	5916	35	9.62	1171( 20%)	1810( 31%)	1438( 24%)	701( 12%)	796( 13%)
	Traumatic Brain Injury	219	36	10.37	67( 31%)	55( 25%)	45( 21%)	25( 11%)	27( 12%)
	Deaf Blindness	50	27	11.90	6( 12%)	6( 12%)	8( 16%)	11( 22%)	19( 38%)
	Multiple Disability	3401	31	10.37	420( 12%)	761( 22%)	694( 20%)	724( 21%)	802( 24%)
	Unknown	776	36	10.44	196( 25%)	222( 29%)	178( 23%)	89( 11%)	91( 12%)

\*Results for groups with less than 11 members are not reported

**Table 3.36 Demographic Summary: Level I \***

					Number (Percent)				
Subject	Disability	N	Scaled Score Mean	Scaled Score SD	Advanced	Proficient	Basic	Below Basic	Far Below Basic
English-Language Arts	Mental Retardation	3097	45	12.08	1669( 54%)	860( 28%)	198( 6%)	124( 4%)	246( 8%)
	Hard of Hearing	65	46	11.33	35( 54%)	23( 35%)	2( 3%)	0( 0%)	5( 8%)
	Deaf	31	46	10.40	19( 61%)	9( 29%)	0( 0%)	1( 3%)	2( 6%)
	Speech or Language Impairment	32	48	12.62	22( 69%)	6( 19%)	0( 0%)	1( 3%)	3( 9%)
	Visual Impairment	202	37	12.26	53( 26%)	61( 30%)	29( 14%)	19( 9%)	40( 20%)
	Emotional Disturbance	21	51	10.01	15( 71%)	4( 19%)	2( 10%)	0( 0%)	0( 0%)
	Orthopedic Impairment	1547	38	11.99	448( 29%)	548( 35%)	168( 11%)	114( 7%)	269( 17%)
	Other Health Impairment	172	41	13.71	71( 41%)	53( 31%)	12( 7%)	6( 3%)	30( 17%)
	Specific Learning Disability	78	45	13.09	45( 58%)	21( 27%)	4( 5%)	0( 0%)	8( 10%)

					Number (Percent)				
Subject	Disability	N	Scaled Score Mean	Scaled Score SD	Advanced	Proficient	Basic	Below Basic	Far Below Basic
	Autism	1390	45	10.13	736( 53%)	456( 33%)	94( 7%)	47( 3%)	57( 4%)
	Traumatic Brain Injury	45	42	13.63	22( 49%)	9( 20%)	2( 4%)	5( 11%)	7( 16%)
	Deaf Blindness	33	33	12.12	6( 18%)	7( 21%)	9( 27%)	4( 12%)	7( 21%)
	Multiple Disability	1889	37	13.03	553( 29%)	591( 31%)	210( 11%)	144( 8%)	391( 21%)
	Unknown	183	43	12.13	83( 45%)	62( 34%)	7( 4%)	7( 4%)	24( 13%)
Mathematics	Mental Retardation	3089	35	11.26	586( 19%)	924( 30%)	690( 22%)	553( 18%)	336( 11%)
	Hard of Hearing	65	34	9.78	10( 15%)	23( 35%)	16( 25%)	11( 17%)	5( 8%)
	Deaf	30	36	11.14	6( 20%)	8( 27%)	7( 23%)	8( 27%)	1( 3%)
	Speech or Language Impairment	32	38	11.12	8( 25%)	13( 41%)	5( 16%)	3( 9%)	3( 9%)
	Visual Impairment	199	27	9.10	11( 6%)	34( 17%)	43( 22%)	61( 31%)	50( 25%)
	Emotional Disturbance	21	43	13.10	10( 48%)	5( 24%)	4( 19%)	2( 10%)	0( 0%)
	Orthopedic Impairment	1544	28	9.72	93( 6%)	278( 18%)	309( 20%)	468( 30%)	396( 26%)
	Other Health Impairment	172	32	12.01	29( 17%)	38( 22%)	33( 19%)	40( 23%)	32( 19%)
	Specific Learning Disability	77	36	12.91	20( 26%)	23( 30%)	7( 9%)	18( 23%)	9( 12%)
	Autism	1391	35	8.83	190( 14%)	519( 37%)	351( 25%)	261( 19%)	70( 5%)
	Traumatic Brain Injury	45	32	12.86	10( 22%)	9( 20%)	6( 13%)	12( 27%)	8( 18%)
	Deaf Blindness	32	25	9.81	2( 6%)	3( 9%)	6( 19%)	8( 25%)	13( 41%)
	Multiple Disability	1888	28	10.29	141( 7%)	370( 20%)	339( 18%)	538( 28%)	500( 26%)
	Unknown	185	33	11.56	26( 14%)	53( 29%)	38( 21%)	45( 24%)	23( 12%)

\*Results for groups with less than 11 members are not reported

**Table 3.37 Demographic Summary: Level II\***

Subject	Disability	N	Scaled Score Mean	Scaled Score SD	Number (Percent)				
					Advanced	Proficient	Basic	Below Basic	Far Below Basic
English-Language Arts	Mental Retardation	2428	36	6.48	496( 20%)	953( 39%)	640( 26%)	275( 11%)	64( 3%)
	Hard of Hearing	49	39	9.01	21( 43%)	11( 22%)	11( 22%)	5( 10%)	1( 2%)
	Deaf	64	40	6.75	23( 36%)	30( 47%)	9( 14%)	1( 2%)	1( 2%)
	Speech or Language Impairment	370	41	6.86	197( 53%)	137( 37%)	29( 8%)	5( 1%)	2( 1%)
	Visual Impairment	42	36	8.17	8( 19%)	18( 43%)	7( 17%)	8( 19%)	1( 2%)
	Emotional Disturbance	42	43	8.90	21( 50%)	17( 40%)	4( 10%)	0( 0%)	0( 0%)
	Orthopedic Impairment	308	36	6.63	70( 23%)	115( 37%)	88( 29%)	24( 8%)	11( 4%)
	Other Health Impairment	229	39	6.51	89( 39%)	102( 45%)	24( 10%)	10( 4%)	4( 2%)
	Specific Learning Disability	371	41	7.48	208( 56%)	125( 34%)	25( 7%)	6( 2%)	7( 2%)
	Autism	1292	36	8.20	366( 28%)	433( 34%)	262( 20%)	167( 13%)	64( 5%)
	Traumatic Brain Injury	27	37	9.12	10( 37%)	7( 26%)	3( 11%)	5( 19%)	2( 7%)
	Multiple Disability	279	35	7.58	63( 23%)	81( 29%)	81( 29%)	35( 13%)	19( 7%)
	Unknown	109	36	7.89	29( 27%)	43( 39%)	20( 18%)	11( 10%)	6( 6%)
Mathematics	Mental Retardation	2426	37	6.92	559( 23%)	1017( 42%)	662( 27%)	121( 5%)	67( 3%)
	Hard of Hearing	49	41	9.29	20( 41%)	14( 29%)	14( 29%)	0( 0%)	1( 2%)
	Deaf	64	43	8.61	35( 55%)	24( 38%)	4( 6%)	0( 0%)	1( 2%)
	Speech or Language Impairment	370	43	7.85	200( 54%)	132( 36%)	34( 9%)	1( 0%)	3( 1%)
	Visual Impairment	42	38	10.28	12( 29%)	15( 36%)	8( 19%)	3( 7%)	4( 10%)
	Emotional Disturbance	42	44	9.59	23( 55%)	12( 29%)	7( 17%)	0( 0%)	0( 0%)
	Orthopedic Impairment	306	38	8.54	97( 32%)	108( 35%)	65( 21%)	23( 8%)	13( 4%)
	Other Health Impairment	229	40	7.41	98( 43%)	83( 36%)	41( 18%)	6( 3%)	1( 0%)
	Specific Learning Disability	370	43	8.38	217( 59%)	113( 31%)	30( 8%)	1( 0%)	9( 2%)
	Autism	1291	37	7.68	319( 25%)	462( 36%)	384( 30%)	77( 6%)	49( 4%)
	Traumatic Brain Injury	27	38	9.64	9( 33%)	6( 22%)	8( 30%)	2( 7%)	2( 7%)
	Multiple Disability	279	36	8.07	59( 21%)	104( 37%)	79( 28%)	21( 8%)	16( 6%)
	Unknown	109	37	8.40	35( 32%)	33( 30%)	30( 28%)	4( 4%)	7( 6%)

\*Results for groups with less than 11 members are not reported

**Table 3.38 Demographic Summary: Level III\***

Subject	Disability	N	Scaled Score Mean	Scaled Score SD	Number (Percent)				
					Advanced	Proficient	Basic	Below Basic	Far Below Basic
English-Language Arts	Mental Retardation	2921	35	9.61	661( 23%)	854( 29%)	603( 21%)	578( 20%)	225( 8%)
	Hard of Hearing	53	35	10.76	14( 26%)	9( 17%)	13( 25%)	11( 21%)	6( 11%)
	Deaf	91	34	7.90	11( 12%)	28( 31%)	24( 26%)	21( 23%)	7( 8%)
	Speech or Language Impairment	226	43	10.57	119( 53%)	66( 29%)	27( 12%)	11( 5%)	3( 1%)
	Visual Impairment	39	37	13.89	14( 36%)	6( 15%)	6( 15%)	8( 21%)	5( 13%)
	Emotional Disturbance	62	46	10.65	39( 63%)	15( 24%)	4( 6%)	3( 5%)	1( 2%)
	Orthopedic Impairment	356	37	10.06	99( 28%)	114( 32%)	69( 19%)	47( 13%)	27( 8%)
	Other Health Impairment	213	40	10.37	85( 40%)	77( 36%)	19( 9%)	24( 11%)	8( 4%)
	Specific Learning Disability	446	45	11.16	281( 63%)	96( 22%)	33( 7%)	18( 4%)	18( 4%)
	Autism	1263	33	9.66	196( 16%)	369( 29%)	262( 21%)	260( 21%)	176( 14%)
	Traumatic Brain Injury	31	38	10.25	9( 29%)	10( 32%)	9( 29%)	1( 3%)	2( 6%)
	Multiple Disability	305	34	9.73	56( 18%)	83( 27%)	77( 25%)	57( 19%)	32( 10%)
	Unknown	93	38	9.76	31( 33%)	33( 35%)	15( 16%)	9( 10%)	5( 5%)
Mathematics	Mental Retardation	2920	37	8.58	697( 24%)	1167( 40%)	649( 22%)	268( 9%)	139( 5%)
	Hard of Hearing	53	39	9.80	18( 34%)	15( 28%)	12( 23%)	4( 8%)	4( 8%)
	Deaf	90	43	9.95	45( 50%)	32( 36%)	8( 9%)	2( 2%)	3( 3%)
	Speech or Language Impairment	225	44	9.28	132( 59%)	65( 29%)	21( 9%)	3( 1%)	4( 2%)
	Visual Impairment	39	38	11.75	13( 33%)	9( 23%)	7( 18%)	4( 10%)	6( 15%)
	Emotional Disturbance	61	47	9.74	40( 66%)	16( 26%)	3( 5%)	1( 2%)	1( 2%)
	Orthopedic Impairment	355	38	10.00	116( 33%)	96( 27%)	82( 23%)	40( 11%)	21( 6%)
	Other Health Impairment	212	41	10.37	88( 42%)	63( 30%)	42( 20%)	11( 5%)	8( 4%)
	Specific Learning Disability	444	45	10.19	271( 61%)	121( 27%)	26( 6%)	8( 2%)	18( 4%)
	Autism	1259	38	9.90	335( 27%)	455( 36%)	250( 20%)	117( 9%)	102( 8%)
	Traumatic Brain Injury	31	39	8.27	11( 35%)	12( 39%)	5( 16%)	2( 6%)	1( 3%)
	Multiple Disability	301	37	9.18	80( 27%)	107( 36%)	54( 18%)	41( 14%)	19( 6%)
	Unknown	93	40	8.86	33( 35%)	37( 40%)	16( 17%)	5( 5%)	2( 2%)

\*Results for groups with less than 11 members are not reported

**Table 3.39 Demographic Summary: Level IV\***

Subject	Disability	N	Scaled Score Mean	Scaled Score SD	Number (Percent)				
					Advanced	Proficient	Basic	Below Basic	Far Below Basic
English-Language Arts	Mental Retardation	4839	35	10.63	1421( 29%)	968( 20%)	788( 16%)	805( 17%)	857( 18%)
	Hard of Hearing	83	37	11.08	31( 37%)	17( 20%)	9( 11%)	13( 16%)	13( 16%)
	Deaf	155	38	10.65	59( 38%)	41( 26%)	21( 14%)	22( 14%)	12( 8%)
	Speech or Language Impairment	183	43	9.72	110( 60%)	37( 20%)	23( 13%)	12( 7%)	1( 1%)
	Visual Impairment	68	36	11.31	26( 38%)	9( 13%)	9( 13%)	15( 22%)	9( 13%)
	Emotional Disturbance	109	43	10.86	63( 58%)	23( 21%)	13( 12%)	7( 6%)	3( 3%)
	Orthopedic Impairment	424	36	10.77	152( 36%)	84( 20%)	69( 16%)	54( 13%)	65( 15%)
	Other Health Impairment	262	39	11.54	122( 47%)	43( 16%)	39( 15%)	34( 13%)	24( 9%)
	Specific Learning Disability	751	44	11.09	486( 65%)	150( 20%)	54( 7%)	30( 4%)	31( 4%)
	Autism	1268	33	11.33	281( 22%)	221( 17%)	193( 15%)	217( 17%)	356( 28%)
	Traumatic Brain Injury	53	36	10.77	18( 34%)	12( 23%)	8( 15%)	7( 13%)	8( 15%)
	Multiple Disability	478	33	11.21	114( 24%)	97( 20%)	66( 14%)	70( 15%)	131( 27%)
	Unknown	167	37	11.07	66( 40%)	26( 16%)	26( 16%)	26( 16%)	23( 14%)
Mathematics	Mental Retardation	4836	33	9.24	724( 15%)	1079( 22%)	1333( 28%)	761( 16%)	939( 19%)
	Hard of Hearing	83	35	10.42	18( 22%)	21( 25%)	20( 24%)	12( 14%)	12( 14%)
	Deaf	155	39	10.67	51( 33%)	54( 35%)	26( 17%)	12( 8%)	12( 8%)
	Speech or Language Impairment	185	41	10.48	71( 38%)	61( 33%)	31( 17%)	17( 9%)	5( 3%)
	Visual Impairment	68	34	11.51	16( 24%)	12( 18%)	16( 24%)	9( 13%)	15( 22%)
	Emotional Disturbance	108	44	11.09	55( 51%)	31( 29%)	15( 14%)	2( 2%)	5( 5%)
	Orthopedic Impairment	424	33	9.42	73( 17%)	99( 23%)	117( 28%)	62( 15%)	73( 17%)
	Other Health Impairment	261	36	9.62	64( 25%)	68( 26%)	72( 28%)	29( 11%)	28( 11%)
	Specific Learning Disability	749	42	10.66	364( 49%)	207( 28%)	112( 15%)	28( 4%)	38( 5%)
	Autism	1265	32	10.36	183( 14%)	255( 20%)	307( 24%)	180( 14%)	340( 27%)
	Traumatic Brain Injury	54	35	9.57	11( 20%)	15( 28%)	15( 28%)	5( 9%)	8( 15%)
	Multiple Disability	475	32	9.87	68( 14%)	107( 23%)	107( 23%)	61( 13%)	132( 28%)
	Unknown	166	35	10.55	34( 20%)	35( 21%)	43( 26%)	19( 11%)	35( 21%)

\*Results for groups with less than 11 members are not reported

**Table 3.40 Demographic Summary: Level V\***

Subject	Disability	N	Scaled Score Mean	Scaled Score SD	Number (Percent)				
					Advanced	Proficient	Basic	Below Basic	Far Below Basic
English-Language Arts	Mental Retardation	4676	37	10.19	1225( 26%)	1305( 28%)	987( 21%)	642( 14%)	517( 11%)
	Hard of Hearing	94	38	10.80	26( 28%)	31( 33%)	12( 13%)	11( 12%)	14( 15%)
	Deaf	145	39	9.76	48( 33%)	48( 33%)	25( 17%)	17( 12%)	7( 5%)
	Speech or Language Impairment	138	42	10.30	61( 44%)	44( 32%)	20( 14%)	7( 5%)	6( 4%)
	Visual Impairment	74	35	8.61	15( 20%)	23( 31%)	17( 23%)	6( 8%)	13( 18%)
	Emotional Disturbance	174	44	10.75	88( 51%)	51( 29%)	23( 13%)	8( 5%)	4( 2%)
	Orthopedic Impairment	399	36	10.66	96( 24%)	104( 26%)	85( 21%)	40( 10%)	74( 19%)
	Other Health Impairment	200	42	10.67	84( 42%)	62( 31%)	32( 16%)	17( 9%)	5( 3%)
	Specific Learning Disability	675	44	10.48	345( 51%)	209( 31%)	73( 11%)	19( 3%)	29( 4%)
	Autism	711	35	12.03	176( 25%)	146( 21%)	104( 15%)	101( 14%)	184( 26%)
	Traumatic Brain Injury	62	40	9.94	28( 45%)	14( 23%)	11( 18%)	2( 3%)	7( 11%)
	Multiple Disability	459	34	10.87	98( 21%)	95( 21%)	96( 21%)	71( 15%)	99( 22%)
	Unknown	224	41	10.88	89( 40%)	71( 32%)	31( 14%)	15( 7%)	18( 8%)
Mathematics	Mental Retardation	4674	34	8.61	877( 19%)	932( 20%)	1381( 30%)	567( 12%)	917( 20%)
	Hard of Hearing	94	35	9.68	25( 27%)	19( 20%)	18( 19%)	12( 13%)	20( 21%)
	Deaf	145	39	9.46	54( 37%)	40( 28%)	35( 24%)	5( 3%)	11( 8%)
	Speech or Language Impairment	139	39	9.71	48( 35%)	45( 32%)	29( 21%)	6( 4%)	11( 8%)
	Visual Impairment	74	33	8.88	13( 18%)	17( 23%)	20( 27%)	7( 9%)	17( 23%)
	Emotional Disturbance	175	42	10.78	86( 49%)	41( 23%)	34( 19%)	5( 3%)	9( 5%)
	Orthopedic Impairment	398	34	10.16	97( 24%)	66( 17%)	97( 24%)	54( 14%)	84( 21%)
	Other Health Impairment	200	39	10.41	71( 36%)	57( 29%)	43( 22%)	15( 8%)	14( 7%)
	Specific Learning Disability	672	41	10.07	339( 50%)	176( 26%)	98( 15%)	20( 3%)	39( 6%)
	Autism	710	33	10.23	144( 20%)	119( 17%)	146( 21%)	66( 9%)	235( 33%)
	Traumatic Brain Injury	62	38	9.47	26( 42%)	13( 21%)	11( 18%)	4( 6%)	8( 13%)
	Multiple Disability	458	32	9.34	72( 16%)	73( 16%)	115( 25%)	63( 14%)	135( 29%)
	Unknown	223	38	9.89	68( 30%)	64( 29%)	51( 23%)	16( 7%)	24( 11%)

\*Results for groups with less than 11 members are not reported

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# Appendix A. Individual Item Statistics

Table A.1 2004 CAPA Item Statistics: Level I

Level I Content	Version	Item Number	AIS	Polyserial	Flag
English-Language Arts	V1	1	2.72	.83	
	V1	2	2.66	.84	
	V1	3	2.07	.83	
	V1	4	2.44	.81	
	V1	5	3.43	.71	
	V1	6	3.18	.73	
	V1	7	3.70	.79	
	V1	8	3.20	.79	
	V1	9	2.78	.78	
	V2	9	2.83	.75	
	V3	9	3.82	.67	
	V4	9	2.54	.74	
	V5	9	2.32	.68	
	V6	9	3.12	.78	
	V7	9	3.51	.74	
V8	9	3.78	.78		
Mathematics	V1	10	2.56	.86	
	V1	11	2.56	.83	
	V1	12	2.65	.79	
	V1	13	2.35	.84	
	V1	14	2.69	.83	
	V1	15	2.69	.81	
	V1	16	2.33	.85	
	V1	17	2.02	.80	
	V1	18	2.32	.74	
	V2	18	2.64	.79	
	V3	18	2.46	.73	
	V4	18	2.60	.76	
	V5	18	2.50	.76	
V6	18	2.59	.79		
V7	18	2.51	.78		

Level I Content	Version	Item Number	AIS	Polyserial	Flag
Science	V8	18	2.87	.81	
	V1	19	2.02	.84	
	V1	20	2.25	.81	
	V1	21	2.23	.87	
	V1	22	2.43	.90	
	V1	23	2.24	.86	
	V1	24	2.65	.86	
	V1	25	2.27	.88	
	V1	26	2.28	.88	
	V1	27	2.33	.83	
	V2	19	2.52	.85	
	V2	20	3.13	.85	
	V2	23	2.34	.81	
	V2	24	2.46	.85	
	V2	27	2.68	.81	
	V3	19	2.44	.88	
	V3	22	2.14	.89	
	V3	23	2.66	.81	
	V3	25	2.31	.87	
	V3	26	2.35	.87	
	V4	19	2.65	.82	
	V4	24	3.23	.76	
	V5	19	2.63	.87	

**Table A.2 2004 CAPA Item Statistics: Level II**

<b>Level II Content</b>	<b>Version</b>	<b>Item Number</b>	<b>AIS</b>	<b>Polyserial</b>	<b>Flag</b>
English-Language Arts	V1	1	3.24	.79	H
	V1	2	3.16	.81	
	V1	3	2.29	.84	
	V1	4	2.30	.76	
	V1	5	2.91	.78	
	V1	6	2.10	.74	
	V1	7	2.50	.77	
	V1	8	3.12	.74	
	V1	9	2.82	.70	
	V2	9	2.97	.70	
	V3	9	2.99	.76	
	V4	9	3.54	.55	R H
	V5	9	3.50	.60	R H
	V6	9	2.57	.75	
	V7	9	3.47	.61	H
V8	9	3.16	.70		
Mathematics	V1	10	3.61	.75	H
	V1	11	3.39	.73	H
	V1	12	3.25	.76	H
	V1	13	1.92	.76	
	V1	14	2.56	.79	
	V1	15	2.00	.77	
	V1	16	2.74	.69	
	V1	17	2.69	.78	
	V1	18	2.89	.74	
	V2	18	2.74	.59	R
	V3	18	2.71	.71	
	V4	18	3.25	.65	H
	V5	18	3.25	.49	R H
	V6	18	3.24	.64	H
	V7	18	3.32	.69	H
V8	18	3.07	.59	R	

**Table A.3 2004 CAPA Item Statistics: Level III**

Level III Content	Version	Item Number	AIS	Polyserial	Flag
English-Language Arts	V1	1	3.44	.77	H
	V1	2	2.68	.73	
	V1	3	3.29	.78	H
	V1	4	2.39	.73	
	V1	5	3.14	.77	H
	V1	6	2.54	.83	
	V1	7	2.47	.83	
	V1	8	2.45	.82	
	V1	9	3.08	.70	H
	V2	9	2.32	.68	
	V3	9	2.29	.58	R
	V4	9	2.46	.76	
	V5	9	3.31	.70	H
	V6	9	3.12	.75	H
	V7	9	2.73	.71	
	V8	9	3.15	.72	H
Mathematics	V1	10	3.60	.78	H
	V1	11	2.31	.81	
	V1	12	2.88	.80	
	V1	13	2.60	.70	
	V1	14	3.03	.82	
	V1	15	2.36	.76	
	V1	16	1.92	.80	
	V1	17	3.24	.74	H
	V1	18	2.57	.73	
	V2	18	2.84	.72	
	V3	18	2.90	.64	
	V4	18	3.04	.71	
	V5	18	3.18	.65	
	V6	18	2.86	.67	
	V7	18	3.23	.66	H
	V8	18	3.22	.70	H
Science	V1	19	3.38	.87	H
	V1	20	2.66	.86	
	V1	21	3.11	.85	
	V1	22	3.14	.88	
	V1	23	3.11	.86	
	V1	24	2.12	.86	
	V1	25	3.22	.88	H
	V1	26	2.90	.87	
	V1	27	2.53	.80	
	V2	19	2.99	.84	
V2	20	2.95	.84		

Level III Content	Version	Item Number	AIS	Polyserial	Flag
	V2	21	2.56	.84	
	V2	22	2.87	.90	
	V2	23	2.76	.89	
	V2	25	2.39	.86	
	V2	26	2.72	.90	
	V3	19	2.46	.86	
	V3	20	2.32	.85	
	V3	21	2.64	.86	
	V3	22	2.65	.89	
	V3	25	2.48	.83	
	V3	27	3.19	.88	
	V4	19	3.02	.89	
	V4	20	2.50	.80	
	V4	21	2.71	.84	
	V5	19	2.41	.87	
	V5	21	2.32	.88	
	V5	24	2.64	.83	
	V5	25	2.80	.88	
	V6	19	2.98	.90	
	V6	21	2.57	.90	
	V6	23	2.61	.92	
	V6	25	3.23	.87	H
	V6	27	2.51	.86	
	V7	21	2.52	.90	
	V7	23	2.31	.88	
	V7	25	2.83	.91	
	V8	21	2.73	.87	
	V8	23	2.81	.90	
	V8	24	2.40	.86	

**Table A.4 2004 CAPA Item Statistics: Level IV**

<b>Level IV Content</b>	<b>Version</b>	<b>Item Number</b>	<b>AIS</b>	<b>Polyserial</b>	<b>Flag</b>	
English-Language Arts	V1	1	3.64	.75	H	
	V1	2	3.47	.77	H	
	V1	3	3.33	.77	H	
	V1	4	2.46	.85		
	V1	5	2.17	.76		
	V1	6	2.69	.85		
	V1	7	2.80	.82		
	V1	8	2.83	.83		
	V1	9	1.97	.67		
	V2	9	2.99	.61		
	V3	9	3.02	.70		
	V4	9	3.40	.70	H	
	V5	9	2.45	.69		
	V6	9	3.02	.67		
	V7	9	2.14	.69		
	V8	9	3.17	.69		
	Mathematics	V1	10	2.37	.81	
		V1	11	2.70	.78	
V1		12	3.14	.75		
V1		13	2.58	.81		
V1		14	2.88	.75		
V1		15	2.49	.83		
V1		16	1.77	.83		
V1		17	3.02	.72		
V1		18	2.94	.69		
V2		18	2.72	.75		
V3		18	3.14	.69		
V4		18	3.05	.65		
V5		18	2.54	.63		
V6		18	3.05	.58	R	
V7		18	2.28	.61		
V8	18	2.58	.67			

**Table A.5 2004 CAPA Item Statistics: Level V**

<b>Level V Content</b>	<b>Version</b>	<b>Item Number</b>	<b>AIS</b>	<b>Polyserial</b>	<b>Flag</b>
English-Language Arts	V1	1	3.73	.76	H
	V1	2	3.53	.78	H
	V1	3	2.57	.77	
	V1	4	2.49	.84	
	V1	5	2.70	.83	
	V1	6	2.96	.77	
	V1	7	3.48	.78	H
	V1	8	3.15	.81	
	V1	9	3.22	.66	H
	V2	9	2.85	.75	
	V3	9	3.17	.66	
	V4	9	2.43	.71	
	V5	9	2.57	.80	
	V6	9	2.41	.76	
	V7	9	1.73	.75	
	V8	9	3.61	.51	R H
Mathematics	V1	10	3.44	.71	H
	V1	11	2.91	.82	
	V1	12	2.37	.71	
	V1	13	2.88	.82	
	V1	14	2.63	.86	
	V1	15	2.62	.83	
	V1	16	2.07	.85	
	V1	17	3.18	.70	
	V1	18	2.11	.78	
	V2	18	3.13	.76	
	V3	18	2.18	.75	
	V4	18	2.00	.78	
	V5	18	2.38	.76	
	V6	18	1.69	.73	
	V7	18	1.86	.68	
	V8	18	3.24	.53	R H
Science	V1	19	3.17	.83	
	V1	20	2.69	.81	
	V1	21	3.21	.83	H

Level V Content	Version	Item Number	AIS	Polyserial	Flag
	V1	22	2.68	.84	
	V1	23	3.30	.84	H
	V1	24	2.77	.81	
	V1	25	3.29	.79	H
	V1	26	2.76	.82	
	V1	27	3.02	.81	
	V2	20	2.85	.83	
	V2	21	2.77	.88	
	V2	22	2.12	.87	
	V2	24	3.05	.85	
	V2	25	2.97	.88	
	V2	27	2.76	.87	
	V3	19	3.46	.79	H
	V3	21	2.98	.84	
	V3	25	3.45	.84	H
	V4	20	2.81	.84	
	V4	21	3.30	.82	H
	V4	24	2.85	.87	
	V4	25	3.03	.86	
	V5	21	2.12	.84	
	V5	24	3.08	.82	
	V5	25	3.38	.83	H
	V6	21	3.30	.82	H
	V6	25	2.95	.87	
	V7	23	2.89	.84	
	V8	21	2.88	.85	

**\* Flag Values**

- A = Low Average Item Score
- R = Low Correlation with Criterion
- O = High Percent of Omits/ Not Responding
- H = High Average Item Score.

# Appendix B. Frequency of Operational Item Scores

Table B.1 Frequency of Operational Item Scores: ELA

Level	Score/Item	1		2		3		4		5		6		7		8	
		Count	Percent														
1	0	1483	16.88	1539	17.52	1864	21.22	1683	19.16	863	9.82	1182	13.45	1045	11.9	1254	14.27
	1	1356	15.44	1336	15.21	1788	20.35	1530	17.42	1130	12.86	1077	12.26	770	8.76	1127	12.83
	2	1708	19.44	1723	19.61	2273	25.87	1978	22.52	1024	11.66	1121	12.76	576	6.56	887	10.1
	3	700	7.97	720	8.2	817	9.3	822	9.36	612	6.97	787	8.96	547	6.23	780	8.88
	4	770	8.76	828	9.43	651	7.41	704	8.01	1029	11.71	988	11.25	872	9.93	991	11.28
	5	2768	31.51	2639	30.04	1392	15.85	2068	23.54	4127	46.98	3630	41.32	4975	56.63	3746	42.64
2	0	116	2.07	177	3.15	290	5.16	193	3.44	157	2.8	233	4.15	233	4.15	287	5.11
	1	439	7.82	519	9.24	791	14.09	1576	28.07	1149	20.46	2441	43.47	961	17.11	357	6.36
	2	709	12.63	692	12.32	2213	39.41	1550	27.6	566	10.08	782	13.93	1822	32.45	659	11.74
	3	1135	20.21	1129	20.11	1600	28.5	852	15.17	971	17.29	807	14.37	985	17.54	1397	24.88
	4	3216	57.28	3098	55.17	721	12.84	1444	25.72	2772	49.37	1352	24.08	1614	28.74	2915	51.91
3	0	122	2	156	2.56	152	2.49	170	2.79	141	2.31	626	10.26	534	8.75	615	10.08
	1	344	5.64	1233	20.2	464	7.6	2191	35.9	971	15.91	1066	17.47	1137	18.63	1249	20.47
	2	529	8.67	1401	22.96	707	11.58	832	13.63	516	8.45	1186	19.43	1373	22.5	1176	19.27
	3	971	15.91	879	14.4	1060	17.37	891	14.6	874	14.32	911	14.93	1086	17.79	950	15.57
	4	4137	67.79	2434	39.88	3720	60.95	2019	33.08	3601	59	2314	37.92	1973	32.33	2113	34.62
4	0	130	1.47	172	1.94	204	2.31	613	6.93	407	4.6	521	5.89	541	6.12	755	8.54
	1	174	1.97	478	5.4	970	10.97	2738	30.96	2618	29.6	2364	26.73	1342	15.17	1183	13.37

Level	Score/Item	1		2		3		4		5		6		7		8	
		Count	Percent														
	2	484	5.47	736	8.32	517	5.85	905	10.23	2517	28.46	688	7.78	1379	15.59	1250	14.13
	3	1283	14.51	1354	15.31	1352	15.29	1292	14.61	1562	17.66	1251	14.14	1786	20.19	1369	15.48
	4	6774	76.59	6105	69.02	5802	65.6	3297	37.28	1741	19.68	4021	45.46	3797	42.93	4288	48.48
5	0	91	1.13	117	1.46	271	3.37	244	3.04	487	6.06	505	6.28	200	2.49	455	5.66
	1	134	1.67	359	4.47	1466	18.24	1615	20.09	1973	24.54	995	12.38	651	8.1	631	7.85
	2	328	4.08	606	7.54	2042	25.4	1950	24.26	708	8.81	1147	14.27	333	4.14	923	11.48
	3	800	9.95	1097	13.65	1797	22.35	2353	29.27	1124	13.98	1172	14.58	789	9.81	1380	17.17
	4	6686	83.17	5860	72.89	2463	30.64	1877	23.35	3747	46.61	4220	52.49	6066	75.46	4650	57.84

**Table B.2 Frequency of Operational Item Scores: Mathematics**

Level	Score/Item	1		2		3		4		5		6		7		8	
		Count	Percent														
1	0	1514	17.26	1513	17.25	1437	16.39	1841	20.99	1388	15.83	1617	18.44	1719	19.6	2811	32.05
	1	1573	17.94	1408	16.05	1386	15.8	1534	17.49	1356	15.46	1357	15.47	1718	19.59	1705	19.44
	2	1735	19.78	1987	22.66	1887	21.52	1958	22.33	1851	21.11	1678	19.13	1926	21.96	1128	12.86
	3	758	8.64	825	9.41	852	9.71	730	8.32	787	8.97	736	8.39	740	8.44	532	6.07
	4	772	8.8	724	8.26	745	8.49	655	7.47	807	9.2	687	7.83	713	8.13	535	6.1
	5	2418	27.57	2313	26.37	2463	28.08	2052	23.4	2581	29.43	2695	30.73	1954	22.28	2059	23.48
2	0	90	1.6	142	2.53	140	2.5	273	4.87	228	4.06	250	4.46	358	6.38	268	4.78
	1	435	7.76	680	12.12	588	10.48	2546	45.39	1473	26.26	2240	39.94	1197	21.34	1520	27.1
	2	221	3.94	337	6.01	427	7.61	957	17.06	865	15.42	1033	18.42	301	5.37	605	10.79
	3	239	4.26	259	4.62	1136	20.25	942	16.79	1089	19.42	1422	25.35	1513	26.97	602	10.73

Level	Score/Item	1		2		3		4		5		6		7		8	
		Count	Percent														
	4	4624	82.44	4191	74.72	3318	59.15	891	15.89	1954	34.84	664	11.84	2240	39.94	2614	46.6
3	0	103	1.69	210	3.45	197	3.24	246	4.04	159	2.61	226	3.71	391	6.42	180	2.96
	1	383	6.29	2109	34.65	1437	23.61	1803	29.62	1261	20.72	1726	28.36	2626	43.14	589	9.68
	2	304	4.99	890	14.62	496	8.15	569	9.35	543	8.92	1168	19.19	1124	18.47	570	9.36
	3	369	6.06	1182	19.42	716	11.76	1059	17.4	481	7.9	1599	26.27	879	14.44	1113	18.28
	4	4928	80.96	1696	27.86	3241	53.24	2410	39.59	3643	59.85	1368	22.47	1067	17.53	3635	59.72
4	0	474	5.37	280	3.17	211	2.39	371	4.2	274	3.1	564	6.38	1031	11.67	324	3.67
	1	2643	29.92	1701	19.26	1790	20.26	2419	27.38	1885	21.34	1957	22.15	4651	52.65	939	10.63
	2	1414	16.01	1488	16.84	570	6.45	1558	17.64	846	9.58	1249	14.14	503	5.69	1684	19.06
	3	1615	18.28	2368	26.81	418	4.73	679	7.69	1573	17.81	2696	30.52	559	6.33	1187	13.44
	4	2688	30.43	2997	33.93	5845	66.16	3807	43.09	4256	48.18	2368	26.81	2090	23.66	4700	53.2
5	0	172	2.14	180	2.24	490	6.1	233	2.9	310	3.86	357	4.44	665	8.28	224	2.79
	1	1038	12.92	1196	14.89	1743	21.7	1722	21.44	1085	13.51	1882	23.43	3711	46.2	680	8.47
	2	218	2.71	1167	14.53	1696	21.12	1175	14.63	2510	31.25	1158	14.42	427	5.32	1303	16.22
	3	340	4.23	2058	25.62	2582	32.15	488	6.08	1390	17.31	1572	19.57	592	7.37	1036	12.9
	4	6264	77.99	3431	42.72	1521	18.94	4414	54.96	2737	34.08	3063	38.13	2637	32.83	4789	59.62

# Appendix C: Evolution of CAPA

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The California Alternate Performance Assessment (CAPA) is an assessment of the California Content Standards appropriate for students with moderate to profound disabilities who are unable to take the Standardized Testing and Reporting (STAR) California Standards Tests (CSTs), even with modifications. The student's Individualized Education Program (IEP) determines eligibility for participation in CAPA.

CAPA is a performance test where administrators, one on one, ask students to respond and then record their answers. As an on-demand assessment, CAPA is designed to be easily administered by teachers and to make appropriate and reasonable challenges to the students across grade, disability, and instructional levels. While STAR measures achievement of the California Standards, the CAPA measures progress toward the functional performance indicators of these standards. The CAPA adheres to professional standards in the development, administration, scoring, and reporting of test results.

This appendix adds to the CAPA Technical Report to give further background information.

1997 – 2000

## **Alternate Assessment Required**

The 1997 Amendments to the Individuals with Disabilities Education Act (IDEA) requires each state to develop and implement an alternate assessment for children with disabilities who cannot participate in a general statewide assessment program by 2000. A work group was formed, with people from districts, most of them from county programs. The group felt this population of students could not be tested. Some of them made videos of the students and took them to the State Board of Education (SBE) meeting; the board members were also convinced the students couldn't be tested in the sense of creating comparable, statistically sound scores.

The work group decided to use IEP goals as the alternate assessment.

2000 – 2001

## **Assessment Based on IEP Goals**

California schools used IEP goals as the alternate assessment and determined whether students met their goals. Teachers had to complete a matrix that listed goals and the degree of closeness to which the student met the goal (expressed as a percent). The process was not comparable across the state. Some students had two goals; others had 102 goals.

June 2001

## **Performance Assessment**

Another work group was formed which had fewer county special education representatives and broader representation, including content people, district evaluators, and general educators. One school district had been experimenting with an alternate assessment based on performance. Some of the work group participants wrote items and tried the items out, but they realized the need for assistance from professional test developers.

California Department of Education (CDE) special education personnel participated in the Council of Chief State School Officers (CCSSO) and heard from other states about alternate assessments. Other states had much more general standards than California, for example, "Show an appreciation of literature."

California had a need for English-language Arts (ELA) and Mathematics scores and not just functional skills. A consultant was hired to discuss other assessment options and reach consensus among work group members. The CDE special education director wanted the same standards for each grade assessed on STAR,

but because of the students' disabilities, alternate standards were considered.

CDE recognized the need for an assessment and generated funding for a Request for Proposal (RFP). A presentation was made to the SBE.

***Standards***

To develop standards to provide to the contractor, forty people from the work group examined every California standard for ELA, Mathematics, History-Social Science and Science, and voted on which were appropriate for the severely cognitively disabled population. Most of the standards selected were from K–2, but some were from higher grades. Some standards were re-written for the population, for example, using the word “communicate” rather than “write” or “tell.” The group also wanted functional or “living” skills and developed standards for health and physical education.

CAPA standards were deemed a subset of the state standards and as such were not sent to the SBE, who had already approved the state standards.

***Blueprints***

A subgroup of the work group met to create blueprints because CAPA needed blueprints for the new contractor.

2002

**CDE creates Request for Proposal (RFP)**

STAR has provisions for accommodations for students with disabilities; however, even with these accommodations, an alternate assessment was needed for students with the most significant disabilities to participate and benefit from the statewide assessment.

The No Child Left Behind Act (NCLB) of 2001 (Title I authorization) and its predecessor, the Elementary and Secondary Education Act, also require that the results from an alternate to the state's primary assessment be integrated into the state's accountability system. Since 2000, the CDE has been providing an alternate assessment for students whose disabilities limit their participation in the general assessment program. The assessment based on the students' IEP was limited in that it could not be easily integrated into the large STAR program and the accountability system it supports. The 2003 CAPA would meet the need for an assessment that can inform the STAR test results and the Academic Performance Index (API).

***Standards***

For each content subset standard, a developmental-progressive list of performance indicators was also created. Care was taken to align the content subset standards and the performance indicators to the five developmental levels of CAPA.

Level I	grades 2–11
Level II	grades 2–3
Level III	grades 4–5
Level IV	grades 6–8
Level V	grades 9–11

July 2002

**CAPA Field Test Developed**

The field test was developed for ELA, Mathematics, Social Science, Physical Education, and Health, as determined by CDE.

### ***Item Writing***

The original item writers were recruited through Special Education Local Plan Areas (SELPAS) and included a number of administrators. They met in July 2002. The first year, there was no Content Review Panel (CRP). Instead, ETS content experts reviewed all the items, and ETS also had to write some items to fill in gaps.

CDE provided functional performance indicators, which drilled down from standards. Item writers used those functional indicators to develop tasks for items. CDE selected the item writers based on criteria that ETS supplied which specified special education experience with the severely cognitively disabled in a variety of schools (including public, residential, and center schools).

### ***Blueprints***

CDE also provided blueprints. The CAPA blueprints were first developed for the 2003 field-test administration. Eight subset standards were selected each for ELA and Mathematics assessments to reflect the number of operational positions on the test. The selected subset standards were chosen to adequately represent the strands in each content area and fairly access students with familiar concepts. The CDE indicated what standards would be assessed what years and provided some initial sample items.

### ***Teacher Survey***

A teacher survey was conducted during field testing and comments were made that enabled changes to be made to the items for purposes of clarification, and that suggested stimulus replacement manipulatives. For example, examiner comments assisted test developers in knowing how to modify the items with low polyserial correlations and/or low average item scores.

September –  
December,  
2002

### **CAPA Operational Test Developed**

The CDE determined that only ELA and Mathematics would be operational with a field test for Health.

CDE and ETS worked to identify the appropriate developmental level to which each subset standard and performance indicator should be tested so that the assessments were fair and accessible to all students in this diverse population. Further steps were taken to assure that students had the prerequisite skills to address the selected subset standards on the each administration.

The participants in the annual Item Writer Training had been selected by the CDE. During the first day of the training, participants were introduced to the CAPA philosophy and to the unique characteristics of CAPA items. Participants used pre-approved documents and samples to guide them in developing usable items. The participants used their special education and content expertise to develop items to meet the content subset standards, to provide cues and graphics that are accessible to all students, to list manipulatives that are easily obtainable by the examiner, and to create standardized adaptations to make the item accessible to students with visual, auditory, and orthopedic disabilities. Participants wrote to subset standards that had been identified by ETS to enrich the CAPA item bank.

As ETS developed and edited the items from the Item Writer Training, items were checked for alignment to the content subset standard and the performance indicator(s) through a well-documented internal review process.

The developed items were then prepared for the Assessment Review Panel (ARP), formerly known as the Content Review Panel, which consisted of groups of special education and content-specific teachers that CDE identified. One of the tasks of the ARP group was to verify that the developed item matched its subset standard and performance indicator.

The items reviewed by the ARP were further edited and checked by ETS. Operational forms were created for each level and content area that met the statistical requirements provided by ETS psychometricians. Once the operational forms were approved by research, the forms were sent to CDE for approval. ETS again scrutinized the items within each operational form for alignment to the content subset standards. Once the operational forms were approved by CDE, the field-test items for each operational form were sent to CDE for approval. CDE again reviewed the items for checks to determine if the items matched their content subset standard.

After all items were approved for use on an administration year, ancillary materials were created for each version of the CAPA administration. One of these documents was a standards sheet that is placed at the beginning of each level of the test. Creation of this document presented another check to align the item to the content subset standard and the performance indicator. All ancillary materials and items were then placed into the test format.

For a final check, independent consultants with extensive experience teaching this population reviewed each version of the test. One of the responsibilities of the independent consultants was to check for alignment of the item to the content subset standard and the performance indicator.

April 21 –  
May 16, 2003

#### **First Administration of CAPA**

During the first administration of CAPA, ELA and Mathematics had eight items each (seven operational and one field-test item). Health was eliminated since STAR CSTs do not include Health.

The test was administered over ten days of testing within the given CAPA testing window.

#### ***Standard Setting***

CAPA standard-setting activity in 2003 adapted the cut scores for Advanced, Proficient, Basic, Below Basic, and Far Below Basic and helped set cut points for ELA and Mathematics.

April 12 –  
May 14, 2004

#### **Second Administration of CAPA**

During the second administration of CAPA, for English-language Arts and Mathematics (seven operational and one field-test item), there were eight versions. Science was field-tested (eight items), eight versions.

As the development of CAPA has progressed from 2003, one goal was to develop items that would meet the numerous performance indicators under each subset standard. There were eight operational items on each test. Of those eight items, five items must be anchors from the previous year. In addition, at least one of the anchor items must be linked to either a higher or lower developmental level.

The structure of the operational test presents strict limits on the number of items in any one administration. CDE and ETS have developed items aligned to a wide variety of performance indicators in order to determine which ones best assessed the subset standard.

Each year, an inventory of operational items either previously used on administrations or available for use is completed. From this inventory, a development plan is created by ETS and approved by CDE. The development plan assures that the needed number of field-test items will be available for the next year's administration and that the performance indicators selected for items to be developed will enrich the overall CAPA item bank.

February –  
August 2005

**Third Administration of CAPA**

For the third administration of CAPA, for ELA, Mathematics (eight operational and two field-test items), and field test for Science (ten field test items), there were six versions.

CAPA has the same testing window as STAR.

During the 2005 development of CAPA, content specialists from CDE participated in the review of the items along with their special education counterparts.

February –  
August 2006

**Fourth administration of CAPA**

A review of how test items link to standards by grade level, with input from special education and content experts, will begin in August 2005. It is anticipated that the blueprints will be revised.

No new items will be developed for 2006, but items will be rotated so that the forms are not the same as 2005.

After extensive reviews of the linked standards and new blueprints, new items will be developed and reviewed in the spring of 2006 for the 2007 administration.

# Appendix D: CAPA Blueprints

## California Alternate Performance Assessment (CAPA) English-Language Arts Blueprint

California Content Standards	Levels Tested				
	1	2	3	4	5
<b>Reading/Word Analysis</b>					
Read simple one-syllable and high-frequency words (i.e., sight words).		✓	✓	✓	✓
Recognize and name all uppercase and lowercase letters of the alphabet.		✓	✓		
Match all consonant and short-vowel sounds to appropriate letters.		✓	✓	✓	
Understand that printed materials provide information.	✓	✓	✓	✓	✓
Match oral words to printed words.		✓	✓	✓	✓
Identify letters, words, and sentences.		✓	✓	✓	✓
Classify grade-appropriate categories of words (e.g., concrete collections of animals, foods, toys).	✓	✓	✓	✓	✓
Recognize common abbreviations (e.g., Jan, Sun, Mr., St).				✓	✓
<b>Reading/Reading Comprehension</b>					
Follow one-step written instructions.	✓	✓	✓	✓	✓
Follow two-step written instructions.		✓	✓	✓	✓
Ask and answer questions about essential elements of a text.		✓	✓	✓	✓
Identify the main events of the plot, their causes, and the influence of each event on future events.				✓	✓
Identify the structural features of popular media (e.g. newspapers, magazines, online information) and use the features to obtain information.				✓	✓
Locate information by using a variety of consumer, workplace, and public documents.				✓	✓
<b>Writing/Writing Strategies</b>					
Write by moving from left to right and from top to bottom.	✓	✓	✓	✓	✓
Print legibly and space letters, words, and sentences appropriately.		✓	✓	✓	✓
Demonstrate basic keyboarding skills and familiarity with computer terminology (e.g. cursor, software, memory, disk drive, hard drive).		✓	✓	✓	✓
<b>Listening &amp; Speaking/Listening &amp; Speaking Strategies</b>					
Understand and follow one-and two-step oral directions.	✓	✓	✓	✓	✓
Share information and ideas, speaking audibly in complete, coherent sentences	✓	✓	✓	✓	✓
Give, restate, and follow simple two-step directions.		✓	✓	✓	✓
Stay on the topic when speaking.		✓	✓	✓	✓
Ask questions for clarification and understanding.		✓	✓	✓	✓
Recount experiences in a logical sequence.		✓	✓	✓	✓
<b>Listening &amp; Speaking/Speaking Applications</b>					
Describe people, places, things (e.g., size, color, shape), locations, and actions.		✓	✓	✓	✓
Apply appropriate interviewing techniques.				✓	✓



## California Alternate Performance Assessment (CAPA) Mathematics Blueprint

California Content Standards	Levels Tested				
	1	2	3	4	5
<b>Number Sense</b>					
Use concrete objects to determine the answers to addition and subtraction problems (for two numbers that are each less than 10).		✓	✓	✓	✓
Compare two or more sets of objects (up to ten objects in each group) and identify which set is equal to, more than, or less than the other.		✓	✓	✓	✓
Know that the larger numbers describe sets with more objects in them than the smaller numbers have.			✓	✓	✓
Count, recognize, represent, name, and order a number of objects (up to 30).	✓	✓	✓	✓	✓
Count, read, and write whole numbers to 100.		✓	✓	✓	✓
Recognize when an estimate is reasonable.				✓	✓
Identify one more than, one less than, 10 more than, and 10 less than a given number.	✓	✓	✓	✓	✓
Identify and know the value of coins and show different combinations of coins that equal the same value.		✓	✓	✓	✓
Solve problems using combinations of coins and bills.				✓	✓
Know and use the decimal notation and the dollar and cent symbols for money.				✓	✓
<b>Algebra and Functions</b>					
Identify, sort, and classify objects by attribute and identify objects that do not belong to a particular group	✓	✓	✓	✓	✓
Understand the meaning of the symbols +, -, =.		✓	✓	✓	✓
<b>Measurement and Geometry</b>					
Demonstrate an understanding of concepts of time (e.g., morning, afternoon, evening, today, yesterday, tomorrow, week, year) and tools that measure time (e.g., clock, calendar).	✓	✓	✓	✓	✓
Identify the time (to the nearest hour) of everyday events (e.g., lunch time is 12 o'clock; bedtime is 8 o'clock at night).		✓	✓	✓	✓
Tell time to the nearest half hour and relate time to events (e.g., before/after, shorter/longer).		✓	✓	✓	✓
Name the days of the week.		✓	✓	✓	✓
Identify and describe common geometric objects (e.g., circle, triangle, square, rectangle, cube, sphere, cone).		✓	✓	✓	✓
Compare the length, weight, and volume of two or more objects by using direct comparison or a nonstandard unit.		✓	✓	✓	✓
<b>Statistics, Data Analysis, and Probability</b>					
Identify, describe, and extend simple patterns (such as circles or triangles) by referring to their shapes, sizes, or colors.		✓	✓	✓	✓
Determine the approach, materials, and strategies to be used.				✓	✓

## California Alternate Performance Assessment (CAPA) Science Blueprint

✓ = field test for 2005

California Content Standards	Levels Tested				
	1	2	3	4	5
<b>Investigation &amp; Experimentation</b>					
Compare and sort common objects by one physical attribute (e.g., color, shape, texture, size, weight).	✓		✓	✓	✓
Compare and sort common objects according to two or more physical attributes (e.g., color, shape, texture, size, weight).			✓	✓	✓
Observe common objects by using the five senses.	✓		✓	✓	✓
Communicate observations orally and through drawings. the relative position of objects by using one reference (e.g., above or below).	✓		✓	✓	✓
Describe the relative position of objects by using one reference (e.g., above or below			✓	✓	✓
Describe the properties of common objects.			✓	✓	✓
<b>Physical Science</b>					
<i>Students know</i> objects can be described in terms of the materials they are made of (e.g., clay, cloth, paper) and their physical properties (e.g., color, size, shape, weight, texture, flexibility, attraction to magnets, floating, sinking).			✓	✓	✓
<i>Students know</i> water can be a liquid or a solid and can be made to change back and forth from one form to the other.			✓	✓	✓
<i>Students know</i> the properties of substances can change when the substances are mixed, cooled, or heated.			✓	✓	✓
<i>Students know</i> objects fall to the ground unless something holds them up.	✓		✓	✓	✓
<i>Students know</i> the position of an object can be described by locating it in relation to another object or to the background.			✓	✓	✓
<i>Students know</i> the way to change how something is moving is by giving it a push or a pull. The size of the change is related to the strength, or the amount of force, of the push or pull or the amount of force, of the push or pull.	✓		✓	✓	✓
<i>Students know</i> tools and machines are used to apply pushes and pulls (forces) to make things move.	✓		✓	✓	✓
<b>Life Science</b>					
<i>Students know</i> how to identify major structures of common plants and animals (e.g., stems, leaves, roots, arms, wings, legs).			✓	✓	✓
<i>Students know</i> how to observe and describe similarities and differences in the appearance and behavior of plants and animals (e.g., seed-bearing plants, birds, fish, insects).			✓	✓	✓
<i>Students know</i> both plants and animals need water, animals need food, and plants need light.	✓		✓	✓	✓
<i>Students know</i> that organisms reproduce offspring of their own kind and that the offspring resemble their parents and one another.			✓	✓	✓
<i>Students know</i> there is variation among individuals of one kind within a population.			✓	✓	✓

Earth Science					
<i>Students know</i> changes in weather occur from day to day and across seasons, affecting Earth and its inhabitants.	✓		✓	✓	✓
<i>Students know</i> that the weather changes from day to day but that trends in temperature or of rain (or snow) tend to be predictable during a season.			✓	✓	✓

# Appendix E: Subgroup Reliability

Table E.1 Subgroup Reliability: Level I

Group		ELA		Mathematics	
		N	Reliability	N	Reliability
Gender	Female	3413	0.91	3407	0.93
	Male	5368	0.90	5358	0.92
Race/Ethnicity	American Indian or Alaska Native	53	0.92	53	0.93
	Asian	657	0.90	656	0.91
	Pacific Islander	36	0.89	35	0.90
	Filipino	249	0.90	250	0.91
	Hispanic or Latino	4130	0.91	4125	0.93
	African American	1034	0.92	1032	0.92
	White	2485	0.89	2479	0.92
Language Fluency	English Only	5517	0.90	5507	0.92
	Initially-FEP**	300	0.91	298	0.92
	Reclassified-FEP**	67	0.88	67	0.89
	English Learner	2746	0.92	2740	0.93
	Unknown	155	0.91	158	0.93
Economically Disadvantaged	Yes	5090	0.91	5076	0.92
	No	3374	0.90	3372	0.92
	Unknown	320	0.91	321	0.92
Disability	Mental Retardation	3097	0.90	3089	0.92
	Hard of Hearing	65	0.87	65	0.90
	Deafness	31	0.88	30	0.92
	Speech/Language Impairment	32	0.92	32	0.92
	Visual Impairment	202	0.91	199	0.91
	Emotional Disturbance	21	0.88	21	0.90
	Orthopedic Impairment	1547	0.89	1544	0.92
	Other Health Impairment	172	0.92	172	0.93
	Specific Learning Disability	78	0.93	77	0.95
	Deaf Blindness	33	0.88	32	0.94
	Multiple Disability	1889	0.91	1888	0.93

Group	ELA		Mathematics	
	N	Reliability	N	Reliability
Autism	1390	0.85	1391	0.86
Traumatic Brain Injury	45	0.93	45	0.95
Unknown	183	0.89	185	0.92

\*Results for groups with less than 11 members are not reported; \*\* FEP – Fluent English Proficient

**Table E.2 Subgroup Reliability: Level II**

Group		ELA		Mathematics	
		N	Reliability	N	Reliability
Gender	Female	1892	0.87	1888	0.84
	Male	3717	0.88	3715	0.85
Race/Ethnicity	American Indian or Alaska Native	41	0.84	41	0.76
	Asian	391	0.90	390	0.85
	Pacific Islander	29	0.87	29	0.85
	Filipino	153	0.88	154	0.84
	Hispanic or Latino	2638	0.88	2634	0.84
	African American	622	0.88	620	0.85
	White	1649	0.88	1649	0.84
Language Fluency	English Only	3547	0.88	3543	0.85
	Initially-FEP**	147	0.89	148	0.85
	Reclassified-FEP**	34	0.83	34	0.70
	English Learner	1776	0.87	1774	0.84
	Unknown	111	0.91	110	0.87
Economically Disadvantaged	Yes	3281	0.87	3276	0.84
	No	2089	0.89	2088	0.85
	Unknown	245	0.90	245	0.86
Disability	Mental Retardation	2428	0.87	2426	0.83
	Hard of Hearing	49	0.90	49	0.78
	Deafness	64	0.85	64	0.84
	Speech/Language Impairment	370	0.81	370	0.78
	Visual Impairment	42	0.89	42	0.90
	Emotional Disturbance	42	0.79	42	0.79
	Orthopedic Impairment	308	0.85	306	0.88
	Other Health Impairment	229	0.86	229	0.82
	Specific Learning group	371	0.86	370	0.86
	Multiple group	279	0.90	279	0.87
	Autism	1292	0.89	1291	0.83
	Traumatic Brain Injury	27	0.93	27	0.89
	Unknown	109	0.89	109	0.87

\*Results for groups with less than 11 members are not reported; \*\* FEP – Fluent English Proficient

**Table E.3 Subgroup Reliability: Level III**

Group		ELA		Mathematics	
		N	Reliability	N	Reliability
Gender	Female	2161	0.88	2157	0.86
	Male	3939	0.89	3927	0.88
Race/Ethnicity	American Indian or Alaska Native	51	0.89	51	0.85
	Asian	412	0.87	410	0.88
	Pacific Islander	41	0.87	39	0.82
	Filipino	164	0.89	164	0.88
	Hispanic or Latino	2782	0.89	2774	0.87
	African American	678	0.87	678	0.85
	White	1894	0.89	1890	0.88
Language Fluency	English Only	3894	0.89	3886	0.87
	Initially-FEP**	188	0.90	187	0.88
	Reclassified-FEP**	68	0.85	68	0.85
	English Learner	1852	0.89	1845	0.87
	Unknown	101	0.89	101	0.88
Economically Disadvantaged	Yes	3583	0.89	3571	0.87
	No	2273	0.89	2269	0.87
	Unknown	247	0.88	247	0.86
Disability	Mental Retardation	2921	0.88	2920	0.86
	Hard of Hearing	53	0.90	53	0.87
	Deafness	91	0.87	90	0.89
	Speech/Language Impairment	226	0.86	225	0.83
	Visual Impairment	39	0.93	39	0.92
	Emotional Disturbance	62	0.84	61	0.84
	Orthopedic Impairment	356	0.88	355	0.89
	Other Health Impairment	213	0.88	212	0.88
	Specific Learning group	446	0.91	444	0.89
	Multiple group	305	0.88	301	0.88
	Autism	1263	0.89	1259	0.87
	Traumatic Brain Injury	31	0.88	31	0.83
	Unknown	93	0.89	93	0.84

\*Results for groups with less than 11 members are not reported; \*\* FEP – Fluent English Proficient

**Table E.4 Subgroup Reliability: Level IV**

Group		ELA		Mathematics	
		N	Reliability	N	Reliability
Gender	Female	3322	0.90	3321	0.88
	Male	5521	0.90	5511	0.88
Race/Ethnicity	American Indian or Alaska Native	69	0.88	69	0.86
	Asian	570	0.90	571	0.87
	Pacific Islander	53	0.88	52	0.88
	Filipino	207	0.91	208	0.88
	Hispanic or Latino	3928	0.90	3919	0.87
	African American	1161	0.90	1158	0.88
	White	2709	0.91	2709	0.89
Language Fluency	English Only	5655	0.90	5649	0.88
	Initially-FEP**	308	0.90	307	0.88
	Reclassified-FEP**	145	0.88	144	0.87
	English Learner	2558	0.90	2555	0.87
	Unknown	179	0.92	179	0.89
Economically Disadvantaged	Yes	5376	0.90	5366	0.88
	No	3140	0.91	3140	0.88
	Unknown	329	0.91	328	0.90
Disability	Mental Retardation	4839	0.89	4836	0.87
	Hard of Hearing	83	0.92	83	0.87
	Deafness	155	0.87	155	0.86
	Speech/Language Impairment	183	0.75	185	0.78
	Visual Impairment	68	0.87	68	0.89
	Emotional Disturbance	109	0.87	108	0.85
	Orthopedic Impairment	424	0.91	424	0.88
	Other Health Impairment	262	0.88	261	0.85
	Specific Learning group	751	0.90	749	0.86
	Multiple group	478	0.92	475	0.91
	Autism	1268	0.91	1265	0.89
	Traumatic Brain Injury	53	0.91	54	0.89
	Unknown	167	0.88	166	0.87

\*Results for groups with less than 11 members are not reported; \*\* FEP – Fluent English Proficient

**Table E.5 Subgroup Reliability: Level V**

Group		ELA		Mathematics	
		N	Reliability	N	Reliability
Gender	Female	3224	0.90	3220	0.88
	Male	4814	0.90	4811	0.89
Race/Ethnicity	American Indian or Alaska Native	72	0.92	72	0.89
	Asian	513	0.92	515	0.90
	Pacific Islander	44	0.94	44	0.93
	Filipino	204	0.89	204	0.87
	Hispanic or Latino	3364	0.89	3364	0.87
	African American	1019	0.90	1017	0.89
	White	2637	0.91	2630	0.89
Language Fluency	English Only	5291	0.91	5283	0.89
	Initially-FEP**	336	0.90	335	0.88
	Reclassified-FEP**	172	0.90	173	0.88
	English Learner	1981	0.89	1984	0.87
	Unknown	259	0.90	257	0.89
Economically Disadvantaged	Yes	4644	0.90	4640	0.88
	No	2923	0.91	2921	0.89
	Unknown	472	0.87	471	0.85
Disability	Mental Retardation	4676	0.89	4674	0.86
	Hard of Hearing	94	0.91	94	0.88
	Deafness	145	0.84	145	0.76
	Speech/Language Impairment	138	0.83	139	0.83
	Visual Impairment	74	0.89	74	0.89
	Emotional Disturbance	174	0.87	175	0.84
	Orthopedic Impairment	399	0.91	398	0.90
	Other Health Impairment	200	0.84	200	0.86
	Specific Learning group	675	0.90	672	0.87
	Multiple group	459	0.92	458	0.89
	Autism	711	0.92	710	0.92
	Traumatic Brain Injury	62	0.89	62	0.88
	Unknown	224	0.89	223	0.85

\*Results for groups with less than 11 members are not reported; \*\* FEP – Fluent English Proficient

# Appendix F. 2004 Conditional Standard Error of Measurement (CSEM) at Cut Points

Level	Cuts	ELA			Mathematics		
		Raw	Scaled	CSEM*	Raw	Scaled	CSEM*
<b>1</b>	Advanced	28	46	4.1	35	44	4.3
	Proficient	16	35	3.8	25	35	2.9
	Basic	11	30	4.4	17	30	3.2
	Below Basic	8	26	3.3	6	21	1.5
<b>2</b>	Advanced	27	41	2.4	27	42	2.9
	Proficient	20	35	2.0	20	35	2.1
	Basic	14	30	2.0	12	30	2.2
	Below Basic	7	24	2.6	8	26	2.9
<b>3</b>	Advanced	29	42	4.2	27	43	3.6
	Proficient	23	35	2.8	20	35	2.7
	Basic	18	30	2.7	14	30	2.9
	Below Basic	11	23	1.3	9	25	1.5
<b>4</b>	Advanced	29	41	4.4	29	42	4.6

Level	Cuts	ELA			Mathematics		
		Raw	Scaled	CSEM*	Raw	Scaled	CSEM*
5	Proficient	25	35	3.0	24	35	2.9
	Basic	21	30	2.8	18	30	2.7
	Below Basic	16	25	2.8	14	26	2.9
	Advanced	30	44	5.9	29	41	4.2
	Proficient	26	35	3.1	25	35	2.8
	Basic	21	30	2.7	19	30	2.5
	Below Basic	16	25	2.7	16	27	2.5

\* CSEMs are in scaled score units.