# Chapter 8 Texas Assessment of Knowledge and Skills (TAKS), TAKS (Accommodated), and TAKS–Modified (TAKS–M)



## Overview

In 1999, the 76th Texas Legislature enacted Senate Bill (SB) 103, mandating implementation of a new statewide testing program. The new testing requirements, subsequently named the Texas Assessment of Knowledge and Skills (TAKS), were implemented in spring 2003. Since the initial implementation of TAKS in 2003, TAKS (Accommodated), TAKS–Modified (TAKS–M), and Linguistically Accommodated Testing (LAT) have been implemented as part of the TAKS assessment program. In 2009, the 81st Texas Legislature passed House Bill (HB) 3, which called for a unified comprehensive assessment program—State of Texas Assessments of Academic Readiness (STAAR) to replace the existing TAKS assessment program for all grades and courses beginning in spring 2012 for students in grade 9 and below.

Consequently, during the 2012–2013 school year, TAKS, TAKS (Accommodated), and TAKS–M administrations were available to examinees in grade 11. LAT administrations did not occur in 2013 because LAT is not administered in grade 11. The required assessments for the 2012–2013 school year by grade for TAKS, TAKS (Accommodated), and TAKS–M are illustrated in Table 8.1.

**Table 8.1.** 2012–2013 TAKS and TAKS–M Assessments

| 2012–2013 TAKS and TAKS–M Assessments | |
|---|---|
| Grade | Assessments |
| 11/Exit Level | **TAKS, TAKS (Accommodated), and TAKS–M**<br>• English Language Arts<br>• Mathematics<br>• Science<br>• Social Studies |

A description of the TAKS, TAKS (Accommodated), and TAKS–M assessments is provided below.

## TAKS

TAKS is an assessment designed to measure the extent to which a student has learned and is able to apply the knowledge and skills defined in the state-mandated curriculum, the Texas Essential Knowledge and Skills (TEKS). Every item on every TAKS assessment is directly aligned to the TEKS currently in effect for the content area and grade being tested. In the 2012–2013 school year, TAKS was administered for grade 11 (exit level) English language arts (ELA), mathematics, science, and social studies. Retest opportunities were also available to exit level examinees.

## TAKS (Accommodated)

TAKS (Accommodated) is an assessment designed for students receiving special education services who meet the eligibility requirements for specific accommodations. This is a general assessment based on the same grade-level academic achievement standards as TAKS. The TAKS (Accommodated) form includes format changes (larger font, fewer items per page) and contains no embedded field-test items. TAKS (Accommodated) assessments were available for grade 11 (exit level) ELA, mathematics, science, and social studies. These are the same grades and content areas as TAKS assessments offered in the 2012–2013 school year. Retest opportunities were available to examinees.

### TAKS–Modified (TAKS–M)

TAKS–M is an alternate assessment based on modified academic achievement standards designed for students receiving special education services who meet participation requirements. TAKS–M has been designed to meet federal requirements mandated under the No Child Left Behind Act (NCLB). According to federal regulations, all students, including those receiving special education services, are assessed on grade-level curriculum. TAKS–M covers the same grade-level content as TAKS, but TAKS–M assessments have been changed in format (larger font, fewer items per page, etc.) and test design (shorter test blueprint, fewer answer choices, simpler vocabulary and sentence structure, etc). TAKS–M also contains no embedded field-test items. TAKS–M was administered for grade 11 ELA, mathematics, science, and social studies in 2013.

## Participation Requirements

### TAKS–M

TAKS–M has specific participation requirements that must be carefully considered when recommending this assessment for examinees receiving special education services. All students have the right to be instructed in grade-level TEKS curriculum so that they can reach their academic potential. The participation requirements for TAKS–M describe the type of grade-level instruction of the TEKS that an examinee should be receiving to participate in TAKS–M.

The TAKS–M participation requirements were developed as a result of recommendations from the TAKS–M steering committee and educator advisory committees to assist students' admission, review, and dismissal (ARD) committees in determining which students should be assessed with TAKS–M. The members of the ARD committee must weigh the benefits of rigorous and challenging expectations with the possibilities of success, given each student's individual strengths, needs, instruction, and accommodations. Keeping these high standards in mind, the ARD committee must choose the assessment that best matches the educational needs of each individual student. ARD committees should promote high expectations in determining the annual measurable goals documented in each student's individualized education program (IEP). It is important to emphasize that the academic instructional decisions made by the ARD committee and documented in the IEP must always guide assessment decisions.

Students receiving special education services who have a disability that significantly affects academic progress in the grade-level curriculum and precludes the achievement of grade-level proficiency within a school year may be assessed with TAKS–M.

An ARD committee might decide that a student's knowledge and skills in one or more subject areas can best be assessed with TAKS–M if the student meets all of the following participation criteria.

The student

- needs extensive modifications and accommodations to classroom instruction, assignments, and assessments to access and demonstrate progress in the grade-level TEKS;
- demonstrates academic progress in such a way that even if significant growth occurs during the school year, the ARD committee is reasonably certain that the student will not achieve grade-level proficiency as demonstrated by multiple valid measures of evidence;
- requires an alternate form of TAKS that is more closely aligned with instructional modifications in order to demonstrate knowledge of the grade-level TEKS; and
- meets some but not all of the following criteria:
    - requires supports to access the general curriculum that may include assistance involving communication, response style, physical access, or daily living skills;
    - requires direct, intensive, individualized instruction in a variety of settings to accomplish the acquisition, maintenance, and generalization of skills;
    - accesses and participates in the grade-level TEKS through activities that focus on prerequisite skills;
    - demonstrates knowledge and skills routinely in class by methods other than paper-and-pencil tasks; or
    - demonstrates performance objectives that may include real-life applications of the grade-level TEKS, as appropriate to the student's abilities and needs.

Any student who meets these participation requirements may take TAKS–M, but only two percent of the tested population can count as proficient for Adequate Yearly Progress (AYP) performance calculations.

## Testing Requirements for Graduation

To be eligible to receive a diploma from a Texas public high school, students in grade 9 prior to the 2011–2012 school year in general education are required to pass a total of four content area TAKS assessments: ELA, mathematics, science, and social studies.

The law further specifies that certain content must be assessed on the exit level assessments.

- The ELA assessment must include English III and writing.
- The mathematics assessment must include Algebra I and geometry.

- The science assessment must include biology, integrated physics and chemistry.
- The social studies assessment must include early American and U.S. history.

For students receiving special education services taking exit level TAKS, TAKS (Accommodated), or TAKS–M, passing the assessment is not a requirement for graduation. A student's ARD committee determines how a student will graduate. For exit level TAKS or TAKS (Accommodated), the ARD committee will determine whether the student will participate in retest opportunities. However, grade 11 TAKS–M assessments are not considered exit level assessments, and there are no retest opportunities for TAKS–M.

## Test Development

Maintaining a student assessment system of the highest quality involves completing a set of tasks that must be executed during the test-development process. The procedures described in chapter 2, "Building a High-Quality Assessment System," outline the test-development process for the Texas assessment program, which includes the TAKS, TAKS (Accommodated), and TAKS–M assessments. TEA relies heavily on input from educators and assessment specialists to ensure an equitable and accurate measure of learning for Texas public school students.

### Item Development

Because the items for the TAKS and TAKS–M assessments are developed on a three-year cycle and TAKS and TAKS–M are being phased out for STAAR, no item development occurred during the 2012–2013 school year.

### Additional Considerations for TAKS–M

The test development process for TAKS–M follows as closely as possible the procedures used for development of other statewide assessments in Texas, coupled with additional requirements specific to TAKS–M. The blueprints for TAKS–M are aligned to the grade-level TEKS curriculum in the same manner as the TAKS assessments and include the same grade-level content standards as the TAKS blueprints but with fewer items.

Issues of validity, reliability, fairness, accessibility, and consistency in meaning are carefully considered as a part of the item modification and review processes. As TAKS–M items are developed and reviewed, attention is also given to the standards of fairness and the principles of alignment and universal design. Within the principles of universal design, each item has precisely defined constructs; has maximum legibility, readability, and comprehensibility; is adaptable to accommodations; is accessible and non-biased; and considers special populations.

Using results from a literature review of modifications that are appropriate for students with disabilities who are eligible to be assessed with TAKS–M, TEA modified existing

TAKS items and developed modification guidelines for reading/ELA, mathematics, science, social studies, and writing to ensure that the modifications did not affect the construct of the items, and that the item modifications would be consistent across development years.

## Training

For each test administration in the 2012–2013 school year, education service center (ESC) personnel and district coordinators were provided a district testing coordinator packet containing the information and materials necessary for overseeing test administrations, including coordinator and test administrator manuals that provided an overview of the statewide testing program. Packets and manuals were provided for the TAKS program, which include instructions for TAKS (Accommodated) and TAKS–M.

### 2013 Directions for District Coordinators, Campus Coordinators, and Test Administrators

The 2013 Directions for District Coordinators, Campus Coordinators, and Test Administrators – TAKS, TAKS (Accommodated) and TAKS–M explains the responsibilities of district and campus testing coordinators for the TAKS program, including TAKS (Accommodated) and TAKS–M assessments. This manual outlines preparation and administration procedures for each program for the 2013 calendar year.

## Test Administrations

### Overview

During the 2012–2013 school year, more than 1,164,000 TAKS and TAKS (Accommodated) assessments were administered, and more than 38,000 TAKS–M assessments were administered. Districts administered the TAKS, TAKS (Accommodated), and TAKS–M assessments to eligible examinees, as indicated in Table 8.2.

Table 8.2. TAKS and TAKS–M Assessments Administered in 2012–2013

| TAKS and TAKS–M Assessments Administered in 2012–2013 | |
|---|---|
| Assessment | Examinees Tested |
| TAKS/TAKS (Accommodated) | |
| Exit level English Language Arts | 291,287 |
| Exit level Mathematics | 289,702 |
| Exit level Science | 291,197 |
| Exit level Social Studies | 292,107 |
| TAKS–M | |
| Grade 11 English Language Arts | 9,024 |
| Grade 11 Mathematics | 11,078 |
| Grade 11 Science | 9,754 |
| Grade 11 Social Studies | 8,390 |

## Online Testing

In addition to paper administrations, in 2012–2013 the TAKS exit level retests were offered online for ELA, mathematics, social studies, and science. Participation in the online administrations was voluntary, and districts could register at the district, campus, examinee, and content-area levels. Table 8.3 gives information about the scope of the online TAKS administrations.

Table 8.3. 2012–2013 TAKS Online Test Administrations

| TAKS Online Test Administrations in 2012–2013 | |
|---|---|
| Administrations | Examinees Tested |
| 2012 October Exit Level | 17,171 |
| 2013 March Exit Level | 8,164 |
| 2013 April Exit Level | 3,927 |
| 2013 July Exit Level | 8,883 |

## The Online Test Delivery System

The TAKS exit level online tests are administered using the Assessment Management System, delivered through Pearson Access. This system provides secure online tools for authoring tests, delivering tests, and reporting students' results. The Assessment Management System meets the stringent security requirements of the Texas assessment program and protects the integrity of test items and student data.

The Assessment Management System enables test administrators to control

- which assessment is administered,
- when it is administered,
- the number of testing sessions, and
- which examinees are assigned to each session.

Using the *Test Session Management* screen, a test administrator can monitor each examinee's current status while the test session is in progress.

Further information about the Assessment Management System, such as an overview of the system, information on delivery and reporting, and a list of frequently asked questions, is available on Pearson's Texas State Assessments website.

## Make-up Testing

### Spring 2013 Make-Up Testing

Make-up tests are typically allowed for assessments that are included in the calculation of AYP. Because assessments at grade 11 or exit level are not included in the calculation of AYP, make-up testing did not occur for TAKS, TAKS (Accommodated), and TAKS–M in 2013.

### Out-of-District Testing

For the summer TAKS assessments (all subjects at exit level), examinees who are unable to retest at their home district's designated test site may test out-of-district. Enrolled out-of-district examinees are required to complete the out-of-district registration form, and exit level examinees must also present picture identification. For example, an examinee from Houston who spends the summer in Dallas and who wants to test in Dallas is required to register to test out-of-district. Out-of-district testing also applies to examinees who are part of the Texas Tech or University of Texas high school programs.

### Out-of-School Testing

Individuals who have completed all graduation requirements but have not passed all four TAKS exit level assessments (or, if applicable, the TAKS assessments required of students for whom the TAAS assessment was the graduation requirement) and who are no longer enrolled in a district may retake the appropriate assessment(s) each time the assessments are administered. Districts are required to publicize the designated

dates, the precise location(s) and times of testing, and the actions that out-of-school individuals interested in retesting must take to ensure access to the testing areas and to testing materials.

A district may select out-of-school testing site(s) within the district or collaborate with an ESC or neighboring district to test out-of-school examinees at an alternate testing site. Districts are provided with registration packets so that individuals who are no longer enrolled in school may register for the exit level assessment. Out-of-school examinees may register online or by mail. Registered individuals receive an admission letter informing them of the date, time, and location of testing. Districts may accept walk-in examinees, as long as the examinee can provide proper identification. Test results are mailed to the individual and to the district from which the examinee is eligible to receive a diploma.

## Educational Materials Required for Testing

### Dictionaries And Thesauruses

English-language dictionaries and thesauruses must be provided to examinees for the reading and written composition portions of the grade 11/exit level ELA assessments.

There must be at least one dictionary for every five examinees; it is also recommended that there be one thesaurus for every five examinees, if possible. Examinees may also use a combination dictionary/thesaurus. An English as a second language (ESL) dictionary that uses simple English and pictures to define words may be provided for English language learners (ELLs).

A dictionary or thesaurus may not be used on the revising and editing section of the TAKS, TAKS (Accommodated), and TAKS–M ELA assessments. The ELA assessments contain two sections; the first section contains the written composition and reading portion, and the second section contains the revising and editing portion. After an examinee completes the first section, the test administrator collects the examinee's dictionary and thesaurus. The examinee then may begin the revising and editing portion of the assessment.

### Calculators

For the mathematics assessments at grade 11/exit level, districts must provide each examinee with a graphing calculator for the entire administration. Examinees may use their own calculators instead of those provided by the district. Any kind of graphing calculator may be used except one with a typewriter-style keypad (known as QWERTY) or one that includes a computer algebra system (CAS). All types of memory, including standard memory, RAM, ROM, and flash ROM, must be cleared to factory default both before and after testing. In addition, any programs or applications must be removed or disabled prior to the test administration.

Calculators may also be used on the science assessments at grade 11/exit level. Examinees must have access to four-function, scientific, or graphing calculators. Again, examinees may use their own calculators instead of those provided by the

district. There must be at least one calculator for every five examinees. If examinees share a calculator, the memory must be cleared after each examinee uses it. The guidelines for kinds of graphing calculators, clearing of memory, and removal of programs and applications for the science assessments are the same as those listed for mathematics.

## Testing Accommodations

Accommodations are provided on an individual basis based on judgments by ARD committees who take into consideration the needs of each individual student. It is neither appropriate nor effective to provide "one size fits all" accommodations to students. For example, one student with a visual impairment might use large-print instructional materials, whereas another student with a visual impairment might benefit more from a magnification device. In most cases, accommodations are appropriate for a student and should not be provided to an entire group of students, such as those in the same class or disability category.

### Accommodations for Students with Disabilities

Accommodations are categorized in four ways: presentation (P), response (R), setting (S), and timing and scheduling (T).

- Presentation (P) accommodations allow students to access information in alternate formats other than regular print. These alternate modes of access may include auditory, multi-sensory, tactile, and visual modes.
- Response (R) accommodations allow students to complete activities, assignments, and assessments using methods other than paper-and-pencil or machine-scorable responses. Response accommodations may also include allowing students to solve or organize problems using some type of supplemental aid.
- Setting (S) accommodations change the location in which an assessment or assignment is given or the conditions of the assessment setting.
- Timing and scheduling (T) accommodations increase the standard length of time to complete an assignment or assessment, or possibly change the way the time is organized.

#### Oral Administration

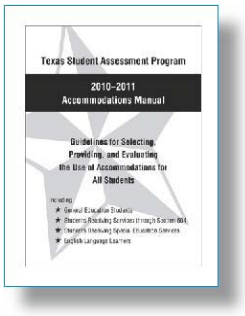
Oral administration is an accommodation that allows test questions and answer choices for mathematics, science, and/or social studies assessments to be read aloud or signed to eligible students taking TAKS, TAKS (Accommodated), or TAKS–M. Districts are instructed to indicate on the answer document whether a student received an oral administration of the assessment. Additional information regarding oral administration, including eligibility requirements, is in the 2010–2011 Accommodations

Manual, which was used for the 2012–2013 administration because no changes in requirements or instructions occurred between the school years.

### STUDENTS WITH VISUAL IMPAIRMENT

Test administrators receive specific instructions for testing visually-impaired students with large-print or braille test booklets. Districts are instructed to indicate on the answer document whether a student used a large-print or braille version of an assessment. Large-print and braille test booklets are available for all TAKS, TAKS (Accommodated), and TAKS–M operational administrations.

## Accommodations Manual




More information about testing accommodations for the Texas assessment program administered in the 2012–2013 school year is available in the 2010–2011 Accommodations Manual.

# Scores and Reports

There are a variety of reports that show an examinee's performance on the assessments on TAKS and TAKS–M. See below for information about the types of scores given on reports and the types of reports available.

## Description of Scores

Scores for the TAKS and TAKS–M assessments consist of the number of items answered correctly (raw scores), scale scores, and the resulting performance level associated with the examinee's score.

### RAW SCORE

The number of items that a student answers correctly on an assessment is the examinee's raw score. The raw score can be interpreted only in terms of the specific set of test questions. However, because the difficulty of items might vary among test forms over time, raw scores alone cannot be used to compare performance across assessments or administrations. To make these comparisons of examinee performance, raw scores must be converted to scale scores.

### Scale Score

A scale score is a conversion of the raw score onto a "scale" that is common to all test forms for that assessment. Scale scores allow direct comparisons of examinee performance between specific sets of test questions from different test administrations.

The scale score can be used to determine whether an examinee attained Met Standard or Commended Performance. Performance-level cut scores for TAKS and TAKS–M are discussed in the Performance Standards section of this chapter.

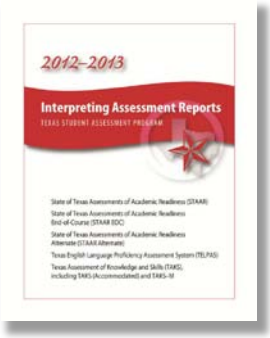
Scale scores can also be used to compare the performance of an individual student with the performance of a demographic group, a program group, or an entire campus or district at a particular grade level. For example, the scores for a Hispanic student in a gifted and talented program could be compared with the average scores of Hispanic students, gifted and talented students, all the students on a campus, or any combination of these aggregations at that grade.

### Additional Performance Information

Other scores can provide information about an examinee's relative strengths or weaknesses in core academic areas. For example, objective-level data can identify areas in which an examinee might be having difficulty. This identification can help campuses plan the most effective instructional intervention. Finally, individual examinee test scores might be used in conjunction with other performance indicators to assist in making placement decisions.

## Report Formats

Two types of reports are provided for the various testing programs: standard and optional. Standard reports are provided automatically to districts. Information contained in standard reports satisfies mandatory reporting requirements. To receive optional reports that present student performance data in additional formats and, in some instances, in greater detail, a district must have completed the *Administration Details* screen in the Assessment Management System. Generally, districts are required to pay a nominal fee for each optional report requested.




For more information, refer to the TEA publication Interpreting Assessment Reports.

### Use of Test Results

Test results can be used to evaluate the performance of a group over time. Average scale scores and the percentage of students meeting standards can be analyzed across administrations within the same grade and content area to give insight into whether examinee performance is improving across years. For example, the average scale score for examinees who receive special education services taking the TAKS grade 11/exit level science assessment can be compared for spring 2012 and spring 2013.

Test scores can be used to compare the performance of different demographic or program groups. Within the same testing program (e.g., TAKS or TAKS–M), test scores can be analyzed within the same content area of any single administration to determine which demographic or program group had the highest average scale score, the lowest percentage meeting the standard, the highest percentage achieving commended performance, etc. Other scores can be used to help evaluate the academic performances of demographic or program groups in core academic areas.

## Parent Brochures

TEA's Student Assessment Division produces a series of brochures titled "Understanding the Confidential Student Report—A Guide for Parents" to help parents understand their child's TAKS or TAKS–M test results. Each brochure provides a brief summary of the TAKS or TAKS–M program, explains a sample Confidential Student Report so parents can understand their child's test report, and gives a brief summary of each test objective for each content area tested. The brochures, developed in both English and Spanish, are provided to districts each spring for distribution with individual student TAKS performance results.

## Performance Standards

Performance standards relate levels of test performance directly to what examinees are expected to learn, as expressed in the statewide curriculum. This is done by establishing cut scores that distinguish performance levels or categories, such as Met Standard and Commended Performance. Standard setting is the process of establishing cut scores on an assessment that define the performance levels.

### Performance Level Descriptors

For TAKS, including TAKS (Accommodated) and TAKS–M, the performance levels are:

- Did Not Meet Standard
- Met Standard
- Commended Performance

Descriptions of these performance levels, known as the general PLDs, are as follows:

### Did Not Meet Standard

This category represents unsatisfactory academic achievement. Students in this category performed at a level that was below the state passing standard for that test. Students demonstrated an insufficient understanding of the knowledge and skills measured at this grade.

### Met Standard

This category represents satisfactory academic achievement. Students in this category performed at a level that was at or somewhat above the state passing standard for that test. Students demonstrated a sufficient understanding of the knowledge and skills measured at this grade.

### Commended Performance

This category represents high academic achievement. Students in this category performed at a level that was considerably above the state passing standard for that test. Students demonstrated a thorough understanding of the knowledge and skills measured at this grade.

## Standard Setting for TAKS

The performance standards for TAKS were originally set in 2002 (2005 for grade 8 science) by the State Board of Education (SBOE). When a set of performance standards has been adopted for an assessment, the standards apply as long as they are judged to be appropriate for defining student performance levels on the assessment. It is recommended that performance standards be reviewed when a change occurs in the assessment program.

In October 2008, TEA convened several panels of educators to evaluate the appropriateness of the TAKS performance standards originally set in 2002. This review of the standards occurred because a vertical scale for TAKS was developed in 2008 and implemented in 2009 (as required by state legislation) after the standards review. The panels recommended changes to the performance standards for certain grades in reading and mathematics so that the standards would reflect an appropriate increase in expectations for student performance from grade to grade without lowering student performance expectations. The panels' recommended changes to the performance standards went into effect in spring 2010. The performance standards for TAKS also apply to TAKS (Accommodated).

The grade 11/exit level assessments test a student's level of academic preparation for graduation from high school as well as his or her readiness to enroll in an institution of higher education. To address these requirements, the Texas Higher Education Coordinating Board (THECB) established a Higher Education Readiness Standard for grade 11/exit level TAKS ELA and mathematics in spring 2004.

Details about the TAKS and TAKS–M standard-setting process are available on the TAKS Standard Setting page of TEA's Student Assessment Division website.

## Standard Setting for TAKS–M

The standards used to define student performance for TAKS–M assessments in 2012–2013 were set in August 2009. The standards set in August 2009 were for the non-AYP grades and subjects, which included the grade 11 assessments. In August 2009, panels of educators were convened to recommend cut scores that were then reviewed by TEA and later approved by the commissioner of education. A description of the standard-setting process and the approved cut scores for the non-AYP grades and subjects is available in chapter 5 of the 2008–2009 Technical Digest.

# Scaling

As with many of the other programs in the Texas assessment program, the TAKS, TAKS (Accommodated), and TAKS–M assessments use the Rasch Partial Credit Model (RPCM) to place test items on the same scale across administrations. Once performance standards have been set for an assessment, its initial scale is then transformed to a more user-friendly metric to facilitate interpretation and reporting of the test scores. Details of the RPCM scaling method used in Texas are provided in chapter 3, "Standard Technical Processes."

## Reporting Scales

TAKS and TAKS–M grade 11 assessments report scale scores on a horizontal scale score system. Horizontal scale scores allow direct comparisons of student performance between specific sets of test questions from different test administrations.

The Met Standard and Commended Performance standards were used in developing the reporting scale score system for TAKS and TAKS–M. The SBOE established the performance standards for most TAKS assessments at each grade level and test content area in November 2002. For TAKS–M, horizontal scale scores were established after the commissioner of education approved performance standards in August 2009.

Using the procedures described in chapter 3, "Standard Technical Processes," a unique scale transformation was then developed in each grade and content area so that the resulting set of scale scores would have the panel-recommended Met Standard performance level cut set at a scale score of 2100 and the panel-recommended Commended Performance level cut set at a scale score of 2400. Once established, these same transformations are applied each year to the Rasch proficiency level estimates ($\theta$) for that year's set of test questions. Specifically, this transformation is accomplished by first multiplying any given student proficiency ($\theta$) by a slope ($A$) and subsequently adding an intercept ($B$). This operation is given by the equation below:

$$SS_\theta = A \times \theta + B \qquad (1)$$

where $SS_\theta$ is the scale score for a Rasch partial-credit model proficiency level estimate ($\theta$). $A$ and $B$ in Equation (1) are referred to as the horizontal scaling constants. Values for the TAKS, including TAKS (Accommodated), and TAKS–M horizontal scaling constants are provided in Tables 8.4 and 8.5 for the assessments that were administered in 2012–2013. The linear transformation in Equation (1) was applied to the resulting Rasch student proficiency estimates at each possible total score point of the assessment, yielding the final RSSS conversion tables for TAKS and TAKS–M.

**Table 8.4.** Horizontal Scaling Constants for TAKS

| Horizontal Scaling Constants for TAKS | | |
|---|---|---|
| TAKS Assessment | *A* | *B* |
| Grade 11/exit level ELA | 113.48162 | 2017.62369 |
| Grade 11/exit level Mathematics | 140.58107 | 2064.71415 |
| Grade 11/exit level Science | 129.47777 | 2070.86750 |
| Grade 11/exit level Social Studies | 126.47555 | 2093.29680 |

**Table 8.5.** Horizontal Scaling Constants for TAKS–M

| Horizontal Scaling Constants for TAKS–M | | |
|---|---|---|
| TAKS–M Assessment | *A* | *B* |
| Grade 11 ELA | 117.61938 | 2004.04611 |
| Grade 11 Mathematics | 200.22692 | 2117.07936 |
| Grade 11 Science | 188.18216 | 2021.17049 |
| Grade 11 Social Studies | 153.48409 | 2069.99386 |

## Equating

In the 2012–2013 school year, TEA conducted equating activities including pre-equating and post-equating for the TAKS and TAKS–M assessments. In addition, results from field-test equating and comparability analysis that were conducted in previous years applied to some of the TAKS and TAKS–M assessments administered in 2012–2013. Refer to chapter 3, "Standard Technical Processes," for detailed information about equating.

## Pre-Equating

In general, pre-equating is conducted for TAKS–M assessments and exit level retests forms. Because the retest population is not representative of the general population, a pre-equated scoring table is used for newly developed forms for retest administrations. Additionally, the pre-equating process is used for TAKS–M to facilitate reporting on the same schedule as TAKS.

## Post-Equating

Post-equating for the TAKS operational assessments uses the conventional common-item non-equivalent groups equating design as described in the technical details and procedures in chapter 3, "Standard Technical Processes." In general, post-equating is conducted for the TAKS primary test forms.

The samples used for post-equating TAKS multiple-choice only assessments are typically in excess of 100,000 students per grade and subject and are representative of the TAKS test-taking population.

## Field-Test Equating

In the past, field-test equating for TAKS included both embedded designs and stand-alone designs. TAKS–M conducted stand-alone field-test equating.

In the 2012–2013 school year, field-test equating was not conducted for any of the TAKS or TAKS–M assessments due to the transition from the TAKS program to the STAAR program.

## Comparability Analyses

When assessments are administered both online and on paper (as is the case for the TAKS exit level retests), the Standards for Educational and Psychological Testing (AERA, APA, NCME, 1999) require comparability between test scores resulting from online and paper modes to be evaluated. For each operational TAKS administration, the online and paper versions of the assessments consist of identical items.

Comparability studies were conducted with TAKS exit level assessments from 2005 through 2010 to determine if the paper and online results were comparable and did not advantage students who tested in either mode. Based on recommendations from the TTAC, policy decisions about score adjustments to online tests have been based on the information from this set of comparability studies. The policy decisions used since April 2010 are listed below.

- For ELA, it was determined that the cut scores on the RSSS conversion table for students taking the retest online should be changed such that the online Met Standard cut point is one raw score point easier and the Commended Performance cut point is one raw score point more difficult than those on the paper RSSS conversion table.

- For mathematics, it was determined that the cut scores should be changed such that both the Met Standard and Commended Performance cuts for online are one raw score point easier than the corresponding cuts for paper.
- For science and social studies, it was determined that the paper RSSS conversion tables should be used for students testing online with no changes to the raw score cuts.

## Reliability

During the 2012–2013 school year, reliability for TAKS and TAKS–M test scores was estimated using statistical measures such as internal consistency, classical standard error of measurement, conditional standard error of measurement, and classification accuracy. Refer to chapter 3, "Standard Technical Processes," for detailed information about reliability.

### Internal Consistency

For the primary TAKS and TAKS–M assessments administered in 2012–2013, the internal consistency estimates ranged from 0.69 to 0.91. Internal consistency estimates across grades and content areas were found to be of a similarly high level, with no noticeable increases or decreases across content areas or grades. For the different student groups, estimates were found to be similar; for TAKS grade 11 mathematics, for example, the reliability for the total group was 0.91, for female only was 0.90, for male only was 0.91, for African American only was 0.89, for Hispanic only was 0.90, and for white only was 0.90.

Because internal consistency estimates typically decrease as the number of test items decrease, internal consistency estimates for scores at the objective level are generally lower than the overall test score. This implies, as expected, that interpretations of a student's objective-level scores are not as reliable as those from the full assessment. For example, the TAKS grade 11 science objective "Nature of Science" has seventeen items. The estimated reliability for the scores in this reporting category is 0.69. Therefore, interpretations of the objective-level scores should be made taking the lower reliability into account.

The internal consistency estimates at the overall level as well as by objective and by student groups for all primary 2012–2013 TAKS and TAKS–M assessments are provided in Appendices F and G, respectively.

### Classical Standard Error of Measurement

For the primary TAKS and TAKS–M assessments in 2012–2013, SEM values were approximately between 2 to 3 raw score points across grades/content areas The SEM values for all primary 2012–2013 TAKS and TAKS–M assessments are provided in Appendices F and G, respectively.

## Conditional Standard Error of Measurement

Conditional standard error of measurement (CSEM) provides a reliability estimate at each score point on a test. It is an estimate of the average test score measurement error conditional on the proficiency estimate or scale score estimate.

Appendices F and G provide CSEM values for all primary 2012–2013 TAKS and TAKS–M assessments.

## Classification Accuracy

Classification accuracy provides an estimate of the accuracy of student classifications into performance categories based on current test results. Classification accuracy rates for TAKS and TAKS–M ranged from 82.8 to 89.1 percent. Appendices F and G provide classification accuracy rates for all primary 2012–2013 TAKS and TAKS–M administrations.

# Validity

Validity refers to the extent to which a test measures what it is intended to measure. When test scores are used to make inferences about student achievement, it is important that the assessment supports those inferences. In other words, the assessment should measure what it was intended to measure in order for any uses and interpretations about test results to be valid. Validity evidence for an assessment can come from a variety of sources including test content, response processes, internal structure, relationships with other variables, and the consequences of testing.

Texas collects validity evidence annually to support the various uses of TAKS and TAKS–M scores. Texas follows national standards of best practice to continue to build its body of validity evidence. The sections that follow describe how these types of validity evidence are collected for the TAKS and TAKS–M assessments. Refer to chapter 3, "Standard Technical Processes," for additional information about validity.

## Evidence Based on Test Content

### TAKS

Validity evidence based on test content refers to evidence of the relationship between tested content and the construct the assessment is intended to measure. The TAKS test scores are designed for making inferences about students' knowledge and understanding of the TEKS. Validity evidence supporting TAKS test content comes from two sources: the established test-development process followed in developing the TAKS assessments, and documentation of expert judgments about the relationship between parts of the TAKS assessment and the test construct. The following test-development activities contributed content validity evidence for the TAKS assessments administered during the 2012–2013 school year.

- Standards-referenced assessments, such as TAKS, are based on an extensive definition of the content they assess. Therefore, test validity is content-based and tied directly to the statewide curriculum. To achieve the highest level of content validity, the process of aligning TAKS to the curriculum was carefully approached and included review by numerous committees of Texas educators.
- When TAKS was designed as the standards-referenced general assessment to measure the TEKS, advisory committees, consisting of educators from school districts across the state, were formed for each content area at each grade level. Teachers, test development specialists, and TEA staff worked together in these committees to identify the TEKS student expectations that were important to assess and to develop test objectives, item development guidelines, and test-item types. In addition, committees met to review and edit TAKS items for content and bias and to review field-test data.
- The item writers as well as reviewers for each stage of development verified the alignment of items with the objectives to ensure that the items measure appropriate content. The sequential stages of item development and item review provide many opportunities for Texas educators to offer suggestions for improving or eliminating items and to offer insights into the interpretation of the statewide curriculum.

Detailed information regarding the test development process can be found in chapter 2, "Building a High-Quality Assessment System."

### TAKS–M

Because TAKS–M is a modified version of TAKS, the test-development processes for both assessments play an intricate role in building validity evidence. To achieve the highest level of content validity, the process of aligning both TAKS and TAKS–M to the curriculum was carefully approached and included review by numerous committees of Texas educators.

When TAKS–M was designed as the alternate assessment based on modified achievement standards, special education content specialists developed detailed modification guidelines so that the modifications made to the TAKS items were consistent. After the items were modified, educator committees for each content area at each grade reviewed the original TAKS item and the modified TAKS–M version of the item to make sure that the modified item still measured the same underlying skill as the original item. In this way, the alignment between the TEKS curriculum and the TAKS items carries through to the TAKS–M items.

## Evidence Based on Response Processes

Response processes refer to the cognitive behaviors required to respond to items. Texas collects evidence showing that the way students respond to items on the TAKS and TAKS–M assessments supports the accurate measurement of the construct. Student response processes on the TAKS and TAKS–M assessments differ due to item type and administration mode.

### ITEM TYPES

Four types of responses are required by students across the TAKS assessments, including multiple-choice questions on all assessments, gridded-response questions on mathematics and science assessments, short answer responses on ELA assessments, and written compositions on ELA and writing assessments. Texas gathers theoretical and empirical evidence showing that the way students respond to these types of items does not add construct-irrelevant variance. In addition, Texas gathers evidence to show that the response processes do not advantage or disadvantage one or more student groups.

The evidence Texas gathers for TAKS comes from several sources. When item types were initially considered for inclusion in TAKS assessments, the item types were pilot-tested. Once item types are determined to be appropriate for TAKS, evidence on student responses is gathered for every item through educator and expert reviews and analyses of individual student responses to these items based on field testing. Educator reviews of the item content involve educators' evaluation that the content assessed by the item is appropriately assessed with the planned item type and judgments that students should be able to accurately demonstrate their knowledge of the construct by responding to each item in its planned format. When items are field-tested, data are gathered about students' responses to items and the statistical information—such as item difficulty, item point-biserial correlations, and differential item functioning—is evaluated, taking item type into consideration.

TAKS–M also includes item types that require students to respond in various ways. These item types include: multiple-choice items and written compositions. Theoretical and empirical evidence has been gathered to suggest that the way students respond to these types of items does not add construct-irrelevant variance.

The evidence Texas gathers for TAKS–M also comes from several sources. When item types were initially modified for TAKS–M, the items were reviewed by educator committees to help ensure that the modifications made the items accessible to the student population eligible to take TAKS–M. In addition, educator review of the items is completed to gather evidence that the response processes do not advantage or disadvantage certain student groups (e.g., males or females, different ethnic groups, and different disability groups). The process for the review of item content involves (1) an evaluation by educators that the content assessed by the item is appropriately assessed with the planned item type and (2) a judgment by educators that students should be able to accurately demonstrate their knowledge of the content by responding to each item in its planned format. When items are field-tested, data are gathered about students' responses to items, and statistical information—such as item difficulty and item point-biserial correlations—is evaluated, taking item type into consideration.

### SCORING PROCESS

The process used to score items can provide additional validity evidence based on response processes. This type of validity evidence is predicated on accurate scoring.

For multiple-choice items, this means that the student responses are accurately scored. As part of the equating process, statistical keychecks are conducted for all TAKS, including TAKS (Accommodated) and TAKS–M assessments. The statistical keycheck is a procedure in which the statistical properties of all items on every test form are computed. Items whose statistics do not meet pre-determined criteria (refer to the Item Analyses section of chapter 3, "Standard Technical Processes") are flagged for further review by content experts to verify that they are correctly keyed and scored.

For constructed-response items, such as short answer responses and written compositions, rubrics are used by human readers to score student responses. TEA has implemented a rigorous scoring process for the constructed-response items that includes training and qualification procedures for readers, ongoing monitoring during scoring, adjudication, resolution processes for responses that do not meet the exact agreement scoring requirements, and rescoring of responses about which concerns have been raised regarding the assigned score by districts, campuses, or teachers. Throughout the years, TEA has reported on the reliability and validity of the performance task scoring process. In the context of scoring constructed-response items, reliability is expressed in terms of reader agreement and correlation between first and second readings on a response. Validity is further evaluated through the use of validity papers, which are student responses from the current administrations that are representative of different levels of writing performance based on the scoring rubrics. Validity papers are identified by scoring supervisors and scoring directors, and approved by the TEA English language arts and writing team. Then they are given to readers systematically on a daily basis throughout the scoring project. An important feature of validities is that these papers are not identifiable as such; in fact, they are indistinguishable from unscored student responses. Each reader's daily scores on validity papers are compared with the scores approved by TEA. Validity papers are used throughout the scoring project as a primary quality control measure, the purpose of which is to ensure that readers are scoring accurately and reliably on a daily basis and across time.

Tables 8.6–8.9 summarize reader agreement rates (reliability) by grade for the TAKS and TAKS–M primary administrations and results of the use of validity papers by grade for the spring 2013 operational administration. Reader agreement rate is expressed in terms of absolute agreement (the first reader's score equals the second reader's score). Validity is expressed in terms of exact agreement between the score assigned by a given reader and the "true" score assigned by Pearson and approved by TEA. Student response scores are based on the score that has been agreed upon independently by at least two of three readers. Only a fourth reader, limited to senior scoring staff, can determine the final score when a response has been given discrepant scores by three independent readers.

**Table 8.6.** Summary of Scorer Agreement (Reliability) for 2013 TAKS

| TAKS Assessment | Number of Responses Read | Agreement Rate (%) After 2 Readings | Number of Third Readings | Agreement Rate (%) After 3 Readings |
|---|---|---|---|---|
| Exit Level ELA Written Composition | 272,314 | 66 | 100,482 | 100 |
| Exit Level ELA Short Answer | 700,237 | 71 | 258,393 | 100 |

**Table 8.7.** Summary of Validity Results for 2013 TAKS

| TAKS Assessment | Agreement Rate (%) |
|---|---|
| Exit Level ELA Written Composition | 92% |
| Exit Level ELA Short Answer | 88% |

**Table 8.8.** Summary of Scorer Agreement (Reliability) for 2013 TAKS–M

| TAKS–M Assessment | Number of Responses Read | Agreement Rate (%) After 2 Readings | Number of Third Readings | Agreement Rate (%) After 3 Readings |
|---|---|---|---|---|
| Grade 11 ELA Written Composition | 9,599 | 76% | 2,350 | 99% |

**Table 8.9.** Summary of Validity Results for 2013 TAKS–M

| TAKS–M Assessment | Agreement Rate (%) |
|---|---|
| Grade 11 ELA Written Composition | 88% |

### Administration Mode

Sufficient numbers of students took the TAKS exit level retests online in the 2009–2010 school year, allowing Texas to conduct comparability studies. In these studies, Texas conducted analyses to evaluate comparability of interpretations at the test level and at the item level. In the 2012–2013 school year, no comparability studies were conducted for TAKS exit level retests due to the consistently small number of students participating in the TAKS exit level retest online. Instead, in the 2010–2011 school year, a policy decision was applied to the online tests such that the paper score

conversion table are used as the online score conversion table for science and social studies. A different online score conversion table is produced by modifying the paper table for mathematics and ELA. The adjusted scores account for differences in student responses across administration mode. Refer to the Equating section of this chapter for details about the policy decision for online tests.

## Evidence Based on Internal Structure

Two measures of internal consistency, the Kuder-Richardson 20 (KR20) and the stratified coefficient alpha, were used for TAKS and TAKS–M. These two consistency measures also provide reliability evidence for the assessments. As a result, the internal consistency evidence for TAKS and TAKS–M is available in the Reliability section of this chapter.

## Evidence Based on Relationships to Other Variables

Another way that Texas provides validity evidence for TAKS and TAKS–M assessments is by analyzing the relationship between performance on TAKS and TAKS–M and performance on some other measure, sometimes called criterion-related validity. By examining this relationship, evidence can be collected supporting that the relationships found are consistent with those expected at the level of the construct underlying the proposed test score interpretations.

From 2005 to 2010, a grade correlation study was conducted annually to compare the pass/fail rates of Texas students on the TAKS assessments with their passing credit/not passing credit rates in their past related courses. These studies provided one source of evidence of the test-criterion relationships. The most recent grade correlation study was conducted during the 2009–2010 school year. The study compared the passing rates of students on their 2009 TAKS grade 10 ELA assessment with their passing rate for the English II course. Only those students who had both TAKS and course data available were considered for comparison. Results indicated that 82 percent of students who passed the TAKS assessment also pass their related courses. Seven percent of students passed the TAKS assessment but did not pass their related course; 9 percent of students passed their related course but did not pass the TAKS assessments; and 3 percent of students failed to pass the TAKS assessment or their related courses. For more details on the study, refer to the Grade Correlation Study report on TEA's Student Assessment Division website.

Several analyses were done to support that TAKS–M assessments and item scores are related to outside variables as intended and are weakly related, if at all, to irrelevant characteristics. Correlations between TAKS–M content area scale scores were calculated. As shown in Table 8.10, the correlations between content area scores ranged from 0.47 to 0.70. These correlations are considered moderate, which suggests that scores across content areas are related and neither redundant nor irrelevant. This is expected because the constructs being measured are academic content areas but assess different types of knowledge and skills.

**Table 8.10.** Overall TAKS–M Correlations Between Content Area Scores

| Content Areas Compared (Using Scale Scores) | N-Count | Correlation |
|---|---|---|
| ELA & Mathematics | 7,981 | 0.47* |
| ELA & Science | 7,681 | 0.60* |
| ELA & Social Studies | 7,342 | 0.58* |
| Mathematics & Science | 9,393 | 0.61* |
| Mathematics & Social Studies | 8,097 | 0.49* |
| Science & Social Studies | 8,195 | 0.70* |

*Indicates that correlations were significant at the $p \leq .01$ level.

The correlations between the total test score and the TAKS–M objective scores were also calculated within grade and content area. Across all content areas and grades, the correlations between each objective and test score ranged from 0.51 to 0.87. The magnitudes of these correlations were found to support theoretical relations between objectives and the overall test. More specifically, the range of correlations within ELA across all grades was 0.82 to 0.87. For mathematics, the range of correlations was 0.51 to 0.65. Science had a correlation range of 0.62 to 0.87, while social studies had a correlation range of 0.71 to 0.82.

Additional validity evidence was collected in the form of discriminant validity, which demonstrates that the TAKS–M test scores are unrelated to demographic variables (e.g., gender and ethnicity). Theoretically, student characteristics such as ethnicity and gender should not relate to their performance on the assessment; therefore, the lack of meaningful empirical relationships between these measures is expected.

To investigate the relationship between TAKS–M test scores and demographic variables, correlations were computed specifically for gender and ethnicity. The correlation between TAKS–M test scores and ethnicity was 0.116, and the correlation between TAKS–M scores and gender was -0.041. Both the gender and ethnicity correlations are very small and do not indicate a meaningful relationship between TAKS–M scores and either demographic variable.

## Evidence Based on Consequences of Testing

Another method to provide validity evidence is by documenting the intended and unintended consequences of administering an assessment. Validity evidence that shows the TAKS assessment is having a positive impact on student learning and instruction was collected through educator surveys during the 2008–2009 school year. Validity evidence showing the impact of administering the TAKS–M assessment was collected through educator surveys during the 2008–2009 school year. Refer to the

2009–2010 Technical Digest for expanded information about these consequential validity surveys.

## Measures of Student Progress

Student progress within the TAKS assessment program was measured using the Texas Projection Measure (TPM). The TPM was developed to meet HB 1, SB 1031, and HB 3 legislative requirements for a measure of annual improvement in student achievement. The TPM was implemented for TAKS, TAKS (Accommodated), and Linguistically Accommodated Testing (LAT) versions of TAKS for the first time in 2009. The TPM for TAKS–M and LAT versions of TAKS–M was implemented for the first time in 2010. The TPM used a multi-level regression-based projection model that estimates whether a student is likely to pass the TAKS or TAKS–M assessments at a future grade.

For TAKS, TAKS (Accommodated), and LAT versions of TAKS, the TPM was based on

- the student's current performance on TAKS,
- the student's previous-year performance (if available) in the subject of interest on TAKS, and
- the TAKS scores of all the students on the campus that the student attends.

For TAKS–M and LAT versions of TAKS–M, the TPM was based on

- the student's current performance on TAKS–M,
- the TAKS–M scores of other students in the same enrolled grade in the student's school district.

The TPM was not reported in 2012–2013 because TAKS was only administered to grade 11/exit level students. The 2011–2012 school year was the last year TPM projections were reported since it was the last time TAKS and TAKS–M grade 10 assessments were administered. However, TEA conducts annual evaluations of the accuracy of projections previously reported to students. The accuracy of the 2010 grade 8 projections, the 2011 grade 9 projections, and the 2012 grade 10 projections were evaluated by comparing the projections reported in those years with the 2013 observed scores from grade 11. Two types of models were used to make projections—a single-year model and a two-year model—and results for both models are provided when applicable. The results presented in Tables 8.11–8.17 indicate that projection accuracy was high across grades and subjects, and when the two-year model was available, most students received a projection using the two-year model. More detailed information about the TPM is available on the Texas Student Progress Measures page on TEA's Student Assessment Division website.

**Table 8.11.** TAKS Classification Accuracy for the TPM from 2010 to 2013 (Single-year Model)

| | | | Total Projection Accuracy | | Accurate Classifications | | Misclassifications* | |
|---|---|---|---|---|---|---|---|---|
| Grade/Subject | Group | N | Accurate Projections | Inaccurate Projections | Met Standard | Did Not Meet Standard | Met Standard | Did Not Meet Standard |
| Grade 8 to Grade 11 English Language Arts | All Students | 13408 (100.00) | 12156 (90.66) | 1252 (9.34) | 11973 (89.30) | 183 (1.36) | 38 (0.28) | 1214 (9.05) |
| Grade 8 to Grade 11 Mathematics | All Students | 12264 (100.00) | 10416 (84.93) | 1848 (15.07) | 9470 (77.22) | 946 (7.71) | 682 (5.56) | 1166 (9.51) |
| Grade 8 to Grade 11 Science | All Students | 247453 (100.00) | 239853 (96.93) | 7600 (3.07) | 237960 (96.16) | 1893 (0.76) | 2772 (1.12) | 4828 (1.95) |
| Grade 8 to Grade 11 Social Studies | All Students | 246991 (100.00) | 245129 (99.25) | 1862 (0.75) | 245125 (99.24) | 4 (0.00) | 27 (0.01) | 1835 (0.74) |

*Met Standard within the Misclassifications column indicates that the student was incorrectly classified by the TPM as Did Not Meet Standard when in fact they did. Did Not Meet Standard within the Misclassifications column indicates that the student was incorrectly classified by the TPM as Met Standard when in fact they did not.

**Table 8.12.** TAKS Classification Accuracy for the TPM from 2010 to 2013 (Two-year model)

| | | | Total Projection Accuracy | | Accurate Classifications | | Misclassifications* | |
|---|---|---|---|---|---|---|---|---|
| Grade/Subject | Group | N | Accurate Projections | Inaccurate Projections | Met Standard | Did Not Meet Standard | Met Standard | Did Not Meet Standard |
| Grade 8 to Grade 11 English Language Arts | All Students | 238582 (100.00) | 232562 (97.48) | 6020 (2.52) | 232126 (97.29) | 436 (0.18) | 144 (0.06) | 5876 (2.46) |
| Grade 8 to Grade 11 Mathematics | All Students | 239319 (100.00) | 221035 (92.36) | 18284 (7.64) | 215451 (90.03) | 5584 (2.33) | 4389 (1.83) | 13895 (5.81) |

*Met Standard within the Misclassifications column indicates that the student was incorrectly classified by the TPM as Did Not Meet Standard when in fact they did. Did Not Meet Standard within the Misclassifications column indicates that the student was incorrectly classified by the TPM as Met Standard when in fact they did not.

**Table 8.13.** TAKS Classification Accuracy for the TPM from 2011 to 2013 (Single-year model)

| | | | Total Projection Accuracy | | Accurate Classifications | | Misclassifications* | |
|---|---|---|---|---|---|---|---|---|
| Grade/Subject | Group | N | Accurate Projections | Inaccurate Projections | Met Standard | Did Not Meet Standard | Met Standard | Did Not Meet Standard |
| Grade 9 to Grade 11 English Language Arts | All Students | 13737 (100.00) | 12414 (90.37) | 1323 (9.63) | 12071 (87.87) | 343 (2.50) | 76 (0.55) | 1247 (9.08) |
| Grade 9 to Grade 11 Mathematics | All Students | 13517 (100.00) | 11590 (85.74) | 1927 (14.26) | 10117 (74.85) | 1473 (10.90) | 482 (3.57) | 1445 (10.69) |

*Met Standard within the Misclassifications column indicates that the student was incorrectly classified by the TPM as Did Not Meet Standard when in fact they did. Did Not Meet Standard within the Misclassifications column indicates that the student was incorrectly classified by the TPM as Met Standard when in fact they did not.

**Table 8.14.** TAKS Classification Accuracy for the TPM from 2011 to 2013 (Two-year model)

| | | | Total Projection Accuracy | | Accurate Classifications | | Misclassifications* | |
|---|---|---|---|---|---|---|---|---|
| Grade/Subject | Group | N | Accurate Projections | Inaccurate Projections | Met Standard | Did Not Meet Standard | Met Standard | Did Not Meet Standard |
| Grade 9 to Grade 11 English Language Arts | All Students | 247227 (100.00) | 240655 (97.34) | 6572 (2.66) | 239956 (97.06) | 699 (0.28) | 192 (0.08) | 6380 (2.58) |
| Grade 9 to Grade 11 Mathematics | All Students | 247047 (100.00) | 228564 (92.52) | 18483 (7.48) | 224912 (91.04) | 3652 (1.48) | 1542 (0.62) | 16941 (6.86) |

*Met Standard within the Misclassifications column indicates that the student was incorrectly classified by the TPM as Did Not Meet Standard when in fact they did. Did Not Meet Standard within the Misclassifications column indicates that the student was incorrectly classified by the TPM as Met Standard when in fact they did not.

**Table 8.15.** TAKS Classification Accuracy for the TPM from 2012 to 2013 (Single-year Model)

| | | | Total Projection Accuracy | | Accurate Classifications | | Misclassifications* | |
|---|---|---|---|---|---|---|---|---|
| Grade/Subject | Group | N | Accurate Projections | Inaccurate Projections | Met Standard | Did Not Meet Standard | Met Standard | Did Not Meet Standard |
| Grade 10 to Grade 11 English Language Arts | All Students | 12490 (100.00) | 10745 (86.03) | 1745 (13.97) | 10182 (81.52) | 563 (4.51) | 57 (0.46) | 1688 (13.51) |
| Grade 10 to Grade 11 Mathematics | All Students | 11649 (100.00) | 9836 (84.44) | 1813 (15.56) | 7908 (67.89) | 1928 (16.55) | 822 (7.06) | 991 (8.51) |
| Grade 10 to Grade 11 Science | All Students | 264906 (100.00) | 253717 (95.78) | 11189 (4.22) | 248894 (93.96) | 4823 (1.82) | 7296 (2.75) | 3893 (1.47) |
| Grade 10 to Grade 11 Social Studies | All Students | 262580 (100.00) | 260306 (99.13) | 2274 (0.87) | 260273 (99.12) | 33 (0.01) | 44 (0.02) | 2230 (0.85) |

*Met Standard within the Misclassifications column indicates that the student was incorrectly classified by the TPM as Did Not Meet Standard when in fact they did. Did Not Meet Standard within the Misclassifications column indicates that the student was incorrectly classified by the TPM as Met Standard when in fact they did not.

**Table 8.16.** TAKS Classification Accuracy for the TPM from 2012 to 2013 (Two-year Model)

| | | | Total Projection Accuracy | | Accurate Classifications | | Misclassifications* | |
|---|---|---|---|---|---|---|---|---|
| Grade/Subject | Group | N | Accurate Projections | Inaccurate Projections | Met Standard | Did Not Meet Standard | Met Standard | Did Not Meet Standard |
| Grade 10 to Grade 11 English Language Arts | All Students | 253788 (100.00) | 246649 (97.19) | 7139 (2.81) | 245912 (96.90) | 737 (0.29) | 183 (0.07) | 6956 (2.74) |
| Grade 10 to Grade 11 Mathematics | All Students | 254571 (100.00) | 237463 (93.28) | 17108 (6.72) | 229445 (90.13) | 8018 (3.15) | 3880 (1.52) | 13228 (5.20) |

*Met Standard within the Misclassifications column indicates that the student was incorrectly classified by the TPM as Did Not Meet Standard when in fact they did. Did Not Meet Standard within the Misclassifications column indicates that the student was incorrectly classified by the TPM as Met Standard when in fact they did not.

**Table 8.17.** TAKS–M Classification Accuracy for the TPM from 2012 to 2013 (Single-year model)

| | | | Total Projection Accuracy | | Accurate Classifications | | Misclassifications* | |
|---|---|---|---|---|---|---|---|---|
| Grade/Subject | Group | N | Accurate Projections | Inaccurate Projections | Met Standard | Did Not Meet Standard | Met Standard | Did Not Meet Standard |
| Grade 10 to Grade 11 English Language Arts | All Students | 6436 (100.00) | 5524 (85.83) | 912 (14.17) | 4296 (66.75) | 1228 (19.08) | 304 (4.72) | 608 (9.45) |
| Grade 10 to Grade 11 Mathematics | All Students | 6582 (100.00) | 4943 (75.10) | 1639 (24.90) | 2923 (44.41) | 2020 (30.69) | 789 (11.99) | 850 (12.91) |
| Grade 10 to Grade 11 Science | All Students | 6056 (100.00) | 4798 (79.23) | 1258 (20.77) | 2456 (40.55) | 2342 (38.67) | 607 (10.02) | 651 (10.75) |
| Grade 10 to Grade 11 Social Studies | All Students | 5779 (100.00) | 4470 (77.35) | 1309 (22.65) | 3024 (52.33) | 1446 (25.02) | 451 (7.80) | 858 (14.85) |

*Met Standard within the Misclassifications column indicates that the student was incorrectly classified by the TPM as Did Not Meet Standard when in fact they did. Did Not Meet Standard within the Misclassifications column indicates that the student was incorrectly classified by the TPM as Met Standard when in fact they did not.

## Sampling

In 2012–2013 there were no research studies, audits, or field tests conducted for TAKS or TAKS–M. Therefore, sampling was not required.

## Test Results

Appendices F and G provide scale score distributions and statistics, RSSS conversion tables as well as mean p-values and reliability estimates by objective and content area for TAKS and TAKS–M assessments administered in 2012–2013. Tables 8.18 and 8.19 show spring 2013 pass rates for TAKS and TAKS–M.

**Table 8.18.** TAKS Spring 2013 (Primary Administration) Pass Rates

| TAKS Assessment | Grade | Pass Rate |
|---|---|---|
| English Language Arts | Exit Level | 95% |
| Mathematics | Exit Level | 89% |
| Science | Exit Level | 96% |
| Social Studies | Exit Level | 99% |

**Table 8.19.** TAKS–M Spring 2013 Pass Rates

| TAKS–M Assessment | Grade | Pass Rate |
|---|---|---|
| English Language Arts | Grade 11 | 74% |
| Mathematics | Grade 11 | 62% |
| Science | Grade 11 | 56% |
| Social Studies | Grade 11 | 61% |