PSAE CONTRACT
NARRATIVE

FOR THE
PRAIRIE STATE
ACHIEVEMENT
EXAMINATION (PSAE)
SYSTEM

2006-2010
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The State of Illinois and ACT have long been associated with the ongoing education of the residents of Illinois. Since 1959 the state of Illinois has been a flagship participant in new and innovative programs and services available from ACT. ACT recognizes the importance of our historical relationship with the state, which is evidenced by ACT's decision to locate our Midwest Office in Lincolnshire. The Midwest Office employs seventeen full time staff members who support ACT relations with the state of Illinois and other midwestern states.

Since the initial administration of the PSAE, ACT has tested nearly 600,000 Illinois students while measuring student achievement relative to the Illinois Learning Standards. During the 2004-05 school year, nearly 127,120 Illinois students took the PSAE and over 103,000 additional Illinois students took the ACT Assessment (the ACT) at one of over 400 test centers across the state. Every college and university in the state either requires or accepts the ACT for entrance. WorkKeys has been recognized and used extensively to measure employability skills of the current and future workforce.

ACT understands that the Illinois State Board of Education (ISBE) seeks to make available, at no charge to students, an existing test currently used for college-admissions purposes. The test should cover reading, mathematics, and science. In addition, ISBE seeks to make available, and at no charge to students, existing tests that assess the student's ability to apply reading and math skills that employers can use to make employment decisions.

To meet these objectives, ACT will make available the ACT Assessment® (without the optional ACT Writing Test) and two WorkKeys® assessments: Reading for Information and Applied Mathematics. ACT will also work with ISBE and current and future processing contractors to provide PSAE subject-area scores for each student participating in the PSAE system. To yield the proposed PSAE test results, ACT's Development and Research staff, with cooperation from ISBE, will scale and combine the results from the different PSAE components for reporting by the designated processing contractor.

It is understood that approximately 136,000 students who attend 700 public Illinois high schools are currently enrolled in grade 11. This figure includes students with Individualized Education Programs (IEPs) who are required to take the PSAE unless their IEPs specify that the examination would be inappropriate, but does not include students placed in private or out-of-state schools. The Board has estimated that 125,000 to 130,000 students in grade 11 will participate in the PSAE assessments in spring 2006 (121,294 participated in spring 2004). The Board has estimated that 25 percent of those students (31,250) will retake the exam in grade 12 in order to improve their scores or to meet the requirements for receiving a regular diploma (11,148 students participated in the October 2004 retake, and an additional 3,000 have submitted vouchers to take the ACT on additional test dates during 2004-05).

The PSAE, including the components listed above, will be given at two scheduled testing times for students in grade 11. In addition to the selected spring statewide test date, a makeup test session will be scheduled two weeks after the initial grade 11 testing time. The Board has estimated that up to 5 percent of the students (6,500) will participate in the makeup session (2,031 tested on the makeup date in spring 2005). In addition, students in grade 12 will have a retake option in October.
ACT understands that ISBE wishes to continue to administer the PSAE on the fourth Wednesday and Thursday in April with a makeup date two weeks later. As previously stipulated, these dates may not fall within two weeks of established ACT national test dates. Test dates for 2005-2006 and 2006-2007 are final. Test dates for future years through FY 2010 are listed but subject to change if the established ACT National Test Dates change.

**FY2006**

- April 26-27, 2006  
  Grade 11 Initial Test  
- May 10-11, 2006  
  Grade 11 Make-up Test  
- April 26-May 10, 2006  
  Day 1 Accommodations  
- April 27-May 11, 2006  
  Day 2 Accommodations

**FY2007**

- October 28, 2006  
  Grade 12 Retake Day 1  
- October 31, 2006  
  Grade 12 Retake Day 2  
- October 28-November 11, 2006  
  Day 1 Accommodations  
- October 31-November 14, 2006  
  Day 2 Accommodations

**FY2008**

- April 25-26, 2007  
  Grade 11 Initial Test  
- May 9-10, 2007  
  Grade 11 Make-up Test  
- April 25-May 9, 2007  
  Day 1 Accommodations  
- April 26-May 10, 2007  
  Day 2 Accommodations

**FY2009**

- October TBD  
  Grade 12 Retake  
- October – November TBD  
  Day 1 Accommodations  
- October – November TBD  
  Day 1 Accommodations

**FY2010**

- April 22-23, 2009  
  Grade 11 Initial Test  
- May 6-7, 2009  
  Grade 11 Make-up Test  
- April 22-May 6, 2009  
  Day 1 Accommodations  
- April 23-May 7, 2009  
  Day 2 Accommodations

**FY2011**

- October TBD  
  Grade 12 Retake  
- October – November TBD  
  Day 1 Accommodations  
- October – November TBD  
  Day 1 Accommodations

2
Description of Proposed Tests

To meet the requirement of "an existing test that is currently used for college-admissions purposes" and to cover specified content areas, ACT will make available the ACT Assessment multiple choice tests at the price quoted in the costing section of this contract.

ACT Assessment Tests

The ACT Assessment includes four curriculum-based tests that measure students' educational achievement in English, mathematics, reading, and science. The tests are based on the major areas of instruction in American high schools and colleges. A student's performance has a direct and obvious relationship to his or her academic development. The meaning of that performance, as indicated by scores, subscores, and skill statements, is readily understood by both educators and students. Complete test descriptions appear on ACT's website www.act.org.

ACT Assessment Test Development

The fundamental idea underlying the design and development of the ACT tests is that the best way to increase student readiness for postsecondary education is to measure as directly as possible the knowledge and skills students will need in postsecondary learning.

Design of the Test Specifications. The specific knowledge and skills selected for evaluation are determined through a detailed analysis of three sources of information. First, the objectives for instruction for Grades 7 through 12 are examined for all states in the United States that have published such objectives. Second, textbooks on state-approved lists for courses in Grades 7 through 12 are reviewed. Third, every three to four years, ACT conducts a National Curriculum Survey in which thousands of educators at the secondary and postsecondary levels are surveyed and consulted to determine the knowledge and skills taught in Grades 7 through 12 that are prerequisite to successful performance in postsecondary courses. On the basis of these sources of information, ACT defines the scope and content of each of the areas measured by the ACT tests to ensure that the tests reflect the broad range of knowledge and skills taught in high school that are important for success in college. The findings of ACT's most recent national curriculum survey are summarized in Appendix 2 of ACT's March 2005 proposal to the Illinois State Board of Education for The Prairie State Achievement Examination - Content Validity Evidence in Support of: ACT's Educational Achievement Tests: ACT National Curriculum Survey 2002-2003.

The specifications for the ACT Assessment tests, as well as those for related programs such as PLAN® and EXPLORE®, are derived from these achievement continua with the assistance of nationally recognized educational consultants. Once the data from each National Curriculum Survey are available, ACT convenes a blue-ribbon panel of experts for each of its tests; the panel analyzes the results and translates them into domain specifications. Because ACT conducts these studies every three to four years, the domain definitions are dynamic in that they reflect curricular shifts, however subtle, and trends as they are reflected in high school instruction and in the expectations colleges have of their entering students.

Item Writers. Test questions, based on the domain specifications derived from the curriculum study, are written by content experts from throughout the nation, nearly all of who are actively engaged in teaching. They teach at all levels, from high school to university, and at a variety of institutions, from small private schools to large public schools. In 2004, Illinois educators made up 5% to 17% (depending on the content area) of the item writer pool for the ACT Tests. When writing questions for the ACT Assessment, teachers are asked to concentrate on topics that are instructionally important, and to construct problems that focus on the application of knowledge and reasoning skills rather than the recall of facts.
Each item writer receives an item writer’s guide that is specific to the content area. The guides include examples of items and provide item writers with the test specifications and ACT's requirements for content and style. Included are specifications for fair portrayal of all groups of individuals, avoidance of subject matter that may be unfamiliar to members of certain groups within society, and nonsexist use of language. Each item writer is given an assignment to produce a small number of multiple-choice items. The small size of the assignment ensures production of a diversity of material and maintenance of the security of the testing program, since any item writer will know only a small proportion of the items produced. Item writers work closely with ACT test specialists, who assist them in producing items of high quality that meet the test specifications. Each item writer submits a set of items, called a unit, in a given content area.

**Review of Items.** After a unit is accepted, it is edited to meet ACT’s specifications for content accuracy, word count, item classification, item format, and language. During the editing process, all test materials are reviewed for fair portrayal and balanced representation of groups within society and for nonsexist use of language. The unit is reviewed several times by ACT staff to ensure that it meets all of ACT’s standards.

Copies of each unit are then submitted to content and fairness experts for external reviews prior to the pretest administration of these units. The content review panel consists of high school teachers, curriculum specialists, and college and university faculty members. The content panel reviews the unit for content accuracy, educational importance, and grade-level appropriateness. The fairness review panel consists of experts in diverse educational areas who are trained and knowledgeable in many issues of underrepresented student populations. With the help of the fairness panel, ACT works to be inclusive of the content of the tests to ensure that it speaks to all students including students with limited English proficiency and students with disabilities. Any comments on the units by the content consultants are discussed in a panel meeting with all the content consultants and ACT staff, and appropriate changes are made to the unit(s). All fairness consultants’ comments are reviewed and discussed, and appropriate changes are made to the unit(s).

**Item Tryouts.** The items that are judged to be acceptable in the review process are assembled into tryout units for pretesting on samples from the national examinee population. These samples are carefully selected to be representative of the total examinee population. Each sample is administered a tryout unit from one of the four academic areas covered by the ACT Assessment tests. The time limits for the tryout units permit the majority of students to respond to all items.

**Item Analysis of Tryout Units.** Item analyses are performed on the tryout units. For a given unit the sample is divided into low-, medium-, and high-performing groups by the individuals’ scores on the ACT Assessment test in the same content area (taken at the same time as the tryout unit). The cutoff scores for the three groups are the 27th and the 73rd percentile points in the distribution of those scores. These percentile points maximize the critical ratio of the difference between the mean scores of the upper and lower groups, assuming that the standard error of measurement in each group is the same and that the scores for the entire examinee population are normally distributed (Millman & Greene, 1989). Proportions of students in each of the groups correctly answering each tryout item are tabulated, as well as the proportion in each group selecting each of the incorrect options. Biserial and point-biserial correlation coefficients between each item score (correct/incorrect) and the total score on the corresponding test of the regular (national) test form are also computed.

Item analyses serve to identify statistically effective test items. Items that are either too difficult or too easy and items that fail to discriminate between students of high and low educational development as measured by their corresponding ACT Assessment test scores are eliminated or revised for future item tryouts. The biserial and point-biserial correlation coefficients, as well as the differences between proportions of students answering the item correctly in each of the three groups, are used as indices of the discriminating power of the tryout items.

Each item is reviewed following the item analysis. ACT staff members scrutinize items flagged for statistical reasons to identify possible problems. Some items are revised and placed in new tryout units following further review. The review process also provides feedback, which helps decrease the incidence of poor quality items in the future.
Assembly of New Forms. Items that are judged acceptable in the review process are placed in an item pool. Preliminary forms of the ACT Assessment tests are constructed by selecting items from this pool that match the content, cognitive, and statistical specifications for the tests.

The preliminary versions of the test forms are subjected to several reviews to ensure that the items are accurate and that the overall test forms are fair and conform to good test construction practice. ACT staff performs the first review. Items are checked for content accuracy and conformity to ACT style. The items are also reviewed to ensure that they are free of clues that could allow test-wise students who lack knowledge in the subject or the required skills to answer the item correctly.

Two panels, a content review panel and a fairness review panel, are then convened to discuss with ACT staff the consultants' reviews of the forms. The content review panel consists of high school teachers, curriculum specialists, and college and university faculty members. The content panel reviews the forms for content accuracy, educational importance, and grade-level appropriateness. The fairness review panel consists of experts in diverse areas of education who represent both genders and a variety of racial and ethnic backgrounds. The fairness panel reviews the forms to help ensure fairness to all examinees.

After the panels complete their reviews, ACT summarizes the results. ACT staff members review all comments from the consultants, and appropriate changes are made to the test forms. Whenever significant changes are made, the revised components are again reviewed by the appropriate consultants and by ACT staff. If no further corrections are needed, the test forms are prepared for printing.

In all, at least 20 independent reviews are made of each test item before it appears on a national form of the ACT Assessment. The many reviews are performed to help ensure that each student's level of achievement is accurately and fairly evaluated.

Review Following Operational Administration. After each operational administration, item analysis results are reviewed for any anomalies such as substantial changes in item difficulty and discrimination indices between tryout and national administrations. Only after all anomalies have been thoroughly checked and the final scoring key approved, are score reports produced. Examinees may challenge any items that they feel are questionable. Once a challenge to an item is raised and reported, the item is reviewed by content specialists in the content area assessed by the item. In the event that a problem is found with an item, actions are taken to eliminate or minimize the influence of the problem item as necessary. In all cases, the person who challenges an item is sent a letter indicating the results of the review.

Also, after each operational administration, DIF (differential item functioning) analysis procedures are conducted on the test data. DIF can be described as a statistical difference between the probability of the specific population group (the “focal” group) getting the item right and the comparison population group (the “base” group) getting the item right given that both groups have the same level of achievement with respect to the content being tested. The procedures currently used for the analysis include the standardized difference in proportion-correct (STD) procedure and the Mantel-Haenszel common odds-ratio (MH) procedure.

Both the STD and MH techniques are designed for use with multiple-choice items, and both require data from significant numbers of examinees to provide reliable results. For a description of these statistics and their performance overall in detecting DIF, see the ACT Research Report entitled Performance of Three Conditional DIF Statistics in Detecting Differential Item Functioning on Simulated Tests by Judith A. Spray (1989). In the analysis of items in an ACT Assessment form, large samples representing examinee groups of interest (for example, males and females) are selected from the total number of examinees taking the test. The examinees' responses to each item on the test are analyzed using the STD and MH procedures. Compared with pre-established criteria, the items with STD or MH values exceeding the tolerance level are flagged. Content specialists then further review flagged items for possible explanations of the unusual STD or MH results. In the event that a problem is found with an item, actions will be taken as necessary to eliminate or minimize the influence of the problem item.

Universal Design. Throughout the test development and test administration process ACT works to ensure that each and every item measures the construct of interest and minimizes any effects of irrelevant factors in the form
of content, format, context or setting, layout, etc. This is to allow participation of the widest possible range of
students and to result in student test performance that is a valid and reliable measure of their knowledge and
skills. The constructs of the ACT Tests are defined precisely and explicitly with each National Curriculum Survey
conducted by ACT. The resulting empirically-based specifications call for measuring a broad range of
educationally significant knowledge and skills. ACT submits all tests, both before tryout and before operational
form publication, to content and fairness review panels, which include persons trained, and knowledgeable in
many issues of underrepresented student populations. ACT works to be inclusive of the content and the format
of the tests to ensure that the testing situation as a whole speaks to all students including students with limited
English proficiency, students with disabilities, and minority students.

Applied Reading and Mathematics Tests

WorkKeys Assessments

To meet the requirement of “existing tests that assess the student’s ability to apply reading and math skills, such
that employers can use the results in making employment decisions,” ACT will make available two WorkKeys
assessments—Reading for Information and Applied Mathematics—at the price quoted in the costing section of this
contract.

Complete Test Descriptions of both WorkKeys assessments, the skills required at various levels (test
specifications) for each assessment, and examples of items at each skill level are provided in WorkKeys Test
Descriptions: Reading for Information and WorkKeys Test Descriptions: Applied Mathematics.

WorkKeys Test Development

Skill Definition. Before constructing the assessments, ACT defines the content domains of interest and develops
hierarchical WorkKeys skill descriptions. This process typically begins with a panel made up of employers,
educators, and ACT staff. The panel first develops a broad definition of a skill area and identifies the lowest and
highest level of the skill that it is worthwhile to measure. The panel then identifies examples of tasks within this
broadly defined skill domain and narrows that domain to those examples that are important for job performance
across a wide range of jobs. Next, the tasks are organized into “strands,” which are aspects of the general skill
domain, or skill area that pertain to a singular concept to be measured. The strands assessed in Reading for
Information, for example, include “choosing main ideas or details,” “understanding word meanings,” “applying
instructions,” and “applying information and reasoning.”

A critical aspect of skills definition is ensuring that the skills are observable, measurable, and teachable. Further,
these skills must be based on actual work tasks in the form of the understanding the stimuli or the context and the
application of skills in responding to items. Because these assessments have been designed to assess foundational
and essential workplace skills, they must measure those skills fairly and accurately. Thus, the content of the test
must be directly related to workplace activities. This is an important point not only for the content validity of the
assessments, but also for fairness to all examinees.

Universal design is a crucial consideration, in that accurate representation of workplace situations is true to actual
job requirements and job performance. Both in the workplace and in the testing environment, individuals address
similar tasks. And in both circumstances these individuals have access to tools to make the experience more
accessible to them in spite of disabling condition. Thus, a visually impaired employee would have tools to assist
him or her in “reading”, such as Brailled materials, audio recordings, readers, and so on. Similarly, WorkKeys
makes the same kinds of assistance available to examinees, thus making the testing experience as similar as
possible to the tasks that need to be performed on the job.

The strands are also divided into levels based on the variables believed to cause a task to be more or less difficult.
In general, at the low end of a strand a few simple things must be attended to, whereas at the high end, many
things must be attended to and a person must process information to apply it to more complex situations. In the
“applying instructions” strand of Reading for Information, for example, employees need only apply instructions to
clearly described situations at the lower levels. At the higher levels, however, employees must not only understand
instructions in which the wording is more complex, meanings are more subtle, and multiple steps and conditionals are involved, but also apply these instructions to new situations.

**Test Specifications.** Using the skill definitions described above, the ACT WorkKeys development team develops the specifications, outlining the skills the assessment will measure and how the items will become more complex as the skill levels increase. Each level is defined in terms of its characteristics, with exemplar test items as examples. While it is sometimes appropriate to define a level by content alone, in most cases the complexity of the stimulus and question determines the level to which a particular test item is assigned.

WorkKeys test specifications for the multiple-choice assessments are unlike the test blueprints used in education. They are not a list of the content topics or objectives to be covered and the number of test items to be assigned to each. Rather, they are more like scoring rubrics used for holistic scoring of constructed-response assessments (White, E.M., 1994). That is, the alternatives for a single multiple-choice question may include multiple content classifications, modeling a well-integrated curriculum, yet making the typical approach to test blueprints (that assume that each item measures one and only one objective) inappropriate.

**Prototyping.** After development of the general test specifications, ACT staff begins writing items for the prototype test. All the items must be written to meet the test specifications and must correspond to the respective skill levels of the test. Sufficient numbers of prototype test items to create one full-length test form (usually 30 to 40 items) for the skill area are produced.

Each prototype (one per skill area) is administered to at least two groups of high school students and two groups of employees. Typically, one group of students and one of employees will be from the same city. The second groups of students and employees will be found in another state with a different situation (e.g., if the first groups are from a suburban setting, the second may be from an inner city). The number of examinees varies according to the test format, with more being used for multiple-choice tests than for constructed-response tests. Typically, at least 200 students and 60 employees are divided across the two administration sites for each multiple-choice prototype test form.

During the prototype process, staff interviews the examinees for their reactions to the test instrument, which helps ACT evaluate the functioning of the test specifications. Questions such as whether the prototype items were too hard, too easy, or tested skills outside the realm of the specifications must be answered before development can move to the pretesting stage. Educators and employers are also invited to review and comment on the prototype. Then, based on all the information from the prototype testing, the test specifications are adjusted if necessary, and additional prototype studies may be conducted. When the prototype process is completed satisfactorily, a written guide for item writers is prepared.

**Pretesting.** For the pretesting phase, ACT contracts with numerous freelance item writers to produce a large number of items that ACT staff edit to meet content, cognitive, and format standards. Of the entire pool of item writers for WorkKeys, there are 14 individuals from Illinois, or 3.3% of the total number of item writers. WorkKeys item writers must be familiar with various work situations and have insight into the use of a particular skill in different employment settings, because both content and contextual accuracy are critically important for WorkKeys. Inaccurate facts, improbable circumstances, or unlikely consequences of a series of procedures or actions are not acceptable. An examinee who knows about a particular workplace should not identify any of the assessment content, circumstances, procedures, or keyed responses as unlikely, inappropriate, or otherwise inaccurate.

Given the wide range of employability skills assessed, verifying content accuracy for WorkKeys is challenging. To help WorkKeys staff detect any possible problems, the item writers write a justification for the best response and for each distractor (incorrect response) for each test item. Both the items and the justifications are checked and, if necessary, modifications to the test items are made.

After the test questions and stimuli have been created and edited, and before administration of the pretesting forms, all items are submitted to external consultants for content and fairness reviews. Qualified experts in the specific skill area being assessed, usually persons utilizing the skills regularly on the job, check for content and
contextual accuracy. Members of minority groups review the items to make sure they will not be biased against, or offensive to, racial, ethnic, and gender groups. ACT provides all the reviewers with written guidelines (ACT, 1995a) and receives written evaluations back from them.

Table 1

Typical Number of Reviewers by Type of Review for Two WorkKeys Assessments

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<th>Assessment Title</th>
<th>Number of Content Reviewers</th>
<th>Number of Fairness Reviewers</th>
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<tr>
<td>Applied Mathematics</td>
<td>9</td>
<td>8</td>
</tr>
<tr>
<td>Reading for Information</td>
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<td>8</td>
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Table 1 above shows the typical numbers of reviewers used for verifying content accuracy and fairness for the Applied Mathematics and Reading for Information assessments. ACT staff responds to every concern the reviewers raise, and any needed adjustments to the test items are made before pretesting.

To provide the data required for both classical and item response theory (IRT)-based statistics, each multiple-choice item is administered to a sample of about 2,000 examinees. For practical reasons, most of these examinees are students, although smaller samples of employees are also assessed for each pretest. Then ACT researchers evaluate the psychometric properties (such as reliability and scalability) of each item. For new tests, these data are obtained through special pretesting studies. However, ongoing pretesting of new items for existing tests is used through embedding the developmental items in operational forms. The examinee is informed that the embedded items are included and that their scores on those items will not "count."

Additionally, statistical, differential item functioning (DIF) analyses of the items are carried out to determine whether items function differently for various groups of individuals (by seeing if responses to items can be correlated with the gender or ethnicity of the examinees). Items that show DIF are eliminated from the item pool. Based on the data collected during the pretesting for each skill area, no items in the WorkKeys tests show DIF. Statistical studies can also locate problem items, which are identified during the analysis and are reevaluated by staff and, if necessary, outside experts.

Operational Forms. Pretest item analyses are considered carefully when constructing the forms for operational testing. Alternate and equivalent test forms for each assessment are developed from the pool of items that meet all the content, statistical, and fairness criteria. ACT staff constructs at least two equivalent test forms for each assessment. In these forms, both the overall characteristics of the test and the within-level characteristics for content, complexity, and psychometric characteristics are made as similar as possible.

In addition to developing the job profiling procedure to link the content of the WorkKeys assessments to a specific job, ACT achieves validity through creating well-designed tests. During the development of the assessments, ACT works to minimize the likelihood of adverse impact resulting from use of the WorkKeys tests. Specifically, the assessments are designed to be job-related and fair by ensuring the items go through a series of screens prior to their being made available to employers:

- The assessments are criterion-referenced (they use job requirements as the scoring reference, rather than population norms);
- The test specifications are well-defined;
- Items are written by people who have job experience in the workplace and thus the items tap a domain of workplace skill;
- Items measure a particular workplace skill;
- Content and fairness experts review the items to determine possible differences in responses among racial groups and gender; and
- Statistical analyses (e.g., Differential Item Functioning) at the item and test level are conducted to monitor the performance of various subgroups.
- Universal design principles are applied in that they are consistent with, and in many ways identical to, the above processes required to produce assessments that meet industry standards for validity and reliability.
ALIGNMENT OF TESTS WITH THE ILLINOIS LEARNING STANDARDS

Alignment of Tests

The tests provided by ACT are closely aligned with the Illinois Learning Standards as described below.

ACT Assessment

In March 2005, ACT completed a comparison of the ACT Science Test with the draft Illinois Science Assessment Frameworks for Grade 11 that was posted on ISBE's website on January 6, 2005. In May and June 2005, ACT staff worked with ISBE staff to finalize the Illinois Assessment Frameworks for Grade 11 in Reading, Mathematics, and Science. For the Mathematics Assessment Frameworks, additional meetings were held with ACT staff, ISBE staff, and Illinois mathematics educators to review forms of the ACT Mathematics Test and the WorkKeys Applied Mathematics assessment in light of the draft Illinois Mathematics Assessment Frameworks to ensure that they were true to the tests as well as to the Illinois Learning Standards from the teacher's perspective. After several of these working meetings, the Illinois Mathematics Assessment Frameworks were finalized. ACT is currently completing comparisons of the ACT Mathematics and Reading Tests with the final Illinois Mathematics Assessment Frameworks for Grade 11 and the final Illinois Reading Assessment Frameworks for Grade 11, respectively. These comparisons will be added to the earlier comparison documents completed in February 1999 and February 2000. These earlier comparisons looked at the alignment between the Illinois Learning Standards and ACT's EPAS assessments—EXPLORE, PLAN, and the ACT. Based on all reviews, there appears to be a very good match between the Illinois Learning Standards and all of ACT's EPAS academic tests—English, Mathematics, Reading, and Science. ISBE will have an independent evaluation on the validation of the alignment for the PSAE as required by NCLB peer review. ACT will provide information and materials as needed but will not be involved in the alignment work.

Cognitive Complexity of the ACT Items. Cognitive complexity is present in the test specifications for each ACT Test, but because “extended thinking” is quite a different entity in mathematics, for example, than in reading, the cognitive complexity of each item is actually categorized and described differently in each test.

The Reading Test assesses a broad range of thinking skills, including recognizing how details are related to the main idea of a passage, synthesizing information, analyzing the rhetorical structure of a passage, and drawing conclusions. The ACT Reading Test measures the reading comprehension skills students have acquired in courses taken up to the beginning of twelfth grade. Designed to simulate the types of reading tasks students encounter in their academic work and in life outside of school, the Reading Test measures students' literal-level reading skills as well as their ability to make inferences, draw conclusions, generalize from specific data, and reason logically.

The items in the Reading Test are classified into two general categories of Referring and Reasoning. Referring items ask about material explicitly stated in a passage. These items are designed to measure literal reading comprehension. Reasoning items pose questions about meaning implicit in a passage, questions that require careful reasoning about a passage, and questions dealing with context-dependent vocabulary. These questions require students to engage in such skills as interpretation, analysis, and synthesis.

The Mathematics Test focuses on the thinking skills required to perform tasks of quantitative reasoning. On the ACT Mathematics Test, students demonstrate their ability to read and understand mathematical terminology; to apply definitions, theorems, theorems, and properties; and to interpret and analyze data. Students also apply quantitative reasoning in a variety of ways, such as discerning relationships between mathematical concepts, connecting and integrating mathematical concepts and ideas, and making generalizations. Computational skills and knowledge of basic formulas are assumed as background for the problems, but extensive computation and memorization of complex formulas are not required and the use of calculators is permitted. The concepts covered on the test emphasize the major content areas that are prerequisite to successful performance in entry-level college mathematics courses.
The items in the Mathematics Test are classified into four categories of **Knowledge and Skills, Direct Application, Understanding Concepts, and Integrating Conceptual Understanding**. Questions at the Knowledge and Skill level require the student to use one or more facts, definitions, formulas, or procedures to solve problems that are presented in purely mathematical terms. Questions at the Direct Application level require the student to use one or more facts, definitions, formulas, or procedures to solve straightforward problems set in real-world situations. Questions at the Understanding Concepts level test the student’s depth of understanding of major concepts by requiring reasoning from a concept to reach an inference or a conclusion. And questions at the Integrating Conceptual Understanding level test the student’s ability to achieve an integrated understanding of two or more major concepts so as to solve non-routine problems.

The **Science Test** is designed to measure the thinking skills, processes, and strategies students use while learning, thinking about, and using science. These skills include comparing experimental designs and their underlying assumptions, analyzing and interpreting data, making critical observations and generalizations, and generating and evaluating hypotheses. The ACT Science Test is designed to assess the thinking skills, processes, and strategies students acquire in high school science courses. The ACT Science Test is based upon the type of content that is typically covered in high school general science courses. Materials are drawn from biology, chemistry, physics, and Earth/space science. Each test activity uses stimulus materials from one of these areas.

The questions included in the Science Test are classified into three categories of **Understanding, Analysis, and Generalization**. Questions at the Understanding level require the student to comprehend a component of the information presented, and, to a limited extent, to understand how that component relates to the stimulus as a whole. This type of question typically deals with a small portion of the stimulus, such as a single data point, graph axis, hypothesis, or experimental step. Understanding questions are included in passages of all three formats (Data Representation, Research Summaries, and Conflicting Viewpoints). Specifically, understanding questions test the student’s ability to:

- Explain, describe, identify, or compare the basic features of, and concepts related to, the information.
- Explain, describe, identify, or compare the components of the experimental design or process.
- Explain, describe, identify, or compare the basic features or data points in graphs, charts, or tables.
- Explain, describe, or identify basic scientific concepts or assumptions underlying the provided information.
- Select the appropriate translation of the provided information into a graph, figure, or diagram.

Questions at the Analysis level require the student to relate several components of the presented information to see how each piece of information fits in with the rest of the stimulus. This type of question typically deals with a major portion of the stimulus, such as a graphed relationship, one or more experiments, or one or more viewpoints. Analysis questions are included in passages of all three formats (Data Representation, Research Summaries, and Conflicting Viewpoints). Specifically, analysis questions test the student’s ability to:

- Critically examine the relationships between the information provided and the conclusions drawn or the hypotheses developed.
- Determine whether information or results support or are consistent with a point of view, hypothesis, or conclusion.
- Determine whether a hypothesis or conclusion supports or is consistent with a point of view, the results of a single experiment, or the information presented in a single graph or table.
- Evaluate experimental procedures, viewpoints, or theories for their strengths, weaknesses, similarities, or differences.
- Specify alternative ways of testing the point of view or hypothesis, or specify alternative ways of producing the same results.

Questions at the Generalization level require the student to extend the presented information to a broader context. The student must assimilate all of the stimulus to apply discovered concepts to new situations. Generalization questions are included in passages of all three formats (Data Representation, Research Summaries, and Conflicting Viewpoints). Specifically, generalization questions test the student’s ability to:
- Generalize from given information to gain new information, generate a model, or make predictions.
- Extend concepts, procedures, or hypotheses to new situations to gain new information.
- Generalize beyond the given information to a broader context, or generate a model consistent with the provided information.
- Predict outcomes on the basis of the provided information.

The curriculum-based tests of the ACT measure what students can do with what they know. The cognitive complexity of each item, therefore, is a critical aspect of the item development and test development process and is addressed throughout the development process. The cognitive complexity, defined in detail in the item writer guides, is written into the item by the item writer (i.e., classroom teachers at both the secondary and postsecondary levels), reviewed, evaluated, and discussed by ACT Test Specialists and all external reviewers of the test items, and then confirmed through the tryout process on a representative sample of the population.

**WorkKeys**

In February 2000, ACT compared the Illinois Learning Standards to the WorkKeys Reading for Information and Applied Mathematics assessments. The alignment process consisted of reviewing WorkKeys test specifications that define the content guidelines by which test forms are constructed, and comparing them to the standards for the respective content areas. Individual level descriptions that describe skills achieved at every level of performance for a given test also are used to inform this process. Because WorkKeys is a criterion-referenced test, the level descriptions present in qualitative terms what individuals are able to do relative to the continuum of the particular skill. Thus the relative degrees of complexity and difficulty of particular skill applications are easily identified.

Since the beginning of the 2005 calendar year ACT staff and ISBE staff have worked together to ensure alignment of WorkKeys with the Illinois Assessment Frameworks in both reading and math. The new Assessment Frameworks encompass all of the skills assessed by WorkKeys Reading for Information and Applied Mathematics.

**WorkKeys Cognitive Complexity.** Throughout the test development process, cognitive complexity must be considered and confirmed. This process begins when the continuum of a particular skill is defined, when Subject Matter Experts (SMEs) help ACT staff identify what makes a task increasingly complex in the workplace. The Teamwork test, for example, addresses complexity through increasing both the difficulty of the task and the extent of process problems experienced within the team. The complexity aspect of the skill continuum is thus a fundamental element in defining the levels of skill to be measured. During initial meetings, then, the SMEs assist ACT staff in both defining the extremes of the skill continuum and identifying the most appropriate means of increasing the complexity of the tasks the examinee confronts.

Once the skill continuum is established and the complexity variable(s) identified, the staff must break the range of skill ability into meaningful parts, or levels. In defining each of these levels, the staff must ensure that the increase in cognitive skill from one level to the next is approximately the same and that it is clearly defined in terms both educators and business people can understand. These level descriptions drive how the items are written, how external and internal reviewers review them, and how they are allocated to test forms. The level descriptions, originating from the skills continuum defined by SMEs and reflecting the realistic complexity of the workplace, further drive the score reporting, because the scores reported back to examinees, schools, and employers are typically in level score form. In this way, the levels define the skill in a manner that speaks to everyone in terms they can understand. A level score to an examinee tells them what they know and can do of a particular skill. To an employer, a level score tells him or her whether the examinee meets the requirements of a particular job. And to educators, the level scores tell them how far along the skills continuum an examinee or group of examinees has progressed. Thus cognitive complexity is an integral part of the WorkKeys system, from conceptualization of a test through its scoring and reporting.

The WorkKeys Technical Handbook provides further information regarding scoring and scaling of the assessments, reliability, and validity. New technical handbooks, one per test, are in development now and will be made available as soon as they are completed.
Additional documentation of the difficulty and complexity of the WorkKeys tests may be found in data analyses based on PSAE examinees. These data demonstrate how WorkKeys test scores compare to different criteria.

**Applied Mathematics and the ACT**

Table 2 presents the correlation coefficients between WorkKeys *Applied Mathematics* and ACT Mathematics Test scores. Spring 2002 and spring 2003 data sets for Illinois PSAE were used in this study. The sample sizes were 121,304 and 122,820, respectively. For the spring 2002 data set, the correlation coefficient between number-correct (NC) scores on the two tests is 0.81 and between Scale Scores on the two tests is 0.75. The results show that WorkKeys *Applied Mathematics* scores are moderately correlated with ACT Mathematics scores. These results imply that the abilities and/or skills measured by WorkKeys *Applied Mathematics* are similar to, but somewhat different from those measured by ACT Mathematics.

**Table 2**

<table>
<thead>
<tr>
<th>ACT Range</th>
<th>WorkKeys Range</th>
<th>Spring 2002</th>
<th>Spring 2003</th>
</tr>
</thead>
<tbody>
<tr>
<td>NC Score</td>
<td>1–60</td>
<td>1–30</td>
<td>0.81</td>
</tr>
<tr>
<td>Scale Score</td>
<td>1–36</td>
<td>65–90</td>
<td>0.75</td>
</tr>
</tbody>
</table>

Table 3 presents the conditional distributions of the ACT Mathematics scale score ranges for each Level Score on WorkKeys *Applied Mathematics*. Each row shows 100% of cases with the Level Score indicated. A value in a particular cell indicates the percentage of those cases that received the ACT Mathematics score indicated for the column. For example, for both data sets, most of the examinees (about 89%) that scored below Level 3 on WorkKeys *Applied Mathematics* received scale scores below 16 on ACT Mathematics.

**Table 3**

<table>
<thead>
<tr>
<th>Level Scores on Applied Math</th>
<th>Scale Scores on ACT Assessment Mathematics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spring 2002 Below 3</td>
<td>89.75</td>
</tr>
<tr>
<td>3</td>
<td>72.82</td>
</tr>
<tr>
<td>4</td>
<td>37.37</td>
</tr>
<tr>
<td>5</td>
<td>7.18</td>
</tr>
<tr>
<td>6</td>
<td>0.62</td>
</tr>
<tr>
<td>7</td>
<td>0.06</td>
</tr>
<tr>
<td>Total %</td>
<td>24.97</td>
</tr>
<tr>
<td>Spring 2003 Below 3</td>
<td>88.97</td>
</tr>
<tr>
<td>3</td>
<td>74.01</td>
</tr>
<tr>
<td>4</td>
<td>38.92</td>
</tr>
<tr>
<td>5</td>
<td>9.06</td>
</tr>
<tr>
<td>6</td>
<td>0.72</td>
</tr>
<tr>
<td>7</td>
<td>0.06</td>
</tr>
<tr>
<td>Total %</td>
<td>25.46</td>
</tr>
</tbody>
</table>
Figure 1 presents the conditional distributions of the scale scores for ACT Mathematics given the Level Scores on WorkKeys Applied Mathematics. It shows the range (excluding extreme values), median, and quartile of the scale scores on ACT Mathematics for each Applied Mathematics Level Score. For example, for examinees that scored below Level 3 on Applied Mathematics, the actual observed range of scale scores on ACT Mathematics was 11 to 17, and the ACT Mathematics median scale score was 14. In summary, the results listed in Tables 2 and 3 and in Figure 1 show that there is a moderate and positive relationship between WorkKeys Applied Mathematics and ACT Mathematics scores. In general, examinees who received higher Level Scores on WorkKeys Applied Mathematics received higher scale scores on ACT Mathematics.

![Boxplots of Scale Scores on ACT Mathematics at each Level Score on WorkKeys Applied Mathematics](image)

**Reading for Information and the ACT**

Table 4 presents the correlation coefficients for WorkKeys Reading for Information, ACT Reading, and ACT English test scores. Spring 2002 and spring 2003 data sets for Illinois PSAE were used in this study. The sample sizes were, respectively, 121,304 and 122,820. For the spring 2003 data set, the correlations between NC scores on WorkKeys Reading for Information and ACT Reading and English are 0.66 and 0.71, respectively, and those between scale scores are 0.62 and 0.66, respectively. The results show that WorkKeys Reading for Information scores are moderately correlated with ACT Reading and English scores. These results imply that the abilities and/or skills measured by WorkKeys Reading for Information are similar to, but somewhat different from those measured by ACT Reading and English.

<table>
<thead>
<tr>
<th></th>
<th>Spring 2002 WorkKeys RFI</th>
<th>Spring 2002 ACT Reading</th>
<th>Spring 2003 WorkKeys RFI</th>
<th>Spring 2003 ACT Reading</th>
</tr>
</thead>
<tbody>
<tr>
<td>NC Score</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ACT Reading</td>
<td>0.650</td>
<td>0.657</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ACT English</td>
<td>0.692</td>
<td>0.711</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scale Score</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ACT Reading</td>
<td>0.608</td>
<td>0.620</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ACT English</td>
<td>0.639</td>
<td>0.799</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*RFI NC score range = 1-30  Reading NC score range = 1-40  English NC score range = 1-75  RFI Scale score range = 65-90  Reading scale score range = 1-36  English scale score range = 1-36*

Table 5 presents the conditional distributions of ACT Reading scale score ranges for each WorkKeys Reading for Information Level Score. Each row shows 100% of cases with the Level Score indicated. A value in a particular cell indicates the percentage of those cases that received the ACT Reading scores indicated. For example, for both data sets, most of the examinees (about 89%) that scored below 3 on WorkKeys Reading for Information scored below 16 on ACT Reading. Of the examinees that scored at Level 3, about 80% received ACT Reading scores below 16 and approximately 16% received ACT Reading scores in the 16 to 19 range.

Figure 2 presents the conditional distributions of the scale scores for ACT Reading given the Level Scores on WorkKeys Reading for Information. It shows the range (excluding extreme values), median, and quartiles of the scale scores on ACT Reading for the Reading for Information Level Scores. For example, for examinees that scored below Level 3, the actual observed range of scale scores on ACT Reading was 9 to 15, and the median was 12.

The results listed in Tables 4 and 5 and in Figure 2 show that there is a moderate relationship between WorkKeys Reading for Information and ACT Reading scores. In general, examinees who received higher Level Scores on Reading for Information received higher scale scores on ACT Reading.
Table 5
Conditional Distributions of WorkKeys Reading for Information
Level Scores and ACT Reading Scale Score Ranges

<table>
<thead>
<tr>
<th>WorkKeys Reading for Information</th>
<th>ACT Reading Test</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Below 16</td>
</tr>
<tr>
<td>Spring 2012 Below 3</td>
<td>89.09</td>
</tr>
<tr>
<td>3</td>
<td>80.01</td>
</tr>
<tr>
<td>4</td>
<td>45.43</td>
</tr>
<tr>
<td>5</td>
<td>14.61</td>
</tr>
<tr>
<td>6</td>
<td>3.58</td>
</tr>
<tr>
<td>7</td>
<td>0.57</td>
</tr>
<tr>
<td>Total</td>
<td>30.85</td>
</tr>
<tr>
<td>Spring 2003 Below 3</td>
<td>89.74</td>
</tr>
<tr>
<td>3</td>
<td>79.61</td>
</tr>
<tr>
<td>4</td>
<td>49.88</td>
</tr>
<tr>
<td>5</td>
<td>19.70</td>
</tr>
<tr>
<td>6</td>
<td>5.61</td>
</tr>
<tr>
<td>7</td>
<td>1.18</td>
</tr>
<tr>
<td>Total</td>
<td>31.59</td>
</tr>
</tbody>
</table>

Figure 2
Boxplots of Scale Score on ACT Reading at Each Level Score on WorkKeys Reading for Information

Reading for Information and Applied Mathematics Distributions

Table 6 below describes the numbers (N) and percentages of examinees falling into various coursework sequence, core coursework classification, and score ranges for the ACT Reading and Mathematics Tests and the WorkKeys Reading for Information and Applied Mathematics Tests. The distributions are consistent with the kinds of performance that would be expected of examinees at this grade level. That is, the largest number of examinees performed at Levels 4-6, and few reached Level 7, on both tests. It can be noted as well that the level attained by the largest number of examinees varies with the courses taken, with the number of examinees taking more course work placing higher as a group than those taking fewer courses.

Table 6
WorkKeys Applied Mathematics and Reading for Information
Level Distributions by Select Course Sequences

<table>
<thead>
<tr>
<th>Course Sequence</th>
<th>WorkKeys Applied Mathematics</th>
<th>Data</th>
<th>&lt;3</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alg 1/Alg 2/Geom</td>
<td>N</td>
<td>864</td>
<td>3,146</td>
<td>5,425</td>
<td>6,650</td>
<td>3,604</td>
<td>302</td>
<td></td>
</tr>
<tr>
<td>%</td>
<td>4</td>
<td>15</td>
<td>26</td>
<td>32</td>
<td>18</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alg 1/Alg 2/Geom/Adv. Math</td>
<td>N</td>
<td>101</td>
<td>516</td>
<td>1,471</td>
<td>2,821</td>
<td>2,836</td>
<td>352</td>
<td></td>
</tr>
<tr>
<td>%</td>
<td>1</td>
<td>6</td>
<td>18</td>
<td>34</td>
<td>34</td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alg 1/Alg 2/Geom/Trig</td>
<td>N</td>
<td>337</td>
<td>1,511</td>
<td>2,722</td>
<td>4,314</td>
<td>3,827</td>
<td>443</td>
<td></td>
</tr>
<tr>
<td>%</td>
<td>3</td>
<td>11</td>
<td>20</td>
<td>32</td>
<td>28</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alg 1/Alg 2/Geom/Trig/Adv. Math</td>
<td>N</td>
<td>67</td>
<td>335</td>
<td>1,280</td>
<td>3,496</td>
<td>4,743</td>
<td>868</td>
<td></td>
</tr>
<tr>
<td>%</td>
<td>1</td>
<td>3</td>
<td>12</td>
<td>32</td>
<td>43</td>
<td>8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alg 1/Alg 2/Geom/Trig/Calc</td>
<td>N</td>
<td>73</td>
<td>324</td>
<td>605</td>
<td>1,370</td>
<td>3,230</td>
<td>986</td>
<td></td>
</tr>
</tbody>
</table>
### Table 7

<table>
<thead>
<tr>
<th>WorkKeys Level</th>
<th>English Course Sequence</th>
<th>Core Mean (SD)</th>
<th>Non-Core Mean (SD)</th>
<th>Missing Mean (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;3 N = 4919</td>
<td>Eng. 9, 10, 11 &amp; 12</td>
<td>13.7 (3.6)</td>
<td>12.6 (2.7)</td>
<td>12.2 (2.6)</td>
</tr>
<tr>
<td></td>
<td>Eng. 9, 10, 11 &amp; 12, Speech</td>
<td>13.9 (3.8)</td>
<td>13.0 (2.7)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Less Than Four Years</td>
<td>14.1 (3.1)</td>
<td>13.6 (2.8)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>No C/G Information Reported</td>
<td>14.6 (3.4)</td>
<td>13.8 (2.8)</td>
<td></td>
</tr>
<tr>
<td>3 N = 7406</td>
<td>Eng. 9, 10, 11 &amp; 12</td>
<td>17.8 (4.3)</td>
<td>16.1 (3.9)</td>
<td>16.0 (4.1)</td>
</tr>
<tr>
<td></td>
<td>Eng. 9, 10, 11 &amp; 12, Speech</td>
<td>18.2 (4.4)</td>
<td>16.7 (4.1)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Less Than Four Years</td>
<td>21.8 (4.9)</td>
<td>20.0 (4.9)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>No C/G Information Reported</td>
<td>22.1 (4.7)</td>
<td>20.7 (4.9)</td>
<td></td>
</tr>
<tr>
<td>4 N = 44,335</td>
<td>Eng. 9, 10, 11 &amp; 12</td>
<td>25.6 (5.0)</td>
<td>23.9 (5.3)</td>
<td>20.4 (5.1)</td>
</tr>
<tr>
<td></td>
<td>Eng. 9, 10, 11 &amp; 12, Speech</td>
<td>25.7 (4.9)</td>
<td>24.1 (5.0)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Less Than Four Years</td>
<td></td>
<td>23.2 (5.3)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>No C/G Information Reported</td>
<td></td>
<td></td>
<td>24.5 (5.4)</td>
</tr>
<tr>
<td>5 N = 33,203</td>
<td>Eng. 9, 10, 11 &amp; 12</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Eng. 9, 10, 11 &amp; 12, Speech</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Less Than Four Years</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>No C/G Information Reported</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6 N = 22,314</td>
<td>Eng. 9, 10, 11 &amp; 12</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Eng. 9, 10, 11 &amp; 12, Speech</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Less Than Four Years</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>No C/G Information Reported</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Reading for Information, Applied Mathematics, and High School Course Work

In addition to looking at ACT and WorkKeys test scores, ACT compared test scores for both programs against course taking patterns as reported by the examinees. This information is routinely collected as part of the registration process for the ACT test. Table 7 presents course work sequences and ACT test scores by WorkKeys Level Scores for the Reading for Information test. In addition, information is provided as to whether the examinees were taking core coursework (4 years of English and 3 years each of math, science, and social studies) or not. Those listed as Missing in the right-hand column were those lacking core/non-core information. Those lacking Course/Grade (C/G) information are listed as such in the Course Sequence column. And those lacking WorkKeys scores are identified in the row just below Level 7.
The results of the analysis indicate that, for core coursework students and those not taking core, ACT Reading Test scores consistently increase with WorkKeys Level Scores. Additionally, those taking core coursework consistently performed better on the ACT Reading Test at each WorkKeys score level than those who were not taking core coursework. Moreover, those taking more English courses outperformed those taking fewer English courses within each WorkKeys level. Finally, there is a steady increase in ACT Reading Test score group means from one WorkKeys level to the next. These results demonstrate the positive relationship between test performance on both the ACT Reading and WorkKeys *Reading for Information* tests and the courses being taken by examinees.

Table 8 presents parallel information for students taking mathematics coursework, the ACT Mathematics Test and the WorkKeys *Applied Mathematics* tests. Missing data are accounted for in the same manner as they were in the Reading table above.
<table>
<thead>
<tr>
<th>WorkKeys Level</th>
<th>Mathematics Course Sequence</th>
<th>Core Mean (SD)</th>
<th>Non-Core Mean (SD)</th>
<th>Missing Mean (SD)</th>
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<td>&lt;3 N = 6,543</td>
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<td></td>
<td>Alg 1 &amp; 2, Geom., Adv. Math</td>
<td>15.3 (2.6)</td>
<td>14.4 (2.1)</td>
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<tr>
<td></td>
<td>Alg 1 &amp; 2, Geom., Trig.</td>
<td>14.2 (2.5)</td>
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<td>14.1 (1.8)</td>
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<td>15.2 (2.1)</td>
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<td>15.4 (1.8)</td>
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<td>Alg 1 &amp; 2, Geom., Trig., Calc.</td>
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<td>14.9 (1.8)</td>
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</tr>
<tr>
<td></td>
<td>Less Than 3 Years</td>
<td></td>
<td>14.3 (1.6)</td>
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<tr>
<td></td>
<td>Other Comb. Of 3 or 3.5 Years</td>
<td>14.7 (1.9)</td>
<td>14.6 (1.8)</td>
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<tr>
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<tr>
<td></td>
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<td>17.6 (2.6)</td>
<td></td>
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<tr>
<td></td>
<td>Alg 1 &amp; 2, Geom., Trig., Calc.</td>
<td>17.7 (2.8)</td>
<td>16.8 (2.5)</td>
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<tr>
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<td></td>
<td>15.4 (1.8)</td>
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<td>16.5 (2.4)</td>
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<td>19.2 (2.9)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Alg 1 &amp; 2, Geom., Trig., Adv. Math</td>
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<td>20.4 (3.1)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Alg 1 &amp; 2, Geom., Trig., Calc.</td>
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<td>21.0 (3.6)</td>
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</tr>
<tr>
<td></td>
<td>Less Than 3 Years</td>
<td></td>
<td>17.1 (2.4)</td>
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<td>Other Comb. Of 3 or 3.5 Years</td>
<td>19.6 (3.2)</td>
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<td>20.4 (3.7)</td>
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<td>22.5 (3.3)</td>
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<td></td>
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<td>23.8 (3.3)</td>
<td></td>
</tr>
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<td></td>
<td>Alg 1 &amp; 2, Geom., Trig., Calc.</td>
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<td>26.0 (3.9)</td>
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<td></td>
<td>Less Than 3 Years</td>
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<td>23.0 (3.7)</td>
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<td>23.9 (4.4)</td>
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<td>7 N = 6,790</td>
<td>Alg 1 &amp; 2, Geom.</td>
<td>23.9 (3.1)</td>
<td>23.3 (3.1)</td>
<td>27.8 (3.9)</td>
</tr>
<tr>
<td></td>
<td>Alg 1 &amp; 2, Geom., Adv. Math</td>
<td>26.2 (2.9)</td>
<td>25.7 (2.9)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Alg 1 &amp; 2, Geom., Trig.</td>
<td>26.0 (3.1)</td>
<td>25.6 (3.1)</td>
<td></td>
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<tr>
<td></td>
<td>Alg 1 &amp; 2, Geom., Trig., Adv. Math</td>
<td>26.9 (3.0)</td>
<td>26.4 (3.3)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Alg 1 &amp; 2, Geom., Trig., Calc.</td>
<td>20.4 (3.1)</td>
<td>28.8 (3.3)</td>
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<tr>
<td></td>
<td>Less Than 3 Years</td>
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<td>25.7 (4.6)</td>
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<td></td>
<td>Other Comb. Of 3 or 3.5 Years</td>
<td>28.4 (3.3)</td>
<td>27.0 (4.1)</td>
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<td>29.1 (3.7)</td>
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<td>Missing N = 3,547</td>
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<td>16.4 (3.0)</td>
<td>15.6 (3.6)</td>
</tr>
<tr>
<td></td>
<td>Alg 1 &amp; 2, Geom., Adv. Math</td>
<td>19.6 (4.2)</td>
<td>18.1 (3.5)</td>
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<td>Alg 1 &amp; 2, Geom., Trig.</td>
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<td>16.8 (3.8)</td>
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<td>21.0 (4.7)</td>
<td>19.9 (5.0)</td>
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<td>16.7 (4.4)</td>
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<tr>
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<td>Less Than 3 Years</td>
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<td>15.2 (2.4)</td>
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<tr>
<td></td>
<td>Other Comb. Of 3 or 3.5 Years</td>
<td>18.2 (4.1)</td>
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<td>18.5 (6.0)</td>
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<tr>
<td></td>
<td>No C/G Information Reported</td>
<td></td>
<td>15.6 (3.6)</td>
<td></td>
</tr>
</tbody>
</table>
A comparable pattern to that of the reading tests can be seen in the results. That is, those examinees taking more mathematics coursework and taking core outperformed those who did not at every WorkKeys level. Further, the same monotonically increasing trend in ACT Mathematics scores can be detected across WorkKeys levels. These data are further indication of the positive relationship between course work, ACT scores, and WorkKeys scores.

The results for both of the WorkKeys tests also document the range of difficulty of the WorkKeys tests. While some may perceive the WorkKeys tests to address only low-level skills, the data presented here confirm that both the numbers and percents of examinees scoring at each level, as well as their mean performance on the ACT tests, do vary in a meaningful way. That is, the more language arts or mathematics courses a student takes, or the better the student performs on the respective ACT tests, the more likely the student is to score higher on the respective WorkKeys tests. For example, the grand means for all students taking core mathematics coursework ranges from an ACT mathematics score of 14.3 (SD=2.5) for students performing below level 3 on WorkKeys Applied Mathematics to a 28.6 (SD=3.6) for students performing at level 7. Given that the range of possible ACT scores is from 1-36, it can be noted that WorkKeys level 7 scores are of a difficulty comparable to those at the high end of the ACT Mathematics test.
USE OF TESTS BY COLLEGES, UNIVERSITIES, AND EMPLOYERS

ACT Assessment

Each testing year, in addition to individual reports for 2.2 million examinees, ACT generates and delivers more than 6.1 million score reports to over 4,400 colleges, postsecondary educational programs, agencies, and members of Congress. ACT also delivers more than 2 million score reports annually to nearly 34,000 high schools, and nearly one million reports are sent each year to more than 30 state scholarship agencies, including nearly 210,000 records to the Illinois Student Assistance Commission for the Illinois State Scholar Program.

ACT Assessment scores are universally accepted by virtually every college and university in the United States for purposes of admissions, scholarship, course placement and academic advising. The ACT is accepted by over 3,300 colleges including all of the Ivy League schools. More colleges prefer the ACT than any other admissions test.

Because the ACT is a comprehensive program that includes curriculum-based, teacher-developed assessments, it has broad application for colleges. In addition to being an important component in the college admission process, ACT Assessment information is used for making course placement decisions, supporting academic advising programs, awarding scholarships, predicting college success, communicating with prospective students, and facilitating student persistence. Many colleges also use ACT information as baseline data for the development of an outcomes assessment program.

WorkKeys

A national system to improve the quality of America's workforce, WorkKeys is a comprehensive program that permits a direct comparison of the foundational and essential skills needed to perform in a job with the skills an individual currently possesses. As of March 2005, over 9 million WorkKeys assessments have been administered in 48 of the 50 states, as well as in Canada.

Nearly 11,000 jobs in 3,644 companies across the country have been profiled to identify skill levels needed for success, based upon the expertise of those who work in those jobs. A database of these job profiles identifies the skill levels for various occupations, job families, and career pathways.

WorkKeys is currently used in schools, corporations, and governmental agencies and is endorsed and actively promoted at the state level in Alabama, Illinois, Indiana, Louisiana, South Carolina, and Virginia. Illinois companies using WorkKeys include:

- Flexible Steel Lacing Company
  2525 Wisconsin Avenue
  Downers Grove, IL

- City of Peoria
  211 Fulton Street
  Peoria, IL

- Business and Career Institute at SSC
  15800 South State Street
  South Holland, IL

- Manpower
  1121 East Main Street, Suite 220
  St. Charles, IL

Consistent with ACT's efforts to assist students in making the transition from high school to college, WorkKeys is an effective tool to help ALL students make the transition from school to the world-of-work. Regardless of whether students complete a postsecondary degree by the time they enter the workforce, all those entering the workforce must ensure that they have the basic work skills at the levels needed in jobs in today's economy.
ACT agreed in a May 26, 2005, meeting to work with ISBE’s designated processing contractor, including direct communications by telephone, email, and in-person meetings as ACT had done with the previous contractor. ACT will work with the current contractor to develop a detailed annual schedule of activities and service level agreement to ensure that all activities required to deliver the PSAE are accomplished. Particular attention will be given to the establishment and maintenance of the file of schools participating in PSAE testing, with clearly defined responsibilities for ACT to approve testing staff. The contractor will be expected to provide files and information necessary to allow ACT Research to provide support for developing the combined PSAE scores. Examples include: test irregularities from Day 2 testing, files to facilitate the Science conversion, matched files for quality checking, final matched files for a PSAE Technical Manual, and final files for fall analyses. Examples of data that ACT will provide to the contractor include: ACT scored files, WorkKeys scored files, PSAE conversion tables, and sign-off prior to reporting. ISBE will be consulted regarding all shared processes and schedules and will provide final direction with respect to PSAE procedures, policies, and decisions.

To facilitate student access / navigation, ACT will work with ISBE’s designated processing contractor to establish the appropriate links between ISBE’s and ACT websites to support the PSAE.
Establishing Initial and Makeup Test Dates for Grade 11 Students

Test dates for administration of the ACT, WorkKeys, and the ISBE-developed science test will be determined jointly by ISBE and ACT. To eliminate confusion and potential mix-ups in test materials, the spring initial and makeup test dates must be scheduled each year to fall a minimum of two weeks away from any established ACT Assessment national test date. (In 2006, the national test dates are February 11 and April 8, 2006.) ACT will make available three different but equivalent non-released forms of the ACT Assessment and of each WorkKeys assessment for each spring administration – one for the initial test date, one for makeup testing, and one for accommodated testing. The initial PSAE standard time test date for 2006 will be April 26-27, 2006 with makeup testing May 10-11. The Grade 11 Day 1 accommodations window is April 26-May 10, 2006 and the Day 2 window is April 27-May 11, 2006.

To provide for standardized testing, all schools will be required to administer the ACT on the same day, with testing to be the first activity in the morning. To assure continuity of process, the ACT Assessment will be administered as Day 1 of the PSAE. Administration of the two WorkKeys assessments and the ISBE-developed science test will occur on the day immediately following the ACT administration as Day 2 of the PSAE. To ensure standardization, all schools must administer these tests on the same day and the sequence for administering WorkKeys and the ISBE-developed science test must be consistent across schools.

Establishing High Schools as Test Sites

No later than September 30 each year, ACT must receive from ISBE verification of all regular Illinois high schools required to participate in the PSAE, as well as special public schools that should be invited to participate. Decisions must be finalized by that date regarding testing grade 11 students who do not physically attend an Illinois public high school if ISBE wishes to expand testing to include such students the following spring. Regular high schools will be renewed, and special schools will be added by ISBE invitation only. Paramount consideration must be given to security processes and control over the test administration at all testing locations.

ACT Assessment – ISBE State Questions

No later than September 1 each year, ACT must receive confirmation from ISBE whether ISBE intends to use the “State-Questions” Section T of the ACT answer document along with the questions and item response options.

Maintenance of School Names and Addresses

ACT maintains a file of high school names, addresses, and codes shared with the College Board. Established procedures allow school principals to change the school information by submitting signed written changes to either ACT or the College Board. Thus, the official file used by ACT for ACT Assessment purposes is subject to these processes. ACT will work with ISBE to identify name variations between the files maintained by ACT and ISBE and will use the official name of each school (as provided by the school/district to ISBE) in all communications with ISBE and its processing contractor. Where variations exist, ACT will support school name changes to the ACT/College Board file following established procedures.

Collecting School Information

As appropriate, ACT will work closely with ISBE’s designated processing contractor to coordinate the annual contact with high schools to collect or verify primary contact information, such as principal name, telephone, fax,
e-mail, high school name, Regional-County-District-Type-School (RCDTS) code, ACT high school code (if available), mailing address, shipping address (if different), and number of students enrolled in grade 11. While ISBE’s processing contractor will be responsible for contacting the principals and collecting general school information, it is ACT’s responsibility to renew and review appointments of testing staff. ACT will use the file above to determine which schools to contact regarding appointing a PSAE testing staff for the upcoming spring administration.

ACT will also work with ISBE and ISBE’s designated processing contractor to contact the principals at newly established schools, and selected receiving schools, to request information about their grade 11 students, and to request that a PSAE Test Supervisor, Back-up Test Supervisor, and Text Accommodations Coordinator be appointed (see “Appointing Testing Staff,” below).

**Appointing Testing Staff**

For schools renewing their participation, ACT will generate a mailing to each PSAE Test Supervisor appointed in the previous year. The PSAE Test Supervisor must meet ACT’s standard requirements for testing staff, provide documentation of the school’s secure storage facilities, and agree to ACT’s standard requirements for test administration as stated in *ACT Assessment Standard Testing Requirements for PSAE*. The Test Supervisor will serve as the primary contact for all communications about the PSAE administration, will receive both Day 1 and Day 2 materials, will be responsible for conducting standardized and secure test administrations at the school, and the prompt return of test materials to ACT and ISBE’s designated processing contractor. Each appointed PSAE Test Supervisor will be required to complete and return to ACT an “ACT Supervisor Profile.” After review and approval of the profile, all future communications about the test administration will be addressed to the designated PSAE Test Supervisor. In subsequent years, renewal materials will be mailed to each previously appointed Test Supervisor with a request to confirm the existing information and their continuation or replacement.

Schools will also be required to appoint a Back-up Test Supervisor who meets the same criteria as the Test Supervisor, and who will be able to serve in the event that the designated Test Supervisor is unable to fulfill his/her administration duties on the test day.

Schools will also appoint a Test Accommodations Coordinator (TAC) if they have any students who need test accommodations (see “Students Requesting Test Accommodations” below). This individual will be responsible for submitting requests for accommodations and coordinating the testing of students approved for those accommodations during the period of time between the spring initial test date and the makeup test date. The TAC will serve as the primary contact for all communications about the PSAE accommodations administration, will receive the accommodations tests materials, will be responsible for conducting standardized and secure test accommodations administrations at the school, and the prompt return of accommodations test materials to ACT and ISBE’s designated processing contractor.

**Training Workshops for Testing Staff**

In coordination with ISBE, ACT will provide up to ten (10) half-day training workshops each year for Test Supervisors, Back-up Test Supervisors, and Test Accommodations Coordinators prior to the test date. By October 1 each year, final schedules and locations will be jointly determined by ISBE and ACT to facilitate attendance by all appropriate testing staff. (Note: if dates and locations can be determined each spring/summer, it is more likely preferred facilities will be available.) In recent years, ISBE has determined that previously trained staff are not required to attend but have been invited. It is recommended that the workshops occur within reasonable proximity to the test date to help ensure application of the information provided to the implementation of the PSAE assessments. For purposes of planning, ACT has assumed workshops to be scheduled during February/March 2006.

The workshops will provide detailed instructions for all steps of the test administration, including initial planning, identification and training of room supervisors and proctors, receipt and check-in of secure materials, secure storage requirements, test day arrangements, documentation of required procedures, recognition of irregularities,
accounting for all materials, and plans for makeup testing. ISBE and ACT staff will provide answers to frequently asked questions and help appointed Test Supervisors, Back-up Test Supervisors, and Test Accommodations Coordinators assess their readiness for the administration. Primary materials for the workshop will be the detailed administration manuals and administration forms for both Day 1 and Day 2 of the PSAE. All previously trained testing staff who do not attend the workshops will receive copies of the workshop materials at the conclusion of the workshops.

See page 32 “Workshops – State Allowed Accommodations / Interpreting and Applying Test Results to the Classroom” regarding special, one-time workshops for Test Accommodations Coordinators – that will address the implementation of State-Allowed Accommodations.

Students Requesting Test Accommodations

ACT has established documentation requirements and procedures to ensure that each request for testing accommodations on the ACT is reviewed individually. Examples of accommodations that may be requested include extended time, alternate test formats, stop-the-clock breaks, and authorization to test over multiple days. Requests submitted for accommodations will be reviewed by ACT staff, and if appropriate, expert disability consultants, to ensure they meet established eligibility criteria and include the same supporting documentation required for approving other ACT requests. To facilitate the request and approval process for PSAE, ACT has worked with ISBE staff to develop a request form to document accommodations requests. This form reflects ACT’s established requirements but has been customized for the PSAE administration.

A separate request form will be completed for each student requesting accommodations. Decisions about accommodations will apply only to the ACT (Day 1 of the PSAE), but may also be used by the school as a guideline for local decisions about Day 2 accommodations. Completed requests and required documentation must be received at ACT by an established deadline, preferably twelve weeks prior to the initial test date. If requests cannot be approved based on the information submitted, schools will be invited to submit additional information for review. If accommodations cannot be approved by four weeks before the initial test date, those students must be tested under standard conditions or apply for State-Allowed Accommodations (see section below), provided the application for State-Allowed Accommodations is received by ACT no later than three weeks prior to the initial PSAE test dates. Answer documents for students who test with accommodations not approved by ACT or not permitted under a formal process for State-Allowed Accommodations will not be scored.

State-Allowed Accommodations

While ACT’s standard review process, which employs the ADA’s definition of a disability, has resulted in approval of the vast majority of student requests for accommodations during statewide testing, there are a small number of requests that have not been approved. ACT has developed a process for State-Allowed Accommodations that could be offered for such students for PSAE administrations beginning with spring 2006. This option would allow schools to administer tests with accommodations they approve and to have resulting scores reported for NCLB purposes.

Tests administered with State-Allowed Accommodations result in scores that are for “state use only.” This means that such scores in Illinois would be reported to ISBE’s designated processing contractor for PSAE reporting purposes of statewide assessment, school accountability, and adequate yearly progress for NCLB. ACT would include such scores in the state testing summary reports ACT issues to ISBE, districts, and schools as part of the state testing contract output. At the same time, however, such scores are not maintained in ACT’s database of ACT Assessment scores and are not included in any other reporting from ACT (e.g., ACT Assessment student/high school/college reports, graduating class high school profile reports, and PLAN linkage reports).

ACT provided a detailed proposal regarding State-Allowed Accommodations in May 2005. On August 19, 2005 ISBE confirmed, during joint ISBE/ACT meeting, to implement State-Allowed Accommodations beginning in 2006 in accordance with the proposal provided in May 2005. A copy of this proposal is included in the Appendices. Following the meeting, ISBE requested that ACT additionally support audiocassettes for State-Allowed accommodations. ACT will provide ISBE costs for this support and pending acceptance, will make
appropriate systems and publications modifications to commence with State-Allowed Accommodations in 2005-2006.

The additional cost to provide State-Allowed Accommodations has been provided separately.

**Materials Provided by ACT**

The PSAE Test Supervisor at each school will confirm the number of grade 11 student expected to test, and the TAC will provide the expected number of students who normally receive testing accommodations in school due to a diagnosed disability (normally students with an established IEP or 504 Plan). ACT will use these numbers to ship appropriate materials as noted below. To assist the testing staff in tracking materials, Day 1 (ACT Assessment) and Day 2 (including WorkKeys) materials will be shipped separately.

**ACT Assessment Materials**

**Student Test Preparation Materials**

Each December, copies of ACT’s free student test preparation booklet, *Preparing for the ACT*, will be provided to all students to be tested. This booklet includes tips for taking the test, information about types of calculators allowed on the ACT Assessment Mathematics Test, and a complete practice test with answer key. This document is also posted on ACT’s student website at [www.actstudent.org](http://www.actstudent.org).

**PSAE Teacher Handbook**

ACT will provide camera-ready copy of ACT test preparation material for this document to be distributed to all public high schools by ISBE’s designated processing contractor.

**Test Accommodations Request Forms**

As part of the annual process of reviewing and appointing Test Accommodations Coordinators each October, ACT will ship quantities of the PSAE ACT Assessment (Day 1) test accommodations request form and procedures. These documents will also be available via the ISBE website. (See “Students Requesting Test Accommodations”, above.) With ISBE’s decision to implement State-Allowed Accommodations, ACT will also include information about that option.

**Training Materials for Testing Staff**

A copy of the *ACT Assessment Supervisor’s Manual of Instructions for State Testing* and other administration instructions will be included in the workshop materials for Test Supervisors and Back-up Test Supervisors. These materials will help the Test Supervisor provide training to the school staff that will help with the administration. Additional quantities will be shipped to the Test Supervisor a minimum of four weeks before the initial test date. A copy of the *ACT Assessment Supervisor’s Manual of Instructions for State Special Testing* will be included in the workshop materials for Test Accommodations Coordinators. Additional copies will be included in each package of test materials assigned to a student approved for testing with accommodations.

**Student Pre-Test Materials**

Approximately five weeks before the initial test date, ACT will ship quantities of a standard four-page ACT Assessment State Testing Answer Folder and copies of the student booklet, *Taking the ACT for State Testing*. Schools will be advised to use these two publications in supervised in-school sessions prior to the test date. During these sessions, students will complete their basic identifying information, respond to non-cognitive questions including the Interest Inventory and Student Profile Section, and indicate their college choices on the answer folder. Students typically complete this activity in one hour. The partially completed answer folders must then be collected from the students for redistribution on the test date. Students will retain the student booklet.

**Bar Code Labels and Student ID Numbers**

ACT will work with ISBE’s designated processing contractor to provide a file that ACT’s subcontractor for the ACT Assessment may use to produce bar code labels that allow for electronic matching of Day 1 ACT answer folders to Day 2 WorkKeys and science answer documents. If available, the state-assigned student identification
number will be embedded in the label to include within each score record beginning with the Spring 2007 administration. (See “Student Identification System” on page 30.)

Secure Test Booklets
ACT will ship ACT Assessment test booklets to the PSAE Test Supervisor to arrive at the school no earlier than one week prior to the test date and no later than five calendar days prior to the test date. Included with this shipment will be all required administration forms and instructions for tracking and returning materials at the conclusion of testing. Separate materials will be shipped to the TAC for all students approved by ACT for PSAE Day 1 accommodations or testing with State-Allowed Accommodations. Alternate test formats will include Braille, large print, audiocassettes, and reader script.

Makeup Test Booklets
Based on counts provided by each Test Supervisor to ACT immediately after the initial test date, ACT will ship appropriate quantities of an alternate ACT Assessment test form to arrive at the school at least three days prior to the established makeup test date for the ACT Assessment standard time administration provided schools have submitted their order in a timely manner. (Schools will use answer folders from the original shipment.) Included with the makeup shipment will be all required administration forms and instructions for tracking and returning materials at the conclusion of testing.

WorkKeys Materials

Student Test Preparation Materials
Each year, ACT will provide camera-ready copy to allow ISBE’s designated processing contractor to develop, print, and distribute student preparation booklets related to the PSAE Day 2 assessments. Quantities will be distributed each December to the schools for all students that will be tested. This document has been specially developed for Illinois and includes test-taking tips, information about types of calculators allowed on the Applied Mathematics Test, and starting in school year 2006-07 a full-length sample test with answer key, explanations of responses, and an indication of how each item fits the Illinois Standards. This document can be bound into the larger Day 2 preparation guide as appropriate.

PSAE Teacher Handbook
ACT will provide camera-ready copy of WorkKeys test preparation material for this document to be distributed to all public high schools by ISBE’s designated processing contractor.

Training Materials for Testing Staff
ACT will work with ISBE’s designated processing contractor to incorporate instructions for WorkKeys test administration into a Supervisor’s Manual for PSAE Day 2.

Secure Test Booklets and Answer Documents
ACT will work with ISBE’s designated processing contractor to produce a combined PSAE Day 2 test booklet and answer document. These combined documents will include both WorkKeys assessments and the Harcourt-developed science test. The processing contractor will print these documents and ship them to the PSAE Test Supervisor and, as appropriate, Test Accommodations Coordinator (TAC) to arrive at the schools no earlier than one week prior to the initial test date. Included with this shipment will be all required administration forms and instructions for tracking and returning materials at the conclusion of testing. A separate test form will be shipped to the TAC to be used for students with disabilities or for students with limited English proficiency (LEP) who need accommodations, including alternate test formats. Alternate test formats will include Braille, large print, audiocassettes, and reader script. ISBE’s designated processing contractor will advise schools that accommodations for LEP students are limited to extended time only.

Makeup Test Booklets
Based on counts provided by each Test Supervisor to the processing contractor immediately after the initial test date, appropriate quantities of an alternate WorkKeys test form will be shipped to arrive at the school about three days prior to the established makeup test date for Day 2 makeup standard time administration. (Schools will use
answer documents from the original shipment.) Included with the makeup shipment will be all required administration forms and instructions for tracking and returning materials at the conclusion of testing.

Test Administration

Administration of both the ACT and WorkKeys must be in strict compliance with standardized procedures provided by ACT in its test administration materials and manuals. Consistent with processes used for national testing, high schools may be visited on the designated test dates by unannounced observers from ACT. ACT staff will be available via toll-free telephone to assist testing staff on test dates, 7:00 AM – 5:30PM. ACT’s requirements for standardized testing as implemented for PSAE are summarized in ACT Assessment Standard Testing Requirements for PSAE.

As noted in the ACT Assessment Supervisor’s Manual of Instructions, ACT’s test administration procedures emphasize continuous accounting for secure test materials from receipt to return, constant vigilance by testing staff, precise timing of tests, and documentation of all procedures during the administration. More information about ACT’s preventive and responsive security measures is provided in the "Security Procedures" on page 35.

Returning Test Materials

ISBE’s designated processing contractor is responsible for the coordination of the return of test materials. Detailed instructions for the return of answer documents for scoring and return of used and unused test booklets will be provided to each school. The Test Supervisor (or TAC, for accommodations materials) will be responsible for verifying counts of all secure materials and packaging materials for return immediately at the conclusion of each testing session. Day 1 and Day 2 materials must be kept separate. Day 1 materials are to be returned to ACT. Day 2 materials are to be returned to ISBE’s designated processing contractor. All materials must be accounted for at all times. ACT staff will monitor returned Day 1 materials for discrepancies and will follow-up by telephone and fax with the Test Supervisor and or TAC to resolve any missing materials issues. Testing irregularities and discrepancies must be resolved prior to reporting.

Test Administration Compliance and Discrepancy Resolution

ACT takes steps that are intended to verify standardized test administration. While the receipt and review of ACT (PSAE Day 1) answer documents and test day documentation is an ongoing process, in the instances of ambiguities, ACT will follow-up with schools and testing staff by telephone or fax to clarify irregularities, clarify accommodations used versus accommodations authorized, identify and delete duplicate records, determine reportable “home” high school, etc.

ACT will provide to ISBE a periodic status list of scoring/reporting decisions and follow-up. The list will include all schools and students whose ACT administrations are under review and those that have been invalidated. ACT and ISBE will work together prior to the test administration to finalize a list of conditions that result in invalidation; the status list will note which set of conditions applies to each student’s record. This will allow ISBE to know the circumstances that led to the invalidation of the ACT administration. Weekly updates will be provided beginning in mid-May until the time ACT has determined all appropriate follow-up has been completed and scoring decisions are final. All ACT scoring decisions will be final by June 30 of each year, unless the school has not submitted all necessary information for scoring in a timely manner. ISBE may, at its discretion, disseminate the information to the affected districts and provide a point of contact at ISBE for the districts. ISBE may use the information regarding invalidated administrations as it chooses. ACT will also notify each affected student and school when scores are cancelled or the answer document is not scored. For those answer documents that are not scored due to invalidated administrations, ACT will forward “no test” records to ISBE’s designated processing contractor so the school will receive credit for the students’ participation.
REPORTING TEST RESULTS

Within four weeks of receipt of the answer folders by ACT, and absent an irregularity that causes ACT to not issue the reports, standard ACT score reports will be mailed to each school and student as described below. Reports will be generated and mailed on a continuing basis as answer folders are returned and any irregularities are resolved.

ACT Assessment Reports

Standard ACT Assessment reports will be distributed to individual students, to the high school for which a valid reportable high school code has been provided, and up to four colleges or universities listed by code on each student's answer folder. The student copy of the score report will be mailed to the student's mailing address as gridded on the answer folder. The high school reports are mailed to the school. Students will receive a copy of the free student guide, Using Your ACT Assessment Results along with their Student Reports. This guide explains the ACT Assessment Student Report and offers suggestions on using the results. High schools routinely receive copies of the ACT User Handbook through ACT's annual distribution of materials. This free booklet is intended to help high school and college counselors effectively use and interpret ACT Assessment results and includes samples of all standard reports. Sample standard score reports are also posted on ACT's website www.act.org.

The type of testing reported for ACT Assessment scores achieved through in-school testing, both those achieved with standard time and those achieved with accommodations, is "STATE."

ACT will make available the following standard ACT Assessment reports for students tested through the PSAE administration:

Individual Reports (delivered after each test date)
- Student Report (1 copy per student)
- High School Report (1 copy per student)
- High School Labels (2 copies per student)
- Up to four College Reports (1 for each valid code listed on the folder)

School Reports (delivered with individual high school reports)
- High School List Report

School Summary Reports for State Testing (delivered the fall after spring testing)
- High School Profile Report and CD ROM (free for all participating schools)
- District Report (free for all participating schools)
- College Readiness Standards Report (1 per school)

State Agency Summary Report for State Testing (delivered the fall after spring testing)
- State High School Profile Report

WorkKeys Reports

Standard WorkKeys score reports will be mailed to each school. Reports include:
- Individual Reports
- Memo to Examinee and Summary
- Roster Report; Score Labels
- Chart Essays.

The Individual Memo to Examinee report provides the examinee's skill level for each assessment administered, along with descriptions of the tasks associated with each particular skill level achieved, and some strategies.
individuals may use to improve their skills. Two copies are provided. One copy is for the examinee and one for the student's temporary record. The Individual Summary report includes the examinee's score on each assessment administered along with a brief description of the achieved skill level. One copy is provided for the examinee.

The Roster Report contains one line of information for each examinee included in the scoring group. It is organized in alphabetical order by examinees' last names. Each line includes the last four digits of the identification number, gender and ethnicity (if provided by the examinee) and skill level scores for each assessment taken. One copy is provided for school files.

The Score Label contains identification information and skill levels for the WorkKeys assessments taken by that examinee. One label is provided for each examinee. They are printed on full-page sheets containing up to 16 examinee labels per sheet. The label may be placed in the student's temporary record.

The Chart Essay reports provide general descriptive information that can inform decision-making regarding curriculum and instruction. Separately titled reports on subgroups are generated as summaries for each assessment administered. These reports present scores by assessment, gender, ethnicity, and grade level. Each page reports the number and percentage of examinees achieving each skill level in a table at the top of the page and the percentage of examinees at each skill level in a bar graph at the bottom. One copy is provided for school files.

Scores achieved through in-school testing with extended time, including administrations authorized for multiple days, will be reported on the Roster Report and will not be included in any summary reports.

Rescoring ACT Assessment and WorkKeys

At ISBE's direction, ACT has arranged to receive rescoring requests from district superintendents submitted to ISBE. ACT will review the rescoring request and communicate with the district regarding the request and associated fees. Payment of ACT's standard fee must be submitted to ACT by the requesting school district prior to the rescoring of either the ACT Assessment and/or WorkKeys tests. The results of the rescoring will be communicated in writing to ISBE and the district superintendent. If a score changes as a result of the rescoring, ACT will refund the rescoring fee paid for that record.

Compliance with Taking PSAE as a Condition of Graduation

IL Public Act 93-857 requires that students must take the PSAE in order to receive a regular high school diploma. At the direction of ISBE, ACT will honor vouchers for students to take the ACT on any national test date (excluding September and October) during their senior year in order to meet this requirement. There are, however, no options for additional retesting on WorkKeys after the designated Grade 12 Retake.

PSAE National Test Date Voucher

As directed by ISBE, ACT will provide the PSAE Day 1 ACT Assessment National Voucher (which is different from a PSAE Grade 12 Retake Voucher) to district superintendents. District superintendents are responsible for determining whether students have taken the PSAE, informing students of the voucher program, and distributing vouchers to eligible students. District superintendents are also responsible for monitoring the one-time use of vouchers by grade 12 students. Students who need to take the ACT Assessment must register with a paper ACT registration folder and a PSAE Day 1 ACT Assessment National Voucher. This voucher may be used to register to take the ACT (No Writing) on any ACT national test date (excluding September and October) or for special testing during the school year (following the grade 12 retake), depending on needed accommodations.

ACT will document the monthly usage of PSAE Day 1 ACT Assessment National Vouchers submitted with registrations and include that item on the next scheduled invoice at the published price for the ACT (No Writing). Standard ACT Assessment reports will be provided to score recipients, most within four to six weeks after the National test date.
PSAE Score Scale

To change the PSAE or ISAT scale so the scales ranges are not both 120-200 and that PSAE scores are greater than ISAT scores, ACT recommends the following: There could be a change in the current reported values for either PSAE (shift them up) or ISAT (shift them down). (We could add/subtract a constant to all scores to shift the scale (a “120” becomes a “170”, a “121” becomes a “171”, and so on), or we could use a linear transformation. (There are no additional cost implications for this work. Indication is needed from ISBE by September 15, 2005 regarding this recommendation.)

To link ISAT and PSAE scores, ACT recommends creating an expectancy table. We could use data on examinees that have both 11th grade PSAE scores and 8th grade ISAT scores, to empirically create a bivariate table (like the current EXPLORE/PLAN and PLAN/ACT expectancy tables). This would show the 11th grade PSAE scores obtained for all examinees by each ISAT score. It is specific to the group of examinees included in the data, but we should have large representative samples for Illinois.

Final Say in PSAE Scale Construction

ACT understands and agrees that ISBE owns the PSAE scale, and has the final say in matters regarding the scale’s construction and maintenance. ACT’s role is to provide information and guidance based on its technical expertise, but all final decisions rest with ISBE.

Equating Issues

Currently PSAE score are formed by combining standardized equated raw scores. New forms of each assessment are equated to base forms; for example, new ACT Mathematics forms are equated to current ACT Mathematics forms, using a random groups design with equipercentile methodology. This ensures that reported assessment scores (e.g., ACT Mathematics scores on the 1 to 36 score scale) are directly comparable across forms and administration dates, and that PSAE scores (on the PSAE 120 to 200 score scale) are directly comparable across forms and administration dates.
Student Identification System – (SIS)

ACT understands that ISBE will utilize a state-assigned Student Information System (SIS) number within the PSAE. The SIS state identification number will be all numeric and 9 digits. ACT will be able to make appropriate systems and publications modifications to commence the use of the SIS state identification number for 2006-2007 and will not be required to incorporate the use of SIS state identification number in 2005-2006.

Pre-ID Labels and Student ID Numbers

ACT will work with ISBE's designated processing contractor to provide bar coded Day 1 “pre-ID” labels to facilitate electronic matching of Day 2 answer documents to Day 1 records. It is understood that the state-assigned student identification number will be embedded in this label beginning with the Spring 2007 administration so that number can be stored in the resulting PSAE score record. For the Spring 2006 administration, it is understood that a number assigned by ISBE's designated processing contractor will appear on the label instead. ISBE's processing contractor must provide appropriate data files to ACT to provide to its subcontractor for the ACT Assessment to facilitate their printing and scanning of bar code labels for the Day 1 answer document. Detailed processes and schedules must be finalized no later than September 15, 2005. The number on the bar code labels will be used within the ACT Assessment processing system solely to match the Day 1 answer document to the Day 2 document. Demographic and school information attached to the student ID will be available to the designated processing contractor to use for Day 2 and combined PSAE files.

Facilitating Registration of Students for Later ACT Test Dates

ACT recognizes the desire of ISBE to facilitate the re-use of students demographic, interest inventory, and student profile data collected through state testing for subsequent national testing for students who take the ACT Assessment more than once. ACT is pursuing options for accomplishing this. As soon as a feasible schedule for implementing the necessary systems changes is finalized, ACT will work with ISBE to make appropriate adjustments to state testing processes and publications. No change will be possible for the 2005-2006 testing year.
COMBINING ACT RECORDS WITH OTHER PSAE COMPONENTS

As directed by ISBE, ACT will provide to ISBE's designated processing contractor, two complete files of student records achieved through PSAE in-school testing — one file will include all ACT Assessment records (scored and no-test records for spring administrations) and one file will include all scored WorkKeys records. These files will be provided on an ongoing scheduled basis as answer documents are processed. Providing multiple files should facilitate matching Day 1 and Day 2 records and resolving discrepancies. Historically, it has taken about 8-10 weeks after the initial test date to report all Day 1 records to the processing contractor. ACT is committed to working with ISBE and its processing contractor to facilitate reporting PSAE results as quickly as possible.

Technical Assistance for PSAE Reporting

Both the ACT and WorkKeys have well-documented technical characteristics that are consistent with and reflective of the Standards for Educational and Psychological Testing (AERA, APA, NCME 1999). See the ACT Assessment Technical Manual and the WorkKeys Technical Handbook. Of importance to the PSAE program are the underlying technical qualities of the test scores reported in each program which, when combined with other measures, will form PSAE scores that will be reported for Illinois students.

Current PSAE scores are formed by combining standardized equated raw scores. These current scores can be maintained for reading and math. If the new ISBE science test is equatable to the current ISBE science test, the PSAE science score can also be maintained as is.

Enhanced PSAE-level Score Reporting by Skill Domains Consistent with the Illinois Assessment Frameworks

Beginning in October 2005, ACT will work with ISBE staff to determine the reporting needs for each content area of the PSAE based on the Illinois Assessment Frameworks. ACT will then conduct analyses to determine the most effective methodology for meeting those needs. The methodology deemed most appropriate by both ACT and ISBE will be preliminarily tried out using the Spring 2006 PSAE administration data. If it is determined that the methodology used to report customized skill scores at a skill level consistent with the skills measured on each test and the Illinois standards and assessment frameworks works well, this reporting service could be made operational beginning with the Spring 2007 PSAE administration.

It is believed that these skill scores would be based on combinations of scores across the full set of PSAE tests and the methods used would include either observed score methods or IRT domain scoring methods. Options considered will include doing a Standards for Transition-like analyses, based on PSAE score ranges. The advantage of this option is that it is not form dependent—the PSAE scores have the same meaning regardless of the forms on which they were obtained. Analyses that are item based would be different for each form combination (each ACT form and WorkKeys form, or each ACT form and ISBE science form). For some forms used (e.g., accommodations), some of these combinations may have small n-counts, which would impact some types of analyses. Also, ACT does not build (control) the ISBE science test, and building the analyses off the PSAE scores would limit our need for science information on an on-going basis.

ACT believes that the primary considerations in choice of method are the meaningfulness of scores relative to standards and instruction, the reliability of the scores produced and the potential for consistent application of the procedures across forms and over time. Observed score versus domain score methods have different advantages and disadvantages in these terms, and ACT will conduct analyses to evaluate the strength and appropriateness of the different approaches relative to the reporting needs, and will make a recommendation to ISBE.
Once the skill-level scores to be reported are determined and the methodology finalized, ACT and ISBE’s designated processing contractor will work with ISBE staff to design PSAE aggregate and student score reports that would include these skill-level scores. The reports will be designed to be easily understood by their intended audience, i.e., administrators, teachers, parents, and/or students. The reports will also be designed to relate directly to the Illinois standards. Although the work to determine the methodology to be used was part of the proposal costing, the design, printing, and distribution of the reports would need to be costed once final reports are approved by ISBE.

Use of ACT Program Results for School Accountability and Student Recognition

Regarding the use of the ACT and WorkKeys components at the school accountability level, ACT agrees to the use of ACT Assessment and WorkKeys (e.g. Applied Mathematics and Reading for Information) assessment results as components of a PSAE for AYP purposes to be established by Illinois which includes other PSAE assessment results. Should the PSAE performance index be used to allocate funding and/or make determinations about overall compliance with Illinois accountability requirements, ACT assumes that the test performance data will not be the sole criterion on which these decisions will be made.

While the ACT and WorkKeys are both assessments owned and developed by ACT, their individual content and purposes differ from one another. The ACT is designed to measure higher order thinking skills in four academic areas, whereas WorkKeys is designed to measure applied skills important to performance in the workplace. Therefore, ACT accepts the use of the ACT and WorkKeys components of the PSAE at the individual student level to identify students as achieving “honors” in subjects for which a PSAE score is reported provided there is no high-stakes decision attached to such designation (e.g., high school graduation, scholarships, etc.). These two ACT tests must be used in combination with each other or with other PSAE test components in determining the “honors” designation.

Workshops – State-Allowed Accommodations / Interpreting and Applying Test Results to the Classroom

ACT will conduct 1 Chicago-based and 4 state-wide half-day workshops (one-time at no cost) in the fall of 2005 targeted to Test Accommodations Coordinators. These workshops will be designed to introduce TACs to the State-Allowed Accommodations that will be implemented beginning in 2006 and the procedural processes required to register students who will be using State-Allowed Accommodations. ACT will work with ISBE to establish dates and locations for these workshops.

The workshops will focus on the "do's and don'ts" of completing the necessary request forms for ACT (PSAE Day 1) accommodations review. This will include a review of the request processes for ACT-approved accommodations and the new optional state-allowed accommodations available for the 2006 PSAE administration. Content presented jointly by ACT and ISBE staff will include the difference between ACT-approved and state-allowed accommodations, a listing of accommodations that can be requested through each process, the process/forms for applying for state-allowed accommodations, and the reporting ramifications for each.

The focus will be on process, what constitutes a complete submission, what responses schools will receive from ACT, what options are available for reconsideration, etc. ACT staff will not address ADA vs. IDEA issues -- only the fact that college-reportable scores must meet the criteria for accommodations approval that ACT applies to all requests for accommodations. If questions arise regarding the differences between ADA and IDEA, ACT staff will rely on ISBE staff to deflect the discussion so that operational training may continue.

Additional information can/will be presented by ISBE staff at their discretion, including, for example, information about requesting alternate formats for Day 2 and processes for determining accommodations to use on Day 2.
Beginning in 2006-2007, ACT will conduct up to four one-day workshops—if requested by ISBE—for Illinois teachers of language arts, mathematics, and science. The workshops will provide participants with answers to the following questions:

- What should high school graduates know and be able to do in English, mathematics, reading, and science?
- What skills and understandings are measured by the ACT components of the PSAE?
- What do your PSAE results indicate about your students’ performance?
- How can assessment information be used to inform instructional planning and program evaluation?
- What are some ways that schools can best meet students’ needs?

Workshop participants will be provided with materials about the ACT Assessment and WorkKeys tests with a focus on describing the skills and knowledge assessed by each. The first part of each workshop will address general information appropriate for all content-area teachers with breakout sessions by content area to follow. ACT staff members will coordinate with ISBE to schedule the workshops, determine content, and conduct each workshop.

In addition, ACT will conduct six (6) data interpretation workshops beginning in 2006-07. These workshops will promote an understanding and knowledge of the relationship between the standards and the assessments and the assessment data reported to schools and students in a manner which enhances curriculum planning in schools. These workshops will address all individual and aggregate reports delivered by ACT (for the ACT Assessment and WorkKeys), as well as PSAE score reports. ACT staff members will work with ISBE staff in planning and conducting these workshops.
Continuation of Services and Processes

All of the services and processes for Fiscal Year 2006, as described above, will continue for the subsequent fiscal years 2007-2010. Test forms used during fiscal year 2006 may be rotated for reuse for subsequent PSAE initial, makeup, or accommodated testing. In addition, ACT will provide for grade 12 retesting during Fiscal Years 2007-2010 as described below.

Grade 12 Retake

ACT understands ISBE will allow students in grade 12 to retake the PSAE in order to improve their PSAE scores. ACT will support a continuation of the following procedures for ACT Assessment and WorkKeys retesting.

ACT Assessment

Grade 12 retesting on the ACT will be available through ACT national testing on a single national test date designated by ISBE, currently the October test date. The test forms used on the October test date will be different from those used for the initial, makeup, or accommodated testing. ACT will issue retake vouchers to each school in July or August. Schools will then advise interested seniors to contact a designated school official to request a voucher and submit it, in lieu of payment, with their paper ACT Assessment registration folder by the registration deadline for the October national test date. When submitted with a completed national registration folder, the voucher will serve as payment of the prevailing basic registration fee for the ACT. If the student orders any optional services offered on the national registration folder, including the optional ACT Writing Test, the student will be required to include payment for those services.

Test centers offer extended-time testing on every national test date; therefore, students requiring extended time may apply for that accommodation on the October national test date, using the voucher as payment. If students require multiple test days or alternate test formats such as audiocassette, they may use their registration voucher to apply for Special Testing to be administered within two weeks of the October national test date. Students must request accommodations each time they take the ACT. The Grade 12 Day 1 retake accommodations window is October 28-November 11, 2006 and the Day 2 window is October 31-November 14, 2006. Additional retake dates are yet to be determined and will be posted as the actual dates for the October national test date are established by ACT.

ACT will bill ISBE for all registrations or special testing requests submitted with a voucher as payment at the price quoted in the costing section of this contract. All test records for students paid by voucher will be provided in standard format via electronic media to ISBE’s designated processing contractor within eight weeks after the test date. Using this file, ISBE’s designated processing contractor will match Day 1 and Day 2 records. The designated processing contractor will determine which Day 2 student records do not have a matching Day 1 record. A file of the unmatched Day 2 records will be provided to ACT. ACT will search its databases for students who may have failed to register with the retake voucher and determine if additional October Day 1 records are available. ACT will then provide a file of additional Day 1 records identified through this process to the designated processing contractor to match to Day 2 records.
WorkKeys

An in-school test date for administering the Day 2 components of the PSAE, including the two WorkKeys assessments, to selected grade 12 students will be established each year jointly by ACT, ISBE, and ISBE’s designated processing contractor. This test date will be within one week of the October national ACT Assessment test date. ISBE’s designated processing contractor will communicate with all Principals in late August to inform them about the process for requesting quantities needed for Grade 12 Retake. Administration manuals, answer folders, and secure test booklets of test forms different from those used for the initial, makeup, or accommodated spring testing will be shipped by ISBE’s designated processing contractor to arrive approximately one week prior to the retest date. A different test form will be provided for accommodated fall testing. WorkKeys standard reports will be issued as they are ready.

ACT will bill ISBE for all WorkKeys assessments scored during the Grade 12 Retake. All test records for students tested on the retake test date will be provided in standard format via electronic media to ISBE’s designated processing contractor as they are scored, with the last records processed within four weeks after receipt of the answer folders.
Both the ACT and WorkKeys are highly secure instruments and their security must be preserved throughout the test administration process. ACT will employ well-tested security procedures for the ACT and WorkKeys administrations as part of the PSAE. These procedures include both preventive and responsive measures, as described below.

**Preventive Security Measures**

ACT believes the best approach to test security is prevention. Accordingly, strict security procedures govern each phase of ACT program development and administration, beginning with the earliest stages of item development through printing, continuing through delivery of test materials to the actual test administration, score reporting, and the maintenance of test score data. In this context, ACT gives high priority to training test administrators to observe and enforce program security requirements, and ACT requires supervisors to conduct a training session for their assistants. All test supervisors receive test administration manuals that detail strict test security procedures, including those for the reporting of security-related testing irregularities.

Examples of security procedures that are standard parts of the ACT and WorkKeys include:

- testing on the same day at all schools as the first activity of the morning
- sealed test booklets shipped and accounted for at all times by individual serial numbers
- secure, restricted-access storage facilities at each school
- required minimum seating distance between examinees
- prescribed staffing levels to assure adequate vigilance in the test room
- standard procedures for handling testing irregularities
- immediate return of materials after testing

Documentation provided by testing staff during the test administration is also critical. For example, room supervisors must prepare detailed seating charts and prepare irregularity reports. ACT reviews these materials immediately upon receipt and, if necessary, contacts the test supervisors about missing or unclear information. In response to documented irregularities, ACT may determine that some answer documents cannot be scored. (see “Test Administration Compliance and Discrepancy Resolution,” on page 26.)

**Responsive Security Measures**

ACT treats seriously any incident that threatens, or could threaten, the integrity of test scores. Accordingly, it is ACT’s policy to respond deliberately and immediately to any such security-related testing irregularity. ACT maintains a Test Security Department that investigates security-related testing irregularities.

As another post-test measure for the ACT, ACT provides for an internal audit of test scores. Using computer programs that apply sophisticated algorithms, these audits identify the scores of repeat test takers who achieve unusually large gains in score, as well as those whose individual item responses on a test are highly similar to the responses of one or more other examinees at the same test center. After they are isolated by the internal audit, individual test scores undergo scrutiny for evidence of a testing irregularity. More detail about this procedure is provided in Procedures for Investigating Testing Irregularities and Questioned Test Scores, copies to be provided to ISBE.
ACT Assessment Test Preparation

ACT firmly believes that the most important prerequisite for optimum performance by students on the ACT tests is a sound, comprehensive educational program. Each year since 1987, ACT has evaluated the average ACT Assessment score for seniors who have taken various combinations of course work in high school. Regardless of GPA level, gender, ethnicity, or family income, those students who elect to take four or more years of English and three or more years of course work in mathematics, science, and social studies earn higher ACT scores. ACT believes, however, that certain test familiarization efforts can be beneficial to students. ACT considers such efforts only as supplements to, rather than substitutes for, sound academic preparation. Using ACT's Educational Planning and Assessment System (EPAS) to assist students in analyzing their relative strengths and weaknesses in the transition from eighth to tenth to eleventh/twelfth grades will assist in providing a sound, comprehensive educational program.

The usefulness of test preparation activities depends on the objectives of the activities, the approach taken, and the students' educational backgrounds. Test preparation activities that are designed to help students increase familiarity with how the ACT tests are administered are especially useful if students are inexperienced in taking standardized tests. Short-term test preparation programs that emphasize the review and recollection of information previously learned may be helpful to students if considerable time has elapsed since students completed course work that covers the content of the ACT tests. Long-term instructional programs may be helpful to students who have not taken the appropriate course work. All students are likely to profit from activities designed to increase student motivation to do well on the ACT tests.

Description of ACT Assessment Test Preparation Options

The following test preparation materials are part of ACT's standard materials and services for the ACT Assessment and will be available for students testing through PSAE:

- Preparing for the ACT. This free student booklet describes the content of the ACT tests and includes test preparation suggestions and a complete practice test.
- Sample Questions and Test Taking Tips on ACT's Website. Descriptions of the ACT tests, strategies for preparation, and sample questions with explanations of right and wrong answers are easily accessed on ACT's website (www.actstudent.org).

The following test preparation materials are available as optional services for purchase from ACT:

- ACT Online Prep. ACT Online Prep is the only Internet-delivered, test preparation program designed by ACT test development professionals. ACT Online Prep features a Diagnostic Test, two ACT Practice Tests, practice for the optional ACT Writing Test, and comprehensive review sections for each of the four required test tests, as well as the Writing Test. The release of ACT Online Prep is scheduled for the 2005-06 year.
- The Real ACT Prep Guide. This is the only guide with Real ACT Tests. College-bound high school students who want to prepare for the ACT Assessment with "the real thing" can do so with a new book, available through ACT's website. The book, titled The Real ACT Prep Guide, includes 3 real ACT exams, including samples and practice tips for the new optional Writing Test.
- Sample Test Booklets. Retired ACT Assessment forms may be purchased by students, schools, and institutions. Included in each booklet is a sample answer document and scoring keys. Two forms of the ACT are reserved for use by schools and institutions, while two forms are available to students and the general public.
The following EPAS assessments are available for purchase by schools:

- **EXPLORE—Grades Eight and Nine.** EXPLORE consists of a comprehensive set of activities including academic tests, an interest inventory, a student needs assessment, and a high school course work planner, designed to help eighth-and ninth-grade students plan their high school courses and consider what they want to do after high school.

- **PLAN—Grade Ten.** PLAN consists of a comprehensive set of activities designed to help students prepare for the ACT and the transition from high school to college, including an academic test, an interest inventory, and a student information section.

**Recommended ACT Assessment Preparation Timeline**

**Long Range—Grades Eight and Nine**
- Complete the EXPLORE assessment
- Select and complete core/college prep curriculum
- Review the EPAS College Readiness Standards

**Medium Range—Grade Ten Fall/Spring**
- Complete core/college prep curriculum
- Complete the PLAN assessment
- Proceed with ACTive study path recommendations
- Review the EPAS College Readiness Standards

**Short Range—Grade Eleven/Twelve**
- Review prior core/college prep curriculum
- Complete a practice test using *The Real ACT Prep Guide* or ACT Online Prep
- Complete a practice test using the free *Preparing for the ACT* student booklet
- Review sample questions on ACT's website
- Review the EPAS College Readiness Standards

**WorkKeys Test Preparation**

The following materials will be provided as part of WorkKeys assessments for PSAE use:

- **WorkKeys Overview and Preparation Guide.** This free student booklet was specially developed for Illinois and includes test-taking tips, information about types of calculators allowed on the *Applied Mathematics Test*, and sample items with answer key.

- **PSAE Teacher Handbook.** ACT will provide camera-ready copy of WorkKeys test preparation material for this document to be distributed to all public high schools by ISBE’s designated processing contractor.

- **Test Descriptions.** One copy of a test description for each WorkKeys assessment, with complete level skill requirements plus examples, will be provided to each school (starting in 2006-07).

- **Targets for Instruction.** Each year, all newly established Illinois schools will receive one copy of each of the *Targets for Instruction* for *Reading for Information* and *Applied Mathematics* on CD. These documents explain the skill levels in detail and offer instructional strategies for improving skills.

- **WorkKeys Occupational Profiles.** This comprehensive list of WorkKeys skills requirements for over 3,400 jobs is available on the ACT website and may be of benefit to school counselors assisting students. It is also available for purchase in hard copy or on diskette.
Day 1/Day 2 Assessment Model Sequence

Various Illinois constituents have inquired as to the possibilities of changing the existing PSAE Day 1/Day 2 model. ACT is willing to work with ISBE to address concerns with the existing model, but does not recommend a change at this time. Operational and research-based issues are addressed below.

**Operational Issues:**

- The current model allows ACT to support in-school testing without jeopardizing the security of test forms or increasing costs to participating states due to the need for additional test forms and test day labor. Day 1 of the PSAE has been traditionally the same day on which the Colorado statewide administration of the ACT occurs. The ACT is administered in both states on the same "state testing" day, much like a national test date. This occurs for both the initial and the makeup dates. Colorado has no plans to change their test date from Wednesday. If PSAE were to shift the order of Day 1 and Day 2 testing, to ensure test security ACT would have to insist that the ACT continue to be administered on the established Wednesday. This would then shift the entire PSAE testing to Tuesday/Wednesday rather than Wednesday/Thursday. This degree of change has the potential to create great upset in the schools.

- The ACT answer folder currently carries the designation "Day 1" on it to help school staff recognize that it is the folder to be used on the first test day. If Illinois were to administer the ACT as Day 2 instead, different materials might be required, which could increase the cost to Illinois.

- Schools in Illinois will have learned over 6 years of testing to distinguish the content of each test date by the labels "Day 1" and "Day 2." Changing the order after such a long tradition is likely to have an adverse effect on school compliance with standard testing requirements (e.g., mix-ups in procedures or test days) and with consistent staff responses to inquiries (e.g., directions may be provided to schools based on past procedures).

- Students typically approach a Saturday national test day without a full day of testing on the Friday before. Having the ACT administered as Day 1 has the face validity of being comparable with national testing.

**Research Issues:**

Individual forms of the PSAE assessments (ISBE Science Test, ACT Assessment tests, and WorkKeys tests) are equated, which ensures scores on different forms of the tests are interchangeable, even though the forms have different questions on them. This allows the individual tests to be combined to form stable PSAE scores, which can be compared across years. Further contributing to the comparability of scores across administrations is the standardization of test administration: with the exception of tests administered with extended time for students who qualify for such accommodations, all forms of the tests are taken within fixed time limits, in prescribed order, and under standard conditions.

Over time, conditions sometimes change from when a testing program was initially established. For PSAE, we have seen two changes: in 2002, pretest items were added to the ISBE Science and Social Science Tests, and in 2005 as required by newly enacted state legislation, the ISBE Social Science and Writing tests were dropped. Changes to operational conditions are carefully evaluated for merit before they are undertaken, and for both of these changes, analyses were conducted to determine the impact on PSAE scores, to ensure the PSAE scores were not impacted. For example, using data from previous administrations, we were able to evaluate the extent to which students would get the same PSAE scores on both versions of the test.

If ISBE desired to change the test administration days (i.e., administer the current Day 2 tests first), the impact on PSAE trend data should be examined first. A pilot study could be conducted where some students were
administered Day 1 tests, then Day 2 tests, while other students were administered the Day 2 tests prior to Day 1. Analyses would reveal any impact on PSAE scores, as well as demonstrate whether any desired effect of switching the Day 1 and Day 2 tests was achieved.

Some studies in the literature have shown effects on scores when the order of test administration is changed, and some have not. If there was an effect on PSAE scores, which would impair looking at trend data, this might, in the extreme, require new cut scores to be set. If the assumption is that a change might result in increased scores, and a Day 1/Day 2 switch does not have a positive effect on test scores, there would seem to be no reason to switch the days. At the same time, if there were an effect on scores, the continuity of PSAE scores over time would be called into question. Thus, ACT does not recommend a change at this time, and if any studies are contemplated, we suggest proceeding with caution.

**ADA/IDEA Accommodations Statement**

ACT recognizes that ISBE must comply with the Individuals with Disabilities Education Act (IDEA), and ACT is committed to facilitating ISBE’s compliance with IDEA requirements for the PSAE to facilitate ISBE’s NCLB reporting. To that end, ACT will work with ISBE to develop procedures that allow accommodations on the PSAE that are documented in a student’s IEP, and resulting scores will be included in PSAE reports.

ACT is also committed to ensuring that official ACT Assessment scores reported from ACT to colleges and high schools from Day 1 PSAE testing are comparable to scores earned through other forms of ACT testing that involve the application of ACT’s standard test accommodations policies. Therefore, ACT will support two forms of accommodations on Day 1 of the PSAE: 1) ACT-approved accommodations that result in ACT Assessment scores that are fully reportable to colleges, scholarships, and high schools \textit{in addition to} being reportable for PSAE and NCLB purposes, and 2) state-allowed accommodations that result in scores for PSAE and NCLB purposes only. ACT will review requests for accommodations on the ACT Assessment (Day 1 of the PSAE) by applying the ADA standards that are required for all requests.

ACT’s decision to approve the requested accommodations under the ADA, or to allow the state to provide accommodations under the IDEA, will determine whether resulting scores can be reported to colleges \textit{in addition to} being used for PSAE and NCLB purposes.

ACT will continue to monitor all applicable disability requirements to ensure that decisions for PSAE testing reflect those requirements.
CONCLUSION

ACT is firmly committed to continuing to support the Illinois State Board of Education with the successful development, implementation, administration and completion of the Prairie State Achievement Examination. ACT has established its distinguished reputation by providing programs and services that have a positive effect on the education of students throughout the country and the state of Illinois. ACT stands ready to assist the Board in carrying out this program. ACT's Management Plan names ACT's most able and experienced staff that have many years of experience in successfully administering large-scale assessment programs. As unanticipated situations arise, ACT will assign the necessary resources to address and resolve such issues. We believe that the PSAE is one of the most important applications of the ACT and WorkKeys, and ACT will uphold its reputation for responsive and dedicated service in all aspects of its work on the PSAE.