

Guide to the 2004 IMAGE Assessment

Illinois Measure of Annual Growth in English
and IMAGE Mathematics



ILLINOIS STATE BOARD OF EDUCATION
STUDENT ASSESSMENT DIVISION

The Illinois State Board of Education (ISBE) administered Illinois Measure of Annual Growth in English (IMAGE) tests in Spring 2004. IMAGE tests are administered to Limited English Proficient (LEP) students who have been in either a Transitional Bilingual Education (TBE) or Transitional Program of Instruction (TPI) program since September 30 of the current school year, but less than five years. IMAGE reading and writing tests were given to eligible LEP students in grades 3-11, and IMAGE mathematics tests were given to eligible LEP students in grades 3, 5, 8, and 11. ISBE initially developed the tests in response to a General Assembly Task Force's recommendation to administer a standardized reading and writing English proficiency assessment to eligible LEP students. IMAGE mathematics tests were introduced for the first time in 2002 to meet federal school accountability requirements.

Reading and Writing

The purpose of IMAGE reading and writing tests is to assess accurately the wide range of English language proficiency that LEP students exhibit. IMAGE allows students at the beginning levels of proficiency to experience some success on all tasks within the test and challenges students at the upper levels of proficiency. The variety of tasks and items ensures that there is some material in every test that is appropriate for each student. All material and test items are extensively field tested before appearing in the operational test. All of these features contribute to excellent test validity. Reliability is also high: 0.95 for reading and writing.

Each form of these tests is developed thematically. That is, a single theme or topic unifies all parts within each 40-minute session. The test administrator introduces the theme, which involves everyday school and social situations, by reading aloud in English a short passage or writing sample. The topic expands throughout subsequent parts of the test. The linkage occurs through characters that appear in each of the parts or through elaboration of an idea. At the

beginning of each part of the test, the teacher reads a direction box aloud to the students. These instructions also help to link the parts of the test for the students. This thematic structure makes the test situation realistic and puts LEP students into contexts they know from instruction and daily living.

Each test form in the reading and writing series spans three grades: 3-5, 6-8, and 9-11.

Reading

During each of two 40-minute test sessions, students read and answer questions about material that is presented graphically (pictures, maps, charts, etc.) and textually. The test includes both narrative passages (stories) and expository passages (informational pieces). Some questions test literal comprehension, and others test inference and critical thinking skills. The IMAGE Assessment Advisory Committee, which advises ISBE on all phases of test development, chose the multiple-correct format for the reading test because that format seemed best attuned to covering the wide range of proficiency levels in the test population. Each question in the test is followed by five answers, of which as many as three may be correct. This format generates a larger amount of information than single-correct items, and it reflects what typically occurs in teacher-student interactions during instruction.

Writing

The IMAGE writing assessment is also administered in two 40-minute sessions. In each session, students respond to one graphic writing prompt and one text prompt. The tasks within each 40-minute session relate to a single theme. During the two writing test sessions, students respond to four different kinds of prompts: descriptive, narrative, expository, and persuasive.

Descriptive prompts require the students to describe events that occur in a picture or a series of pictures. Narrative topics require students to use a series of pictures to tell a story and make up an original ending.

Expository topics require students to explain or interpret something objectively and clearly. Persuasive topics require the students to take a position on an issue or to state a problem and solution.

Trained readers score essays according to a rubric developed by Illinois bilingual educators and university consultants. There are two checks on the reliability of the scoring. First, each reader scores a set of “check papers.” These papers have been previously scored by the IMAGE Validation committee, comprising Illinois bilingual educators. Second, two readers independently score a random sample of papers.

The rubric is designed to capture the unique writing characteristics of second language learners as well as the qualities of good written communication. As such, the rubric covers the range of writing skills from beginning to skilled written communication. (For more information on the writing rubric, consult the 2004 IMAGE Technical Manual.)

School/District Reports

A school or district receives one two-page Performance Profile for each grade-level cluster tested. The reports encompass both reading and writing. The School Performance Profile includes results at the school, district, and state level. The District Performance Profile includes results at the district and state levels.

The first part of the IMAGE Performance Profile presents the percent of students in each of four performance levels relative to the Illinois Learning Standards. The four performance levels are defined in Table 1. The numeric cutoff scores are presented in Table 4 at the end of this document.

Page one of the Performance Profile also shows the percent of test items answered correctly for different sections of the reading test (Graphics, Narrative Passages, Expository Passages) and for different kinds of questions: those that test literal comprehension (Explicit Ideas) and others that test inference and critical thinking skills (Inferences).

The data reported in Chart B are for all students. To determine your school’s strengths and weaknesses, comparisons should only be made between the school results in a particular section of the reading test (e.g., narrative passages) and corresponding district or state results. Because of potential differences in the difficulty of items from one section to another, avoid direct comparisons among different sections. Only comparisons involving the same section are meaningful.

**Table 1
IMAGE Reading and Writing Performance
Level Descriptions**

Transitioning: Students at this level read and understand an increasingly broad range of materials required for academic success. Students communicate ideas with control of language and writing features required for academic success.

Expanding: Students at this level read text with increasing understanding of abstract and/or unfamiliar content. Students communicate ideas in writing with increased detail, organization, and variety of language.

Strengthening: Students at this level read and understand simple text supported by illustrations or personal experiences. Students maintain a focus in writing through simple or repetitive language.

Beginning: Students at this level begin to read and understand short, simple text supported by illustrations or personal experiences. Students begin to communicate ideas in writing through word lists, phrases, or simple sentences.

The first table on page 2 of the Performance Profile shows average scores for each of four types of writing prompts: descriptive, narrative, persuasive, and expository. The next table provides the percentage of student scores at each score point on each of the five writing features:

- LANGUAGE PRODUCTION. To what extent does the student demon-

strate English language acquisition?

- **FOCUS.** Is the subject, issue, theme, or unifying event clear and maintained?
- **SUPPORT/ELABORATION.** To what extent are main points elaborated or explained by specific evidence and detailed reasons?
- **ORGANIZATION.** Is the flow of ideas logical and the text plan clear and connected?
- **MECHANICS.** Does the writing demonstrate adequate knowledge of standard English spelling and punctuation?

The final table of this report presents the percent of student scores in each of the four performance levels for subgroups designated by gender, race/ethnicity, income, English proficiency, disability, and migrant status.

Individual Student Reports

Test results for reading and writing are reported in a single Individual Student Report. These help teachers and parents/guardians understand students' strengths and weaknesses in the subjects tested. The reports also compare each student's achievement to other students in the school, district, and state.

To determine strengths and weaknesses from Chart B for reading, comparisons should be made from the student results in a particular section (e.g., narrative passages) to corresponding school, district, or state results. Because of potential differences in difficulty of items from one section to another, avoid direct comparisons among different sections for a given student.

Some blanks may appear in Individual Student Reports. If any section of the report contains an "NA," it means that these IMAGE scores are not available. This could occur, for example, because of student absences during testing or because the

student did not complete enough of the test to receive a score.

Mathematics

The IMAGE mathematics tests measure the extent to which students in grades 3, 5, 8, and 11 are meeting the Illinois Learning Standards (1997). Illinois teachers and curriculum experts developed the tests in cooperation with the Illinois State Board of Education. The approach Illinois has taken is to develop adaptations of the regular Illinois Standards Achievement Tests (ISAT) mathematics tests that are appropriate for language minority populations. For grade 11 students, a separate examination was developed using the ISAT mathematics item pools that had been previously developed for high school testing.

The specifications for the adapted tests are identical to the standard ISAT specifications. The items assess the same mathematical skills and processes as the original items. The types of adaptations permitted may be briefly summarized as follows:

- reduce irrelevant text;
- simplify nonmathematical vocabulary (e.g., "cubes" instead of "dice");
- add graphics to help define non-mathematical vocabulary;
- use present tense;
- avoid passive voice, subjunctive, and conditional sentences.

Each test consists of 70 multiple-choice items. The tests for grades 3, 5, and 8 also include two extended-response items. The IMAGE scale for mathematics ranges from 120 to 200.

School/District Reports

A school or district receives one two-page IMAGE Math Performance Profile for each grade tested. Page 1 of the school/district Profile presents the percent of students in each of four performance levels relative to the Illinois Learning Standards. The four performance levels are defined in the report and in Table 2. The numeric cutoff scores are presented in Table 4.

The section that follows shows the percent of multiple-choice test items answered correctly for eight sets of standards. These standard sets are defined in Table 3. The data reported in this section are for all students. To determine your school's strengths and weaknesses, comparisons should only be made between the school results in a particular standard set and corresponding district or state results. Because of potential differences in difficulty of items from one standard set to another, avoid direct comparisons among different standard sets. Only comparisons involving the same standard set are meaningful.

For grades 3, 5, and 8, the next table in the reports shows how well students performed on the two extended-response items. The mathematics questions are scored on three dimensions: mathematical knowledge, strategic knowledge, and explanation. Each of the dimensions is scored on a scale of 0-4, with 4 representing the highest level of skill. The table shows the percent of scores at each score point.

The final table in the reports presents the percent of student scores in each of the four performance levels for subgroups designated by gender, race/ethnicity, income, English proficiency, disability, and migrant status.

Individual Student Reports

Test results for mathematics are reported in a single Individual Student Report. These help teachers and parents/guardians understand students' strengths and weaknesses in mathematics. The reports also compare each student's achievement to other students in the school, district, and state.

Chart B shows the percent of multiple-choice test items answered correctly for eight sets of standards. To determine strengths and weaknesses from Chart B, comparisons should be made from the student results in a particular standard set to corresponding school, district, or state results. Because of potential differences in the difficulty of items from one standard set to another, avoid direct comparisons among different standard sets for a given student. Only comparisons

involving the same standard set are meaningful.

Some blanks may appear in Individual Student Reports. If any section of the report contains an "NA," it means that these IMAGE mathematics scores are not available. This could occur, for example, because of student absences during testing or because the student did not complete enough of the test to receive a score.

Table 2
IMAGE Mathematics Performance Level
Descriptions

Exceeds Standards: Student work demonstrates advanced knowledge and skills in the subject. Students creatively apply knowledge and skills to solve problems and evaluate the results.

Meets Standards: Student work demonstrates proficient knowledge and skills in the subject. Students effectively apply knowledge and skills to solve problems.

Below Standards: Student work demonstrates basic knowledge and skills in the subject. However, because of gaps in learning, students apply knowledge and skills in limited ways.

Academic Warning: Student work demonstrates limited knowledge and skills in the subject. Because of major gaps in learning, students apply knowledge and skills ineffectively.

Additional Reports

Schools/districts receive a School Roster. This roster is an alphabetic listing of students and their test results for each grade.

Districts receive a District Summary, which is a listing of the results of each school in the district for each grade span. There is a separate District Summary for each of the twenty-one subgroups reported for IMAGE (e.g., male, female, low income, etc.).

Table 3
Definitions of Standard Sets Reported in
School/District and Individual Student
Reports for Mathematics

Estimation/Number Sense/Computation: Includes items that may require students to demonstrate an understanding of numbers and their representations, estimate and perform number operations involving addition, subtraction, multiplication, division, percentages, fractions, ratios, and proportions of rational and irrational numbers, as appropriate to grade level. (Standards 6A, 6B, 6C, 6D, 8C)

Algebraic Patterns and Variables: Includes items that may require students to identify, describe, and extend geometric and numeric patterns and to construct and solve problems using variables, as appropriate to grade level. (Standards 8A, 8D)

Algebraic Relationships/Representations: Includes items that may require students to represent and interpret algebraic concepts with words, diagrams, tables, function notations, number lines, coordinate graphs, equations and inequalities, as appropriate to grade level. (Standard 8B)

Geometric Concepts: Includes items that may require students to identify and describe points, lines, angles, two- and three-dimensional shapes and their properties (including the Pythagorean Theorem). This may also include topics involving symmetry, parallel and perpendicular lines, number of sides, faces, and vertices, as appropriate to grade level. (Standard 9A)

Geometric Relationships: Includes items that may require students to sort, classify, compare, and contrast geometric figures. This may include properties such as similarity and congruency, as appropriate to grade level. (Standards 9B, 9D)

Measurement: Includes items that may require students to estimate, measure, compare, and convert (within measurement systems) quantities using appropriate units and acceptable levels of accuracy. This may include items that involve computing area, surface area, and volume, as appropriate to grade level. (Standards 7A, 7B, 7C)

Data Organization and Analysis: Includes items that may require students to create, analyze, display, and interpret data using a variety of graphs. This may include items such as pictures,

tallies, tables, charts, bar graphs, and Venn diagrams, and the computation of mean, median, mode, and range for a set of data, as appropriate to grade level. (Standards 10A, 10B)

Probability: Includes items that may require students to determine, describe, and apply the probability of an event and to use fundamental counting principles, such as permutations and combinations of simple and complex events, as appropriate to grade level. (Standard 10C)

2004 Statewide Results (All Students)

School/District Performance Profiles present statewide results for comparative purposes. The next section of this Guide provides statewide results that may be useful in interpreting the reports. Table 4 shows score ranges that are used to define the student performance levels. These cutoff scores do not change annually, although the percent of students who fall at each level may.

Table 5 shows the percent of student scores at each of these performance levels for 2004 as well as for 2000 through 2003. (except for IMAGE Mathematics, which was introduced in 2002.) Table 5 also shows the percent of student scores that are in the Expanding or Transitioning levels for reading and writing, and in the Meets or Exceeds levels for mathematics.

Figures 1 and 2 show student performance statewide relative to the reading and writing performance levels. The Performance Profiles present this information separately by grade span. These two charts simultaneously show all forms within reading and writing for comparative purposes.

Figure 3 shows student performance statewide relative to the mathematics performance levels.

Table 4
Scale Score Ranges That Define IMAGE Student Performance Levels

Grade(s)	Beginning	Strengthening	Expanding	Transitioning
READING				
3	50-174	175-204	205-229	230-450
4-5	50-194	195-229	230-254	255-450
6-8	50-214	215-249	250-299	300-450
9-11	50-244	245-294	295-334	335-450
WRITING				
3	5-10	11-12	13-15	16-26
4-5	5-13	14-15	16-18	19-26
6-8	5-15	16-17	18-20	21-26
9-11	5-17	18-19	20-22	23-26
MATHEMATICS				
Grade	Academic Warning	Below Standards	Meets Standards	Exceeds Standards
3	120-141	142-152	153-172	173-200
5	120-137	138-157	158-190	191-200
8	120-137	138-161	162-184	185-200
11	120-138	139-157	158-187	188-200

Table 5
Percent of Student Scores Falling into Each IMAGE Performance Level

Grade 3	READING				
	Beginning	Strengthening	Expanding	Transitioning	Expanding + Transitioning
2000	40	31	21	9	30
2001	28	36	25	11	36
2002	29	33	24	14	38
2003	24.5	34.4	24.8	16.3	41.1
2004	25.6	41.0	25.2	8.2	33.4
Grades 4-5					
2000	52	29	12	6	18
2001	44	35	15	6	21
2002	46	29	17	9	26
2003	37.8	33.7	17.8	10.7	28.5
2004	33.4	46.6	14.9	5.1	20.0
Grades 6-8					
2000	50	27	21	3	24
2001	48	26	22	3	25
2002	54	30	13	2	15
2003	42.3	32.2	22.2	3.2	25.4
2004	38.1	30.2	28.9	2.7	31.6

Table 5 (continued)

Grades 9-11	Beginning	Strengthening	Expanding	Transitioning	Expanding + Transitioning
2000	59	34	6	0	6
2001	60	34	5	0	5
2002	63	33	4	0	4
2003	53.9	37.9	7.5	0.6	8.1
2004	52.7	39.9	6.4	1.0	7.4
WRITING					
Grade 3	Beginning	Strengthening	Expanding	Transitioning	Expanding + Transitioning
2000	20	22	42	15	57
2001	7	18	45	31	76
2002	9	16	48	27	75
2003	5.4	12.5	47.9	34.2	82.1
2004	3.9	8.3	35.6	52.2	87.8
Grades 4-5					
2000	45	27	24	5	29
2001	29	28	33	10	43
2002	31	29	34	6	40
2003	22.9	31.9	37.6	7.6	45.2
2004	11.9	18.5	53.9	15.7	69.6
Grades 6-8					
2000	53	25	19	3	22
2001	40	27	28	6	34
2002	47	30	20	3	23
2003	35.8	31.8	28.5	3.9	32.4
2004	30.8	29.2	32.1	7.8	39.9
Grades 9-11					
2000	66	23	11	1	12
2001	52	26	20	2	22
2002	59	25	15	1	16
2003	56.2	28.6	14.5	0.7	15.2
2004	45.7	30.1	22.1	2.1	24.2

(continued on next page)

Table 5 (concluded)

MATHEMATICS					
Grade	Academic Warning	Below Standards	Meets Standards	Exceeds Standards	Meets + Exceeds
Grade 3					
2002	18	41	37	4	41
2003	15.9	35.4	42.7	6.0	48.7
2004	17.5	30.6	44.7	7.2	51.9
Grade 5					
2002	22	56	21	1	22
2003	13.3	54.7	30.7	1.4	32.1
2004	10.0	57.9	30.9	1.1	32.0
Grade 8					
2002	25	57	15	3	18
2003	18.9	60.4	17.7	3.1	20.8
2004	17.4	62.3	17.1	3.2	20.3
Grade 11					
2002	18	59	21	2	23
2003	13.9	61.8	22.6	1.7	24.3
2004	16.1	61.6	20.5	1.8	22.3

Note: Although separate cutoffs are used for Grade 3 reading and writing, the results for Grades 3, 4, and 5 are combined into a single result in the charts shown in Figures 1 and 2.

Figure 1
Percent of Student Scores in Each Reading Performance Level

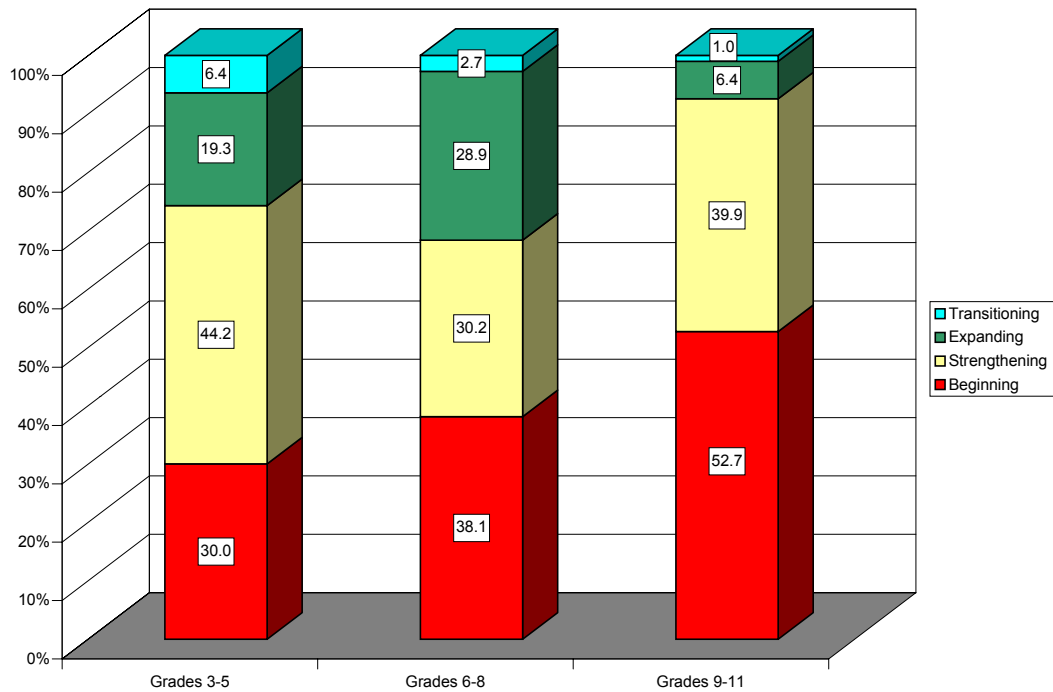


Figure 2
Percent of Student Scores in Each Writing Performance Level

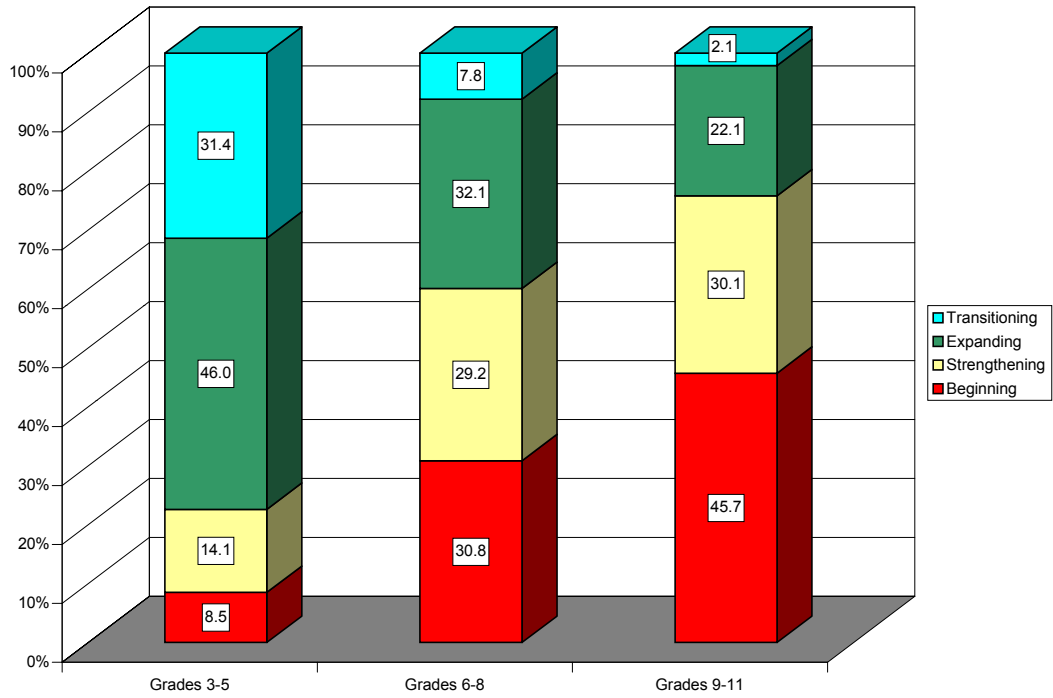


Figure 3
Percent of Student Scores in Each Mathematics Performance Level

