A survey was conducted among 489 public colleges in the Southern Regional Education Board states to determine cutting scores for placing students into regular versus remedial college classes. Results indicated a large number and variety of tests in reading, writing, and mathematics--almost 100 combinations of 70 different tests--were used to place students. Both locally-developed and standardized tests were used. Thirty-one different reading tests were reported, most frequently the Nelson-Denny Reading Tests, the American College Test--Multiple Assessment Programs and Services--Descriptive Test of Language Skills (MAPS--DTLS), and the verbal Scholastic Aptitude Test. Thirty different writing tests were reported, including the American College Test--English, a sample essay, and a locally developed test. For mathematics, 118 colleges used an in-house test. In addition, 36 testing instruments were named, including the American College Test--Mathematics, Scholastic Aptitude Test, and MAPS. An examination of the cut-off scores used by the different colleges indicated a wide range of standards. On a reading test, the percentage of students eligible for college-level placement ranged from 57 percent to 99 percent, and on a mathematics test, from 6 percent to 86 percent. (GDC)
COLLEGE-LEVEL STUDY: WHAT IS IT?

Variations in College Placement Tests and Standards in the SREB States

Why is it that in one college students need only a 7th grade reading level to begin credit work toward a degree, while at another college, students must read at the 13th grade level to enroll in degree-credit courses?

What does it mean that at one college students can score at the first percentile on a reading test (meaning that 99 percent of the students who took the test scored higher) and begin degree-credit courses, while at another college, students must score at the 43rd percentile to start degree-credit work?

And in mathematics, "the language of science," how does one interpret the fact that one college requires students to score at the 14th percentile to begin college-level mathematics, while at another, students are required to score at the 94th percentile?

What does it mean that nearly 100 test combinations of 70 different tests in reading, writing, and mathematics are used by colleges and universities in the SREB states to place students into degree-credit programs?

Institutions have different missions—and all are certainly not to be judged by ivy-league standards—but isn’t it possible to have some general agreement about what constitutes college-level work?

An SREB study would seem to show that the wide variation among institutions in college placement standards means that there is very little consensus on what college-level work is. It is difficult to improve undergraduate education when what passes for college work may be at an advanced level or it may be at a high school level. Perhaps the first question to be answered in individual states is "How does the lack of agreement on what college-level work means affect the quality of undergraduate education?"

Placement versus Admission Standards

In discussions of entry-level standards for college, it is often confusing whether placement standards or admission standards are being addressed. While at times the standards or terms may be used interchangeably, this SREB study deals with standards for placement. Placement standards are used after students are admitted to college to help determine whether they are ready to begin degree-credit work. If students have the necessary skills, they are placed in degree-credit (regular) college courses. If they do not, they are placed in remedial/developmental programs.

The admissions process, however, is different. Students are admitted who may lack the skills necessary to begin college-level work. For example, institutions with open-door admission policies may admit a majority of students who may not be ready to begin regular college work. Even institutions that require standards for admission often admit students who need additional assistance. This, of course, is not as big a problem in the institutions with more selective admissions criteria. Obviously, the more selective an institution, the fewer the number of students who will need assistance.

SREB Placement Survey

Educational reforms, especially those that concern standards and quality, are bringing to light the fact that colleges and universities use few common standards to make placement decisions—that is, decisions about
whether entering students are ready to begin college-level work or whether they need remedial help. This raises the question, "What standards are being used by institutions of higher education in the SREB region to place students in appropriate levels of study?" An SREB survey of institutional remedial developmental programs in two-year and four-year colleges attempts to answer this question. Specifically, the survey describes the particular standards required by colleges and universities for placement into regular college degree-credit programs. "Standards" are defined here as the qualifying (cut-off) scores on particular tests required by institutions.

The survey was sent to 489 public two-year and four-year colleges in the SREB states: 186 were four-year and 303 were two-year institutions. The overall response rate for the survey was 83 percent—88 percent for four-year institutions and 79 percent for two-year institutions. Institutions were asked to identify the assessment instruments and scores required in the areas of reading, writing, and mathematics to place students at either the remedial/developmental level or "regular" college-work level.

### TABLE 1
College Placement Tests Used By SREB Survey Respondents, by Rank, for Reading, Writing, and Mathematics 1985-86

<table>
<thead>
<tr>
<th>Rank</th>
<th>Placement Test</th>
<th>Frequency of Use</th>
<th>Placement Test</th>
<th>Frequency of Use</th>
<th>Placement Test</th>
<th>Frequency of Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Nelson-Denny</td>
<td>121</td>
<td>ACT—English</td>
<td>72</td>
<td>In-house/Institutionally</td>
<td>118</td>
</tr>
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<td></td>
<td></td>
<td></td>
<td>Developed</td>
<td></td>
<td>Developed</td>
<td></td>
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<tr>
<td>2</td>
<td>ACT—Combined</td>
<td>43</td>
<td>In-house/Institutionally</td>
<td>66</td>
<td>ACT—Mathematics</td>
<td>71</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Developed</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>3</td>
<td>MAPS—Descriptive Test</td>
<td>37</td>
<td>Writing Sample/Essay</td>
<td>57</td>
<td>SAT—Mathematics</td>
<td>47</td>
</tr>
<tr>
<td></td>
<td>of Language Skills</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>4</td>
<td>SAT—Verbal</td>
<td>35</td>
<td>Test of Standard Written</td>
<td>53</td>
<td>MAPS—Descriptive Test</td>
<td>36</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>English</td>
<td></td>
<td>of Mathematics Skills—</td>
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<td></td>
<td>Elementary Algebra</td>
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<tr>
<td>5</td>
<td>ASSET</td>
<td>29</td>
<td>ACT—Combined</td>
<td>36</td>
<td>State/System Developed</td>
<td>29</td>
</tr>
<tr>
<td></td>
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<td>Test</td>
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<td>Test</td>
<td></td>
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<tr>
<td>6</td>
<td>State/System Developed</td>
<td>27</td>
<td>SAT—Verbal</td>
<td>28</td>
<td>MAPS—Descriptive Test</td>
<td>27</td>
</tr>
<tr>
<td></td>
<td>Test</td>
<td></td>
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<td>of Mathematics Skills—</td>
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<td></td>
<td></td>
<td></td>
<td>Intermediate Algebra</td>
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<tr>
<td>7</td>
<td>ACT—Social Studies</td>
<td>26</td>
<td>State/System Developed Test</td>
<td>28</td>
<td>ACT—Combined</td>
<td>26</td>
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<td></td>
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<td>Test</td>
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<td>Test</td>
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<tr>
<td>8</td>
<td>MAPS—Comparative Guidance</td>
<td>23</td>
<td>ASSET—Language Usage</td>
<td>24</td>
<td>MAPS—Comparative</td>
<td>23</td>
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<tr>
<td></td>
<td>Placement Test—Reading</td>
<td></td>
<td></td>
<td></td>
<td>Guidance Placement—</td>
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<td></td>
<td>Mathematics C Test</td>
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</tr>
<tr>
<td>9</td>
<td>ACT—English</td>
<td>18</td>
<td>MAPS—Comparative Test—</td>
<td>24</td>
<td>MAPS—Descriptive Test—</td>
<td>22</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Guidance Placement—Writing</td>
<td></td>
<td>of Mathematics Skills—</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Test—Writing</td>
<td></td>
<td>Arithmetic</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Test of Adult Basic Education</td>
<td>12</td>
<td>Assessment and Placement</td>
<td>15</td>
<td>ASSET—Numerical</td>
<td>17</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Services for Community Colleges—Essay</td>
<td></td>
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</tbody>
</table>
scores may be compared. Ranks then serve as the means by which different test scores are converted to their percentile equivalents. These percentile ranks are commonly used in SREB states.

For reading, 13 different tests are identified by institutions for entry-level placement. The Nelson-Denny Reading Test is by far the most commonly used reading test (12) institutions. It is also used more frequently than any of the writing or mathematics tests. In addition to the Nelson-Denny, frequently used reading tests include the ACT (43 institutions), MAPS-DTLS (37 institutions), and SAT-Verbal (35 institutions).

For writing, the institutions reported 30 different tests. Two of the top three writing placement tests were identified by these institutions as in-house/institutionally developed and writing sample/essay. Also, note that institutions using the various writing tests are more evenly distributed than in either the reading or mathematics areas. These factors suggest a lack of consensus and indicate that institutions obviously have not found any one measure of writing skills which they believe to be clearly better than others. This may be explained in part by the difficulty in determining writing skills objectively as compared to reading or mathematics skills.

For mathematics placement, 36 testing instruments were identified. It is interesting that the majority of colleges (118 institutions) chose in-house/institutionally developed math tests as the most frequently used method for college-level placement—this means 108 different tests for establishing math placement. Also shown in Table 1 for the top 10 mathematics tests is the popularity of the MAPS testing series: 4 forms of this test are among the top 10. The data in Table 1 provide a clear indication of the variety of tests used by institutions in the SREB region to place students in college-level courses.

The fact that many different tests are used would not necessarily mean that there is a lack of "common" standards. However, a wide range of cut-off scores on those tests would show conclusively that there is little consensus among institutions on college placement standards. Comparing the cut-off scores on a common scale reveals this lack of consensus. To obtain a common scale for comparison in this study, scaled (cut-off) scores were converted to their percentile equivalents. These percentile ranks then serve as the means by which different test scores may be compared.

Table 2 presents the range (lowest to highest) of cut-off scores used by institutions for course placement at the entering college level for the three most frequently used nationally normed tests in reading, writing, and mathematics. Also included are the converted percentile ranks of the low and high cut-off scores. For example, institutions that employ the Nelson-Denny Reading Test for placement set cut-off scores ranging from the 7th grade to the 13th grade reading levels. The range of scores, 7 to 13, is equivalent to a rank from the 1st percentile to the 43rd. This means that at the low end of the scale, some colleges use placement scores that are the lowest possible—only one percent of all the students across the nation who took the test scored lower. Conversely, at the high end of the scale, some institutions are using cut-off scores at a level for which one percent of the test population scored lower.

Another way of looking at the scores for the Nelson-Denny is that institutions are using placement scores so low that 99 percent of the test takers would have been allowed to enter the "regular" college-level curriculum at that institution. Other institutions are using cut-off scores on the same test that would allow only 57 percent of the students taking the test to be placed in entry-level college credit courses.

In each area of curriculum placement (reading, writing, and mathematics), it is startling to note the wide range of scores being used to place students into college entry-level courses. The most extreme example of this practice is shown for the mathematics MAPS-DTLS test, for which cut-off scores ranged from the 7th grade to the 13th grade reading levels. The equivalent percentile rank for these scores are 14 and 94. This means that at an institution using a cut-off score of 1—94 percent earned a score of 1—nearly all students would have been placed in regular college mathematics courses. At the other extreme, in those institutions with a cut-off score of 94, only 4 percent of the students would have been able to enter regular college mathematics courses.

The notion of "college-level" obviously varies greatly among public two-year and four-year institutions in the SREB region. In fact, depending on the test selected, these data indicate that entry-level placement is based on scores that vary from as low as the 1st percentile to as high as the 94th percentile. The implications are obvious. It is difficult to discuss such issues as standards, quality, or improving undergraduate education when the notion of "college-level work" varies so widely.

"Variety" in and of itself is not unexpected. For example, readiness for the most selective institutions is not expected to be the same as readiness for the open-door and less selective institutions. However, what can be expected is that there should be some understanding among all colleges as to what standards of skill and knowledge should be expected of all students seeking to enter any institution. This is not to suggest that all institutions should have the same or a very narrow, definition of college-level work. It does suggest, however, that a "minimum competence" level be established below which degree credit will not be awarded. It also suggests a "higher" floor of competence on which other distinctions between institutions can be built.
College-Level Placement Tests
Used by Colleges and Universities
in the SREB States

Reading Tests

- American College Testing (ACT)—Combined
- ACT—Social Studies subtest
- ACT—English subtest
- ACT—Natural Science subtest
  -- Assessment and Placement Services for Community Colleges—Reading
- ASSET—Reading
- California Achievement Test (CAT)
- Carver Reading Progress Scale
- College Board Computer Placement Test—Reading
- Comprehensive Test of Basic Skills (CTBS)
- Davis Reading Test
- Gates-MacGinitie
- GED Practice Test
- Harcourt, Brace, Jovanovich—Audio-Visual
  -- Technical Test of Reading
- In-house/Institutionally Developed
- Iowa Silent Reading Test
- McGraw-Hill Reading Test
- Multiple Assessment Programs and Services (MAPS)—Descriptive Test of Language Skills
  -- DTLS—Reading
- MAPS—Reading (Self-scoring placement)
- MAPS—DTLS—Logical Relationship
- MAPS—Comparative Guidance/Placement (CGP)—Reading Placement
- Nelson-Denny Reading Test
- Scholastic Aptitude Test (SAT)—Combined
- SAT—Verbal
- School and College Achievement Test (SCAT)
- Stanford Diagnostic Reading Test
- Stanford Test of Academic Skills
- State/System Developed Test
- Test of Academic Skills (TASK)
- Test of Adult Basic Education (TABE)

Writing Tests

- ACT—Combined
- ACT—English Subtest
- ACT—Social Studies Section
  -- Assessment and Placement Services for Community Colleges—Essay
- Assessment and Placement Services for Community Colleges—Writing
- ASSET—Advanced Language Skills
- ASSET—Language Usage
- California Achievement Test (CAT)
- College Board Computer Placement Test—Sentence Skills
- College Board—Written English Expression Test
- Comprehensive Test of Basic Skills (CTBS)
- Cooperative School College Ability Test (SCAT)
- Differential Aptitude Test (DAT)—Language Usage
  -- In-house/Institutionally Developed
- MAPS—DTLS—Usage Test
- MAPS—DTLS—Sentence Structure Test
- MAPS—CGP—Writing Placement
- MAPS—Written English Expression (Self-scoring placement)
- McGraw-Hill Basic Writing
- Purdue High School Test of English
- SAT—Verbal
- SAT—Combined
- Stanford Test of Academic Skills
- State/System Developed Test
- TASK
  -- Test of Adult Basic Education (TABE)
  -- Test of Standard Written English (TSWE)
- The Cooperative English Test (CET)
- Writing Sample/Essay

Mathematics Tests

- ACT—Combined
- ACT—Math subtest
- Assessment and Placement Services for Community Colleges—Math
- ASSET—Intermediate Algebra
- ASSET—Elementary Algebra
- ASSET—College Algebra
- ASSET—Numerical
- Association of Community and Junior Colleges
  -- Math Placement Test
- California Achievement Test (CAT)
- College Board Computer Placement Test—Arithmetic
- College Board Computer Placement Test—Elementary Algebra
- College Entrance Examination Board—Math Achievement Test
- The Comprehensive Math Test (CMT)
- Comprehensive Test of Basic Skills (CTBS)
- Cooperative School College Ability Test (SCAT)
- In-house/Institutionally Developed
- MAPS—Applied Arithmetic (Self-scoring placement)
- MAPS—CGP—Mathematics C, D, and E Tests
- MAPS—Computation (Self-scoring placement)
- MAPS—Descriptive Test of Mathematics Skills (DTMS)—Arithmetic Skills Test
- MAPS—DTMS—Elementary Algebra Skills Test
- MAPS—DTMS—Intermediate Algebra Skills Test
- MAPS—DTMS—Mathematics Graphs Test
- MAPS—Elementary Algebra (Self-scoring placement)
- MAPS—Intermediate Algebra
- Mathematics Association, American Placement Test Battery
- Mathematical Association of America
- SAT—Combined
- SAT—Math
- Spence/Word Mathematics Test
- Stanford Test of Academic Skills
- State/System Developed Test
- TASK
  -- Test of Adult Basic Education (TABE)