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Marshall University

## Contents

These Technical Appendices report CLA outcomes in detail and technical information underpinning your results.

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# A

## CLA Outcomes

In Table 1 below, Parts A (Freshmen tested in fall 2007) and B (Seniors tested in spring 2008) provide information on how many students completed the CLA (column 1) and their mean ability test scores (column 2), as well as their expected (column 3) and actual (column 4) CLA scores. "Ability test" scores are hereinafter labeled "SAT" and refer to (1) SAT math + verbal, (2) ACT Composite or (3) Scholastic Level Exam scores on the SAT scale. Column 5 reports the percentile rank for your school's actual mean CLA scores. Thus, this column indicates how your school's mean CLA scores compare to mean CLA scores at other schools BEFORE there is any adjustment for the students' SAT scores. There is one set of percentiles for freshmen and another set for seniors. Deviation scores (column 6) quantify the difference between actual and expected scores in standard error units. Column 7 reports percentile ranks for deviation scores (the same as those presented in the Institutional Report). Performance Levels (column 8) are based on these percentile ranks and assigned as follows: 0-9th percentile (Well Below Expected), 10-29th percentile (Below Expected), 30-69th percentile (At Expected), 70-89th percentile (Above Expected), and 90-99th percentile (Well Above Expected). An "N/A" indicates that there were not enough students with both CLA and SAT scores to compute a reliable score for your institution. Part C (Value-added Estimates), column 1, reports difference scores, which are the deviation scores for seniors minus the deviation scores for freshmen. Difference scores are converted to percentile ranks (column 2) and then performance levels (column 3) are assigned using the above ranges.

**Table 1: CLA Outcomes**

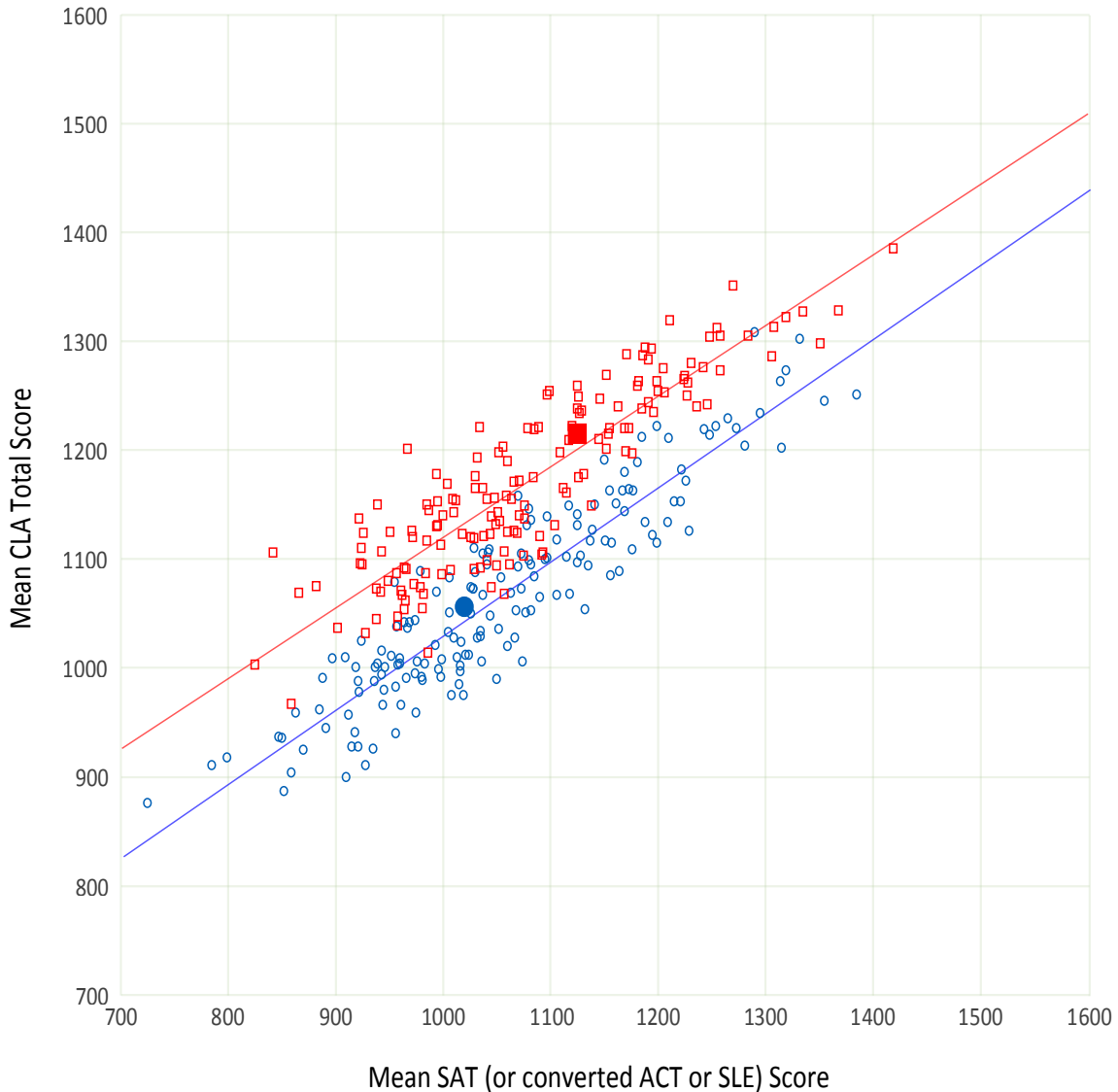
| <b>Part A: Freshmen tested in fall 2007</b> |                          |                           |                               |                             |                            |                            |                            |                              |
|---|--------------------------|---------------------------|-------------------------------|-----------------------------|----------------------------|----------------------------|----------------------------|------------------------------|
|   | <i>Student Count (1)</i> | <i>Mean SAT Score (2)</i> | <i>Expected CLA Score (3)</i> | <i>Actual CLA Score (4)</i> | <i>Percentile Rank (5)</i> | <i>Deviation Score (6)</i> | <i>Percentile Rank (7)</i> | <i>Performance Level (8)</i> |
| <i>Total CLA Score</i>                      | 97                       | 1020                      | 1043                          | 1056                        | 50                         | 0.4                        | 62                         | At                           |
| <i>Performance Task</i>                     | 50                       | 1016                      | 1028                          | 1075                        | 58                         | 1.2                        | 87                         | Above                        |
| <i>Analytic Writing Task</i>                | 47                       | 1024                      | 1056                          | 1037                        | 39                         | -0.5                       | 34                         | At                           |
| <i>Make-an-Argument</i>                     | 48                       | 1021                      | 1055                          | 1028                        | 31                         | -0.6                       | 29                         | Below                        |
| <i>Critique-an-Argument</i>                 | 48                       | 1023                      | 1051                          | 1041                        | 41                         | -0.3                       | 39                         | At                           |

| <b>Part B: Seniors tested in spring 2008</b> |                          |                           |                               |                             |                            |                            |                            |                              |
|--|--------------------------|---------------------------|-------------------------------|-----------------------------|----------------------------|----------------------------|----------------------------|------------------------------|
|  | <i>Student Count (1)</i> | <i>Mean SAT Score (2)</i> | <i>Expected CLA Score (3)</i> | <i>Actual CLA Score (4)</i> | <i>Percentile Rank (5)</i> | <i>Deviation Score (6)</i> | <i>Percentile Rank (7)</i> | <i>Performance Level (8)</i> |
| <i>Total CLA Score</i>                       | 101                      | 1125                      | 1200                          | 1215                        | 66                         | 0.4                        | 63                         | At                           |
| <i>Performance Task</i>                      | 51                       | 1118                      | 1188                          | 1199                        | 61                         | 0.2                        | 58                         | At                           |
| <i>Analytic Writing Task</i>                 | 50                       | 1132                      | 1211                          | 1230                        | 70                         | 0.5                        | 69                         | At                           |
| <i>Make-an-Argument</i>                      | 50                       | 1132                      | 1205                          | 1202                        | 65                         | -0.1                       | 45                         | At                           |
| <i>Critique-an-Argument</i>                  | 50                       | 1132                      | 1215                          | 1258                        | 80                         | 1.1                        | 85                         | Above                        |

| <b>Part C: Value-added Estimates</b> |                             |                            |                              |
|--------------------------------------|-----------------------------|----------------------------|------------------------------|
|                                      | <i>Difference Score (1)</i> | <i>Percentile Rank (7)</i> | <i>Performance Level (8)</i> |
| <i>Total CLA Score</i>               | 0.0                         | 49                         | At                           |
| <i>Performance Task</i>              | -1.0                        | 17                         | Below                        |
| <i>Analytic Writing Task</i>         | 1.0                         | 82                         | Above                        |
| <i>Make-an-Argument</i>              | 0.5                         | 65                         | At                           |
| <i>Critique-an-Argument</i>          | 1.4                         | 90                         | Well Above                   |

The results in Table 1 represent schools where at least 25 students received a CLA score and also had an SAT score. This dual requirement was imposed so that the analyses could adjust for differences among schools in the incoming abilities of the students participating in the CLA.

Figure 1: Relationship between CLA Performance and Incoming Academic Ability



In Figure 1 data are shown for 176 schools. The diagonal lines (blue for freshmen and red for seniors) show the typical relationship between an institution's mean SAT score and its mean CLA score for freshmen and seniors, respectively. The solid blue circle and solid red square correspond to your school. Schools above the line scored higher than expected, whereas those below the line did not do as well as expected. The difference between a school's actual mean score and its expected mean score is its deviation score as reported in Table 1 (Parts A and B) on the previous page. Our value-added estimate is the difference score (see Table 1 Part C), which is the deviation score for seniors minus the deviation score for freshmen. Appendix H contains the equations that were used to estimate a school's expected mean CLA score on the basis of its students' mean SAT score. Appendix H also contains the expected CLA score for a school's freshmen and seniors for various mean SAT scores.

Tables 2, 3 and 4 (below) provide greater detail on CLA performance, including the spread of scores, at your school and all schools. These tables present summary statistics including counts, means, 25th and 75th percentiles, and standard deviations. Units of analysis are students for Tables 2 and 3 and schools for Table 4. These CLA scale scores represent students with and without SAT scores and thus may differ from those in Table 1. Additionally, the 25-student threshold was applied to the schools included in Table 4 for CLA outcomes.

**Table 2: Supplemental CLA outcomes for freshmen and seniors tested at your school**

|                              | Freshmen at your school |                 |                |                 |                    | Seniors at your school |                 |                |                 |                    |
|------------------------------|-------------------------|-----------------|----------------|-----------------|--------------------|------------------------|-----------------|----------------|-----------------|--------------------|
|                              | Number of Students      | 25th Percentile | Mean CLA Score | 75th Percentile | Standard Deviation | Number of Students     | 25th Percentile | Mean CLA Score | 75th Percentile | Standard Deviation |
| <i>Performance Task</i>      | 50                      | 912             | 1075           | 1173            | 236                | 51                     | 1062            | 1199           | 1299            | 178                |
| <i>Analytic Writing Task</i> | 47                      | 923             | 1037           | 1141            | 147                | 50                     | 1137            | 1230           | 1321            | 132                |
| <i>Make-an-Argument</i>      | 48                      | 883             | 1028           | 1145            | 175                | 50                     | 1130            | 1202           | 1310            | 145                |
| <i>Critique-an-Argument</i>  | 48                      | 916             | 1041           | 1150            | 174                | 50                     | 1136            | 1258           | 1372            | 201                |
| <i>SAT Score</i>             | 99                      | 910             | 1018           | 1140            | 161                | 101                    | 1030            | 1125           | 1220            | 149                |

**Table 3: Supplemental CLA outcomes for freshmen and seniors tested at all schools**

|                              | Freshmen at all schools |                 |                |                 |                    | Seniors at all schools |                 |                |                 |                    |
|------------------------------|-------------------------|-----------------|----------------|-----------------|--------------------|------------------------|-----------------|----------------|-----------------|--------------------|
|                              | Number of Students      | 25th Percentile | Mean CLA Score | 75th Percentile | Standard Deviation | Number of Students     | 25th Percentile | Mean CLA Score | 75th Percentile | Standard Deviation |
| <i>Performance Task</i>      | 12026                   | 915             | 1064           | 1186            | 194                | 8071                   | 1019            | 1164           | 1300            | 204                |
| <i>Analytic Writing Task</i> | 10539                   | 970             | 1077           | 1172            | 150                | 7872                   | 1073            | 1182           | 1285            | 156                |
| <i>Make-an-Argument</i>      | 10750                   | 954             | 1075           | 1180            | 179                | 7936                   | 1046            | 1177           | 1295            | 185                |
| <i>Critique-an-Argument</i>  | 10645                   | 939             | 1075           | 1191            | 179                | 7925                   | 1065            | 1185           | 1303            | 187                |
| <i>SAT Score</i>             | 18989                   | 940             | 1061           | 1180            | 181                | 14193                  | 960             | 1095           | 1220            | 184                |

**Table 4: Supplemental CLA outcomes for schools that tested freshmen and seniors**

|                              | Schools that tested freshmen |                 |                |                 |                    | Schools that tested seniors |                 |                |                 |                    |
|------------------------------|------------------------------|-----------------|----------------|-----------------|--------------------|-----------------------------|-----------------|----------------|-----------------|--------------------|
|                              | Number of Schools            | 25th Percentile | Mean CLA Score | 75th Percentile | Standard Deviation | Number of Schools           | 25th Percentile | Mean CLA Score | 75th Percentile | Standard Deviation |
| <i>Performance Task</i>      | 161                          | 982             | 1051           | 1128            | 98                 | 148                         | 1080            | 1157           | 1232            | 95                 |
| <i>Analytic Writing Task</i> | 157                          | 1017            | 1072           | 1123            | 82                 | 142                         | 1120            | 1176           | 1234            | 78                 |
| <i>Make-an-Argument</i>      | 159                          | 1014            | 1074           | 1121            | 88                 | 143                         | 1107            | 1170           | 1231            | 83                 |
| <i>Critique-an-Argument</i>  | 157                          | 1009            | 1068           | 1121            | 84                 | 144                         | 1119            | 1178           | 1243            | 80                 |
| <i>SAT Score</i>             | 168                          | 961             | 1053           | 1138            | 123                | 161                         | 994             | 1079           | 1163            | 115                |

## B Characteristics of Participating Institutions and Students

In the fall 2007 and/or spring 2008 testing cycles, 176 institutions (“CLA schools”) tested enough freshmen and seniors to provide sufficiently reliable data for the school level analyses and results presented in this report. Table 5 shows CLA schools grouped by Basic Carnegie Classification. The spread of schools corresponds well with that of the 1,713 four-year institutions across the nation. Table 5 numbers do not include 3 Special Focus Institutions and 1 international campus of an institution based in the United States.

**Table 5: Four-year institutions in the CLA and nation by Carnegie Classification**

| Carnegie Classification            | Nation |            | CLA    |            |
|------------------------------------|--------|------------|--------|------------|
|                                    | Number | Percentage | Number | Percentage |
| Doctorate-granting Universities    | 282    | 16%        | 35     | 20%        |
| Master’s Colleges and Universities | 664    | 39%        | 86     | 50%        |
| Baccalaureate Colleges             | 767    | 45%        | 51     | 30%        |
|                                    | 1713   |            | 172    |            |

*Source: Carnegie Foundation for the Advancement of Teaching, Carnegie Classifications Data File, June 11, 2008.*

Table 6 provides comparative statistics on some important characteristics of colleges and universities across the nation with those of the CLA schools, and suggests that these CLA schools are fairly representative of institutions nationally. Percent public and mean number of FTE undergraduates are exceptions.

**Table 6: Four-year institutions in the CLA and nation by key school characteristics**

| School Characteristic                                       | Nation   | CLA      |
|---|----------|----------|
| Percent public  | 37%      | 56%      |
| Percent Female  | 58%      | 58%      |
| Percent Historically Black College or University (HBCU)     | 5%       | 3%       |
| Mean percentage of undergraduates receiving Pell grants     | 34%      | 31%      |
| Mean four-year graduation rate                              | 36%      | 33%      |
| Mean six-year graduation rate                               | 52%      | 52%      |
| Mean first-year retention rate                              | 73%      | 75%      |
| Mean Barron’s selectivity rating                            | 3.4      | 3.3      |
| Mean estimated median SAT score                             | 1067     | 1060     |
| Mean number of FTE undergraduate students (rounded)         | 4320     | 6923     |
| Mean student-related expenditures per FTE student (rounded) | \$12,365 | \$10,748 |

*Source: College Results Online dataset, managed by and obtained with permission from the Education Trust, covers most 4-year Title IV-eligible higher-education institutions in the United States. Data were constructed from IPEDS and other sources. Because all schools did not report on every measure in the table, the averages and percentages may be based on slightly different denominators.*

CLA-participating students appeared to be generally representative of their classmates with respect to entering ability levels as measured by SAT scores. Specifically, across institutions, the average SAT score of CLA freshmen (as verified by the registrar) was only 11 points higher than that of the entire freshman class\*: 1057 versus 1046 (n=166). Similarly, the average SAT score of CLA seniors was only 16 points higher than that of the entire senior class\*\*: 1084 versus 1068 (n=156). The correlation between the average SAT score of CLA freshmen and their classmates was extremely high ( $r=.94$ ) (n=166), as was the corresponding result for seniors ( $r=.93$ ) (n=156). These data suggest that as a group, CLA freshmen and CLA seniors were similar to all freshmen and all seniors at participating schools. This correspondence increases confidence in the inferences that can be made from the results with the samples of students that were tested at a school to all the freshmen and seniors at that institution.

\* As reported by 166 school registrars in response to a fall 2007 request for information. \* As reported by 156 school registrars in response to a spring 2008 request for information.

## C Examining Performance Across Task Types

CLA results operate as a signaling tool of overall institutional performance on tasks that measure higher order skills holistically. However, the three types of CLA tasks—Performance, Make-an-Argument and Critique-an-Argument—differ slightly in the combination of skills necessary to perform well. Indeed, some schools score significantly lower on one type than on another. Examining performance across CLA task types can serve as an initial diagnostic exercise. Specifically, cases of performance Well Below Expected or Below Expected on a particular task type indicate that students are not demonstrating the expected level of skill (given their SAT scores) at:

### Analyzing complex, realistic scenarios (Performance Task)

Synthesizing information from multiple sources; recognizing conflicting evidence, weighing the credibility of different sources of evidence; identifying logical fallacies, interpreting data, tables, and figures correctly; drawing reasonable and logical inferences from the available information; developing sound conclusions based on all available evidence; and utilizing the most relevant and credible evidence available to justify their conclusion.

### Writing a persuasive, analytic essay to support a position on an issue (Make-an-Argument)

Establishing a thesis or a position on an issue; maintaining the thesis throughout the essay; supporting the thesis with relevant and persuasive examples (e.g., from personal experience, history, art, literature, pop culture, or current events); anticipating and countering opposing arguments to the position, fully developing ideas, examples, and arguments; crafting an overall response that generates interest, provokes thought, and persuades the reader; organizing the structure of the essay (e.g., paragraphing, ordering of ideas and sentences within paragraphs); employing transitions and varied sentence structure to maintain the flow of the argument; and utilizing sophisticated grammar and vocabulary.

### Critiquing written arguments (Critique-an-Argument)

Identifying a variety of logical flaws or fallacies in a specific argument; explaining how or why the logical flaws affect the conclusions in that argument; and presenting their critique in a written response that is a grammatically correct, organized, well-developed, logically sound, and neutral in tone.

We encourage schools to examine the consistency of differences across task types by looking at consecutive years of CLA results.



## D Description of CLA Tasks and Scores

The CLA uses various types of tasks, all of which require students to construct written responses to open-ended questions. There are no multiple-choice questions.

### Performance Task

Each Performance Task requires students to use an integrated set of critical thinking, analytic reasoning, problem solving, and written communication skills to answer several open-ended questions about a hypothetical but realistic situation. In addition to directions and questions, each Performance Task also has its own document library that includes a range of information sources, such as letters, memos, summaries of research reports, newspaper articles, maps, photographs, diagrams, tables, charts, and interview notes or transcripts. Students are instructed to use these materials in preparing their answers to the Performance Task's questions within the allotted 90 minutes.

The first portion of each Performance Task contains general instructions and introductory material. The student is then presented with a split screen. On the right side of the screen is a list of the materials in the document library. The student selects a particular document to view by using a pull-down menu. On the left side of the screen are a question and a response box. There is no limit on how much a student can type. When a student completes a question, he or she then selects the next question in the queue. Some of these components are illustrated below:

Introductory Material: You advise Pat Williams, the president of DynaTech, a company that makes precision electronic instruments and navigational equipment. Sally Evans, a member of DynaTech's sales force, recommended that DynaTech buy a small private plane (a SwiftAir 235) that she and other members of the sales force could use to visit customers. Pat was about to approve the purchase when there was an accident involving a SwiftAir 235. Your document library contains the following materials:

1. Newspaper article about the accident
2. Federal Accident Report on in-flight breakups in single-engine planes
3. Internal Correspondence (Pat's e-mail to you & Sally's e-mail to Pat)
4. Charts relating to SwiftAir's performance characteristics
5. Excerpt from magazine article comparing SwiftAir 235 to similar planes
6. Pictures and descriptions of SwiftAir Models 180 and 235

Sample Questions: Do the available data tend to support or refute the claim that the type of wing on the SwiftAir 235 leads to more in-flight breakups? What is the basis for your conclusion? What other factors might have contributed to the accident and should be taken into account? What is your preliminary recommendation about whether or not DynaTech should buy the plane and what is the basis for this recommendation?

No two Performance Tasks assess the same combination of abilities. Some ask students to identify and then compare and contrast the strengths and limitations of alternative hypotheses, points of view, courses of action, etc. To perform these and other tasks, students may have to weigh different types of evidence, evaluate the credibility of various documents, spot possible bias, and identify questionable or critical assumptions.

Performance Tasks also may ask students to suggest or select a course of action to resolve conflicting or competing strategies and then provide a rationale for that decision, including why it is likely to be better than one or more other approaches. For example, students may be asked to anticipate potential difficulties or hazards that are associated with different ways of dealing with a problem, including the likely short- and long-term consequences and implications of these strategies. Students may then be asked to suggest and defend one or more of these approaches. Alternatively, students may be asked to review a collection of materials or a set of options, analyze and organize them on multiple dimensions, and then defend that organization.

Performance Tasks often require students to marshal evidence from different sources; distinguish rational from emotional arguments and fact from opinion; understand data in tables and figures; deal with inadequate, ambiguous, and/or conflicting information; spot deception and holes in the arguments made by others; recognize information that is and is not relevant to the task at hand; identify additional information that would help to resolve issues; and weigh, organize, and synthesize information from several sources.

All of the Performance Tasks require students to present their ideas clearly, including justifying their points of view. For example, they might note the specific ideas or sections in the document library that support their position and describe the flaws or shortcomings in the arguments' underlying alternative approaches.

### **Analytic Writing Task**

Students write answers to two types of essay prompts, namely: a "Make-an-Argument" question that asks them to support or reject a position on some issue; and a "Critique-an-Argument" question that asks them to evaluate the validity of an argument made by someone else. Both of these tasks measure a student's ability to articulate complex ideas, examine claims and evidence, support ideas with relevant reasons and examples, sustain a coherent discussion, and use standard written English.

A "Make-an-Argument" prompt typically presents an opinion on some issue and asks students to address this issue from any perspective they wish, so long as they provide relevant reasons and examples to explain and support their views. Students have 45 minutes to complete this essay. For example, they might be asked to explain why they agree or disagree with the following (on next page):

There is no such thing as “truth” in the media.

The one true thing about the information media is that it exists only to entertain.

A “Critique-an-Argument” prompt asks students to critique an argument by discussing how well reasoned they find it to be (rather than simply agreeing or disagreeing with the position presented). For example, they might be asked to evaluate the following argument:

A well-respected professional journal with a readership that includes elementary school principals recently published the results of a two-year study on childhood obesity. (Obese individuals are usually considered to be those who are 20 percent above their recommended weight for height and age.) This study sampled 50 schoolchildren, ages 5-11, from Smith Elementary School. A fast food restaurant opened near the school just before the study began. After two years, students who remained in the sample group were more likely to be overweight—relative to the national average. Based on this study, the principal of Jones Elementary School decided to confront her school’s obesity problem by opposing any fast food restaurant openings near her school.

## Scores

To facilitate reporting results across schools, ACT scores were converted (using the ACT-SAT crosswalk in Appendix G) to the scale of measurement used to report SAT scores. At institutions where a majority of students did not have ACT or SAT scores (e.g., two-year institutions and open admission schools), we embedded the Scholastic Level Exam (SLE), a short-form cognitive ability measure, into the CLA testing. The SLE is produced by Wonderlic, Inc. SLE scores were converted to SAT scores using data from 1,148 students participating in spring 2006 that had both SAT and SLE scores. These converted scores (both ACT to SAT and SLE to SAT) are referred to simply as SAT scores.

Students receive a single score on a CLA task because each task assesses an integrated set of critical thinking, analytic reasoning, problem solving, and written communication skills.

Both the Performance Tasks and Analytic Writing Tasks are scored by teams of professional graders trained and calibrated on the specific task type. A student’s “raw” score on a CLA task is the total number of points assigned to it by the graders. However, a student can earn more raw score points on some tasks than on others. To adjust for these differences, the raw scores on each task were converted to “scale” scores using the procedures described in Appendix E. This step allows for combining scores across different versions of a given type of task as well as across tasks, such as for the purpose of computing total scores.

## E Scaling Procedures

Each Performance Task and Analytic Writing Task has a unique scoring rubric, and the maximum number of reader assigned raw score points differs across tasks. Consequently, a given reader-assigned raw score, such as 15 points, may be a relatively high score on one task but a low score on another task. To adjust for such differences, reader-assigned “raw” scores on the different tasks are converted to a common scale of measurement. This process results in “scale” scores that reflect comparable levels of proficiency across tasks. For example, a given CLA scale score indicates about the same percentile rank regardless of the task on which it was earned. This feature of the CLA scale scores allows combining scores from different tasks to compute a school’s mean scale score for each task type as well as a total scale score across types.

To convert the reader assigned raw scores to scale scores, the raw scores on a measure were transformed to a score distribution that had the same mean and standard deviation as the SAT scores of the freshmen who took that measure. This type of scaling maintains the relative standing of a student on a task relative to other students who took that task. For example, the student with the highest raw score on a task will also have the highest scale score on that task, the student with the next highest raw score will be assigned the next highest scale score, and so on.

This type of scaling generally results in the highest raw score earned on a task receiving a scale score of approximately the same value as the maximum SAT score of any freshman who took that task. Similarly, the lowest raw score earned on a task would be assigned a scale score value that is approximately the same as the lowest SAT score of any freshman who took that task. On very rare occasions, a student may achieve an exceptionally high or low raw score (i.e., well above or below the other students taking that task). When this occurs, it results in assigning a student a scale score that is outside of the normal SAT range. Prior to the spring of 2007, scores were capped at 1600 (the maximum allowable on the SAT). Capping was discontinued starting in fall 2007.

In the past, CAE revised its scaling equations each fall. However, many institutions would like to make year-to-year comparisons (i.e., as opposed to just fall to spring). To facilitate this activity, in fall 2007 CAE began using the same scaling equations it developed for the fall 2006 administration. As a result of this policy, a given raw score on a task will receive the same scale score regardless of when the student took the task.

## F Retention and Graduation Rate Outcomes

The CLA paradigm represents a radical departure from the use of traditional measures of institutional performance such as graduation and retention rates. The CLA as a measurement tool employs new task types, focuses on growth and reports results in a relative-to-expected fashion. Table 7 facilitates the examination of CLA outcomes as compared to more traditional institutional outcome measures (in this case, retention and graduation rates) by reporting these non-CLA outcomes using a CLA-like relative-to-expected approach. The results below show the extent to which the actual retention and graduation rates at your school were consistent with what would be expected given the characteristics of your students and institution. We calculate deviation scores, convert them to percentile ranks, and report performance levels.

**Table 7: Retention and graduation rate outcomes**

|                                  | <i>Actual Value</i> | <i>Expected Value</i> | <i>Deviation Score</i> | <i>Percentile Rank</i> | <i>Performance Level</i> |
|----------------------------------|---------------------|-----------------------|------------------------|------------------------|--------------------------|
| <i>First-Year Retention Rate</i> | 73                  | 76                    | -0.4                   | 31                     | At                       |
| <i>4-year Graduation Rate</i>    | 17                  | 24                    | -0.6                   | 25                     | Below                    |
| <i>6-year Graduation Rate</i>    | 47                  | 48                    | -0.1                   | 46                     | At                       |

We use multiple regression models to determine your institution’s expected performance. These models are based on those used by the Education Trust for the College Results Online interactive Web tool. Differences in retention and graduation rates (“outcome” variables) are considered in light of differences in several “explanatory” variables, such as: public versus private governance, basic Carnegie Classification, minority-serving status, admissions selectivity, size of undergraduate student body, proportion of undergraduates receiving Pell grants, student related expenditures per student, proportion of undergraduate students over 25 years old, proportion of undergraduates enrolled part-time, status as a commuter campus, and proportion of undergraduates from underrepresented minority groups. The remainder of this appendix describes the data that were used for this purpose and the modeling procedures that were employed.

Data: The Education Trust provided most of the data that were used for model building. The dataset included institutional variables from approximately 1,400 4-year institutions that submitted data to IPEDS for the 2006–2007 academic year. Additional variables were derived from other sources (e.g., Barron’s Guide to American Colleges) or constructed using specified-calculation rules.

Modeling Procedures: Three Ordinary Least Squares (OLS) regression models were estimated on all available schools in the dataset using the first-year retention rate, 4-year graduation rate, and 6-year graduation rate as the dependent variables. Specifically, these outcomes are defined as follows:

- First-year retention rate: percentage of first-time, full-time degree-seeking undergraduates in the fall of 2005 who were enrolled at the same institution in the fall of 2006.
- Four-year graduation rate: percentage of students who began in 2000 as first-time, full-time degree-seeking students at the institution and graduated within four years.
- Six-year graduation rate: percentage of students who began in 2000 as first-time, full-time degree-seeking students at the institution and graduated within six years.

Potential predictors of these outcome variables were selected based on a review of literature and the previous work of the Education Trust. The following is the final list of the predictors that were used:

- Sector (public vs. private)
- Status as an Historically Black College or University (HBCU)
- Carnegie Classification (coded as 0/1 variables based on the revised basic classification for each school)
- Estimated median SAT or ACT equivalent of freshman class
- Admissions selectivity, per Barron's Guide to American Colleges
- Number of full-time equivalent (FTE) undergraduates (in 1000s)
- Percentage of undergraduates receiving Pell grants
- Student-related expenditures / FTE student
- Percentage of FTE undergraduate students age 25 and over
- Percentage of undergraduates who are enrolled part-time
- Status as a commuter campus

Please refer to [www.collegeresults.org/aboutthedata.aspx](http://www.collegeresults.org/aboutthedata.aspx) for more detail on these variables. All the models used the same set of predictors. However, because of missing data, not all schools were used in each model. Schools missing any predictor or outcome data were designated "N/A." Table 8 on the next page shows the number of schools used for model building, the resulting R-square value (R-square indicates the percentage of variance in the outcome variable that can be explained by the combination of predictors used), and the coefficients and significance of each intercept and predictor variable (\* indicates p values less than .05 and \*\* indicates p values less than .01).

**Table 8: Regression Results for Graduation and Retention Rate Outcomes**

|   | First-year<br>Retention<br>Rate | 4-year<br>Graduation<br>Rate | 6-year<br>Graduation<br>Rate |
|---|---------------------------------|------------------------------|------------------------------|
| Number of Schools   | 1298                            | 1258                         | 1292                         |
| R-square  | 0.69                            | 0.74                         | 0.74                         |
| Intercept   | 28.437**                        | -26.780**                    | -11.497**                    |
| Sector (public vs. private)                                       | -1.582**                        | -12.312**                    | -6.549**                     |
| Status as an Historically Black College or University (HBCU)      | 5.827**                         | 2.112                        | 3.149*                       |
| Carnegie Classification <sup>1</sup>                              |                                 |                              |                              |
| RU/VH: Research Universities (very high research activity)        | -0.985                          | 0.758                        | 0.716                        |
| RU/H: Research Universities (high research activity)              | -1.827                          | -3.629*                      | -1.315                       |
| DRU: Doctoral/Research Universities                               | 0.303                           | -0.207                       | 0.548                        |
| Master’s L: Master’s Colleges and Universities (larger programs)  | 1.984**                         | -0.254                       | 0.757                        |
| Master’s S: Master’s Colleges and Universities (smaller programs) | 0.163                           | 0.342                        | -0.756                       |
| Bac/A&S: Baccalaureate Colleges--Arts & Sciences                  | -0.959                          | 1.745                        | -1.214                       |
| Bac/Diverse: Baccalaureate Colleges--Diverse Fields               | -2.677**                        | -2.758*                      | -2.787**                     |
| Bac/Assoc: Baccalaureate/Associate’s Colleges                     | -0.034                          | 3.155                        | -0.398                       |
| Other   | -2.728*                         | -6.873**                     | -5.035**                     |
| Estimated median SAT or ACT equivalent of freshman class          | 0.043**                         | 0.066**                      | 0.065**                      |
| Admissions selectivity, per Barron’s Guide to American Colleges   | 0.830**                         | 1.701**                      | 1.436**                      |
| Number of full-time equivalent (FTE) undergraduates (1000s)       | 0.348**                         | -0.139                       | 0.297**                      |
| Percentage of undergraduates receiving Pell grants                | -0.078**                        | -0.158**                     | -0.114**                     |
| Student-related expenditures / FTE student                        | 0.073*                          | 0.196**                      | 0.072                        |
| Percentage of FTE undergraduate students age 25 and over          | -0.086**                        | -0.117**                     | -0.162**                     |
| Percentage of undergraduates who are enrolled part time           | -0.012                          | -0.078*                      | -0.055                       |
| Status as a commuter campus                                       | -1.010*                         | -4.915**                     | -4.349**                     |

\* p<.05    \*\* p<.01    <sup>1</sup> “Masters M” was the reference classification

## G

## Standard ACT to SAT Conversion Table

| ACT | to | SAT  |
|-----|----|------|
| 36  |    | 1600 |
| 35  |    | 1580 |
| 34  |    | 1520 |
| 33  |    | 1470 |
| 32  |    | 1420 |
| 31  |    | 1380 |
| 30  |    | 1340 |
| 29  |    | 1300 |
| 28  |    | 1260 |
| 27  |    | 1220 |
| 26  |    | 1180 |
| 25  |    | 1140 |
| 24  |    | 1110 |
| 23  |    | 1070 |
| 22  |    | 1030 |
| 21  |    | 990  |
| 20  |    | 950  |
| 19  |    | 910  |
| 18  |    | 870  |
| 17  |    | 830  |
| 16  |    | 780  |
| 15  |    | 740  |
| 14  |    | 680  |
| 13  |    | 620  |
| 12  |    | 560  |
| 11  |    | 500  |

## Sources:

“Concordance Between ACT Assessment and Recentered SAT I Sum Scores” by N.J. Dorans, C.F. Lyu, M. Pommerich, and W.M. Houston (1997), *College and University*, 73, 24-31; “Concordance between SAT I and ACT Scores for Individual Students” by D. Schneider and N.J. Dorans, *Research Notes (RN-07)*, College Entrance Examination Board: 1999; “Correspondences between ACT and SAT I Scores” by N.J. Dorans, *College Board Research Report 99-1*, College Entrance Examination Board: 1999; *ETS Research Report 99-2*, Educational Testing Service: 1999.



## H CLA Regression Equations and Lookup Table

Some schools may be interested in predicting mean CLA scores for other mean SAT scores. Table 10 below provides the necessary parameters from the regression equations that will allow you to carry out your own calculations. Also provided for each equation is the standard error and R-square values. Table 11 on the next two pages is a lookup table for expected mean CLA scores for any given mean SAT score for freshmen and seniors.

**Table 10: Equations Used to Estimate CLA Scores on the Basis of Mean SAT Scores**

| Fall 2007 Freshmen    | Intercept | Slope | Standard Error | R-square |
|-----------------------|-----------|-------|----------------|----------|
| Performance Task      | 278       | 0.74  | 40.4           | 0.83     |
| Analytic Writing Task | 427       | 0.61  | 36.0           | 0.81     |
| Make-an-Argument      | 416       | 0.63  | 42.1           | 0.77     |
| Critique-an-Argument  | 422       | 0.62  | 39.0           | 0.79     |
| Total Score           | 350       | 0.68  | 35.4           | 0.85     |

| Spring 2008 Seniors   | Intercept | Slope | Standard Error | R-square |
|-----------------------|-----------|-------|----------------|----------|
| Performance Task      | 396       | 0.71  | 46.6           | 0.76     |
| Analytic Writing Task | 535       | 0.60  | 37.0           | 0.78     |
| Make-an-Argument      | 521       | 0.60  | 43.2           | 0.73     |
| Critique-an-Argument  | 543       | 0.59  | 39.4           | 0.76     |
| Total Score           | 472       | 0.65  | 37.6           | 0.80     |

**Table 11: Expected CLA Score for Any Given Mean SAT Score for Freshmen and Seniors**

| Mean SAT Score | Performance Task | Analytic Writing Task | Make-an-Argument | Critique-an-Argument | Total Score | Performance Task | Analytic Writing Task | Make-an-Argument | Critique-an-Argument | Total Score | Mean SAT Score | Performance Task | Analytic Writing Task | Make-an-Argument | Critique-an-Argument | Total Score | Performance Task | Analytic Writing Task | Make-an-Argument | Critique-an-Argument | Total Score |
|----------------|------------------|-----------------------|------------------|----------------------|-------------|------------------|-----------------------|------------------|----------------------|-------------|----------------|------------------|-----------------------|------------------|----------------------|-------------|------------------|-----------------------|------------------|----------------------|-------------|
|                | Freshmen         |                       |                  |                      |             | Seniors          |                       |                  |                      |             |                | Freshmen         |                       |                  |                      |             | Seniors          |                       |                  |                      |             |
| 1600           | 1452             | 1435                  | 1428             | 1448                 | 1448        | 1583             | 1497                  | 1472             | 1525                 | 1551        | 1290           | 1231             | 1236                  | 1233             | 1239                 | 1235        | 1335             | 1319                  | 1296             | 1339                 | 1327        |
| 1590           | 1445             | 1428                  | 1422             | 1441                 | 1441        | 1575             | 1492                  | 1466             | 1519                 | 1544        | 1280           | 1224             | 1229                  | 1227             | 1232                 | 1228        | 1327             | 1313                  | 1290             | 1333                 | 1320        |
| 1580           | 1438             | 1422                  | 1415             | 1435                 | 1435        | 1567             | 1486                  | 1461             | 1513                 | 1536        | 1270           | 1217             | 1223                  | 1221             | 1225                 | 1221        | 1319             | 1308                  | 1284             | 1327                 | 1313        |
| 1570           | 1431             | 1415                  | 1409             | 1428                 | 1428        | 1559             | 1480                  | 1455             | 1507                 | 1529        | 1260           | 1209             | 1216                  | 1214             | 1219                 | 1214        | 1311             | 1302                  | 1279             | 1321                 | 1306        |
| 1560           | 1424             | 1409                  | 1403             | 1421                 | 1421        | 1551             | 1474                  | 1449             | 1501                 | 1522        | 1250           | 1202             | 1210                  | 1208             | 1212                 | 1207        | 1303             | 1296                  | 1273             | 1315                 | 1298        |
| 1550           | 1417             | 1403                  | 1397             | 1414                 | 1414        | 1543             | 1469                  | 1444             | 1495                 | 1515        | 1240           | 1195             | 1203                  | 1202             | 1205                 | 1200        | 1295             | 1290                  | 1267             | 1309                 | 1291        |
| 1540           | 1409             | 1396                  | 1390             | 1408                 | 1407        | 1535             | 1463                  | 1438             | 1489                 | 1507        | 1230           | 1188             | 1197                  | 1196             | 1198                 | 1193        | 1287             | 1285                  | 1262             | 1303                 | 1284        |
| 1530           | 1402             | 1390                  | 1384             | 1401                 | 1400        | 1527             | 1457                  | 1432             | 1483                 | 1500        | 1220           | 1181             | 1191                  | 1189             | 1192                 | 1186        | 1279             | 1279                  | 1256             | 1297                 | 1277        |
| 1520           | 1395             | 1383                  | 1378             | 1394                 | 1393        | 1519             | 1451                  | 1427             | 1477                 | 1493        | 1210           | 1174             | 1184                  | 1183             | 1185                 | 1180        | 1271             | 1273                  | 1250             | 1291                 | 1270        |
| 1510           | 1388             | 1377                  | 1371             | 1387                 | 1386        | 1511             | 1446                  | 1421             | 1471                 | 1486        | 1200           | 1167             | 1178                  | 1177             | 1178                 | 1173        | 1263             | 1267                  | 1244             | 1285                 | 1262        |
| 1500           | 1381             | 1370                  | 1365             | 1381                 | 1379        | 1503             | 1440                  | 1415             | 1465                 | 1479        | 1190           | 1159             | 1171                  | 1170             | 1171                 | 1166        | 1255             | 1262                  | 1239             | 1279                 | 1255        |
| 1490           | 1374             | 1364                  | 1359             | 1374                 | 1373        | 1495             | 1434                  | 1409             | 1459                 | 1471        | 1180           | 1152             | 1165                  | 1164             | 1165                 | 1159        | 1247             | 1256                  | 1233             | 1273                 | 1248        |
| 1480           | 1367             | 1358                  | 1353             | 1367                 | 1366        | 1487             | 1428                  | 1404             | 1453                 | 1464        | 1170           | 1145             | 1159                  | 1158             | 1158                 | 1152        | 1239             | 1250                  | 1227             | 1268                 | 1241        |
| 1470           | 1359             | 1351                  | 1346             | 1360                 | 1359        | 1479             | 1423                  | 1398             | 1447                 | 1457        | 1160           | 1138             | 1152                  | 1152             | 1151                 | 1145        | 1231             | 1244                  | 1222             | 1262                 | 1234        |
| 1460           | 1352             | 1345                  | 1340             | 1354                 | 1352        | 1471             | 1417                  | 1392             | 1441                 | 1450        | 1150           | 1131             | 1146                  | 1145             | 1144                 | 1138        | 1223             | 1239                  | 1216             | 1256                 | 1226        |
| 1450           | 1345             | 1338                  | 1334             | 1347                 | 1345        | 1463             | 1411                  | 1387             | 1435                 | 1443        | 1140           | 1124             | 1139                  | 1139             | 1138                 | 1131        | 1215             | 1233                  | 1210             | 1250                 | 1219        |
| 1440           | 1338             | 1332                  | 1327             | 1340                 | 1338        | 1455             | 1405                  | 1381             | 1429                 | 1435        | 1130           | 1117             | 1133                  | 1133             | 1131                 | 1124        | 1207             | 1227                  | 1205             | 1244                 | 1212        |
| 1430           | 1331             | 1325                  | 1321             | 1333                 | 1331        | 1447             | 1400                  | 1375             | 1423                 | 1428        | 1120           | 1110             | 1126                  | 1127             | 1124                 | 1118        | 1199             | 1221                  | 1199             | 1238                 | 1205        |
| 1420           | 1324             | 1319                  | 1315             | 1327                 | 1324        | 1439             | 1394                  | 1370             | 1417                 | 1421        | 1110           | 1102             | 1120                  | 1120             | 1117                 | 1111        | 1191             | 1216                  | 1193             | 1232                 | 1197        |
| 1410           | 1317             | 1313                  | 1309             | 1320                 | 1317        | 1431             | 1388                  | 1364             | 1411                 | 1414        | 1100           | 1095             | 1114                  | 1114             | 1111                 | 1104        | 1183             | 1210                  | 1188             | 1226                 | 1190        |
| 1400           | 1309             | 1306                  | 1302             | 1313                 | 1311        | 1423             | 1382                  | 1358             | 1405                 | 1407        | 1090           | 1088             | 1107                  | 1108             | 1104                 | 1097        | 1175             | 1204                  | 1182             | 1220                 | 1183        |
| 1390           | 1302             | 1300                  | 1296             | 1306                 | 1304        | 1415             | 1377                  | 1353             | 1399                 | 1399        | 1080           | 1081             | 1101                  | 1101             | 1097                 | 1090        | 1167             | 1198                  | 1176             | 1214                 | 1176        |
| 1380           | 1295             | 1293                  | 1290             | 1300                 | 1297        | 1407             | 1371                  | 1347             | 1393                 | 1392        | 1070           | 1074             | 1094                  | 1095             | 1090                 | 1083        | 1159             | 1193                  | 1171             | 1208                 | 1169        |
| 1370           | 1288             | 1287                  | 1284             | 1293                 | 1290        | 1399             | 1365                  | 1341             | 1387                 | 1385        | 1060           | 1067             | 1088                  | 1089             | 1084                 | 1076        | 1151             | 1187                  | 1165             | 1202                 | 1161        |
| 1360           | 1281             | 1281                  | 1277             | 1286                 | 1283        | 1391             | 1359                  | 1336             | 1381                 | 1378        | 1050           | 1060             | 1082                  | 1083             | 1077                 | 1069        | 1143             | 1181                  | 1159             | 1196                 | 1154        |
| 1350           | 1274             | 1274                  | 1271             | 1279                 | 1276        | 1383             | 1354                  | 1330             | 1375                 | 1371        | 1040           | 1052             | 1075                  | 1076             | 1070                 | 1062        | 1135             | 1175                  | 1153             | 1190                 | 1147        |
| 1340           | 1267             | 1268                  | 1265             | 1273                 | 1269        | 1375             | 1348                  | 1324             | 1369                 | 1363        | 1030           | 1045             | 1069                  | 1070             | 1063                 | 1056        | 1127             | 1170                  | 1148             | 1184                 | 1140        |
| 1330           | 1259             | 1261                  | 1258             | 1266                 | 1262        | 1367             | 1342                  | 1318             | 1363                 | 1356        | 1020           | 1038             | 1062                  | 1064             | 1057                 | 1049        | 1119             | 1164                  | 1142             | 1178                 | 1133        |
| 1320           | 1252             | 1255                  | 1252             | 1259                 | 1255        | 1359             | 1336                  | 1313             | 1357                 | 1349        | 1010           | 1031             | 1056                  | 1057             | 1050                 | 1042        | 1111             | 1158                  | 1136             | 1172                 | 1125        |
| 1310           | 1245             | 1248                  | 1246             | 1252                 | 1249        | 1351             | 1331                  | 1307             | 1351                 | 1342        | 1000           | 1024             | 1049                  | 1051             | 1043                 | 1035        | 1103             | 1152                  | 1131             | 1166                 | 1118        |
| 1300           | 1238             | 1242                  | 1240             | 1246                 | 1242        | 1343             | 1325                  | 1301             | 1345                 | 1334        | 990            | 1017             | 1043                  | 1045             | 1036                 | 1028        | 1095             | 1147                  | 1125             | 1160                 | 1111        |

**Table 11 (continued): Expected CLA Score for Any Given Mean SAT Score for Freshmen and Seniors**

| Mean SAT Score | Performance Task | Analytic Writing Task | Make-an-Argument | Critique-an-Argument | Total Score | Performance Task | Analytic Writing Task | Make-an-Argument | Critique-an-Argument | Total Score | Mean SAT Score | Performance Task | Analytic Writing Task | Make-an-Argument | Critique-an-Argument | Total Score | Performance Task | Analytic Writing Task | Make-an-Argument | Critique-an-Argument | Total Score |
|----------------|------------------|-----------------------|------------------|----------------------|-------------|------------------|-----------------------|------------------|----------------------|-------------|----------------|------------------|-----------------------|------------------|----------------------|-------------|------------------|-----------------------|------------------|----------------------|-------------|
|                | Freshmen         |                       |                  |                      |             | Seniors          |                       |                  |                      |             |                | Freshmen         |                       |                  |                      |             | Seniors          |                       |                  |                      |             |
| 980            | 1010             | 1037                  | 1039             | 1030                 | 1021        | 1087             | 1141                  | 1119             | 1154                 | 1104        | 680            | 795              | 844                   | 850              | 827                  | 814         | 847              | 968                   | 949              | 974                  | 887         |
| 970            | 1002             | 1030                  | 1032             | 1023                 | 1014        | 1079             | 1135                  | 1114             | 1148                 | 1097        | 670            | 788              | 838                   | 844              | 820                  | 808         | 839              | 963                   | 943              | 968                  | 880         |
| 960            | 995              | 1024                  | 1026             | 1016                 | 1007        | 1071             | 1129                  | 1108             | 1142                 | 1089        | 660            | 781              | 831                   | 838              | 814                  | 801         | 831              | 957                   | 937              | 962                  | 873         |
| 950            | 988              | 1017                  | 1020             | 1009                 | 1000        | 1063             | 1124                  | 1102             | 1136                 | 1082        | 650            | 774              | 825                   | 831              | 807                  | 794         | 823              | 951                   | 932              | 956                  | 866         |
| 940            | 981              | 1011                  | 1013             | 1003                 | 994         | 1055             | 1118                  | 1097             | 1130                 | 1075        | 640            | 767              | 818                   | 825              | 800                  | 787         | 815              | 945                   | 926              | 950                  | 859         |
| 930            | 974              | 1004                  | 1007             | 996                  | 987         | 1047             | 1112                  | 1091             | 1124                 | 1068        | 630            | 760              | 812                   | 819              | 793                  | 780         | 807              | 940                   | 920              | 944                  | 851         |
| 920            | 967              | 998                   | 1001             | 989                  | 980         | 1039             | 1106                  | 1085             | 1118                 | 1060        | 620            | 753              | 805                   | 813              | 787                  | 773         | 799              | 934                   | 914              | 938                  | 844         |
| 910            | 960              | 992                   | 995              | 982                  | 973         | 1031             | 1101                  | 1079             | 1112                 | 1053        | 610            | 745              | 799                   | 806              | 780                  | 766         | 791              | 928                   | 909              | 932                  | 837         |
| 900            | 952              | 985                   | 988              | 976                  | 966         | 1023             | 1095                  | 1074             | 1106                 | 1046        | 600            | 738              | 793                   | 800              | 773                  | 759         | 783              | 922                   | 903              | 926                  | 830         |
| 890            | 945              | 979                   | 982              | 969                  | 959         | 1015             | 1089                  | 1068             | 1100                 | 1039        | 590            | 731              | 786                   | 794              | 766                  | 752         | 775              | 917                   | 897              | 920                  | 823         |
| 880            | 938              | 972                   | 976              | 962                  | 952         | 1007             | 1083                  | 1062             | 1094                 | 1032        | 580            | 724              | 780                   | 787              | 760                  | 746         | 767              | 911                   | 892              | 914                  | 815         |
| 870            | 931              | 966                   | 970              | 955                  | 945         | 999              | 1078                  | 1057             | 1088                 | 1024        | 570            | 717              | 773                   | 781              | 753                  | 739         | 759              | 905                   | 886              | 908                  | 808         |
| 860            | 924              | 960                   | 963              | 949                  | 938         | 991              | 1072                  | 1051             | 1082                 | 1017        | 560            | 710              | 767                   | 775              | 746                  | 732         | 751              | 899                   | 880              | 902                  | 801         |
| 850            | 917              | 953                   | 957              | 942                  | 932         | 983              | 1066                  | 1045             | 1076                 | 1010        | 550            | 703              | 761                   | 769              | 739                  | 725         | 743              | 894                   | 875              | 896                  | 794         |
| 840            | 910              | 947                   | 951              | 935                  | 925         | 975              | 1060                  | 1040             | 1070                 | 1003        | 540            | 695              | 754                   | 762              | 733                  | 718         | 735              | 888                   | 869              | 890                  | 786         |
| 830            | 902              | 940                   | 944              | 928                  | 918         | 967              | 1055                  | 1034             | 1064                 | 996         | 530            | 688              | 748                   | 756              | 726                  | 711         | 727              | 882                   | 863              | 884                  | 779         |
| 820            | 895              | 934                   | 938              | 922                  | 911         | 959              | 1049                  | 1028             | 1058                 | 988         | 520            | 681              | 741                   | 750              | 719                  | 704         | 719              | 876                   | 858              | 878                  | 772         |
| 810            | 888              | 927                   | 932              | 915                  | 904         | 951              | 1043                  | 1023             | 1052                 | 981         | 510            | 674              | 735                   | 743              | 712                  | 697         | 711              | 871                   | 852              | 872                  | 765         |
| 800            | 881              | 921                   | 926              | 908                  | 897         | 943              | 1037                  | 1017             | 1046                 | 974         | 500            | 667              | 728                   | 737              | 706                  | 690         | 703              | 865                   | 846              | 866                  | 758         |
| 790            | 874              | 915                   | 919              | 901                  | 890         | 935              | 1032                  | 1011             | 1040                 | 967         | 490            | 660              | 722                   | 731              | 699                  | 684         | 695              | 859                   | 840              | 860                  | 750         |
| 780            | 867              | 908                   | 913              | 895                  | 883         | 927              | 1026                  | 1005             | 1034                 | 960         | 480            | 653              | 716                   | 725              | 692                  | 677         | 687              | 853                   | 835              | 854                  | 743         |
| 770            | 860              | 902                   | 907              | 888                  | 876         | 919              | 1020                  | 1000             | 1028                 | 952         | 470            | 645              | 709                   | 718              | 685                  | 670         | 679              | 848                   | 829              | 848                  | 736         |
| 760            | 852              | 895                   | 900              | 881                  | 870         | 911              | 1014                  | 994              | 1022                 | 945         | 460            | 638              | 703                   | 712              | 679                  | 663         | 671              | 842                   | 823              | 842                  | 729         |
| 750            | 845              | 889                   | 894              | 874                  | 863         | 903              | 1009                  | 988              | 1016                 | 938         | 450            | 631              | 696                   | 706              | 672                  | 656         | 663              | 836                   | 818              | 836                  | 722         |
| 740            | 838              | 882                   | 888              | 868                  | 856         | 895              | 1003                  | 983              | 1010                 | 931         | 440            | 624              | 690                   | 699              | 665                  | 649         | 655              | 830                   | 812              | 830                  | 714         |
| 730            | 831              | 876                   | 882              | 861                  | 849         | 887              | 997                   | 977              | 1004                 | 923         | 430            | 617              | 683                   | 693              | 658                  | 642         | 647              | 825                   | 806              | 824                  | 707         |
| 720            | 824              | 870                   | 875              | 854                  | 842         | 879              | 991                   | 971              | 998                  | 916         | 420            | 610              | 677                   | 687              | 652                  | 635         | 639              | 819                   | 801              | 818                  | 700         |
| 710            | 817              | 863                   | 869              | 847                  | 835         | 871              | 986                   | 966              | 992                  | 909         | 410            | 603              | 671                   | 681              | 645                  | 628         | 631              | 813                   | 795              | 812                  | 693         |
| 700            | 810              | 857                   | 863              | 841                  | 828         | 863              | 980                   | 960              | 986                  | 902         | 400            | 595              | 664                   | 674              | 638                  | 622         | 623              | 807                   | 789              | 806                  | 686         |
| 690            | 802              | 850                   | 856              | 834                  | 821         | 855              | 974                   | 954              | 980                  | 895         |                |                  |                       |                  |                      |             |                  |                       |                  |                      |             |

## I List of Participating Institutions

Jackson State University (5)  
Pace University (5)  
University of Charleston (5)

Allegheny College (4)  
Arizona State University (4)  
Bethel University (4)  
Bluefield State College (4)  
Charleston Southern University (4)  
College of Saint Benedict/St. John's University (4)  
Concord University (4)  
Marshall University (4)  
Missouri Southern State University-Joplin (4)  
Missouri Western State University (4)  
Shepherd University (4)  
Truman State University (4)  
University of Texas, Arlington (4)  
University of Texas, Austin (4)  
University of Texas, Brownsville (4)  
University of Texas, Dallas (4)  
University of Texas, El Paso (4)  
University of Texas, Pan American (4)  
University of Texas, Permian Basin (4)  
University of Texas, San Antonio (4)  
University of Texas, Tyler (4)  
West Liberty State College (4)  
Westminster College, MO (4)  
Westminster College, UT (4)  
William Woods University (4)  
Wofford College (4)

Alaska Pacific University (3)  
Arkansas State University (3)  
Auburn University (3)  
Aurora University (3)  
Averett University (3)  
Barton College (3)  
Cabrin College (3)  
Duke University (3)  
California State University, Northridge (3)  
Centenary College (3)  
Dominican University of California (3)  
Franklin Pierce University (3)  
Furman University (3)  
Glenville State College (3)  
Hannibal LaGrange College (3)

Indiana Wesleyan University (3)  
Lynchburg College (3)  
Marian College (3)  
Morehead State University (3)  
Pacific University (3)  
Seton Hill University (3)  
Spelman College (3)  
Stonehill College (3)  
Texas Lutheran University (3)  
University of Evansville (3)  
University of Great Falls (3)  
University of Montana, Missoula (3)  
Ursinus College (3)  
Ursuline College (3)  
Wagner College (3)  
Wartburg College (3)  
Wesley College (3)  
West Virginia University (3)

Austin College (2)  
Beloit College (2)  
California State University, Los Angeles (2)  
California State University, Monterey Bay (2)  
California State University, San Marcos (2)  
California State University, Stanislaus (2)  
Clemson University (2)  
Delaware State University (2)  
Fairmont State University (2)  
Florida State University (2)  
Fort Hays State University (2)  
Heritage University (2)  
Houghton College (2)  
Juniata College (2)  
Loyola University of New Orleans (2)  
Marywood University (2)  
Monmouth University (2)  
Mount Saint Mary College (2)  
Oklahoma State University (2)  
Randolph-Macon College (2)  
Rhodes College (2)  
Richard Stockton College of New Jersey (2)  
San Jose State University (2)  
Slippery Rock University (2)  
Sonoma State University (2)  
Southwestern University (2)  
The College of St. Scholastica (2)  
Toccoa Falls College (2)

*Number of Years Participating in Parentheses*

University of Arkansas, Fort Smith (2)  
University of Kentucky (2)  
University of North Carolina, Pembroke (2)  
University of North Texas (2)  
University of Pittsburgh (2)  
University of the Virgin Islands (2)  
Upper Iowa University (2)  
Washington and Lee University (2)  
Weber State University (2)  
West Virginia University Institute of Technology (2)  
Wichita State University (2)

Albertson College of Idaho (1)  
Appalachian State University (1)  
Auburn University Montgomery (1)  
Bloomfield College (1)  
Bob Jones University (1)  
California Baptist University (1)  
California Maritime Academy (1)  
California State University, Bakersfield (1)  
California State University, Channel Islands (1)  
California State University, Chico (1)  
California State University, Dominguez Hills (1)  
California State University, East Bay (1)  
California State University, Fresno (1)  
California State University, Fullerton (1)  
California State University, Long Beach (1)  
California State University, Sacramento (1)  
California State University, San Bernardino (1)  
California State University, San Luis Obispo (1)  
Capital University (1)  
Central Connecticut State University (1)  
Colorado State University (1)  
East Carolina University (1)  
Eckerd College (1)  
Elizabeth City State University (1)  
Emory & Henry College (1)  
Endicott College (1)  
Hiram College (1)  
Humboldt State University (1)  
Illinois College (1)  
Indiana University of Pennsylvania (1)  
Lewis & Clark College (1)  
Metropolitan State University (1)  
Millersville University of Pennsylvania (1)  
Minot State University (1)  
Misericordia University (1)

Nicholls State University (1)  
Norfolk State University (1)  
North Carolina State University (1)  
North Dakota State University (1)  
North Park University (1)  
Our Lady of the Lake University (1)  
Peace College (1)  
Pepperdine University (1)  
Presbyterian College (1)  
Rhode Island College (1)  
Rice University (1)  
Rollins College (1)  
Saint Louis University in Madrid (1)  
San Diego State University (1)  
San Francisco State University (1)  
Southern University and A&M College (1)  
Southern Virginia University (1)  
St. Cloud State University (1)  
Tarleton State University (1)  
Texas A&M International University (1)  
Texas Tech University (1)  
The College of New Jersey (1)  
The College of New Rochelle (1)  
Towson University (1)  
University of Alabama (1)  
University of Central Florida (1)  
University of Findlay (1)  
University of Louisiana (1)  
University of Michigan (1)  
University of Missouri, St. Louis (1)  
University of Nebraska Omaha (1)  
University of North Carolina, Asheville (1)  
University of North Carolina, Chapel Hill (1)  
University of North Carolina, Greensboro (1)  
University of North Carolina, Wilmington (1)  
University of Saint Thomas in Minnesota (1)  
University of Southern Alabama (1)  
University of Virginia's College at Wise (1)  
University of Wisconsin Lacrosse (1)  
Walsh College (1)  
Warner Southern College (1)  
Washburn University (1)  
Washington and Jefferson College (1)  
West Virginia State University (1)  
Western Carolina University (1)

### *Number of Years Participating in Parentheses*

## J CLA Student Data File

In tandem with this report, we provide a CLA Student Data File, which includes over 60 variables across three categories: (1) CLA scores and identifiers; (2) information provided/verified by the registrar; and (3) self-reported information from students in their CLA on-line profile. We provide student-level information for linking with other data you collect (e.g., from NSSE, CIRP, portfolios, local assessments, course-taking patterns, participation in specialized programs, etc.) to help you hypothesize about campus-specific factors related to overall institutional performance. Student-level scores are not designed to be diagnostic at the individual level and should be considered as only one piece of evidence about a student's skills.

| CLA Scores and Identifiers  | Registrar Data  | Self-Reported Data  |
|---|---|---|
| <ul style="list-style-type: none"> <li>• CLA scores for Performance Task, Analytic Writing Task, Make-an-Argument, Critique-an-Argument, and Total CLA Score (depending on the number of tasks taken and completeness of responses):               <ul style="list-style-type: none"> <li>- CLA scale scores;</li> <li>- Student Performance Level categories (i.e., well below expected, below expected, at expected, above expected, well above expected) if CLA scale score and SAT equivalent scores are available;</li> <li>- Percentile Rank in the CLA (among students in the same class year; based on scale score); and</li> <li>- Percentile Rank at School (among students in the same class year; based on scale score).</li> </ul> </li> <li>• Unique CLA numeric identifiers</li> <li>• Name (first, middle initial, last), E-mail address, SSN/Student ID</li> <li>• Year, Administration (Fall or Spring), Type of Test (90 or 180-minute), Date of test</li> </ul> | <ul style="list-style-type: none"> <li>• Class Standing</li> <li>• Cumulative Undergraduate GPA</li> <li>• Transfer Student Status</li> <li>• Program ID and Name (for classification of students into different colleges, schools, fields of study, majors, programs, etc.)</li> <li>• SAT Equivalent Score (SAT composite or converted ACT composite)</li> <li>• SAT I - Math</li> <li>• SAT I - Verbal / Critical Reading</li> <li>• SAT Total (Math + Verbal)</li> <li>• SAT I - Writing</li> <li>• SAT I - Writing (Essay subscore)</li> <li>• SAT I - Writing (Multiple-choice subscore)</li> <li>• ACT - Composite</li> <li>• ACT - English</li> <li>• ACT - Reading</li> <li>• ACT - Mathematics</li> <li>• ACT - Science</li> <li>• ACT - Writing</li> </ul> | <ul style="list-style-type: none"> <li>• Student Class: Freshman/First-Year (1) Sophomore (2) Junior (3) Senior (4) Un-classified (5) Other (6)</li> <li>• Age</li> <li>• Gender</li> <li>• Race/Ethnicity</li> <li>• Primary and Secondary Academic Major (34 categories)</li> <li>• Field of Study (6 categories; based on primary academic major)</li> <li>• English as primary language</li> <li>• Total years at school</li> <li>• Attended school as Freshman, Sophomore, Junior, Senior</li> </ul> |

# council for aid to education

215 lexington avenue floor 21 new york new york 10016-6023  
p | 212.217.0700 f | 212.661.9766 e | [cla@cae.org](mailto:cla@cae.org) w | [www.cae.org/cla](http://www.cae.org/cla)