



Indiana University of
Pennsylvania

2008-2009 CLA INSTITUTIONAL REPORT

Contents and Navigation

Introduction to the CLA

The Collegiate Learning Assessment (CLA) offers an authentic approach to assessment and improvement of teaching and learning in higher education. Over 400 institutions and 180,000 students have participated to date. Growing commitment on the part of higher education to assess student learning makes this a good time to review the distinguishing features of the CLA and how it connects to improving teaching and learning on your campus.

The CLA is intended primarily to assist faculty, department chairs, school administrators and others interested in programmatic change to improve teaching and learning, particularly with respect to strengthening higher order skills.

The CLA helps campuses follow a continuous improvement model that positions faculty as central actors.

CLA Education (described on page 8) does just that by focusing on curriculum and pedagogy and the link between assessment and teaching and learning.

The continuous improvement model also requires multiple assessment indicators beyond the CLA because no single test to benchmark student learning in higher education is feasible or desirable.

This, however, does not mean certain skills judged to be important by most faculty and administrators across virtually all institutions cannot be measured; indeed, the higher order skills the CLA focuses on fall into this measurable category.

The CLA presents realistic problems that require students to analyze complex materials. Several different types of materials are used that vary in relevance to the task, credibility, and other characteristics. Students' written responses to the task are graded to assess their abilities to think critically, reason analytically, solve problems, and communicate clearly and cogently.

The institution—not the student—is the initial primary unit of analysis.

The CLA is designed to measure an institution's contribution, or value added, to the development of these competencies, including the effects of changes to curriculum and pedagogy.

The CLA uses detailed scoring guides to precisely and reliably evaluate student responses. It also encourages institutions to compare their student learning results on the CLA with learning at other institutions and on other assessments.

The signaling quality of the CLA is important because institutions need to benchmark (have a frame of reference for) where they stand and how much progress their students have made relative to the progress of students at other colleges. Otherwise, how do they know how well they are doing?

Yet, the CLA is not about ranking institutions. Rather, it is about highlighting differences between them that can lead to improvements in teaching and learning.

While the CLA is indeed an assessment instrument, it is deliberately designed to contribute directly to the improvement of teaching and learning. In this respect it is in a league of its own.

Methods

The CLA provides an authentic, stable platform for samples of your students to demonstrate performance in key higher order skills:

- Critical thinking
- Analytic reasoning
- Problem solving
- Written communication

We calculate both unadjusted and adjusted scores to give two important perspectives on institutional performance and comparisons.

Unadjusted scores report absolute performance and enable absolute comparisons across schools.

Although absolute measures, such as graduation or retention rates, are traditionally relied upon in post-secondary outcomes and comparisons, there is a strong case to adjust scores to control for entering

Your Results

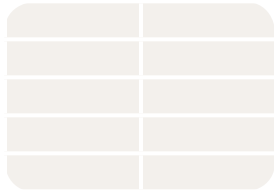
Indiana University of Pennsylvania

No adjusted for entering academic ability? Yes

Unadjusted

56

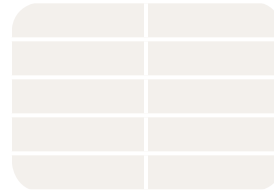
Unadjusted percentile rank



Adjusted

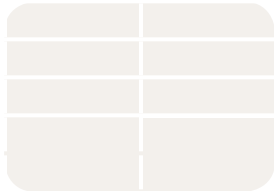
62

Adjusted percentile rank



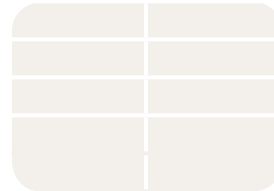
53

Unadjusted percentile rank



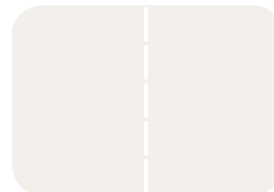
60

Adjusted percentile rank

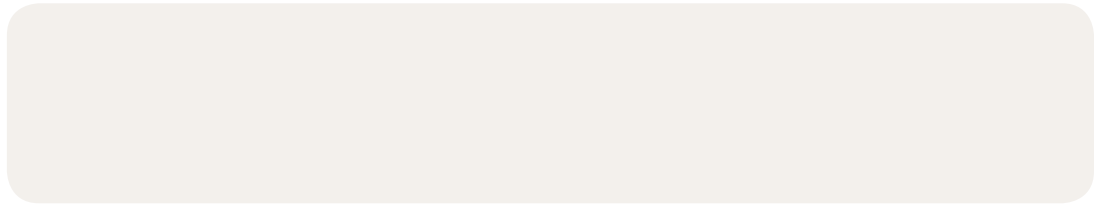
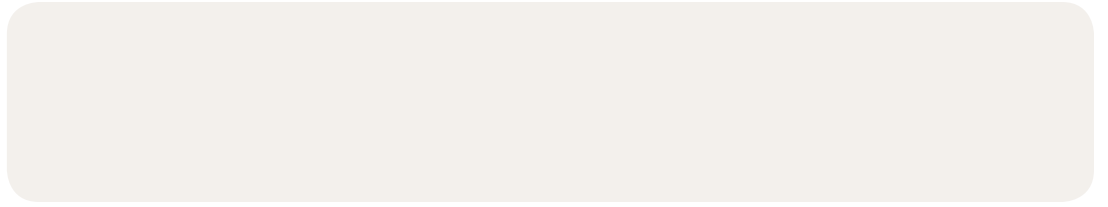


61

Adjusted percentile rank



Your Results



e counts, means,
percentiles, and standard
deviations in Table 2
represent students with and
without EAA scores.

Your Results

3 Relationship Between CLA Performance and Entering Academic Ability (EAA)

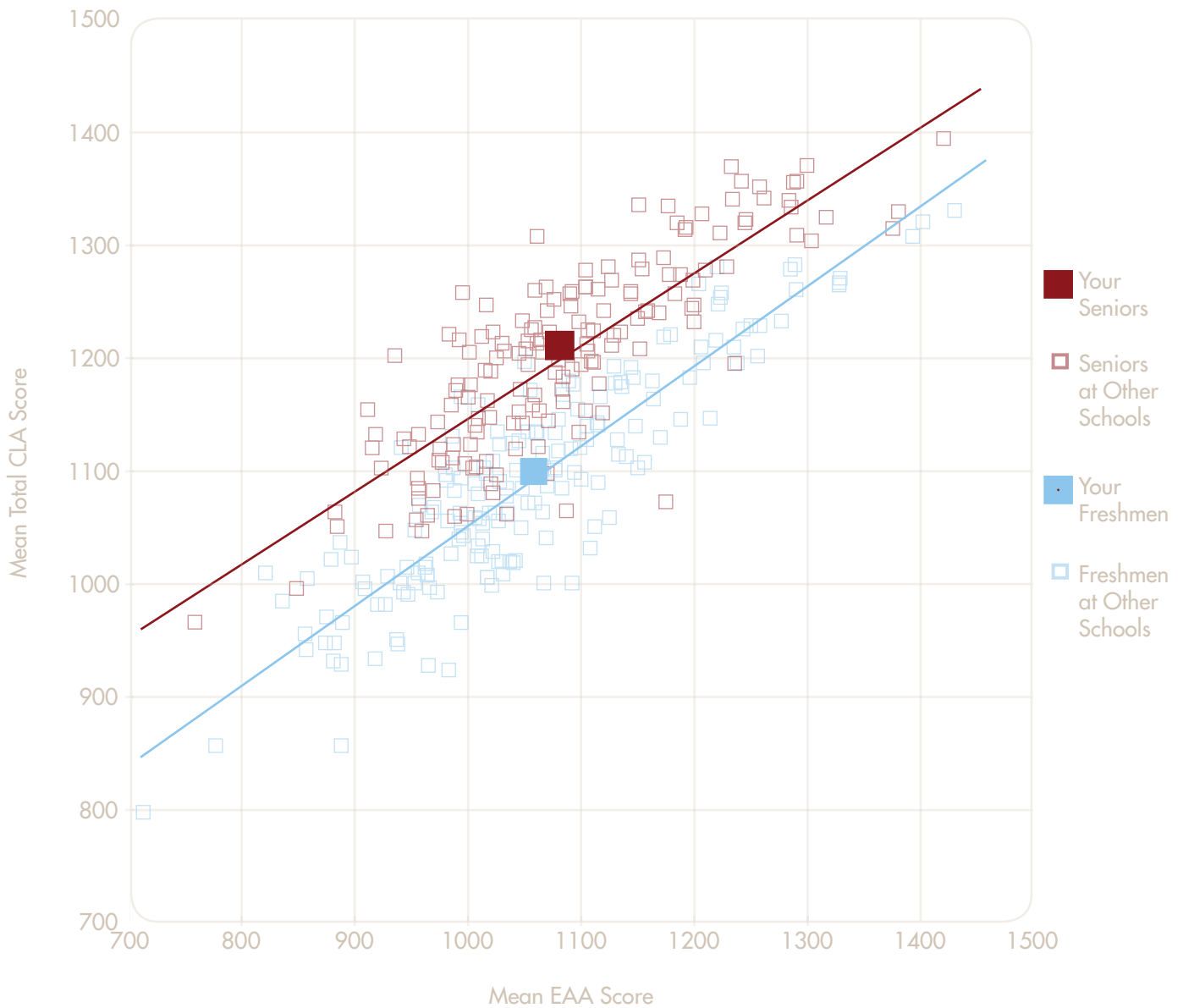


Figure 3 above shows data for schools where at least 25 students had both a CLA and EAA score in fall 2008 and/or spring 2009.

The solid blue square (freshmen) and solid red square (seniors) represent the samples of students you tested.

Outlined blue and red squares represent other schools.

The diagonal lines (blue for freshmen and, above that, red for seniors) show the estimated linear relationship between an institution's mean EAA score and its mean CLA score for its students.

Schools above the relevant lines scored higher than expected, whereas those below the lines did not.

Appendix 8 summarizes the equations used to estimate expected mean CLA scores on the basis of mean EAA scores across schools.

Diagnostic Guidance

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.

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,

Moving Forward

We encourage institutions to examine performance across CLA tasks and communicate results across campus, link student-level CLA results with other data sources, pursue in-depth sampling, stay informed through the CLA Spotlight, and participate in CLA Education offerings.

Student-level CLA results are provided for you to link with other data sources (e.g., course-taking patterns, grades, portfolios, student satisfaction and engagement, major-specific tests, etc.).

These internal analyses can help you generate hypotheses for additional research, which you can pursue through CLA in-depth sampling in experimental areas (e.g., programs or colleges within your campus) in subsequent years or simultaneously.

We welcome and encourage your participation in the CLA Spotlight—a series of free informational web conferences. Each CLA Spotlight features campuses doing promising work using the CLA, guest-speakers from the larger world of assessment, and/or CLA staff members who provide updates or insights to CLA-related programs and projects.

CLA Education focuses on curriculum and pedagogy, and embraces the crucial role that faculty play in the process of assessment.

The flagship program of CLA Education is the Performance Task Academy, which shifts the focus from general assessment to the course-level work of faculty. The Performance Task

1 Task Overview

Introduction

The CLA is comprised of three types of prompts within two types of task: the Performance Task and the Analytic Writing Task. Most students take one task or the other. The Analytic Writing Task includes a pair of prompts called Make-an-Argument and Critique-an-Argument.

The CLA uses direct measures of skills in which students perform cognitively demanding tasks from which quality of response is scored. All CLA measures are administered online and contain open-ended prompts that require constructed responses. There are no multiple-choice questions.

The CLA tasks require that students integrate critical thinking, analytic reasoning, problem solving, and written communication skills. The holistic integration of these skills on the CLA tasks mirrors the requirements of serious thinking and writing tasks faced in life outside of the classroom.

1 Task Overview

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. Upon completing a question, students then select the next question in the queue.

No two Performance Tasks assess the exact same combination of skills. 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.

1 Task Overview

Analytic Writing Task

Students write answers to two types of essay prompts, namely: a “Make-an-Argument” question that asks them to

1 Task Overview

Example Performance Task

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 Swi Air 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 Swi Air 235. Your document library contains the following materials:

Example Document Library

Newspaper article about the accident

Federal Accident Report on in-flight breakups in single-engine planes

Internal Correspondence (Pat's e-mail to you and Sally's e-mail to Pat)

Charts relating to Swi Air's performance characteristics

Excerpt from magazine article comparing Swi Air 235 to similar planes

Pictures and descriptions of Swi Air Models 180 and 235

Example Questions

Do the available data tend to support or refute the claim that the type of wing on the Swi Air 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?

2 Task Development

Iterative Development Process

A team of researchers and writers generate ideas for Make-an-Argument and Critique-an-Argument prompts, and Performance Task storylines, and then contribute to the development and revision of the prompts and Performance Task documents.

For Analytic Writing Tasks, multiple prompts are generated, revised and pre-piloted, and those prompts that elicit good critical thinking and writing responses during pre-piloting are further revised and submitted to more extensive piloting.

During the development of Performance Tasks, care is taken to ensure that sufficient information is provided to permit multiple reasonable solutions to the issues present in the Performance Task. Documents are created such that information is presented in multiple formats (e.g., tables, figures, news articles, editorials, letters, etc.).

While developing a Performance Task, a list of the intended content from each document is established and revised.

This list is used to ensure that each piece of information is clearly reflected in the document and/or across documents, and to ensure that no additional pieces of information are embedded in the document that were not intended. This list serves as a draft starting point for the analytic scoring items used in the Performance Task scoring rubrics.

During revision, information is either added to documents or removed from documents to ensure that students could arrive at approximately three or four different conclusions based on a variety of evidence to back up each conclusion. Typically, some conclusions are designed to be supported better than others.

Questions for the Performance Task are also drafted and revised during the development of the documents. These questions are designed such that the initial questions prompt the student to read and attend to multiple sources of information in the documents, and later questions require the student to evaluate the documents and then use their analysis to draw conclusions and justify those conclusions.

After several rounds of revision, the most promising of the Performance Tasks and the Make-an-Argument and Critique-an-Argument prompts are selected for pre-piloting. Student responses from the pilot test are examined to identify what pieces of information are unintentionally ambiguous, what pieces of information in the documents should be removed, etc. After revision and additional pre-piloting, the best functioning tasks (i.e., those that elicit the intended types and ranges of student responses) are selected for full piloting.

During piloting, students complete both an operational task and one of the new tasks. At this point, draft scoring rubrics are revised and tested in grading the pilot responses, and final revisions are made to the tasks to ensure that the task is eliciting the types of responses intended.

3 Scoring Criteria

Introduction

This section summarizes the types of questions addressed by CLA scoring of all task types. Because each CLA task and their scoring rubrics differ, not every item listed is applicable to every task. The tasks cover different aspects of critical thinking, analytic reasoning, problem solving, and writing and in doing so can, in combination, better assess the entire domain of performance.

3 Scoring Criteria

Assessing Critical Thinking, Analytic Reasoning and Problem Solving

Evaluation of evidence

How well does the student assess the quality and relevance of evidence, including:

- Determining what information is or is not pertinent to the task at hand
- Distinguishing between rational claims and emotional ones, fact from opinion
- Recognizing the ways in which the evidence might be limited or compromised
- Spotting deception and holes in the arguments of others
- Considering all sources of evidence

Analysis and synthesis of evidence

How well does the student analyze and synthesize data and information, including:

- Presenting his/her own analysis of the data or information (rather than “as is”)
- Committing or failing to recognize logical flaws (e.g., distinguishing correlation from causation)
- Breaking down the evidence into its component parts;
- Drawing connections between discrete sources of data and information
- Attending to contradictory, inadequate or ambiguous information

Drawing conclusions

How well does the student form a conclusion from their analysis, including:

- Constructing cogent arguments rooted in data/information rather than speculation/opinion
- Selecting the strongest set of supporting data
- Prioritizing components of the argument
- Avoiding overstated or understated conclusions
- Identifying holes in the evidence and subsequently suggesting additional information that might resolve the issue

Acknowledging alternative explanations/viewpoints

How well does the student acknowledge additional

3 Scoring Criteria

Assessing Writing

Presentation

How clear and concise is the argument? Does the student...

Clearly articulate the argument and the context for that argument

4 Scoring Process

Score Sheet

There are two types of items that appear on a CLA score sheet: analytic and holistic. Analytic scoring items are particular to each prompt and holistic items refer to general dimensions, such as evaluation of evidence, drawing conclusions, acknowledging alternative explanations and viewpoints, and overall writing. We compute raw scores for each task by adding up all points on all items (i.e., calculating a unit-weighted sum).

Performance Task scoring is tailored to each specific prompt and includes a combination of both holistic and analytic scoring items. Though there are many

4 Scoring Process

Scoring Procedure

All scorer candidates undergo rigorous training in order to become certified CLA scorers. Training includes an orientation to the prompt and score sheet, instruction on how to evaluate the scoring items, repeated practice grading a wide range of student responses, and extensive feedback and discussion after scoring each response.

After participating in training, scorers complete a reliability check where they score the same set of student responses. Scorers with low agreement or reliability (determined by comparisons of raw score means, standard deviations and correlations among the scorers) are either further coached or removed from scoring.

In fall 2008 and spring 2009, a combination of machine and human scoring was used for the Analytic Writing Task.

The CLA utilizes Pearson Knowledge Technology's Intelligent Essay Assessor program for evaluating responses to the Make-an-Argument and Critique-an-Argument prompts.

The machine scoring engine was developed and tested using scores from a broad range of responses that were previously scored by humans (often double scored). In some cases the automated scoring engine is unable to score off-topic or abnormally short/long responses. These student responses are scored by humans.

5 Scaling Procedures

To facilitate reporting results across schools, ACT scores were converted (using the ACT-SAT crosswalk to the right) to the scale of measurement used to report SAT scores.

For institutions where a majority of students did not have ACT or SAT scores (e.g., two-year institutions and open admission schools), we make available the Scholastic Level Exam (SLE), a short-form cognitive ability

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

Carnegie Classification	Nation		CLA	
	Number	Percentage	Number	Percentage

6 Institutional Sample

Table 5 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. Percentage public is one exception.

5

School Characteristic	Nation	CLA
Percentage public	37%	50%
Percentage Historically Black College or University (HBCU)	5%	4%
Mean percentage of undergraduates receiving Pell grants	34%	31%
Mean four-year graduation rate	36%	36%
Mean six-year graduation rate	52%	53%
Mean first-year retention rate	73%	76%
Mean Barron's selectivity rating	3.4	3.3
Mean estimated median SAT score	1067	1060
Mean number of FTE undergraduate students (rounded)	4,320	6,020
Mean student-related expenditures per FTE student (rounded)	\$12,365	\$11,070

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.

6 Institutional Sample

CLA-participating students appeared to be generally representative of their classmates with respect to entering ability levels as measured by Entering Academic Ability (EAA) scores.

Specifically, across institutions, the average EAA score of CLA freshmen (as verified by the registrar) was only 9 points higher than that of the entire freshman class*: 1059 versus 1050 (n=175). The average EAA score of CLA seniors (as verified by the registrar) was 16 points higher than that of the entire senior class**: 1087 versus 1071 (n=161).

The correlation between the average EAA score of CLA freshmen and their classmates was extremely high (r=.94) (n=175). The correlation between the average EAA score of CLA seniors and their classmates was also high (r=.92) (n=161).

6 Institutional Sample

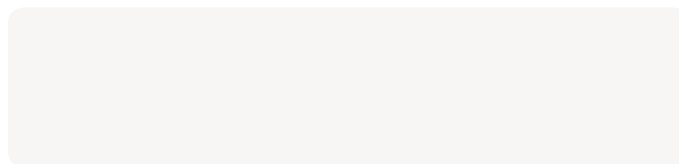
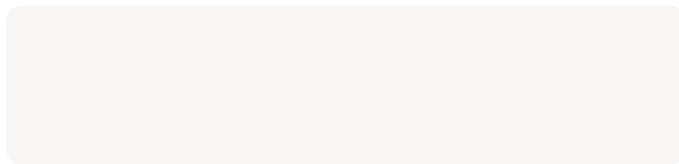
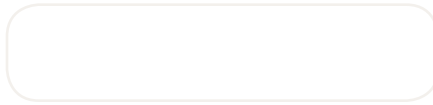
The institutions listed here in alphabetical order agreed to be identified as participating schools and may or may not have tested enough students to be included in comparative analyses.

Alaska Pacific University
Allegheny College
Alma College
Arizona State University
Auburn University
Auburn University Montgomery
Augustana College
Aurora University
Averett University
Barton College
Bethel University
Bluefield State College
Cabrini College
California Baptist University
California Maritime Academy
California State Polytechnic University, San Luis Obispo
California State University, Bakersfield
California State University, Channel Islands
California State University, Chico
California State University, Dominguez Hills

6 Institutional Sample

The institutions listed here in alphabetical order agreed to be identified as participating schools and may or may not have tested enough students to be included in comparative analyses.

Pittsburg State University	Truman State University	Westminster College (UT)
Plymouth State University	Tufts University	Westmont College
Prairie View A&M University	University of Alabama	Wichita State University
Presbyterian College	University of Charleston	Willamette University
Ramapo College of New Jersey	University of Colorado at Colorado Springs	William Woods University
Randolph-Macon College	University of Evansville	Winston Salem State University
Rhode Island College	University of Findlay	Wittenberg University
Rice University	University of Georgia	Wooster College
Richard Stockton College of New Jersey	University of Great Falls	Wright State University
Rockford College	University of Missouri - St. Louis	
Saginaw Valley State University	University of New Hampshire	
San Diego State University	University of Northern Colorado	
San Francisco State University	University of Pittsburgh	
San Jose State University	University of Southern California	
Seton Hill University	University of Texas - Pan American	
Shawnee State University	University of Texas at Arlington	
Shepherd University	University of Texas at Austin	
Slippery Rock University	University of Texas at Dallas	
Sonoma State University	University of Texas at El Paso	
Southern Oregon University	University of Texas at San Antonio	
Southern Virginia University	University of Texas at Tyler	
Southwestern University	University of Texas of the Permian Basin	
Springfield College	University of Wisconsin Oshkosh	
St. Cloud State University	Upper Iowa University	
Stephens College	Ursinus College	
Stetson University	Ursuline College	
Stonehill College	Wagner College	
SUNY College at Buffalo	Weber State University	
SUNY College at Oneonta	Wesley College	
Tarleton State University	West Liberty University	
Texas Lutheran University	West Virginia State University	
Texas State University San Marcos	West Virginia University	
Texas Tech University	West Virginia University Institute of Technology	
Idaho College of Idaho	West Virginia Wesleyan College	
Idaho College of St. Scholastica	Western Michigan University	
Idaho University of Kansas	Westminster College (MO)	
Trinity Christian College		



9 Student Data File

In tandem with this report, we provide a CLA Student Data File, which includes over 60 variables across three categories: self-reported information from students in their CLA on-line profile; CLA scores and identifiers; and information provided/verified by the registrar.

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

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