[cla]

2009-2010 C A A E

e Collegiate Learning Assessment

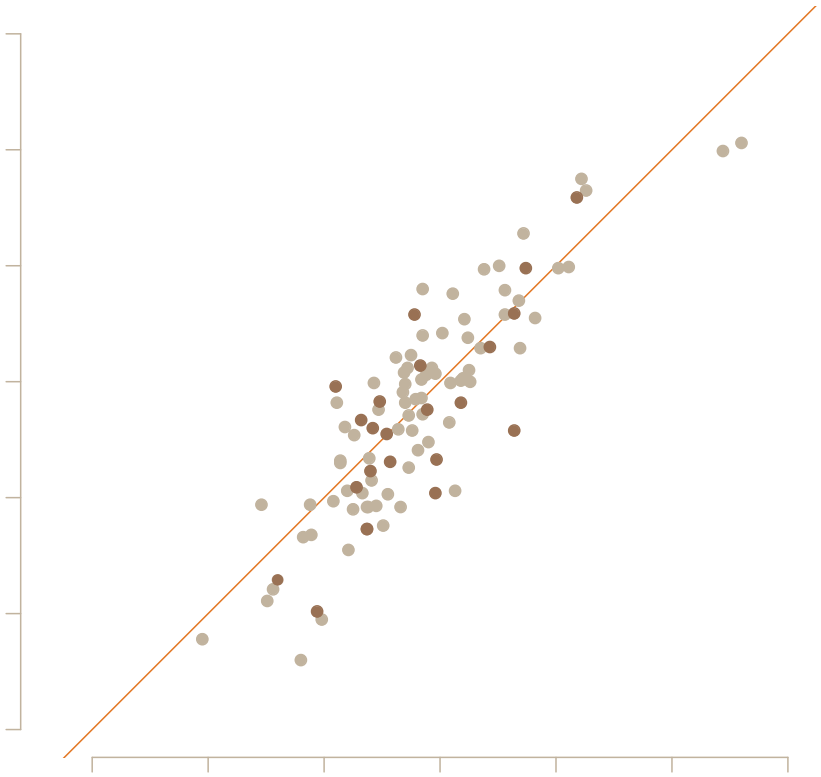
Value-added scores produced by the old and new approaches are highly correlated and would be essentially identical if large samples of students were assessed at all schools. Analyses reveal that the enhanced approach produces value-added scores that are slightly more reliable and have substantially greater consistency across test administrations than those generated by the original approach (without increasing sample size). Appendix G provides additional details on the derivation and interpretation of the value-added results.

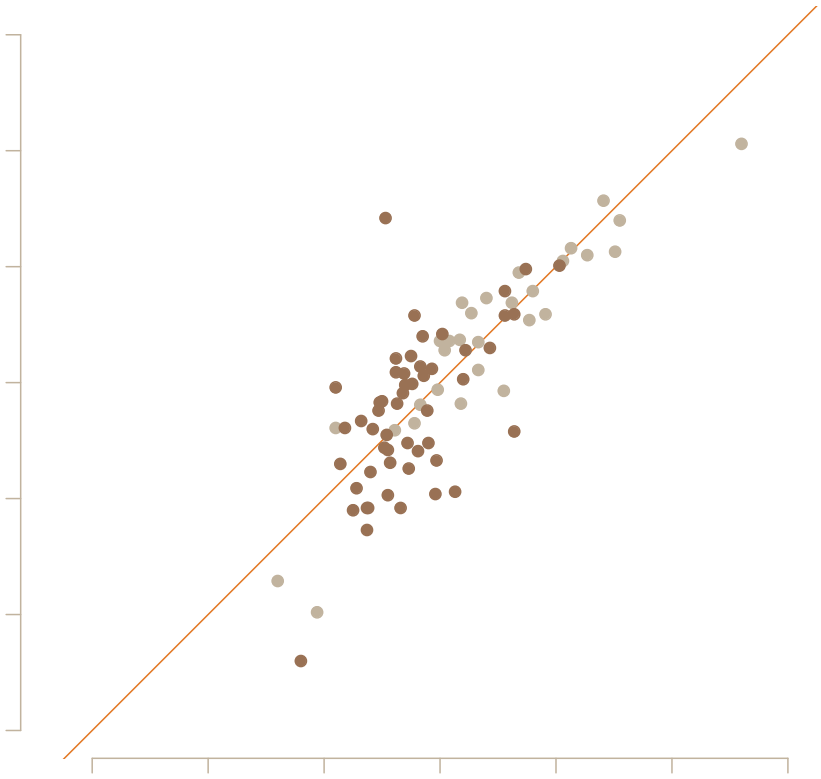
Value-added estimates are also accompanied by con dence intervals, which provide information on the precision of the estimates; narrow con dence intervals indicate that the estimate is more precise, while wider intervals indicate less precision.

In addition, CLA results no longer separately report "unadjusted" and "adjusted" comparisons for each class, because the adjustment came from an OLS regression equation that is no longer used. In a sense, the new value-added estimates correspond to the old "adjusted" estimates, since they take into account freshman CLA performance and Entering Academic Ability (EAA). We also provide "unadjusted" performance information for both seniors and freshmen, including means (averages), standard deviations (a measure of the variation in the sample), and percentile ranks (the percentage of schools that had lower performance than yours).

Our analyses include results from all institutions, regardless of sample size and sampling strategy. erefore, we encourage you to apply due caution when interpreting your results if you tested a very small sample of students or believe that the students in your institution's sample are not representative of the larger student body.

Moving forward, we will continue to employ methodological advances to maximize the precision of our value-added estimates. We will also continue developing ways to augment the value of CLA results for the improvement of teaching and learning.





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.

Speci cally, across institutions, the average EAA score of CLA seniors (as veri ed by the registrar) was only 11 points higher than that of the entira*4.7501 Tm(Sample Represent73iveness)TjETEMC /Span <MCID 8

C

Table 5.2 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 four-year, not-for-pro t institutions nationally. Percentage public is one exception.

5.2 C

C

	C A
	33 / 49
B C (BC)	5 / 5
	35 / 32
-	52 / 53
B '	3.6 / 3.2
A	1061 / 1052
F E ( )	3,849 / 5,985
- F E ( )	$12,165 / $11,699

Source: College Results Online dataset, managed by and obtained with permission om the Education Trust, covers most 4-year Title IV-eligible higher-education institutions in the United States. Data were constructed om 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 di erent denominators.

C A

Alaska Paci c University
Allegheny College
Amherst College
Arizona State University
Ashland University
Auburn University
Aurora University
Averett University
Barton College
Beloit College
Bethel University
Blue eld State College
Bradley University
Cabrini College
California Baptist University
California State University, Fresno
Carlow University
Cedar Crest College
Central Connecticut State University
Champlain College
Cla in University
Clarke University
College of Notre Dame of Maryland
College of Saint Benedict / St. John's University
Colorado State University
Concord University
Concordia College
Coppin State University
Dillard University
Dominican University
Dominican University of California
Drake University
Eastern Connecticut State University
Eastern Illinois University
Eckerd College
Emory & Henry College
Emporia State University
Eureka College
Fairmont State University
Fayetteville State University
Florida State University
Fort Hays State University
Franklin Pierce University
Frostburg State University
Glenville State College
Grand Canyon University
Greenville College
Hardin-Simmons University
Hastings College
Hilbert College
Illinois College
Indiana University Kokomo
Indiana University of Pennsylvania
Indiana Wesleyan University
Jackson State University
Jacksonville State University
Jamestown College
Juniata College
Keene State College
Kent State University
LaGrange College
Lane College
Loyola University New Orleans
Lynchburg College
Lynn University
Marian University
Marshall University
Marywood University
Mayville State University
Minot State University
Misericordia University
Mississippi University for Women
Morgan State University
Morningside College
Mount Saint Mary College
Nebraska Wesleyan University
North Park University
Nyack College
Ouachita Baptist University
Paci c Lutheran University
Peace College
Pittsburg State University
Presbyterian College
Randolph Macon College
Rice University
Richard Stockton College of New Jersey
Ripon College
Robert Morris University
-6(ia U)9(e)10(rsit1(e)10(rse)-16k 107(n)DC BT/18(19)y)T

e institutions listed here in alphabetical order agreed to be identi ed as participating schools and may or may not have been included in comparative analyses.

C A ( )

University of Charleston
University of Colorado at Colorado Springs
University of Colorado, Boulder
University of Evansville
University of Findlay
University of Georgia
University of Great Falls
University of Hartford
University of Houston
University of Louisiana at Lafayette
University of Missouri - Kansas City
University of Missouri - St. Louis
University of New Mexico
University of North Dakota
University of Northern Colorado
University of Pittsburgh
University of Texas at Arlington
University of Texas at Austin
University of Texas at Dallas
University of Texas at El Paso
University of Texas at San Antonio
University of Texas at Tyler
University of Texas of the Permian Basin
University of Texas-Pan American
University of Washington Tacoma
University of West Georgia
University of Wisconsin - Milwaukee
University of Wisconsin - Oshkosh
Upper Iowa University
Ursinus College
Ursuline College
Wagner College
Weber State University
Wesley College
West Chester University
West Liberty University
West Virginia University
West Virginia University Institute of Technology
Western Kentucky University
Western Michigan University
Western Oregon University
Western Washington University
Westminster College (MO)
Westminster College (UT)
Wichita State University Fairmount College
Willamette University
William Woods University
Winston-Salem State University
Wo ord College
Youngstown State University

CC A

Bellevue College
Collin College
Colorado Mountain College
Howard Community College
Missouri State University West Plains
Northern Marianas College

C A

A&M Consolidated High School
Akins High School
Anson New Tech School
Asheville School
Aynor High School
Bayside High
Brimmer & May School
First Colonial High
Floyd Kellam High
Frank W. Cox High
Gilmour Academy
Green Run High
Heritage Hall
Herricks High School
Hillside New Tech High School
Holland Hall
Ke Kula O Samuel M Kamakau
Kempsville High
Kimball Union Academy
Landstown High
Mason High School
Metairie Park Country Day School
Mid-Paci c Institute
Moses Brown School
Nanakuli High School
Napa New Tech High School
Ocean Lakes High
Princess Anne High
Ramsey High School
Randolph-Henry High School
Riverdale Country School
Sacramento New Tech High School
Salem High School
School of IDEAS
Severn School
Socastee High School
Sonoma Academy
St. Andrew's School
St. Gregory College Prep
Tallwood High
Tech Valley High School
e Bronxville School
e Hotchkiss School
e Lawrenceville School
e Scholar's Academy
Waianae High School
Warren New Tech High School
Watershed School
Wildwood School

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 series, and participate in CLA Education o erings.

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

ese 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 sta 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.

e agship program of CLA Education is the Performance Task Academy, which shi s the focus from 227ners from the Acaros om1 Tm[Ed)4(uc)4(a)9(t)12(i(u6MCID 1254 evD 1eDC BT/T11 1 Tf10 0

e CLA consists 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. e Analytic Writing Task includes a pair of prompts called Make-an-Argument and Critique-an-Argument.

e CLA uses direct measures of skills in which students perform cognitively demanding tasks. All CLA measures are administered online and contain open-ended prompts that require constructed responses. ere are no multiple-choice questions.

e CLA tasks require that students integrate critical thinking, analytic reasoning, problem solving, and written communication skills. e 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.

A

Students write answers to two types of essay prompts: 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 skill in articulating complex ideas, examining claims and evidence, supporting ideas with relevant reasons and examples, sustaining a coherent discussion, and using standard written English.

- -A

A Make-an-Argument prompt typically presents an opinion on some issue and asks students to write, in 45 minutes, a persuasive analytic essay to support a position on the issue. Key elements include: 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 expressed; some

E

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:

E D

Newspaper article about the accident

Federal Accident Report on in- ight 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

E

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- ight 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?

E - -A

ere is no such thing as "truth" in the media. e one true thing about the information media is that it exists only to entertain.

E C - -A

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

Synthesizing information from multiple sources; recognizing con icting evidence, weighing the credibility of di erent sources of evidence; identifying logical fallacies, interpreting data, tables, and gures 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

D

A C , A A.

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

Applied in combination, critical thinking, analytic reasoning and problem solving skills are required to perform well on CLA tasks. We de ne these skills as how well students can evaluate and analyze source information, and subsequently draw conclusions and present an argument based upon that analysis. In scoring, we speci cally consider the following items to be important aspects of these skills.

(See next pages for detail.)

Analytic writing skills invariably depend on clarity of thought. erefore, analytic writing and critical thinking, analytic reasoning, and problem solving are related skills sets.

e CLA measures critical thinking performance by asking students to explain in writing their rationale for various conclusions. In doing so, their performance is dependent on both writing and critical thinking as integrated rather than separate skills. We evaluate writing performance using holistic scores that consider several aspects of writing depending on the task. e following are illustrations of the types of questions we address in scoring writing on the various tasks.

(See next pages for detail.)

A C ,

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

- Clearly articulate the argument and the context for that argument
- Correctly and precisely use evidence to defend the argument
- Comprehensibly and coherently present evidence

How well does the student defend the argument? Does the student...

D

How e ective is the structure? Does the student...

- Logically and cohesively organize the argument
- Avoid extraneous elements in the argument's development
- Present evidence in an order that contributes to a persuasive and coherent argument

ere 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 speci c prompt and includes a combination of both holistic and analytic scoring items. ough there are many types of analytic items on the Performance Task score sheets, the most common represent a list of the possible pieces of information a student could or should raise in their response. ese cover the information presented in the Performance Task documents as well as information that can be deduced from comparing information across documents. e analytic items are generally given a score of 0 if the student did not use the information in their response, or 1 if they did. e number of analytic items varies by prompt.

Performance Task holistic items are scored on four or seven-point scales (i.e., 1-4 or 1-7). ere are multiple holistic items per Performance Task that require graders to provide an evaluation of di erent aspects of critical thinking and reasoning in the student responses. ese holistic items include areas such as the student's use of the most relevant information in the Performance Task, their recognition of strengths and weaknesses of various pieces of information, overall critical thinking, and overall writing.

Critique-an-Argument score sheets also include a combination of analytic and holistic scores. Critique-an-Argument analytic items are a list of possible critiques of the argument presented in the prompt. In addition, a few holistic items are used to rate the overall quality, critical thinking and writing over the entire response.

Make-an-Argument score sheets contain only holistic items scored on four or seven-point scales (i.e., 1-4 or 1-7). e holistic items include ratings for various aspects of writing (e.g., organization, mechanics, etc.) and critical thinking (e.g., reasoning and logic, sophistication and depth of treatment of the issues raised in the prompt) as well as two overall assessments of writing and critical thinking.

For all task types, blank responses or responses that are entirely unrelated to the task (e.g., writing about what they had for breakfast) are assigned a 0 and are agged for removal from the school-level results.

All scorer candidates undergo rigorous training in order to become certi ed 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 a er scoring each response.

A er 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 2009 and spring 2010, a combination of automated and human scoring was used for the Analytic Writing Task.

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

e automated scoring engine was developed and tested using scores from a broad range of responses that were previously scored by humans. In some cases the automated scoring engine is unable to score o -topic or abnormally short/long responses. ese student responses are scored by certi ed CLA scorers.

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 measure, as part of the CLA. e 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. ese converted scores (both ACT to SAT and SLE to SAT) are referred to simply as entering academic ability (EAA) scores.

AC A :

C

ACT (2008).

Within each school, an equation like the following is used to model the relationship between senior students' EAA scores and their CLA scores:

$$_A_{ij} = \overline{_A_j} + 0.43(AA_{ij} - \overline{AA_j}) + _{ij}$$

(Note that coe cients are for illustrative purposes only; see p. 35 for the coe cients used in this year's analysis.)

In this equation, $_A_{ij}$ is student *i* in school *j*'s CLA score, and this is modeled as a function of school *j*'s average senior CLA score ($\overline{_A_j}$) and student *i*'s EAA score (AA_{ij}) minus the average EAA score of participating seniors at school *j*. Speci cally, a student's CLA score equals (a) the school's average senior CLA score plus (b) an adjustment based on the student's EAA score relative to the average among senior participants in school *j* and (c) a residual term $_{ij}$ equal to the di erence between a student's observed and expected CLA performance, with positive numbers meaning "better than expected." Here, the student-level slope coe cient for EAA is 0.43, which indicates that for every 1 point di erence in EAA, one would expect a 0.43 point di erence in CLA performance. To illustrate the use of tbf t

C A -A

Le i e 1 (S de Le i e): $_A_{ij} = _{0j} + _{1j}(\ AA_{ij} - \overline{AA}_j) + \ _{ij}$

$_A_{ij}$ is the CLA score of student *i* at school *j*.

AA_{ij} is the Entering Academic Ability score of student *i* at school *j*.

$\overline{AA}_j$ is the mean EAA score at school *j*.

$_{0j}$ is the student-level intercept (equal to the mean CLA score at school *j*).

$_{1j}$ is the student-level slope coe cient for EAA at school *j* (assumed to be the same across schools).

$_{ij}$ is the residual for student *i* in school *j*, where $_{ij} \sim \ (0, \^2)$ and $\^2$ is the variance of the student-level residuals (the pooled within-school variance of CLA scores a er controlling for EAA).

Le i e 2 (Sc . Le i e): $\beta_{0j} + \gamma_{00} + \gamma_{01}(\overline{EAA}_j) + \gamma_{02}(\overline{CLA}_{\mathrm{fr},j}) + u_{0j}$ and $_{1j} = \,_{10}$

$\overline{_A}_{\mathrm{fr},j}$ is the mean freshman CLA score at school *j*.

$\,_{00}$ is the school-level value-added equation intercept.

$\,_{01}$ is the school-level value-added equation slope coe cient for senior mean EAA.

$\,_{02}$ is the school-level value-added equation slope coe cient for freshman mean CLA.

$\,_{10}$ is the student-level slope coe cient for EAA (assumed to be the same across schools).

$\cdot_{0j}$ is the value-added equation residual for school j (i.e., the value-added score), where $u_{0j} \sim N\left(\begin{bmatrix}0\\0\end{bmatrix}, \begin{bmatrix}\ _{00} & 0\\ 0 & 0\end{bmatrix}\right)$ and $\ _{00}$ is the variance of the school-level residuals (the variance in mean CLA scores a er controlling for mean EAA and mean freshman CLA scores).

M ed M de (c b g e c . - a d de - e i e e a):

$CLA_{ij} = \gamma_{00} + \gamma_{01}(\overline{\ }$

In tandem with this report, we provide a CLA Student Data File, which includes variables across three categories: self-reported information from students in their CLA on-line pro le; CLA scores and identi ers; and information provided/veri ed 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

D

Class Standing

Transfer Student Status

Program Code and Name (for classi cation of students into di erent colleges, schools, elds of study, majors, programs, etc., if applicable)

SAT Total (Math + Verbal)

SAT I - Math

SAT I - Verbal / Critical Reading

SAT I - Writing

ACT - Composite

GPA

Roger Benjamin
President & CEO

James Hundley
Executive Vice President & COO

Benno Schmidt
Chairman, CAE

Richard Atkinson
President Emeritus, University of California System

Doug Bennett
President, Earlham College

Michael Crow
President, Arizona State University

Russell C. Deyo
Vice President & General Counsel, Johnson & Johnson

Richard Foster
Managing Partner, Millbrook Management Group, LLC

Ronald Gidwitz
Chairman, GCG Partners

Lewis B. Kaden
Vice Chairman, Citigroup Inc.

Michael Lomax
President, United Negro College Fund

Katharine Lyall
President Emeritus, University of Wisconsin System

Eduardo Marti