Background

Calhoun Community College has a long history of planning and evaluation. In 2007, Calhoun adopted six learning outcomes as part of students’ overall learning process. These outcomes include:

- Critical Thinking Skills
- Quantitative Reasoning
- Scientific Reasoning
- Information and Computer Literacy
- Communication Skills
- Cultural Diversity Skills

These learning outcomes are assessed in general education courses using a common activity/test items/writing assignments adopted by the department in which the particular course is taught. In addition to common departmental components for assessment, the College uses two nationally-recognized instruments to assess student learning outcomes.

- **CAAP** – *Collegiate Assessment of Academic Proficiency* – used to assess scientific reasoning, quantitative analysis, and communication skills. (Administered annually since 2007)

- **CCSSE** – *The Community College Survey of Student Engagement* – used to assess all learning outcomes from the student’s perspective. (Administered annually since 2008)

Why CAAP?

Calhoun chooses the Collegiate Assessment of Academic Proficiency (CAAP) as one measure of student learning because it allows the College to measure students’ achievement with national user norms and to evaluate the strengths and weaknesses of Calhoun’s general education program. CAAP is also research-based and developed by ACT, an independent organization and leader in assessment.

In which areas are students tested?

CAAP offers assessments in six areas:

- Mathematics
- Reading
- Writing Skills
- Writing Essay
- Scientific Reasoning
- Critical Thinking
Calhoun administers at least two of the test modules each year. In 2011, Mathematics and Reading were selected as the CAAP test modules. The Mathematics assessment is used to measure the general education outcome of “Quantitative Reasoning” and the Reading assessment is used for supporting documentation for the College’s Quality Enhancement Plan (QEP) entitled *Academic Reading Comprehension for Success*. This compares to Writing Essay and Critical Thinking modules administered in 2010. The CAAP Test is administered during *Assessment Week* which typically occurs in early March of each year.

**How many students are tested?**

A total of 599 Calhoun students participated in the CAAP assessment in 2011. These students were selected from 28 day and evening classes in Decatur and Huntsville. Of the 599 students, 274 completed the Mathematics assessment and 339 completed the Reading assessment. Fourteen (14) students completed both tests.

**What is included on the reading test module?**

The CAAP Reading Test consists of 36 items designed to measure reading comprehension as a combination of skills that can be conceptualized in two broad categories: Referring Skills and Reasoning Skills.

- **Referring Skills.** Test items that focus on referring skills require the student to derive meaning from text by identifying and interpreting specific information that is explicitly stated. Typical items of this type require students to recognize main ideas of paragraphs and passages, to identify important factual information, and to identify relationships among different components of textual information.

- **Reasoning Skills.** Test items that focus on reasoning skills require students to determine implicit meanings and to go beyond the information that is explicitly presented. Typical items in this category assess students' ability to determine meaning from context, to infer main ideas and relationships, to generalize and apply information beyond the immediate context, to draw appropriate conclusions, and to make appropriate comparisons.
The Reading Test consists of four prose passages of about 900 words each that are representative of the level and kinds of writing commonly encountered in college curricula. The four reading passages come from the following four content areas, one passage from each area:

- **Prose Fiction**—Entire stories or excerpts from short stories or novels.
- **Humanities**—Art, music, philosophy, theater, architecture, or dance.
- **Social Studies**—History, political science, economics, anthropology, psychology, or sociology.
- **Natural Sciences**—Biology, chemistry, physics, or the physical sciences.

Each passage is accompanied by a set of nine multiple-choice test items that focus on the set of complementary and mutually supportive skills that readers must use in studying written materials across a range of subject areas.

Source: ACT Website

**How is the Reading Test scored?**

Students receive three scores for the Reading test: One total test score based on all 36 items; one subscore in Arts/Literature based on 18 items in Prose Fiction and Humanities; and one subscore in Social Studies/Sciences based on 18 items in the Social Studies and Natural Science. Approximately 12 of the 36 questions are related to referring skills and the remaining 24 questions are related to reasoning skills.

**How did Calhoun students perform on the Reading Test when compared to similar students at other U.S. colleges?**

The Reading assessment was administered in 14 Business, Economics, History and Sociology courses, including two BUS 263 classes, five ECO 231 classes, four HIS 202 classes, three SOC 200 classes. A total of 507 students were enrolled in the courses, but only 339 tests were scored due to absences, withdrawals, and answer sheets that were discarded due to being incomplete, damaged, or marked in an obvious pattern. The following tables depict the comparison of the Calhoun mean score with the national mean score and the percentage of all Calhoun students scoring at or above the national mean.
**READING**

**CALHOUN MEAN COMPARED TO NATIONAL MEAN**

339 Students

Calhoun Mean: 59.4

National Mean: 60.3

**READING**

**PERCENTAGE OF CALHOUN STUDENTS SCORING AT OR ABOVE THE NATIONAL MEAN**

339 Students

- 63% At or above the national mean
- 37% Below the national mean
**What is included on the mathematics test module?**

The CAAP Mathematics Test is a 35-item, 40-minute test designed to measure students' proficiency in mathematical reasoning. The test assesses students' proficiency in solving mathematical problems encountered in many postsecondary curricula. It emphasizes quantitative reasoning rather than the memorization of formulas.

The content areas tested include prealgebra; elementary, intermediate, and advanced algebra; coordinate geometry; and trigonometry. Descriptions of the content areas and the approximate proportions of items in each are provided below.

- **Prealgebra.** Items in this category involve operations with whole numbers, decimals, and fractions; order concepts; percentages; averages; exponents; scientific notation; and similar concepts.

- **Elementary Algebra.** Items in this category involve basic operations with polynomials, setting up equations, and substituting values into algebraic expressions. They may also require the solution of linear equations in one variable and other related topics.

- **Intermediate Algebra.** Items in this category assess students' understanding of exponents, rational expressions, and systems of linear equations. Other concepts such as the quadratic formula and absolute value inequalities may also be tested.

- **Coordinate Geometry.** Knowledge and skills assessed in this category may include graphing in the standard coordinate plane or the real number line, graphing conics, linear equations in two variables, graphing systems of equations, and similar types of skills.

- **College Algebra.** Items in this category are based on advanced algebra concepts including rational exponents, exponential and logarithmic functions, complex numbers, matrices, inverses of functions, and domains and ranges.

- **Trigonometry.** Items in this category include concepts such as right triangle trigonometry, graphs of trigonometric functions, basic trigonometric identities, and trigonometric equations and inequalities.

*Source: ACT Website*
How is the Mathematics Test scored?
Students receive three scores for the CAAP Mathematics Test: One total test score based on all 35 items; one subscore in Basic Algebra based on 17 items; and one subscore in College Algebra based on the remaining 18 items.

The Basic Algebra subscore is composed of test questions from the prealgebra, elementary algebra, intermediate algebra, and coordinate geometry content areas. The College Algebra subscore is composed of test questions from the College Algebra and trigonometry content areas, with only a small number of questions from the trigonometry content area.

How did Calhoun students perform on the Mathematics Test when compared to similar students at other U.S. colleges?

The Mathematics assessment was administered in 14 Precalculus Algebra classes (MTH 112). A total of 495 students were enrolled in the courses, but only 274 tests were scored due to the reasons cited previously in the Reading results. The following tables depict the comparison of the Calhoun mean score with the national mean score and the percentage of Calhoun students scoring at or above the national mean.
Do students ever see their results?

Students who participated in the CAAP assessments receive their results by mail, and a certificate is awarded to those students scoring at or above the national mean. Results are shared college-wide through President’s Staff meetings, Planning Council meetings, departmental meetings, and they are posted on the College’s website. CAAP results are also used as benchmarks for planning and effectiveness in academic and administrative units.

How are the results used by the College to make improvements?

The primary purpose of Calhoun Community College is to create an environment that fosters student success. Therefore, the College continuously seeks evidence that reveals problem areas and identifies strategies to produce positive results.

In August 2007, the College’s Planning Council adopted a new structure for the strategic plan which identifies 11 Core Indicators of Student Success—Course Completion Rates, Graduation Rates, Raising Student Aspirations, Student Satisfaction Rates, Transfer Success Rates, Student Placement and Employment Rates, Student Retention Rates, Developmental Student Success Rates, General Education Outcomes Achievement Rates, Licensure and Certification Rates, and Community Responsiveness Rates.

The Plan for Student Success lists benchmarks for each Core Indicator, the College’s “score” in that Core Indicator and actions taken to improve the College’s score in the related Core Indicator.