



# CLEMSON

---

U N I V E R S I T Y

**SOUTH CAROLINA BUDGET AND CONTROL BOARD  
ACCOUNTABILITY REPORT**

**2012-2013**

## **TABLE OF CONTENTS**

Section I - Executive Summary.....	3
Section II - Organizational Profile .....	12
Section III – Elements of Malcolm Baldrige Award Criteria	
Category 1 – Senior Leadership, Governance and Social Responsibility .....	21
Category 2 – Strategic Planning.....	24
Category 3 – Student, Stakeholder and Market Focus .....	28
Category 4 – Measurement, Analysis and Knowledge Management .....	35
Category 5 – Workforce Focus .....	37
Category 6 – Process Management .....	39
Category 7 – Organizational Performance Results .....	50

## SECTION I – Executive Summary

### I.1 Purpose, Mission and Values

Clemson University's mission, "...to fulfill the covenant between its founder and the people of South Carolina to establish a 'high seminary of learning' through its historical land-grant responsibilities of teaching, research and extended public service," is the keystone to all activities, programs and services of the institution. Our Vision and Mission are pathways to excellence that help direct our service as a land-grant research institution, and to become one of the nation's top-20 public universities.

### I.2 Major Achievements of 2012-2013

The University has received both honor and recognition during the past year. Clemson's extensive achievements are recorded in the [President's Report Card](#), a quarterly report to the institution's Board of Trustees. These achievements include:

- *Kiplinger* magazine has rated Clemson University among the best values in public higher education in its ranking of the "100 Best Values in Public Colleges".
- *Yahoo!News* identified Clemson as one of the 13 schools named on list of America's "hot schools".
- Application record: 18,500
- Total applications in focus areas: 7,450
- *SmartMoney* Magazine ranks Clemson University No. 7 on its list of 50 of nation's top colleges and universities whose graduates get best return on tuition dollars.
- Increase Critical Thinking, Writing and Mathematics proficiency scores from freshman to senior year as measured by the ETS Proficiency Profile: 3,466 new freshmen were tested Fall 2012 during Clemson Connect.
- A record number of graduate degrees were awarded in 2011-2012: 1339.
- A record number of graduate applications were submitted for Fall 2012 and graduate enrollment reached a record high of 4192.
- **Sarah Dunn, Diem Nguyen, Christopher Robinson** won B.A. Gilman International Scholarship.
- **Benjamin Ebert, Reed Bennett, Tricia Kennelly** received Killam Fellowships. Nine applications have been made for Fulbrights.
- Graduate student **Nick Menchyk** was honored for excellence in research at the 2012 Crop Science Society of America International meeting.

- Graduate students **Emily Kane** and **Shannon McGinnis** won the 2012 case study competition at Southern Association of College Student Affairs (SACSA) Conference.
- Clemson University's debate team won the overall team sweepstakes and its members won first place in novice and varsity competitions at the National Educational Debate Association tournament in Anderson, Ind.
- CU's Architectural School ranked in top 10 among all publics and top 4 among all public schools in the South by Design Intelligence.
- **Ala Qattawi** was the first woman in the nation to earn a PhD in a male predominated field of automotive engineering.
- Institute on Family and Neighborhood Life established an International Family and Community Studies doctoral program in Albania, the first fully accredited PhD program offered by a U.S. university in the Balkans.
- The Master's program in Construction Science and Management was granted accreditation by the American Council for Construction Education.
- Clemson University entrepreneurship teams, led by graduate students **Joseph Singapogu** and **Cody Reynolds**, earned first and second place awards in the National Science Foundation Innovation Corps presentation competition.
- CU-ICAR's Deep Orange presentation and display at the 2012 SEMA Show in Las Vegas was praised in national media publications such as the New York Times, Fox National News and SAE International's Automotive Engineering International.
- For the second year in a row Clemson team of food science and packaging science students won first place and a \$10,000 prize in the New Product Contest of the 2012 Danisco Knowledge Award competition.
- College of Engineering and Science I-Corps teams took the top two spots in a presentation competition in Atlanta. The National Science Foundation Innovation Corps (I-Corps) program fosters entrepreneurship that could lead to the commercialization of technology that has been supported by NSF-funded research.
- Technology-enhanced classrooms total 341 for fall 2012, a 3% increase from FY12 (332), 10% increase from FY11 (311) and 19% increase from FY10 (286); represents 95% of classrooms CCIT maintains. Seven new classrooms supported in Life Sciences facility and one new in Lee Hall. Various upgrades in several locations, including Serrine, Daniel, Brackett and Barre halls. Thirty-five classrooms will have equipment upgrades, and three auditorium upgrades will be done in FY13.
- CU-ICAR secured commitment from General Motors to fund next Deep Orange Vehicle prototype program. Center for Corporate Learning hosted Clemson University Cybersecurity Summit to help executives identify current threat landscape and allow them to take steps to



increase security and create road maps to improve protection of innovation capital. **Gene Eidson** led third biennial S.C. Water Resources Conference in Columbia, bringing scientists from statewide universities to discuss research findings and management policies with environmental industries; municipal, state and federal agencies; and General Assembly members.

- Gunnin Architecture Library is largest academic library in South Carolina with 3M Radio Frequency Identification System imbedded in books and holdings. Cutting-edge technology allows library to perform inventory control and shelf identification faster and more accurately and ultimately serve students and faculty in more efficient manner. CU joined BioMed Central to support open access, purchased INSPEC Archive (1898-1968) and licensed several new databases from Thomson Reuters (ISI) including Book Citation Index, Conference Proceedings Citation Index and Data Citation Index.
- Lee III, 55,000-sq.-ft. addition to Lee Hall, won national award for design achievement from American Institute of Architects, one of only 11 given for the year and first in S.C. in 20 years. Lee III also received LEED Gold certification by U.S. Green Building Council, demonstrating Clemson's decade-long focus on sustainability, reducing energy requirements and saving energy dollars. Indoor Football Practice Facility received temporary certificate of occupancy on Dec. 13 that allowed football team to hold bowl practices. Bio Sciences/Life Sciences Building is substantially complete; faculty and staff began moving in week before final exams.

### **I.3 Key Strategic Goals for the Present and Future Years**

The Clemson 2020 Road Map is a 10-year strategic plan that calls for investments in faculty hires, student engagement, upgraded facilities and technology, and faculty and staff compensation – with most of the funding to come from existing resources and new revenues. The plan was approved by the Board of Trustees on April 15, 2011.

President James F. Barker said the plan puts Clemson “back on offense. For the past two years, we’ve been playing defense – waiting for the next budget cut and looking over our shoulders. We had a good excuse – the Great Recession – but it’s time to start building for the future.”

### **Core Components of the Road Map**

#### **Vision Statement**

Clemson will be one of the nation's top-20 public universities.

#### **Mission Statement**

Clemson University was established to fulfill our founder's vision of "a high seminary of learning" to develop "the material resources of the State" for the people of South Carolina. Nurtured by an abiding land grant commitment, Clemson has emerged as a research university with a global vision. Our primary purpose is educating undergraduate and graduate students to think deeply about and engage in the social, scientific, economic, and professional challenges of our times. The foundation

of this mission is the generation, preservation, communication, and application of knowledge. The University also is committed to the personal growth of the individual and promotes an environment of good decision making, healthy and ethical lifestyles, and tolerance and respect for others. Our distinctive character is shaped by a legacy of service, collaboration, and fellowship forged from and renewed by the spirit of Thomas Green Clemson's covenant.

## **Goals**

Fulfill Clemson's responsibility to students and the state of South Carolina

- to provide talent for the new economy by recruiting and retaining outstanding students and faculty and providing an exceptional educational experience grounded in engagement;
- to drive innovation, through research and service, that stimulates economic growth and solves problems;
- to serve the public good by focusing on emphasis areas that address some of the great challenges of the 21st century — national priorities such as health, energy, transportation and sustainable environment.

## **Objectives**

Invest in four strategic priorities:

- Enhance student quality and performance
- Provide engagement and leadership opportunities for all students
- Attract, retain and reward top people
- Build to compete — facilities, infrastructure and technology

The 2020 Road Map is discussed fully in Section III, Category 2.

### **I.4 Key Strategic Challenges**

On Wednesday, January 19<sup>th</sup>, 2011 Clemson University President James F. Barker made his E&G (Education and General) budget presentation to the Higher Education Subcommittee of the House Ways & Means Committee in Columbia. The major points made by President Barker in the budget presentation are:

#### **Fact Number 1 — Clemson is Affordable for South Carolina Students.**

*The positive financial impact of the state scholarships — Palmetto Fellows, LIFE and Hope scholarships:* These scholarships have the direct result of lowering the cost for South Carolina students to attend Clemson. In Fall 2010, every single one of our 1,824 incoming freshmen from South Carolina received a scholarship — 99 percent of them were State scholarships you provide. The average amount was \$7,902.

The average first-time in-state freshmen at Clemson last year actually paid \$3,462 in academic fees, compared to the sticker price of \$10,848. The *real* tuition cost to in-state students is about 32 percent of sticker price.

The second part of the affordability equation is that there is a difference between cost and value. The marketplace is speaking, and demand for a quality Clemson education remains strong. Clemson continues to set records for both freshman and transfer applications.

This tells us that students and parents continue to see a Clemson education as a good value and a good investment. The ultimate measure of affordability is whether or not students apply, enroll, and persist to graduation with a Clemson degree and this is happening.

**Fact Number 2 — Clemson is Efficient**

For almost a decade, Clemson has had an aggressive discovery process to find ways to deliver better service at a lower cost — that is, to improve efficiency. Cost savings were re-directed to other priorities.

Two years ago in the first year of the Great Recession, Clemson eliminated 450 positions, offered retirement incentives and consolidated administrative units. We shifted even more spending from administration and staff support to instruction and our core academic programs.

Today, Clemson University has gone from a lean operation to an extremely lean operation.

We graduate 27 percent more undergraduate students now than we did in FY 2000, and our retention rate has increased from 87 percent in 2000 to 91 percent in 2009.

Institutional support costs per student at far lower at Clemson than at peer institutions — 23 percent lower than the University of Georgia, 32 percent lower than NC State, 44 percent lower than Georgia Tech, and 53 percent lower than UNC.

Operations and maintenance of plant costs are lower by even larger percentages, ranging from 47 percent lower than Georgia to 68 percent lower than UNC.

**Fact Number 3 — Clemson is Accessible for South Carolina Students**

In 2010-11 87 percent of in-state applicants were offered either August or January admission, or the Bridge to Clemson program.

The Clemson resident/non-resident student ratio of 65-35 has remained remarkably constant for decades, and the University is educating more South Carolina students today than ever before in the 120-year history of Clemson University.

**Fact Number 4 — Clemson is Productive**

Clemson University continues to make progress towards its goal to become one of the nation's Top 20 Public Institutions. We have maintained our ranking as 23rd among public colleges and universities despite the current economic environment.

Clemson has increased retention and graduation rates. The total number of graduates has increased 21.3 percent since FY 2000.

Clemson continues to improve upon our aging infrastructure as well as build upon our competitiveness through the investment in new facilities.

With state funding provided in 2007 and 2008, we began work on the IT infrastructure for the C-Light Regional Optical Network and the South Carolina Light Rail, which links researchers in communities across South Carolina with national and international research networks and enables full-speed access to national cyberinfrastructure.

In July 2010, the Clemson University Research Foundation received a \$1.4 million grant from the National Science Foundation to improve cyberinfrastructure in South Carolina, which has allowed us to build upon the state's investment.

These are just a few of the indicators of what a productive Clemson University means to South Carolina and its economy.

**Fact Number 5 — Clemson is Delivering for South Carolina**

We have built an up-and-coming graduate program in automotive engineering that is helping CU-ICAR attract private sector partners like Proterra, a maker of hybrid and electric transit vehicles,

and Sage Automotive, a spin-off of Milliken that makes fabric for the auto market. These two companies alone have announced that they expect to create 1,700 new jobs in South Carolina in the coming years.

We have begun construction of a wind turbine drivetrain testing facility in North Charleston that promises to make South Carolina a hub of the wind energy economy.

Already, IMO Group has announced that it selected the Charleston region for a new manufacturing plant that will add 190 jobs in part because of this facility.

Clemson remains committed to the role in economic development that we can play for the State.

### **I.5 Use of the Accountability Report**

Accountability is a key component of all university activities. The Accountability Report is composed of selected data points that measure Clemson University's performance in key success areas. Insights gleaned from this report and other sources such as the Institutional Effectiveness Report (prepared annually for the South Carolina Commission on Higher Education) accentuate awareness of successes and problem areas and supports data-driven decision-making. Data collection and analysis is an activity that is ongoing throughout the year. This activity contributes to a culture of quality enhancement and institutional effectiveness.

#### **Presentation to South Carolina House Ways and Means Committee, January 16, 2013**

On January 16, 2013 President Barker, in his presentation to the South Carolina House Ways and Means Committee, discussed the success of the 2020 plans and Clemson's ambitions for it:

"I bring you greetings from the faculty, students, staff and alumni of Clemson University. It is a privilege and a pleasure to represent them here today. I'm pleased to let you know that the state of the university is very strong.

We continue to be considered among the nation's best public universities – ranked #25 in terms of quality by U.S. News and World Report, and #34 among the best values in public education by Kiplinger's. Which proves that it's possible to be good and affordable.

These ratings enhance two things: 1) the value of a Clemson degree and 2) the reputation of South Carolina among industries looking for a place with a strong business climate and a capable, well-educated workforce in which to locate.

It's always a pleasure to meet with this subcommittee because it gives me an opportunity talk about Clemson's achievements and how they are benefitting our students and the state.

Since last session Governor Haley has proposed funding higher education based on performance. We endorse that concept and have been applying these accountability metrics for our last 10 year plan and our current 10 year plan. I'd like to take a moment to show you how Clemson would measure up to the performance-based, highly accountable metrics.

First, let's talk about graduation rates: With six-year graduation rates now surpassing 80 percent, Clemson has moved into the ranks of the most successful national universities – and the best among public institutions in the state. We're also ranked among the nation's top producers of African American engineers by *Diverse Issues in Higher Education* magazine, and we were one of only 18 schools honored by the American Football Coaches Association for having graduation success rates

above 90 percent for that sport.

The second metric is accessibility for in-state students and under-represented populations: Clemson is strategically and thoughtfully growing freshman and transfer undergraduate enrollment to increase access to a Clemson degree – while taking care to maintain the academic quality, course selection, campus life and engagement opportunities students and parents expect from a top-ranked university.

After another record year for applications, we enrolled our largest – and brightest -- class ever, with 3,450 freshmen boasting an average SAT of 1246. We also enrolled more than 600 students in the Bridge to Clemson transfer partnership with Tri-County Technical College. And we saw about a 5 percent increase in the number of minority students.

In the past 10 years, we have grown total undergraduate enrollment by roughly 20 percent, while maintaining the 65/35 in-state/out-of-state ratio that has been our standard for at least a quarter of a century.

We will continue to look for ways to expand access for our students without compromising quality. We don't think South Carolina students should have to choose between a top-tier education and a LIFE Scholarship.

The third metric is job placement for our graduates. *SmartMoney Magazine* – a publication of the *Wall Street Journal* -- has ranked Clemson number 7 on its list of 50 of the nation's top colleges and universities whose graduates get the best return on their tuition dollars. We ranked higher than all Ivy League schools and higher than many public universities typically found at the top of national quality rankings.

We're also providing students with relevant, hands-on work experience that makes them more marketable after graduation. Clemson ranked fourth in the nation on *U.S. News & World Report's* list of the top 10 schools with the highest percentage of students who hold internships or co-op positions as an undergraduate student. Based on data from the 2010-2011 academic year, the report shows that 67 percent of Clemson's graduating seniors held an internship or co-op position before graduation.

The fourth metric is support for economic development: In 2012, we commissioned a study of Clemson's statewide economic impact last year as a part of our observance of the 150<sup>th</sup> anniversary of the Morrill Act – which created the land-grant system of colleges and universities.

In 2010 – the most recent year of the decade studied -- Clemson was responsible for nearly 25,000 jobs and \$1.8 Billion in total economic output statewide.

The Clemson University International Center for Automotive Research in Greenville now has 15 faculty members ... nearly 200 graduate students . . . 34 research partners ... and 17 campus partners. Two new facilities opened in 2012 -- The Center for Emerging Technologies is designed to launch entrepreneurs and start-ups companies, and the new BMW-certified component testing lab, which will allow suppliers to test their products here in South Carolina versus sending those products to Munich.



General Motors has signed on to sponsor Deep Orange 5, joining BMW and Mazda as the third original equipment manufacturer to collaborate with Clemson students in designing and building an innovative research vehicle. For its role in regional economic development, the State Science and Technology Institute (SSTI) recognized CU-ICAR with its Excellence in Tech-Based Economic Development award for improving competitiveness of existing industries.

As you are aware, Chairman Limehouse, work progresses rapidly on development of the Clemson University Restoration Institute in North Charleston – which is largely based on the CU-ICAR model. At the core of CURI’s 27-acre research and innovation campus sits what soon will become the world’s most-advanced wind-turbine drivetrain testing facility. The unique testing facility will accelerate product testing to support the targeted growth of the global wind energy industry. Let me take a moment to say thank you for funding \$3 million as part of last year’s budget for the grid simulator – a very integral part of this project.

The facility, scheduled to be completed this year, will offer testing capacity three times greater than any other now operating. Virtually all of the major wind industry companies worldwide are represented on the facility’s advisory board.

This past summer the family of Anita Zucker, a true champion for education and quality of life in South Carolina, donated \$5 million to help build the Zucker Family Graduate Education Center on the CURI site – which will provide an academic anchor for the energy, restoration and conservation education and research programs.

Both CU-ICAR and CURI owe their existence to innovative funding initiatives created by the General Assembly. Your investments in endowed chairs and research university infrastructure are paying substantial dividends. When the state has invested in Clemson, we have delivered.

These performance metrics are also at the forefront of a new initiative at Clemson – a renewed focus on helping our students and citizens move from where they are now . . . to where they want to be.

We call it Clemson’s “Readiness Agenda” – because it’s all about making sure that our citizens are ready to compete and succeed at every level in the job market.

The readiness agenda is about collaborating with K-12 to ensure that our high school students are ready for college.

It’s about working with the state’s technical colleges to develop job-specific training to ensure that their graduates are ready for skilled jobs in automotives, aviation and other advanced manufacturing industries.

It’s about expanding access to Clemson academic content through new degrees, courses and certifications – delivered online or on-site – geared for working adults who are ready to advance in their jobs or start a new career.

It’s about providing the research-based innovations and degreed workforce to ensure that our industries are ready to compete in a global economy.

And clearly, it's about making sure that our own graduates leave Clemson not just with a degree but with essential skills in critical thinking, writing, teamwork and global awareness – skills many employers say they are looking for in today's college graduates. . . “

[http://www.ciclt.net/sn/new/n\\_detail.aspx?ClientCode=clemson&N\\_Id=200715](http://www.ciclt.net/sn/new/n_detail.aspx?ClientCode=clemson&N_Id=200715)

## SECTION II - Organizational Profile

### **II.1 Main Educational Programs, Offerings, and Services**

Academic programming, research, student services and administrative staff directly support Clemson’s tripartite mission of teaching, research and service. The *teaching mission* prepares an educated, well-rounded workforce trained through innovative programs and by a dedicated faculty. Students typically receive classroom and laboratory instruction, but online instruction is also available. The *research mission* provides structure for moving new knowledge from the laboratory to the classroom and to the world. The findings are disseminated through professional papers, presentations, websites, and the registration of intellectual properties. The *economic development and public service mission* provides an interface between faculty, students and the citizens of South Carolina in community-based projects, consultations and publications.

### **II.2 Stakeholder Groups and Key Requirements**

Students, parents, other internal and external stakeholders and the higher education marketplace exhibit various expectations as listed in Table II.2-1. Clemson welcomes feedback from all stakeholders, and responds to requirements and expectations through its strategic planning process and through a variety of programming.

Table II.2-1 Stakeholder Groups and Key Requirements/Expectations

<b>Stakeholder Group</b>	<b>Key Requirements/Expectations</b>
Students (undergraduate and graduate)	Quality educational/degree programs
	Classes and research/inquiry experiences
	Quality faculty
	Quality facilities: classrooms, laboratories, libraries
	Safe campus environment Rich student life experiences; social, emotional, physical, spiritual support services/programs
Faculty and Staff	Safe work environment
	Support for teaching, research and service activities
Alumni	Opportunities for continued relationship with the University
	Contribute toward the enhancement of the University
	Stewardship of the funds provided to the University
	Quality programs and activities
Parents	Safe campus environment
	Quality educational/degree programs
	Support systems for students
Future students	Information about the University
	Variety of educational/degree/program options
	Opportunity to attend the University
State (legislators, CHE, citizens)	Wise use of resources
	Quality education for South Carolina residents
	Contribution to South Carolina’s economic development
Federal funding agencies	Compliance with federal policies

	Completion and reporting relative to federal policies
Accreditation bodies	Compliance with established standards
	Participation in voluntary activities

### **II.3 Operating Locations**

The physical resources needed to fulfill the University’s teaching, research, and service missions are extensive, and include land holdings, buildings, and equipment. Service to South Carolina and her citizens can be substantially documented through extension, teaching, and research facilities in each county of the state. Clemson’s main campus, located in the northwestern corner of the state on the shores of Lake Hartwell, is surrounded by 19,700 acres of land used for research, teaching, and recreation. The University also owns overseas property used for teaching and research in Genoa, Italy (Charles E. Daniel Center), and on the Caribbean island of Dominica. Other off-campus facilities include the [University Center of Greenville](#) (South Carolina); Universitat Politècnica de Catalunya in Barcelona, Spain; and the Charleston Architectural Center (Charleston, South Carolina). Other land held for research and education includes camps and centers.

### **II.4 Employees**

In 2011, the University employed 4,395 full and part-time personnel as shown in Table II.4-1. These numbers are based on budgeted salaries (instruction, research, public service, administration, etc.)

Table II.4-1

<b>Employee Category</b>	<b>Full-time, Permanent<sup>1</sup></b>	<b>Part-time or Temporary<sup>1</sup></b>	<b>Total</b>
Instructional Faculty <sup>2</sup>	1051	106	1157
Research Faculty	30	89	119
Public Service Faculty	5	1	6
Librarians	25		25
<b>Total Faculty</b>	<b>1111</b>	<b>196</b>	<b>1307</b>
Management	115		115
Management with Faculty Rank	84		84
<b>Total Management</b>	<b>199</b>		<b>199</b>
Computer, Engineering, and Science Staff	479	269	748
Office and Administrative Support Staff	599	129	728
Service Staff	266	116	382
Business and Financial Operations Staff	301	46	347
Natural Resources, Construction, and Maintenance Staff	244	83	327
Extension Agents and Instructional Support Staff	126	69	195
Community Service, Legal, Arts, and Media Staff	152	34	186
Healthcare Practitioners and Staff	55	5	60
Library Staff	43	5	48
Production, Transportation, and Material Moving Staff	3	24	27
Archivists, Curators, and Museum Staff	8	1	9
Sales and Related Staff		2	2
<b>Total Staff</b>	<b>2276</b>	<b>783</b>	<b>3059</b>
<b>Total</b>	<b>3586</b>	<b>979</b>	<b>4565</b>

## **II.5 Regulatory Environment**

As a research institution, Clemson operates under many regulatory systems at state and federal levels. Reporting systems allow the University to document compliance and maintain accreditation. Accreditation entities include, but are not limited to, The Joint Commission (Redfern Health Center), SACSCOC (Southern Association of Colleges and Schools Commission on Colleges), and professional agencies including:

- American Assembly of Collegiate Schools of Business-International Association for Management Education
- Accrediting Board for Engineering and Technology with Computing Science Accreditation Board
- American Council for Construction Education
- American Society of Landscape Architects
- Commission on Collegiate Nursing Education
- Council for Accreditation of Counseling and Related Education Programs
- National Architectural Accrediting Board, Inc.
- National Association of Schools of Art and Design
- National Council for Accreditation of Teacher Education
- Society of American Foresters

## **II.6 Governance System**

The *Trustee Manual* clearly delineates the responsibilities of the Board of Trustees, Clemson University's governing body. The relationship between the Board of Trustees and senior leadership is noted in Table II.11-1 Organizational Structure.

## **II.7 Key Suppliers and Partners**

The University is guided by the state procurement codes for supplies and equipment.

## **II.8 Key Competitors**

The University competes with public and private colleges and universities in South Carolina and across the country to enroll the best students. Competition for federal and industry funding between research universities is more vigorous than ever. This has encouraged Clemson to seek funding and partnership collaborations with several institutions. This is intended to improve overall chances of funding, broaden research opportunities, and reduce competition for limited resources and opportunities. With many faculty members retiring in the next several years, and the concomitant wage expectations of new hires, Clemson continues to seek funding to attract and hire quality teachers and researchers. The search for qualified staff to support the faculty and students also remains competitive, but the University is committed to increasing quality through new hires. Contributions from alumni, businesses, and other donors remains a challenge for development officers, especially in the current economic climate.

## **II.9 Competitive Success**

In Clemson's Vision Statement, the University has established a primary goal to be ranked a top-20 public university. Clemson uses the *16 U.S. News & World Report criteria* as one benchmark of institutional quality and success. The 27 goals go beyond the 16 criteria used in the *U.S. News and*



*World Report* ranking. For example, the University’s goal of \$100 million in funded research was set when the university was significantly below that amount. Since then, Clemson has exceeded \$100 million, and has set a new goal of \$150 million—a notable level for a university having neither a medical school nor a law school. Clemson’s successful budget alignment with institutional priorities within the strategic plan has kept the institution focused on foundational goals. Planning and assessment activities facilitate implementation at all levels.

**II.10 Performance Improvement Systems**

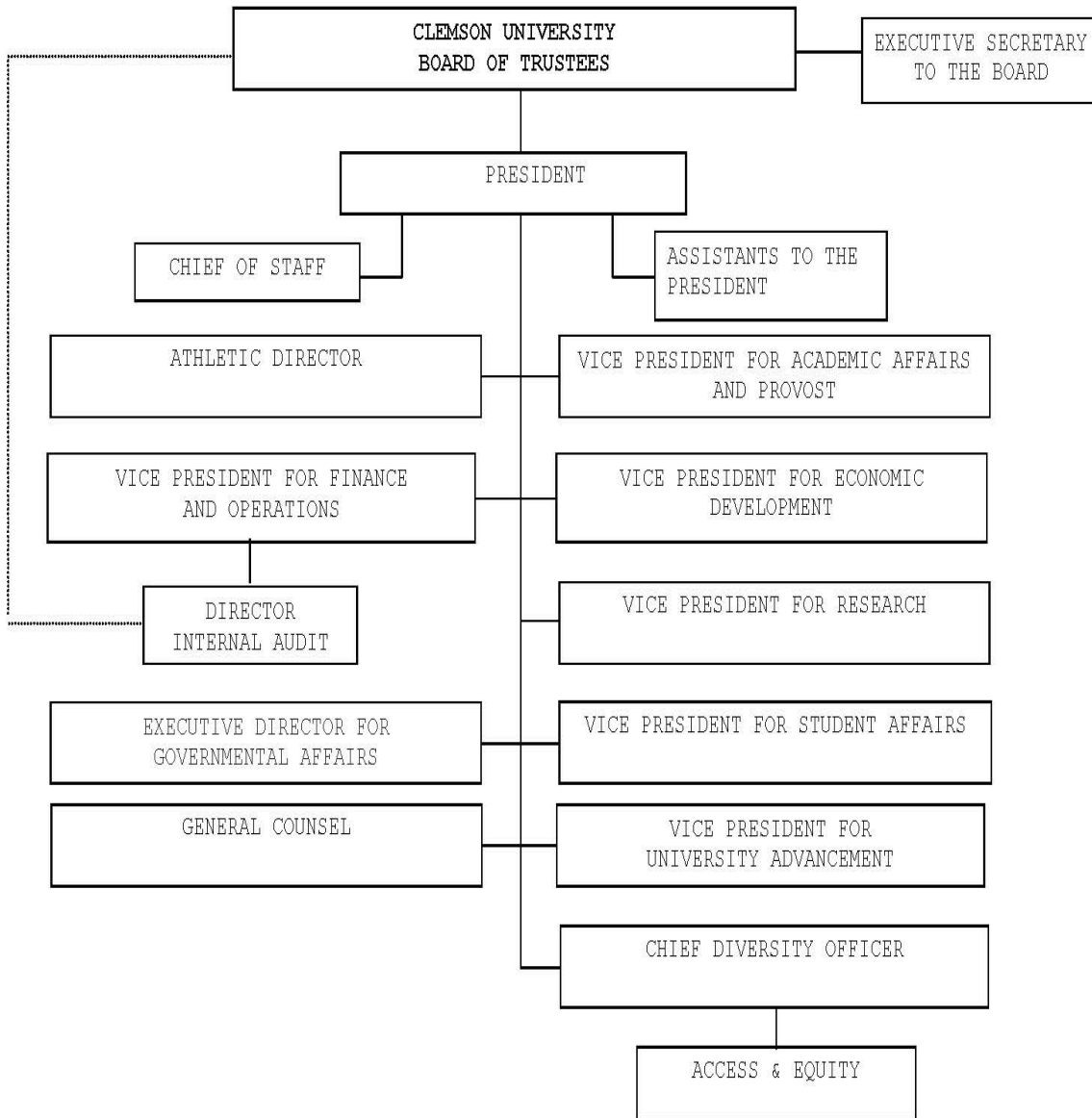
- Office for Institutional Effectiveness and Assessment (Annual Assessment Plans and Reports, IE Reports to the South Carolina Commission on Higher Education, Accountability Reports)
- Faculty Systems (Promotion, Tenure and Reappointment Processes, Post-Tenure Review, Faculty Activity System)
- Office of Institutional Research (Annual System of Reports, Departmental Activities Summaries, multiple reports and analysis of data as requested)
- Master Campus Planning
- Research Compliance
- Office of Teaching Effectiveness and Innovation
- Faculty and Staff Evaluations (Annual Faculty Evaluations, Employee Performance Management System)
- Compliance Reports
- Accreditation Reports, Program Reviews, Self-Studies, Site Visits

**II.11 Organizational Structure**

Three vice presidents (Academic Affairs and Provost, Research, and Economic Development) lead the University’s teaching, research and public service missions. The University’s broad organization is noted in Table II.11-1 Organizational Structure.

Table II.11-1 Organizational Structure

Board of Trustees
President
<i>The following report directly to the President:</i>
Vice President for Academic Affairs and Provost Vice President for Research Vice President for Economic Development Vice President for Advancement Vice President for Student Affairs Vice-President for Finance and Operations General Counsel and Assistant to the President Director of Athletics Assistants to the President and Chief of Staff
<i>Dual appointment:</i>
Executive Secretary to the Board of Trustees



Updated: Institutional Effectiveness 7/2012  
 Organizational Chart - Board of Trustees and Office of the President



**II.12 Expenditures/Appropriations Table**

The following page provides an Expenditures/Appropriations Table (Table II.12-1).

**Base Budget Expenditures and Appropriations**

Major Budget Categories	FY 11-12 Actual Expenditures		FY 12-13 Actual Expenditures		FY 13-14 Appropriations Act	
	Total Funds	General Funds	Total Funds	General Funds	Total Funds	General Funds
Personal Service	\$274,947,238	\$47,402,720	\$300,767,880	\$49,677,252	\$295,429,046	\$49,686,955
Other Operating	\$250,912,494		\$278,799,869		\$262,981,189	\$900,000
Special Items	\$96,055,003		\$108,701,860		\$126,536,230	
Permanent Improvements	\$6,774,463		\$6,704,681		\$6,523,070	
Case Services						
Distributions to Subdivisions						
Fringe Benefits	\$73,175,082	\$12,372,710	\$80,314,072	\$13,035,622	\$92,871,270	\$15,803,649
Non-recurring	\$3,693,120		\$-		\$1,000,000	\$1,000,000
<b>Total</b>	<b>\$705,557,400</b>	<b>\$59,775,430</b>	<b>\$775,288,362</b>	<b>\$62,712,874</b>	<b>\$785,340,805</b>	<b>\$67,390,604</b>

**Other Expenditures**

<b>Sources of Funds</b>	<b>FY 11-12 Actual Expenditures</b>	<b>FY 12-13 Actual Expenditures</b>
Supplemental Bills		
Capital Reserve Funds	\$6,195,597	\$6,595,044
Bonds		.

Notes:

FY11-12: \$6,195,597 - Deferred Maintenance

FY12-13: \$1,595,044 Deferred Maintenance; \$3,000,000 - Grid Simulator; \$2,000,000 Greenwood Genetics Lab

## II.13 Major Program Areas Table

Program Number and Title	Major Program Area Purpose (Brief)	FY 11-12 Budget Expenditures	FY 12-13 Budget Expenditures	Key Cross References for Financial Results*
I.A. Educational and General-Unrestricted		<b>State:</b> 50,883,858.00 <b>Federal:</b> 10,188,429.00 <b>Other:</b> 327,547,214.00 <b>Total:</b> 388,619,501.00 <b>% of Total Budget:</b> 49%	<b>State:</b> 48,022,930.00 <b>Federal:</b> 10,757,645.00 <b>Other:</b> 296,889,080.00 <b>Total:</b> 355,669,655.00 <b>% of Total Budget:</b> 46%	7.3
I.B. Educational and General-Restricted		<b>State:</b> 74,241,207.00 <b>Federal:</b> 117,271,411.00 <b>Total:</b> 191,512,618.00 <b>% of Total Budget:</b> 24%	<b>State:</b> 0.00 <b>Federal:</b> 79,874,520.00 <b>Other:</b> 118,175,018.00 <b>Total:</b> 198,049,538.00 <b>% of Total Budget:</b> 25%	7.4
II.A. Auxiliary Enterprises-Unrestricted		<b>State:</b> 0.00 <b>Federal:</b> 0.00 <b>Other:</b> 131,831,291.00 <b>Total:</b> 131,831,291.00 <b>% of Total Budget:</b> 16%	<b>State:</b> 0.00 <b>Federal:</b> 0.00 <b>Other:</b> 130,974,152.00 <b>Total:</b> 130,974,152.00 <b>% of Total Budget:</b> 17%	7.5
III.C. Employee Benefits-State Employer		<b>State:</b> 8,863,058.00 <b>Federal:</b> 5,240,609.00 <b>Other:</b> 74,036,726.00 <b>Total:</b> 88,140,393.00 <b>% of Total Budget:</b> 11%	<b>State:</b> 14,582,315.00 <b>Federal:</b> 5,499,716.00 <b>Other:</b> 71,424,731.00 <b>Total:</b> 91,506,762.00 <b>% of Total Budget:</b> 12%	
SUBTOTAL		<b>State:</b> 59,746,916.00 <b>Federal:</b> 89,670,245.00 <b>Other:</b> 650,686,642.00 <b>Total:</b> 800,103,803.00 <b>% of Total Budget:</b> 100%	<b>State:</b> 62,605,245.00 <b>Federal:</b> 96,131,881.00 <b>Other:</b> 617,462,981.00 <b>Total:</b> 776,200,107.00 <b>% of Total Budget:</b> 100%	



	<b>Remainder of Expenditures:</b>	<b>State:</b> 0.00 <b>Federal:</b> 0.00 <b>Other:</b> 0.00 <b>Total:</b> 0.00 <b>% of Total Budget:</b> 0%	<b>State:</b> 0.00 <b>Federal:</b> 0.00 <b>Other:</b> 0.00 <b>Total:</b> 0.00 <b>% of Total Budget:</b> 0%
	<b>GRAND TOTAL</b>	<b>State:</b> 59,746,916.00 <b>Federal:</b> 89,670,245.00 <b>Other:</b> 650,686,642.00 <b>Total:</b> 800,103,803.00 <b>% of Total Budget:</b> 100%	<b>State:</b> 62,605,245.00 <b>Federal:</b> 96,131,881.00 <b>Other:</b> 617,462,981.00 <b>Total:</b> 776,200,107.00 <b>% of Total Budget:</b> 100%

\* Key Cross-References are a link to the Category 7 - Business Results. These References provide a Chart number that is included in the 7th section of this document.

### **III. Category 1 – Senior Leadership, Governance and Social Responsibility**

#### **III.1.1 Develop and Deploy Vision and Values**

Clemson University's organizational structure is designed to meet the University's [mission](#). The three mission vice-presidents (Academic Affairs and Provost; Economic Development; and Research) lead the teaching, extended public service, and research missions of the University. President Barker developed a Three Core Missions Organizational Concept designed to reduce administrative layers, increase interactions among budget categories (E&G, PS, and external) and provide a collaboration and evaluation link between the mission areas.

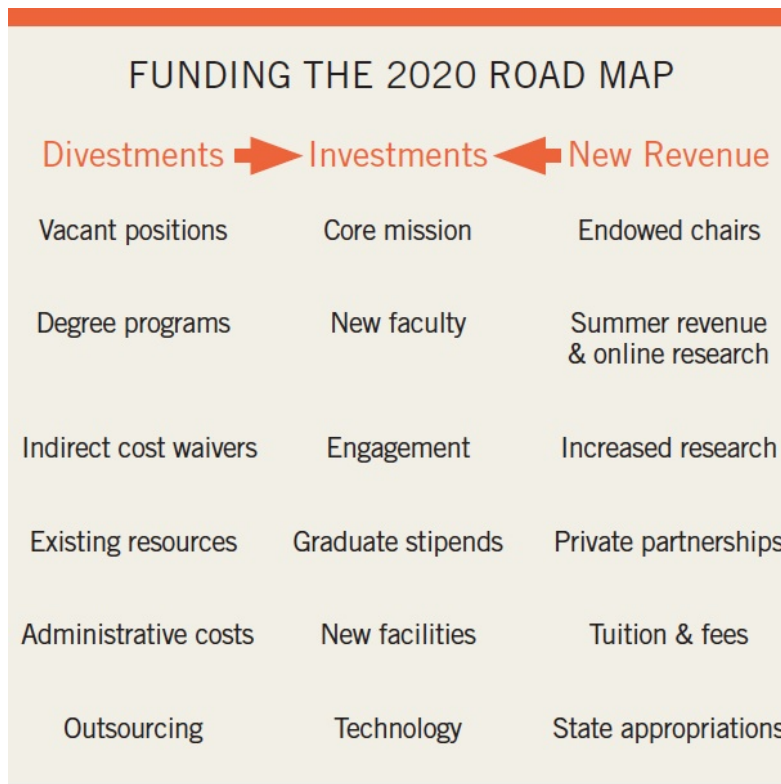
The University's goals are broad-based, requiring multiple years to complete. The senior leadership meets annually to set measurable goals for the year. Vice-presidents solicit input from their constituents prior to the formal retreat. This retreat provides an opportunity for planning and directing those activities linked to the goals. Once finalized, goals are shared throughout the University. Throughout the year, quarterly reports monitor, evaluate, and report progress.

Many forms of information sharing are utilized including: town meetings; focus groups; forums and summits. These meetings are held across campus and involve various constituent groups. Strategic planning at vice-presidential and college levels coordinates the University's resource allocations to best support and achieve institutional goals. The President's Advisory Board and the President's Board of Visitors are composed of stakeholders from alumni groups, industry, and leaders from the state and nation. College and departmental advisory groups provide feedback to the senior administrative team. The commitment to University goals is reflected in the consistent reporting of progress in each area. President's Report Cards are prepared and distributed to the Board of Trustees, the President's Advisory Board, the Board of Visitors, and to community leaders. This open process ensures that all areas of the University share in the planning and evaluation process.

The commitment of senior leaders to organizational values is reflected in many activities undertaken by the President and senior leaders. In April 2011, the Board of Trustees approved the 2020 Road Map that guides the University strategic planning process described in Category 2. The Objectives of the Road Map are:

To invest in four strategic priorities:

- Enhance student quality and performance
- Provide engagement and leadership opportunities for all students
- Attract, retain and reward top people
- Build to compete — facilities, infrastructure and technology



### **III.1.2 Create Sustainable Organization**

A sustainable organization must have core values that support the achievement of its vision. At Clemson, all planning priorities are linked to University goals and clearly aligned with funding strategies. Road Map filters provide measurement of programs, and allow decisions to be weighed in support of any designated program or activity area. Those programs or activities supportive in achieving the vision will be given proper consideration for funding.

### **III.1.3 Promote and Support Legal and Ethical Environment**

The senior leaders support an environmental model of legal and ethical behavior, promoting accountability at all levels including fiscal, legal, and regulatory. This is a central tenet of all levels of the administration. The General Counsel's office serves on the President's leadership team regarding legal or ethical issues.

### **III.1.4 Create Learning Environment**

Organizational and workforce learning thrive at Clemson University. This is a direct result of Clemson's institutional values as reflected in the Planning Principles. These guiding principles buttress the program planning priority of 'increase resources and promote good management'. This principle provides an environment for enhanced organizational and workforce learning that is supported by both planning processes and institutional priorities.

### **III.1.5 Promote Development of Future Leaders**

Senior leaders are offered opportunities for on-going professional development, and funding is available to attend and present at professional meetings. Faculty administrative fellowships are available, and senior leaders encourage faculty participation that affords interaction with peers. It further allows future leaders the experience of interacting in a professional and ethical setting that is reflective of best practices. Mentoring programs provide valuable information and training in

succession planning and development of future leaders. Each year the University supports participants at the Executive Institute sponsored by the South Carolina Budget and Control Board.

### **III.1.6 Communicate, Motivate, Reward and Recognize**

Consistent with the goals of the 2020 Road Map, Clemson employs multiple communication channels and technologies, but no prescribed structure for dissemination. Information to engage, motivate, and empower is typically delivered by the President or one of the three vice-presidents. Paper communication has been replaced for the most part by electronic messaging or Web postings. The EPMS process links the goals of the employee to the University goals. Each employee has the opportunity to identify how one's job duties link directly to University goals and how they contribute to the accomplishment of those goals. Evaluation and merit-based rewards provide recognition of performance related to personal goals. Faculty Awards and Staff Awards offer the Board of Trustees the opportunity to recognize outstanding contributors on an annual basis.

### **III.1.7 Evaluate Senior Leaders**

The evaluation form for State Agency Heads is published by Human Resources and used by the Trustees to evaluate the performance of the chief executive officer. There is a university-wide system of annual evaluation of academic administrators holding faculty rank, and for other high-level administrators holding unclassified positions. Annual evaluations of chairs and deans are conducted in addition to the required [Faculty Manual](#) schedule, and are confirmed by an audit of the Provost and dean's offices. Similar results are available in the President's office and the offices of all vice-presidents.

### **III.1.8 Use Performance Measures**

The University is committed to the evaluation process and to making data-informed decisions. Specific, measurable goals have been identified for each planning priority, and progress toward these goals are reported in the President's Report Card.

### **III.1.9 Address and Anticipate Adverse Impacts**

The 2020 Road Map planning process identified programs and services that will contribute to Clemson's ability to achieve its Vision. However, the design is not focused solely on items that require improvement or enhancement. The process also seeks to sustain programs and services of excellence. Table III. 2.4-1 aligns Clemson's assessment of priorities with Category 7 reporting areas, which includes other measures.

### **III.1.10 Support and Strengthen Involvement in Community**

The 2020 Road Map goals includes a specific goal of serving the public good. In addition, the other two goals also address Clemson's commitment to being a force for positive change to have a significant impact on social and economic development. The three goals of the 2020 Road Map are:

- to provide talent for the new economy by recruiting and retaining outstanding students and faculty and providing an exceptional educational experience grounded in engagement;
- to drive innovation, through research and service, that stimulates economic growth and solves problems;
- to serve the public good by focusing on emphasis areas that address some of the great challenges of the 21st century — national priorities such as health, energy, transportation and sustainable environment.

Senior leaders are involved in many community-based projects and activities such as town-gown relationship with the City of Clemson. Campus and city police departments work closely to develop programs that address student life issues affecting the campus and surrounding communities. One such life issue is promoting alcohol awareness in an effort to reduce underage drinking and improve safety.

The University actively participates in community activities in Greenville and Anderson such as community groups and chambers of commerce. Leaders speak at luncheons, dinners, meetings and other invited activities. They are active in several professional organizations, and hold elected offices. President James F. Barker served on the Division I Committee of the NCAA Board of Directors, three of those years as chair. He has chaired the Southern Association of Colleges and Schools Commission on Colleges (SACSCOC), and led the ACC Council of Presidents during the league's expansion to 12 schools. President Barker delivered a keynote address on CU-ICAR at a 2009 symposium in Washington D.C. on Global Best Practices in science and technology parks sponsored by the U.S. National Academy of Sciences, and at the Society for College and University Planning in October 2010. Provost Doris Helms chaired the University Center of Greenville. Provost Helms has served on the Board of Directors of APLU (formerly NASULGC) for many years. She was the chairperson of the Voluntary Accountability Committee and was instrumental in the development of the VSA/CollegePortrait. Faculty and students are engaged in community service activities, service learning, K-12 and other programs.

### **III. Category 2 – Strategic Planning**

#### **III.2.1 Strategic Planning Process**

##### **a. Strengths, weaknesses, opportunities and threats**

The institution's strategic plan is based upon Clemson's 2020 Road Map, which is built upon its recognition of the institution's strengths and with a sound structure to succeed in meeting the Road Map goals. The planning parameters include serving more South Carolina residents as undergraduate and graduate students, increasing transfer students from the technical college system, and increasing opportunities for students to engage in leadership and co-operative work experiences and study abroad. Road Map Filters are strengths against which decisions can be measured, offering the opportunity to review the plan and make necessary adjustments. Filters allow Clemson to use its strengths to design a strategic plan, budget to the plan, and implement opportunities for reaching its objectives to enhance intellectual and economical development. All known risks such as financial, regulatory or other risks are always considered. Priorities are established to guide responsible and responsive decisions. Strategic plan filters align with the key elements of this report as noted below.

##### **b. Financial, regulatory, societal, and other potential risks**

Potential risks include long-term organizational sustainability and organizational continuity in emergencies. Fiscal resources, physical resources, and human resources are important areas of concern in emergency planning. These are addressed strategically as well as in operational plans and policies. Further support for continuity lies in legislative pieces, the strength and commitment of the Board of Trustees, prudent financial investments, and on-going evaluation of current policies and practices. Vigilance is maintained by using accountability measures that encourage recognition and attention to areas that may be problematic.

*Filter: Safe and Well Campus  
Environment*



Safety (police, fire, EMS, traffic)  
Crisis management

*Filter: Personal health*

Personal health and fitness  
Competitive athletics  
Leadership development

#### SELECTED 2010 BASELINE METRICS

##### **Student Quality and Performance**

- Average freshman SAT — 1231
- 51% of freshmen in top 10% of high school class
- 90.5% freshman retention rate
- 77.4% graduation rate
- 21 Fulbright Scholars, 4 Goldwater Scholars and 11 National Science Foundation Fellows enrolled

##### **Student Engagement and Leadership**

- Creative Inquiry Teams — 275 in Fall 2010, 303 in Spring 2011
- Nationally ranked for Living-Learning Communities
- 76% of seniors have done community or volunteer work
- 65% of seniors completed internships or co-op programs
- 945 participated in 15 Living-Learning Communities

##### **Top People**

- 430 faculty in focus areas
- 16/1 student-to-faculty ratio
- 96% full-time faculty
- 16 SmartState endowed chairs
- 21 NSF CAREER Award winners

##### **Competitive Facilities and Infrastructure**

- Data Center ranks second among public universities, Top 500 Supercomputing
- 286 technology-enhanced classrooms
- \$16.5 million (FY10) in research awards using high-performance computing
- 35 private partnerships involving cloud services and/or cyberinfrastructure development

### **c. Shifts**

The recognition of shifts in technology, demographics, markets, and competition are the basis of 2020 Road Map. Strategies in the plan have purposely been developed to assure Clemson's competitive edge by implementing an enrollment management plan and investing in academic resources. Emphasis on science and technology within the framework of a broad, well-rounded education that includes languages and arts further assure this competitive edge.

*Filter: Intellectual and Economic Excellence*

Emphasis Areas  
Niches  
Centers and Institutes

Ranked Ph.D. programs  
Relevant undergraduate research  
Centers of Economic Excellence (CoEE)

*Filter: Successful Undergraduate and Graduate Students*

High quality students  
Increased retention and graduation  
Global thinkers, leaders and entrepreneurs  
Good communicators  
Multicultural understandings and ethical behavior

*Filter: Enhanced Reputation, Resources and Relationships*

Improved awareness and reputation  
Improved development result

#### **d. Human resource capabilities and needs**

One of the four objectives of the 2020 Road Map is to attract, retain, and reward top people. To attain this objective human resource needs must be critically examined. As faculty begin retiring, positions are reallocated to the strategic emphasis areas. The clear emphasis areas allowed Clemson to pursue opportunities offered by state incentive programs (scholarships, endowed chairs or infrastructure funds).

*Filter: Outstanding Faculty*

Increased faculty resources  
Research and teaching support  
Increased percentage of faculty with terminal degrees  
Increased outreach and service to the community and state

*Filter: Professional Staff*

Recruitment and retention of high quality staff  
Strategic compensation levels  
Development of appropriate applicant screening programs

#### **e. Organizational sustainability and continuity in emergencies**

The University has developed a plan of action for pandemic situations to protect both students and faculty in the event of a crisis. An RFP has been developed to address financial continuity in the event of a major crisis. Additional safety and health procedures have been developed and implemented.

*Filter: Quality Facilities and Infrastructure*

Protecting and improving university infrastructure (Buildings, Technology, Utilities)  
Building infrastructure for current and next generation competitiveness

#### **f. Plan implementation**

The ability to execute the strategic plan lies in: Clemson's unique form of governance; public-private partnerships; the land-grant mission; budget decisions that have been made to further the

plan; the Road Map; and strategic investments in faculty, IT, the Academic Success Center, research and academic facilities, the libraries, and the graduate school.

*Filter: Competitive Organization*

- Maximized return on investments
- Efficient resource use
- Professional management/administration
- Assessment and accountability
- Governmental Affairs

The 2020 Road Map and the planning priorities derived from it are designed to deliver a top-20 educational experience to all students and to drive economic development for South Carolina. Clemson intends to successfully integrate the two.

### **III.2.2 Strategic Objectives Address Strategic Challenges**

Clemson’s planning process addresses our strengths, weaknesses, and opportunities with a sincere desire to capitalize on those qualities that enhance the institution. This planning process is designed to reduce, change, or modify any limiting qualities. For example, financial and regulatory risks continue to be strategically addressed.

### **III.2.3 Evaluation and Improvement of Strategic Planning Process**

Strategic planning is a dynamic process by which modifications or improvement may be made as needed. Improvements are made to assure that the process is both effective and efficient. Planning phases typically identify specific elements that may need improvement. These include goals, measurable outcomes/benchmarks/objectives, related funding sources(s), individuals responsible for implementation of policies, and methods to assess accomplishments. Dissemination of the strategic plan and its related assessments creates opportunities for participants and stakeholders to provide feedback.

### **III.2.4 Action Plan and Resource Allocation and III. 2.6 Benchmarks and Measures of the Plan**

In 2008, the Board of Trustees set the framework for the planning parameters by accepting specific guiding principles and filters. Data supporting new as well as old initiatives were examined in the light of the filters. The outcome of ‘filtering’ then produced the first draft of a 5-year Road Map to which external and internal funding would apply. The Program Planning Priorities and the funding strategies are primary elements in the current process. Some of the funding strategies include reallocation to strategic priorities, tuition and fees, state appropriations, grants and contracts, fund raising/endowments/corporate, PSA, generated revenue, and direct federal funding.

### **III.2.5 Communicate and Deploy Strategic Objectives, Action Plans and Performance Measures**

Dissemination of information is both formal and informal. Integrating the communication within the Administrative Council in conjunction with efforts of the three vice presidential areas, programs and services are implemented in line with the desire and direction of the Board of Trustees.

The responsible department or program area deploys strategic initiatives. Clemson trusts and relies on each responsible entity to fulfill its goals of the University. Institutional effectiveness and

accountability are important elements of Clemson’s culture, and were incorporated in the Planning Process.

**III.2.7 Location of Strategic Plan**

The current Academic Plan is located on the Provost’s web site:

<http://www.clemson.edu/provost/documents/cuacademicplan.pdf>.

The vision, mission, and strategic university goals are found on the President’s home page:

<http://www.clemson.edu/president/goals.html>.

Details of the Clemson 2020 Road Map may be found at:

<http://www.clemson.edu/2020/>

**III. Category 3 – Student, Stakeholder, and Market Focus**

**III. 3. 1 Program Identification**

Clemson University continuously assesses student needs and program success. As a result of the analysis of these assessments, Clemson implements processes for continuous program improvement. Having adopted a limit on undergraduate enrollment, the numbers and types of services and academic programs are aligned with the demands of the students and marketplace. Evidence such as the number of graduates, the enrollment, employment after graduation, and community and industry input are considered when examining programs. Clemson endeavors to provide students with the finest educational, financial and personal attention thereby promoting their best performance, creativity, and productivity. Organizational stability through systematic planning and evaluation builds strong educational programs, and an environment nurturing graduate loyalty and satisfaction.

**III.3.2 Collect Information for Student and Stakeholder Needs and Expectations**

Decisions concerning program modification are made after critical evaluations have occurred such as ensuring that the proposed change is congruent and furthers identified institutional objectives; appropriate funds are available to support the proposed change; and actual outcomes are consistent with desired outcomes. There are three integrated components to enhance institutional effectiveness: collect and analyze information, use information for improvement, and obtain feedback to determine if modifications or enhancements have effectively addressed any concerns, needs, or other critical issues. Table III.3.2-1 displays an institutional effectiveness model that integrates processes, initiatives, and data.

Table III.3.2-1 Continuous Improvement for Institutional Effectiveness

Processes	The Institutional Assessment Records, Professional and regional accreditation, Program review, Annual Budget Plan, Discovery Council, President’s Report Card
Strategic Initiatives	Enrollment management model (allows Clemson to integrate student enrollment with institutional capacity), Program and Capital Budget allocations, Academic Emphasis Areas, University and Academic Roadmaps (people and programs, operations, and infrastructure)
Data Triangulation	Multiple sources of data to support informed decision –making.

Faculty Productivity	Faculty Activity System Data, Research productivity, papers, honors & awards, collaboration, Collaborative on Academic Careers in Higher Education (COACHE) Survey, Faculty Surveys
Student Satisfaction	Departmental & university alumni surveys, Student Satisfaction Inventory (SSI), Housing Survey (EBI), Campus Safety Walk, Library evaluation (LibQUAL+), program advising, National Survey of Student Engagement (NSSE); Legacy applications; % Alumni Contributing
Student Success	Graduation rates, Participation in Creative Inquiry, class size, program review, persistence, graduate student enrollment, graduate theses and dissertations, scholarships / fellowships (NSF, National Defense Science and Engineering, Hertz, Marshall, Goldwater, etc.), ETS Proficiency Profile, Summer Reading, e-Portfolio, Living and Learning Communities
External Measurements	National or regional achievements; grants or other external funding, Program or Regional Accreditation

### **III.3.3 Use information for continuous improvement**

The data that is collected is used to strengthen the delivery of desired student learning outcomes as well as to enhance the student's personal development while at Clemson. In addition to students, faculty and staff have opportunities for professional development. Some of the services developed to further continuous improvement are offered to enhance student performance and are listed in Table III.3-1.

Table III.3.3-1 Services to Enhance Student Performance

Office of Teaching Effectiveness and Innovation	Workshops and consultation to enhance pedagogy of faculty and graduate students.
Professional Conferences and Literature	General educational resources, discipline / area specific for faculty and staff development
Student Services	Academic Success Center, Program and College Academic Advising, CCIT Helpdesk, Redfern (Physical health, Individual Counseling, Group Counseling, Couples Counseling, Workshops, Referrals, Outreach and Consultation, Testing). Service & professional student organizations, Greek Life, Community service learning, Student Union, Campus Recreation, Student Development Services, Housing programs
Student Feedback	Semester course evaluations for each faculty member for each course, alumni surveys for programs and university by undergraduate and graduate one- and three-year out students, Student Satisfaction Survey (SSI), National Survey of Student Engagement (NSSE), Retention rates and graduation rates
Staff and Faculty Evaluation	Department chairs & deans evaluations, consultations & annual review of faculty, Performance planning and evaluation of staff, feedback from faculty and staff (COACHE, Senates, etc.) Office of Institutional Assessment Staff Survey

### **III.3.4 Determine Stakeholder Satisfaction**

Stakeholder satisfaction is determined through many means depending upon the nature of the service, activity, or outcome to be evaluated. In Table III.3.3-1, strategies to collect information are listed. Clemson receives expert input from industrial advisory boards, committees and boards serving the President, and other external agents. Input may be solicited as well as volunteered. All communications from stakeholders is considered useful and examined in light of the strategic plan.

### **III.3.5 Build Positive Relationships**

Attracting and retaining students is important in all areas of the academic community. Data collected is analyzed to help students succeed inside and outside of the classroom. Table III.3.5-1 provides examples of the many services and programs that are available to our students. An annual assessment activity (as recorded in WEAVEonline®) determines the extent to which the programs meet the desired goals.

Table III.3.5-1 Synergistic Services to Attract and Retain Students

Holistic Opportunities and Services	Academic Success Center, Redfern Health Center, secular opportunities, Fike Recreational Center and intramural programs, personal review of available financial aid (needs based grants, community scholarships, LIFE scholarships, Tiger Pool/Student Employment, assistantships)
Community and Social-based Engagement	Service & professional student organizations, Greek Life, Community service learning, Student Union, Campus Recreation, Student Development Services
Expanded Educational Boundaries	Collaboration with industries and community agencies (practicum, internship & co-operative learning), international programs & travel abroad

Clemson strives to build strong relationships with students that lead to satisfaction and loyalty. Integrated policies and practices employed by Clemson University ensure organizational stability and continuous improvement to enhance quality.

### **III 3.6 Student, Stakeholder, and Market Focus**

Clemson University students, faculty and permanent staff have informal and formal methods available for resolving concerns and complaints whether academic or employment-related. The information below is a summary of the available procedures.

#### Undergraduate Students

Undergraduate students are encouraged to seek the assistance of the Ombudsman to resolve complaints and conflicts informally. The Ombudsman's Office provides an independent, neutral, point of view in an informal and confidential environment for faculty members, graduate students, postdocs, undergraduate students and staff to discuss their concerns. For more information about the services of the Ombudsman or to request assistance, contact the Office of the Ombudsman at (864) 656-6353 or by e-mailing [ombudsman@clemsont.edu](mailto:ombudsman@clemsont.edu).

For those matters that cannot be resolved informally or with the assistance of the Ombudsman, the Academic Grievance Committee may hear grievances regarding:

- Complaints of discrimination in academics (excluding student employment) against a faculty or staff member based upon race, sex, religion, national origin, age, disability, sexual orientation or other legally protected status;
- Complaints of a personal or professional nature involving an individual undergraduate student and a faculty member;
- Claims of inequitable final grades; and
- Claims of unfair treatment in an attendance related issue.

Detailed rules and procedures for filing an academic grievance, including important time periods and appeal rights, are set forth in the [\*Undergraduate Announcements\*](#).

### Graduate Students

Graduate students are encouraged to seek the assistance of the [Ombudsman](#) as an informal method for resolving complaints, problems and conflicts. For more information or to request assistance, call (864) 656-6353 or e-mail [ombudsman@clemsun.edu](mailto:ombudsman@clemsun.edu).

For matters that cannot be resolved informally or with the assistance of the Ombudsman, the Graduate Student Academic Grievance Committee may hear grievances regarding:

- complaints of a personal or professional nature involving an individual graduate student and a faculty member;
- claims of inequitable final grades;
- cases involving graduate student employment; and
- cases involving graduate student academic dishonesty.

Detailed rules and procedures for filing an academic grievance, including important time periods and appeal rights, are set forth in the [\*Graduate Announcements\*](#).

### Faculty

The Faculty Senate, through the Provost, provides an Ombudsman to help resolve disagreements or faculty issues before they reach the formal grievance process. The [Ombudsman](#), a professor knowledgeable about the grievance process, may be reached at (864) 656-6353 or at [ombudsman@clemsun.edu](mailto:ombudsman@clemsun.edu).

For those matters that cannot be resolved through informal methods or with the assistance of the Faculty Ombudsman, there are two grievance procedures available to faculty members and academic administrators with faculty rank – Faculty Grievance Procedure I (GP-I) and Faculty Grievance Procedure II (GP-II). GP-I is reserved for grievances regarding:

- the dismissal or termination of tenured faculty;
- the dismissal or termination of non-tenured faculty prior to the expiration of their “employment” contract;
- complaints of discrimination based upon race, sex, religion, national origin, age, disability, sexual orientation or other legally protected status; and
- complaints by non-tenured faculty that violations of academic freedom significantly contributed to a decision to cease, in any manner, his/her appointment with the university.

GP-II is available for grievances not covered by GP-I, such as complaints of inequitable work assignments, unfair performance reviews, or improper implementation of policies and procedures.

Grievance counselors appointed by the Faculty Senate advisory committee are available to assist faculty in understanding which grievance procedure to use; however, they do not have the authority to render a decision on the merits of the grievance. For more detailed information regarding the Faculty Grievance Procedures, including important deadlines and the right to appeal, please refer to the Part V of the [Faculty Manual](#).

## Staff

Employees are encouraged to meet with their immediate supervisor in an effort to resolve any complaint informally. Alternatively, staff may wish to work with the [Staff Ombudsman](http://www.clemson.edu/ombudsman) at <http://www.clemson.edu/ombudsman> to resolve complaints and conflicts informally. For more information about the Staff Ombudsman or to request assistance, call (864) 656-5353 or e-mail [tomward@clemson.edu](mailto:tomward@clemson.edu).

When informal resolution is not possible, permanent, non-faculty employees may seek resolution for adverse employment actions through the University's Employee Grievance Procedure. An "adverse employment action" means a demotion, including involuntary reassignment, salary decrease based on performance, suspension or termination. For more detailed information regarding the Employee Grievance Procedure, including important deadlines and the right to appeal, please refer to the Clemson University [Personnel Policies and Procedures Manual](#).

Athletic coaches and employees in temporary, temporary grant and time-limited positions do not have grievance rights.

### **III. Category 4 – Measurement, Analysis, and Knowledge Management**

#### **III.4.1 Strategy to Select Measures**

Clemson University's performance is enhanced by processes and systems designed to strengthen all aspects of the institution. Data selection, analysis, and tracking methods, and measurements of progress are evaluated by external and internal standards. Data is collected by student performance on tests for professional accreditation standards, such as PRAXIS and NCLEX, ethical protocols for research such as CITI certification, and standardized nationally administered tests such as the ETS Proficiency Profile. Clemson relies on quantitative and qualitative data in making judgments about student and stakeholder needs, institutional effectiveness, and reporting to numerous external agencies, commissions and boards. In addition to institutional level data, each area collects, analyzes, and uses specific data relevant to the outcomes being measured.

#### **III.4.2 Strategies to Ensure Useful Data**

Data is used to measure the effectiveness of all areas: academic and administrative. Data from other institutions is used to provide comparison measures. The measures and the benchmarks are constantly updated to reflect best practices and quality standards in the field of assessment. For example, in Table III.2.4-1 Assessment of Priorities, each method of collecting data is relevant to the area being evaluated and is specifically designed to reflect Clemson's needs. Based on the critical decisions that must be made using the results of the data, it is imperative that the sources of the data are accurate, appropriate and useful.

#### **III.4.3 Process to Keep Measures Current**

The on-going strategic planning activities, the use of assessment data by departments and program areas, annual reports, individual evaluations, and other systematic reviews require that the best sources of data be used for evaluation. Consultants and professional conferences and publications provide insight into current practices. Clemson University continues to examine best practices and revise processes of data collection when necessary.

#### **III.4.4 Identify and Use Comparative Data**



Comparative data is gained by using surveys and standard assessment protocols used by others. The Collaborative on Academic Careers in Higher Education (COACHE) allows Clemson to select a peer group from participating institutions for comparison. Clemson University participated in the 2011-12 administration of COACHE. Clemson also participates in a national survey on faculty salaries prepared by Oklahoma State University and departmental standards developed by the University of Delaware. Both surveys provide national comparisons that can be used for data analysis. Clemson University participates in the *Chronicle of Higher Education's* "Great Colleges to Work For" survey. The National Survey of Student Engagement (NSSE) and the Student Satisfaction Inventory (SSI) provide national comparative information as reported by the students. Also, the data from alumni surveys is used for comparisons.

Table III.4.4-1 Comparative Data

Instruction	<ul style="list-style-type: none"> <li>• Quality of the Freshmen class (SAT, top 10% of high school class, acceptance rate), Freshmen to 2<sup>nd</sup> year; 2<sup>nd</sup> year to 3<sup>rd</sup> year, overall retention rate of first-time full-time Freshmen, 6-year graduation rate, and percent of classes under 20 and over 50</li> <li>• Percentage of full-time faculty, faculty with terminal degrees, and faculty-student ratio</li> <li>• Student learning as reported in annual Assessment Reports</li> <li>• Student opinion reported in alumni surveys of one-and three-year out graduates</li> <li>• Student satisfaction with degree programs, advising, and services</li> <li>• Reported engagement in academic practices</li> <li>• Performance on examinations (NCLEX, PRAXIS, FE etc.)</li> </ul>
Research	<ul style="list-style-type: none"> <li>• Revenues to fund infrastructure development</li> <li>• Number of undergraduate and graduate students engaged in research, independent study, Creative Inquiry, capstone experiences (internships, co-op programs), etc.</li> <li>• Research activities related to economic development outcomes</li> <li>• Participation in Research Week/Month to highlight student and faculty research activities</li> <li>• Number, type, and amount of sponsored research activities (grants, papers given, and articles published)</li> </ul>
Public Service	<ul style="list-style-type: none"> <li>• Number and type of Community Service grants summarized by the level of activities by students</li> <li>• Service learning in the classroom (electronic portfolio and program specific evaluation strategies)</li> <li>• Student organization communities</li> <li>• Faculty service activities including lectures, concerts, conferences, special programming, and other activities in which the student, faculty, and staff are available to the citizens of the state</li> </ul>
Academic Support	<ul style="list-style-type: none"> <li>• Graduation rates for undergraduate and graduate students</li> <li>• Opportunities for student success as noted by participation in Academic Success Center tutoring, supplemental instruction, and study groups</li> <li>• Library activities, services, and use</li> <li>• Other support systems that optimize the opportunity for an individual to complete a degree program, engage in campus activities, and grow as an individual</li> <li>• Student satisfaction with degree programs, advising, and services</li> </ul>
Student Services	<ul style="list-style-type: none"> <li>• Student programs</li> <li>• Leadership development activities for students engaged in student government</li> <li>• Opportunities for international activities, including study abroad</li> </ul>

	<ul style="list-style-type: none"> <li>• Student Satisfaction with student services including offices of admissions and registrar and those activities whose primary purpose is to contribute to the student's emotional and physical well-being and to his/her intellectual, cultural, and social development</li> </ul>
Institutional Support	<ul style="list-style-type: none"> <li>• Cost of institutional support is assessed at a benchmark level and is reported as a percent of total E&amp;G budget</li> <li>• Efficient and effective administration in the implementation of the University's Goals and related activities that are important to the operation of a research university (i.e. President's Office, the Provost's Office, the General Counsel, Research, Business Office, Human Resources)</li> </ul>
Scholarships and Fellowships	<ul style="list-style-type: none"> <li>• Annual reports of scholarships and fellowships document distribution of funds</li> <li>• Needs based grants and community scholarships</li> <li>• Financial aid services to undergraduate and graduate students</li> <li>• LIFE scholarship retention rates</li> <li>• Number/percentage of Undergraduate students in the top 10 percent of their high school classes</li> <li>• Number/percentage of Undergraduate students who perform exceptionally well on the SAT/ACT</li> </ul>
Plant Operations	<ul style="list-style-type: none"> <li>• Progress on deferred maintenance</li> <li>• Progress on preventive maintenance program</li> <li>• Report LEED certification program</li> <li>• Reports from students on the quality of the campus environment including the Student Satisfaction Inventory</li> </ul>
Intercollegiate Athletics	<ul style="list-style-type: none"> <li>• Graduation rates</li> <li>• Win/loss records in competitive sports</li> <li>• Compliance status</li> </ul>
Auxiliary Services	<ul style="list-style-type: none"> <li>• Annual surveys of Food Service satisfaction</li> <li>• Provide wholesome and attractive food service options to the students</li> <li>• Continue to seek out and award competitive privatized contract for bookstore to meet the needs of the students to include availability of materials, reasonable costs, and convenience</li> <li>• Self-supporting status with positive fund balance</li> <li>• Effective provision of non-educational services to the students, employees and the public</li> </ul>
Municipal Services: court, fire protection	<ul style="list-style-type: none"> <li>• Advisory boards and committee feedback</li> <li>• First response arrival within 4 minutes to scene</li> <li>• Monitor customer service feedback and reports</li> <li>• Increase in on-line activity and reduction in customer complaints</li> </ul>
Center for Advanced Engineering Films and Fibers	<ul style="list-style-type: none"> <li>• Number of graduate students involved in center activities</li> <li>• Graduation rates</li> <li>• Sponsored research activities (grants, papers given, and articles published)</li> </ul>
Center for Wireless Communication	<ul style="list-style-type: none"> <li>• Number of industry participation</li> <li>• Number of graduate students involved in center activities</li> <li>• Graduation rates</li> <li>• Sponsored research activities (grants, papers given, and articles published)</li> </ul>
Center for Optical Materials Science and Engineering Technology	<ul style="list-style-type: none"> <li>• Number of graduate students and graduation rates</li> <li>• Sponsored research activities in form of grants, papers given, and articles published</li> <li>• Development of technology-based new ventures, improved competitiveness of existing firms, and wealth creation in the region</li> </ul>

### **III.4.5 Measurement, Analysis, and Knowledge Management Ensure Data Quality**

Clemson University provides data to its workforce, students, and stakeholders in an efficient and accessible environment. There are multiple data resources, including:

(A) Institutional Research: The Office of Institutional Research serves as a comprehensive source for information about Clemson University. Some sources of data available on the IR website are:

- Mini Fact Book
- The Clemson Fact Book
- Historical Enrollment
- Selected Presentations, Reports and Analyses
- Common Data Set (information about Common Data Sets)
- Historical Tuition and Fees
- FAS—Faculty Activity System, tracks faculty credentials, publications, conference presentations etc.

In addition, Institutional Research can provide any other information via the Request Form for Data and Mailing Lists.

(B) iROAR: The iROAR Project (the replacement for SIS Web) was selected by the University as a directive to keep Clemson on the track for the 2020 vision. According to President Barker, "These goals address academic excellence, research, the student experience and Clemson's national reputation." This project will strive to maintain Clemson's highest expectations for excellence by supporting students, faculty and staff with refined processes and a cohesive gateway to Clemson. The goals of implementing such a system are to 1) provide improved data integrity, 2) provide a true single sign-on for all users 3) provide an enhanced management of data for the University, and an intuitive university portal for all aspects of the Clemson community. The iROAR system began operations Fall semester, 2013.

(C) Student Data Warehouse: Another source of data for the workforce, students, and stakeholders is the Student Data Warehouse. The Student Data Warehouse is a web-based reporting application that provides faculty and staff with easy access to student information by semester (e.g., demographic, enrollment, and course information). Faculty and staff who require access to the Student Data Warehouse must first complete a course that provides a basic introduction to the data available. A security form must be completed and submitted to the instructor prior to attending the class to gain the appropriate access.

(D) CUBS System: CUBS (Clemson University Business Systems) provides implementation and maintenance support for strategic administrative applications at Clemson. The core systems include Financials, Human Resources, Payroll, and Data Warehousing/Reporting.

(E) Blackboard: Blackboard® is Clemson University's Learning Management System that instructors can use to deliver course content, communicate with students, enable student interaction, and provide on-line assignments and assessments. Whether the course is taught face to face, fully online, or as a hybrid, instructors can use Blackboard® to more fully engage students in learning activities while reducing some of the administrative overhead of managing a class.

*Blackboard Features:*

- Collaboration: discussion rooms, bulletin boards, blogs.

- Course Content: books, documents, handouts.
- Early Warning System
- Keeping Students Informed: bulletin boards, mass emailing, automatic reminders, podcasts.
- Measuring Student Performance: grade books, quizzes, surveys.

Data quality is assured by those who collect and use the data. The institution promotes the use of accurate and timely data in all accountability activities. Through professional development sessions, the academic community can learn how to protect and store data. Clemson Computing and Information Technology (CCIT) has developed a series of policies to guide the use of technology that will promote the responsible use of data and resources.

<http://www.clemson.edu/ccit/about/policies/index.html>.

Policies and guidelines include:

- Clemson University Policies: Delegation of Administrative Authority and Responsibility; Acceptable Use Policy For Employees; Acceptable Use Policy For Students; UserID and Password Policy
- CCIT Policies and Guidelines
- User IDs and Passwords: Creating Strong Passwords
- Network: CCIT Network Security Policy; Information on CCIT Provided File space
- Software: CCIT Software Procedures

#### **III.4.6 Use of Findings in Action Plans**

The Board of Trustees uses the President’s Report Card and other data sources to inform its decisions. Each Board of Trustees committee examines outcomes of on-going evaluations prepared as quarterly markers and judgments of policy or practices. The committees make recommendations to the full board and action plans are developed, executed, and evaluated to inform another cycle of institutional effectiveness.

#### **III.4.7 Preserve Institutional Knowledge**

Through the University Assessment Committee, the University Curriculum Committee, the Academic Council, the Provost’s Advisory Committee, Faculty Senate, Staff Senate, student governments, and other campus committees, boards, and councils, the institution shares and transfers best management practices, institutional memory, and program and institutional performance. Other groups address the maintenance, safety, and security of the institution. It is incumbent on each department and division to (1) acquire and utilize relevant data, (2) provide supporting evidence for decisions, recommendations, and conclusions, (3) maintain security of data, and (4) base decisions on accurate and timely data.

Organizational performance review is an integrated, multi-level system of planning, evaluation, and on-going assessment to “close the loop”. Training and development are important concepts in ensuring efficient institutional procedures. One example is the “cross-training” implemented in many offices to facilitate operational continuity. In addition, policies and procedures are developed to guarantee documentation of processes. CCIT provides ongoing training opportunities for the campus in using many software systems needed to perform data analysis. The University is fortunate to have invaluable resources of faculty expertise in statistics and an updated data management information system.

(See Table III.6.5: The Clemson University 2020 Road Map Data Sources, Benchmarks, and Responsible Parties, page 41)

### **III. Category 5 – Workforce Focus**

#### **III.5.1 Intentional Organization and Management**

An environment of collegiality where faculty, students, and staff work together toward common goals is an important aspect of Clemson University. The institution is organized by colleges and broad administrative groups. Colleges include academic departments that serve as home for faculty and staff. Aligned with research emphasis areas, centers and institutes across the campus create opportunities for collaboration and interdisciplinary teaching, research, and service. The academic departments and colleges align with the University Mission and Goals through their missions, plans and strategies.

#### **III.5.2 Sharing Across Departments**

Academic support units and institutional support units are organized by functional areas. The administration and staff at Clemson University have opportunities to develop and utilize their full potential and participate in furthering the University’s Vision, Mission, and Goals. All employees are required to align their performance with their job duties to include at least one of the University Goals. Clemson recognizes the significant role played by every employee of the University. Throughout the organization all employees, both faculty and staff, are valued and opportunities for personal and professional development are encouraged.

The processes of promoting cooperation, initiative, empowerment, and innovation are inherent in the organizational culture. The “One Clemson” theme is a message provided by senior leadership to the campus. The close relationships between administrative units may be observed in many situations. Some examples are: the athletic department and the library conduct joint fund raising initiatives; Student Affairs representatives attend academic affairs meetings; the colleges collaborate in hiring faculty that can teach in two disciplines and fund centers or institutes that promote collaboration and communication with the other colleges of the University. The Clemson University [Guiding Principles for Planning](#) is another example of the University’s dedication to cooperation both within and outside the institution.

#### **III.5.3 Performance Management System**

The employee performance management system (EPMS) at Clemson focuses on the individual. An annual review of staff is monitored by the Human Resources Department. The President is reviewed by the Board of Trustees, and a formal agency head evaluation form is submitted to the Budget and Control Board annually following the July meeting of the Board of Trustees. All other administrative personnel are evaluated by their supervisor.

Faculty members are evaluated for promotion, tenure, and post tenure through peer review of agreed upon standards of performance. Faculty who are not tenure-track are reviewed by their supervisors and a peer review team annually for reappointment. All faculty members complete an annual planning document ([Faculty Activity System](#)) with specific goals for the academic year. At the end of the year, faculty report their progress and a formal evaluation is completed. In addition, faculty qualifications or credentials are reviewed and documented with original transcripts of their degrees.

### **III.5.4 Succession Planning**

Succession planning is accomplished by providing opportunities for professional development to administrators, faculty, and staff. Annually, the President sends a University employee to the South Carolina Executive Leadership Institute. The representatives range from the Director of Financial Aid to the Executive Secretary to the Board of Trustees. Faculty members attend professional development programs at institutions known for preparing future leaders. Each year a faculty member is nominated for the American Council of Education (ACE) leadership program designed to prepare faculty for presidential positions. The institution provides many opportunities and resources for all employees in the “Clemson Family”. Professional development such as attending professional conferences or on campus training (computer, improving teaching skills and techniques, etc.) is available to administrators, faculty and staff. The major offices that provide training and development opportunities for administrators, faculty and staff are: the Office for Teaching Effectiveness and Innovation, Educational Technology Services, Human Resources Training and Development, Computing and Information Technology, and Clemson University Business Office.

### **III.5.5 Training and Development Systems Address**

Clemson University offers orientation for new faculty and department chairs. In these orientations institutional procedures and expectations are shared with the participants. Administrative Council Retreats, Department Heads’ Retreat, Provost’s Retreats and other leadership retreats, sessions, and events are specifically designed to share organizational knowledge, ethical practices, core competencies, strategic challenges, and accomplishments of action plans.

### **III.5.6-5.8 Performance Management System**

All employees are involved in annual development of goals and objectives prior to an annual evaluation. Faculty and administrators use a Clemson developed process. Faculty enter their goals and accomplishments using the Faculty Activity System (FAS). Administrators submit plans in writing. Staff members use the Employee Performance Management System (EPMS) and specify how their goals link to the university’s goals.

### **III.5.9 Evaluation of Training and Development Systems**

Training and professional development opportunities are plentiful at Clemson. Training and professional development is a major topic of interest to both the Staff and Faculty Senates. Performance is assessed through the annual evaluation system (EPMS for staff, FAS for faculty). Performance and merit increases are tied to professional development and exceeding standard job performance.

All training and professional development programs and activities offered on the Clemson University campus are assessed by program coordinators to ensure performance and continuous quality improvement.

### **III.5.10 Motivation**

Procedures to increase employee motivation include both intrinsic as well as extrinsic measures such as: public recognition, pay increase, parking preference, release time, etc. Insight into employee motivation is obtained through surveys, focused discussion groups, Brown Bag lunches, departmental assessments, and analysis of problems or complaints. Clemson takes pride in the fact that individuals are afforded multiple channels to express concerns, make recommendations or highlight achievements.

### **III.5.11 Methods to Obtain Workforce Well-being, Satisfaction and Motivation**

All employees have at least one avenue of representation. There are committees and senates through which opinions can be expressed, recommendations provided to modify governance, or other appropriate actions suggested. These avenues enhance the organizational capacity to improve the productivity of the individual while meeting the needs of the institution in its endeavor to achieve the University's Vision, Mission and Goals. Such groups include the Faculty Senate, the Staff Senate and other appointed or elected groups (President's Commission on Black Faculty and Staff, President's Commission on the Status of Women at Clemson, President's Council on Community and Diversity). Individuals may address issues with their supervisors, the Office of Human Resources, Ombudsman, or other identified individuals. Formal grievance processes guide the faculty and staff in resolving issues.

Formal faculty and staff surveys are conducted on a regular basis. The purpose of all assessment processes is to identify issues and to provide findings that guide decision-making in establishing priorities. Some of the methods of collecting data from faculty and staff include: Senate reports and recommendations, Faculty Activity System data, research productivity, papers, honors and awards, collaboration, Collaborative on Academic Careers in Higher Education (COACHE) Survey, The *Chronicle of Higher Education's* "Great Colleges to Work For" survey and institutional [faculty](#) and [staff](#) surveys.

### **III.5.12 Use Satisfaction for Improvement**

Workforce satisfaction is only one measure that is applied to the strategic planning process when considering priorities for improvement. The planning priorities of the institution are established by the Board of Trustees. Recommended programs, activities, and services are gathered by the Administrative Council from Deans, students, faculty, and staff. Through the strategic planning process these recommendations are filtered prior to consideration by the Board of Trustees.

### **III.5.13 Safe and Secure Work Environment**

Specific resources promote safety and security of students, faculty, staff, students, and visitors. The voice alarm/siren system, newsletters, notices on doors regarding evacuation, cell phone emergency protocol, email correspondence regarding issues of immediate importance, and other strategies are employed to promote the safety of all who attend, work or visit the campus.

The Office of Environmental Health and Safety (EHS) plays a key role at the University. Clemson University has a [Comprehensive Environmental Health and Safety Plan](#). This Plan has been approved by the Clemson University Administrative Council, and applies to all Clemson University Faculty, Staff, and Students, as well as all activities carried out on Clemson property regardless of Clemson affiliation. EHS maintains a number of EPA/OSHA/DHEC/NRC required plans, provides training for employees, and monitors units to ensure compliance. The Disaster Management Plan has been revised and is available to the campus. In conjunction with this is the Fire and Emergency Medical department, which responds to on-campus emergency situations.

## **III. Category 6 – Process Management**

### **III.6.1 Determining Core Competencies**

Maximizing student success at Clemson University is a priority. The key learning-centered processes for both academic programs and academic support services are developed, implemented, and continuously evaluated with the purpose of furthering effectiveness and efficiency in all areas. Activities must be aligned with the Strategic Plan to be funded. Since the Strategic Plan is tied

directly to the Vision, Mission, and Goals of the University, Clemson is assured that the competencies are comprehensive and appropriate.

### **III.6.2 Key Work Processes**

Key learning-centered processes and support processes are institutionalized to maximize student success and involve a majority of the faculty and staff. The method of determining needed processes involves broad-based, comprehensive, and integrated examinations of the need as it meets or furthers the Vision, Mission, and Goals. The outcomes of initiatives and processes are evaluated and reported to the President, Board of Trustees, Provost, Deans and Department Chairs, University Vice Presidents and external constituents (press, newsletters, professional meetings/contacts). The standards for success and benchmarks for many measures are those that guide Clemson in becoming a top-20 public university and standards set by professional bodies including accreditation, national testing, and licensing. For each key learning-centered process and key academic support processes the University has identified specific expected results and measurable outcomes.

### **III.6.3 Incorporating Input**

The core mission of educating students integrates academic programs, student life programs, and institutional support. New programs of study originate with the faculty whose expertise and professional knowledge of the most current activity in their fields qualifies them to be in the best position to foresee new degrees. The administration works with the faculty in determining the feasibility of a new program of study, the fit with the University mission, the financial implications, and physical needs. Needs assessments of future students, consultations with external stakeholders (industry, market forces), and others results in moving forward with new programs. The same steps are taken when programs are provided in off-campus or online locations or when enrollments are increased. The academic departments create and schedule classes according to the assessed needs of their students.

Students are evaluated continuously throughout their programs of study. Students have opportunities to provide feedback routinely through end of course evaluations of instructors, surveys conducted by the University, and alumni surveys. All information is provided back to the faculty, chairs, and deans to make improvements to the teaching and learning environment. Clemson encourages new teaching strategies and faculty development in instruction and the use of technology in the classroom is provided by the [Office of Teaching Effectiveness and Innovation](#) and other agencies. The results of recent surveys demonstrate that the processes are in place and are making a difference.

### **III.6.4 Incorporate Efficiency and Effectiveness Factors**

In the process design and delivery of programs and services, organizational knowledge, technology, cost controls, and other efficiency/effectiveness factors are considered. Organizational knowledge is embedded in the University's Vision, Mission and Goals, and is reflected in the university budget process. Prior to the implementation of any program or service activity, the designing department must demonstrate a framework for support and clear educational or educational support outcomes that assist the institution in meeting its goals. The process of ensuring there are adequate budget and financial resources for current and new programs and services and that the proposal is congruent with the University's Vision, Mission, and Goals, programs or services may be implemented. The management of these includes audits and other internal cost controls of accountability. Construction, maintenance, and upkeep of facilities, for example, are monitored not only by fiscal accountability but also in meeting design and operational standards.



### **III.6.5 Systematic Evaluation and Improvement**

Clemson continues to implement institutional effectiveness processes including program and department assessment. These annual practices include measurable objectives and use of direct measures (not solely opinion surveys) to analyze the extent to which the program, service, or other activity has achieved the desired outcome.

These measurable outcomes and many others are reported, examined, analyzed, and used in decision-making at all levels and areas of the institution. Reporting of these measures includes internal strategies such as the Clemson University Fact Book, Assessment Reports, and President's Report Card to the Board of Trustees. External reporting includes the Institutional Effectiveness Report and Performance Funding to the SC Commission on Higher Education, and other reports to the Southern Association of Colleges and Schools Commission on Colleges (SACSCOC). External entities such as IPEDS, data exchanges, and public analysis (*U.S. News & World Report*) rely on institutional data for many reasons including decision-making, developing opinions or evaluation.

The foundation of the 2020 Road Map is a commitment to systematic, broad-based planning, conscientious and diverse data collection methods, and intensive data analysis. This process ensures continuous quality improvement. As expressed in the 2020 Road Map, Clemson University's students, faculty, staff, the nation, and the world benefit from the University's commitment to high quality.

**Table III.6.5: The Clemson University 2020 Road Map Data Sources, Benchmarks, and Responsible Parties**

Road Map Priority	Metric (all are trends since 2009)	Benchmark - US News Top 11-20 average	Benchmark – average of bottom 50 VHRD (Carnegie)	Benchmark – Nat’l average	Measure against CU goal	Dept/person to provide data to Institutional Effectiveness
Student quality & performance	Average math & verbal SAT	X				IR
	SAT range	X				IR
	Freshman retention	X				IR
	6-year graduation	X				IR
	Student selectivity rank	X				IR
	# of UG applications				?	IR
	IS/OS yield				?	IR
	ETS scores			X		Assessment
	Guidance counselor score	X				IR
	US apps in focus areas*				X	IR
	PhD’s awarded		X			IR
	PhDs in focus areas*				X	IR
	# & %minority				X	IR
	# & % African American				X	IR
	LIFE retention					IR/CHE Benchmark USC, Furman, Wofford
	Private \$ for scholarships				X	Development
	UG enrollment	X			?	IR
	Grad enrollment	X			?	IR
	Honors enrollment (# and % overall)				?	IR
	F/S ratio	X				IR
	Alcohol & drug stats					Student Affairs
	Fike use					SA
	Club, intramurals					SA
	Greek participation					SA

\* Burg, Murdoch, Barkley to define

Items to be featured/highlighted in a graphic or text – FY12-13 only

List of national fellowships and scholarships won by Clemson students

Percent of students with jobs, offers or in grad school at graduation (both CHE data (e-Tracker, Nat’l Clearinghouse) and survey “soft” data)

Map of where students are from (states, countries)

List of athletics teams in Top 25, national champions (teams or individual)

Road Map	Metric (all are trends since 2009)	Benchmark - US News Top 11-20 average	Benchmark – average of bottom 50 VHRD	Natl average	Measure against CU goal	Dept/person to provide data
Student engagement	# of CI teams – FALL				?	Under Studies
	# of CI unduplicated students - FALL				?	Under Studies
	# of co-op, interns (all – FALL)				?	Career Center
	# UPIC – full academic year				X	Career Center
	# in study-abroad – full academic year				X	Global Studies
	# classes <20	X				IR
	# classes > 50	X				IR
	NSSE – student satis.			Carnegie PEER average		Assessment
	NSSE – engagement			Carnegie PEER average		Assessment
	# LLC's				X	Housing
	# students in LLC's				?	Housing

Items to be featured in graphic or text – FY12-13 only (full academic year)

Map of where students study abroad

Community service hours by students

# of service-learning courses and students participating – Kathy Woodard

Carnegie classification for curricular/student engagement

ClemsonThinks2 - # of seminars and students participating

Road Map Priority	Metric (trends since 2009)	Benchmark – USN&WR Top 11-20 average	Benchmark – average of bottom 50% VHRD	Nat'l average	Measure against CU goal	Dept/person to provide data
Recruit & retain top people	Faculty resource rank	X				IR
	Terminal degrees	X				IR
	FT faculty	X				IR
	# post-docs		X			IR
	Research faculty		X			IR
	Faculty salaries/rank	X				AAUP/IR
	# research awards		?		?	VPR
	\$ value research awards		?		?	VPR
	# proposals submitted		?		?	VPR
	Federal research awards		X		?	VPR
	Research per T/TT faculty		X		?	VPR
	Research per college				?	VPR
	Research/ focus				?	VPR

	areas*					
	% faculty w/funded research		?		?	VPR
	# new invention disclosures		X		?	VPR
	# of new patents/lic.		X		?	VPR
	# start-up companies		X		?	VPR
	# new industry partnerships				X	Kelly, Bottum, Dooley
	# jobs created				?	Kelly, Bottum, Dooley ?
	Private \$ for profs, chairs, faculty support				X	Development
	# grad students on extramural funding				?	VPR (Assessment report to CHE)
	\$ of extramural tuition support				?	VPR

Items to be featured in graphic or text – FY12-13 only (full academic year)

Faculty awards, fellowships, memberships (Ballato's tier one)

National academy members

# of publications and citations

Road Map Priority	Metric (trends since 2009)	Benchmark – USN&WR Top 11-20 average	Benchmark – average of bottom 50% VHRD	Nat'l average	Measure against CU goal	Dept/person to provide data
Build to compete						
	# of technology-enhanced classrooms added				X	CCIT
	HPC numbers (grants, new awards, hours usage)				X	CCIT
	Private gifts for facilities & technology					Development
	Classroom utilization data					IR (with Master Planning)
	Research \$ per sq. ft. lab space			Is there a metric for context?	?	VPR

Items to be featured in graphic or text – FY12-13 only (full academic year)

# of square feet added or renovated, with photos of new facilities – Gerald Vander Mey

Major new technology projects completed – Brett Dalton

Road Map Priority –	Metric (trends since 2009)	Benchmark – USN&WR Top 11-20 average	Benchmark – average of bottom 50% VHRD	Nat'l average	Measure against CU goal	Dept/person to provide data
divest to invest and generate new revenue						
	Research		X		X	VP Research

	expenditures					
	\$ from patents/lic		X		?	VPR
	\$ from partnerships in focus areas				?	Kelly, Bottum, Dooley
	Alumni participation	X			X	Alumni Relations
	Total private giving				X	Development
	Endowment June 30	X				CUF
	Endowment/student FTE	X				CUF
	Expenditures per student	X				IR
	Financial rank	X				IR
	Online education – courses, enrollment, revenue				X	IR
	Summer semester – courses, enrollment, revenue				X	IR
	State appropriations					Brett Dalton
	Appropriations per FTE					Brett Dalton
	Institutional support costs per student					Brett Dalton (benchmark 8 targeted?)

Items to be featured in graphic or text – FY12-13 only (full academic year)  
Center for Workforce Development numbers (certifications, program participation, partnerships)

## Top Rankings and Brags

### Academic

- **2nd** Ranking Clemson's applied economics graduate program received in the most recent National Research Council Assessment of Doctoral Programs.
  - **21st** Ranking of top public national universities that *U.S. News & World Report* gave Clemson for 2014.
  - **19** Clemson is one of only 19 public colleges and universities identified as making writing across all disciplines a priority per *U.S. News & World Report*, 2014.
  - **11** Clemson seniors and graduate students won the prestigious National Science Foundation Graduate Research Fellowship in 2012.
- 15** Incoming freshman SAT scores rank in the top 15 among national public universities per *U.S. News & World Report*, 2013.
- 85** percent of Clemson seniors have performed community service or volunteer work or plan to do so.
- 91** percent of seniors would choose Clemson if they could start their college career over again.
- 7** Ranking in terms of students' return on investment, as rated by *SmartMoney* in 2012.
- 11** Ranking of Clemson's career services program, according to the 2014 *Princeton Review*.

## All Rankings

### Academic

- 28th** Ranking Clemson's bioengineering graduate program received in the most recent National Research Council Assessment of Doctoral Programs.
- 10th** *DesignIntelligence* magazine named Clemson's architecture graduate program one of the nation's Top 10 programs among all public universities in 2012.
- 2nd** Ranking Clemson's applied economics graduate program received in the most recent National Research Council Assessment of Doctoral Programs.
- 39th** Ranking Clemson's chemical engineering graduate program received in the most recent National Research Council Assessment of Doctoral Programs.
- 45th** Ranking Clemson's chemistry graduate program received in the most recent National Research Council Assessment of Doctoral Programs.

- 18<sup>th</sup> Ranking Clemson's entomology graduate program received in the most recent National Research Council Assessment of Doctoral Programs.
- 12<sup>th</sup> Ranking Clemson's environmental engineering graduate program received in the most recent National Research Council Assessment of Doctoral Programs.
- 17<sup>th</sup> Ranking Clemson's environmental toxicology graduate program received in the most recent National Research Council Assessment of Doctoral Programs.
- 19<sup>th</sup> Ranking Clemson's food science graduate program received in the most recent National Research Council Assessment of Doctoral Programs.
- 25<sup>th</sup> Ranking Clemson's forestry and forest science graduate program received in the most recent National Research Council Assessment of Doctoral Programs.
- 37<sup>th</sup> Ranking Clemson's genetics graduate program received in the most recent National Research Council Assessment of Doctoral Programs.
- 45<sup>th</sup> Ranking Clemson's industrial engineering graduate program received in the most recent National Research Council Assessment of Doctoral Programs.
- 44<sup>th</sup> Ranking Clemson's mathematics graduate program received in the most recent National Research Council Assessment of Doctoral Programs.
- 46<sup>th</sup> Ranking Clemson's microbiology graduate program received in the most recent National Research Council Assessment of Doctoral Programs.
- 46<sup>th</sup> Ranking Clemson's plant science graduate program received in the most recent National Research Council Assessment of Doctoral Programs.
- 50<sup>th</sup> Ranking Clemson's polymer and fiber graduate program received in the most recent National Research Council Assessment of Doctoral Programs.
- 34<sup>th</sup> Ranking of Clemson's undergraduate business program among national public universities per *U.S. News & World Report*, 2013.
- 21<sup>st</sup> Ranking of top public national universities that *U.S. News & World Report* gave Clemson for 2014.
- 18<sup>th</sup> Ranking our bioengineering graduate program holds among public national universities, per *U.S. News & World Report*, 2014.
- 39<sup>th</sup> Ranking our chemical engineering graduate program holds among national public universities, per *U.S. News & World Report*, 2014.
- 37<sup>th</sup> Ranking our civil engineering graduate program holds among national public universities, per *U.S. News & World Report*, 2014.

**37th** Ranking our computer engineering graduate program holds among national public universities, per *U.S. News & World Report*, 2014.

**39th** Ranking our electrical engineering graduate program holds among national public universities, per *U.S. News & World Report*, 2014.

**22nd** Ranking our environmental engineering graduate program holds among national public universities, per *U.S. News & World Report*, 2014.

**25th** Ranking our industrial engineering graduate program holds among national public universities, per *U.S. News & World Report*, 2014.

**32nd** Ranking our materials and engineering graduate program holds among national public universities, per *U.S. News & World Report*, 2014.

**32nd** Ranking our mechanical engineering graduate program holds among national public universities, per *U.S. News & World Report*, 2014.

**59th** Ranking our undergraduate engineering program holds among national public universities, per *U.S. News & World Report*, 2014.

## Campus-Life

**1st** Top ranking Clemson holds for being a jock school, based on the popularity of intercollegiate and intramural sports, according to the 2014 *Princeton Review*.

**1st** Top ranking Clemson received among colleges where everyone plays intramural sports, according to the 2014 *Princeton Review*.

## Technology

**5th** Clemson's Palmetto Cluster ranks fifth on the list of university-owned supercomputers in the United States, according to the June 2013 Top500.org list of international supercomputers.

**11th** Ranking among colleges and universities for producing the 21st Century IT workforce according to *Insurance & Technology* in August 2012.

## All Brags

**6** Years in a row that Clemson University has been named to the President's Higher Education Community Service Honor Roll.

**14** Clemson is one of only 14 colleges and universities in the nation excelling in senior capstone experiences, per *U.S. News & World Report*, 2014.

**19** Clemson is one of only 19 public colleges and universities identified as making writing



across all disciplines a priority per *U.S. News & World Report*, 2014.

4 Clemson is one of the friendliest colleges in the nation! A 2011 survey conducted by *The Huffington Post* ranks Clemson fourth for students' approachable, supportive and charitable nature, along with their deep love for other students.

75 Clemson is one of the nation's 75 best values in public colleges and universities, according to *The Princeton Review Best Value Colleges* for 2013, based on excellent academics, cost of attendance and availability of financial aid.

11 Clemson seniors and graduate students won the prestigious National Science Foundation Graduate Research Fellowship in 2012.

10 Clemson students have received Fulbright Grants for study, research or English-language teaching in eight different countries since 2008.

15 Incoming freshman SAT scores rank in the top 15 among national public universities per *U.S. News & World Report*, 2013.

84 percent of Clemson seniors have done or plan to do a practicum, internship, field experience or clinical.

46 percent of Clemson seniors have or plan to work on a research project with a professor outside of what's required.

85 percent of Clemson seniors have performed community service or volunteer work or plan to do so.

91 percent of seniors would choose Clemson if they could start their college career over again.

8 Ranking Clemson received in *U.S. News & World Report's* 2014 Up-and-Comers category for institutions that have made the most promising and innovative changes in the areas of academics, faculty, students and campus life.

7 Ranking in terms of students' return on investment, as rated by *SmartMoney* in 2012.

11 Ranking of Clemson's career services program, according to the 2014 *Princeton Review*.

5 Ranking our generous alumni boosted us to when it comes to alumni giving participation among national universities per *U.S. News & World Report*, 2013.

### III. Category 7 - Organizational Performance Results

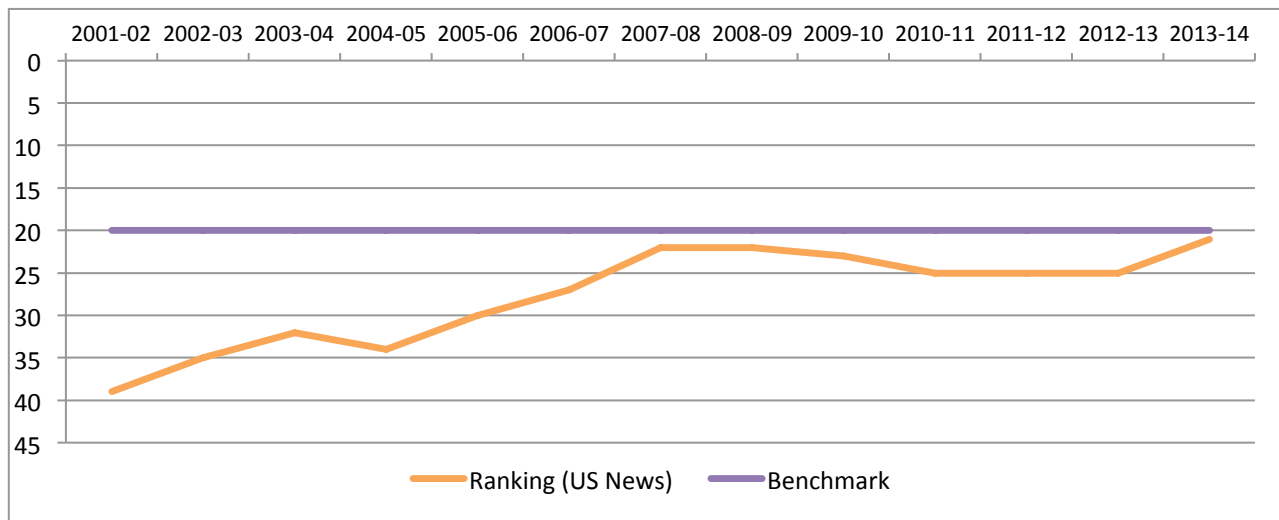
Performance measures associated with the University's three key areas are aligned with the teaching, research and service missions of the institution. Additionally, achieving top-20 public institution recognition by *U.S. News & World Report* continues to be a primary measure of benchmarked success.

#### 7.0 Top-20 Public Institution

Clemson University continues to make progress toward recognition as a top-20 public institution by *U.S. News & World Report*.

#### 7.0-1 Strides Toward the Top 20

It is Clemson's goal to achieve top-20 recognition: this will demonstrate the institution's unique organizational performance. This measure of achievement continues to be a key benchmark, along with elements that contribute to this measure. Clemson University was ranked number 21 in Top Public Schools by *U.S. News and World Report* for 2013-2014.



**The following section is divided into four parts that correspond to the 2020 Road Map Strategic Priorities:**

- 7.1: Enhance student quality and performance
- 7.2: Provide engagement and leadership opportunities for all students
- 7.3: Attract, retain and reward top people
- 7.4: Build to compete — facilities, infrastructure and technology

## 7.1 Enhance Student Quality and Performance

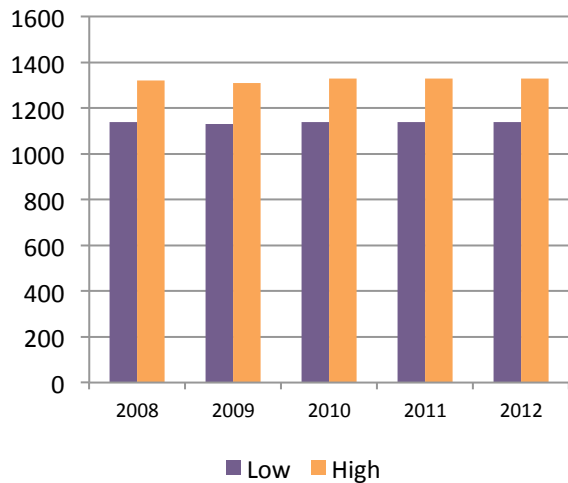
Improvements in student learning programming contribute to overall academic success, increased retention, maintaining LIFE and other scholarships, greater participation in learning opportunities, and increased graduation rates.

### Quality of the Freshman Class

Tables 7.1-1 and 7.1-2 report Clemson's progress in increasing the quality of the freshman class measured by mean SAT/ACT scores, rankings in the top 10% of high school classes, and the institution's acceptance rate. The ACT Institutional Data File 2010 reports that SAT/ACT scores for selective institutions range 1030-1220, placing Clemson at the higher end with an average SAT score range of 1140-1330 in 2010. The percentage of freshmen in the top 10% of their class based on the ACT definition of selective institutions is 25%. For Fall 2012, 1,795 of this year's freshmen graduated in the top 10% of their high school class. This represents 52% of the freshman class. The average SAT score for Fall 2012 class was 1246, the highest in Clemson history. The acceptance rate for first-time, full time freshmen in Fall 2012 was 58%.

The 2012-13 total of 18,500 applications was the largest in Clemson's history, and represented a nine-percent increase in applications versus 2011. Applications were received from students in 47 states, the District of Columbia, Puerto Rico, US Virgin Islands, and 35 foreign countries. In-state applications increased by three percent, while out-of-state applications increased by twelve percent. The top sources of out-of-state applications were: North Carolina (1,987), Georgia (1,620), Virginia (1,045), Maryland (903), New Jersey (872), Florida (680), Massachusetts (610), Pennsylvania (537), New York (505), and Tennessee (378).

**7.1-1 SAT /ACT Scores**



**7.1-2 Acceptance Rate/Top 10% of High School Class**

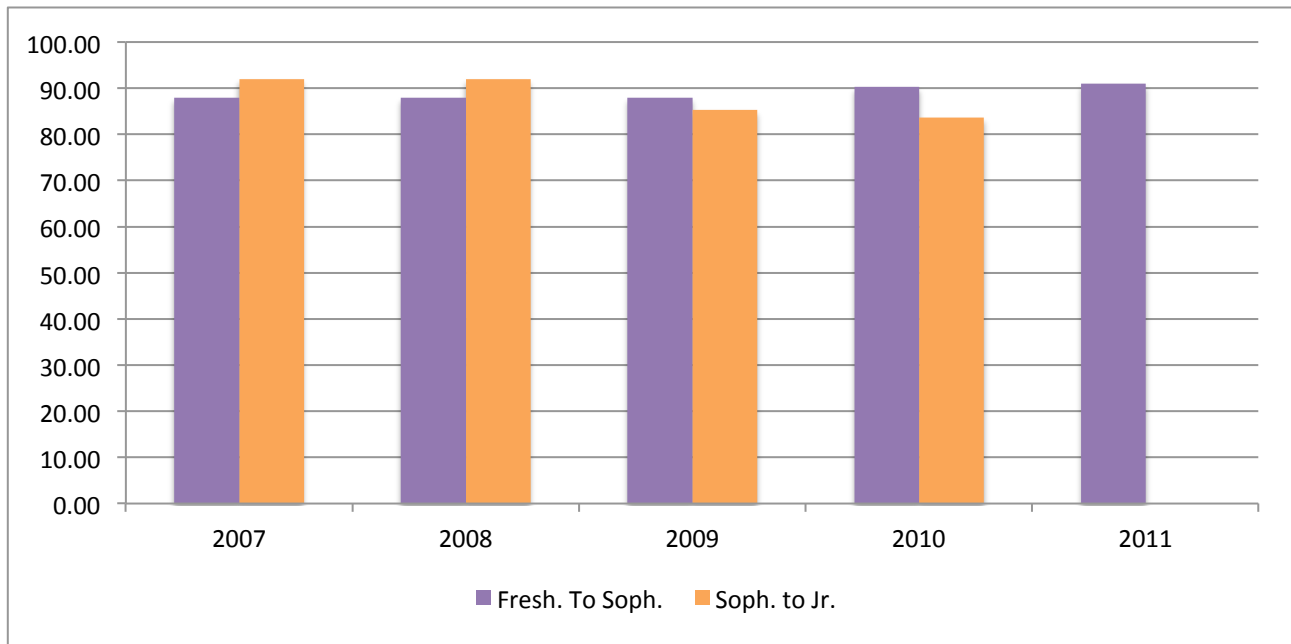


### Fall-to-Fall Cohort Retention

Attracting and retaining undergraduate students continues to be a major focus for the institution. Since the 2003-04 academic year, Clemson has improved undergraduate retention. Clemson's benchmark for retention is 95%. Over 90% of freshmen continue as sophomores (90.5% for the 2008 cohort).

According to the 2012 ACT Institutional Data File, the average first-to-second-year persistence rate for public Ph.D.-granting institutions is 76.7%. The mean percentage of first-to-second-year persistence rates for selective institutions is 83.3%, a rate that Clemson clearly exceeds.

#### 7.1-3 Freshman to Sophomore and Sophomore to Junior Retention\*

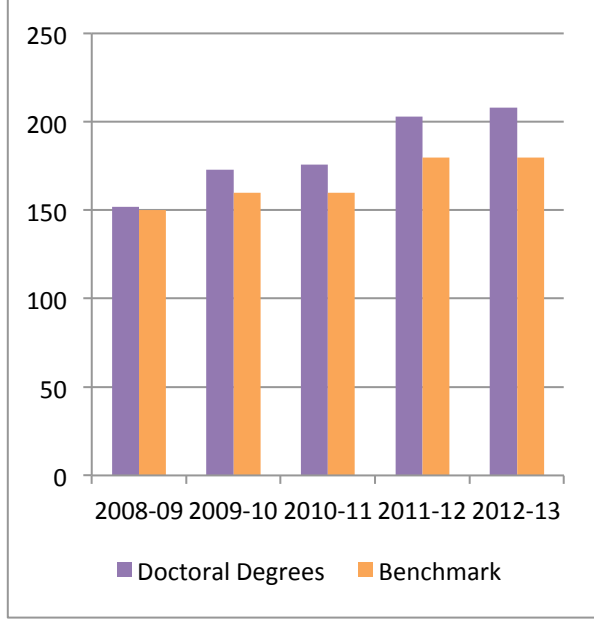


\*Third-year retention data for 2011 cohort not yet available.

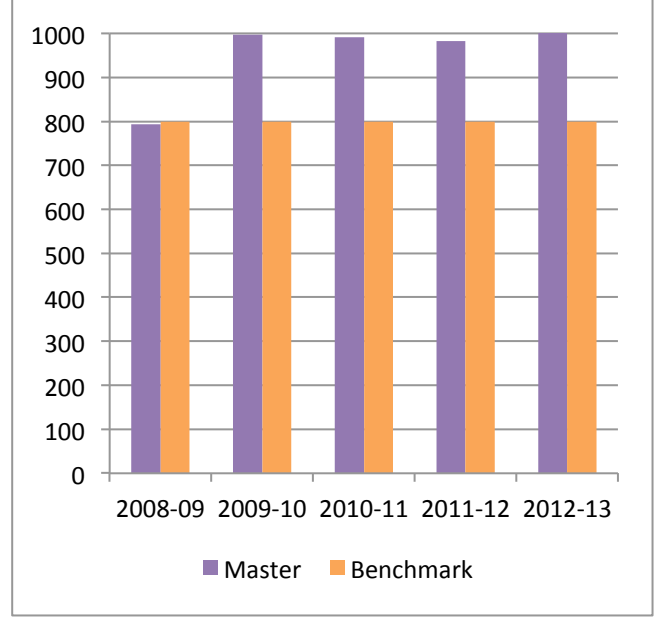
## Degrees Awarded

Clemson University awards degrees to graduates at three ceremonies during the year. The number of doctoral degrees awarded has increased significantly in the past three academic years.

**7.1-4 Doctoral Degrees (Ph.D.)**

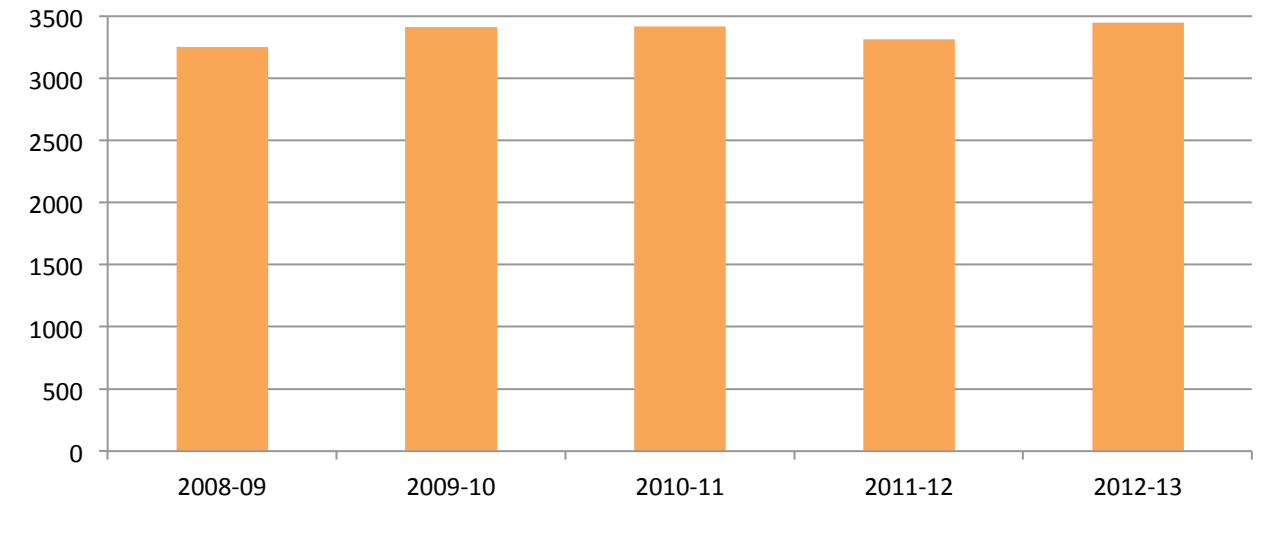


**7.1-5 Masters and Education Specialists Degrees**



## 7.1-6 Baccalaureate Degrees

After large enrollment of freshmen undergraduate students in the late 1990's, the University made a decision to hold freshmen enrollment to approximately 2,800 new students per year. The goal has remained the same until the last several years when it was adjusted to approximately 3,000 freshmen. In the 2012-13 academic year, 3449 baccalaureate degrees were conferred. The University's benchmark is to graduate no less than 85% of each student cohort.



### 7.1-9 Clemson University Research Awards and Expenditures

Clemson University’s Mission and 2020 Road Map (strategic plan) guide the outcomes of the University’s research activities. The goal statement is:

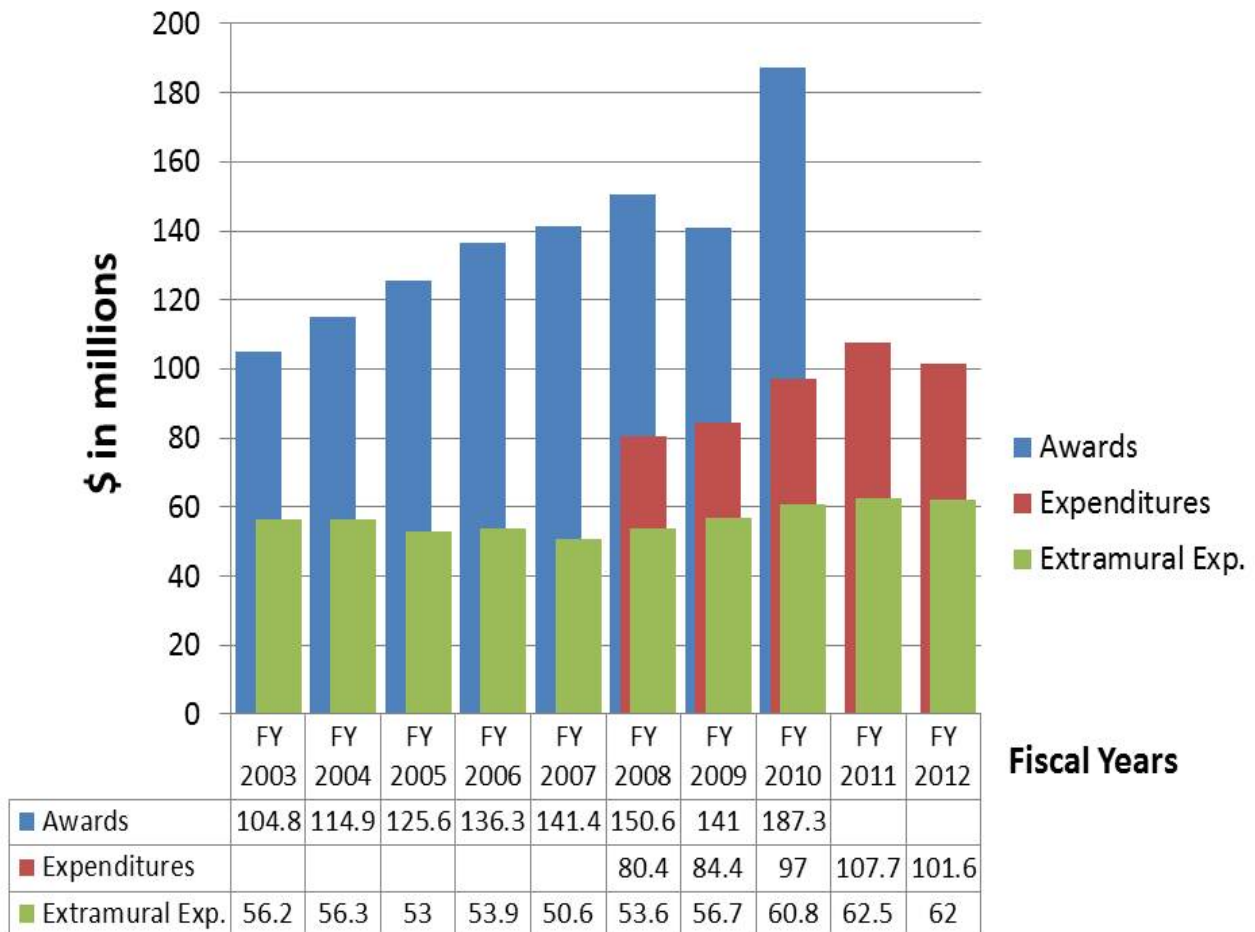
*Drive innovation, through research and service that stimulates economic growth, creates jobs and solves problems.*

2020 Specific Objectives related to research are:

1. Increase research expenditures to \$100 million (revised 1/31/2013 from increased by 50%).
2. Hire 100\* new faculty members with increased funding in five focus areas. (\*increased from 86 in the original documents)
3. Increase government, university and industry partnerships.

The University has also set goals in the “Clemson 2020” strategic plan to enhance research investment in five focus areas, energy and the environment (sustainability), health, and transportation, materials science, and information technology. These goals were set after consultation with every department of the University as part of the development process for the 2020 Road Map (strategic plan).

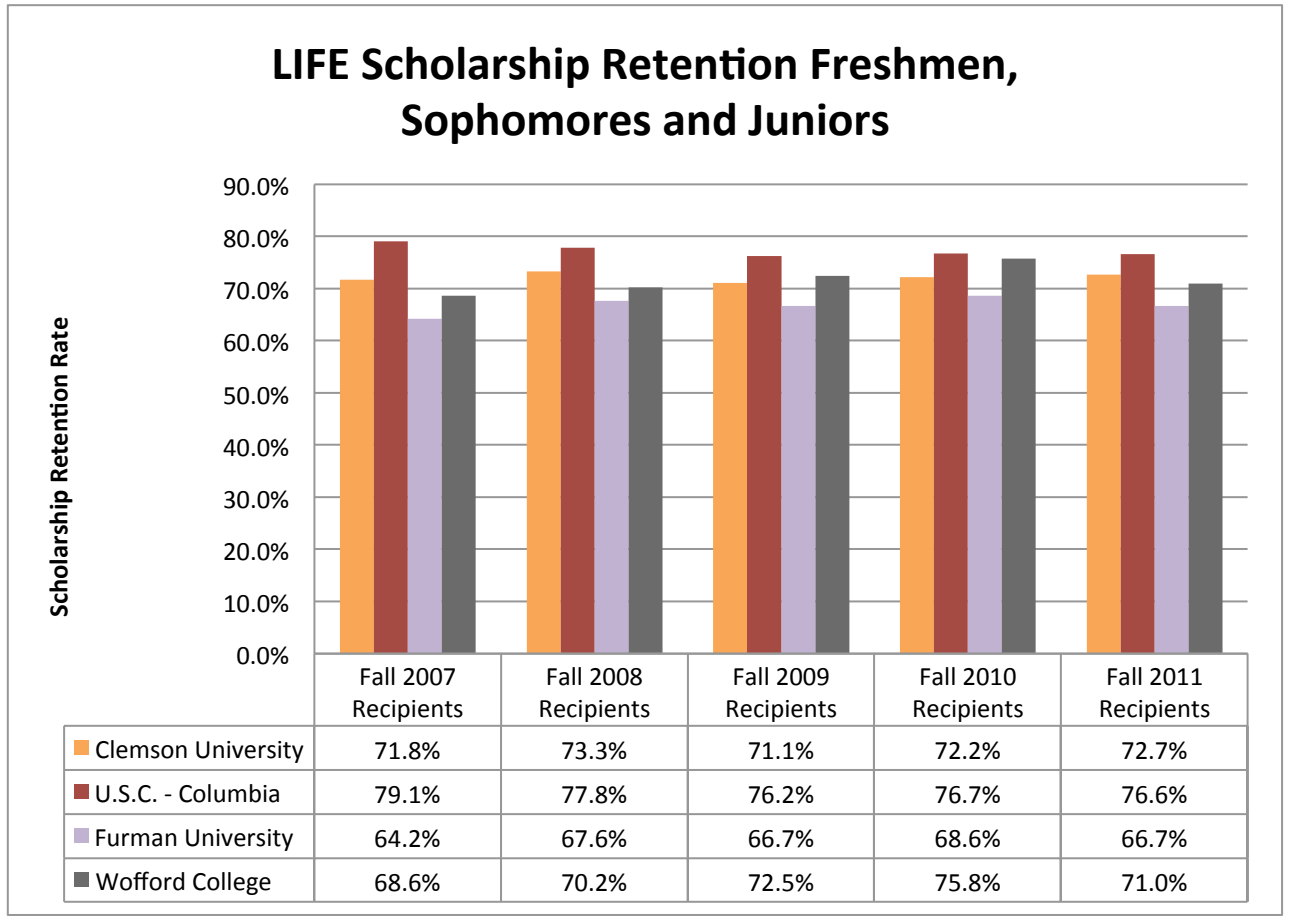
**CU Award & Research Expenditure Data 2003 - 2012**



Extramural Exp. = Fund 20: grants, contracts, and cooperative agreements funded by federal, state, and local government agencies, private and publicly held companies/corporations,<sup>3</sup> domestic and international foundations, and individuals. These have a scope of work with defined R&D activities as well as deliverables as defined by the grant, contract, or cooperative agreement.

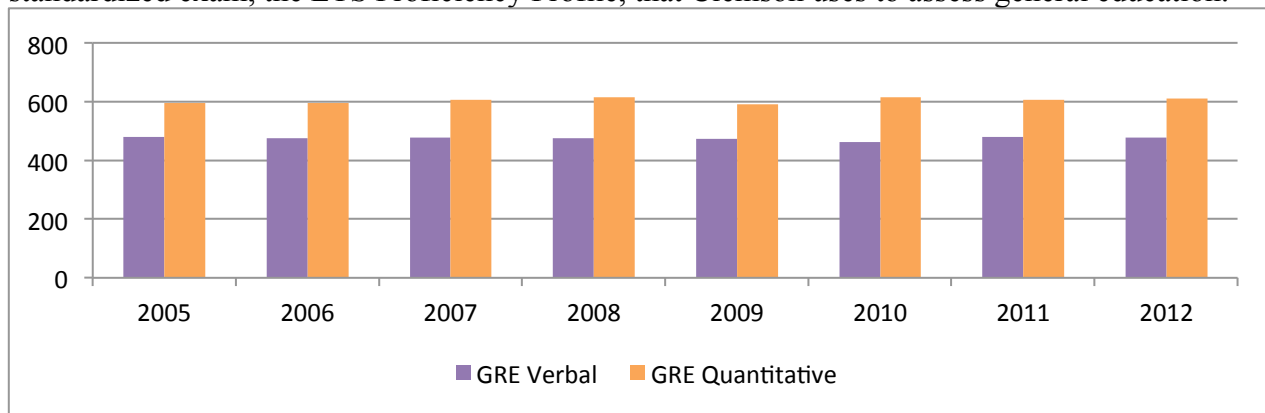
### 7.1-10 Retention of LIFE Scholarships\*

The percentage of undergraduate students at Clemson who retain their LIFE scholarship from their freshmen to their sophomore year continues to increase. The ability to maintain LIFE scholarships and the retention of students is closely monitored. One of the services offered by Clemson is the Academic Success Center (ASC), which enhances student success through tutoring, supplemental instruction, disability services and other instructional programs.



### 7.1-11 University-wide GRE Performance

The Graduate Record Examination (GRE) provides insight on the general performance of students who select to take the examination. The exam may be taken by either undergraduate or graduate students, and may be taken multiple times. In addition to quantitative and verbal sections of the exam, students take a writing exam. The scale for this section is not the same as the other two scales, so results are not included in the chart below. Clemson students continue to perform at a higher rate on the quantitative section of the GRE. This is a consistent finding with the other standardized exam, the ETS Proficiency Profile, that Clemson uses to assess general education.



### 7.1-12 Standardized Test: Principles of Learning and Teaching and Specialty Area Tests

Education students must take and pass both the Principles of Learning and Teaching and their specialty area test before a grade can be awarded for student teaching or an Initial Certification can be granted. Typically, these two tests are taken prior to the senior year. The following table displays the percentage of first-time students passing the examinations.

#### PRAXIS II Examination Pass Rates: Initial Teacher Certification Program Completers 2011-12<sup>1</sup>

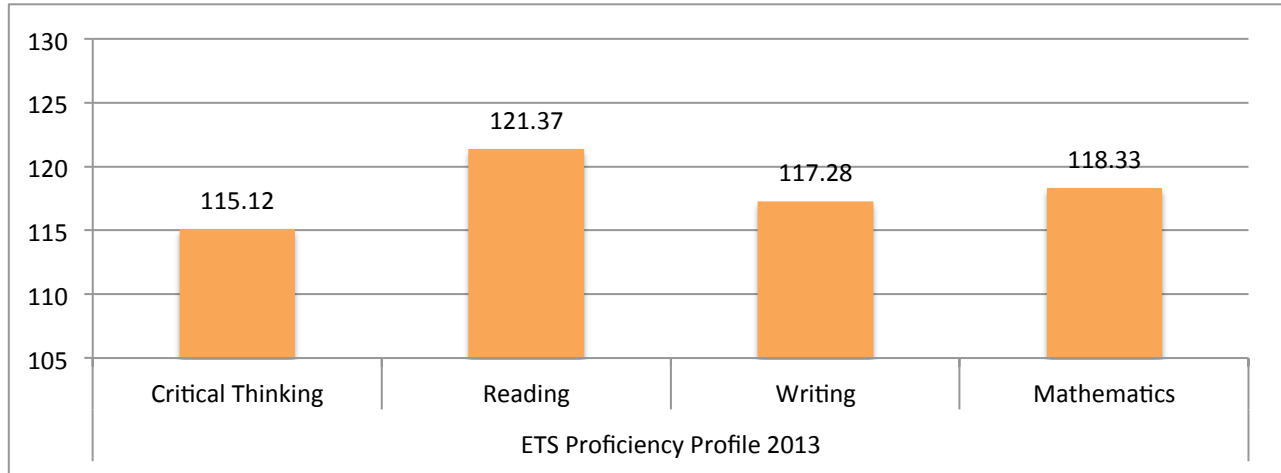
Name of Exam	Date(s) Administered	# of Examinees	# of Examinees who Passed	% Examinees Passing
PRAXIS SERIES II: PRINCIPLES OF LEARNING & TEACHING (K-6)	Bi-monthly	129	128	99%
PRAXIS SERIES II: PRINCIPLES OF LEARNING & TEACHING (5-9)	Bi-monthly	39	37	95%
PRAXIS SERIES II: PRINCIPLES OF LEARNING & TEACHING (7-12)	Bi-monthly	79	77	97%
PRAXIS SERIES II: SPECIALTY AREA TESTS	Bi-monthly	256	241	94%

<sup>1</sup>TITLE II HEA Report, April 2013.



**Table 7.1-13(a) Increase Critical Thinking, Writing, and Mathematics proficiency scores from freshman to senior year as measured by the ETS Proficiency Profile.**

The skills measured by the ETS Proficiency Profile are grouped into proficiency levels. In the Spring, 2013 administration, 540 Clemson seniors participated. The possible range of subscores is 100-130. Clemson seniors score significantly above the national average for mathematics and above the national average for critical thinking, reading, and writing.



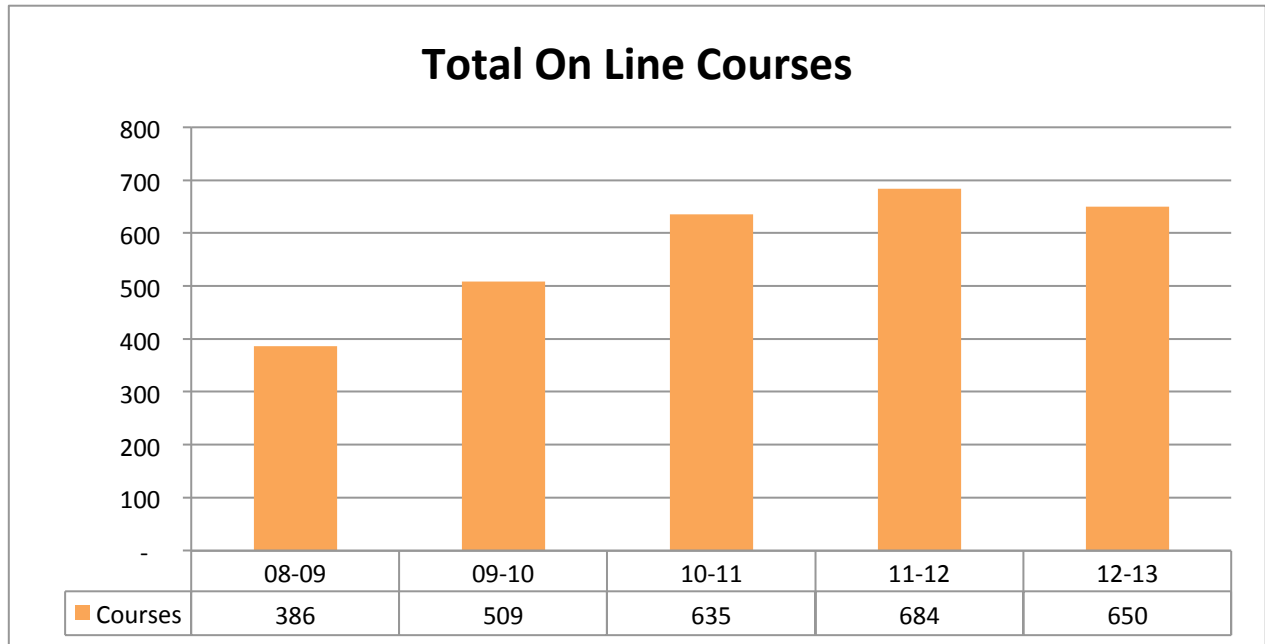
**Table 7.1-13(b) Four Year ETS Proficiency Profile Performance**

**ETS Proficiency Profile: Summary of Scaled Scores 2008-2012**

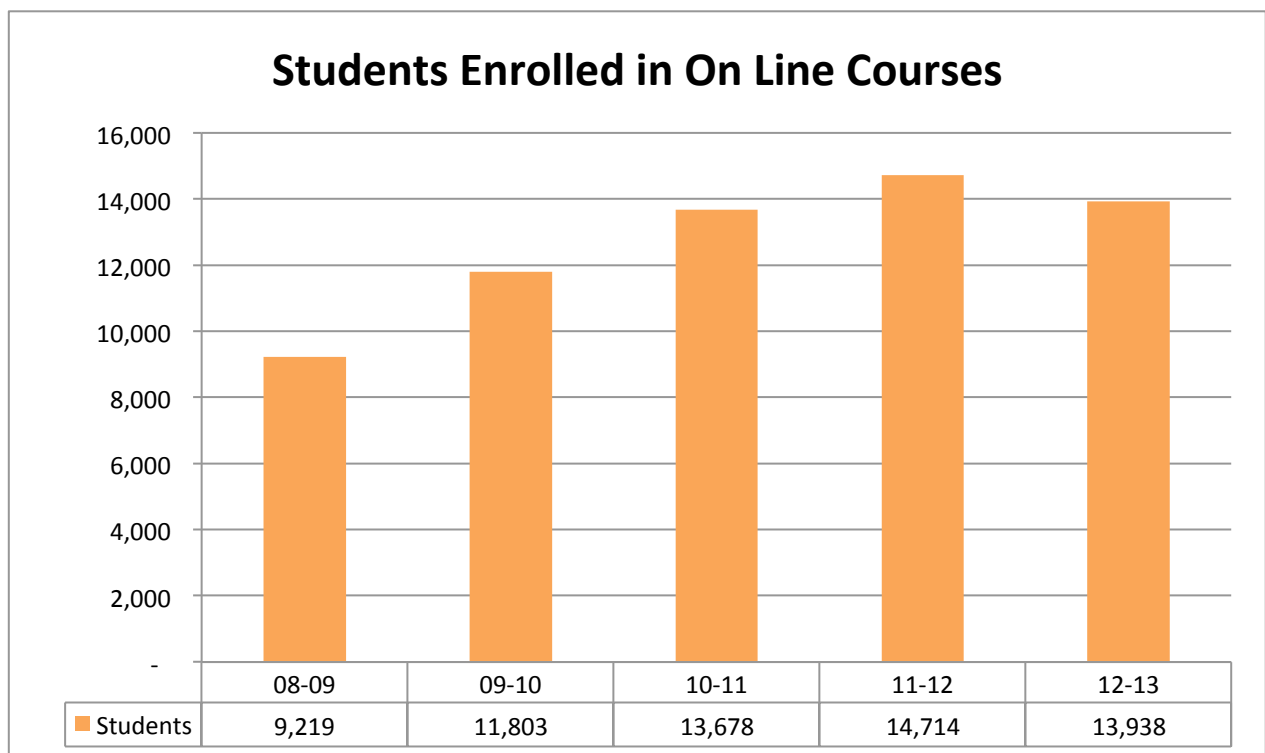
Academic Year	Class	Overall Score	Critical Thinking	Reading	Writing	Mathematics	Humanities	Social Sciences	Natural Sciences
2011-12	Freshmen	457.29	114.95	121.17	116.45	117.5	117.27	116.29	118.14
	Seniors	457.53	115.03	120.85	116.18	118.11	117.42	116.31	117.77
2010-11	Freshmen	451.51	113.12	119.88	116.13	115.55	116.31	114.79	116.83
	Seniors	457.78	115.3	121.05	116.31	117.58	119.96	116.21	117.99
2009-10	Freshmen	449.07	112.65	119.36	115.37	114.95	115.93	114.28	116.47
	Seniors	457.26	114.75	120.96	116.26	117.81	117.29	116.36	117.74
2008-09	Freshmen	450.36	113.03	119.61	115.77	115.30	116.11	114.68	116.66
	Seniors	459.22	115.42	121.52	116.36	118.35	118.01	116.84	118.07

**Table 7.1-14(a) On Line Courses**

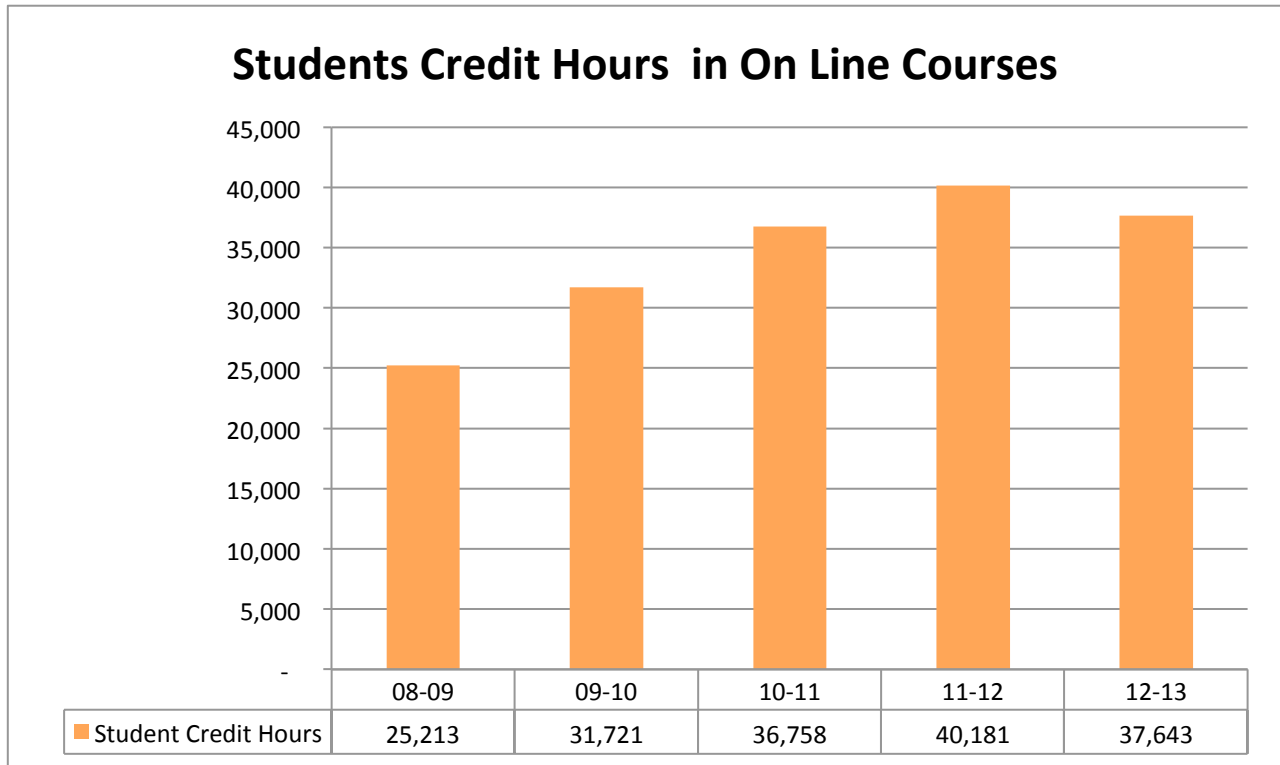
Clemson University is committed to providing the highest quality and most accessible education for its students. One aspect of this is the growth of on line courses. In the 2012-13 academic year a Director of On Line Education was hired to oversee the University's efforts in this area.



**Table 7.1-14(b) Students Enrolled in On Line Courses**

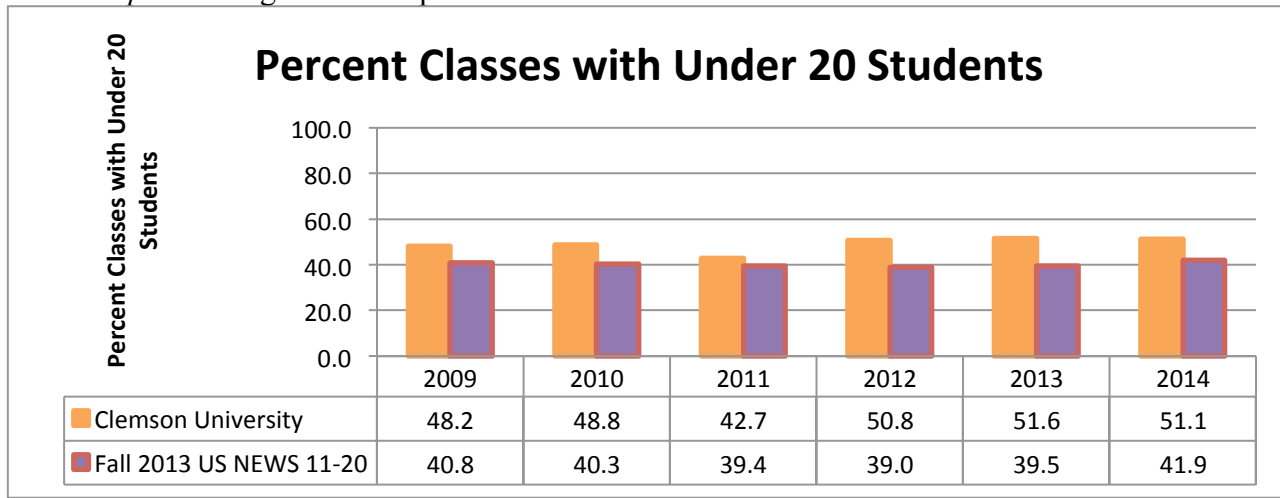


**Table 7.1-14(c) Student Credit Hours in On Line Courses**



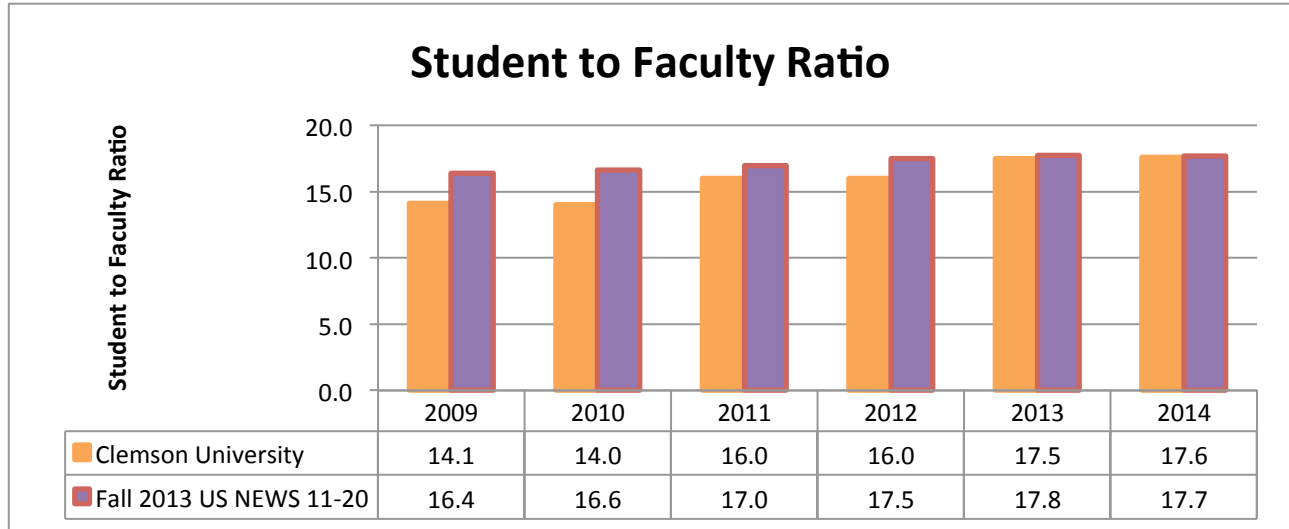
**7.1-15 Undergraduate Class Size**

Clemson values the atmosphere of being a “family” and part of a community. One element that contributes to this sense of caring is providing more interaction between faculty and students and the size of a class. Clemson continues to strive toward improvement in reducing the class size for undergraduate classes by increasing the percentage of all class sections with less than 20 students, and reducing the percentage of all class sections with more than 50 students. A smaller class size allows greater faculty interaction with students. Clemson University exceeds the *US News and World Report* average in this important area.



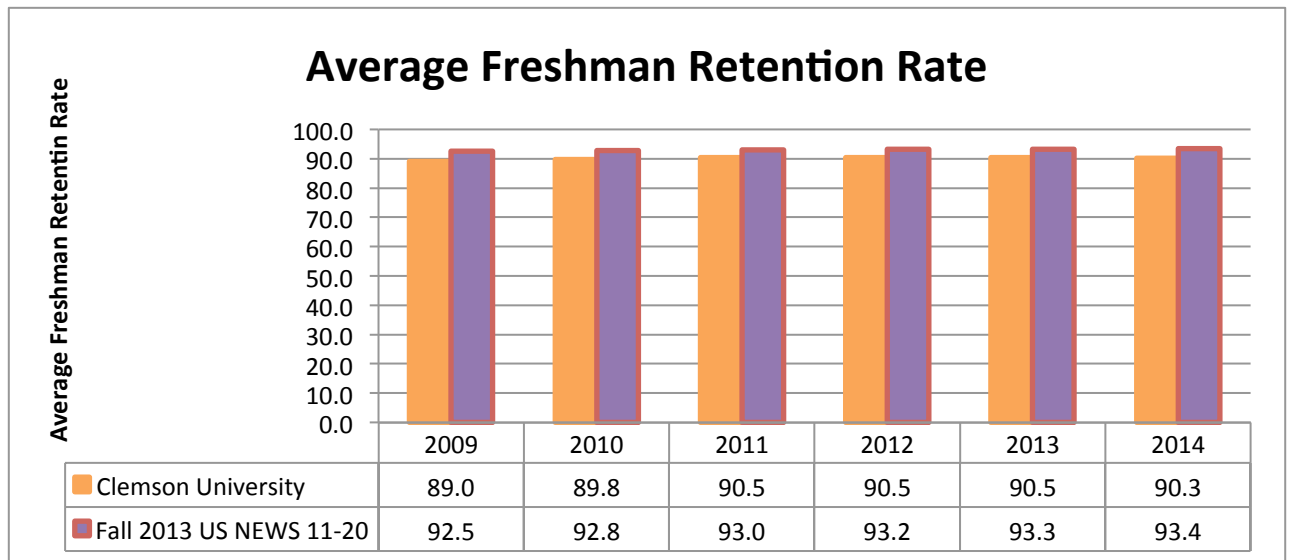
### 7.1-15 Ratio of Students to Faculty

The ratio of faculty members to students is another indicator of the quality of the educational environment at Clemson. The table below compares Clemson’s performance to those of top-20 universities.



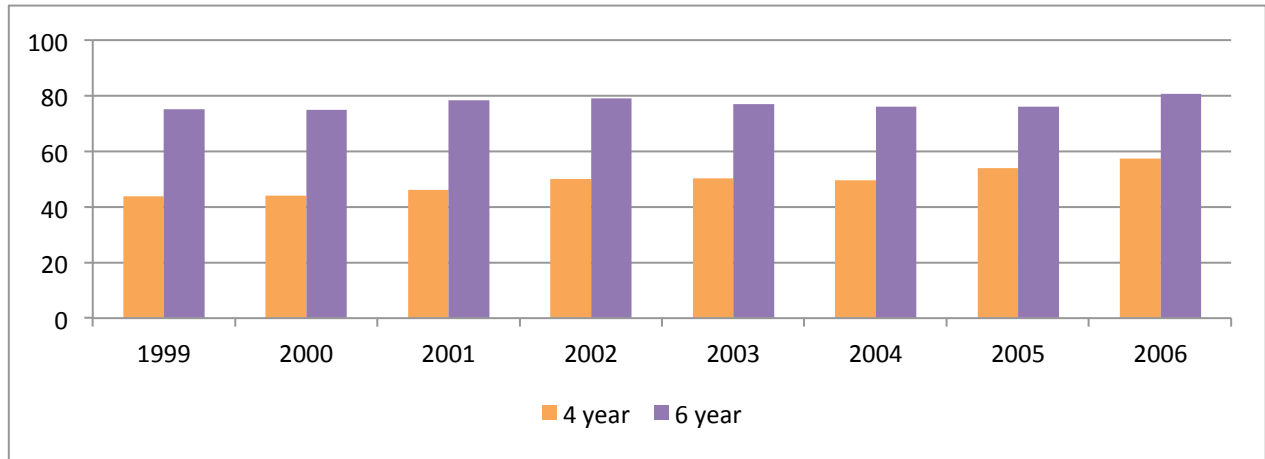
### 7.1-16 Retention Rates

Clemson has undertaken an extensive study of persistence patterns. The examination includes first-time, full-time students from the Fall, 1999 cohort. Demographic characteristics as well as indicators of engagement will comprise the longitudinal study. Additional data will enable examination of policies and practices to enhance retention rates. Clemson clearly demonstrates an extraordinarily high persistence rate of above 90% among national public universities. The table below compares Clemson’s retention rate to those of top-20 universities.



### 7.1-17 Graduation Rates

In addition to the study of retention rates, the University is examining graduation rates of first-time, full-time students. The progression of students through their course work culminates in graduation. Effective and efficient practices may assist students in achieving graduation in a timely manner. Clemson values the importance of monitoring time-to-graduation, and will use findings from on-going analyses to improve graduation rates.



## 7.2 Provide Leadership and Engagement Experiences for all Students

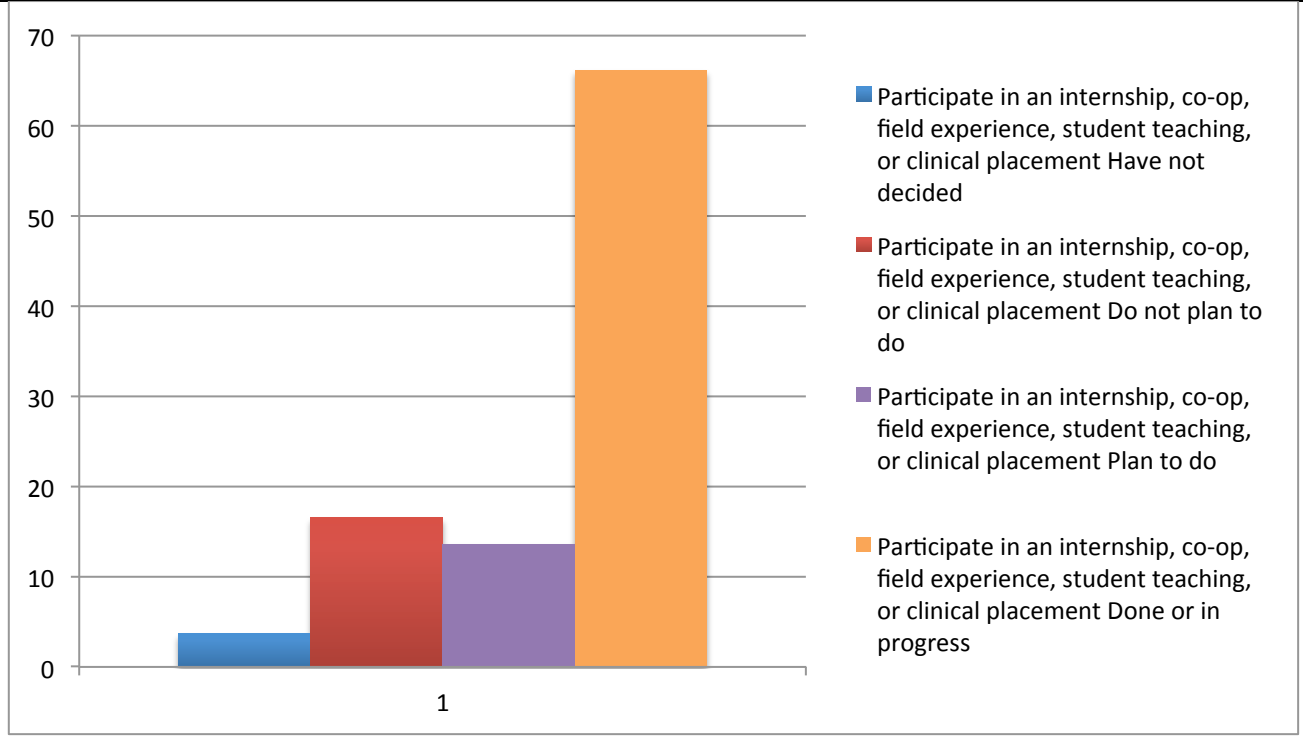
### Learning Outside of Classrooms

To enhance the educational experience beyond the classroom, undergraduate students are able to participate in residential communities, service learning and research projects.

#### 7.2-1 Community Service and Service Learning Co-Ops, and Internships\*

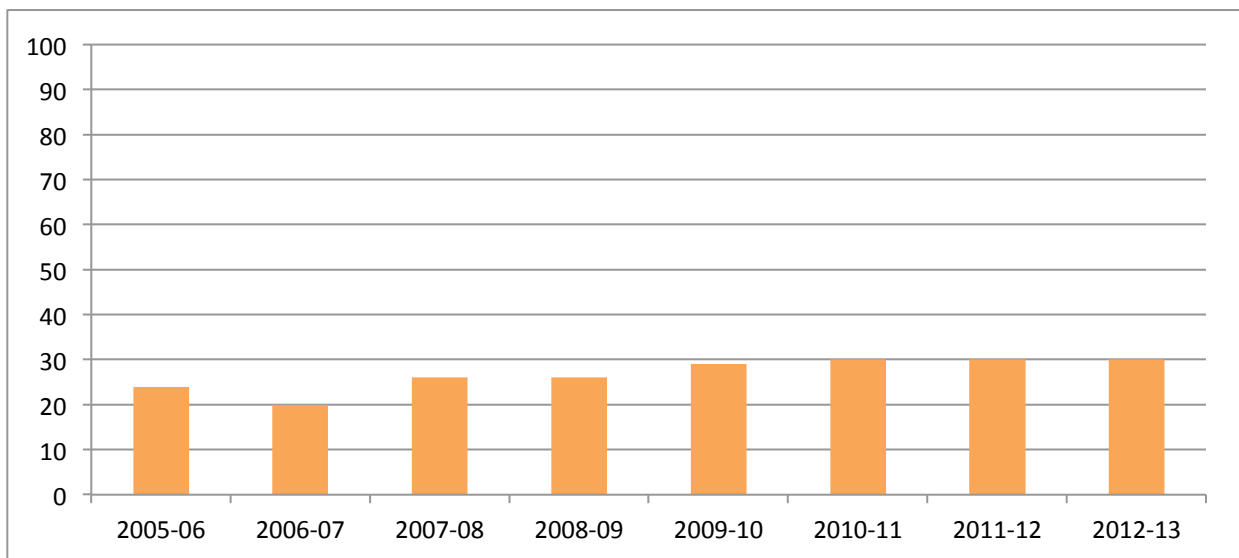
The National Survey of Student Engagement (NSSE) asks seniors about their participation in internships, co-ops, field experiences, student teaching, and clinical placements. Table 7.1-15(a) illustrates the level of involvement of Clemson students in these activities. Clemson recognizes the importance of activities beyond the classroom. Clemson adopted the benchmark for success to qualify for the classification of a Carnegie Engaged University. Clemson [achieved that status in 2009](#). Table 7.1-15(b) shows the percentage of seniors who have participated in learning communities during their time at Clemson.

**7.2-1(a) Participated in an internship, co-op, field experience, student teaching, or clinical placement**



**7.2-1(b) Learning Communities\***

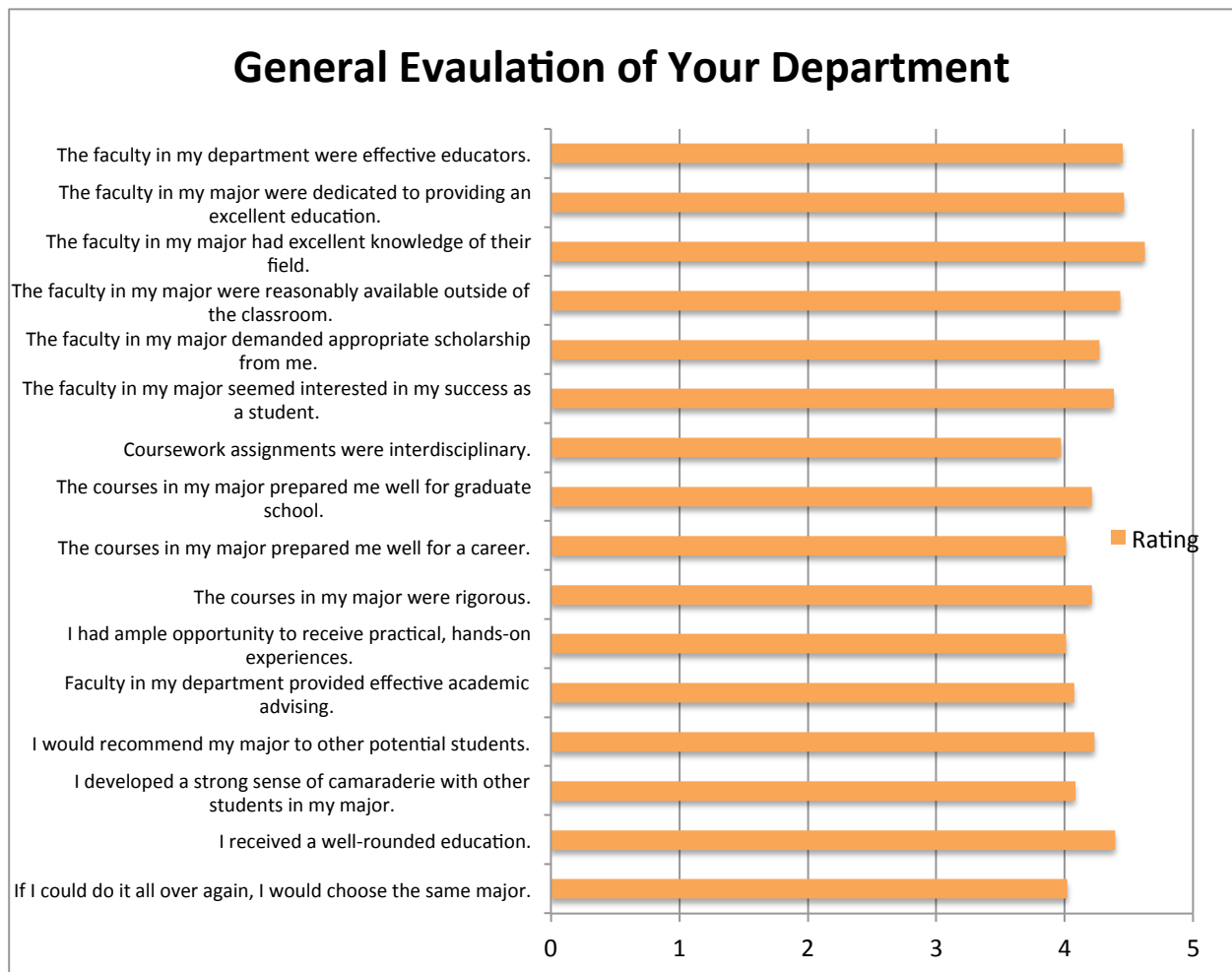
Clemson University continues to provide opportunities to students outside of the classroom. In recent years, learning communities have been successful components of student experiences and engagement. The number of students responding to National Survey of Student Engagement (NSSE) and participating in a learning community increased significantly in 2007. Clemson has received recognition for its Living and Learning Community programs. The benchmark for success will be continued recognition of Clemson’s programs.



## 7.2-2 Alumni Surveys

Each year the institution conducts a survey of alumni to assess opinions about their overall experience at Clemson. The engagement of students at all levels in their overall Clemson experience and the development of leadership skills are areas covered by the survey. All alumni are surveyed at one- and three-year intervals. In addition to general questions, targeted departmental questions regarding the curriculum are sent to alumni. For the first time, the alumni survey was conducted over the Web in Fall, 2009. The survey instrument itself has been improved to be program-centric, which allows individual programs to more closely follow the opinions and experiences of their alumni. Beginning with the 2010 administration, the survey was further enhanced to satisfy the reporting requirements of outside accrediting agencies such as ABET (Accreditation Board for Engineering and Technology). The following three tables show the response to questions.

### 7.2-2(a) Alumni One and Three Years Out: *General Evaluation of Your Department*

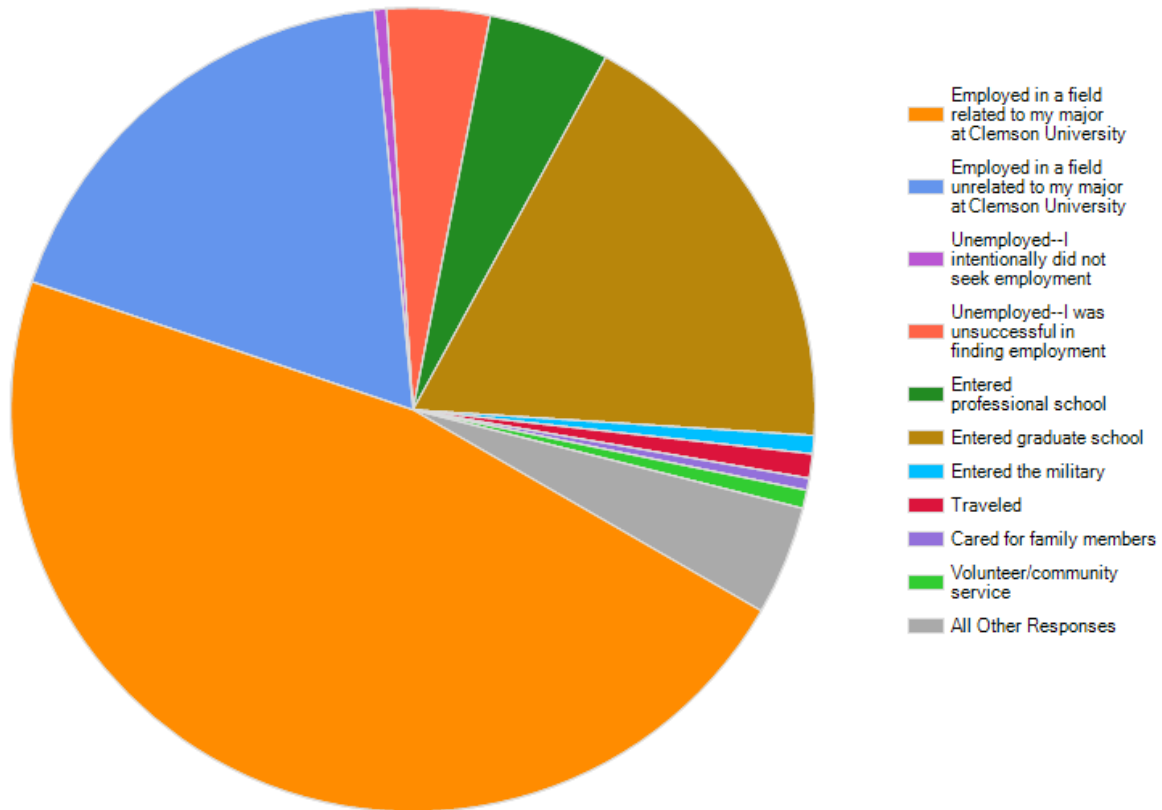


When asked to indicate their agreement on a scale of 1- Strongly Disagree to 5-Strongly Agree, Clemson alumni have historically indicated their knowledge, skills and abilities are comparable to peers. Clemson desires to continuously increase positive responses from alumni on their perception of preparation and to ensure the best educational experience possible.

**7.2-2(b) Alumni One Year Out:** “What was your primary employment status or activity during your first year after graduating from Clemson University?”

Clemson University prides itself on its ability to provide students a superior level of education and the leadership skills that make them extremely competitive in the workplace. As may be seen in the chart below, 47% of Clemson 2011-12 graduates were employed in a field related to their major.

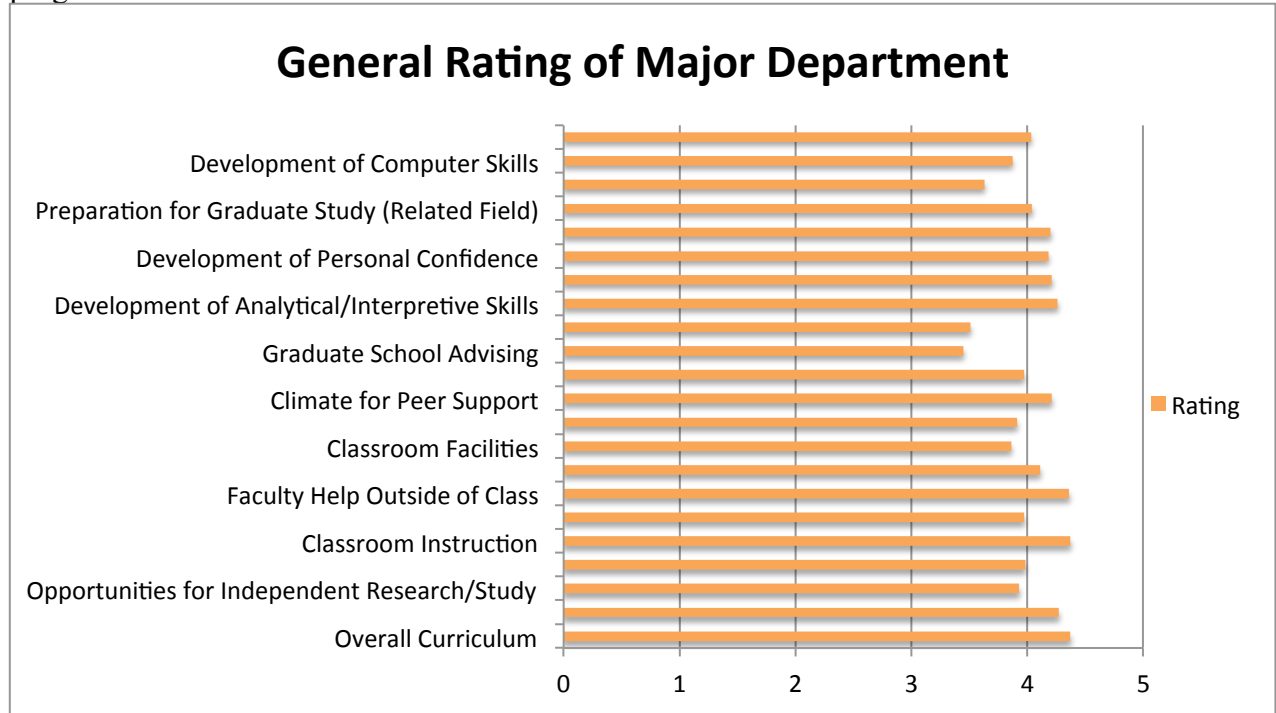
**What was your primary employment status or activity during your first year after graduating from Clemson University?**





**7.2-2(c) Alumni One and Three Years Out:** “Please provide a general rating of your department in the following areas”

When asked to indicate their agreement on a scale of 1-Not at All to 5-Strongly Agree, Clemson alumni have historically indicated satisfaction with their academic program As seen in the graph below from the 2013 alumni survey, students expressed a strong overall positive opinion of their program.

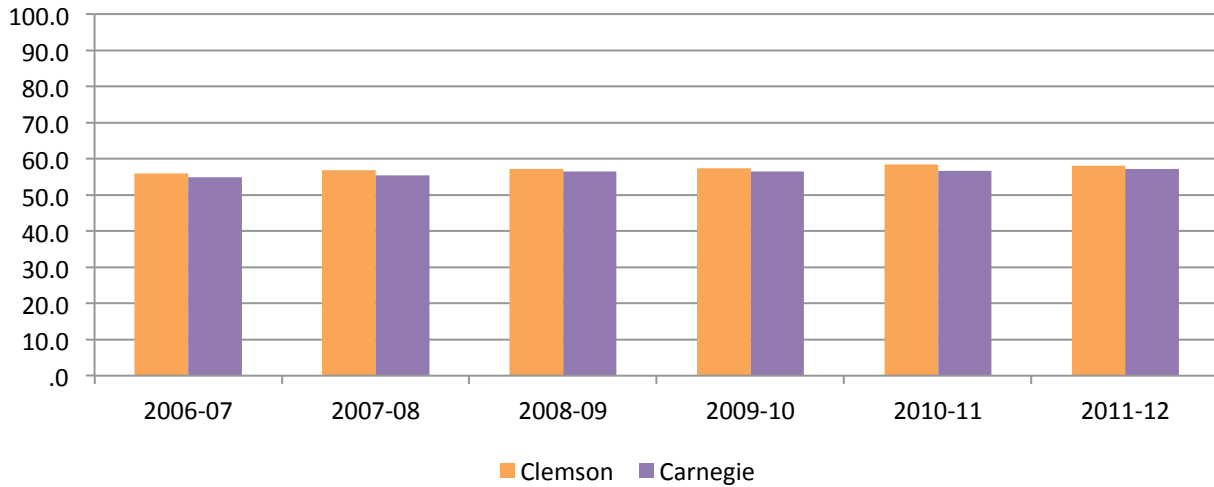


**7.2-3 Student Engagement: National Survey of Student Engagement**

The National Survey of Student Engagement (NSSE) measures student engagement in campus activities and programming. As such, NSSE is an important tool in assessing Clemson’s progress toward the 2020 Road Map objective: Provide Leadership and Engagement Experiences for all Students. The university has participated in NSSE for seven years. Clemson monitors and analyzes student responses for trends and seeks areas for improvement. In the NSSE Report, “Exploring Different Dimensions of Student Engagement,” Clemson University freshmen and senior responses are statistically compared against other students from selected peer and Carnegie Classification peer institutions. In 2005 the comparison consisted of *doctoral extensive institutions* rather than Carnegie peers. Of the five benchmarks for effective educational practice, Clemson students’ responses are statistically significantly higher than both groups. Clemson exceeded both groups for most of the items comprising each benchmark.

**Table 7.2-3(a) Level of Academic Challenge (AC)**

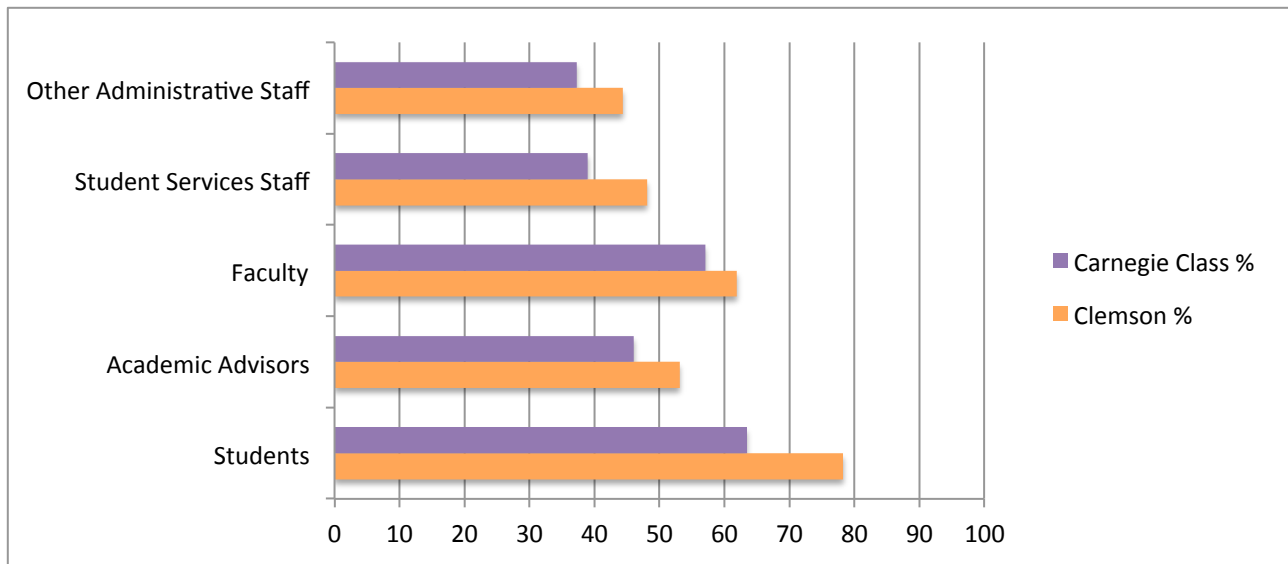
Challenging intellectual and creative work is central to student learning and collegiate quality. Colleges and universities promote high levels of student achievement by emphasizing the importance of academic effort and setting high expectations for student performance. Clemson seniors traditionally have a higher mean score than the Carnegie peers. Clemson strives to meet or exceed the Senior AC scores for Carnegie Classification and top-20 peer institutions.



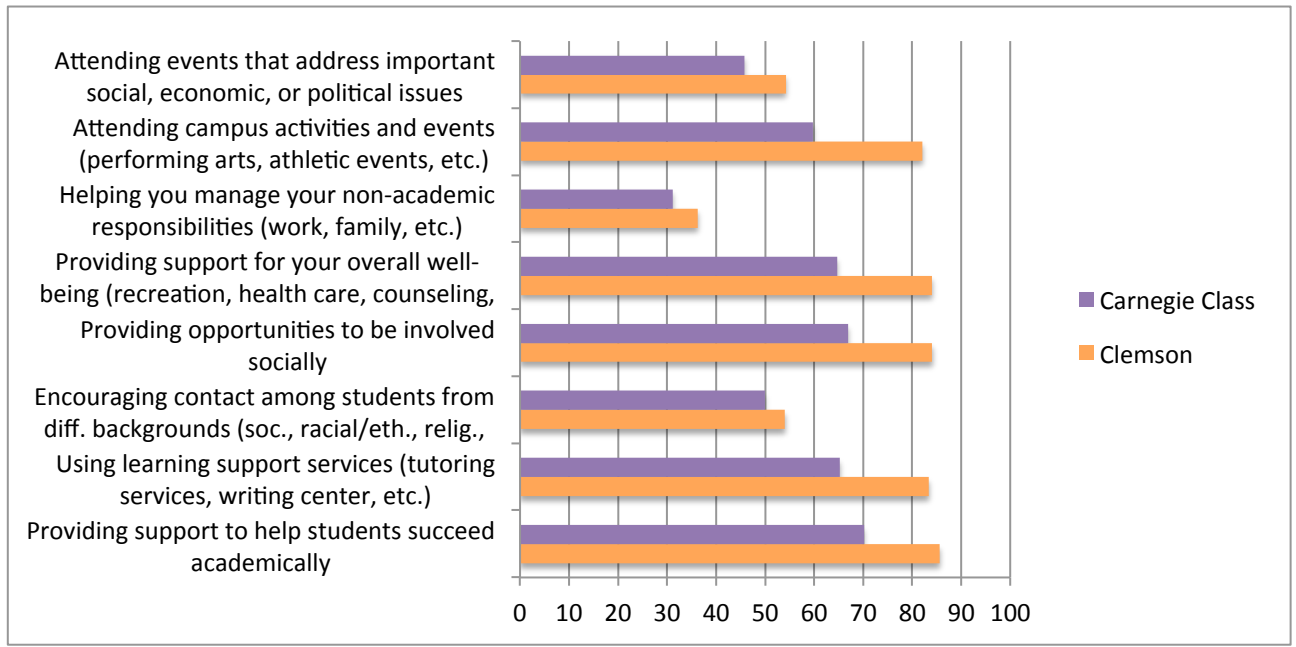
**Table 7.2-3(b) Campus Environment (CE)**

Students perform better and are more satisfied at colleges that are committed to their success. For the past five years, seniors at Clemson consistently score higher on this benchmark than their Carnegie Peers. Clemson strives to meet or exceed the Senior CE scores for Carnegie Classification and top-20 peer institutions.

**Quality of Interactions** (Percentage rating a 6 or 7 on a scale from 1="Poor" to 7="Excellent")

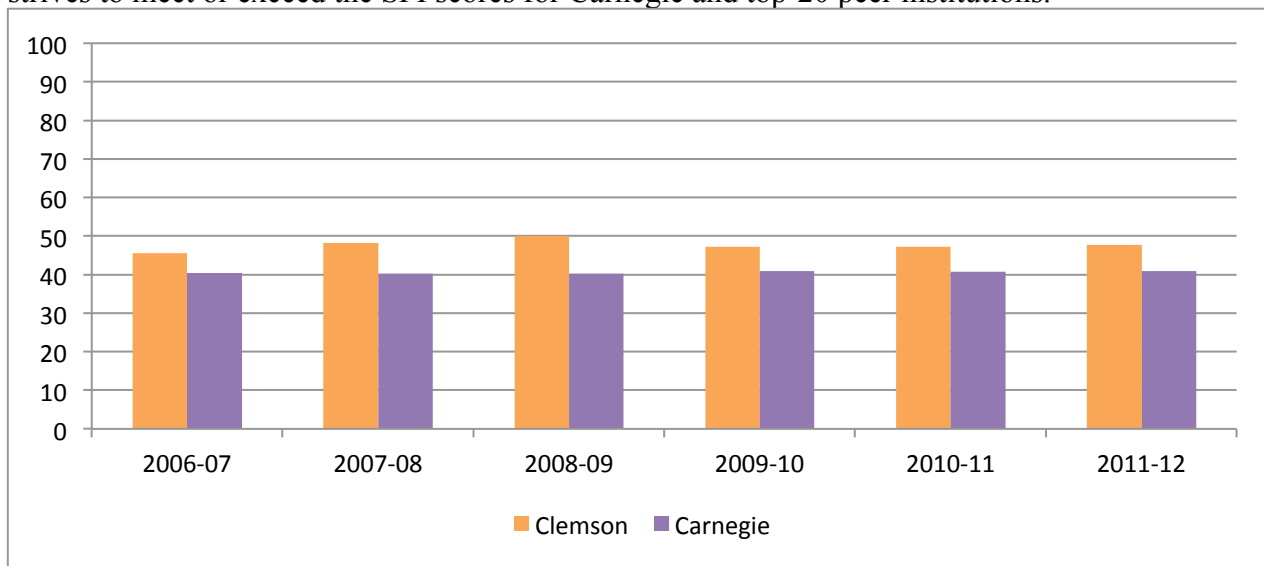


**Table 7.2-3(c) Supportive Environment** (Percentage rating a 6 or 7 on a scale from 1="Poor" to 7="Excellent")



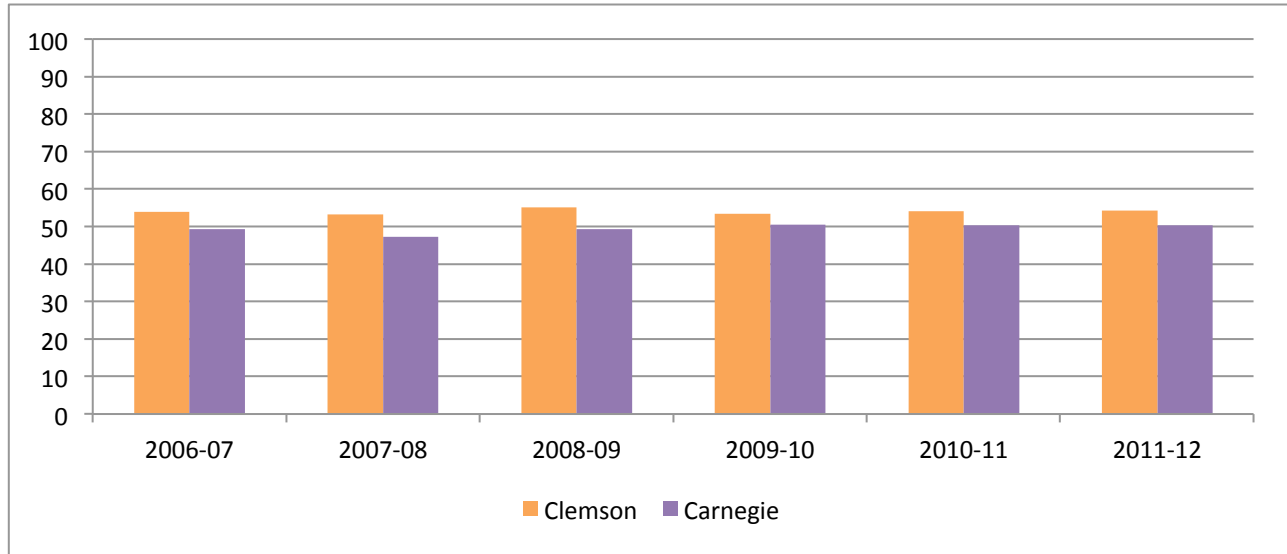
**Table 7.2-3(d) Student-Faculty Interaction (SFI)**

Students learn first-hand how experts think about and solve practical problems by interacting with faculty members inside and outside the classroom. As a result, their teachers become role models, mentors and guides for continuous, life-long learning. Overall, student-faculty interaction at Clemson is statistically significantly higher than Carnegie Classification Peers. The institution strives to meet or exceed the SFI scores for Carnegie and top-20 peer institutions.



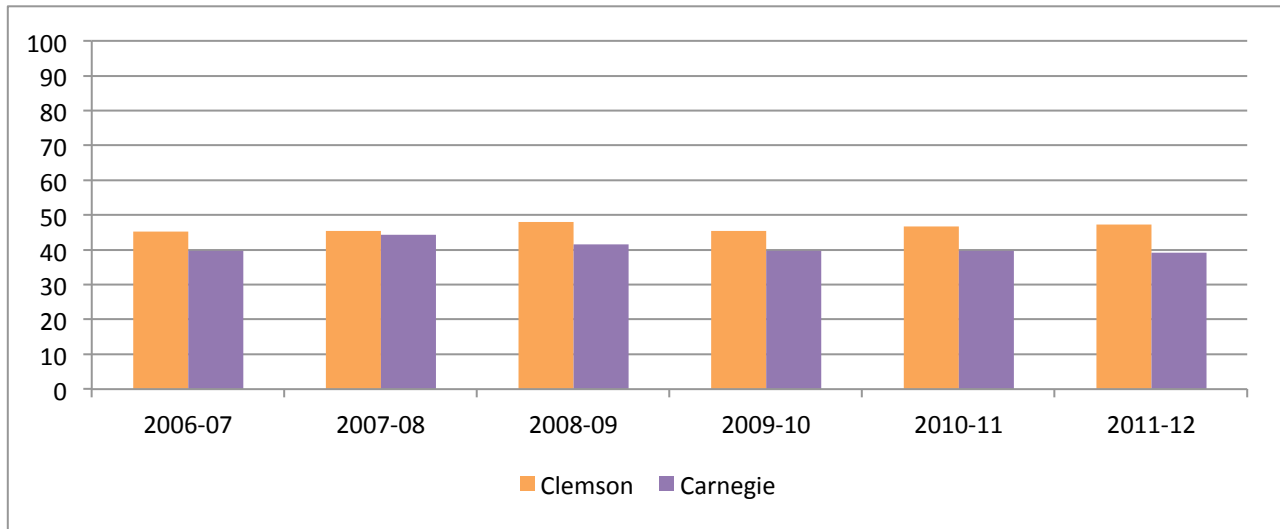
**Table 7.2-3(e) Active and Collaborative Learning (ACL)**

Students learn more when they are intensely involved in their education and asked to think about what they are learning. Collaborating with others in solving problems or mastering difficult material prepares students for the problems they will encounter during and after college. Seniors rated this benchmark statistically significantly higher than Carnegie Classification Peers. Clemson strives to meet or exceed the Senior ACL scores for Carnegie Classification and top-20 peer institutions.



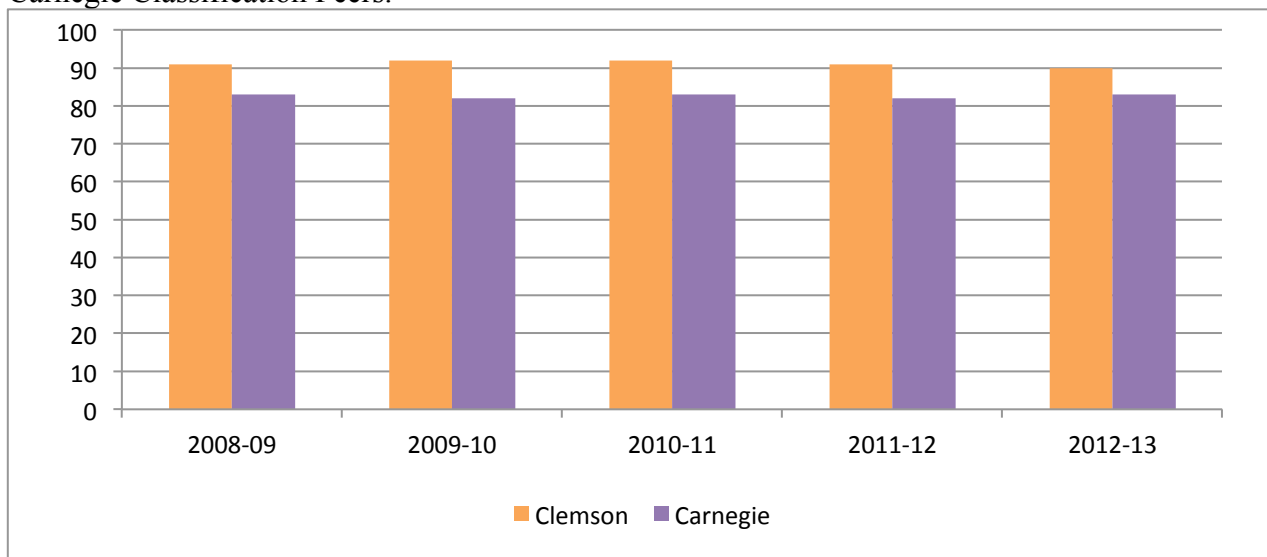
**Table 7.2-3(f) Enriching Educational Experiences (EEE)**

Academic programs are augmented by complementary learning opportunities in and out of class. Diversity experiences offer valuable life lessons to students. Technology facilitates collaboration between peers and instructors. Internships, community service and senior capstone courses provide opportunities to integrate and apply knowledge. Overall, seniors at Clemson have had statistically significantly higher responses than Carnegie Classification Peers. The institution strives to meet or exceed the Senior EEE scores for Carnegie Classification and top-20 peer institutions.



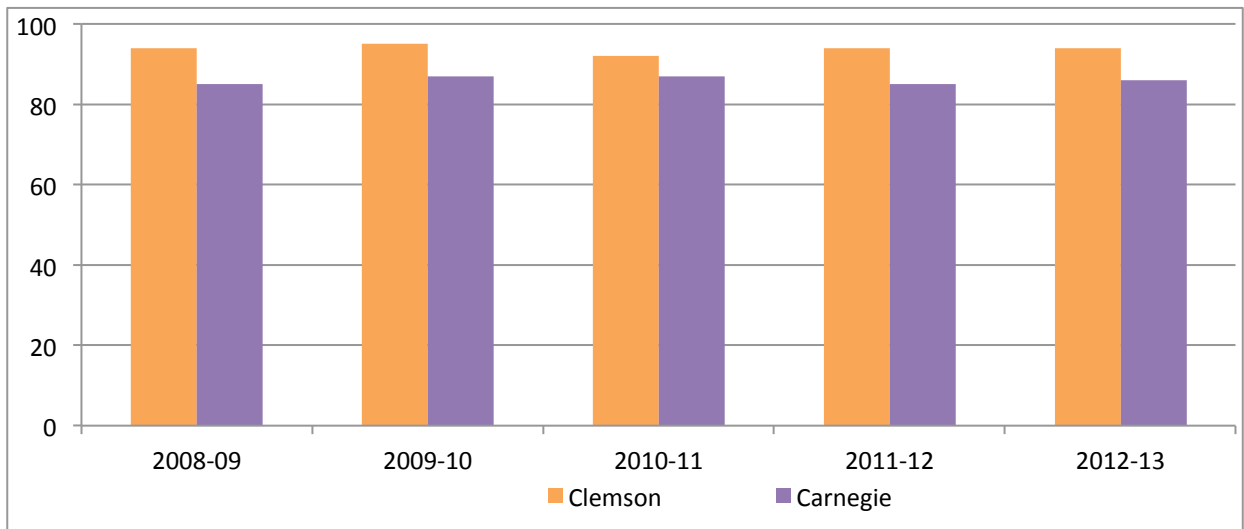
**Table 7.2-3(g) “If you could start over again, would you go to the same institution you are now attending?”**

Seniors at Clemson continue to report significantly higher satisfaction with the University than Carnegie Classification Peers.



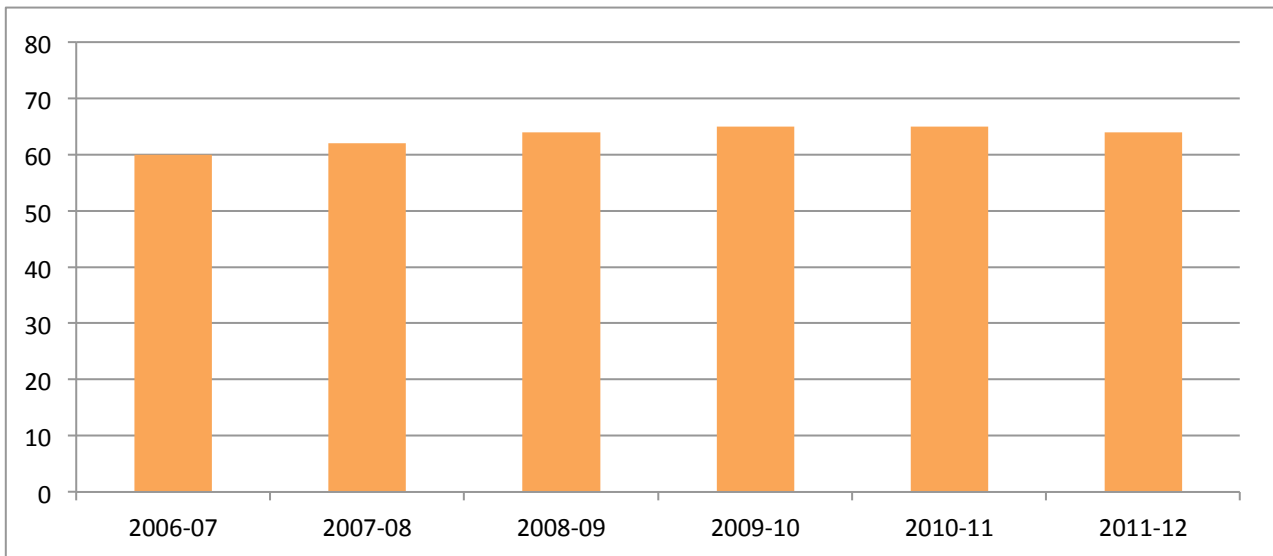
**Table 7.2-3(h) “How would you evaluate your entire educational experience at this institution?”**

Seniors at Clemson continue to report significantly higher level of satisfaction with their educational experience than Carnegie Classification Peers.



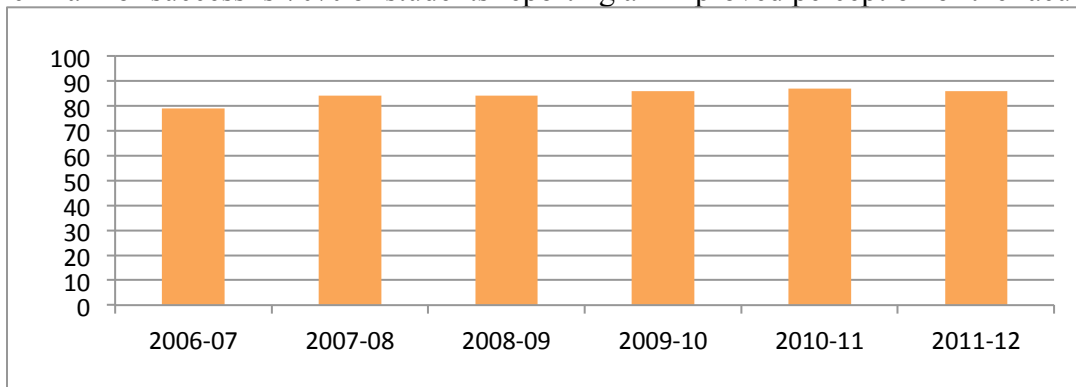
**Table 7.2-3(i) Improve Our Student/Staff Interactions**

The benchmark of success is 75% of students reporting satisfaction with staff interactions.

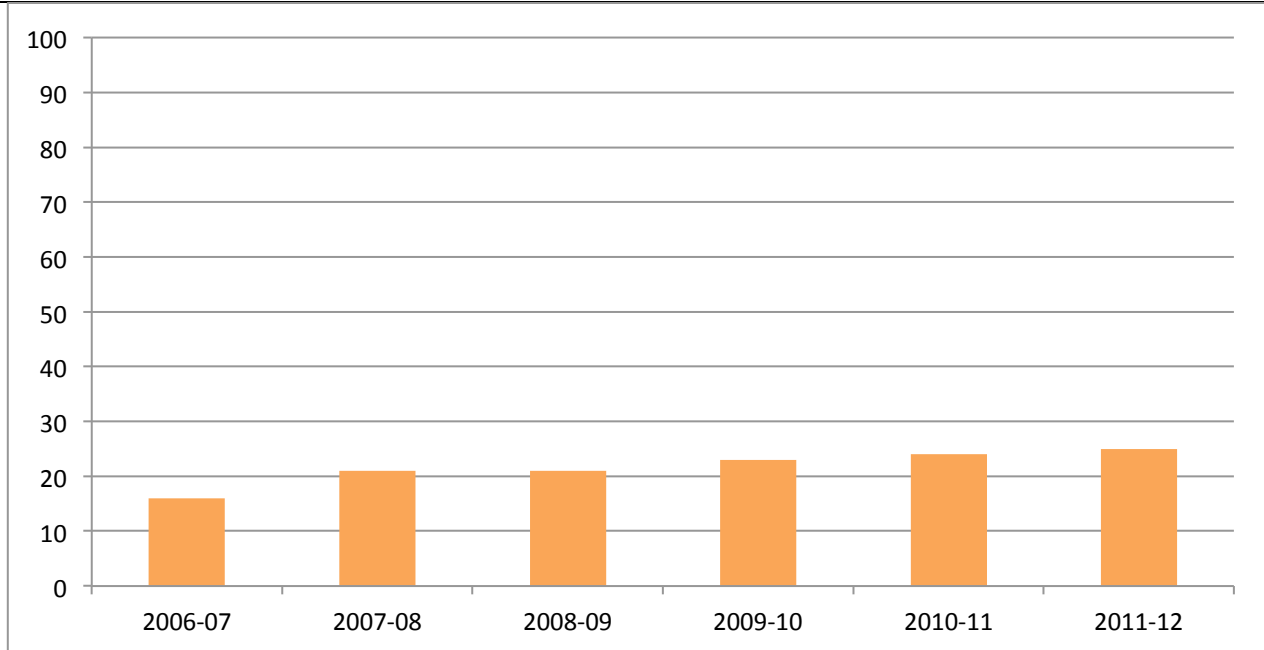


**Table 7.2-3(j) Improve Student Perception That Faculty Are Available, Helpful, or Sympathetic.**

The benchmark of success is 70% of students reporting an improved perception of the faculty.



**Table 7.2-3(k) Provide Every Student Opportunities for Engagement and Leadership: *Double the Number of Students Participating in Study Abroad Programs***



The benchmark for success is that 30% of undergraduate senior students will report that they have had an international experience.

## 7.3 Attract, Retain, and Reward Top People

### External Grants

External funding for University research is a strong indicator of the caliber of work being done at an institution. In addition, a robust research environment is a strong inducement to attract top faculty members. Two indicators of quality are the number of sponsored program awards and sponsored program expenditures. The following two tables show the continued increases in both measures.

#### 7.3-1 Sponsored Program Awards

	2007-08	2008-09	2009-10	2010-11	2011-12*
AAH	\$ 701,508	\$ 5,134,154	\$ 797,602	\$ 2,210,473	\$ 616,380
BBS	\$ 2,275,306	\$ 1,144,021	\$ 2,355,646	\$ 2,113,743	\$ 1,901,243
CAFLS	\$ 8,946,379	\$ 10,926,153	\$ 13,101,585	\$ 10,807,057	\$ 8,829,719
COES	\$ 62,411,903	\$ 39,614,872	\$ 60,206,114	\$ 37,346,079	\$ 38,126,978
HEHD	\$ 3,785,686	\$ 3,246,291	\$ 4,359,569	\$ 5,240,372	\$ 3,532,370
INTERDISCIPLINARY	\$ 1,732,120	\$ 2,294,746	\$ 853,093	\$ 568,370	\$ 424,424
PSAG & OTHERS <sup>1</sup>	\$ 1,536,342	\$ 5,928,876	\$ 4,306,065	\$ 3,992,000	\$ 2,149,161
<b>Grand Total</b>	<b>\$ 81,389,243</b>	<b>\$ 68,289,112</b>	<b>\$ 85,979,673</b>	<b>\$ 62,278,095</b>	<b>\$ 55,580,275</b>

<sup>1</sup>PSGA stands for Public Service and Agriculture, other includes centers and institutes not in colleges

\*2011-12 Data has not been finalized. Will be available in October 2012.

#### 7.3-2 Sponsored Program Expenditures

	2007-08	2008-09	2009-10	2010-11	2011-12*
AAH	\$ 793,569	\$ 996,114	\$ 933,449	\$ 719,189	\$ 652,261
BBS	\$ 2,102,868	\$ 2,106,952	\$ 2,292,360	\$ 1,959,161	\$ 1,679,032
CAFLS	\$ 7,548,251	\$ 8,557,432	\$ 9,628,287	\$ 11,240,530	\$ 9,343,384
COES	\$ 29,789,842	\$ 33,695,147	\$ 35,198,899	\$ 37,257,499	\$ 31,834,096
HEHD	\$ 2,795,333	\$ 3,423,711	\$ 3,663,835	\$ 4,109,065	\$ 3,268,065
INTERDISCIPLINARY	\$ 2,092,802	\$ 2,153,857	\$ 1,003,950	\$ 682,595	\$ 530,268
PSAG & OTHERS <sup>1</sup>	\$ 900,057	\$ 1,153,182	\$ 2,017,036	\$ 3,009,948	\$ 2,256,068
<b>Grand Total</b>	<b>\$ 46,022,722</b>	<b>\$ 52,086,395</b>	<b>\$ 54,737,815</b>	<b>\$ 58,977,987</b>	<b>\$ 49,563,174</b>

<sup>1</sup>PSGA stands for Public Service and Agriculture, other includes centers and institutes not in colleges

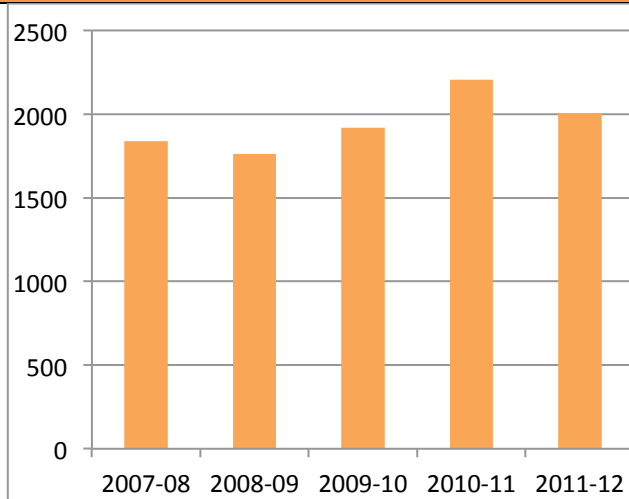
\*2011-12 Data has not been finalized. Will be available in October 2012.



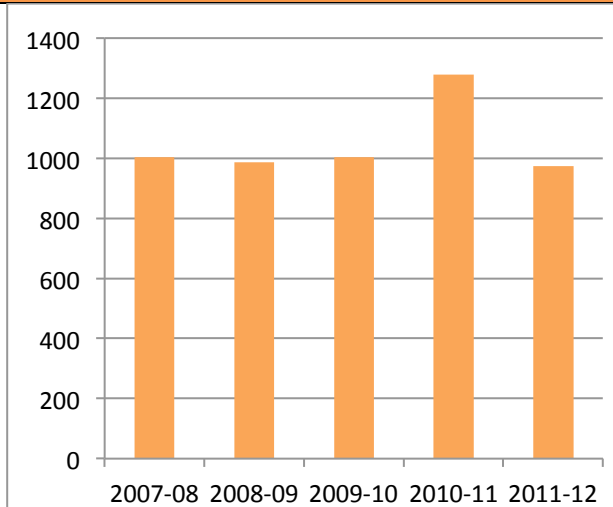
## Peer Review Articles and Peer Review Presentations

How a faculty is perceived by its peers is a frequent measure of the quality of the faculty. Counting the number of articles that are reviewed by a committee of peers and printed in professional journals is one measure of the quality and productivity of the faculty. The number of peer-reviewed publications and presentations shown in the following tables are only unique records; however, this does not eliminate the possibility of duplicate records found in the Faculty Activity System. Clemson continues to strongly support faculty productivity.

**7.3-3 Number of peer-reviewed publications**



**7.3-4 Number of peer-reviewed presentations**

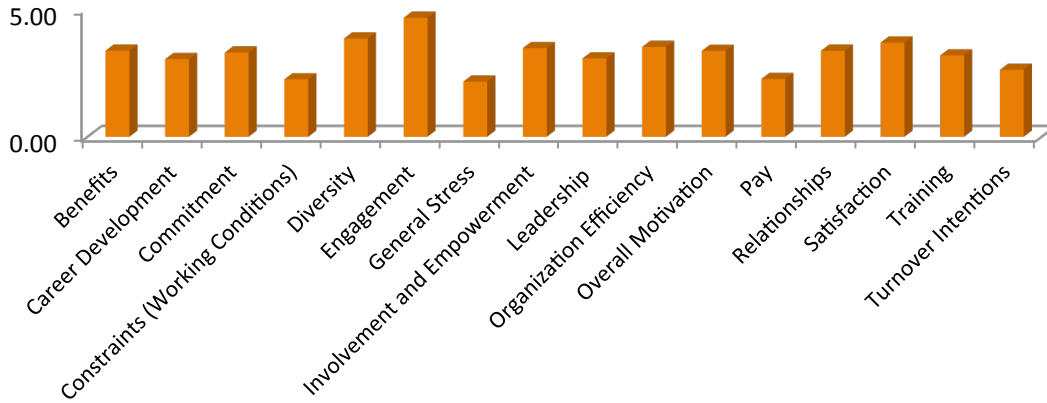


## Staff Survey

Understanding the needs, concerns, and priorities of employees at all levels is important to retain top quality faculty and staff. The Office for Institutional Assessment in collaboration with the Staff Senate conducts surveys of Clemson staff. This survey examines a wide variety of aspects of the Clemson University work environment and the attitudes of the staff. The Staff Survey, traditionally, has a very high response rate. The Staff Survey Report is circulated to all administrators and serves as an important tool in informing decisions related to workload, environment and staff engagement.

The purpose of the Staff Opinions Survey is to solicit feedback from Clemson University non-faculty employees regarding their Working Conditions/Constraints, job attitudes, motivations and experiences at the institution. The survey is a comprehensive instrument designed to collect perspectives covering a wide array of conditions related to work environment and organizational culture. The instrument includes 16 scales and an optional section aimed at collecting key demographic variables that may help provide richer information about the staff experience at Clemson University. The table below illustrates the mean scores for the major variables in the most recent Staff Survey.

**Table 7.3-4 Mean Scores on Clemson University Staff Survey**



**Collaborative on Academic Careers in Higher Education (COACHE)**

In addition to the Staff Survey, Clemson University participates in a national study of faculty in higher education coordinated by Harvard Graduate School of Education. Clemson participated in 2005-06, 2007-08, and again in Fall, 2011. In Clemson’s first administration, over 7,800 national faculty in tenure-track positions participated in the survey.

The 2011-12 COACHE surveyed senior, tenured and tenure track faculty (full and associate professor). Clemson’s response rate for faculty eligible to participate in 2011-12 was 60% (509). The peer institutions chosen for comparison were: North Carolina State University, Purdue University, SUNY-Binghamton, UNC Chapel Hill, and the University of Tennessee.

<b>7.3-5(a) Financial Access: Improve the Quality of Graduate Students</b>			
	<b>2005-06</b>	<b>2007-08</b>	<b>2011-12</b>
	3.52 (-)	3.45 (-)	3.20 (-)
(+ higher than peers; = equal to peers; - less than peers)			
The 2020 Road Map stresses the importance of getting the best students and providing the best learning environment. The COACHE item “Nature of Work: Satisfaction with the quality of graduate students with whom they interact” will monitor the faculty’s attitude. As an assessment, the benchmark of success is that the faculty will report satisfaction equal to or greater than peers. This continues to be an area that needs improvement.			

<b>7.3-5(b) and (c) Increase Resources and Promote Good Management: Provide Childcare for Faculty and Graduate students</b>	
<b>7.4-5(b) Effectiveness of Childcare</b>	
	Childcare continues to be an important issue for younger

2005-06	2007-08	2011-12
1.94 (-)	1.93 (-)	1.82 (-)

(+ higher than peers; = equal to peers; - less than peers)

faculty. The metric for this is the COACHE item: Policies and Practices: Effectiveness of Childcare.

As an assessment, the benchmark of success is that the faculty will report satisfaction equal to or greater than peers. Clemson's mean scores still lag behind those of our peers.

**7.3-5(c) Children and Tenure**

2005-06	2007-08	2011-12
2.46 (-)	2.65 (-)	2.68 (-)

(+ higher than peers; = equal to peers; - less than peers)

A second measure regarding childcare is another COACHE item: Policies and Practices: Institution does what it can to make having children and the tenure-track compatible.

As an assessment, the benchmark of success is that the faculty will report satisfaction equal to or greater than peers. Although this issue is a matter of concern at our peer institutions, Clemson's mean scores are below that of its peers.

**7.3-5(d) Increase Resources and Promote Good Management: Publish Established Guidelines for Teaching, Research, Service and Economic Development That Promote Faculty Success.**

2005-06	2007-08	2011-12
3.74 (-)	3.78 (-)	3.75 (-)

(+ higher than peers; = equal to peers; - less than peers)

Regarding guidelines for tenure, Clemson monitors the faculty's response on COACHE item: Nature of Work: Satisfied with the number of courses they teach.

As an assessment, the benchmark of success is that the faculty will report satisfaction equal to or greater than peers.

**Increase Resources and Promote Good Management: Manage Workloads to Promote Retention of Quality Faculty**

**7.3-5(e) Clarity of Prospects to Earn Tenure**

2005-06	2007-08	2011-12
3.56 (-)	3.66 (-)	3.73 (=)

(+ higher than peers; = equal to peers; - less than peers)

Retaining quality faculty is challenging to any institution. The 2020 Road Map specifically identifies hiring, retaining, and rewarding the best people as an essential element in Clemson's process of continual quality improvement. Clemson will monitor the faculty's perception of the COACHE item: Tenure: Clarity of their own prospects for earning tenure.

As an assessment, the benchmark of success is that the faculty will report satisfaction equal to or greater than peers. Clemson's mean scores are below that of its peers improved in the 2011-12 administration compared to previous years.

**Increase Resources and Promote Good Management: Manage Workloads to Promote Retention of Quality Faculty**

**7.3-5(f) Time to Conduct Research**

2005-06	2007-08	2011-12
2.55 (-)	3.03 (=)	3.42 (-)

(+ higher than peers; = equal to peers; - less than peers)

A second measure of the goal to retain quality faculty is based on the COACHE item Nature of Work: Satisfied with the amount of time they have to conduct research. Faculty success is, in part, based on research and sufficient time to undertake quality research is necessary for faculty to achieve tenure.

As an assessment, the benchmark of success is that the faculty will report satisfaction equal to or greater than peers. Clemson's mean score continues to improve.

**7.3-5 (g) Satisfaction with Expectations for Teaching**

2005-06	2007-08	2011-12
3.74(-)	3.78(-)	4.14 (=)

(+ higher than peers; = equal to peers; - less than peers)

Several COACHE items relate to teaching obligations. Faculty expressed concerns over the number of courses being assigned during the tenure process that requires a high research commitment.

As an assessment, the benchmark of success is that the faculty will report satisfaction equal to or greater than peers.

**7.3-5(h) Support Opportunities for Faculty to Interact with Colleagues**

**Increase Resources and Promote Good Management: Interaction with senior colleagues**

2005-06	2007-08	2011-12
3.19(-)	3.25(-)	3.66 (=)

(+ higher than peers; = equal to peers; - less than peers)

The COACHE item Climate, Culture, and Collegiality: Satisfaction with the amount of professional interaction they have with senior colleagues in their department provides insight into the faculty perception of collegiality and climate.

As an assessment, the benchmark of success is that the faculty will report satisfaction equal to or greater than peers. However, this remains an area of concern at Clemson and its peer institutions.

**7.3-5(i) In Department**

2005-06	2007-08	2011-12
3.91(=)	3.80 (+)	3.64 (=)

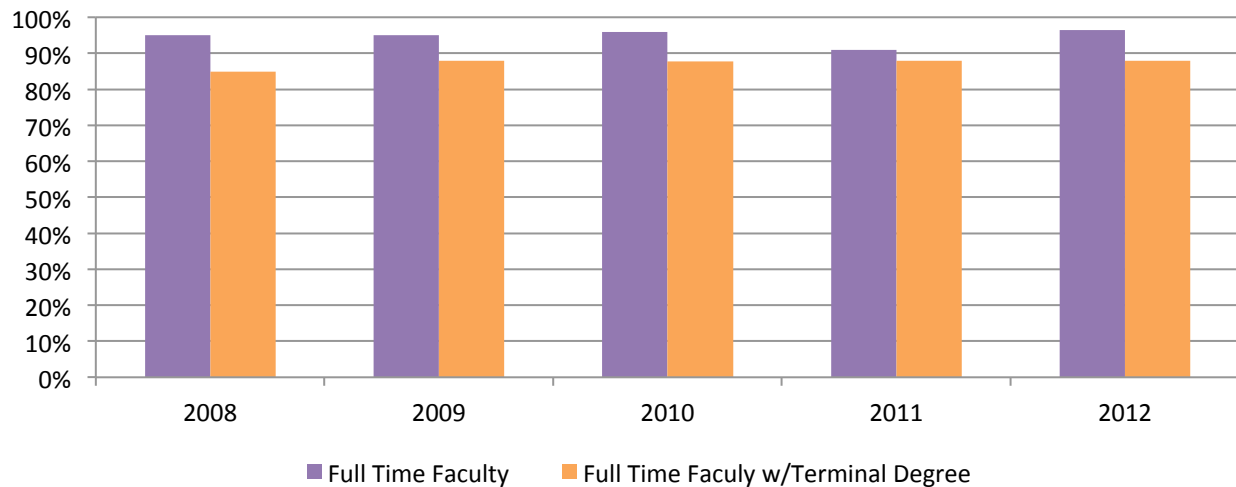
The second measure of faculty regarding Climate, Culture, and Collegiality is the COACHE item: Satisfaction with how well they 'fit' in their department.

As an assessment, the benchmark of success is that the faculty will report satisfaction equal to

(+ higher than peers; = equal to peers; - less than peers)

or greater than peers. However, the results in 2011-12 were unexceptional-not really a strength or weakness. This remains an area of concern at Clemson and its peer institutions.

### 7.3-6 Percent Full-Time Faculty and Percent with Terminal Degrees



Full-time faculty numbers at Clemson fluctuate during this period of economic uncertainty and retirements. One of the objectives of the 2020 Road Map is: “Attract, retain, and reward top people”. So, it is anticipated that the overall number of new faculty will increase.

Clemson’s full time faculty as reported in the *U.S. News & World Report* is 1013 full time, 109 part time. The percent of full-time faculty with terminal degrees continues to exceed 87% but as a benchmark, Clemson would like to increase that percentage.

## 7.4 Build to Compete – Facilities, Infrastructure, and Technology

**Table 7.4-1 Information Technology: *Continue to Improve the Quality of IT Programs and Services.***

2005-06	2007-08	2011-12
3.56 (-)	3.47 (-)	3.53 (+)

Information technology support and services are critical to the success of a university. The COACHE item: Satisfaction with the quality of computing services, is a useful metric of satisfaction with IT facilities and support.

As an assessment, the benchmark of success is that the faculty will report satisfaction equal to or greater than peers. In the 2011-12 administration, Clemson showed a strength in this area compared to our peers.

**Table 7.4-2(a) Clemson Computing and Information Technology Action Plans in Progress 2012**

<b>Clemson Computing and Information Technology Assessment Report</b>
<b>Action Plan In Progress</b>
Updating old classroom technology
Classroom technology demand
Data governance and prioritization process
ERP Post Go-Live Resources
Incomplete data on infrastructure, services, and support
Resources for legacy enterprise applications
Staff leadership and student intern programs

**Table 7.4-2(b) Clemson Computing and Information Technology Assessment Report  
Completed Action Plans 2009-12**

Clemson Computing and Information Technology Assessment Report
Completed Action Items 2009 - 2012
Complete power and cooling expansion project
Continuous Improvements in Security
Course Management System Stability
Customer ticket resolution tracking
Ensure redundancy of Internet2 connection
HR Peoplesoft system upgrade project
Upgrade campus-wide network wiring & electronics
Customer ticket resolution tracking
Decrease classroom technology incidents
Develop an Organizational Effectiveness Roadmap
Develop network plan for business continuity/DR
Facilitate the University Data Stewards Group
Implement a security network monitoring tool
Implement an integrated business plan for CCIT
Implement Work Space Management
Presence at the Supercomputing Conference SC08
Provide redundancy for Internet2 network
Upgrade campus-wide network wiring & electronics
Acquire campus space to facilitate employees
Group and Home Storage Migration
HR Upgrade Phase 2
Implement a Help Desk Customer Satisfaction Survey
Project committee on salary equity and consultant
Provide Salary Analysis for Employees
Shibboleth Authentication Infrastructure

**Table 7.4-3 Build to Compete – Facilities, Infrastructure, and Technology: Links to the Clemson University 2020 Road Map**

2020 Road Map Objectives	Budgets and Financial Planning
Deploy new student and research information systems successfully.	<p><b>Promote Effective Processes</b> Review the budget process to ensure accuracy and to enhance accountability for effectively using resources while empowering colleges and divisions to monitor process transactional activity. Ensure that the budget process is conducted and completed in a timely manner. Continuously evaluate the current operational processes for improvements and efficiencies.</p> <p><b>Develop Planning Tools</b> Develop and enhance planning tools and reports to accurately project resources and uses for the University.</p>
2020 Road Map Objectives	Comptroller and Student Financial Services
Deploy new student and research information systems successfully.	<p><b>Review and enhance processes and support systems</b> Review and enhance processes to enhance accountability and utilizing resources through process and system enhancements.</p> <p><b>Enhance Reporting and Compliance</b> Enhance reporting for internal and external users to supporting decision makers and to meet regulatory compliance</p> <p><b>Student Financial Services</b> Assess current service levels and focus staff to meet student and parent financial customer service.</p> <p><b>Cash, Banking and Billing Services</b> Assess customer service levels and focus staff to meet departmental and external customer banking and billing requirements.</p>
Enhance business system capabilities to decrease transaction costs.	<p><b>Review and enhance processes and support systems</b> Review and enhance processes to enhance accountability and utilizing resources through process and system enhancements.</p> <p><b>Enhance Reporting and Compliance</b> Enhance reporting for internal and external users to supporting decision makers and to meet regulatory compliance.</p> <p><b>Student Financial Services</b> Assess current service levels and focus staff to meet student and parent financial customer service.</p> <p><b>Cash, Banking and Billing Services</b> Assess customer service levels and focus staff to meet departmental and external customer banking and billing requirements.</p>
Enhance and publicize state, national, and international accomplishments by faculty, staff, and students.	<p><b>Enhance Reporting and Compliance</b> Enhance reporting for internal and external users to supporting decision makers and to meet regulatory compliance.</p>
2020 Road Map Objectives	Conference Center and Inn
Deploy new student and research information	<p><b>Enhance service quality to customers</b> Provide</p>



systems successfully.	quality services to Conference Center and Inn guests/clients.
Enhance and build teaching, research, student life, and athletic facilities.	<p><b>Improve facilities</b> Management will perform an annual facility review and evaluation for each service area (hotel, conference center, golf course and food services). External partners will do a concurrent review (i.e., Fire Marshall, OSHA, FM and O). From these efforts, a five year capital improvement plan will be developed and submitted in the annual business plan. This plan will be issued to the Board of Directors for approval annually.</p> <p><b>Retain facility accreditation</b> Following International Association of Conference Center accreditation criteria, we will meet external standards (N=30) which define a superior conference facility.</p>
Address deferred maintenance.	<p><b>Improve facilities</b> Management will perform an annual facility review and evaluation for each service area (hotel, conference center, golf course and food services). External partners will do a concurrent review (i.e., Fire Marshall, OSHA, FM and O). From these efforts, a five year capital improvement plan will be developed and submitted in the annual business plan. This plan will be issued to the Board of Directors for approval annually.</p> <p><b>Retain facility accreditation</b> Following International Association of Conference Center accreditation criteria, we will meet external standards (N=30) which define a superior conference facility.</p>
<b>2020 Road Map Objectives</b>	<b>Office of Human Resources</b>
Strategically reward outstanding performance through competitive compensation measures.	<b>Implement electronic time and attendance process</b> Implement a streamlined compliant and paperless time and attendance process to be piloted in the Student Affairs Division by FY 2012.
Enhance business system capabilities to decrease transaction costs.	<b>Improve staff grievance process</b> Improve staff grievance process to increase efficiency and decrease liability.
<b>2020 Road Map Objectives</b>	<b>Institutional Research</b>
Increase the number and quality of doctoral students in focus areas by 30.	<b>Competiveness Measures</b> Maintain and update peer institution benchmarks that support administrative decision support. Where possible add new sources of peer information and create mechanisms for administrators to access and understand this information in relationship to Clemson University.
Monitor graduating students' employment, continued education, and other indicators of success.	<b>Competiveness Measures</b> Maintain and update peer institution benchmarks that support administrative decision support. Where possible add new sources of peer information and create mechanisms for administrators to access and understand this information in relationship to

	Clemson University.
Deploy new student and research information systems successfully.	<p><b>Business Intelligence</b> Assist development of Business Intelligence systems and encourage a shift in focus to allow addition of archived historical data to bring context to the financial information.</p> <p><b>Protect Privacy</b> Monitor and protect private or legally protected information as data is prepared to meet requests or is published by the Office of Institutional Research.</p> <p><b>Internal Benchmarks</b> Analyze internal data and provide discipline-based benchmarks to support evaluation of employees and departments.</p>
Enhance business system capabilities to decrease transaction costs.	<p><b>Protect Privacy</b> Monitor and protect private or legally protected information as data is prepared to meet requests or is published by the Office of Institutional Research.</p> <p><b>Internal Benchmarks</b> Analyze internal data and provide discipline-based benchmarks to support evaluation of employees and departments.</p>
Enhance and publicize state, national, and international accomplishments by faculty, staff, and students.	<p><b>Competiveness Measures</b> Maintain and update peer institution benchmarks that support administrative decision support. Where possible add new sources of peer information and create mechanisms for administrators to access and understand this information in relationship to Clemson University.</p> <p><b>Public Relations Surveys</b> Respond to all commercial surveys that influence public opinion of Clemson University in an accurate and timely fashion. Support other departments involved in responses to commercial surveys.</p>
While maintaining full compliance and academic progress/graduate success rates above the ACC/SEC mean, field nationally competitive teams — as measured by top-25 national rankings, NCAA tournament participation to include national, ACC division, and conference championships.	<p><b>Internal Benchmarks</b> Analyze internal data and provide discipline-based benchmarks to support evaluation of employees and departments.</p>
<b>2020 Road Map Objectives</b>	<b>Procurement</b>
Deploy new student and research information systems successfully.	<p><b>Direct and Indirect Savings</b> Increase direct and indirect savings delivered to the University.</p> <p><b>Projects, contracts and processes</b> Develop projects, contracts, and processes that enable Procurement to deliver hard savings in forms of rebates, discounts, or other sources of revenue back to the University.</p> <p><b>Policies and processes</b> Implement policy, T and Cs, and processes that enable the University to capture discounts on payments to vendors. (By law, we are allowed/required to pay within 30 days. Currently, we have the ability to pay within 10 days and actually capture discounts from vendors by paying early.)</p> <p><b>User Satisfaction</b> Show 50% increase in user satisfaction with BuyWays compared to June 2009 survey.</p>

	<p><b>Travel Management</b> Develop best in class travel management process for employees and students (planning, booking, expensing).</p> <p><b>AP Standardization</b> Streamline the accounts payable process by standardizing policy and processes.</p>
Enhance business system capabilities to decrease transaction costs.	<p><b>Direct and Indirect Savings</b> Increase direct and indirect savings delivered to the University.</p> <p><b>Projects, contracts and processes</b> Develop projects, contracts, and processes that enable Procurement to deliver hard savings in forms of rebates, discounts, or other sources of revenue back to the University.</p> <p><b>Policies and processes</b> Implement policy, T and Cs, and processes that enable the University to capture discounts on payments to vendors. (By law, we are allowed/required to pay within 30 days. Currently, we have the ability to pay within 10 days and actually capture discounts from vendors by paying early.)</p> <p><b>User Satisfaction</b> Show 50% increase in user satisfaction with BuyWays compared to June 2009 survey.</p> <p><b>Travel Management</b> Develop best in class travel management process for employees and students (planning, booking, expensing).</p> <p><b>AP Standardization</b> Streamline the accounts payable process by standardizing policy and processes.</p>
<b>2020 Road Map Objectives</b>	<b>Public Affairs</b>
Successfully complete our current capital campaign.	<p><b>Strengthen University reputation</b> Implement aggressive, proactive public relations and marketing strategies to improve institutional or program reputations, rankings, or scores.</p> <p><b>Capital Campaign</b> Increase private-sector investment through strategic campaign initiatives.</p> <p><b>Campus Support</b> Generate awareness or marketing campaigns for programs or events such as groundbreakings, anniversaries and symposia.</p>
Enhance and publicize state, national, and international accomplishments by faculty, staff, and students.	<p><b>Strengthen University reputation</b> Implement aggressive, proactive public relations and marketing strategies to improve institutional or program reputations, rankings, or scores.</p> <p><b>Capital Campaign</b> Increase private-sector investment through strategic campaign initiatives.</p> <p><b>Campus Support</b> Generate awareness or marketing campaigns for programs or events such as groundbreakings, anniversaries and symposia.</p>
<b>2020 Road Map</b>	<b>University Facilities</b>
Enhance business system capabilities to decrease transaction costs.	<p><b>Reorganize Environmental Health and Safety</b> Reorganize Environmental Health and Safety</p>

	(EHS) to provide more focused attention to the overall University occupational health mission as well as emphasis to the research community. <b>Reduce Waste Stream</b> Reduce Waste stream and increase recycling and other forms of diversion.
Address deferred maintenance.	<b>Reduce Campus Carbon Footprint</b> Reduce Campus Carbon footprint and energy consumption. <b>Address Critical Deferred Maintenance</b> Address critical deferred maintenance and provide facilities that attract and retain top students and faculty.
Upgrade the campus utilities infrastructure.	<b>Reduce Campus Carbon Footprint</b> Reduce Campus Carbon footprint and energy consumption.
Enhance and publicize state, national, and international accomplishments by faculty, staff, and students.	<b>Reduce Waste Stream</b> Reduce Waste stream and increase recycling and other forms of diversion.

#### 7.4-4 **Build to Compete – Facilities, Infrastructure, and Technology: Clemson Computing and Information Technology**

Over the past year CCIT has contributed towards Clemson’s research, education, and public service mission as well as Clemson’s 2020 Roadmap. Below are highlights of these activities.

- Clemson’s computing and IT infrastructure and facilities were enhanced over the past year including expansion of the data center, increased high performance computing capabilities, enhanced network capacity, and increased classroom technologies.
- CCIT was engaged in nearly \$5 million in new sponsored program activities, including a \$3 million NSF major research instrumentation award on intelligent river sensors, a \$450,000 NSF award on developing a nationwide student cyberinfrastructure awareness program, and a \$900,000 NSF award on next generation cyberinfrastructure ecosystem, among others.
- Significant progress has been made on the new Banner Student Information System, including transitioning the Admissions process to totally paperless.
- Clemson University’s partnership with the Quali Foundation is enabling Clemson’s transition to the Quali Coeus ERP, which will provide a new platform to manage research administration and compliance. CCIT has a team working on this initiative.
- CCIT has debuted, in conjunction with the College of Business and Behavioral Science and the College of Arts, Architecture and Humanities, a research lab known as the Social Media Listening Center (SMLC). The SMLC allows Creative Inquiry Teams led by faculty members from the Departments of Management and Communication to analyze data patterns generated by social media through the lab.
- Clemson and CCIT began engagement in a Virtualization project called the “Virtual Desktop Infrastructure” (VDI) project. Moving to a virtual desktop will allow a greater degree of customization while minimizing operational costs in IT support and licensing for computing in labs and offices.
- A comprehensive review of Clemson’s mobile apps program is in process and is aimed at bringing together members of the Clemson community with an interest in mobile applications. The results of the review should improve the pre-existing program, while creating a long-term vision for Clemson’s mobile presence.

- Clemson and CCIT have pioneered a program called “Express Lane Eligibility” for the state Medicaid system. This program will use SNAP and TANF data to prevent unnecessary terminations of coverage for children, which will save the state almost 50,000 worker hours, and \$1 million a year. South Carolina applied this program to 65,000 recipients this past year.
- CCIT staff began attending a Leadership Summit program held by the Center for Professional Advancement and Continuing Education at Clemson at the Falls to enhance their leadership skills. PACE developed an ongoing curriculum specifically tailored to CCIT. And delivers that program on campus for our staff.
- CCIT implemented a student internship program in conjunction with the Michelin Career Center to hire a number of student interns in CCIT areas ranging from communications, to business operations, to High Performance Computing.
- CCIT networks, in conjunction with Clemson Electrical Engineering, are principal investigators on the OpenFlow and NSF funded GENI project. Dr. KC Wang (Clemson ECE) and two of his students have given presentations on how OpenFlow and SDN (Software Defined Networking) can maximize efficiency in a network, benefitted by using real time data from CCIT networks.
- CCIT in partnership with the Clemson University CyberInstitute is developing a strategic corporate partnership program that provides an environment in which researchers, instructors, IT staff and the private sector can collaborate on innovative initiatives that contribute to a knowledge based economy. Dell is an early partner in this program with activities ranging from R&D to joint marketing of services to on-site solutions for hardware and software problems.
- CCIT has advanced its partnerships with Dell and Internet2, working on developments in Cloud Computing with Dell, and the new Internet2 Net+ and Innovation Platforms. Both of these initiatives will allow Clemson to be on the cutting edge of research and will allow CCIT to reduce operational costs while increasing the functionality of its entire department.
- Clemson University CCIT, being an Internet2 partner, is currently working on the new Internet2 Innovation Platform. This architecture, built on Internet2’s new 100Gb/s connection (approximately 10x the capacity of Clemson’s most powerful connection), will allow for Clemson to coordinate research efforts with universities across the country at a much higher level, and a much greater volume. Projects will include the OpenFlow testbed, and the “Condo of Condos” initiative, a shared resource supercomputing initiative.
- CCIT has gone live with StealthWatch, a tool the will assist Monitoring, Network Services, and Security in gaining a real-time view of activities within the network. This will allow Clemson to see more problems as they are developing (and take proactive measures, rather than reactive) and will allow for greater analysis of past issues to prevent recurrence.