

2019

# Clemson Libraries - Carnegie Research 1 Task Force Report

Clemson University Libraries

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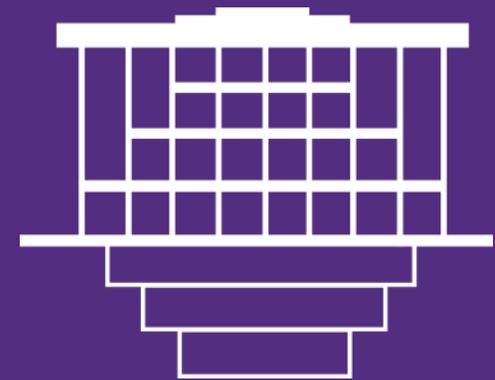


# **Carnegie Research 1 Task Force Report**

2019

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# Introduction

## Becoming a R1 Library Task Force

The Becoming a R1 Library Task Force was charged with exploring what it would mean for Clemson Libraries to become a “Research 1 Library.” Specifically, our purpose was to conduct research and collect data with the following aims in mind:

1. To evaluate Clemson’s current operations
2. To discern the differences between operations of spaces, services, collections, and resources at Clemson Libraries and 12 specific aspirational peer R1 Libraries
3. To offer recommendations to help Clemson Libraries bridge the gap

This report contains two sections: Section I outlines benchmarking against aspirational peer libraries and Section II contains recommendations based on our findings.

## Sub-Committee Members

### Spaces

Kelsey Sheaffer (co-chair), Teri Alexander (co-chair), Robin Chambers, Christopher Chapman, Bobby Hollandsworth, Tara Weekes

### Services

Suzanne Rook-Schilf (chair), Jim Cross, Jenessa McElfresh, Fredda Owens, Ed Rock, Cierra Townson

### Resources

Christopher Vinson (chair), Tammy Crane, Logan Moody, Carl Redd, Kristy Snider, Peg Tyler, Kathryn Wesley

### Collections

Gail Julian (co-chair), Brenda Burk (co-chair), Kathy Edwards, Josh Morgan, Megan Sheffield, Russell Terry, Derek Wilmott



*Spaces*



*Services*



*Resources*



*Collections*

## Methodology

A group of 12 aspirational peer institutions were selected to benchmark with Clemson University Libraries, based on the criteria: academic libraries at public, land-grant universities, without medical schools, that are classified as Carnegie Research 1 (very high research activity).

Through an extensive literature review, the subcommittees gained an overview of their topic area and adopted website investigation as a main research method. We also referred to online statistical sources such as IPEDS and ACRL Metrics. Additionally, sub-committee members interviewed personal contacts at peer institutions to aid in data collection.

Each subcommittee developed a survey for the 12 peers about their specific topic area, which included quantitative and qualitative questions about current and future processes. The surveys were conducted in two phases between March 6 and May 25, 2019. After the initial response was lower than anticipated, we amended the surveys and extended the response period. Among the 12 peers, each subcommittee received different survey response rates: services (n=7), collections (n=7), spaces (n=6), resources (n=4).

In this report, each data point references either website data collection (n=12) or survey response (n is variable). When n=12, we use “peers;” when referring to survey response, we use “surveyed peers.”

## Aspirational Peer Institutions

### **Carnegie Research 1 public land-grant universities with no medical school**

- Colorado State University Fort Collins
- Kansas State University
- North Carolina State University
- Purdue University
- University of Delaware
- University of Georgia
- University of Illinois at Urbana-Champaign
- University of Maryland College Park
- University of Massachusetts Amherst
- University of Nebraska Lincoln
- Virginia Polytechnic Institute and State University
- Washington State University

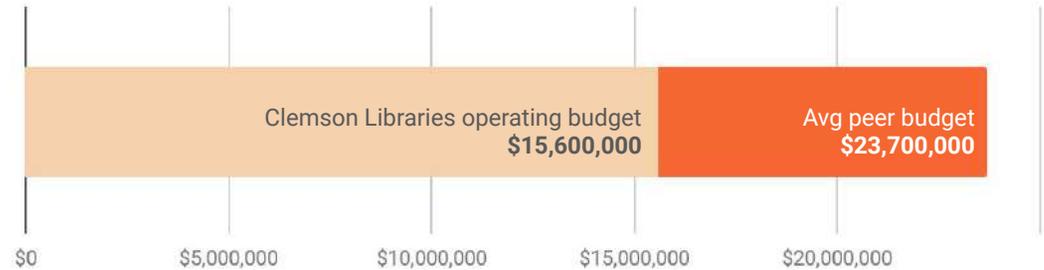
# I. Benchmarking

## Overview

- Clemson's total operating budget is nearly half that of our aspirational peers. The majority of our budget is allocated to general collections, which is abnormal compared to our peers.
- Because we spend more on general collections than personnel, the Libraries has fewer librarians, staff, and student employees to support its patrons than its peers, an issue that becomes more pronounced with Clemson's growing student enrollment.
- Clemson's peers have a well-staffed administrative office, with Associate/Assistant Deans to provide oversight of functional areas and dedicated personnel to support essential library operations such as external relations and development.
- When considering all branches and locations, the Libraries is 200,000 sq. ft. behind aspirational peers.
- Library buildings have especially high student usage but run a deficit in study rooms, classrooms, total seats, and specialized-use areas, including technology and research centers, faculty/graduate student rooms, and event spaces.
- Our peers offer a more robust level of digital literacy resources and learning for undergraduates.
- Research support for faculty and graduate students is offered at a basic level but is not as advanced as peers.
- Our peers currently offer more advanced learning accessibility and affordability services.
- Clemson Libraries general collections budget, currently at \$9M, is on track to reach our goal of \$10M; however, an increase in funding to support our unique special and digitized collections is crucial.

## Our operating budget is nearly half that of our aspirational peers

The Libraries' current operating budget of \$15.6 million falls short of the peer median of \$23.7 million, a **42%** difference, and is the second-lowest of the peer group.



## Our current annual budget resembles that of our peers...in 2009

Measure	2009		
	Clemson	Peer Median	% Deficit
<b>Total Personnel</b>	96	152	<b>-45.2%</b>
<b>Total Expenditures</b>	\$11,145,180	\$17,182,467	<b>-42.6%</b>
--- Personnel	\$3,957,984	\$7,842,924	<b>-65.8%</b>
--- Collections	\$6,119,820	\$8,162,136	<b>-28.6%</b>
--- Operations	\$1,030,112	\$1,883,158	<b>-58.6%</b>



## Clemson trails peers in all budget groups, but especially in personnel and operations

Measure	2018		
	Clemson	Peer Median	% Deficit
<b>Total Personnel</b>	82	135	<b>-48.6%</b>
<b>Total Expenditures</b>	\$15,689,730	\$23,771,002	<b>-42.0%</b>
--- Personnel	\$4,491,123	\$9,174,253	<b>-68.5%</b>
--- Collections	\$8,379,943	\$10,380,738	<b>-21.3%</b>
--- Operations	\$1,235,817	\$2,936,604	<b>-81.5%</b>

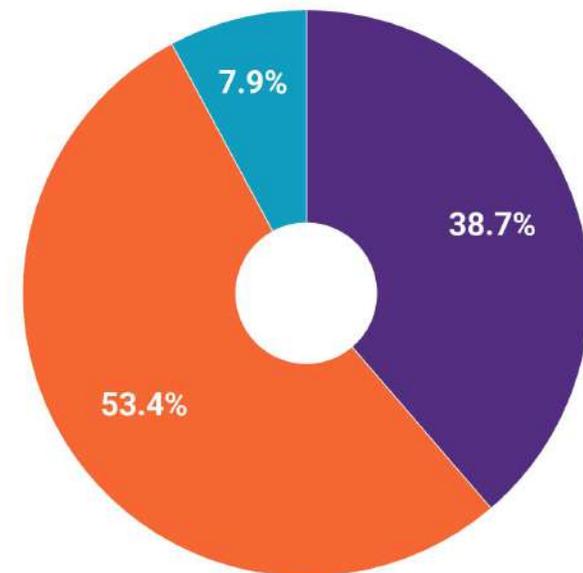
## Our budget distribution is abnormal compared to our peers, as our collections budget exceeds both personnel and operations

The majority of Clemson Libraries' annual budget is dedicated to general collections, outspending expenditures on personnel and operations combined. Clemson is a clear anomaly among its peers by allocating less for personnel than collections.

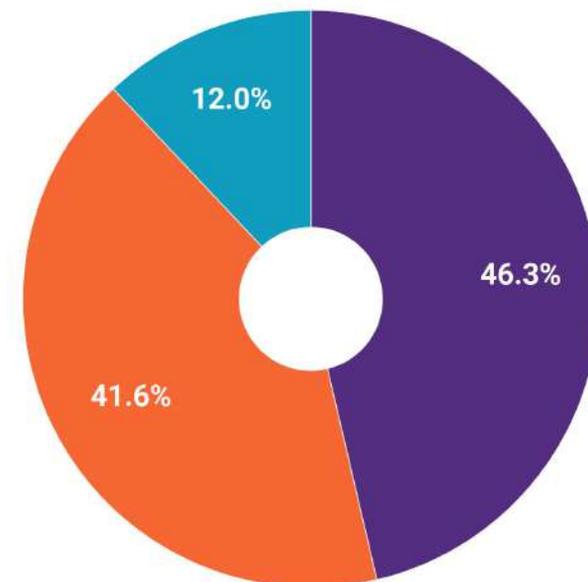
Operations, which includes expenditures on space, facilities, technology, services, events, and professional development, grew by **20%** at Clemson since 2009, far below the **56%** growth by our peers. Clemson's operations budget is currently **50%** less than our peers as a result.



*Clemson Budget Distribution*



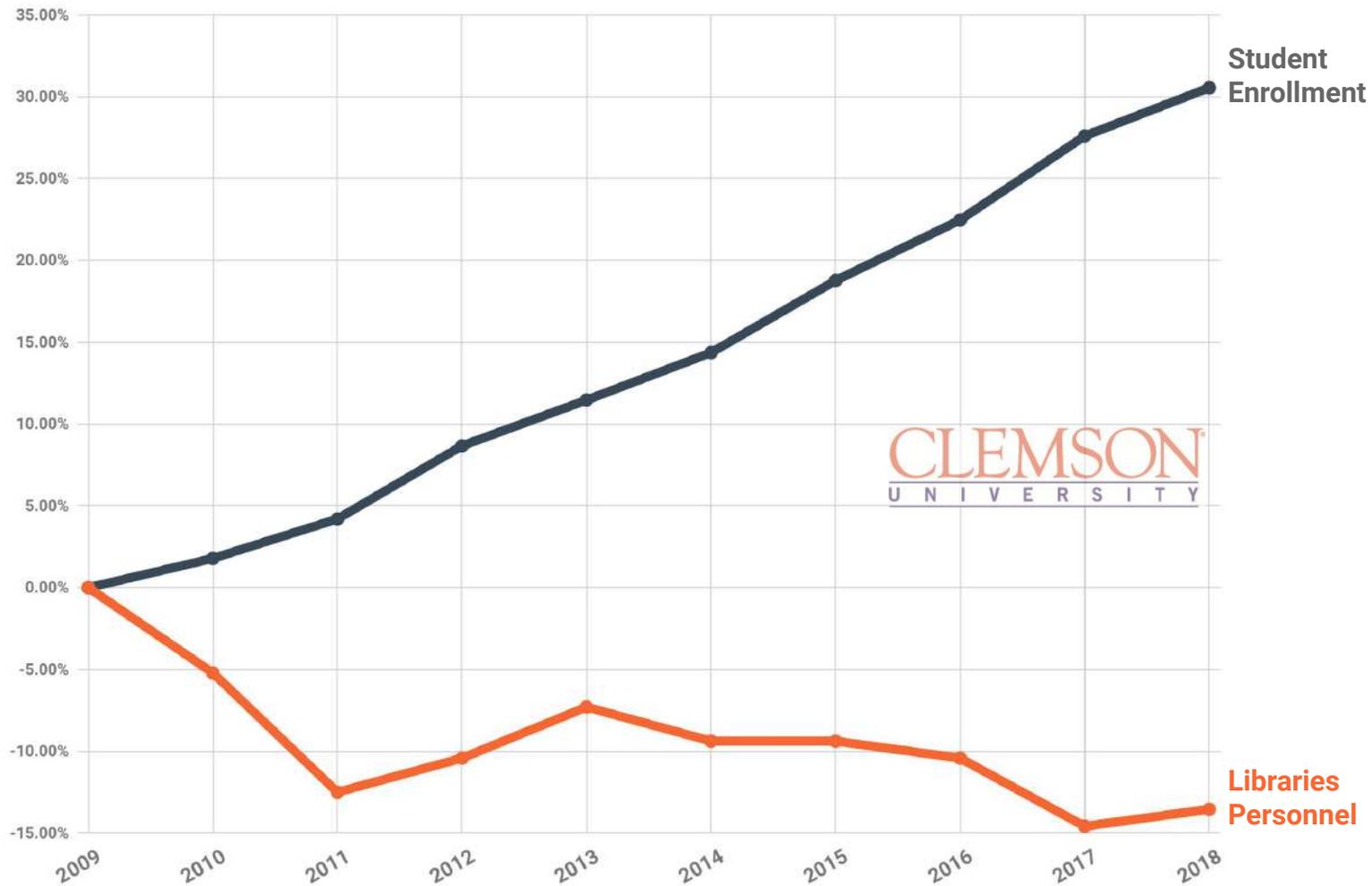
*Peer Institution Budget Distribution*



## Personnel levels have not kept pace with student enrollment

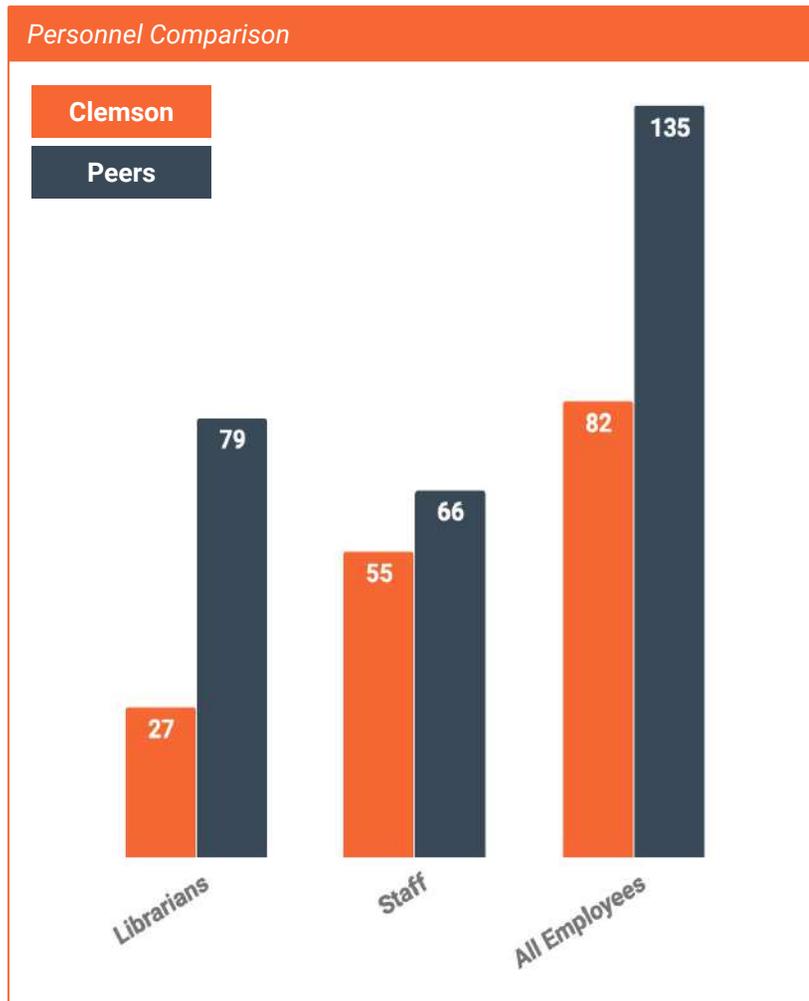
From 2009-2018, student enrollment at Clemson University increased by **31%**, a rate far exceeding the peer median of **12.2%** during the same period.

Meanwhile, overall personnel levels in the Libraries declined by **-21%**. Peers also experienced a decline in personnel but at a lower rate of **-11%**.



## Clemson has fewer librarians, staff, and student employees to support its patrons

Clemson trails its peers significantly in the number of librarians and other professional staff it retains. An individual employee at Clemson Libraries supports **50%** more students and **100%** more faculty than an employee at a peer institution does. Peers allocate over **300%** more funding for student employees than Clemson Libraries.



### *Clemson Personnel Ratios*

**304 : 1**  
students per  
library employee

**19 : 1**  
faculty per  
library employee

### *Peer Personnel Ratios*

**204 : 1**  
students per  
library employee

**10 : 1**  
faculty per  
library employee

### *Student Employee Budgets*

Clemson Libraries	<b>\$210,000</b>
Peer Median	<b>\$684,000</b>

## Clemson Libraries lacks the administrative infrastructure of peers

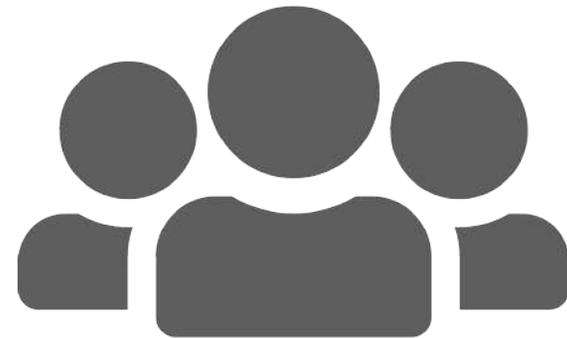
Most of Clemson's peers have a well-staffed administrative office to support essential centralized library operations and provide oversight of major functional areas.

Clemson has no associate or assistant deans, while **100%** of our peers have associate and/or assistant deans or directors.

At least **85%** of Clemson's peers have a dedicated external relations department that typically includes: graphic design, communications, marketing, social media, and event programming.

**85%** of peers have a dedicated development officer, while the remainder share a position through the university development office.

Peers have a median of three business/financial officers, while Clemson retains one.



**3**

Median number of **Associate/Assistant Deans** at peer institutions

Median number of **Business/Financial Officers** at peer institutions

**100%**

of peers have associate and/or assistant deans or directors

## When considering all branches and locations, Clemson Libraries is 200,000 sq.ft. behind aspirational peer institutions

All the Clemson Libraries branches, including the main Cooper Library combined with the five other library branches (Education Media Center, Gunnin Architecture Library, Special Collections and Archives, and the Library Depot) totals 205,000 sq.ft. In comparison, the average of seven of our peer R1 libraries is approximately 410,000 sq. ft. for all library branch locations. The trend is the same when considering student enrollment, as the seven peers offer almost double the square footage per student enrolled (14 sq. ft. per student at seven peers, compared to 8 sq. ft. per student at Clemson). Clemson's Long Range Framework Plan notes that campus has a 113,000 sq. ft. study space deficit.

Total Square Footage



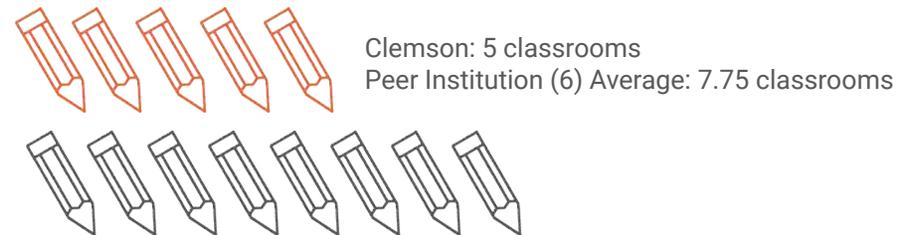
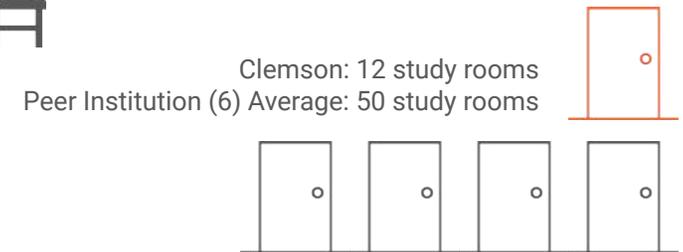
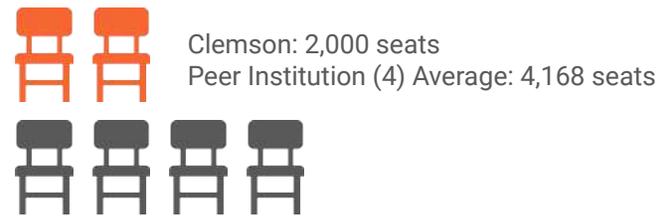
**8 sq.ft.**  
of library space for  
each Clemson student

compared to 14 sq.ft. for  
each student at peers

## Library buildings have especially high student usage but run a deficit in study rooms, classrooms, seats, and specialized-use areas

The impact of the square footage deficit is especially pronounced given the high student usage of the library. Clemson Libraries had over 1,500,000 visits to the libraries in the 2017-18 fiscal year. This is 64 visits for each Clemson student, which is higher than our peer institutions average 59 visits per student. With the increasing likelihood that Clemson will reach 30,000 students by 2023, these visits will only continue to rise.

Our R1 peer libraries also average more main library seating, study rooms, and classrooms in comparison with Cooper Library. In further investigation of use of library space, we found that our peers have invested in spaces that allow academic communities to gather, showcase their work and develop new skills. 66% of peer institution libraries offer an area of the library that is accessible to only faculty and staff while 50% have a graduate student space. 75% of our peer libraries have a designated exhibit/showcase area and over 50% have event space with seating for 50+ audience members. Additionally, almost every peer institution has invested in spaces that support digital literacy education (see pg. 13).



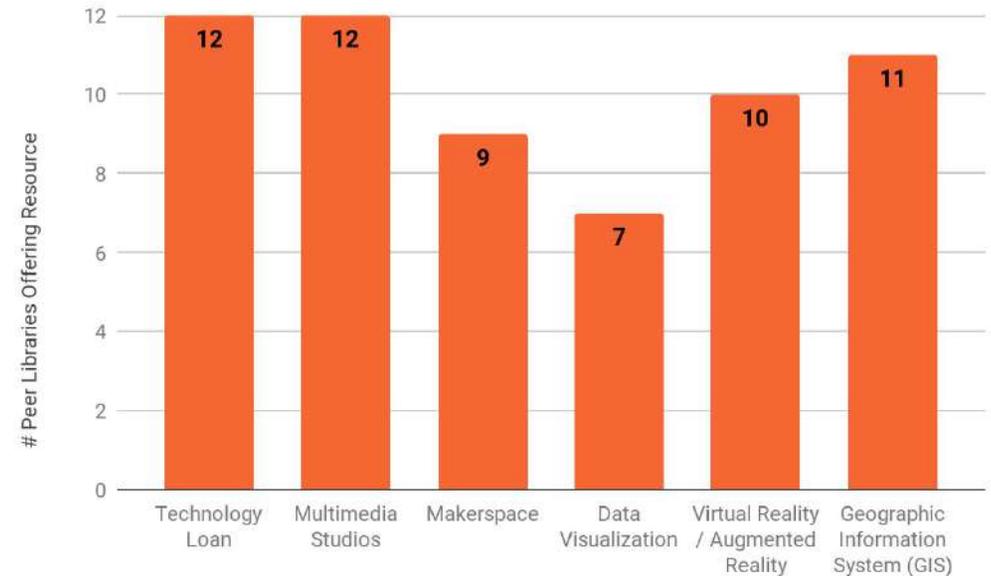
**66%**  
of peers have an area of the library solely for faculty and staff use

**50%**  
of peers have an event and programming space that can hold 50+ people

## Our peer libraries offer a more robust level of digital literacy resources and learning for undergraduates.

Benchmarking shows that all peer libraries offer a basic level of technology learning that supports students as creators while enhancing digital literacy. These services include technology equipment lending programs, makerspaces, digital media creation centers, and data visualization and immersive spaces, all to support students in the creation of multimedia projects. Of our aspirational peers, North Carolina State by far has the most varied array of technology offerings whereas Virginia Tech serves as the exemplar for immersive spaces. Additionally, all of our peers offer multimedia support spaces similar to the Adobe Digital Studio, though several peers have larger spaces with more offerings and high-end equipment. 75% of our peers offer designated spaces and services devoted to makerspaces, geo-spatial information systems (GIS), and visualization spaces. According to the [ARL's Makerspace Spec Kit](#), as of 2015, 81% of academic libraries are engaged in investigating, providing, planning, or piloting makerspace services.

Peer Libraries Offering Various Technology Resources



# 21%

of all library loans at Clemson were **technology equipment** items in 2017-18

# \$5,000

annual Clemson Libraries **budget for technology equipment**

# 77%

of our peers offer spaces and services devoted to **makerspaces, GIS, and visualization**

# 3 positions

average number of staff positions at peer libraries, in 2015, who contributed time to **makerspace**

# 57%

of surveyed peers reported that **scholarly publishing** assistance is the most **essential** library service for **faculty**

# 2 positions

average number of faculty + staff positions supporting **scholarly communications** at aspirational peer institutions

# 4.25 positions

average number of positions at peer institutions that libraries employ to support faculty and researchers with their **data management**

# 75%

of peers have **Digital Humanities** services or spaces in the library

# 50%

of aspirational peers have a dedicated **Data Services Unit** within the library

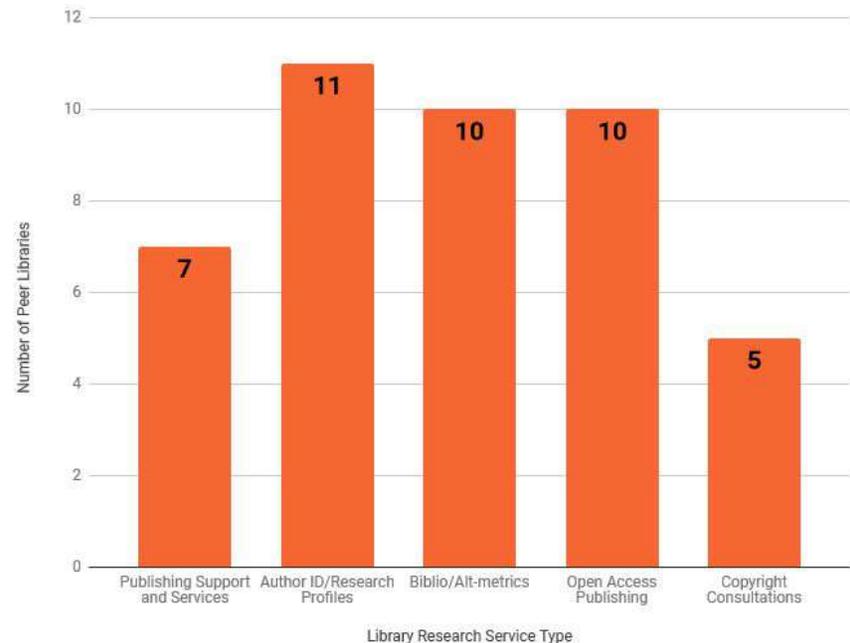
# 75%

of peers offer **grants** to researchers to support use of their collections. Grants range from \$500 - \$5,000.

## Research support for faculty and graduate students is offered at a basic level but is not as advanced as peers.

Benchmarking shows that while the Clemson Libraries provide most basic services offered by our peers, libraries at R1 institutions provide a much deeper level of support for the research needs of faculty and graduate students, particularly in the areas of data services and scholarly communications. In these areas in particular, at least 50% of peers offer staffing and services greater than those offered by Clemson Libraries. Other areas of growth which meet the services and research support offered by peer institutions include grant support and digital humanities, either from the Libraries or in collaboration with other university departments.

Peer Libraries With Scholarly Communications Services



## Our peers currently offer more advanced learning accessibility and affordability services.

Approximately half of our peer schools offer services that support students academically and give greater agency to professors to meet students where they are. Textbook affordability programs, such as textbook lending and incorporation of open educational resources (i.e. alt-textbooks), have risen in popularity. Peer schools like Kansas State, NC State and the University of Maryland have developed a structure of collaboration, with a team of academic faculty, librarians, and members of learning centers and other interested groups working together and dedicating time to investigate and promote affordable learning. Most funds dedicated to affordability programs are replenished annually. Aside from this, benchmarking reveals that our peers prioritize online instruction support and digital literacy as ways to improve learning accessibility and outcomes.



# 41%

of peers provide a **textbook lending program** to provide access to textbooks used in courses with the highest enrollment

# 50%

of peers provide grants to faculty to fund the **creation of open educational resources (OER)**

# 57%

of surveyed peers consider their **textbook lending** program an **essential** service for **undergraduate** students

# \$1,000 - \$5,000

range of **OER implementation grants** provided through peer libraries

# 71%

of surveyed peers offer **for-credit courses** that incorporate information and digital literacy competencies

# 71%

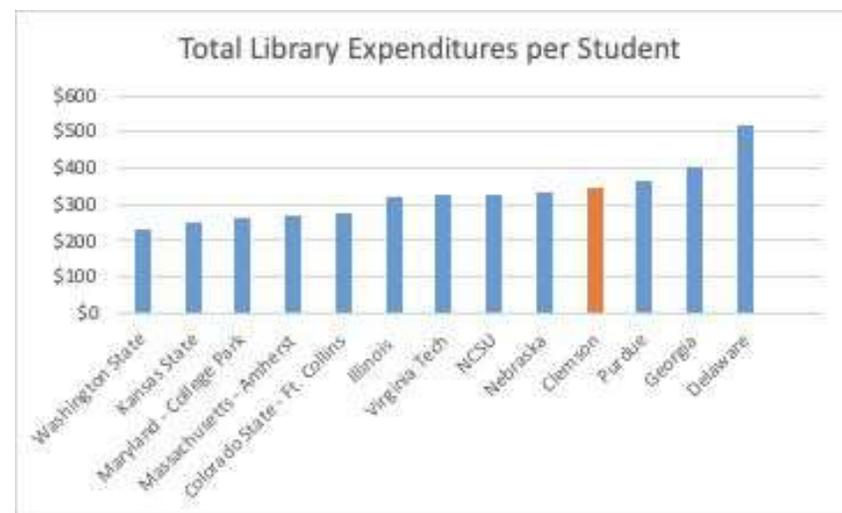
of surveyed peers have or will have a **learning object repository** that instructors can submit content to

**Clemson Libraries' general collections budget, currently at \$9M, is on track to reach our goal of \$10M; however, improvement in funding to support our unique special and digitized collections is crucial.**

Clemson's collections budget derives from various sources including state monies, tuition, student fees, endowments, and monies targeted for or from specific subjects, persons, or awards. Compared to the 12 peer institutions examined, Clemson's FY17 budget for collections ranked fourth from the bottom with a budget of \$8,401,243. However, when comparing total library materials expenditures per student, Clemson fared much better with \$345 spent per student, ranking fourth from the top. While we have maintained strong support for subject areas depending on continuing resources, our ability to purchase monographs and primary source materials needed in Humanities has been hampered by underfunding compared to peers.

Clemson's collection budget has increased for the last four years with money from student fees that have covered journal inflation and some one-time purchases. With inflation of 5-6% per year, \$400,000 of additional money is needed each year to maintain current collection commitments. [EBSCO 2019 Inflation Projection](#)

Special Collections and Archives is allocated \$5,000 annually, primarily for monographs published about Clemson and upstate South Carolina. Currently no money from the Collections budget is allocated for digital collections but rather through the Library Technology budget. Based on peer survey data, Special Collections are much more heavily supported in peer institutions than at Clemson. Three survey respondents indicate support levels respectively of \$125,000 from endowment interest, \$30,000 from general collections plus \$200,000 from endowments, and \$20,000. Of the peer institutions, 50% purchase special collections mostly through endowed funds or one-time funding requests.



# II. Recommendations

- I. Invest Resources in the Libraries**
  - 1. Budget
  - 2. Personnel
  - 3. Operations
  - 4. Spaces: Footprint and Use
- II. Enhance Support for Digital Literacy**
  - 1. Technology Lending
  - 2. Makerspaces
  - 3. Data Visualization and Immersive Spaces
- III. Increase Research Services for Faculty and Graduate Students**
  - 1. Research Data Services
  - 2. Scholarly Communications
  - 3. Grant Support and Awards
  - 4. Digital Humanities
- IV. Improve Learning Accessibility and Affordability for Undergraduate Students**
  - 1. Textbook Affordability
  - 2. Instruction
- V. Maintain Support for Library Collections**
  - 1. Collections Budget
  - 2. Collections Organization
  - 3. Unique Collections

## Recommendations Overview

The second part of the R1 Task Force Report contains our recommendations for the future of Clemson Libraries. This includes the services, spaces, and collections that we recommend for the future and the resources and personnel we need to offer them. These recommendations draw from benchmarking outlined in the first part of this report, as well as national library trend reports and Clemson planning documents.

Broadly, we recommend robustly increasing the resources for the library, including budget, personnel, operations and space; improving services devoted to digital literacy, research support, and learning access; and maintaining support for library collections.

## Recommendation I. Invest Resources in the Libraries

### Key Areas:

1. Budget
2. Personnel
3. Administrative
4. Space

Clemson Libraries faces a great obstacle in becoming the type of library organization found at our peer R1 institutions because of its acute resource constraints. Rising demands for innovative services, unique collections, state-of-art spaces, and other resources are met by expanding costs and an operational budget that for all intents and purposes remains relatively flat over time due to increasing costs of inflation for general collections. The Libraries cannot move forward without significant financial investment from the University or a commitment to pursue other avenues of funding to support the growing research and space needs of our students, faculty, and staff.

## *Recommendation I. Invest Resources in the Libraries*

### **1. Budget**

The overall budget for Clemson Libraries has not kept pace with the demands of an increasing enrollment, and the requests for library resources, space, and services continue to grow unmet. The Libraries' path to other revenue sources is made difficult by the absence of a dedicated development officer to build and nurture a donor base for the Libraries, which could be used to great effect for creating endowments; funding special projects for technology, spaces, and collections; and/or making a strong case for a new library building. The Libraries have been able to provide base levels of support for space, services, and general collections with its current level of funding, but cannot achieve the benchmarks set by peers without further investments.

#### **Recommendations**

- 1.** Commit to fully funding new positions, whether through institutional support or private giving.
- 2.** Allocate recurring funding for facilities and furniture renovations and projects.
- 3.** Increase the Libraries' budget each year to meet the inflationary costs of collections.
- 4.** Recalibrate the budget to better balance personnel and operations expenditures with collections expenditures, as our peers have done.

# Recommendation I. Invest Resources in the Libraries

## 2. Personnel

The Libraries has dedicated personnel who provide exceptional services and work well with the resources available. However, the level of current staffing is not sufficient to meet the current and anticipated demands of Clemson’s faculty, staff, and students to match the spaces, collection, and services that our peers offer. Any further growth in services, collections, and spaces is reliant on increasing personnel to cover existing gaps while also supporting new initiatives.

### Recommendations

1. Hire 11 new faculty positions over the next 5 years to support initiatives in data management and visualization, innovative technologies, digital humanities, Special Collections and Archives, collection development, and two to three associate deans.
2. Hire 17 new staff positions to support the increased investments in technology, research support, outreach, and development of unique collections.
3. Invest in student employment and increase the student budget by nearly 100% from \$210,000 to \$400,000 by 2024.

Example Faculty Positions	
Position Title	Estimated Cost Per Line (salary + fringe)
Associate Dean (3)	\$125,000 + \$55,000
Collection Development Librarian	\$60,000 + \$26,340
Data Visualization Librarian	\$60,000 + \$26,340
Digital Humanities Librarian	\$60,000 + \$26,340
Makerspace/Innovation Librarian (2)	\$60,000 + \$26,340
Scholarly Communications Librarian	\$65,000 + \$28,535
Subject-Specific Archivists (5)	\$60,000 + \$26,340

Example Staff Positions	
Position Title	Estimated Cost Per Line (salary + fringe)
Data Visualization Specialist (2)	\$50,000 + \$21,950
Graphic Designer	\$40,000 + \$17,560
Instructional Designer	\$40,000 + \$17,560
Library Specialist for Technology Lending	\$40,000 + \$17,560
Library Specialist for Textbook Lending	\$40,000 + \$17,560
Makerspace /Technology Specialist (2)	\$45,000 + \$19,755
Marketing and Event Coordinator (2)	\$40,000 + \$17,560
Off-Site Collections Manager	\$40,000 + \$17,560
Programmer (2)	\$65,000 + \$28,535
Special Collections and Archives Support Staff (4)	\$40,000 + \$17,560

## Recommendation I. Invest Resources in the Libraries

### 3. Administrative Support

Clemson Libraries' current flat organizational model is not designed to align with its aspirations. Without the support of an additional level of management at the associate/assistant dean level, a robust external relations department, a fully-staffed financial operations department, and a dedicated development officer, the dean is ultimately limited in their pursuit of external partnerships, donor cultivation, and advocacy of the Libraries to university administration.

#### Recommendations

1. Invest significantly in the Libraries' administrative office to provide a support apparatus for the entire Libraries, including associate deans, event and outreach coordination, marketing, graphic design, and budget management.
2. Work with University Development and Alumni Relations to secure a dedicated FTE Development Officer to increase fundraising and giving for the Libraries.



North Carolina State Hunt Library

## Recommendation I. Invest Resources in the Libraries

### 4.1. Spaces: Footprint

Given Clemson University's growing student enrollment and needs as well as Clemson Libraries' deficits in comparison with peer R1 academic libraries, we recommend constructing more space for study, classes, events, and collaborative and creative work. The nearly 200,000 square footage peer deficits of our main library as well as all Clemson Libraries locations would equate to at least another Cooper Library entirely. While it is currently rare to construct additional branches, a second main library construction has occurred at North Carolina State University, with Hunt and Hill Libraries serving as two main libraries on campus, as well as at Washington State University with the Holland and Terrell buildings serving as the main library with a connecting tunnel ([Zdravkovska](#)).

It is clear that libraries play a central role in providing physical spaces for "academic collaboration, quiet study, technology-enhanced instruction, and/or for learning" ([OCLC University Futures, Library Futures](#)). Clemson has identified that large deficit in non-scheduled student study space (Clemson University Research and Learning Capital Plan), which could be reconciled by adding to existing library space. Students have shown, through library feedback (Clemson Libraries Campus Feedback Task Force Report) and campus feedback (Clemson University Hendrix Student Center Feasibility Study) that they prefer to study at the library, but often have a hard time finding space to work.

### Recommendations

1. An additional 200,000 sq. ft. of library space is essential to support increasing enrollment, growing library services, and to reach the average footprint of peer institutions. We anticipate that constructing an additional 200,000 sq.ft. of library space would cost between \$55 and \$75 million. Explore need for additional branches on Clemson's main campus.
2. Relocate infrequently used materials to off-site storage (OSS) to free existing space for new services. This will require additional off-site storage area, as our current facility is at 60% capacity.
  - a. Add 40,000 linear feet for general collections and 15,000 linear feet for Special Collections and Archives.
  - b. Add 1 FTE to Special Collections and Archives and relocate 1 FTE from Resource Sharing to support increase in activity at Depot.
  - c. Separate the shelving needs for the Records Center and Special Collections and Archives from general OSS.
3. Provide additional resources (space and/or services, depending on need, which requires further research) for Clemson's extension and innovation campuses, which are currently underserved.

## Recommendation I. Invest Resources in the Libraries

### 4.2. Spaces: Use

In addition to providing additional space for non-scheduled study, we recommend that additional library space be allocated to convene the campus community. Cooper Library serves as the physical heart of the main Clemson campus, and thus is perfectly located to provide spaces and facilitate programs for the community broadly or specific sub-populations to generate engagement, outreach and inclusion ([OCLC, University Futures, Library Futures](#)).



Virginia Commonwealth University Cabell Library Faculty, Staff, and Graduate Student Reading Room

### Recommendations

1. Additional library space should be allocated to create areas for faculty, staff, and graduate student use. A specialized shared space would satisfy campus desires to form more co-working spaces and could be built out of existing architecture, with an investment in furniture and card-access. Cost estimate: \$50,000 - \$100,000.
2. Additional library space should be allocated to create event and programming space to hold at least 100 people. Cooper Library is already shifting existing spaces, including the Brown Room and the Byrnes Room, to be used as event and exhibit space, though we recommend an expanded footprint for larger audience possibilities. Cost: \$50,000 - \$200,000.
3. Construct at least 20 new group (4-6 people) study rooms (Cost: \$20,000 each) and 2 classrooms for library and university use (Cost: \$100,000 - \$150,000)
4. Additional library space should be allocated to expand experimental technology offerings (see Recommendation II: Enhance Technology Learning in the Library.)

## Recommendation II. Enhance Support for Digital Literacy

### Key Areas:

1. Technology Lending
2. Makerspaces
3. Data Visualization and Immersive Spaces

Supporting digital literacy through technology learning will simultaneously support Clemson Forward goals and keep pace with national academic library trends. Improving our public technology resources will aid in Clemson Forward's priority of supporting interdisciplinary curricula and will strengthen the undergraduate experience by offering all students, regardless of discipline or year, the opportunity to learn and create with high-end technology. Improved technology resources also support the University's research initiatives in the areas of big data and innovation.

Digital literacy initiatives [are important](#), in part, because of the universal application of the concepts over all curriculum areas. Not only does it "generate more excitement and interest around learning," digital literacy enables "deeper connections with others and equips them with a new lens to critically evaluate the world around them." ([New Media Consortium](#)) Access and instruction in technology builds digital literacy, [including](#) design, programming, media creation, coding and entrepreneurship, [an essential set of skills](#) for recent college graduates.

[OCLC's University Futures, Library Futures](#) report indicates that institutional directions are supported by library service offerings, including research support in the form of GIS specialists and research data librarians, and liberal education support in the form of technology librarians. Additionally, the [NMC Horizon Report](#) acknowledges many libraries create active learning environments including media production studios and makerspaces, which "foster learning experiences that lead to the development of real-world skills and concrete applications for students."

## Recommendation II. Enhance Support for Digital Literacy

### 1. Technology Lending

Clemson is able to maintain status quo with existing budget of \$5,000, but is not able to grow our technology lending collection without additional funding. Current circulation statistics show that items in the tech lending collection are checked out at a higher rate than any other materials; therefore we recommend devoting additional funds to expand collections.



*Technology equipment loan items at Clemson and peer institutions include media support (DSLRs/camcorders, projectors, audio), VR/AR/gamification, accessibles, research supportive tech, and sensory items.*

### Recommendations

1. Increase technology collection budget to between \$16,000 and \$25,000, with additional funding for workspace improvements and staff support for collection maintenance.
2. Create an additional position to provide support for multimedia learning using library technology equipment, who would aid in collection development and multimedia training.
3. Purchases should be geared towards items of current high usage as well as those identified emerging trends seen at aspirational and benchmarking institutions. In addition, items identified [ALA's Library of the Future Trends](#) document, such as [virtual reality](#), [makerspaces](#), [gamification](#), and even media technology that supports [collected learning](#), should be considered for inclusion.

## Recommendation II. Enhance Support for Digital Literacy

### 2. Makerspaces

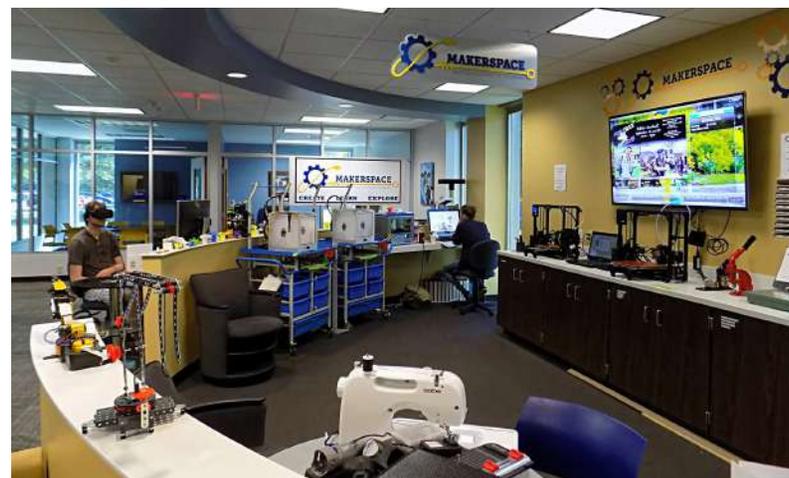
Students are increasingly likely to learn by making and creating both inside and outside of classroom environments. Libraries are ideal locations to serve as creativity hubs on campus, as it is a natural extension of the library mission to facilitate knowledge creation and bring scholars together. Makerspaces, which make accessible a range of high-end technology including 3D printers, laser cutter/engravers, sewing machines and hand tools, enable creativity and digital literacy.

#### Recommendations

1. Create a 5,000 sq.ft. makerspace that includes high-end equipment (including 3D printers, laser cutter/engravers, electronics equipment, sewing machines, UV printers) as well as a large area for student collaborative creative work space. An initial cost of \$500,000 would be required to create, furnish and supply the space, as well as an annual cost of \$15,000 for consumable materials and repair costs.
2. Creation of a creative technology team that includes an integrated librarian, 1-2 full-time support staff, and an additional 4-5 student employees.



*N.C. State's D. H. Hill Jr. Library Makerspace*



*Kent State University-Tuscarawas Library Makerspace*

## Recommendation II. Enhance Support for Digital Literacy

### 3. Data Visualization and Immersive Spaces

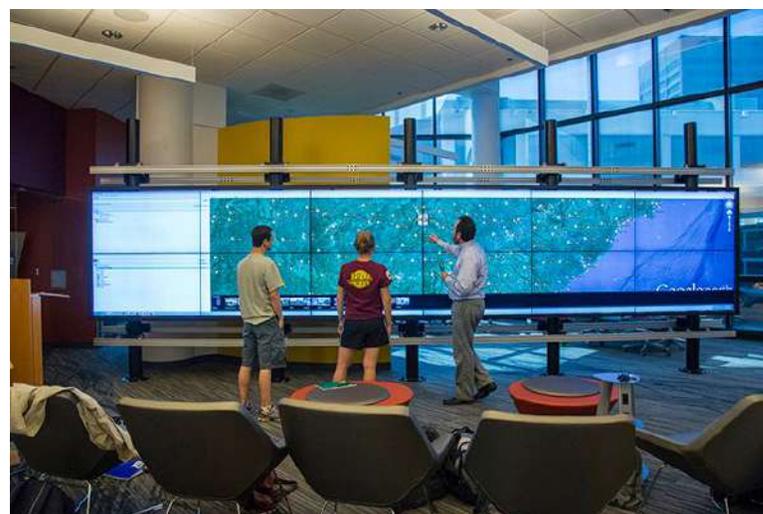
We recommend investing in innovation centers or partnerships supporting data visualization, geospatial information systems, and virtual learning environments (VR/AR). Visualization spaces support both faculty/graduate student research and undergraduate education.

#### Recommendations

1. Developing our digital media space(s) to include a bookable AR/VR room and consultation/ meeting rooms with visualization hardware and software. An initial cost of \$20,000 would be required to create a space with the appropriate technology. 1 support staff, 1 programmer, and an additional 2-3 student employees would be needed to meet demand.
2. Creating a data visualization team comprised of 2-3 positions—likely 1 data services specialist and/or 1 scholarly communication liaison along with 1 technology librarian—to consult on research projects and visualization spaces, provide troubleshooting of these spaces, and create resource guides. In addition, it would be necessary to solidify partnerships (such as with GIS) that support data visualization services to include them as part of our service offerings, perhaps by supporting that innovative center with a library data services specialist.



*N.C. State Hunt Library Teaching and Visualization Lab*



*Georgia State Library CURVE*

## Recommendation III. Increase Research Services for Faculty and Graduate Students

### Key Areas:

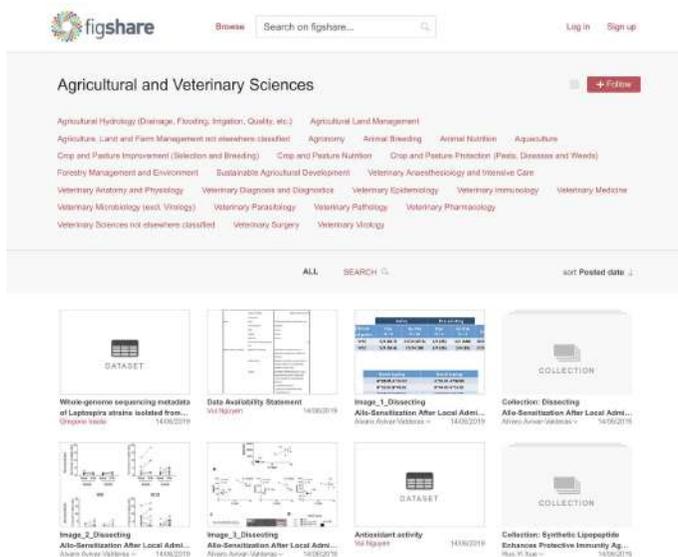
1. Research Data Services
2. Scholarly Communications
3. Grant Support and Awards
4. Digital Humanities

Clemson Forward sets high expectations for research and scholarly work. As an R1 University, scholarship quantity is set to grow by 4% yearly and annual submission of research proposals is targeted to grow 80%. For the University to achieve these goals, the Libraries must be equipped to provide research support and collections on the same level or above our R1 peers. Based on what our peers designated as the most essential services for faculty and graduate students, several key areas are recommended for further development.

## Recommendation III. Increase Research Services for Faculty and Graduate Students

### 1. Research Data Services

As the level of research at Clemson increases, the need for infrastructure to support data produced will continue to grow. An [ACRL white paper](#) explains that academic libraries should consider offering research data services because they “create the opportunity to enhance the libraries visibility and expand the role of the library in the academic life” of faculty and researchers. A well-developed data services program can also play a part in helping the institution meet federal funding agency requirements. In order to deepen, expand, and implement research data services to the [level of the majority of peers](#), we recommend additional personnel and services.



FigShare Scientific Data Repository

### Recommendations

1. At least 1 librarian who specializes in data services; as demand increases consider increasing the number of librarians and professional staff who work in data services to at least 3-4 to meet the peer average.
2. Expanding beyond basic level of liaison-provided consultations and provide dedicated support and instruction for individual researchers or research groups.
3. Create and implement a data repository for working data sets as well as archival data, at an expected cost of \$70,000 per year, or, investigate partnerships with industry data repositories.

## Recommendation III. Increase Research Services for Faculty and Graduate Students

### 2. Scholarly Communications

In support of [ACRL's strategic goal](#) that “the academic and research library workforce accelerates the transition to more open and equitable systems of scholarship,” ([ACRL Advocacy & Issues, Scholarly Communication](#)) scholarly communications are a crucial area of library services that are not adequately supported at Clemson University Libraries. In order to be at the level of our peers, Clemson Libraries need to add to both staffing and services for scholarly communications.

#### Recommendations

1. At least 1 dedicated Scholarly Communications Librarian, to meet the key areas of library expertise established by [NASIG's Core Competencies for Scholarly Communications Librarians](#).
2. Provide training and support in scholarly communications for subject liaisons to supplement scholarly communications initiatives
3. Expand and deepen support beyond web-based research guides to offer copyright/fair use consultations, open access support, publishing assistance, and support/workshops for author and biblio-metrics.
4. Potentially need to collaborate with other library units or departments on campus to create a hub for scholarly communications to offer scholarly communications services throughout the research and dissemination cycle. In most peer institutions, scholarly communications is a major focus of library services for faculty and graduate students. Scholarly Communications services and staff are most often located in library units focused on digital initiatives and copyright, with titles such as Digital Programs and Initiatives, the Center for Digital Scholarship and Curation, the Center for the Advancement for Digital Scholarship, and the Copyright and Digital Scholarship Center. Other libraries have dedicated units for scholarly communications, including the University of Illinois Urbana-Champaign and Virginia Tech.

## *Recommendation III. Increase Research Services for Faculty and Graduate Students*

### **3. Grants and Award Support**

Grants provide a means for the Libraries to “tell its story” by demonstrating to the campus and the wider public how Libraries resources contribute to research. Travel grants raise the visibility of the Libraries’ unique collections while Open Educational Resources and undergraduate awards provide direct aid to students. In addition, OER grants help further disseminate Clemson University research to the wider community. Our recommendations are intended to deepen the level of support for researchers and students.

#### **Recommendations**

- 1.** The Libraries should continue to provide monetary support for open access publishing and the creation of open educational resources, and, if possible, expand such support.
- 2.** To promote the use and recognition of Special Collections and Archives (SC&A), the Libraries should consider offering travel grant(s) for use of SC&A materials. Researchers who receive the grant(s) should be required to present or report on their research and the use of SC&A resources.
- 3.** To promote the use and recognition of library collections other than SC&A, the Libraries could provide undergraduate research awards for projects using Libraries resources. Students receiving awards should be required to present or report on their research and the use of Libraries resources; their research should also be added to TigerPrints.

## Recommendation III. Increase Research Services for Faculty and Graduate Students

### 4. Digital Humanities & Scholarship

Clemson Libraries is well positioned to be intimately involved in new digital humanities initiatives on campus as an active partner. Most peer institutions have some form of digital scholarship center that the library actively partners with, and multiple librarians participate by devoting their time and expertise. In general, based on findings across benchmark peers and an ACRL review of [academic library trends](#), we concur with the Top Trends advice for the library to have a “holistic mindset” where librarians “position themselves as collaborative partners...on projects instead of service providers to projects.”

Clemson has not been able to vigorously invest in digital scholarship or humanities thus far, and so we recommend a dedicated position to kickstart the initiative. We anticipate this will continue as a growing field, and that the library is perfectly suited to be heavily involved.

#### Recommendations

1. A digital humanities librarian position would be required to fully invest in a digital humanities program and/or other digital scholarship initiatives.
2. Collaborate with departments on campus that intersect technology and humanities; provide spaces, partnerships and personnel to support programs and research initiatives.
3. Closely monitor developments of the [Clemson Humanities Hub](#) and its expected location in the future Daniel Hall Annex.
4. Develop digital research collections to support Clemson’s new [Ph.D.program in Digital History](#). One time purchases are estimated to cost \$650,000.
5. Hire a programmer to assist faculty with text and data mining and analytics, write custom programs, and provide web support.

## Recommendation IV.

# Improve Learning Accessibility and Affordability for Undergraduate Students

### Key Areas:

1. Textbook Affordability
2. Information Literacy & Instruction

As the cost of textbooks has spiked 1,041% from 1977 to 2015, over three times the price of inflation, students have had to sacrifice meals to buy textbooks or suffer academically because they could not afford their course materials, especially underrepresented students ([Clemson OER](#)). Providing textbook affordability programs would greatly relieve that burden for our students to where they can prioritize their education over financial insecurity. They would also enable us to meet Clemson Forward goals pertaining to engagement, the academic core, and the living environment. If we cannot retain our students because they are struggling academically, then we cannot meet our goals of increasing our graduation numbers or retaining our underrepresented populations. For the same reason, we must also evolve our instruction program to provide learning opportunities and environments that meet learners where they are, improving the overall accessibility of our library resources.

## 1. Textbook Affordability

ACRL identified textbook affordability and Open Educational Resources (OER) among the [top trends in academic libraries for 2018](#) because they create “sustainable collections in libraries, affordable textbooks for students, new options for curriculum development, and avenues for digital scholarship.” We must make these programs a priority to not only provide curriculum support for Clemson students, but form collaborative partnerships with faculty.

### Recommendations

1. Create an annual \$20,000 fund with student government and library donors in support of a textbook lending program.
2. Model other libraries textbook lending programs by purchasing textbooks for courses with the highest number of enrollments.
3. A fully functioning textbook lending program requires 1 additional staff person to provide oversight and at least 250 linear feet to store the materials, requiring a renovation and expansion of Cooper’s circulation office.
4. Prioritize funds to incentivize OER use by faculty. A sustainable fund of \$28,000 should be set aside each year to support OER teaching, with awards given to faculty to develop courses with no textbook costs in both the Fall and Spring semesters.
5. Implement an OER creation award, requiring an initial \$12,000 to begin the program.
6. Establish a long-term, university-level affordable learning taskforce, with representatives from all interested stakeholder groups and commitment of needed time by task force members.

## 2. Information Literacy & Instruction

Per [ACRL's performance indicators](#) (principles 3-4), Clemson Libraries instruction program needs to be developed to expand its educational role and increase the discoverability of our resources. Expanding our role would require re-envisioning general library education to include co-curricular and interdisciplinary experiences for students, one-on-one assistance through multiple platforms, and access to resources from preferred user starting points, such as through campus LMS and social media. To ensure that library content is accessible to students, the Libraries must also model best pedagogical practices for online tutorial design to best adapt to our students online and digital literacy learning needs.

### Recommendations

1. Hire 1 position dedicated to instructional design to support:
  - a. a partnership with Clemson Online to provide in-person and online course design consultations.
  - b. for-credit courses incorporating information literacy standards that are either co-taught or led by faculty librarians.
  - c. Consistency in online program delivery and coordinate library software and service platforms used to provide library instruction and services.
  - d. offering, regulating, and creating content for a learning object repository that allows discovery and submittals of rubrics, assignments, modules, and video tutorials.
2. Embed librarians and library resources within our LMS by procuring a software that seamlessly integrates with Alma at a cost of approximately \$20,000/year.

## Recommendation V. **Maintain Support for Library Collections**

### Key Areas:

1. Budget
2. Organization
3. General Collections
4. Unique Collections

As Libraries evolve and serve many functions to undergrads, grads, and faculty, the reliance on library collections is still central for faculty according to the 2018 Ithaka S+R US Faculty Survey 2018. “Faculty maintain that the library’s most important function is as the buyer of resources” and 80% answer “my college or university library’s collections or subscriptions” when asked where they go for journal articles and scholarly monographs to support their teaching and research. ([Ithaka US Faculty Survey 2018](#))

## *Recommendation V. Maintain support for library collections*

### **1. Collections budget**

Unique collections play a vital role in differentiating a library from its peers. At Clemson, these unique collections have historically lacked in support for collections, personnel, and equipment. Comparisons against peers bear this out. Based on peer benchmarking, Clemson Libraries do appear to be on the right track with the general collections budget and are proceeding toward our goal of \$10,000,000. Additional funding for inflation and some continued support from student fees would allow us to support new programs and research areas, as well as acquire resources requested by faculty and others in the Clemson community.

#### **Recommendations**

- 1.** Increase budget for the purchase and management of materials for Special Collections. This funding could come from endowments, gift accounts, or state funds.
- 2.** Develop a funding model for digital collections to cover equipment replacement and upgrade and storage/preservation needs.
- 3.** Solicit annual funding support from the Provost for inflation to reduce the reliance on student fees for general collections and to free up monies to better support library operations and personnel.

## *Recommendation V. Maintain support for library collections*

### **2. Collections organization**

Analysis of organization charts of peer institutions failed to identify a dominant structure for collections management and reporting within libraries. Additional review is needed to determine if an Associate Dean for Collections is warranted.

#### **Recommendations**

- 1.** Hire a Collection Development Librarian (CDL) to coordinate with subject liaisons on building, analyzing, and reviewing collections. The addition of a CDL could reduce the percentage of time subject liaisons spend on collection development and result in more robust collections across all subjects.
- 2.** Perform a thorough collection assessment utilizing a product such as OCLC's GreenGlass.
- 3.** Explore new ways to allocate monographic funds to better address new college and departmental structures and research and curricula initiatives.
- 4.** Develop a protocol to coordinate new curricular and research initiatives with resource funding to meet new faculty research, teaching, and program needs.

## Recommendation V. Maintain support for library collections

### 3. General collections

Clemson Libraries save money, cap inflation, and expand access to resources by participating heavily in consortial deals that are negotiated centrally for a large group of libraries. The buying power realized from the forming of these groups reduces the costs of what we buy and/or lease. Clemson Libraries participate in several of these groups including Lyrasis, ASERL, the Carolinas Consortium, GWLA (the Greater Western Library Alliance) and PASCAL. In addition, we enter into multi-year contracts with major publishers and vendors to cap inflation and help project future costs. The Libraries purchase and/or license materials in all formats including data sets.

#### Recommendations

1. Purchase resources for new PhD in Digital History.
2. Added support for nursing & health care on campus and at GHS. Better support doctoral programs.
3. Support Architecture on campus and in Charleston.
4. Support Business students by adding case options to complement the Harvard Business Review cases.
5. Continue strong support for sciences & engineering by adding more ebooks and journal backfiles + EndNote citation manager.
6. Incorporate diversity into collection building.
7. Provide added resources to support student life.
8. Continue to support open access publishing by funding part or all of authors' fees.
9. Create fund to purchase and support primary sources for humanities.

General Collection Needs	
Collection Purpose	Price
Digital History PhD	\$650,000 one-time
Nursing and Health	\$50,000 annually
Architecture	\$25,000 annually
Business	\$16,000 annually
Science and Engineering	\$400,000 annually
Diversity	\$50,000 annually
Student Life - leisure and news	\$85,000 annually
Open Access Publishing	\$40,000 annually
General Humanities	\$250,000 estimate

## Recommendation V. Maintain support for library collections

### 4. Unique collections

Unique collections play a vital role in differentiating a library from its peers. Major advancements and funding are needed to develop unique collections at Clemson of R1 quality. Additional funding for Special Collections and Archives (SC&A) is needed to develop areas of specialties to build the collections with content, create new resources such as oral histories and digital projects, and curate holdings to support the research. At minimum, a specialty archivist along with support staff is needed to move forward with the development of each area of specialty.

Archival collections are evolving beyond the paper. To build, curate, and preserve an R1 research collection, SC&A needs to add expertise dealing with special formats such as digital records and oral histories along with the areas of specialties. Strengthening the collecting areas of SC&A will be a key factor in creating distinction and uniqueness among its peers. After surveying the current status at peer and regional cultural institutions, SC&A identified the following key areas to develop distinction:

- Textile history
- Local history
- Agriculture
- Architecture
- Athletics
- Clemson African American experience
- Military history
- Upstate LGBTQIA+

#### Recommendations

1. Hire a dedicated development officer for the library, who will specifically work to build endowments, enhance one-time project funding and seek grant opportunities to develop unique collections.
2. Create a digital and preservation archivist position to support the preservation and access to digital content. Improve current preservation model.
3. Create an oral historian position to develop and curate this resource for the research collection.
4. Hire additional archivists and staff for unique collection areas to support continuing operations as well as new initiatives.
5. Identify additional physical space for staff and onsite storage to accommodate the growth of SC&A. Within the next five years, an additional 6,000 sq. ft. is needed; equivalent to its current footprint in the Strom Thurmond Institute Building.
6. Create an overall collection development policy for general, special, and digital collections.
7. Examine current faculty and staff organization and production workflows.
8. Develop a refresh cycle for digitization equipment based on the minimum FADGI 3 star performance and before equipment reaches end of warranty.



# Conclusion

## What we learned

Through surveys, data collections, and trend reports, our benchmarking found that Clemson Libraries generally has half of the resources, services, and spaces that our aspirational peers report. Clemson Libraries currently supports a student body of 25,000 students and 5,000 academic faculty and staff through support that resembles our peer's support ten years ago, in 2009.

And yet, Clemson Libraries excels through the dedication of our library employees, who have built a wide variety of services and constantly advocated for increased support. With additional resources and personnel, specifically in the areas of digital literacy, research services, learning accessibility, and by maintaining support for collections, Clemson Libraries will be closer to our aspirational levels of resources, spaces, services, and collections.

Additional information from the report, including collected data and survey questions are available in [Box](#).

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