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LIBRARIANS IN AN AUSTERITY ENVIRONMENT

A dissertation submitted to
the Graduate College of
Marshall University
In partial fulfillment of
the requirements for the degree of
Doctor of Education
in
Leadership Studies
by
Thomas L. Walker, II

Approved by
Dr. Barbara L. Nicholson, Committee Chairperson
Dr. Charles Bethel
Dr. Kelli Johnson

Marshall University
August 2022

APPROVAL OF DISSERTATION

We, the faculty supervising the work of **Thomas L. Walker, II**, affirm that the dissertation, **Librarians in an Austerity Environment** meets the high academic standards for original scholarship and creative work established by the EdD Program in **Leadership Studies** and the College of Education and Professional Development. This work also conforms to the editorial standards of our discipline and the Graduate College of Marshall University. With our signatures, we approve the manuscript for publication.

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DEDICATION

This dissertation is dedicated to my mother, Constance Walker, who has supported me every step of the way through this degree. Thank you for listening to me complain, and yell about this paper. Thank you for supporting me physically and financially when I wasn't sure when I'd be able to eat again. And, most of all, thank you for the years of encouragement and the sense of self-worth that you instilled in me. I love you Mom, I truly, would not have been able to do this without you.

I also dedicate this work to the memory of my sister and father who "shuffled off this mortal coil" while I was still in graduate school. Neither of them got to see the librarian I have become and will not be able to see me receive the honor of a doctorate that accompanies a dissertation. Yvonne T Walker and Thomas Lee Walker, I, thank you for your years of encouragement and support. I will always love you. Dad, there's another Dr. Thomas Walker in the family.

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TABLE OF CONTENTS

List of Tables	ix
Abstract	x
Chapter 1	1
Preliminary Literature Review	5
Research Focus	11
Research Questions	12
Tentative Methods	13
Population and Sample	14
Process	15
Chapter 2	17
Review of Related Literature	17
Open Access	22
Resource Sharing	24
Reallocation	26
Fee-Based Services	28
Personnel	29
Purchasing Changes	30
Chapter 3	32
Research Methods	32
Research Questions	33
Research Design	33
Survey Instrument	34

Survey Distribution	34
Data Analysis	35
Summary	35
Chapter 4.....	37
Results	37
Method.....	37
Process.....	38
Theoretical Framework	39
Population and Sample.....	39
Findings.....	42
Quantitative Findings.....	42
Research Question One.....	43
Summary of Research Question One	48
Research Question Two	48
Summary of Research Question Two	53
Research Question Three	54
Summary of Research Question Three	57
Qualitative Findings.....	57
Employment Changes.....	59
Elimination of Duplicates/or Unused Material.....	60
Transition to Electronic Materials	61
Petitioning or Requesting Extra Funding/Provost Assistance	62
The Impact of COVID	63

Summary	64
Chapter 5	66
Purpose of the Study.....	66
Respondent Data Population and Sample	66
Methods.....	68
Quantitative	69
Qualitative	69
Summary of Findings	70
Research Question One	70
Research Question Two.....	70
Research Question Three.....	71
Discussion	71
Recommendations for Further Study	73
References.....	75
Appendix A: Approval Letter	83
Appendix B: Dissertation Survey	84
Appendix C: Survey Population	97
Appendix D: Ten Year Comparison	102
Appendix E: ARL Ten Year Comparison.....	103
Curriculum Vitae	104

LIST OF TABLES

Table 1: Five Poorest States In The United States.....	1
Table 2: Qualitative Participants.....	42
Table 3: Demographics of Participants.....	43
Table 4: Formal Policies or Practices	44
Table 5: Relying on Subject Specialists.....	45
Table 6: Effect of User Statistics on Budget Choices.....	46
Table 7: Ordered texts to maintain accreditation.....	48
Table 8: Usage of Trade Publications.....	49
Table 9: How Reductions Were Made.....	50
Table 10: Consulting With Other University Librarians	51
Table 11: Resource Sharing Possibilities.....	51
Table 12: Institutions Petitioning Administration for Exemption	52
Table 13: Overall Library Allocation	55
Table 14: Increase Over the 2018-2019 Academic Year.....	56
Table 15: Increase Over the 2014-2015 Academic Year.....	56
Table 16: Carnegie Classification.....	67

ABSTRACT

The purpose of this study was to evaluate methods used by library administrators to maintain collections to support programs at Carnegie institutions classified R1, R2, D/PU: Doctoral/Professional Universities (formerly R3) with varying degrees of research activity and selected M1 (i.e., Masters Large) institutions, and compare those data.

Public institutions of higher education have seen mandatory state budget cuts for more than 20 years, with each year's cut being larger than the previous. These statewide education cuts have affected academic libraries in a major way, resulting in purchasing cutbacks, decreased subscription renewals and cancellations.

Purchasing cutbacks have meant fewer physical book purchases and more journal cancellations, while hiring freezes and job cuts have resulted in more responsibilities for individuals in the library workforce; in some cases, duties have been outsourced to specialty companies, from maintenance operations to acquisitions processing, such as cataloging and even labeling.

These drastic cuts in library budgets have caused librarians and administrators to cut not only fringe elements in the budget, but to develop creative changes in the fabric of library functioning in order to remain operational, as well as maintain accreditation standards.

Chapter 1

Public institutions of higher education have seen mandatory budget cuts for more than the past 20 years, with each year's cut being larger than the previous. According to the United States Census Bureau's Selected Economic Characteristics (US Census Bureau, 2018), the five poorest states in the United States are New Mexico, Alabama, Arkansas, West Virginia, and Mississippi.

Table 1

Five Poorest States In The United States

Rank	State	Per capita income	Median household income	Median family income	Population	Number of households	Number of families
46	New Mexico	\$23,683	\$44,803	\$54,705	2,085,572	760,916	489,532
47	Alabama	\$23,606	\$42,830	\$53,764	4,849,377	1,841,217	1,232,515
48	Arkansas	\$22,883	\$41,262	\$51,528	2,966,369	1,131,288	752,212
49	West Virginia	\$22,714	\$41,059	\$52,413	1,850,326	735,375	472,869
50	Mississippi	\$21,036	\$39,680	\$50,178	2,994,079	1,095,823	738,463

Public institutions of higher education in those states have, like others, seen mandatory and dramatic budget cuts over the past five years, again with each year's cut being larger than the previous. As of two years ago, the most recent data available for comparison, none of the five had returned to funding its colleges and universities at pre-recession levels, although Arkansas has come the closest with a -10.2% gap between current and previous funding levels. Alabama shows the largest gap at -36.6%, followed by New Mexico at -32.2%, Mississippi at -23.2%, and

West Virginia – the locus for this study – at -23% (Center on Budget and Policy Priorities [CBPP], 2015).

In West Virginia in 2017, state and local support for higher education — through taxes and other sources, such as lottery revenue — totaled \$332 million, while net tuition revenue — the share of financial support shouldered by students and their families — was nearly \$500 million. (Hill & Anderson, 2018, para. 5)

The decreased funding from the state has resulted in an almost \$2,000 increase in tuition per student (Hill & Anderson, 2018). According to Hill (2018), state appropriations have decreased \$2,150 per student since 2008. This ranks West Virginia 45th in educational appropriations per- full time equivalent (FTE).

These statewide education cuts have also affected academic libraries in a major way, resulting in purchasing cutbacks, decreased subscription renewals and cancellations. Purchasing cutbacks have meant fewer physical book purchases and more journal cancellations, while hiring freezes and job cuts have resulted in more responsibilities for individuals in the library workforce; in some cases, duties have been outsourced to specialty companies, from maintenance operations to acquisitions processing, such as cataloging and even labeling. Many libraries have a specialized staff member that handles issues with the Integrated Library System (ILS) or aggregated databases. This position can also be outsourced to a help desk at a decreased salary (Dugan, 2002). Other positions that have been reduced have been library liaisons. Liaison duties have been combined across interest in fields, rather than relying on professional training in the field. At West Virginia University (WVU), for example, there is no longer a music librarian.

That position is now known as the Creative Arts Librarian with a corresponding expansion of responsibility.

These drastic cuts in library budgets have caused librarians and administrators to cut not only fringe elements in the budget, but to develop creative changes in the fabric of library functioning to remain operational, as well as maintain accreditation standards. According to the *2015 State of American Libraries: A Report from the American Library Association*, “Academic librarians are working largely with reallocated funds to transform programs and services by repurposing space, migrating collections, and redeploying staff in the digital resources environment” (para. 4).

While these cutbacks are troubling, it still leaves a heavy responsibility on the librarian to maintain the professional standards set by the American Library Association (ALA). According to Article I of The American Library Association *Code of Ethics*, “We provide the highest level of service to all library users through appropriate and usefully organized resources; equitable service policies; equitable access; and accurate, unbiased, and courteous responses to all requests” (para. 4). This level of service is becoming increasingly difficult as these budget cuts can be multiplied by the inflated costs of journal subscriptions. Journal subscription costs typically rise about 7% per year, which makes the task of budget management almost impossible for library administrators who are forced to maintain a budget that has remained static in several years, or worse, has been cut. On November 19, 2014, Ed Dzierzak of the Marshall University Health Science Library (HSL) informed the Marshall University Faculty Senate Library Committee that the HSL had received a 12% budget cut, reducing their budget from \$500,000 to

\$440,000 (Ed Dzierzak, personal communication, 2014). As many libraries do, the HSL had purchased their subscriptions for the year and had already committed the funds as normally allocated to renewals, based on the static budget of \$500,000 that they have had for the past five years. As a result of the 12% budget cut, two journal packages had to be cancelled, OVID (the internationally recognized leader of electronic medical, scientific, and academic research information solutions) and Wiley (which contained approximately 2,000 journals.) Those same funding cuts resulted in two other packages needing funding: the *Journal of the American Medical Association* (JAMA) and Springer journals. In order to maintain the collection, the shortfall was covered by Marshall University's John Deaver Drinko Library to retain the Springer database package, so the university as a whole did not lose access to over 1,600 titles. According to Allen Press, Inc., "Since 1989, prices for US society journals have increased 7.3% on average annually" (para. 3).

In the academic year 2015/16 alone, West Virginia colleges and universities were hit with a 10% cut, with another mid-year cut of 5% expected in 2016. (State of West Virginia, p. 8) In some cases, in academic libraries in particular, that 15% can actually be closer to 22% due to inflationary increases in subscriptions. According to the latest State Higher Education Finance (SHEF) 2017 report, "the share of financial support shouldered by students and their families in response to reductions in allocations to universities was nearly \$500 million" (Hill & Anderson, 2018, para. 5).

The purpose of this study was to determine library administrators' actions when faced with mandatory state budget cuts. In *Serial Killers: Academic Libraries Respond to Soaring Costs*, McCarthy (1994) writes,

However, to explain the journal's upward price spiral by simply citing currency fluctuations, the growth of research, or costs/prices would be to give the issue short shrift. One of librarians' primary complaints is that publishers and editors have abandoned their traditional functions to filter out and reject unimportant research results, leaving the wasteful growth of journals as a result. (para. 4)

As previously mentioned, in the 2014/15 academic year Marshall University cut the OVID and Wiley database packages, which included over 2000 science, technology, engineering, and mathematics (STEM) journals. This was a necessary cut due to increased subscription rates for the 2015-16 year. At that time the university also faced two other potential cuts that would have affected these same STEM programs, but a last-minute reallocation of the library's operating budget saved those two database packages. Fortunately, through creative purchasing, the Acquisitions Librarian and Health Sciences Librarian were able to find suitable substitute databases. The School of Medicine also committed to using the university's open access initiative which opened the school to the Digital Commons community and increased access to peer resources.

Preliminary Literature Review

Academic institutions have been adversely affected by the United States' economic recession. Since 2008 the literature has shown that even the most prestigious of universities have

not been spared; for example, Hollins University in Roanoke, Virginia is featured on the *Princeton Review's* Best Colleges lists and was listed in Forbes as one of the most financially fit private colleges in the United States. It also received an Association of College & Research Libraries (ACRL) Excellence in Academic Libraries Award in 2009, yet the university still saw cuts due to declines in enrollment resulting in a flat budget in 2013/14 (Vandale, 2013). Further evidence similar to this is readily available in the literature. According to The National Association of College and University Business Officers (NACUBO), more than 800 U.S. and Canadian colleges and universities, reported an average loss of 18.7% of endowment funds in 2009. The State Higher Education Executive Officers (SHEEO) reported 44% of the 65% are in states where the governors have proposed cuts or flat funding for FY2010 (Blessinger, 2011). In 2016, “the state of California reduced UC Berkeley budgets by roughly 54 million dollars (Liu, 2017, para. 3). The University of California at Berkeley was previously rated as the number one public university in the country by *U.S. News and World Report* (2017). Similarly, in the 2017 NACUBO-Common fund Study of Endowments (NCSE), “the 809 institutions in this year’s Study represented \$566.8 billion in endowment assets. While the size of the median endowment was approximately \$127.8 million, 44 percent of Study participants had endowments that were \$100 million or less” (2018, para.5).

Serials and database subscriptions are usually among the first things to be cut to maintain a budget. Many of these journal titles, however, are still needed by the patrons of the library. This results in the library’s relying on interlibrary loan or document delivery services. These

services are not always used for various reasons though, an issue that has persisted for 25 years.

According to McCarthy (1994),

Libraries are trying to meet the challenge of providing access to journals to which they no longer subscribe. [University Librarian, Dorothy] Gregor at Berkeley sees journal cancellations as more of an inconvenience than an impediment to research-so far. When an article is not available on campus, she says, researchers can obtain it through interlibrary loan (ILL) or document delivery services. However, engineering geologist Stephen Martel had a different experience. When at the Lawrence Berkeley Laboratory, he found UC campuses were reluctant to interlibrary loan journals. (para. 10)

This reluctance could be due to issues that a short-staffed library must deal with when it comes to copyright clearance, or something as simple as incorrect items sent through ILL.

In addition to cuts in serials, some universities have gone as far as making cuts to library department liaison subject specialists. At the University of Alaska, Fairbanks to manage during hard times, they began cutting the library liaison program. Jensen (2017) writes, “The UAF Libraries were simply unable to support multiple liaison positions, given the dire budget situation. In addition, loads for librarians increased in teaching and service resulting in less time to fulfill typical library liaison duties, which also led to reduced funding to maintain subscriptions and newer purchases” (Jensen, 2017). One must consider the value of certain print subscriptions; however, it is mainly faculty who value print periodicals (Vandale & Minchew, 2014). It is also important to remember that publishers no longer find value in print subscriptions, as “print revisions were a costly and time-consuming process” (McKenzie, 2019,

para. 6). Some students, however, still find value in costly print materials. In fact, many professors still teach from the print versions. Several law schools continue to subscribe to costly Thomson Reuters print subscriptions when the same information is available in the publisher's digital database, Westlaw. According to Baron, "Even millennials acknowledge that whether you read on paper, or a digital screen affects your attention on words and the ideas behind them" (2017, para.2). So, there is variance regarding the value of either source.

Further evidence can be shown in a cost analysis done at Columbia University by Ferguson, Kehoe and List (1993). In this analysis show the cost differences of ILL or document delivery vs. owning a particular journal title can be beneficial to a program dealing with an economic crisis. According to the study, subscription to access cost ratio was 12 to 1, with a difference of \$315,252 dollars on the total number of journals included in the study. The highest subscription to access cost ratio was 21, with a difference between costs in the journal vs. access of \$233,496. In most cases it was found to be 20-30 times more expensive to purchase a subscription than it was to obtain the articles through document delivery.

Rising subscription prices put a challenge on the library that require more creative ways to maintain standards, as well as develop new ideas. The Association of College Research Libraries (ACRL) *Statement on Professional Development* states, "Colleges and universities should demonstrate their commitment to personal mastery and continuous learning, e.g., through financial support, administrative leave, and/or flexible work schedules for academic librarians engaged in learning activities" (2000, para. 18).

With the persistent budgeting setbacks, the *Statement of Professional Development* becomes one of the biggest challenges that librarians can face. At the 2009 ACRL conference in Seattle, attendees (i.e., librarians and administrators) were asked to complete a survey about what they considered the greatest challenges for themselves and for the profession. It was found that “[m]ore than 1,300 individuals responded to the survey, and their answers overwhelmingly indicated that funding constraints, budget cutbacks, and declining support for and increasing costs of academic/research libraries are the most challenging issues...” (Blessinger, 2011, p. 308).

One of the ways libraries can combat these budget cuts is to do a collection analysis and compare that with their peer institutions. In a study conducted by Culbertson and Wilde (2009) the WorldCat Collection Analysis tool was used to determine the strength of Carnegie Class 1 collections as they pertain to doctoral programs in order to enhance financial and budget support for these collections. A collection comparison was done over a 10-year period from 1996 to 2006 among Colorado State University (CSU) and their peers: Iowa State University, Kansas State University, Michigan State University, North Carolina State University, Oklahoma State University, Oregon State University, Purdue University, Texas A & M University collection sizes. The comparison was designed so that if CSU’s collection did not meet the goal of 75% of a peer’s collection, a shortfall would be recorded in CSU’s housed volumes. This shortfall was converted to a dollar amount, a request for funding was made, and the request was granted to bring the CSU collection up to peer standards. In addition to the additional funding request, an inflation increase was added to the 2006 figure and continued until 2009.

Other options that have been explored include a fee-based system for document delivery services. In 2003, the University of Calgary set up a fee-based system for non-university patrons at a branch location that specializes in geology and geophysics. During this time, both the university and many of the region's petroleum corporations were seeing cutbacks. At the corporate level cutbacks were reducing their labor and cutting funding to their offices, and as a result of that decreased funding, many of their corporate libraries were closed. These outside corporate patrons were directed to the university library, which caused an increased workload on a smaller staff already working on a decreased budget at the university library. The library decided to implement a fee-based service for two areas of specialization: research services and document delivery. A subscription type fee was developed based on the size of the company and then charged to the corporation. By implementing this fee structure, the library has been able to maintain a steady operating budget without an increase from the university. They have also been able to maintain a collection that serves both the university and local individuals. According to Cloutier (2005), the University of Calgary Library Corporate Research Service is in its fourth year of operation. The client base remains steady at about 55 clients registered annually with two at the top service level and the remainder at the pay-per-use level.

To conserve funding some libraries have switched to a patron-driven access (PDA) plan. While this may seem less cost effective, studies have shown that the items used more by the patrons are the items purchased by the patrons. Marshall University instituted a PDA e-book plan, which allowed the university access to thousands of titles. This project was done in collaboration with the library's ILL and acquisitions team. If the book reached a certain number

of downloads, then the book was purchased and then owned by the library. The University of Alaska Fairbanks instituted a similar program “with a title purchase on the fourth use” (Jensen, 2017). This type of project could be instituted in print materials as well. At the University of Florida, the music library instituted a PDA plan for scores and monographs. Alan Asher, music library director at UF, presented on this model at the 2016 Music Library Association Conference in Cincinnati. He discussed the benefits to the program and the cost effectiveness this model had toward the traditional subject specialist model. Surprisingly, this method also resulted in reduced expenditures for the library, as the materials purchased were materials being used, as opposed to taking up space on the shelf.

Research Focus

According to the National Bureau of Economic Research (NBER), the U.S. economy has suffered from 21 setbacks, recessions, and depressions, excluding the 2008 recession which was classified as ending in 2009 (2008). While times have been lean in the past decade, the NBER has declined to classify any of the economic downturns as a recession. Rather, they refer to them as setbacks, with the most recent being 2014 when unemployment reached approximately 9% (Kang & Williamson, 2015, para. 3). During the recession of 2008, many companies were forced to either seek federal assistance or suffer from bankruptcies. There was one place, however, where the budgets became increasingly leaner as the rest of the country regained strength. Academia has been on a downward financial spiral since 2008. While there is a wealth of literature that addresses the academic fiscal situation known as the “scholarly crisis,” as coined by Joshi, Vantal and Manjunath (2012), there is little research on measures taken by

administrators to continue to abide by Article 1 of the ALA Code of Ethics. This scholarly crisis is based on the escalating costs of journals and the decrease or stagnant funding that academic libraries are seeing currently. As a second part of this problem, libraries are also responsible for meeting the demands of their library patrons and accreditation boards.

This research study will investigate some of the steps taken to maintain collections to support programs at Carnegie R1, R2, D/PU: Doctoral Universities (formerly R3), and selected M1 size institutions and compare those steps to what occurred at those colleges and universities. The results from this research could lead to a more standardized method of selection of materials based on program need and institutional peers' collections. Furthermore, these results could result in publishers' creating more consortium-based packages for schools struggling with financial cuts (Joshi, Vatnal, & Manjunath, 2012).

Research Questions

Three questions guided this investigation into the steps academic institutions take in order to main collections to support programs.

- 1) To what sorts of formal policies or practices are university libraries required to adhere when determining how to reduce their budgets?
- 2) What sorts of informal practices do university libraries implement when determining how to reduce their budgets?
- 3) To what extent, if any, does the size of the institution's budget reduction affect university libraries' flexibility in determining their own budget cuts?

Tentative Method

Data on budgets and allocations for these institutions are available from The Integrated Postsecondary Education Data System (IPEDS) and state resources; the financial information – including library expenditures and institutional budget cuts – were harvested from these sources in order to establish a context within which to situate the study. The 67 schools chosen for study were selected from Carnegie-classified universities with the very high research activity, high research activity, moderate research activity and other selected, balanced arts and sciences/professional institutions with high graduate coexistence (i.e., M1: Masters Large) in the United States. (See Appendix B). Once the institutions were identified, the study was conducted by distributing a survey to acquisitions librarians, collection management librarians, technical services directors, and library administrators from the 67 selected institutions. All four titles were used due to the fact that these positions often overlap. The study involved approximately 67 library faculty at R1, R2, D/PU, and selected M1 schools. The survey link was emailed to the participants whose contact information was collected from university library webpages faculty and staff directories.

Participants were asked to complete the survey within 21 days. If an adequate number was not received after 14 days, a follow-up email was to be sent. Upon receipt of the completed surveys, the data were converted to the current version of SPSS and the appropriate analytical methods were utilized.

Population and Sample

The proposed population for this study consisted of public and private higher education library administrators, including acquisitions librarians and technical service directors at all Carnegie-classified R1, R2, D/PU, and selected Masters Large: M1 institutions in the United States (Appendix C). Given their intensive research characterizations, the R1 institutions were viewed as representatives of optimal library circumstances for purposes of this study and included West Virginia University (WVU). A sample of smaller institutions at the Masters Colleges and Universities: Larger Programs (M1) functioned as representatives of institutions more likely to have lost significant funding for comparative purposes (see Appendix C). This sample included Marshall University (MU), West Virginia's other large institution.

The state of West Virginia via its Legislature has set up tax-based programs specifically to benefit WVU, such as a soda tax which has increased revenue by about \$15 million a year and is earmarked for the medical school at West Virginia University. "This has been the case since 1951" (Walzack, 2017). In 2017, WV Governor Jim Justice proposed a 4.4% budget cut for higher education in West Virginia, which would have meant a \$5.4 million loss to WVU and a \$2.9 million loss to MU. This budget cut passed and resulted in a reduction of \$16 million dollars in funding to the higher education system for the 2018 fiscal year (McElhinny, 2017). WVU, however, is the West Virginia land-grant institution and is often considered the "flagship" school (despite the existence of West Virginia State University, the state's second Morrill Act land-grant school, established in 1890 to provide educational opportunities specifically for African-American citizens), which typically results in greater funding opportunities, so a higher

cut can be less of a burden. The total FTE of WVU is approximately 29,000 as compared to MU's FTE of approximately 12,500.

Process

Surveys were sent to 134 library administrators, acquisitions librarians, and collection development librarians from 67 institutions. The schools chosen consisted of Carnegie-classified R1, R2, D/PU, and selected M1: Masters Large in the United States, Marshall University, and also included Harvard University, the University of Virginia, and West Virginia University for comparison. According to the West Virginia Higher Education Policy Commission (WVHEPC) Marshall University's peer institutions consist of 18 institutions in 15 states. (Appendix C)

Harvard University was chosen as a comparison because it is one of the few schools that has had a steadily increasing budget since its inception. As a private institution many of the school support funds come from grant and benefactors. For comparison purposes, it was beneficial to see how the school maintains subscriptions in databases, as its full time equivalent (FTE) is approximately 21,000.

The University of Virginia was chosen because it is a state school yet it is considered a hybrid institution where only 8% of the school's budget comes from the state. A large portion of the school's funding comes from endowments. In 2016, the medical school received over \$131 million in grant funding and an additional \$39 million in gifts (University of Virginia, 2019). The total FTE for UVA is approximately 22,000.

West Virginia University was chosen not as a peer institution, but as a state university that essentially competes with Marshall University for scarce state funding. The state of West

Virginia has specifically set up tax-based programs to benefit WVU, such as the tax the state imposes on soda “at the rate of one cent per 16.9 ounces or fraction thereof. The revenue, about \$15 million a year, is earmarked for the medical school at West Virginia University, and has been since 1951” (Walczak, 2017, para.1). Any cuts that take place, of course, affect both major universities, but can be more detrimental to MU with its smaller budget and endowment. WVU’s cuts, however, have been “cut to a little less than a percent” (McElhinny, 2017, para. 13). The total FTE of WVU is approximately 29,000.

Chapter 2

Review of Related Literature

For the past 20+ years libraries have been devastated by budget cuts and forced to look at alternatives in order to move forward and supply their patrons with the necessary materials to support academic research and other scholarly endeavors: “Budgets for academic libraries in the US became inadequate during the last decade of the twentieth century due to the high cost of electronic information, new technologies, annual cost increases for library materials, personnel, equipment and facilities” (Rader, 2000, p. 93). While this problem has been a consistent one for nearly two decades, research on the topic is still slim. “There is a need and a call for librarians to be able to forecast and predict budget expenditures not just for the next year but for long-term forecasting of 5–10 years to account for this extremely complex and constrained landscape” (Garza, 2018, p 131). For purposes of this literature review, research has been selected dating back as far 1994 to address the new ways administrators would approach this situation.

Library administrators, acquisitions librarians, and subject bibliographers decide on policies and practices to utilize when the university or college has instituted a mandatory budget cut based on the state allocation for higher education. Many of these ideas are new to administrators, however, as there is a belief that some library schools are not preparing future librarians to handle budgeting issues. “Only a small percentage of these courses offered even a brief focus on financial management” (Burger, Kaufman & Atkinson, 2015, p. 196). How much flexibility do university libraries have in reducing their budgets when institution-wide budget cuts are required? Overall, this review suggests there are five unique ways of dealing with cuts:

use of open access materials, resource-sharing, reallocation, fee-based service, and purchasing changes (e.g., used materials, new vendors, etc.); each of these methods was employed by librarians over the past decade.

In 1995, the Association of College and Research Libraries (ACRL) advocated that the total expenditure for all academic libraries should be 6% of the total university expenditures (ACRL Standards, 1995, p. 255). In 2011, however, the Association of Research Libraries (ARL) indicated that most libraries were receiving less than 1.9% of total university expenditures. There has been a downward trend over a 20-year period in increases vs. total library expenditures (ARL Statistics 2017-18, 2018, Graph 6; see Appendix D). By 2017, it was predicted by the Publishers Communication Group (PCG) that there would be a 1.4% reduction in funding for all U.S. academic libraries (PCG Report, 2017). A steady increase in subscription costs has resulted in an overall decreased budget for the library. The two highest increases libraries have seen are in salaries and materials, and materials costs actually exceeded salaries in 2011 (Appendix D).

The methods reported herein may or may not be official policies but have been employed in order to maintain collection standards as dictated by school or college accreditation and the American Library Association Code of Ethics, Article 1. Budget cuts to academic libraries will necessarily result in material cuts and can jeopardize accreditation. In accordance with Article 1 of the American Librarian Association (ALA) *Code of Ethics*, “We provide the highest level of service to all library users through appropriate and usefully organized resources; equitable service policies; equitable access; and accurate, unbiased, and courteous responses to all

requests” (ALA, 2008). Adhering to this code is becoming ever more difficult when constant budget cuts are being imposed from the state level. This forces administrators, acquisitions librarians, and subject bibliographers to pick and choose among materials to best suit their collection needs without using educated guesses (Massis, 2014).

A second problem is retaining resources to maintain accreditation standards, as well as relationships to peer institutions. It is difficult to rely on other libraries for lending when the home library has nothing to offer in return. Additionally, inflation means that the costs of journal databases increase each year, and library managers must routinely plan for this type of increase. Dealing with reduced allocations at the institutional level, however, catalyzed by reduced allocations at the state level, means the only viable response for libraries that receive less funding from their universities is to determine to what resources their reduced funds should be redirected. Sometimes some of those costs are transferred to the student and patrons by creating fee-based services.

Academic institutions have also been adversely affected by the broader United States 2008 economic recession, evidence of which is readily available in the literature. According to The National Association of College and University Business Officers (NACUBO), more than 800 U.S. and Canadian colleges and universities reported an average loss of 18.7% of endowment funds in 2009. The State Higher Education Executive Officers (SHEEO) reported 44% of the 65% of the institutions where endowments funds were lost were in states where the governors proposed cuts or flat funding in FY2010 (Blessinger, 2011). According to Kilpatrick and Preece (1996) several issues were encountered during the 1980s recession as well; these

issues included financial constraints from state funding agencies, escalating costs of materials, and the fluctuating foreign exchange rate. These issues have remained in today's economic climate resulting in a continued struggle in purchasing (Hedlund & Copeland, 2013).

According to Bosch & Henderson (2018), "The effect of the Great Recession of 2008–2009 still reverberates through the industry. While higher education and library budgets have increased, forty-six states still spend less per higher education student than was spent in 2007–2008." As a result, libraries have had to become more creative with budget allocations. While it is a difficult concept to accept for academic libraries that have prided themselves on providing the highest levels of access for those on their campuses, the reality is that that libraries must learn to adapt: "Although anticipated changes, especially those of this magnitude, will always introduce a certain amount of unease, staff seemed to grasp that the long-term viability of the library depended on its ability to adapt to new circumstances" (Higa, Bunnett, Maina, Perkins, Ramos, Thompson & Wayne 2005, p. 50).

Rising subscription prices put a challenge on the library that require more creative ways to maintain standards, as well as develop new ideas. The Association of College Research Libraries (*ACRL Statement on Professional Development*) states, "Colleges and universities should demonstrate their commitment to personal mastery and continuous learning, e.g. through financial support, administrative leave, and/or flexible work schedules for academic librarians engaged in learning activities" (para. 18). In an Association of Research Libraries (ARL) study done in 1986, serial costs (unit prices) were already increasing at higher rates than expenditures.

In this study it was shown that the rate of increase in unit price was approximately 115%, 22% higher than the serial expenditures (Kilpatrick & Preece, 1996, p. 13).

With budgeting pitfalls, the *Statement of Professional Development* becomes one the biggest challenges that librarians can face. At the 2009 ACRL conference in Seattle, attendees (i.e., librarians and administrators) were asked to complete a survey about what they considered the greatest challenges for themselves and for the profession. “More than 1,300 individuals responded to the survey, and their answers overwhelmingly indicated that funding constraints, budget cutbacks, and declining support for and increasing costs of academic/research libraries are the most challenging issues ...” (Blessinger, 2011, p. 308). As Garza (2018) points out, librarians can no longer look at year-to-year increases. “It has become more important to be able to forecast and predict budget expenditures not just for the next year, but for long-term forecasting of 5–10 years to account for this extremely complex and constrained landscape” (p. 131).

The first step in determining how to respond to budget cuts is knowing what resources are on hand and available to library patrons. One of the ways libraries can do this is to conduct a collection analysis and compare that with their peer institutions’ collections. In a study conducted by Culbertson and Wilde (2009), the WorldCat Collection Analysis tool was used to determine the strength of Carnegie R1 (highest research activity) collections as they pertain to doctoral programs in order to enhance financial and budget support for these collections. A collection comparison was done over a 10-year period from 1996 to 2006 involving Colorado State University (CSU) and its peers: Iowa State University, Kansas State University, Michigan

State University, North Carolina State University, Oklahoma State University, Oregon State University, Purdue University, Texas A & M University. It was noted that if CSU's collection did not meet the goal of 75% of a peer's collection, a shortfall would be recorded in CSU's housed volumes. These shortfalls were converted to a dollar amount and a request for funding was made to bring the CSU collection up to peer standards. In addition to the additional funding request, an inflation increase was added to 2006 and continued until 2009.

Many institutions, however, if not most, are simply unable to secure additional funding regardless of the state of their collections relative to those of peer institutions. In those cases, academic libraries have had to turn to more creative strategies to maintain access to necessary materials. Among those are increased reliance on open access options and resource-sharing.

This review examines five different ways of dealing with cuts: use of open access materials, resource-sharing, reallocation, fee-based services, personnel, and purchasing changes (e.g., used materials, new vendors, etc.); each of these methods was employed by librarians over the past decade.

Open Access

One of the ways libraries and universities are combatting decreased state funding is through the adoption of open access materials. "They provide a central component in reforming scholarly communication by stimulating innovation in a disaggregated publishing structure" (Crow, 2002, p. 2). This can help with dwindling budgets, but it is certainly not a fix-all. Institutional Repositories (IR) can be expensive to run. "Practically speaking, both development and operating costs can range from virtually no incremental costs (for institutions that reallocate

resources) to hundreds of thousands of dollars (for institutions recognizing incremental systems and staff resources)” (Crow, 2002, p. 27). If the library deploys an open access model, then it becomes necessary for the library or institution to hire personnel capable of creating the IR, usually resulting more IT employees. If a premade platform is used, like Berkley Electronic Press’s Digital Commons, then the institution must come up with a yearly subscription rate. An IR can still be a cost-effective measure for the university, because quite simply such a database becomes the “storehouse” for the university’s scholarly output (Zhang, Aractingi, Beach, DeBruin, Paula Kaplan & Walker, 2011). “At the most basic and fundamental level, an institutional repository is a recognition that the intellectual life and scholarship of our universities will be increasingly represented...” (Lynch, 2003, p. 2).

The original push at Marshall University in 2011 was to show that an IR could limit the need for university faculty to submit to costly journals and relinquish their copyrights in some cases. Simply put, authors became owners of their output again. The university did not have to subscribe to costly journals to get access to the authors’ materials. Additionally, access was available sooner. In many cases when an author publishes to a journal, publication is delayed until a set date (Zhang, et al. 2011). In the case of the medical profession, the research could be dated before it hits the university journal area. “We hope all academic libraries will join us in this effort and make the commitment to invest in open infrastructure” (Lewis, Goetsch, Graves, & Roy, 2018). Open access is an expense that can reduce the soaring increases in subscription-based journal costs. “An IR responds to two strategic issues facing academic institutions: providing a central component in reforming scholarly communication by stimulating innovation

in a disaggregated publishing structure” (Zhang, et al., 2011, p.1), and “enhancing recognition of work carried out at host institution” (Crow, 2002, p. 29).

Resource Sharing

As Rader (2007) points out, “A very effective and creative method to stretch our academic library budgets is through resource sharing” (p. 97). One of the ways libraries can compensate for these budget cuts is to conduct a collection analysis and compare that with their peer institutions’ collections. In a study conducted by Culbertson and Wilde (2009), the WorldCat Collection Analysis tool was used to determine the strength of Carnegie R1 (Very High Research Activity) collections as they pertain to doctoral programs in order to enhance financial and budget support for these collections. A collection comparison was done over a 10-year period from 1996 to 2006 involving Colorado State University (CSU) and its peers: Iowa State University, Kansas State University, Michigan State University, North Carolina State University, Oklahoma State University, Oregon State University, Purdue University, Texas A & M University. It was noted that if CSU’s collection did not meet the goal of 75% of a peer’s collection, a shortfall would be recorded in CSU’s housed volumes. These shortfalls were converted to a dollar amount and a request for funding was made to bring the CSU collection up to peer standards. In addition to the additional funding request, an inflation increase was added to 2006 and continued until 2009.

Libraries are shifting from traditional print resources to electronic resource centers Romero (2012). This is not necessarily a bad thing as the cost of many journals has increased over the past decade. According to a recent survey done by the *Library Journal*, for example, the

journal of the American Library Association, journal prices have increase on average 6% per year (Bosch & Henderson, 2016). That said, database packages can be costly as well. The typical price per database is based on the size or specificity of the database and the institution's FTE. For example, Academic Search Premier (a full-text service) from EBSCO cost \$37,500 for student FTE of 12,001-16,000 in 2007 at a central Appalachian R2 (high research activity) institution. Many institutions have started purchasing items a la carte in order to reduce pricing, and consortia pricing typically reduces the price by 5% (M. Brooks, personal communication, November 10, 2017). If one follows the 5% per year increase, then the price for Academic Search Premier would be \$56,250. Through negotiations and consortia pricing, the amount that central Appalachian university is paying is substantially less at \$9,164.00. \$56,250 is a number that most state schools simply cannot afford.

Further evidence can be seen in a cost analysis done at Columbia University by Ferguson, Kehoe and List (1993). The cost differences of ILL or document delivery vs. owning a particular journal title can be beneficial to a program dealing with an economic crisis. According to the study, subscription-to-access-cost ratio was 12 to 1, with a difference of \$315,252 dollars on the total number of journals included in the study. The highest subscription to access cost ratio was 2 to 1, with a difference between costs in the journal vs. access of \$233,496. In most cases it was found to be 20-30 times more expensive to purchase a subscription than it was to obtain the articles through document delivery.

Reallocation

Serials and database subscriptions are usually the first things that are cut in order to maintain a budget. Many of these journal titles are still needed, however, by the patrons of the library. This results in the library's relying on interlibrary loan or document delivery services. These services, however, are not always used for various reasons. According to McCarthy (1994),

Libraries are trying to meet the challenge of providing access to journals to which they no longer subscribe. [University Librarian, Dorothy] Gregor at Berkeley sees journal cancellations as more of an inconvenience than an impediment to research -- so far.

When an article is not available on campus, she says, researchers can obtain it through interlibrary loan (ILL) or document delivery services. However, engineering geologist Stephen Martel had a different experience. When at the Lawrence Berkeley Laboratory, he found UC campuses were reluctant to use interlibrary loan for journals. (para. 10)

This reluctance could be due to issues that a short-staffed library has to deal with when it comes to copyright clearance or something as simple as incorrect items sent through ILL.

Activity-Based Costing (ABC), "an accounting method that identifies and assigns costs to overhead activities and then assigns those costs to products" (Investopedia, 2017, para. 1), is another strategy that has been implemented in reallocation practices. ABC has become a popular method for determining usage and purchasing strategies in the academic library (Novak, Paulos & St. Clair, 2011), and some of the key aspects of ABC are these:

- identification of specific products that are unprofitable;

- improvement of production process efficiency;
- pricing products appropriately, with the help of accurate product cost information; and
- revealing unnecessary costs that become targets for elimination.

If one applies this to the library profession, one can view the “unprofitable” products as the non-used or low usage items. For example, if a database is used only once a semester by one faculty member and one student, there could be a justification for cancellation based on the unnecessary cost of low usage. If looking for ways to improve efficiency, one could look at the number of individuals involved in performing a task. If multiple people are routinely performing the same tasks, a reallocation could be necessary; but only if the tasks can be completed in a reasonable time by fewer people.

Another sort of reallocation has been restructuring within campus libraries. This has gone further than personnel changes. In some institutions branch libraries have been closed and the materials have been relocated to the main library. In 2009, for example, the Music Library at Marshall University was closed. The materials were moved to the main Drinko Library and the staff within the Music Library were moved to other positions. In 2010, when a new Music Librarian was employed, there was still a level of animosity toward the library due to the closure. The result was that the new librarian had to “mend fences” with the school supported and affected by the closure. Logically, this was an intelligent closure, freeing funds from a separate location since many universities charge services to such departments or schools (e.g., internet connections, hardware, telecommunications lines, etc.). Additionally, positions were

redistributed to areas in need. The university library gained another librarian, and the ILL/IDS Department gained another staff member to assist with incoming ILL requests.

Additionally, the Music Librarian was a full-time employee, also serving in the area of scholarly communication. This restructuring also allowed positions to become distributed across more services. “One librarian is now supervising access services, including circulation, interlibrary loan, and stack maintenance, for both libraries. Supervising these departments was formerly performed by librarians in each library” (Kenefick & Werner, 2013, p. 262). More on this idea will be discussed in the section on personnel below.

These mergers are typically the result of a common theme in the academic world: “cost savings.” According to Kenefick & Werner (2013), “In 2010, the decision was made to merge these two libraries for reasons currently common to many large research university libraries, including administrative efficiencies and cost savings.”

Fee-Based Services

“Fee-based information services have been in existence for many years” (Rader, 2000, p. 98). At one time, libraries would allocate a certain amount of funding for ILL services and not put that cost on the student outside of the normal tuition. Now, some institutions have switched to charging for use of outside entities for other services. “These services are based on quick and excellent information retrieval and/or customized research projects. In some cases, they generate enough funding to cover the cost for such an operation within an academic library” (Josephine, 1989). In 2003, for example, the University of Calgary set up a fee-based system for non-university patrons at a branch location that specializes in geology and geophysics. By

implementing this fee structure, the library has been able to maintain a steady operating budget without an increase from the university and has also been able to maintain a collection that serves the university and local individuals. According to Cloutier (2005, p. 7), “the University of Calgary Library Corporate Research Service is in its fourth year of operation. The client base remains steady at about fifty-five clients registered annually with two at the top service level and the remainder at the pay per use level.” During this time many of the region’s petroleum corporations were also seeing cutbacks, reducing their labor, and cutting funding to their offices. As a result of their decreased funding, many of their corporate libraries were closed. These outside corporate patrons were directed to the university library, which caused an increased workload on a smaller staff already working on a decreased budget at the university library. The library decided to implement a fee-based service for two areas of specialization: research services and document delivery. A subscription type fee was developed based on the size of the company and then charged to the corporation.

Personnel

Some universities have been able to adapt through attrition and retirement of senior librarians. Where these salary lines are cut, it “has saved the library from layoffs and even more drastic collection cuts” (Jensen, 2017, p.3). Oberg observed in 1995, “Declining budgets, contraction of higher education generally, and entry into the electronic information age have changed libraries” (para. 4). This statement has become a widespread reality over the past years as budgets continually get reduced. Library positions are shifting, and the role of the paraprofessional is becoming more prominent, while full time professional librarian staff has

been reduced. Additionally, the responsibilities of many paraprofessionals have increased from a support role to a primary contributor role, particularly in cataloging positions. According to Zhu (2012, para. 8), “results of the survey confirmed the continuing changes in assignment of original cataloging responsibilities to paraprofessionals.”

In some cases, duties have been added to professional librarians as well. “Acquisitions, cataloging, processing, and serials management were formally performed by each library with their respective staff using separate policies and procedures” (Kenefick & Werner, p. 262, 2013). When duties have not been added to existing staff or faculty, outsourcing has occurred. As previously mentioned, some cataloging duties have been sourced out to private companies where libraries have chosen to purchase bulk records or contracted a company to do the cataloging and book processing, so the book arrives shelf ready. “By decomposing the campus library into discrete and linked activities, it becomes possible to benchmark parts of the library’s operations against other libraries and even private sector companies” (Renaud, p. 87, 1997).

Mergers within libraries between locations is not easy. It is akin to a merger in the business world. There is a fear for job security or deteriorating working conditions. Additionally, merging two or more libraries requires that policies, procedures, standards, and values be changed and adapted after consultation with affected parties (Swanepoel, 2004), often affecting the personnel in ways other than a simple move, occasionally resulting in lost positions.

Purchasing Changes

Another cost-saving measure being used has been purchasing changes. This idea goes along with open access to an extent. In some cases, many universities were buying items “in

bulk” but moving to an “a la carte” style. In some cases, publishers may find themselves in a situation where automatic annual increases in journal subscription prices lead to reductions in materials purchased when libraries’ budgets are static. In an electronic mailing list thread, one dean recalled a conversation with their vendor, "Look, we're going to have X amount of money to spend every year on print treatises. If that means that this year, we can only buy 35 treatises, that's what we'll buy. If you jack up the inflation rate and that means that next year, we can only buy 32 treatises, then we're only going to buy 32 treatises. We're not going to budge. We can't" (S. Etheredge, 2019). This idea has carried over into purchasing decisions made by many institutions, resulting in cancelled subscriptions as inflation has gotten out of hand.

To make ends meet, many libraries are looking at nontraditional sources of funding. Public libraries have used fundraising ventures for some time, but this is becoming more popular in the academic library. “Friends of the Library” groups are going out to source materials and funds to go directly to the library. “Capital campaigns are the major, overall fundraising mechanism in academic institutions” (Rader, 2000, p. 94). In some cases, we have seen athletics programs contributing to the library fund. The University of Kentucky athletics program, for example, contributed \$3 million to their new library (Gilbert, 1999).

Chapter 3

Research Methods

The purpose of this study was to evaluate methods used by library administrators to maintain collections to support programs at Carnegie institutions classified R1, R2, D/PU: Doctoral/Professional Universities (formerly R3) and selected M1 (i.e., Masters Large) institutions, and compare those data. This chapter provides information on the research design, population and sample, survey instrument, survey distribution, data collection techniques, and data analyses that were used to facilitate this study. This non-experimental, descriptive research study investigated some of the steps taken by library administrators in order to maintain collections to support previously mentioned programs. The results from this research could lead to more standardized practices in academic libraries where institutional budget cuts require new methods for selection of materials. Furthermore, these results could encourage publishers' potentially creating more consortium-based packages for schools to alleviate some of the pains from state financial cuts.

This study will focus Carnegie R1, R2, D/PU and M1 (i.e., Masters Large, with at least 50 Masters Degrees per year) size institutions. (Appendix C) The research presented here attempts a broader research approach than those in previous studies by examining 1) funding cuts to higher education; 2) the impact of disinvestment on state institutions; 3) the effects of funding cuts on academic libraries; 4) formal policies used by institutions used to reduce budgets; and 5) possible solutions that can come from statewide budget cuts as they relate to publishers.

Research Questions

The primary intent of this study was to investigate some of the steps taken by academic librarians in order to maintain collections that support programs, at Carnegie R1, R2, D/PU, and M1 institutions and compare that data. For this study, the following research questions were posed.

- 1) To what sorts of formal policies are university libraries required to adhere when determining how to reduce their budgets?
- 2) To what sorts of informal practices do university libraries adhere when determining how to reduce their budgets?
- 3) To what extent, if any, does the size of the institution affect university libraries' flexibility in determining their own budget cuts?

Research Design

This was a non-experimental, descriptive study that utilized an electronic, web-based survey (Appendix B) to gather information that was analyzed using both Qualtrics and SPSS Statistics 26 software. Analysis of survey responses should be consistent with Creswell (2009), used to provide a quantitative description of trends, attitudes, or opinions of a sample within the population. The survey instrument included three primary question formats: yes-no, multiple choice, and Likert-type items. Since the results of this study will be used to evaluate the policies and procedures used by participants, as well as to calculate scores and other descriptive statistics associated with participant knowledge of their areas of expertise (i.e., acquisitions, administration) without experimental intervention, a non-experimental, descriptive approach is

the appropriate research method for this study (McMillan, 2008; McMillan & Schumacher, 2001; Neuman, 2015).

Survey Instrument

A researcher-designed electronic, web-based survey (Appendix B) was used to collect data for this study. To access the survey, participants were directed to a website using a unique web address associated with the Qualtrics online survey portal. The use of a web-based survey instrument was the appropriate research tool to use for this study because web-based surveys are easy and inexpensive to distribute, are simple for participants to access, provide researchers with quick responses, and allow data to be easily entered and organized into databases for storage and analysis (McMillan, 2008; McMillan & Schumacher, 2001; Neuman, 2015). In addition, according to McMillan (2008), “electronic surveys are most effective with targeted professional groups,” such as professionals within the academic library community (p. 208).

The survey instrument includes items for demographic information and questions pertaining to methods used to determine acquisitions purchasing (Appendix E). Demographic questions consist of respondents’ professional characteristics, such as highest level of degree obtained, years employed at current institution, and current primary employment classification. Items on the survey included original researcher-designed items.

Survey Distribution

Prior to sending the survey to participating colleges for distribution, a pilot test of the survey was sent to three faculty members, allowing the researcher to improve the clarity and format of survey questions and to finalize the survey prior to final distribution (McMillan &

Schumacher, 2001). Once the survey was finalized, the researcher contacted members (i.e., library administrators, acquisitions librarians, and collection development librarians) from the selected colleges and universities with the survey invitation, informed consent, and survey web address. The survey titled *Library Administrators in an Austerity Environment*, was sent via the Qualtrics web-based email portal to secure anonymity.

Respondents were allowed three weeks to complete the web-based survey. The researcher sent the college representatives a survey participation email reminder with the survey link three weeks following the original participation email request.

Data Analysis

Survey responses were compiled through Qualtrics and analyzed using Qualtrics, Excel, and the current version of SPSS Statistics software. Quantitative data relied primarily on descriptive statistics (e.g., frequencies, crosstabs), measures of central tendency, and Pearson correlation coefficient tests.

Summary

This chapter provides information on the research design, population selection, survey instrument, survey distribution, data-collection techniques, and data analyses that were used in this study to evaluate methods used by Carnegie R1, R2, D/PU and M1 institutions and comparative schools when determining expenditures. This study was a non-experimental, descriptive study focused on Carnegie institutions classified R1 (Very High Research Activity), R2 (High Research Activity), D/PU (Moderate Research Activity) and selected M1 (i.e., Masters Large, with at least 50 Masters Degrees per year) institutions to compare their

acquisition practices. The study utilized a researcher-designed electronic, web-based survey to gather information that was analyzed using both Qualtrics and SPSS Statistics 26 software.

Chapter 4

Results

This research study investigated some of the steps taken to maintain library collections that support programs of Carnegie R1, R2, D/PU: Doctoral Universities and M1 size institutions then compare those steps to what has occurred at those colleges and universities. The results from this research could lead to a more standardized method of selection of materials based on program needs and institutional peers' collections. Furthermore, these results could result in vendors and publishers creating more consortium-based packages for schools struggling with financial cuts (Joshi, Vatnal, & Manjunath, 2012).

Method

The 67 schools chosen for study were selected from Carnegie-classified universities with the R1 (Very High Research Activity), R2 (High Research Activity), D/PU (Moderate Research Activity) and selected balanced arts and sciences/professional institutions with high graduate coexistence (i.e., M1: Masters Large) in the United States. (Appendix C) Data on budgets and allocations for these institutions are available from The Integrated Postsecondary Education Data System (IPEDS) and state resources; the financial information – including library expenditures and institutional budget cuts – was harvested from these sources to establish a context within which to situate the study. These data were limited to public universities. Once the institutions were identified, the study was conducted by distributing a survey to acquisitions librarians, collection management librarians, technical services directors, and library administrators from the 67 selected institutions. All four titles were used since these positions often overlap. The

study involved approximately 134 library faculty at R1, R2, D/PU, and M1 Carnegie Classification schools. The selection of participants began with the selection of West Virginia Higher Education Policy Commission (WVHEPC) peers to the researcher's home institution for purposes of comparing fiscal reduction strategies. After those 18 institutions were identified, a search of similar institutions was done utilizing the Carnegie Classification of Institutions of Higher Education webpage which identified provided 48 more institutions of R1, R2, D/PU, and M1 Carnegie Classification. The survey link was emailed to the participants on August 11, 2020. The contact information of each participant was collected from university library webpage faculty and staff directories. Participants were asked to complete the survey within 21 days.

Process

The study involved the use of both quantitative and qualitative methods. The quantitative element of the research involved the gathering and analyzing of methods used to manage budget cuts through an online survey of library administrators whose perceptions were used to determine any similarities in methods used to meet budget needs.

The qualitative component involved a phenomenological analysis of the data that were gathered via interviews with four institution's collection development librarians. Two of the schools that were part of the initial online survey were contacted with an interview request. In addition, two other schools were recommended and chosen, Liberty University and the University of New Mexico.

Theoretical Framework

Lanigan (1988) describes phenomenological analysis as conceived by Merleau-Ponty, widely regarded as the seminal thinker in the field, as a three-step process requiring description, reduction and interpretation. Each step informs the next in a progressive fashion to yield what Lanigan calls “a systemic completeness” (p. 173).

- The descriptive phase involves a careful reading of or “listening to” the data absent any preconceived categories. The objective at this stage of the analysis is to allow for “the widest possible number” of broad themes to emerge (Nelson, 1989, p. 232).
- The second step, reduction, extracts from the emerging themes those which can be seen as constitutive. The aim of reduction, as explained by Cooks and Descutner (1994), is “articulat[ing] ... a pattern of experience expressed through the essential elements of the phenomenon under investigation” (p. 255).
- Phenomenological interpretation, then, requires the examination of the primary themes which emerge to discern those which effectively make explicit what had perhaps been assumed or taken for granted.

The phenomenological process, then, can be seen as one in which the whole, examined in the description phase, is reduced to its constitutive themes, which are then recombined and re-examined to establish a deeper understanding of the phenomenon under investigation.

Population and Sample

The population for this study consisted of public and private higher education library administrators, including acquisitions librarians and technical service directors at all Carnegie-

classified R1, R2, D/PU: Doctoral Universities and selected Masters Large: M1 institutions in the United States (see Appendix C). Given their intensive research characterizations, the R1 institutions are viewed as representatives of optimal library circumstances for purposes of this study, while a sample of smaller institutions at the Masters Colleges and Universities: Larger Programs (M1) functioned as representatives of institutions more likely to have lost significant funding.

Surveys were sent to 134 library administrators, acquisitions librarians, and collection development librarians at these institutions. Additionally, for the qualitative portion, two other institutions were chosen which fell within the parameters.

Prior to sending the survey to the potential participants, the decision was made to omit the Dean of University Libraries of the researcher's home university of study from the survey and subsequent interviews to eliminate potential bias due to the Dean's familiarity with the researcher. This decreased the population from 134 to 133 participants from 67 institutions. These administrators were asked to complete the survey sent electronically via Qualtrics. The survey may be viewed in Appendix B. Because the survey was anonymous (i.e., neither personal identification nor IP addresses were collected), there was no way to determine which individuals completed the survey. One administrator did contact the researcher for follow-up discussion and offered possible contacts from other institutions. After the initial email request was sent on August 11, 2020, a second was sent 28 days later, September 28. A final third invitation was sent 11 days later, October 9, 2020.

Following the third email invitation to potential survey participants and based on the small number of results received ($n = 23$ respondents), it was determined that a qualitative component could prove useful in supporting the survey findings, and the original IRB request was amended accordingly. Interview questions were developed, and the qualitative component of the study began with the restoration of the full sample of potential interviewees ($N = 133$) minus the administrator indicated above. An email invitation was sent to the original pool as a request for participation.

The first respondent to reply to the interview request provided two additional names as likely participants, for a total of three interviewees. The researcher included his home university of employment in the interview pool as well, giving the researcher a sample of four interviewees. These four collection management librarians, representing a range of institutional size were asked to participate in the interview process and all four chose to do so. The four interviews were conducted via telephone except for one that was completed via a Teams group video conference at the researcher's home institution. These institutions are reflected in Table 2 on the following page.

Table 2***Qualitative Participants***

Institution	Carnegie Classification	FTE
New Mexico State University	R2	14,227
University of New Mexico	R1	21,196
Pennsylvania State University	R1	89,816
Liberty University	D/PU	47,025

Findings

The findings were separated by data collection method, beginning with the quantitative results and following with the qualitative. Findings within the quantitative section will be organized by research question while those in the qualitative section will be reported by theme.

Quantitative Findings

A total of 133 surveys were sent via email to library directors, collection management librarians, and acquisitions librarians providing a link to the Qualtrics survey and invitation. Out of the 133, only 28 members of the population started the survey. Out of those 28 only 23 surveys were completed, resulting in 17% of the total surveys being completed by participants. Of the total number of participants ($n=67$) 27 represented M1, 24 represented R1, 14 represented R2, and 2 represented D/PU institutions. Table 3, on the following page, shows the overall Carnegie Classification of the selected universities surveyed by the researcher.

Table 3***Demographics of Participants***

Carnegie Classification	<i>n</i>	%
M1	27	41
R1	24	36
R2	14	21
D/PU	2	2

Research Question One: To what sorts of formal policies or practices are university libraries required to adhere when determining how to reduce their budgets?

The survey consisted of five questions (i.e., SQs 1,3,4, 5, and 8) which focused on formal policies or practices to which libraries are required to adhere when reducing budgets, although it was determined by the responses that these formal policies differ from institution to institution. Likely, these policies have been developed over the years by library governing boards and administrative offices and are more practices that have been done so long they have become policies. Table 3 shows the most common practices. Survey question 1 asked the participants about specific procedures: “What procedures have you used to meet annual budget reductions? Please choose all that apply.” The responses were tailored toward standard practices and procedures used by all institutions: investigating budgets based on academic allocations, making blanket cuts based on FTE, consulting with accrediting bodies, and other.

In the follow-up question to Question 1 where the respondents had the opportunity to write in other procedures used, one respondent indicated they “reviewed cost per use [and] supplemented with donor funds.”

Table 4

Formal Policies or Practices

	<i>n</i>	%
Investigated budgets based on academic allocations	11	48
Made blanket cuts based on FTE	4	17
Consulted with accrediting bodies	2	8
Other	6	27
Total	23	100%

Survey question 3 asked the participants whether they consulted with the library’s in-house subject specialists: “On a scale of 1-6, with 1 being “never” and 6 being “always,” how often have you consulted with subject specialists (e.g., subject librarians or department/school/college chairs) before cuts are made?” A six-point Likert scale was used to determine the likelihood of the library’s use of their in-house subject specialists. The scale was rated Always (6), Very Frequently (5), Occasionally (4), Rarely (3), Very Rarely (2), Never (1). Seventy-one percent of the respondents questioned said they rely on subject specialists for their collections, which is interesting since three of the universities contacted do not have subject specialists listed on their webpages. Ten others show what is referred to as liaisons. The liaison title has become more

prevalent over the years since subject specific librarians are becoming rarer; for instance, many former music librarians have become liaisons to performing arts, visual arts, and humanities, relying on the expertise of a department. Table 5 indicates the results of the use of subject specialists.

Table 5

Relying on Subject Specialists

Never	Very Rarely	Rarely	Occasionally	Frequently	Always
1	2	3	4	5	6
0	0	2	0	3	12
		(12%)		(18%)	(71%)

Survey question 4 asked the participants about the extent to which user statistics affected their budget choices: “On a scale of 1-6, with 1 being “never” and 6 being “always,” how often have your user statistics affected your budget choices?” A six-point Likert scale was used, ranging from Always (6), Frequently (5), Occasionally (4), Rarely (3), Very Rarely (2), Never (1). Table 6, on the next page, indicates the usage of user statistics when determining budget choices.

Table 6*Effect of User Statistics on Budget Choices*

Never	Very Rarely	Rarely	Occasionally	Frequently	Always
1	2	3	4	5	6
0	0	0	2	4	11
			(17%)	(24%)	(65%)

Qualtrics reported an error in the responses to SQ5, but that the follow-up question that examined how user statistics are calculated for print journals returned these findings. Survey question 5 then asked the participants: “How are user statistics determined for print journals? Please choose all that apply.”

Interestingly when user statistics for journals were generated using in-house methods (i.e., scanning materials before returning to shelf) was equal to consulting with faculty. Only 31% of the respondents said they consulted with faculty prior to eliminating journals. One institution indicated that they never cut journals unless there was a switch to the digital platform. Another institution indicated, “Print journals are so minimal and inexpensive they are rarely cut unless they are replaced by a digital presence.” Another institution indicated, “We also consult ILL/IDS usage for specific titles; some must be retained to fulfill a commitment to the regional ILL system we belong to.”

Survey question 9 asked about allocated budgets for print subscriptions. Forty-one percent of the respondents indicated they have established a percentage of the materials budget to

be allocated for print journals, online journals, books, and other media. Eighty percent of the respondents, however, said they allocate less than 10 percent of their budget to print journals and subscriptions, and over 80% said they have an allocation of more than 61% for online journals and subscriptions. Another interesting response came with the book budget, with many respondents reported a book budget of less than 10 percent.

When asked if librarians consult with outside institutions, 33 percent indicated they do consult with other universities. One such institution specifically indicated that it maintains certain materials based on their ILL/IDS collaborations. As a follow-up, 13 percent said they were involved in consortia, and this was done with weekly meetings to discuss current issues and possible solutions.

Most of the respondents stated that their budgets had decreased from the previous fiscal year while 25% said they had maintained a static budget over the past five years. In order to maintain healthy collections, several respondents indicated they made cuts to operations budgets, did more fundraising, and joined consortia.

Survey question 8 asked participants if they ordered texts specifically to maintain accreditation. Of the 17 responses 58% said “yes” while 42% said “no.” Of the ten respondents who answered yes, eight also followed up with written answers explaining their practices. These answers included, “subject specialists and faculty make suggestions”; “as an admin, [I’m] more in the approval role”; “this is absolutely standard for academic libraries”; and “we order texts for accreditation but, we typically don’t order textbooks for classes.”

Table 7***Ordered texts to maintain accreditation***

	<i>n</i>	% of respondents
Yes	10	58
No	7	42

Summary of Research Question One

The survey questions which addressed RQ1 of the quantitative portion of the study confirmed what the author had seen in recent IPEDS, *Chronicle of Higher Education* reports, and heard anecdotally from colleagues at conferences. Forty-eight percent of the respondents said they effected budget cuts based on academic allocations to other library units. This method of “borrowing” from one allocated line to cover another has become common in the world of academia. At the author’s home institution one school commonly uses the bottom line of the entire budget to cover necessary inflationary shortfalls. Seventeen percent of the respondents made blanket cuts, while 26% selected “other,” which included analyzing vacant positions, eliminating big packages, working with a scholarly advising committee, requesting librarian selections, examining multi-year usage, and evaluating various disciplines.

Research Question Two: What sorts of informal practices do university libraries implement when determining how to reduce their budgets?

The survey consisted of 6 questions (i.e., SQs 2, 6, 7, 14, 15, 20_ which focused informal practices libraries implemented to determine budget reductions. The researcher spoke with three

other universities in the qualitative portion of this study that indicated they have petitioned Academic Affairs Offices or worked directly with provosts in order to avoid deep budget cuts. Additionally, the researcher’s home institution has worked directly with the administration of the school and provost to ease cuts in the library.

Survey question 2 asked the participants, on a scale of 1-6, if they consulted trade publications or trade websites to see how other universities have responded to budget cuts. Thirty-five percent of the respondents said they do refer to trade publications such as *The Chronicle of Higher Education* for possible ways to increase purchasing in these “leaner” times. The mean response for this was four, “occasionally”; the mode, however, was five, with 35% of the respondents indicating very frequent use of journals and trade publications. Table 8 indicates the trade publication usage.

Table 8

Usage of Trade Publications

Never	Very Rarely	Rarely	Occasionally	Frequently	Always
1	2	3	4	5	6
1	0	1	5	6	4
(6%)		(6%)	(29%)	(35%)	(24%)

Survey question 6 asked specifically about personnel and hiring: “Have you ever reduced personnel in order to maintain the level of user materials?” Forty-seven percent of the

respondents said they have never reduced personnel while 41% indicated they have. Among those 41%, some reported they commonly “froze open positions,” with one institution indicating some part-time positions were eliminated due to state requirements.

Survey question 7 was a follow-up question to question 6 that asked how those reductions were made. Respondents were asked to choose all that apply. Table 9 reflects how reductions were made.

Table 9

How Reductions Were Made

	<i>n</i>	% of respondents
Eliminated open positions	1	10
Froze open positions	6	60
Reduced hours of non-salaried personnel	2	20
Other	1	10

Survey question 14 asked the participants, "On a scale of 1-6, with 1 being “never” and 6 being “always,” how often do you personally consult with librarians at other universities to see what they will be cutting?" Table 10, on the next page, reflects the participants report they frequently engage in such consultations.

Table 10***Consulting With Other University Librarians***

Never	Very Rarely	Rarely	Occasionally	Frequently	Always
1	2	3	4	5	6
1	3	1	3	5	1
(7%)	(20%)	(7%)	(20%)	(33%)	(7%)

Survey question 15 was a follow-up to question 14 which asked respondents to explain how they consulted with librarians at other universities to examine resource sharing options. Their responses are reflected in Table 11 below.

Table 11***Resource Sharing Possibilities***

	<i>n</i>	% of respondents
Establishing a consortium/consortium	13	76
Courtesy sharing with student ID	3	17
Outside Patron Fees	1	5
Other	2	11
We have not consulted with other universities	3	17

Of the two institutions that answered “other,” each offered a write-in answer. One respondent said, “Looking for more collaborative collection development options. They purchase X and we purchase Y, and then share.” The second respondent said, “Weekly collection development and ILL consortia meetings with other institutional librarians to discuss current issues or problems we may be having.”

Survey question 20 asked participants whether they petitioned the university administration for exemption from budget cuts. Fifty-three percent of the respondents indicated they have.

Table 12

Institutions Petitioning Administration for Exemption

	<i>n</i>	% of respondents
Yes	9	53
No	7	47

The respondents were asked a follow-up question if they responded “yes.” The responses offered varied widely and are indicated below.

- We present our budget with the university administration during the budget request for the following years and present our cost and funding availability and inform them if we are not funded the amount requested, we have to cut. So, it is not asking for exemption, rather providing details financial information for them to see the shortage of the fund then requesting for that fund.

- Some years the cut is partially adjusted and/or we are given one-time funds to fill the gap.
- Until COVID-19, we had maintained a flat budget over approximately 4 -5 years. After COVID-19, across the board cuts campus wide.
- Results have varied by year. At best, we got a partial exemption. At worst, they laughed at us.
- Uncertain as we are rarely told.

There was also a second follow-up to question 20 that asked for responses if the participants answered “no”:

- We are treated equitably in the budgeting process and do well when others do well, so we should take cuts when they do.
- We're part of the decision-making process for university budget decisions. There's not a place to "petition" the university (it would be like petitioning ourselves).
- It would not work. We had a frozen budget from 2005-14, then I arrived and the Provost steadily increased the budget so we have done well. Now there are cuts & we all share in them.
- Our cuts are at the same level of the colleges, which receive the lowest cuts during reduction scenarios. It is politically prudent to sustain that lowest level of cut.

Summary of Research Question Two

The survey questions which addressed RQ2 of the quantitative portion of the study also confirmed what the author had seen in recent IPEDS, *Chronicle of Higher Education* reports, and

heard anecdotally from colleagues at conferences. It shows the resourcefulness that many librarians are showing to keep their allocations strong. It also shows that many are not immune from the cuts and take the “hit” to be a team player, as indicated by several write-in responses. This is an area that would be beneficial of further research.

Research Question Three: To what extent, if any, does the size of the institution's budget reduction affect university libraries' flexibility in determining their own budget cuts?

There were four questions that dealt with the size of the institutions' budgets and their flexibility. Questions 16-19 were budget-related questions, and the initial survey was slightly flawed as the budget allocation options were entered were entered incorrectly.¹ The results, however, still reflect measurable outcomes. The majority of the respondents indicated their budgets exceed \$700,000. Many of the smaller universities that were on the distribution list did not answer, so their numbers may have been more in line with the amounts initially entered on the survey. Table 13, on the following page, gives the ranges of the for the 2019-2020 and 2020-2021 academic years.

¹ The initial value for annual budget should have started with \$1million, not \$100,000. The error was detected after the survey had been submitted to the participants.

Table 13***Overall Library Allocation***

Institution	2019-2020	2020-2021
University of California – Berkley (R1)	\$60 million	\$58 million
Michigan State University (R1)	\$38 million	\$45 million
Virginia Tech (R1)	\$20 million	\$38 million
University of Minnesota (R1)	\$18.5 million	\$23 million
West Virginia University (R1)	\$15 million	<i>No answer</i>
University of Idaho (R2)	\$6 million	\$5 million
South Dakota State (R1)	\$4 million	\$3.9 million
Western Carolina University (D/PU)	\$1.7 million	\$1.2 million
Marshall University (R2)	\$1.4 million	\$1.2 million

There were two institutions that indicated they had a budget of \$1.7 million. One institution reported they were doing their budget quarterly.

Survey question 17 asked if this was an increase from the previous academic year. Sixty-nine percent of the respondents indicated it was not, while 31% indicated they did receive an increase.

Table 14***Increase Over the 2018-2019 Academic Year***

	<i>n</i>	% of respondents
Yes	5	31
No	11	69

When asked if this was an increase over the 2014-2015 academic year, only 56% of respondents said they did receive an increase during that period.

Table 15***Increase Over the 2014-2015 Academic Year***

	<i>n</i>	% of respondents
Yes	9	56
No	7	44

That indicates that approximately 44% of the respondents have had a “frozen” budget for five years. Survey question 19 asked for the increase from the previous academic year, 2019-2020. Only three of the respondents indicated they received an increase. There may be some discrepancy in this as it was indicated in the comments by one respondent that “they had already answered this above.” It is unclear whether they answered for 2014-2015 or the previous academic year.

Summary of Research Question Three

The survey questions which addressed Research Question Three of quantitative portion of the study were consistent with IPEDS reporting and *Chronicle of Higher Education* reports. It shows that many of the respondents have been operating on frozen budgets for years. In a final question, SQ 21, the respondents were asked about other unique ways of handling cuts. Several respondents indicated they are to the point of reducing services and staffing. Many of these institutions have larger support staff and administrative support positions that may need to be cut. Others indicated that they will be searching for donor funds. This is an interesting concept since donor funds are more likely to come to larger institutions due to the alumni support an institution may have.

Qualitative Findings

For this portion of the study, four institutions were selected by applying the same Carnegie classification as the previous online survey except for the addition of the researcher's home institution, a D/PU institution. Two institutions are in the southwest, one in the mid-east, and the other in the southeast. The interviewee from Southwestern University recommended contacting the interviewees from Southwestern State University and Mid-East University, while the fourth institution – Southeastern University – was the researcher's home institution.

Following Lanigan's (1988) method for phenomenological data analysis, the interview texts were compared and reduced to five themes: employment changes, elimination of duplicates/or unused material, transition to electronic materials, petition or requesting extra funding via provost assistance, and the effect(s) of COVID. The addition of COVID-related

questions came after the discussion of reduced budgets due to the pandemic's beginning in 2020. Each of these themes will be explored in detail in the pages that follow.

Participants were solicited by email request. The first individual from Southwestern University was selected as an interviewee since he contacted the researcher's chair to provide further information after completing the quantitative portion of the study. The next two interviewees, from Southwestern State University and Mid-East University, were recommended by the Southwestern State participant. The remaining interviewees participated as a focus group. The three from the researcher's home institution all participated as part of a Teams meeting since each one felt they could add a different perspective. The director of the main campus library was asked to participate, and her colleagues asked to participate with her since they had additional information that could be added to enhance the study. The total number of interviewees was six. Following the collection of the interviews, all were transcribed and saved as Word documents for analysis.

The data collected by telephone interviews were judged by the researcher to be as informative as those collected in the face-to-face interview, although the researcher did recognize that he did not have the advantage of as much nonverbal communication cues as he would have enjoyed with face-to-face interviews. On a positive note, however, it is noted by Bluman (2006) that people may be more candid in telephone interviews since there is no face-to-face contact. The interviewer did consider Skyping or using the iPhone face-to-face (i.e., FaceTime) method, but decided against those methods since the majority of the informants stated they were more comfortable with recorded telephone interviews. Additionally, the researcher

was concerned that if he experienced technical difficulty while using these methods, the interviewees may have declined to continue the interview. The researcher decided to consistently employ audio recording utilizing the TapeACall app via iPhone. In one instance a Teams meeting was used. This method was used due to the group format of the requested interviewees at the researcher's home institution of employment.

Employment Changes

Employment changes have become one of the more common themes in academic institutions when budget-reducing measures are necessary, especially in the academic library. There were specifically two subthemes within the findings related to employment changes: position freezes and faculty buyouts. Position freezes were more prominent at Southeastern University, where originally open positions were put on hold to respond to a tightened budget. The library had received a 3.5% budget cut initially from the university, but due to the position freezes was able to close that reduction to 1%. As a result, this meant enhanced job duties for employees in certain classified staff positions. These duties included, but were not limited to, processing functions, cataloging, receiving, etc.

The Southwestern State respondent noted, "We currently have a huge number of openings, of empty positions. So, if we have to take cuts in personnel, we will first be cutting those unfilled positions, and hopefully that will be enough."

Faculty buyouts were more prominent at Southwestern State University, Southwestern University, and Mid-East University. In fact, the respondent from the Southwestern University was in an interim position as the previous collection manager had retired:

[Southwestern] provided early retirement incentives to staff and faculty and we had 10 people within the library take that incentive, so around 10% of our staffing, and we also right now have an interim dean, and so the only positions that we're filling are our urgently needed staff to maintain basic operations. The decision was made that we would not fill positions unless we absolutely had to, just leave as much flexibility as possible for an incoming dean. So, it's a little less related to COVID [and more] just kind of just positions that we happened to end up in when COVID happened.

The Mid-East University respondent also noted, “The University had a structured buyout of people who have been here a long time.”

Elimination of Duplicates/or Unused Material

The elimination of duplicate materials is another common theme. With the rise of digital platforms many items such as journals have become available in the online database, often available in subscription plan they already use. So, the continuance of an individual print subscription is one of the first things to be eliminated. This second strategy for responding to reductions in funding, common among all participants, was the elimination of duplicate materials or materials that had gone unused for some time. Southwestern University uses this as an ongoing process:

So, planning for next year, we're definitely taking a much closer review of our bundled packages. We happen to have three of our major packages that are up for renewal this year, and in the past, the unbundling hasn't really been on the table, but I think it is much more on the table as an option ... We did it in the fall and did a fairly extensive campaign

with it. We asked for our subject librarians to communicate with their departments, [explaining] this is the situation that we're in and here are some things that you can do to help us out.

The Southwestern State University took this approach to specifically save positions: “We made the very conscious decision to hit materials rather than positions because we believe that it's easier to get the materials budget reinstated than to get new, personnel lines added to the library.” Additionally, they will be spending the current fiscal year reevaluating the bundled packages.

At a Southeastern University, the respondent stated, “Now along the way, about two-and-a-half years ago, we were asked to pay particular attention to our subscription expenditures, really do a deep dive.” They were asked by the university’s administration to look at any funds that could be saved by deleting duplicates and reduce print materials as they were a source of extensive spending. Additionally, they were taking up shelf space that could be reallocated for study space.

The Mid-East University participant responded, “It wasn't like we were losing all that much, but it was in terms of dollars we saved. By cutting one of those it was quite significant.”

Transition to Electronic Materials

This strategy for responding to reductions was frequently mentioned alongside the elimination of duplicates and was equally common. A Southeastern University participant responded, “For several years we have been in electronic preferred mode, not only for journals which that's been longer, but even for books.” A Mid-East University participant responded,

“We are now implementing more e-books because they served more of the student body during the shutdown.”

Southwestern State instituted a purchase-on-demand, Patron Driven Acquisitions (PDA) program: “Let's make all of these e-books available through a PDA program, and then we only pay for the ones that actually get used.”

The Patron Driven Acquisitions method has become a popular way for libraries to tailor material purchases to the user community. It was initially started using popular titles at Old Dominion University, the researcher's former institution, in 2009. The books were brought into the library by a vendor and shelved in a specialized area. If the book circulated three times, the university purchased the book. If the book circulated fewer than three times, the vendor removed the book after a six-month period and replaced it with a new title. At the researcher's current institution's branch library, this PDA model has been targeted at teaching faculty, asking them to provide input on the selection process. It is the hope that the faculty will request purchases that directly relate to their areas of interest and research and will inspire the students to follow suit. The first purchase made consisted of a large collection of estate- and tax-related texts from Aspen Publications.

Petitioning or Requesting Extra Funding/Provost Assistance

This response to funding reductions was also a common theme among all of the institutions since each of the represented libraries fell under the administration of their academic affairs units. At one time, many libraries fell under their respective information technology departments, which could be more cumbersome when running a traditional library budget with

print materials. At Mid-East University, the “budget hole was plugged up by the provost’s office. In the pre-COVID times, as I said, when the Provost’s office had additional funds that they were able to give us to the give to the library, we sort of used that.” Now, each purchase goes through a “pandemic review board.” This review has to determine if the request is an essential purchase.

At Southeastern University, “[s]howing usage and knowing what we have and how it’s used and why we need it has gone so far in [requesting additional funding or exceptions]. I don’t know how you quantify this, or to document it, but it has generated so much goodwill in the Provost’s office.”

The Impact of COVID

During the first year of the COVID pandemic, all of the respondents’ universities saw drops in use of their physical collections. Since most universities were closed and operating remotely, the need for physical materials wasn’t there. This resulted in an increase in the number of collection development policies to be altered. In the interview series a common theme indicated universities had already begun opting for e-materials, rather than buying print texts or just spending money because they had it. COVID simply accelerated those plans.

At Southwestern University, “[o]ur print book buying is generally decreasing. Also, we’re having to, because of COVID, we’re having to buy more e-books.”

At Southwestern State University, libraries are using the PDA structure: “We are putting more money into our patron driven acquisitions programs, and less money into the ‘oh, we’re going to just buy books for this.’ What’s happened with the pandemic is that the movement from just-in-case collection development to just-in-time collection development has accelerated.”

A Southeastern University librarian responded, “We saw a drop in physical use of the of the facility, but that has rebounded with students coming back to campus. Circulation is another story, so I don't know that I'm prepared to say we will reach a zero circulation point for print materials, but the trend has certainly been downward with corresponding increases on the electronic materials side.”

Summary

The purpose of this chapter was to present data gathered to examine the ways that many institutions have dealt with budget cuts in the current austerity environment. The results of the quantitative portion of the survey are indicative of what the researcher has seen in the environment. In a previous chapter the researcher discussed the 2008 economic recession which certainly influenced universities and universities libraries. While some have been lucky enough to see small increases, many have resorted to measures that one in academia does not like to see: the loss of resources and personnel. It is believed this will continue in the coming years as the COVID pandemic continues to exacerbate the effects of the recession.

The results of the qualitative survey were as expected across the four institutions. It was particularly interesting to see how similarly the two Southwestern public institutions were dealing with other outside issues (i.e., decreased enrollment, loss of state revenue due to the state's recession, and reduced income from the reduction of oil production) prior to the COVID pandemic and how they were able to carry their reduction methods into the “new era.” The private Southeastern University was also ahead of the curve. They began making reductions prior to COVID but were able to rely on their new methods to accommodate COVID era adjustments.

The qualitative portion of the study further supported the results of the quantitative portion. Many libraries have resorted to closing open positions, which in turn puts more work on remaining employees in established positions. Others indicated that they had been dealing with static budgets and were having to seek outside support from donors and academic affairs.

Chapter 5

This chapter reviews the purpose of the study, research questions, demographic data, methods, and summarizes the findings. The chapter ends with a presentation of conclusions based on the responses to the three research questions and recommendations for further research.

Purpose of the Study

The purpose of this mixed-methods study (i.e., non-experimental, descriptive, and Phenomenological) was to discern the various methods library administrators' undertook when faced with mandatory state budget cuts. The study focused on three research questions:

Research Question 1: To what sorts of formal policies or practices are university libraries required to adhere when determining how to reduce their budgets?

Research Question 2: What sorts of informal practices do university libraries implement when determining how to reduce their budgets?

Research Question 3: To what extent, if any, does the size of the institution's budget reduction affect university libraries' flexibility in determining their own budget cuts?

Respondent Data Population and Sample

The population for this study consisted of public and private higher education library administrators, including acquisitions librarians and technical service directors at all Carnegie-classified R1, R2, D/PU: Doctoral Universities and selected Masters Large: M1 institutions in the United States (Appendix B). It should be noted that two of the schools chosen also had classification changes during this study: Western Carolina and Southern Illinois are both classified as Doctoral and Professional Universities (D/PU) now. Given their intensive research

characterizations, the R1 institutions were viewed as representatives of optimal library circumstances for purposes of this study. The R2 institutions were viewed as stronger than average with some loss of funding, while a sample of smaller institutions at the Masters Colleges and Universities: Larger Programs (M1) functioned as representatives of institutions more likely to have lost significant funding for comparative purposes (see Appendix B). This sample includes Marshall University (MU), West Virginia's other large institution.

Surveys were sent to 74 library administrators, acquisitions librarians, and collection development librarians. Additionally, for the qualitative portion of the study, three other institutions were chosen which fell within the population parameters. Table 16 shows the breakdown of sample.

Table 16

Carnegie Classification	<i>n</i>	%
M1	27	41
R1	24	36
R2	14	21
D/PU	2	2

Respondent data included 25 respondents with only 23 completing the entire survey. A breakdown of the Carnegie Classification institutions completing the survey would compromise the anonymity of the survey.

Methods

Data on budgets and allocations were obtained from the Carnegie Foundation, The Integrated Postsecondary Education Data System (IPEDS), *The Chronicle of Higher Education*, and state resources and harvested from these sources to establish the context within which the study was situated. The 67 schools chosen for study were selected from Carnegie-classified universities with very high research activity, high research activity, moderate research activity and other selected, balanced arts and sciences/professional institutions with high graduate coexistence in the United States. (See Appendix B) Data on budgets and allocations for these institutions are available from IPEDS and state resources. Once the institutions were identified, the study was conducted by distributing a survey to acquisitions librarians, collection management librarians, technical services directors, and library administrators from the 67 selected institutions. All four titles were used due to the fact that these positions often overlap.

The survey link was emailed via Qualtrics to the participants on August 11, 2020. Participants were asked to complete the survey within 21 days. The contact information of each participant was collected from university library webpage faculty and staff directories. Participants were asked to complete the survey within 21 days. A second was sent 28 days later, September 28. A final third invitation was sent 11 days later, October 9, 2020. Following the third email invitation to potential survey participants and based on the small number of results received ($n = 23$ respondents), it was determined that a qualitative component could prove useful in supporting the survey findings, and the original IRB request was amended accordingly. The quantitative data were converted to the current version of SPSS and the appropriate analytical

methods were utilized. An email invitation was sent to the original pool as a request for participation in a virtual interview, returning only one response. The researcher asked the first interviewee for some possible colleagues that may be interested in taking part in the interview.

The first respondent to reply to the interview request provided two additional names as likely participants, for a total of three interviewees. The researcher included his home university of employment in the interview pool as well, giving the researcher a sample of four interviewees.

Quantitative

This was a non-experimental, descriptive study that utilized an electronic, web-based survey to gather information that was analyzed using both Qualtrics and SPSS Statistics 26 software. Analysis of survey responses was consistent with the purpose articulated by Creswell (2009): to provide a quantitative description of trends, attitudes, or opinions of a sample within the population. The survey instrument included three primary question formats: yes-no, multiple choice, and Likert-type items. The results of this study were used to report the policies and procedures used by participants in responding to budget reductions.

Qualitative

The qualitative aspect of the research was conducted using Lanigan's (1988) phenomenological method. The unit of data collection was individual library faculty members in the sample, and the data were obtained primarily by telephone interviews focusing predominantly on how the interviewees had made budget cuts through the past two academic years, including the period of the COVID pandemic. Respondents were encouraged to answer questions in an unstructured way, however (i.e., conversational), to encourage them to express

what was relevant from their viewpoints. By listening carefully, the interviewer was able to ask appropriate follow-up questions based on the information that was shared by the respondents.

Summary of Findings

Research Question One: To what sorts of formal policies or practices are university libraries required to adhere when determining how to reduce their budgets?

The survey questions which addressed Research Question One (RQ1) of the quantitative portion of the study confirmed what the author had seen in recent IPEDS and *The Chronicle of Higher Education* reports and heard anecdotally from colleagues at conferences. Forty-eight percent of the respondents said they investigated budget cuts based on academic allocations to other library units. This method of “borrowing” from one allocated line to cover another has become more common in the world of academia. At the author’s home institution one school commonly uses the “bottom line” of the entire budget to cover necessary inflationary shortfalls. Seventeen percent of the respondents reported making blanket cuts while 26% selected “other,” which included typed answers such as analysis of vacant positions, elimination of big packages, creation of scholarly advising committee, selections made by librarians, a focus on multi-year usage, and evaluation of various disciplines’ usage.

Research Question Two: What sorts of informal practices do university libraries implement when determining how to reduce their budgets?

The survey questions which addressed Research Question 2 of the quantitative portion of the study also confirmed what the author had seen in recent IPEDS and *The Chronicle of Higher Education* reports and heard anecdotally from colleagues at conferences. It shows the

resourcefulness (i.e., through resource sharing, consortia, consultation with colleagues, etc.) that many librarians are taking to keep their allocations strong. It also showed that many are not immune from the cuts and take the “hit” to be a team player as indicated by several write-in responses. This is an area that would be beneficial of further research.

Research Question Three: To what extent, if any, does the size of the institution's budget reduction affect university libraries' flexibility in determining their own budget cuts?

The survey questions which addressed Research Question 3 of the quantitative portion of the study were consistent with IPEDS reporting and *The Chronicle of Higher Education* reports. It shows that many of the respondents have been operating on frozen budgets for years. In a final question, SQ 21, the respondents were asked about other unique ways of handling cuts and several respondents indicated they are to the point of reducing services and staffing. Many of these institutions have larger support staff and administrative support positions that may need to be eliminated. Some indicated that they will be searching for donor funds. This is an interesting concept since donor funds are more likely to come to larger institutions due to broader alumni support.

Discussion

Full time librarian/faculty positions are being frozen as veteran librarians begin to retire, and smaller academic programs get merged into other schools or colleges, or cut from the curriculum altogether, which causes a ripple effect to happen. Many libraries have resorted to closing open positions, which in turn puts more work on remaining employees in established positions. Those losses of positions necessarily lead to seeing fewer librarians taking on more

tasks. This may account for why academic libraries are seeing more liaison positions rather than dedicated subject specialists.

Petitioning the university administration for exceptions appears to be increasingly common based on anecdotal evidence from other librarians during the qualitative portion study. One of the other most common ways librarians are dealing with budget-reductions is through the reduction of duplicate materials. This process often starts with print materials and determining whether they are available in another digital package. As an example, most law libraries include state statutes and codes in print; many of those are available through state webpages. There is an extra expense for purchasing a print item that will be updated frequently. Elimination of such items can save tens of thousands of dollars in outgoing expenditures.

The results of the qualitative interviews were as expected across the four institutions. It was particularly interesting to see how similarly the two Southwestern public institutions were dealing with other outside issues (i.e., decreased enrollment, loss of state revenue due to the state's recession, and reduced income from the reduction of oil production) prior to the COVID pandemic and how they were able to carry their reduction methods into the "new era." The private Southeastern University was also ahead of the curve. They began making reductions prior to COVID, but were able to rely on their new methods to accommodate COVID era adjustments as well.

Additionally, the qualitative portion of the study further supported the results of the quantitative portion. Others indicated that they had been dealing with static budgets for some time and were having to seek outside support from donors and academic affairs.

Recommendations for Further Study

Based on findings from both the literature review and analysis of study data, several avenues of future research can be explored. The results from this research could lead to more standardized practices in academic libraries where institutional budget cuts require new methods for selection of materials. Furthermore, these results could encourage publishers' potentially creating more consortium-based packages for schools to alleviate some of the pains from state financial cuts.

1. The study focused on Carnegie R1, R2, DP/U and selected M1 schools, specifically West Virginia Higher Education Policy Commission (WVHEPC) peers to Marshall University. Expanding this study to include a larger population such as all state schools within a geographical area, could provide data which would help support conclusions and implications regarding choices made in professional practice in times of austerity.
2. From a qualitative perspective, this study incorporated only interviews with representative librarians. It is possible more informative data could result through the incorporation of additional qualitative research methods (e.g., field observations, interviews, focus groups) to provide a broader picture of institutions' efforts to make changes to their budget-reduction policies and procedures.
3. The study focused on changes to professional practice over the last 10 years. The qualitative portion examined what happened during the global pandemic speaking with only four institutions. Expanding the size of the population to include other geographical

regions could give a bigger picture of how schools are handling budget reductions, across the nation, through a larger representative sample.

4. The study was conducted using a one-shot survey instrument. A longitudinal study beginning with institutions representing various configuration (e.g., differing Carnegie designations, institutional sizes, institutional location, etc.) could establish an account of common procedures and policies used by institutions to manage collections in light of ongoing reductions to their budgets. The survey could be re-administered every two years, up to 10 years to measure changes in professional practices.

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Appendix A



Office of Research Integrity
Institutional Review Board
 One John Marshall Drive
 Huntington, WV 25755

FWA 00002704

IRB1 #00002205

IRB2 #00003206

July 28, 2020

Barbara Nicholson, PhD
 Leadership Studies, COEPD

RE: IRBNet ID# 1632136-1

At: Marshall University Institutional Review Board #2 (Social/Behavioral)

Dear Dr. Nicholson:

Protocol Title: [1632136-1] Library Administrators in an Austerity Environment

Site Location: MUGC

Submission Type: New Project APPROVED

Review Type: Exempt Review

In accordance with 45CFR46.104(d)(2), the above study was granted Exempted approval today by the Marshall University Institutional Review Board #2 (Social/Behavioral) Designee. No further submission (or closure) is required for an Exempt study unless there is an amendment to the study. All amendments must be submitted and approved by the IRB Chair/Designee.

This study is for student Thomas Walker.

If you have any questions, please contact the Marshall University Institutional Review Board #2 (Social/Behavioral) Coordinator Bruce Day, ThD, CIP at 304-696-4303 or day50@marshall.edu. Please include your study title and reference number in all correspondence with this office.

Sincerely,

Bruce F. Day, ThD, CIP
 Director, Office of Research Integrity

Appendix B

Library Administrators in an Austerity Environment

Principal investigator

Barbara L. Nicholson, PhD

Professor, Leadership Studies

College of Education and Professional Development

Co-investigator

Thomas Walker, BS, MSLS

EdD candidate, Leadership Studies

College of Education and Professional Development

You are invited to participate in a research study to determine how academic library administrators deal with mandatory state budget cuts. This electronic, web-based survey will gather information regarding budgetary trends in higher education and university libraries' strategies, policies and/or practices for responding to those trends.

The survey will request no identifying information. You may close your browser after completing the survey for as an added measure of security. We will do our best to make sure that your personal information is kept confidential. We cannot, however, guarantee absolute confidentiality. Federal law says we must keep your study records private. Nevertheless, under unforeseen and rare circumstances, we may be required by law to allow certain agencies to view

your records. Those agencies would include the Marshall University IRB, Office of Research Integrity (ORI) and the federal Office of Human Research Protection (OHRP). This is to make sure that we are protecting your rights and your safety. If we publish the information we learn from this study, you will not be identified by name or in any other way.

There are no costs to you for taking part in this study. You will receive no payment or other compensation for taking part in this study.

For questions about the study, contact the study investigator, Dr. Barbara Nicholson, at [304-746-2094](tel:304-746-2094) or bnicholson@marshall.edu or Thomas Walker, at [304-544-9509](tel:304-544-9509) or walkert@marshall.edu. You should also call the investigator if you have a concern or complaint about the research.

For questions about your rights as a research participant, contact the Marshall University's Office of Research Integrity (ORI) at [304-696-4303](tel:304-696-4303). You may also call this number if:

- you have concerns or complaints about the research;
- the research staff cannot be reached; or
- you want to talk to someone other than the research staff.

Your participation is much appreciated.

“I consent”

“I do not consent”

3. On a scale of 1-6, with 1 being “never” and 6 being “always,” how often have you consulted with subject specialists (e.g., subject librarians or department/school/college chairs) before cuts are made?

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)
(1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

4. On a scale of 1-6, with 1 being “never” and 6 being “always,” how often have your user statistics affected your budget choices?

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)
(1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

5. How are user statistics determined for print journals? Please choose all that apply.

- Scan items before re-shelving
- Consult with faculty about required journals
- Consult with patrons about their usage
- Other (please explain)

If you answered "other" to how user statistics are determined for print journals, please explain.

6. Have you ever reduced personnel in order to maintain the level of user materials?

- Yes
- No (if no skip to 8)

7. How were those reductions made? Please choose all that apply.

- Eliminated existing positions.
- Reduced hours of non-salaried personnel.
- Froze open positions.
- Other (please explain)

If you answered "other" in response to how reductions were made, please explain.

8. Have you ordered texts in order to help departments/schools/colleges maintain accreditation?

Yes

No (if no skip to 9)

If you answered "yes" to having ordered texts in order to help departments/schools/colleges maintain accreditation, please explain your role.

9. Do you have an established percentage of the materials budget allocated for print journals, online journals, books, other media?

- Yes
- No (if no skip to 14)

10. How much for print journals?

- Less than 10%
- 11-20%
- 21-30%
- 31-40%
- 41-50%
- 51-60%
- More than 61%

11. How much for online journals?

- Less than 10%
- 11-20%
- 21-30%
- 31-40%

- 41-50%
- 51-60%
- More than 61%

12. How much for books?

- Less than 10%
- 11-20%
- 21-30%
- 31-40%
- 41-50%
- 51-60%
- More than 61%

13. How much for other media (e.g., audiobooks, DVDs, e-books)?

- Less than 10%
- 11-20%
- 21-30%
- 31-40%
- 41-50%

- 51-60%
- More than 61%

14. On a scale of 1-6, with 1 being “never” and 6 being “always,” how often do you personally consult with librarians at other universities to see what they will be cutting?

	1	2	3	4	5	6
(1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

15. If you have consulted with librarians at other universities to see about resource sharing, which of the following did you discuss? Choose all that apply.

- Consortia
- Outside user patron fees
- Courtesy sharing with university ID
- We have not consulted with other universities about resource sharing.
- Other (please explain)

If you answered "other" to having consulted with librarians at other universities about resource sharing, please explain.

16. How much was your library allocated overall for the 2019-2020 academic year?

- \$100,000-\$200,000
- \$200,001-\$300,000
- \$300,001-\$400,000
- \$400,001-\$500,000
- \$500,001-\$600,000
- \$600,001-\$700,000
- More than \$700,001

If you answered more than \$700,001 for your 2019-2020 overall allocation, please enter the amount here.

17. Is that amount an increase over the previous year's overall allocation (i.e., 2018-19)?

Yes

No

18. Is that amount an increase over the amount allocated overall five years ago (i.e., 2014-15)?

Yes

No

19. How much has your library been allocated overall for the 2020-2021 academic year?

\$100,000-\$200,000

\$200,001-\$300,000

\$300,001-\$400,000

\$400,001-\$500,000

\$500,001-\$600,000

\$600,001-\$700,000

More than \$700,001

If you answered more than \$700,001 for your 2019-2020 overall allocation, please enter the amount here.

20. Have you ever petitioned the university administration for exemption from budget cuts?

Yes

No

If you answered "yes" to having petitioned the university administration for exemption from budget cuts, what was the outcome?

If you answered "no" to having petitioned the university administration for exemption from budget cuts, what was the reasoning?

21. Are there other ways you handle budget cuts?

22. How many years of experience do you have in your current position?

- <5
- 6-10
- 11-15
- 16-20
- >20

23. How many total years of experience as a college/university librarian?

- <5
- 6-10
- 11-15
- 16-20
- >20

Appendix C

Survey Population

Institution	Carnegie Classification	FTE	MU Peer
Auburn University	R1	30,737	N
Clemson University	R1	23,620	N
Colorado State University-Fort Collins	R1	32,428	N
Cornell University	R1	23,620	N
Iowa State University	R1	31,822	N
Kansas State University	R1	20,854	N
Louisiana State University and Agricultural & Mechanical College	R1	34,285	N
Michigan State University	R1	49,695	N
Mississippi State University	R1	22,986	N
Montana State University	R1	16,218	N
New Mexico State University	R2	14,227	N
North Carolina State University at Raleigh	R1	36,042	N
North Dakota State University	R1	12,846	N

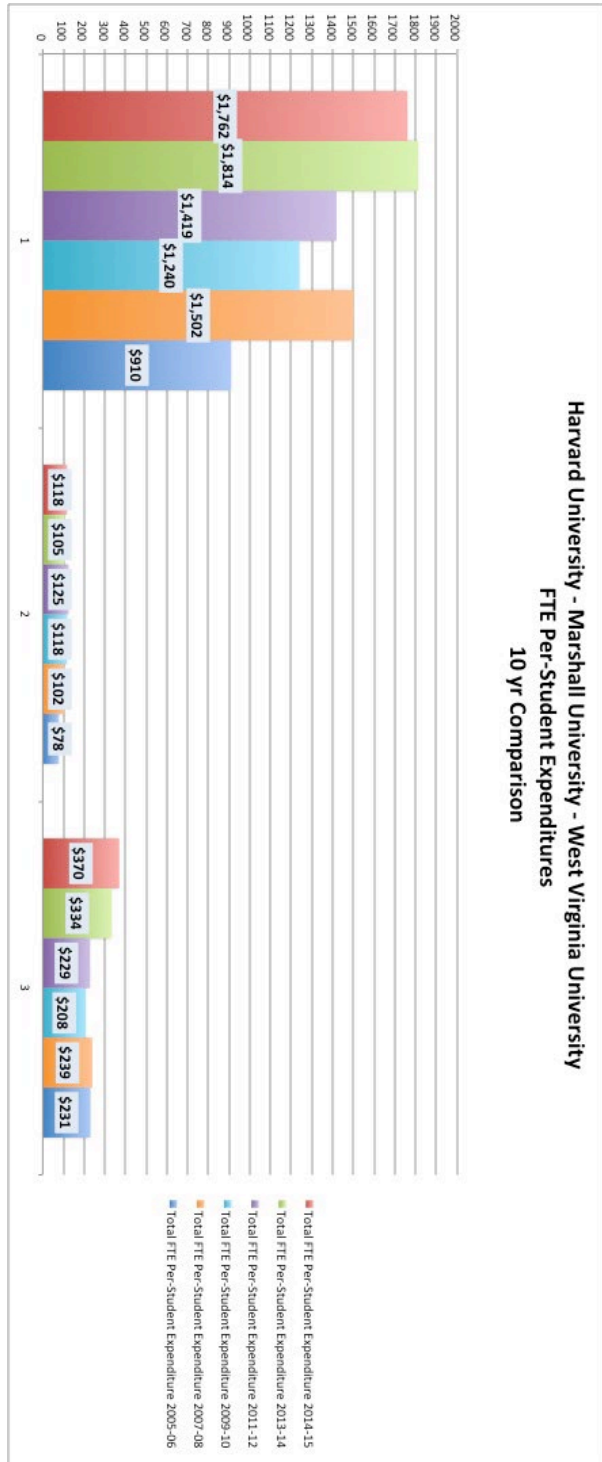
Ohio State University-Main Campus	R1	61,369	N
Oklahoma State University	R1	24,535	N
Oregon State University	R1	32,312	N
Pennsylvania State University-Main Campus	R1	89,816	N
Purdue University-Main Campus	R1	46,655	N
Rutgers University-New Brunswick	R1	50,411	N
South Dakota State University	R2	11,405	N
Texas A & M University-College Station	R1	70,418	N
The University of Tennessee- Knoxville	R1	30,559	N
University of Alaska	M1	11,953	N
University of Arizona	R1	45,601	N
University of California-Berkeley	R1	42,327	N
University of Connecticut	R1	27,215	N
University of Delaware	R1	23,613	N
University of Florida	R1	53,372	N
University of Georgia	R1	39,147	N

University of Illinois at Urbana-Champaign	R1	52,679	N
University of Kentucky	R1	29,986	N
University of Maine	R1	11,741	N
University of Maryland-College Park	R1	40,709	N
University of Massachusetts-Amherst	R1	31,642	N
University of Minnesota-Twin Cities	R1	52,017	N
University of Missouri-Columbia	R1	31,089	N
University of Nebraska-Lincoln	R1	25,108	N
University of New Hampshire	R1	14,348	N
University of Nevada-Reno	R1	20,722	N
University of Rhode Island	R2	17,649	N
University of Vermont	R2	13,292	N
University of Wisconsin-Madison	R1	44,640	N
University of Tennessee	R1	30,559	N
Virginia Polytechnic Institute and State University	R1	37,024	N
Washington State University	R1	31,159	N

West Virginia University	R1	26,269	N
Harvard University	R1	30,391	N
University of Virginia	R1	25,628	N
Marshall University	R2	11,958	N
Utah State University	R1	27,691	Y
University of South Alabama	R2	14,224	Y
University of Arkansas at Little Rock	R2	8,899	Y
University of Arkansas Main Campus	R1	27,562	Y
University of Idaho	R2	10,791	Y
Southern Illinois University- Edwardsville	D/PU	12,860	Y
Morehead State University	M1	9,304	Y
Oakland University	R2	18,552	Y
Southeast Missouri State University	M1	10,001	Y
University of Missouri-Kansas City	R2	16,147	Y
University of Mississippi Main Campus	R1	21,014	Y
East Carolina University	R2	28,798	Y

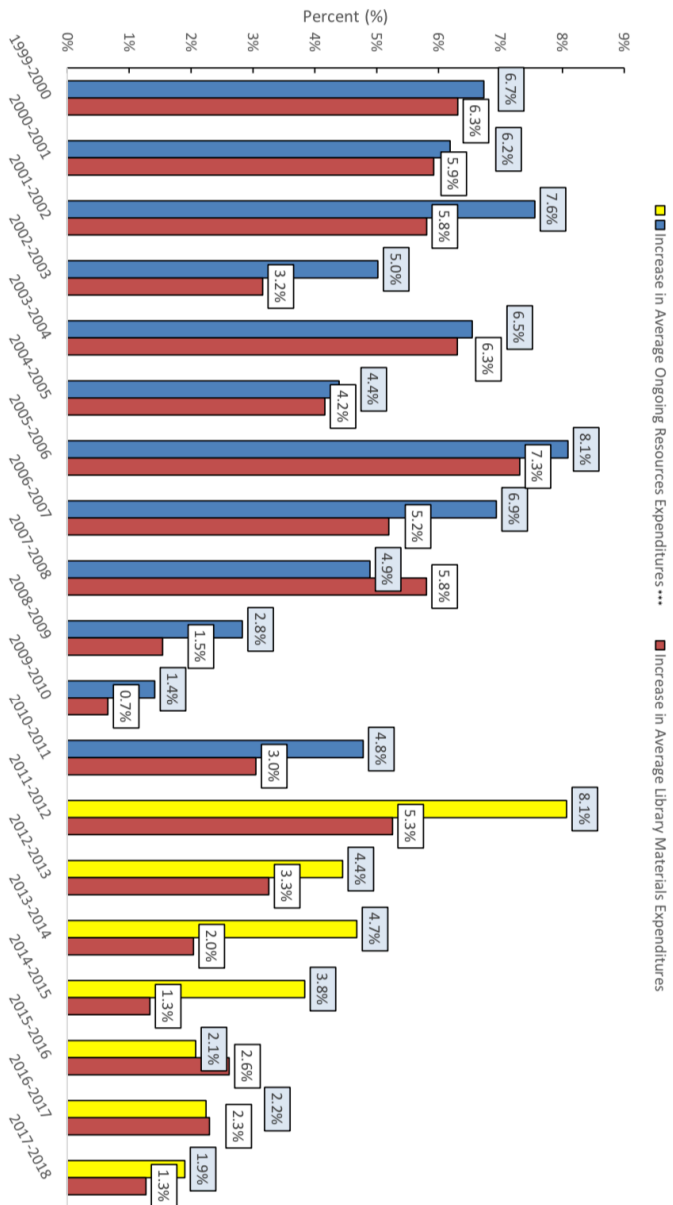
University of North Carolina at Greensboro	R2	19,764	Y
Western Carolina University	D/PU	12,243	Y
University of North Dakota	R2	13,615	Y
Western Washington University	M1	15,197	Y
East Tennessee State University	R2	13,713	Y
University of Wyoming	R2	11,829	Y

Appendix D



Appendix E

Graph 6
Yearly Increases in Average Ongoing Resource Expenditures***
vs. Total Materials Expenditures, 1998-2018
ARL University Libraries



Source: ARL Statistics 2017-18, Association of Research Libraries, Washington, D.C.
 ***Formerly Electronic Resource Expenditures. Beginning with 2011-12, figure represents increase in Average Ongoing Resource Expenditures. Expenditures data not adjusted for inflation.

Curriculum Vitae

Education

Edd, Marshall University, 2022.

Major: Leadership Studies

Supporting Areas of Emphasis: Higher Education Administration

MSLS, Clarion University, 2008.

Major: Library Science

Supporting Areas of Emphasis: Institutional Repositories, Digital Libraries, Scholarly Communication

University of North Texas, 1999.

Major: Musicology

Supporting Areas of Emphasis: Jazz Studies, Arranging

BS, Radford University, 1995.

Major: Music

Supporting Areas of Emphasis: Media Studies, Composition, Performance

Academic, Government, Military and Professional Positions

Academic

Associate Librarian for Collection Management, Liberty University. (April 1, 2019 – present)

Music and Digital Services Librarian, Marshall University Drinko Library. (November 1, 2010 – 2018).

Library Specialist III, Old Dominion University Perry Library. (November 16, 2009 - October 15, 2010).

Volunteer Technical Services, Knight-Capron Library. (January 2008 - December 2008).

Professional

Owner, Luminous Recording Freelance A/V Engineer. (January 1999 - Present).

Volunteer Archivist, Jones Memorial Library. (September 2008 - December 2008).

Project Coordinator, Sound & Image Design Inc. (June 2005 - July 2007).

Director/Technical Director, WWBT-TV. (May 1, 2001 - May 31, 2005).

Director/Technical Director, WSET-TV. (August 15, 1999 - April 1, 2001).

Professional Memberships

American Association of Law Libraries. (April 1, 2019 – present).

Virginia Association of Law Libraries. (April 1, 2019 – present).

Southeastern Chapter – American Association of Law Libraries. (April 1, 2019 – present).

Southeastern Regional Council on Education Administration. (November 1, 2015 - Present).

Member of Education and Training Committee, Association for Recorded Sound Collections. (January 1, 2007 - 2018).

Music Library Association. (January 1, 2007 - Present).

International Society of Bassists. (July 1, 1995 - Present).

West Virginia Library Association. (December 1, 2014 - December 1, 2015).

Digital Project Roundtable Chair, West Virginia Library Association. (December 1, 2011 - December 1, 2014).

Development Activities Attended

American College of Surgeons – Committee on Trauma “Stop the Bleed,” Liberty University, Lynchburg, VA, USA. (March 2, 2022).

Lynda.com training, "HP for Web Designers," Marshall University, Huntington, WV, USA. (August 1, 2013 - Present).

Lynda.com training, "Drupal 7 Essential Training," Marshall University, Huntington, WV, USA. (June 1, 2012 - Present).

Webinar, "Introduction to Crossref for Publishers," Crossref, Lynnfield, Massachusetts, USA. (August 24, 2016 - August 25, 2016).

Webinar, "Image Copyright and Image Use," Artstor, New York, New York, USA. (April 20, 2016).

University Certification, "Preventing Discrimination and Sexual Violence: Title IX, VAWA and Clery Act for Faculty and Staff," Marshall University, Huntington, WV, USA. (September 23, 2015).

Workshop, "NACO Training," Library of Congress/PCC/University of Kentucky, Lexington, KY, USA. (May 31, 2015 - June 5, 2015).

Workshop, "RDA Training," Lyrisis/Marshall University, Huntington, WV, USA. (August 14, 2014).

Workshop, ""FERPA," Human Resources.," Marshall University, Huntington, WV, USA. (October 29, 2013).

Lynda.com training, "WordPress 3.8 New Features," Marshall University, Huntington, WV, USA. (May 1, 2013).

Catalogers Learning Workshop - RDA in NACO Training for AACR2 Catalogers, "RDA in NACO Training for AACR2 Catalogers - WEMI: Group 1 Entities as NARs," Marshall University, Huntington, WV, USA. (April 3, 2013).

Training Video, "RDA 2," Marshall University, Huntington, WV, USA. (March 29, 2013).

Training Video, "RDA 3," Marshall University, Huntington, WV, USA. (March 29, 2013).

Catalogers Learning Workshop - RDA in NACO Training for AACR2 Catalogers, "RDA in NACO Training for AACR2 Catalogers - WEMI: Group 1 Entities as NARs," Marshall University, Huntington, WV, USA. (March 26, 2013).

Training Video, "RDA 1," Marshall University, Huntington, WV, USA. (February 27, 2013).

Catalogers Learning Workshop - RDA in NACO Training for AACR2 Catalogers, "RDA in NACO Training for AACR2 Catalogers - WEMI: Group 1 Entities as NARss," Marshall University, Huntington, WV, USA. (February 5, 2013).

Webinar, "RDA Toolkit Essentials," Marshall University, Huntington, WV, USA. (January 16, 2013).

Catalogers Learning Workshop - RDA in NACO Training for AACR2 Catalogers, "RDA in NACO Training for AACR2 Catalogers -Identifying Corporate Bodies: Constructing Authorized Access Points," Marshall University, Huntington, WV, USA. (January 10, 2013).

Catalogers Learning Workshop - RDA in NACO Training for AACR2 Catalogers, "RDA in NACO Training for AACR2 Catalogers -Identifying Corporate Bodies: Constructing Variant Access Points," Marshall University, Huntington, WV, USA. (January 10, 2013).

Catalogers Learning Workshop - RDA in NACO Training for AACR2 Catalogers, "RDA in NACO Training for AACR2 Catalogers -Identifying Corporate Bodies: Overview Recording the Attributes," Marshall University, Huntington, WV, USA. (January 10, 2013).

Catalogers Learning Workshop - RDA in NACO Training for AACR2 Catalogers, "RDA in NACO Training for AACR2 Catalogers -Identifying Places," Marshall University, Huntington, WV, USA. (January 10, 2013).

Catalogers Learning Workshop - RDA in NACO Training for AACR2 Catalogers, "RDA in NACO Training for AACR2 Catalogers -Names of Families," Marshall University, Huntington, WV, USA. (January 10, 2013).

Catalogers Learning Workshop - RDA in NACO Training for AACR2 Catalogers, "RDA in NACO Training for AACR2 Catalogers Identifying Corporate Bodies: AACR2

- Similarities and Differences," Marshall University, Huntington, WV, USA. (January 10, 2013).
- Catalogers Learning Workshop - RDA in NACO Training for AACR2 Catalogers, "RDA in NACO Training for AACR2 Catalogers - Identifying Persons: Constructing Authorized Access Points," Marshall University, Huntington, WV, USA. (January 10, 2013).
- Catalogers Learning Workshop - RDA in NACO Training for AACR2 Catalogers, "RDA in NACO Training for AACR2 Catalogers - Identifying Persons: Constructing Variant Access Points AACR2 Similarities and Differences," Marshall University, Huntington, WV, USA. (January 10, 2013).
- Catalogers Learning Workshop - RDA in NACO Training for AACR2 Catalogers, "RDA in NACO Training for AACR2 Catalogers - Identifying Persons: Overview," Marshall University, Huntington, WV, USA. (January 10, 2013).
- Catalogers Learning Workshop - RDA in NACO Training for AACR2 Catalogers, "RDA in NACO Training for AACR2 Catalogers - RDA Toolkit: Where you Find the Instructions you Need: Name Entities and Attributes," Marshall University, Huntington, WV, USA. (January 10, 2013).
- Catalogers Learning Workshop - RDA in NACO Training for AACR2 Catalogers, "Background: FRBR/FRAD," Marshall University, Huntington, WV, USA. (January 9, 2013).
- Catalogers Learning Workshop - RDA in NACO Training for AACR2 Catalogers, "MARC 21 in NACO RDA Authority Records: Old Fields, New Fields, and How We are Using Them," Marshall University, Huntington, WV, USA. (January 9, 2013).
- Catalogers Learning Workshop - RDA in NACO Training for AACR2 Catalogers, "PCC Current Requirements: Documentation," Marshall University, Huntington, WV, USA. (January 9, 2013).
- Catalogers Learning Workshop - RDA in NACO Training for AACR2 Catalogers, "Purpose of These Modules Learning Objectives," Marshall University, Huntington, WV, USA. (January 9, 2013).
- Webinar, "Libraries and Copyright in a Digital Age - Pt. 2," Academic Impressions. (November 29, 2012).

Webinar, "Libraries and Copyright in a Digital Age - Pt. 1," Academic Impressions.
(November 27, 2012).

Webinar, "Maximize the Value of Your Content and Manage Copyright Compliance."
(February 16, 2012).

Webinar, "NISO: Assessment Metrics," Marshall University, Huntington, WV.
(December 14, 2011).

Conference Attendance, "Resource Description and Access Update," West Virginia
Library Association, Charleston, WV. (October 6, 2011).

TEACHING

Teaching Experience

Marshall University

MUS 401, Research in Music, 6 courses.

MUS 485, Independent Study in Music, 1 course.

MUS 486, Independent Study in Music, 1 course.

Non-Credit Instruction

Legal Resources for the First Year Law Student Research Guide. (July 1, 2022-
Present).

Locating Court Records, Briefs and Oral Arguments Research Guide. (July 1, 2022-
Present).

Researching Legislative History, Briefs and Oral Arguments Research Guide. (July 1,
2022- Present).

Journalism Research Guide. (August 1, 2011 - 2018).

Jazz Research Guide. (January 1, 2011 - 2018).

Music Research Guide. (November 15, 2010 - 2018).

Music Research Librarian, 1 participant. (August 25, 2015 - December 15, 2015).

Music Research Librarian, 1 participant. (August 25, 2015 - December 15, 2015).

Music Embedded Librarian, 25 participants. (August 25, 2014 - December 15, 2014).

Music Embedded Librarian, 25 participants. (August 25, 2014 - December 15, 2014).

Music Embedded Librarian. (August 26, 2013 - December 15, 2013).

Workshop, Drinko Library, 15 participants. (August 27, 2012 - December 14, 2012).

Workshop, Drinko Library, 6 participants. (August 27, 2012 - December 14, 2012).

Music Embedded Librarian, 4 participants. (January 23, 2012 - April 27, 2012).

Music Embedded Librarian. (January 23, 2012 - April 27, 2012).

Embedded, Drinko Library, 20 participants. (January 23, 2012 - April 27, 2012).

Embedded, Drinko Library, 17 participants. (January 23, 2012 - April 27, 2012).

Personal Librarian, 8 participants. (September 21, 2011 - December 6, 2011).

Embedded, 28 participants. (September 12, 2011 - December 6, 2011).

Workshop, 5 participants. (November 8, 2011 - November 29, 2011).

Embedded, 8 participants. (September 21, 2011 - November 26, 2011).

Workshop, 10 participants. (September 28, 2011 - October 25, 2011).

Music Embedded Librarian, 9 participants. (April 15, 2011 - May 7, 2011).

Music Embedded Librarian, 20 participants. (February 8, 2011 - April 30, 2011).

FYS Embedded Librarian, 21 participants. (February 8, 2011 - March 15, 2011).

RESEARCH

Published Intellectual Contributions

Refereed Journal Articles

Sheret, Robert Larry, Walker, Thomas L., Beach, Gretchen Rae, and Zhang, Jingping. "A Primer on How to Launch an Institutional Repository Successfully." *The Charleston Advisor*, (2015): www.charlestonco.com/.

Sheret, Robert Larry, Walker, Thomas L., Beach, Gretchen Rae, and Zhang, Jingping. "A Primer on How to Launch an Institutional Repository Successfully." *The Charleston Advisor*, (2014): www.charlestonco.com/.

Periodicals

Zhang, Jingping, and Walker, L. Thomas. "Marshall University Libraries." *West Virginia Library Association Newsletter*, May 2013.

Presentations Given

Walker, T. L., Marshall University Technology Summit, "Music Resources Available to the Students at Marshall University," Marshall University, Huntington, WV.

Walker, T. L., RIS Retreat, "Everything you needed to know about Music Copyright...well not really. But, here's a little bit.," Marshall University, Huntington.

Walker, T. L. (Presenter & Author), Nicholson, B. L. (Presenter & Author), McCoullough, L. (Presenter & Author), 56th Annual Southern Regional Council on Education Administration Conference, "Crowdsourcing Platforms as Potential Research Sites," Southern Regional Council on Education Administration, Kennesaw, GA. (November 22, 2015).

Walker, T. L. (Presenter & Author), Beach, G. R. (Presenter & Author), RIS Retreat, "RDA Takes Over Drinko," Marshall University, Huntington, WV. (July 24, 2013).

Walker, T. L., WVLA Academic Division Summer Workshop, "Marshall Digital Scholar - Music Collections, access and preservation," Marshall University, Huntington, WV. (June 25, 2013).

Walker, T. L., Association for Recorded Sound Collections Pre-Conference Workshop, "Marshall Digital Scholar - Music Collections, access and preservation," Association for Recorded Sound Collections, Kansas City, MO. (May 15, 2013).

Beach, G. R. (Presenter & Author), Walker, T. L. (Presenter & Author), West Virginia Library Association Annual Conference, "Marshall Digital Scholar: The Birth of an IR," West Virginia Library Association, Roanoke, WV. (October 11, 2012).

Zhang, J. (Presenter & Author), Beach, G. R. (Presenter & Author), Walker, T. L. (Presenter & Author), West Virginia Library Association: Academic Library Summit 2012, "Marshall Digital Scholar," Fairmont State University. (June 12, 2012).

Zhang, J. (Presenter & Author), Beach, G. R. (Author Only), DeBruin, N. M. (Author Only), Walker, T. L. (Author Only), Aractingi, E. (Author Only), Kaplan, P. (Author Only), Marshall University IT Executive Team, "Marshall University Institutional Repository Proposal," Marshall University. (June 2011).

Walker, T. L. (Presenter & Author), ARSC 2011 Conference, "Now That You Know What They Are, How Do You Get the Junk Off of Them?," Association for Recorded Sound Collections, Los Angeles. (May 13, 2011).

Walker, T. L. (Presenter Only), ARSC, "A Workshop on Disaster Planning and Recovery for Audio Materials," Association for Recorded Sound Collections, New Orleans, LA. (May 18, 2010).

Contracts, Grants and Sponsored Research

Grant

Zhang, J. (Principal), DeBruin, N. M. (Principal), Beach, G. R. (Principal), Walker, T. L. (Principal), Aractingi, E. (Principal), Kaplan, P. (Principal), "Marshall University Institutional Repository Service," Marshall University, \$85,000.00. (July 2011 - June 2014).

Awards and Honors

Council on Library and Information Resources (CLIR) Grant, Association for Recorded Sound Collections Education and Training Committee, Scholarship/Research, International. (January 1, 2013).

Intellectual Contributions in Submission

Walker, L. Thomas. *Folk/Traditional Music from West Virginia Arranged for Classical Guitar*. Huntington, WV: Marshall University.

Walker, L. Thomas, Pike, Robin C., Seay, John T., Hood, Mark, Fishman, Karen, and Bittel, Aaron. *Audio Preservation Handbook Outline*. Edited by Karen Fishman, Brenda Nelson-Strauss, Tim Brooks. Washington, DC: National Recording Preservation Plan.

Zhang, Jingping, DeBruin, Nathaniel Massie, Walker, Thomas L., Beach, Gretchen Rae, Aractingi, Edward, and Kaplan, Paula "Marshall University Institutional Repository." Working paper.

Research Currently in Progress

"Access for the Marshall University Department of Music Performance Collection" (On-Going).

Marshall University has recordings dating back to the early 1960's. Many of these are on obsolete or decaying formats. This project will make these recording available again to the Marshall University community.

"Access to Private Recording Collections - Methodology and Procedures".

Many collectors have rare audio pieces in their large collections. Unfortunately, they are the only one with access to these pieces. And, on occasion even their access can be limited. This presentation will discuss cataloging and accessibility for the private collections.

"Digital Preservation and Access for Magnetic Tape Special Collections" (On-Going).

Preparation of several reel-to-reel audiotapes from an archival collection for preservation and digitization for future use.

"The "Sound"" (On-Going).

An Annotated Discography of the music of Stan Getz

"What are You "Listening" to?"

An article that deals with developing strong performance collections for double bass majors at smaller universities.

"Librarians in an Austerity Environment"

Dissertation covering how library administrators deal with continued decreased funding and maintaining accreditation standards.

SERVICE

Department Service

Committee Member, Library and Technology Committee. Liberty University, School of Law (April 1, 2019 - Present).

Committee Member, ABA SEQ Evaluation Committee. (January 2, 2020 – April 5, 2022).

Committee Member, Ad hoc Committee for MU Institutional Repository. (March 21, 2011 - 2018).

Committee Member, Ad hoc Evaluation Committee. (February 10, 2011 - 2018).

Committee Member, Ad hoc LFO Handbook Revision Committee. (January 27, 2011 - 2018).

Committee Member, NASM Accreditation 2016 Committee. (August 17, 2016 - August 31, 2016).

Committee Member, Capstone Committee Evan White. (April 2016).

Committee Member, Capstone Committee Evan Grover. (April 2015).

Committee Member, Capstone Committee Tyler Stewart. (April 2015).

Committee Member, NASM Accreditation 2012 Committee. (January 17, 2011 - December 17, 2013).

Attendee, Meeting, Library Faculty Organization. (January 1, 2011 - December 17, 2011).

Committee Member, Selection Committee for Instruction and Emerging Technologies Librarian. (April 2011 - July 2011).

University Service

University Senate Service, Residential Law School Representative. (July 1, 2022 - present).

University Senate Service, Library Committee Chair. (September 1, 2016 - 2018).

Team Member, New Media Masters Network. (September 30, 2014 - 2018).

University Senate Service, Faculty Senate Liaison to the Library Committee. (June 1, 2012 – 2018).

University Senate Service, Faculty Senator. (June 1, 2012 - 2018).

Faculty Usher, Marshall University Winter Commencement 2013. (December 14, 2014).

Equipment set-up, TECI Floaters. (August 21, 2014 - August 22, 2014).

Faculty Usher, Marshall University Winter Commencement 2013. (December 15, 2013).

Equipment set-up, TECI Floaters. (August 22, 2013 - August 23, 2013).

Attendee, Meeting, General Faculty Meeting. (2012).

Equipment set-up, TECI Floaters. (August 24, 2012).

Committee Member, Athletic Committee. (January 1, 2011 - December 31, 2011).

Faculty Usher, Marshall University Winter Commencement 2011. (December 10, 2011).

Faculty Usher, Marshall University Winter Commencement 2010. (December 2010).

Professional Service

Committee Member, Association for Recorded Sound Collections, MD. (September 1, 2008 - Present).

West Virginia Library Association, WV. (December 1, 2011 - December 15, 2015).

Committee Chair, West Virginia Library Association, WV. (December 1, 2011 - November 30, 2014).

Public Service

Clinician, WV All Region Jazz Band Clinic, Institute, WV. (April 25, 2015).

Rider, Huntington Critical Mass, Huntington, WV. (November 17, 2012).

Rider, Huntington Tour de PATH, Huntington, WV. (July 7, 2012).

Consulting

Academic, Fairfield University, Fairfield, CT. (November 27, 2012 - November 27, 2013).

Academic, Boise State University, Boise, ID. (May 31, 2012 - May 31, 2013).

Mentoring, Jason Mitchell, Marshall University. (September 14, 2011 - August 31, 2012).

Academic, Marshall University Department of Music, Huntington, WV. (September 2, 2011).